

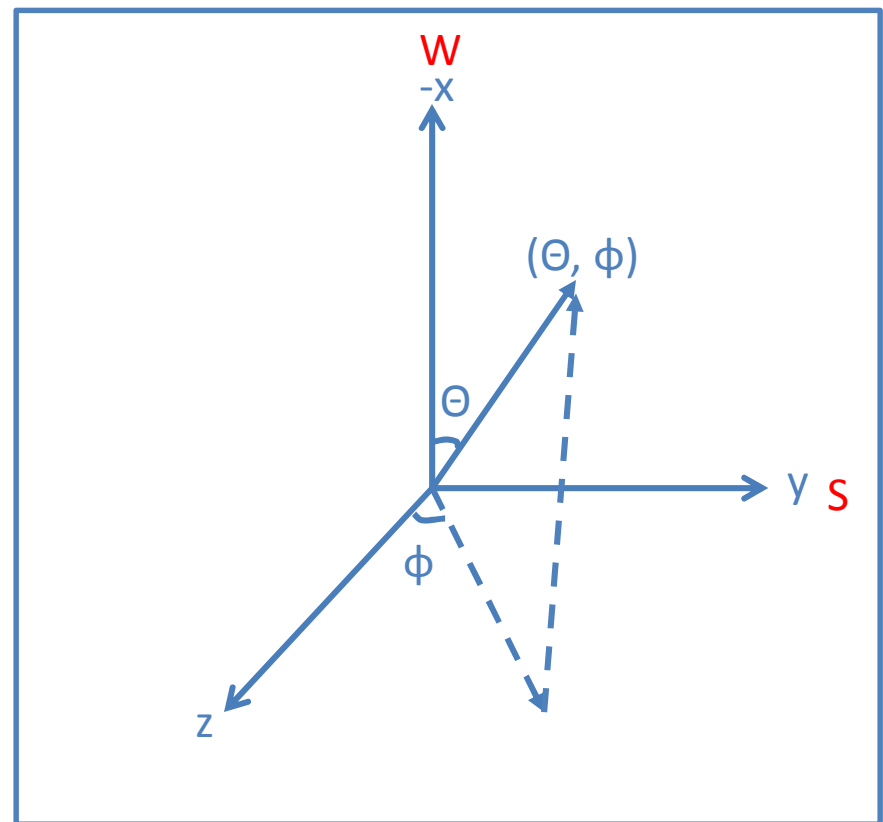
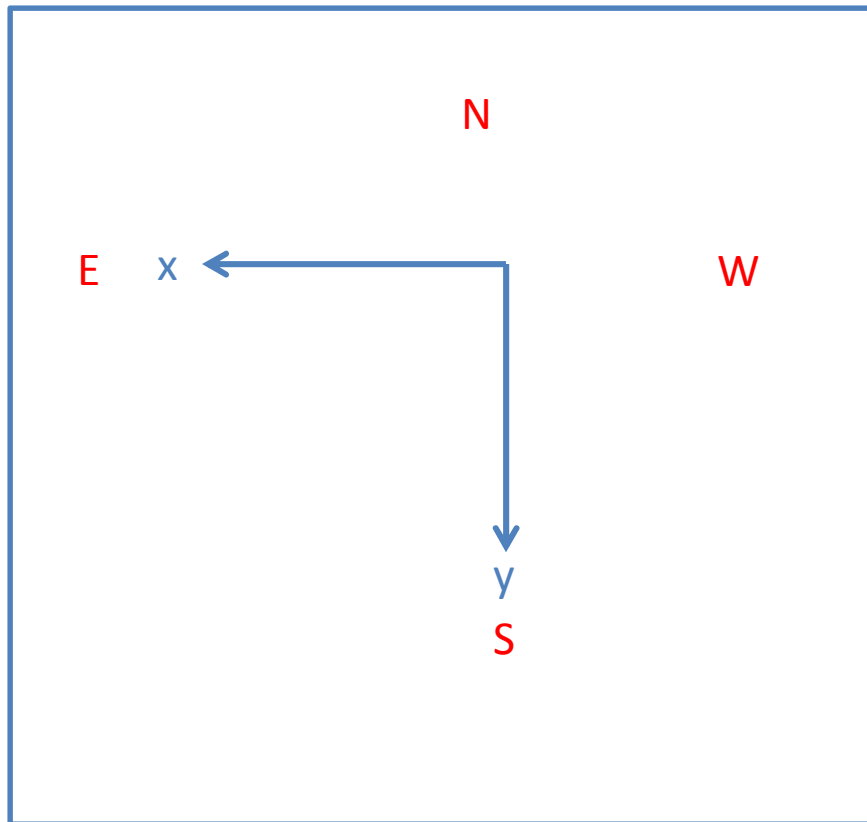
December 13, 2011

119 West Adjacent Satellite Off Axis Antenna Performance Spot Beam 44 cf: 9.7 dBW

Maximum Allowable EIRP to meet the -117dBW/m²/100 kHz

Maximum EIRP Allowed	
Spec Max flux density, dBW/m ² /100kHz	-117
Desired channel band width, MHz	25.8
Symbol rate band width modification factor	1
Effective channel bandwidth, MHz	25.8
Effective bandwidth, dB-100kHz	24.1
Flux density allowed per channel, dBW/m ²	-92.9
R, radial distance to GEO, km	42164.0
Angle of separation between satellites, deg	0.1
range between satellites, km	73.59
Spreading factor, dB/m ²	-108.3
Atmospheric loss, dB	0
Max satellite EIRP allowed, dBW	15.4

Coordinate System



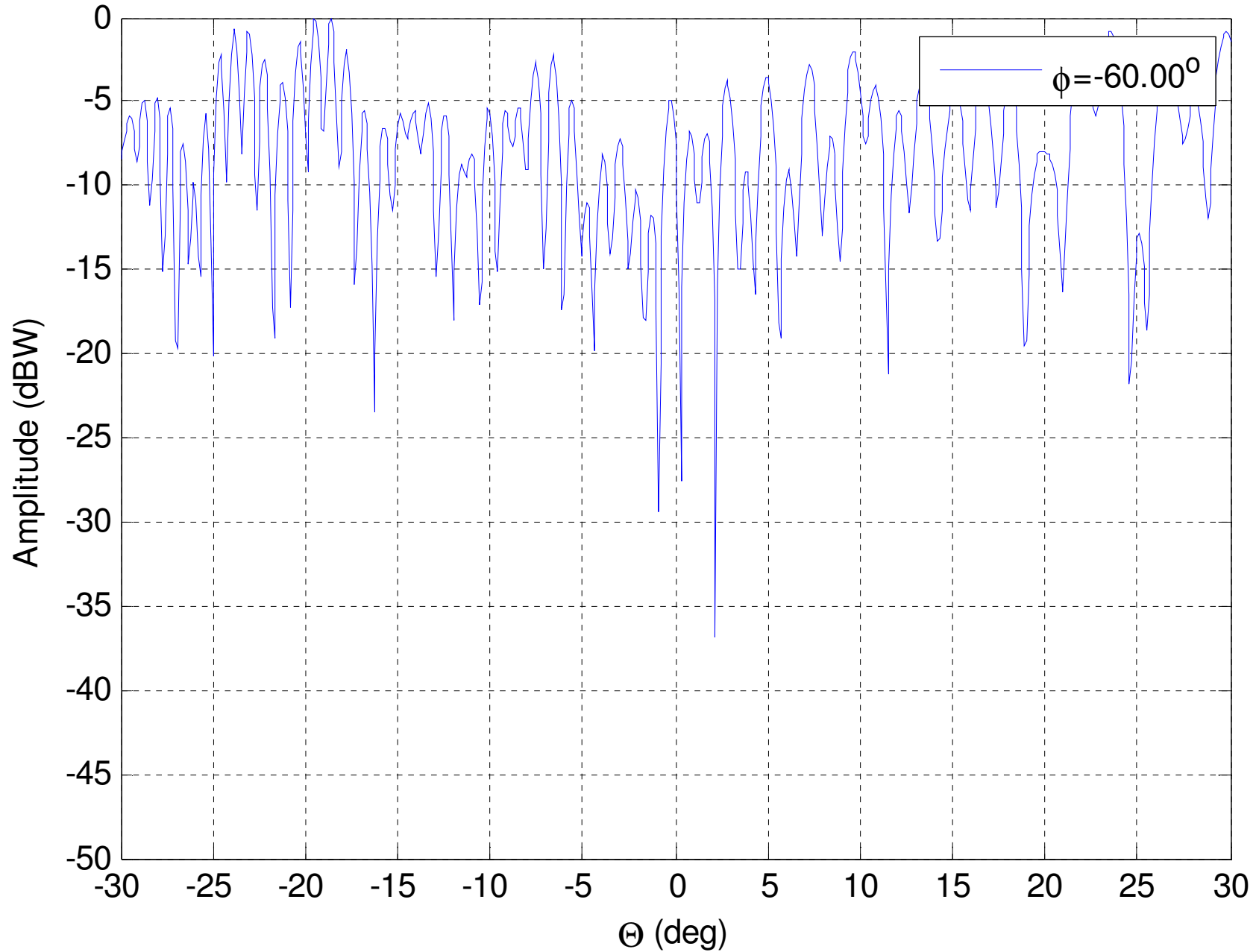
Spot Beam44, -X Axis Plots

- Both polarizations; RHCP, LHCP
- $-30 < \Theta < 30$ ($\Theta=0$: -X -axis)
- $-60 < \phi < 60$
- Freq = 17.3, 17.5, and 17.7 GHz
- The Zero reference line is the peak gain listed in the title of each chart
- All levels are significantly below the required 15.4 dBW EIRP shown on chart 2

RHCP at 17.3 GHz

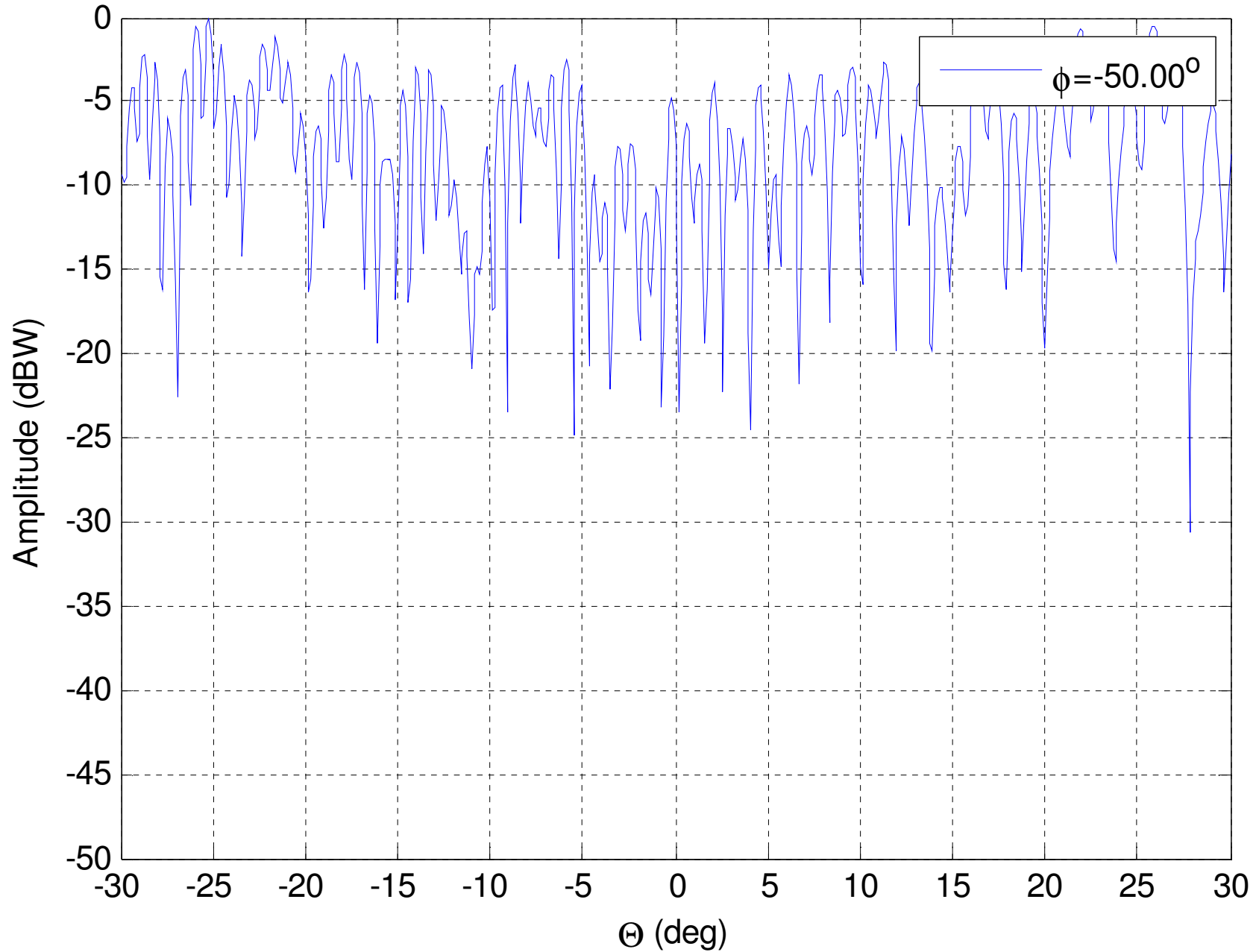
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--60.cut, Peak: -2.31 dBW, Date: 16-Dec-2011



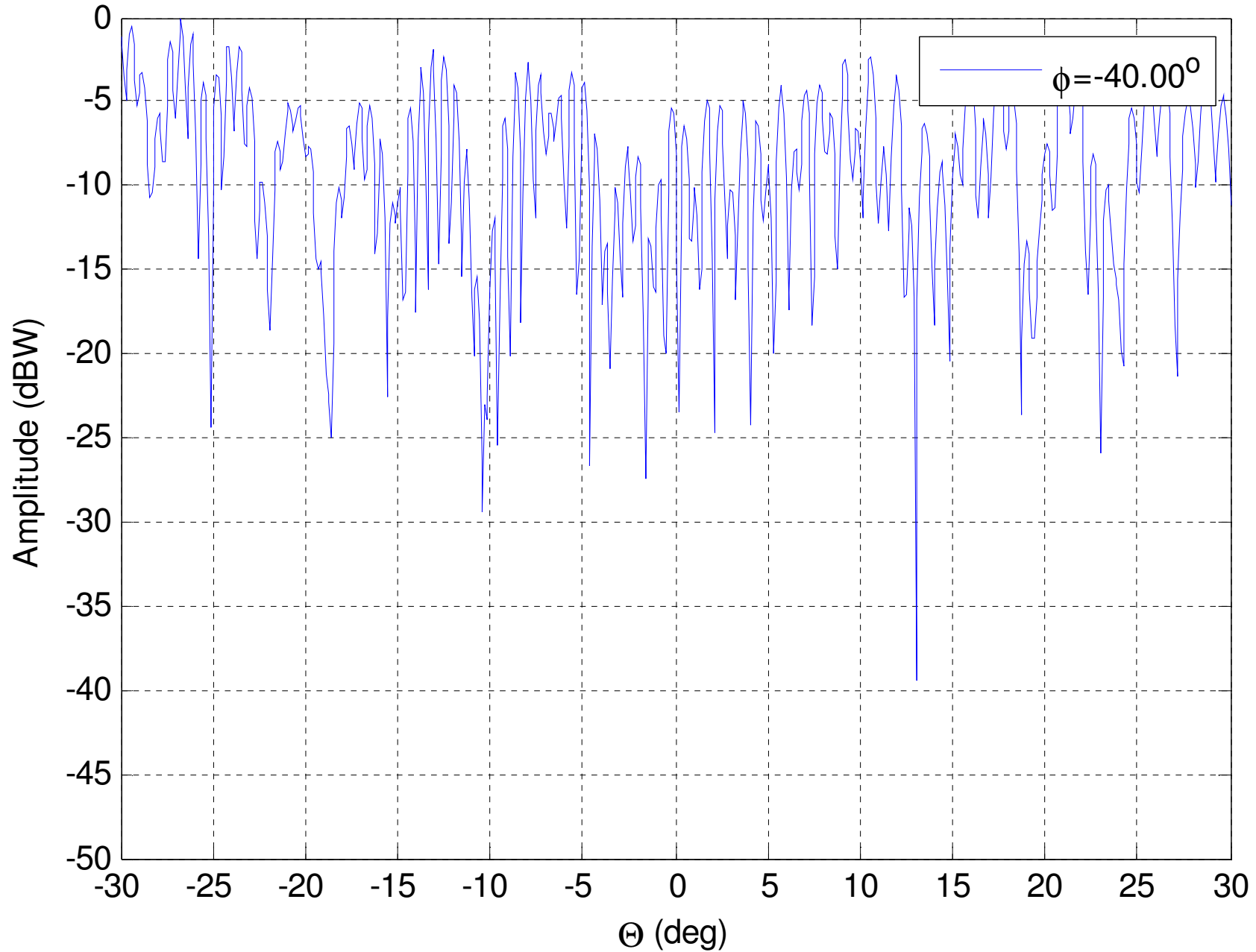
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--50.cut, Peak: -2.23 dBW, Date: 16-Dec-2011



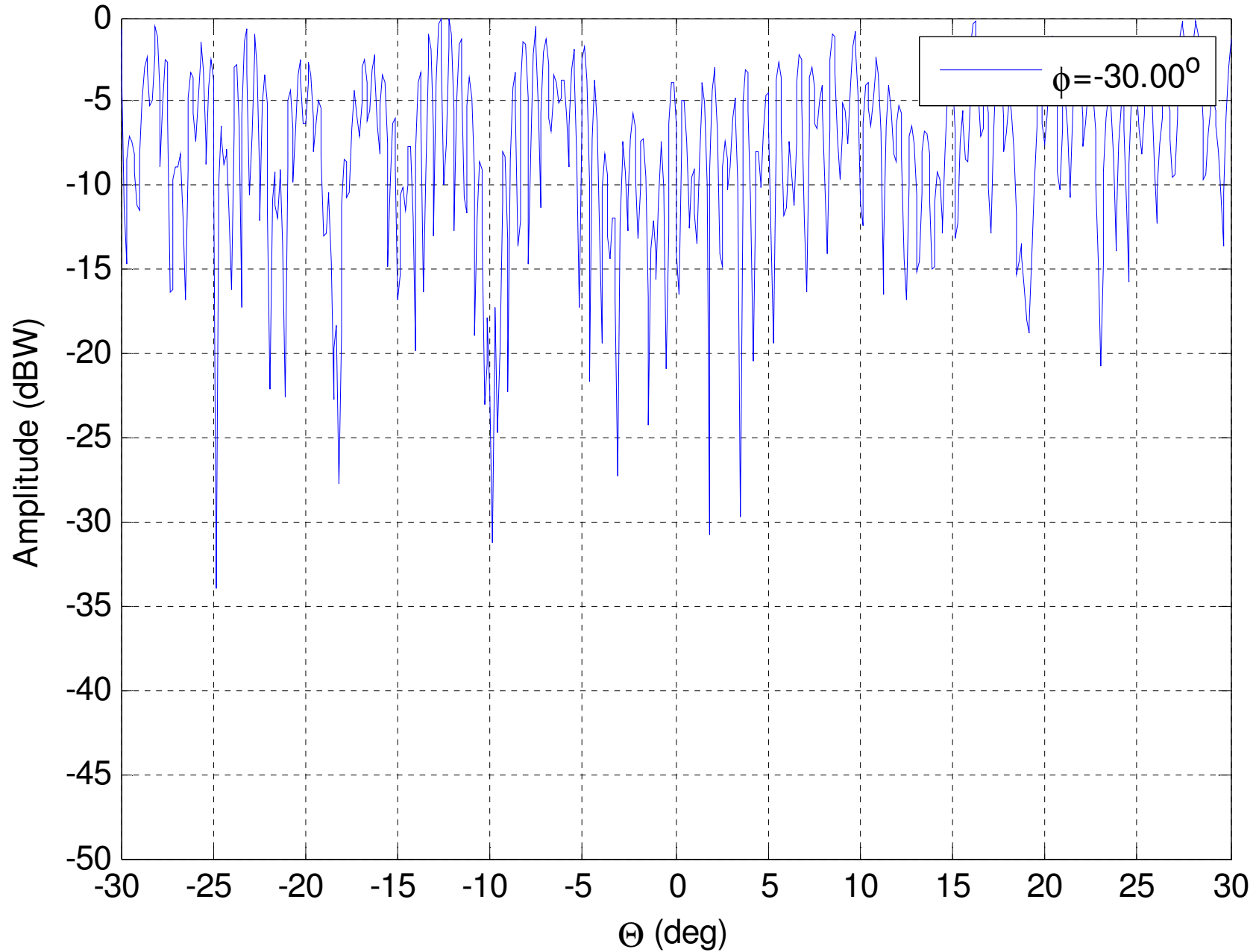
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--40.cut, Peak: -1.76 dBW, Date: 16-Dec-2011



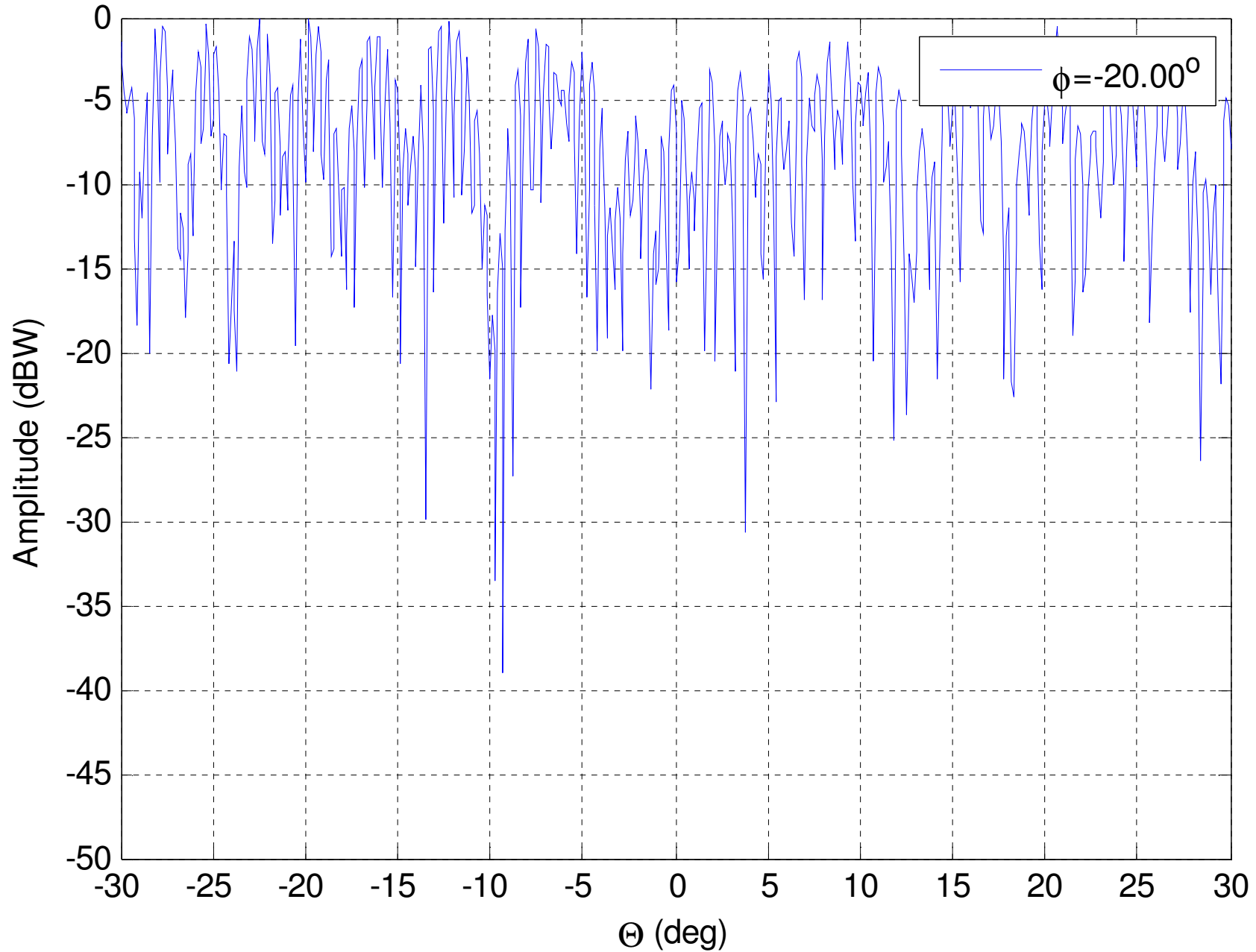
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--30.cut, Peak: -3.41 dBW, Date: 16-Dec-2011



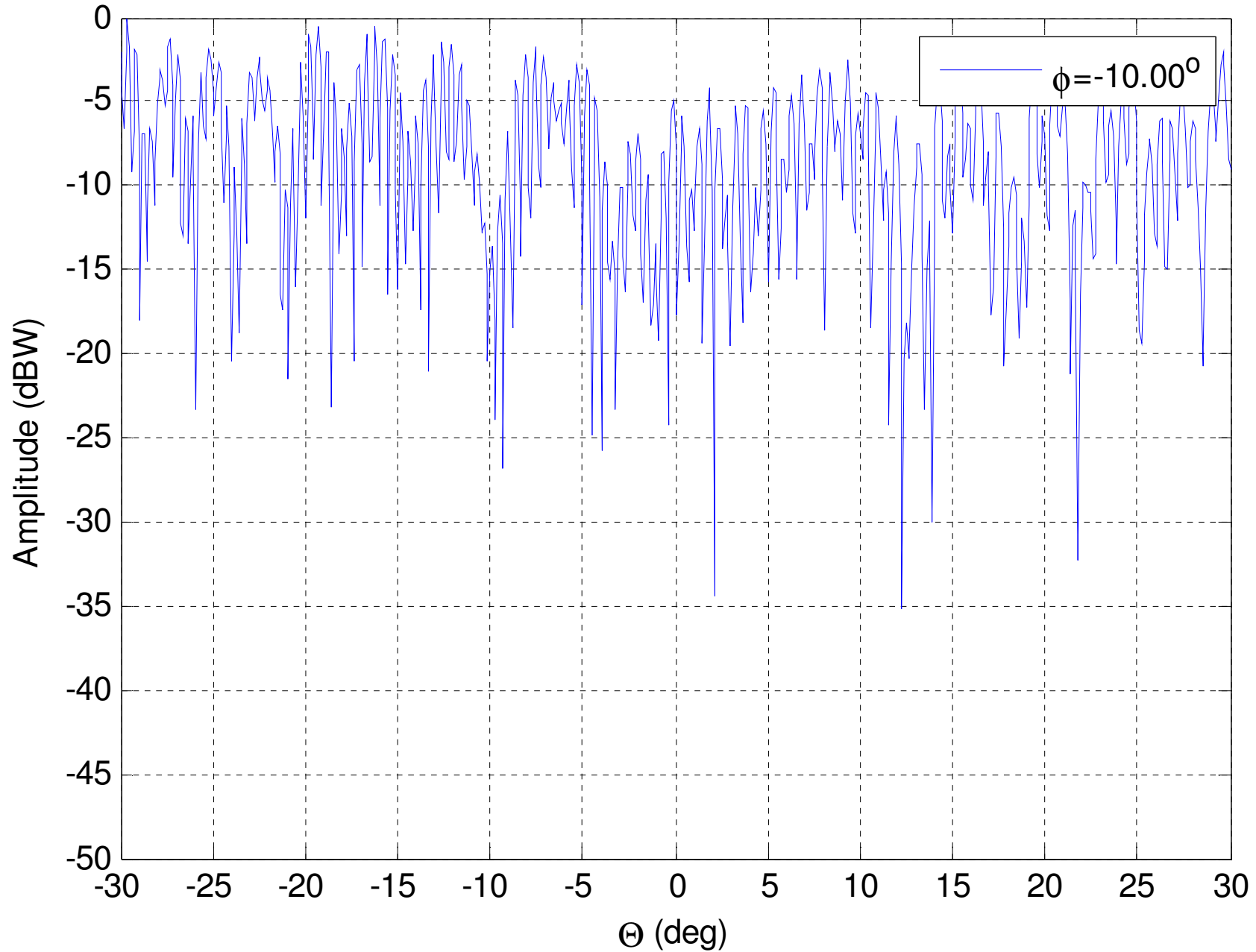
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--20.cut, Peak: -3.11 dBW, Date: 16-Dec-2011



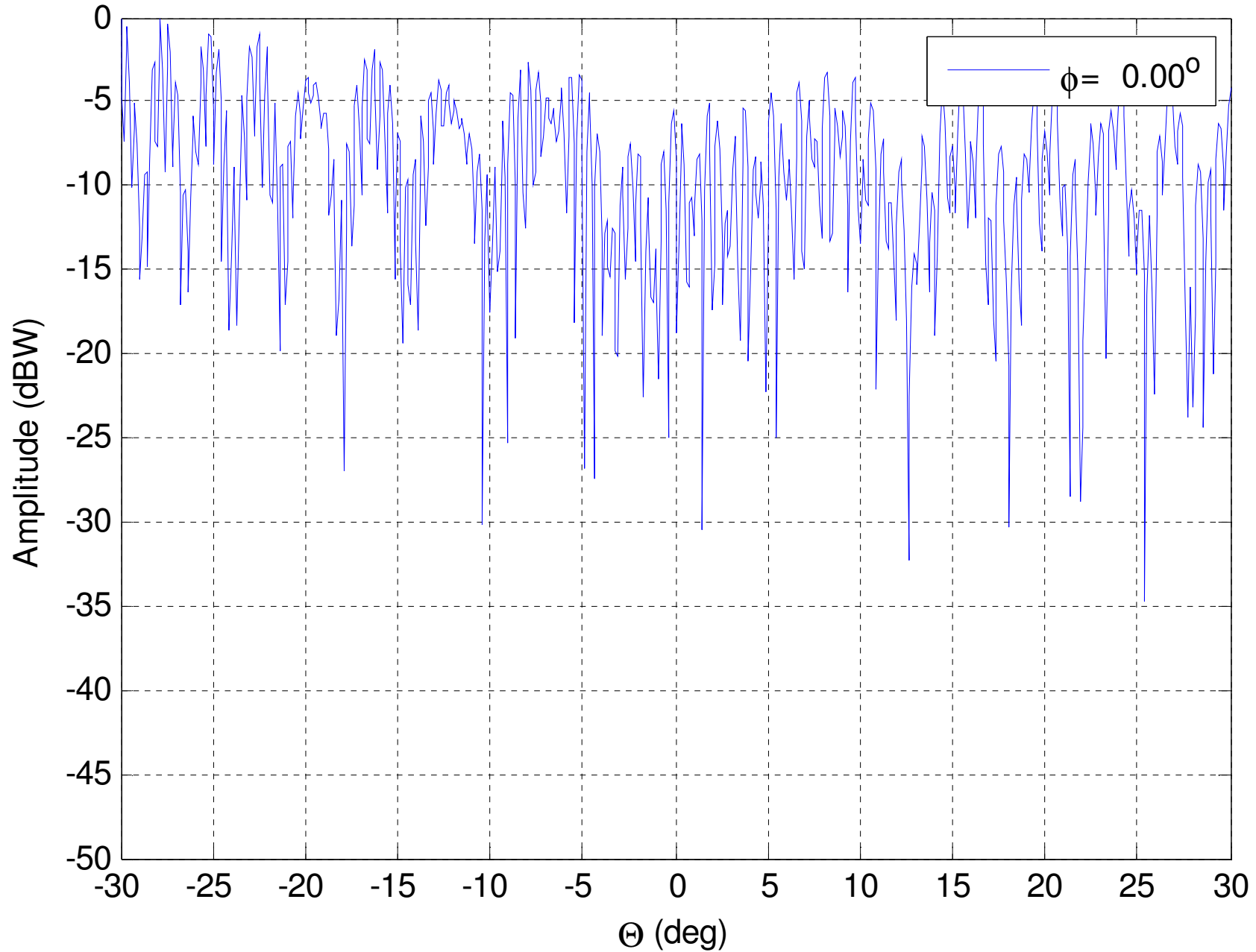
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--10.cut, Peak: -2.09 dBW, Date: 16-Dec-2011



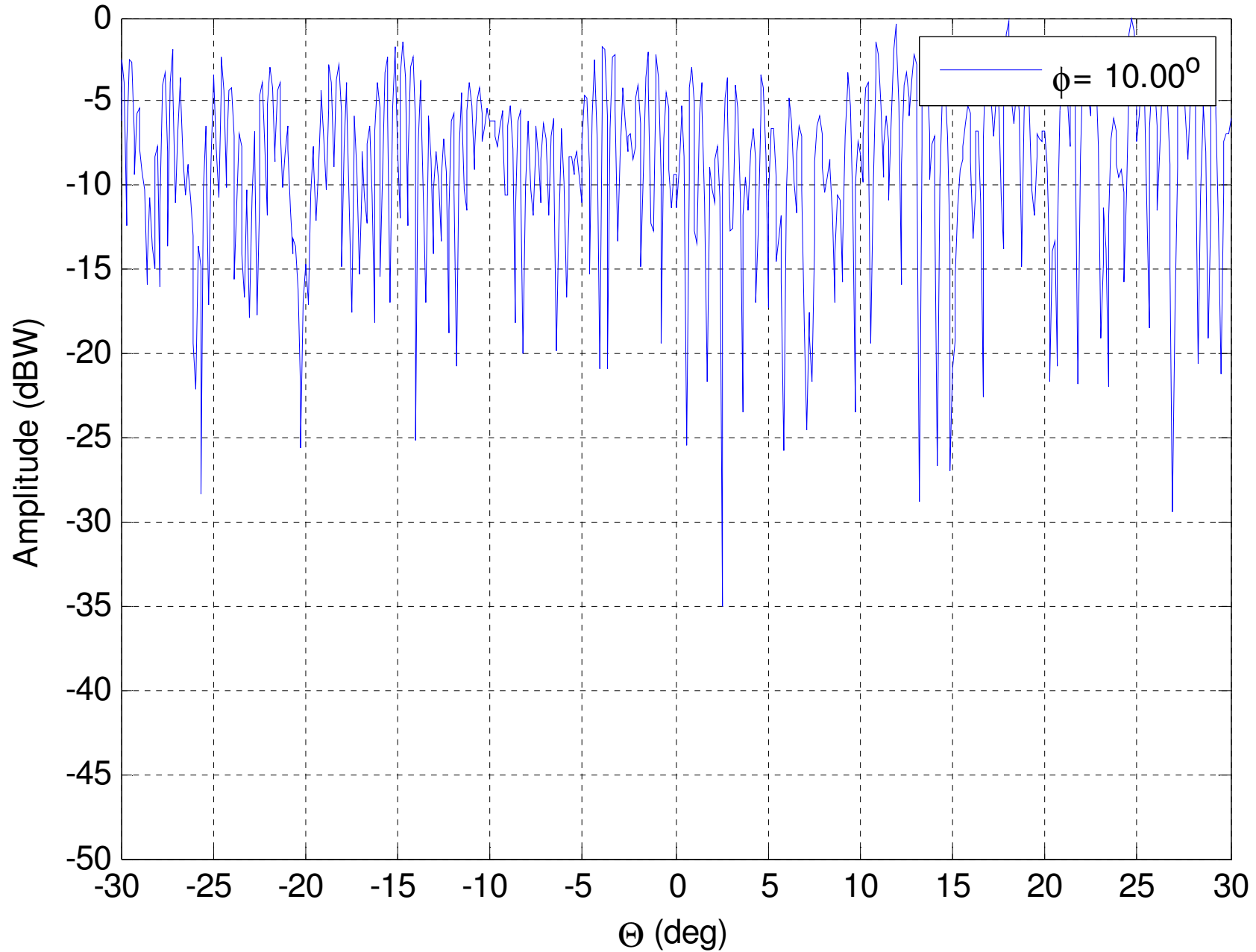
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-0.cut, Peak: -1.47 dBW, Date: 16-Dec-2011



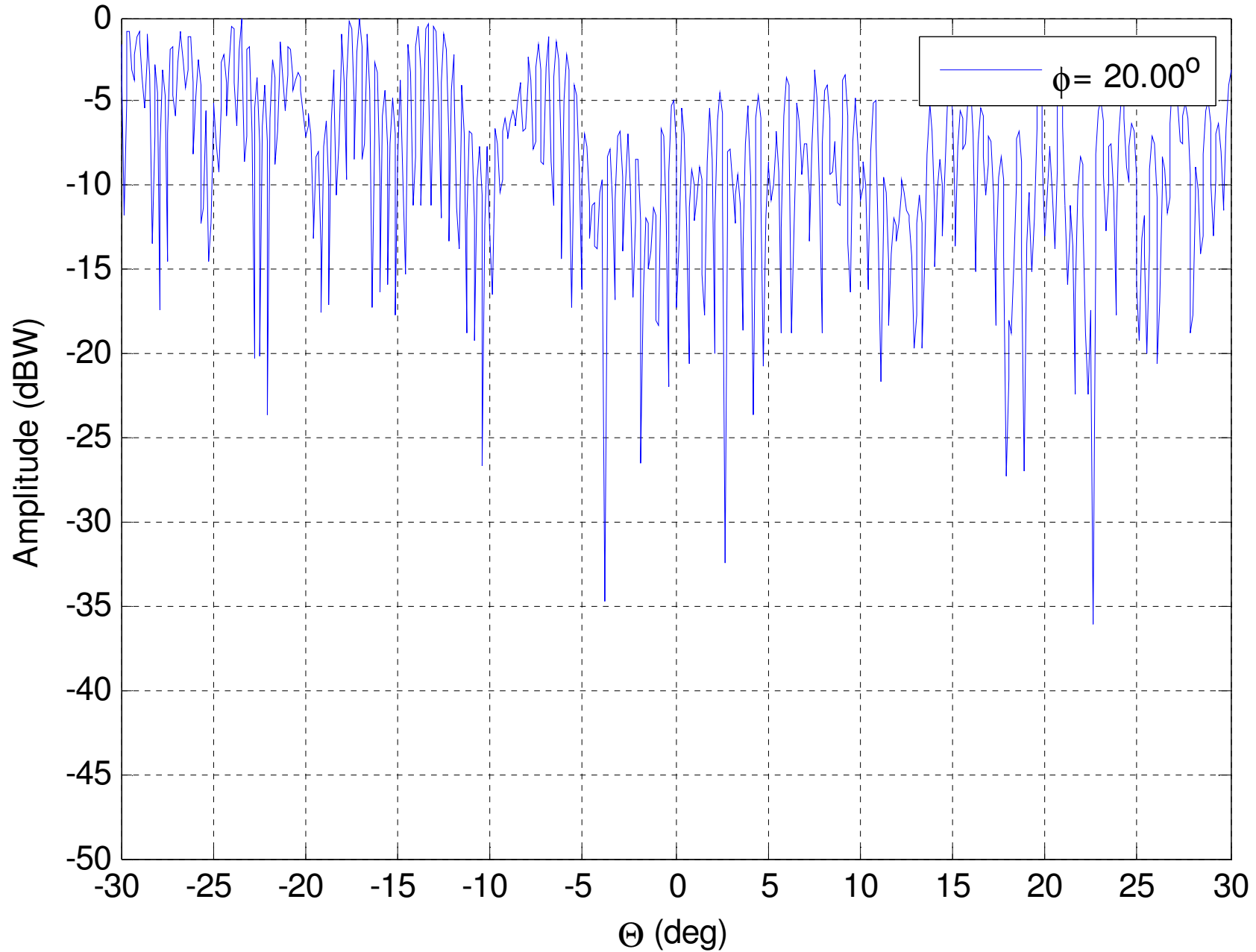
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-10.cut, Peak: -2.36 dBW, Date: 16-Dec-2011



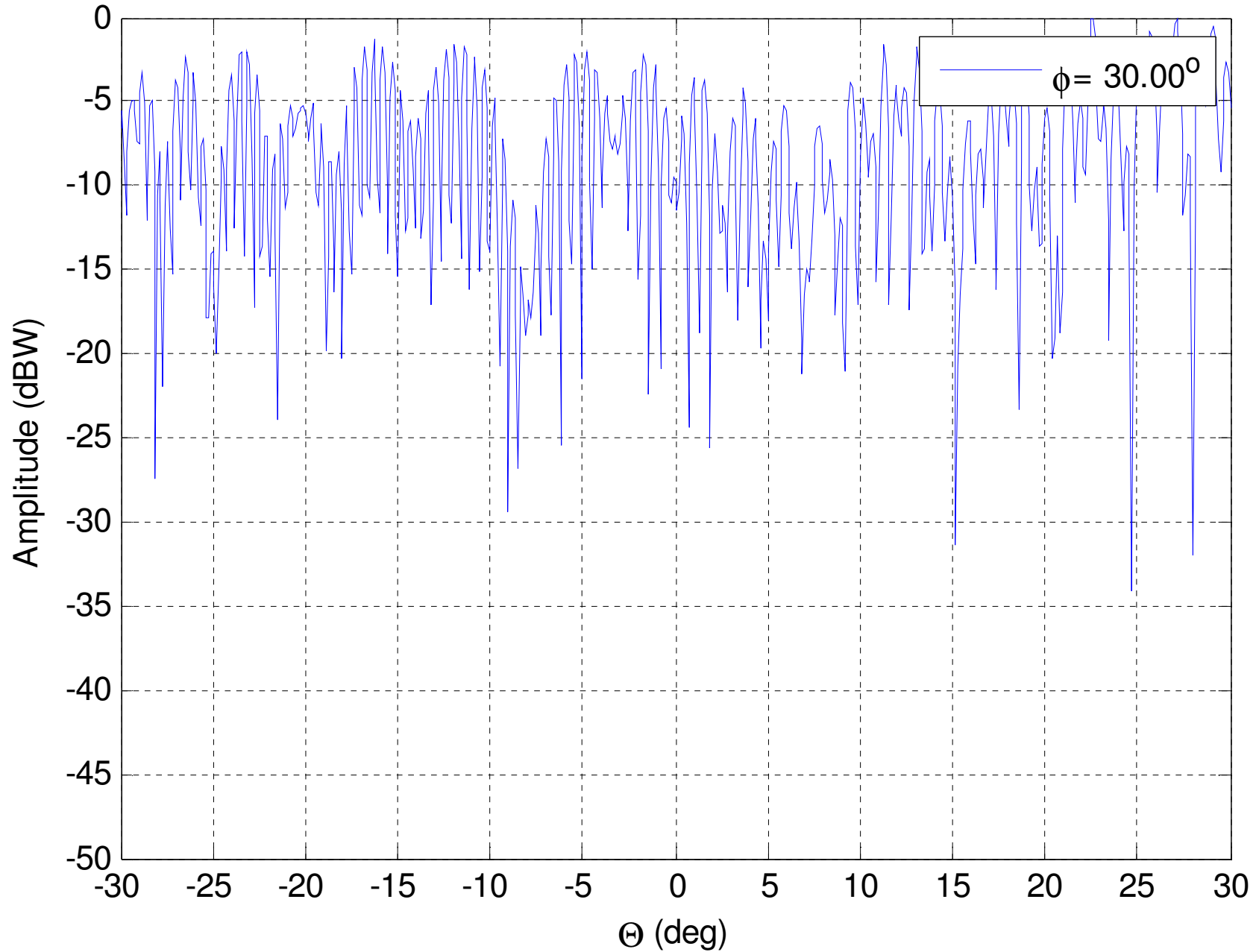
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-20.cut, Peak: -2.21 dBW, Date: 16-Dec-2011



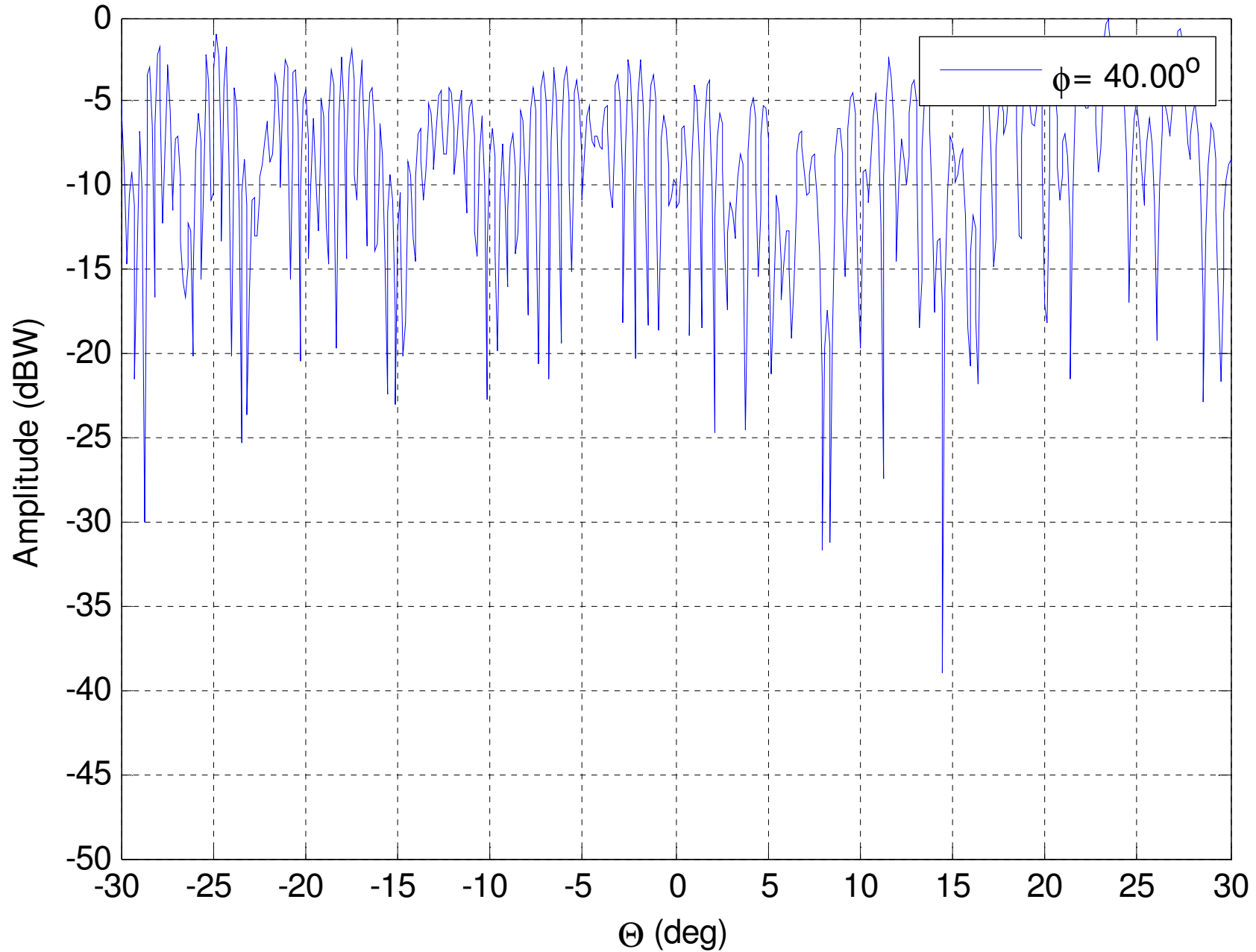
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-30.cut, Peak: -1.96 dBW, Date: 16-Dec-2011



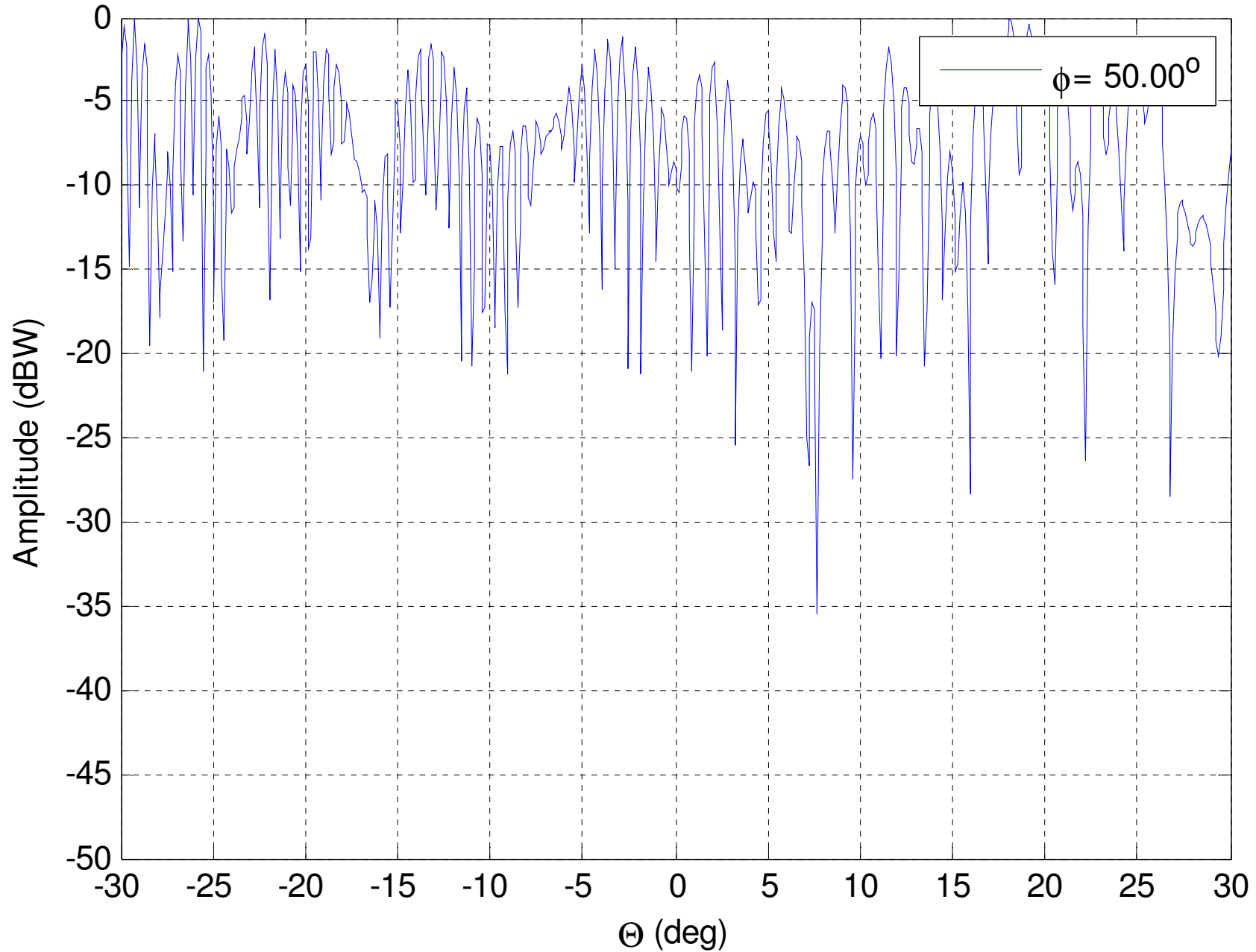
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-40.cut, Peak: -1.76 dBW, Date: 16-Dec-2011



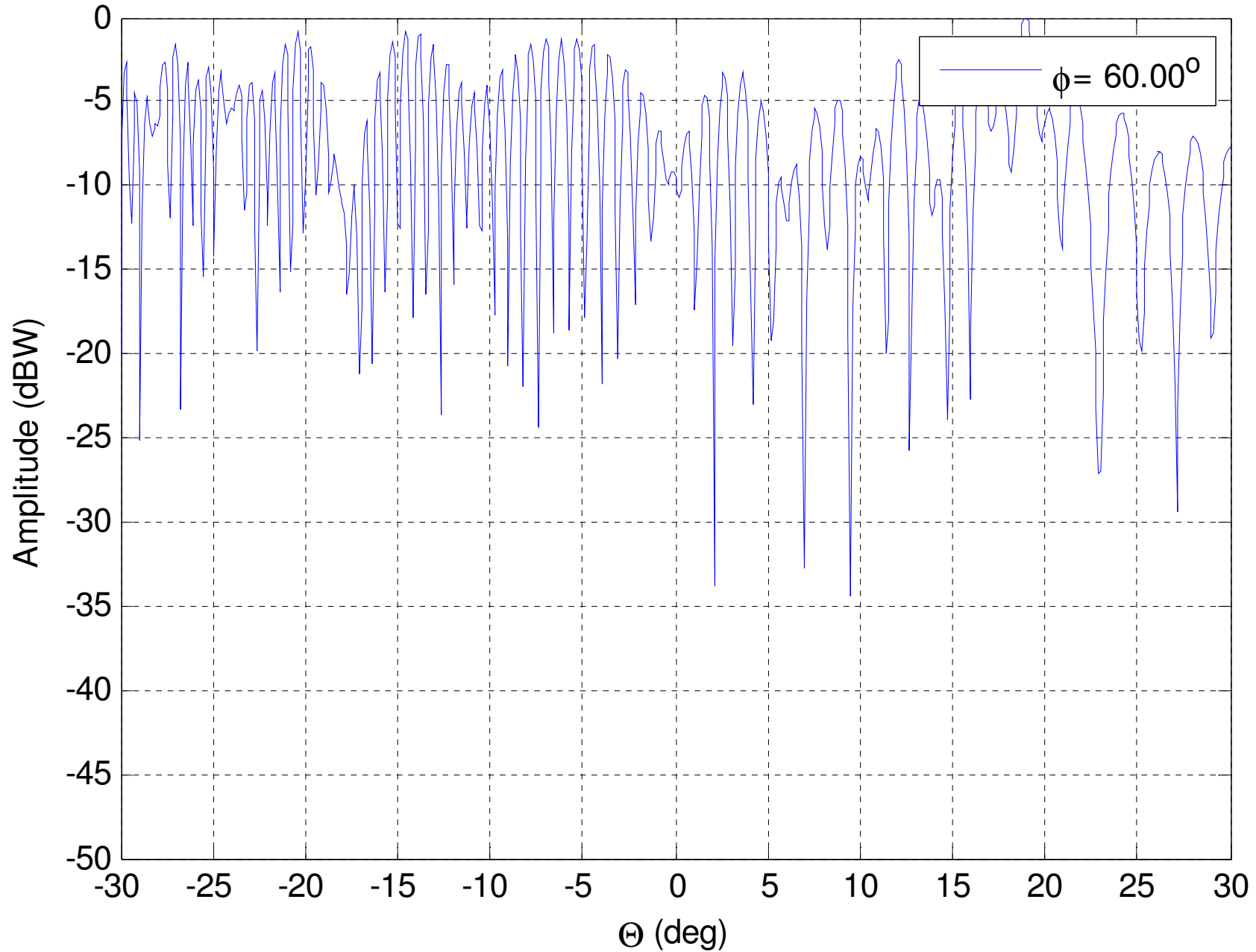
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-50.cut, Peak: -2.70 dBW, Date: 16-Dec-2011



Normalized pattern cuts - farfield

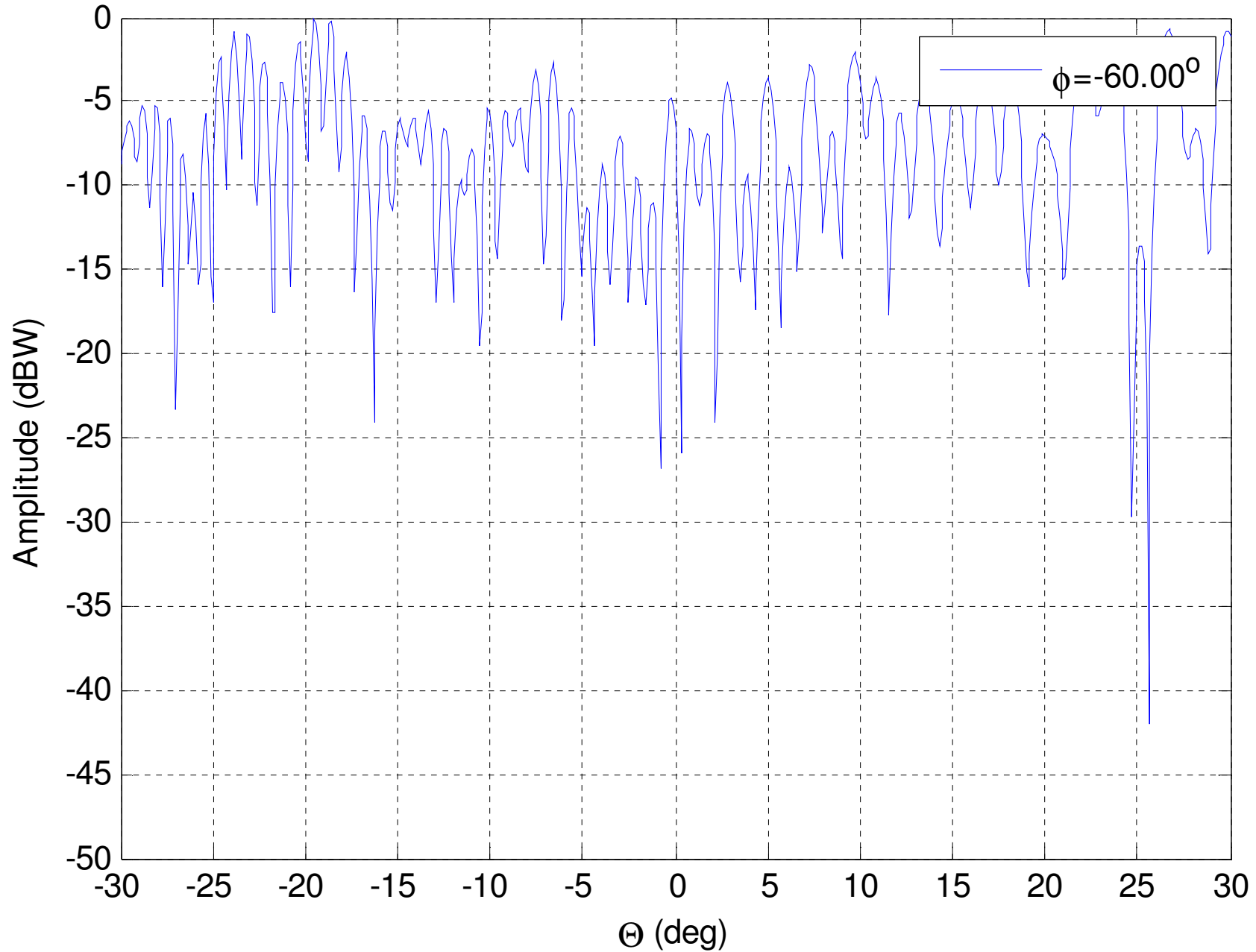
Input file: tx-17.3-rhcp-60.cut, Peak: -2.21 dBW, Date: 16-Dec-2011



LHCP at 17.3 GHz

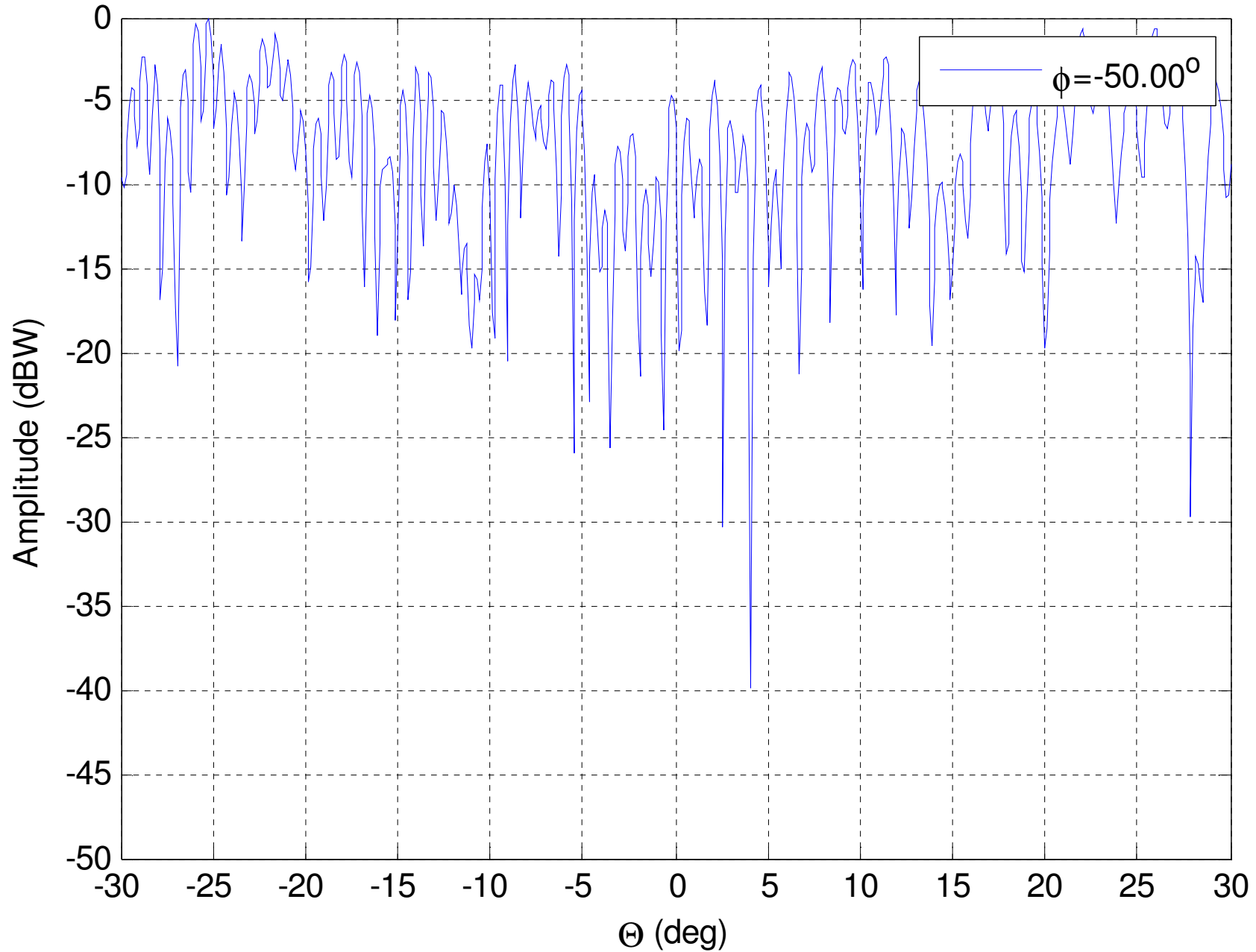
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp--60.cut, Peak: -2.02 dBW, Date: 16-Dec-2011



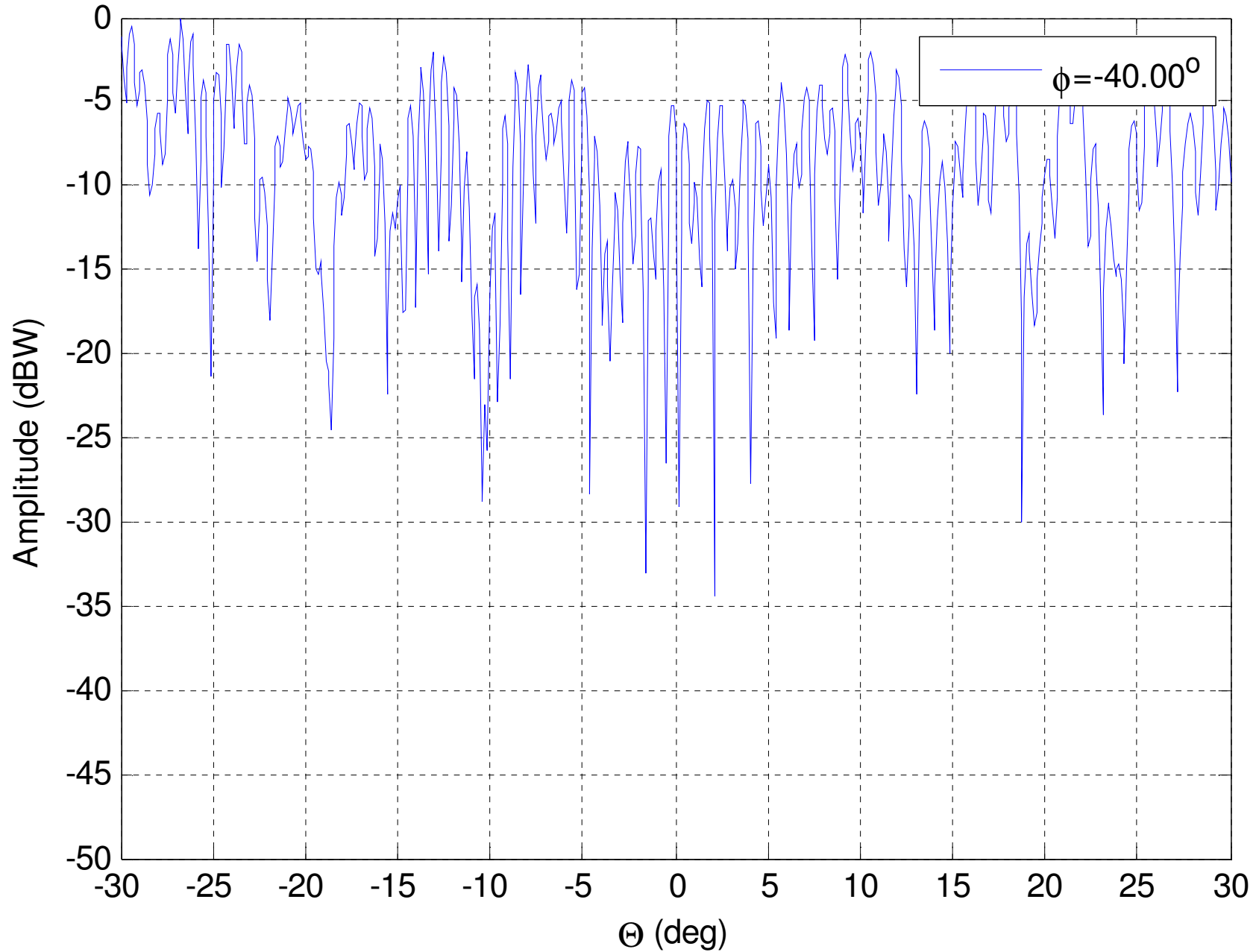
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp--50.cut, Peak: -2.16 dBW, Date: 16-Dec-2011



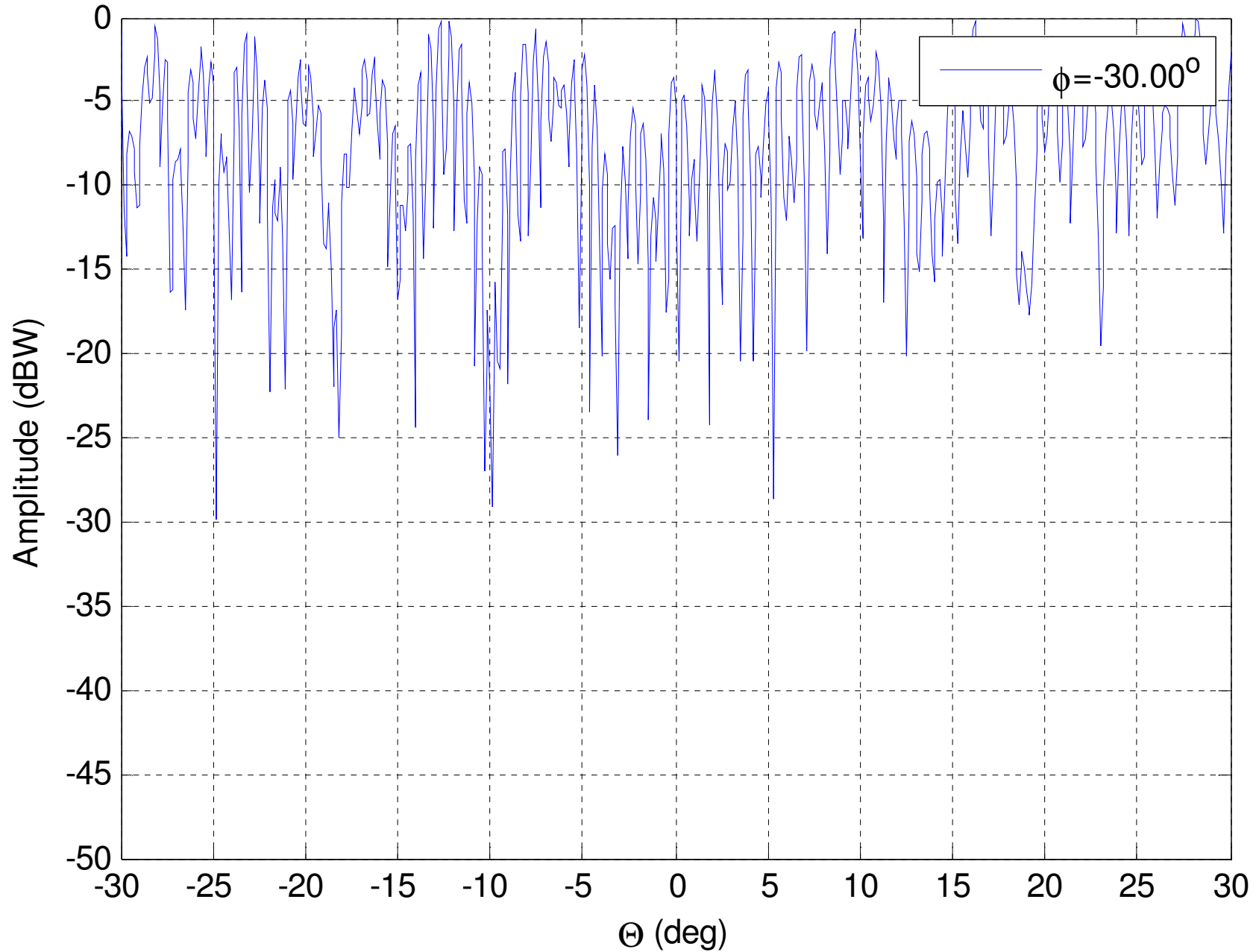
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp--40.cut, Peak: -1.66 dBW, Date: 16-Dec-2011



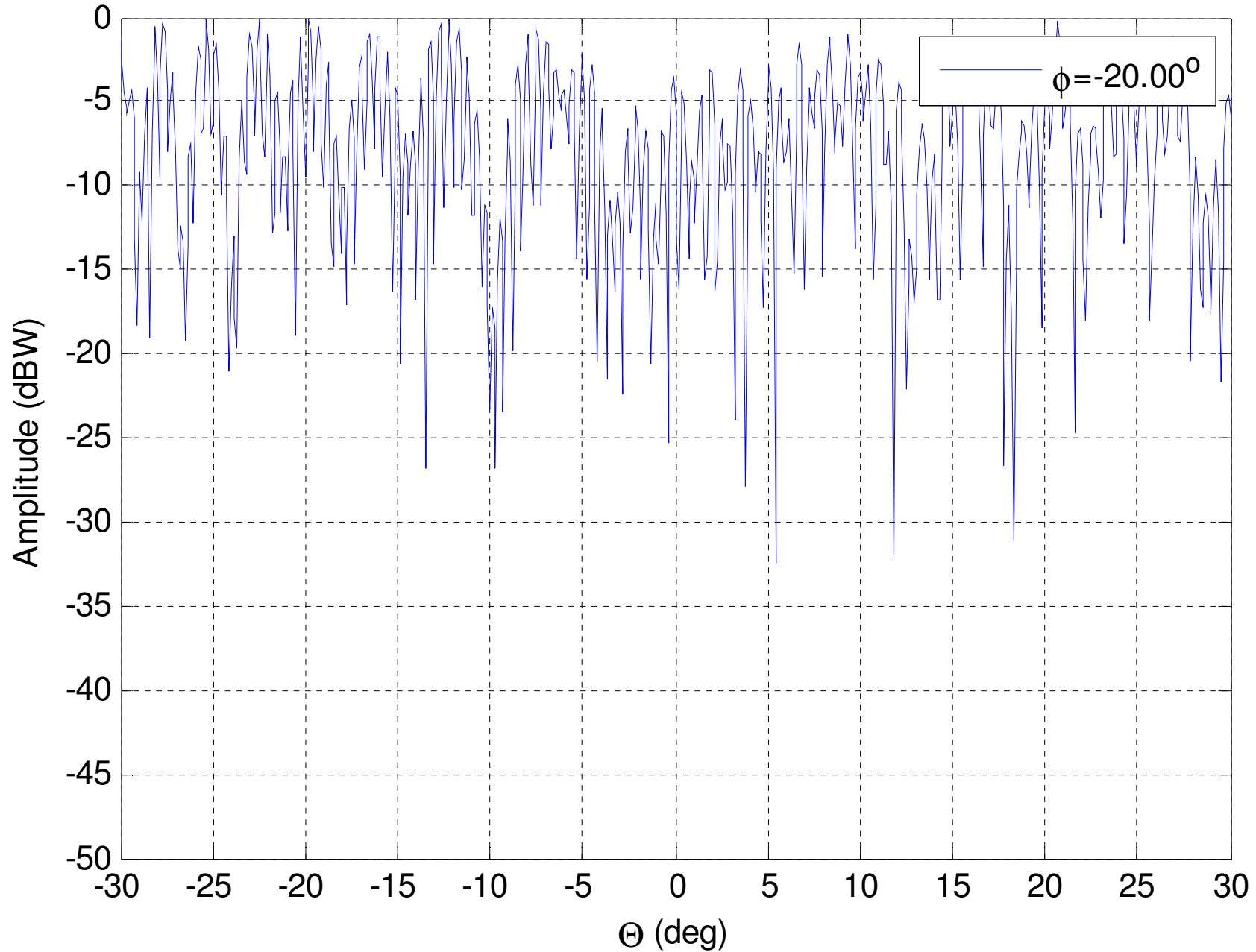
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp--30.cut, Peak: -3.23 dBW, Date: 16-Dec-2011



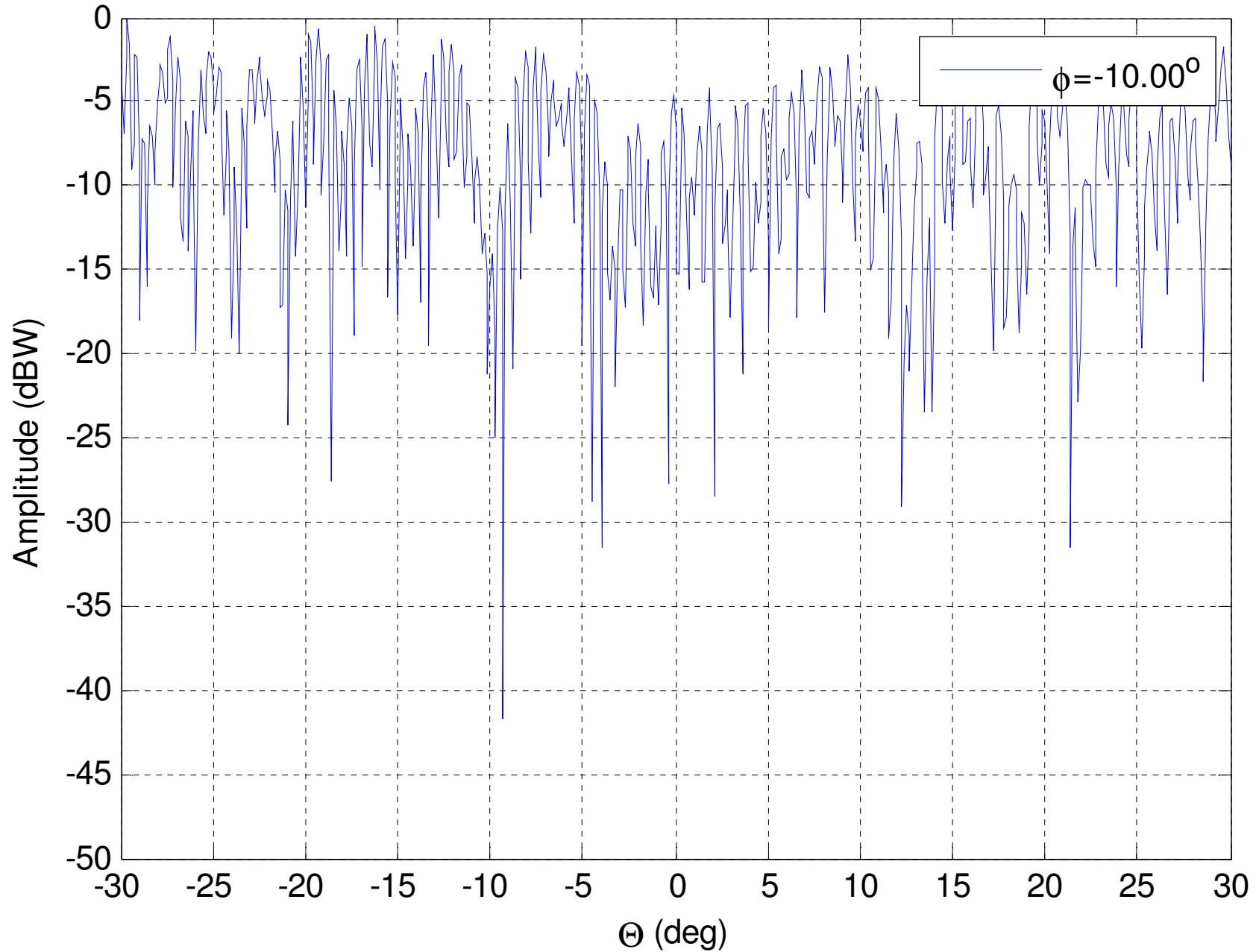
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp--20.cut, Peak: -3.18 dBW, Date: 16-Dec-2011



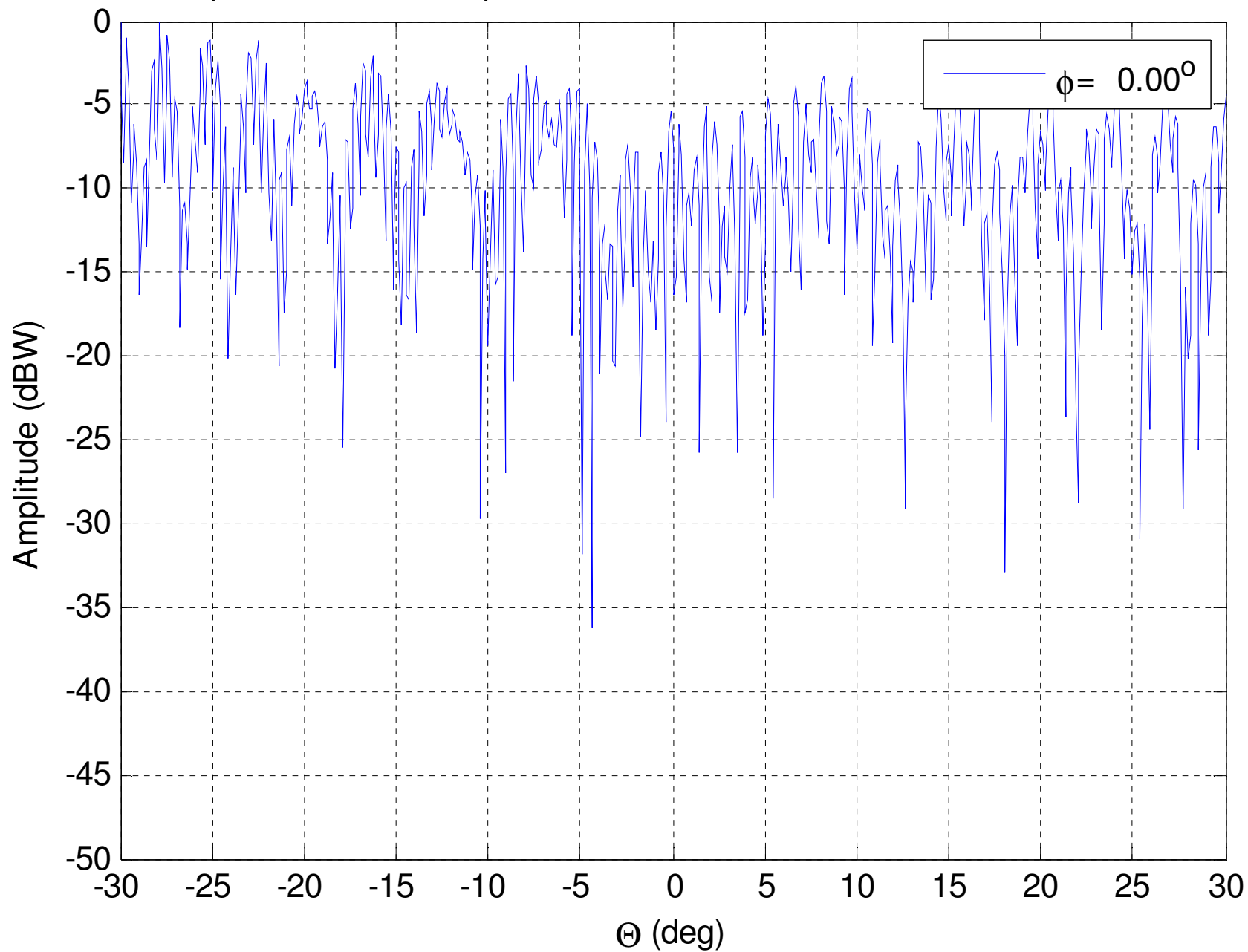
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp--10.cut, Peak: -2.03 dBW, Date: 16-Dec-2011



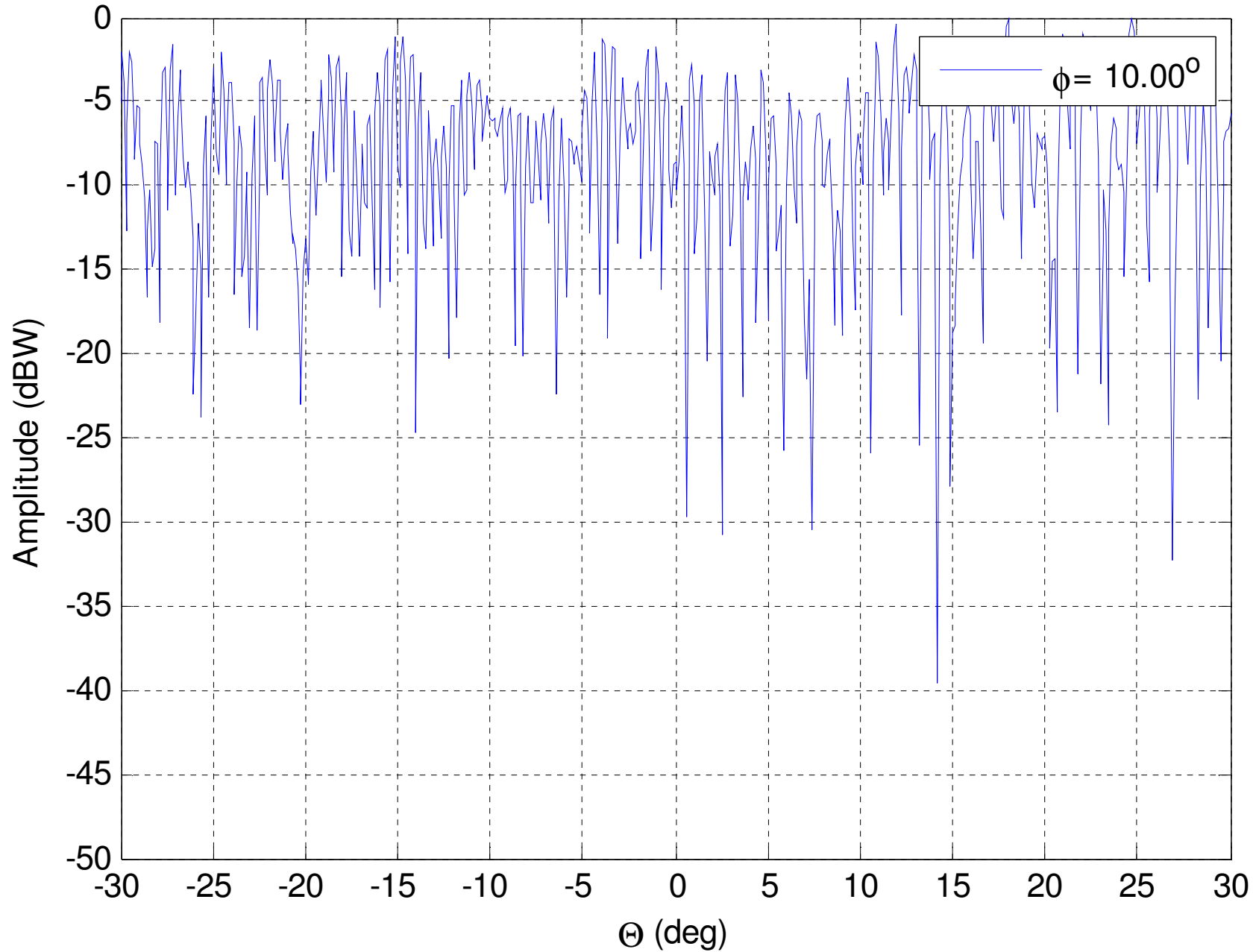
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp-0.cut, Peak: -1.17 dBW, Date: 16-Dec-2011



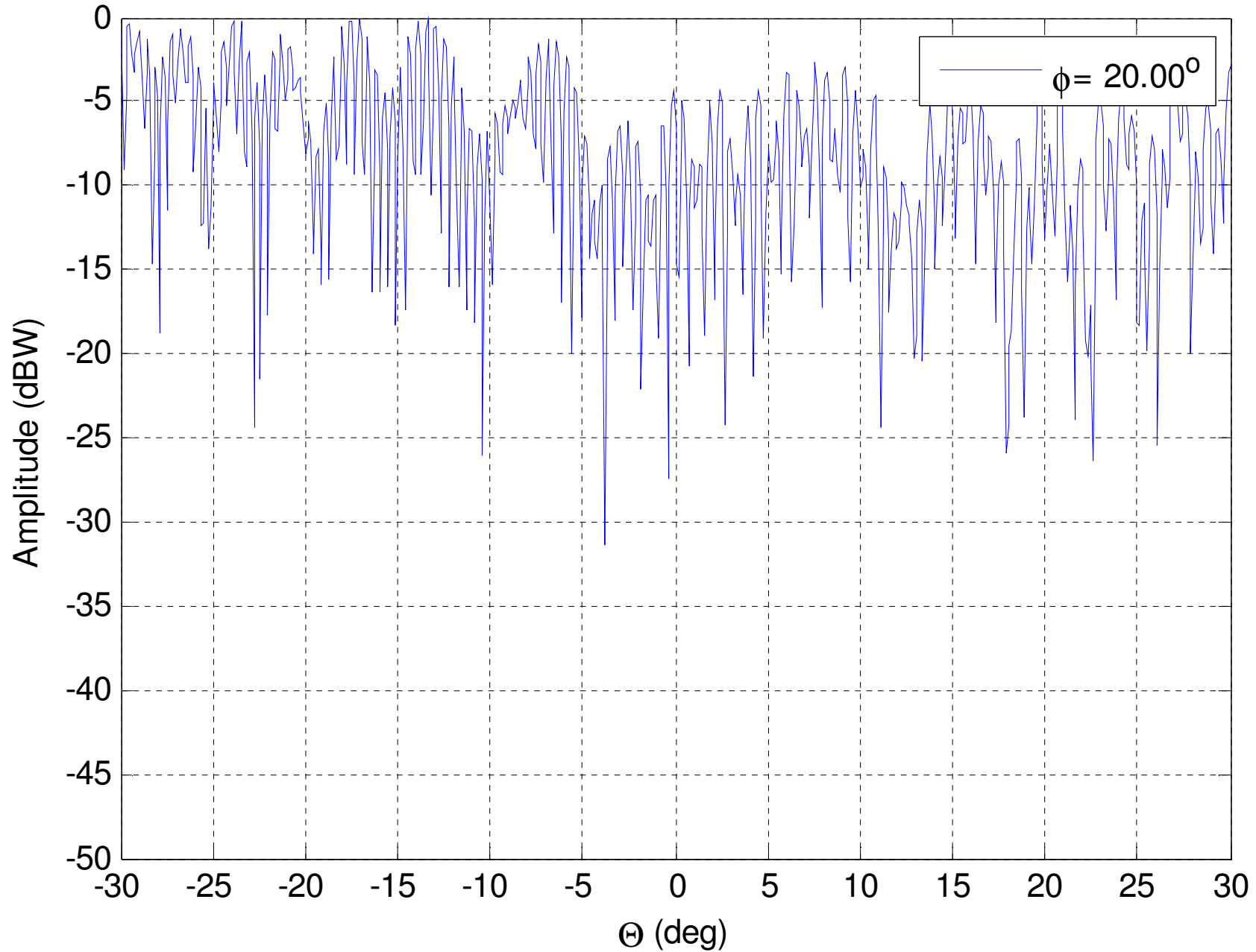
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp-10.cut, Peak: -2.46 dBW, Date: 16-Dec-2011



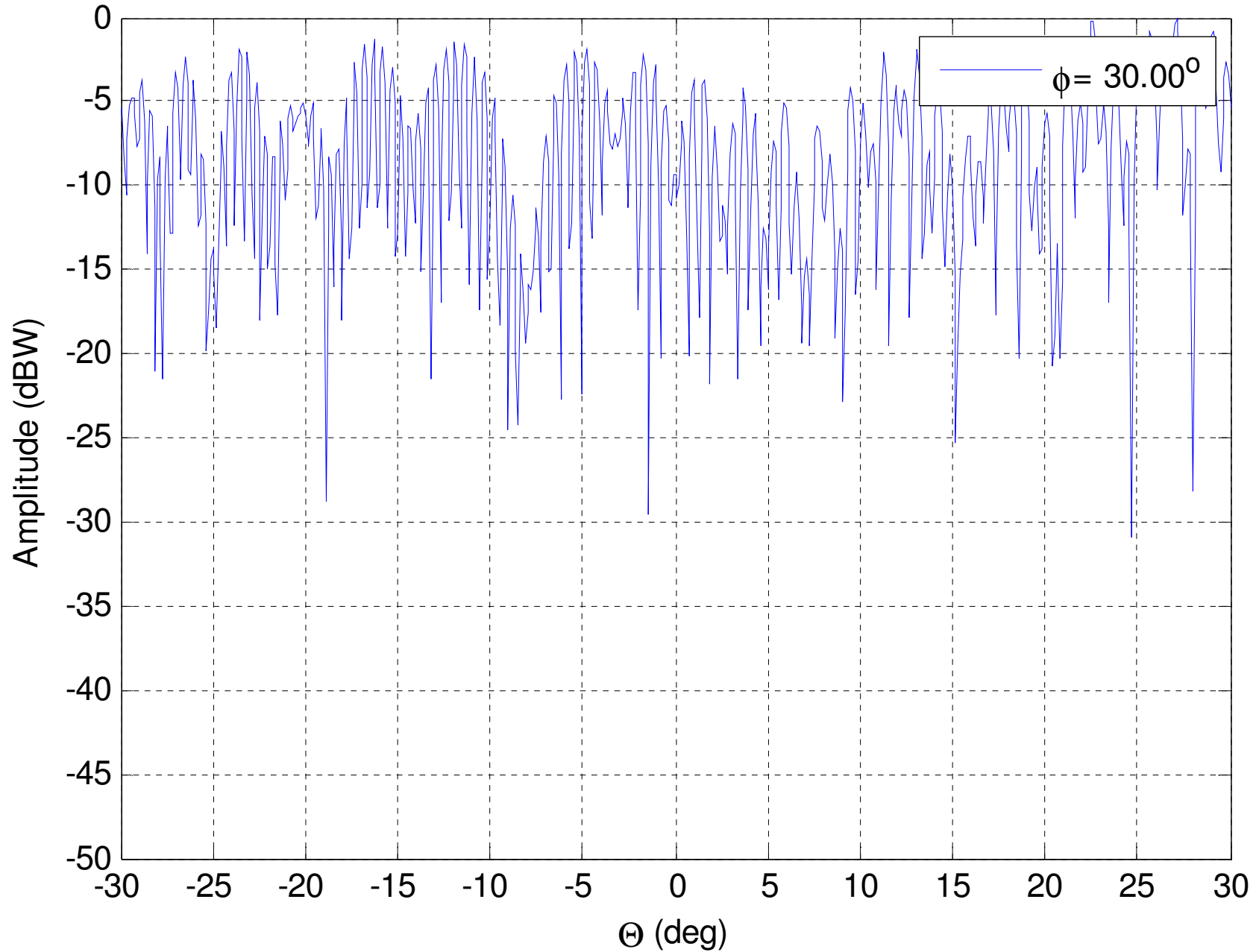
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp-20.cut, Peak: -2.27 dBW, Date: 16-Dec-2011



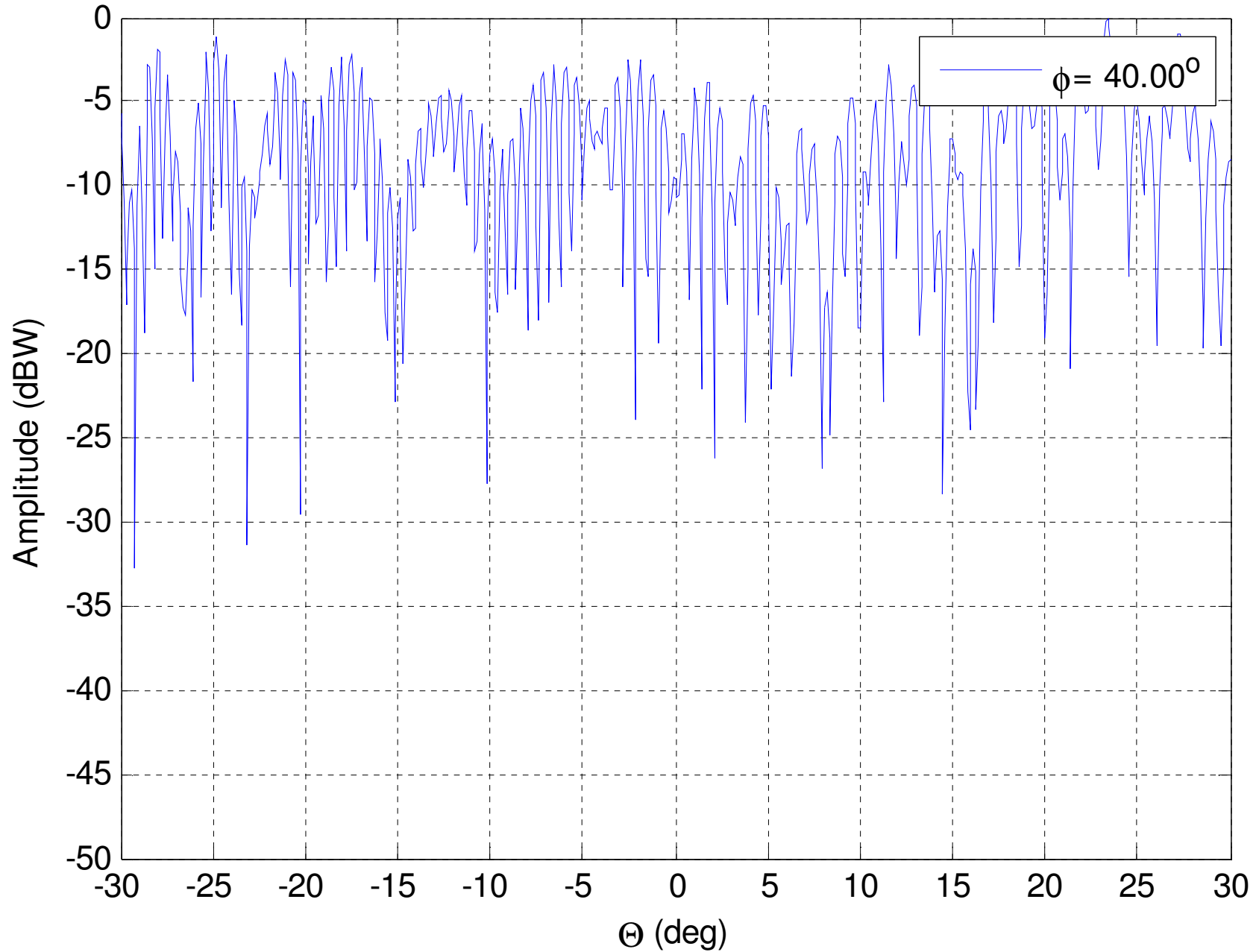
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp-30.cut, Peak: -1.71 dBW, Date: 16-Dec-2011



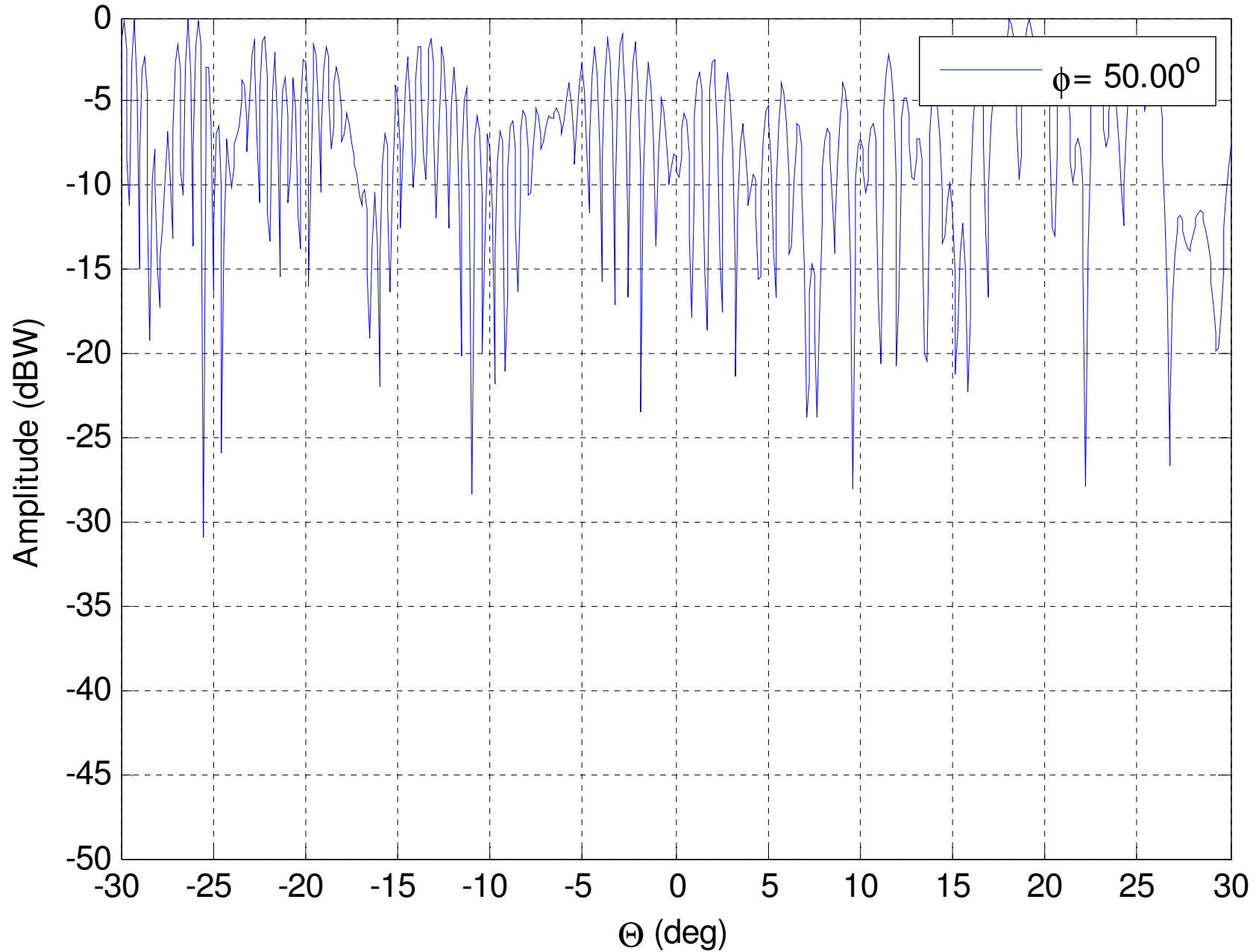
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp-40.cut, Peak: -1.46 dBW, Date: 16-Dec-2011



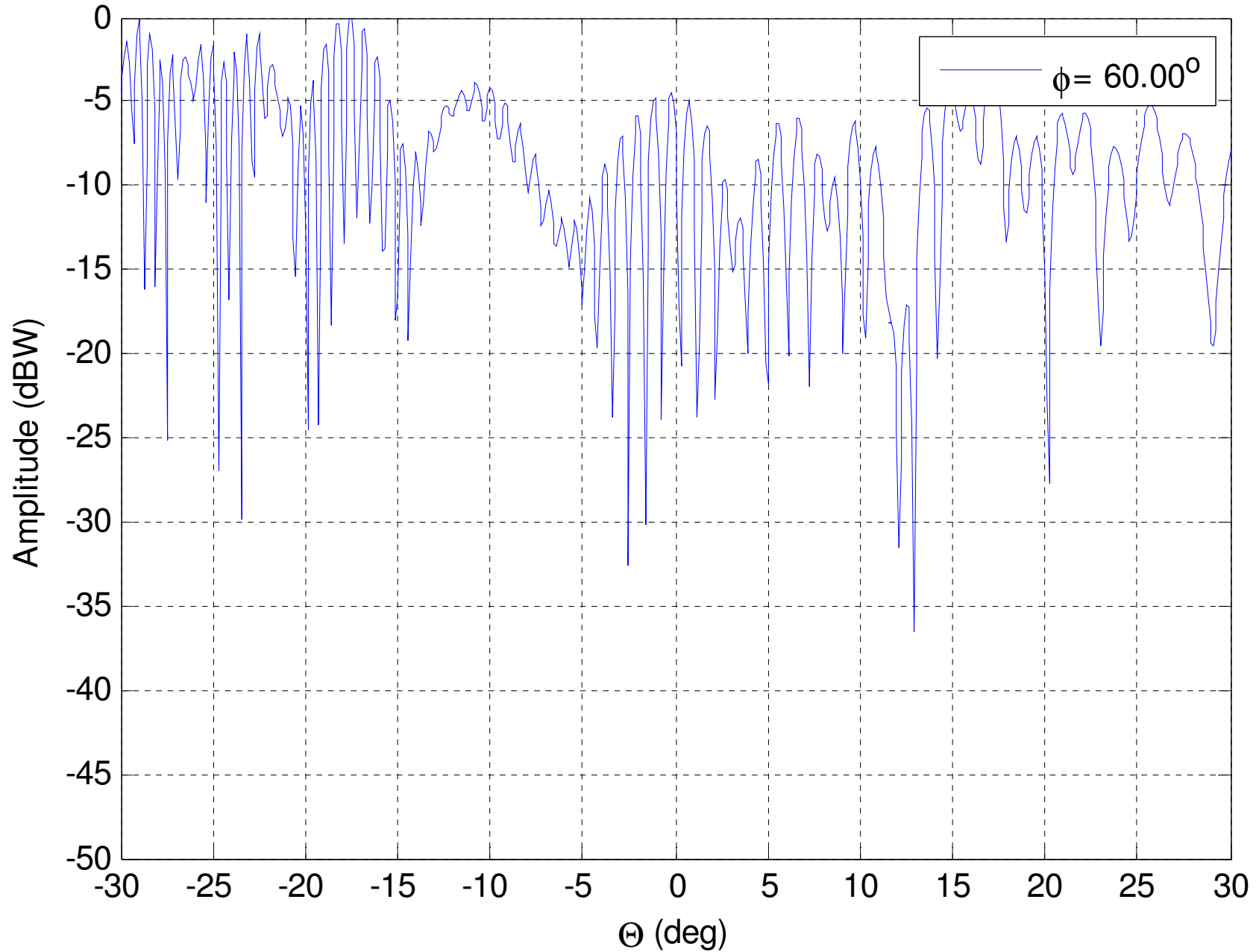
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp-50.cut, Peak: -2.70 dBW, Date: 16-Dec-2011



Normalized pattern cuts - farfield

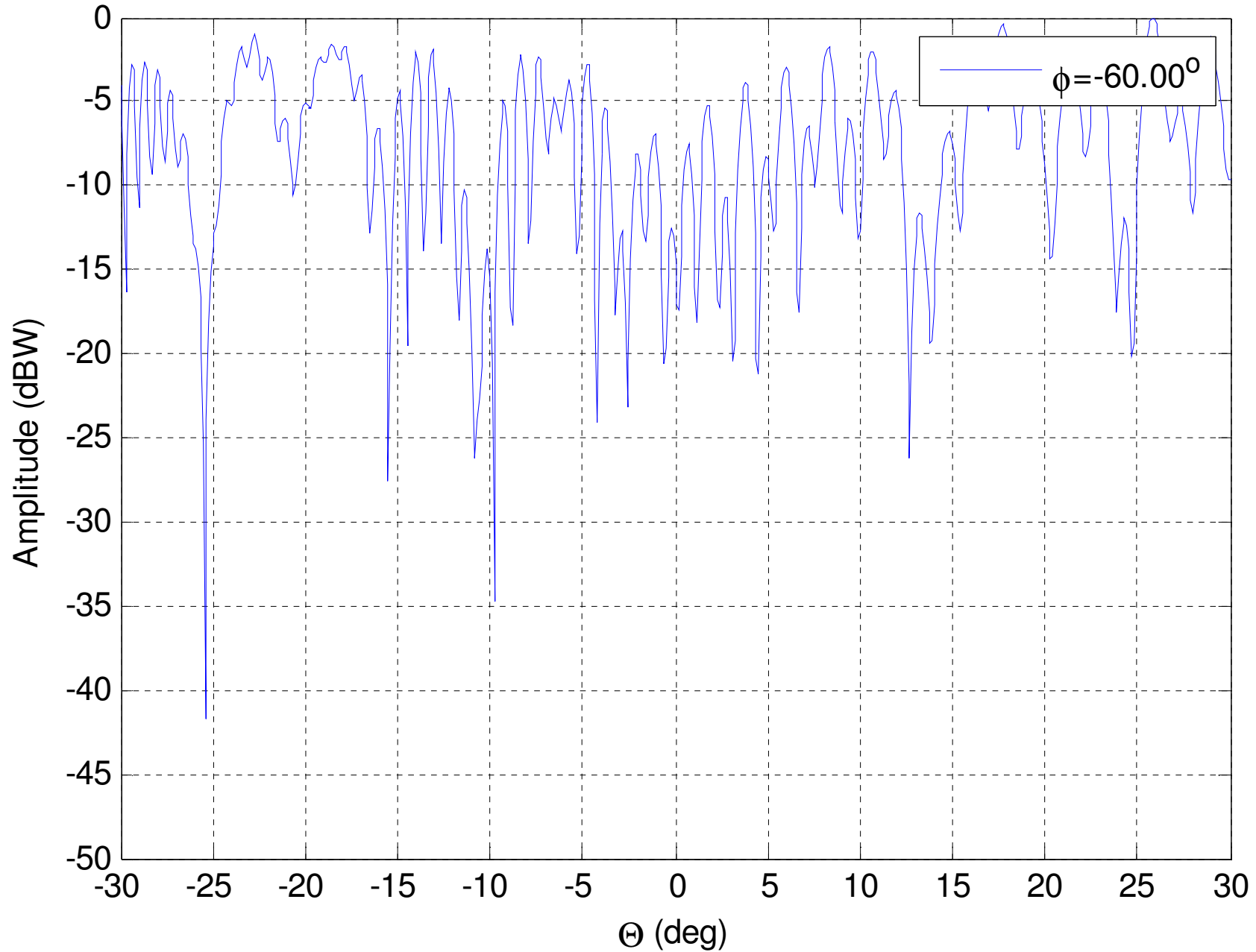
Input file: tx-17.3-lhcp-60.cut, Peak: -2.04 dBW, Date: 16-Dec-2011



RHCP at 17.5 GHz

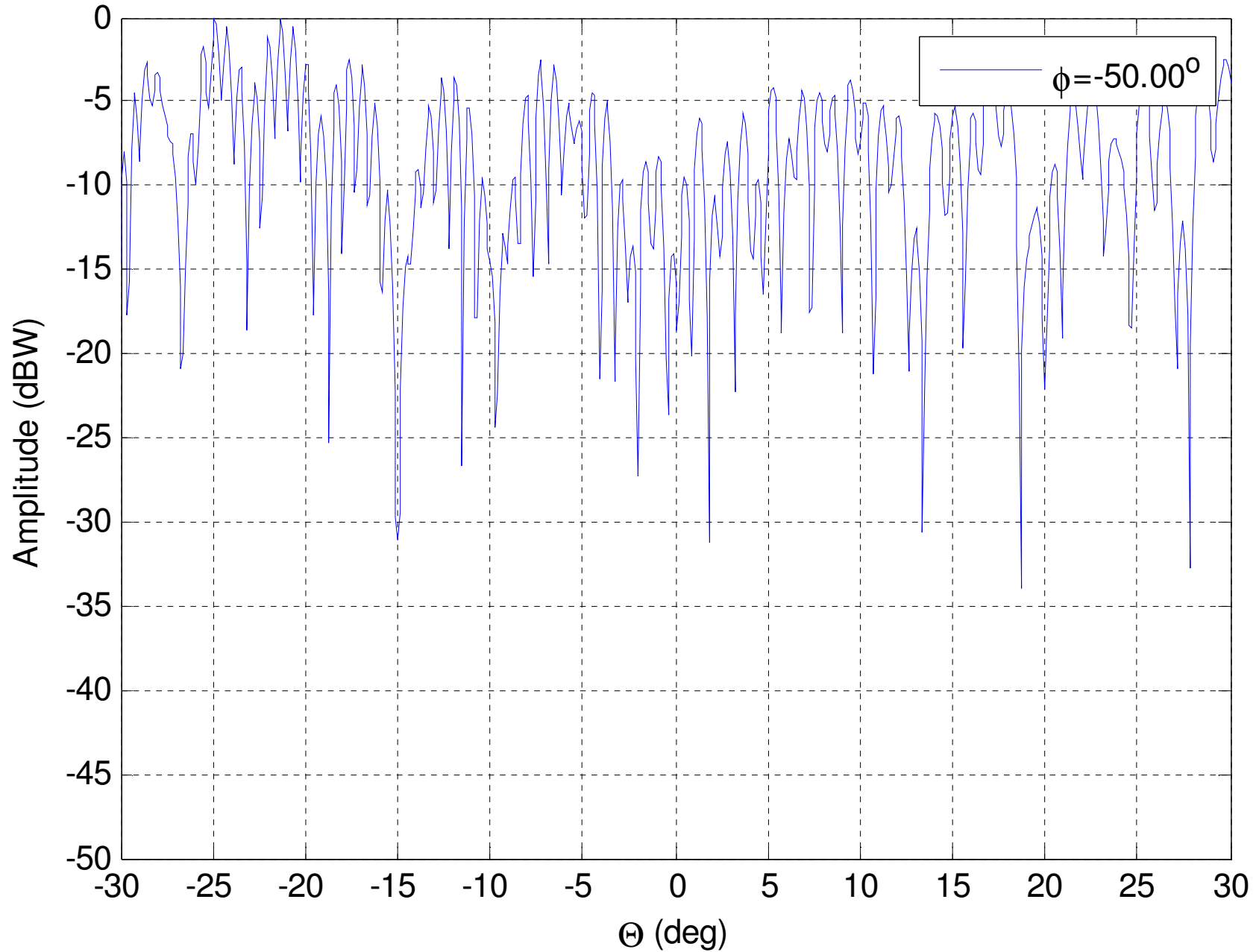
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--60.cut, Peak: -3.12 dBW, Date: 16-Dec-2011



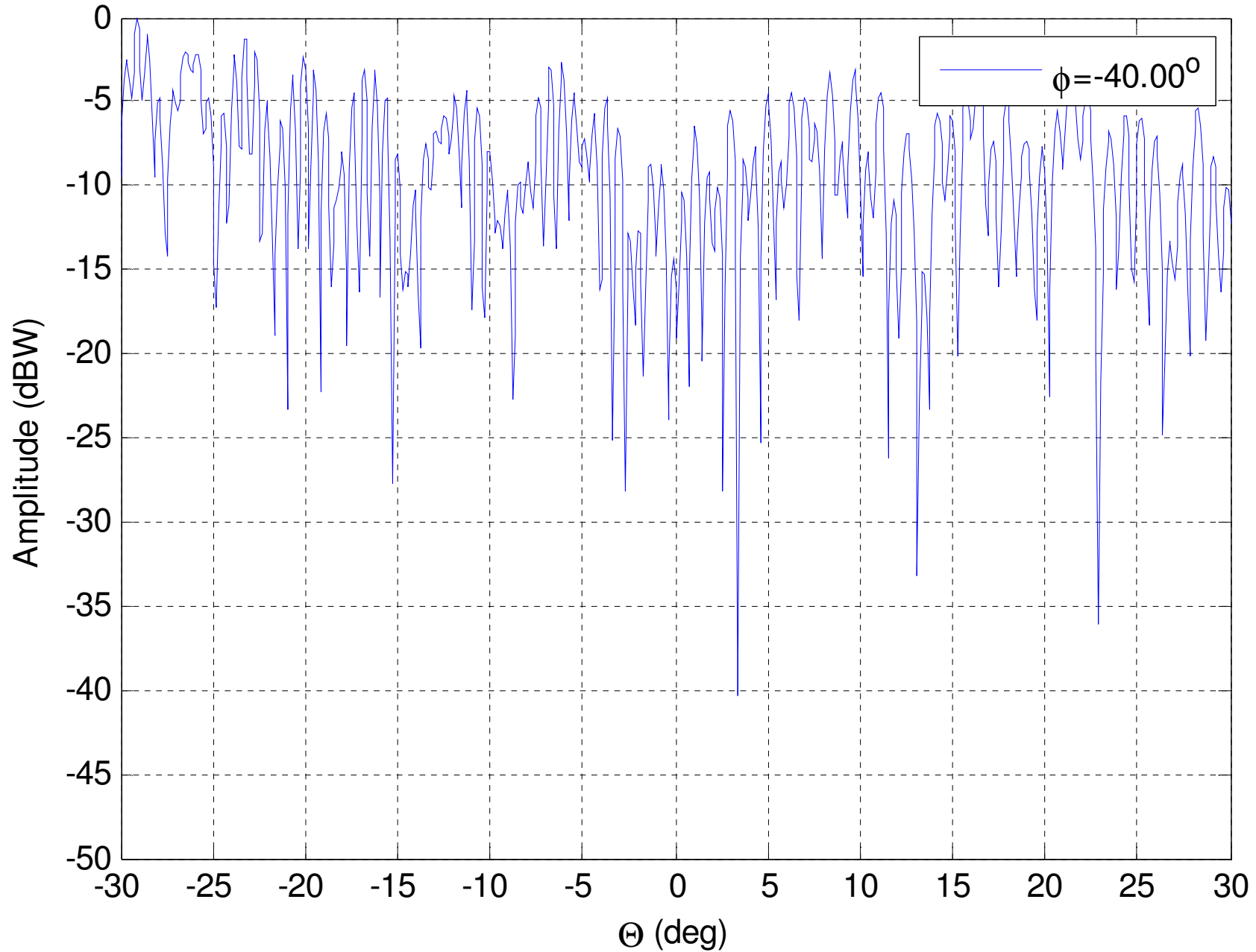
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--50.cut, Peak: -1.93 dBW, Date: 16-Dec-2011



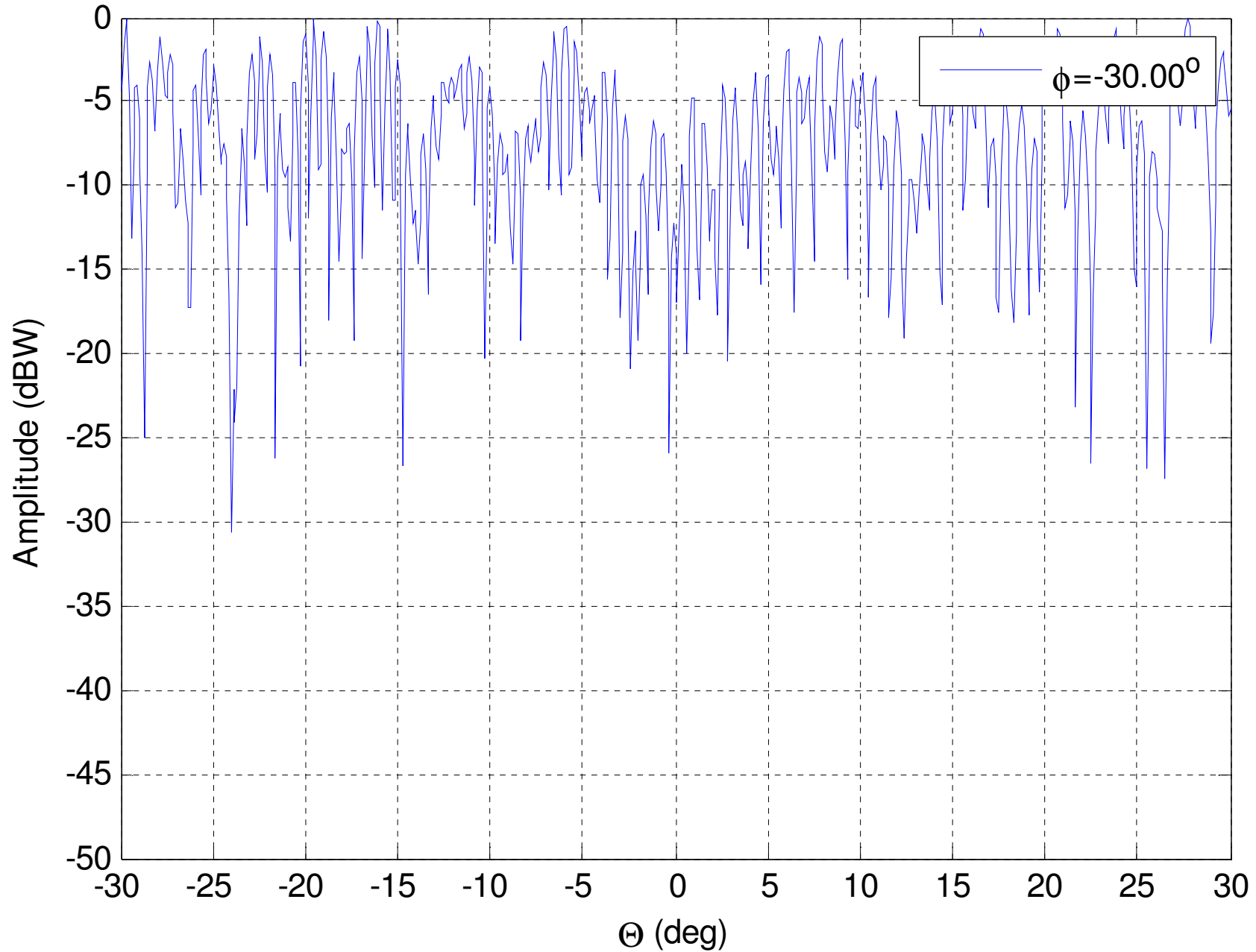
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--40.cut, Peak: -1.57 dBW, Date: 16-Dec-2011



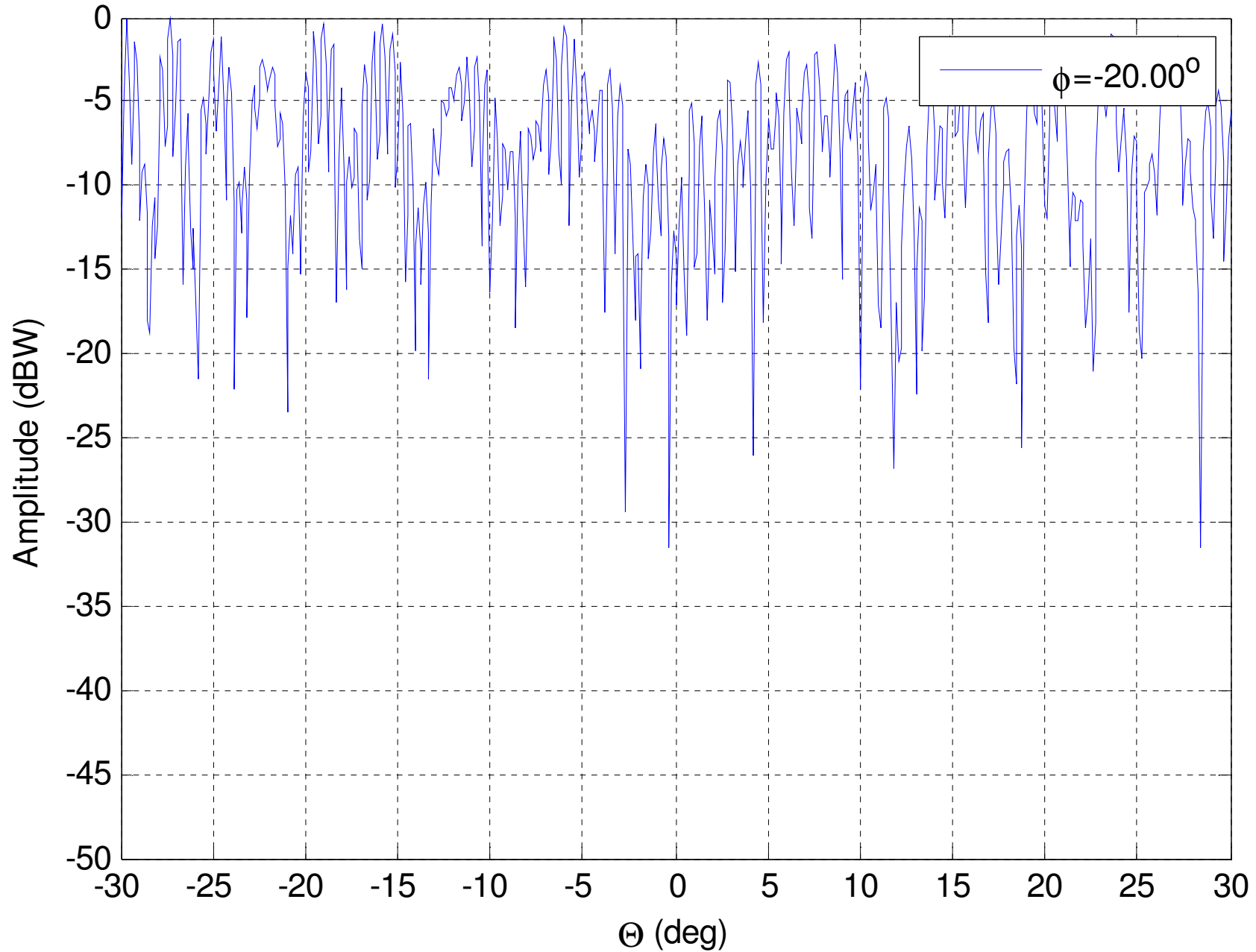
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--30.cut, Peak: -3.70 dBW, Date: 16-Dec-2011



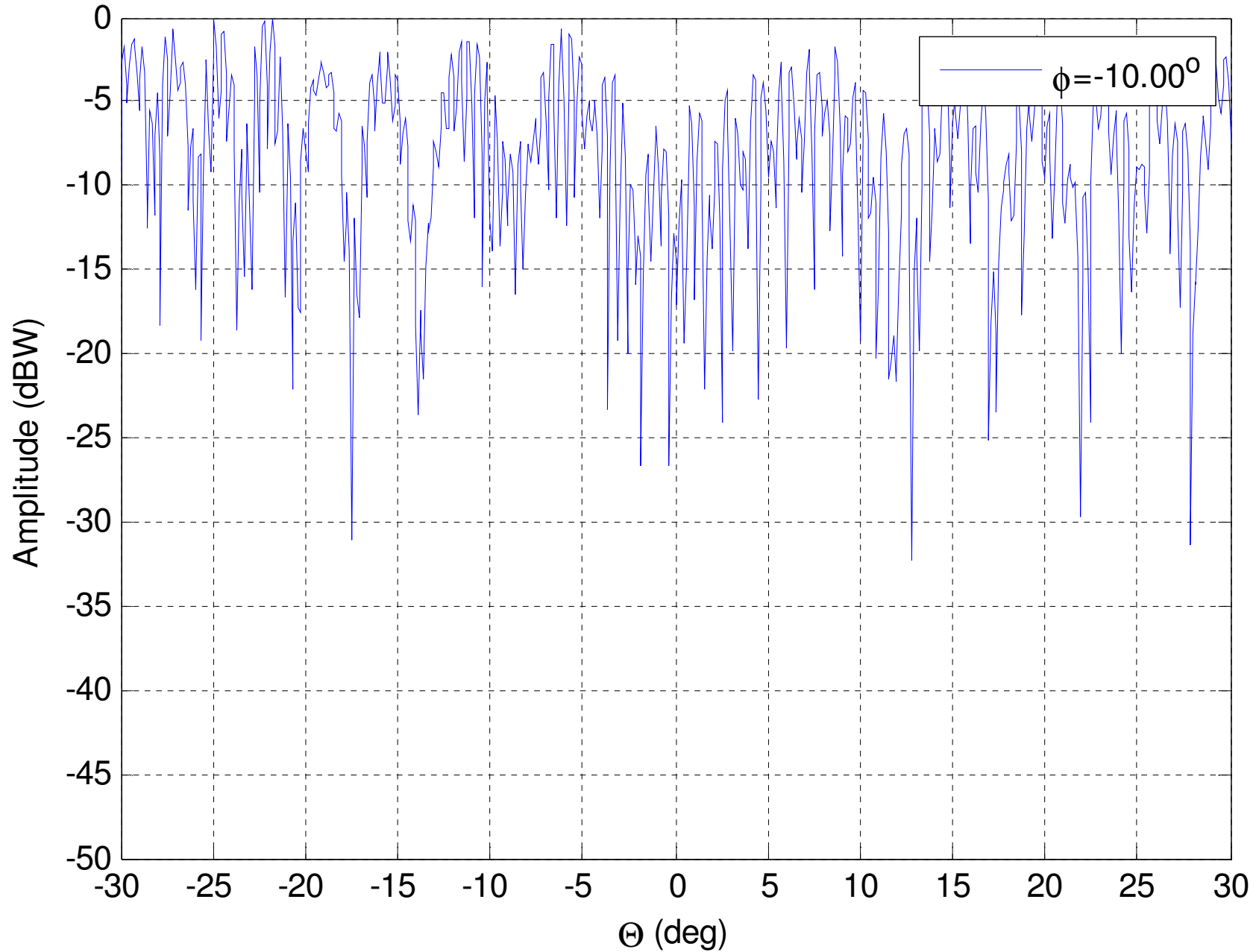
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--20.cut, Peak: -3.39 dBW, Date: 16-Dec-2011



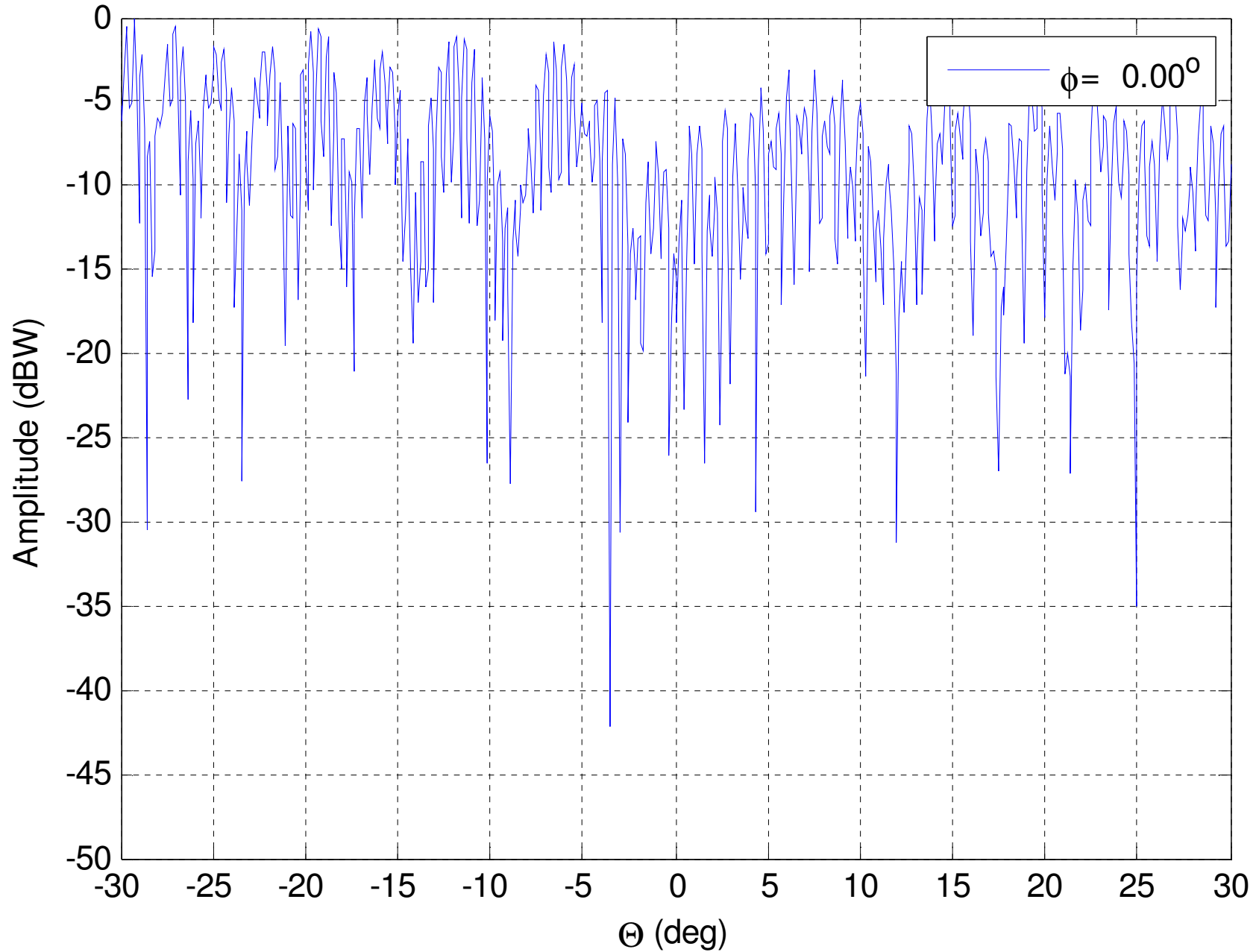
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--10.cut, Peak: -3.31 dBW, Date: 16-Dec-2011



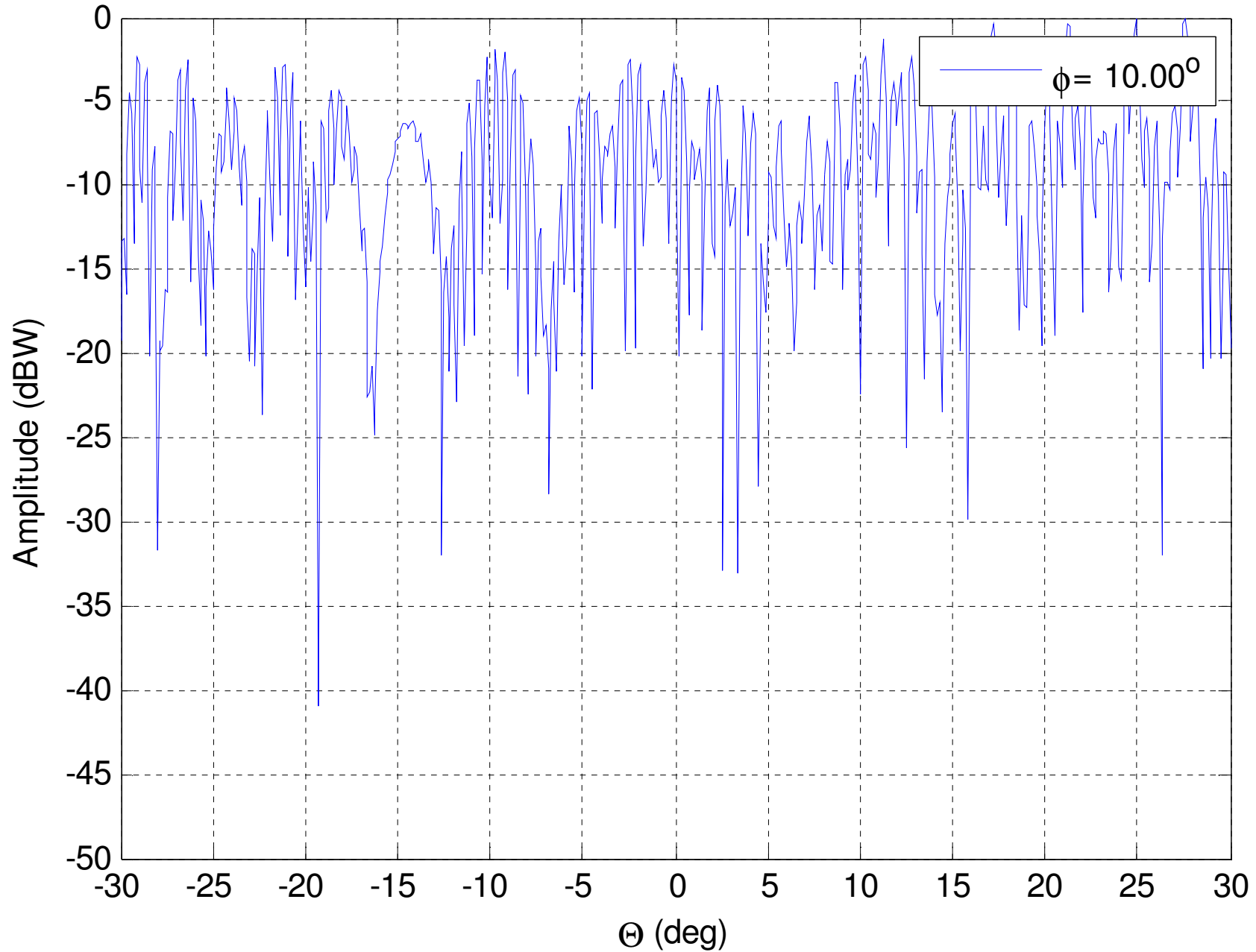
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-0.cut, Peak: -2.23 dBW, Date: 16-Dec-2011



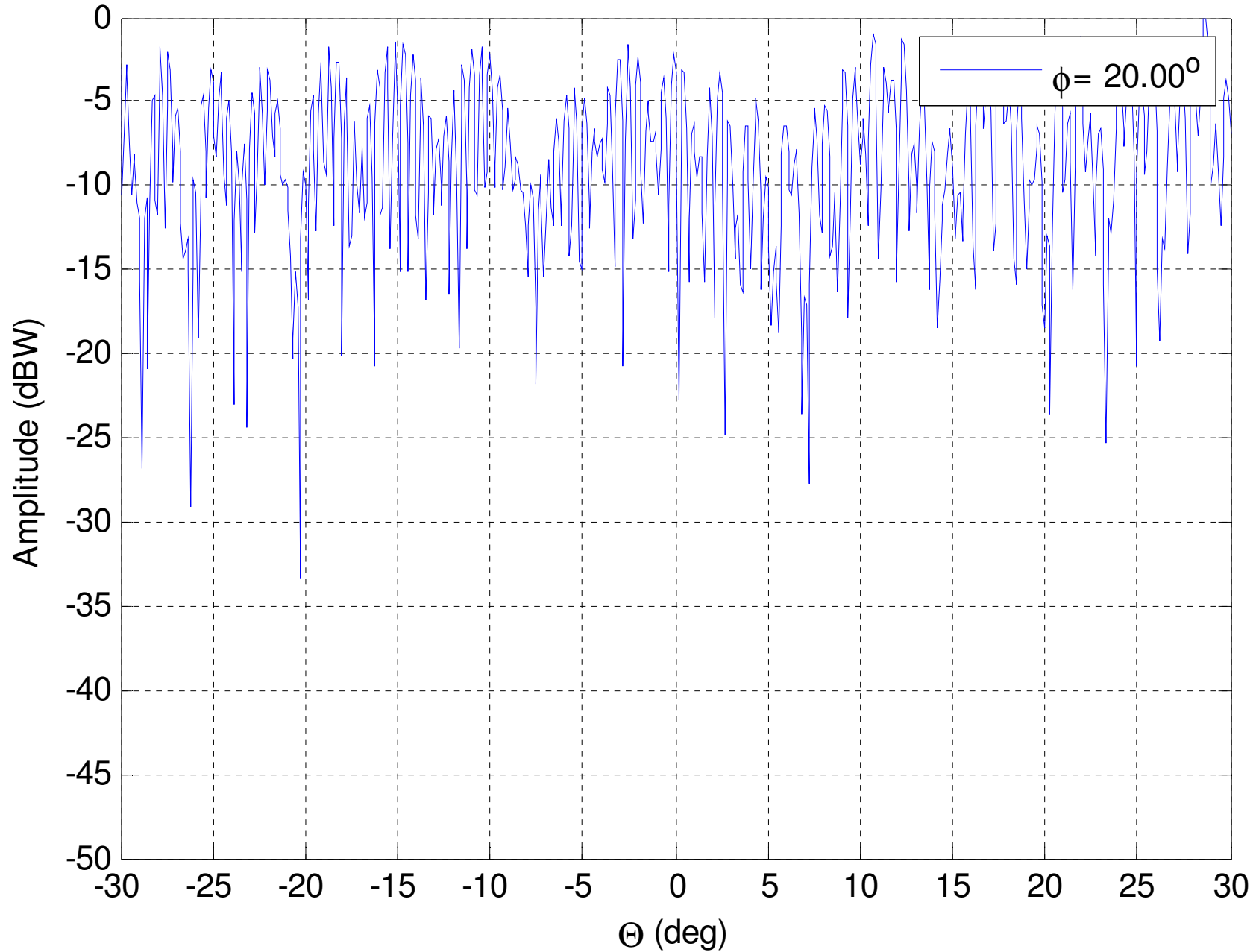
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-10.cut, Peak: -2.07 dBW, Date: 16-Dec-2011



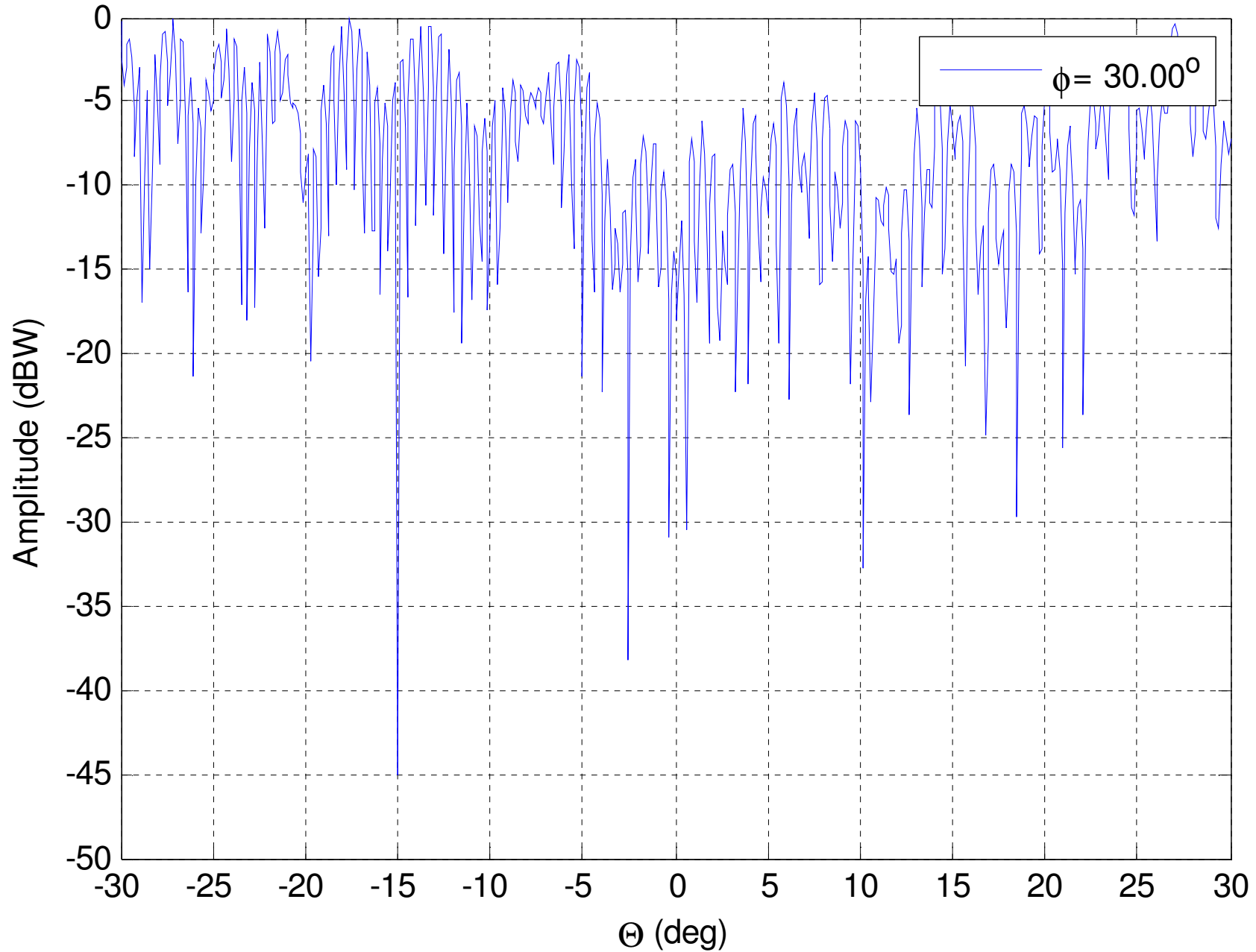
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-20.cut, Peak: -2.65 dBW, Date: 16-Dec-2011



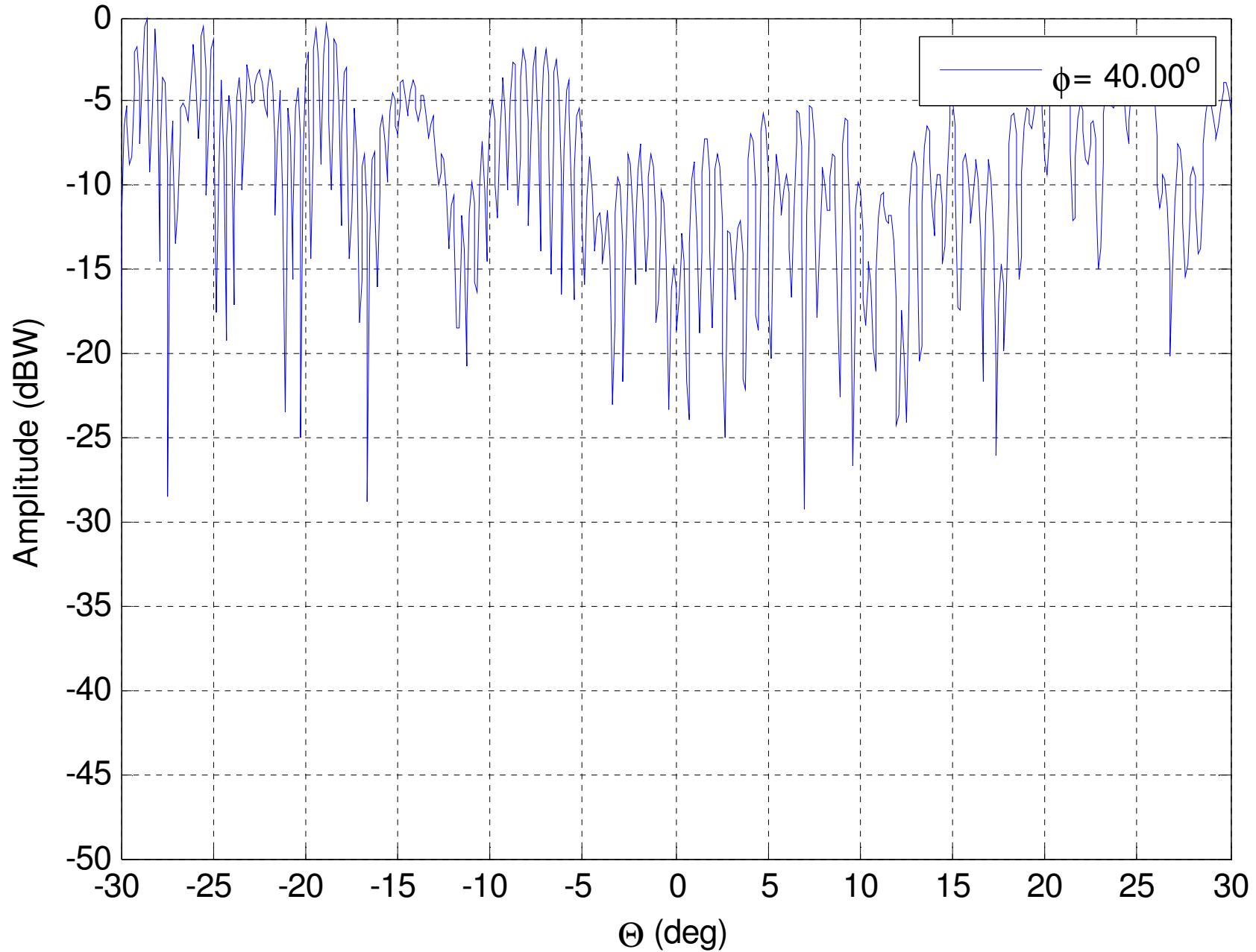
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-30.cut, Peak: -2.36 dBW, Date: 16-Dec-2011



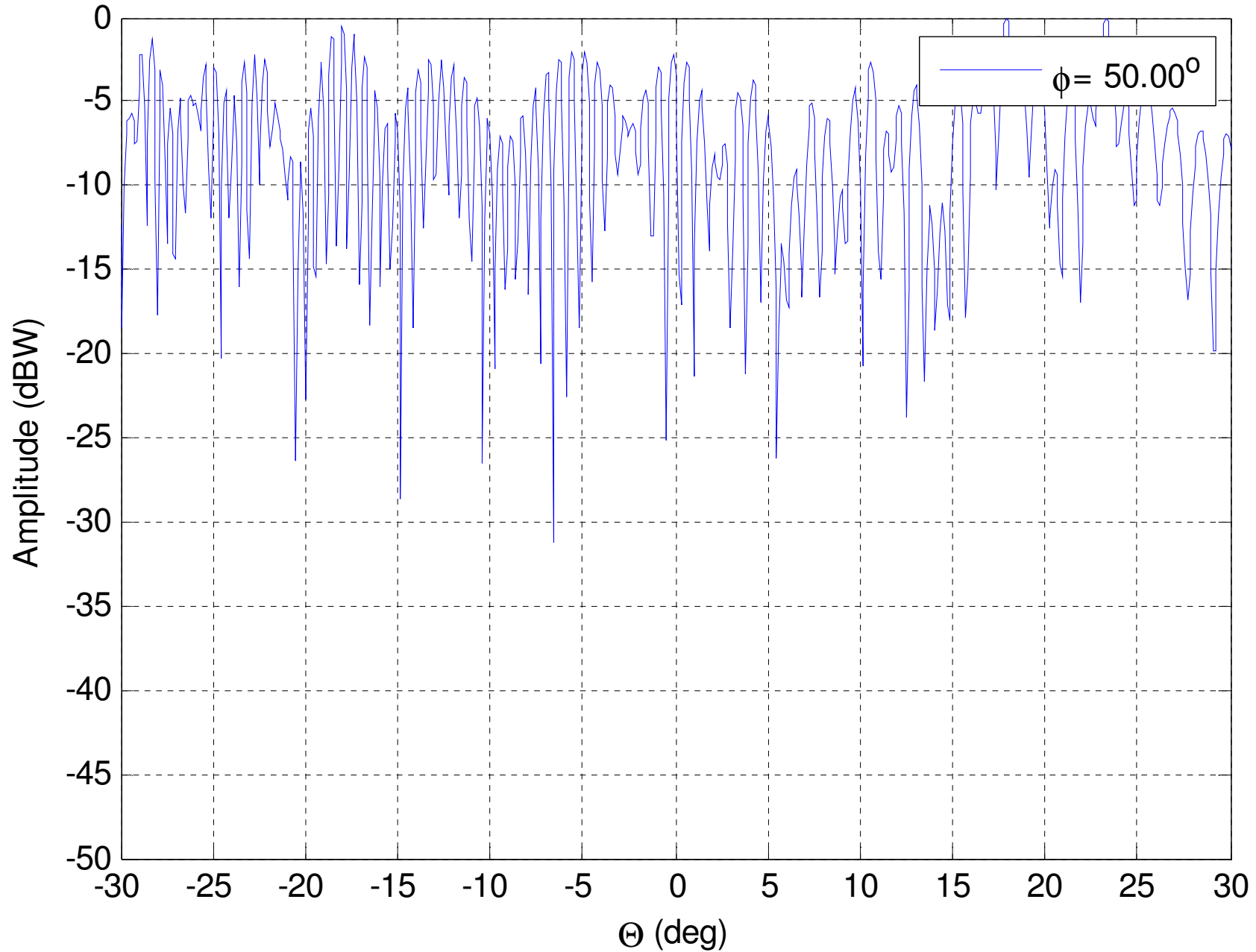
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-40.cut, Peak: -1.63 dBW, Date: 16-Dec-2011



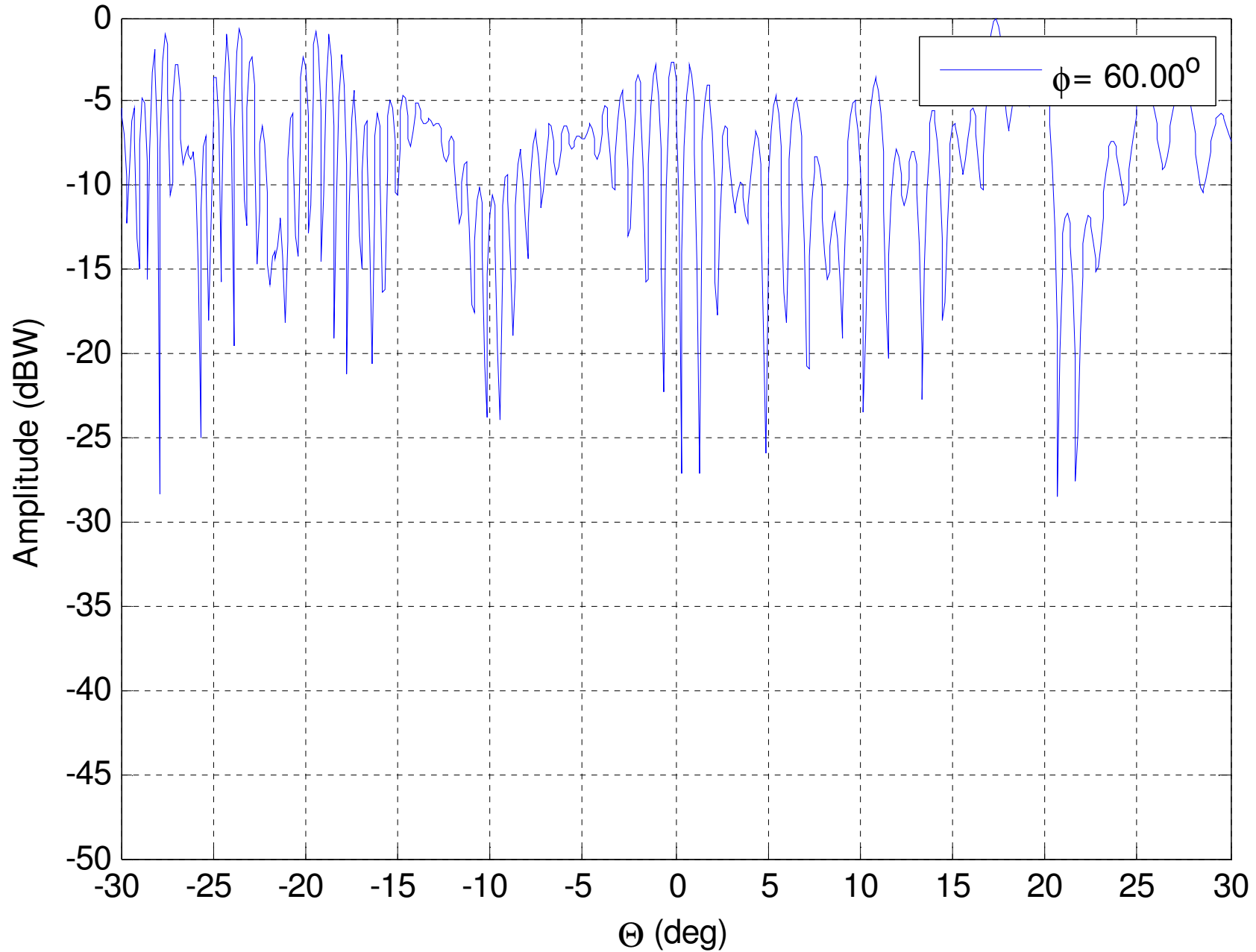
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-50.cut, Peak: -2.55 dBW, Date: 16-Dec-2011



Normalized pattern cuts - farfield

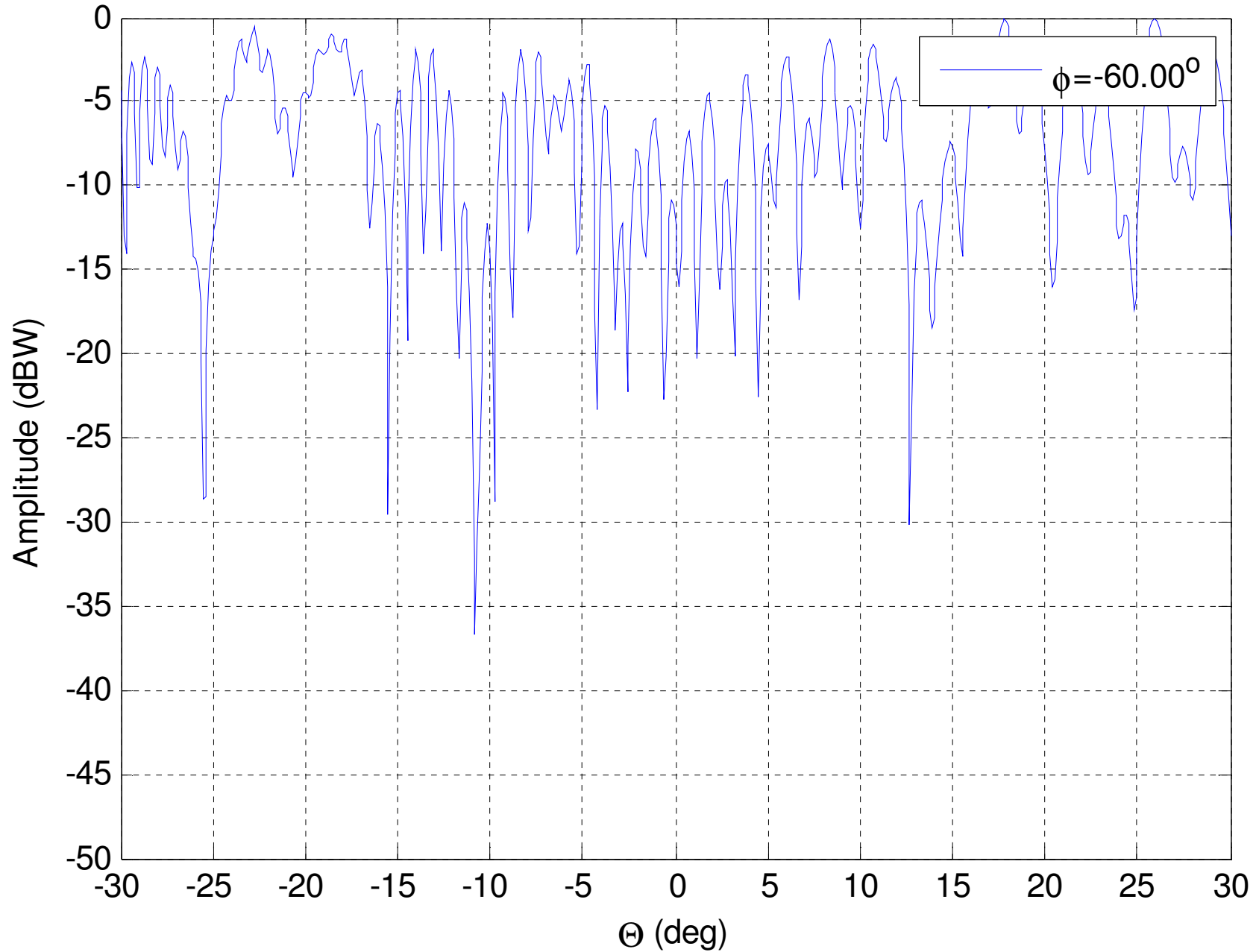
Input file: tx-17.5-rhcp-60.cut, Peak: -2.21 dBW, Date: 16-Dec-2011



LHCP at 17.5 GHz

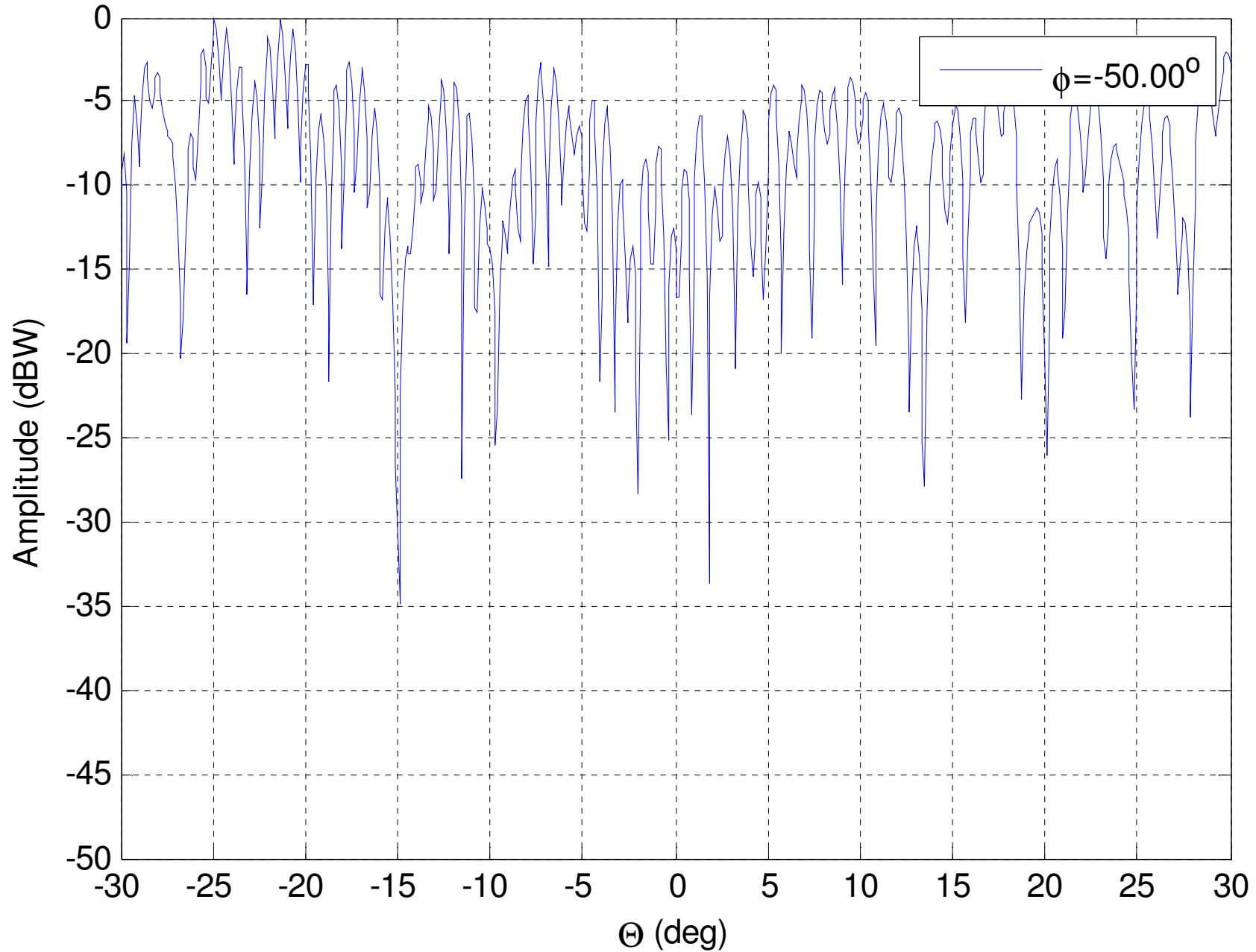
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--60.cut, Peak: -3.31 dBW, Date: 16-Dec-2011



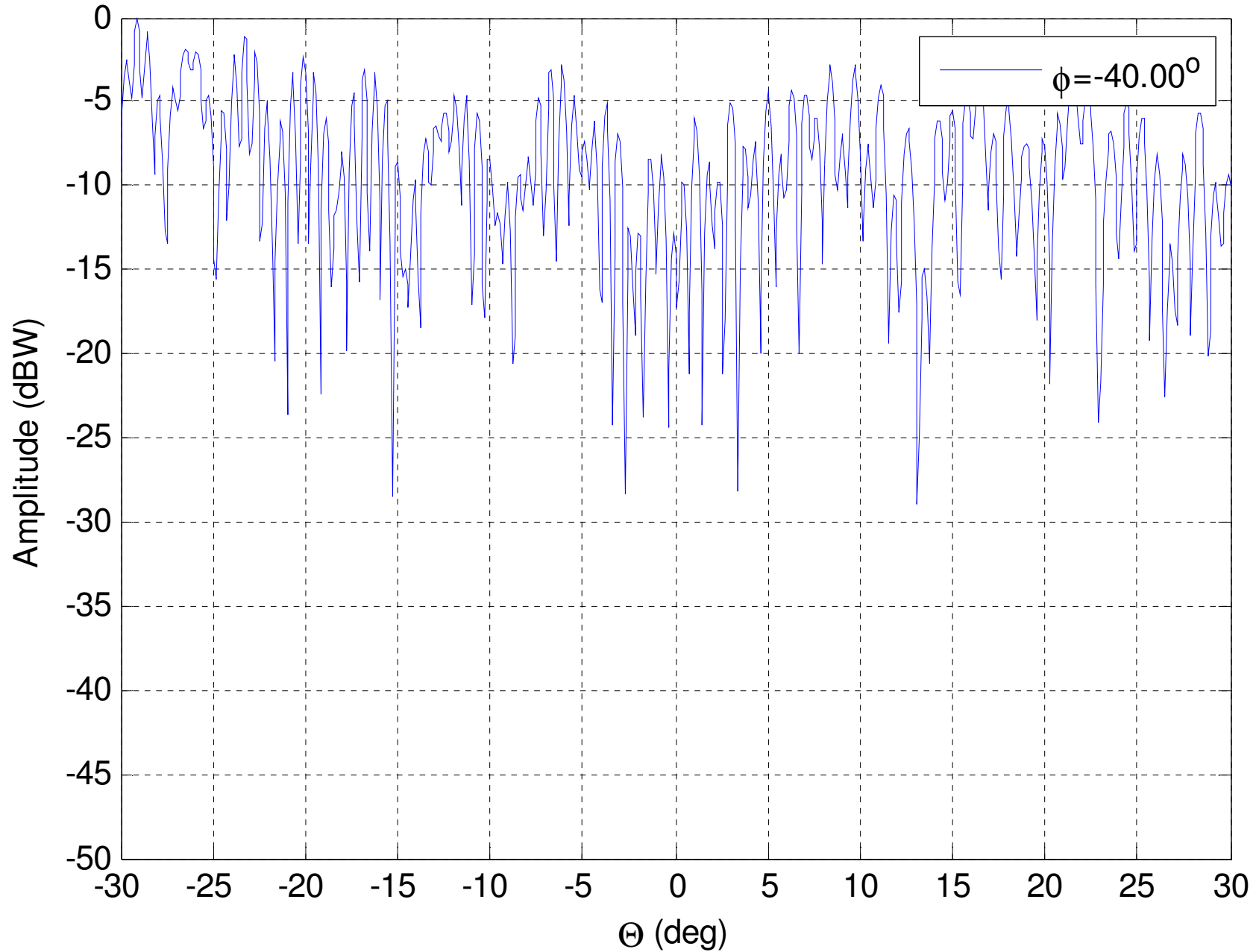
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--50.cut, Peak: -1.81 dBW, Date: 16-Dec-2011



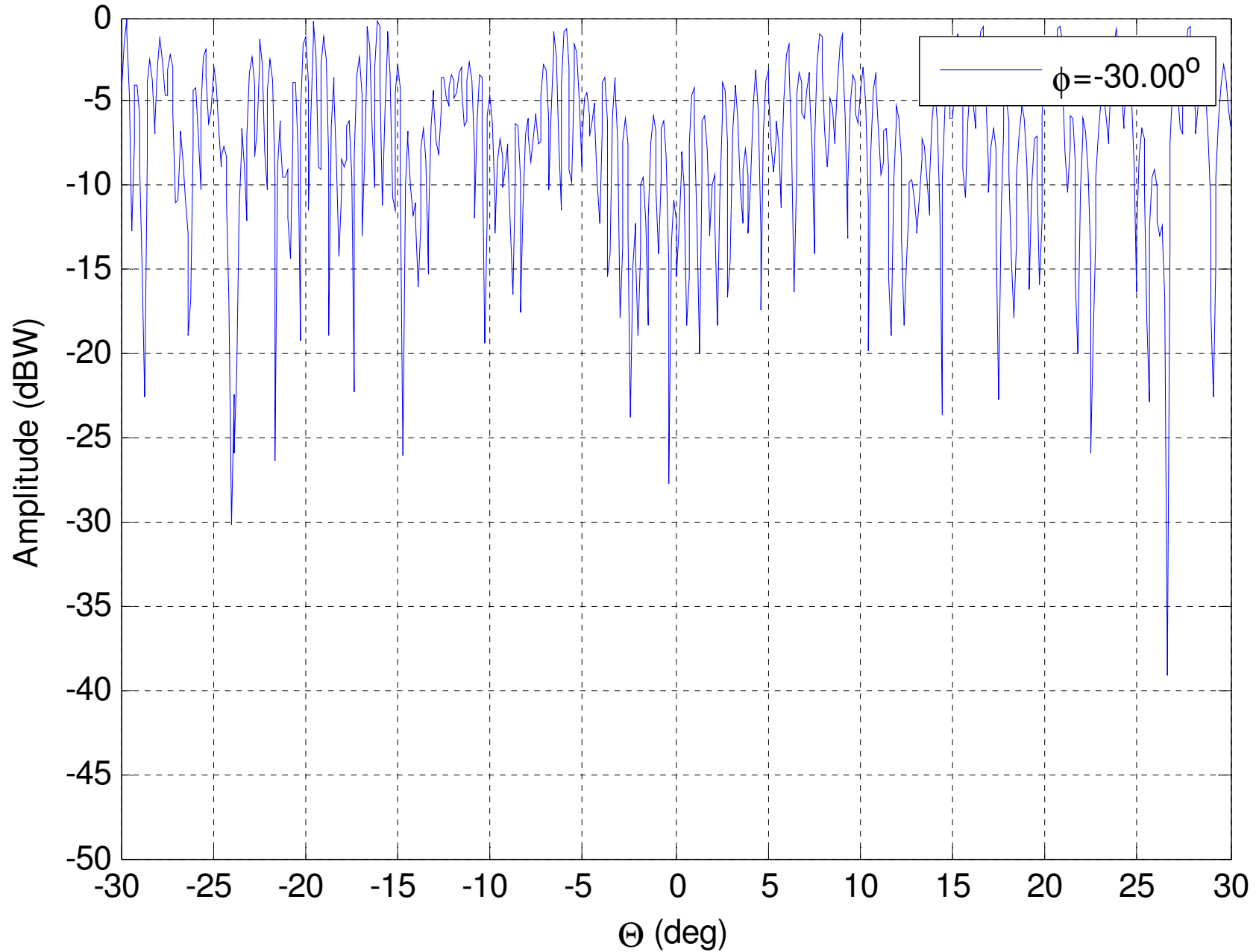
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--40.cut, Peak: -1.50 dBW, Date: 16-Dec-2011



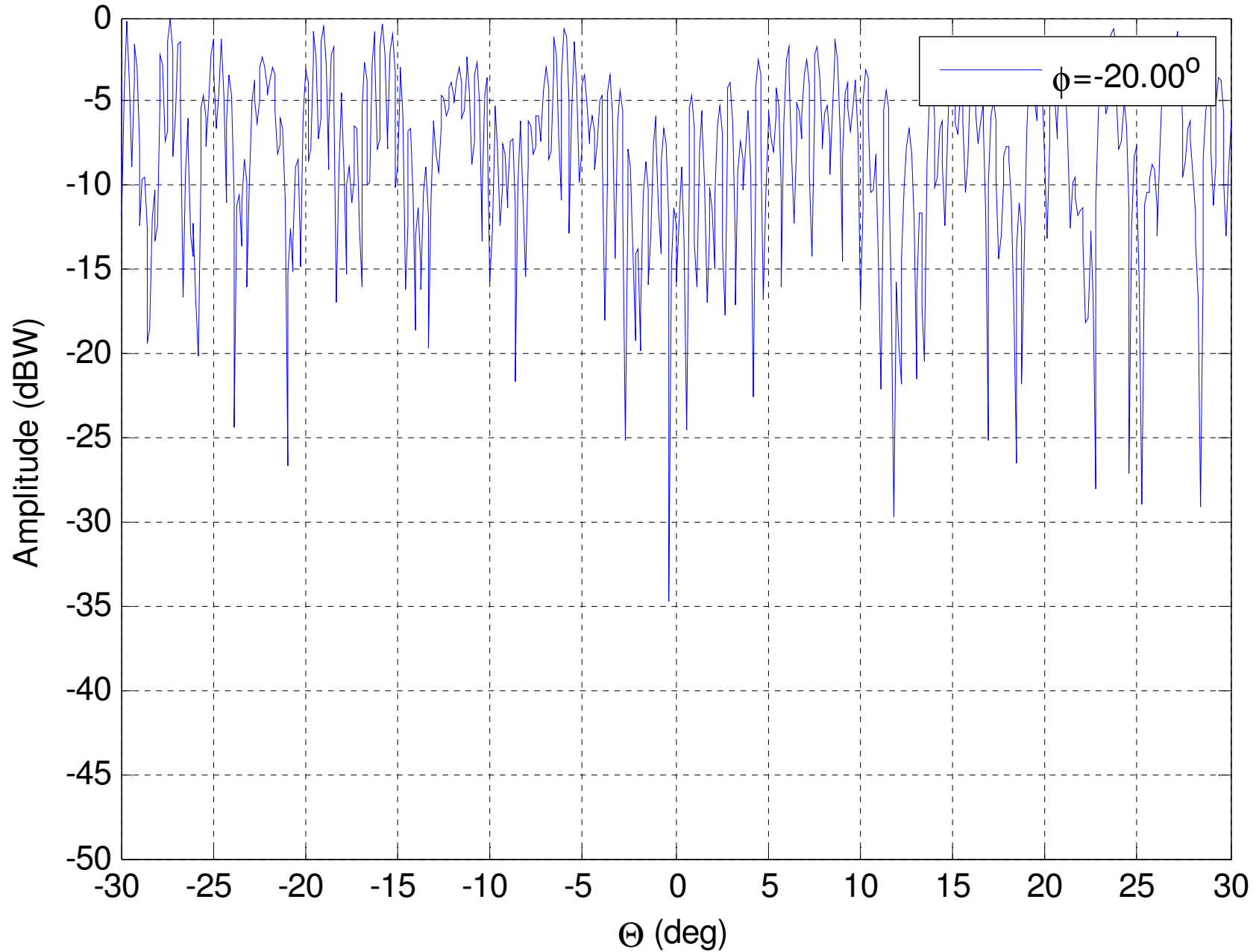
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--30.cut, Peak: -3.58 dBW, Date: 16-Dec-2011



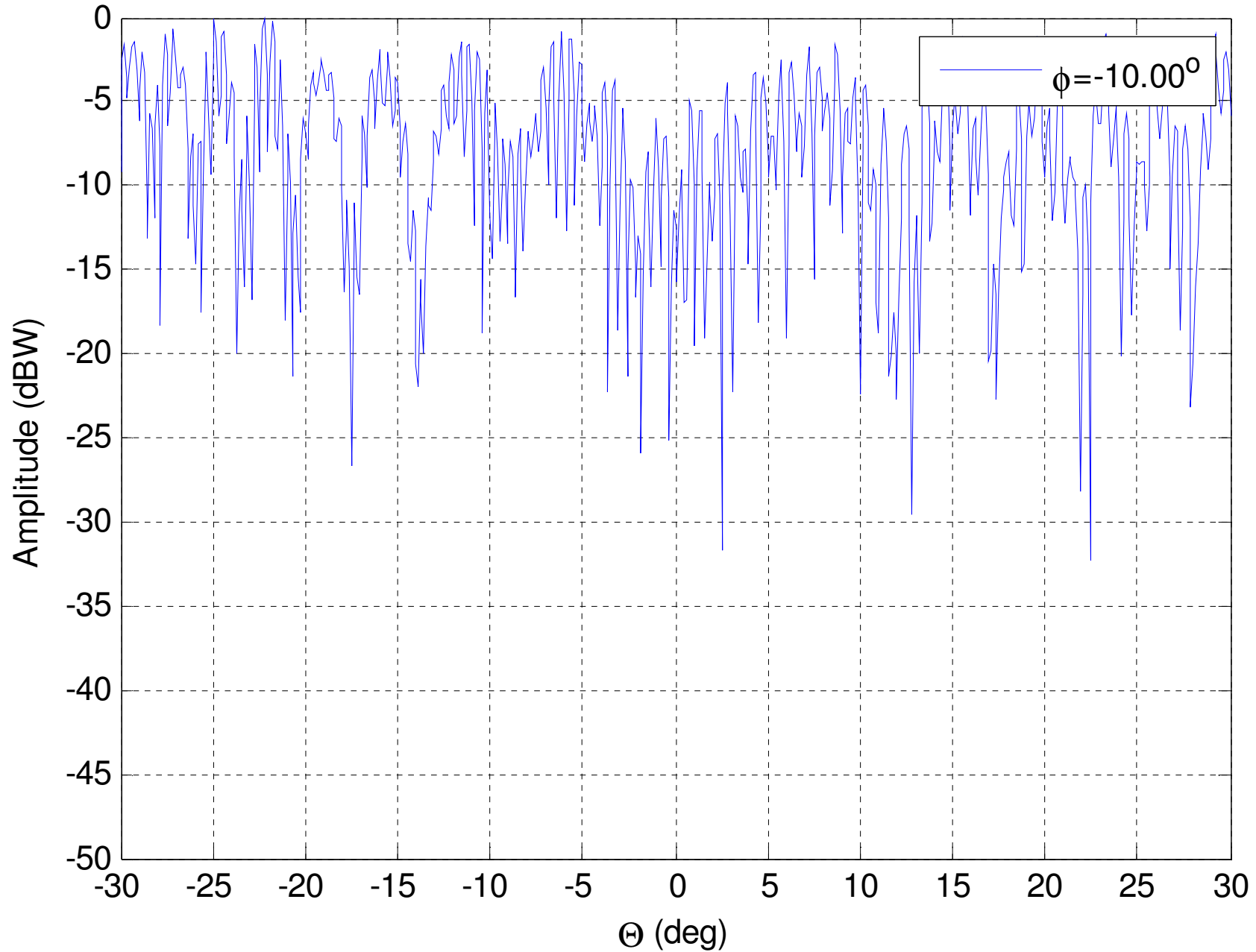
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--20.cut, Peak: -3.27 dBW, Date: 16-Dec-2011



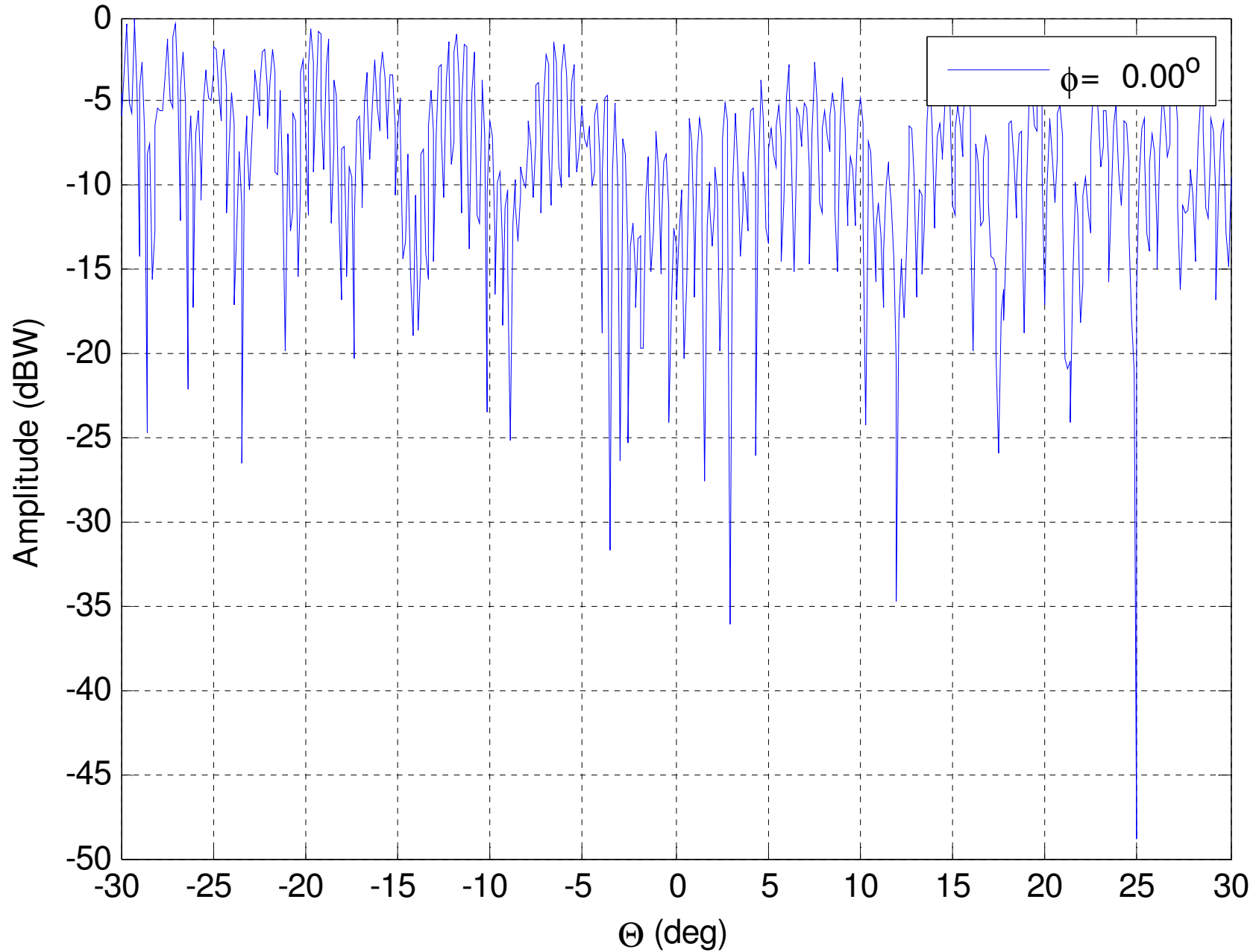
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--10.cut, Peak: -3.20 dBW, Date: 16-Dec-2011



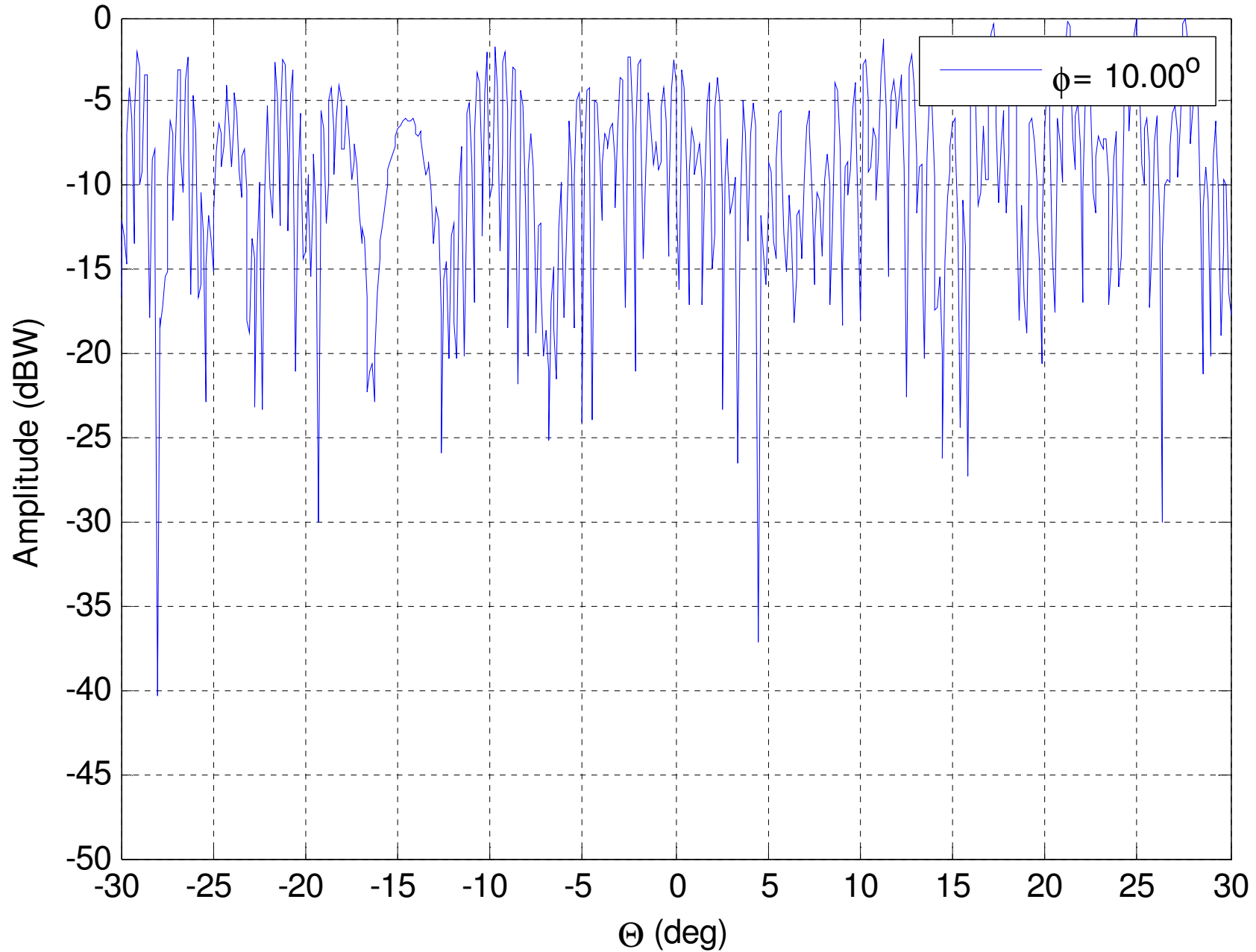
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-0.cut, Peak: -2.18 dBW, Date: 16-Dec-2011



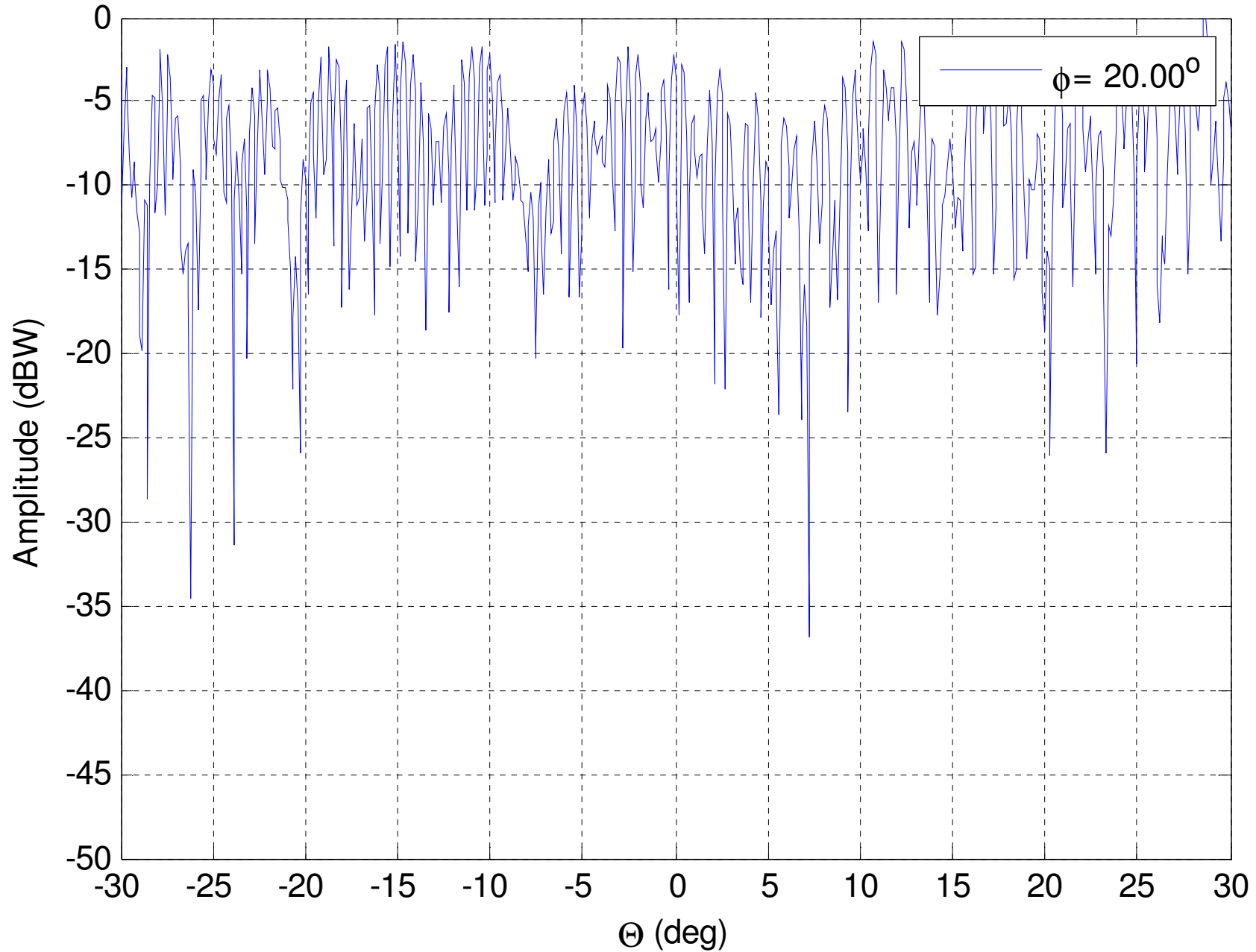
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-10.cut, Peak: -2.04 dBW, Date: 16-Dec-2011



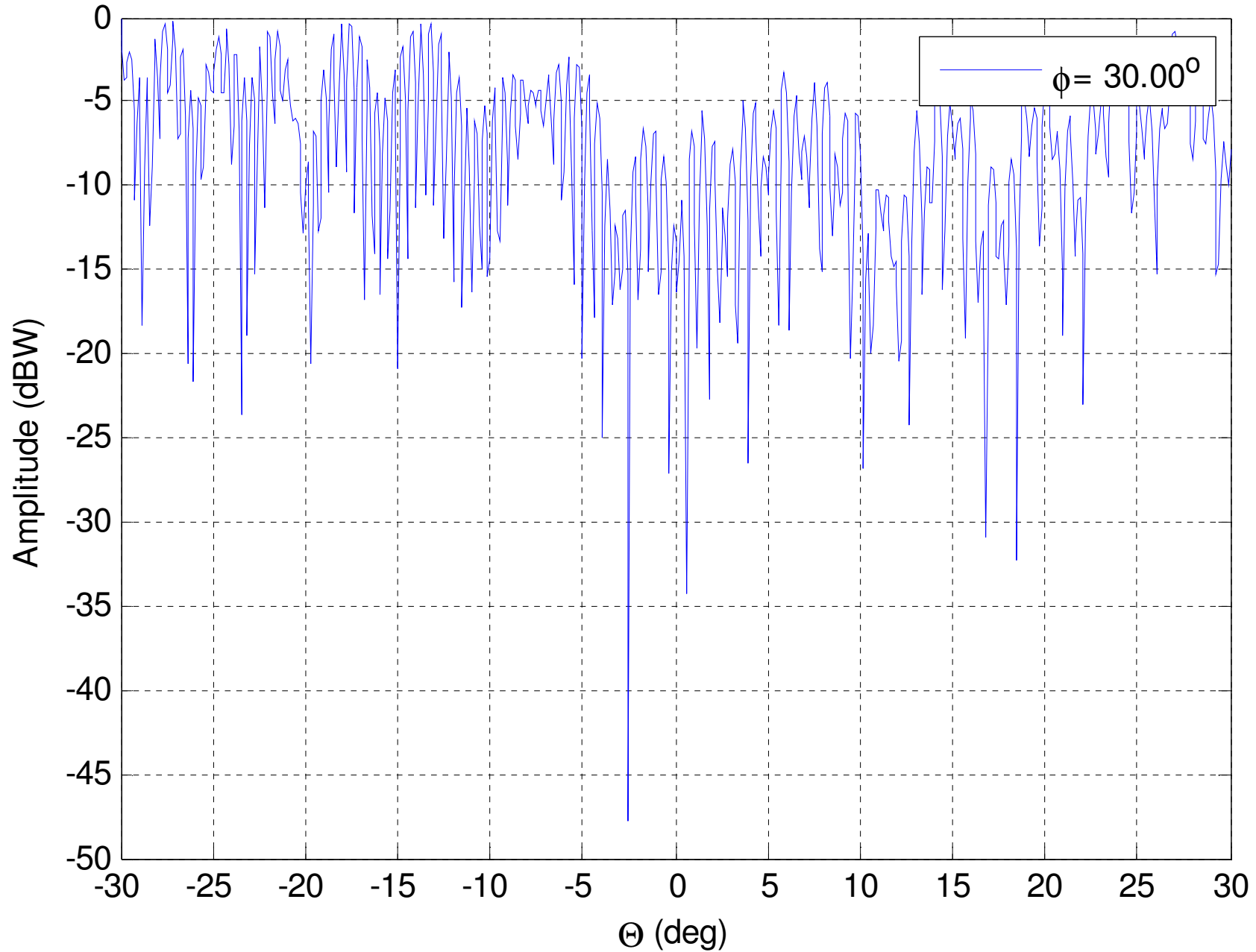
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-20.cut, Peak: -2.38 dBW, Date: 16-Dec-2011



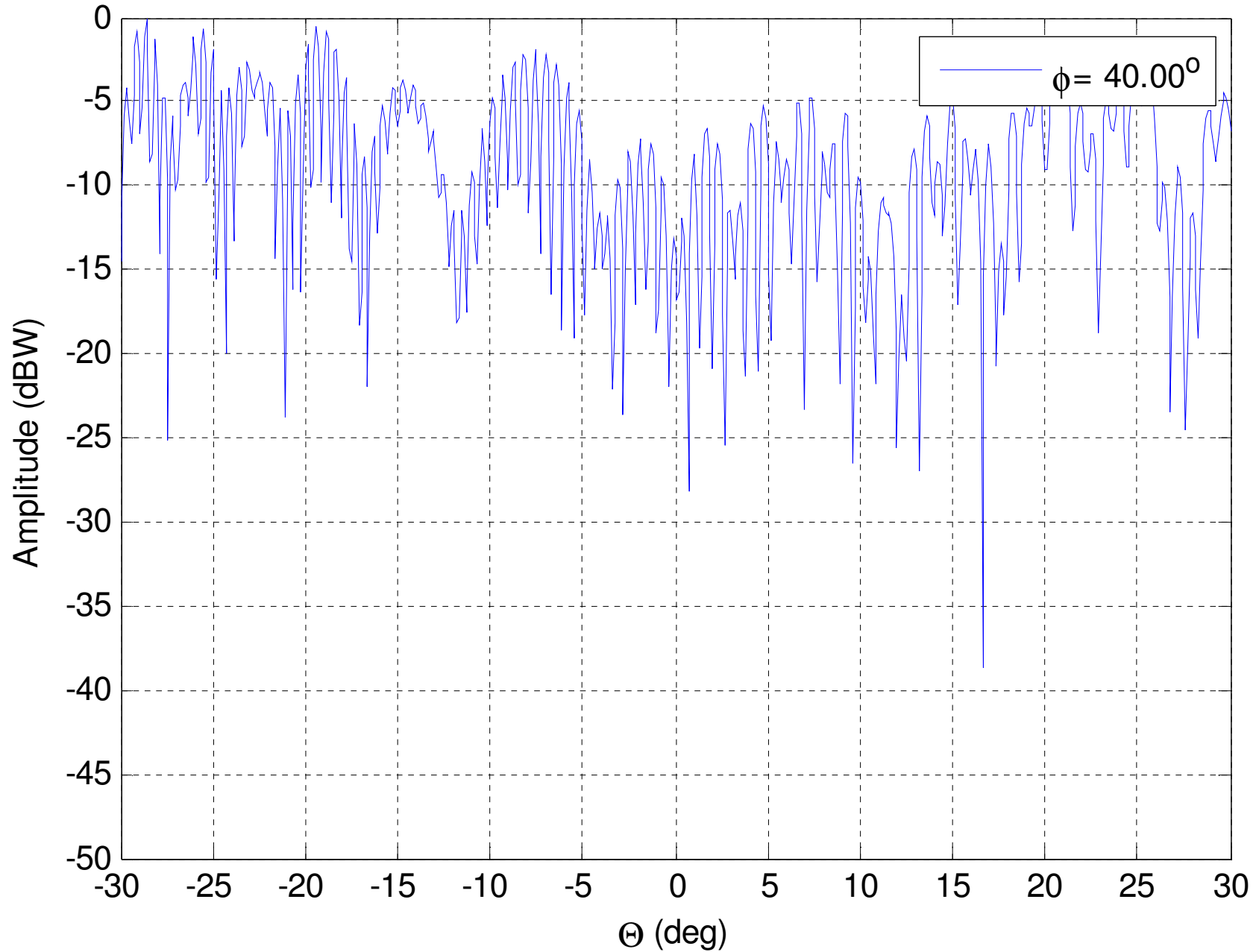
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-30.cut, Peak: -2.37 dBW, Date: 16-Dec-2011



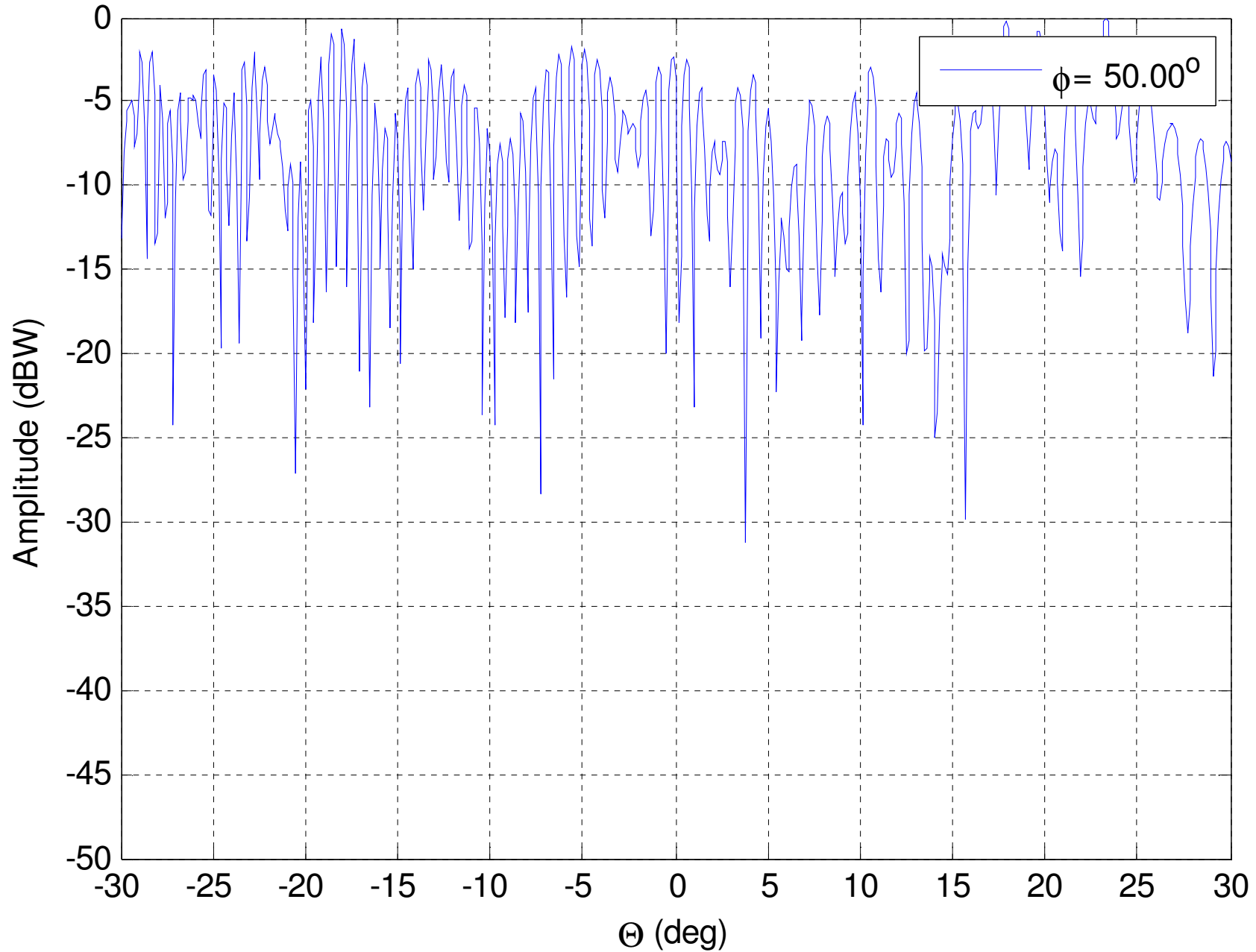
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-40.cut, Peak: -1.53 dBW, Date: 16-Dec-2011



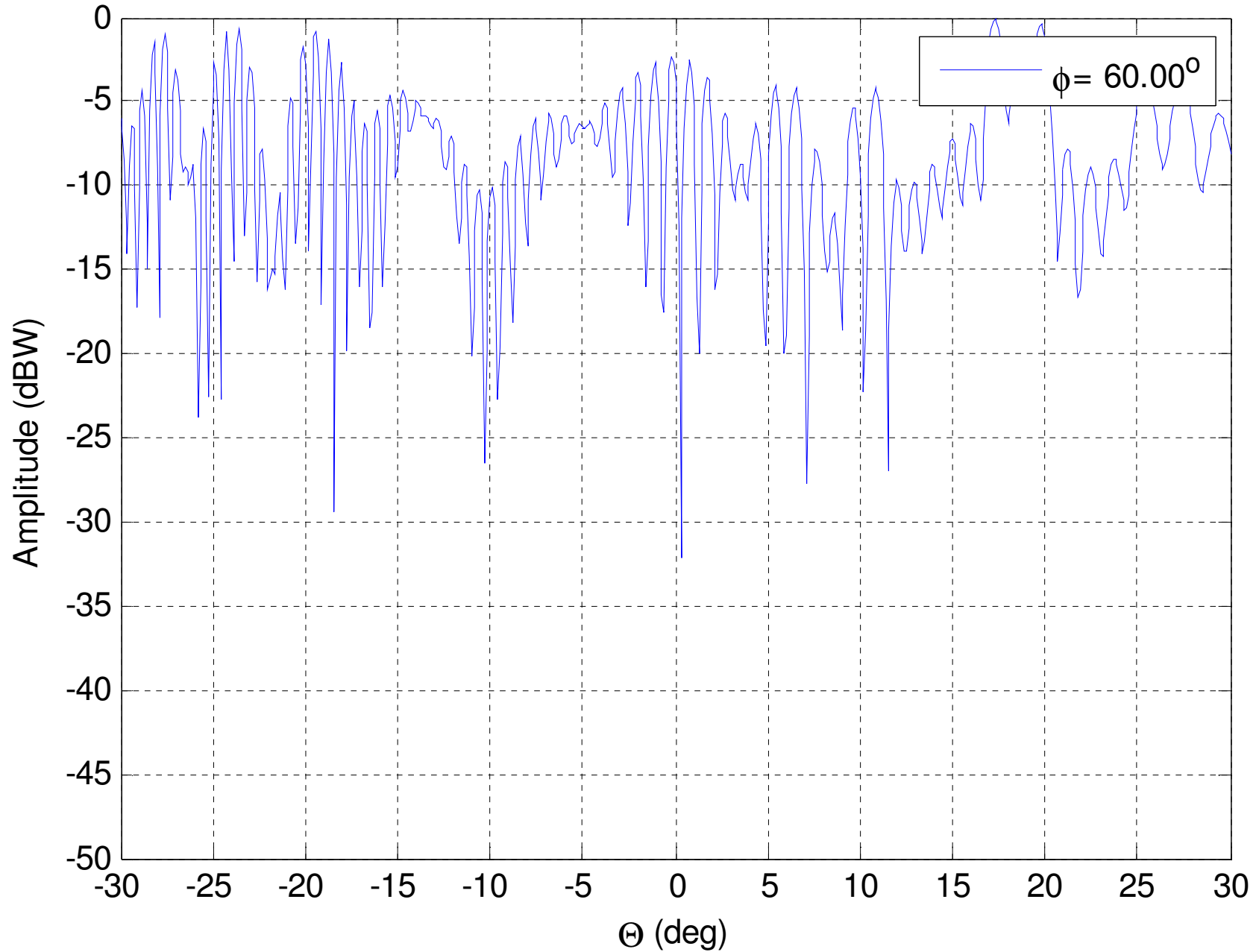
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-50.cut, Peak: -2.28 dBW, Date: 16-Dec-2011



Normalized pattern cuts - farfield

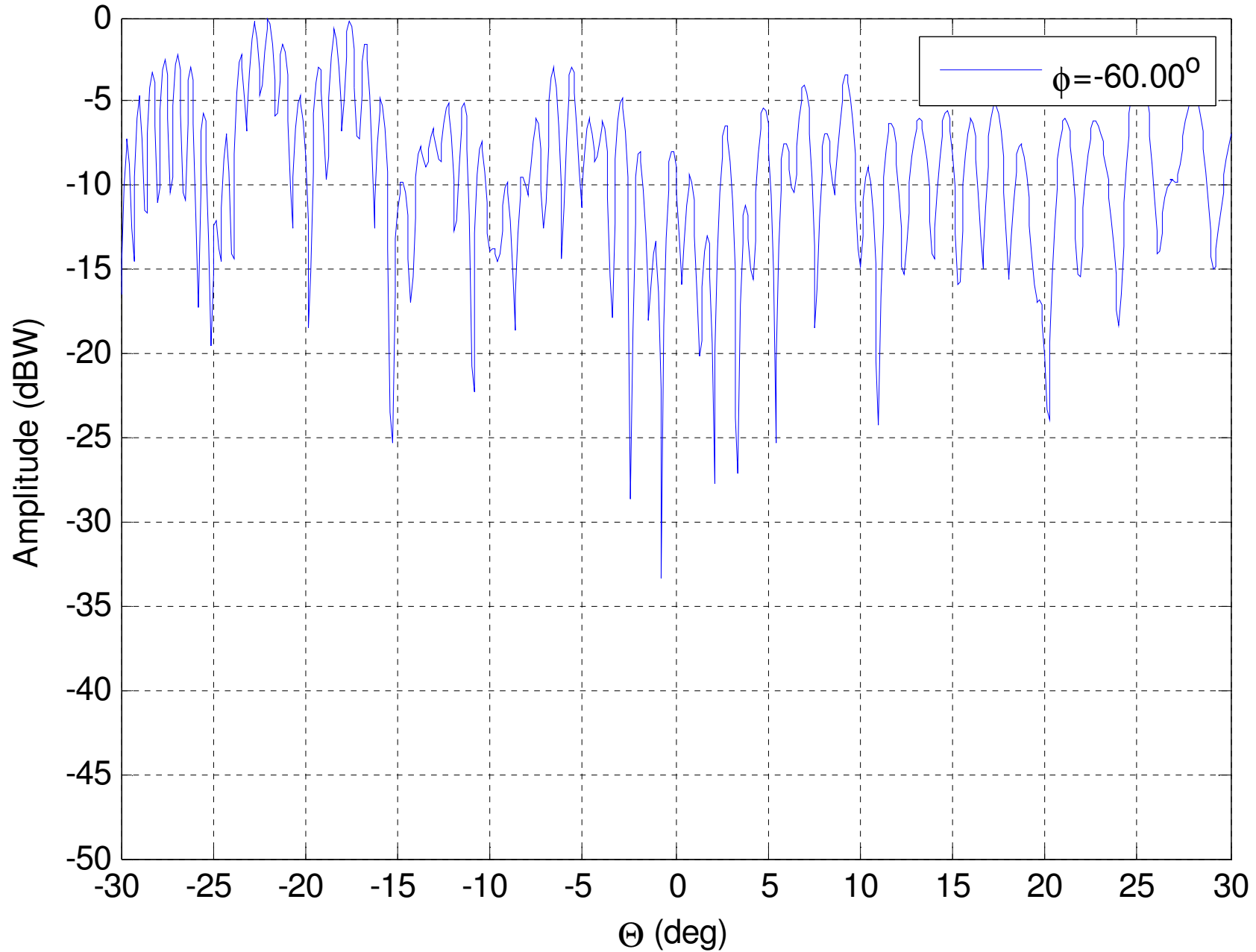
Input file: tx-17.5-lhcp-60.cut, Peak: -2.13 dBW, Date: 16-Dec-2011



RHCP at 17.7 GHz

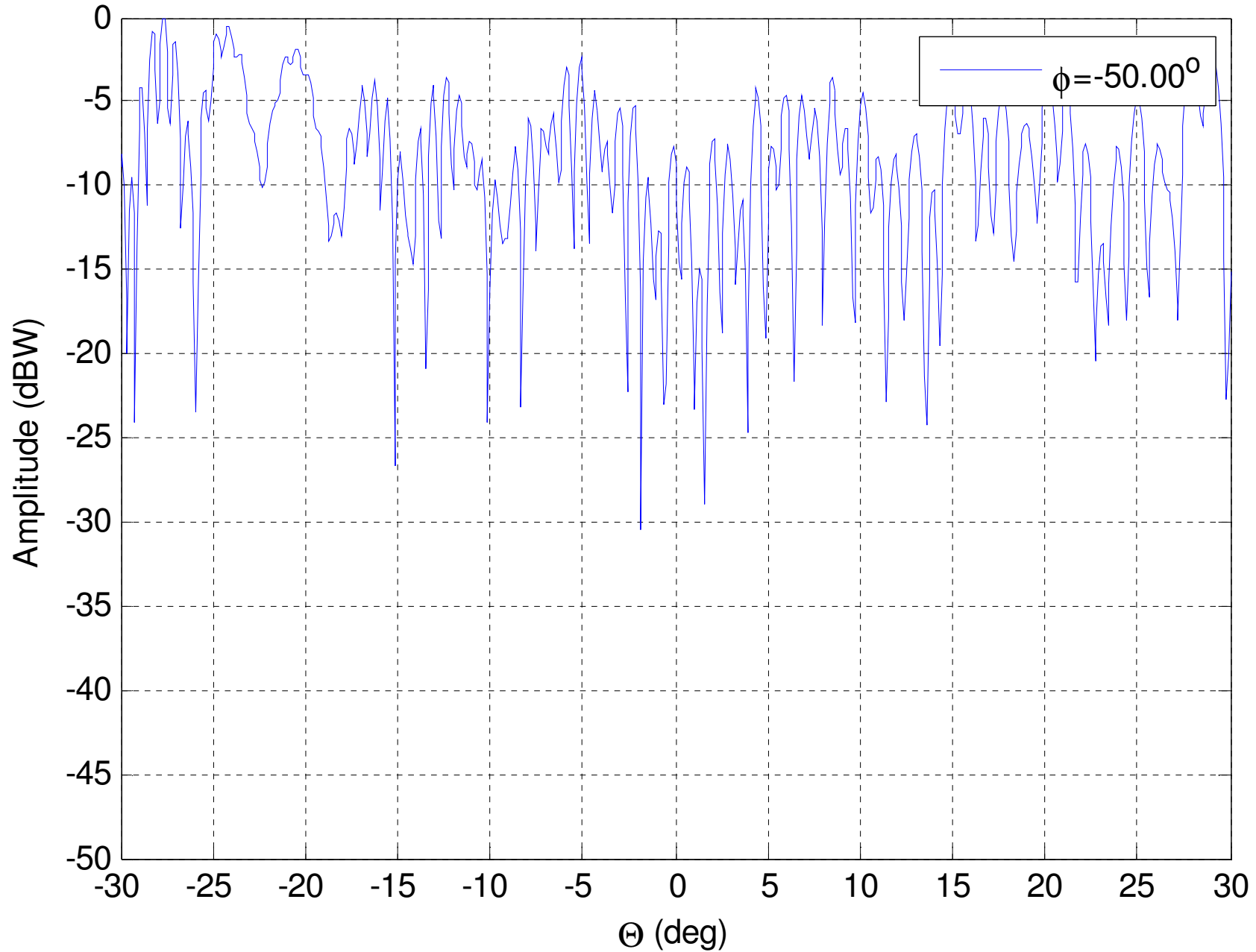
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--60.cut, Peak: -2.23 dBW, Date: 16-Dec-2011



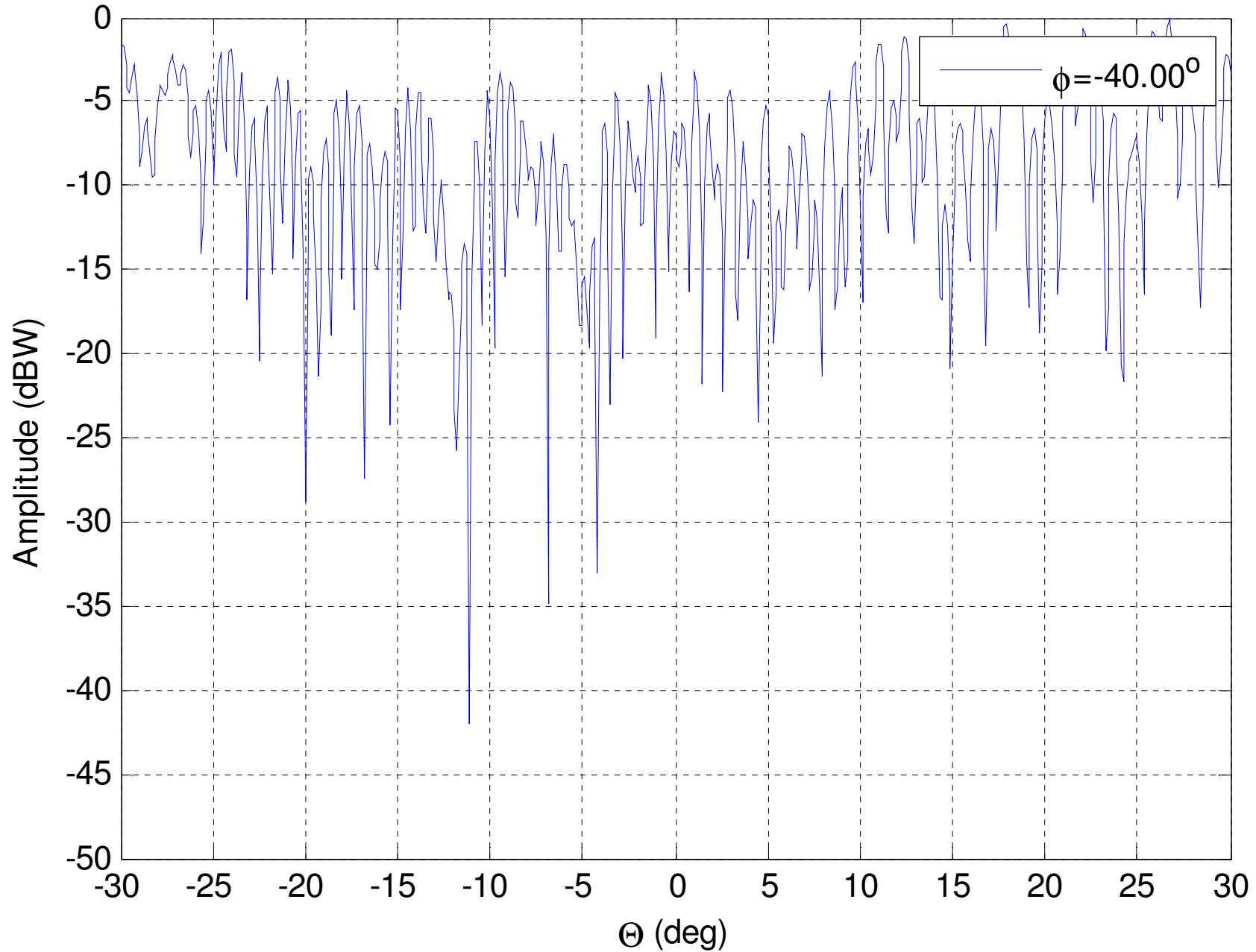
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--50.cut, Peak: -2.36 dBW, Date: 16-Dec-2011



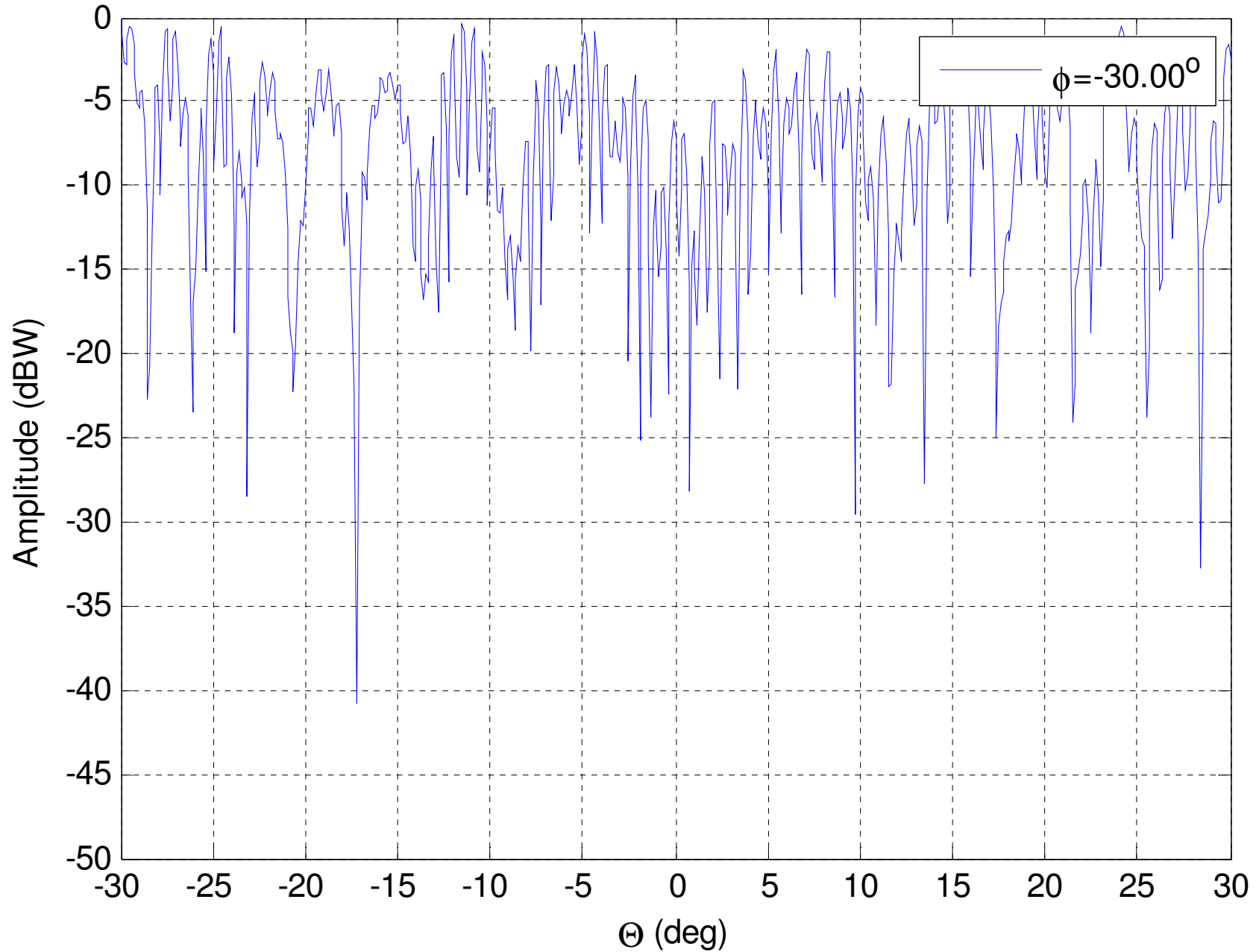
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--40.cut, Peak: -2.03 dBW, Date: 16-Dec-2011



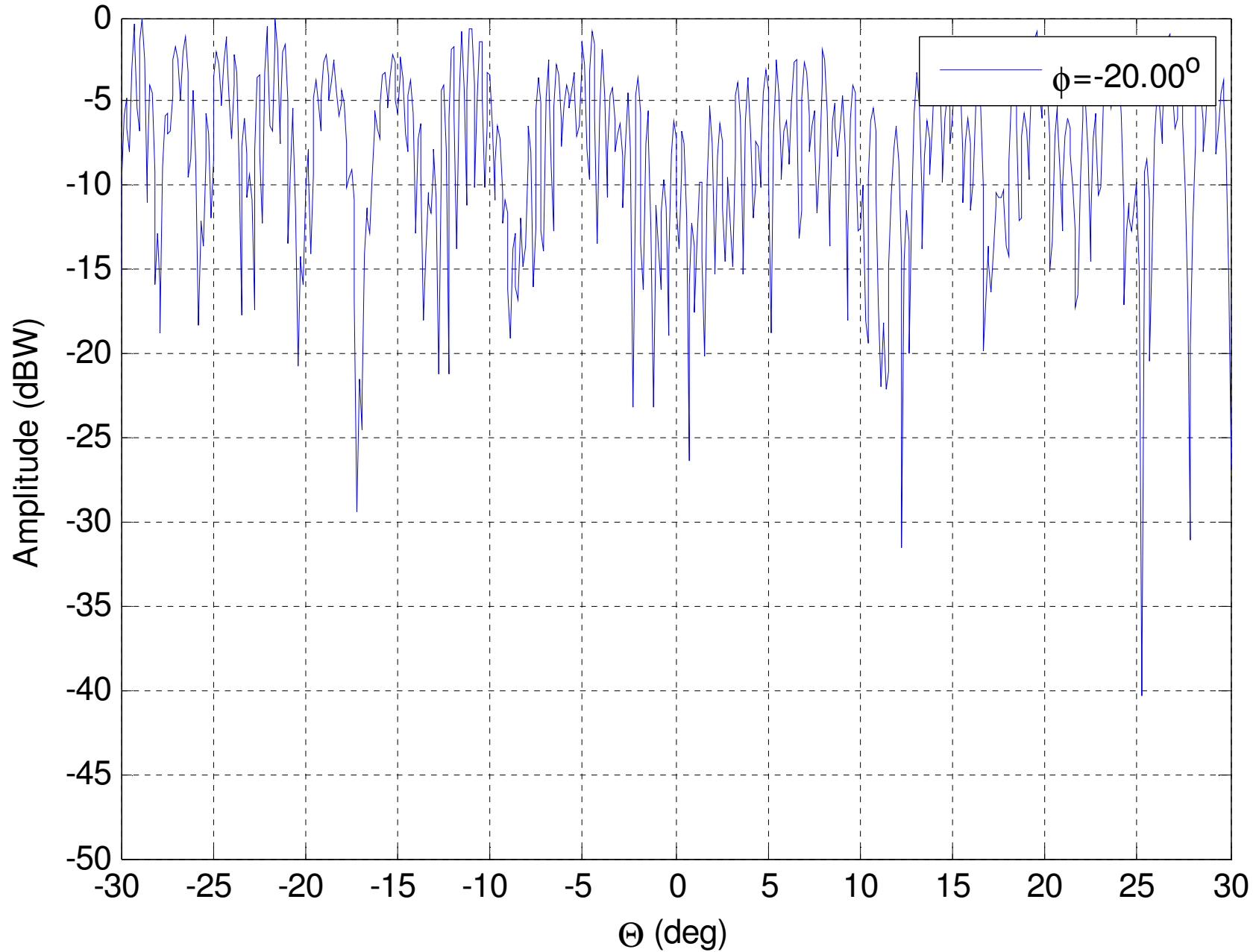
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--30.cut, Peak: -3.90 dBW, Date: 16-Dec-2011



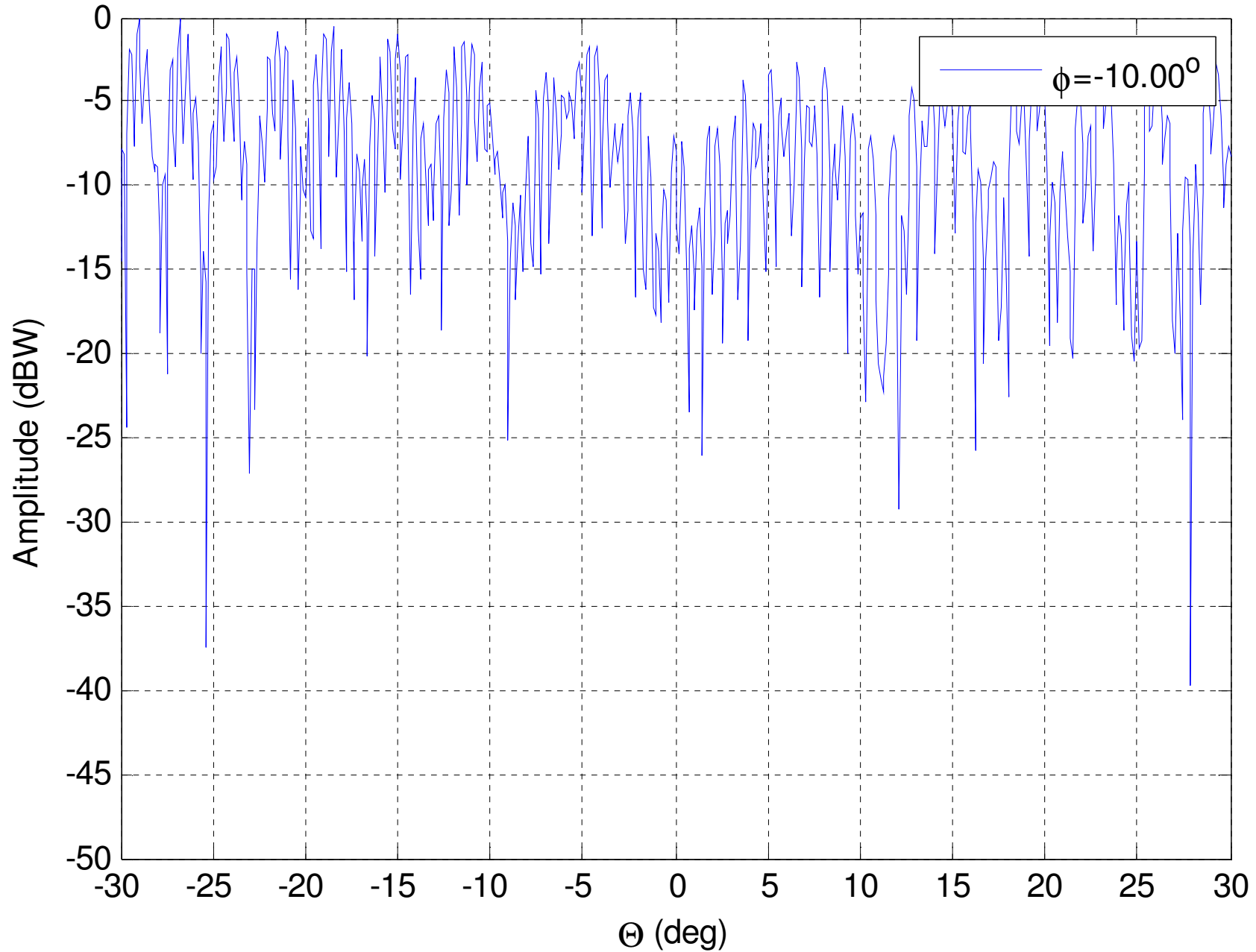
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--20.cut, Peak: -3.81 dBW, Date: 16-Dec-2011



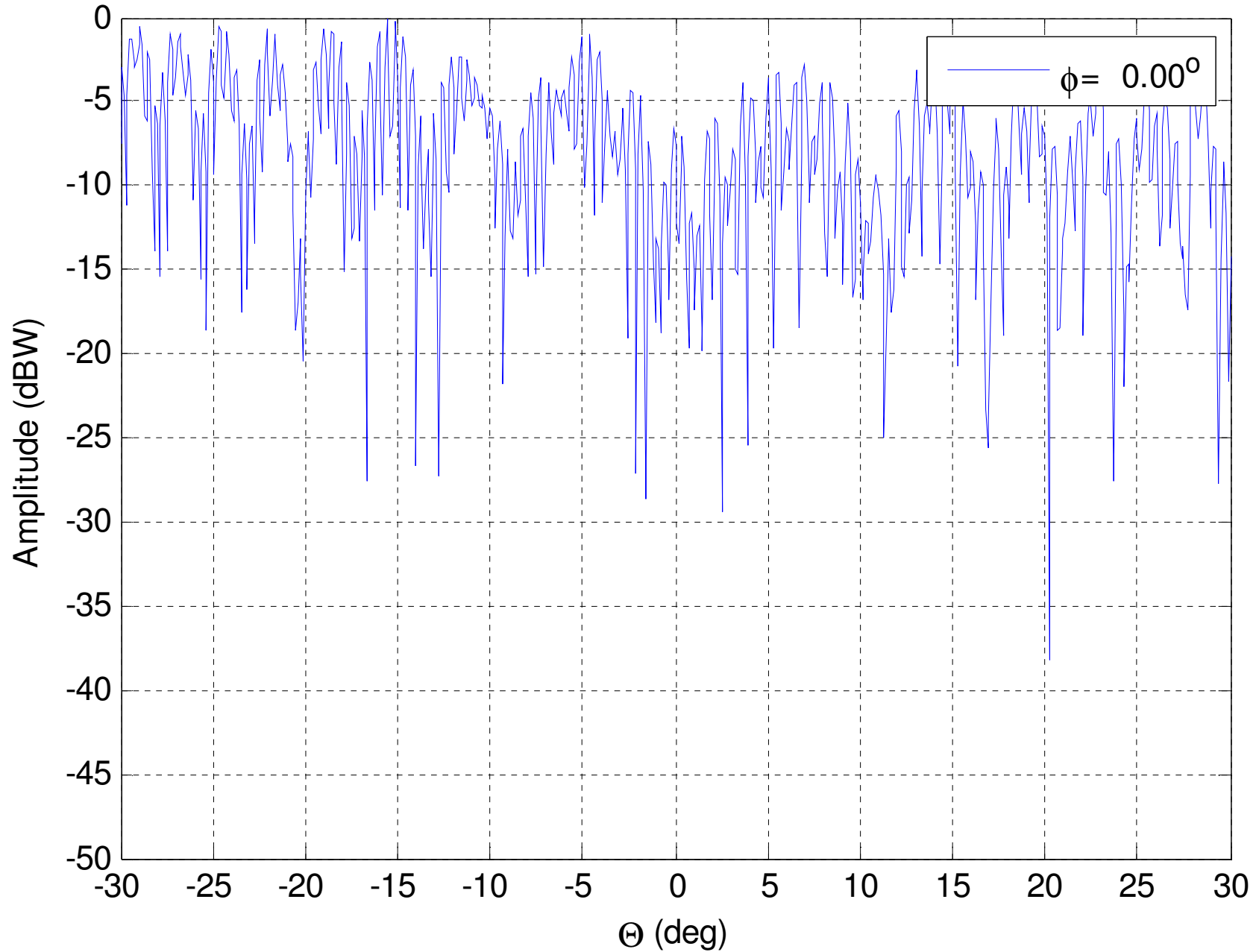
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--10.cut, Peak: -3.04 dBW, Date: 16-Dec-2011



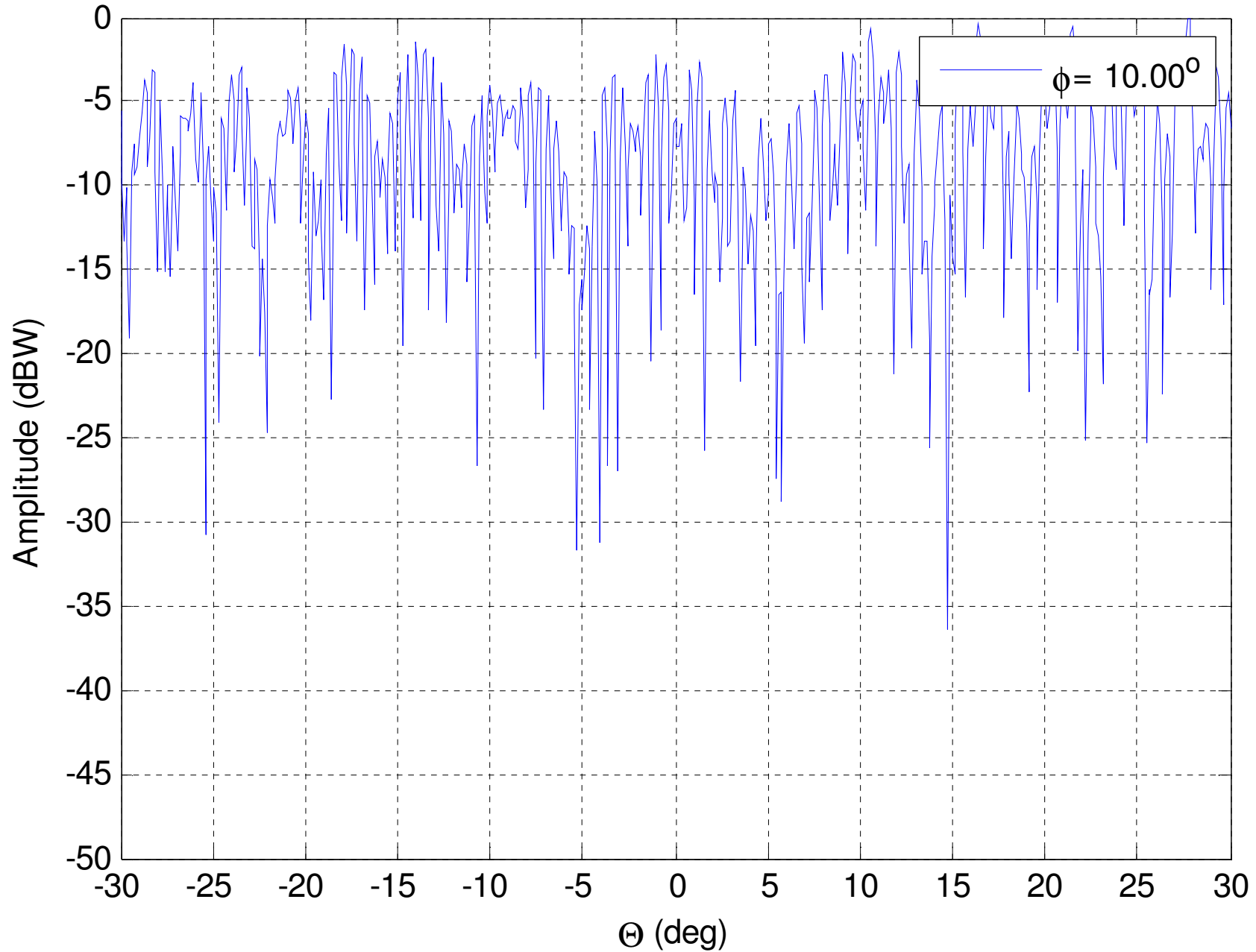
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-0.cut, Peak: -3.37 dBW, Date: 16-Dec-2011



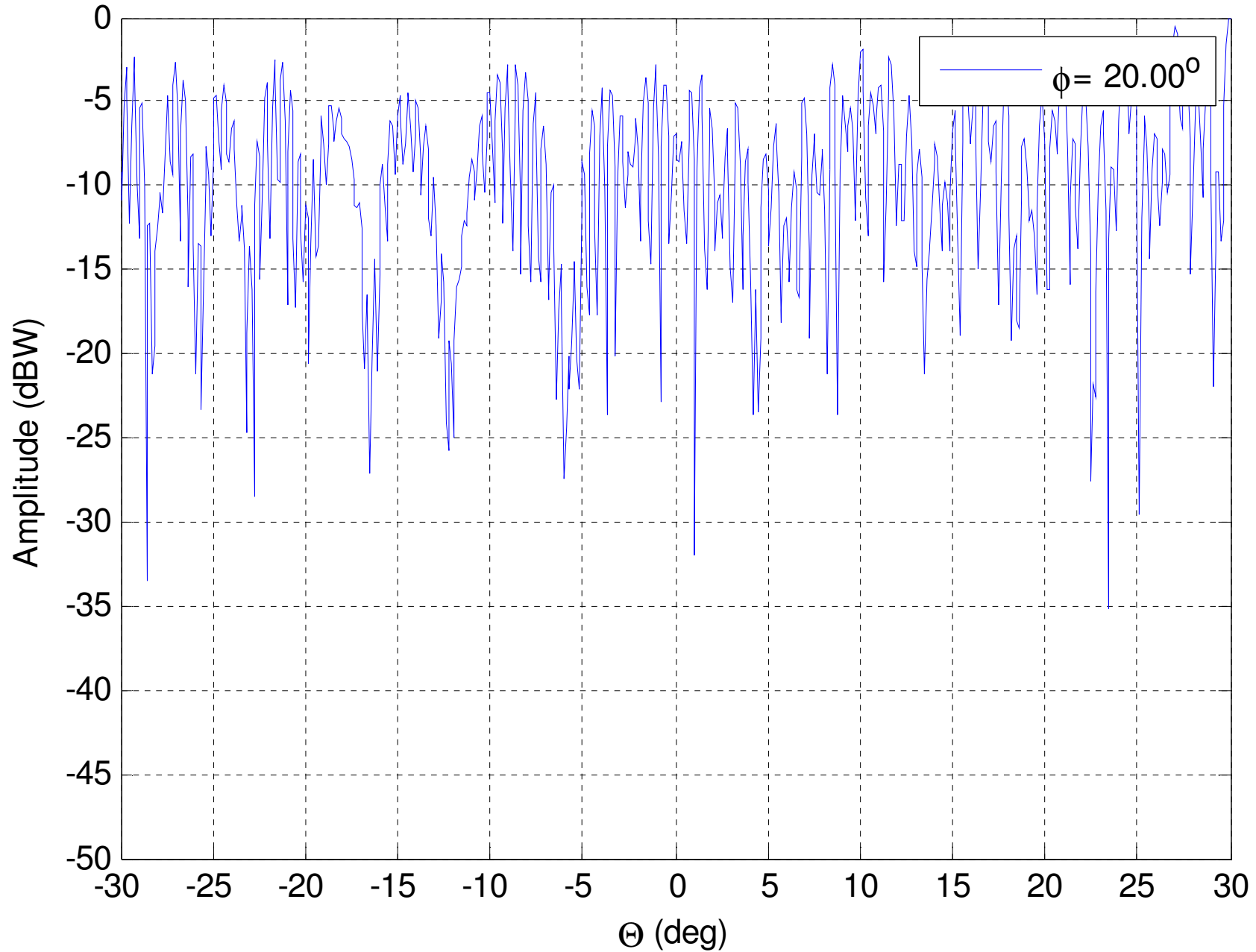
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-10.cut, Peak: -3.02 dBW, Date: 16-Dec-2011



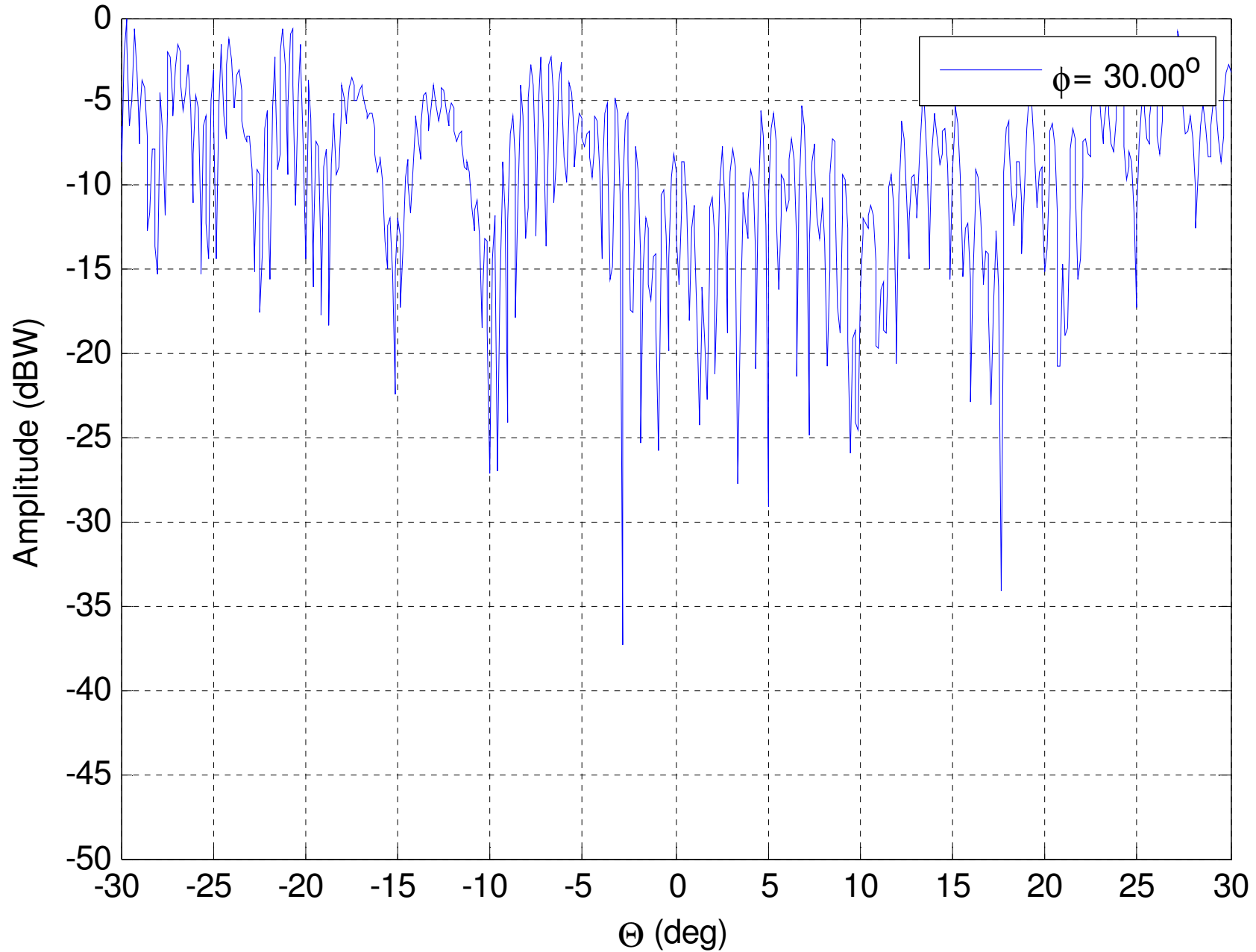
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-20.cut, Peak: -2.24 dBW, Date: 16-Dec-2011



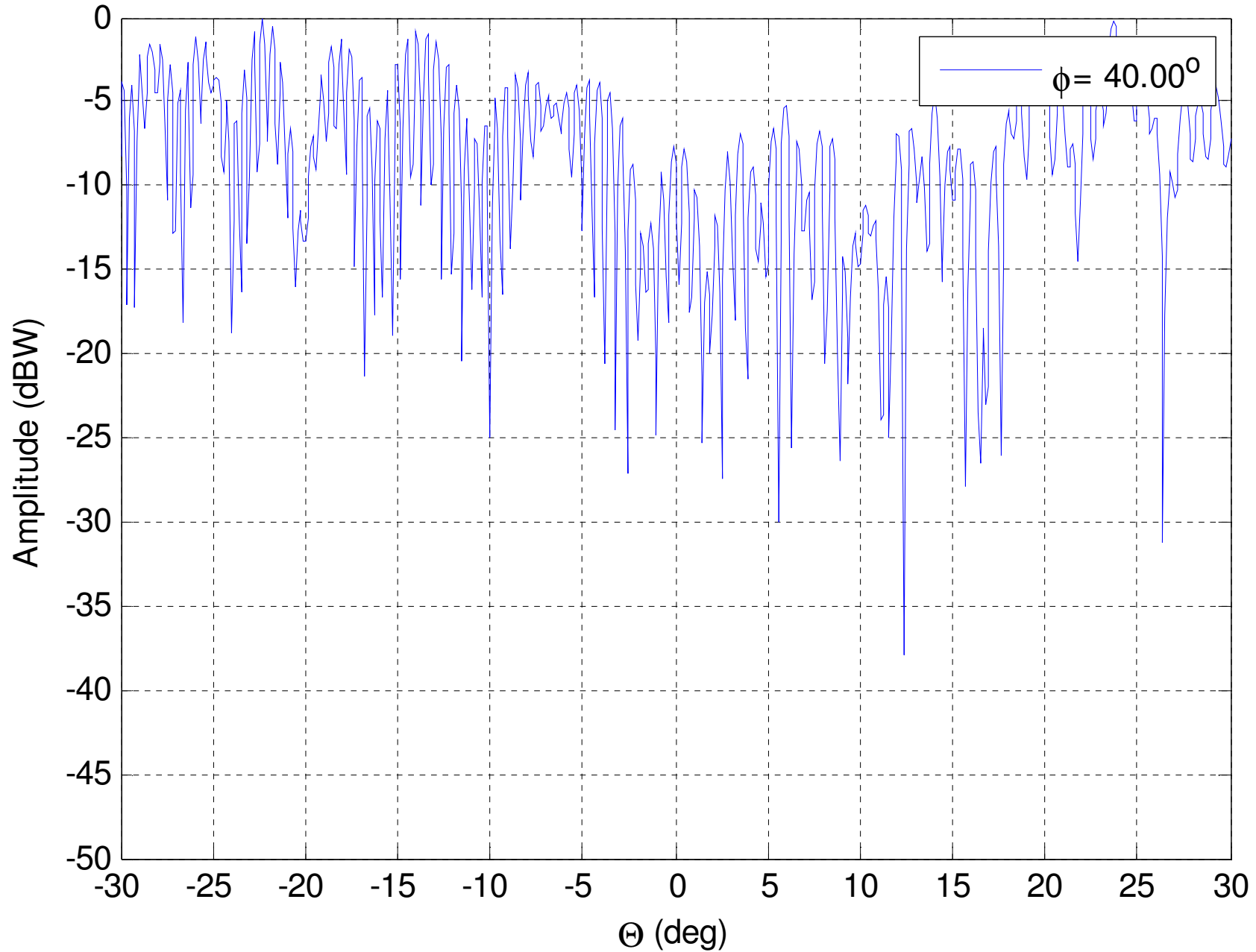
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-30.cut, Peak: -1.84 dBW, Date: 16-Dec-2011



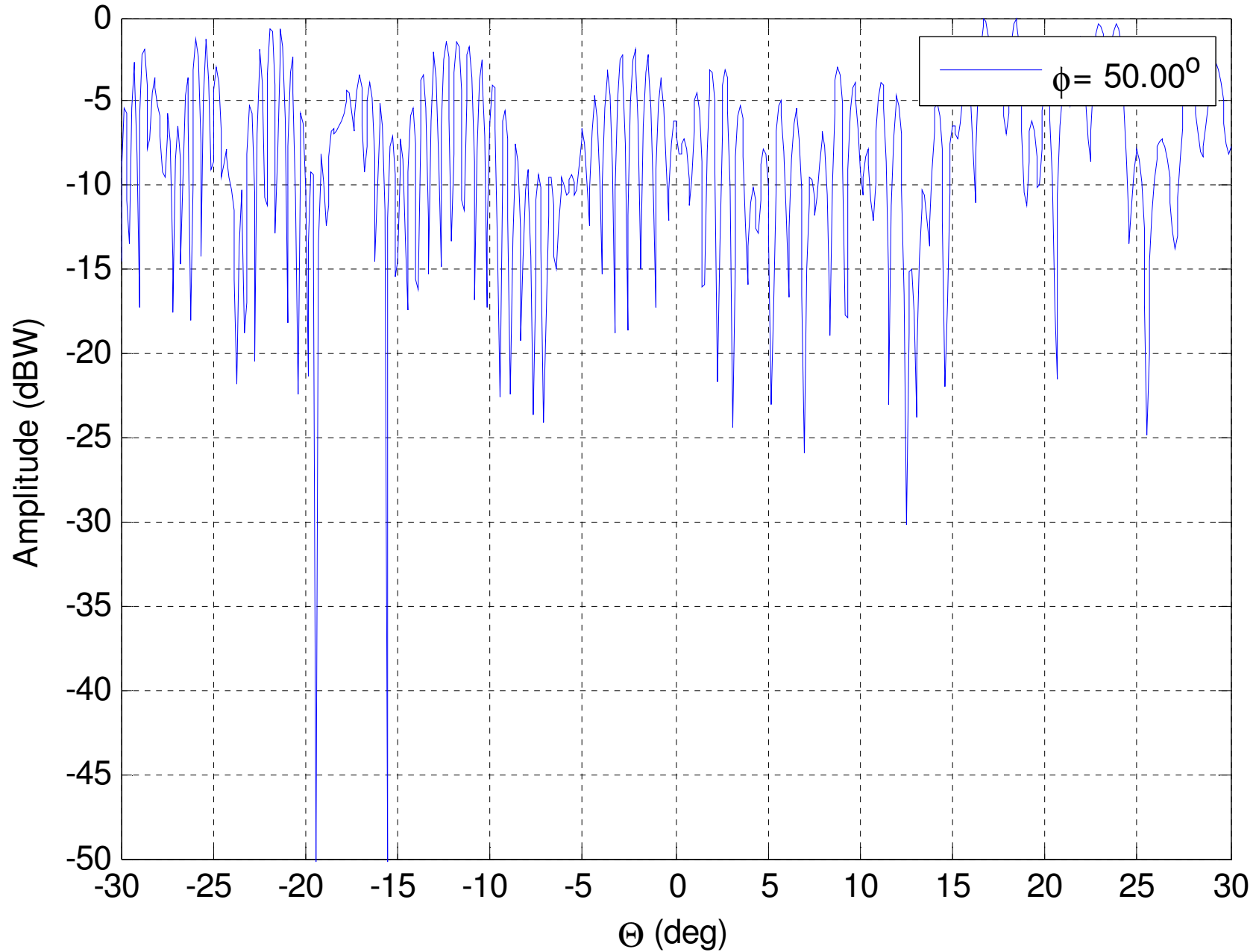
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-40.cut, Peak: -2.25 dBW, Date: 16-Dec-2011



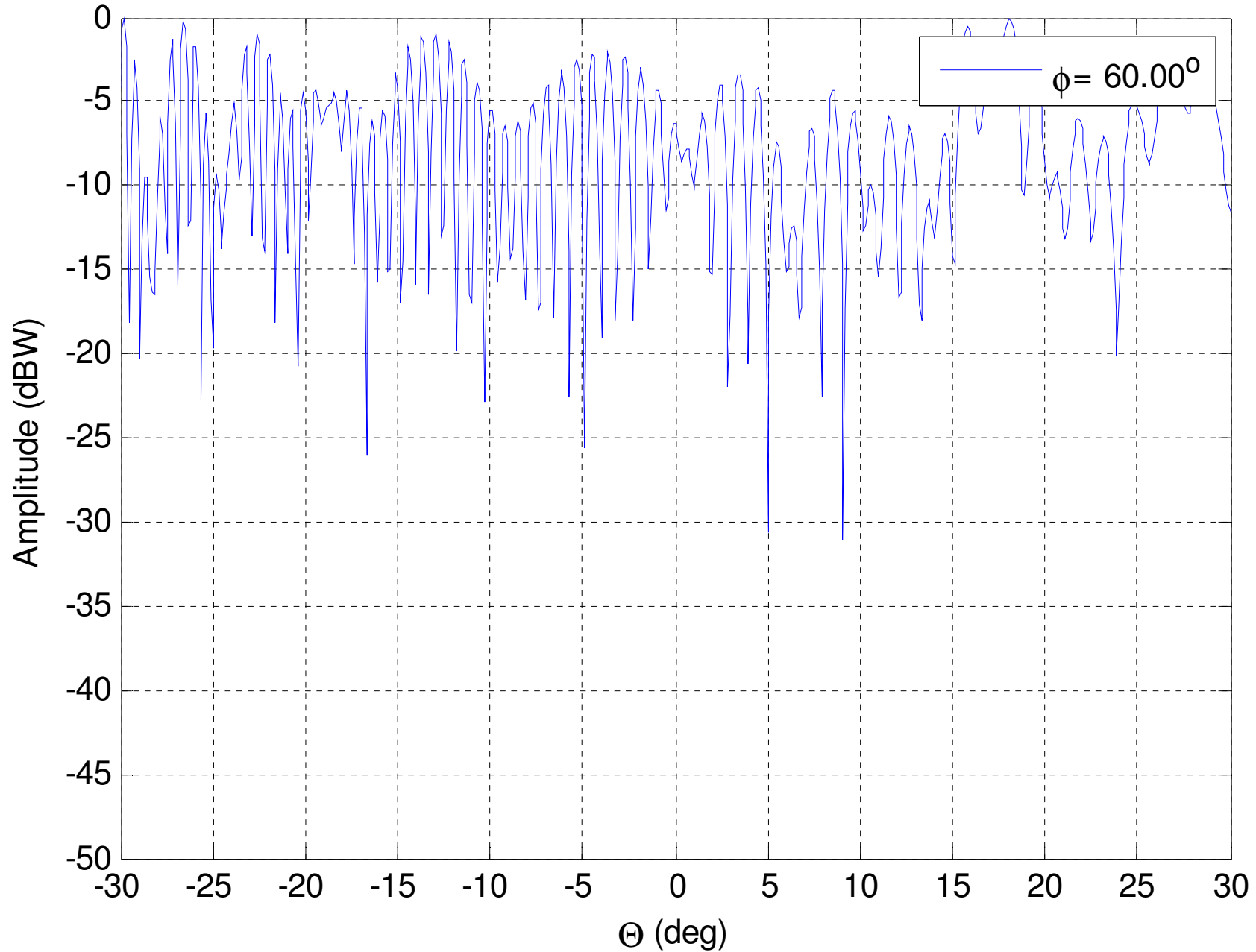
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-50.cut, Peak: -2.96 dBW, Date: 16-Dec-2011



Normalized pattern cuts - farfield

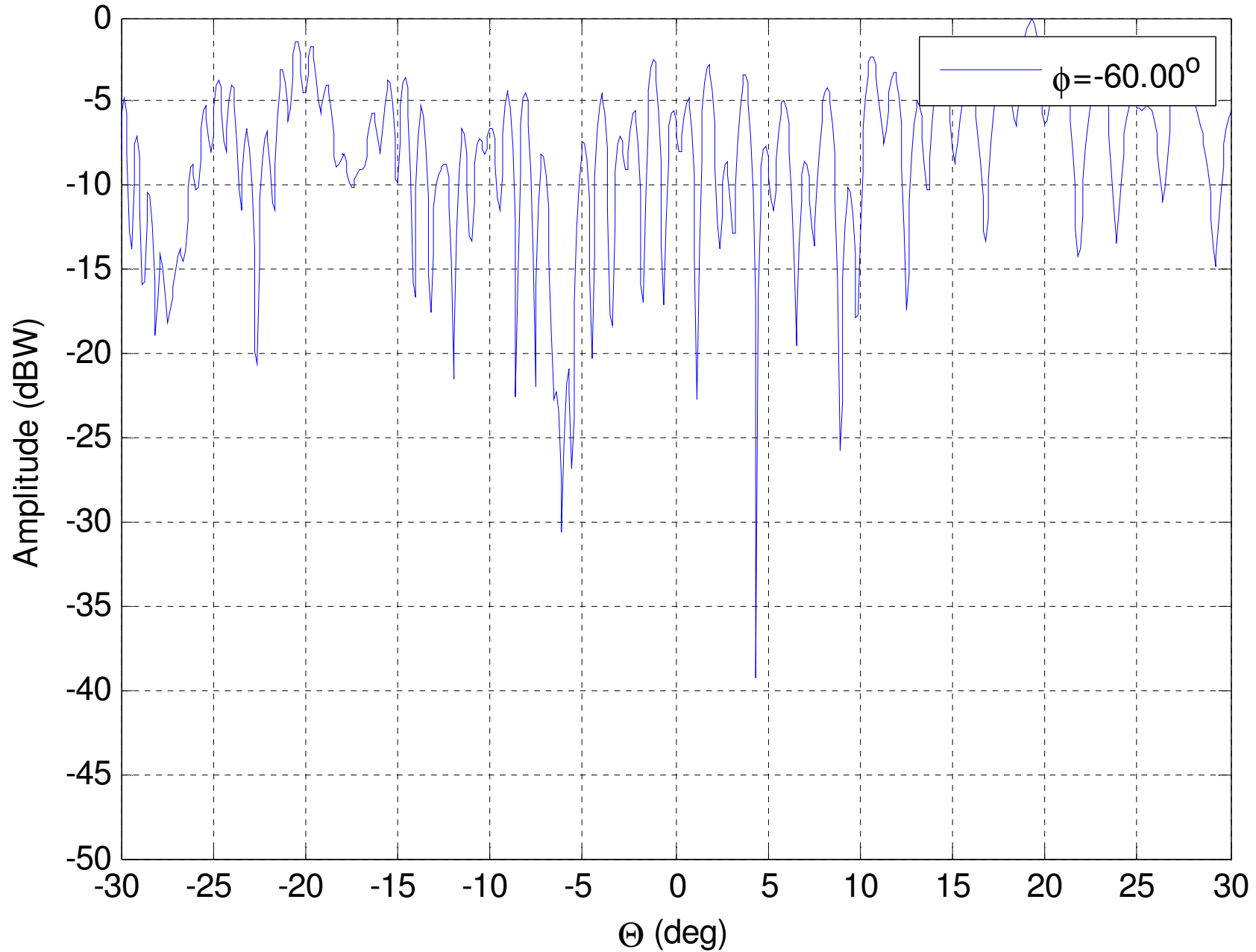
Input file: tx-17.7-rhcp-60.cut, Peak: -2.80 dBW, Date: 16-Dec-2011



LHCP at 17.7 GHz

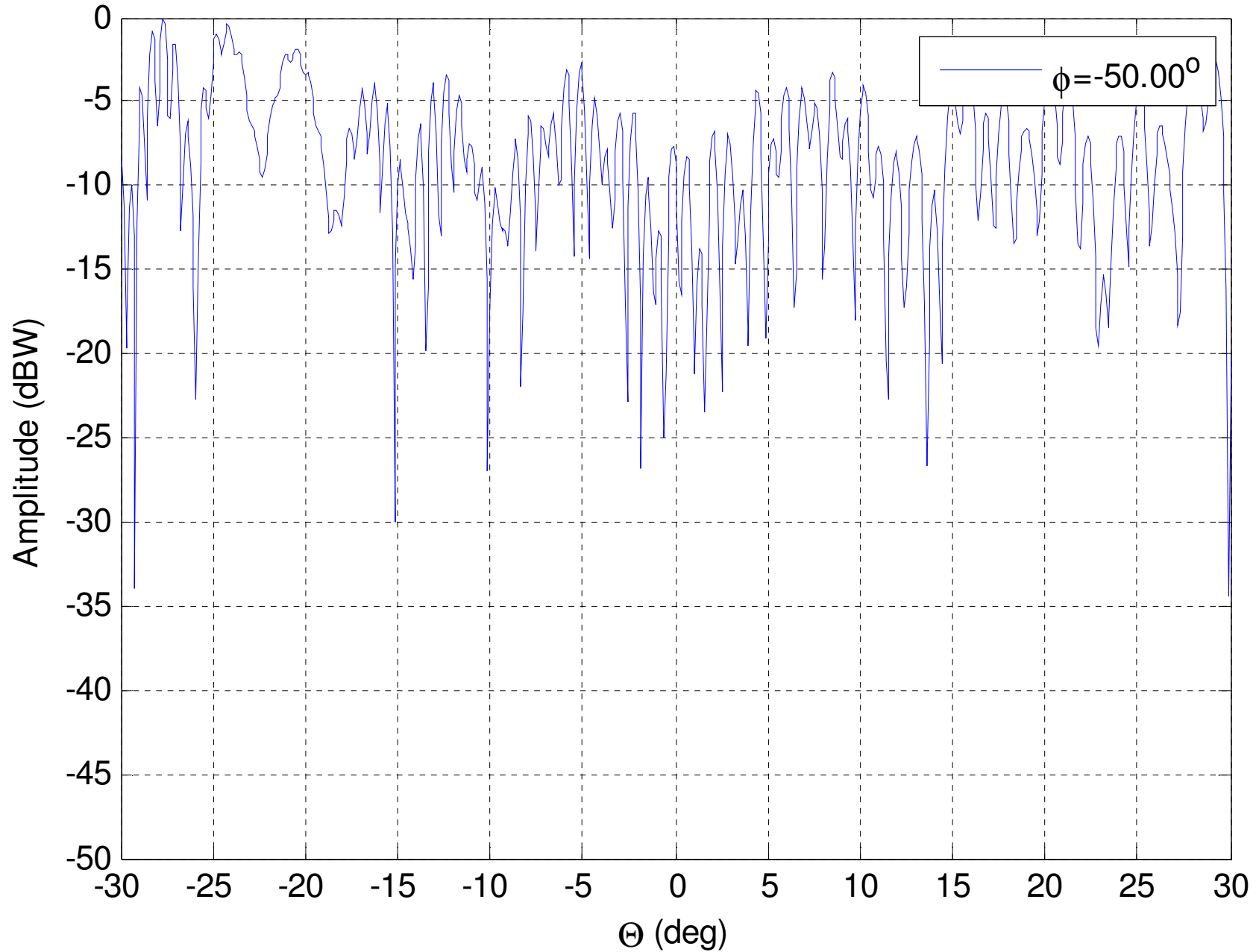
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--60.cut, Peak: -2.34 dBW, Date: 16-Dec-2011



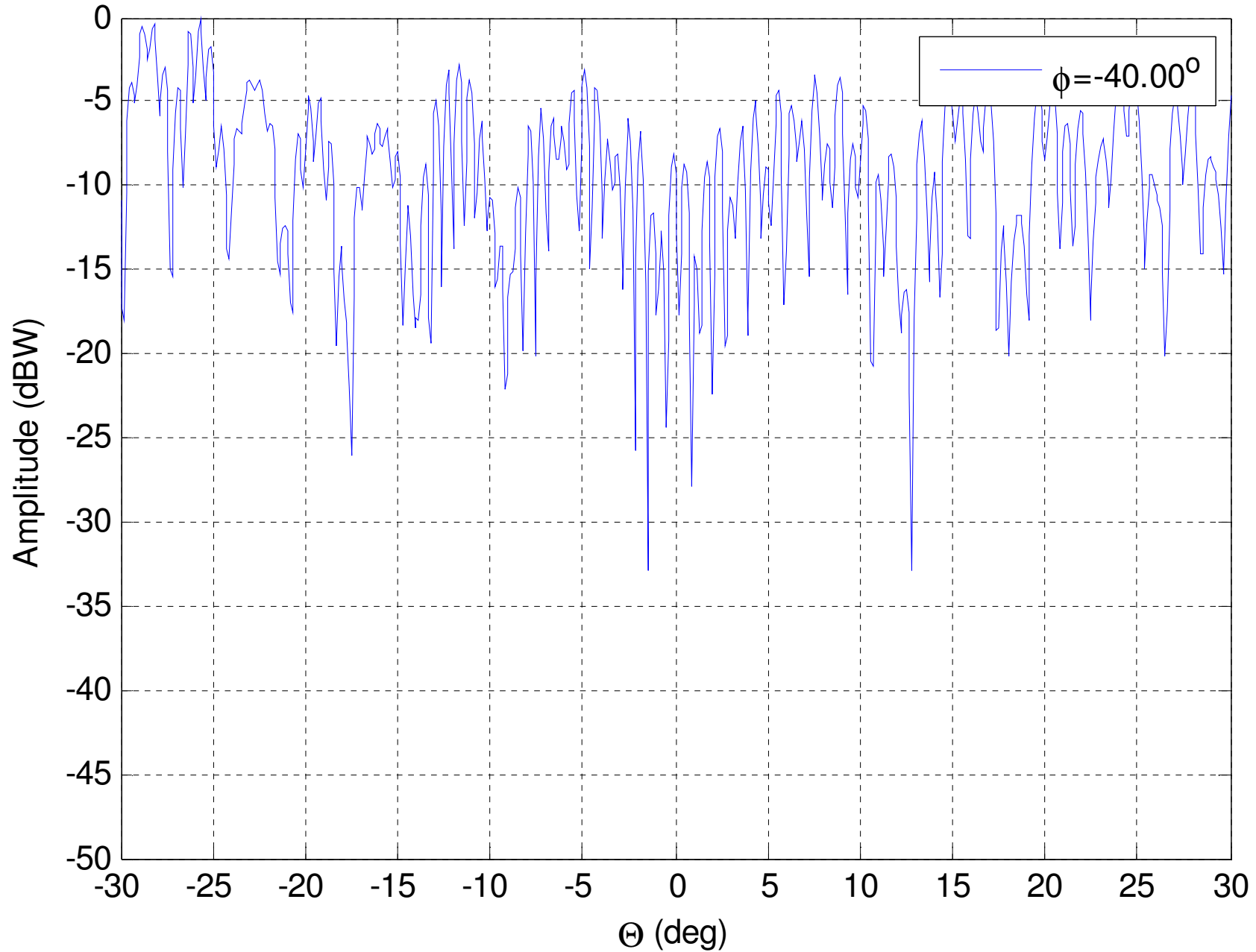
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--50.cut, Peak: -2.28 dBW, Date: 16-Dec-2011



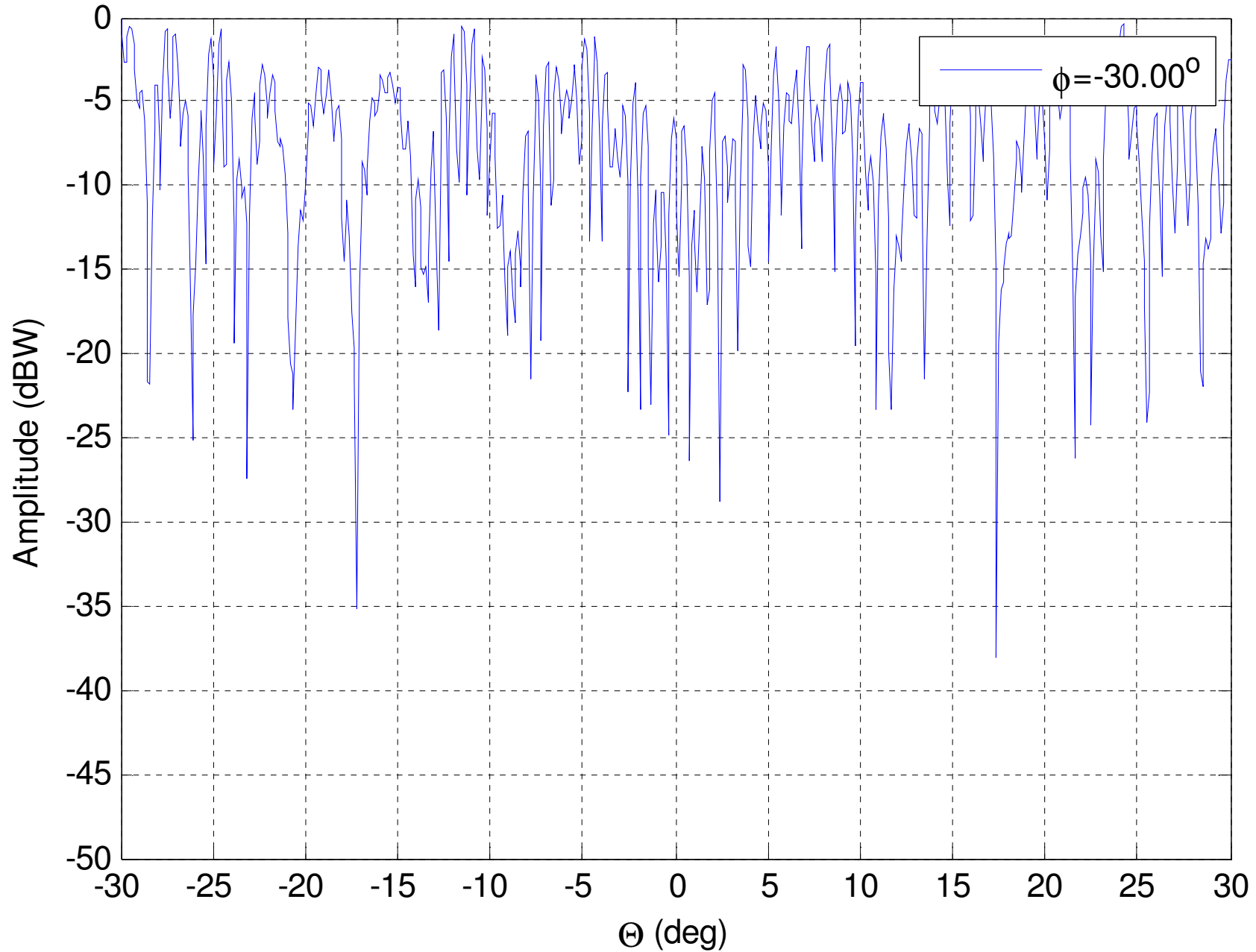
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--40.cut, Peak: -1.65 dBW, Date: 16-Dec-2011



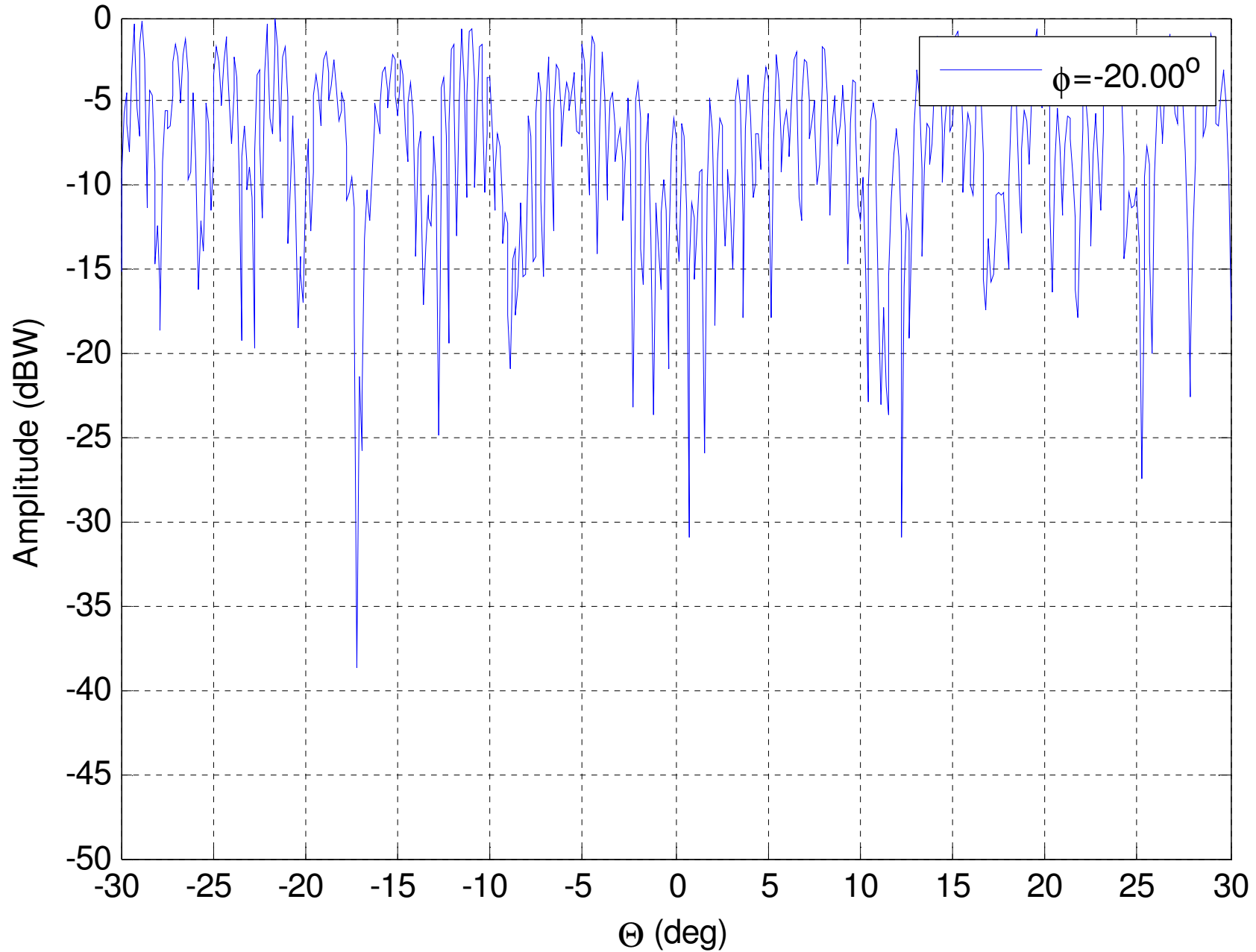
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--30.cut, Peak: -3.77 dBW, Date: 16-Dec-2011



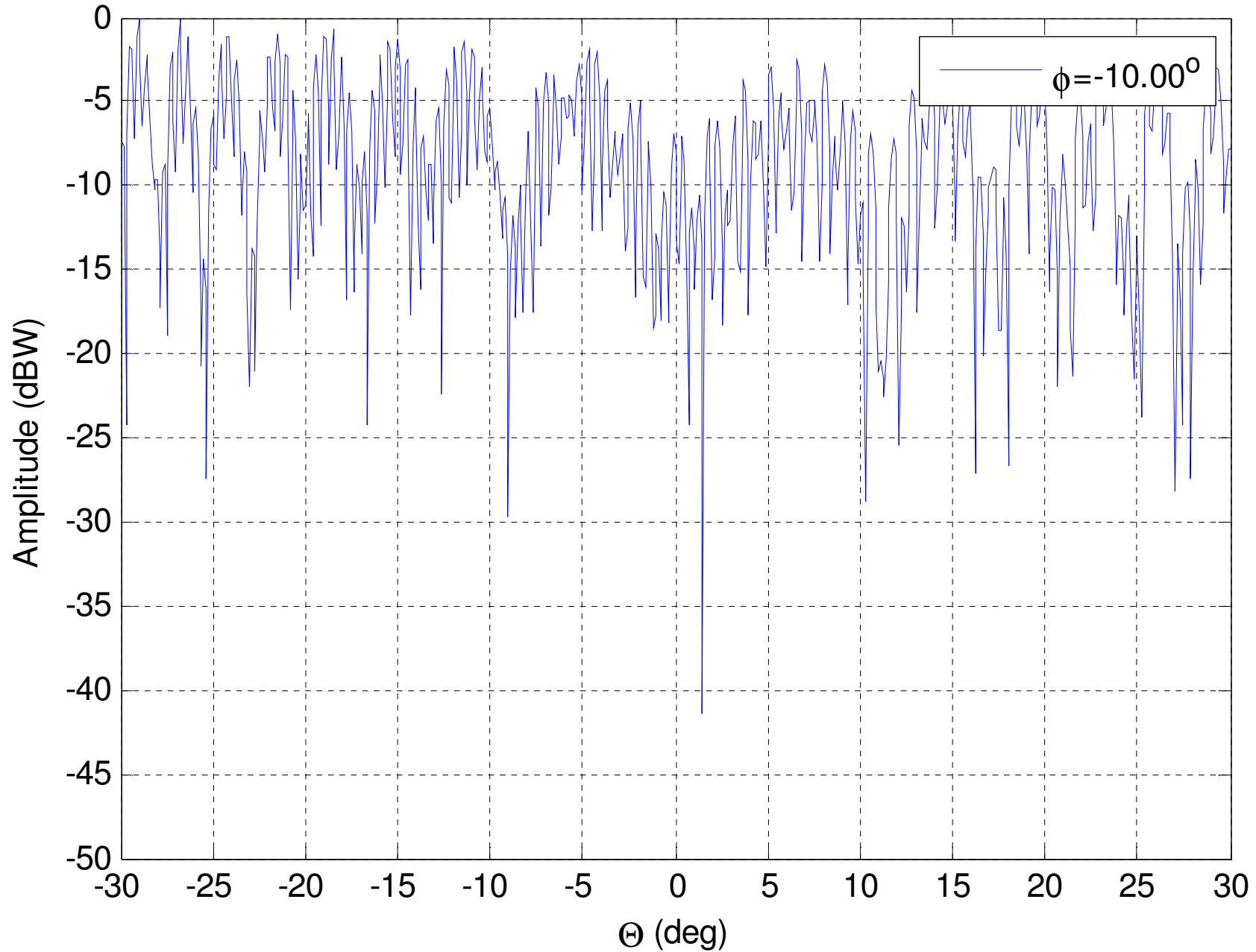
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--20.cut, Peak: -3.75 dBW, Date: 16-Dec-2011



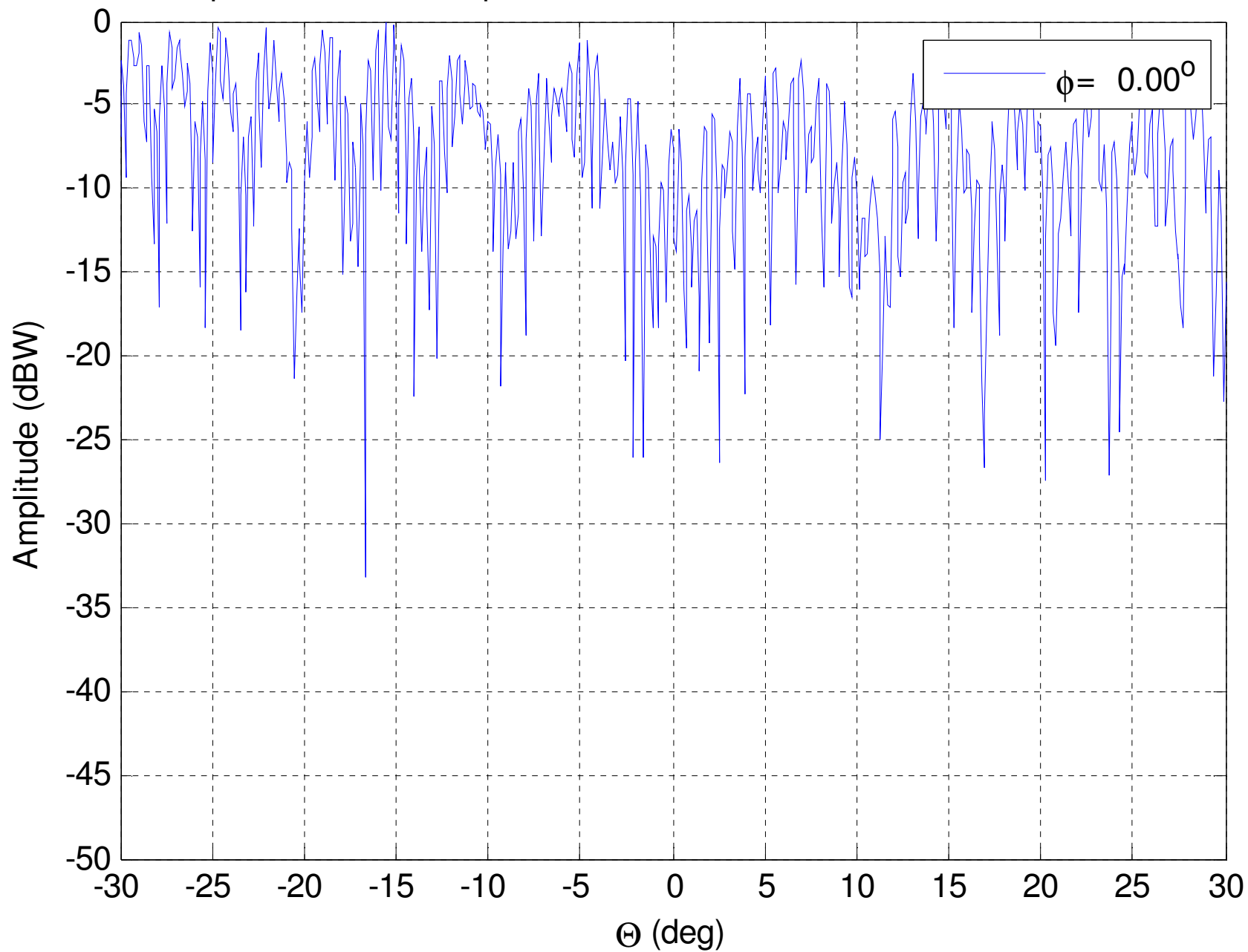
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--10.cut, Peak: -2.84 dBW, Date: 16-Dec-2011



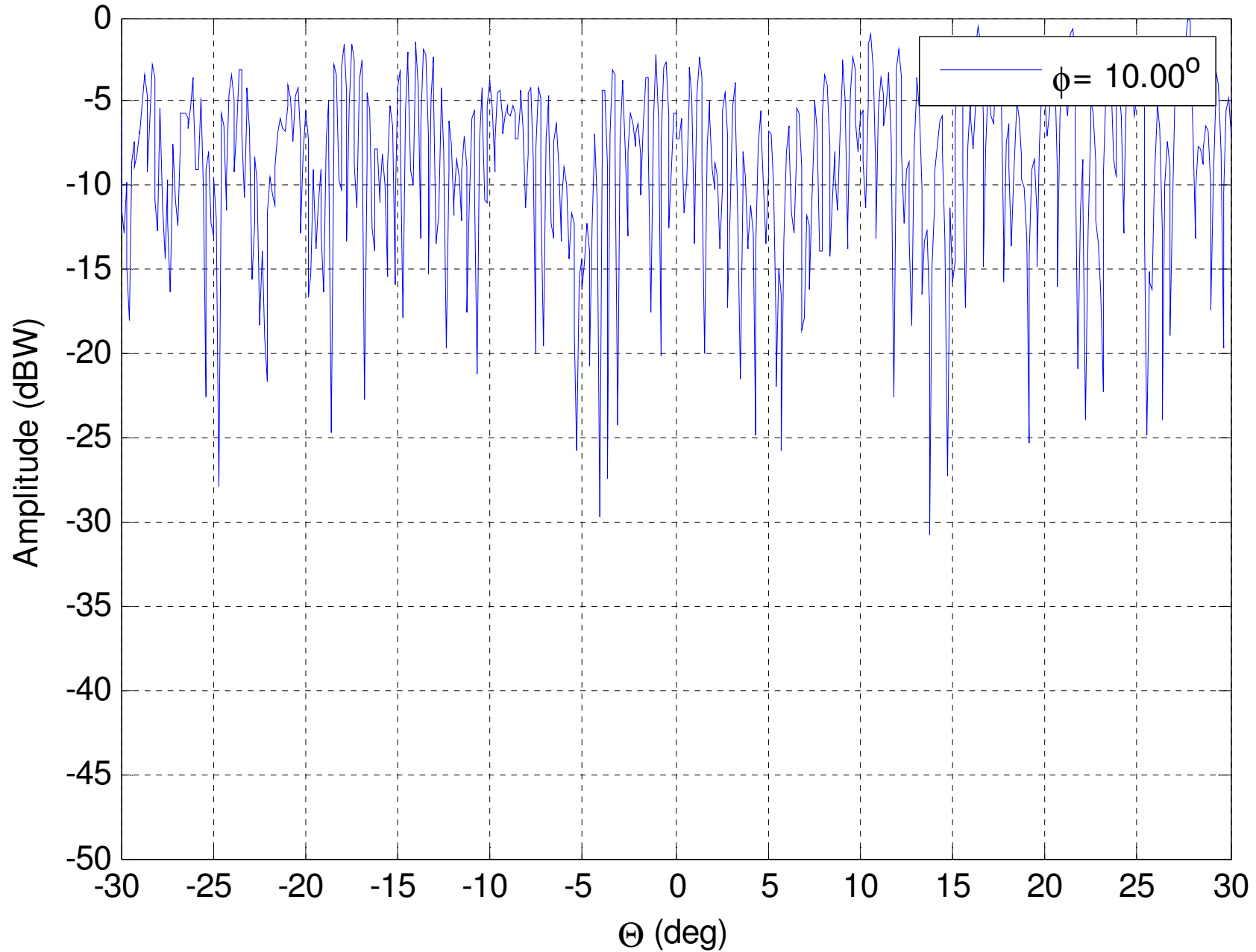
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-0.cut, Peak: -3.35 dBW, Date: 16-Dec-2011



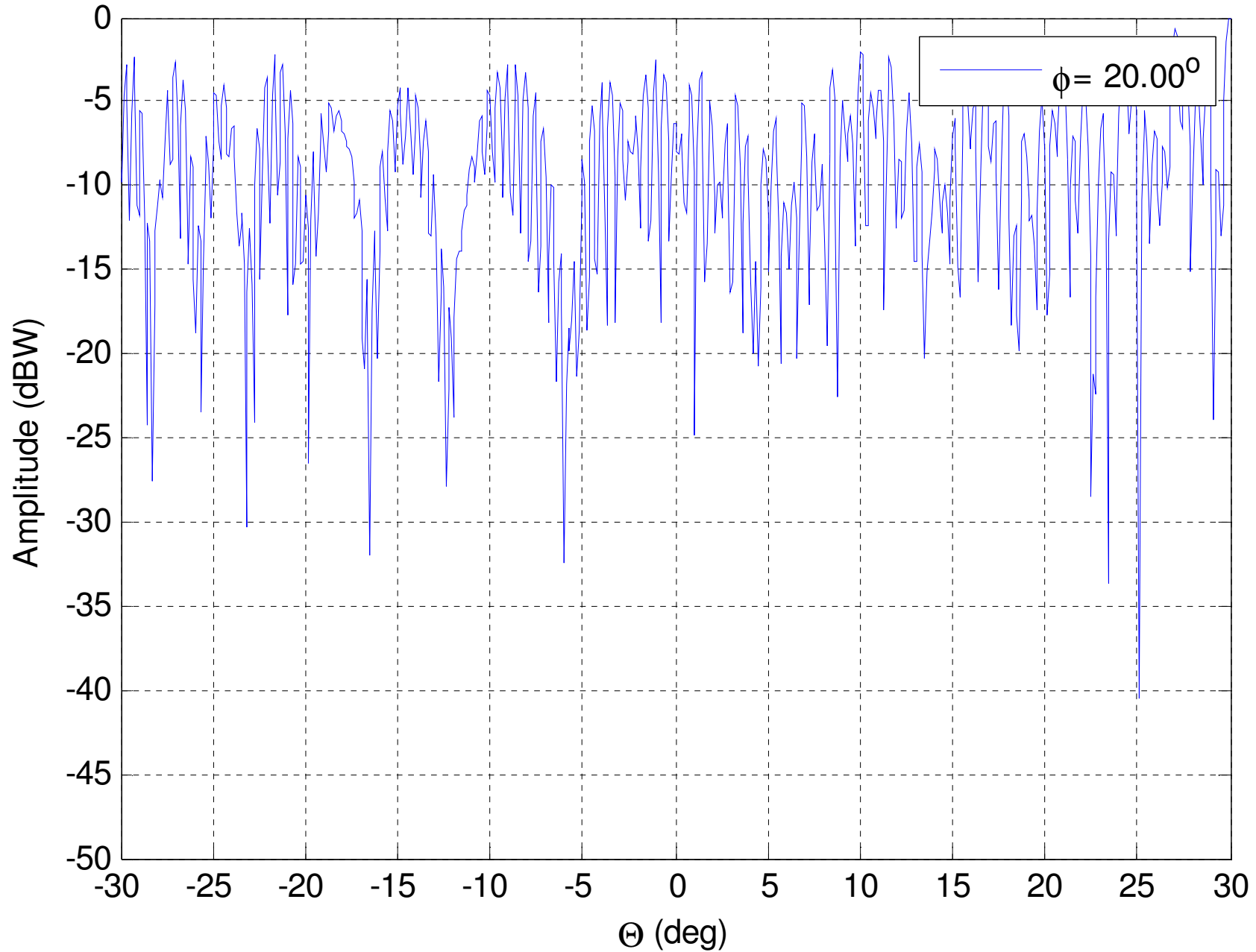
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-10.cut, Peak: -2.85 dBW, Date: 16-Dec-2011



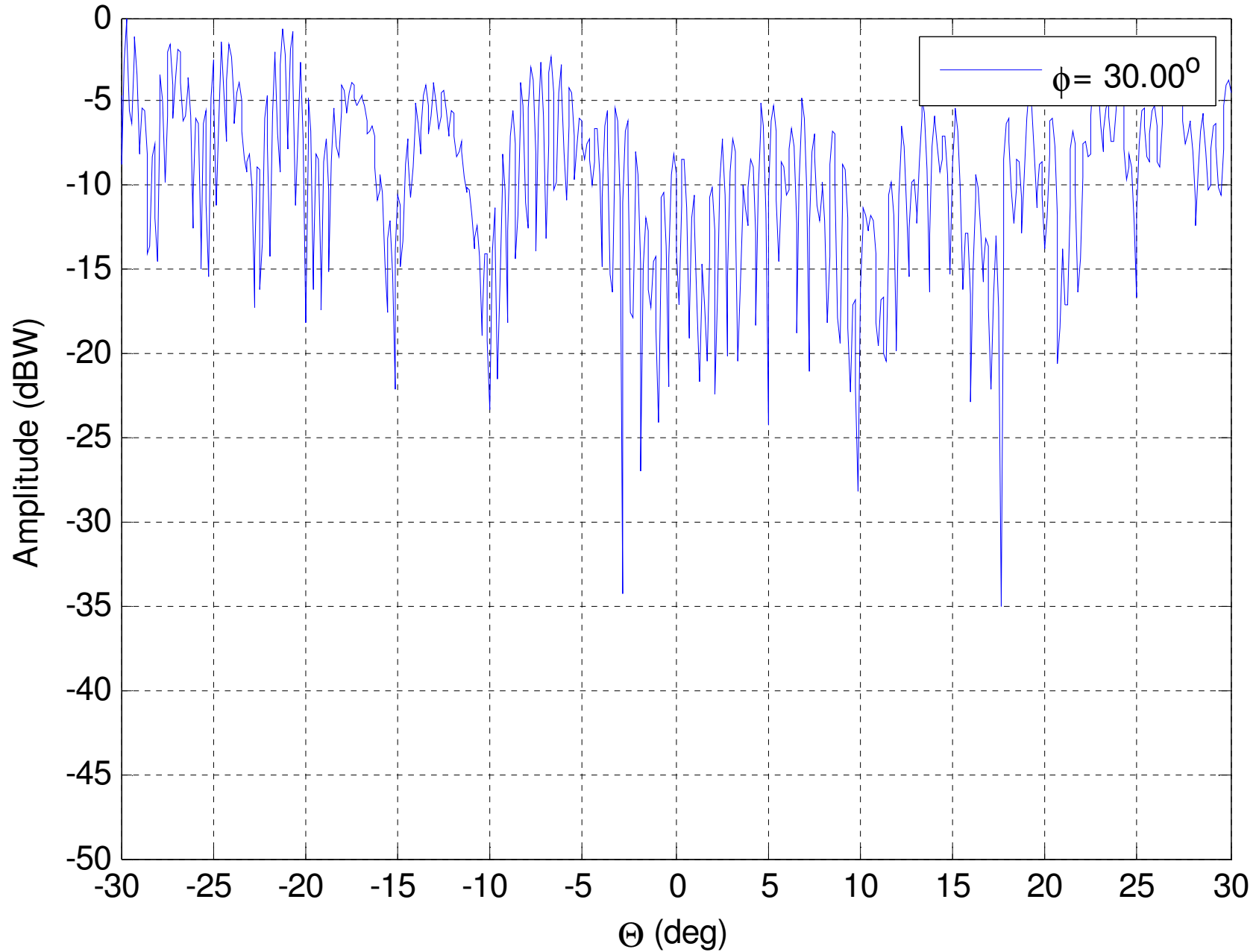
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-20.cut, Peak: -2.14 dBW, Date: 16-Dec-2011



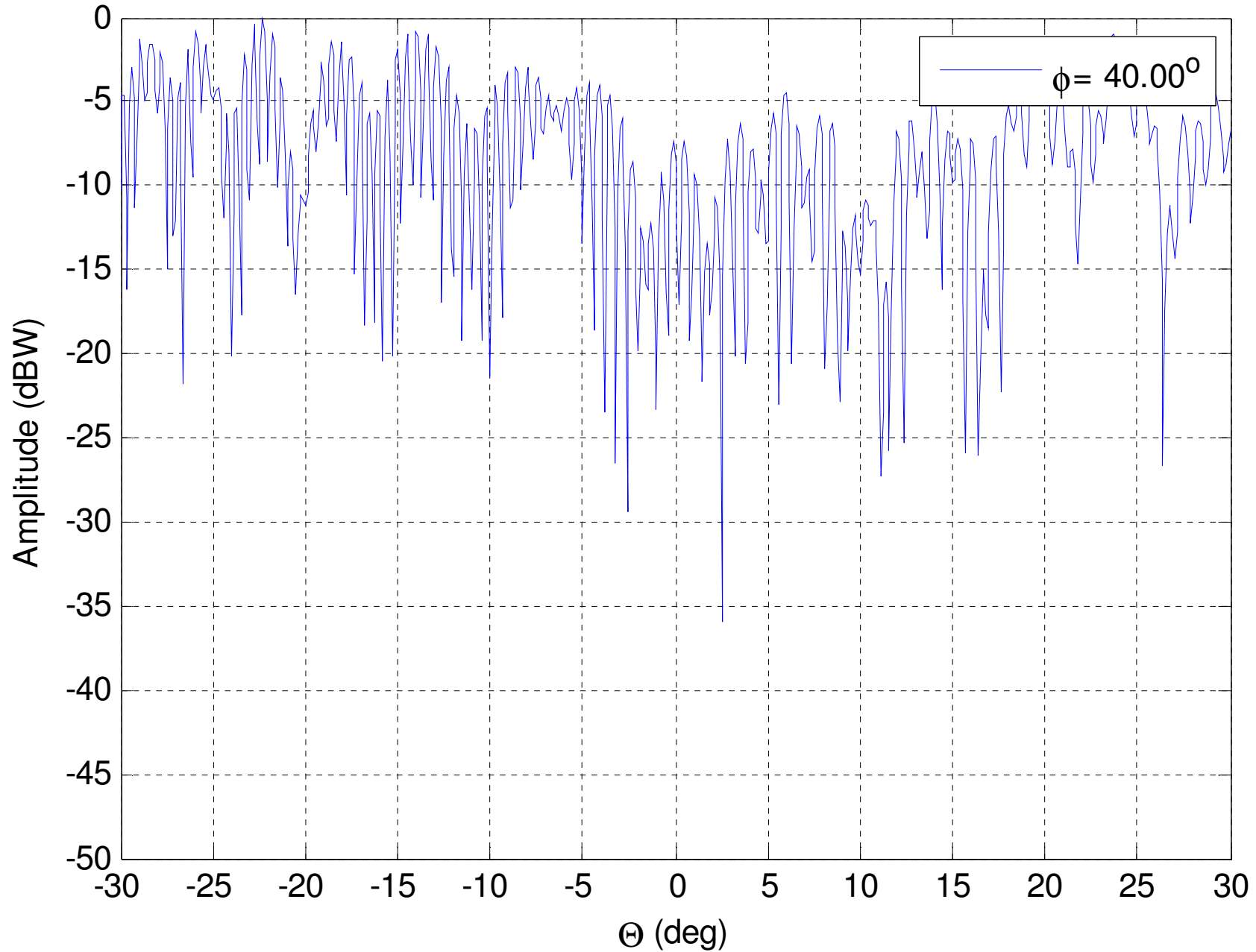
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-30.cut, Peak: -1.60 dBW, Date: 16-Dec-2011



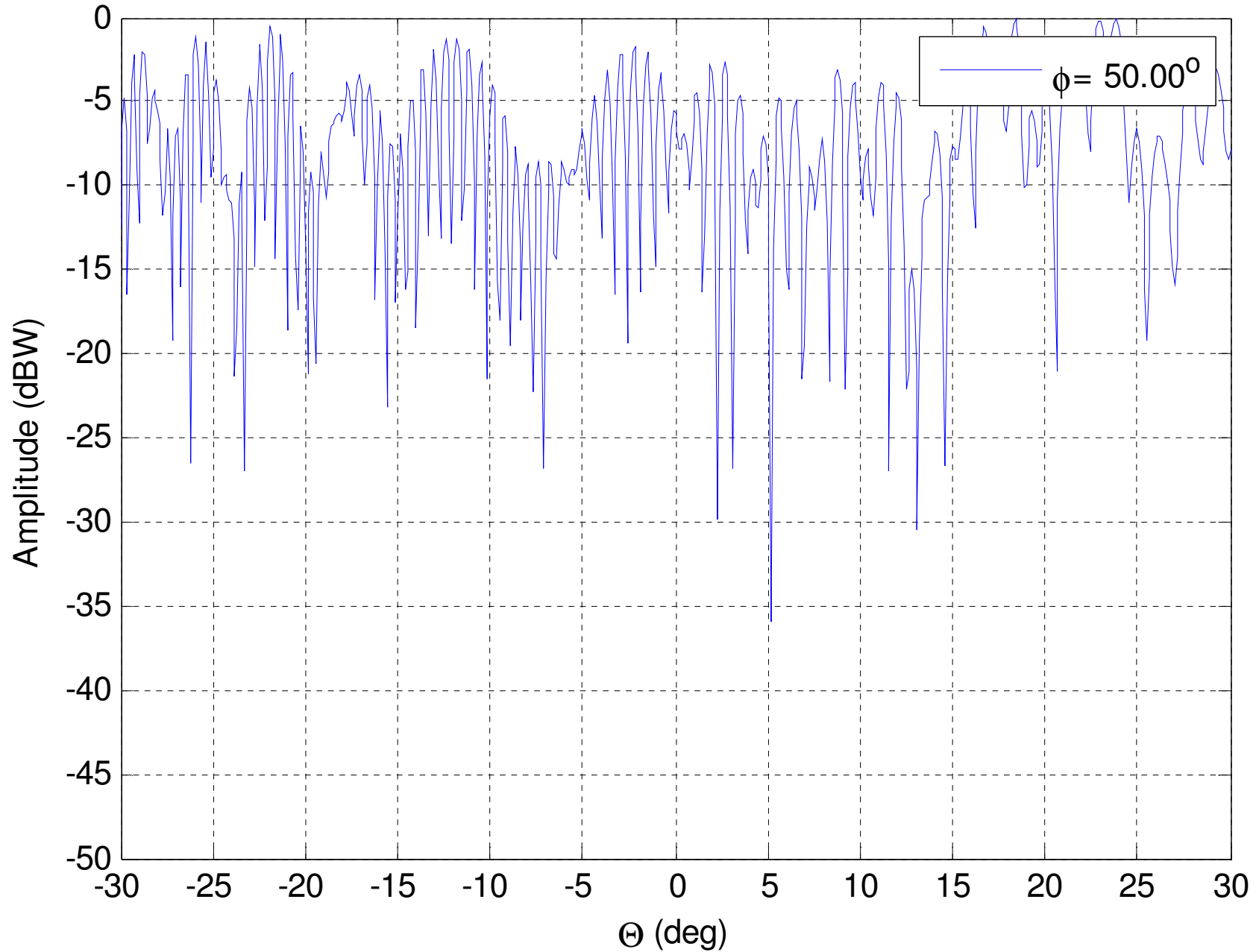
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-40.cut, Peak: -2.29 dBW, Date: 16-Dec-2011



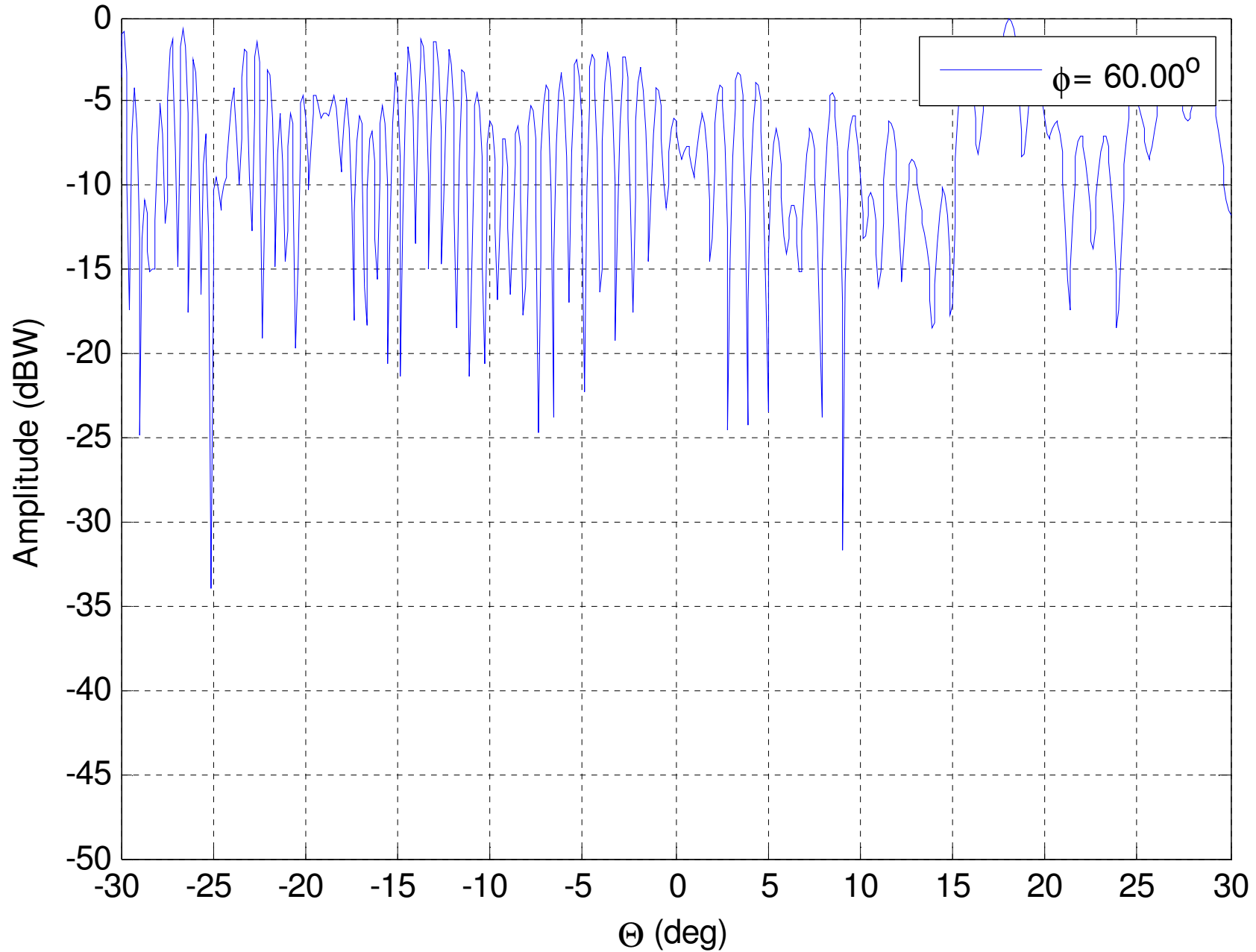
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-50.cut, Peak: -2.77 dBW, Date: 16-Dec-2011



Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-60.cut, Peak: -2.37 dBW, Date: 16-Dec-2011



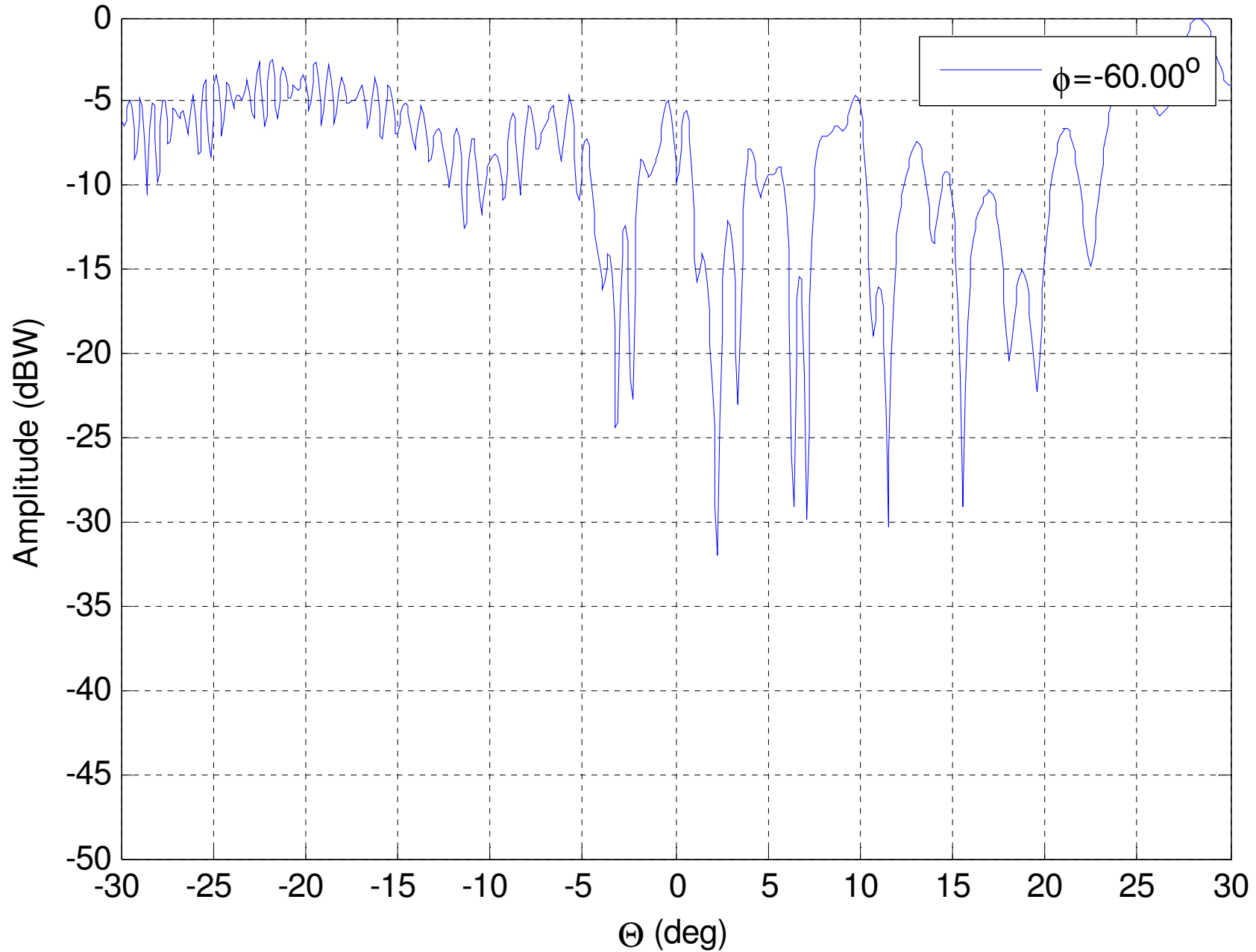
Spot Beam44, +X Axis Plots

- Both polarizations; RHCP, LHCP
- $-30 < \Theta < 30$ ($\Theta=0$: = +X-axis)
- $-60 < \phi < 60$
- Freq = 17.3, 17.5, and 17.7 GHz
- The Zero reference line is the peak gain listed in the title of each chart
- All levels are significantly below the required 20.9 dBW EIRP shown on chart 2

RHCP at 17.3 GHz

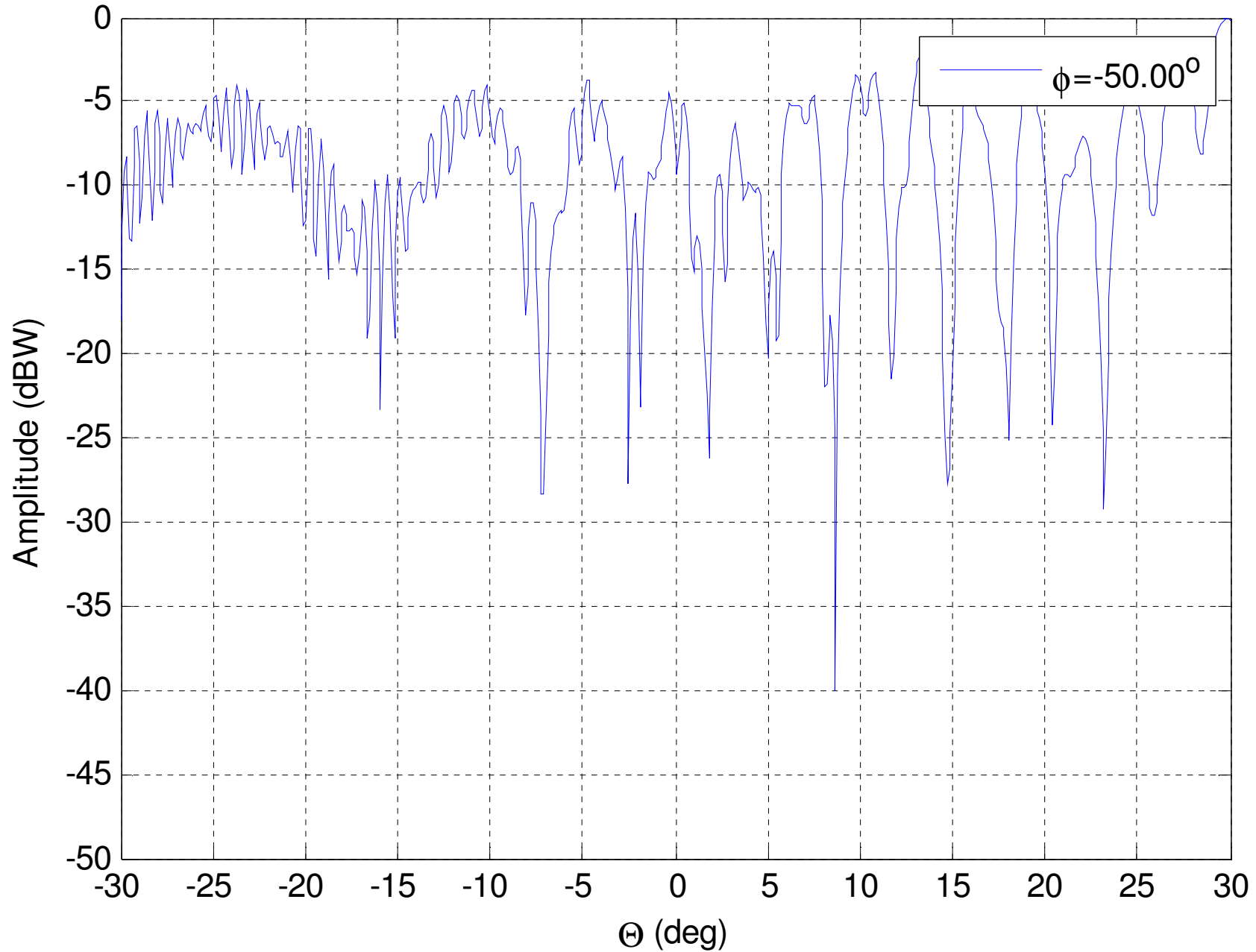
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--60.cut, Peak: -3.11 dBW, Date: 16-Dec-2011



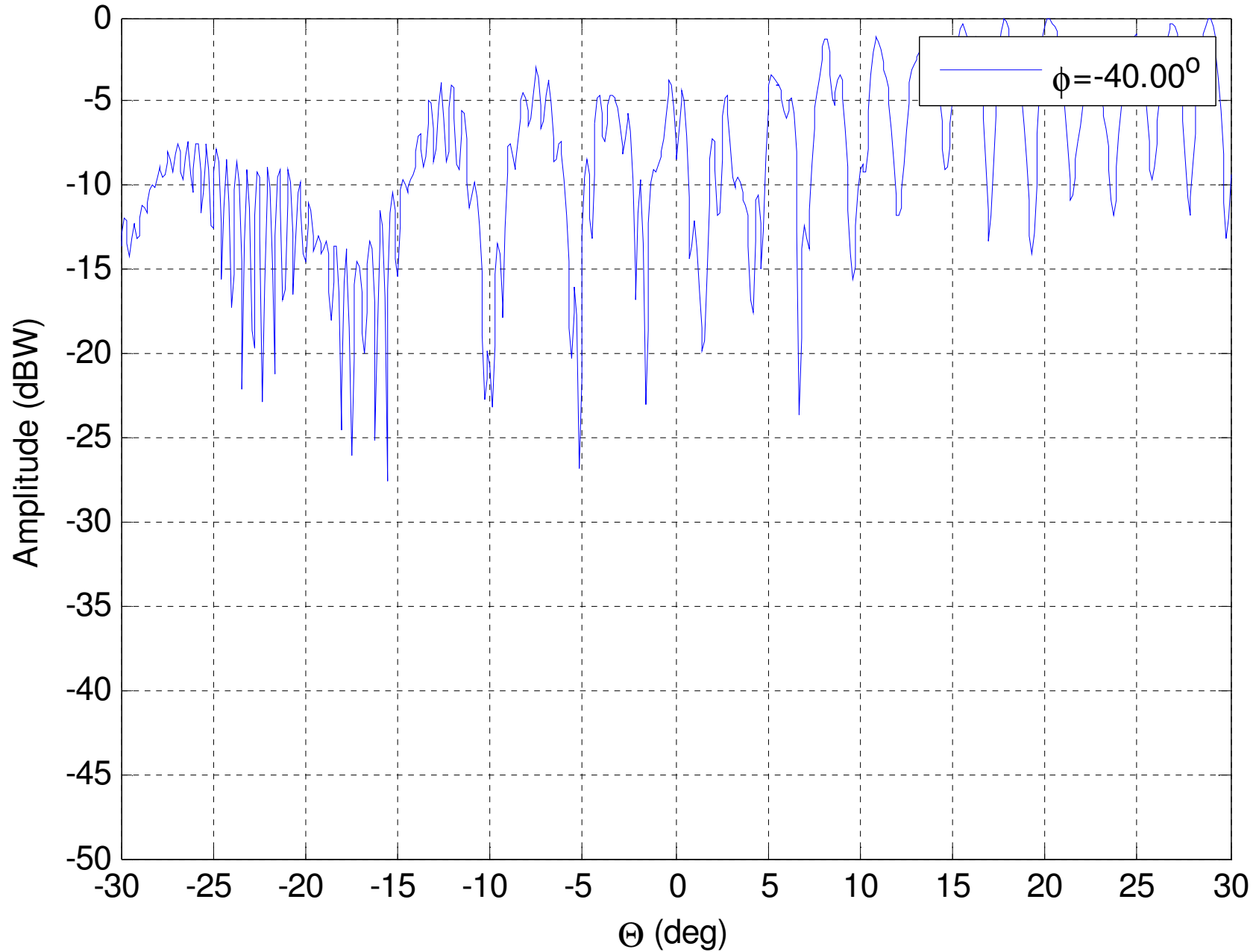
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--50.cut, Peak: -3.53 dBW, Date: 16-Dec-2011



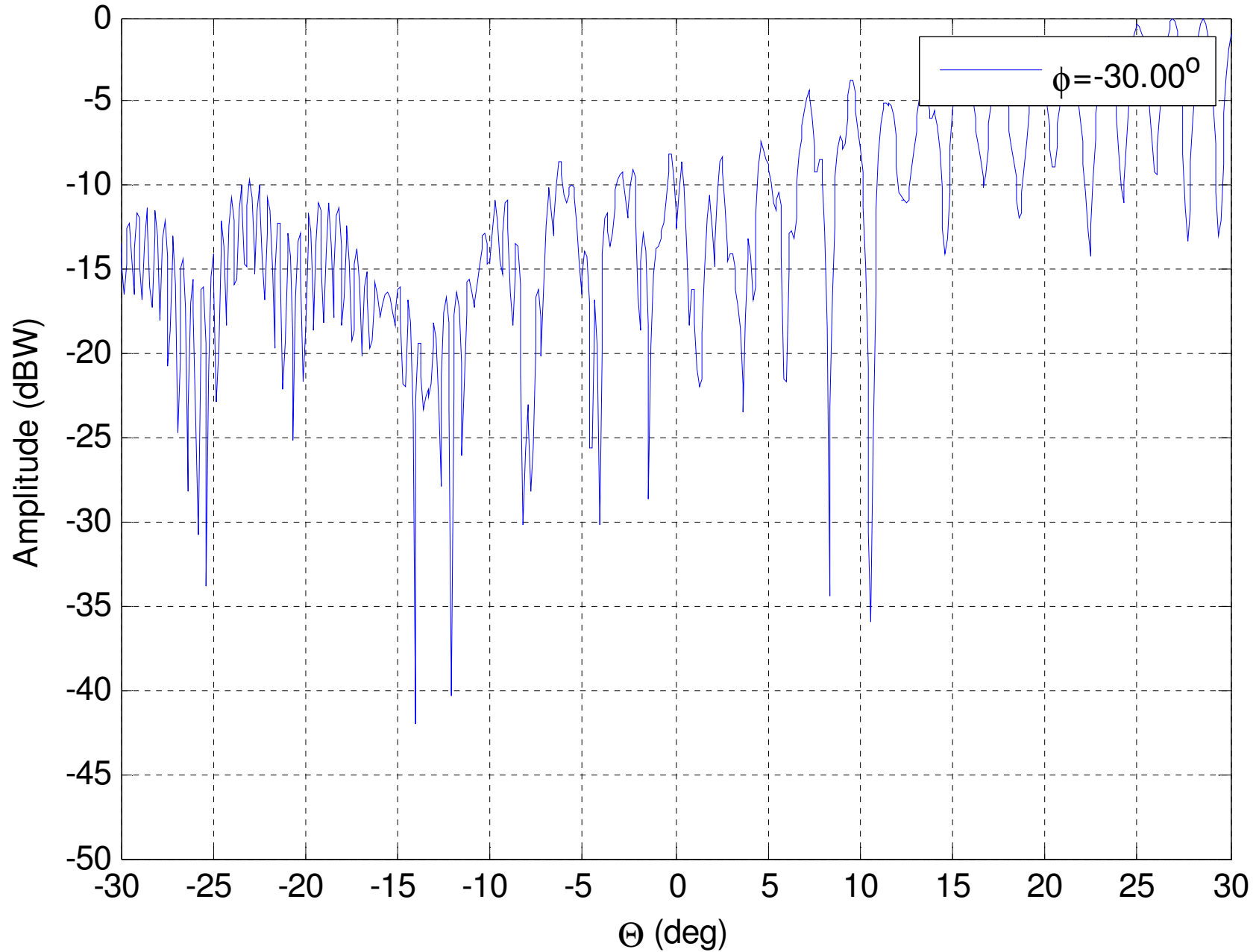
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--40.cut, Peak: -4.32 dBW, Date: 16-Dec-2011



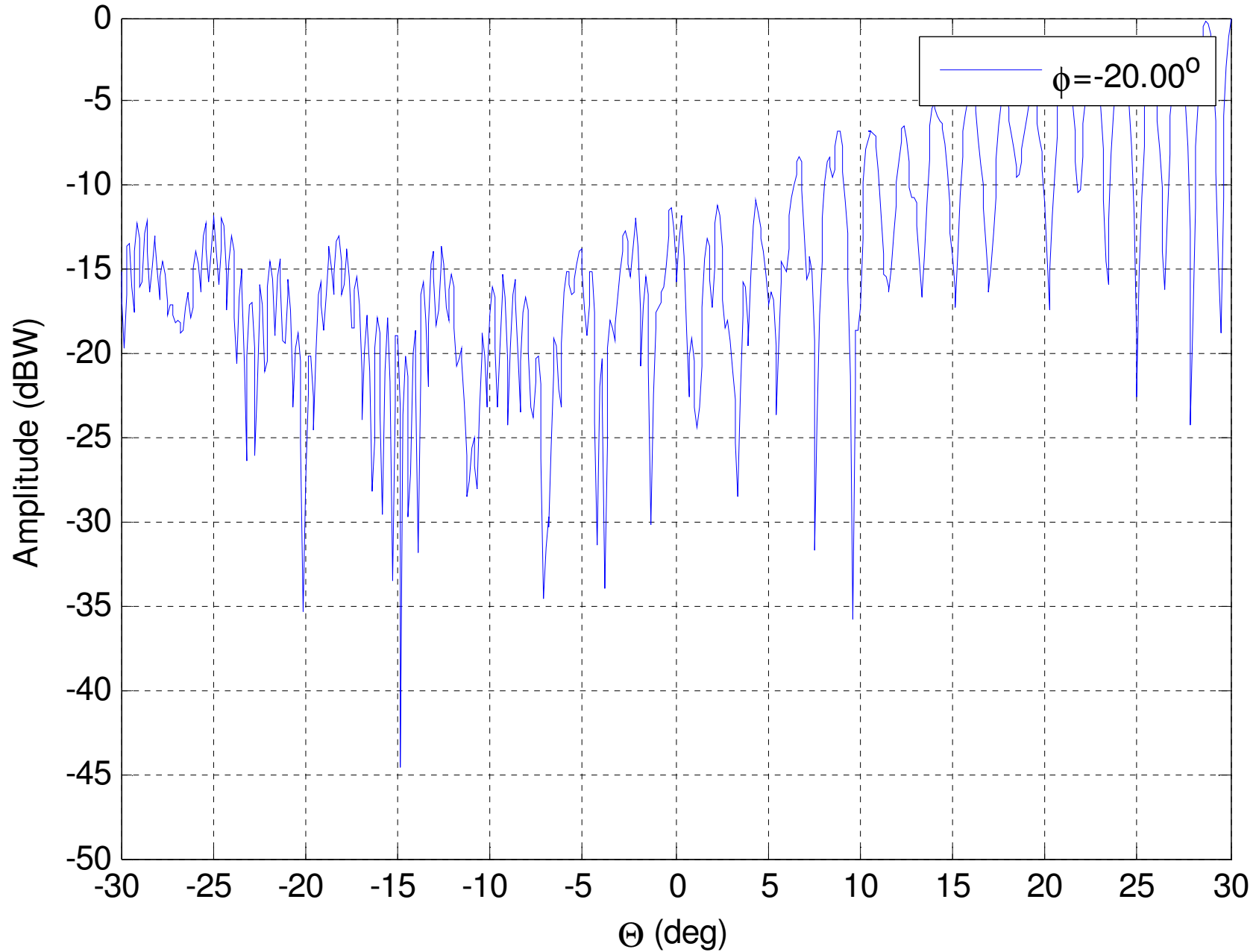
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--30.cut, Peak: -0.14 dBW, Date: 16-Dec-2011



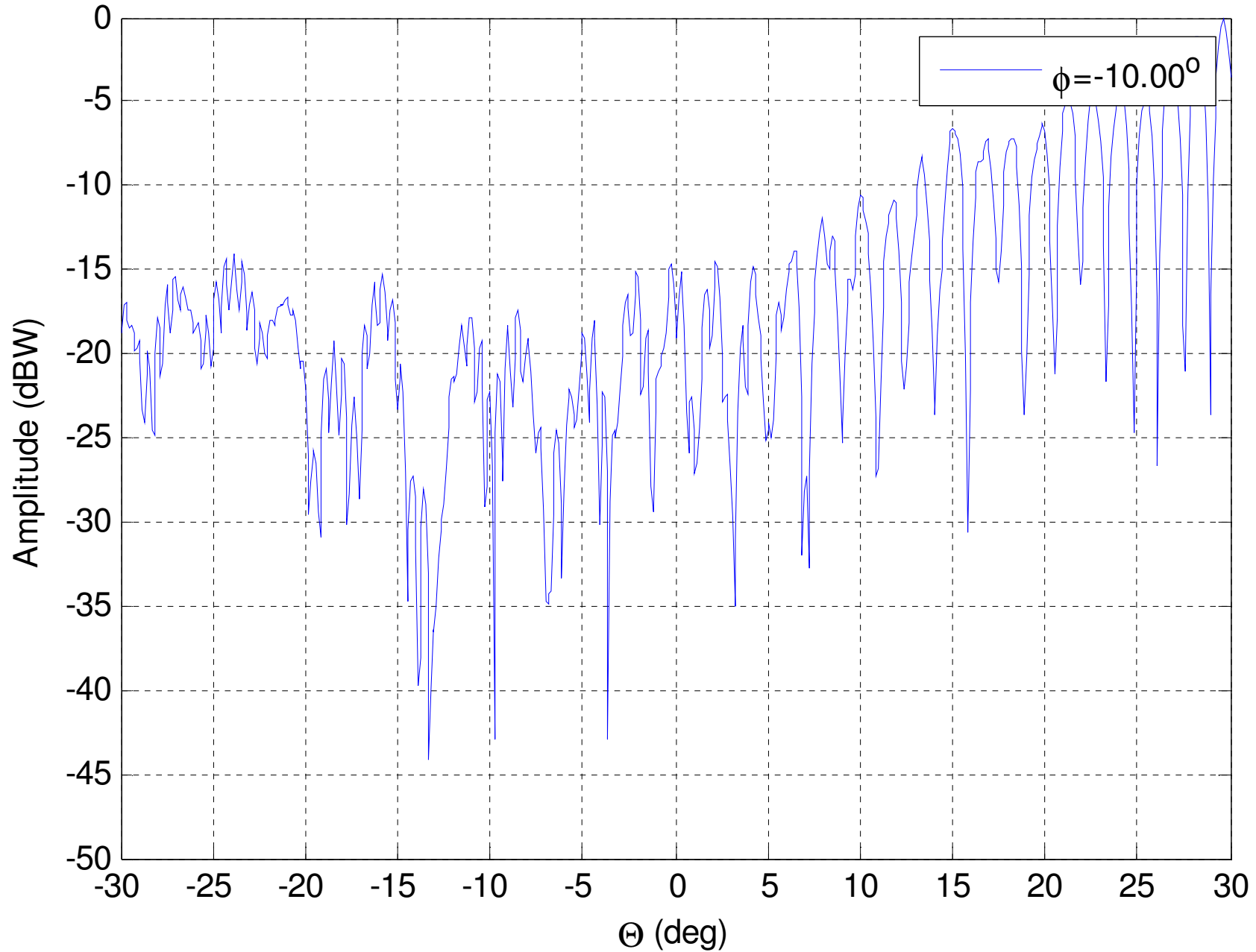
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--20.cut, Peak: 3.08 dBW, Date: 16-Dec-2011



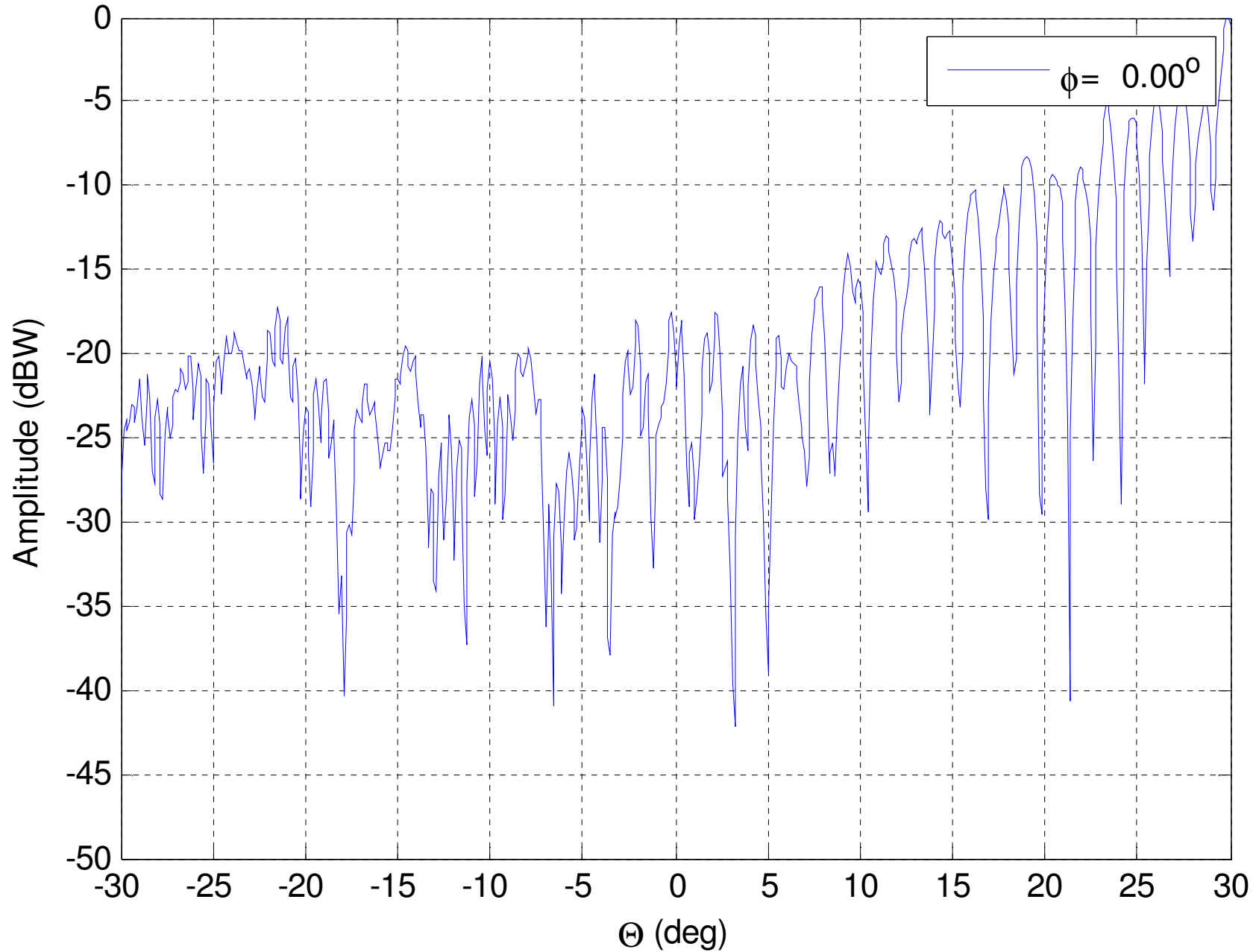
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--10.cut, Peak: 6.48 dBW, Date: 16-Dec-2011



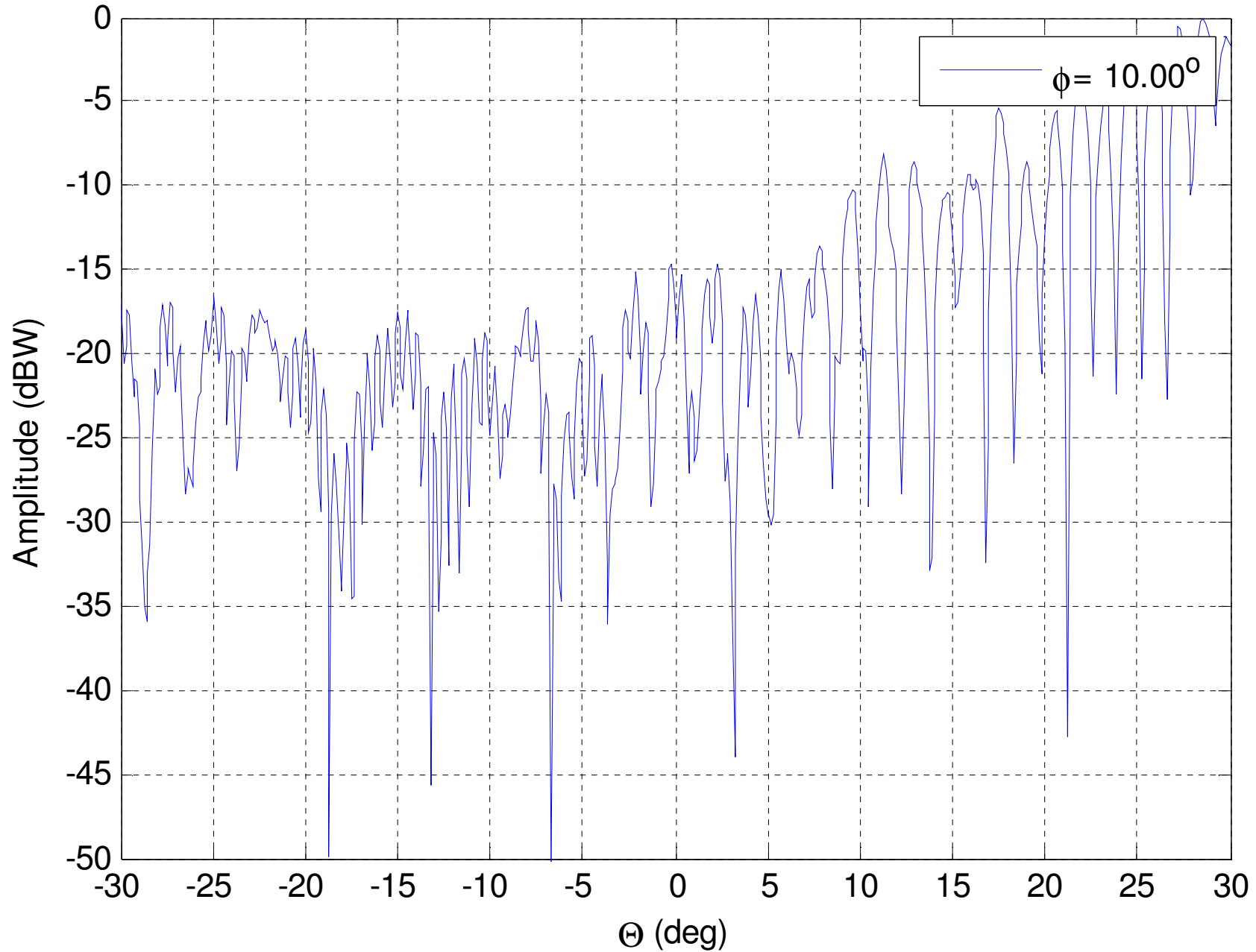
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-0.cut, Peak: 9.37 dBW, Date: 16-Dec-2011



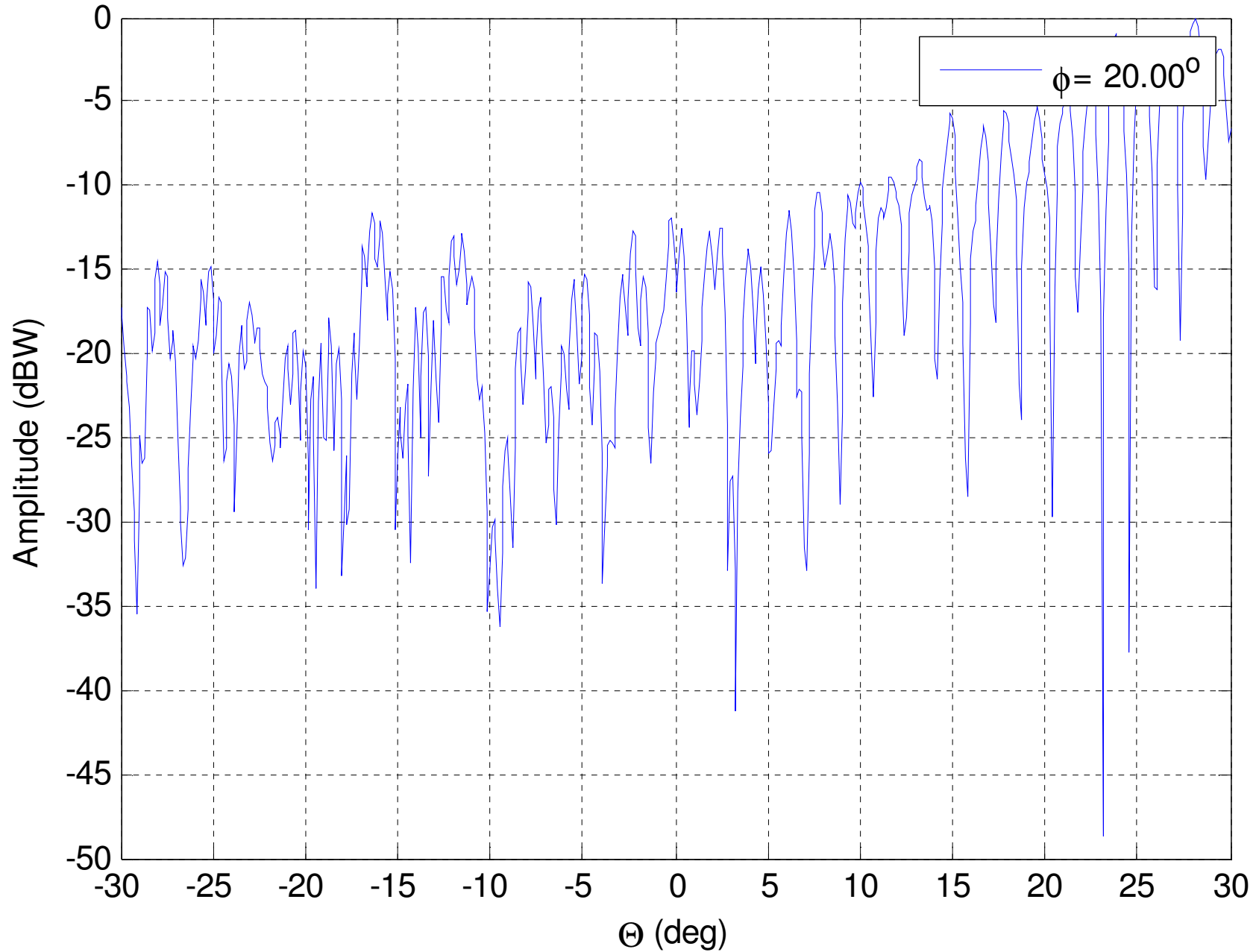
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-10.cut, Peak: 6.45 dBW, Date: 16-Dec-2011



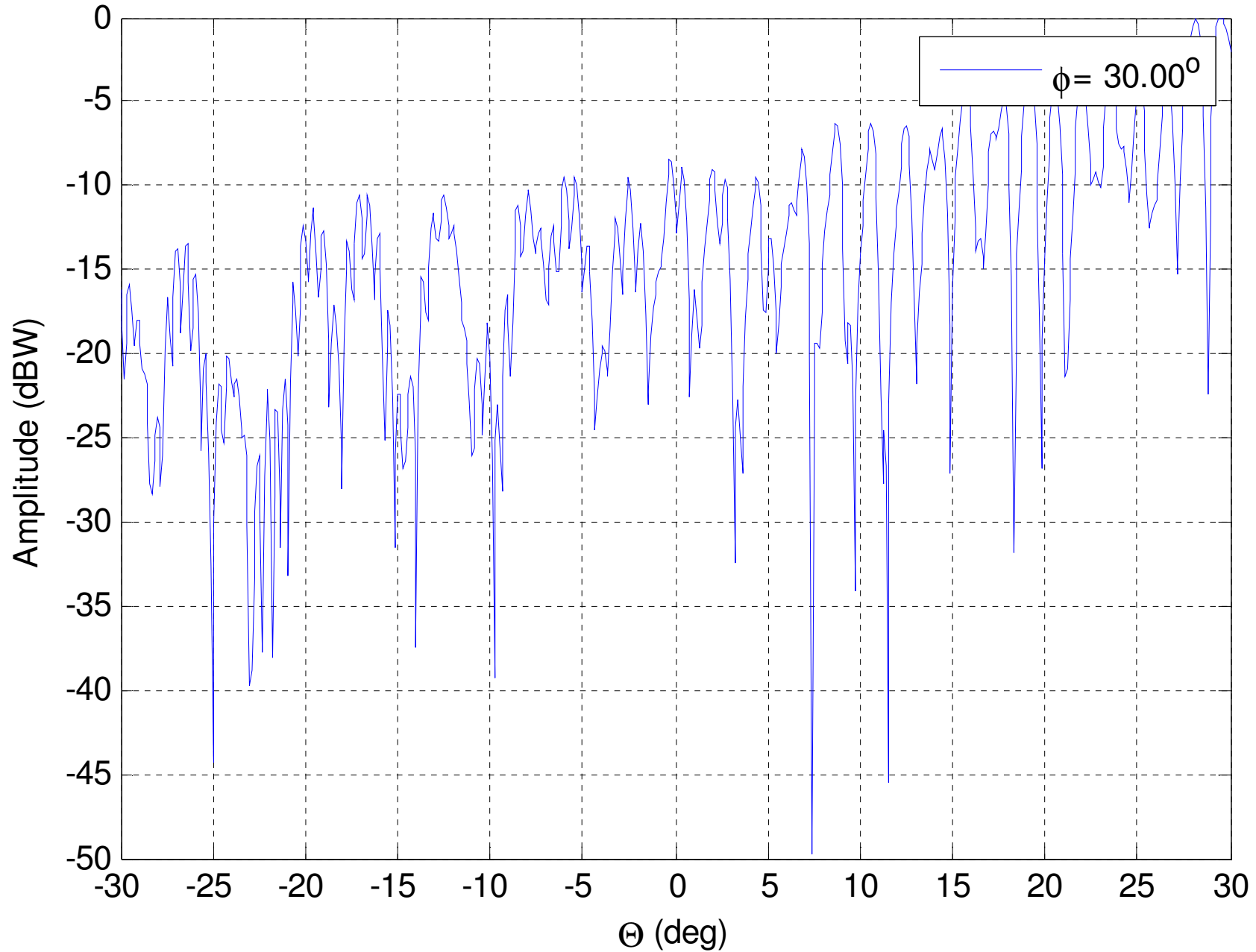
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-20.cut, Peak: 3.65 dBW, Date: 16-Dec-2011



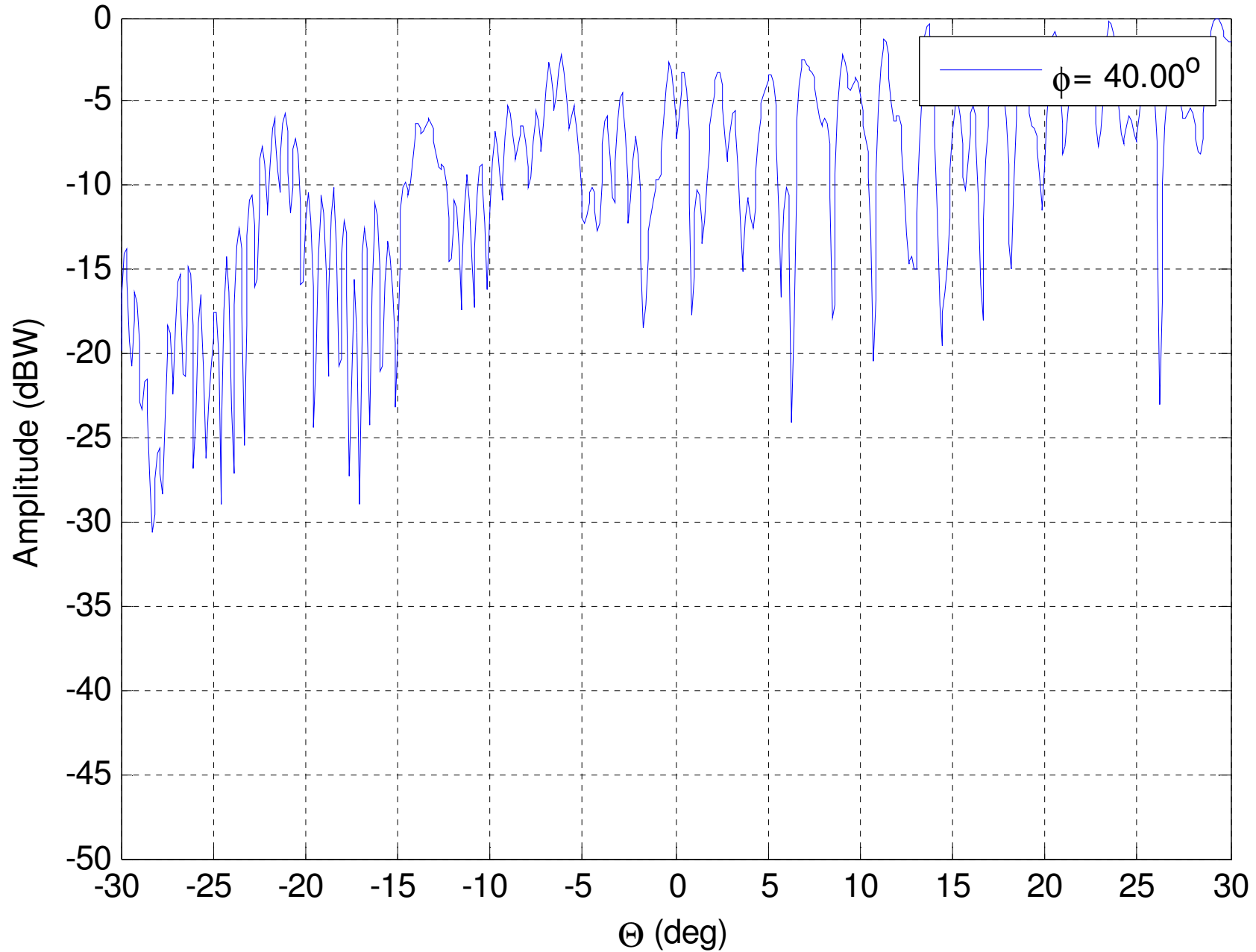
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-30.cut, Peak: 0.11 dBW, Date: 16-Dec-2011



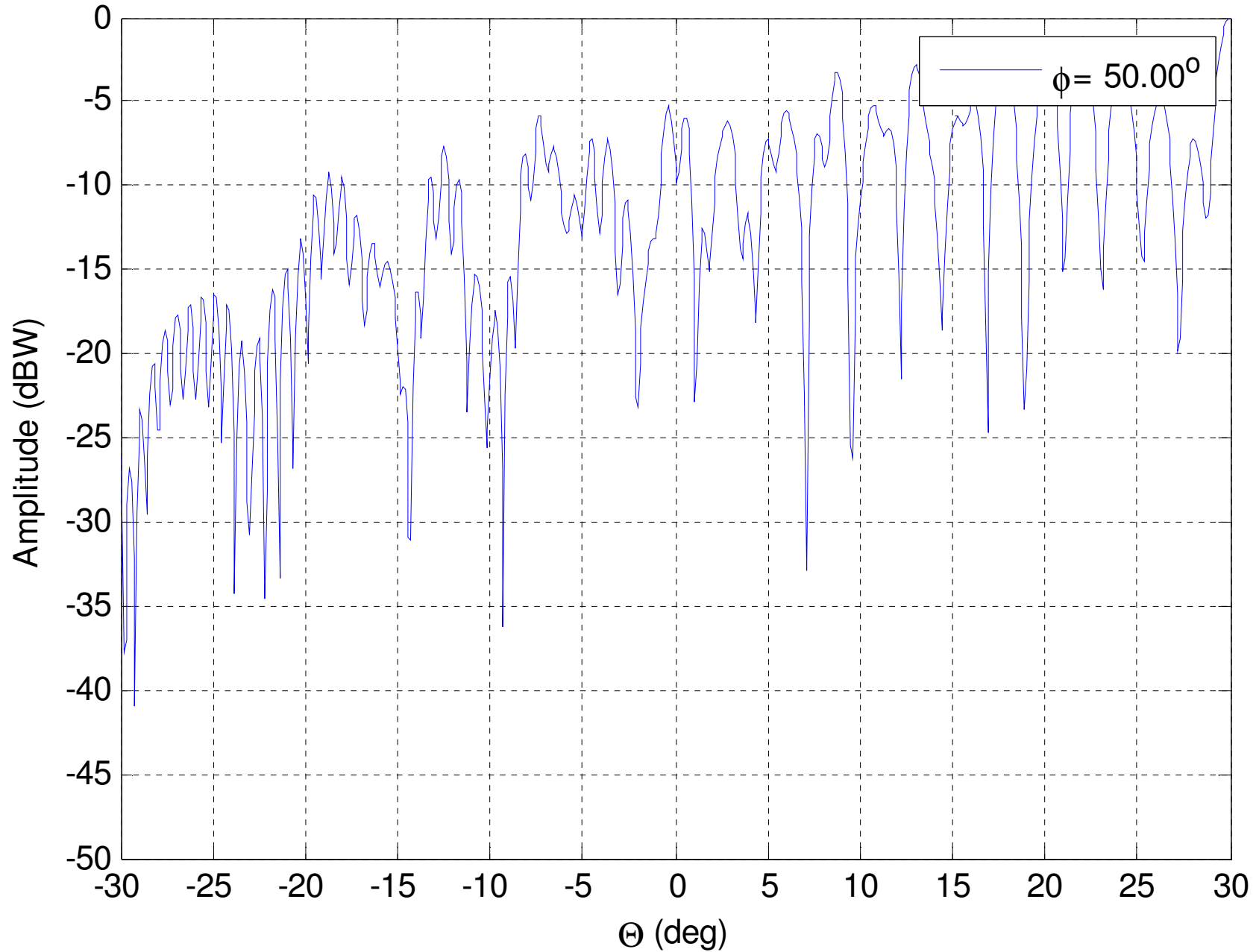
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-40.cut, Peak: -5.65 dBW, Date: 16-Dec-2011



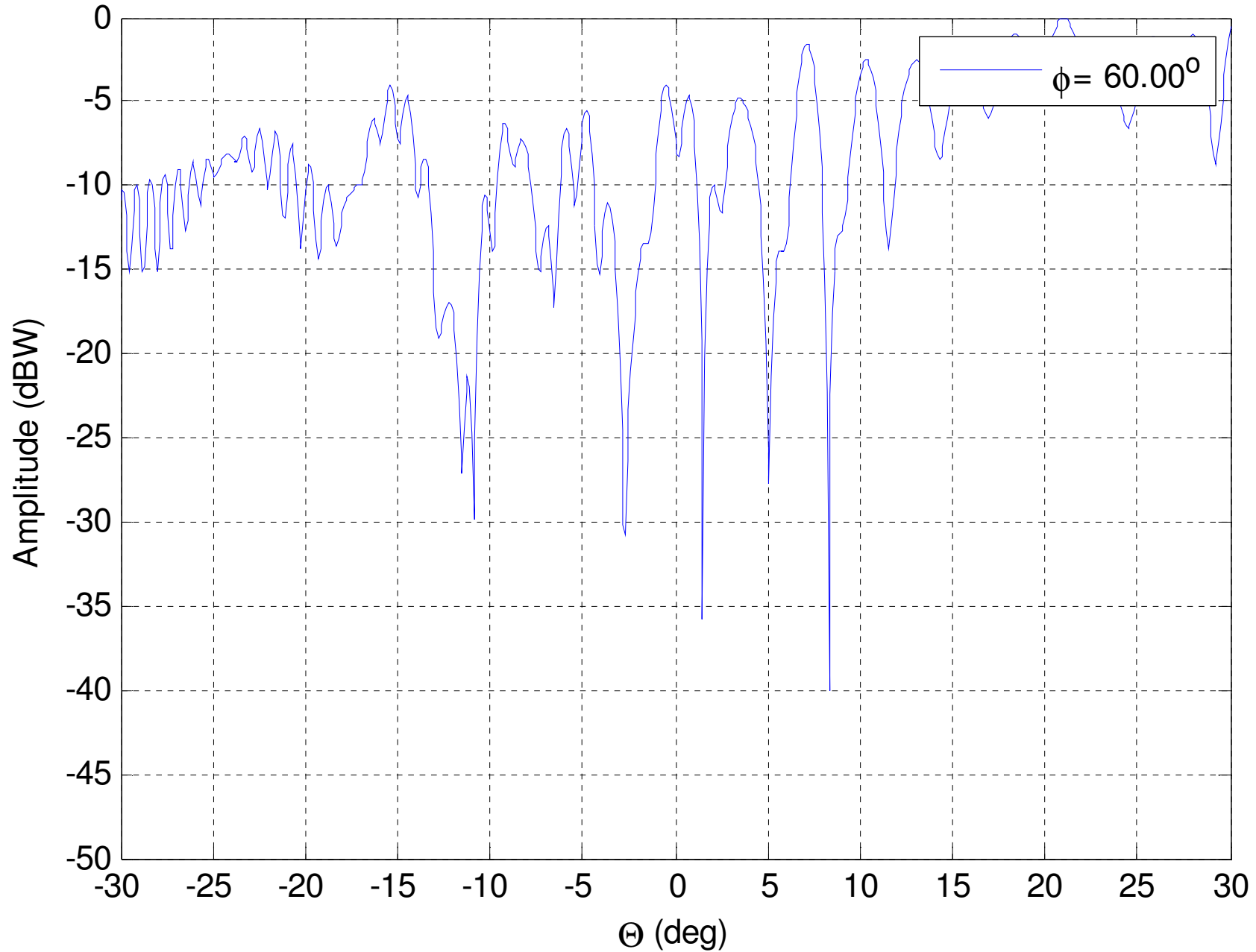
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-50.cut, Peak: -3.07 dBW, Date: 16-Dec-2011



Normalized pattern cuts - farfield

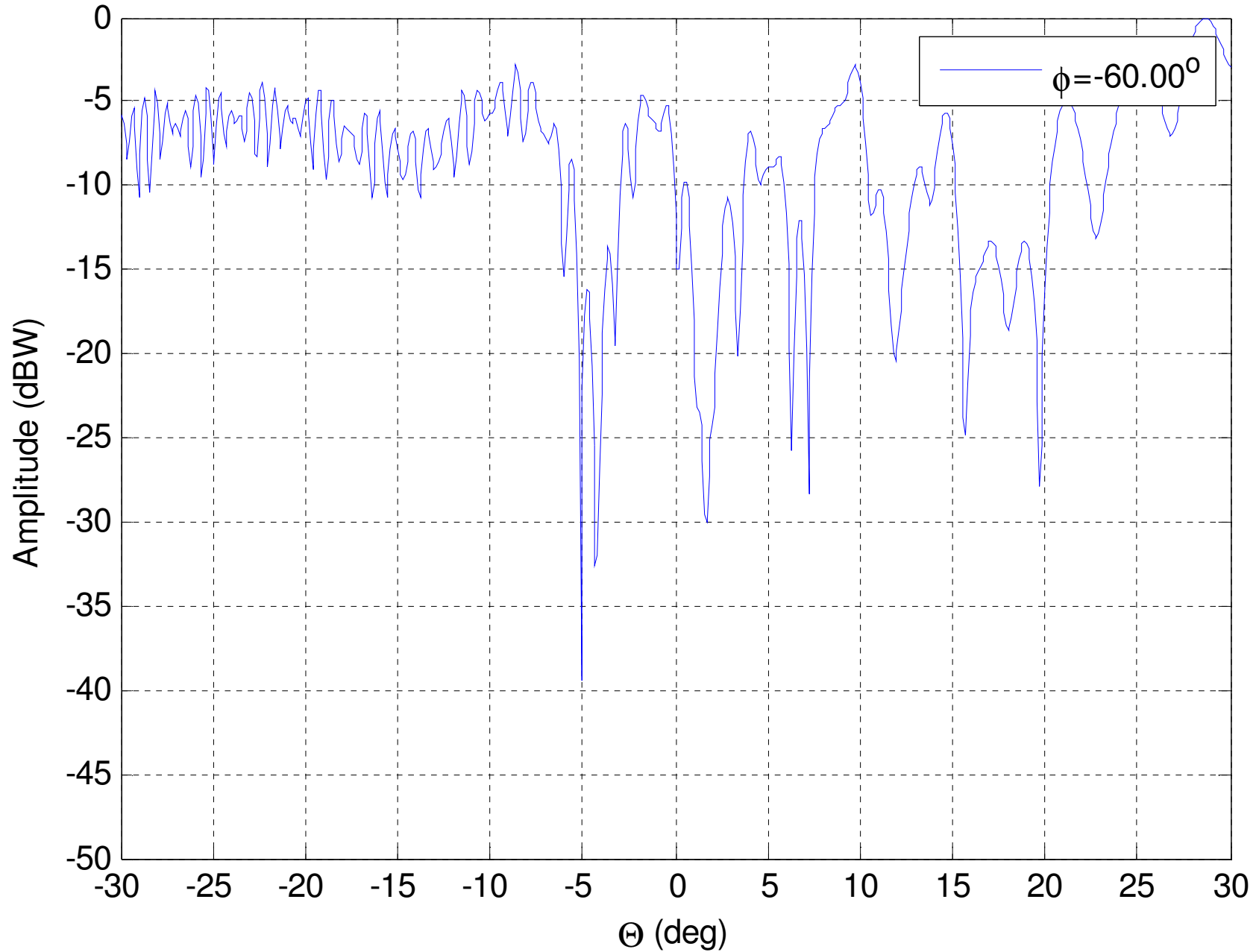
Input file: tx-17.3-rhcp-60.cut, Peak: -4.49 dBW, Date: 16-Dec-2011



LHCP at 17.3 GHz

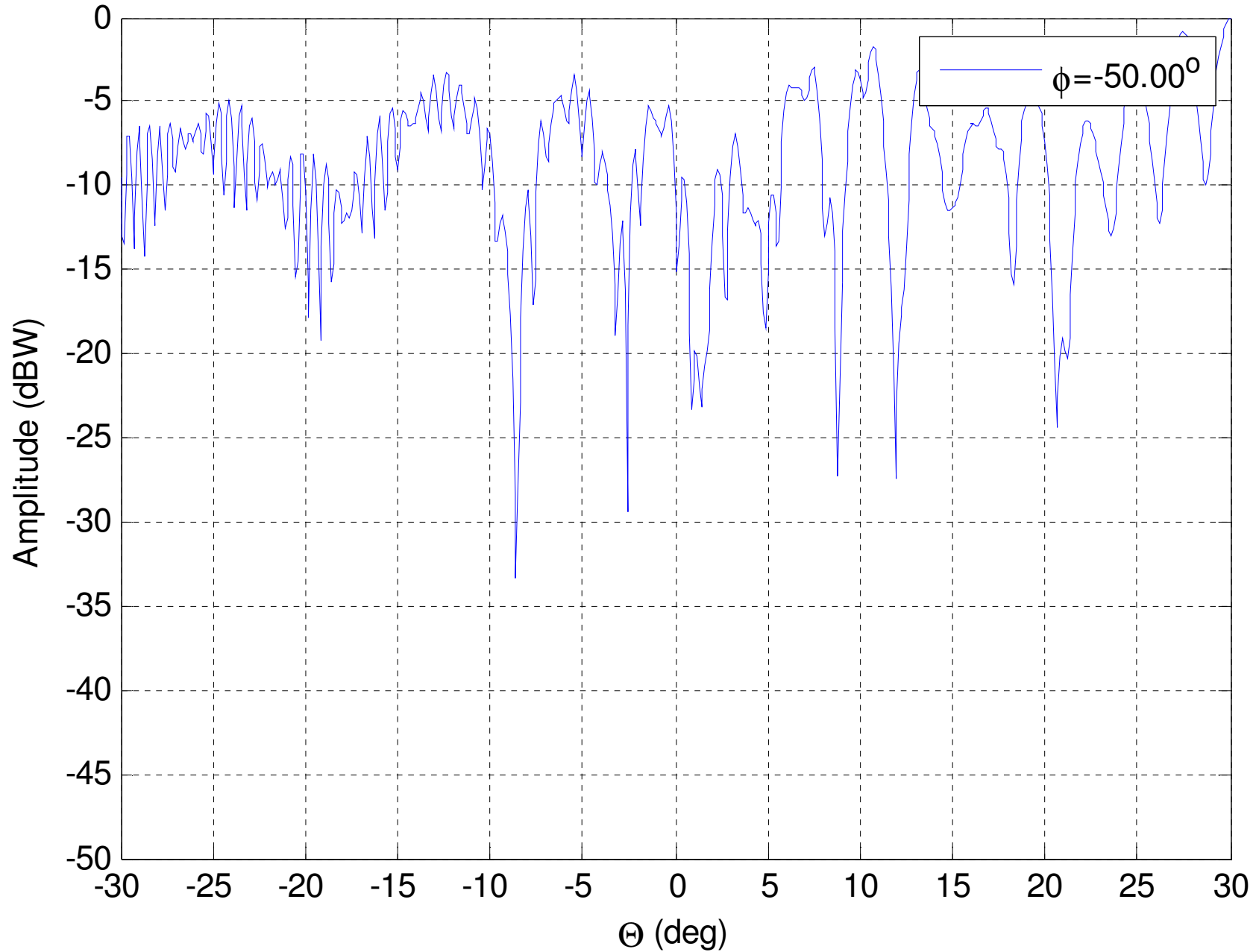
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp--60.cut, Peak: -3.67 dBW, Date: 16-Dec-2011



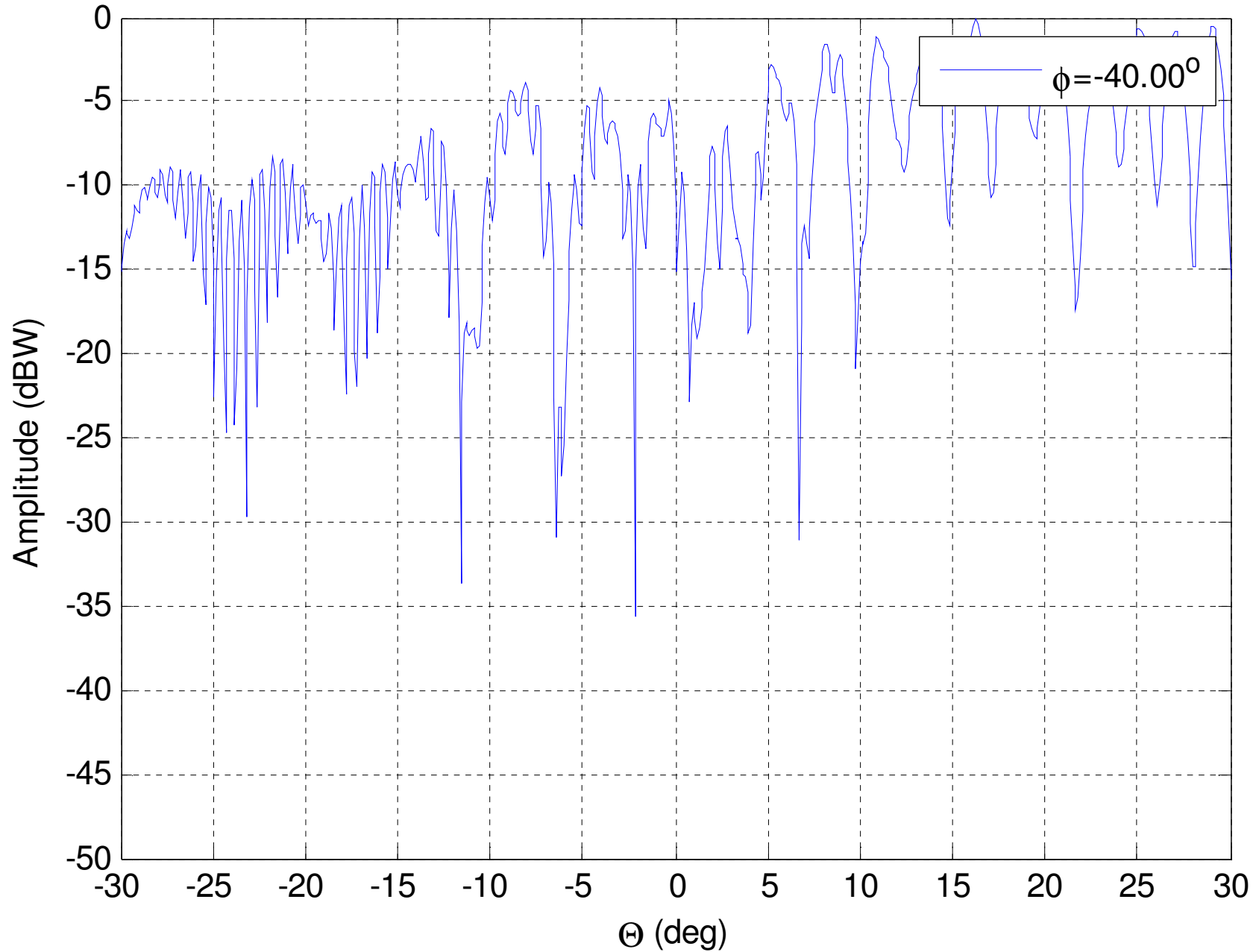
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp--50.cut, Peak: -3.80 dBW, Date: 16-Dec-2011



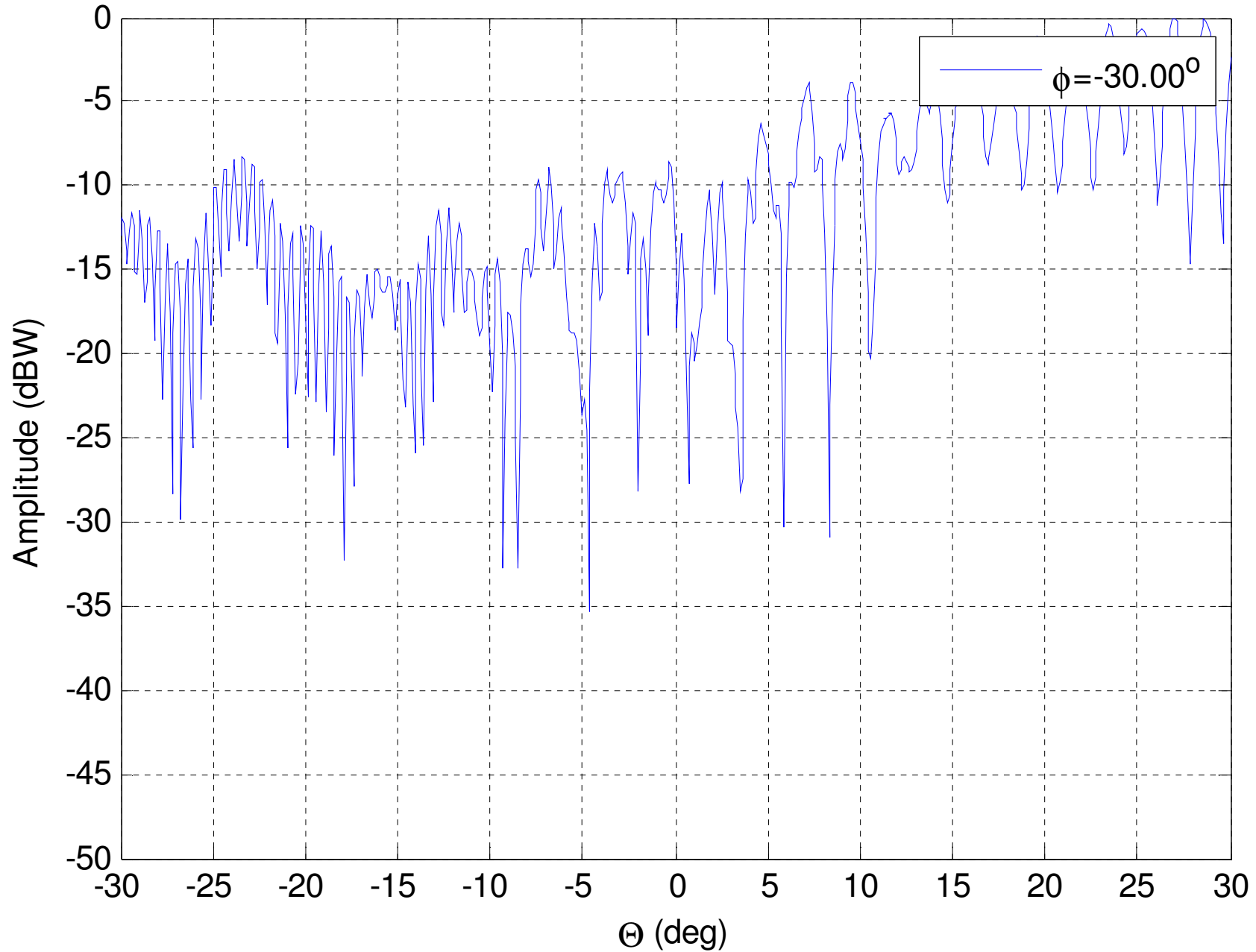
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp--40.cut, Peak: -4.02 dBW, Date: 16-Dec-2011



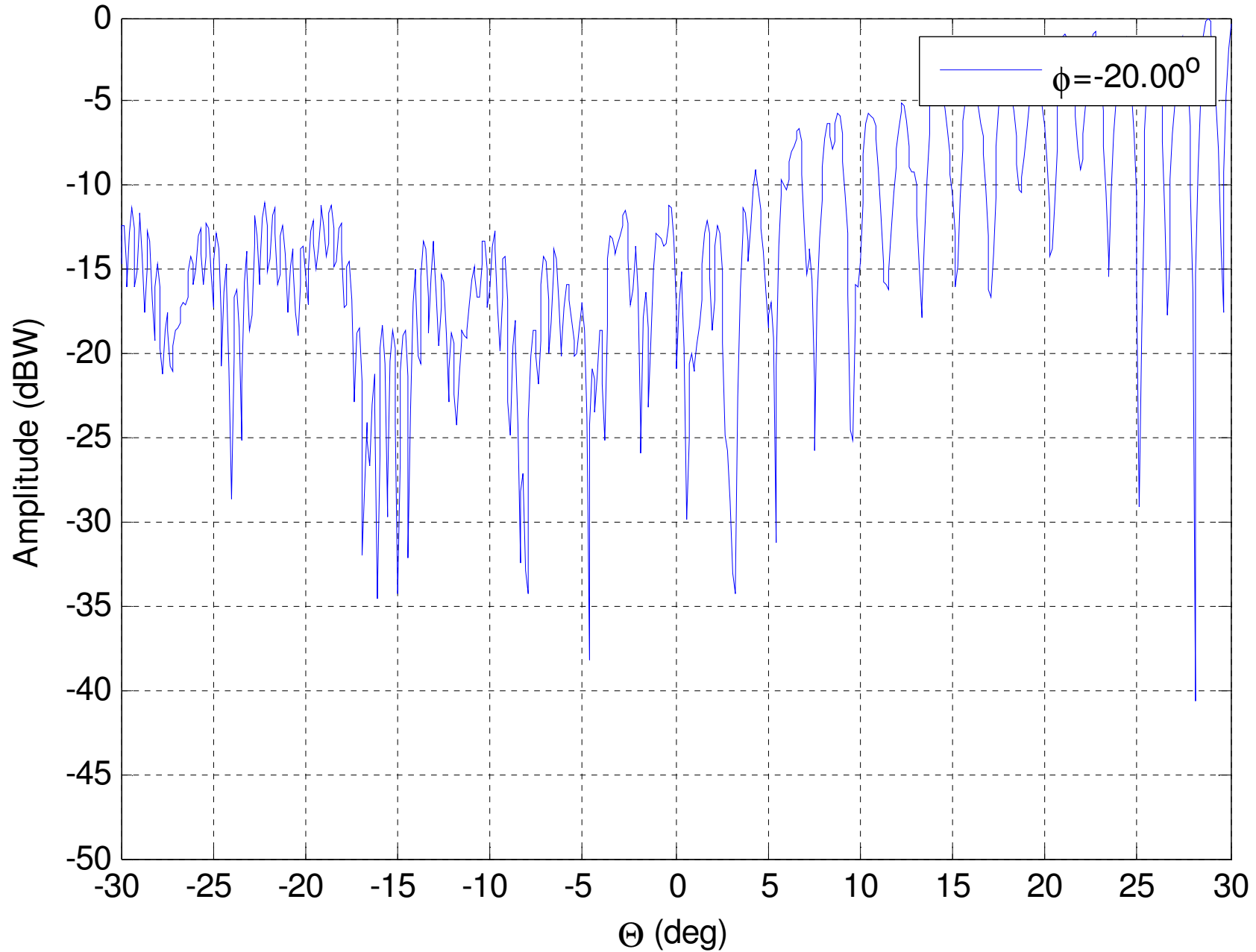
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp--30.cut, Peak: -0.49 dBW, Date: 16-Dec-2011



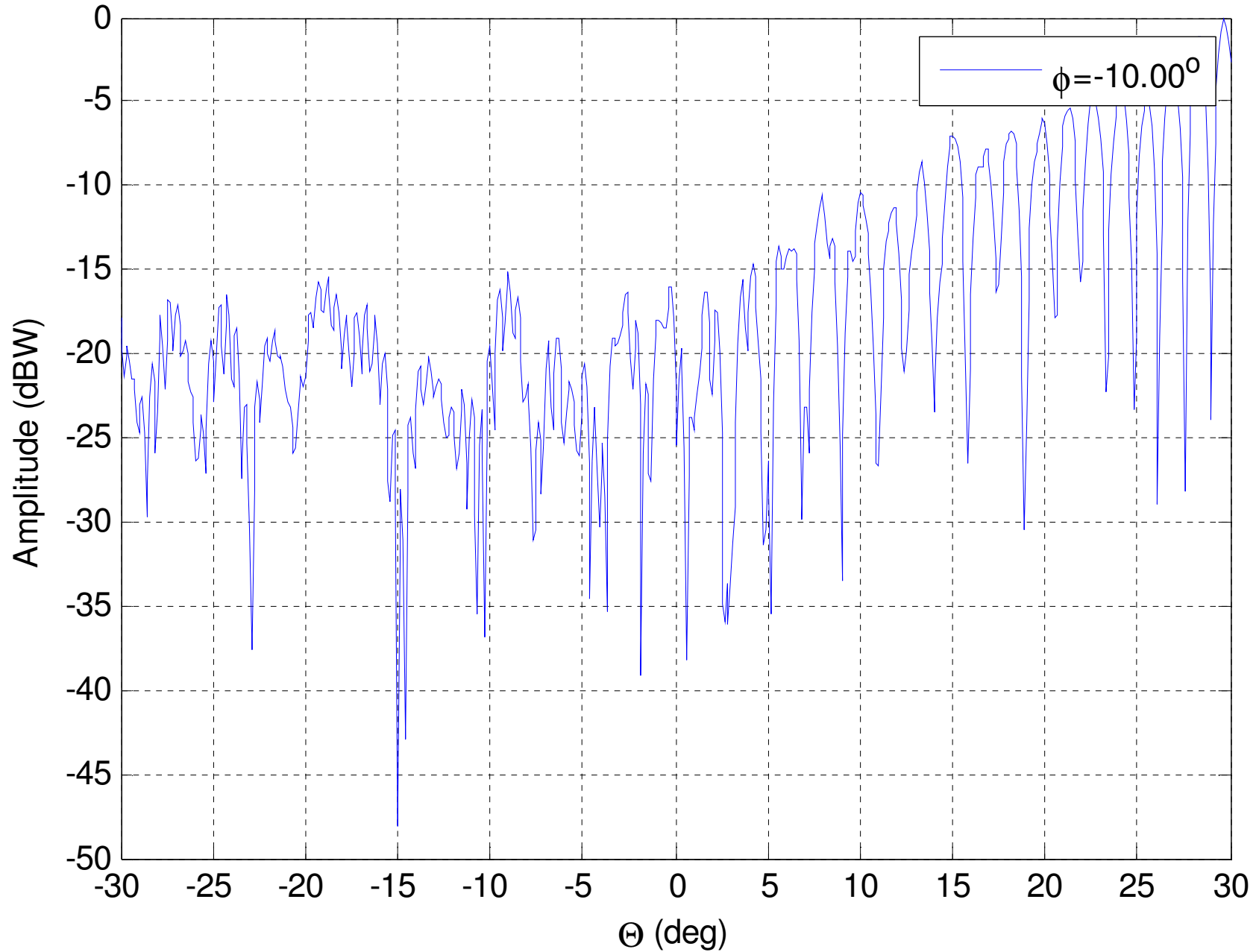
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp--20.cut, Peak: 1.94 dBW, Date: 16-Dec-2011



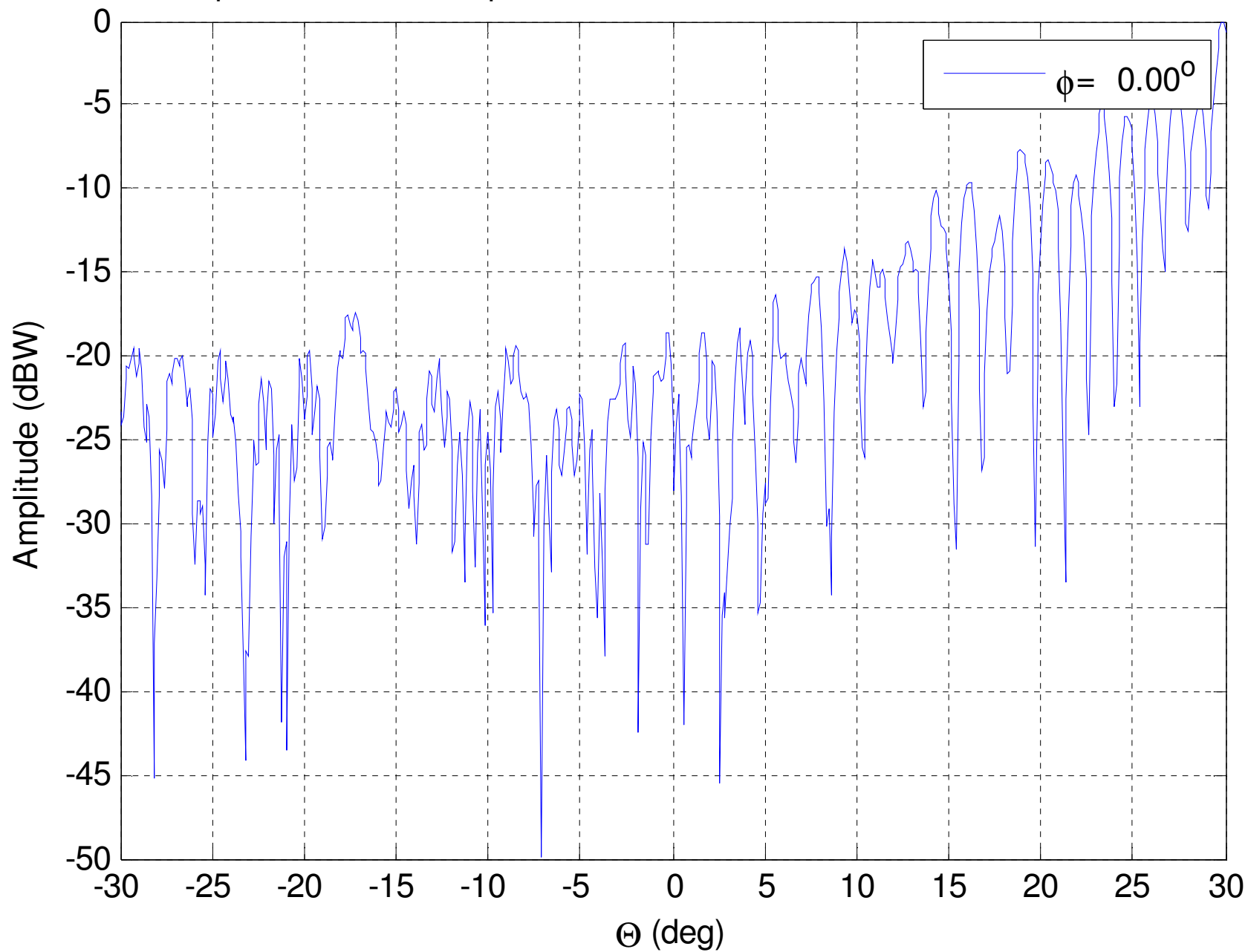
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp--10.cut, Peak: 6.63 dBW, Date: 16-Dec-2011



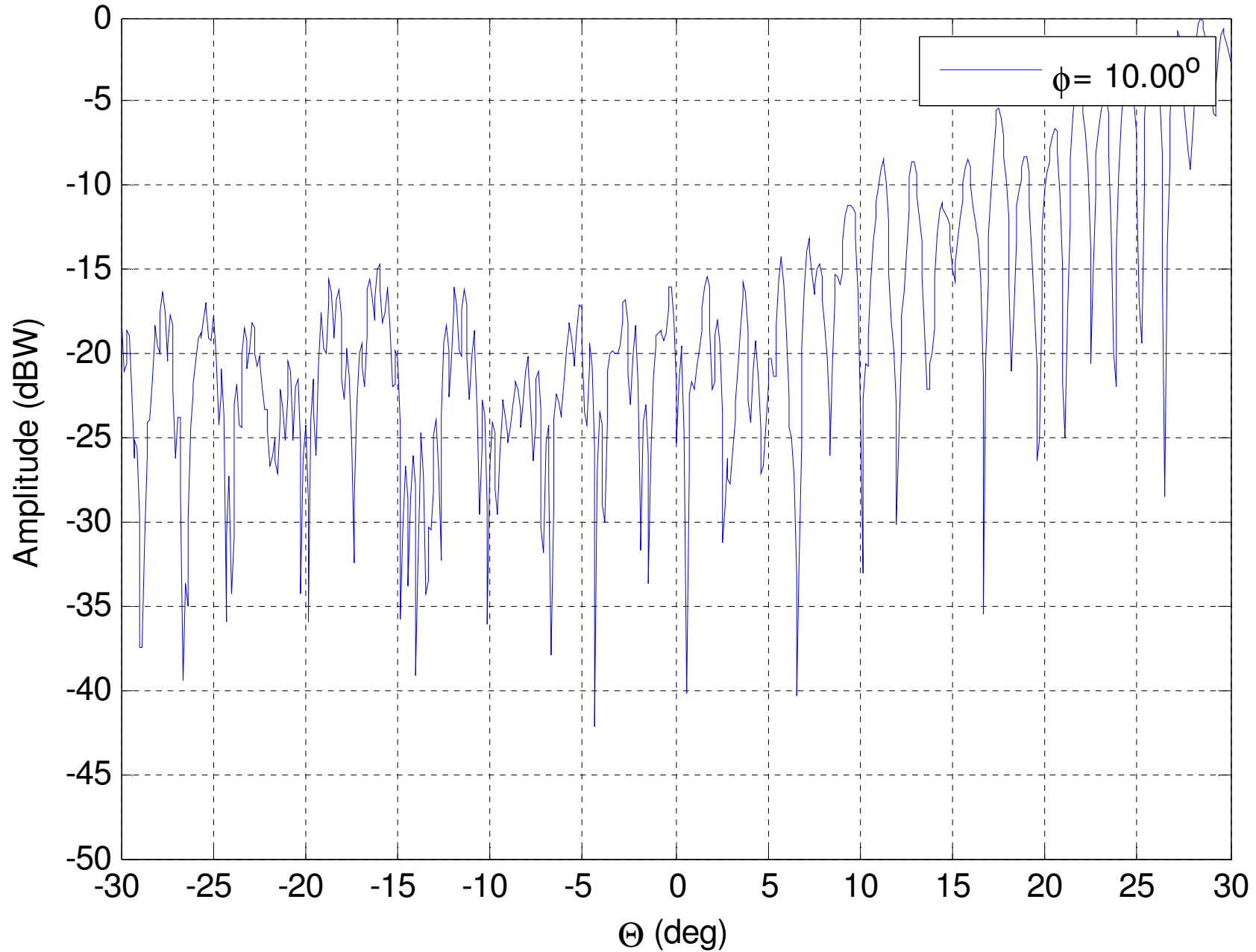
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp-0.cut, Peak: 9.24 dBW, Date: 16-Dec-2011



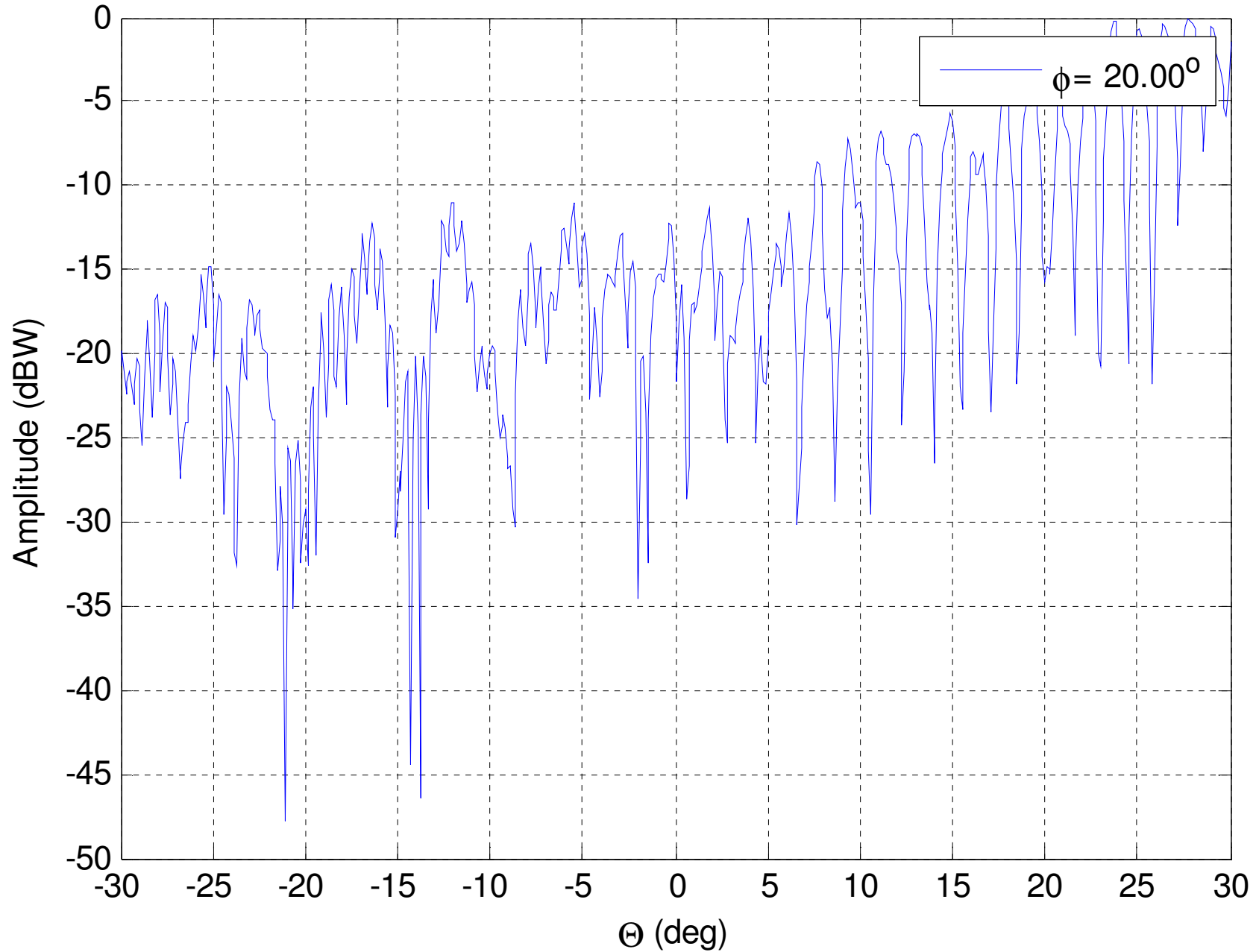
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp-10.cut, Peak: 6.56 dBW, Date: 16-Dec-2011



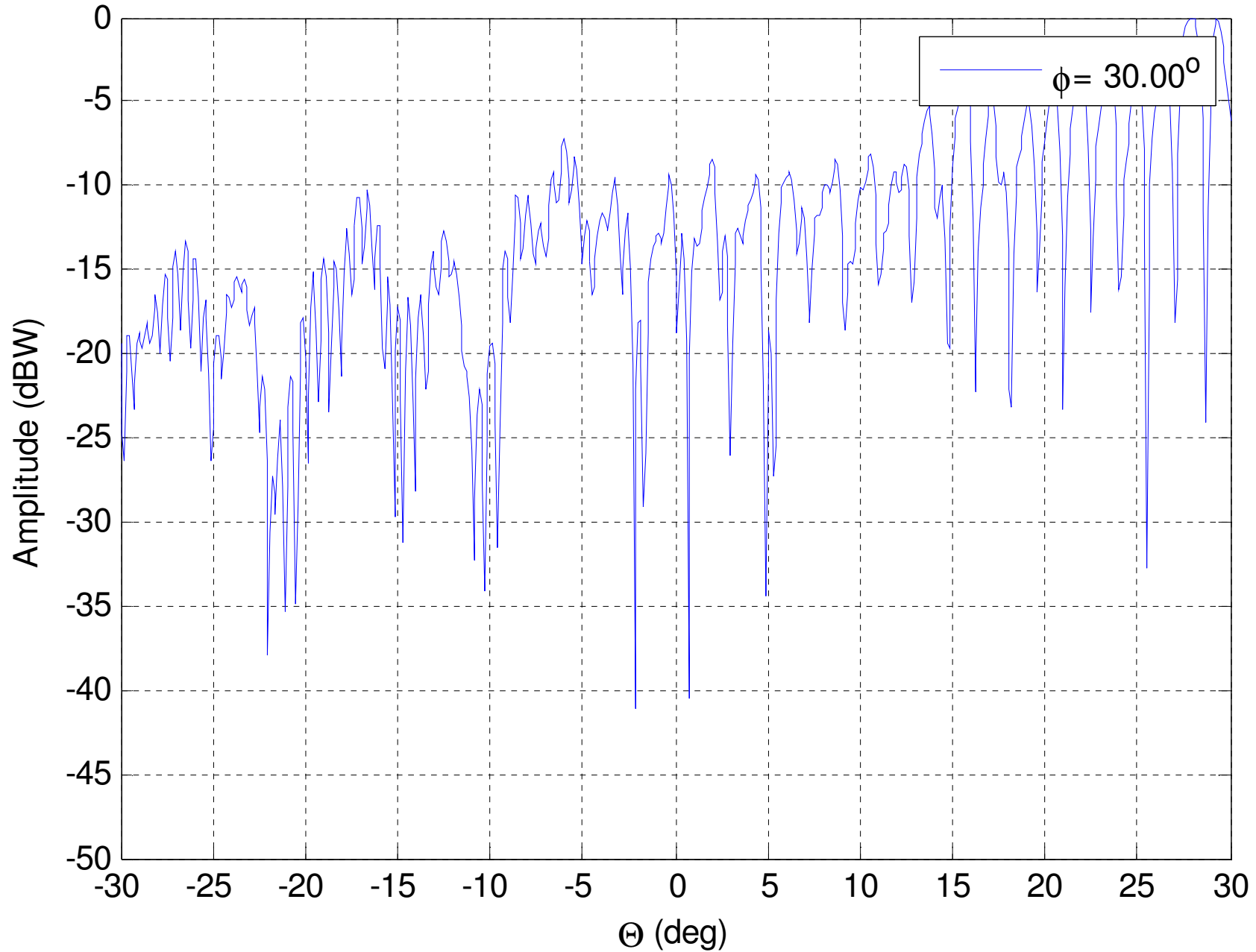
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp-20.cut, Peak: 2.76 dBW, Date: 16-Dec-2011



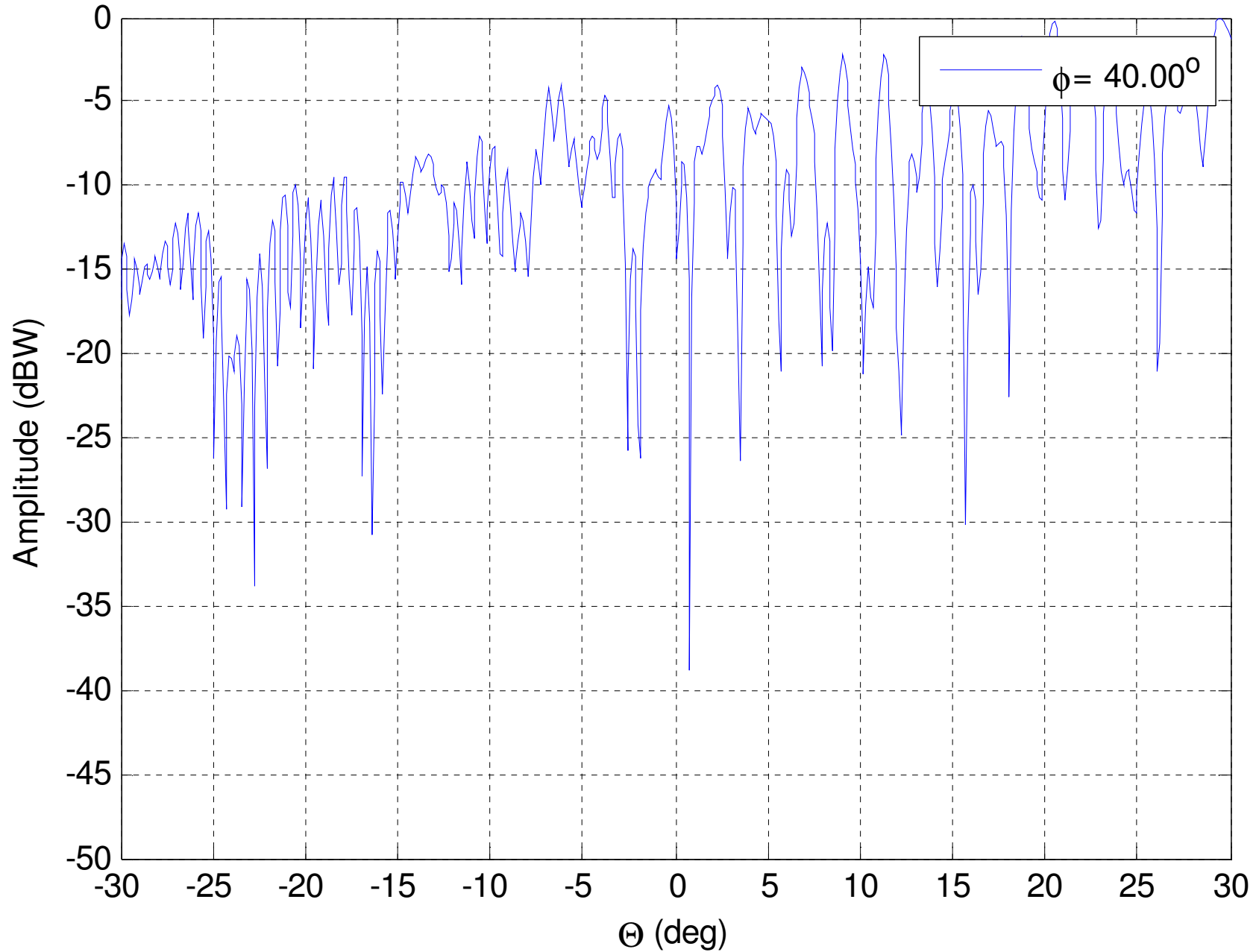
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp-30.cut, Peak: -0.04 dBW, Date: 16-Dec-2011



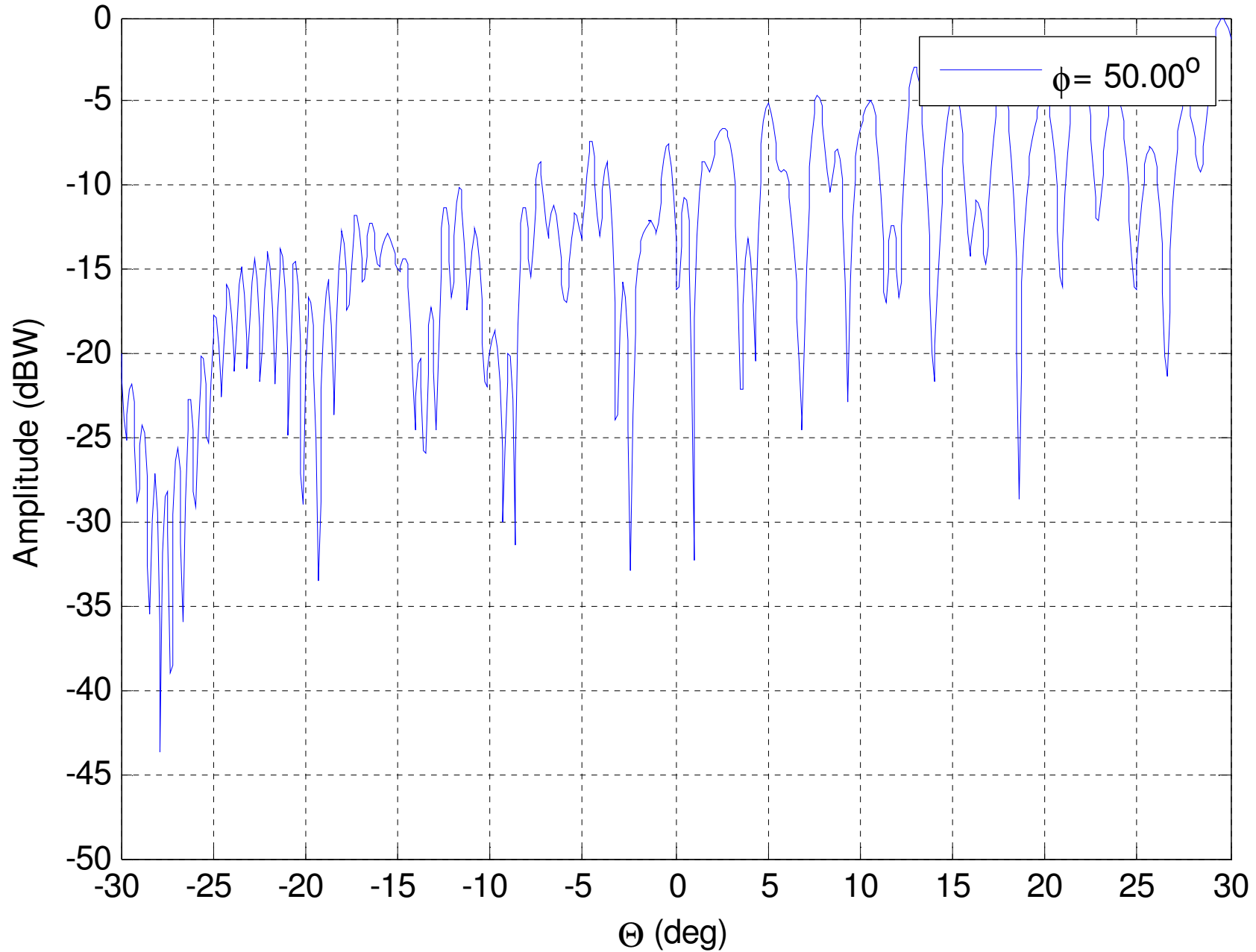
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp-40.cut, Peak: -4.38 dBW, Date: 16-Dec-2011



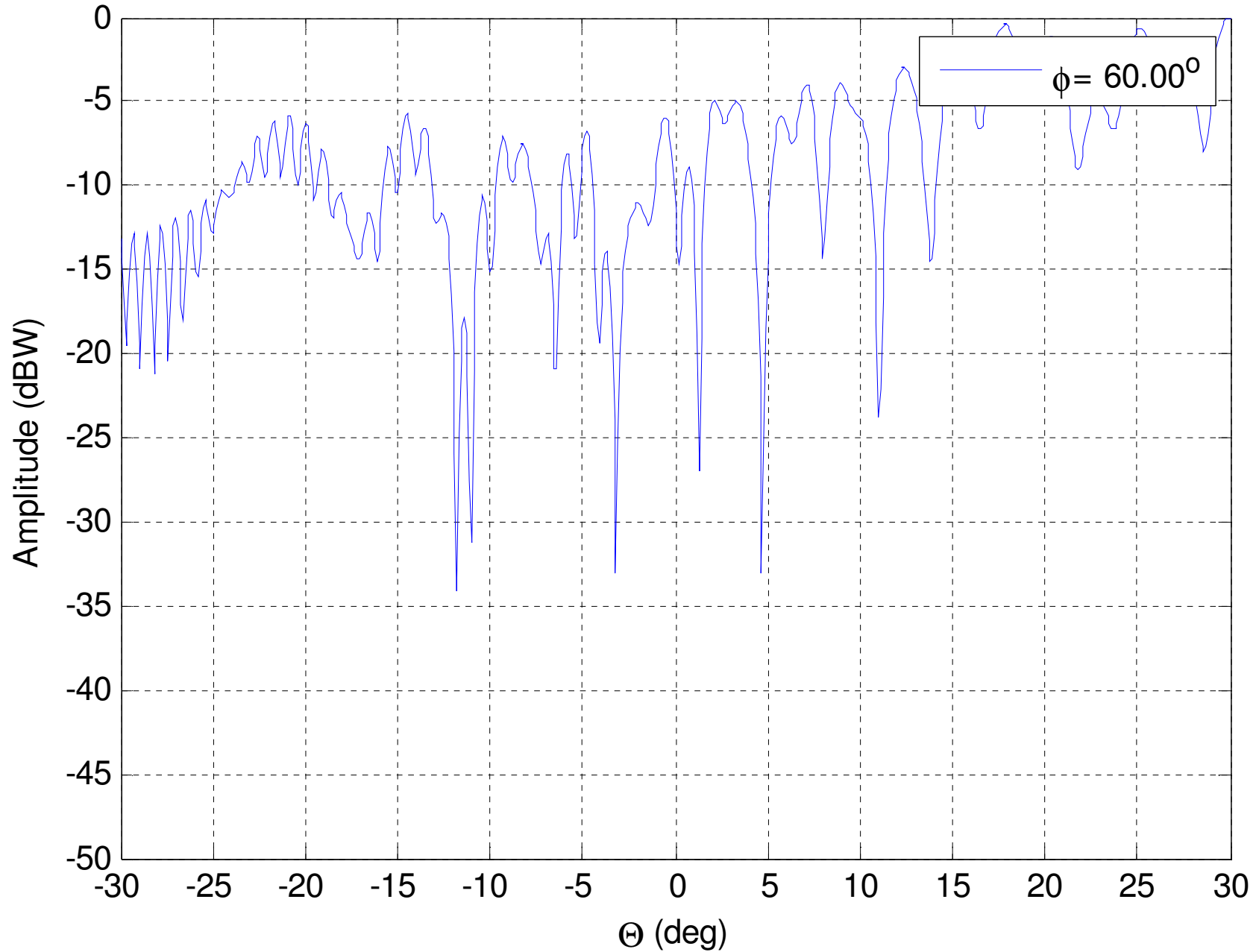
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp-50.cut, Peak: -2.16 dBW, Date: 16-Dec-2011



Normalized pattern cuts - farfield

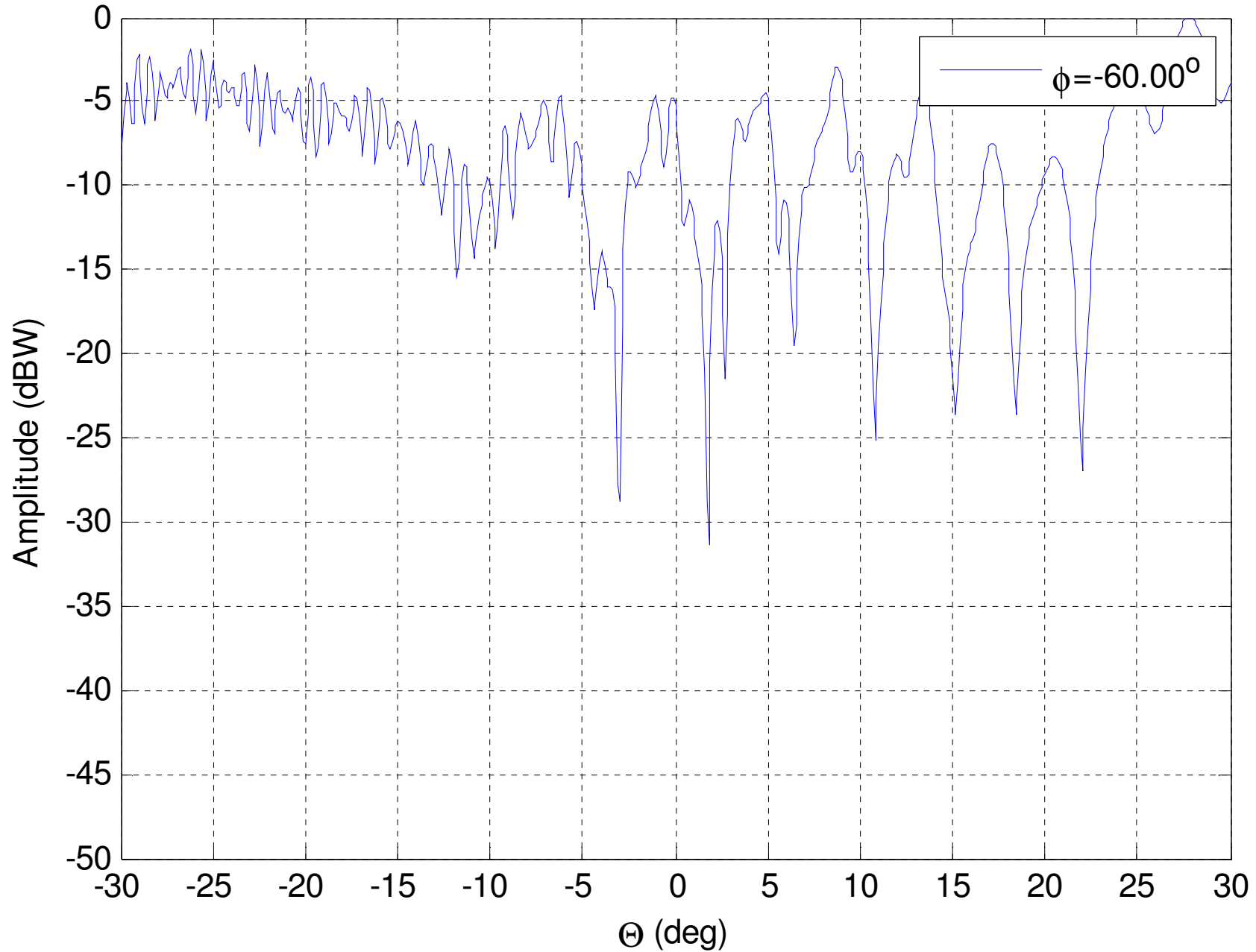
Input file: tx-17.3-lhcp-60.cut, Peak: -4.01 dBW, Date: 16-Dec-2011



RHCP at 17.5 GHz

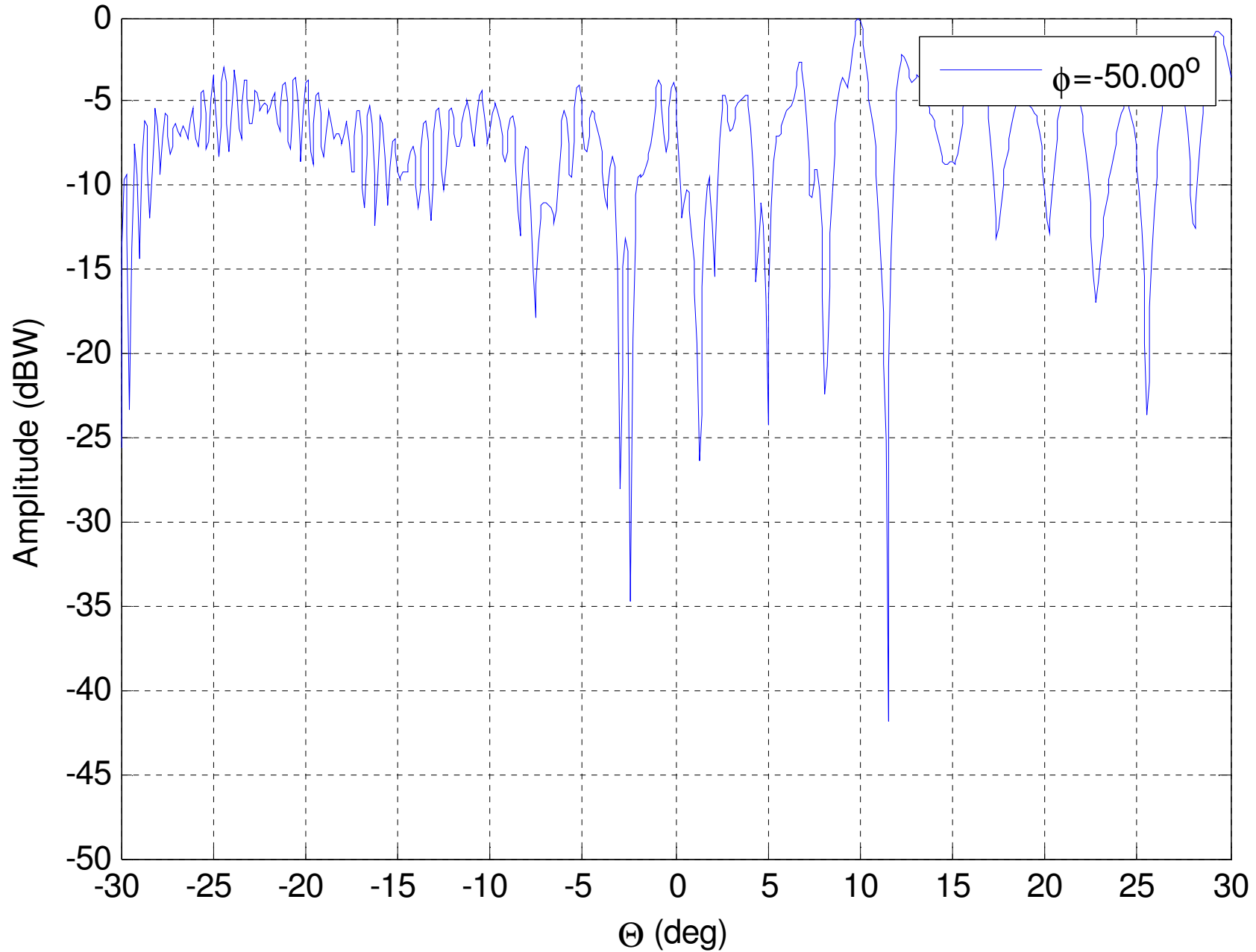
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--60.cut, Peak: -3.99 dBW, Date: 16-Dec-2011



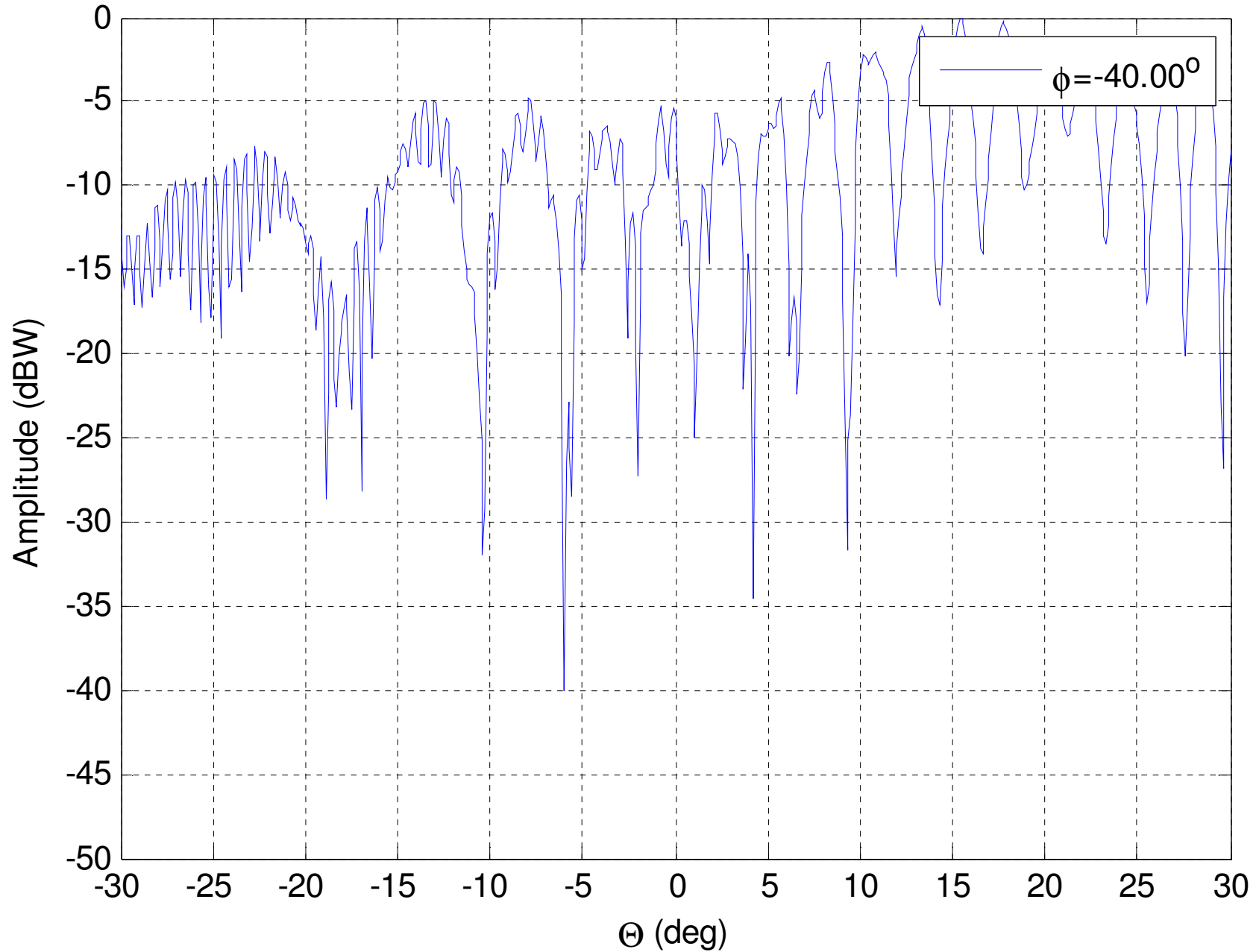
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--50.cut, Peak: -4.78 dBW, Date: 16-Dec-2011



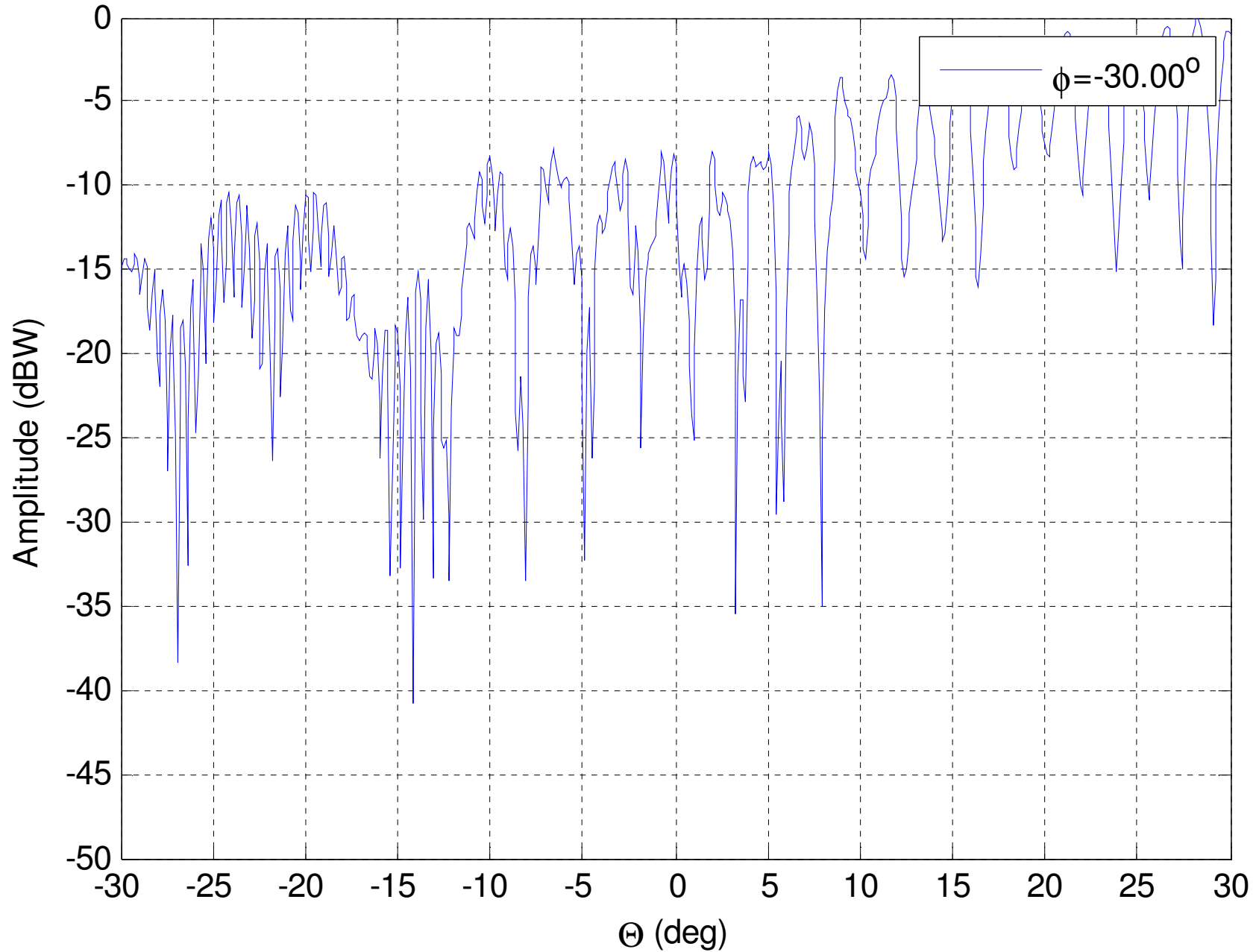
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--40.cut, Peak: -3.21 dBW, Date: 16-Dec-2011



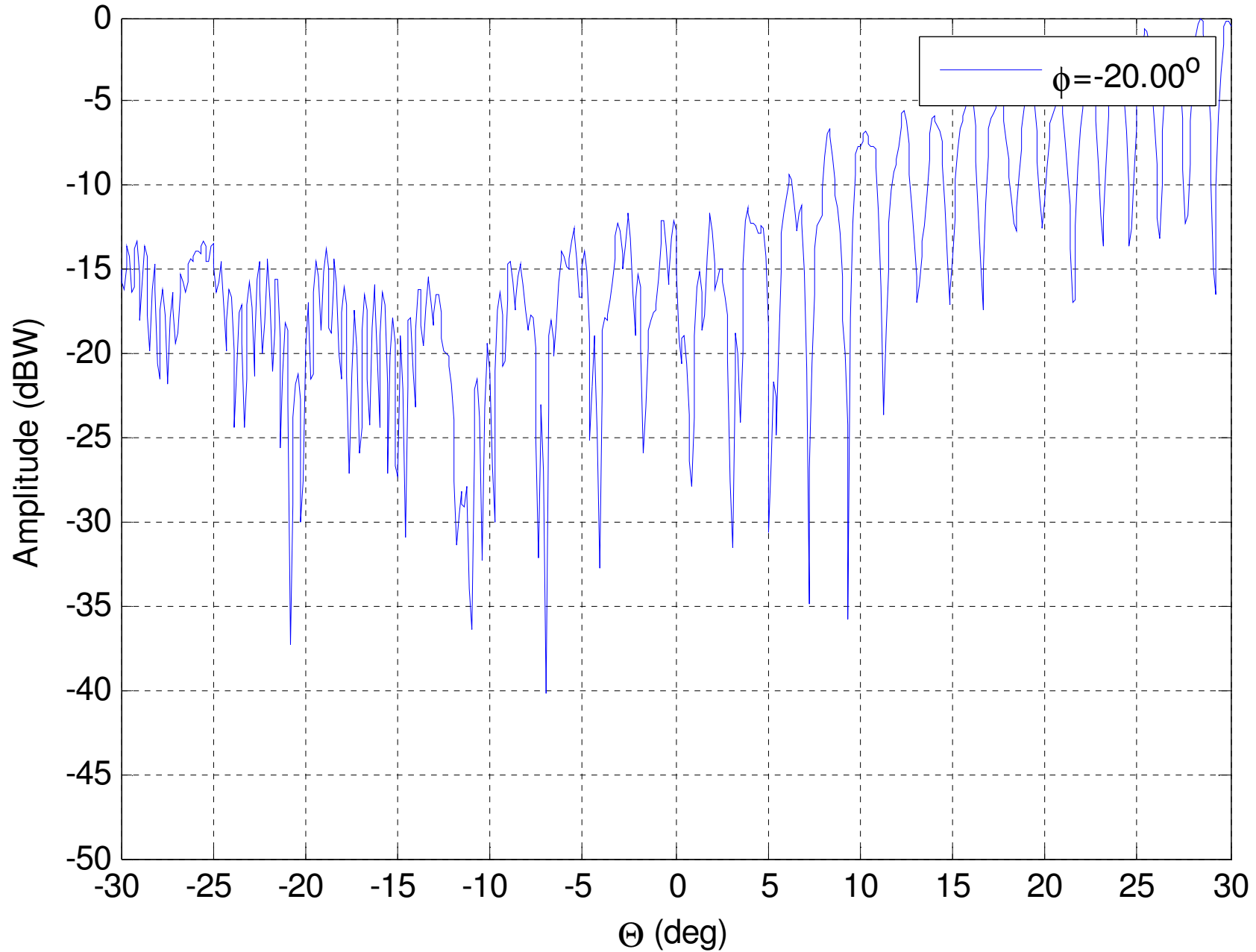
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--30.cut, Peak: -0.49 dBW, Date: 16-Dec-2011



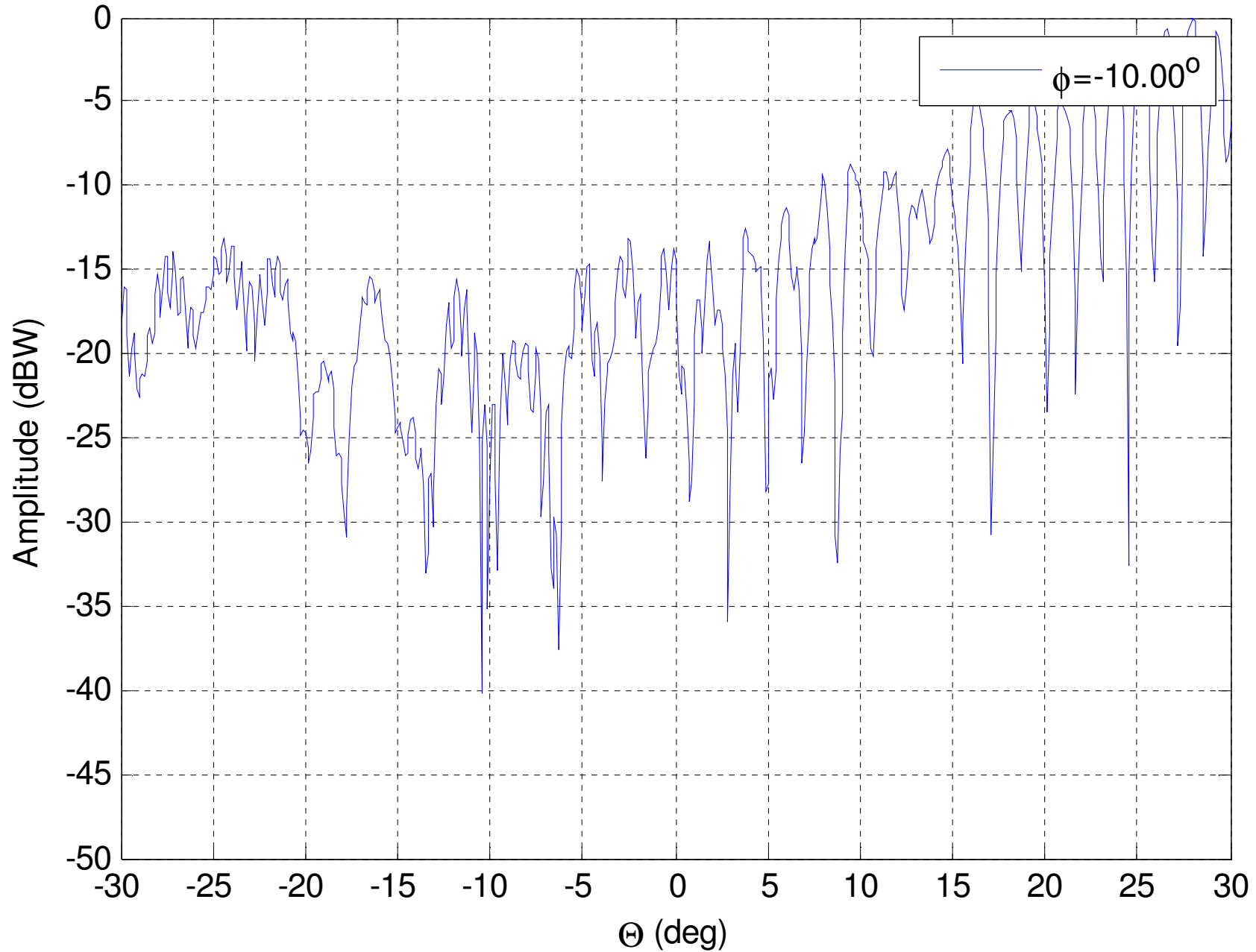
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--20.cut, Peak: 3.39 dBW, Date: 16-Dec-2011



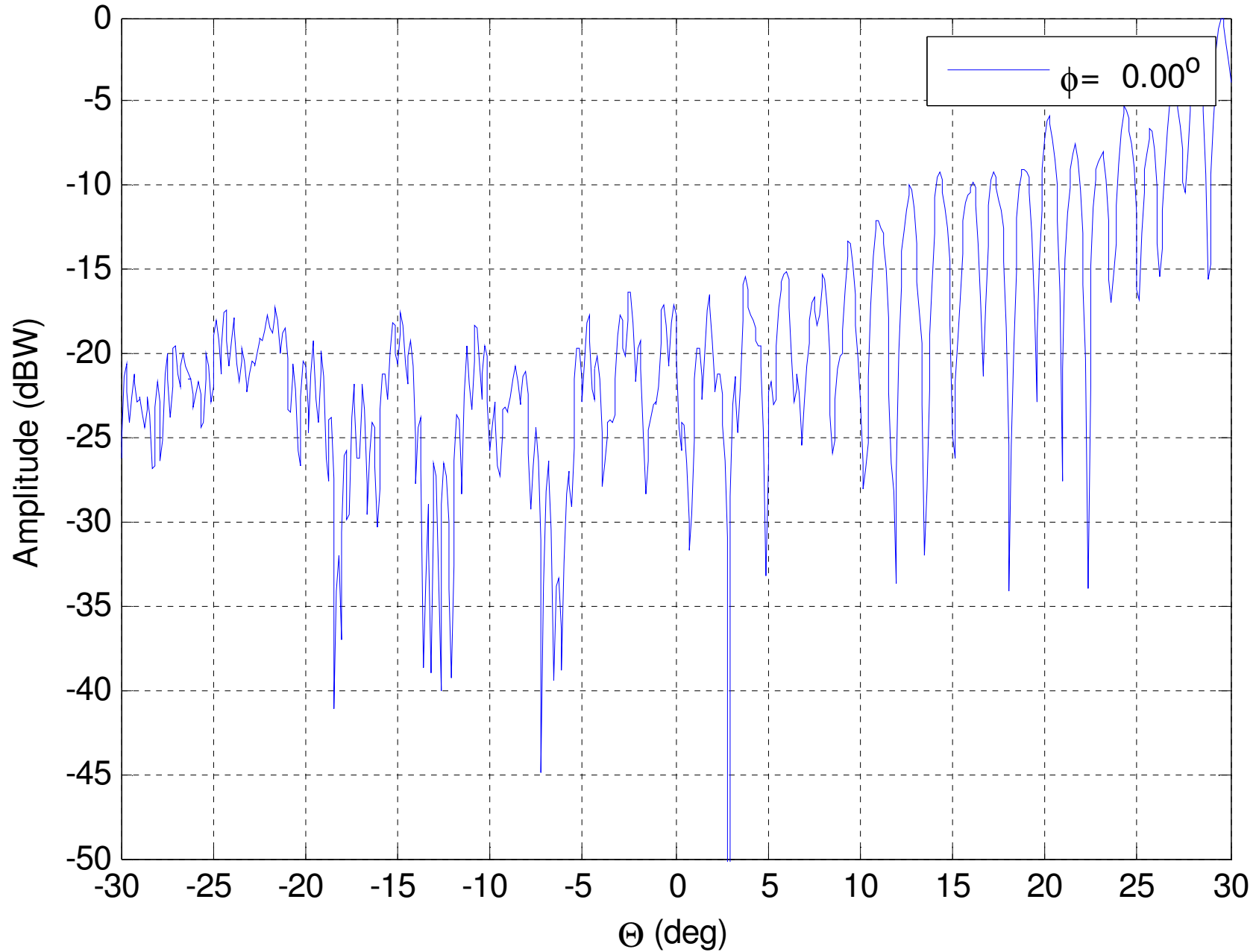
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--10.cut, Peak: 5.18 dBW, Date: 16-Dec-2011



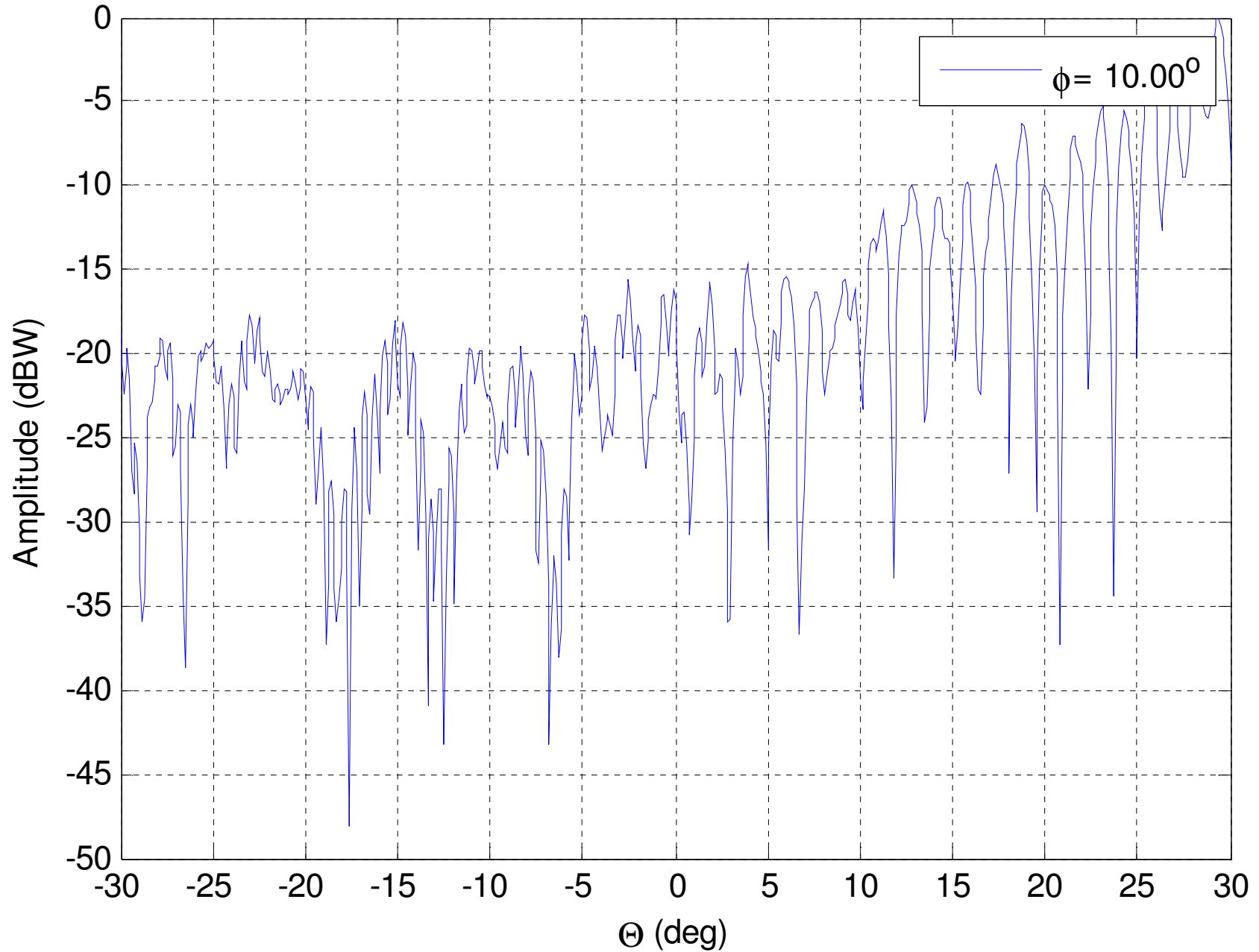
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-0.cut, Peak: 8.38 dBW, Date: 16-Dec-2011



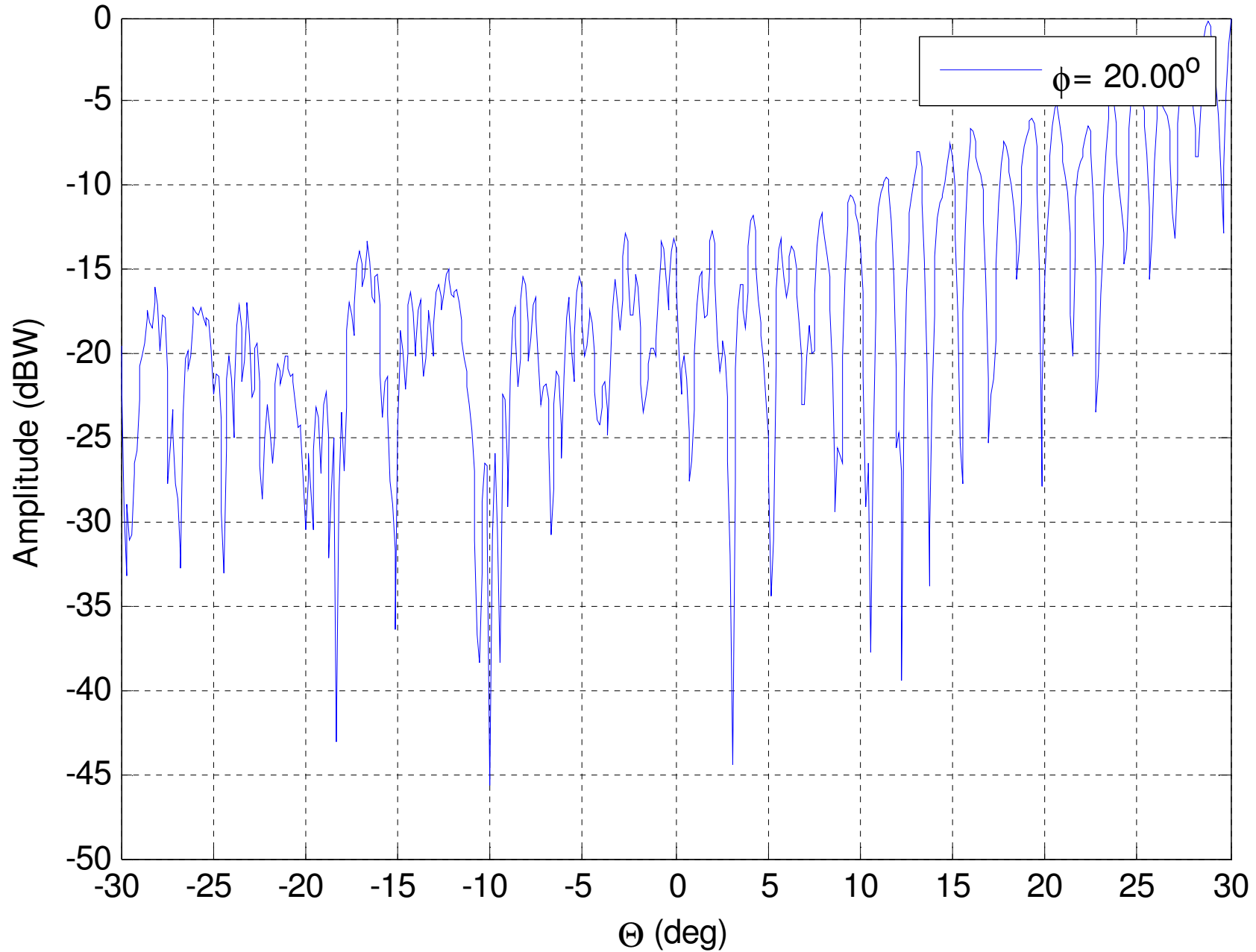
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-10.cut, Peak: 7.63 dBW, Date: 16-Dec-2011



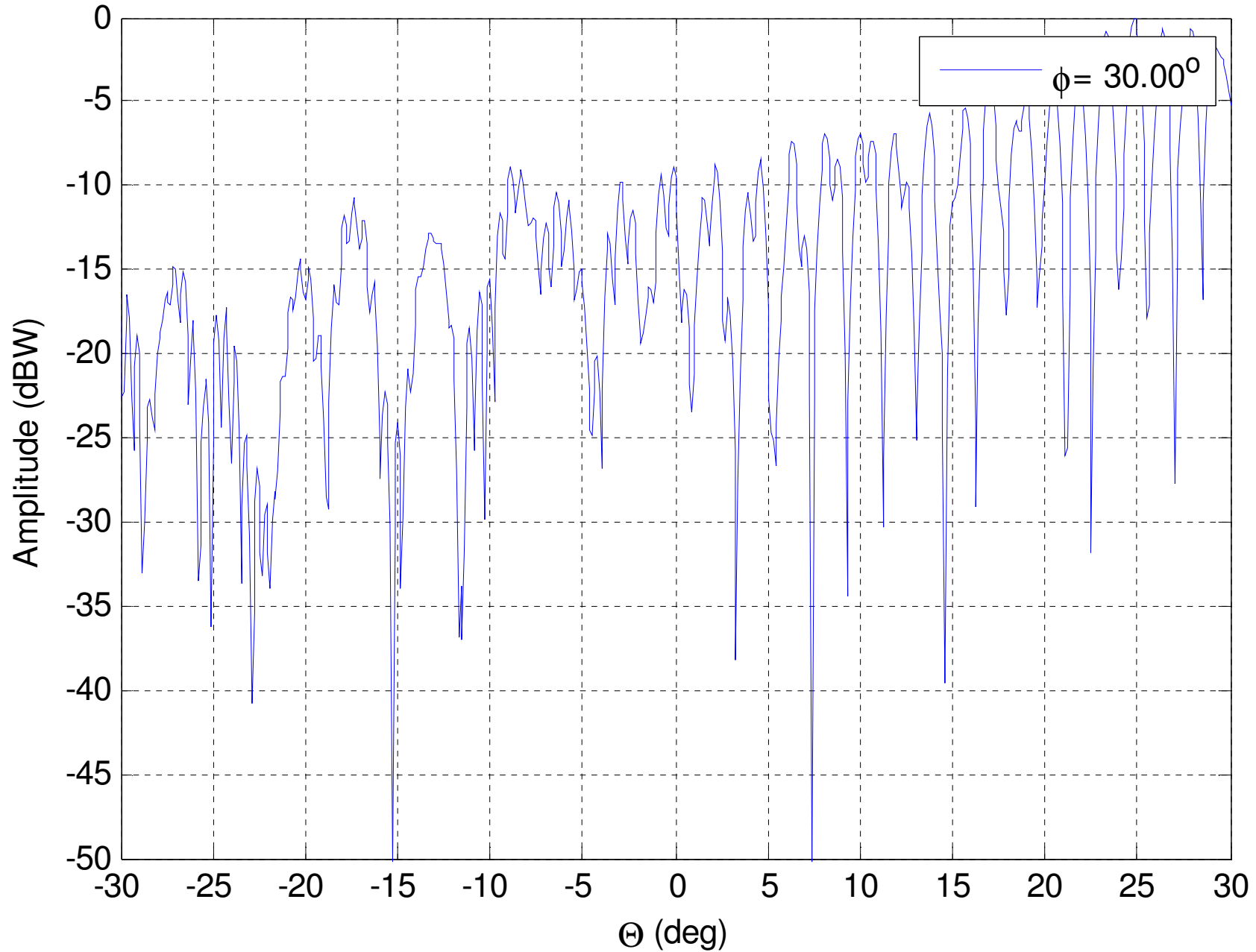
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-20.cut, Peak: 4.46 dBW, Date: 16-Dec-2011



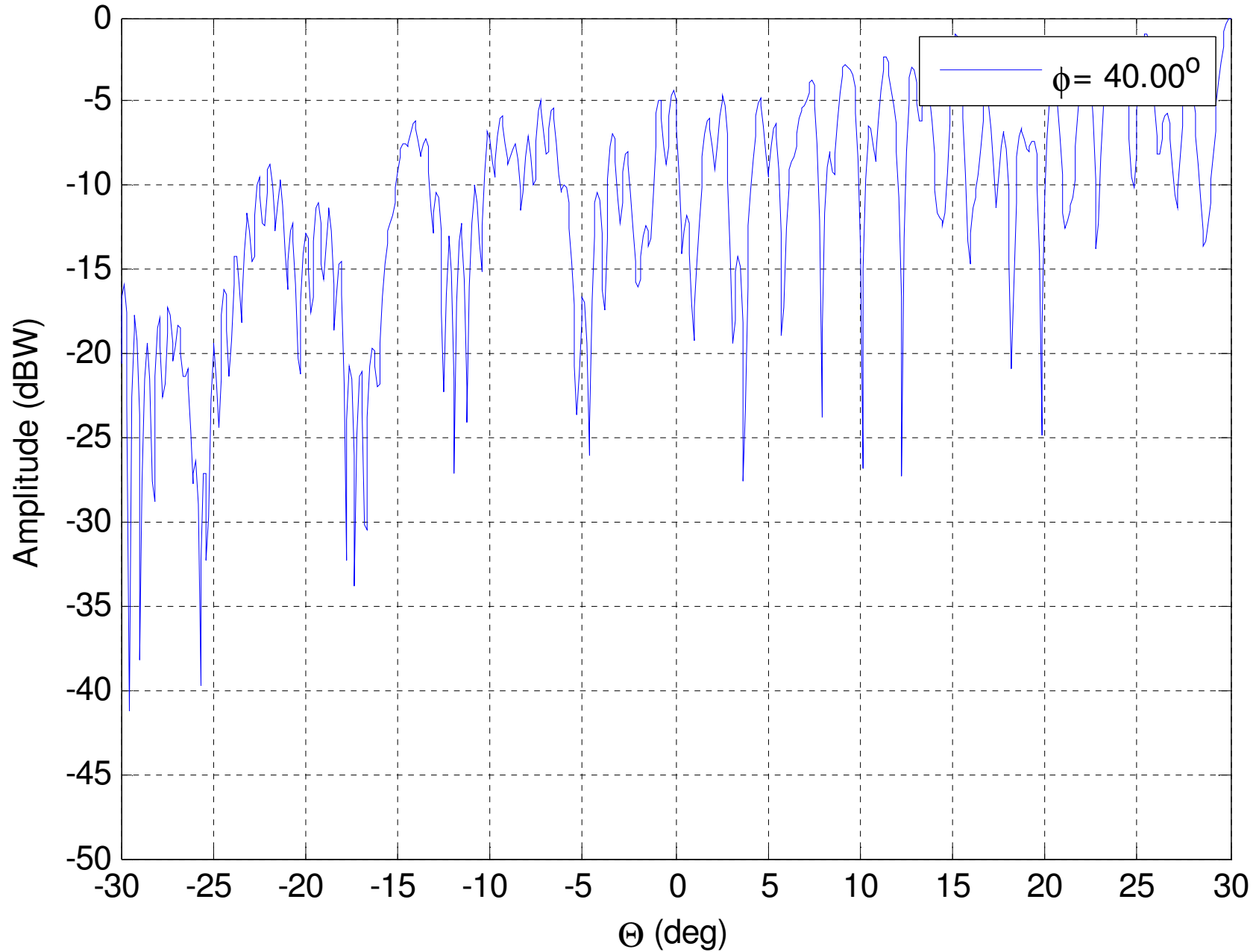
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-30.cut, Peak: 0.22 dBW, Date: 16-Dec-2011



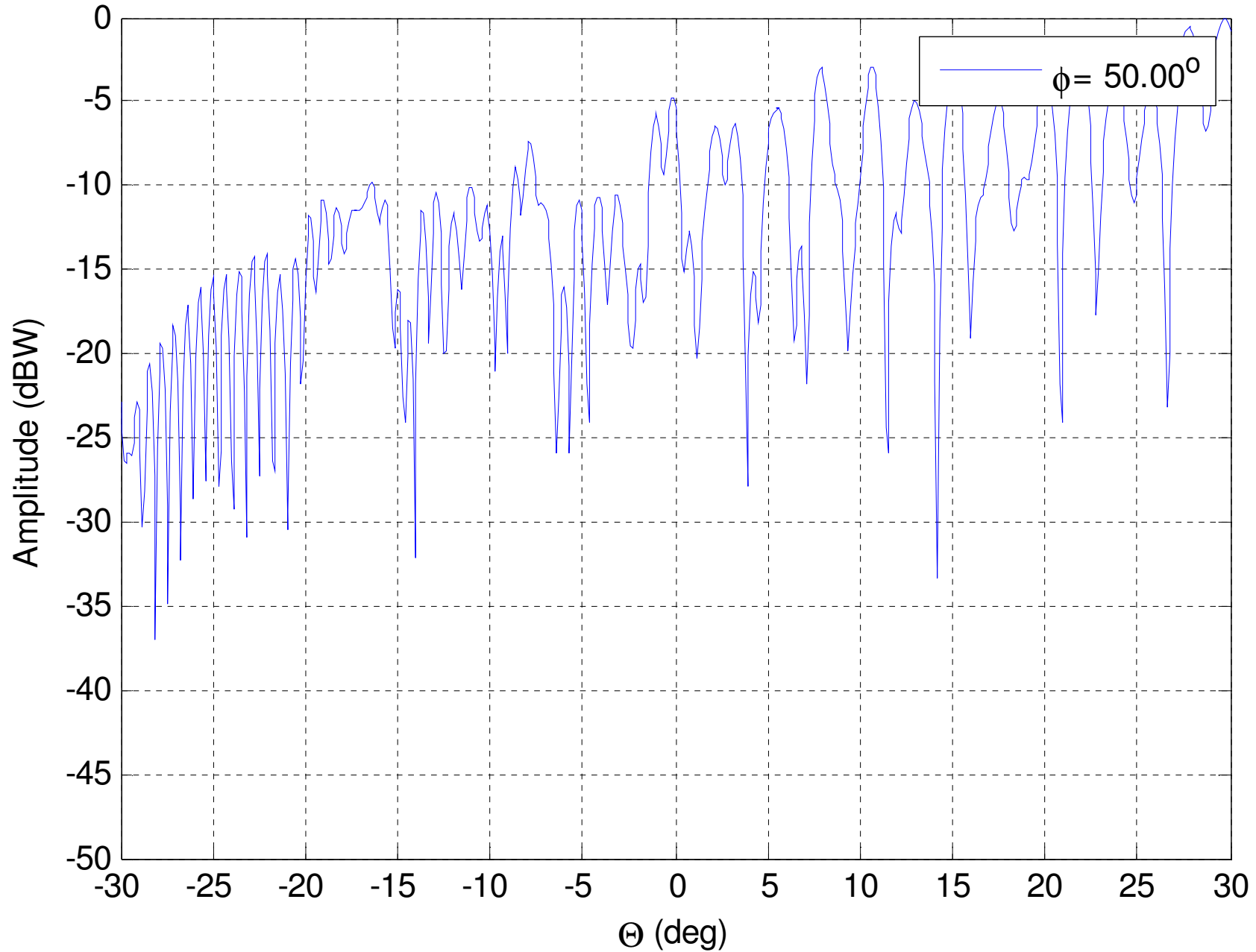
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-40.cut, Peak: -4.36 dBW, Date: 16-Dec-2011



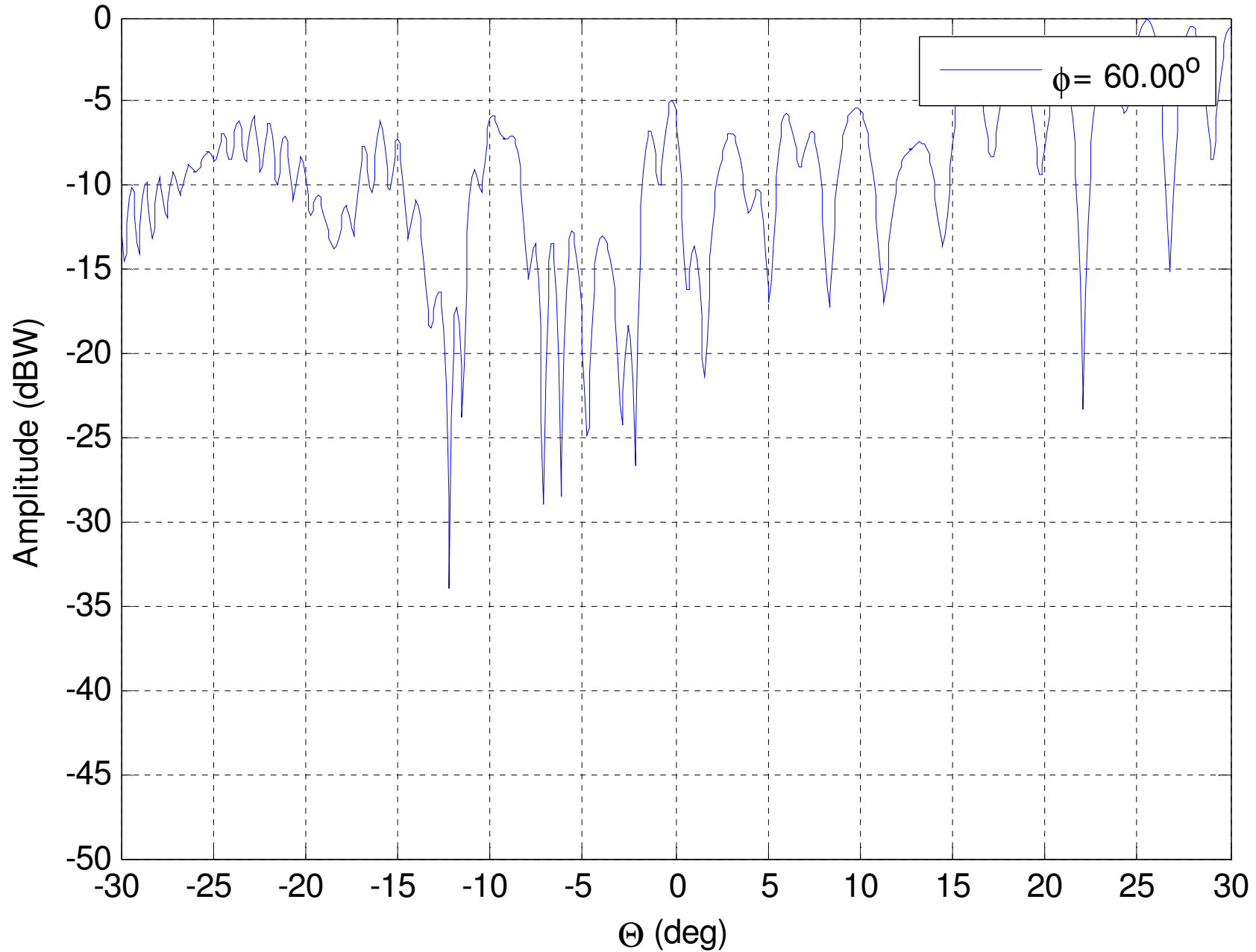
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-50.cut, Peak: -3.88 dBW, Date: 16-Dec-2011



Normalized pattern cuts - farfield

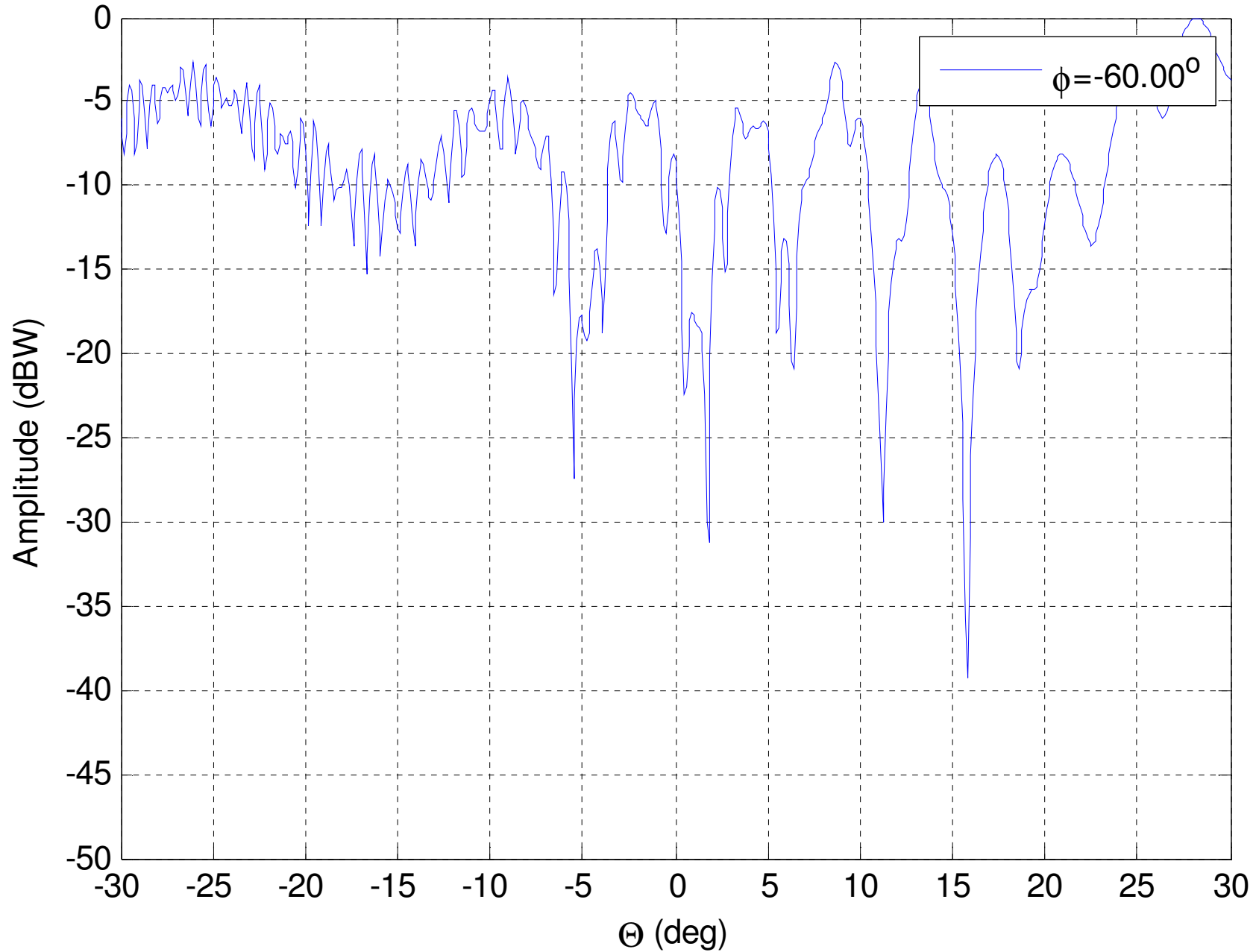
Input file: tx-17.5-rhcp-60.cut, Peak: -3.70 dBW, Date: 16-Dec-2011



LHCP at 17.5 GHz

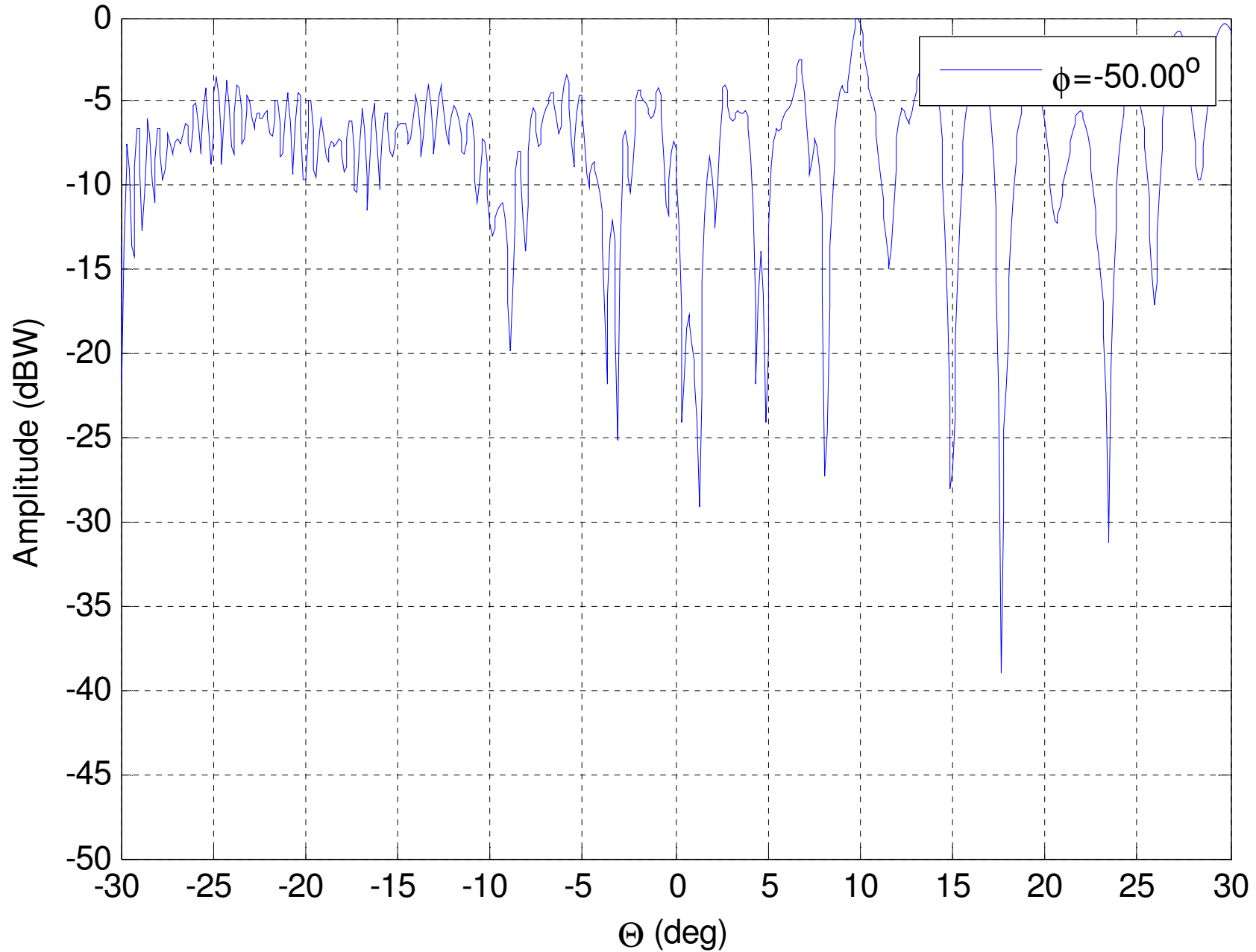
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--60.cut, Peak: -3.65 dBW, Date: 16-Dec-2011



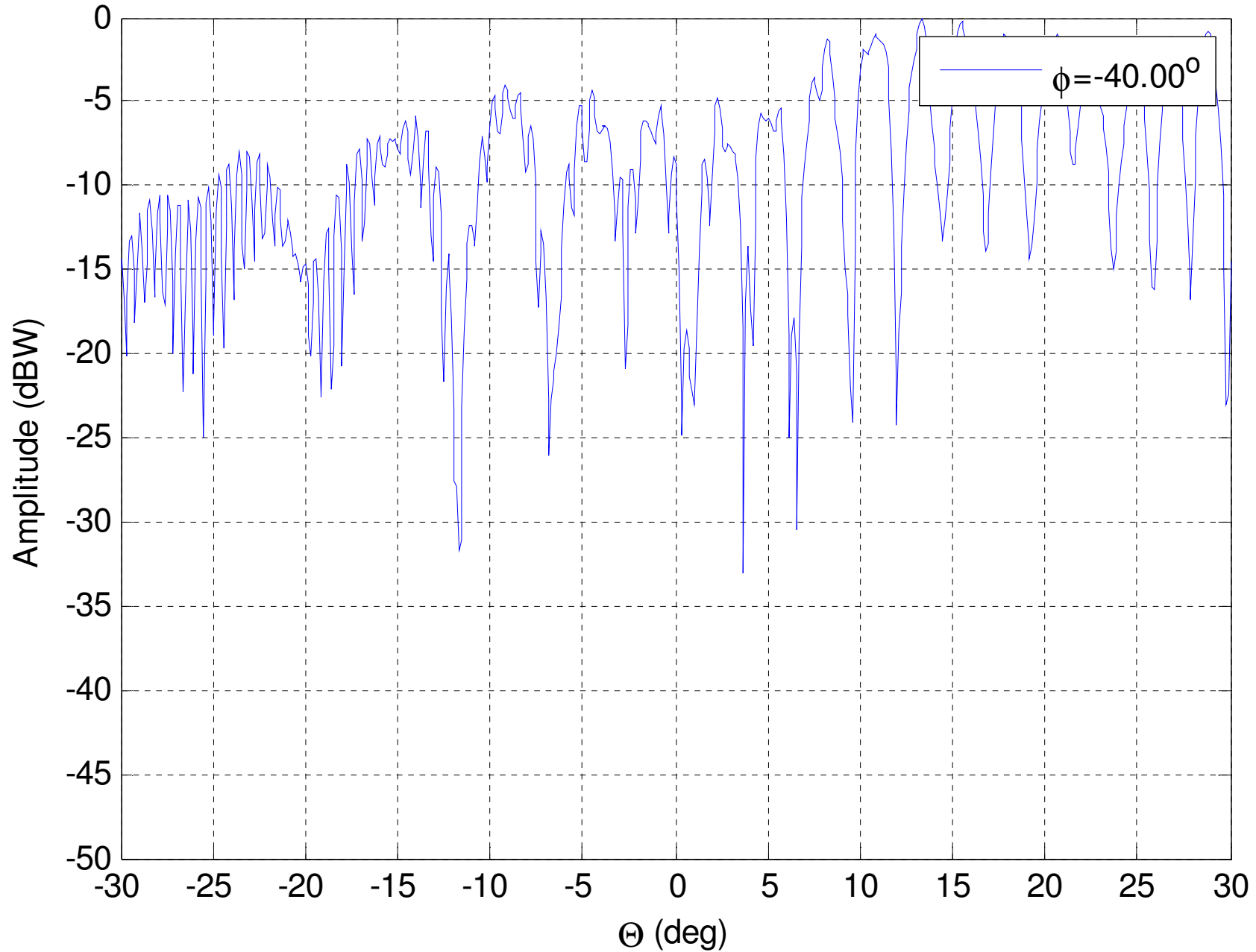
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--50.cut, Peak: -4.48 dBW, Date: 16-Dec-2011



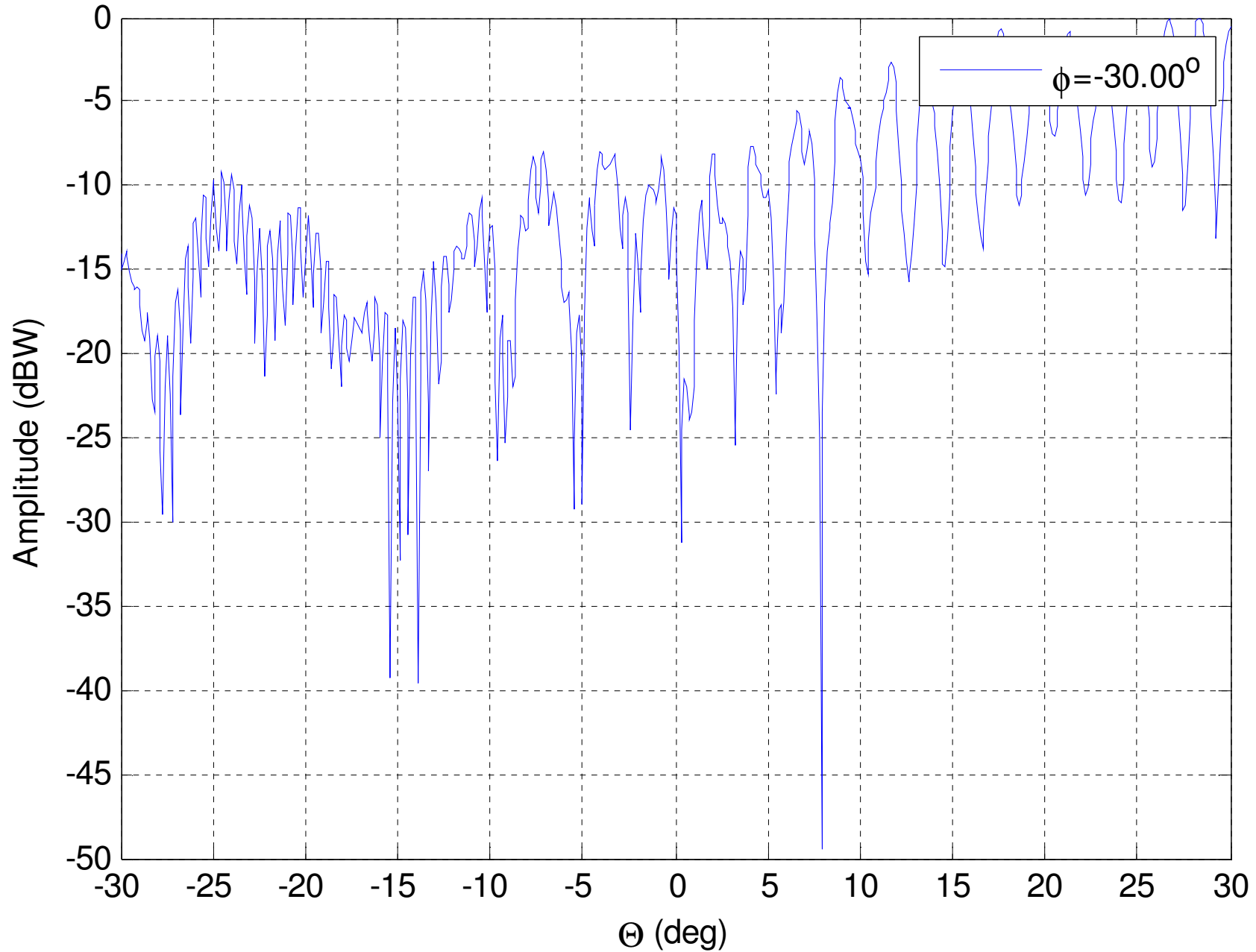
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--40.cut, Peak: -3.54 dBW, Date: 16-Dec-2011



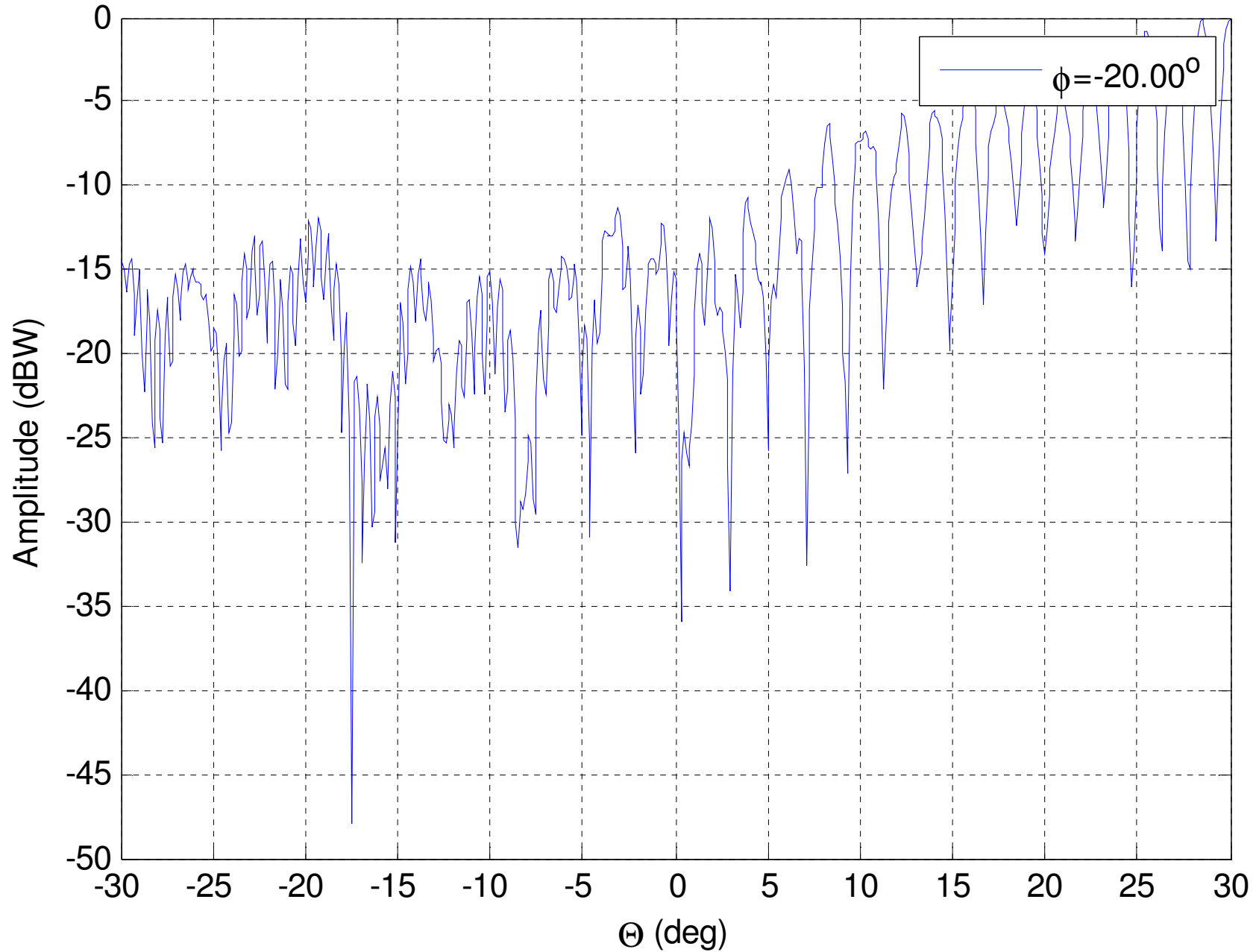
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--30.cut, Peak: -0.46 dBW, Date: 16-Dec-2011



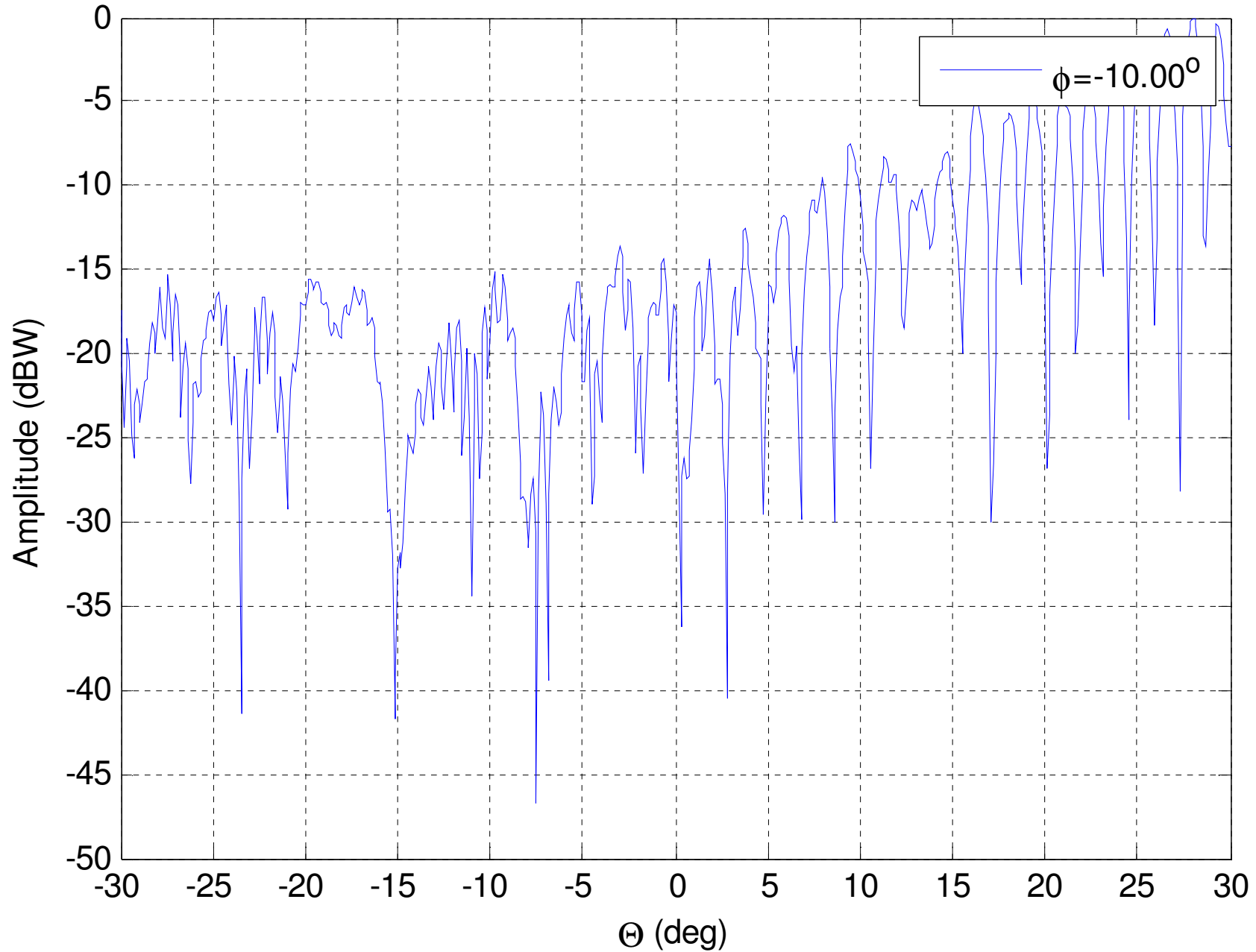
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--20.cut, Peak: 3.22 dBW, Date: 16-Dec-2011



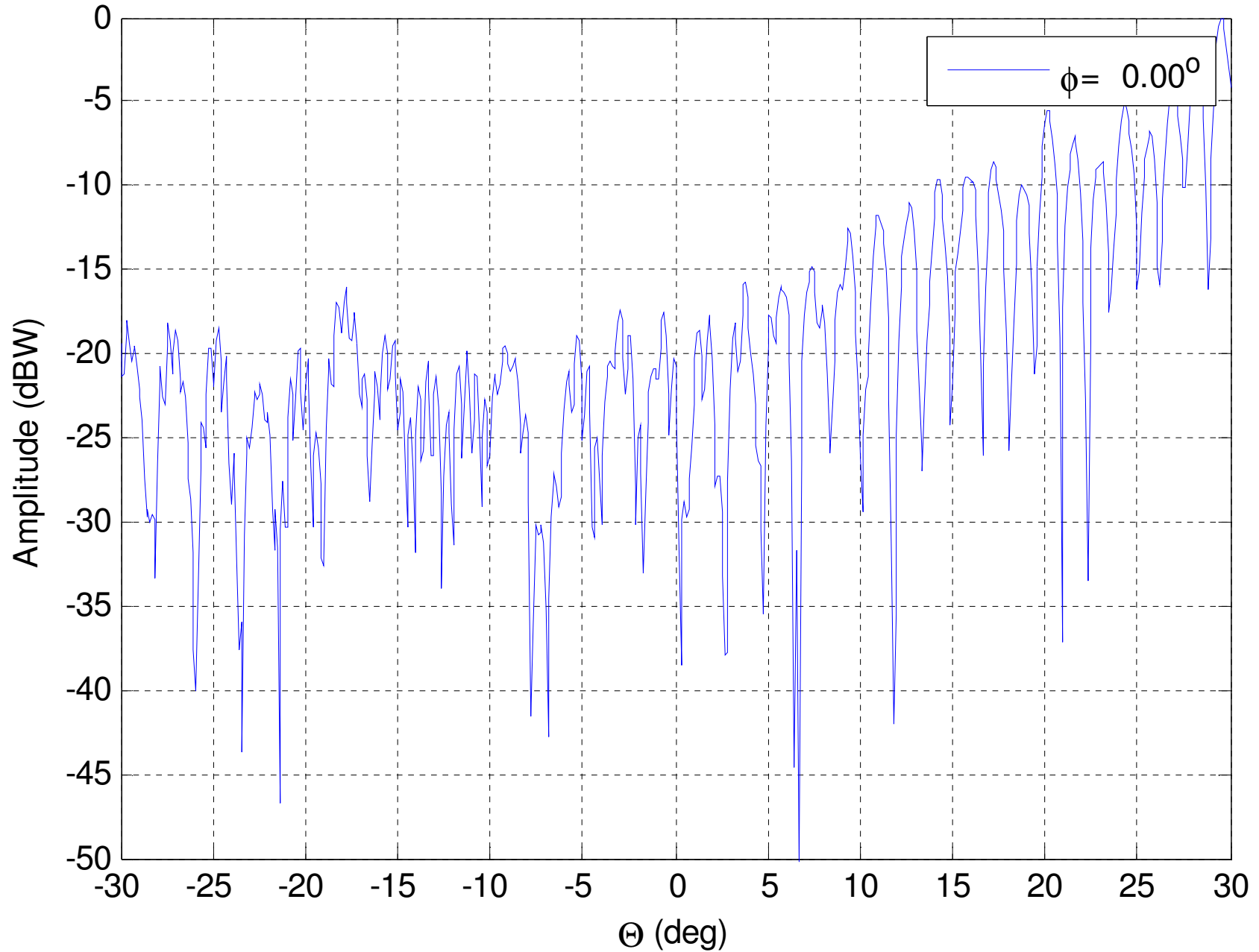
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--10.cut, Peak: 5.25 dBW, Date: 16-Dec-2011



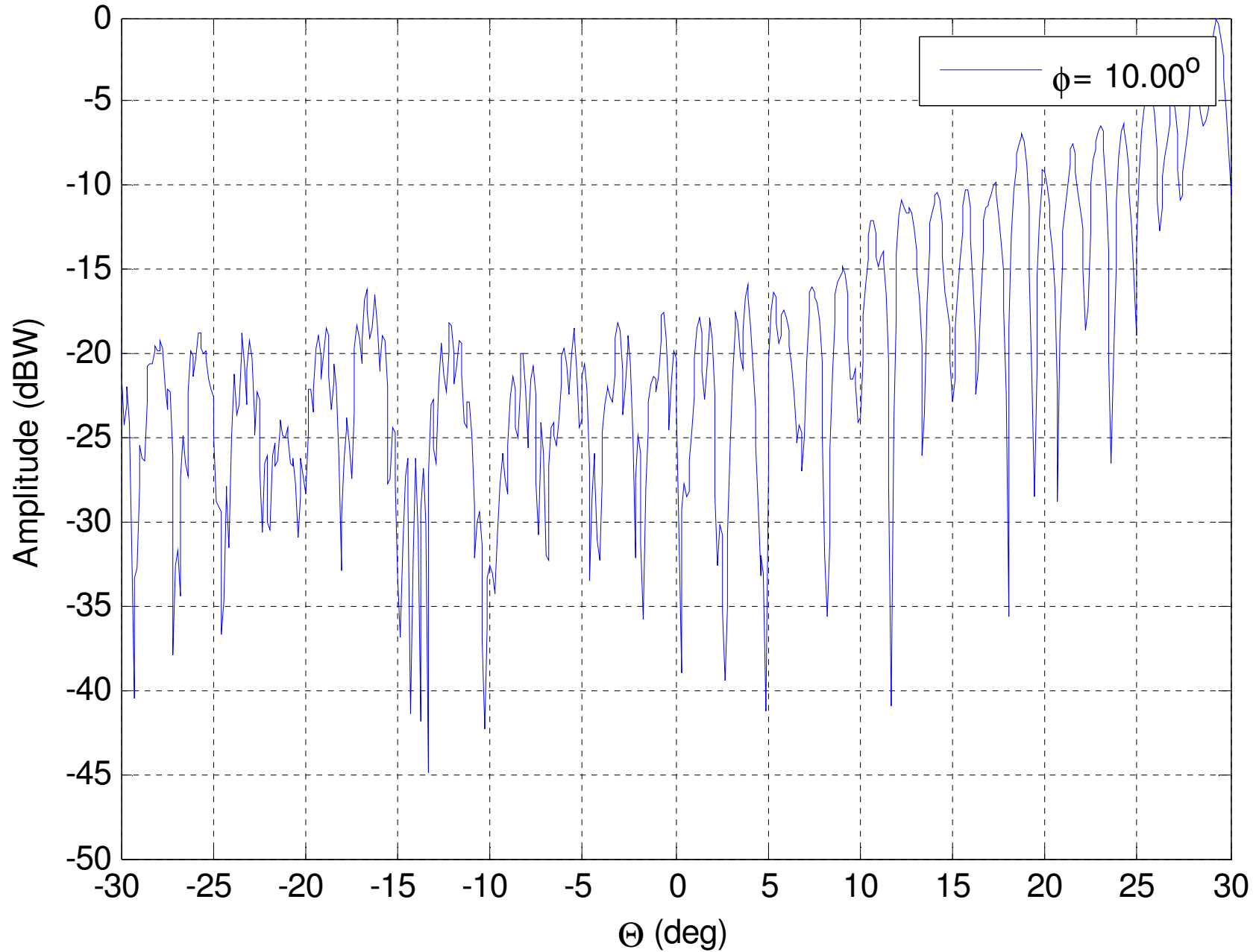
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-0.cut, Peak: 8.40 dBW, Date: 16-Dec-2011



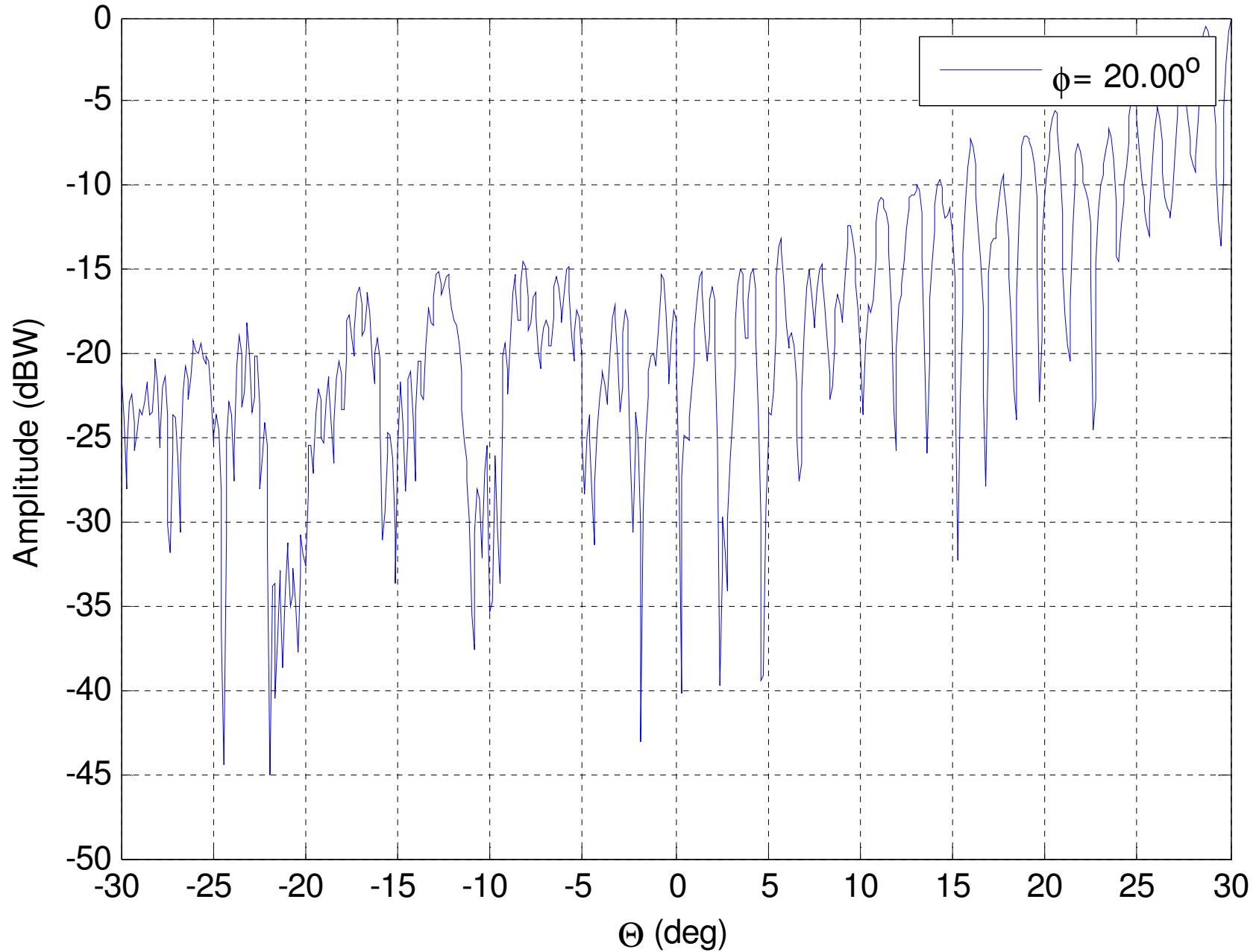
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-10.cut, Peak: 8.07 dBW, Date: 16-Dec-2011



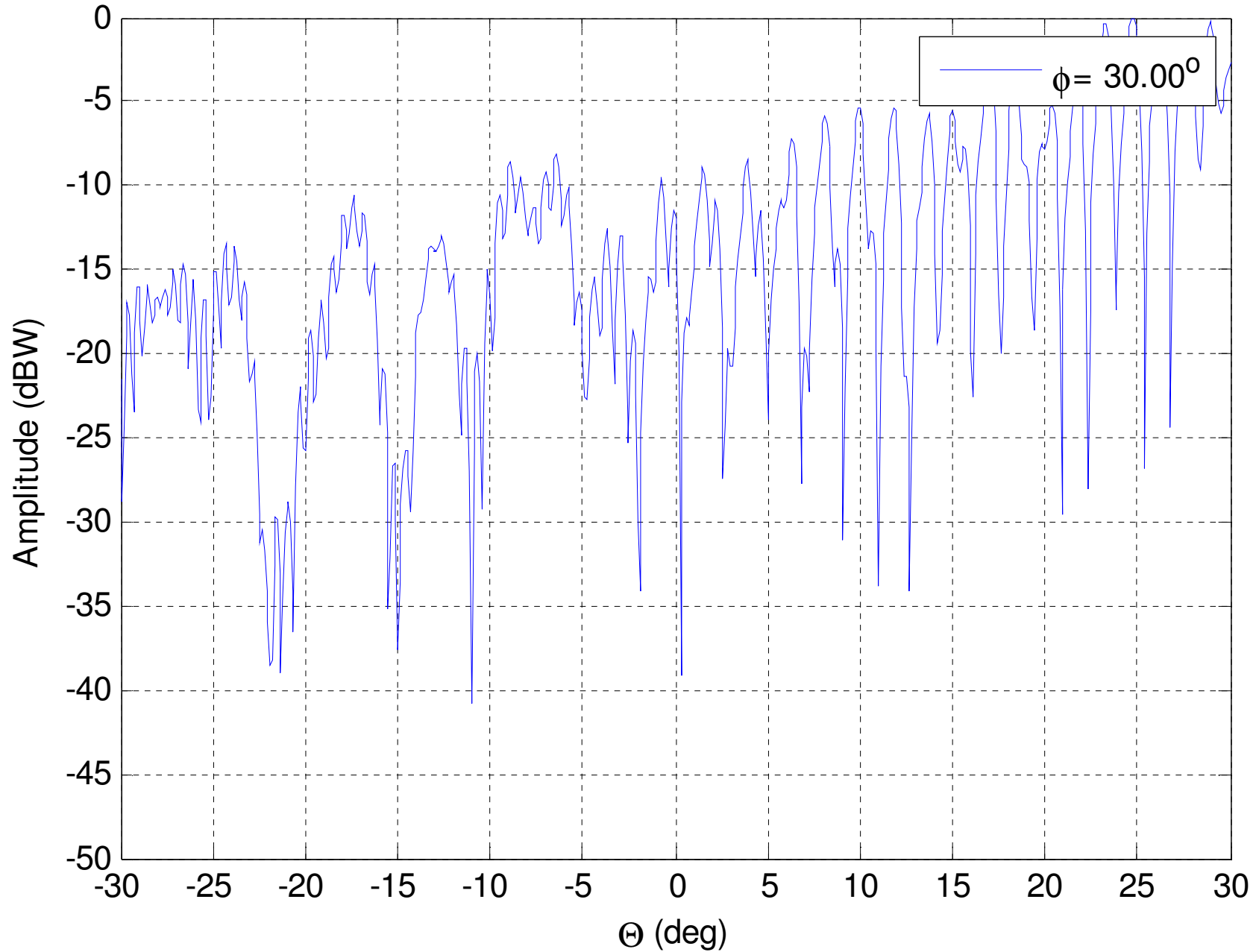
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-20.cut, Peak: 5.67 dBW, Date: 16-Dec-2011



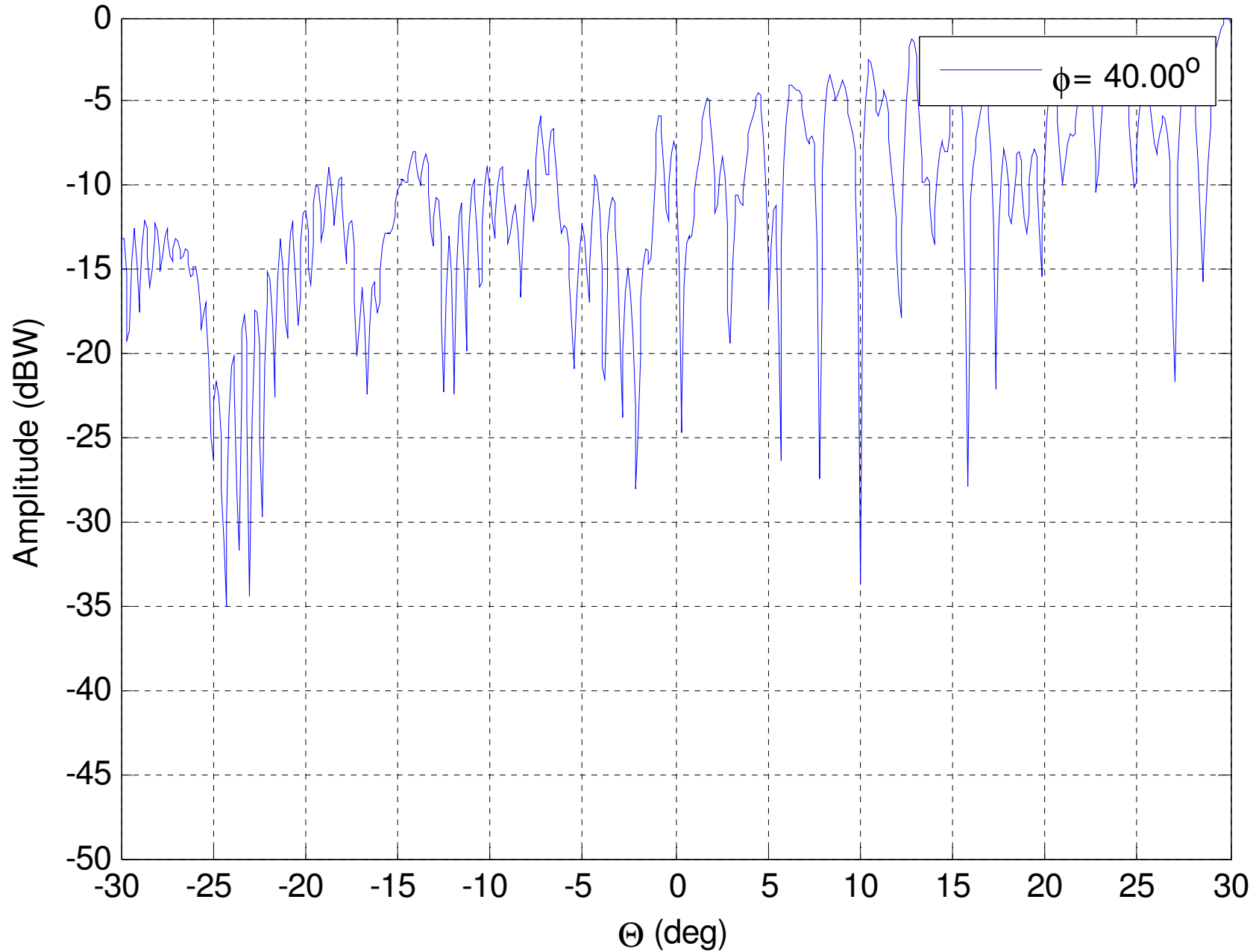
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-30.cut, Peak: -0.33 dBW, Date: 16-Dec-2011



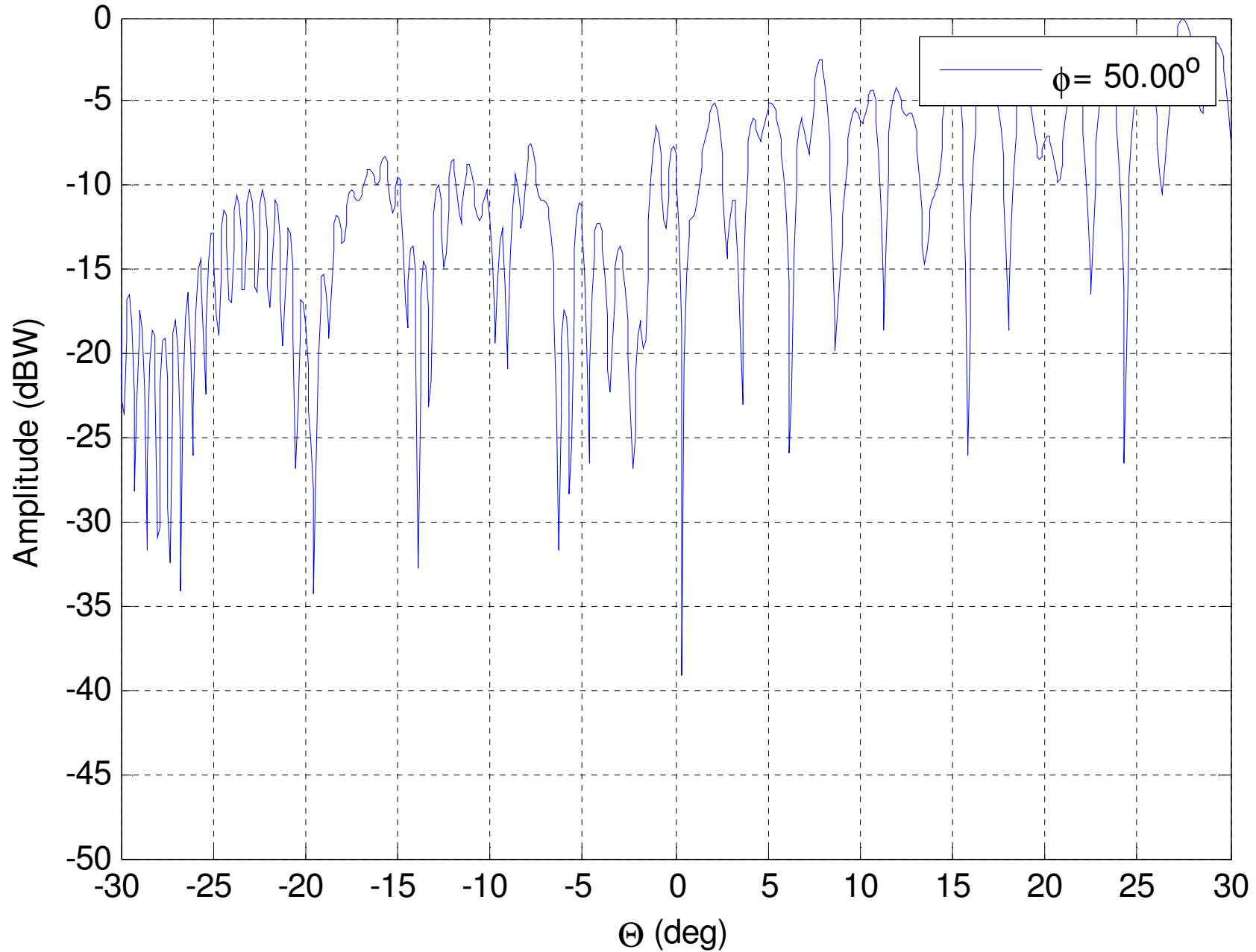
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-40.cut, Peak: -4.29 dBW, Date: 16-Dec-2011



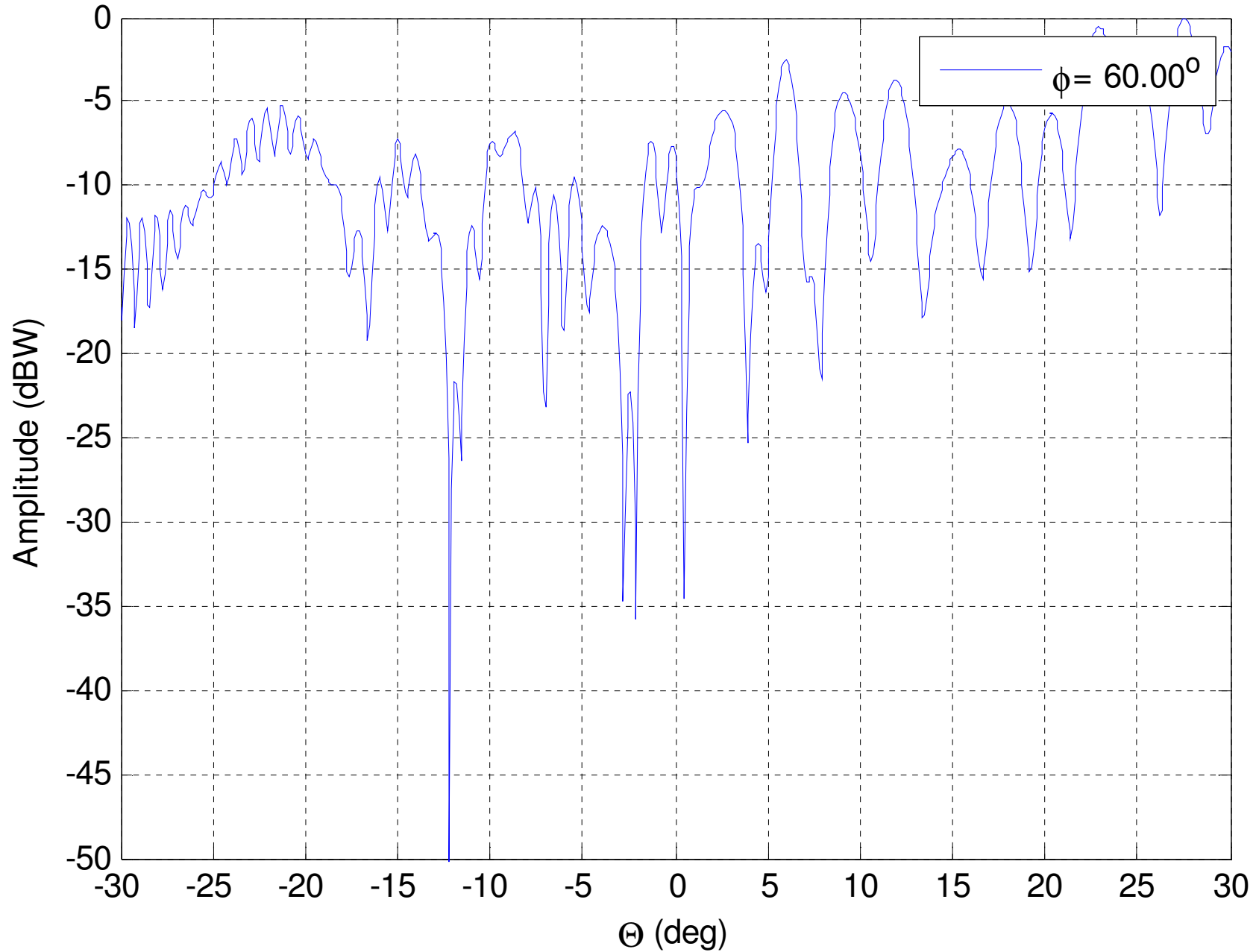
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-50.cut, Peak: -4.08 dBW, Date: 16-Dec-2011



Normalized pattern cuts - farfield

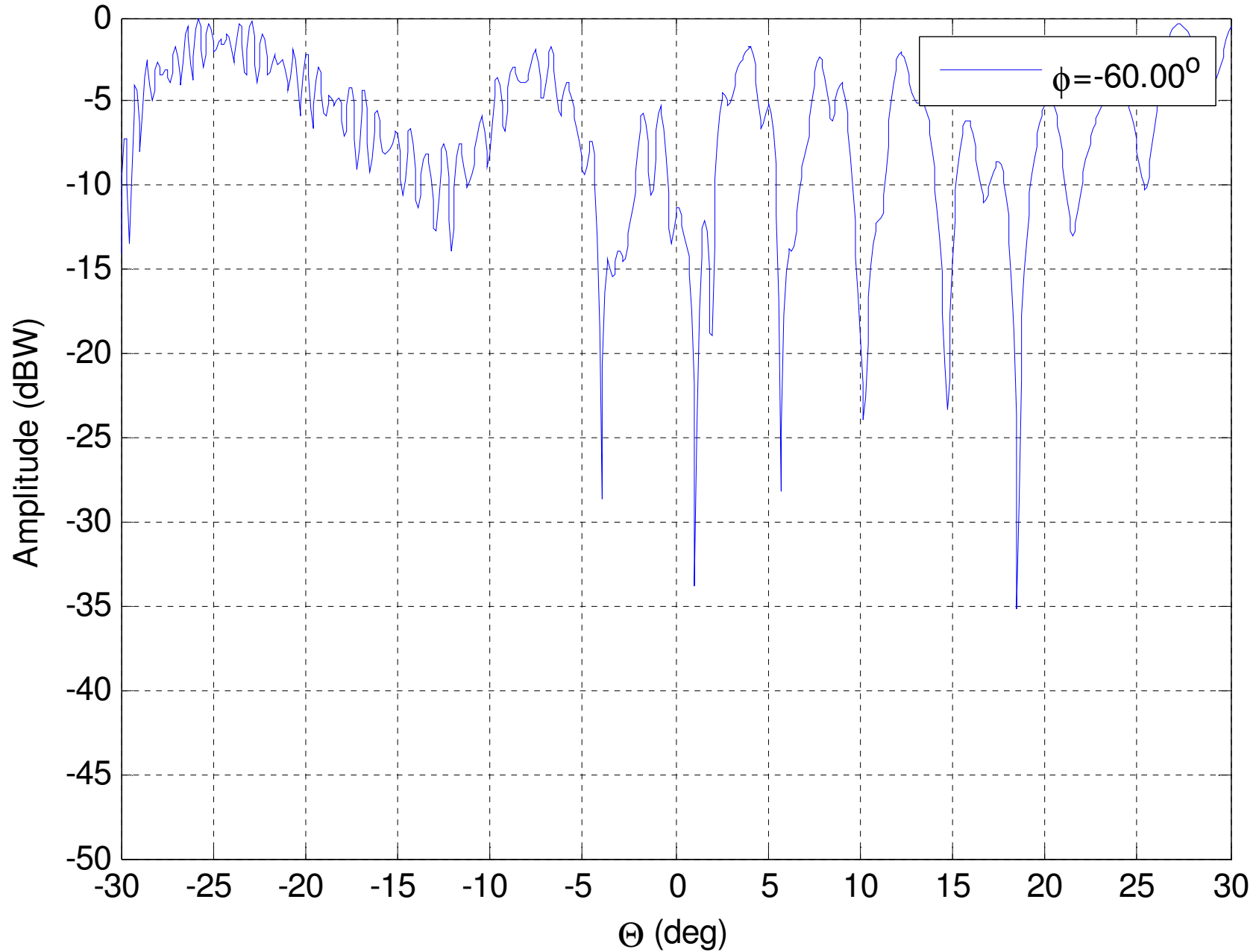
Input file: tx-17.5-lhcp-60.cut, Peak: -4.05 dBW, Date: 16-Dec-2011



RHCP at 17.7 GHz

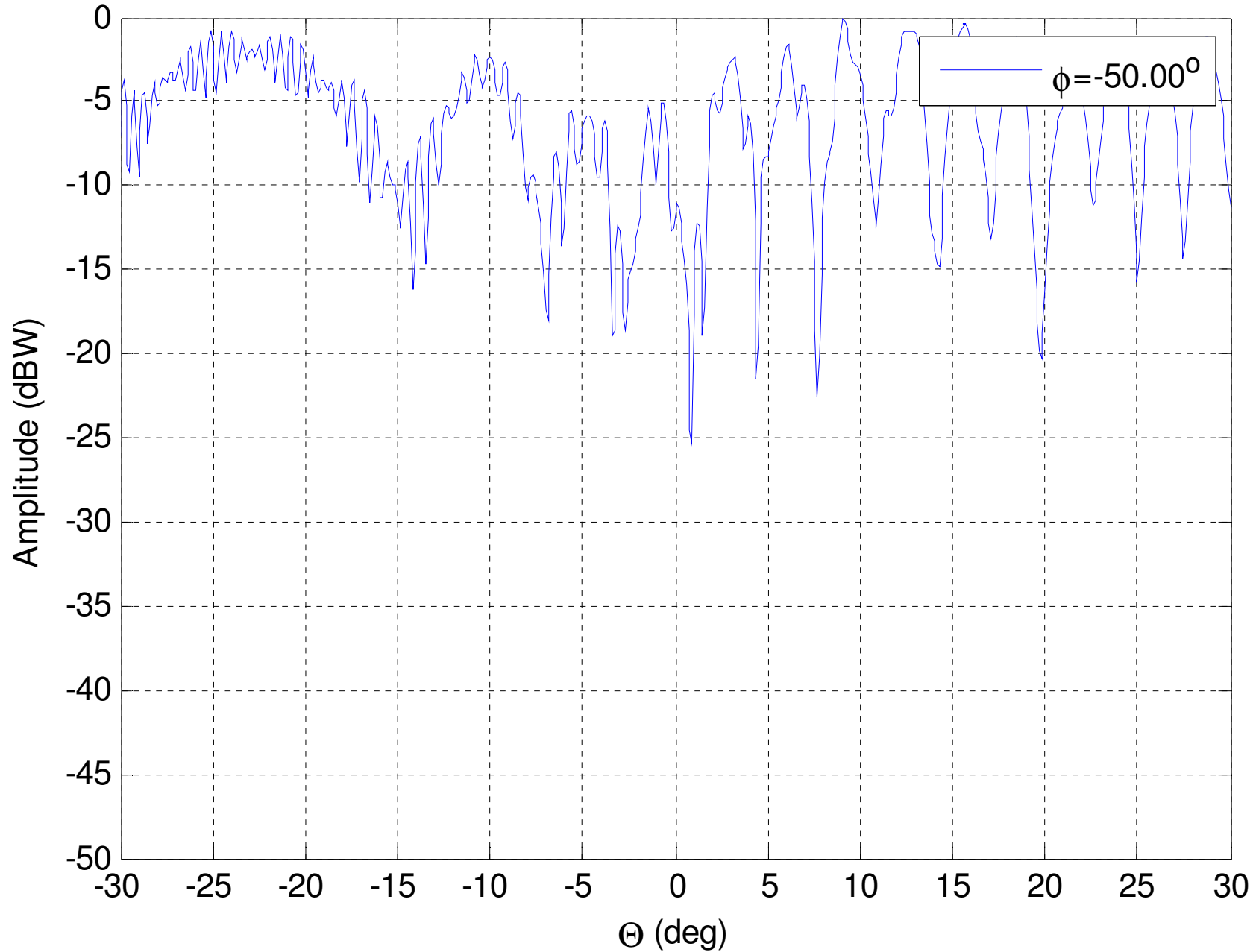
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--60.cut, Peak: -5.22 dBW, Date: 16-Dec-2011



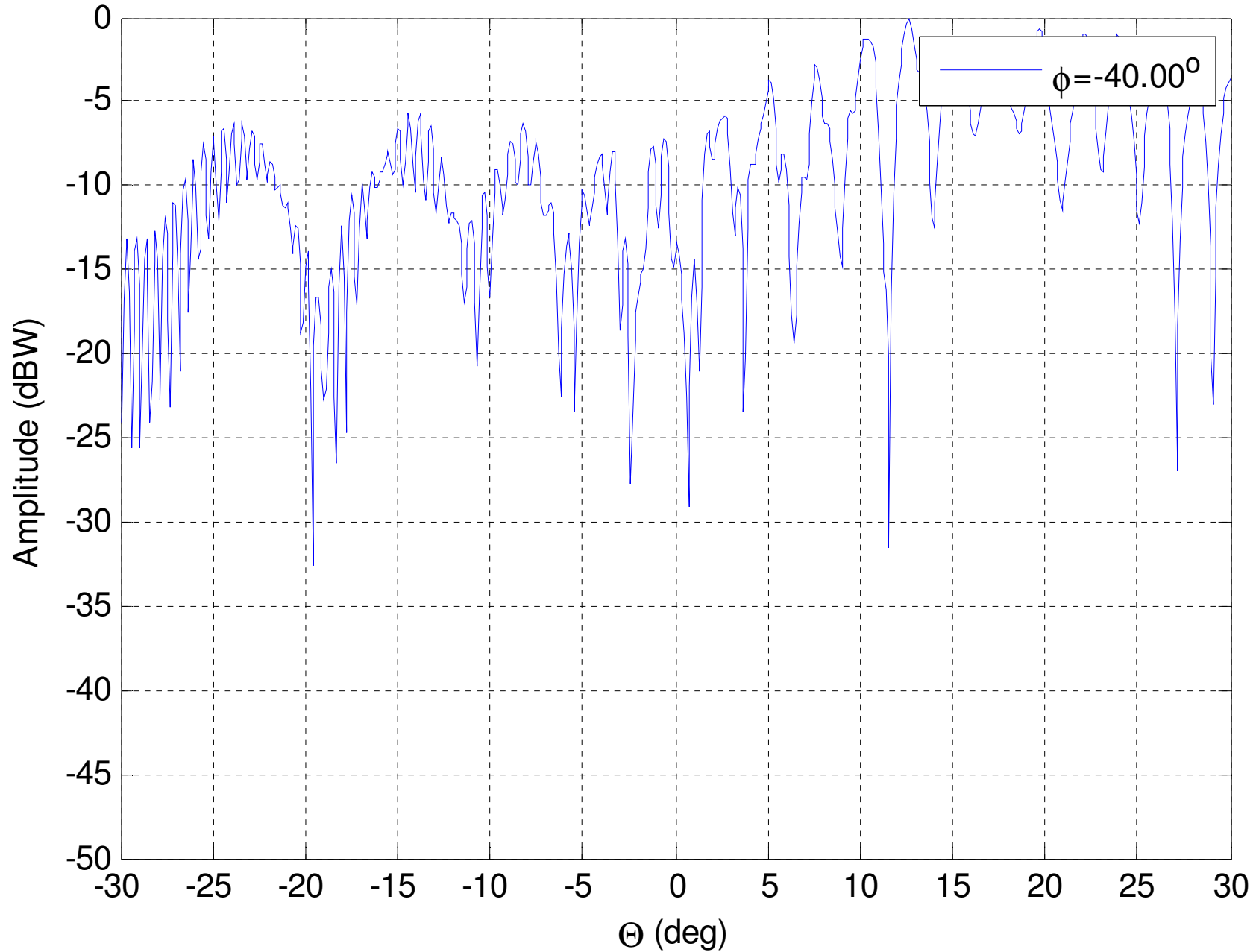
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--50.cut, Peak: -5.55 dBW, Date: 16-Dec-2011



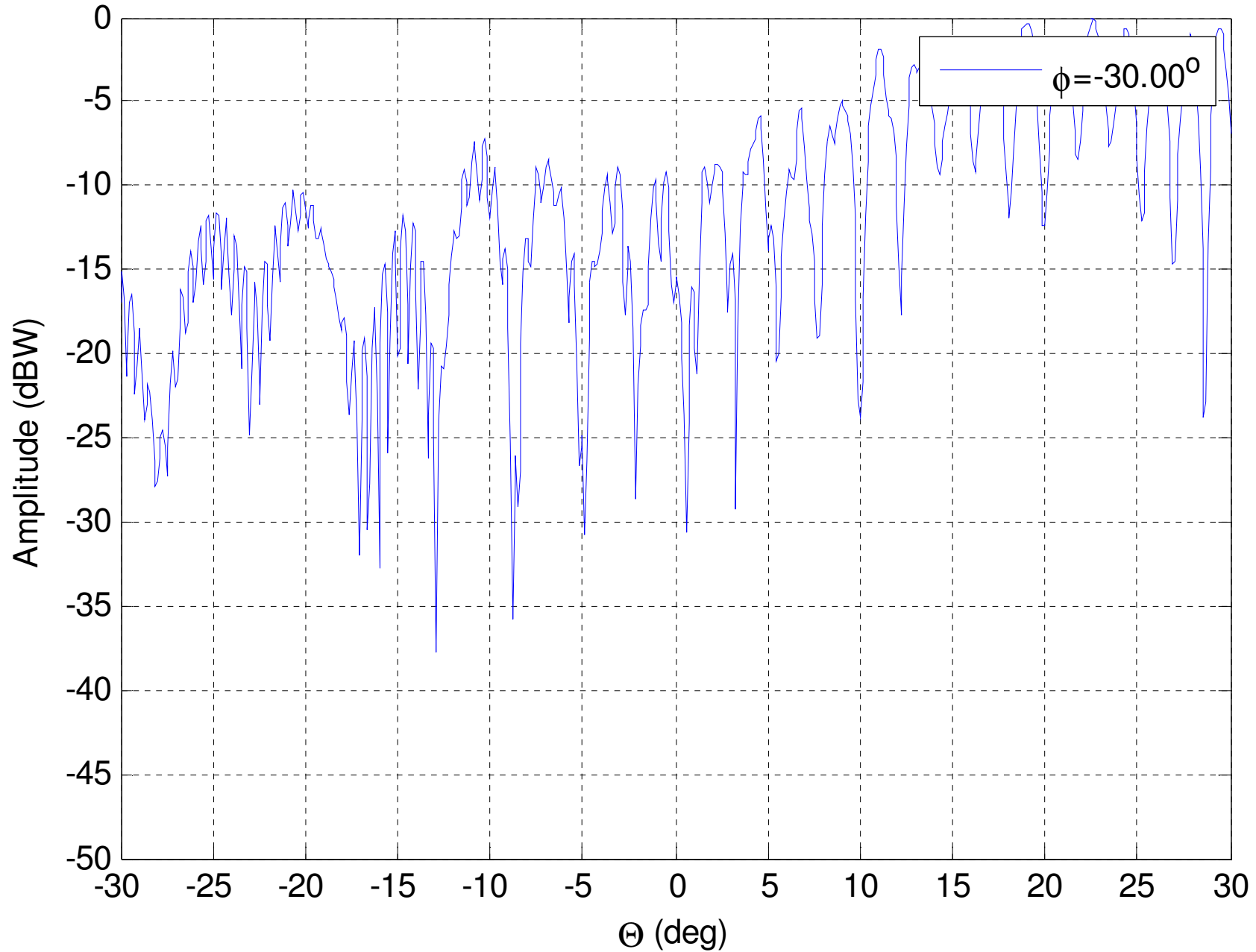
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--40.cut, Peak: -3.30 dBW, Date: 16-Dec-2011



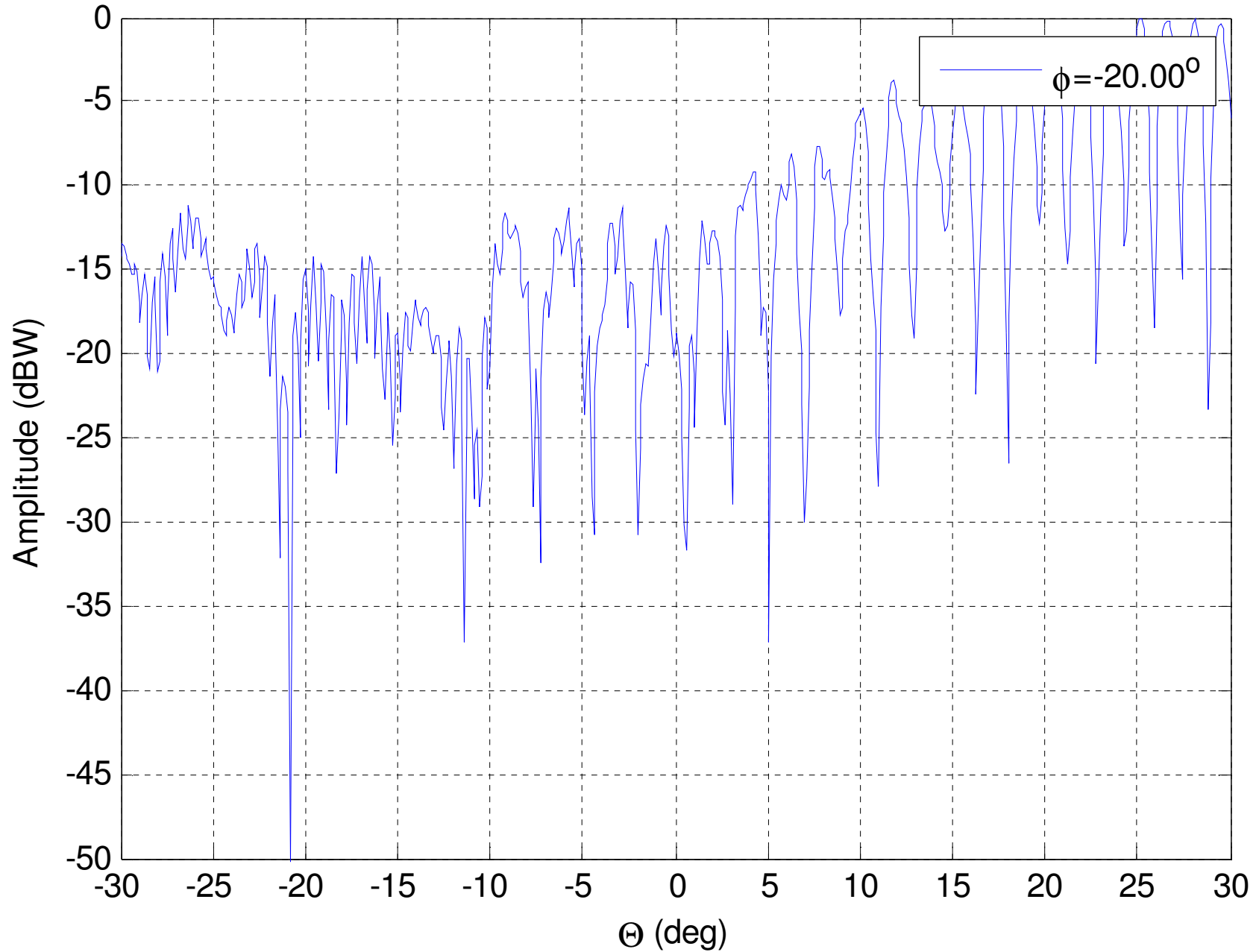
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--30.cut, Peak: -1.24 dBW, Date: 16-Dec-2011



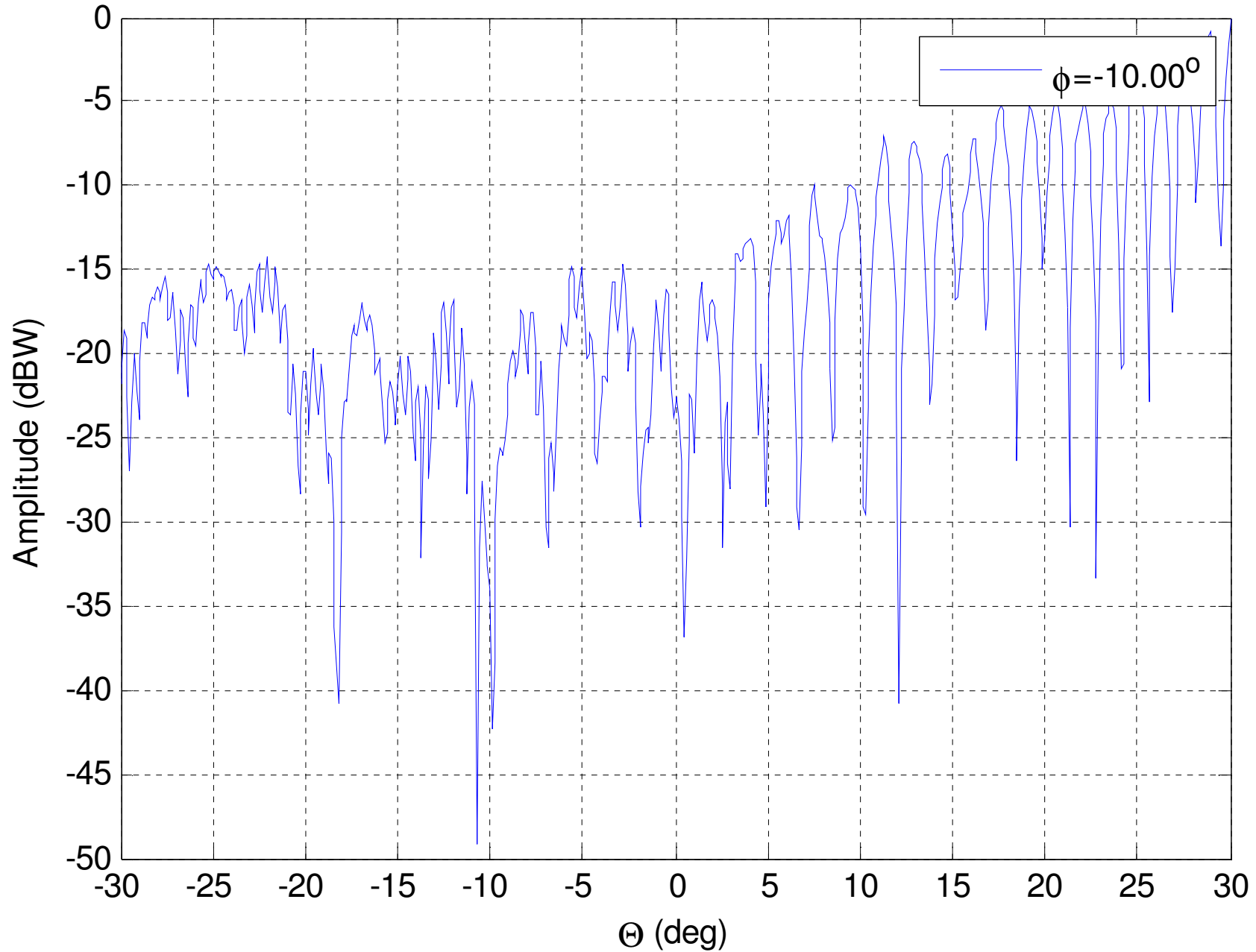
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--20.cut, Peak: 1.99 dBW, Date: 16-Dec-2011



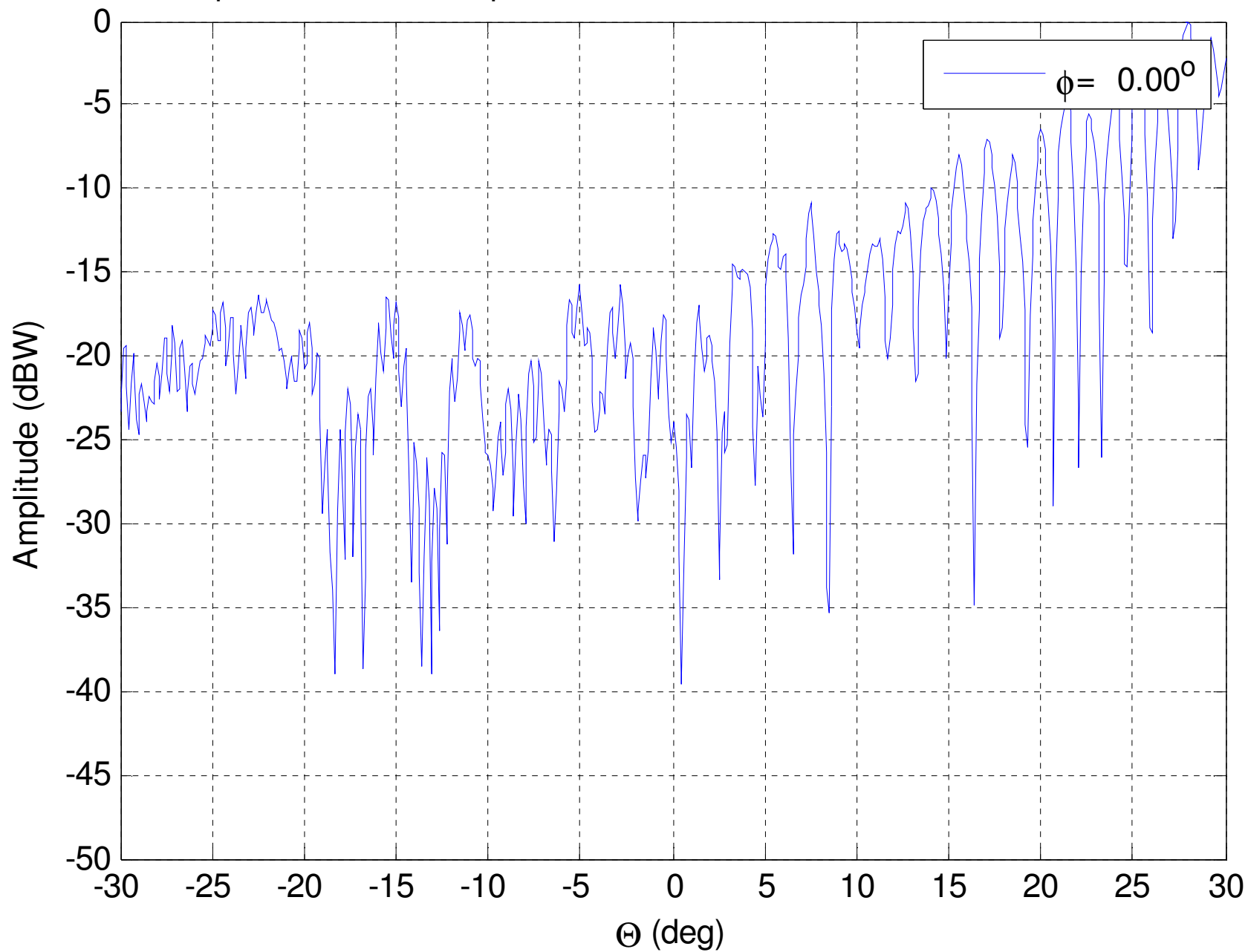
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--10.cut, Peak: 5.75 dBW, Date: 16-Dec-2011



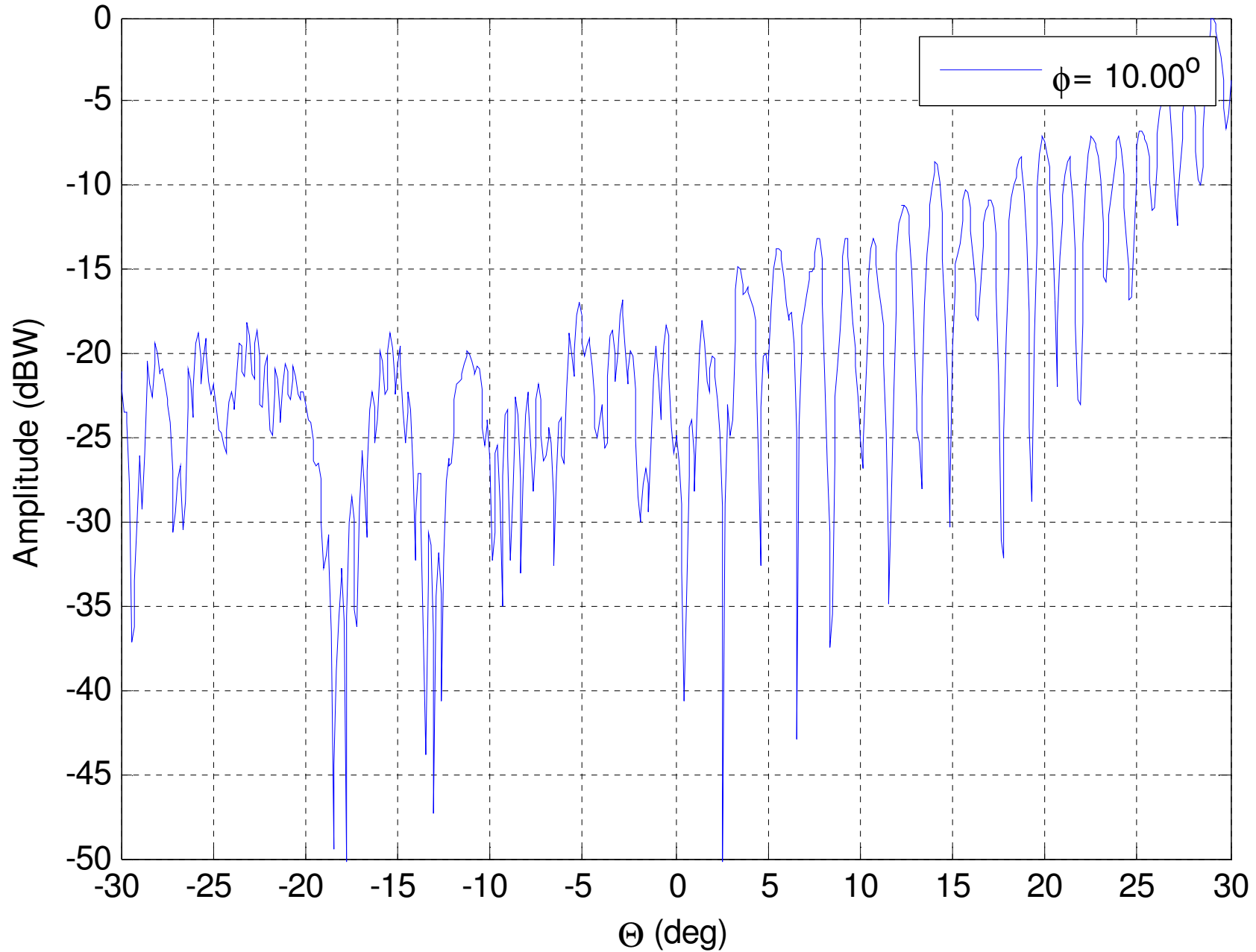
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-0.cut, Peak: 7.10 dBW, Date: 16-Dec-2011



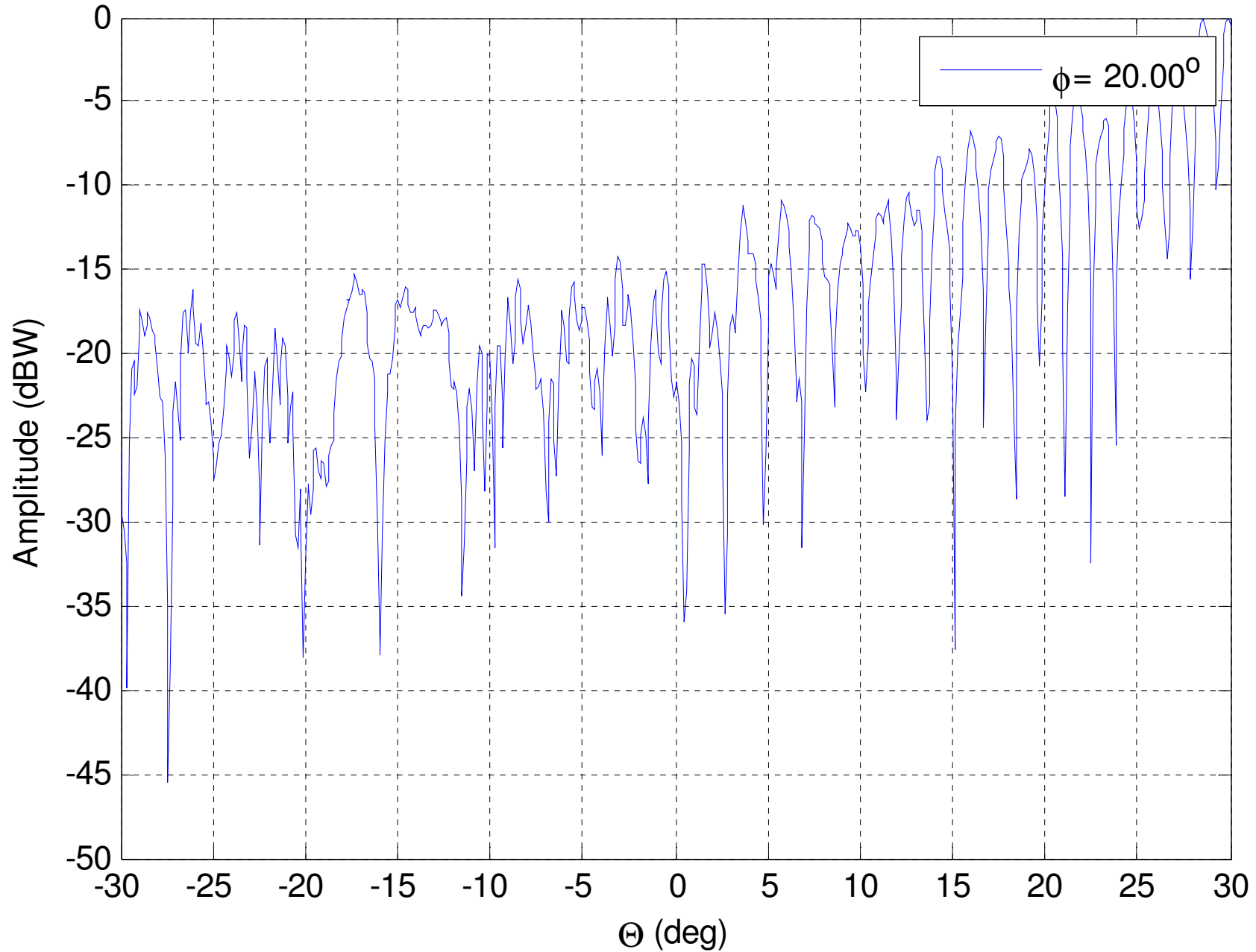
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-10.cut, Peak: 8.00 dBW, Date: 16-Dec-2011



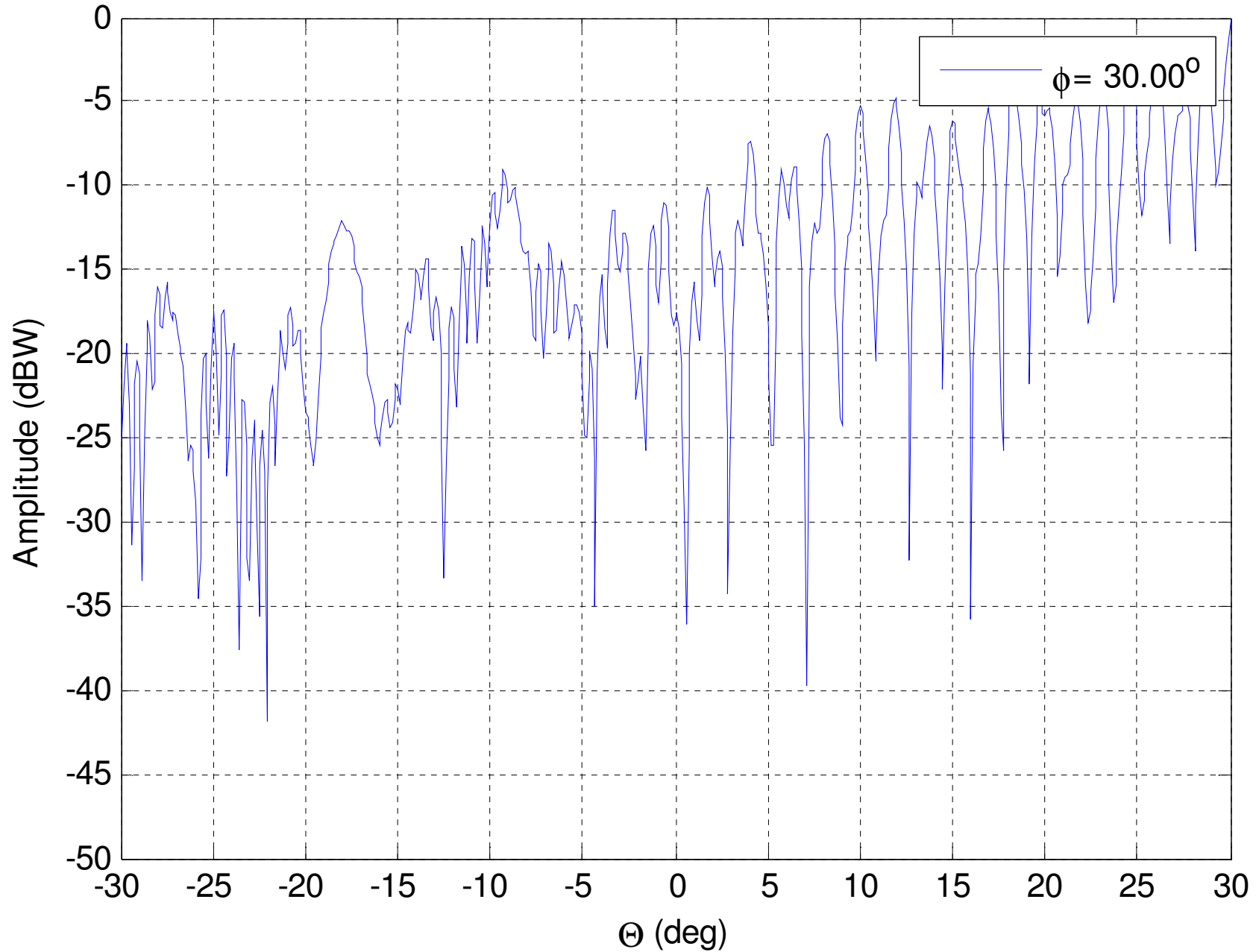
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-20.cut, Peak: 4.73 dBW, Date: 16-Dec-2011



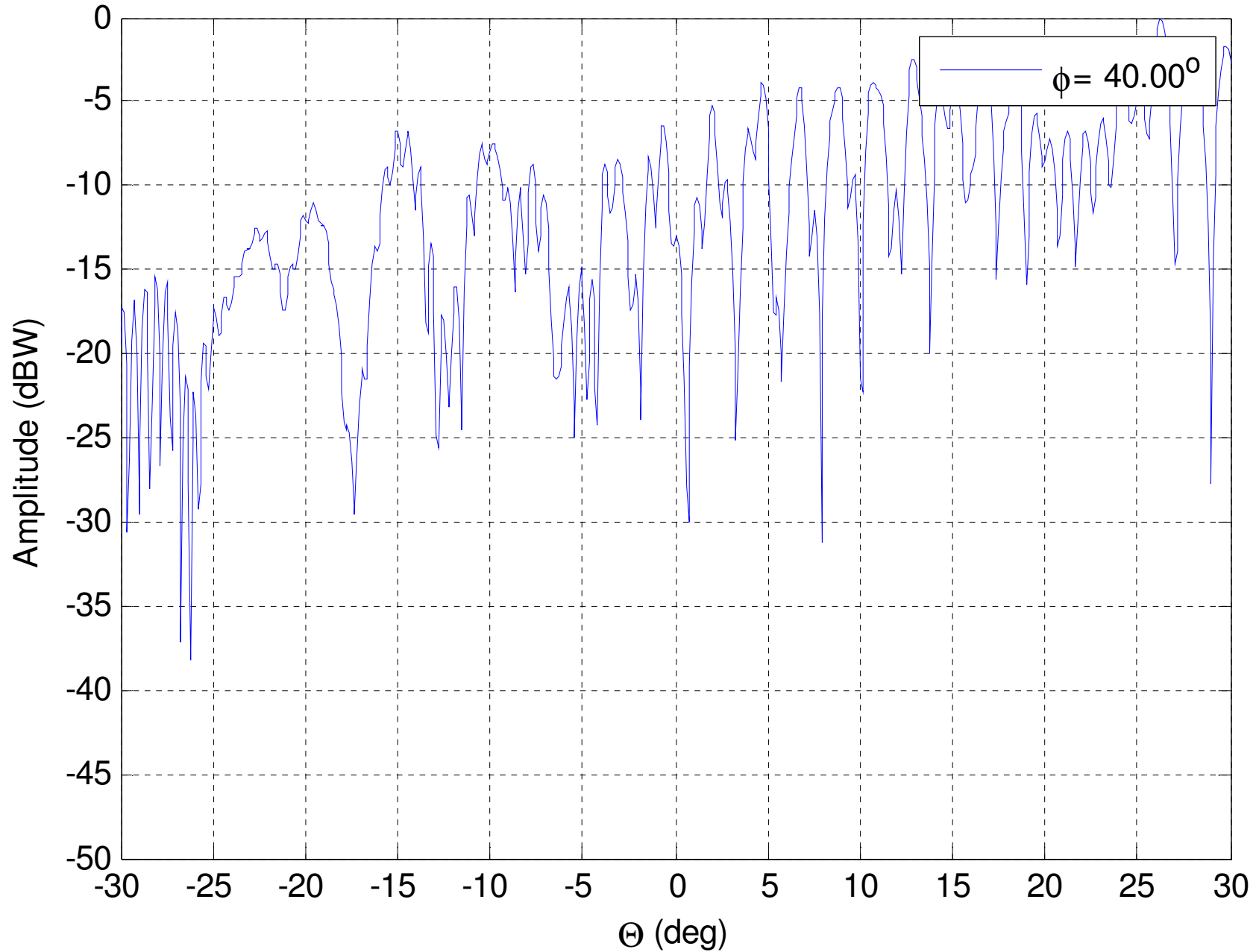
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-30.cut, Peak: 0.60 dBW, Date: 16-Dec-2011



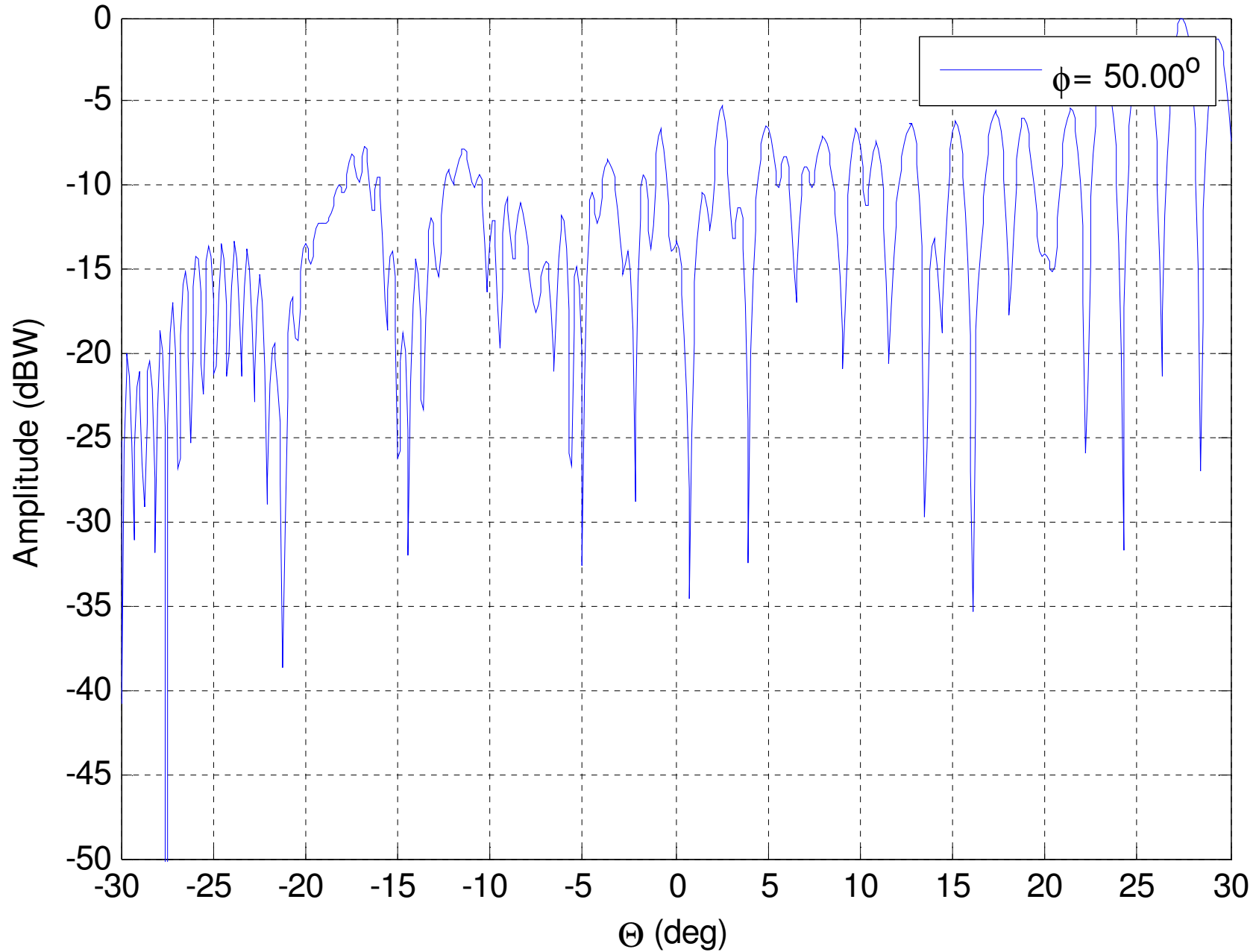
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-40.cut, Peak: -3.99 dBW, Date: 16-Dec-2011



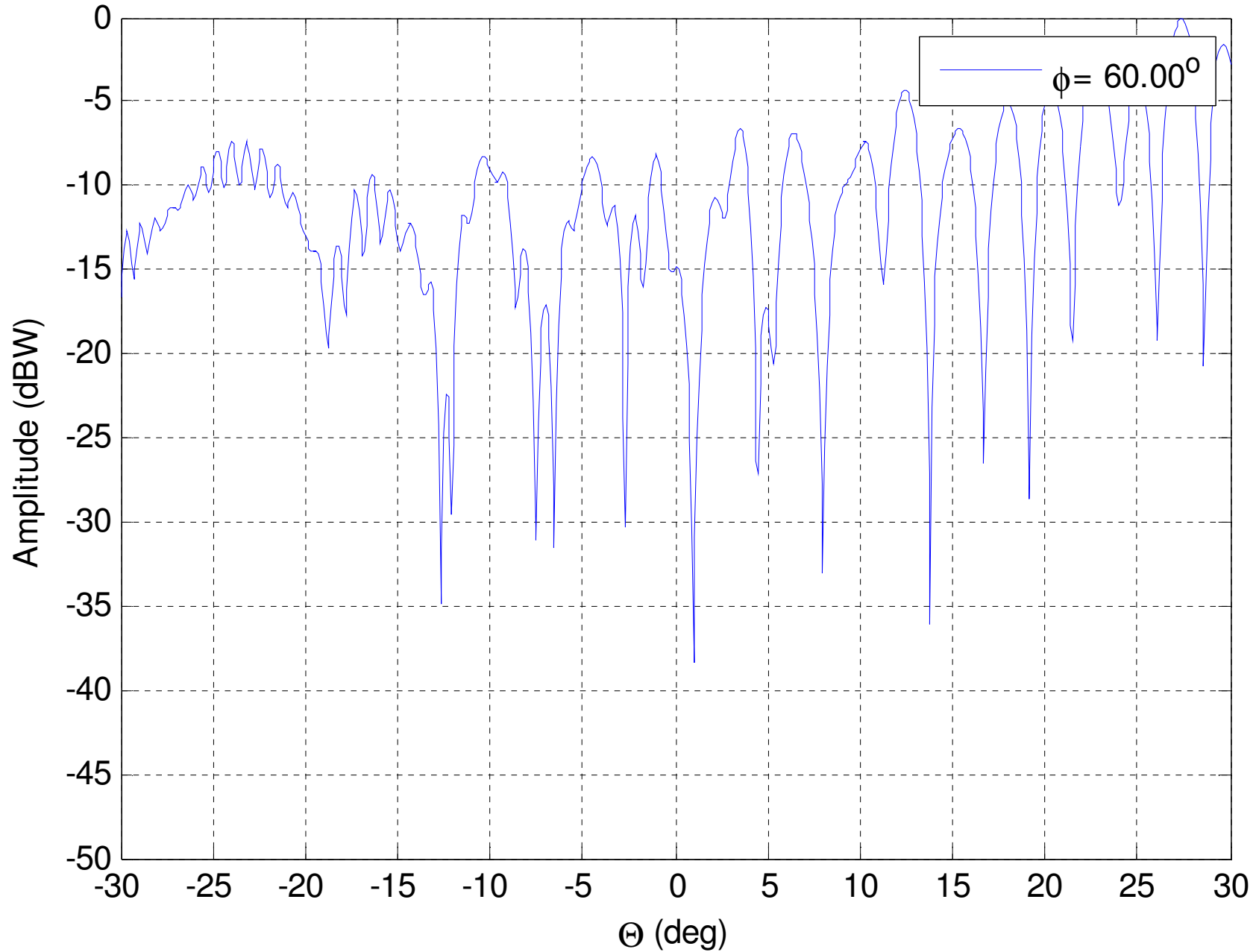
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-50.cut, Peak: -3.65 dBW, Date: 16-Dec-2011



Normalized pattern cuts - farfield

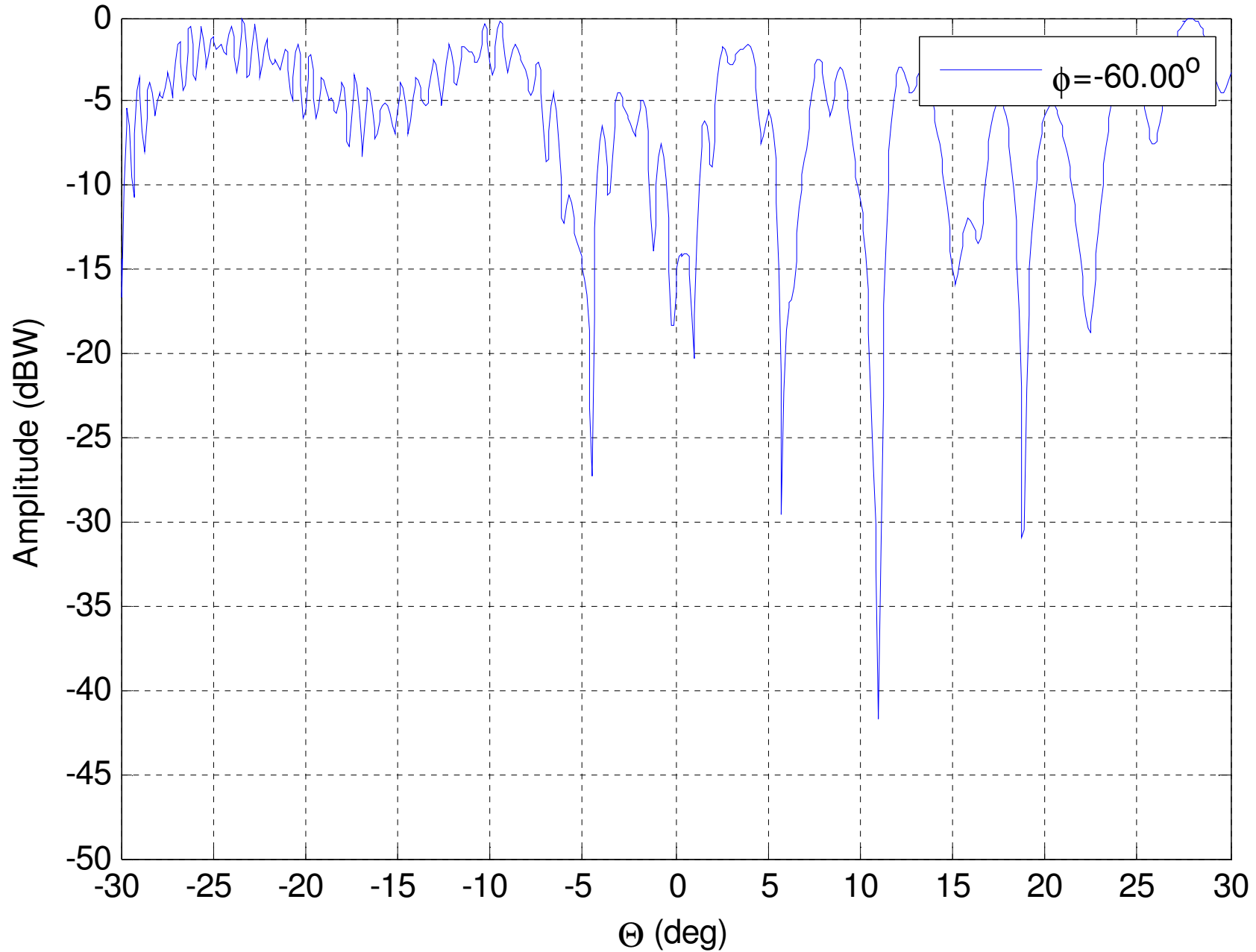
Input file: tx-17.7-rhcp-60.cut, Peak: -2.20 dBW, Date: 16-Dec-2011



LHCP at 17.7 GHz

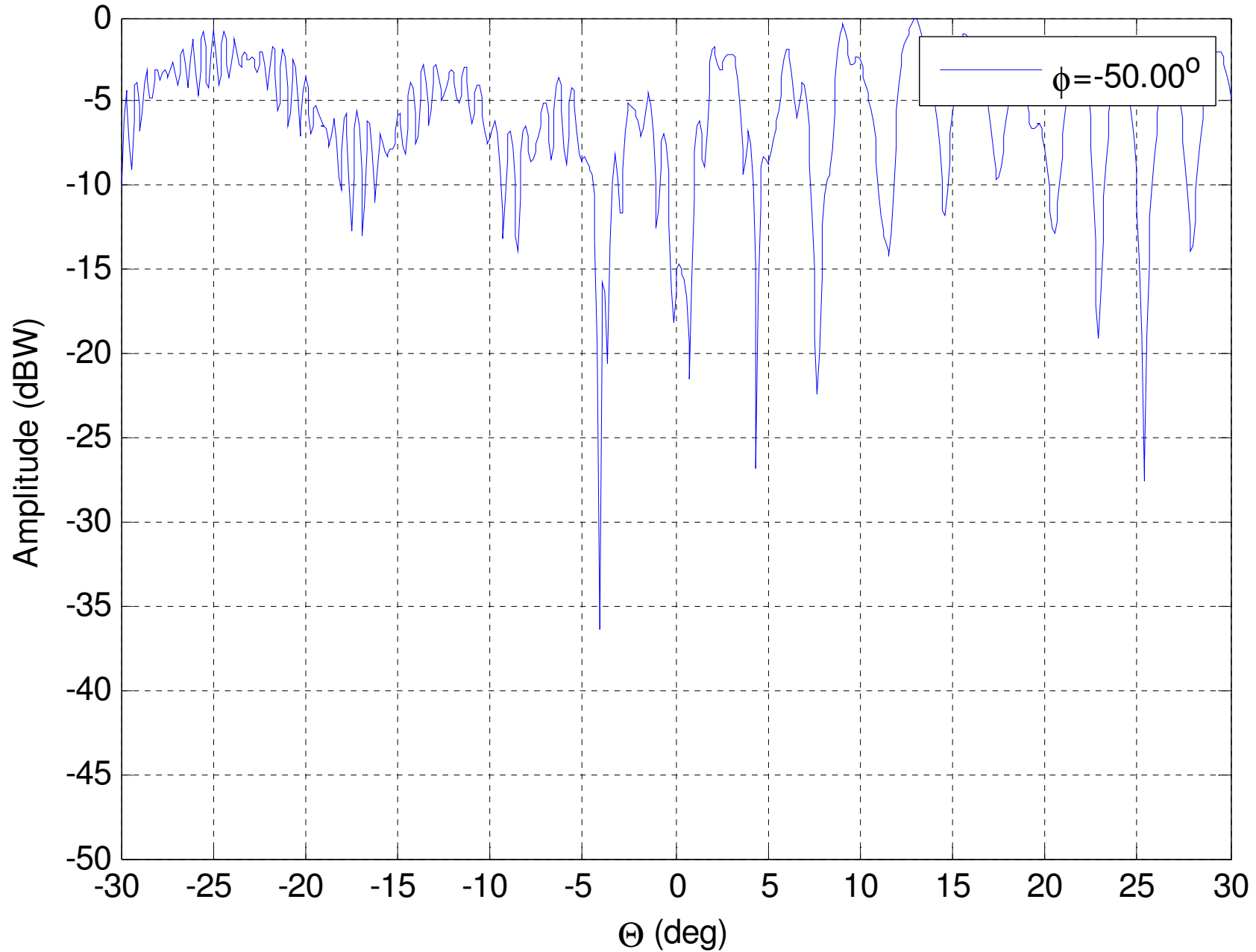
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--60.cut, Peak: -5.69 dBW, Date: 16-Dec-2011



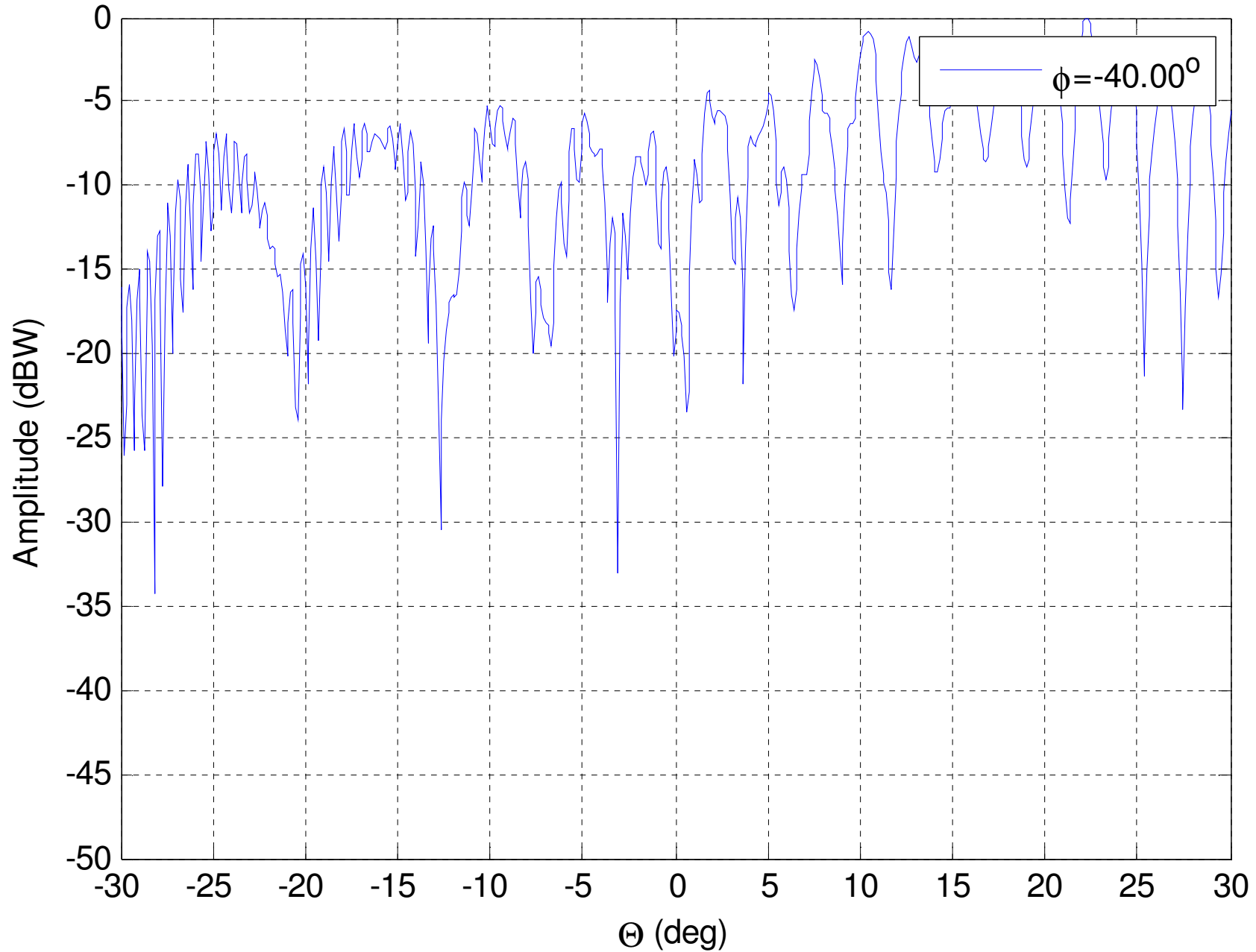
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--50.cut, Peak: -5.73 dBW, Date: 16-Dec-2011



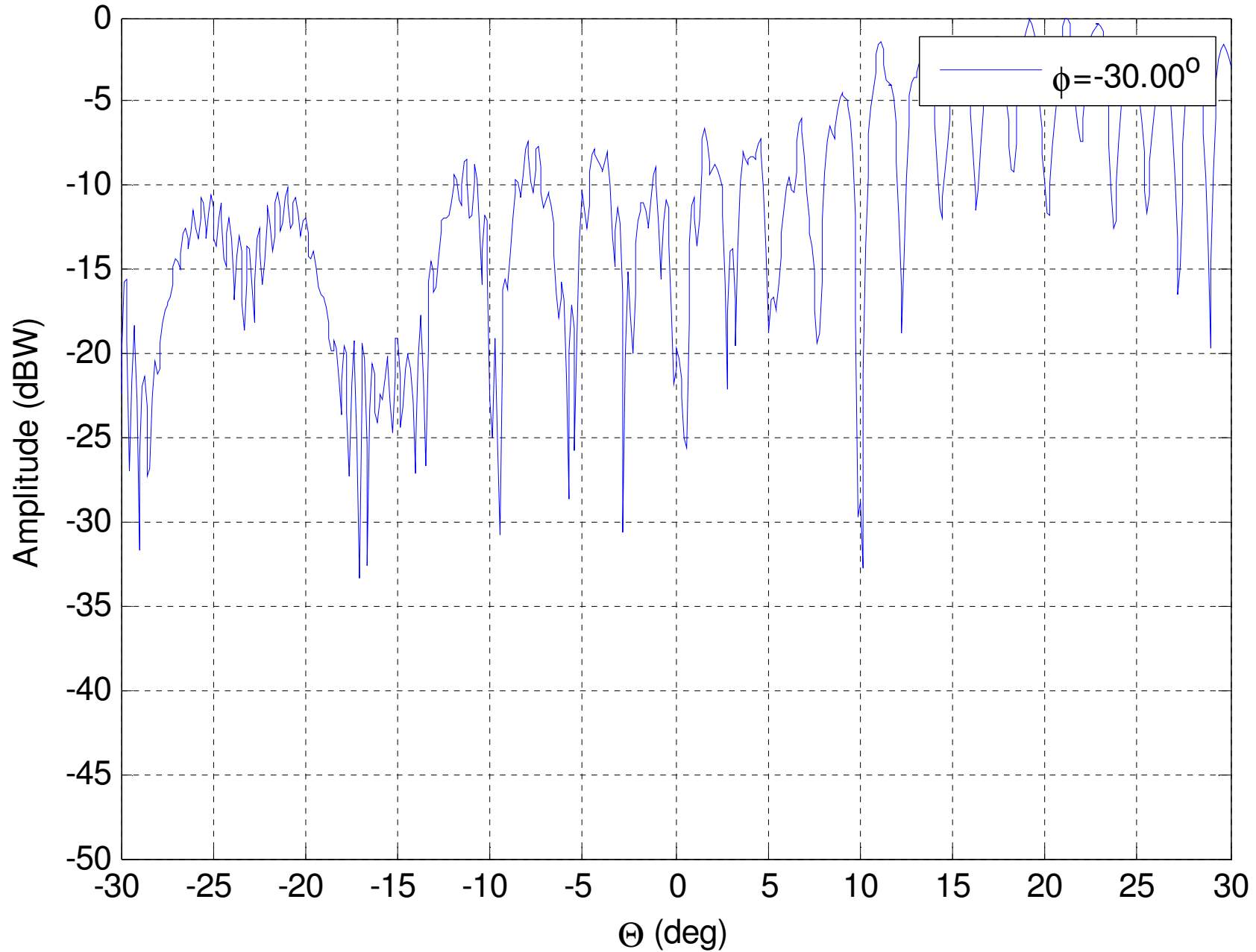
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--40.cut, Peak: -3.39 dBW, Date: 16-Dec-2011



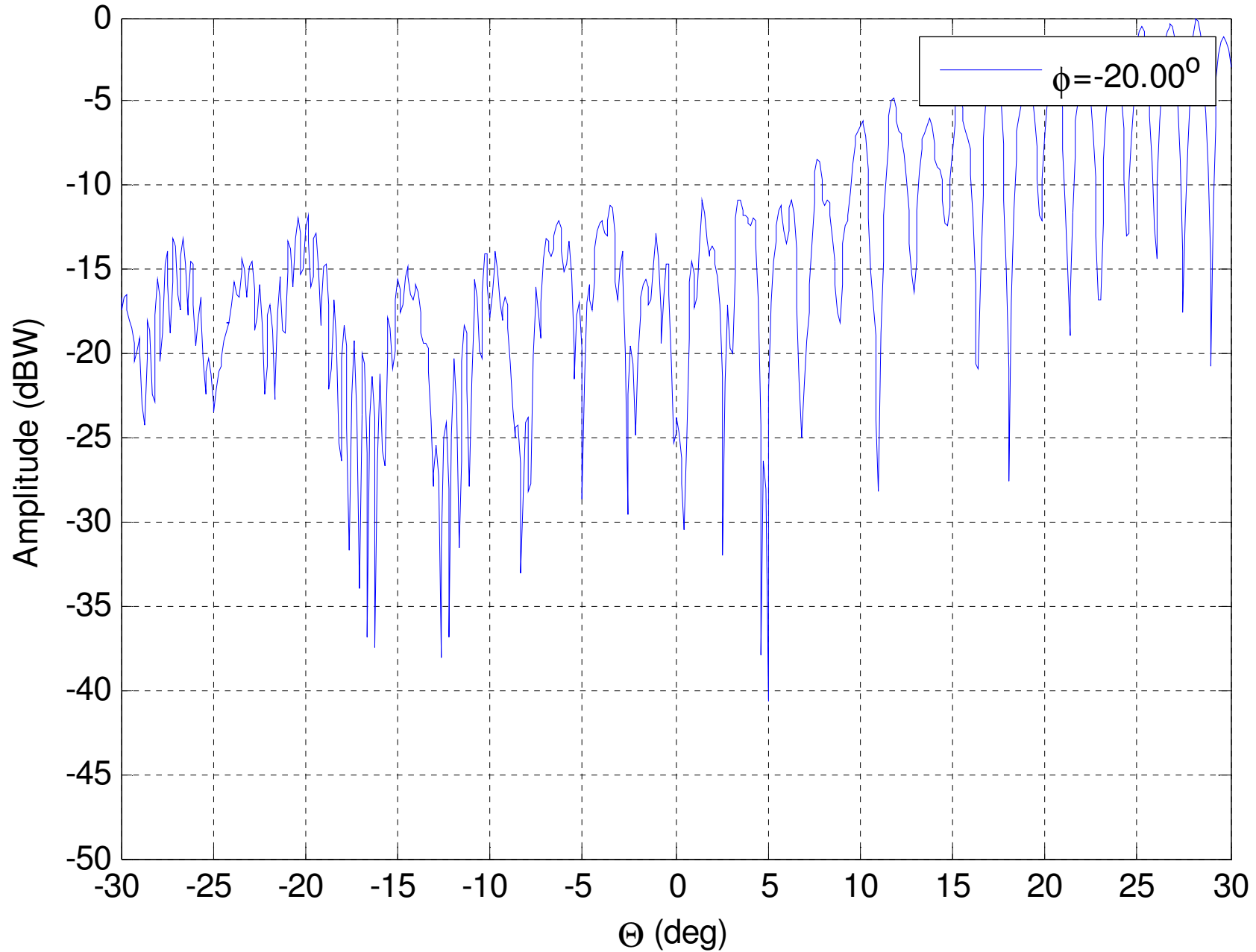
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--30.cut, Peak: -1.21 dBW, Date: 16-Dec-2011



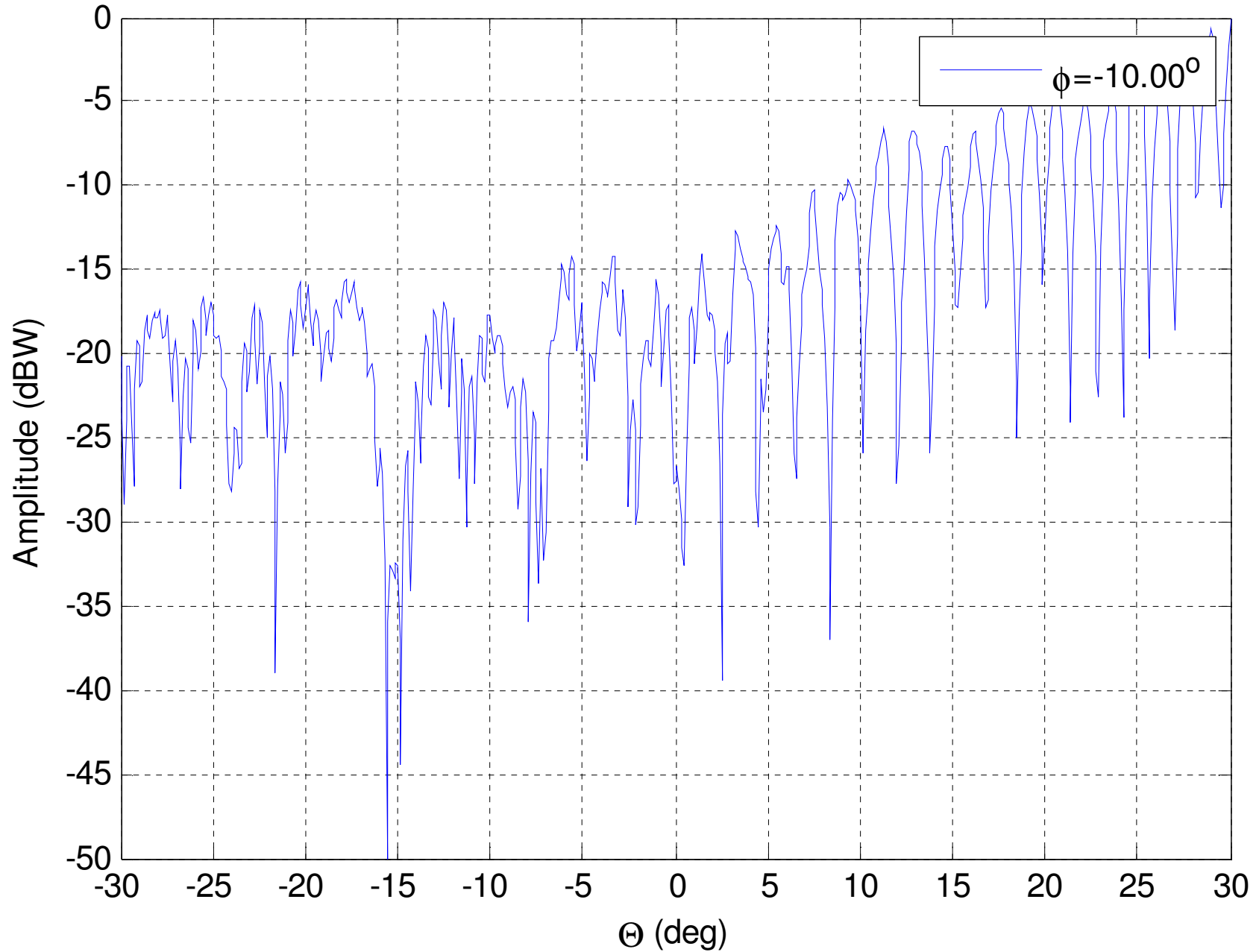
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--20.cut, Peak: 2.67 dBW, Date: 16-Dec-2011



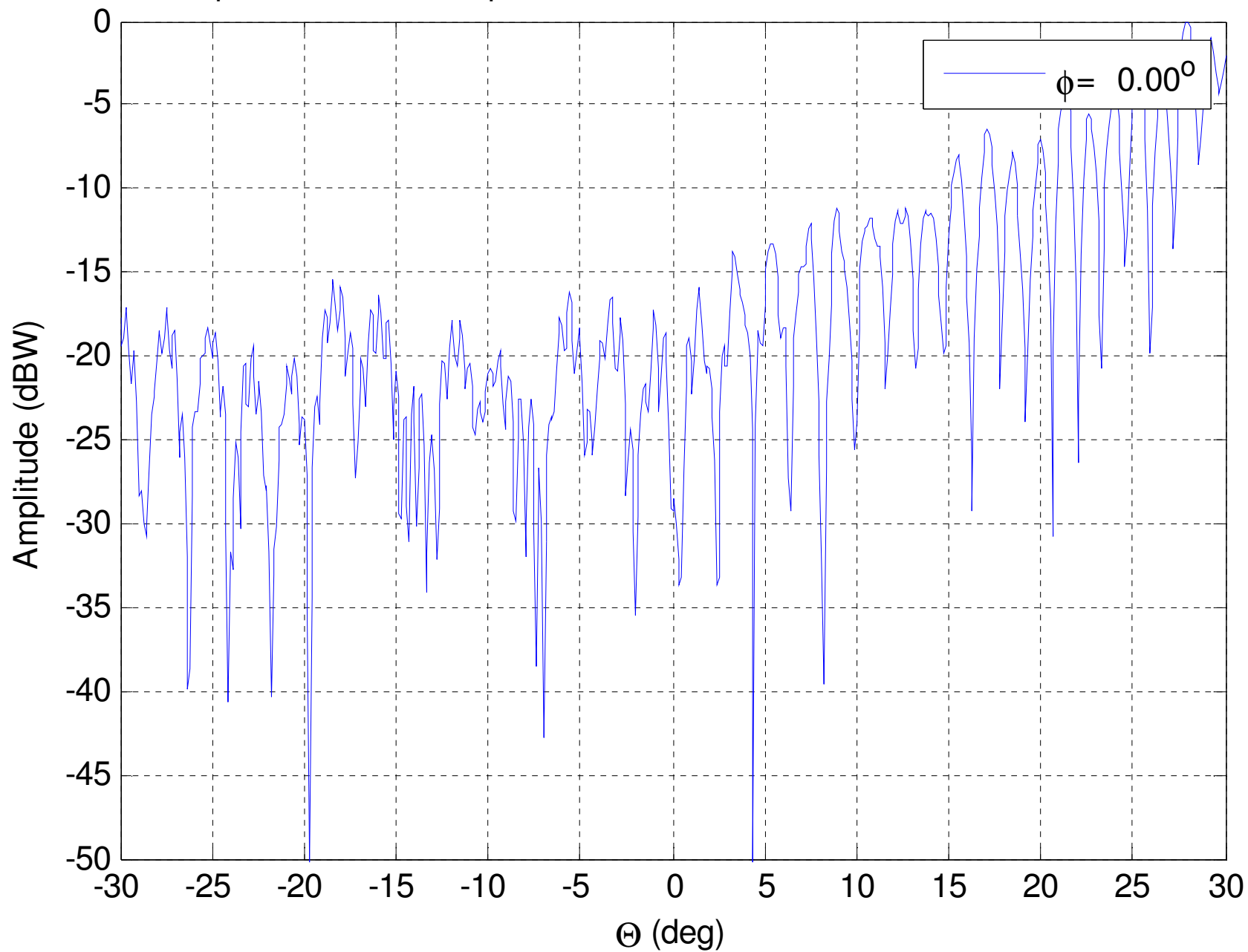
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--10.cut, Peak: 5.47 dBW, Date: 16-Dec-2011



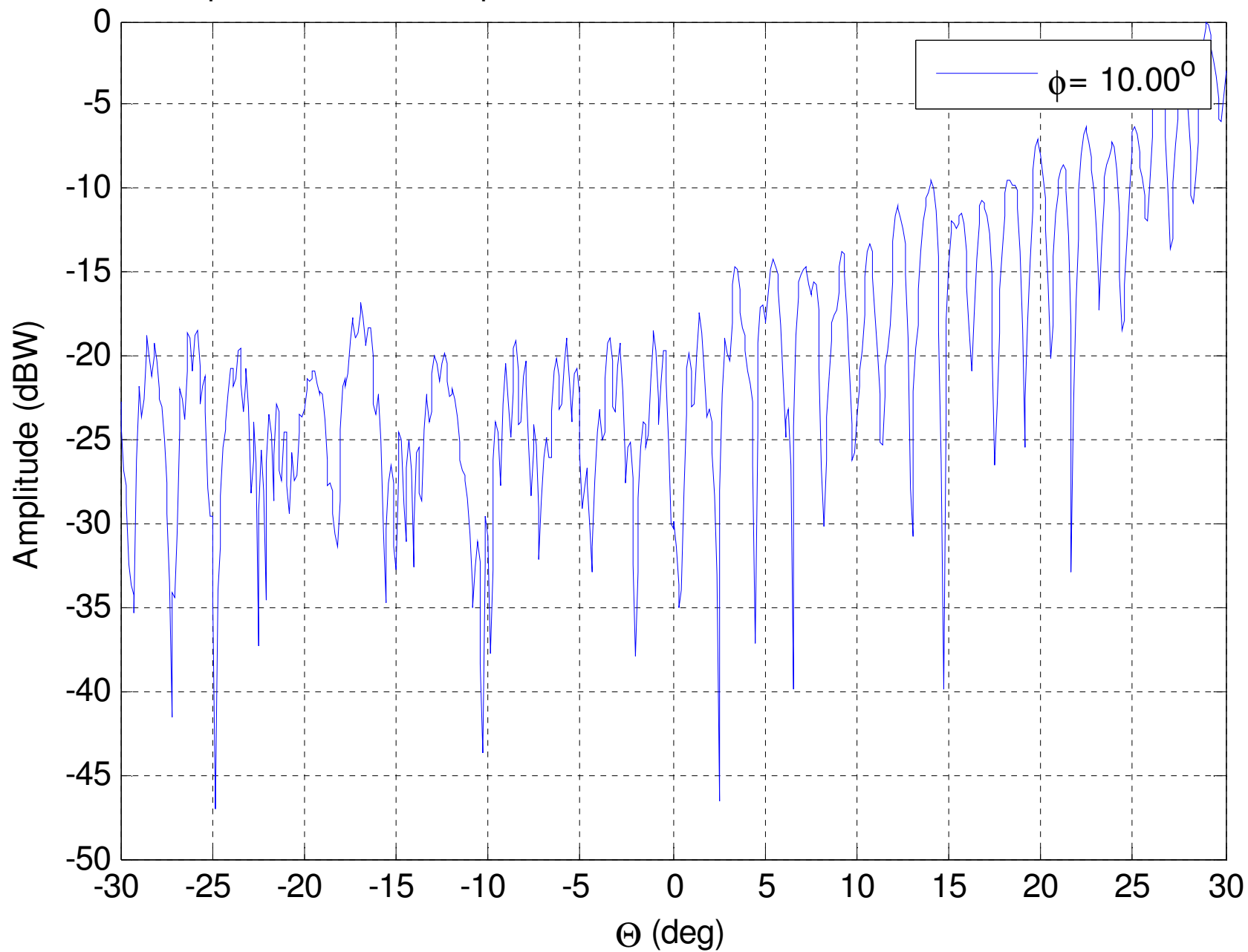
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-0.cut, Peak: 7.12 dBW, Date: 16-Dec-2011



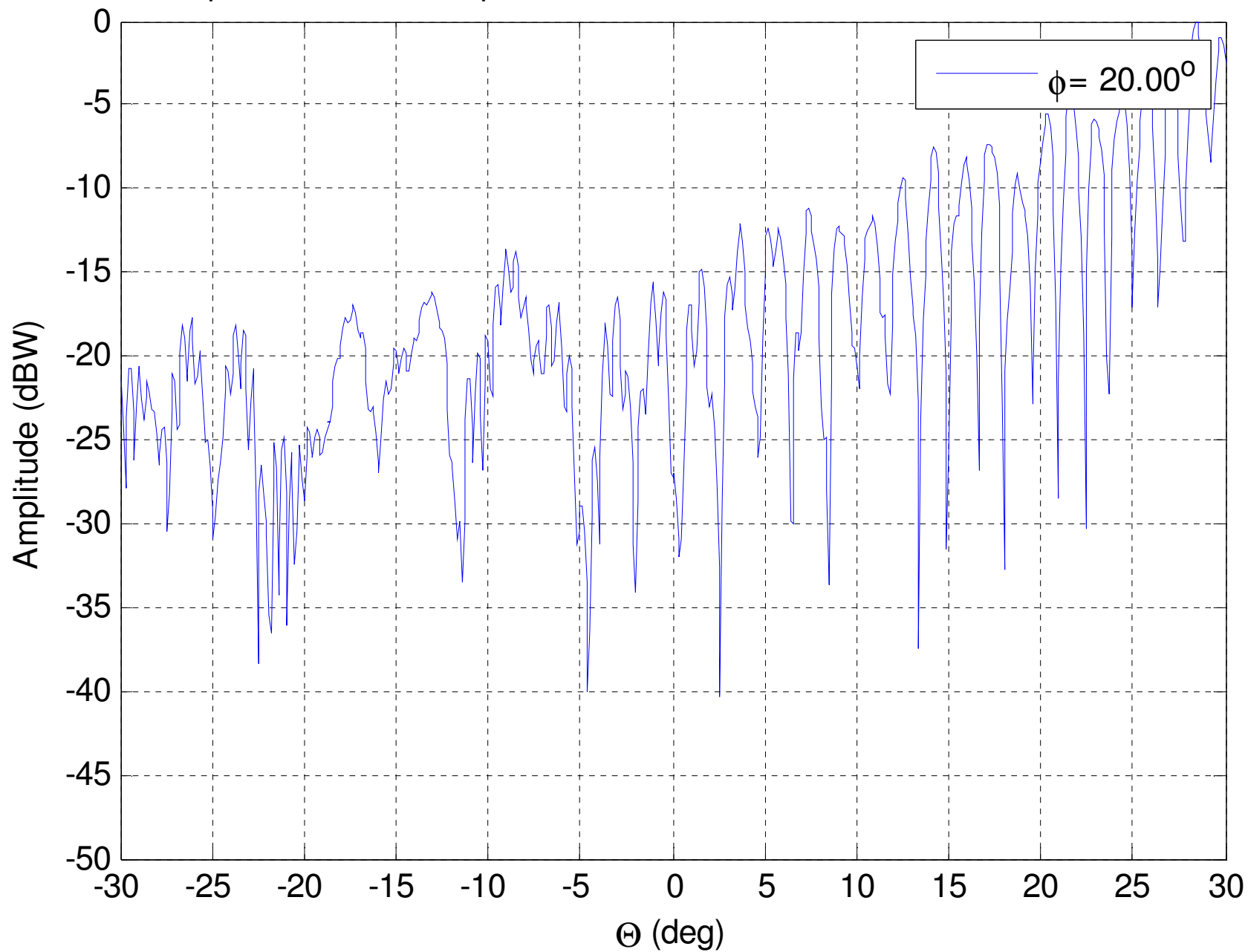
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-10.cut, Peak: 8.24 dBW, Date: 16-Dec-2011



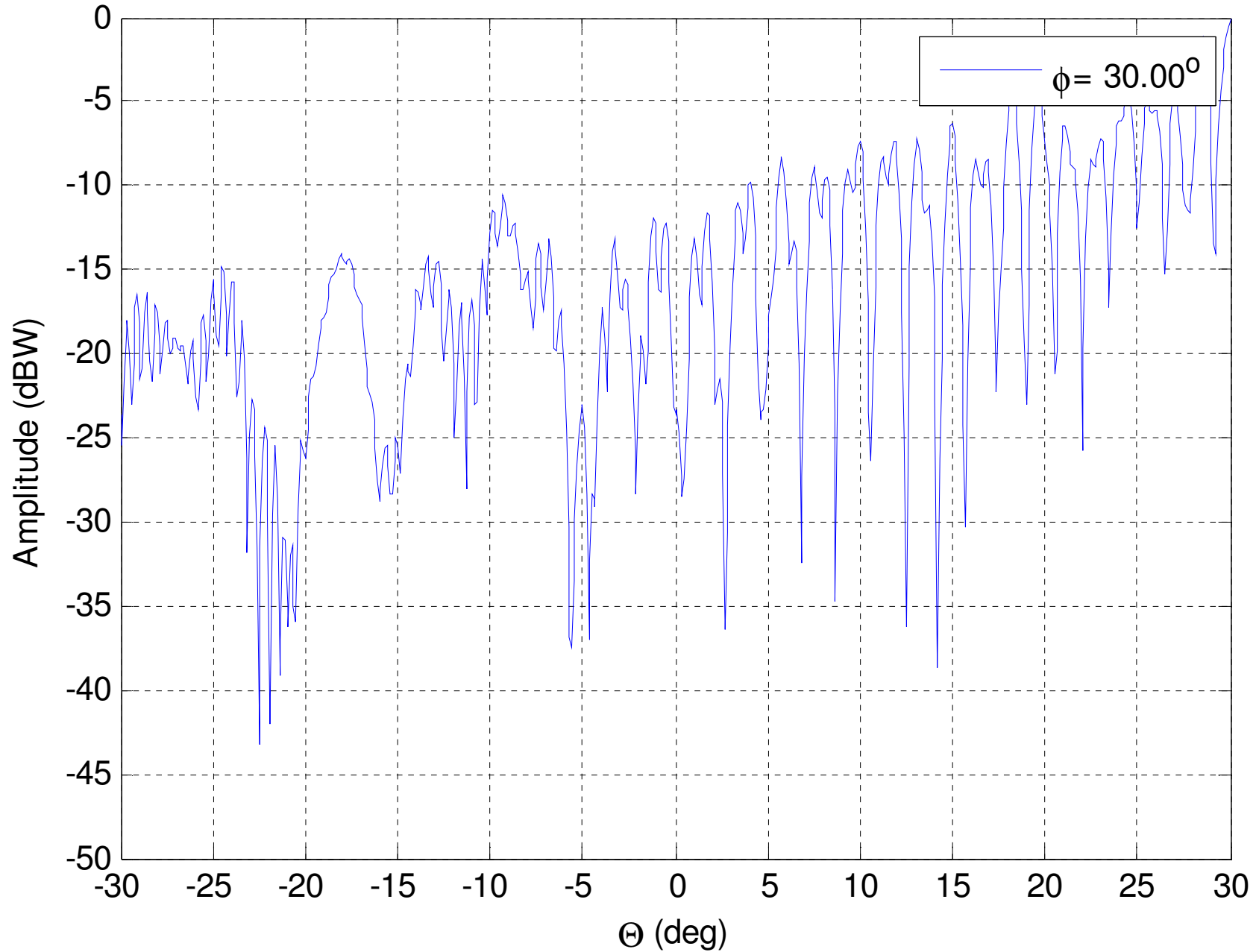
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-20.cut, Peak: 5.20 dBW, Date: 16-Dec-2011



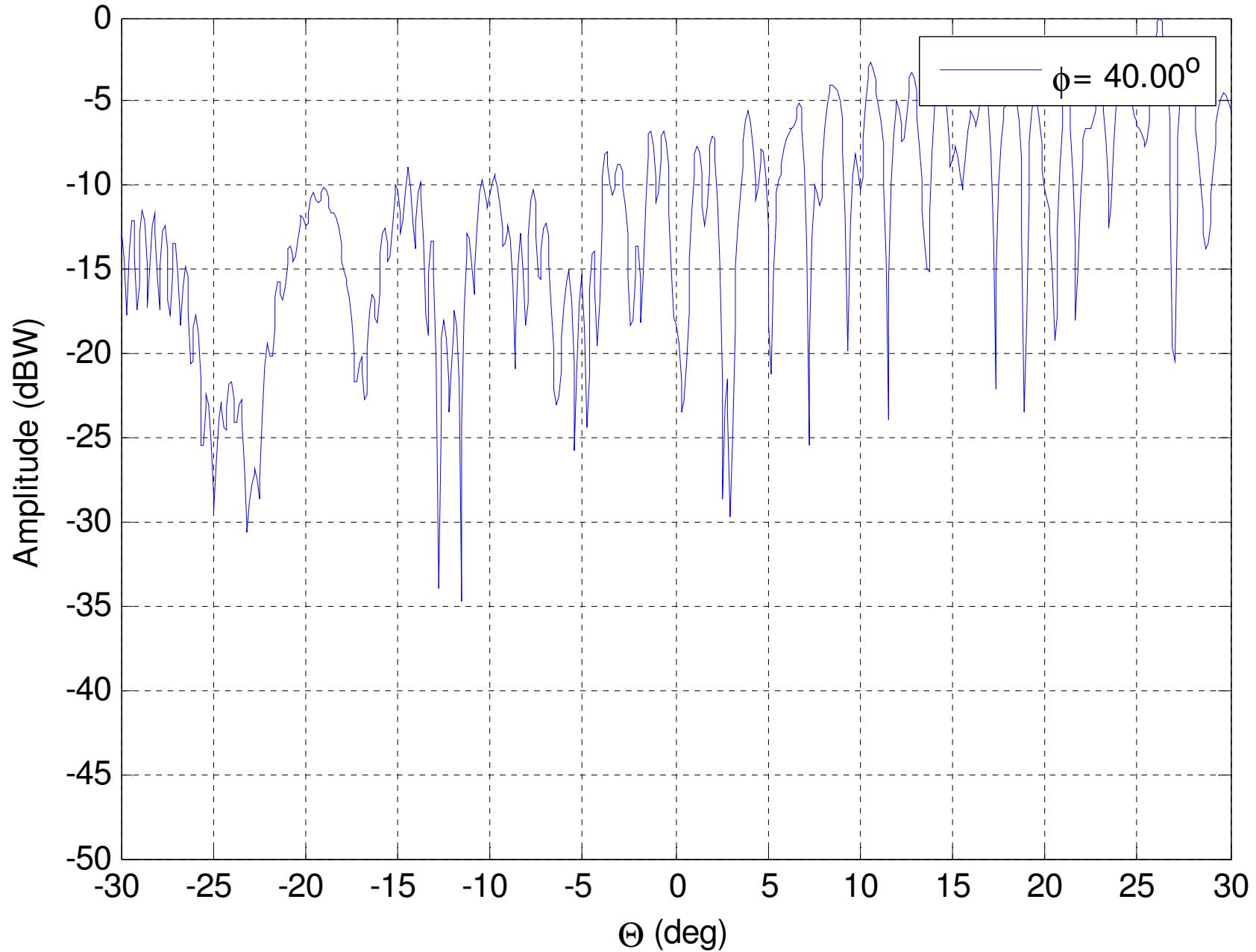
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-30.cut, Peak: 1.49 dBW, Date: 16-Dec-2011



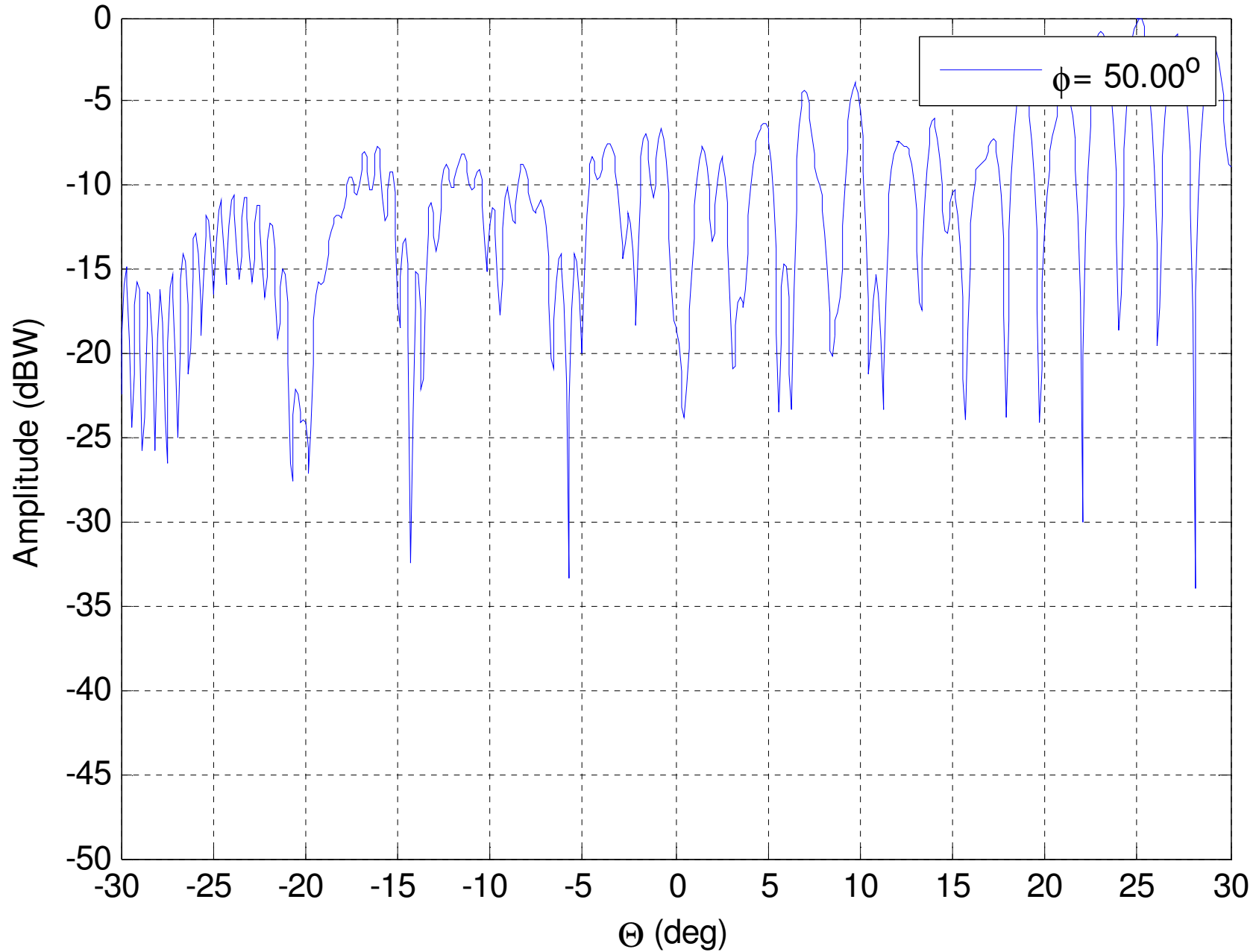
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-40.cut, Peak: -3.75 dBW, Date: 16-Dec-2011



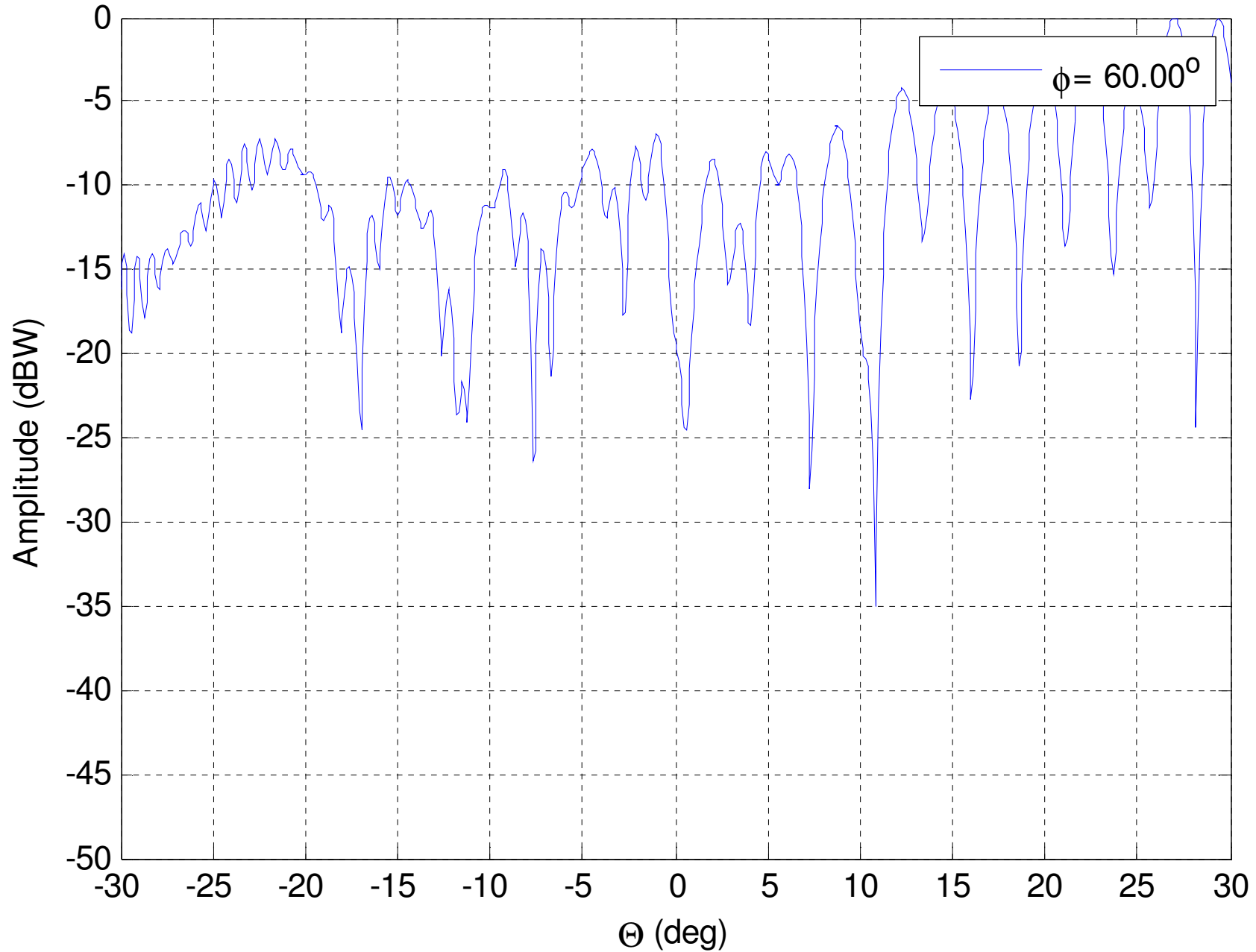
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-50.cut, Peak: -3.61 dBW, Date: 16-Dec-2011



Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-60.cut, Peak: -2.69 dBW, Date: 16-Dec-2011



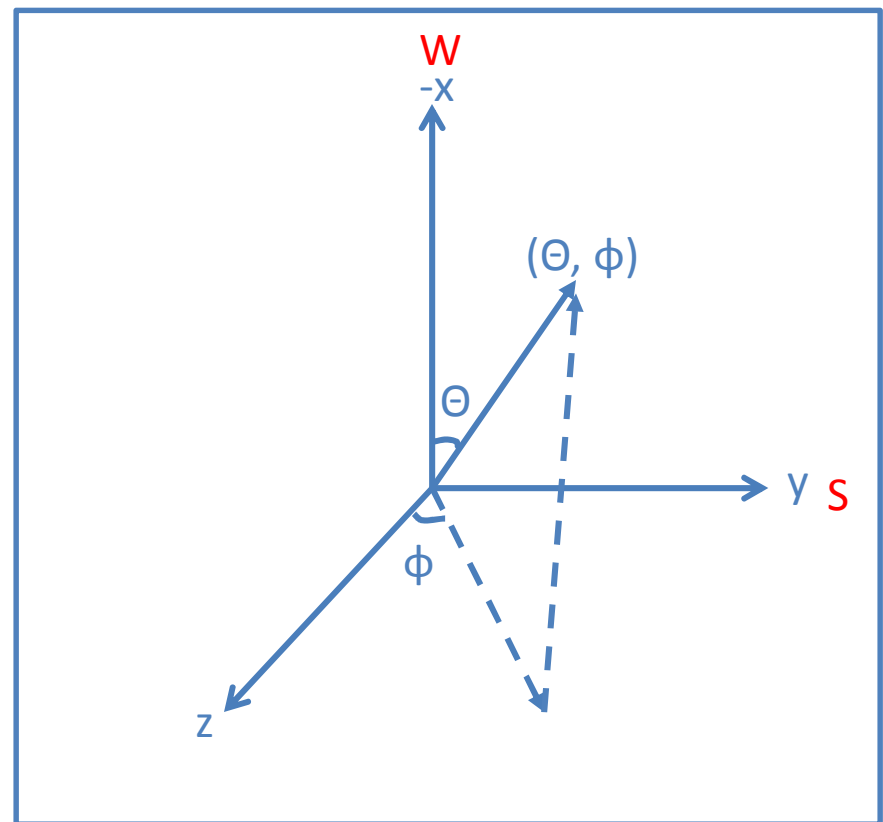
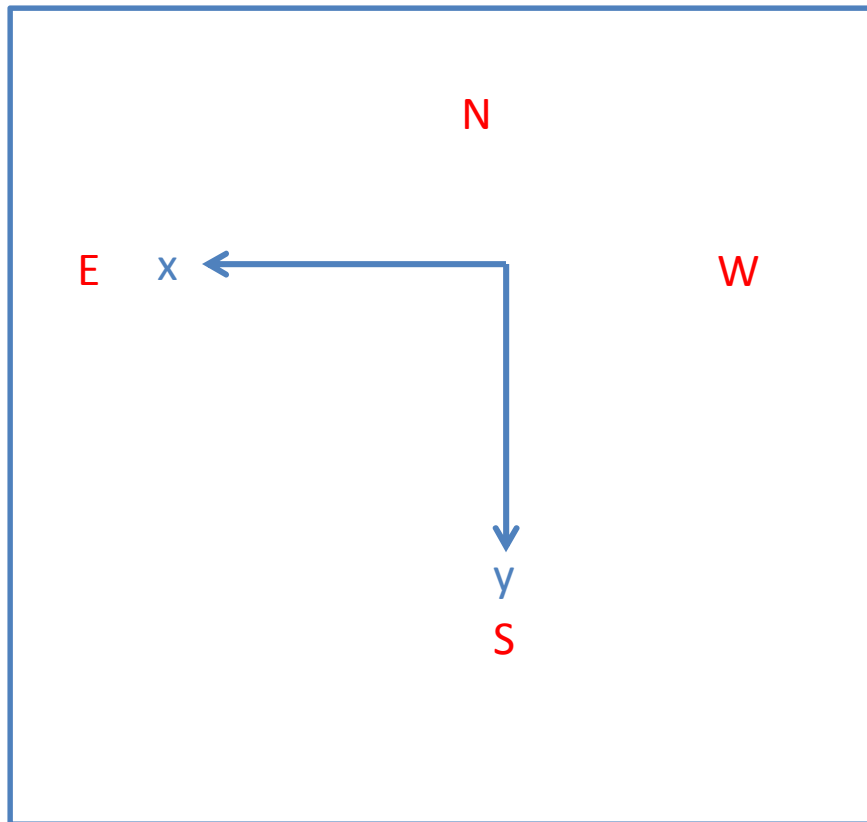
December 13, 2011

119 West Adjacent Satellite Off Axis Antenna Performance Spot Beam 45 cf: 9.7 dBW

Maximum Allowable EIRP to meet the -117dBW/m²/100 kHz

Maximum EIRP Allowed	
Spec Max flux density, dBW/m ² /100kHz	-117
Desired channel band width, MHz	25.8
Symbol rate band width modification factor	1
Effective channel bandwidth, MHz	25.8
Effective bandwidth, dB-100kHz	24.1
Flux density allowed per channel, dBW/m ²	-92.9
R, radial distance to GEO, km	42164.0
Angle of separation between satellites, deg	0.1
range between satellites, km	73.59
Spreading factor, dB/m ²	-108.3
Atmospheric loss, dB	0
Max satellite EIRP allowed, dBW	15.4

Coordinate System



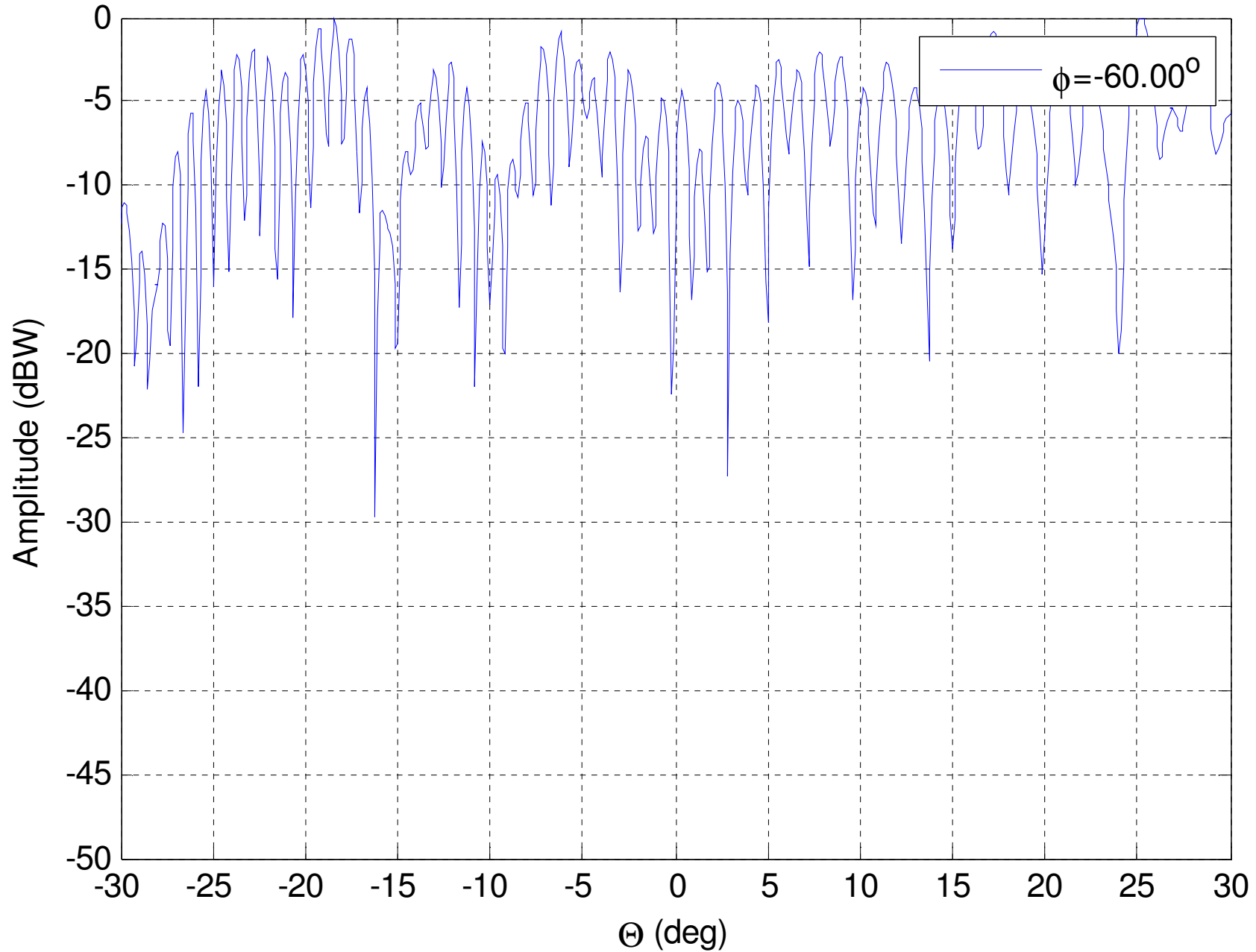
Spot Beam45, -X Axis Plots

- Both polarizations; RHCP, LHCP
- $-30 < \Theta < 30$ ($\Theta=0$: -X -axis)
- $-60 < \phi < 60$
- Freq = 17.3, 17.5, and 17.7 GHz
- The Zero reference line is the peak gain listed in the title of each chart
- All levels are significantly below the required 15.4 dBW EIRP shown on chart 2

RHCP at 17.3 GHz

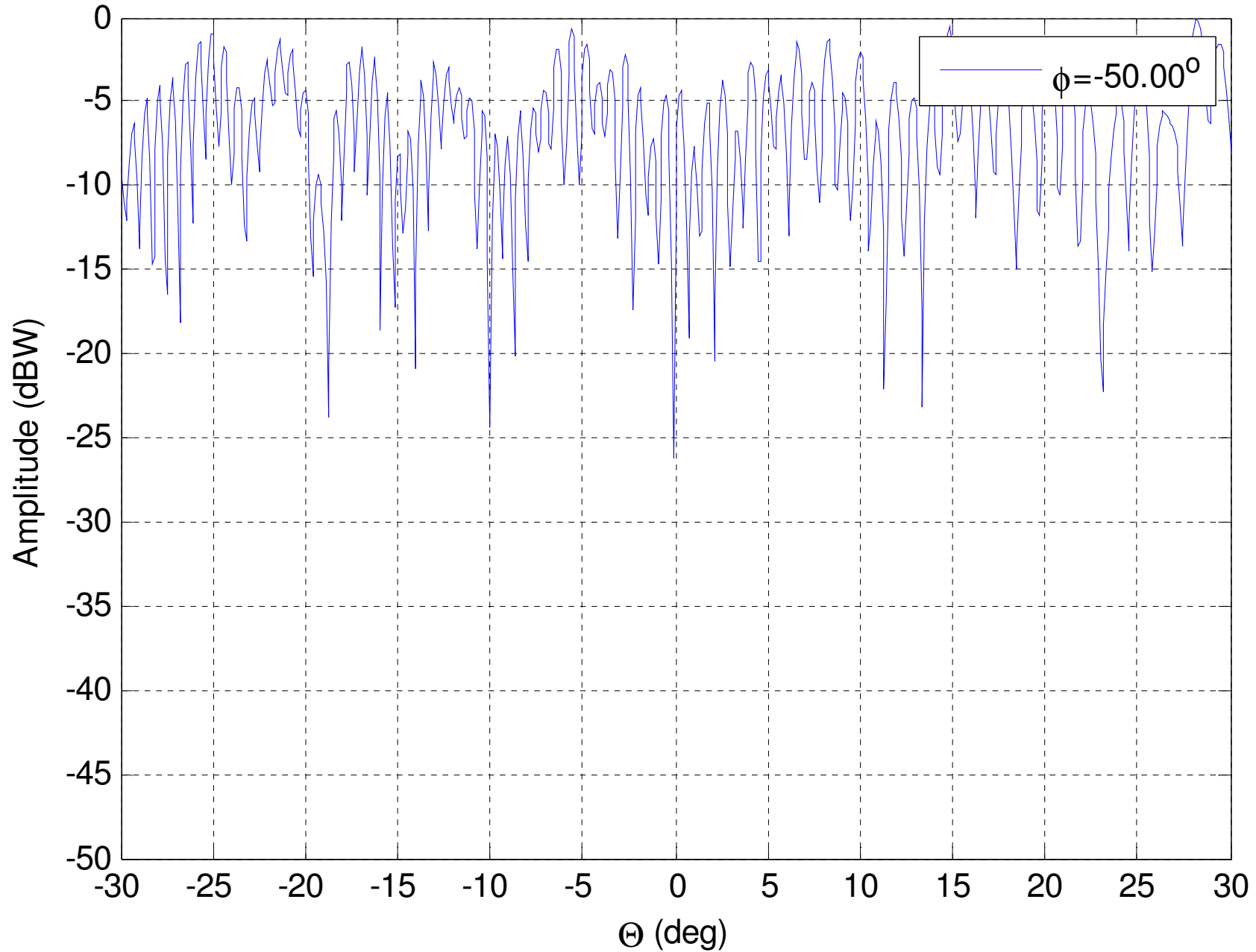
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--60.cut, Peak: -1.83 dBW, Date: 16-Dec-2011



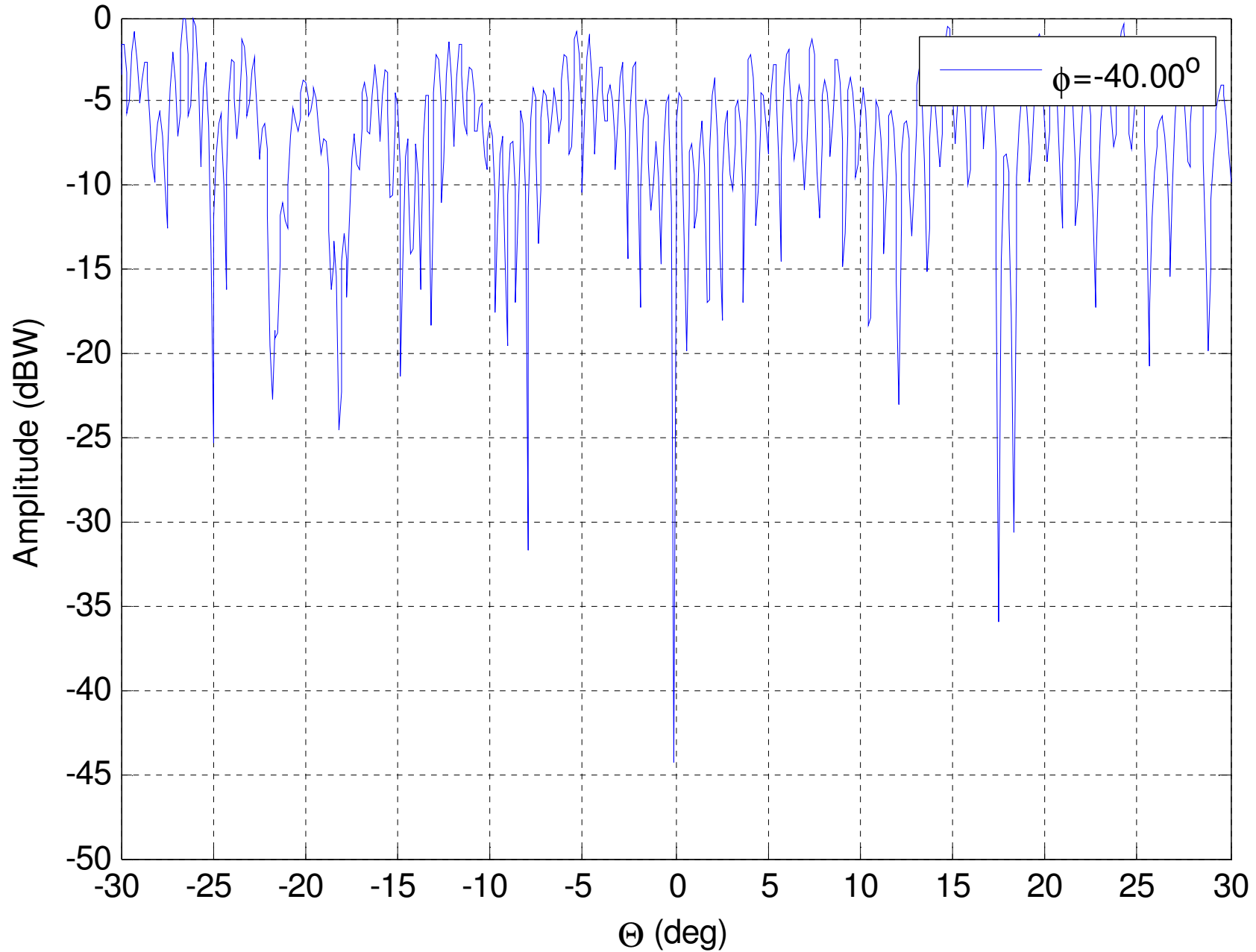
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--50.cut, Peak: -1.78 dBW, Date: 16-Dec-2011



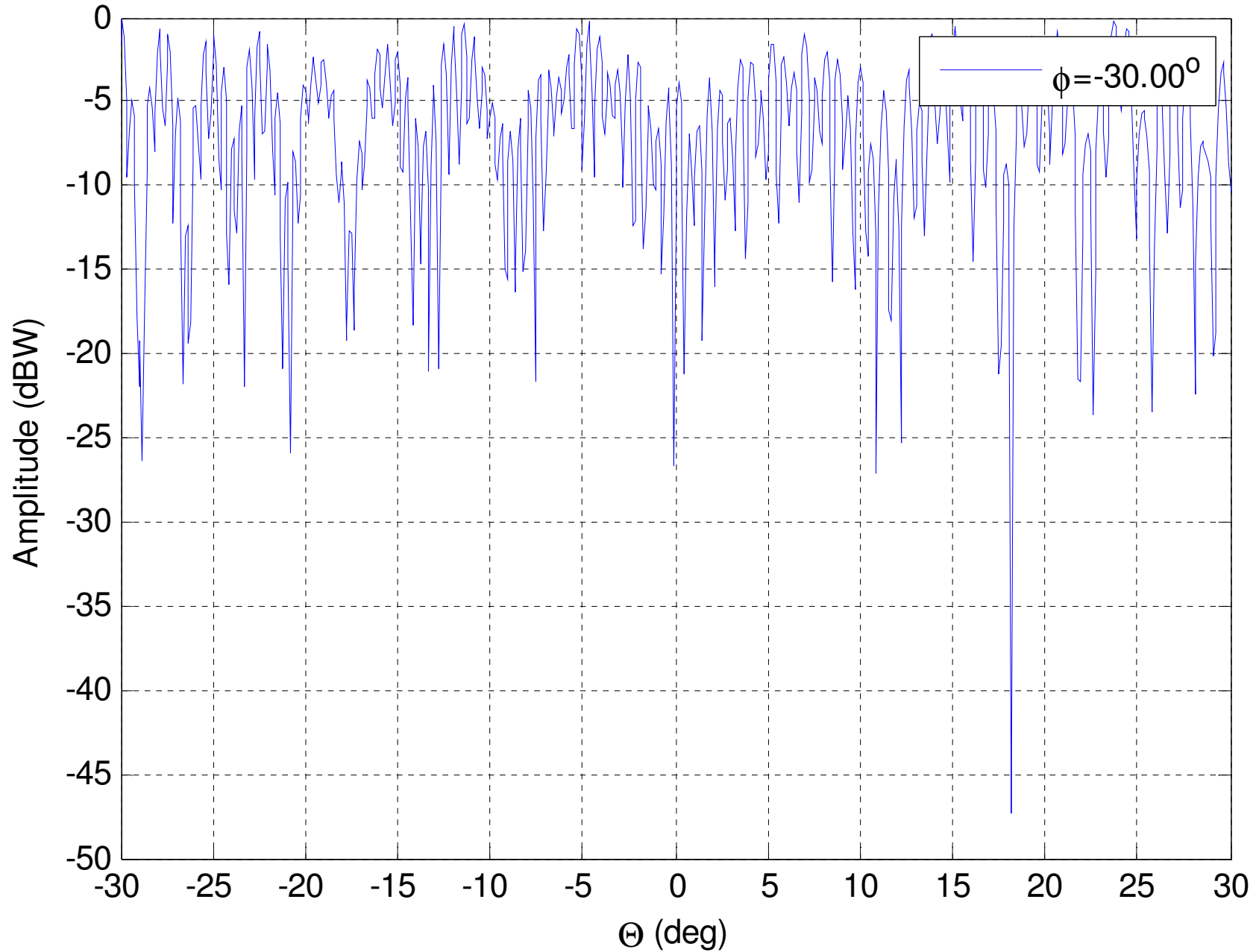
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--40.cut, Peak: -1.68 dBW, Date: 16-Dec-2011



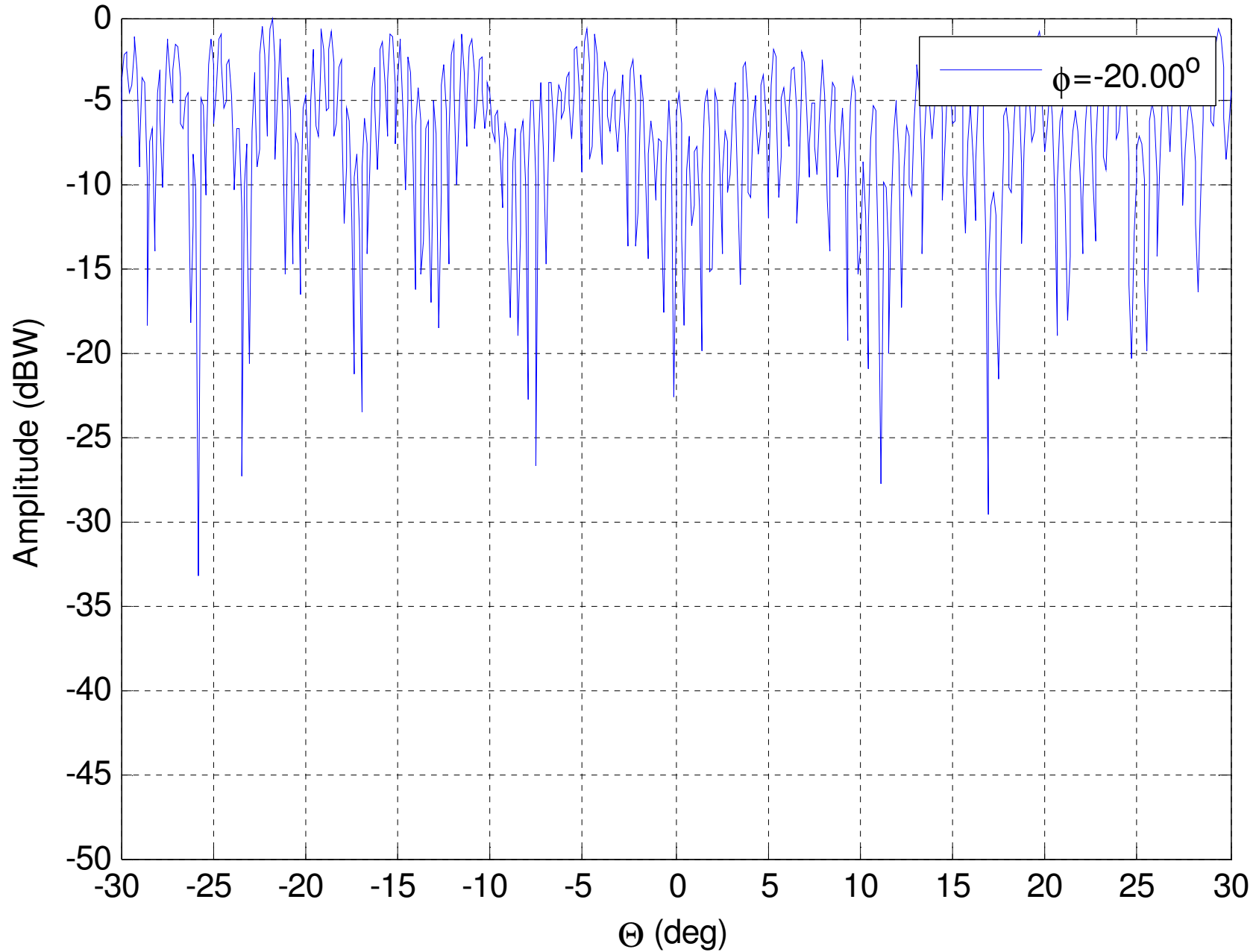
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--30.cut, Peak: -2.07 dBW, Date: 16-Dec-2011



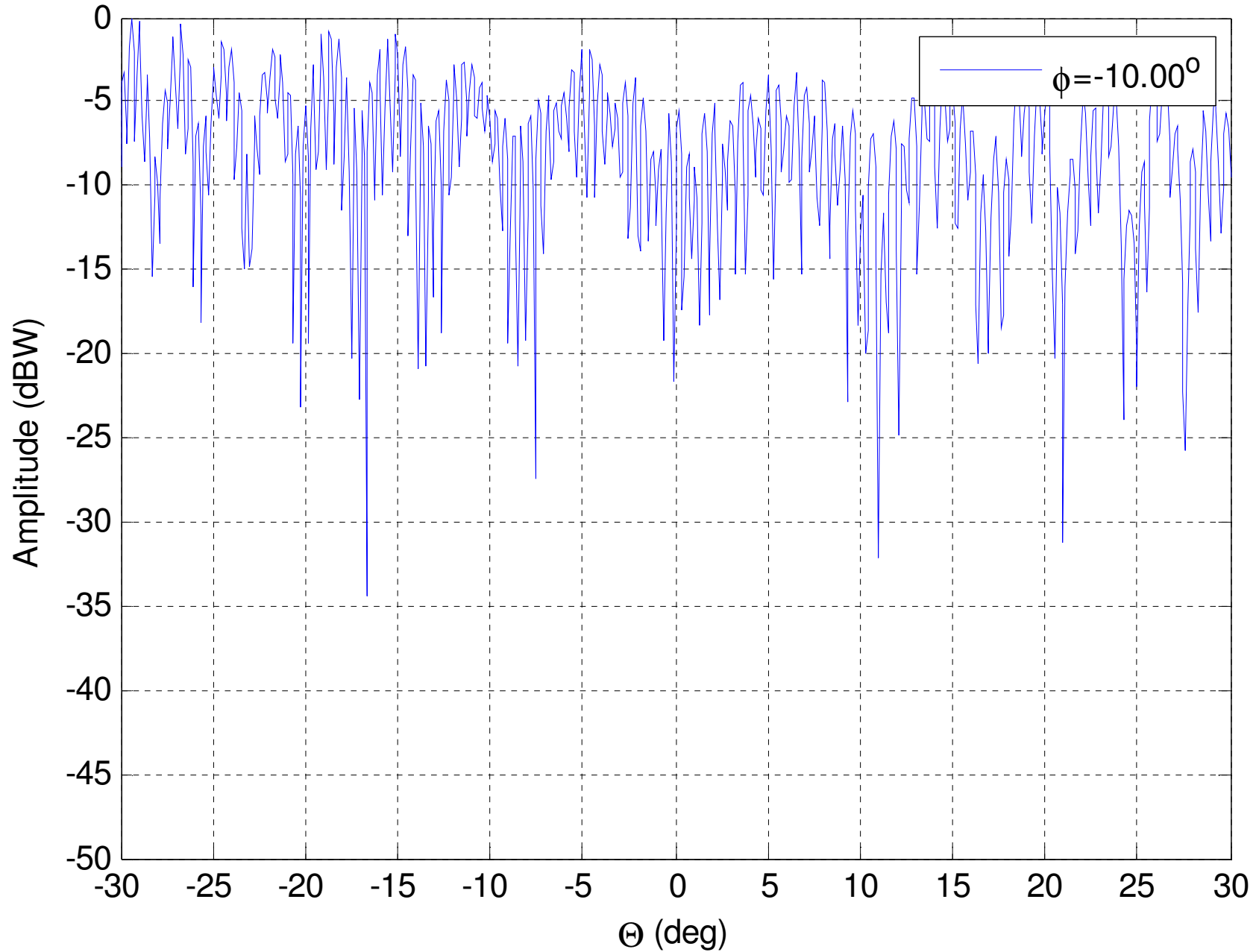
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--20.cut, Peak: -1.51 dBW, Date: 16-Dec-2011



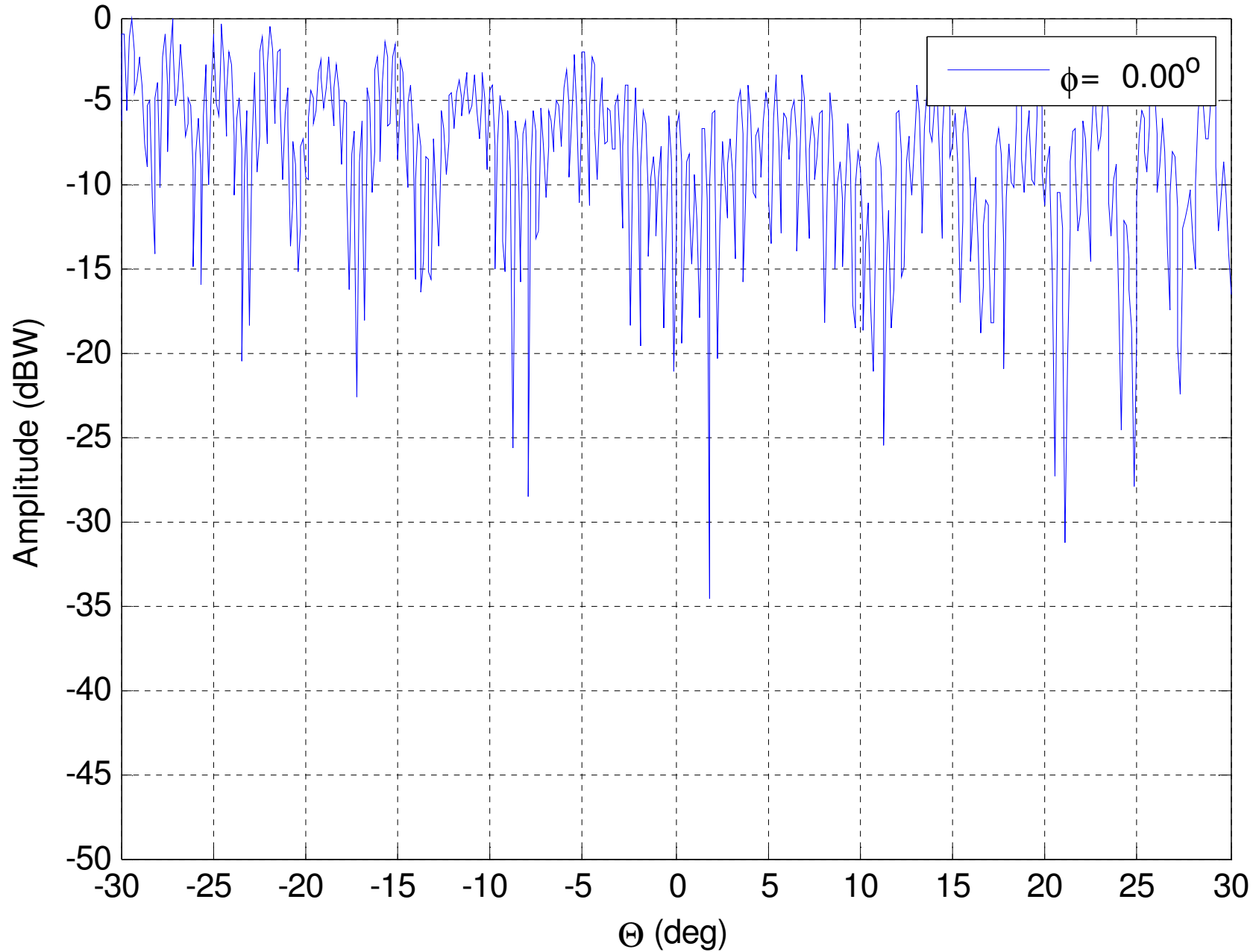
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--10.cut, Peak: -0.41 dBW, Date: 16-Dec-2011



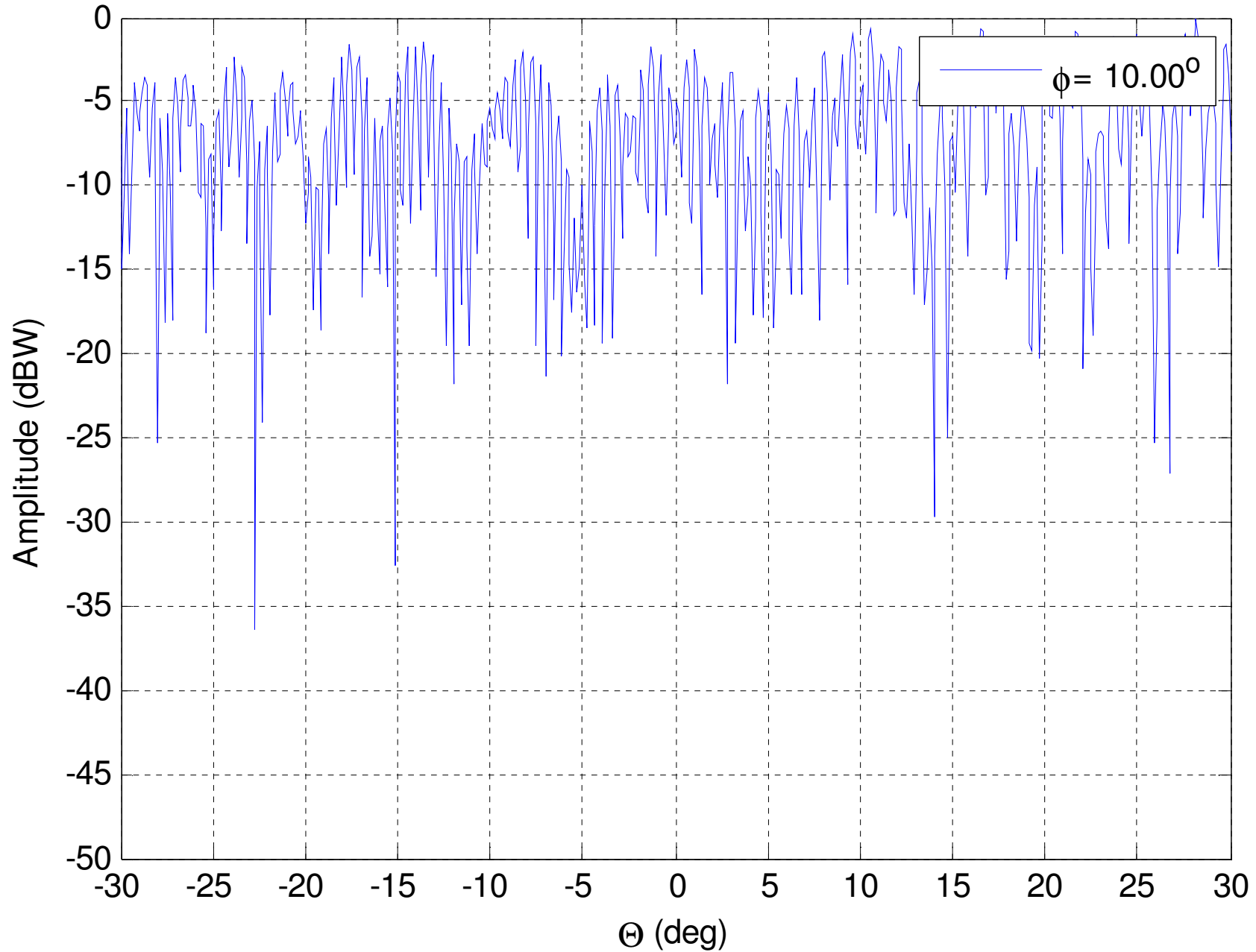
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-0.cut, Peak: -0.27 dBW, Date: 16-Dec-2011



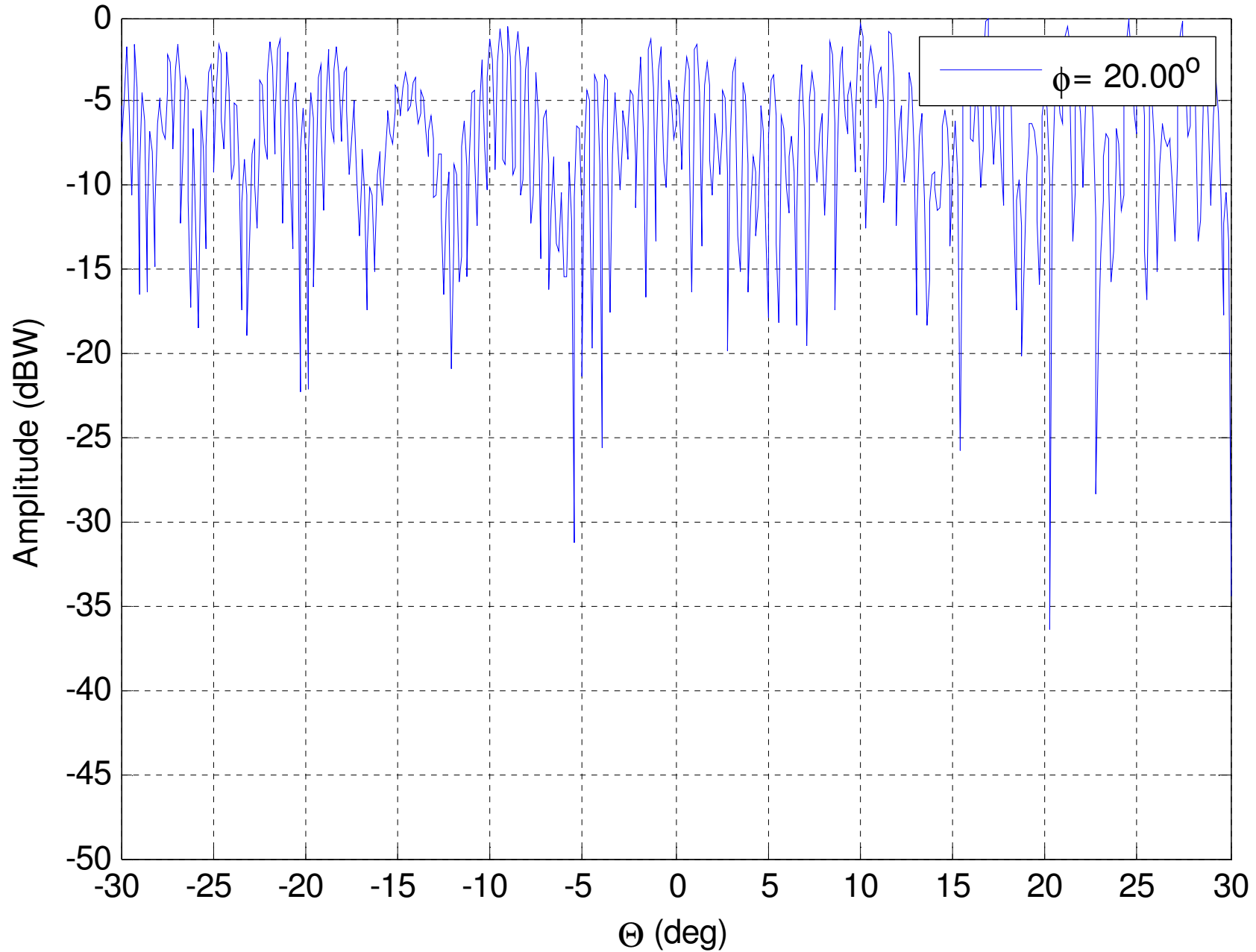
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-10.cut, Peak: -1.13 dBW, Date: 16-Dec-2011



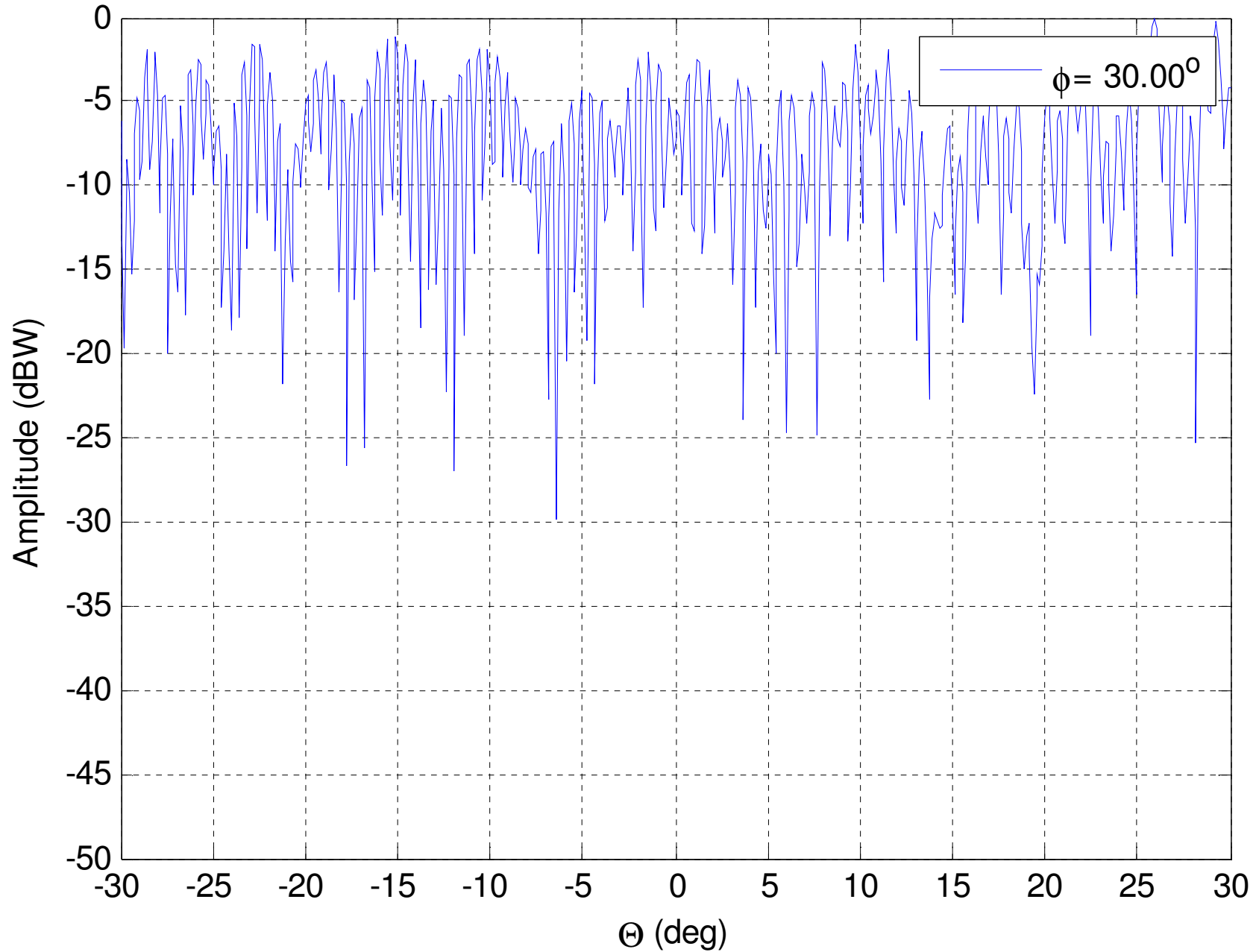
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-20.cut, Peak: -1.58 dBW, Date: 16-Dec-2011



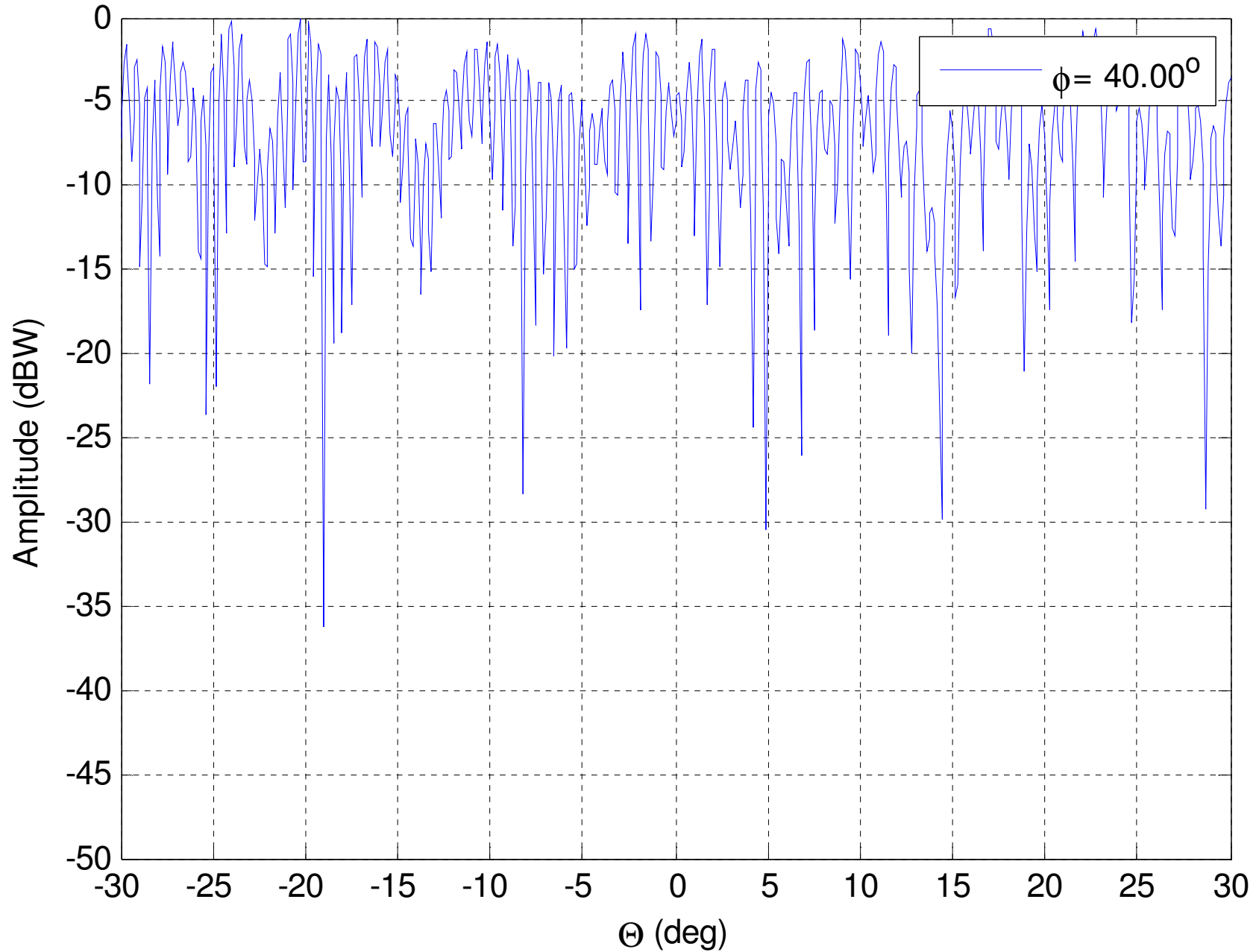
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-30.cut, Peak: -0.74 dBW, Date: 16-Dec-2011



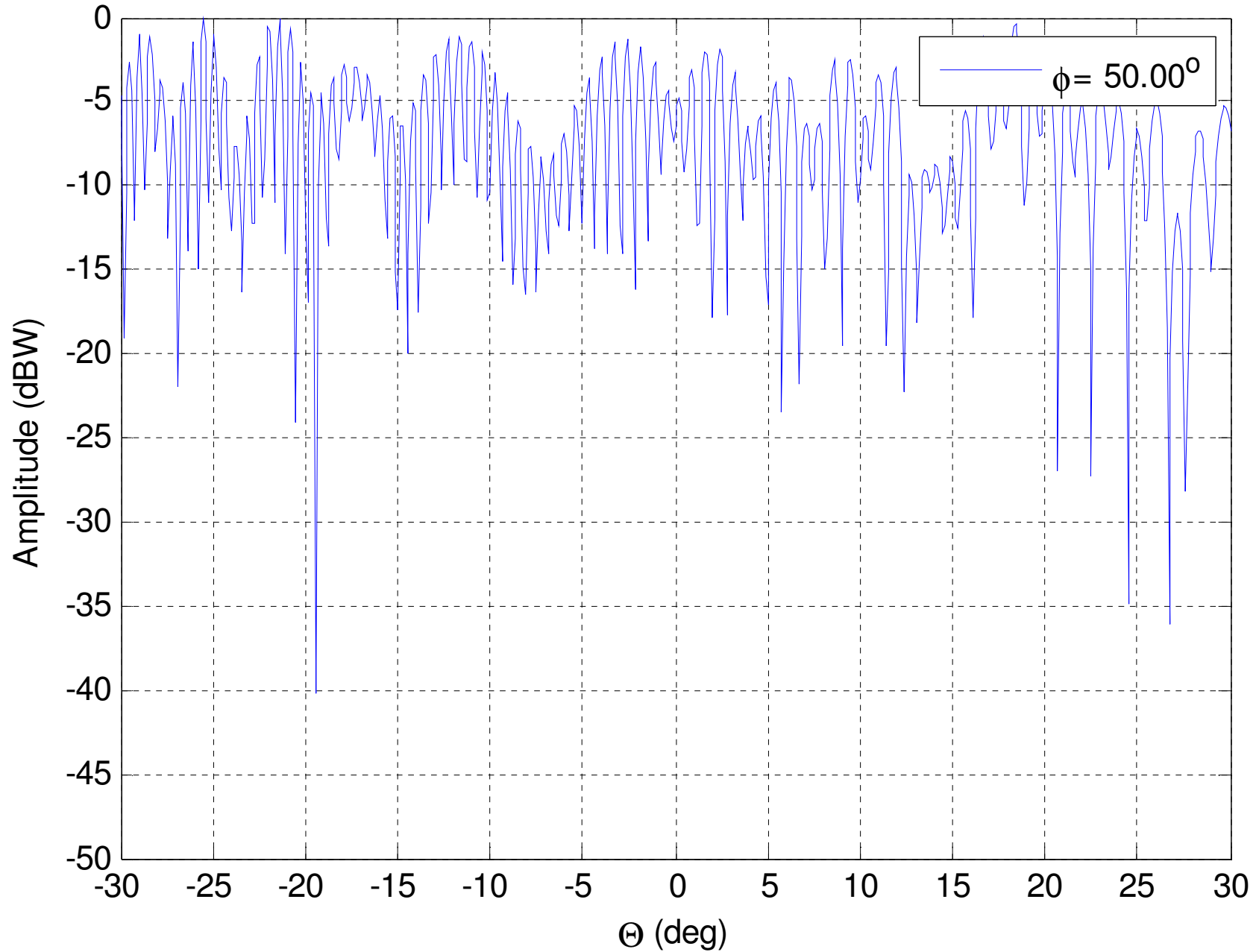
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-40.cut, Peak: -1.82 dBW, Date: 16-Dec-2011



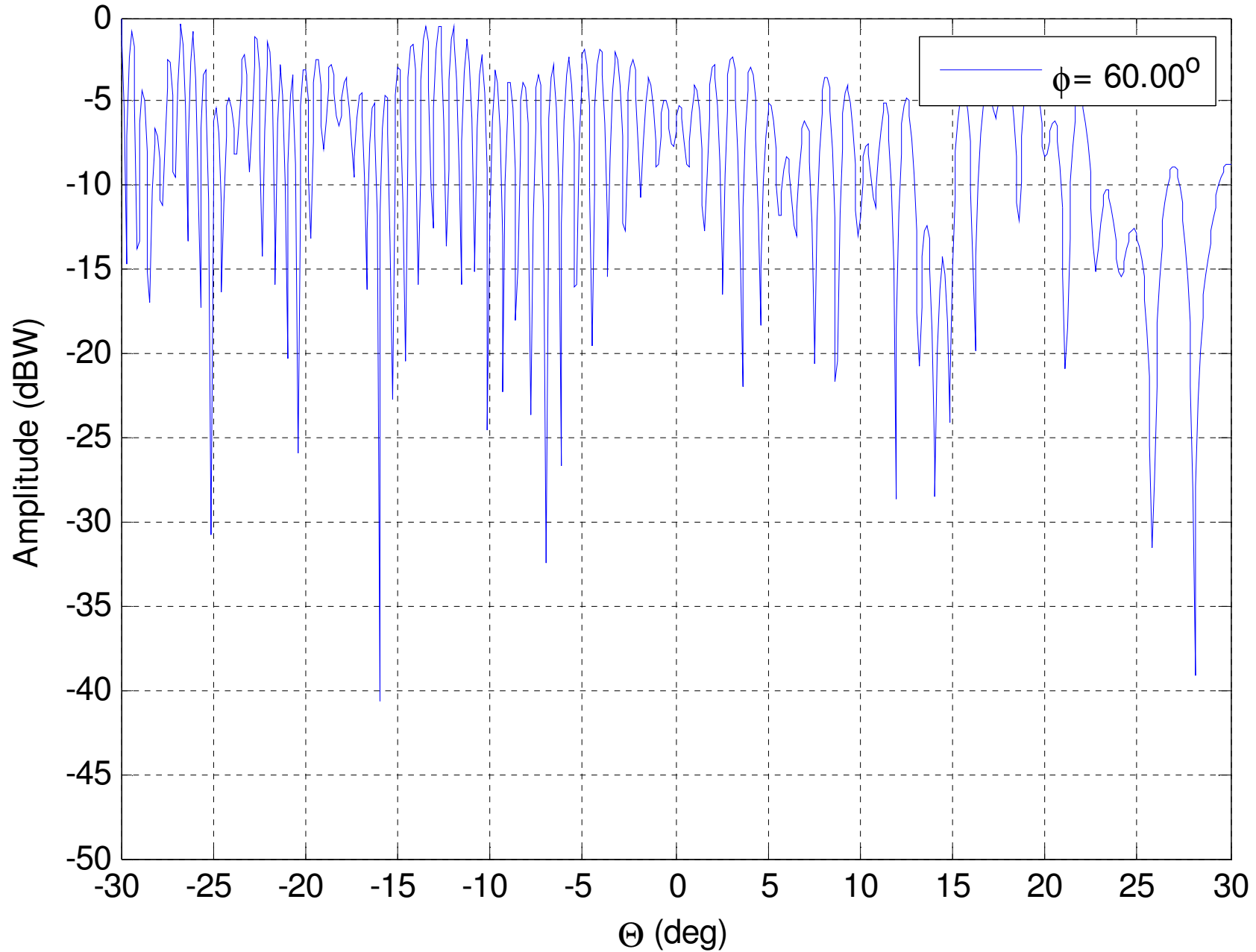
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-50.cut, Peak: -1.45 dBW, Date: 16-Dec-2011



Normalized pattern cuts - farfield

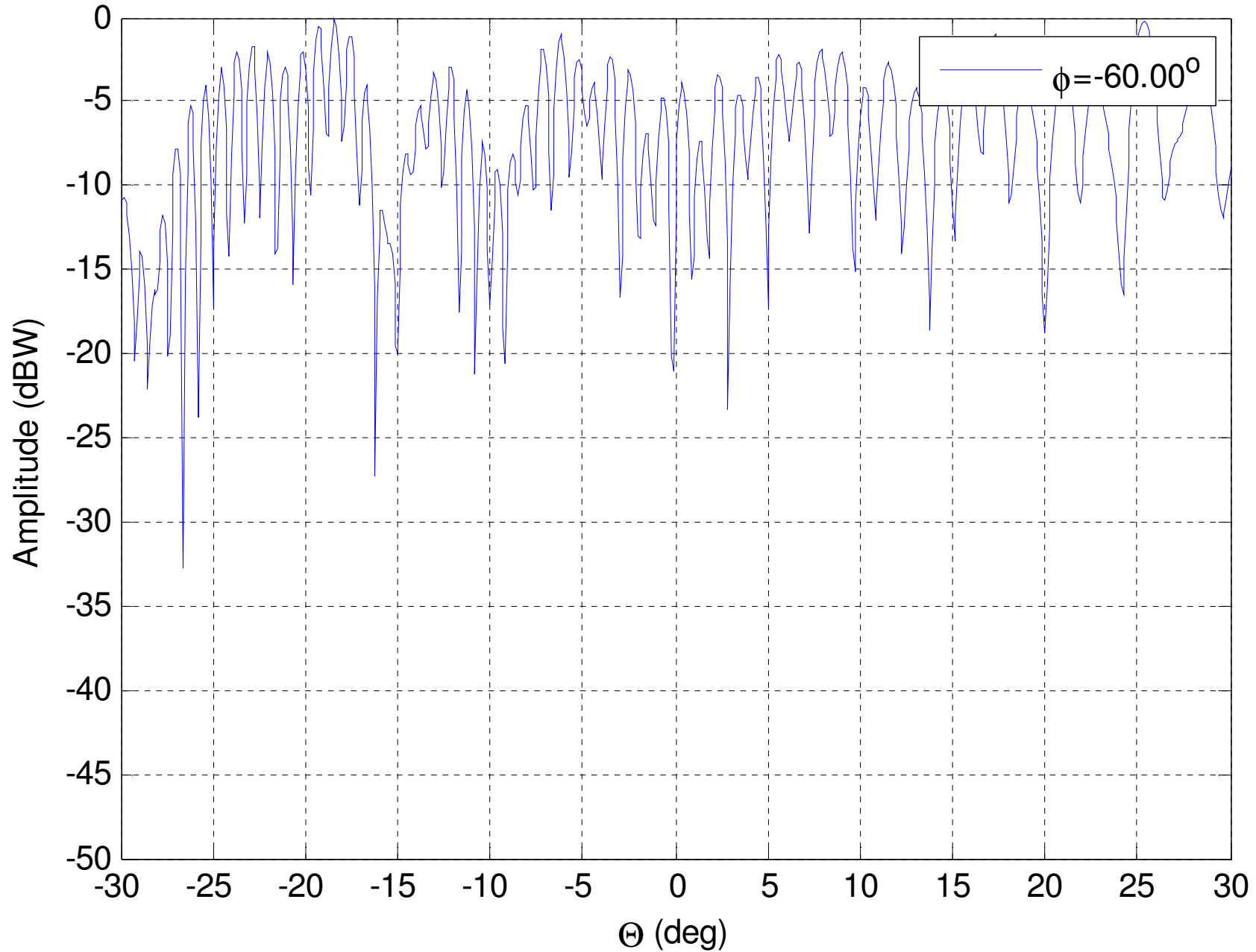
Input file: tx-17.3-rhcp-60.cut, Peak: -1.13 dBW, Date: 16-Dec-2011



LHCP at 17.3 GHz

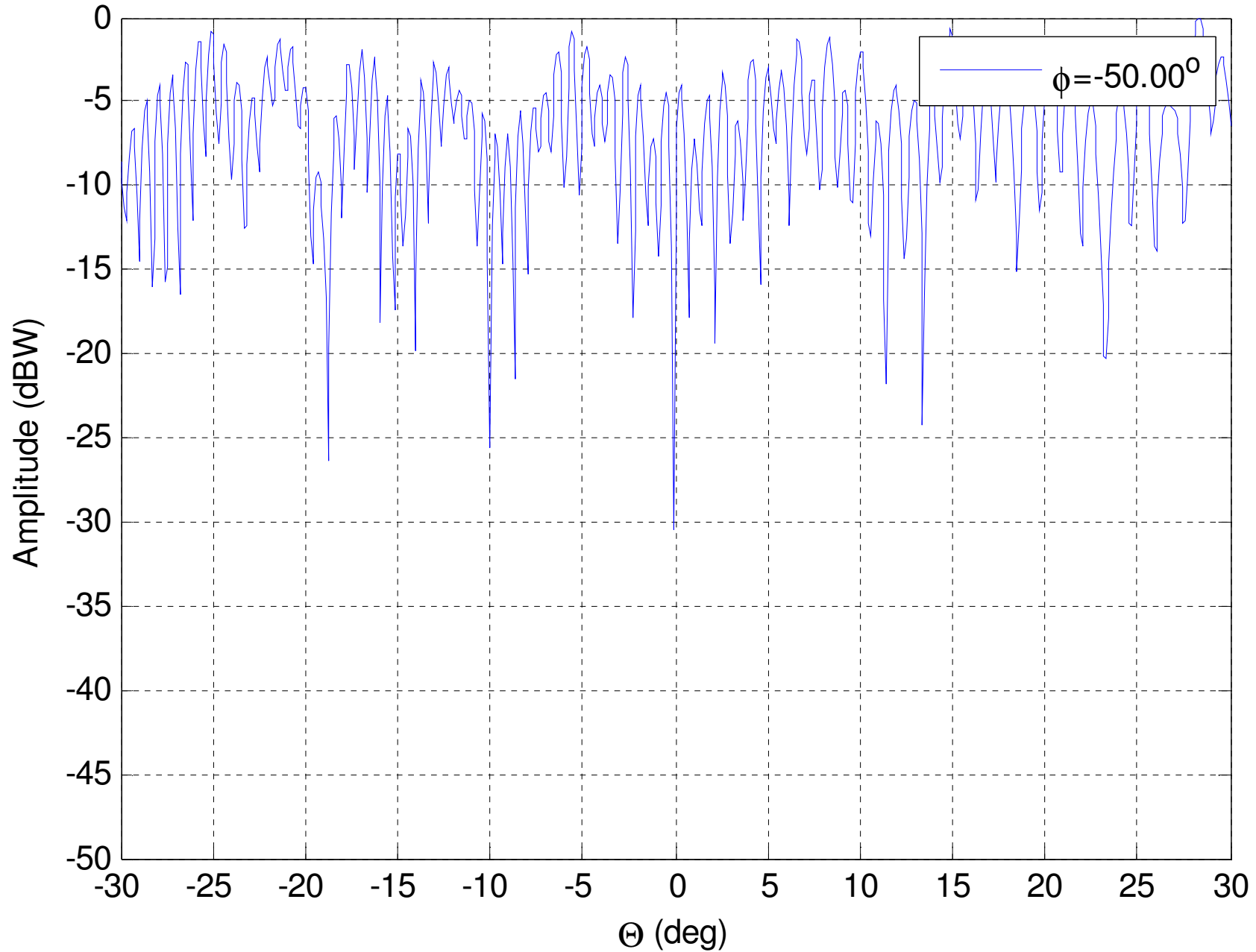
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp--60.cut, Peak: -1.76 dBW, Date: 16-Dec-2011



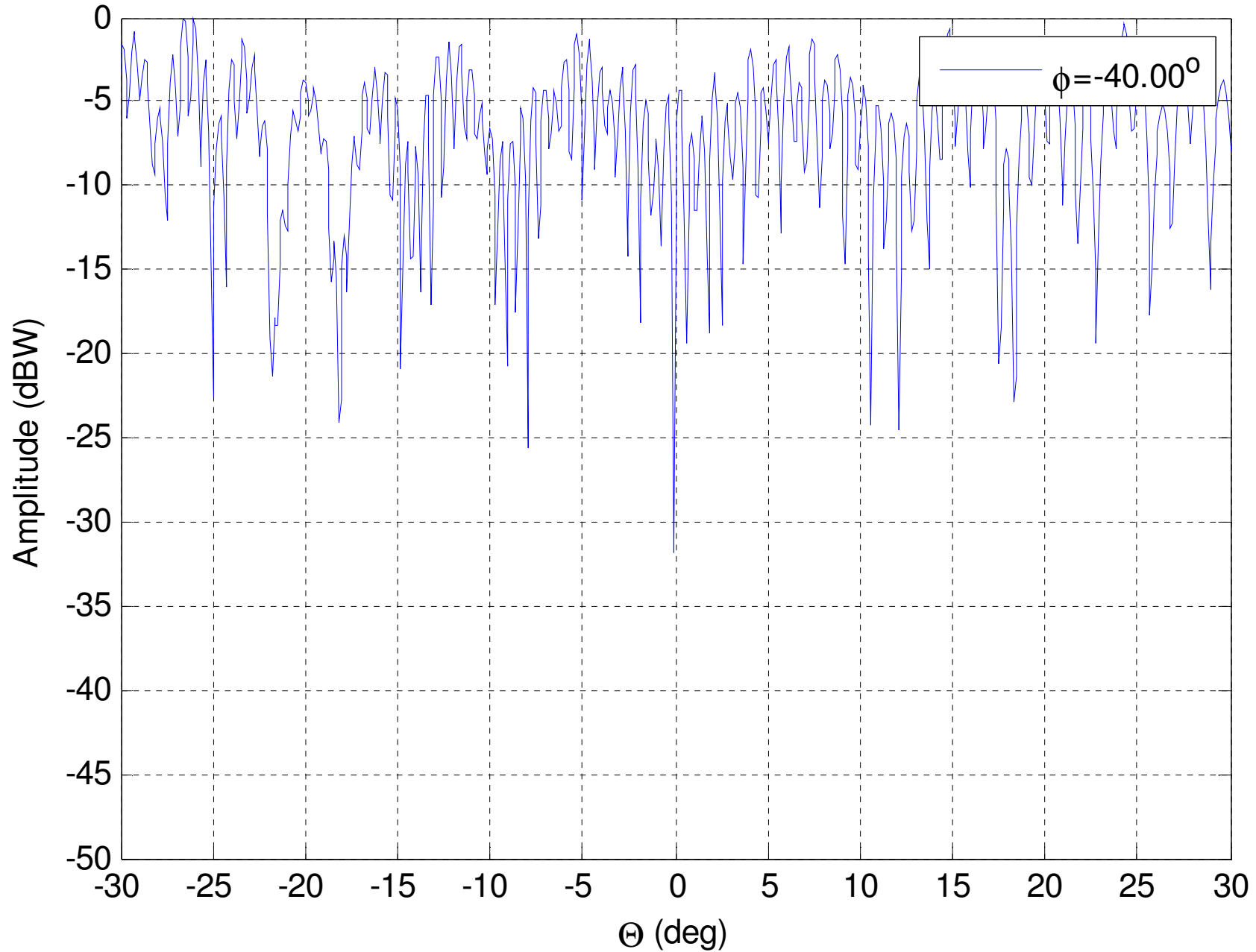
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp--50.cut, Peak: -1.64 dBW, Date: 16-Dec-2011



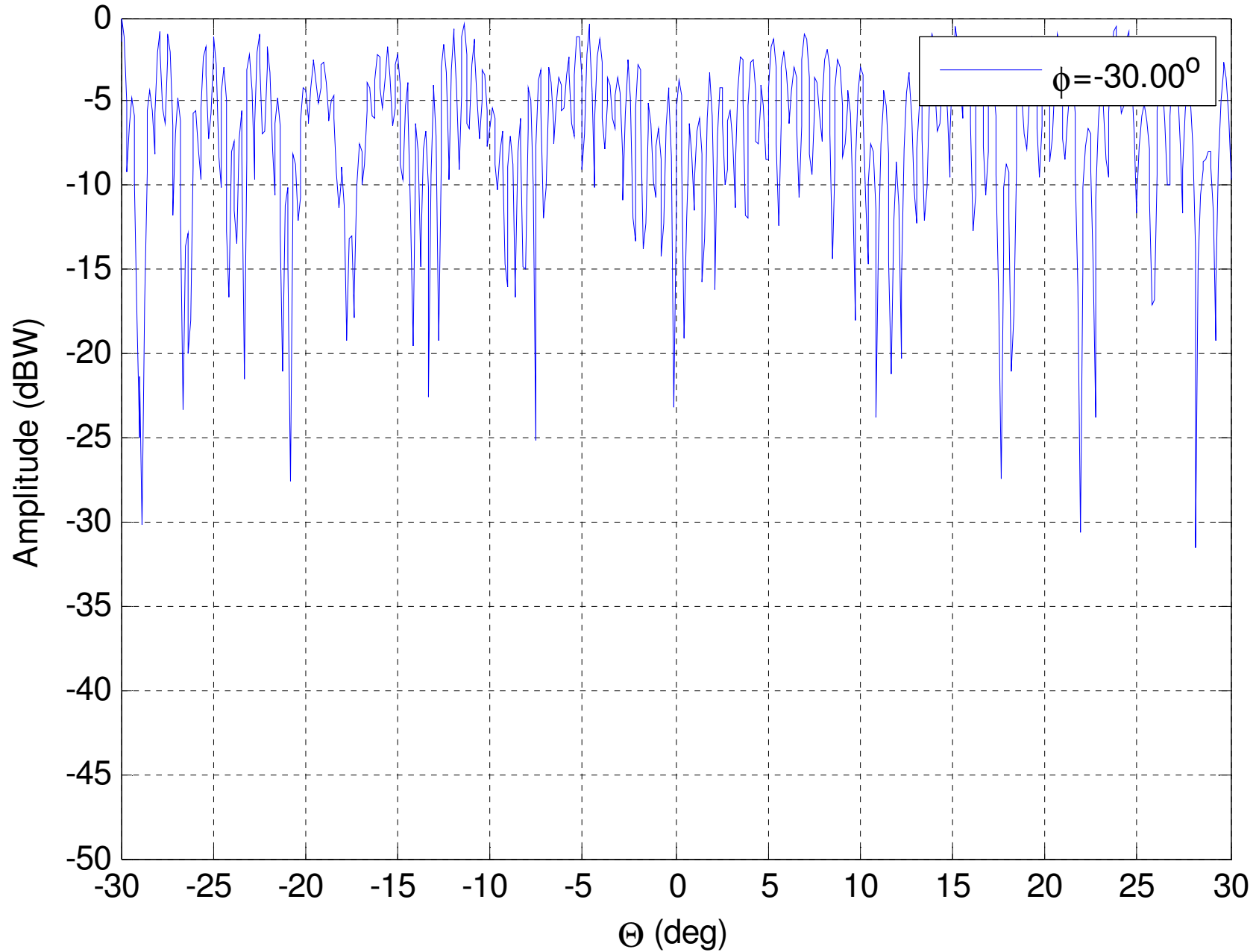
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp--40.cut, Peak: -1.49 dBW, Date: 16-Dec-2011



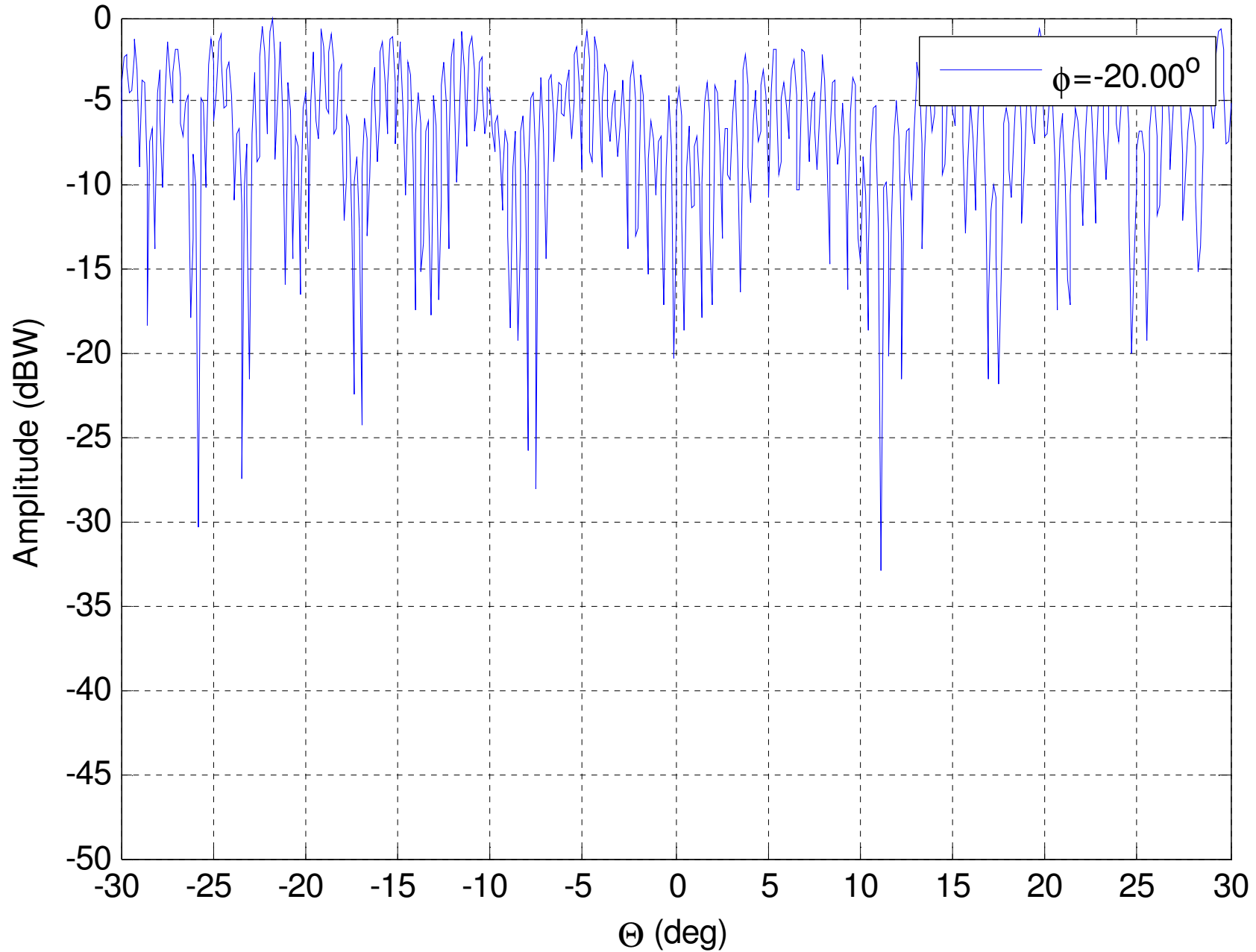
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp--30.cut, Peak: -1.87 dBW, Date: 16-Dec-2011



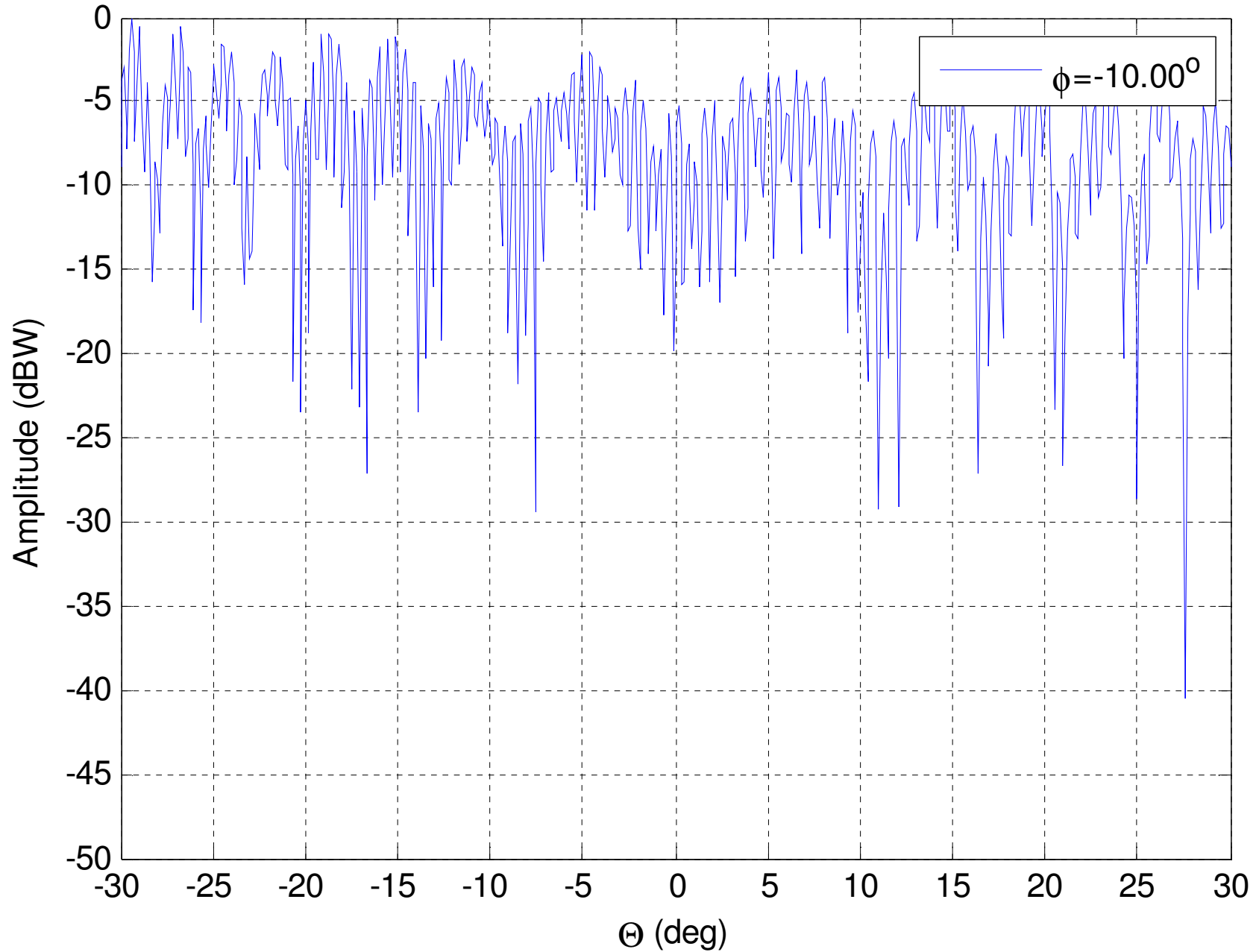
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp--20.cut, Peak: -1.40 dBW, Date: 16-Dec-2011



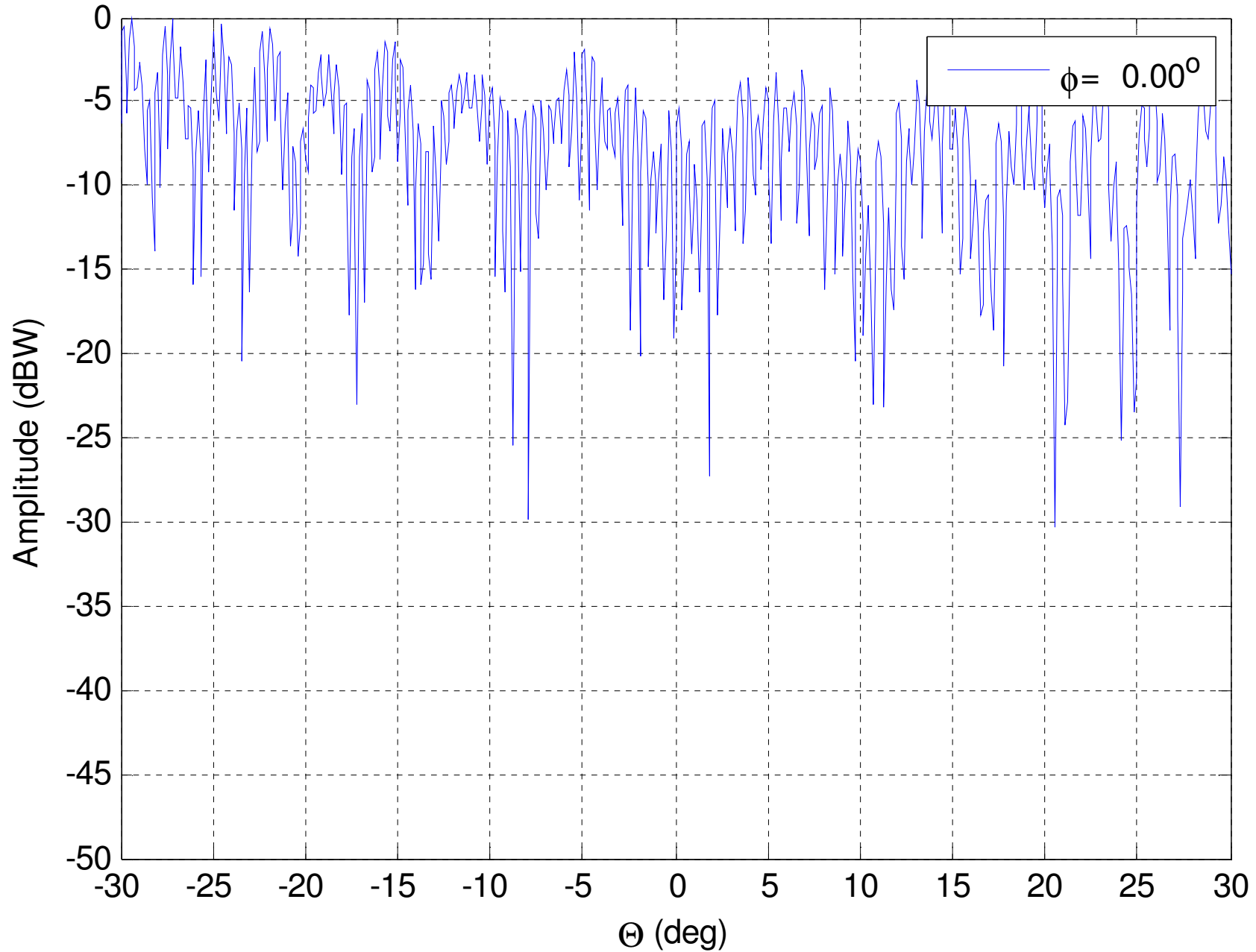
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp--10.cut, Peak: -0.24 dBW, Date: 16-Dec-2011



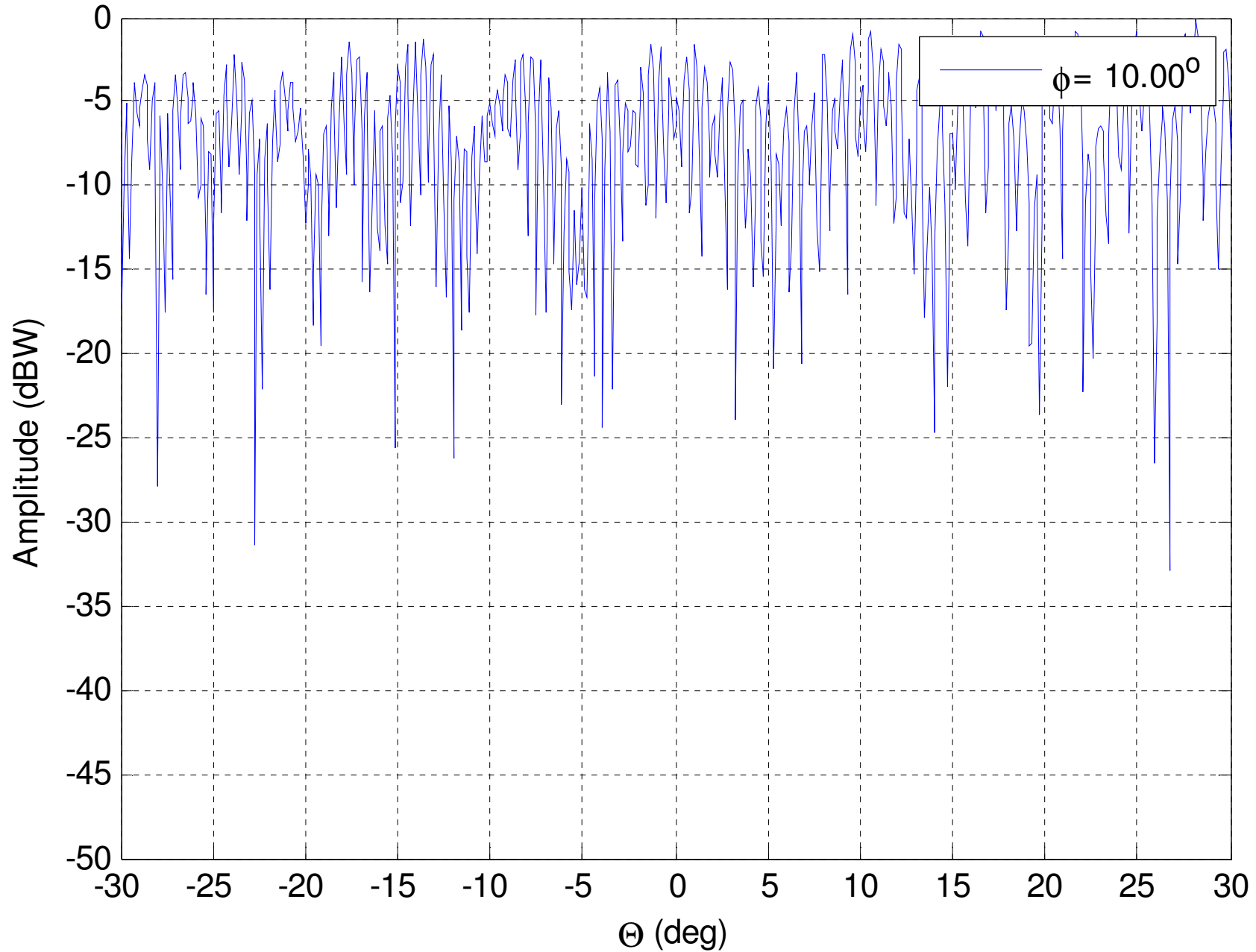
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp-0.cut, Peak: -0.23 dBW, Date: 16-Dec-2011



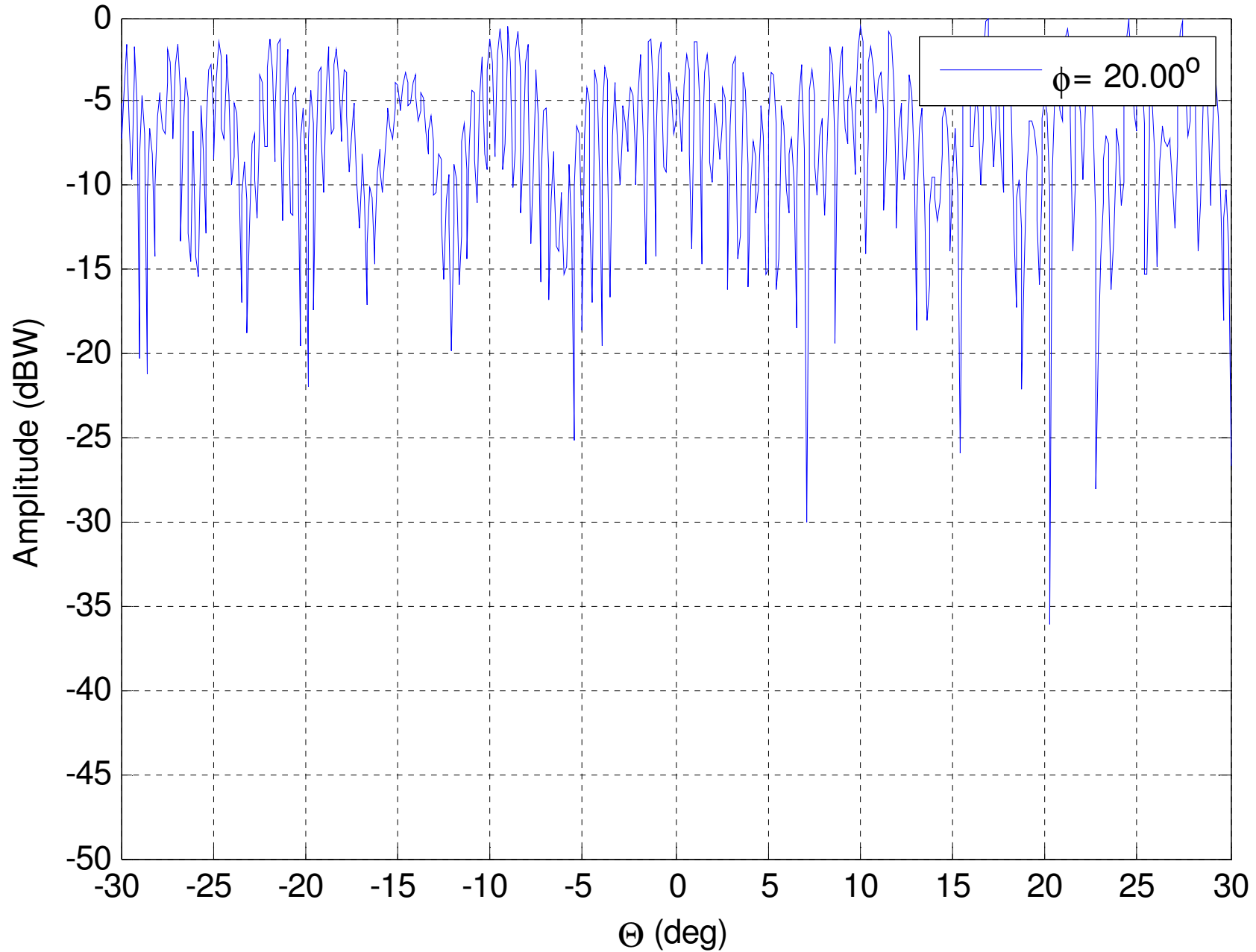
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp-10.cut, Peak: -1.05 dBW, Date: 16-Dec-2011



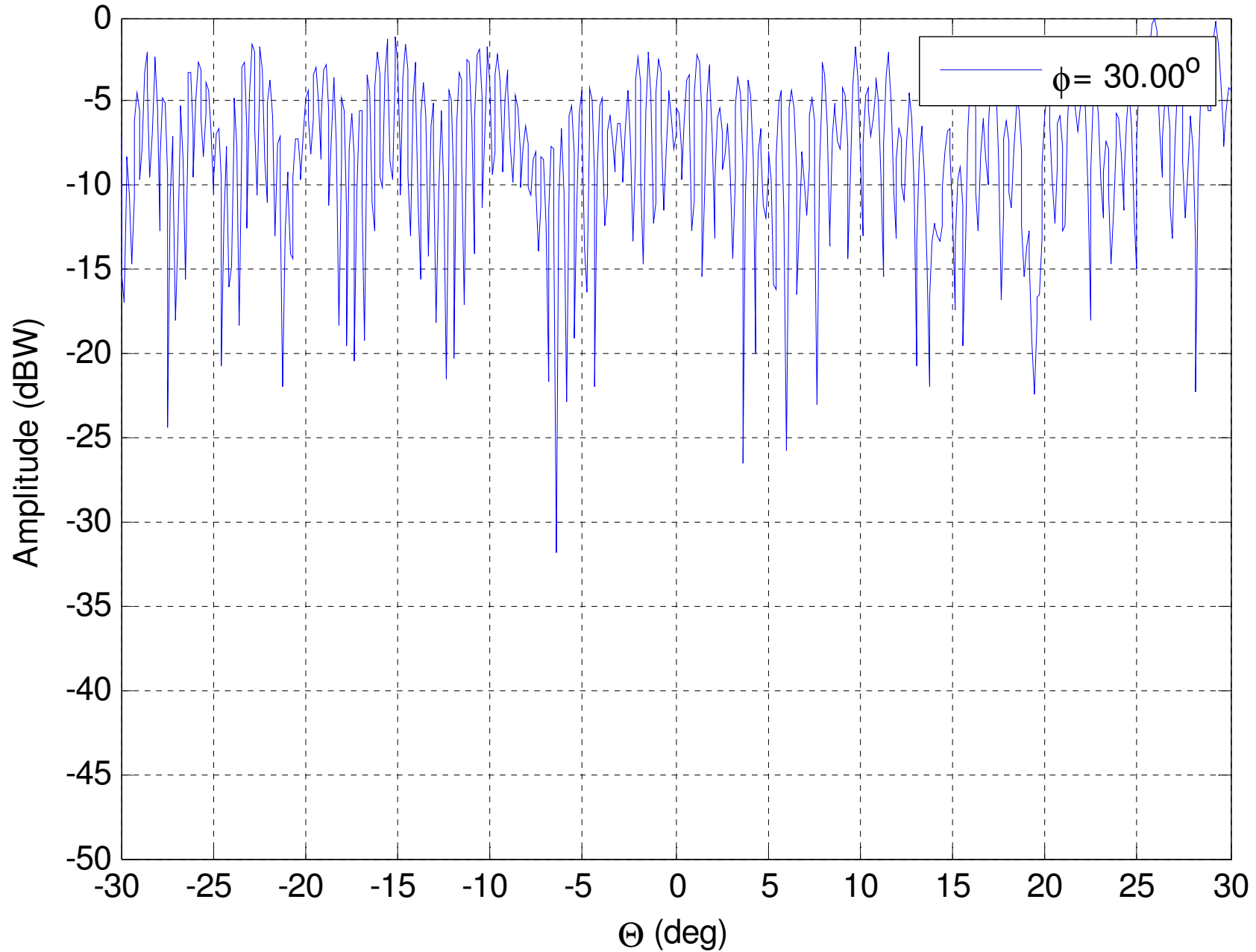
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp-20.cut, Peak: -1.48 dBW, Date: 16-Dec-2011



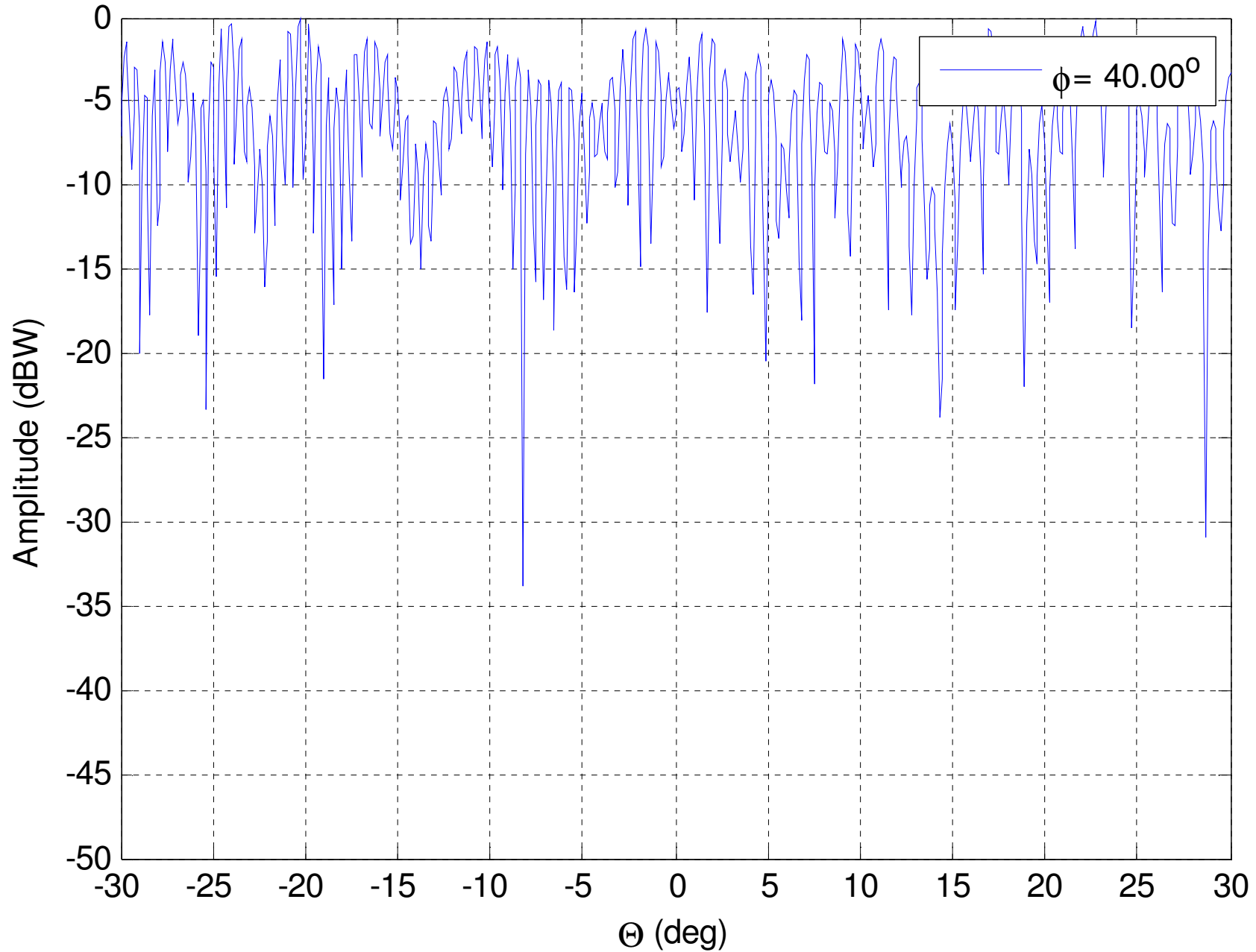
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp-30.cut, Peak: -0.56 dBW, Date: 16-Dec-2011



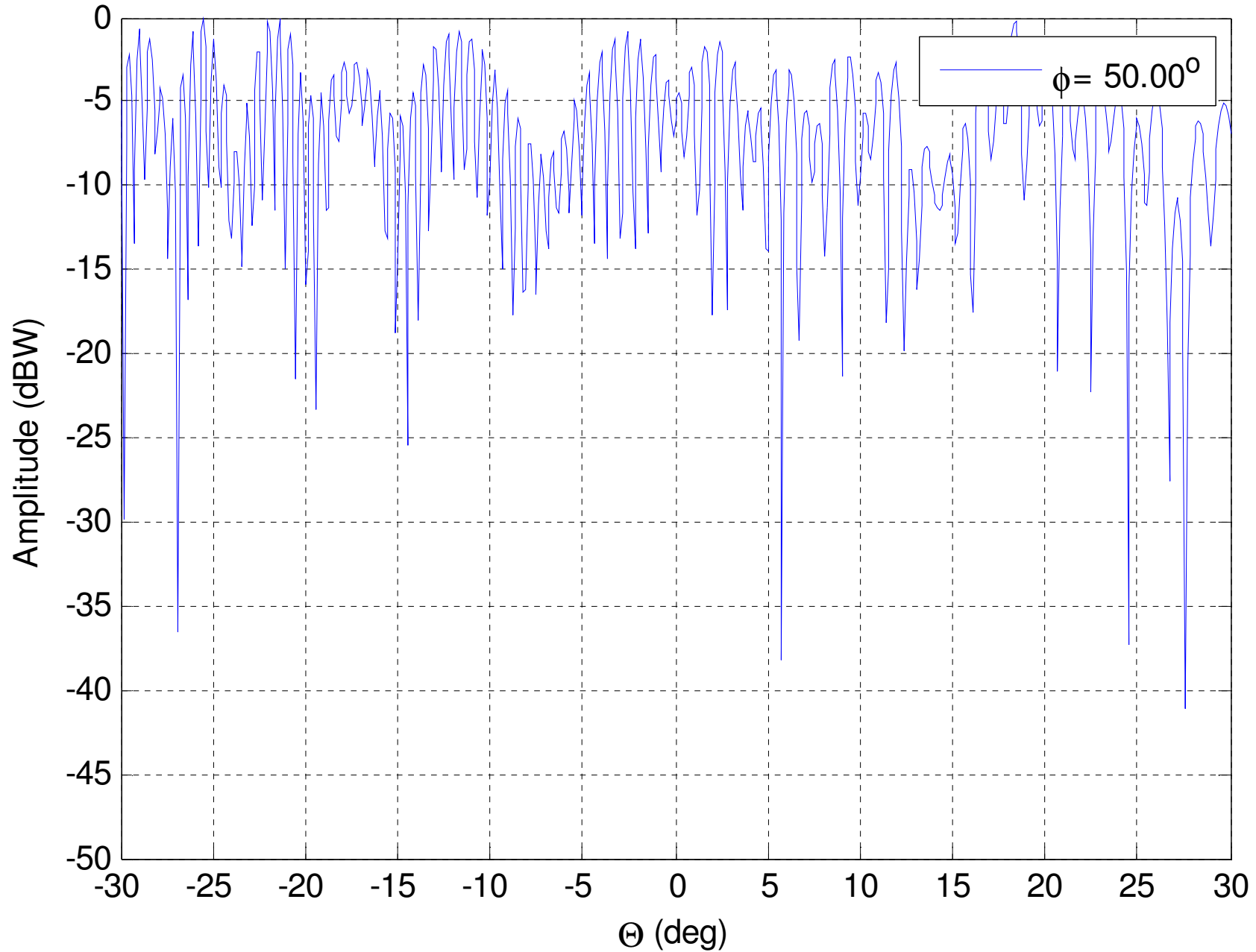
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp-40.cut, Peak: -1.83 dBW, Date: 16-Dec-2011



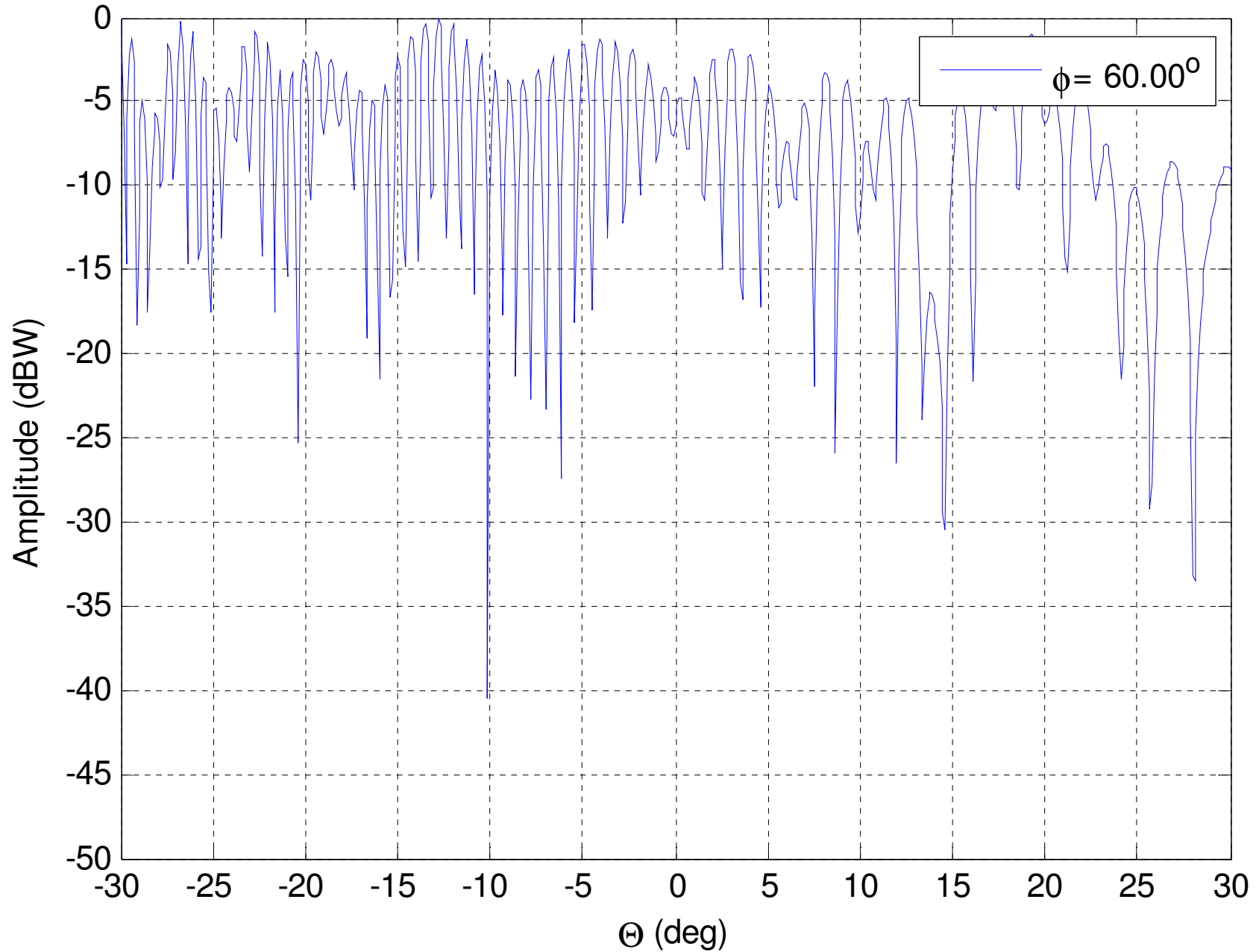
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp-50.cut, Peak: -1.45 dBW, Date: 16-Dec-2011



Normalized pattern cuts - farfield

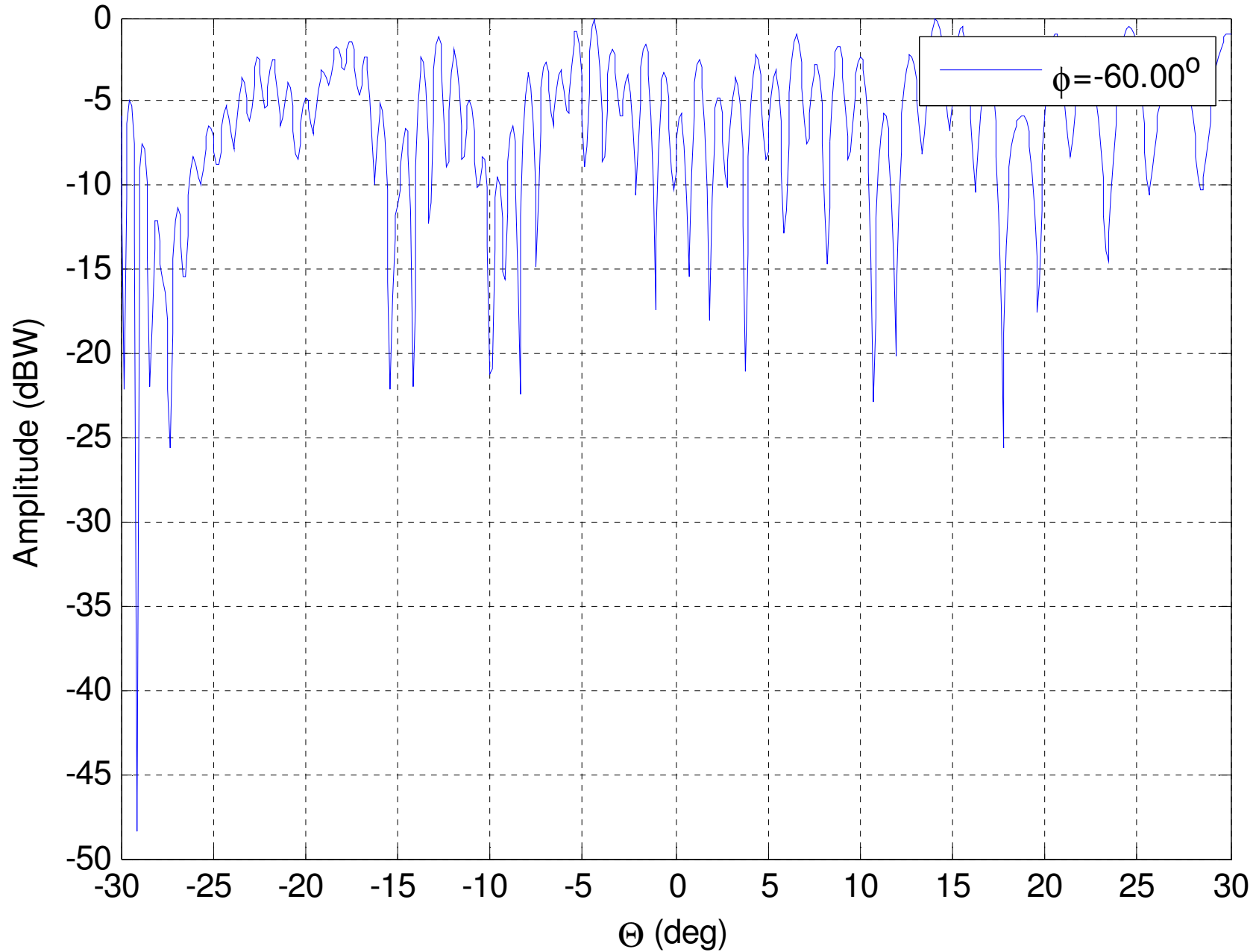
Input file: tx-17.3-lhcp-60.cut, Peak: -1.27 dBW, Date: 16-Dec-2011



RHCP at 17.5 GHz

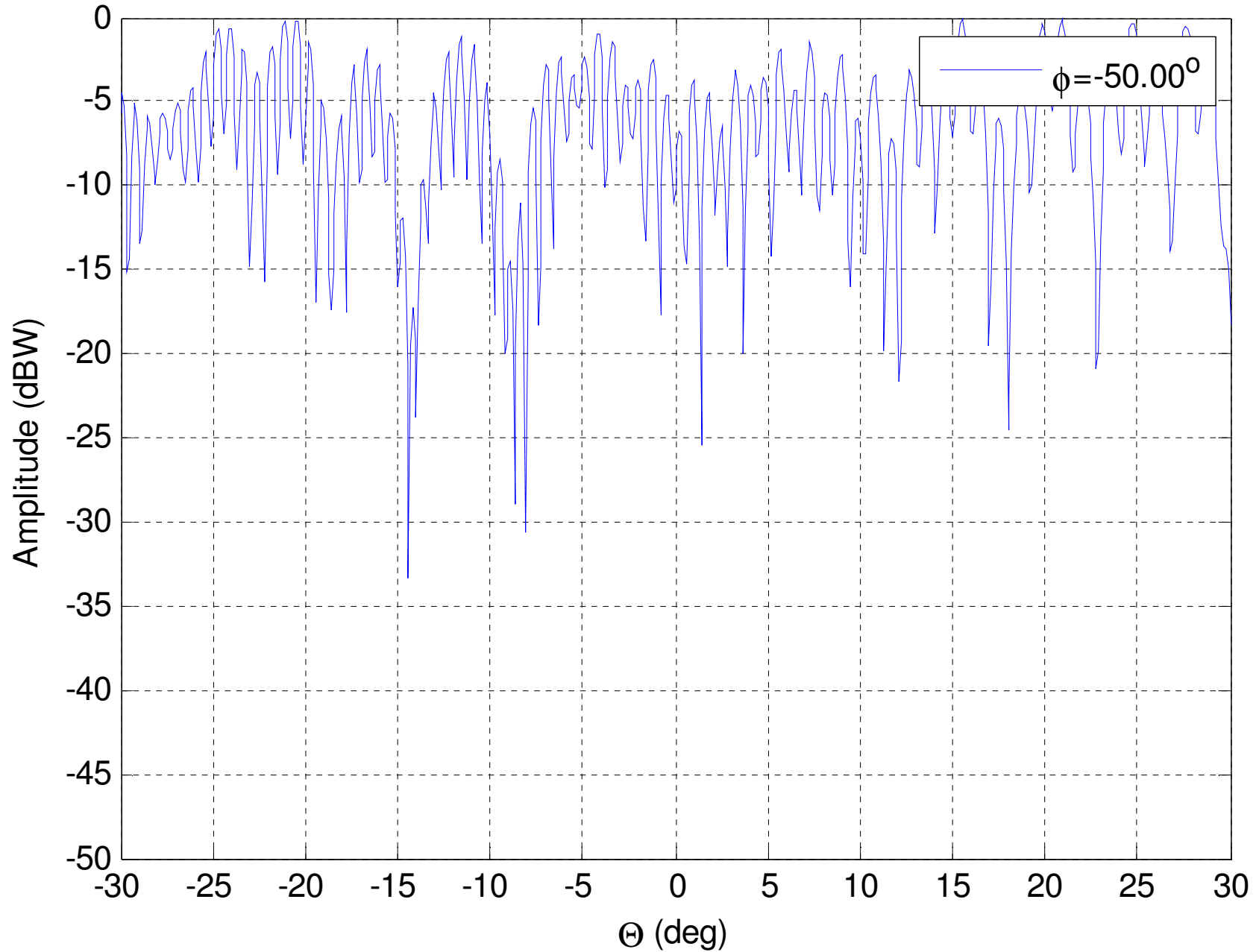
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--60.cut, Peak: -3.10 dBW, Date: 16-Dec-2011



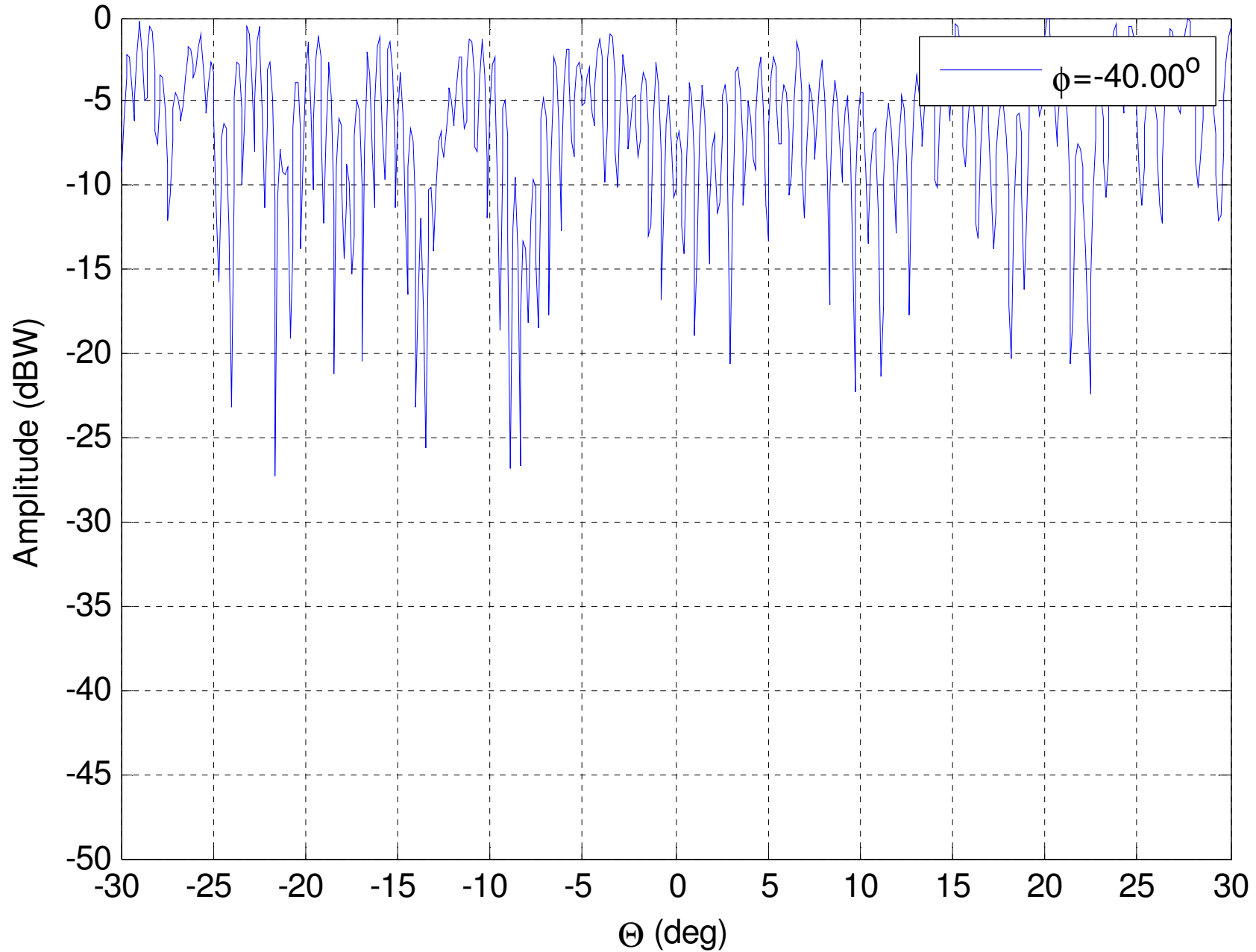
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--50.cut, Peak: -2.19 dBW, Date: 16-Dec-2011



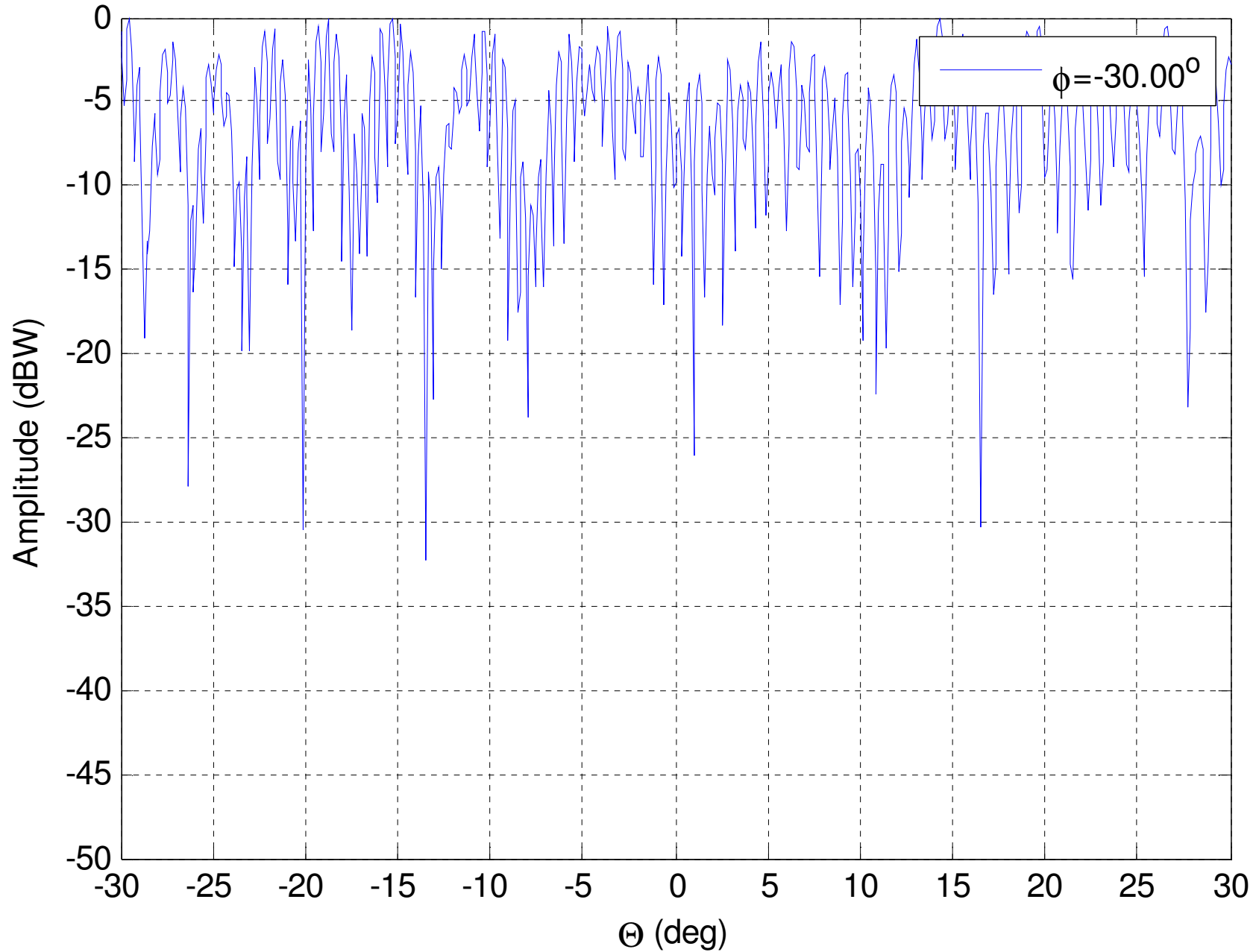
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--40.cut, Peak: -2.15 dBW, Date: 16-Dec-2011



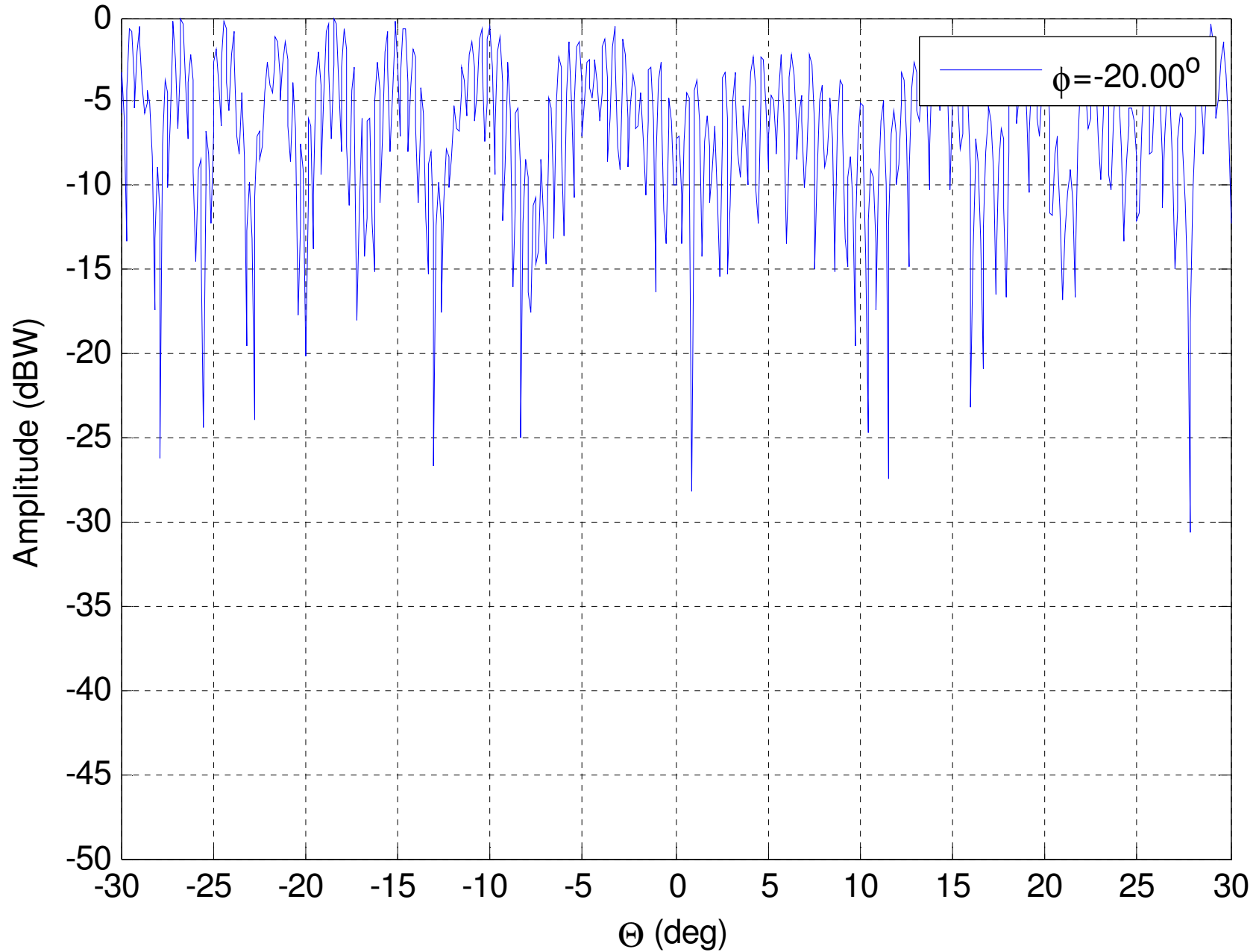
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--30.cut, Peak: -2.47 dBW, Date: 16-Dec-2011



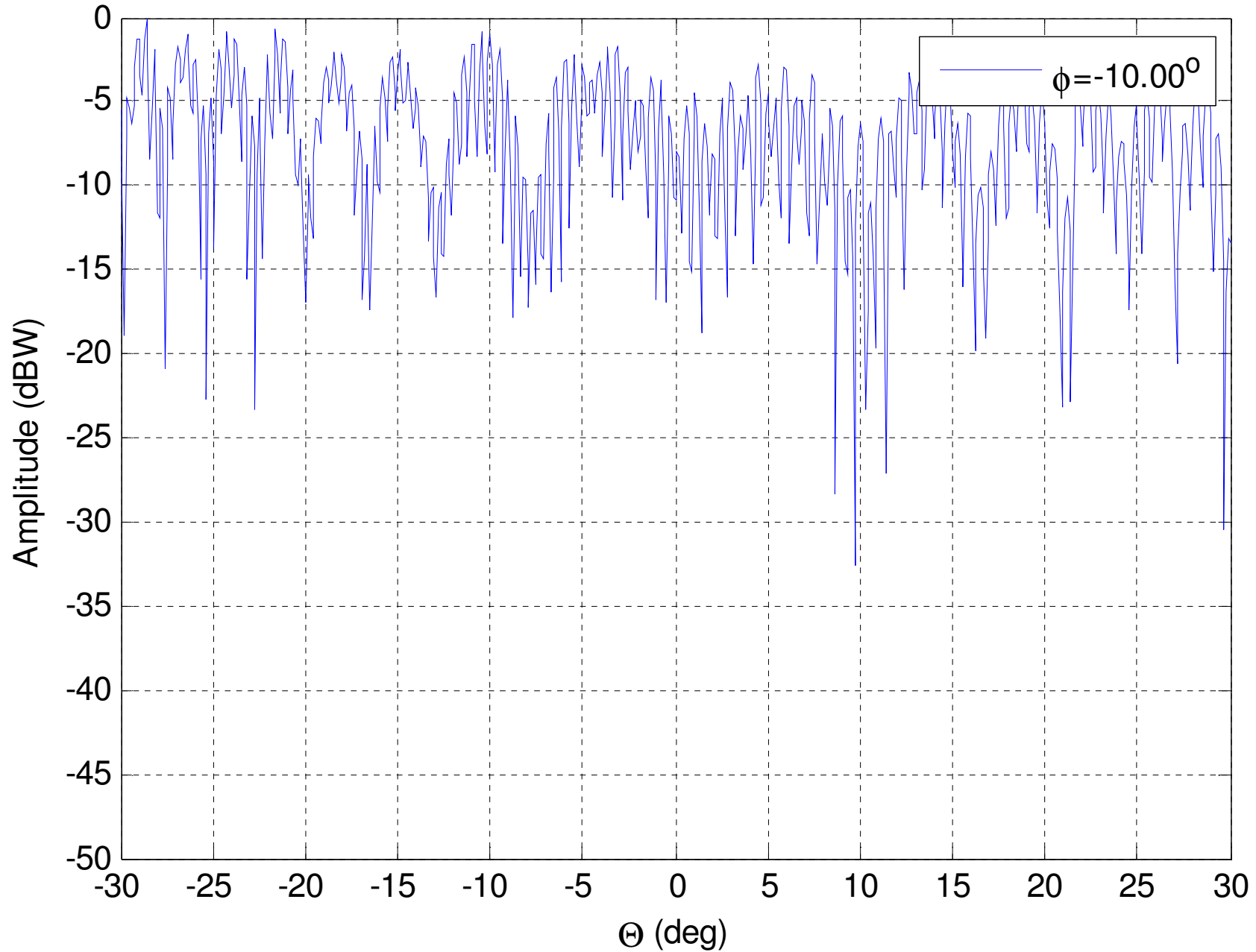
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--20.cut, Peak: -2.24 dBW, Date: 16-Dec-2011



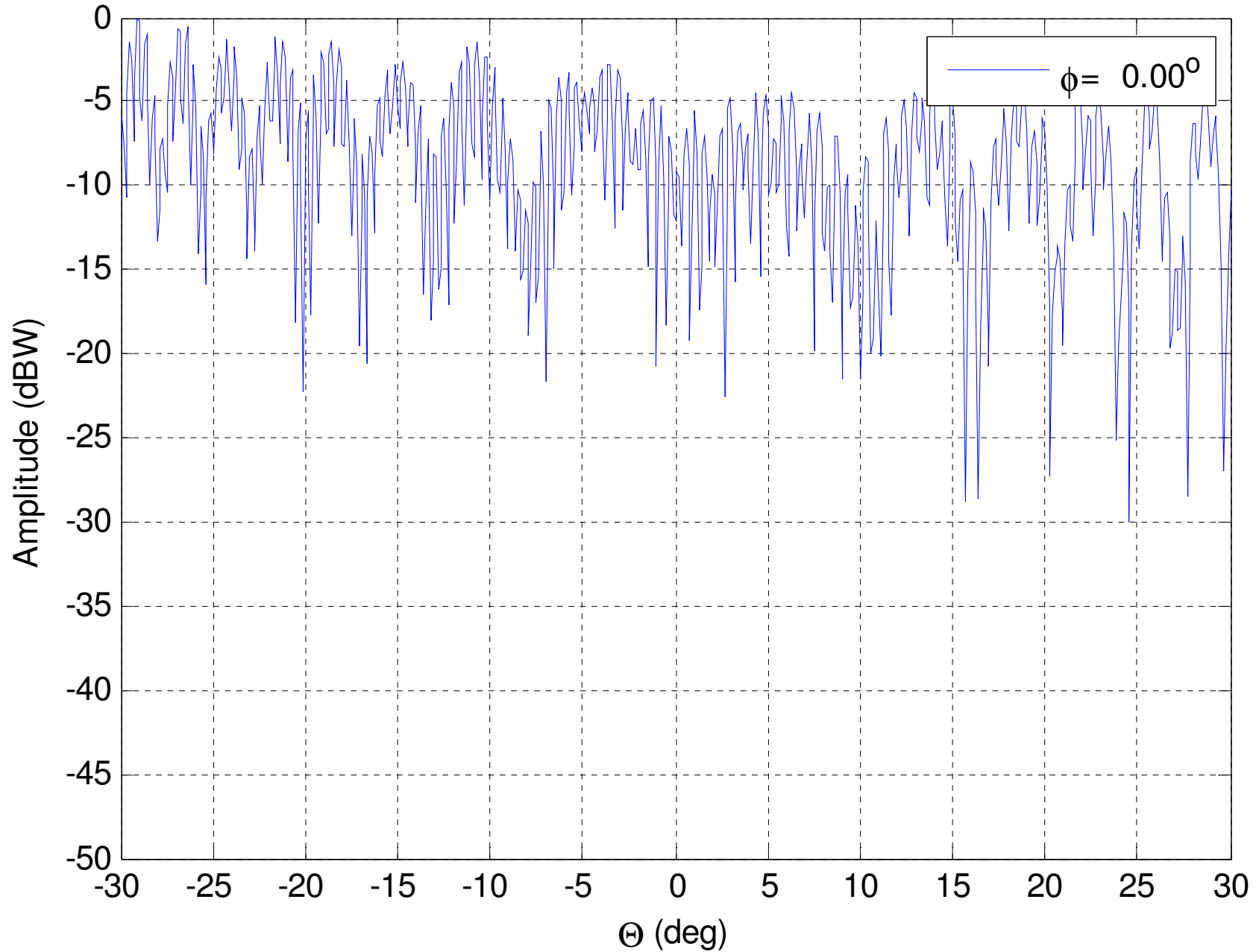
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--10.cut, Peak: -1.31 dBW, Date: 16-Dec-2011



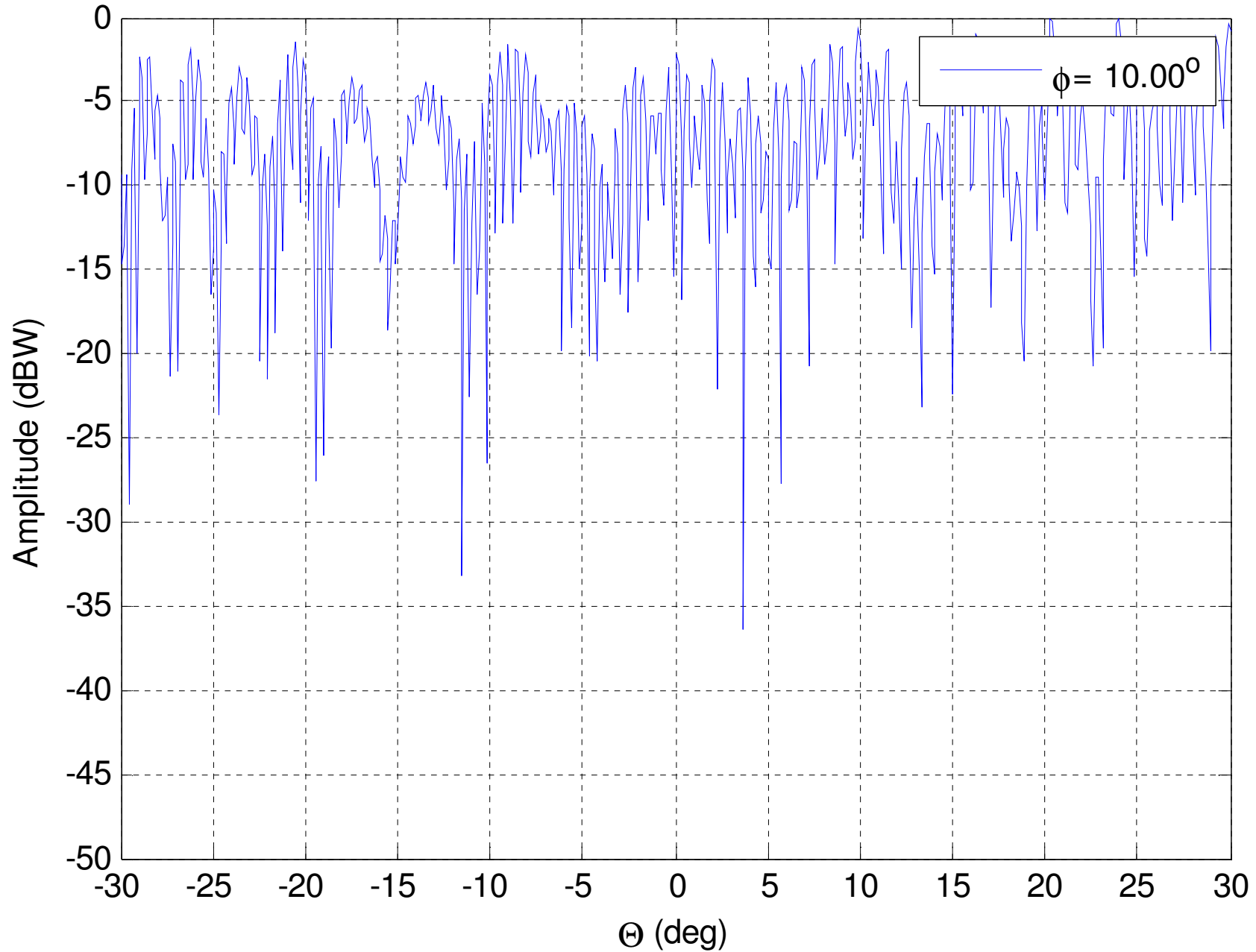
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-0.cut, Peak: -0.16 dBW, Date: 16-Dec-2011



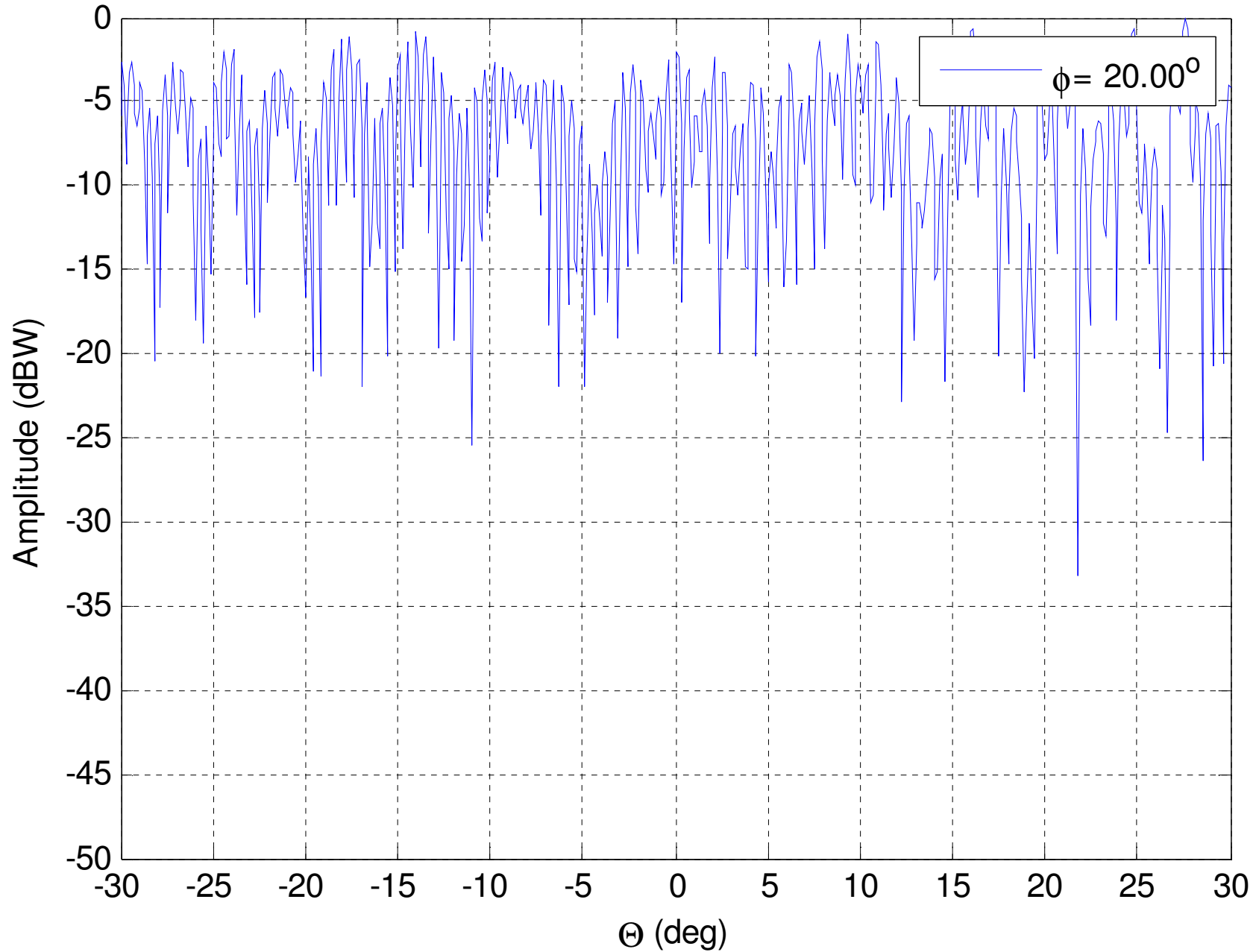
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-10.cut, Peak: -1.35 dBW, Date: 16-Dec-2011



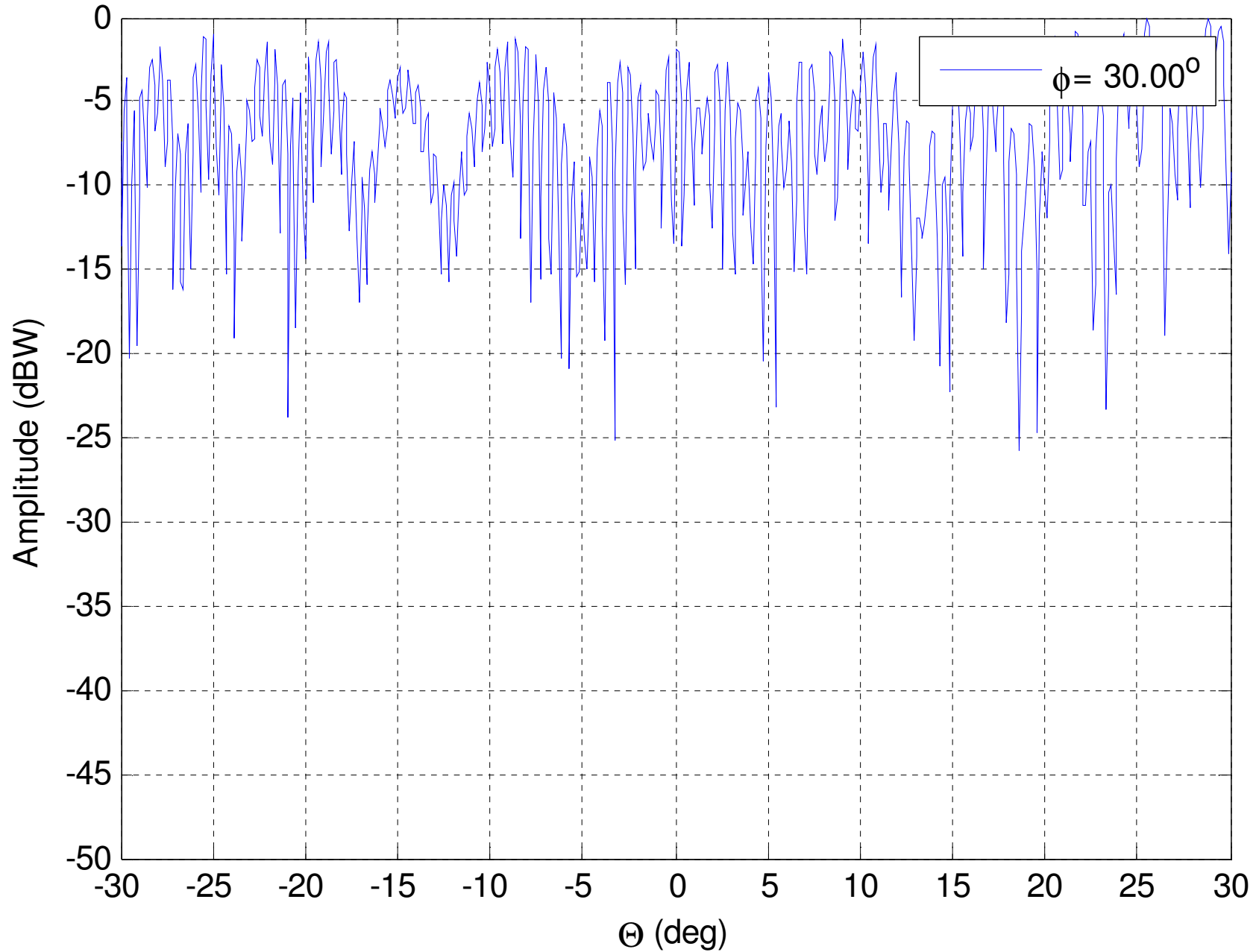
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-20.cut, Peak: -1.53 dBW, Date: 16-Dec-2011



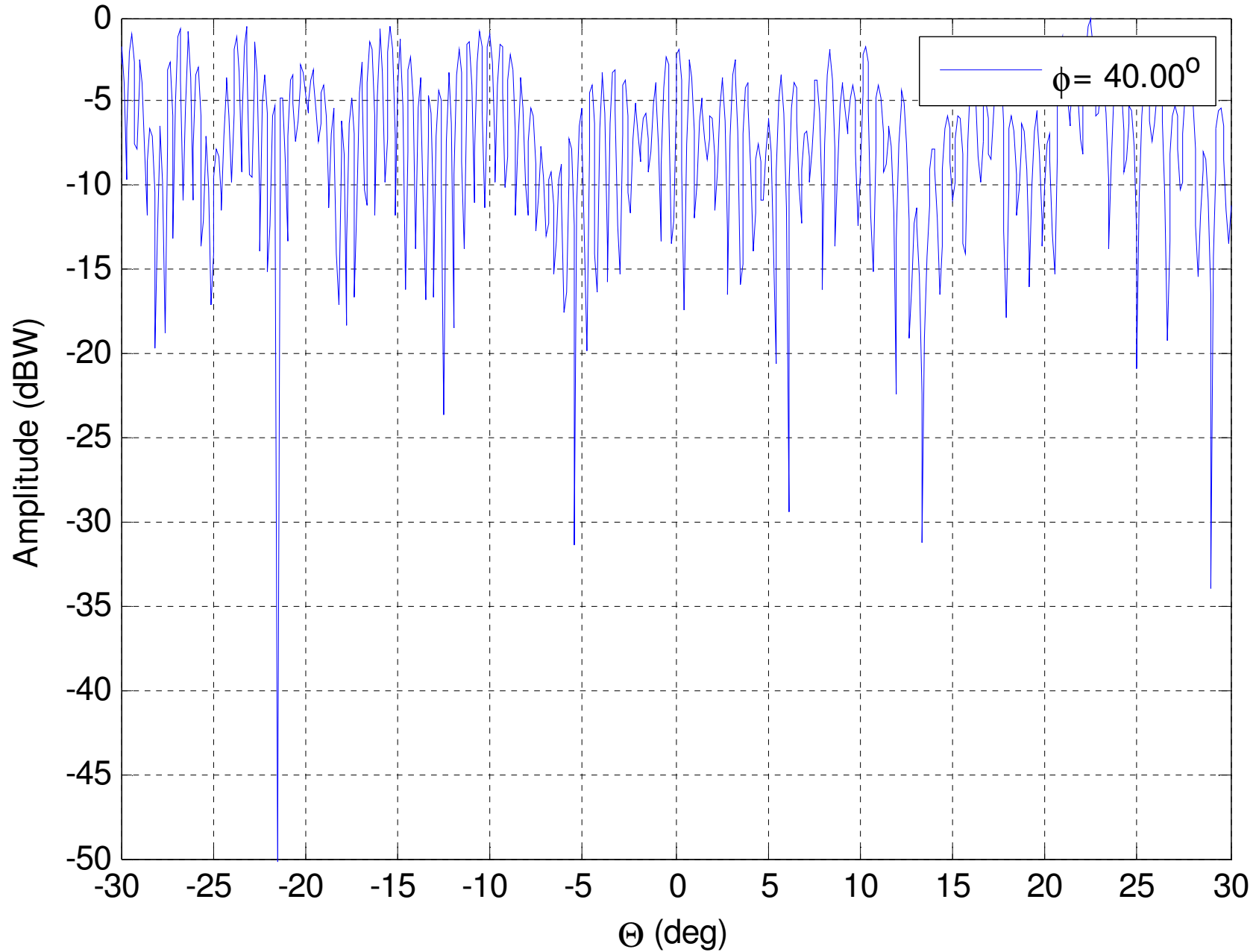
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-30.cut, Peak: -1.75 dBW, Date: 16-Dec-2011



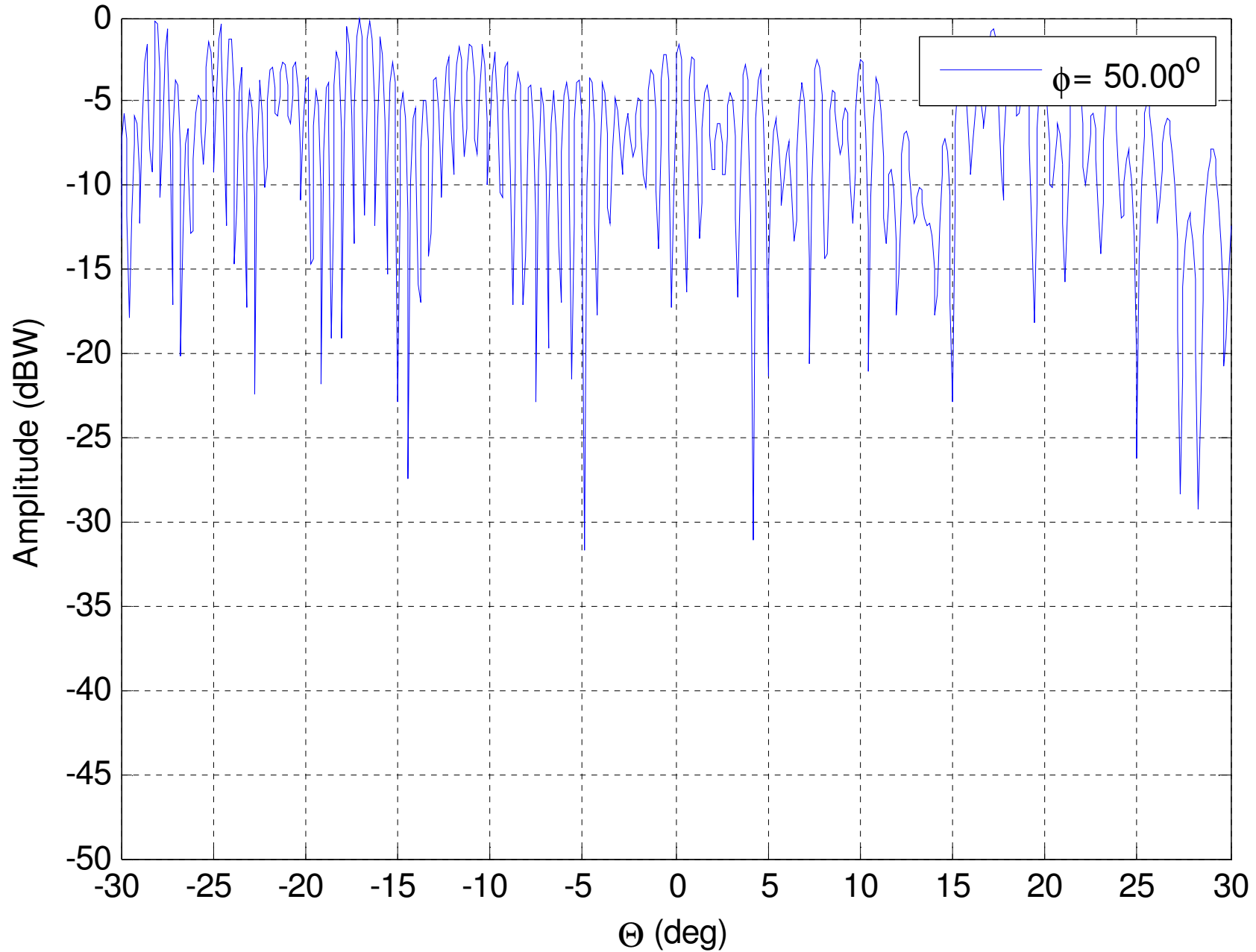
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-40.cut, Peak: -1.61 dBW, Date: 16-Dec-2011



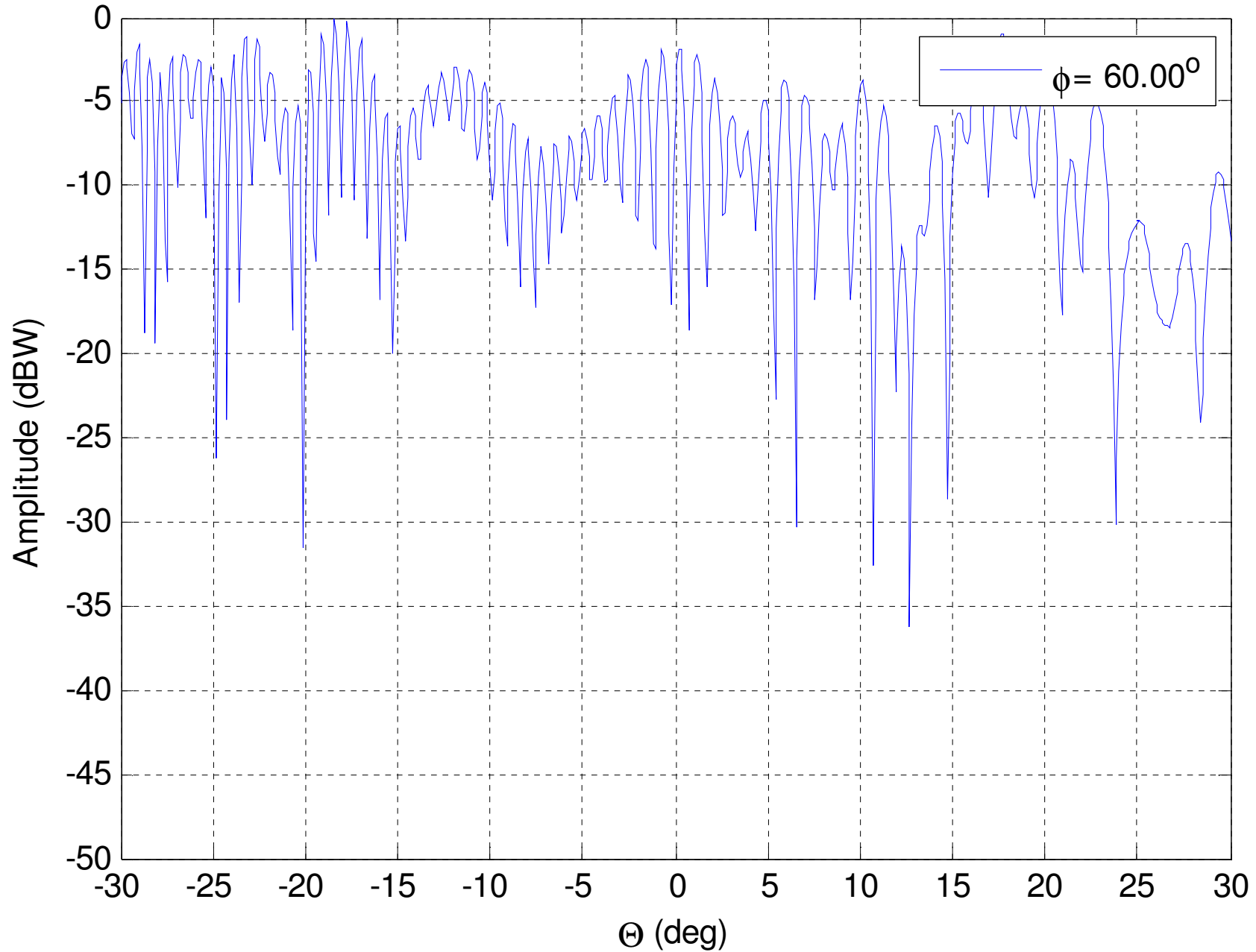
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-50.cut, Peak: -1.78 dBW, Date: 16-Dec-2011



Normalized pattern cuts - farfield

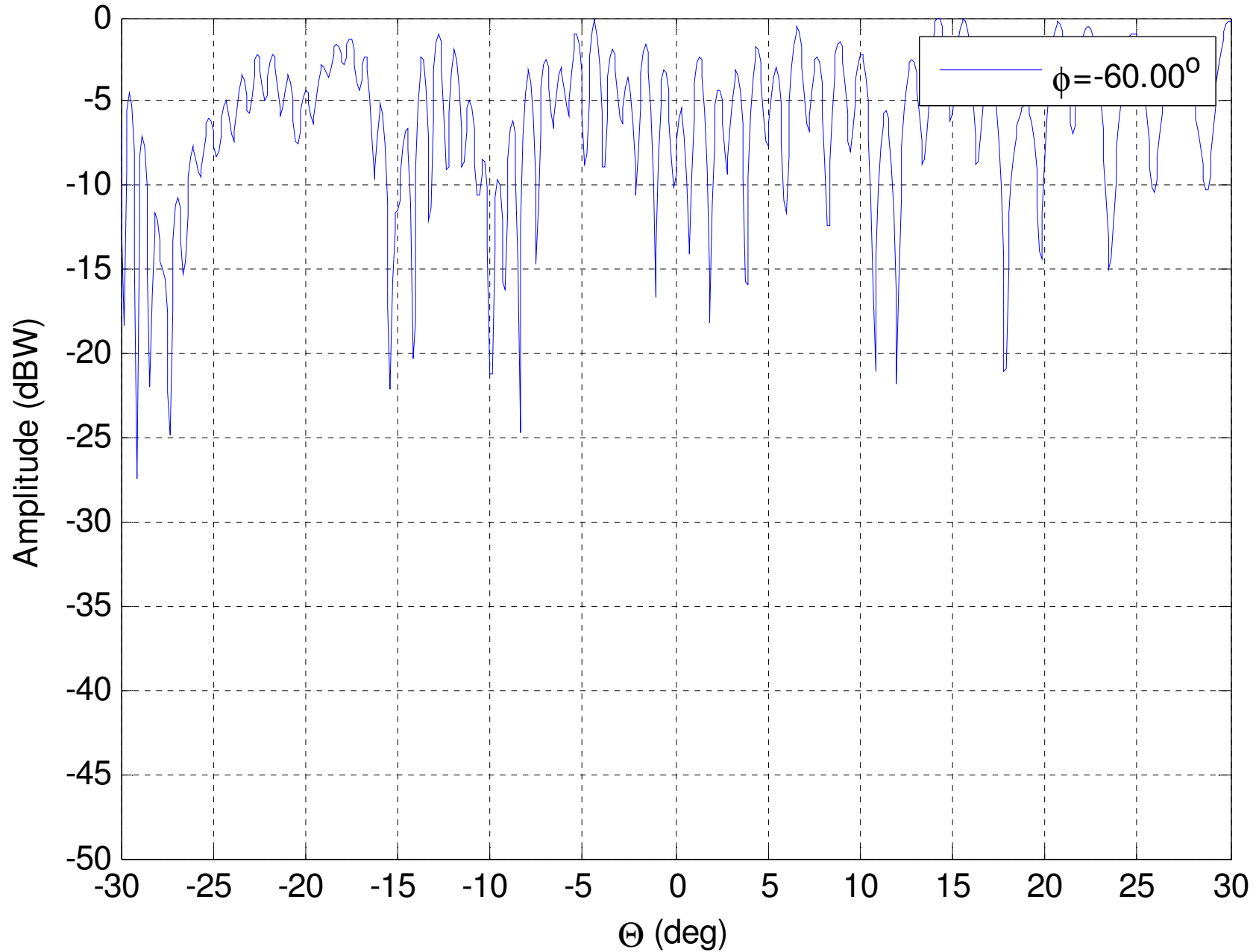
Input file: tx-17.5-rhcp-60.cut, Peak: -1.61 dBW, Date: 16-Dec-2011



LHCP at 17.5 GHz

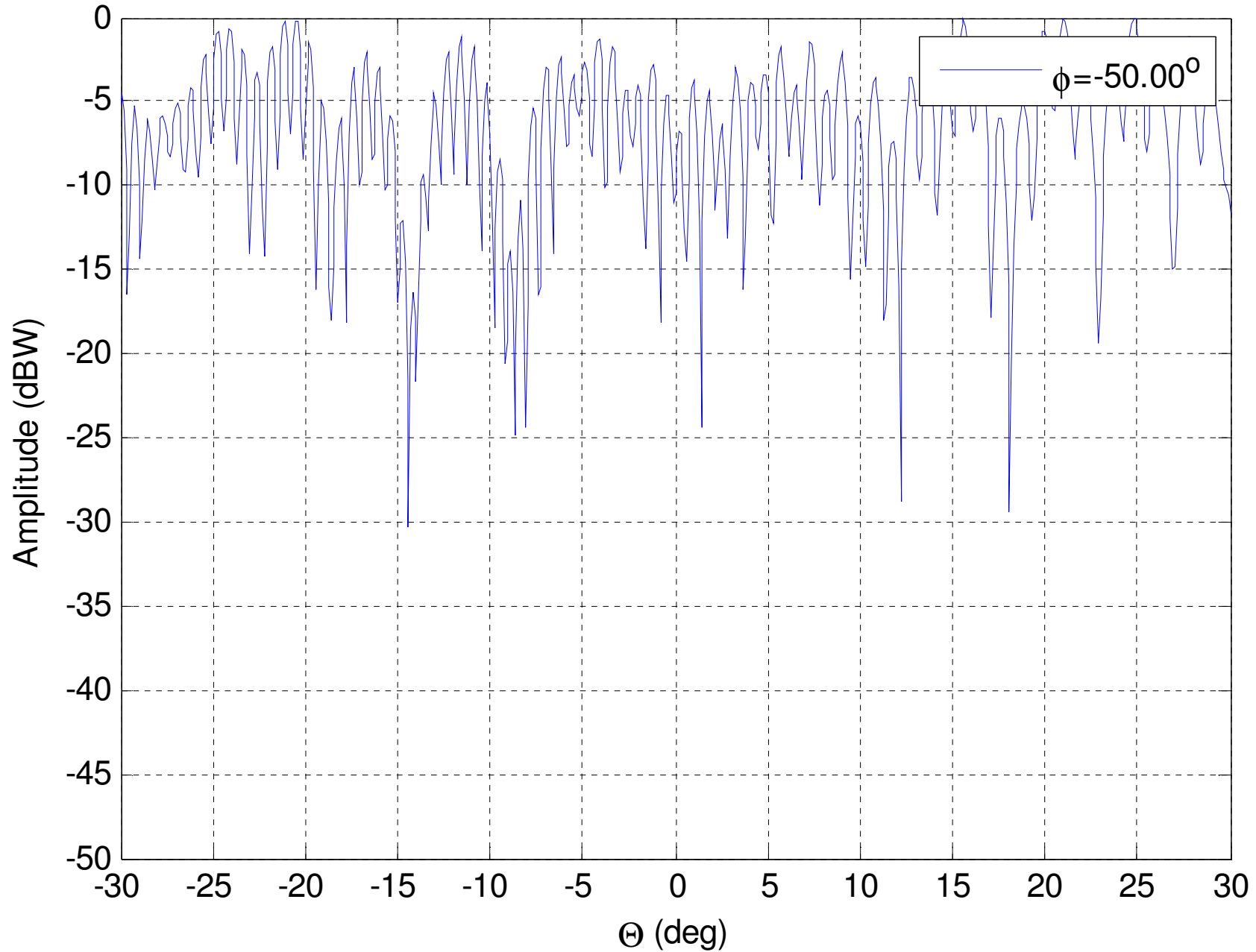
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--60.cut, Peak: -3.12 dBW, Date: 16-Dec-2011



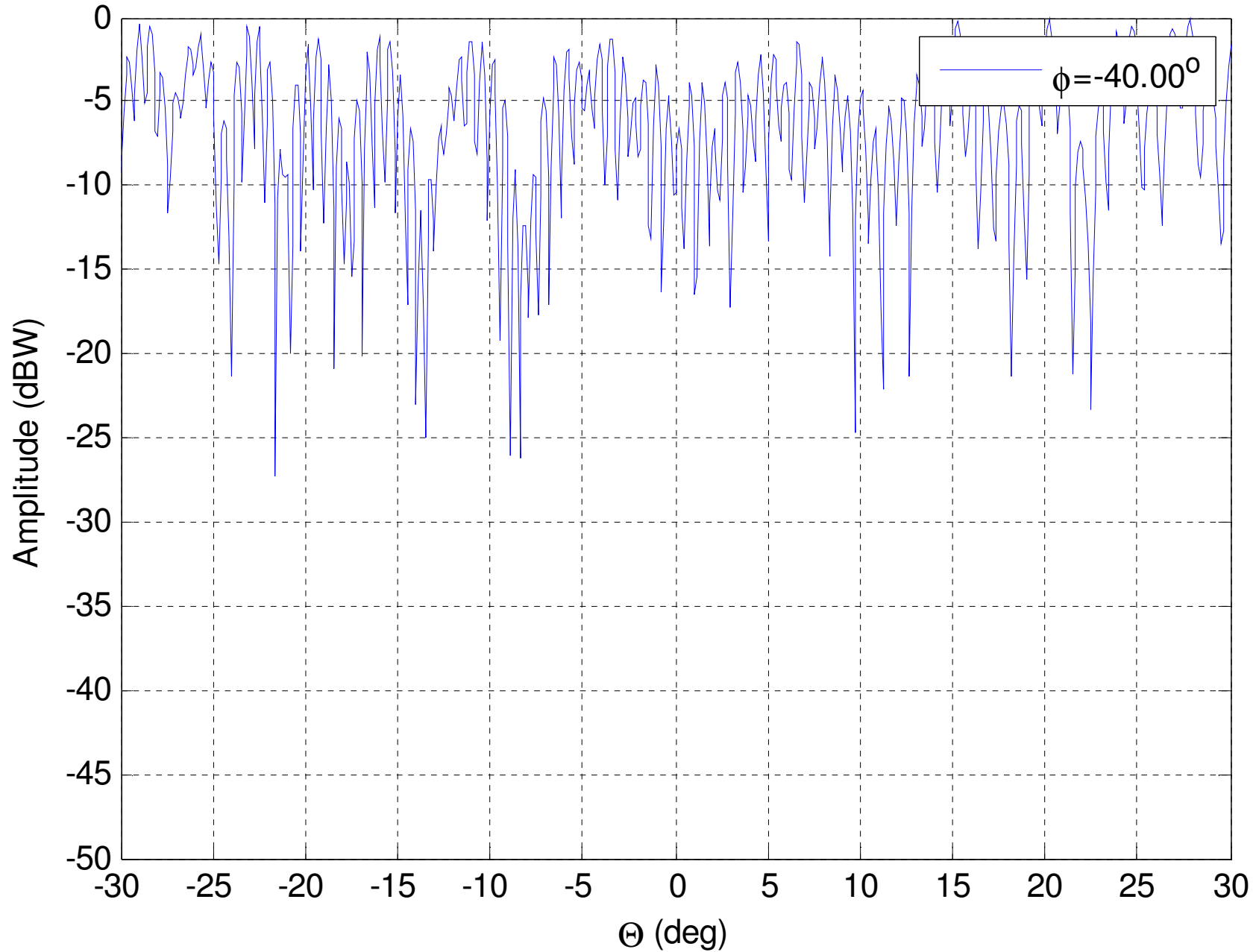
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--50.cut, Peak: -1.99 dBW, Date: 16-Dec-2011



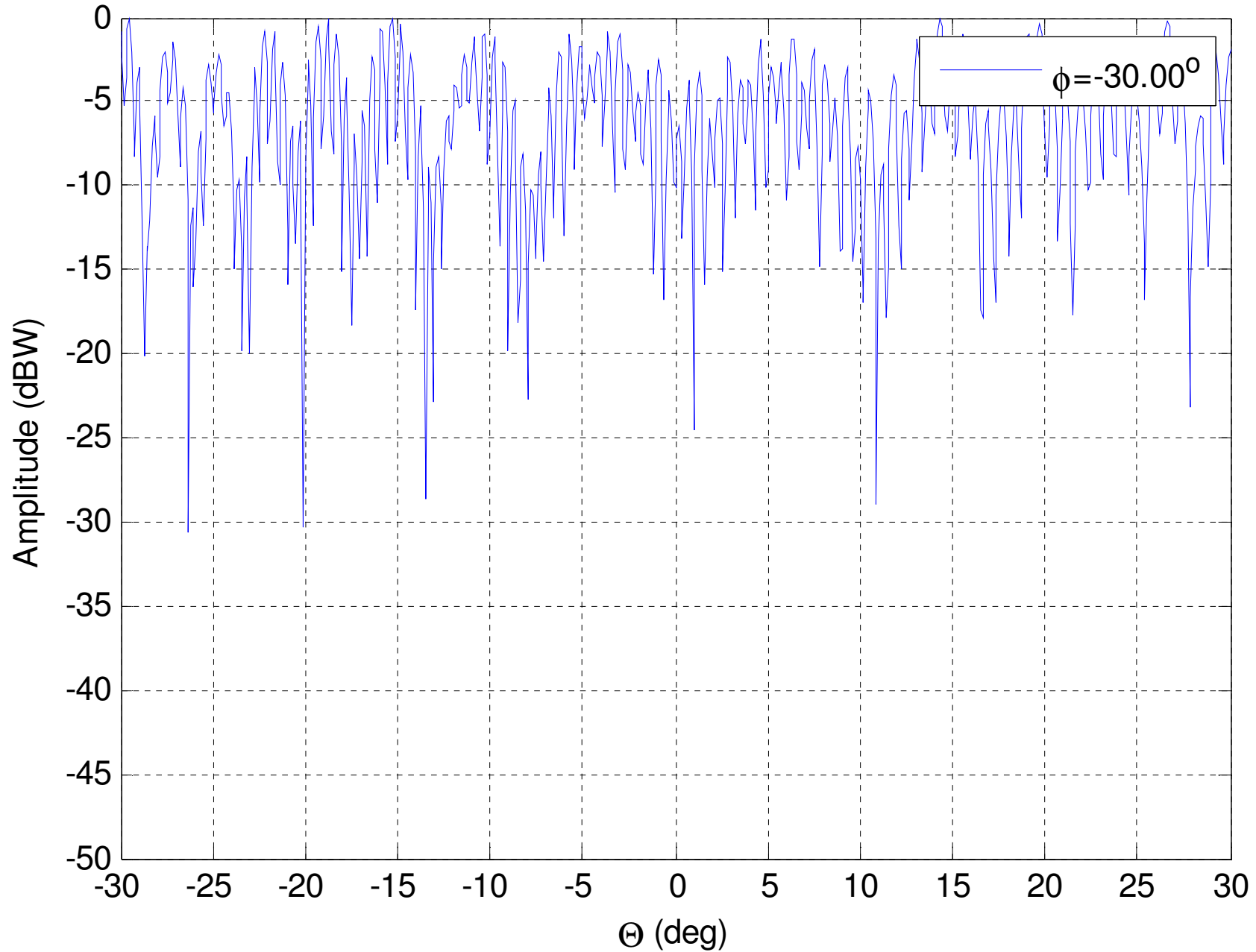
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--40.cut, Peak: -2.01 dBW, Date: 16-Dec-2011



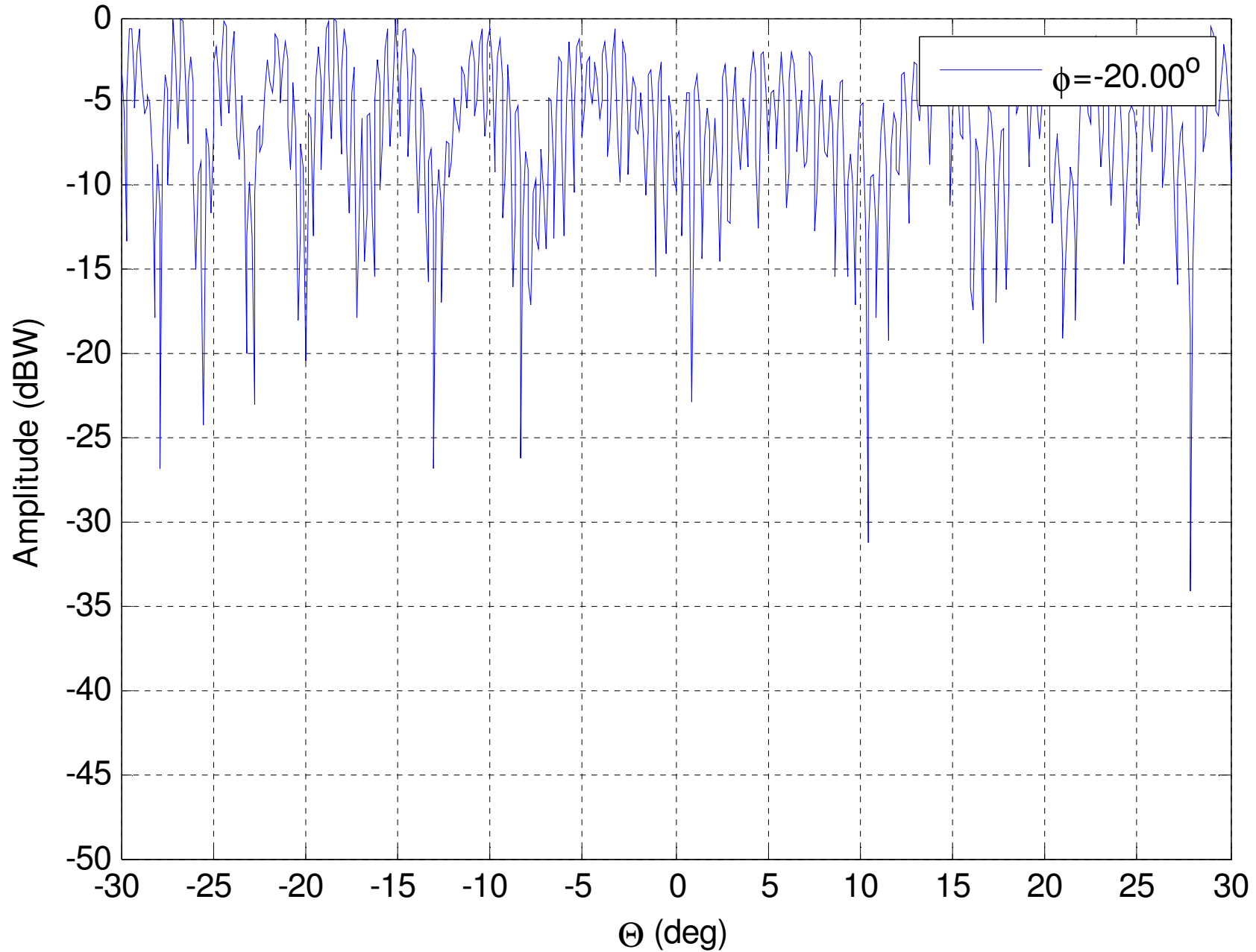
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--30.cut, Peak: -2.36 dBW, Date: 16-Dec-2011



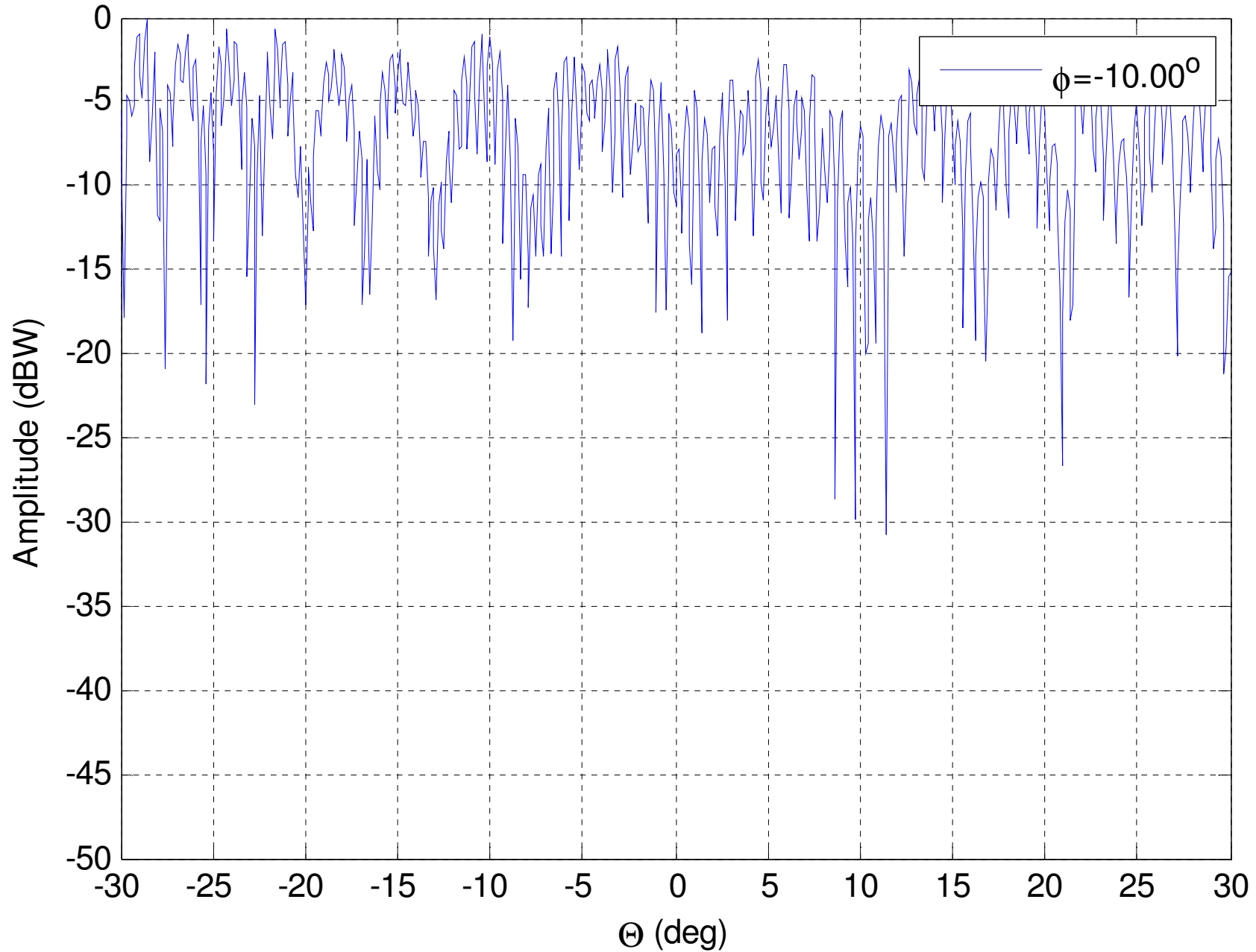
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--20.cut, Peak: -2.17 dBW, Date: 16-Dec-2011



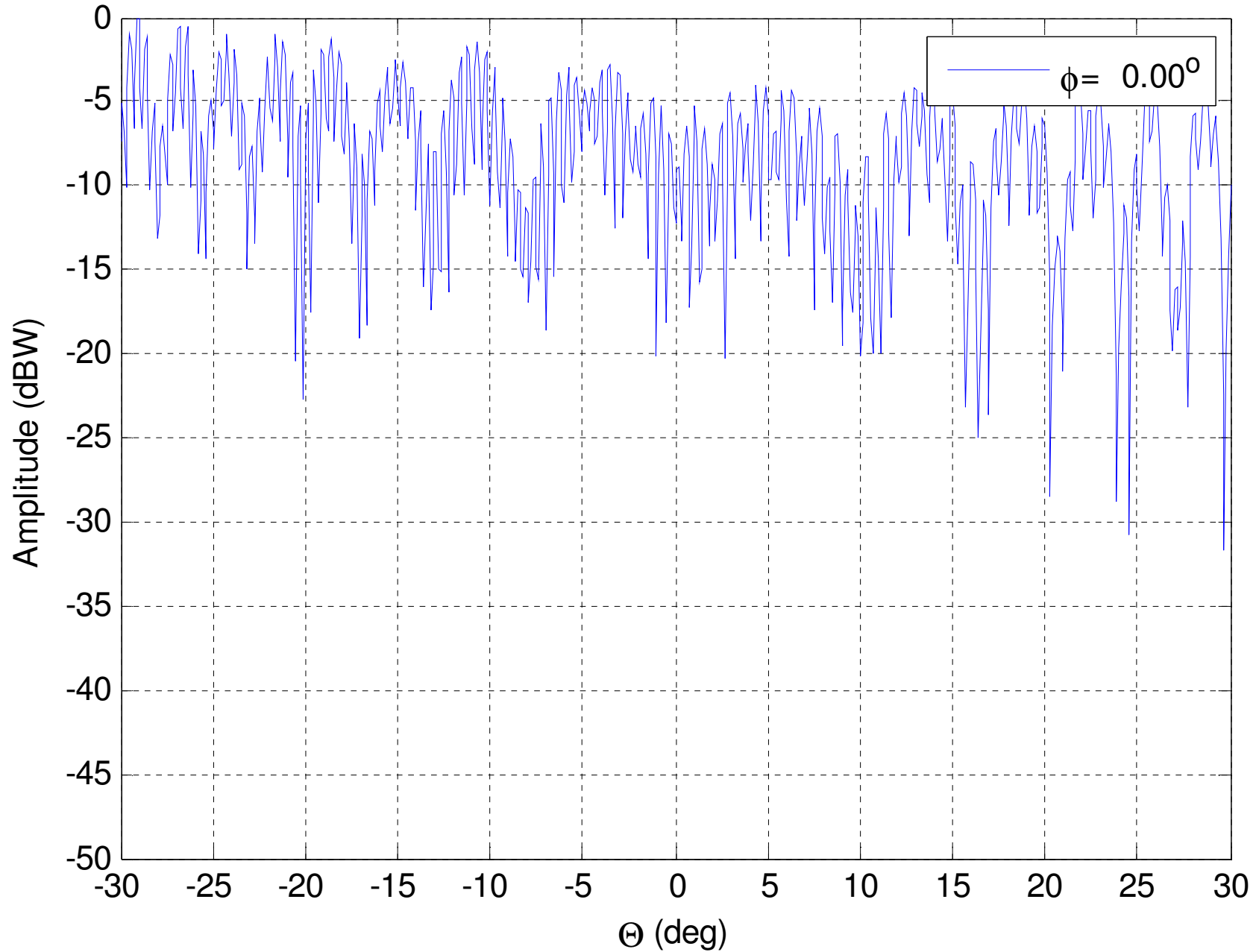
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--10.cut, Peak: -1.24 dBW, Date: 16-Dec-2011



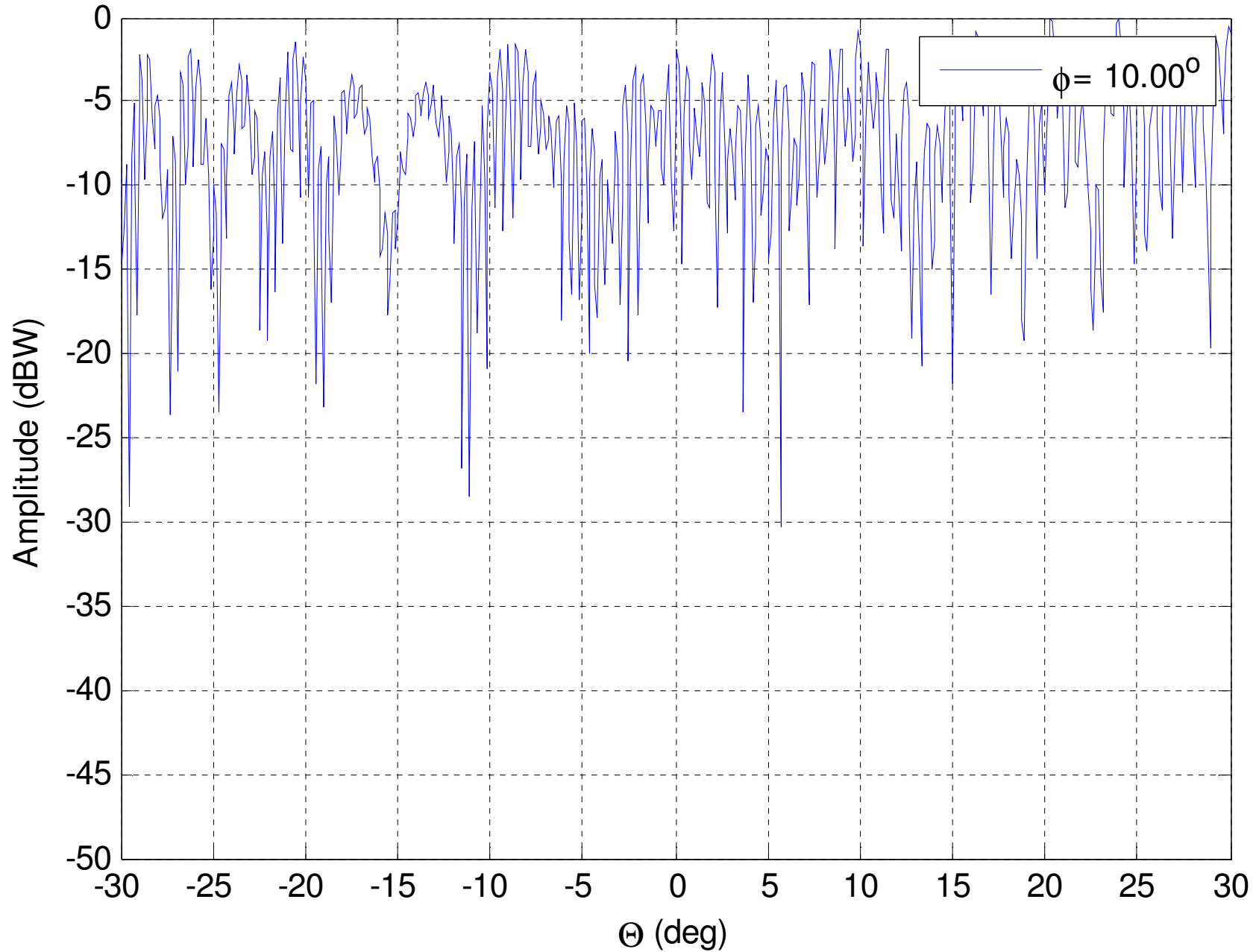
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-0.cut, Peak: -0.23 dBW, Date: 16-Dec-2011



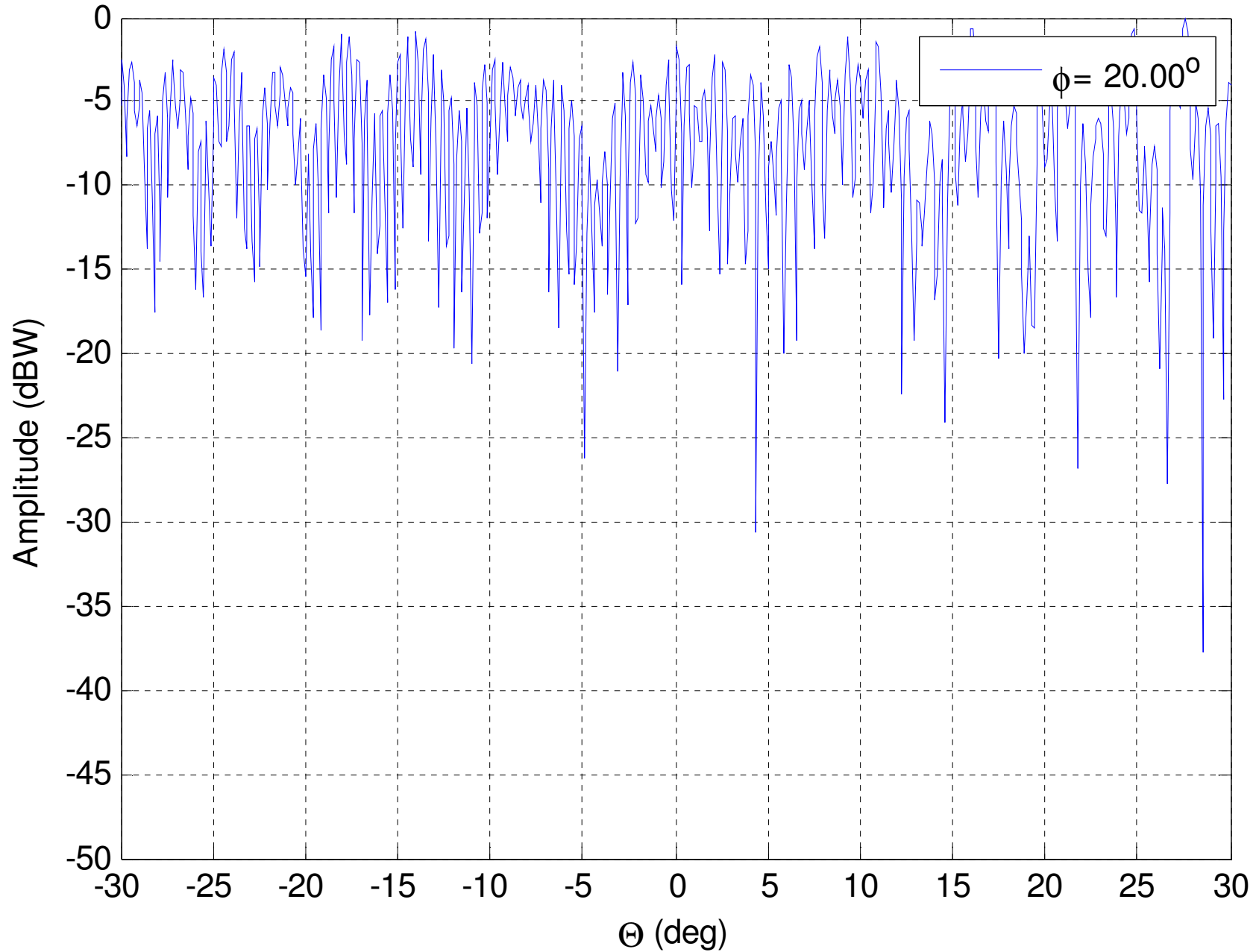
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-10.cut, Peak: -1.29 dBW, Date: 16-Dec-2011



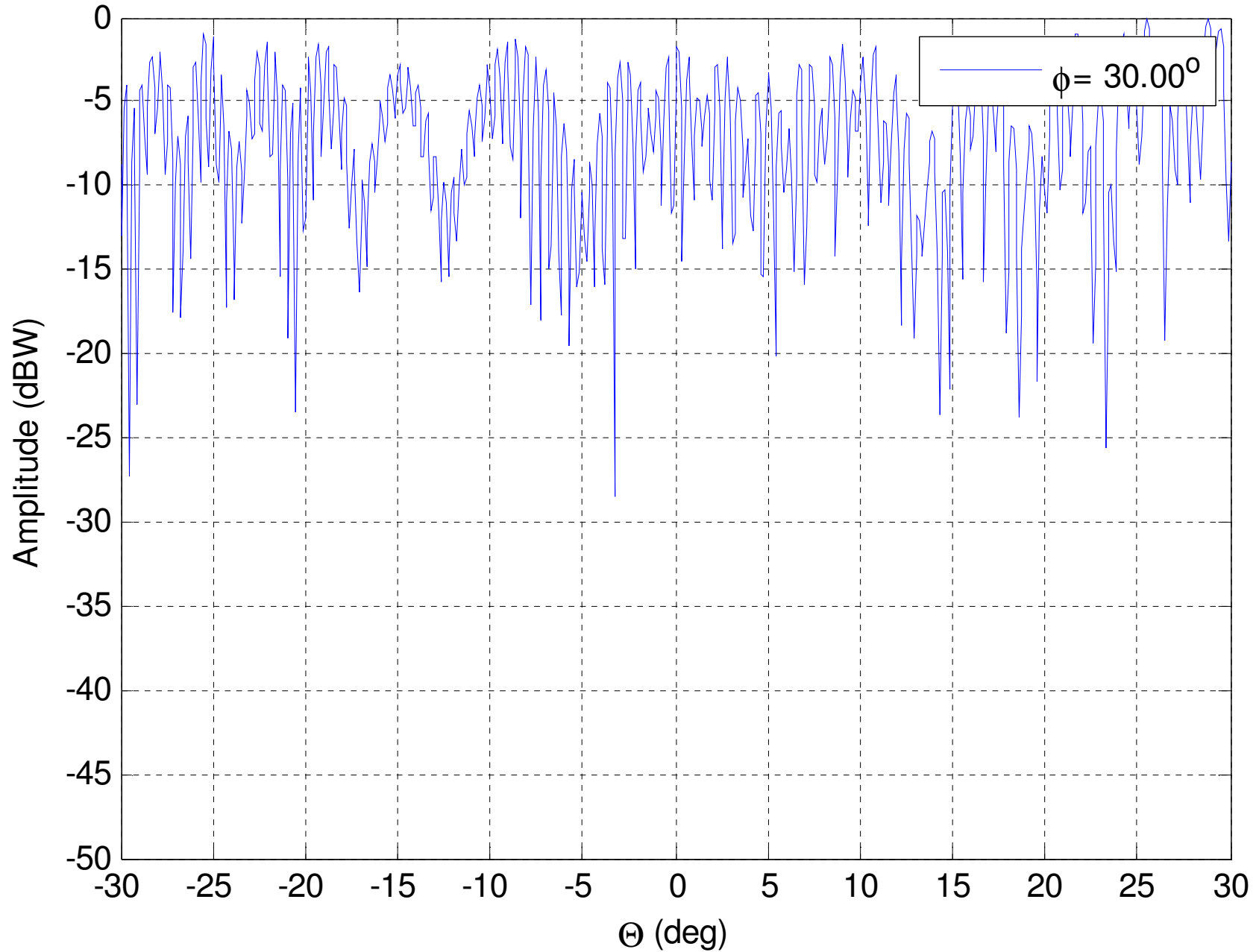
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-20.cut, Peak: -1.47 dBW, Date: 16-Dec-2011



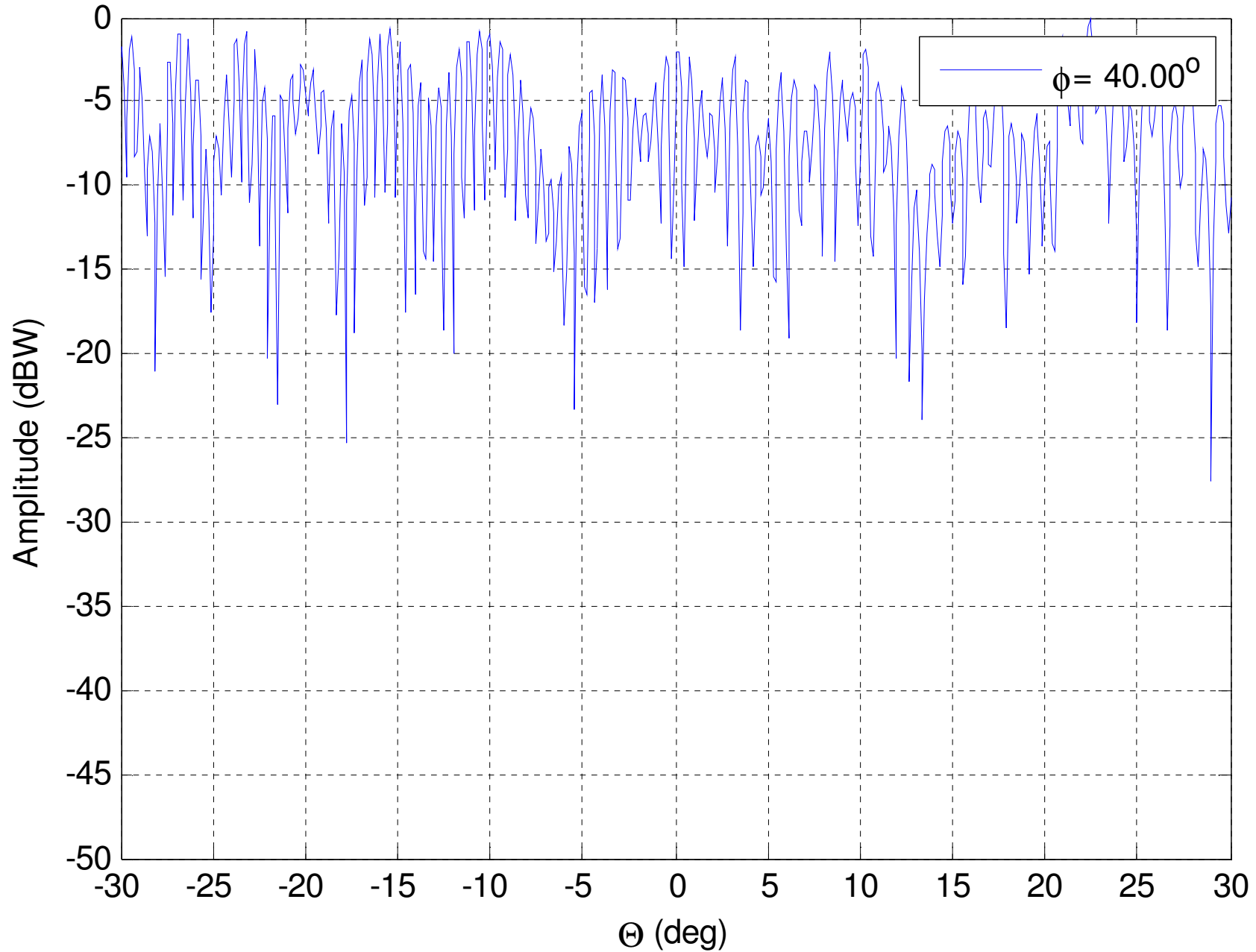
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-30.cut, Peak: -1.60 dBW, Date: 16-Dec-2011



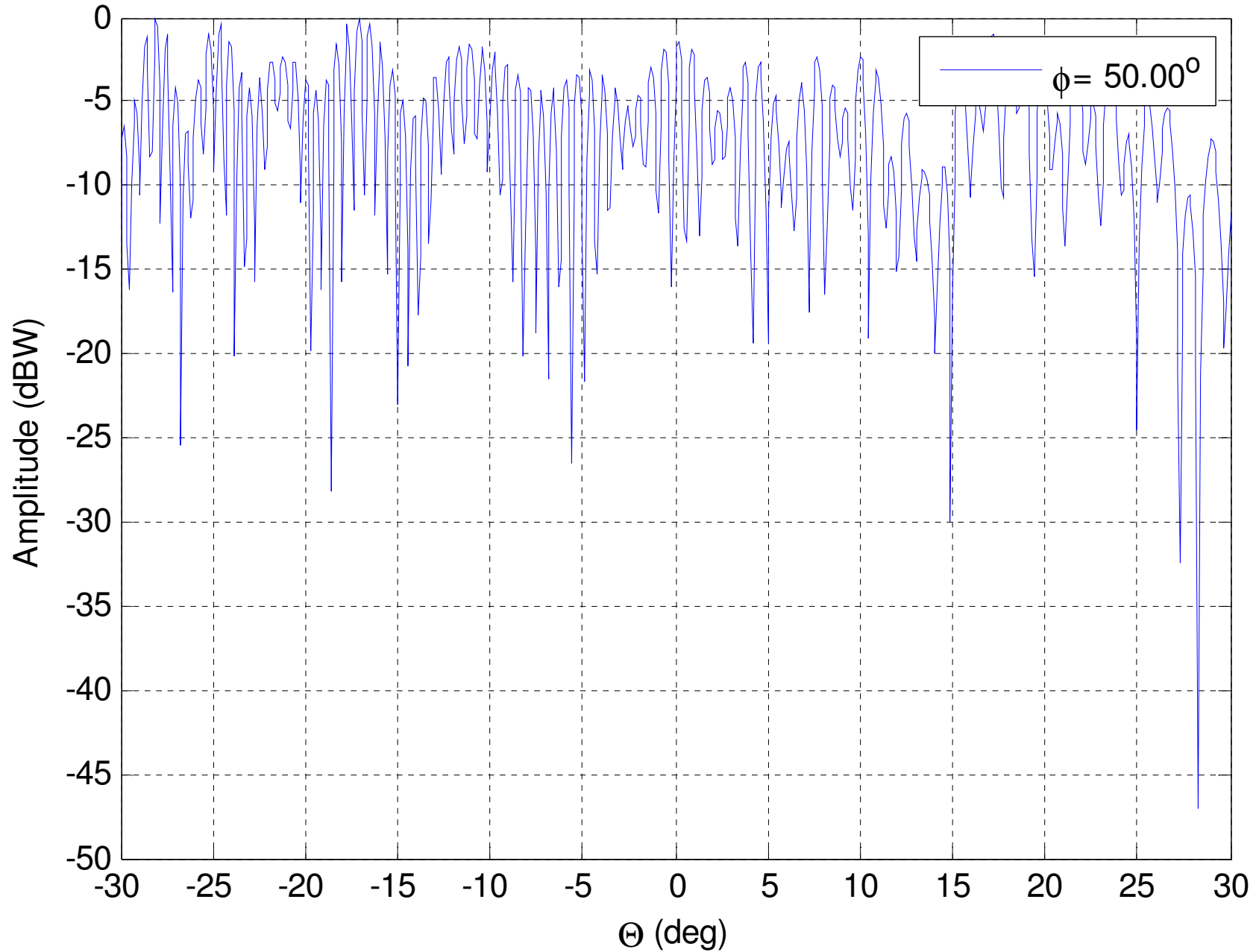
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-40.cut, Peak: -1.38 dBW, Date: 16-Dec-2011



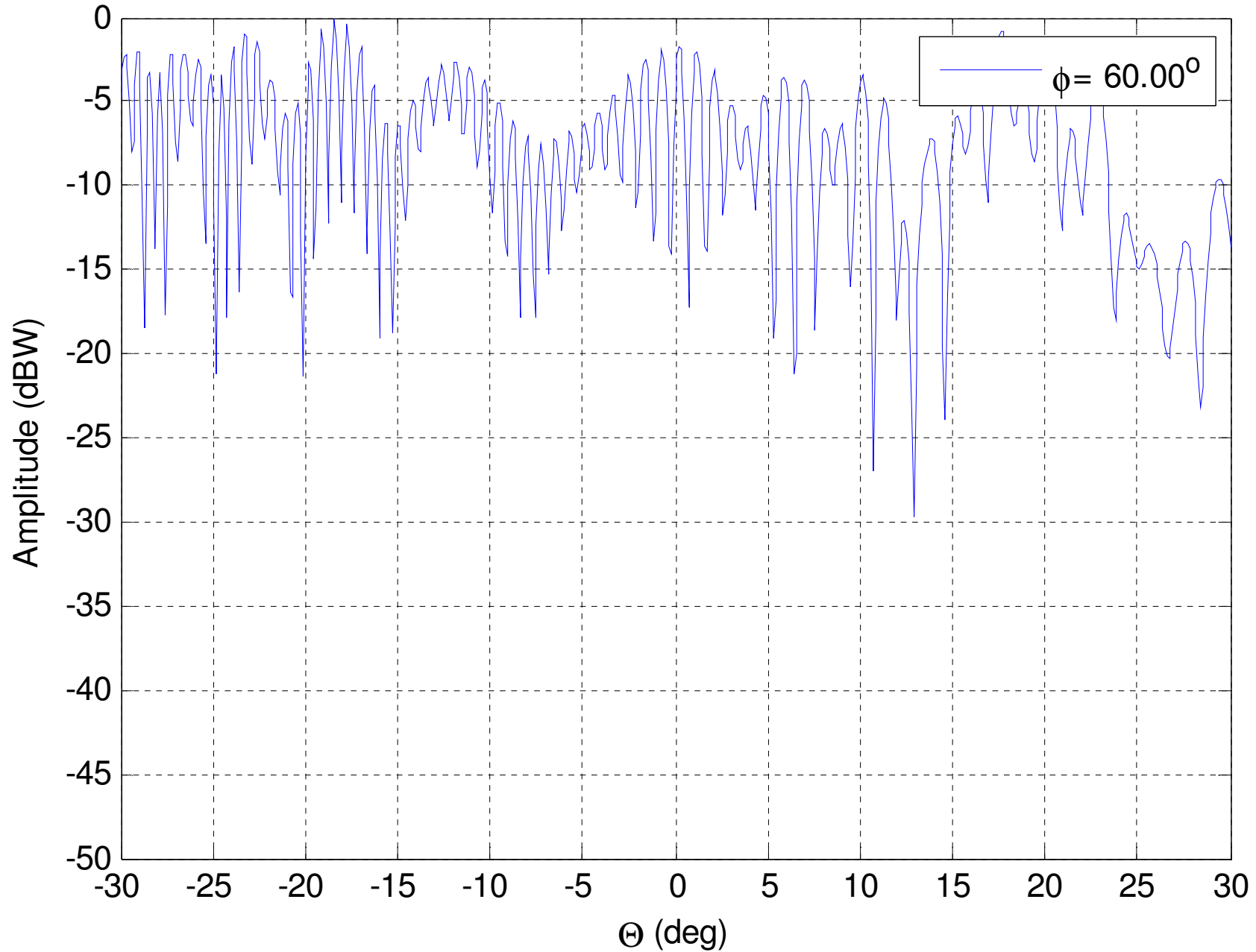
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-50.cut, Peak: -1.78 dBW, Date: 16-Dec-2011



Normalized pattern cuts - farfield

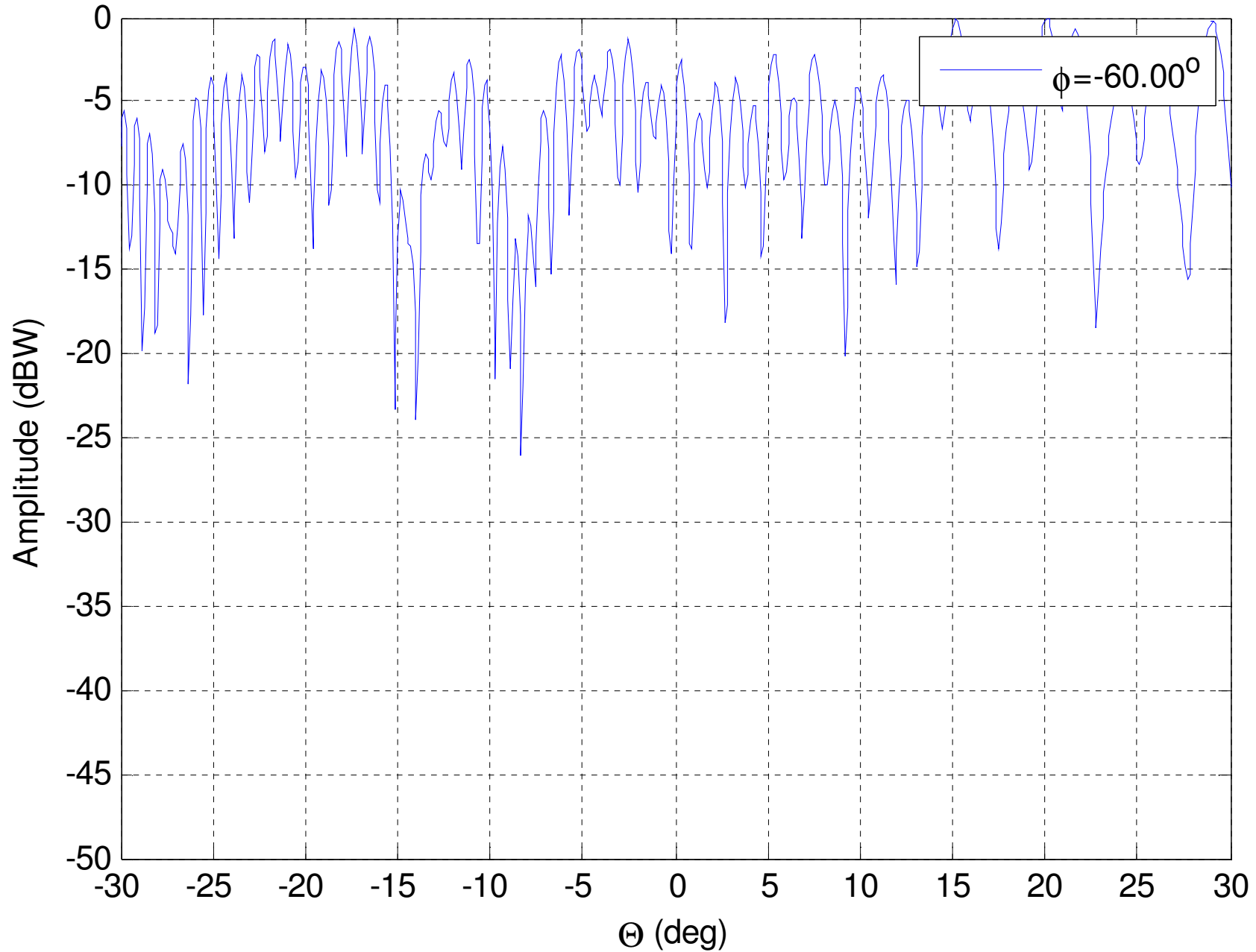
Input file: tx-17.5-lhcp-60.cut, Peak: -1.51 dBW, Date: 16-Dec-2011



RHCP at 17.7 GHz

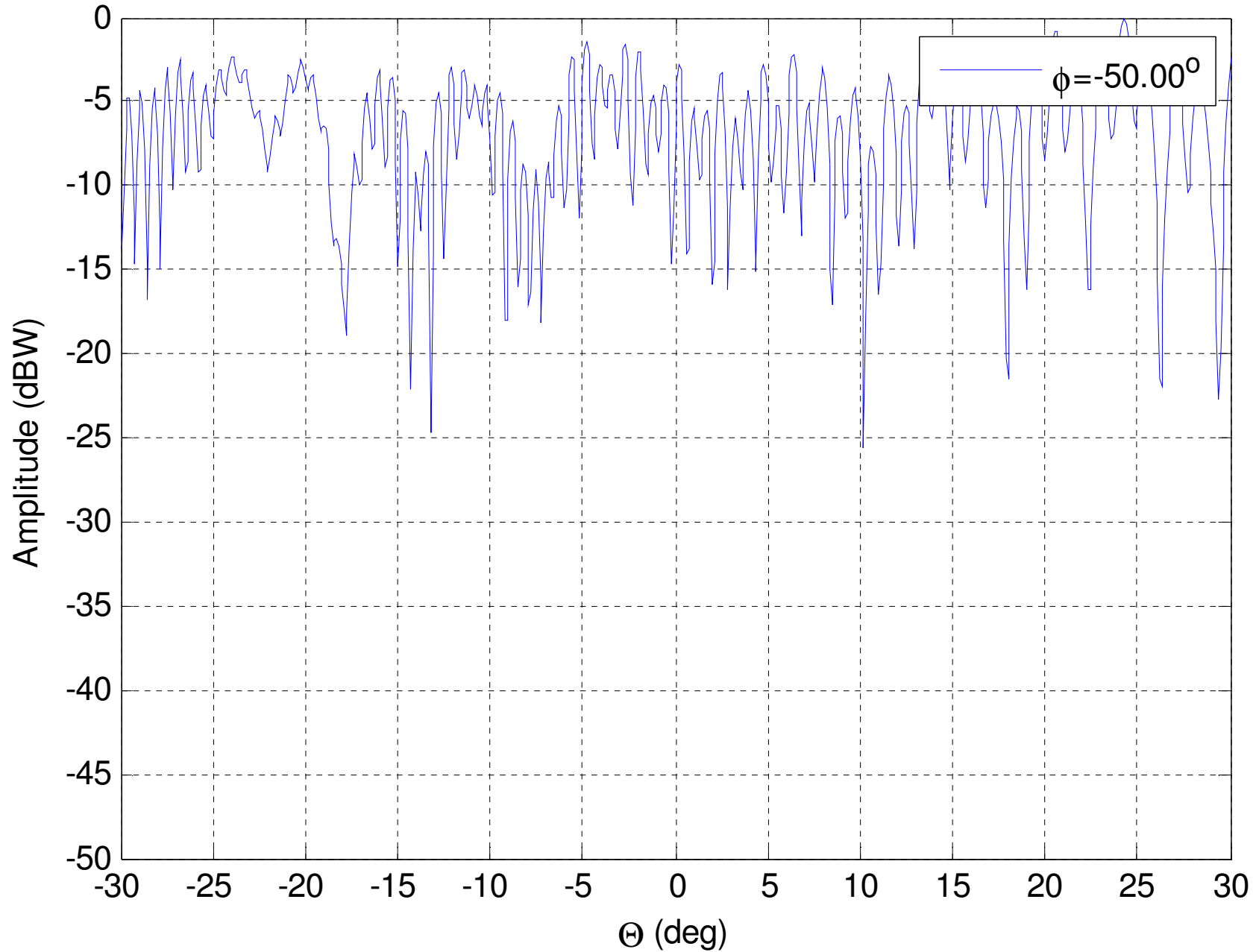
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--60.cut, Peak: -2.49 dBW, Date: 16-Dec-2011



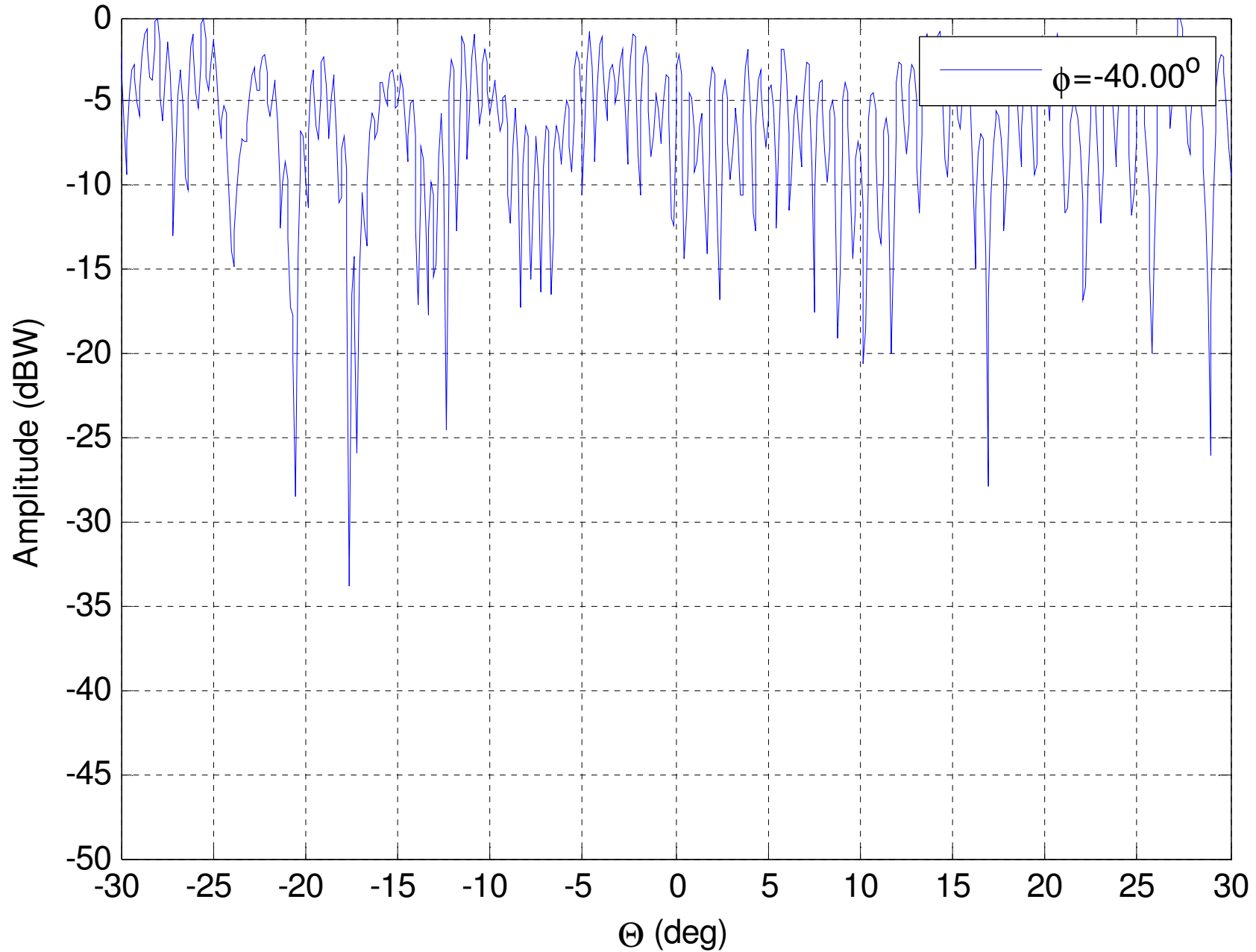
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--50.cut, Peak: -2.22 dBW, Date: 16-Dec-2011



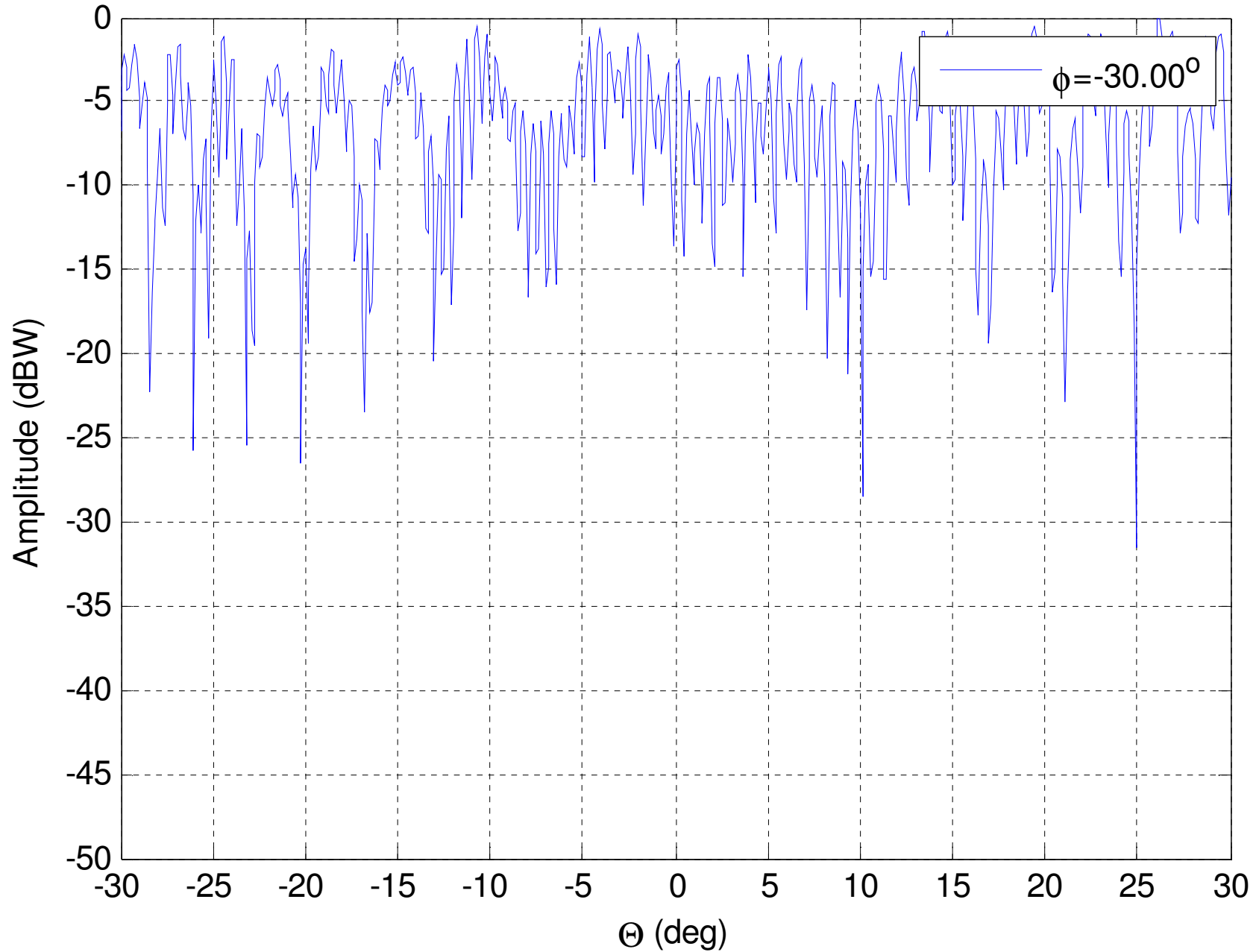
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--40.cut, Peak: -2.78 dBW, Date: 16-Dec-2011



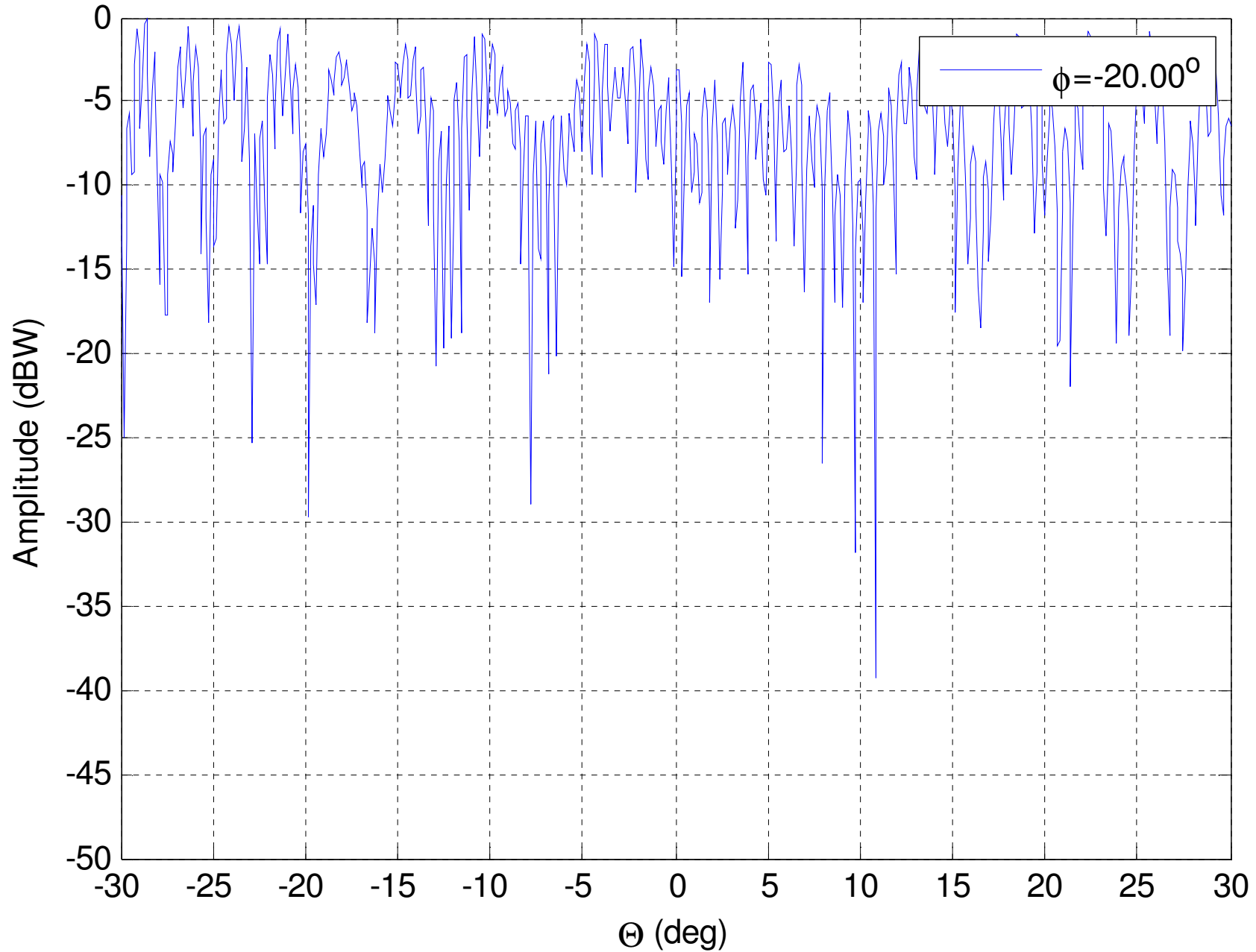
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--30.cut, Peak: -2.63 dBW, Date: 16-Dec-2011



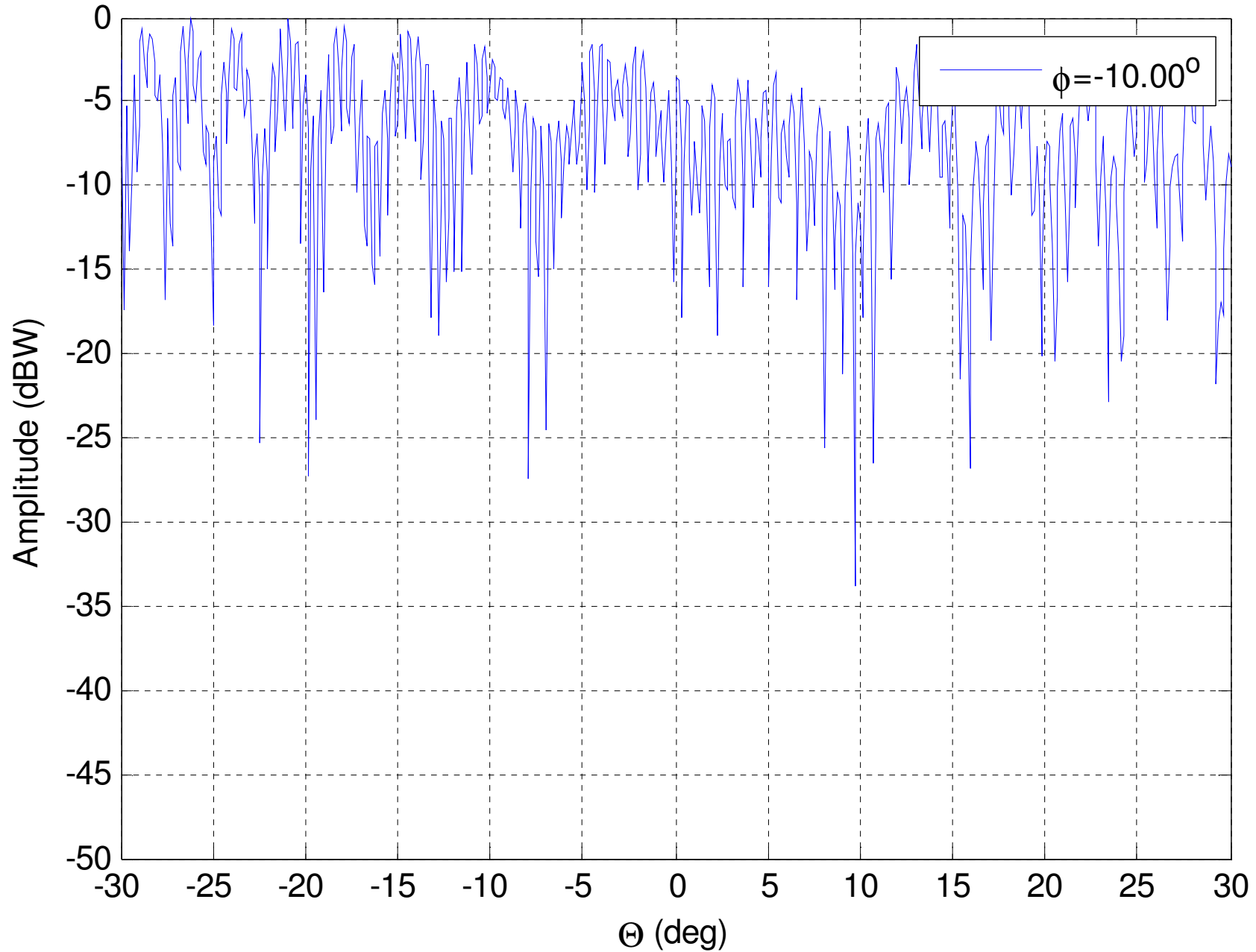
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--20.cut, Peak: -2.31 dBW, Date: 16-Dec-2011



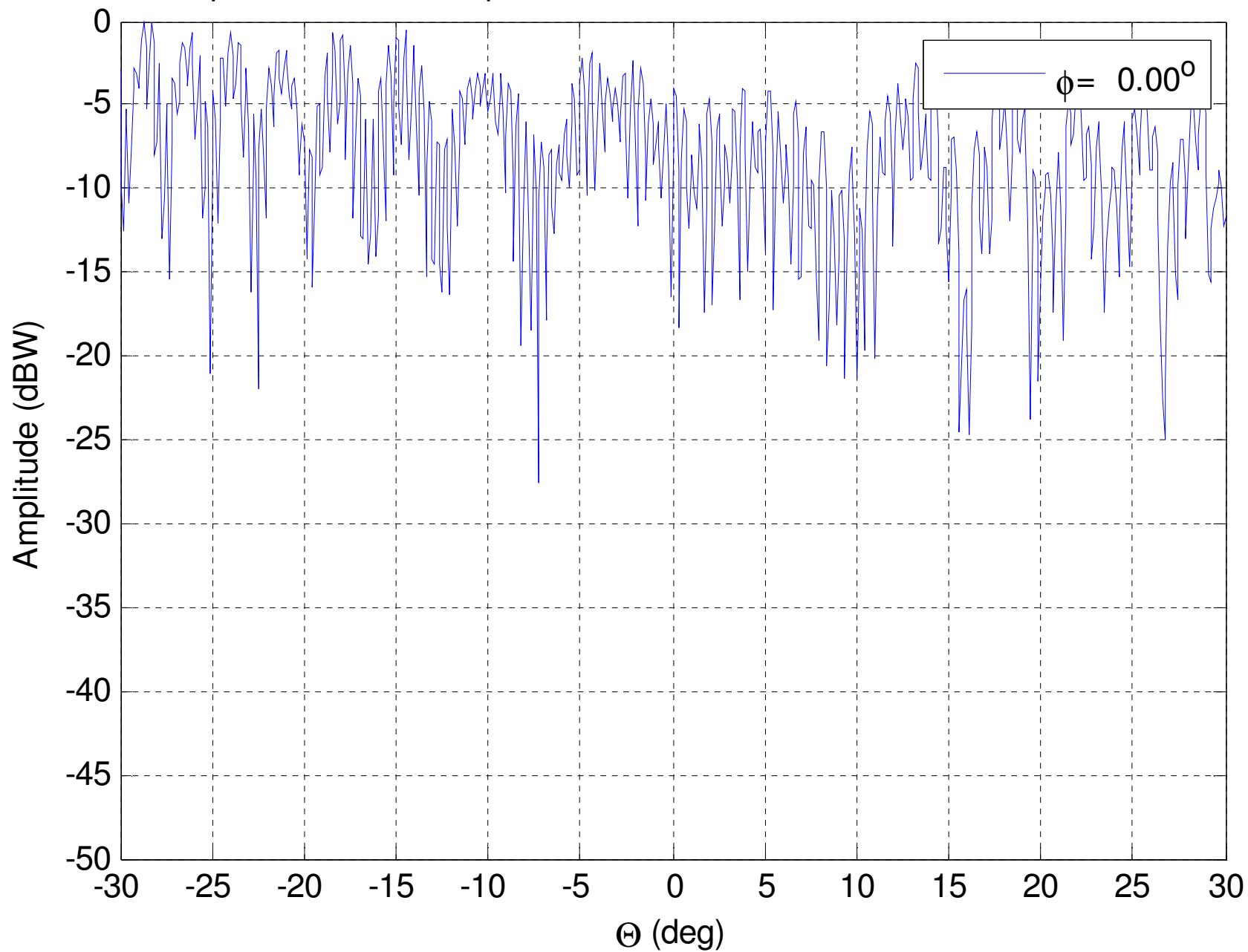
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--10.cut, Peak: -1.77 dBW, Date: 16-Dec-2011



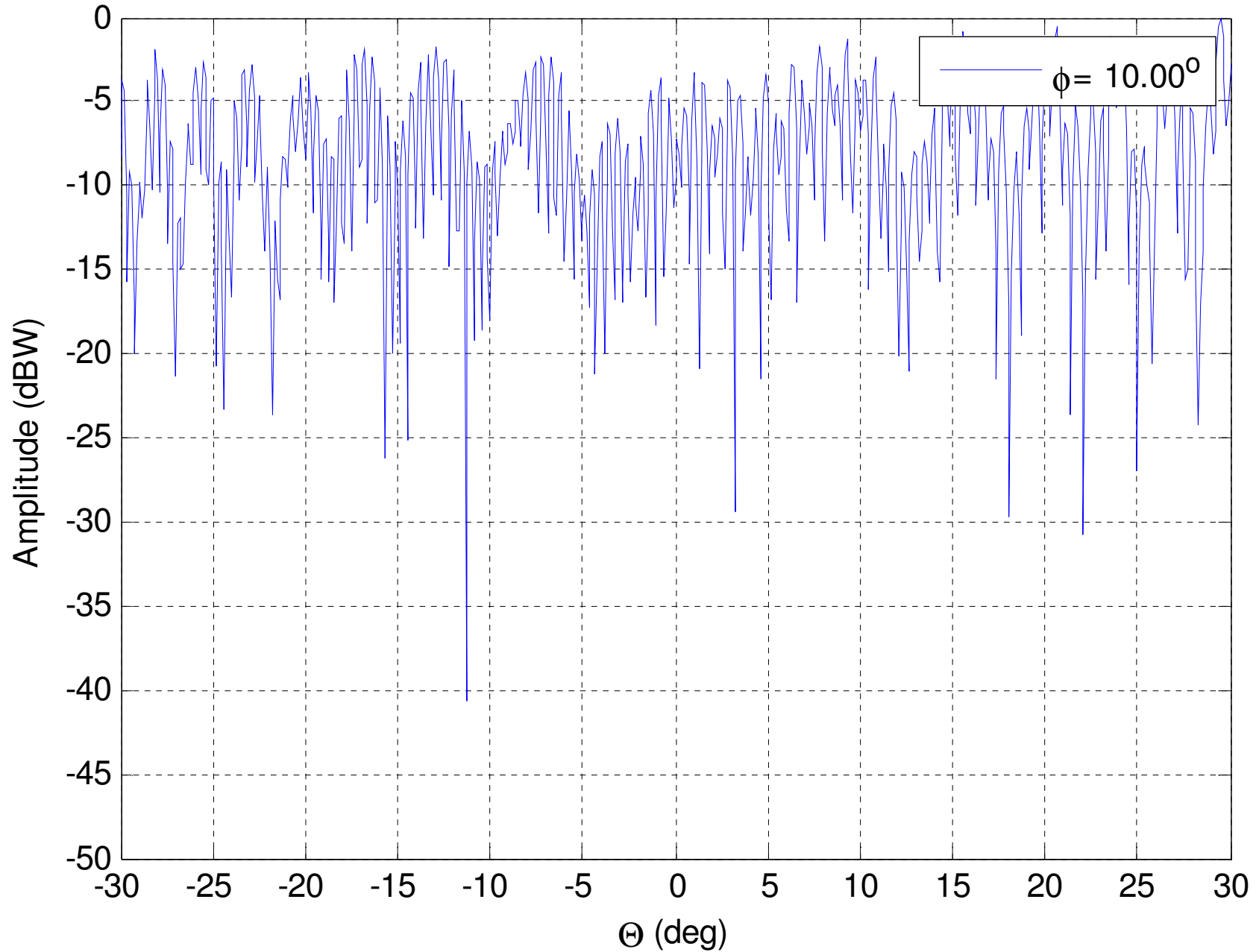
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-0.cut, Peak: -1.22 dBW, Date: 16-Dec-2011



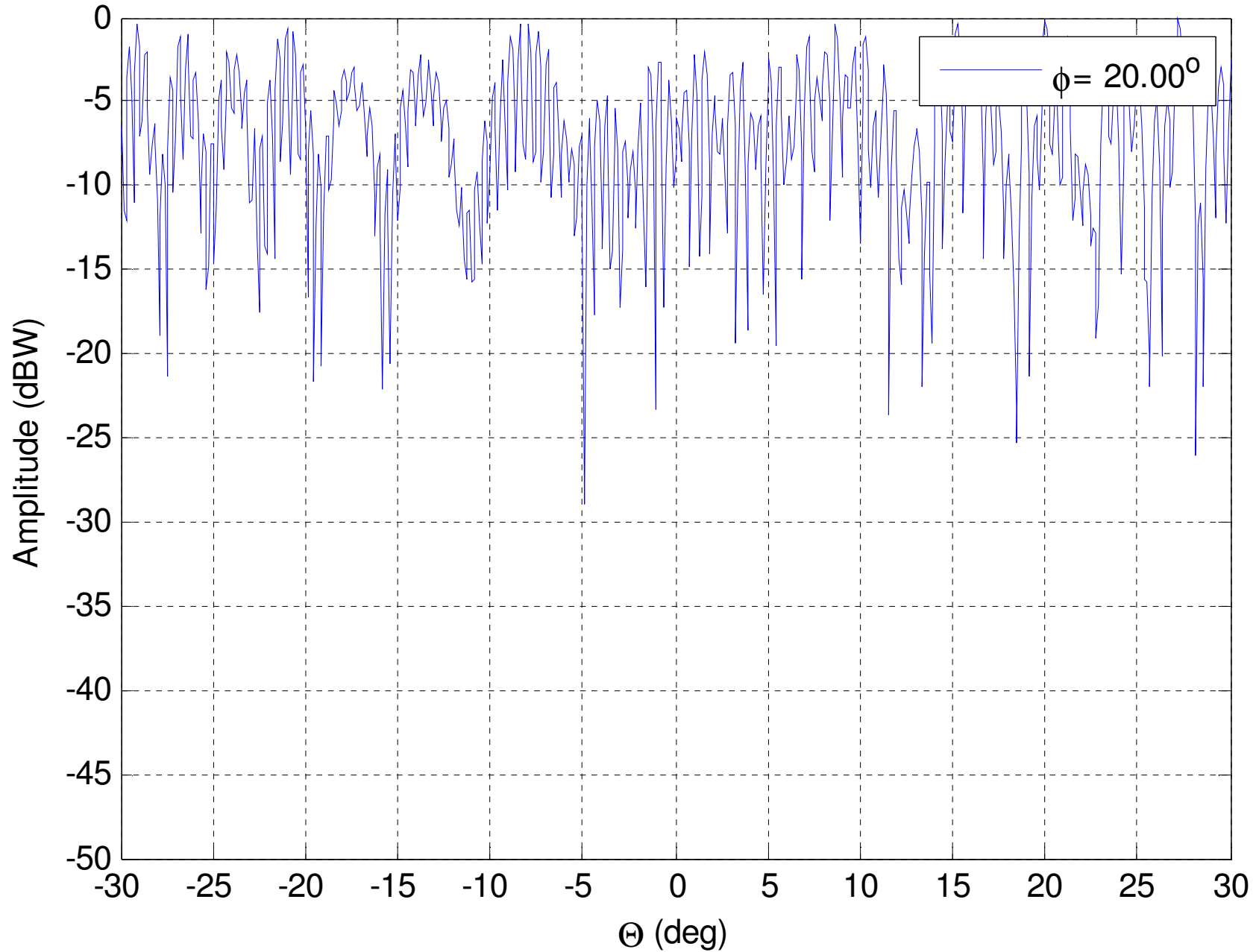
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-10.cut, Peak: -1.19 dBW, Date: 16-Dec-2011



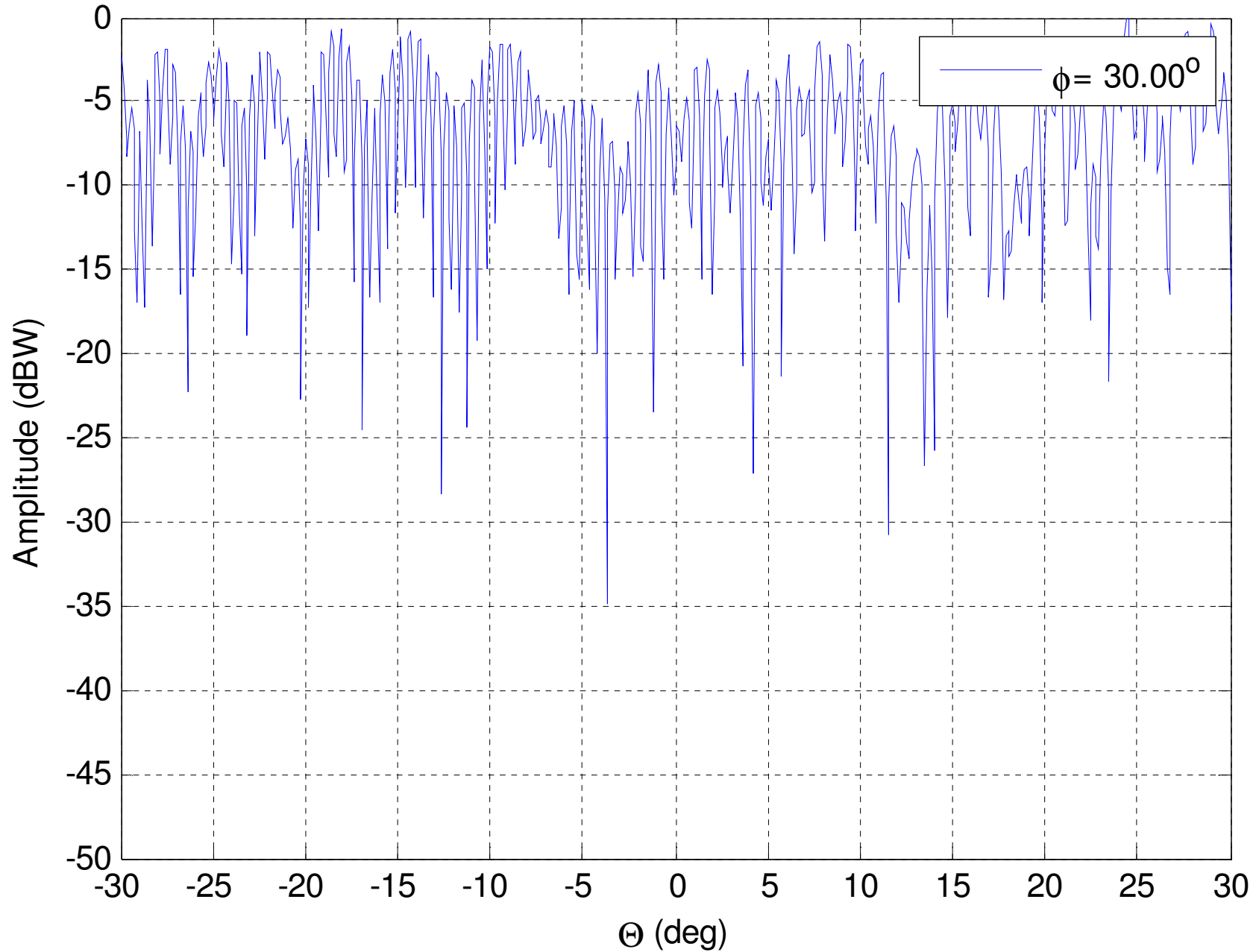
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-20.cut, Peak: -2.46 dBW, Date: 16-Dec-2011



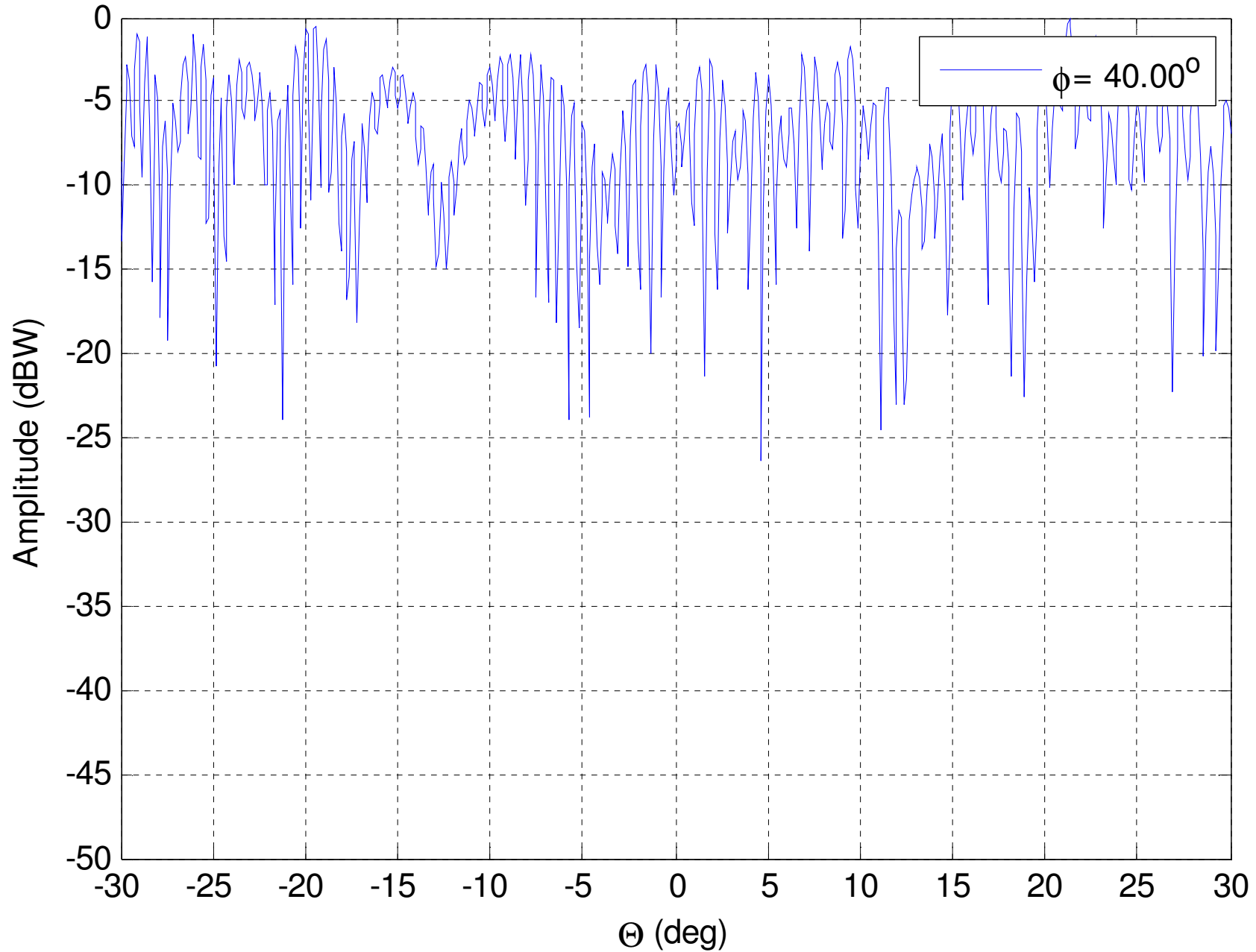
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-30.cut, Peak: -2.00 dBW, Date: 16-Dec-2011



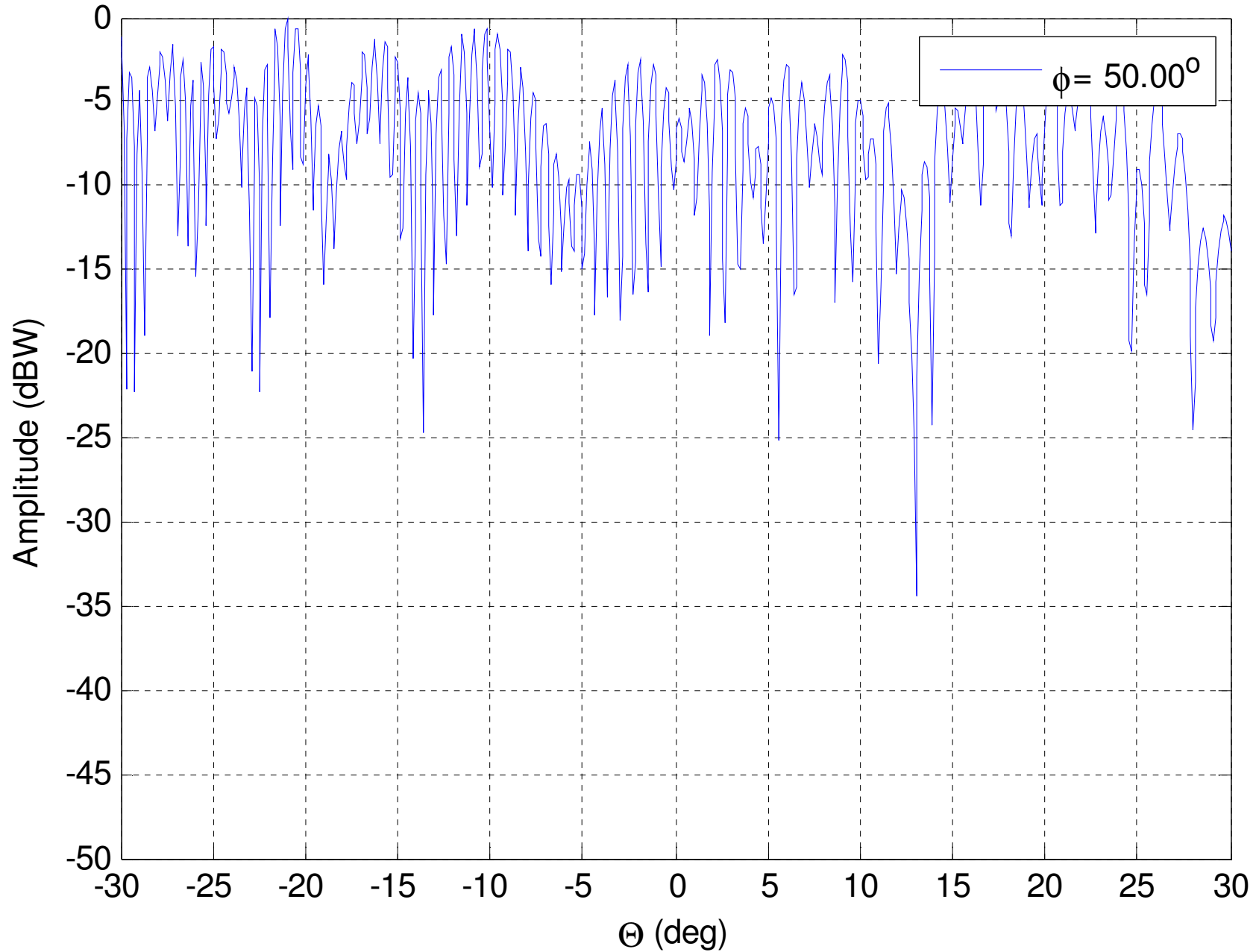
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-40.cut, Peak: -2.05 dBW, Date: 16-Dec-2011



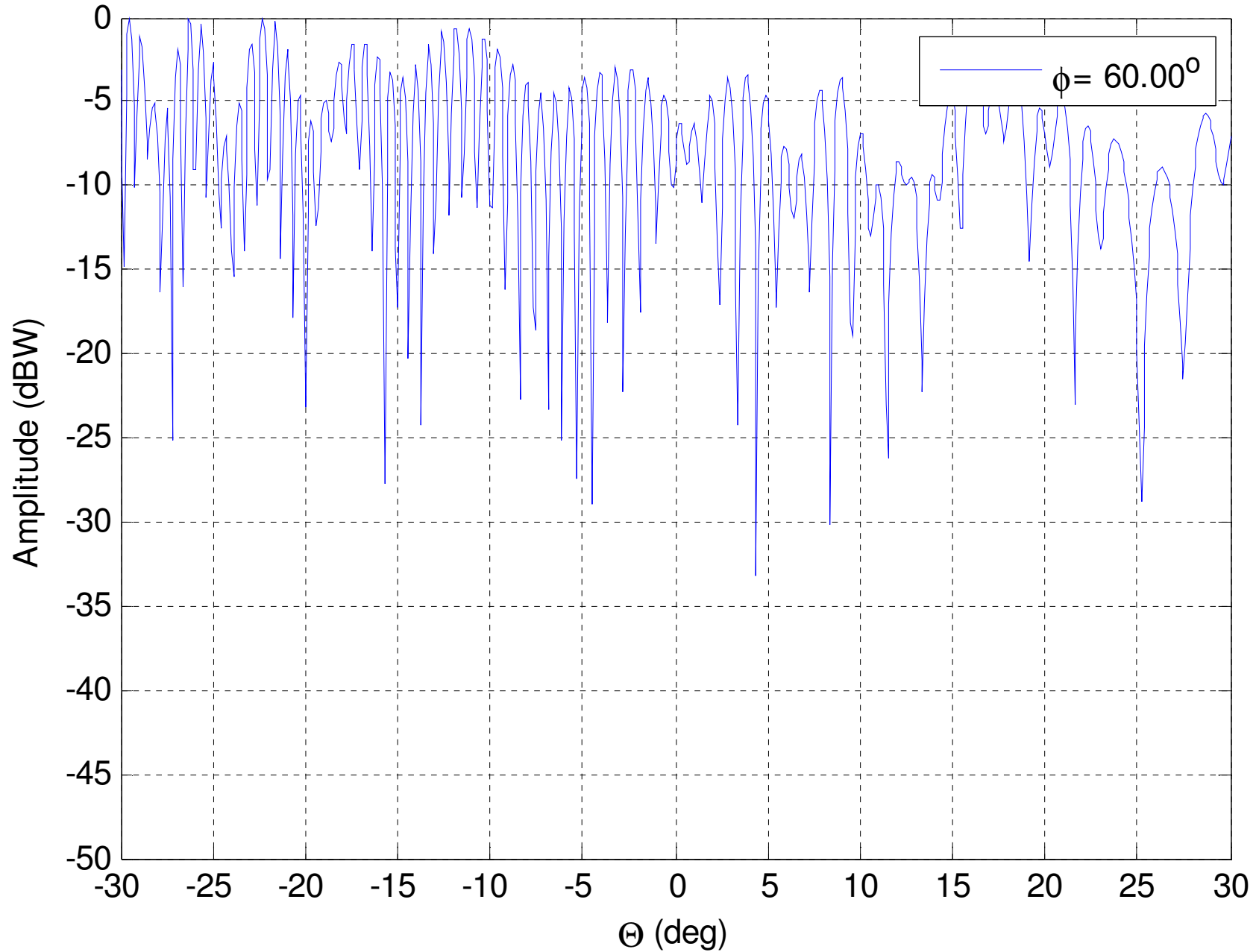
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-50.cut, Peak: -2.21 dBW, Date: 16-Dec-2011



Normalized pattern cuts - farfield

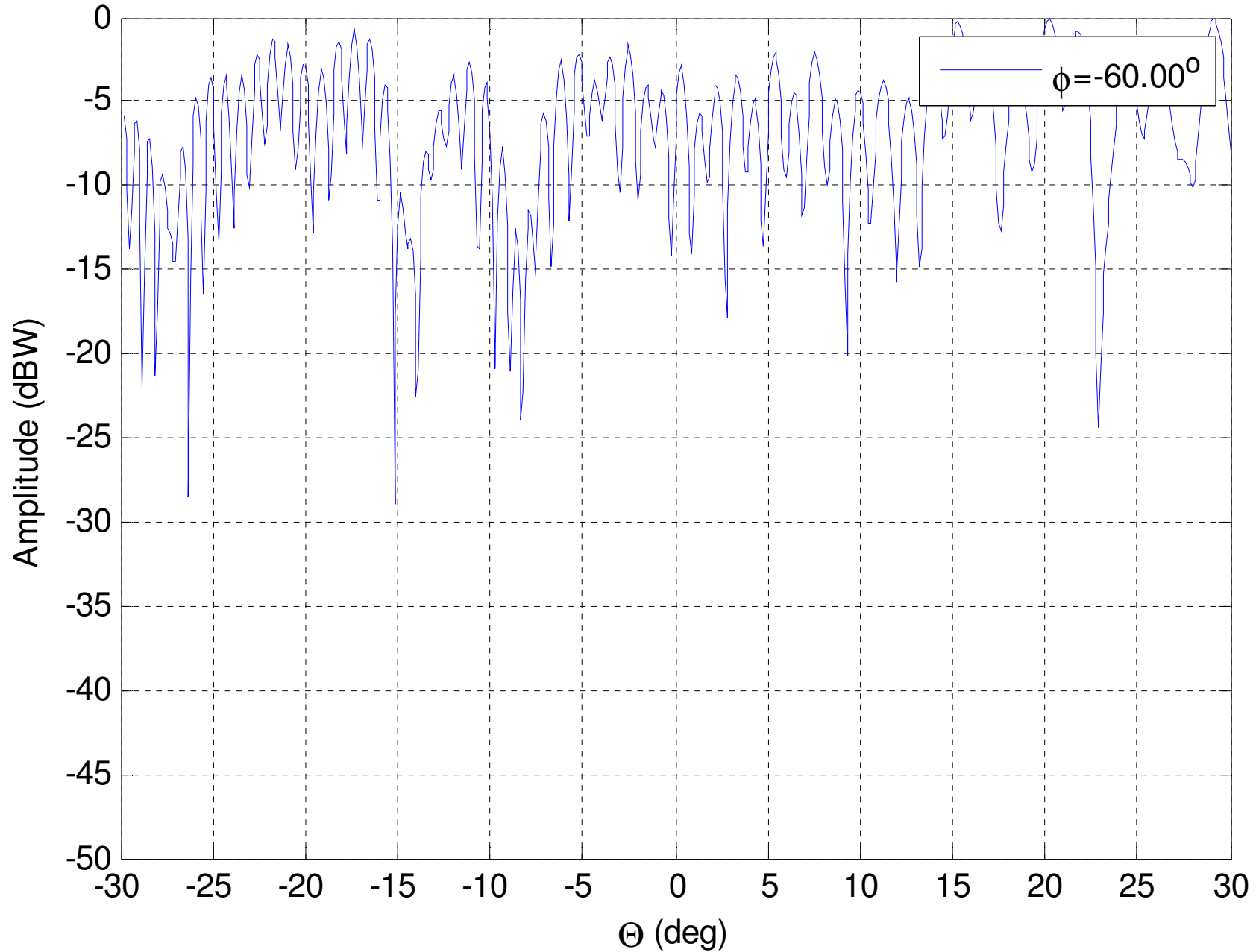
Input file: tx-17.7-rhcp-60.cut, Peak: -1.96 dBW, Date: 16-Dec-2011



LHCP at 17.7 GHz

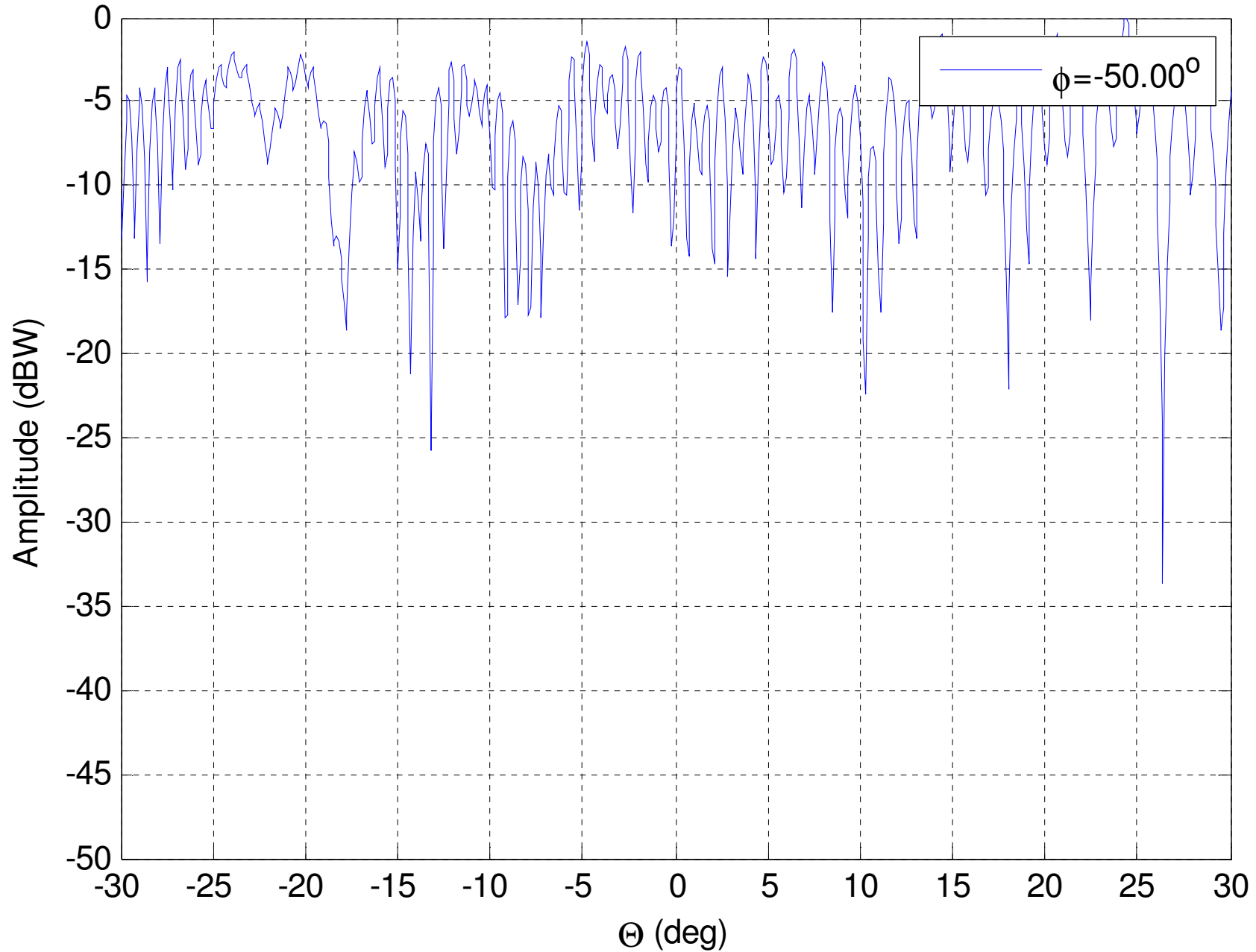
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--60.cut, Peak: -2.30 dBW, Date: 16-Dec-2011



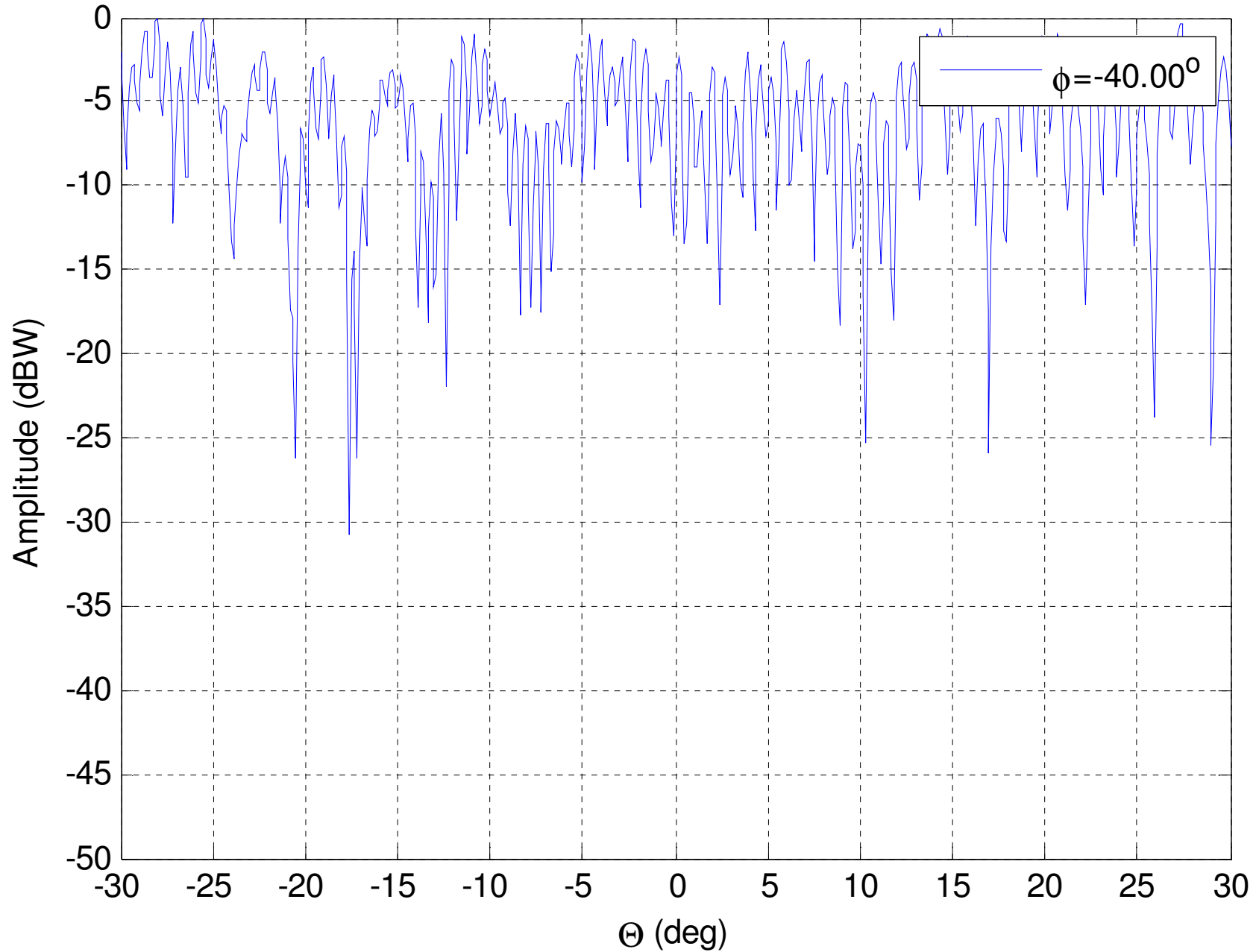
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--50.cut, Peak: -2.25 dBW, Date: 16-Dec-2011



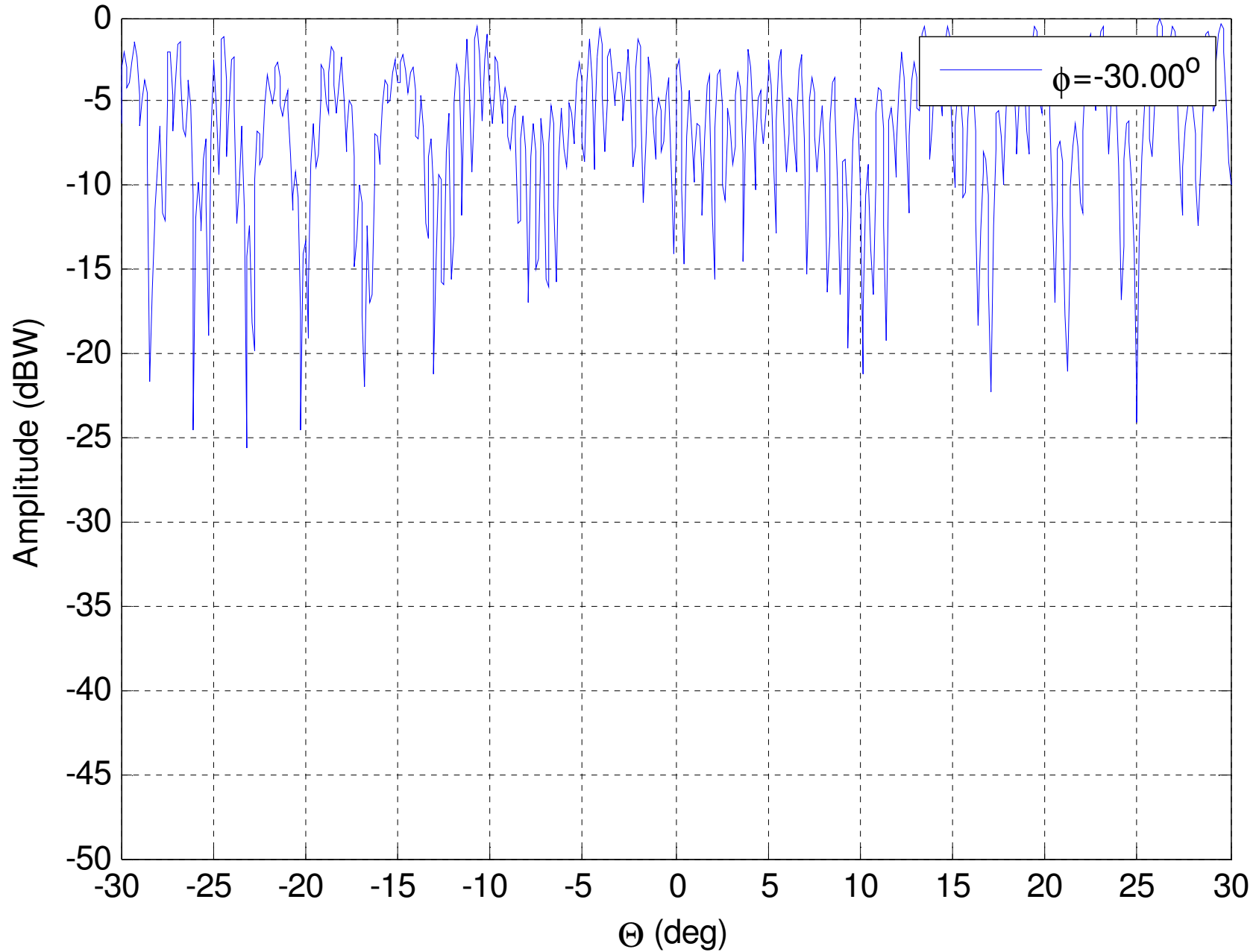
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--40.cut, Peak: -2.67 dBW, Date: 16-Dec-2011



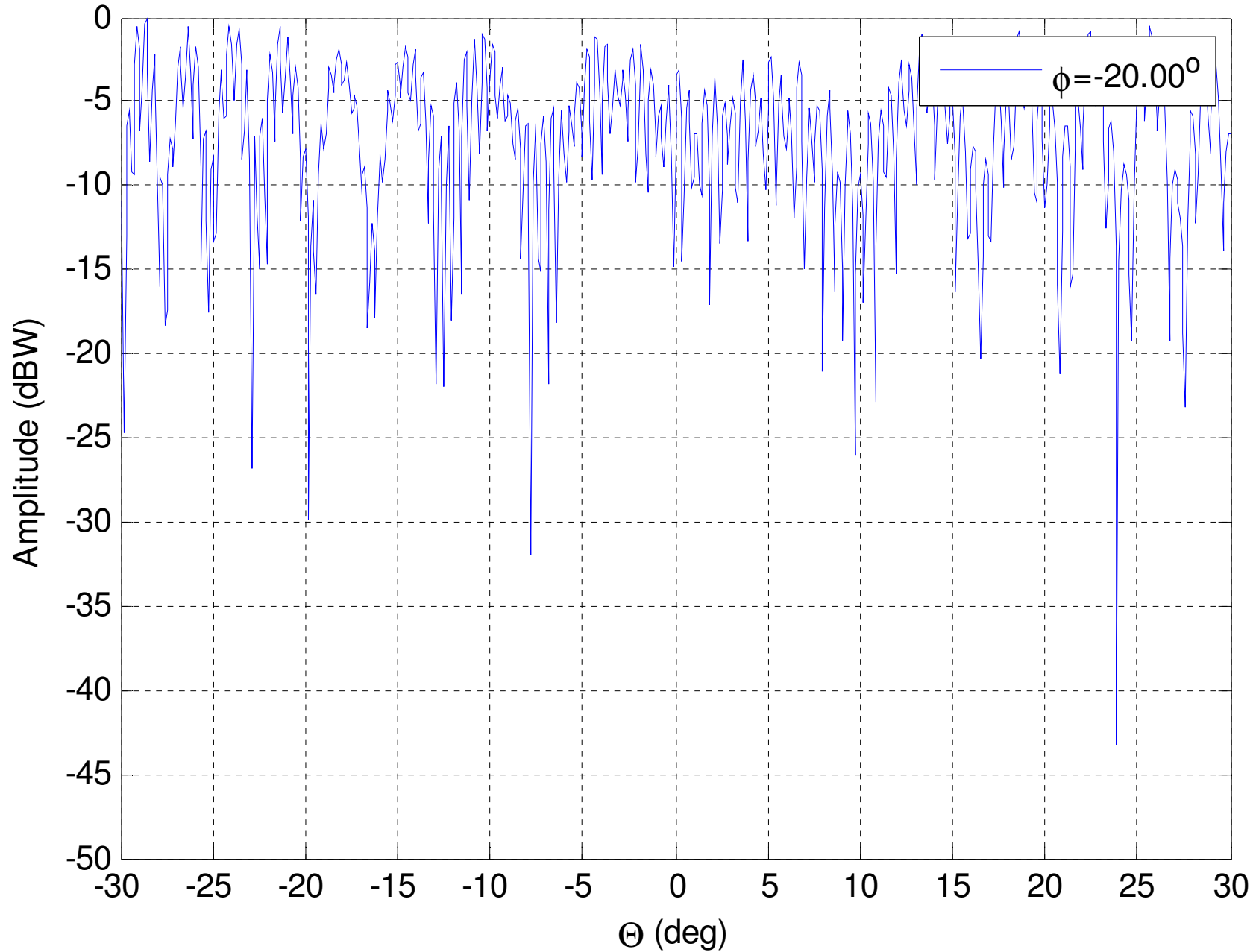
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--30.cut, Peak: -2.60 dBW, Date: 16-Dec-2011



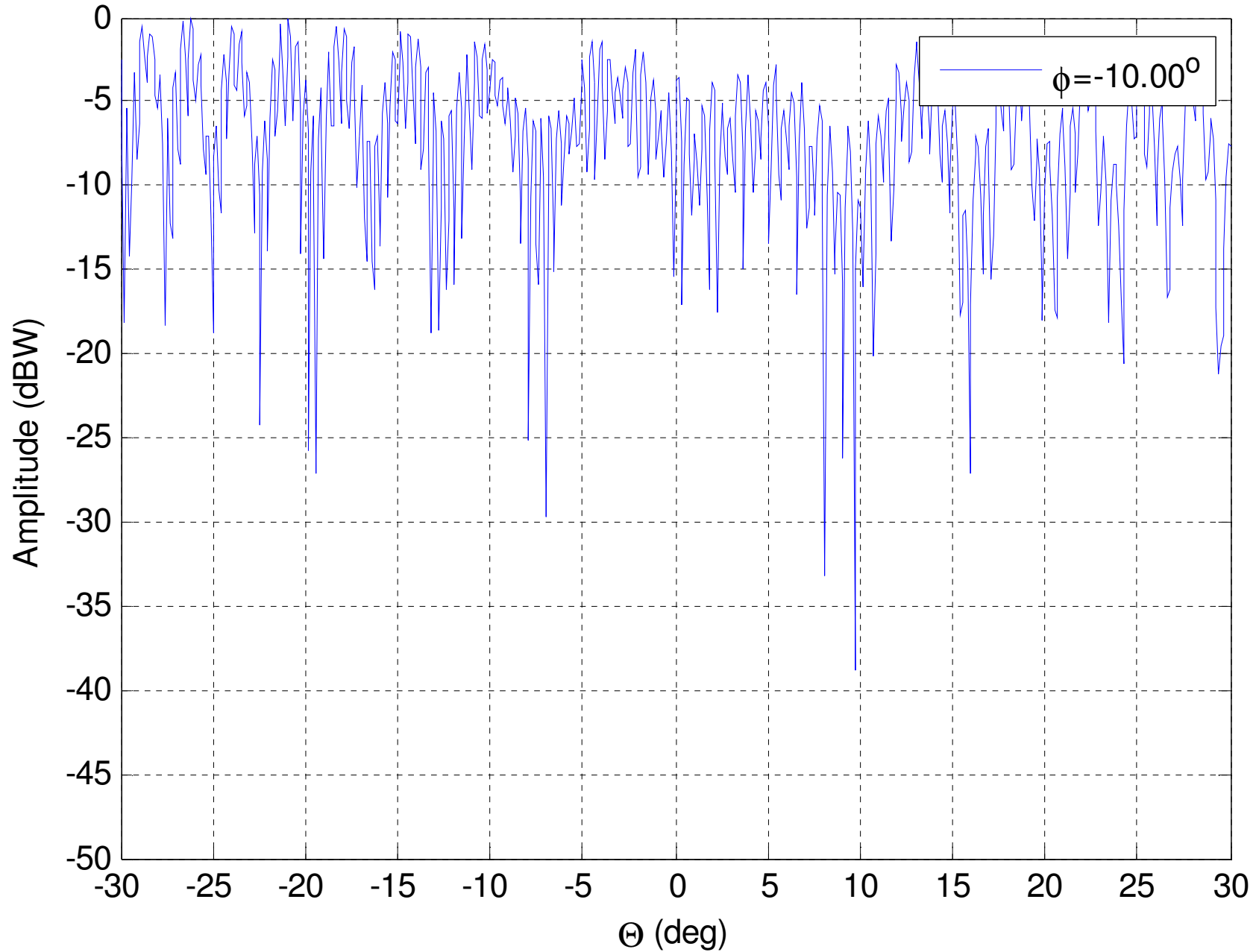
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--20.cut, Peak: -2.22 dBW, Date: 16-Dec-2011



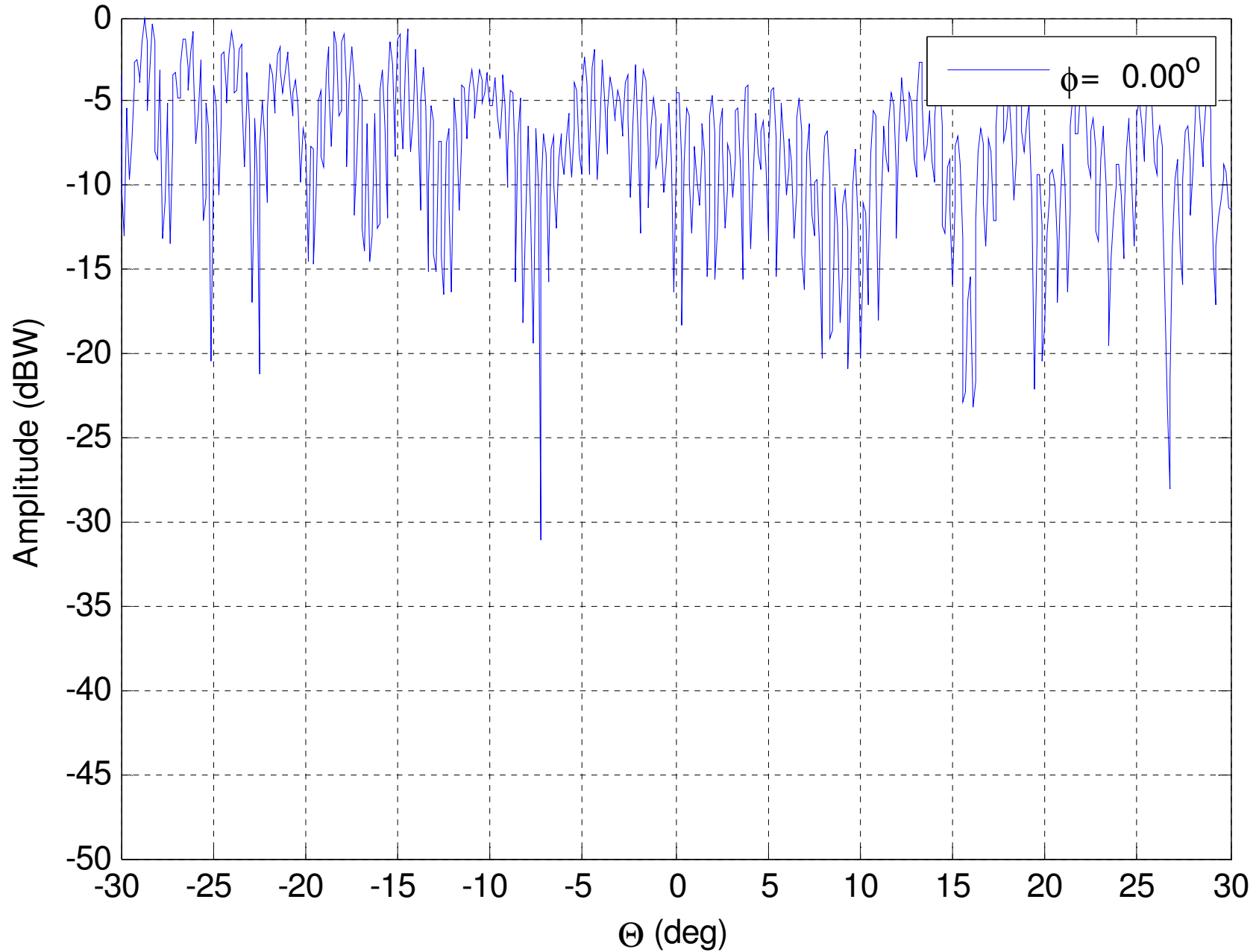
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--10.cut, Peak: -1.85 dBW, Date: 16-Dec-2011



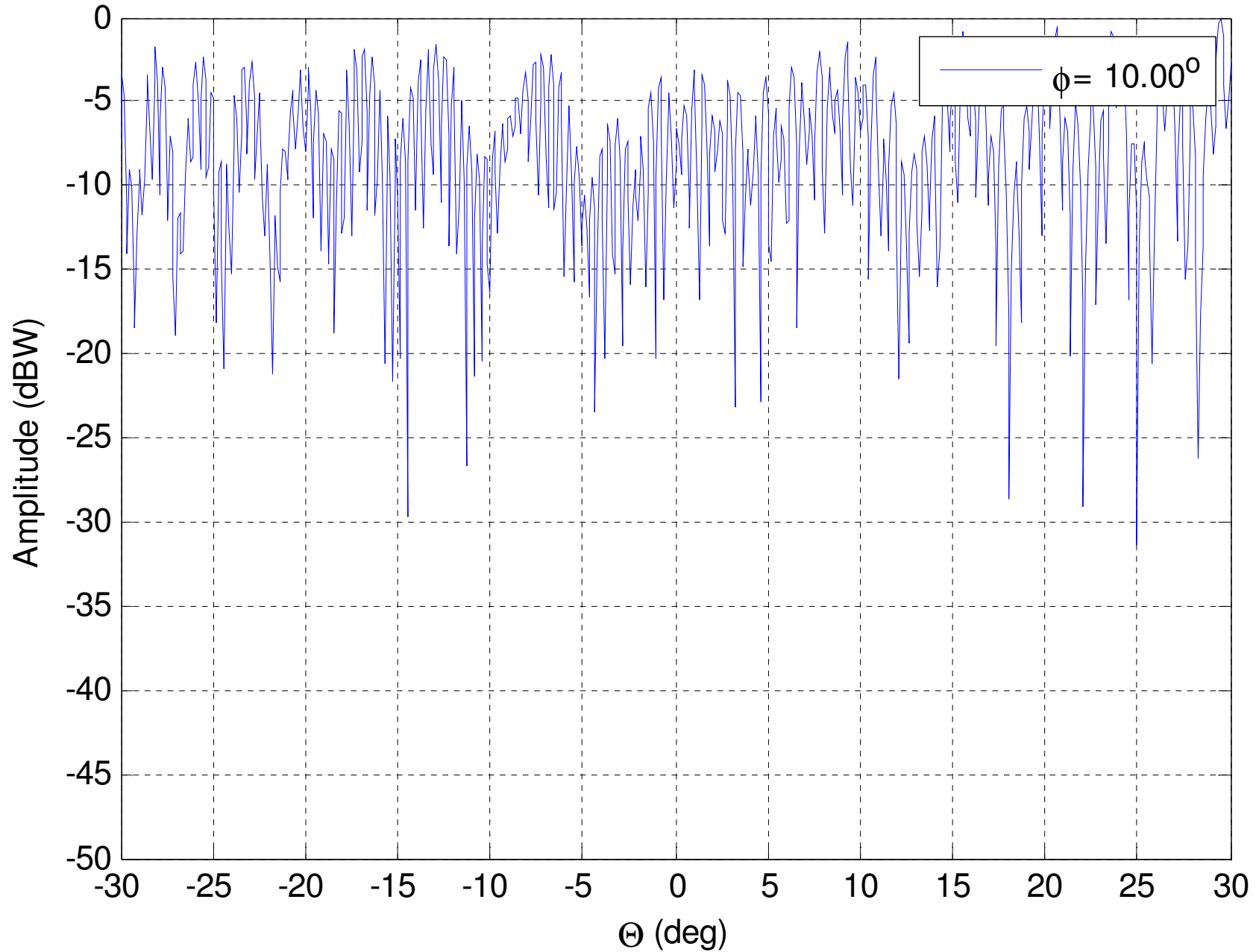
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-0.cut, Peak: -1.05 dBW, Date: 16-Dec-2011



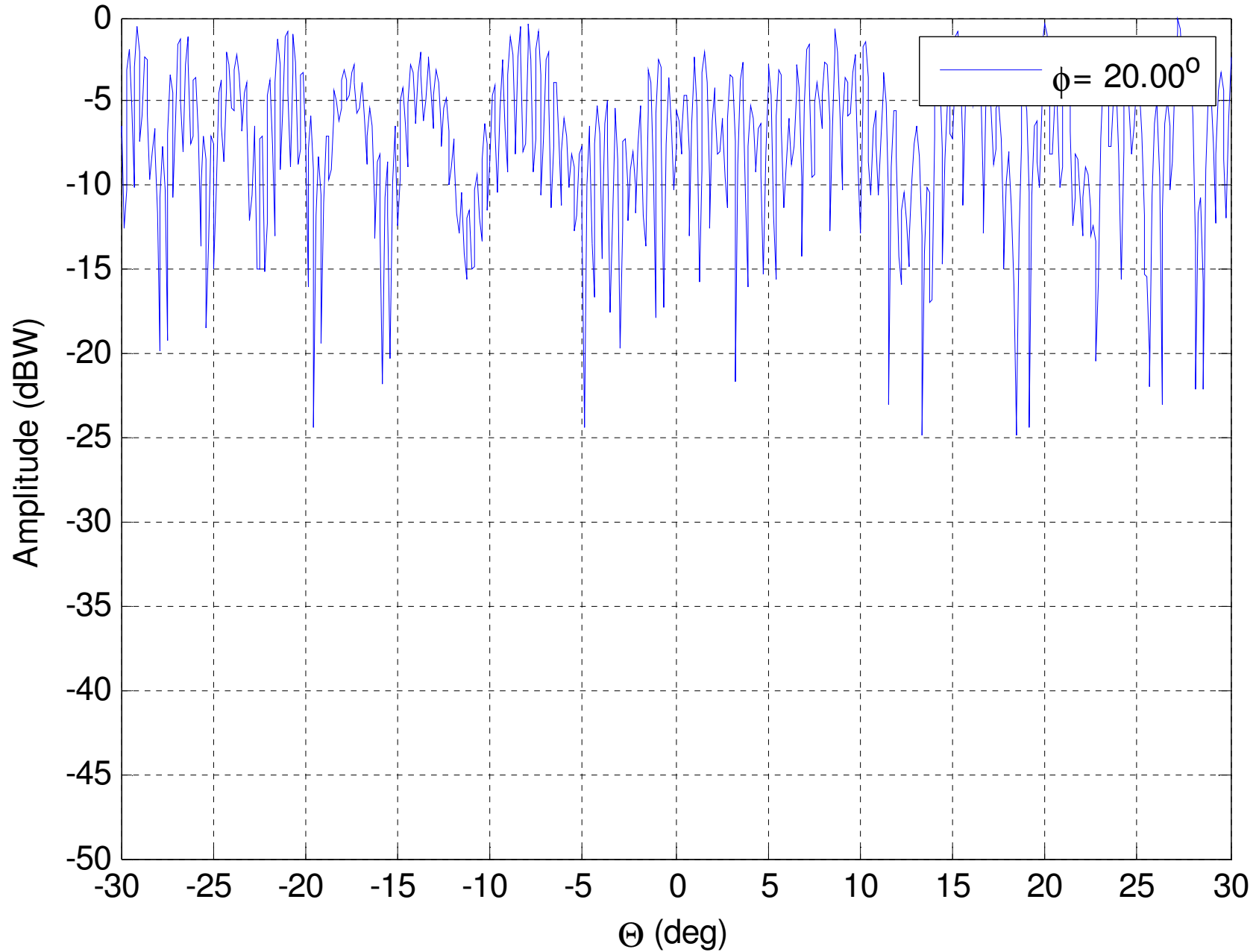
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-10.cut, Peak: -1.15 dBW, Date: 16-Dec-2011



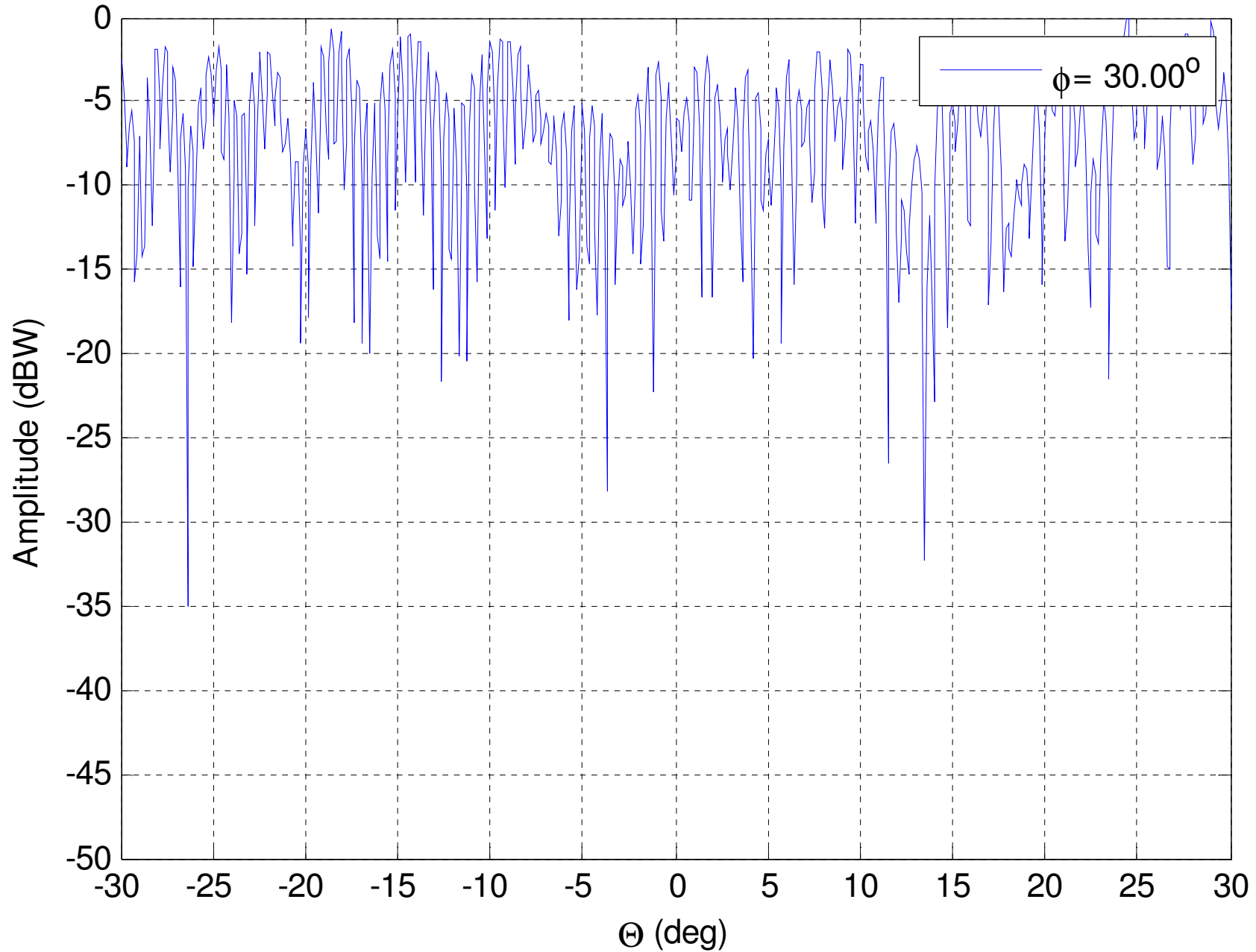
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-20.cut, Peak: -2.19 dBW, Date: 16-Dec-2011



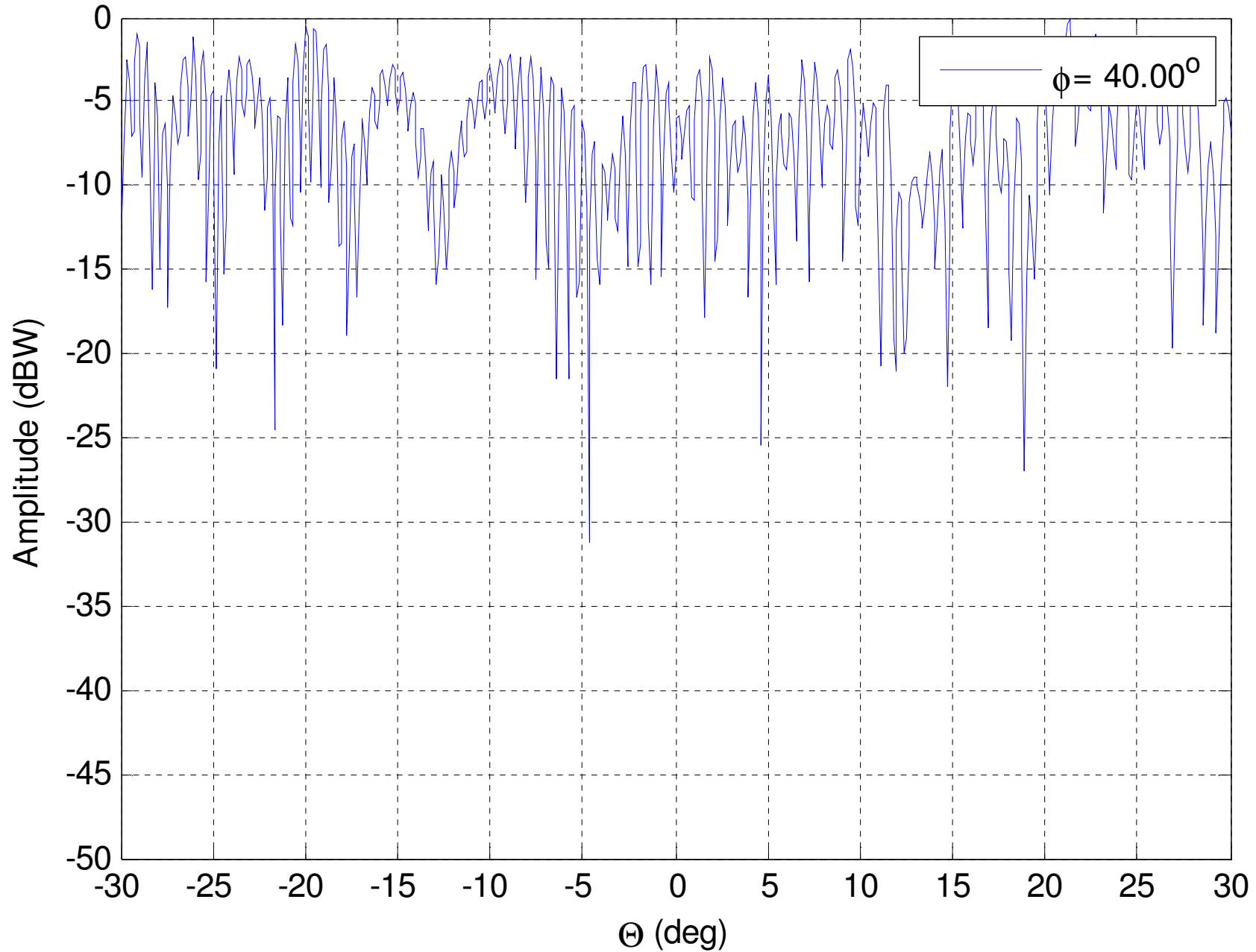
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-30.cut, Peak: -1.88 dBW, Date: 16-Dec-2011



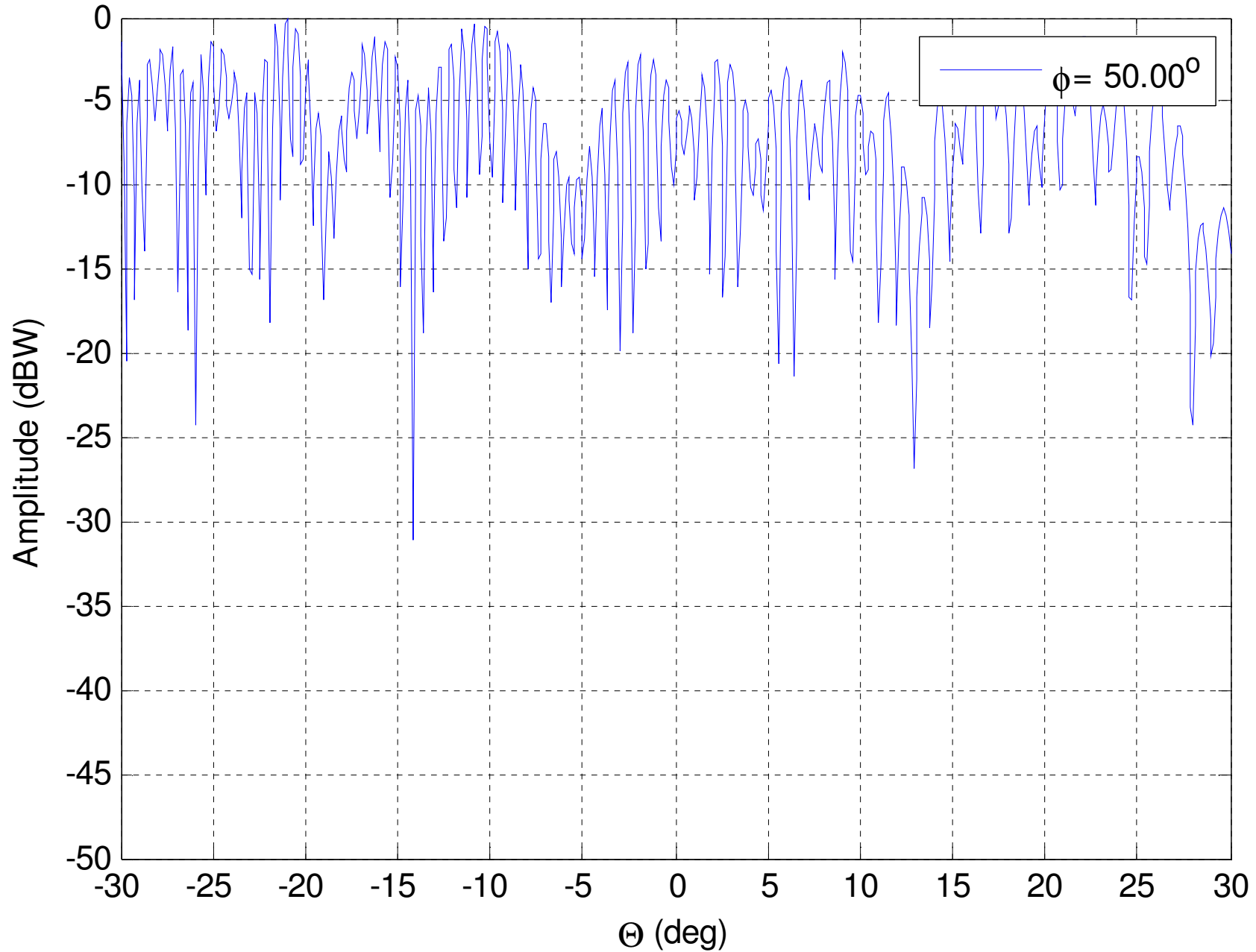
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-40.cut, Peak: -1.91 dBW, Date: 16-Dec-2011



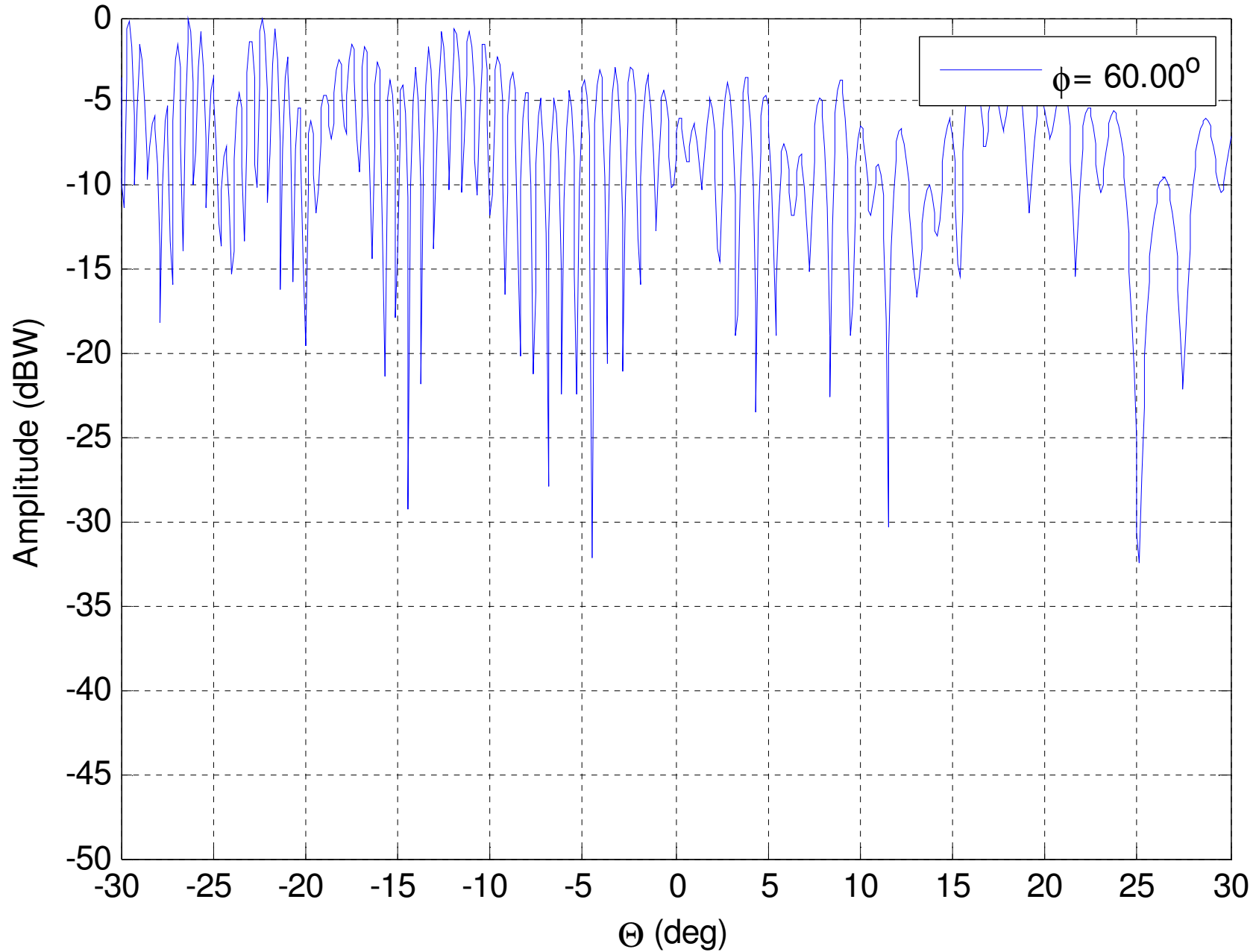
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-50.cut, Peak: -2.14 dBW, Date: 16-Dec-2011



Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-60.cut, Peak: -1.69 dBW, Date: 16-Dec-2011



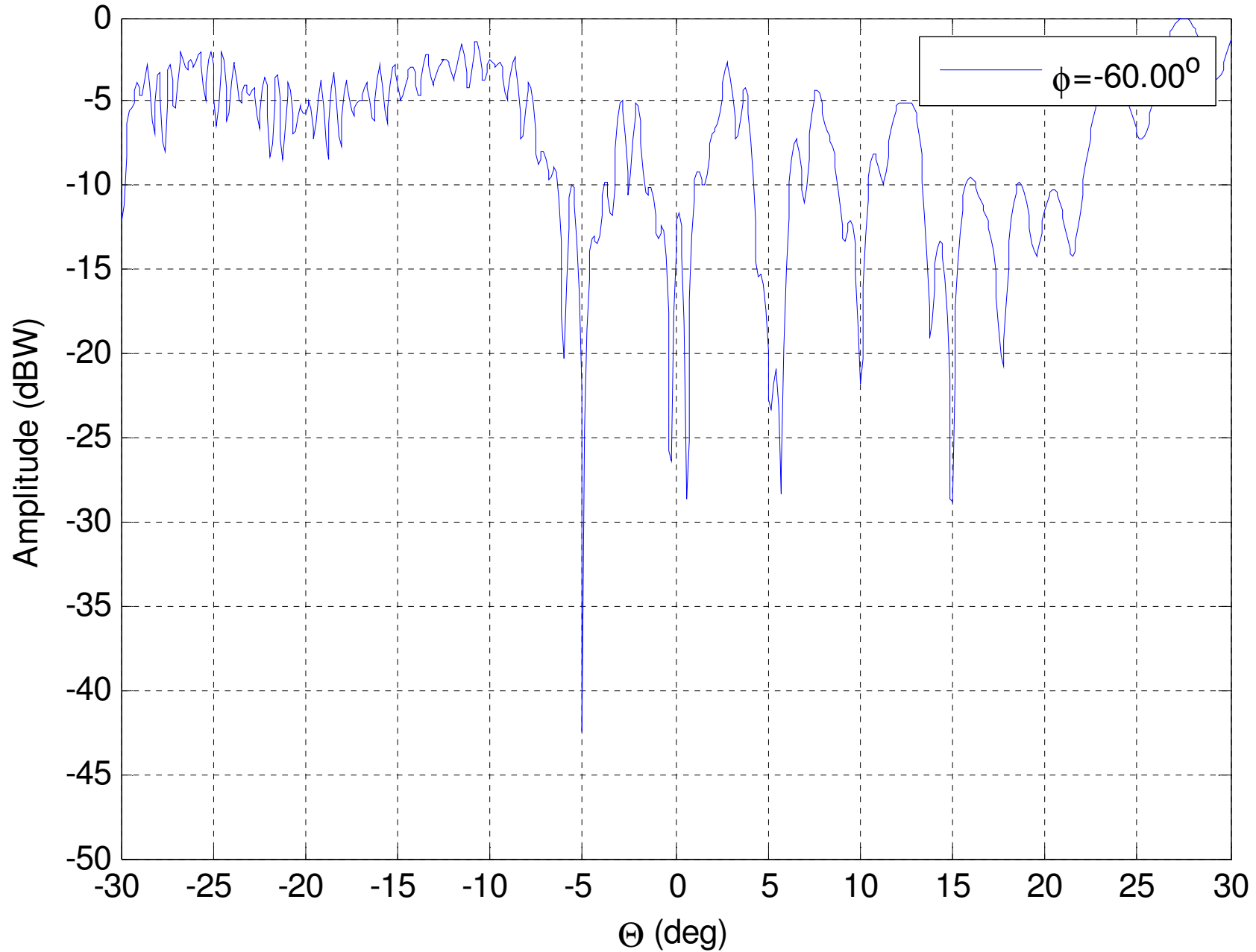
Spot Beam45, +X Axis Plots

- Both polarizations; RHCP, LHCP
- $-30 < \Theta < 30$ ($\Theta=0$: = +X-axis)
- $-60 < \phi < 60$
- Freq = 17.3, 17.5, and 17.7 GHz
- The Zero reference line is the peak gain listed in the title of each chart
- All levels are significantly below the required 20.9 dBW EIRP shown on chart 2

RHCP at 17.3 GHz

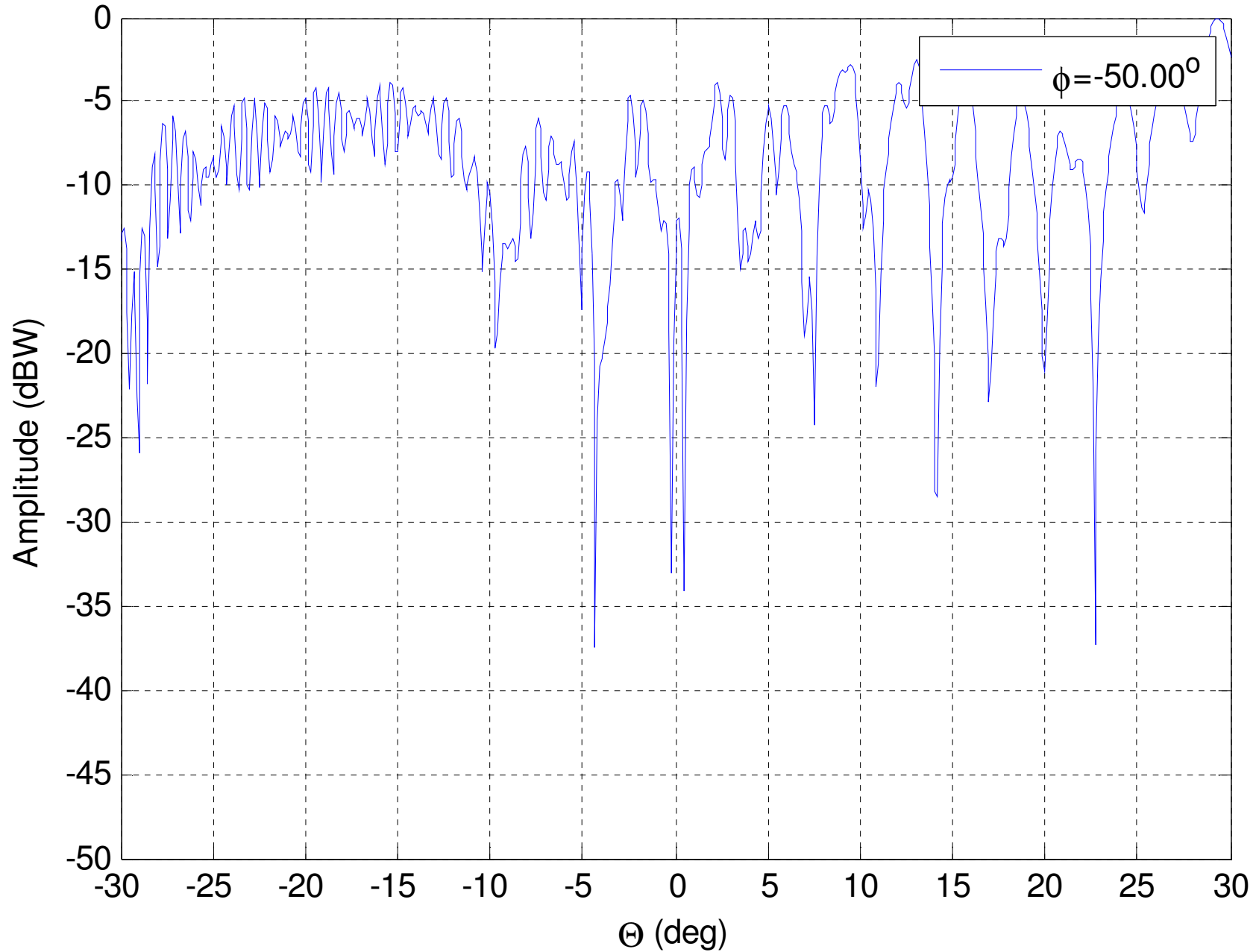
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--60.cut, Peak: -3.86 dBW, Date: 16-Dec-2011



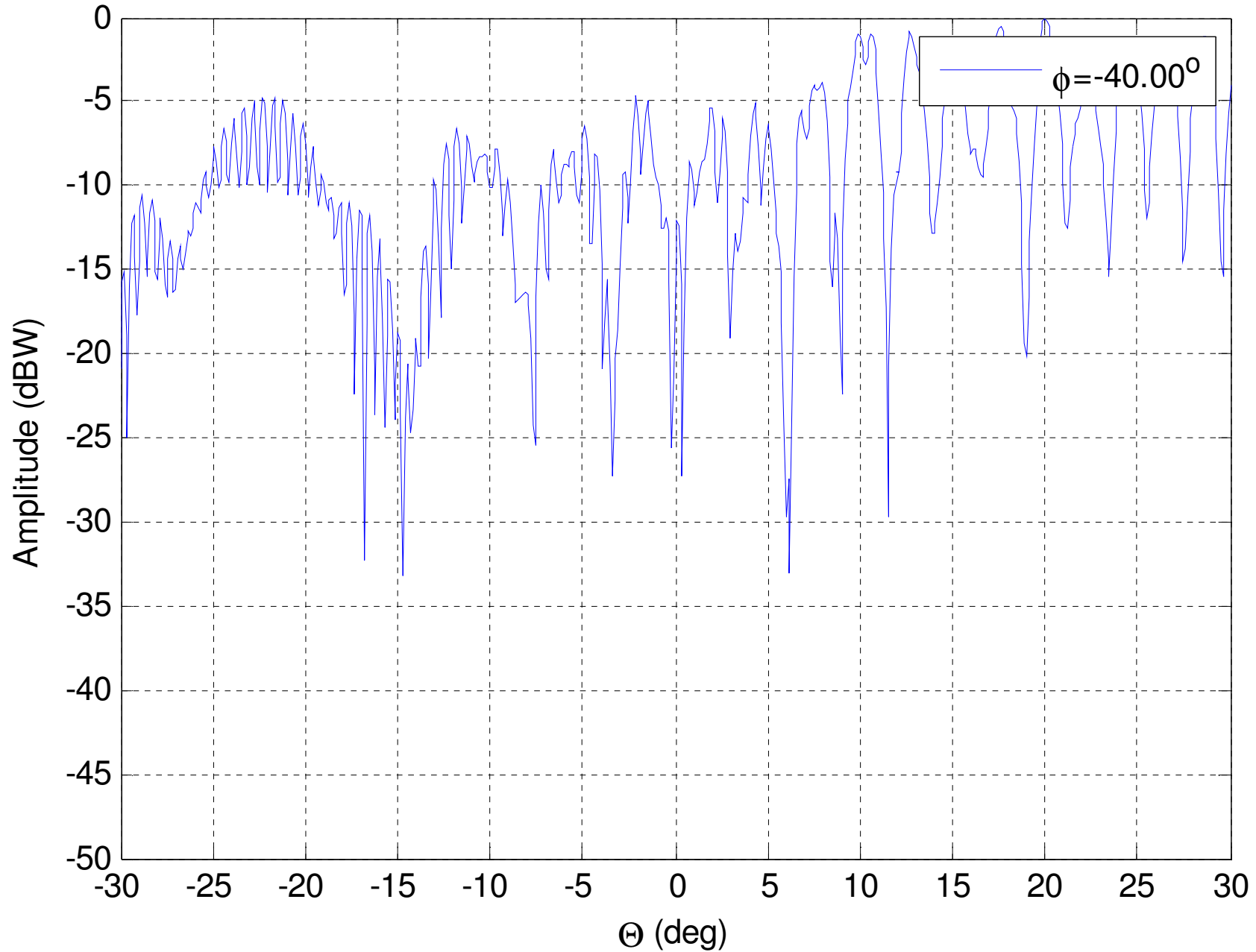
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--50.cut, Peak: -3.65 dBW, Date: 16-Dec-2011



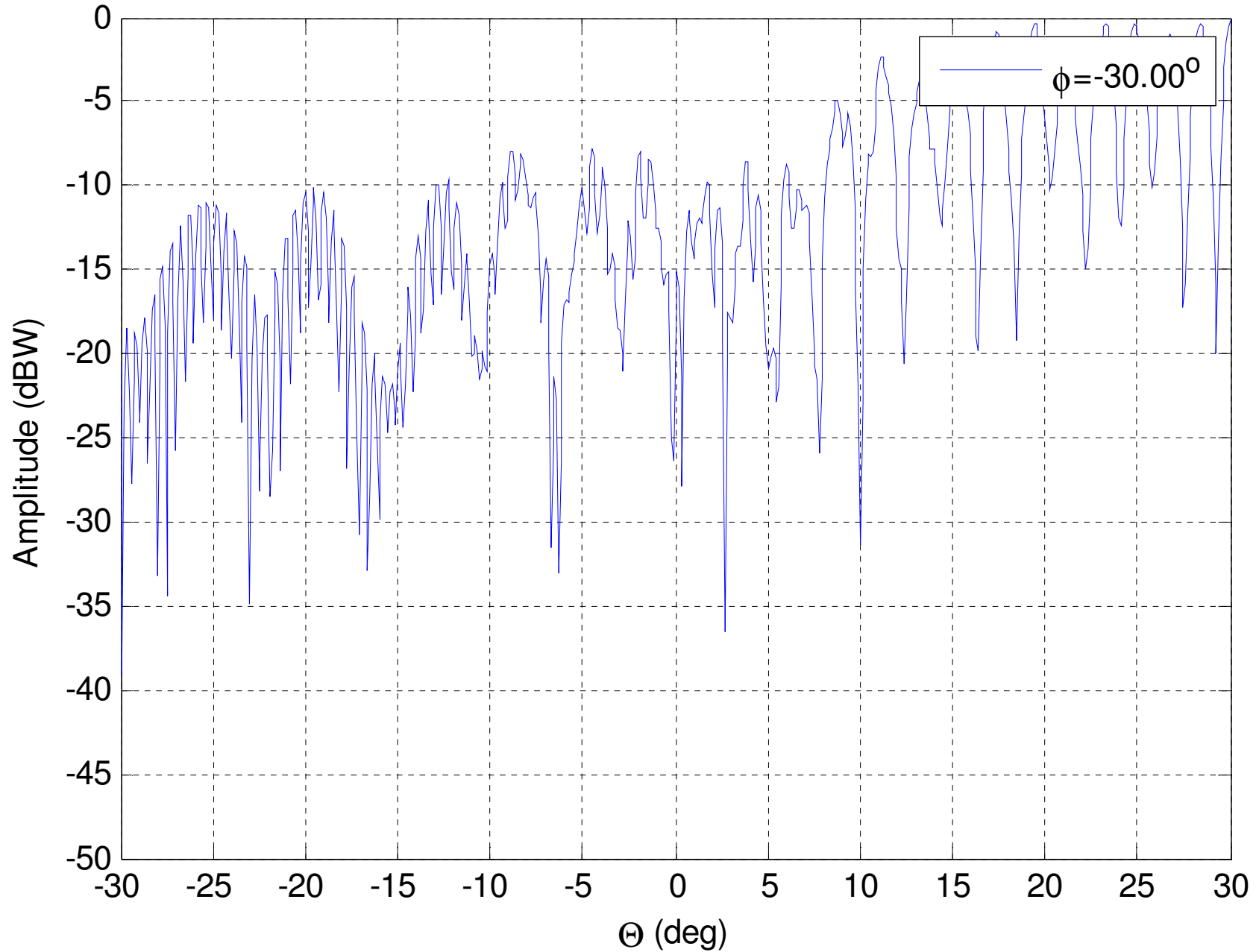
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--40.cut, Peak: -3.41 dBW, Date: 16-Dec-2011



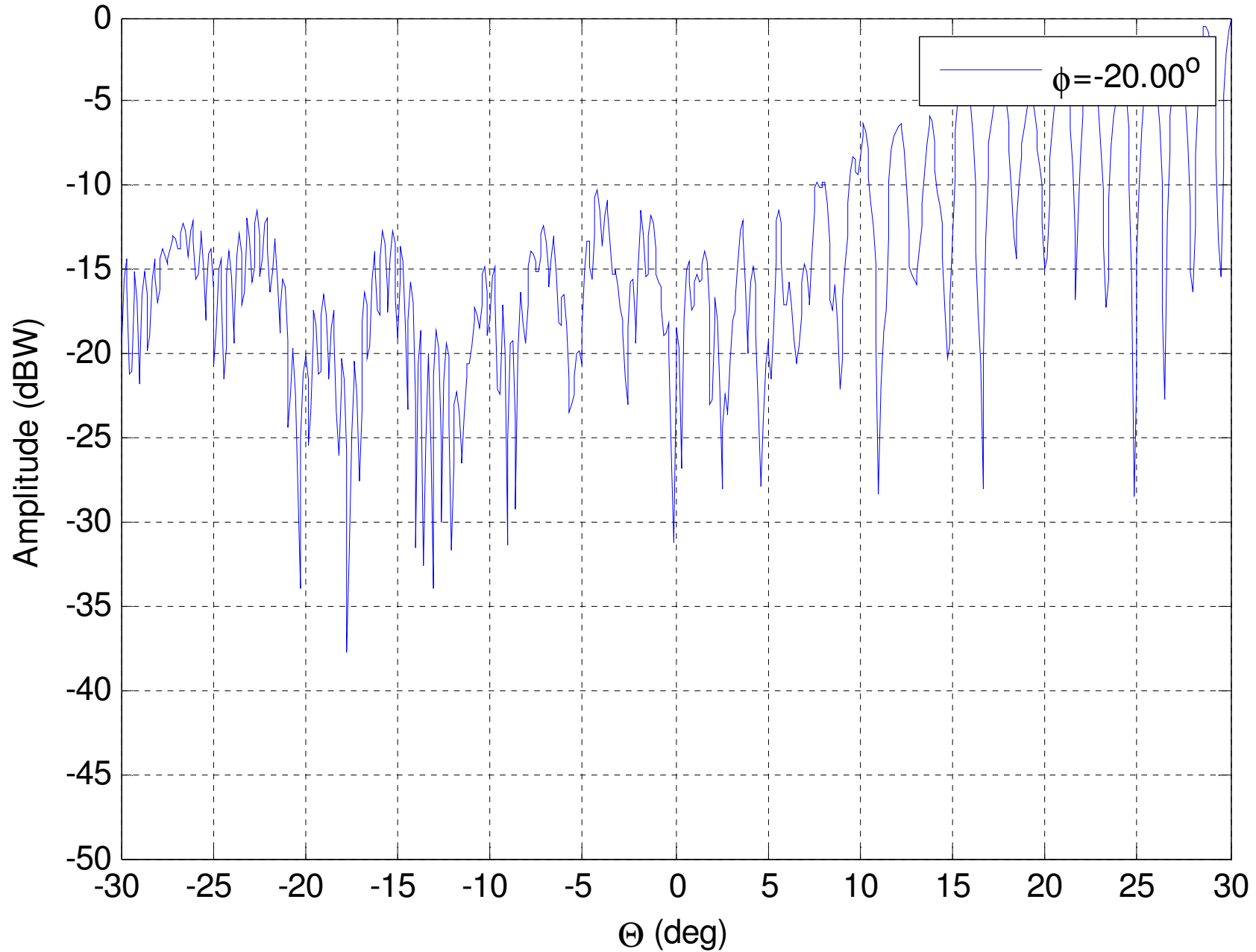
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--30.cut, Peak: -0.09 dBW, Date: 16-Dec-2011



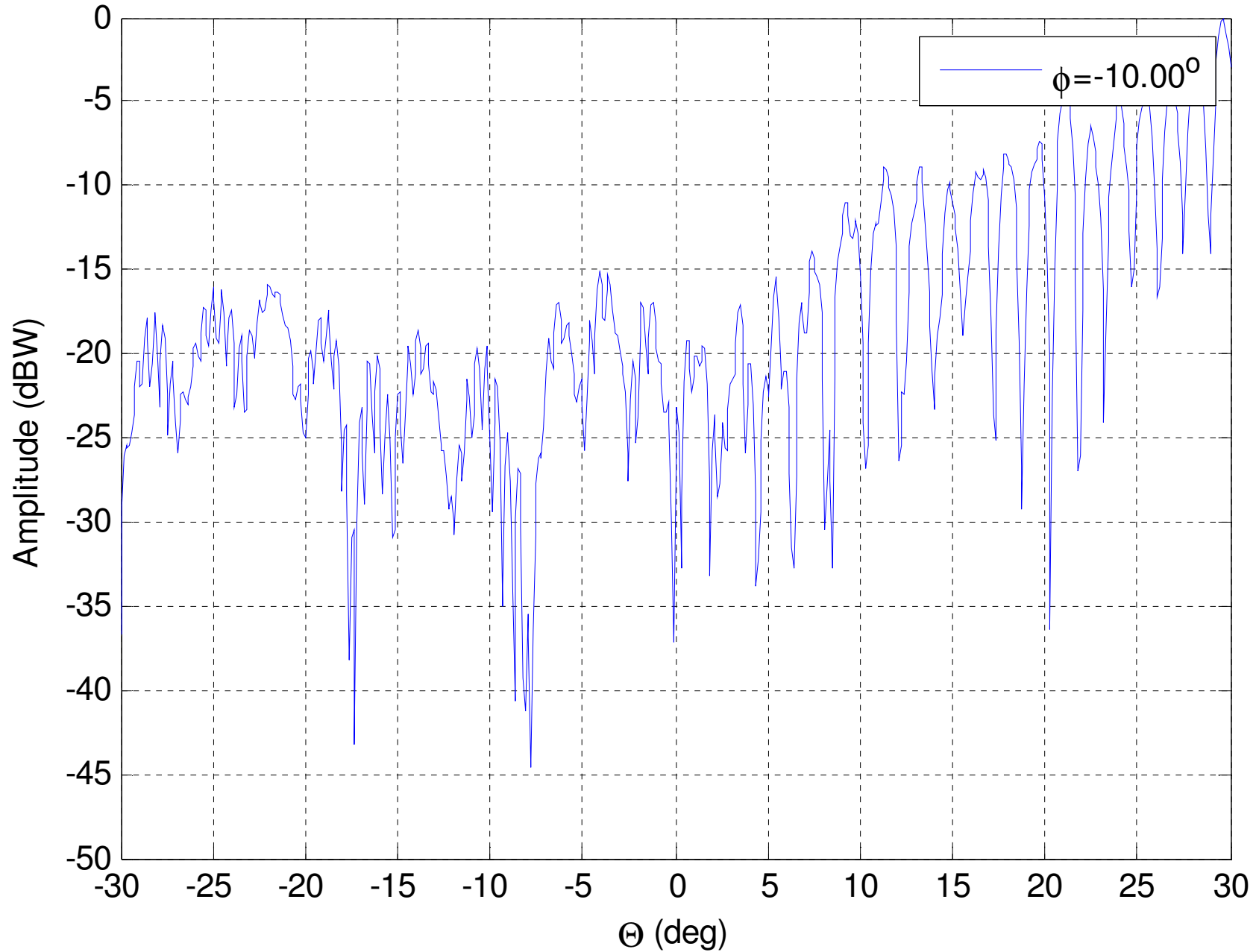
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--20.cut, Peak: 3.26 dBW, Date: 16-Dec-2011



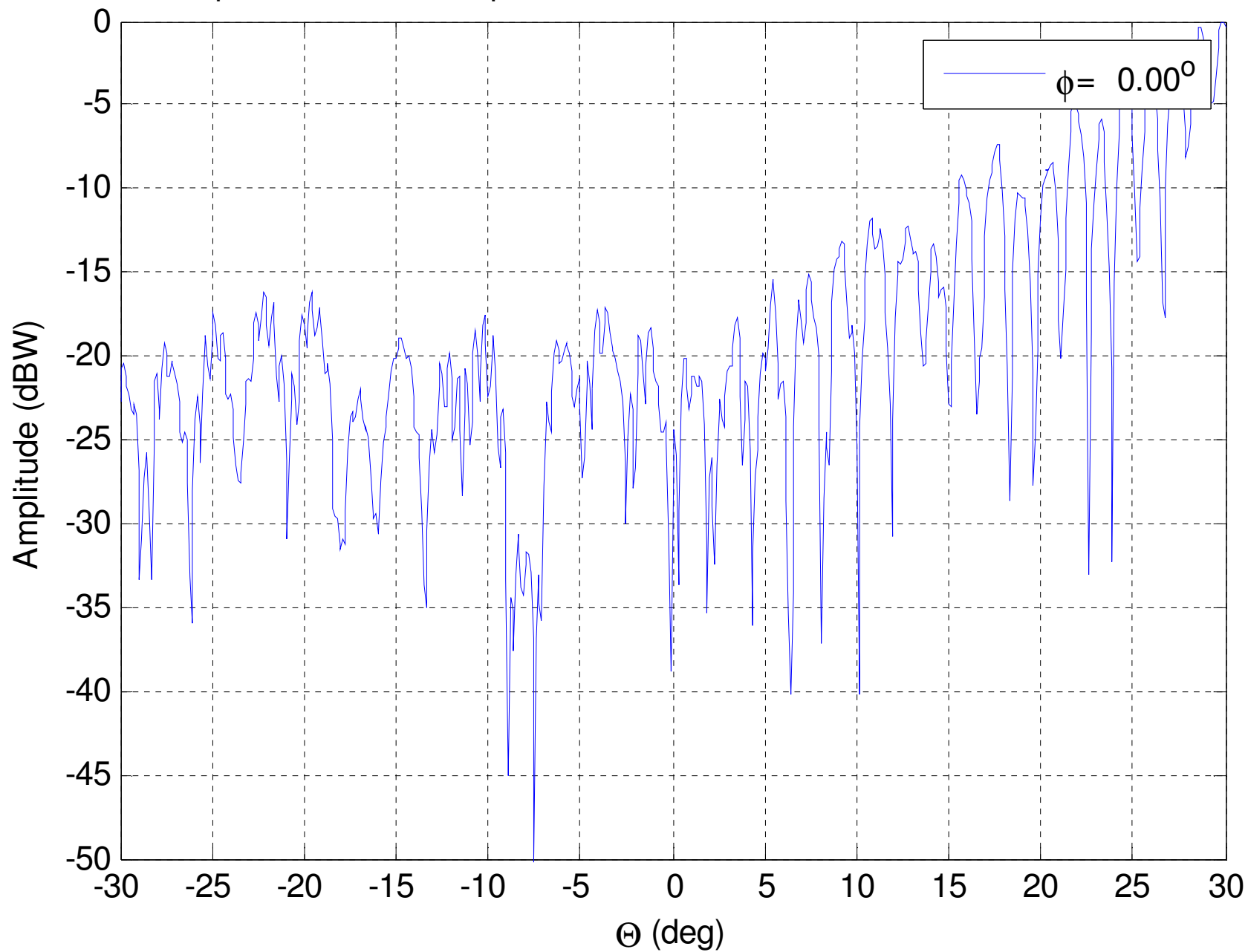
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--10.cut, Peak: 8.14 dBW, Date: 16-Dec-2011



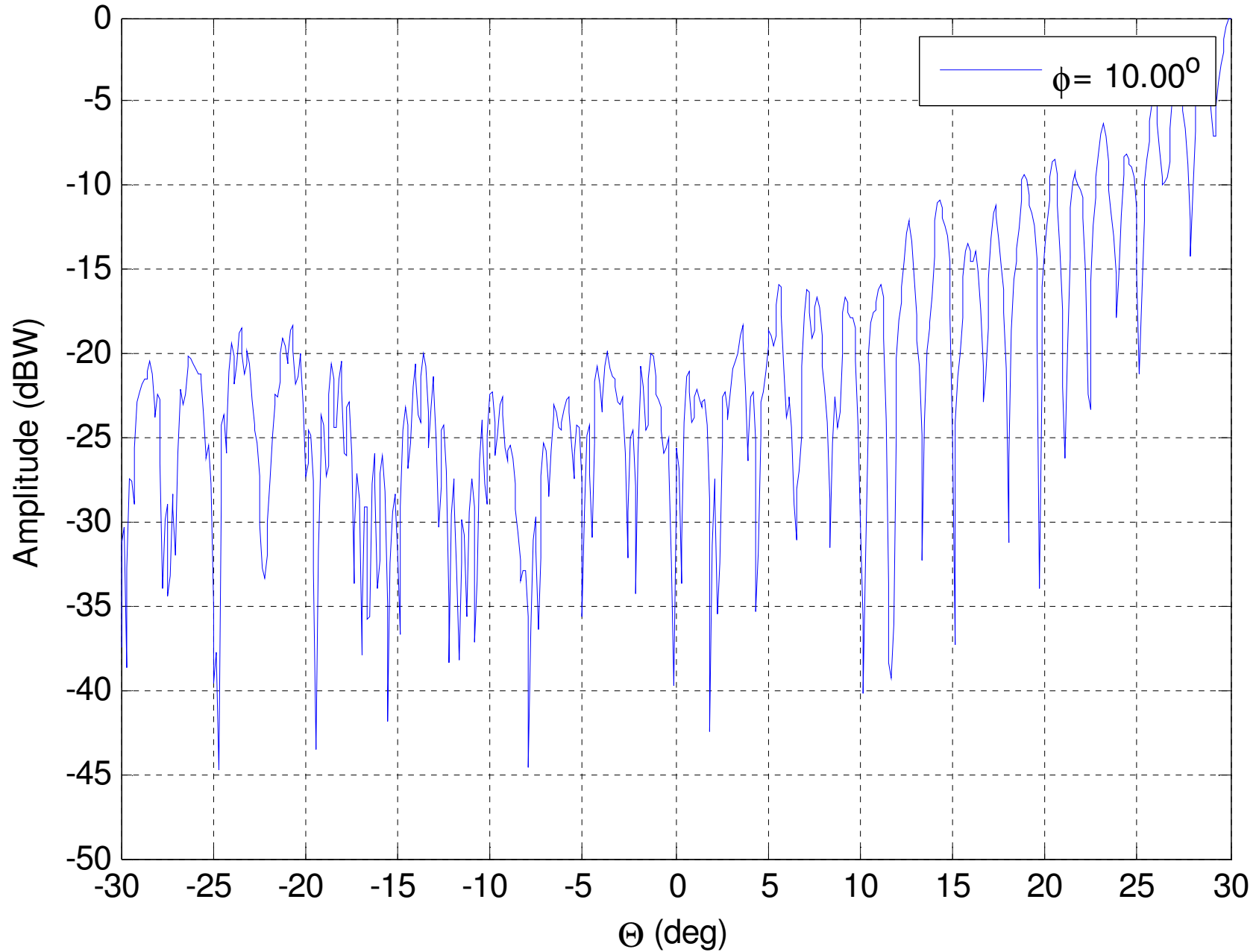
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-0.cut, Peak: 9.35 dBW, Date: 16-Dec-2011



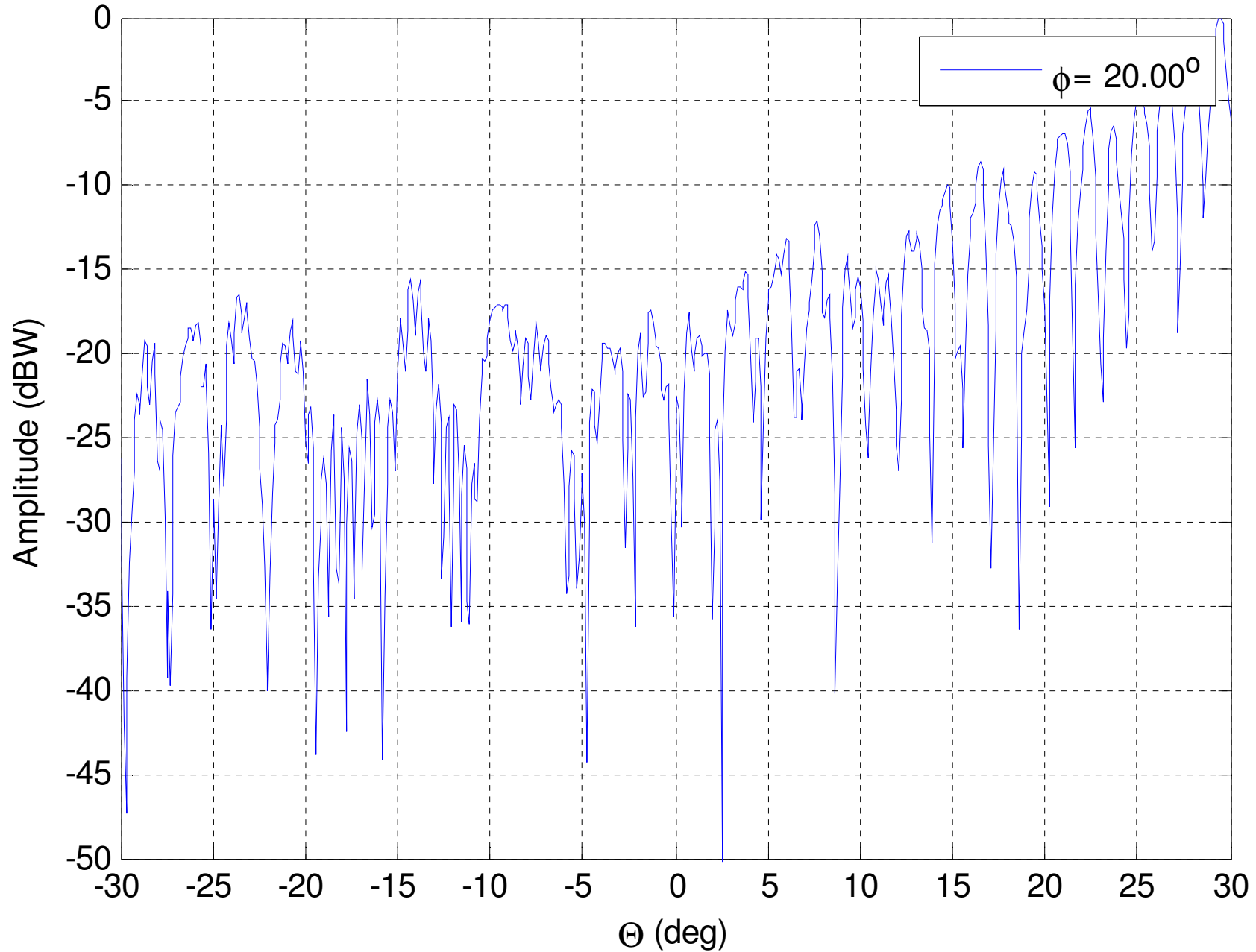
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-10.cut, Peak: 10.64 dBW, Date: 16-Dec-2011



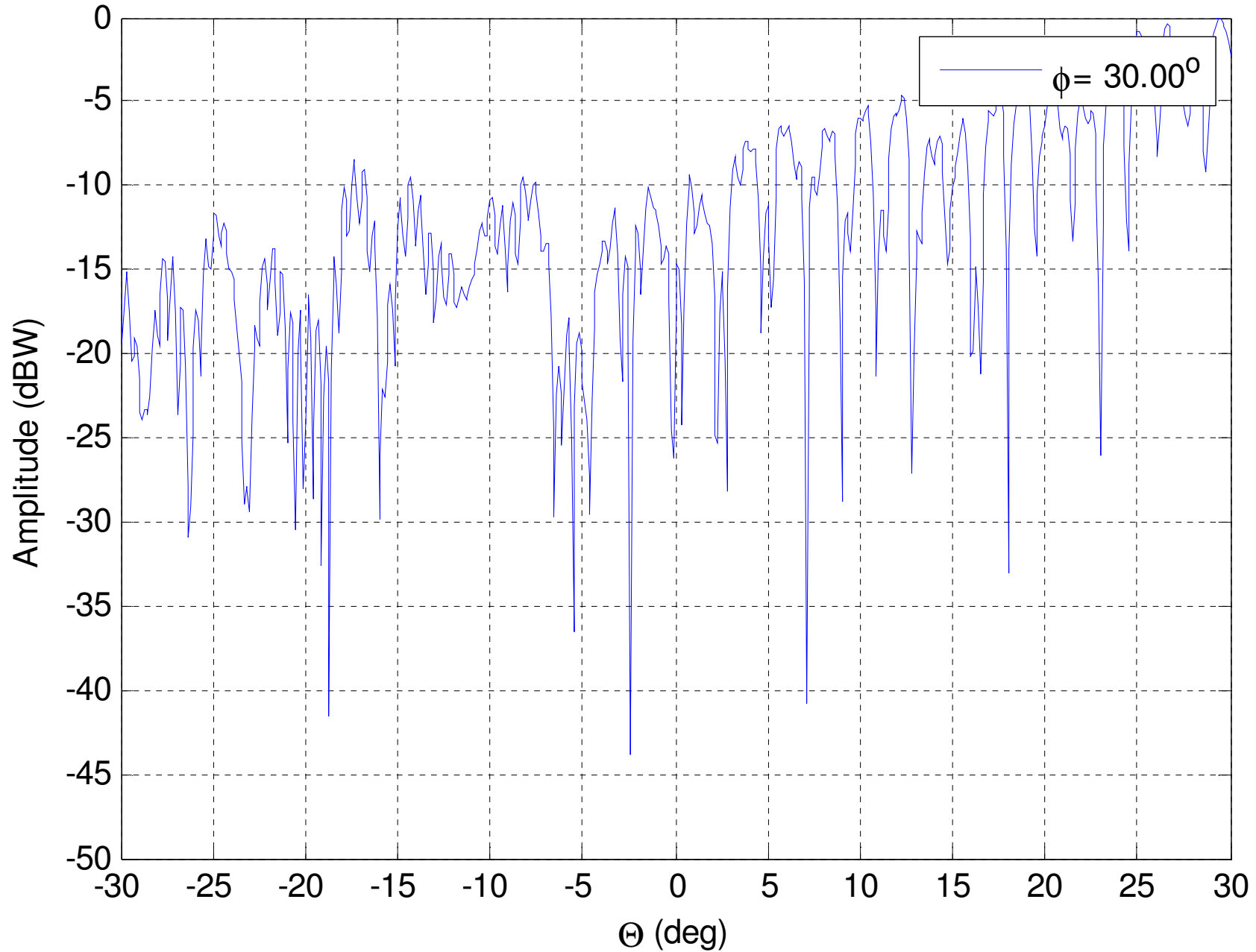
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-20.cut, Peak: 7.59 dBW, Date: 16-Dec-2011



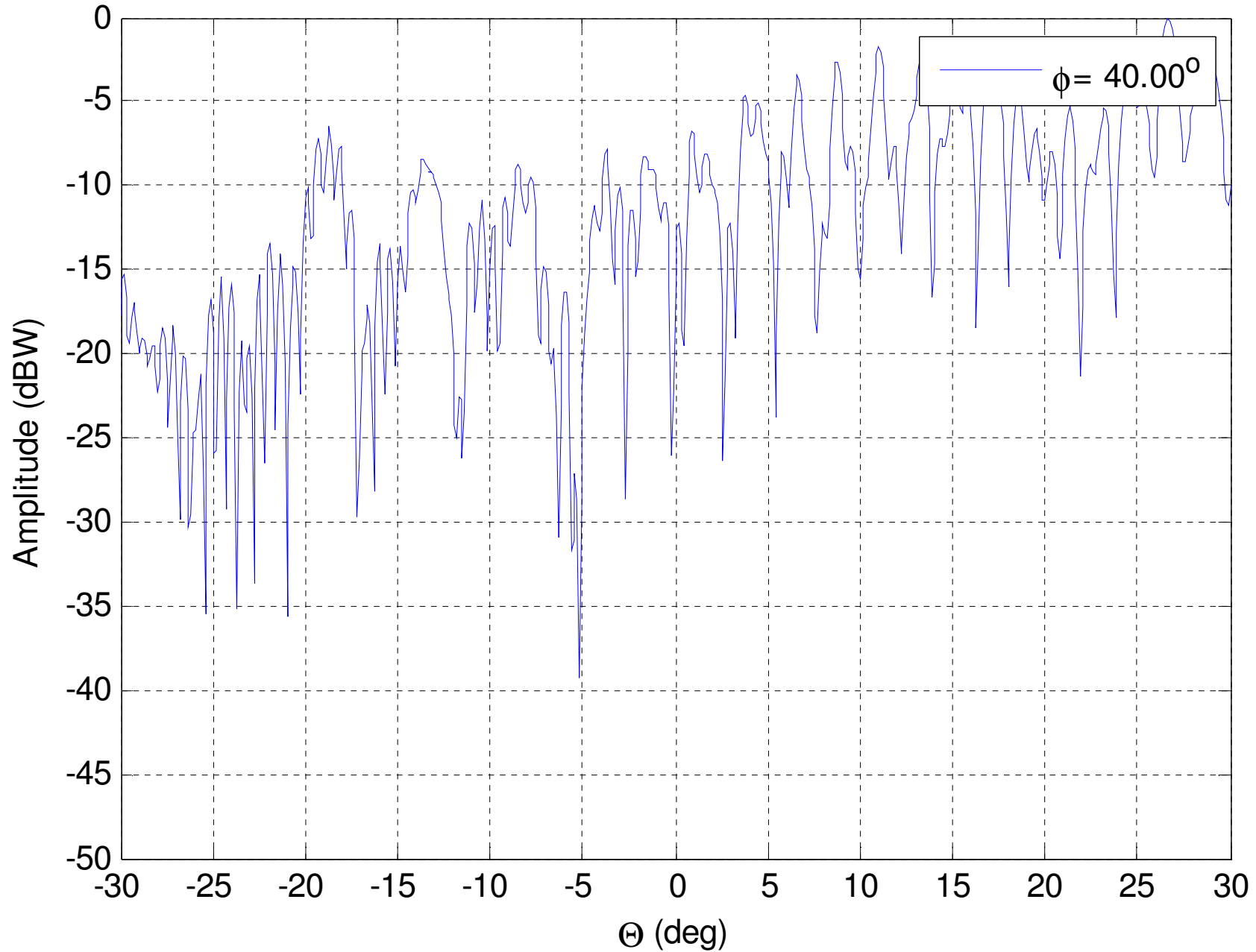
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-30.cut, Peak: -0.32 dBW, Date: 16-Dec-2011



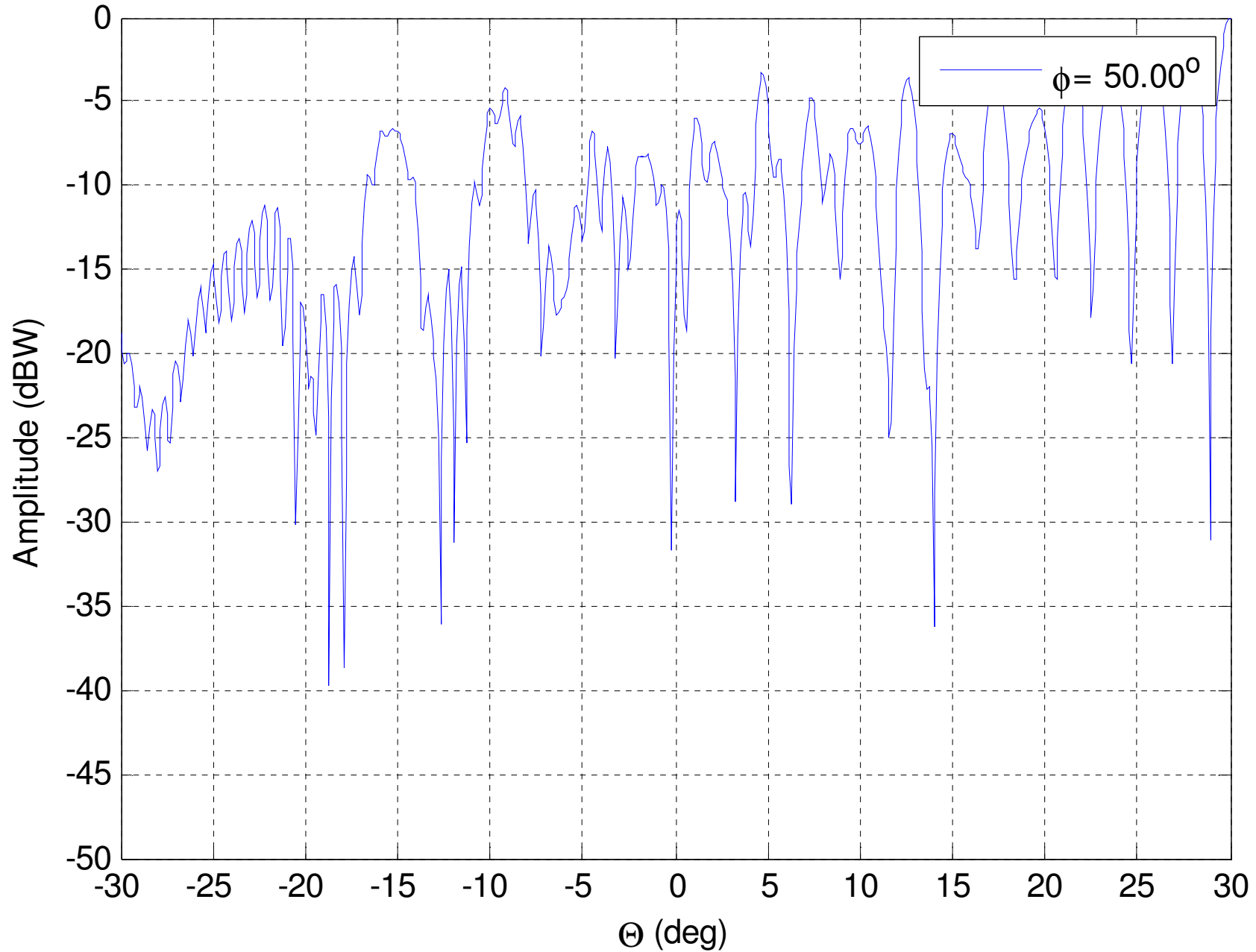
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-40.cut, Peak: -2.64 dBW, Date: 16-Dec-2011



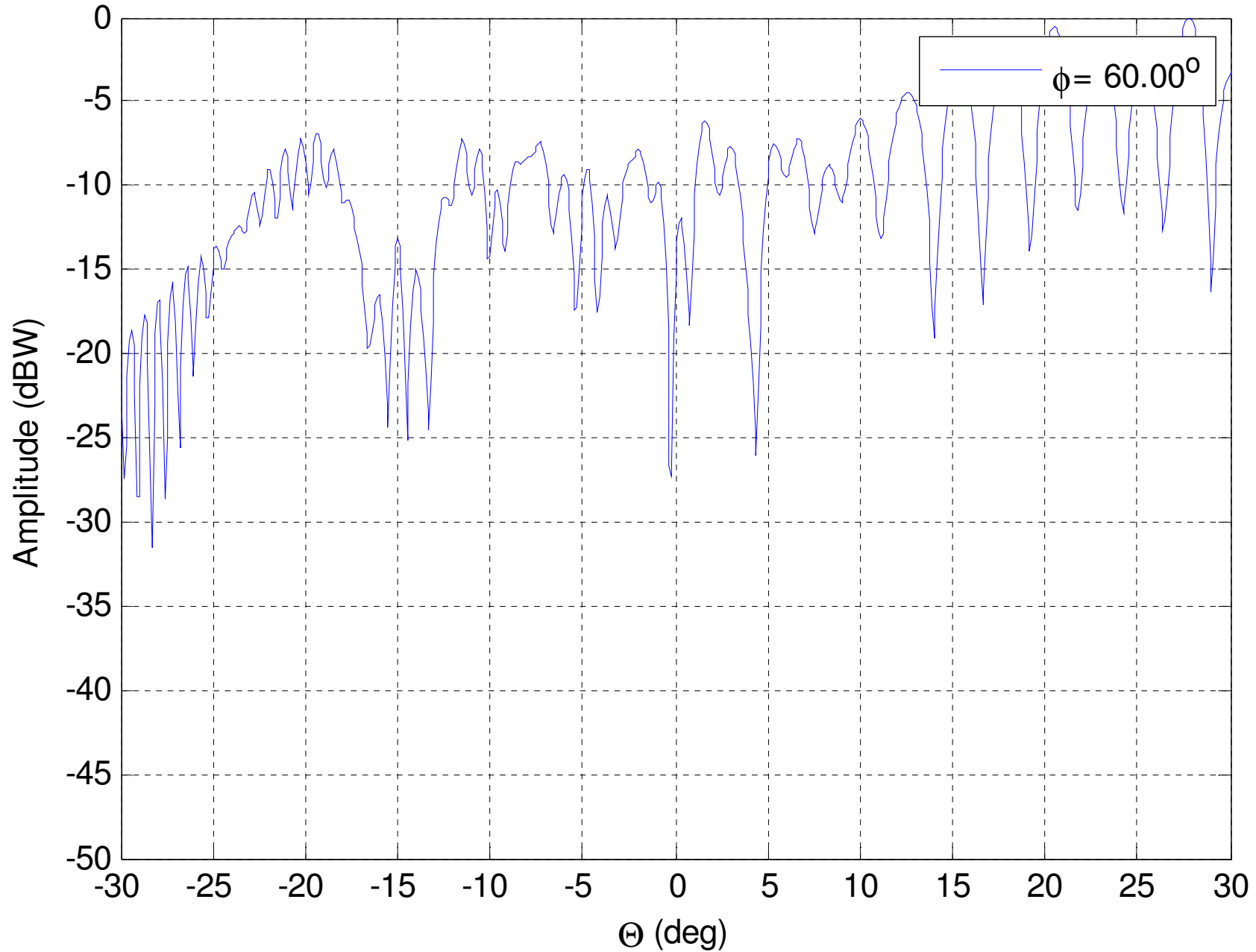
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-50.cut, Peak: -3.09 dBW, Date: 16-Dec-2011



Normalized pattern cuts - farfield

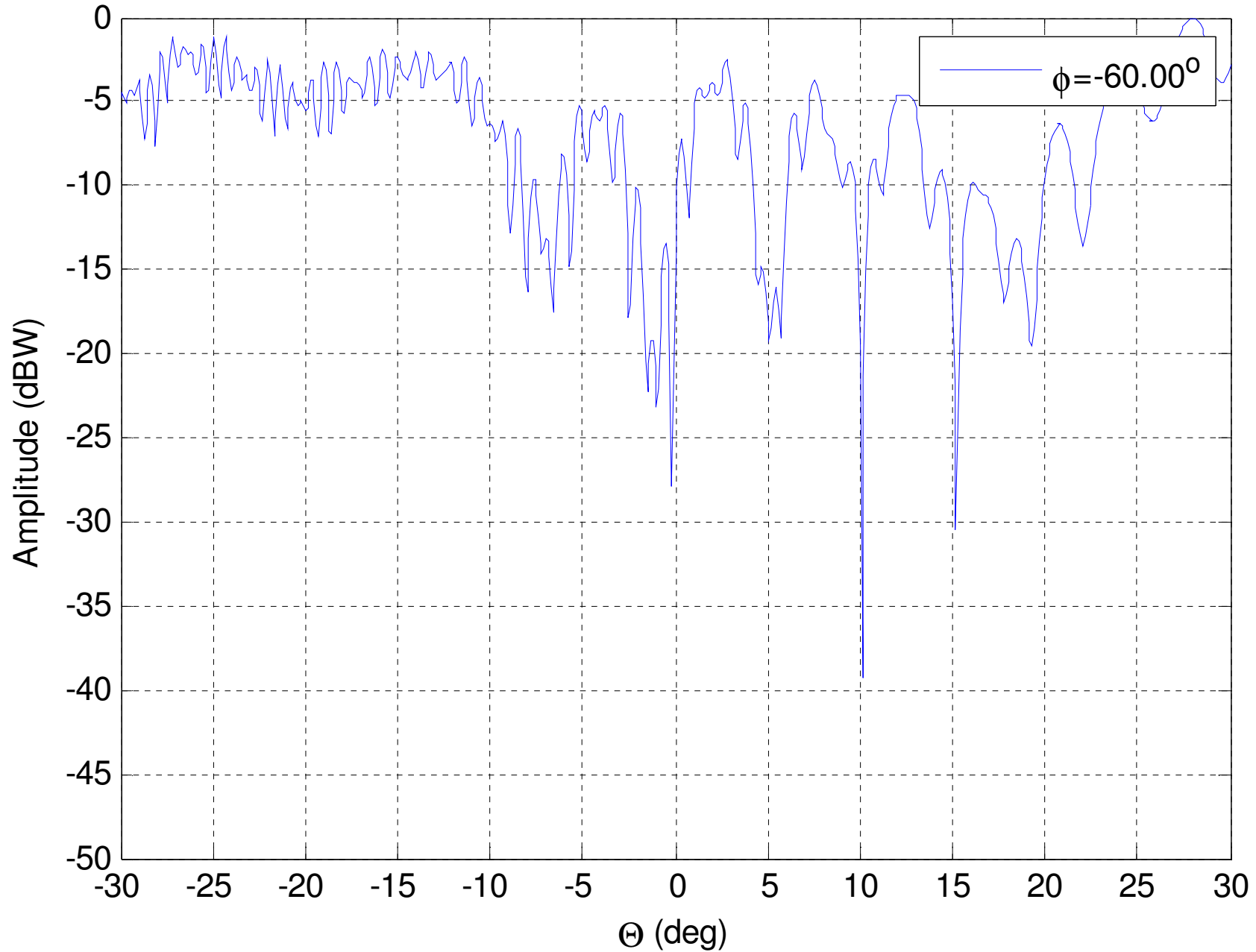
Input file: tx-17.3-rhcp-60.cut, Peak: -2.39 dBW, Date: 16-Dec-2011



LHCP at 17.3 GHz

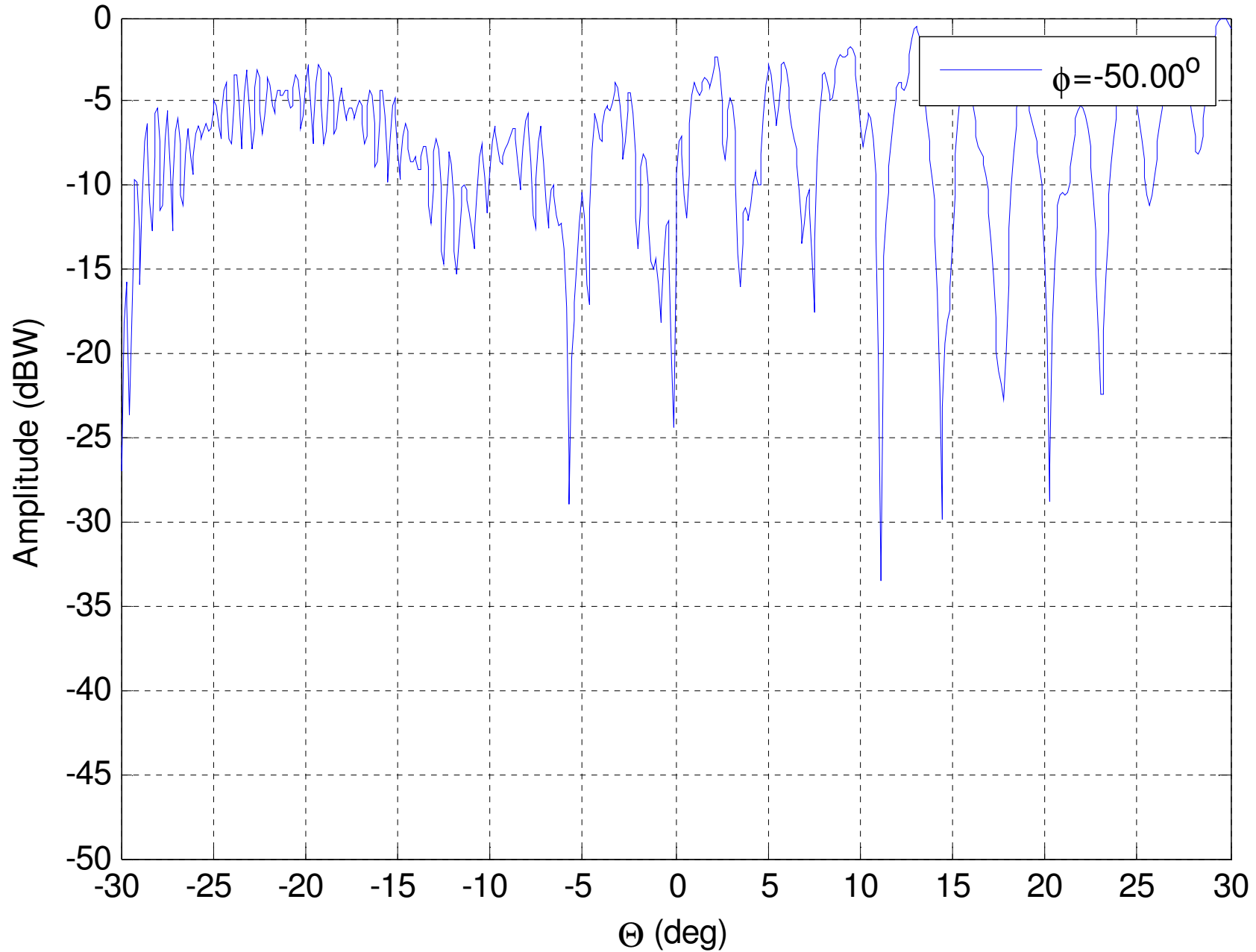
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp--60.cut, Peak: -3.84 dBW, Date: 16-Dec-2011



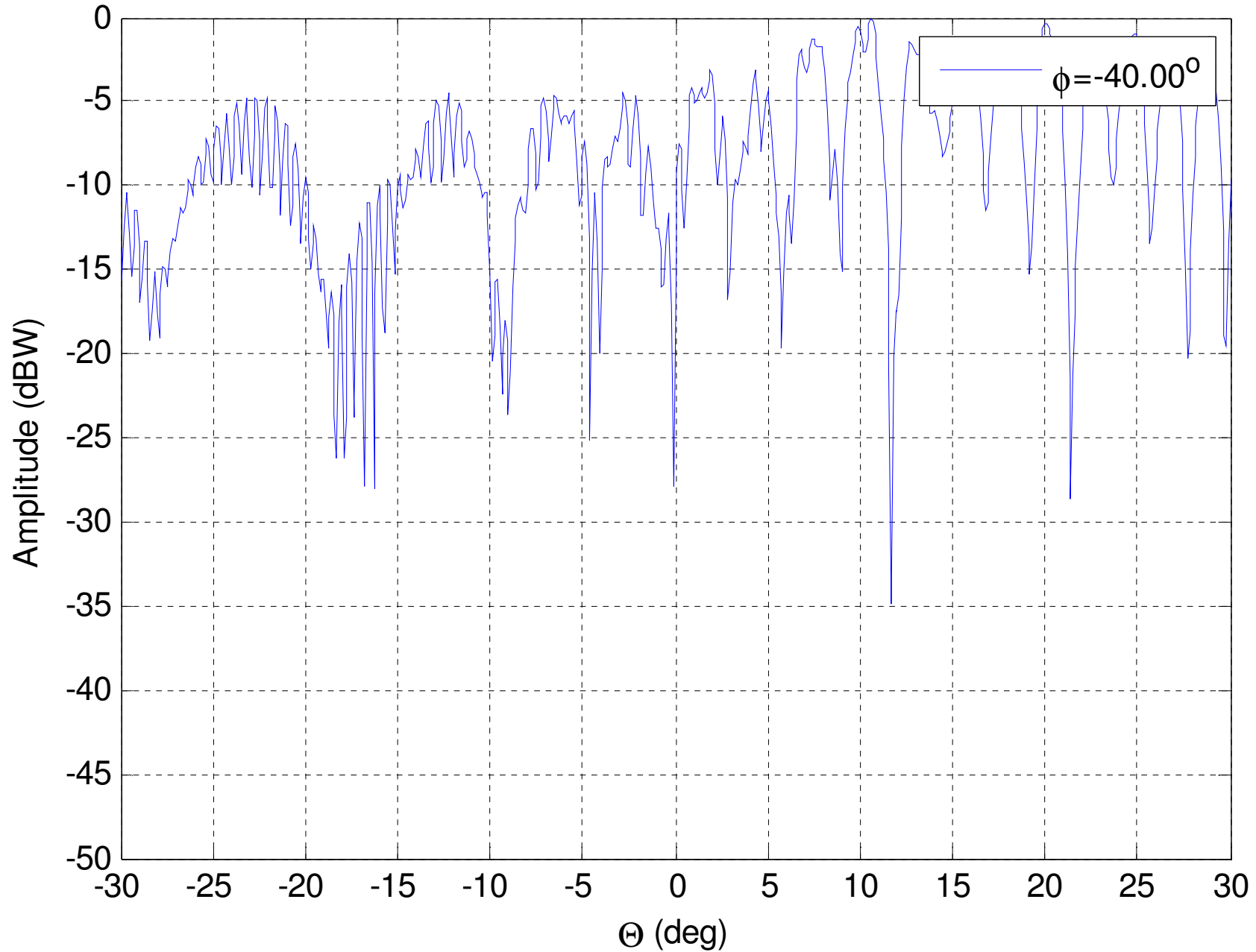
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp--50.cut, Peak: -4.12 dBW, Date: 16-Dec-2011



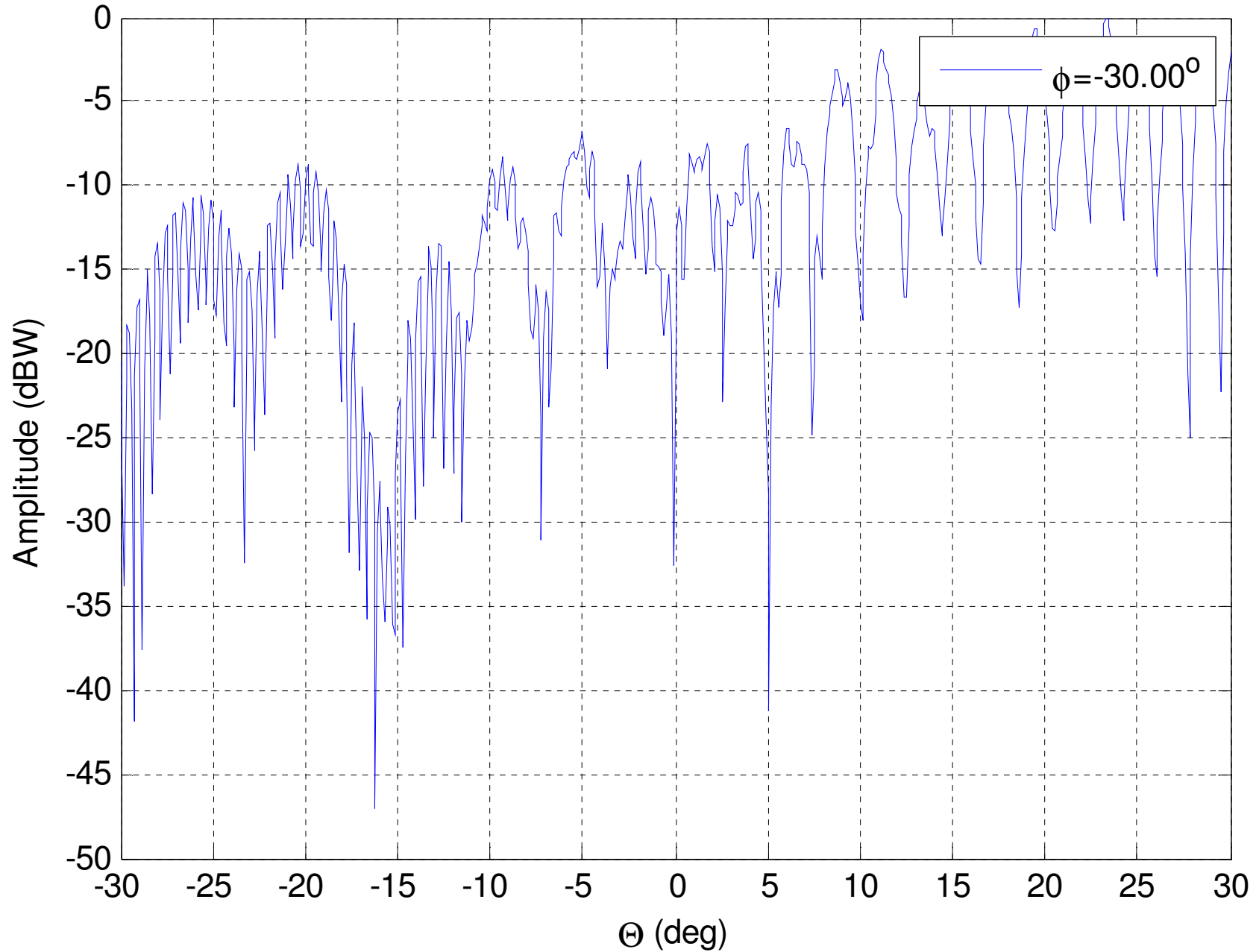
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp--40.cut, Peak: -3.73 dBW, Date: 16-Dec-2011



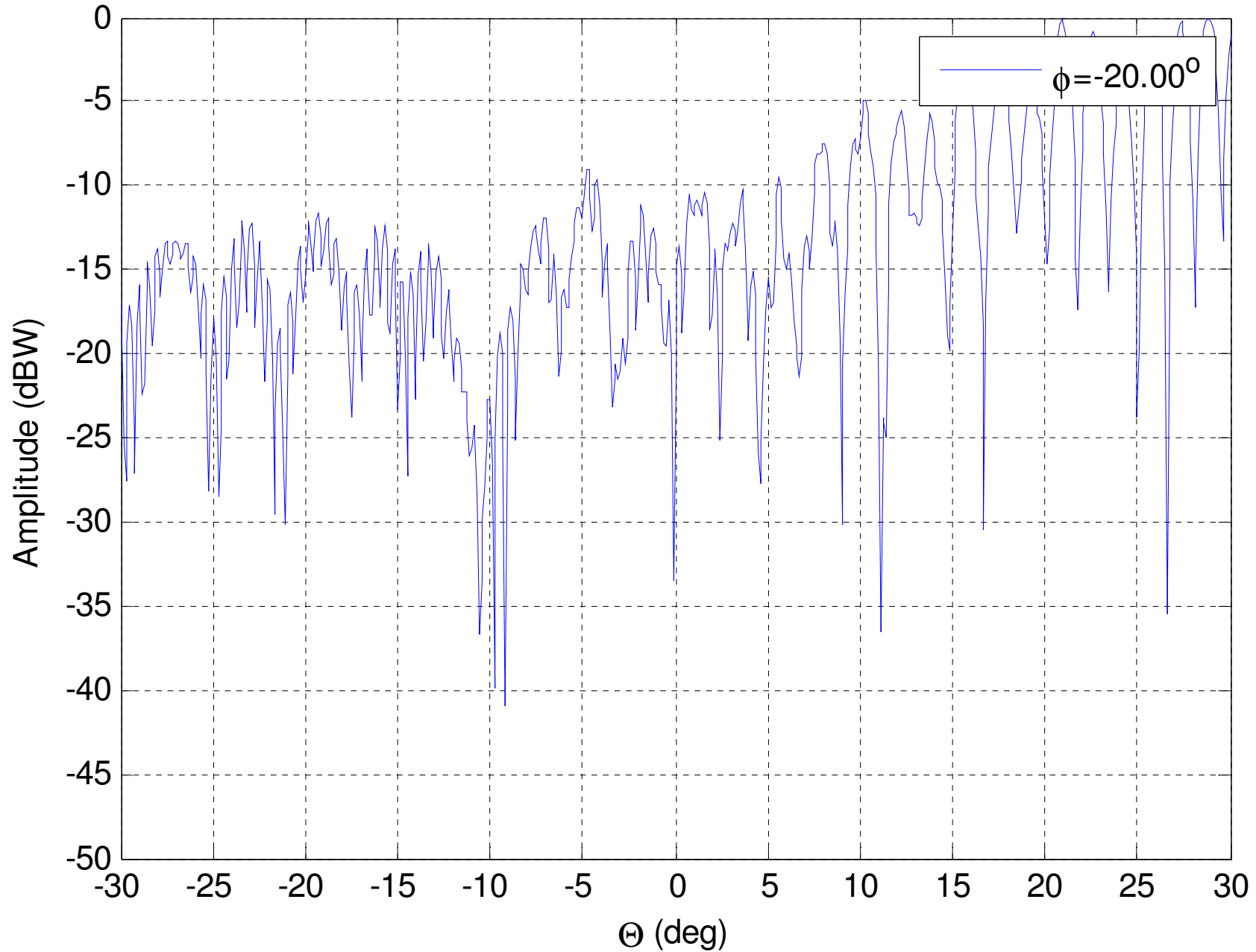
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp--30.cut, Peak: 0.15 dBW, Date: 16-Dec-2011



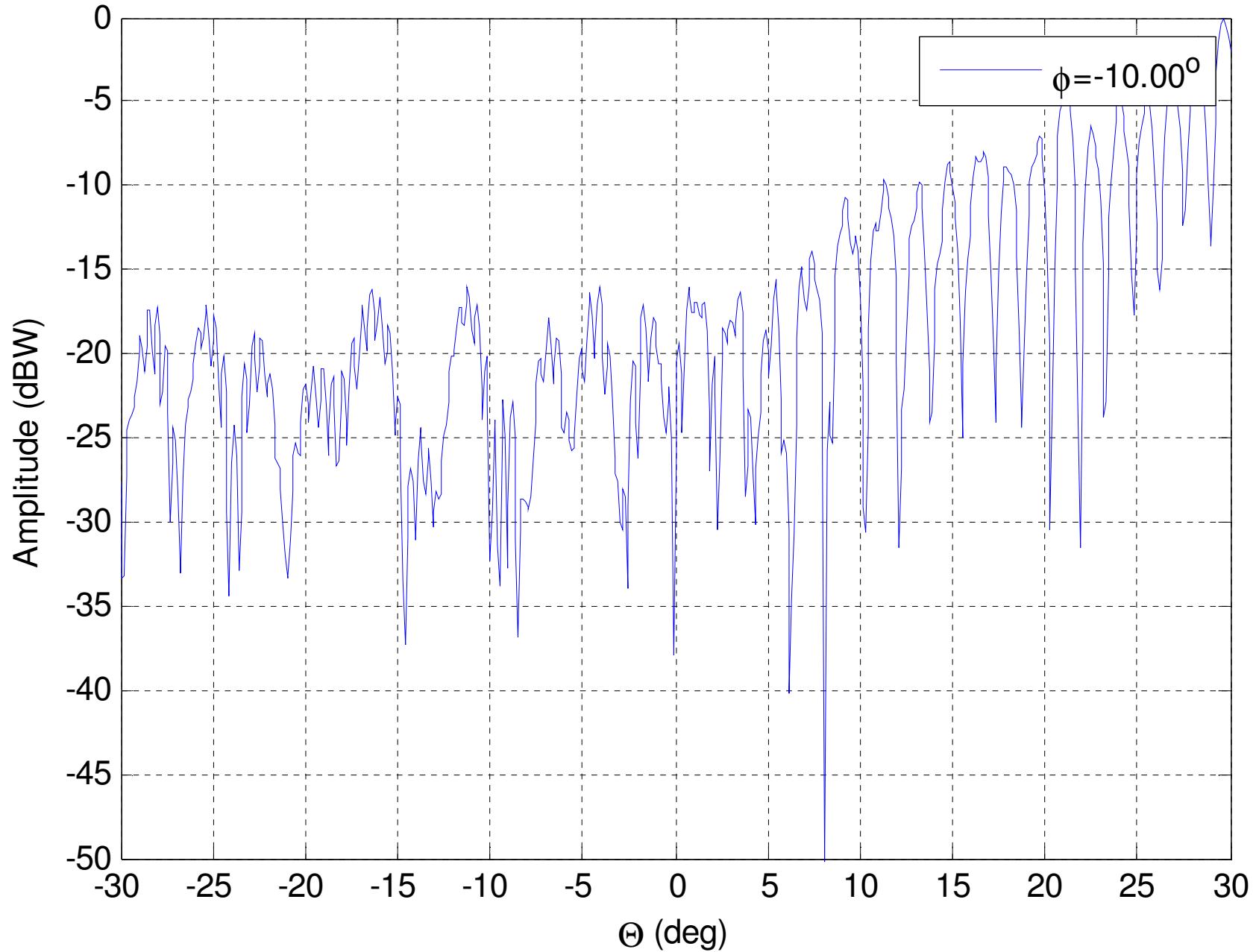
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp--20.cut, Peak: 2.38 dBW, Date: 16-Dec-2011



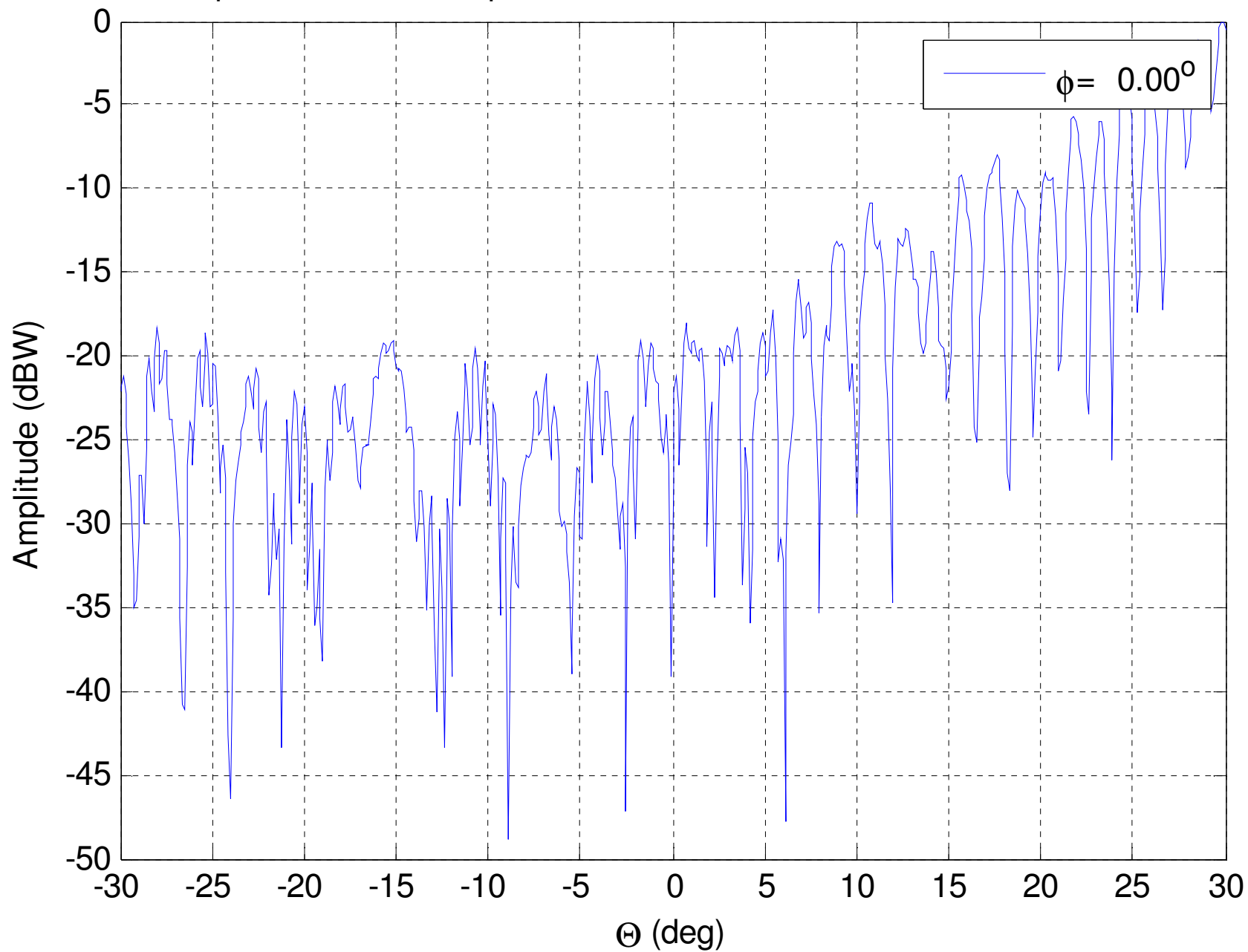
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp--10.cut, Peak: 8.02 dBW, Date: 16-Dec-2011



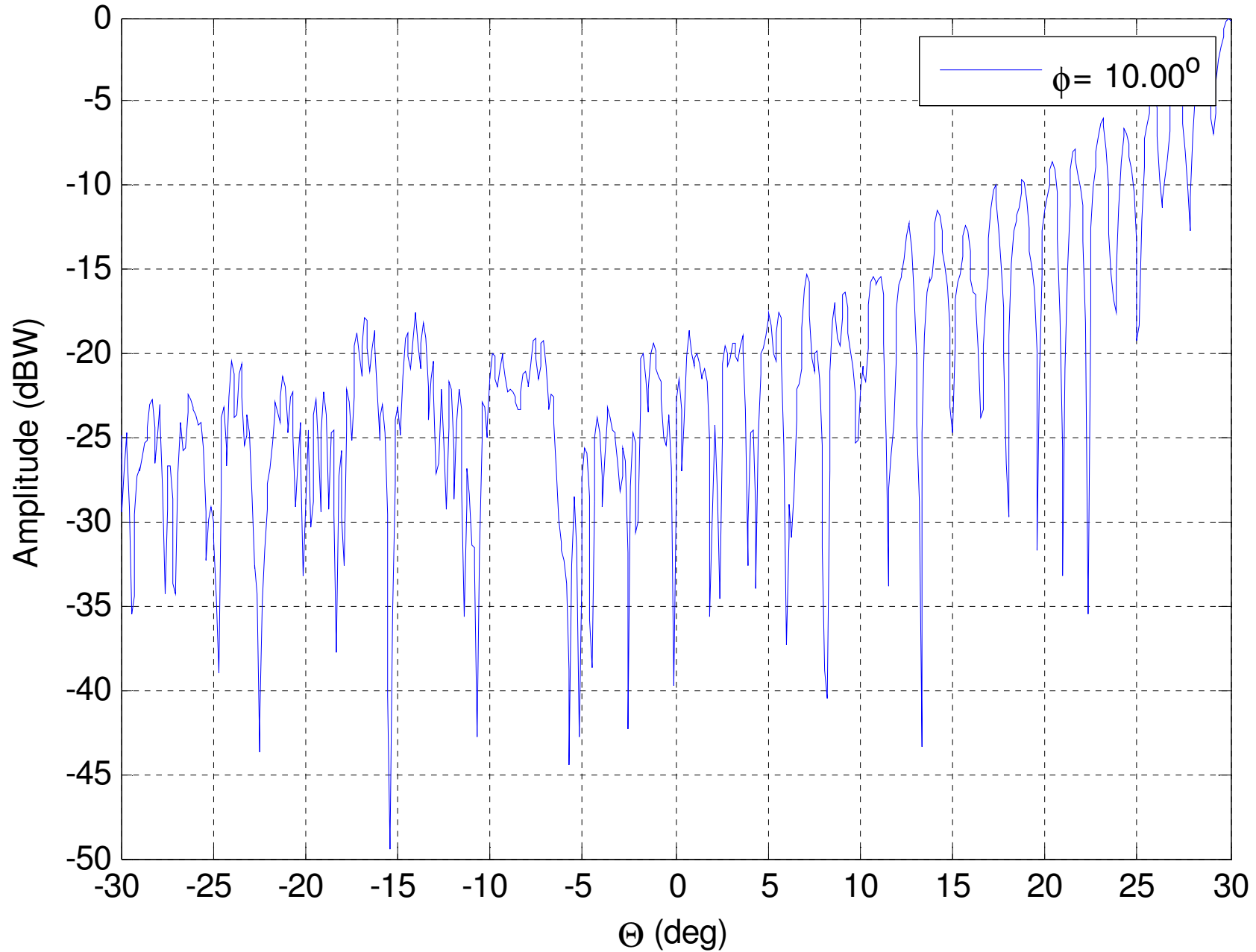
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp-0.cut, Peak: 9.81 dBW, Date: 16-Dec-2011



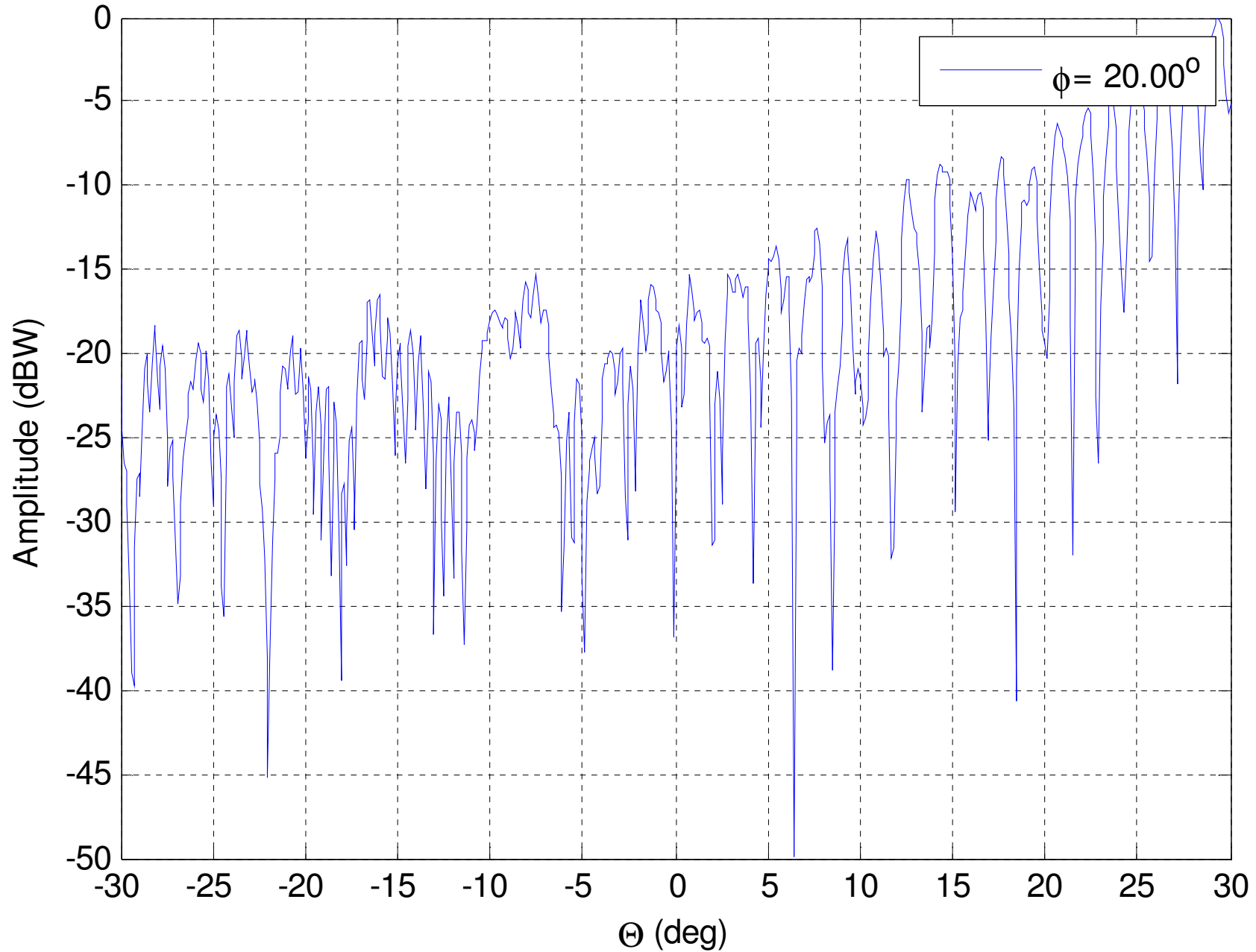
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp-10.cut, Peak: 10.25 dBW, Date: 16-Dec-2011



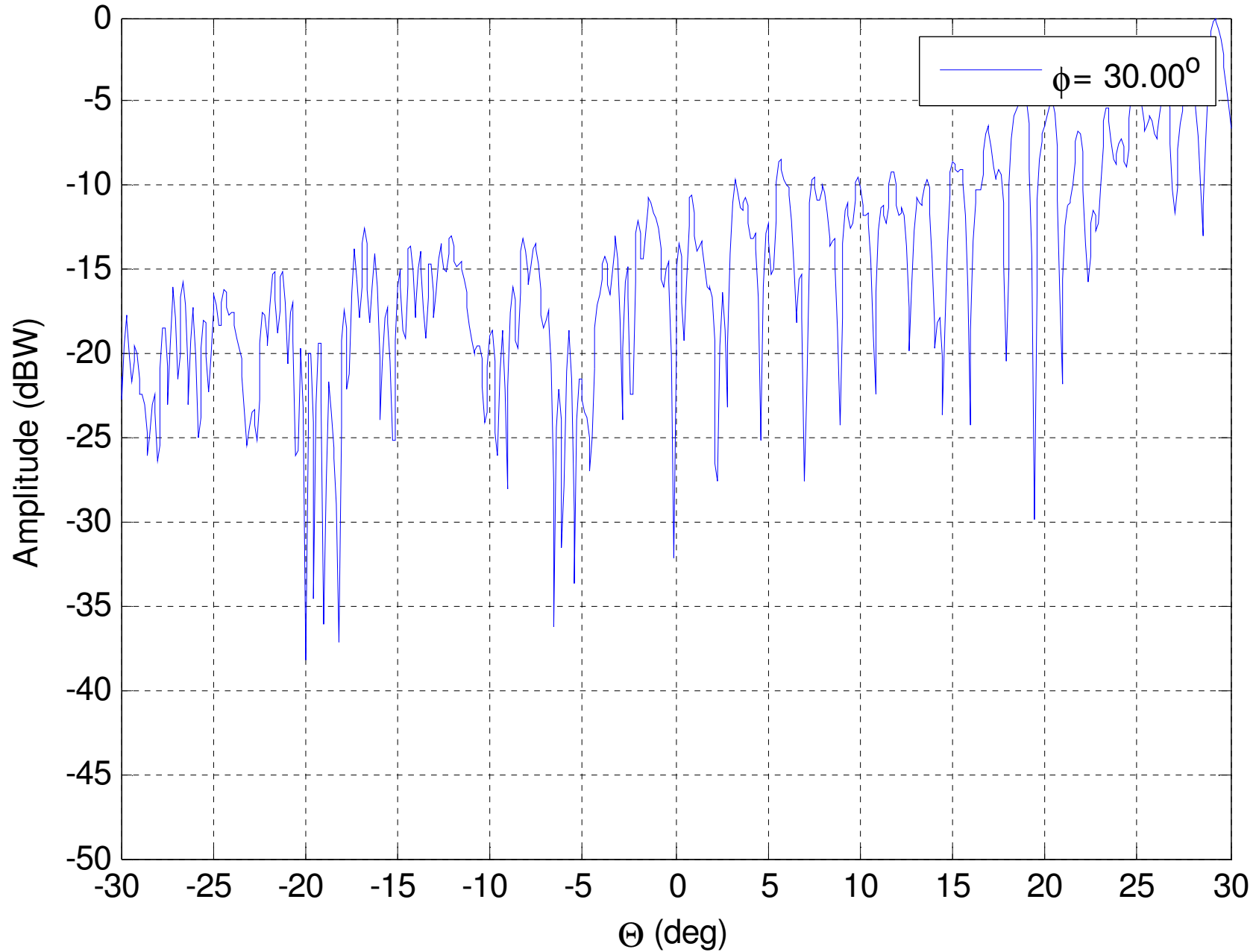
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp-20.cut, Peak: 7.00 dBW, Date: 16-Dec-2011



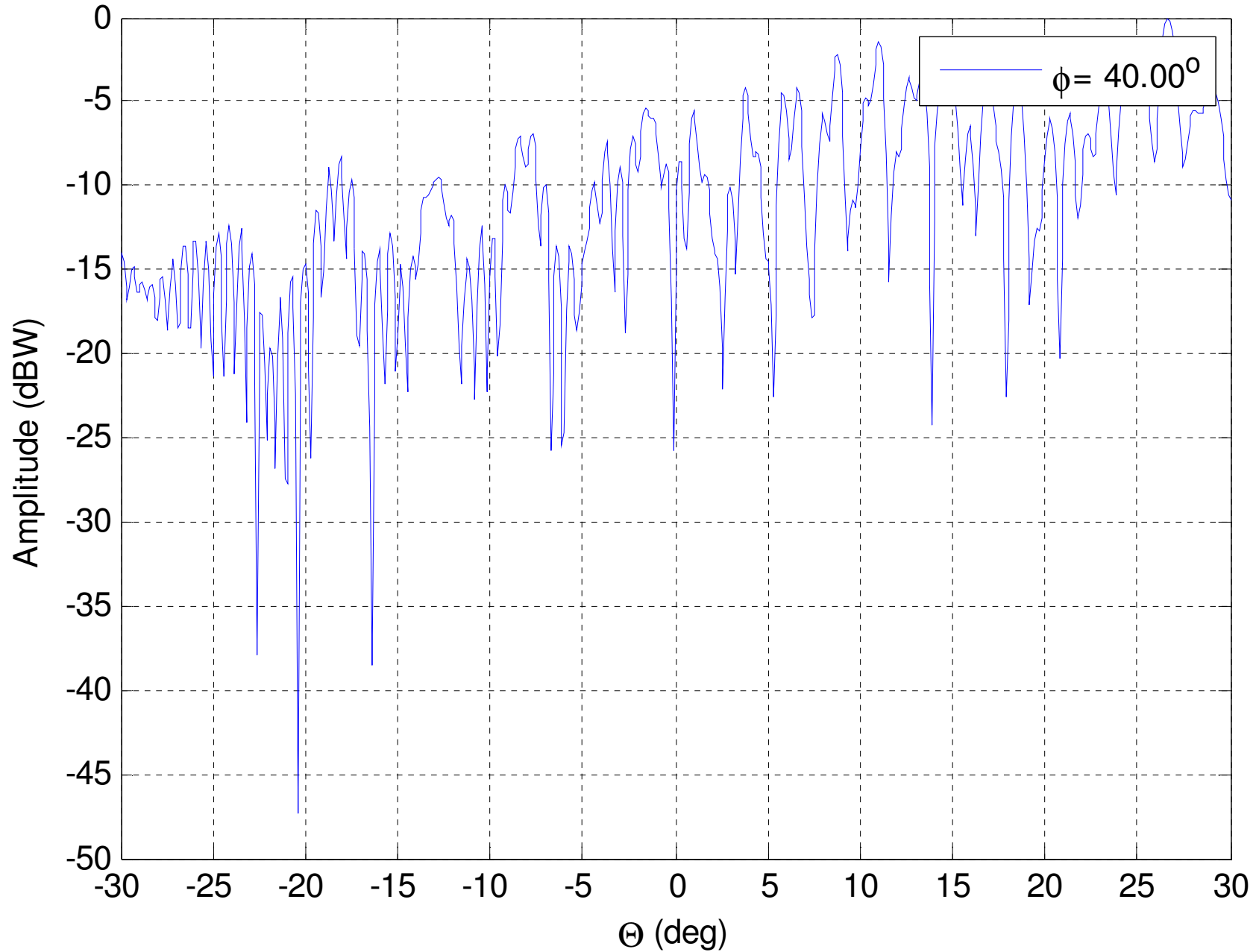
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp-30.cut, Peak: 2.13 dBW, Date: 16-Dec-2011



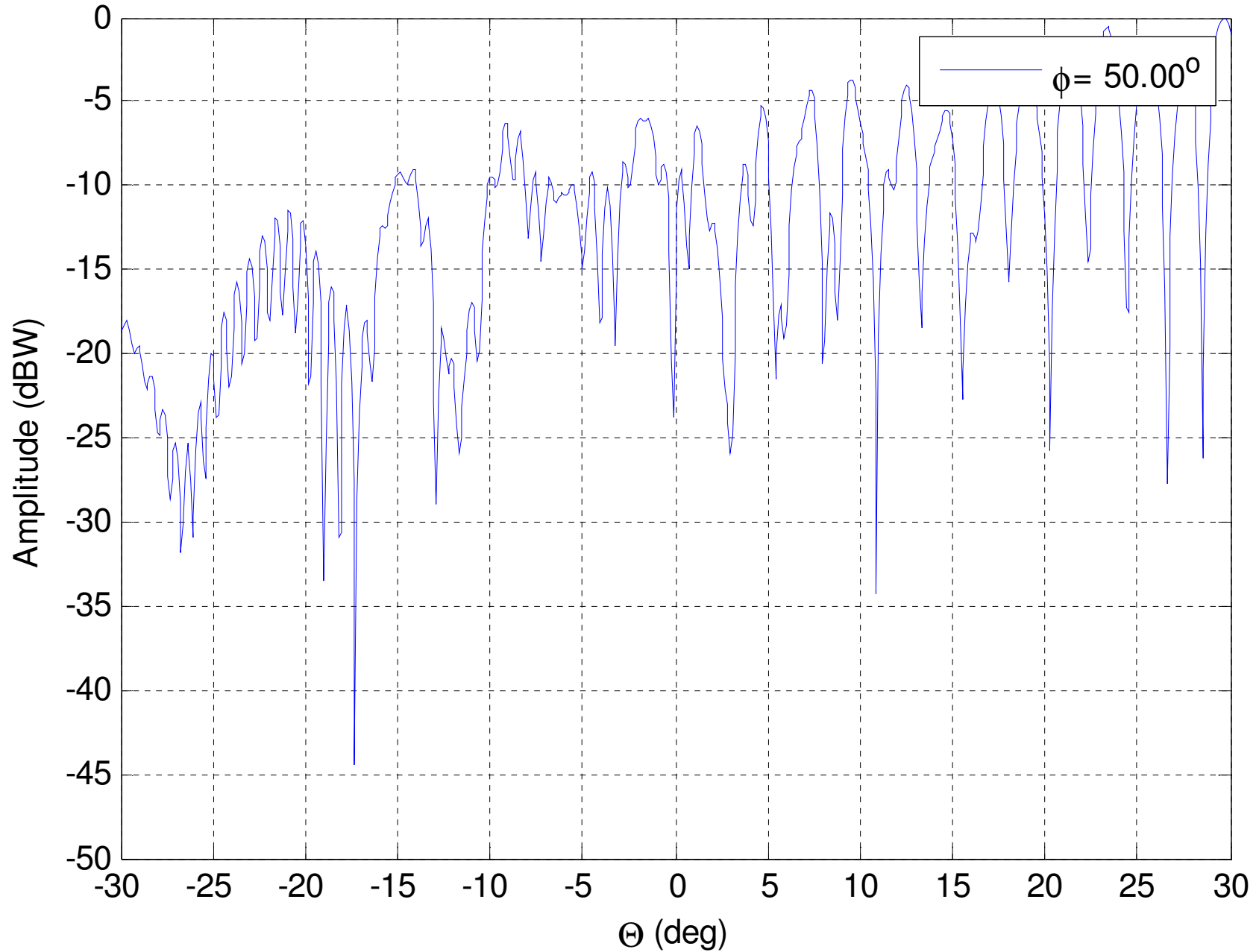
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp-40.cut, Peak: -3.05 dBW, Date: 16-Dec-2011



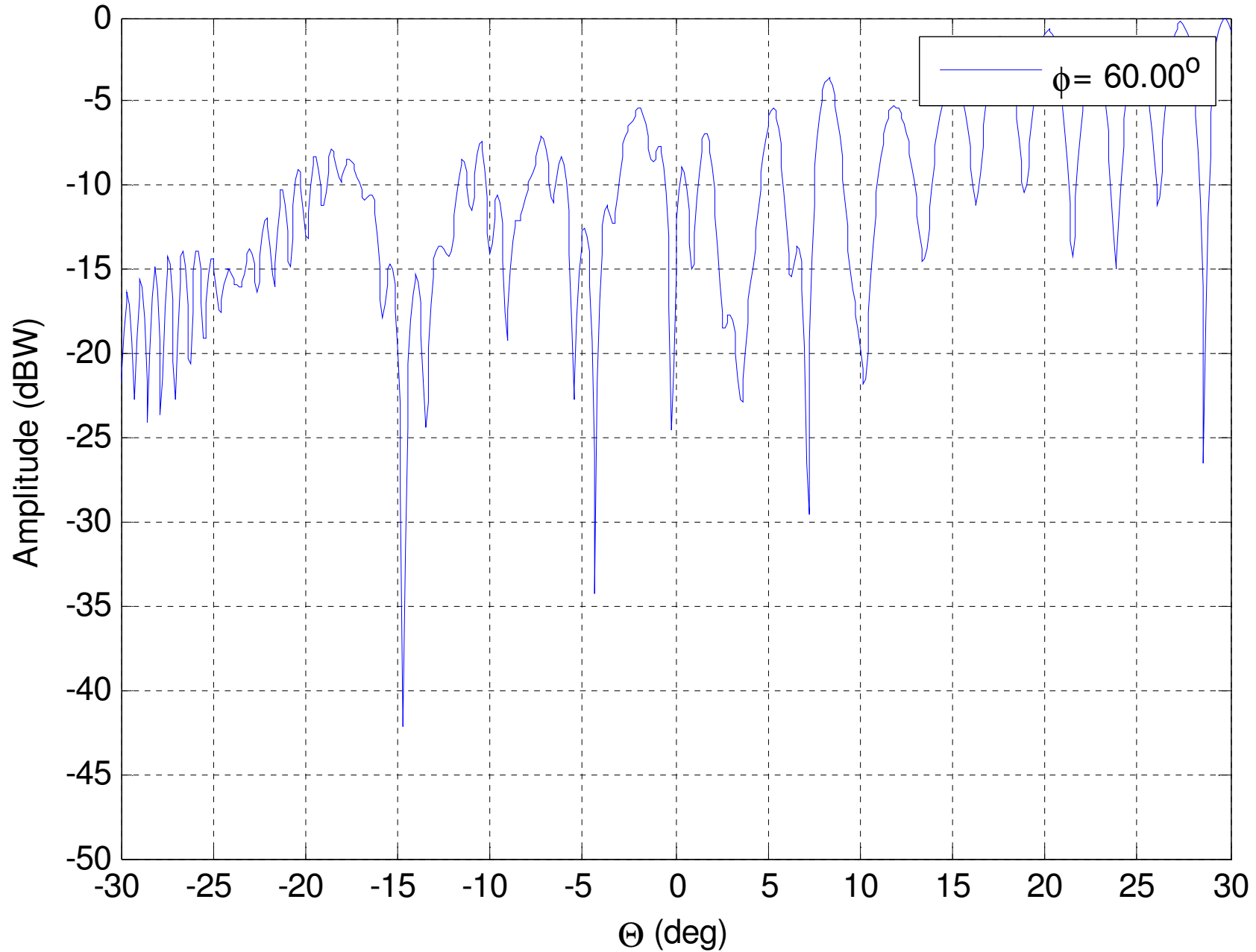
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp-50.cut, Peak: -2.40 dBW, Date: 16-Dec-2011



Normalized pattern cuts - farfield

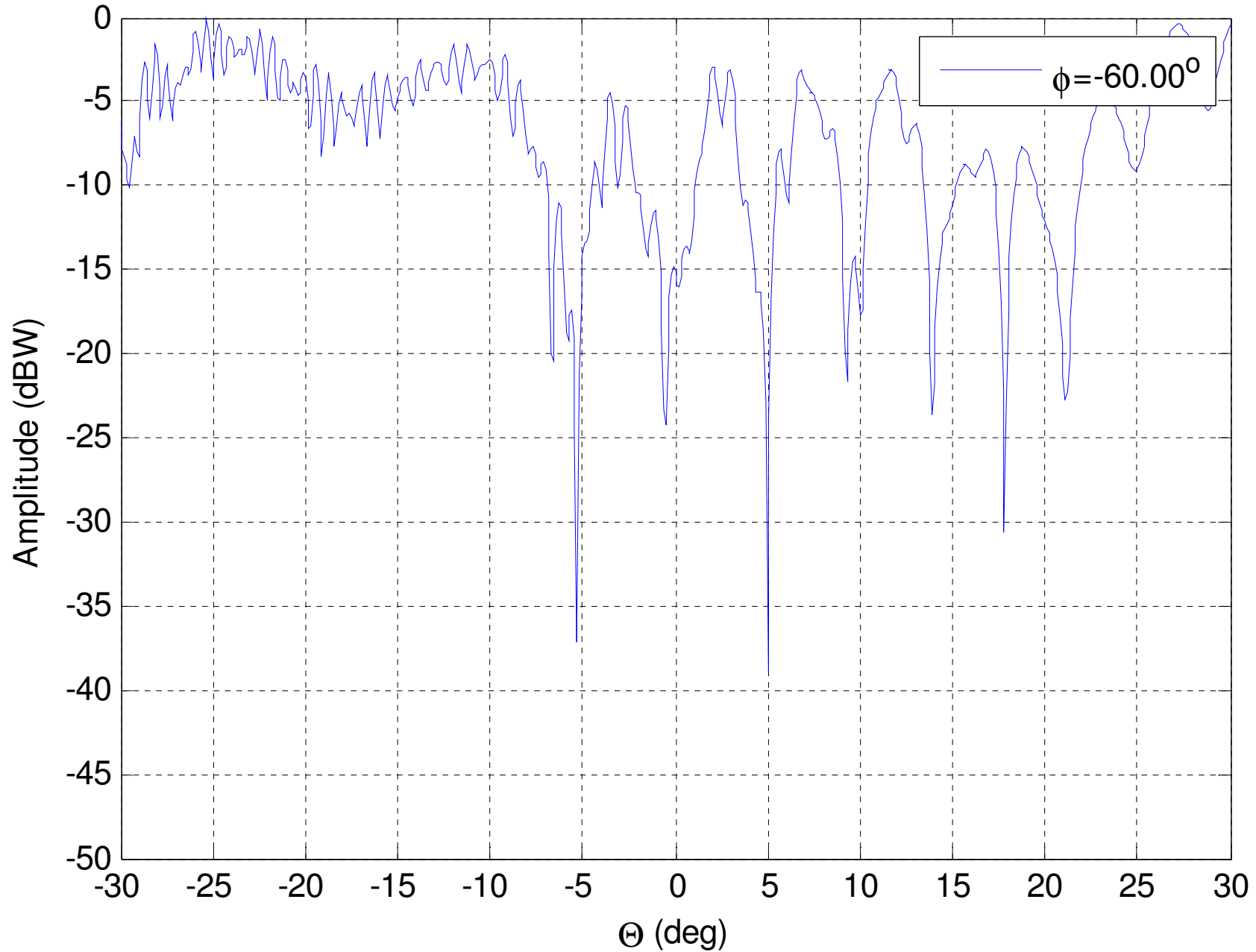
Input file: tx-17.3-lhcp-60.cut, Peak: -2.52 dBW, Date: 16-Dec-2011



RHCP at 17.5 GHz

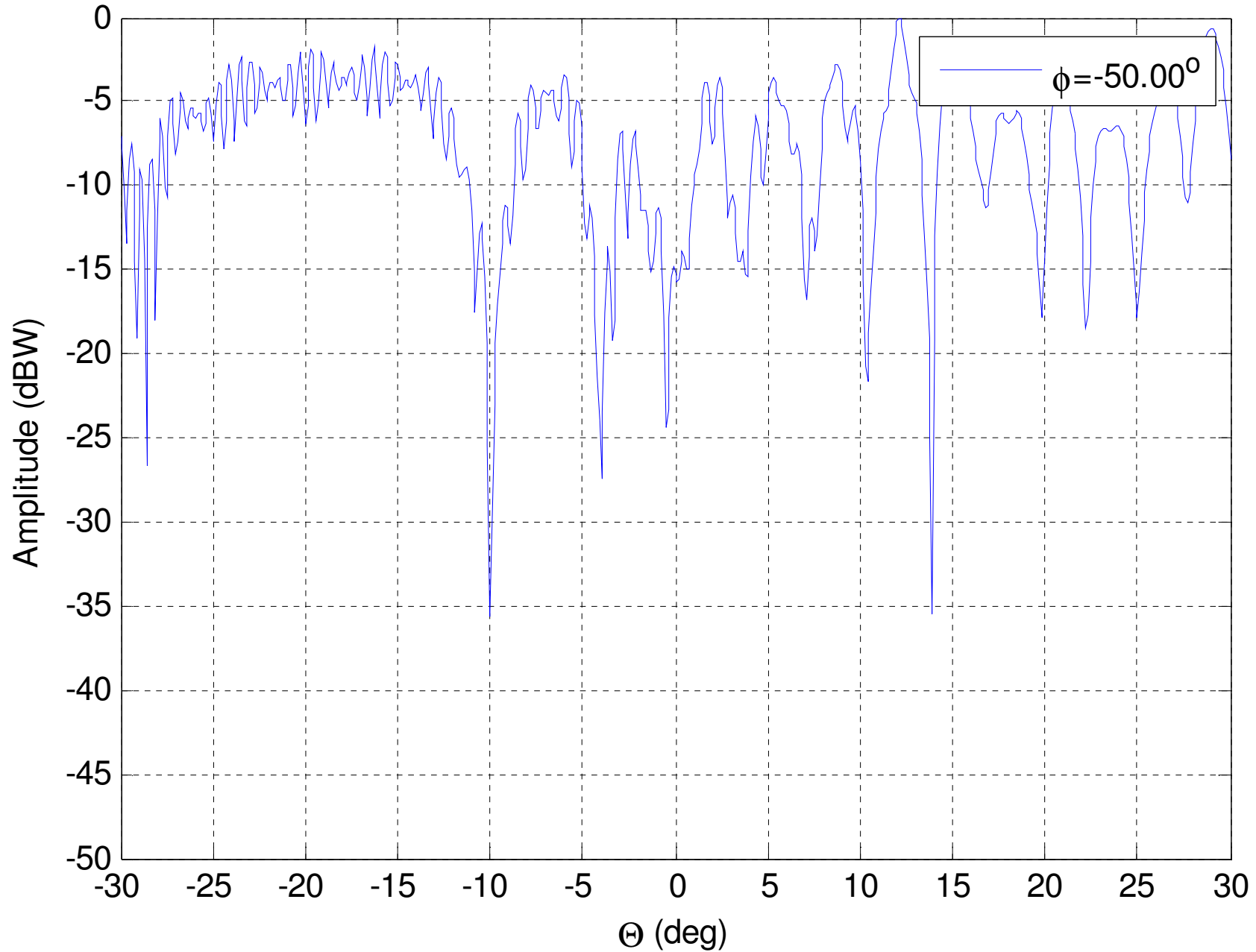
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--60.cut, Peak: -4.59 dBW, Date: 16-Dec-2011



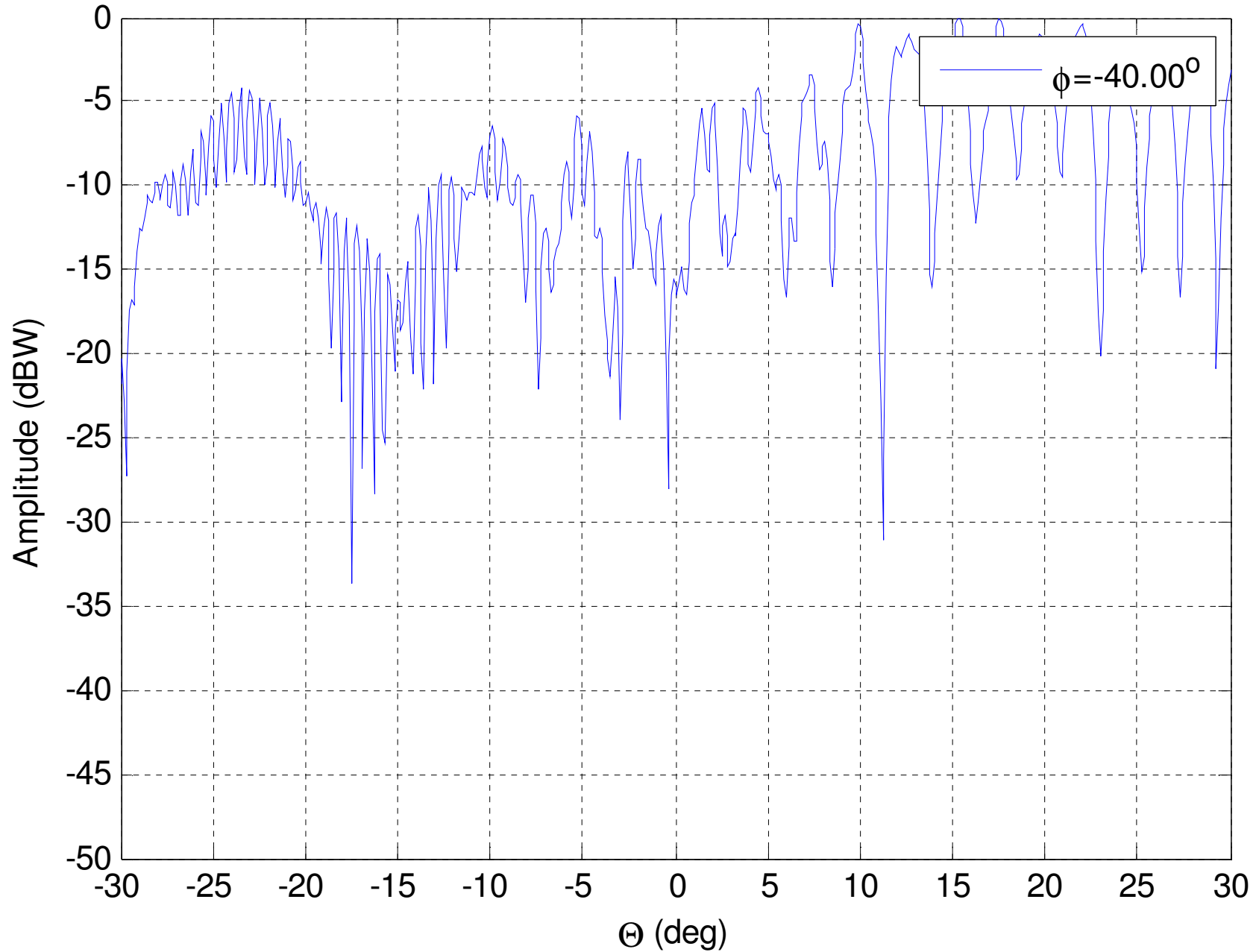
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--50.cut, Peak: -4.52 dBW, Date: 16-Dec-2011



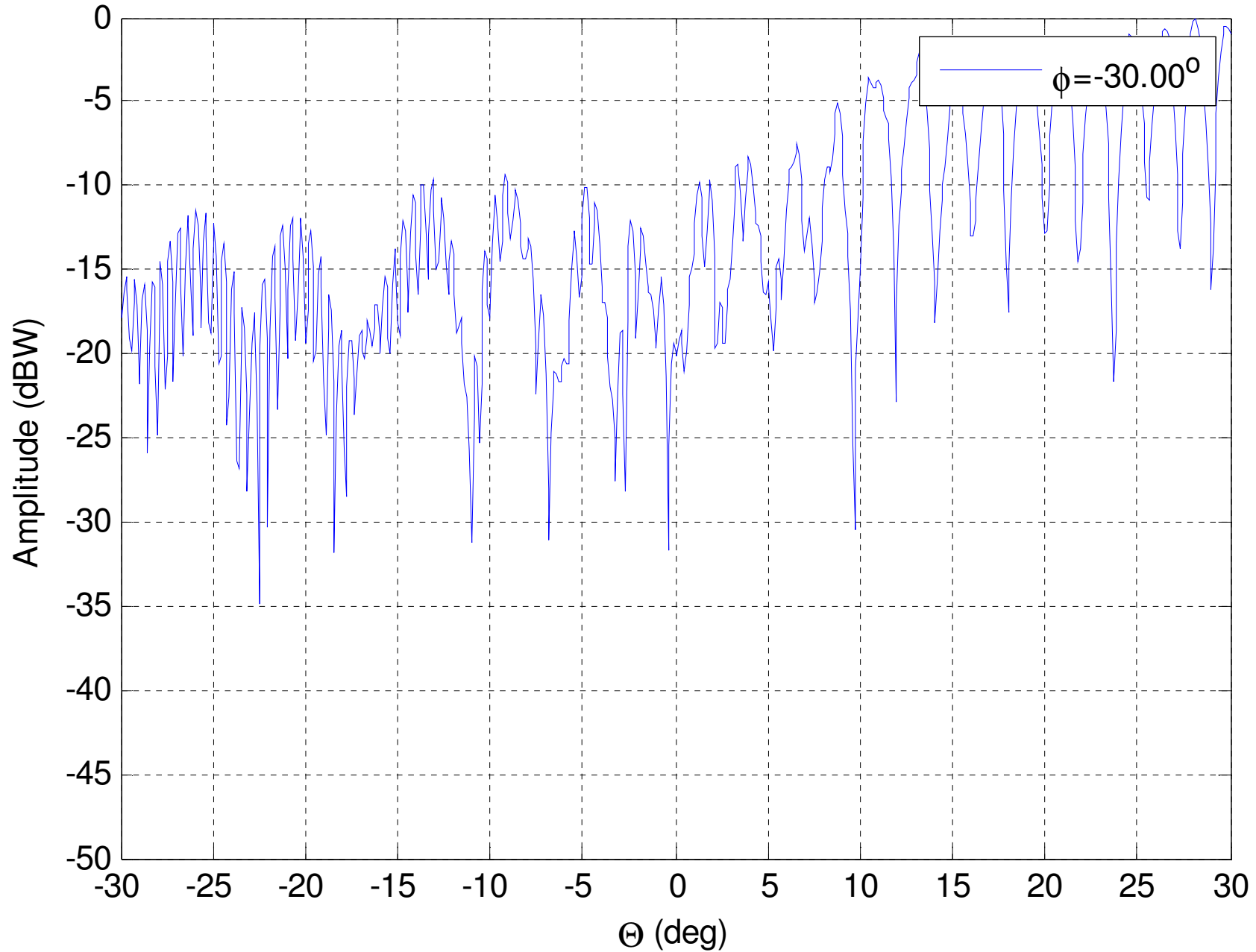
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--40.cut, Peak: -3.75 dBW, Date: 16-Dec-2011



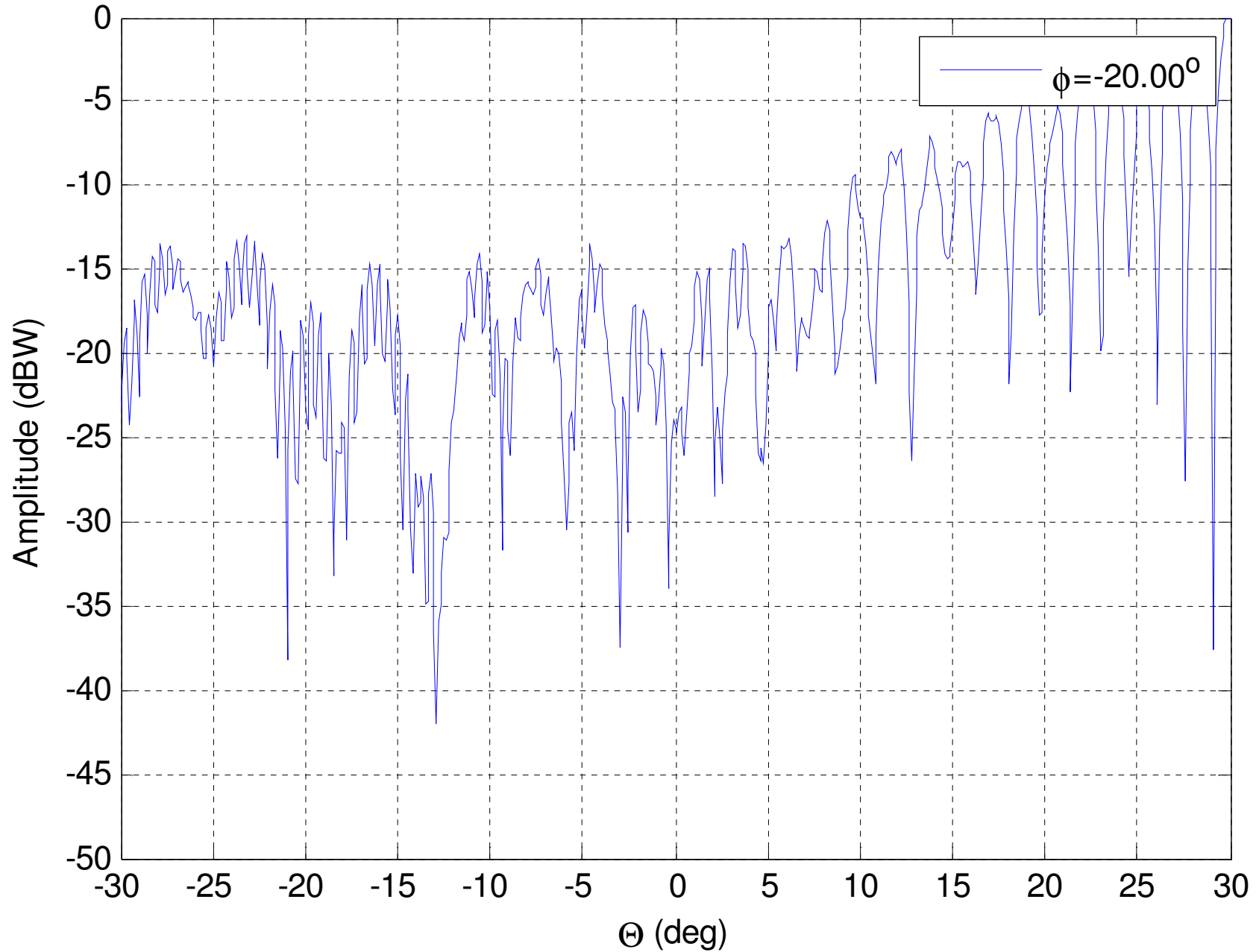
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--30.cut, Peak: 0.19 dBW, Date: 16-Dec-2011



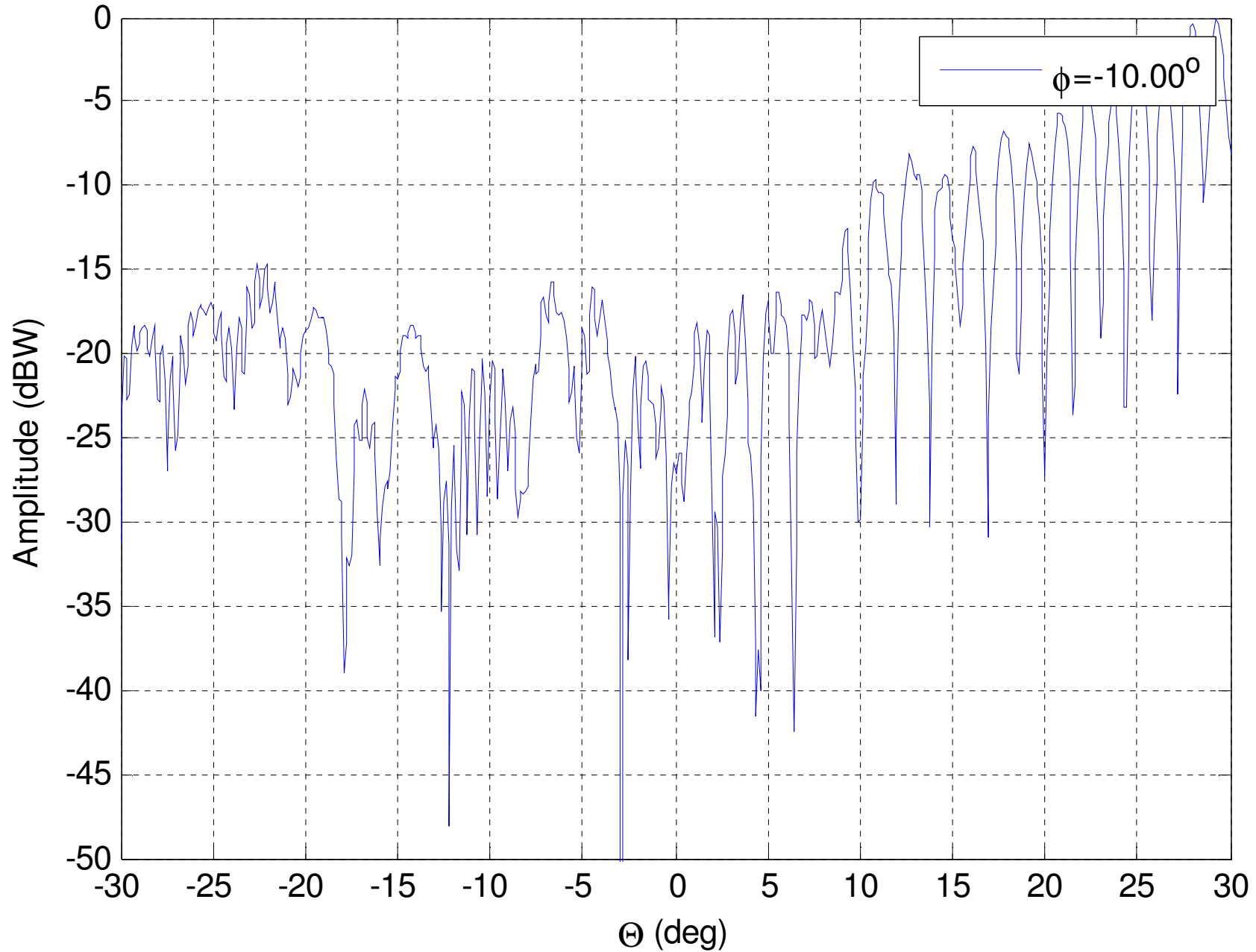
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--20.cut, Peak: 4.80 dBW, Date: 16-Dec-2011



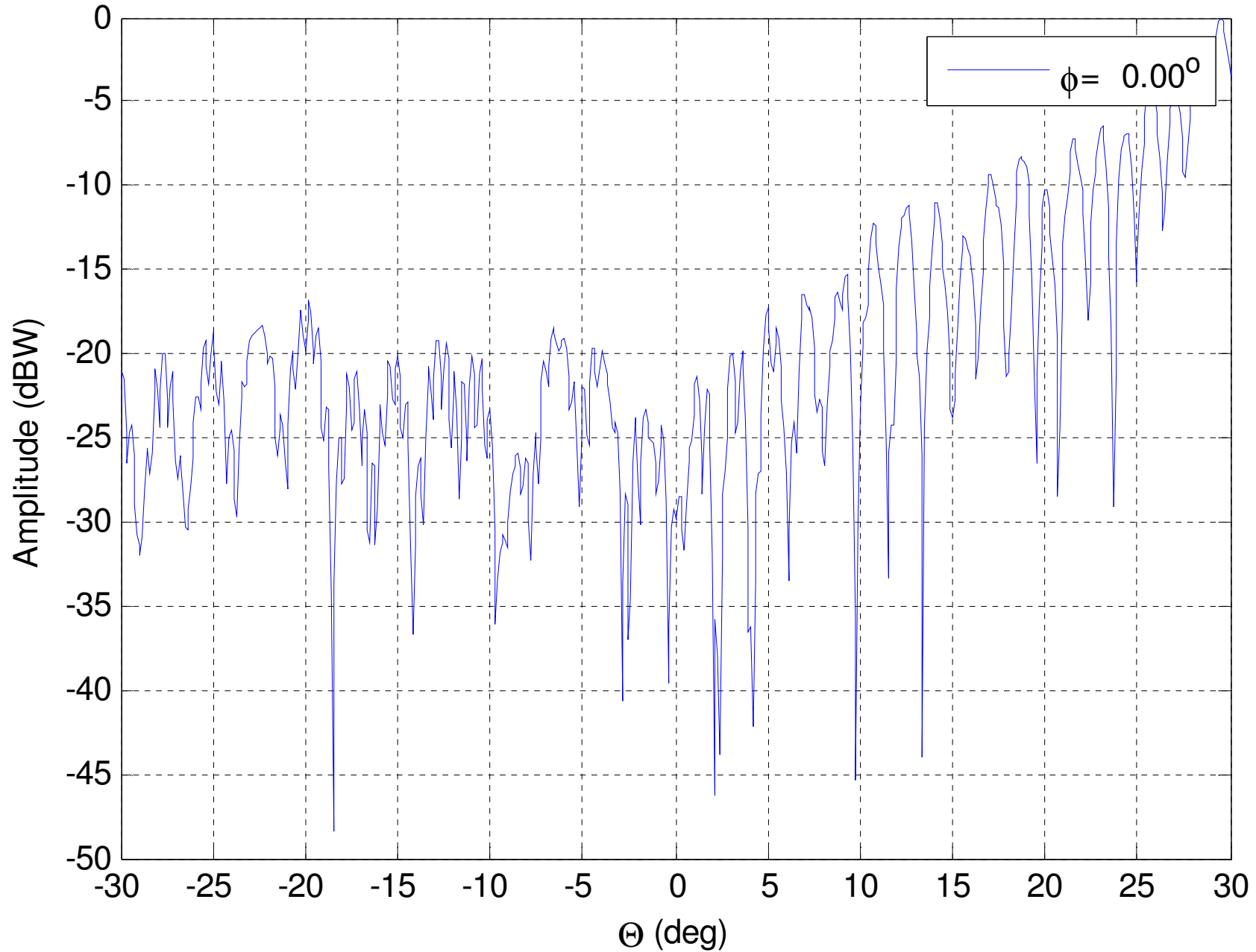
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--10.cut, Peak: 7.45 dBW, Date: 16-Dec-2011



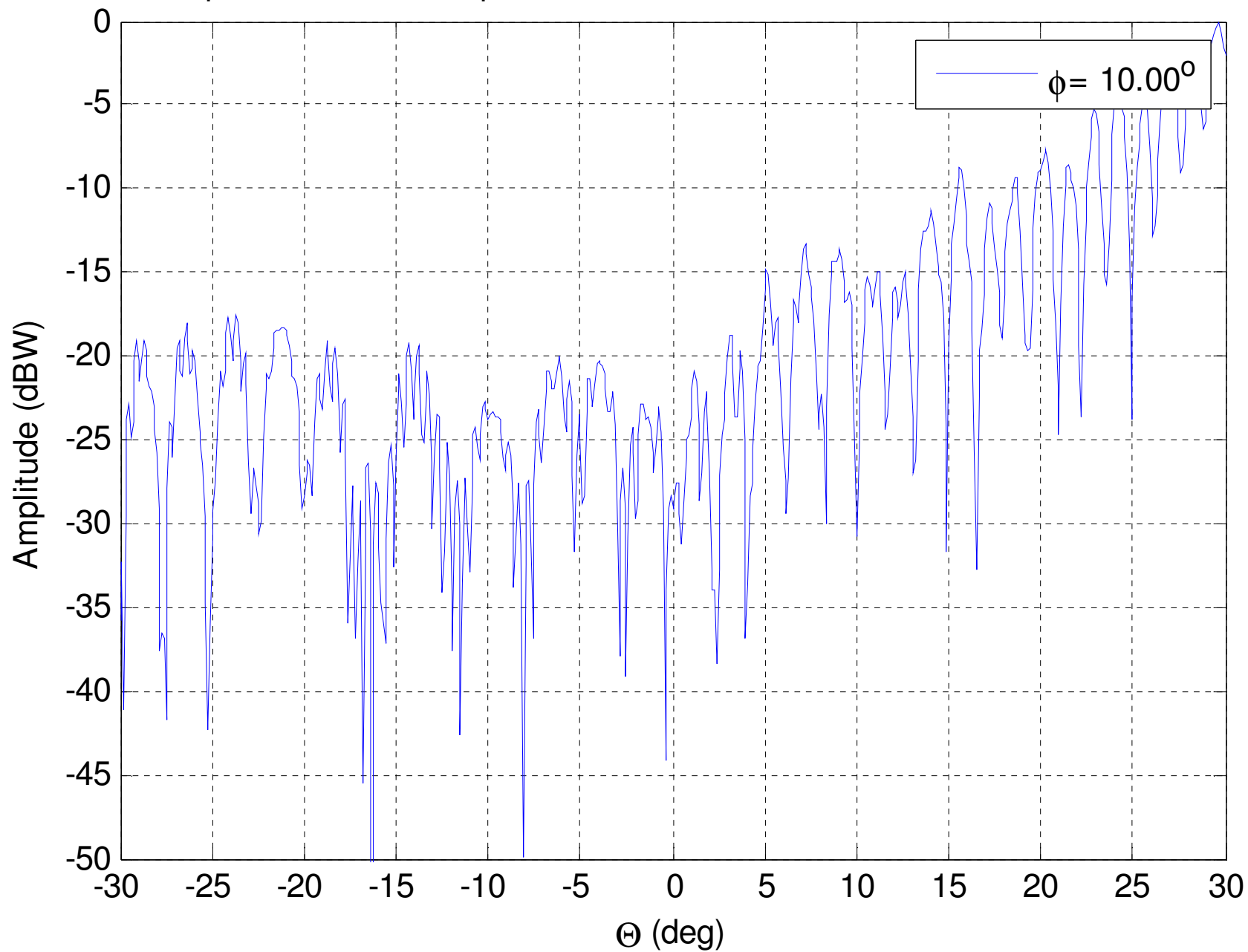
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-0.cut, Peak: 10.13 dBW, Date: 16-Dec-2011



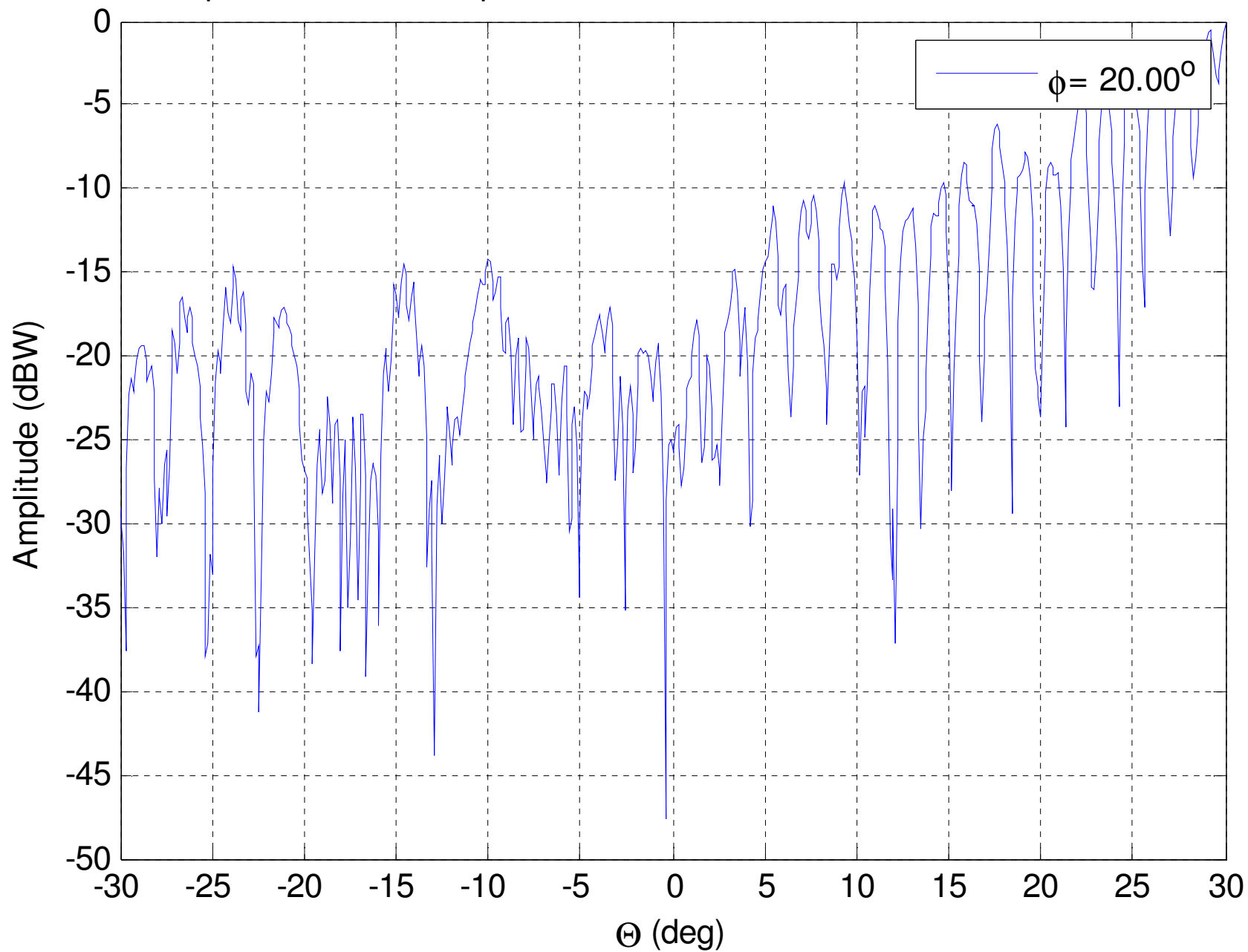
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-10.cut, Peak: 9.35 dBW, Date: 16-Dec-2011



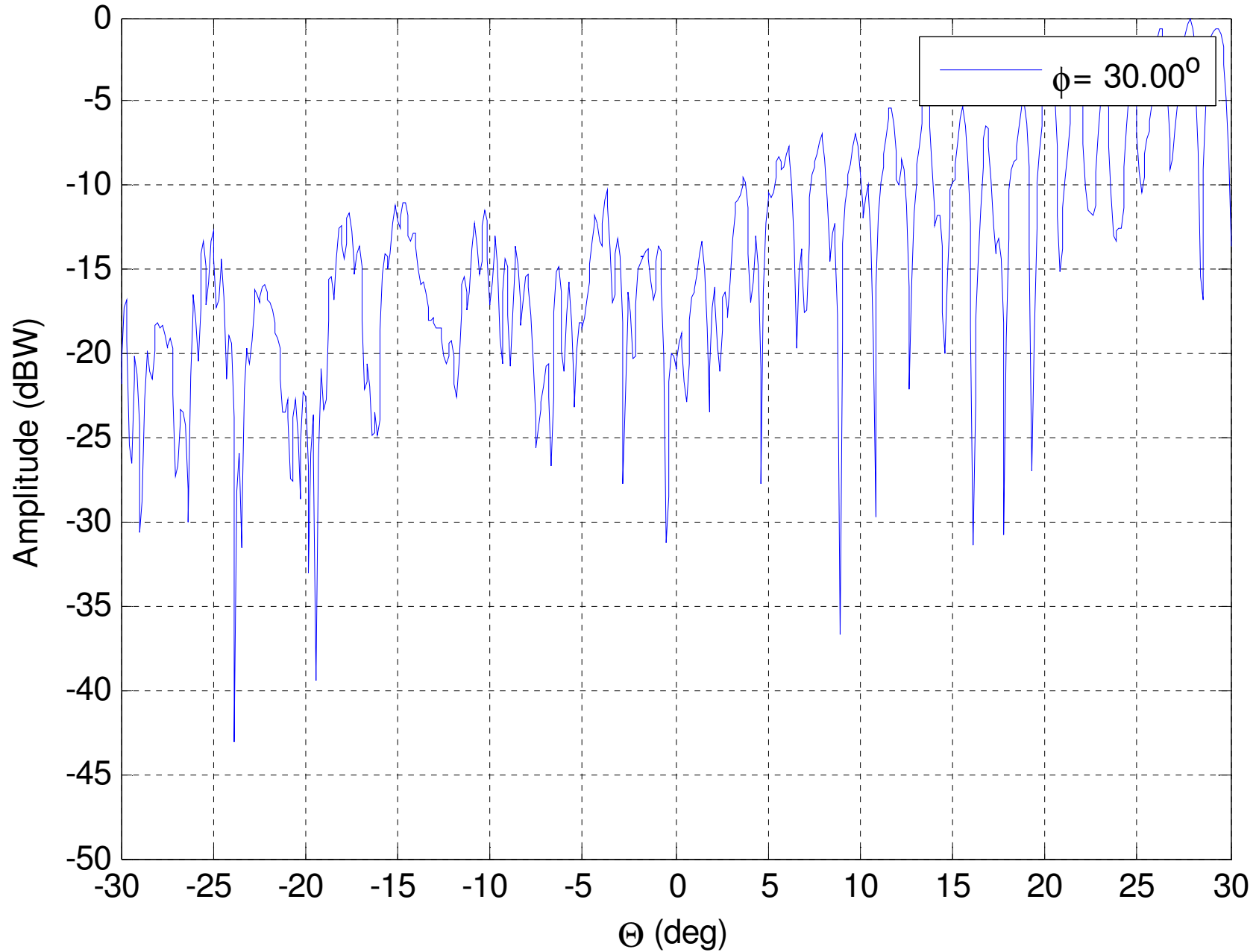
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-20.cut, Peak: 6.07 dBW, Date: 16-Dec-2011



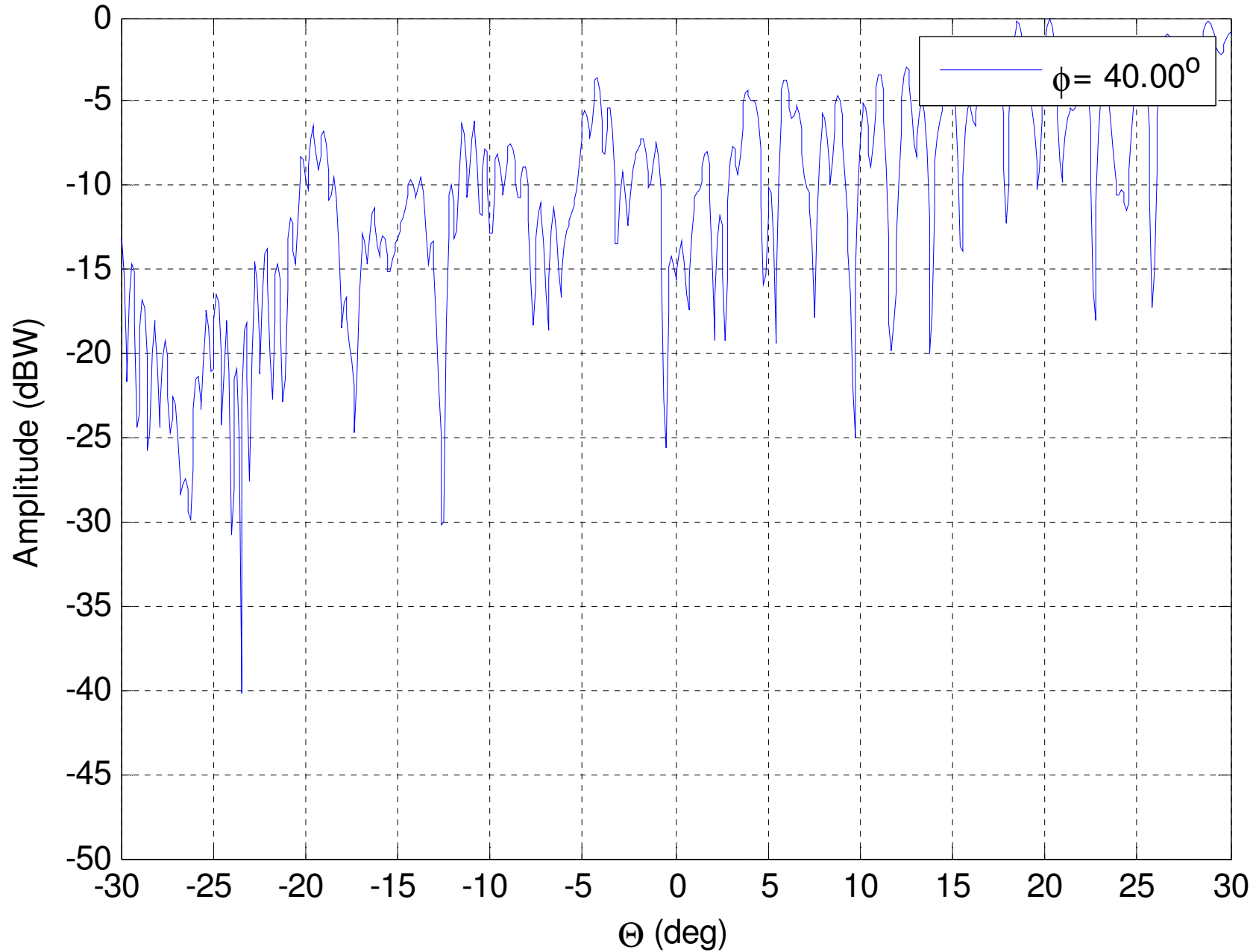
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-30.cut, Peak: 1.09 dBW, Date: 16-Dec-2011



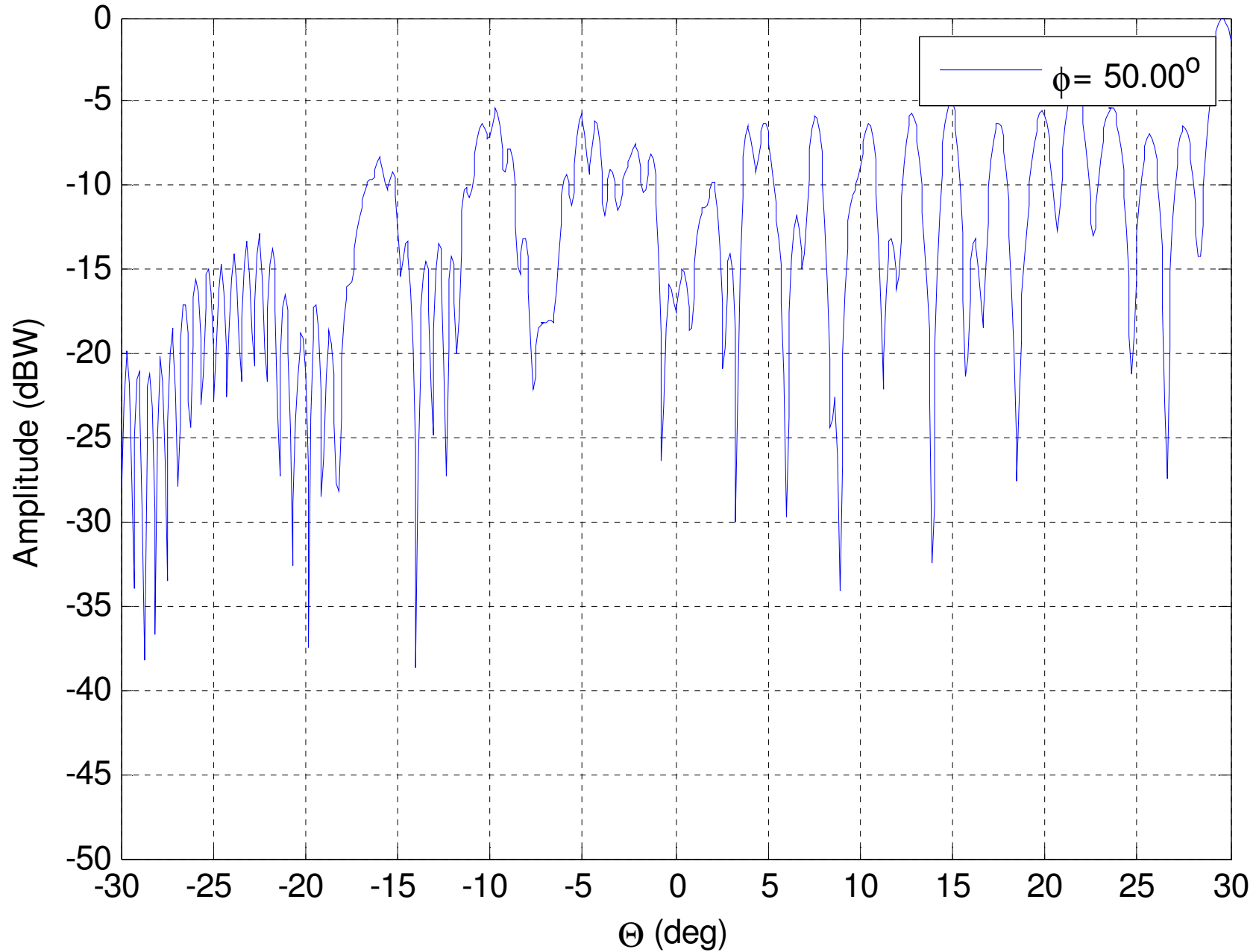
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-40.cut, Peak: -4.23 dBW, Date: 16-Dec-2011



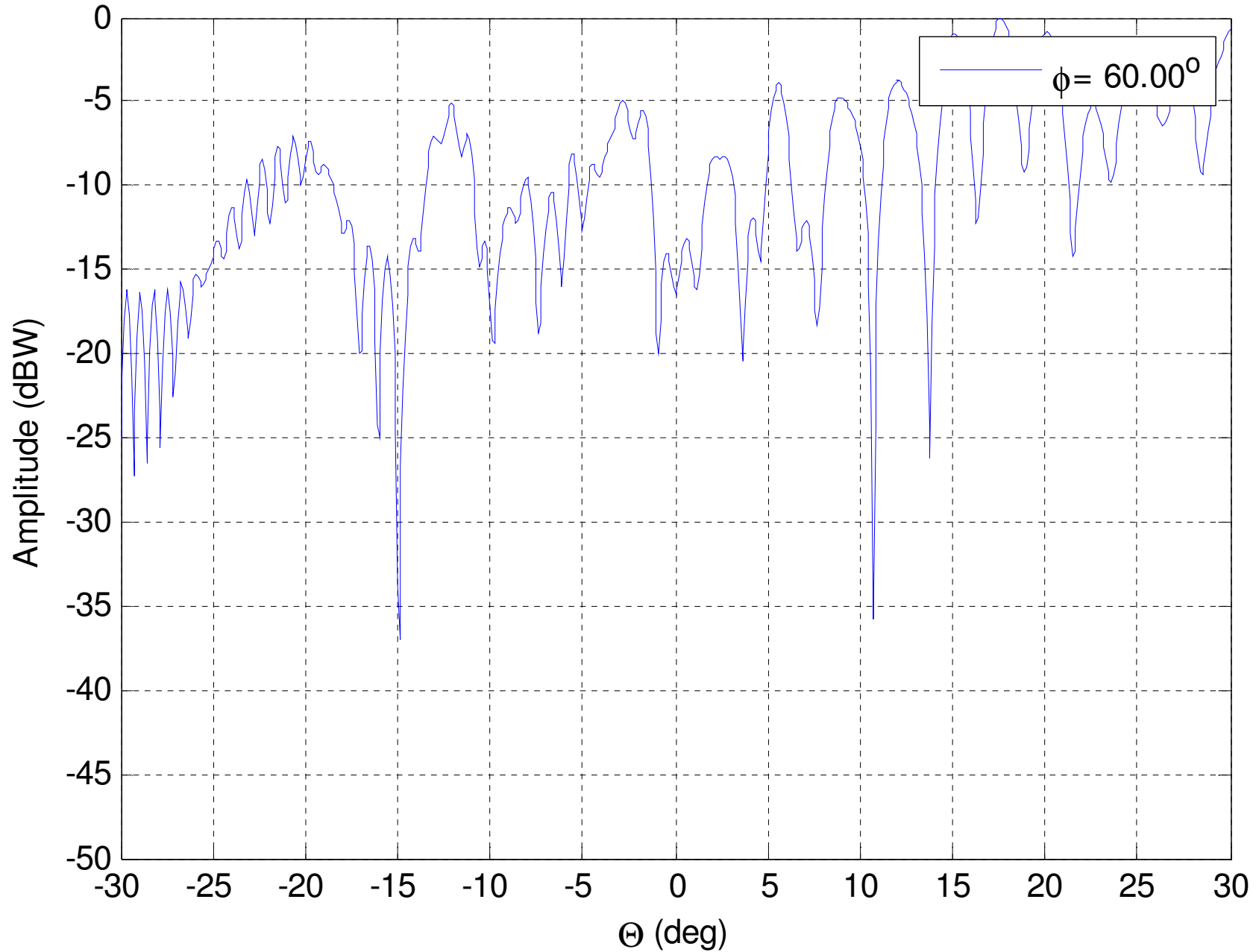
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-50.cut, Peak: -2.24 dBW, Date: 16-Dec-2011



Normalized pattern cuts - farfield

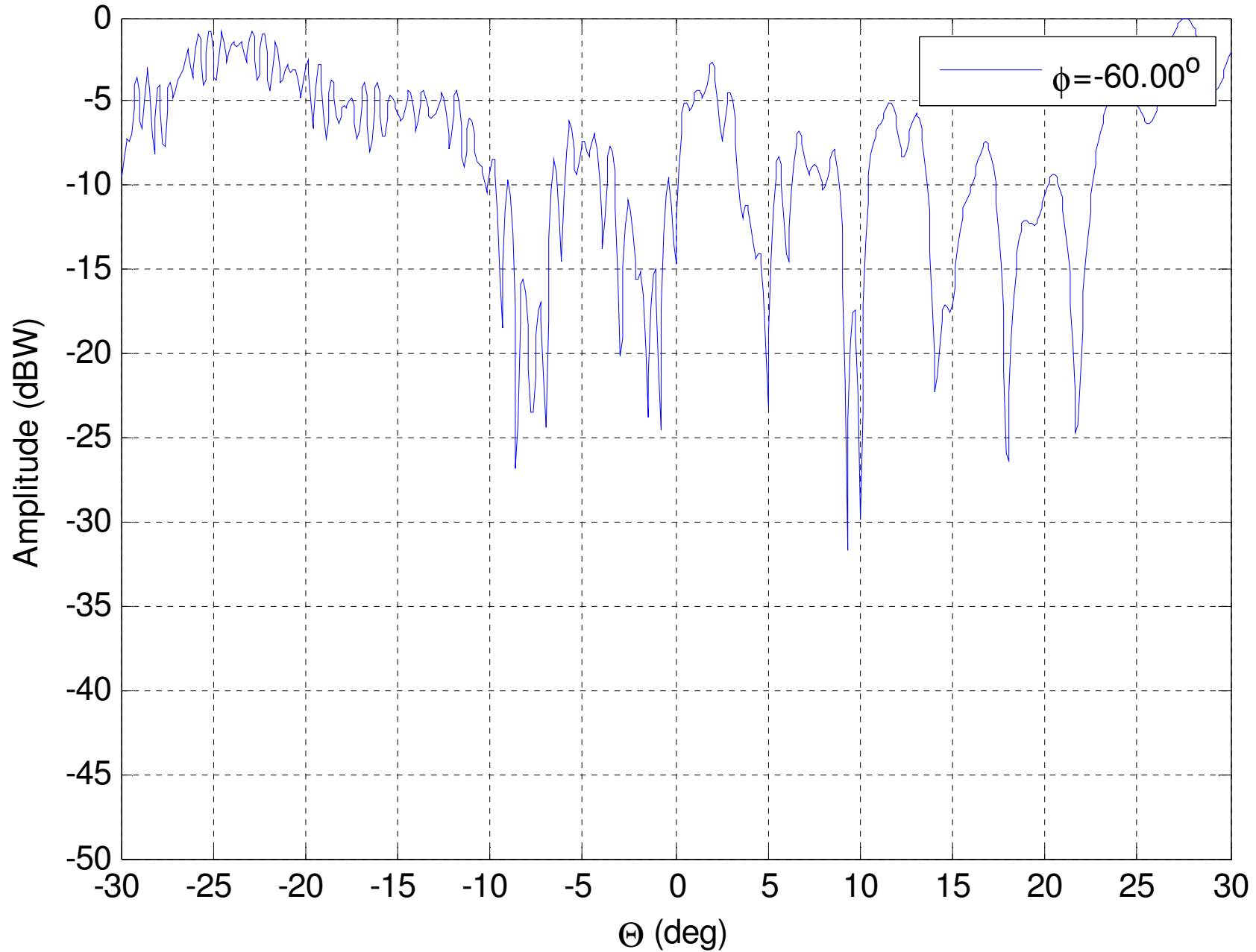
Input file: tx-17.5-rhcp-60.cut, Peak: -3.30 dBW, Date: 16-Dec-2011



LHCP at 17.5 GHz

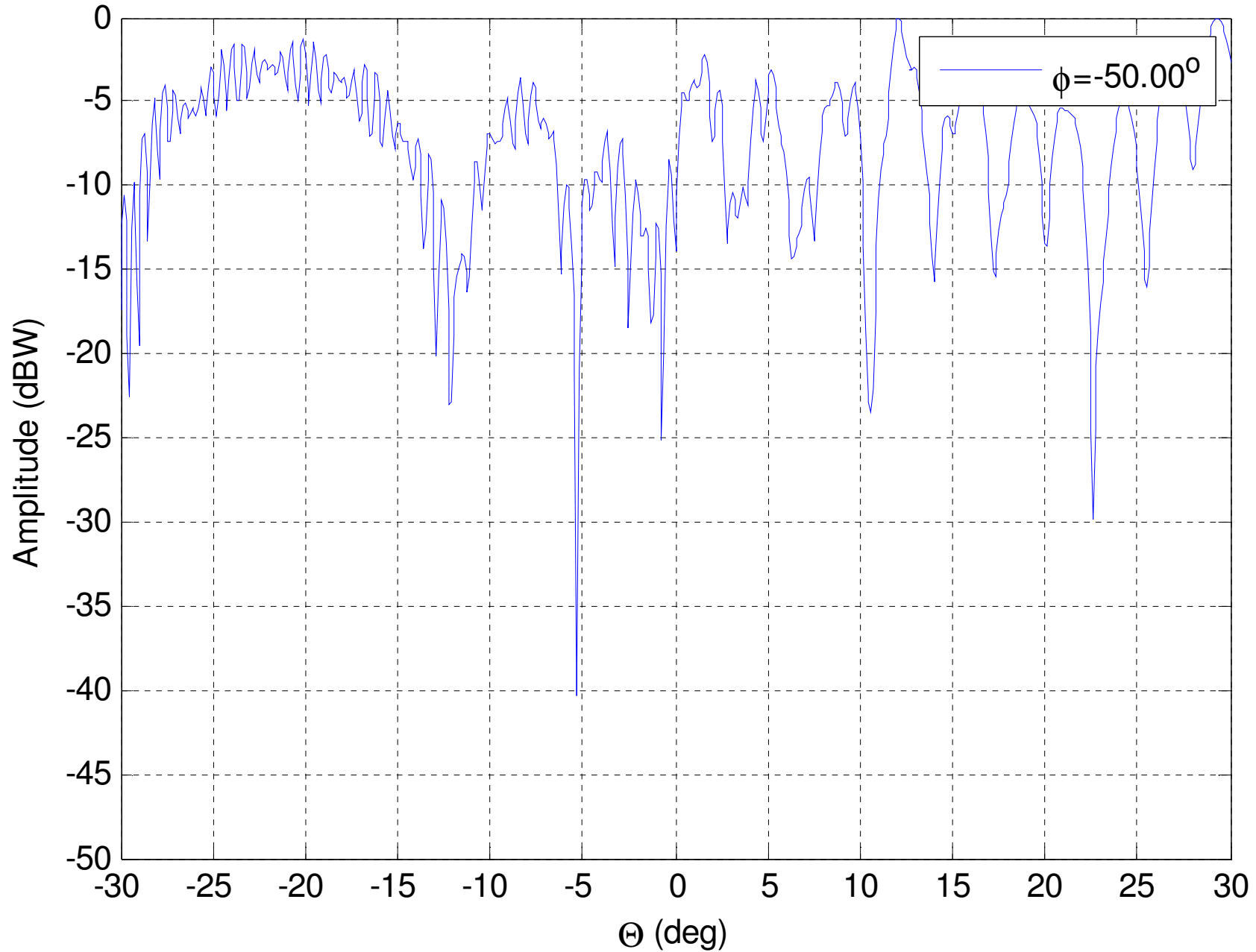
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--60.cut, Peak: -3.68 dBW, Date: 16-Dec-2011



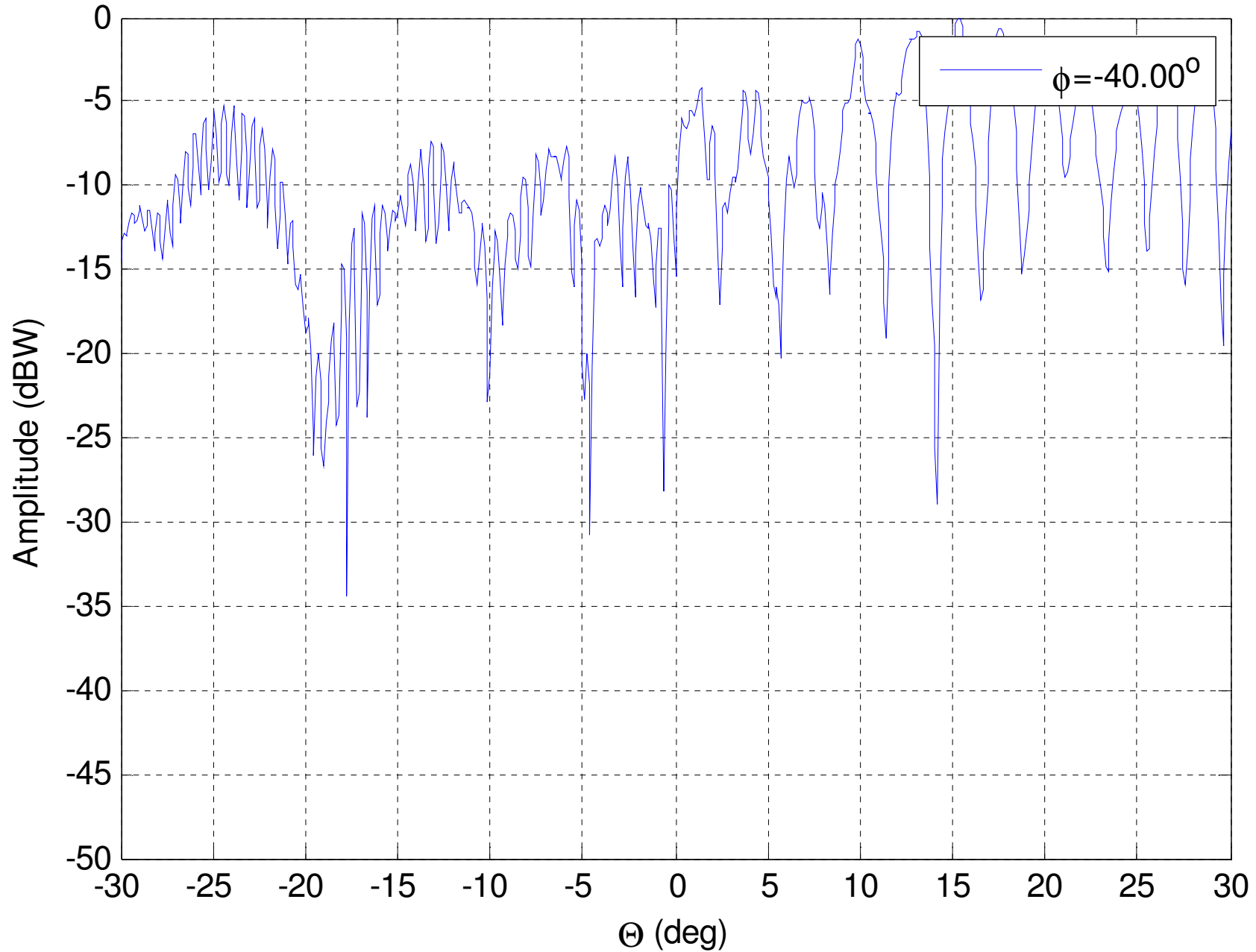
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--50.cut, Peak: -4.43 dBW, Date: 16-Dec-2011



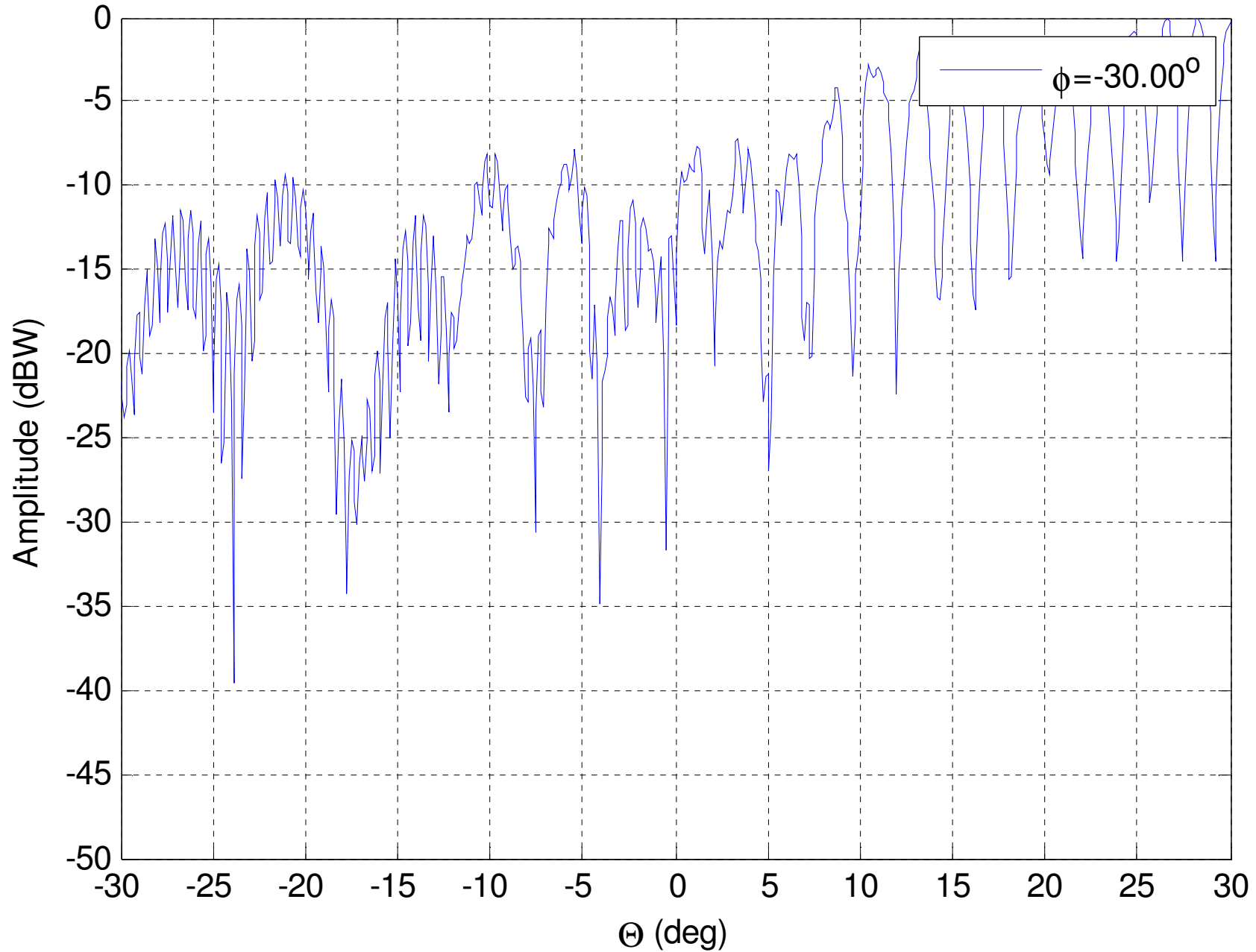
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--40.cut, Peak: -2.92 dBW, Date: 16-Dec-2011



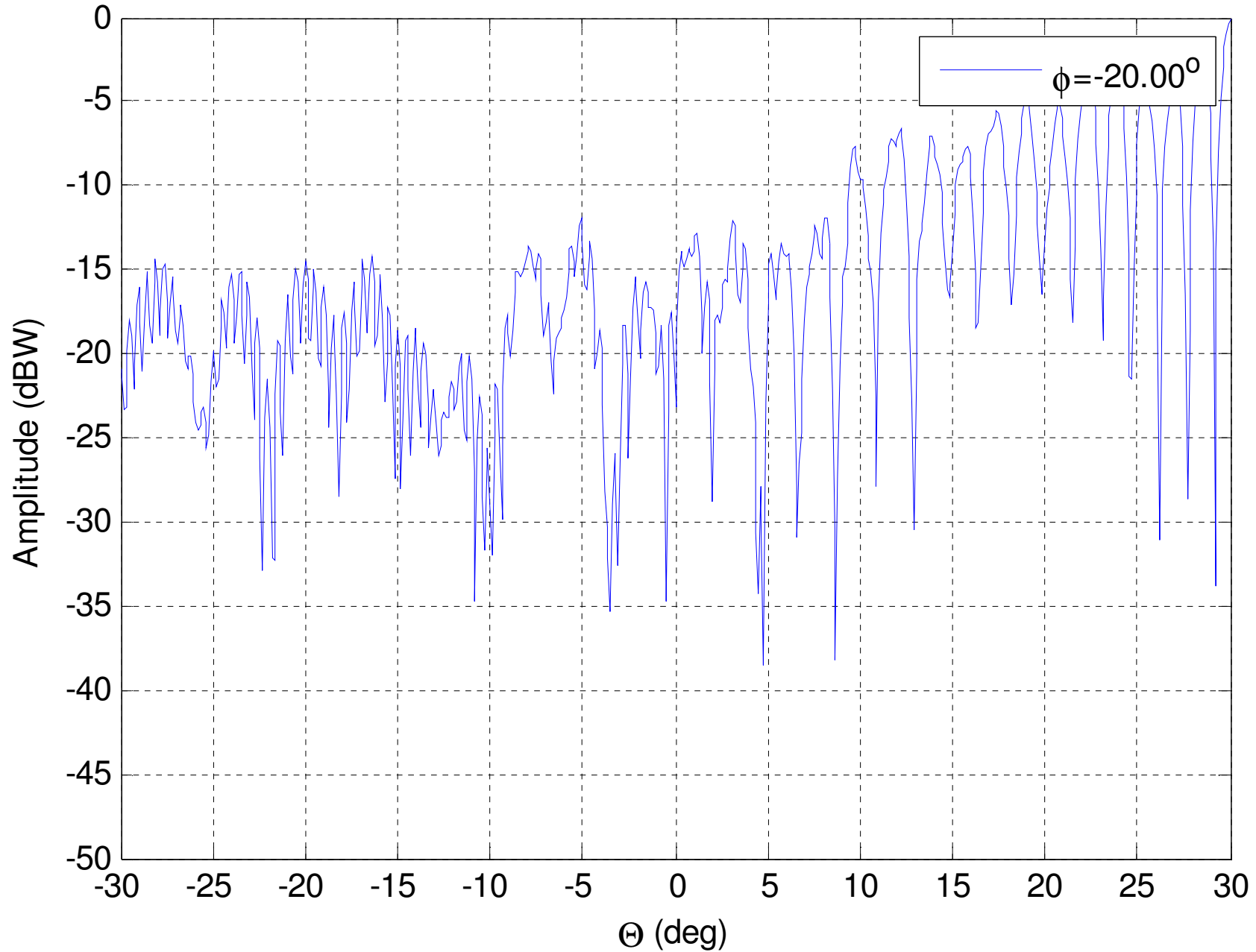
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--30.cut, Peak: 0.10 dBW, Date: 16-Dec-2011



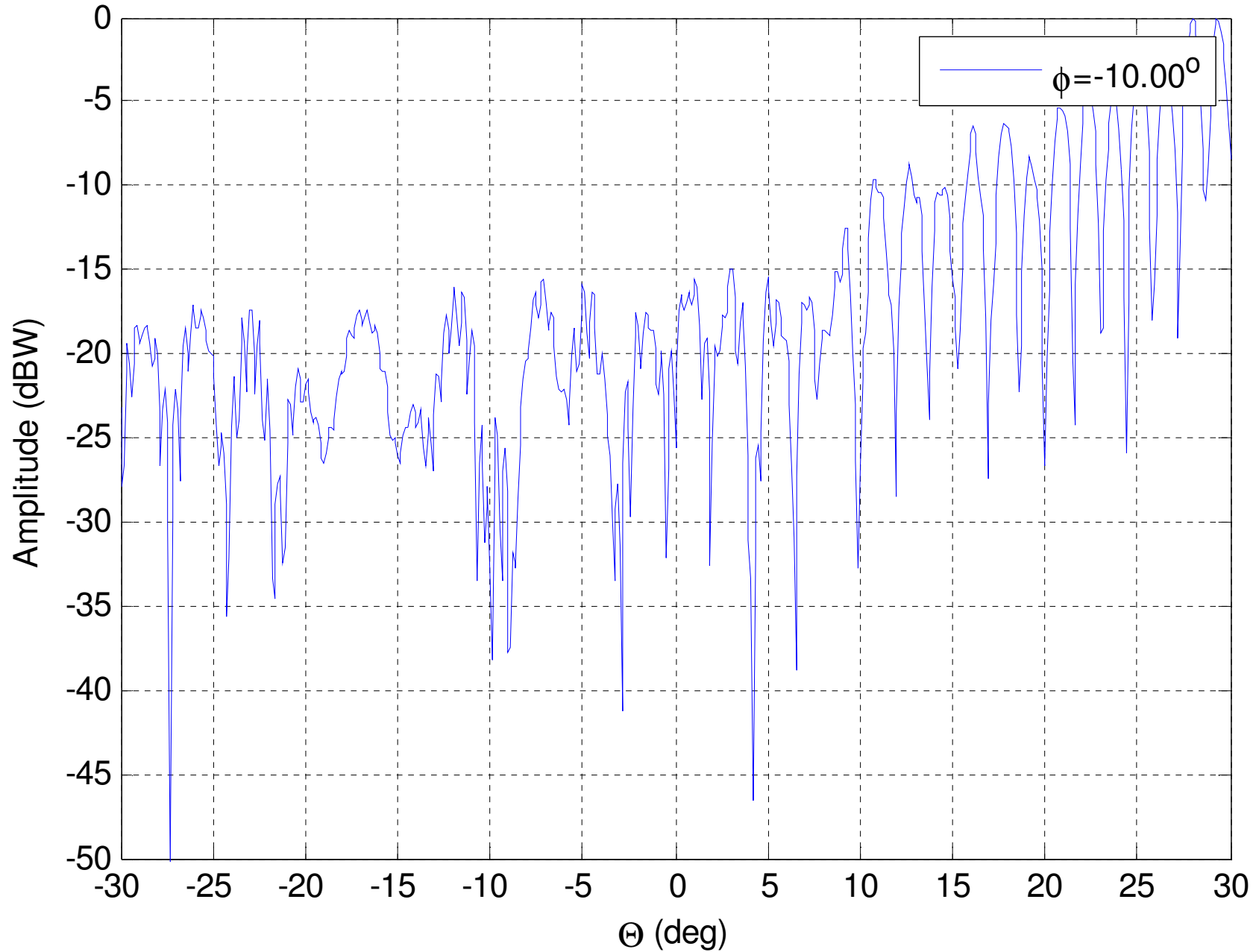
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--20.cut, Peak: 4.91 dBW, Date: 16-Dec-2011



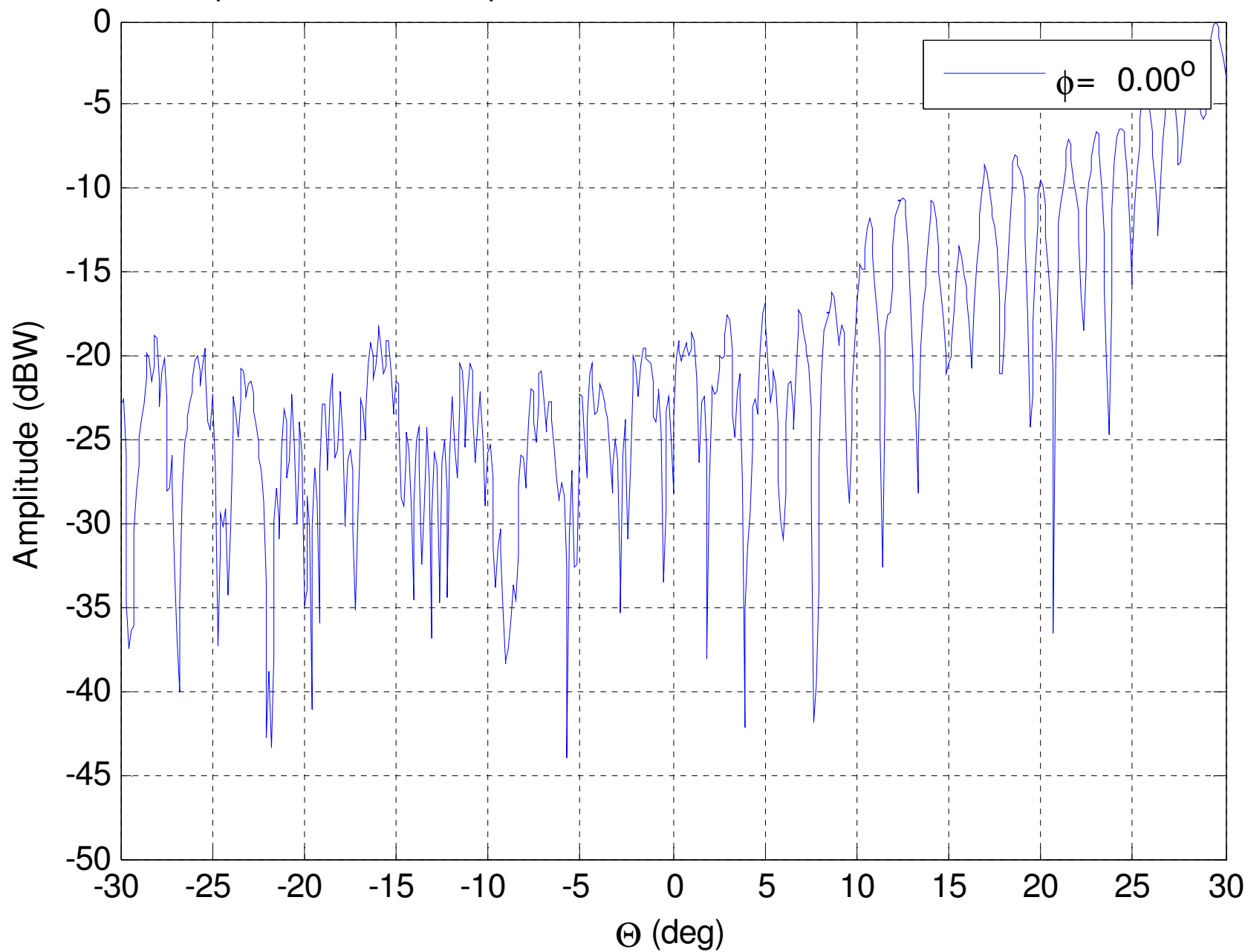
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--10.cut, Peak: 7.36 dBW, Date: 16-Dec-2011



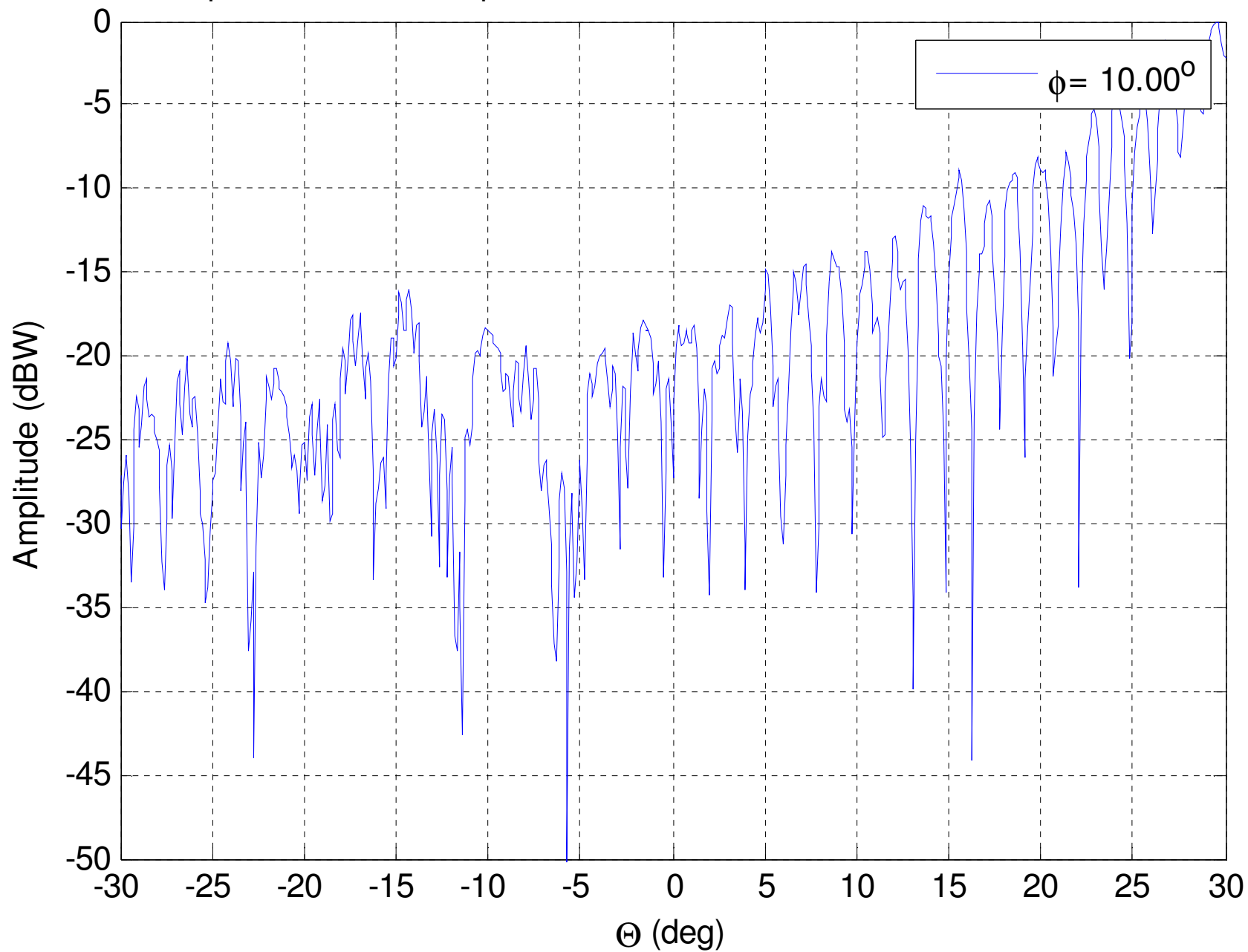
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-0.cut, Peak: 9.98 dBW, Date: 16-Dec-2011



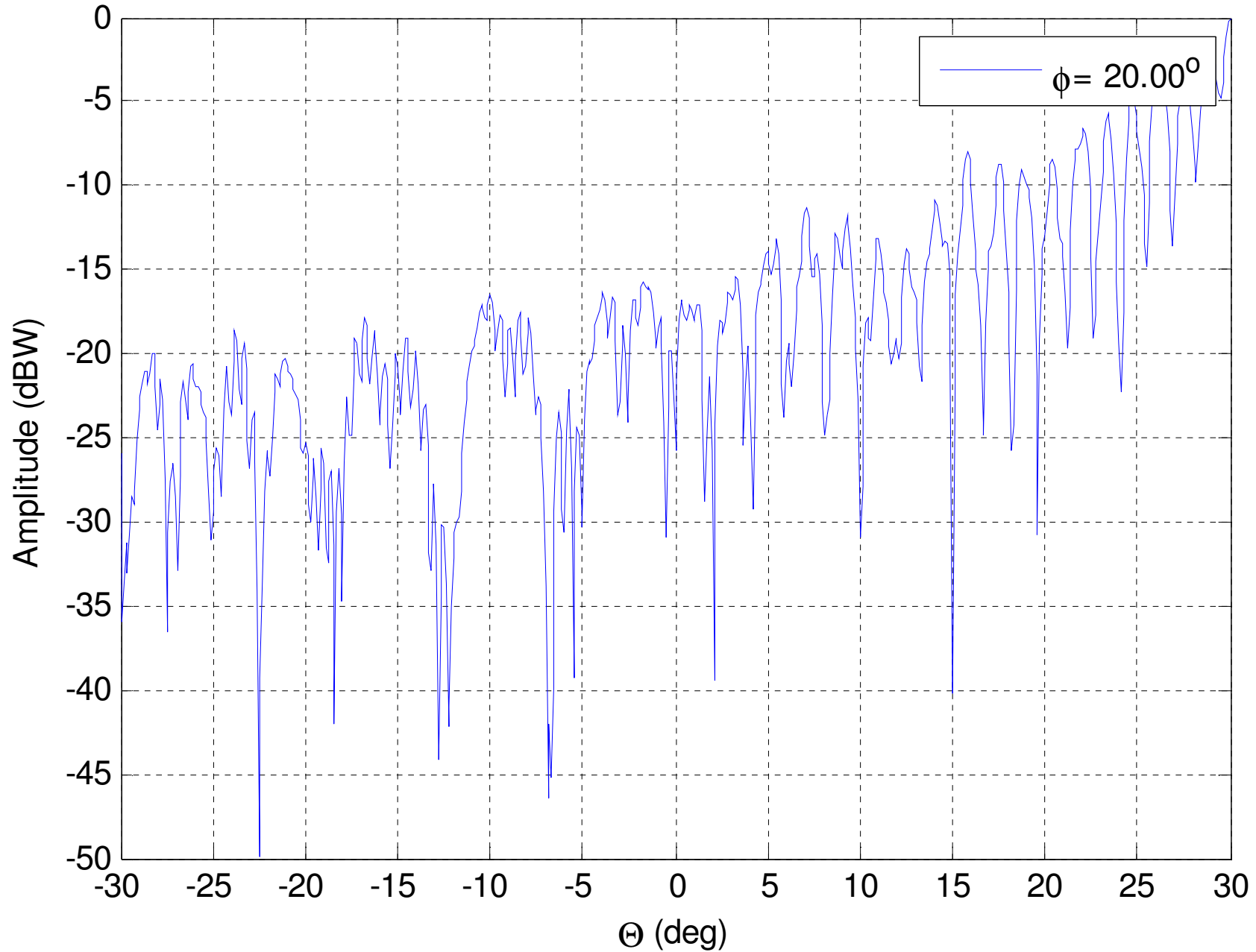
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-10.cut, Peak: 9.04 dBW, Date: 16-Dec-2011



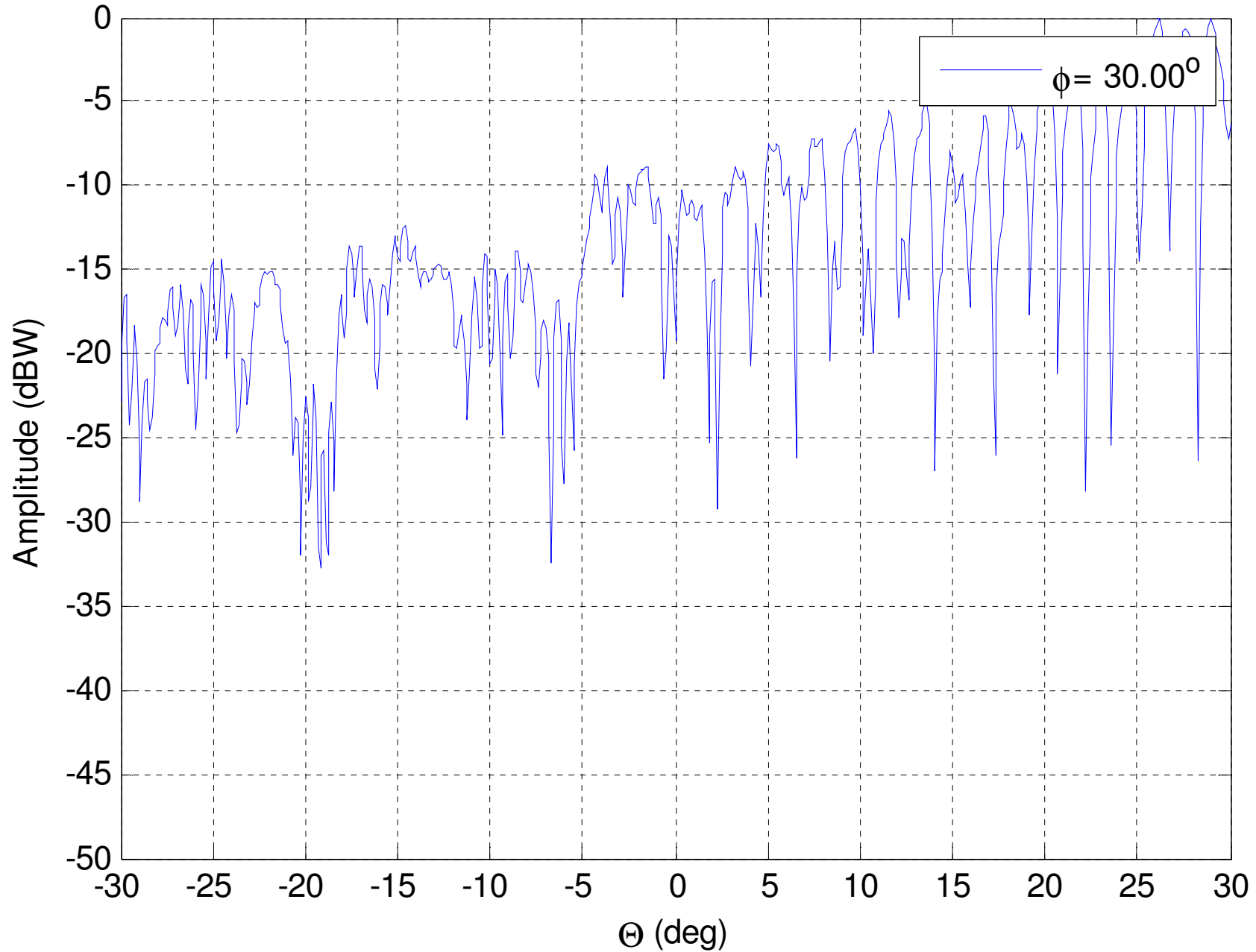
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-20.cut, Peak: 7.42 dBW, Date: 16-Dec-2011



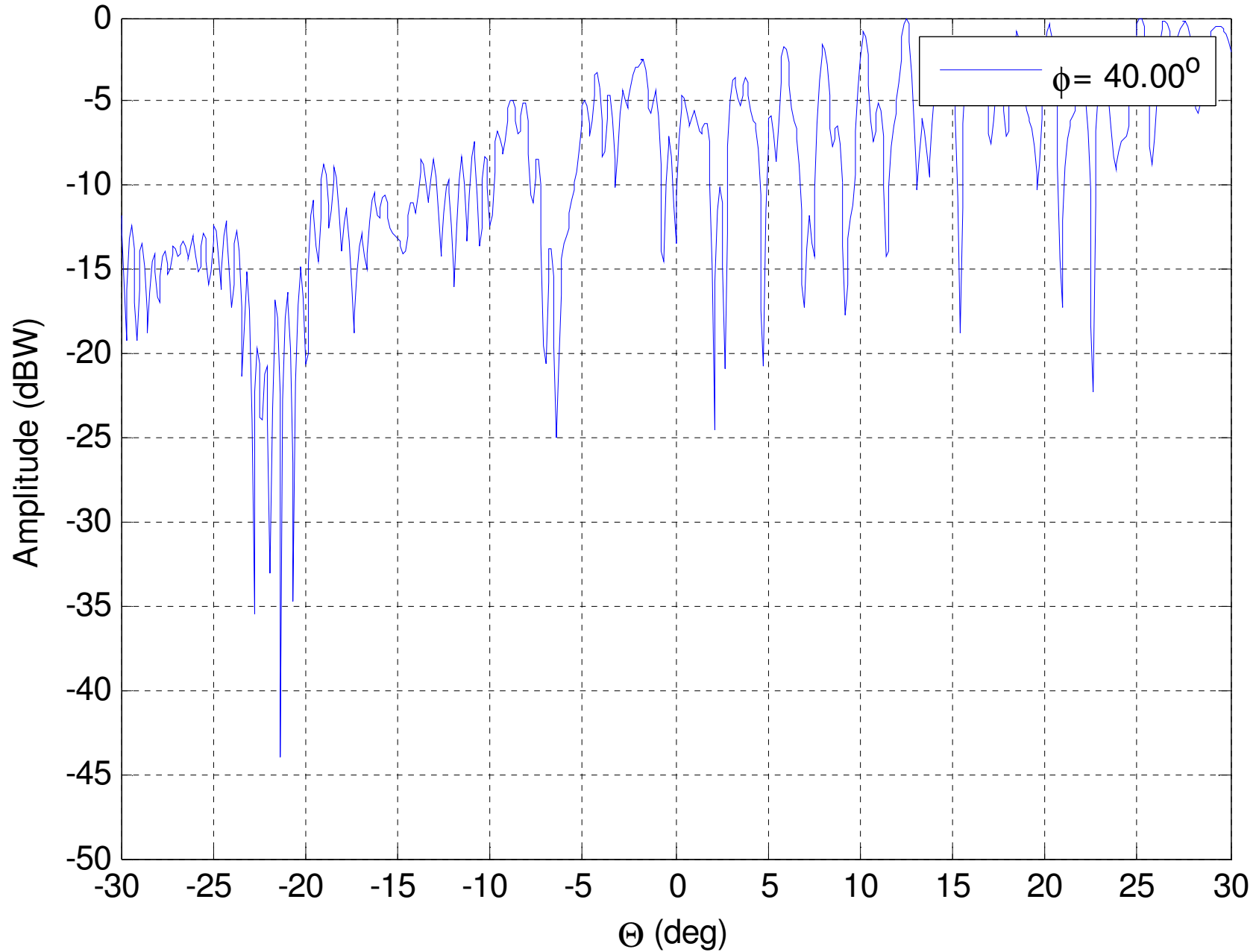
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-30.cut, Peak: 0.96 dBW, Date: 16-Dec-2011



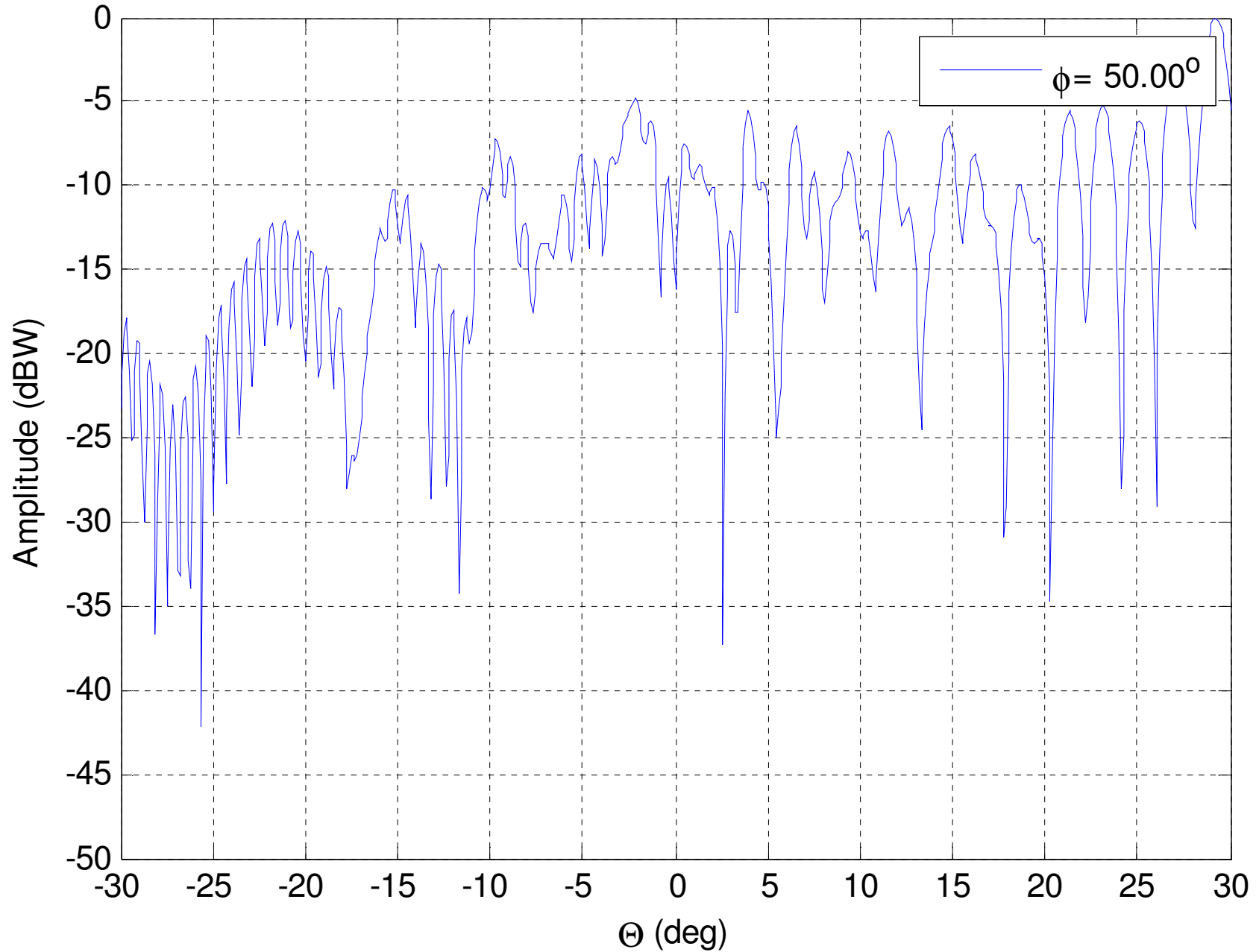
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-40.cut, Peak: -4.76 dBW, Date: 16-Dec-2011



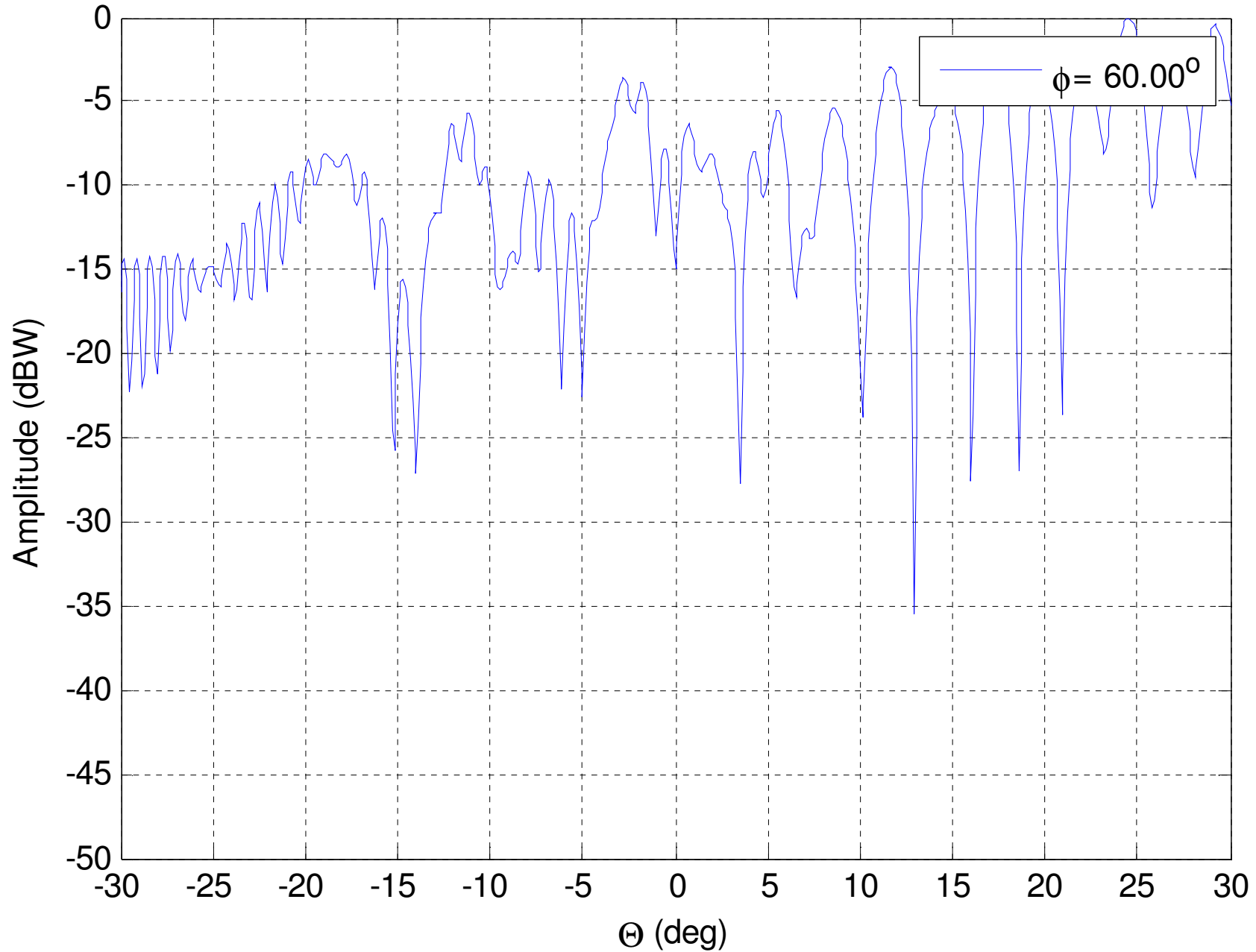
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-50.cut, Peak: -2.05 dBW, Date: 16-Dec-2011



Normalized pattern cuts - farfield

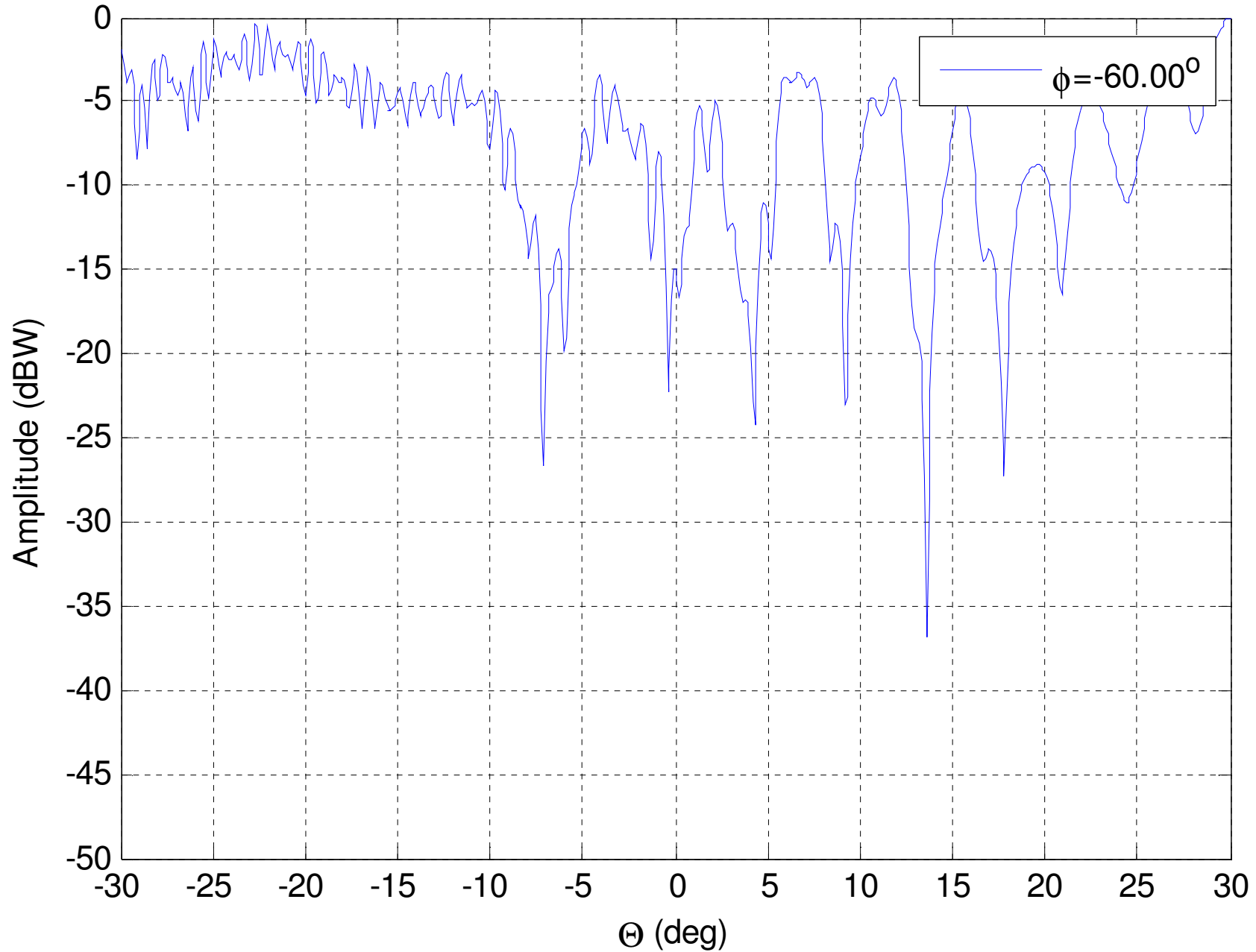
Input file: tx-17.5-lhcp-60.cut, Peak: -3.34 dBW, Date: 16-Dec-2011



RHCP at 17.7 GHz

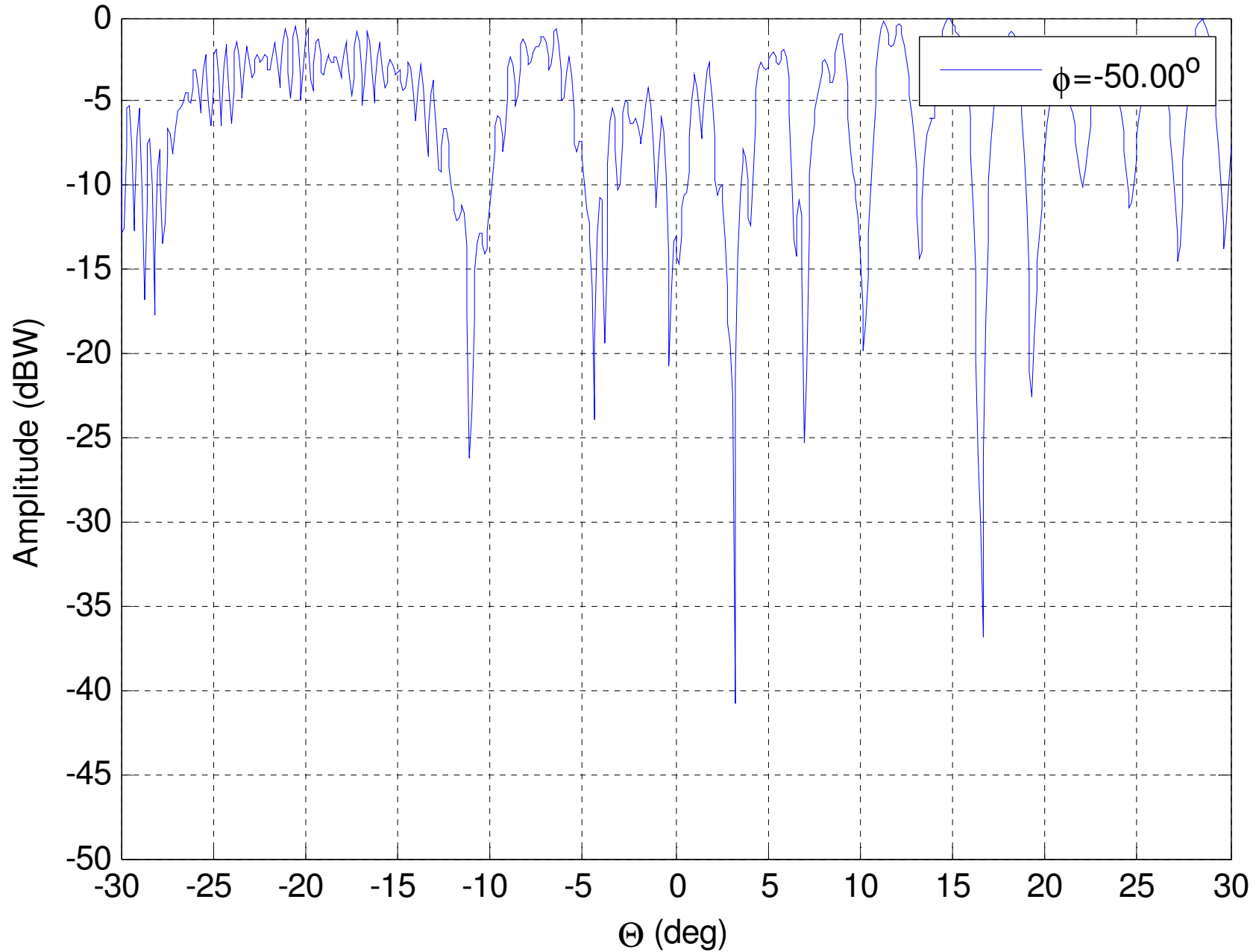
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--60.cut, Peak: -4.21 dBW, Date: 16-Dec-2011



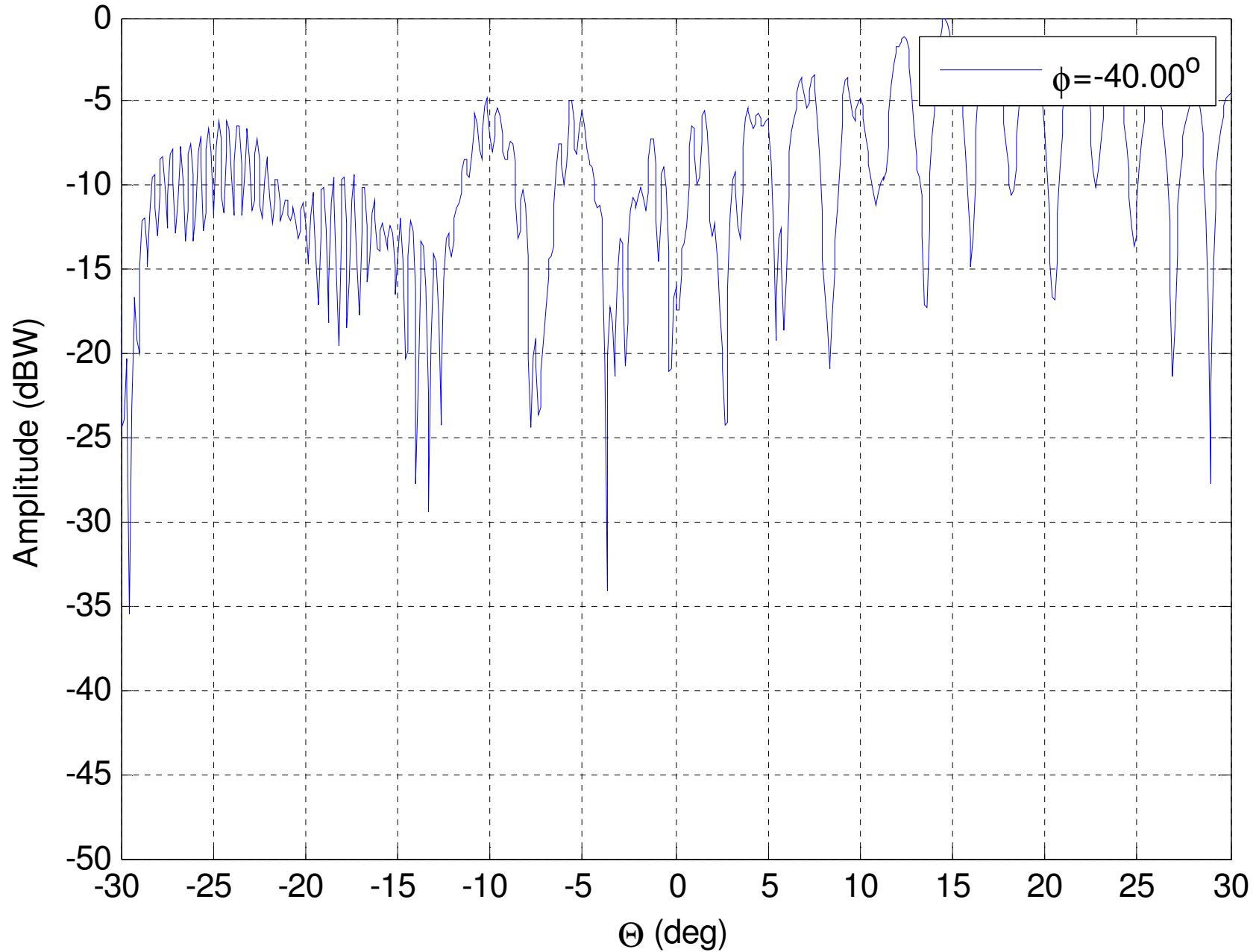
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--50.cut, Peak: -6.10 dBW, Date: 16-Dec-2011



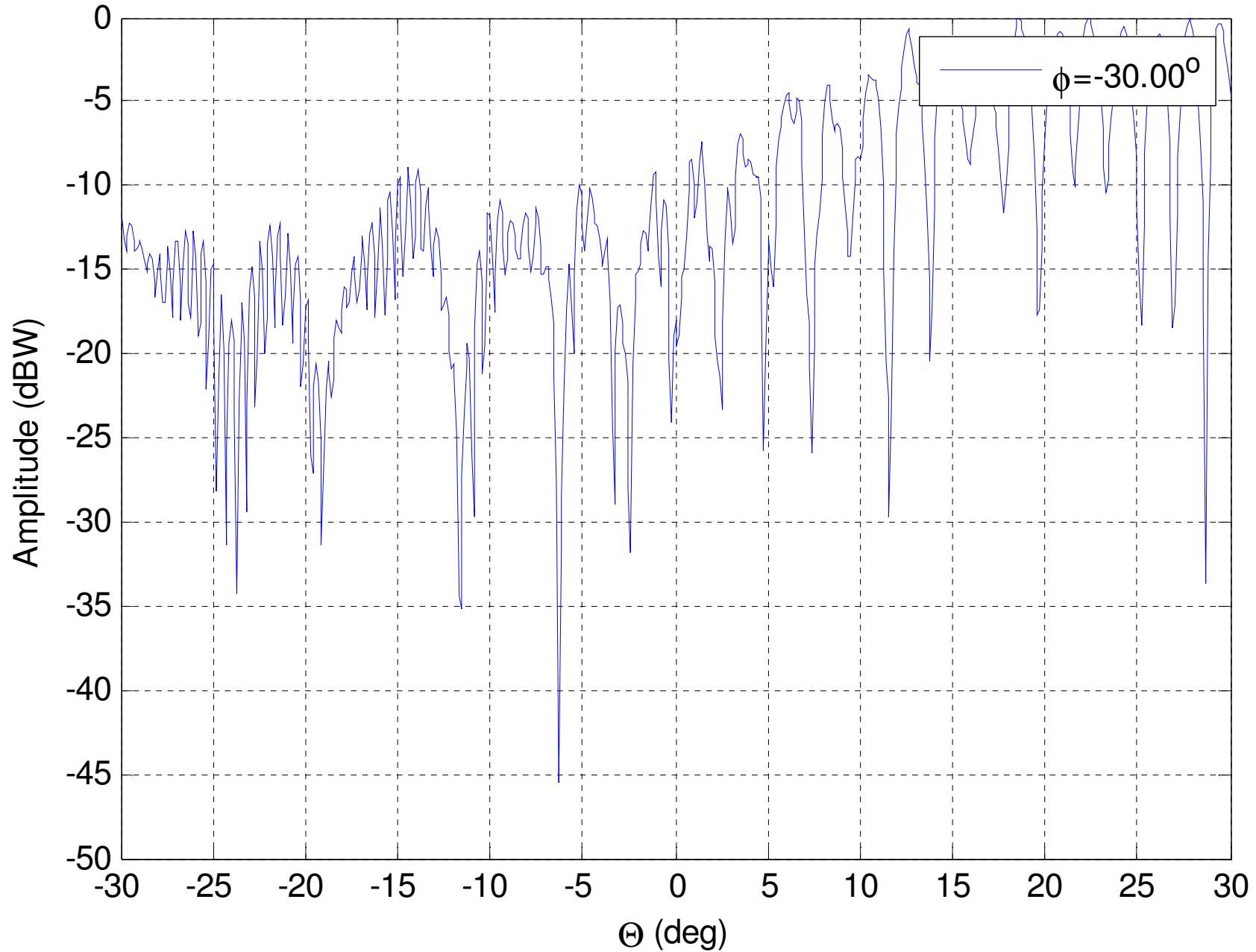
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--40.cut, Peak: -3.02 dBW, Date: 16-Dec-2011



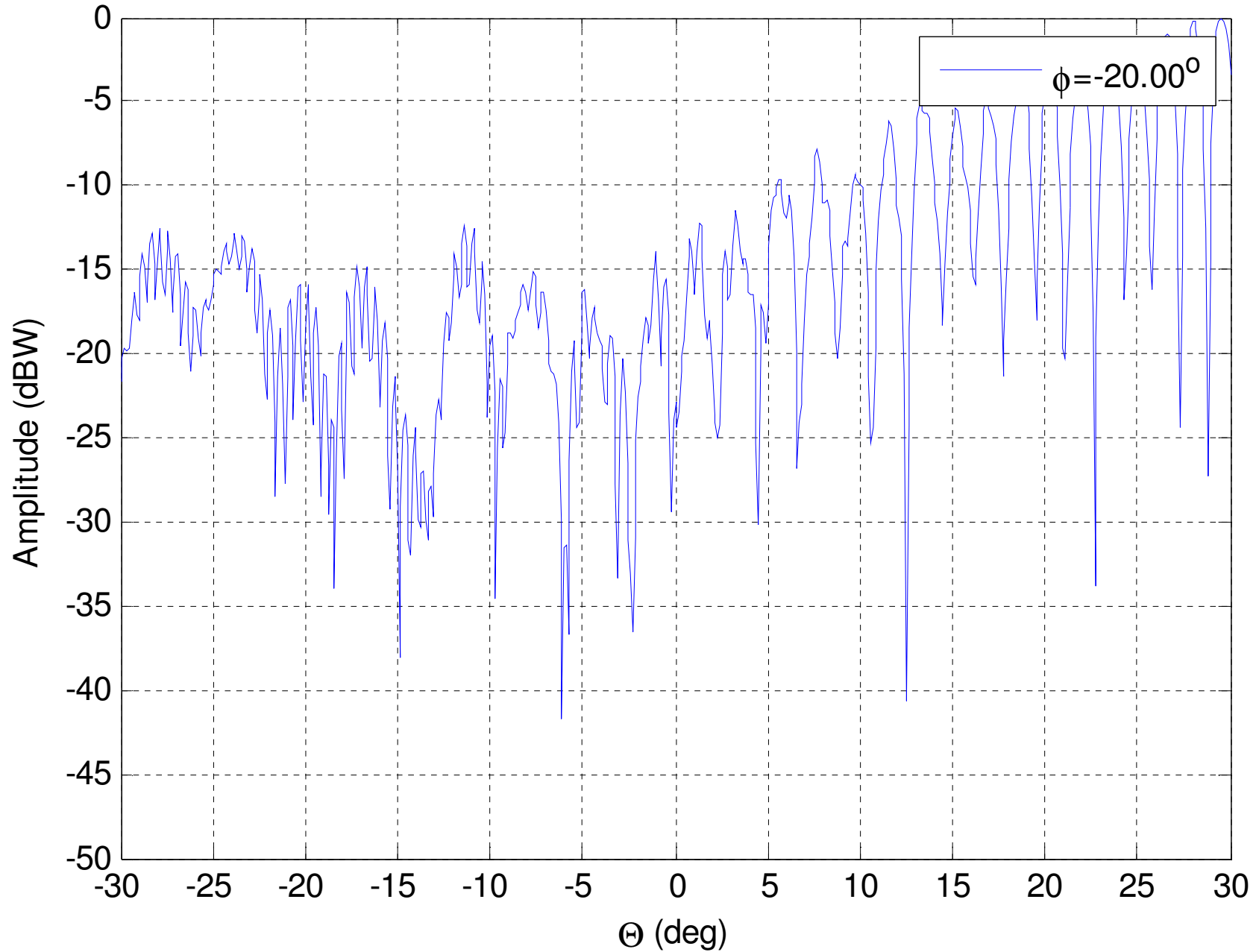
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--30.cut, Peak: -1.05 dBW, Date: 16-Dec-2011



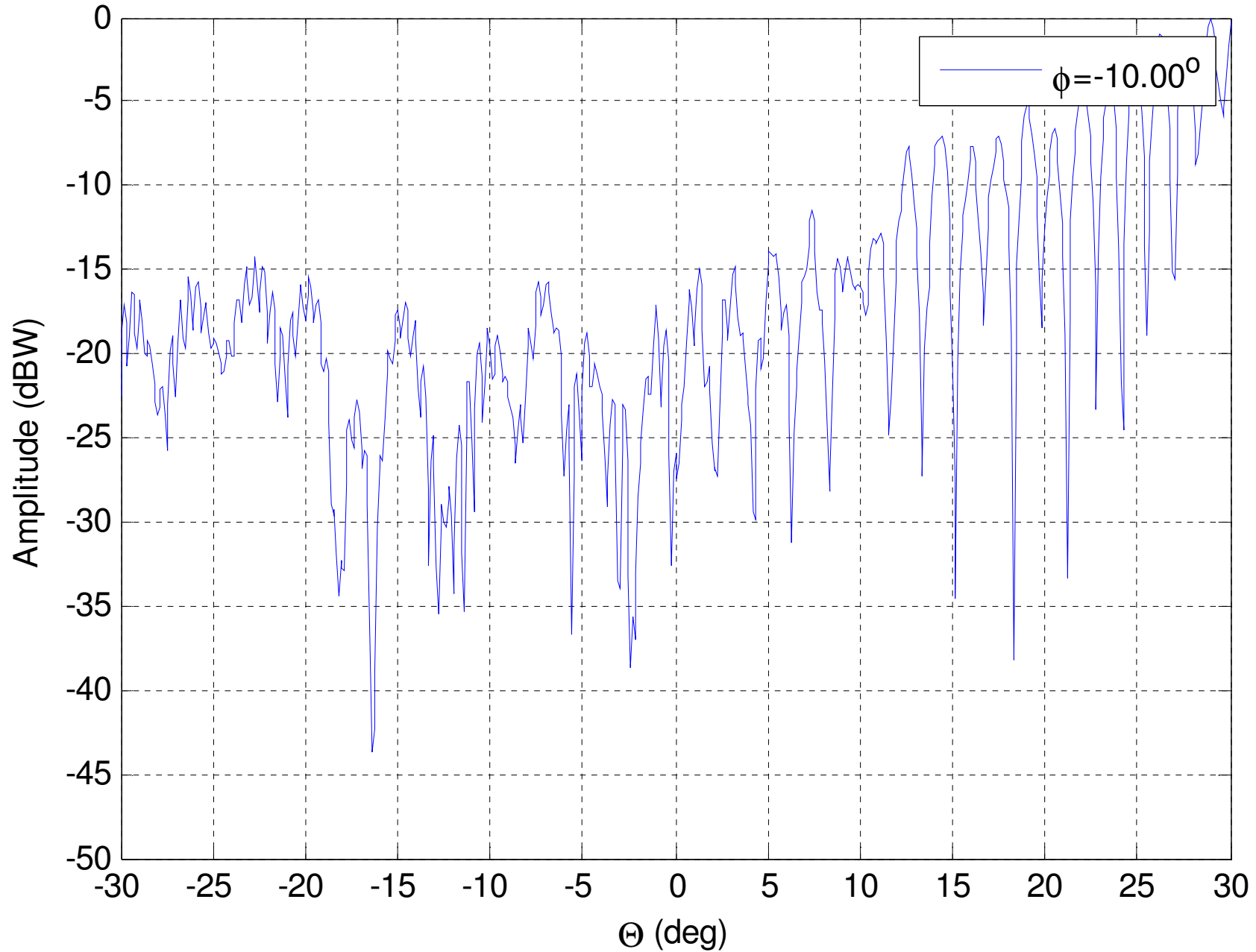
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--20.cut, Peak: 3.77 dBW, Date: 16-Dec-2011



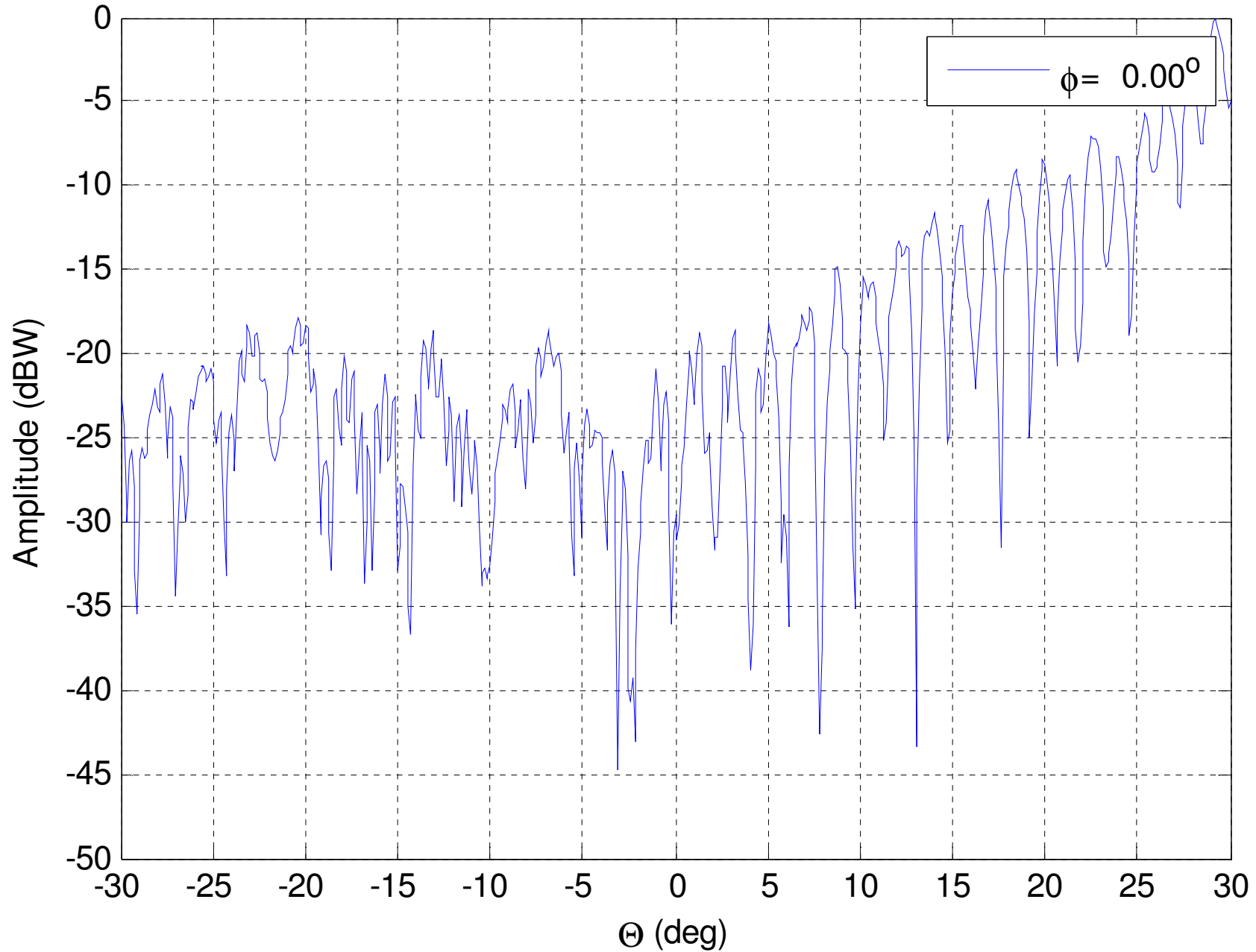
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--10.cut, Peak: 6.83 dBW, Date: 16-Dec-2011



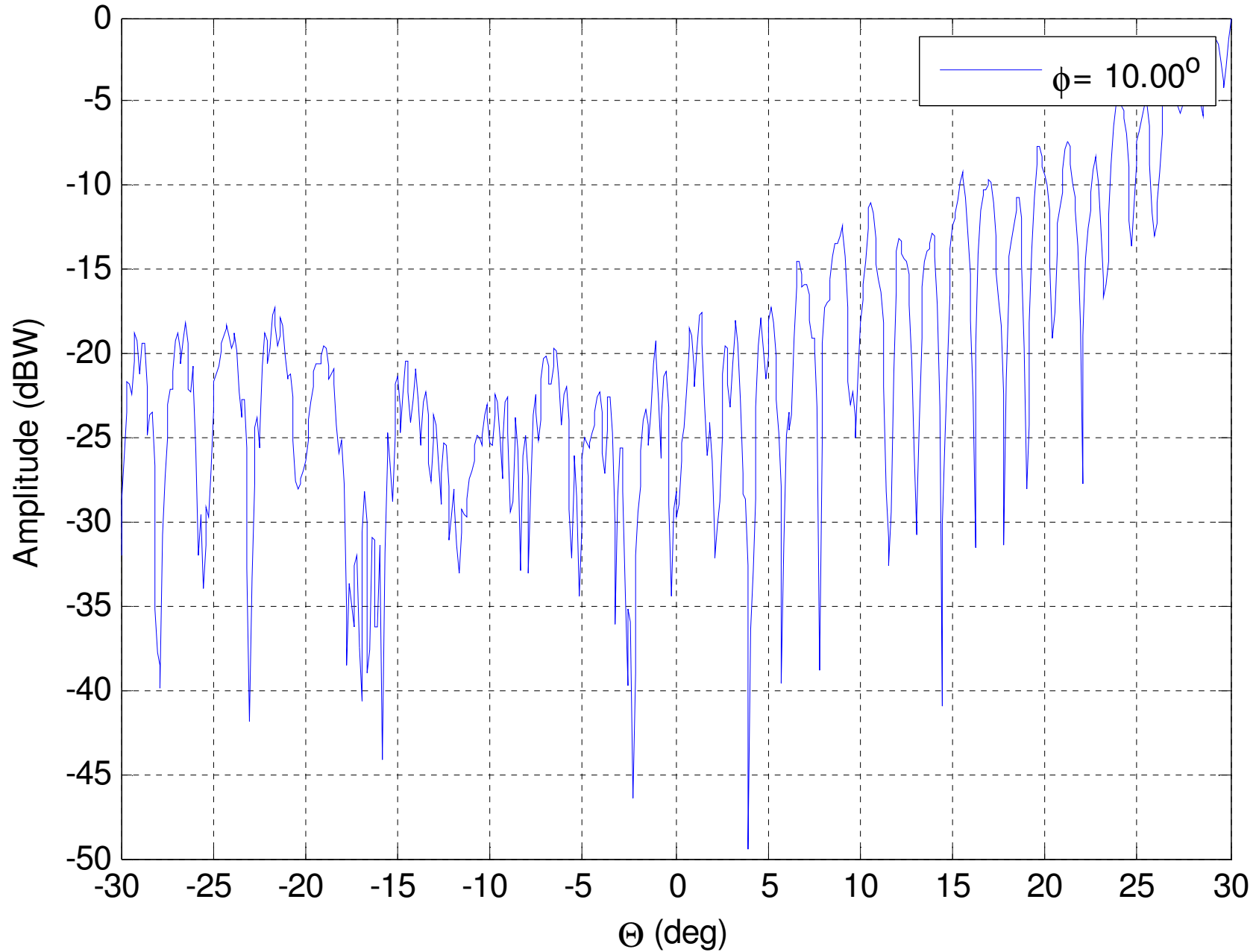
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-0.cut, Peak: 10.49 dBW, Date: 16-Dec-2011



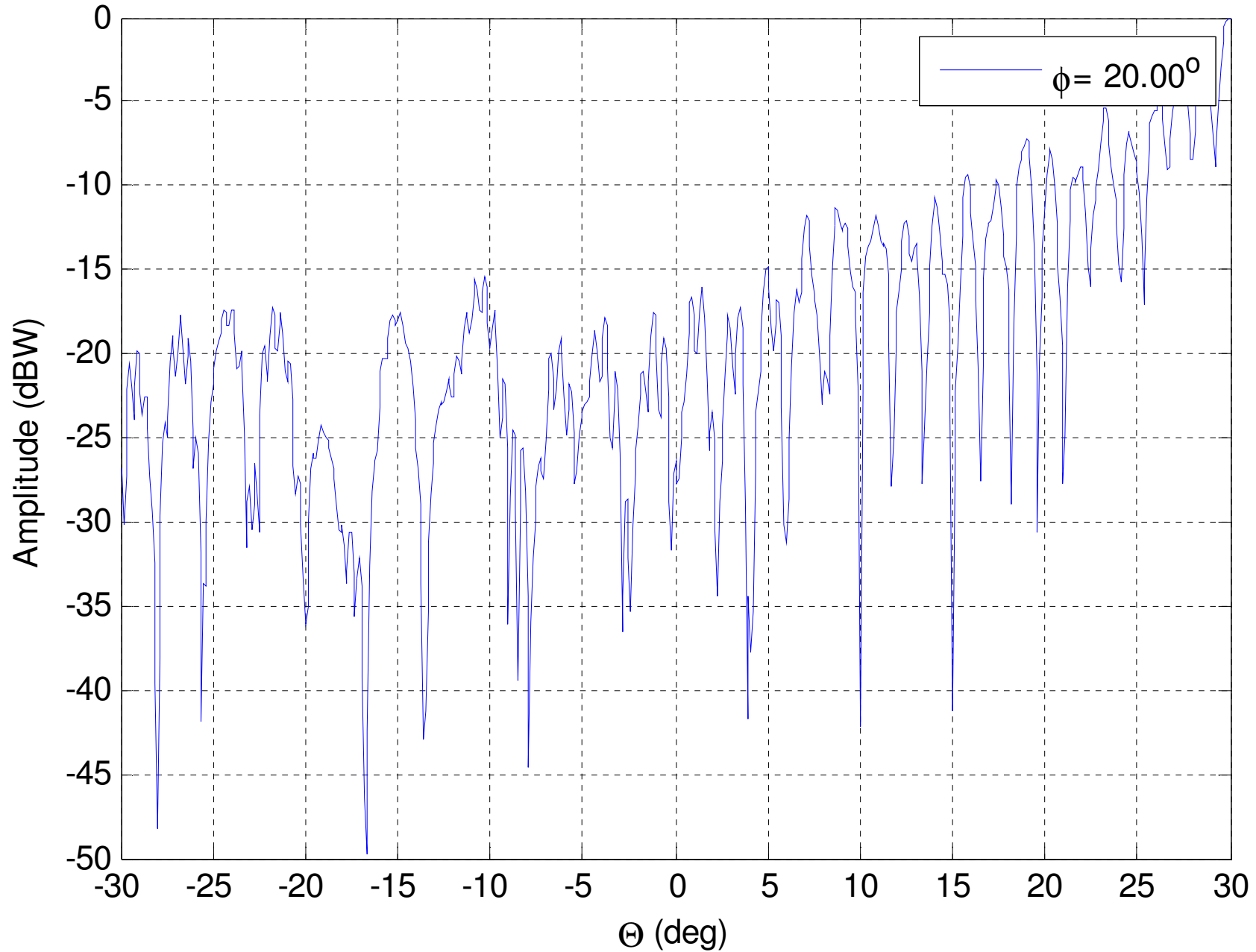
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-10.cut, Peak: 9.12 dBW, Date: 16-Dec-2011



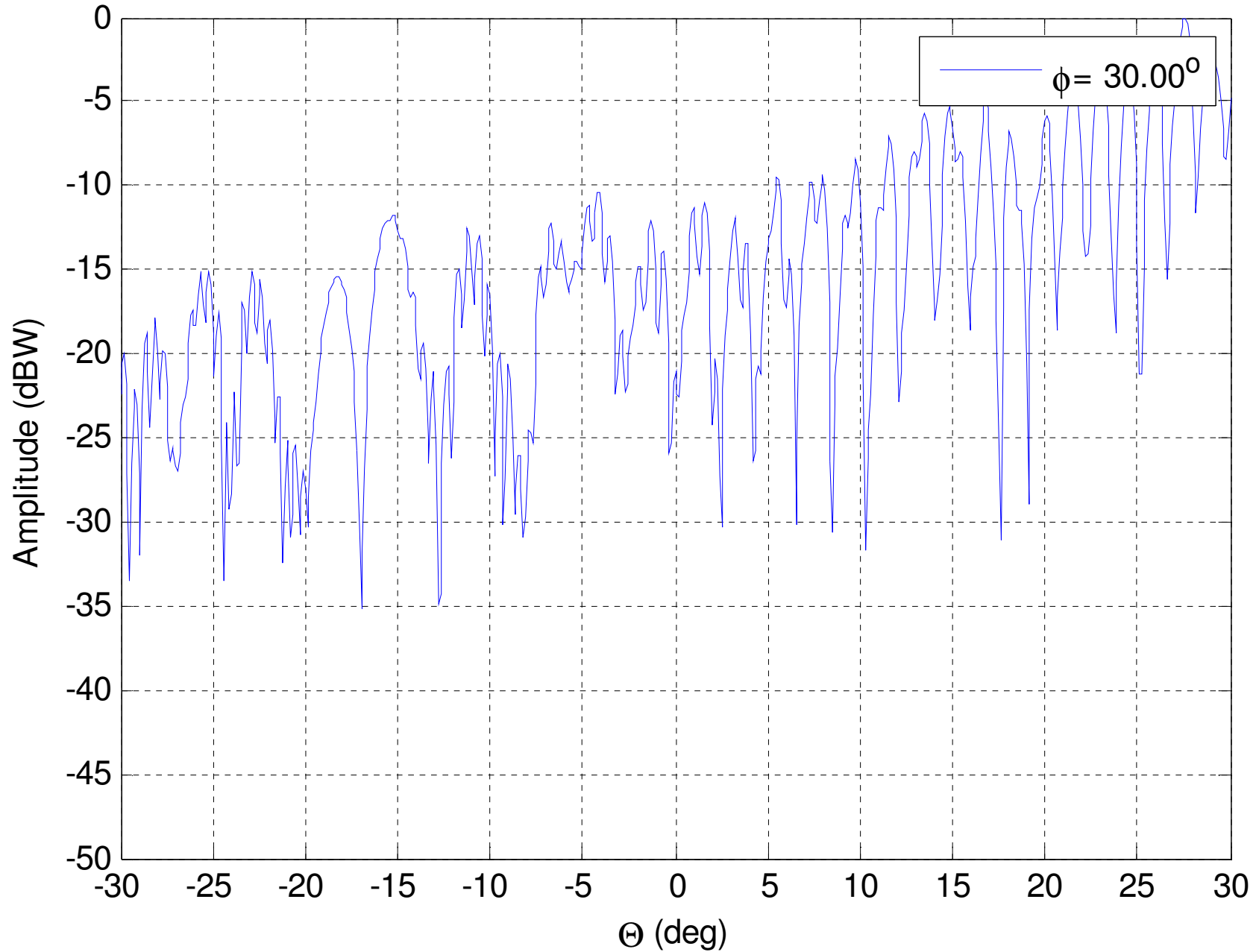
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-20.cut, Peak: 7.29 dBW, Date: 16-Dec-2011



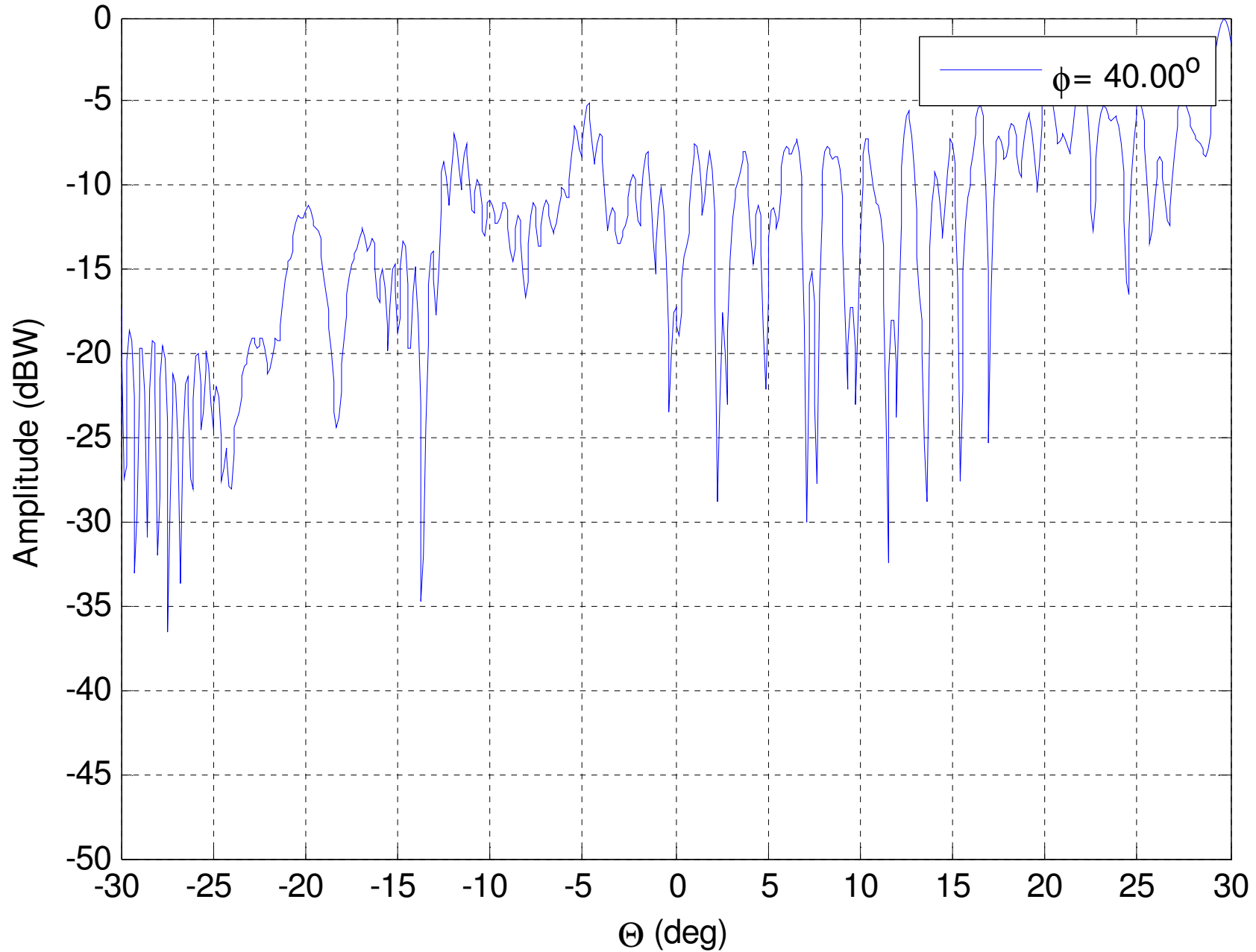
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-30.cut, Peak: 2.02 dBW, Date: 16-Dec-2011



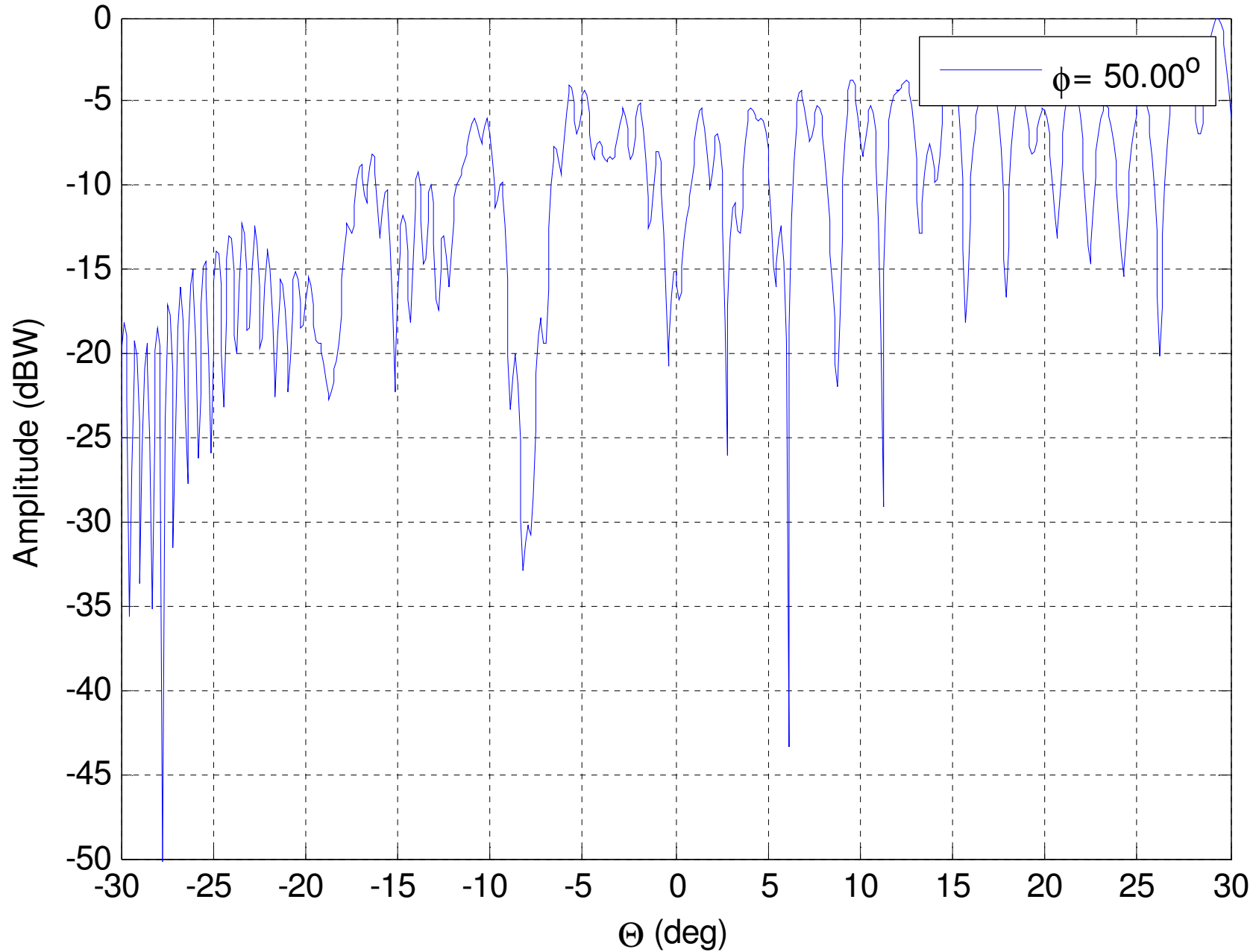
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-40.cut, Peak: -1.83 dBW, Date: 16-Dec-2011



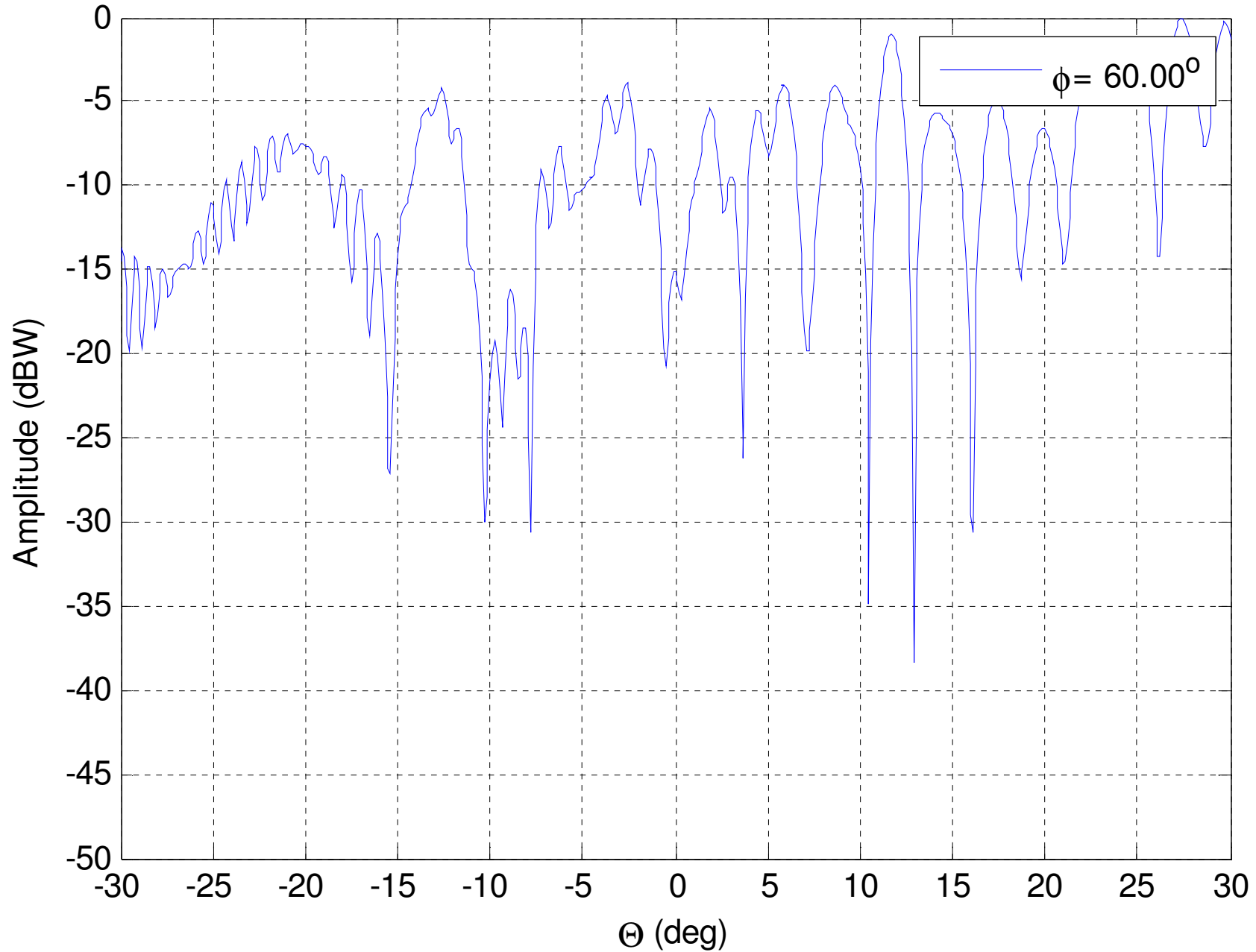
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-50.cut, Peak: -4.05 dBW, Date: 16-Dec-2011



Normalized pattern cuts - farfield

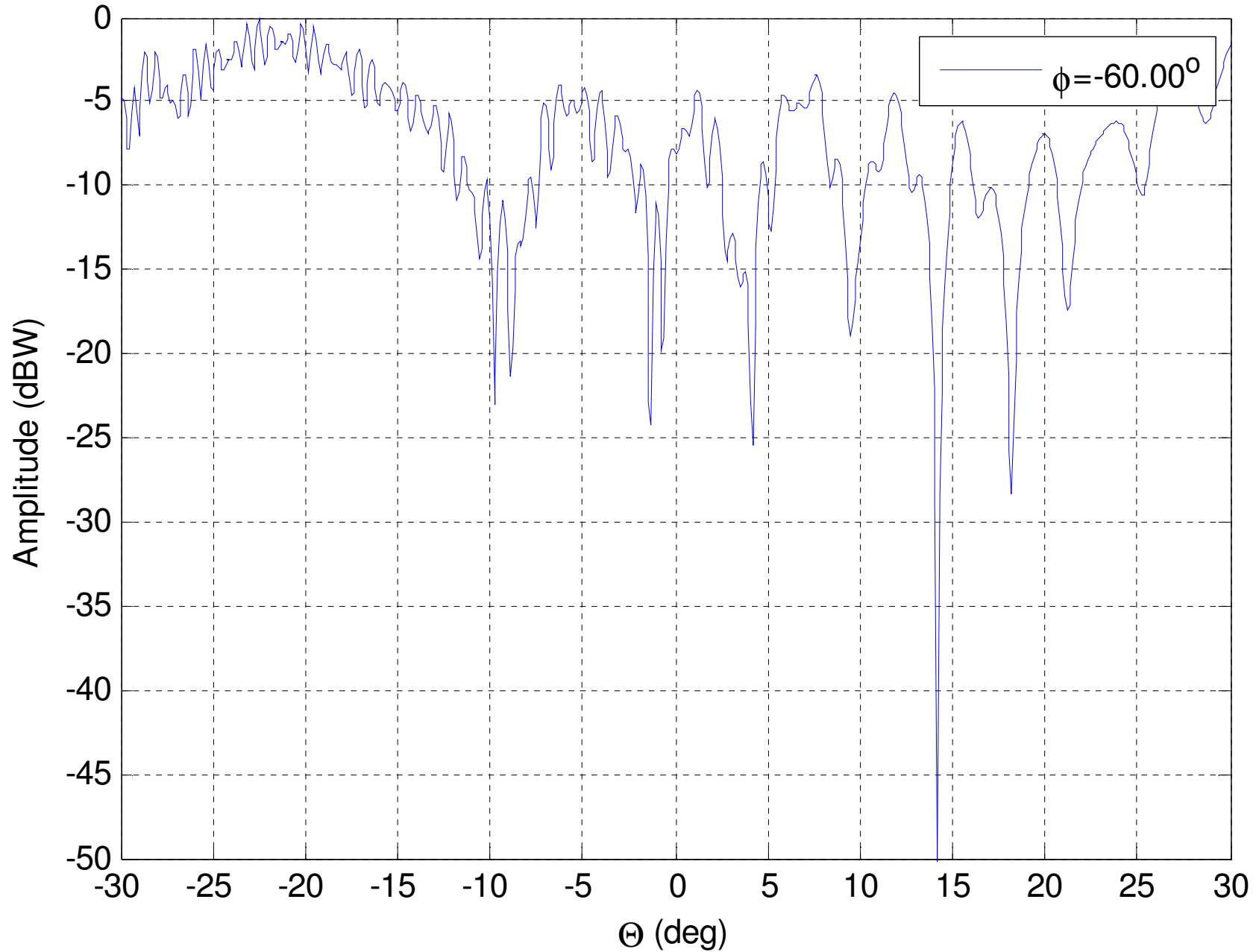
Input file: tx-17.7-rhcp-60.cut, Peak: -4.05 dBW, Date: 16-Dec-2011



LHCP at 17.7 GHz

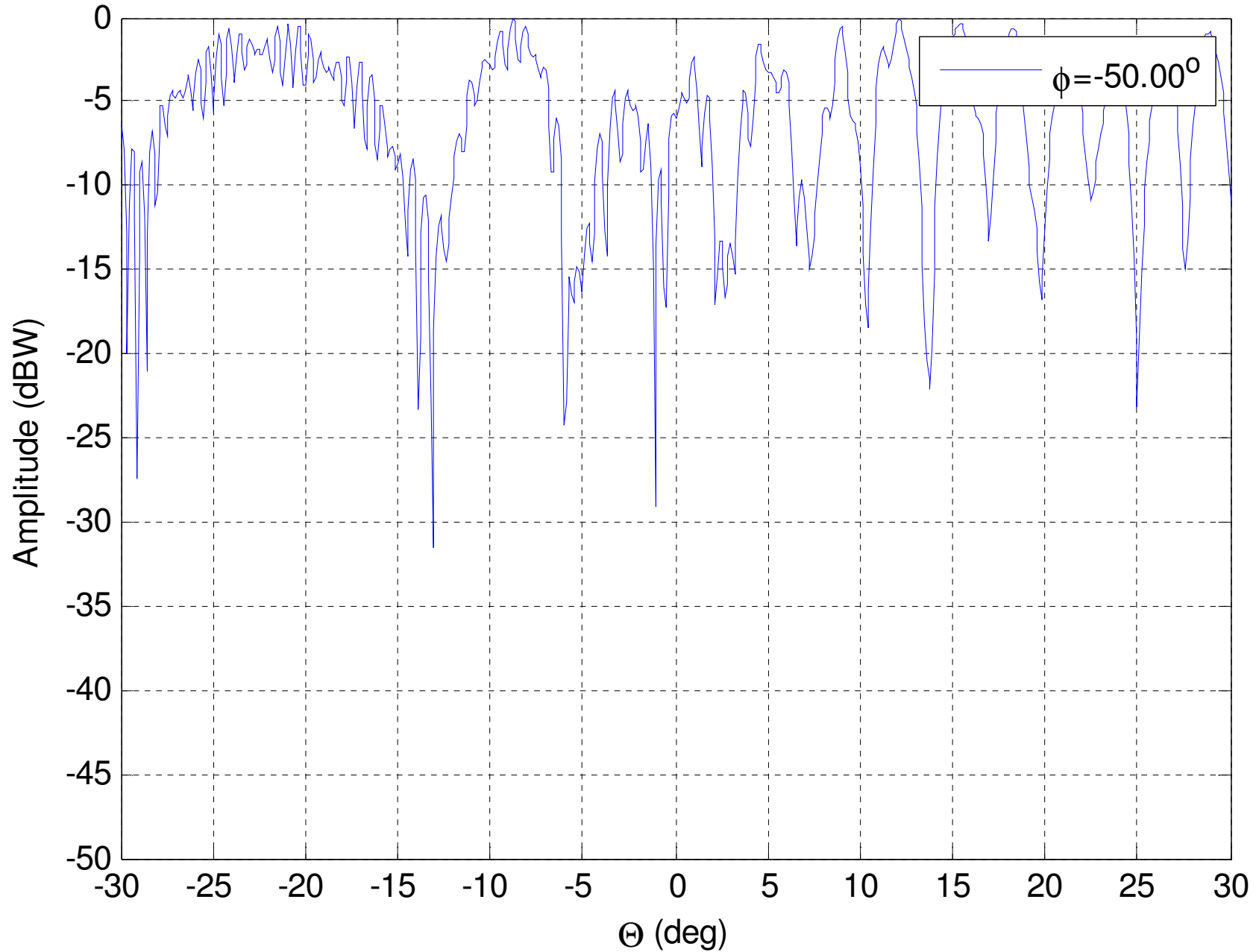
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--60.cut, Peak: -4.01 dBW, Date: 16-Dec-2011



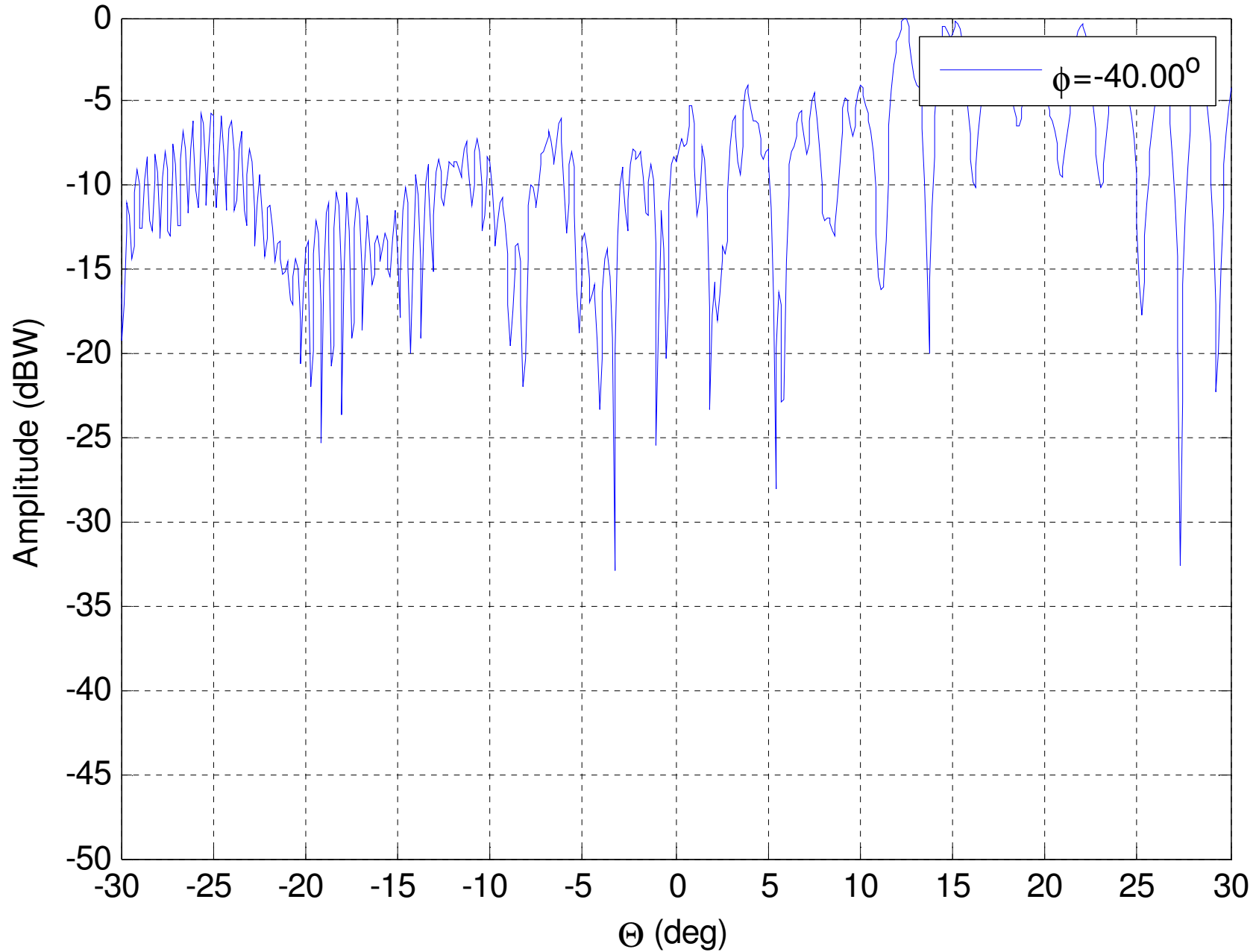
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--50.cut, Peak: -6.12 dBW, Date: 16-Dec-2011



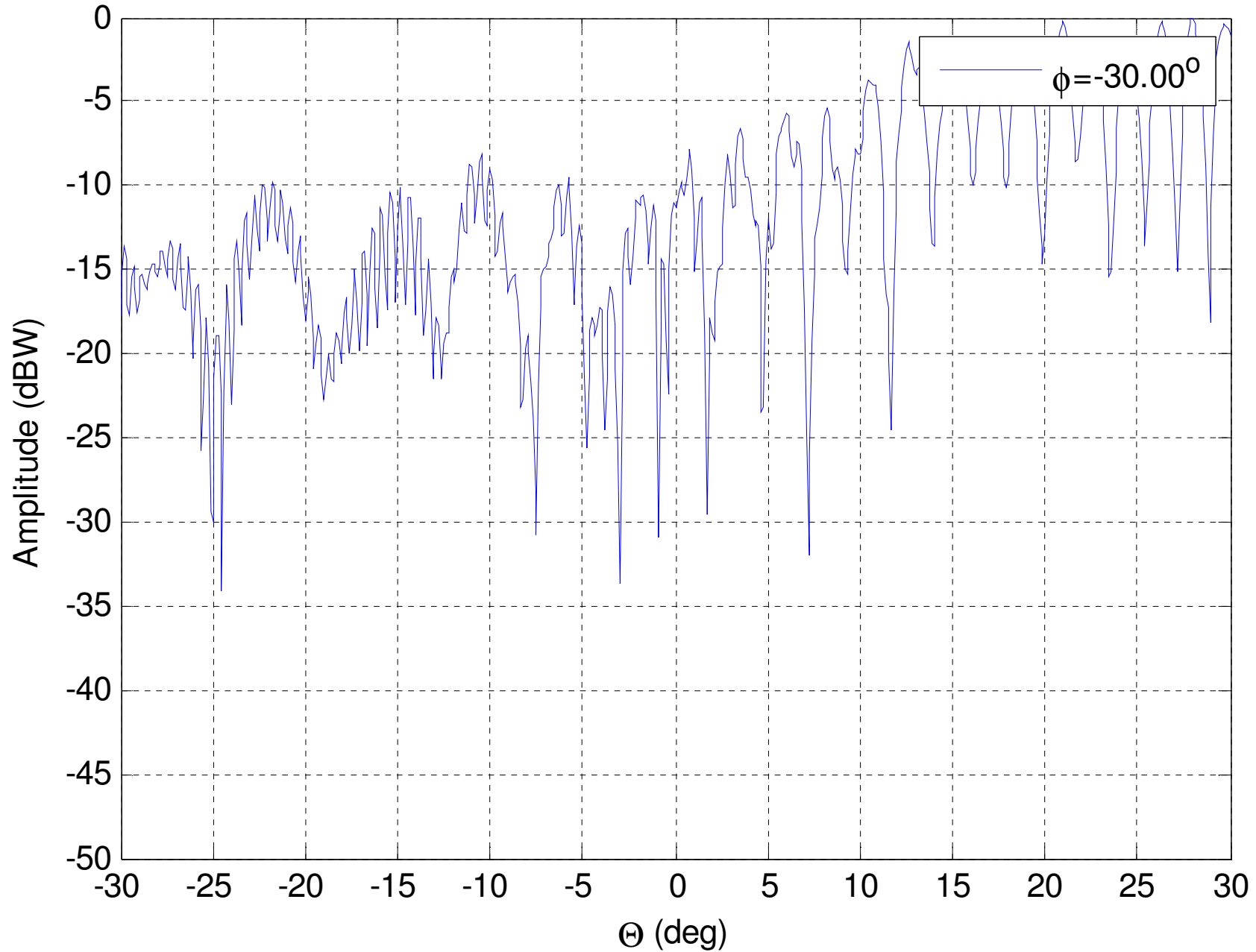
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--40.cut, Peak: -3.48 dBW, Date: 16-Dec-2011



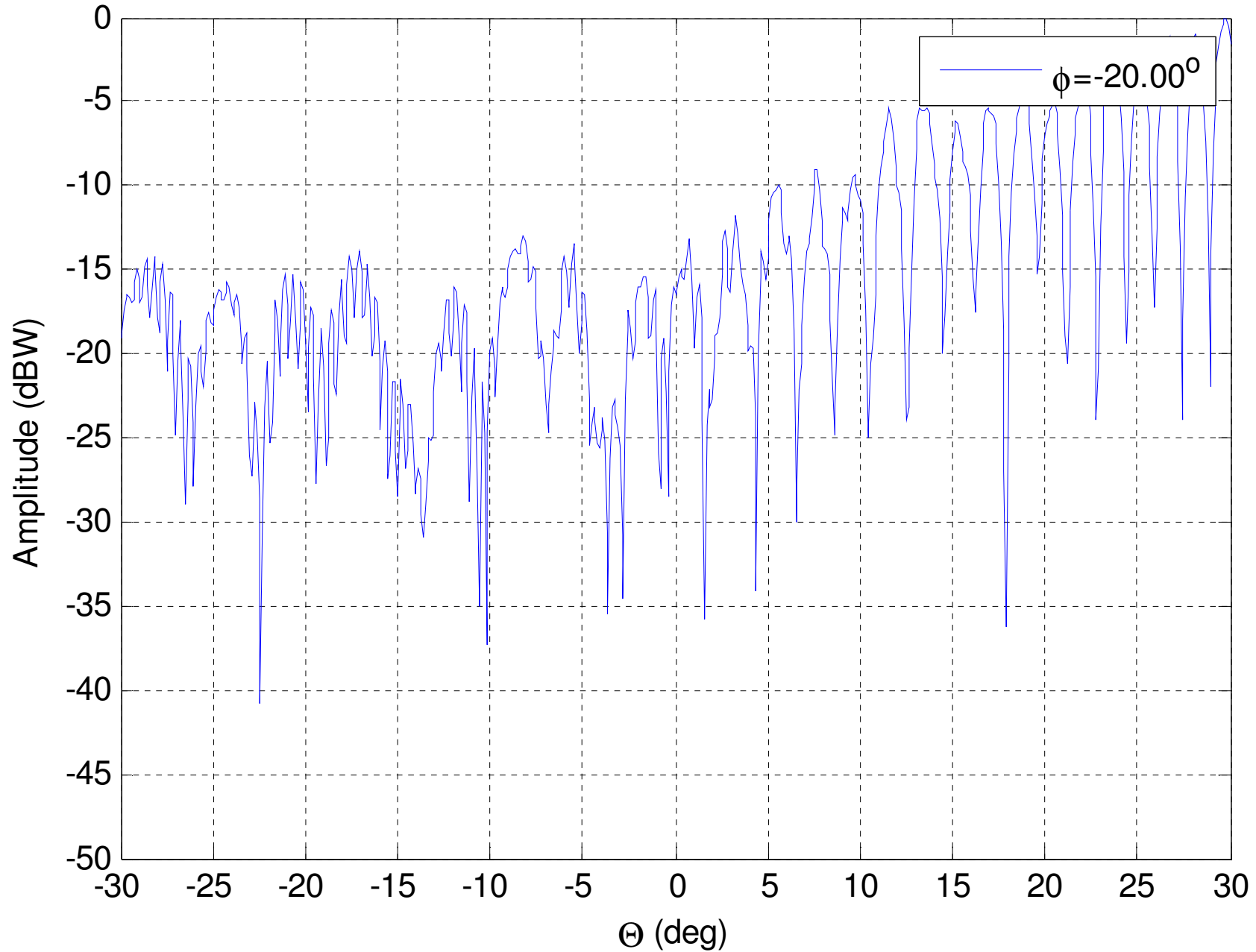
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--30.cut, Peak: -0.78 dBW, Date: 16-Dec-2011



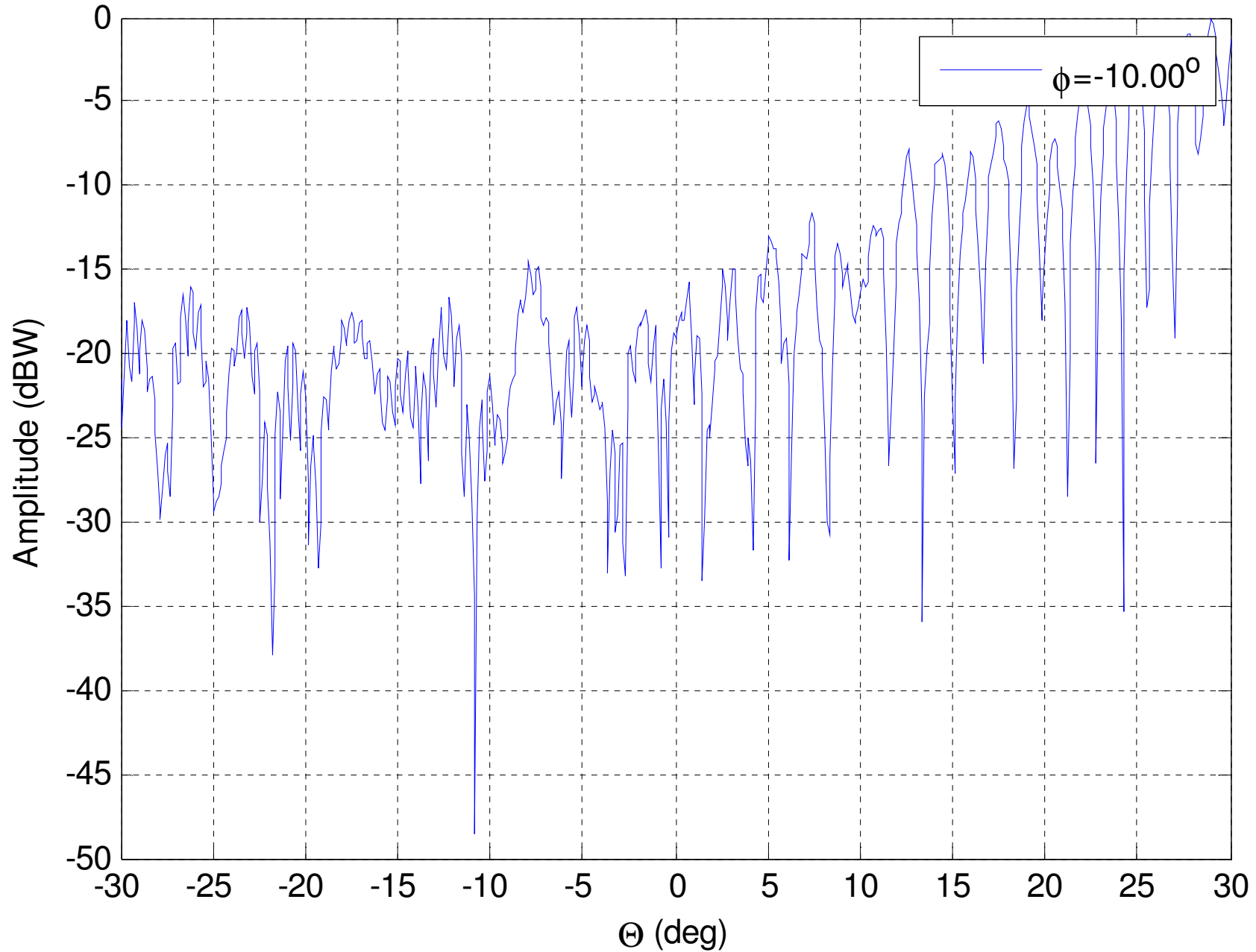
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--20.cut, Peak: 4.32 dBW, Date: 16-Dec-2011



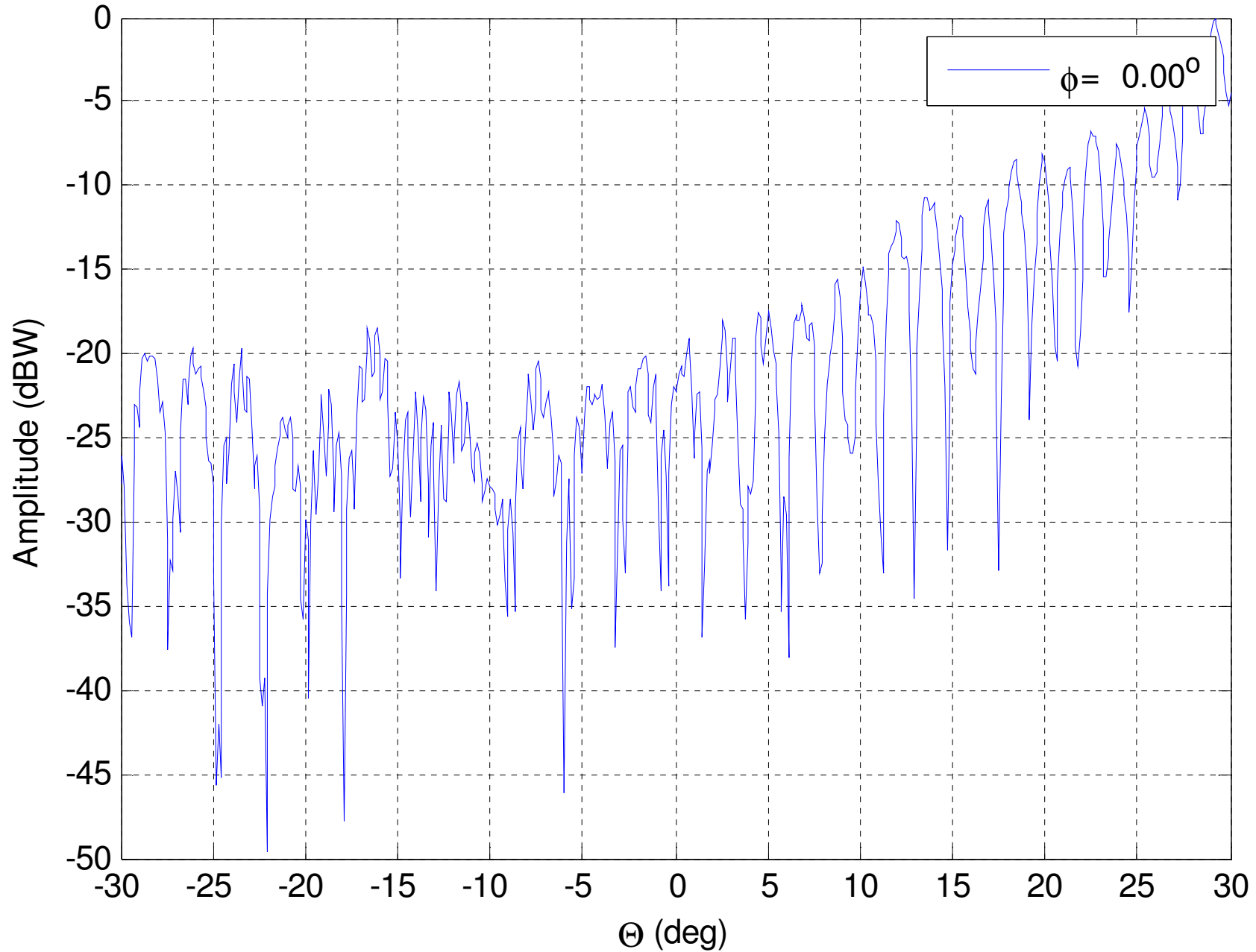
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--10.cut, Peak: 6.95 dBW, Date: 16-Dec-2011



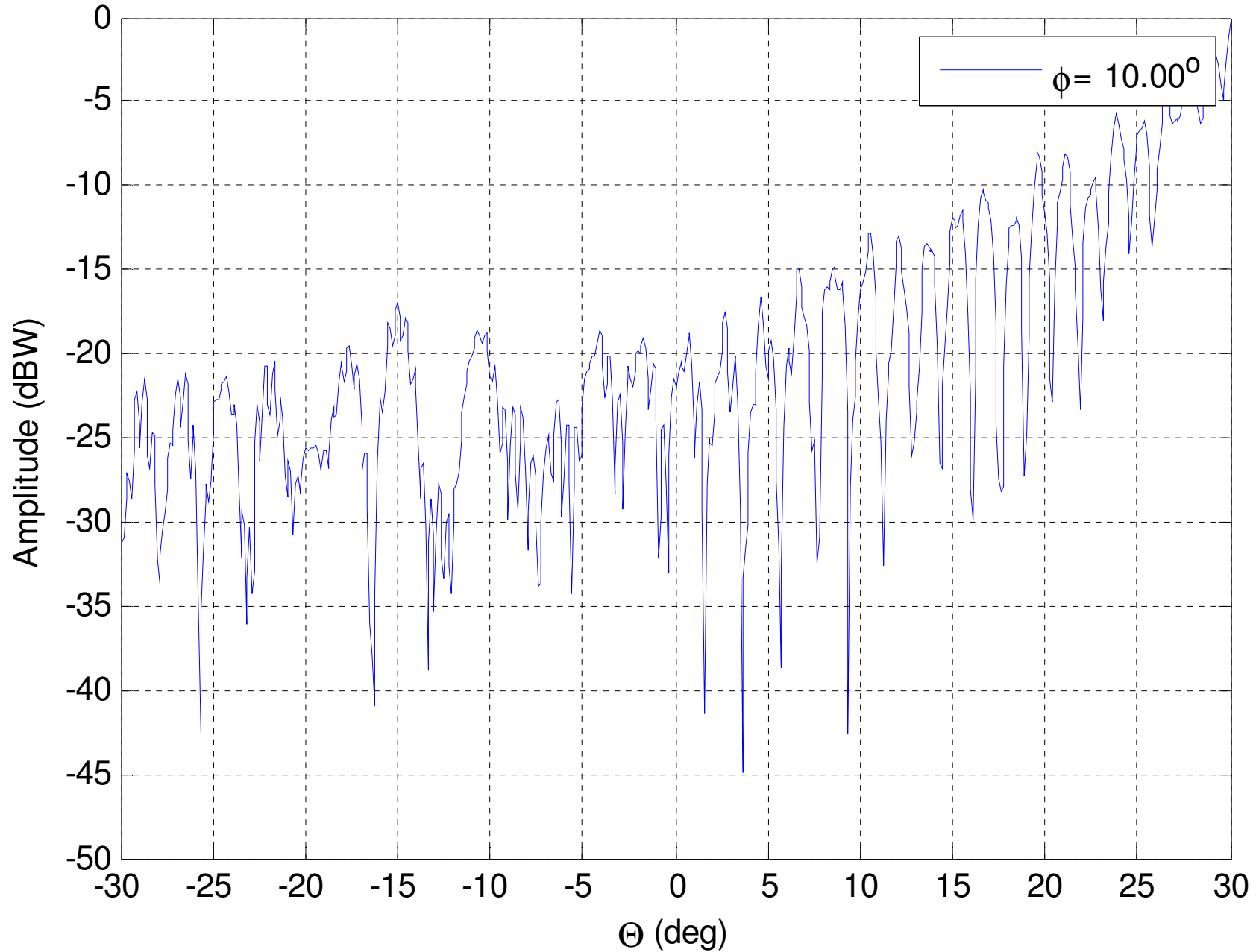
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-0.cut, Peak: 10.15 dBW, Date: 16-Dec-2011



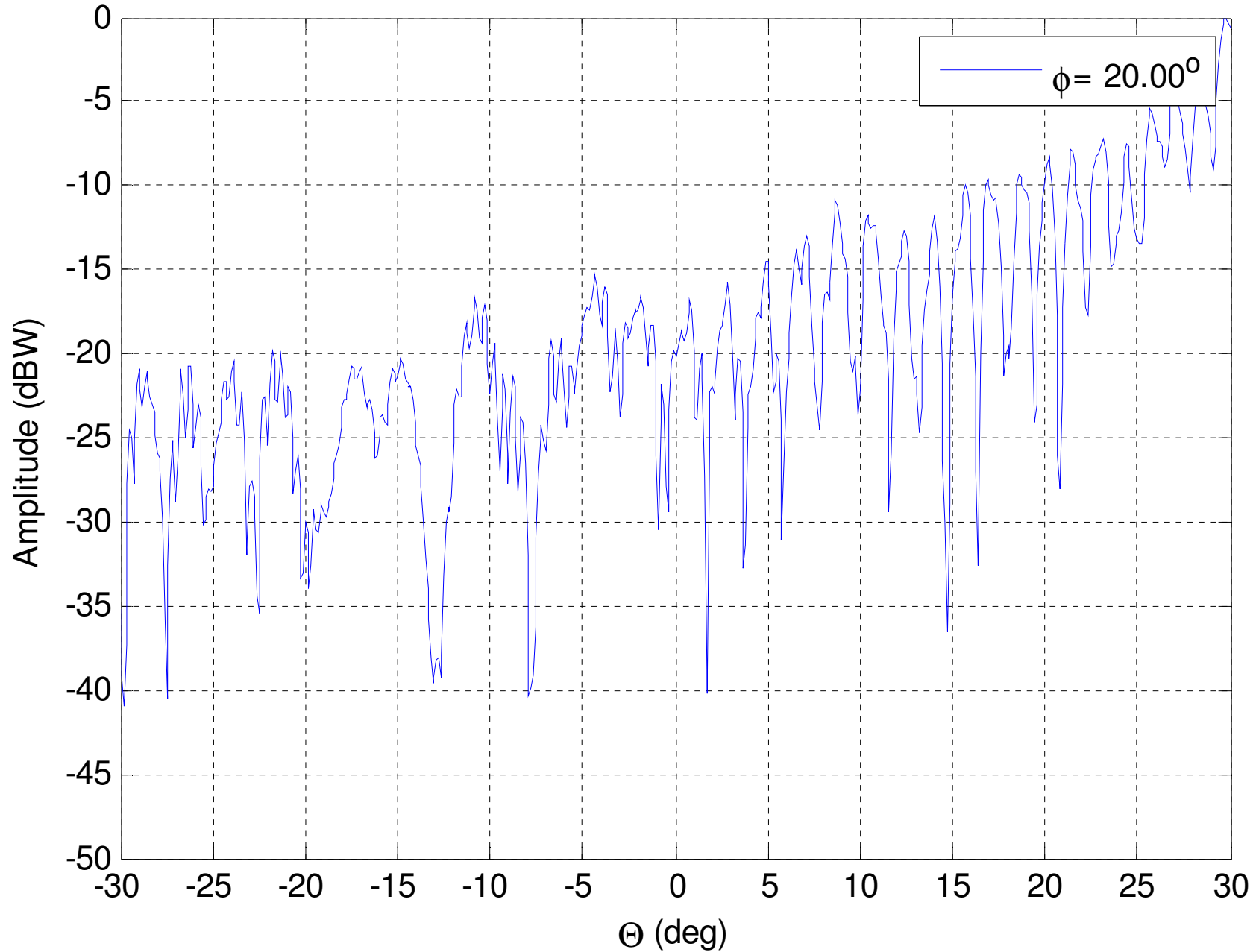
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-10.cut, Peak: 9.83 dBW, Date: 16-Dec-2011



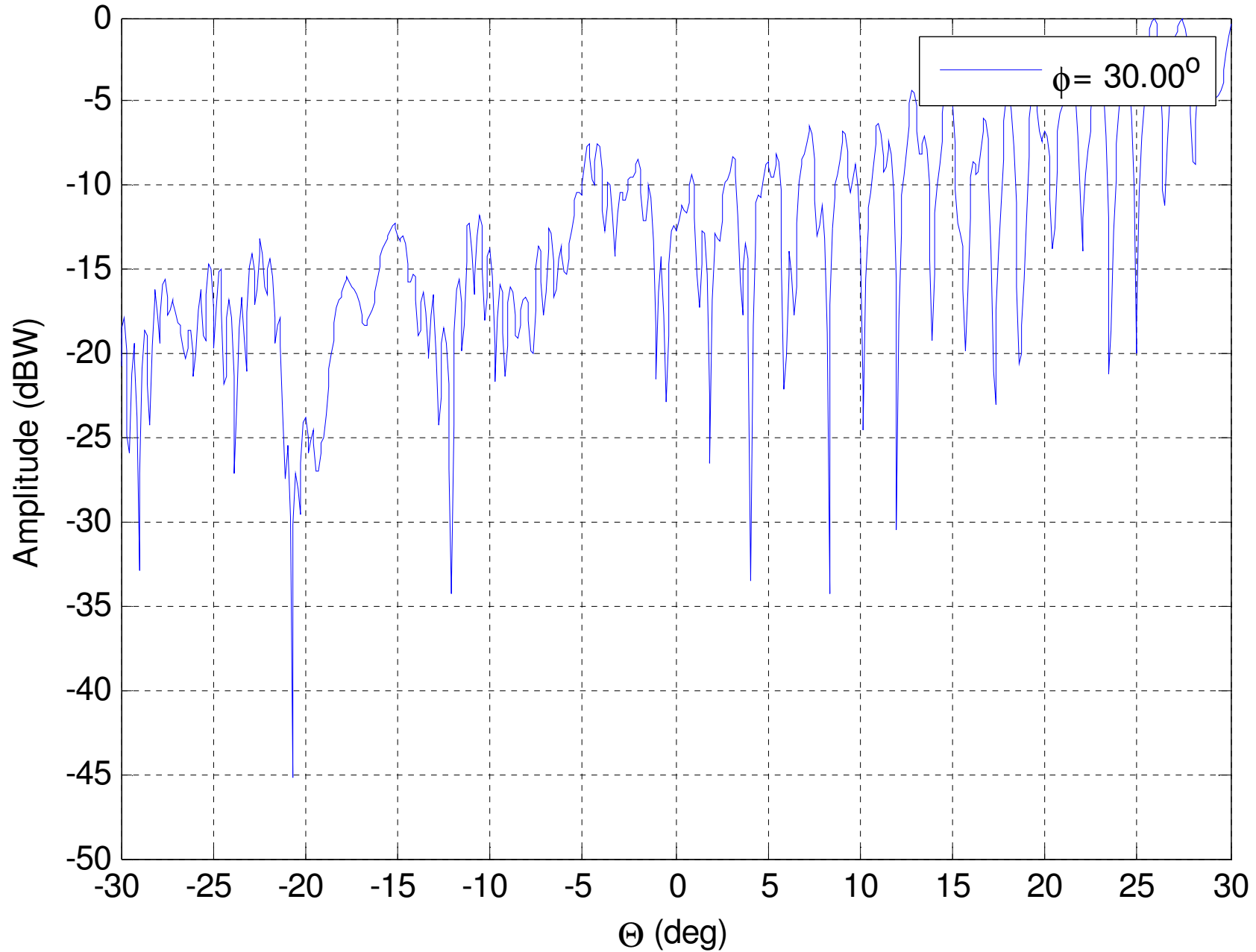
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-20.cut, Peak: 8.03 dBW, Date: 16-Dec-2011



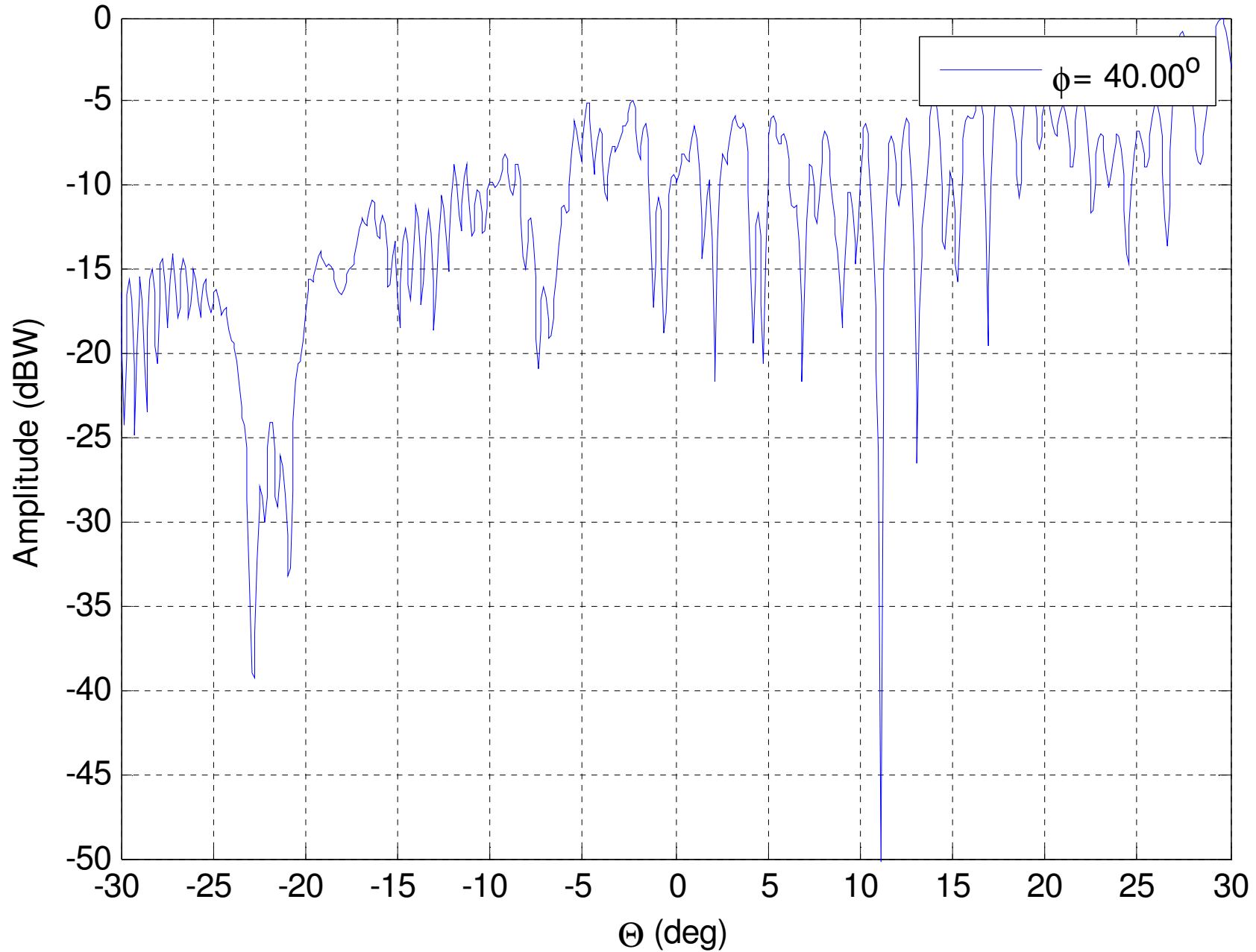
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-30.cut, Peak: 0.56 dBW, Date: 16-Dec-2011



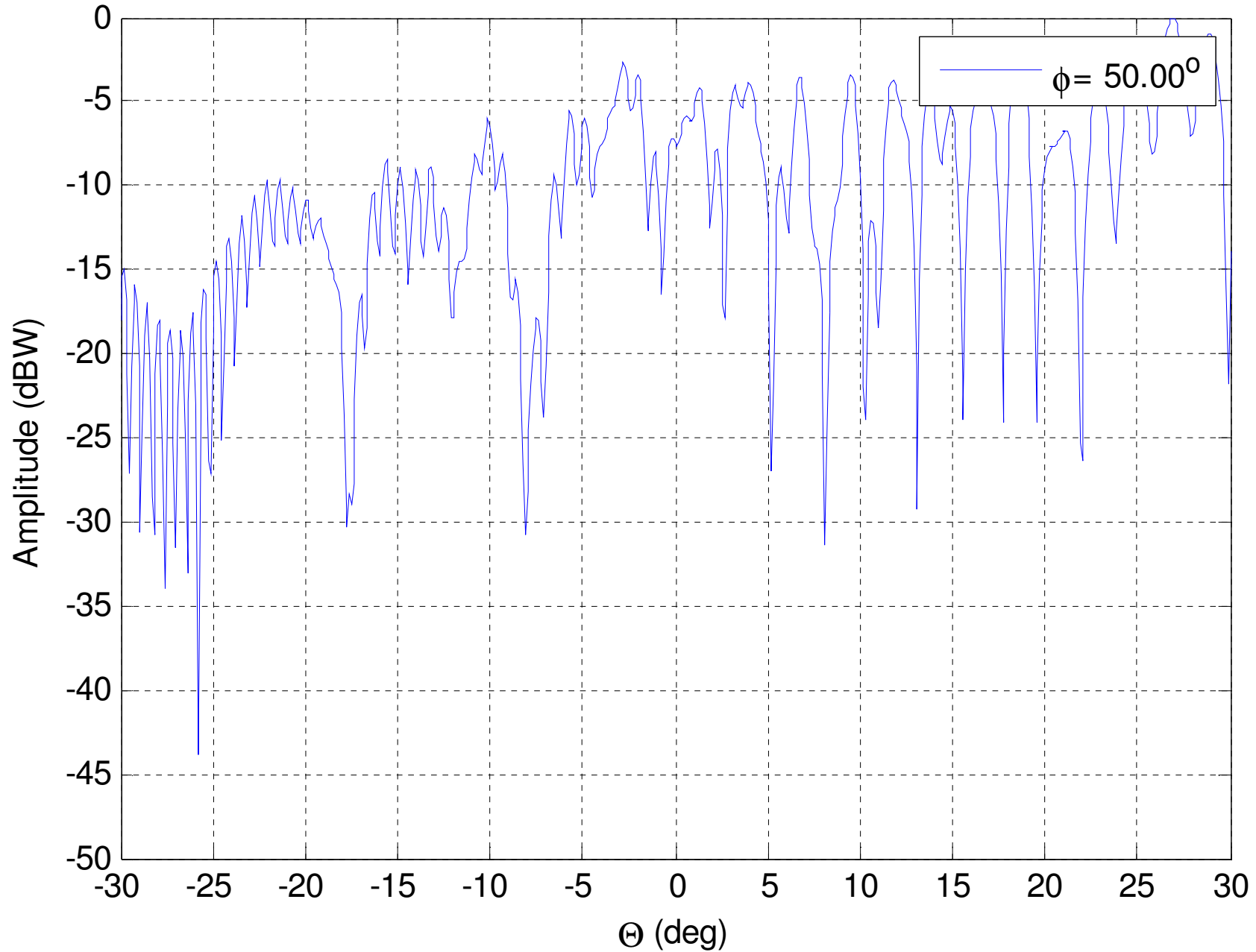
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-40.cut, Peak: -2.41 dBW, Date: 16-Dec-2011



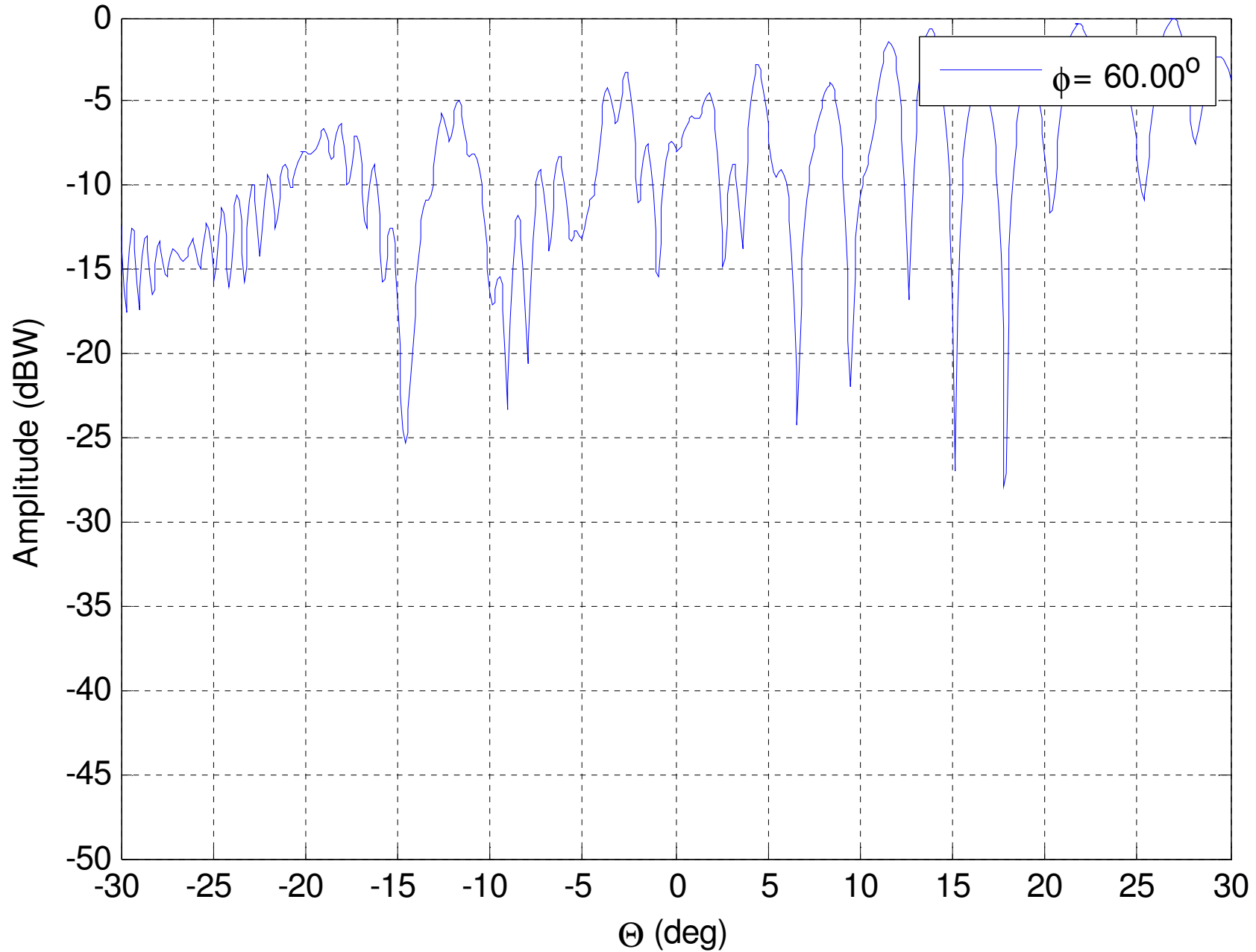
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-50.cut, Peak: -4.58 dBW, Date: 16-Dec-2011



Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-60.cut, Peak: -4.31 dBW, Date: 16-Dec-2011



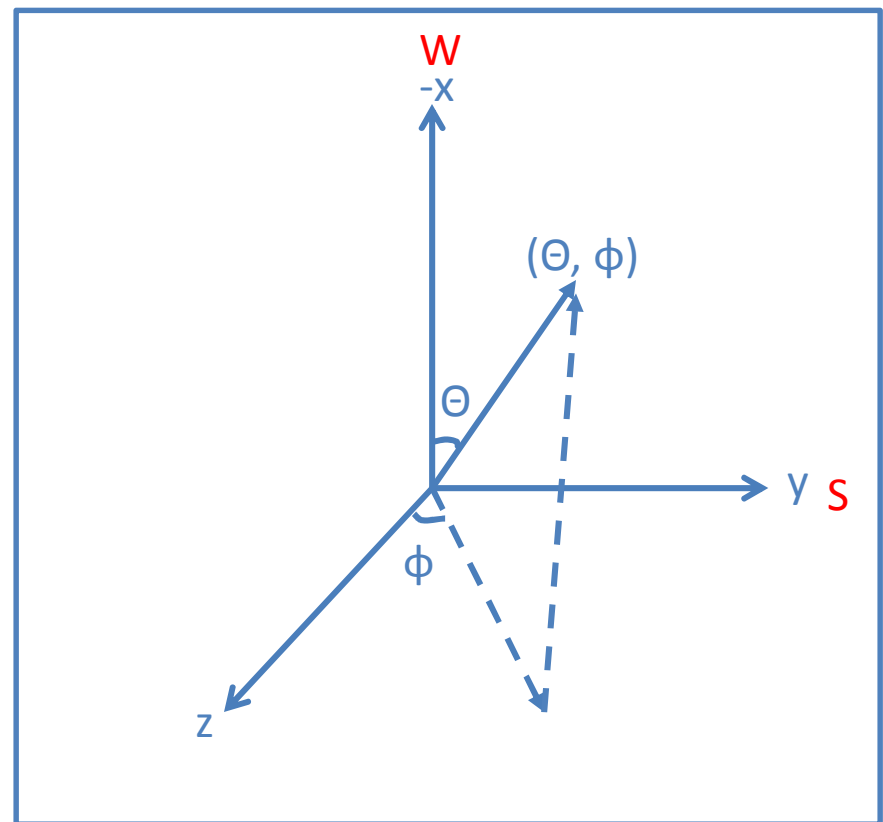
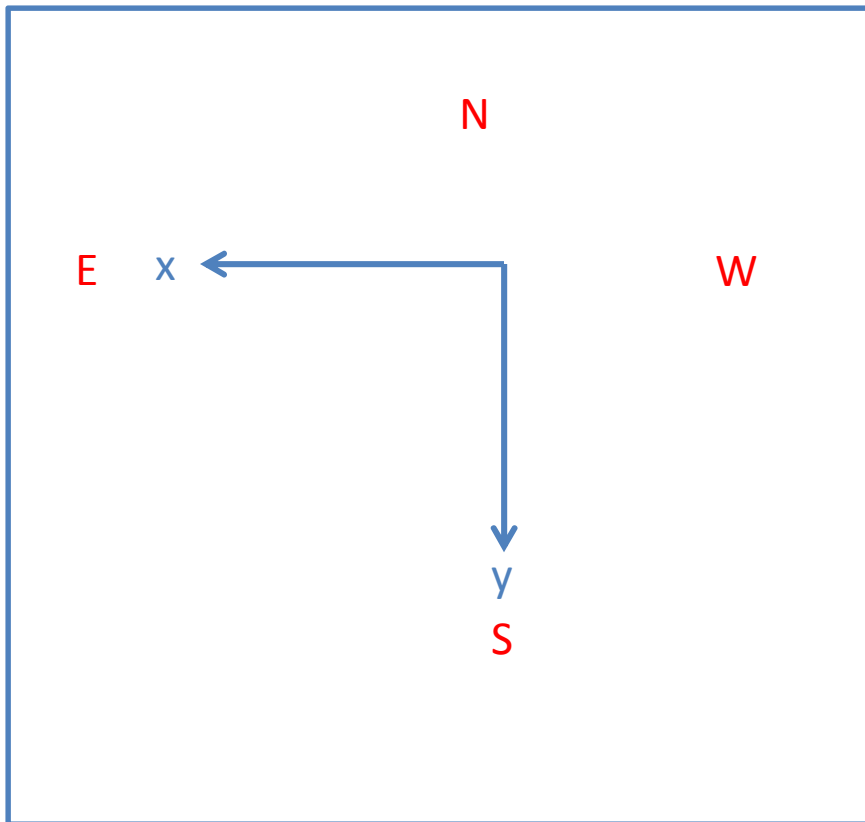
December 13, 2011

119 West Adjacent Satellite Off
Axis Antenna Performance
Spot Beam 46
cf: 10.7 dBW

Maximum Allowable EIRP to meet the -117dBW/m²/100 kHz

Maximum EIRP Allowed	
Spec Max flux density, dBW/m ² /100kHz	-117
Desired channel band width, MHz	25.8
Symbol rate band width modification factor	1
Effective channel bandwidth, MHz	25.8
Effective bandwidth, dB-100kHz	24.1
Flux density allowed per channel, dBW/m ²	-92.9
R, radial distance to GEO, km	42164.0
Angle of separation between satellites, deg	0.1
range between satellites, km	73.59
Spreading factor, dB/m ²	-108.3
Atmospheric loss, dB	0
Max satellite EIRP allowed, dBW	15.4

Coordinate System



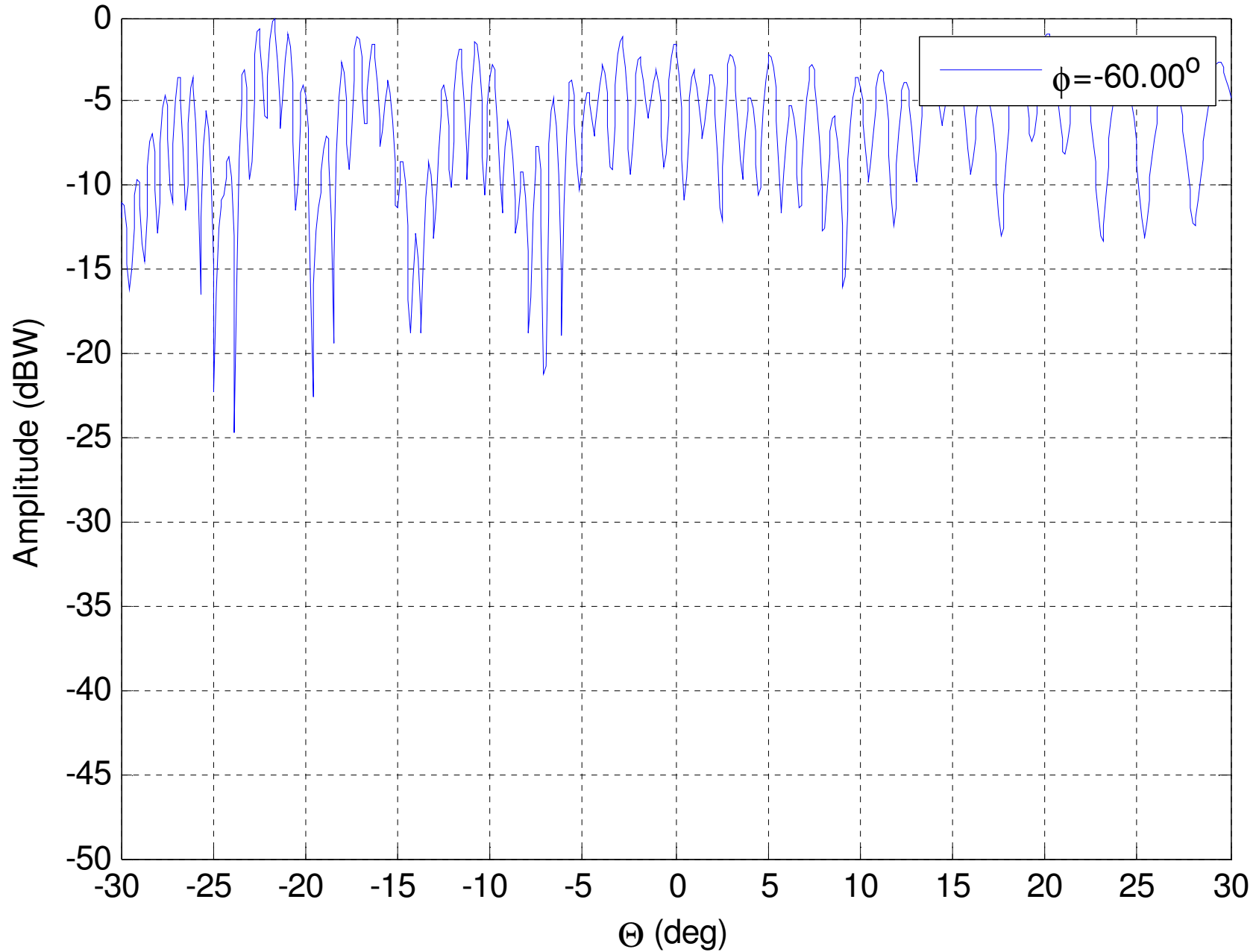
Spot Beam46, -X Axis Plots

- Both polarizations; RHCP, LHCP
- $-30 < \Theta < 30$ ($\Theta=0$: -X -axis)
- $-60 < \phi < 60$
- Freq = 17.3, 17.5, and 17.7 GHz
- The Zero reference line is the peak gain listed in the title of each chart
- All levels are significantly below the required 15.4 dBW EIRP shown on chart 2

RHCP at 17.3 GHz

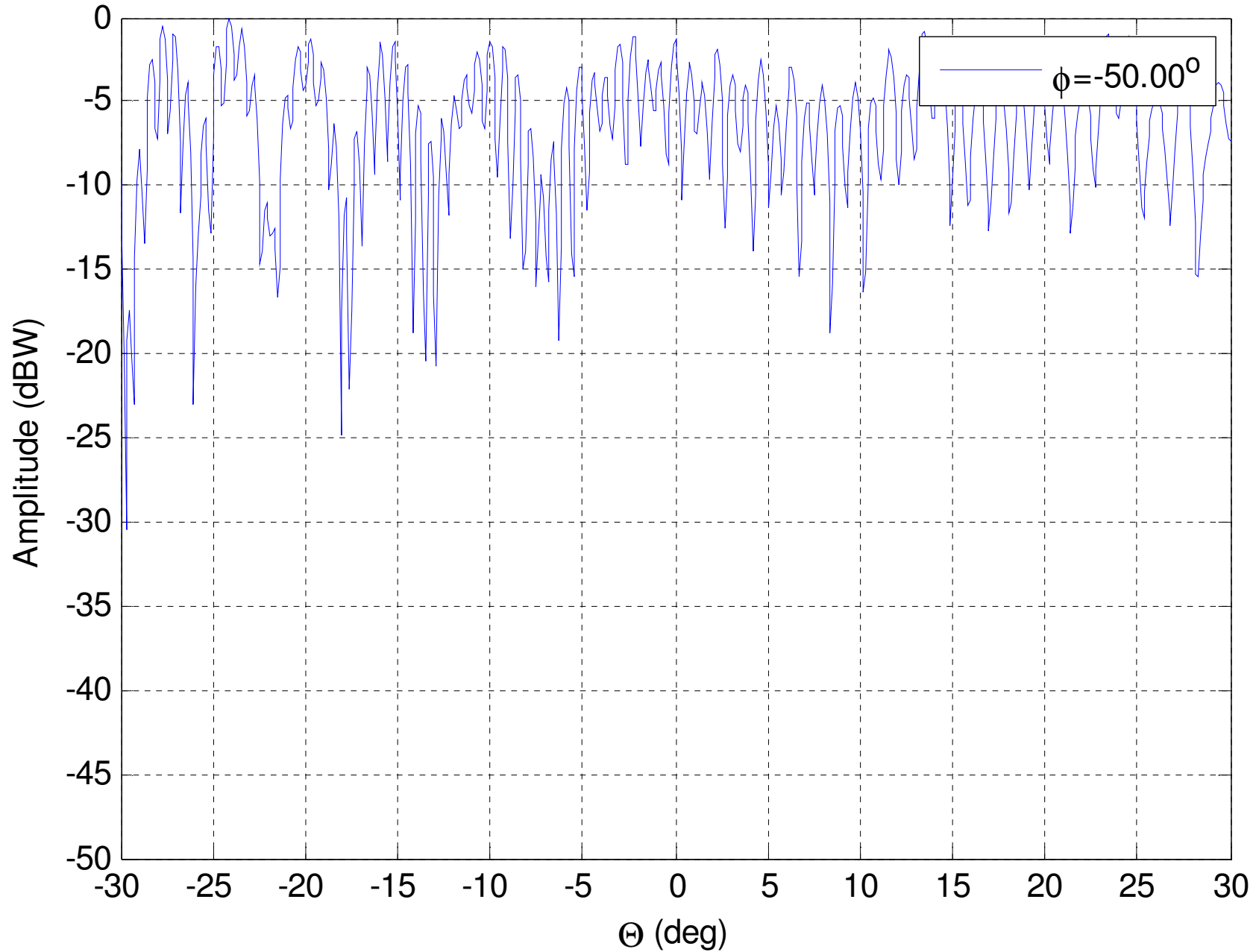
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--60.cut, Peak: 0.50 dBW, Date: 16-Dec-2011



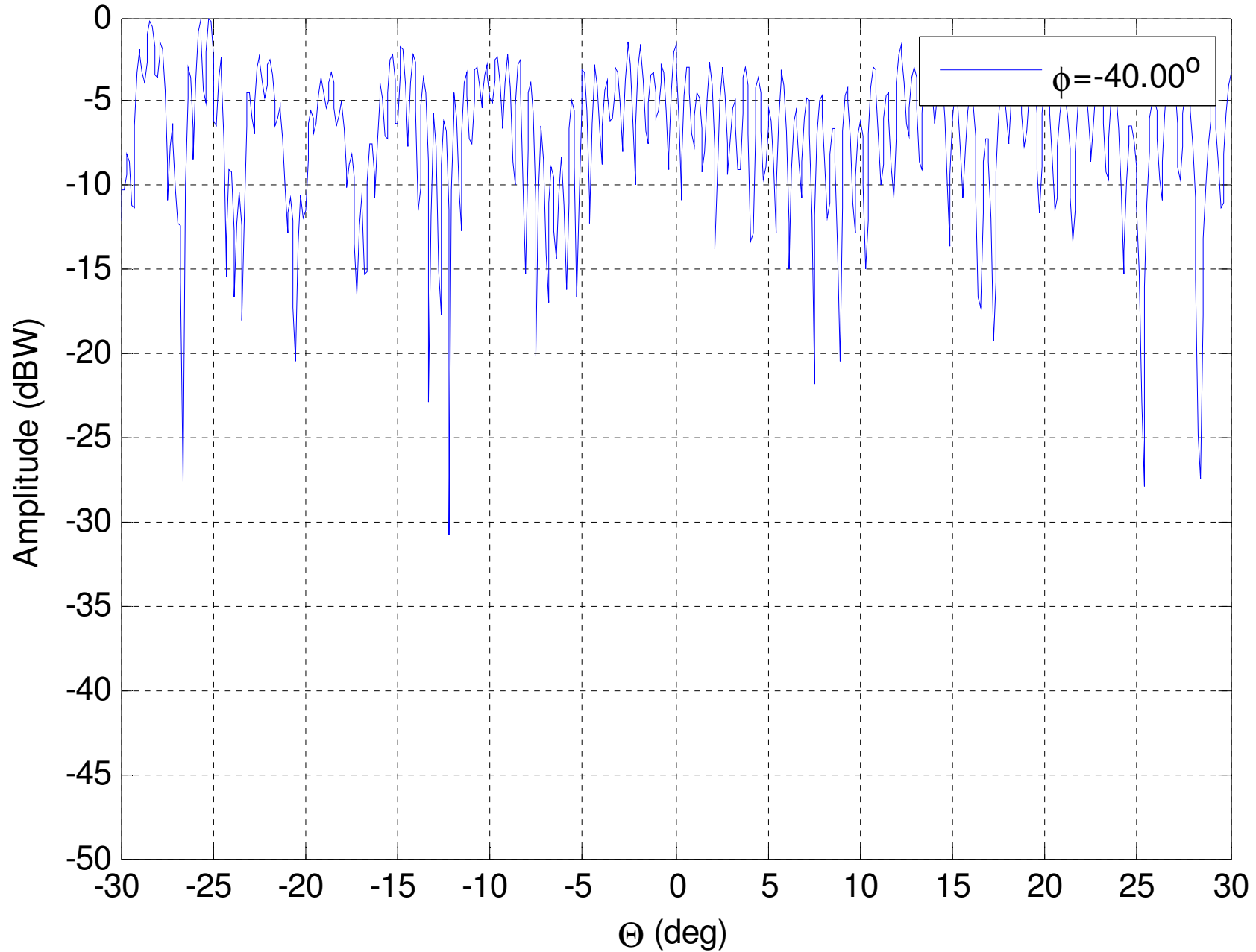
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--50.cut, Peak: 0.31 dBW, Date: 16-Dec-2011



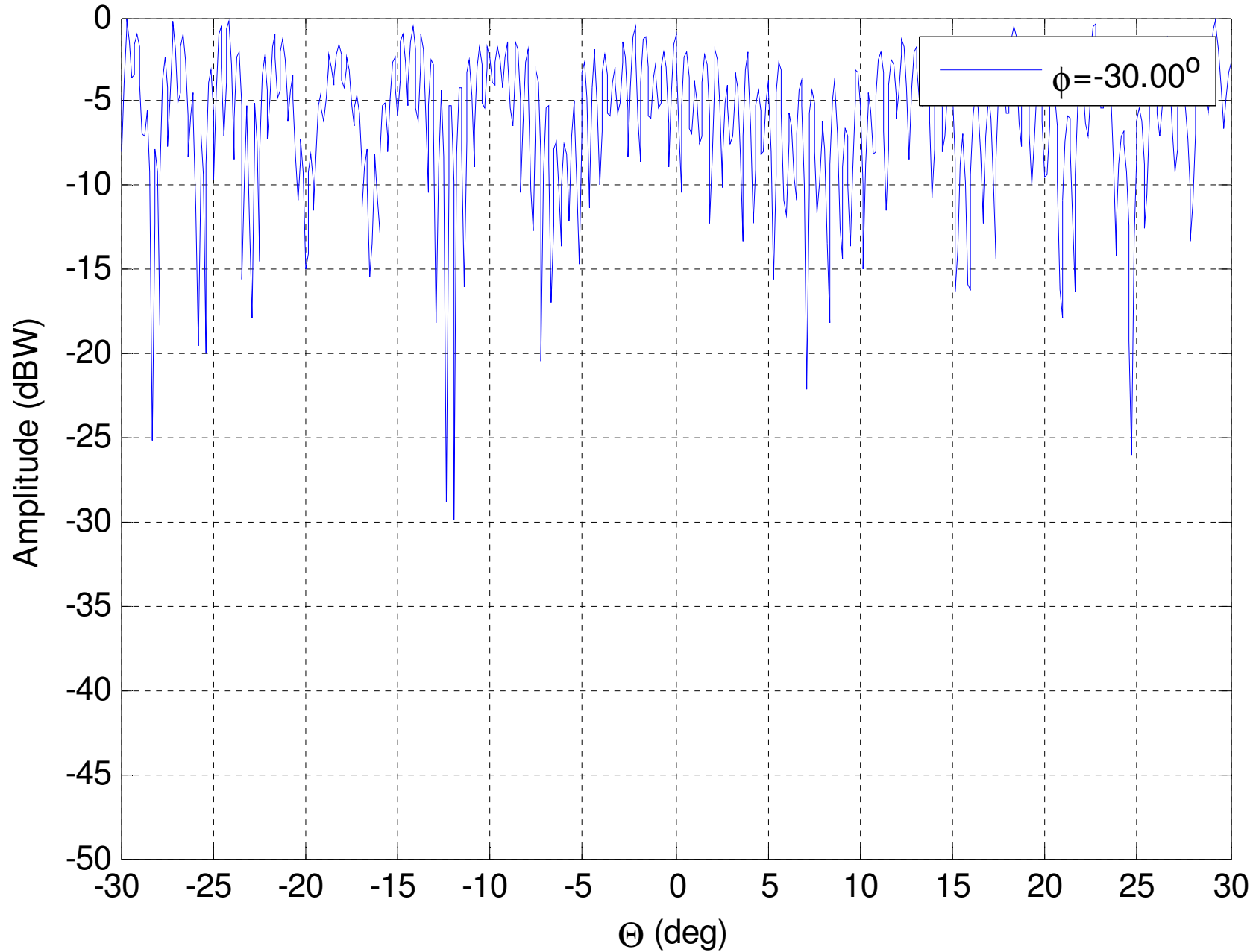
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--40.cut, Peak: 0.61 dBW, Date: 16-Dec-2011



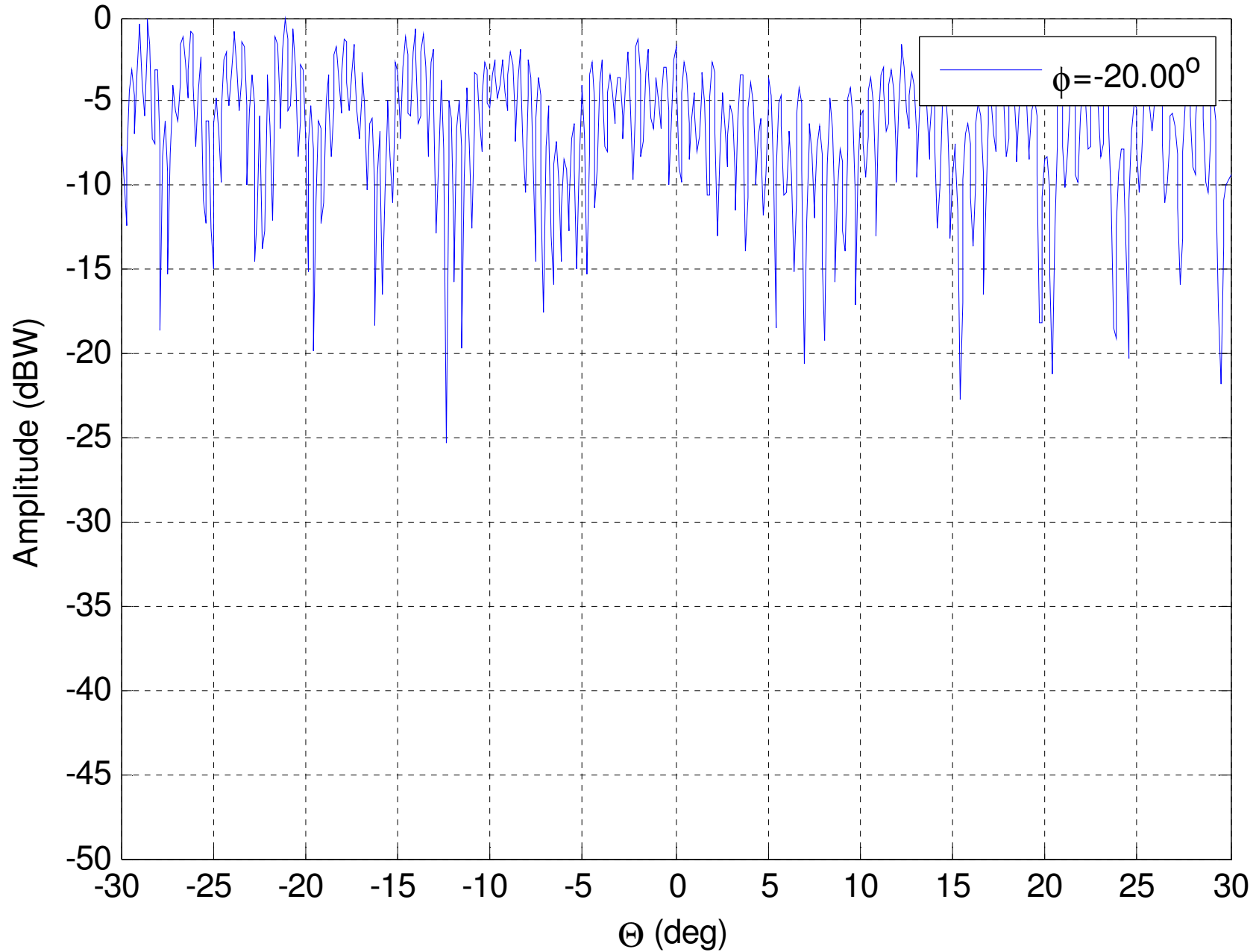
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--30.cut, Peak: -0.09 dBW, Date: 16-Dec-2011



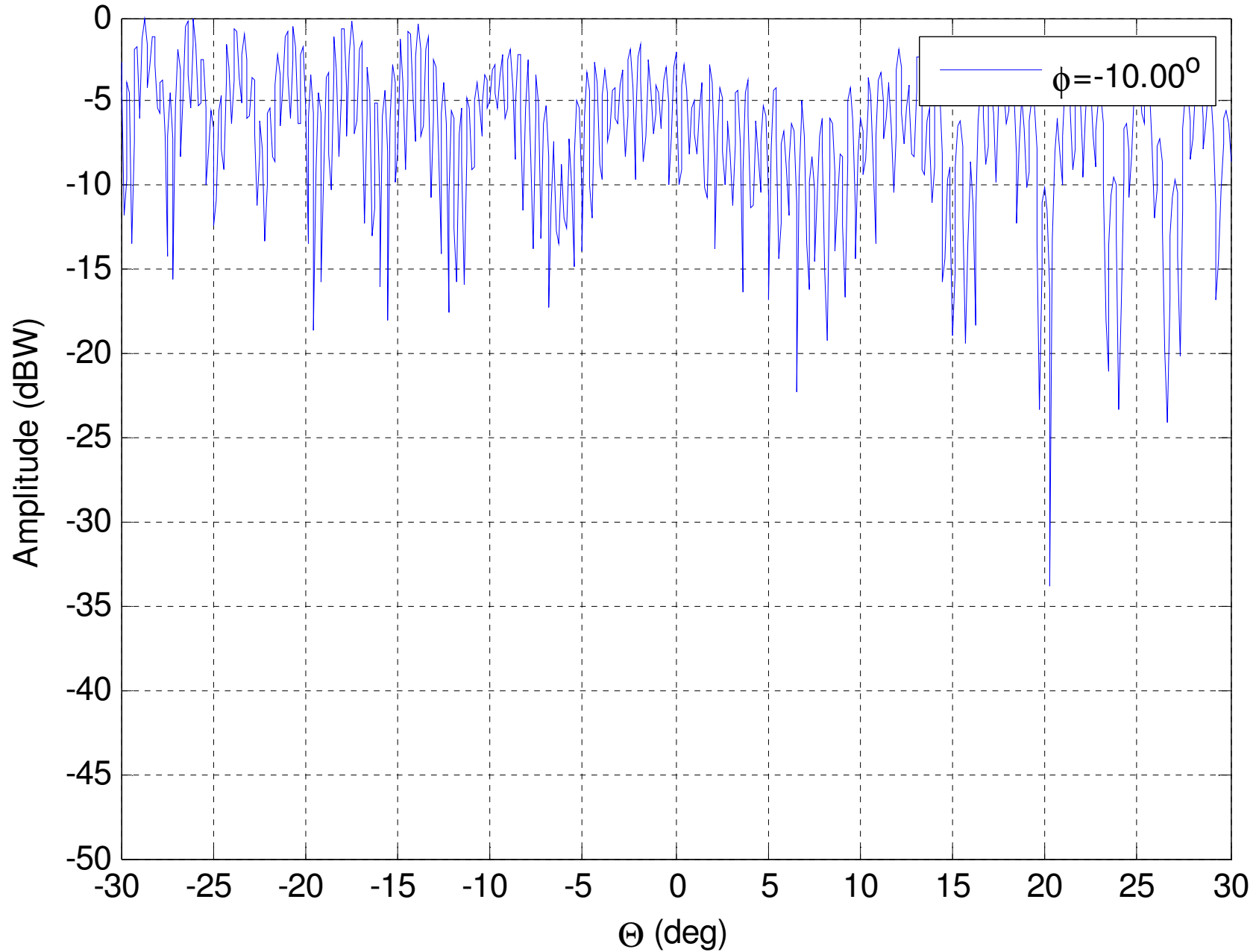
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--20.cut, Peak: 0.71 dBW, Date: 16-Dec-2011



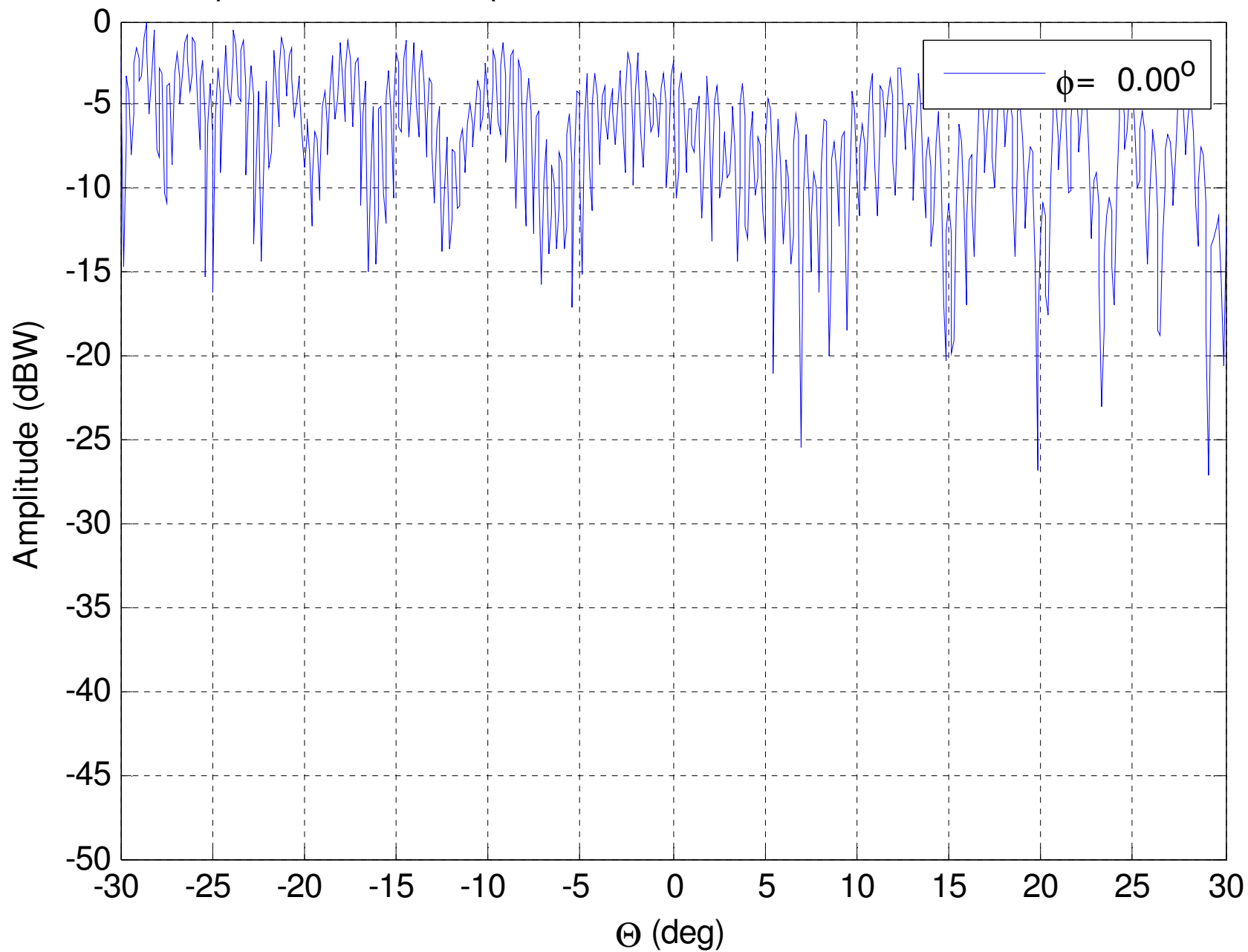
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--10.cut, Peak: 1.03 dBW, Date: 16-Dec-2011



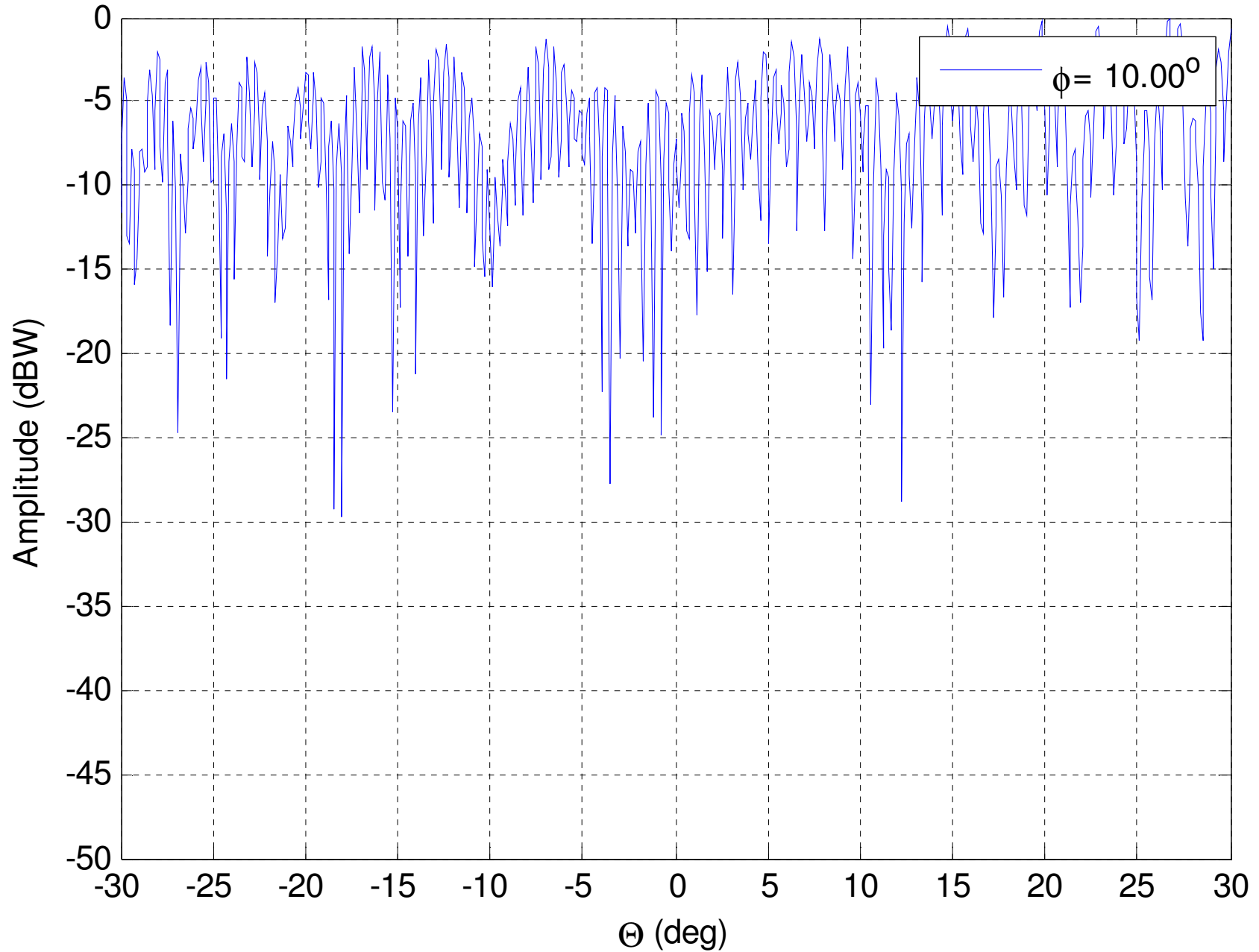
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-0.cut, Peak: 1.30 dBW, Date: 16-Dec-2011



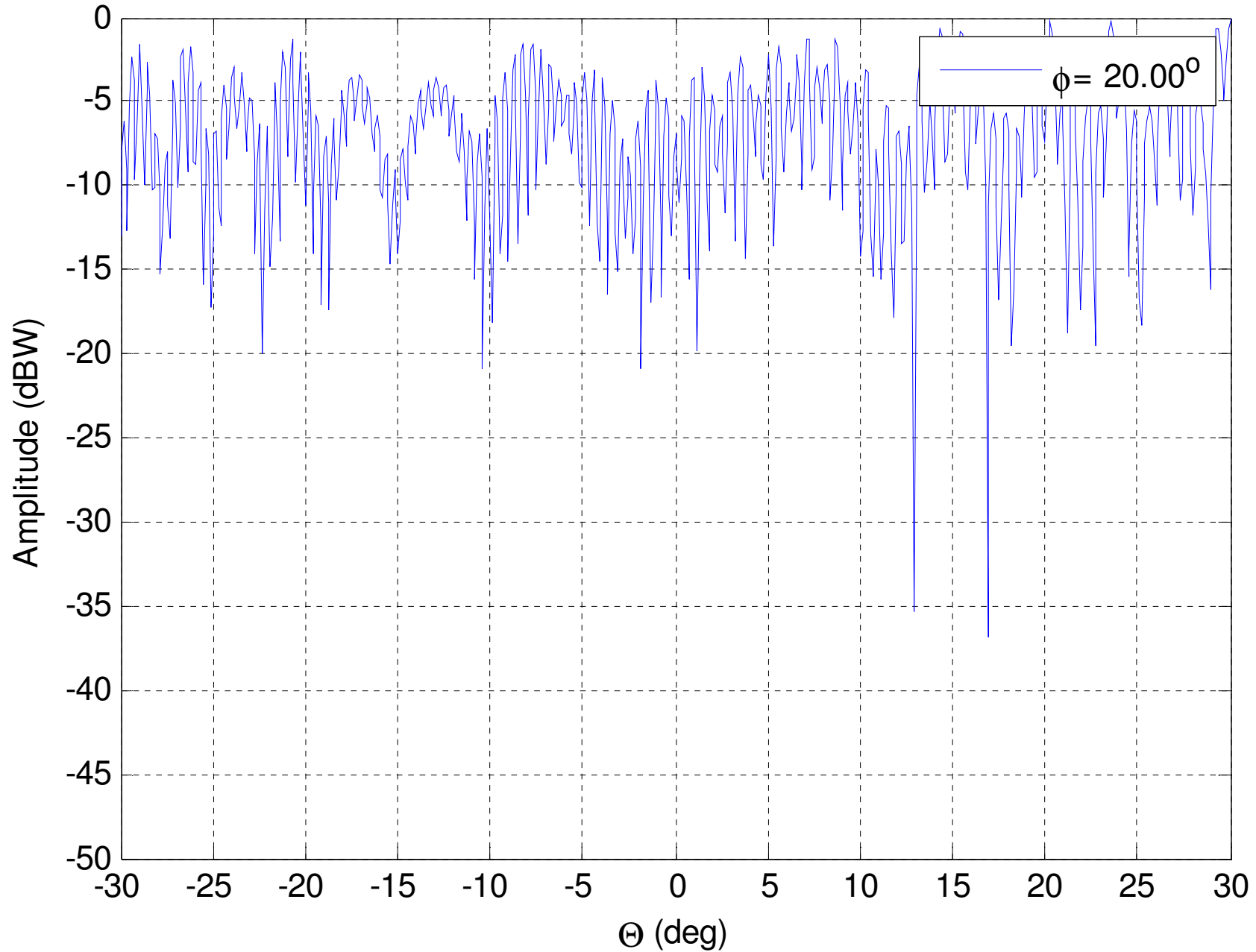
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-10.cut, Peak: 0.99 dBW, Date: 16-Dec-2011



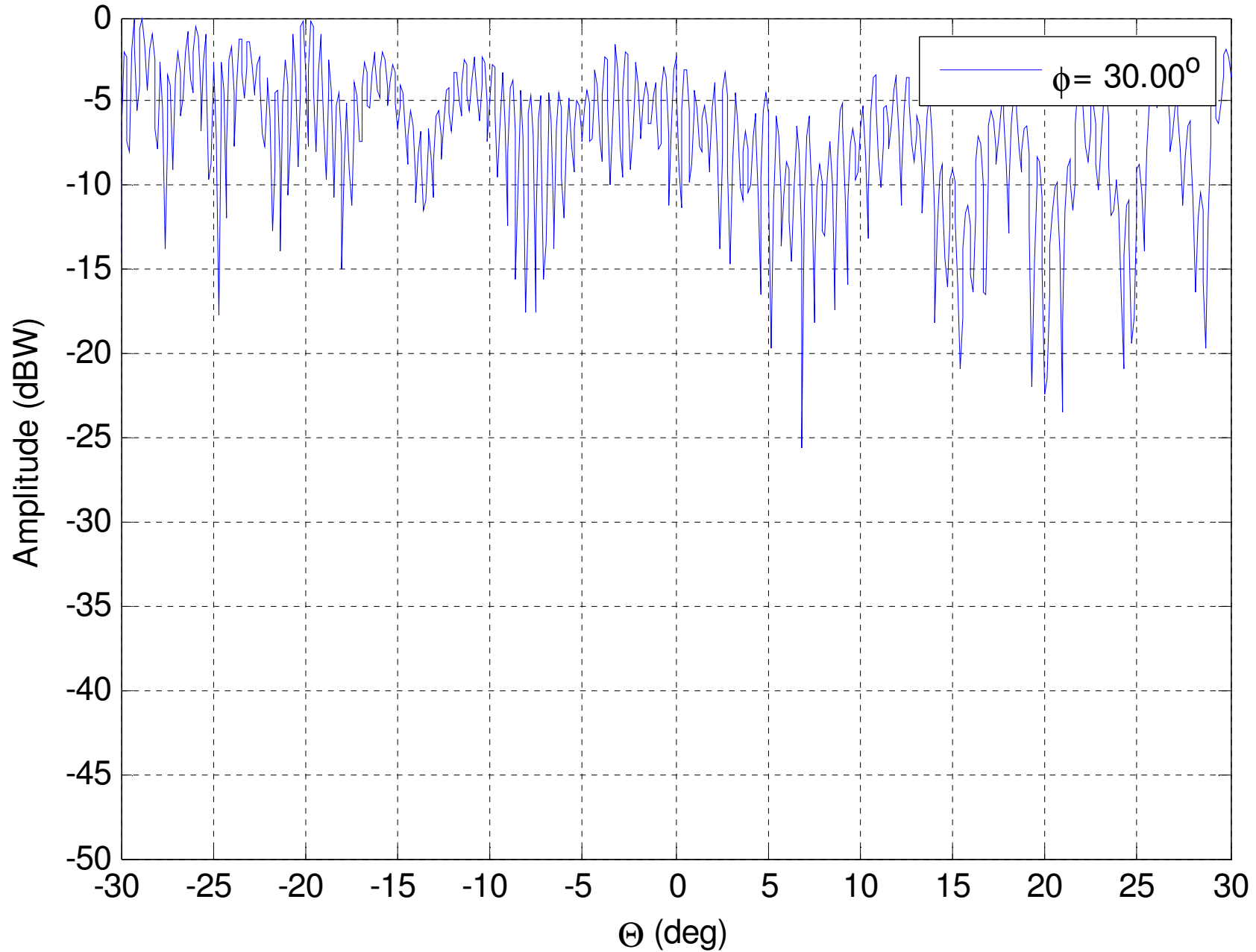
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-20.cut, Peak: 0.71 dBW, Date: 16-Dec-2011



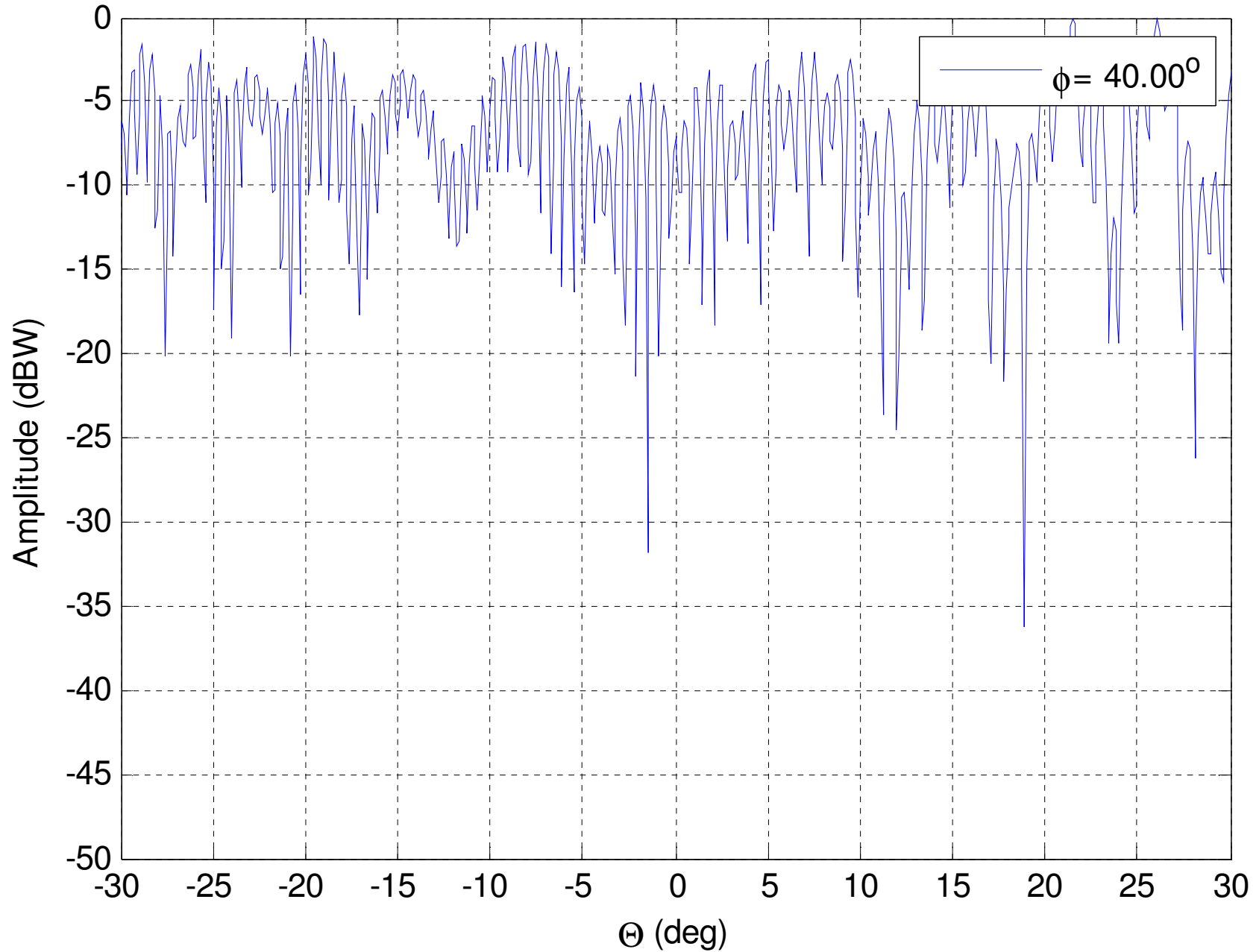
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-30.cut, Peak: 1.36 dBW, Date: 16-Dec-2011



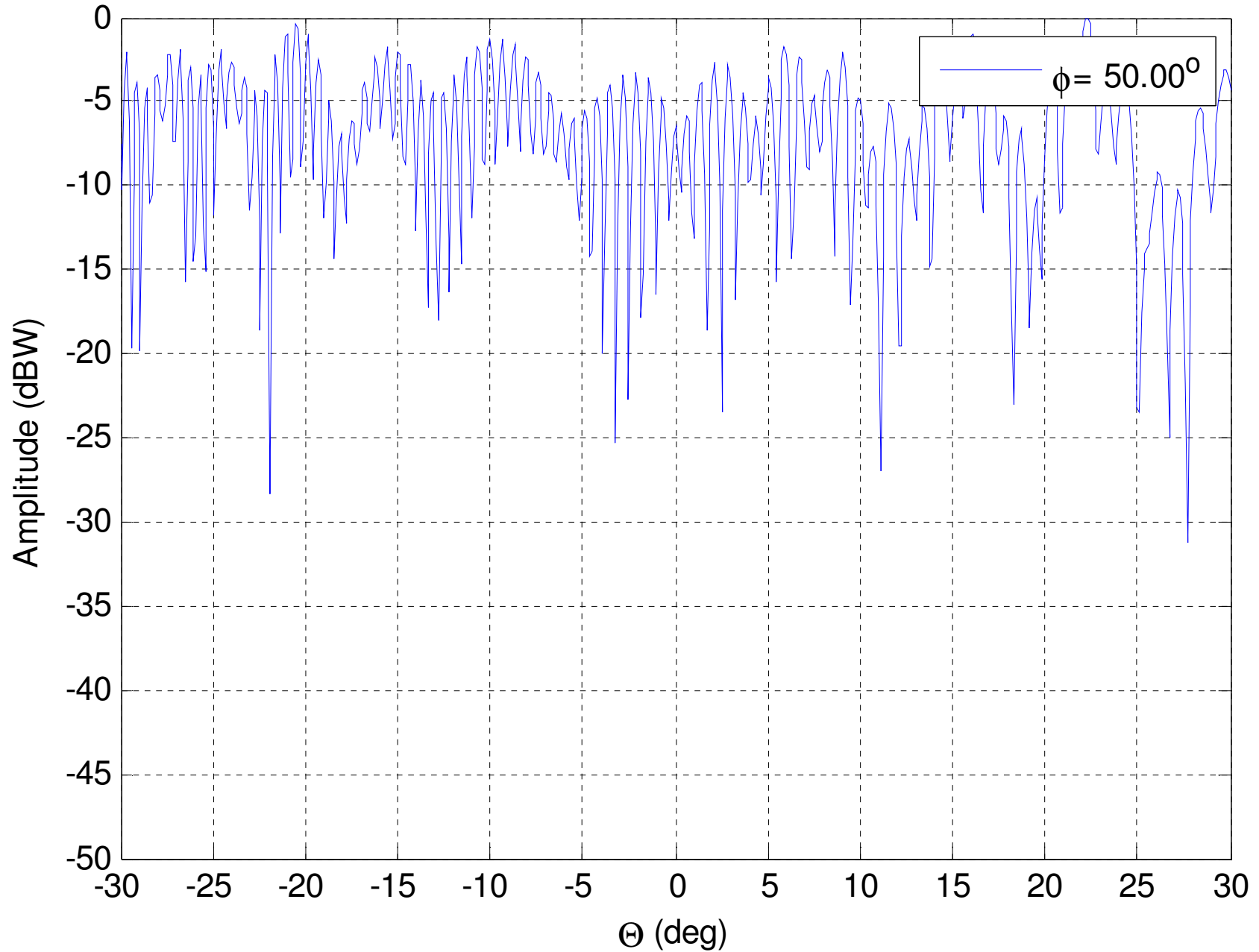
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-40.cut, Peak: 0.83 dBW, Date: 16-Dec-2011



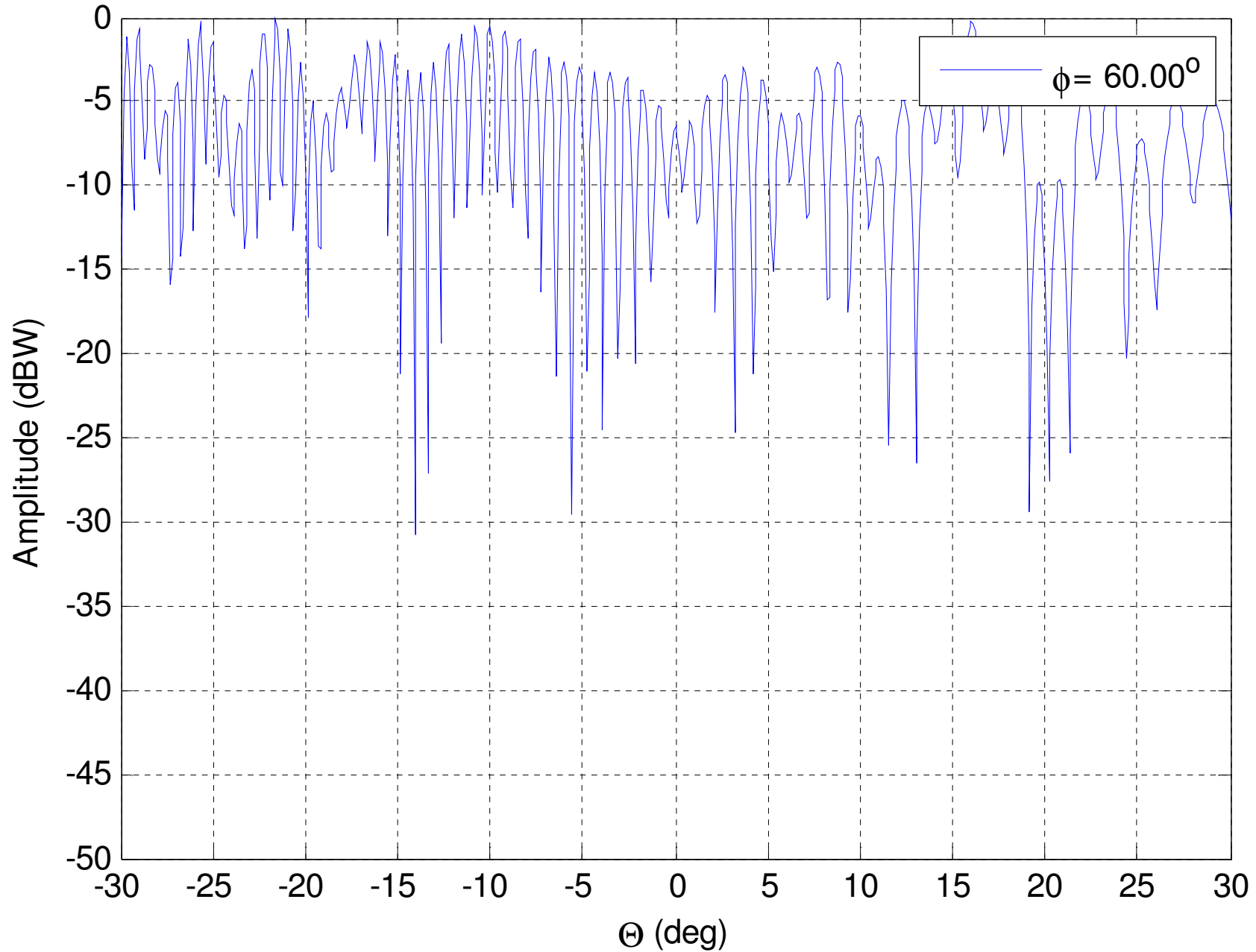
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-50.cut, Peak: 0.21 dBW, Date: 16-Dec-2011



Normalized pattern cuts - farfield

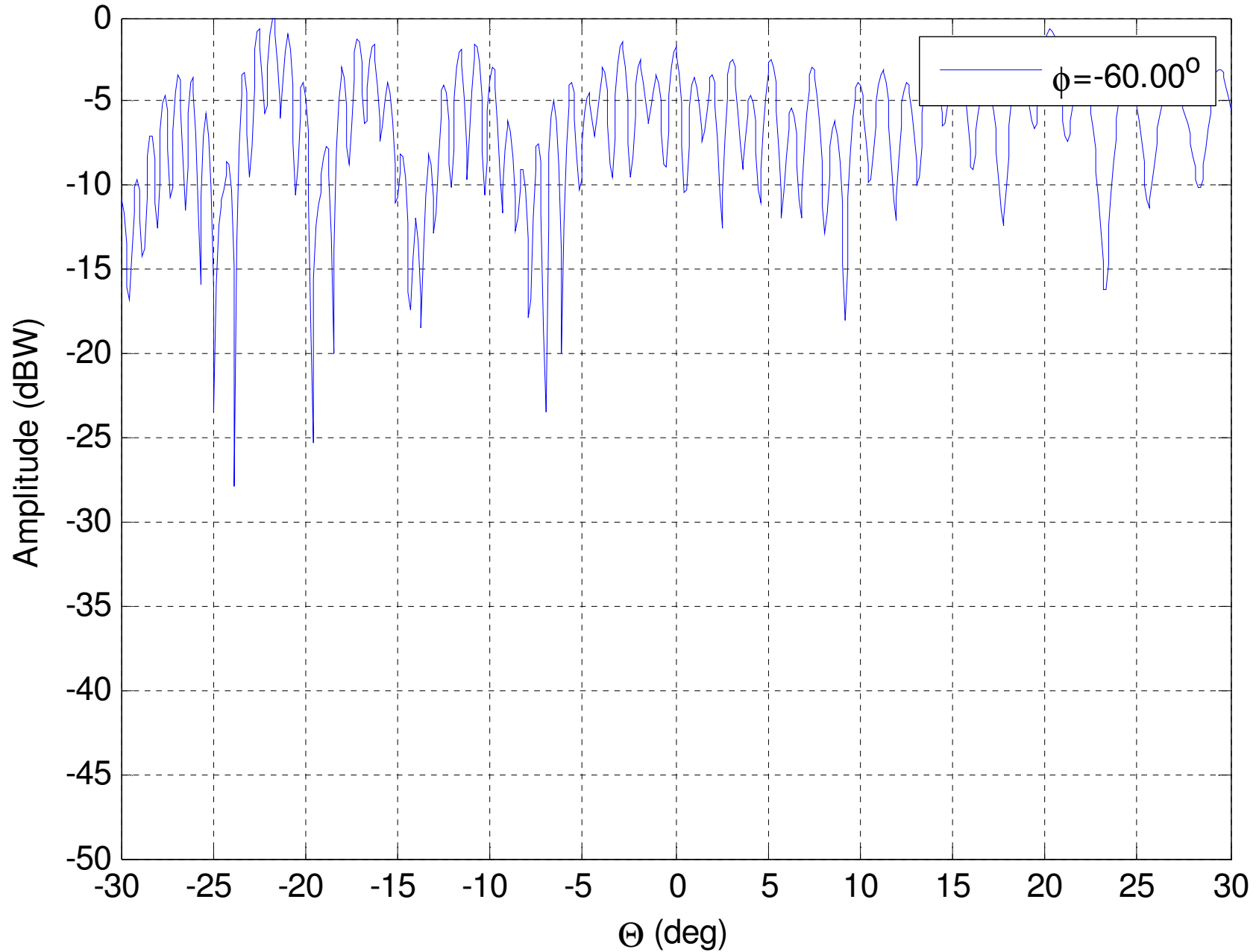
Input file: tx-17.3-rhcp-60.cut, Peak: 0.23 dBW, Date: 16-Dec-2011



LHCP at 17.3 GHz

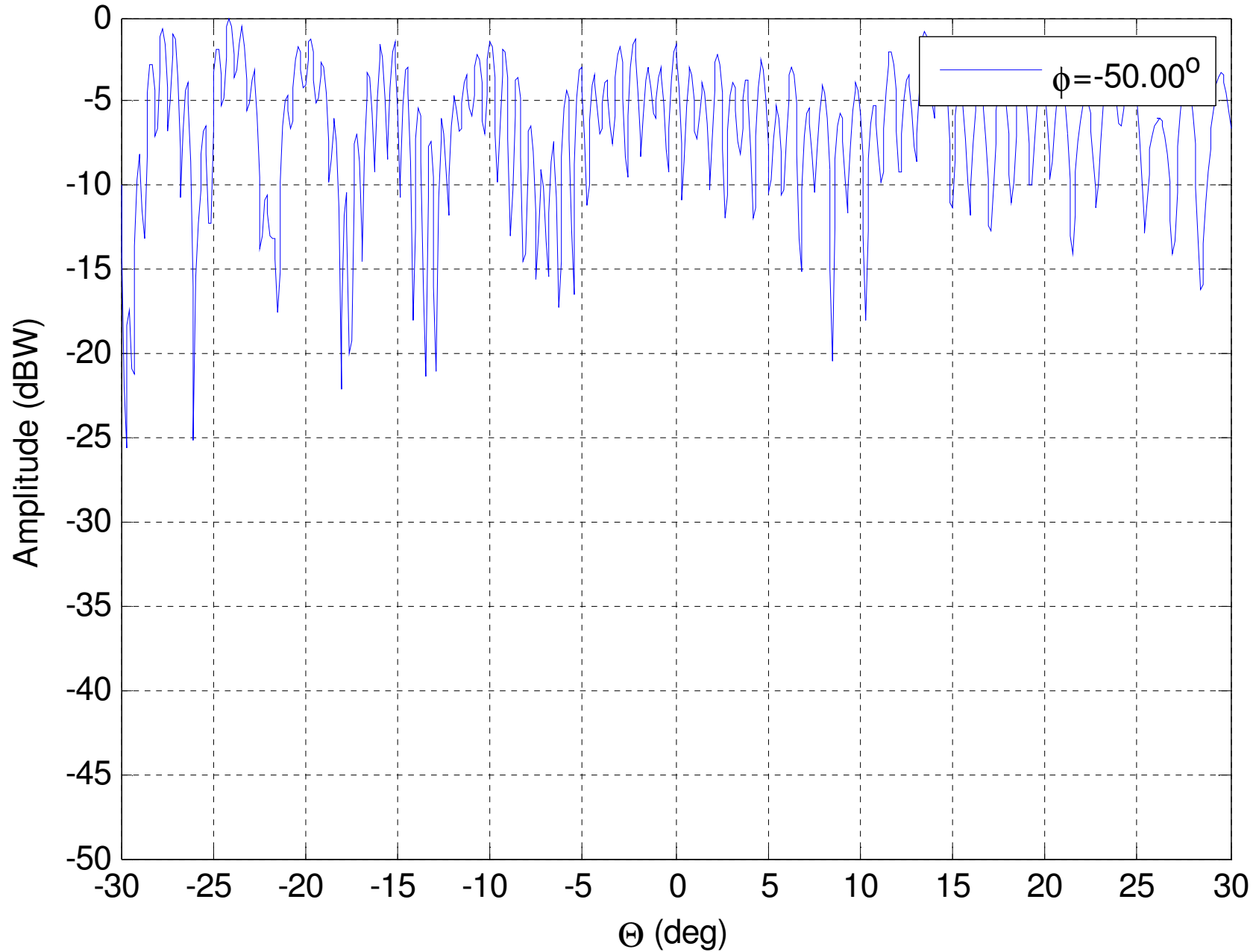
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp--60.cut, Peak: 0.65 dBW, Date: 16-Dec-2011



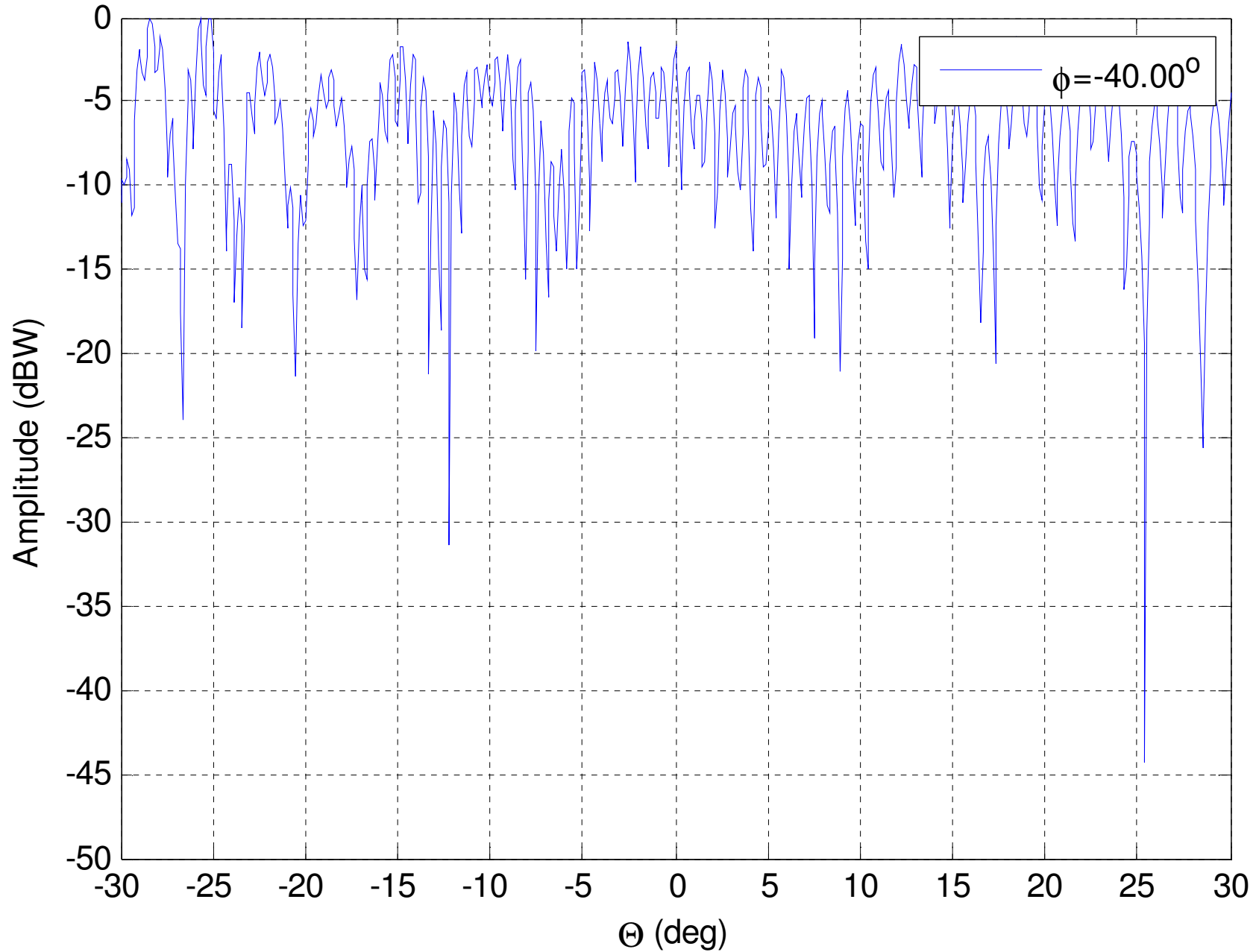
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp--50.cut, Peak: 0.48 dBW, Date: 16-Dec-2011



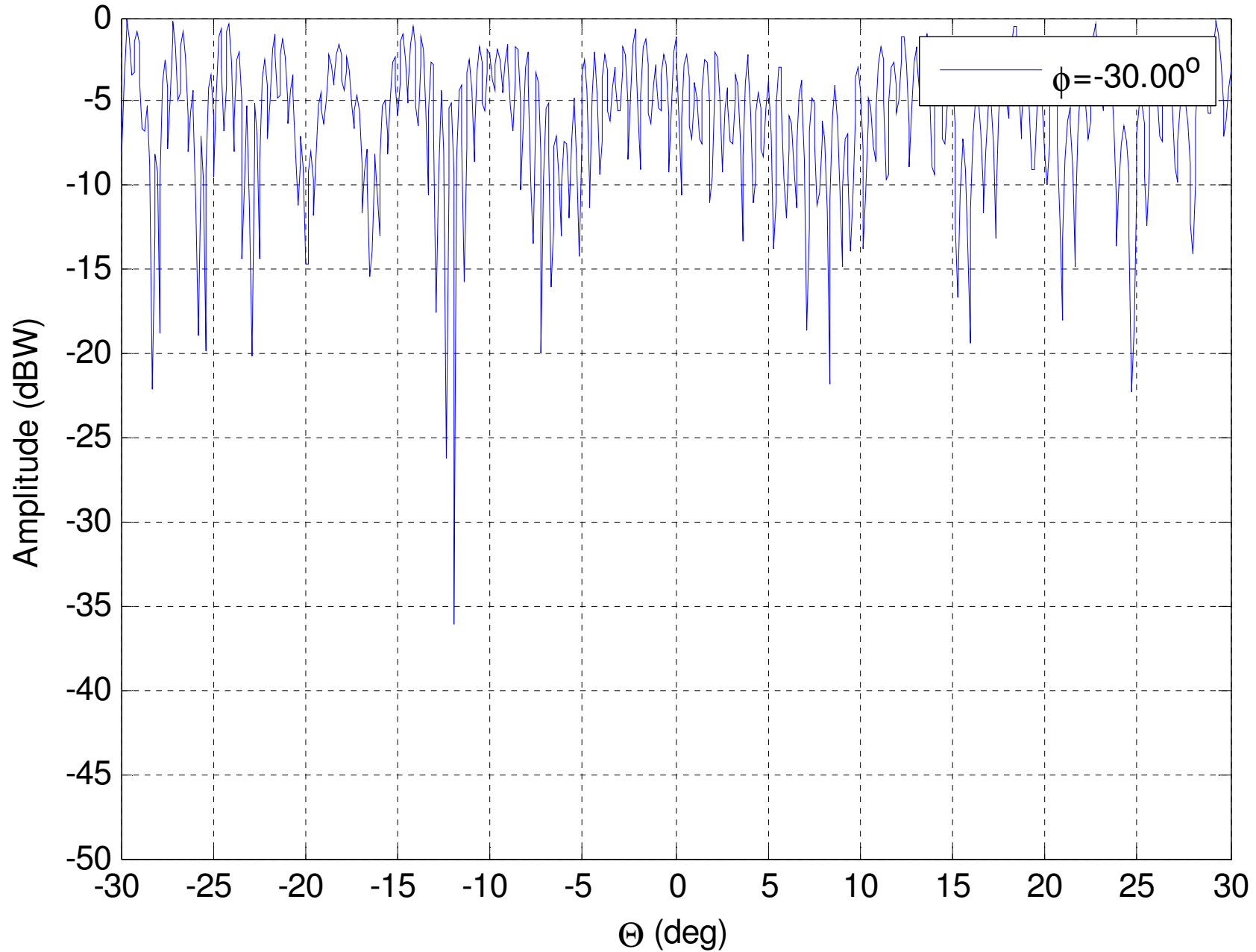
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp--40.cut, Peak: 0.64 dBW, Date: 16-Dec-2011



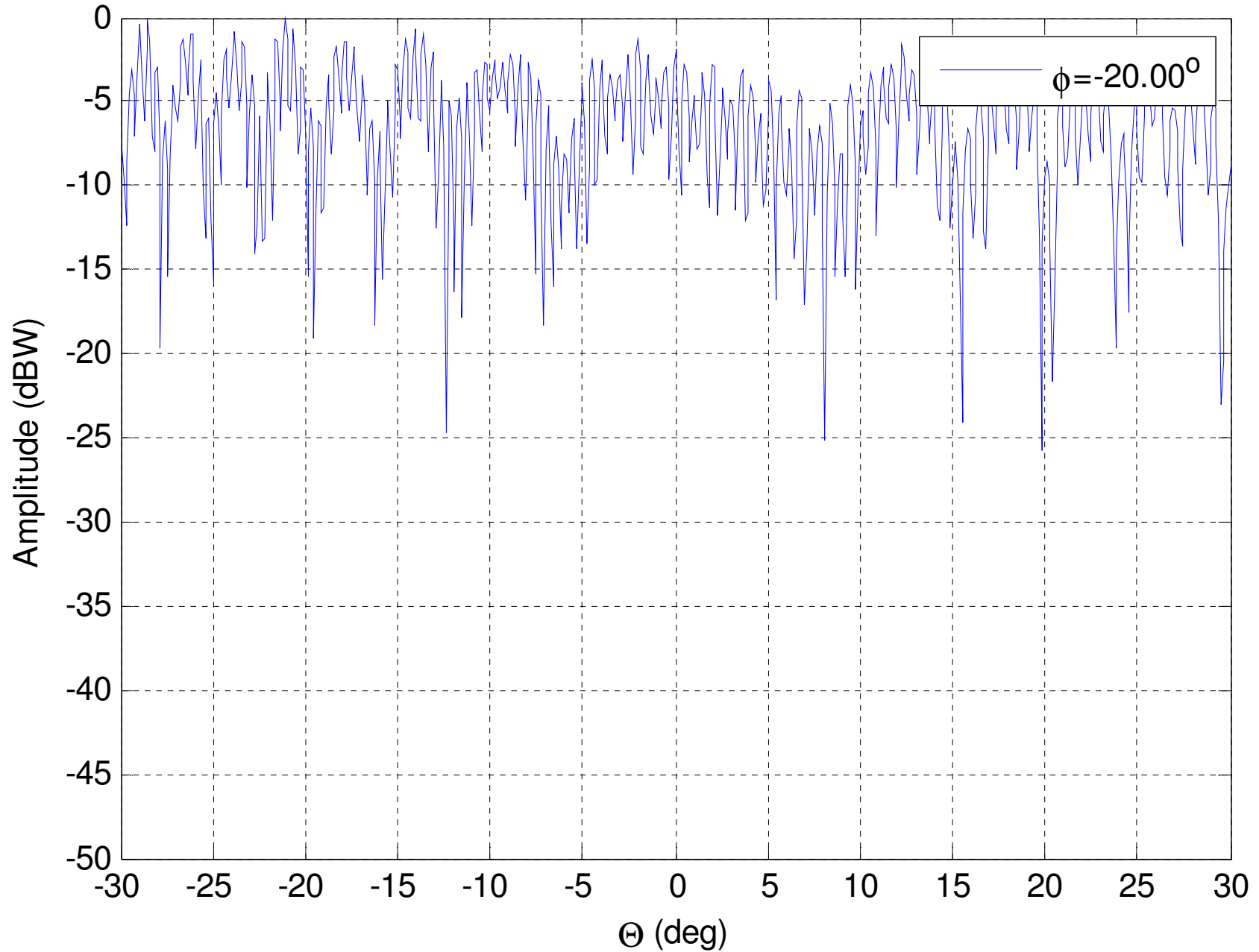
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp--30.cut, Peak: -0.01 dBW, Date: 16-Dec-2011



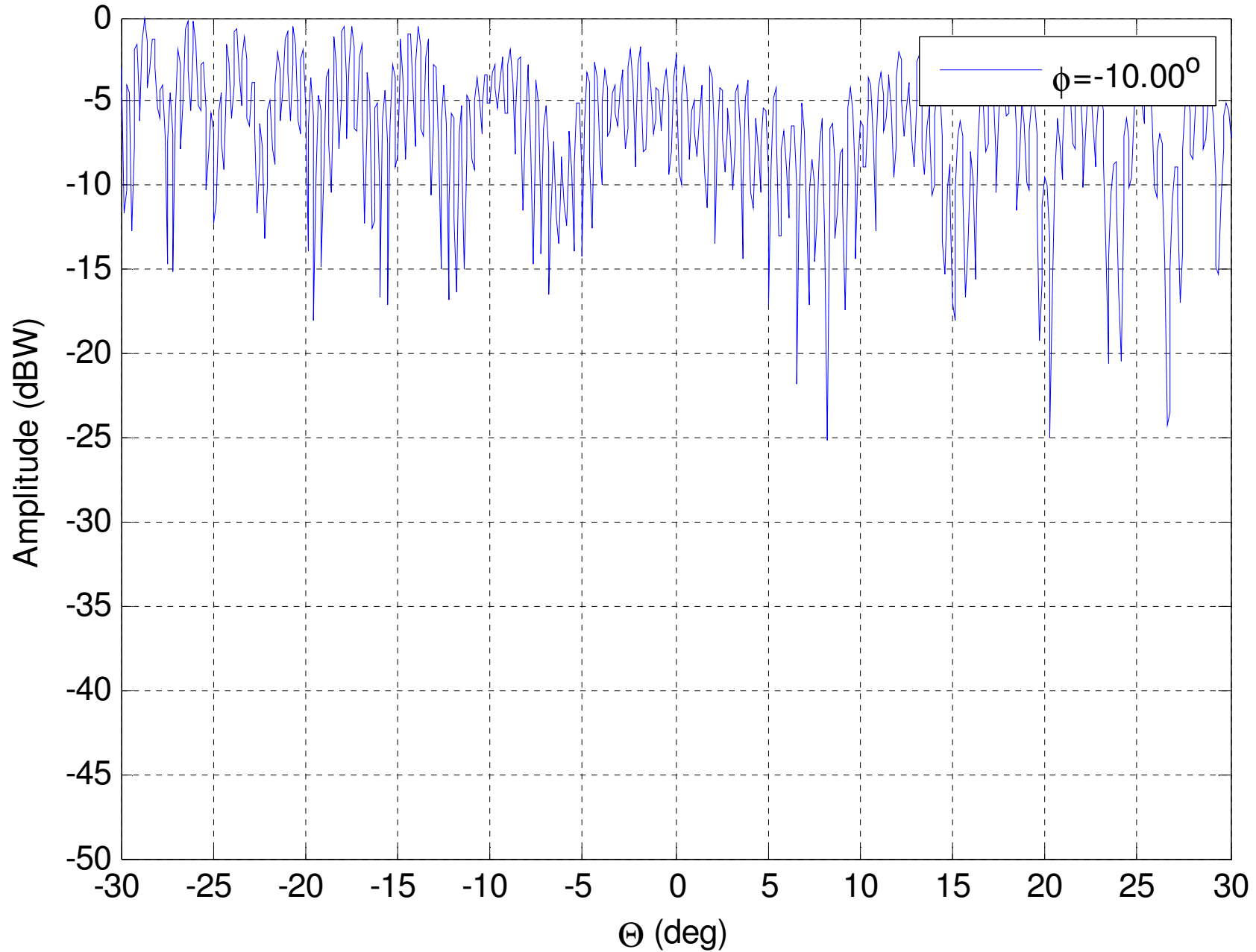
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp--20.cut, Peak: 0.74 dBW, Date: 16-Dec-2011



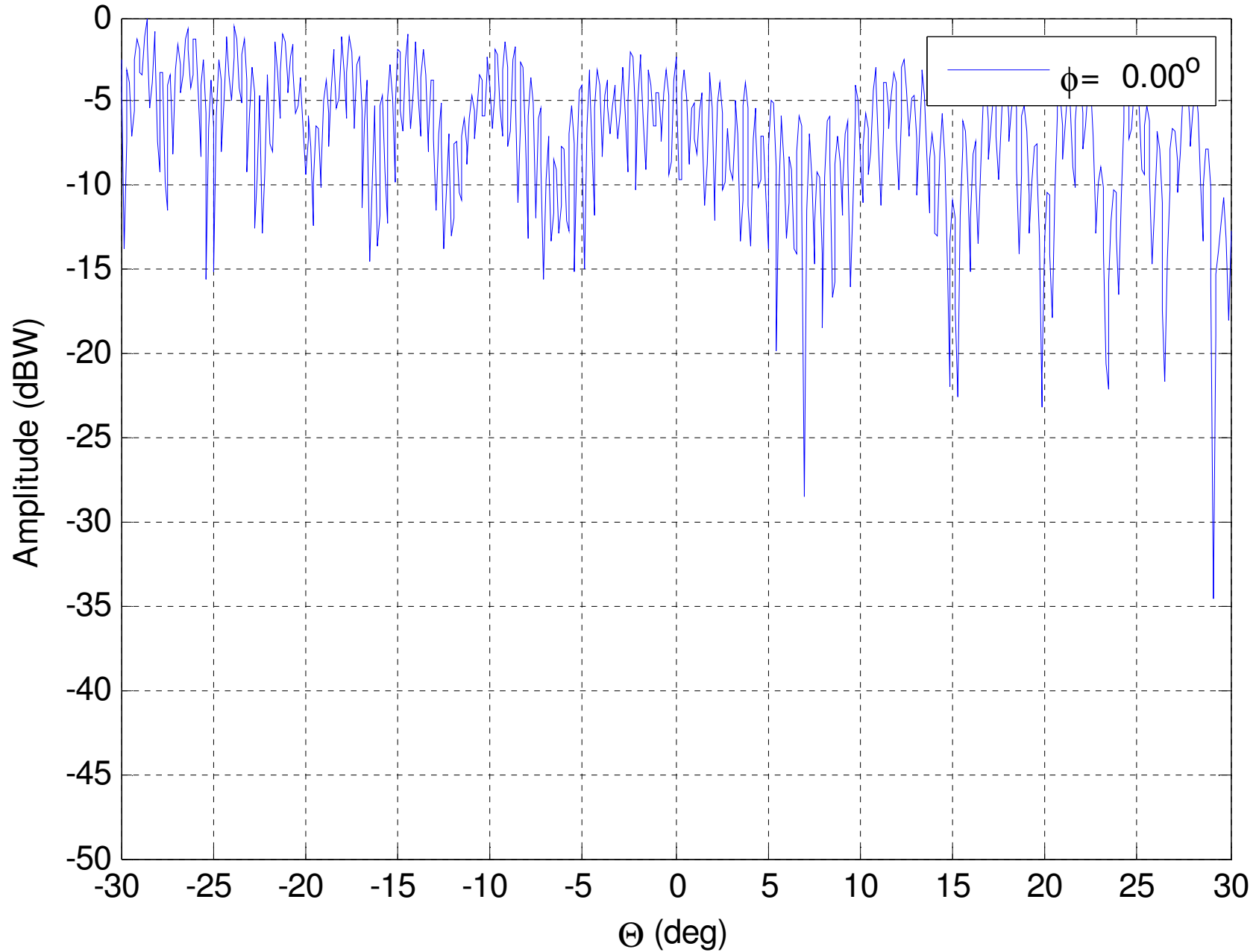
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp--10.cut, Peak: 1.08 dBW, Date: 16-Dec-2011



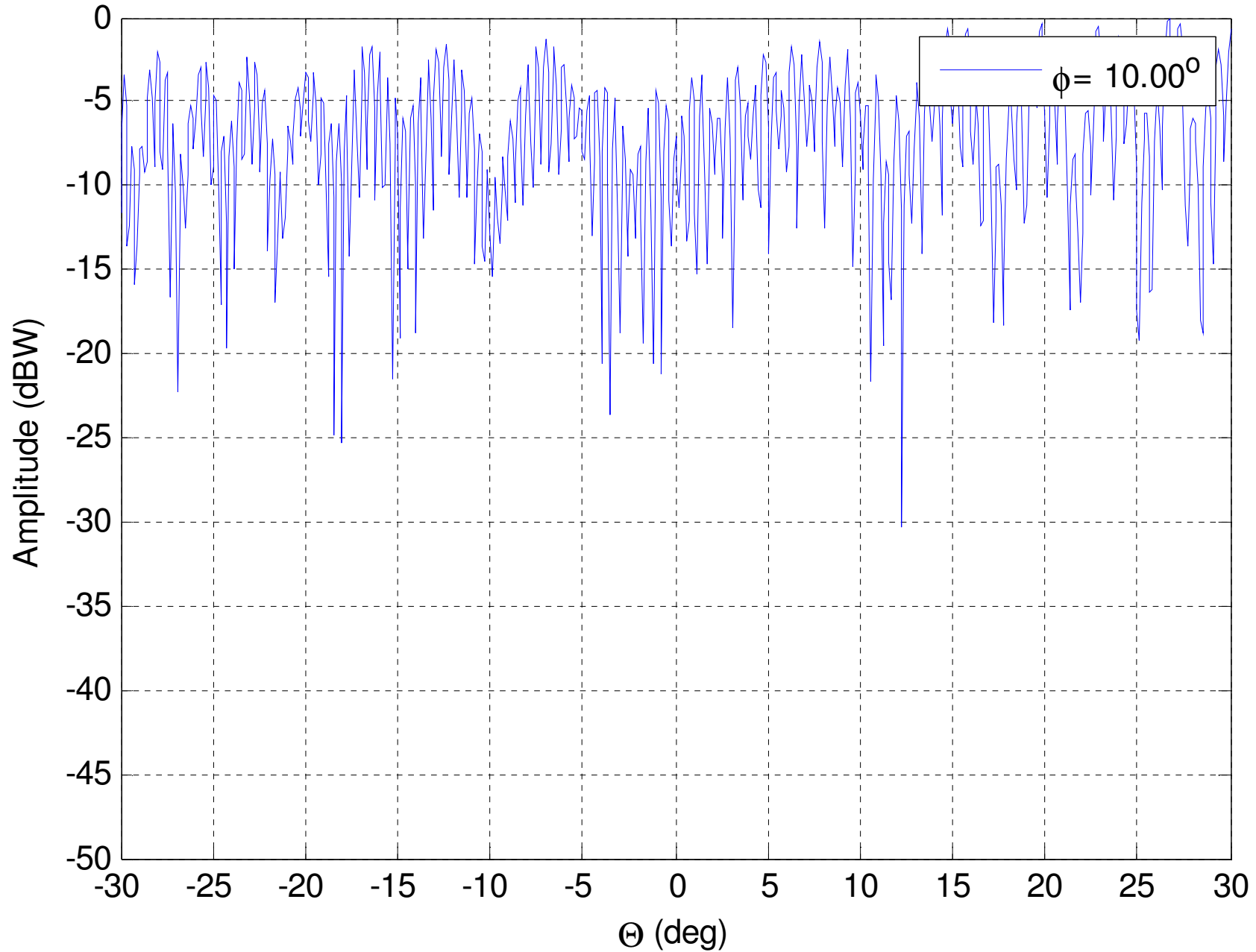
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp-0.cut, Peak: 1.29 dBW, Date: 16-Dec-2011



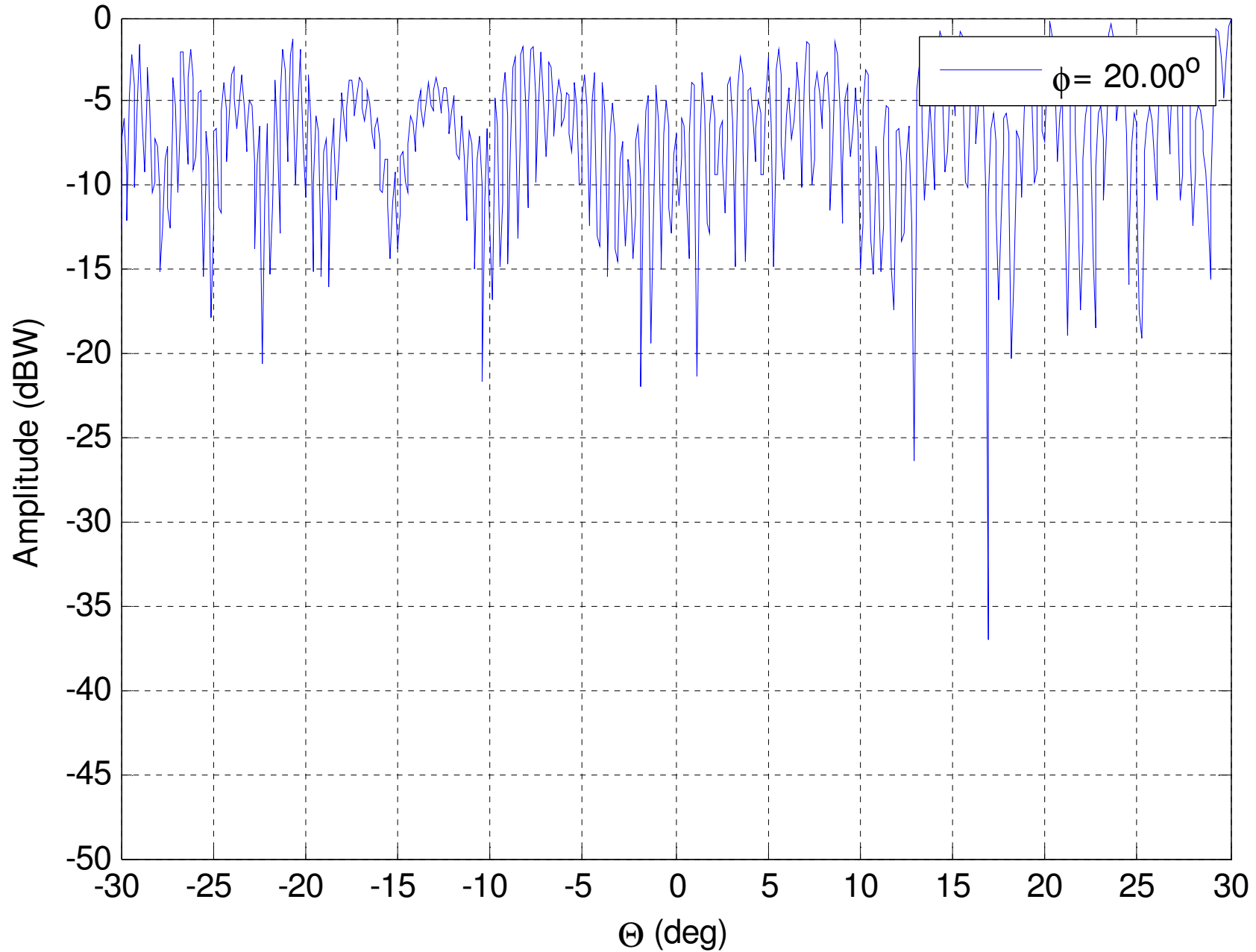
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp-10.cut, Peak: 1.06 dBW, Date: 16-Dec-2011



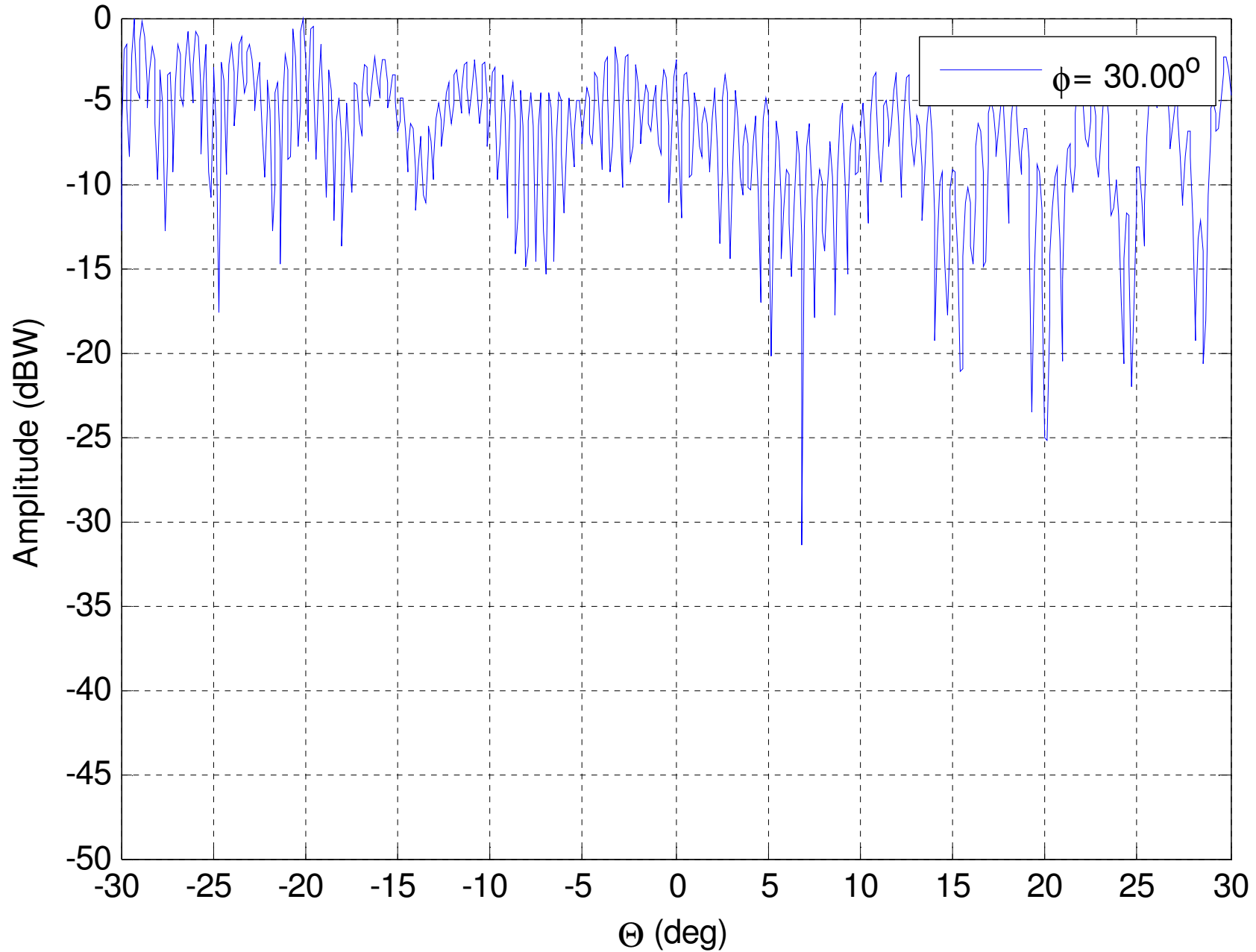
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp-20.cut, Peak: 0.86 dBW, Date: 16-Dec-2011



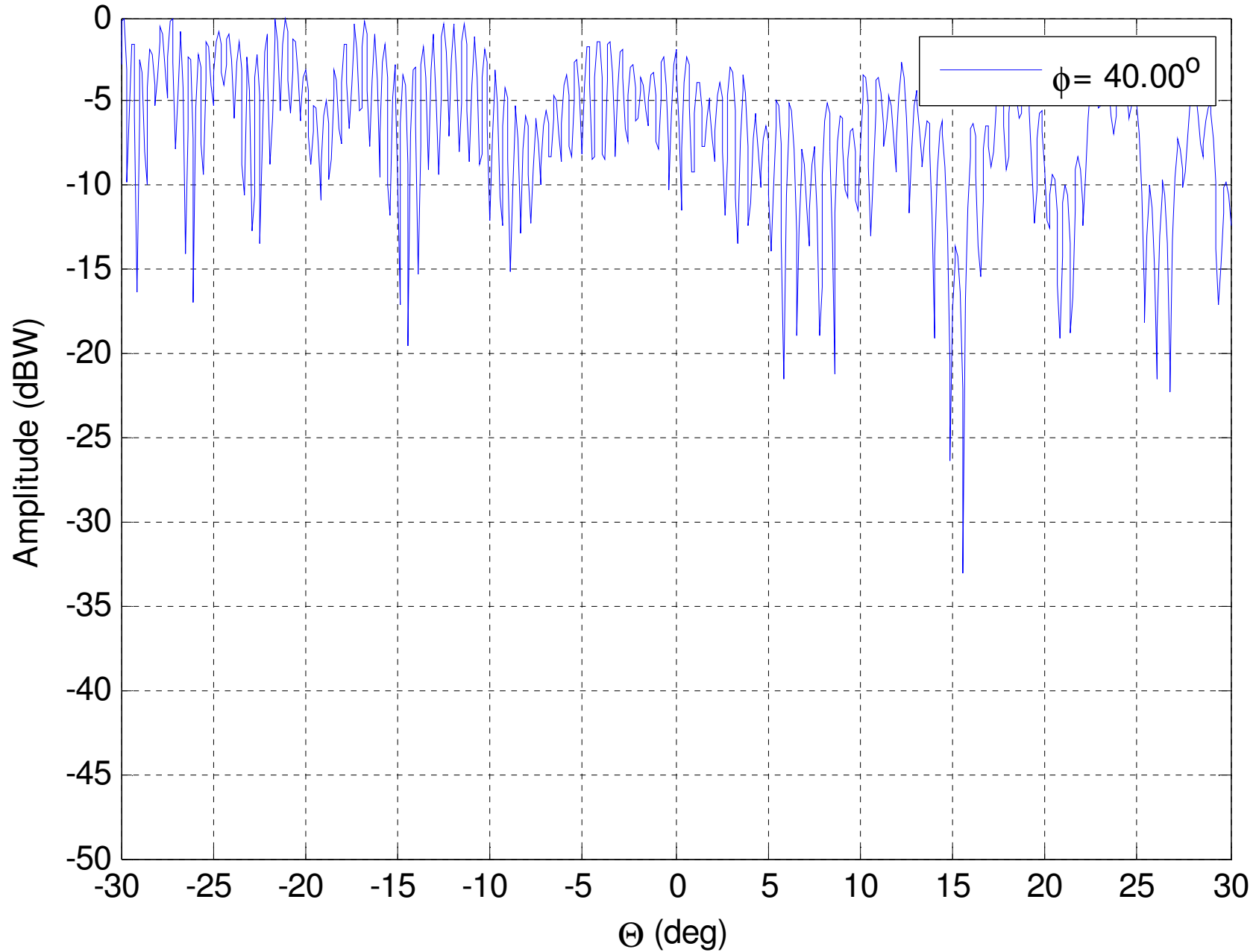
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp-30.cut, Peak: 1.43 dBW, Date: 16-Dec-2011



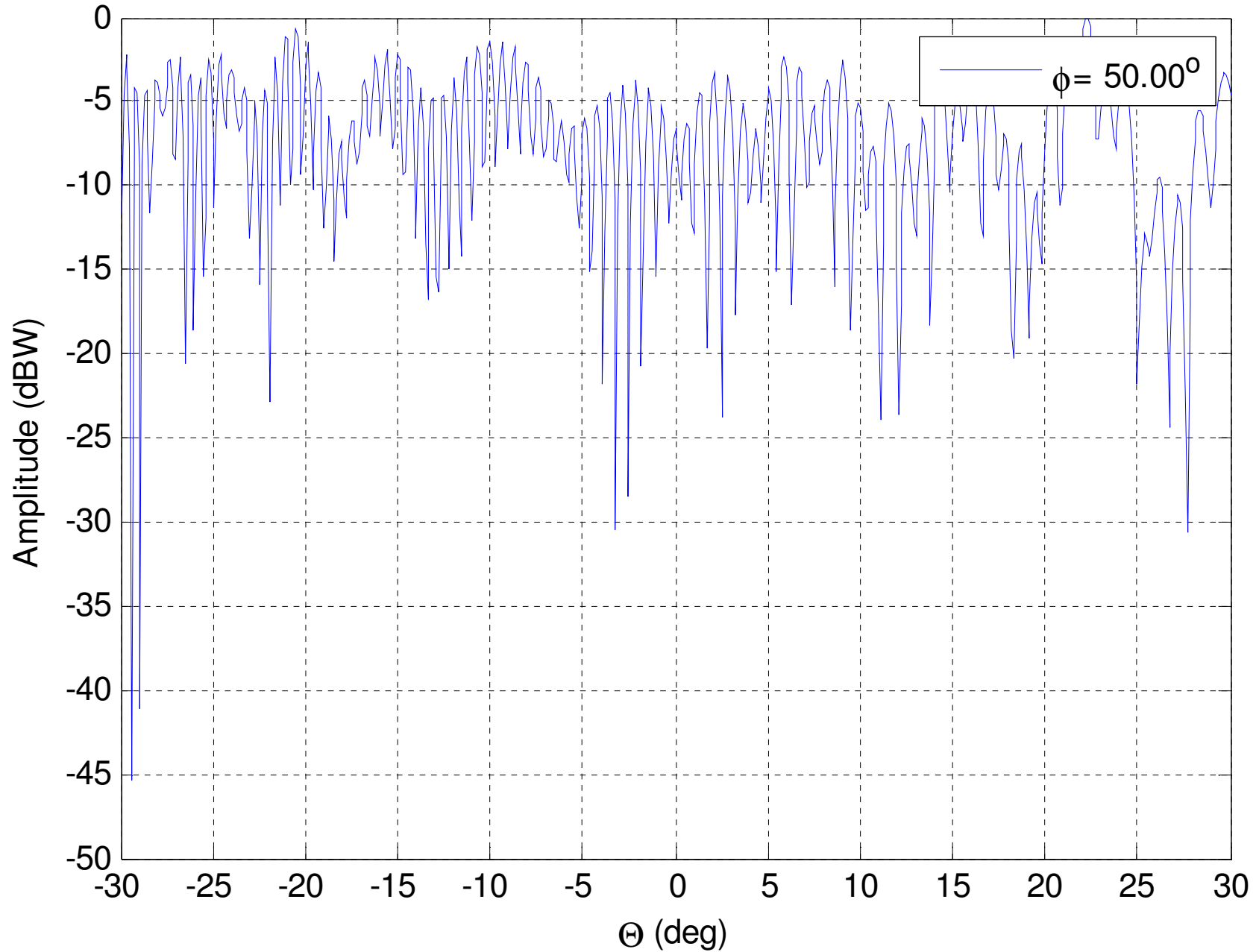
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp-40.cut, Peak: 0.80 dBW, Date: 16-Dec-2011



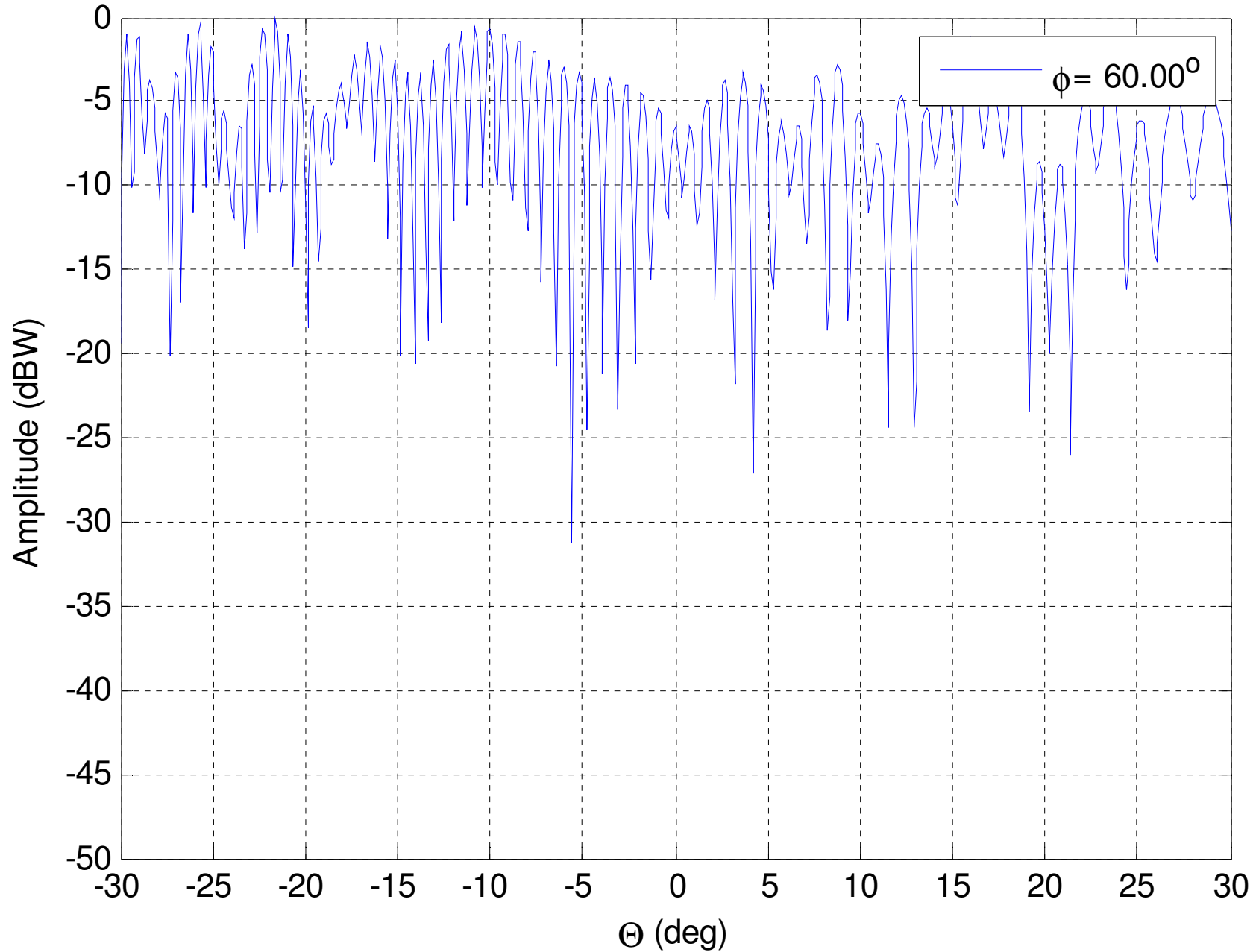
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp-50.cut, Peak: 0.59 dBW, Date: 16-Dec-2011



Normalized pattern cuts - farfield

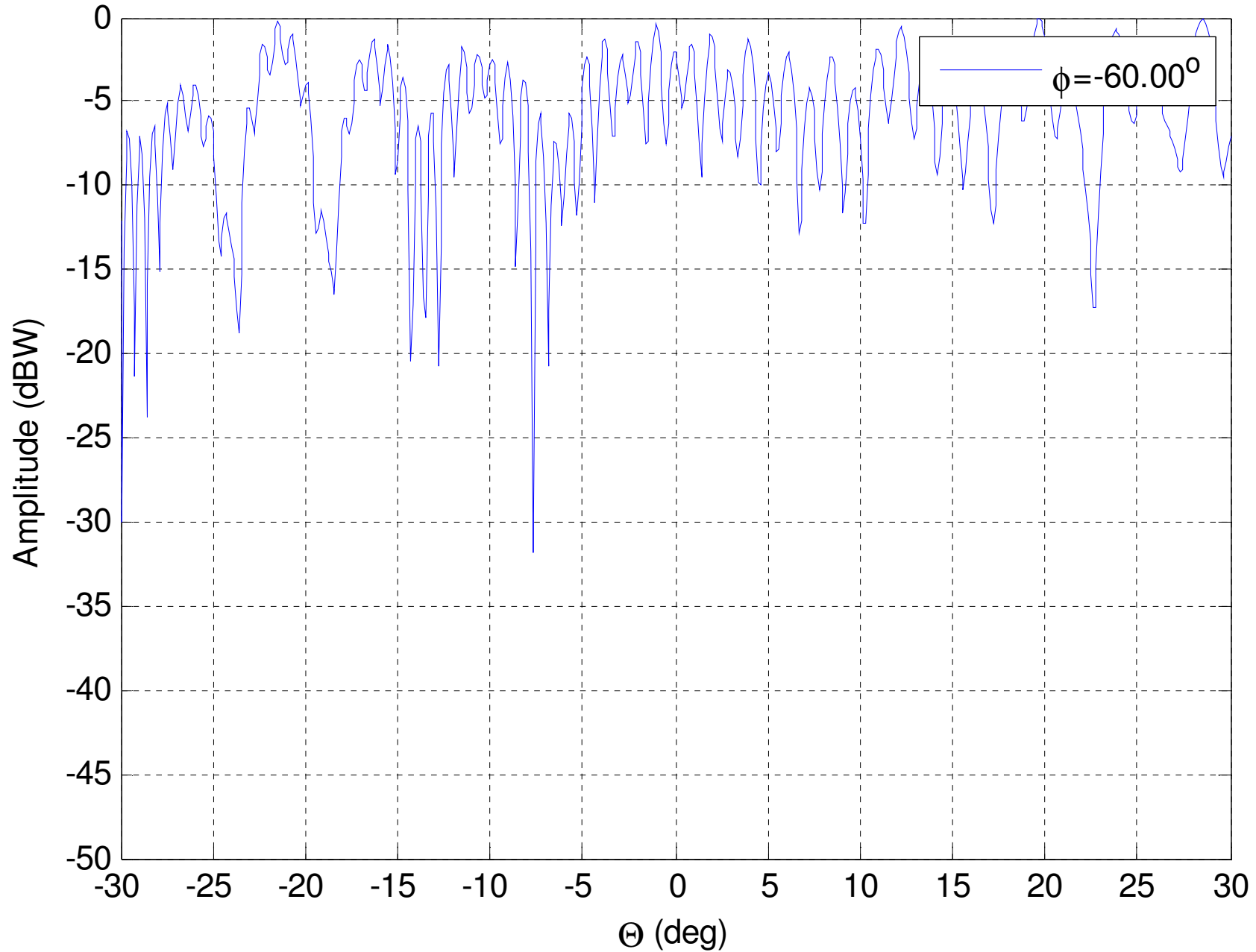
Input file: tx-17.3-lhcp-60.cut, Peak: 0.42 dBW, Date: 16-Dec-2011



RHCP at 17.5 GHz

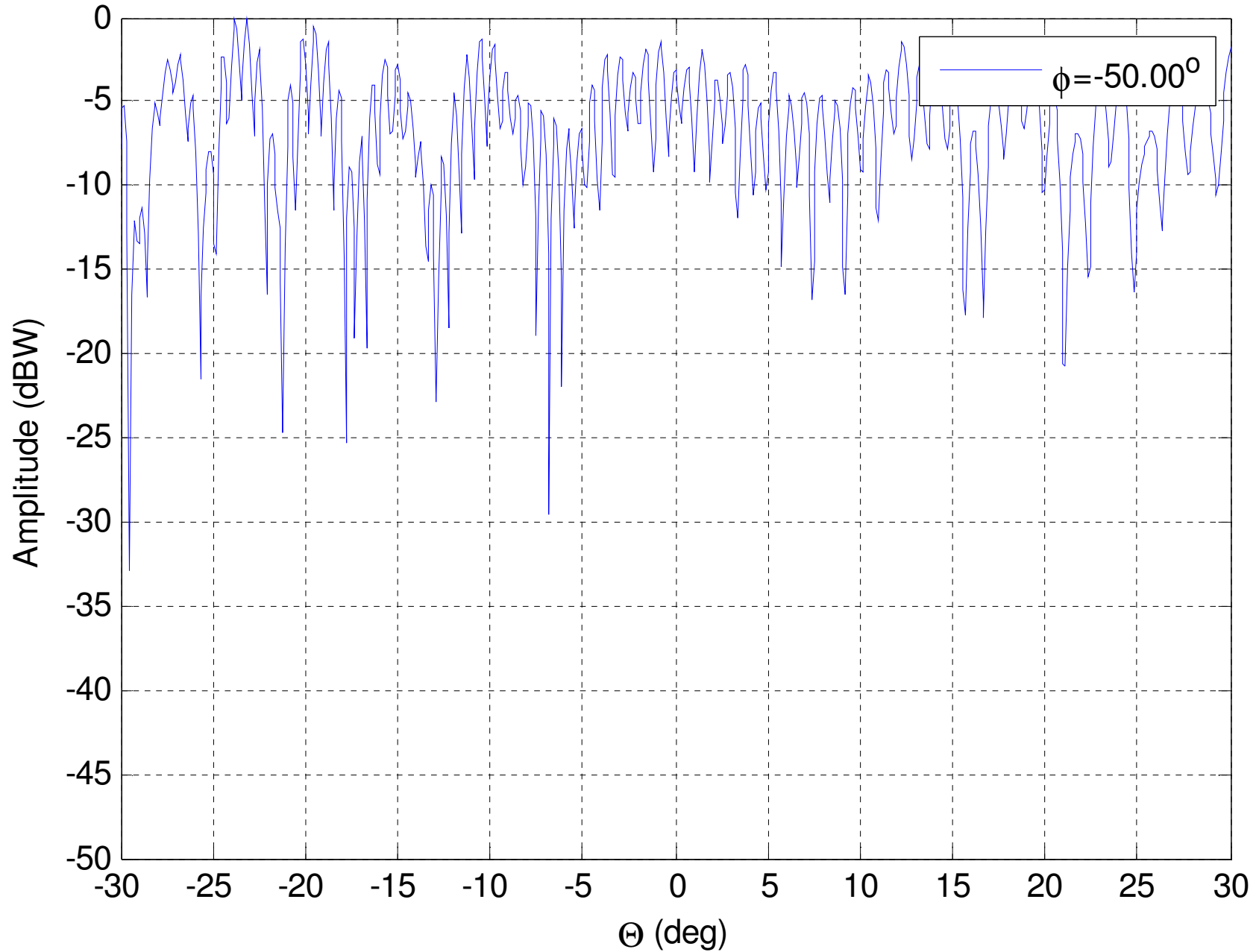
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--60.cut, Peak: -0.74 dBW, Date: 16-Dec-2011



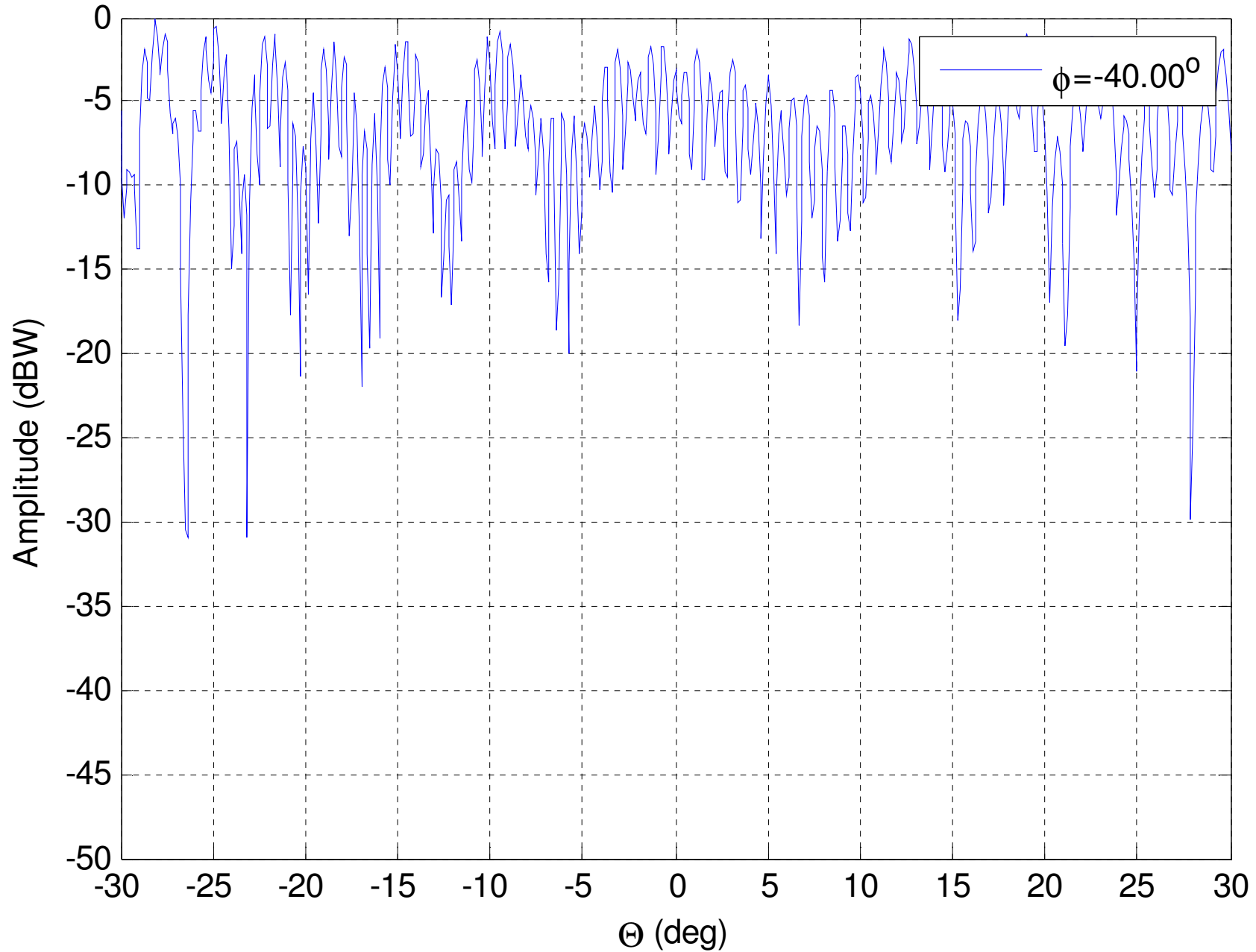
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--50.cut, Peak: 0.28 dBW, Date: 16-Dec-2011



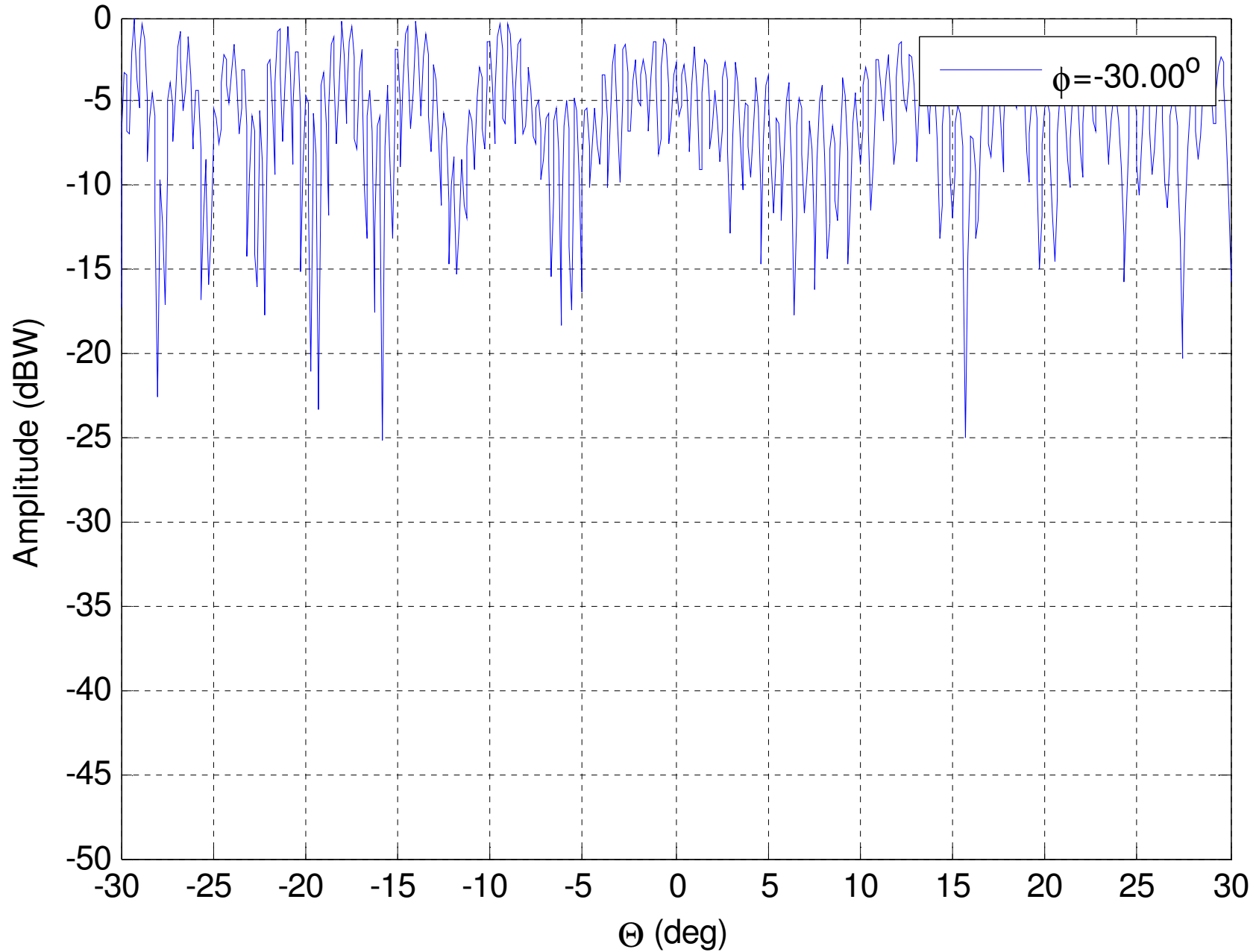
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--40.cut, Peak: 0.41 dBW, Date: 16-Dec-2011



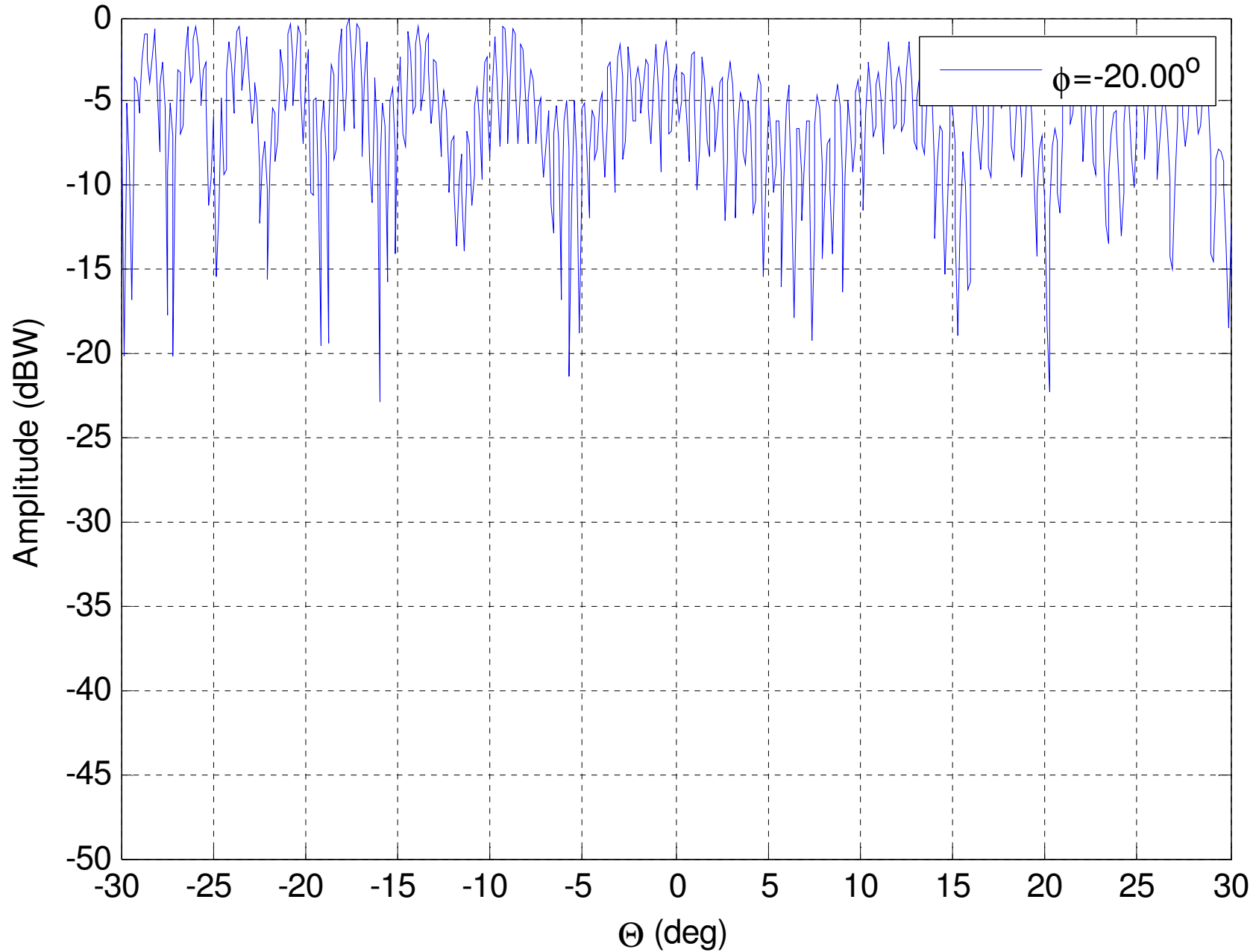
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--30.cut, Peak: -0.05 dBW, Date: 16-Dec-2011



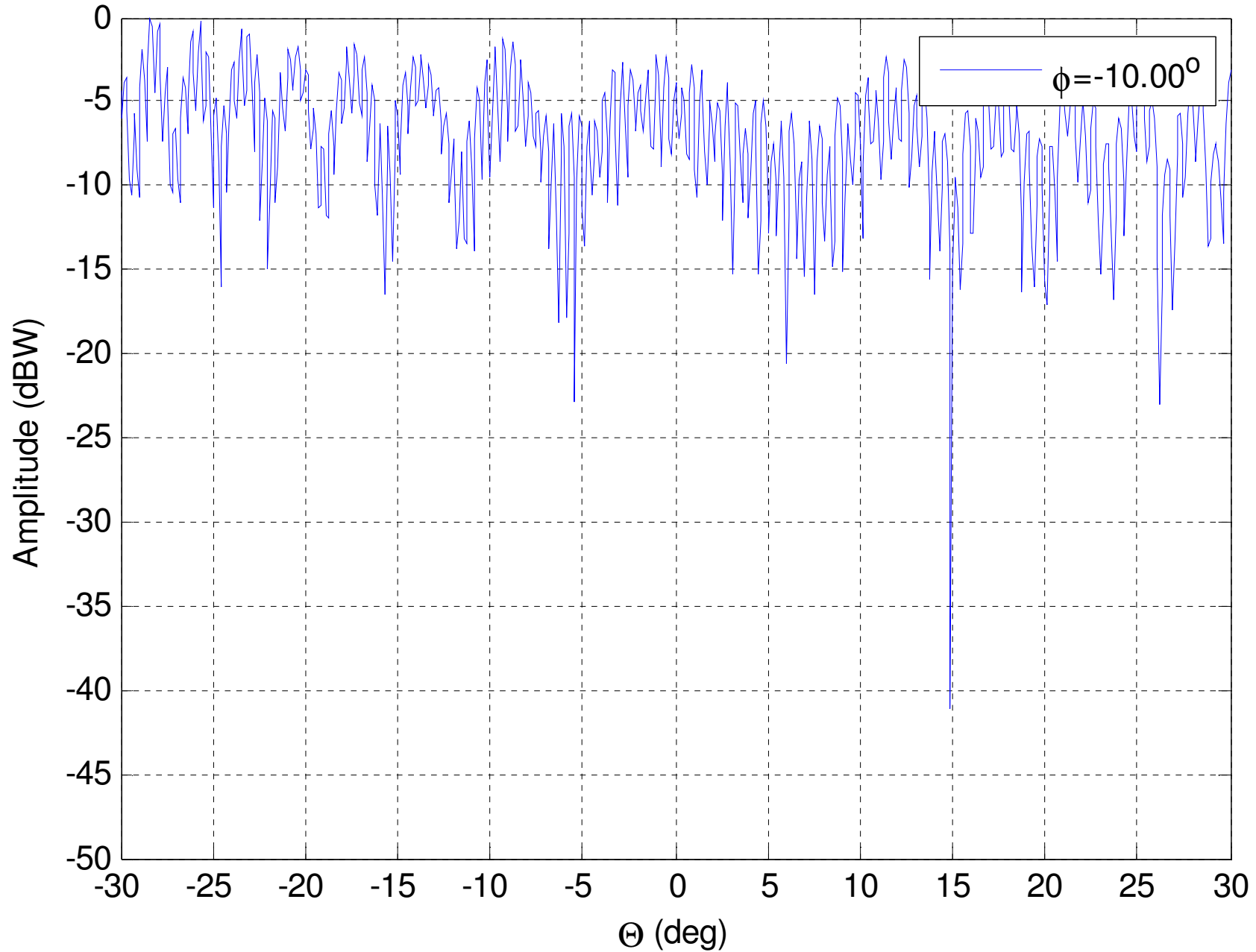
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--20.cut, Peak: 0.14 dBW, Date: 16-Dec-2011



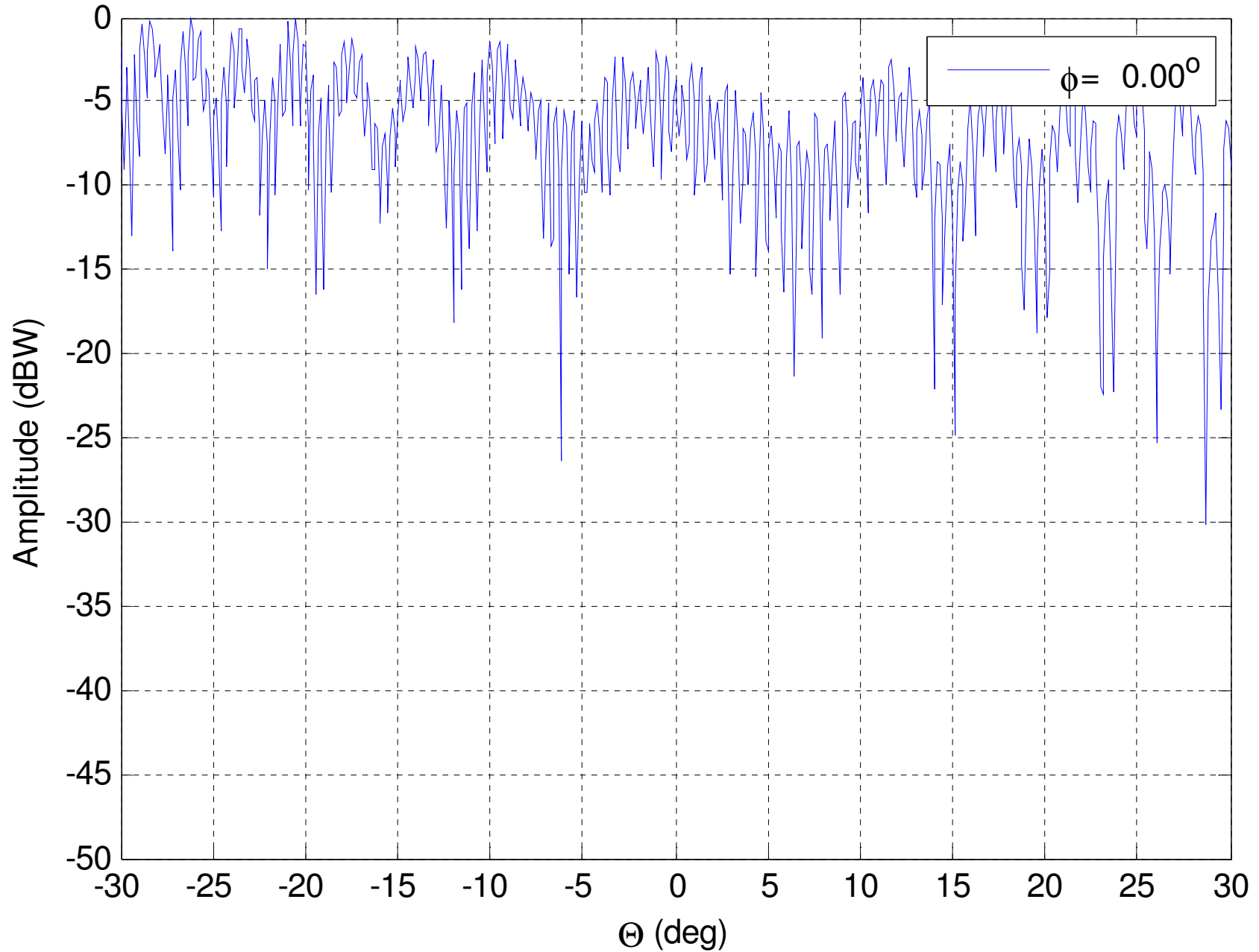
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--10.cut, Peak: 1.13 dBW, Date: 16-Dec-2011



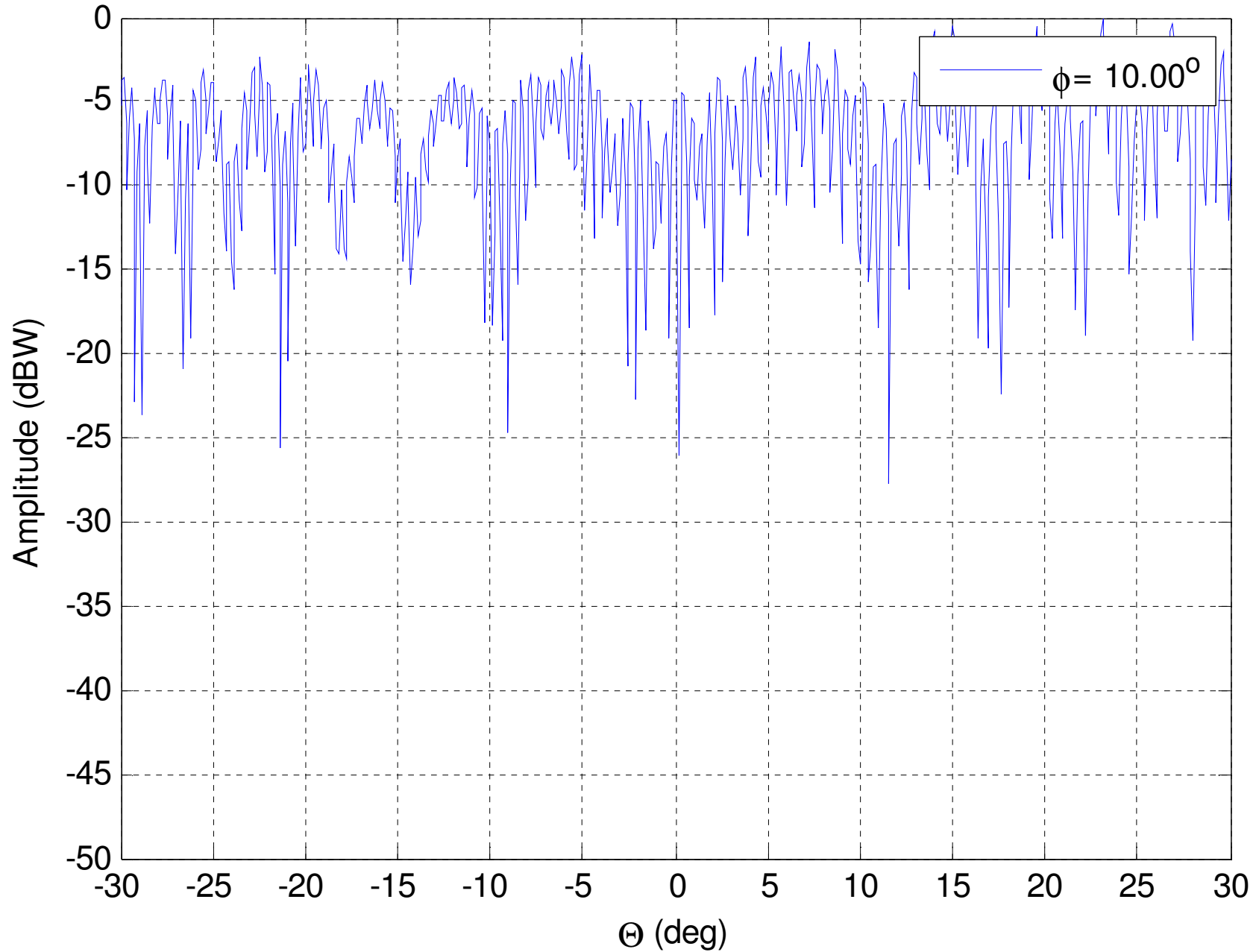
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-0.cut, Peak: 1.00 dBW, Date: 16-Dec-2011



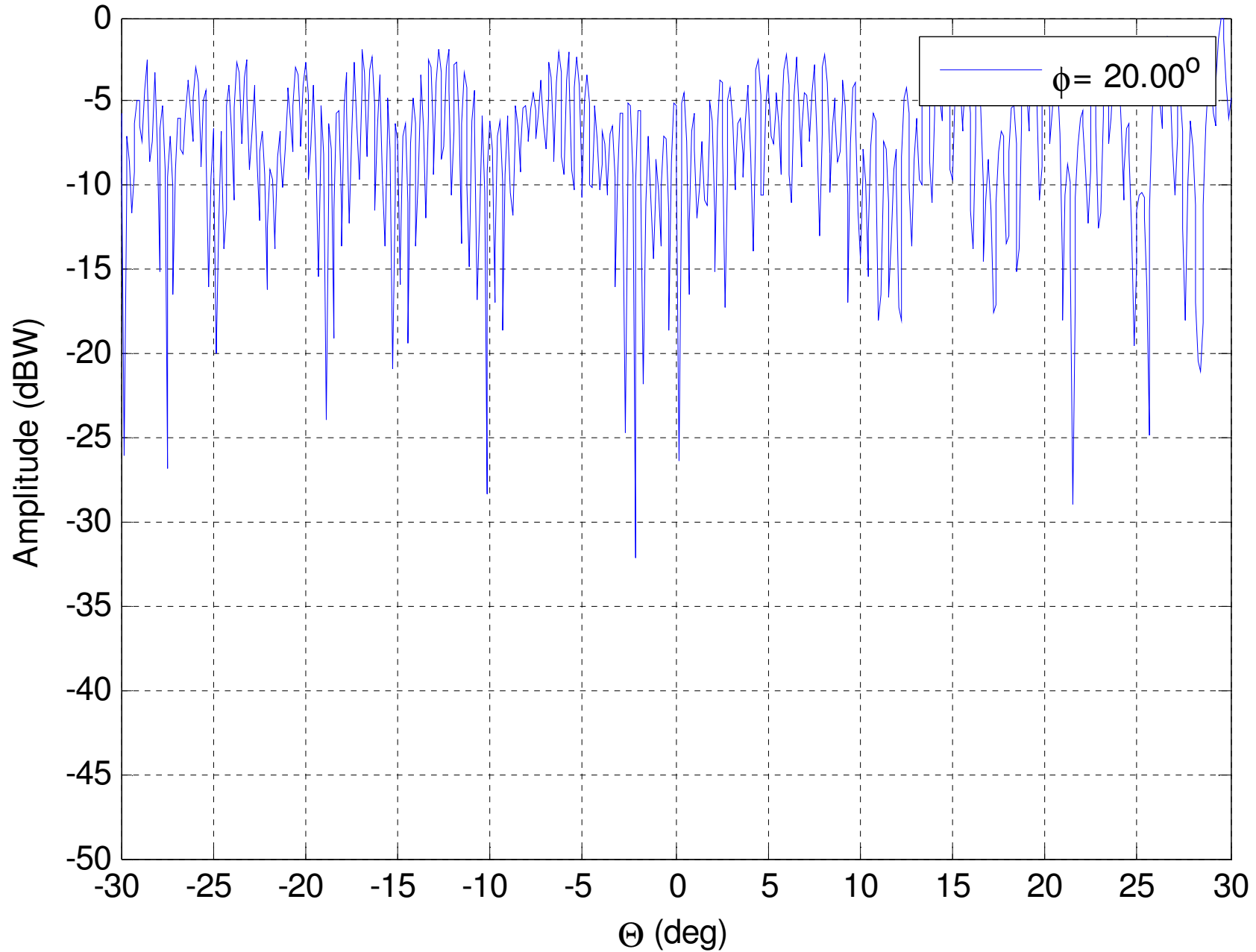
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-10.cut, Peak: 0.86 dBW, Date: 16-Dec-2011



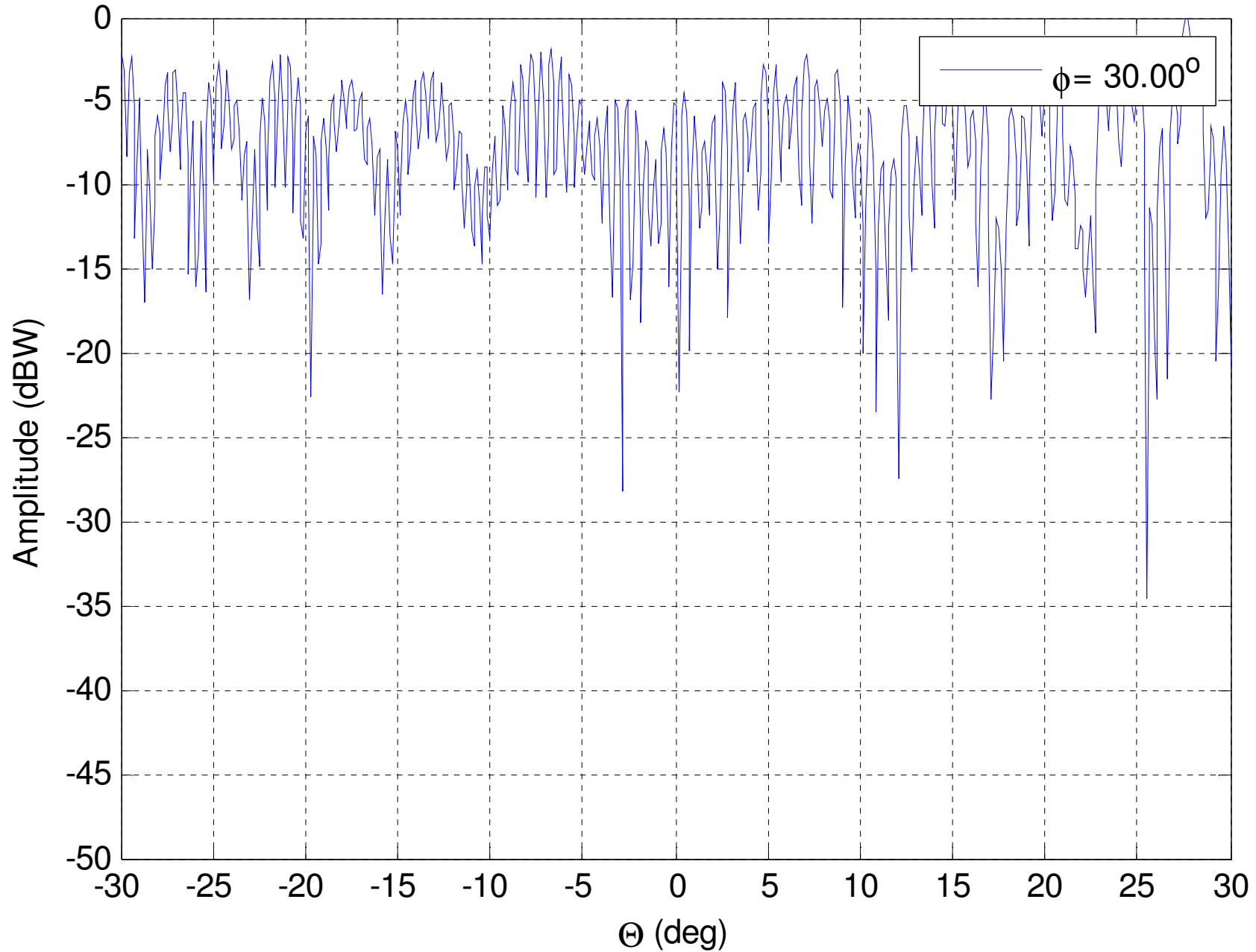
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-20.cut, Peak: 1.06 dBW, Date: 16-Dec-2011



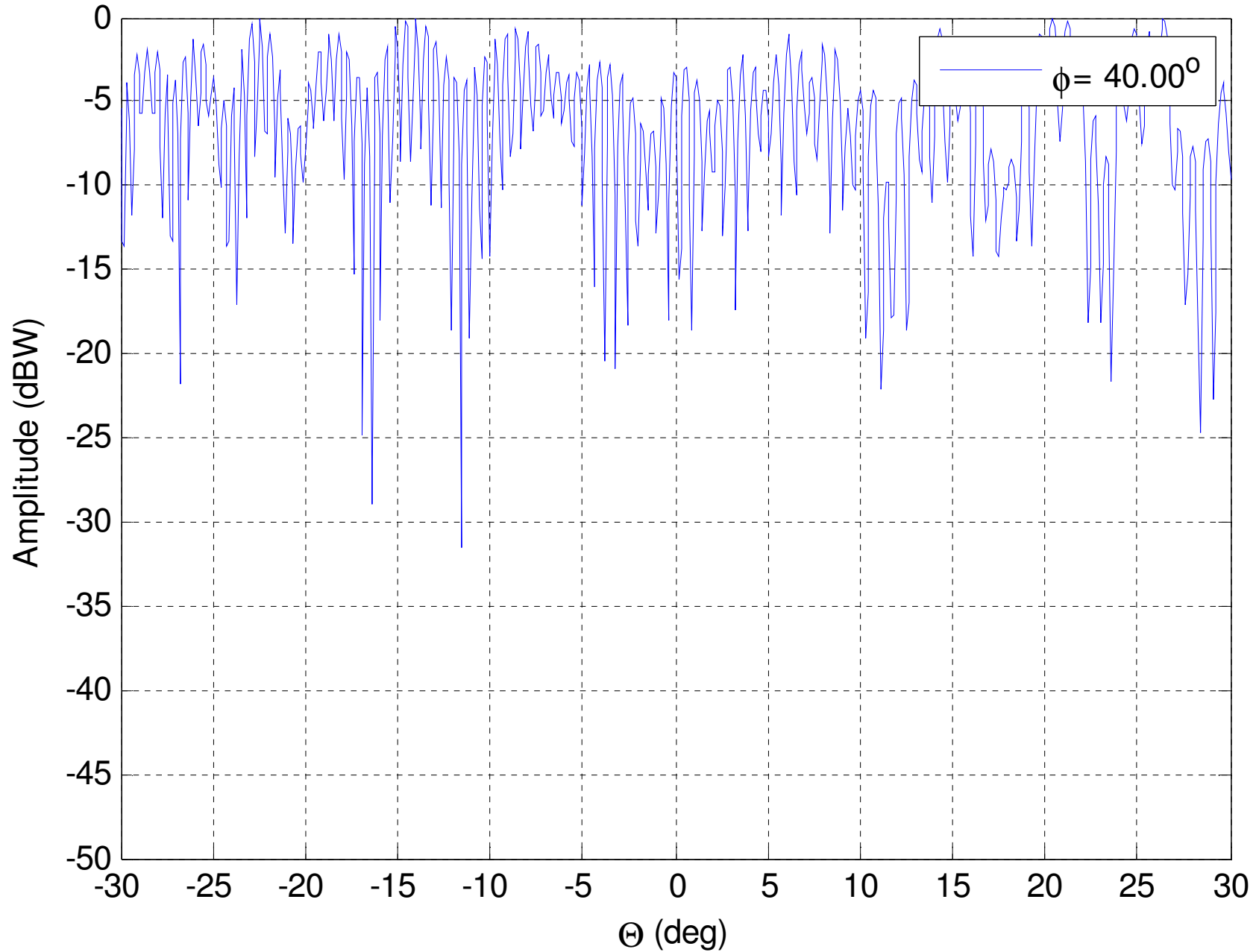
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-30.cut, Peak: 1.15 dBW, Date: 16-Dec-2011



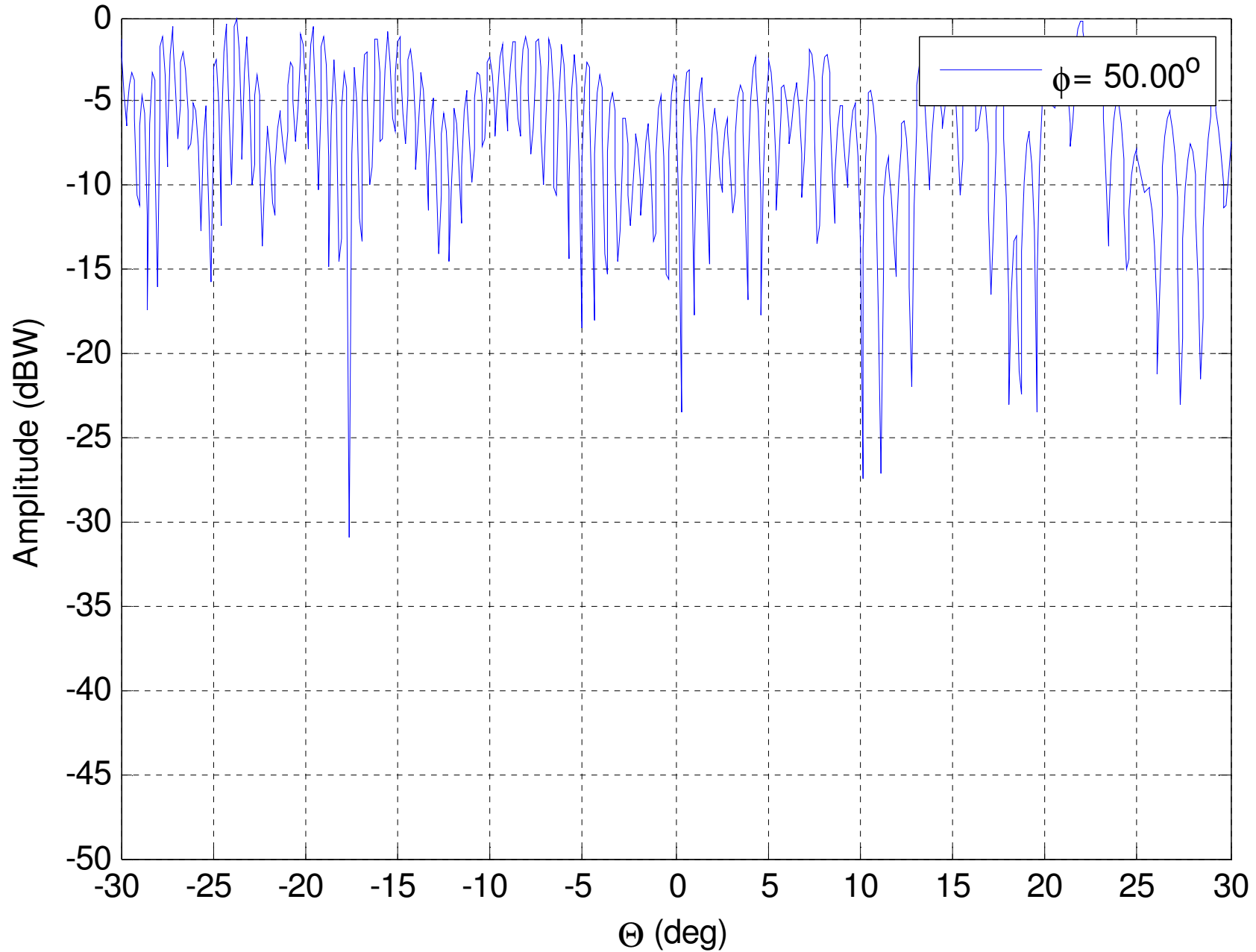
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-40.cut, Peak: -0.48 dBW, Date: 16-Dec-2011



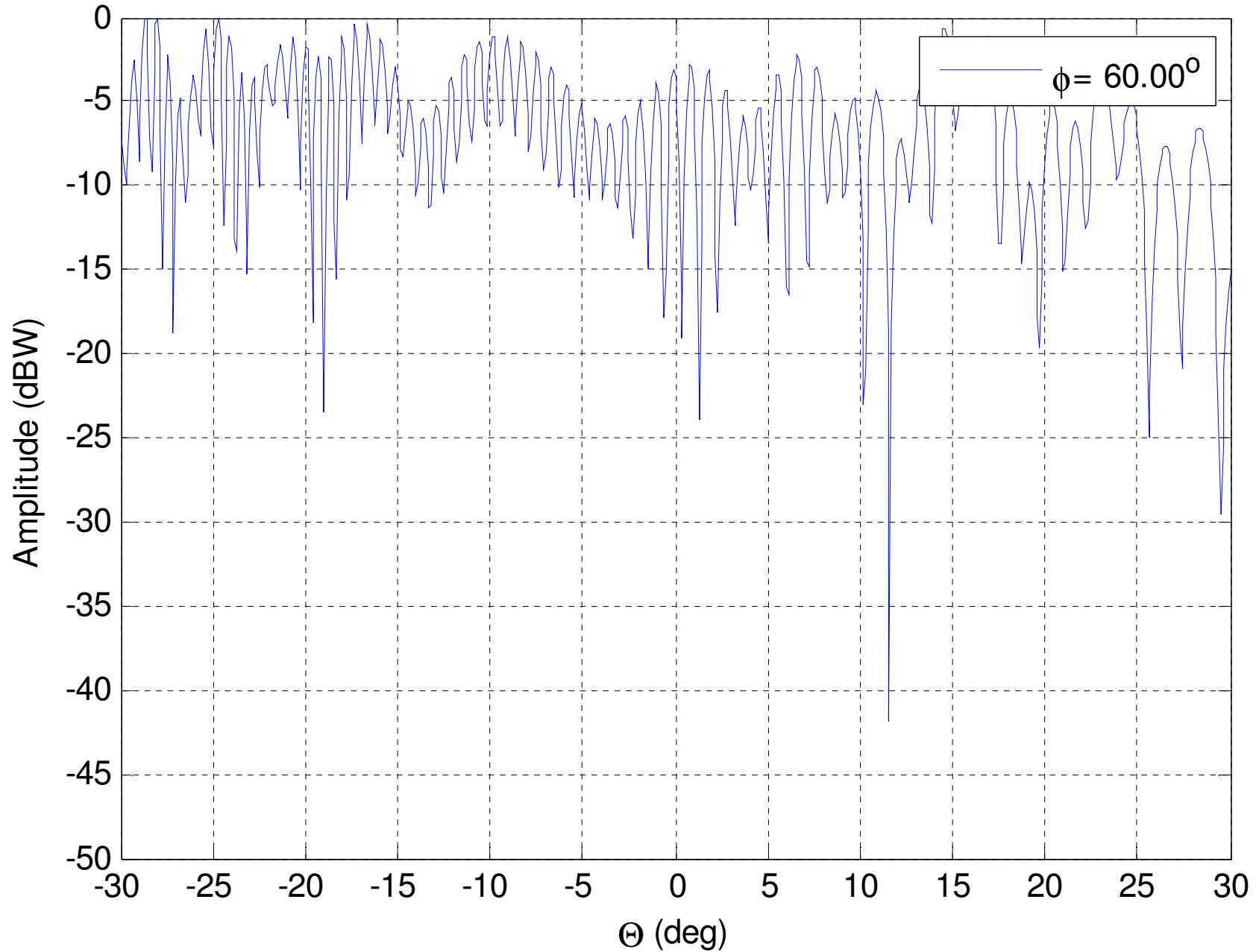
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-50.cut, Peak: -0.28 dBW, Date: 16-Dec-2011



Normalized pattern cuts - farfield

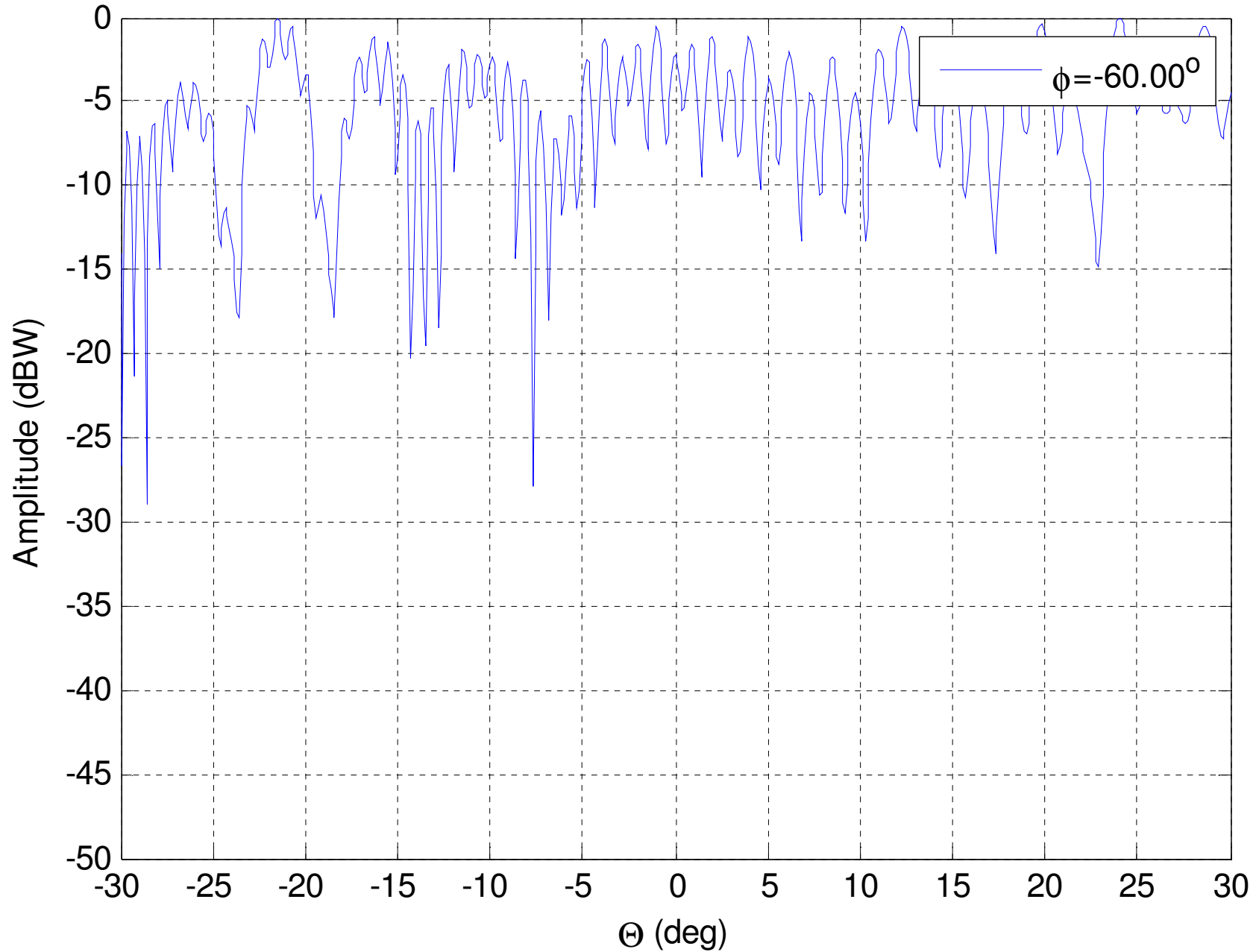
Input file: tx-17.5-rhcp-60.cut, Peak: -0.55 dBW, Date: 16-Dec-2011



LHCP at 17.5 GHz

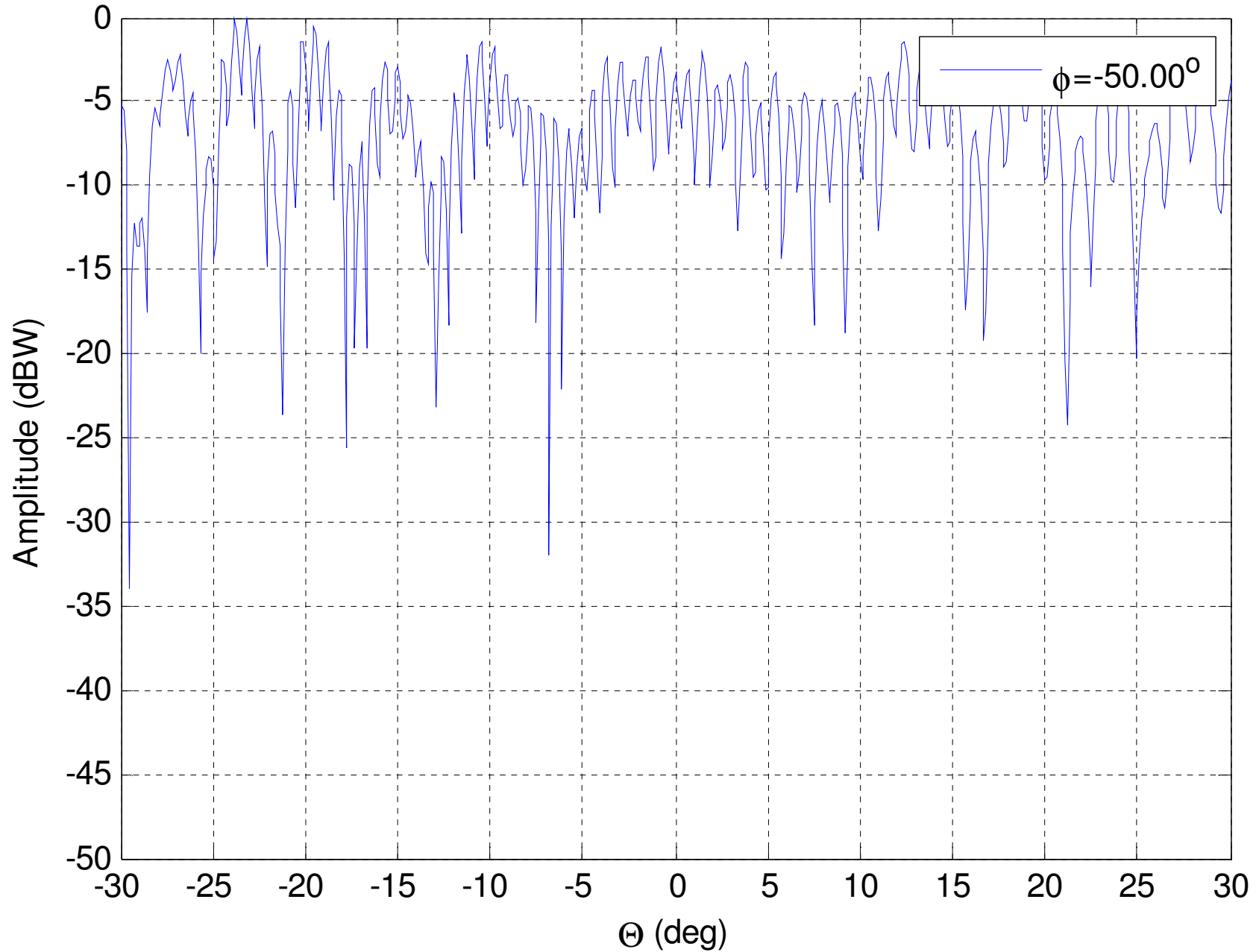
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--60.cut, Peak: -0.68 dBW, Date: 16-Dec-2011



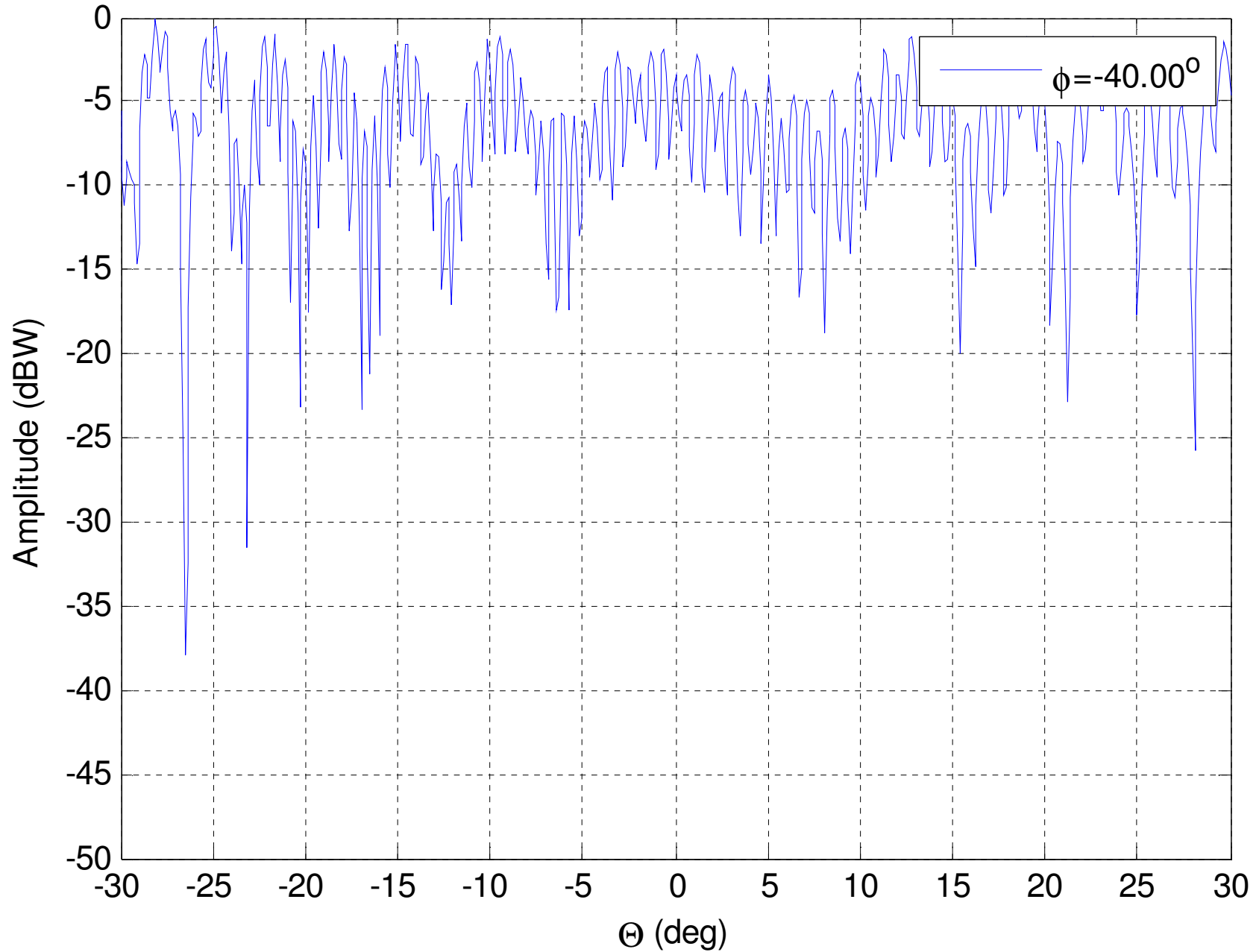
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--50.cut, Peak: 0.48 dBW, Date: 16-Dec-2011



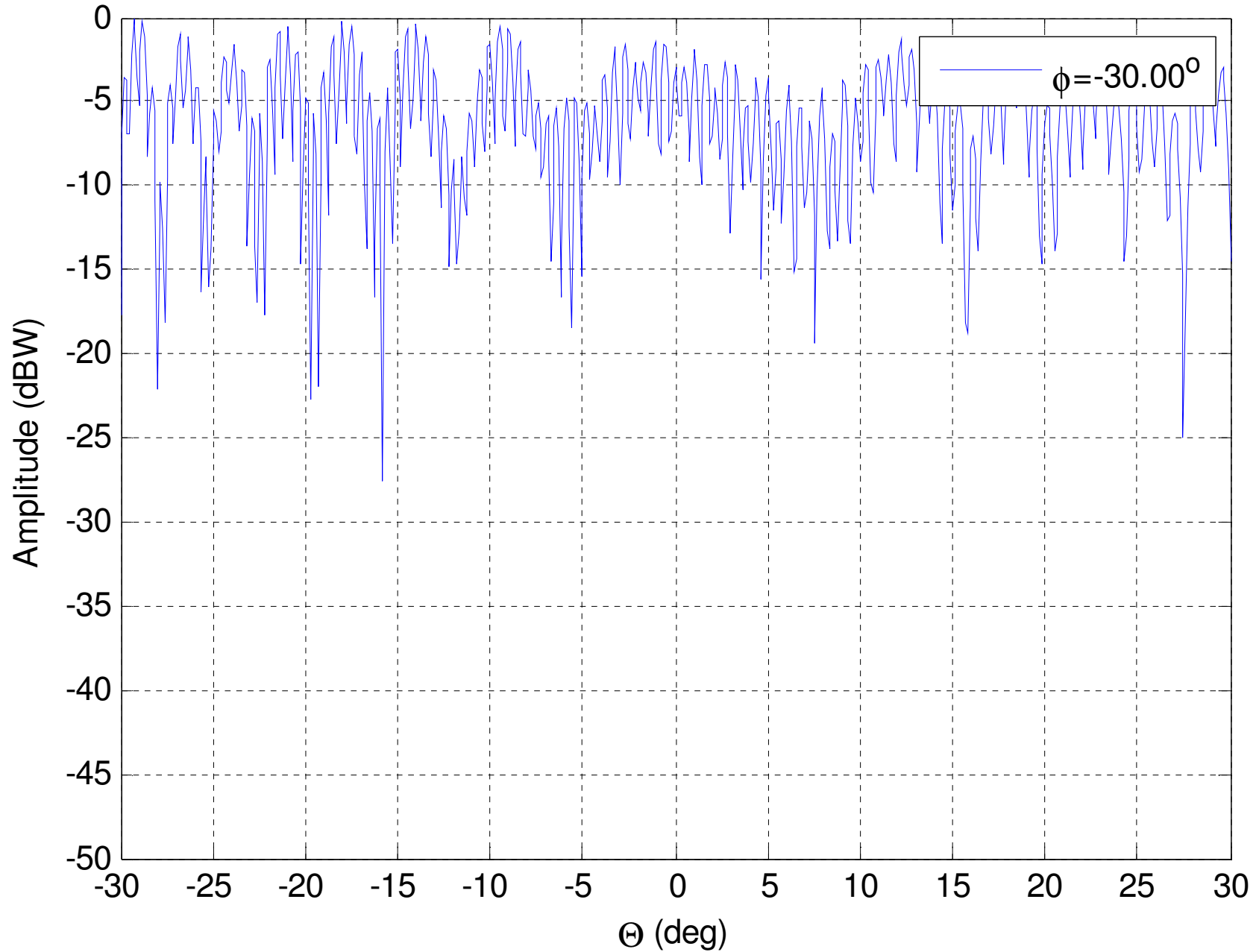
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--40.cut, Peak: 0.57 dBW, Date: 16-Dec-2011



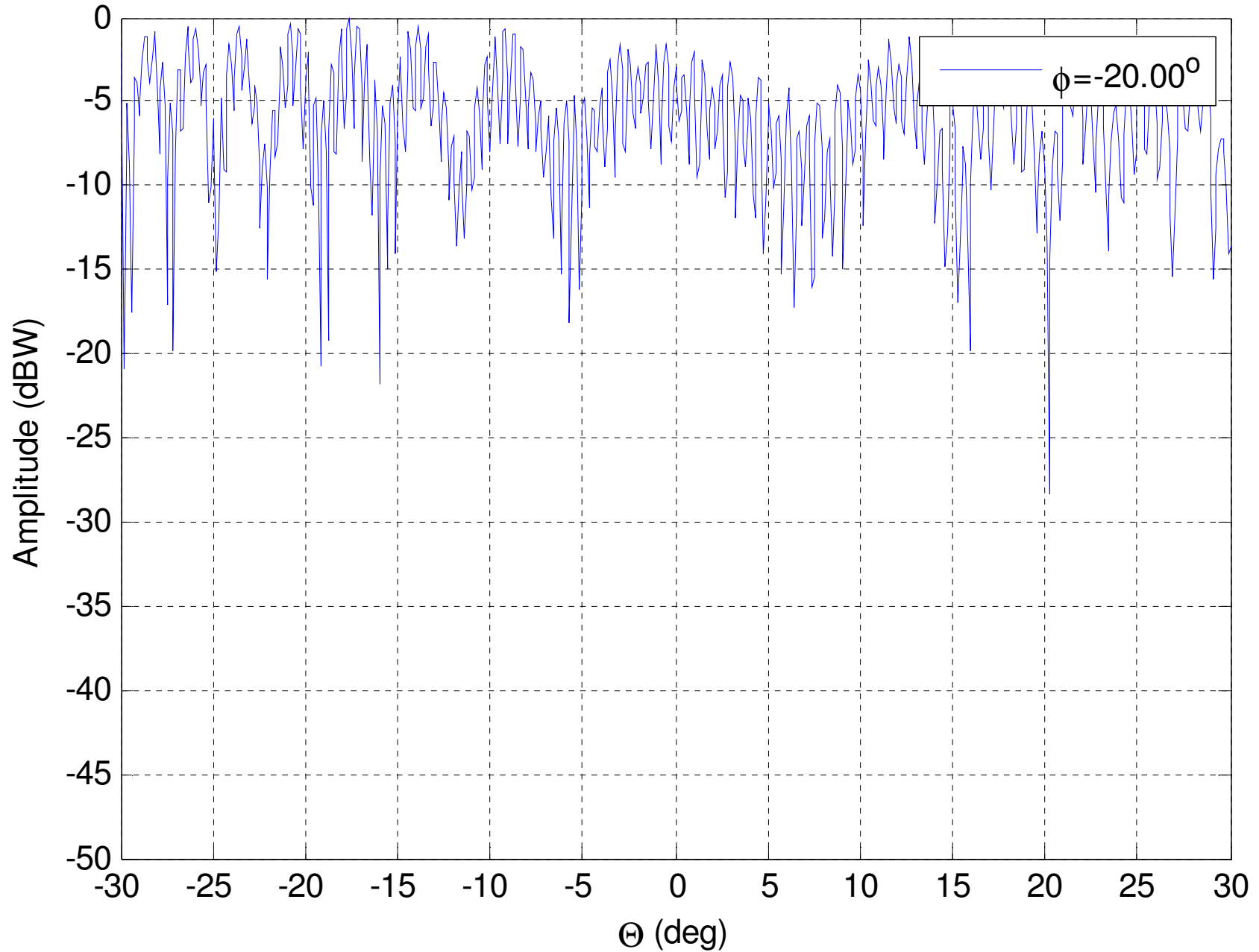
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--30.cut, Peak: 0.07 dBW, Date: 16-Dec-2011



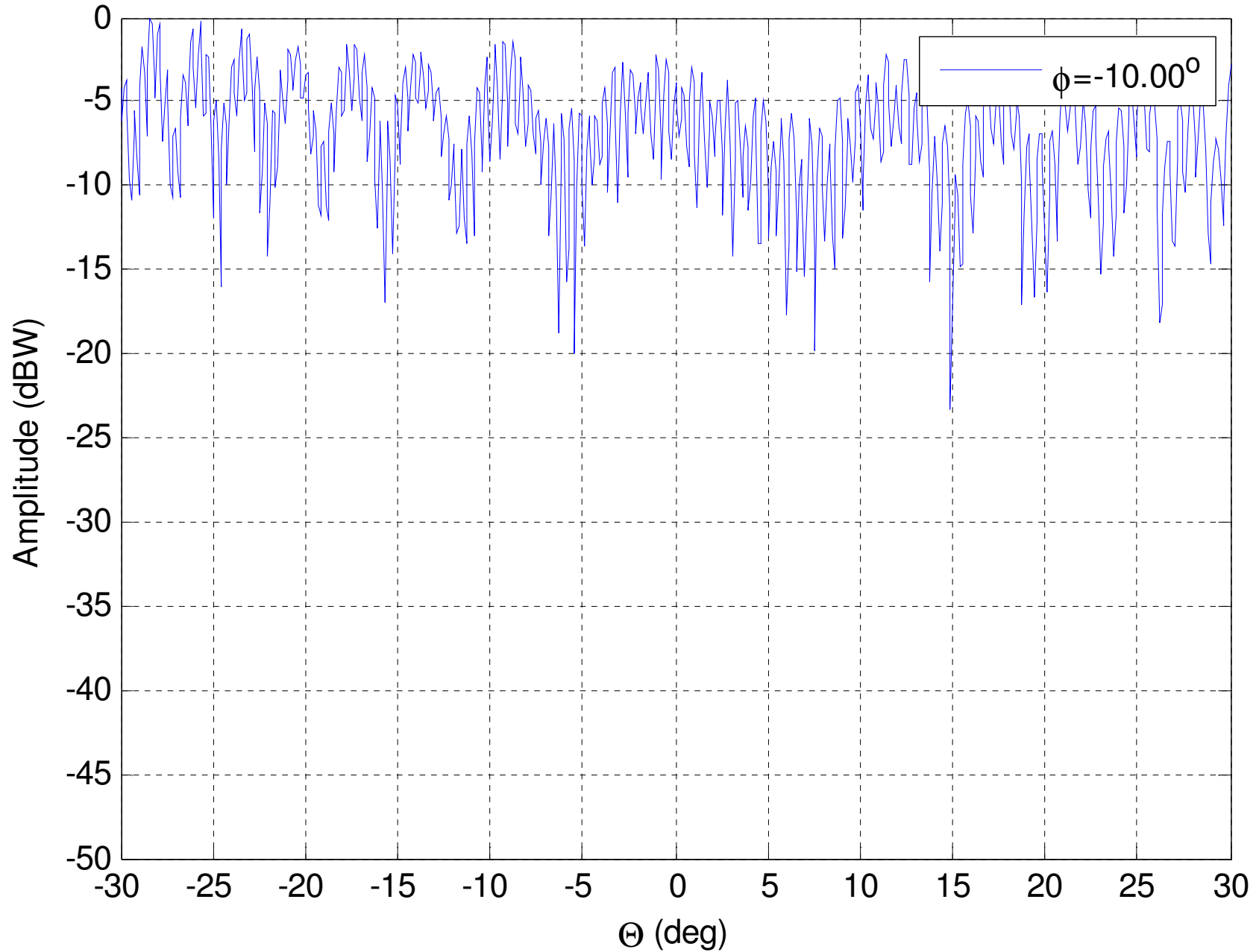
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--20.cut, Peak: 0.20 dBW, Date: 16-Dec-2011



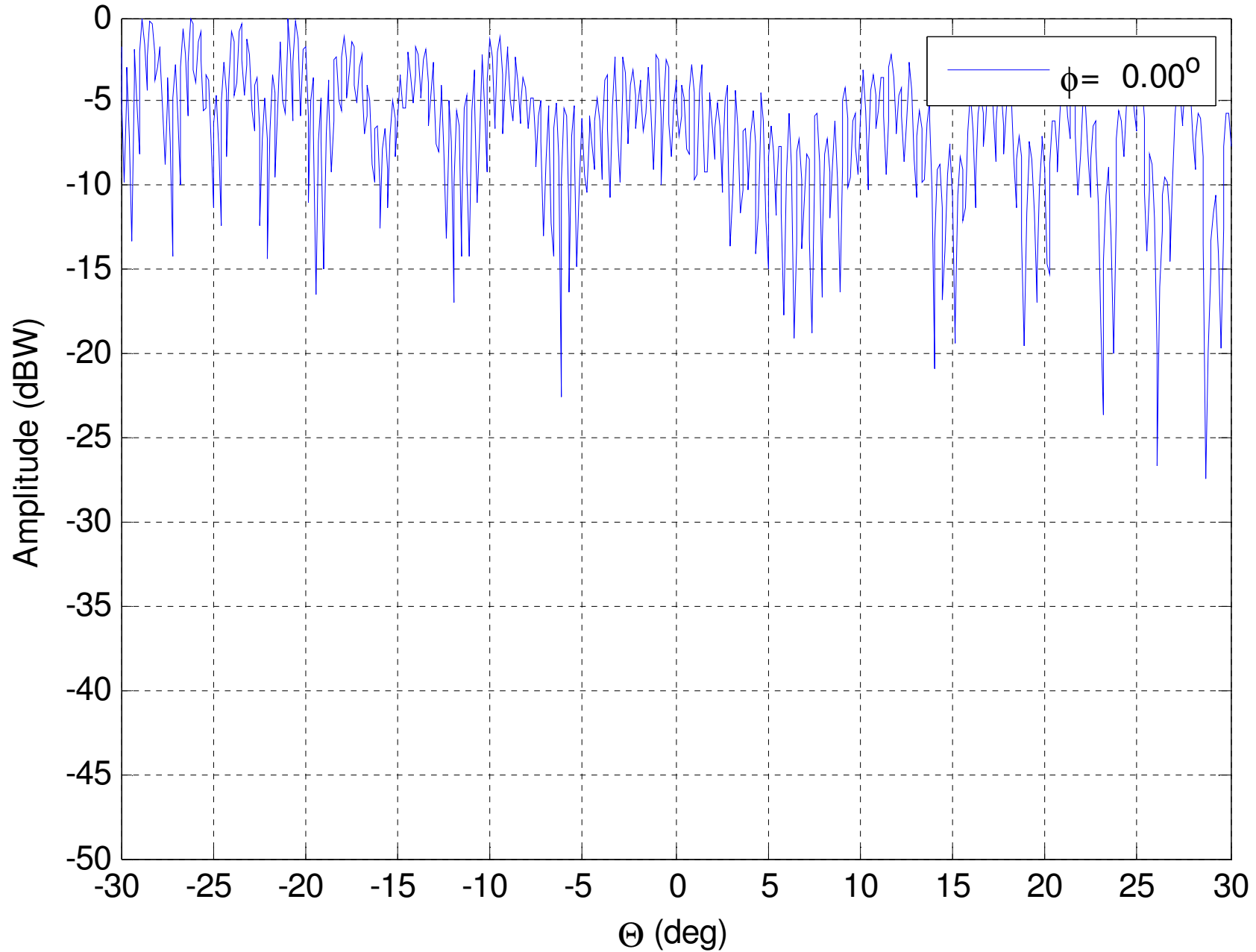
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--10.cut, Peak: 1.07 dBW, Date: 16-Dec-2011



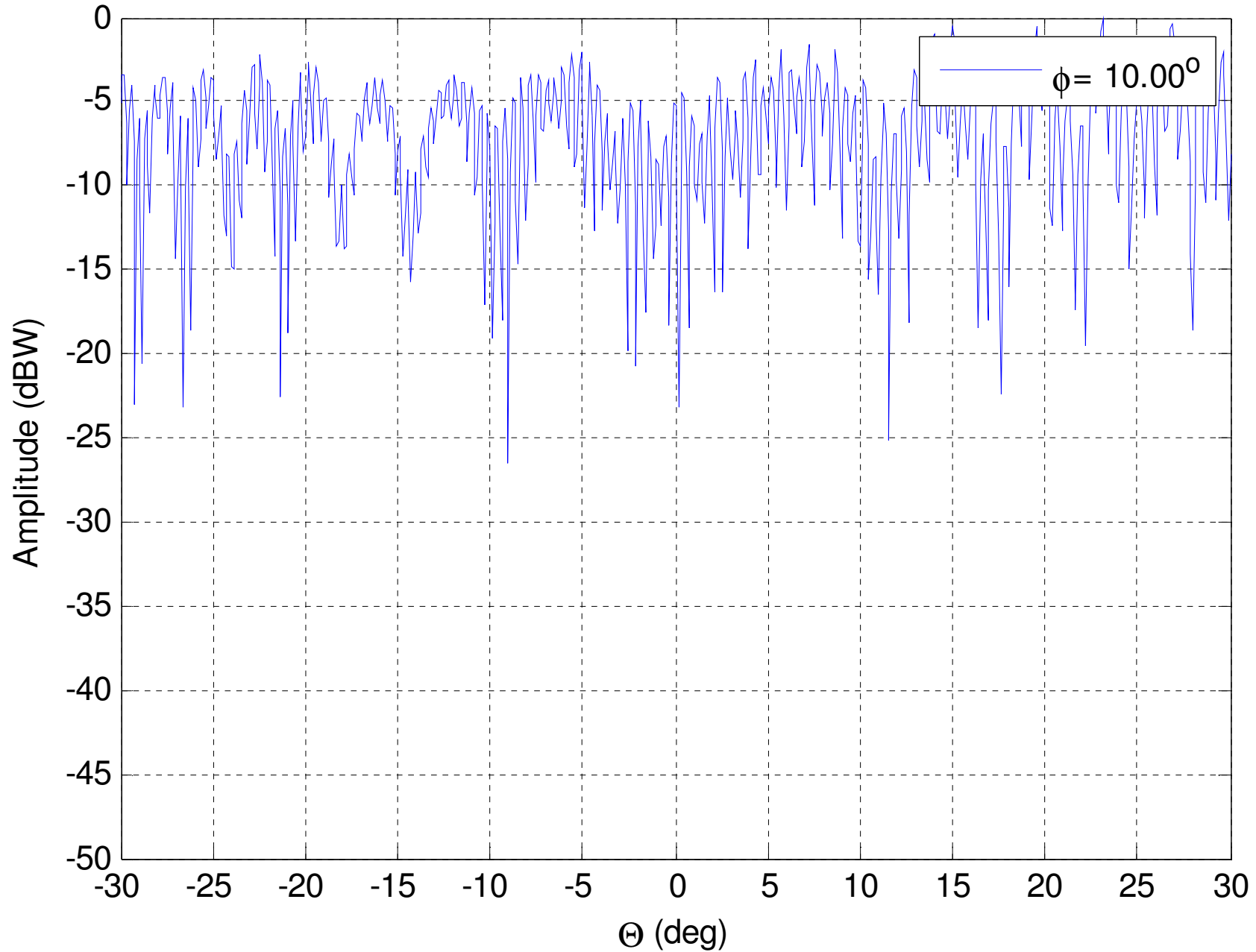
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-0.cut, Peak: 0.93 dBW, Date: 16-Dec-2011



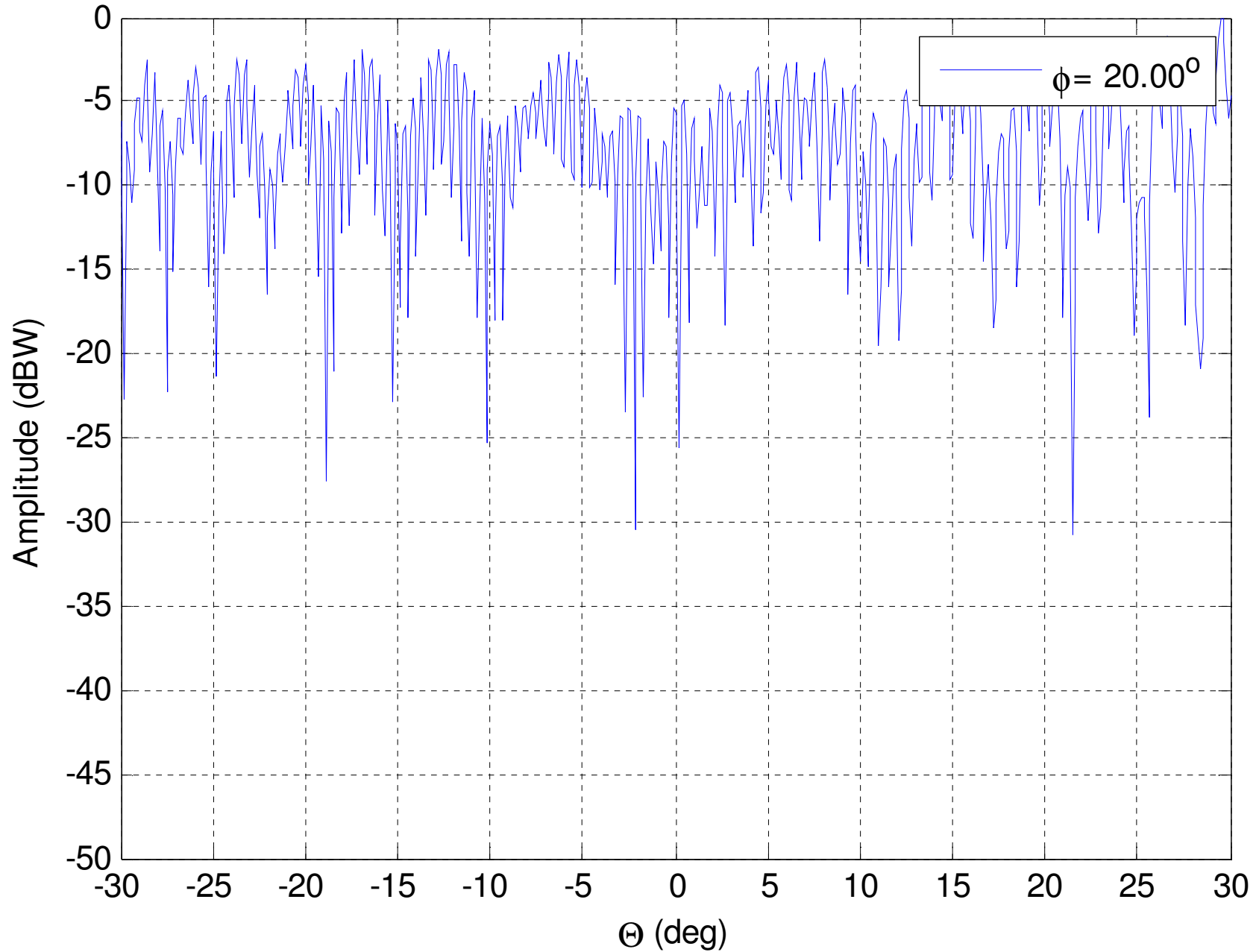
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-10.cut, Peak: 0.85 dBW, Date: 16-Dec-2011



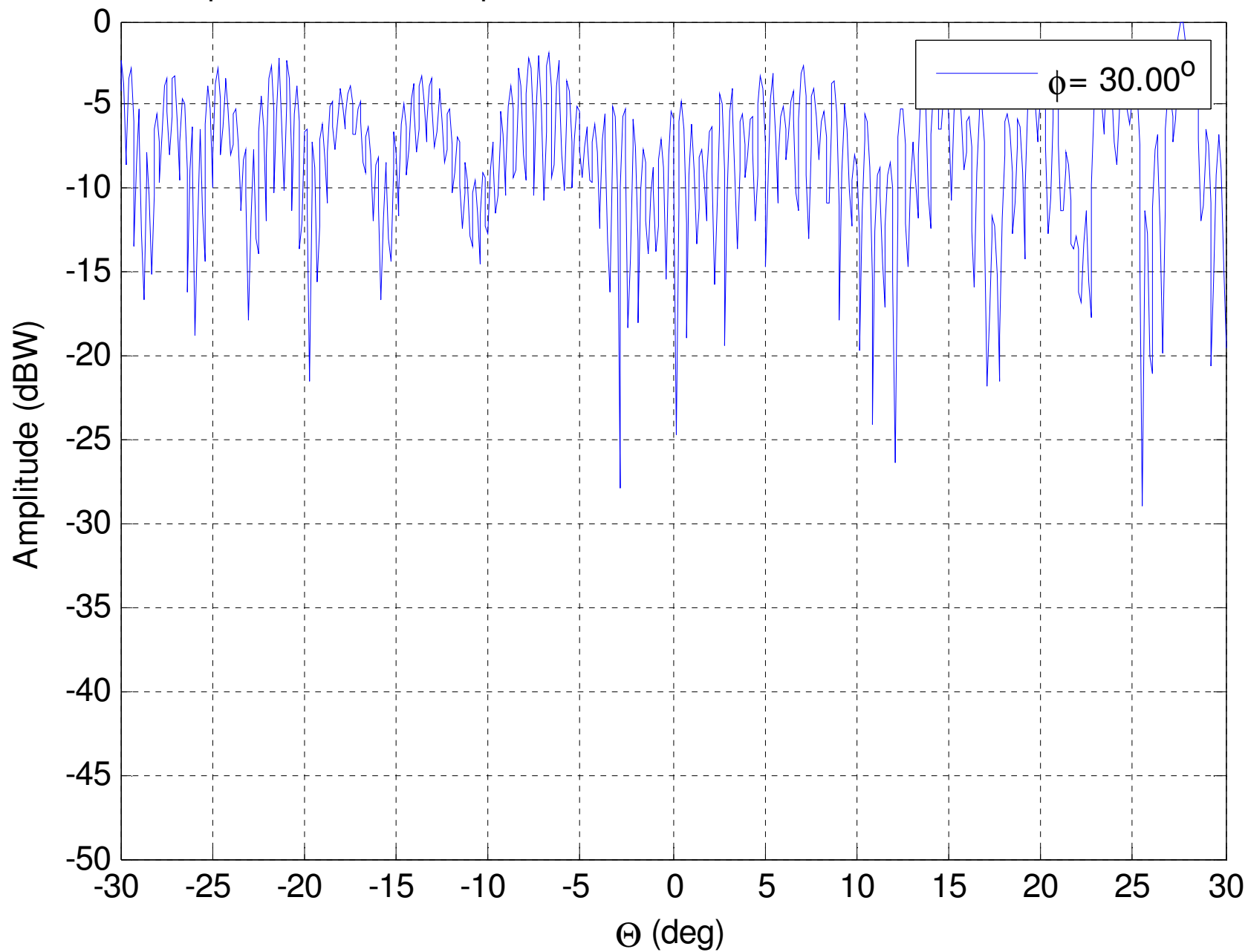
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-20.cut, Peak: 1.28 dBW, Date: 16-Dec-2011



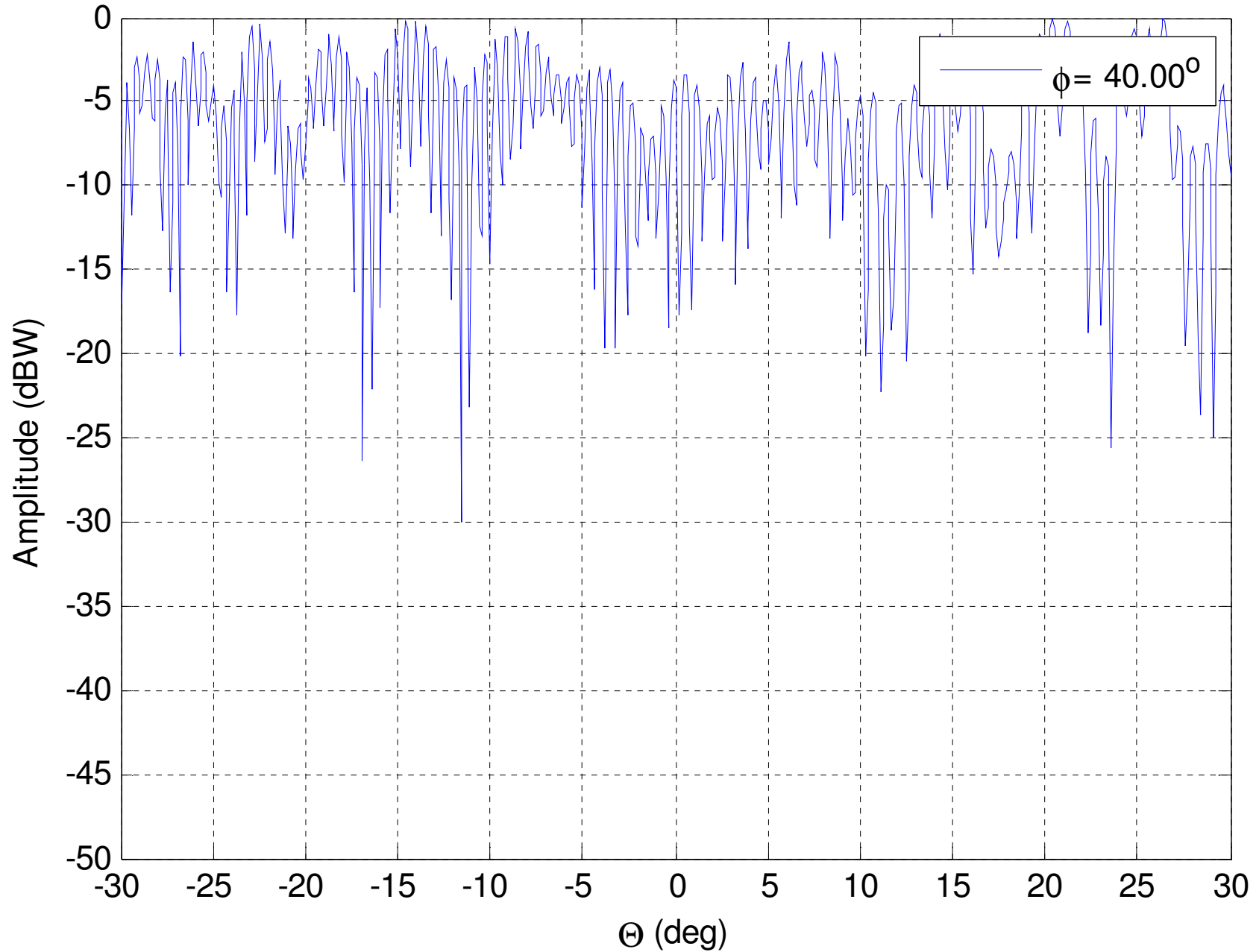
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-30.cut, Peak: 1.38 dBW, Date: 16-Dec-2011



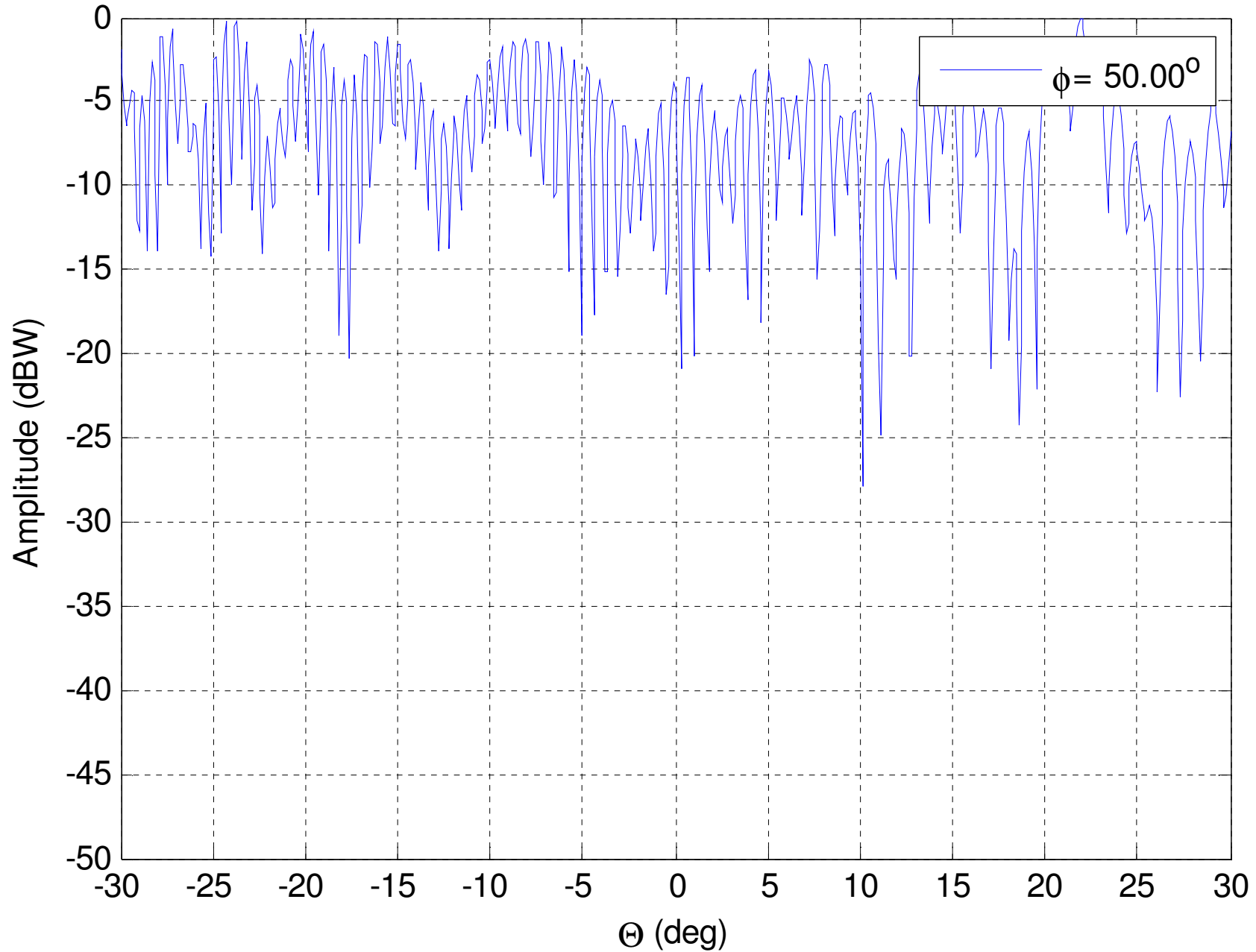
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-40.cut, Peak: -0.22 dBW, Date: 16-Dec-2011



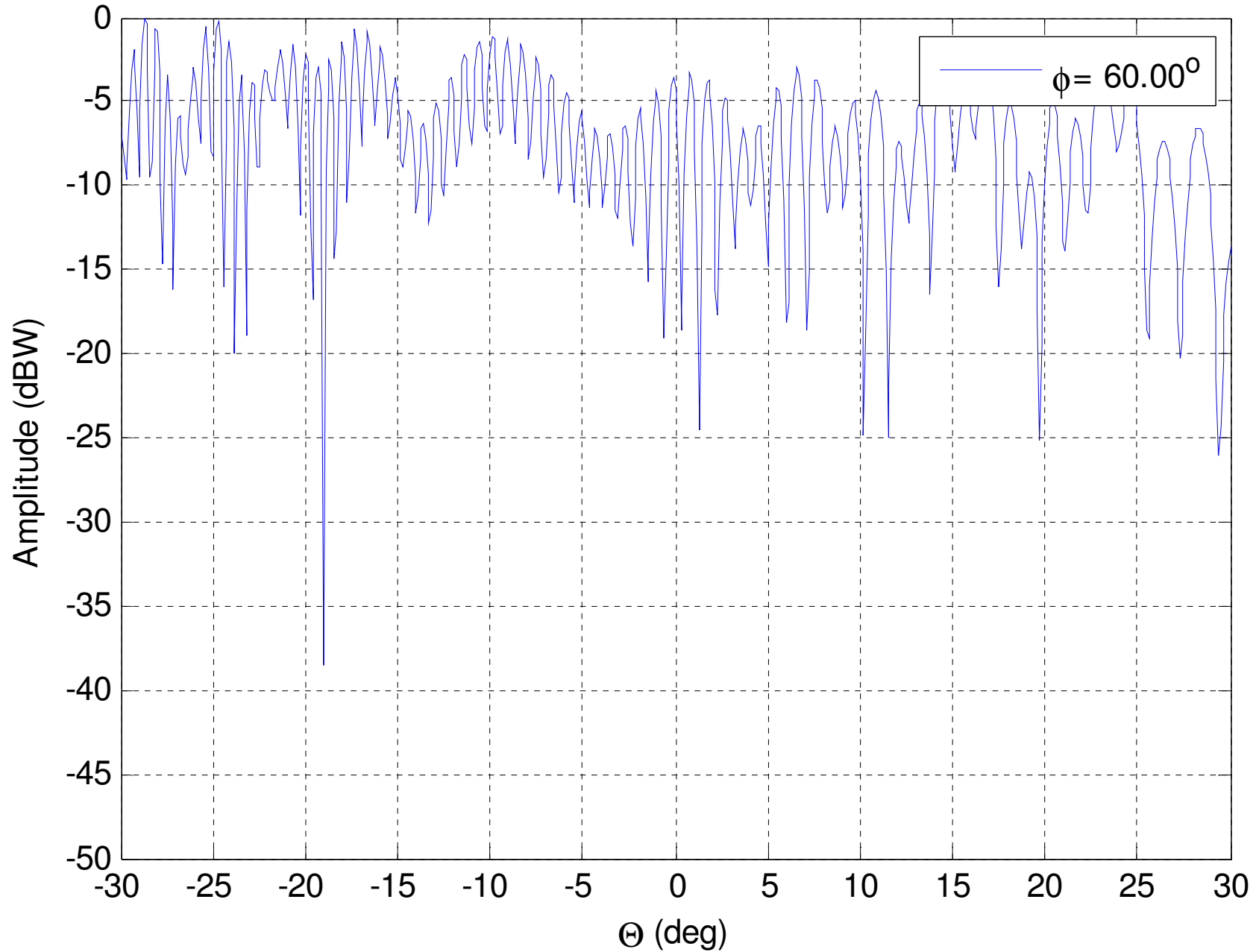
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-50.cut, Peak: 0.02 dBW, Date: 16-Dec-2011



Normalized pattern cuts - farfield

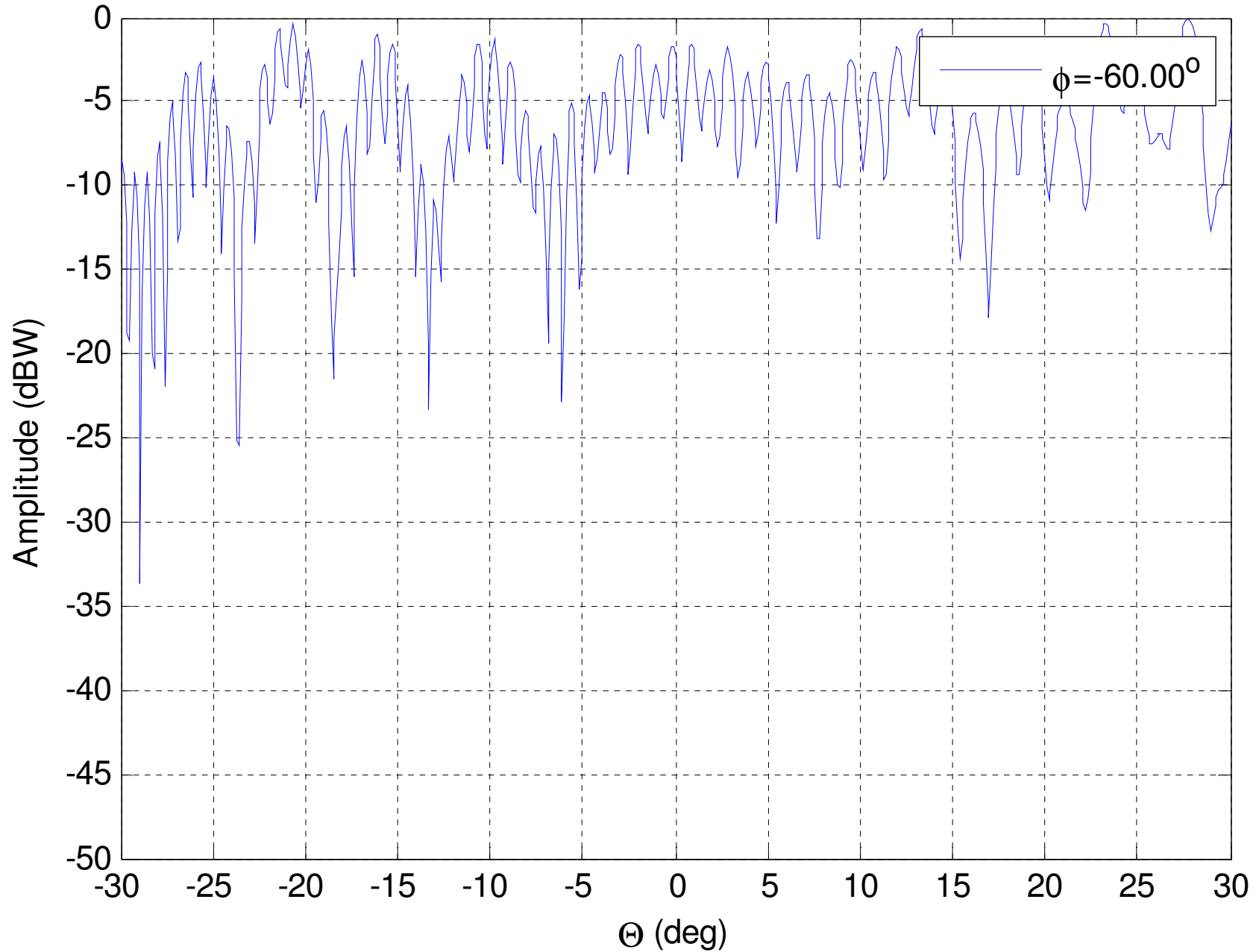
Input file: tx-17.5-lhcp-60.cut, Peak: -0.14 dBW, Date: 16-Dec-2011



RHCP at 17.7 GHz

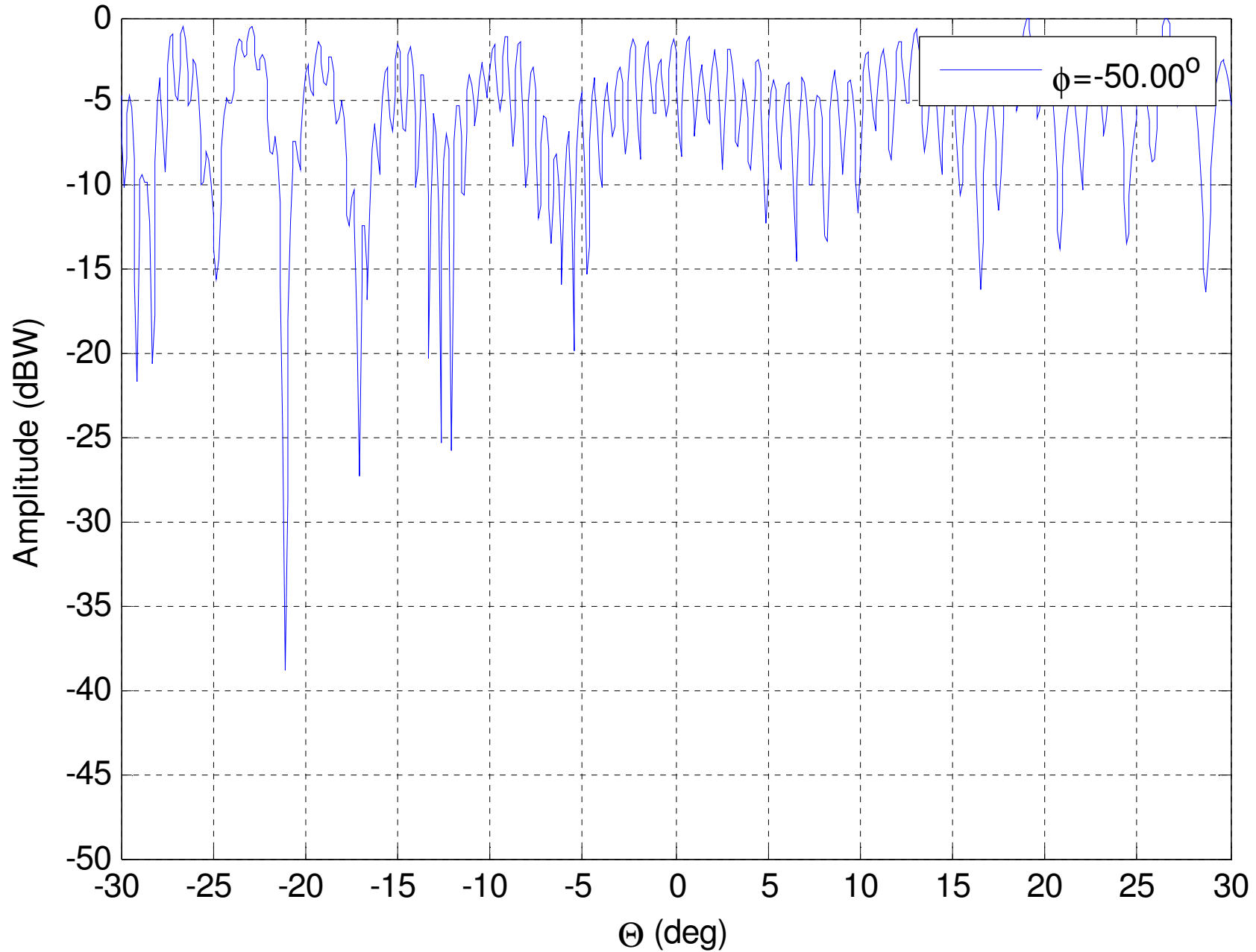
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--60.cut, Peak: -0.34 dBW, Date: 16-Dec-2011



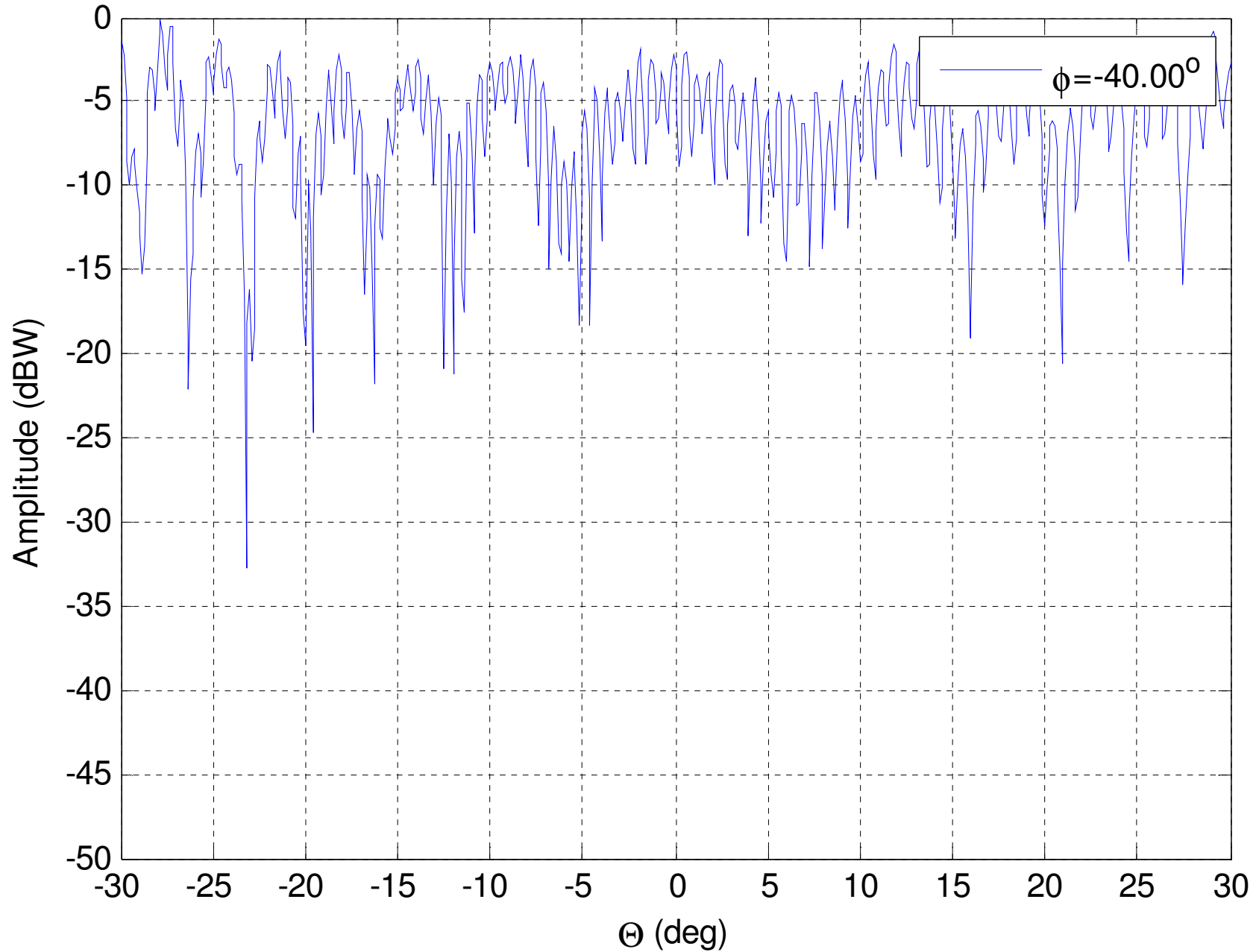
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--50.cut, Peak: -0.63 dBW, Date: 16-Dec-2011



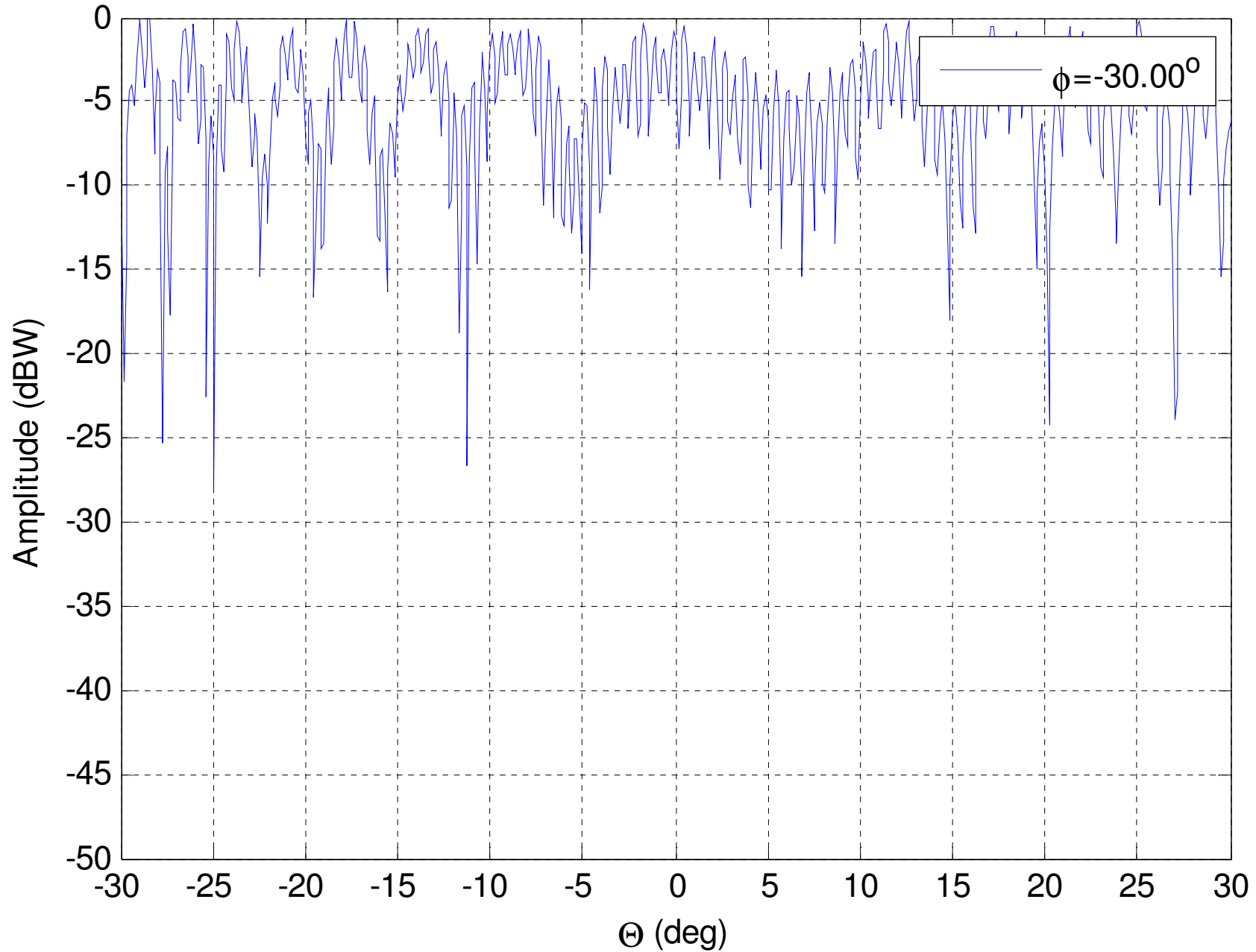
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--40.cut, Peak: 0.23 dBW, Date: 16-Dec-2011



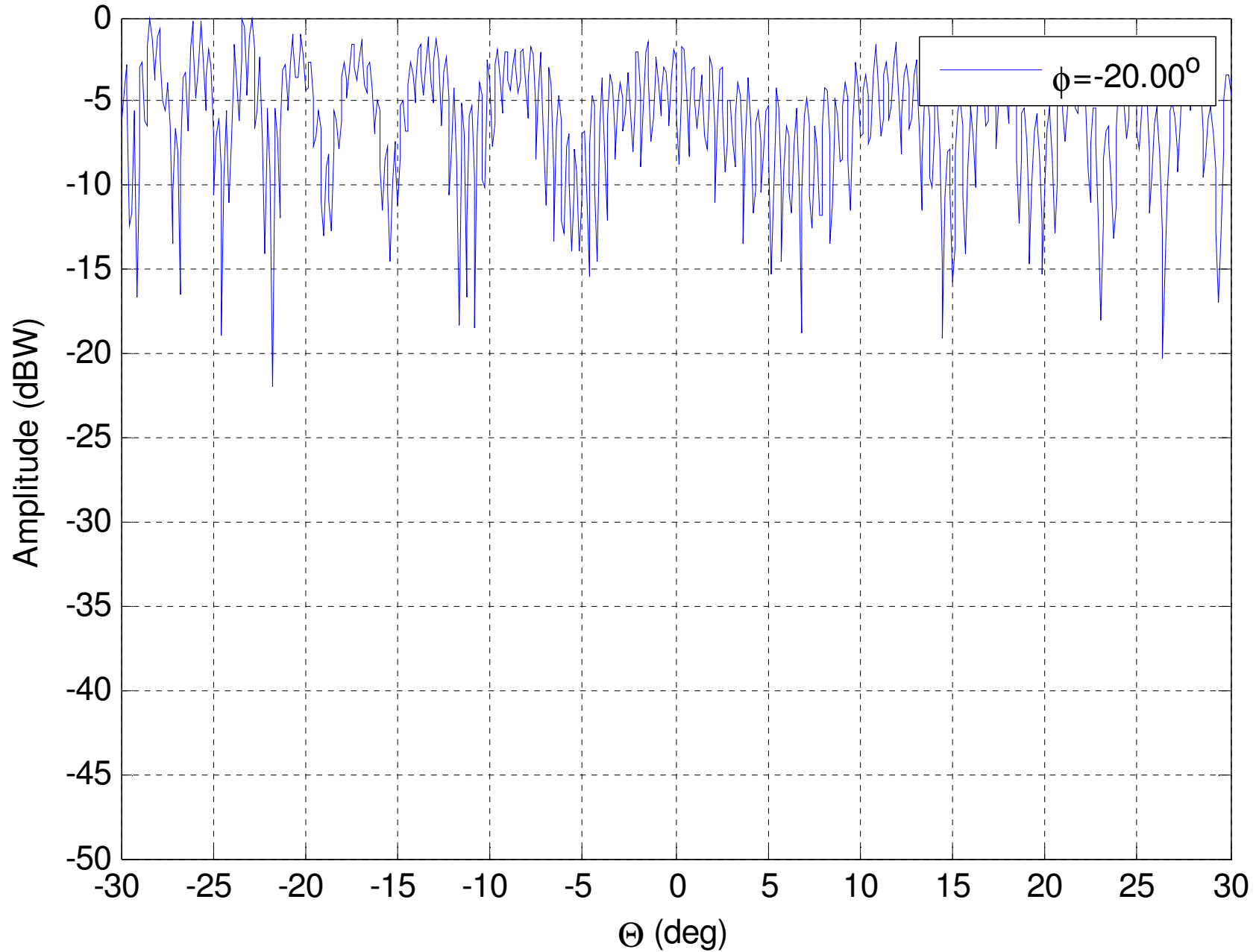
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--30.cut, Peak: -1.18 dBW, Date: 16-Dec-2011



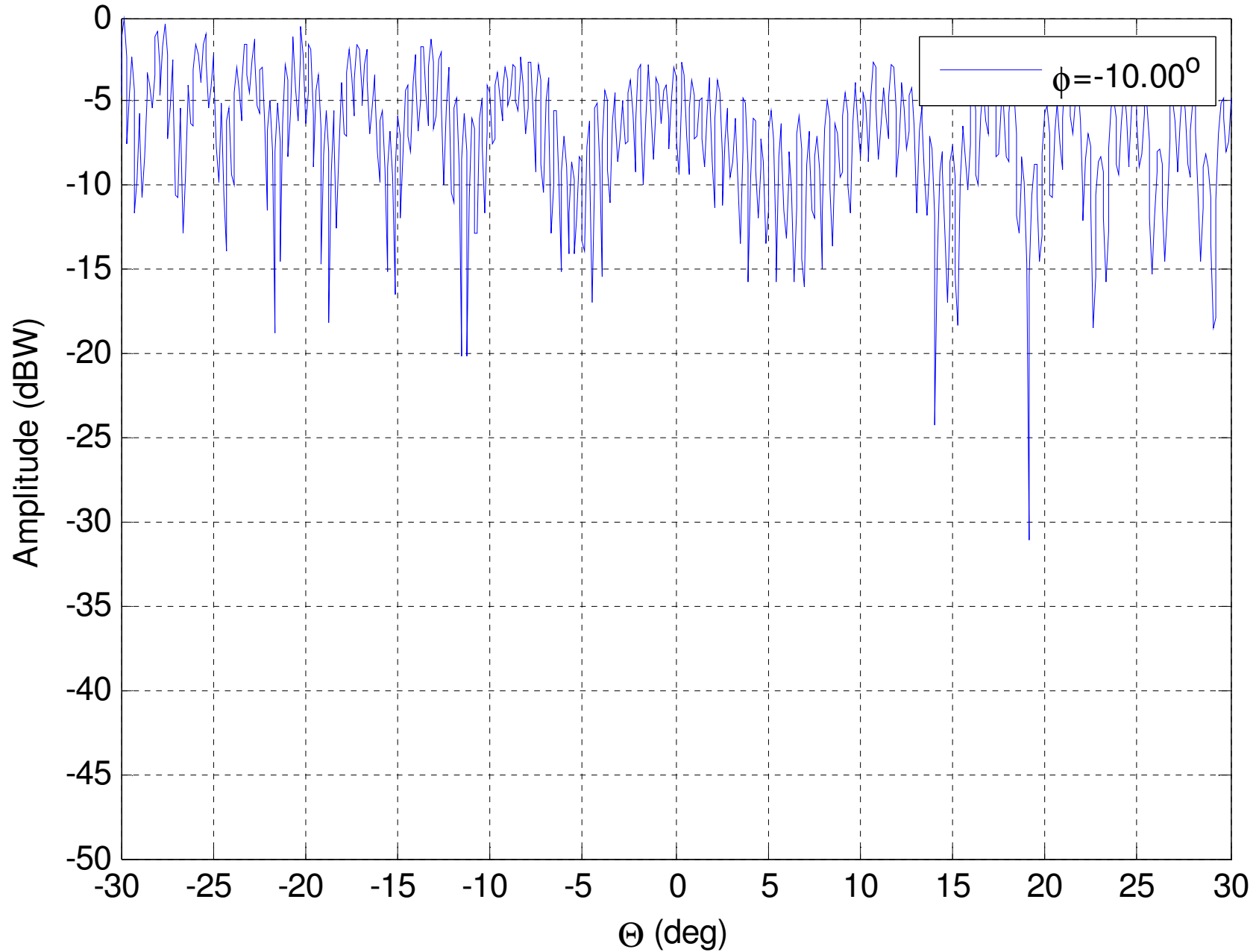
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--20.cut, Peak: -0.14 dBW, Date: 16-Dec-2011



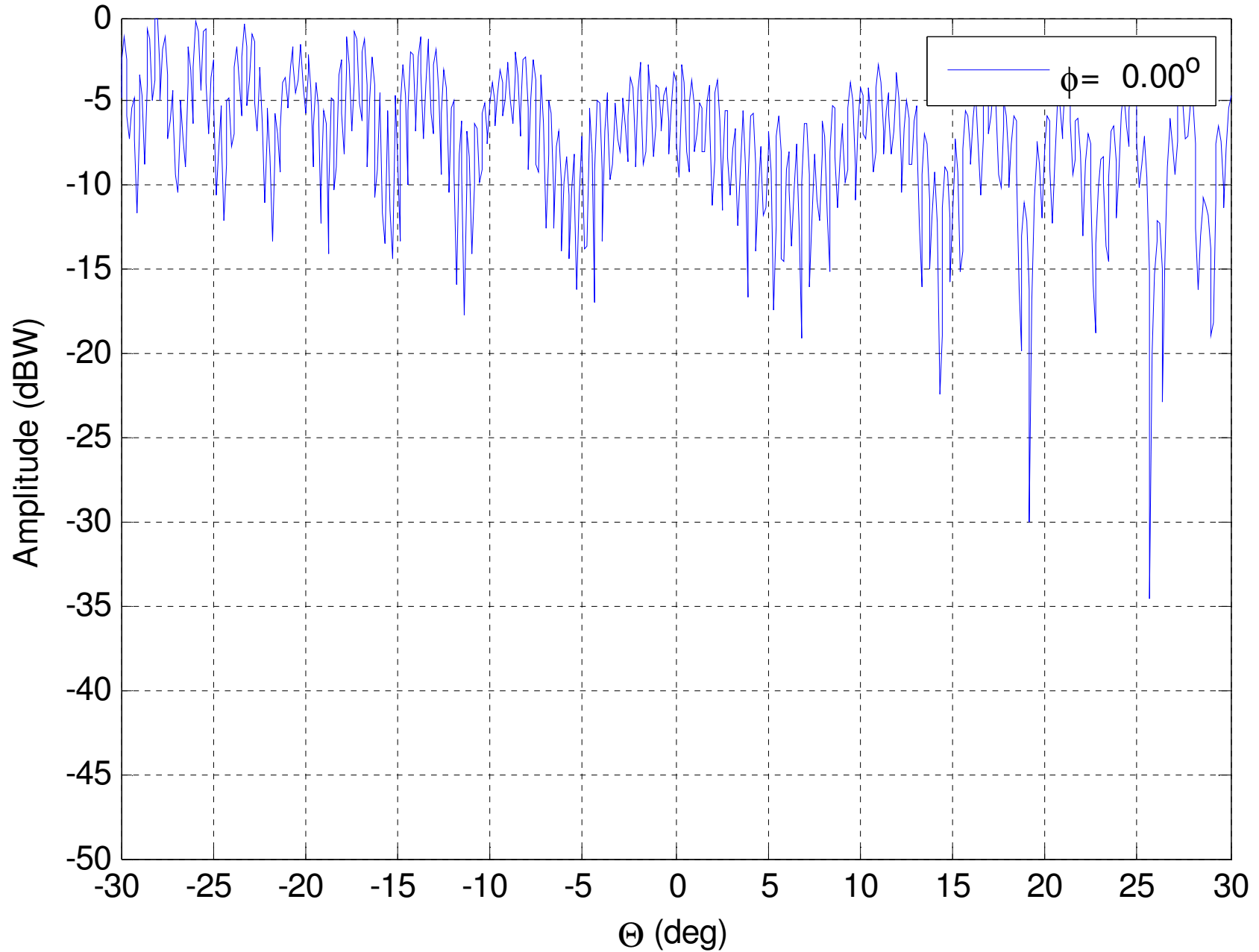
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--10.cut, Peak: 0.94 dBW, Date: 16-Dec-2011



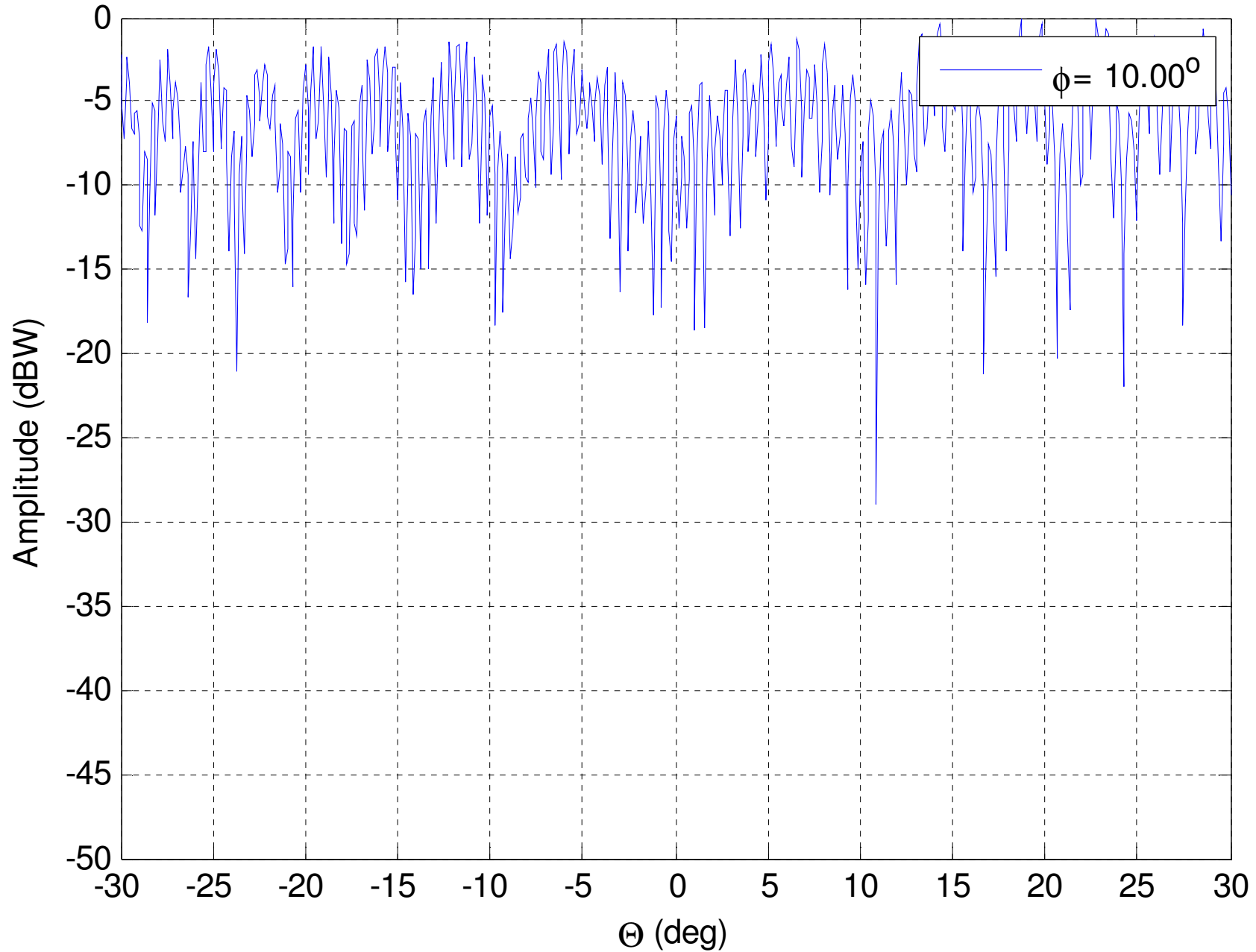
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-0.cut, Peak: 1.17 dBW, Date: 16-Dec-2011



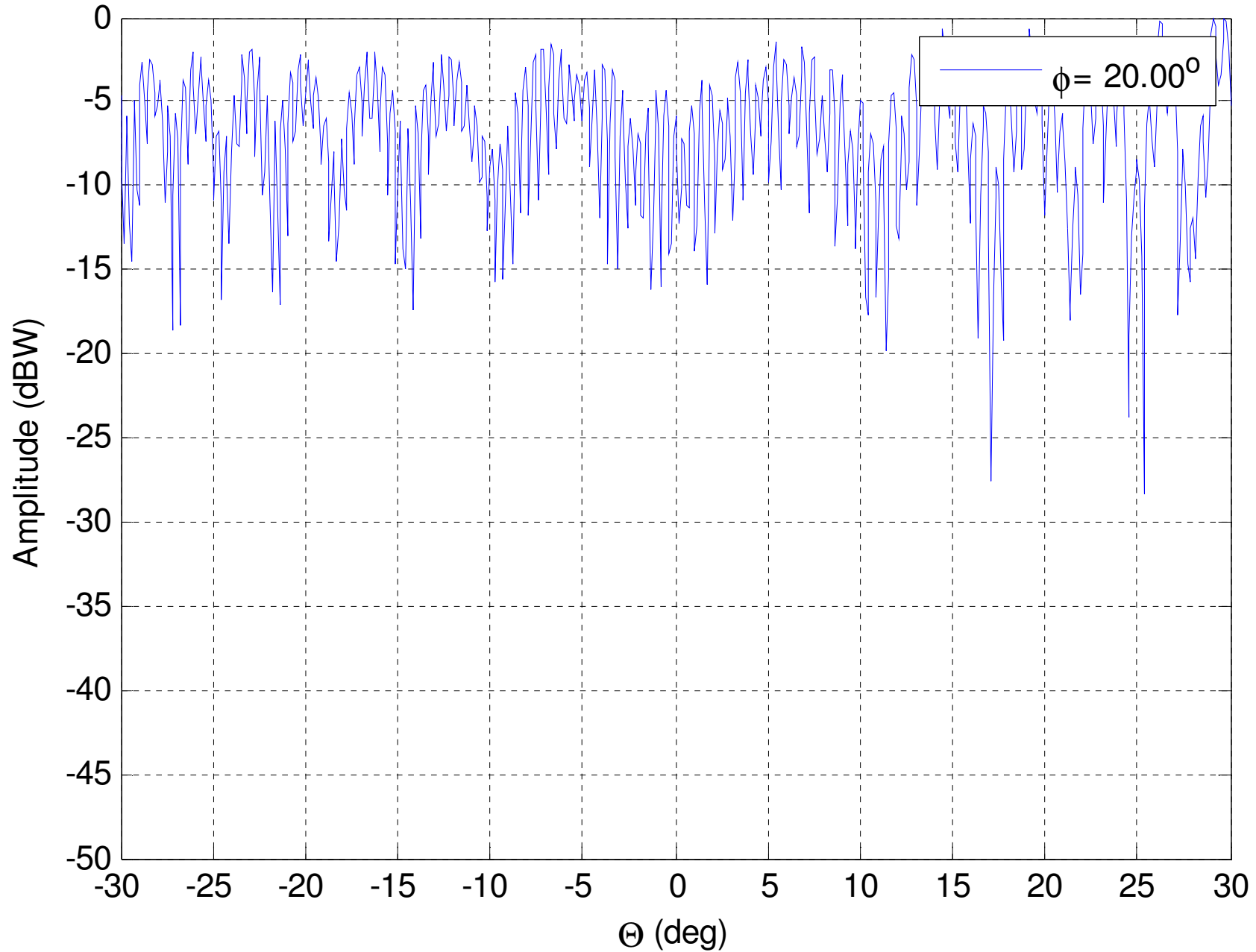
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-10.cut, Peak: 0.12 dBW, Date: 16-Dec-2011



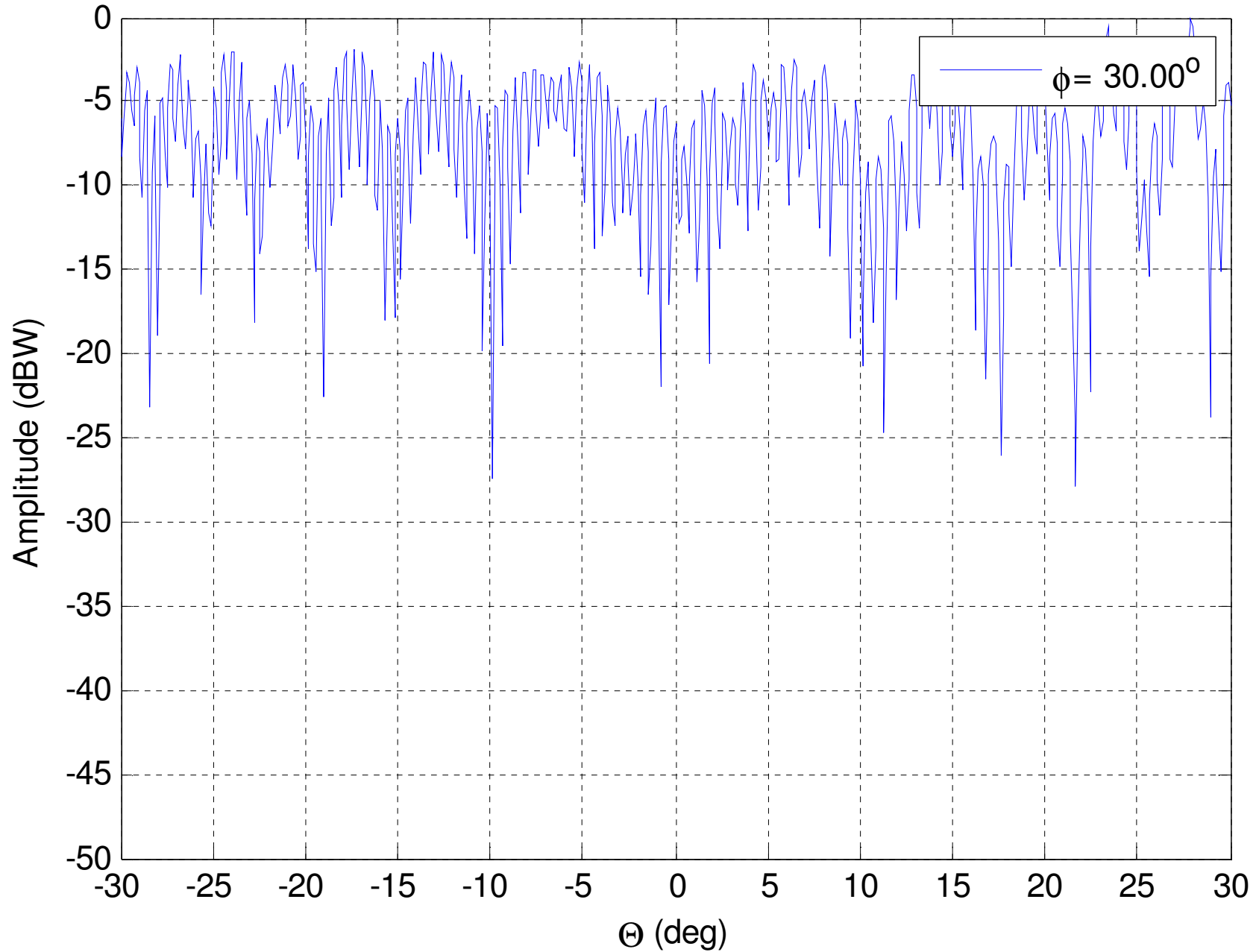
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-20.cut, Peak: 0.08 dBW, Date: 16-Dec-2011



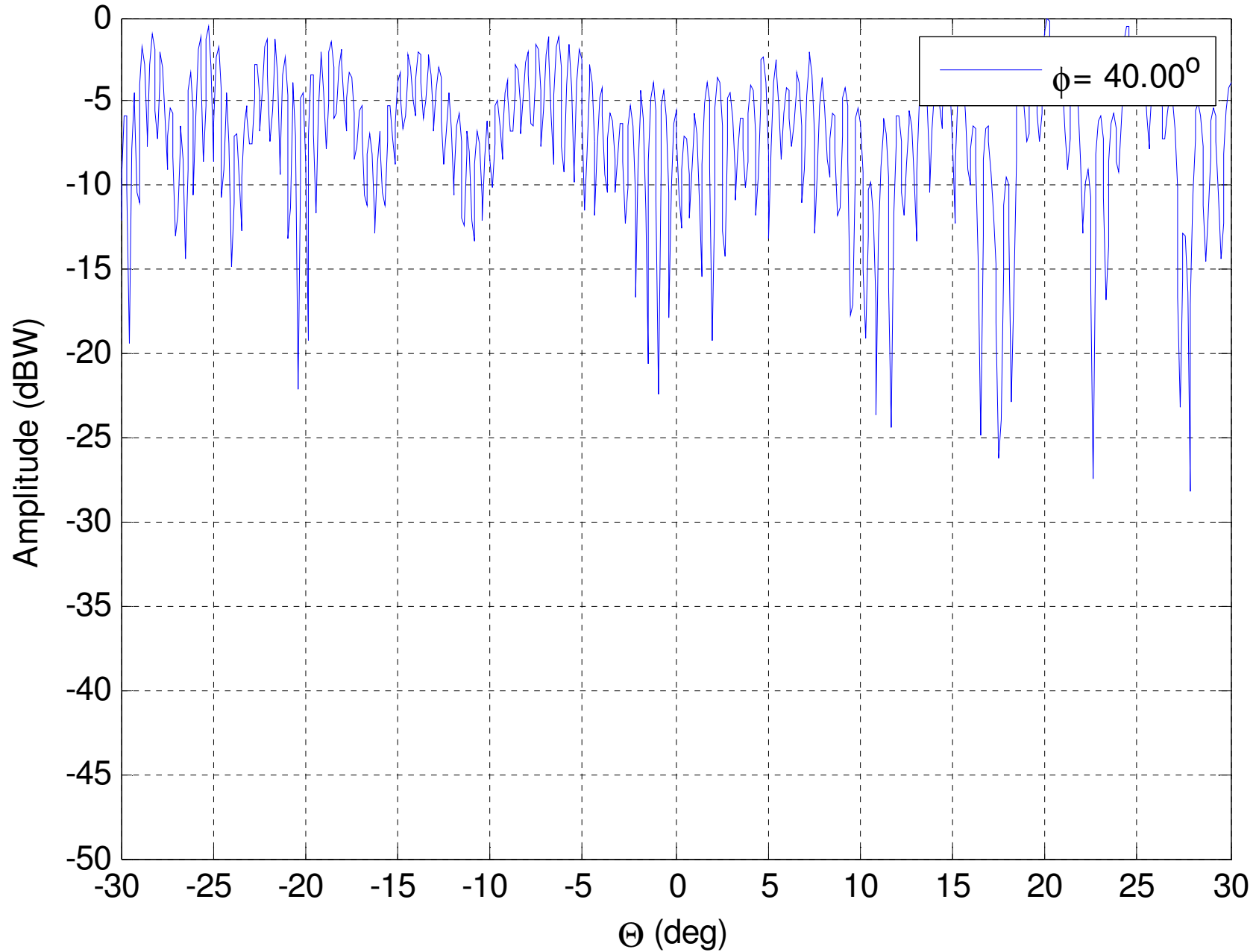
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-30.cut, Peak: 0.59 dBW, Date: 16-Dec-2011



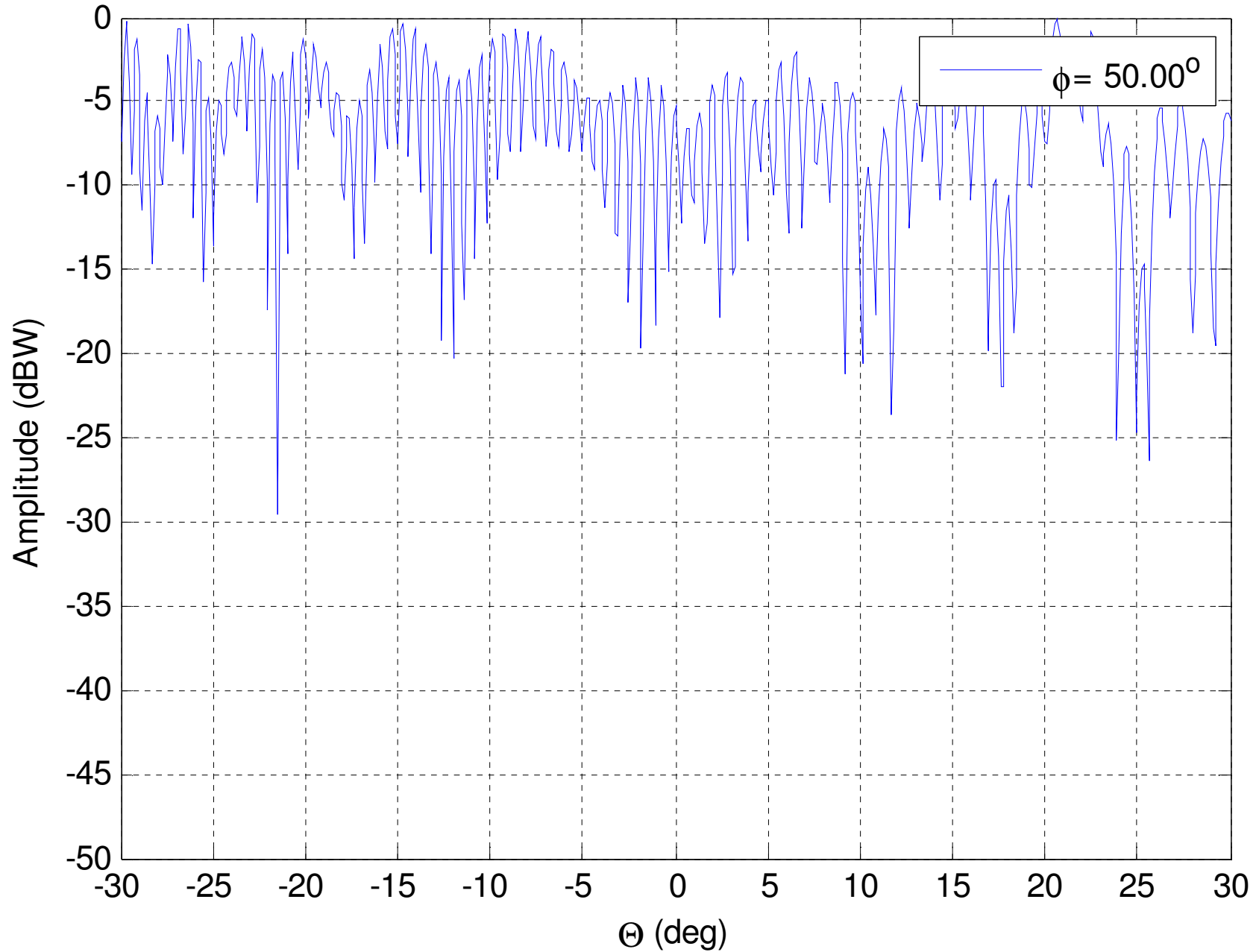
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-40.cut, Peak: -0.14 dBW, Date: 16-Dec-2011



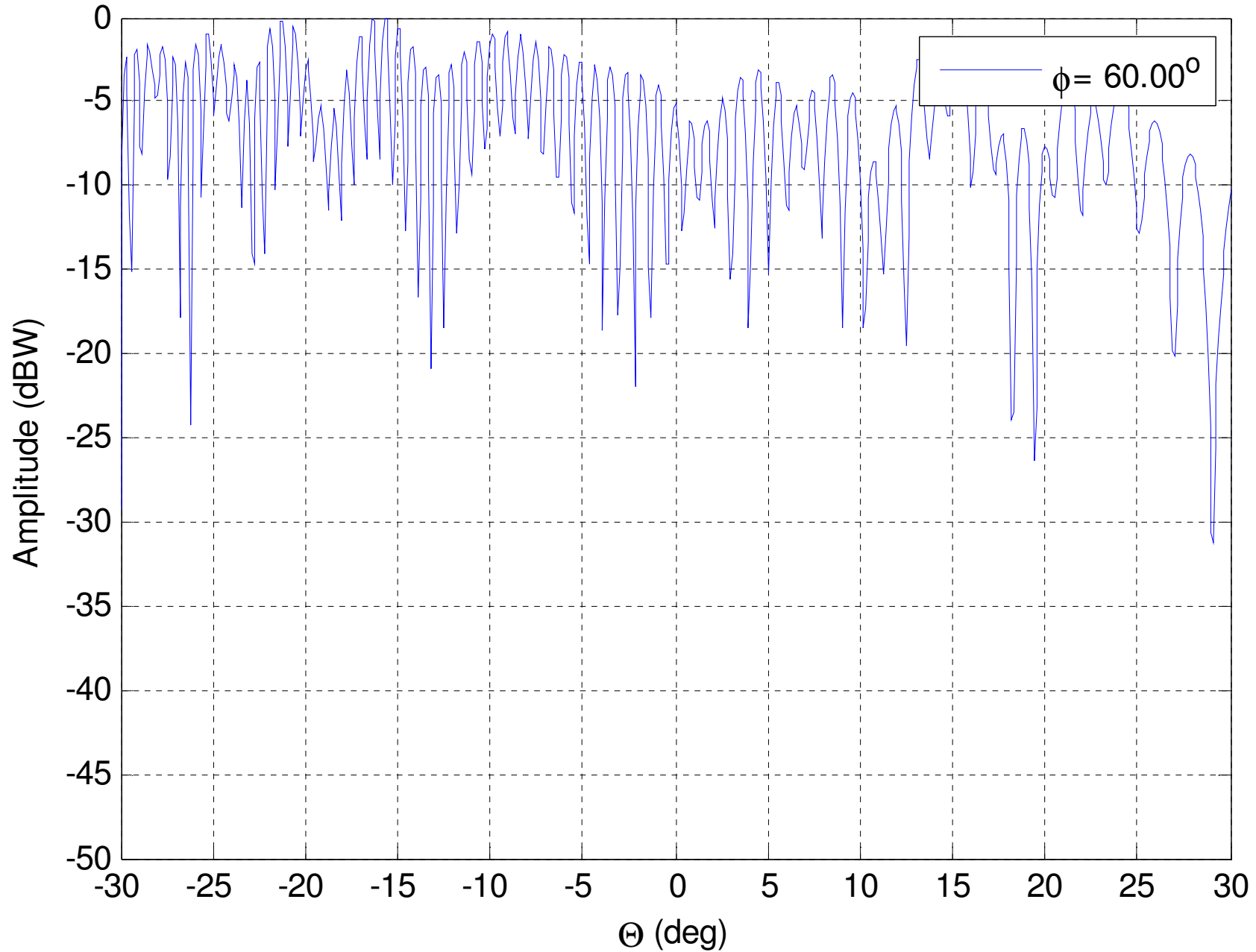
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-50.cut, Peak: -0.47 dBW, Date: 16-Dec-2011



Normalized pattern cuts - farfield

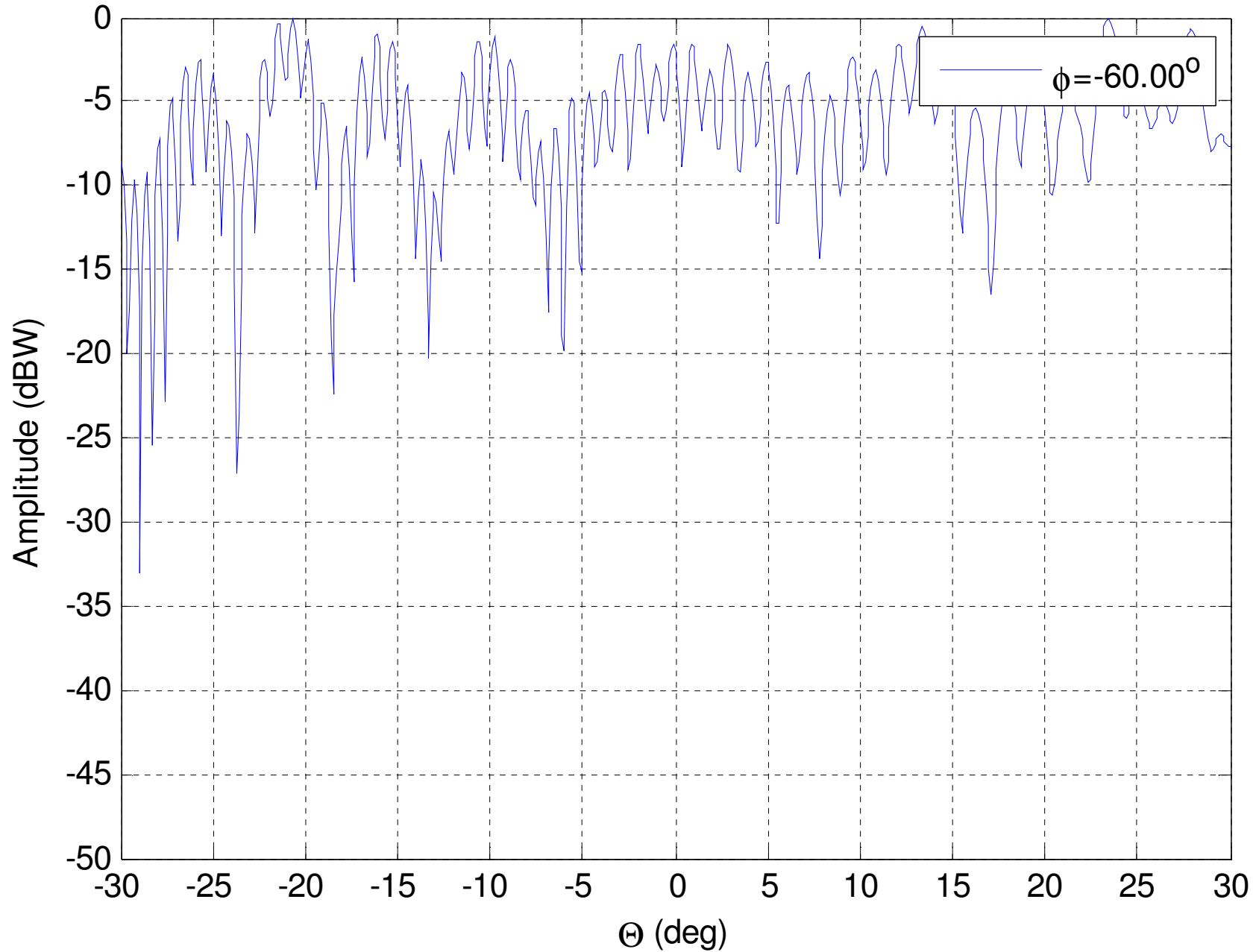
Input file: tx-17.7-rhcp-60.cut, Peak: -0.68 dBW, Date: 16-Dec-2011



LHCP at 17.7 GHz

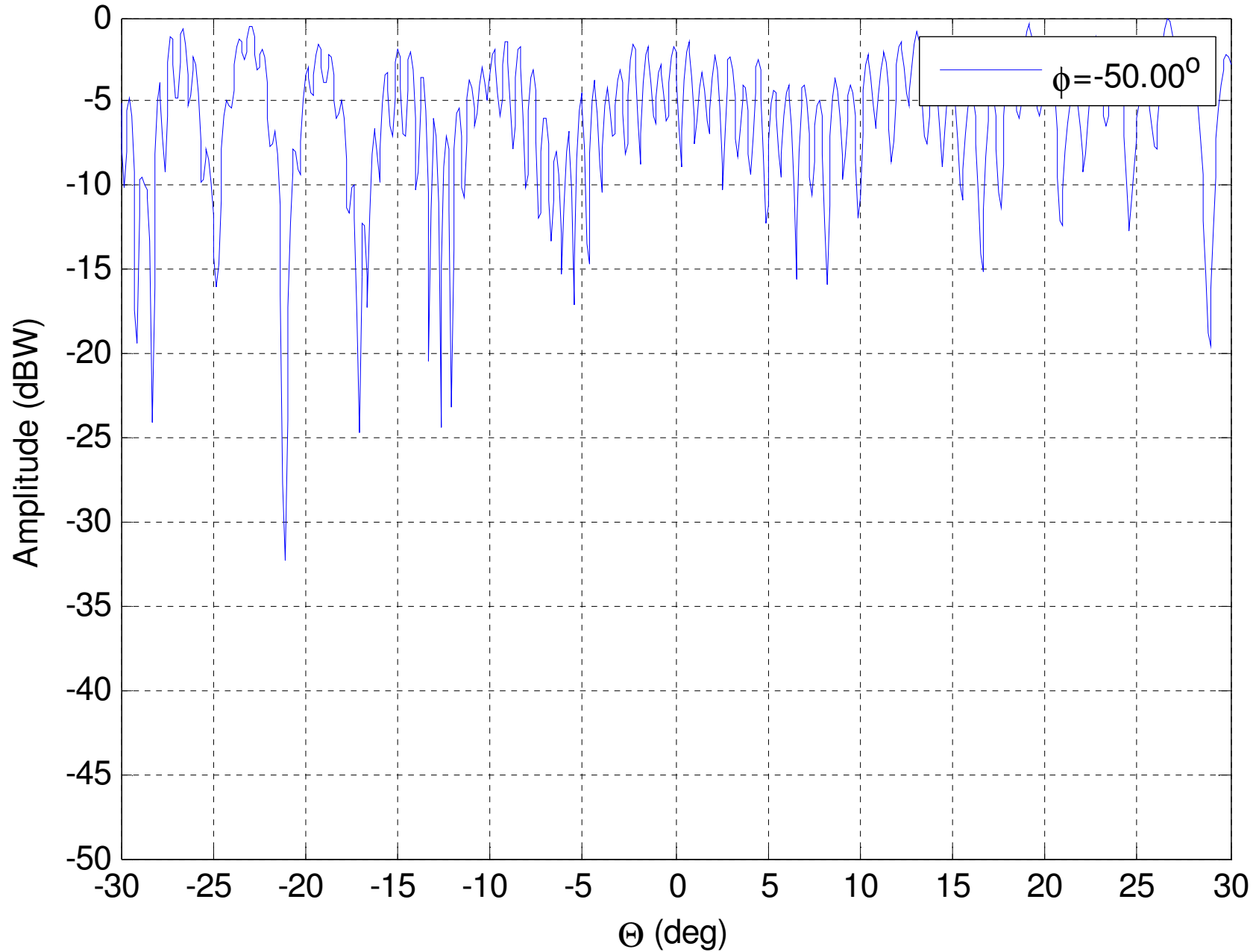
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--60.cut, Peak: -0.38 dBW, Date: 16-Dec-2011



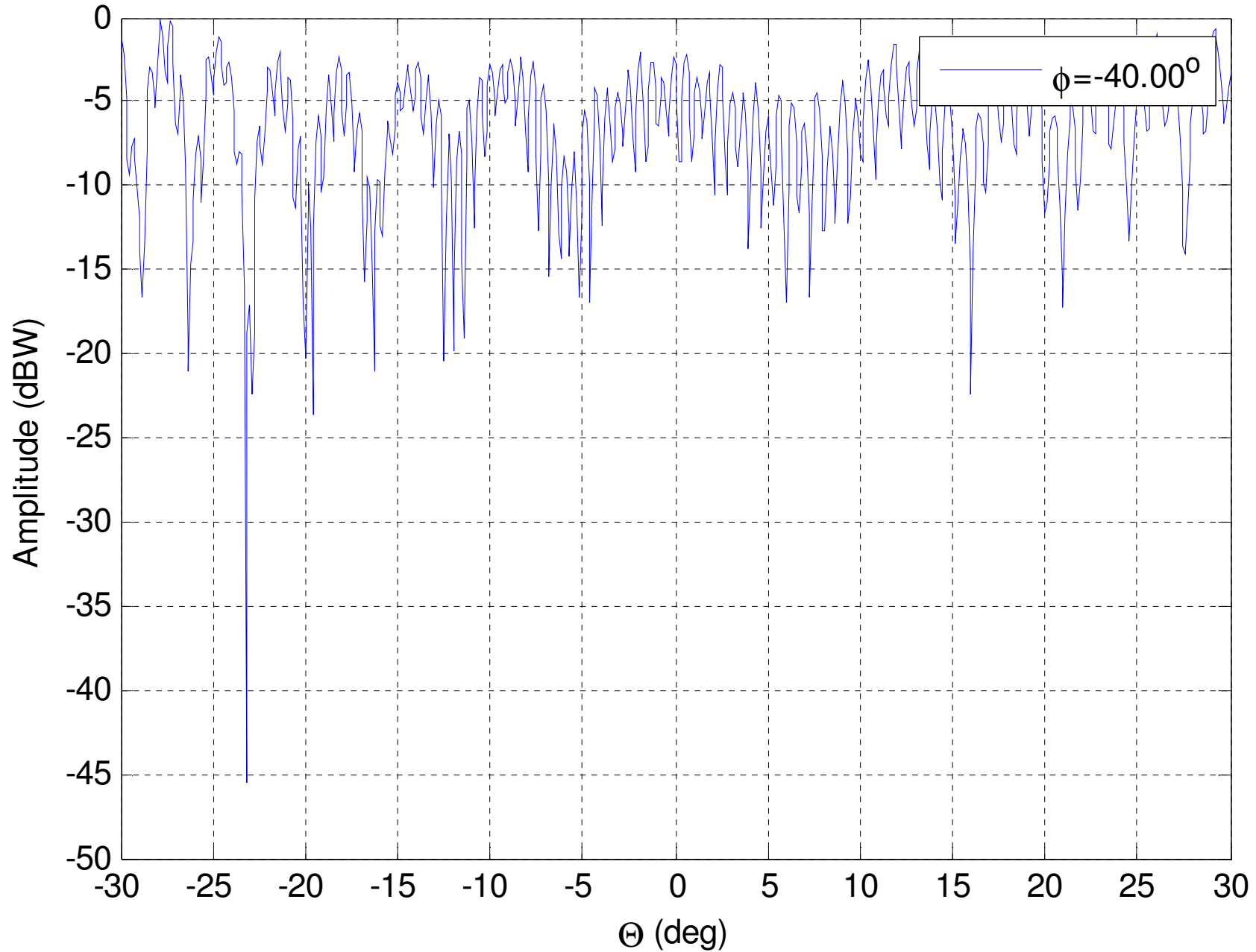
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--50.cut, Peak: -0.34 dBW, Date: 16-Dec-2011



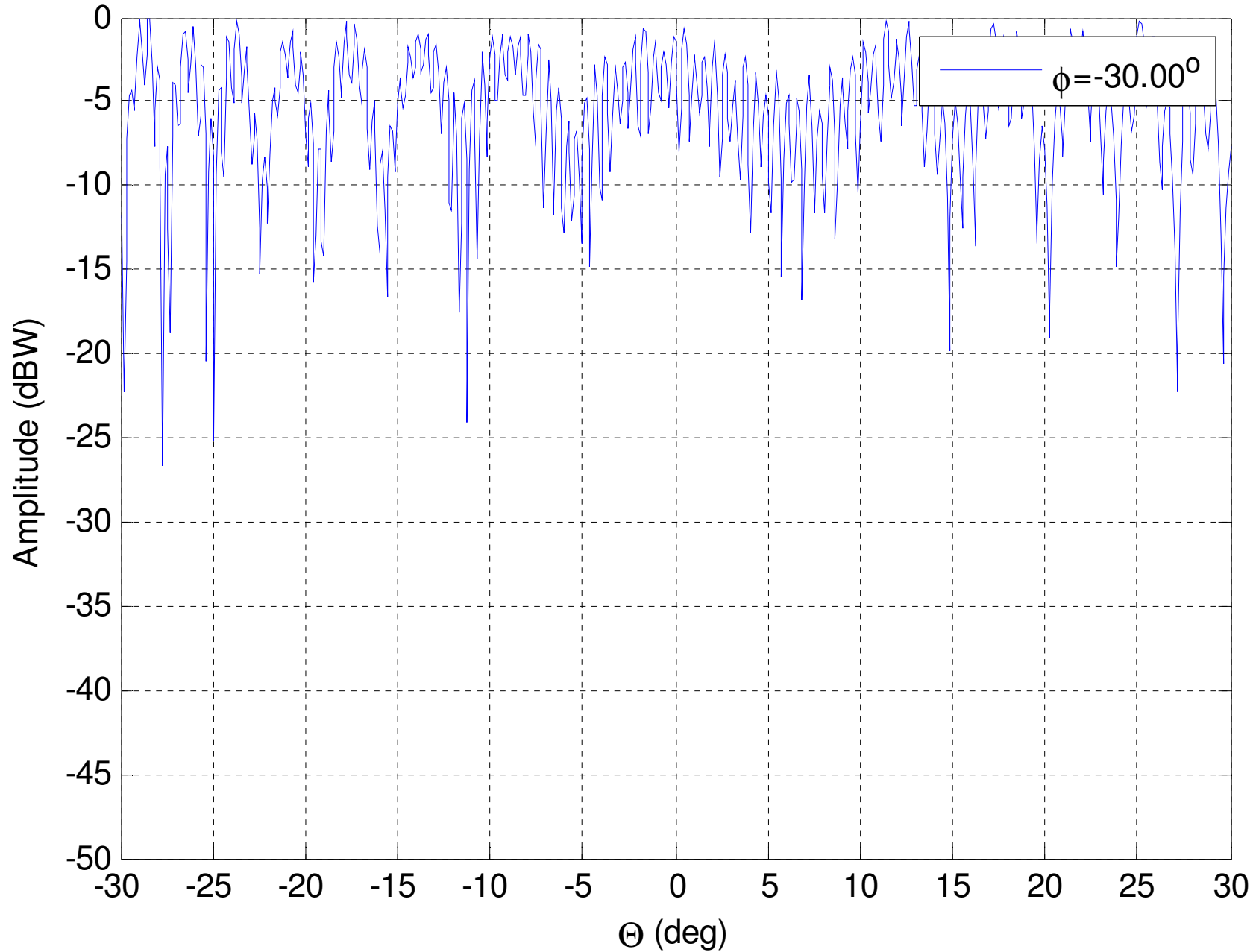
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--40.cut, Peak: 0.36 dBW, Date: 16-Dec-2011



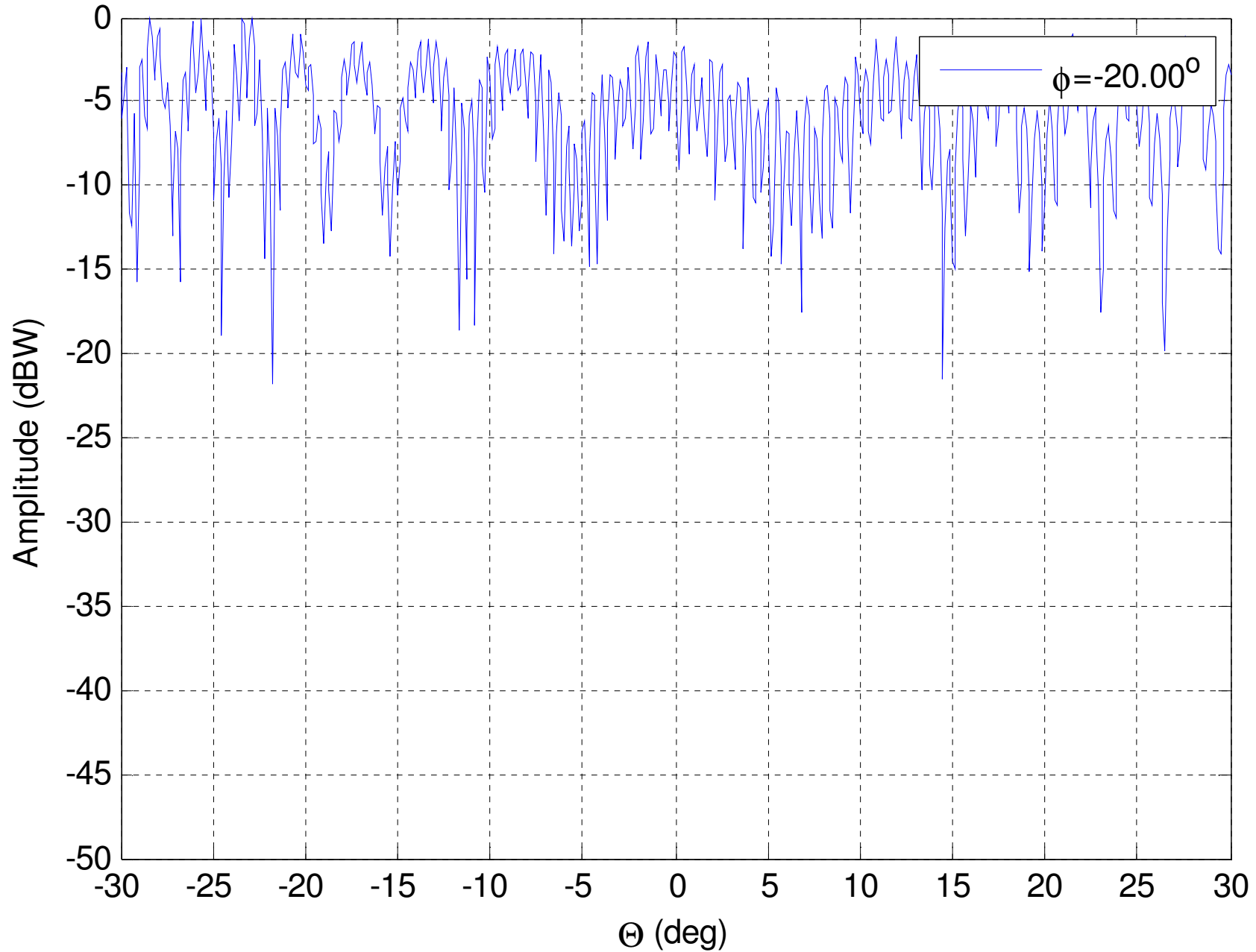
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--30.cut, Peak: -1.04 dBW, Date: 16-Dec-2011



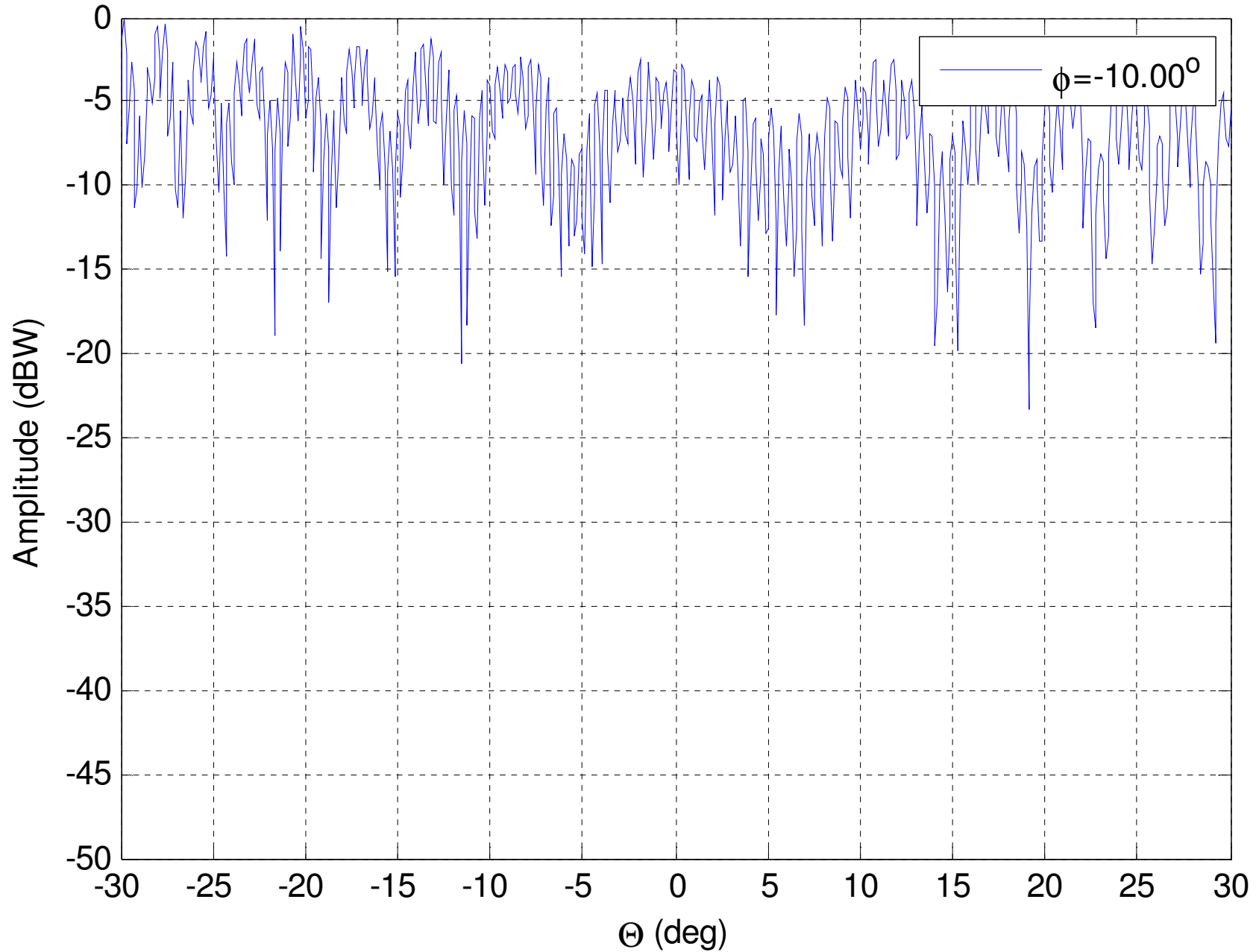
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--20.cut, Peak: -0.15 dBW, Date: 16-Dec-2011



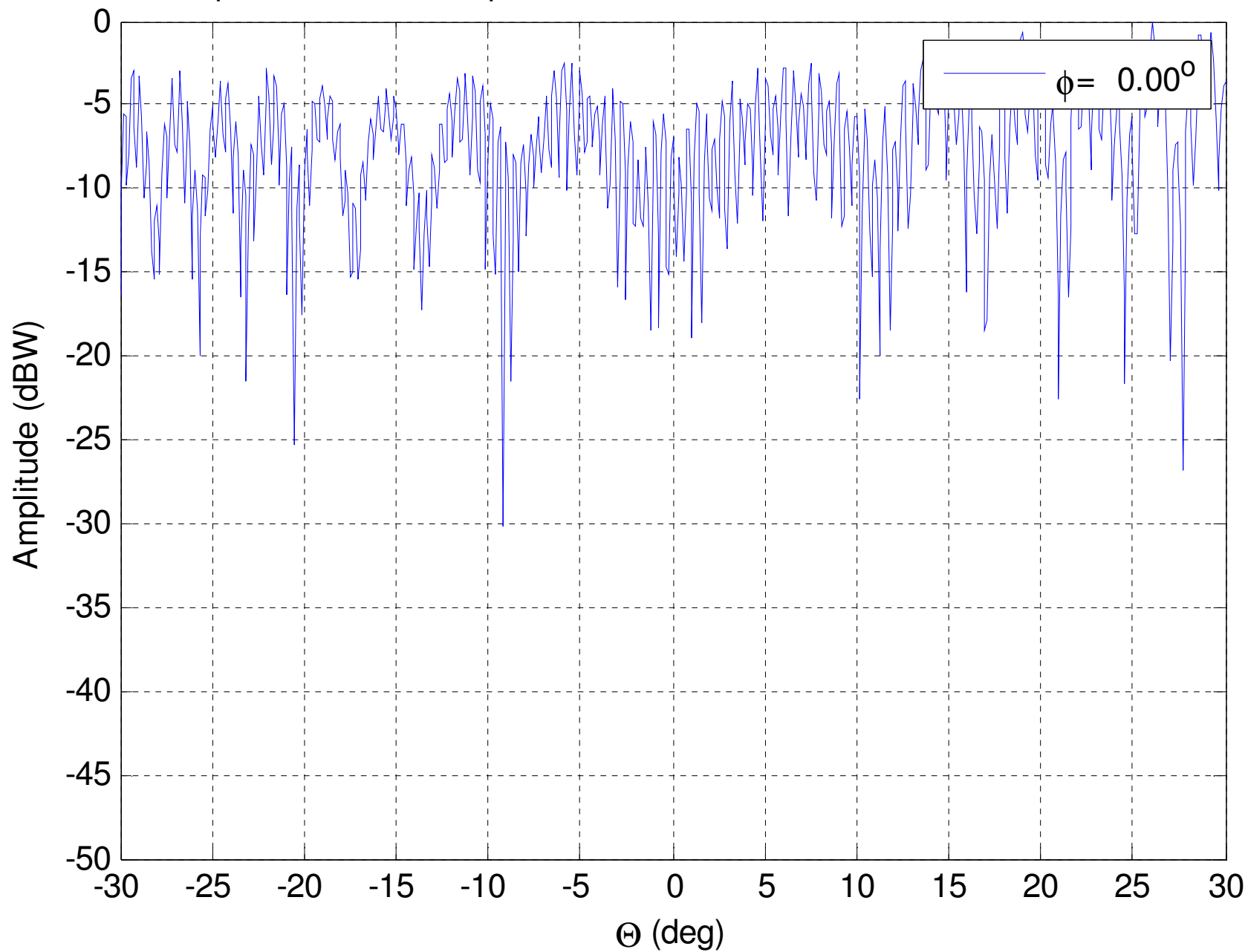
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--10.cut, Peak: 0.87 dBW, Date: 16-Dec-2011



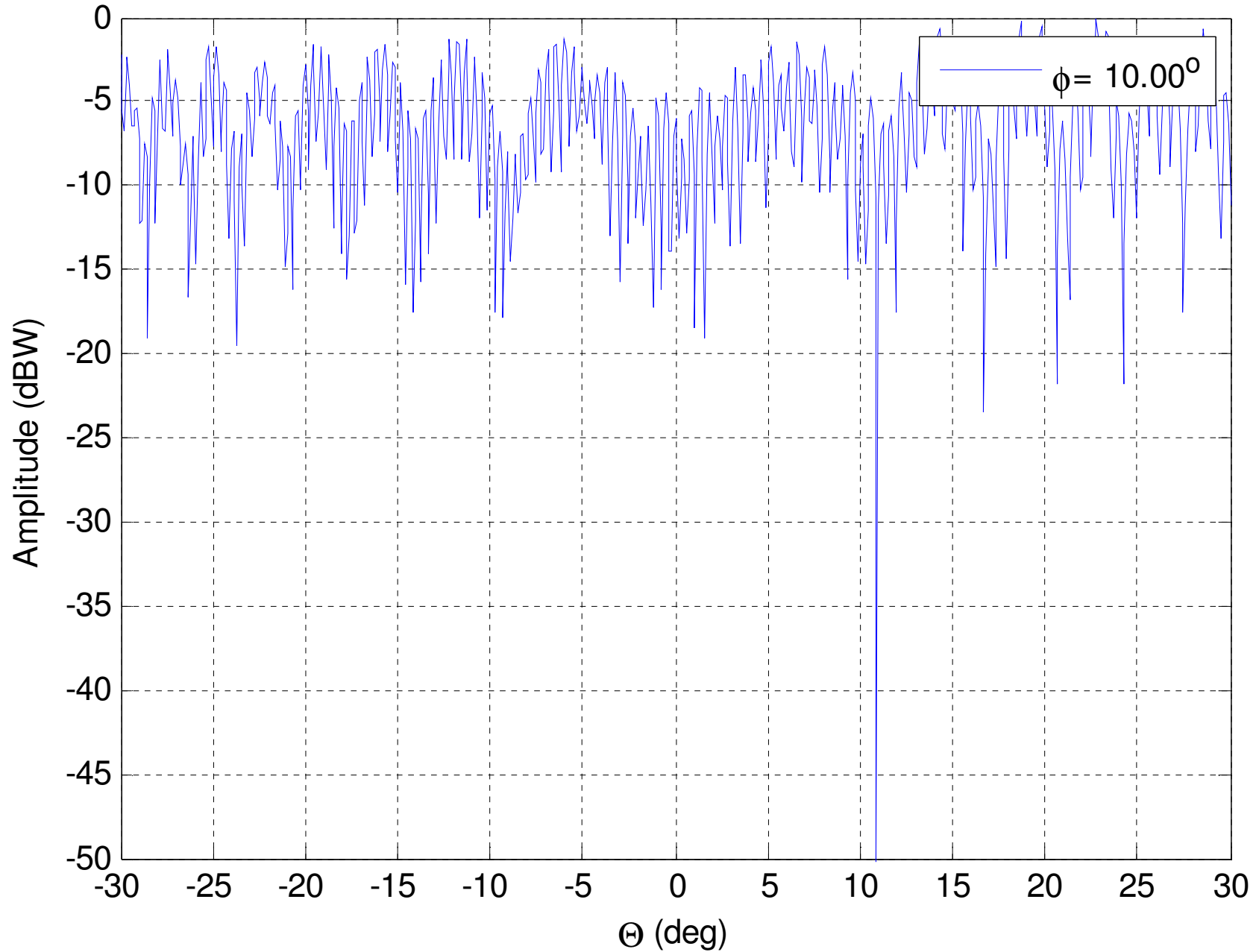
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-0.cut, Peak: 1.23 dBW, Date: 16-Dec-2011



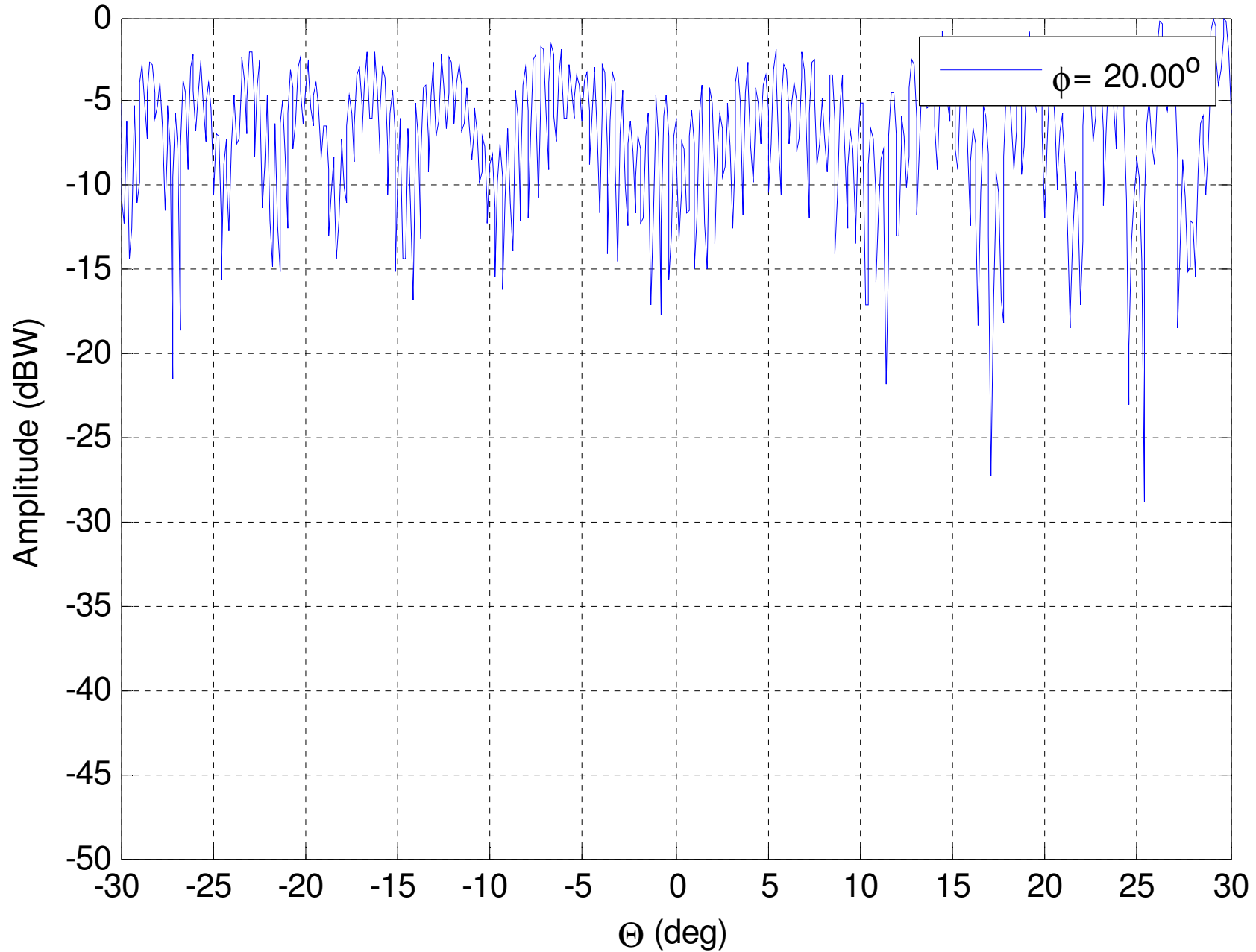
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-10.cut, Peak: 0.21 dBW, Date: 16-Dec-2011



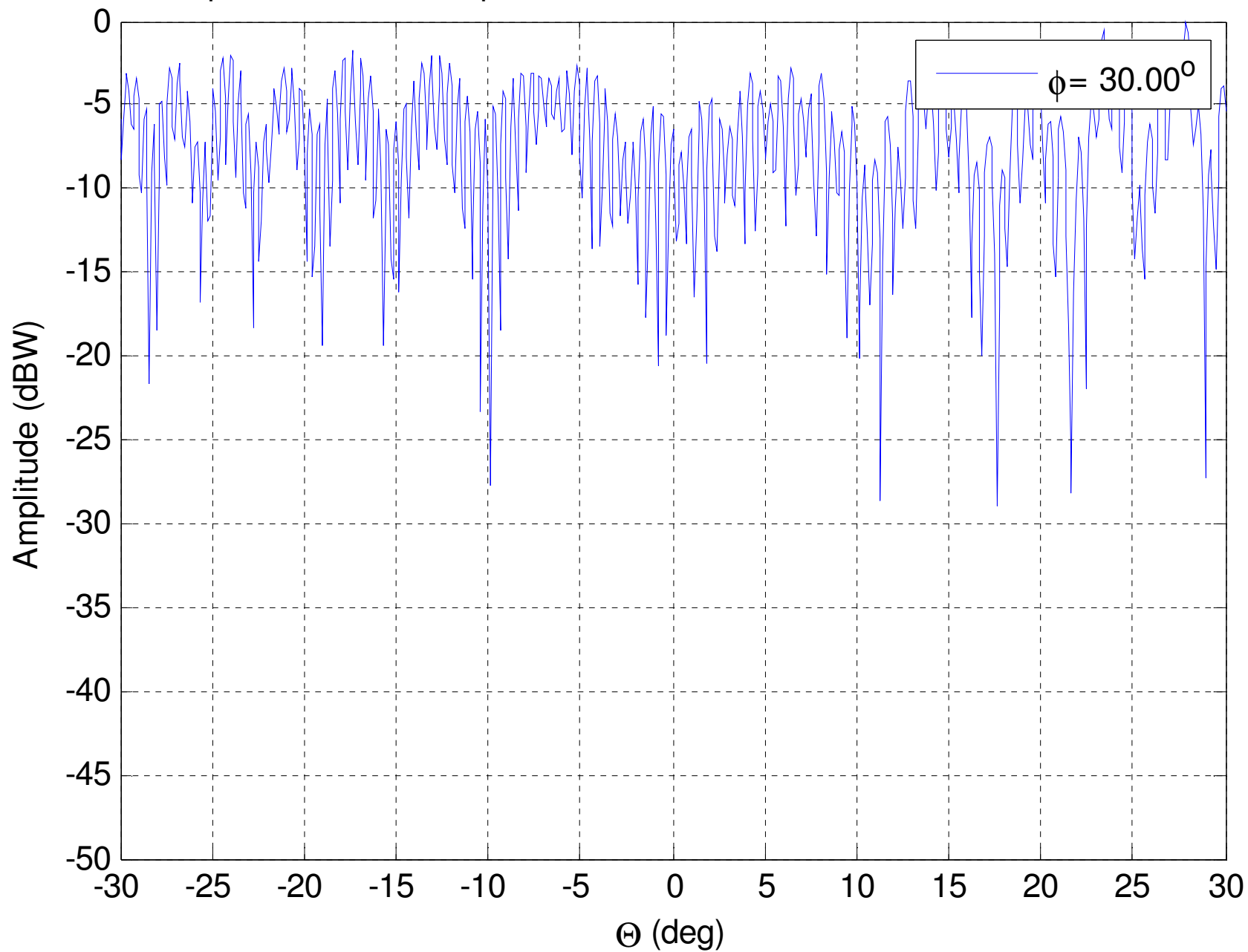
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-20.cut, Peak: 0.27 dBW, Date: 16-Dec-2011



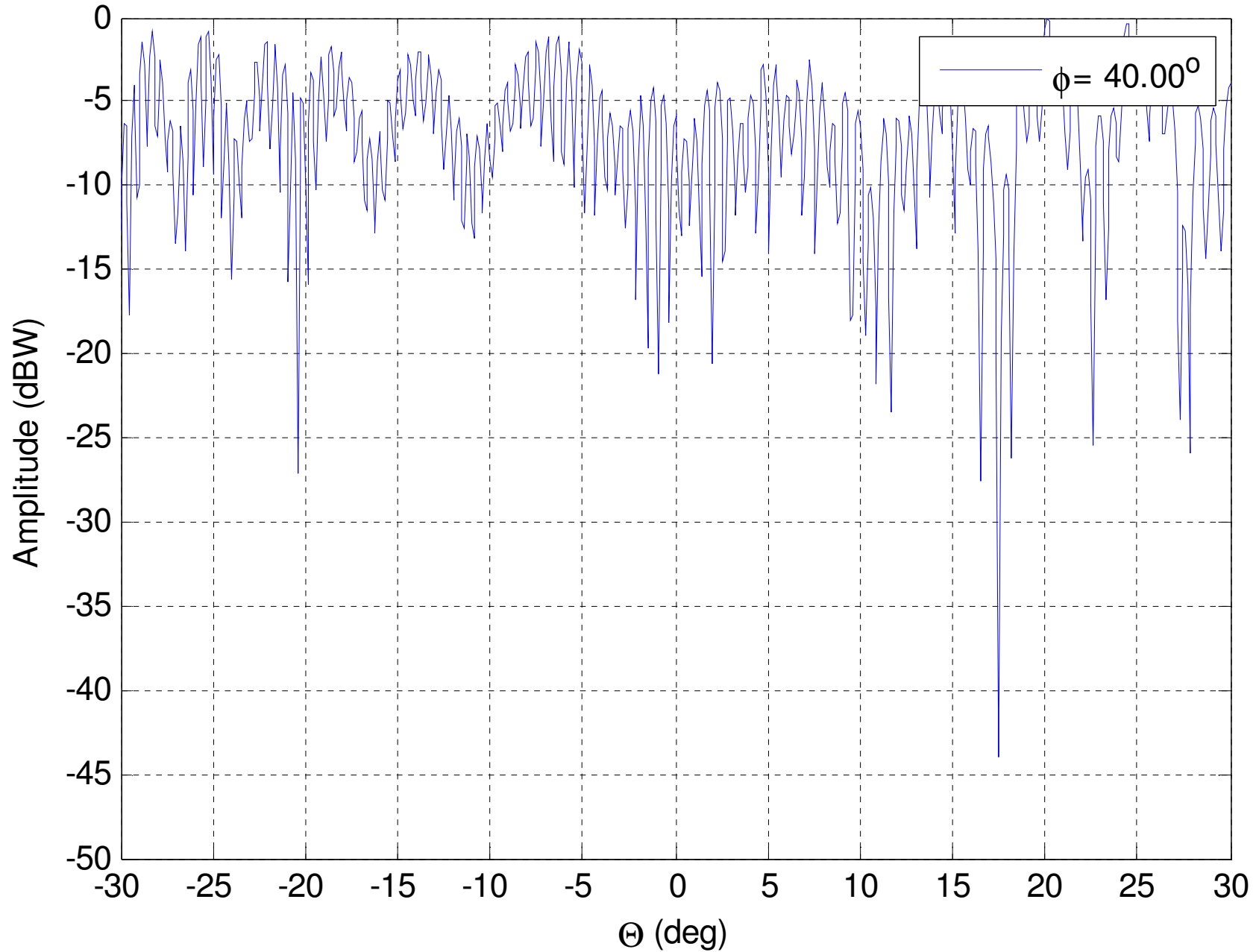
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-30.cut, Peak: 0.80 dBW, Date: 16-Dec-2011



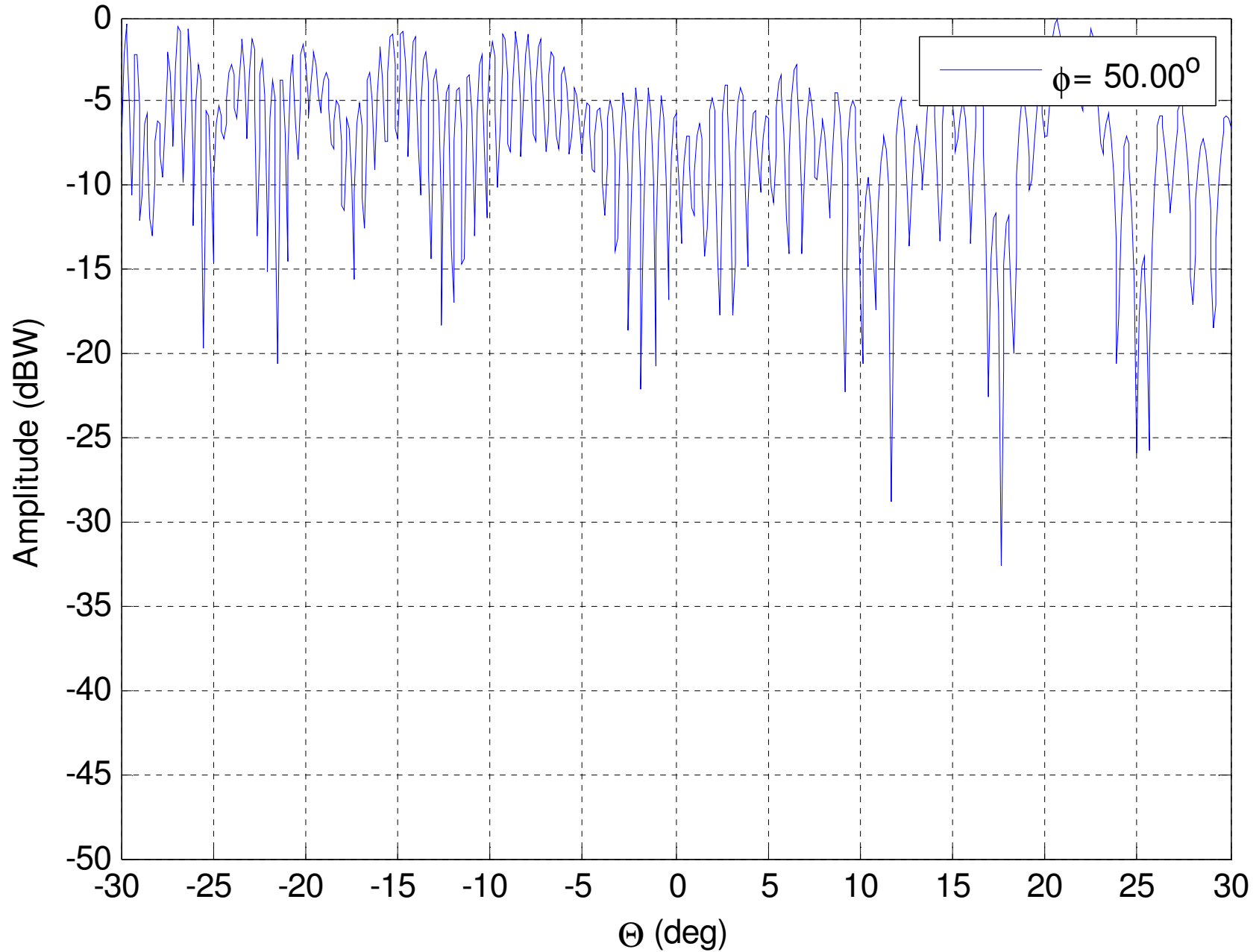
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-40.cut, Peak: 0.06 dBW, Date: 16-Dec-2011



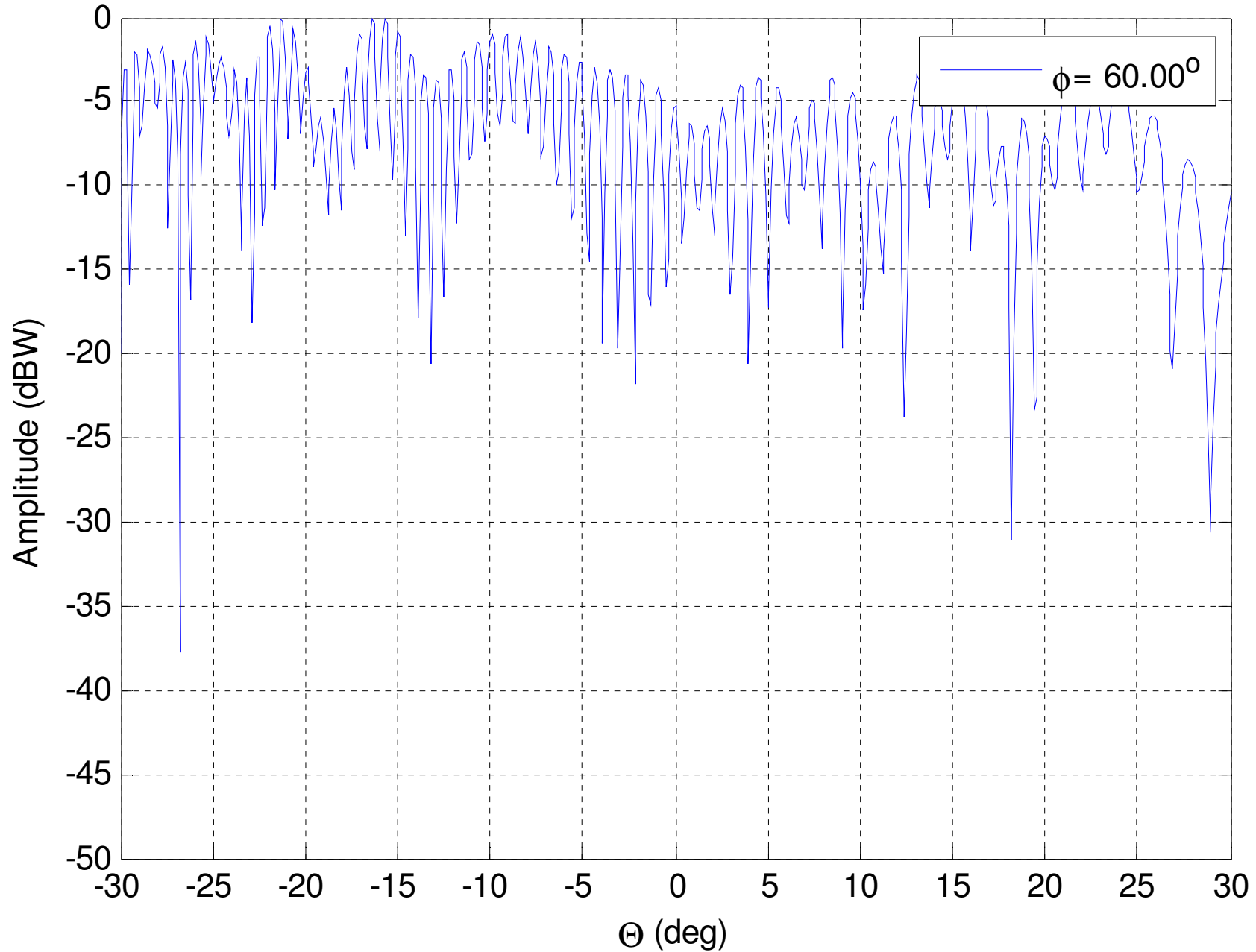
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-50.cut, Peak: -0.04 dBW, Date: 16-Dec-2011



Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-60.cut, Peak: -0.52 dBW, Date: 16-Dec-2011



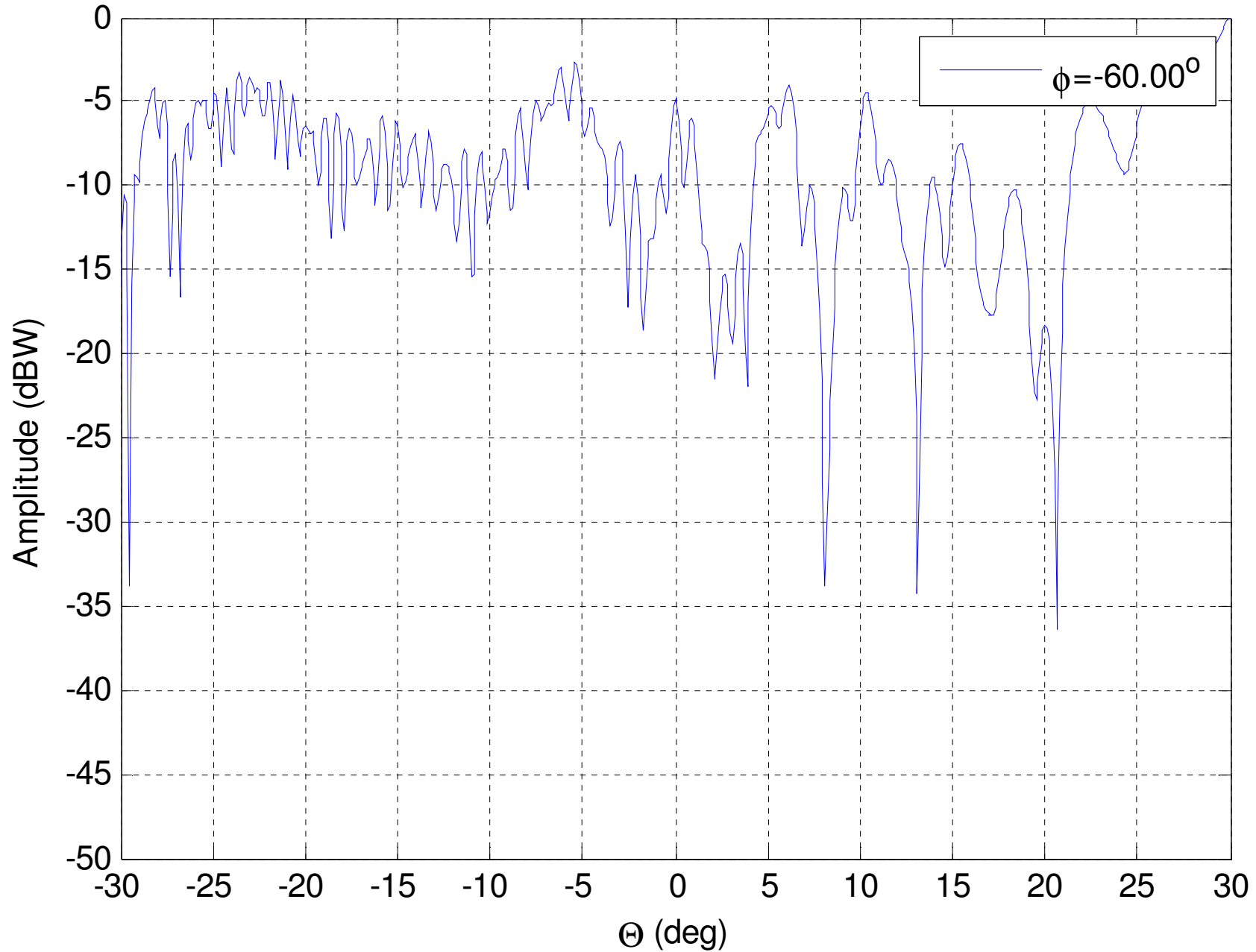
Spot Beam46, +X Axis Plots

- Both polarizations; RHCP, LHCP
- $-30 < \Theta < 30$ ($\Theta=0$: = +X-axis)
- $-60 < \phi < 60$
- Freq = 17.3, 17.5, and 17.7 GHz
- The Zero reference line is the peak gain listed in the title of each chart
- All levels are significantly below the required 20.9 dBW EIRP shown on chart 2

RHCP at 17.3 GHz

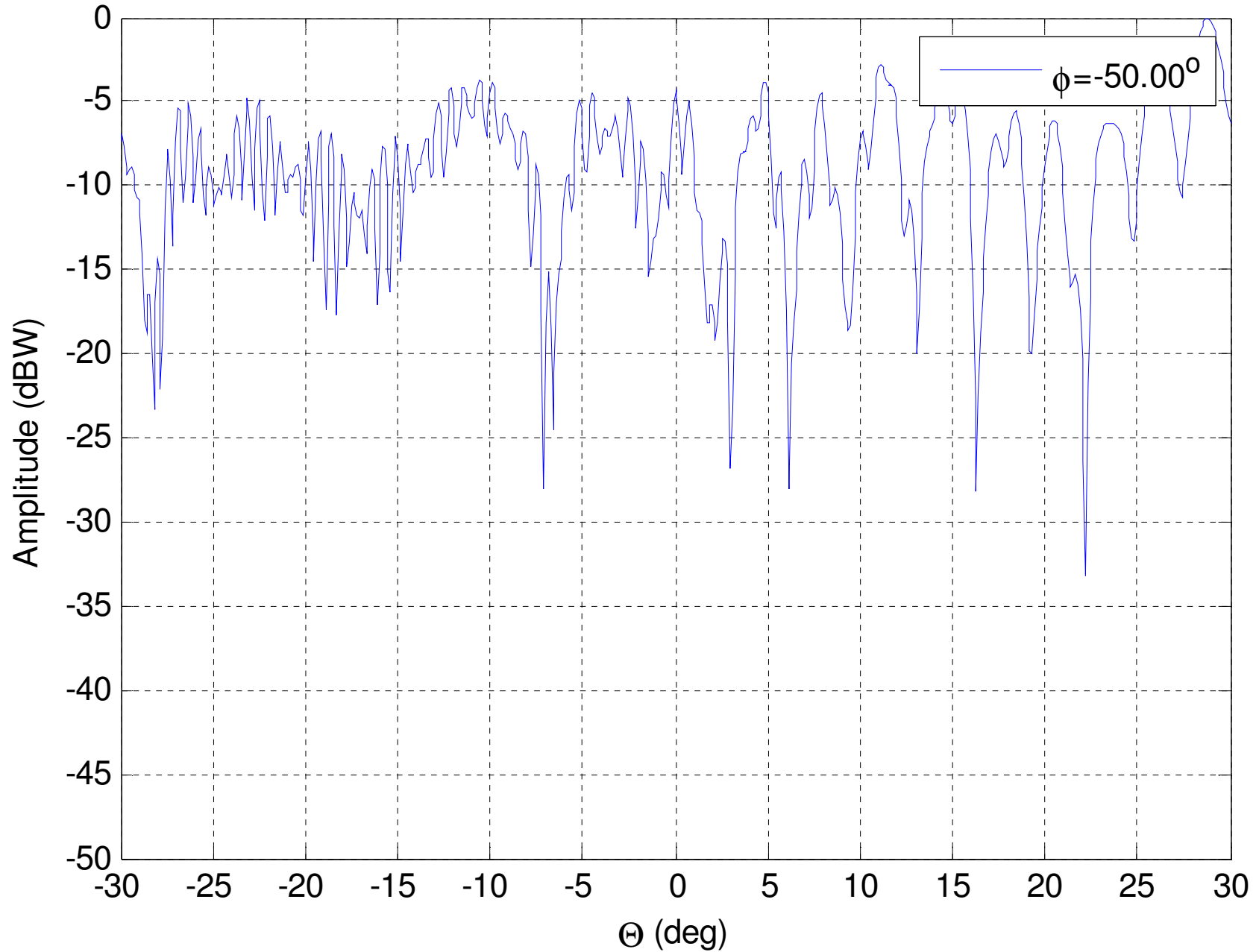
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--60.cut, Peak: -2.22 dBW, Date: 16-Dec-2011



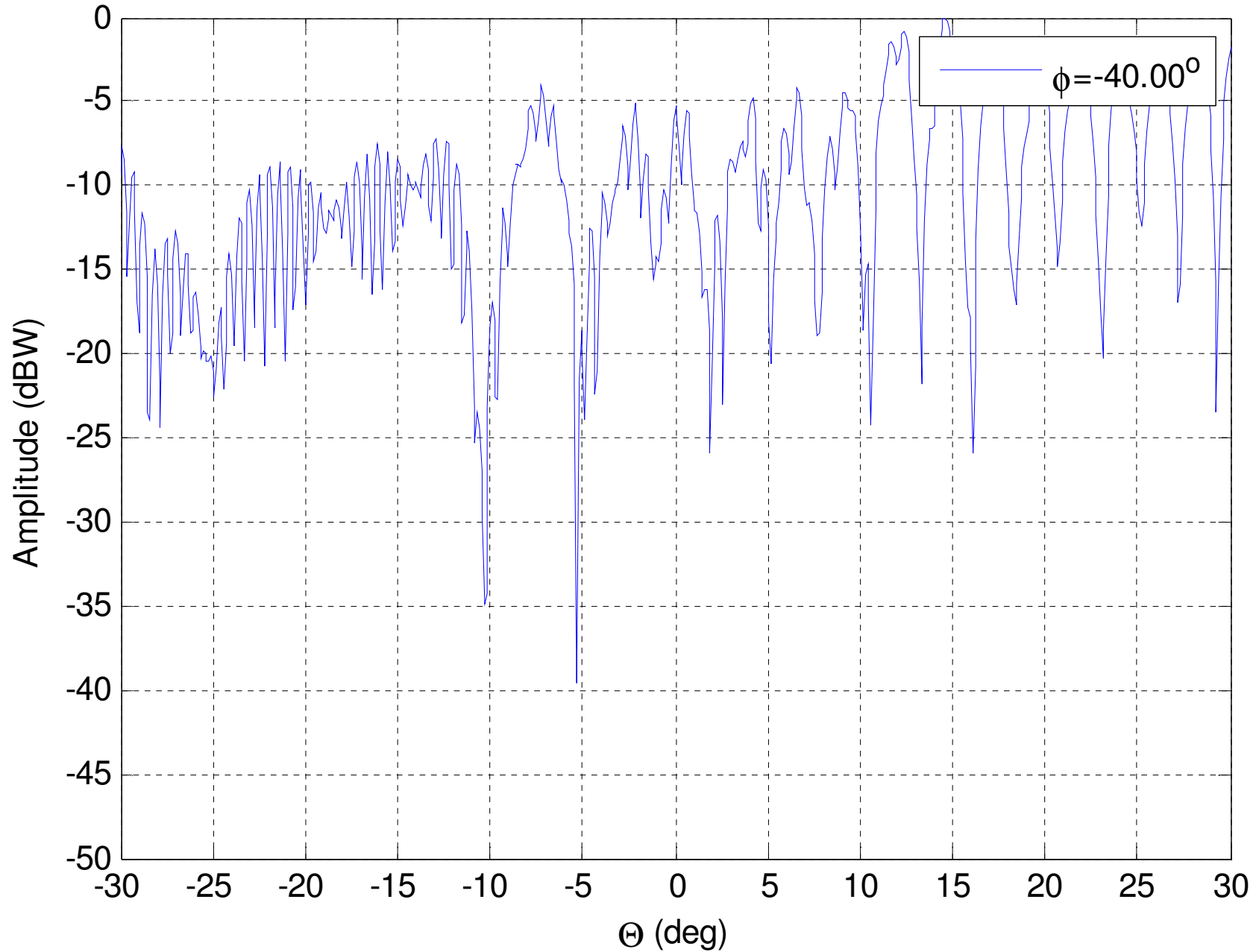
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--50.cut, Peak: -2.73 dBW, Date: 16-Dec-2011



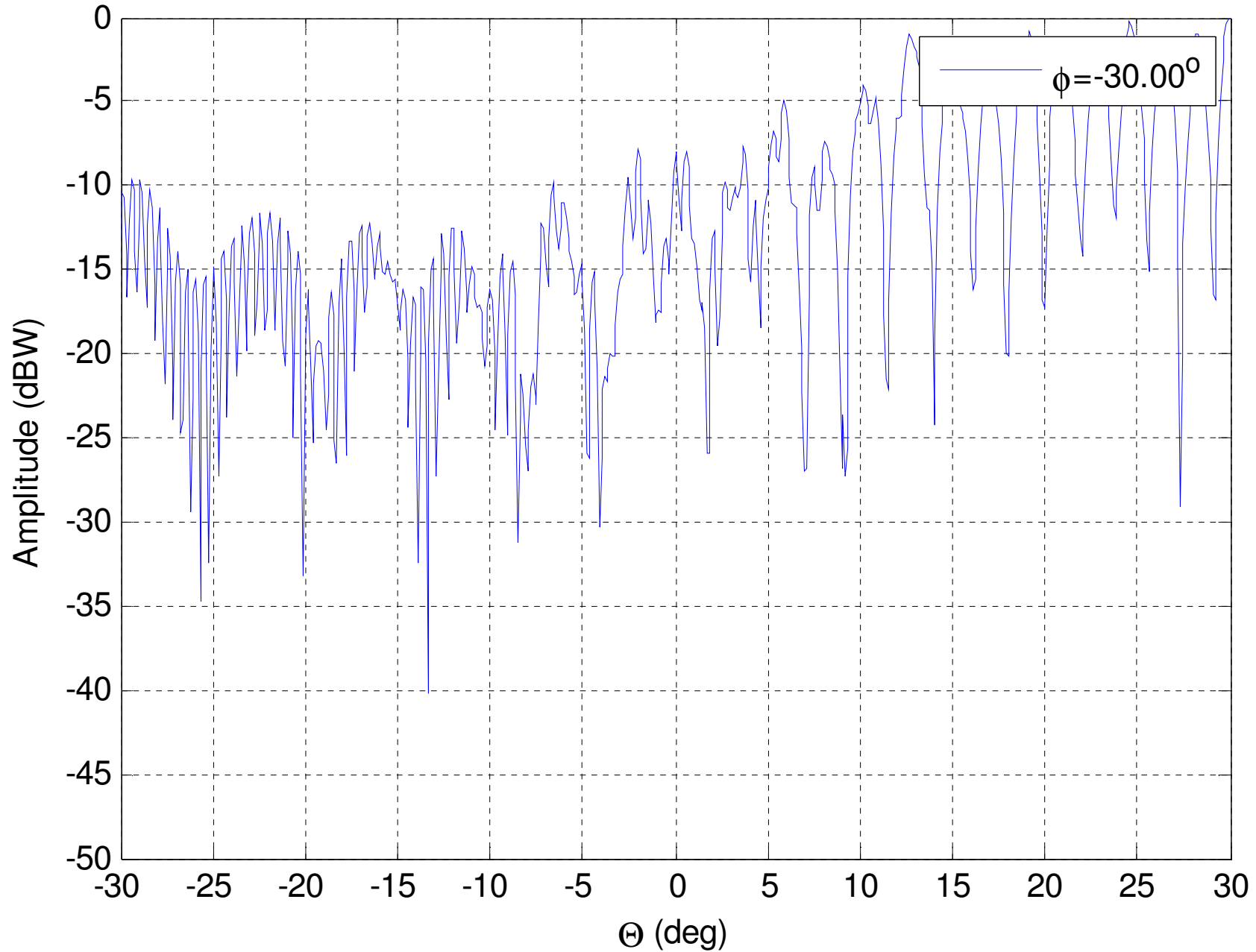
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--40.cut, Peak: -1.84 dBW, Date: 16-Dec-2011



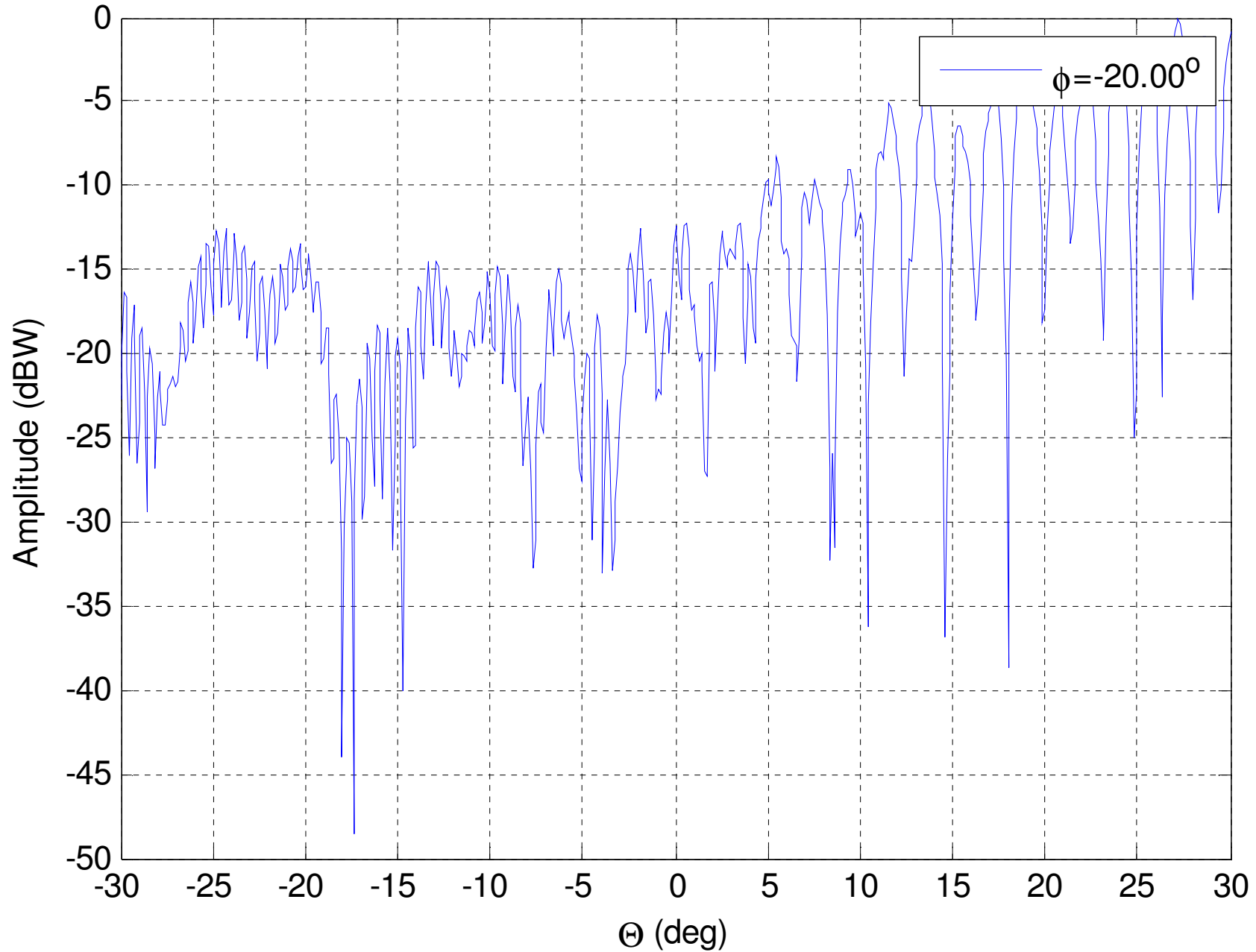
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--30.cut, Peak: 0.94 dBW, Date: 16-Dec-2011



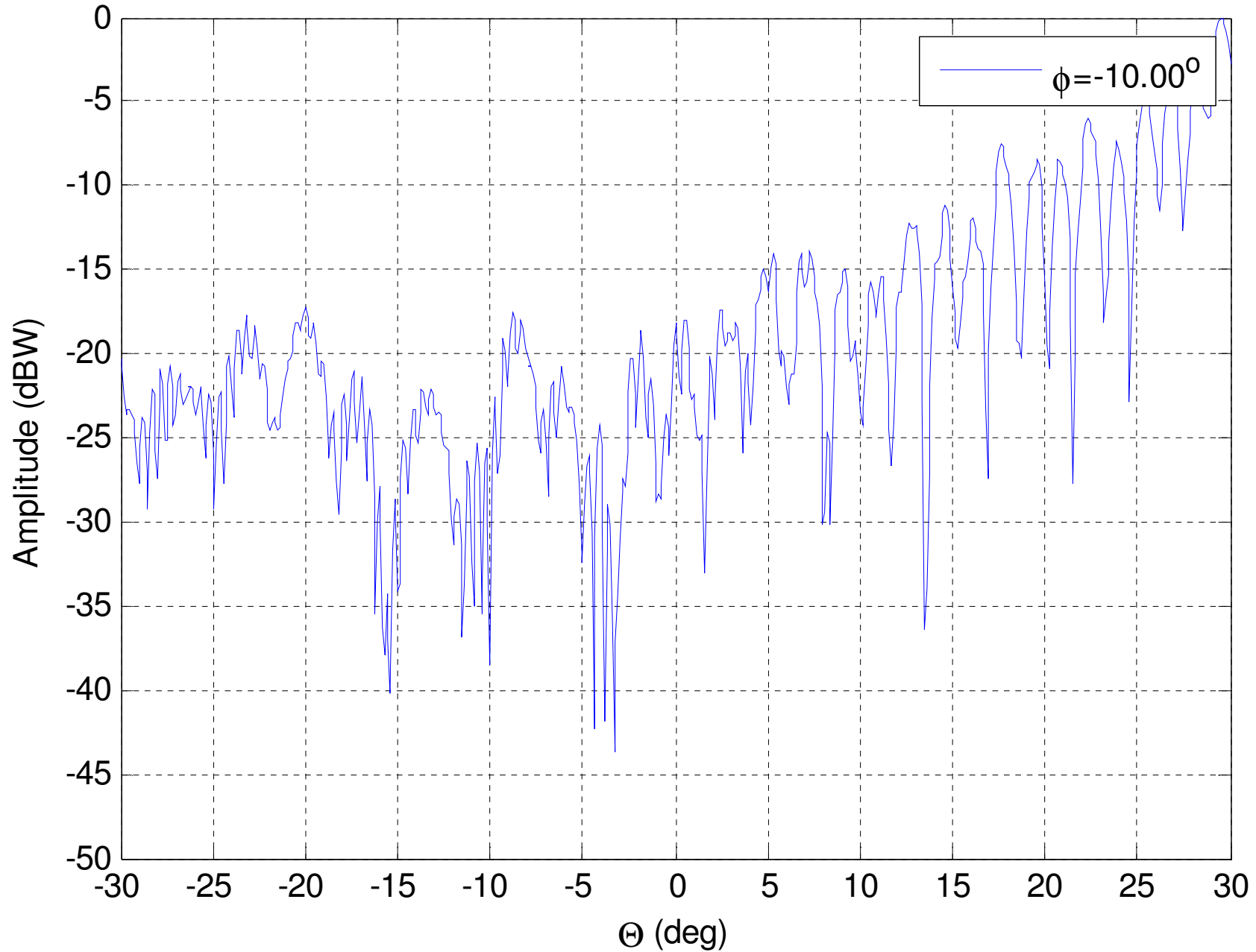
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--20.cut, Peak: 5.30 dBW, Date: 16-Dec-2011



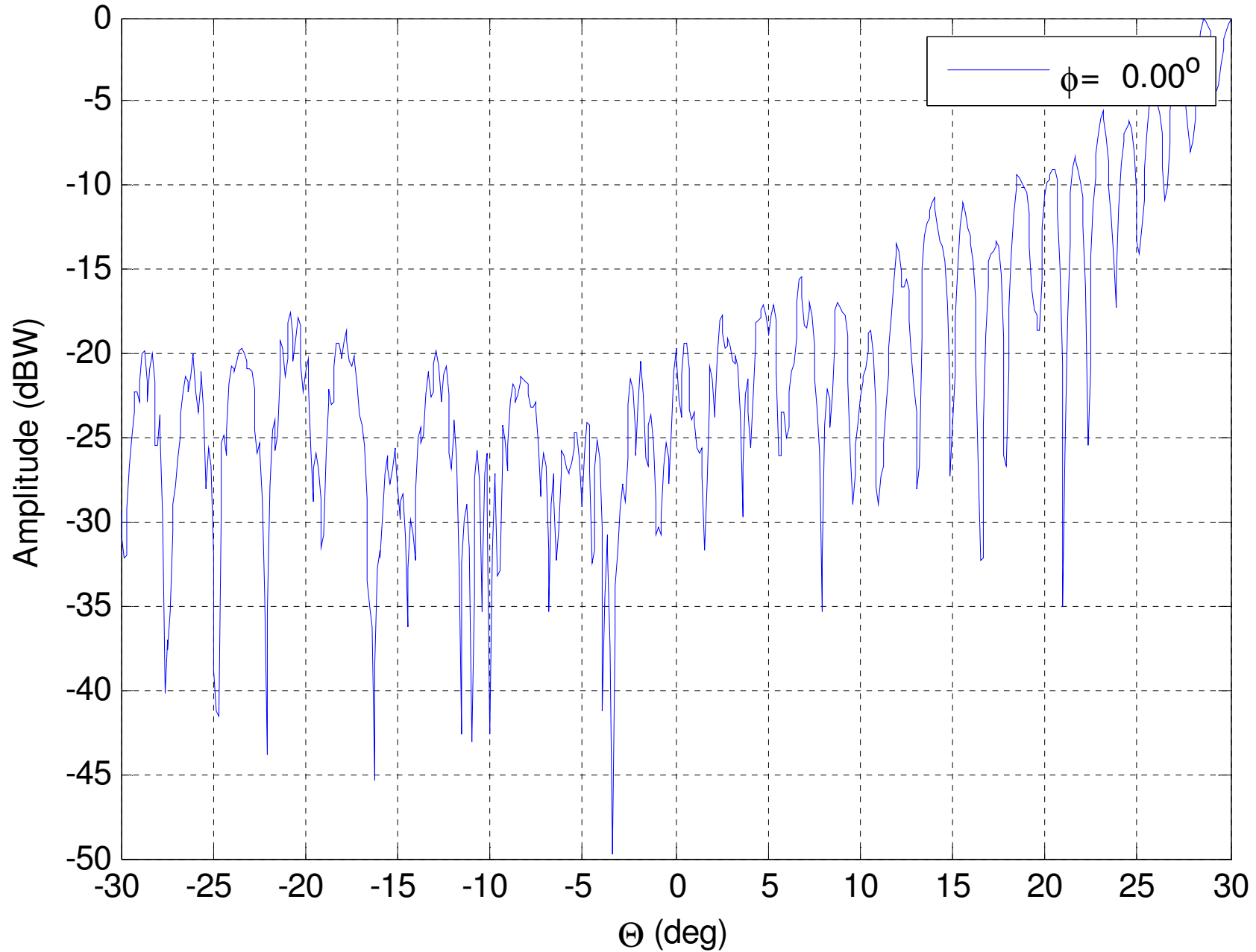
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--10.cut, Peak: 11.12 dBW, Date: 16-Dec-2011



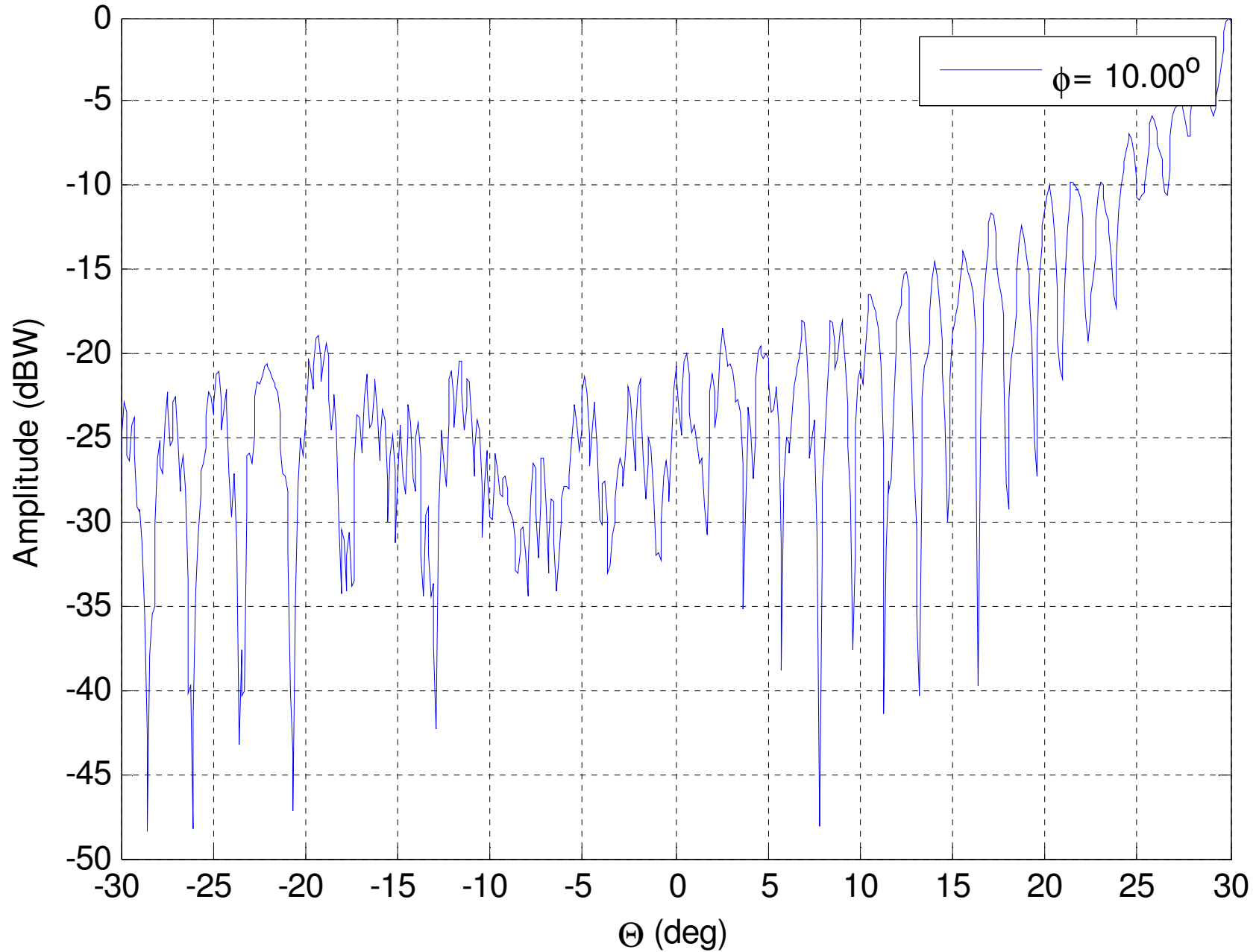
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-0.cut, Peak: 12.67 dBW, Date: 16-Dec-2011



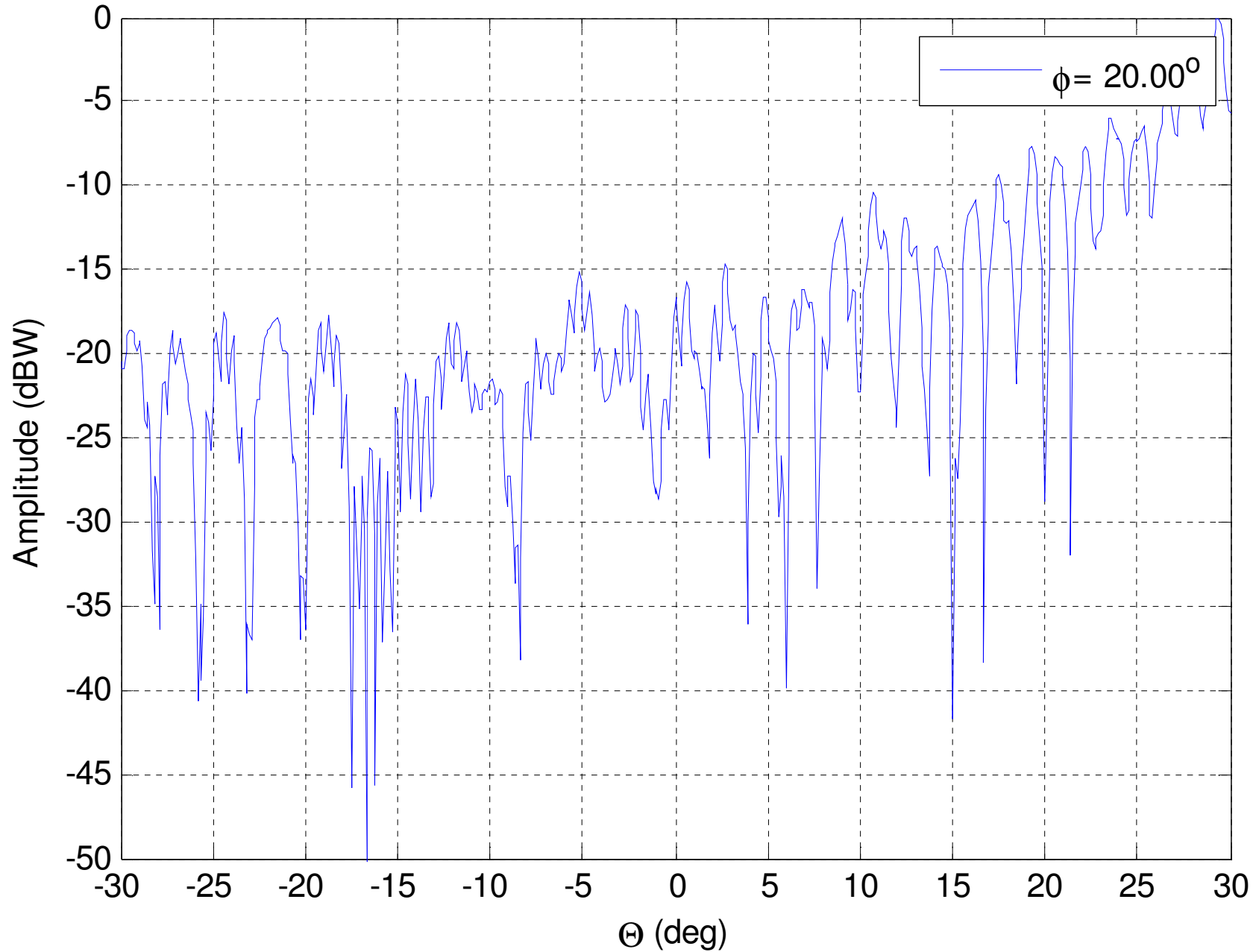
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-10.cut, Peak: 13.71 dBW, Date: 16-Dec-2011



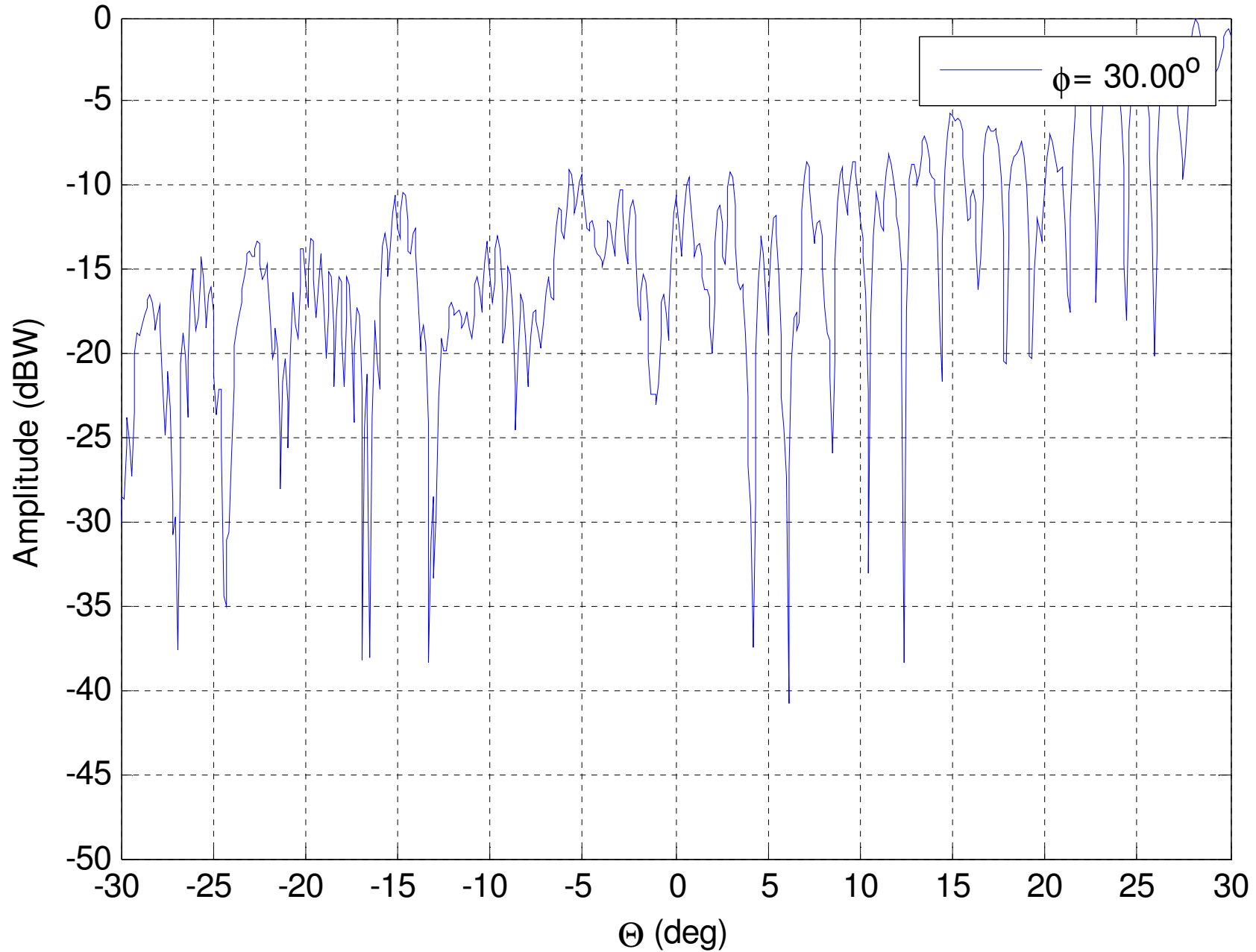
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-20.cut, Peak: 9.65 dBW, Date: 16-Dec-2011



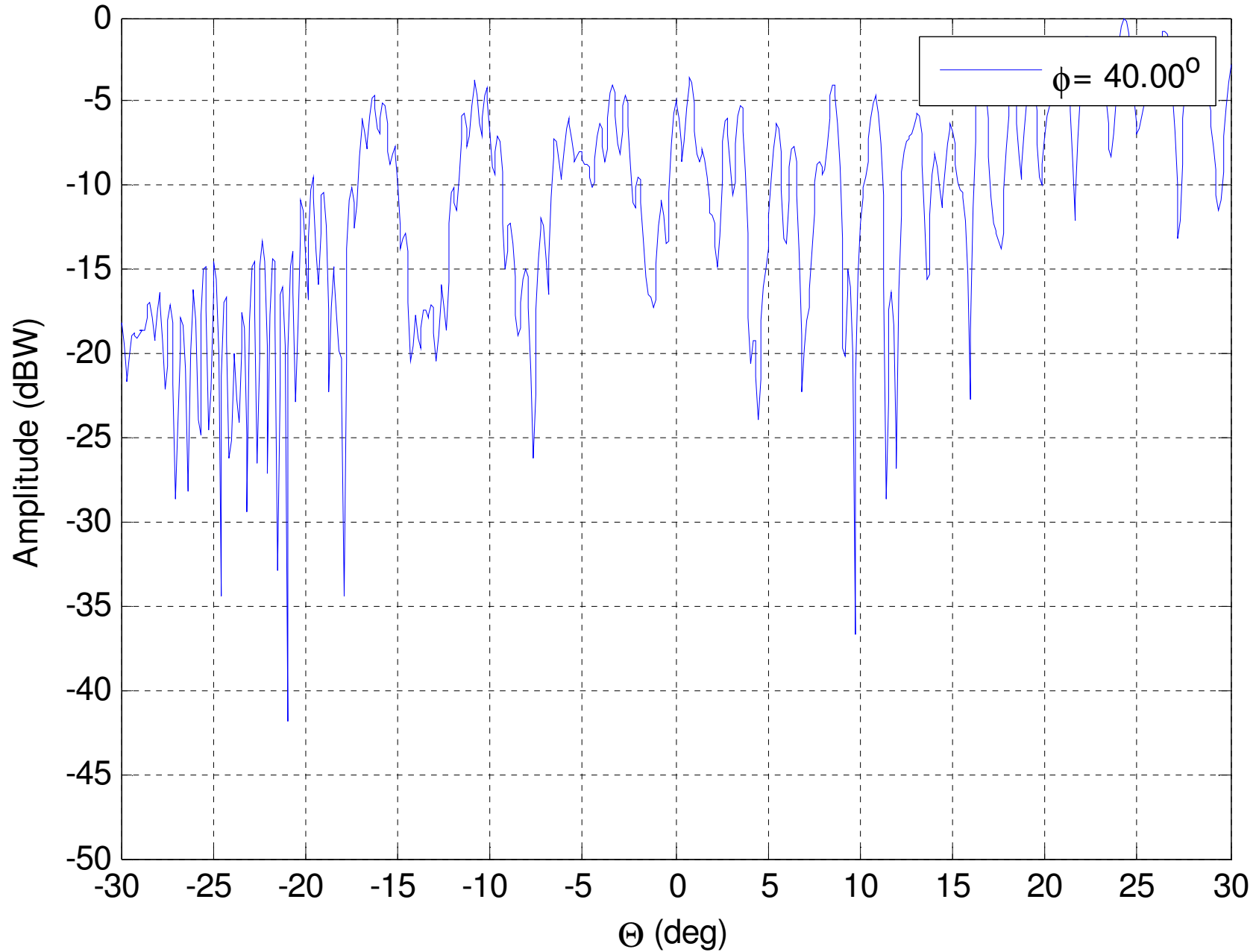
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-30.cut, Peak: 3.56 dBW, Date: 16-Dec-2011



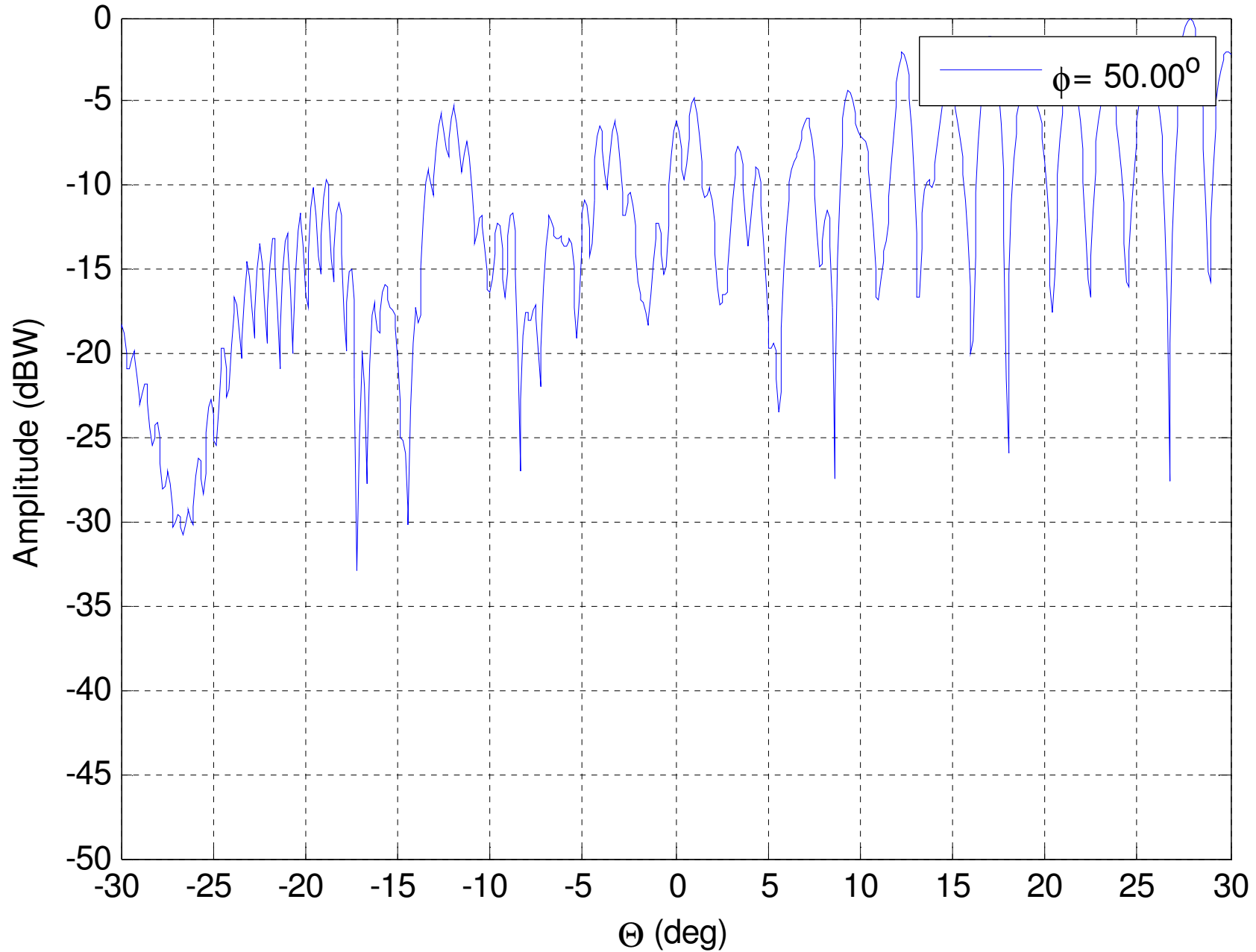
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-40.cut, Peak: -2.15 dBW, Date: 16-Dec-2011



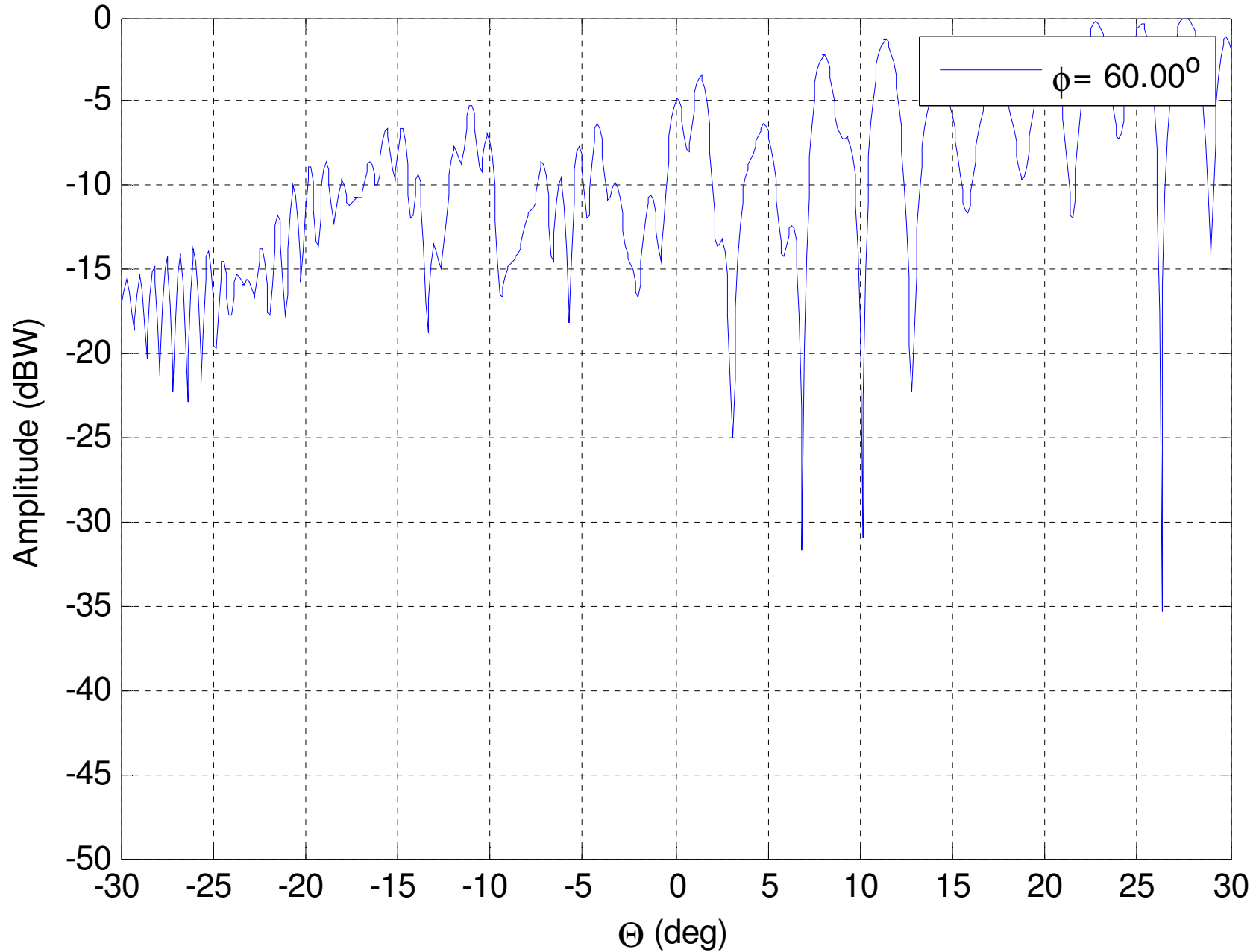
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-50.cut, Peak: -0.83 dBW, Date: 16-Dec-2011



Normalized pattern cuts - farfield

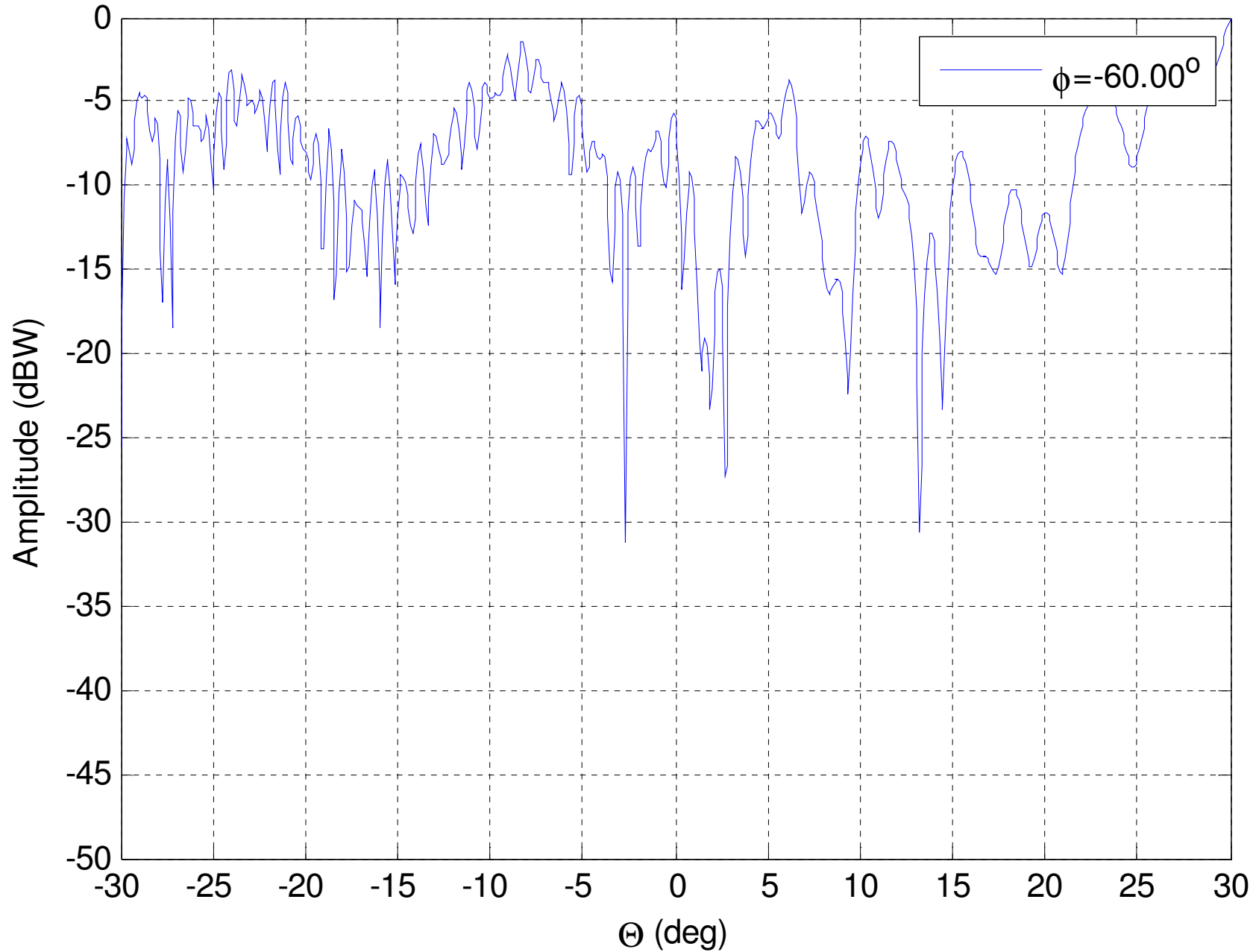
Input file: tx-17.3-rhcp-60.cut, Peak: -2.13 dBW, Date: 16-Dec-2011



LHCP at 17.3 GHz

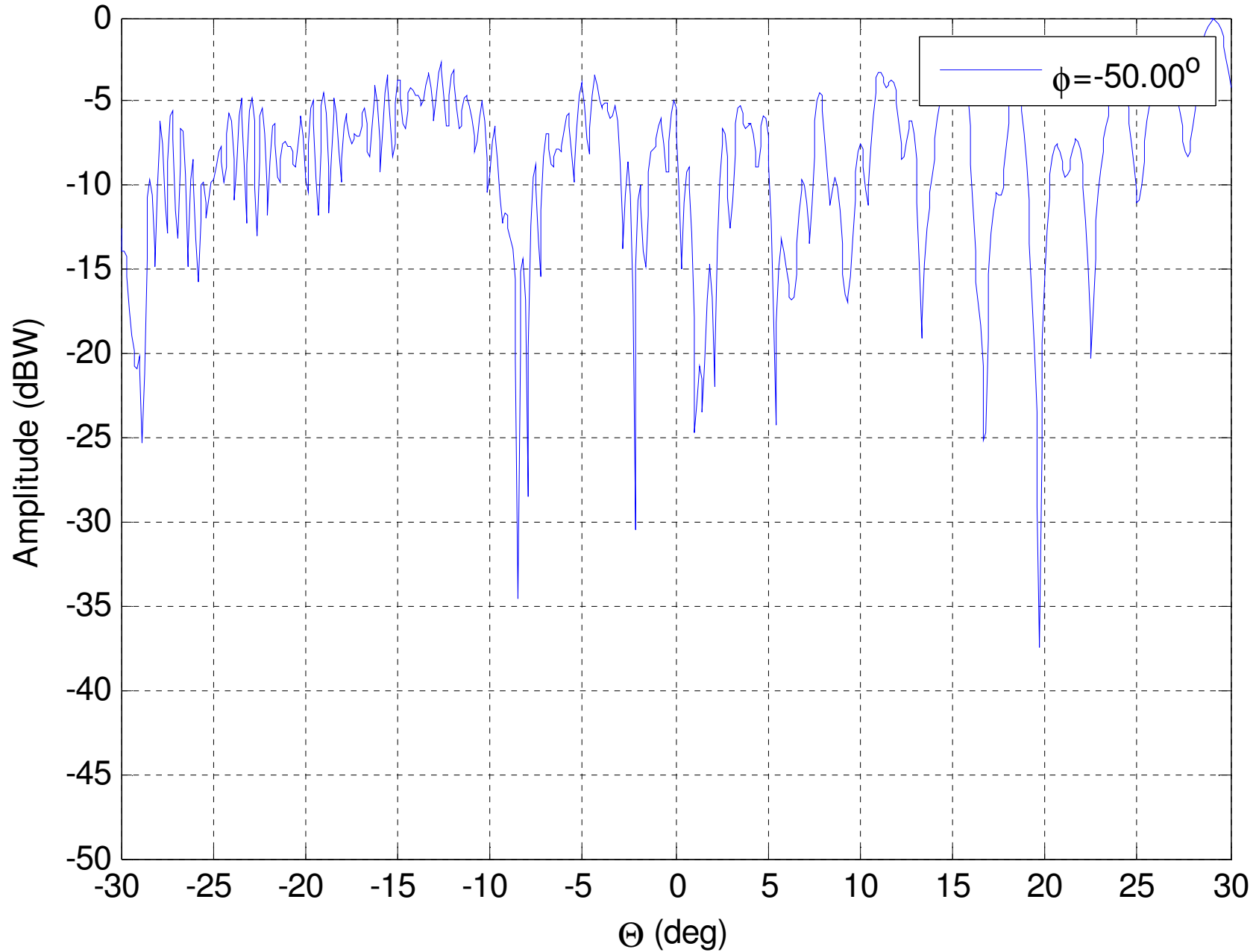
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp--60.cut, Peak: -2.67 dBW, Date: 16-Dec-2011



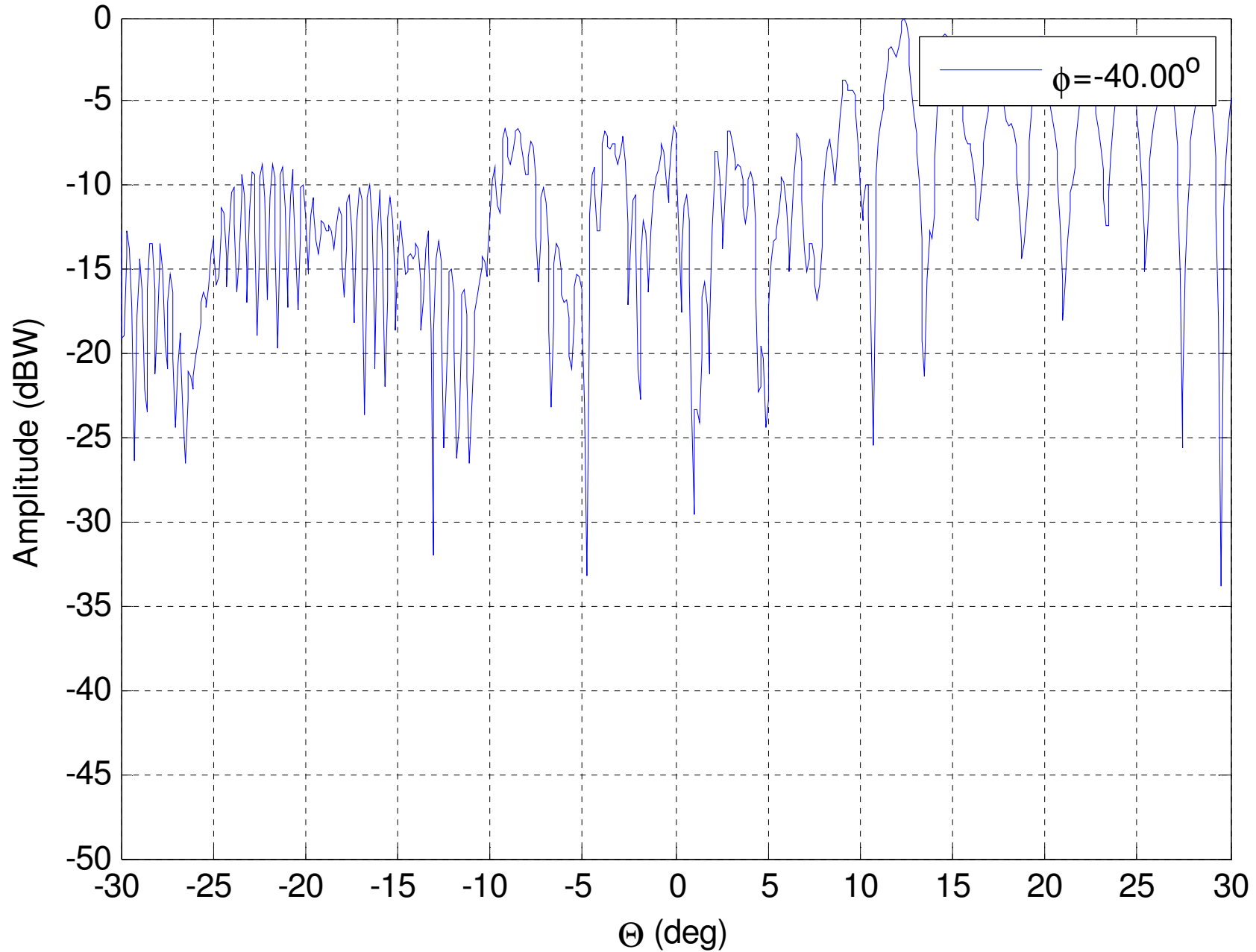
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp--50.cut, Peak: -3.38 dBW, Date: 16-Dec-2011



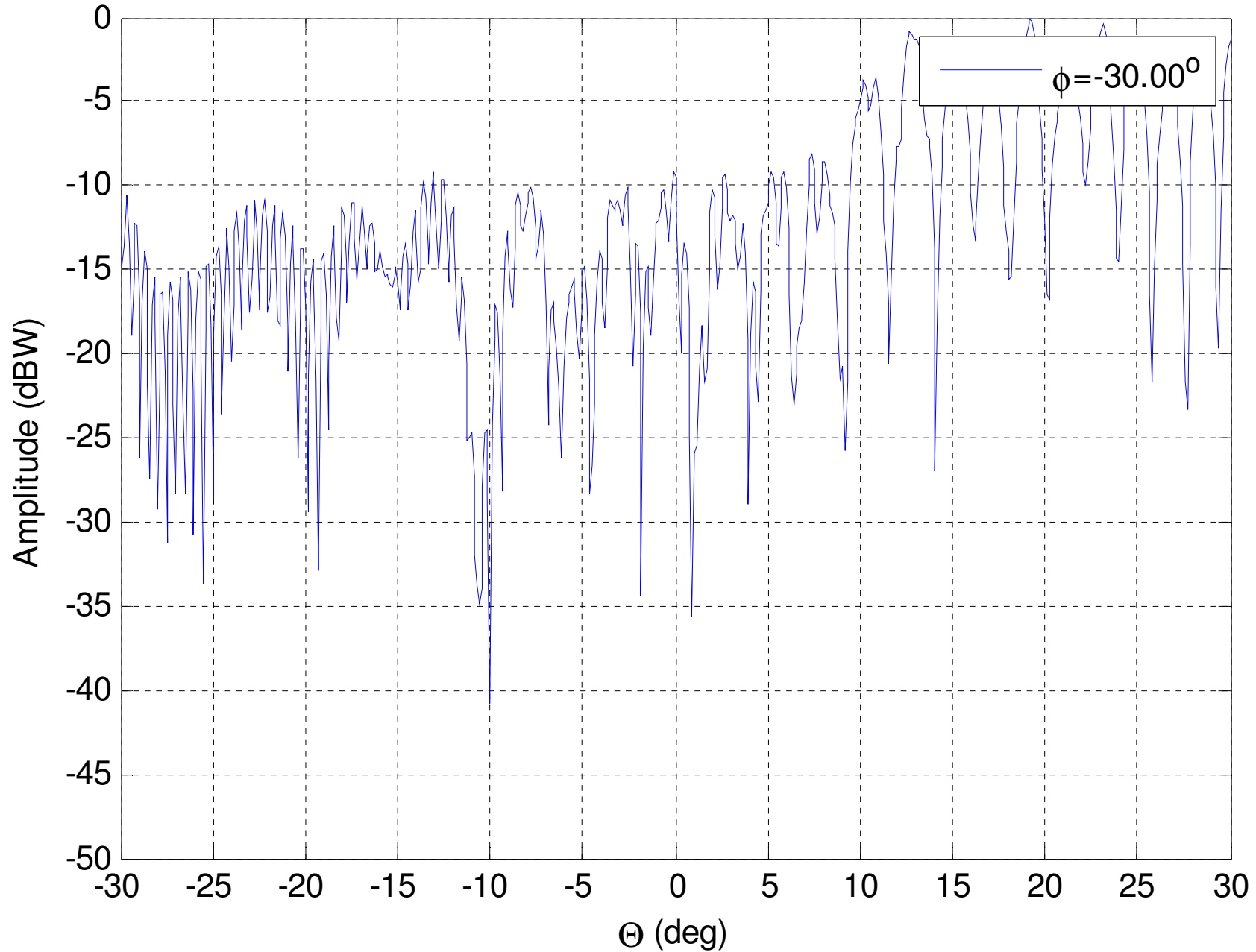
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp--40.cut, Peak: -1.84 dBW, Date: 16-Dec-2011



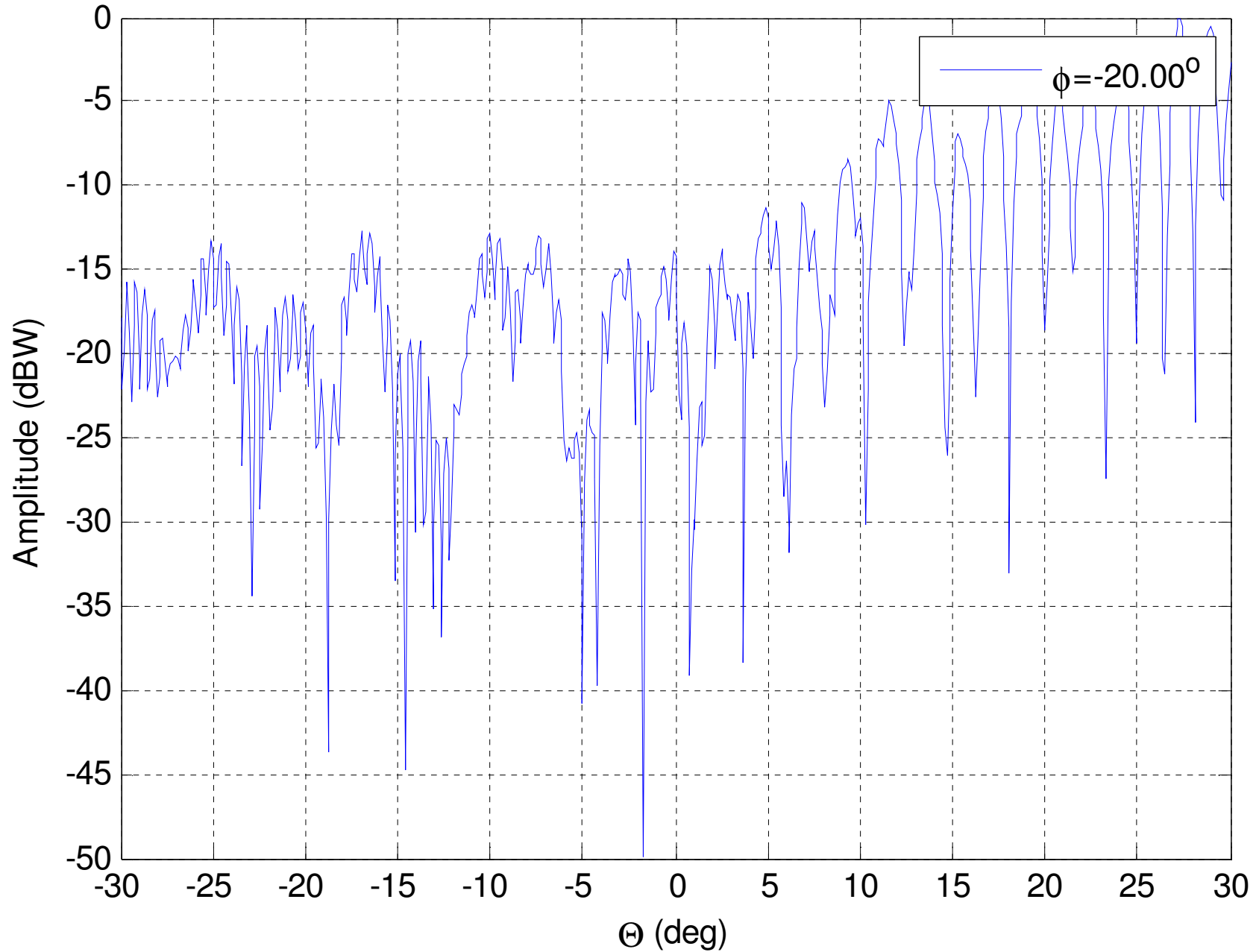
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp--30.cut, Peak: 0.83 dBW, Date: 16-Dec-2011



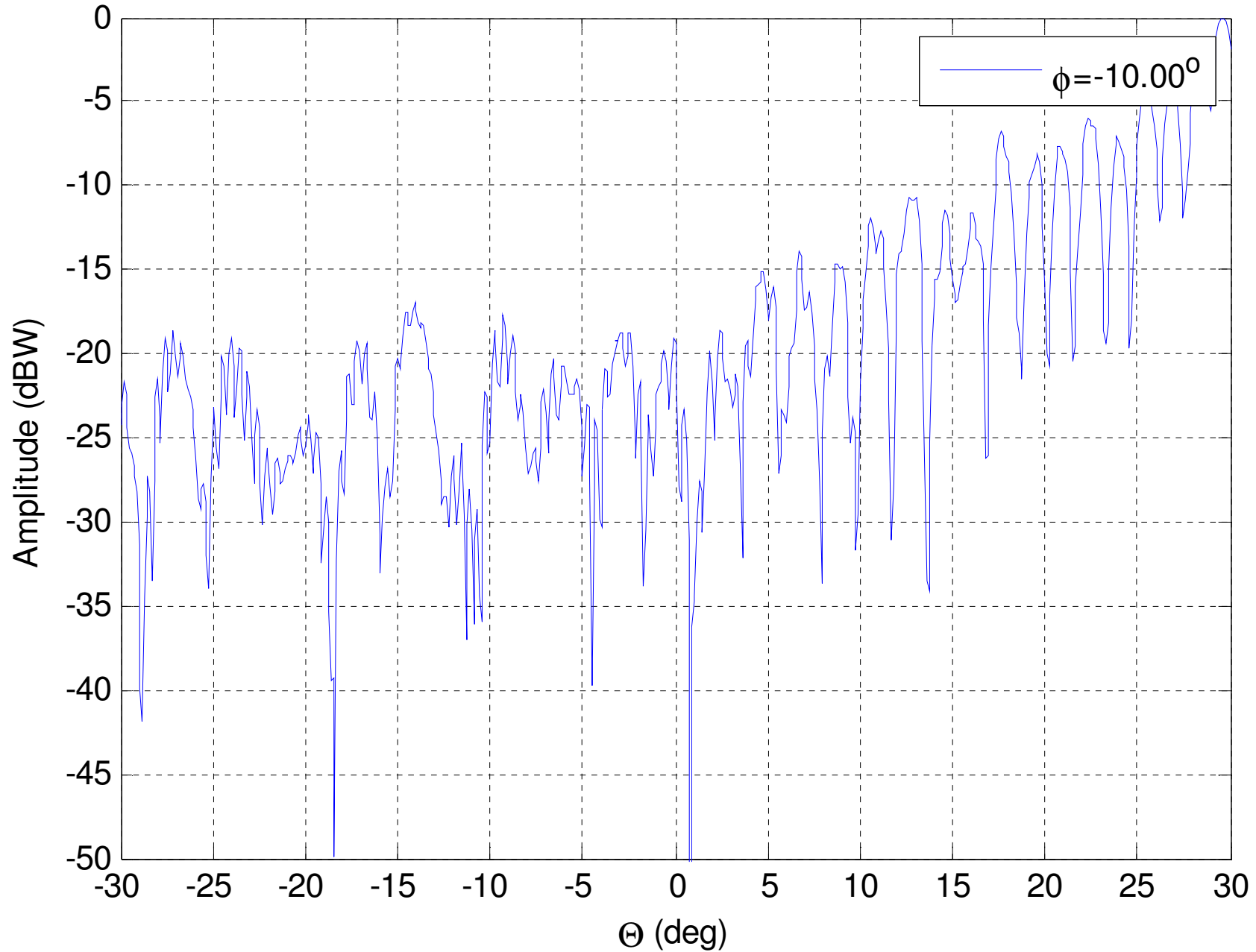
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp--20.cut, Peak: 5.54 dBW, Date: 16-Dec-2011



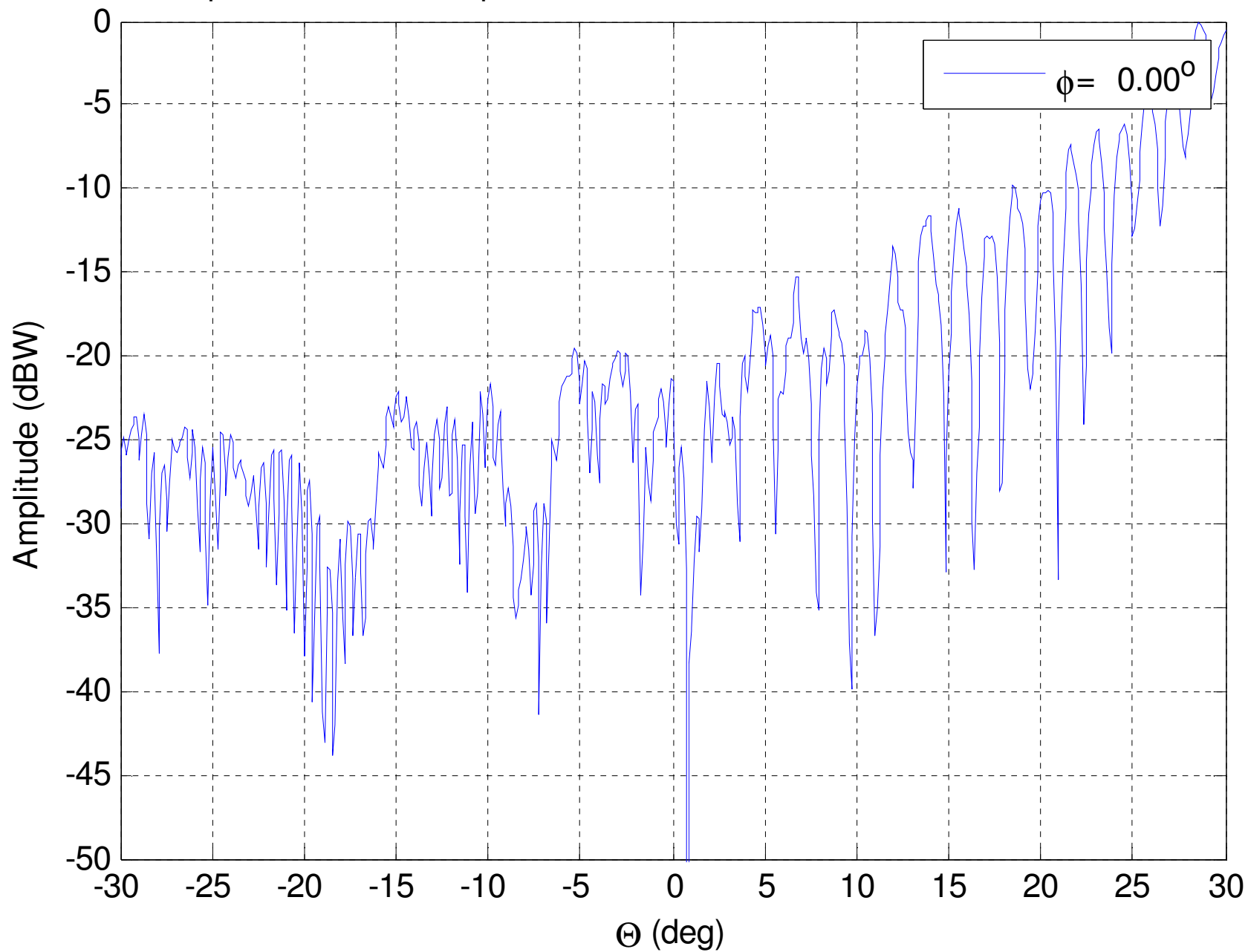
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp--10.cut, Peak: 10.66 dBW, Date: 16-Dec-2011



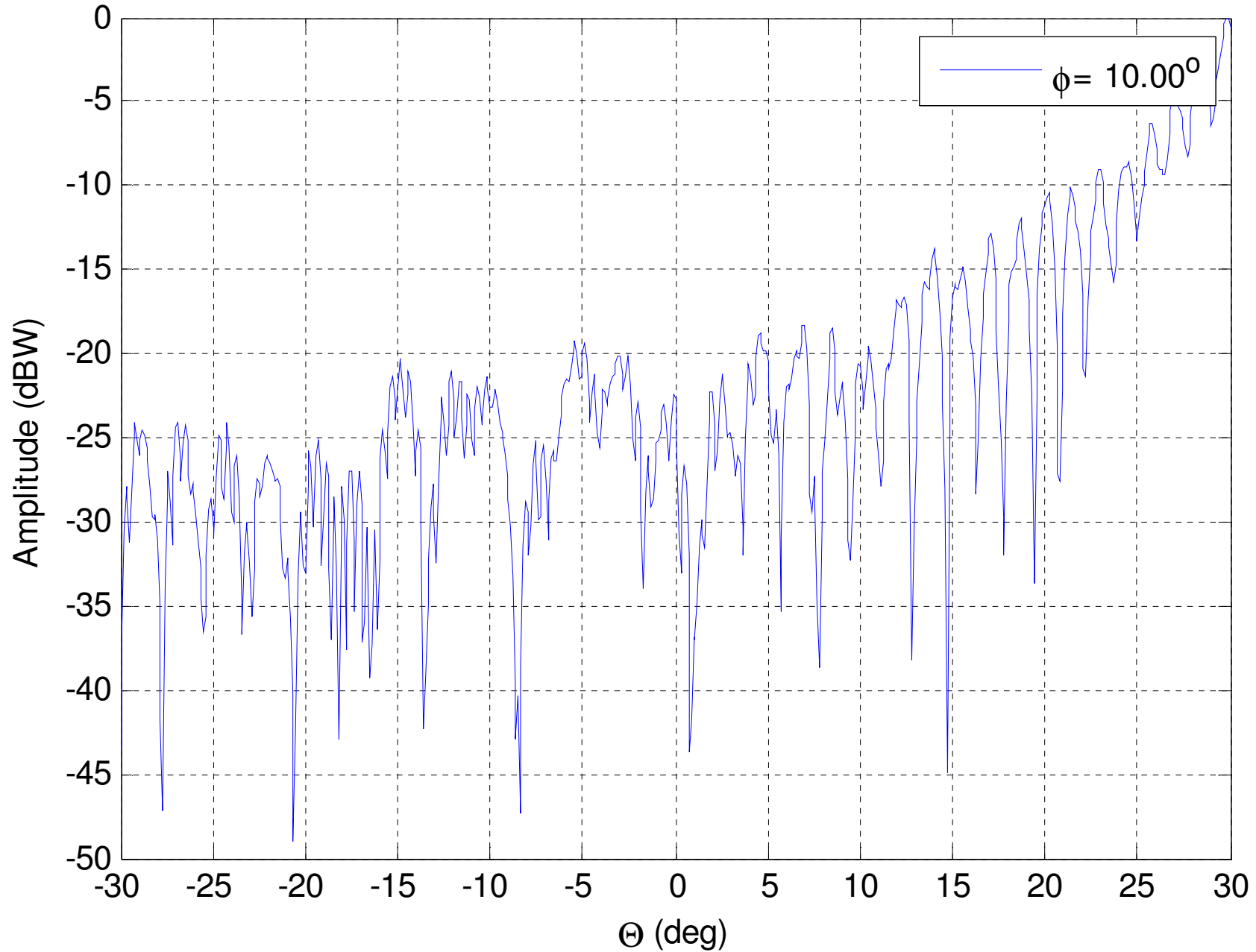
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp-0.cut, Peak: 12.87 dBW, Date: 16-Dec-2011



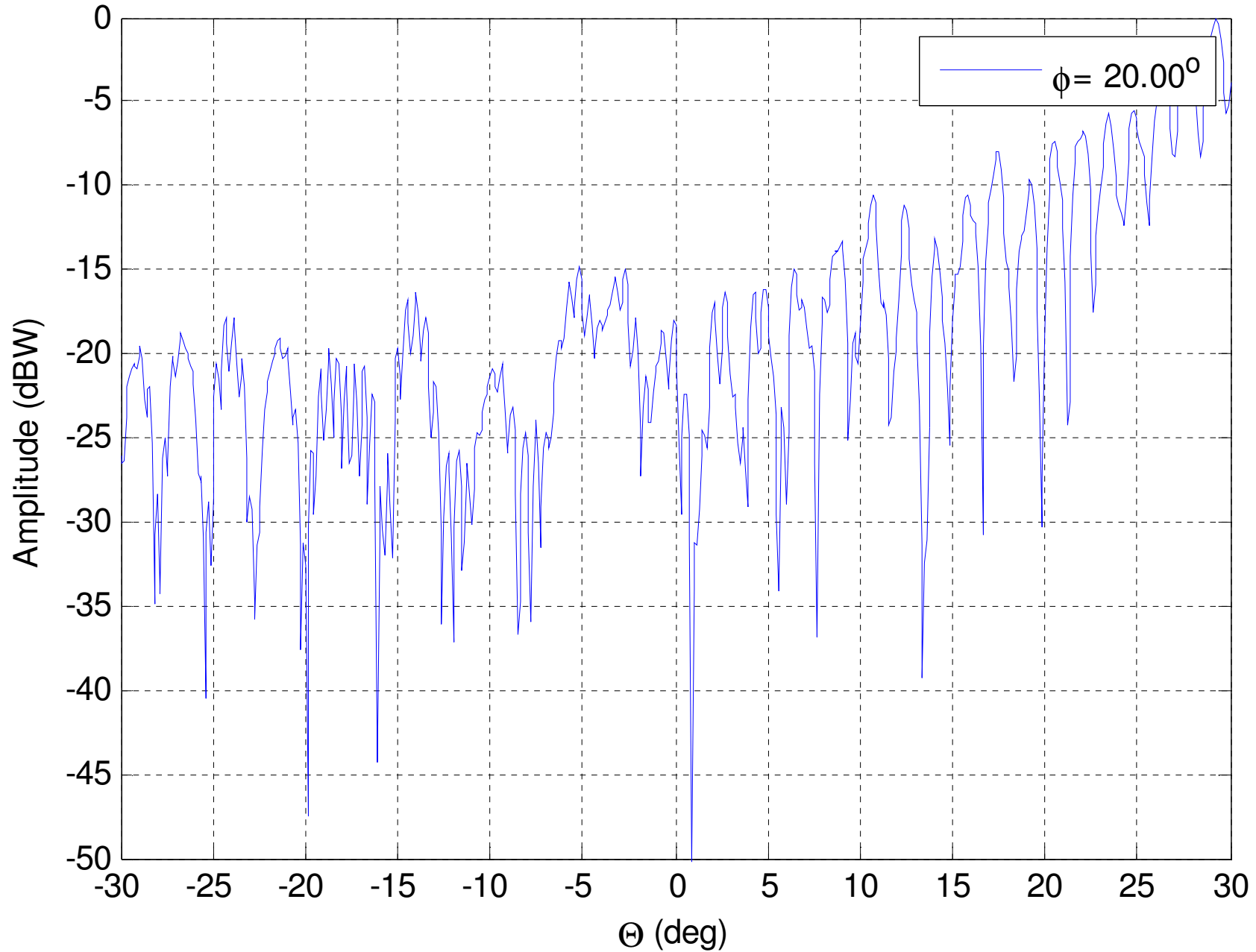
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp-10.cut, Peak: 14.05 dBW, Date: 16-Dec-2011



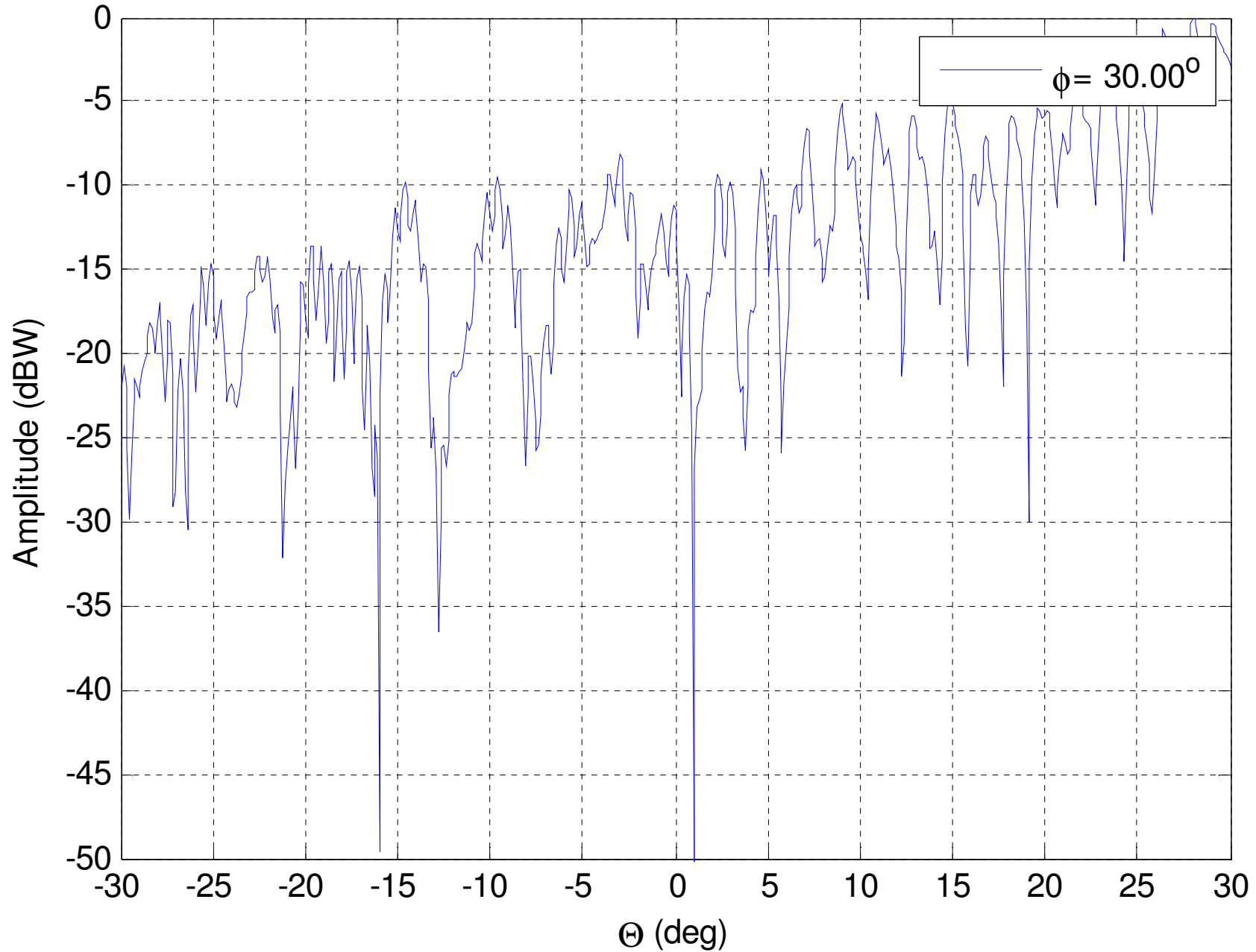
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp-20.cut, Peak: 9.62 dBW, Date: 16-Dec-2011



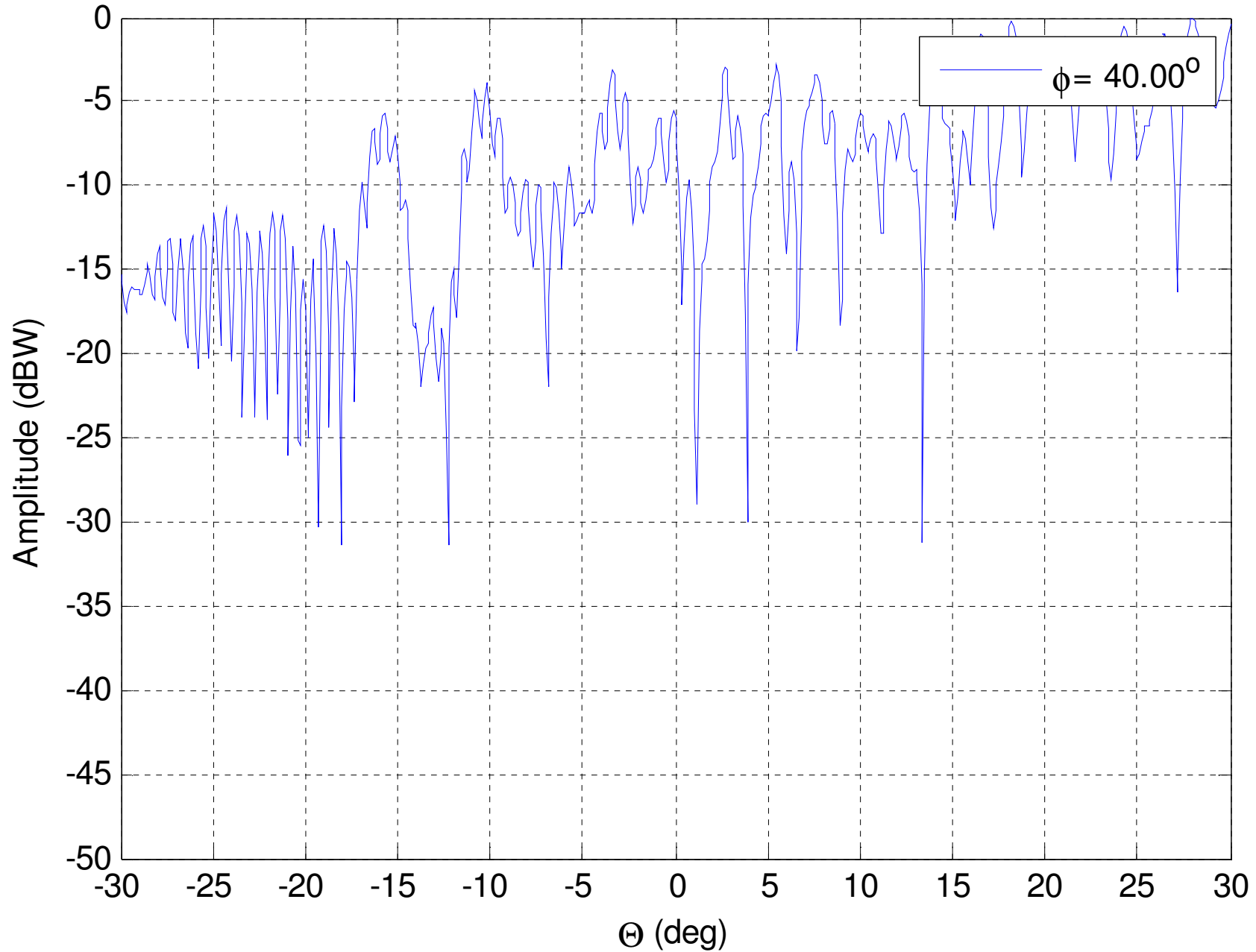
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp-30.cut, Peak: 2.83 dBW, Date: 16-Dec-2011



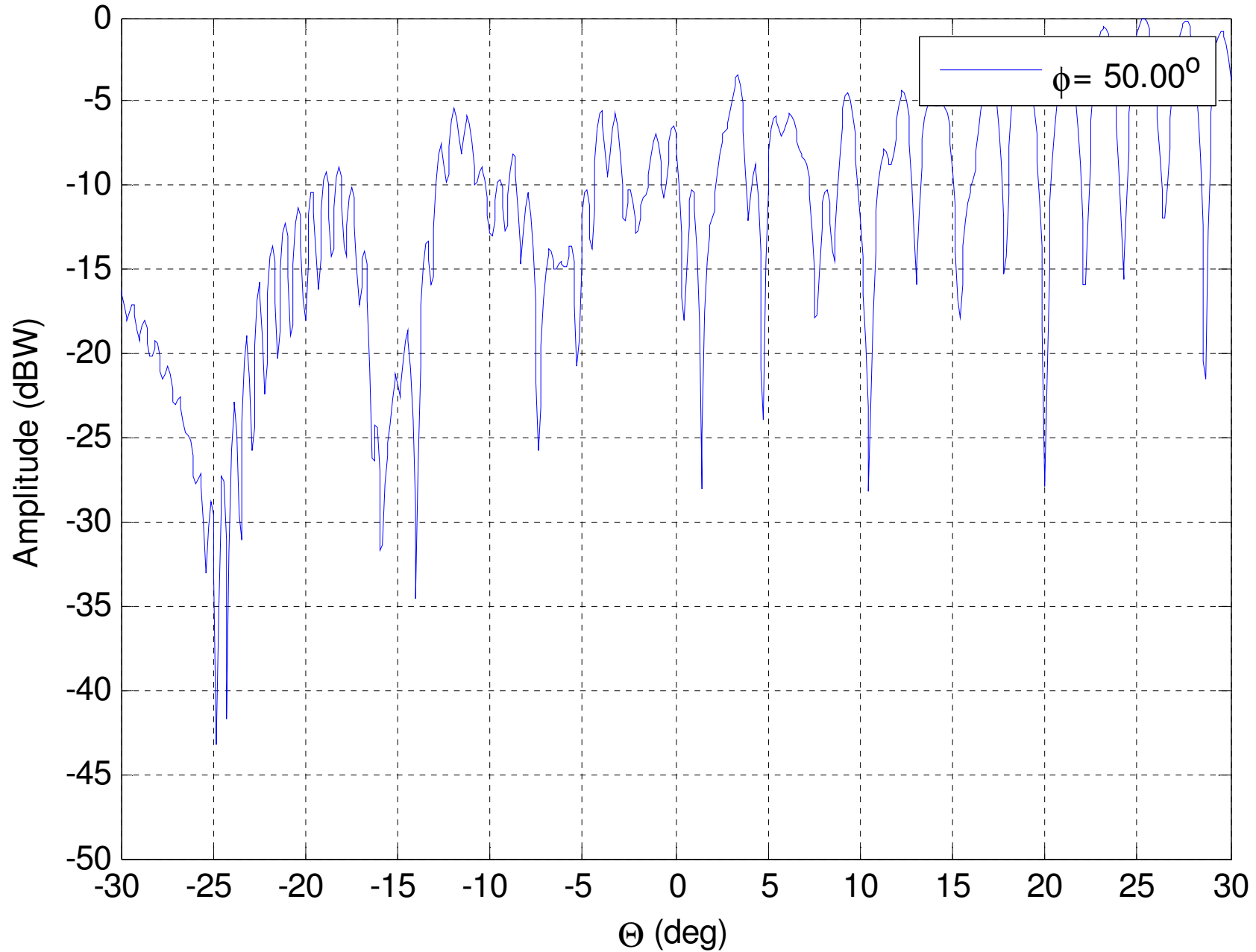
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp-40.cut, Peak: -2.75 dBW, Date: 16-Dec-2011



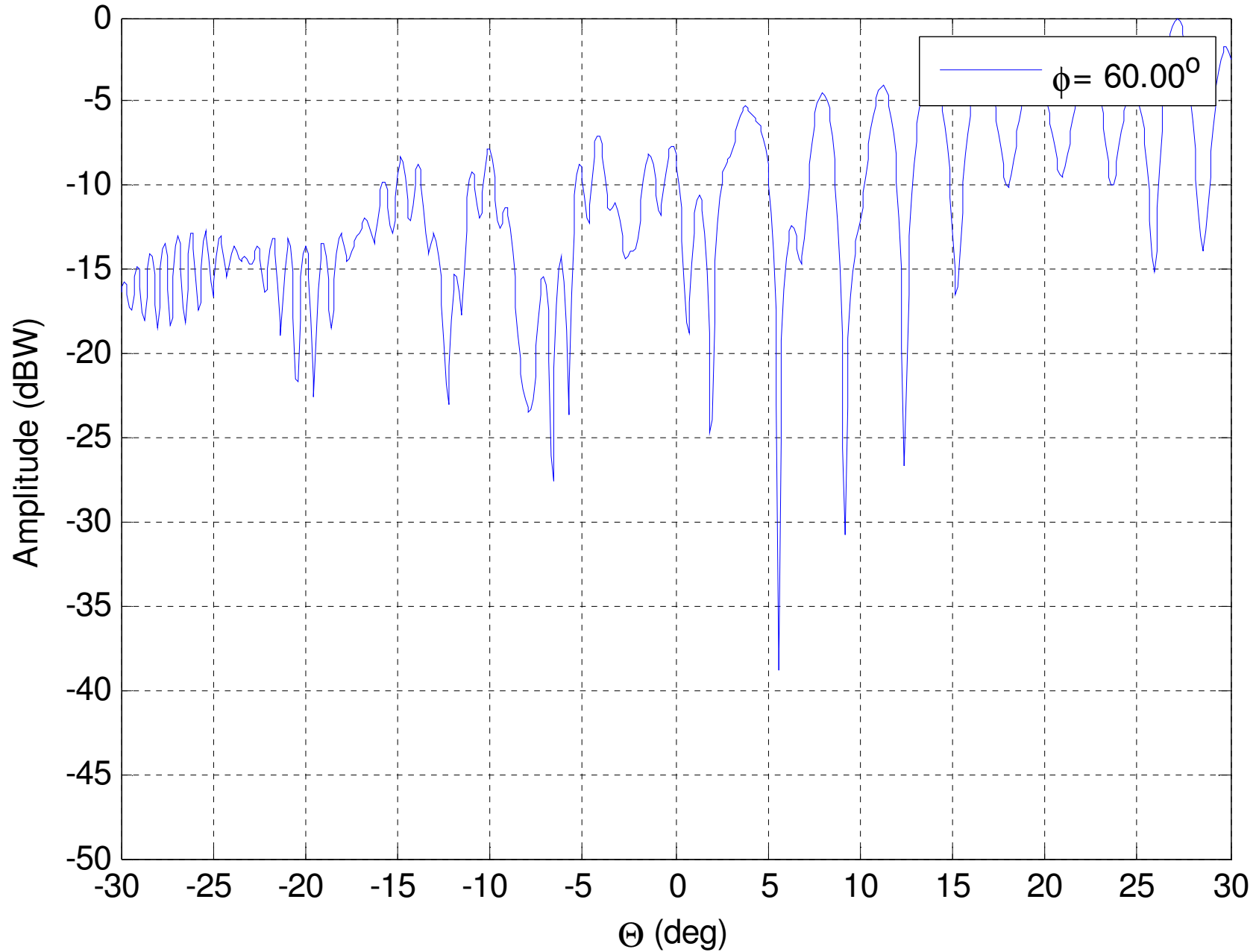
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp-50.cut, Peak: -1.77 dBW, Date: 16-Dec-2011



Normalized pattern cuts - farfield

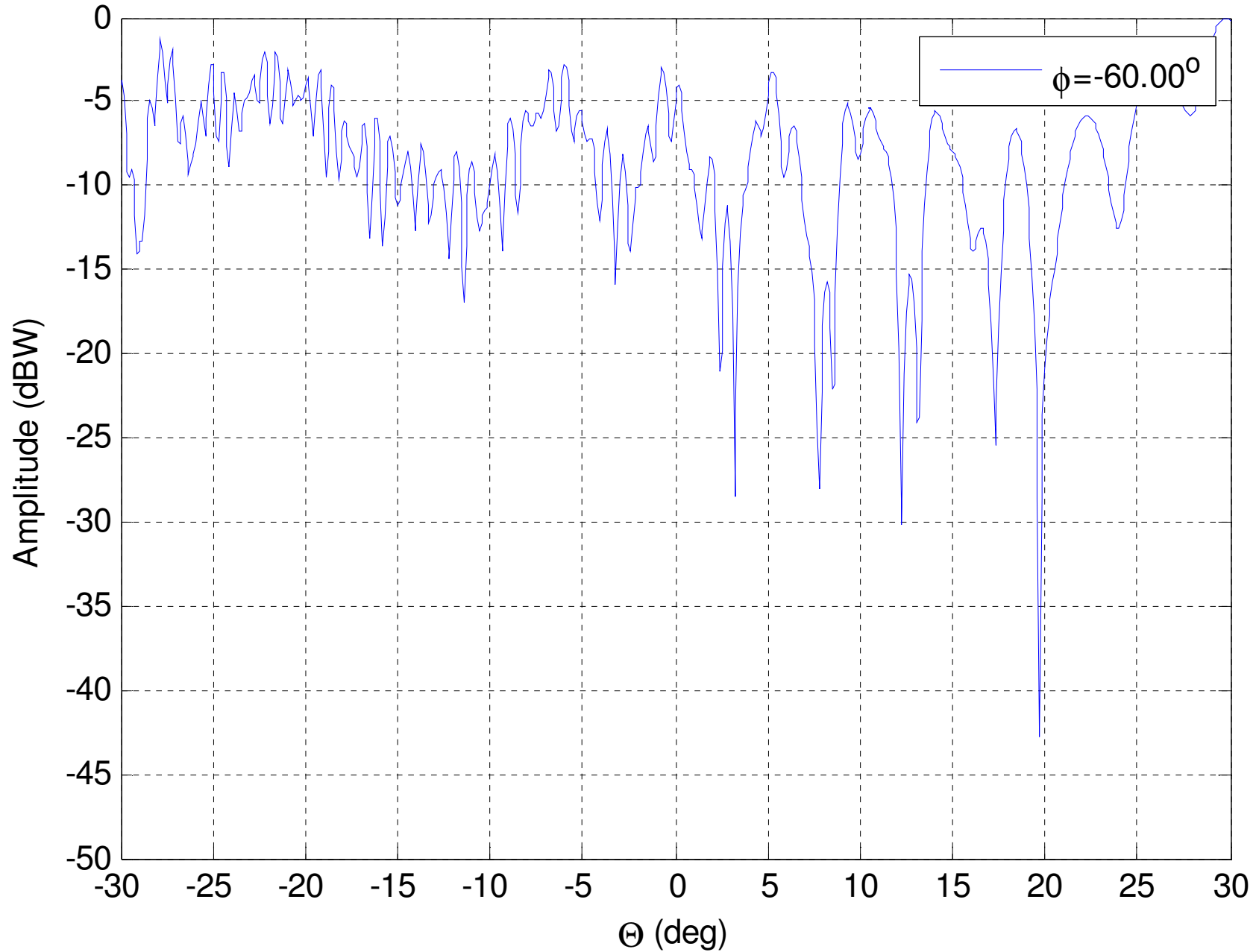
Input file: tx-17.3-lhcp-60.cut, Peak: -0.59 dBW, Date: 16-Dec-2011



RHCP at 17.5 GHz

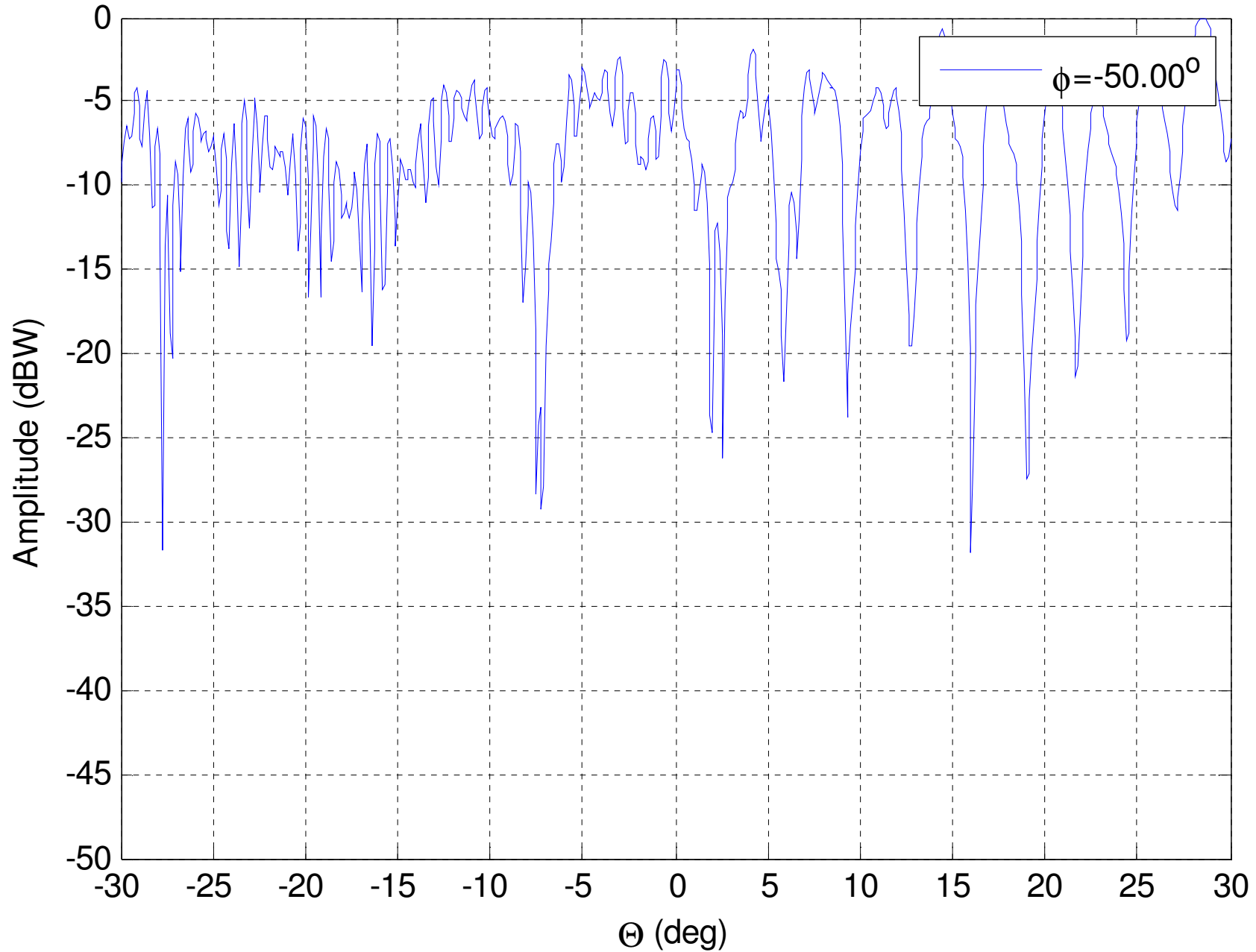
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--60.cut, Peak: -3.37 dBW, Date: 16-Dec-2011



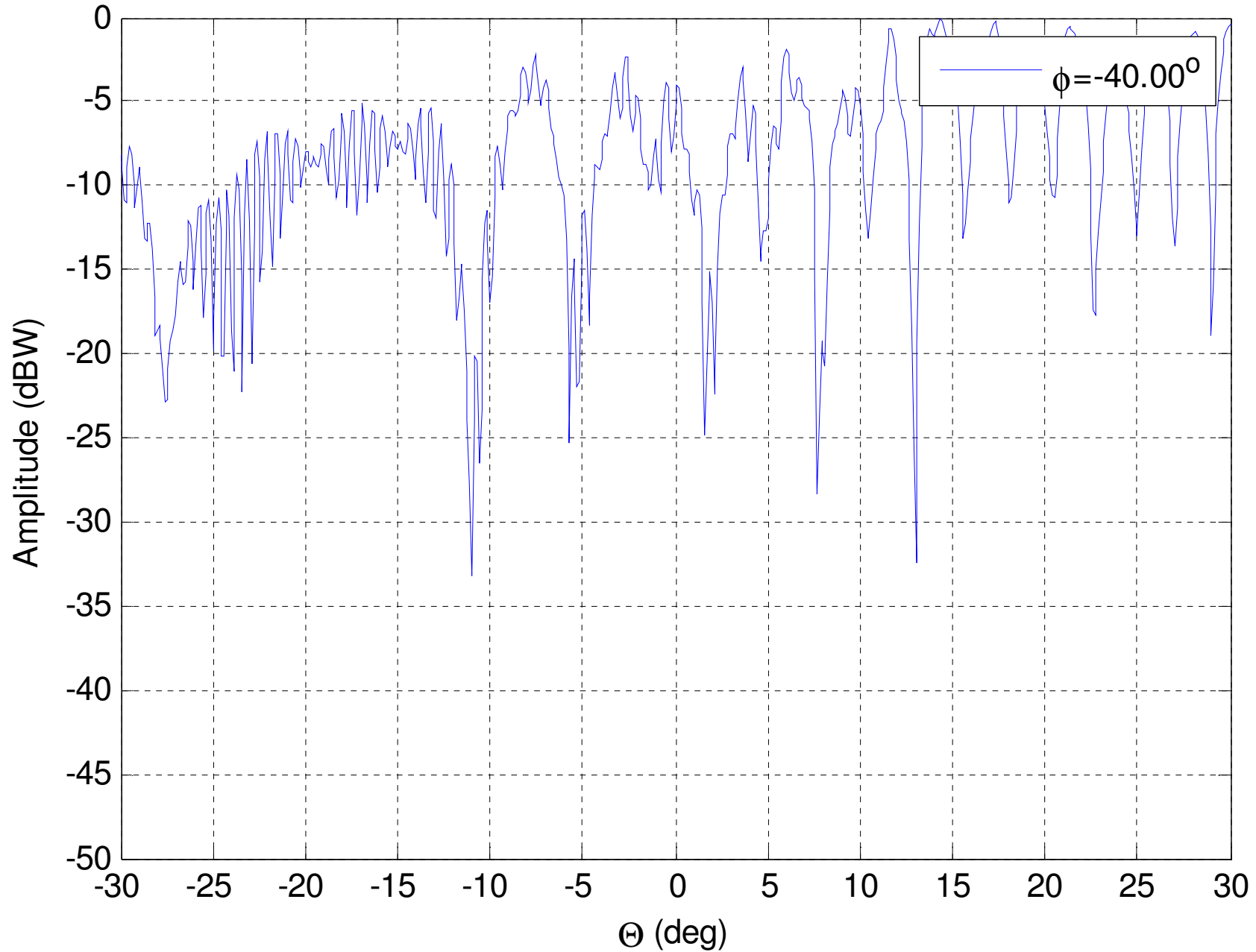
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--50.cut, Peak: -4.24 dBW, Date: 16-Dec-2011



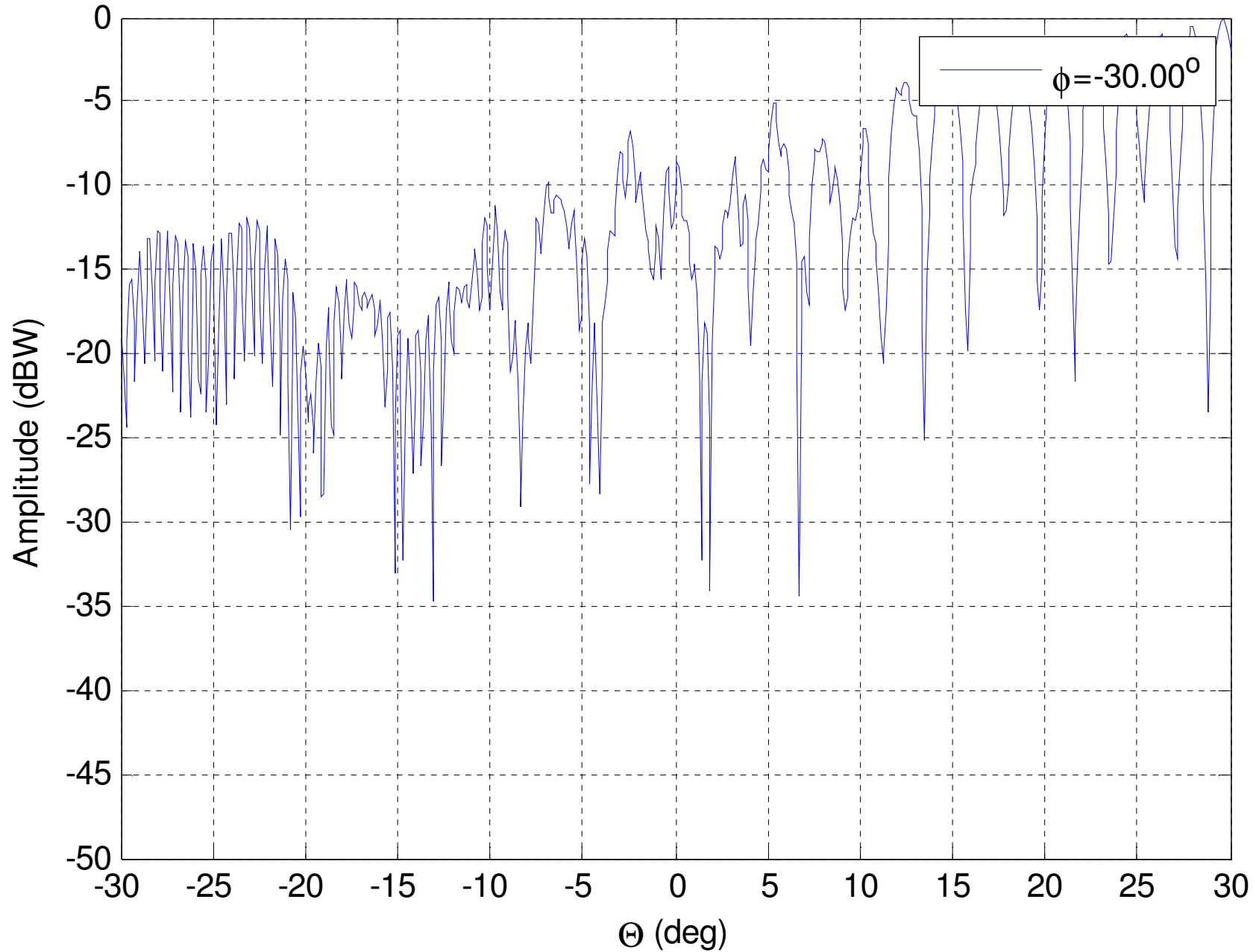
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--40.cut, Peak: -3.21 dBW, Date: 16-Dec-2011



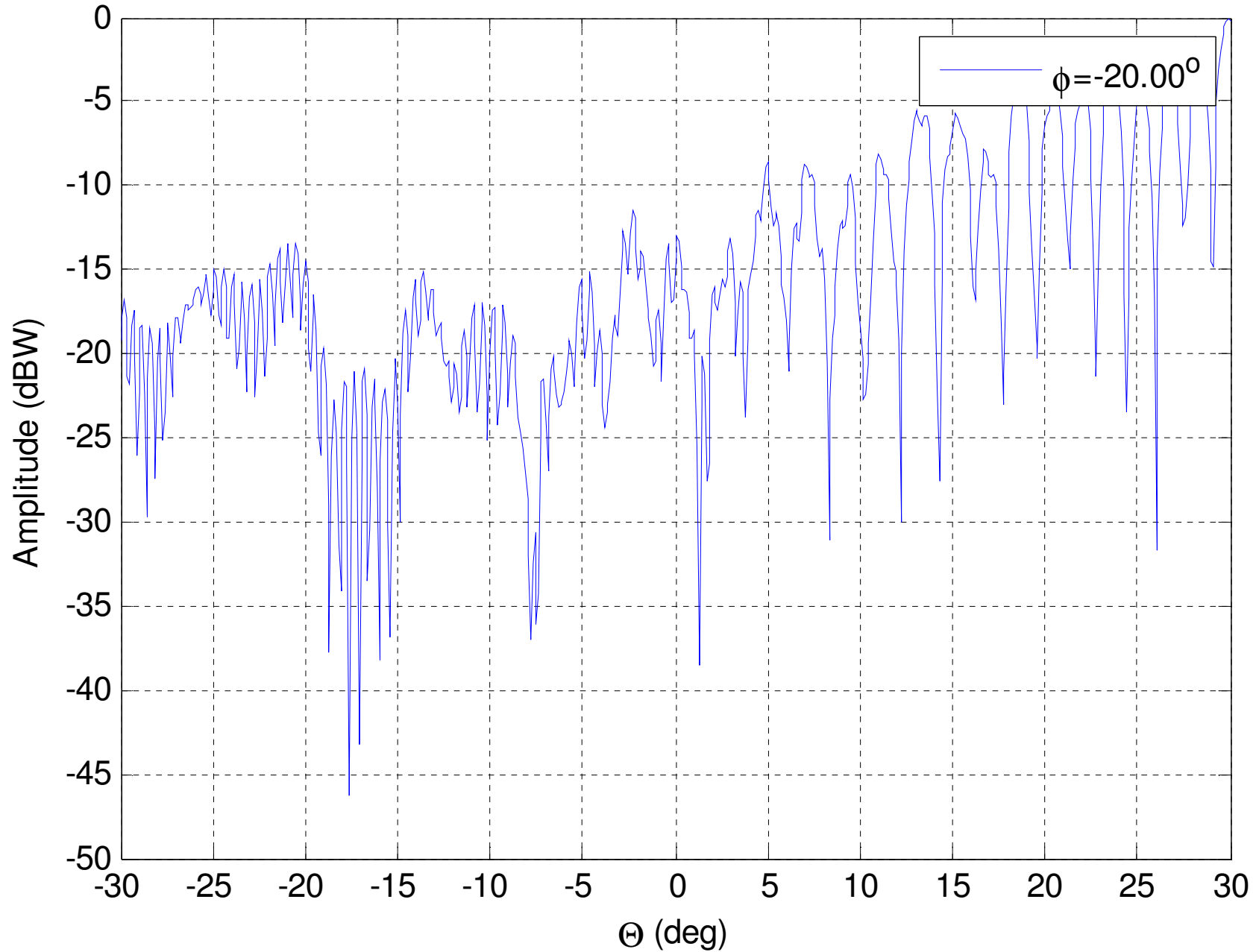
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--30.cut, Peak: 1.49 dBW, Date: 16-Dec-2011



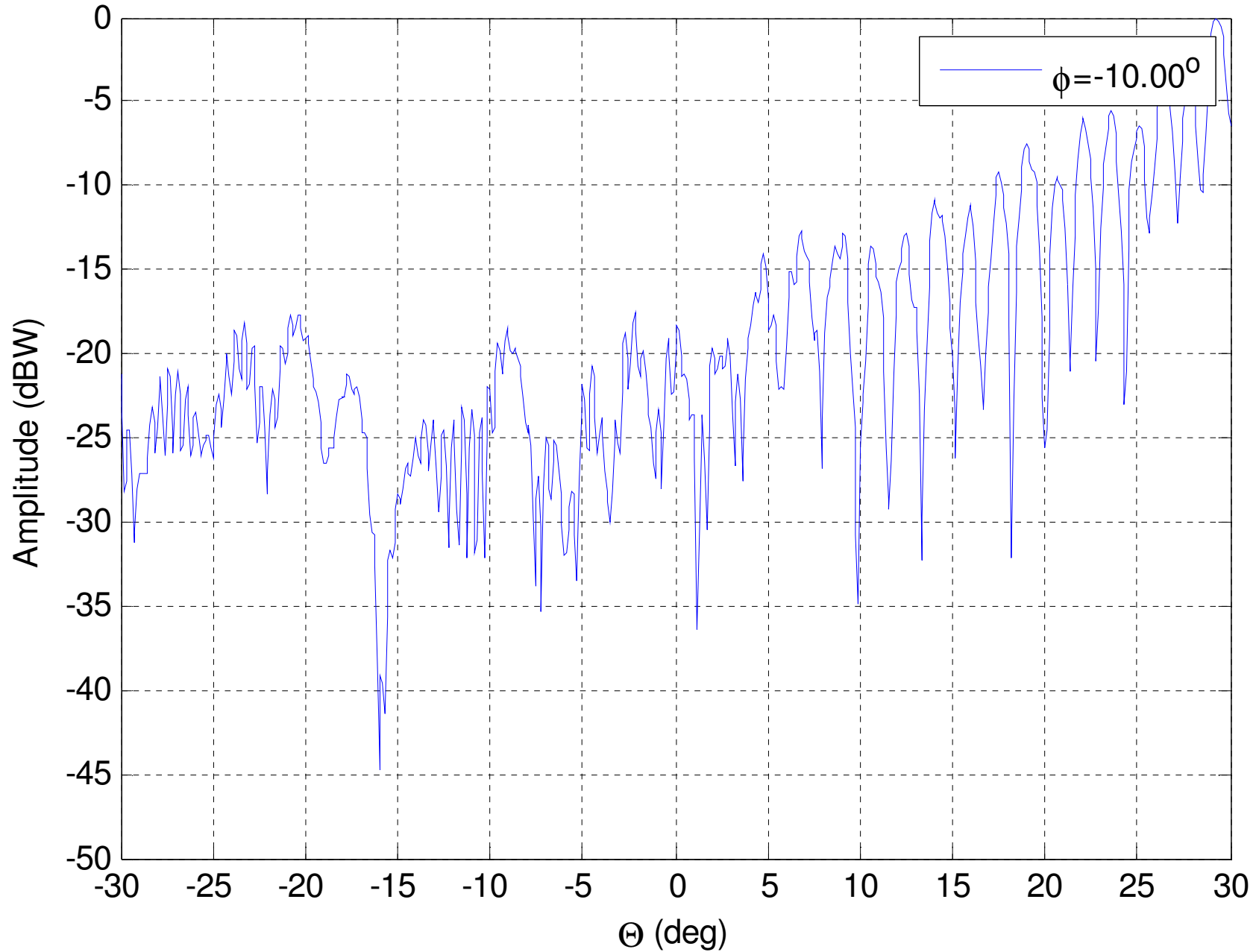
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--20.cut, Peak: 5.91 dBW, Date: 16-Dec-2011



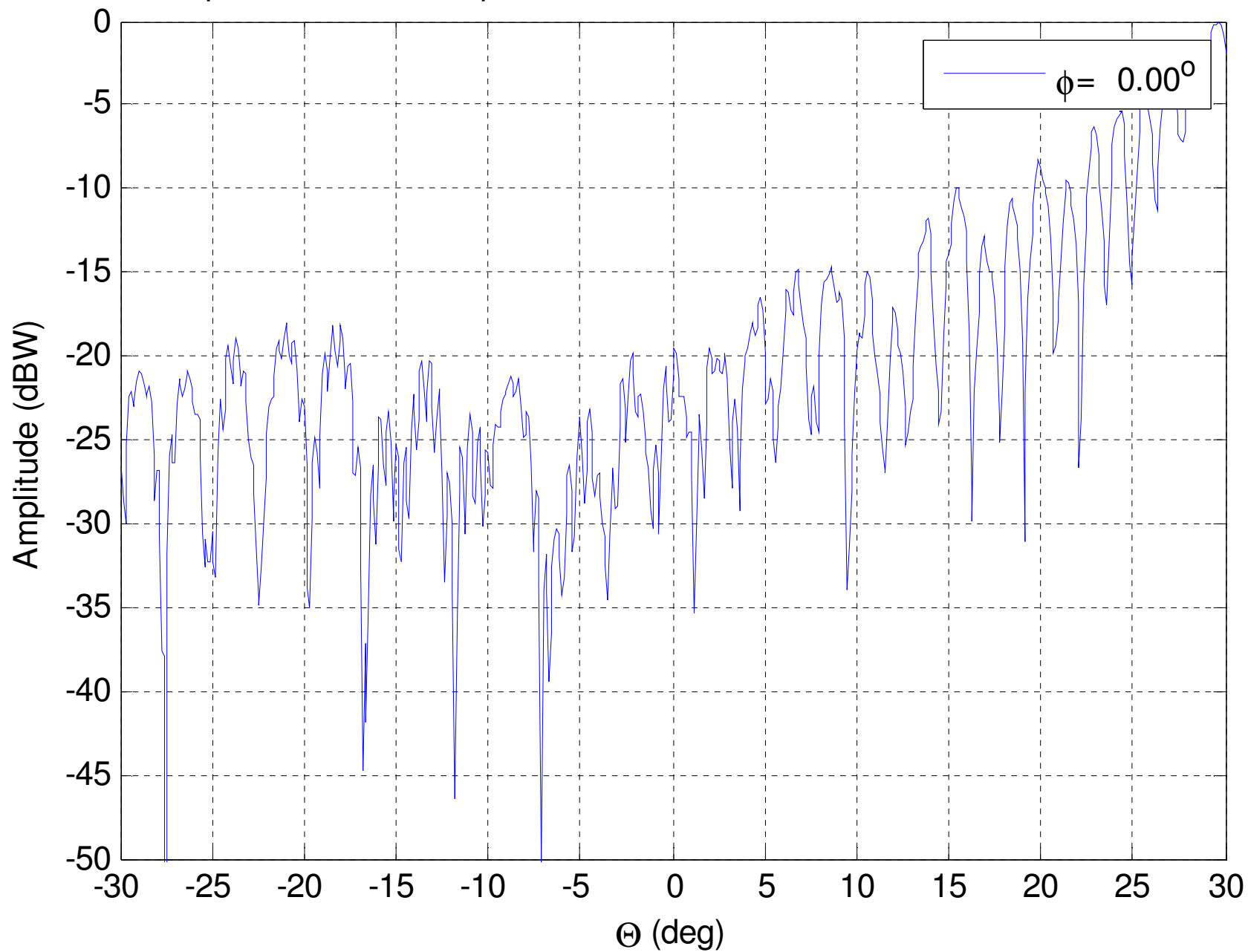
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--10.cut, Peak: 11.28 dBW, Date: 16-Dec-2011



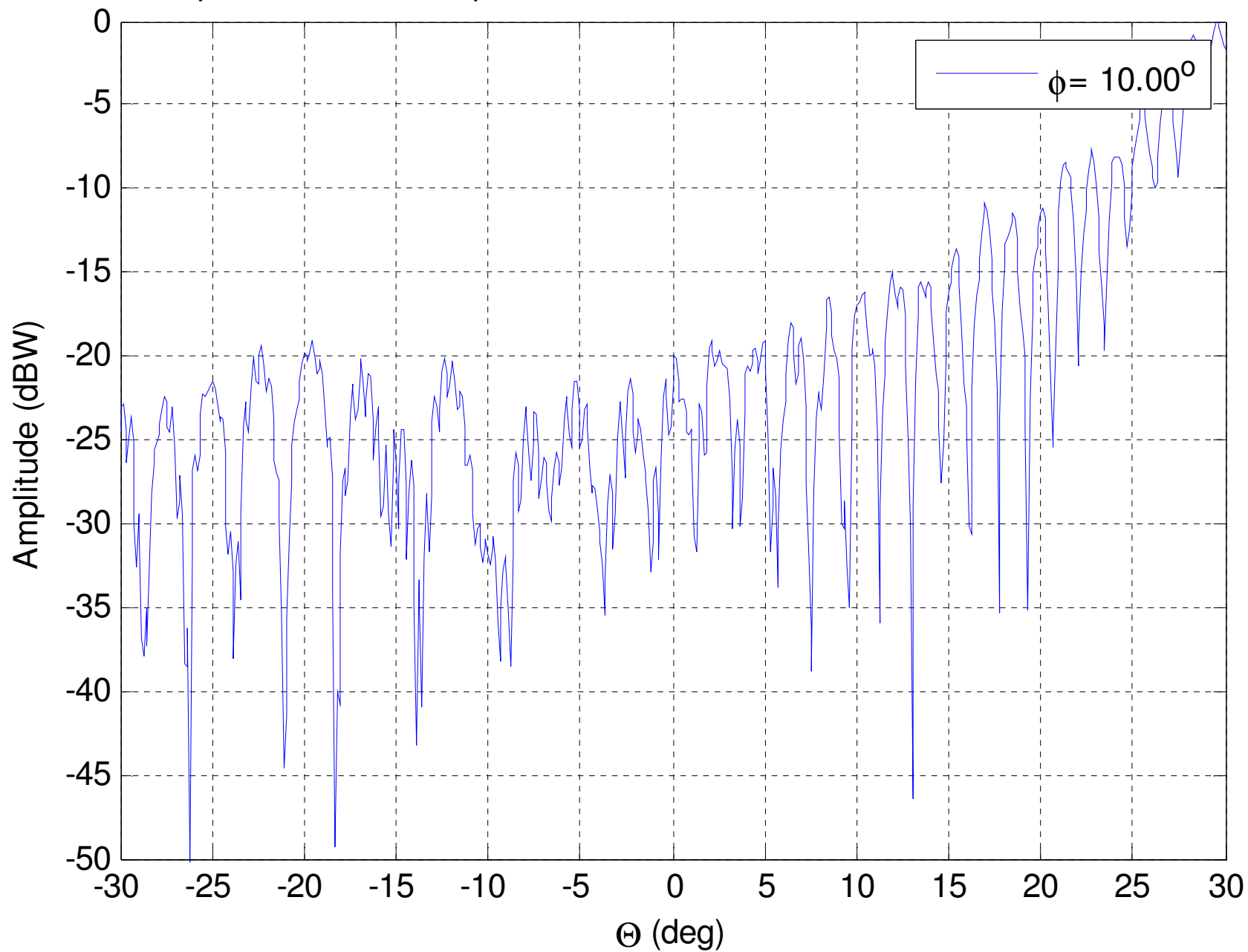
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-0.cut, Peak: 12.66 dBW, Date: 16-Dec-2011



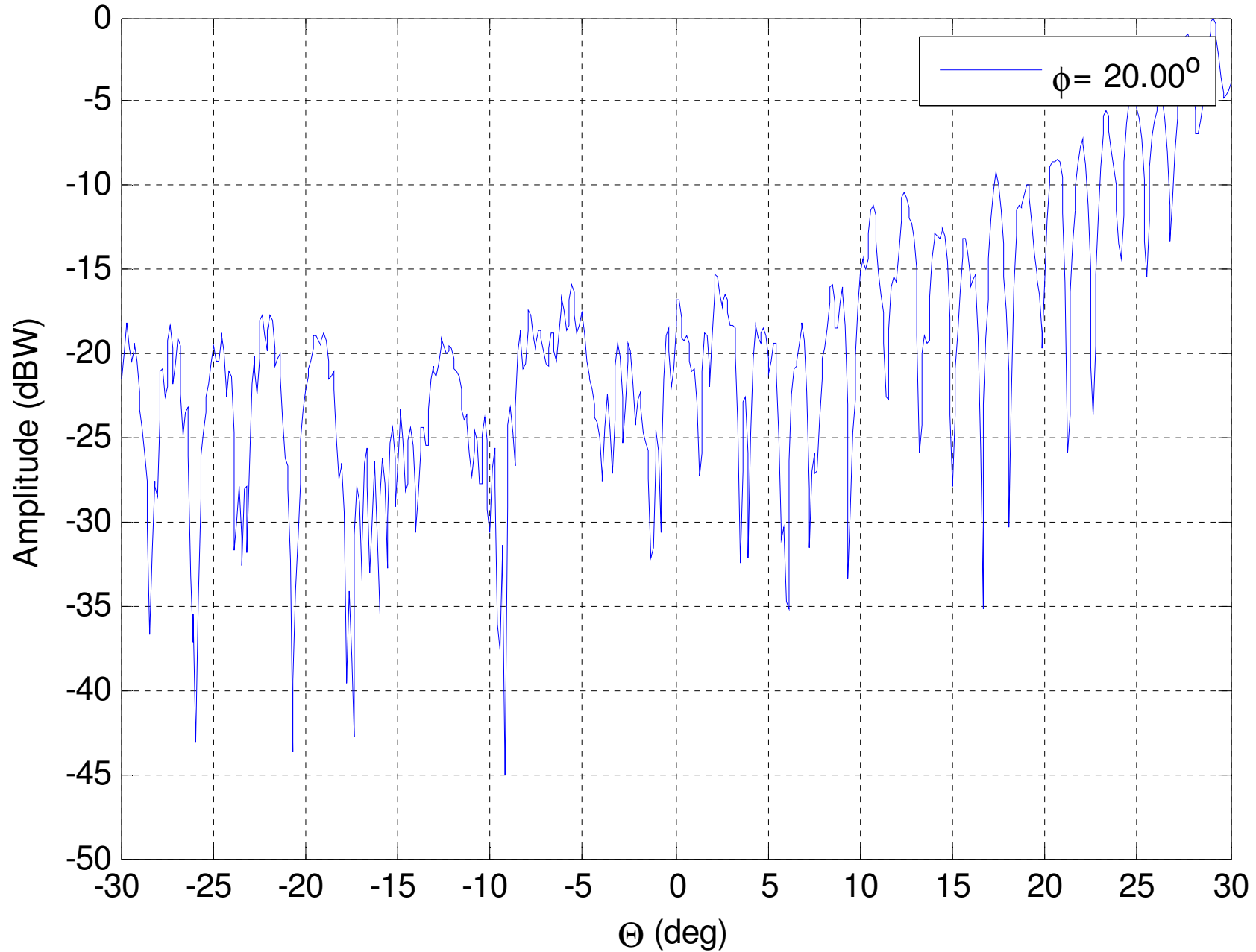
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-10.cut, Peak: 13.11 dBW, Date: 16-Dec-2011



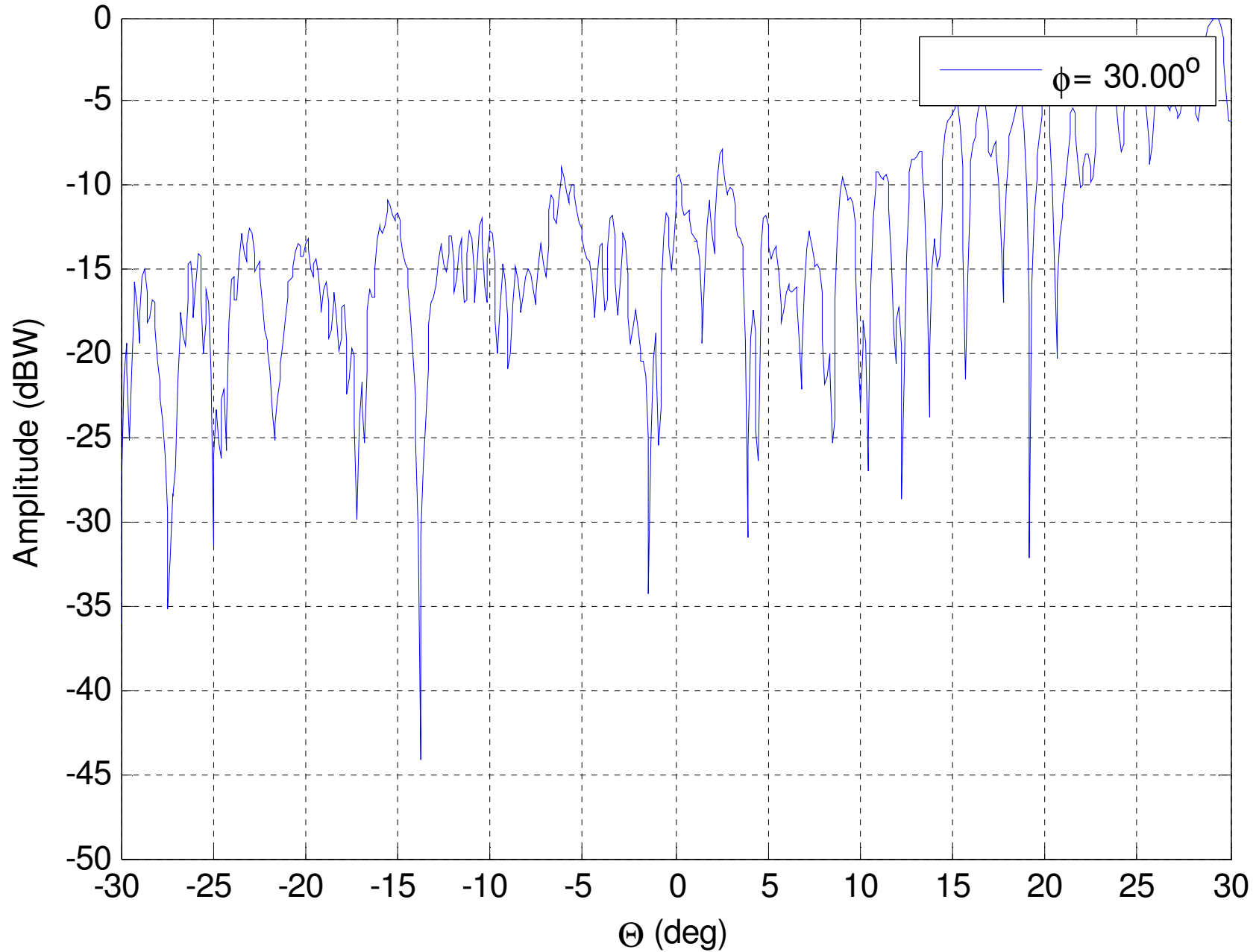
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-20.cut, Peak: 9.92 dBW, Date: 16-Dec-2011



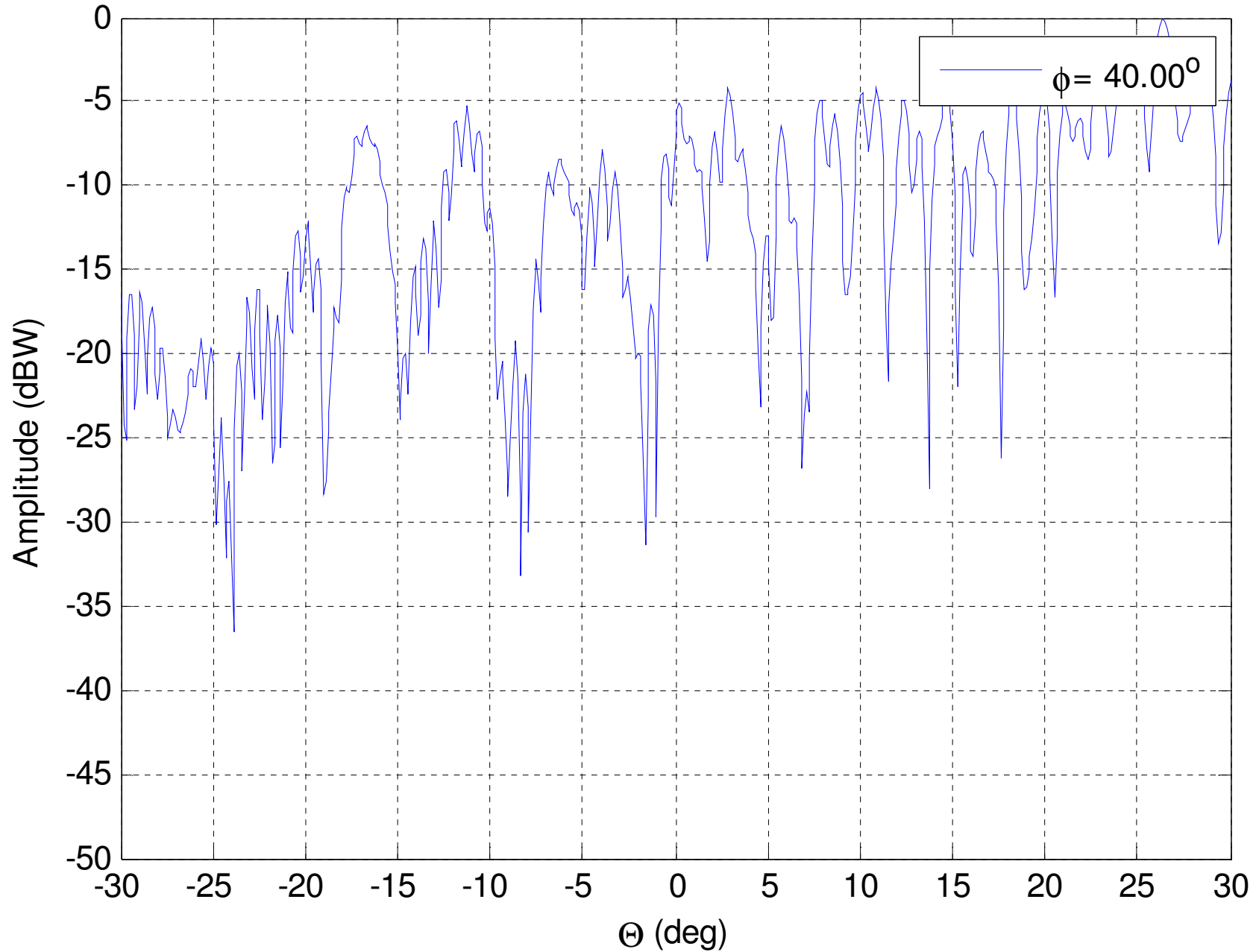
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-30.cut, Peak: 2.67 dBW, Date: 16-Dec-2011



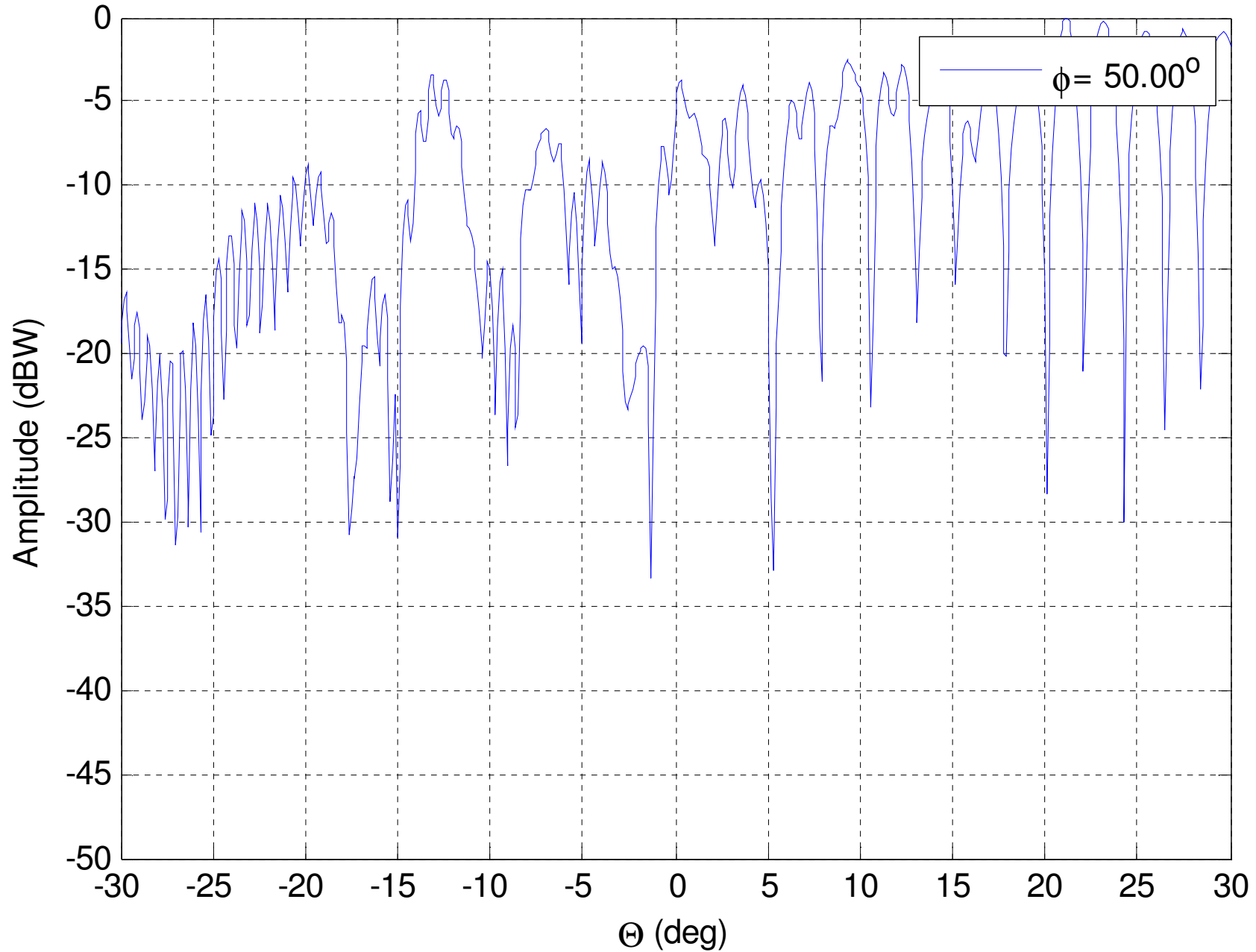
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-40.cut, Peak: -1.36 dBW, Date: 16-Dec-2011



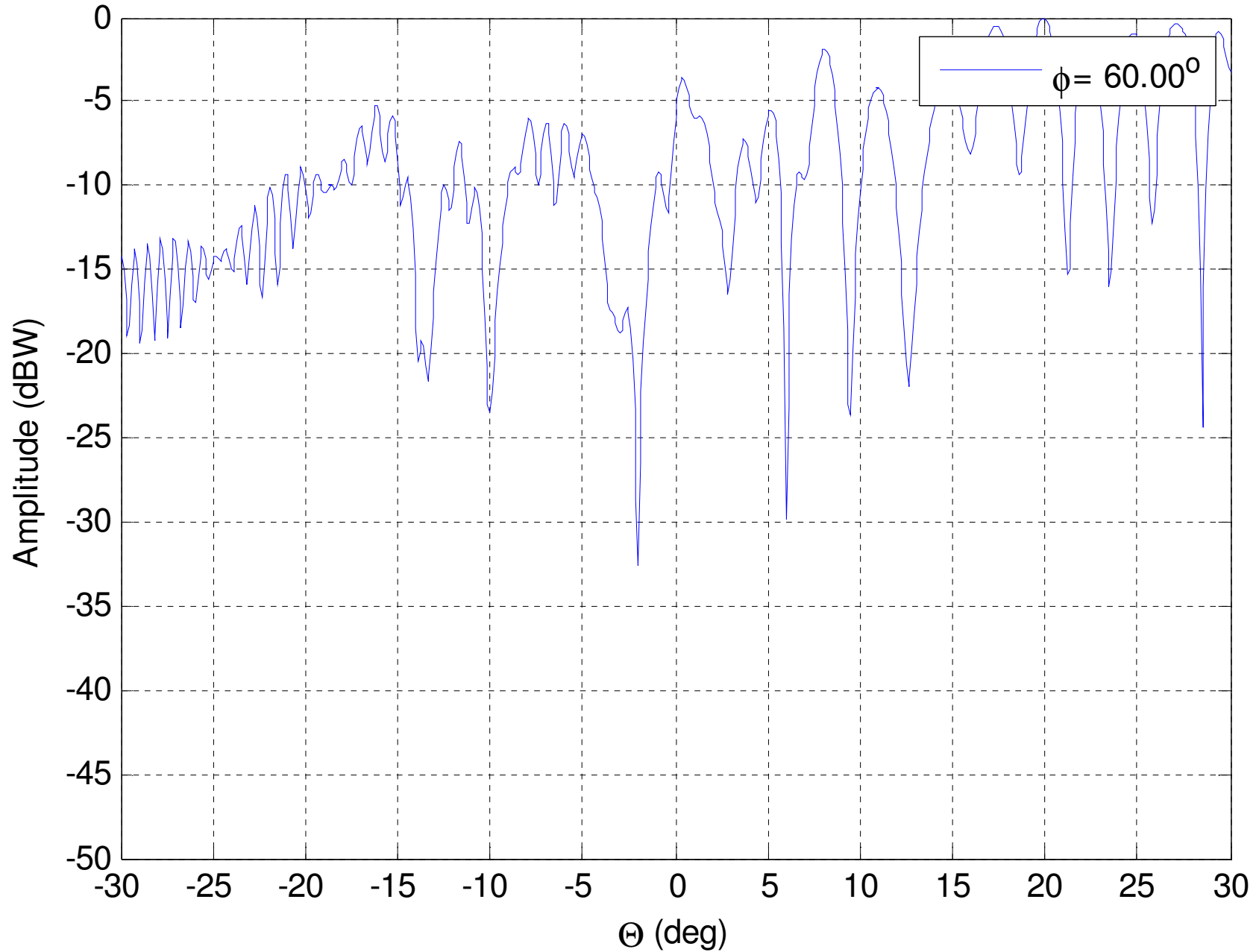
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-50.cut, Peak: -2.55 dBW, Date: 16-Dec-2011



Normalized pattern cuts - farfield

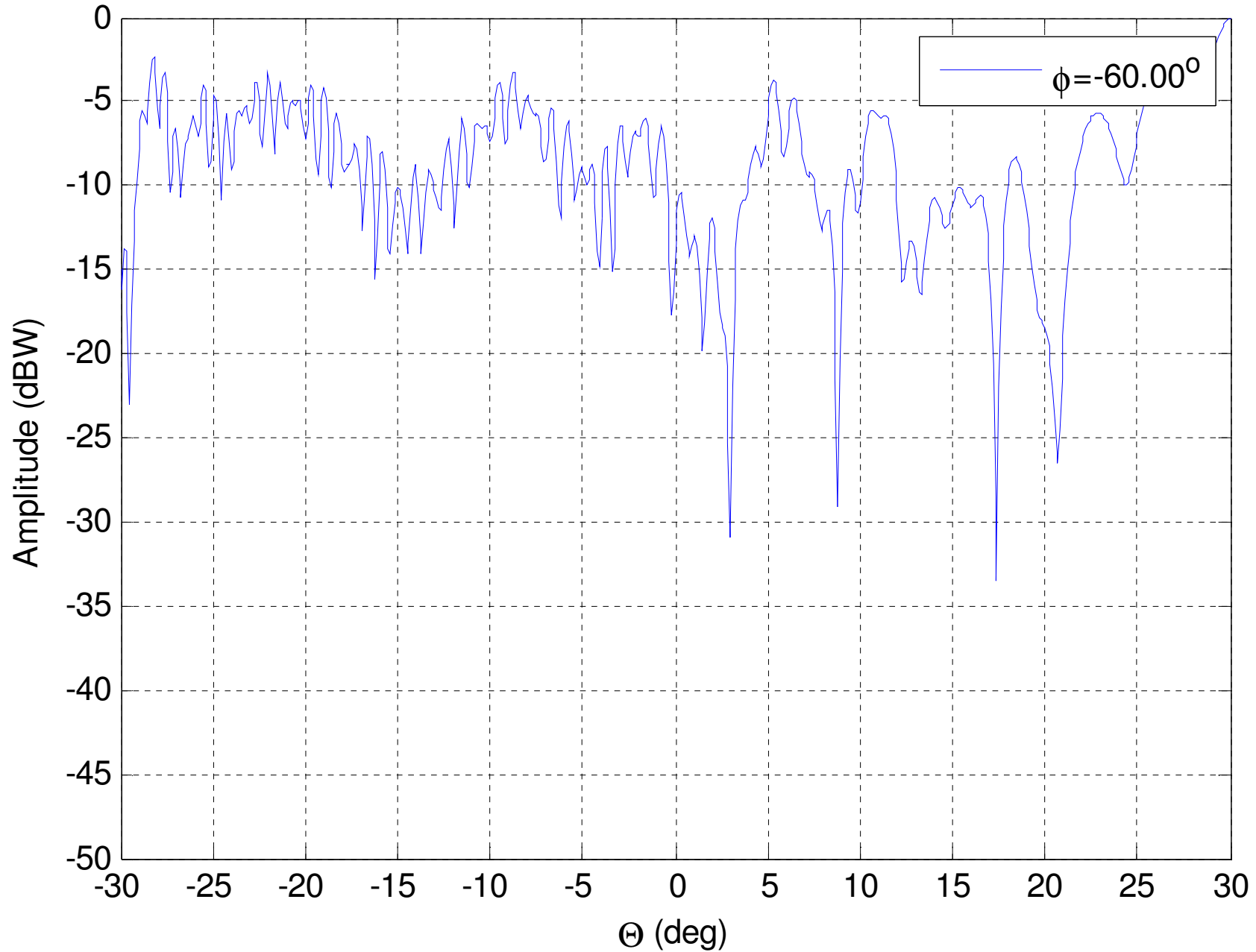
Input file: tx-17.5-rhcp-60.cut, Peak: -2.37 dBW, Date: 16-Dec-2011



LHCP at 17.5 GHz

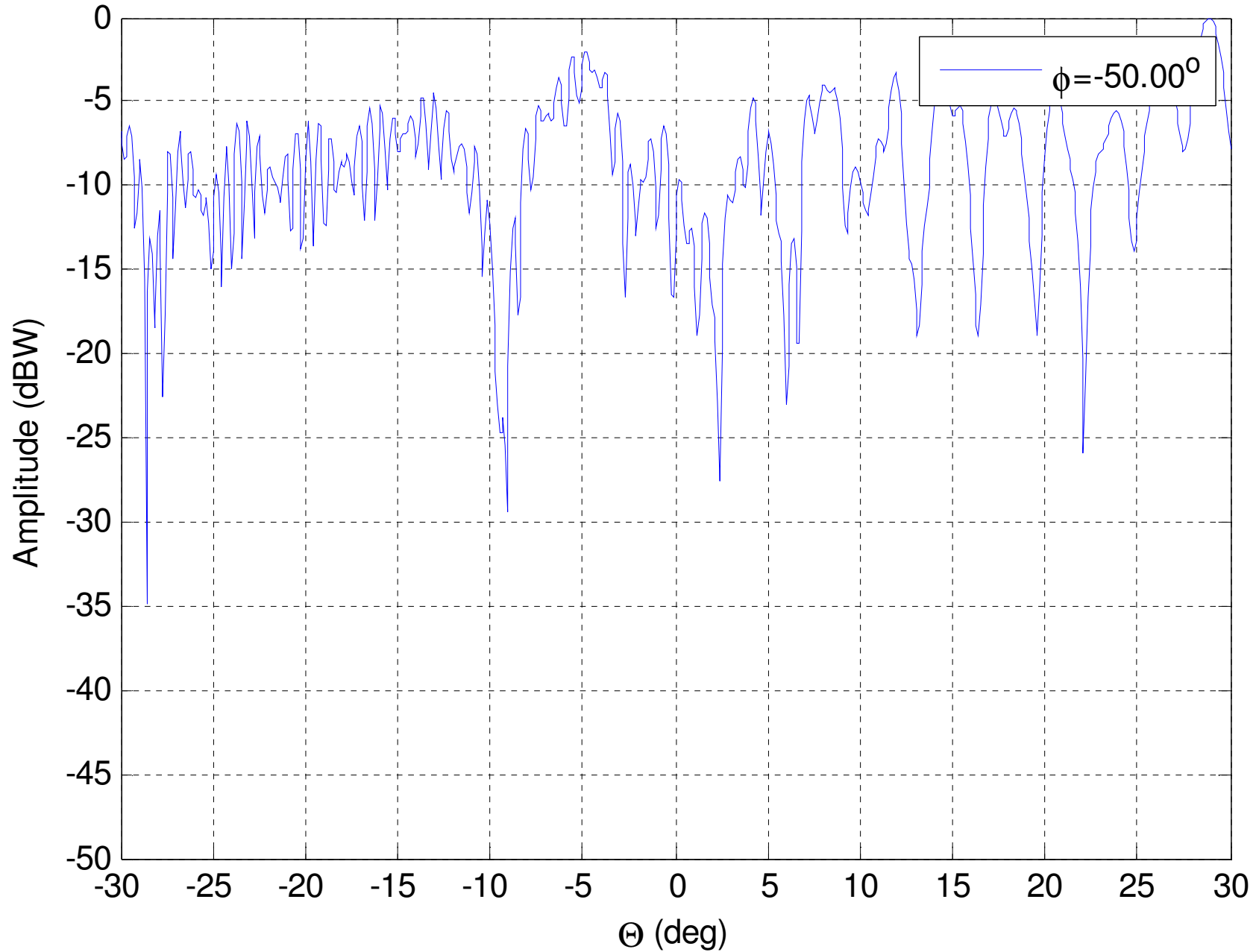
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--60.cut, Peak: -2.77 dBW, Date: 16-Dec-2011



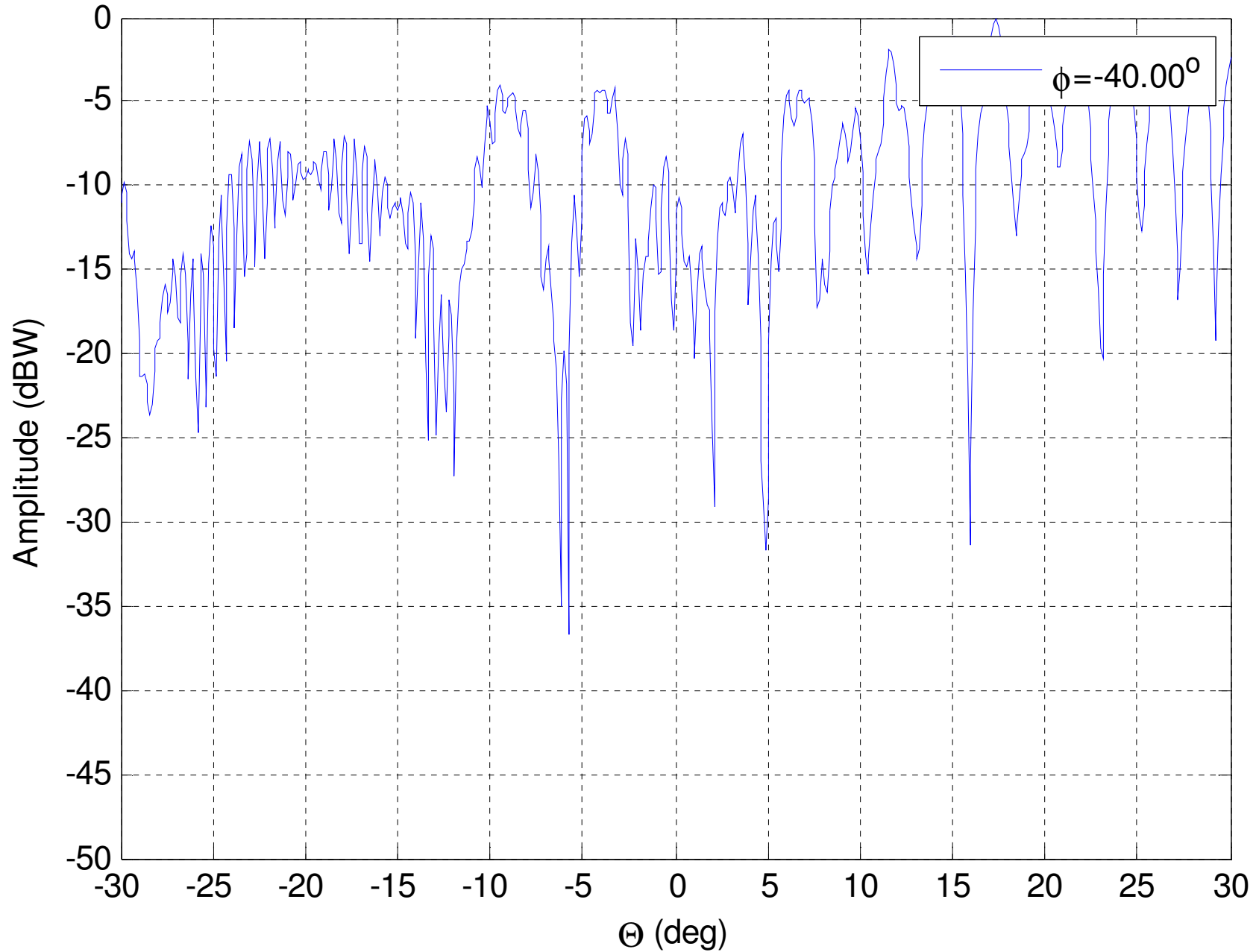
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--50.cut, Peak: -3.35 dBW, Date: 16-Dec-2011



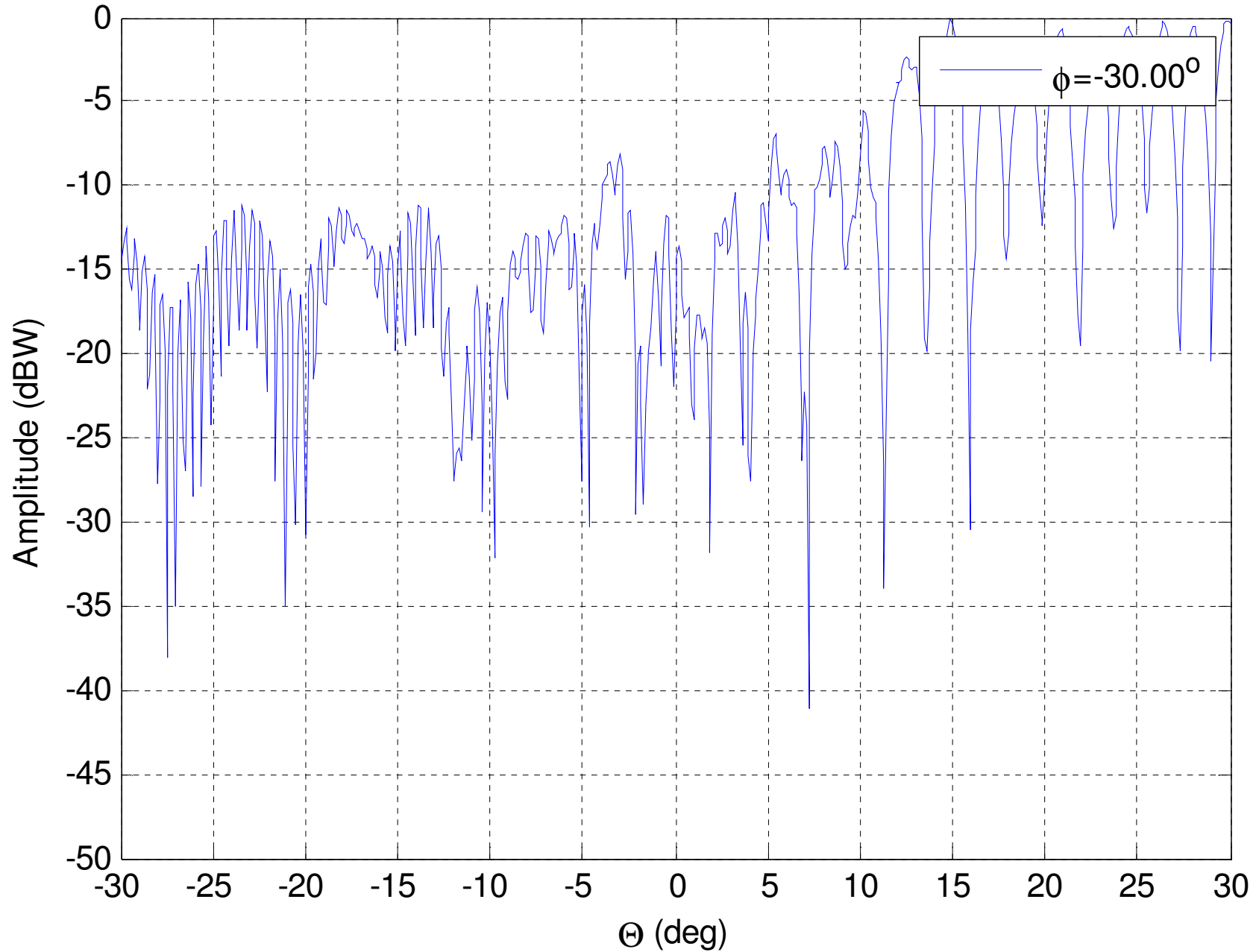
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--40.cut, Peak: -2.05 dBW, Date: 16-Dec-2011



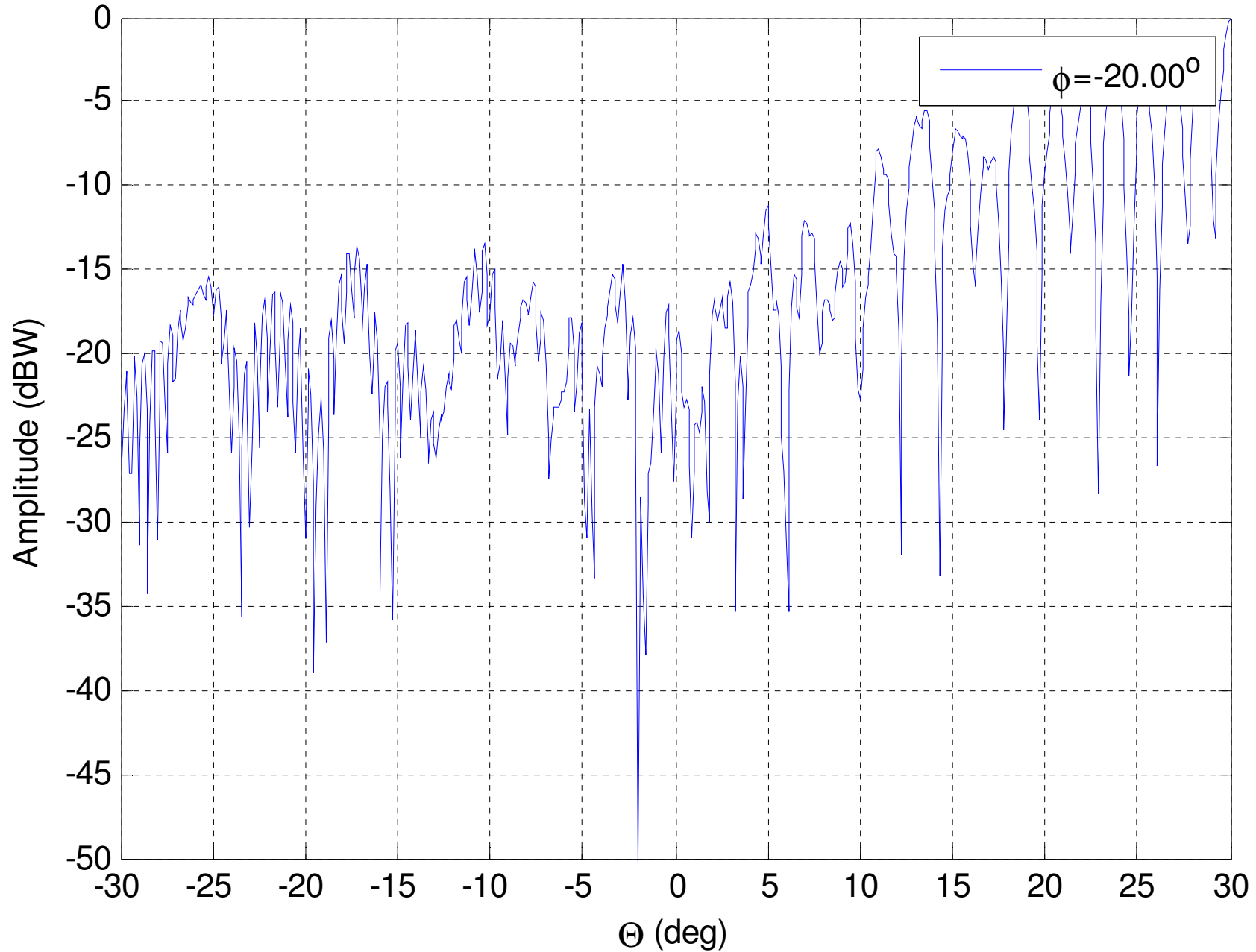
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--30.cut, Peak: 0.86 dBW, Date: 16-Dec-2011



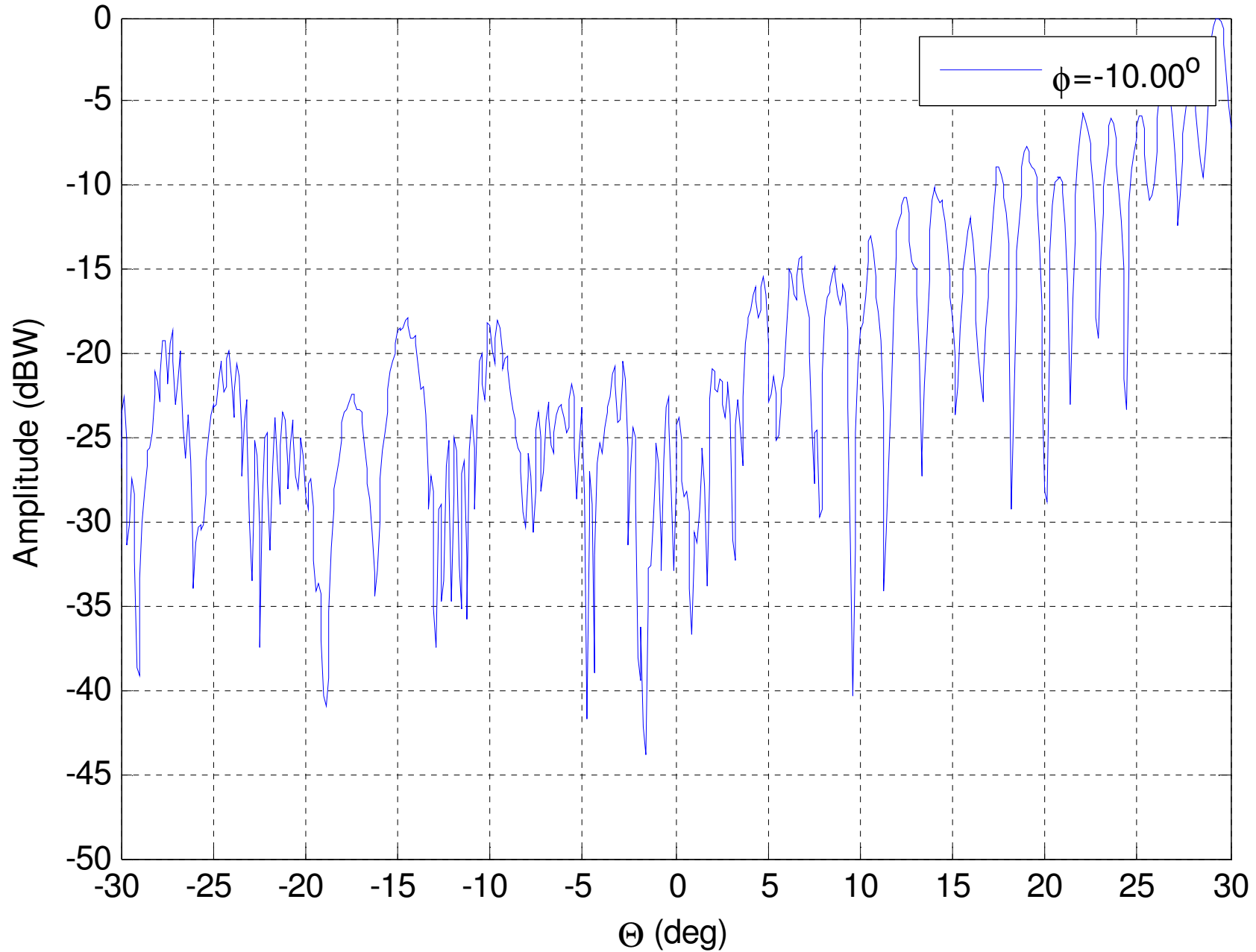
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--20.cut, Peak: 6.03 dBW, Date: 16-Dec-2011



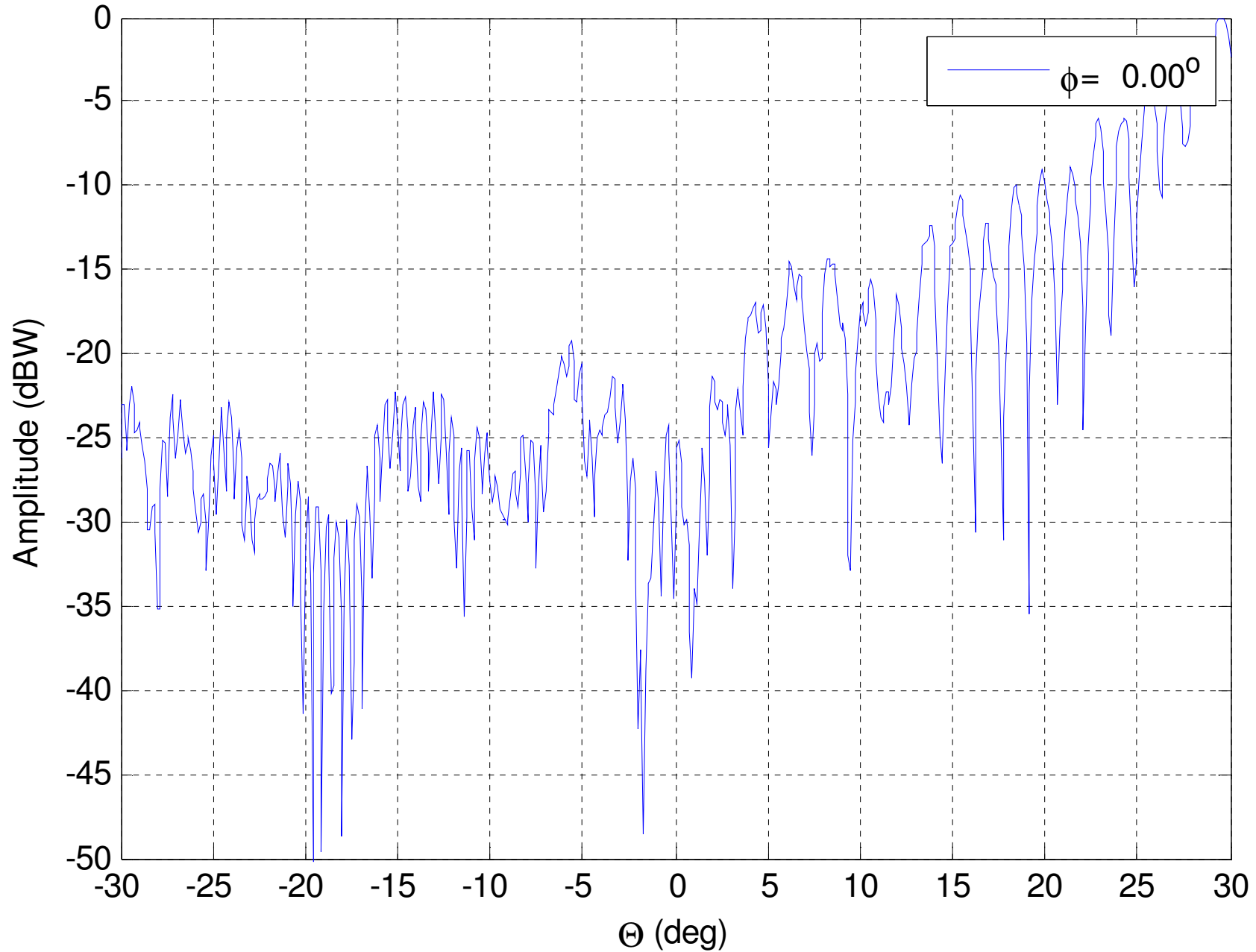
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--10.cut, Peak: 11.17 dBW, Date: 16-Dec-2011



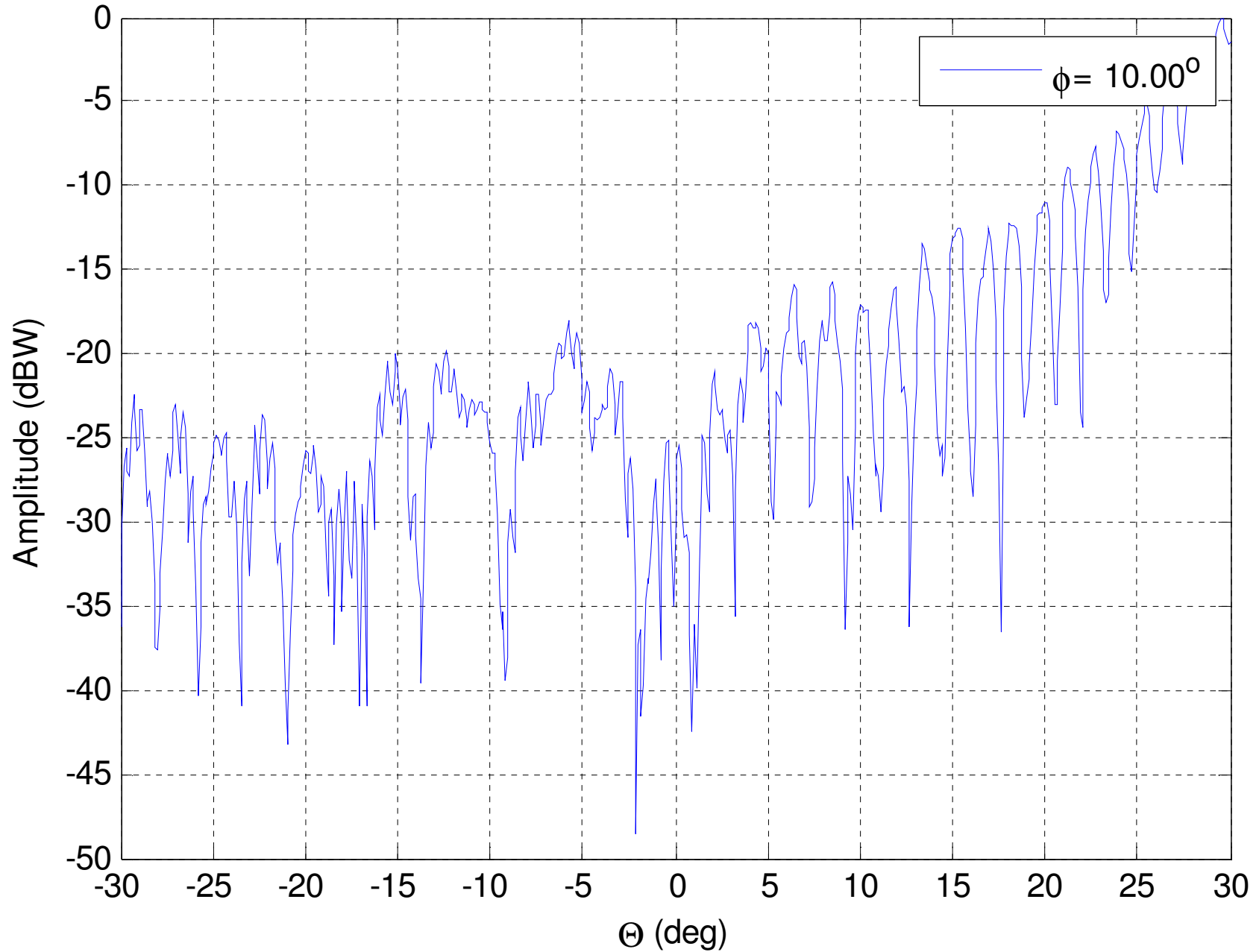
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-0.cut, Peak: 12.59 dBW, Date: 16-Dec-2011



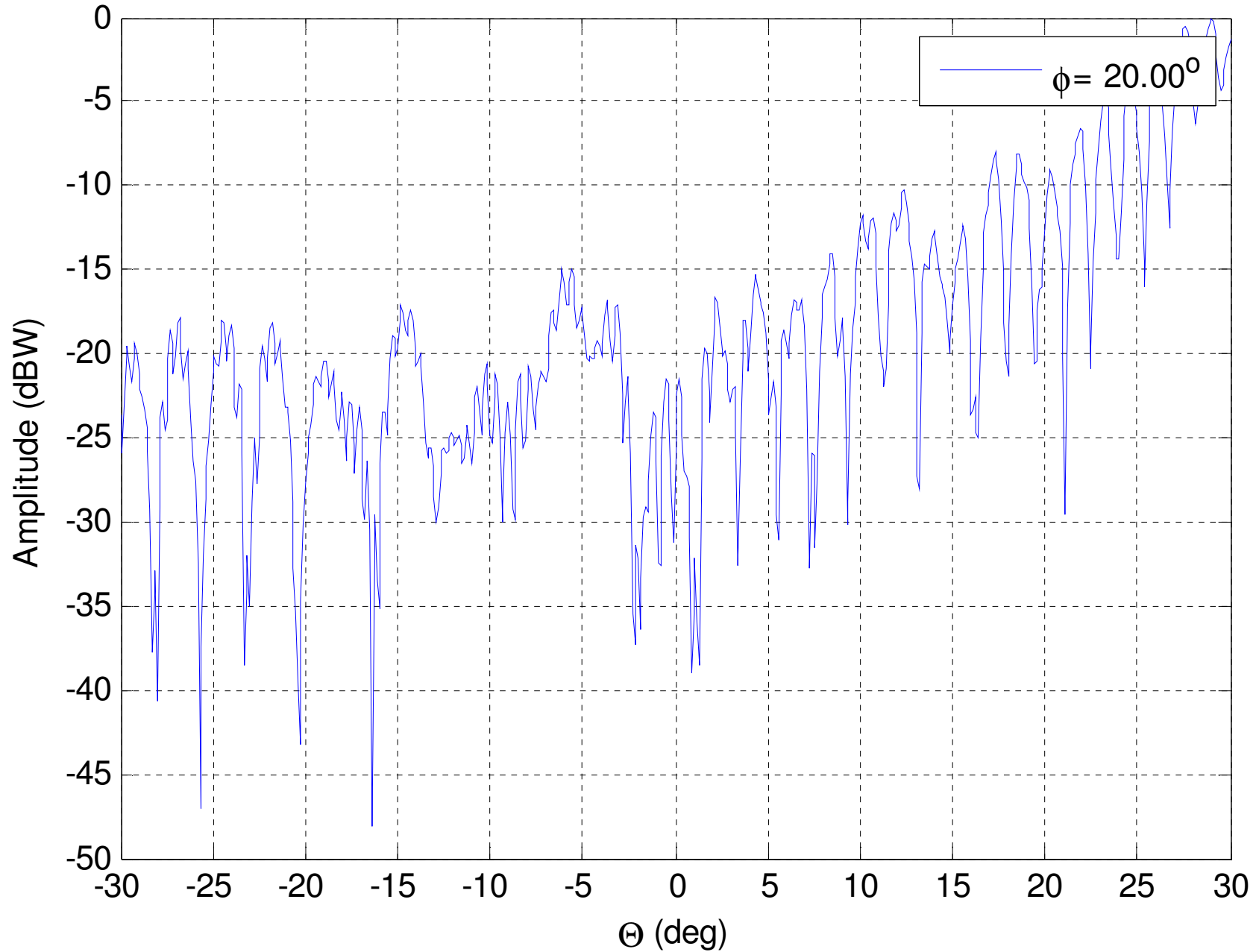
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-10.cut, Peak: 13.12 dBW, Date: 16-Dec-2011



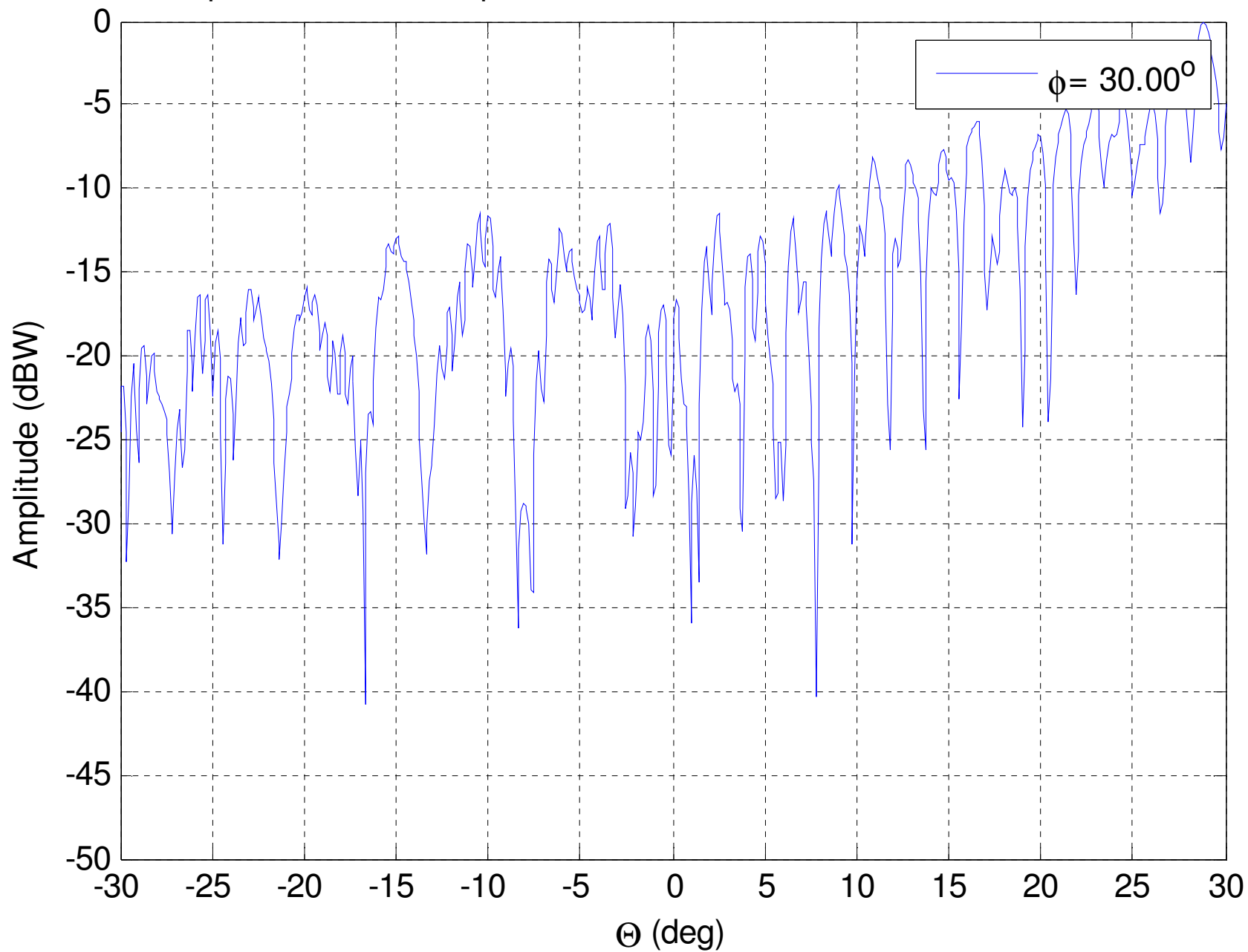
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-20.cut, Peak: 9.30 dBW, Date: 16-Dec-2011



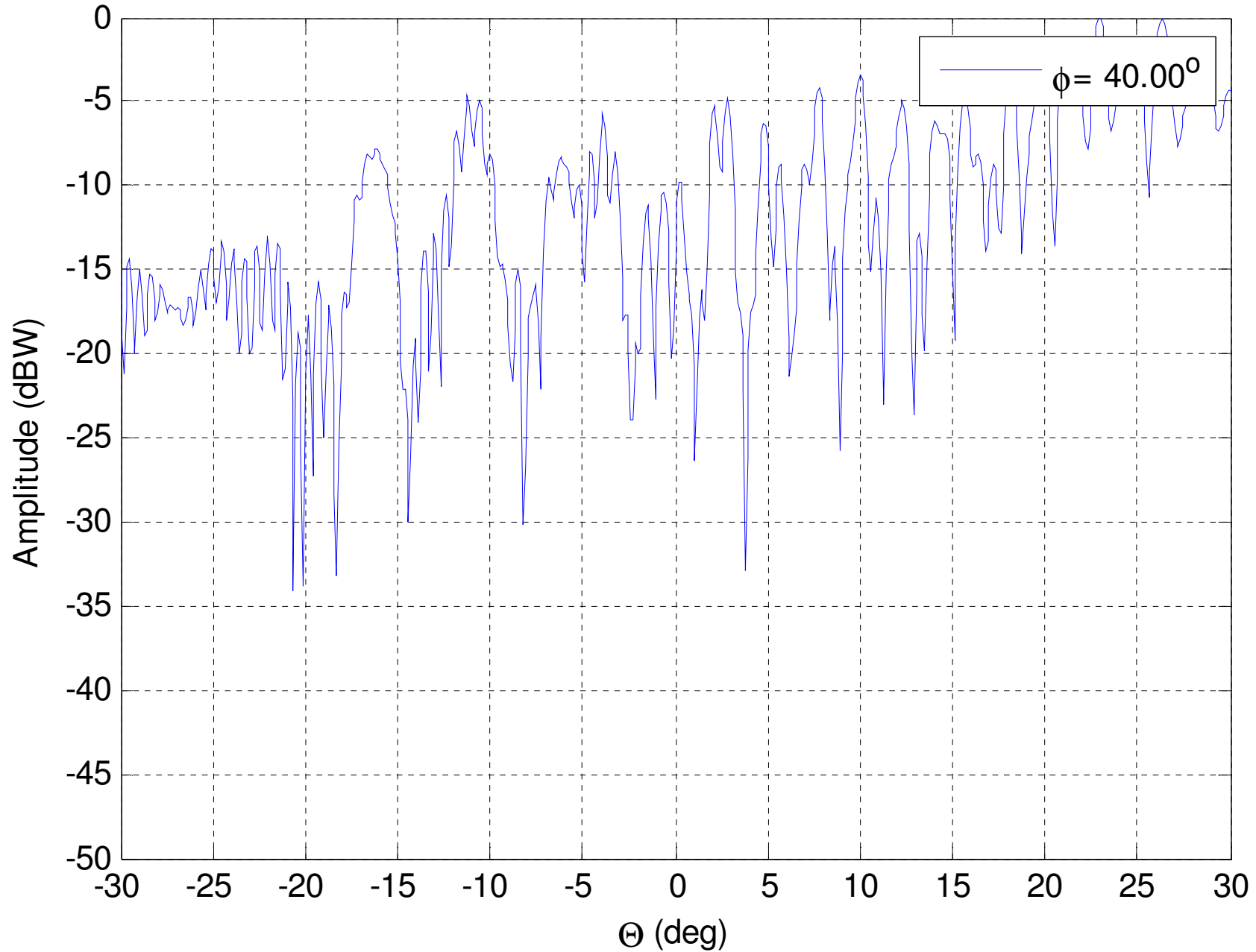
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-30.cut, Peak: 4.45 dBW, Date: 16-Dec-2011



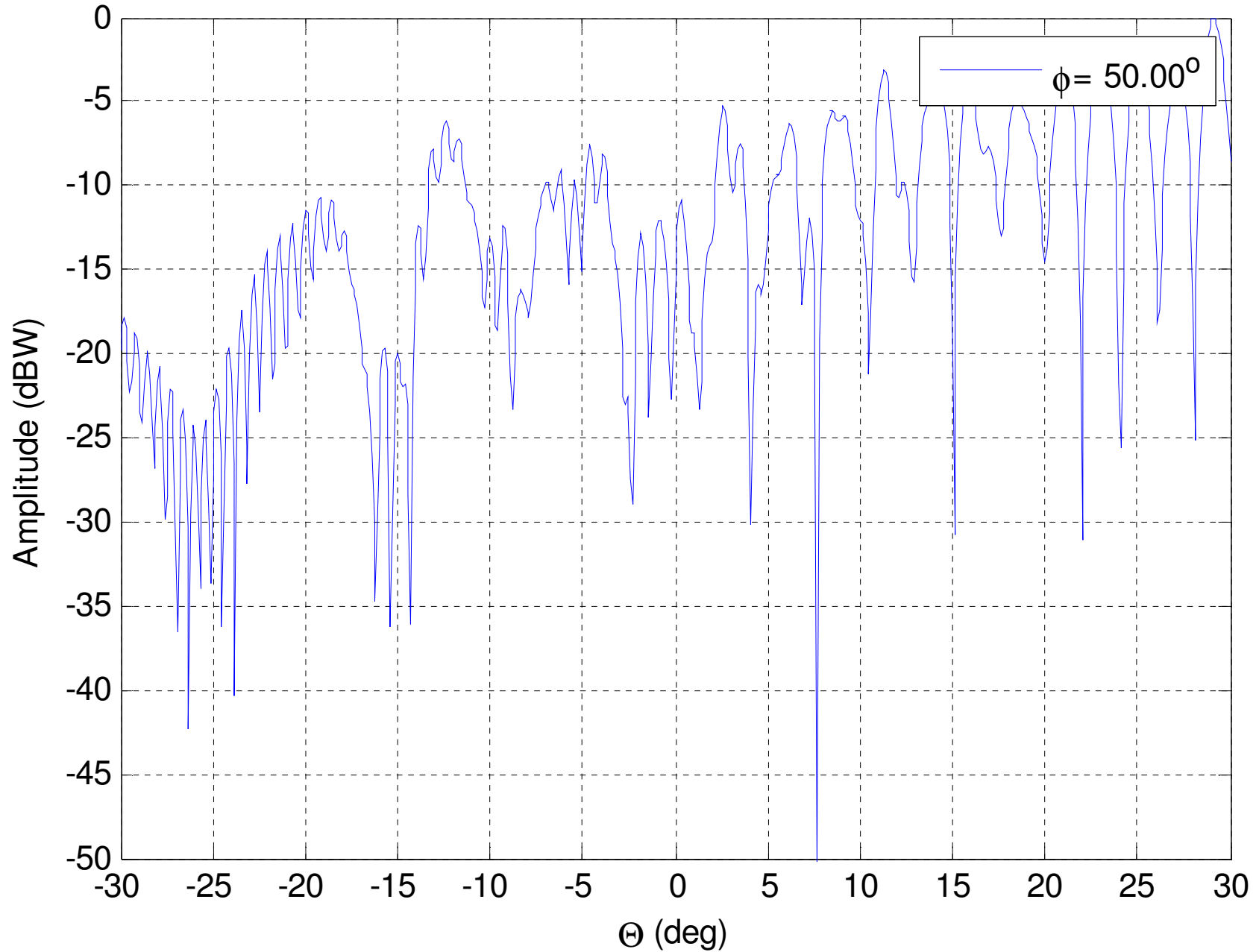
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-40.cut, Peak: -2.40 dBW, Date: 16-Dec-2011



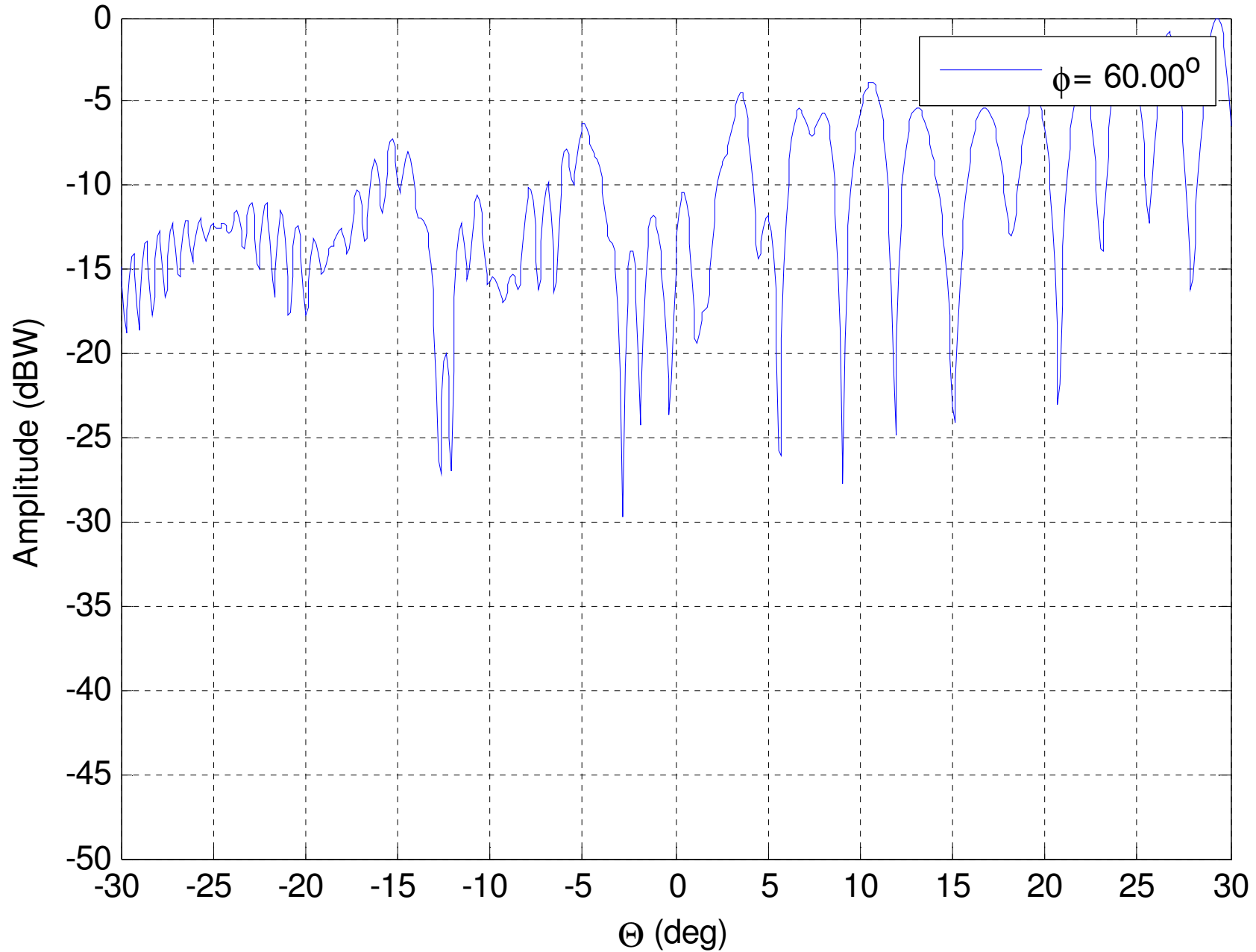
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-50.cut, Peak: -1.04 dBW, Date: 16-Dec-2011



Normalized pattern cuts - farfield

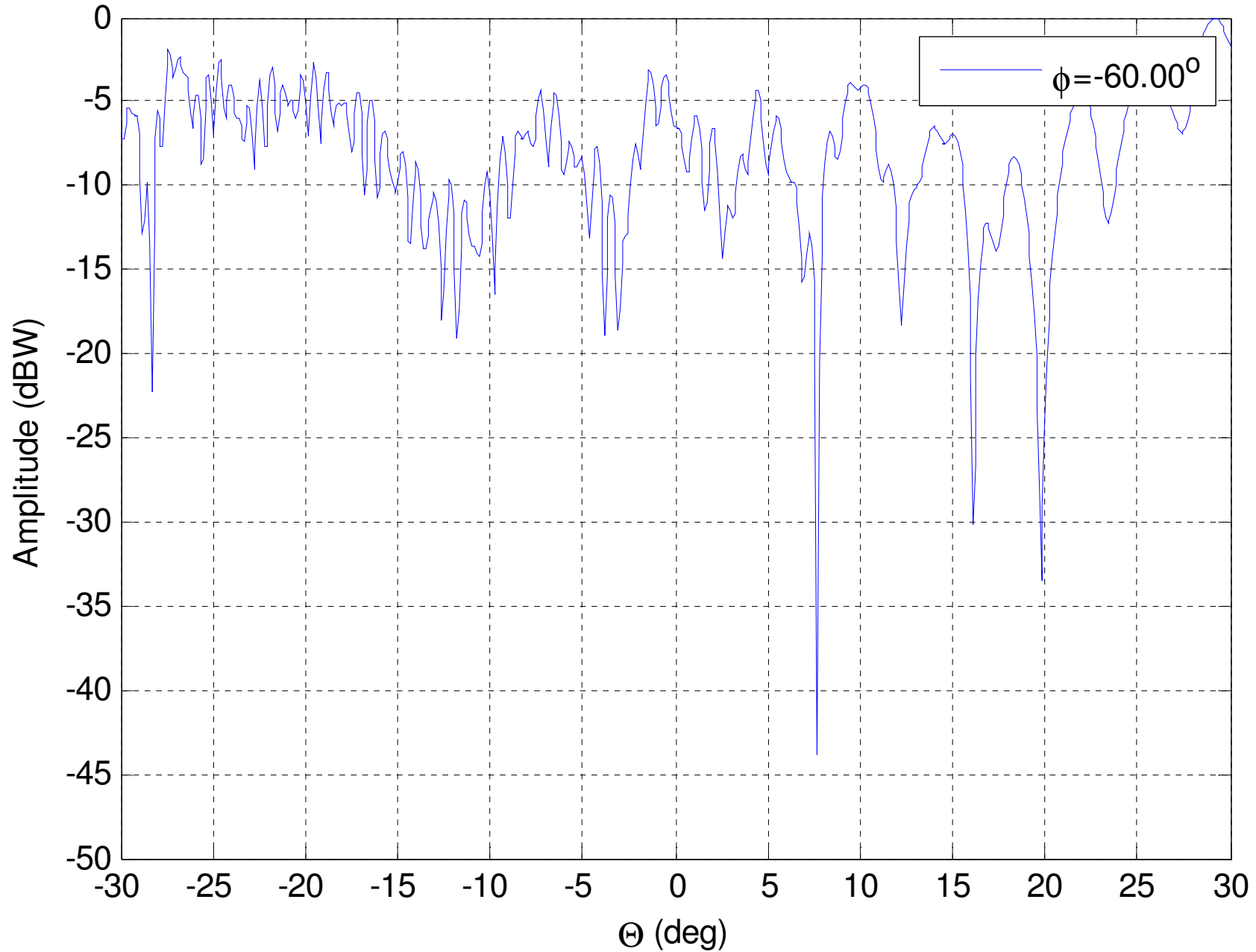
Input file: tx-17.5-lhcp-60.cut, Peak: -1.22 dBW, Date: 16-Dec-2011



RHCP at 17.7 GHz

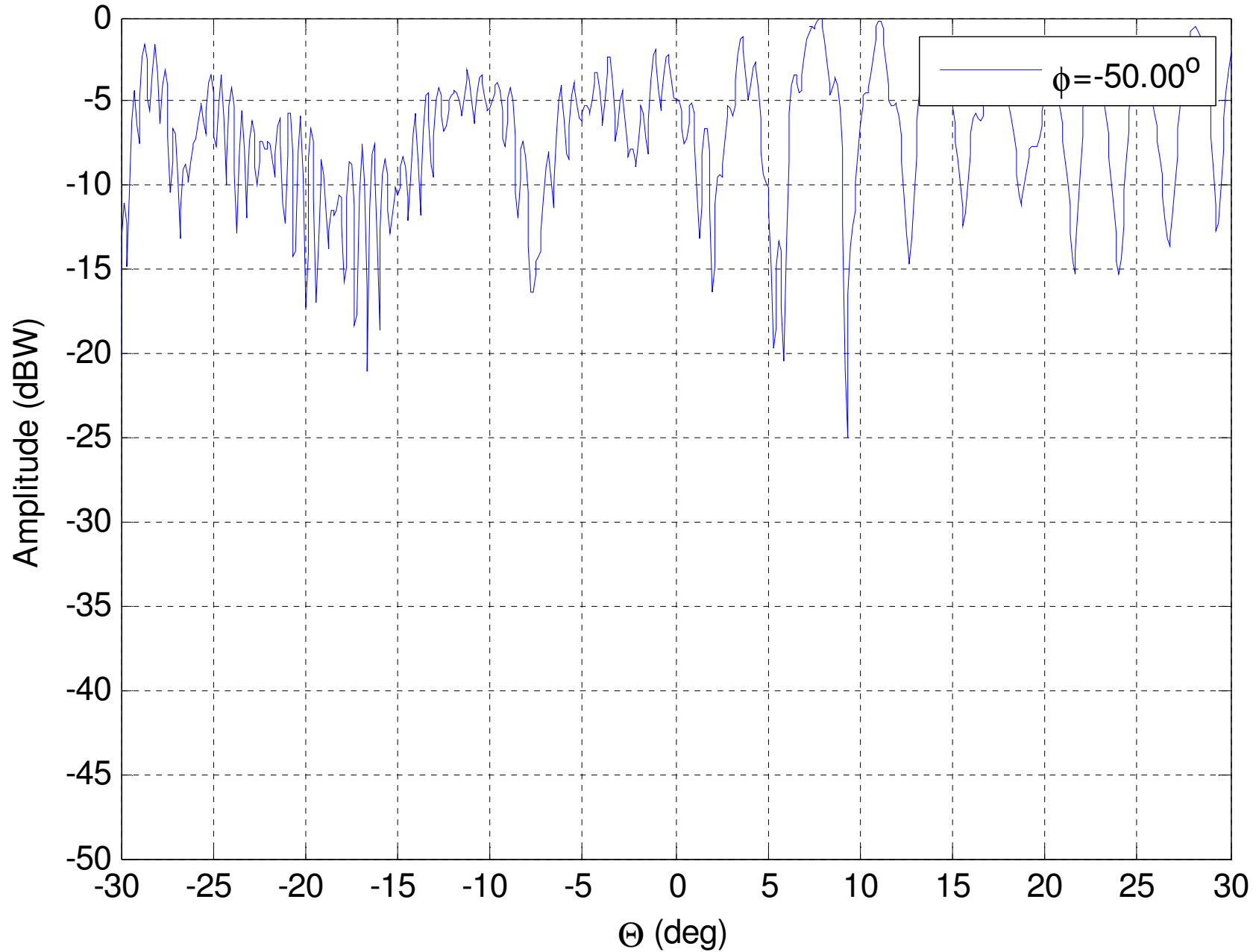
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--60.cut, Peak: -3.34 dBW, Date: 16-Dec-2011



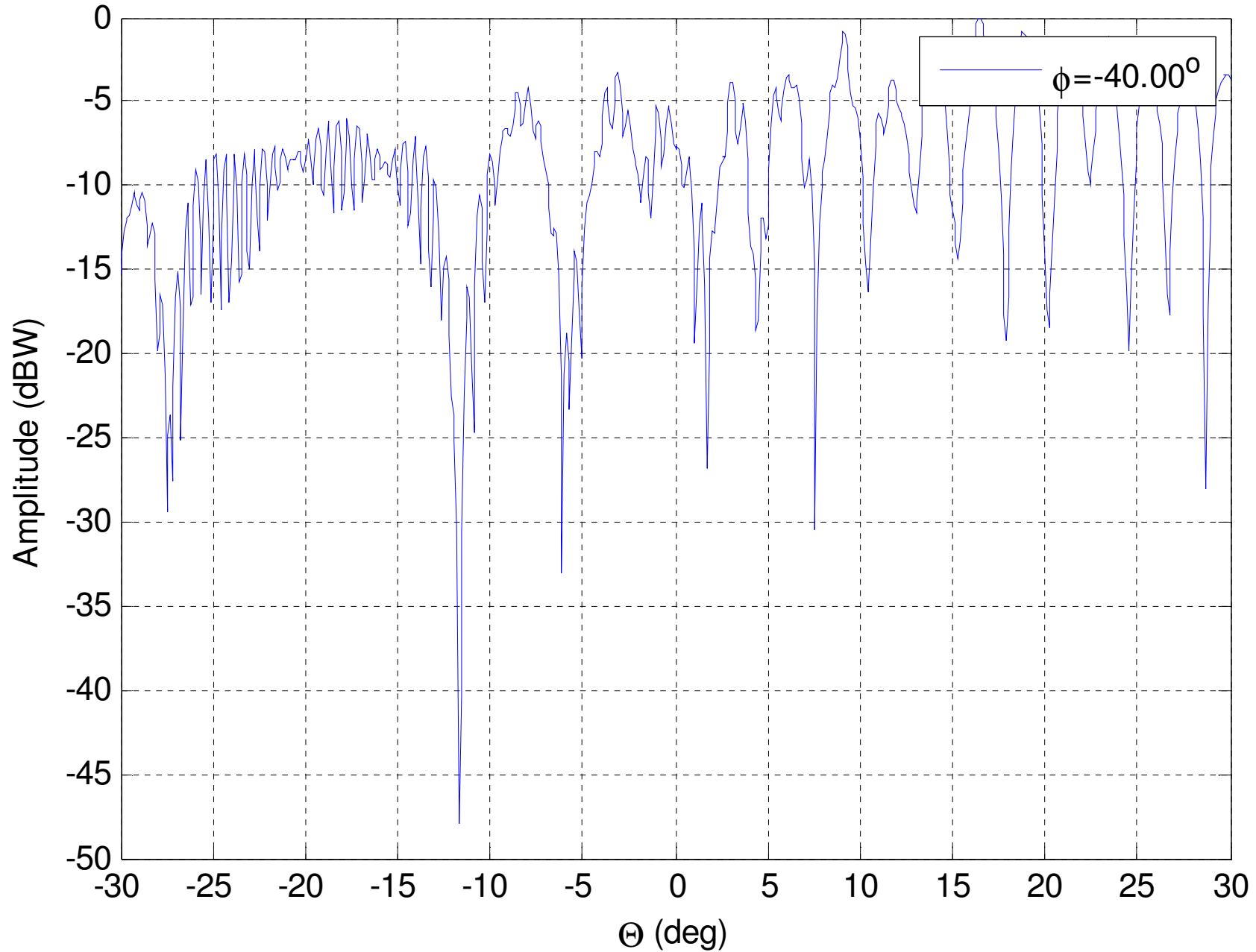
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--50.cut, Peak: -5.00 dBW, Date: 16-Dec-2011



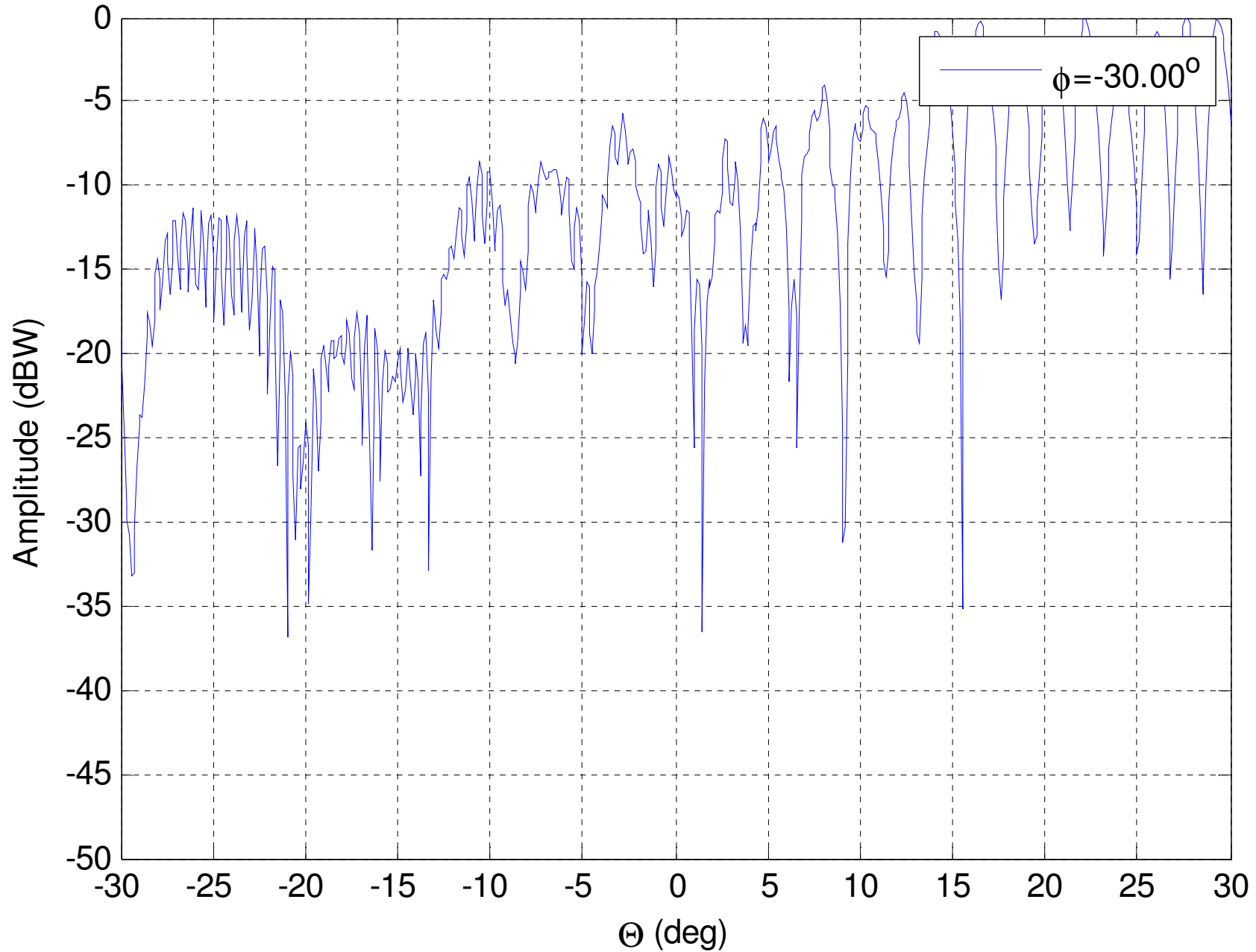
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--40.cut, Peak: -2.22 dBW, Date: 16-Dec-2011



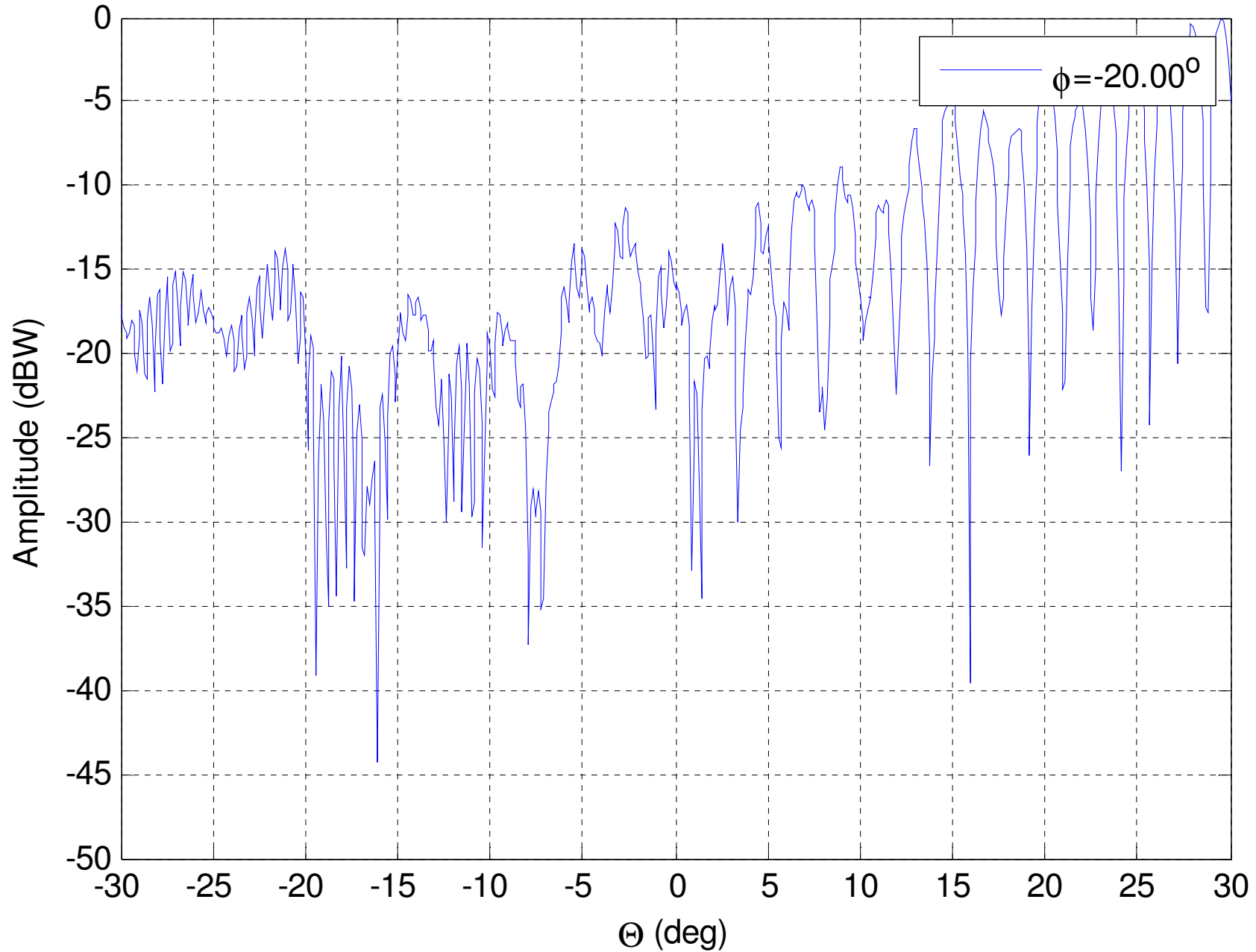
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--30.cut, Peak: 0.65 dBW, Date: 16-Dec-2011



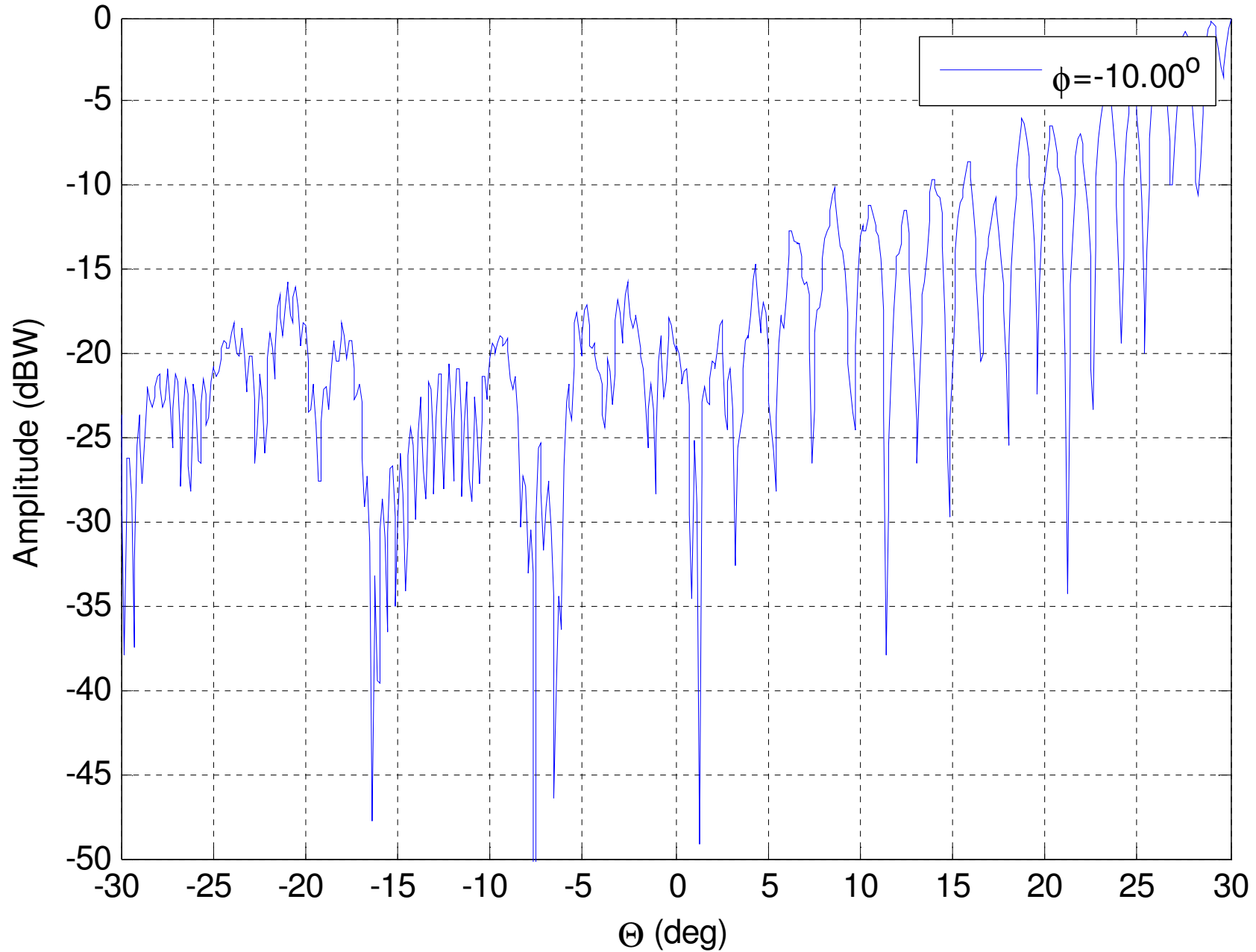
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--20.cut, Peak: 6.14 dBW, Date: 16-Dec-2011



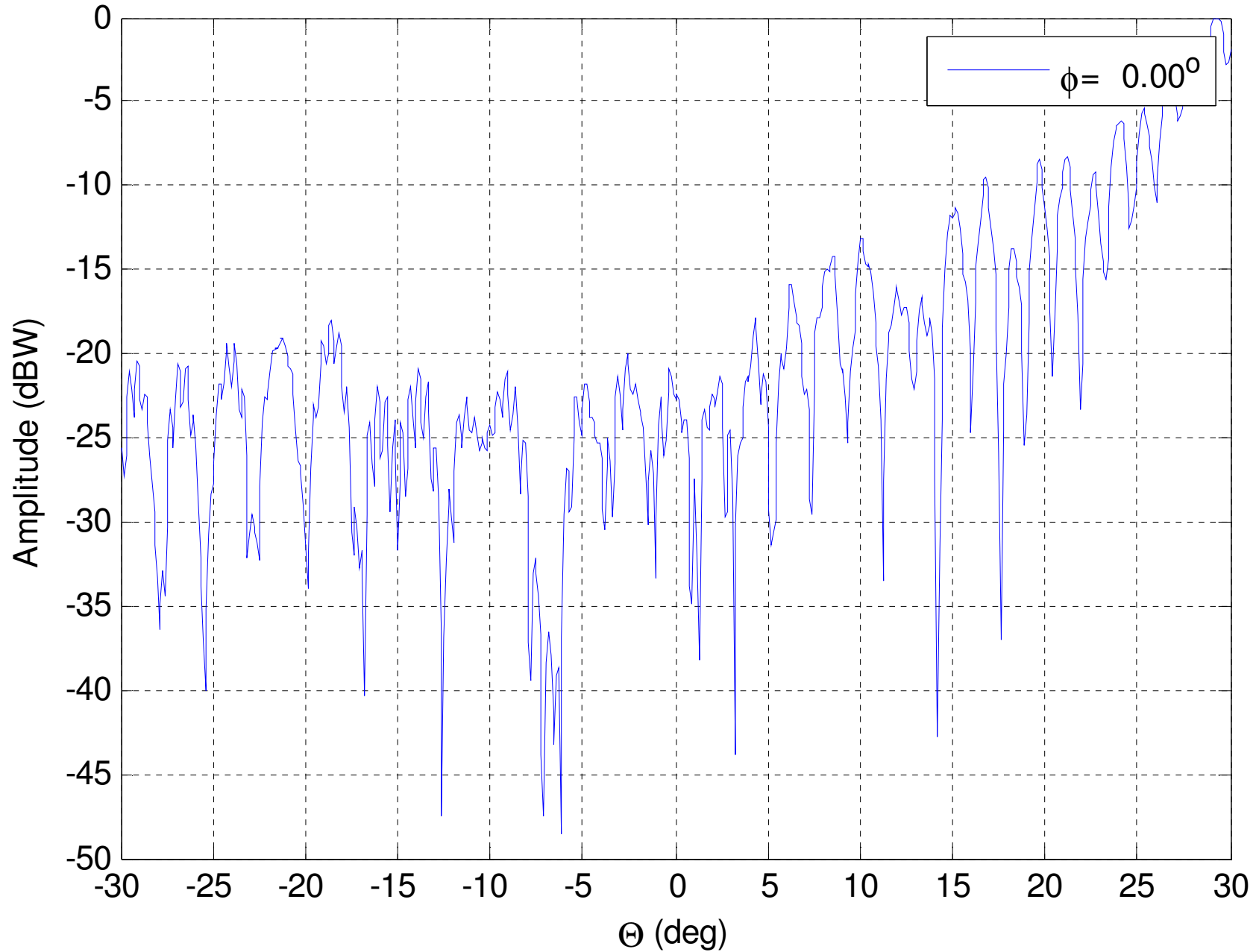
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--10.cut, Peak: 9.79 dBW, Date: 16-Dec-2011



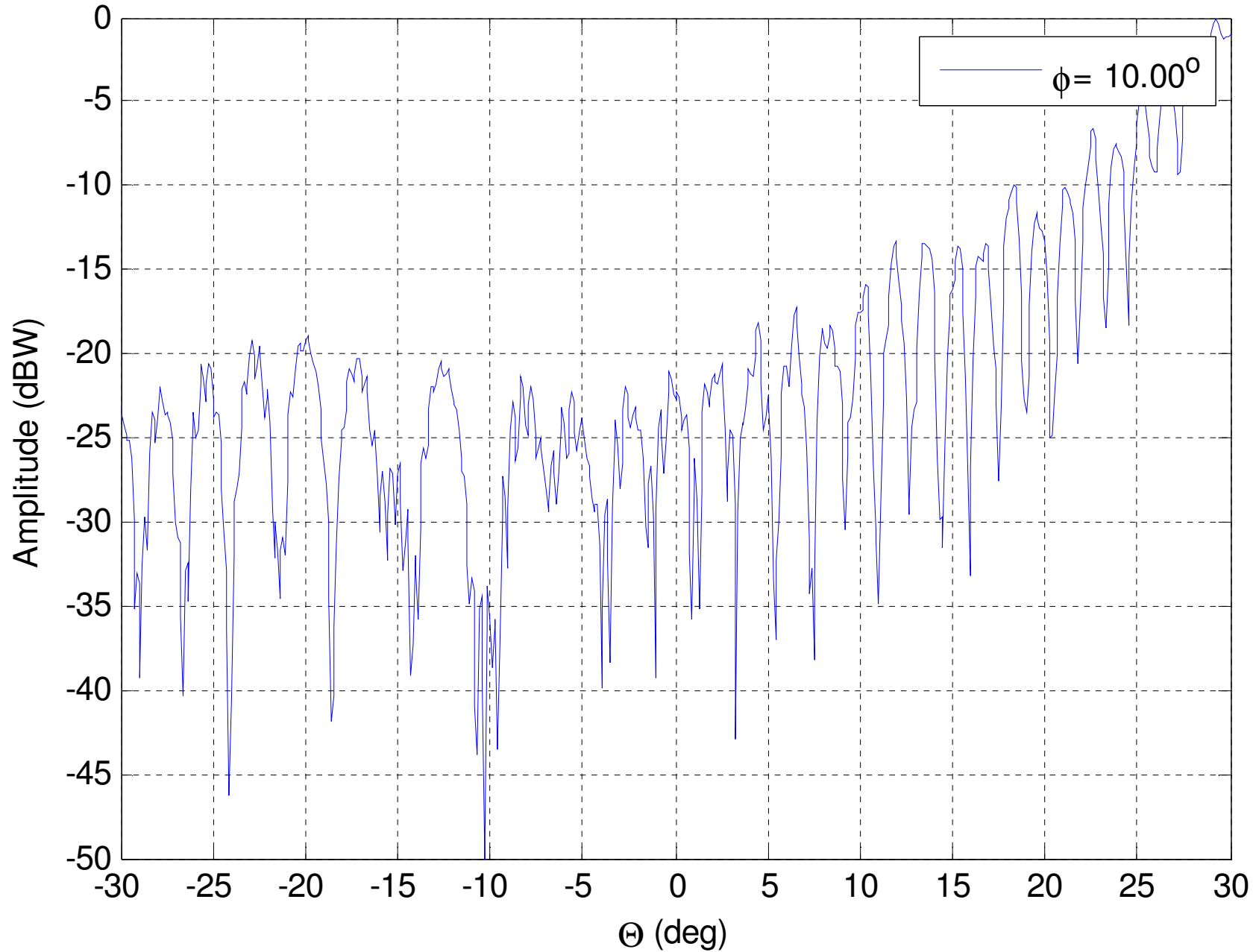
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-0.cut, Peak: 12.73 dBW, Date: 16-Dec-2011



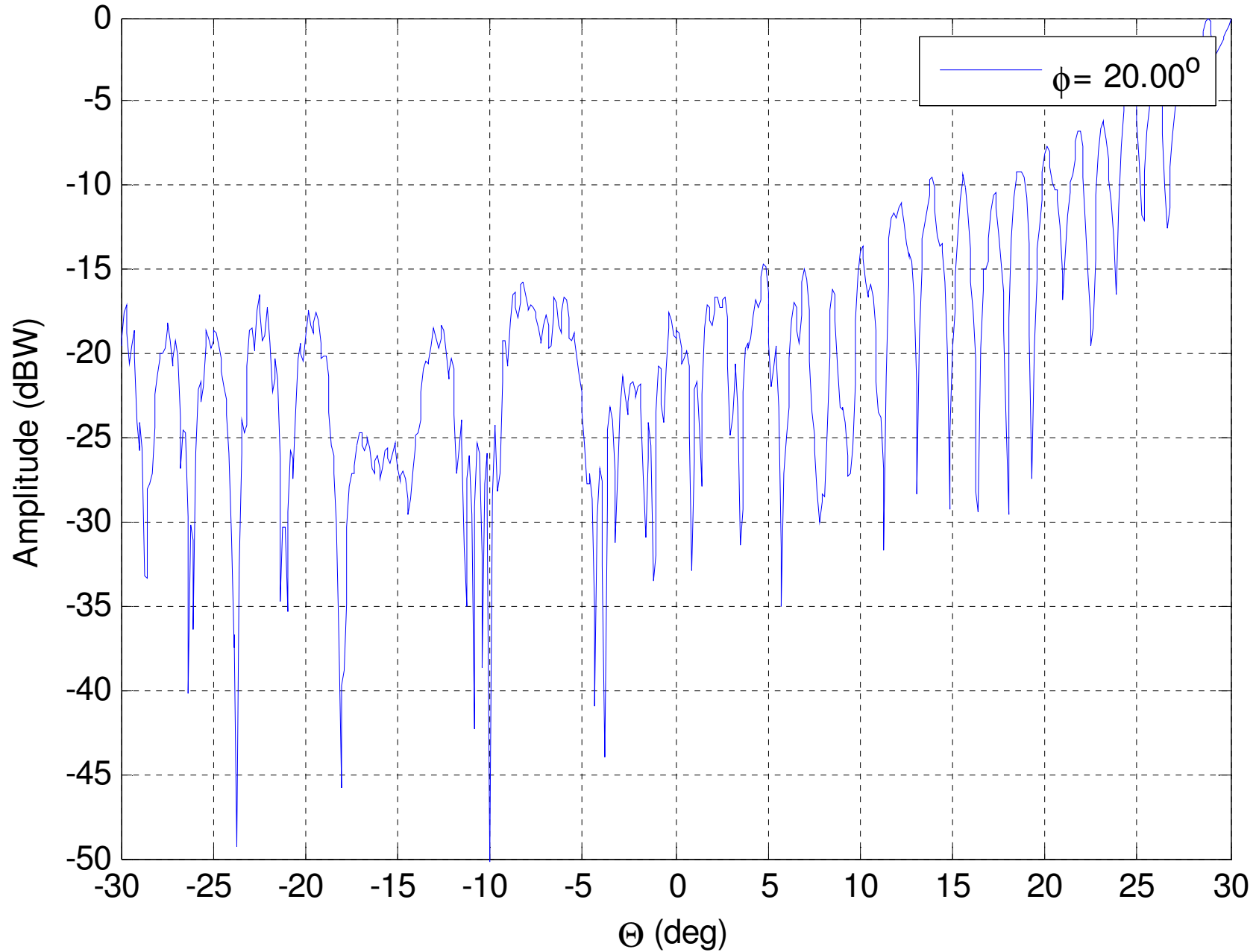
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-10.cut, Peak: 12.67 dBW, Date: 16-Dec-2011



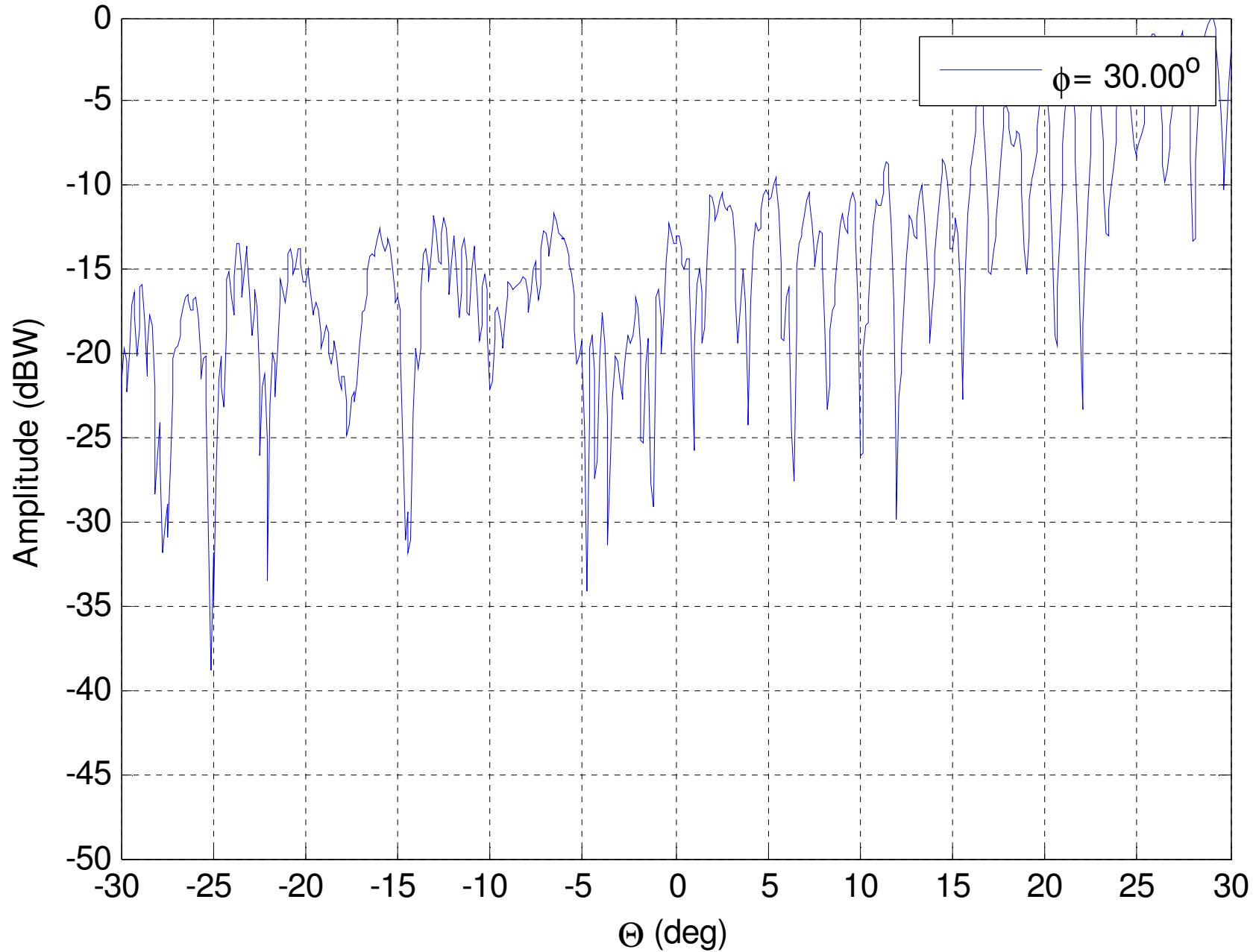
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-20.cut, Peak: 8.97 dBW, Date: 16-Dec-2011



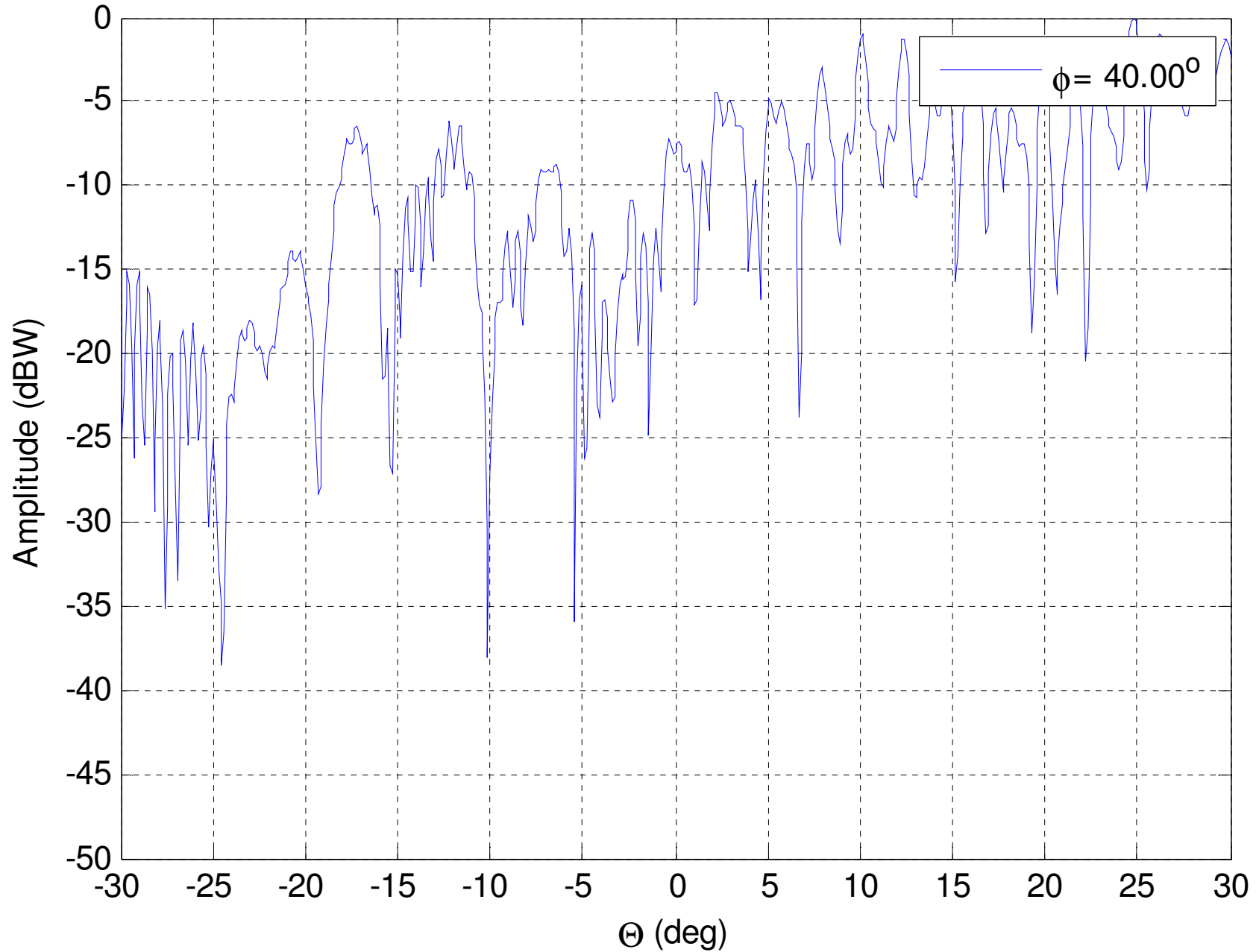
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-30.cut, Peak: 3.43 dBW, Date: 16-Dec-2011



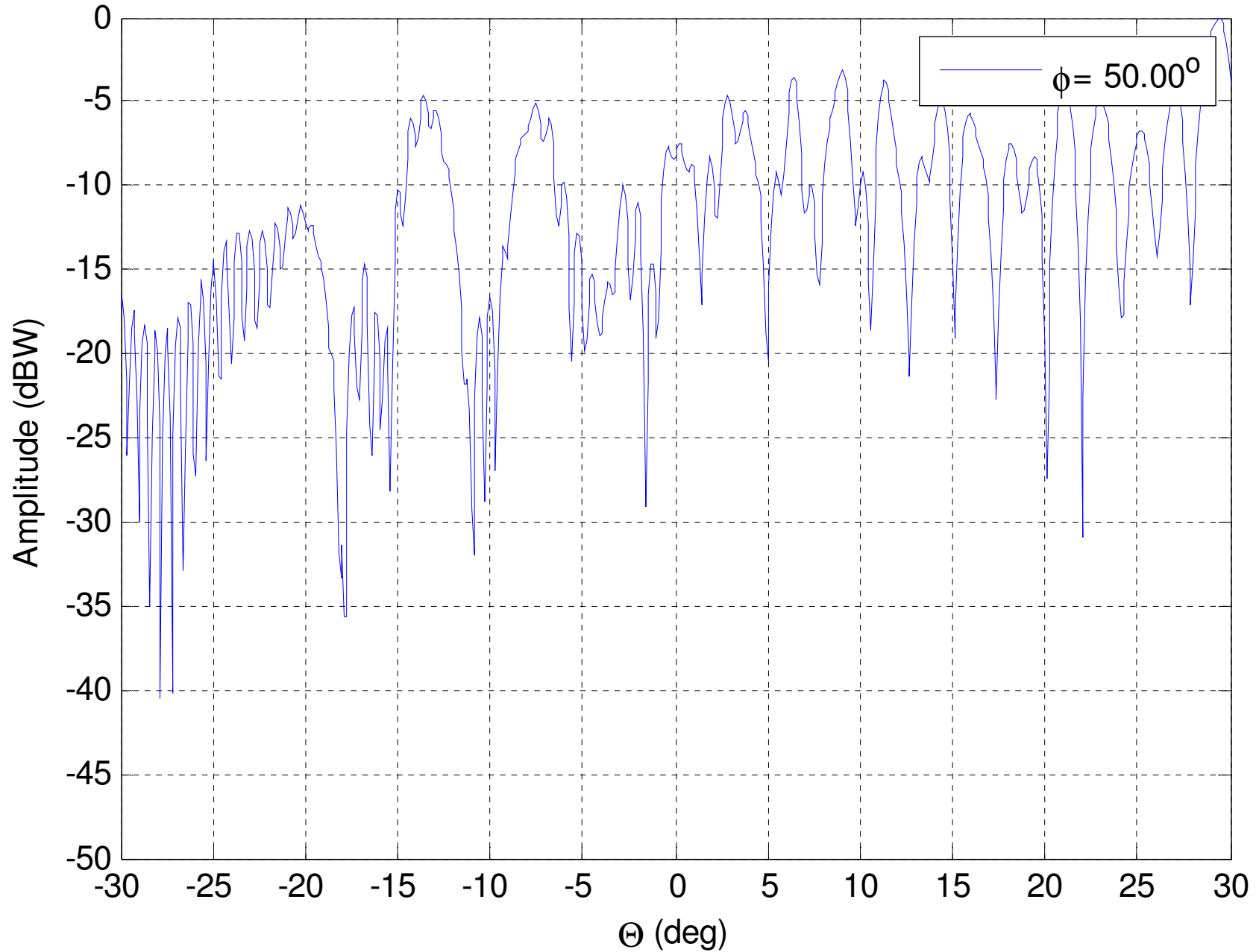
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-40.cut, Peak: -2.04 dBW, Date: 16-Dec-2011



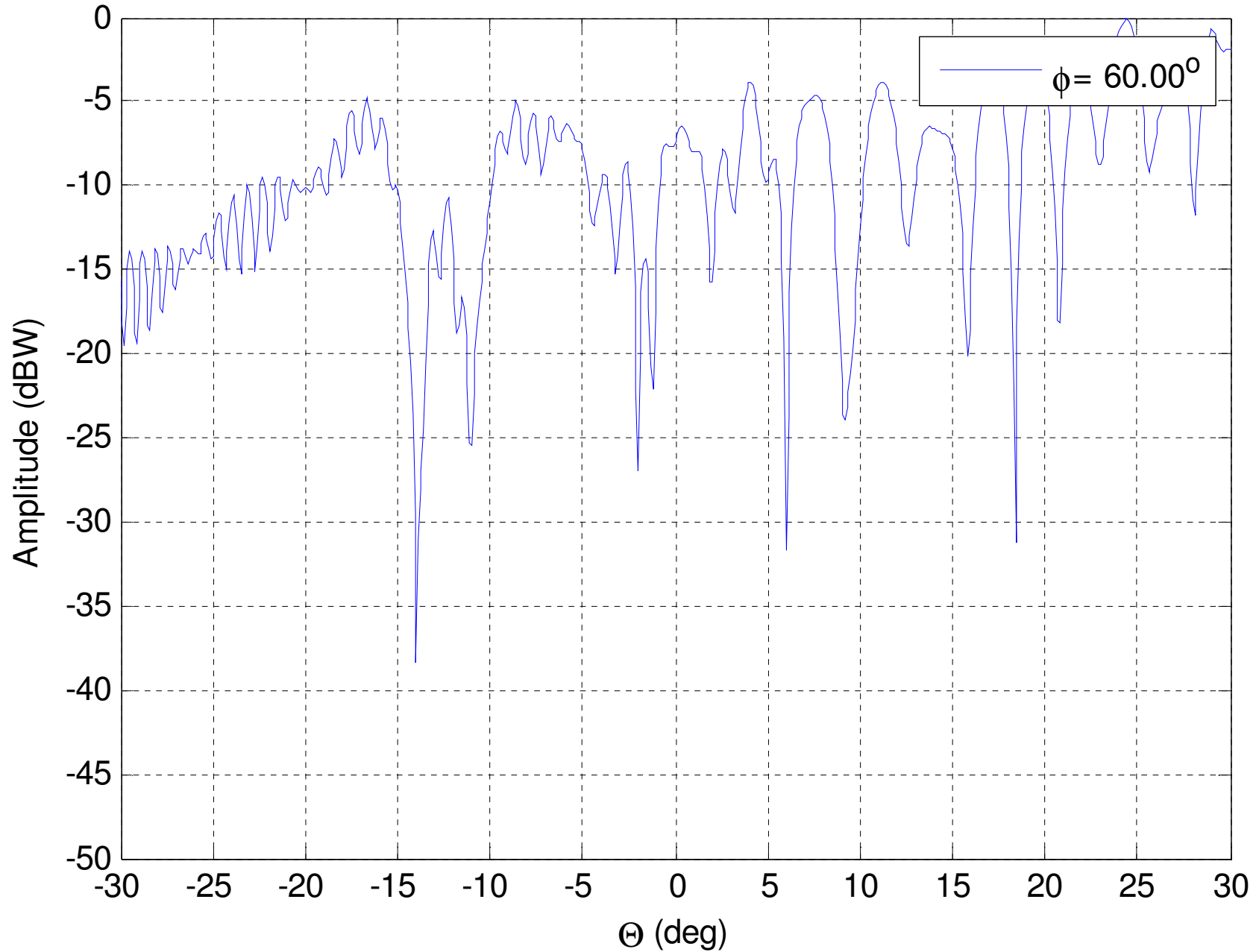
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-50.cut, Peak: -1.82 dBW, Date: 16-Dec-2011



Normalized pattern cuts - farfield

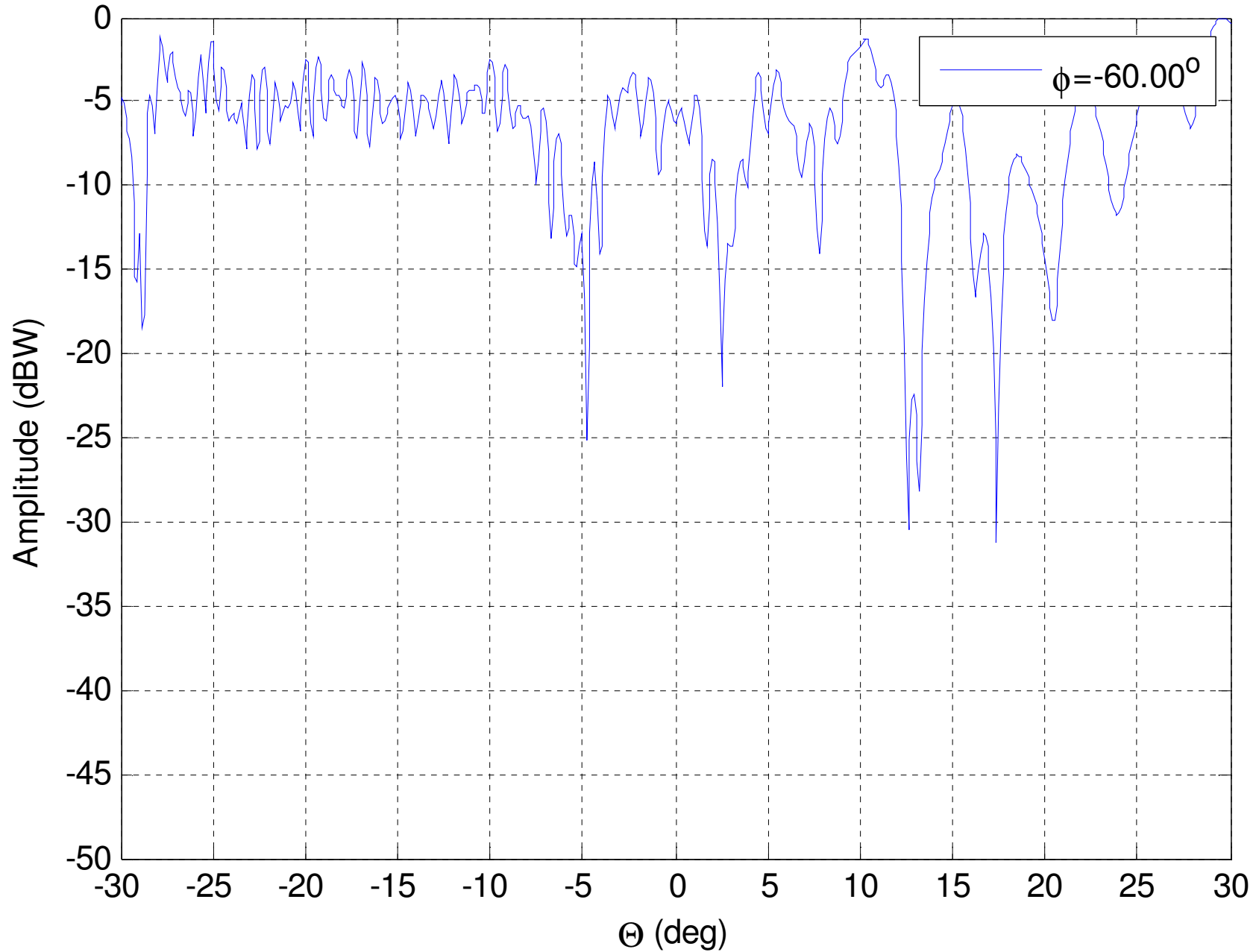
Input file: tx-17.7-rhcp-60.cut, Peak: -2.67 dBW, Date: 16-Dec-2011



LHCP at 17.7 GHz

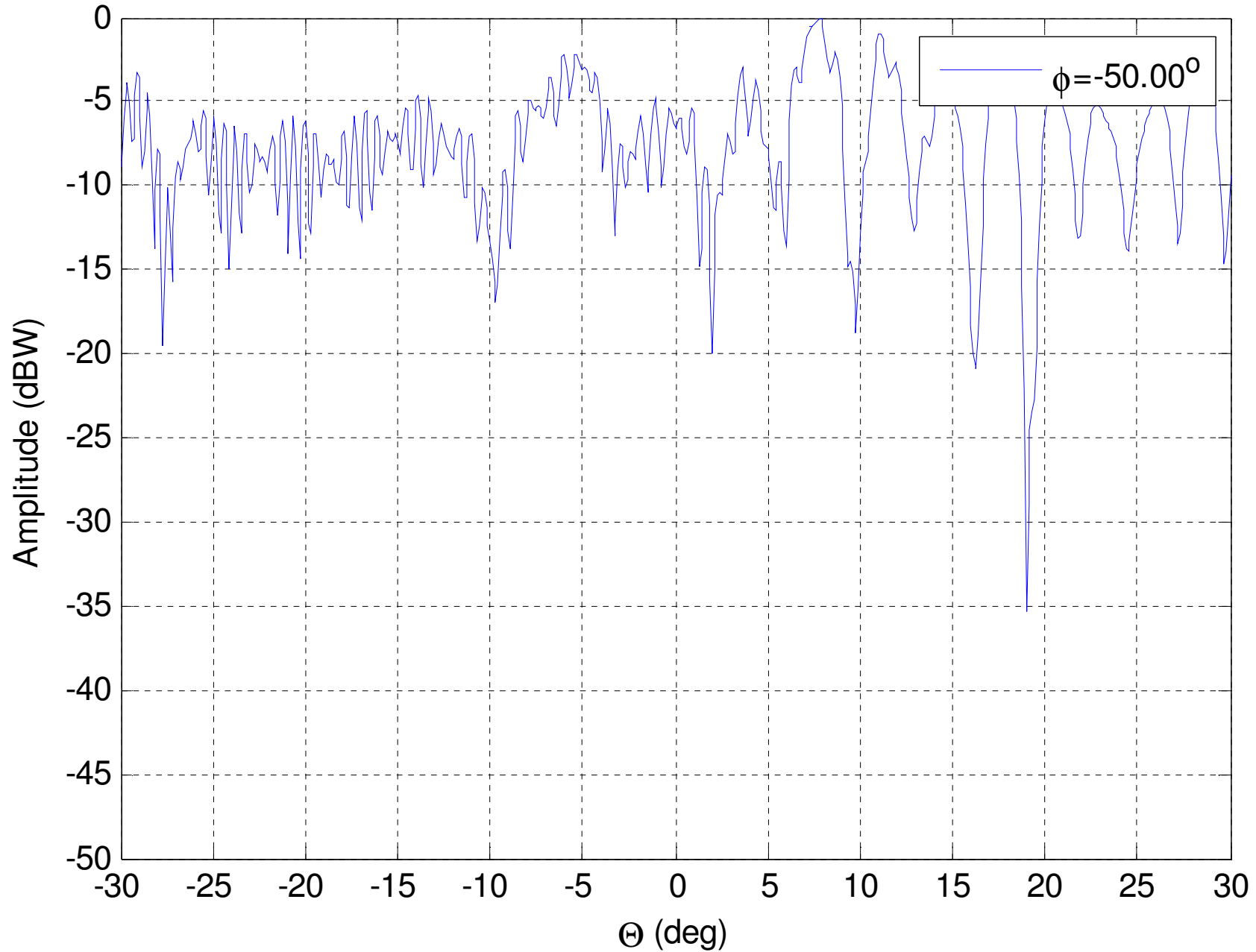
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--60.cut, Peak: -4.13 dBW, Date: 16-Dec-2011



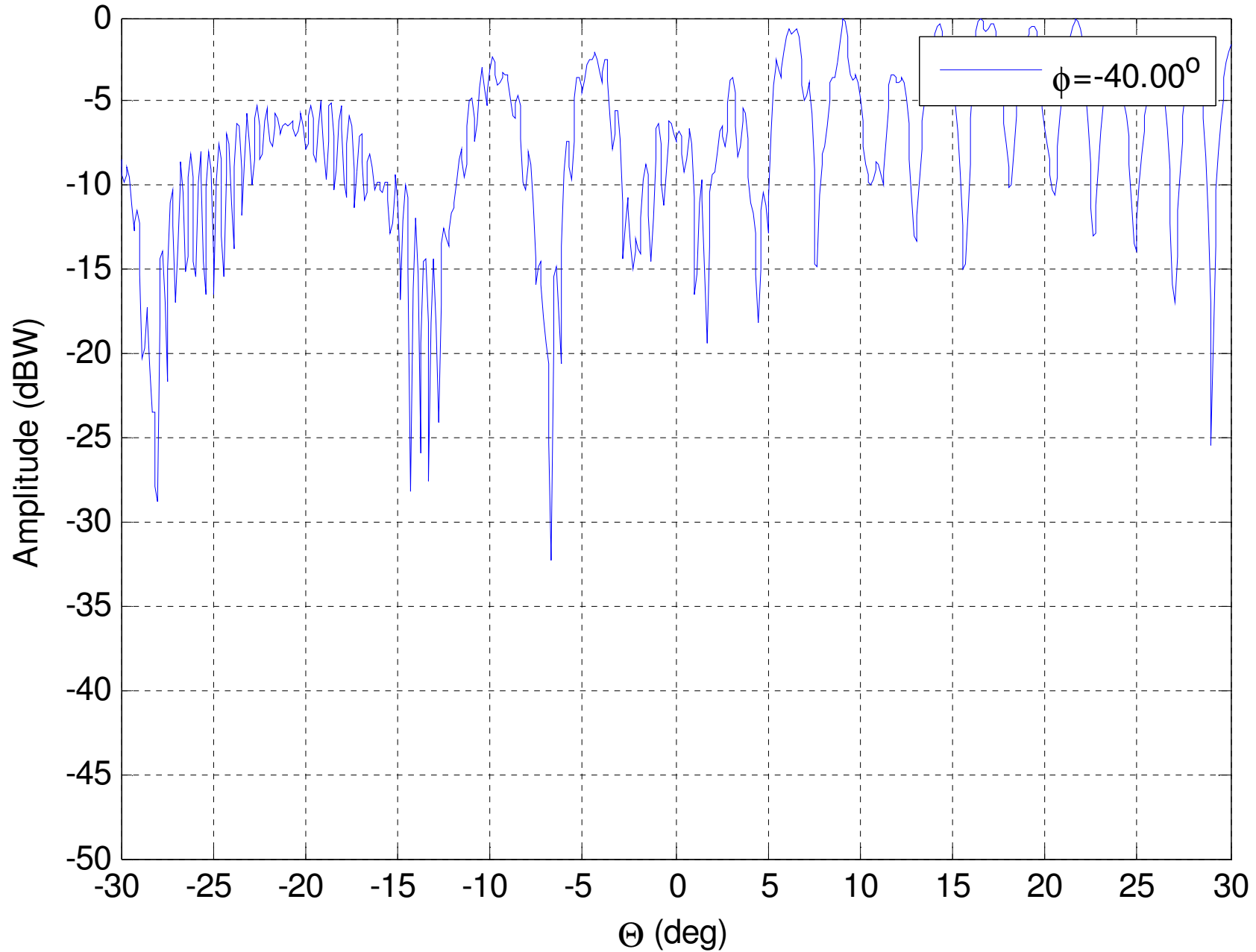
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--50.cut, Peak: -3.80 dBW, Date: 16-Dec-2011



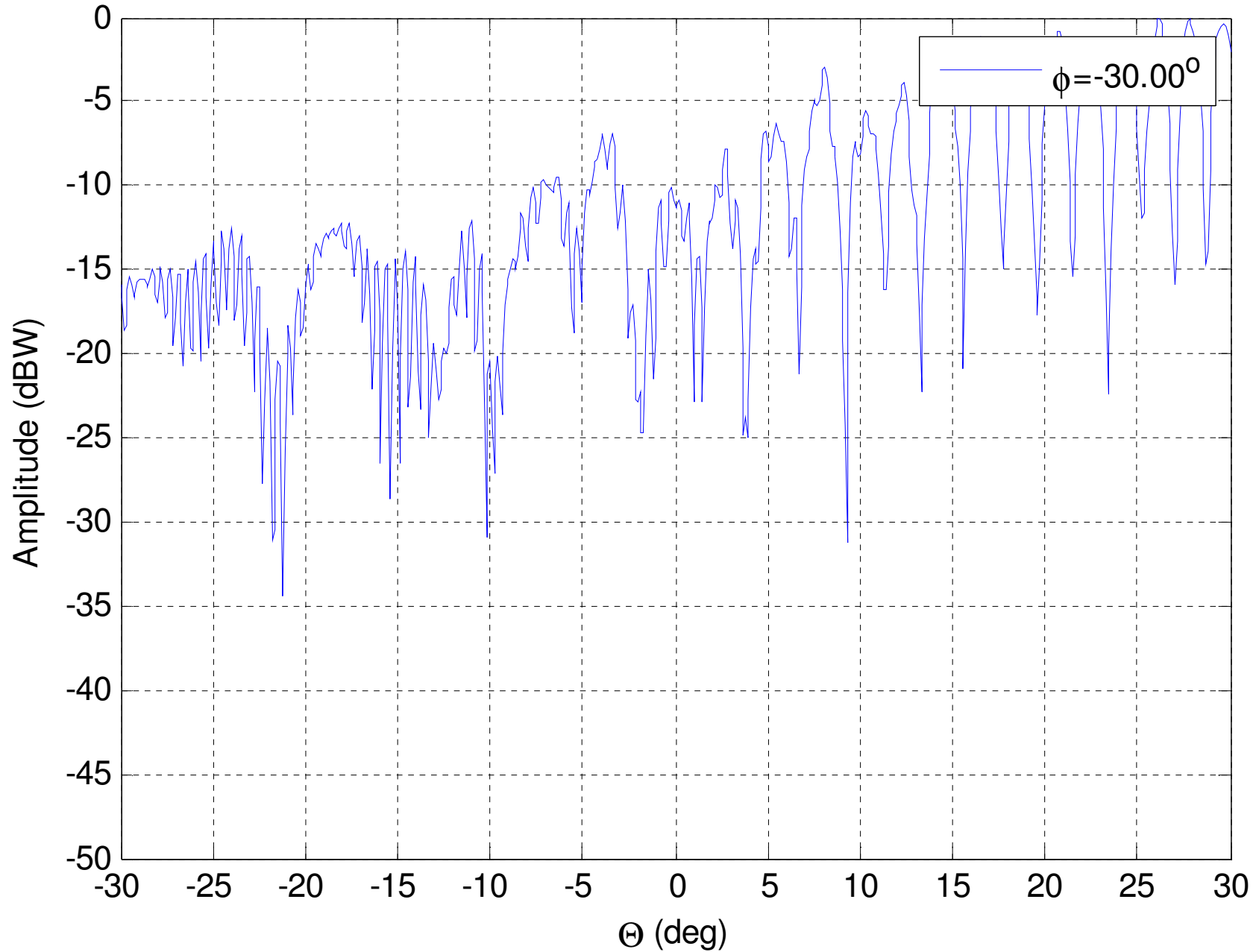
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--40.cut, Peak: -3.05 dBW, Date: 16-Dec-2011



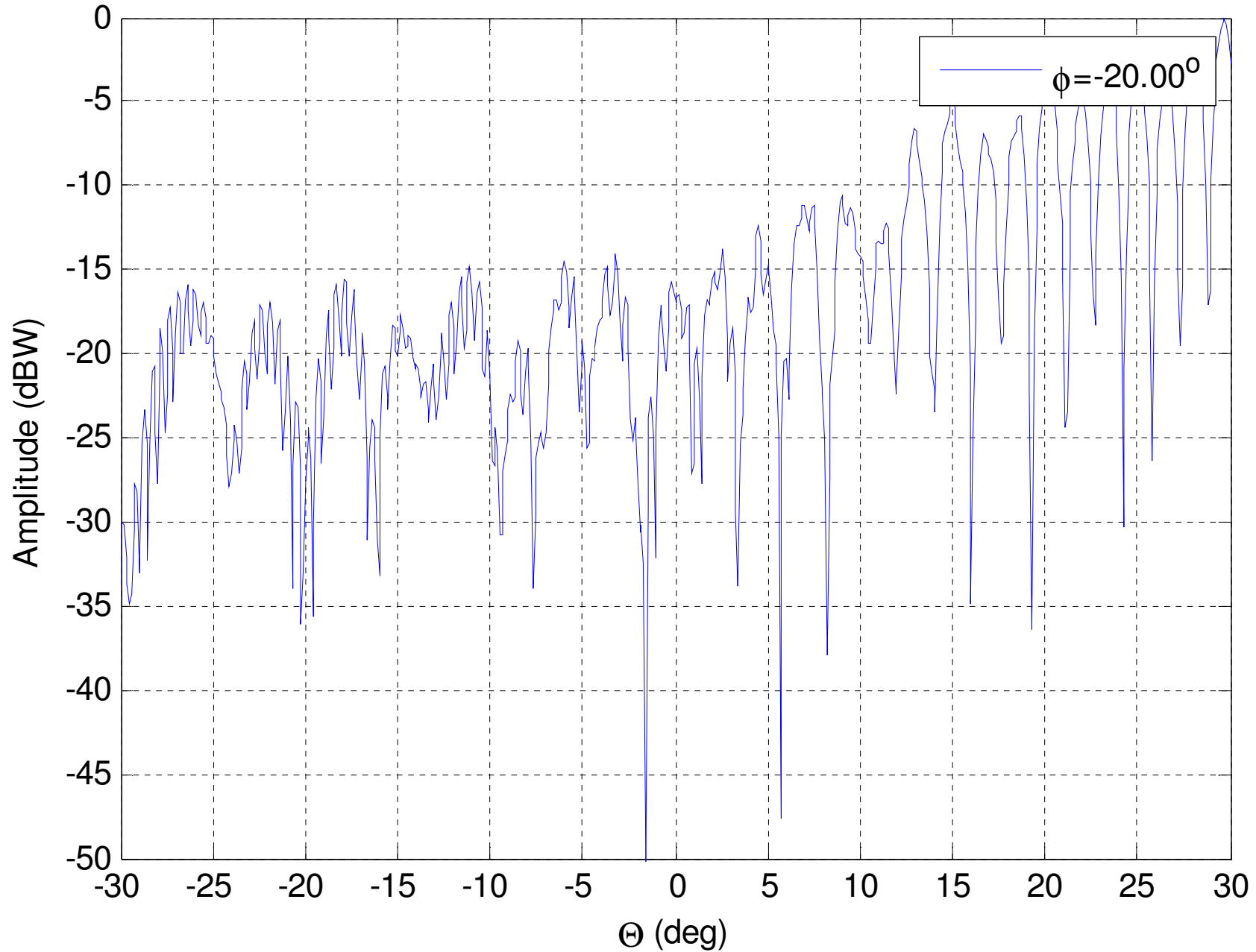
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--30.cut, Peak: 0.93 dBW, Date: 16-Dec-2011



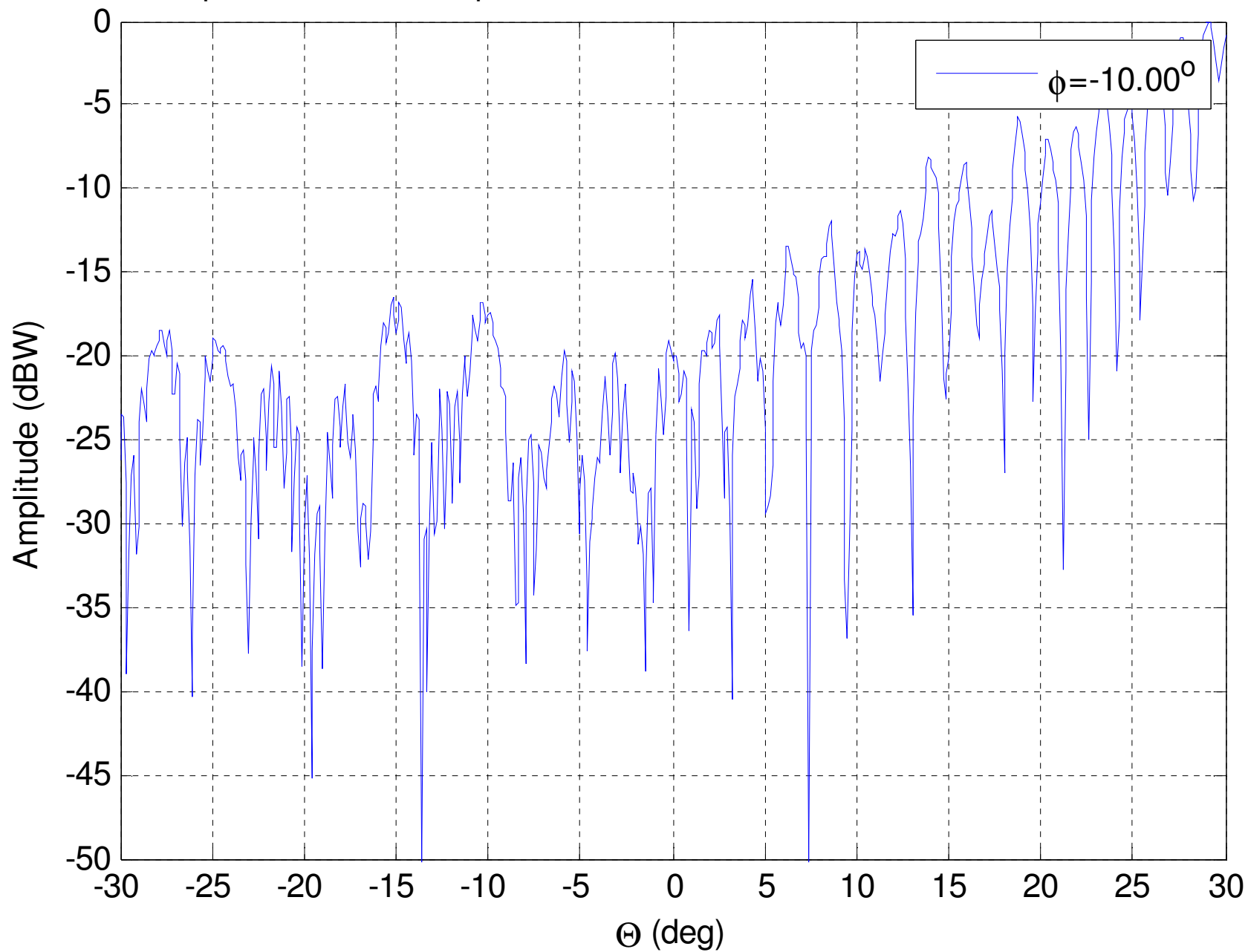
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--20.cut, Peak: 6.50 dBW, Date: 16-Dec-2011



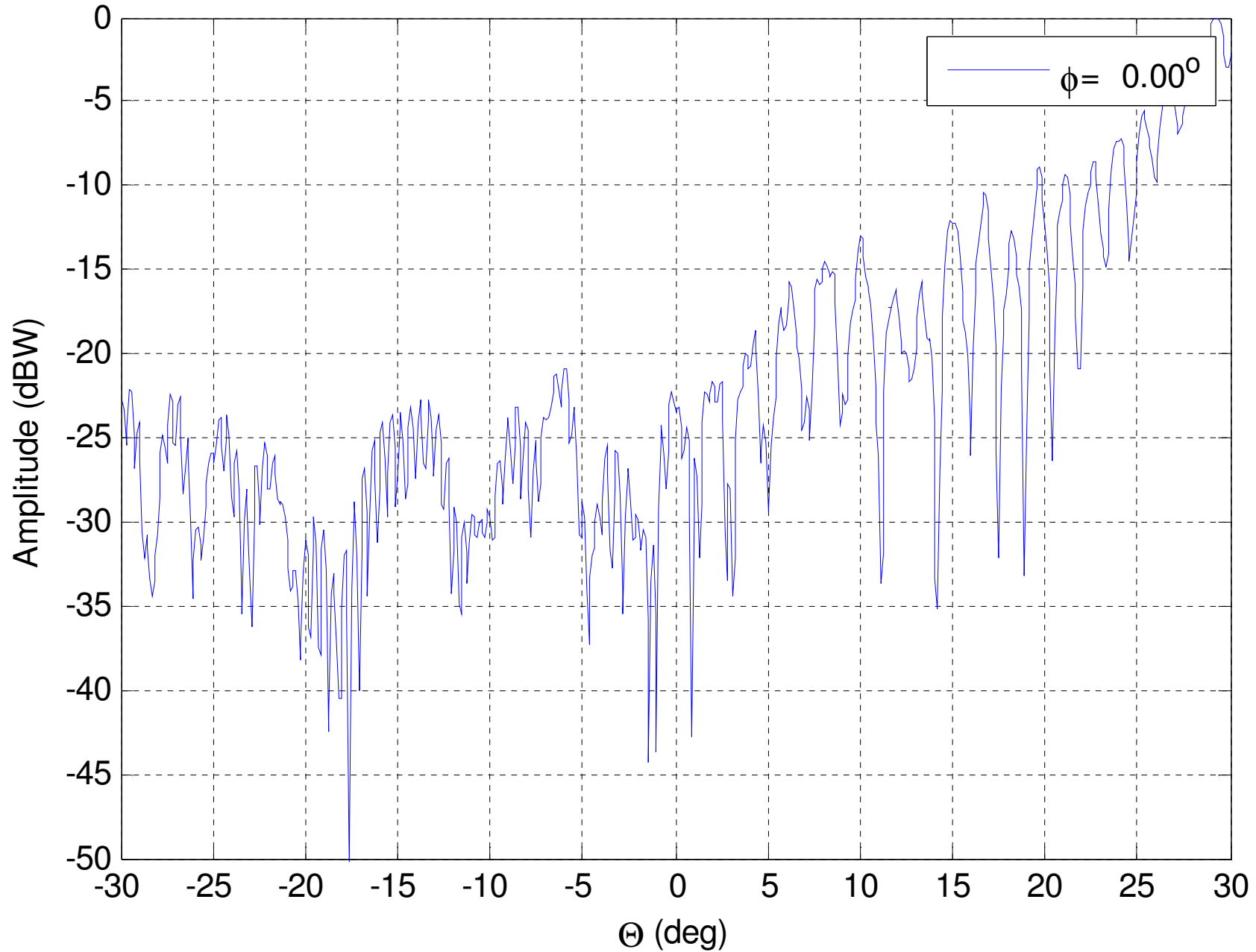
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--10.cut, Peak: 9.84 dBW, Date: 16-Dec-2011



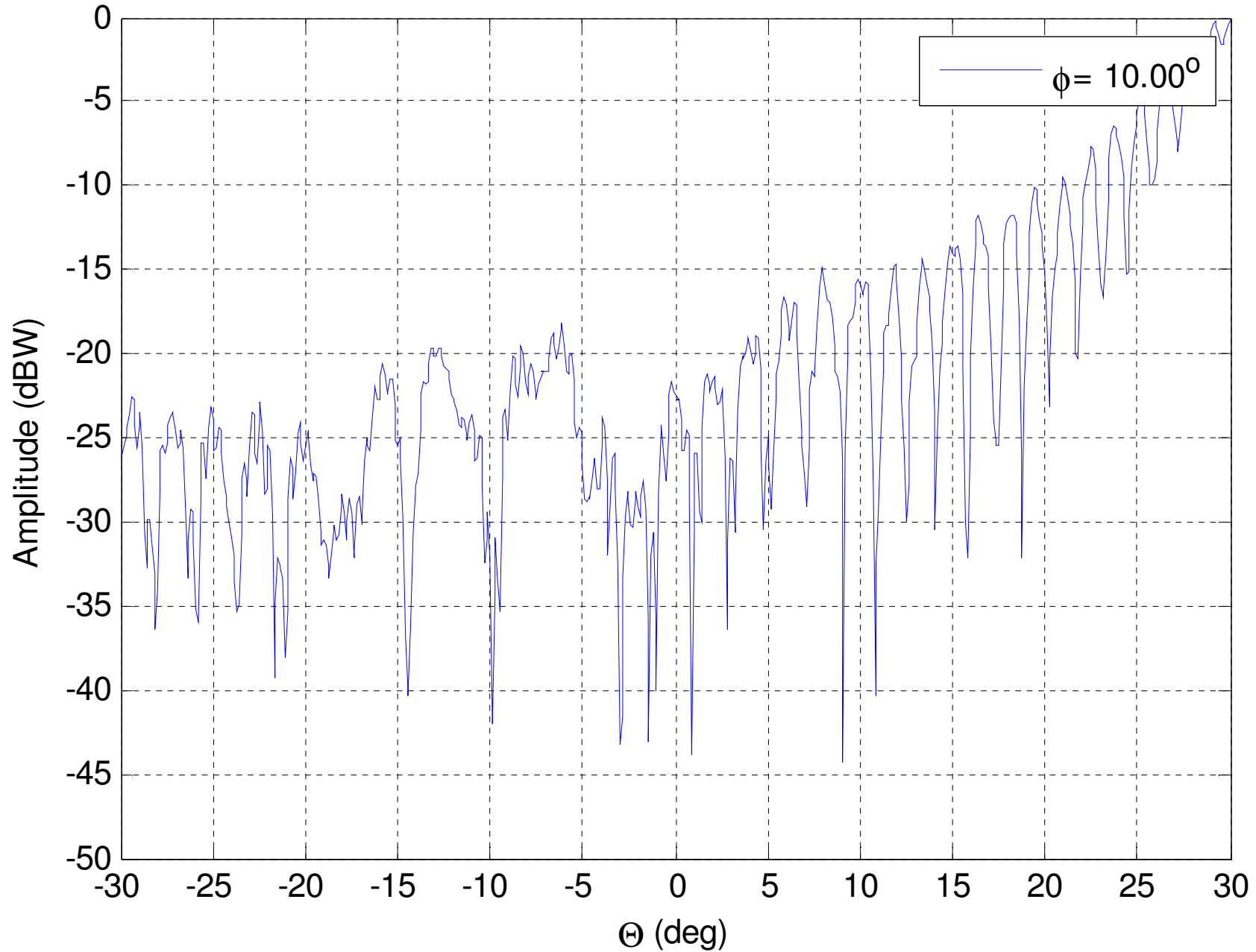
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-0.cut, Peak: 13.04 dBW, Date: 16-Dec-2011



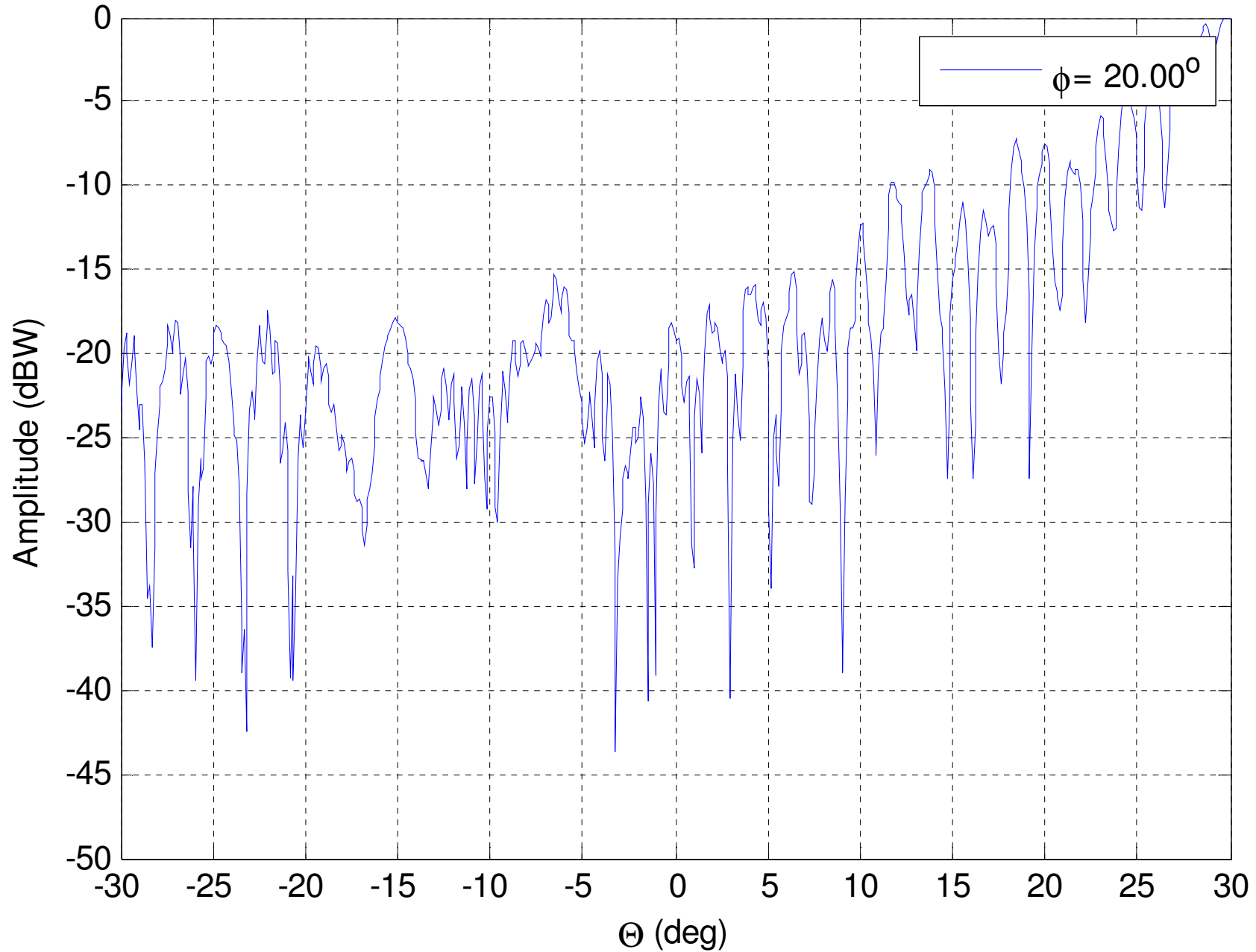
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-10.cut, Peak: 12.49 dBW, Date: 16-Dec-2011



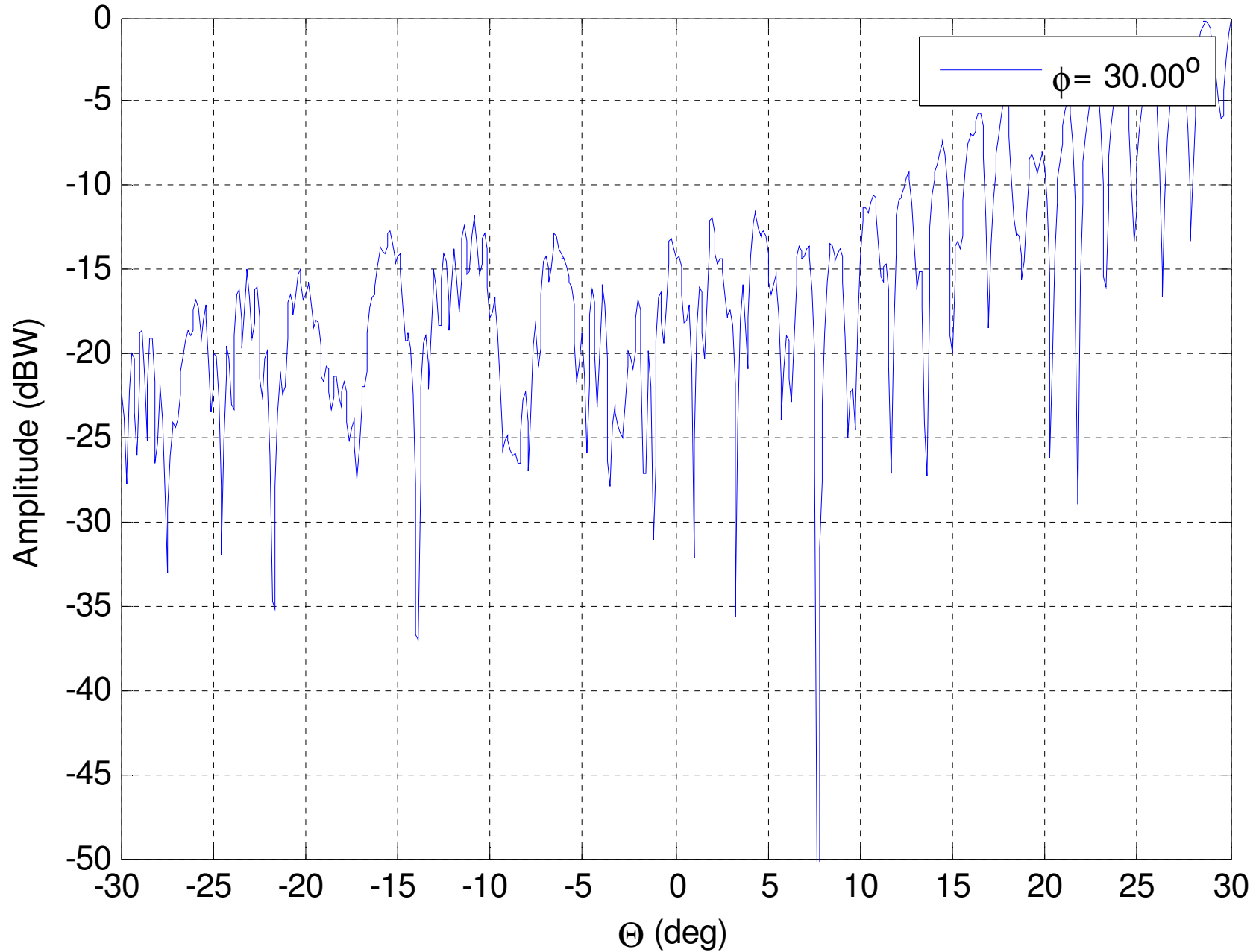
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-20.cut, Peak: 8.82 dBW, Date: 16-Dec-2011



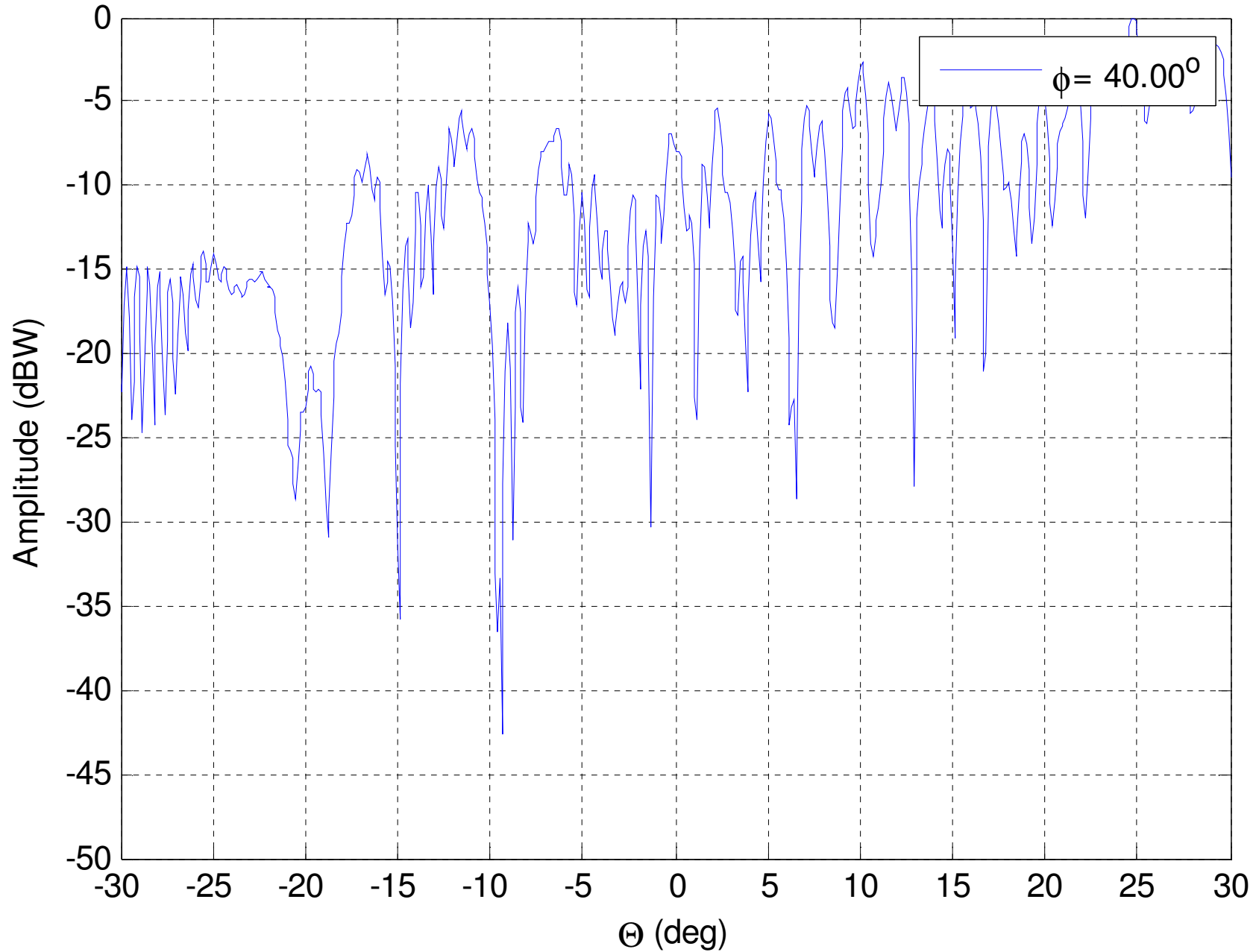
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-30.cut, Peak: 3.86 dBW, Date: 16-Dec-2011



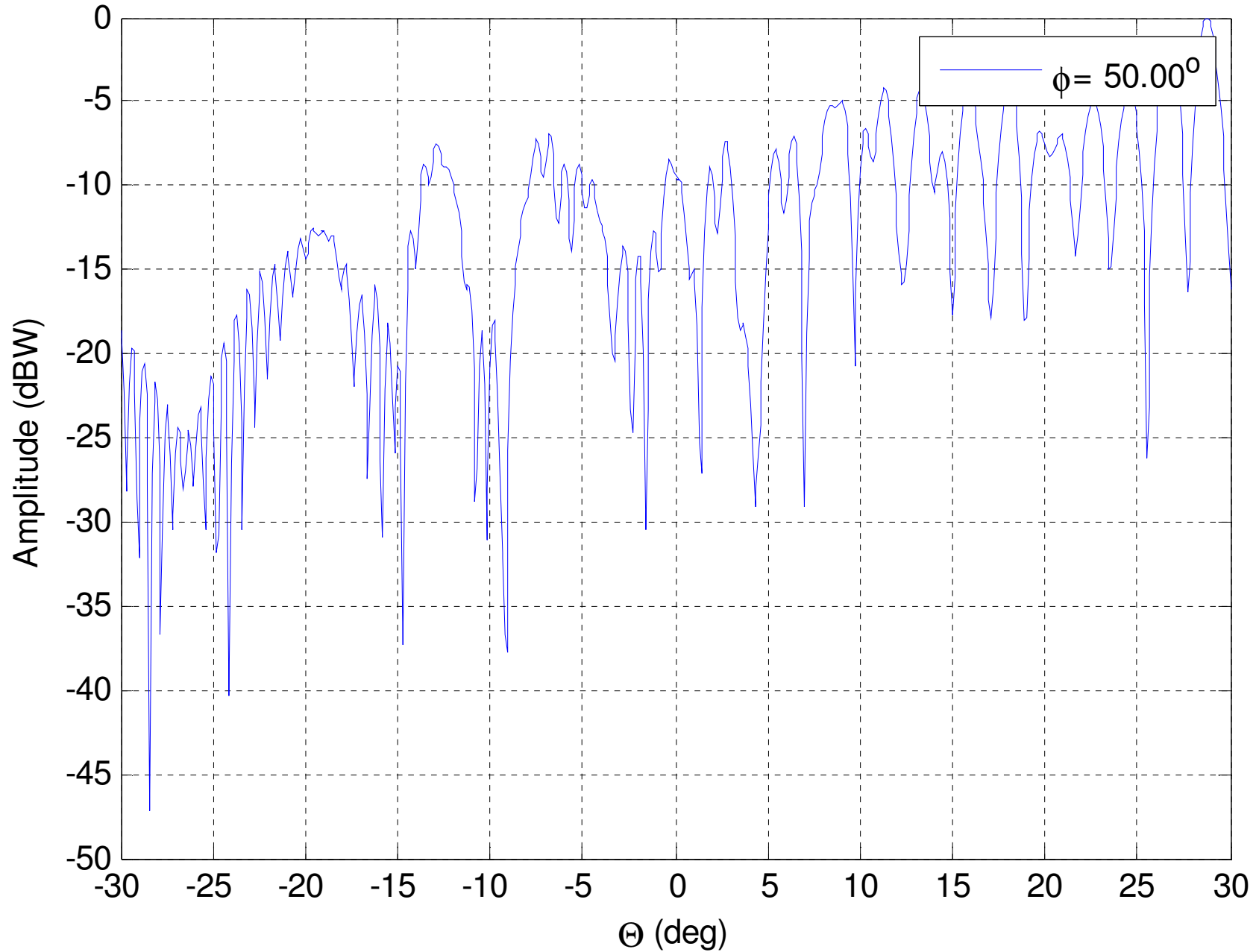
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-40.cut, Peak: -2.49 dBW, Date: 16-Dec-2011



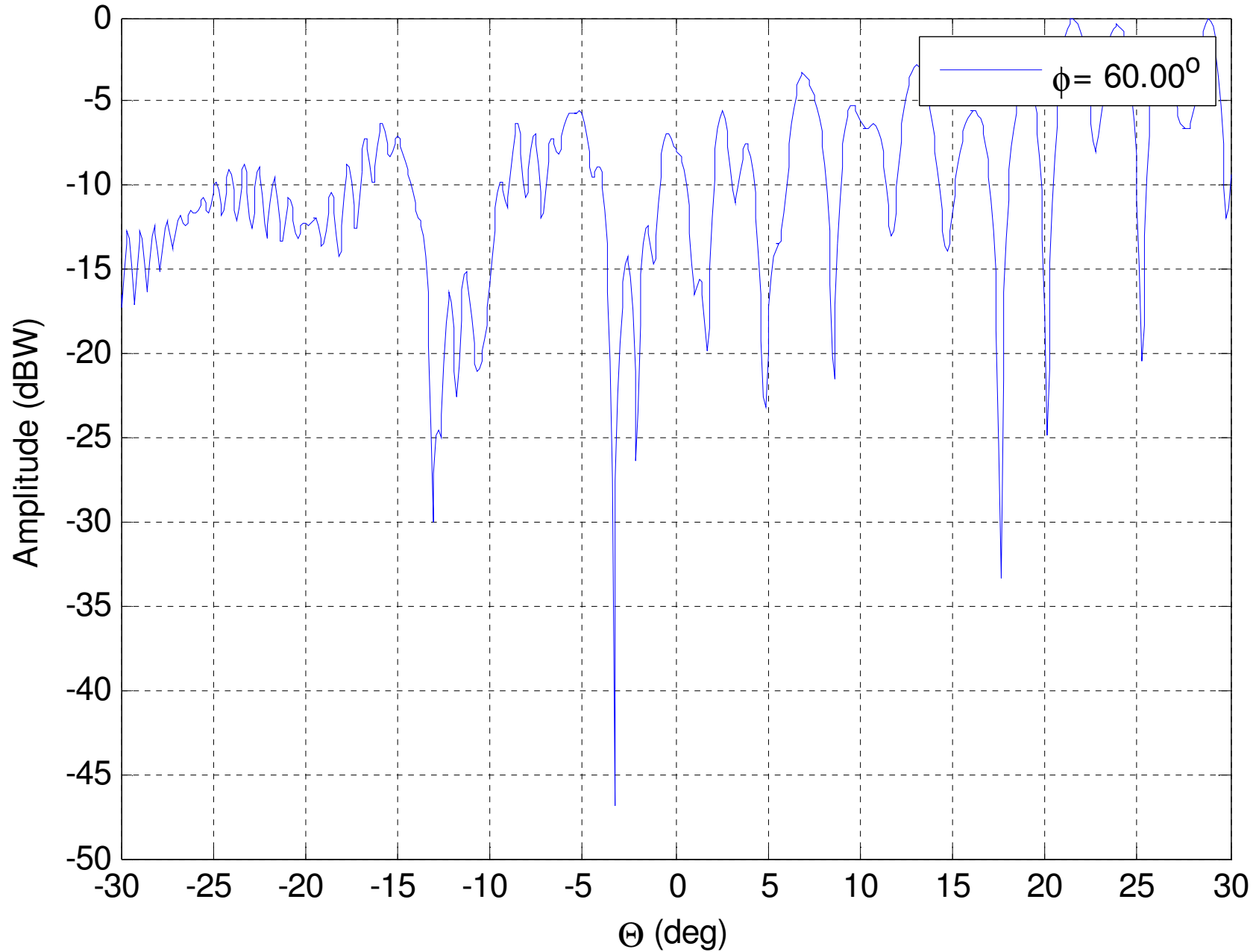
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-50.cut, Peak: -0.96 dBW, Date: 16-Dec-2011



Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-60.cut, Peak: -2.59 dBW, Date: 16-Dec-2011



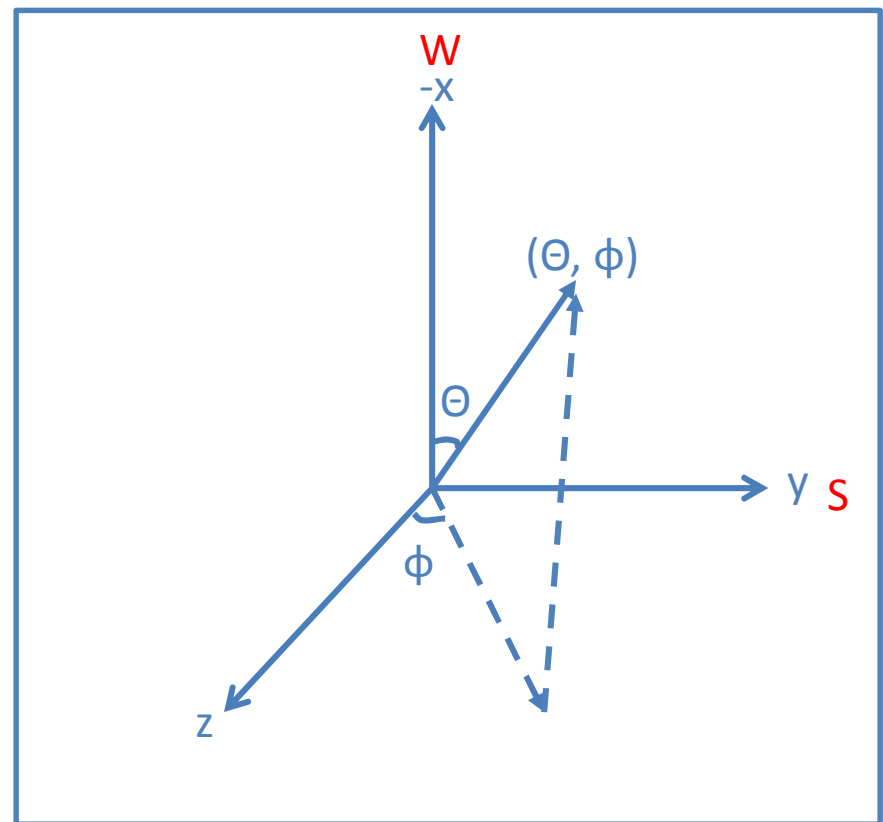
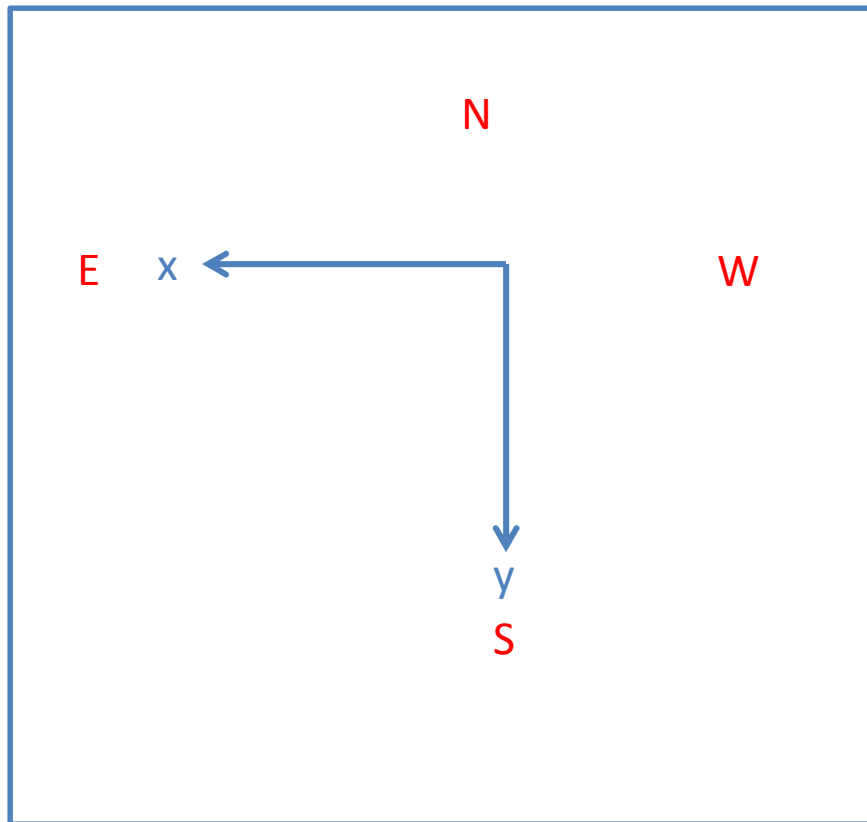
December 13, 2011

119 West Adjacent Satellite Off Axis Antenna Performance Spot Beam 47 cf: 8.5 dBW

Maximum Allowable EIRP to meet the -117dBW/m²/100 kHz

Maximum EIRP Allowed	
Spec Max flux density, dBW/m ² /100kHz	-117
Desired channel band width, MHz	25.8
Symbol rate band width modification factor	1
Effective channel bandwidth, MHz	25.8
Effective bandwidth, dB-100kHz	24.1
Flux density allowed per channel, dBW/m ²	-92.9
R, radial distance to GEO, km	42164.0
Angle of separation between satellites, deg	0.1
range between satellites, km	73.59
Spreading factor, dB/m ²	-108.3
Atmospheric loss, dB	0
Max satellite EIRP allowed, dBW	15.4

Coordinate System



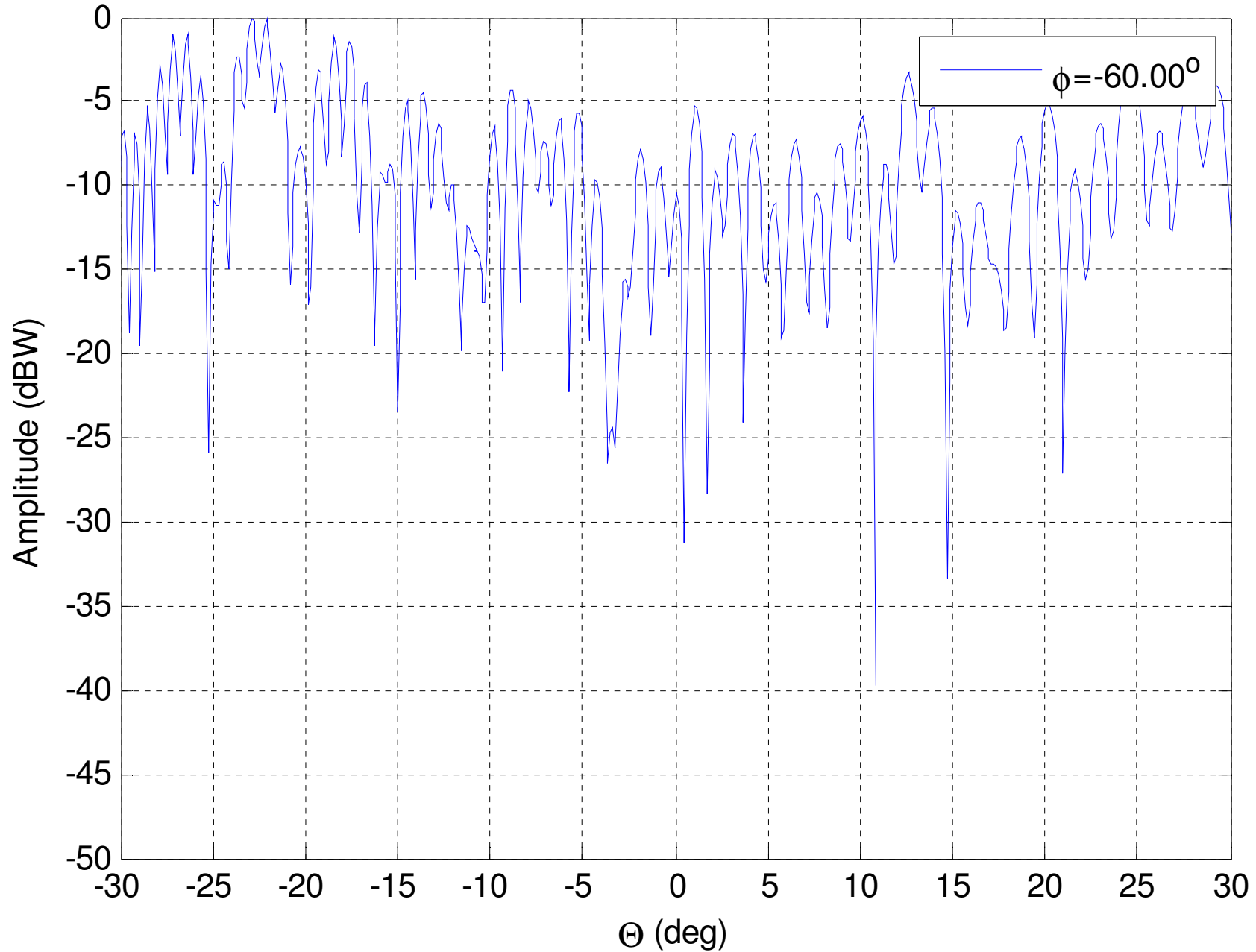
Spot Beam47, -X Axis Plots

- Both polarizations; RHCP, LHCP
- $-30 < \Theta < 30$ ($\Theta=0$: -X -axis)
- $-60 < \phi < 60$
- Freq = 17.3, 17.5, and 17.7 GHz
- The Zero reference line is the peak gain listed in the title of each chart
- All levels are significantly below the required 15.4 dBW EIRP shown on chart 2

RHCP at 17.3 GHz

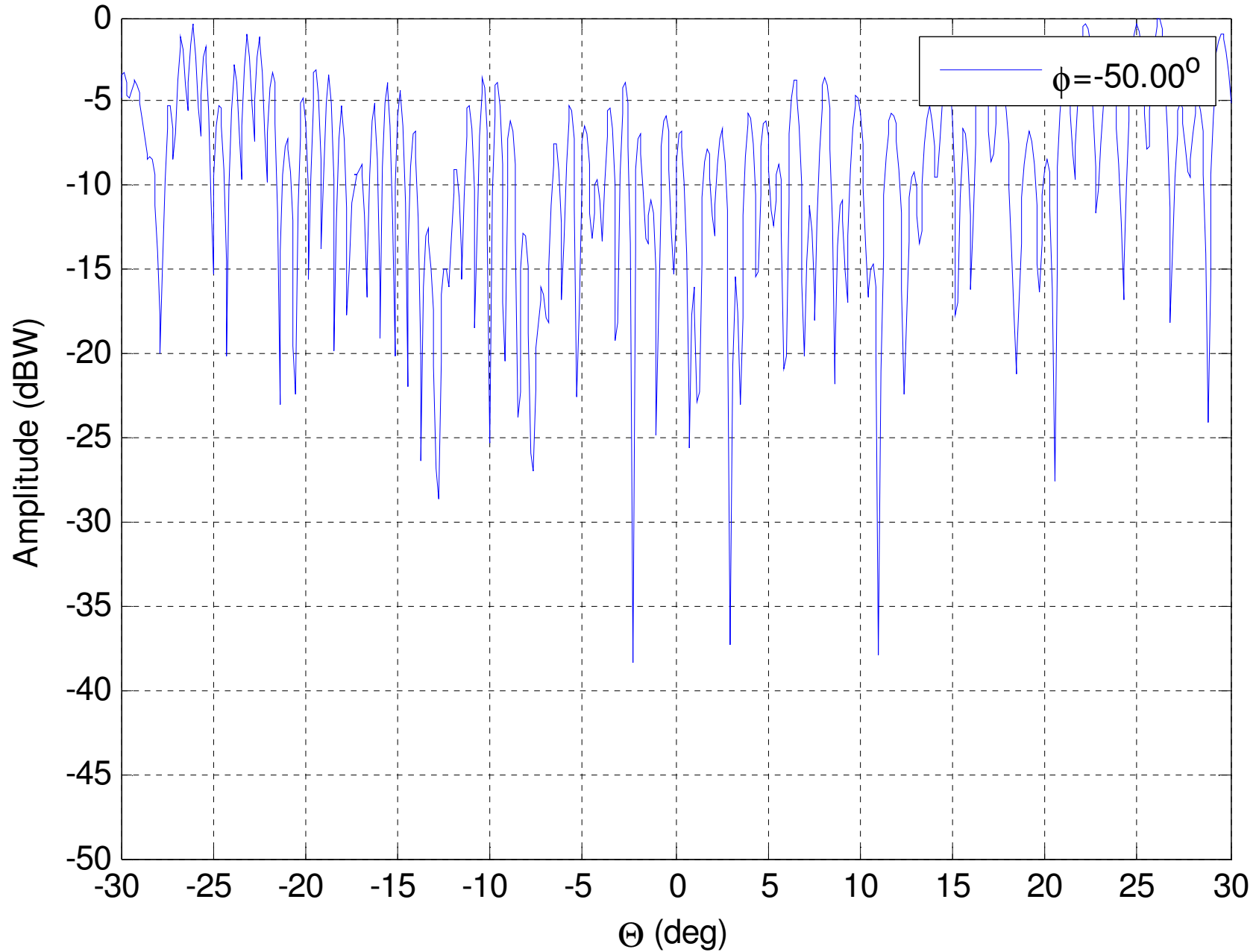
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--60.cut, Peak: -2.89 dBW, Date: 16-Dec-2011



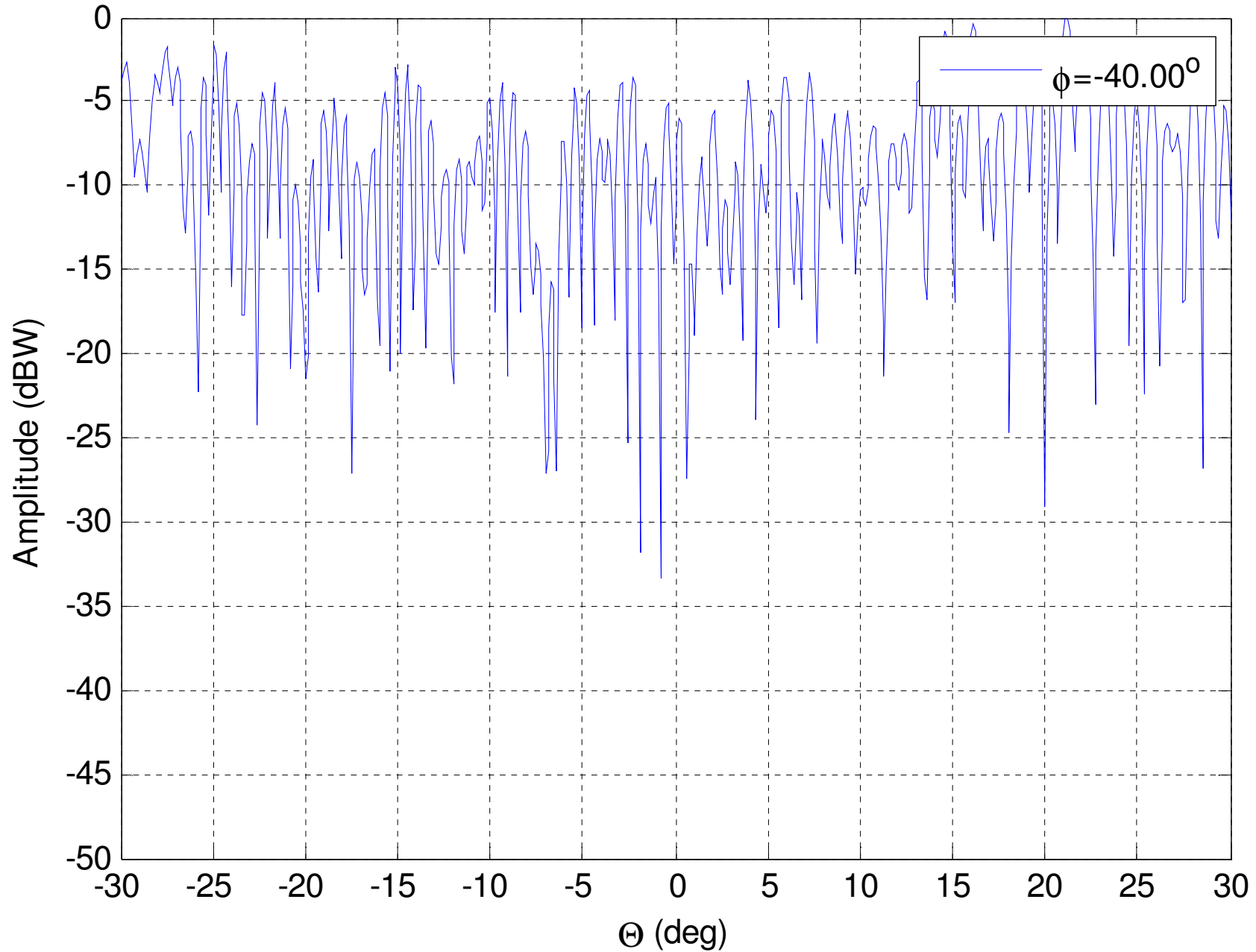
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--50.cut, Peak: -2.99 dBW, Date: 16-Dec-2011



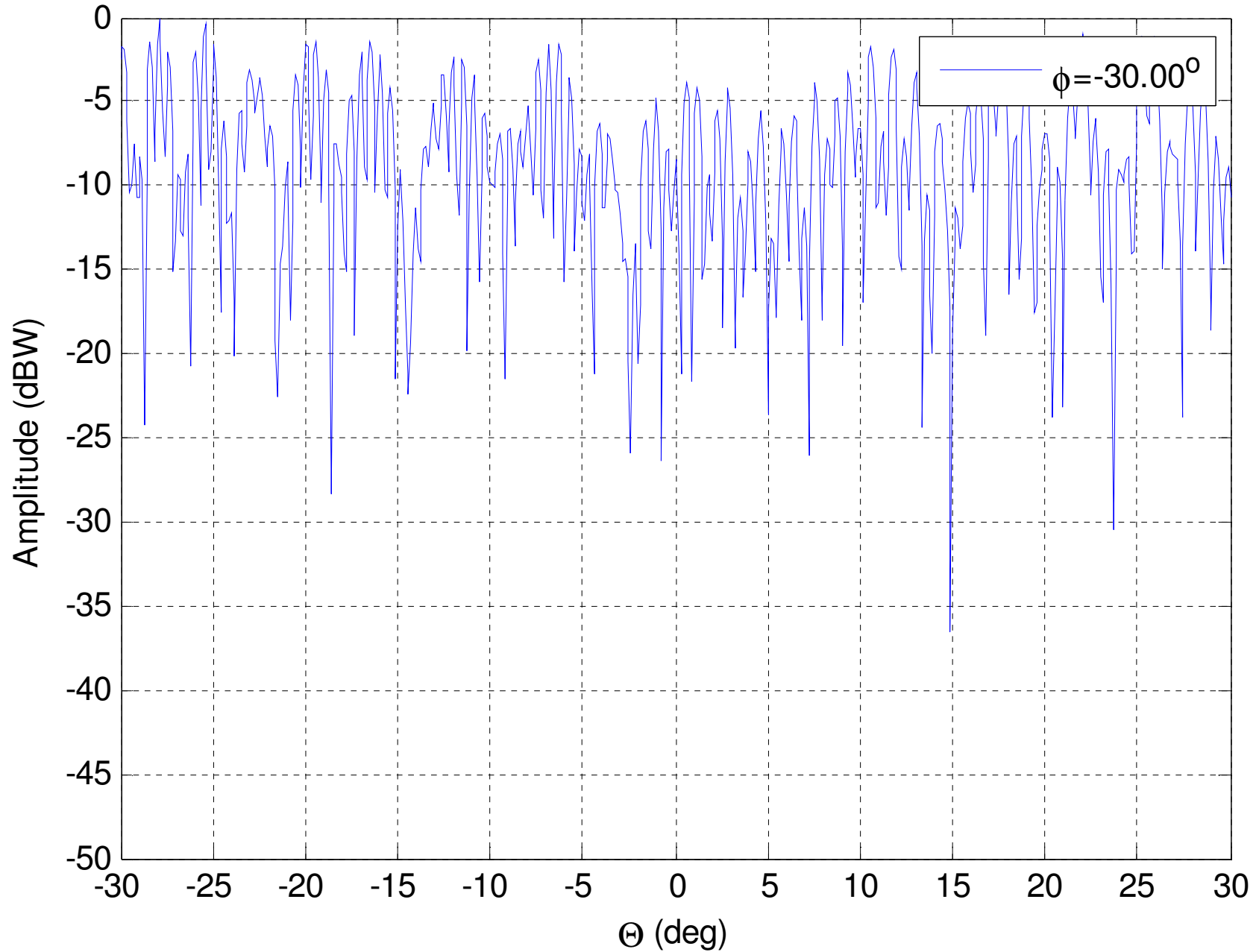
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--40.cut, Peak: -3.66 dBW, Date: 16-Dec-2011



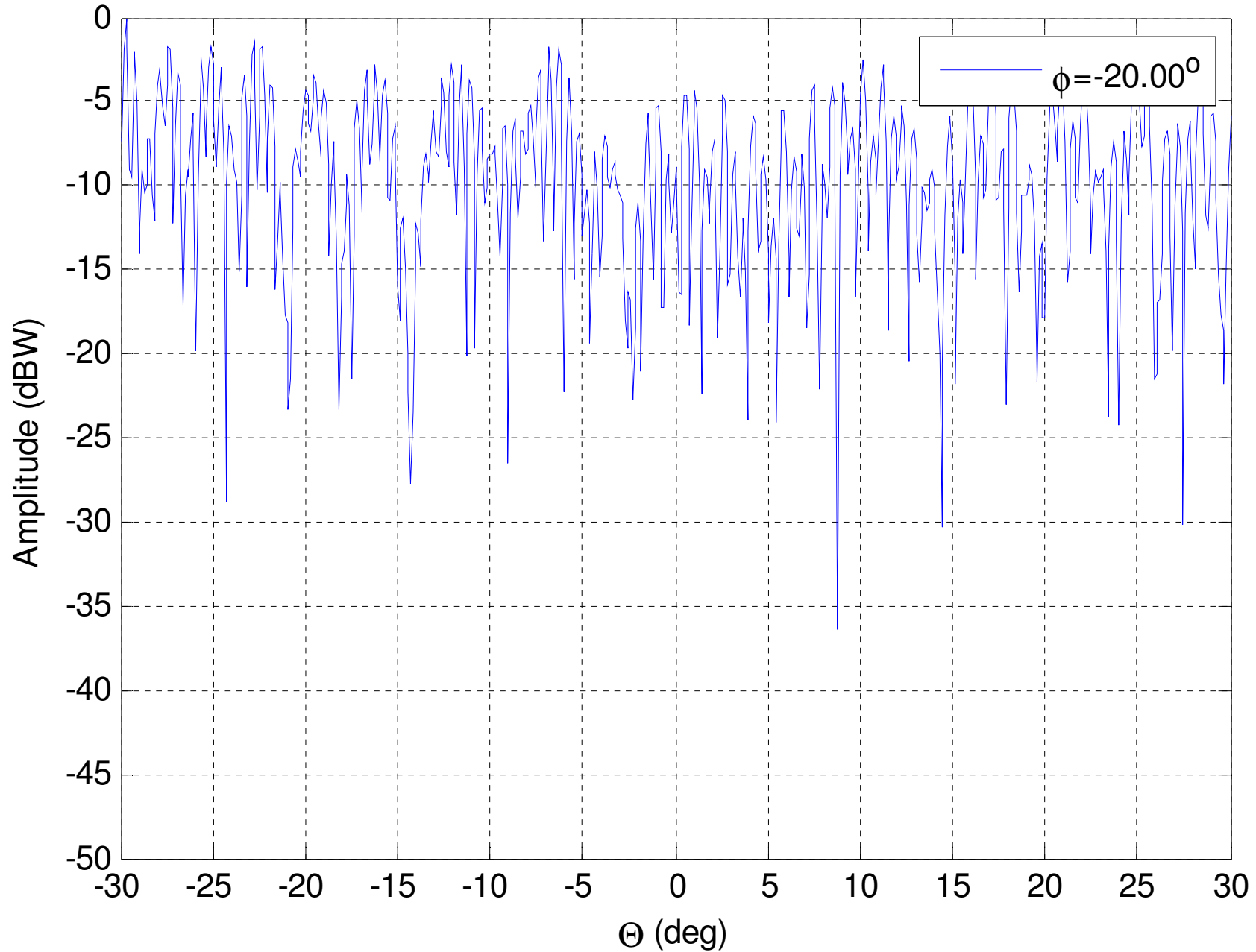
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--30.cut, Peak: -5.00 dBW, Date: 16-Dec-2011



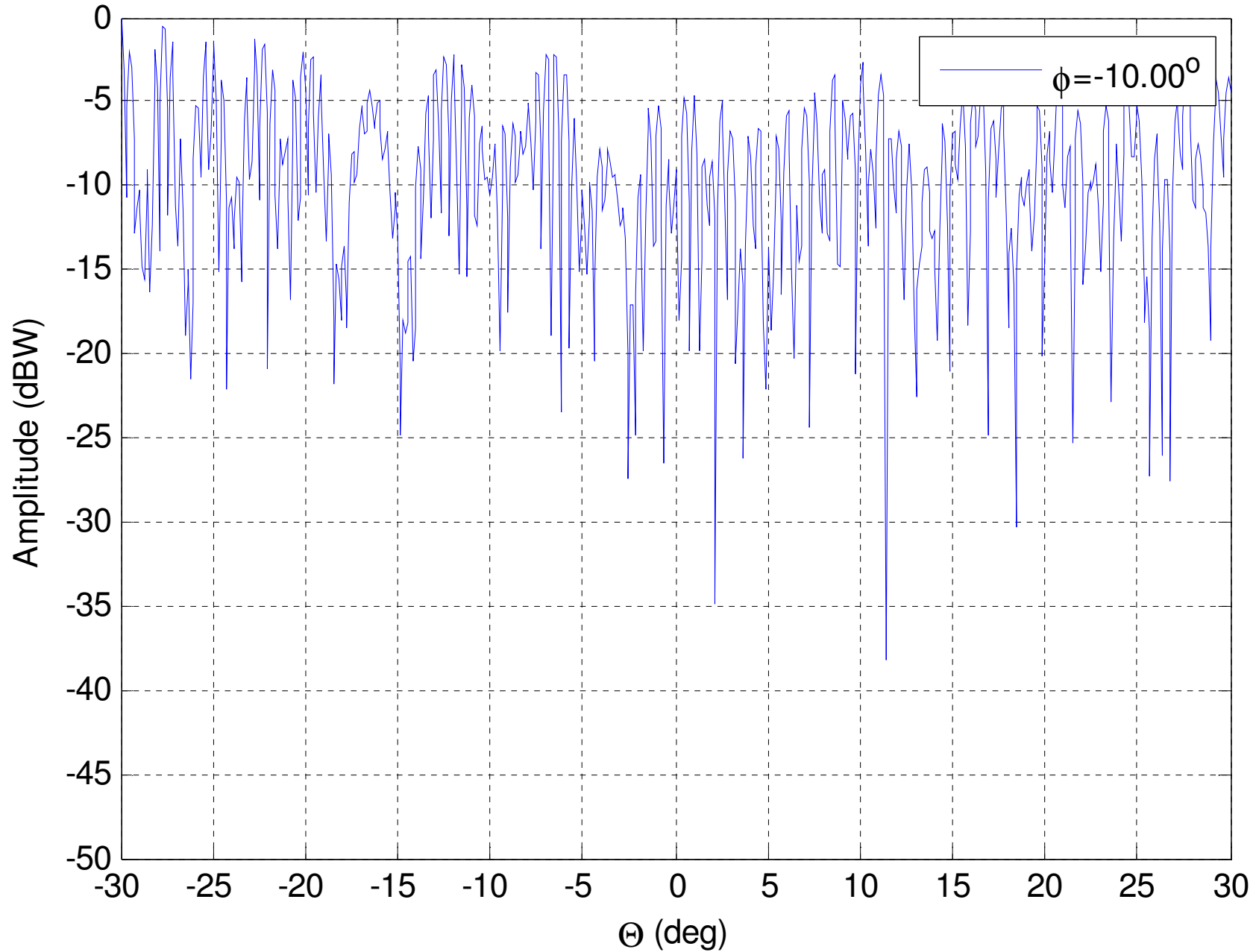
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--20.cut, Peak: -4.63 dBW, Date: 16-Dec-2011



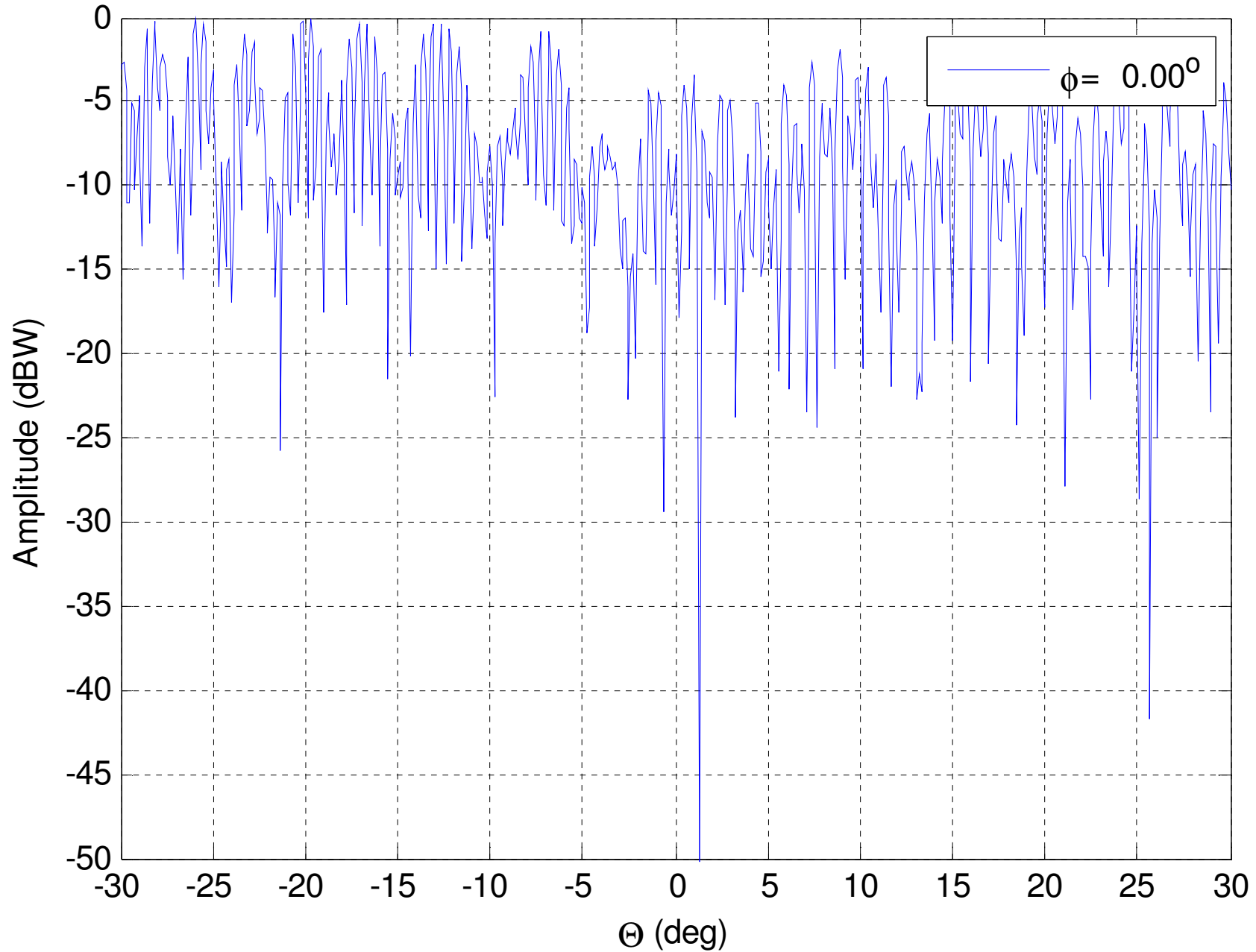
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--10.cut, Peak: -4.45 dBW, Date: 16-Dec-2011



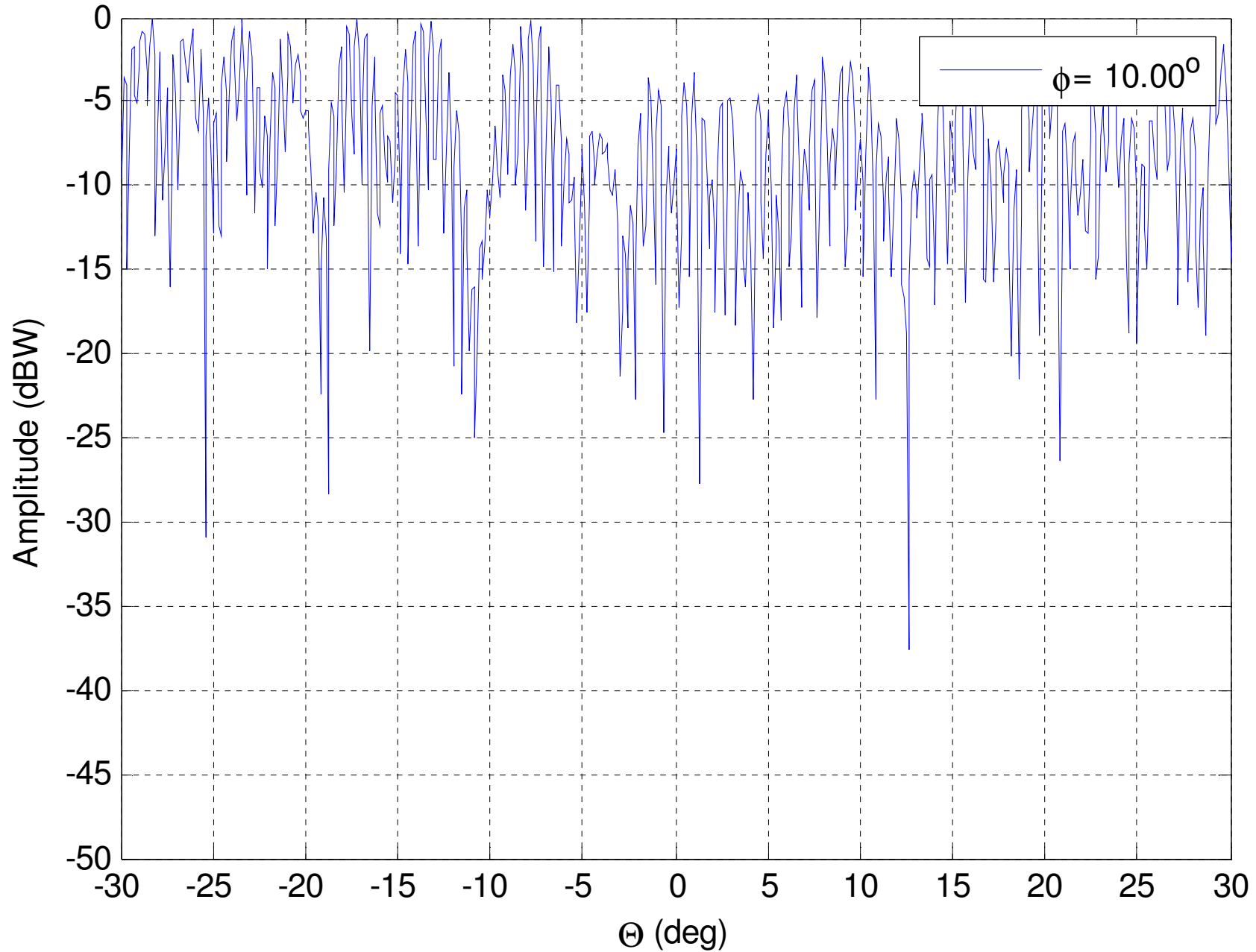
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-0.cut, Peak: -5.31 dBW, Date: 16-Dec-2011



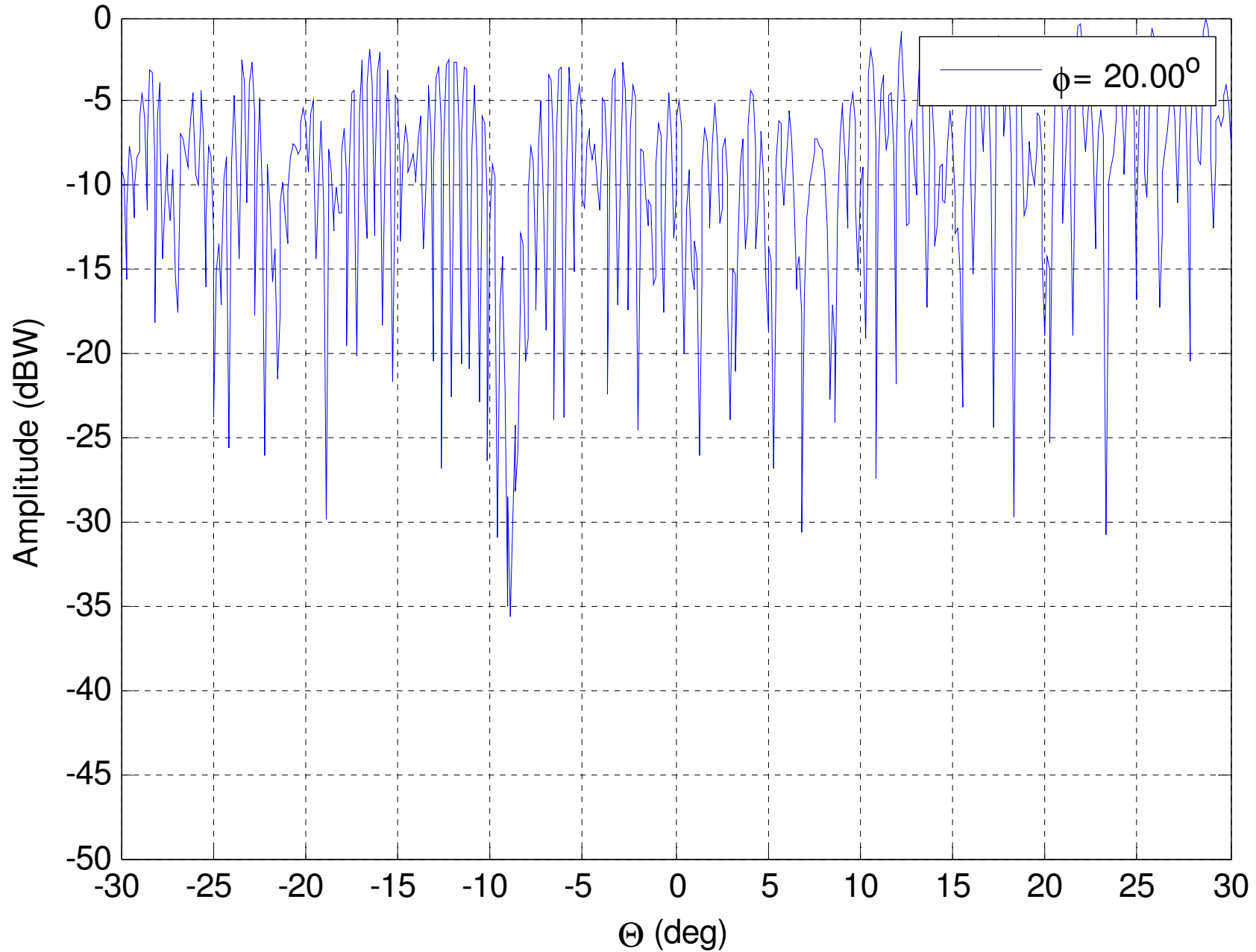
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-10.cut, Peak: -5.60 dBW, Date: 16-Dec-2011



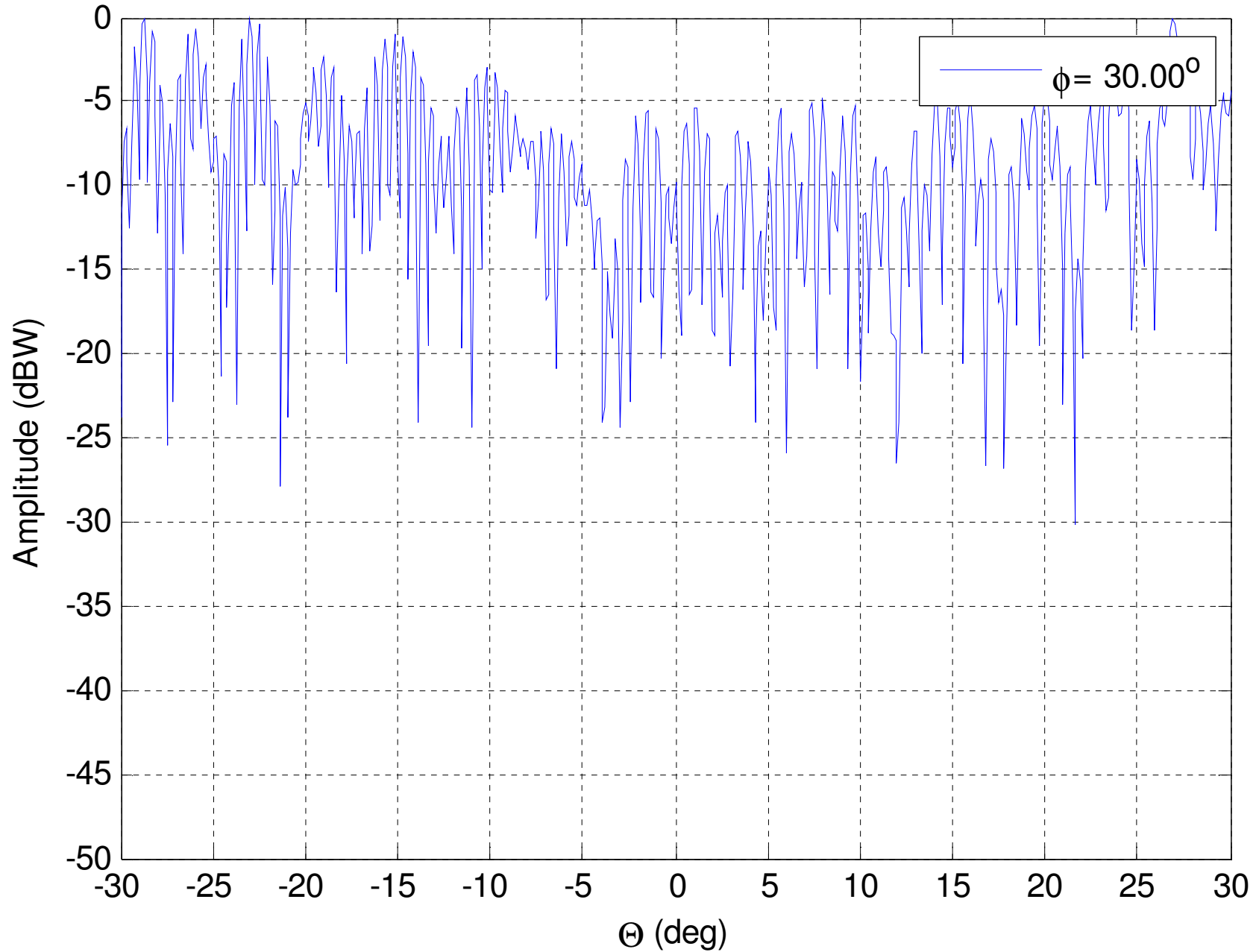
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-20.cut, Peak: -4.26 dBW, Date: 16-Dec-2011



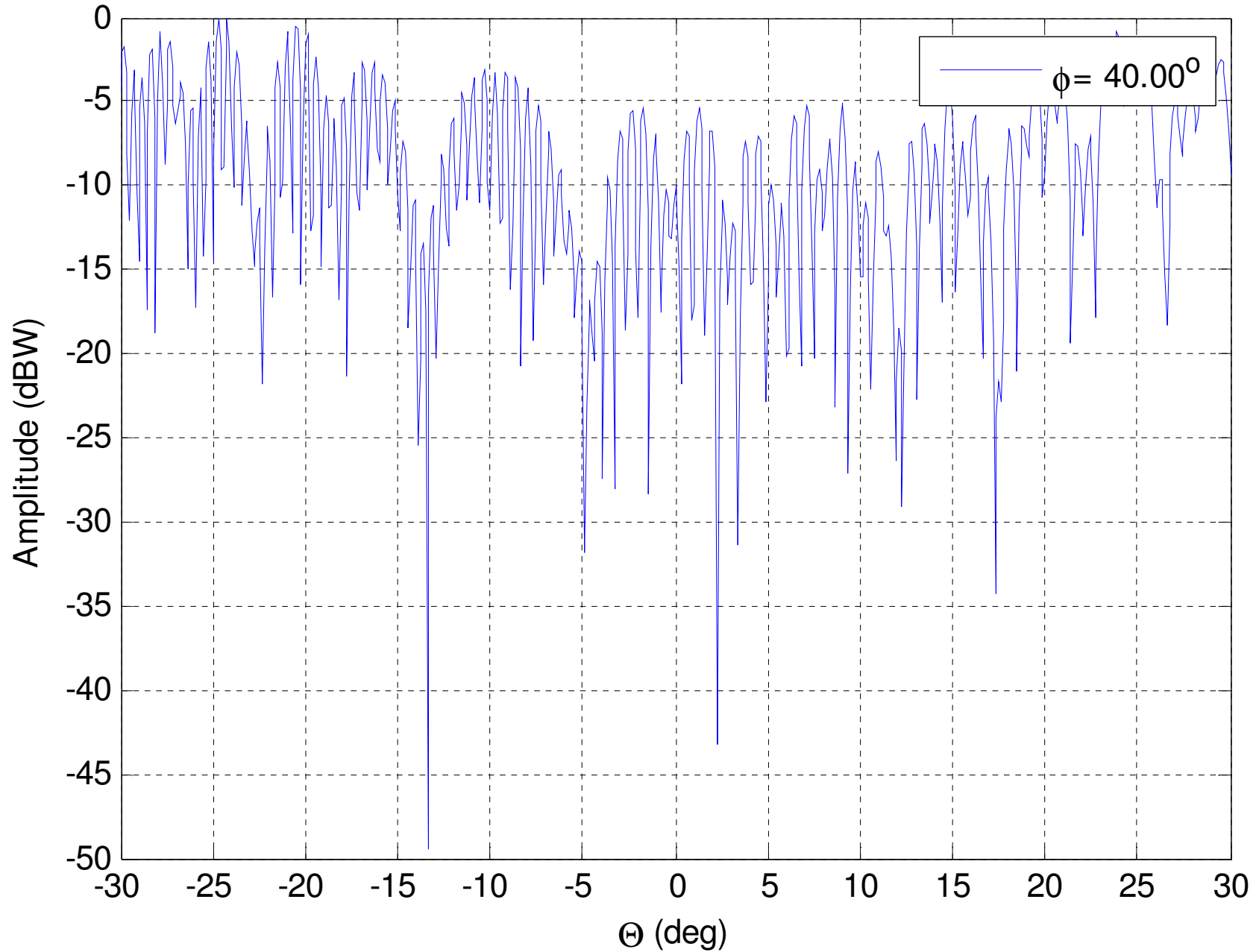
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-30.cut, Peak: -3.67 dBW, Date: 16-Dec-2011



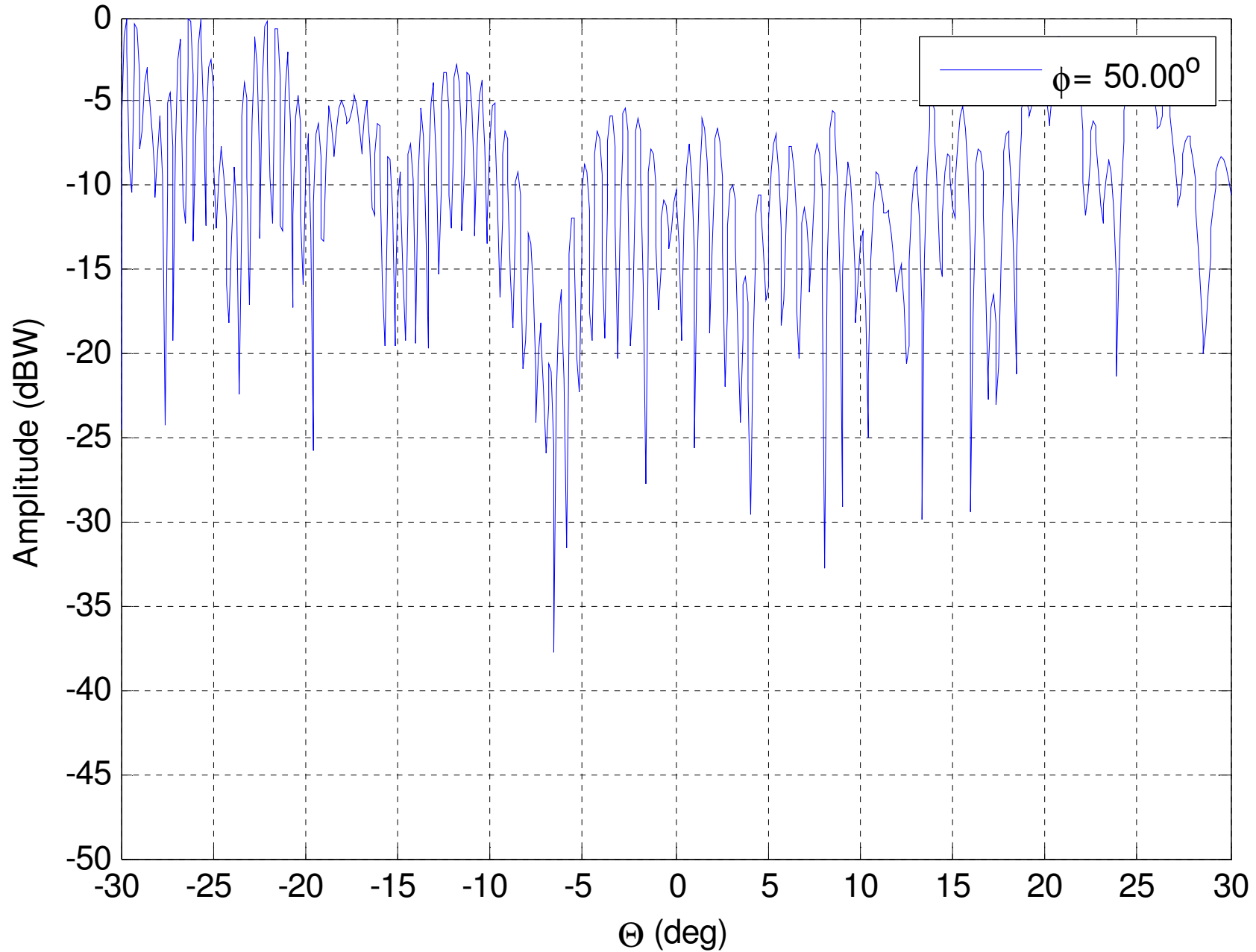
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-40.cut, Peak: -3.55 dBW, Date: 16-Dec-2011



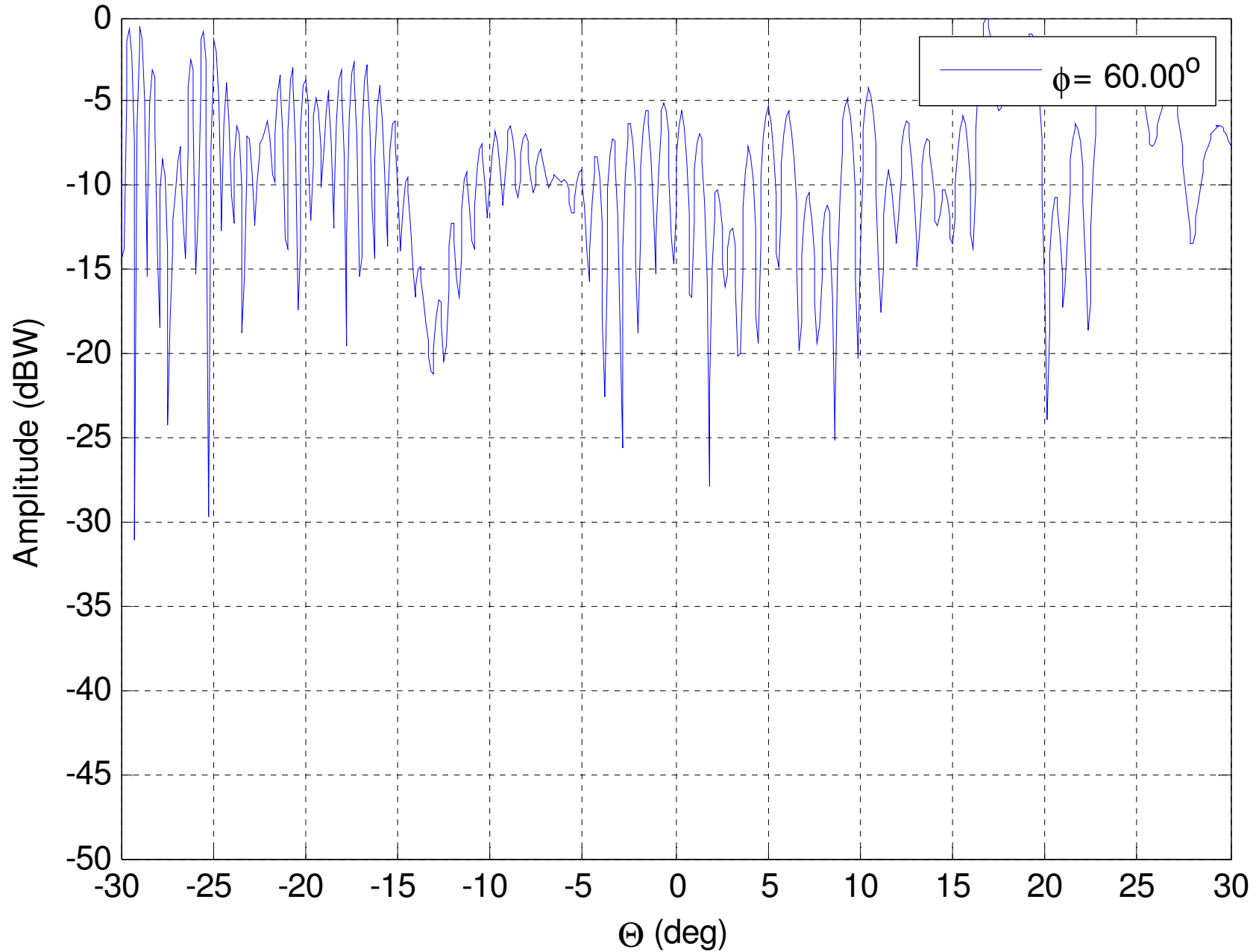
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-50.cut, Peak: -3.27 dBW, Date: 16-Dec-2011



Normalized pattern cuts - farfield

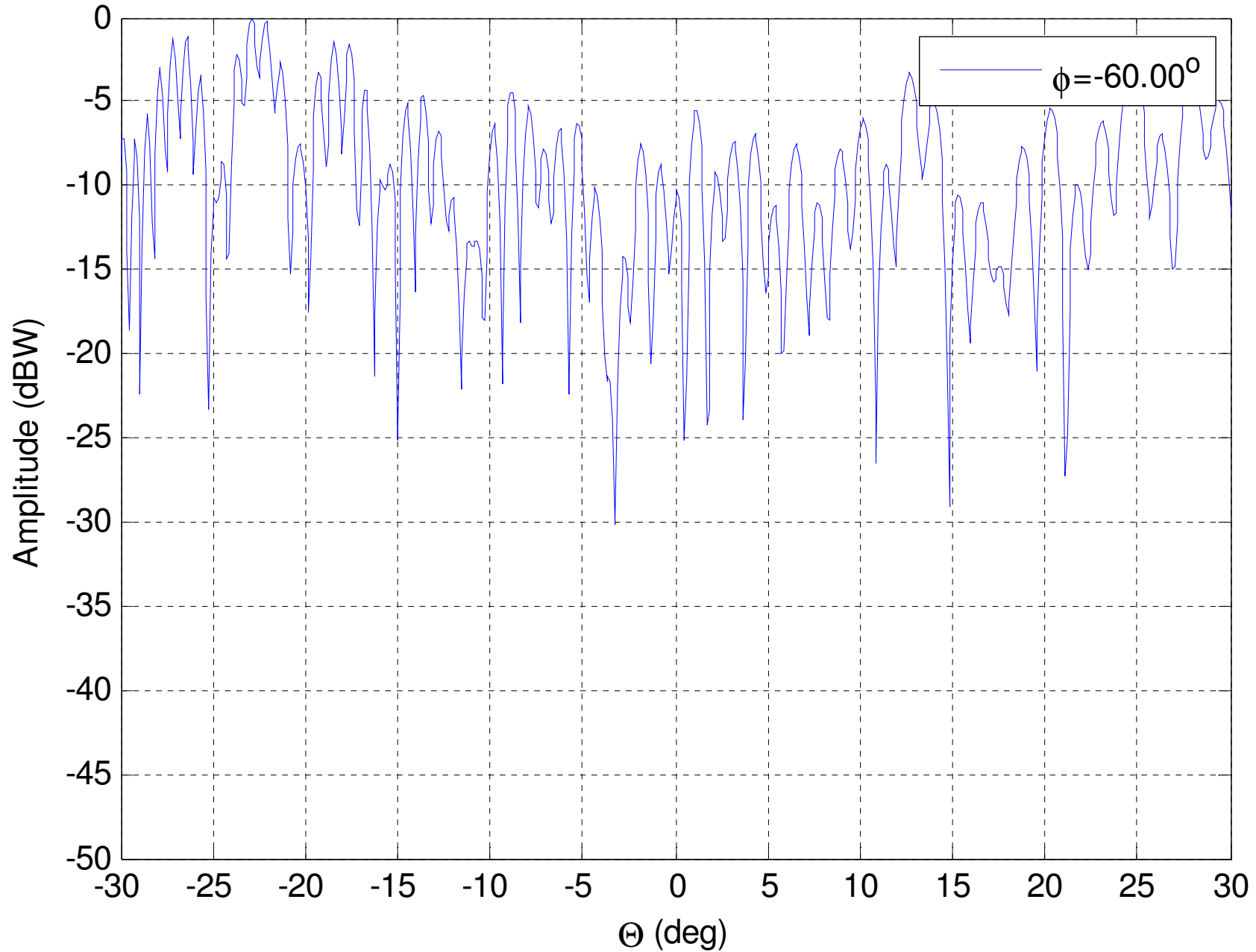
Input file: tx-17.3-rhcp-60.cut, Peak: -3.36 dBW, Date: 16-Dec-2011



LHCP at 17.3 GHz

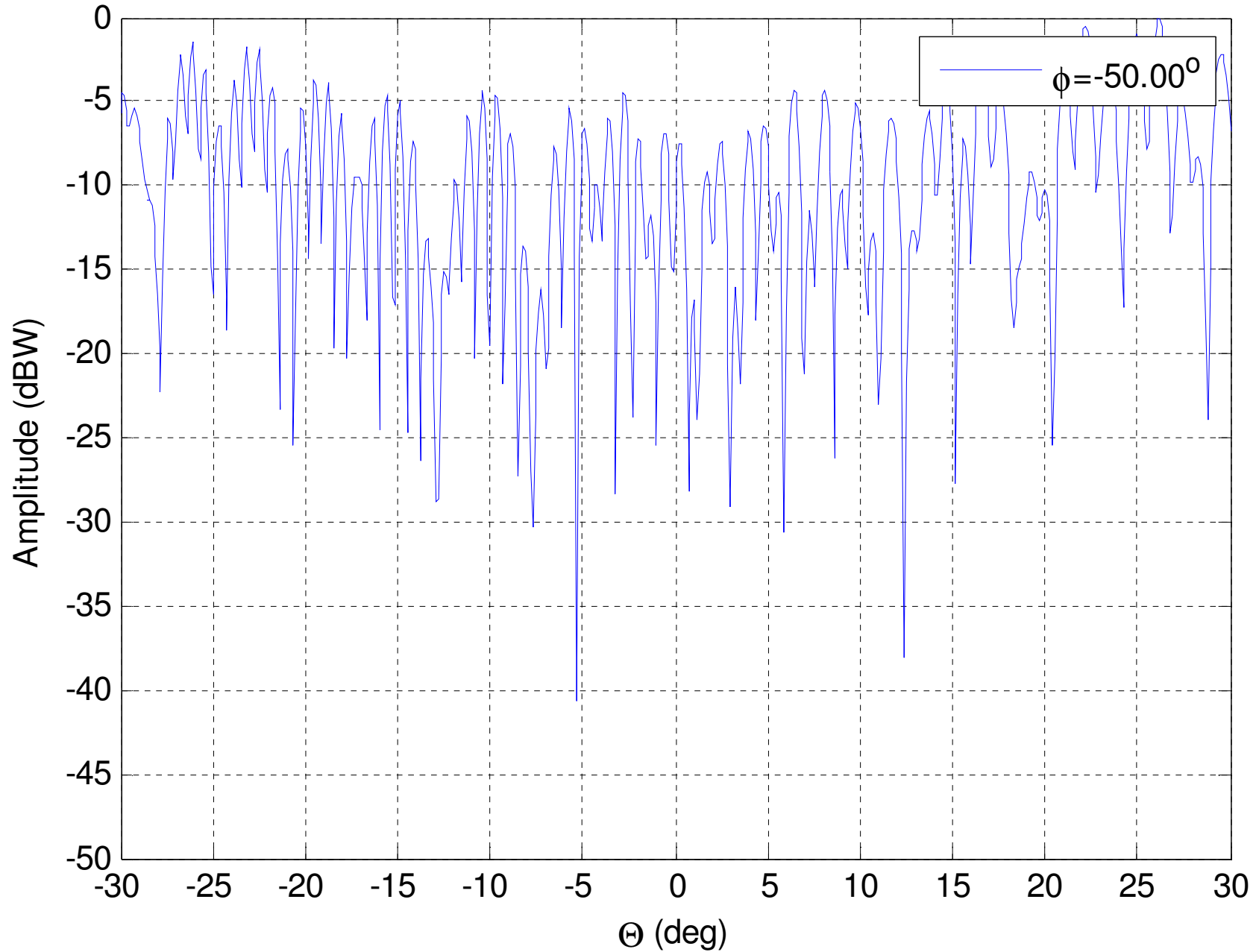
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp--60.cut, Peak: -2.67 dBW, Date: 16-Dec-2011



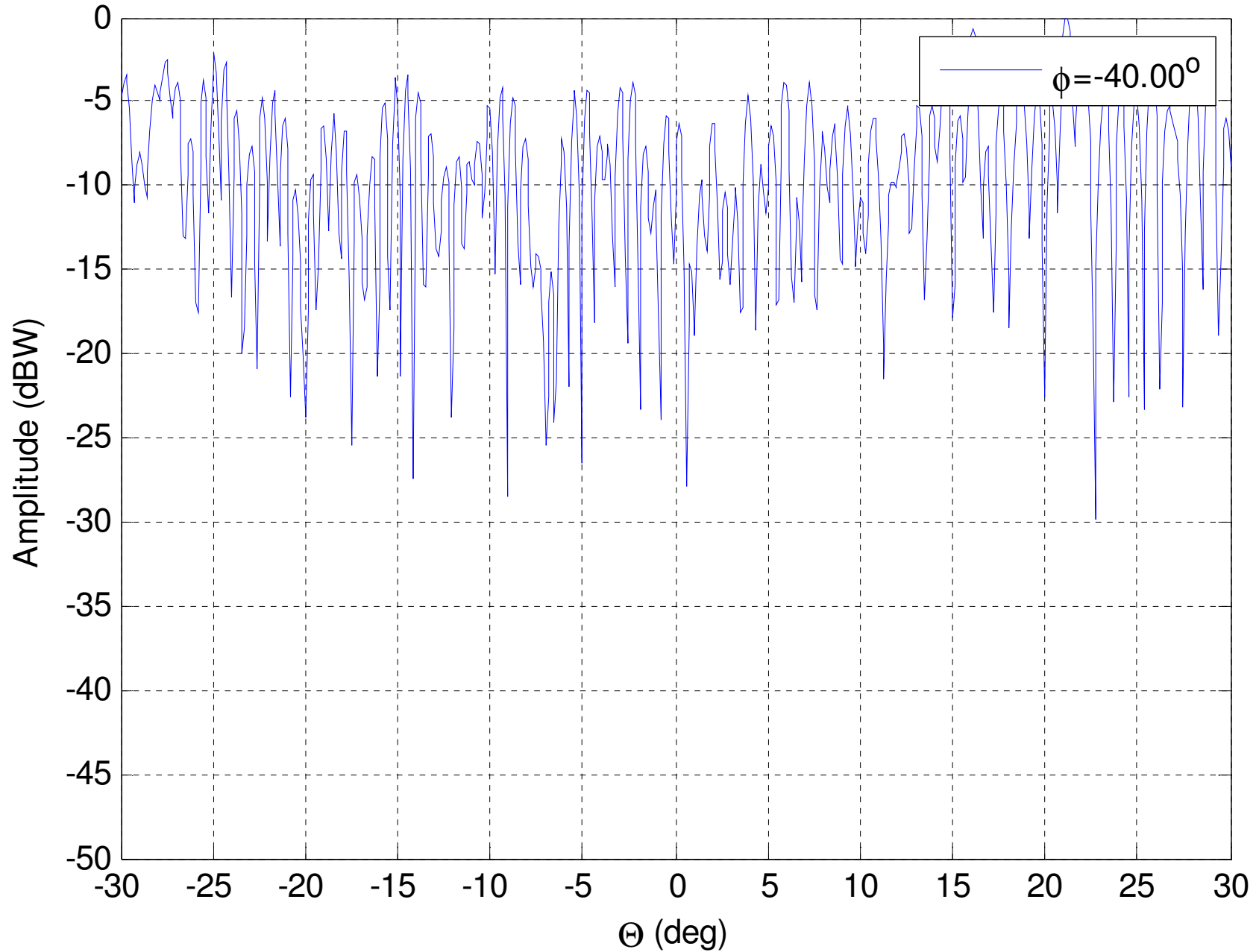
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp--50.cut, Peak: -2.23 dBW, Date: 16-Dec-2011



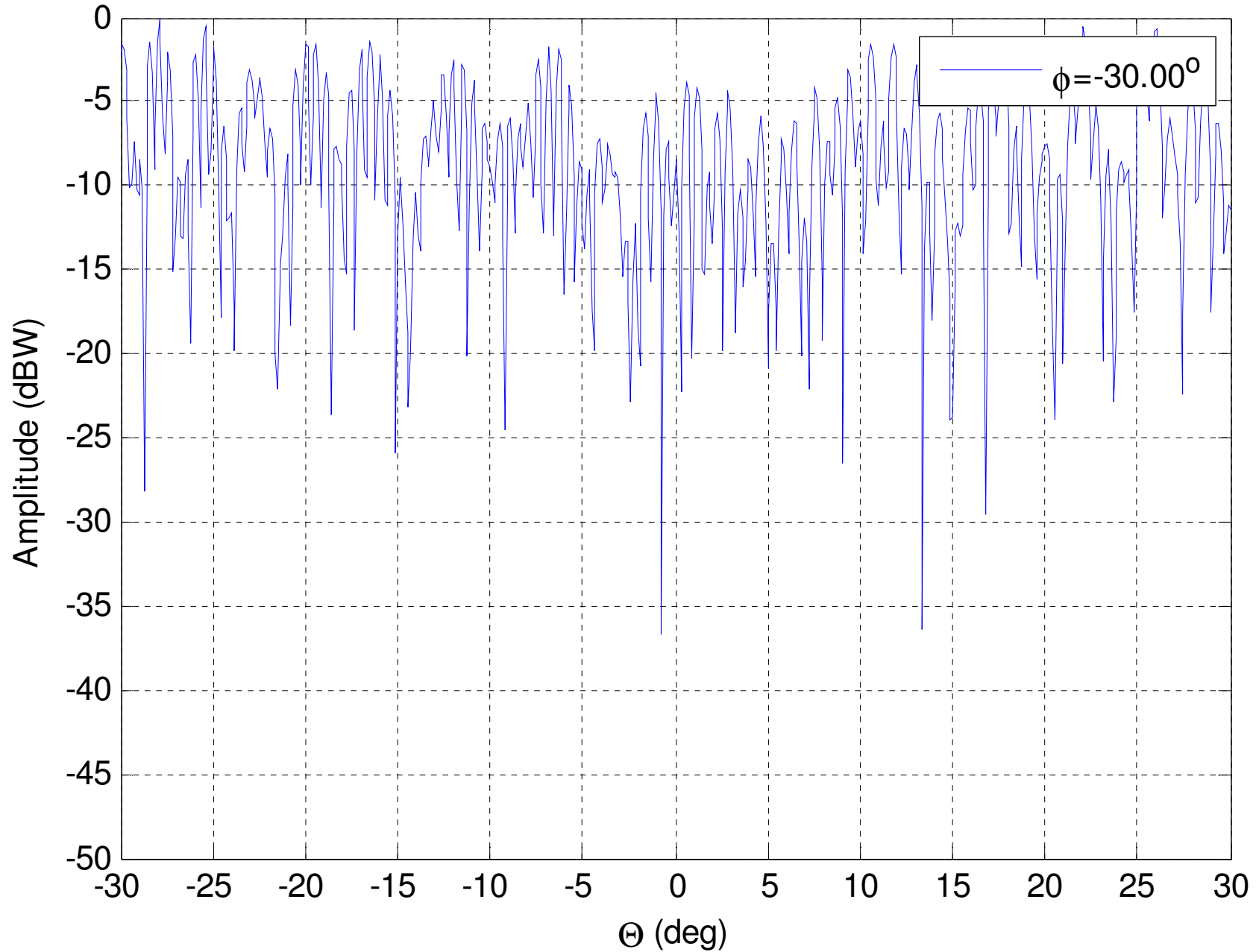
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp--40.cut, Peak: -3.14 dBW, Date: 16-Dec-2011



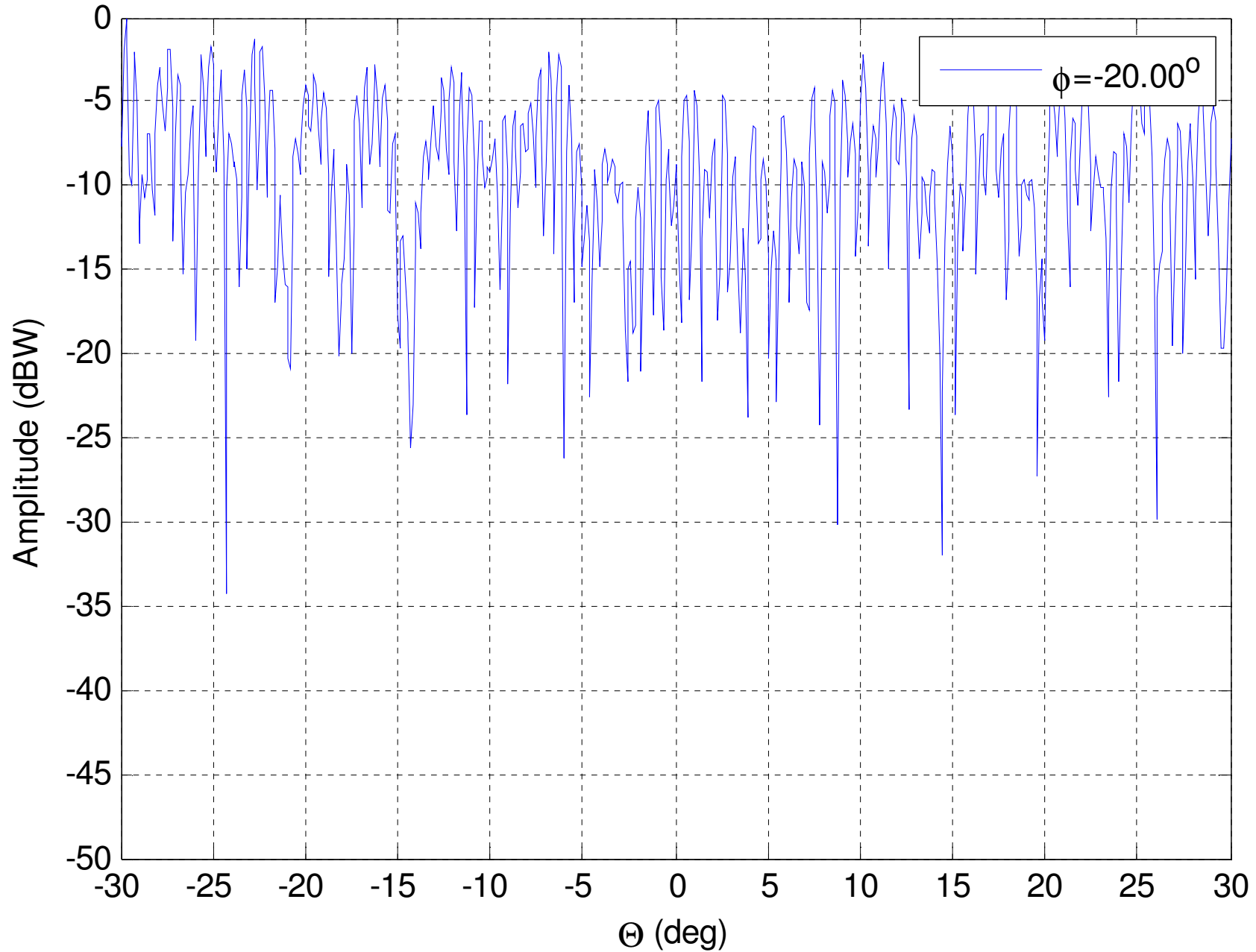
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp--30.cut, Peak: -4.94 dBW, Date: 16-Dec-2011



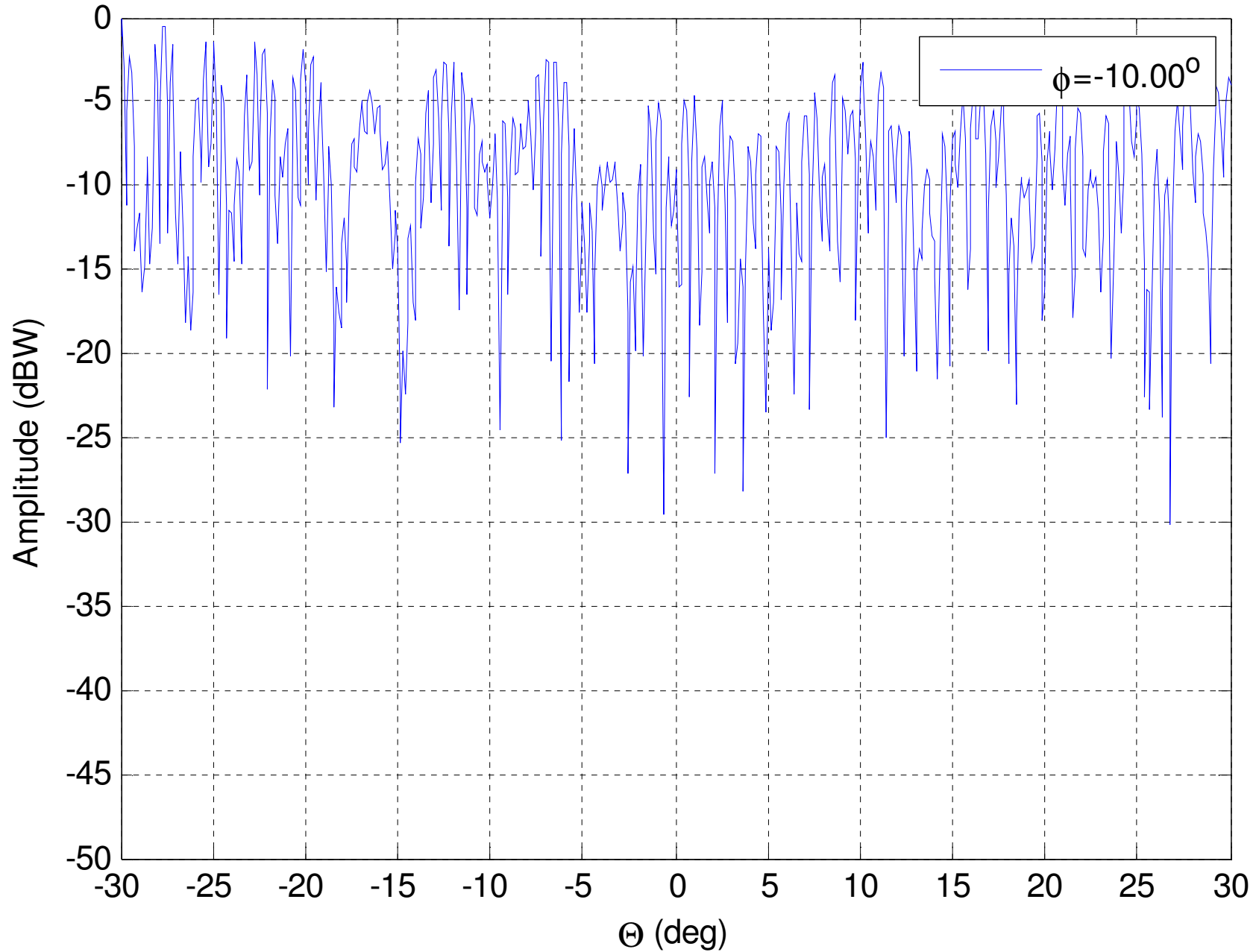
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp--20.cut, Peak: -4.56 dBW, Date: 16-Dec-2011



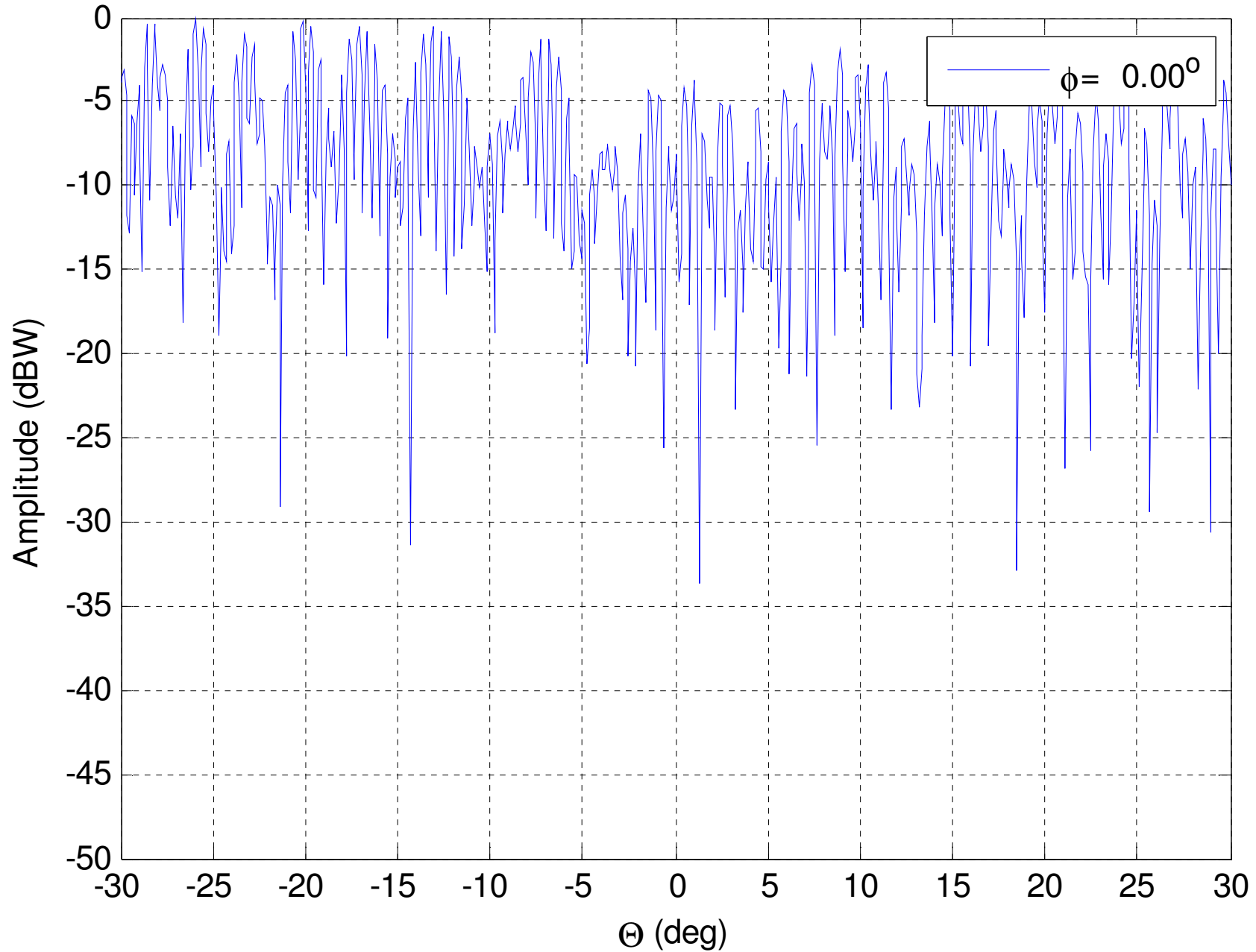
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp--10.cut, Peak: -4.32 dBW, Date: 16-Dec-2011



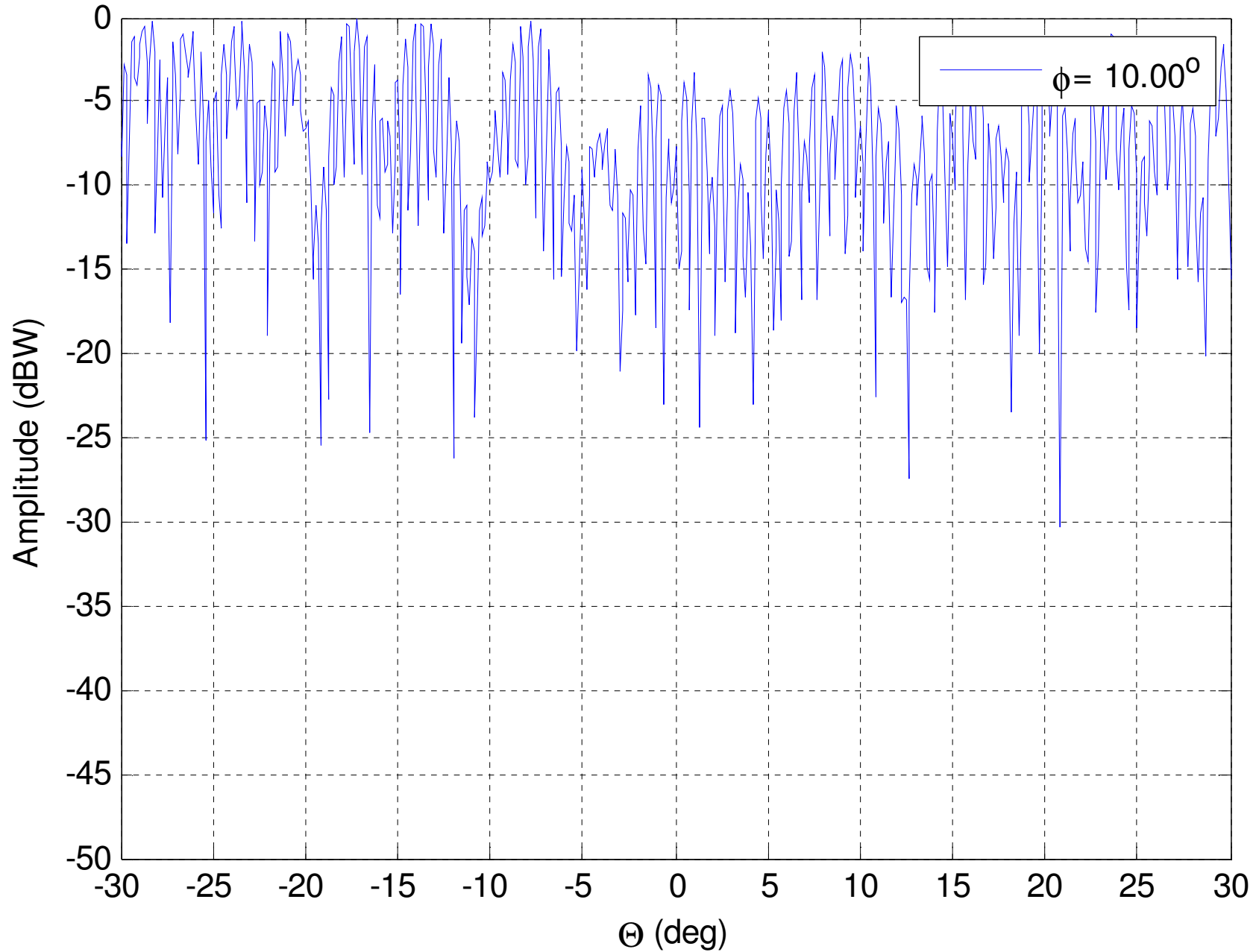
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp-0.cut, Peak: -5.12 dBW, Date: 16-Dec-2011



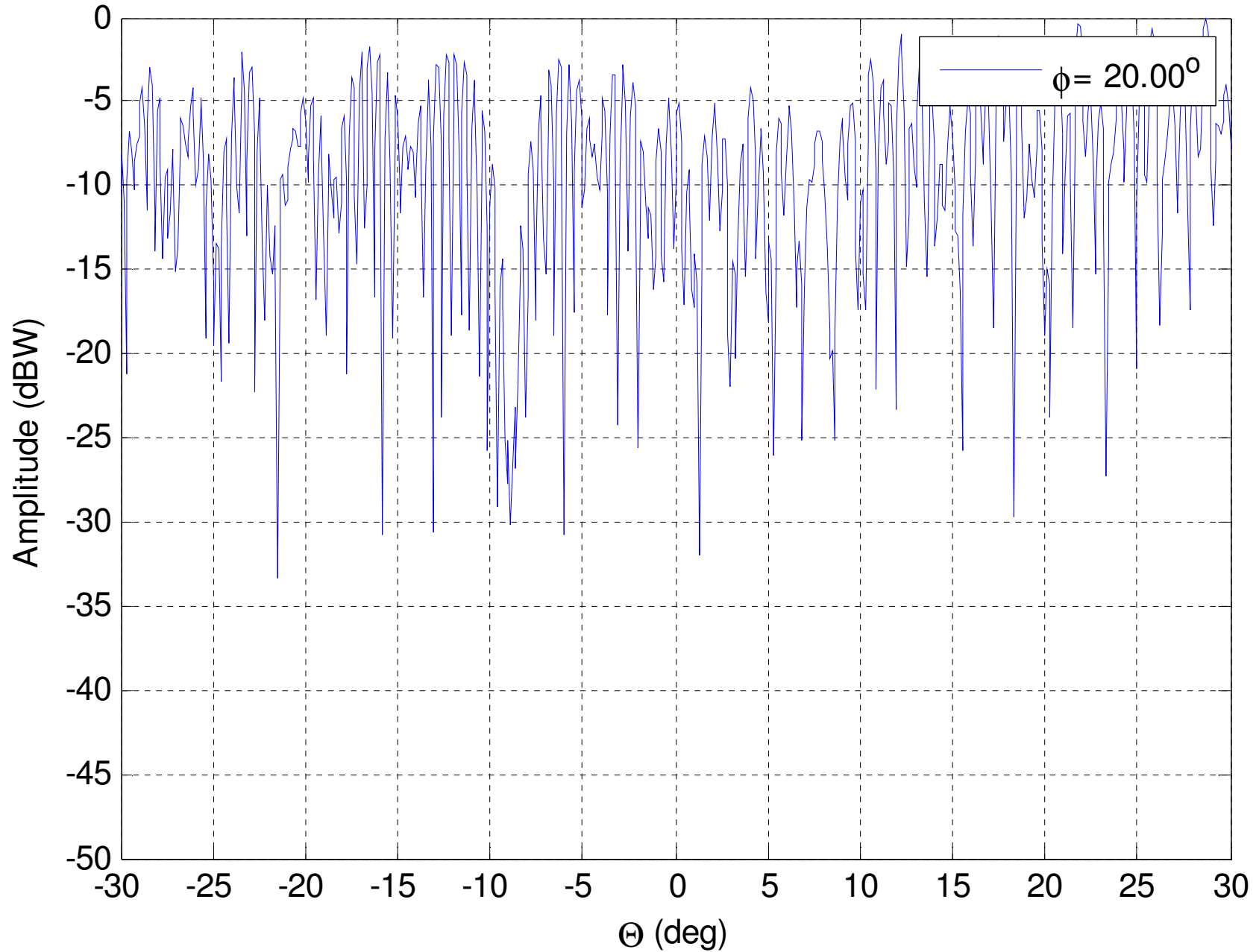
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp-10.cut, Peak: -5.64 dBW, Date: 16-Dec-2011



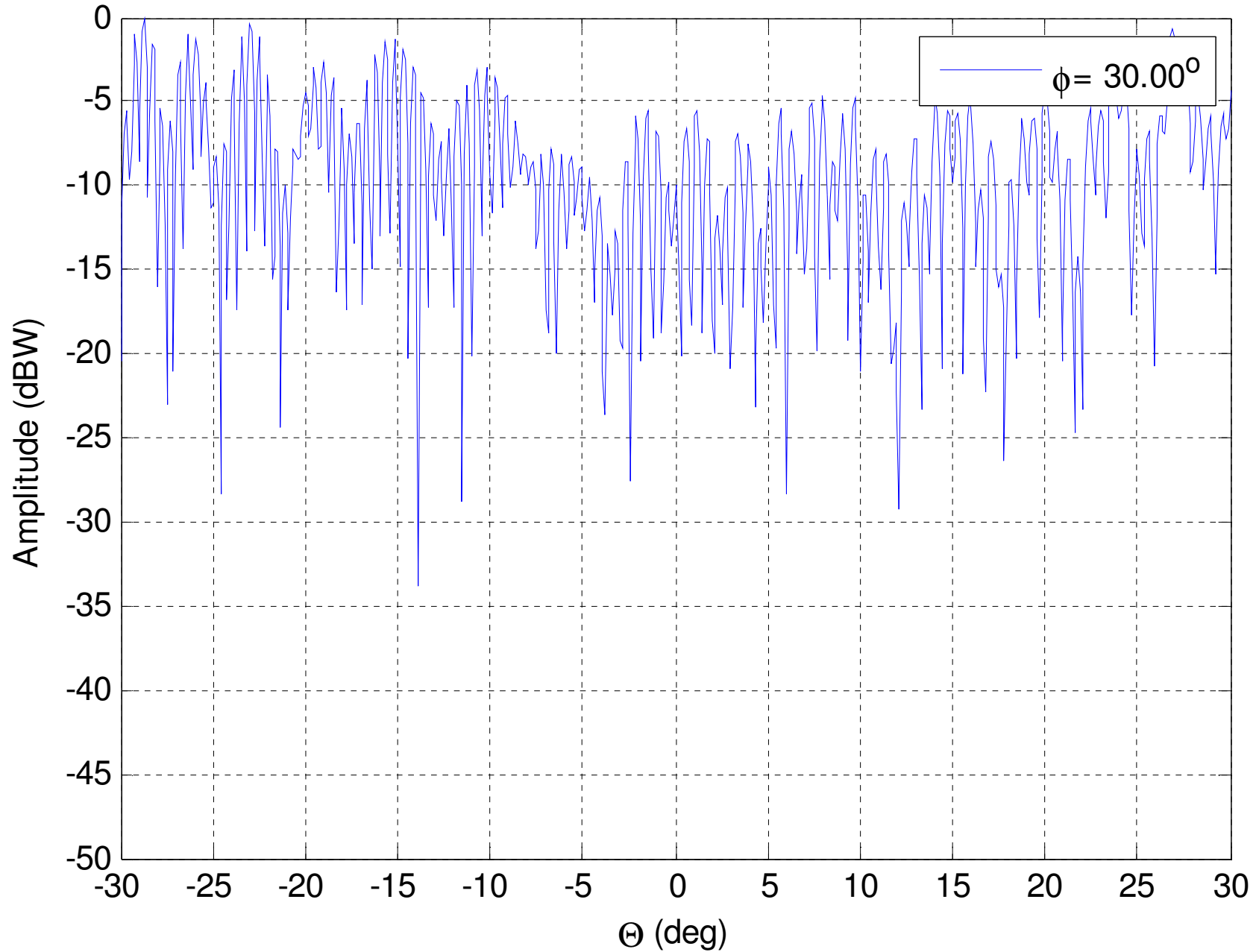
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp-20.cut, Peak: -4.14 dBW, Date: 16-Dec-2011



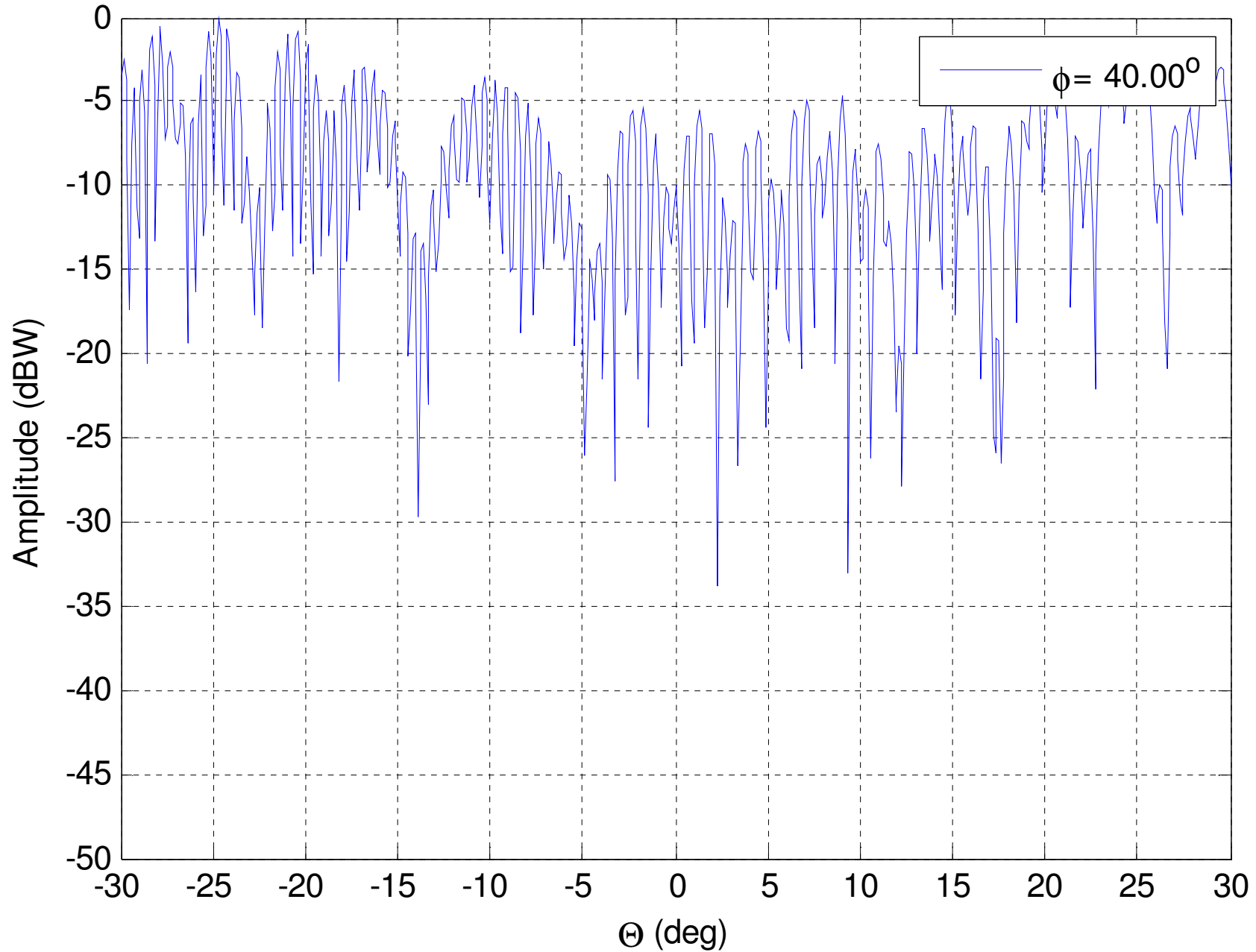
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp-30.cut, Peak: -3.31 dBW, Date: 16-Dec-2011



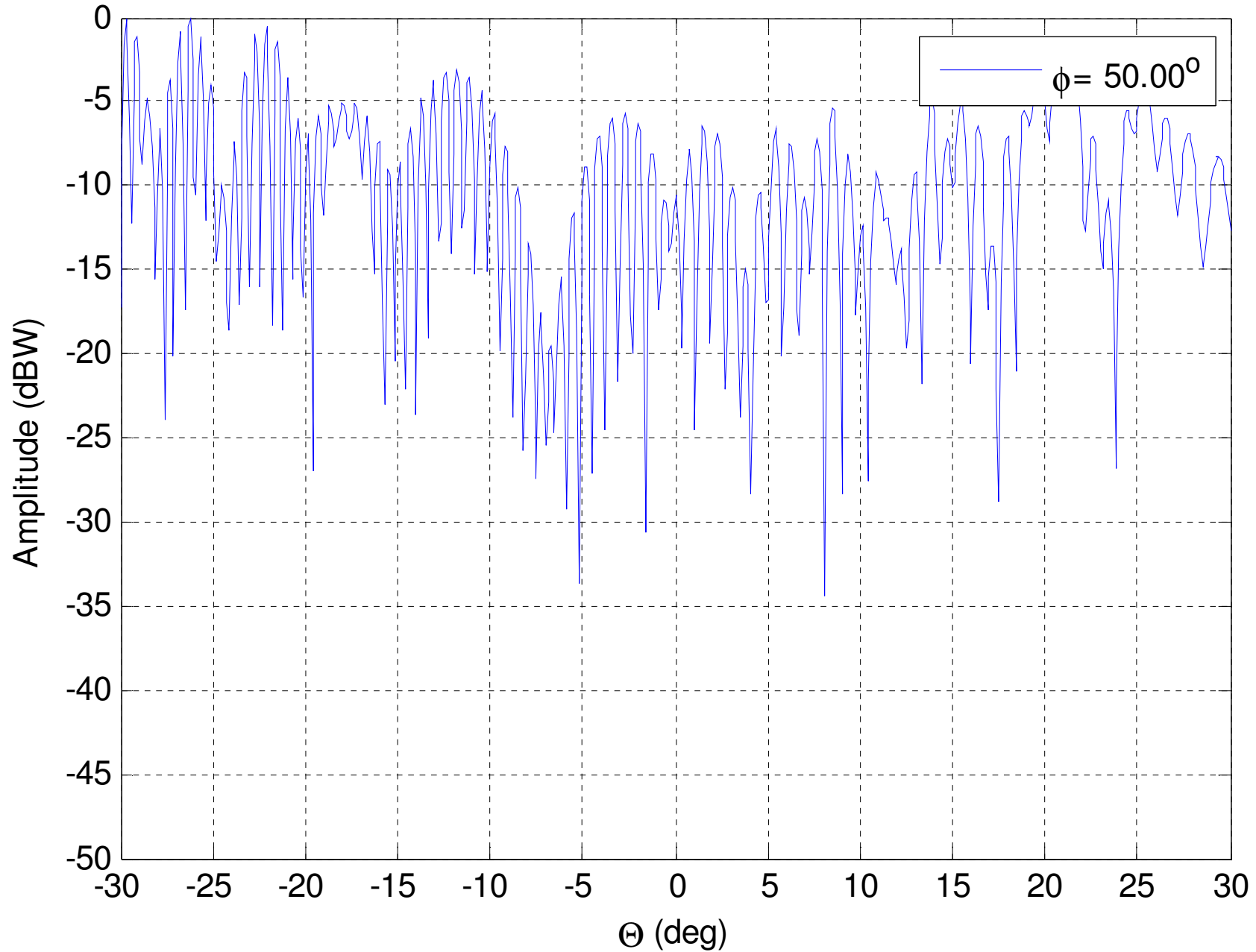
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp-40.cut, Peak: -3.29 dBW, Date: 16-Dec-2011



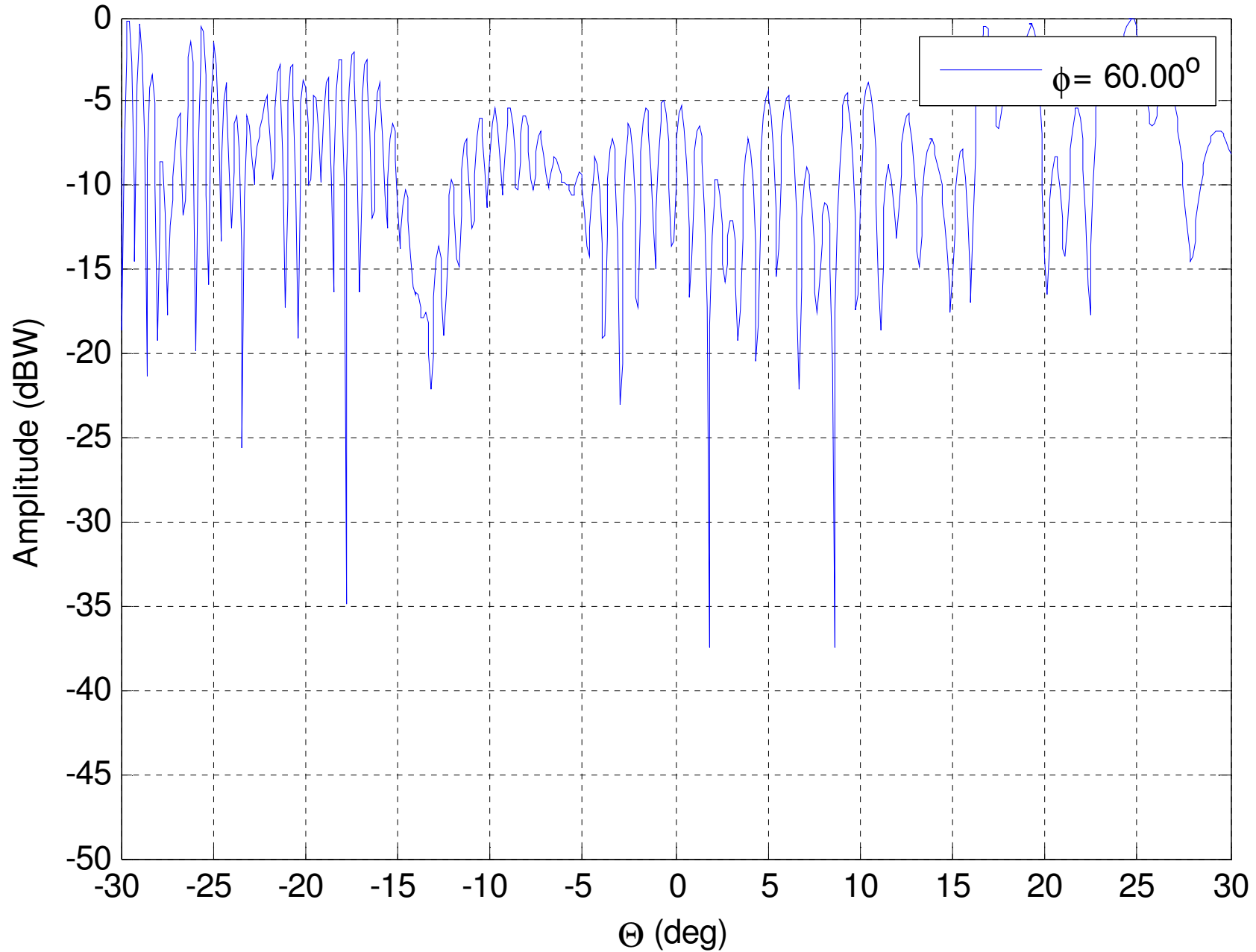
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp-50.cut, Peak: -2.75 dBW, Date: 16-Dec-2011



Normalized pattern cuts - farfield

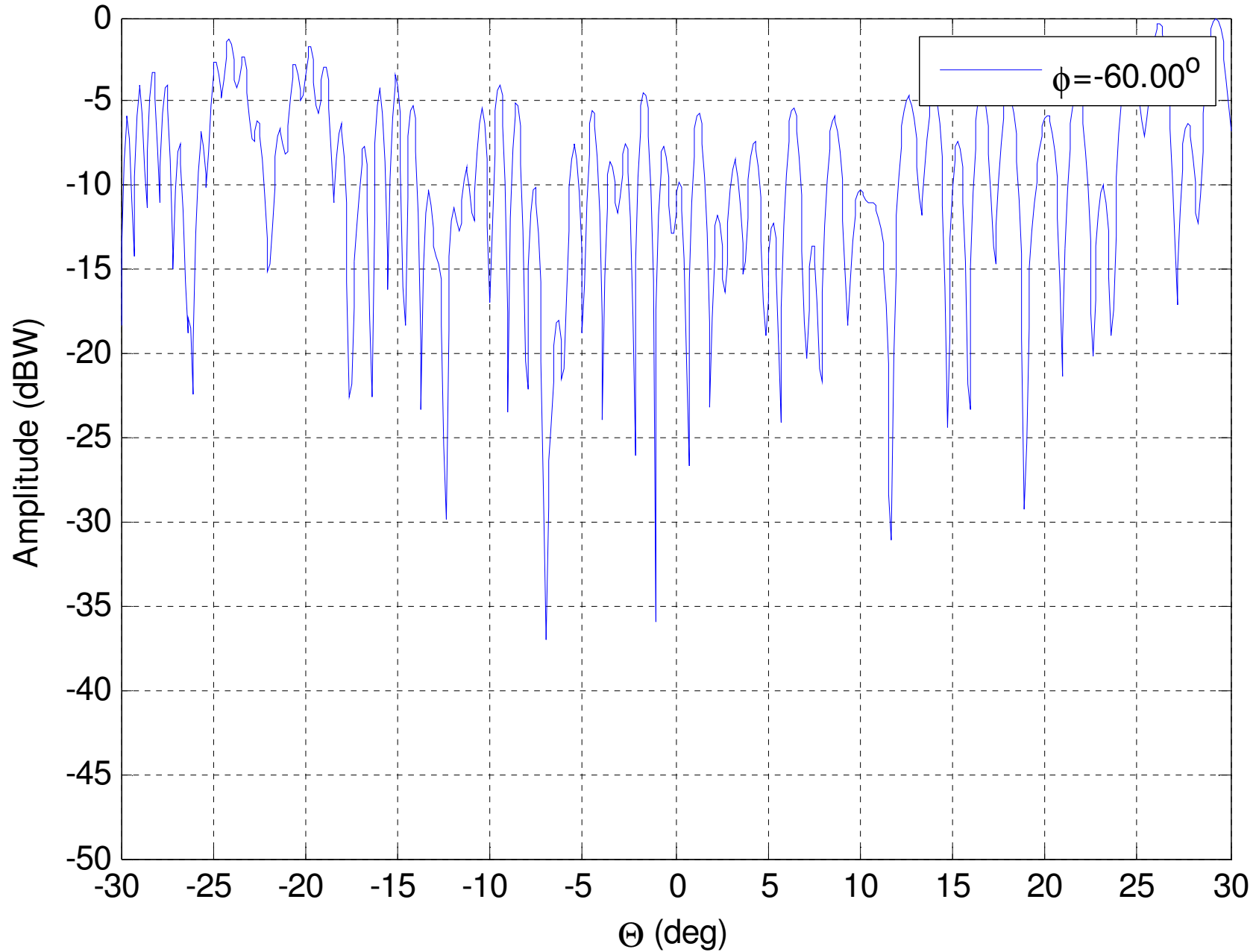
Input file: tx-17.3-lhcp-60.cut, Peak: -3.67 dBW, Date: 16-Dec-2011



RHCP at 17.5 GHz

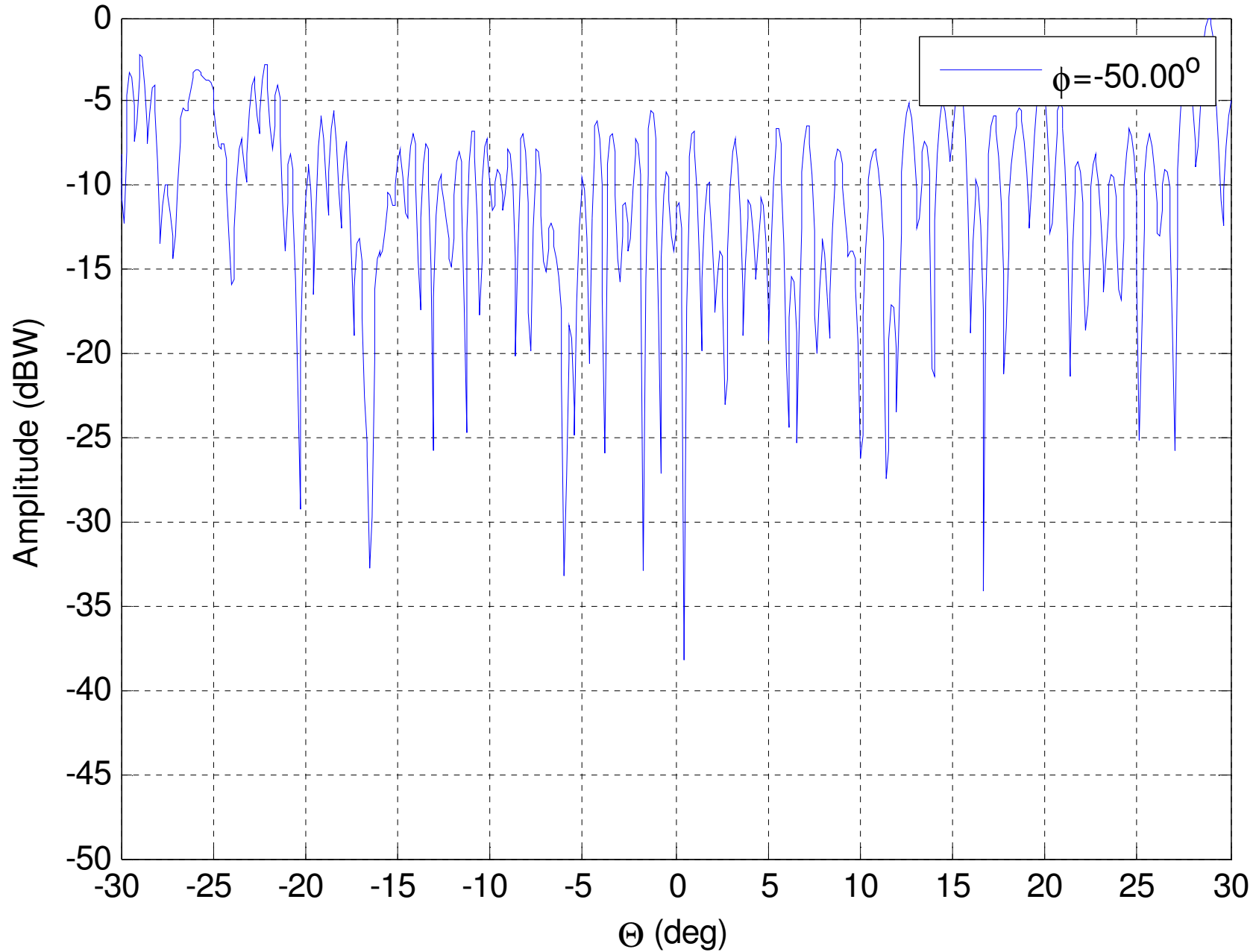
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--60.cut, Peak: -2.80 dBW, Date: 16-Dec-2011



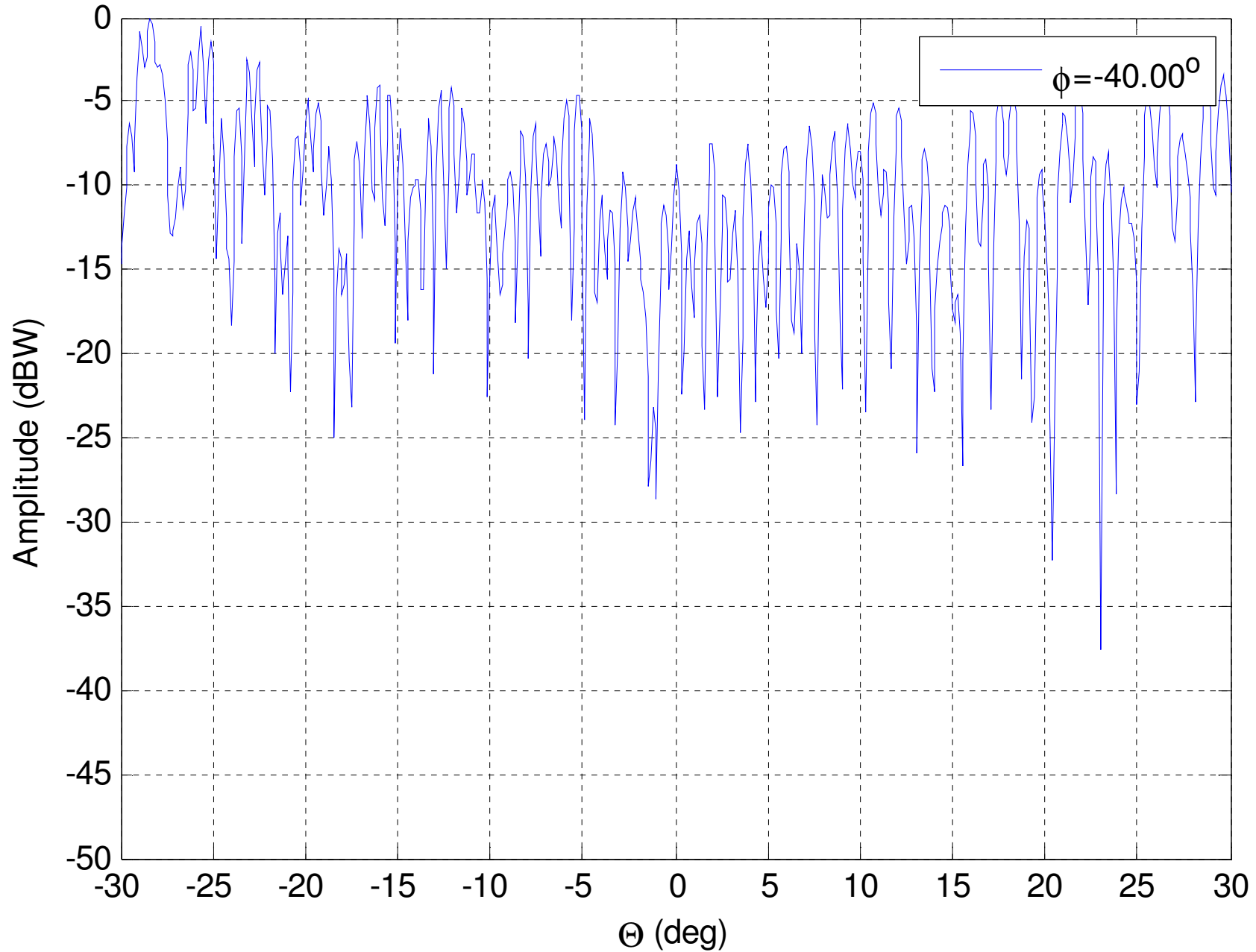
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--50.cut, Peak: -1.86 dBW, Date: 16-Dec-2011



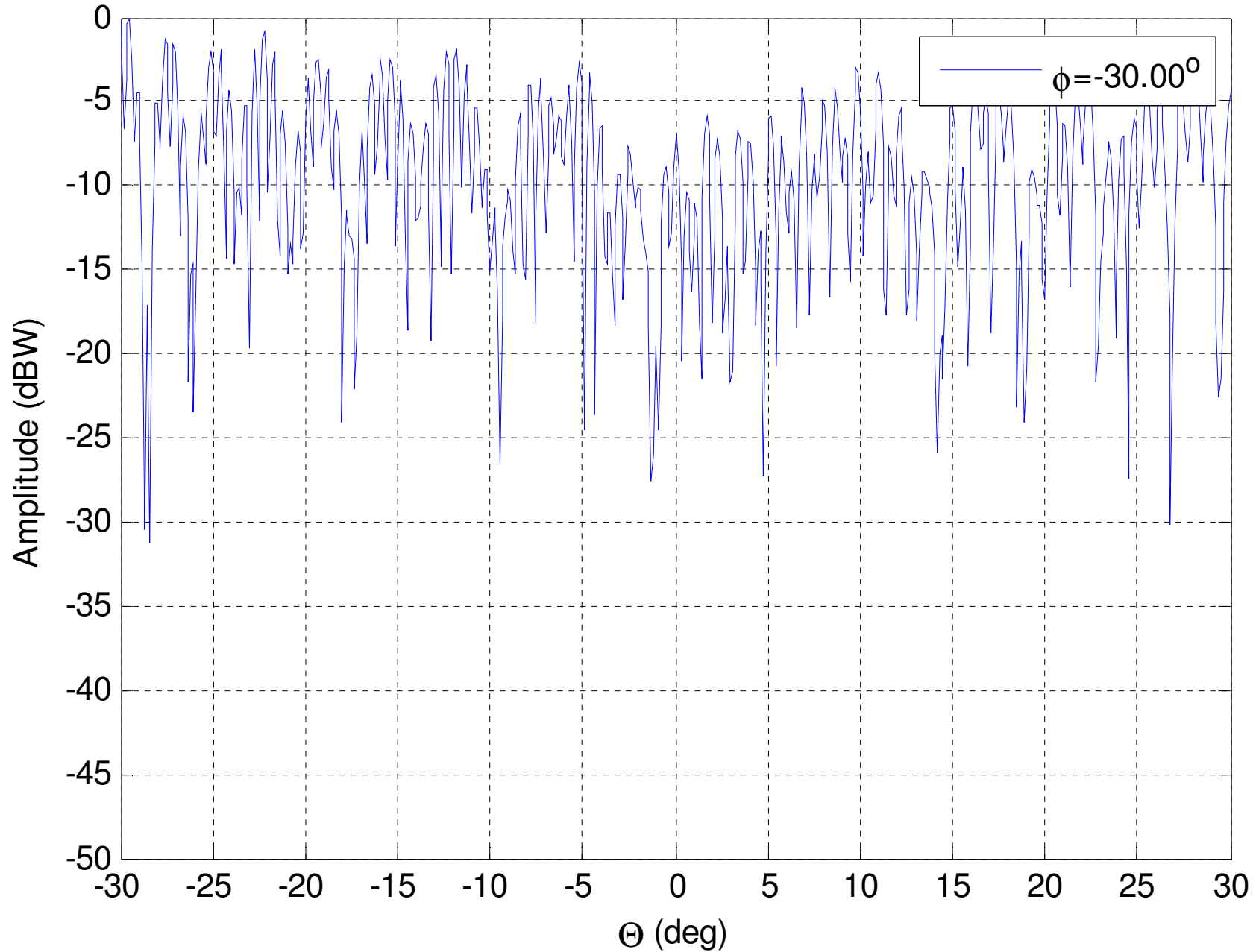
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--40.cut, Peak: -2.51 dBW, Date: 16-Dec-2011



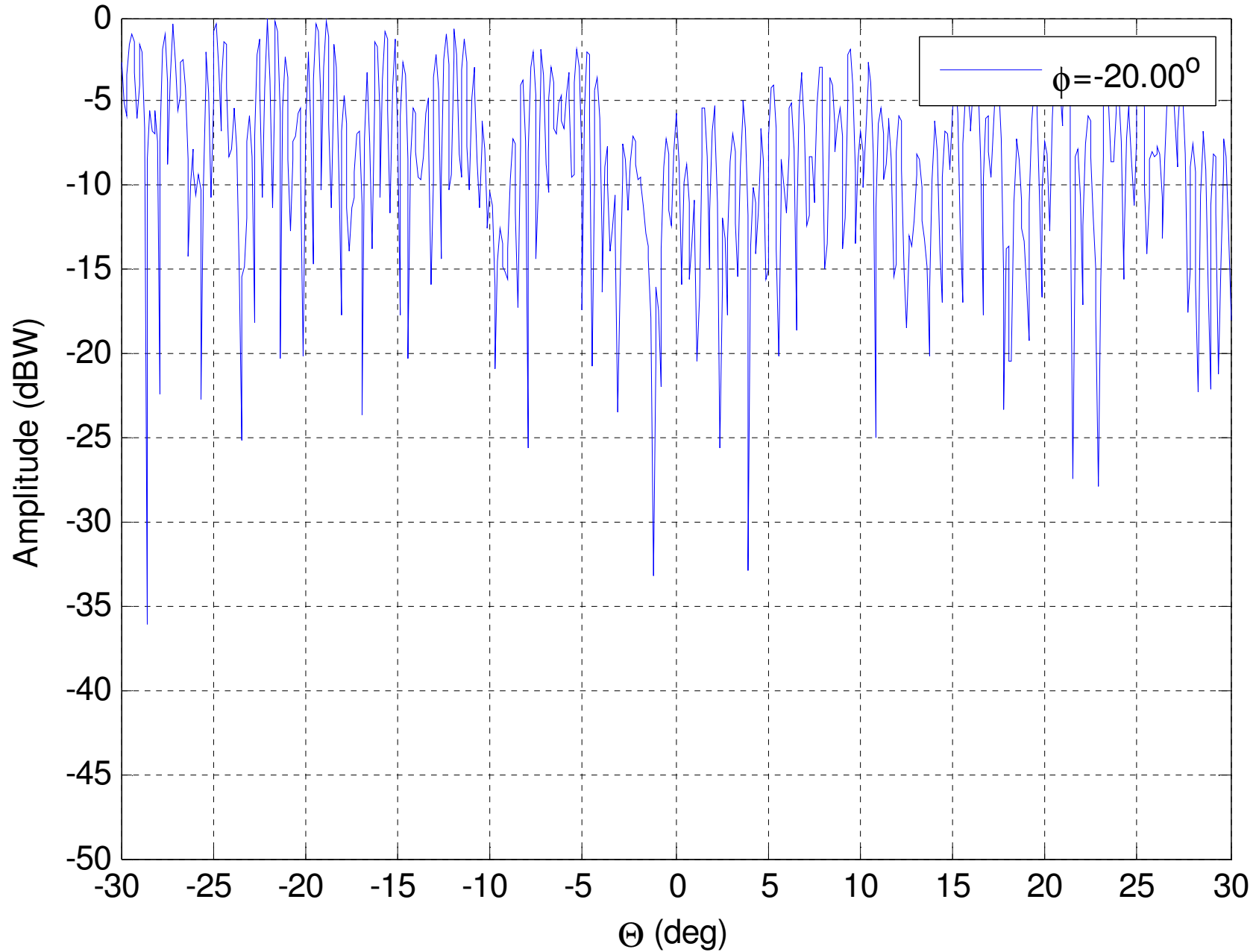
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--30.cut, Peak: -4.45 dBW, Date: 16-Dec-2011



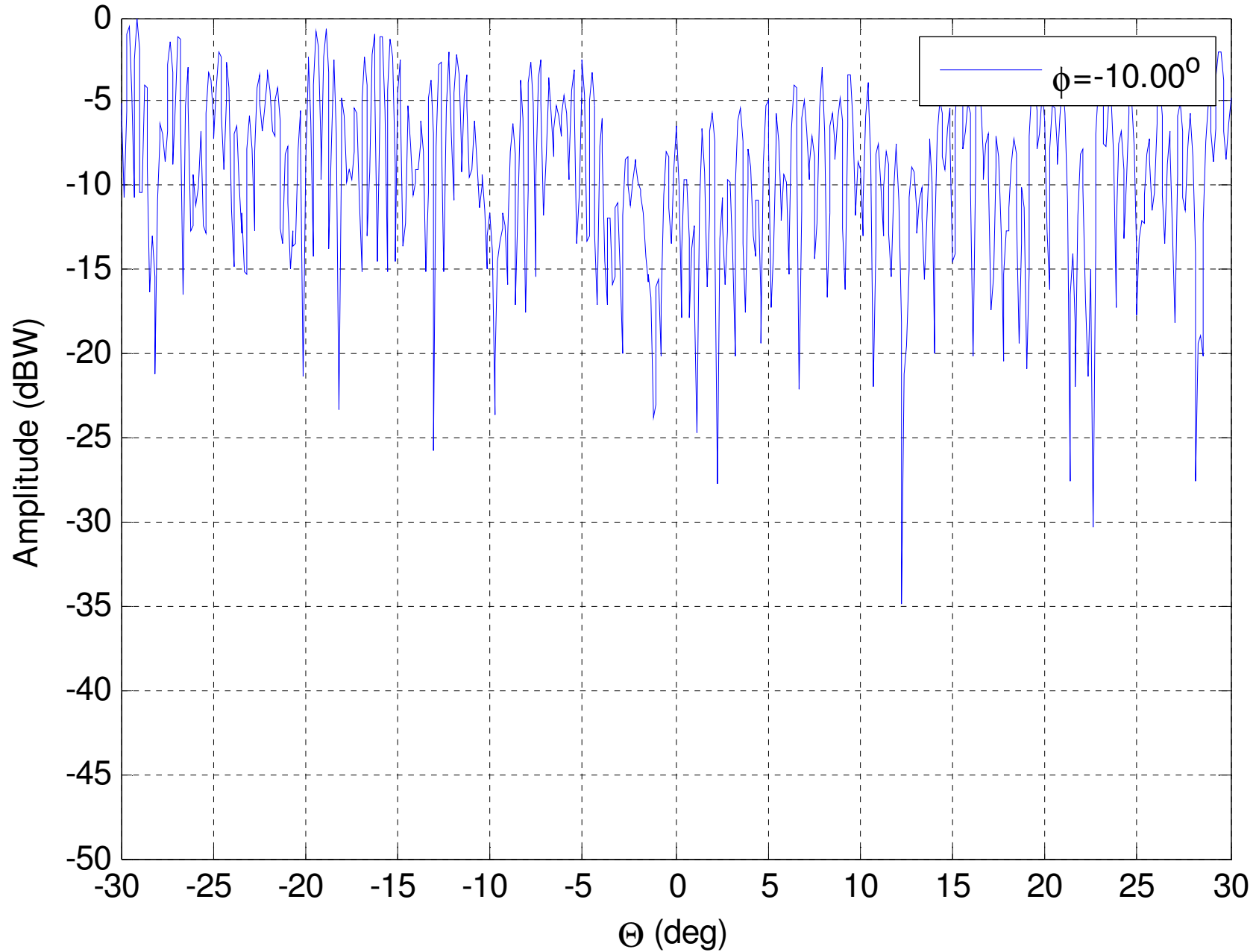
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--20.cut, Peak: -5.69 dBW, Date: 16-Dec-2011



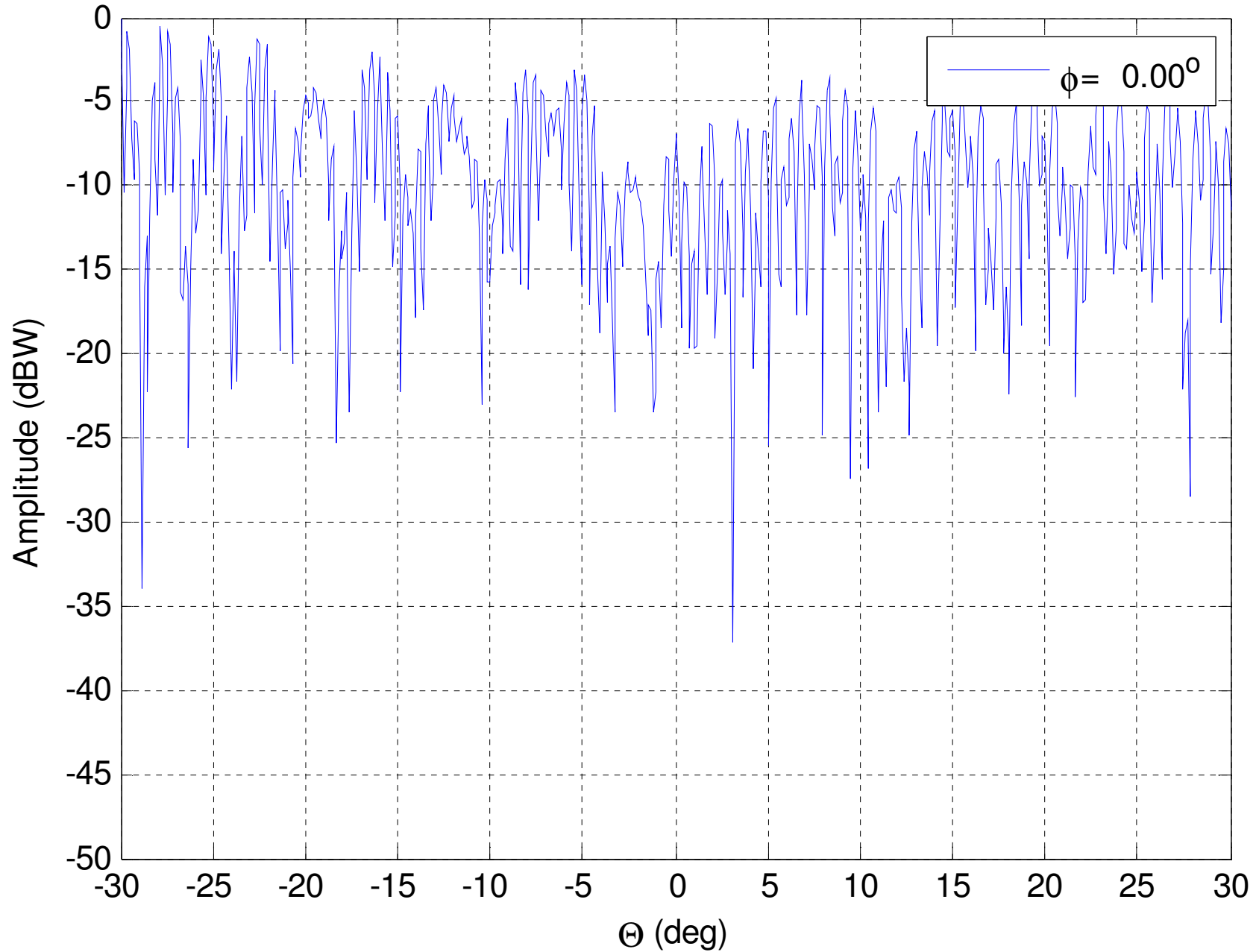
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--10.cut, Peak: -4.94 dBW, Date: 16-Dec-2011



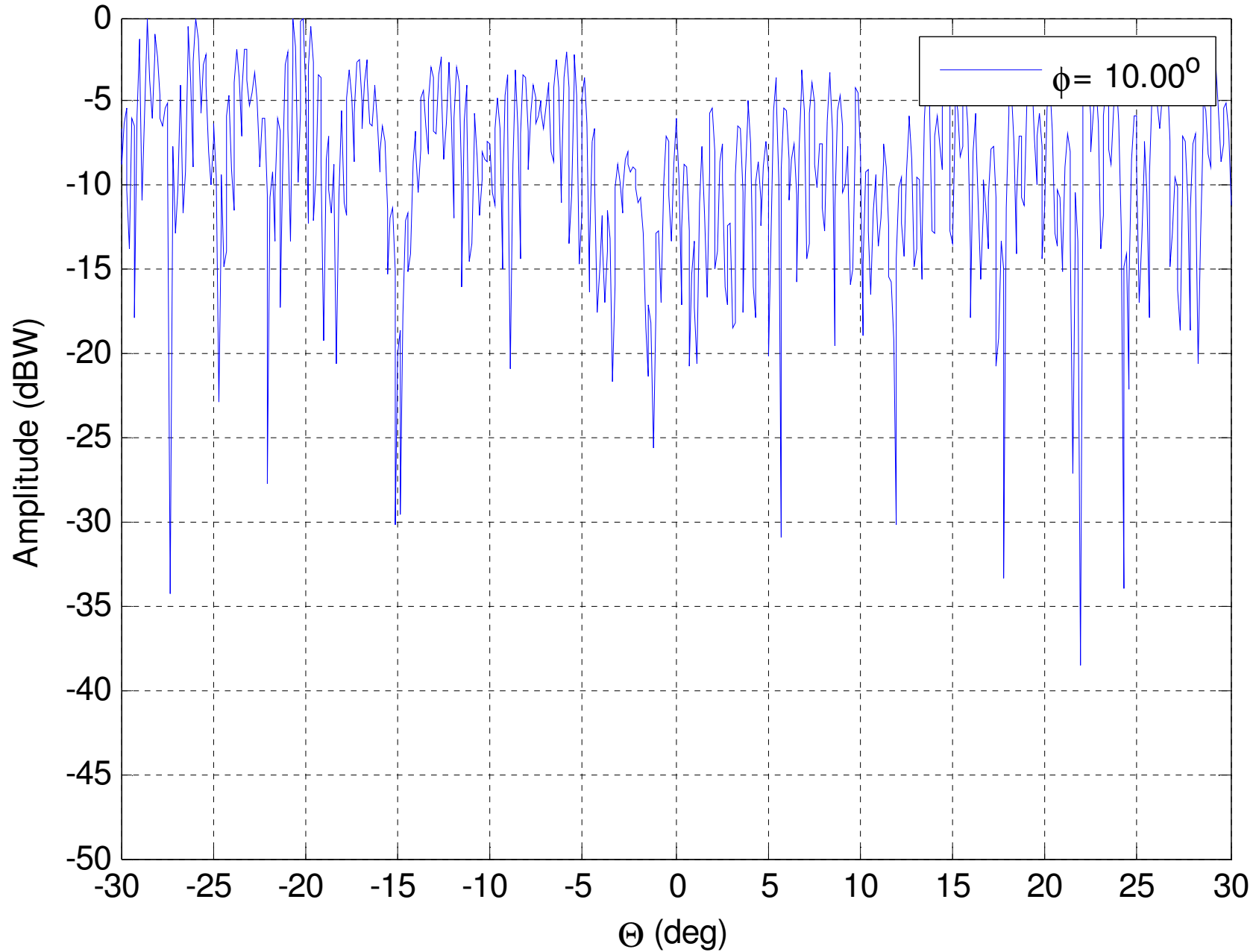
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-0.cut, Peak: -4.43 dBW, Date: 16-Dec-2011



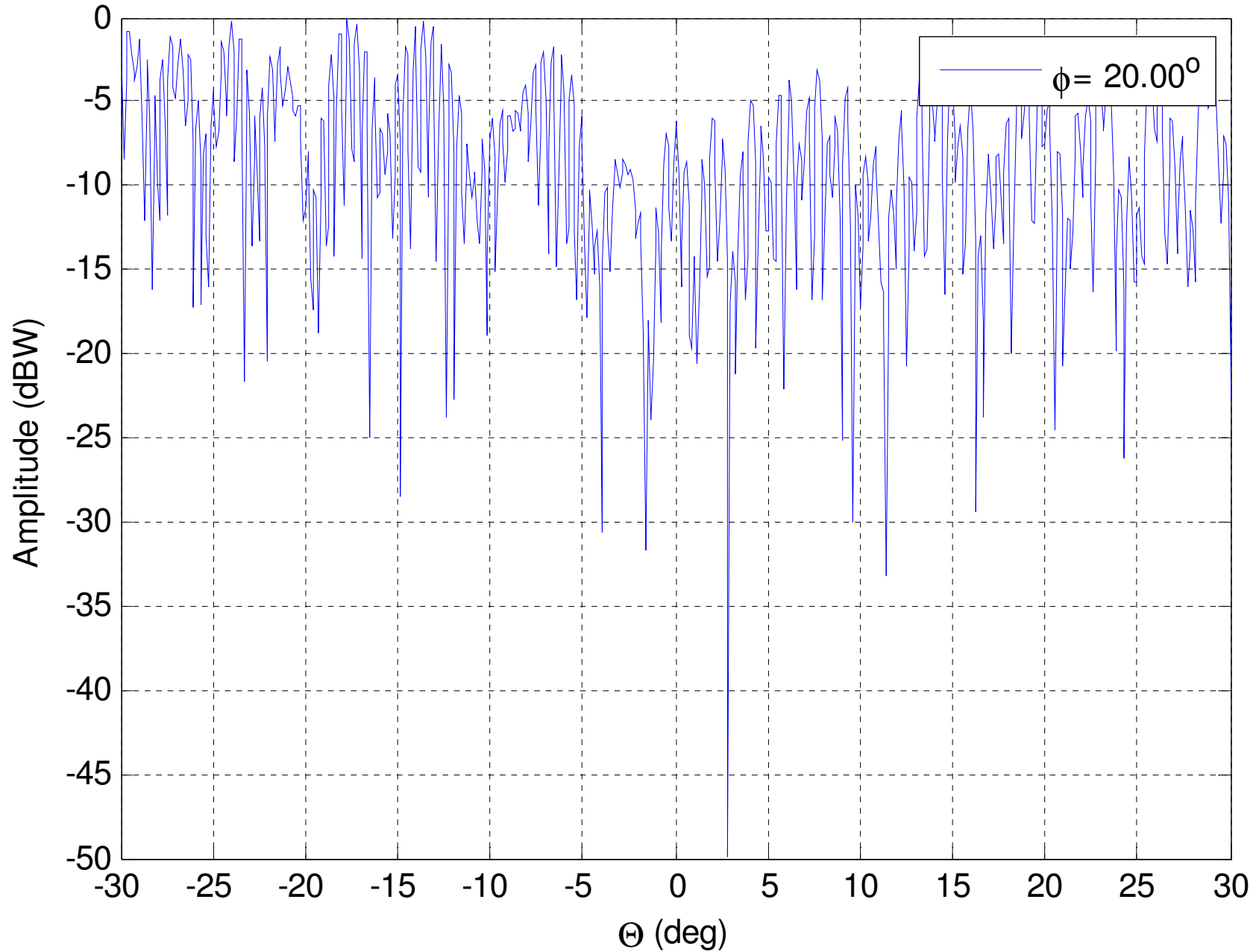
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-10.cut, Peak: -5.31 dBW, Date: 16-Dec-2011



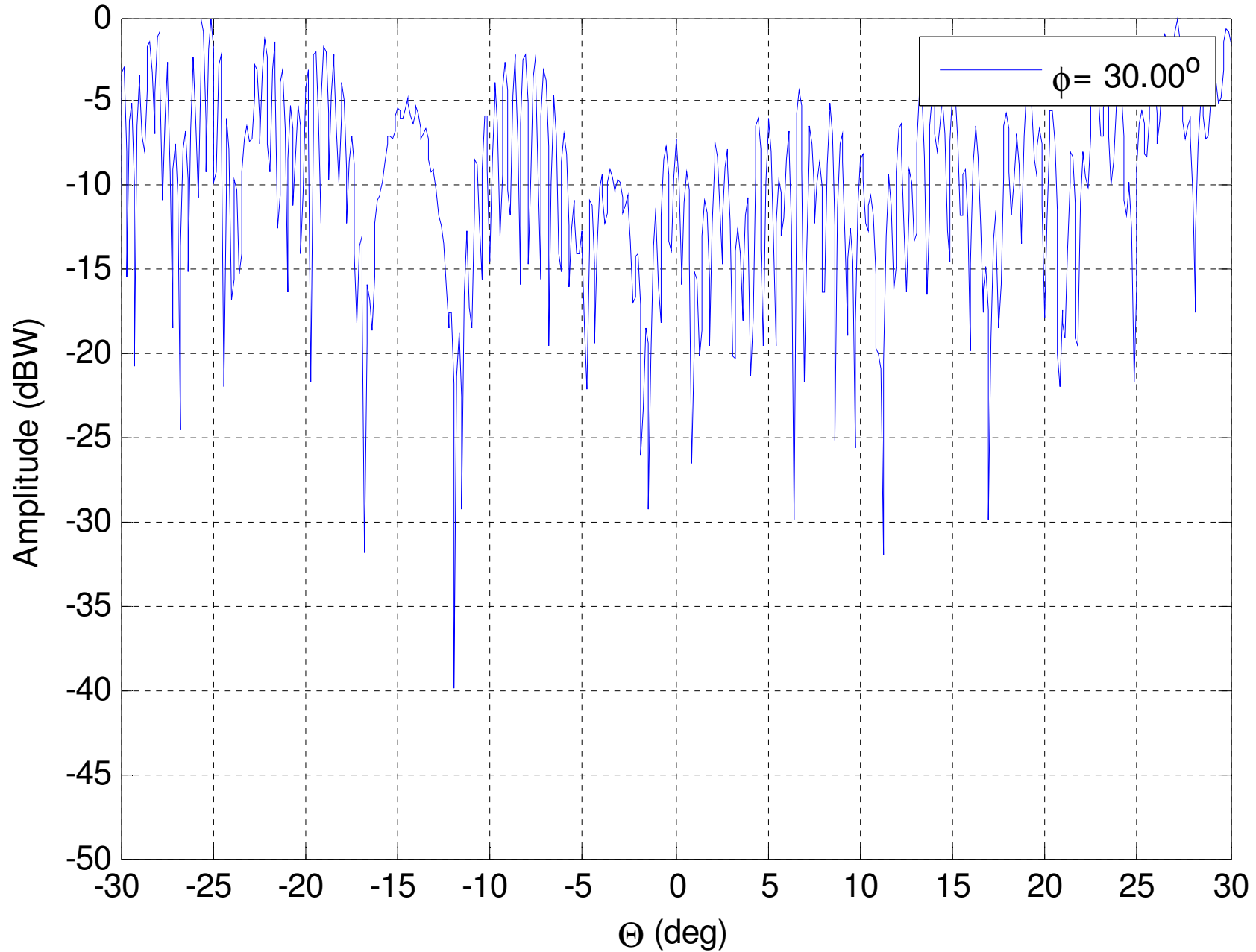
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-20.cut, Peak: -5.15 dBW, Date: 16-Dec-2011



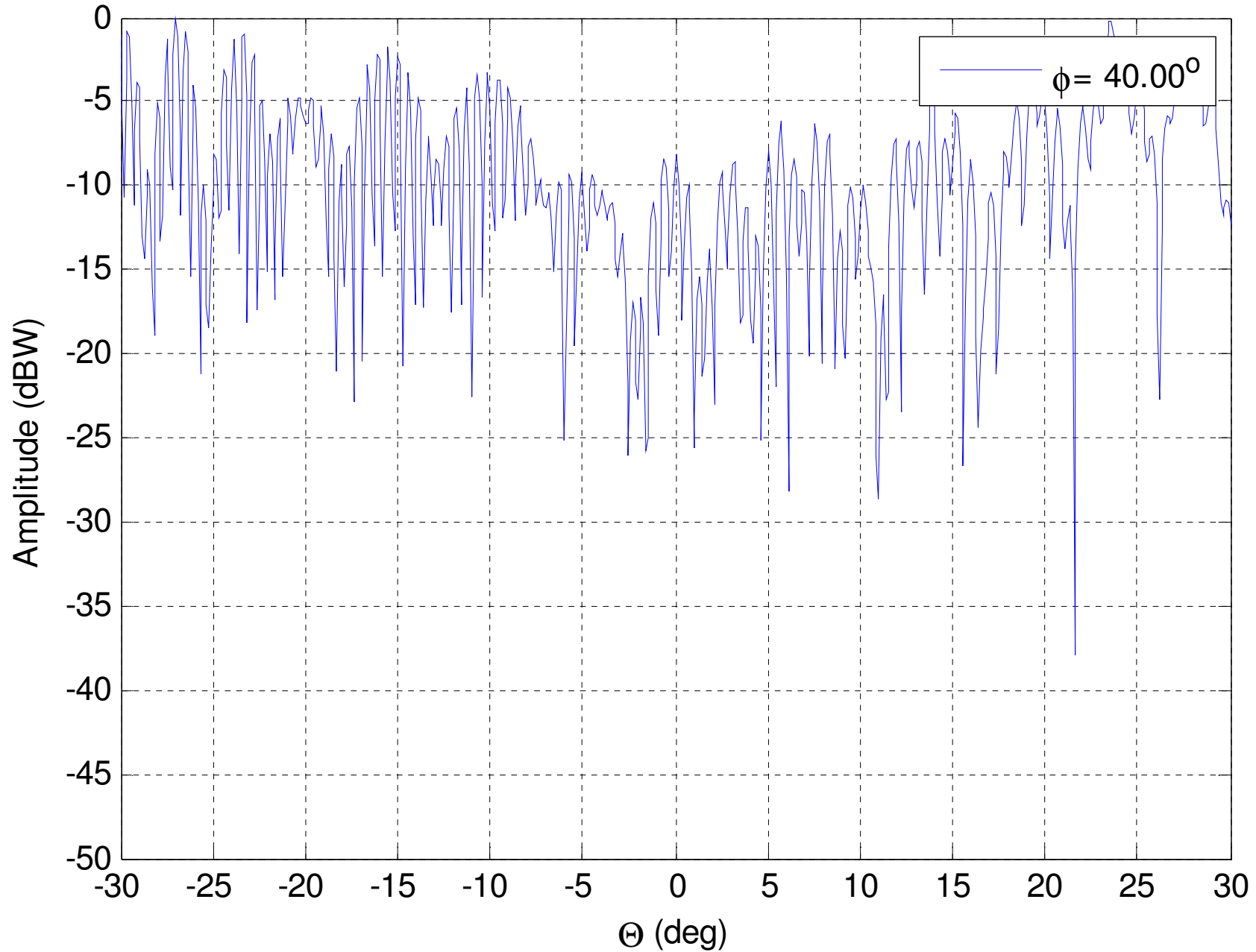
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-30.cut, Peak: -4.11 dBW, Date: 16-Dec-2011



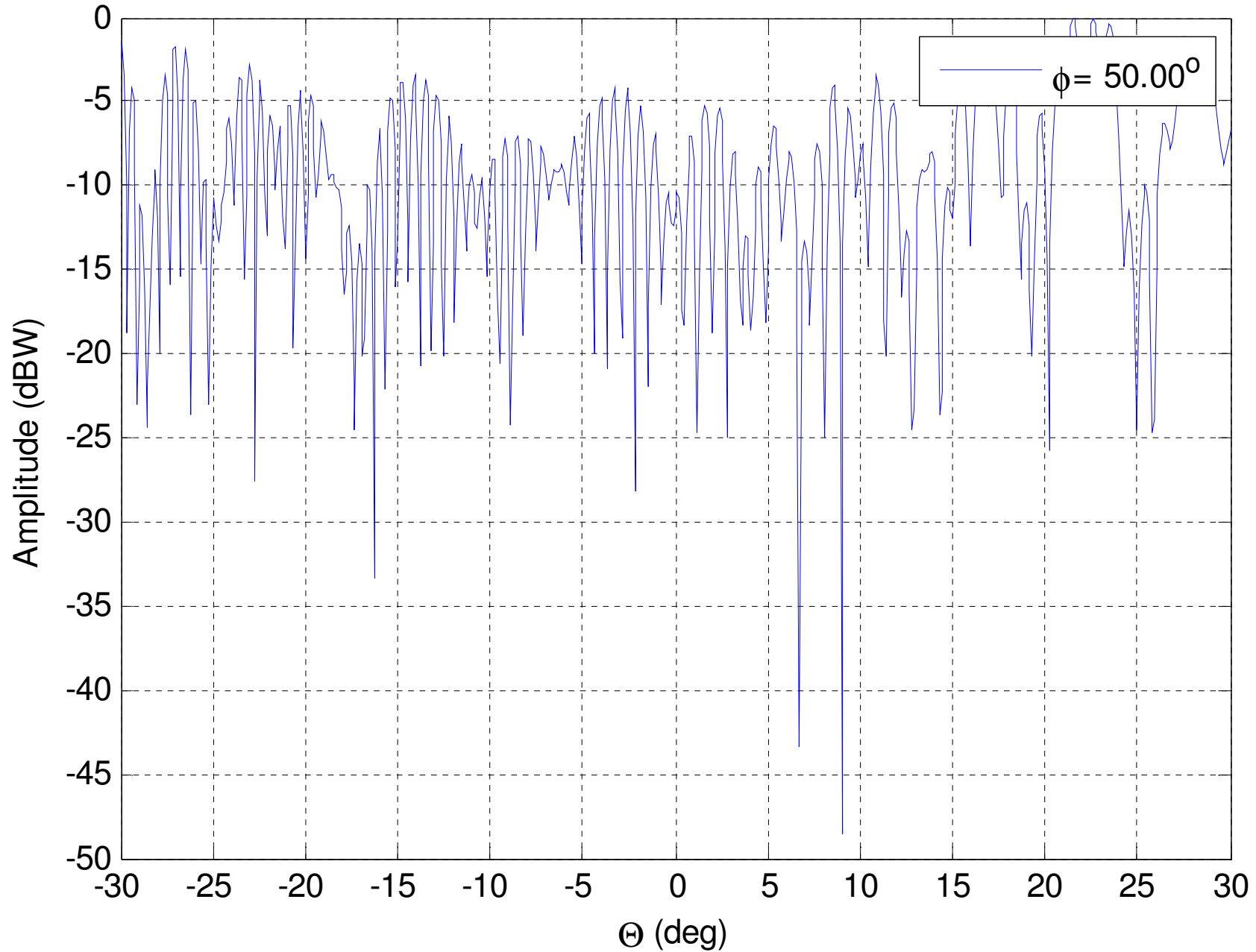
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-40.cut, Peak: -3.17 dBW, Date: 16-Dec-2011



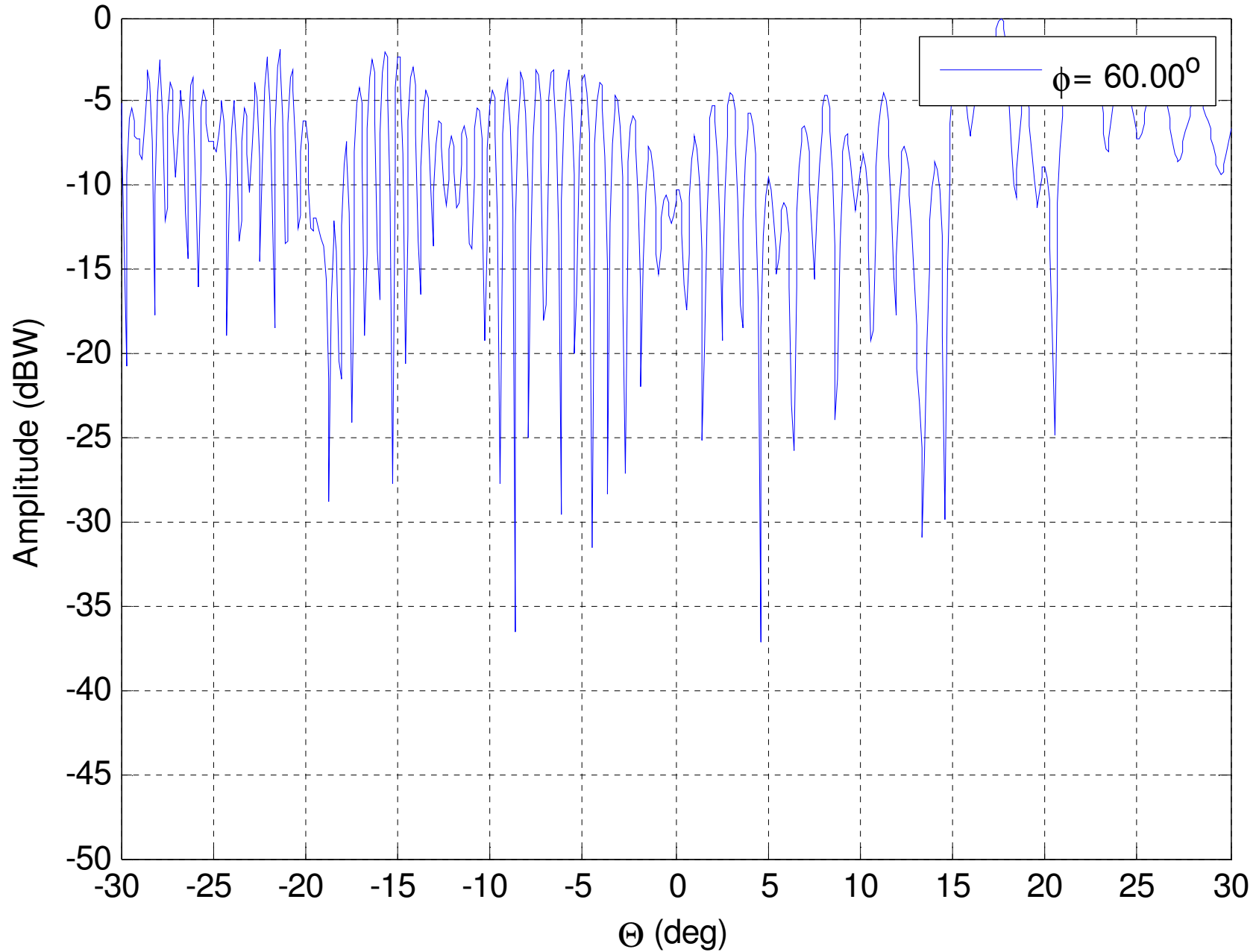
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-50.cut, Peak: -3.16 dBW, Date: 16-Dec-2011



Normalized pattern cuts - farfield

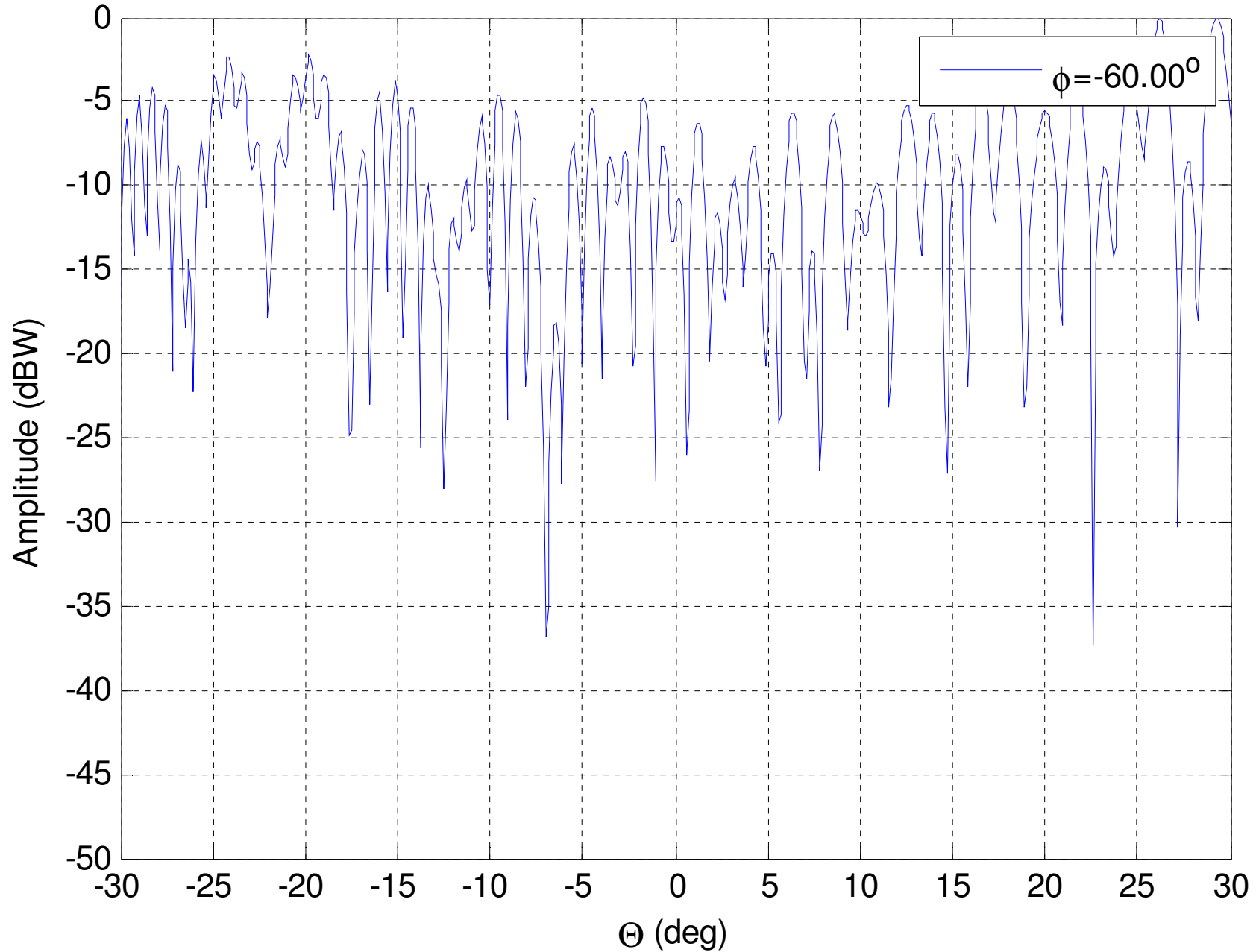
Input file: tx-17.5-rhcp-60.cut, Peak: -3.53 dBW, Date: 16-Dec-2011



LHCP at 17.5 GHz

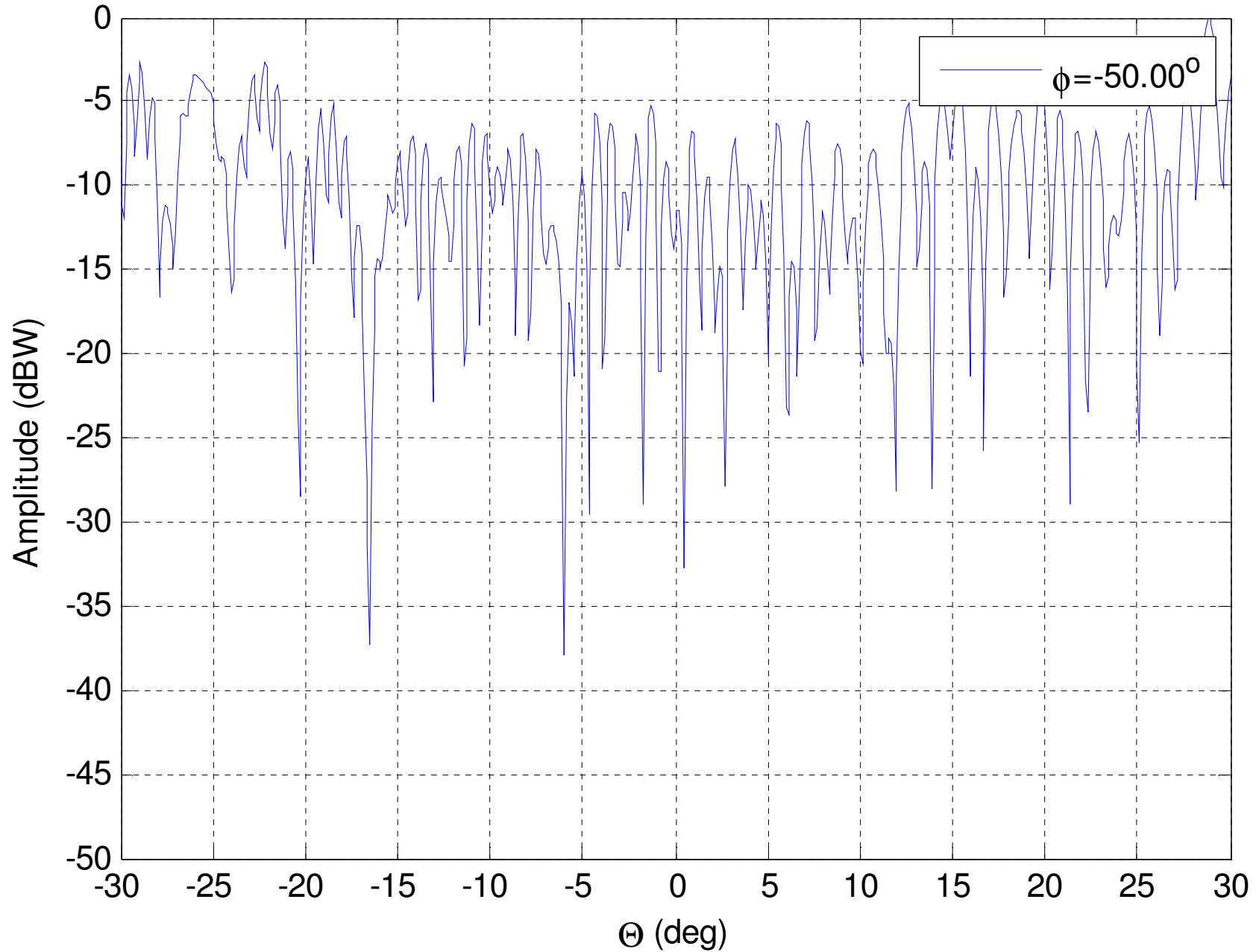
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--60.cut, Peak: -2.34 dBW, Date: 16-Dec-2011



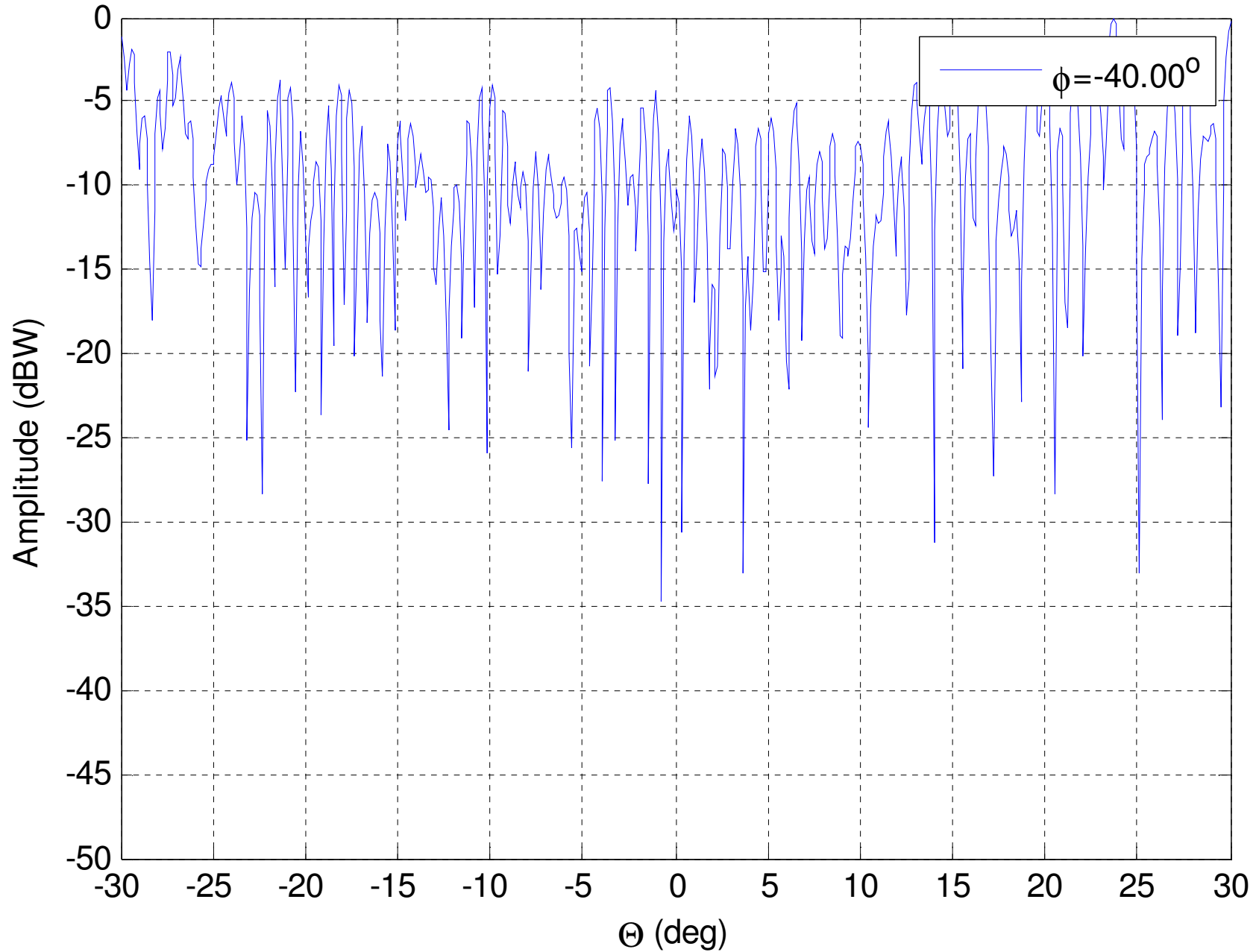
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--50.cut, Peak: -1.92 dBW, Date: 16-Dec-2011



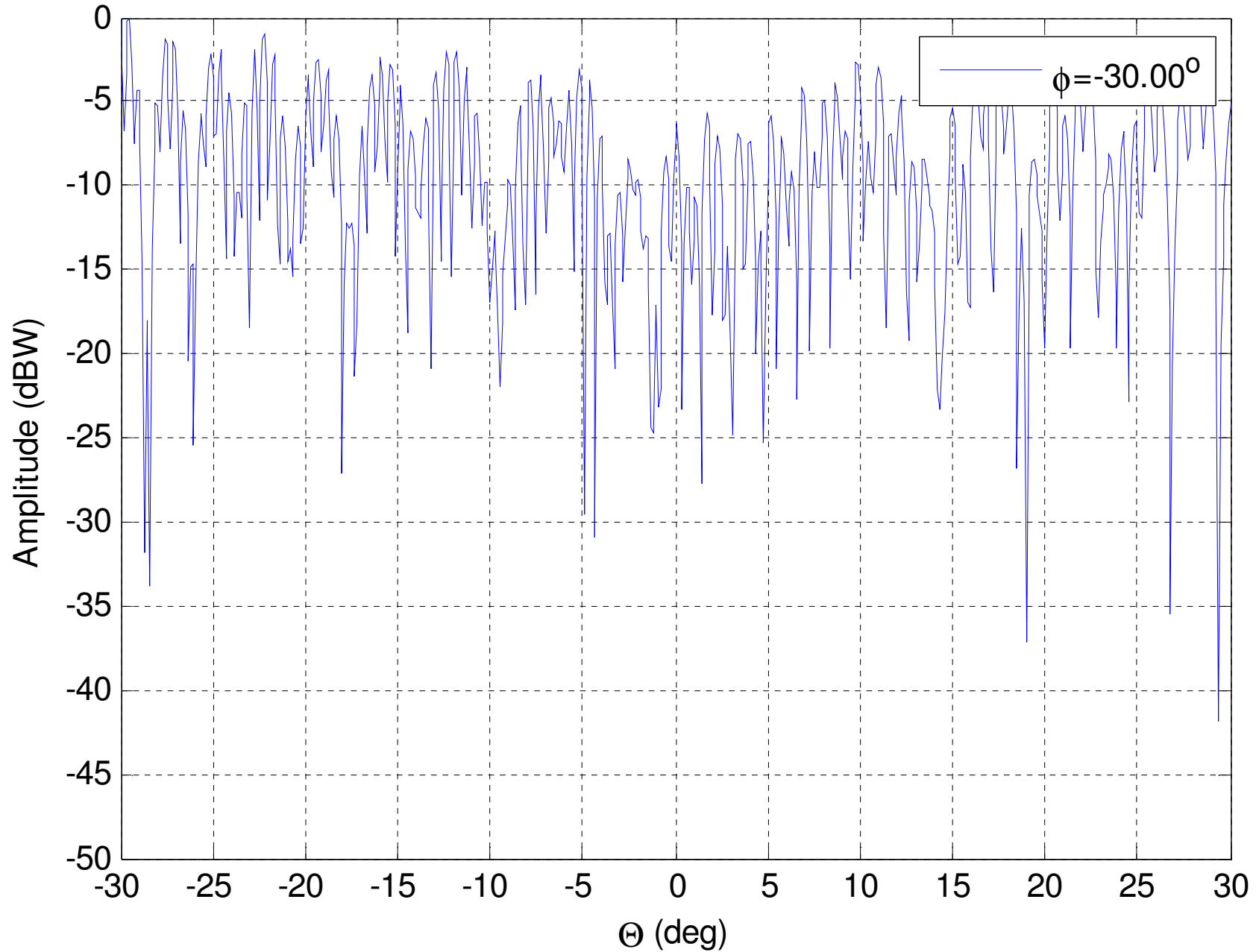
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--40.cut, Peak: -3.00 dBW, Date: 16-Dec-2011



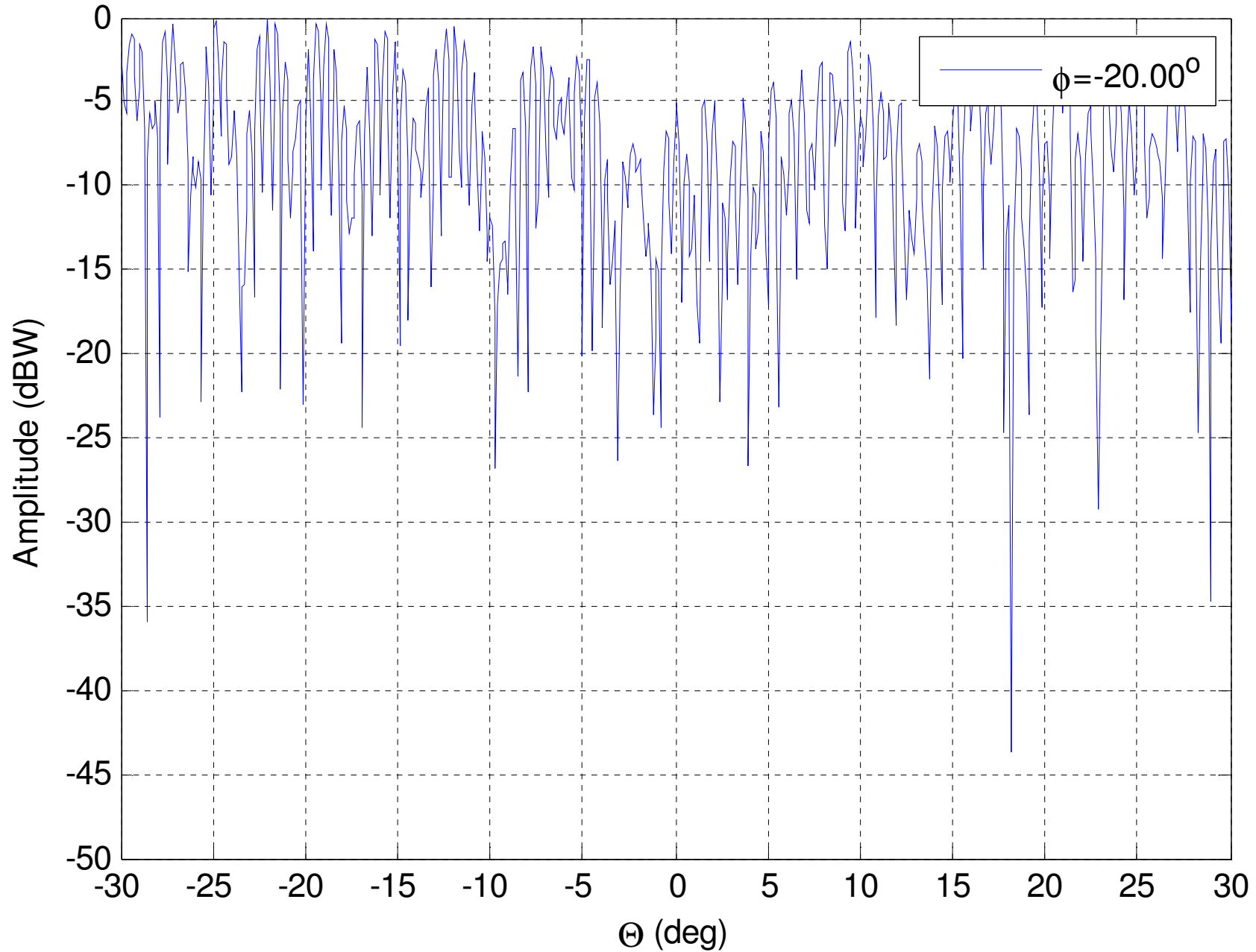
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--30.cut, Peak: -4.42 dBW, Date: 16-Dec-2011



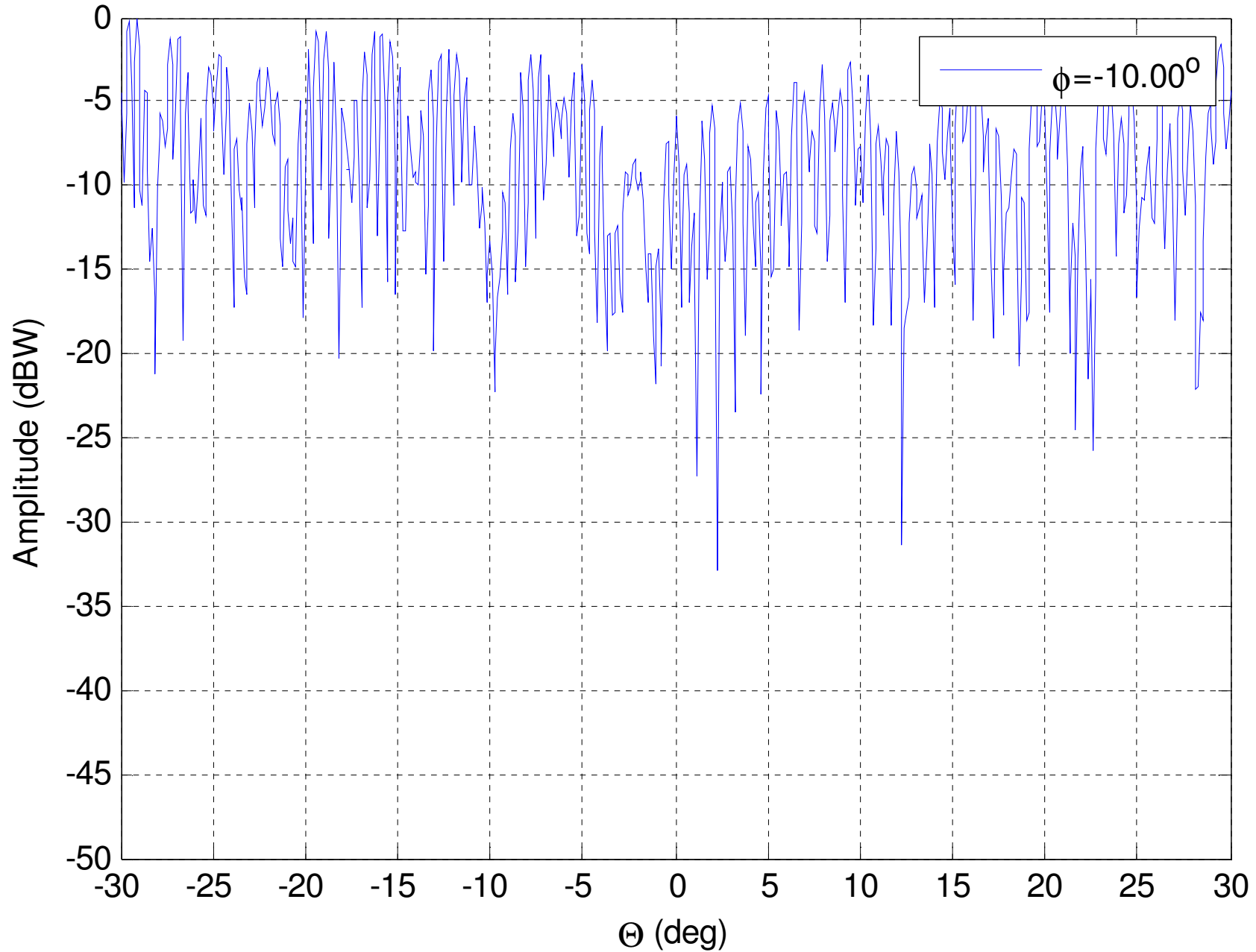
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--20.cut, Peak: -5.72 dBW, Date: 16-Dec-2011



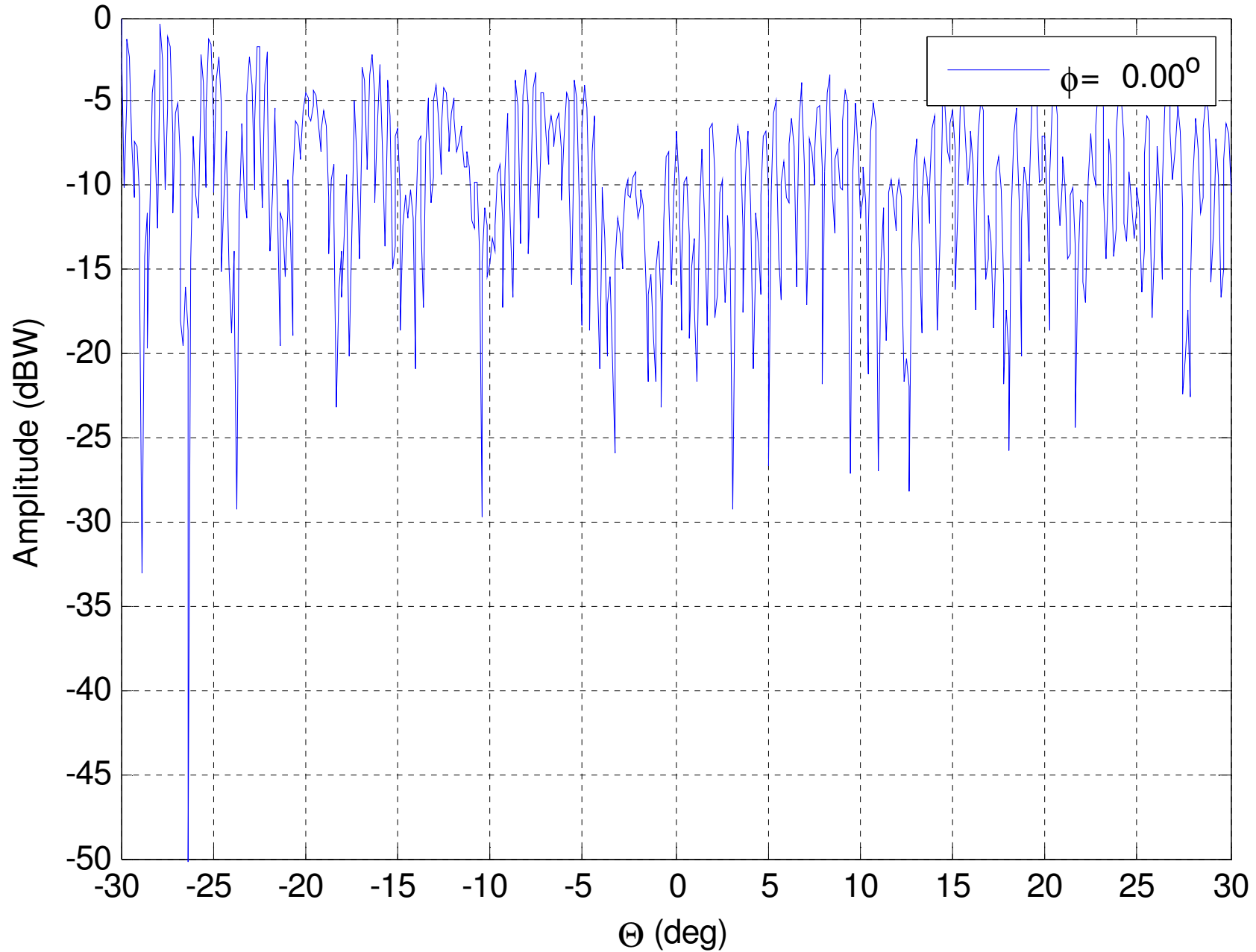
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--10.cut, Peak: -5.02 dBW, Date: 16-Dec-2011



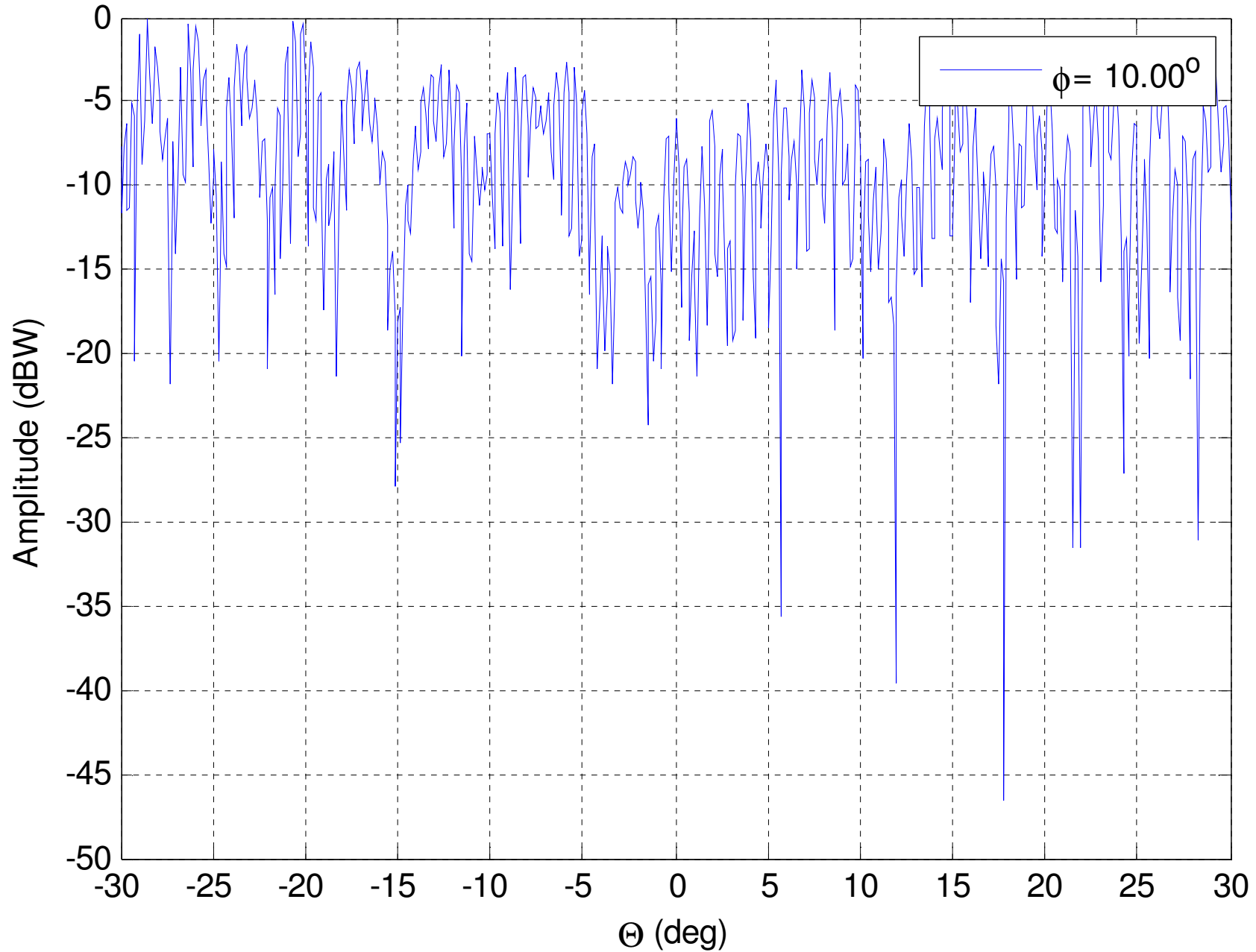
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-0.cut, Peak: -4.21 dBW, Date: 16-Dec-2011



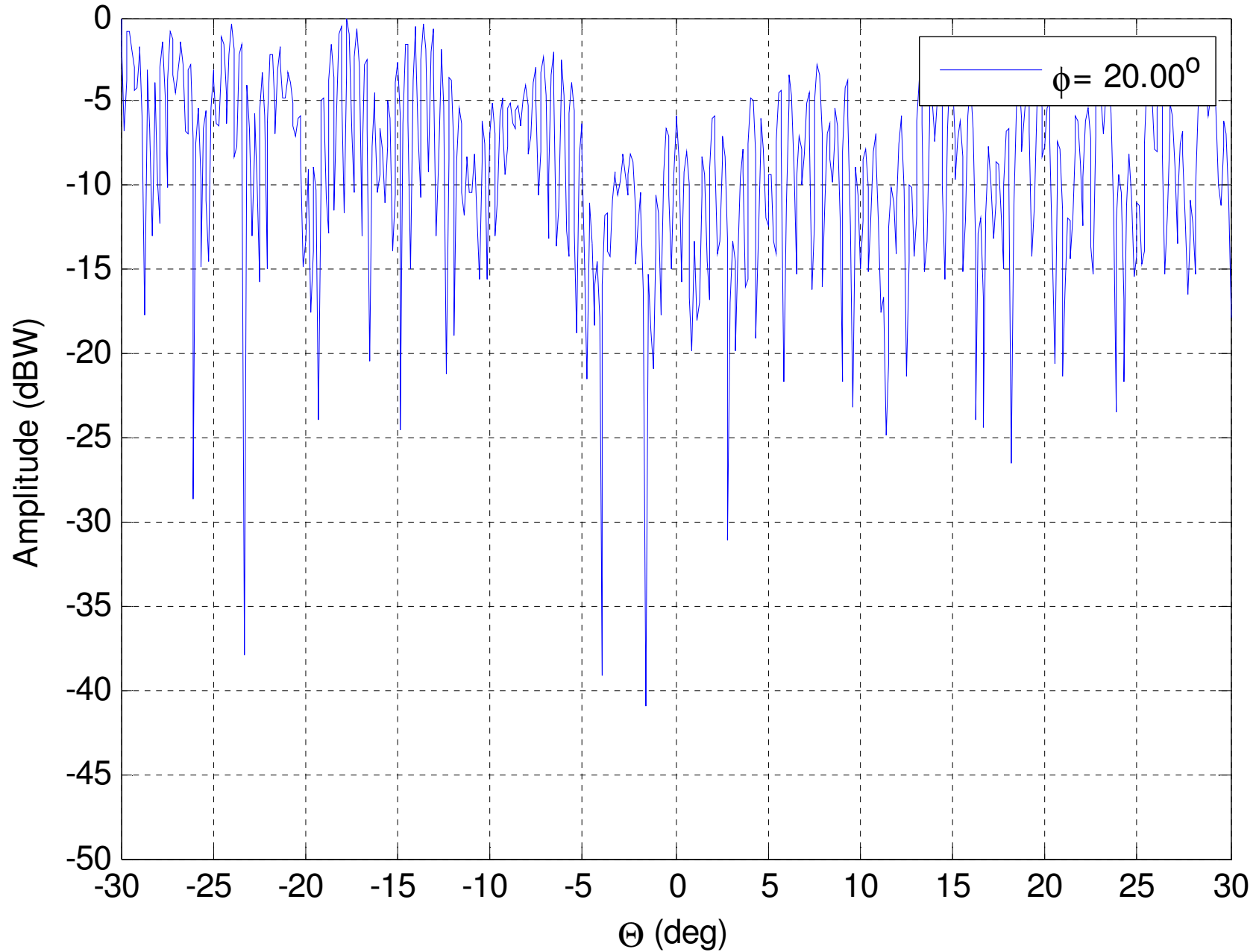
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-10.cut, Peak: -4.98 dBW, Date: 16-Dec-2011



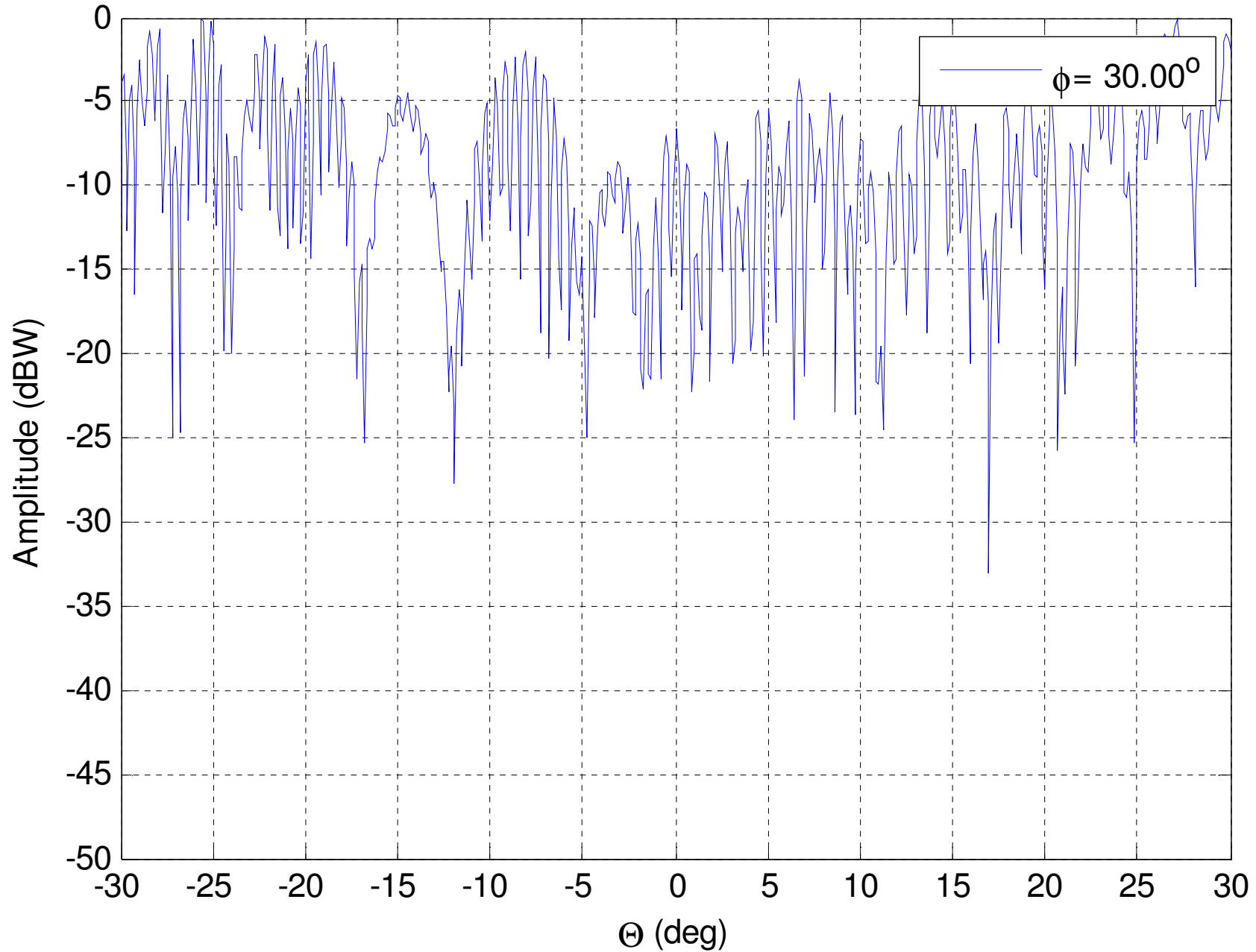
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-20.cut, Peak: -5.06 dBW, Date: 16-Dec-2011



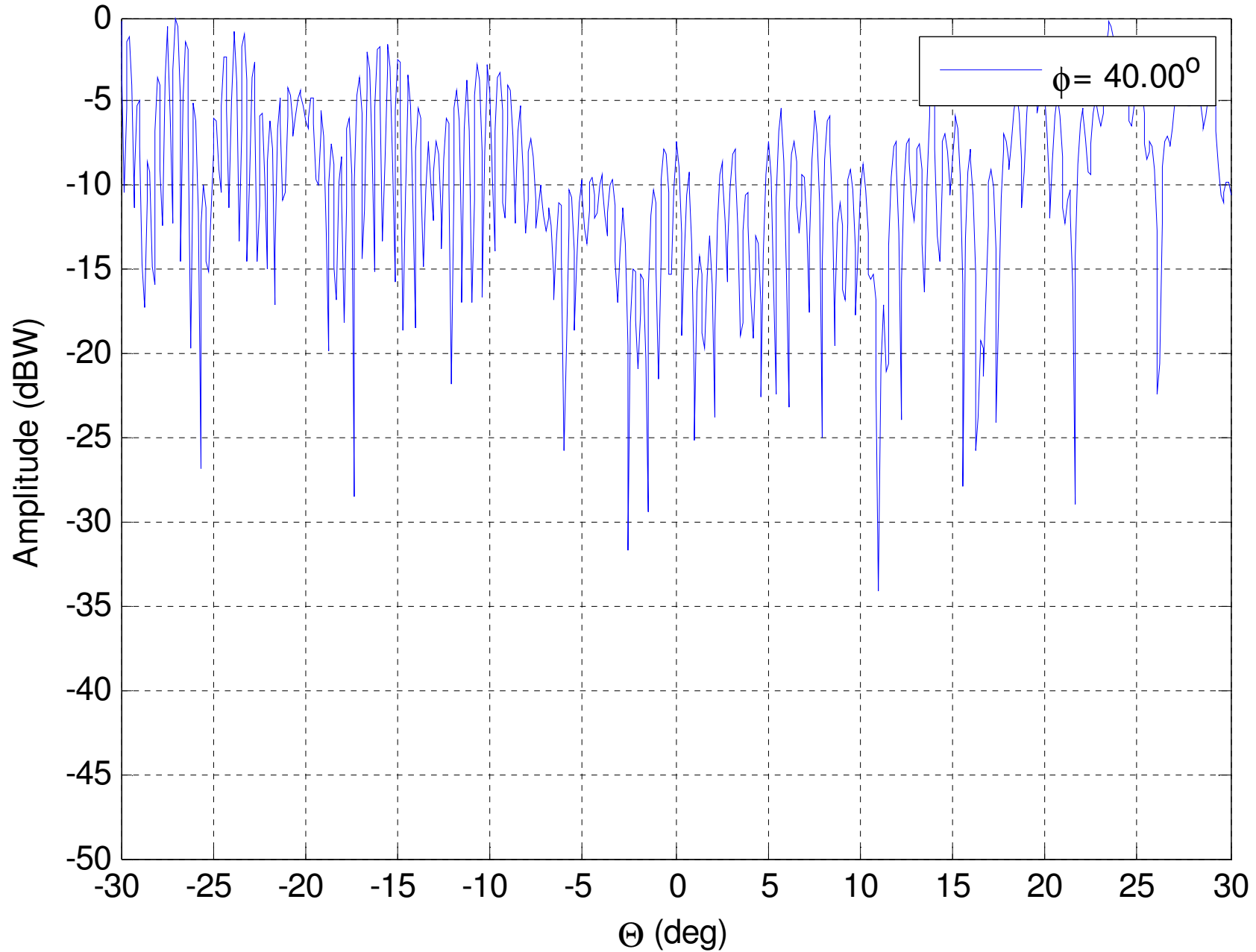
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-30.cut, Peak: -4.24 dBW, Date: 16-Dec-2011



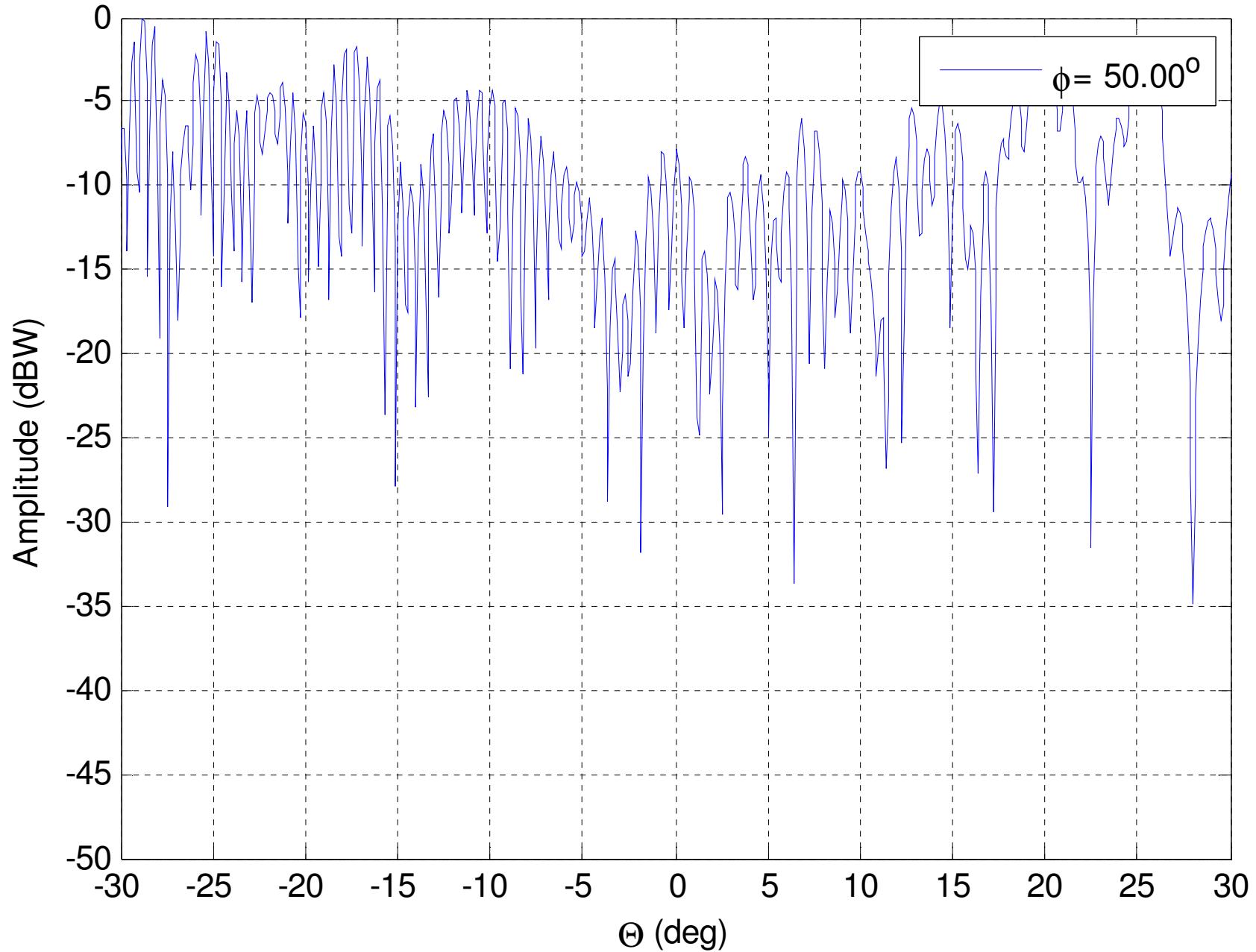
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-40.cut, Peak: -3.36 dBW, Date: 16-Dec-2011



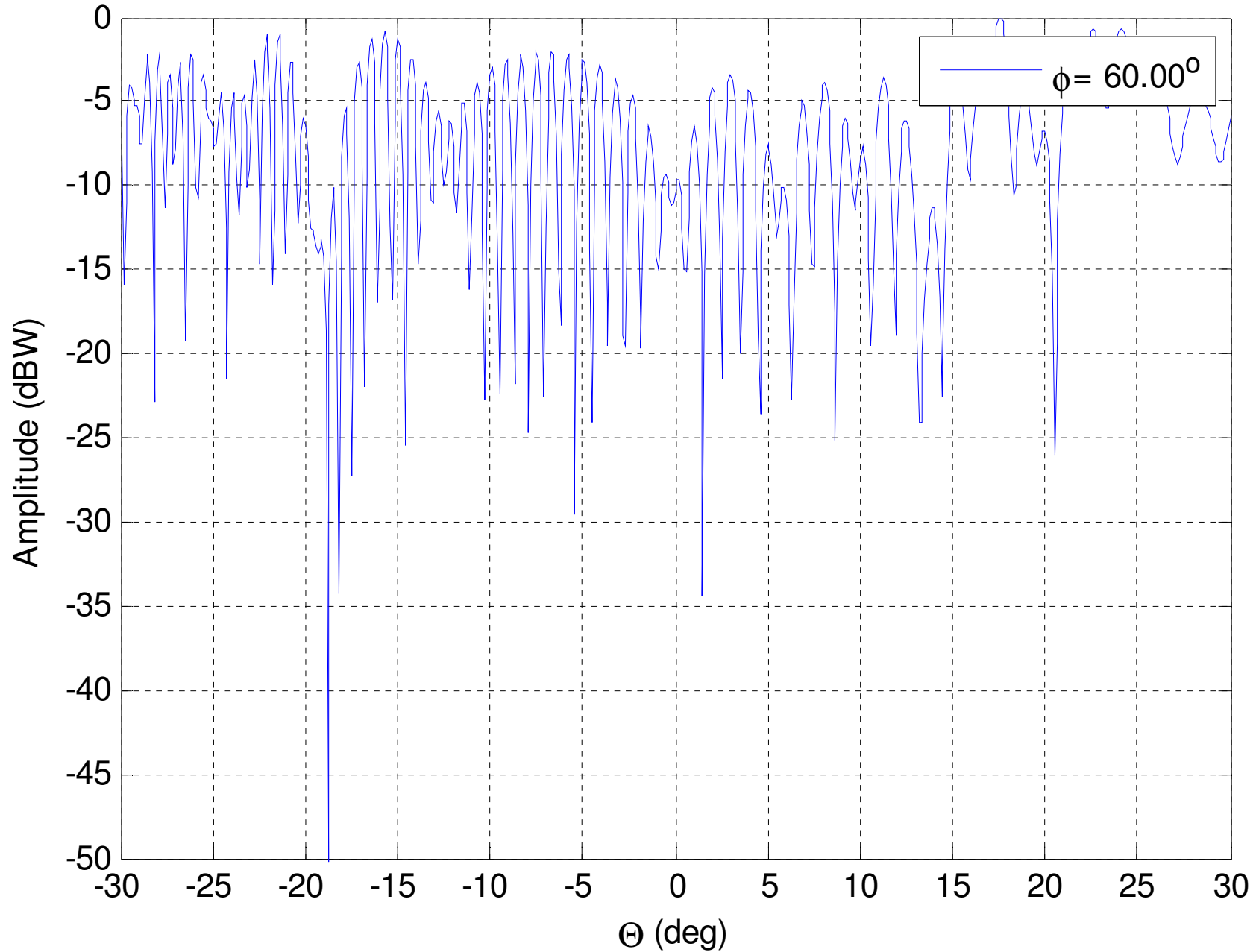
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-50.cut, Peak: -2.96 dBW, Date: 16-Dec-2011



Normalized pattern cuts - farfield

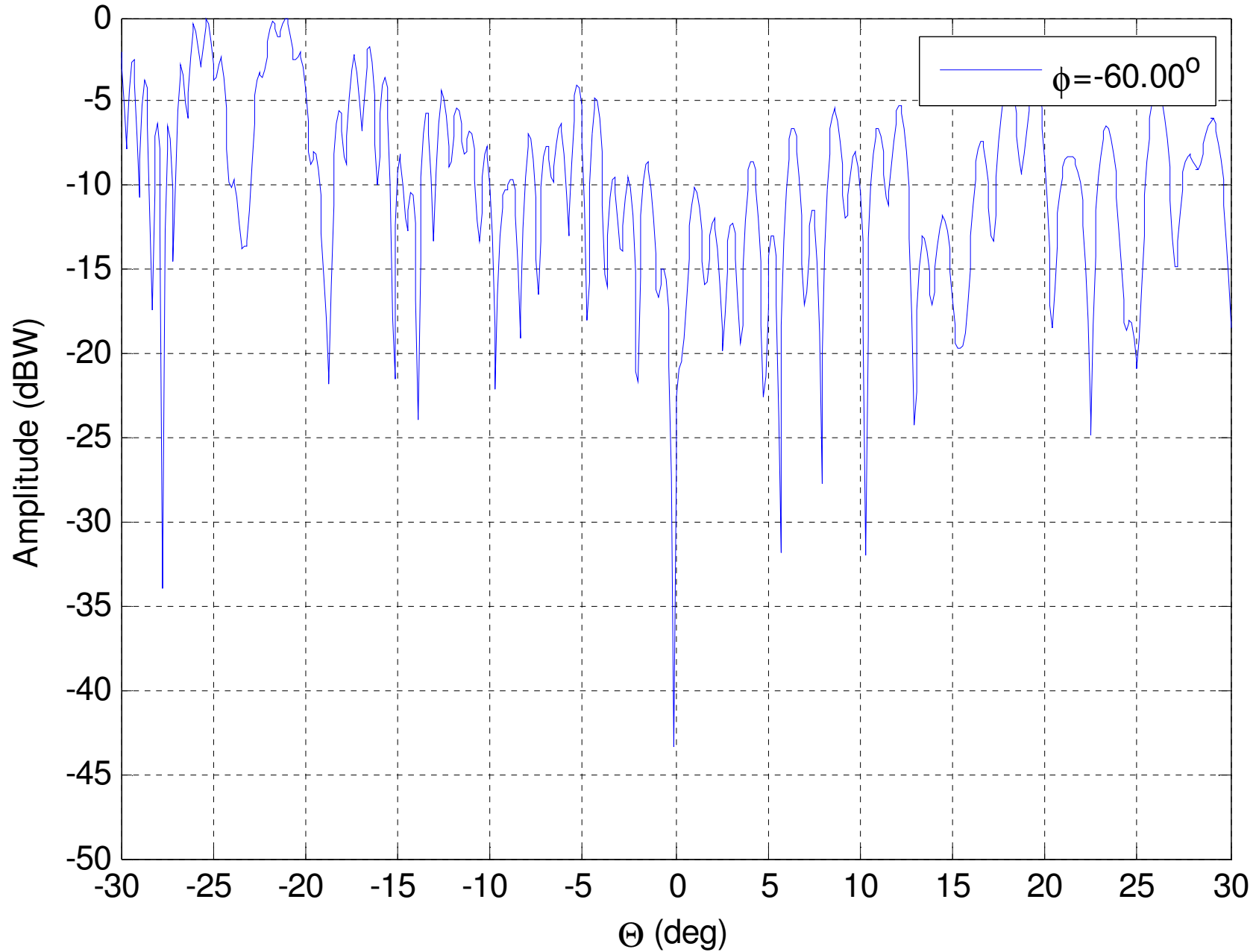
Input file: tx-17.5-lhcp-60.cut, Peak: -4.29 dBW, Date: 16-Dec-2011



RHCP at 17.7 GHz

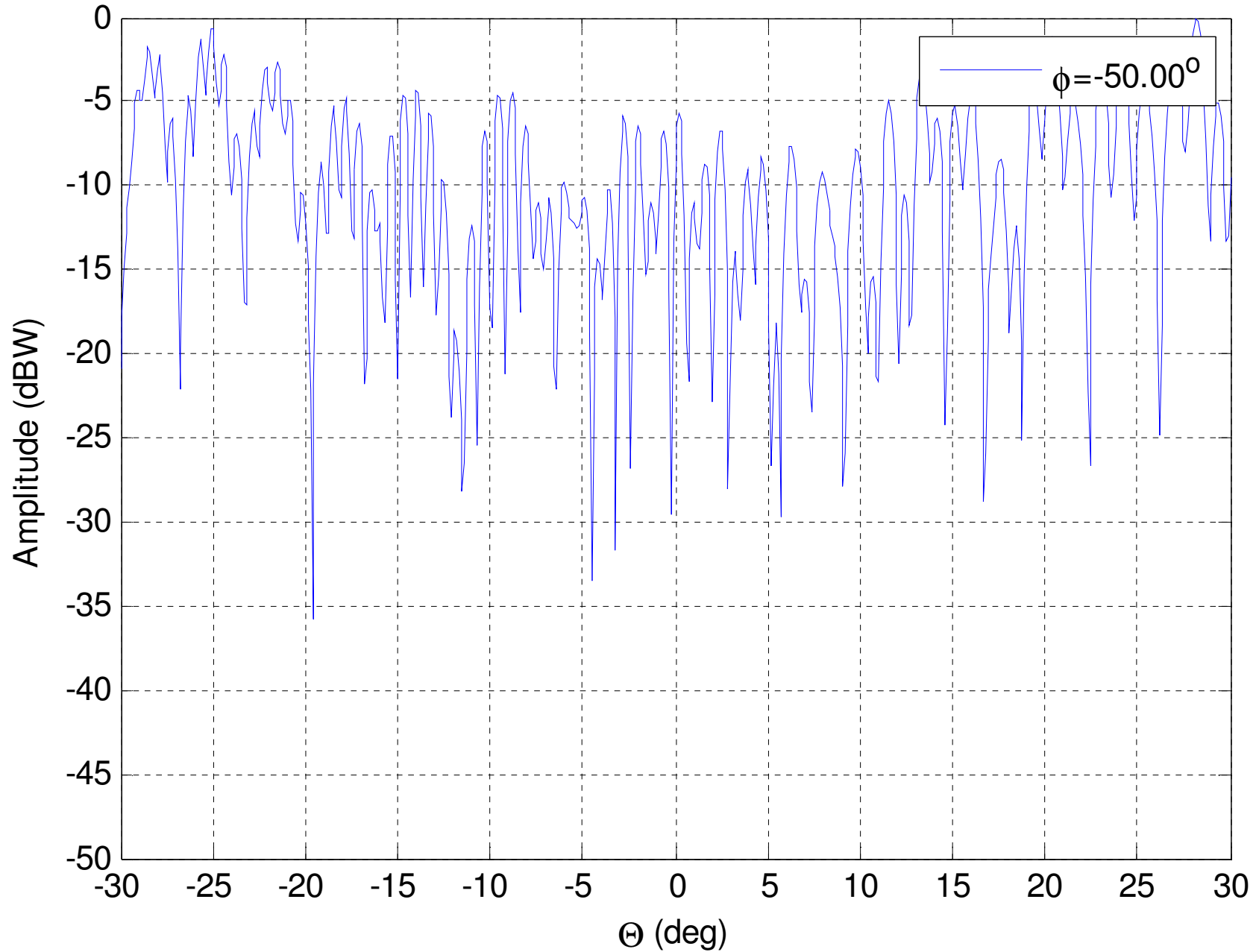
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--60.cut, Peak: -3.18 dBW, Date: 16-Dec-2011



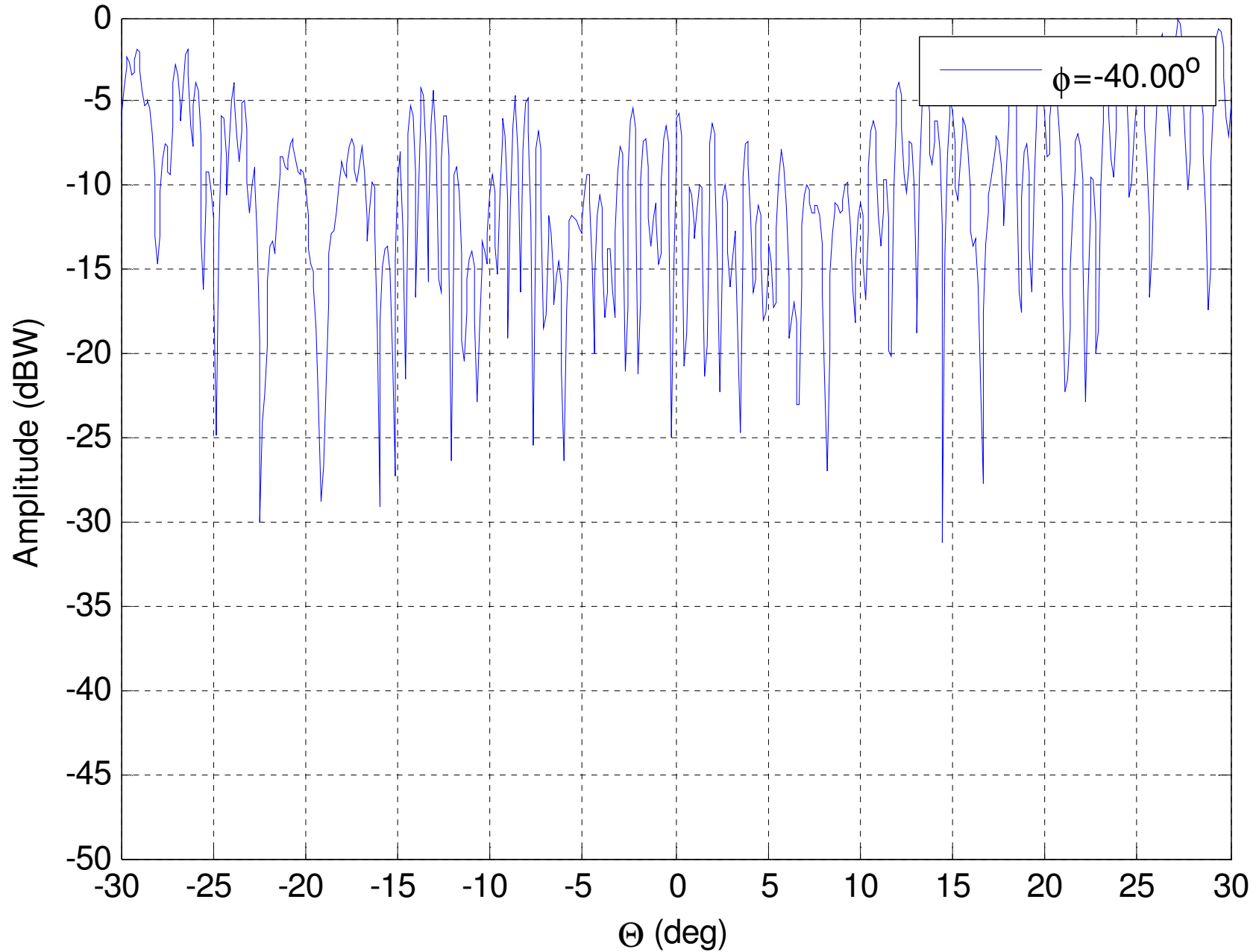
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--50.cut, Peak: -2.43 dBW, Date: 16-Dec-2011



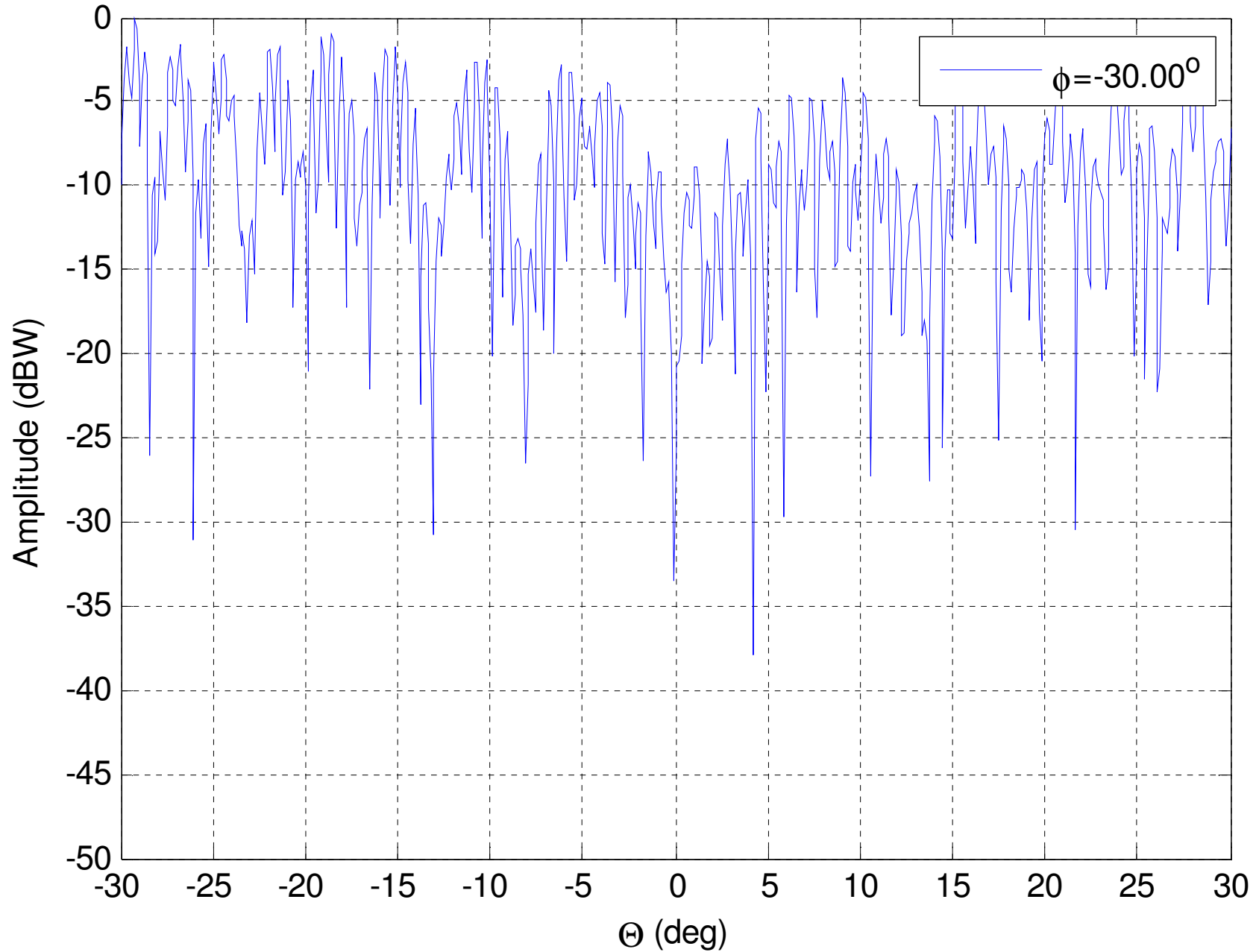
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--40.cut, Peak: -2.51 dBW, Date: 16-Dec-2011



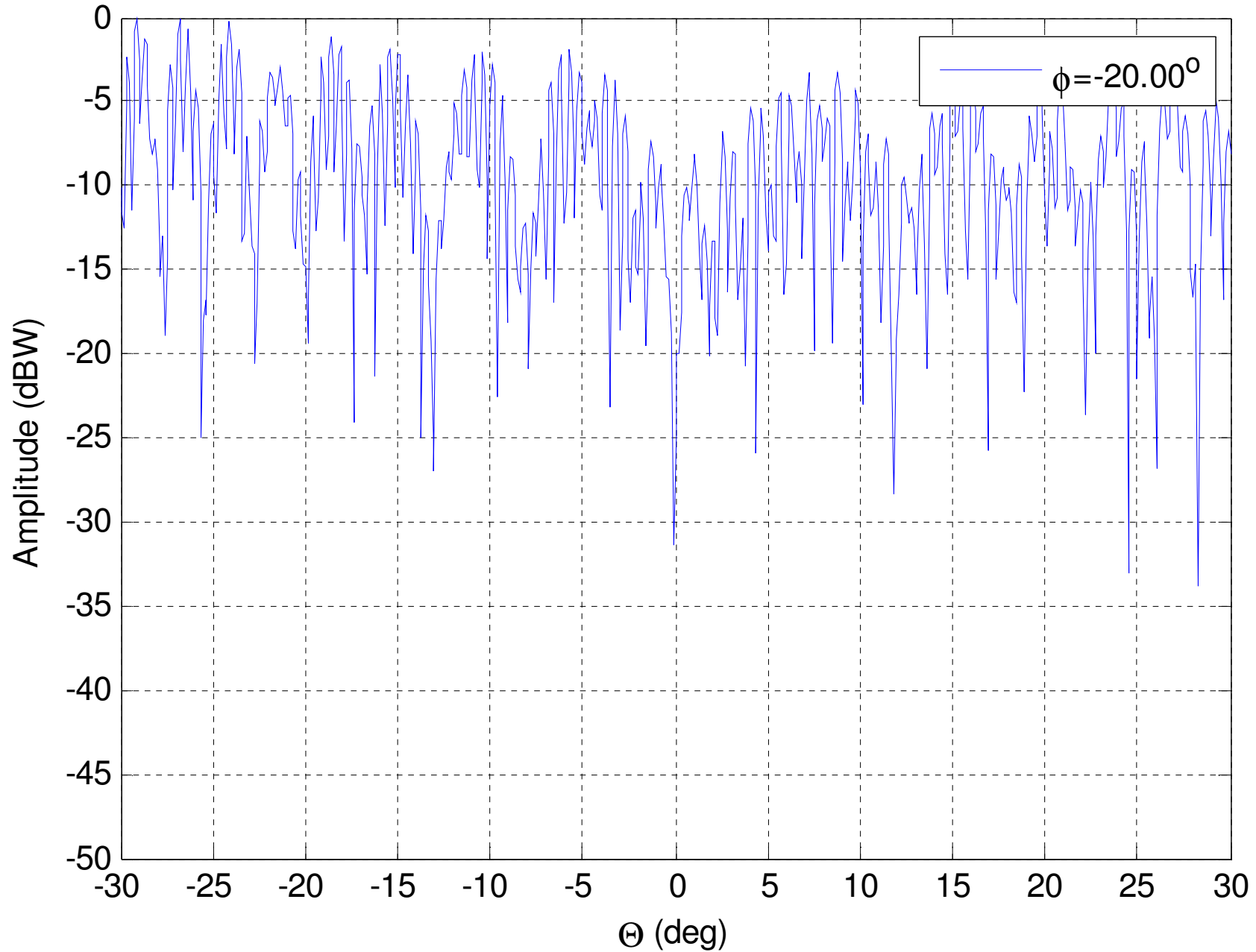
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--30.cut, Peak: -4.45 dBW, Date: 16-Dec-2011



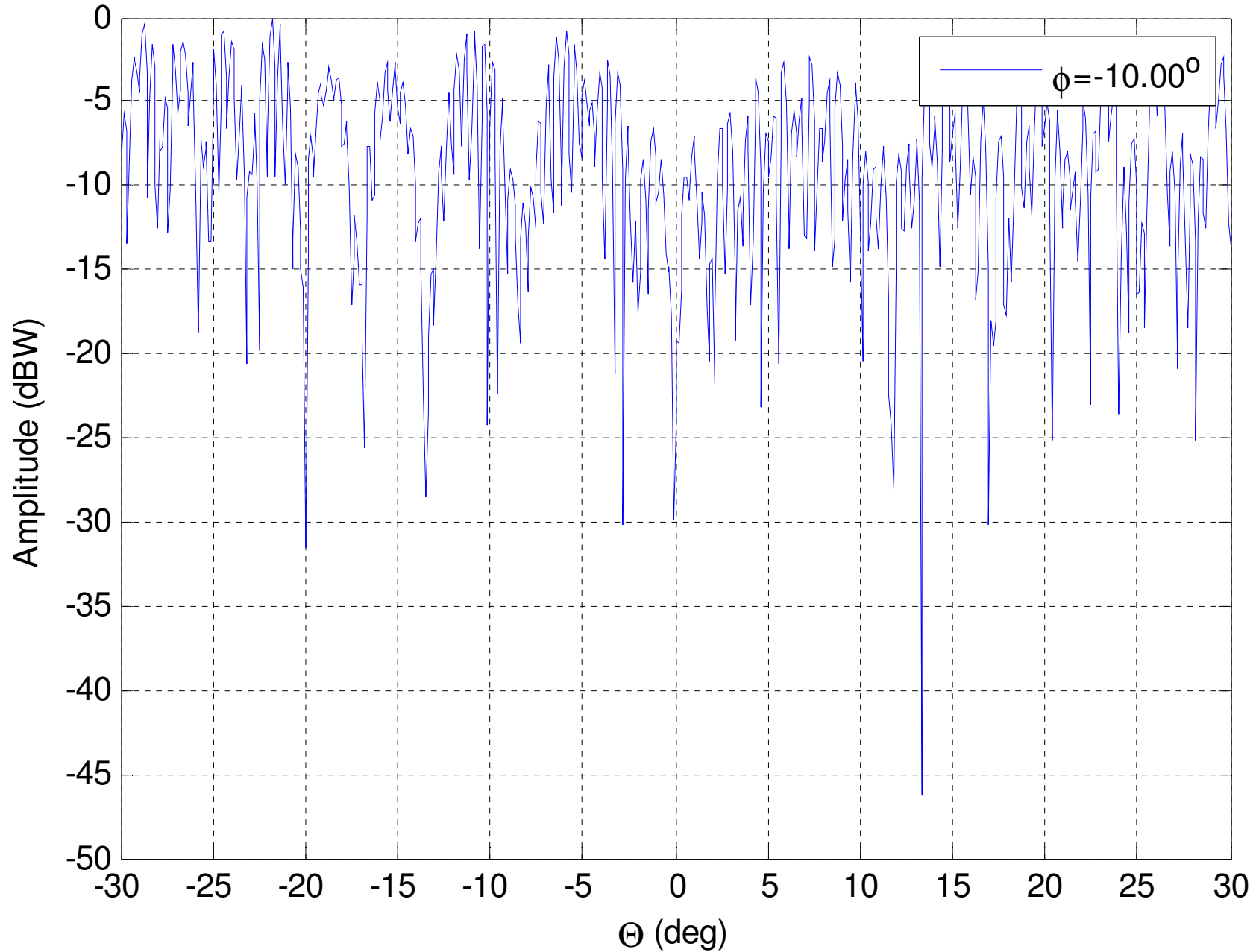
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--20.cut, Peak: -5.12 dBW, Date: 16-Dec-2011



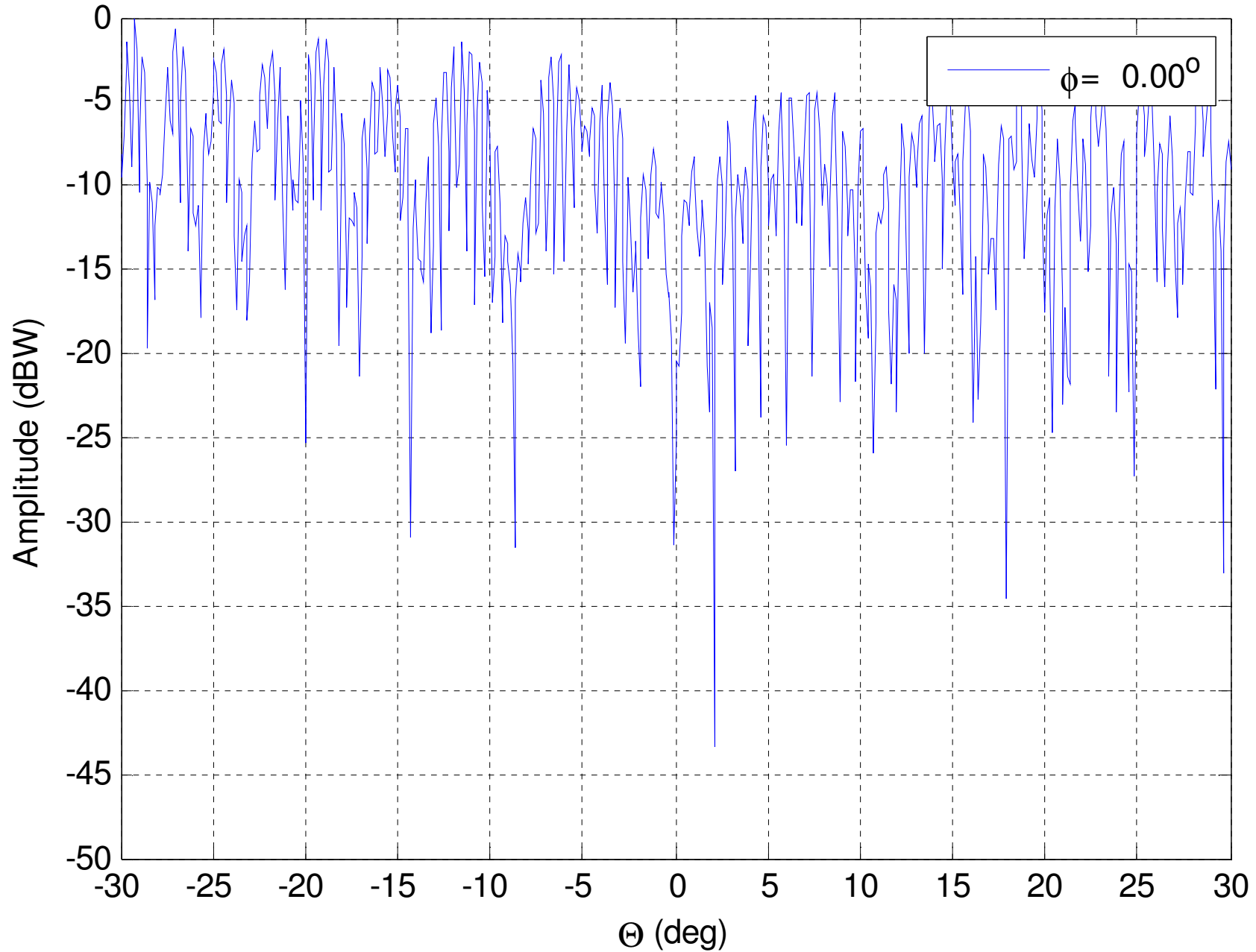
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--10.cut, Peak: -6.08 dBW, Date: 16-Dec-2011



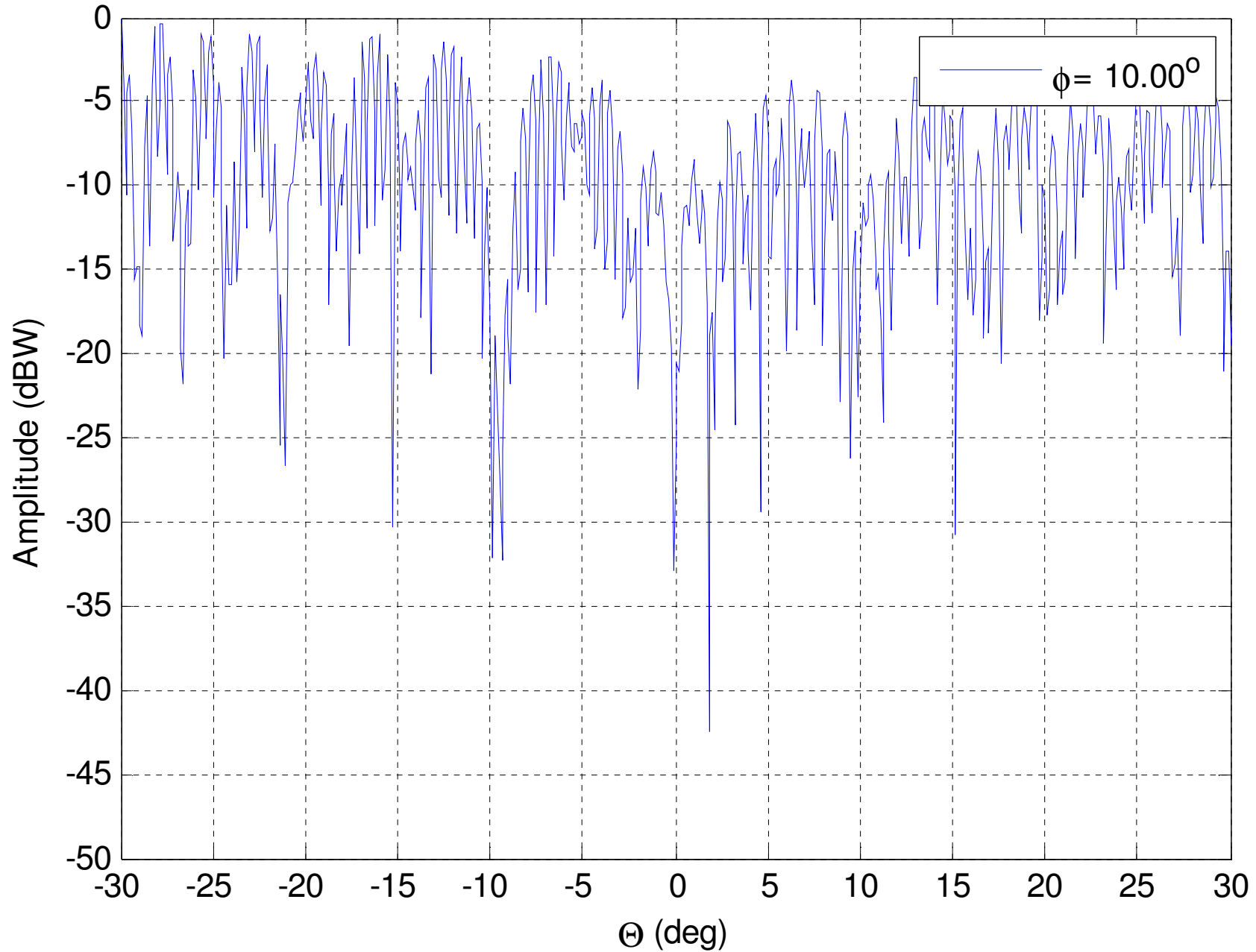
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-0.cut, Peak: -4.90 dBW, Date: 16-Dec-2011



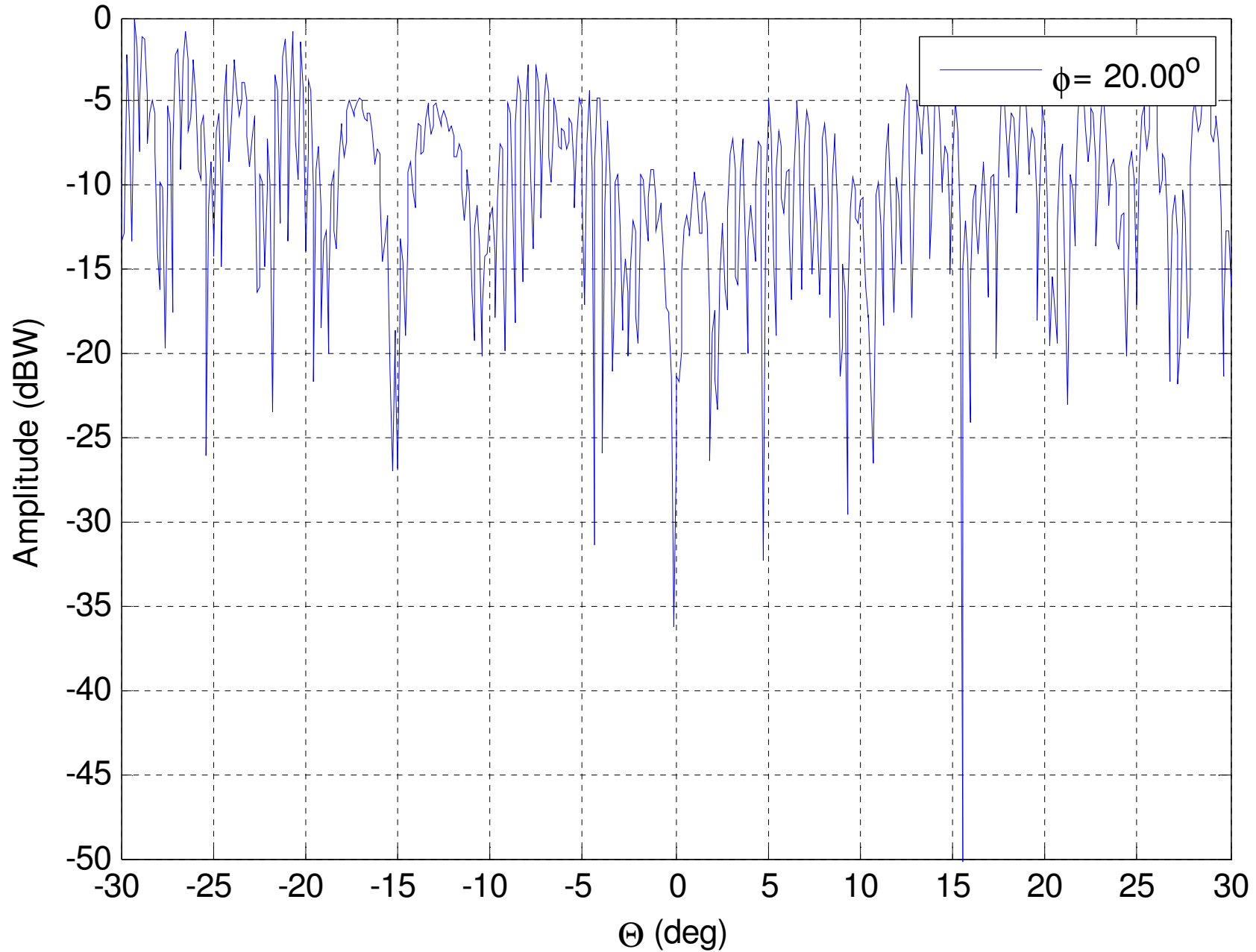
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-10.cut, Peak: -4.91 dBW, Date: 16-Dec-2011



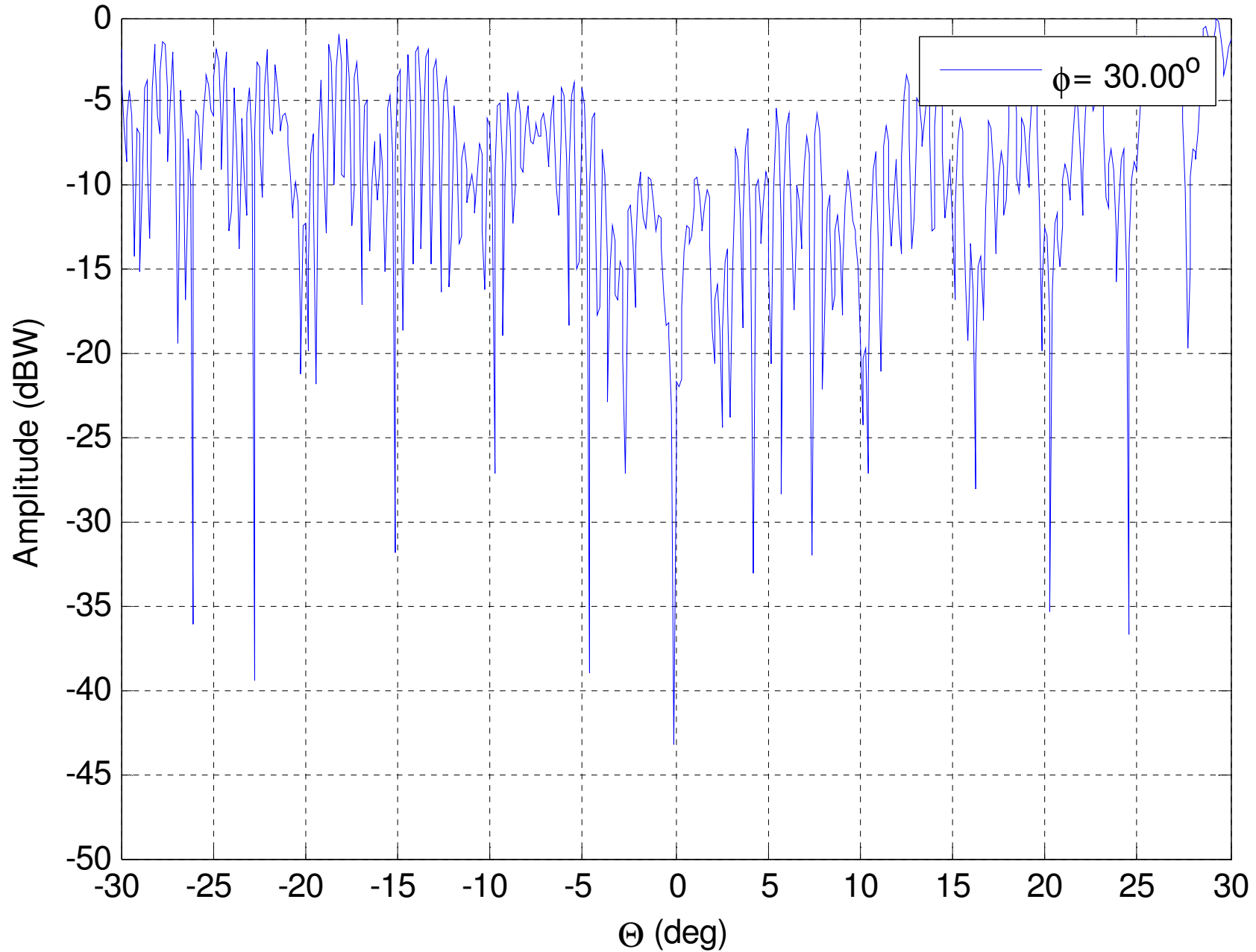
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-20.cut, Peak: -4.40 dBW, Date: 16-Dec-2011



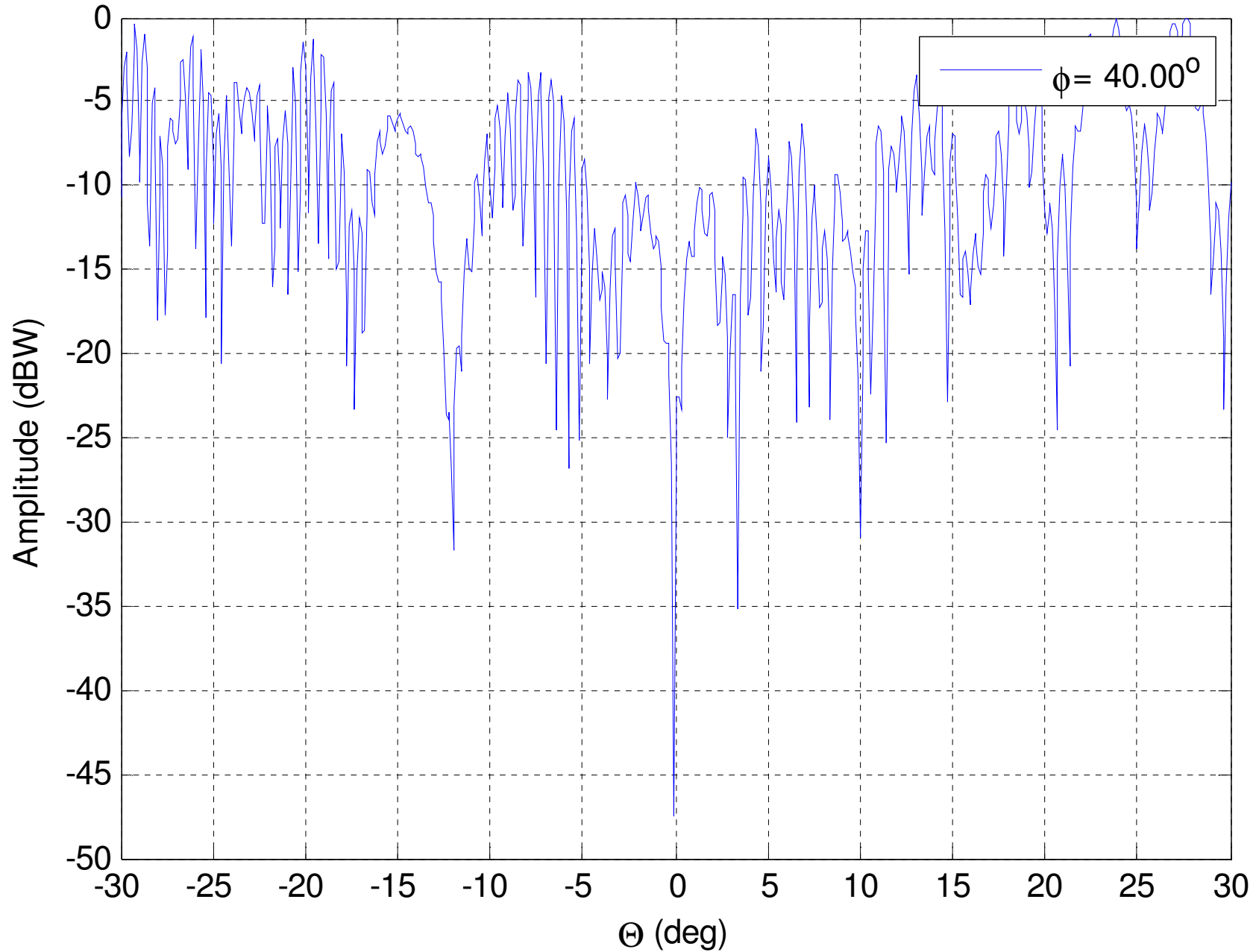
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-30.cut, Peak: -4.23 dBW, Date: 16-Dec-2011



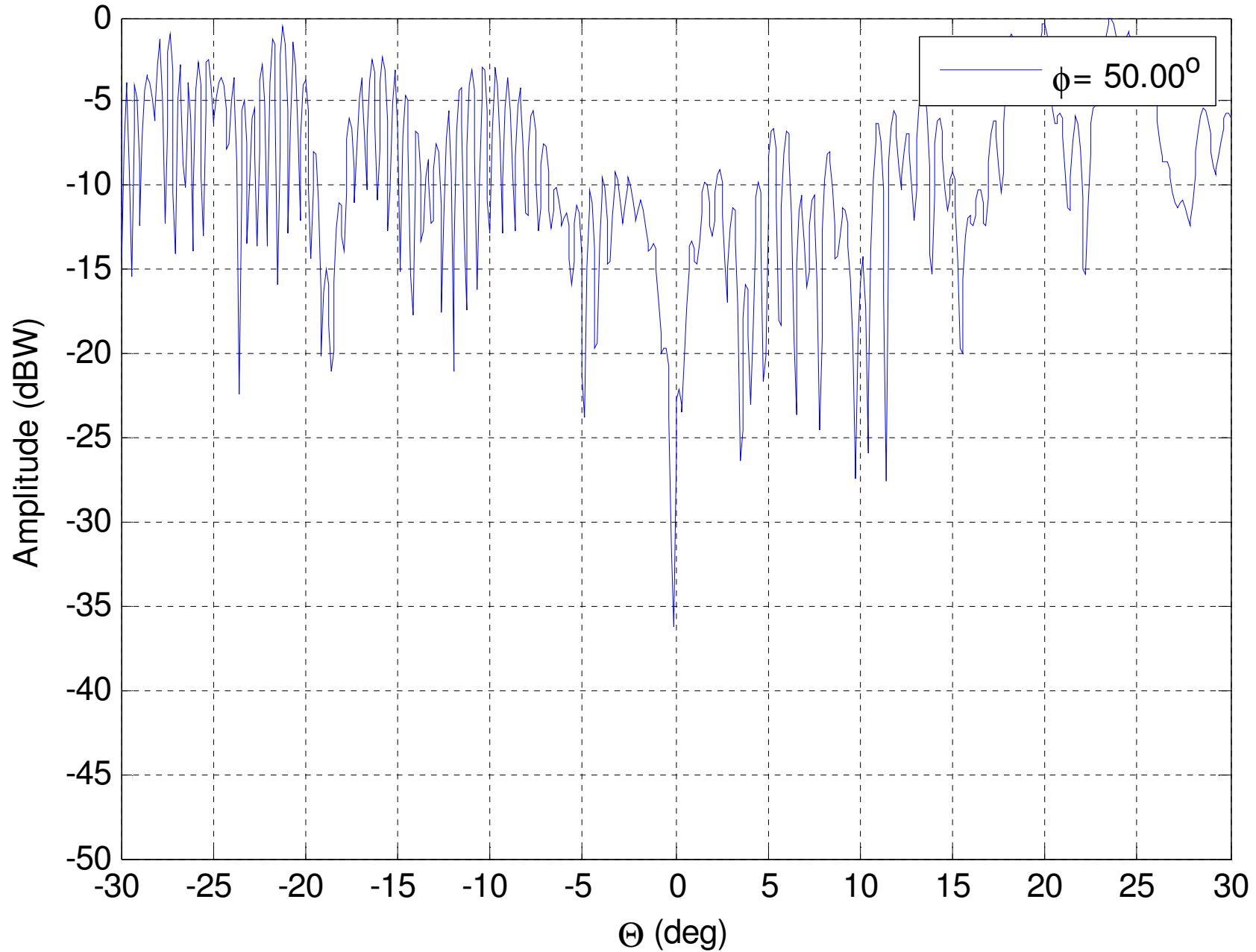
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-40.cut, Peak: -3.63 dBW, Date: 16-Dec-2011



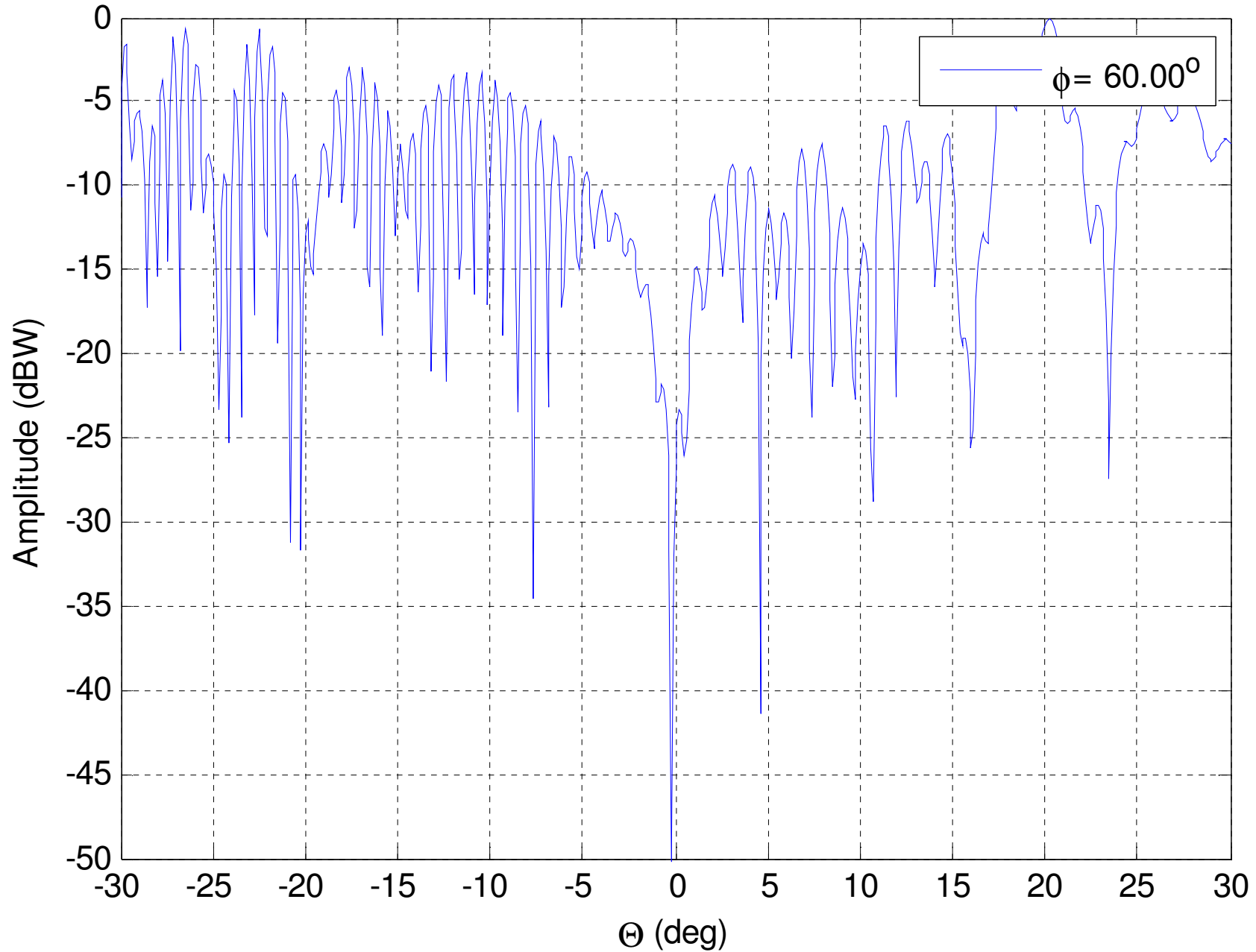
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-50.cut, Peak: -4.06 dBW, Date: 16-Dec-2011



Normalized pattern cuts - farfield

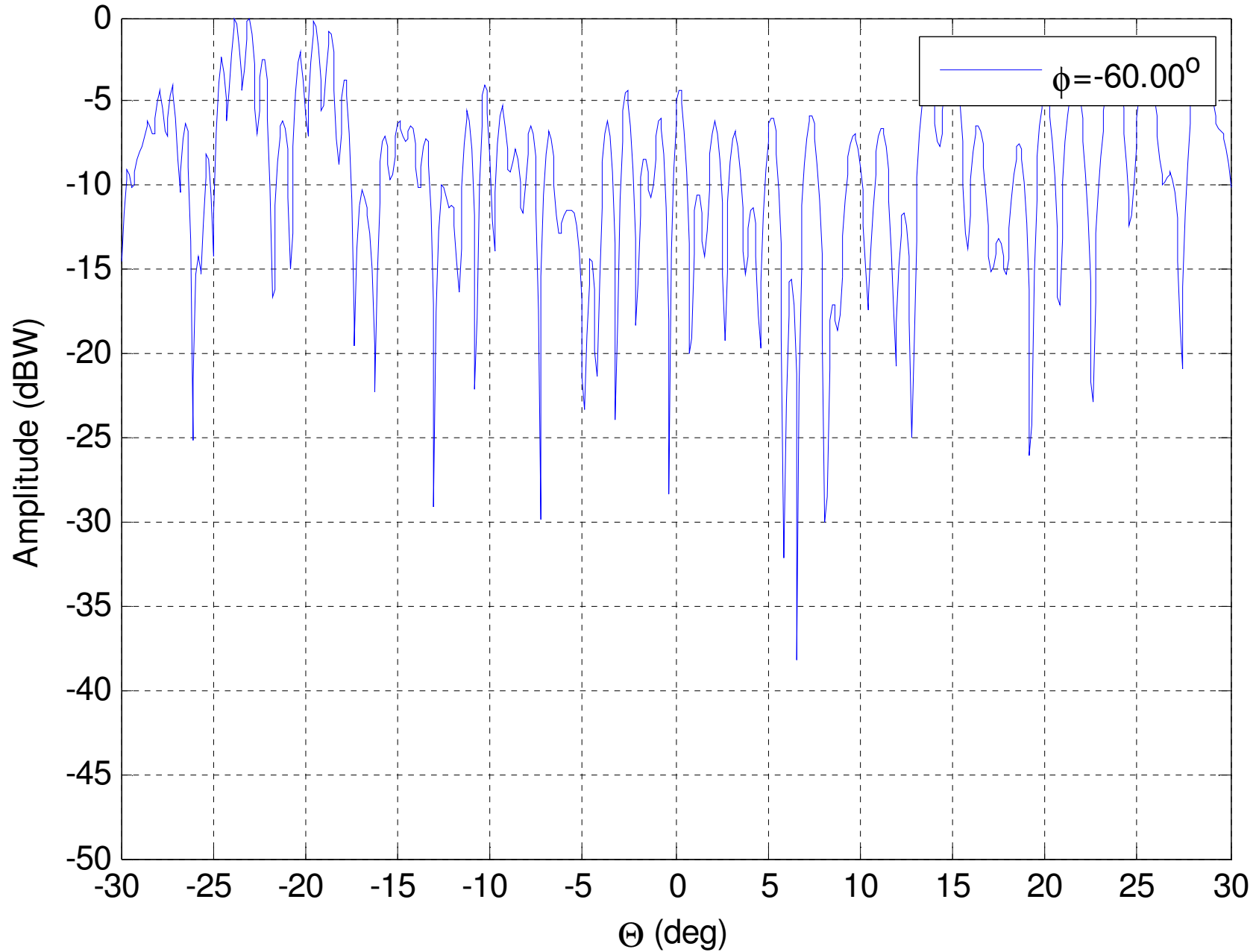
Input file: tx-17.7-rhcp-60.cut, Peak: -3.19 dBW, Date: 16-Dec-2011



LHCP at 17.7 GHz

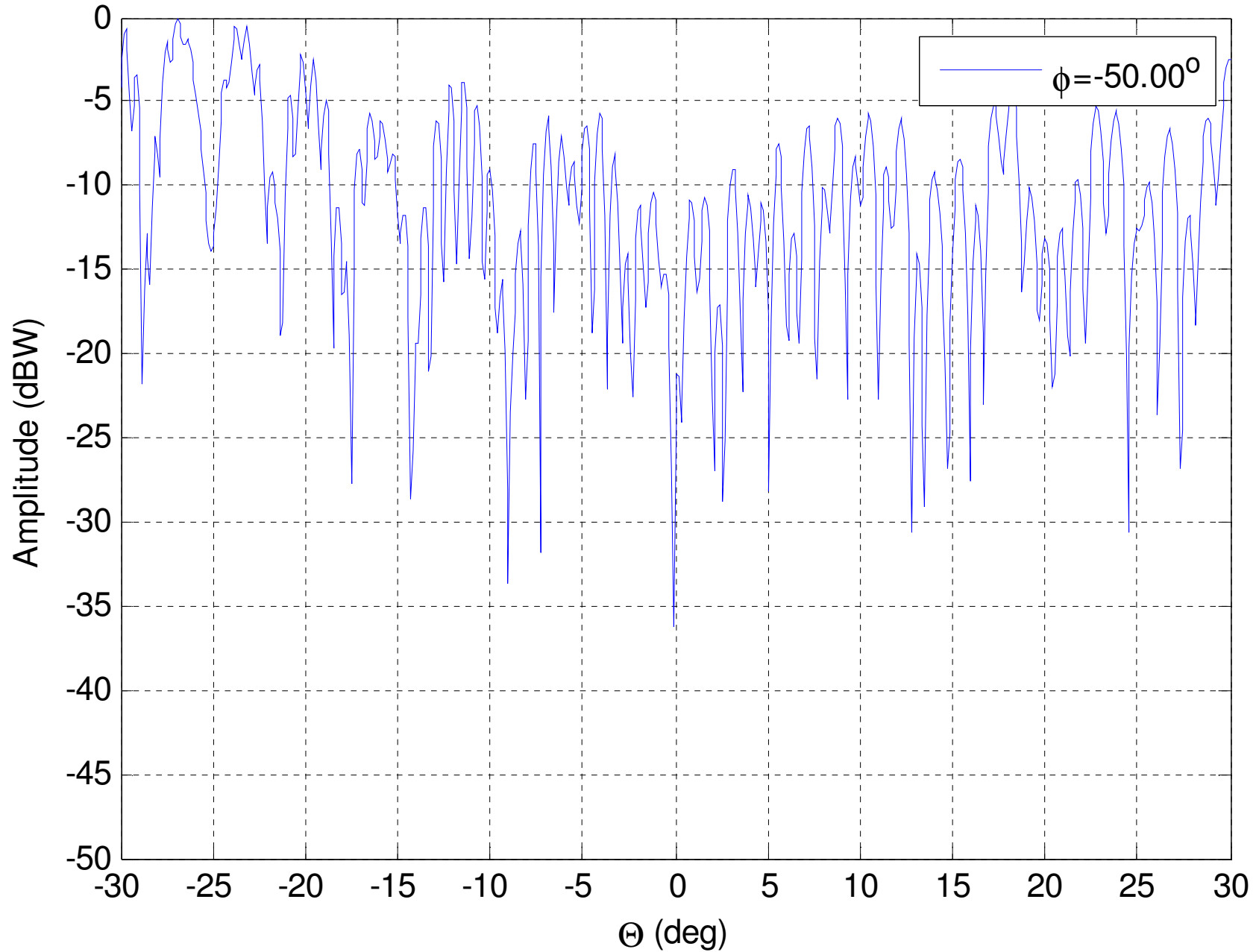
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--60.cut, Peak: -3.48 dBW, Date: 16-Dec-2011



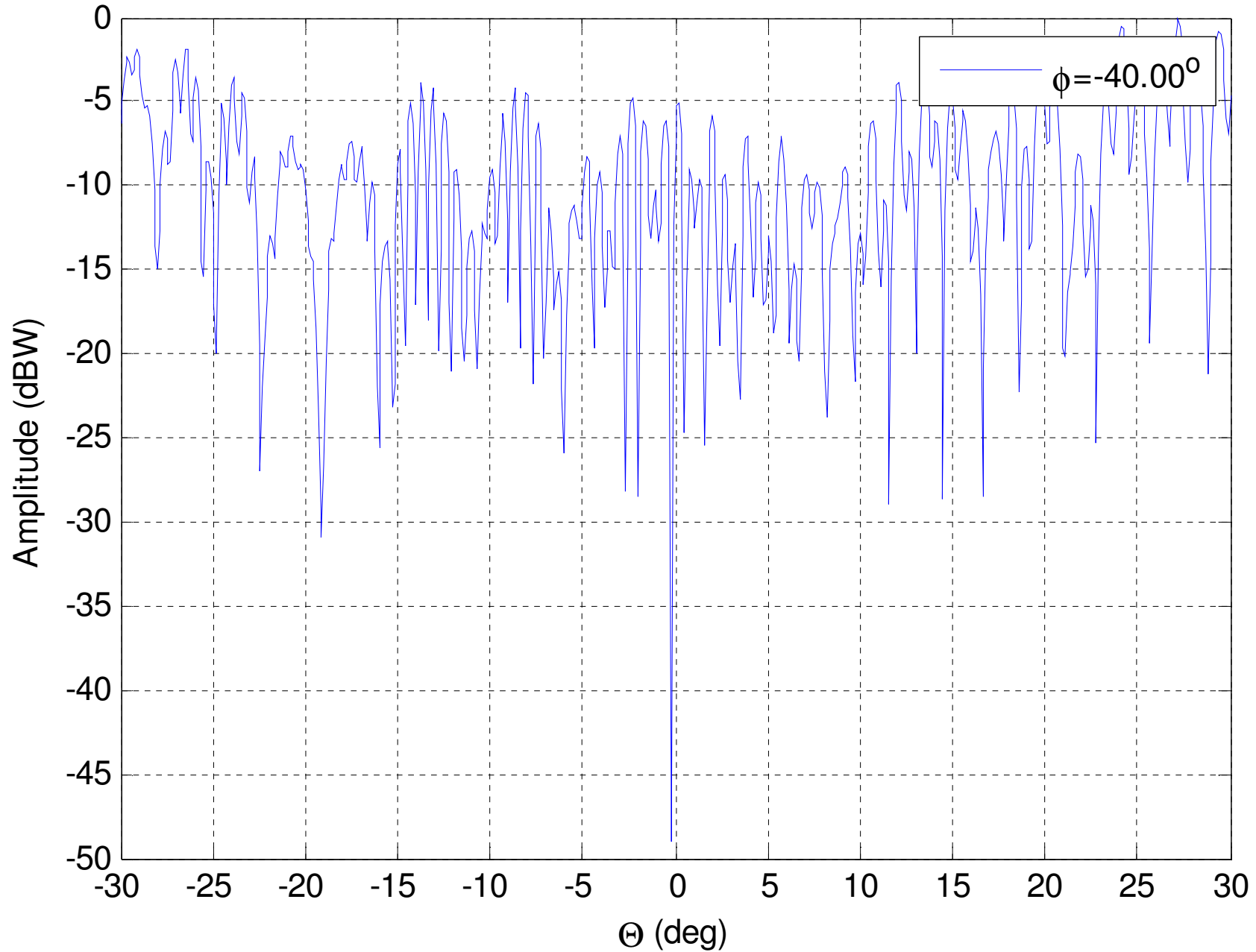
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--50.cut, Peak: -2.21 dBW, Date: 16-Dec-2011



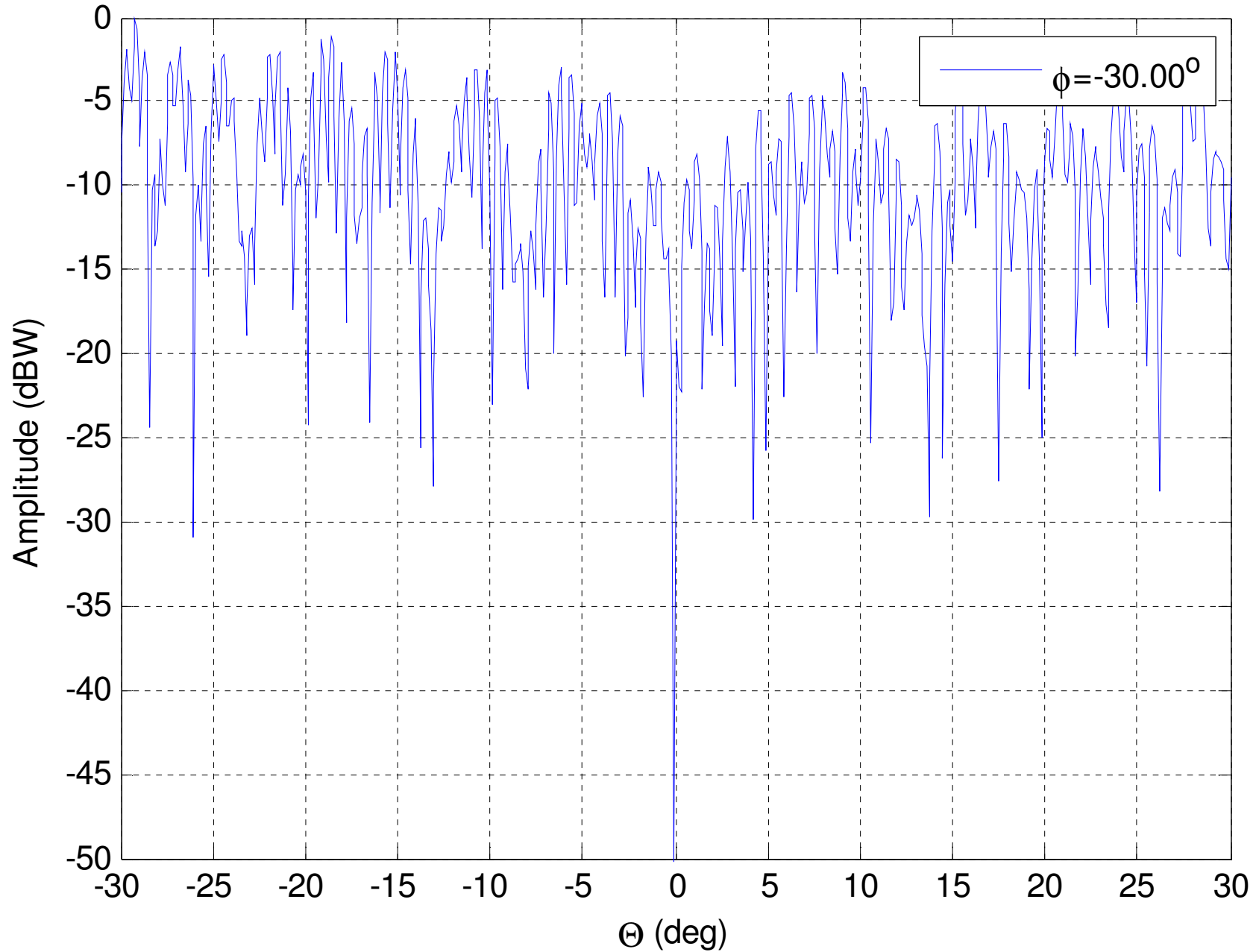
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--40.cut, Peak: -2.70 dBW, Date: 16-Dec-2011



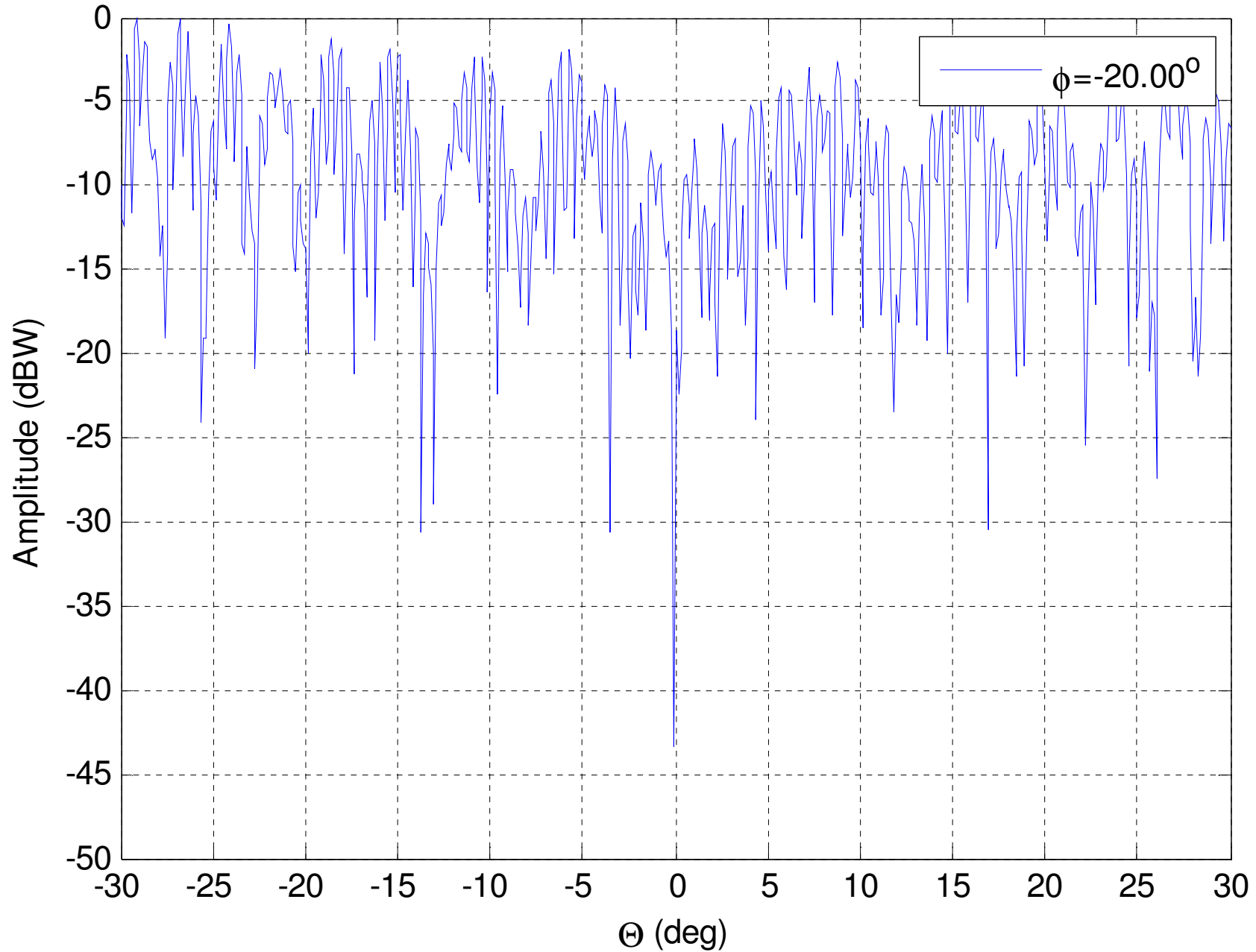
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--30.cut, Peak: -4.27 dBW, Date: 16-Dec-2011



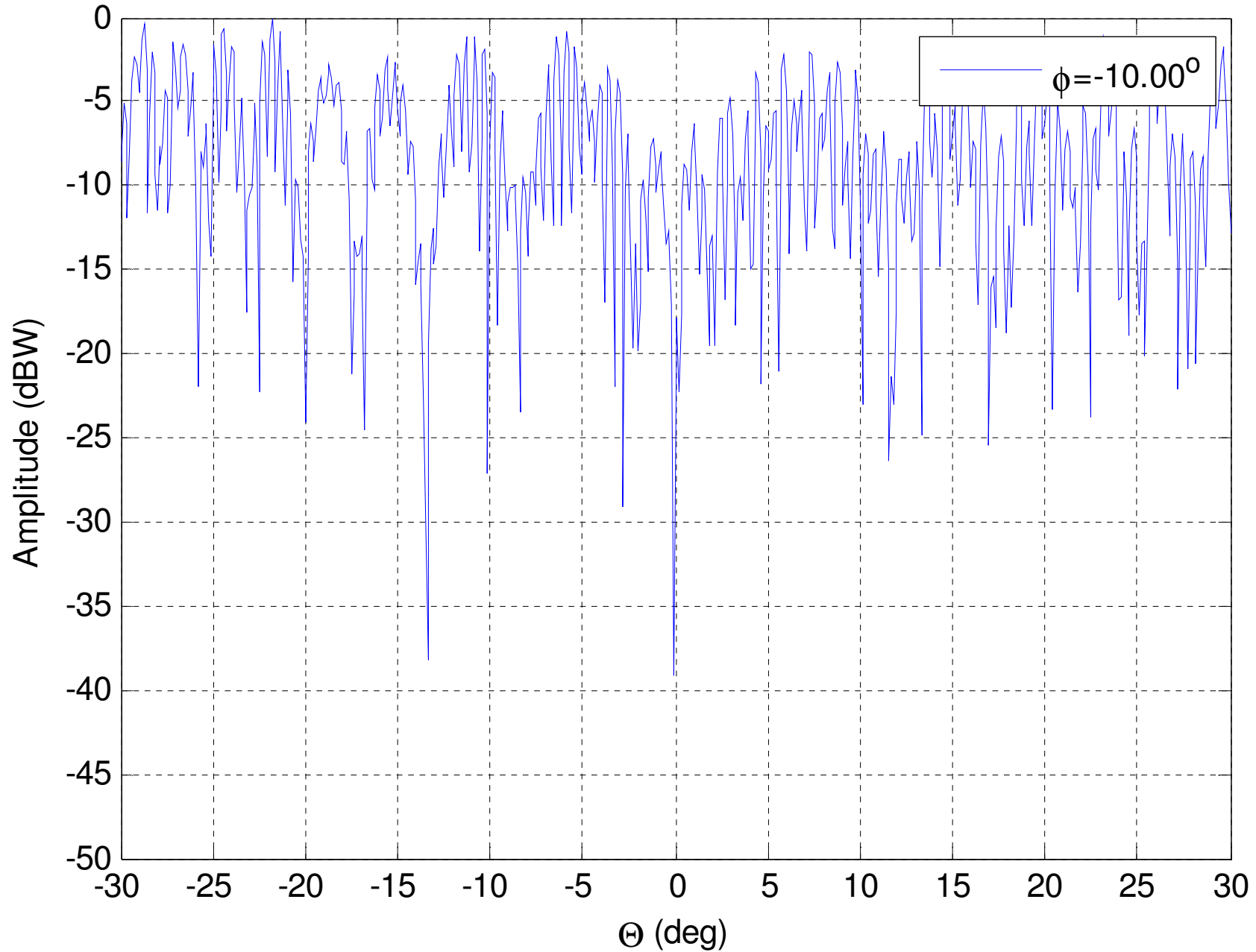
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--20.cut, Peak: -5.07 dBW, Date: 16-Dec-2011



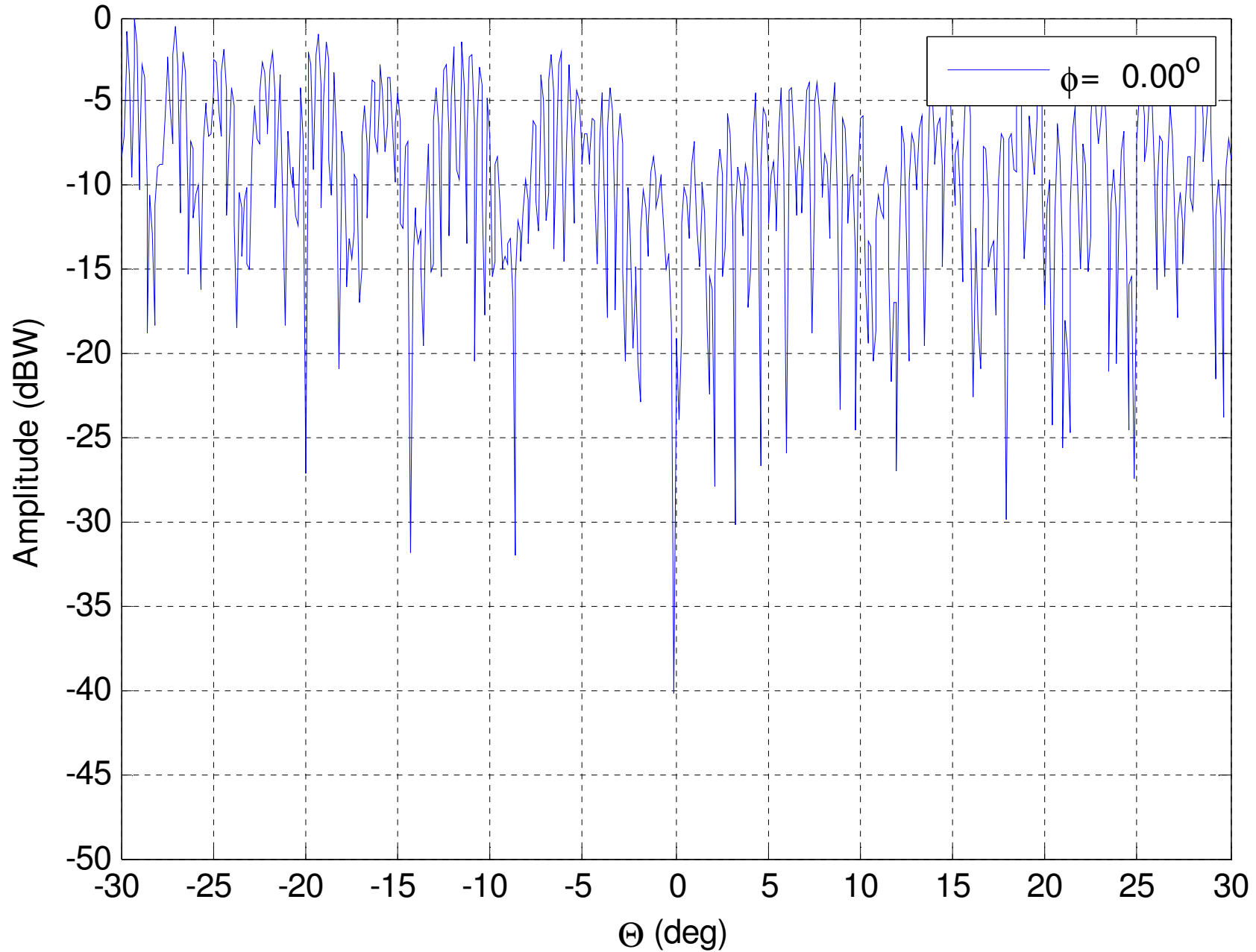
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--10.cut, Peak: -6.01 dBW, Date: 16-Dec-2011



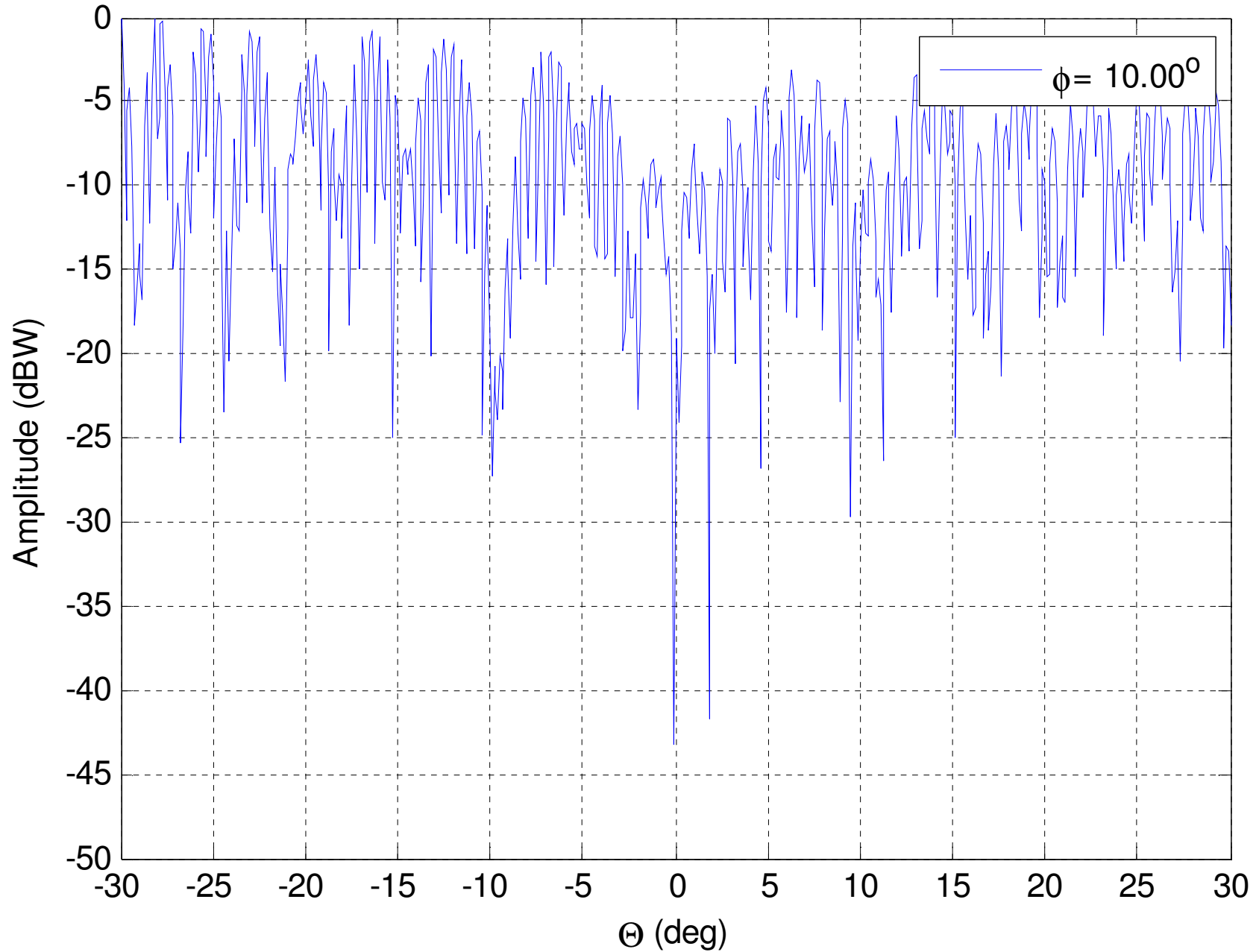
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-0.cut, Peak: -4.89 dBW, Date: 16-Dec-2011



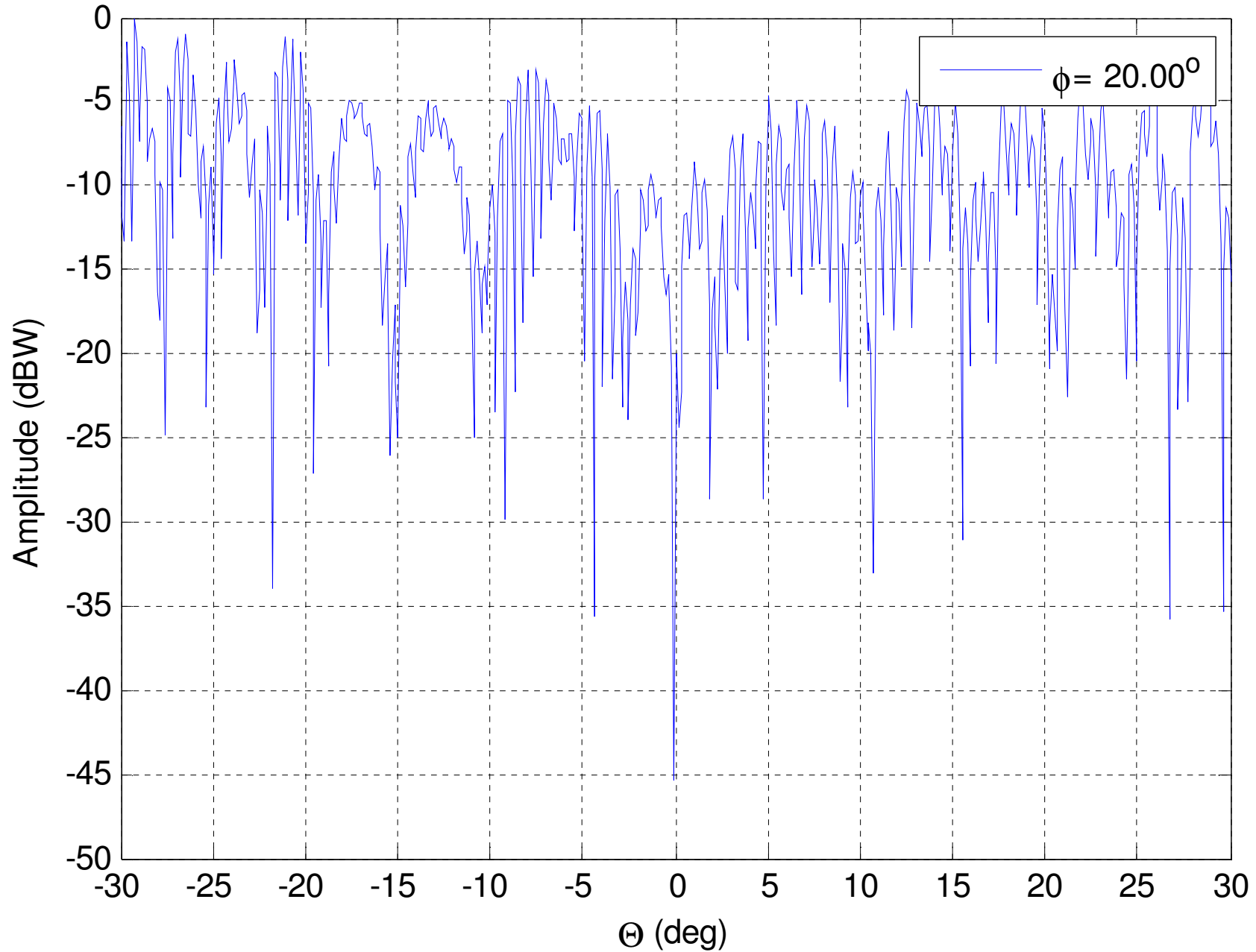
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-10.cut, Peak: -4.95 dBW, Date: 16-Dec-2011



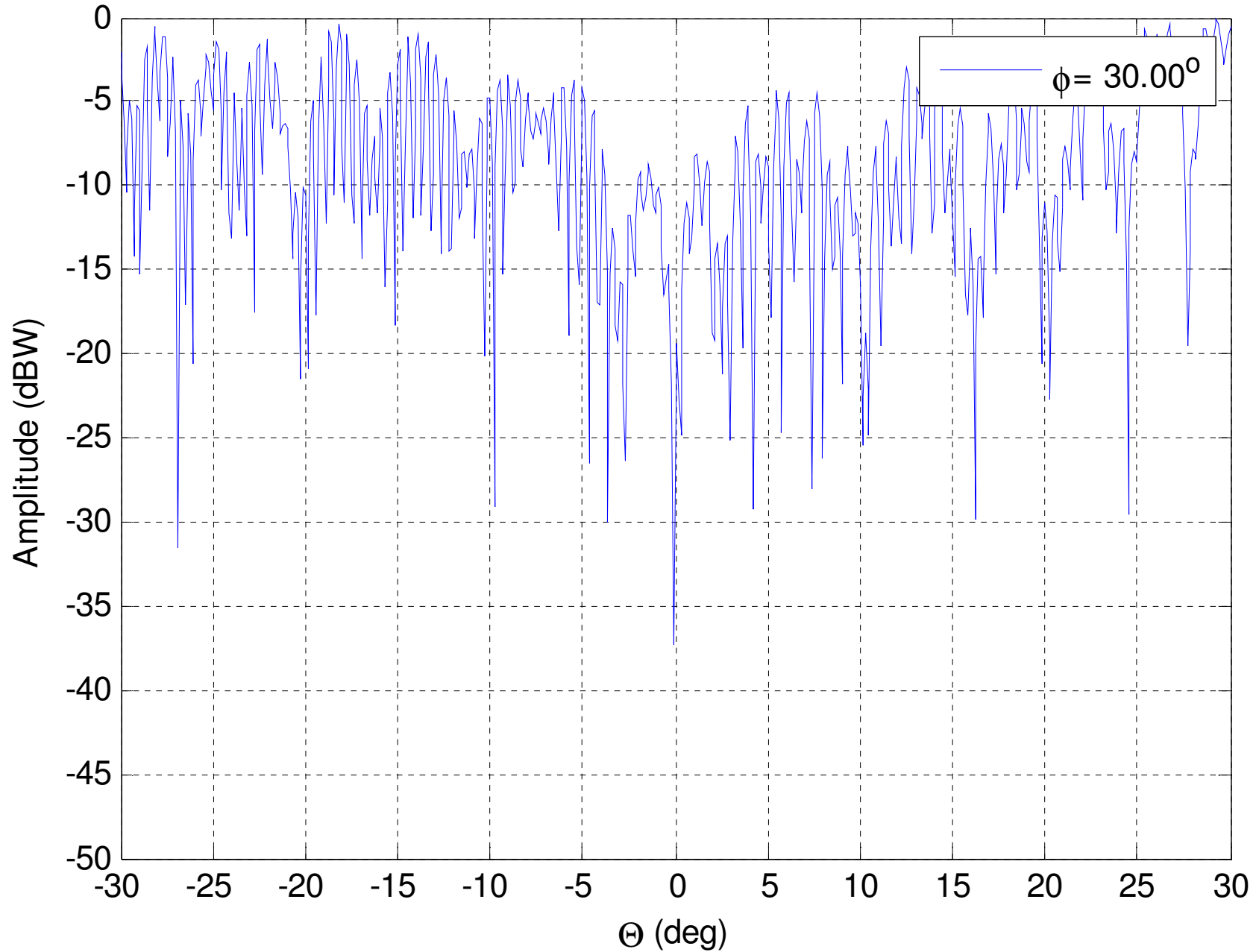
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-20.cut, Peak: -4.06 dBW, Date: 16-Dec-2011



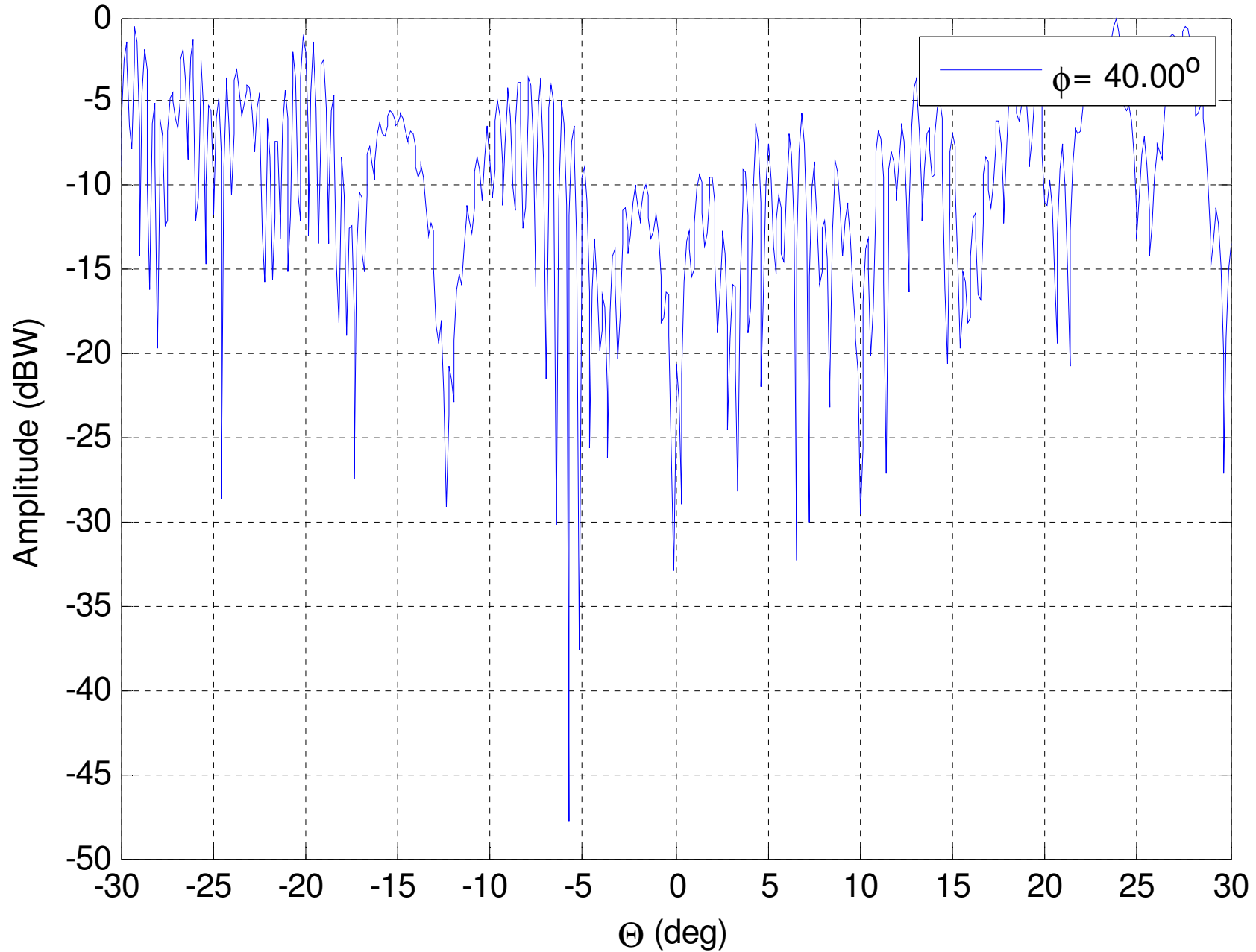
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-30.cut, Peak: -4.80 dBW, Date: 16-Dec-2011



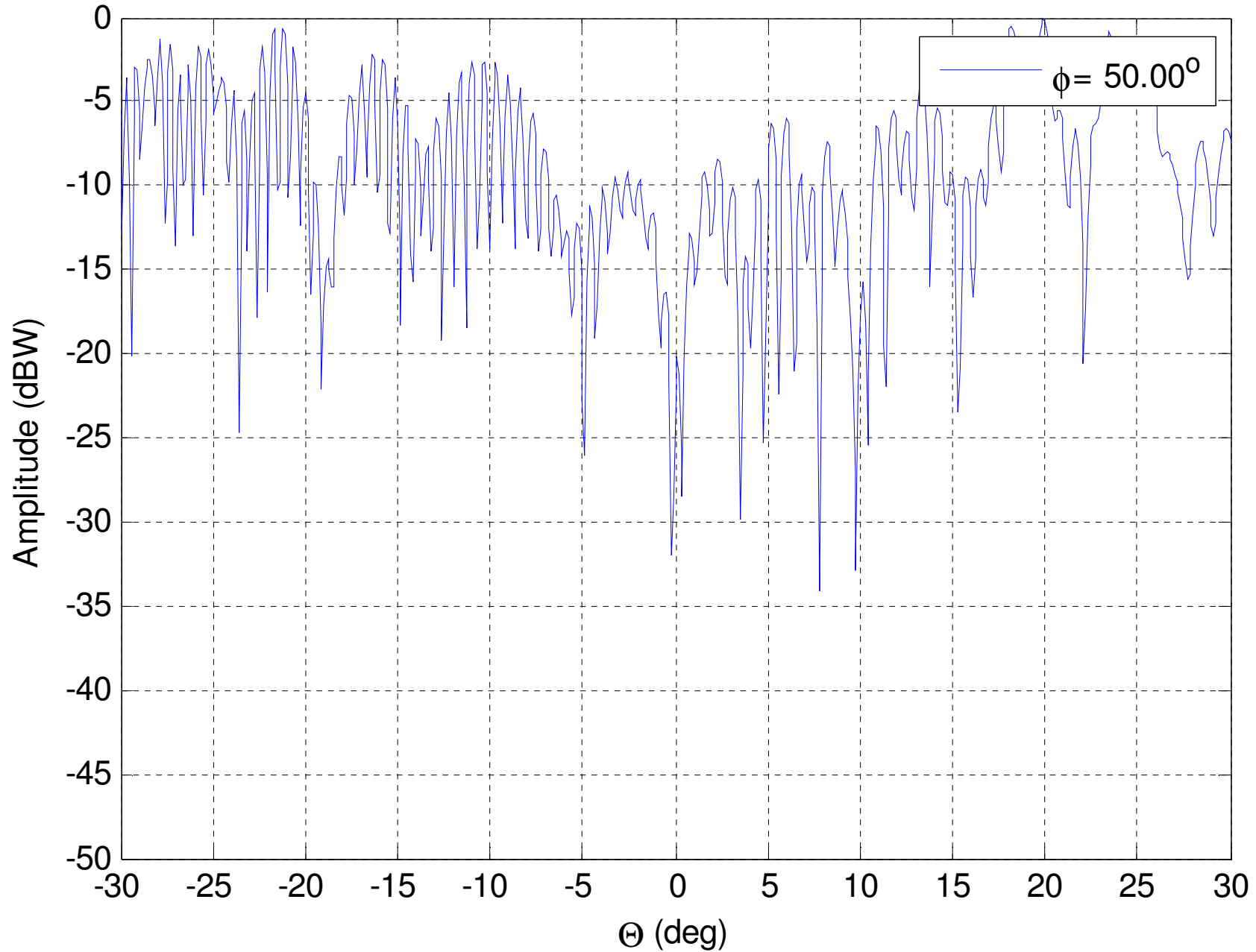
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-40.cut, Peak: -3.71 dBW, Date: 16-Dec-2011



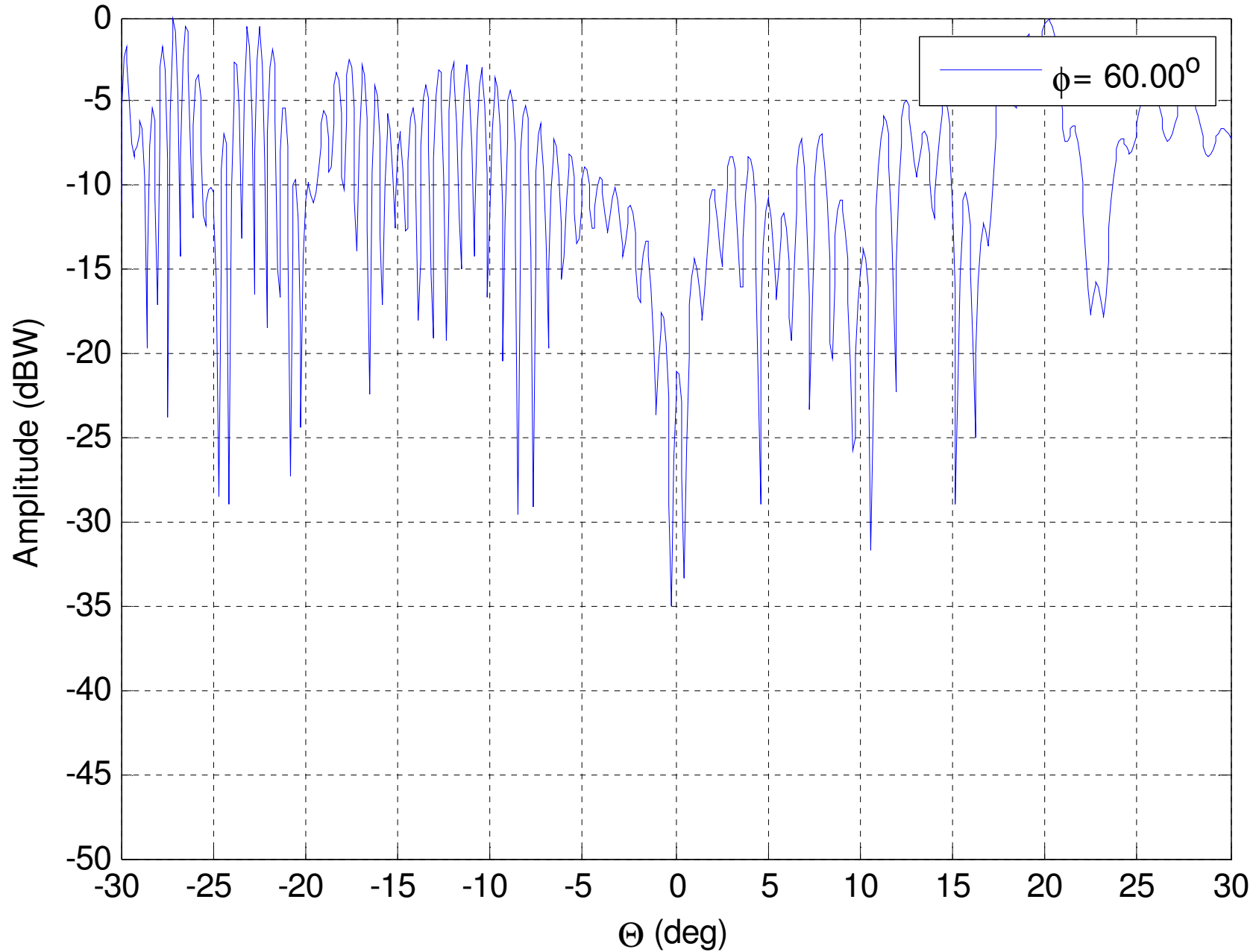
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-50.cut, Peak: -4.24 dBW, Date: 16-Dec-2011



Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-60.cut, Peak: -3.75 dBW, Date: 16-Dec-2011



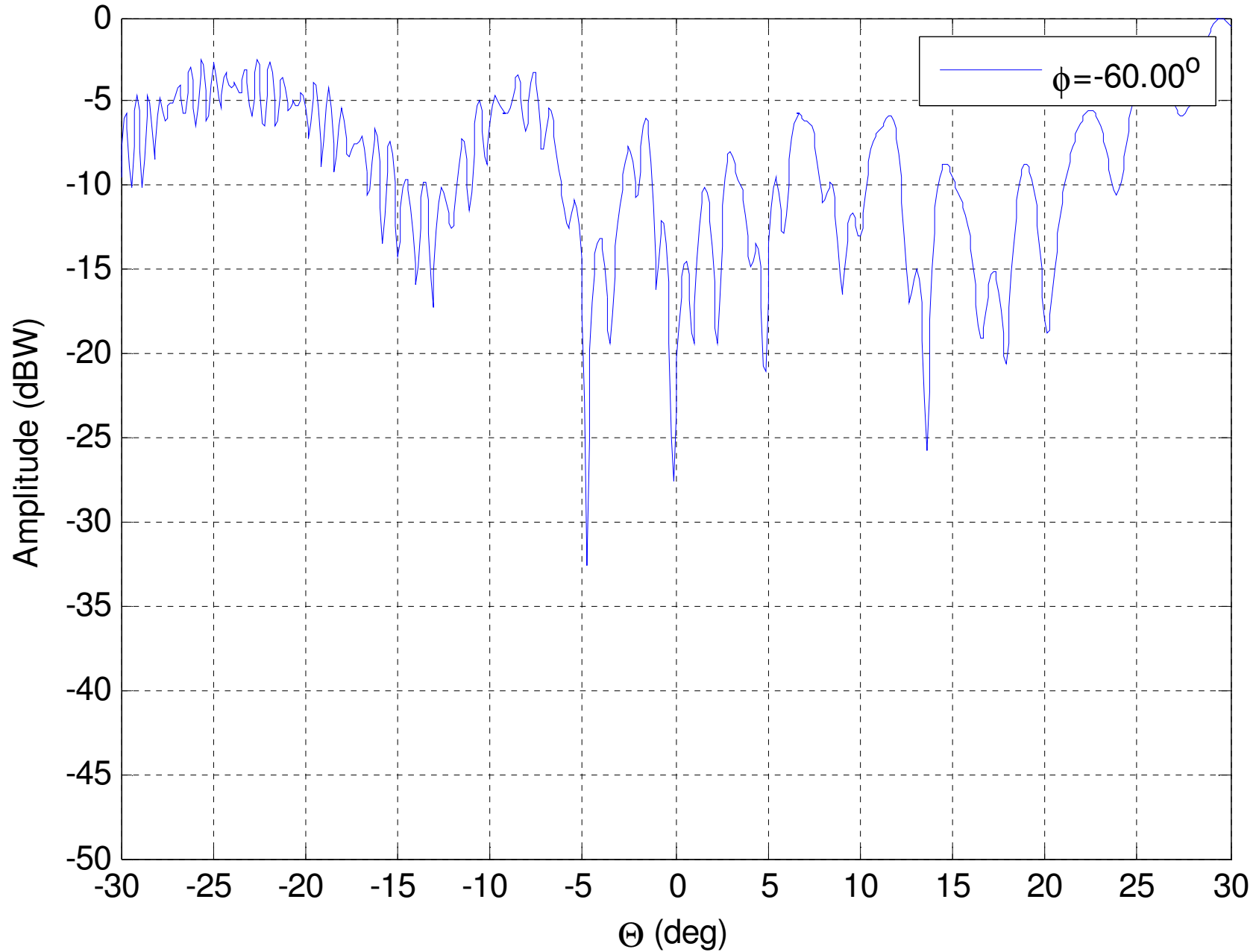
Spot Beam47, +X Axis Plots

- Both polarizations; RHCP, LHCP
- $-30 < \Theta < 30$ ($\Theta=0$: = +X-axis)
- $-60 < \phi < 60$
- Freq = 17.3, 17.5, and 17.7 GHz
- The Zero reference line is the peak gain listed in the title of each chart
- All levels are significantly below the required 20.9 dBW EIRP shown on chart 2

RHCP at 17.3 GHz

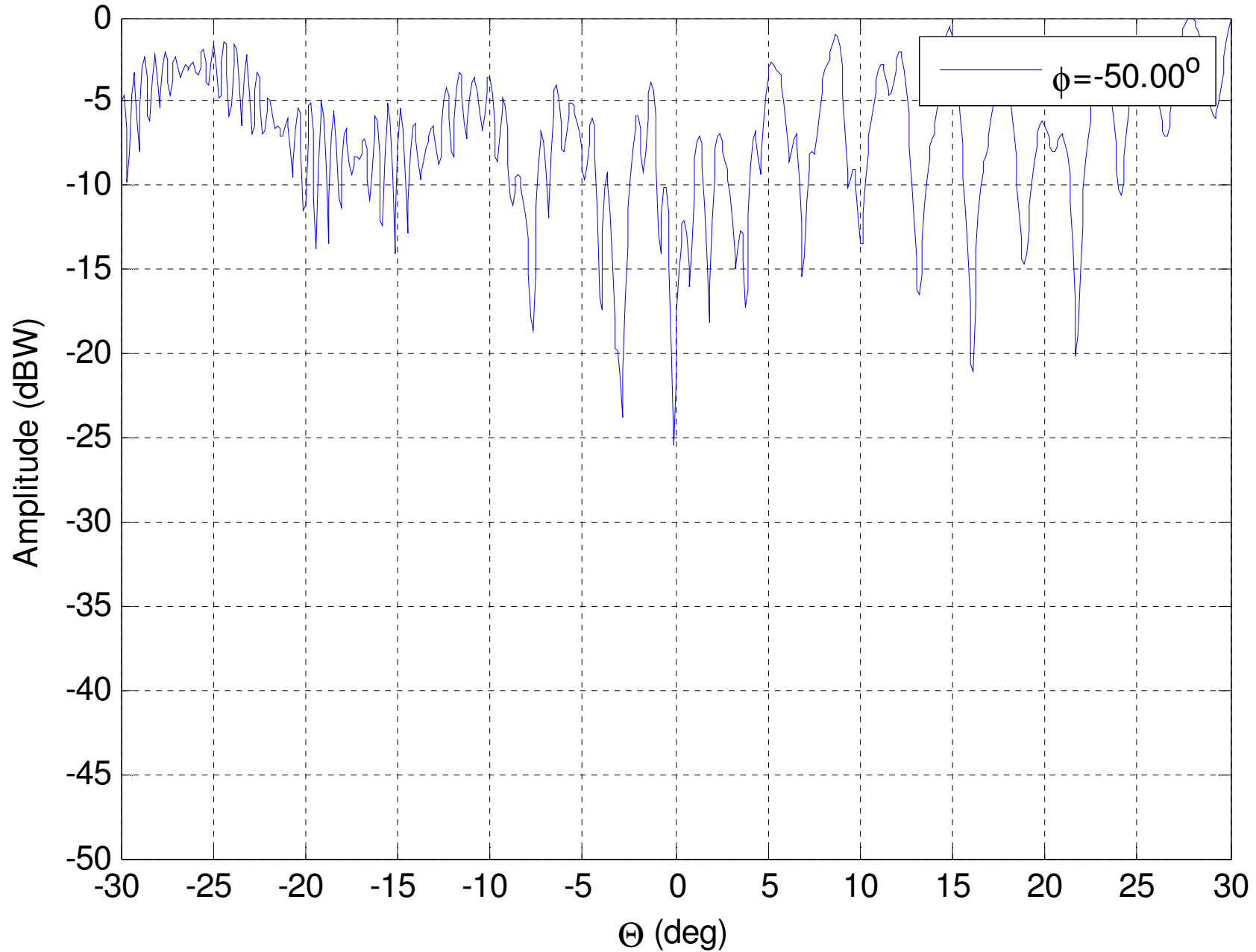
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--60.cut, Peak: -4.47 dBW, Date: 16-Dec-2011



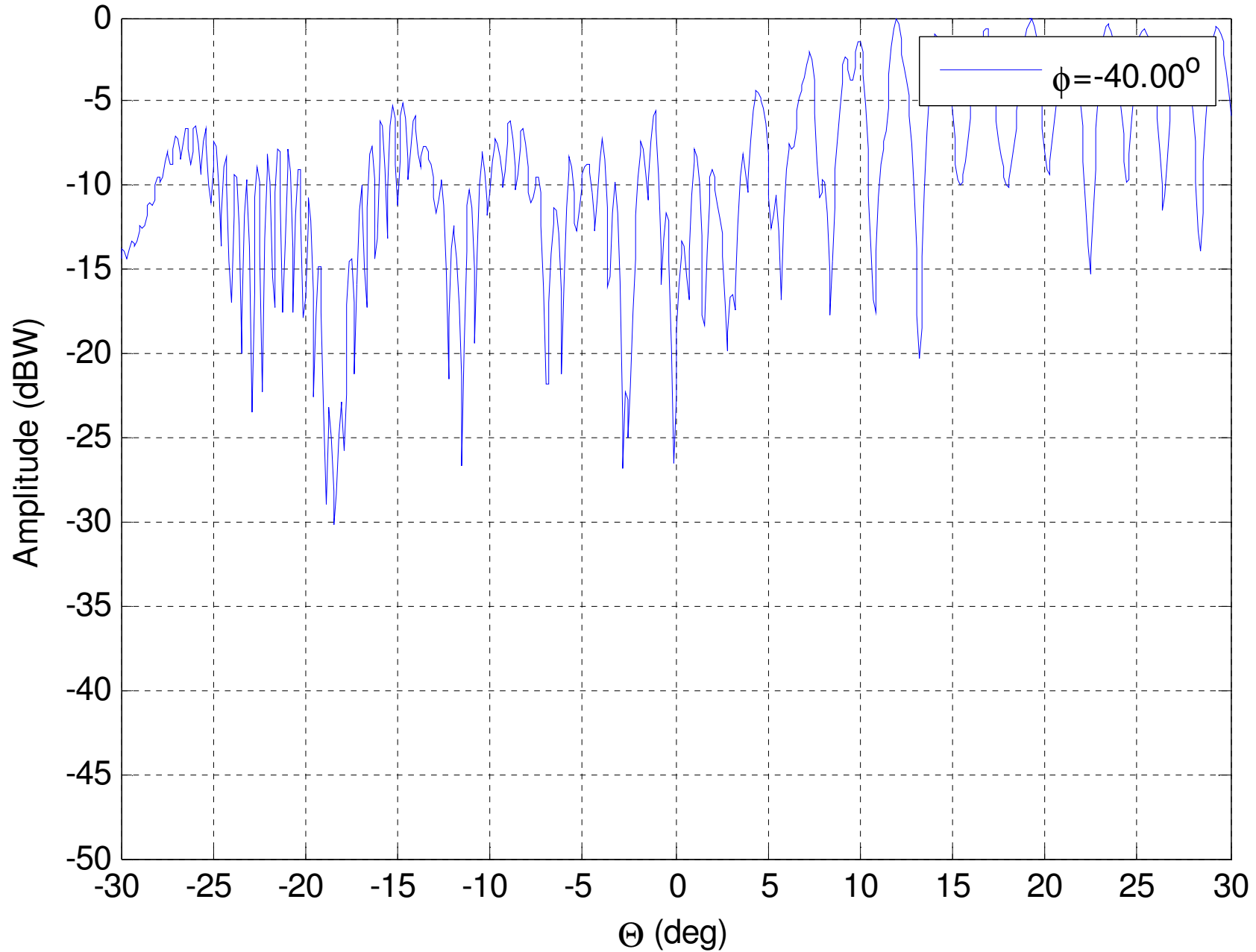
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--50.cut, Peak: -6.74 dBW, Date: 16-Dec-2011



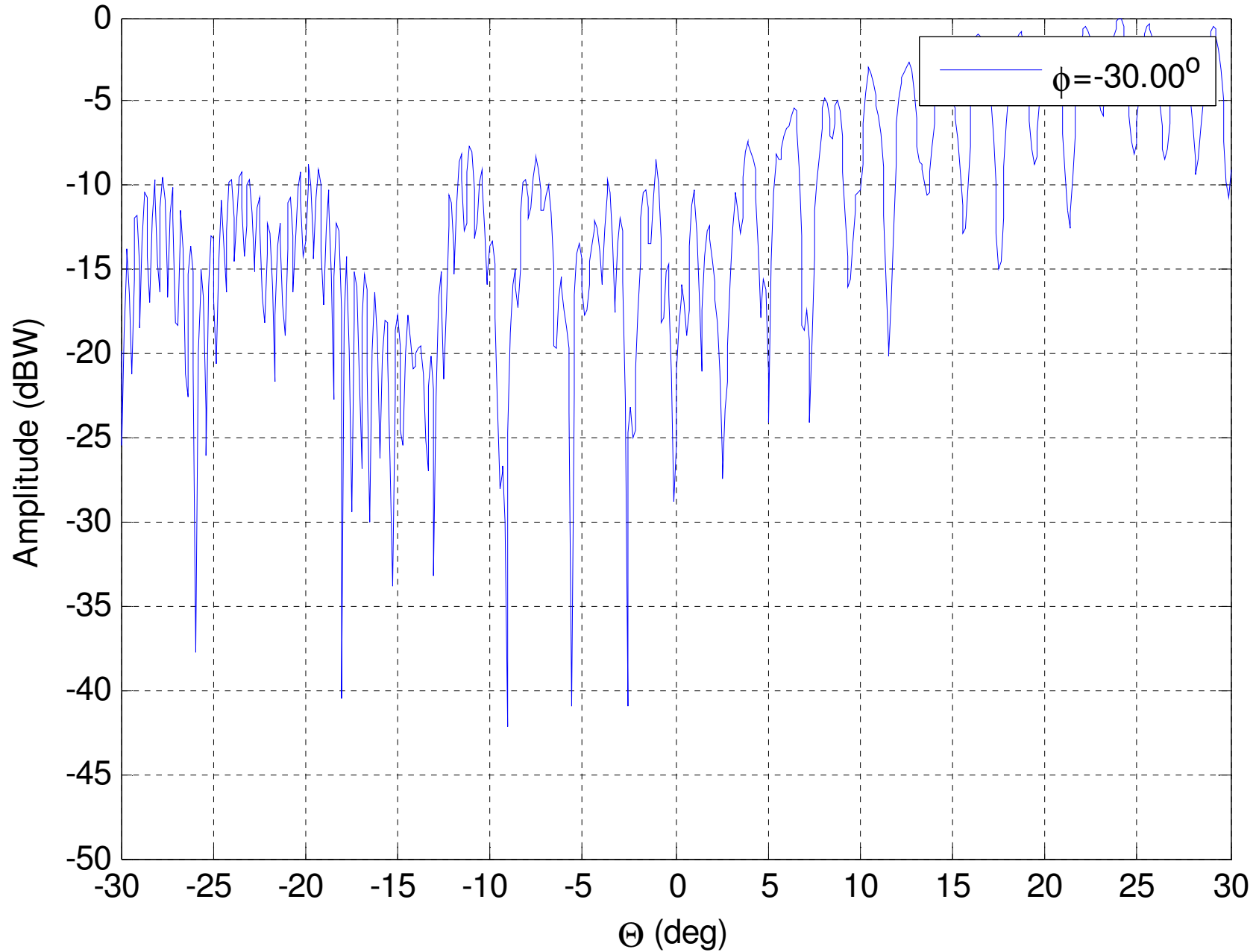
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--40.cut, Peak: -5.34 dBW, Date: 16-Dec-2011



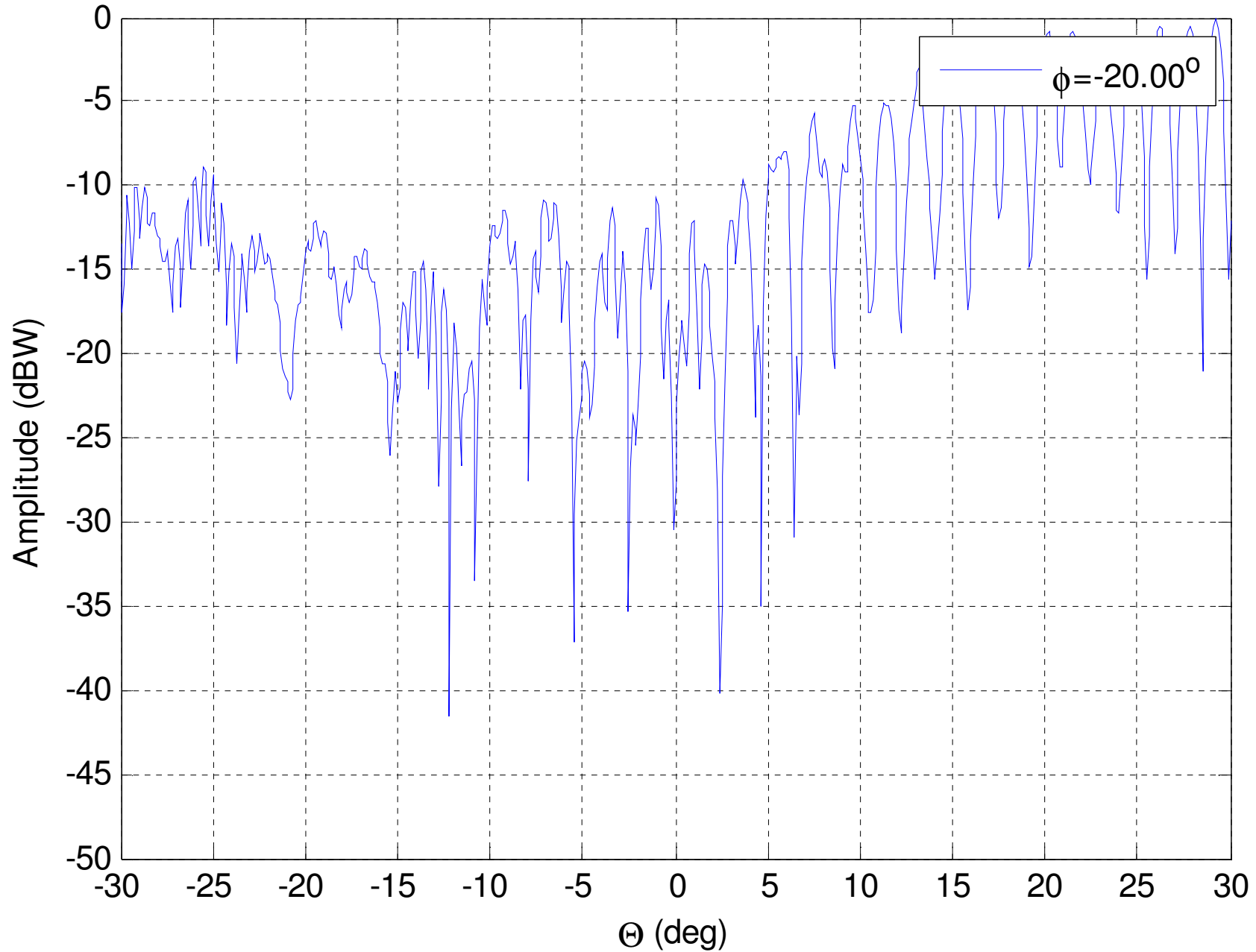
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--30.cut, Peak: -2.53 dBW, Date: 16-Dec-2011



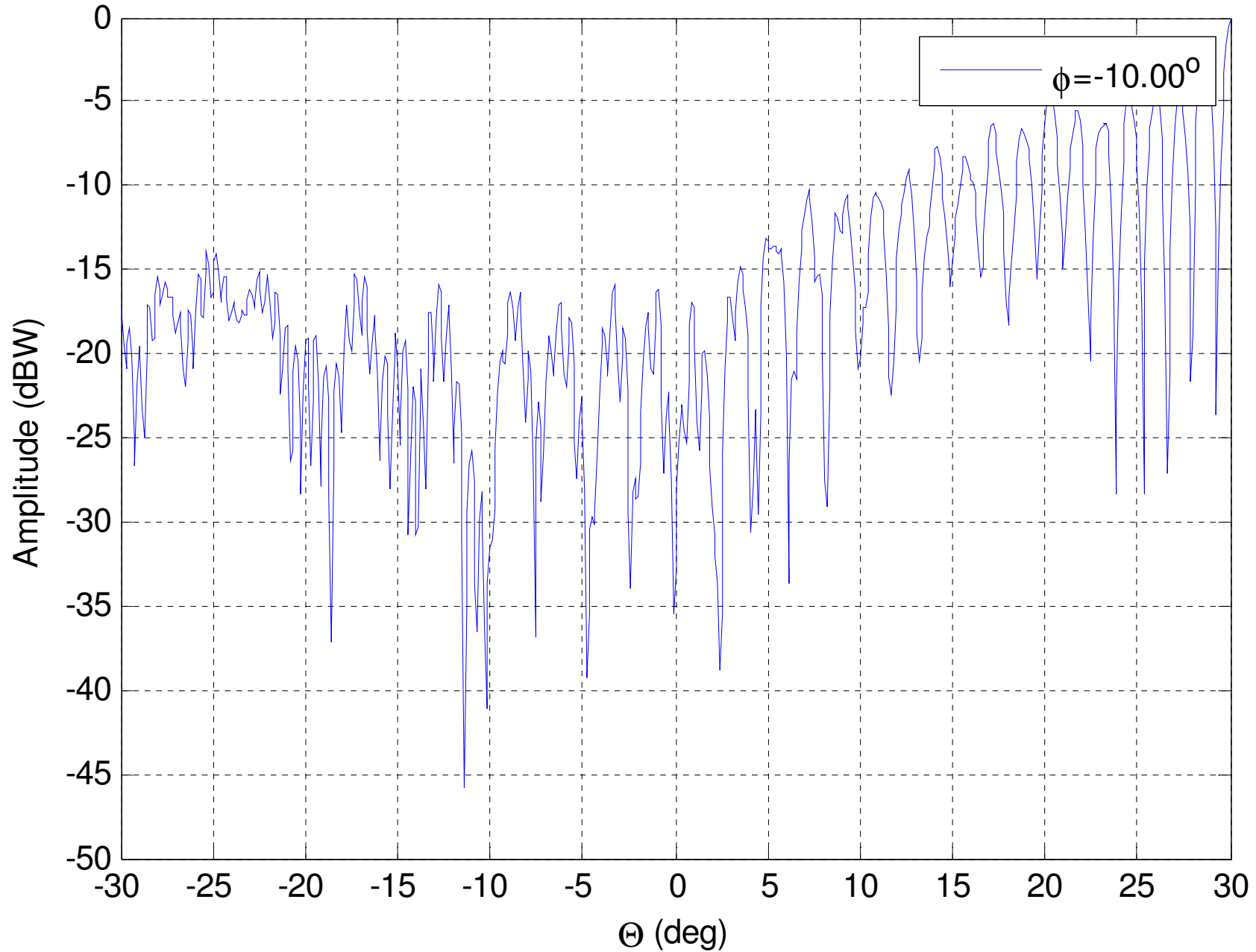
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--20.cut, Peak: -0.37 dBW, Date: 16-Dec-2011



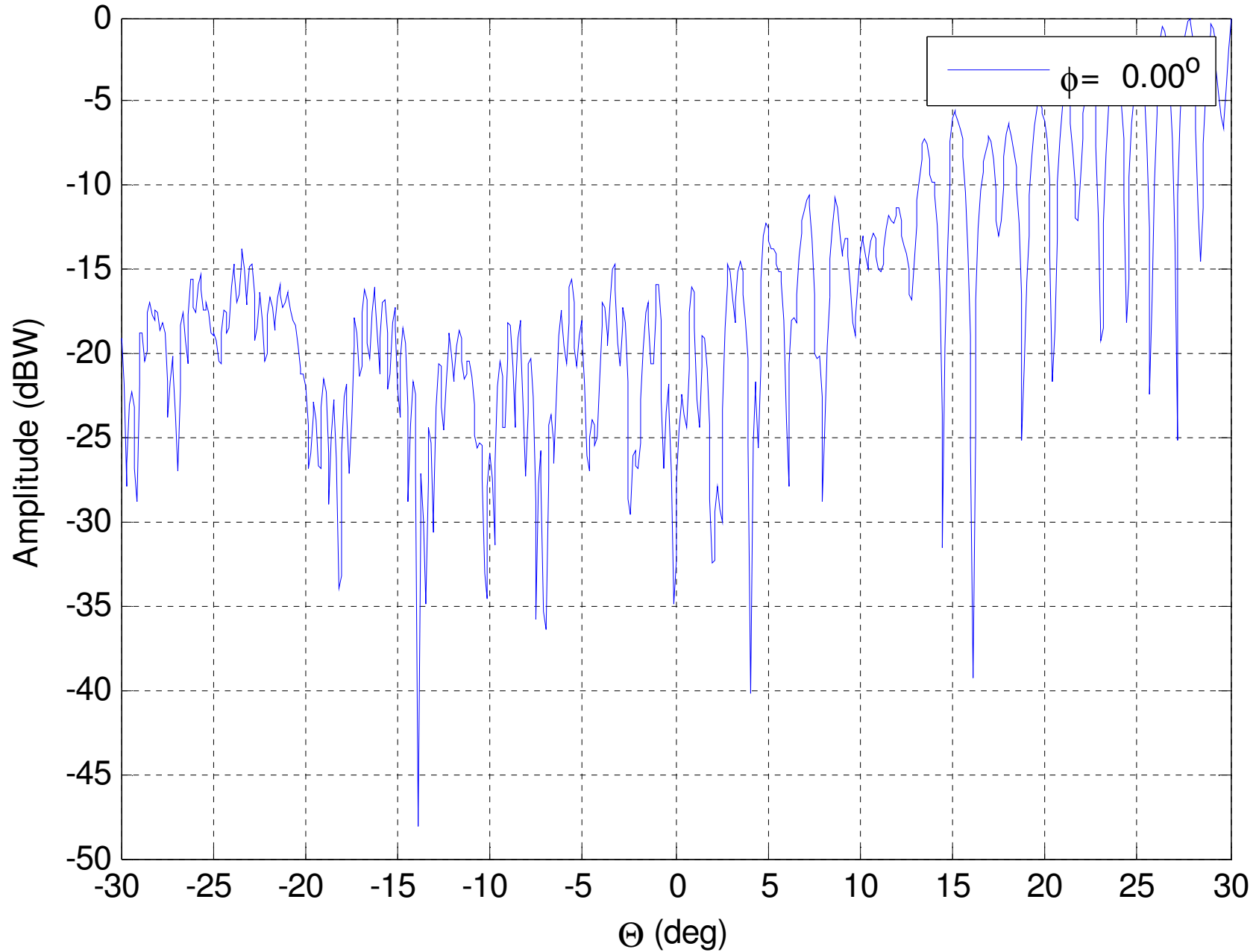
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--10.cut, Peak: 4.85 dBW, Date: 16-Dec-2011



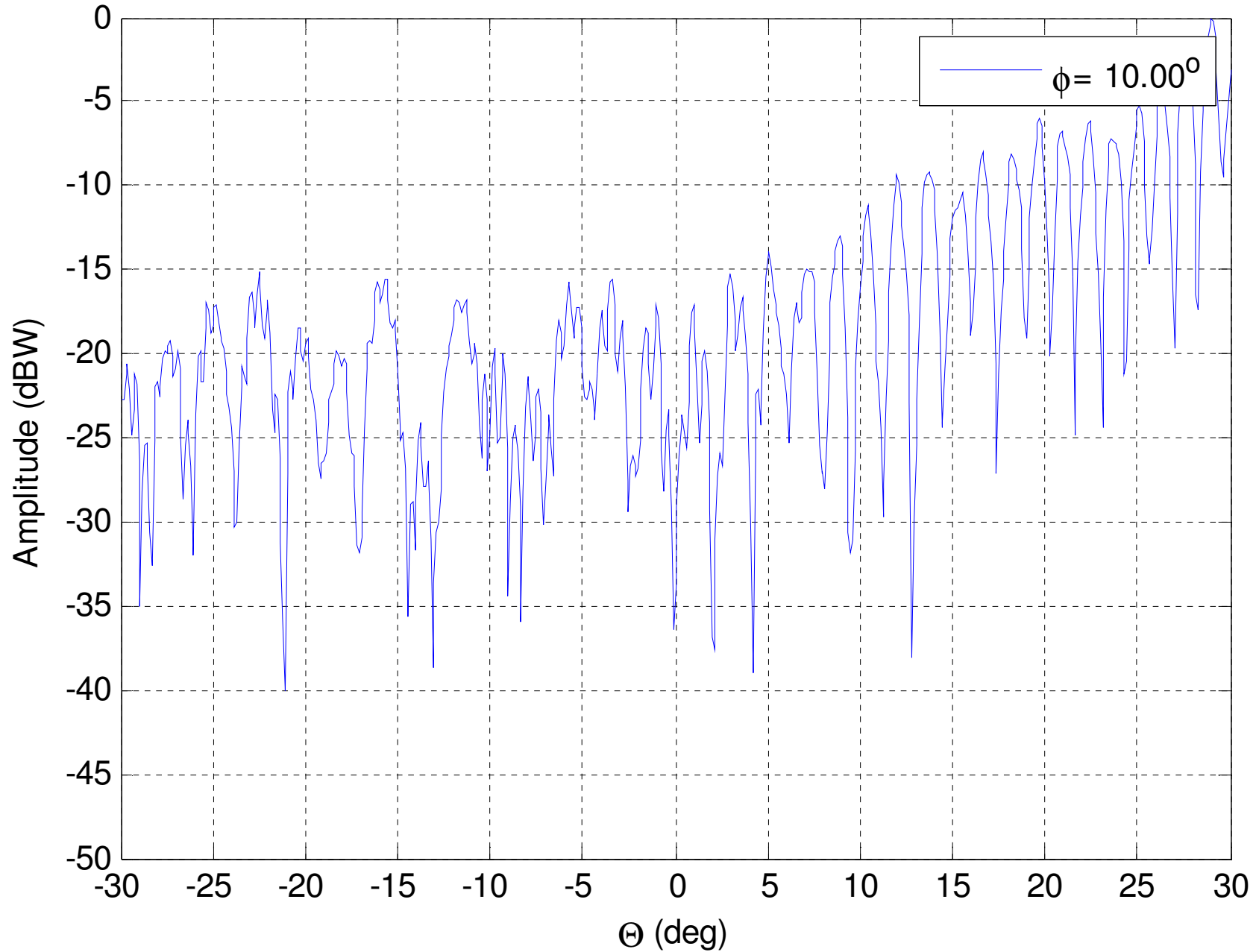
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-0.cut, Peak: 4.29 dBW, Date: 16-Dec-2011



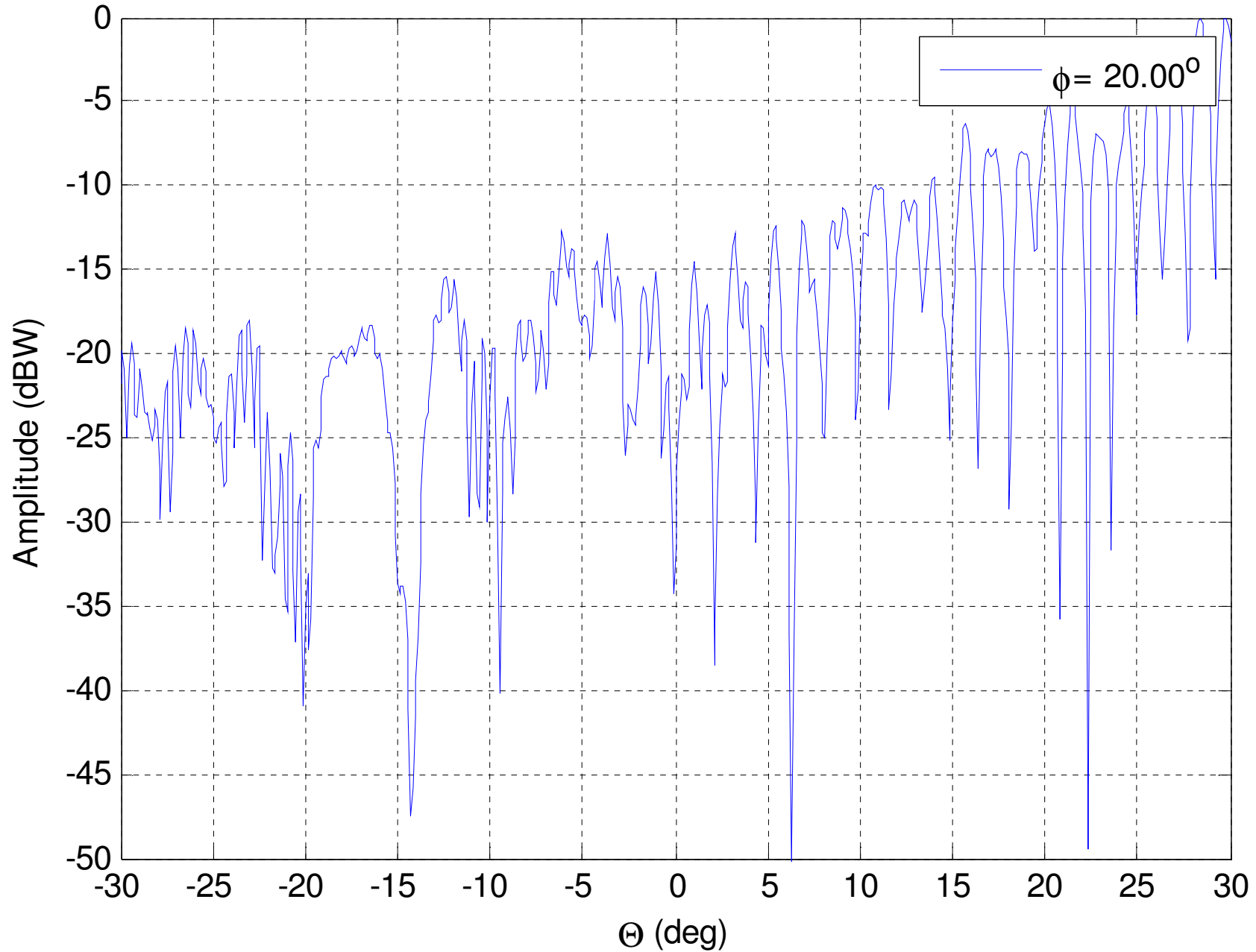
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-10.cut, Peak: 5.71 dBW, Date: 16-Dec-2011



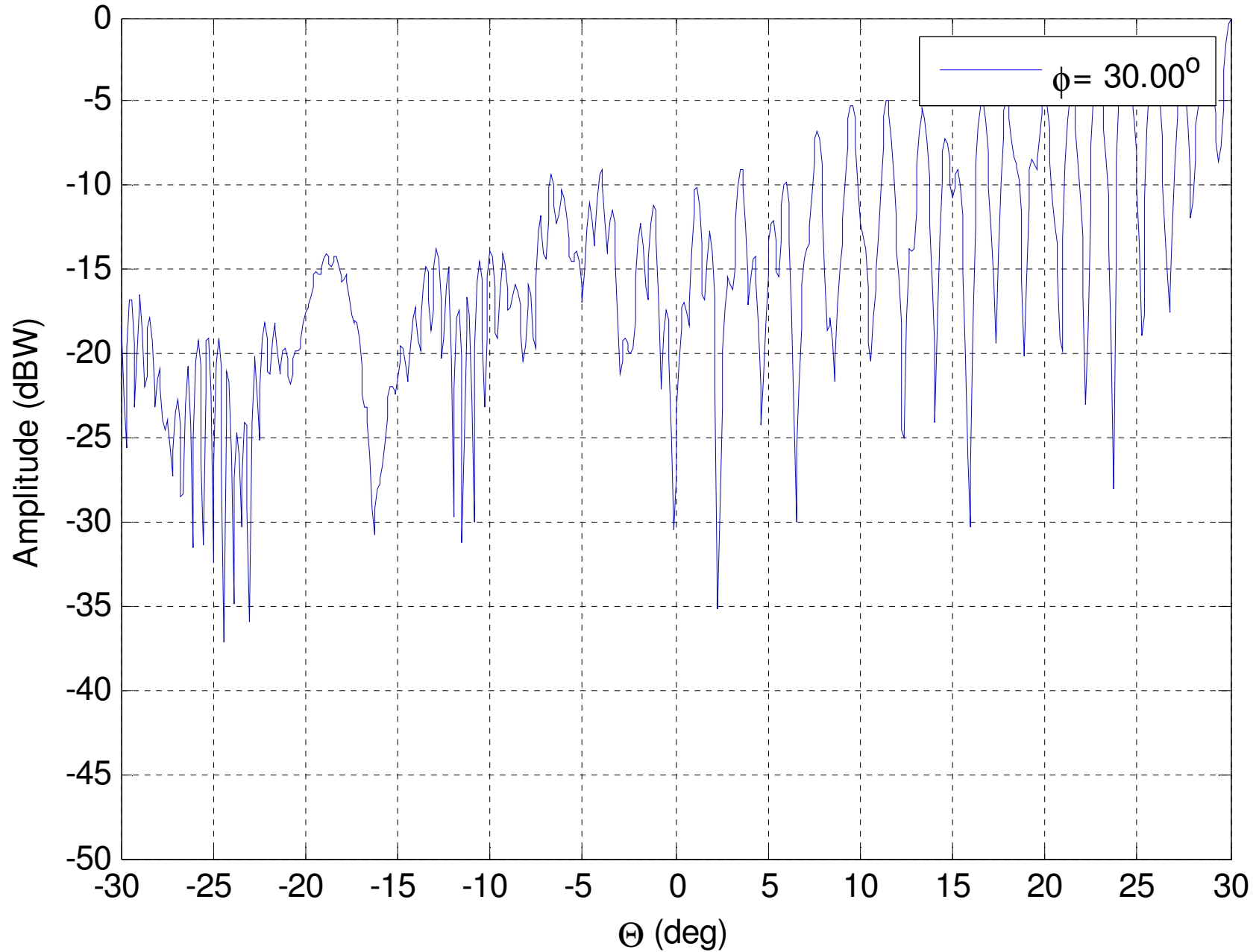
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-20.cut, Peak: 3.42 dBW, Date: 16-Dec-2011



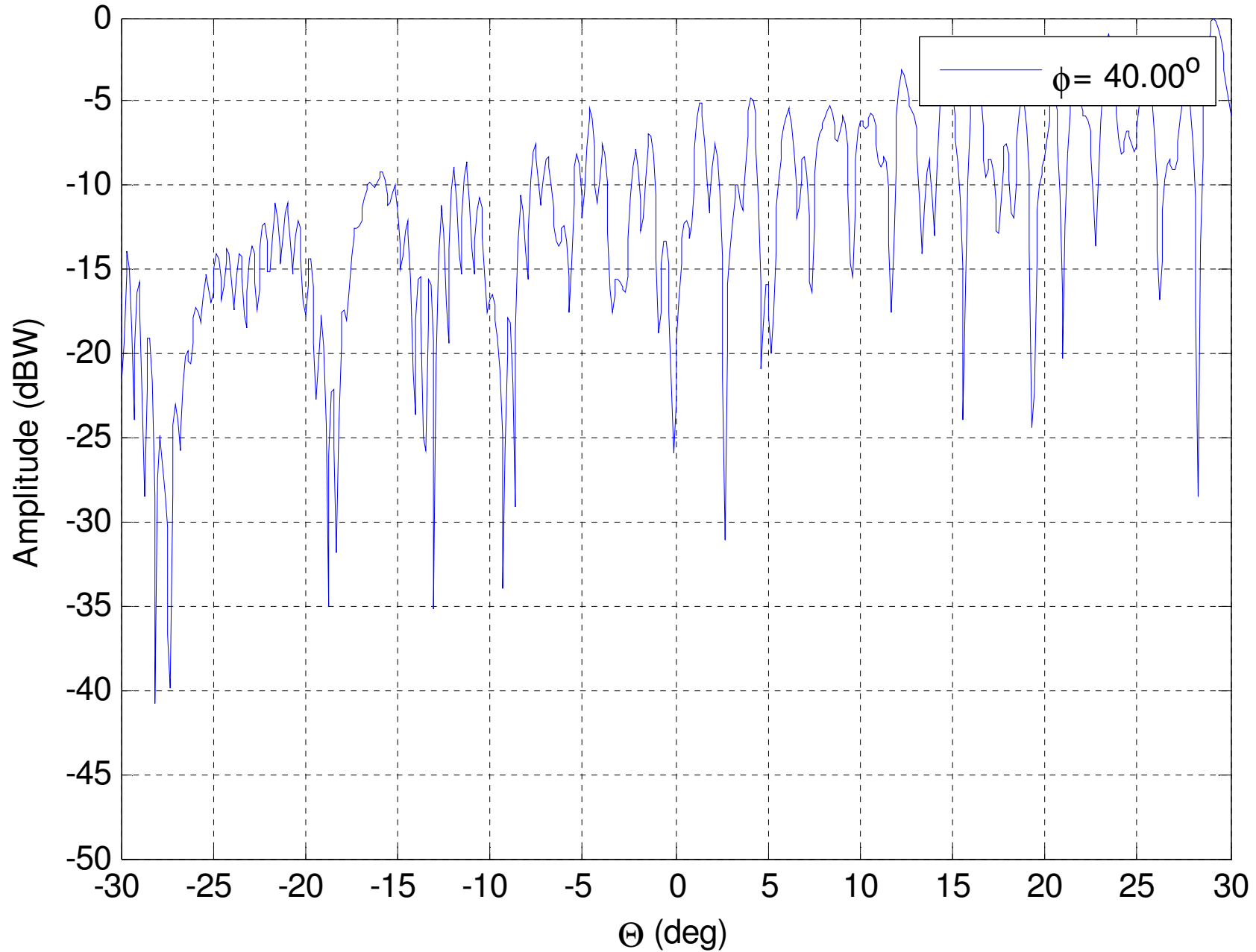
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-30.cut, Peak: -0.59 dBW, Date: 16-Dec-2011



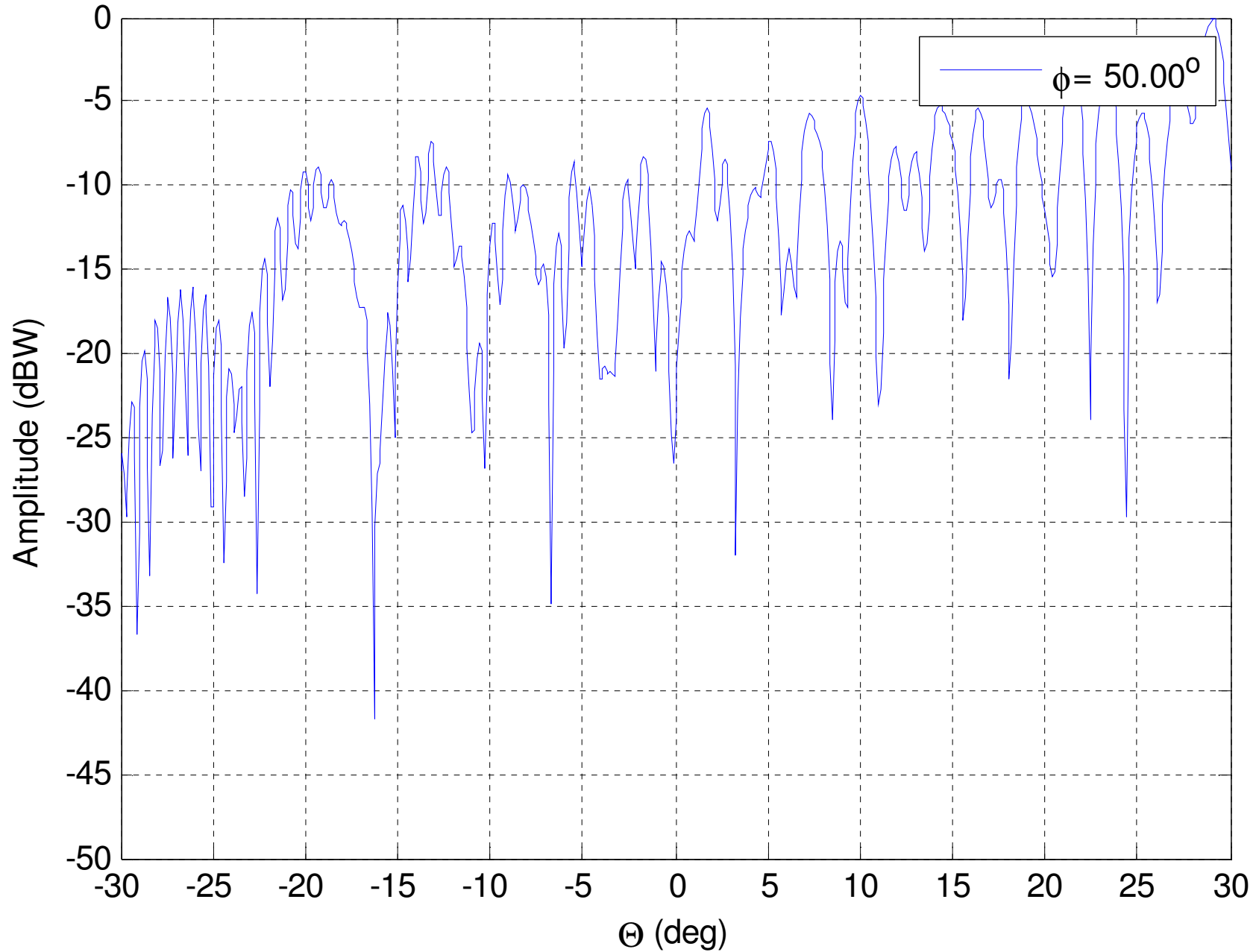
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-40.cut, Peak: -5.19 dBW, Date: 16-Dec-2011



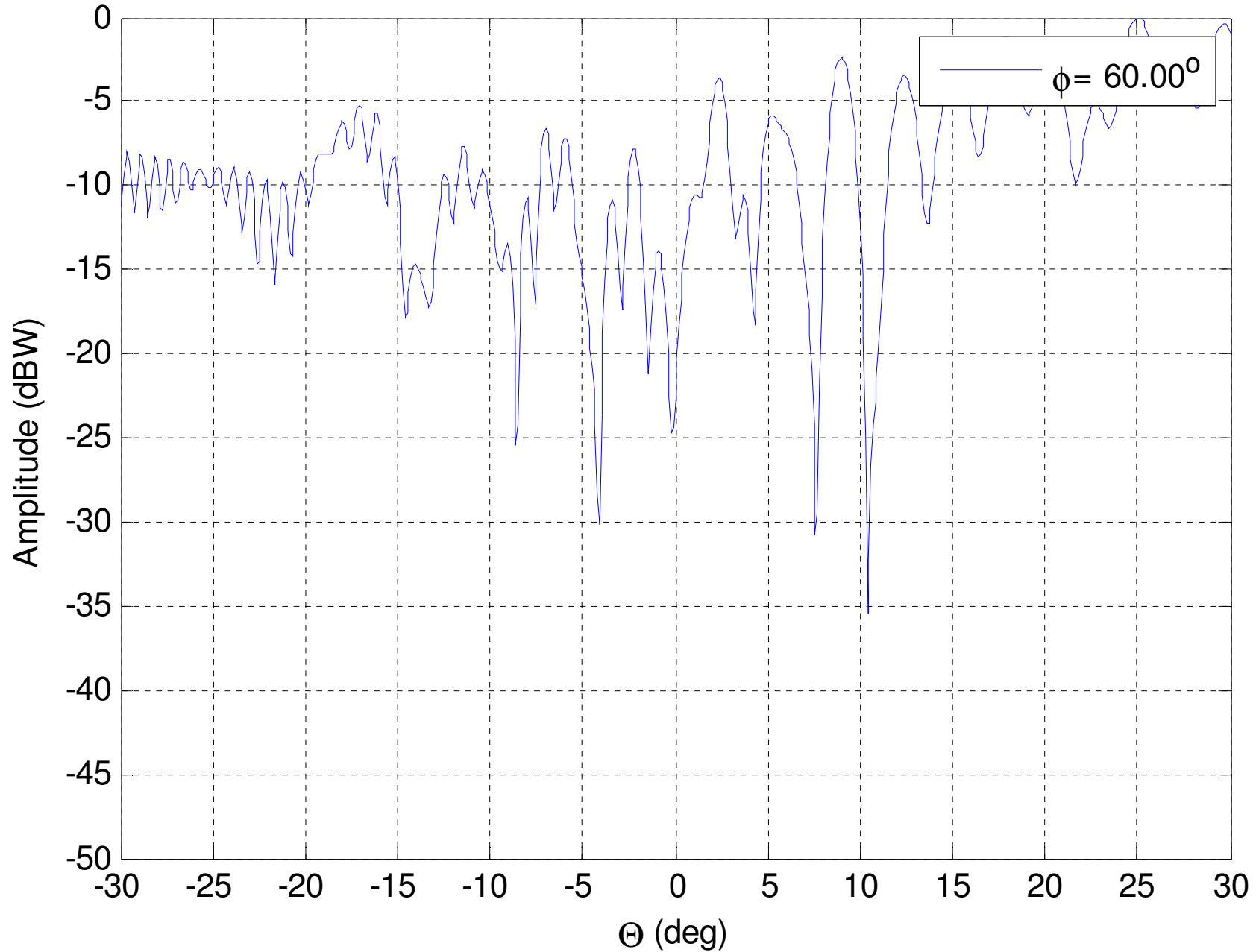
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-50.cut, Peak: -4.18 dBW, Date: 16-Dec-2011



Normalized pattern cuts - farfield

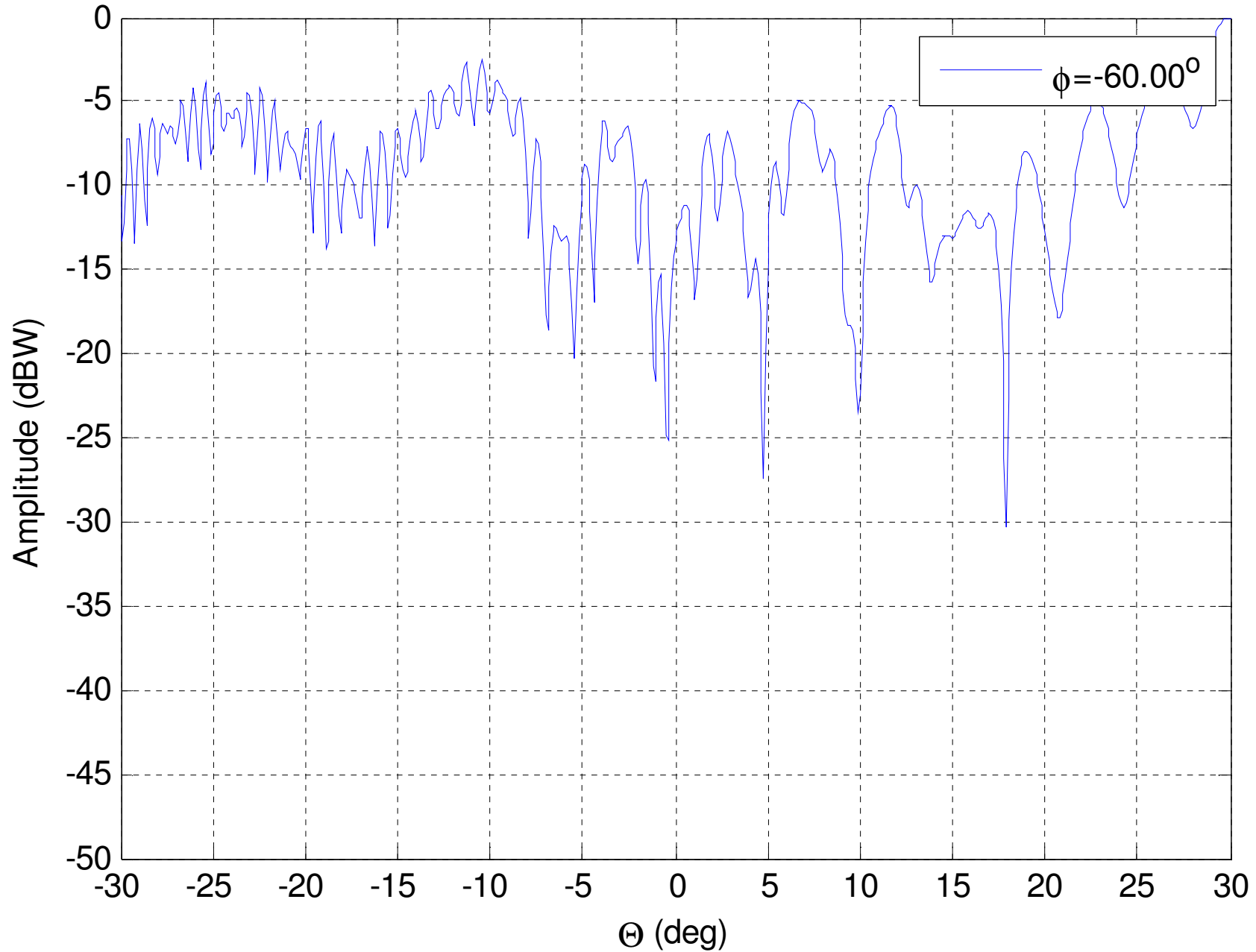
Input file: tx-17.3-rhcp-60.cut, Peak: -5.51 dBW, Date: 16-Dec-2011



LHCP at 17.3 GHz

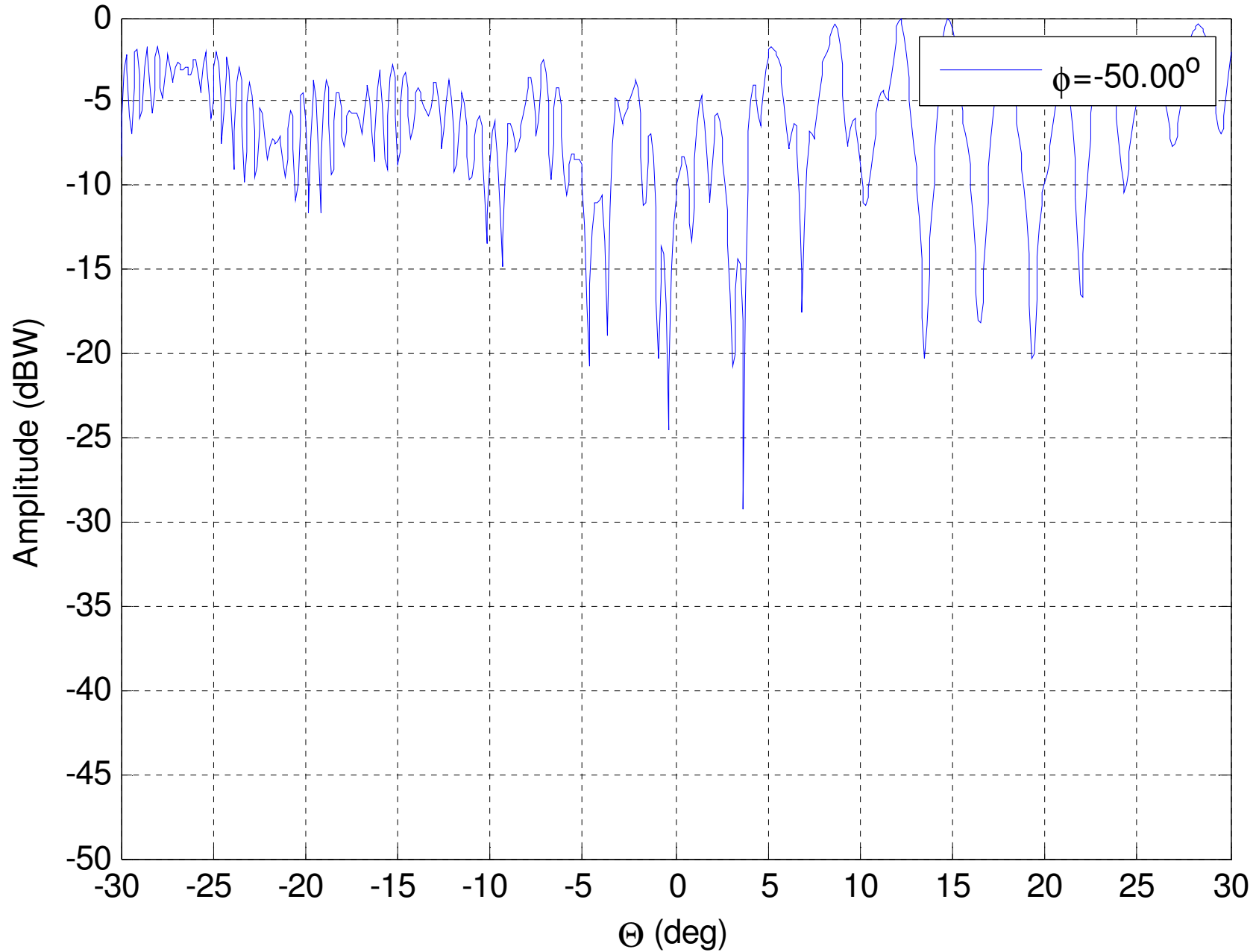
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp--60.cut, Peak: -4.94 dBW, Date: 16-Dec-2011



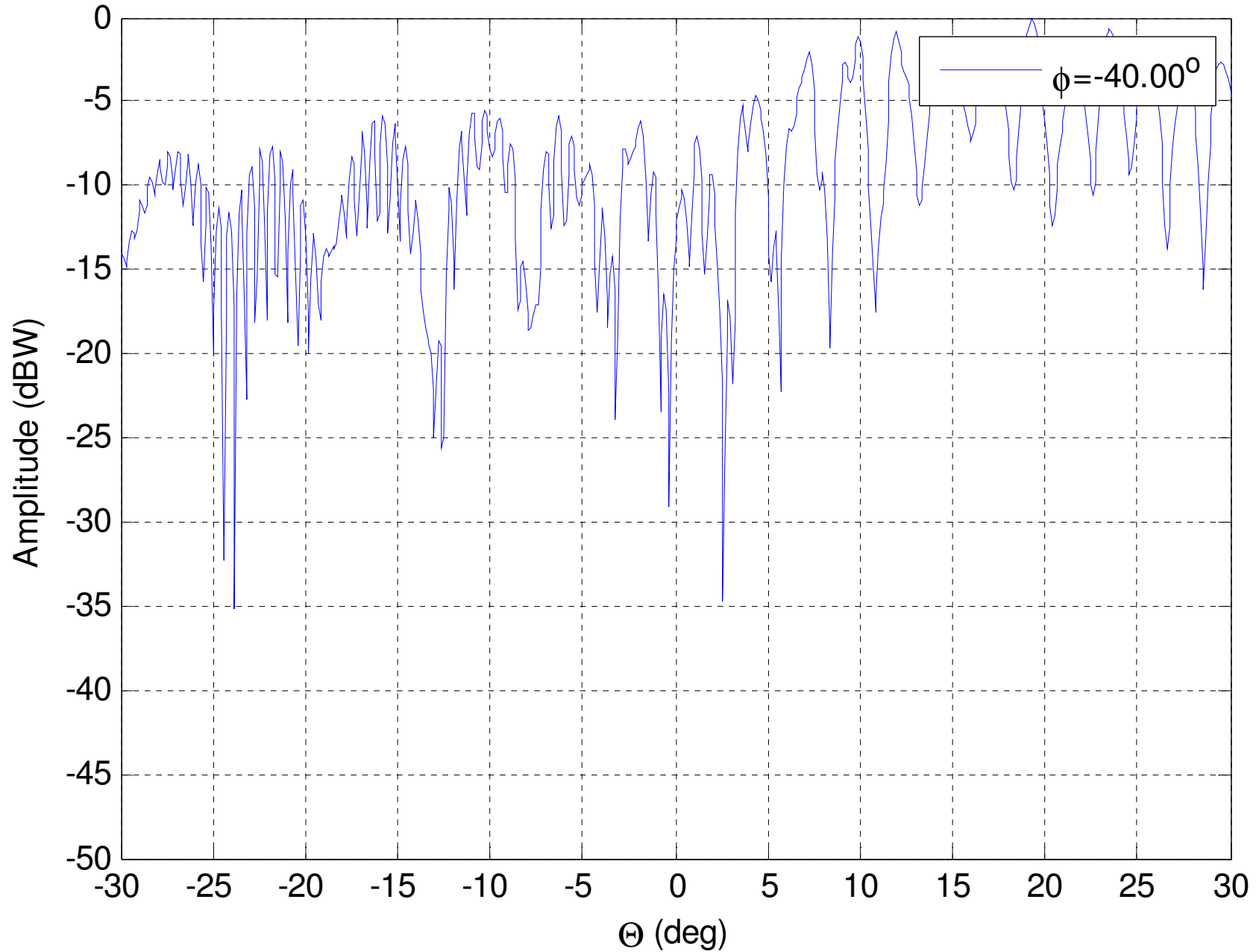
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp--50.cut, Peak: -7.40 dBW, Date: 16-Dec-2011



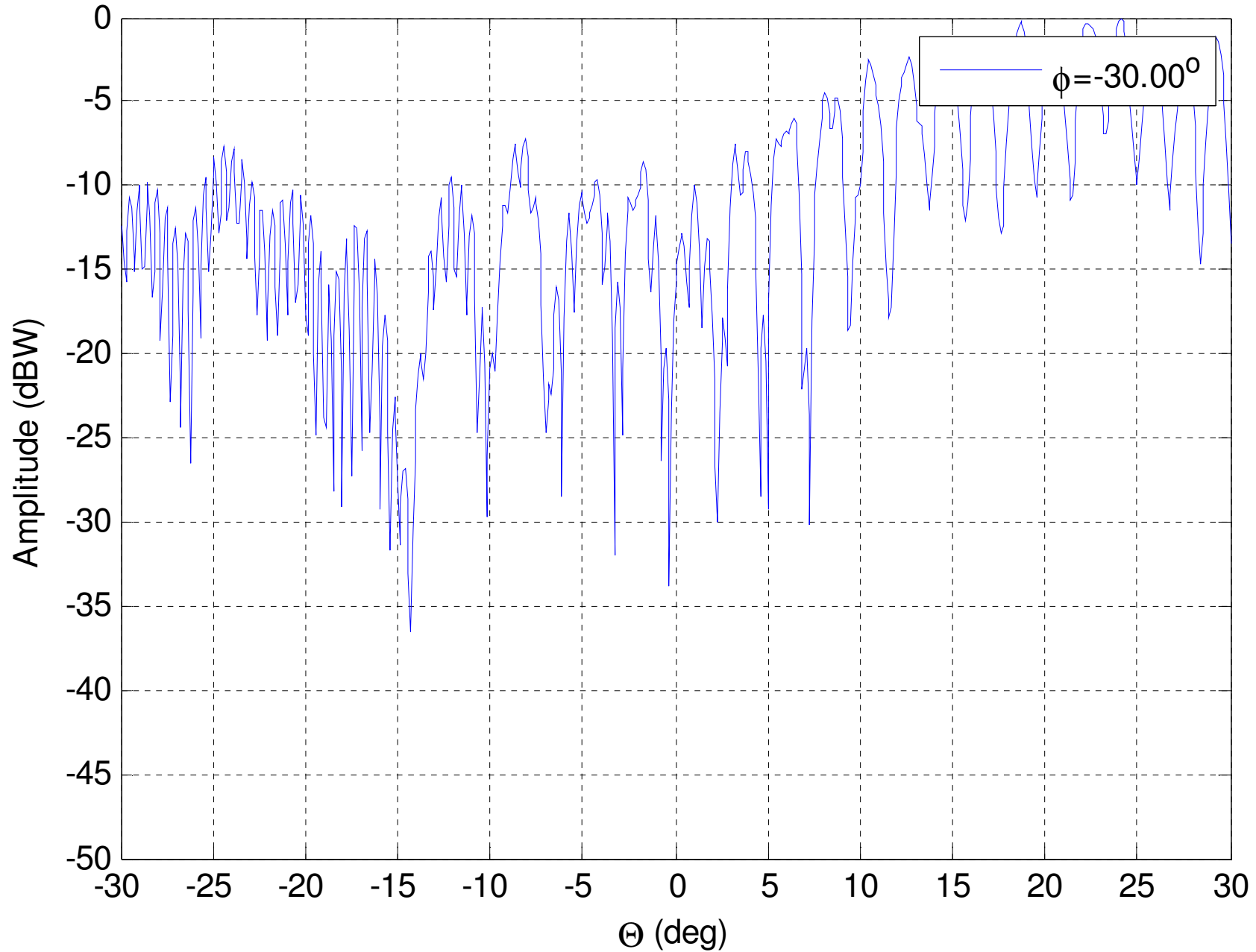
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp--40.cut, Peak: -5.09 dBW, Date: 16-Dec-2011



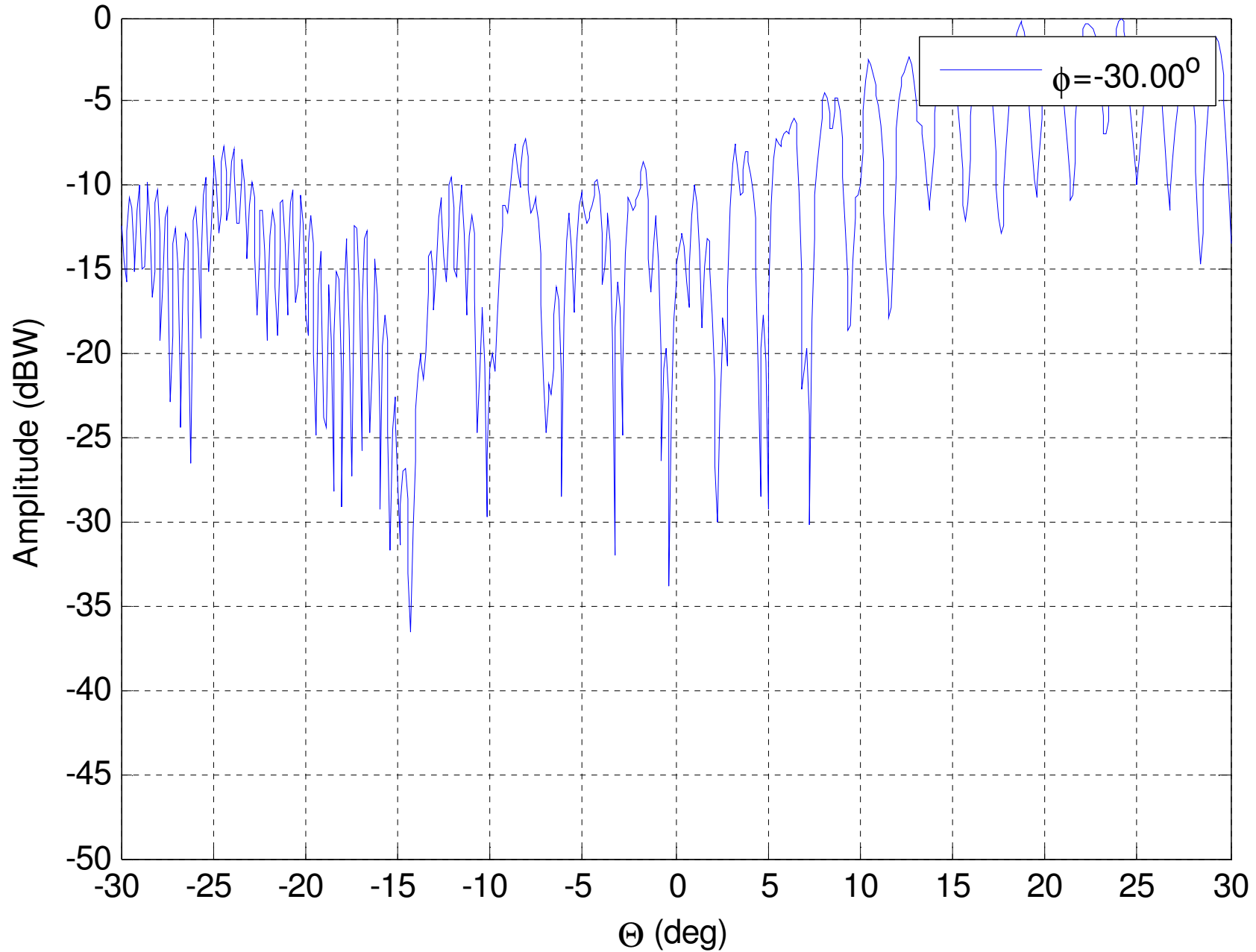
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp--30.cut, Peak: -2.43 dBW, Date: 16-Dec-2011



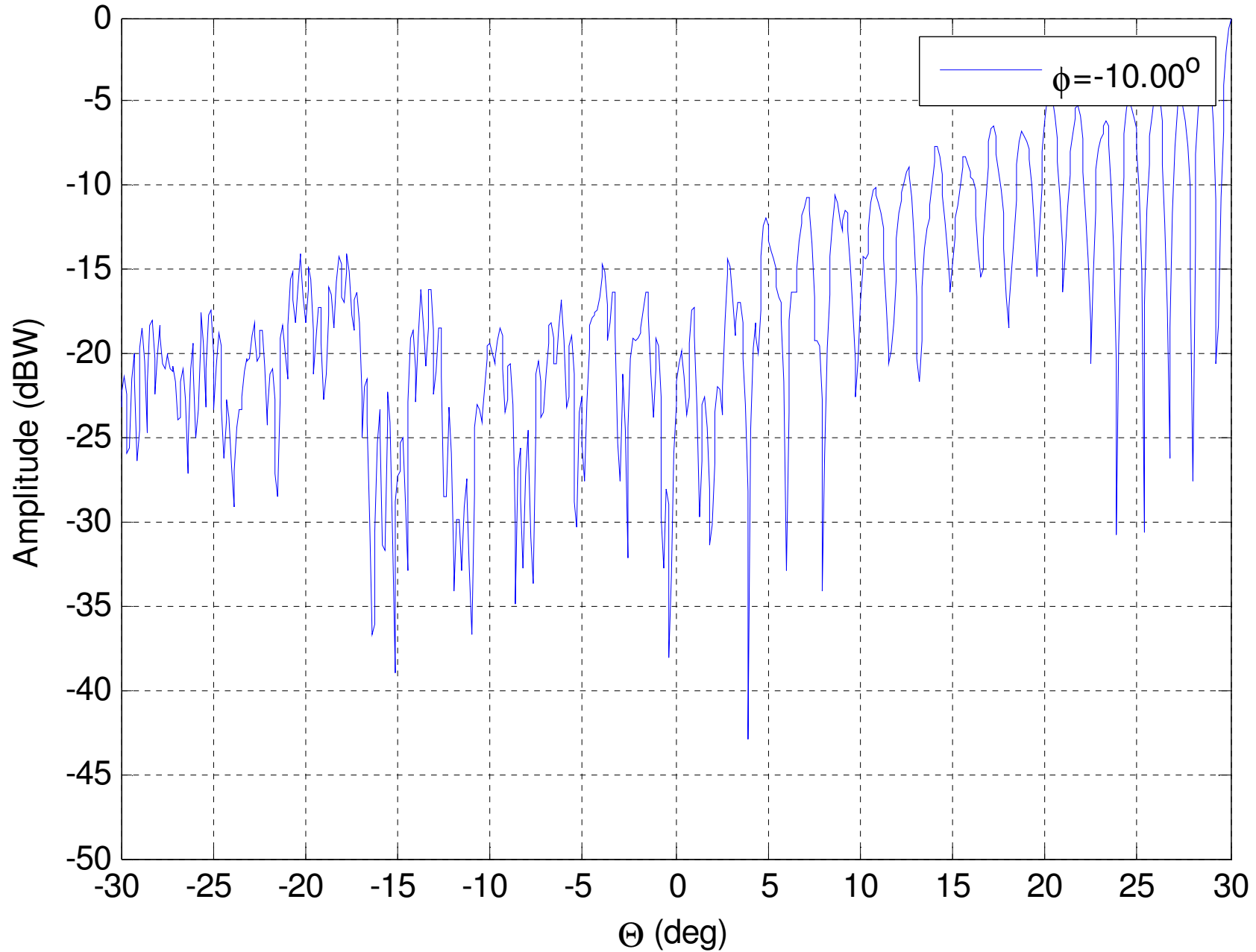
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp--30.cut, Peak: -2.43 dBW, Date: 16-Dec-2011



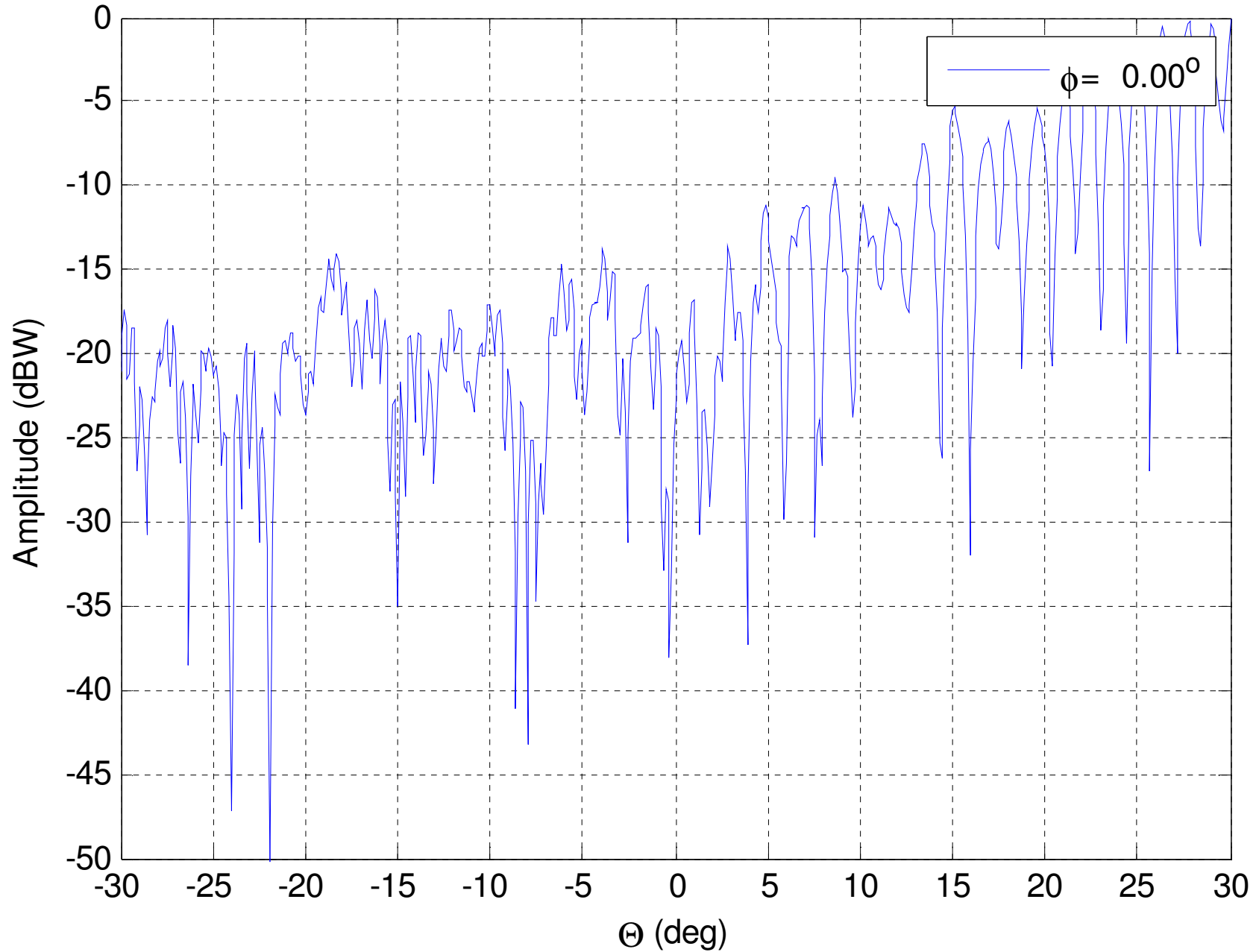
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp--10.cut, Peak: 4.90 dBW, Date: 16-Dec-2011



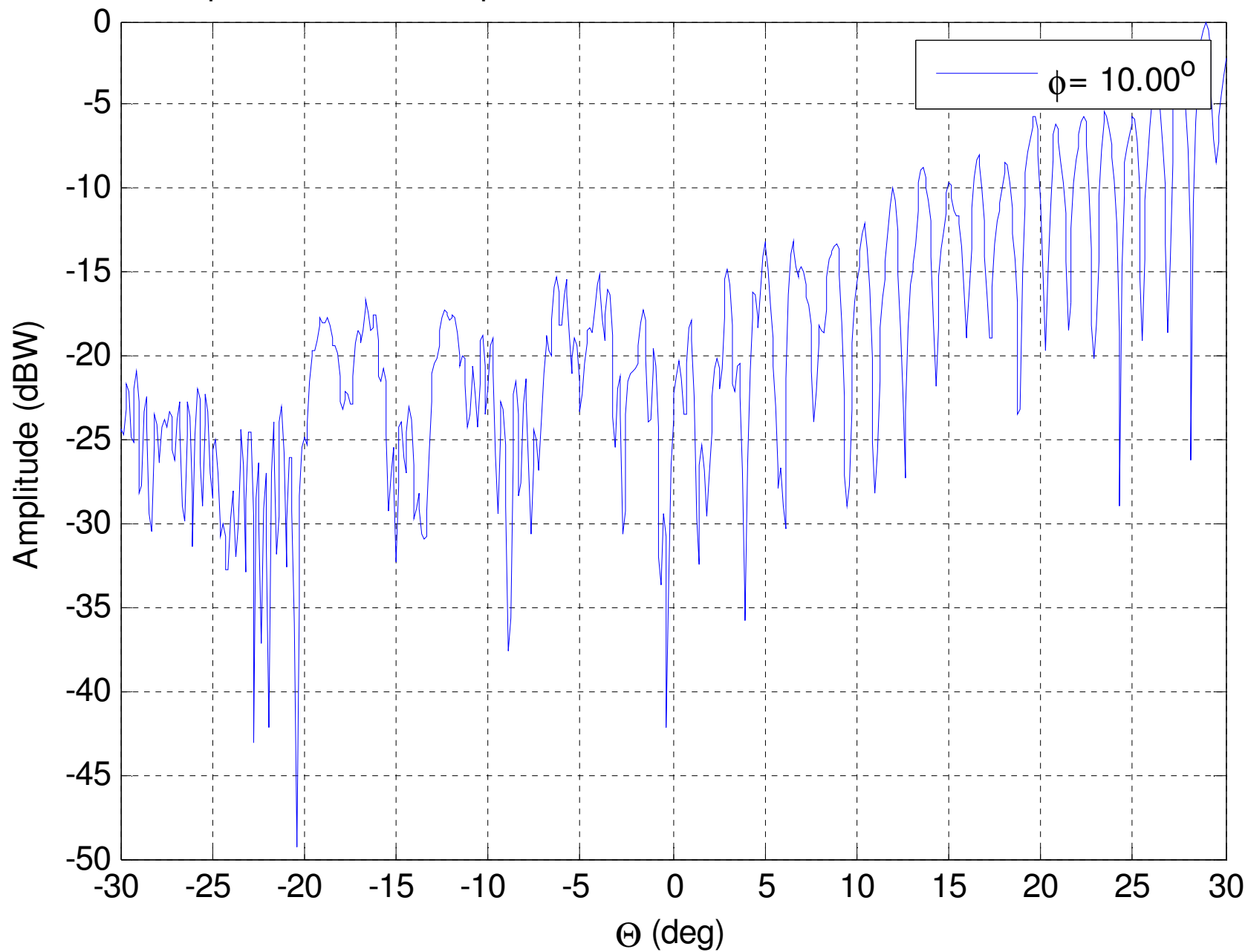
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp-0.cut, Peak: 4.38 dBW, Date: 16-Dec-2011



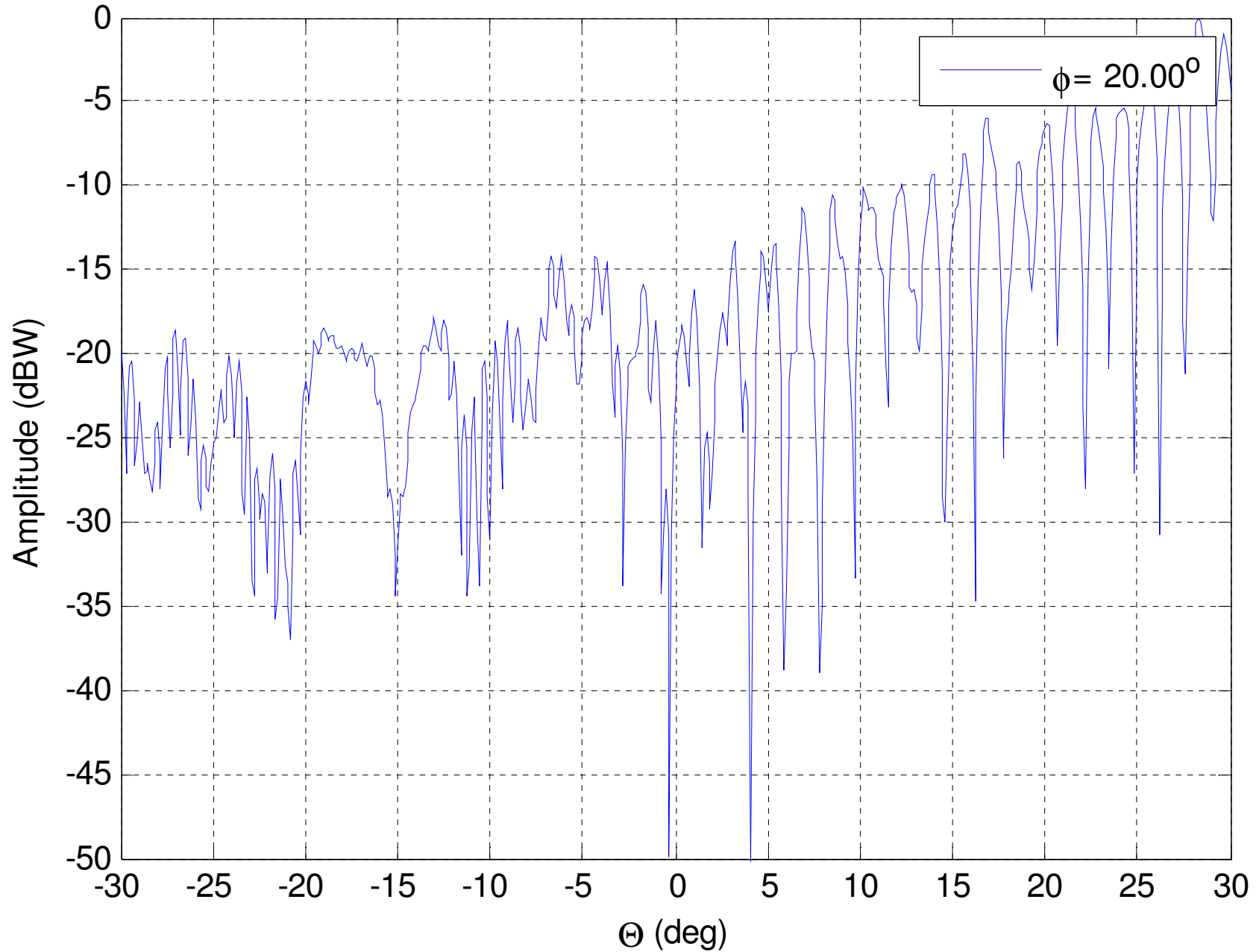
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp-10.cut, Peak: 5.55 dBW, Date: 16-Dec-2011



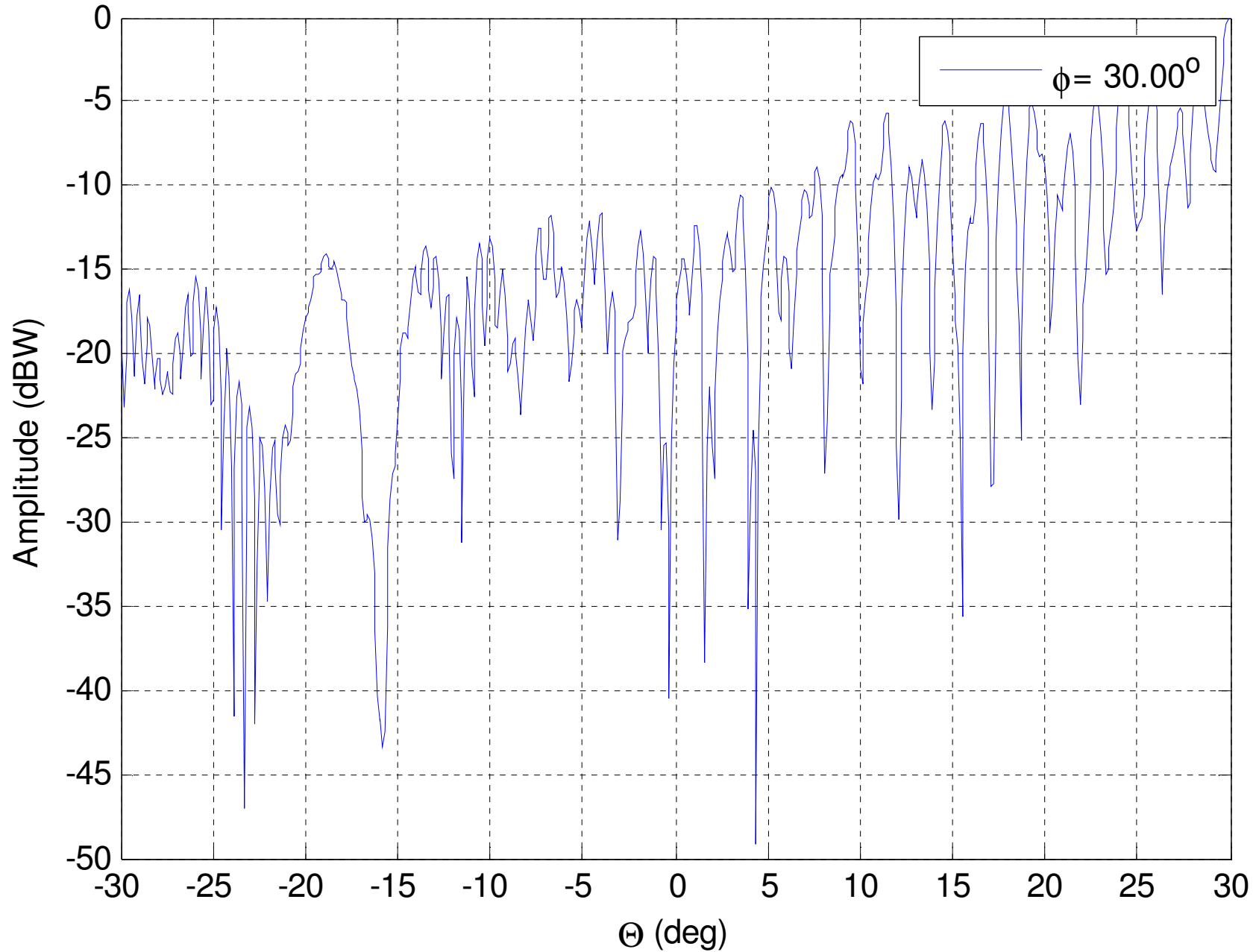
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp-20.cut, Peak: 3.80 dBW, Date: 16-Dec-2011



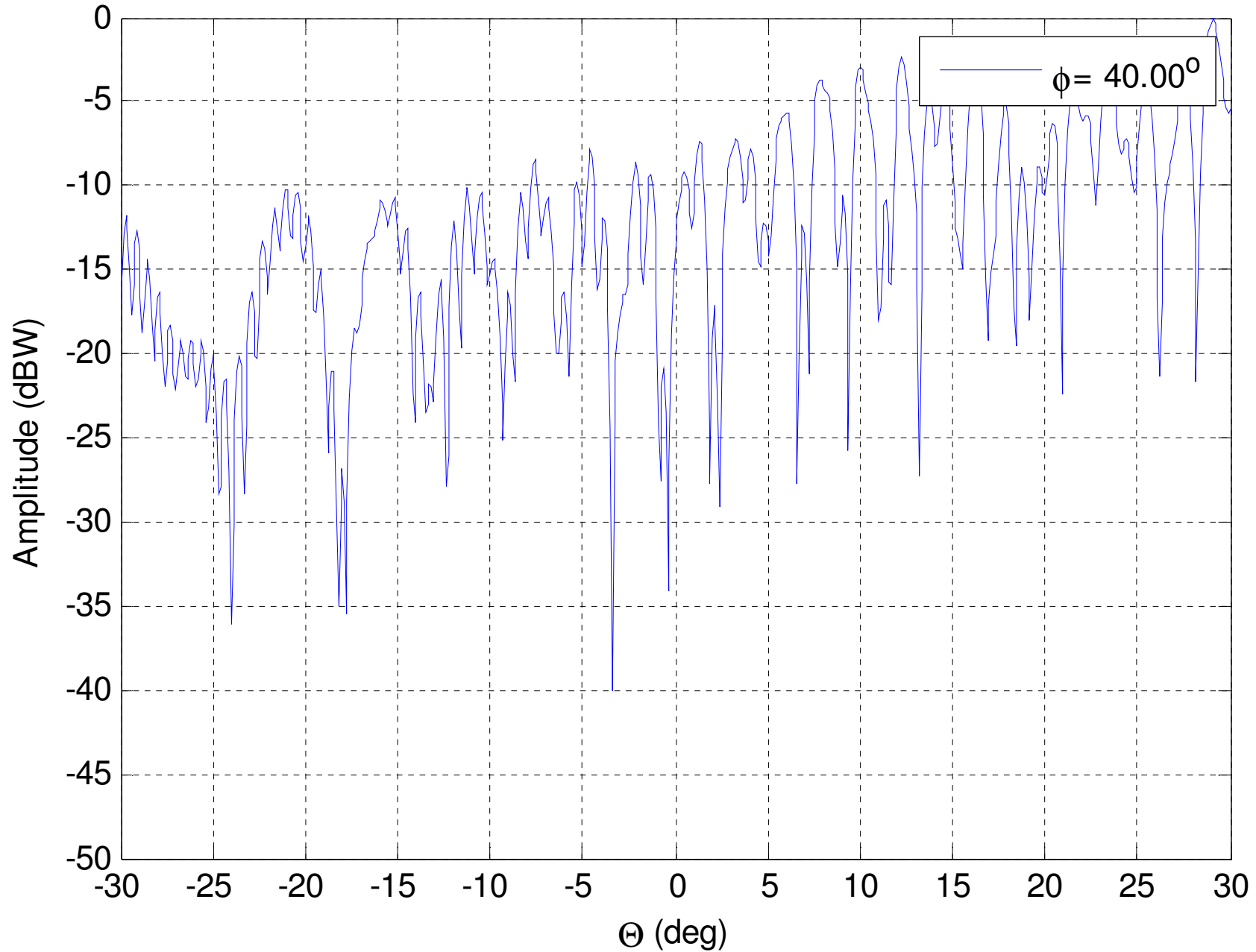
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp-30.cut, Peak: -0.01 dBW, Date: 16-Dec-2011



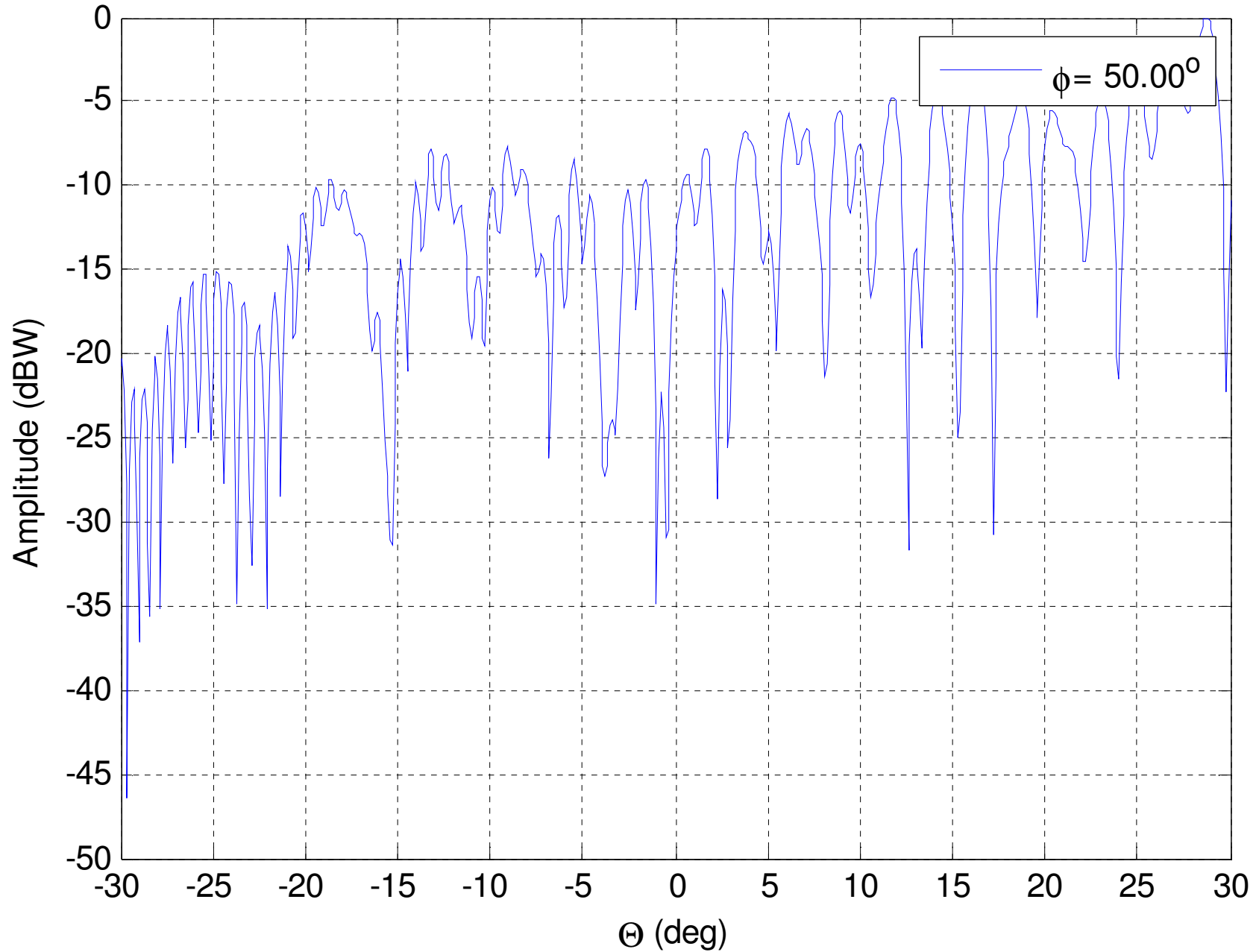
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp-40.cut, Peak: -4.85 dBW, Date: 16-Dec-2011



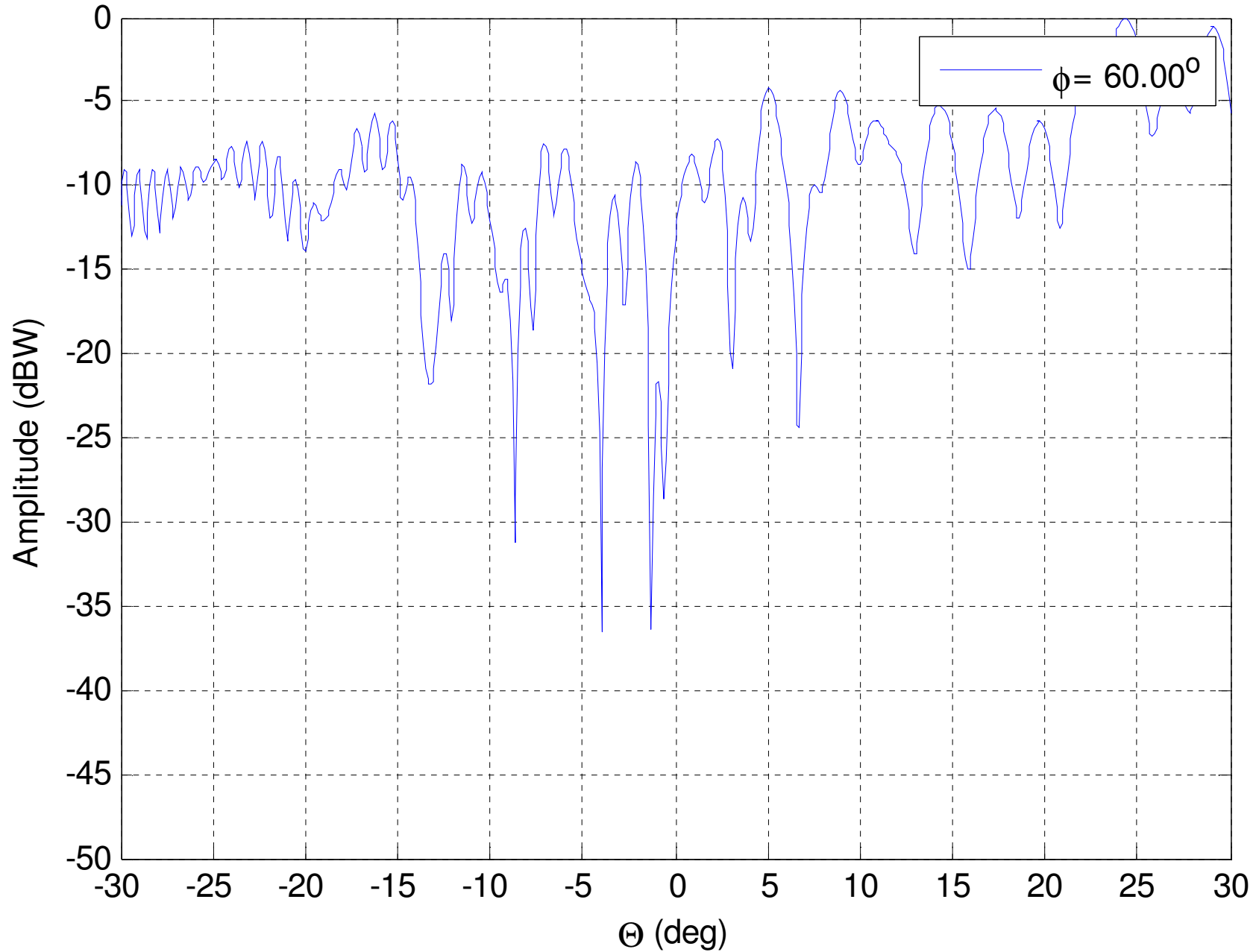
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp-50.cut, Peak: -4.43 dBW, Date: 16-Dec-2011



Normalized pattern cuts - farfield

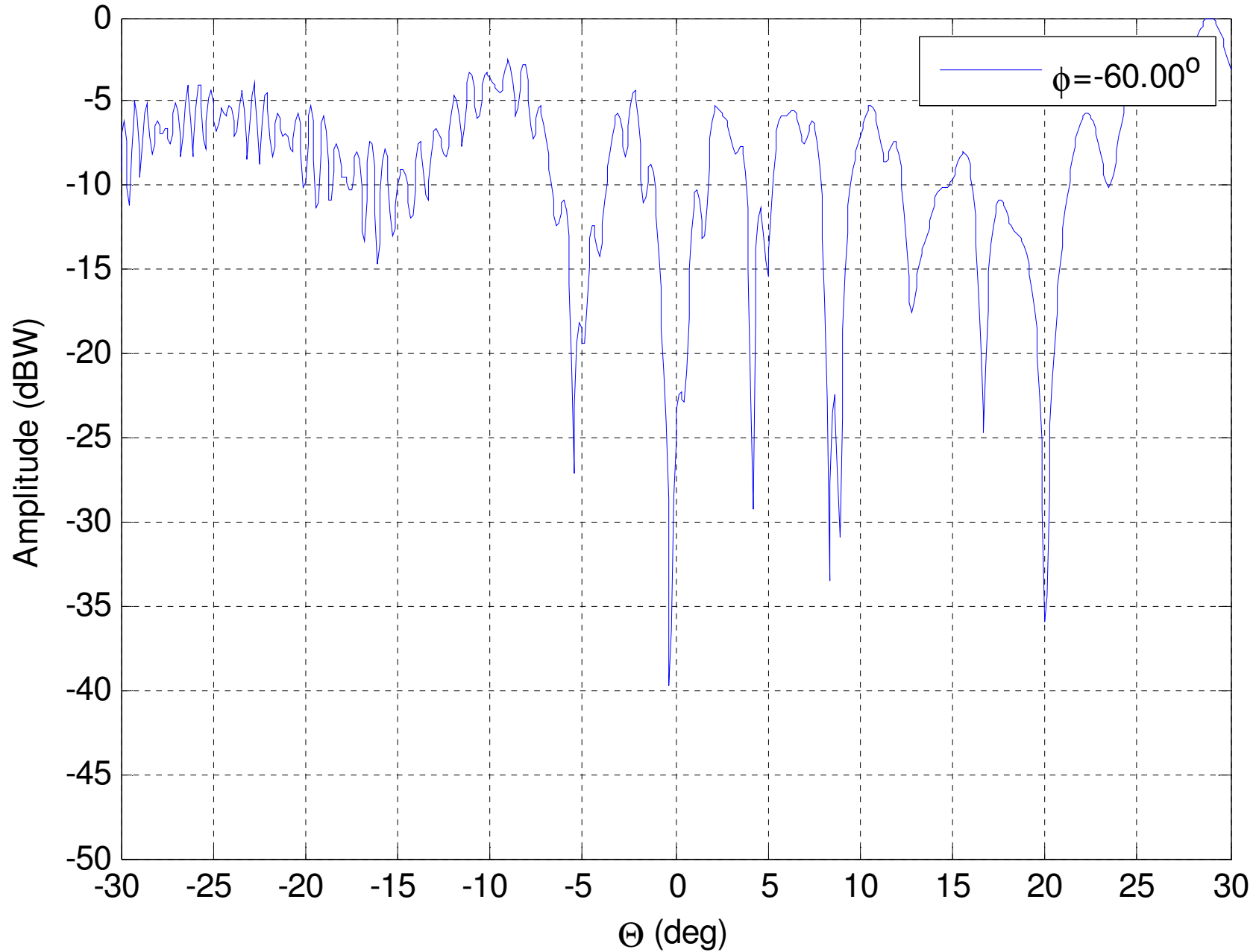
Input file: tx-17.3-lhcp-60.cut, Peak: -5.13 dBW, Date: 16-Dec-2011



RHCP at 17.5 GHz

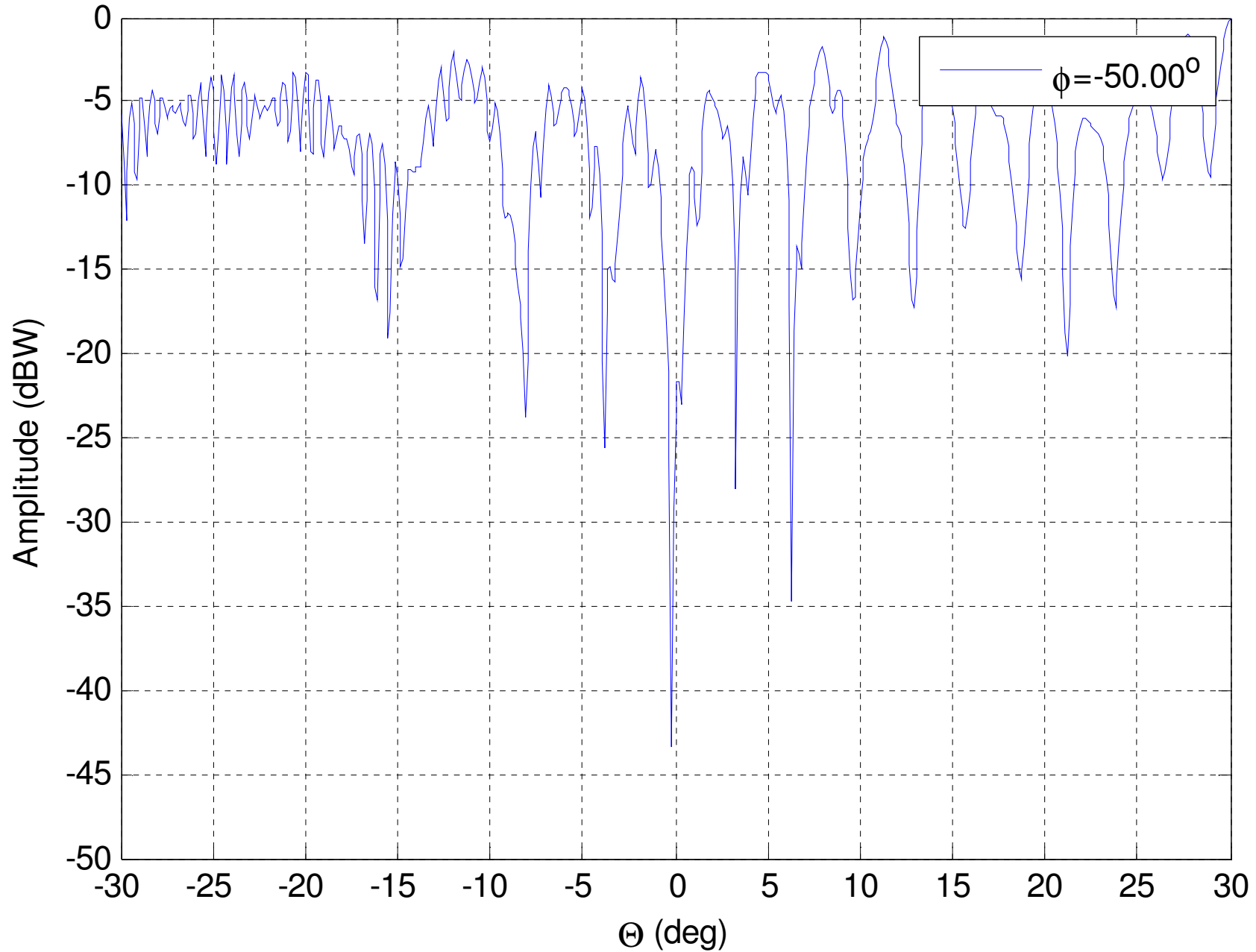
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--60.cut, Peak: -4.61 dBW, Date: 16-Dec-2011



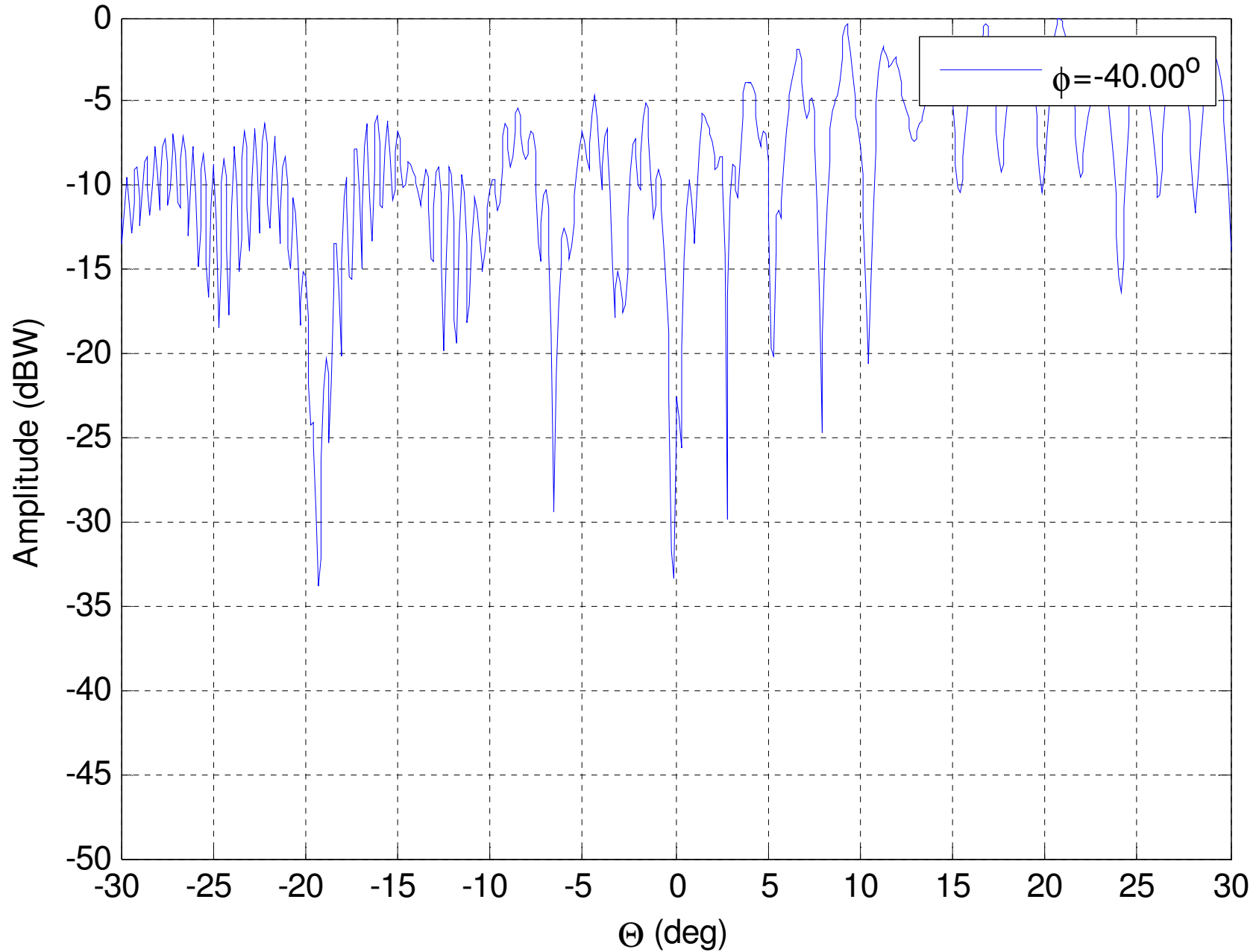
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--50.cut, Peak: -6.03 dBW, Date: 16-Dec-2011



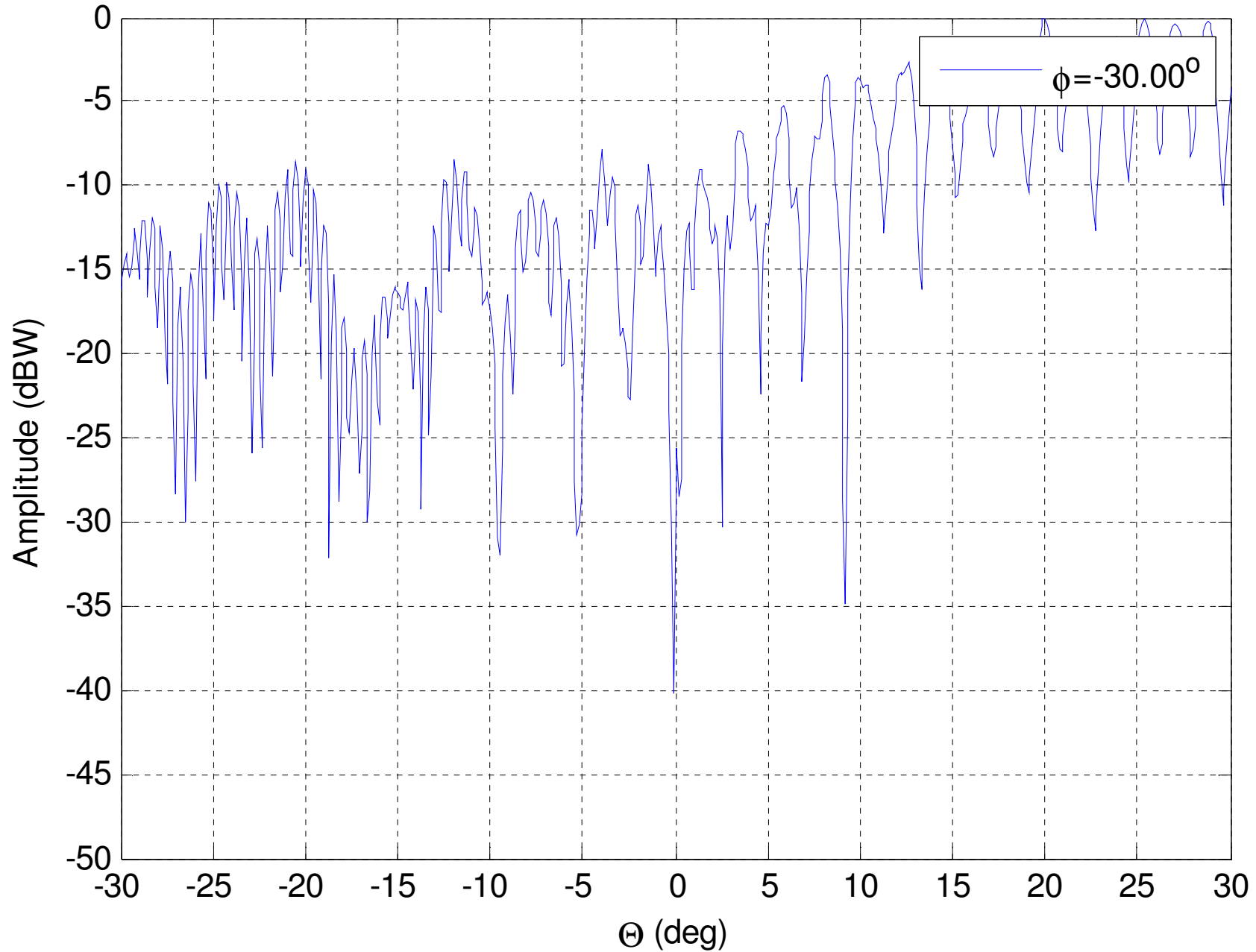
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--40.cut, Peak: -5.16 dBW, Date: 16-Dec-2011



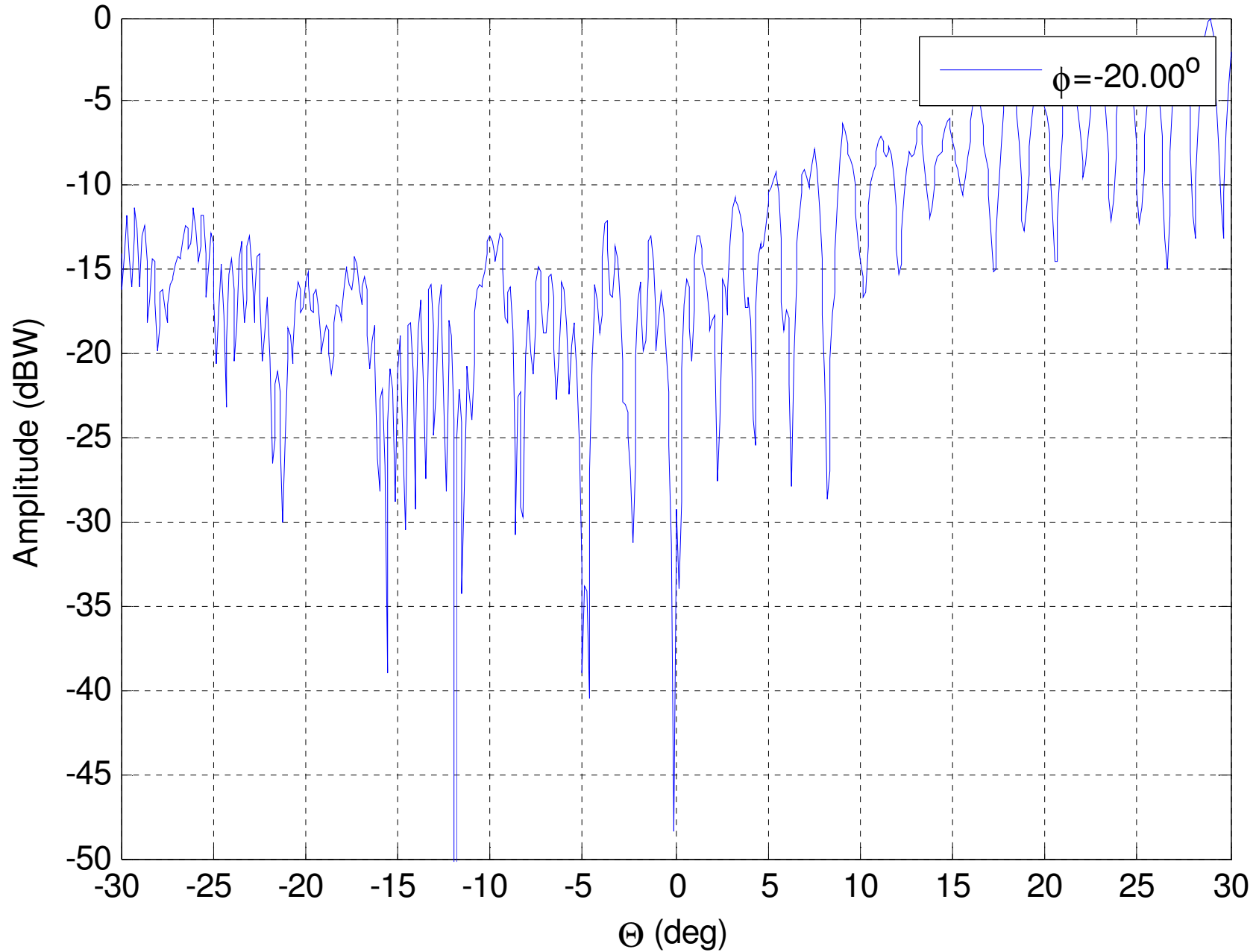
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--30.cut, Peak: -2.18 dBW, Date: 16-Dec-2011



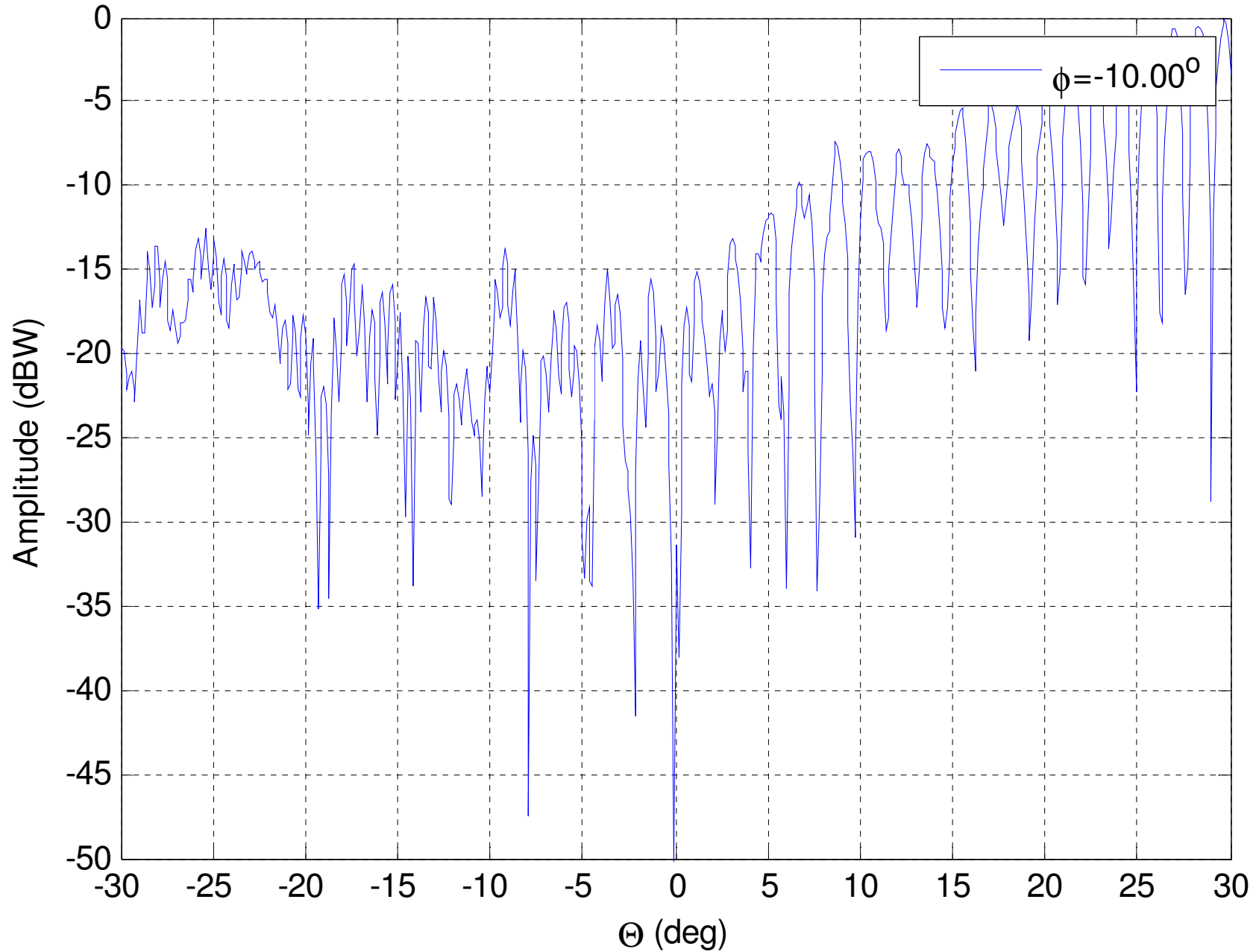
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--20.cut, Peak: 1.37 dBW, Date: 16-Dec-2011



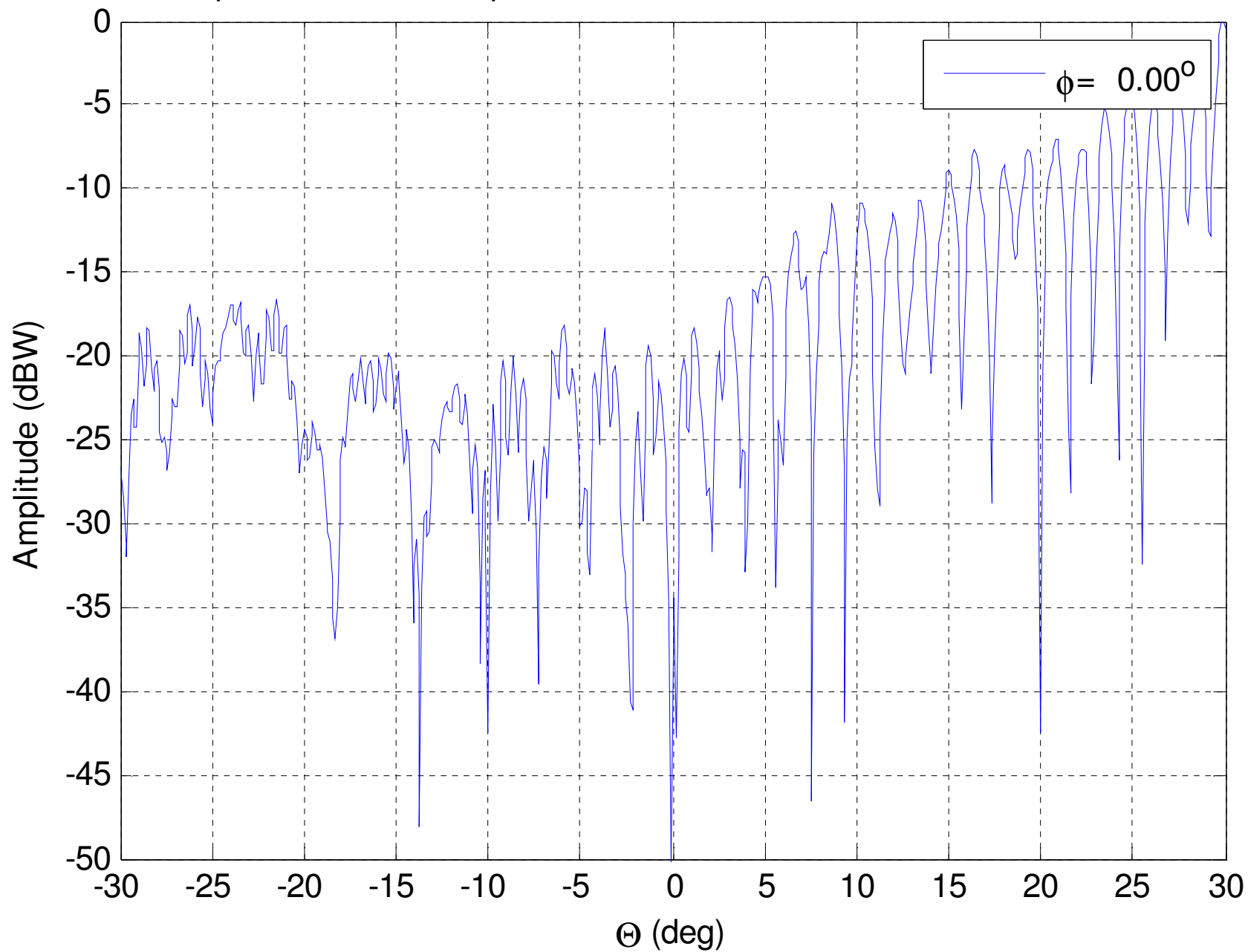
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--10.cut, Peak: 3.43 dBW, Date: 16-Dec-2011



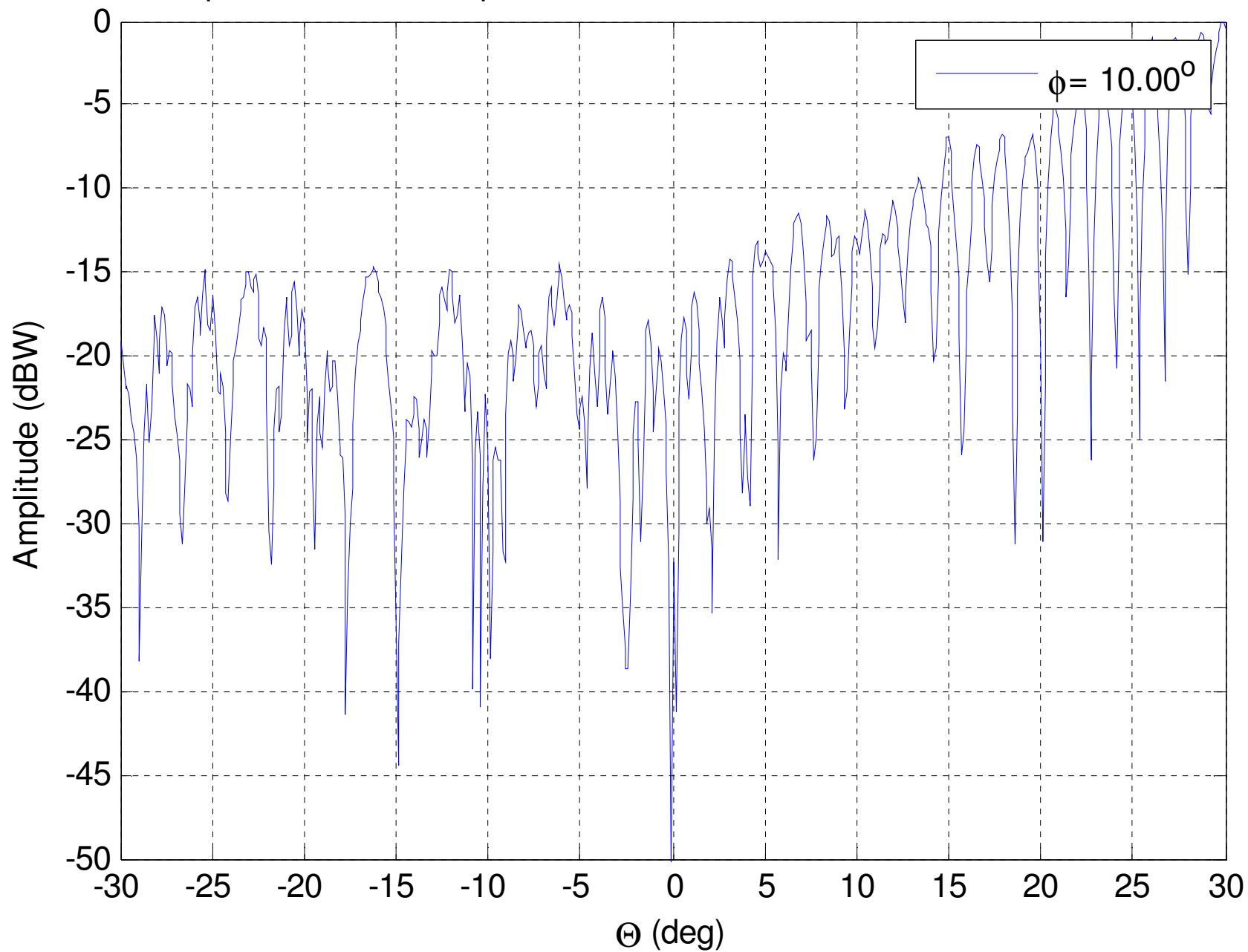
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-0.cut, Peak: 6.49 dBW, Date: 16-Dec-2011



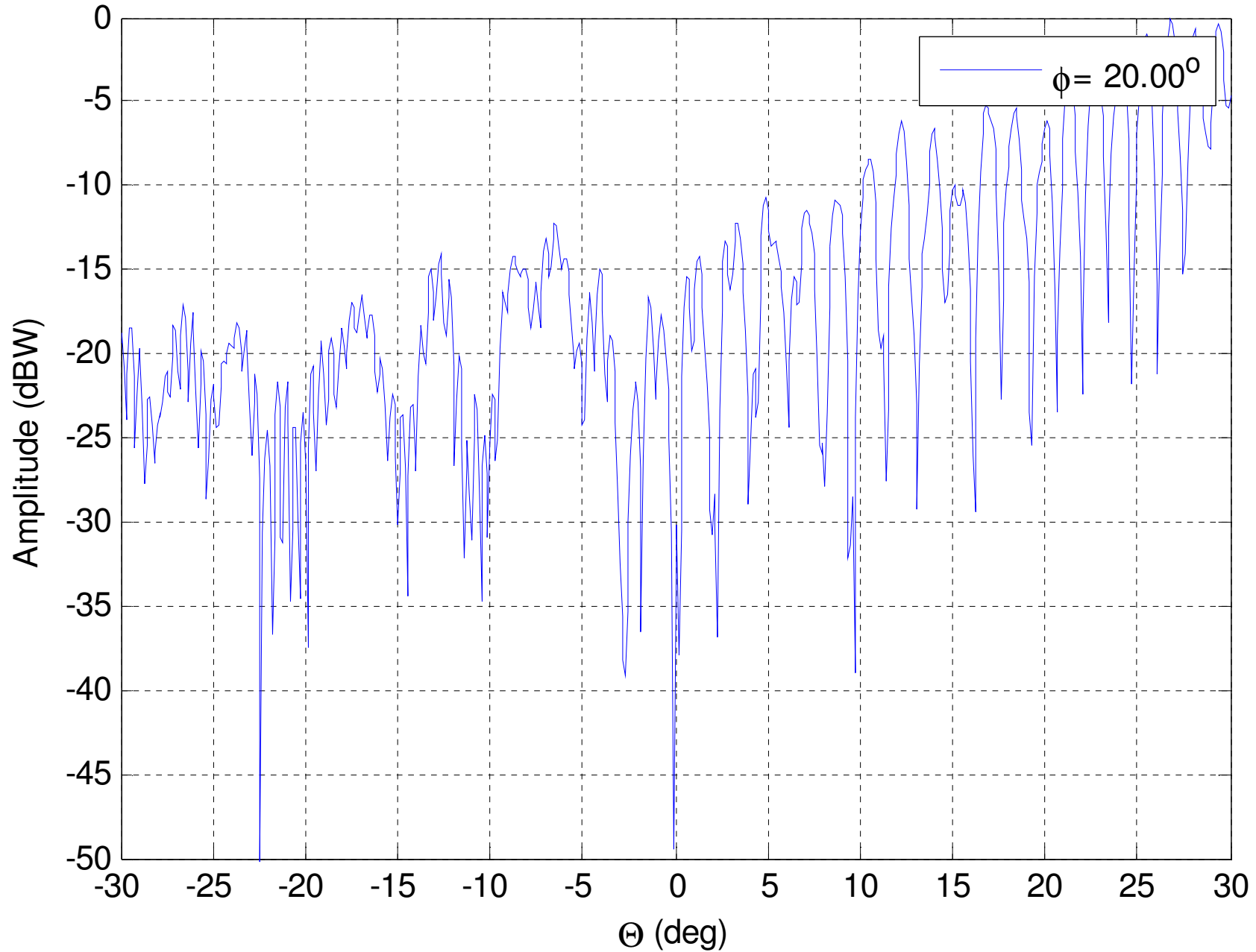
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-10.cut, Peak: 4.36 dBW, Date: 16-Dec-2011



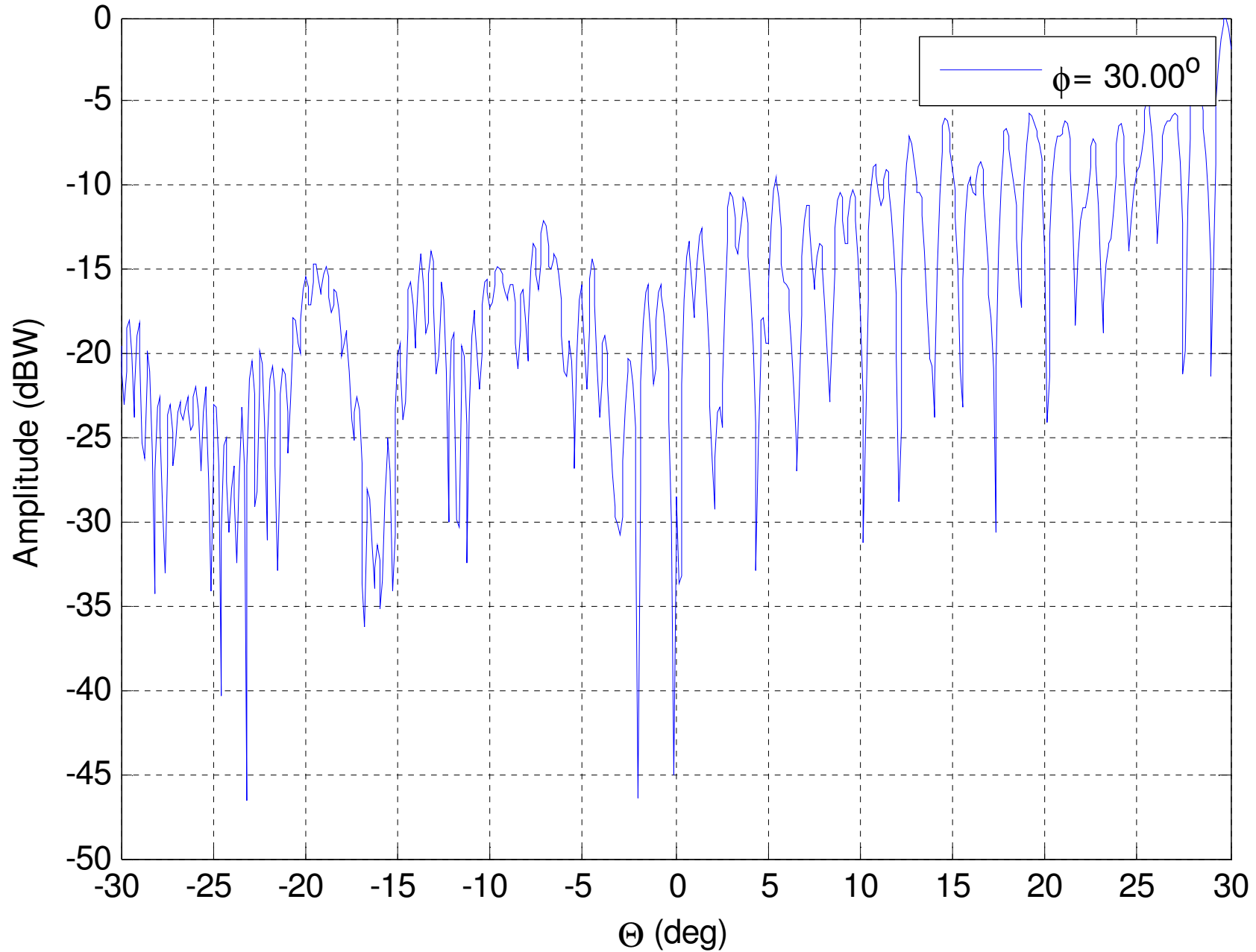
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-20.cut, Peak: 2.32 dBW, Date: 16-Dec-2011



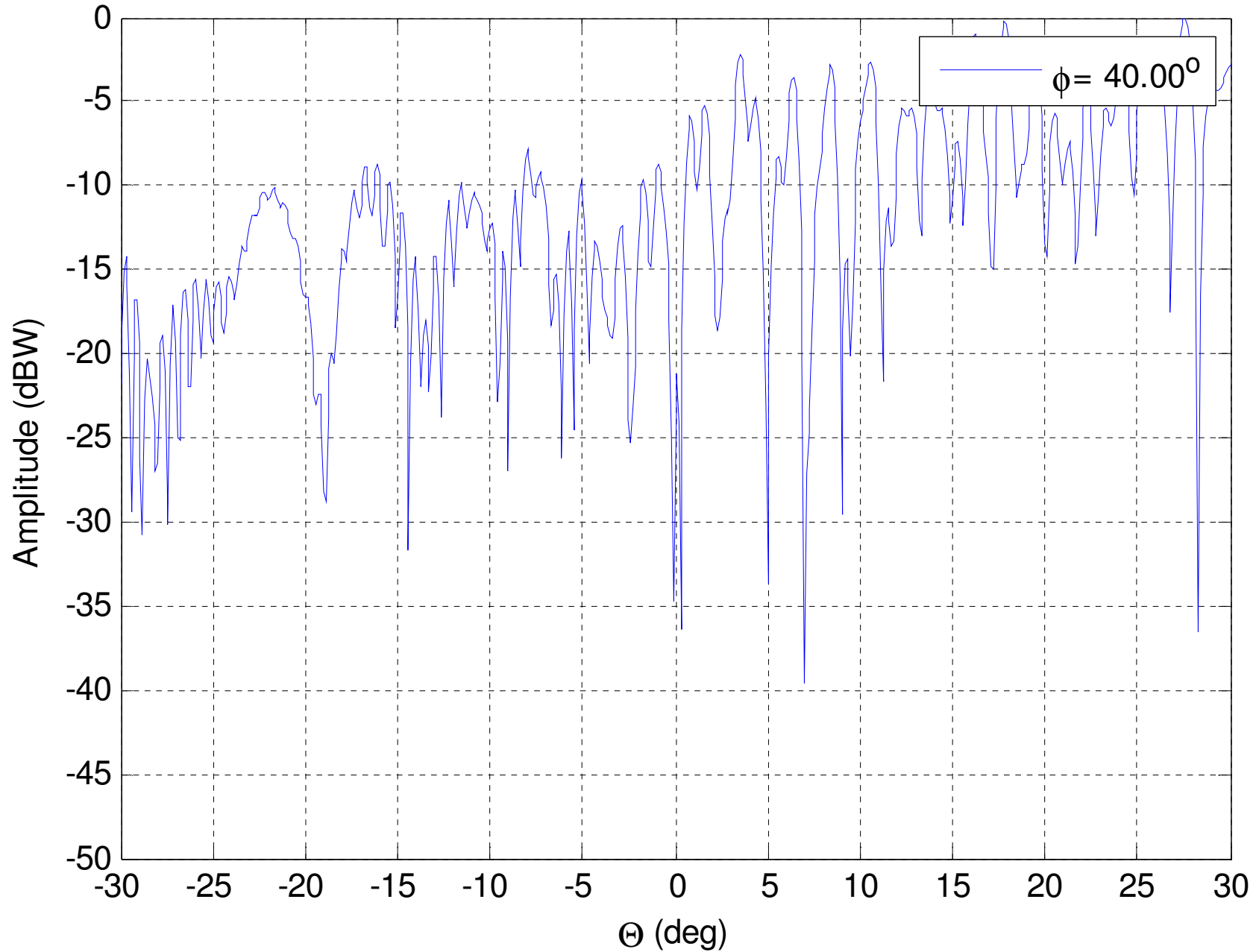
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-30.cut, Peak: 0.76 dBW, Date: 16-Dec-2011



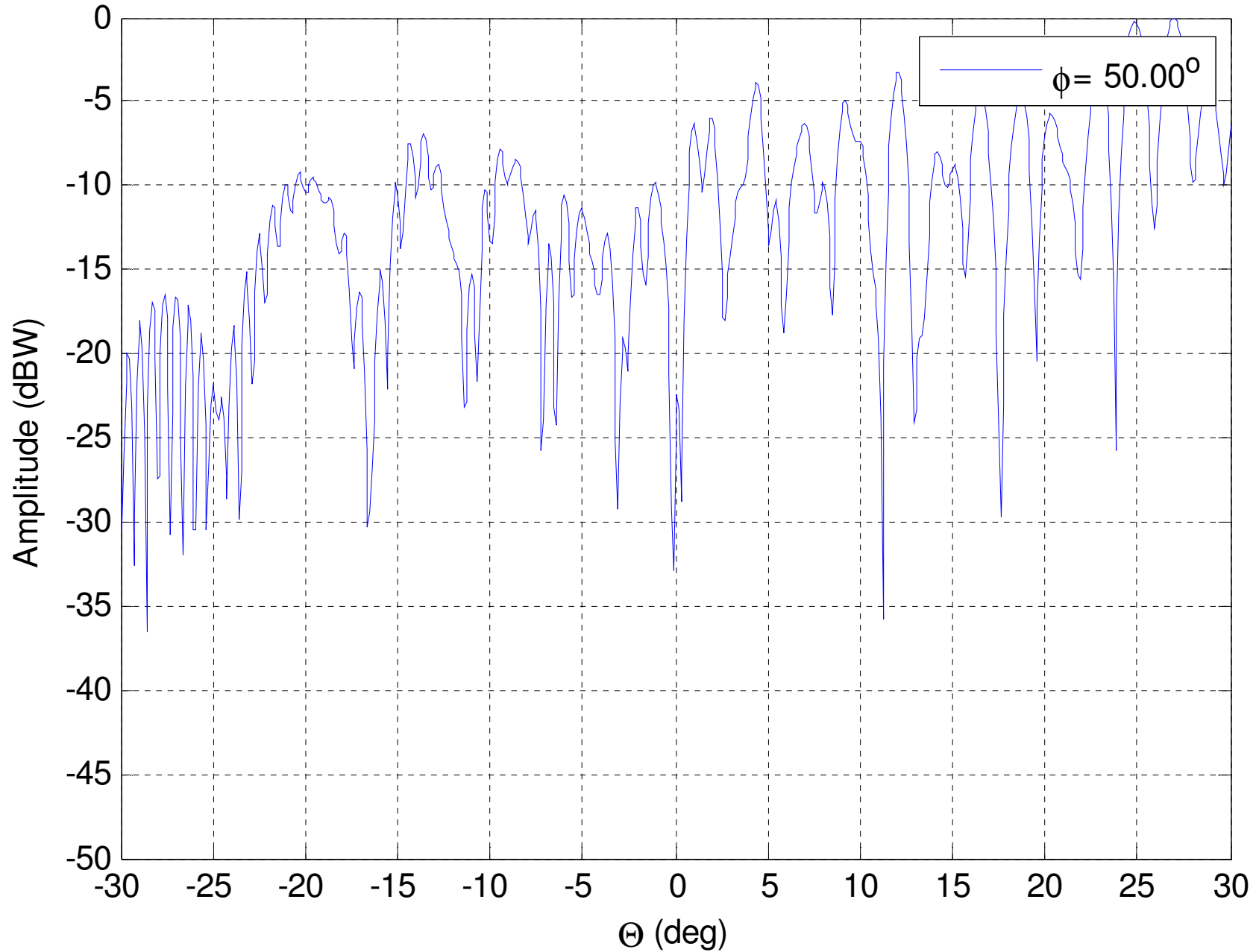
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-40.cut, Peak: -6.24 dBW, Date: 16-Dec-2011



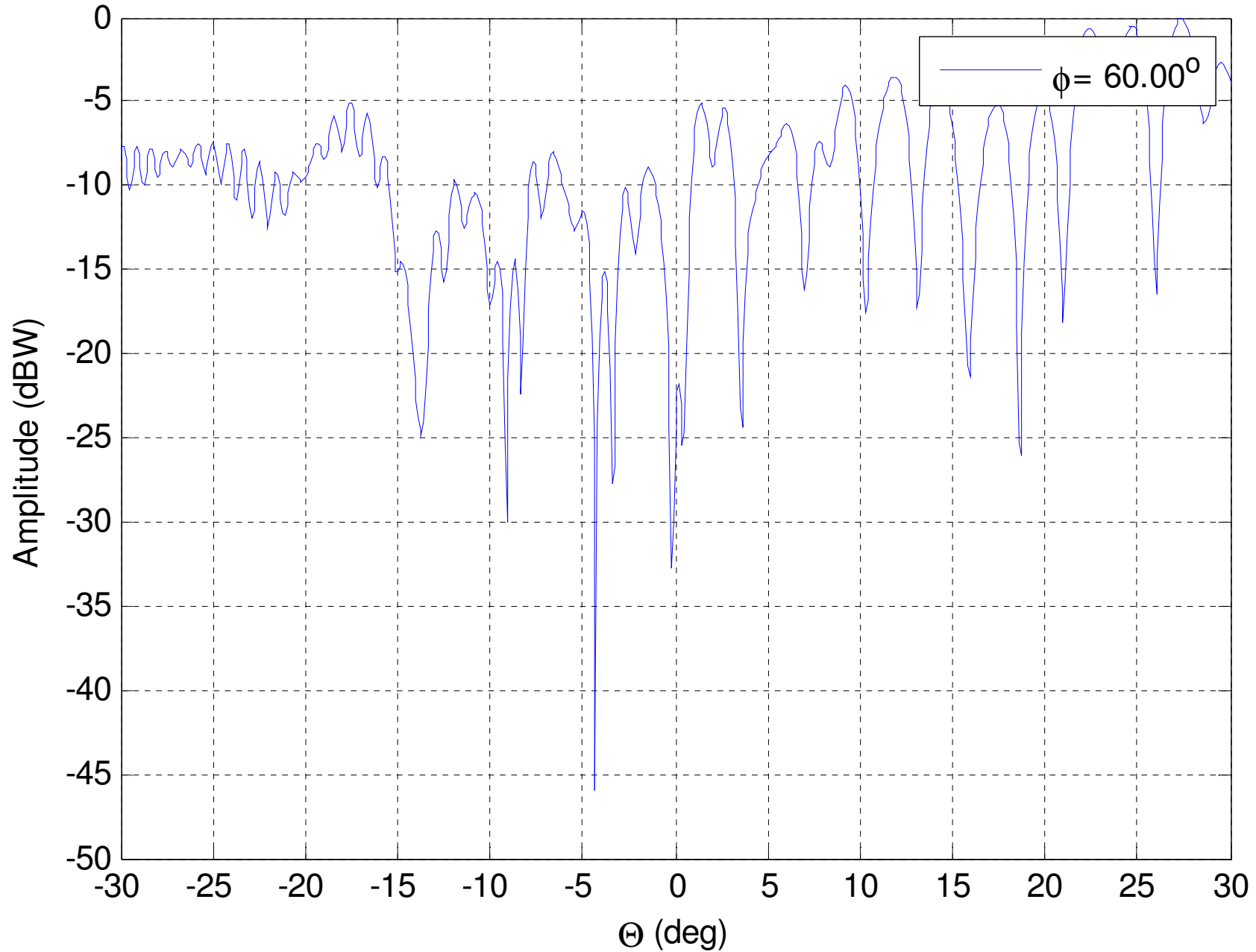
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-50.cut, Peak: -5.01 dBW, Date: 16-Dec-2011



Normalized pattern cuts - farfield

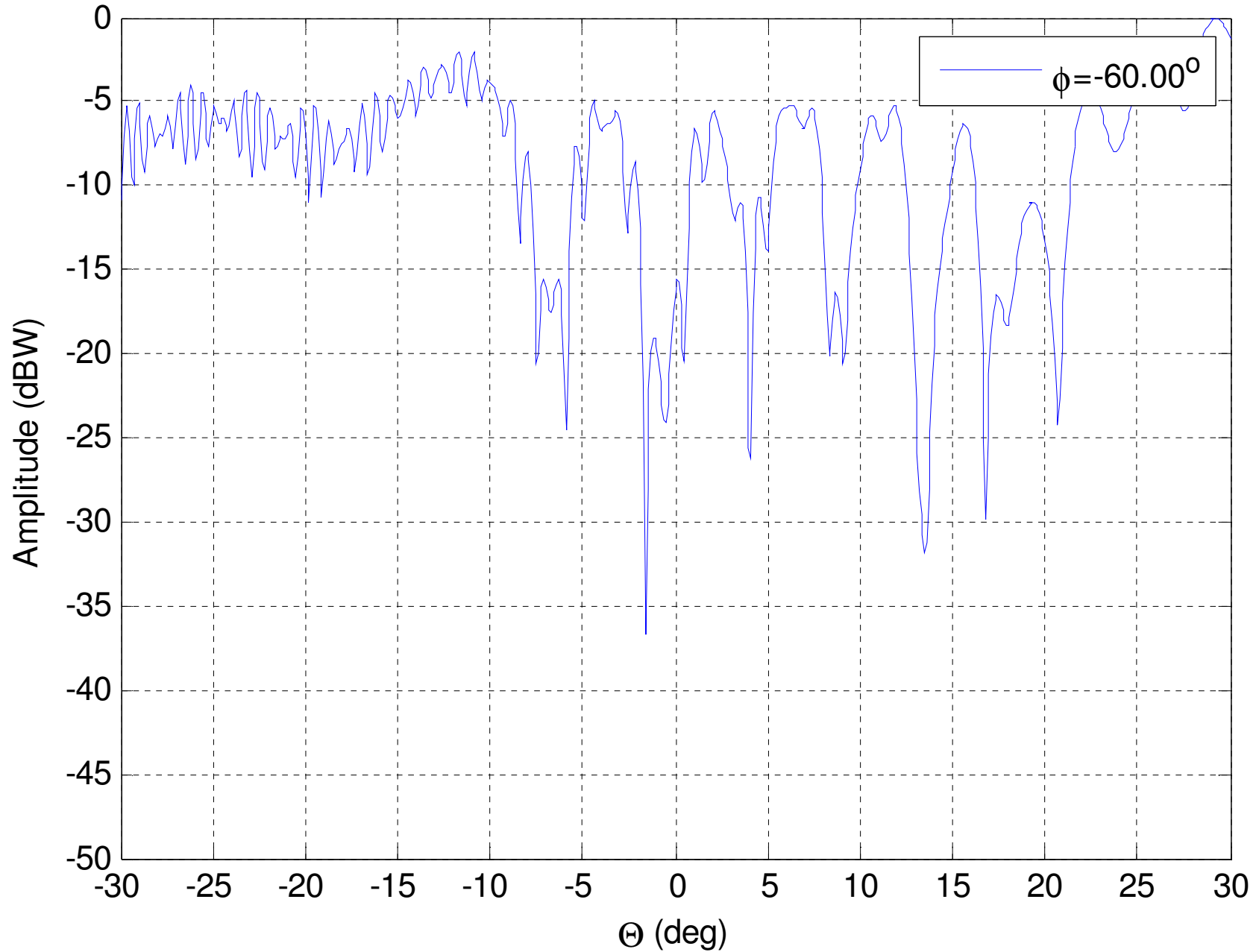
Input file: tx-17.5-rhcp-60.cut, Peak: -5.21 dBW, Date: 16-Dec-2011



LHCP at 17.5 GHz

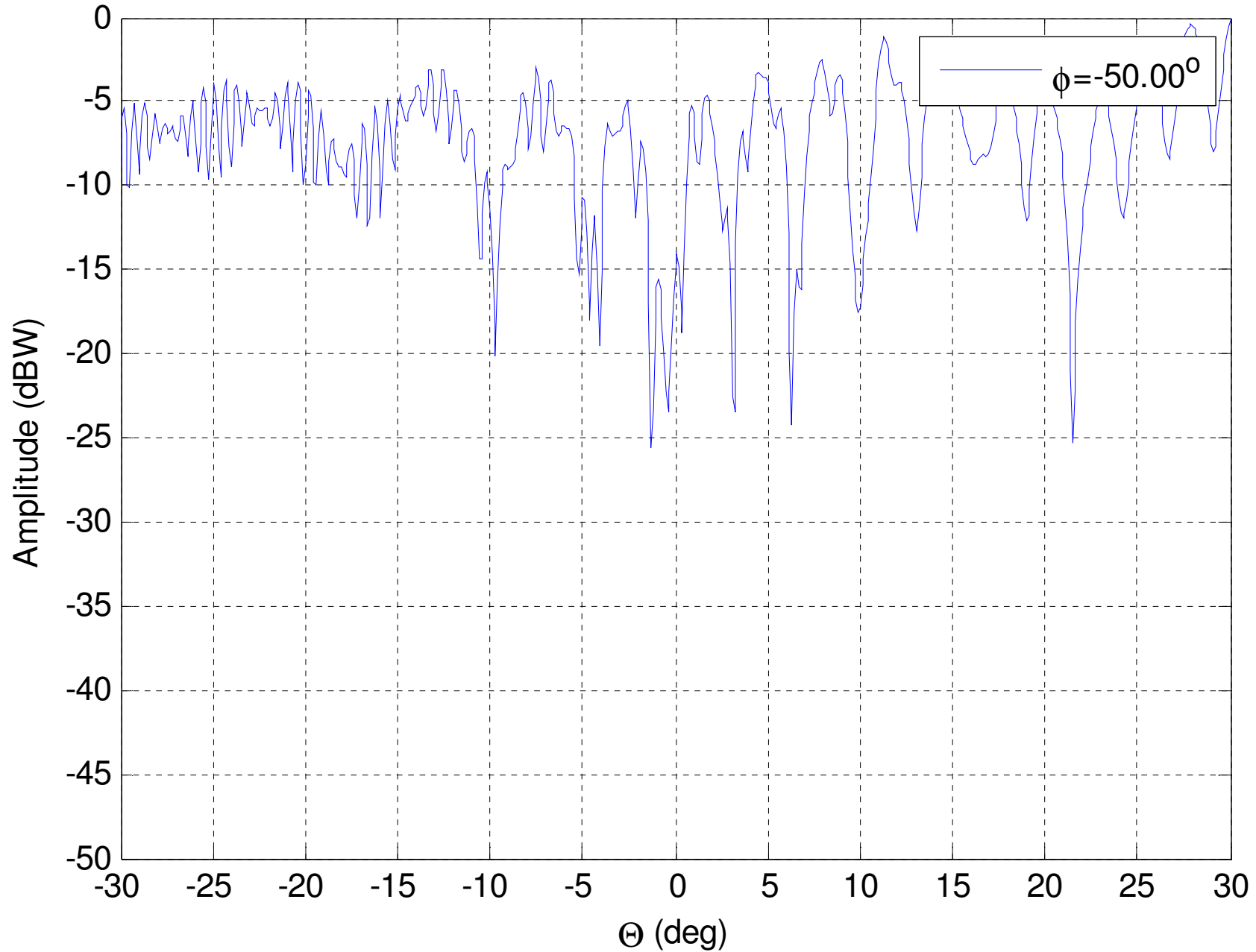
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--60.cut, Peak: -4.67 dBW, Date: 16-Dec-2011



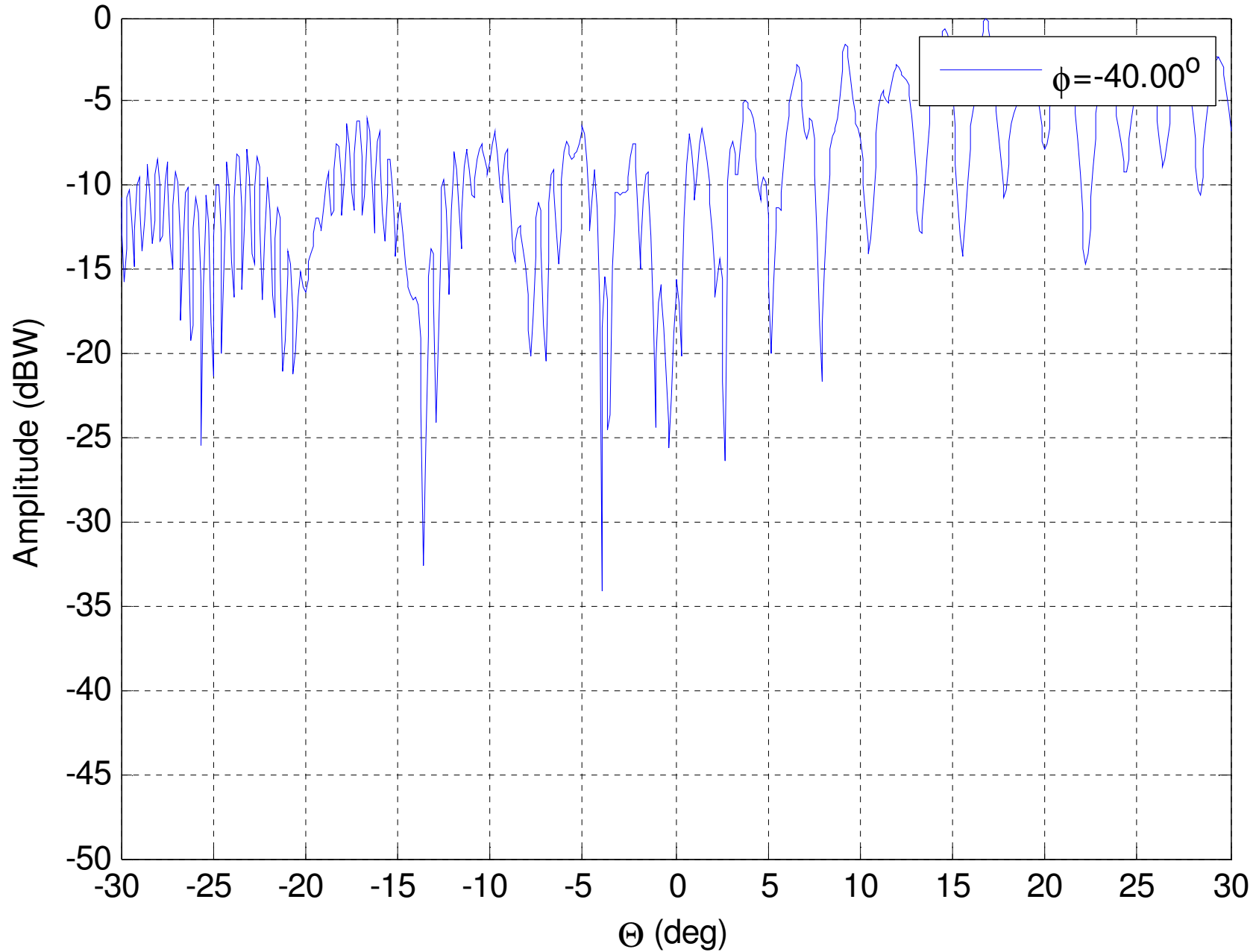
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--50.cut, Peak: -6.08 dBW, Date: 16-Dec-2011



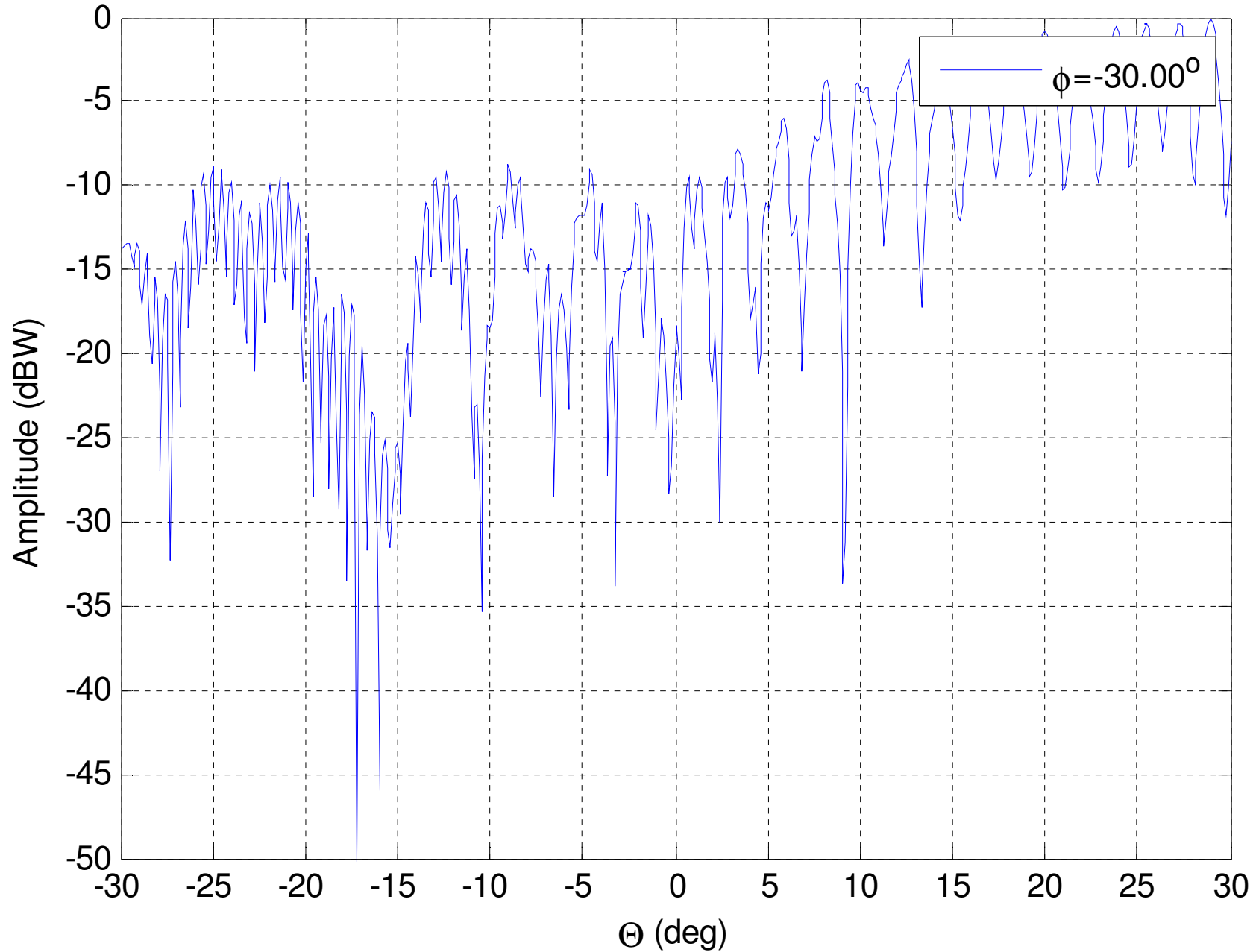
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--40.cut, Peak: -4.52 dBW, Date: 16-Dec-2011



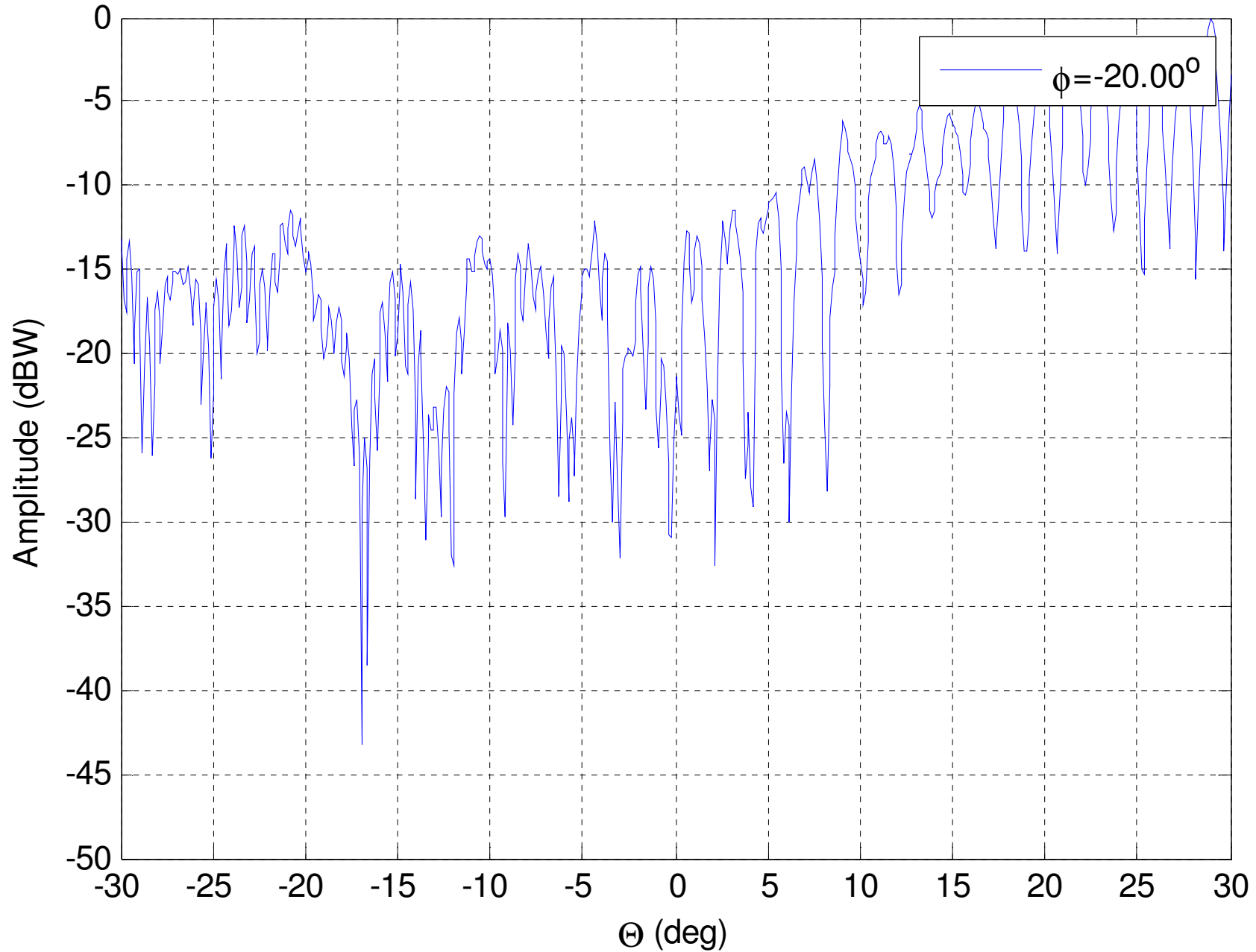
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--30.cut, Peak: -1.86 dBW, Date: 16-Dec-2011



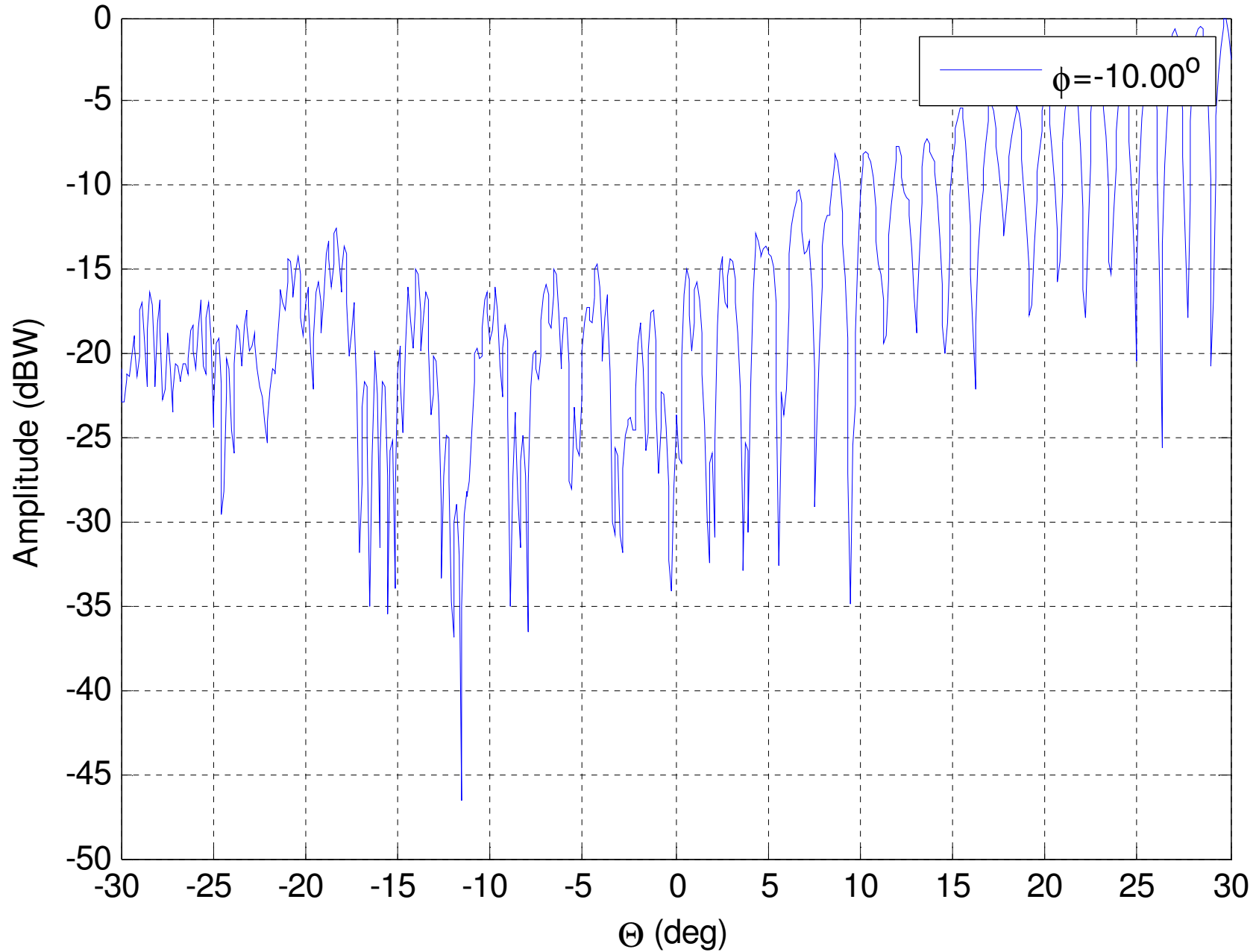
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--20.cut, Peak: 1.17 dBW, Date: 16-Dec-2011



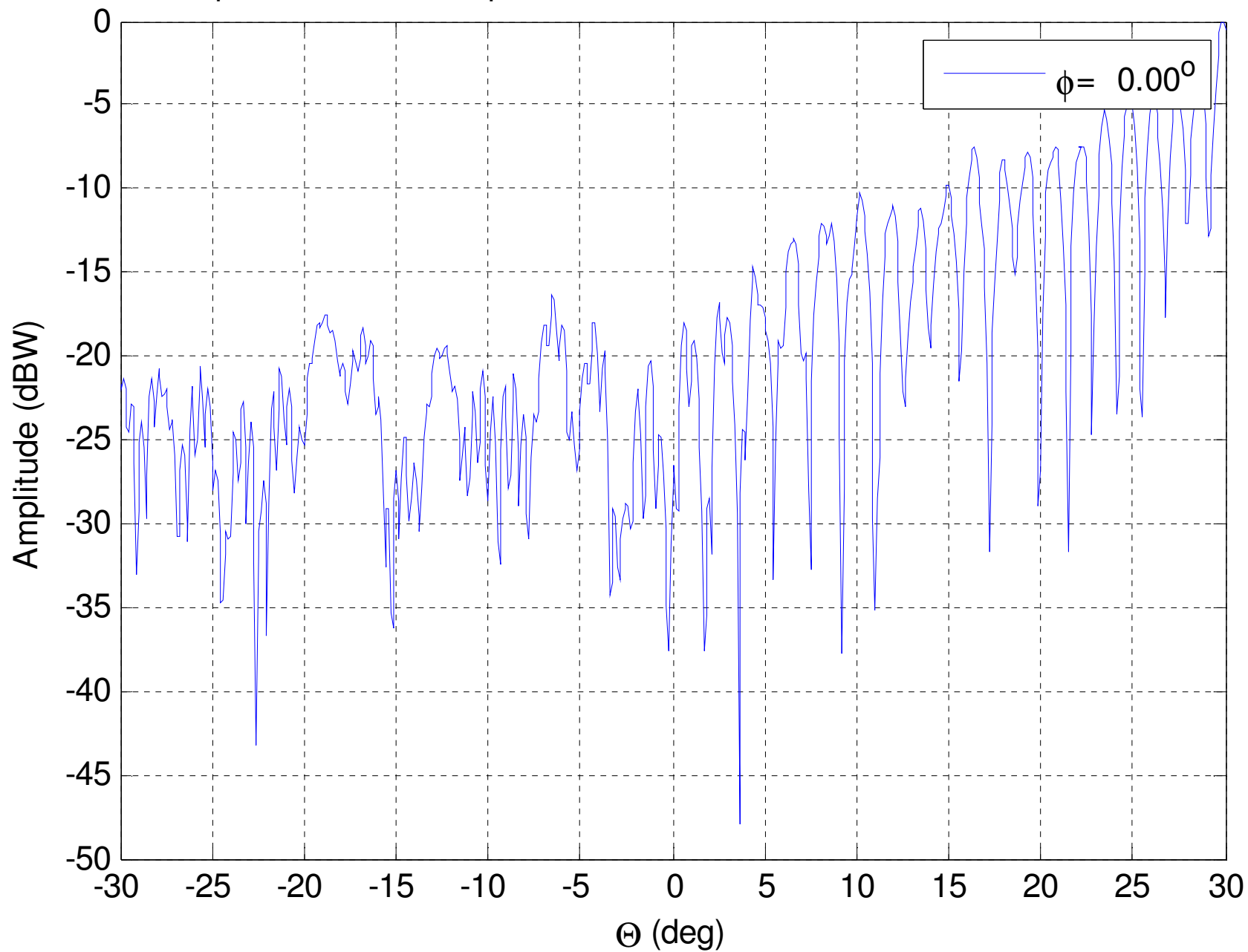
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--10.cut, Peak: 3.56 dBW, Date: 16-Dec-2011



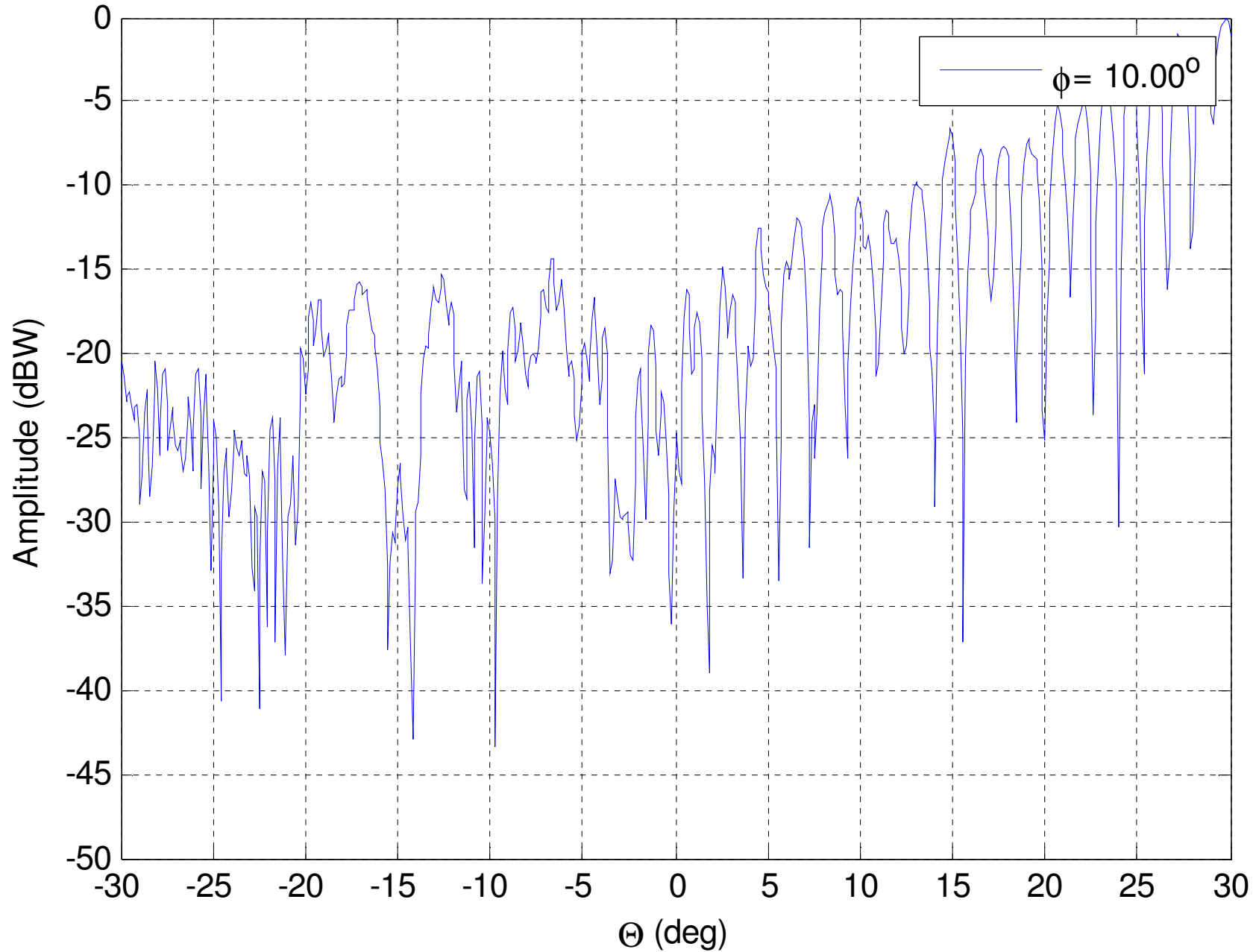
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-0.cut, Peak: 6.50 dBW, Date: 16-Dec-2011



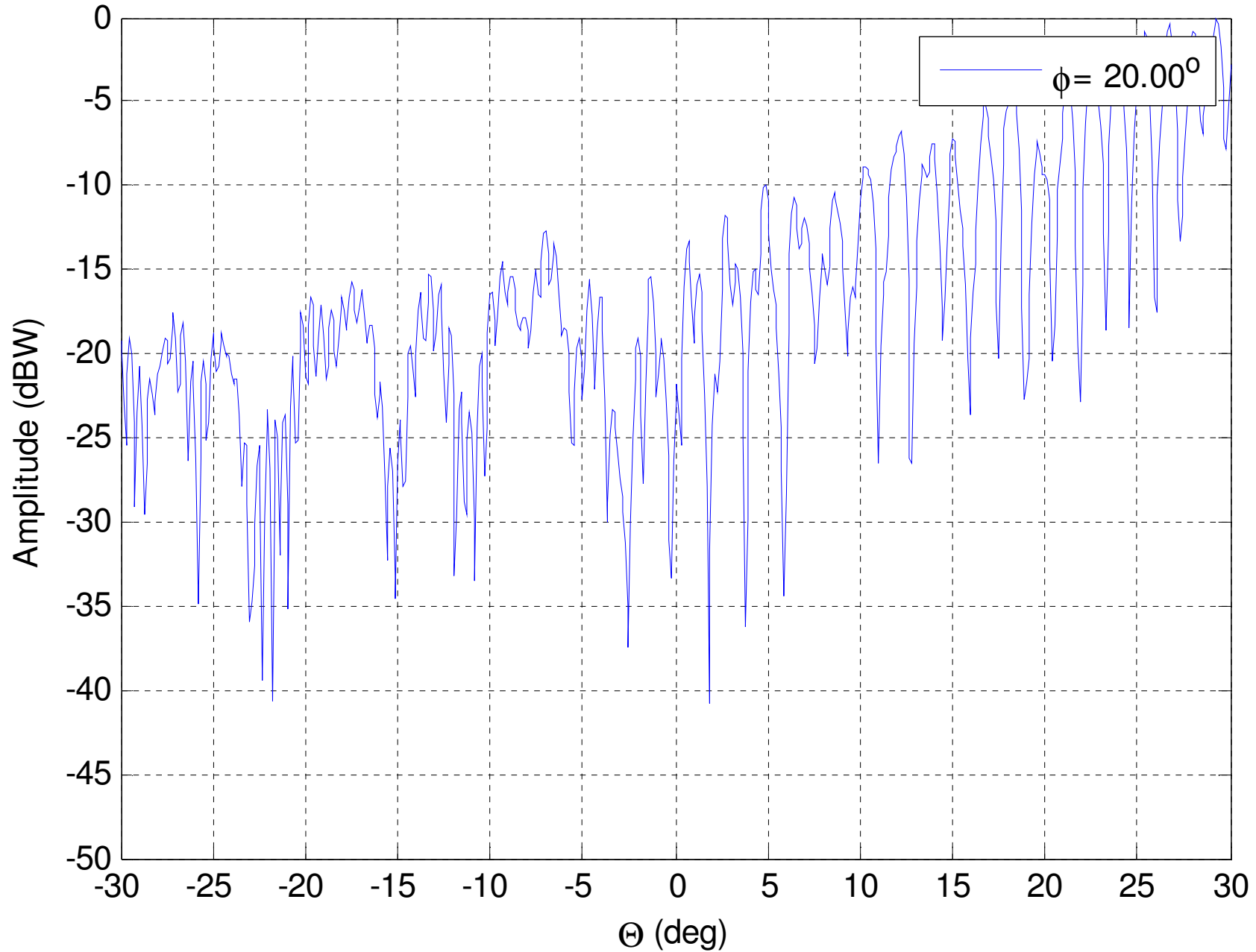
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-10.cut, Peak: 4.69 dBW, Date: 16-Dec-2011



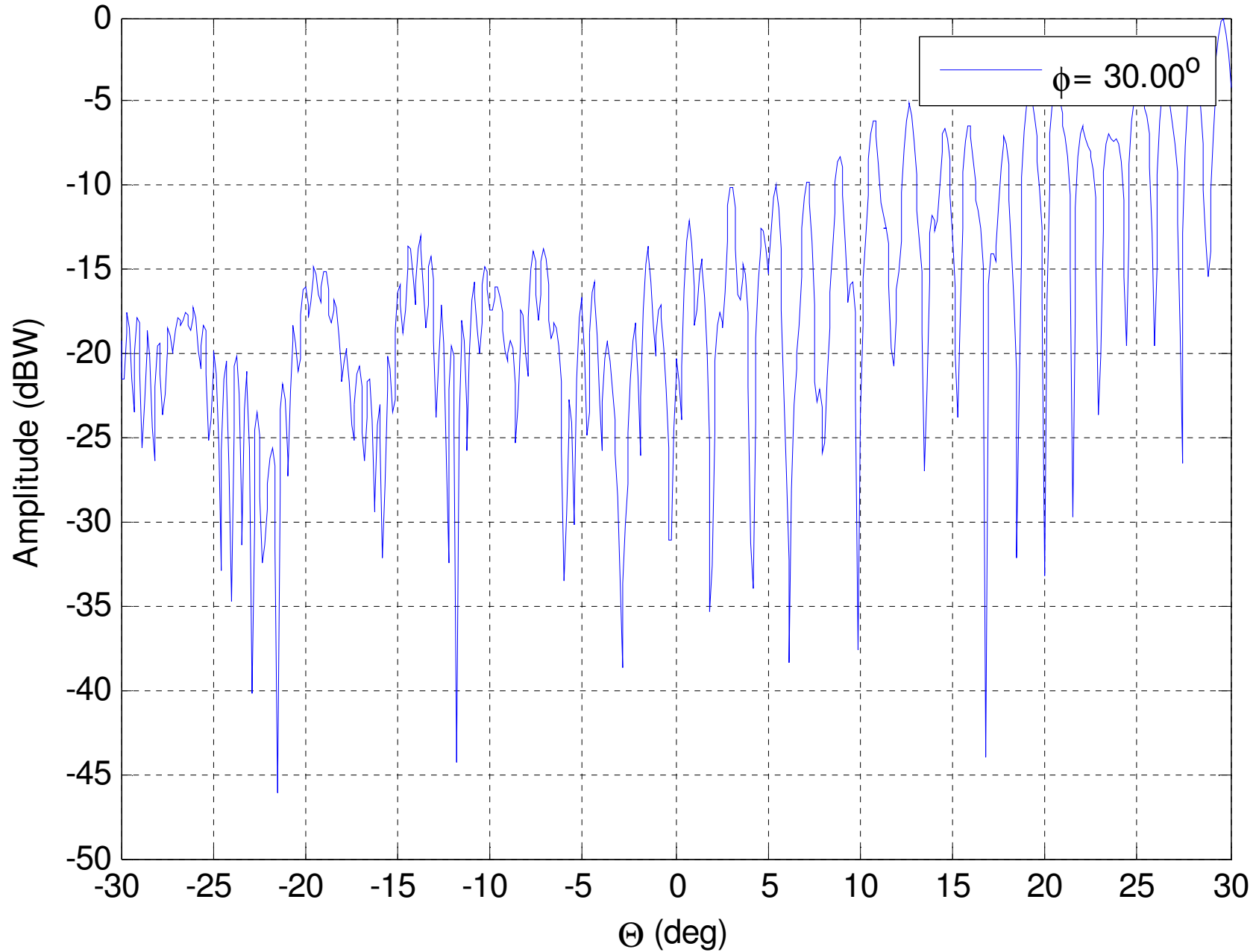
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-20.cut, Peak: 1.93 dBW, Date: 16-Dec-2011



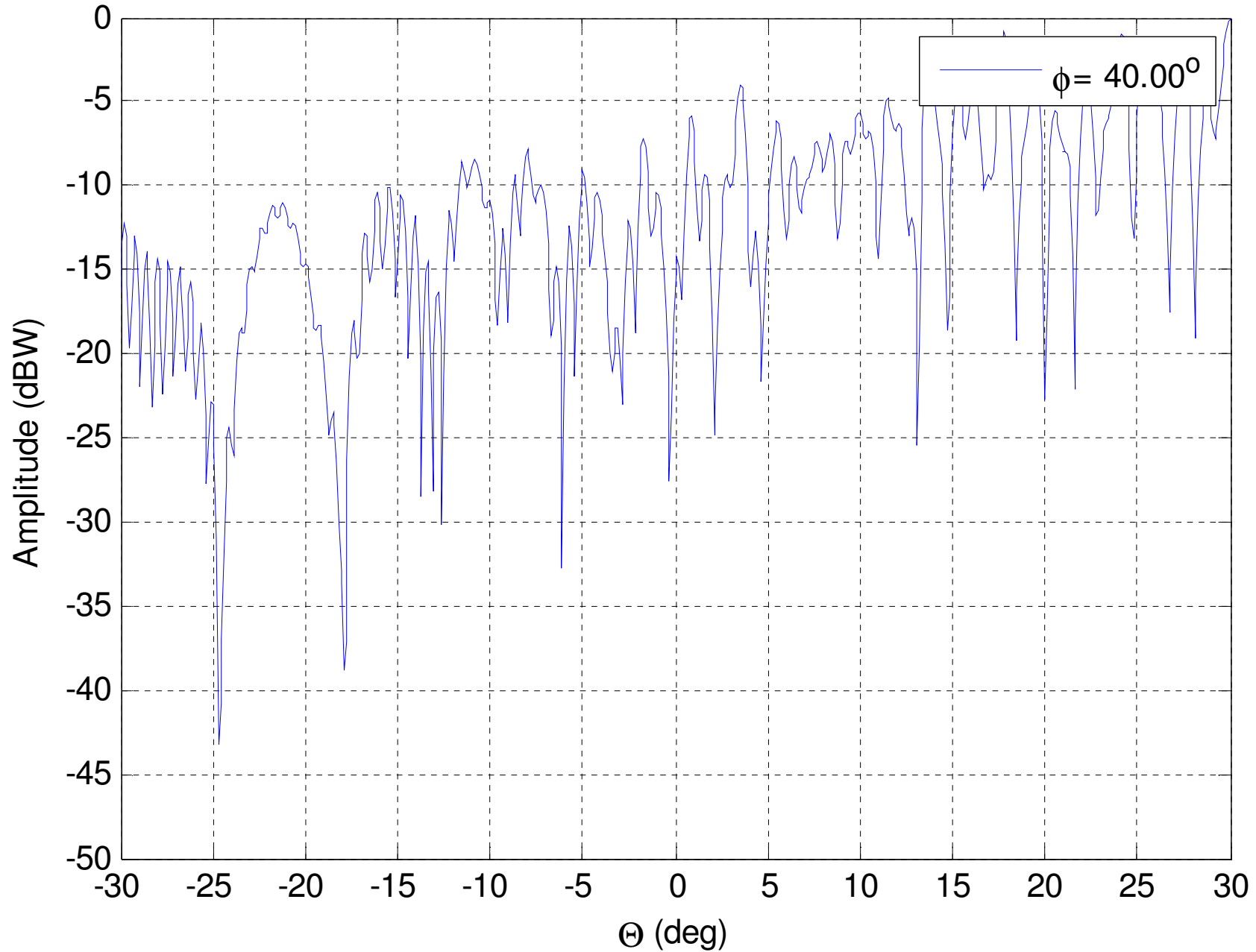
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-30.cut, Peak: 0.47 dBW, Date: 16-Dec-2011



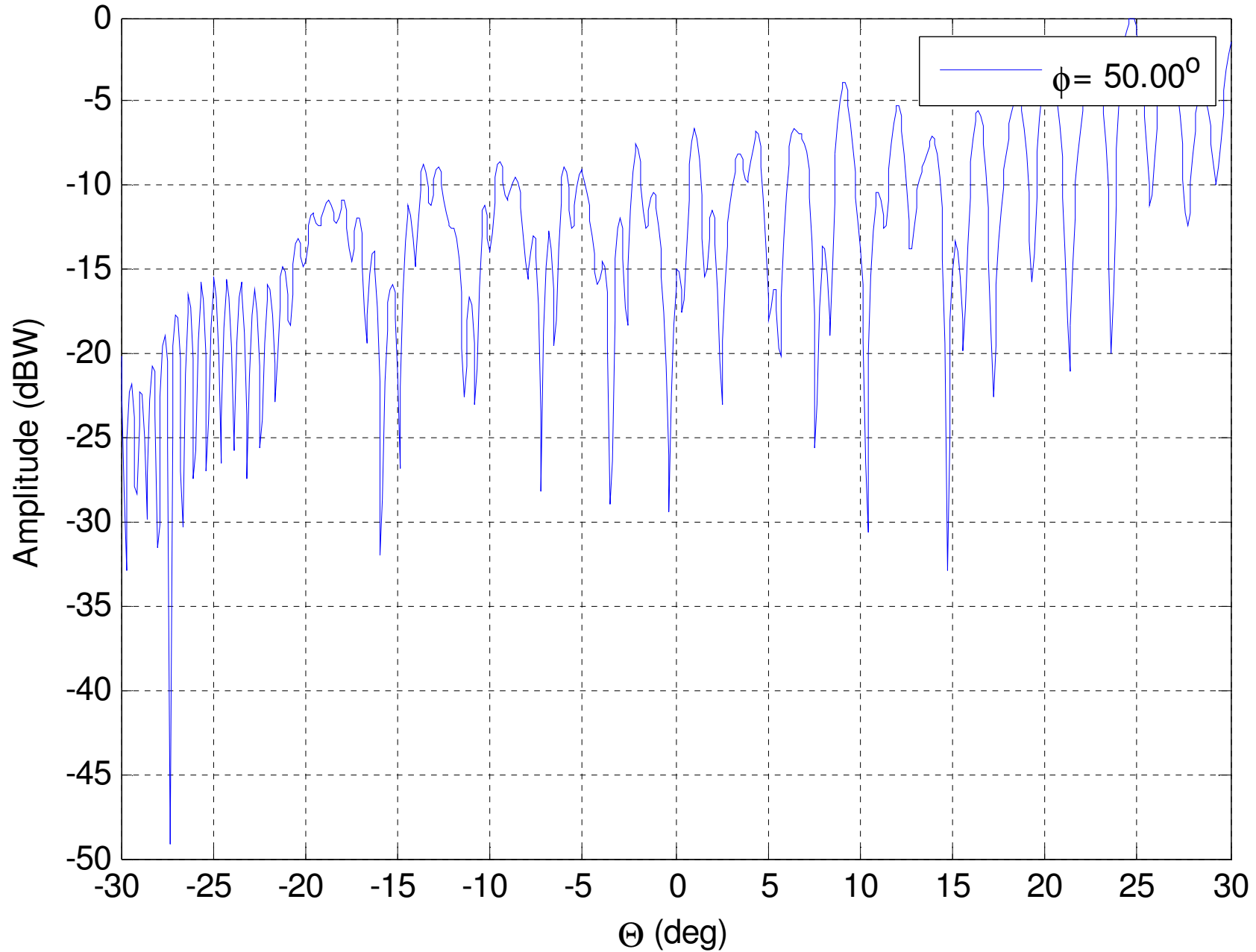
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-40.cut, Peak: -5.60 dBW, Date: 16-Dec-2011



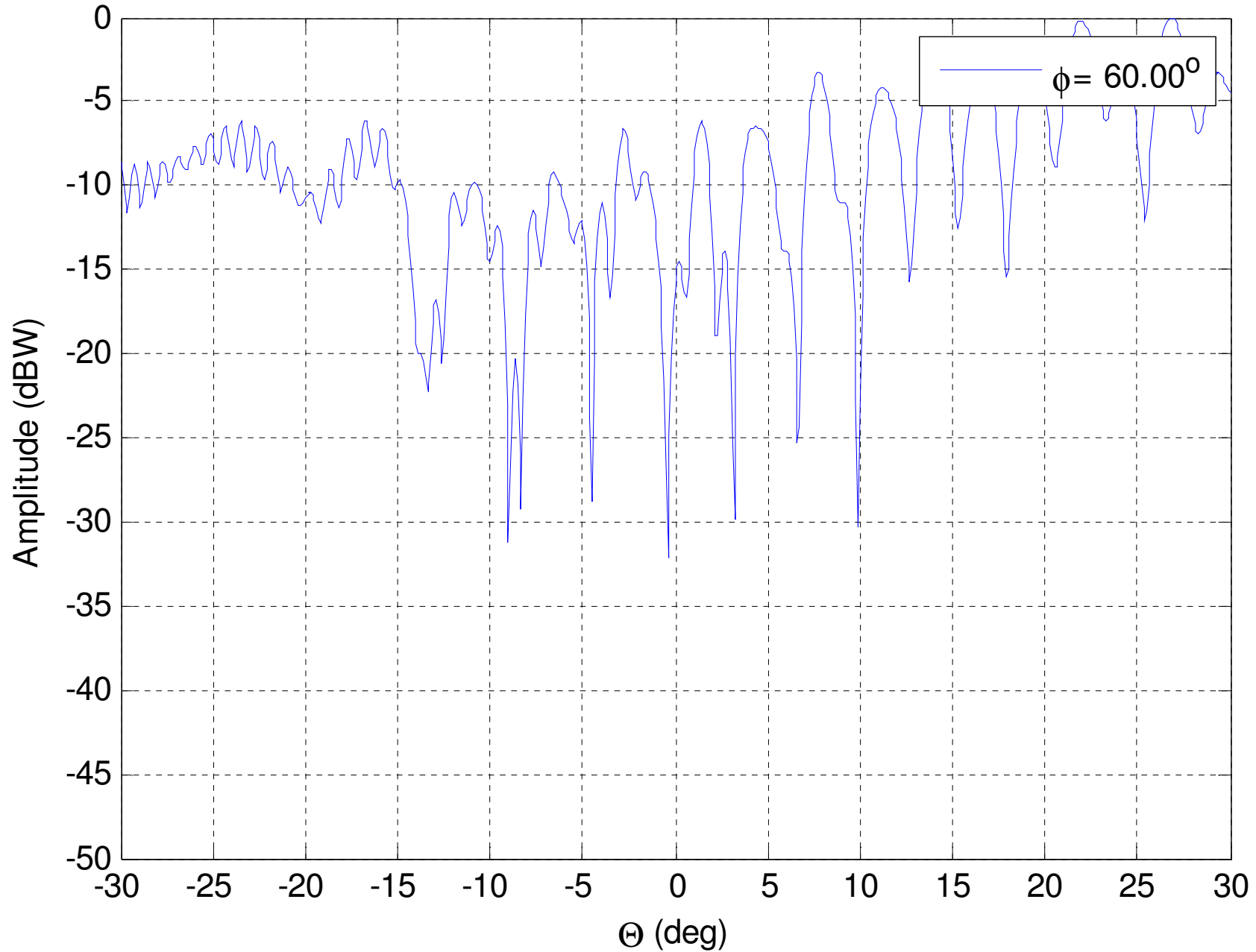
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-50.cut, Peak: -4.83 dBW, Date: 16-Dec-2011



Normalized pattern cuts - farfield

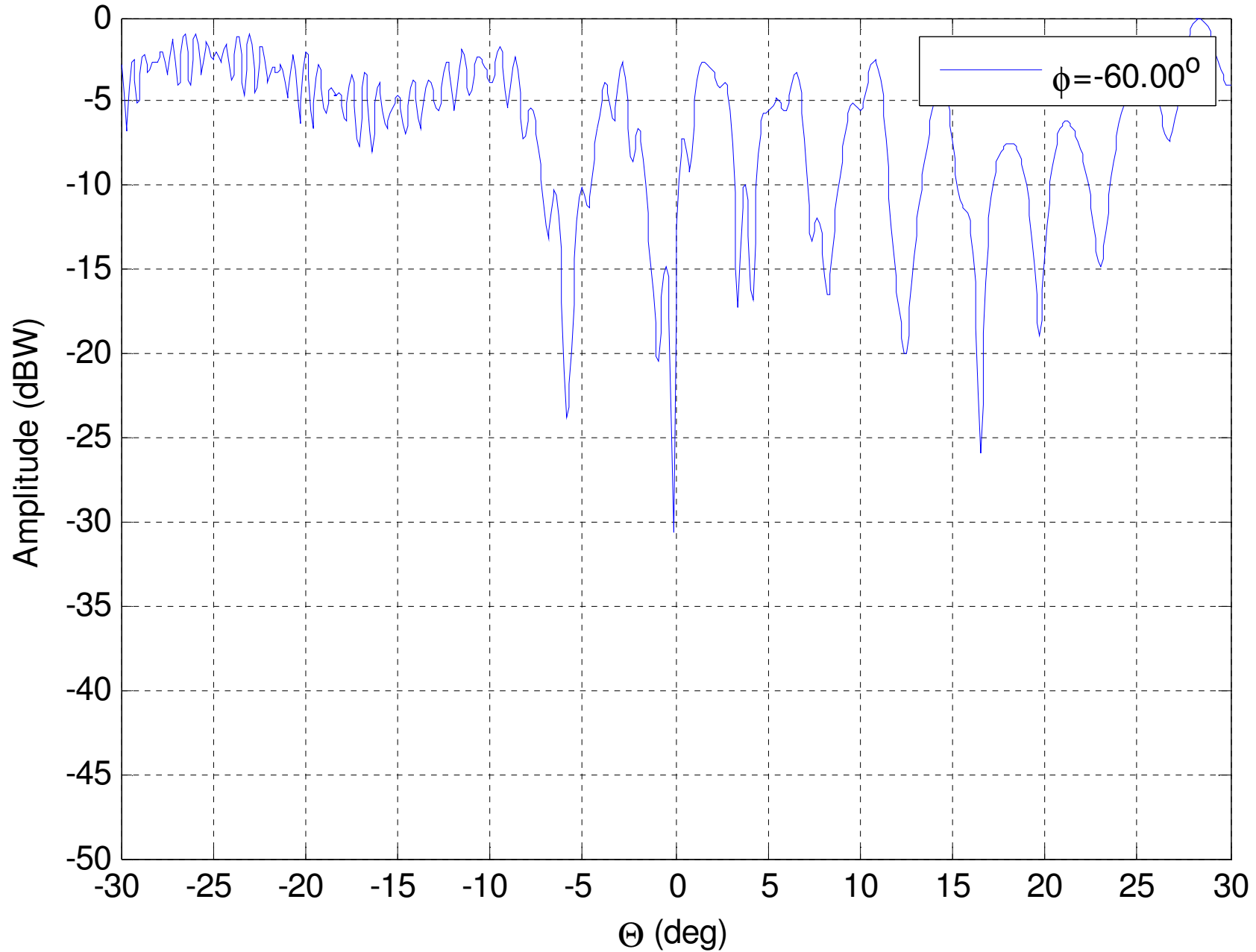
Input file: tx-17.5-lhcp-60.cut, Peak: -5.08 dBW, Date: 16-Dec-2011



RHCP at 17.7 GHz

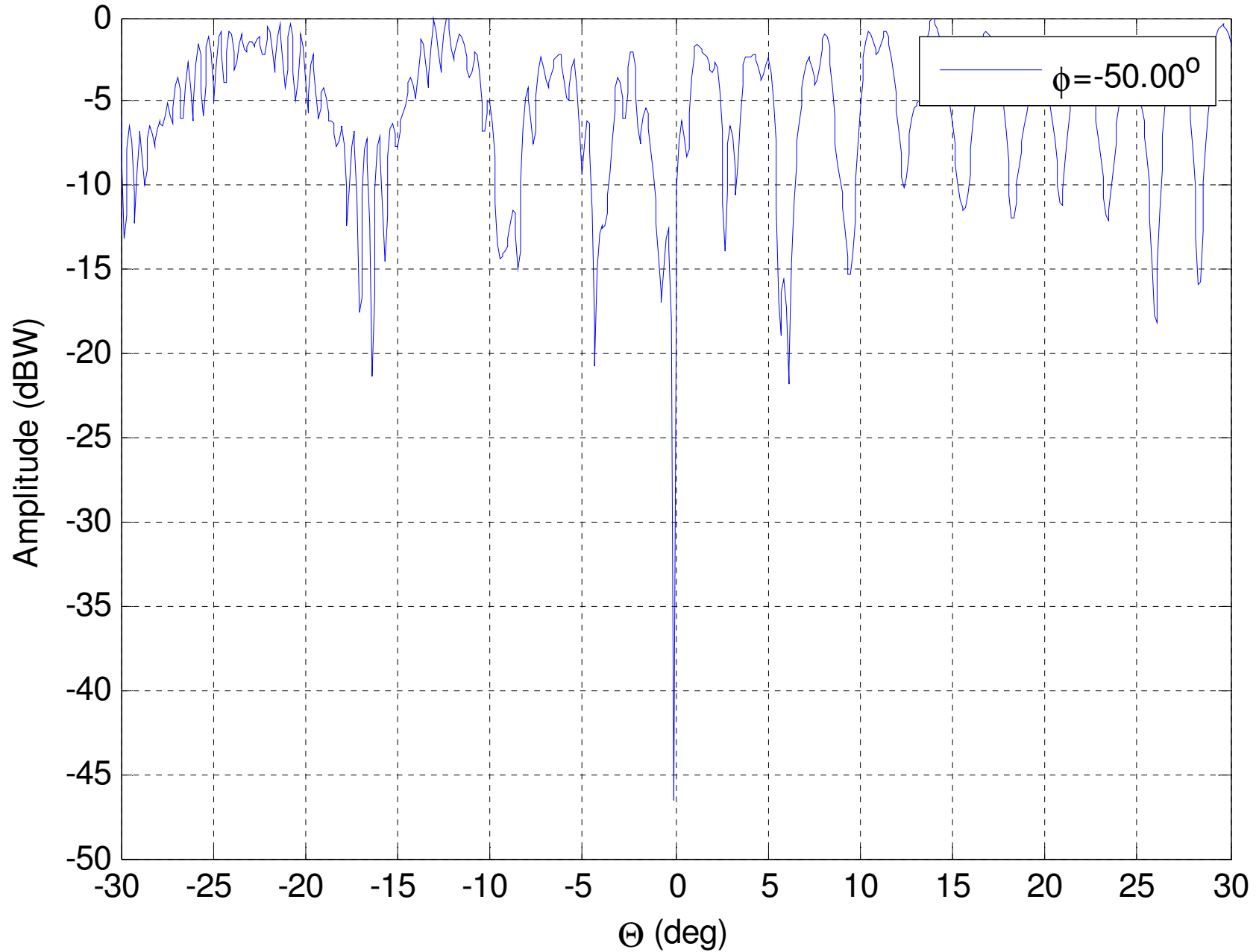
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--60.cut, Peak: -6.22 dBW, Date: 16-Dec-2011



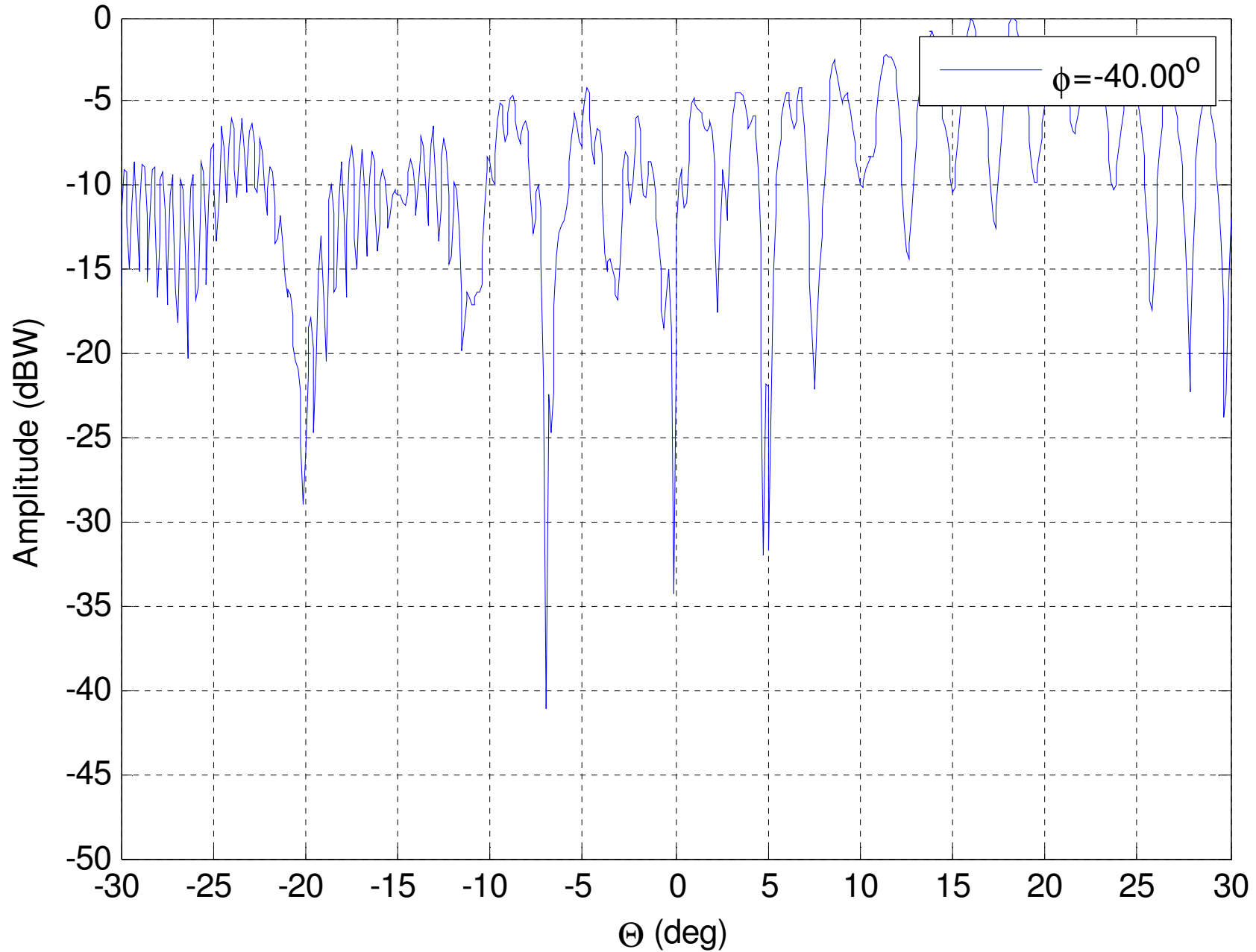
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--50.cut, Peak: -7.52 dBW, Date: 16-Dec-2011



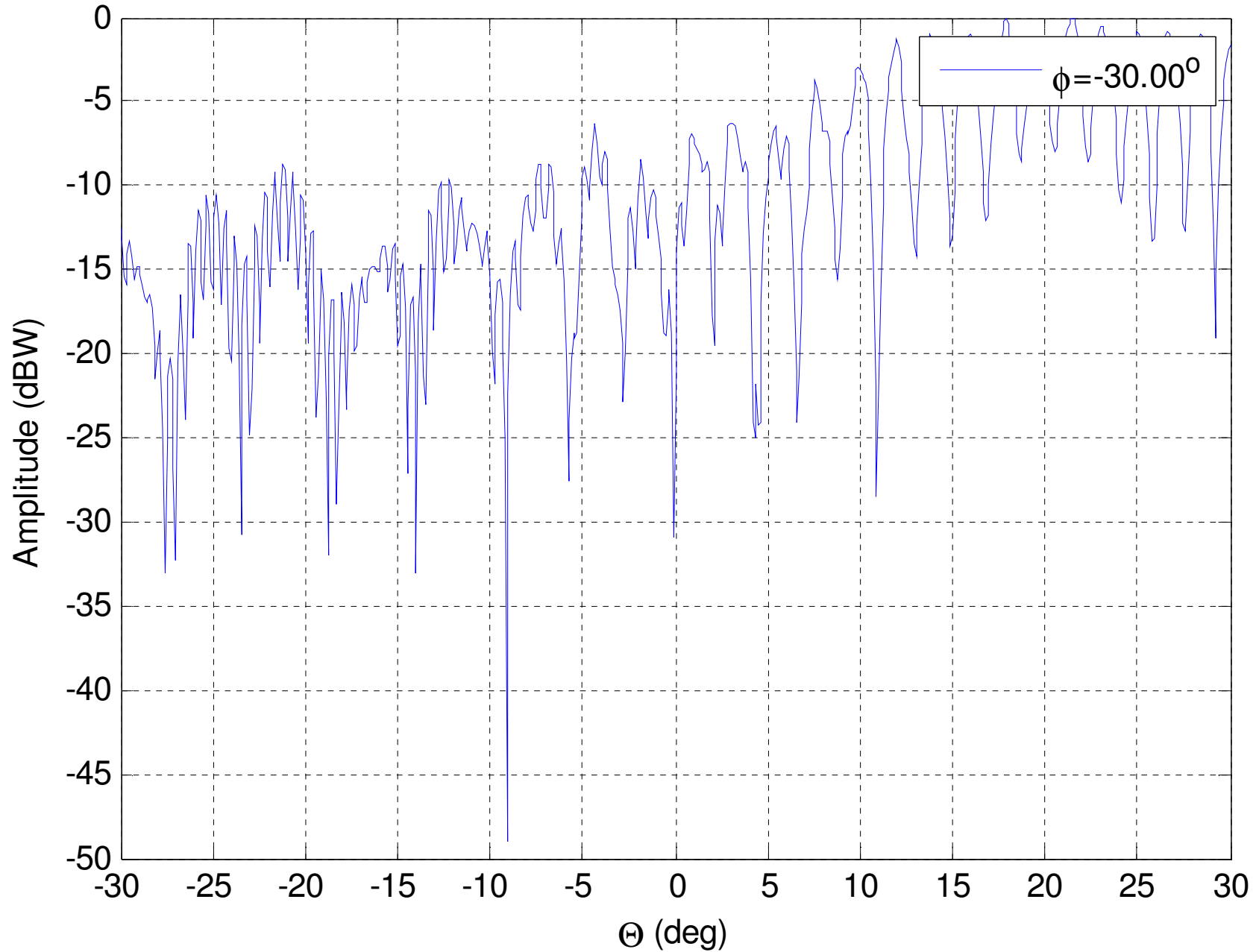
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--40.cut, Peak: -4.56 dBW, Date: 16-Dec-2011



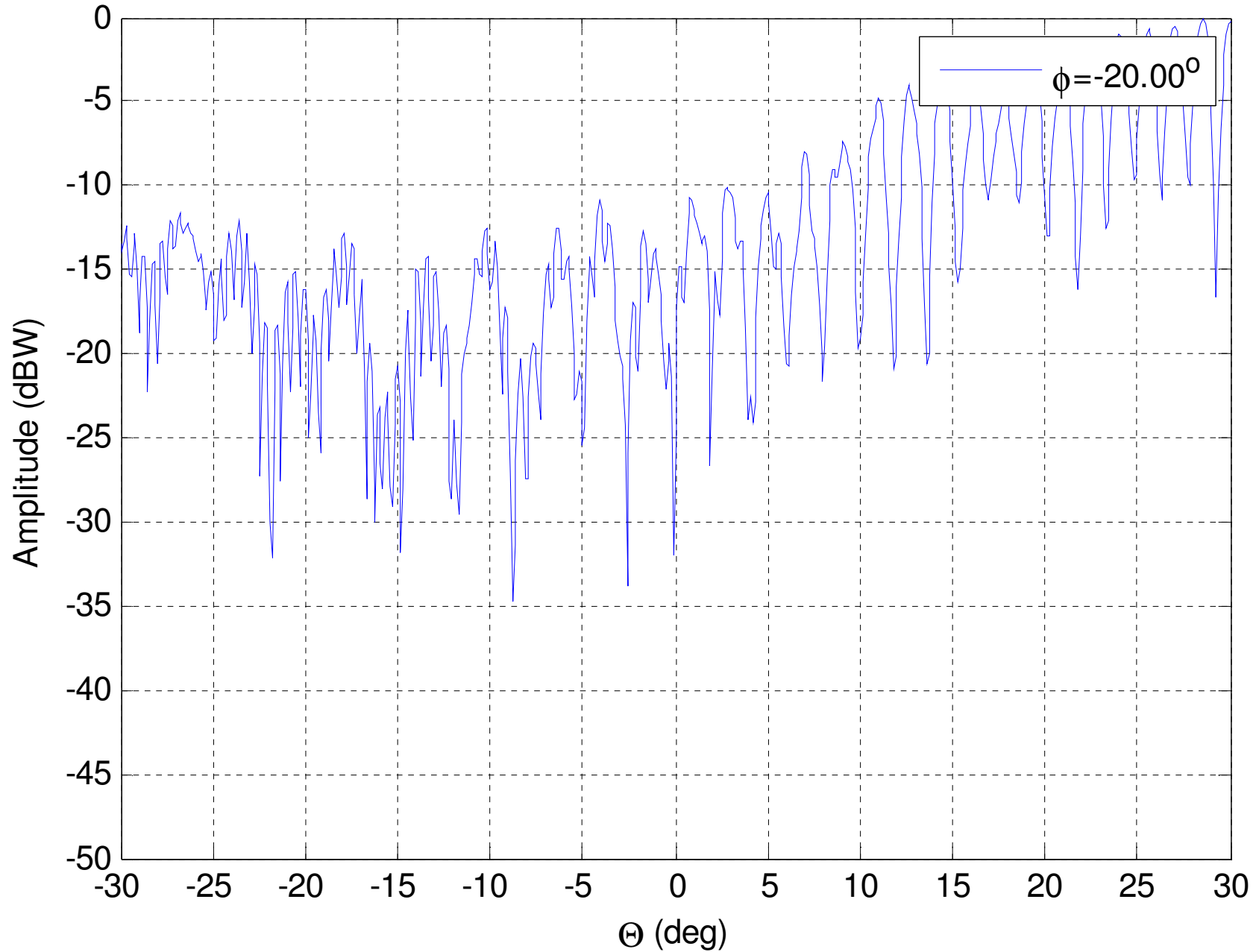
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--30.cut, Peak: -2.72 dBW, Date: 16-Dec-2011



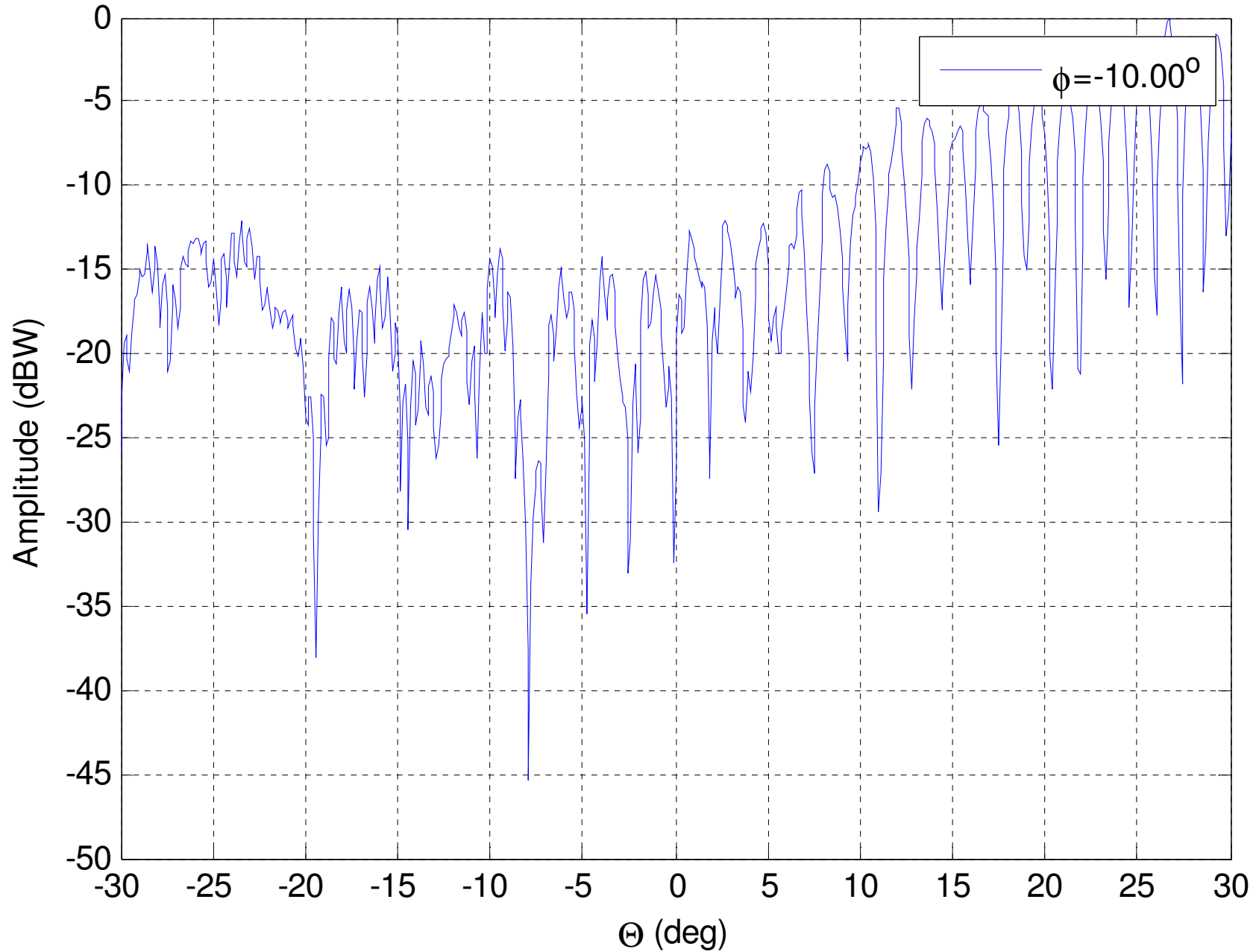
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--20.cut, Peak: 0.89 dBW, Date: 16-Dec-2011



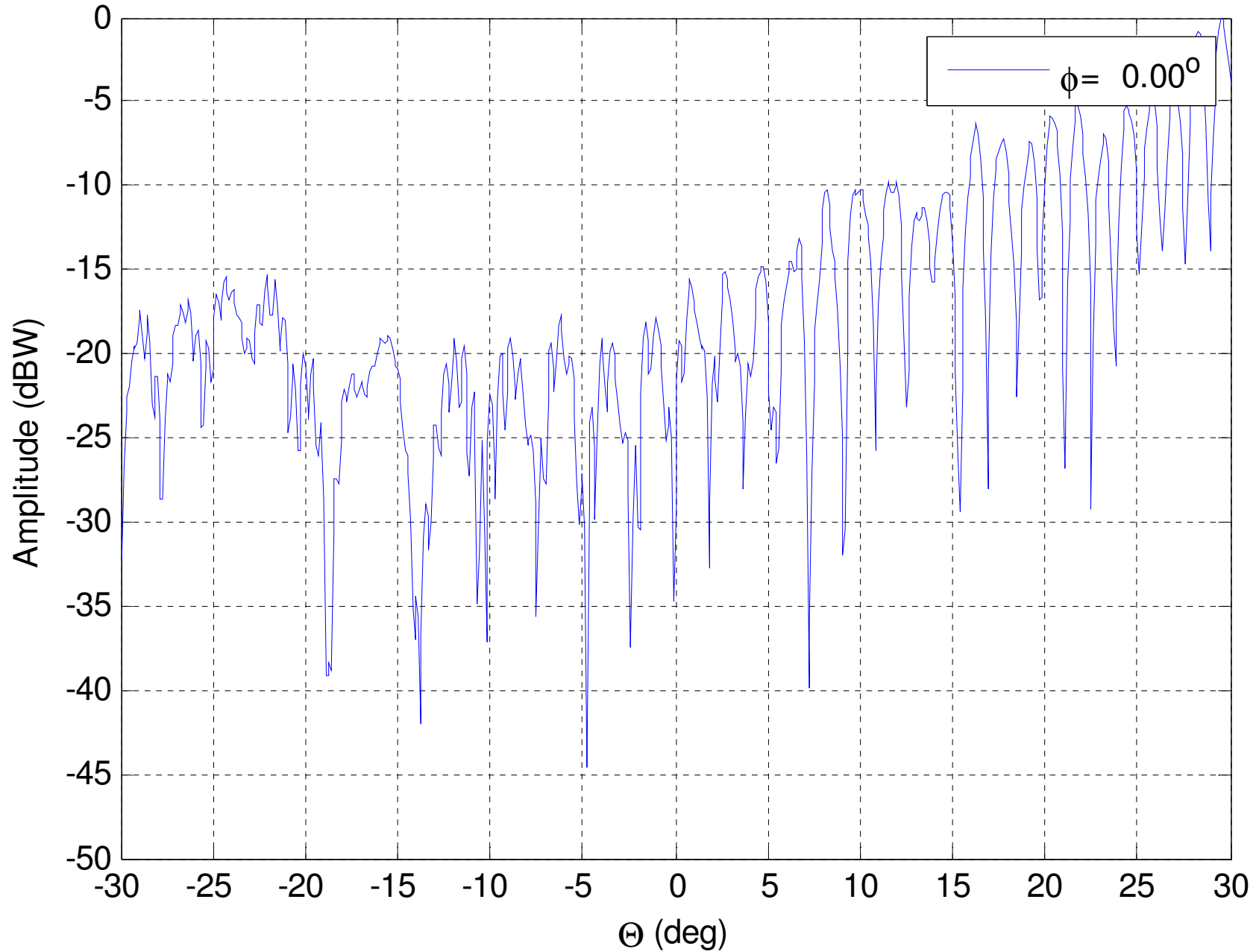
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--10.cut, Peak: 2.65 dBW, Date: 16-Dec-2011



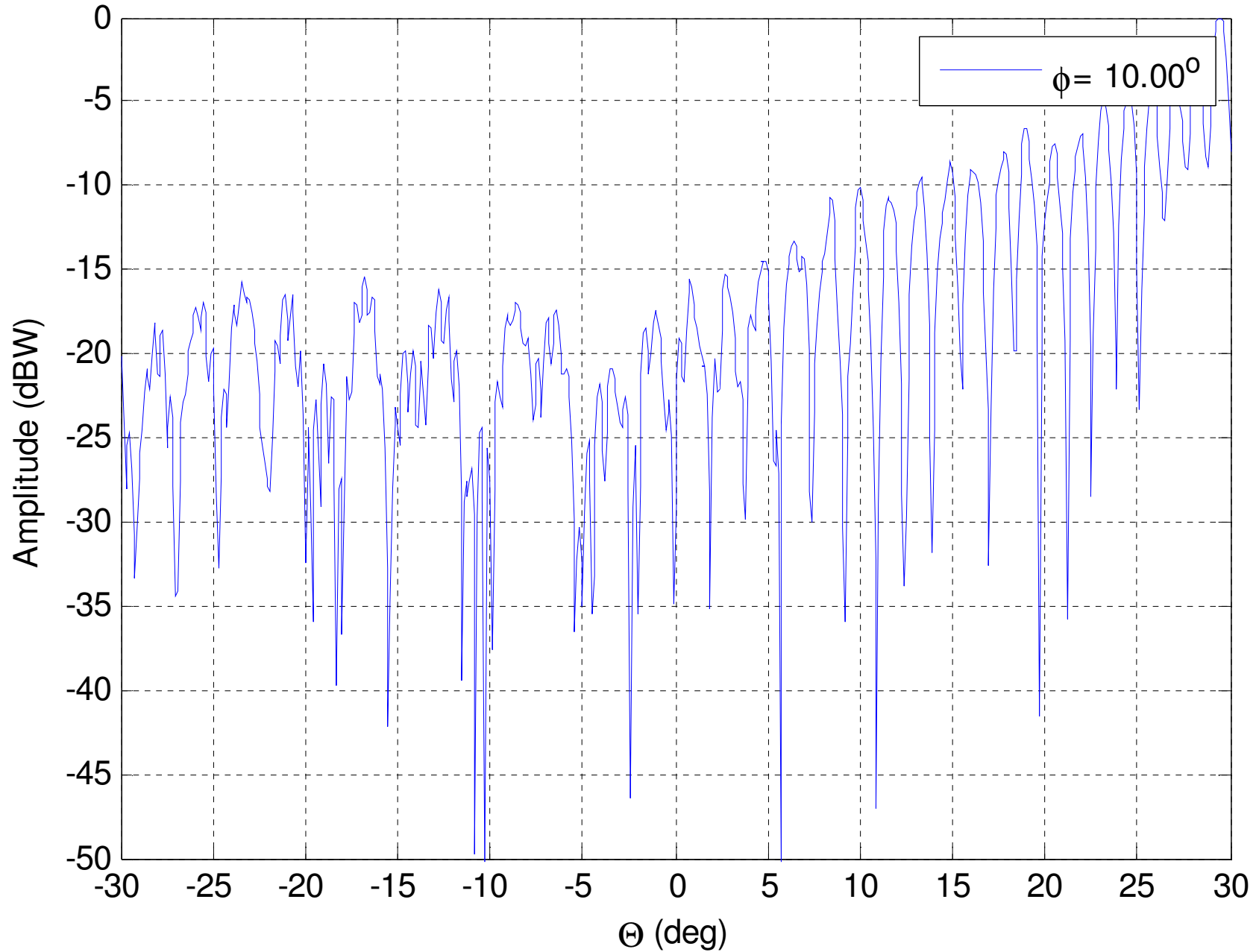
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-0.cut, Peak: 5.34 dBW, Date: 16-Dec-2011



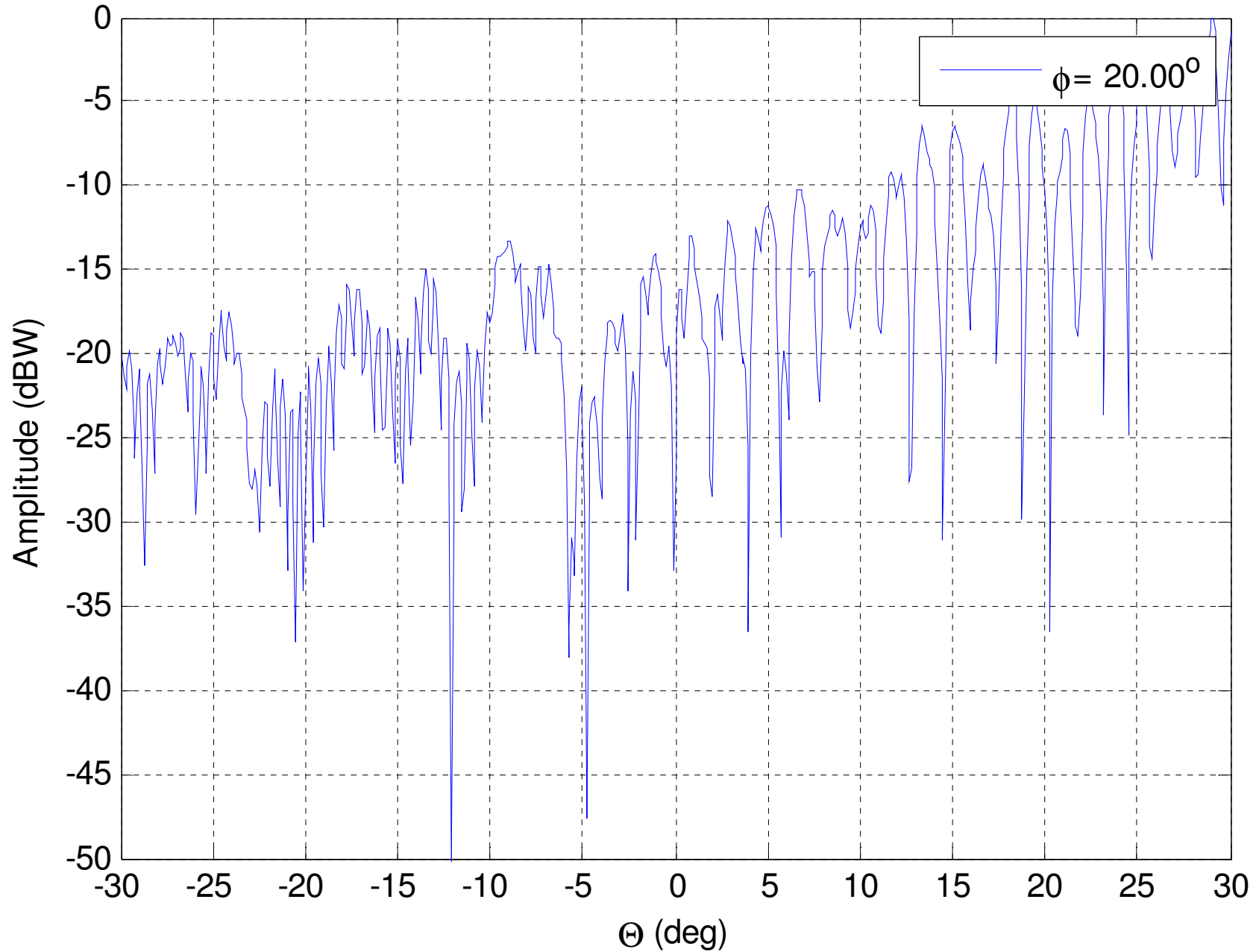
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-10.cut, Peak: 5.26 dBW, Date: 16-Dec-2011



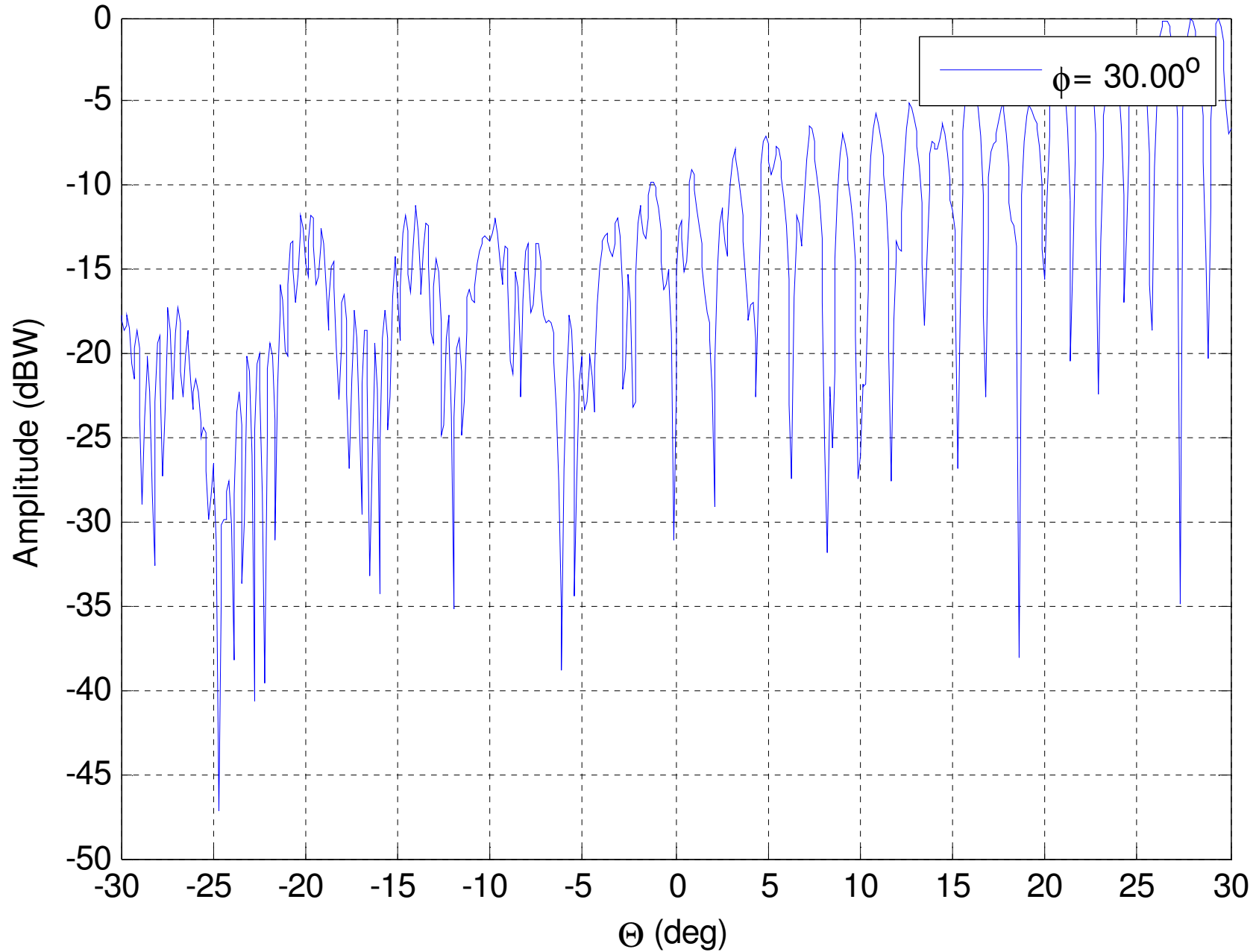
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-20.cut, Peak: 2.22 dBW, Date: 16-Dec-2011



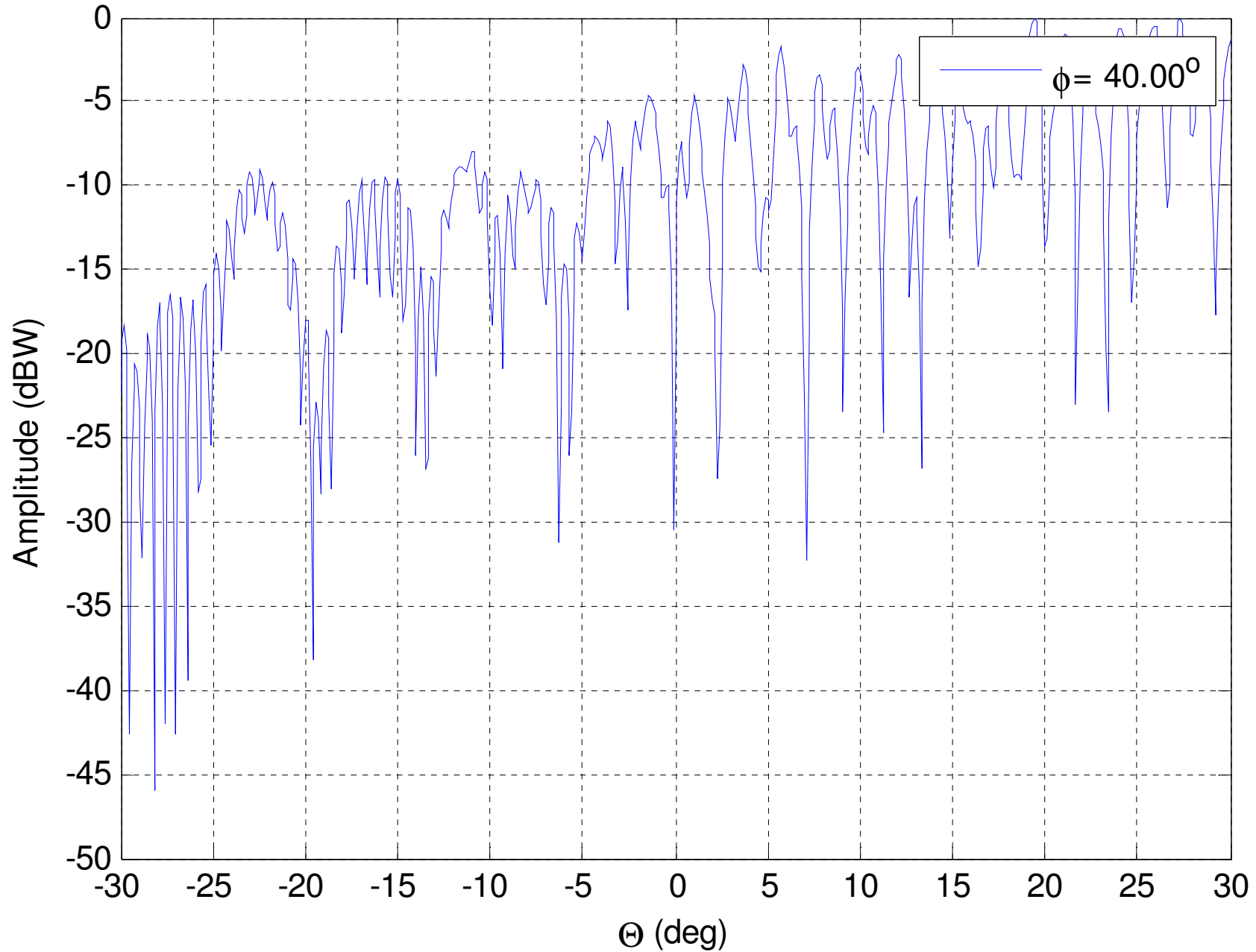
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-30.cut, Peak: -1.74 dBW, Date: 16-Dec-2011



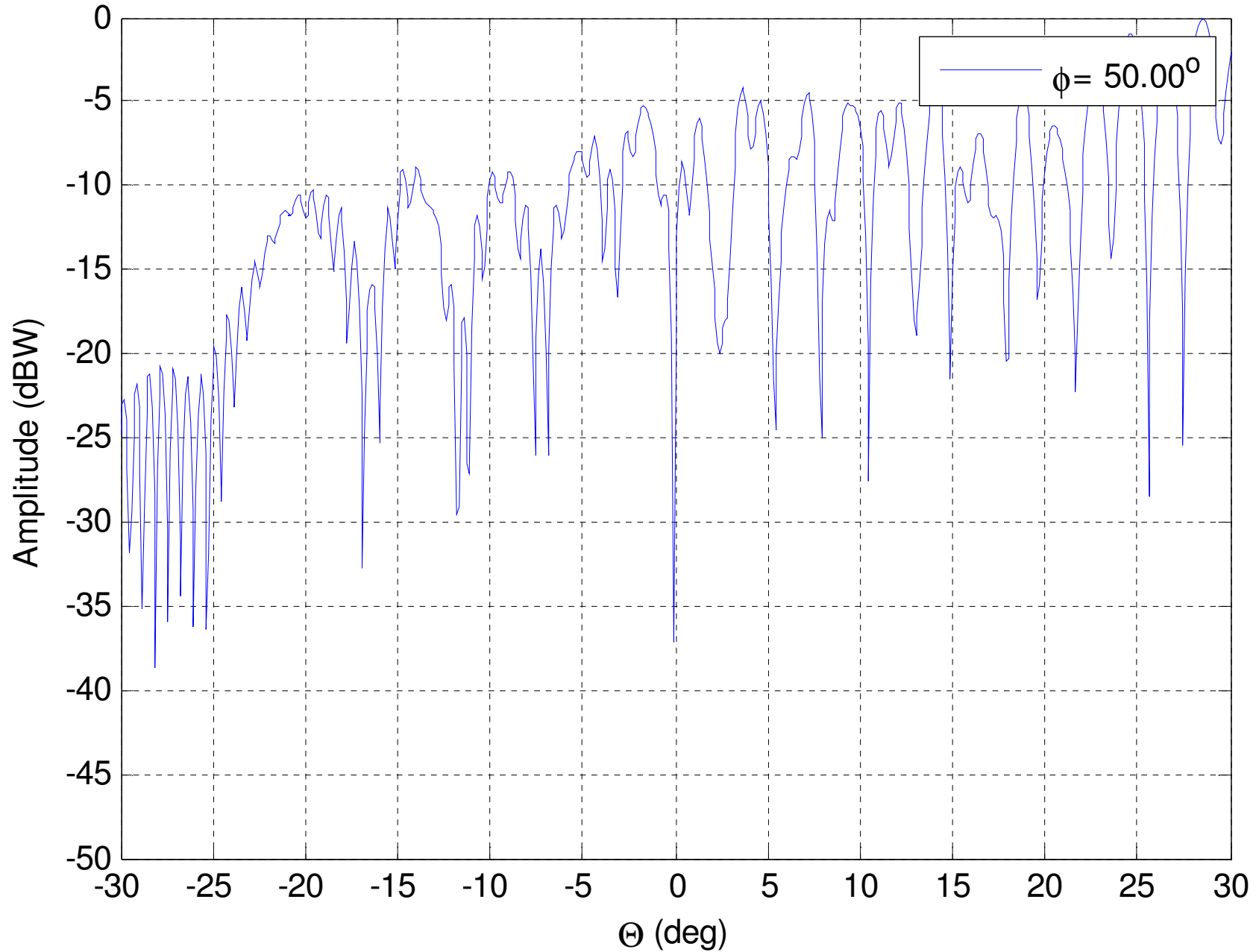
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-40.cut, Peak: -6.37 dBW, Date: 16-Dec-2011



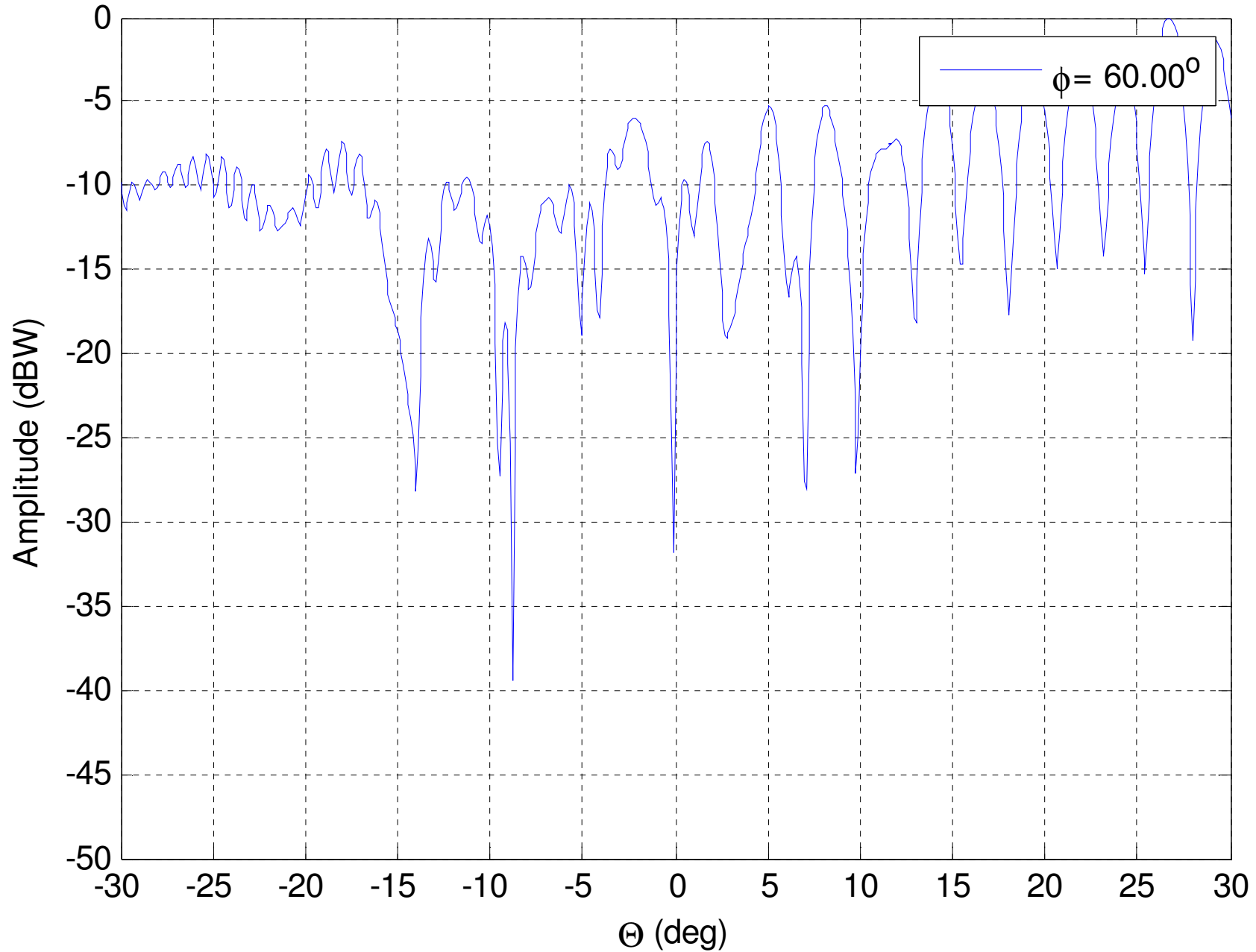
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-50.cut, Peak: -5.15 dBW, Date: 16-Dec-2011



Normalized pattern cuts - farfield

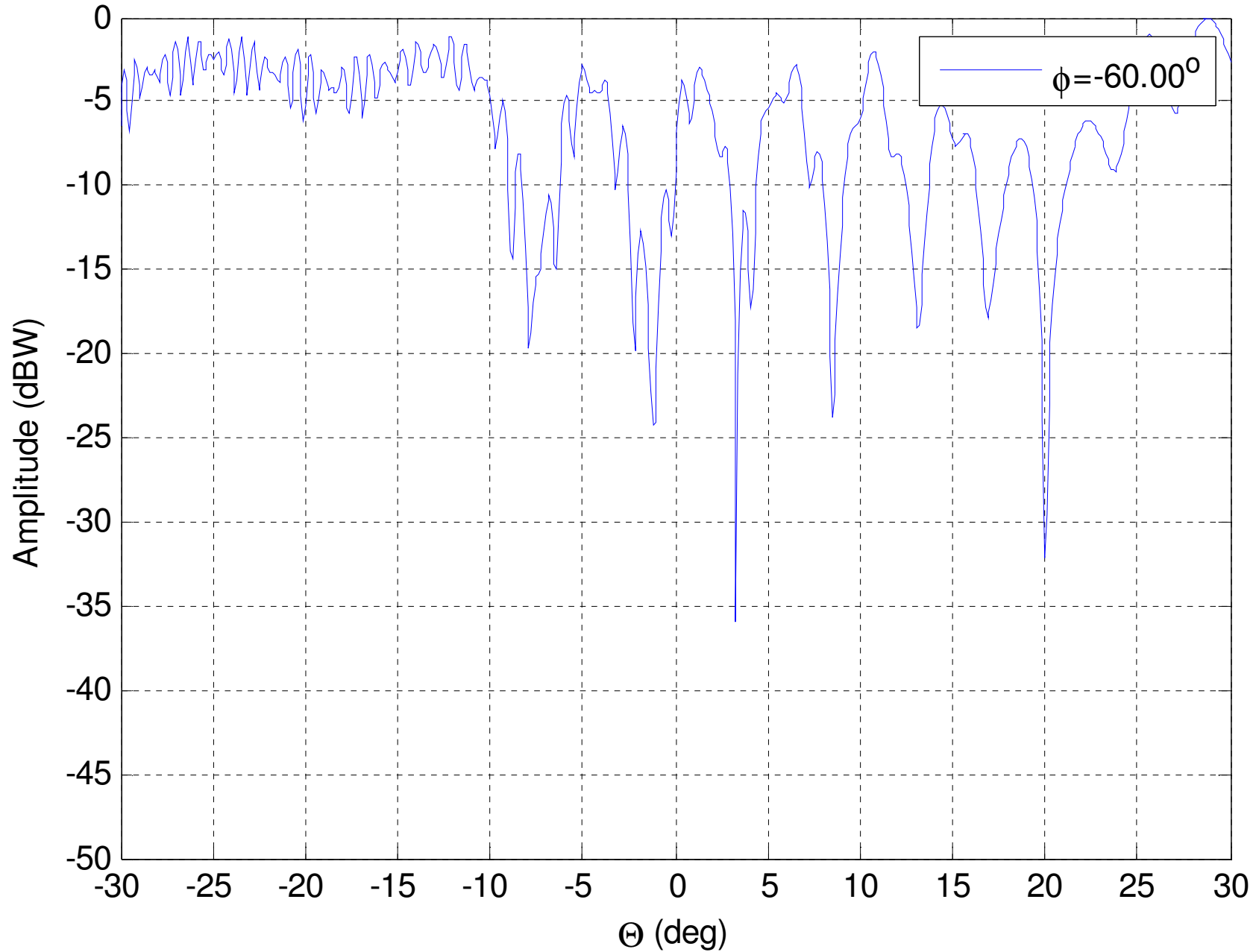
Input file: tx-17.7-rhcp-60.cut, Peak: -3.89 dBW, Date: 16-Dec-2011



LHCP at 17.7 GHz

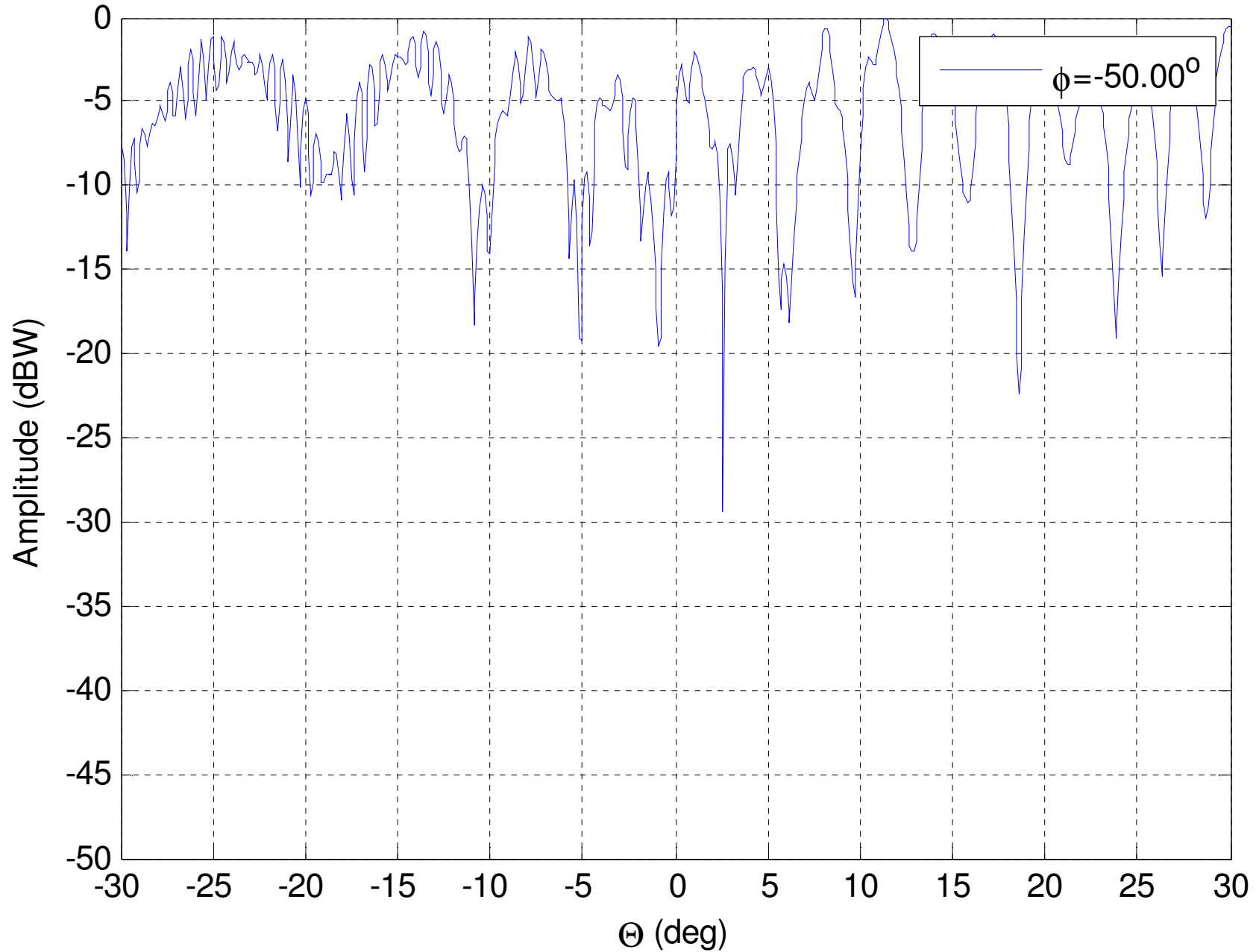
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--60.cut, Peak: -6.15 dBW, Date: 16-Dec-2011



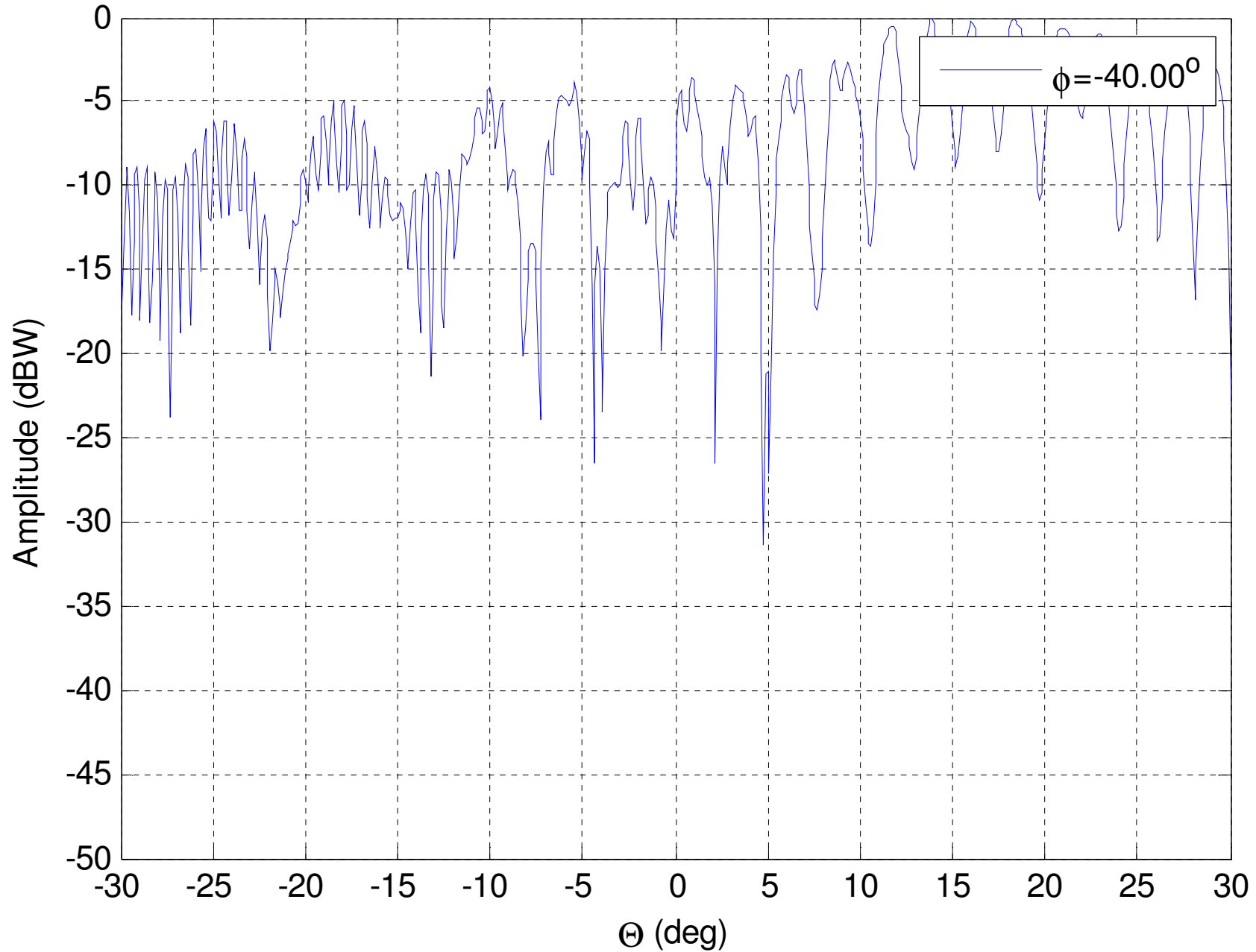
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--50.cut, Peak: -7.20 dBW, Date: 16-Dec-2011



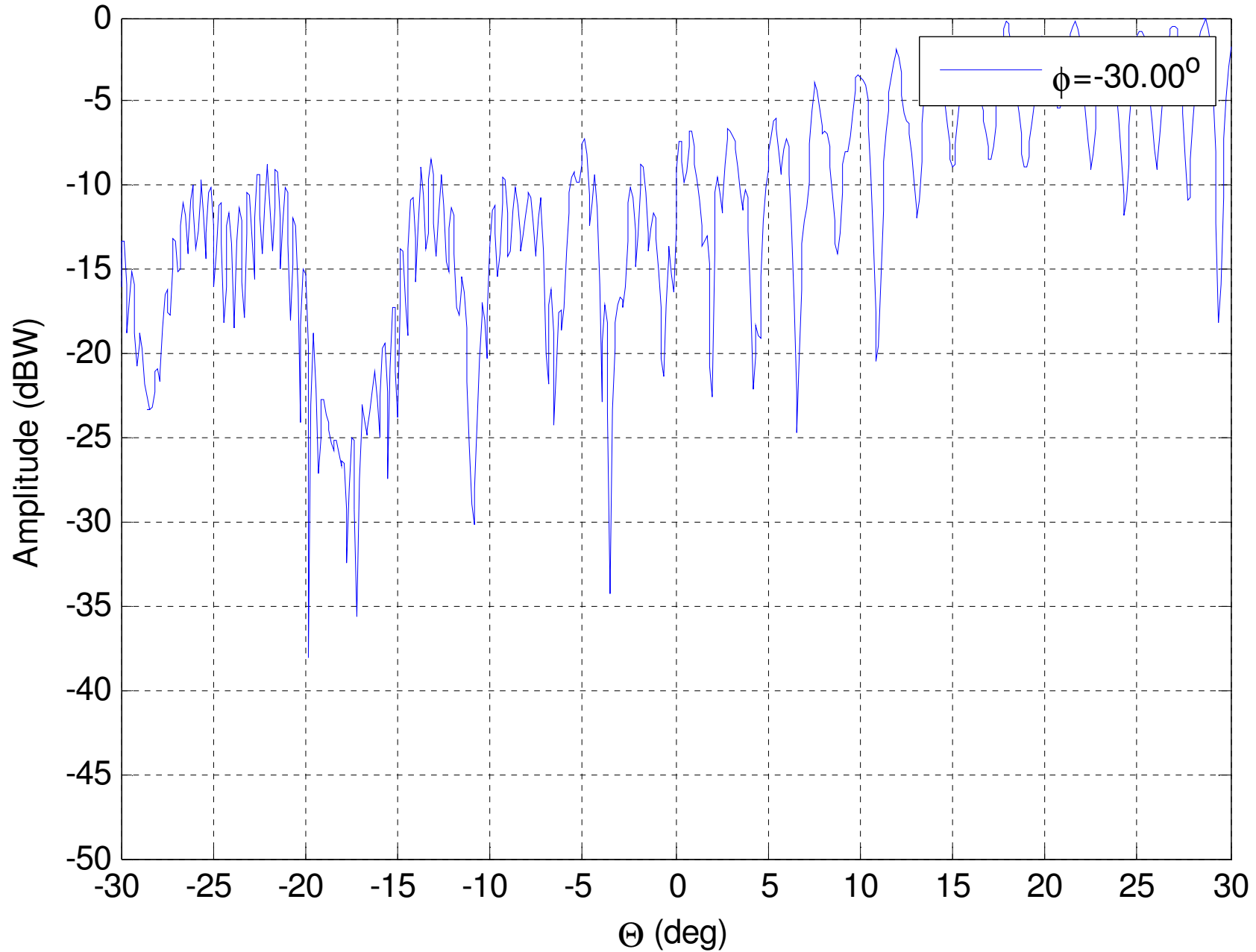
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--40.cut, Peak: -5.67 dBW, Date: 16-Dec-2011



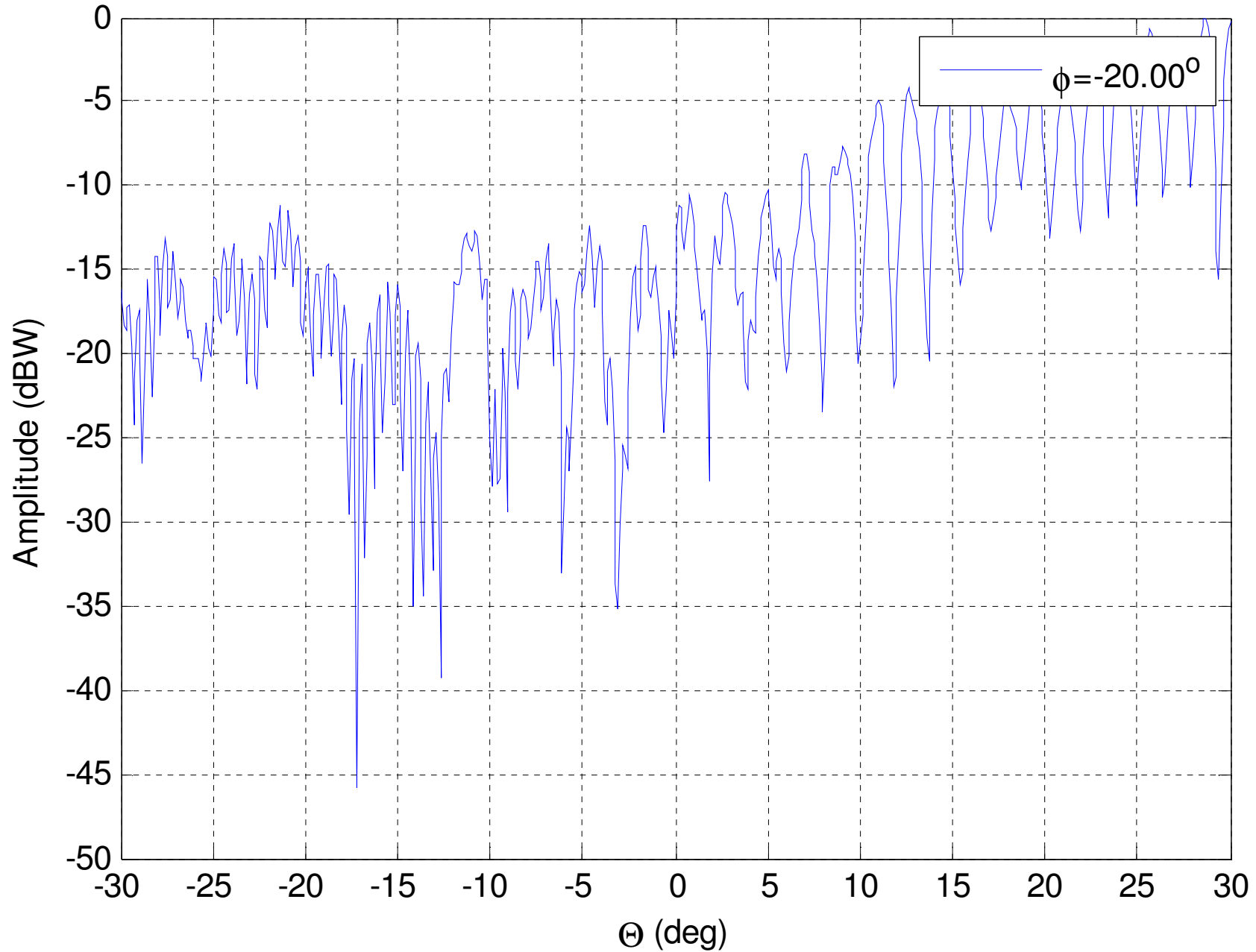
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--30.cut, Peak: -2.71 dBW, Date: 16-Dec-2011



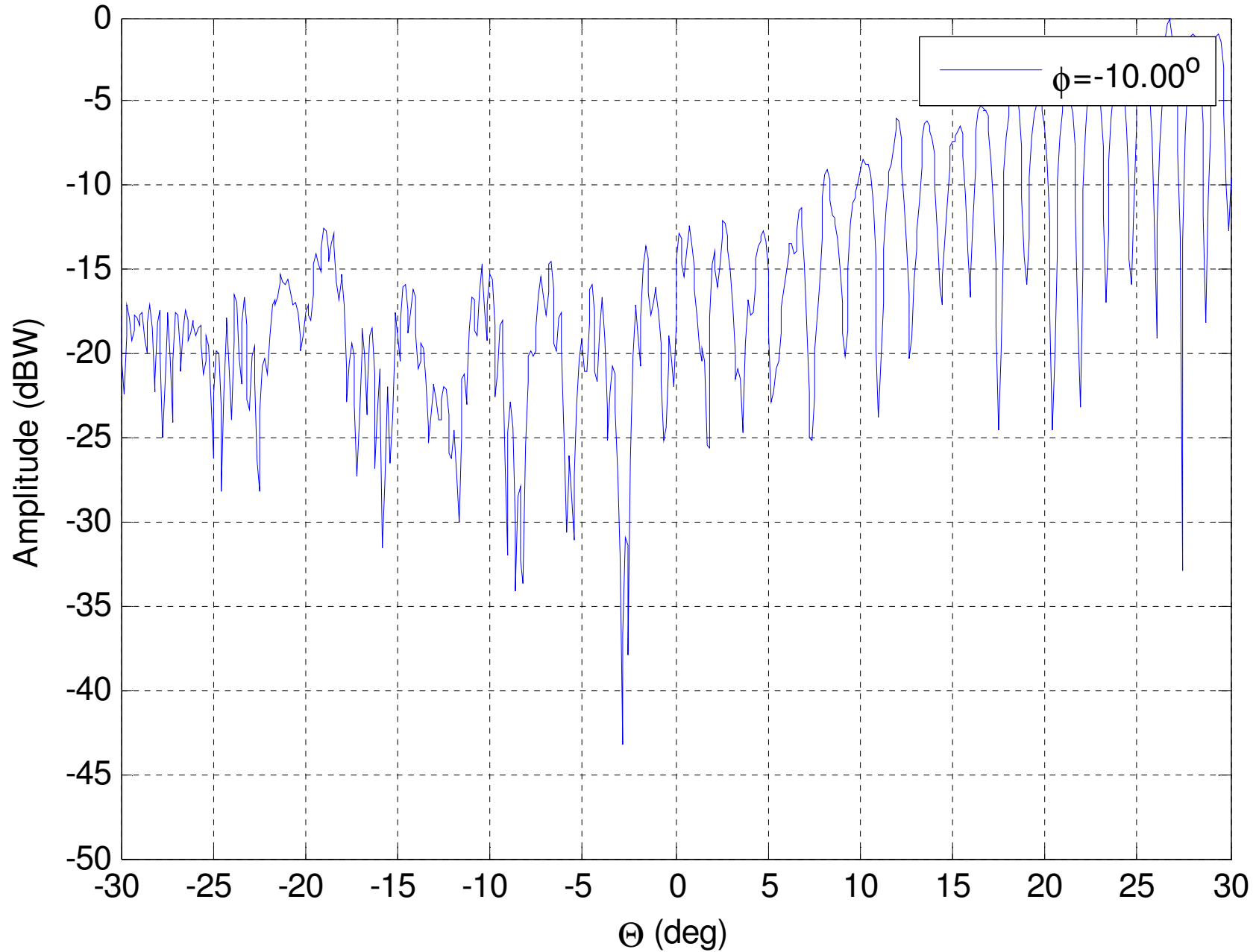
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--20.cut, Peak: 1.11 dBW, Date: 16-Dec-2011



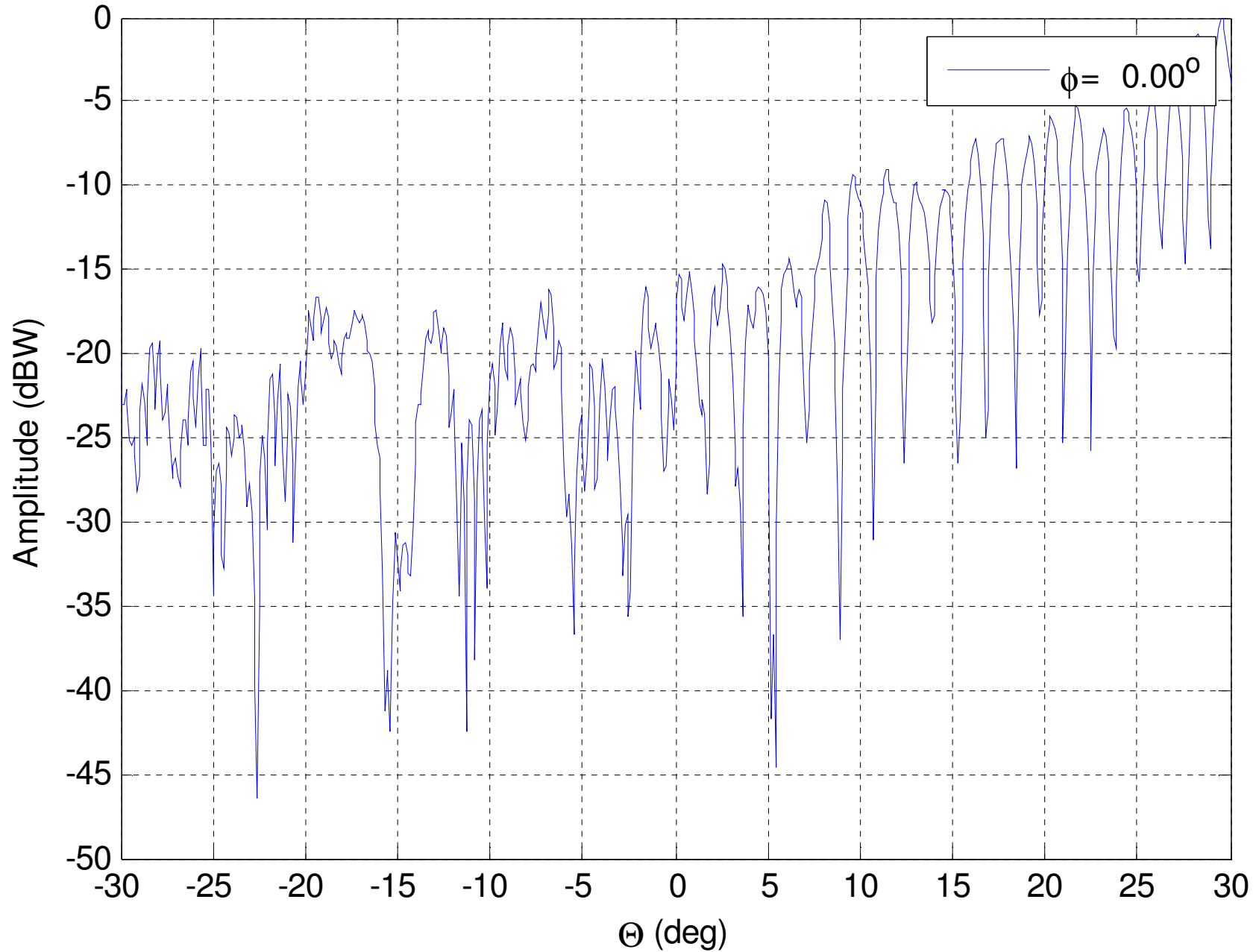
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--10.cut, Peak: 2.79 dBW, Date: 16-Dec-2011



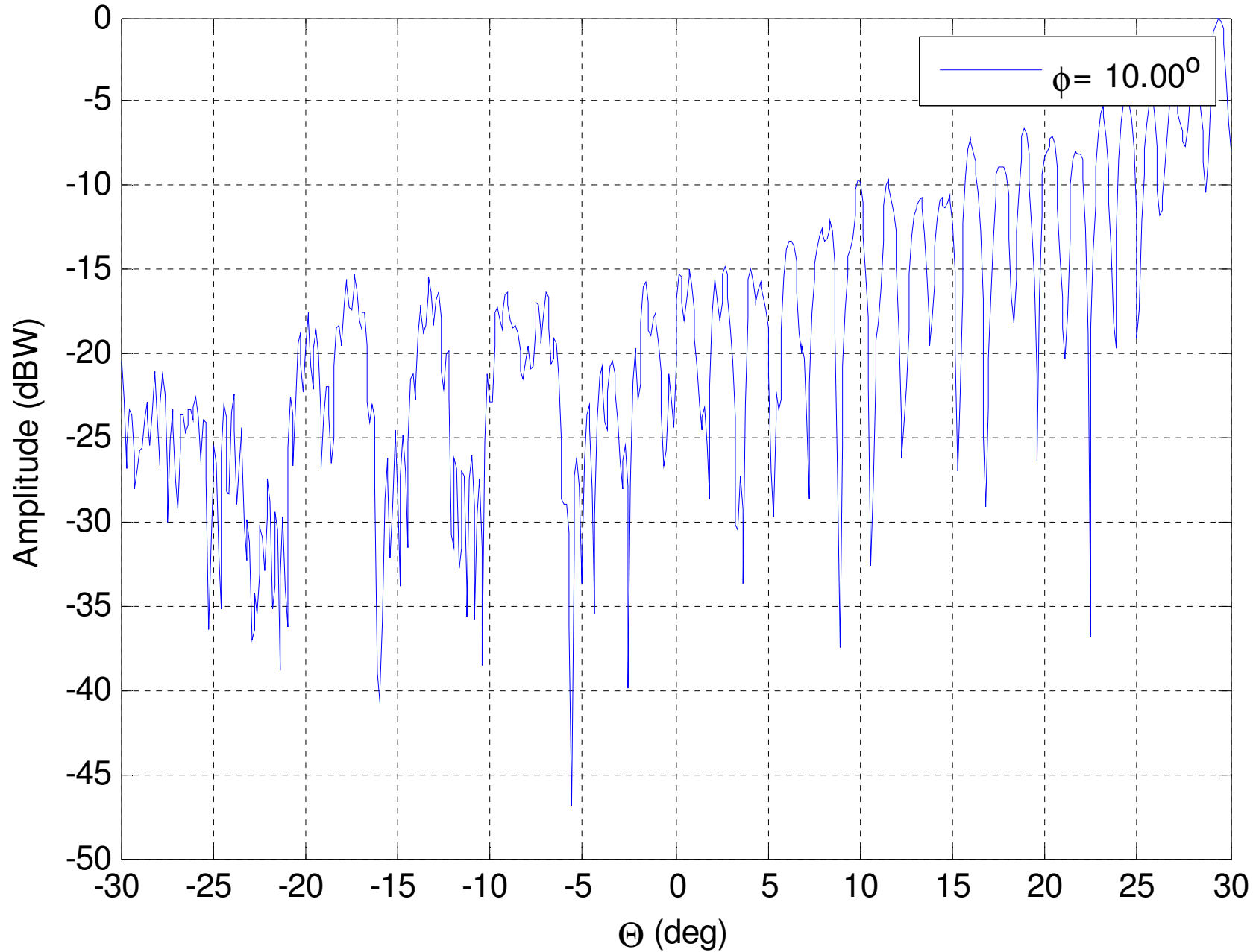
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-0.cut, Peak: 5.34 dBW, Date: 16-Dec-2011



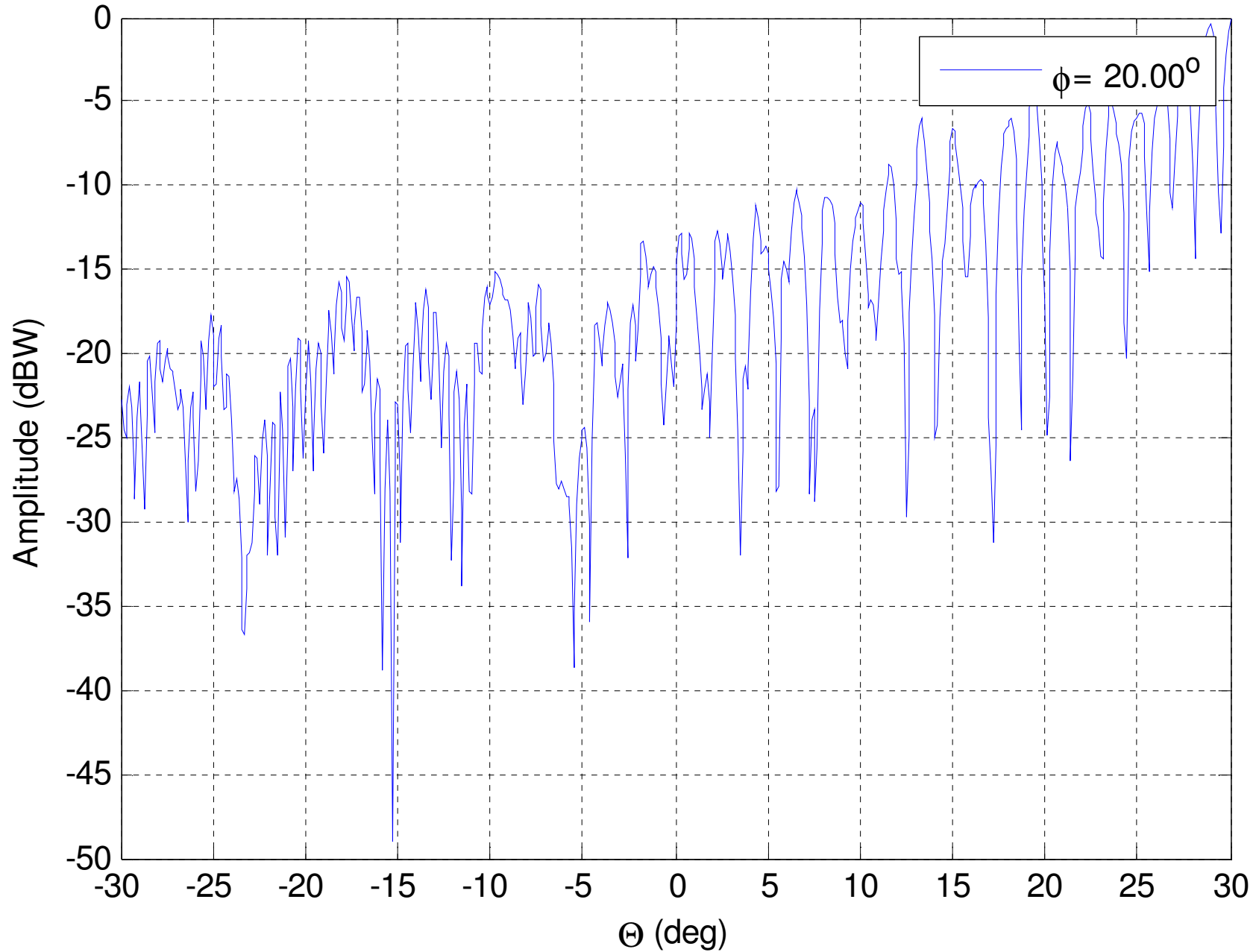
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-10.cut, Peak: 5.19 dBW, Date: 16-Dec-2011



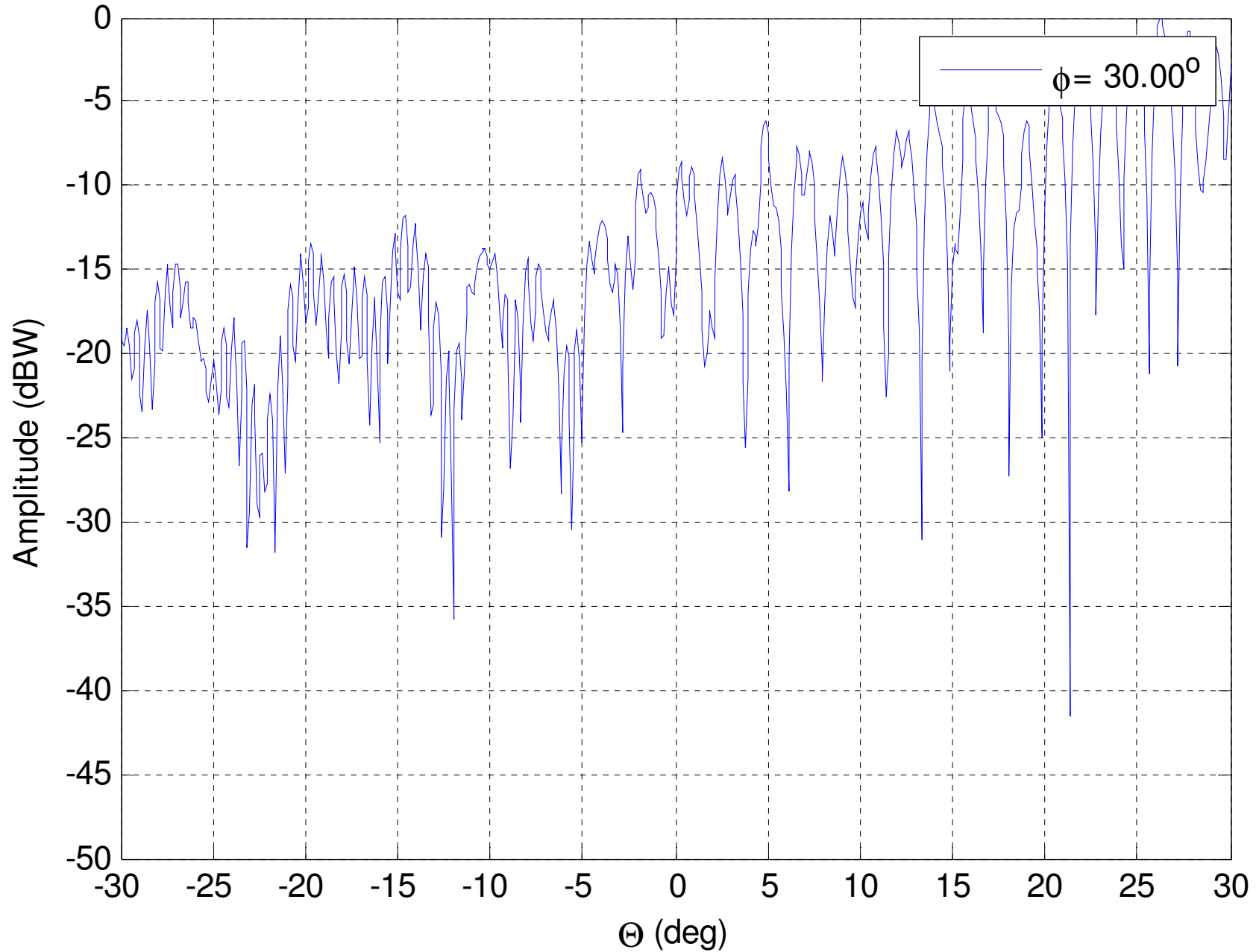
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-20.cut, Peak: 2.81 dBW, Date: 16-Dec-2011



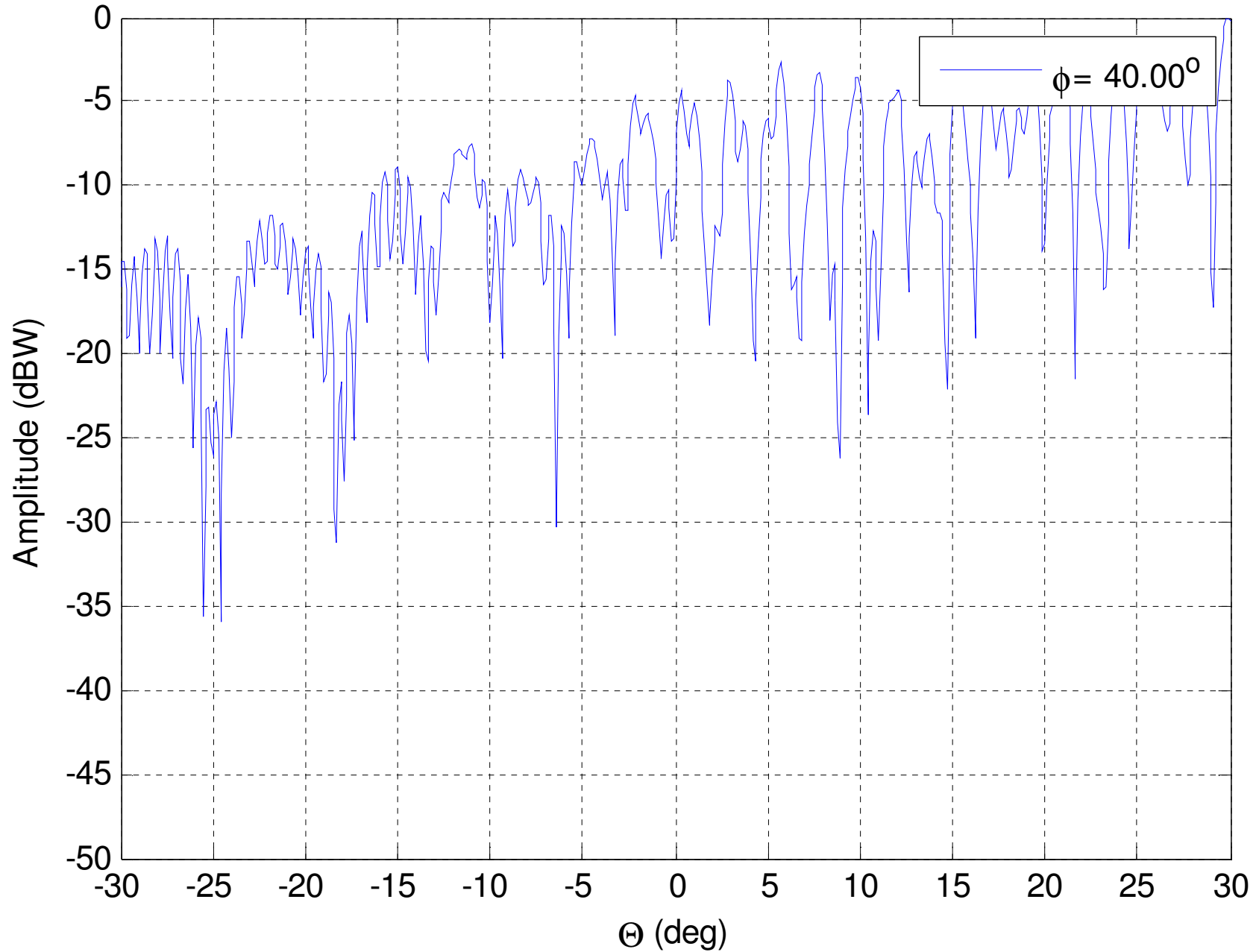
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-30.cut, Peak: -1.28 dBW, Date: 16-Dec-2011



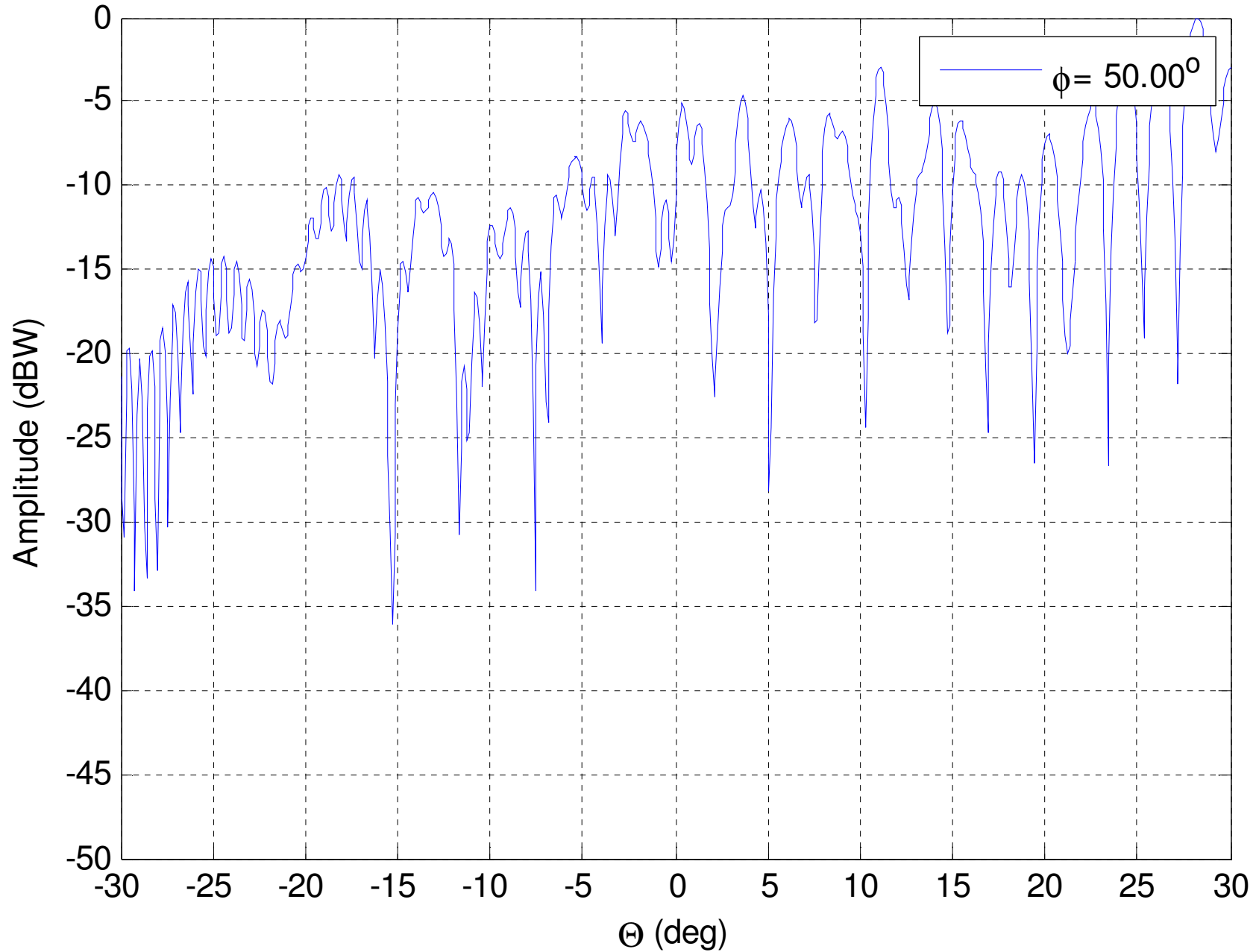
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-40.cut, Peak: -5.56 dBW, Date: 16-Dec-2011



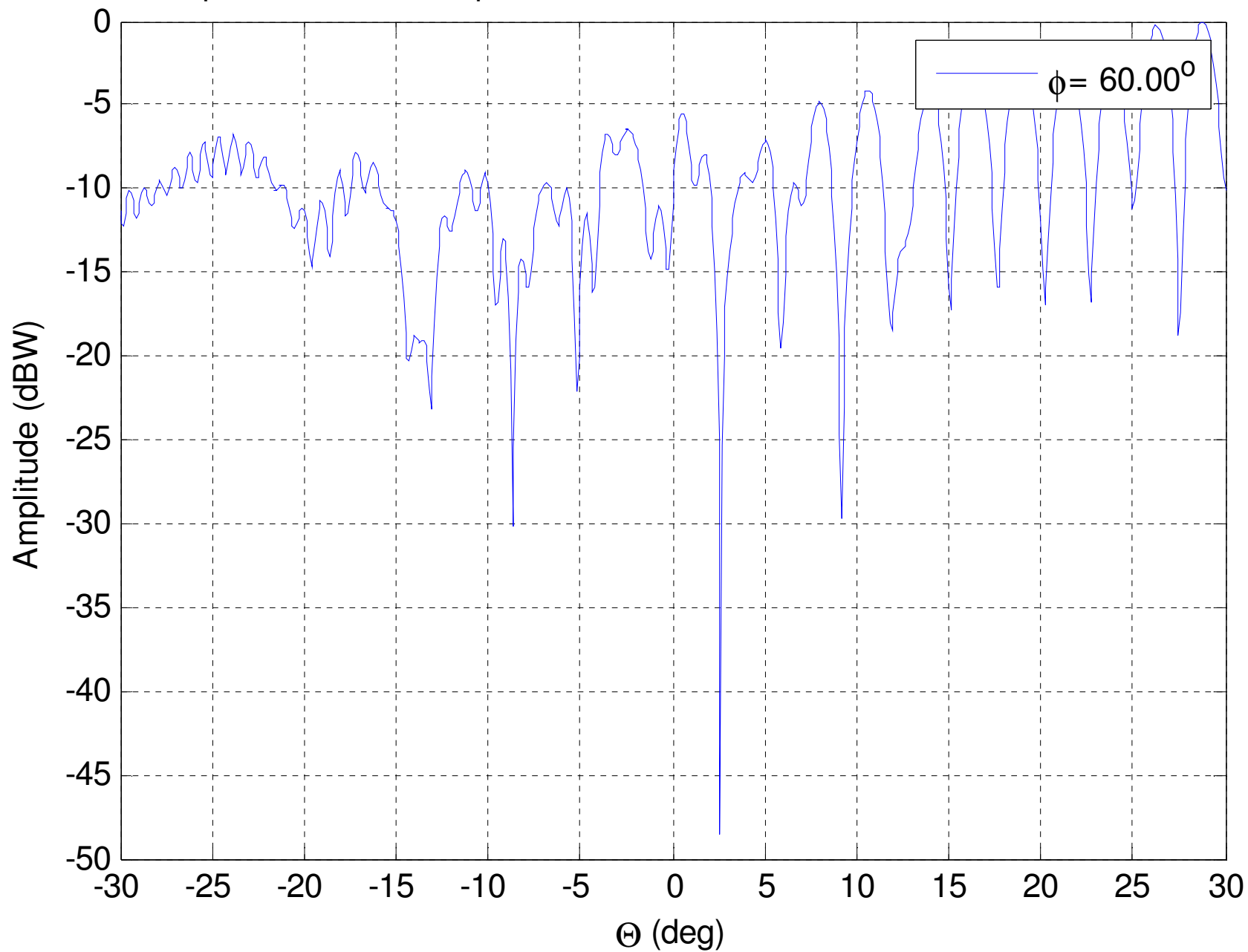
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-50.cut, Peak: -4.79 dBW, Date: 16-Dec-2011



Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-60.cut, Peak: -4.42 dBW, Date: 16-Dec-2011



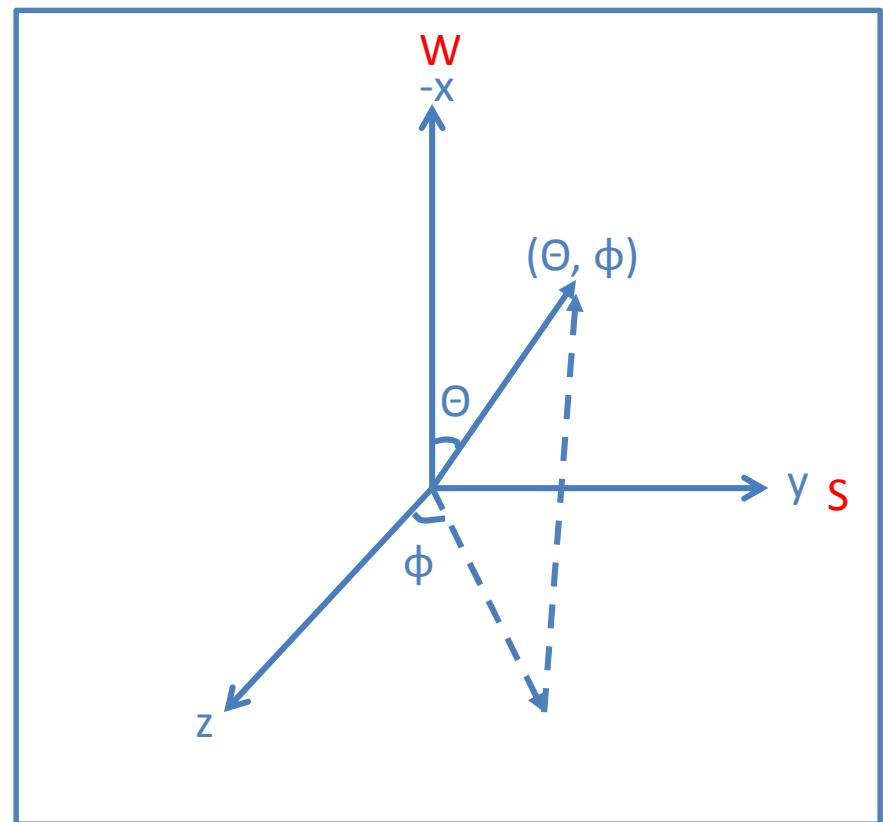
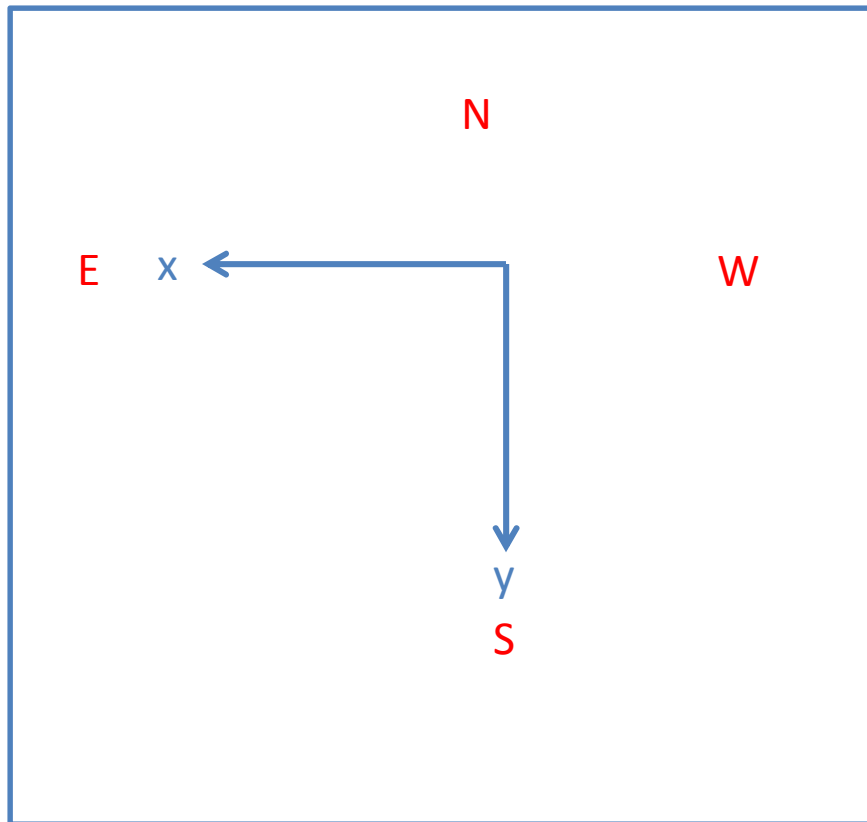
December 13, 2011

119 West Adjacent Satellite Off Axis Antenna Performance Spot Beam 48 cf: 12.8 dBW

Maximum Allowable EIRP to meet the -117dBW/m²/100 kHz

Maximum EIRP Allowed	
Spec Max flux density, dBW/m ² /100kHz	-117
Desired channel band width, MHz	25.8
Symbol rate band width modification factor	1
Effective channel bandwidth, MHz	25.8
Effective bandwidth, dB-100kHz	24.1
Flux density allowed per channel, dBW/m ²	-92.9
R, radial distance to GEO, km	42164.0
Angle of separation between satellites, deg	0.1
range between satellites, km	73.59
Spreading factor, dB/m ²	-108.3
Atmospheric loss, dB	0
Max satellite EIRP allowed, dBW	15.4

Coordinate System



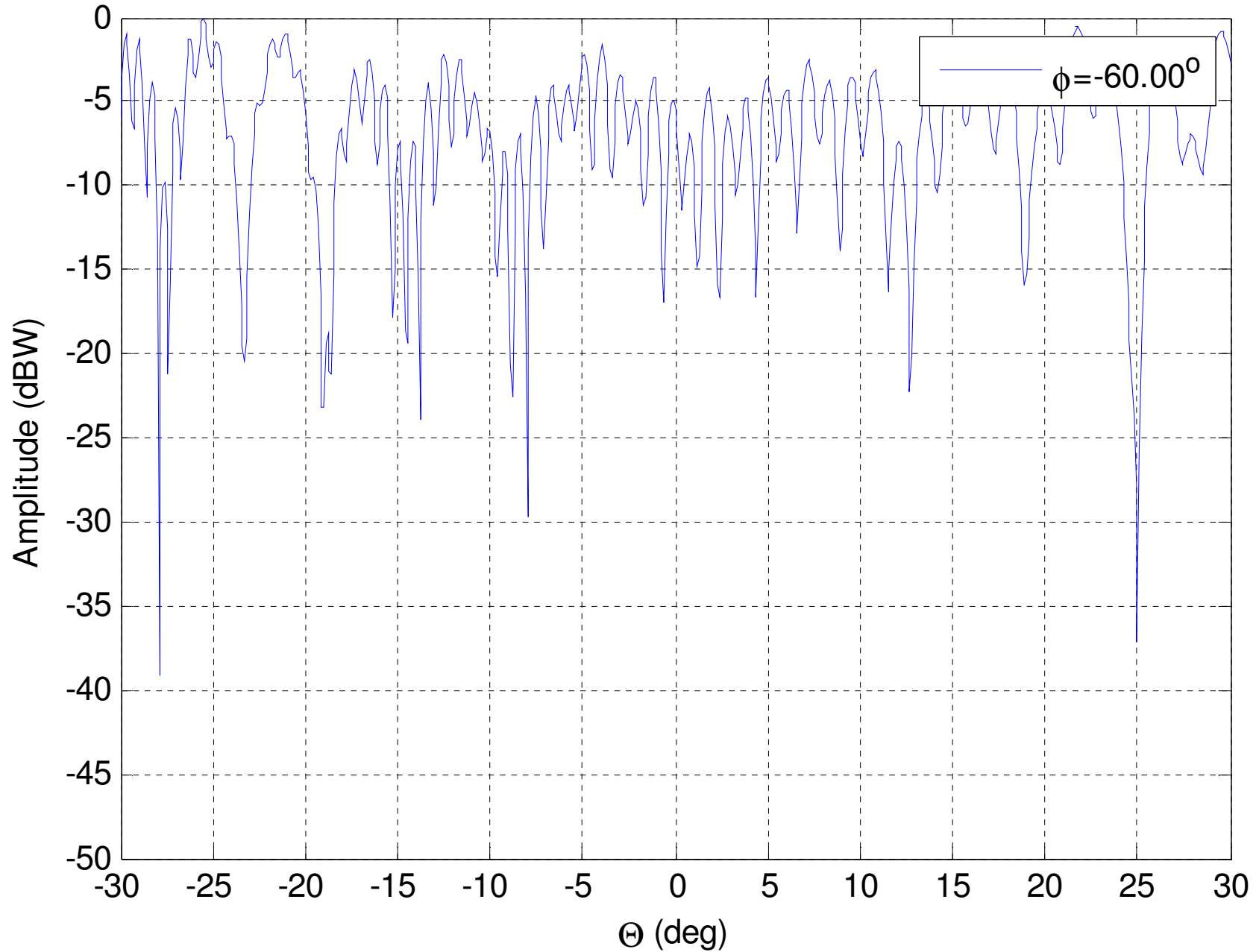
Spot Beam48, -X Axis Plots

- Both polarizations; RHCP, LHCP
- $-30 < \Theta < 30$ ($\Theta=0$: -X -axis)
- $-60 < \phi < 60$
- Freq = 17.3, 17.5, and 17.7 GHz
- The Zero reference line is the peak gain listed in the title of each chart
- All levels are significantly below the required 15.4 dBW EIRP shown on chart 2

RHCP at 17.3 GHz

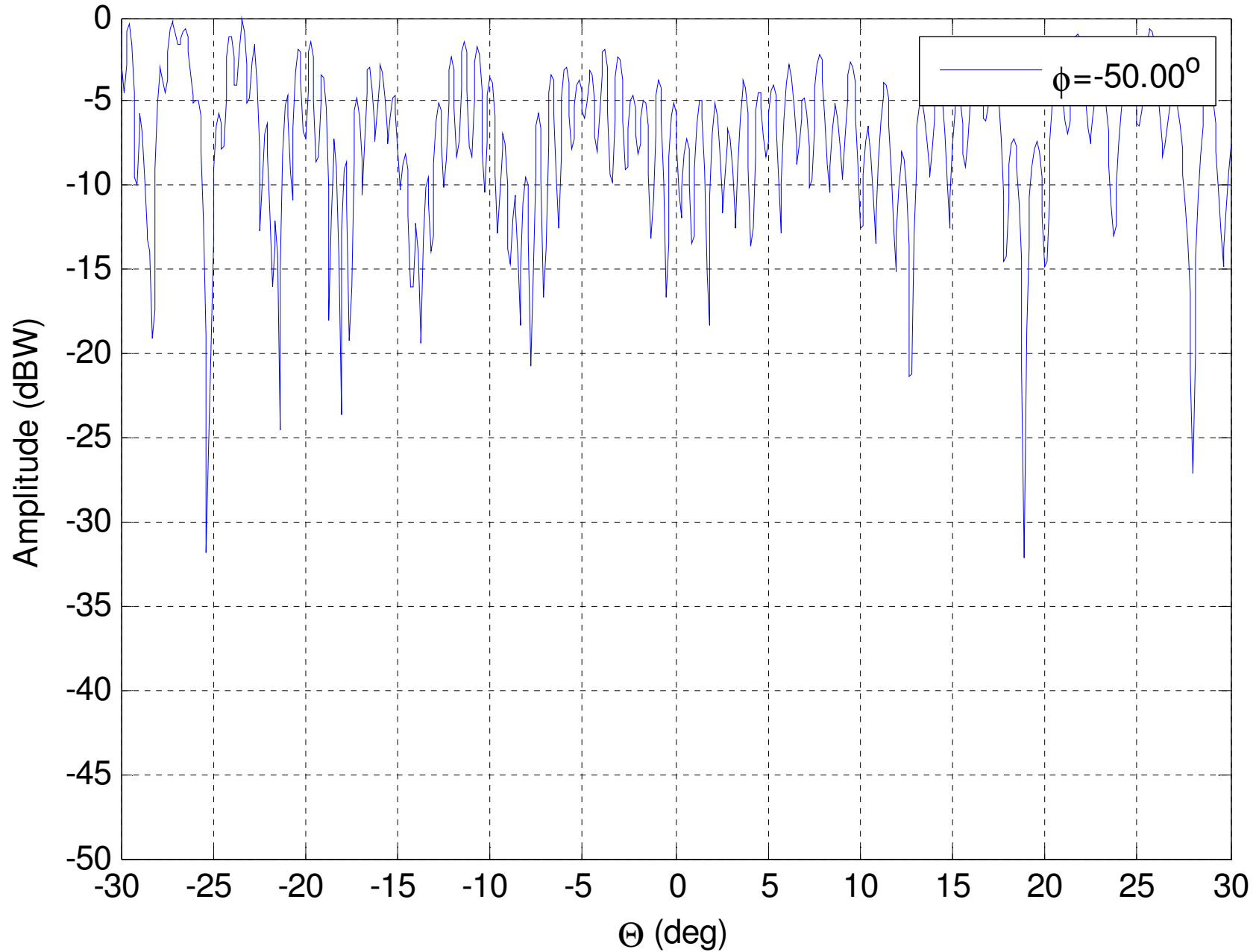
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--60.cut, Peak: -0.89 dBW, Date: 16-Dec-2011



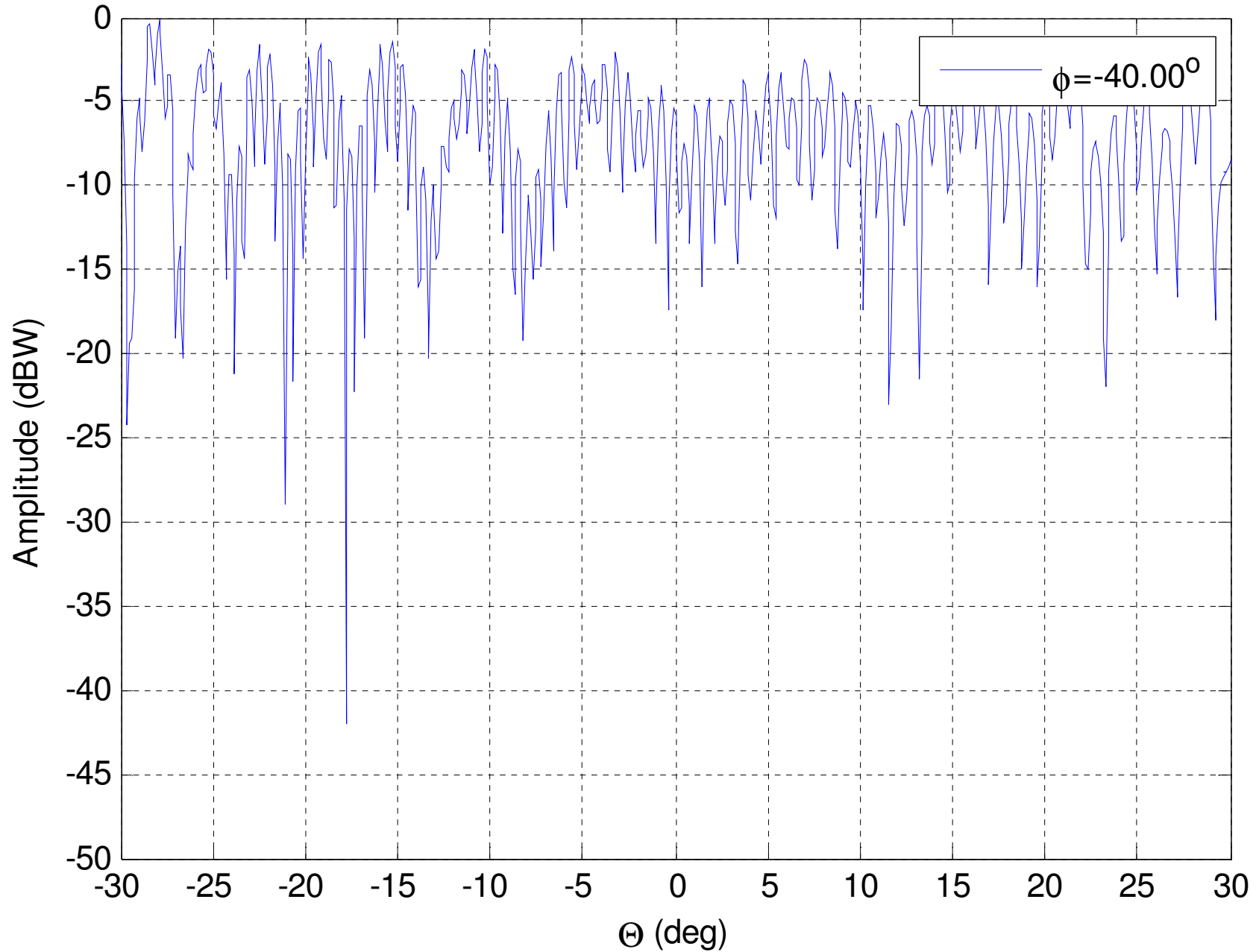
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--50.cut, Peak: -0.66 dBW, Date: 16-Dec-2011



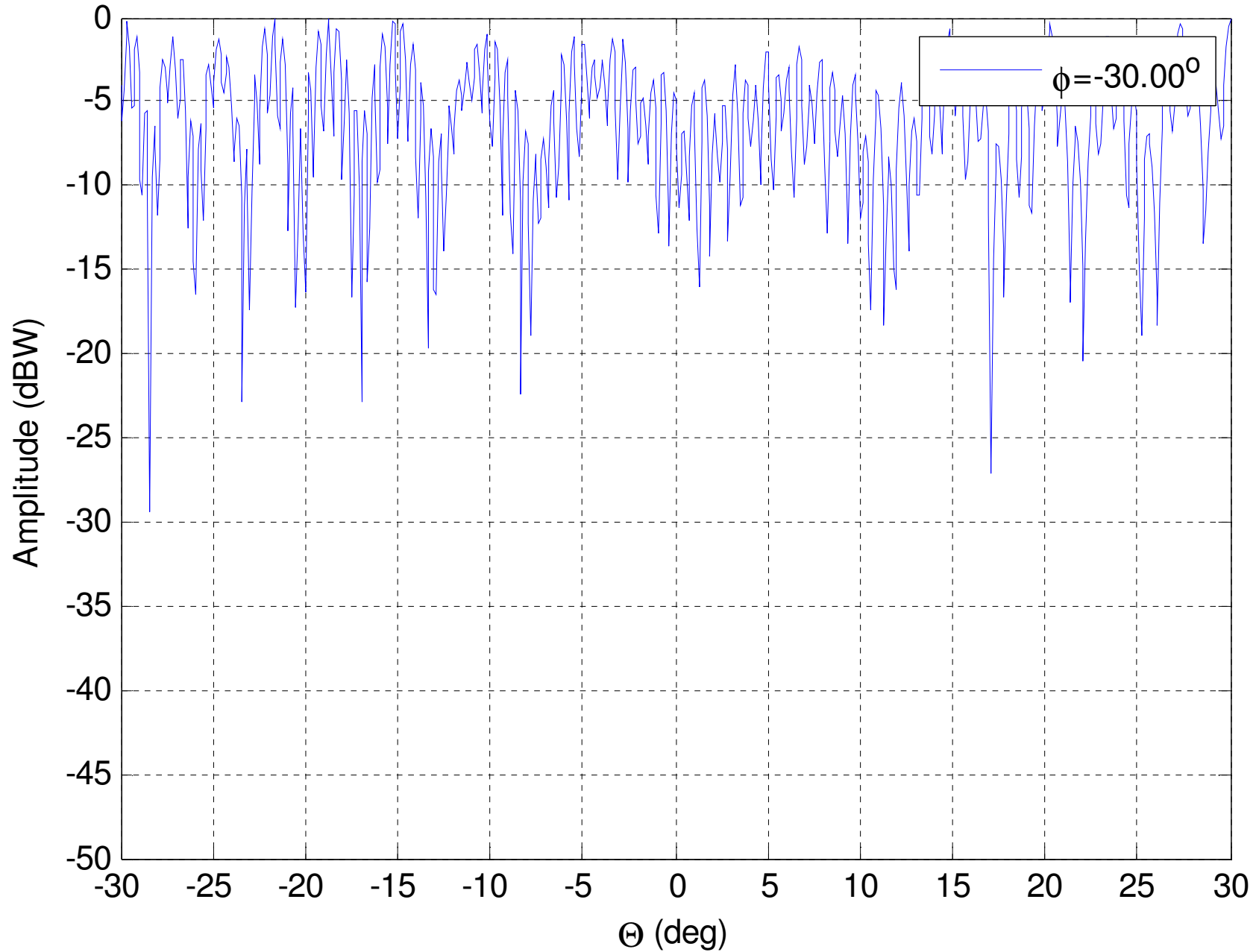
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--40.cut, Peak: -0.50 dBW, Date: 16-Dec-2011



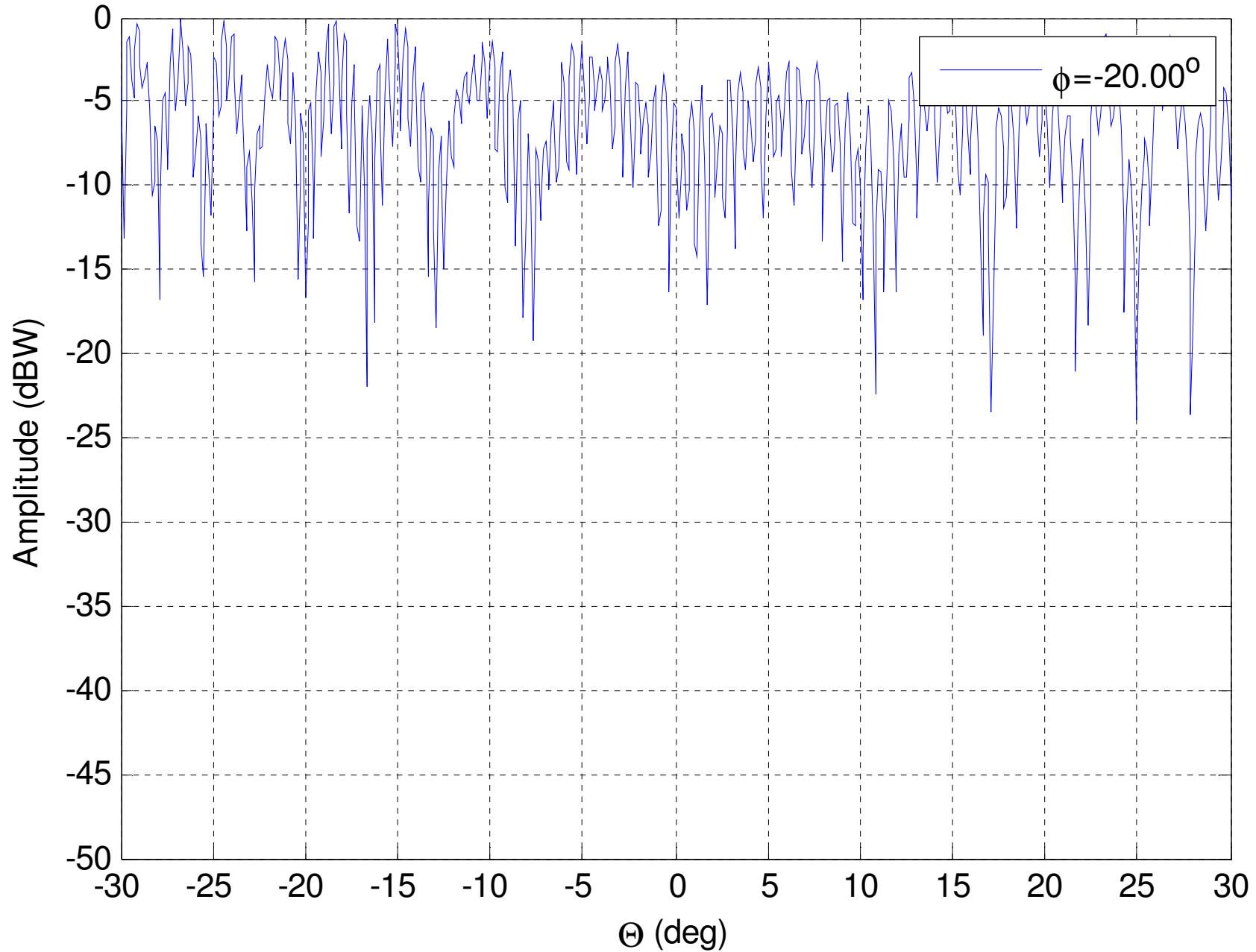
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--30.cut, Peak: -1.46 dBW, Date: 16-Dec-2011



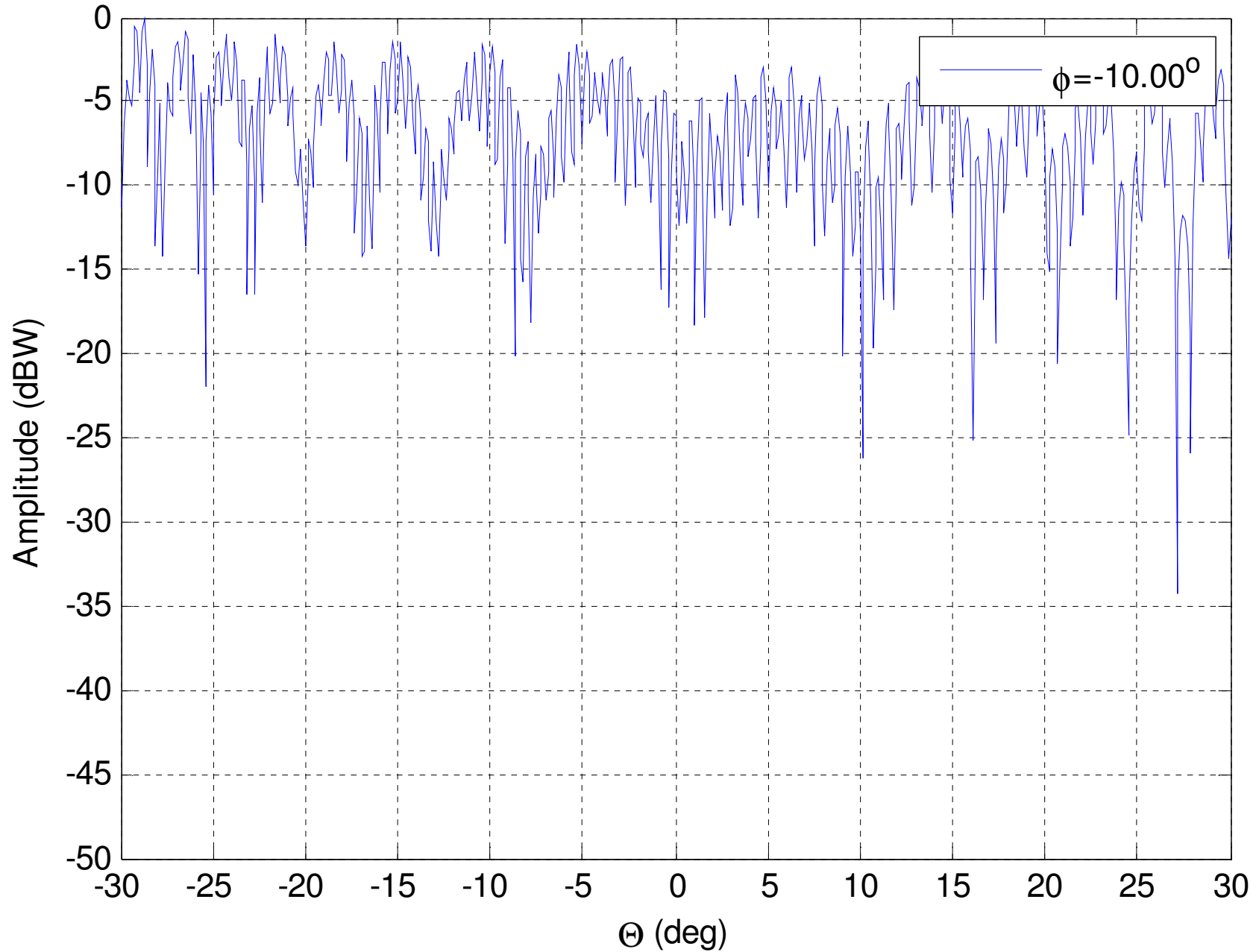
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--20.cut, Peak: -1.07 dBW, Date: 16-Dec-2011



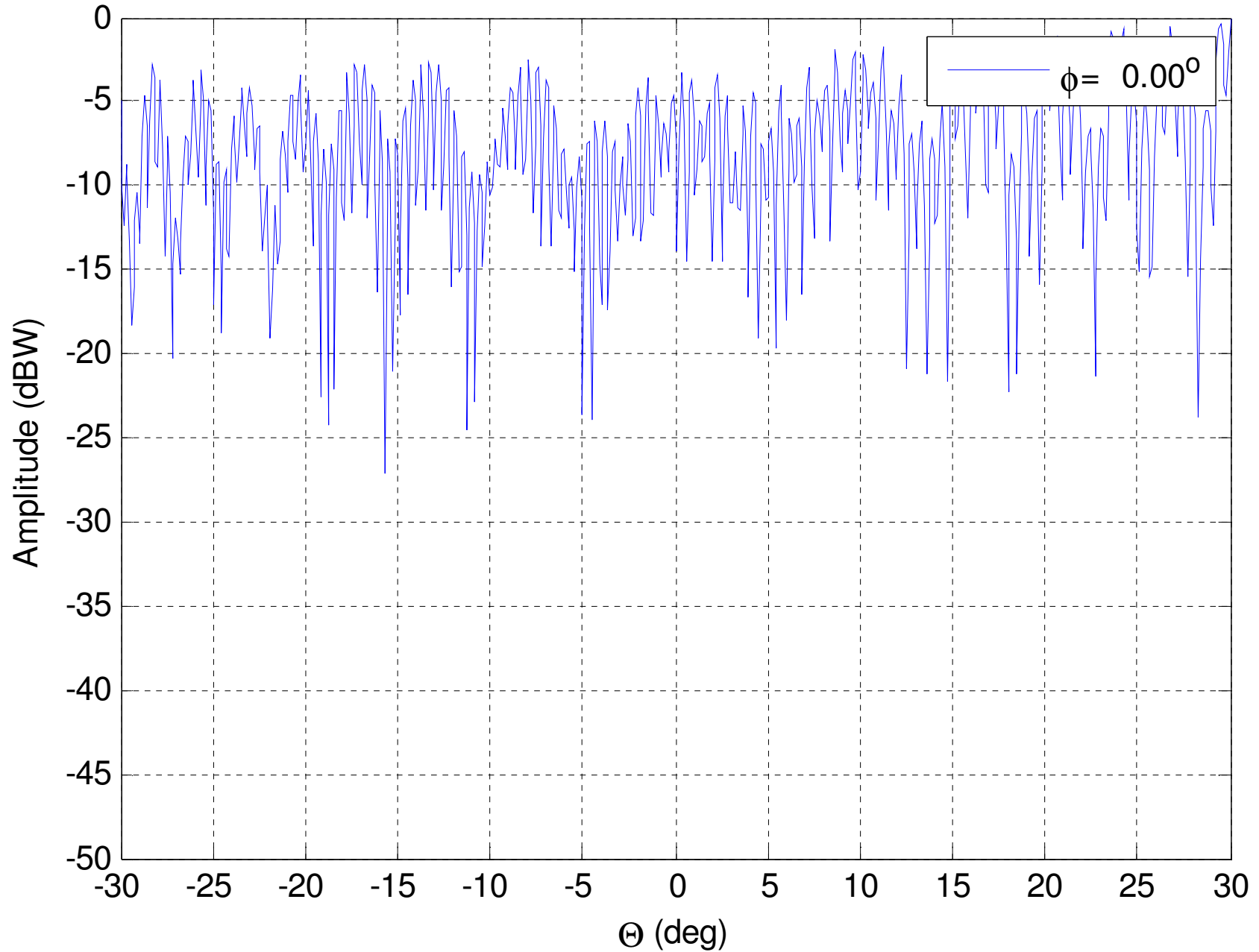
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--10.cut, Peak: -0.56 dBW, Date: 16-Dec-2011



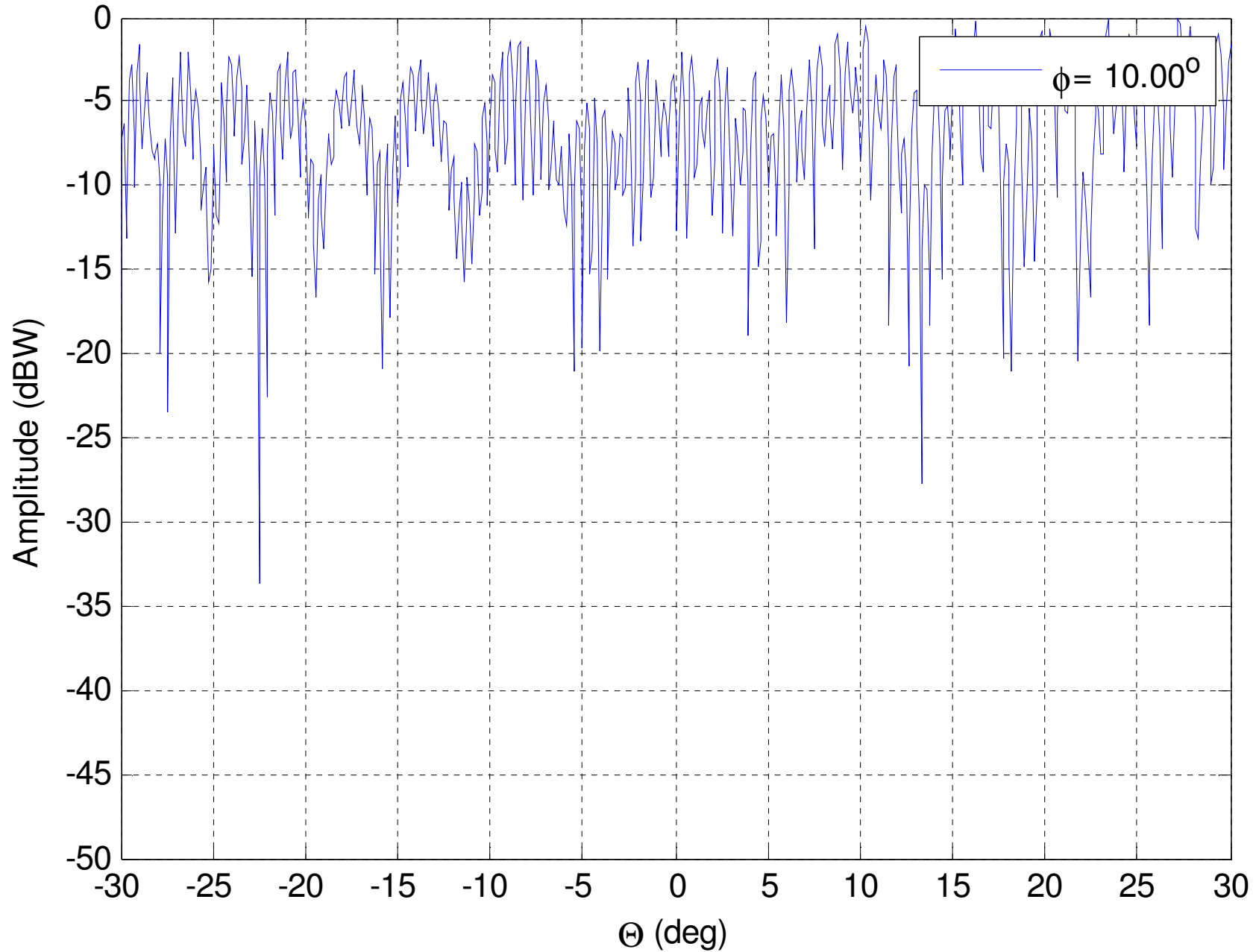
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-0.cut, Peak: 0.10 dBW, Date: 16-Dec-2011



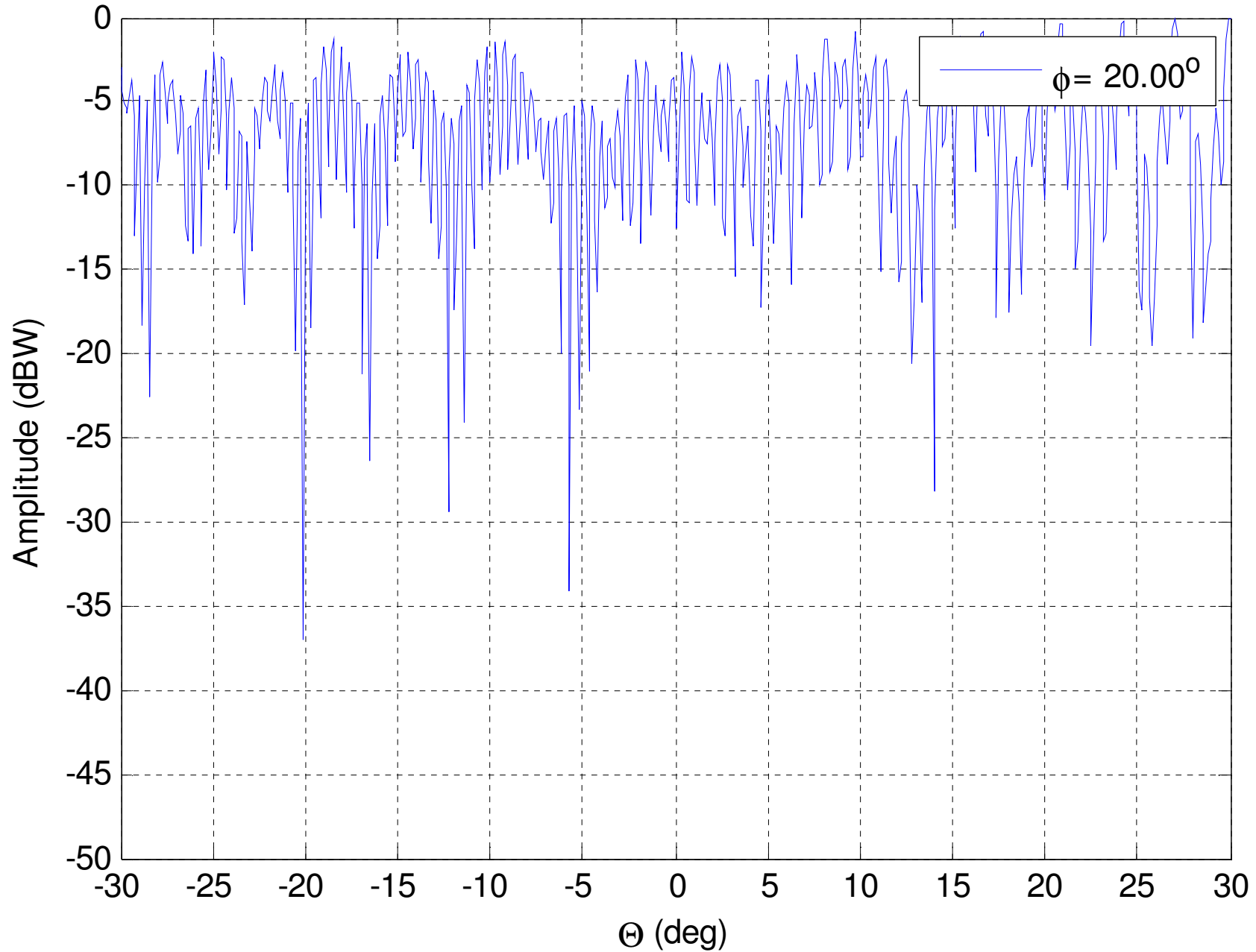
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-10.cut, Peak: -1.05 dBW, Date: 16-Dec-2011



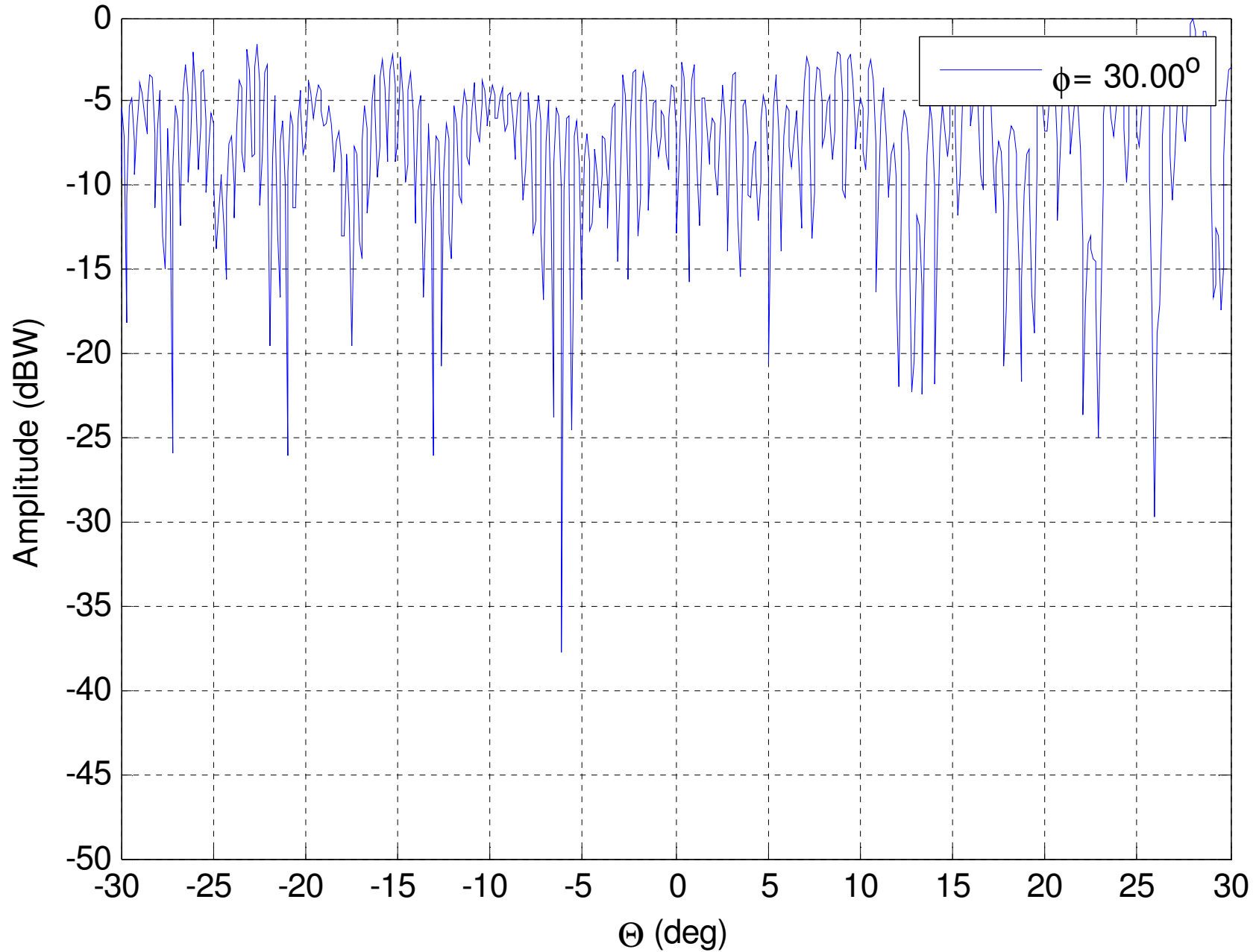
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-20.cut, Peak: -1.02 dBW, Date: 16-Dec-2011



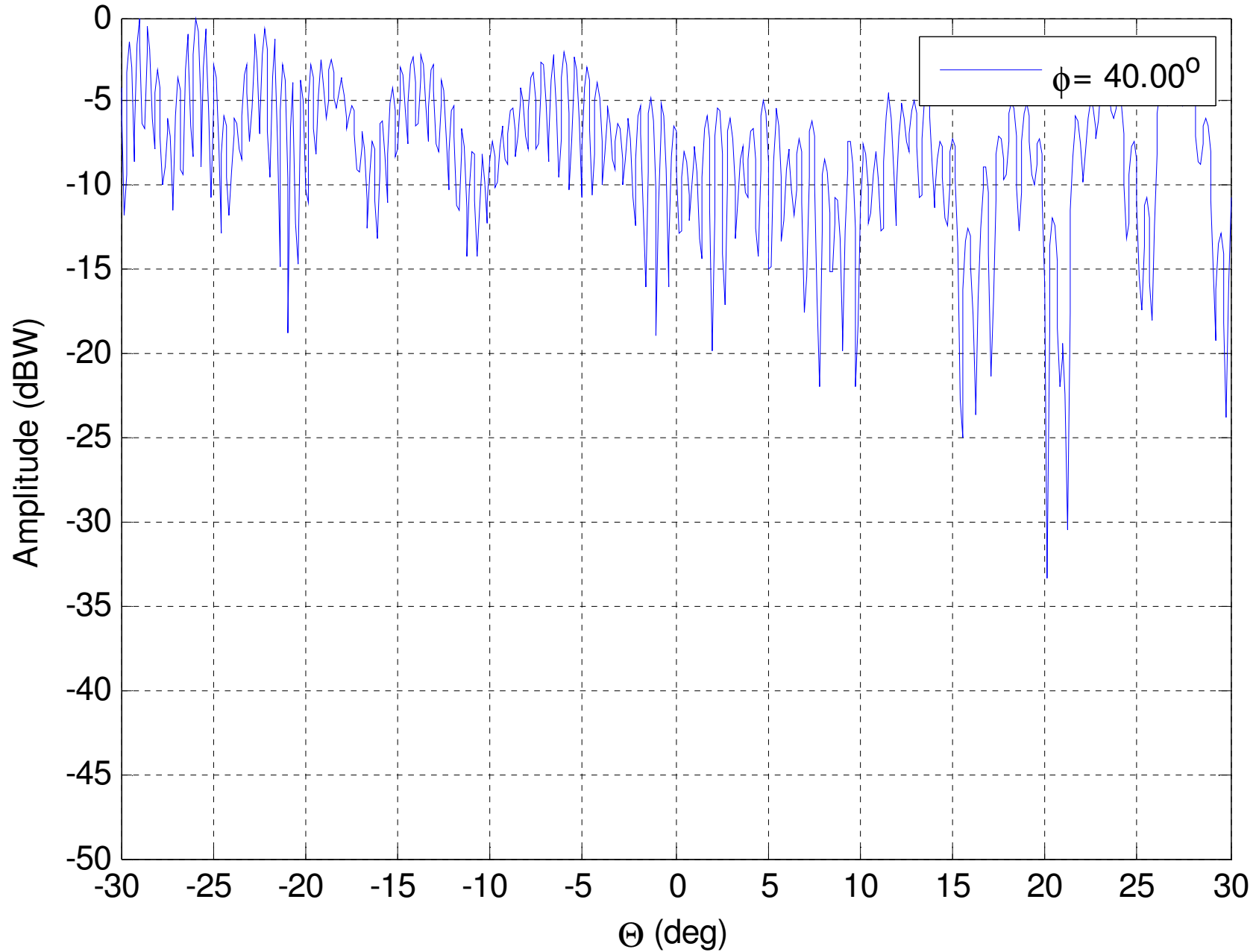
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-30.cut, Peak: -0.44 dBW, Date: 16-Dec-2011



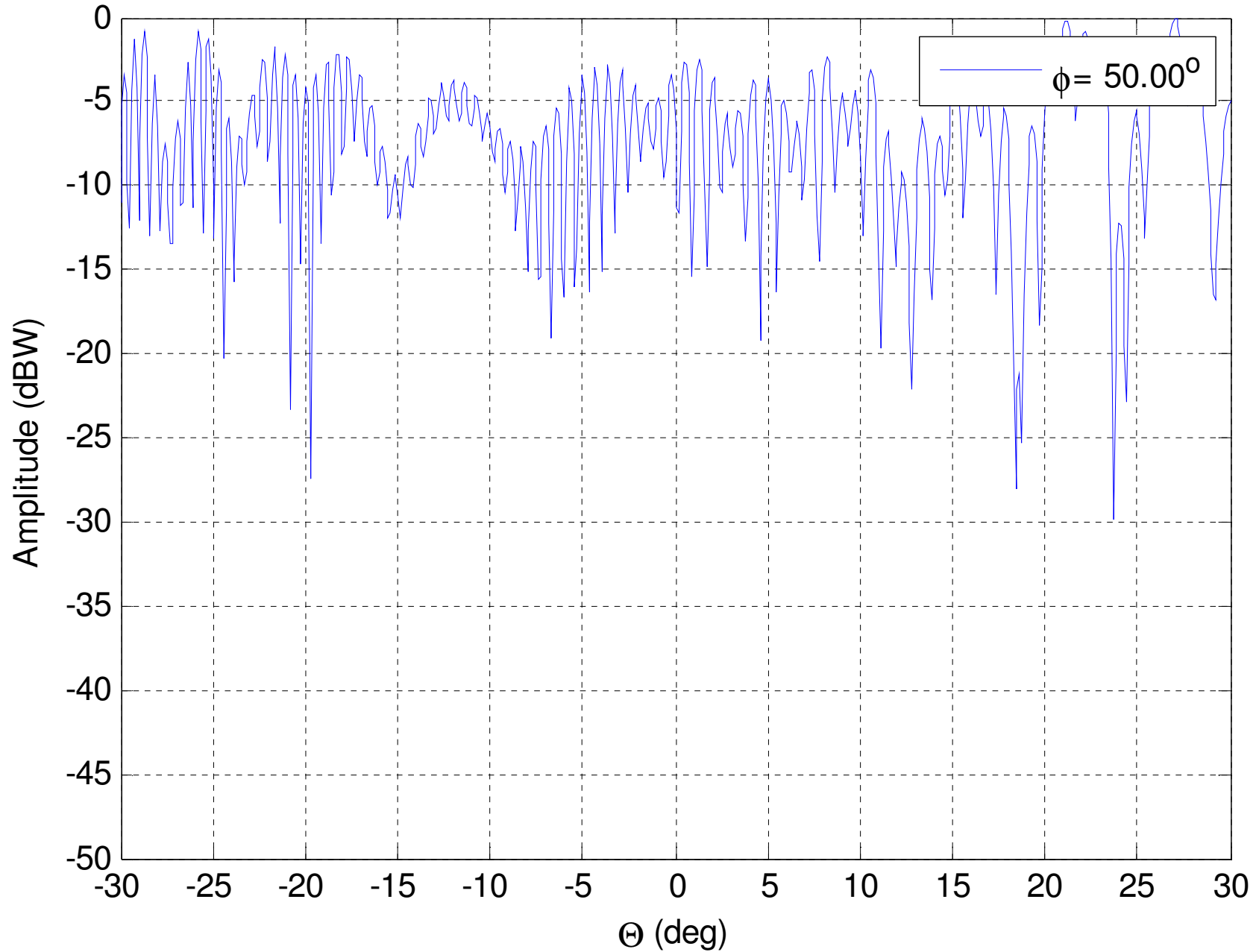
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-40.cut, Peak: 0.30 dBW, Date: 16-Dec-2011



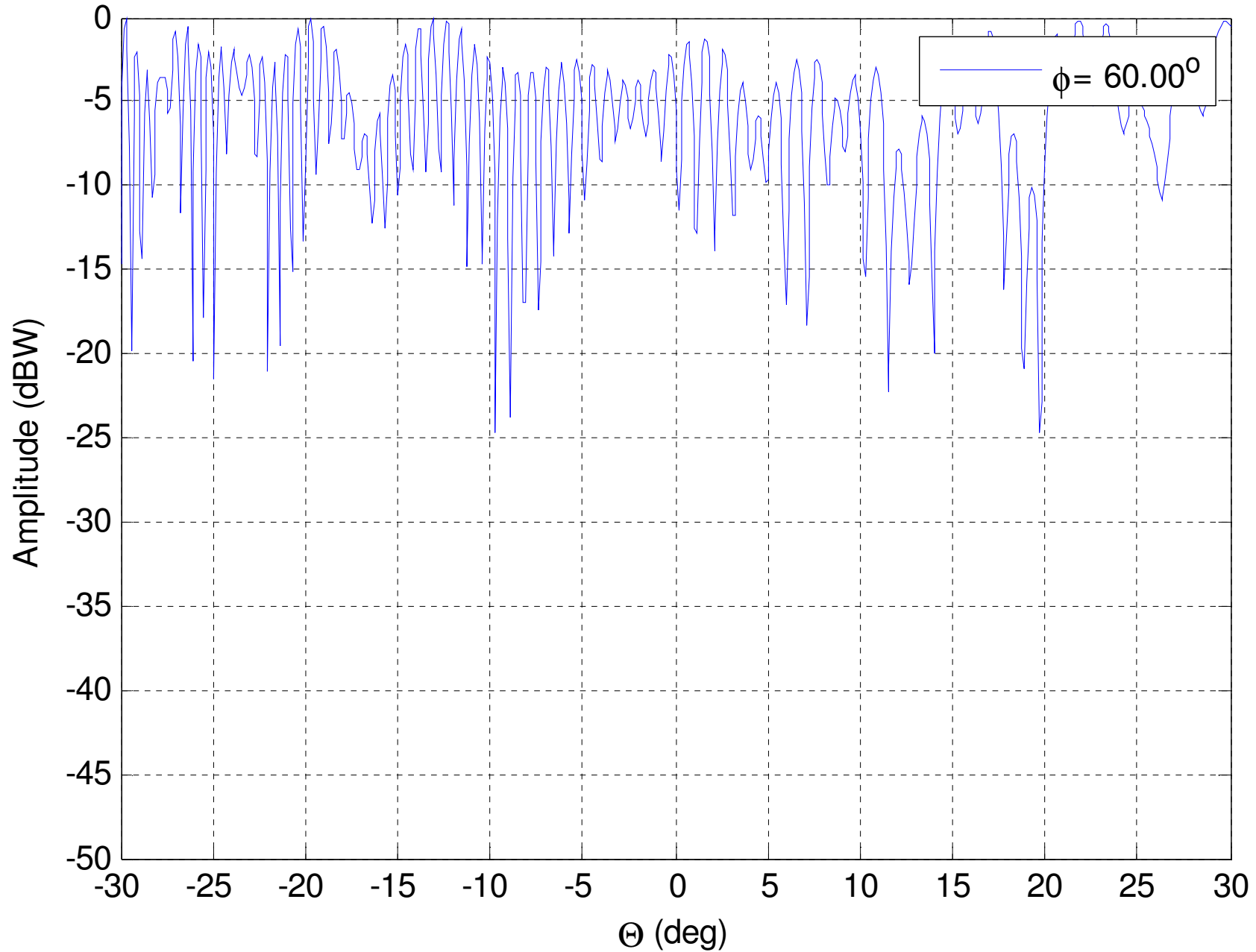
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-50.cut, Peak: -0.63 dBW, Date: 16-Dec-2011



Normalized pattern cuts - farfield

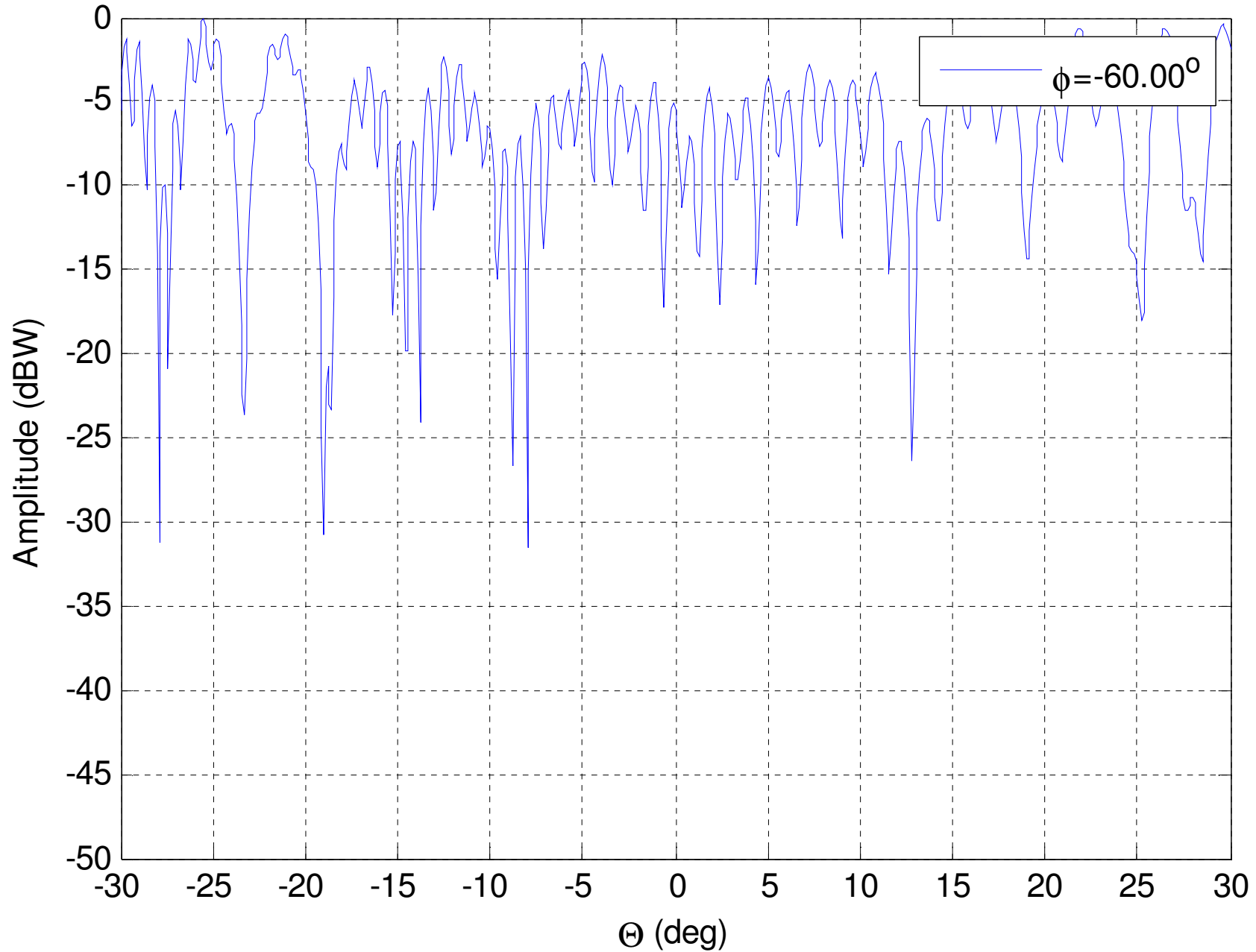
Input file: tx-17.3-rhcp-60.cut, Peak: -1.89 dBW, Date: 16-Dec-2011



LHCP at 17.3 GHz

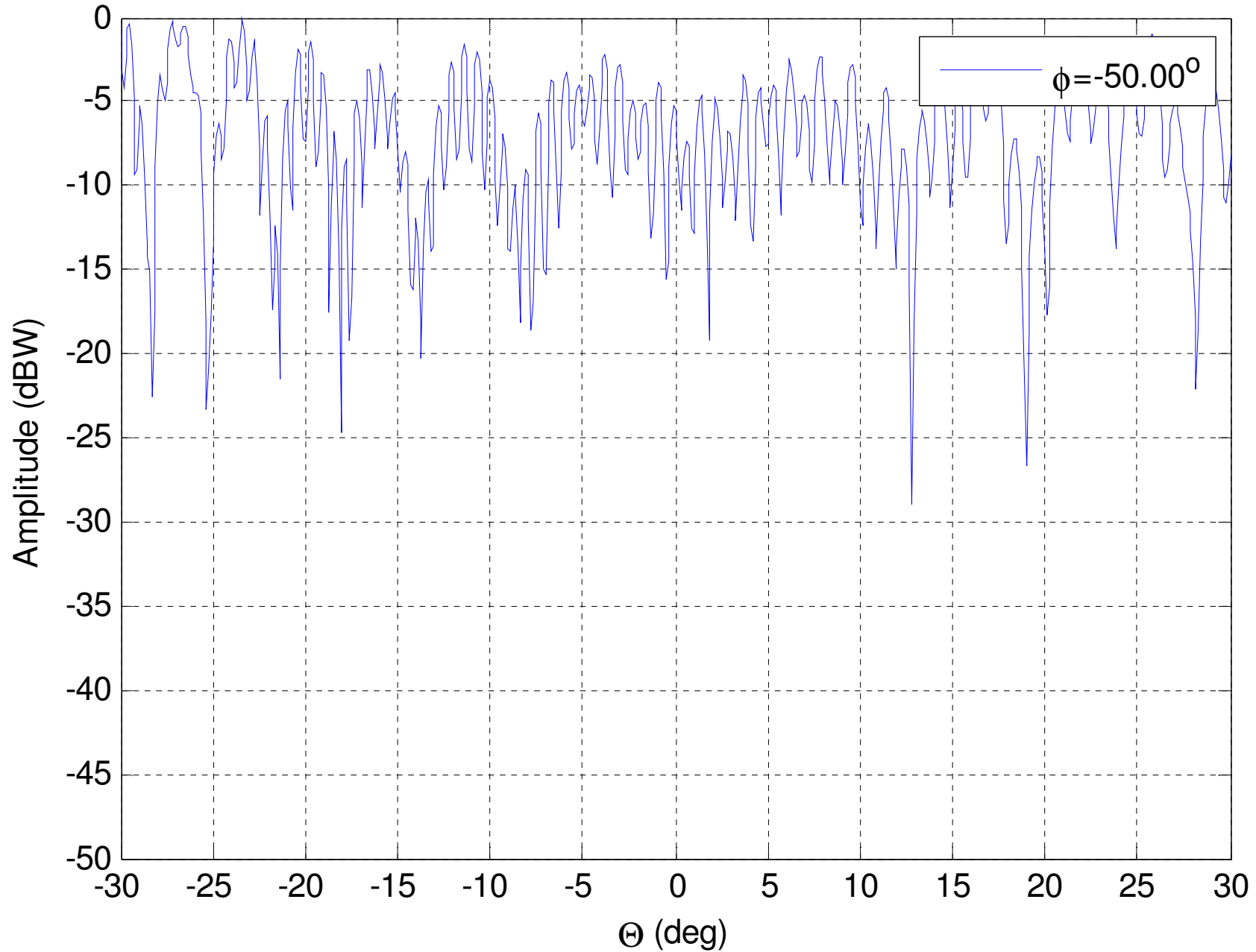
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp--60.cut, Peak: -0.52 dBW, Date: 16-Dec-2011



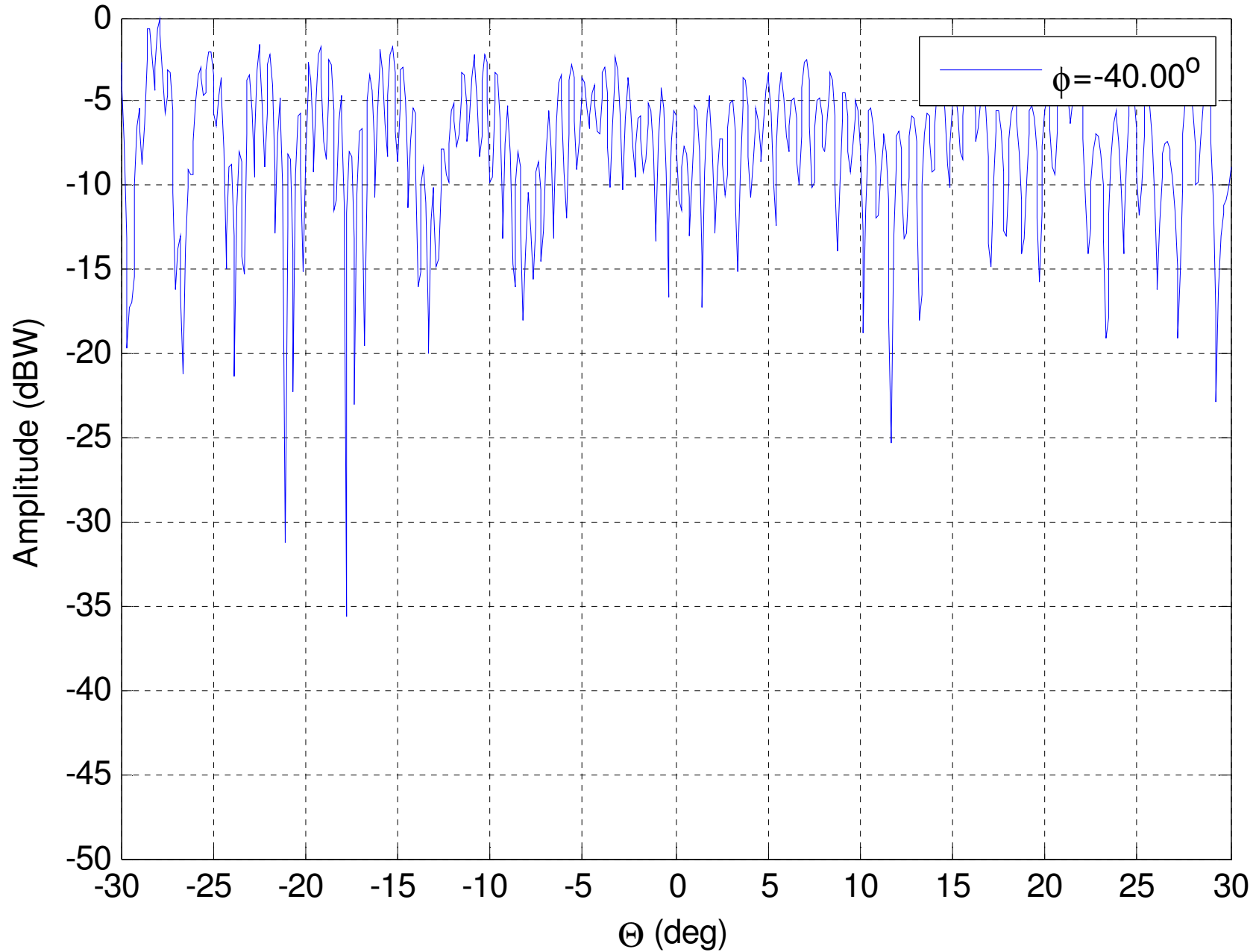
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp--50.cut, Peak: -0.44 dBW, Date: 16-Dec-2011



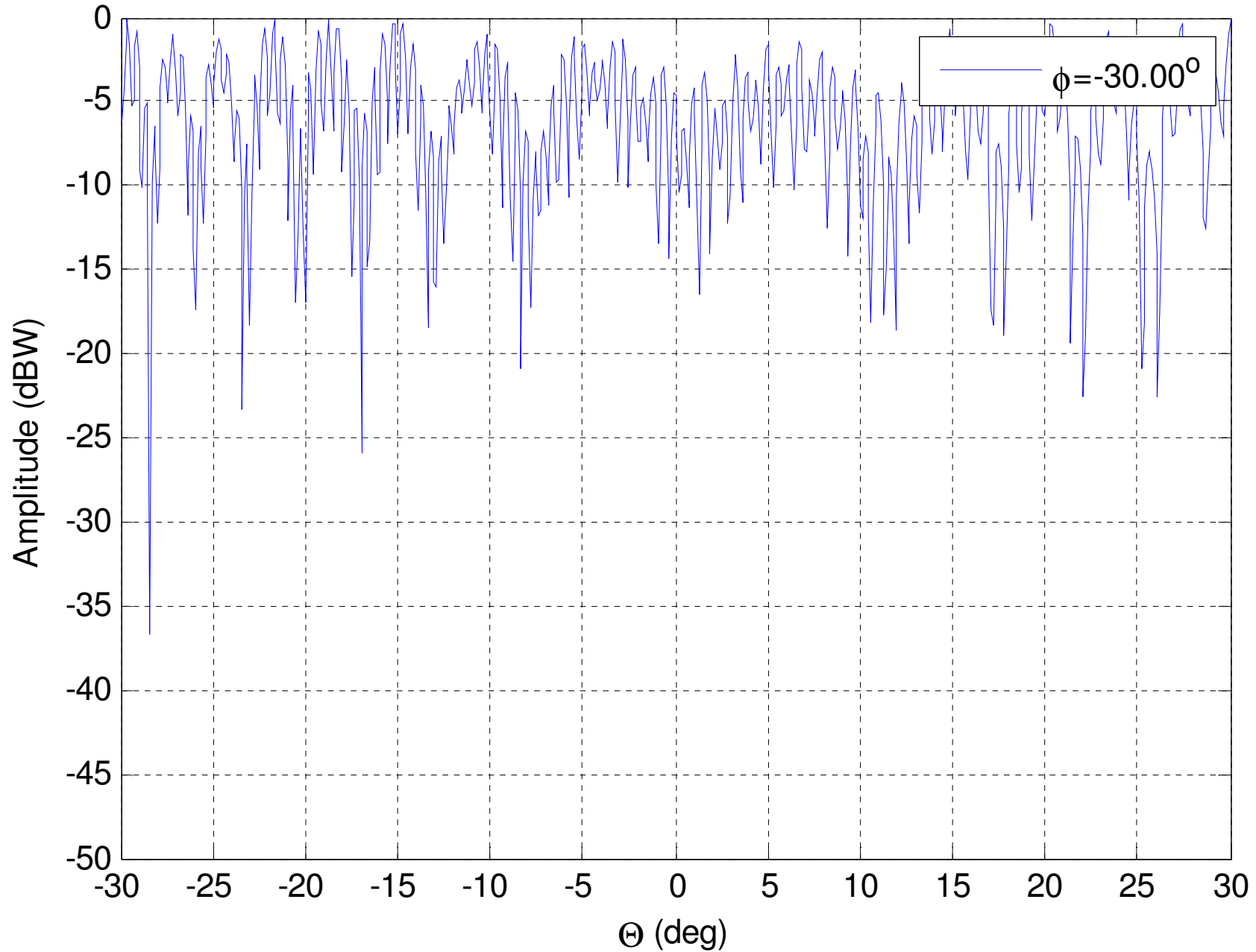
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp--40.cut, Peak: -0.23 dBW, Date: 16-Dec-2011



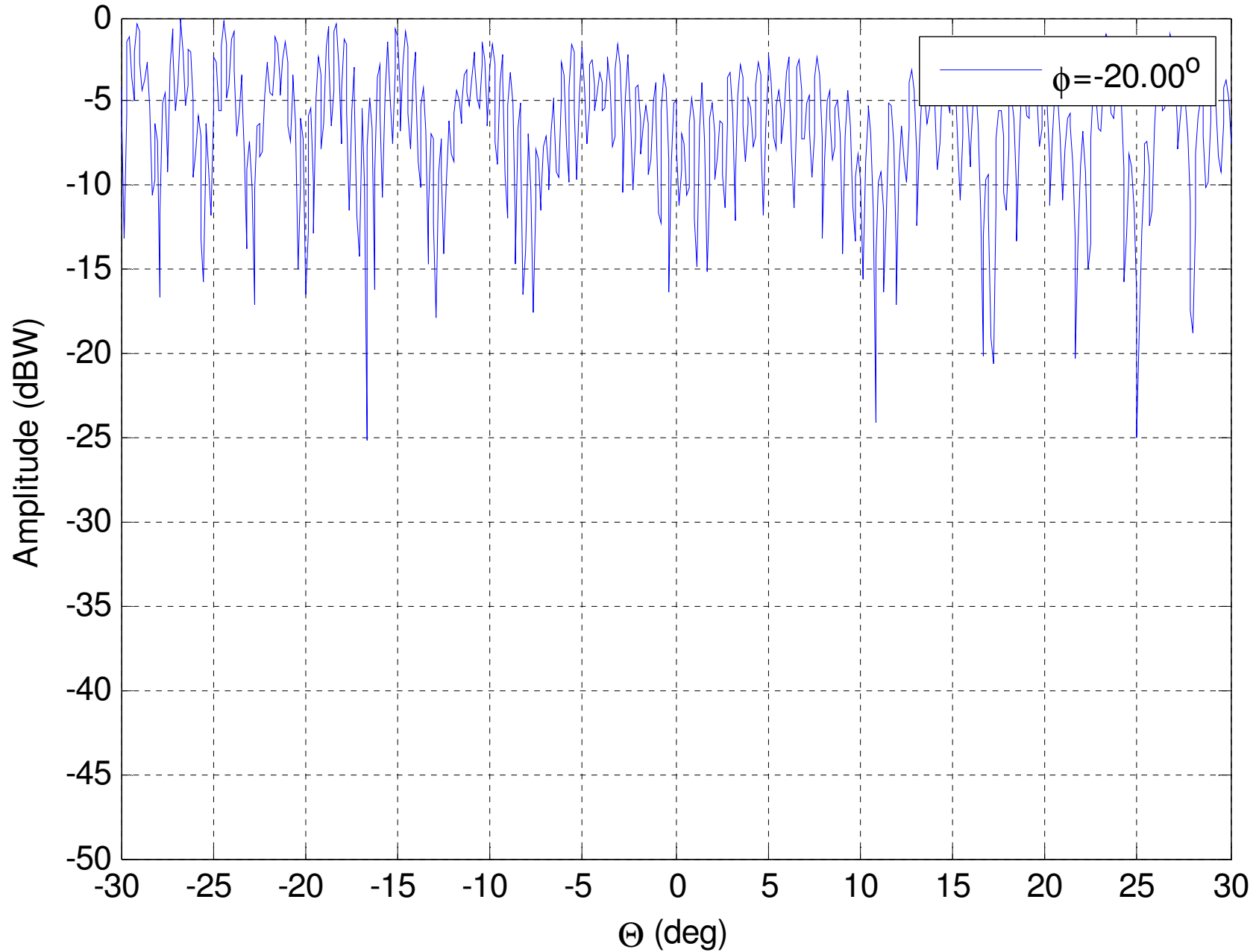
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp--30.cut, Peak: -1.47 dBW, Date: 16-Dec-2011



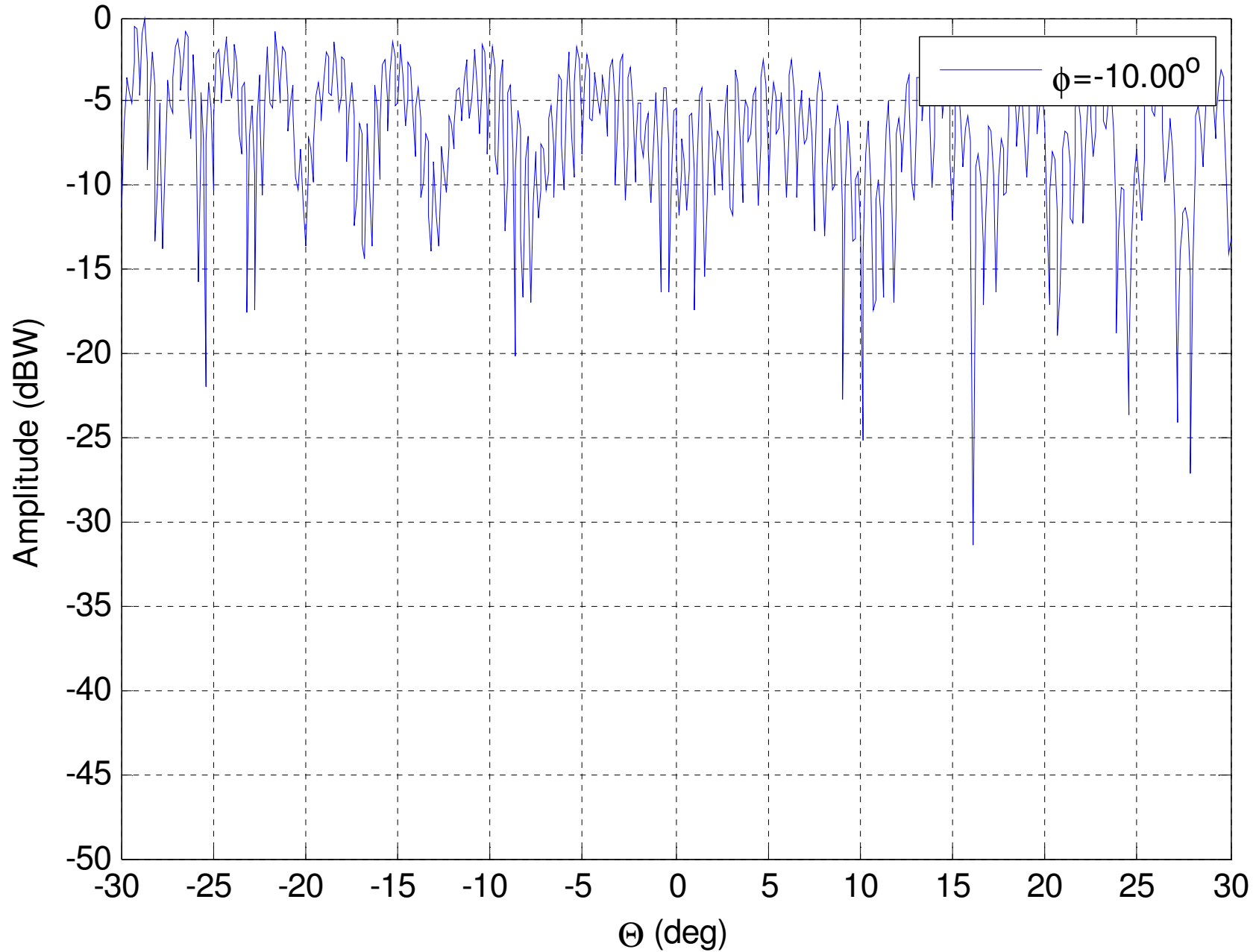
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp--20.cut, Peak: -1.03 dBW, Date: 16-Dec-2011



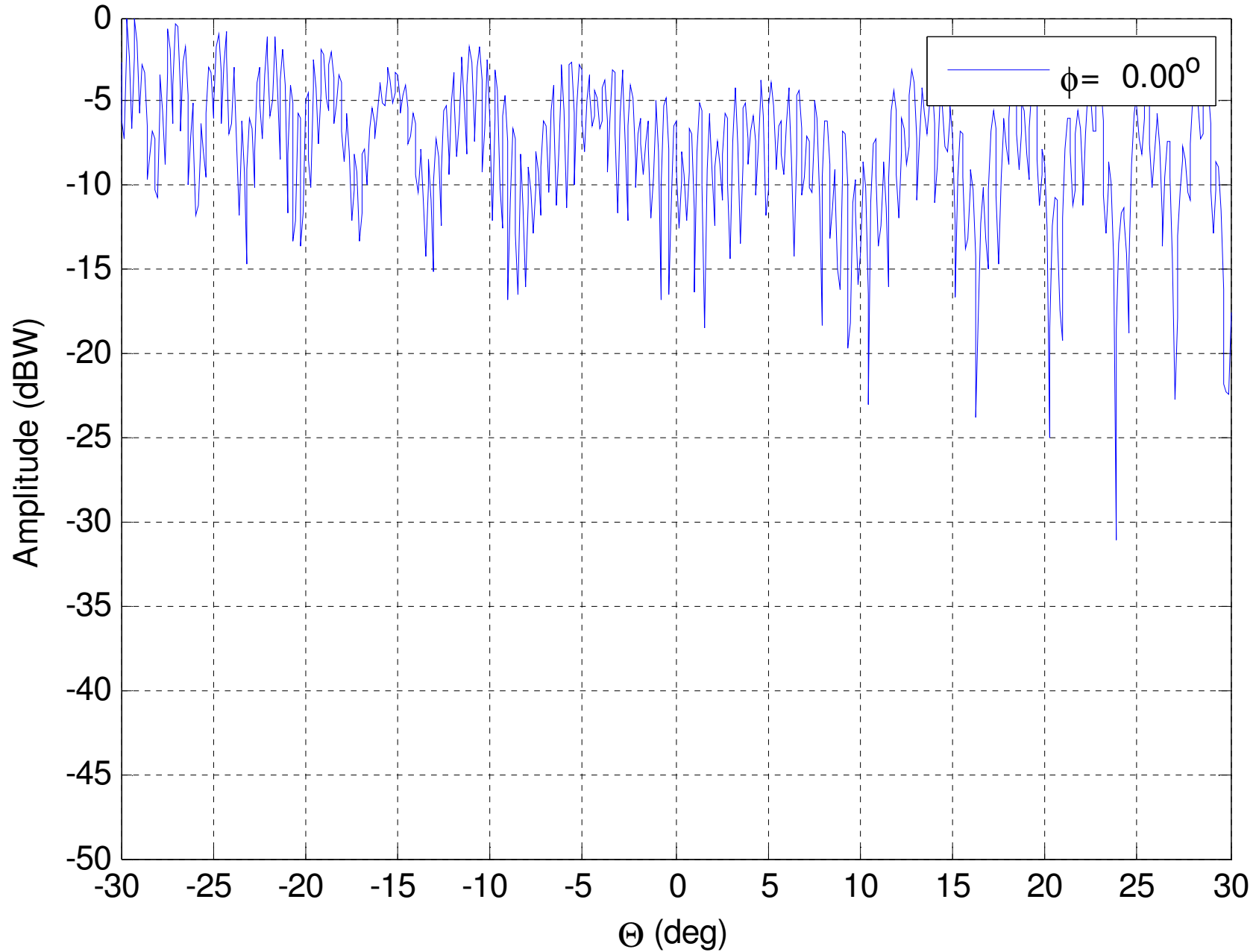
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp--10.cut, Peak: -0.61 dBW, Date: 16-Dec-2011



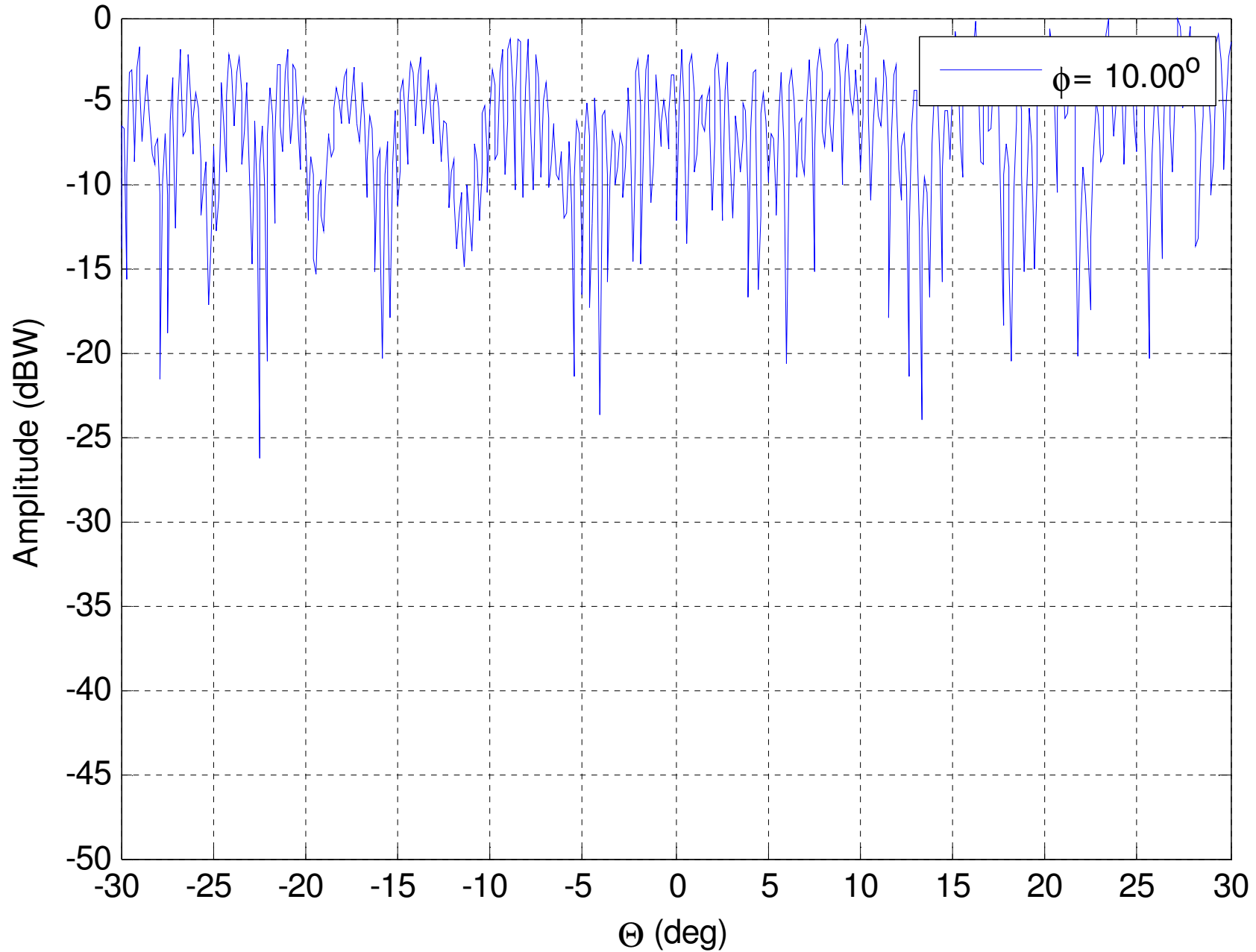
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp-0.cut, Peak: 0.14 dBW, Date: 16-Dec-2011



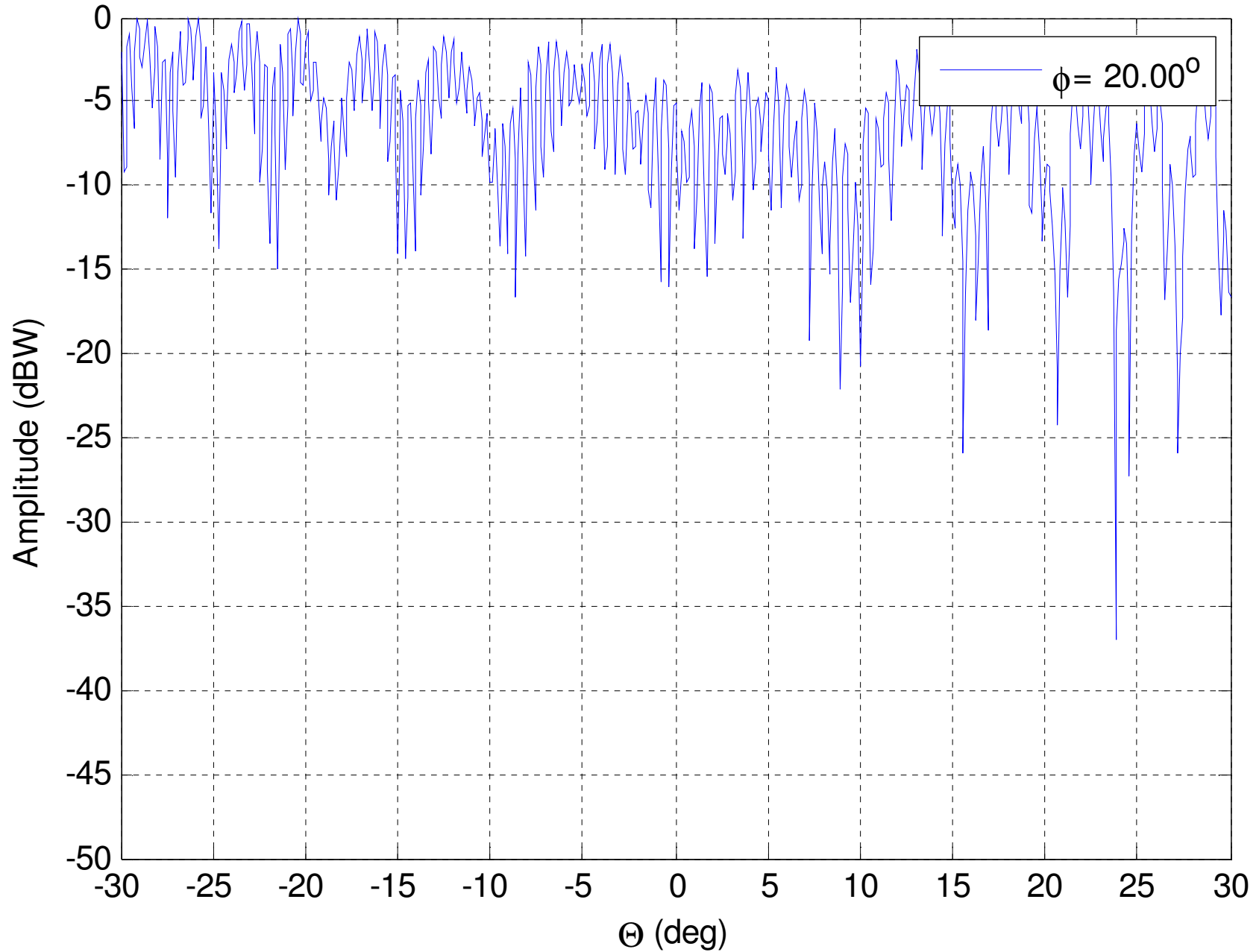
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp-10.cut, Peak: -0.99 dBW, Date: 16-Dec-2011



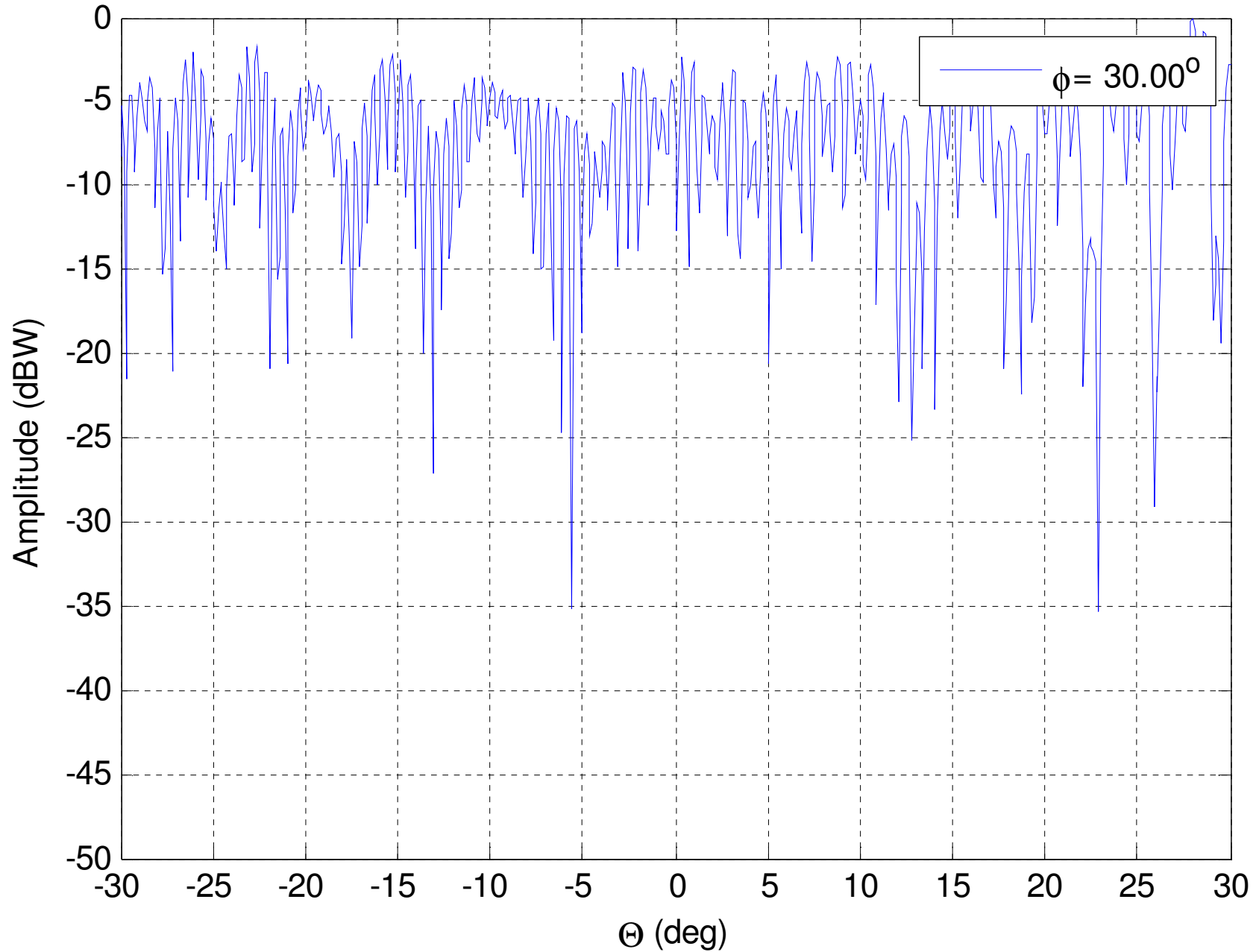
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp-20.cut, Peak: -1.01 dBW, Date: 16-Dec-2011



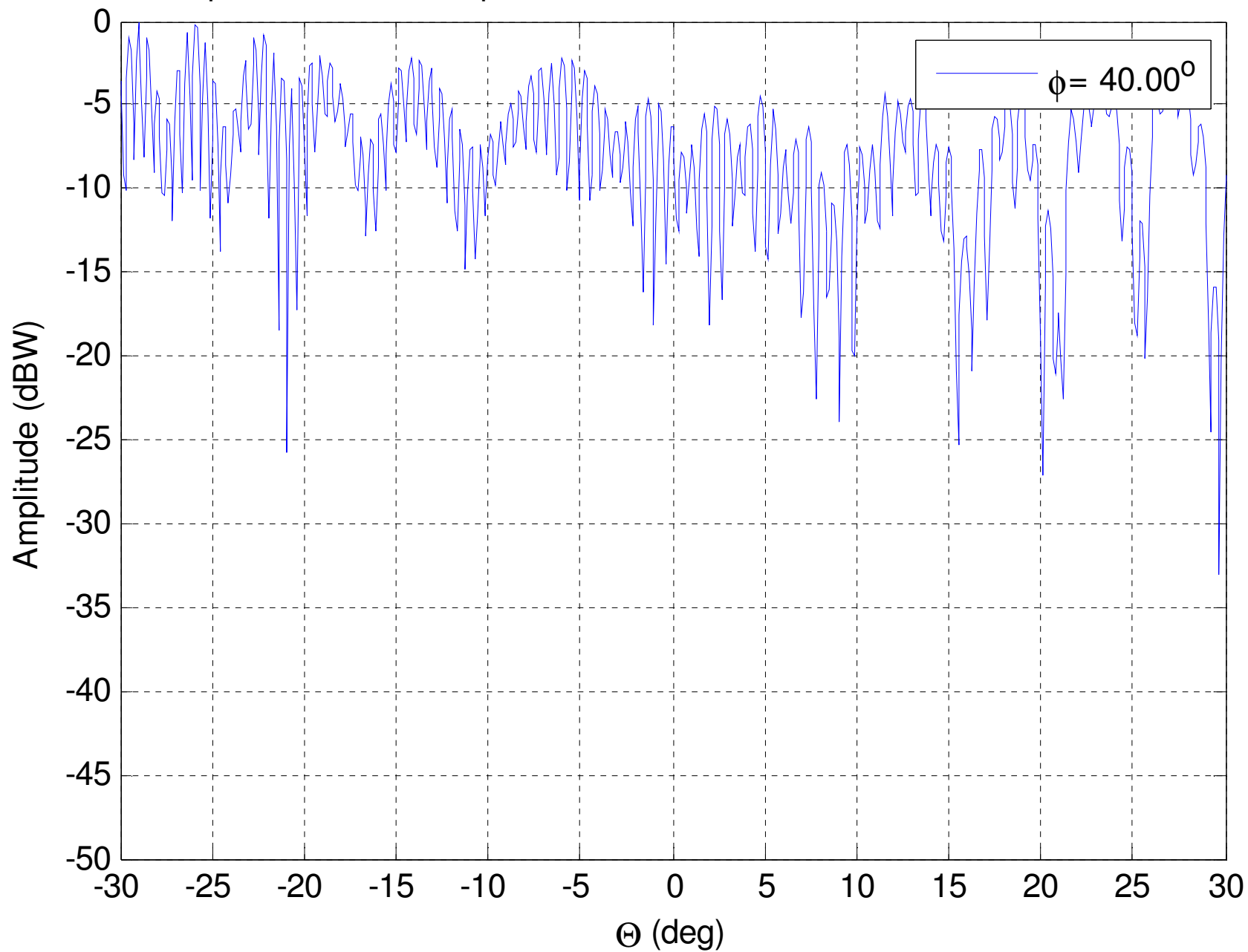
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp-30.cut, Peak: -0.28 dBW, Date: 16-Dec-2011



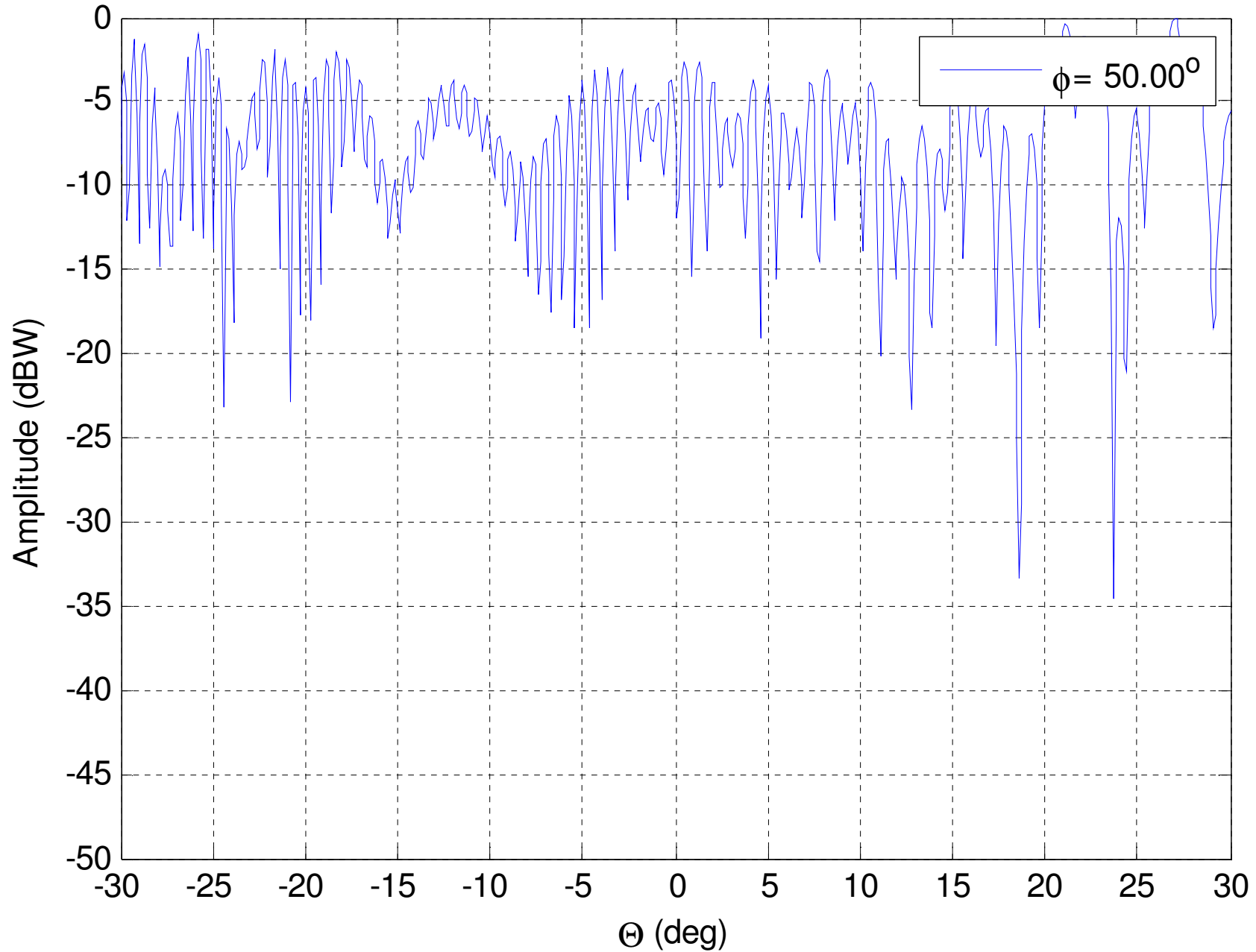
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp-40.cut, Peak: 0.25 dBW, Date: 16-Dec-2011



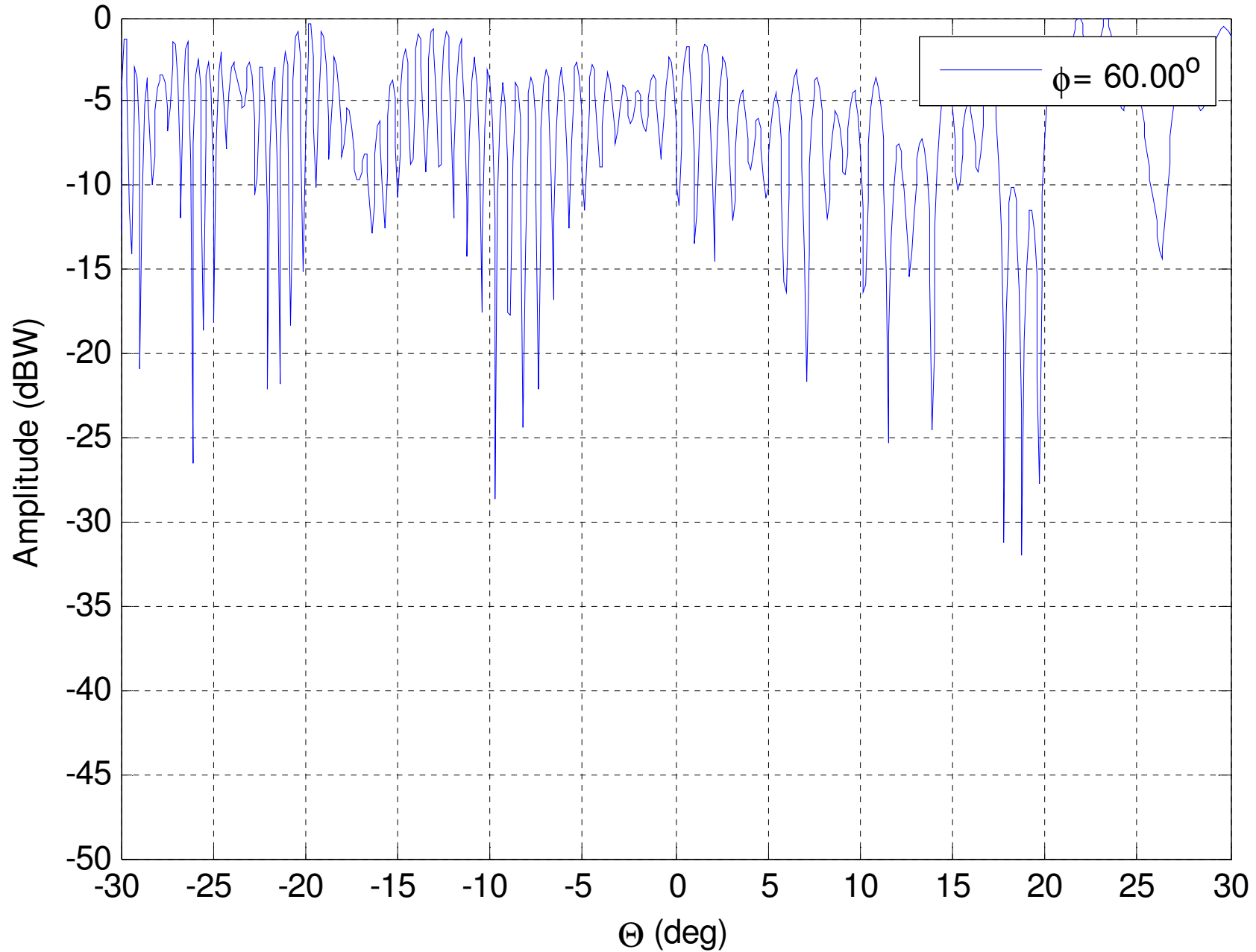
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp-50.cut, Peak: -0.21 dBW, Date: 16-Dec-2011



Normalized pattern cuts - farfield

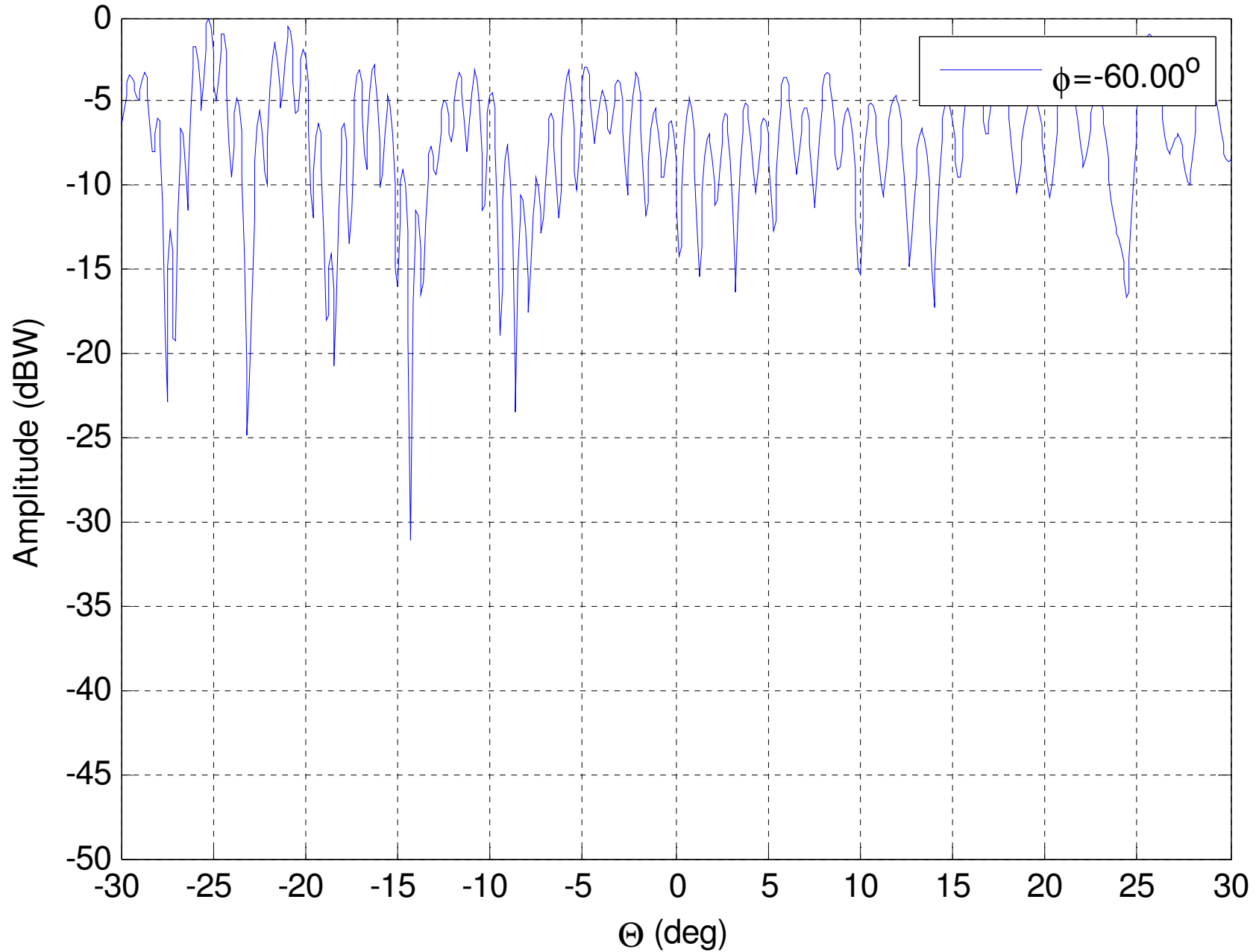
Input file: tx-17.3-lhcp-60.cut, Peak: -1.34 dBW, Date: 16-Dec-2011



RHCP at 17.5 GHz

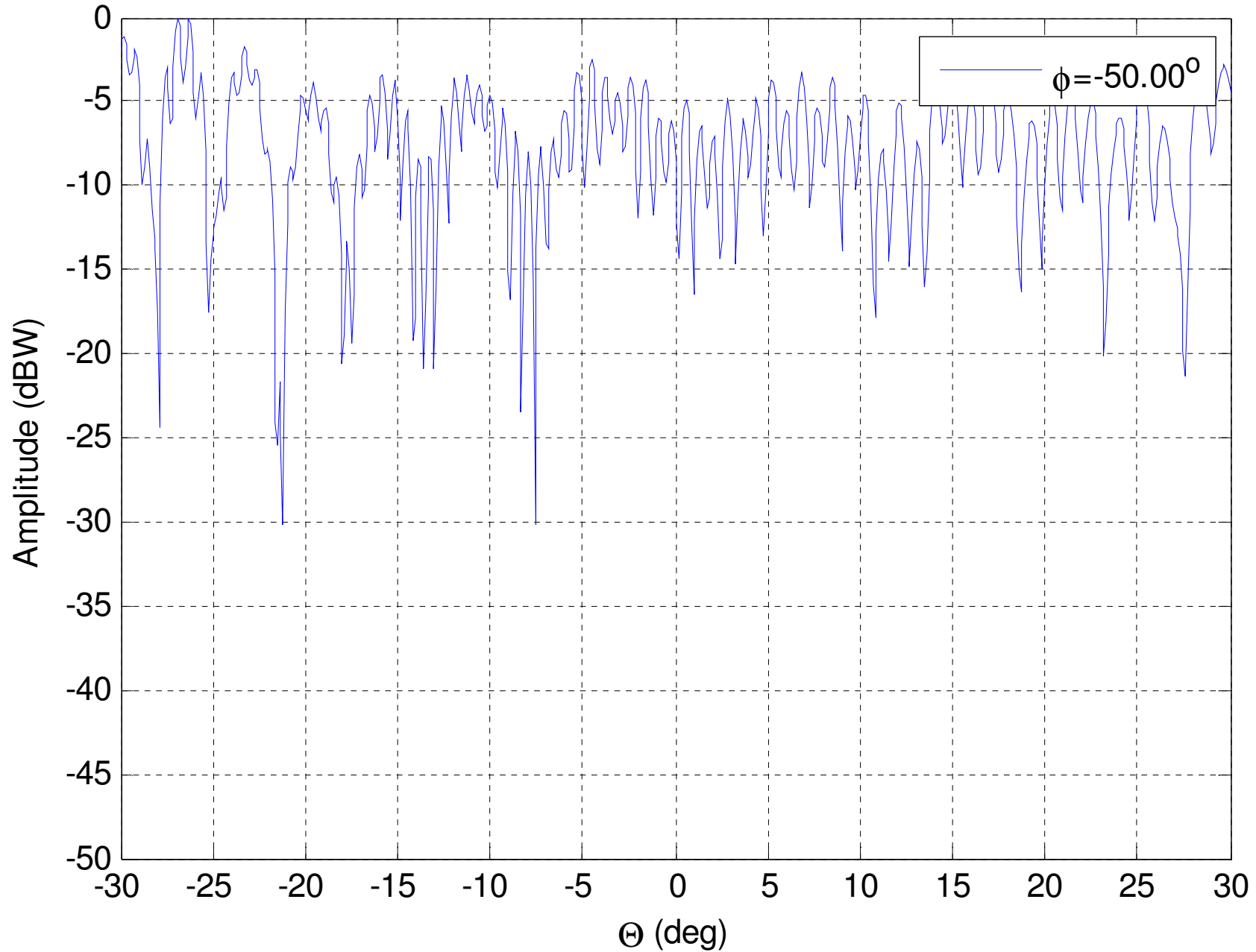
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--60.cut, Peak: -0.26 dBW, Date: 16-Dec-2011



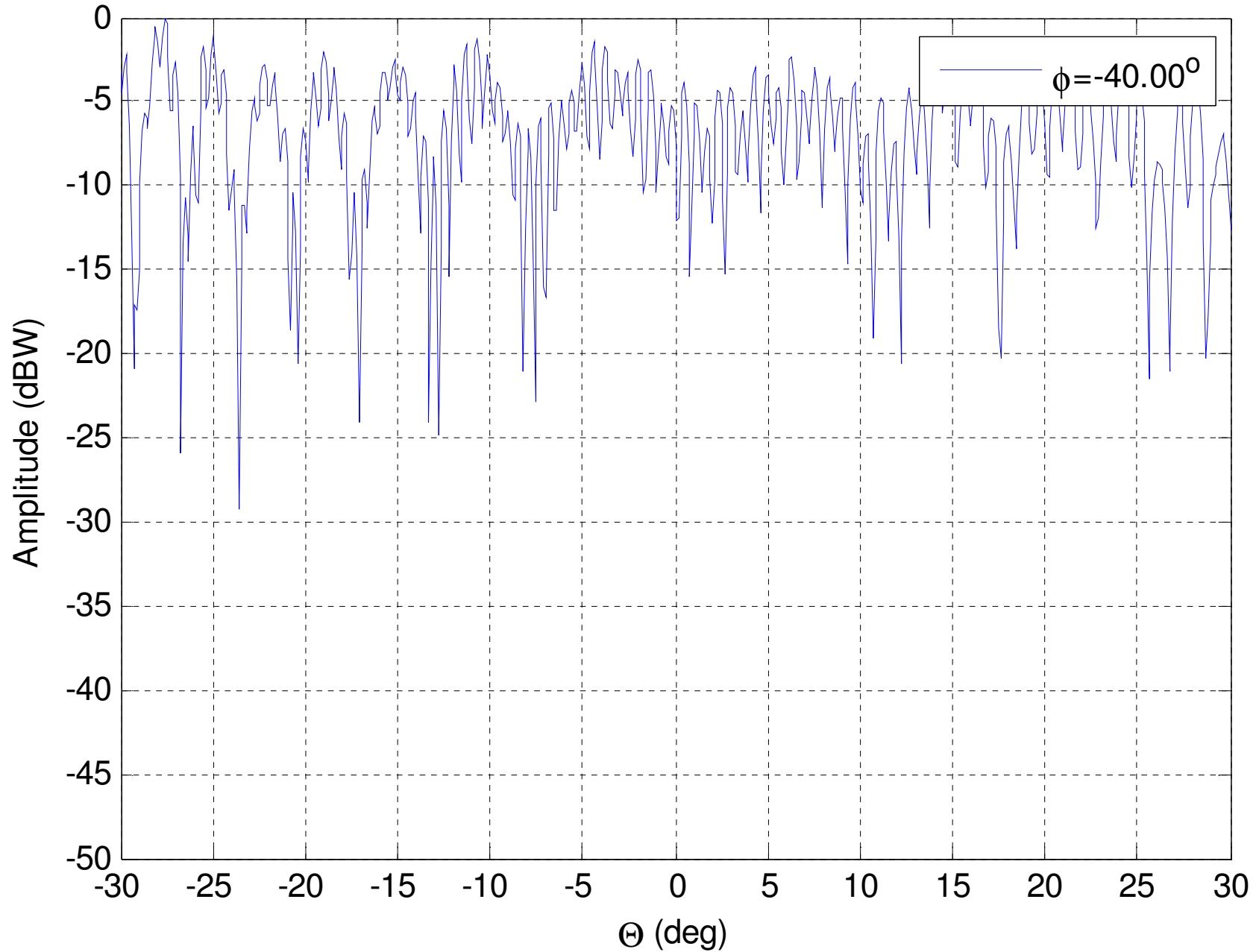
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--50.cut, Peak: -0.15 dBW, Date: 16-Dec-2011



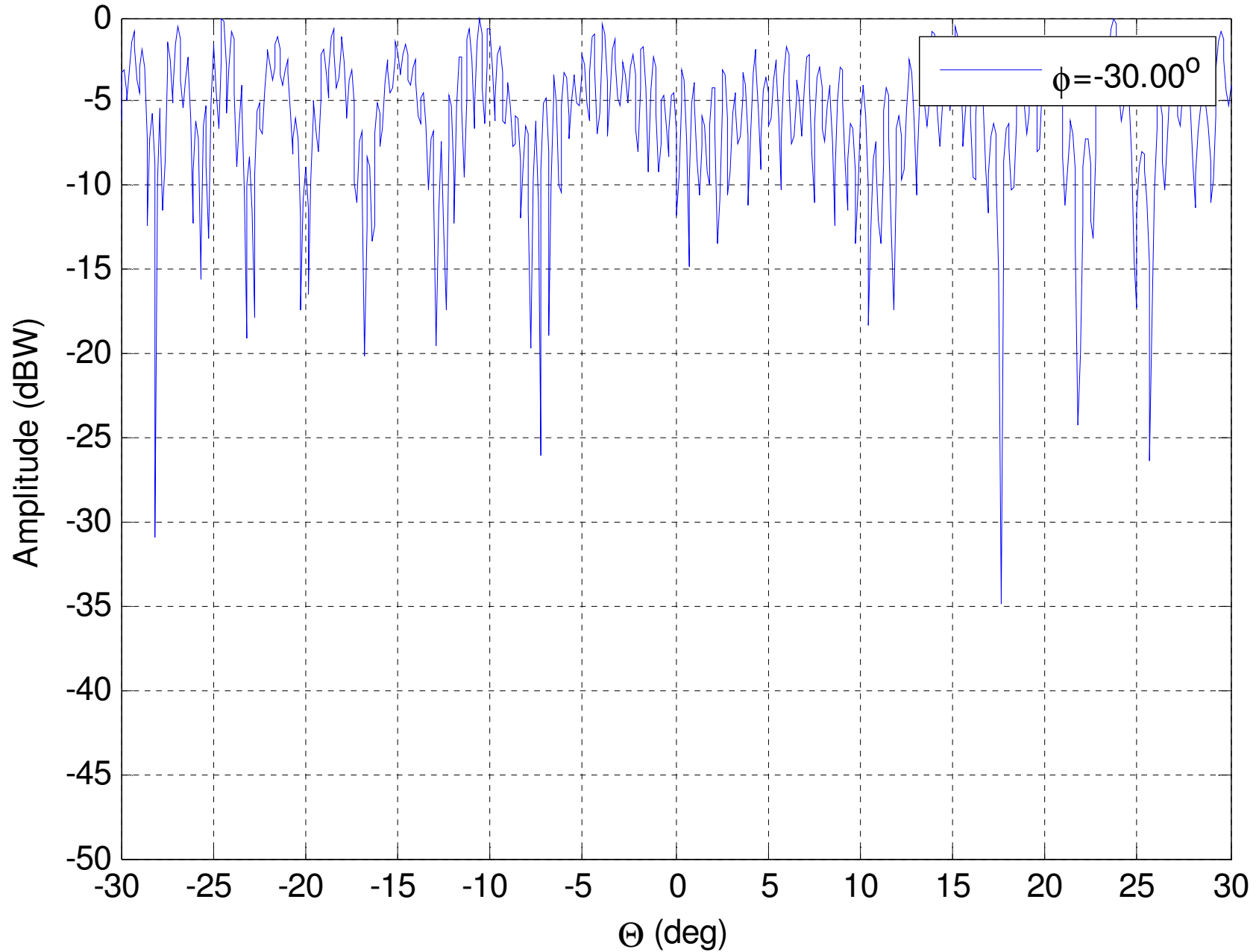
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--40.cut, Peak: -1.17 dBW, Date: 16-Dec-2011



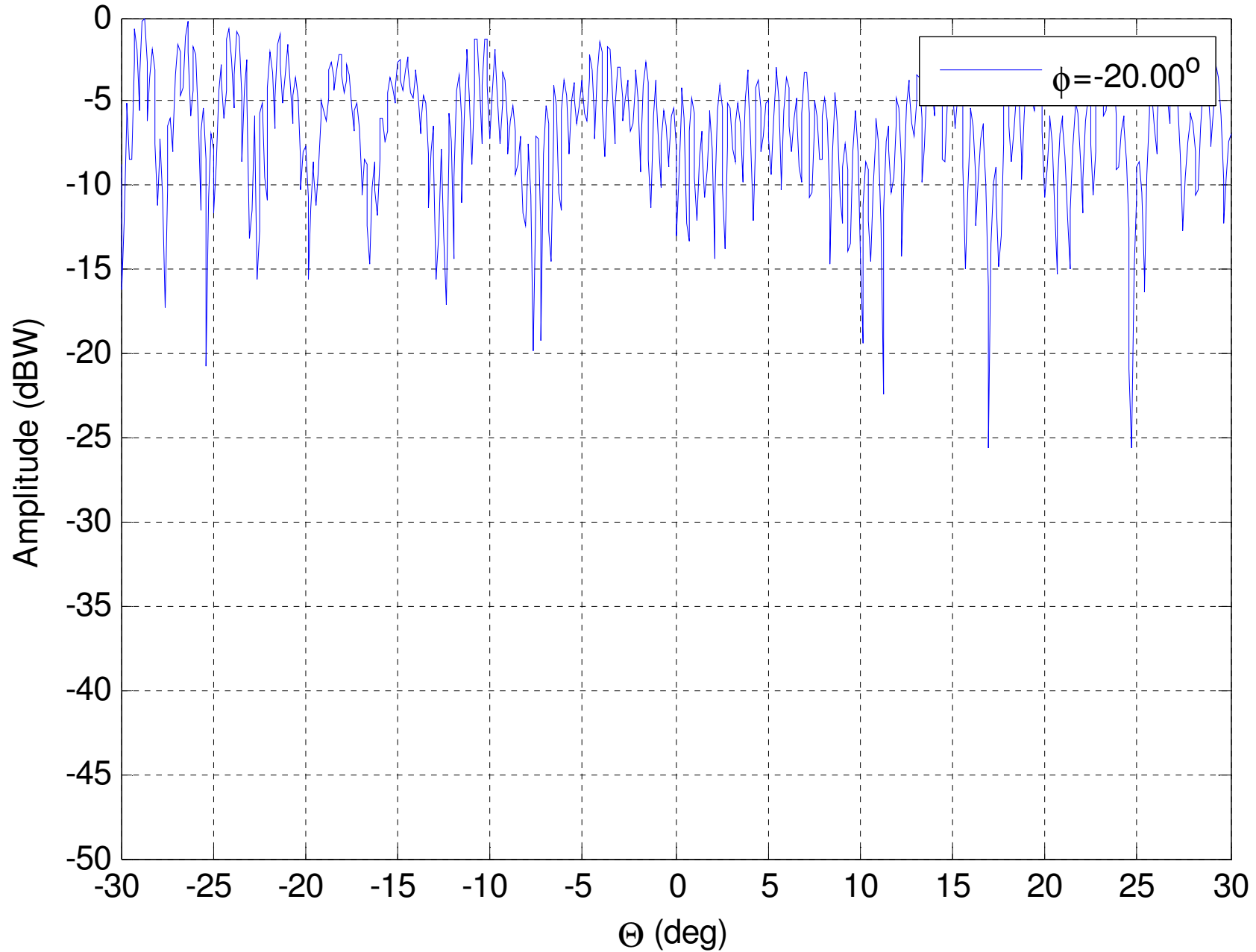
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--30.cut, Peak: -2.00 dBW, Date: 16-Dec-2011



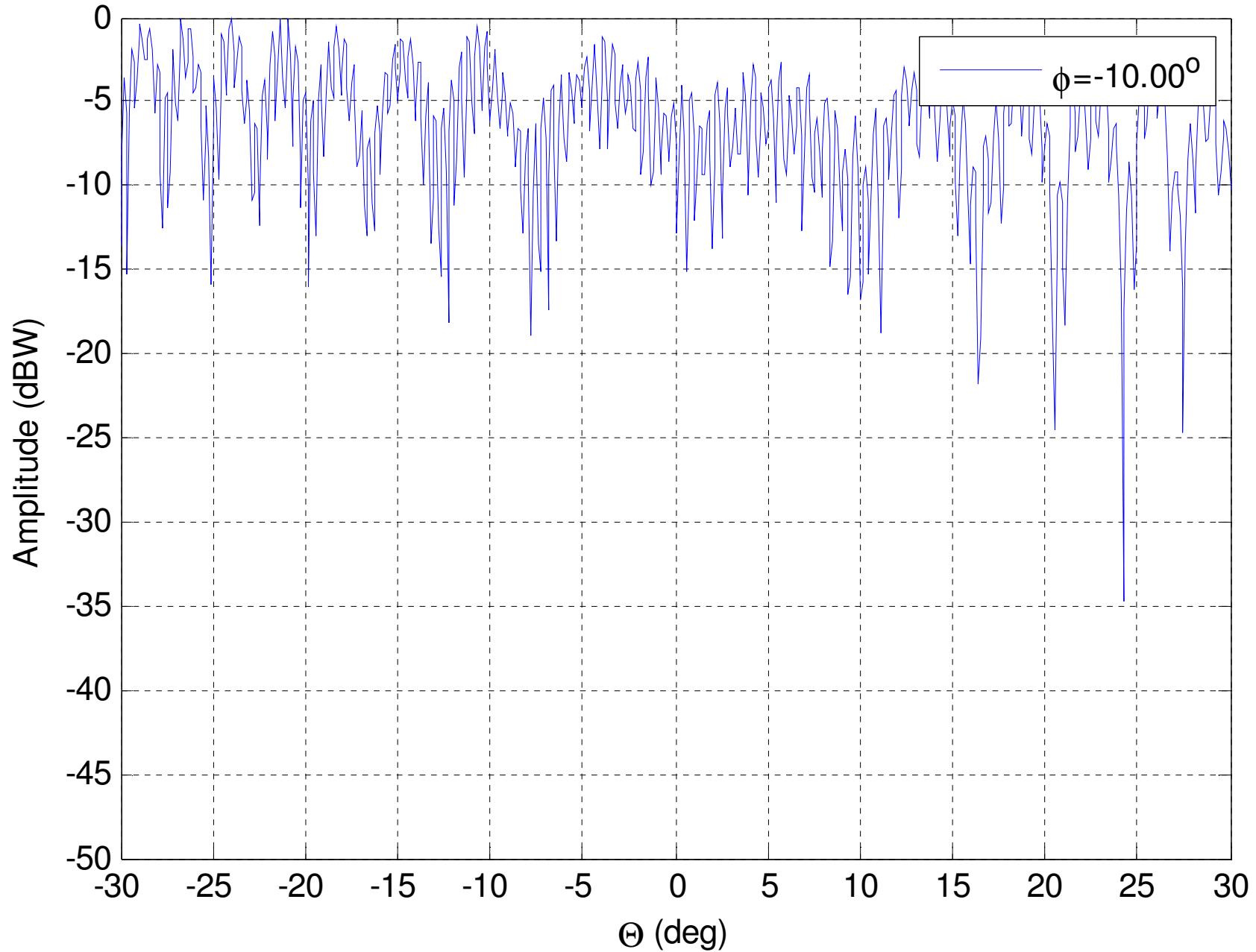
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--20.cut, Peak: -1.01 dBW, Date: 16-Dec-2011



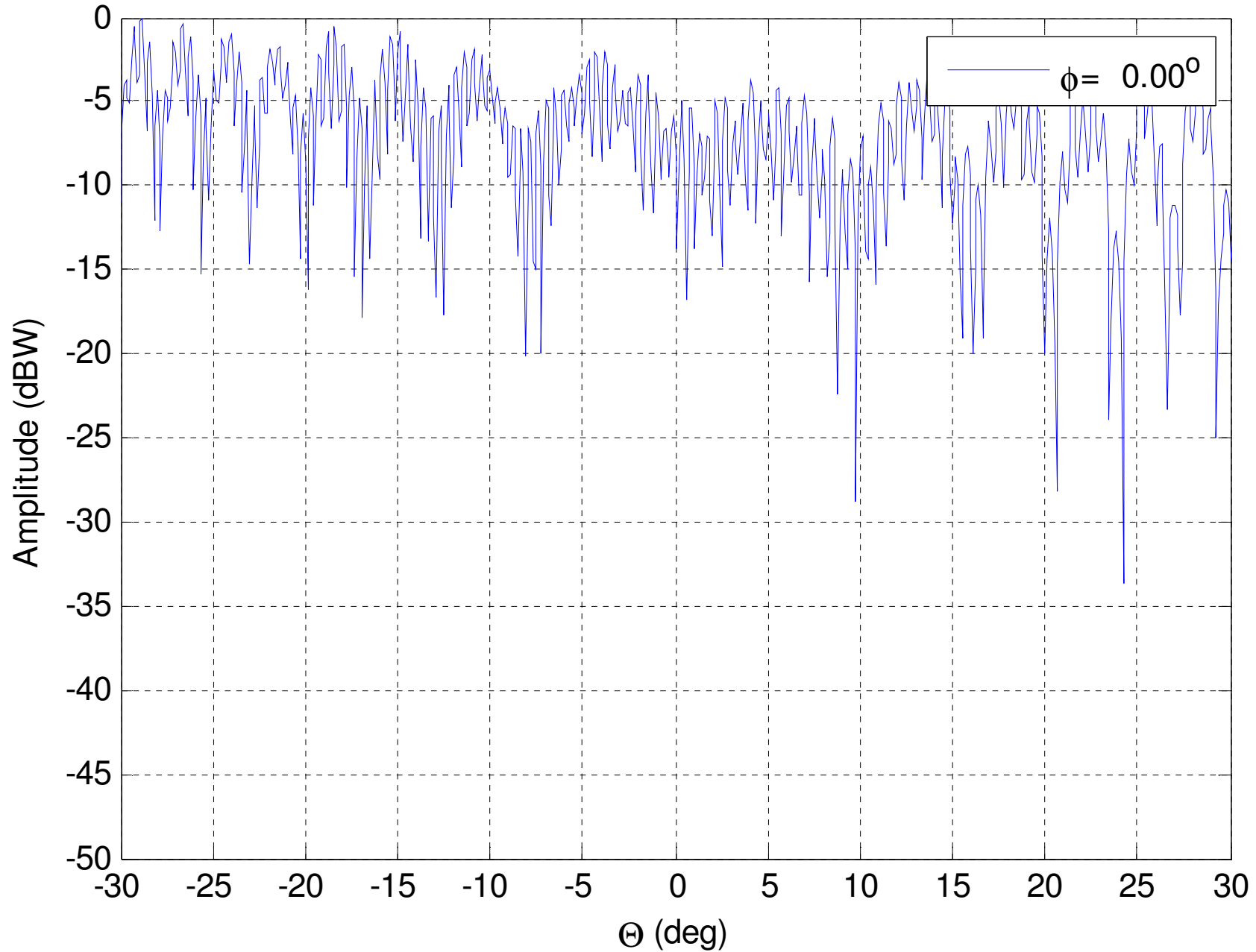
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--10.cut, Peak: -1.30 dBW, Date: 16-Dec-2011



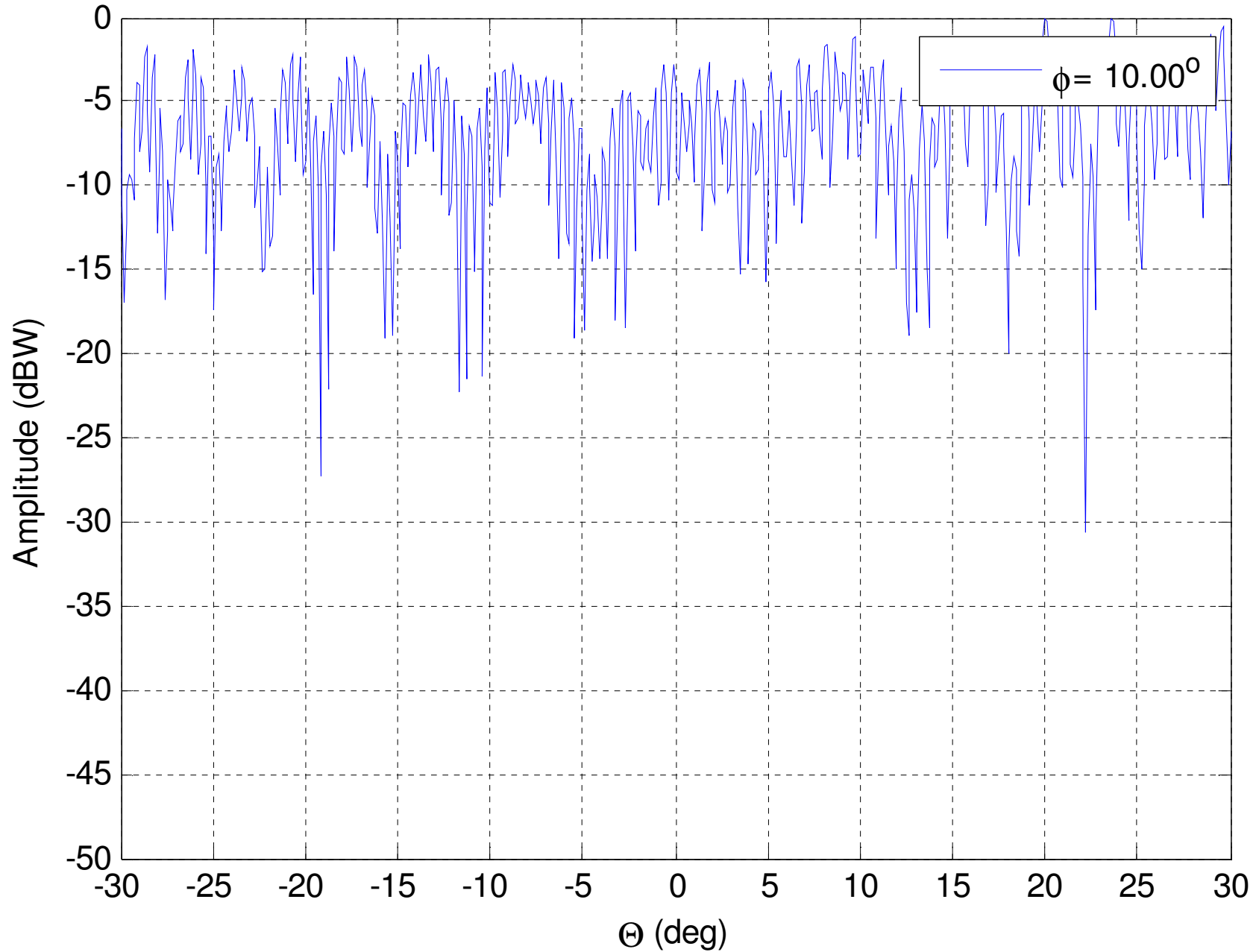
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-0.cut, Peak: -0.43 dBW, Date: 16-Dec-2011



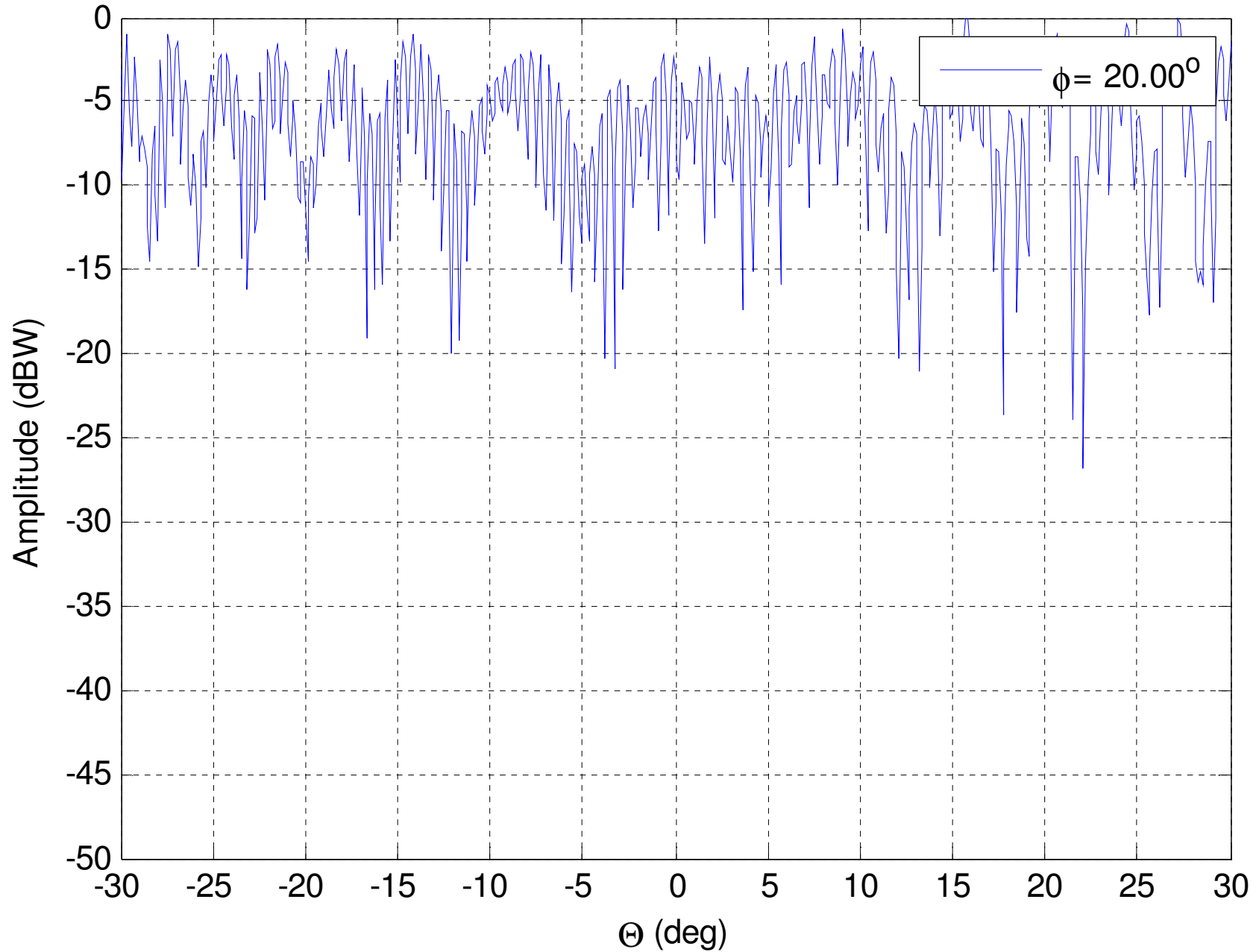
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-10.cut, Peak: -0.96 dBW, Date: 16-Dec-2011



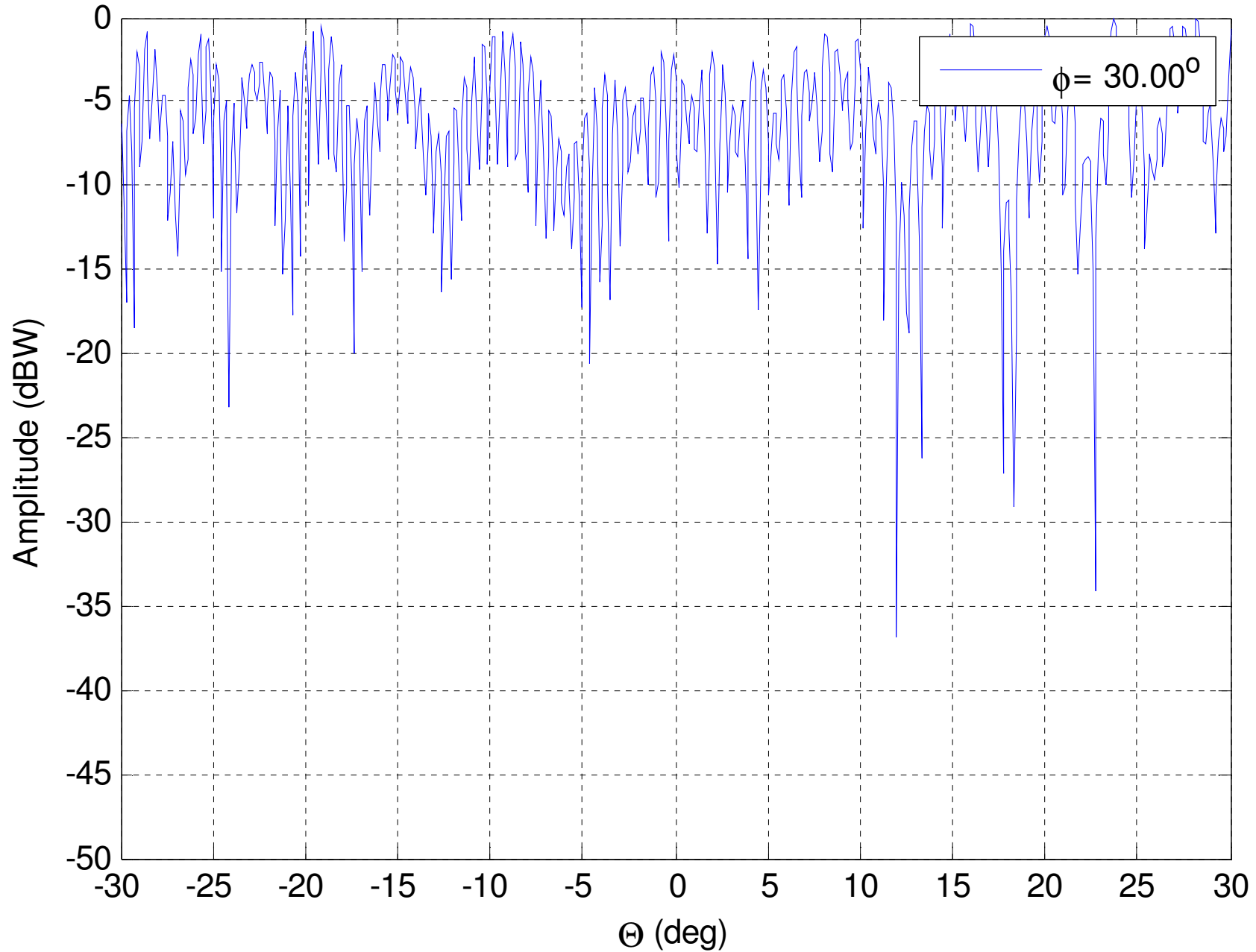
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-20.cut, Peak: -1.47 dBW, Date: 16-Dec-2011



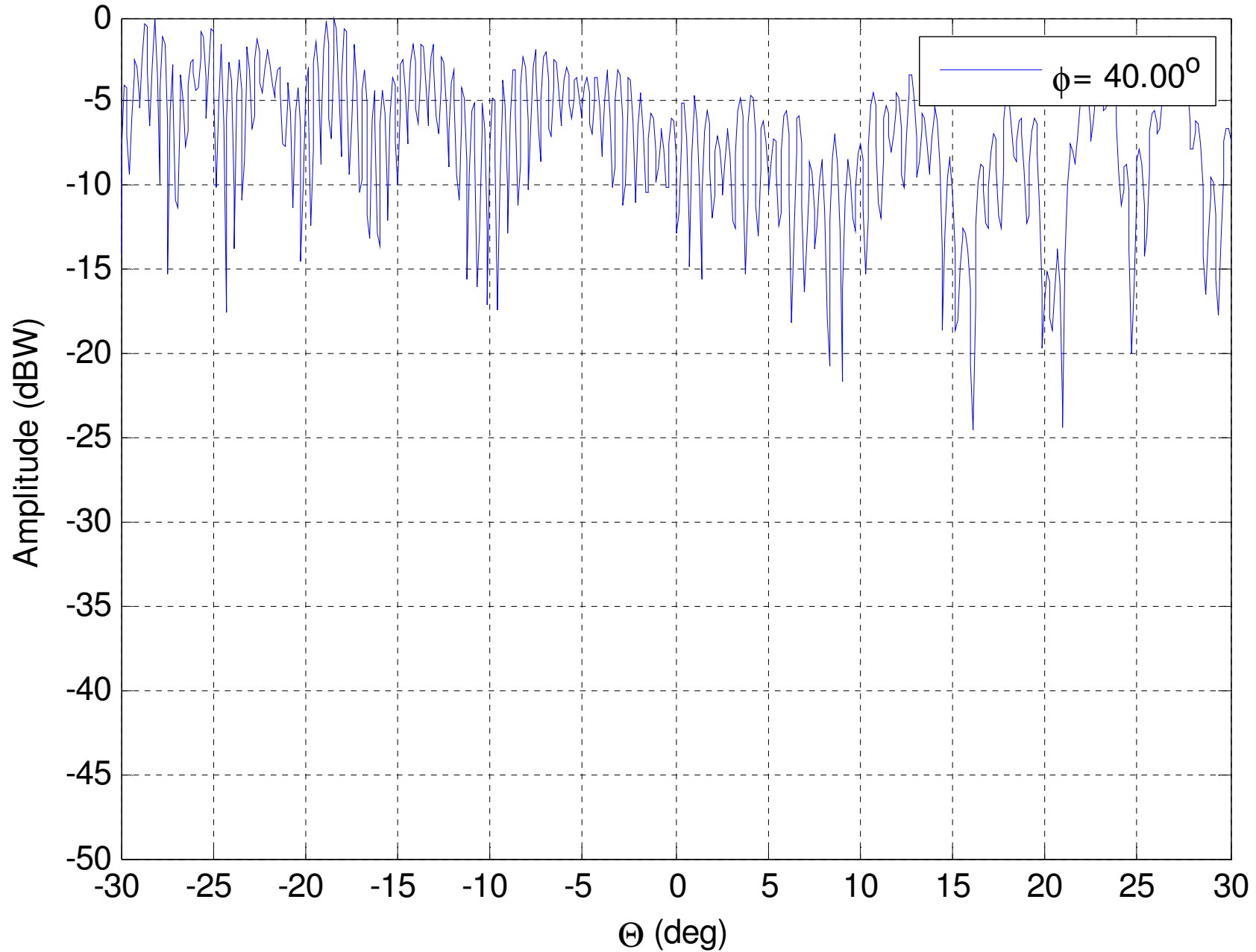
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-30.cut, Peak: -1.65 dBW, Date: 16-Dec-2011



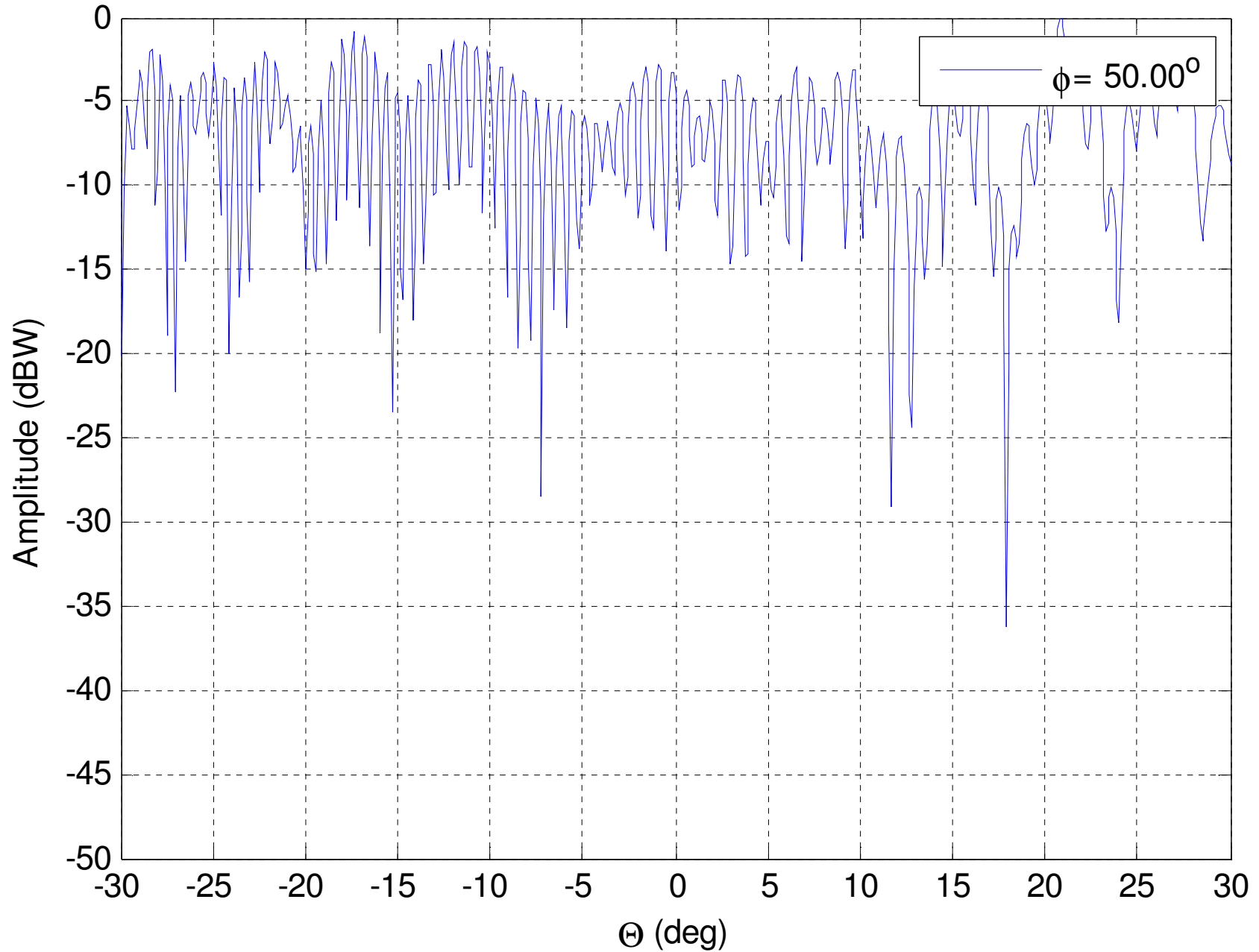
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-40.cut, Peak: -0.38 dBW, Date: 16-Dec-2011



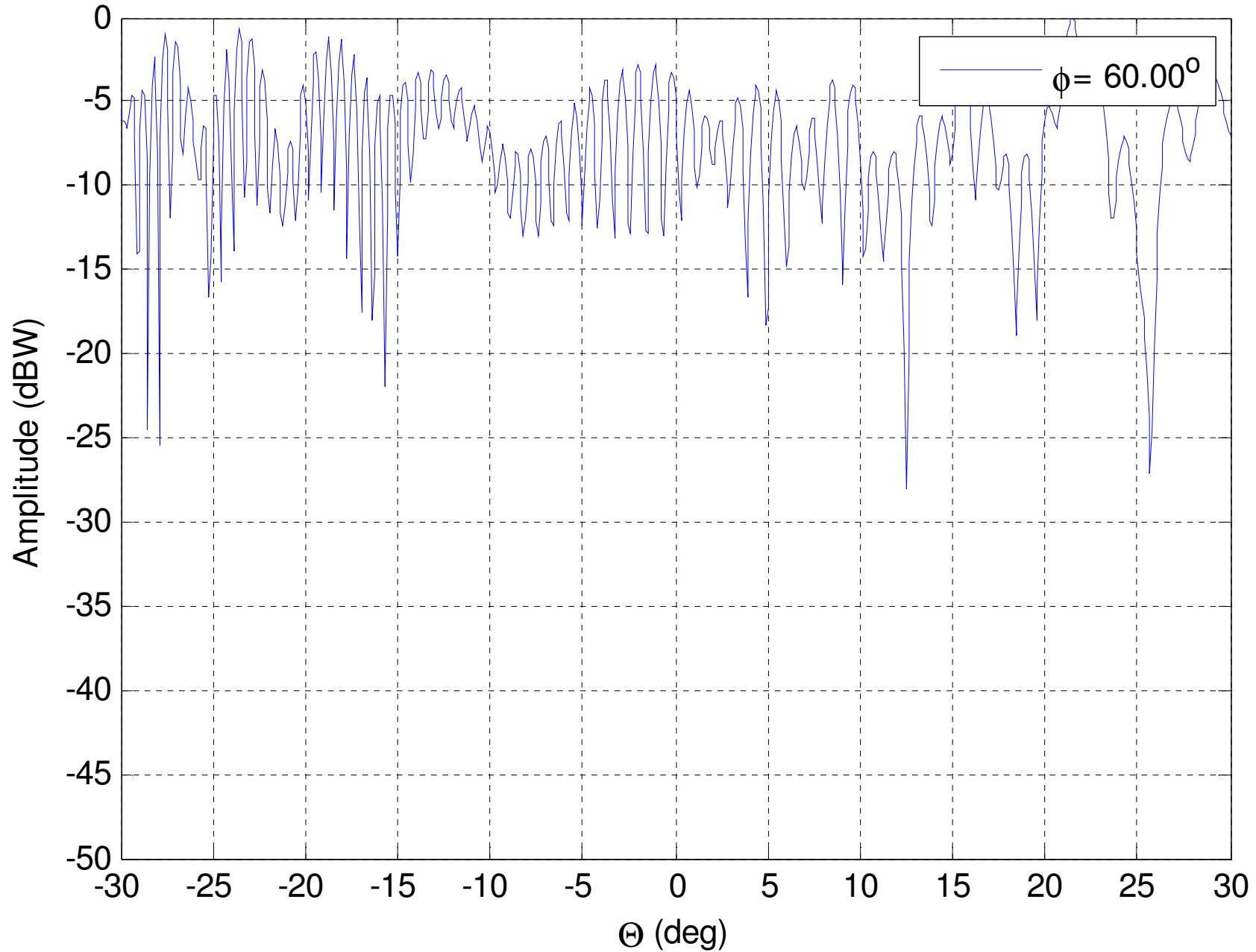
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-50.cut, Peak: -0.75 dBW, Date: 16-Dec-2011



Normalized pattern cuts - farfield

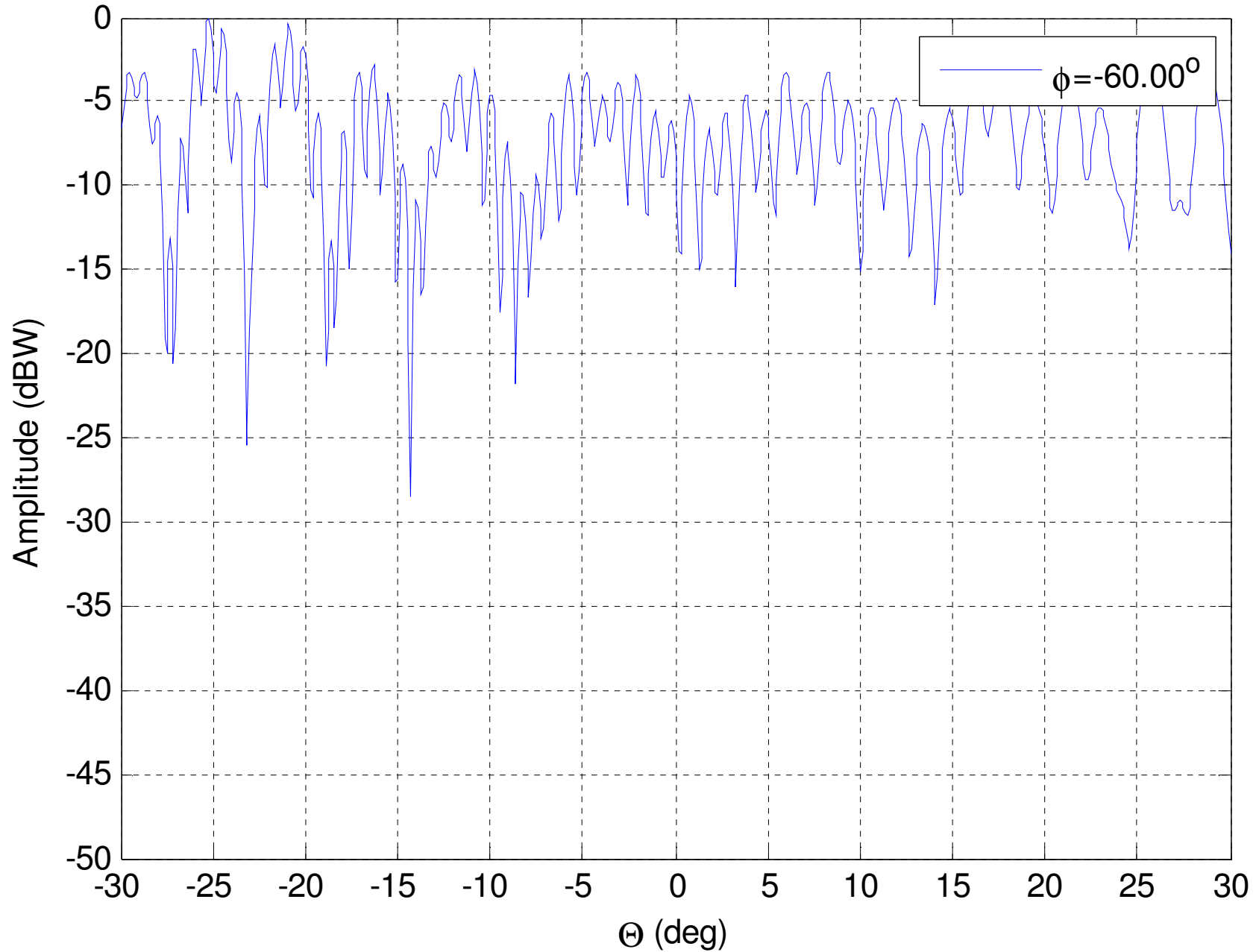
Input file: tx-17.5-rhcp-60.cut, Peak: -0.64 dBW, Date: 16-Dec-2011



LHCP at 17.5 GHz

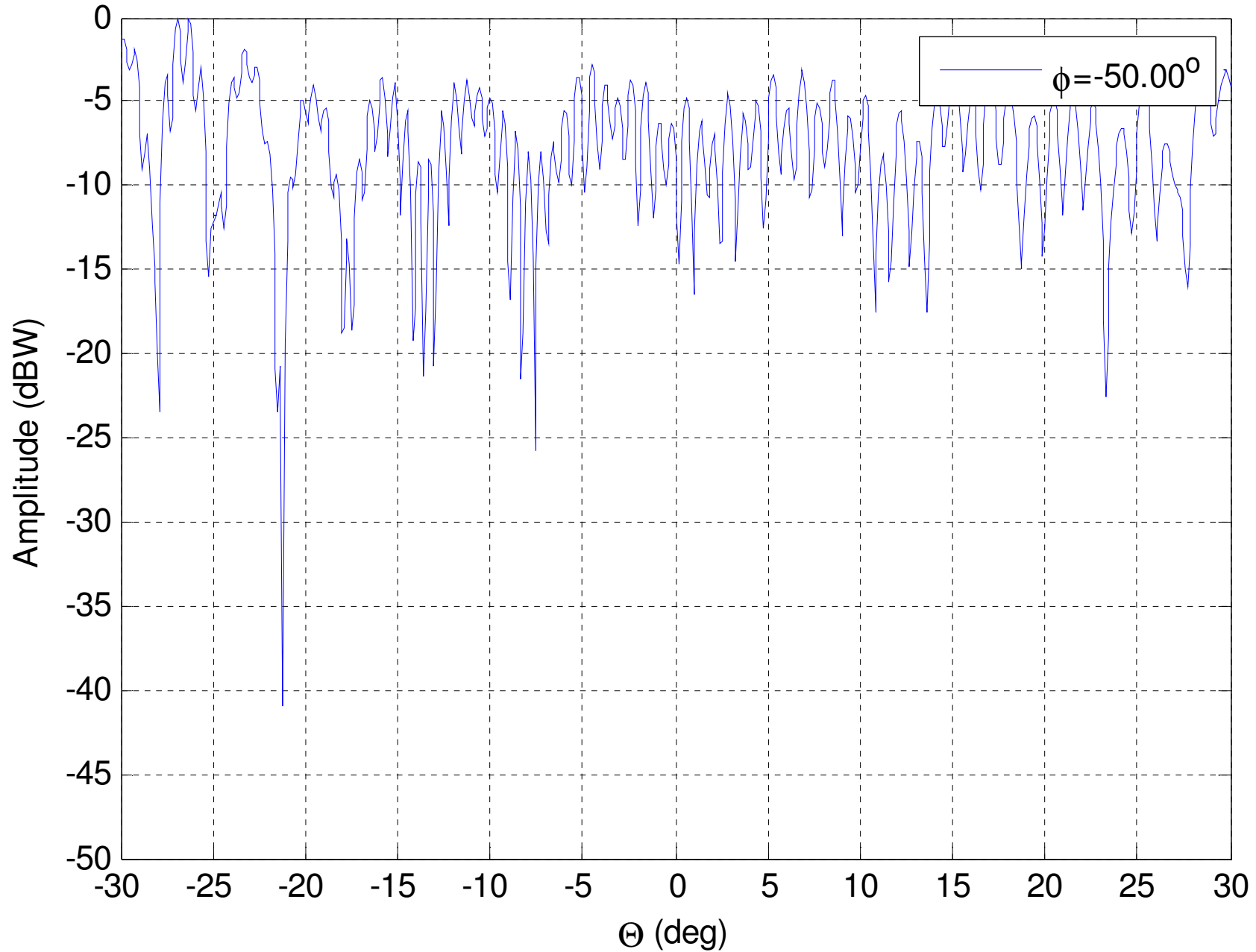
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--60.cut, Peak: -0.09 dBW, Date: 16-Dec-2011



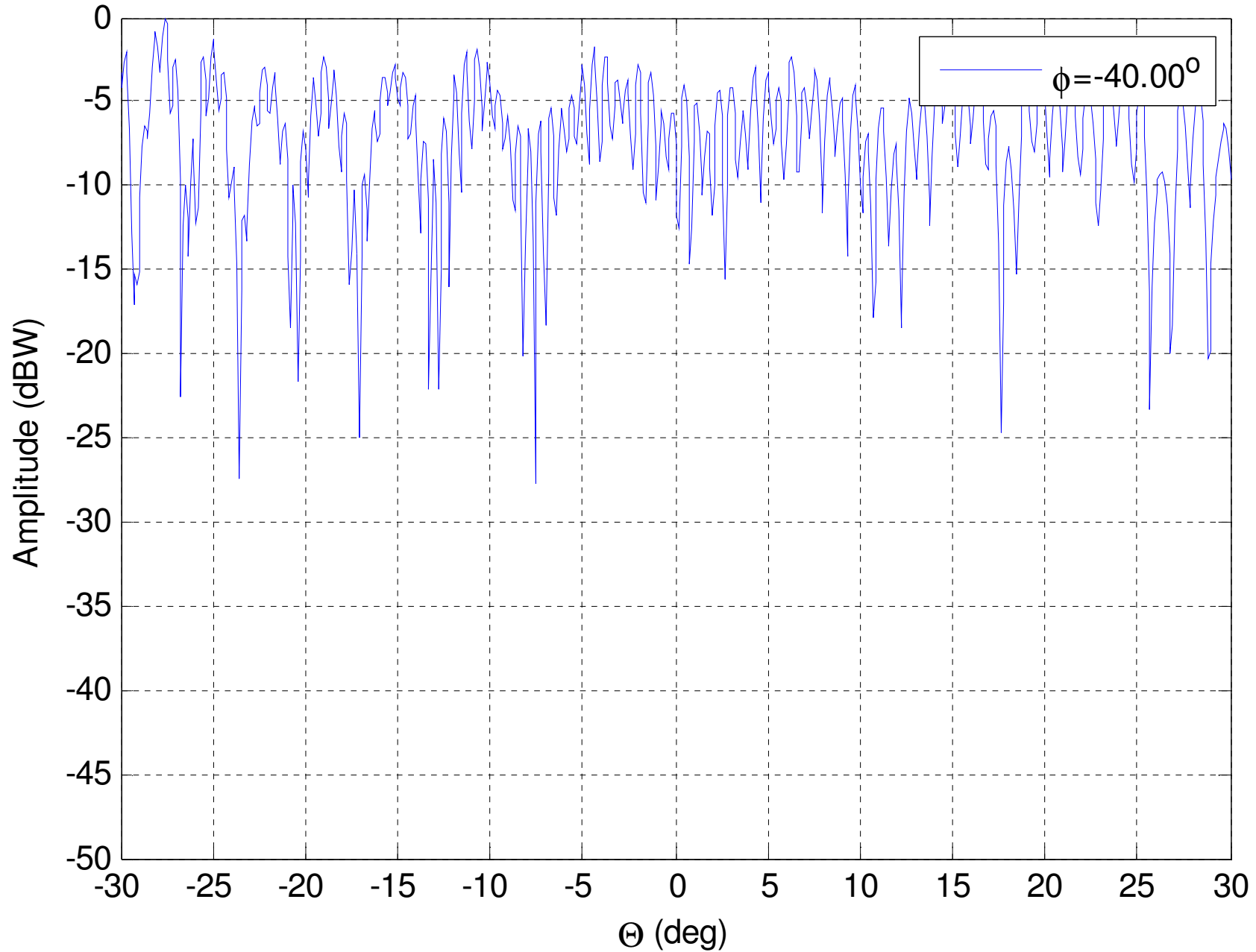
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--50.cut, Peak: 0.06 dBW, Date: 16-Dec-2011



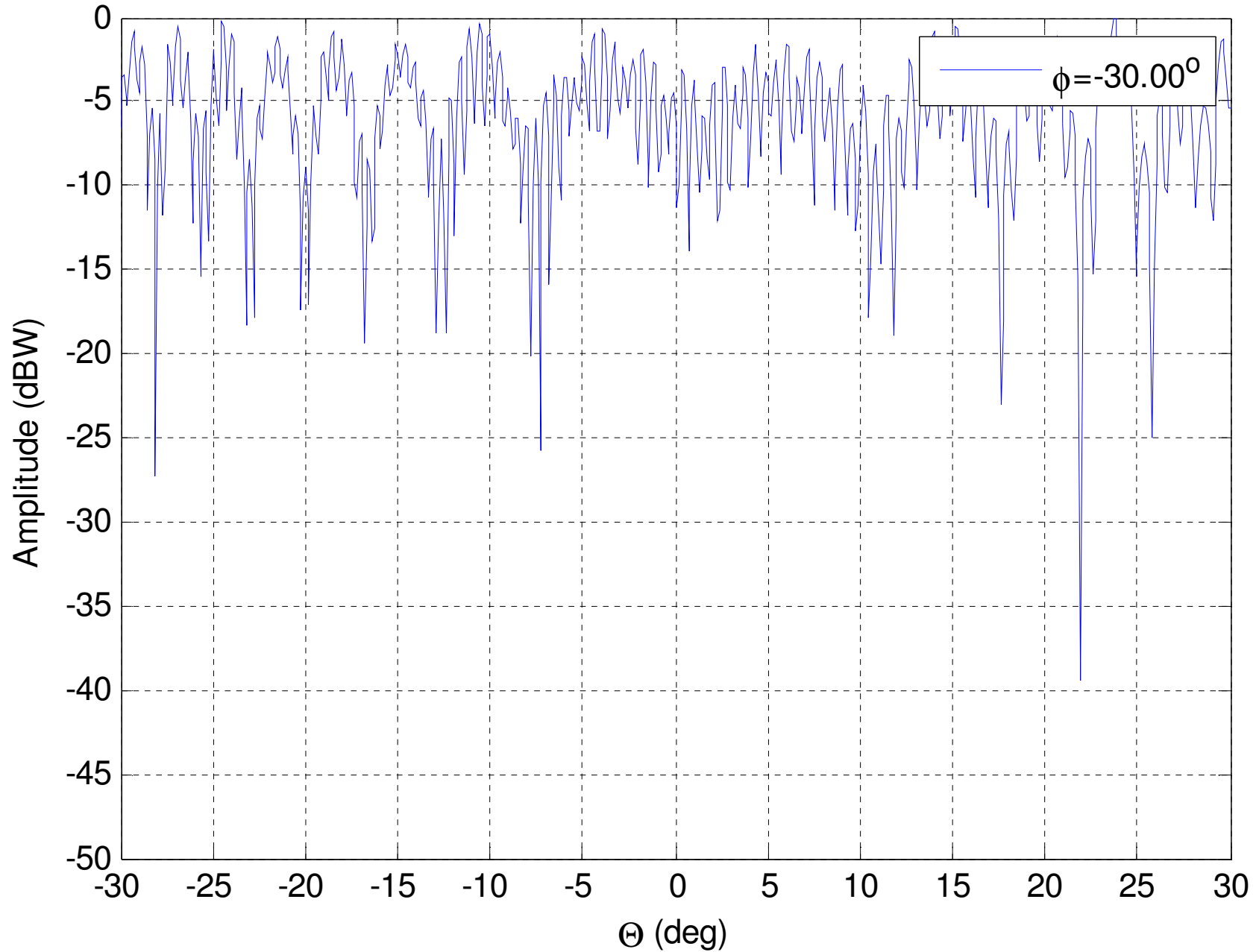
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--40.cut, Peak: -0.79 dBW, Date: 16-Dec-2011



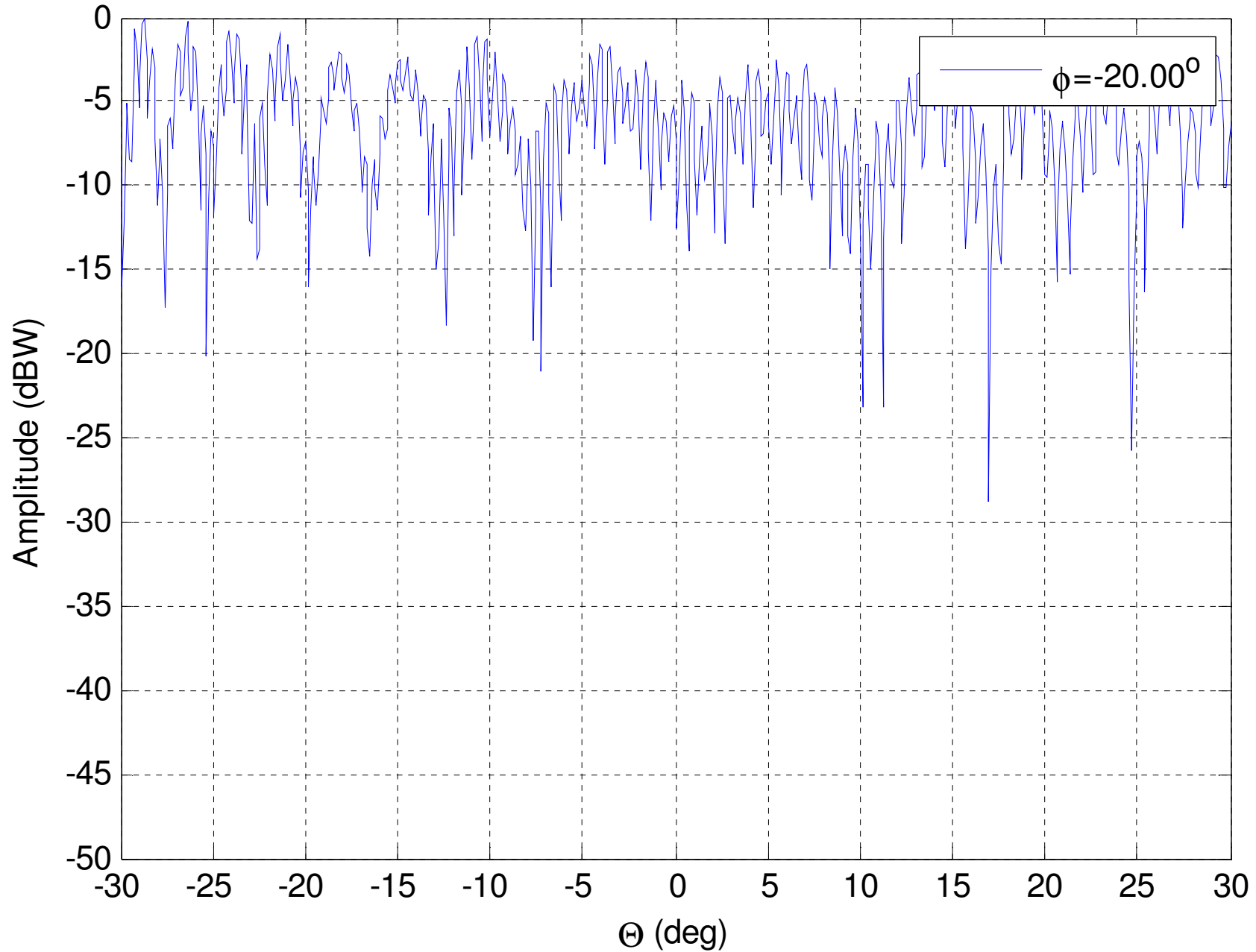
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--30.cut, Peak: -1.85 dBW, Date: 16-Dec-2011



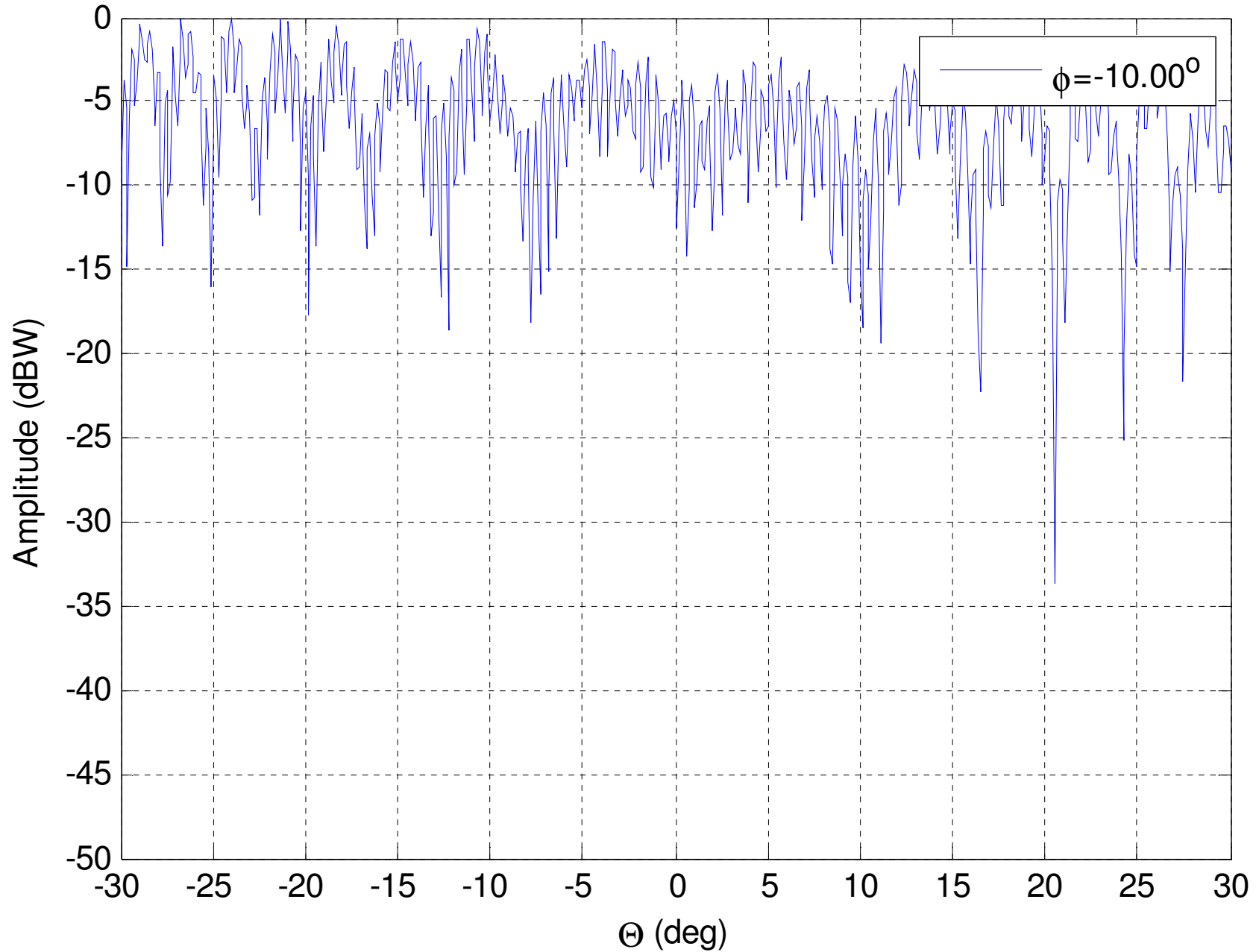
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--20.cut, Peak: -1.01 dBW, Date: 16-Dec-2011



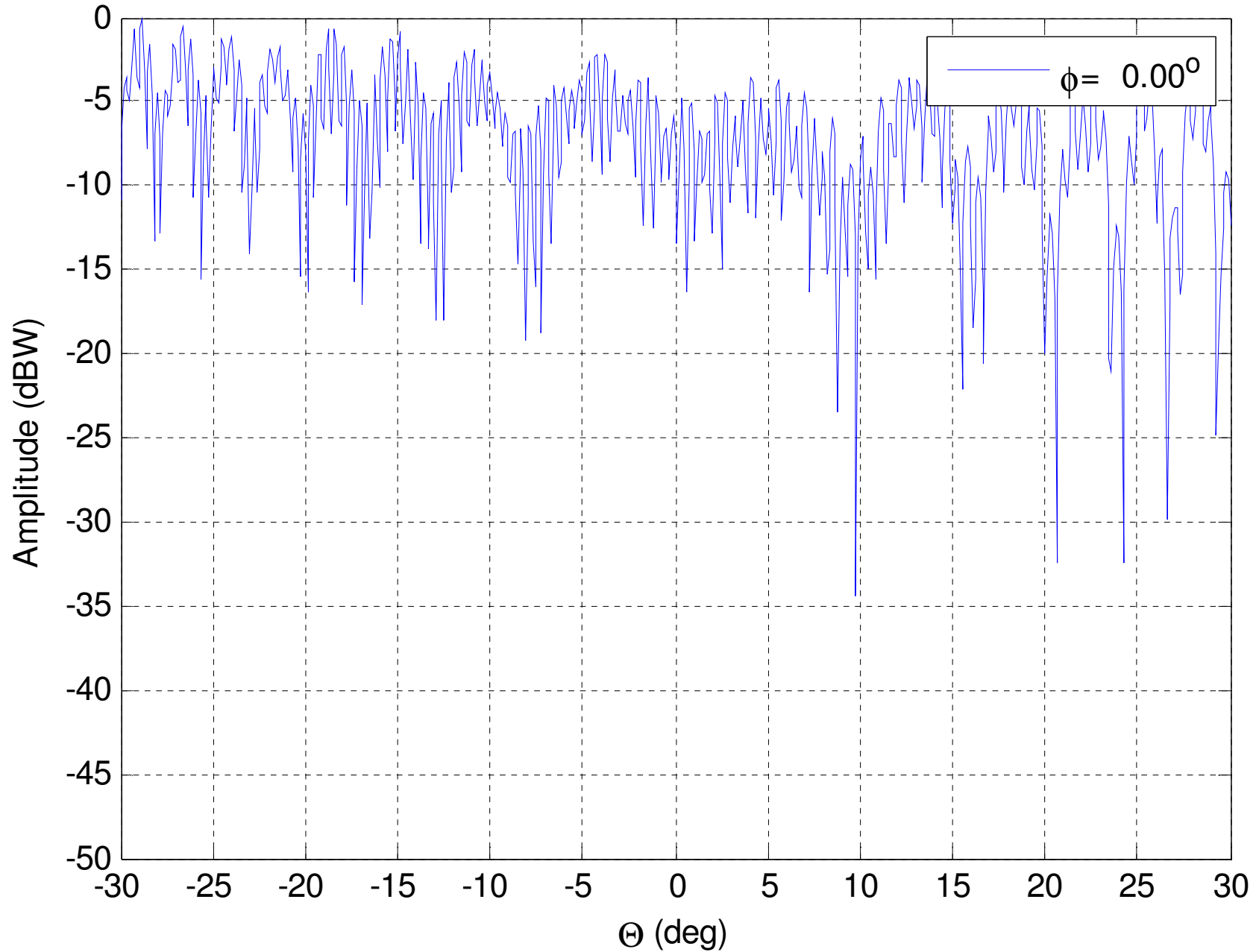
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--10.cut, Peak: -1.22 dBW, Date: 16-Dec-2011



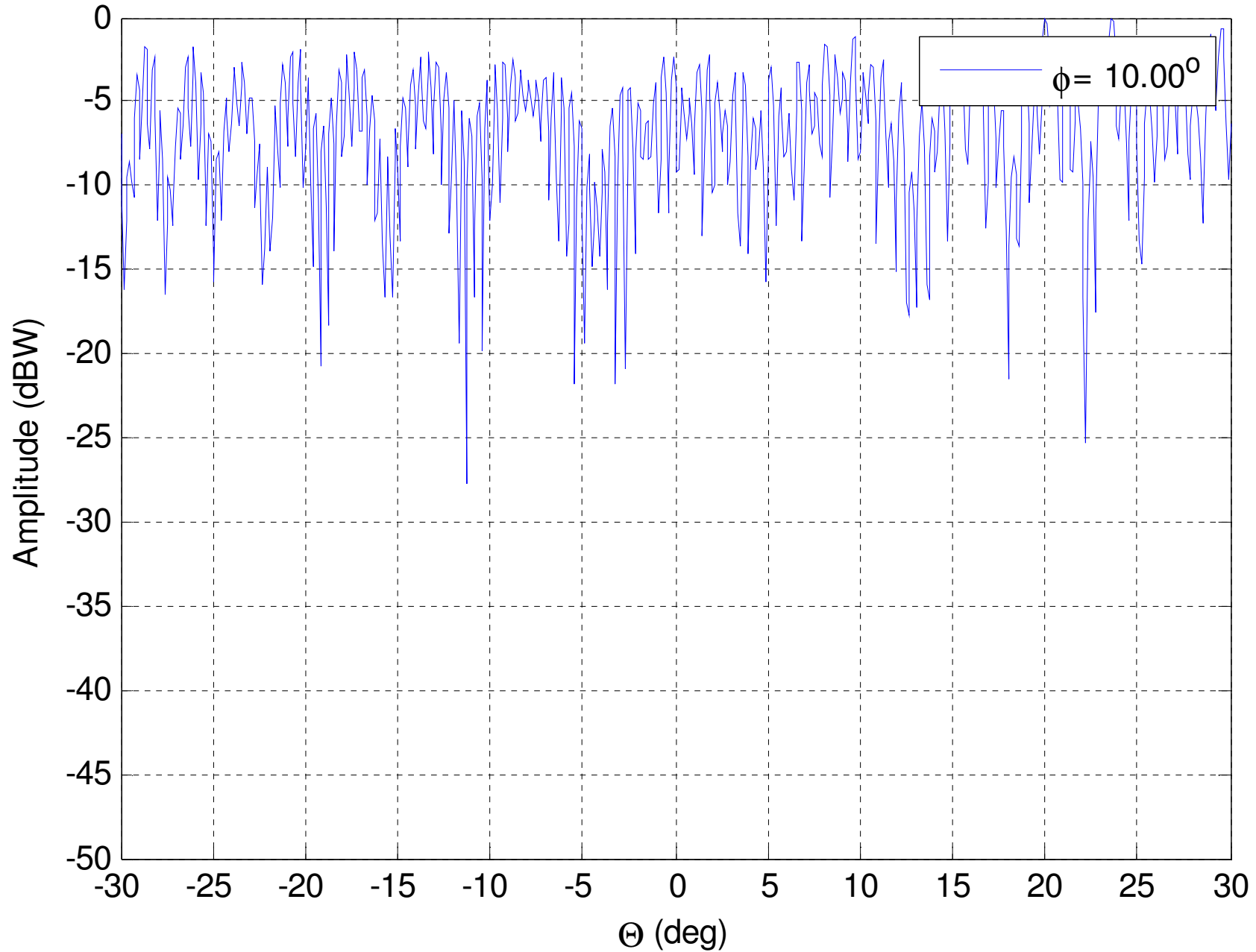
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-0.cut, Peak: -0.30 dBW, Date: 16-Dec-2011



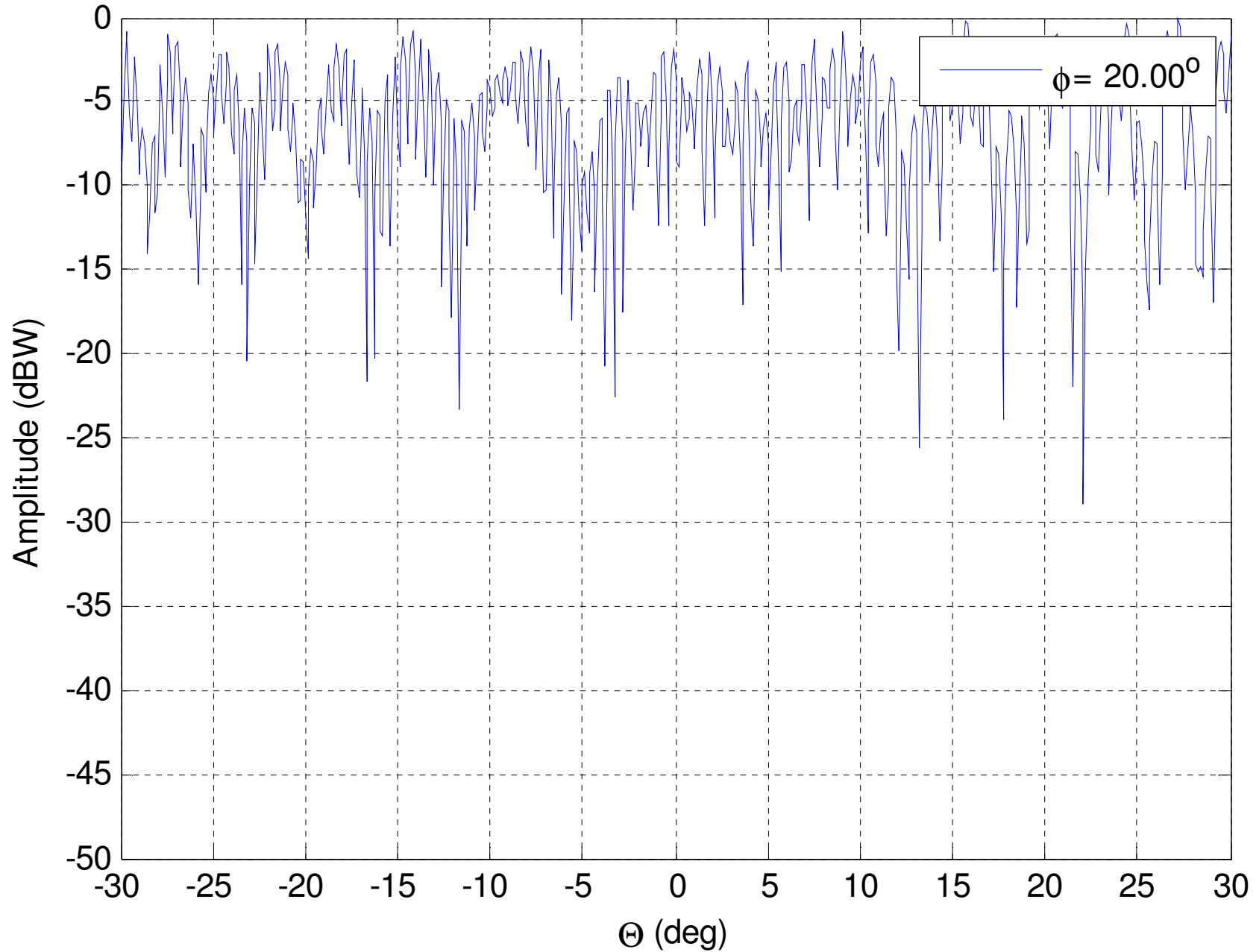
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-10.cut, Peak: -0.99 dBW, Date: 16-Dec-2011



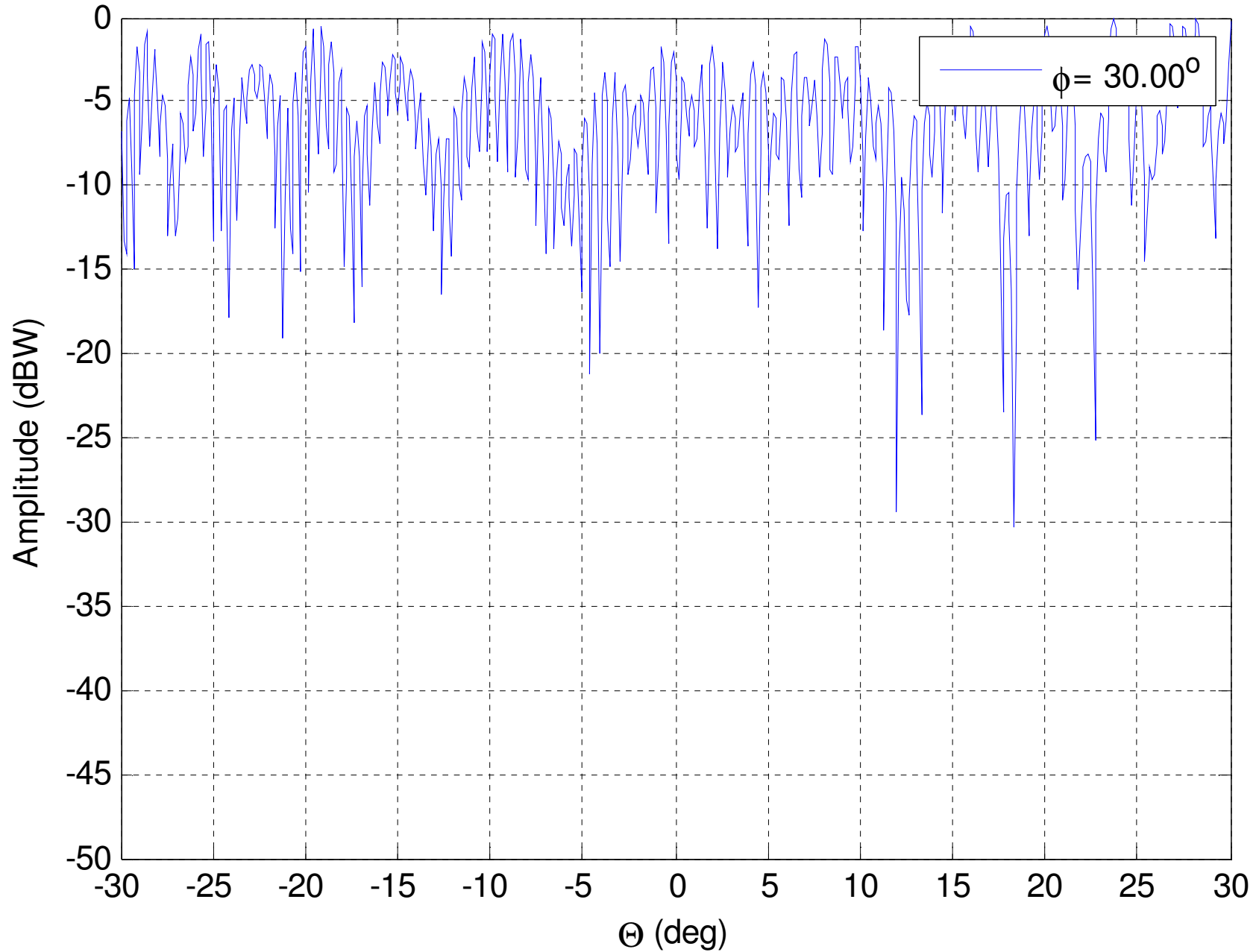
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-20.cut, Peak: -1.48 dBW, Date: 16-Dec-2011



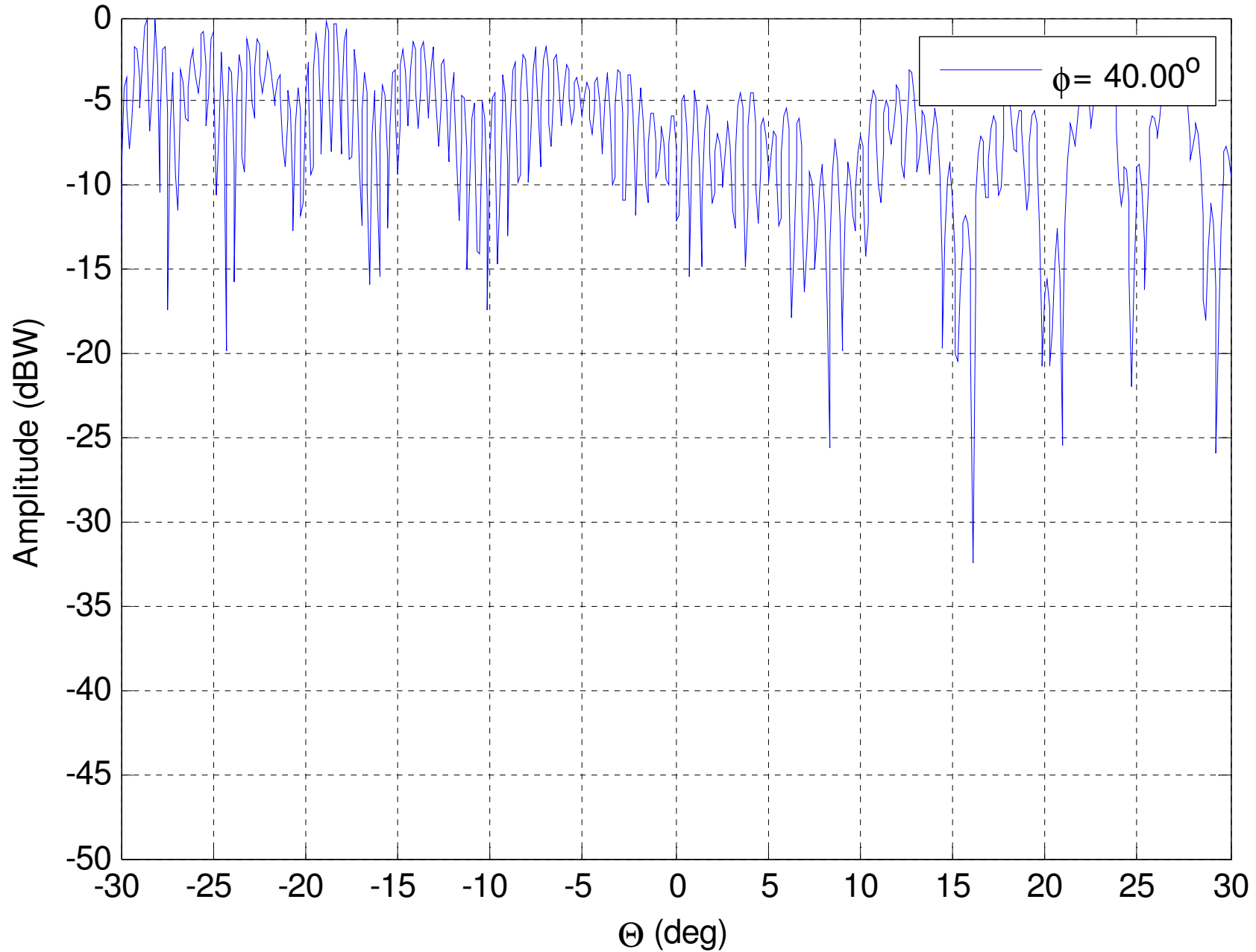
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-30.cut, Peak: -1.49 dBW, Date: 16-Dec-2011



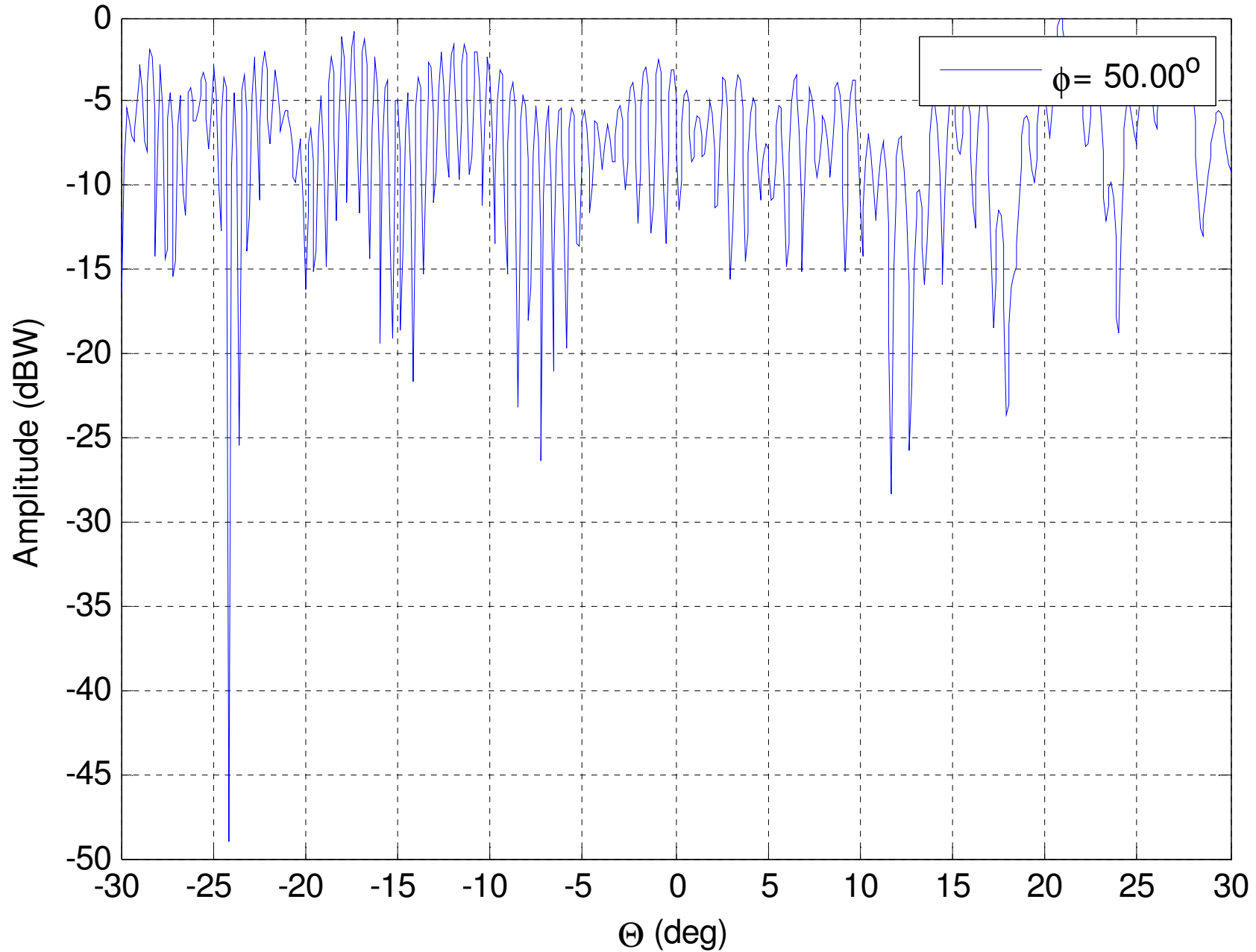
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-40.cut, Peak: -0.45 dBW, Date: 16-Dec-2011



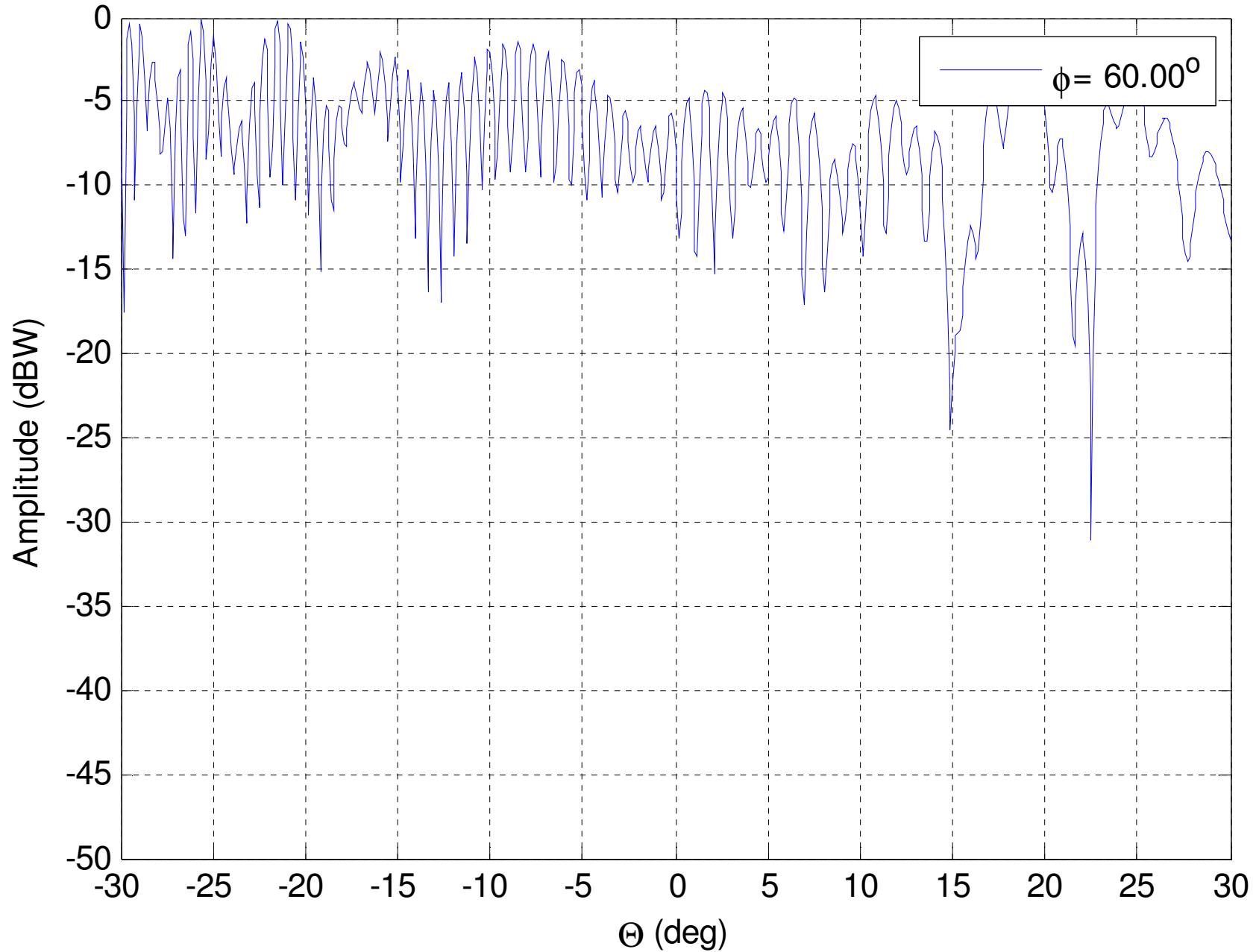
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-50.cut, Peak: -0.51 dBW, Date: 16-Dec-2011



Normalized pattern cuts - farfield

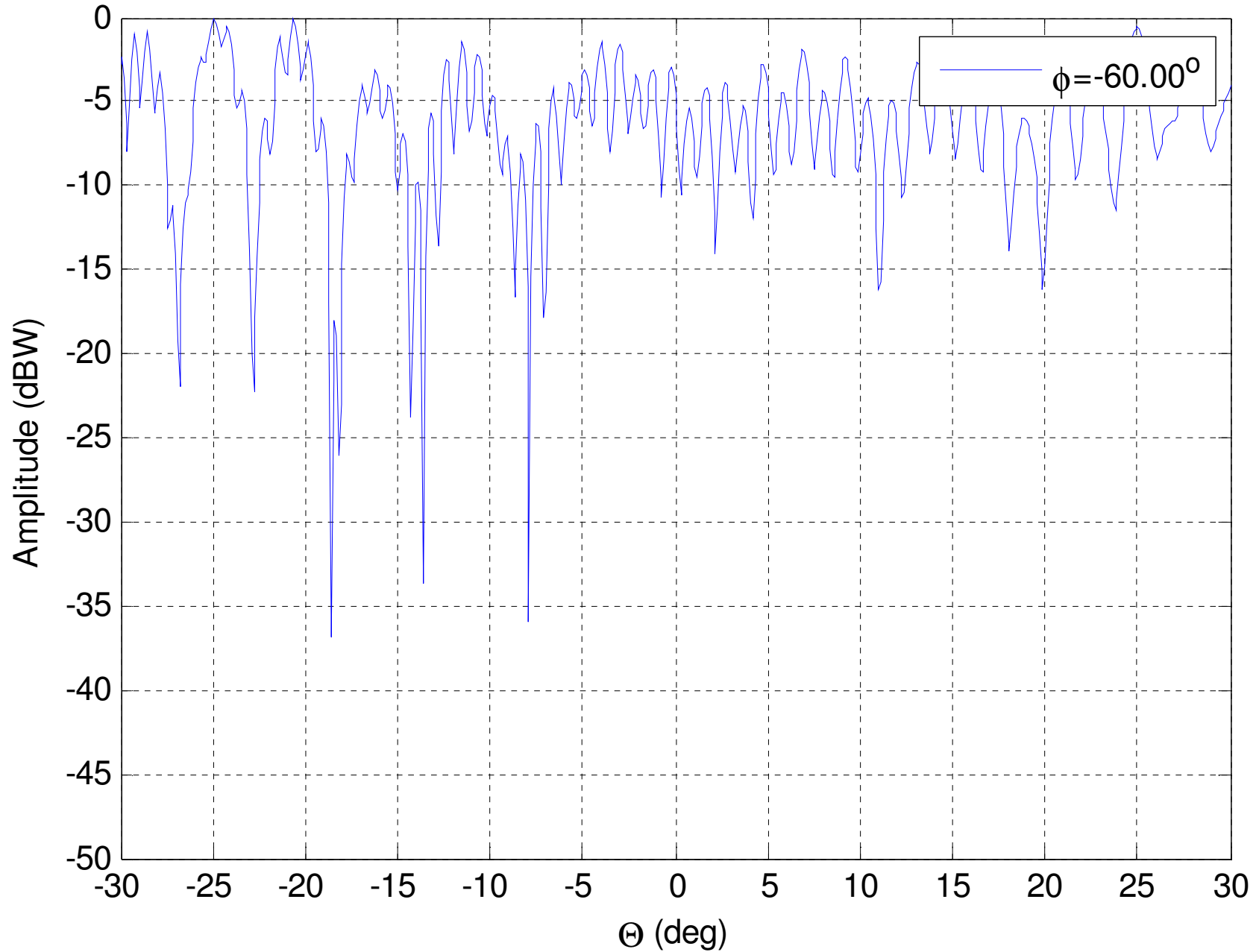
Input file: tx-17.5-lhcp-60.cut, Peak: -0.35 dBW, Date: 16-Dec-2011



RHCP at 17.7 GHz

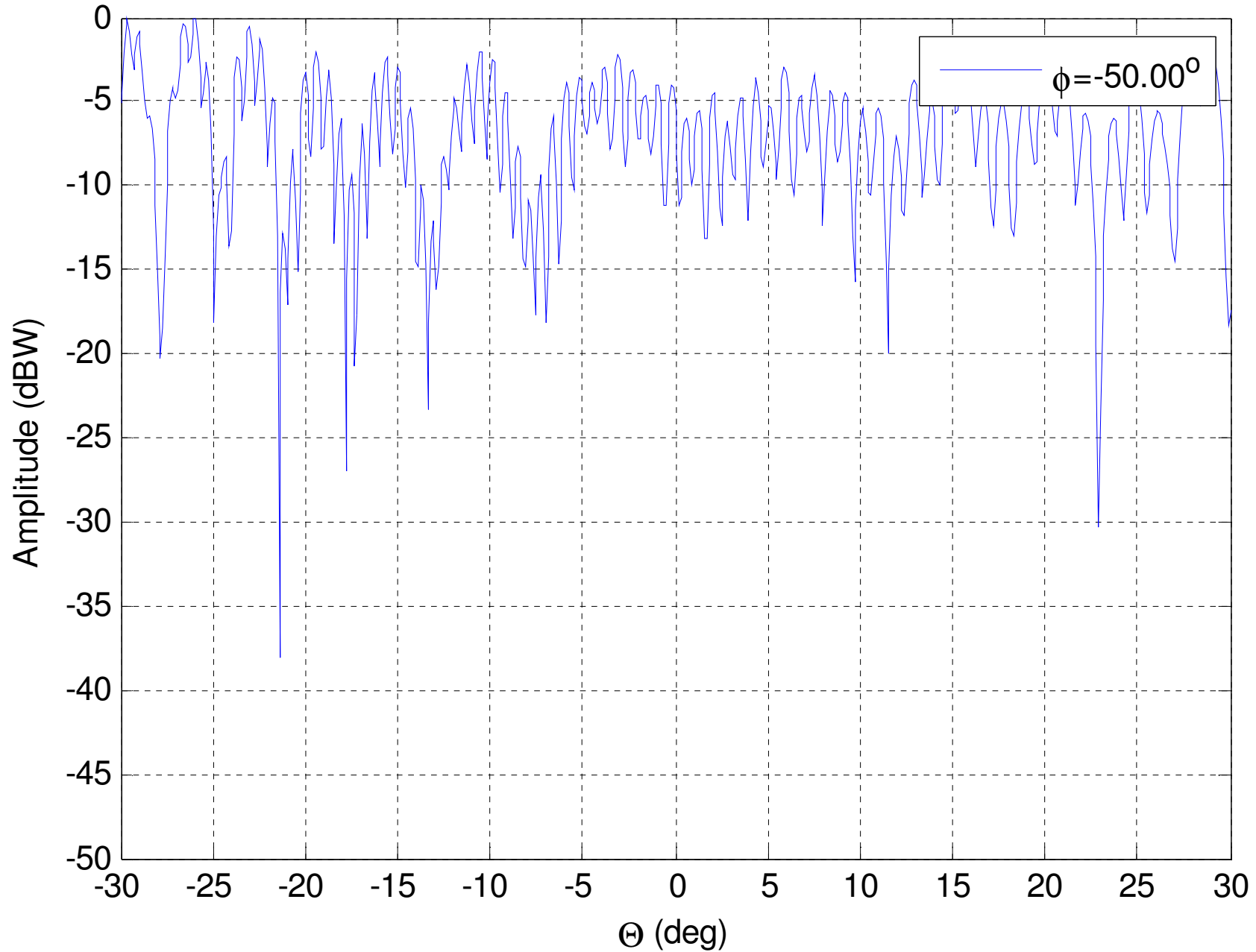
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--60.cut, Peak: -1.72 dBW, Date: 16-Dec-2011



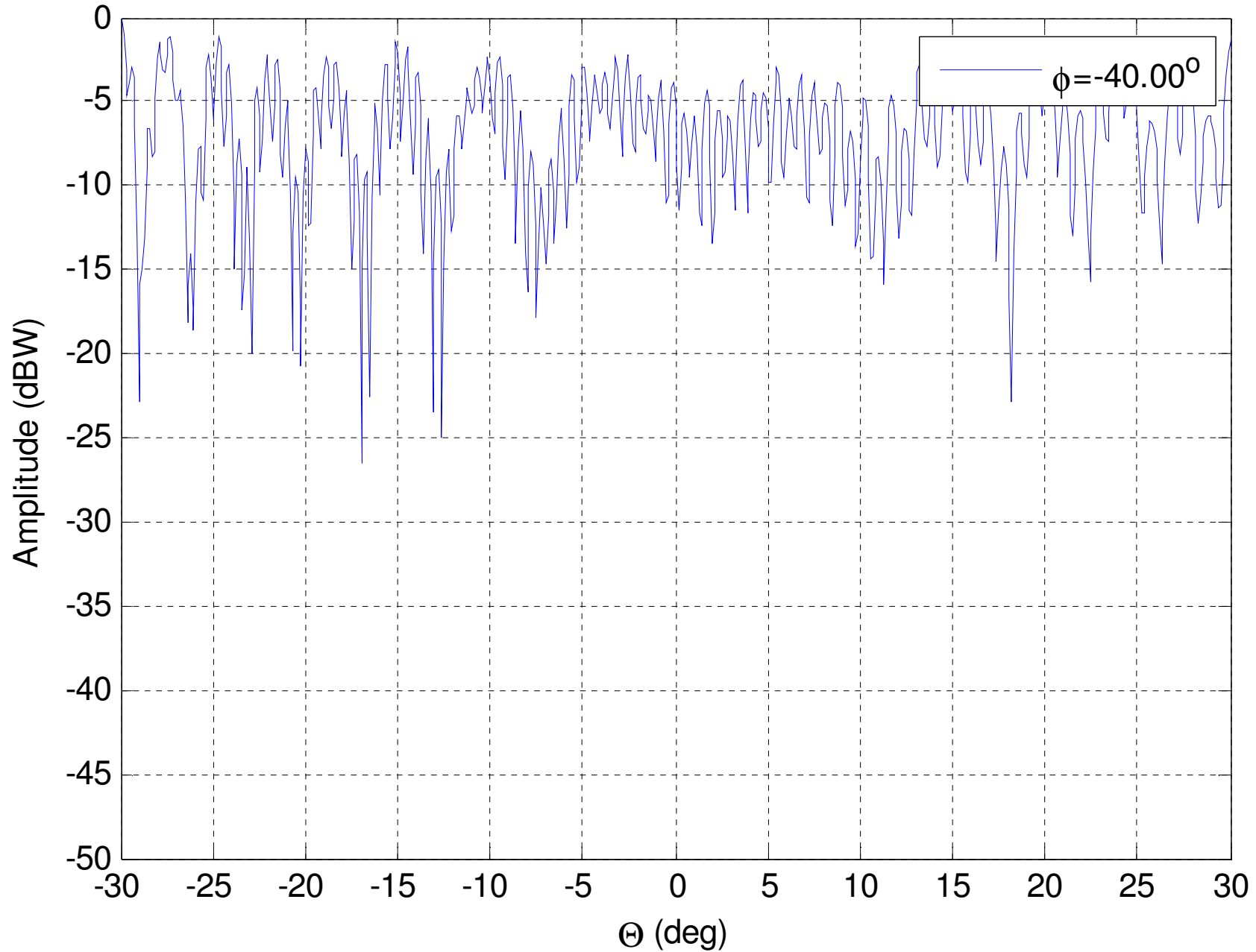
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--50.cut, Peak: -0.84 dBW, Date: 16-Dec-2011



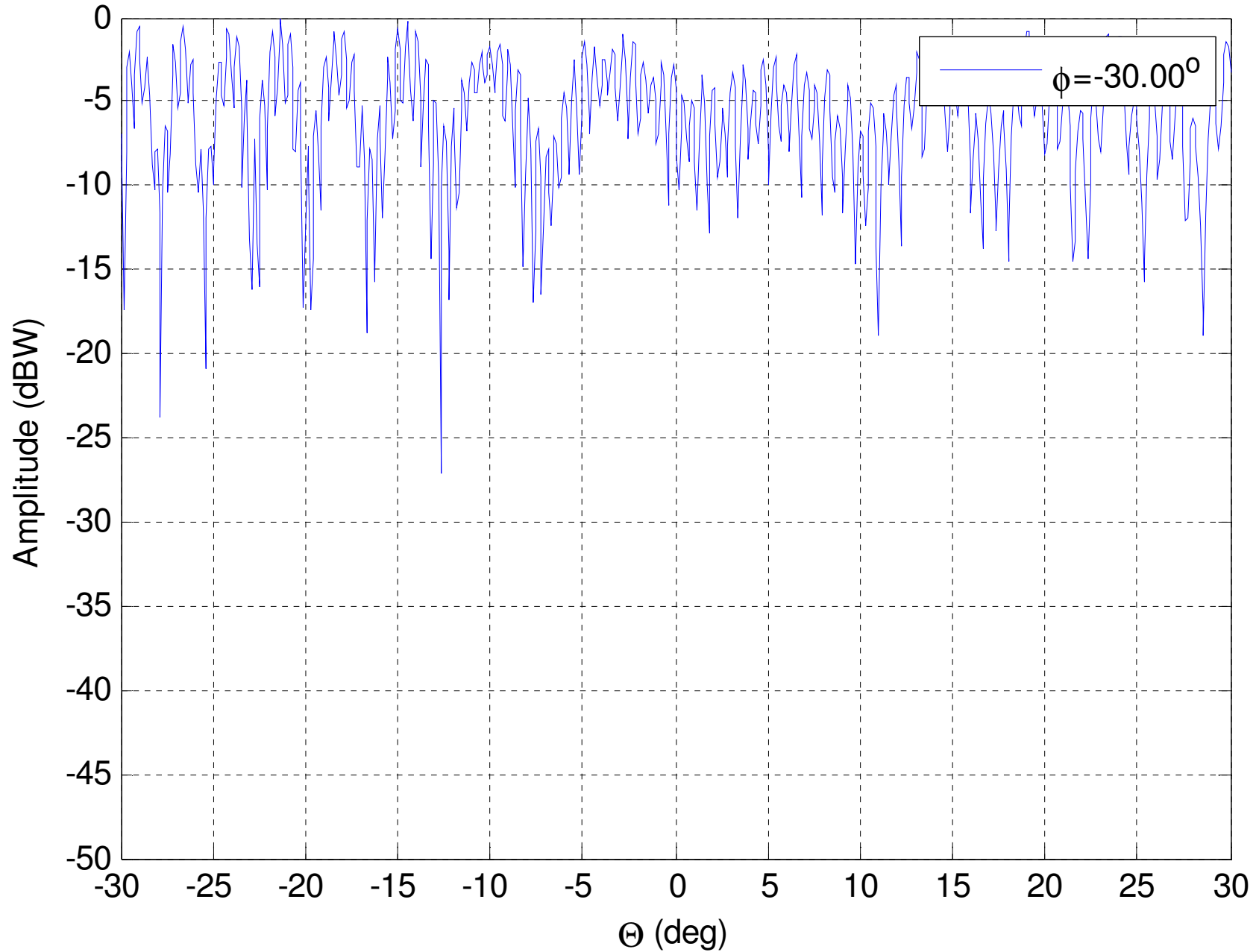
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--40.cut, Peak: -0.98 dBW, Date: 16-Dec-2011



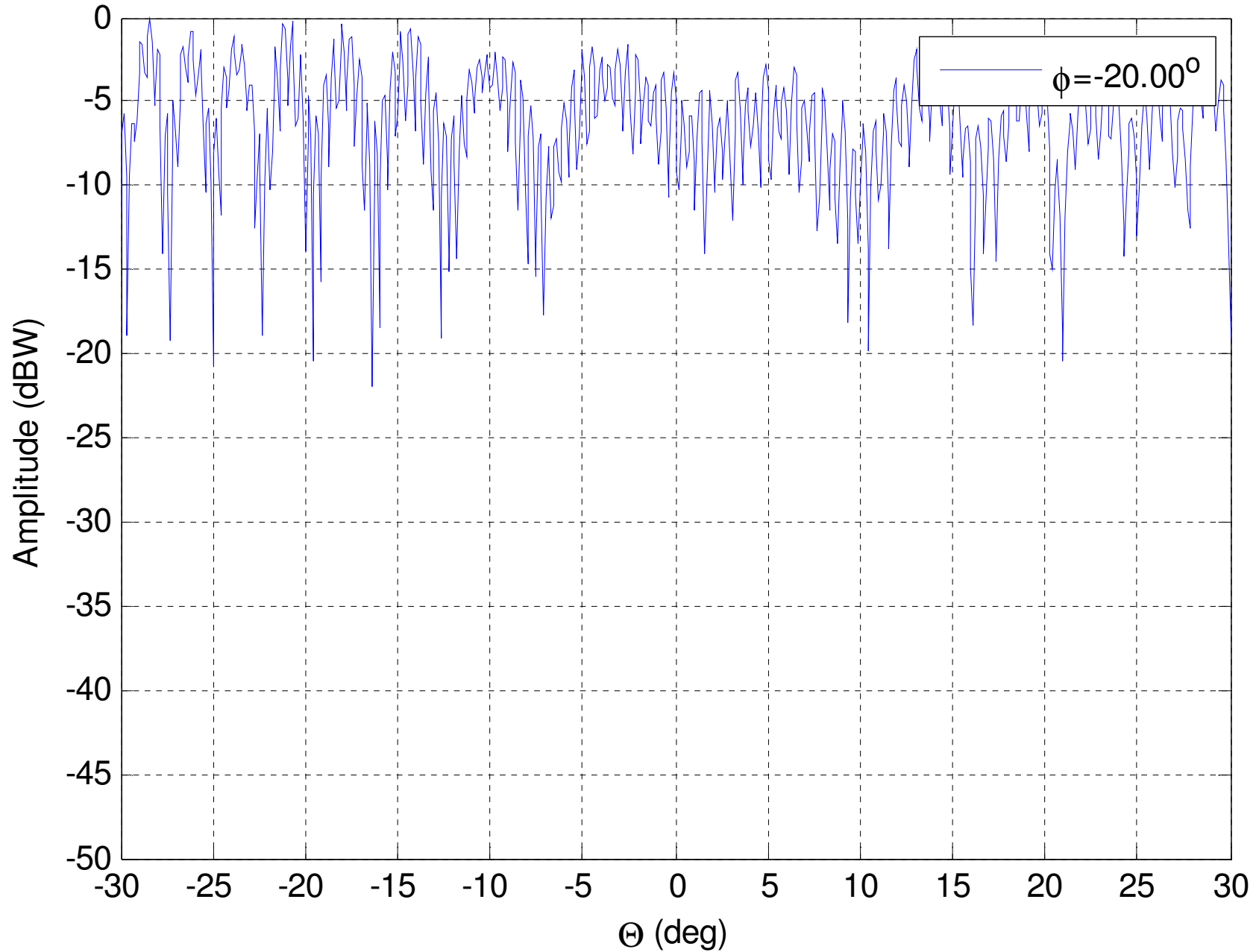
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--30.cut, Peak: -2.00 dBW, Date: 16-Dec-2011



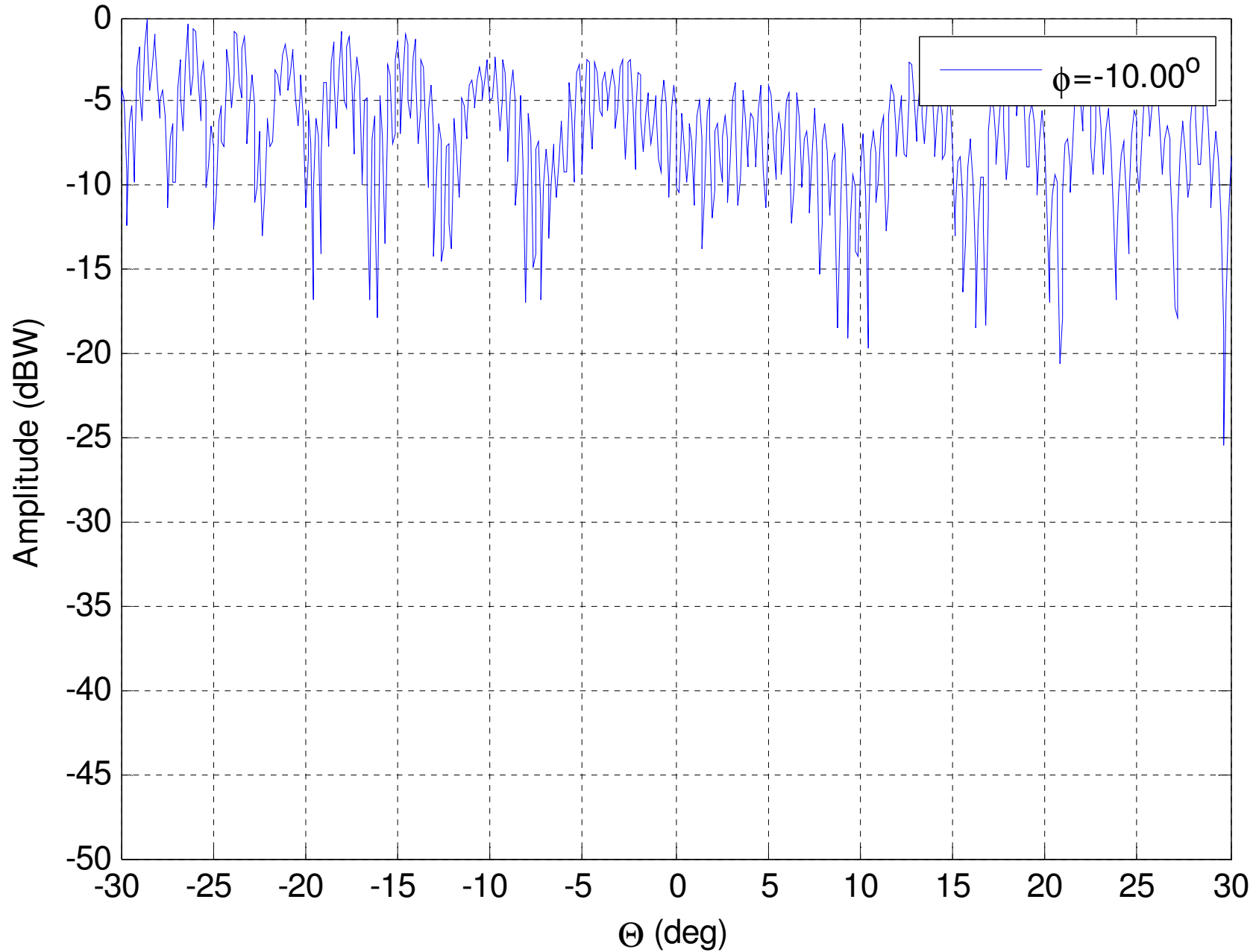
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--20.cut, Peak: -1.47 dBW, Date: 16-Dec-2011



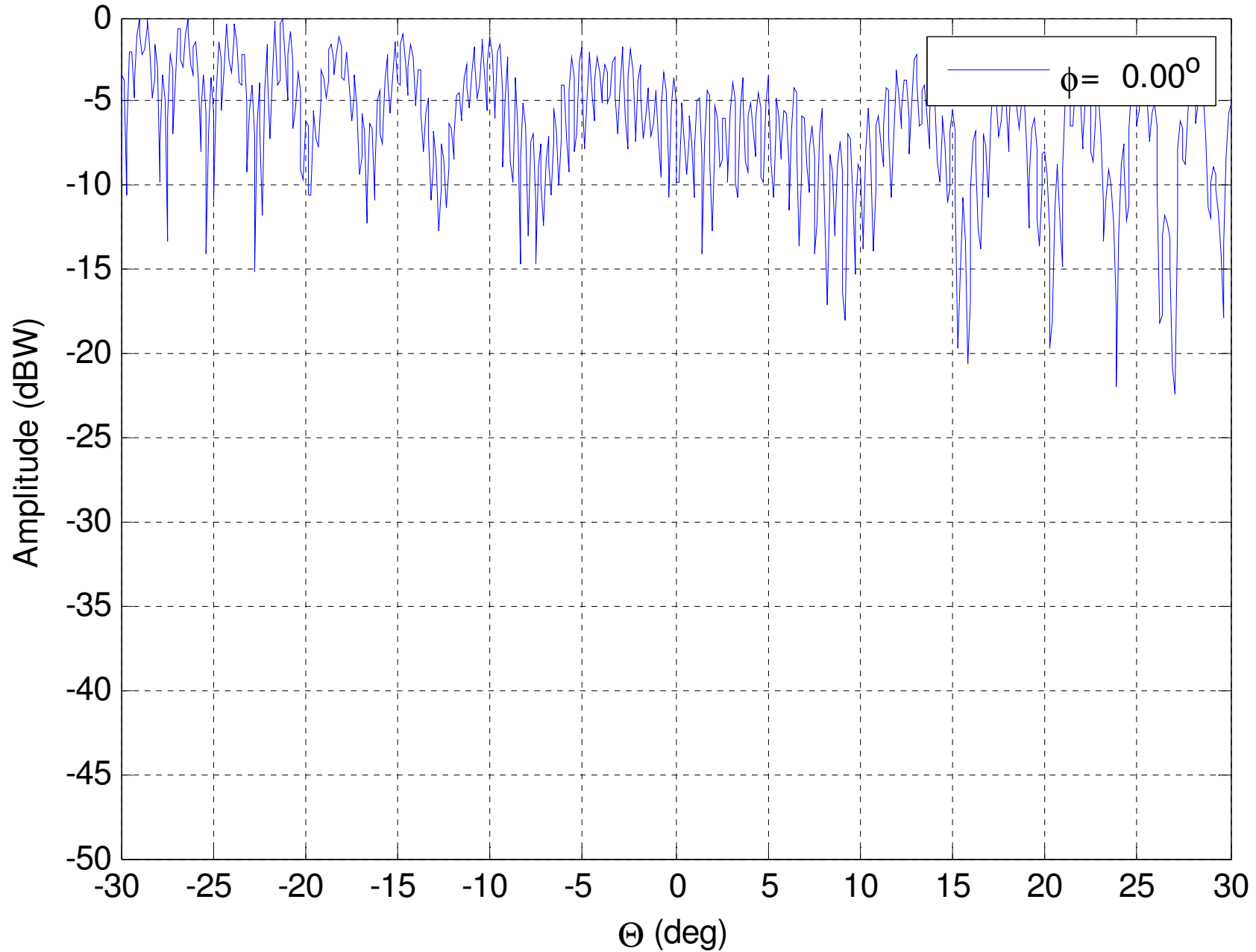
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--10.cut, Peak: -0.79 dBW, Date: 16-Dec-2011



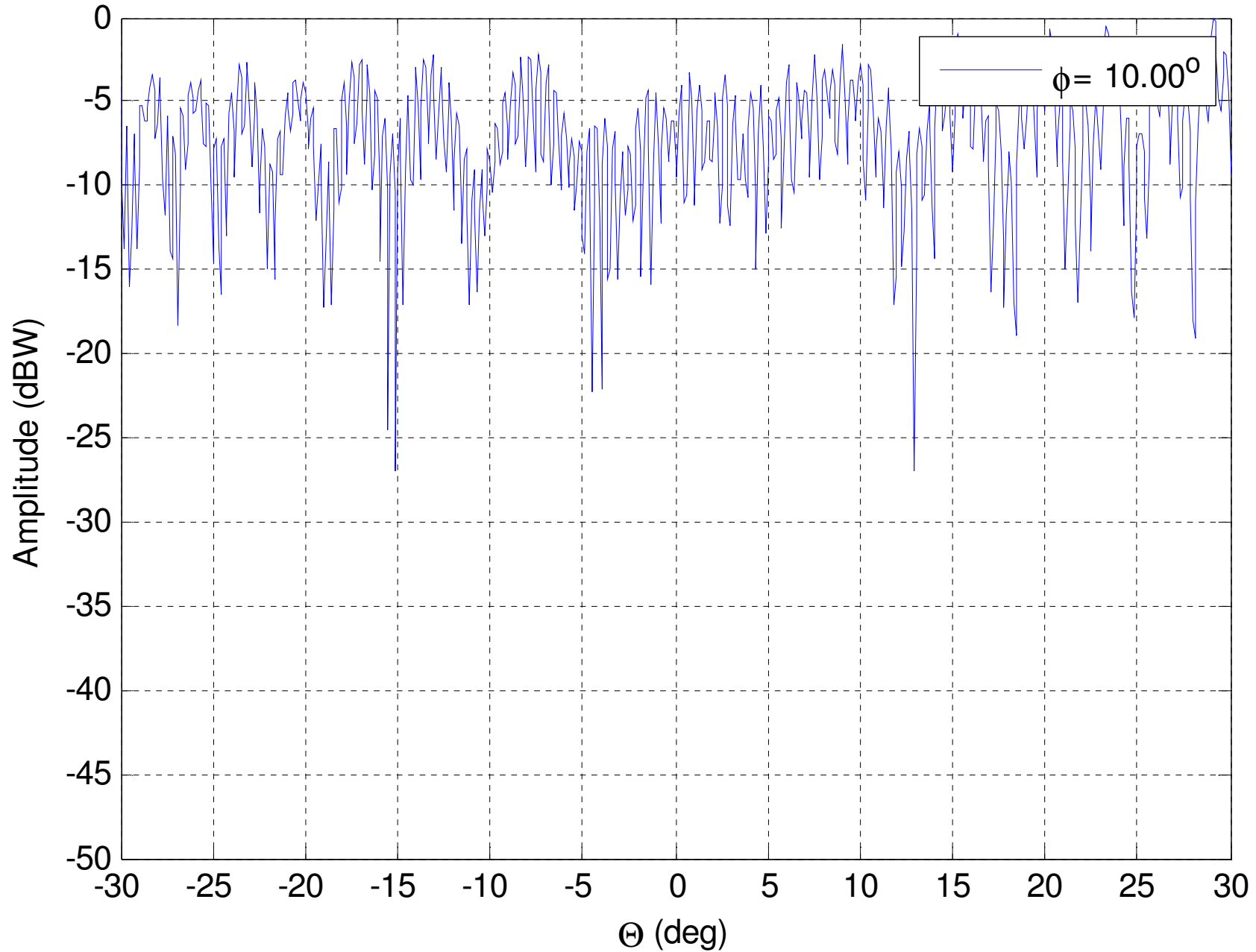
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-0.cut, Peak: -1.28 dBW, Date: 16-Dec-2011



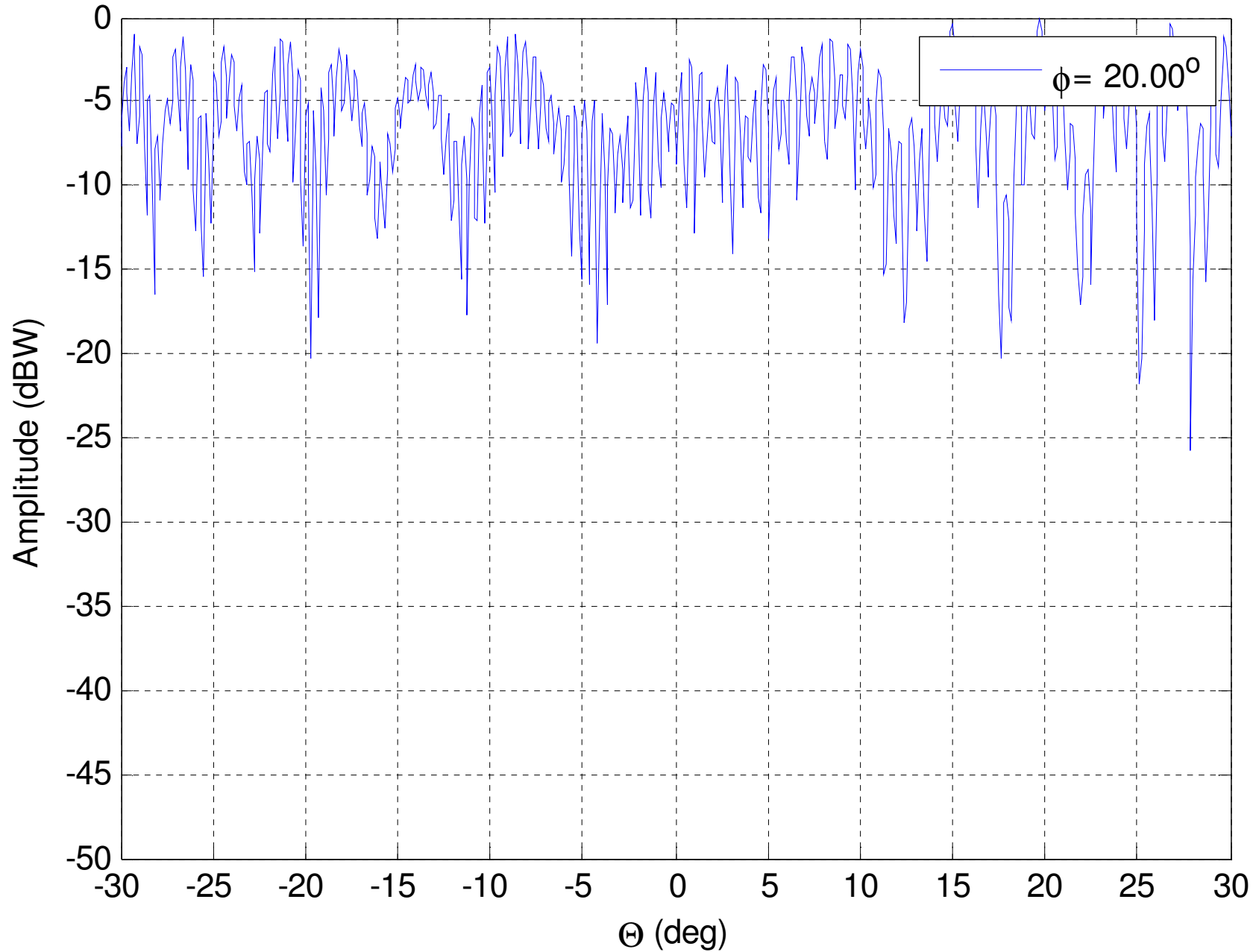
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-10.cut, Peak: -0.81 dBW, Date: 16-Dec-2011



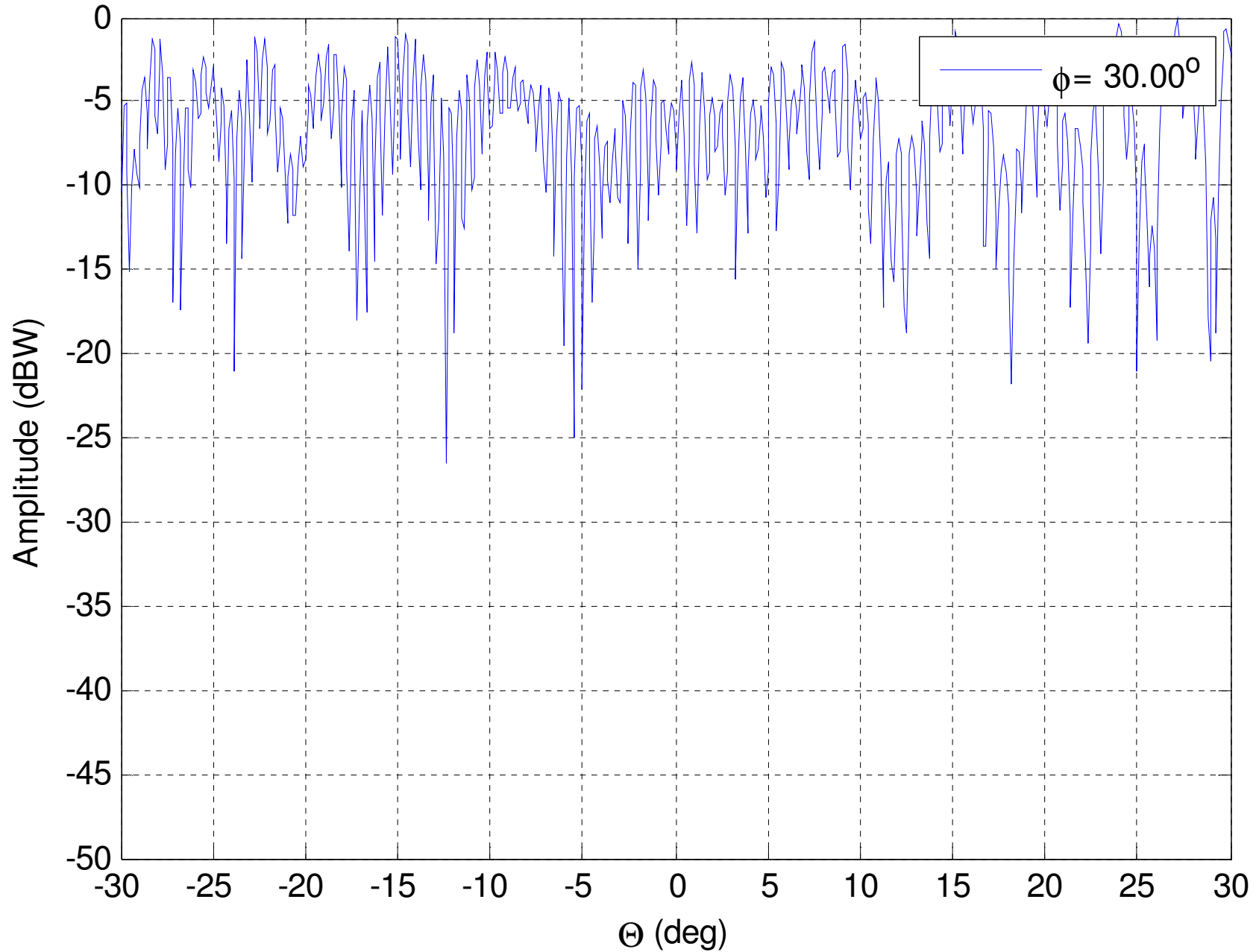
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-20.cut, Peak: -1.70 dBW, Date: 16-Dec-2011



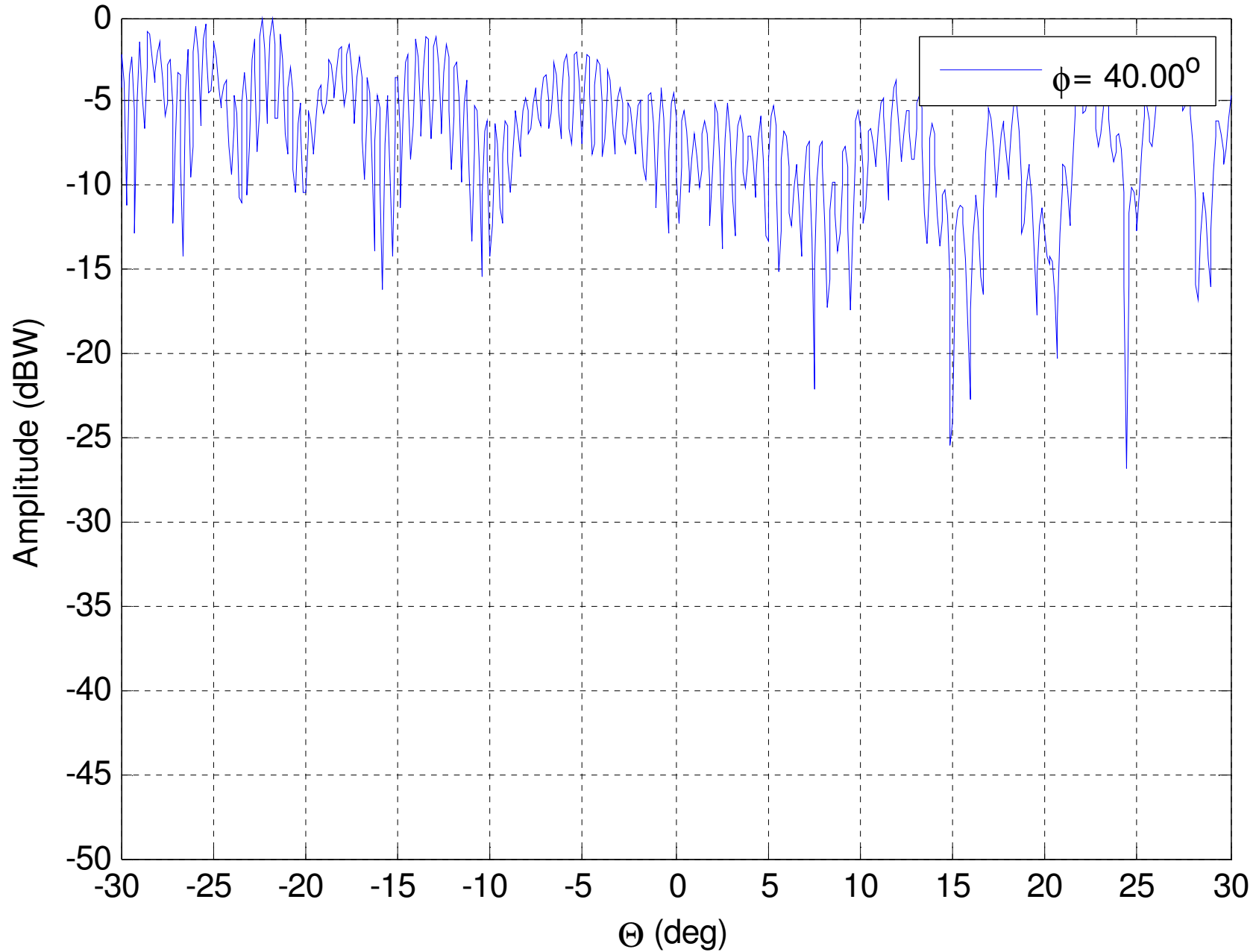
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-30.cut, Peak: -1.51 dBW, Date: 16-Dec-2011



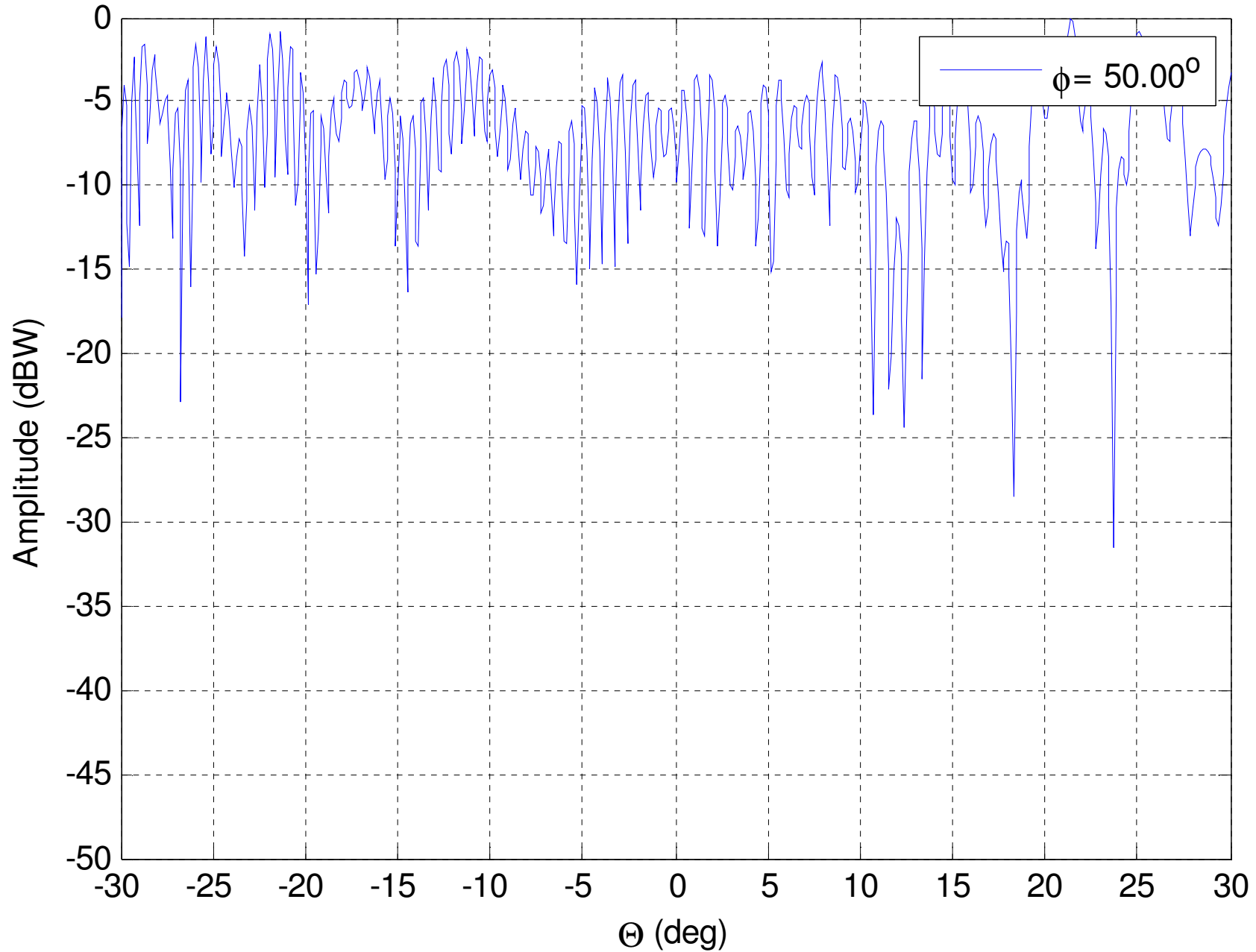
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-40.cut, Peak: -0.38 dBW, Date: 16-Dec-2011



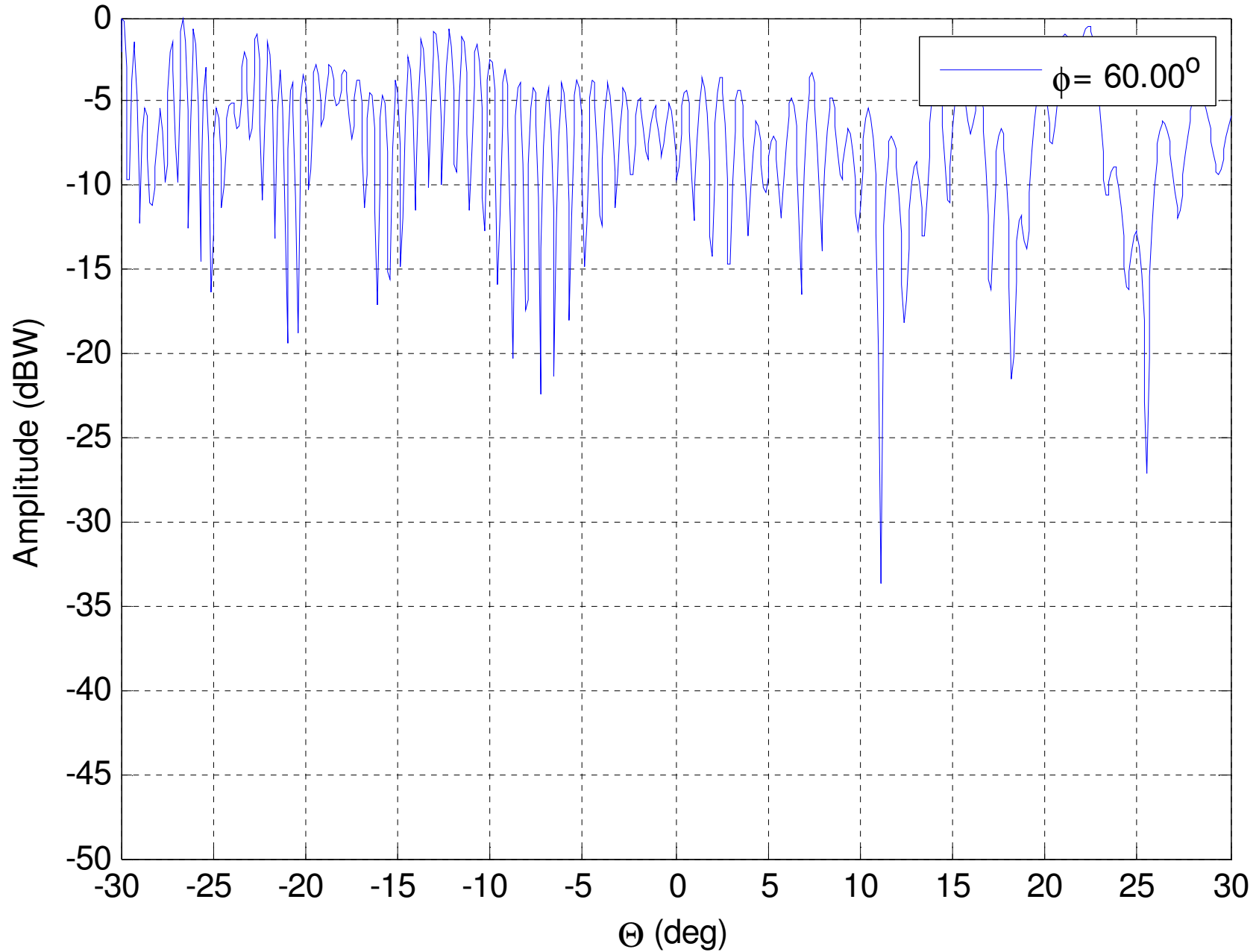
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-50.cut, Peak: -1.10 dBW, Date: 16-Dec-2011



Normalized pattern cuts - farfield

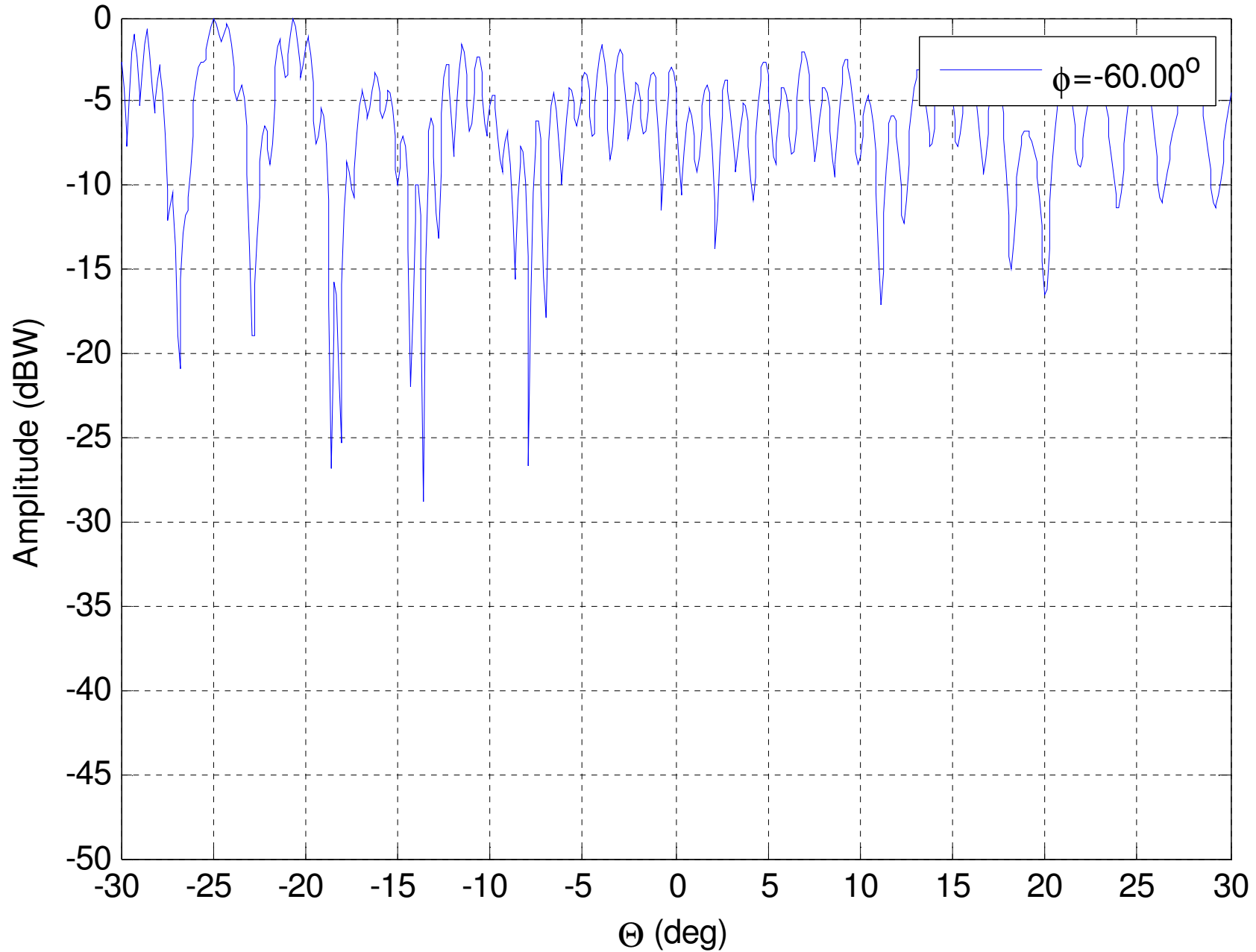
Input file: tx-17.7-rhcp-60.cut, Peak: -1.20 dBW, Date: 16-Dec-2011



LHCP at 17.7 GHz

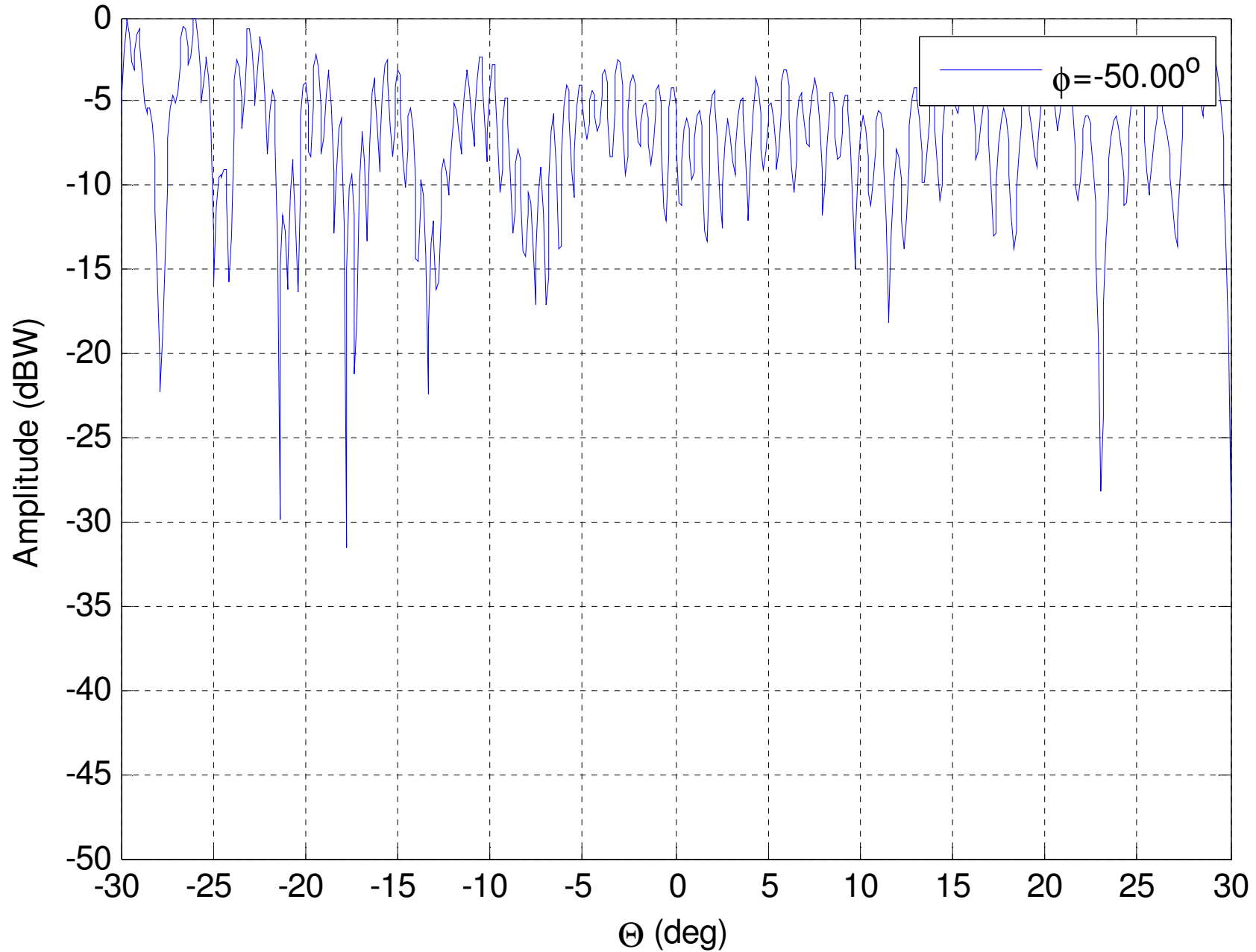
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--60.cut, Peak: -1.54 dBW, Date: 16-Dec-2011



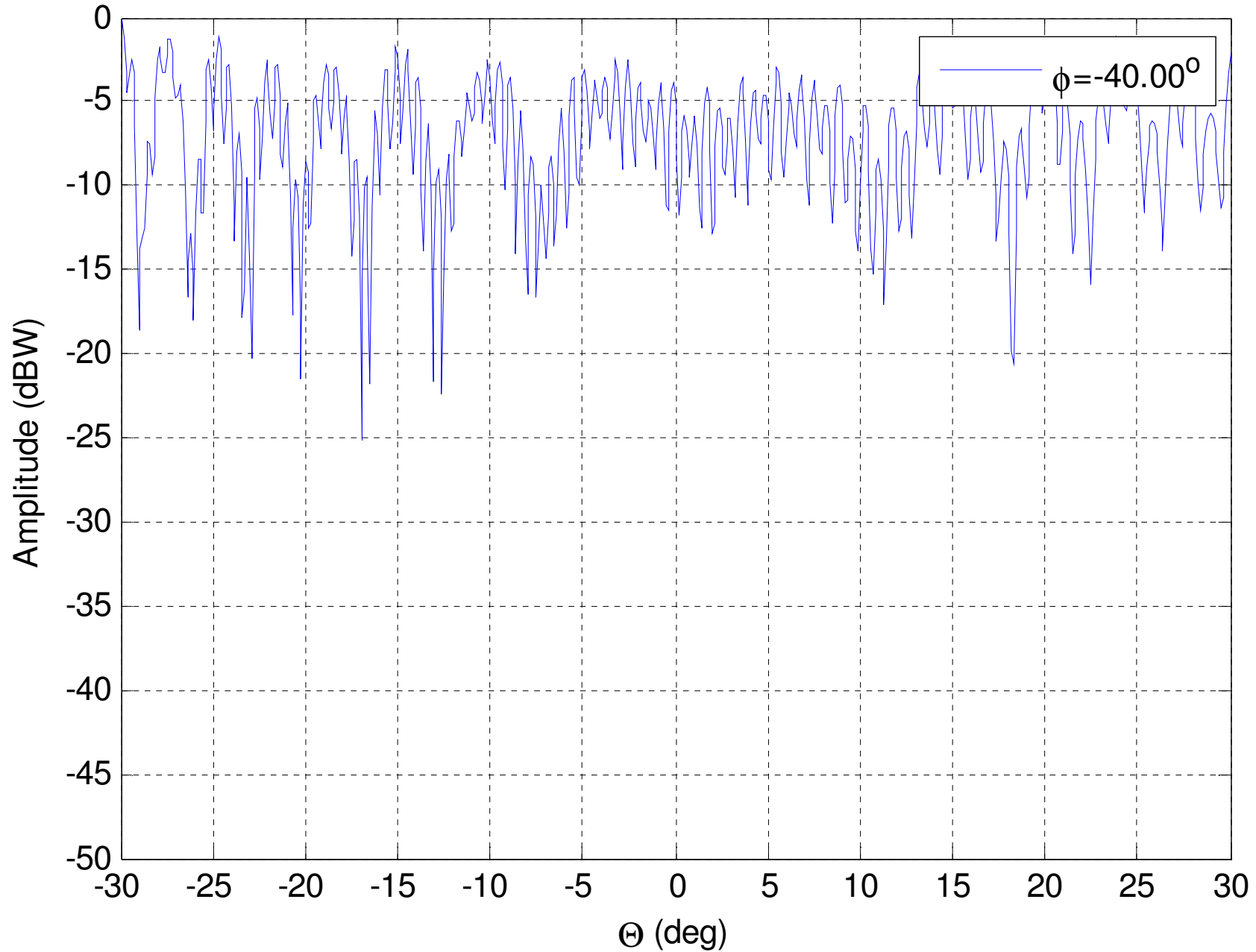
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--50.cut, Peak: -0.57 dBW, Date: 16-Dec-2011



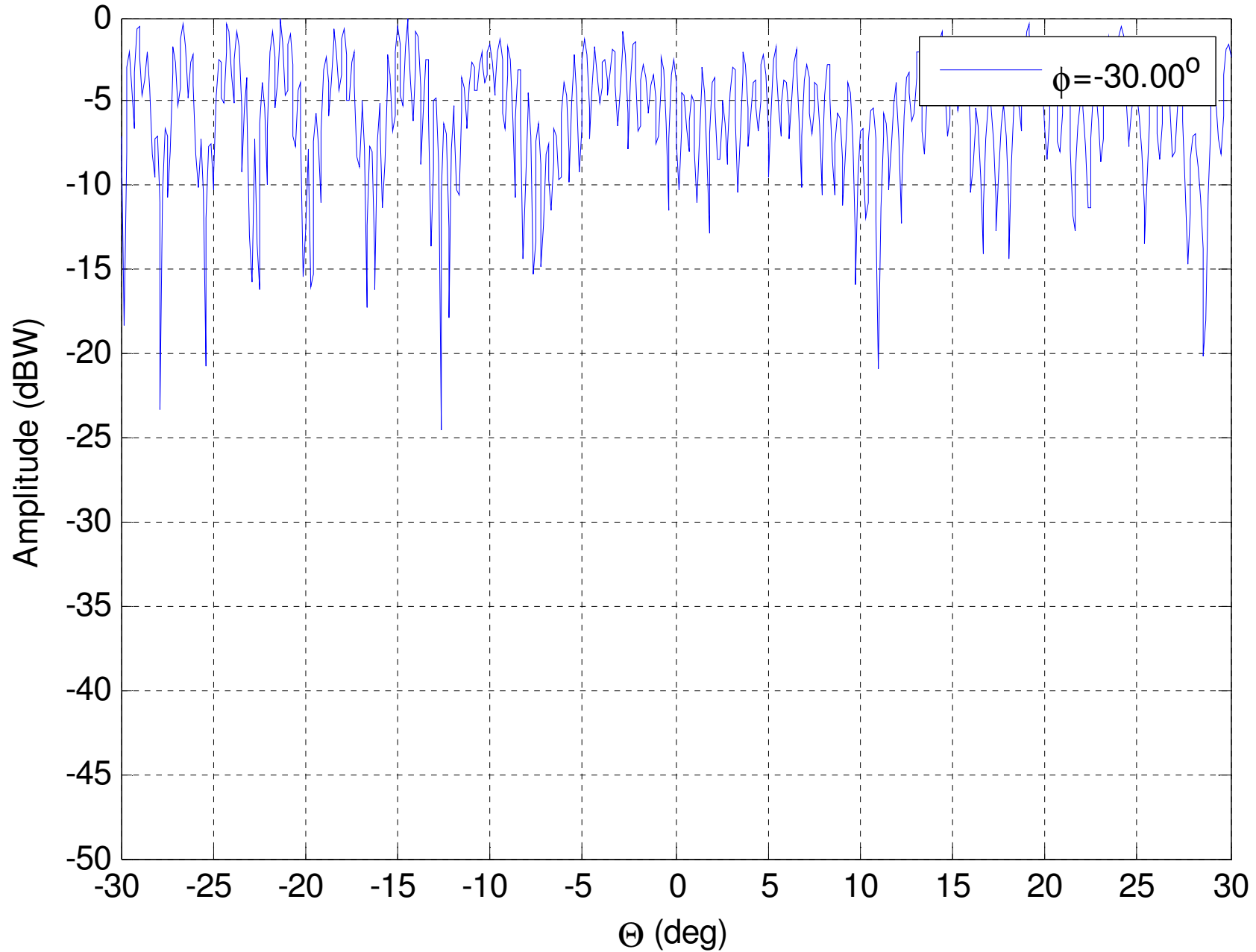
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--40.cut, Peak: -0.69 dBW, Date: 16-Dec-2011



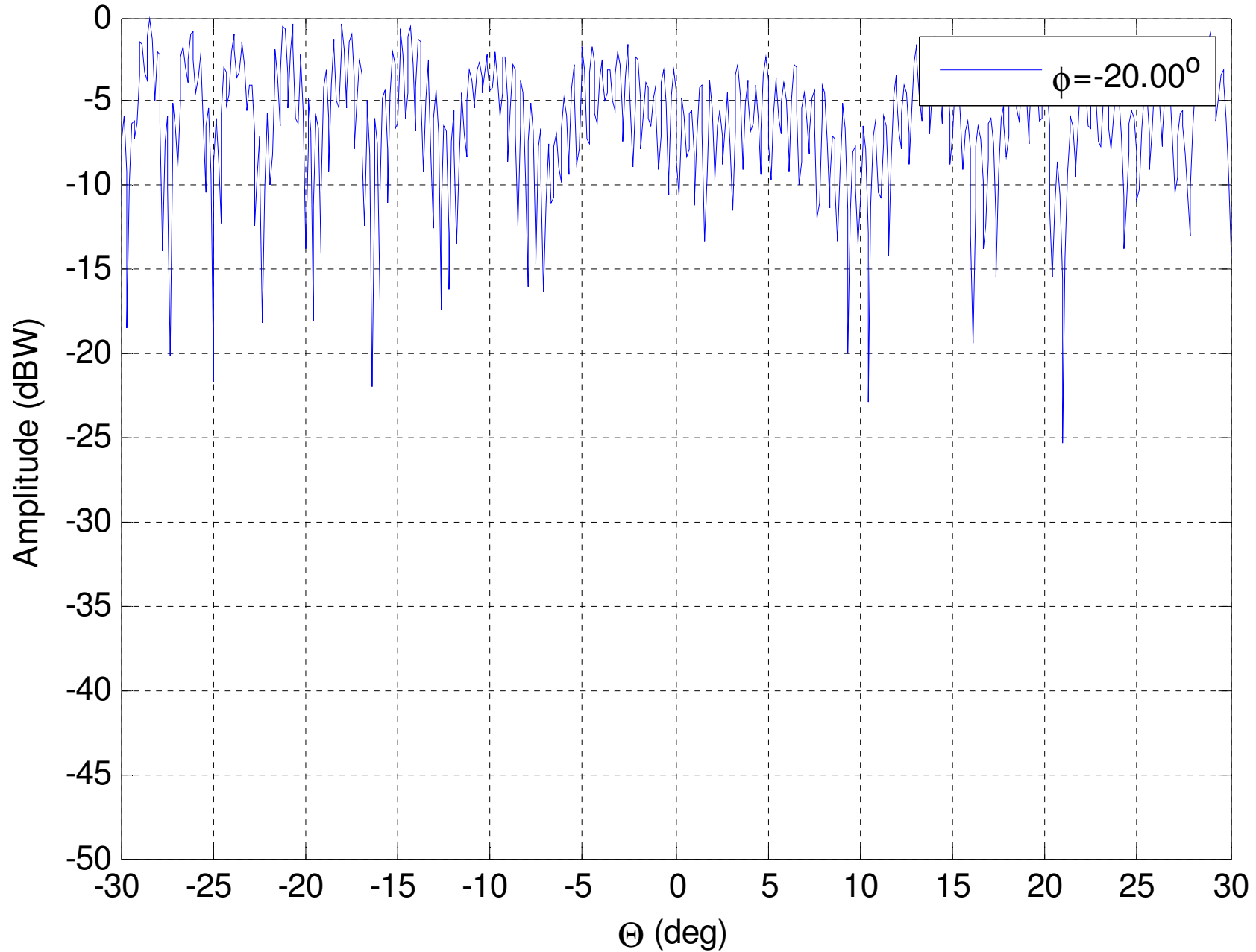
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--30.cut, Peak: -2.10 dBW, Date: 16-Dec-2011



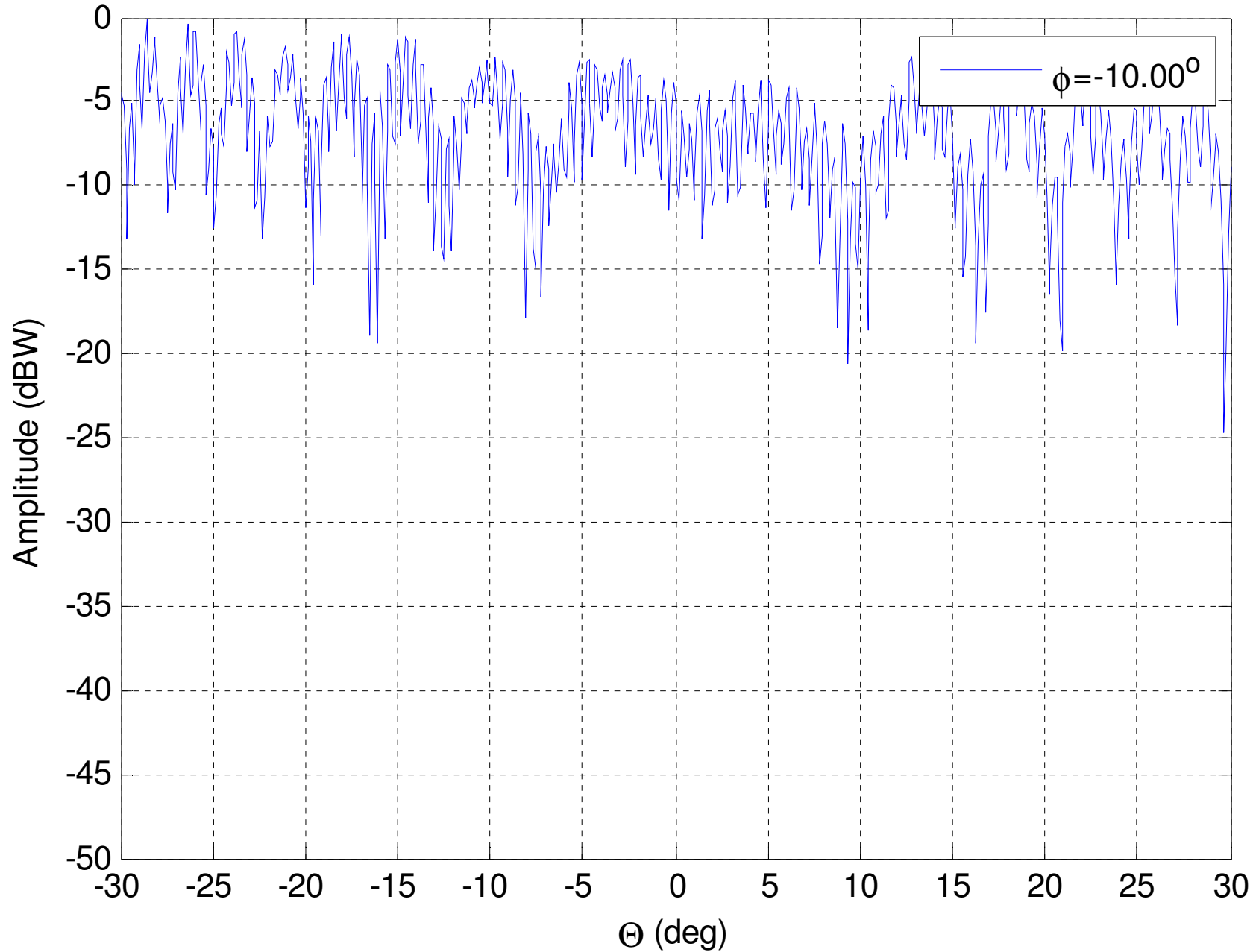
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--20.cut, Peak: -1.44 dBW, Date: 16-Dec-2011



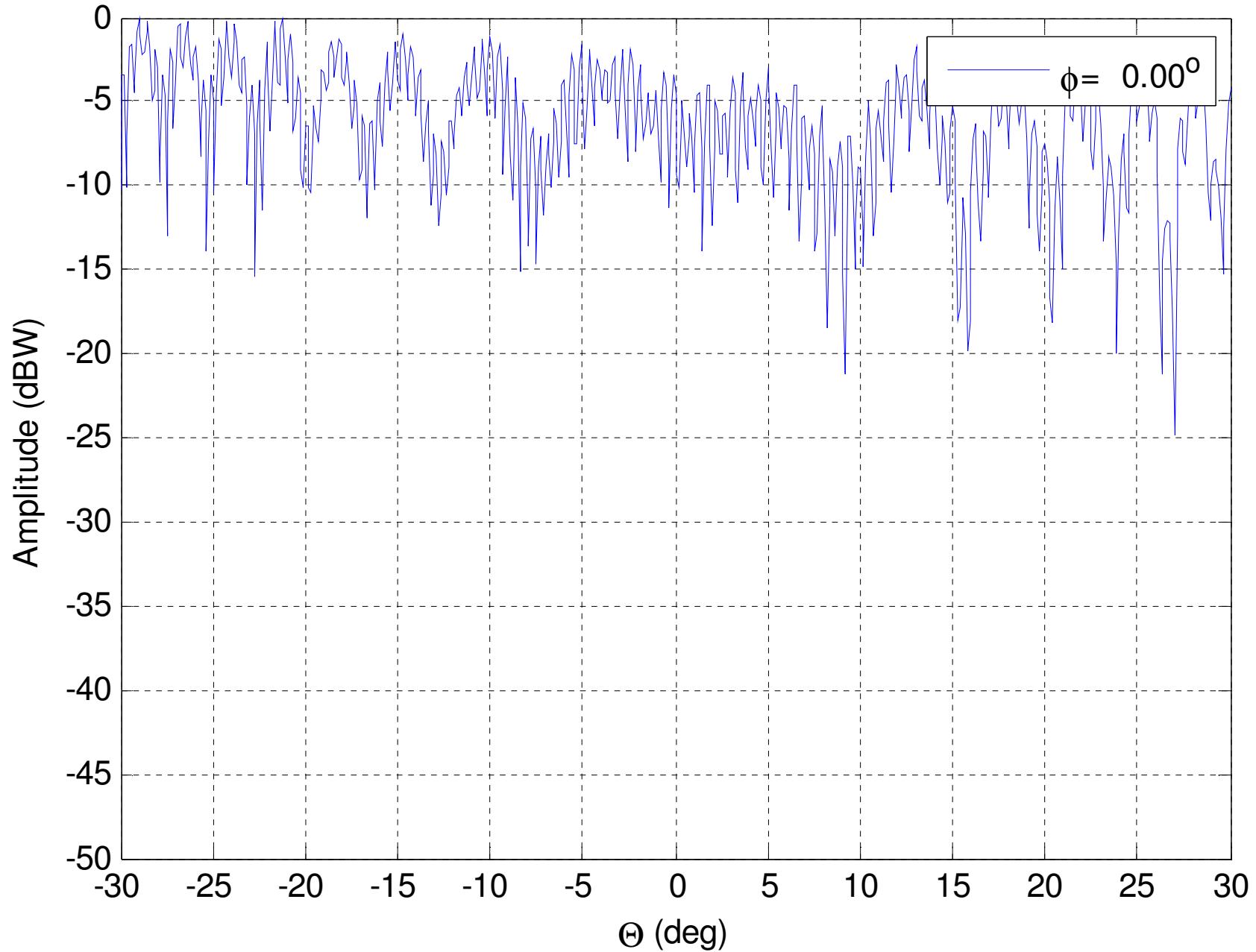
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--10.cut, Peak: -0.69 dBW, Date: 16-Dec-2011



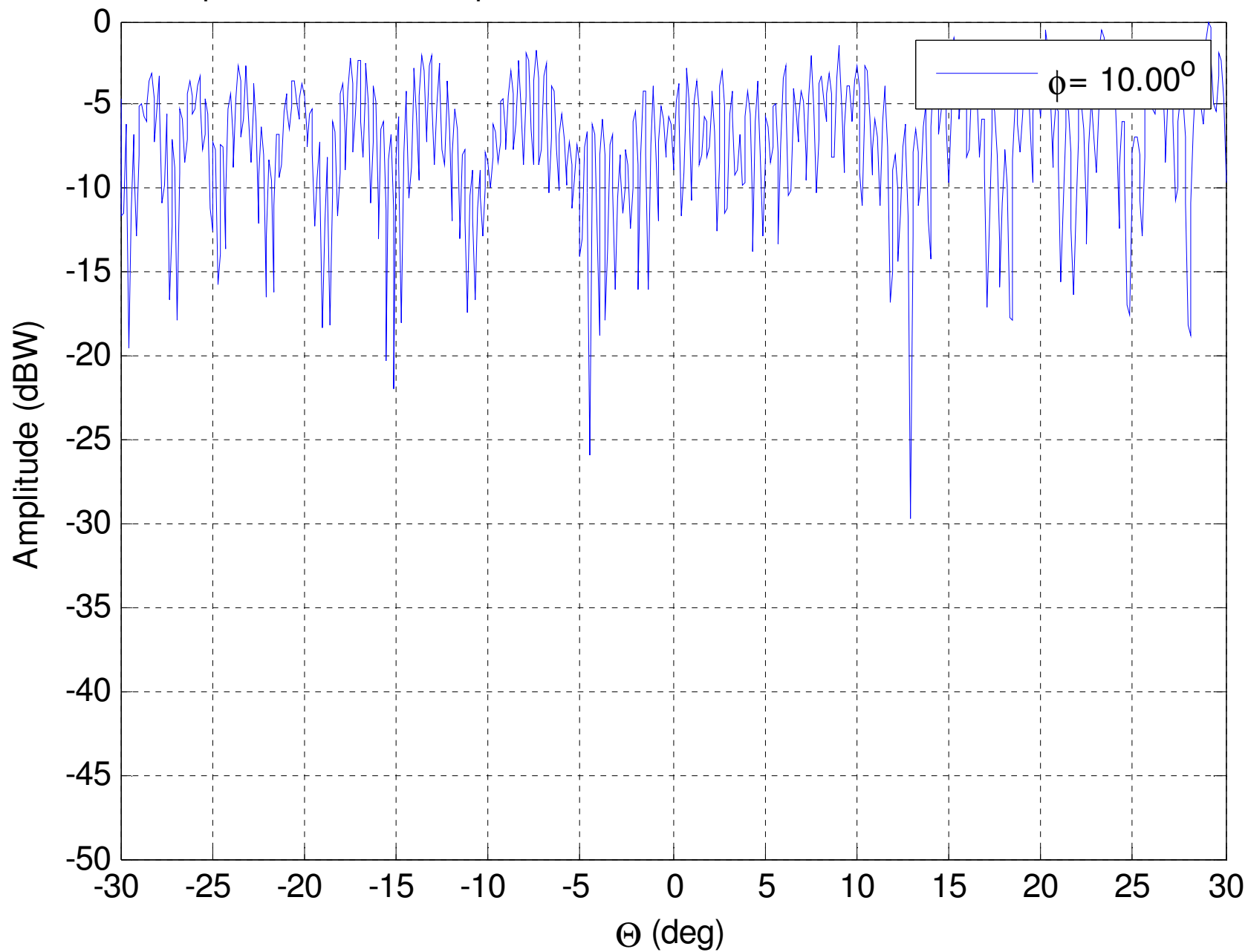
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-0.cut, Peak: -1.25 dBW, Date: 16-Dec-2011



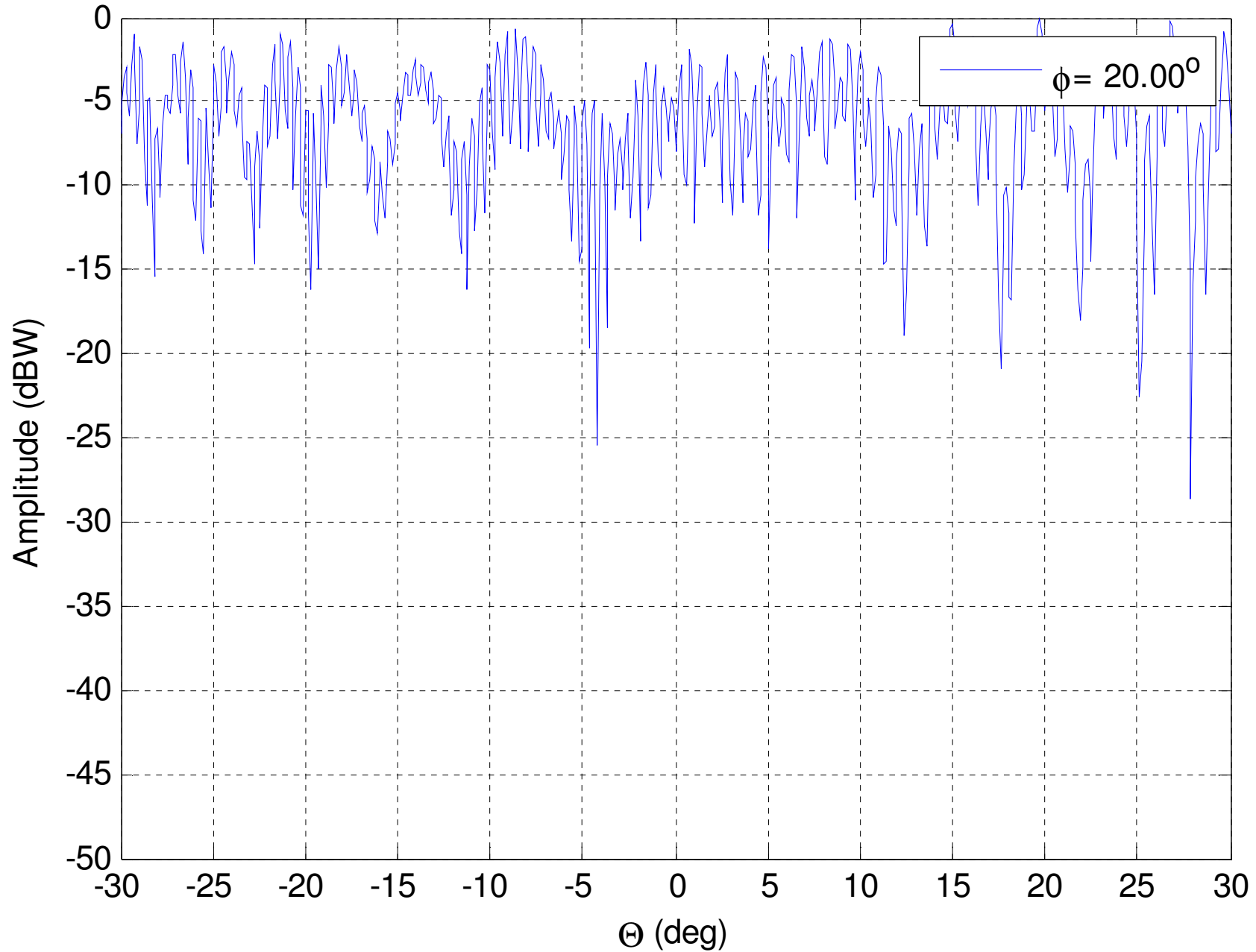
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-10.cut, Peak: -0.83 dBW, Date: 16-Dec-2011



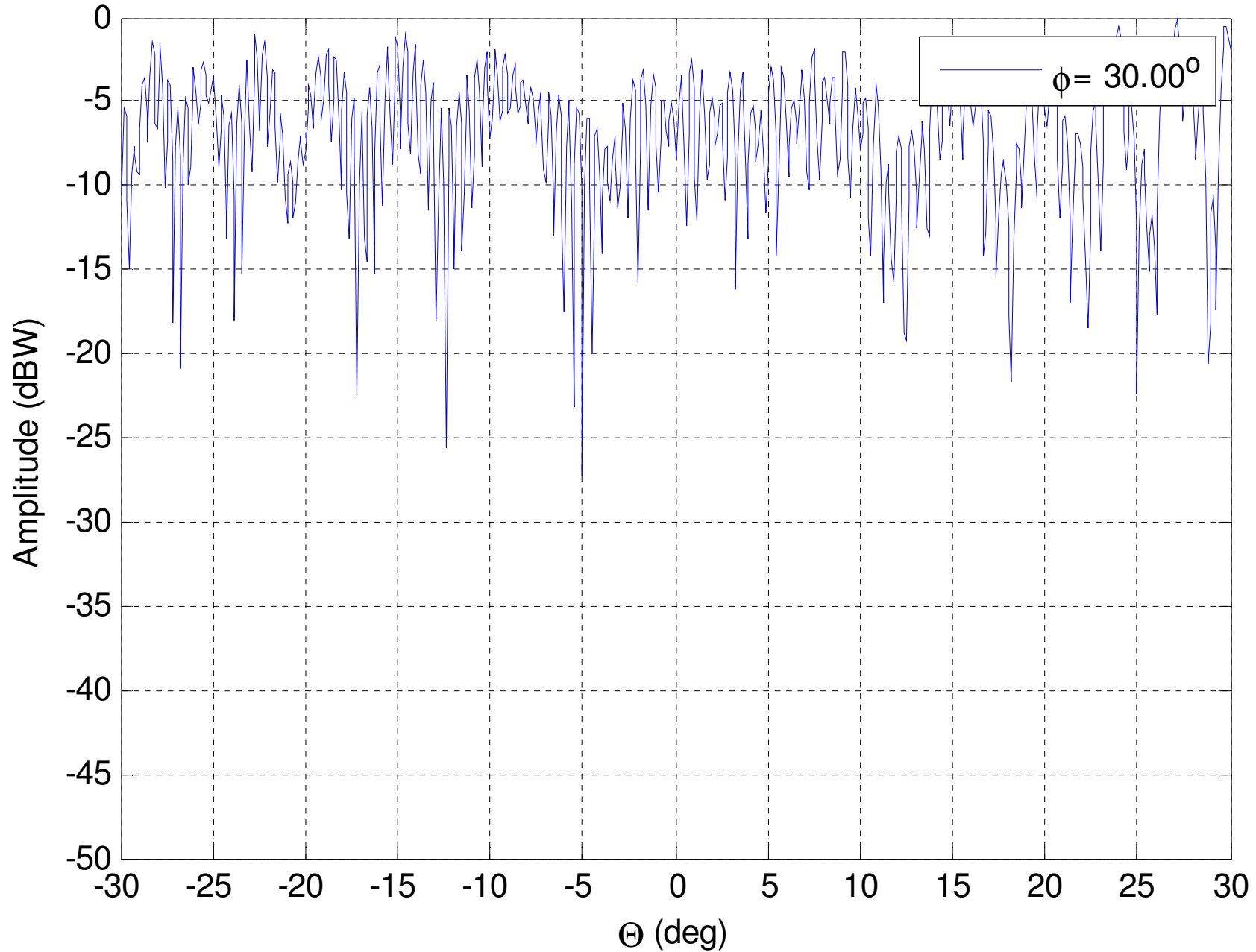
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-20.cut, Peak: -1.73 dBW, Date: 16-Dec-2011



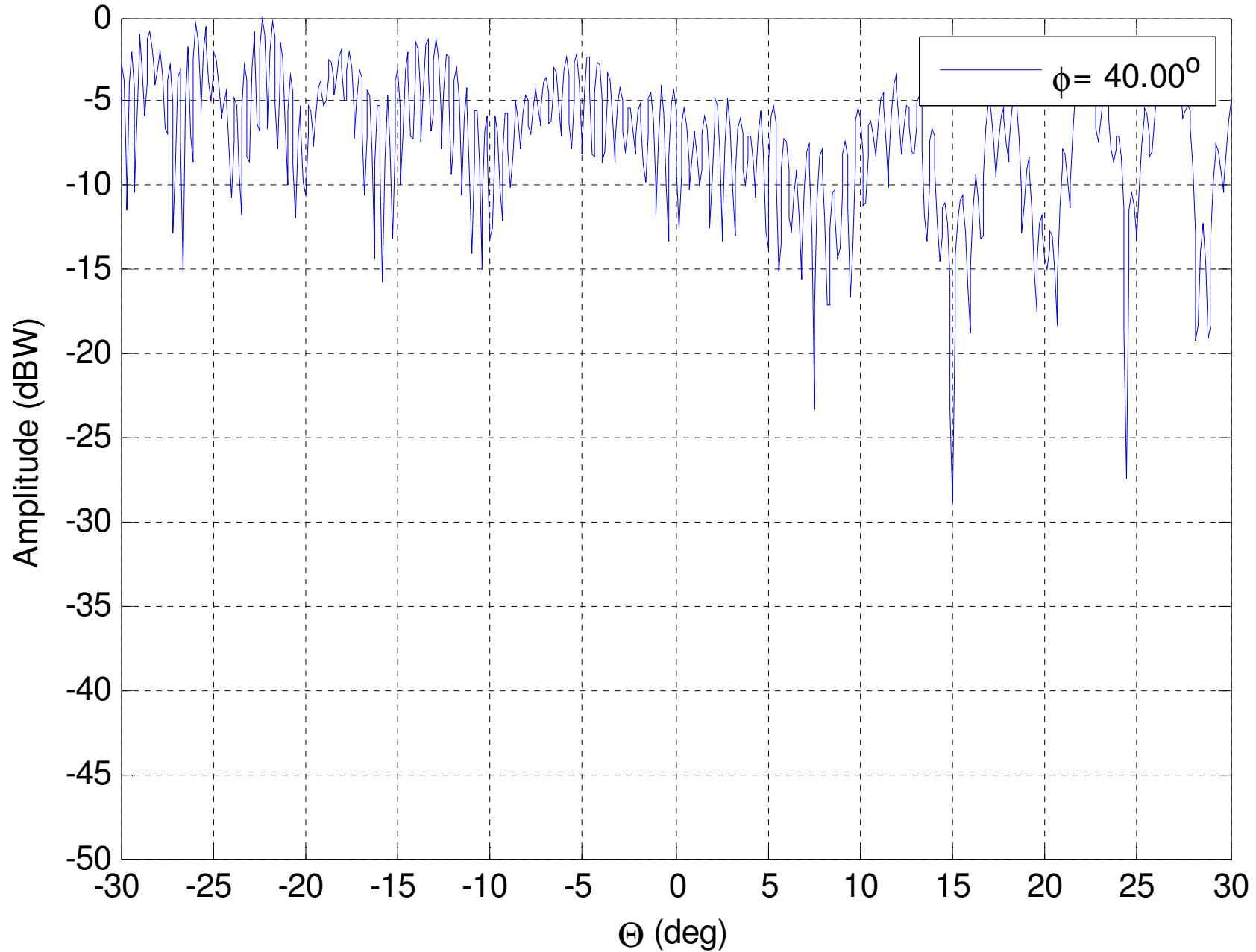
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-30.cut, Peak: -1.26 dBW, Date: 16-Dec-2011



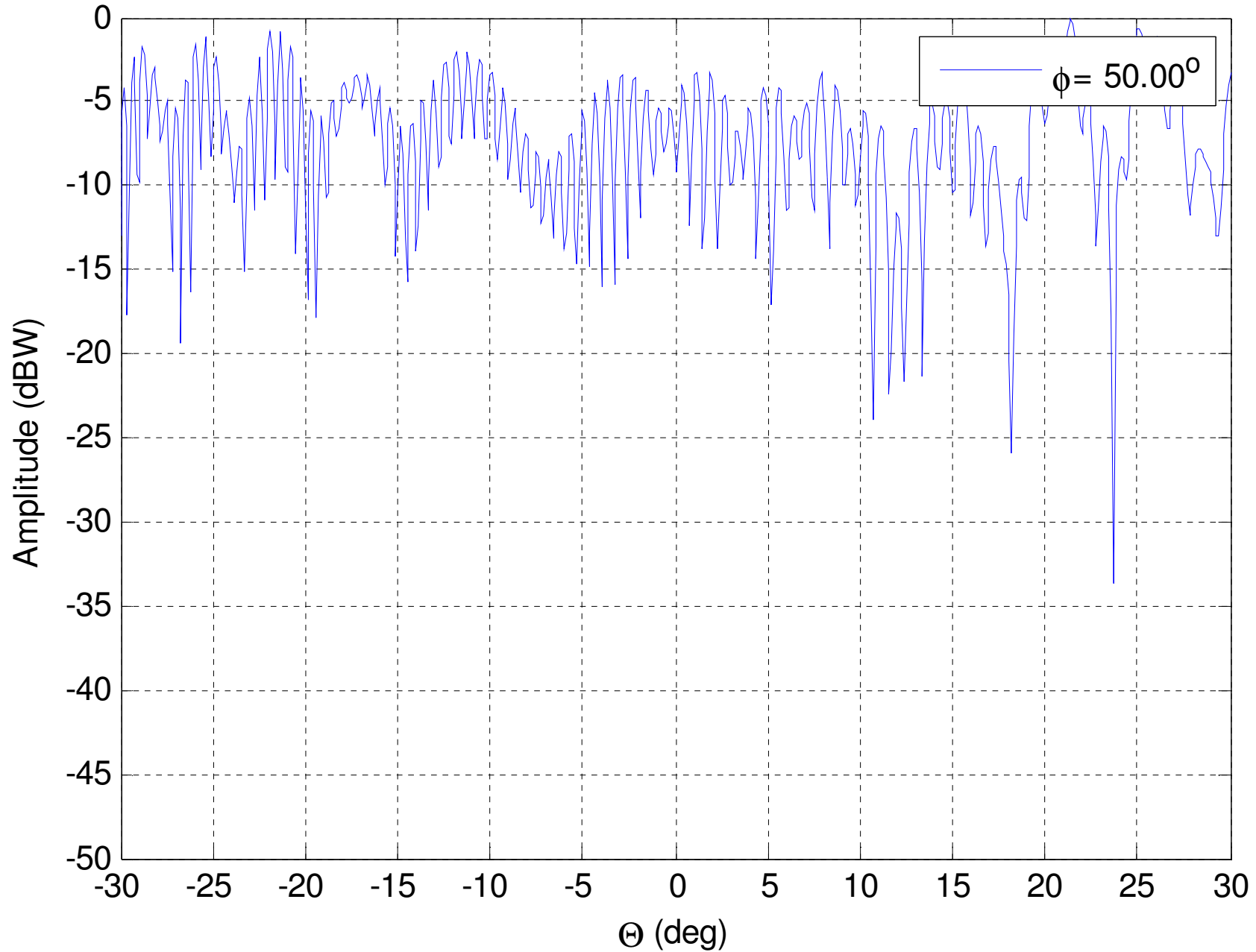
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-40.cut, Peak: -0.32 dBW, Date: 16-Dec-2011



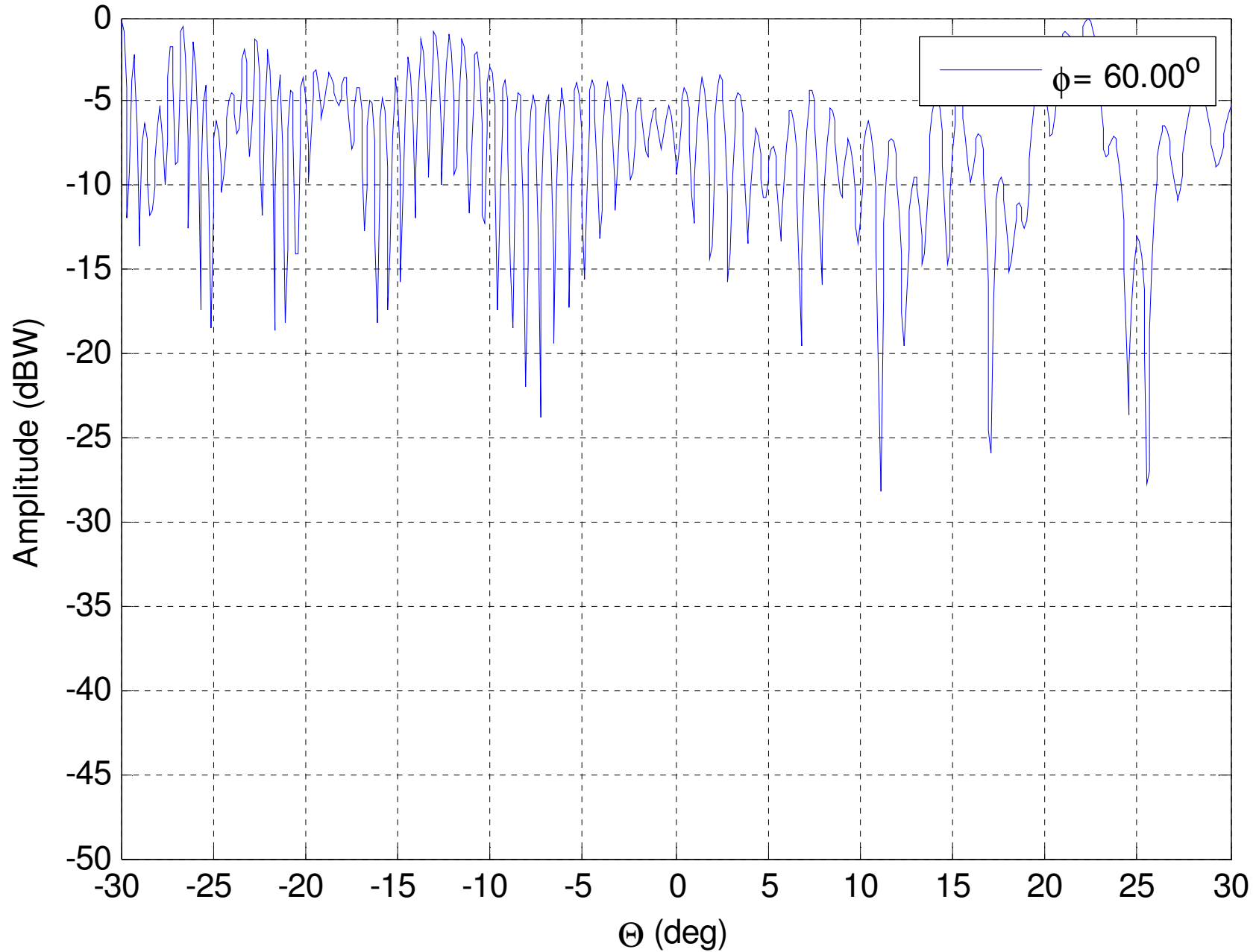
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-50.cut, Peak: -0.86 dBW, Date: 16-Dec-2011



Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-60.cut, Peak: -0.88 dBW, Date: 16-Dec-2011



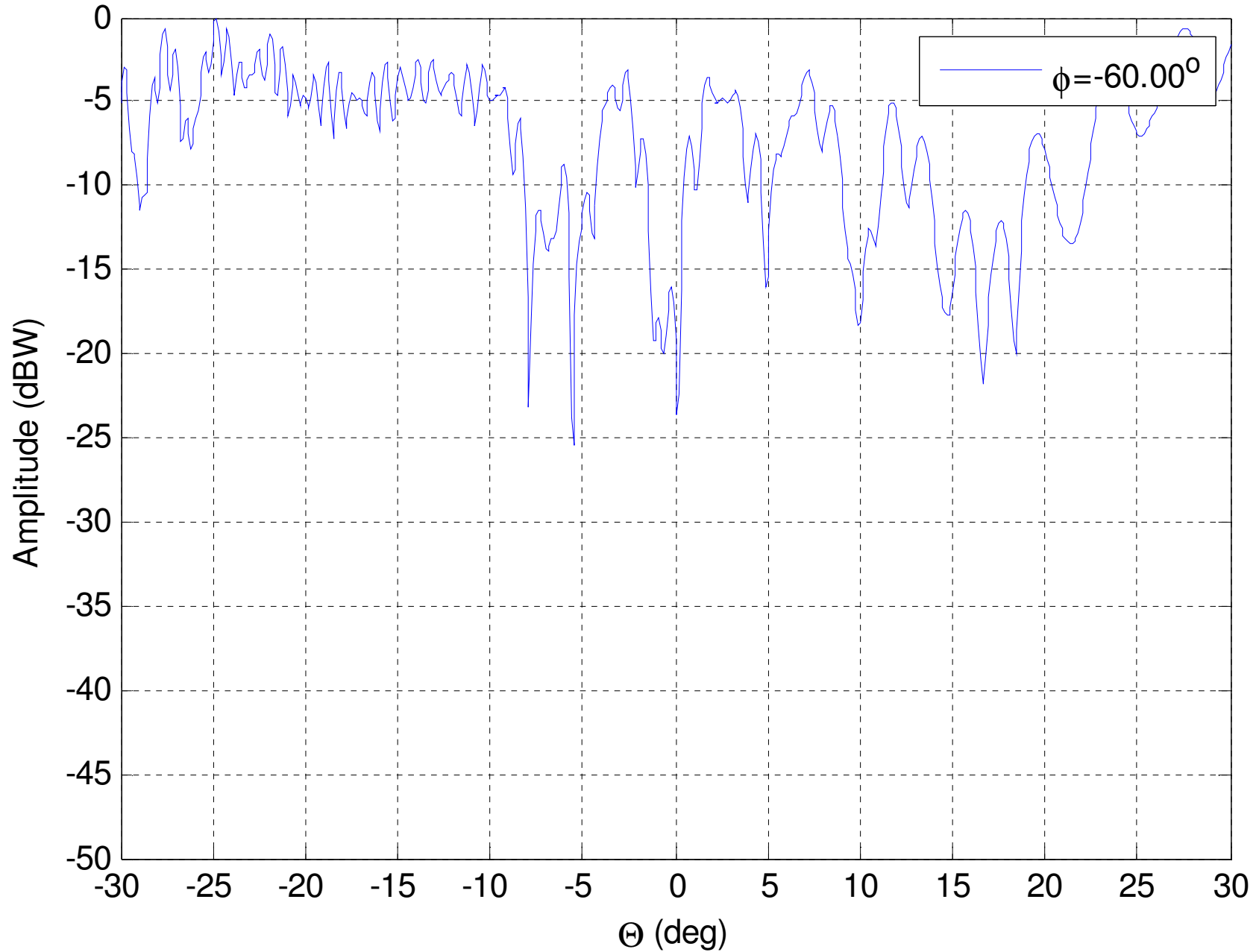
Spot Beam48, +X Axis Plots

- Both polarizations; RHCP, LHCP
- $-30 < \Theta < 30$ ($\Theta=0$: = +X-axis)
- $-60 < \phi < 60$
- Freq = 17.3, 17.5, and 17.7 GHz
- The Zero reference line is the peak gain listed in the title of each chart
- All levels are significantly below the required 20.9 dBW EIRP shown on chart 2

RHCP at 17.3 GHz

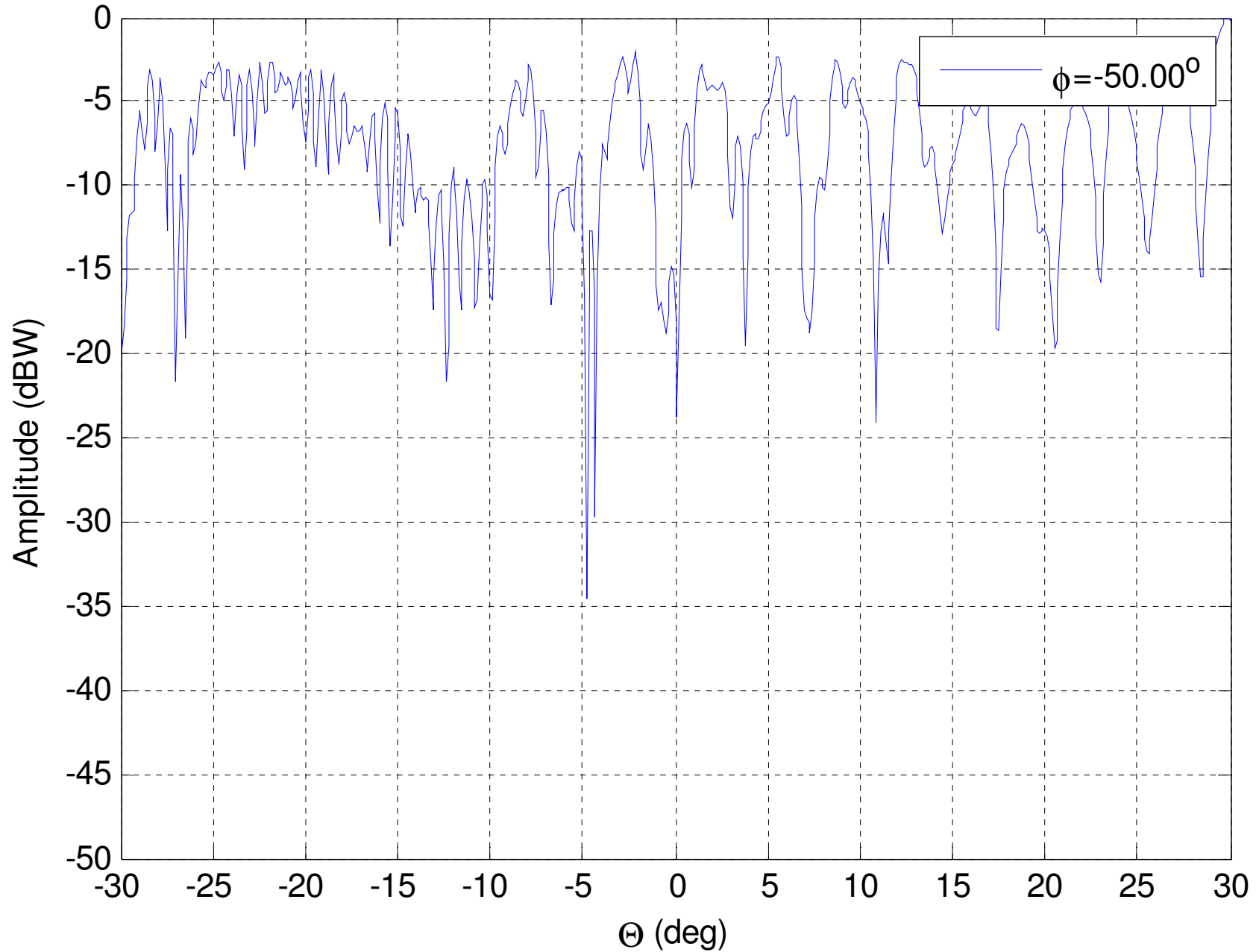
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--60.cut, Peak: -3.65 dBW, Date: 16-Dec-2011



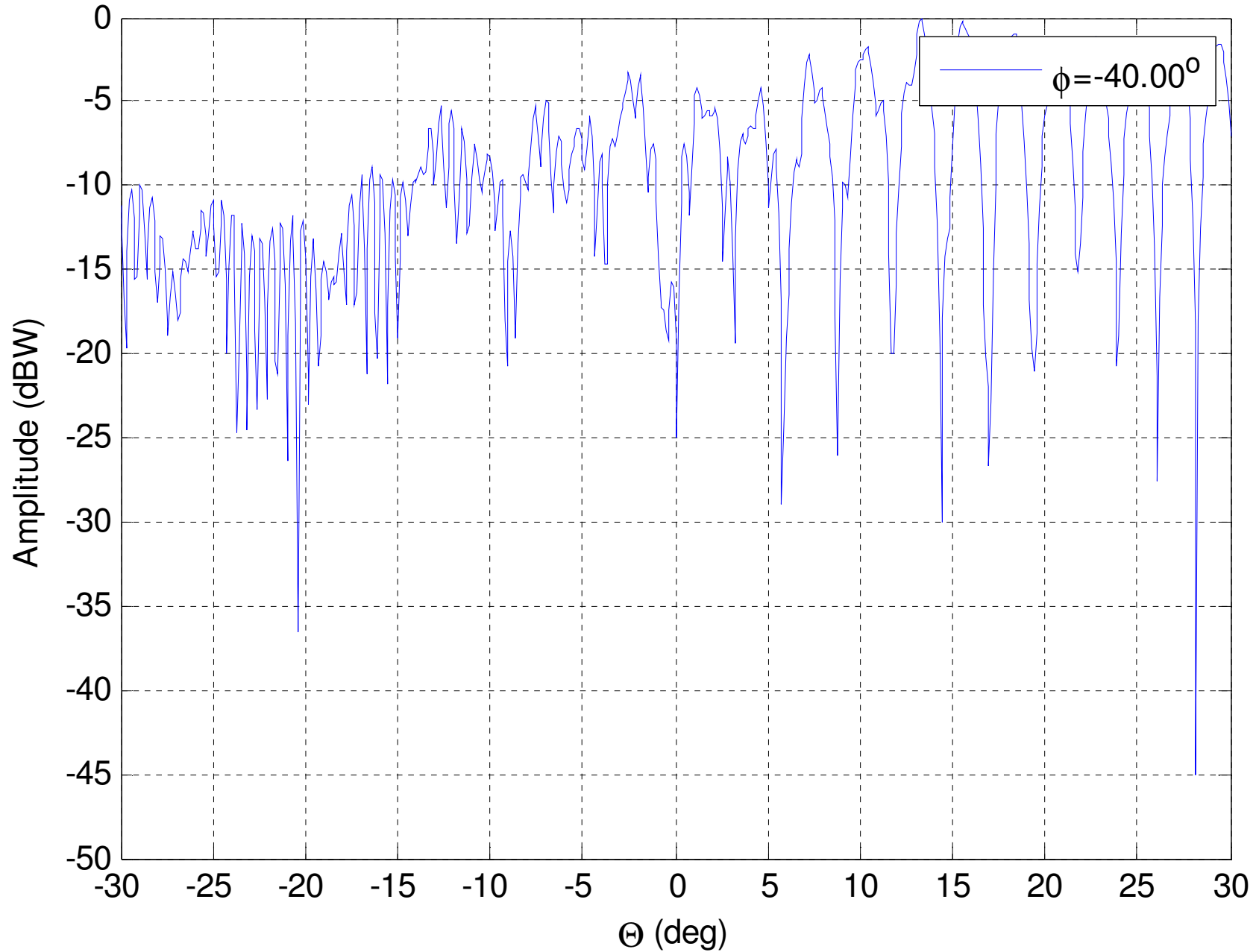
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--50.cut, Peak: -4.70 dBW, Date: 16-Dec-2011



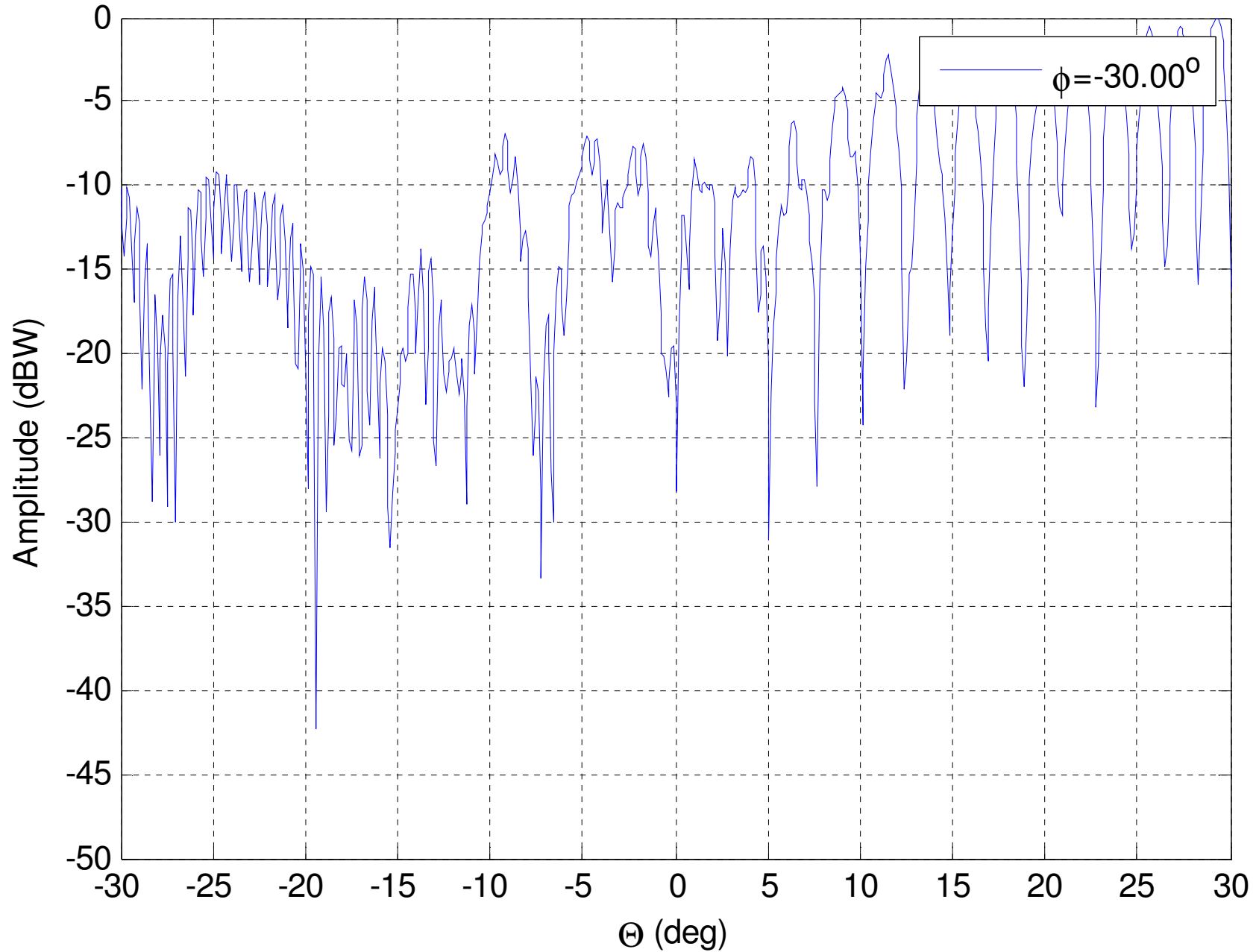
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--40.cut, Peak: -3.63 dBW, Date: 16-Dec-2011



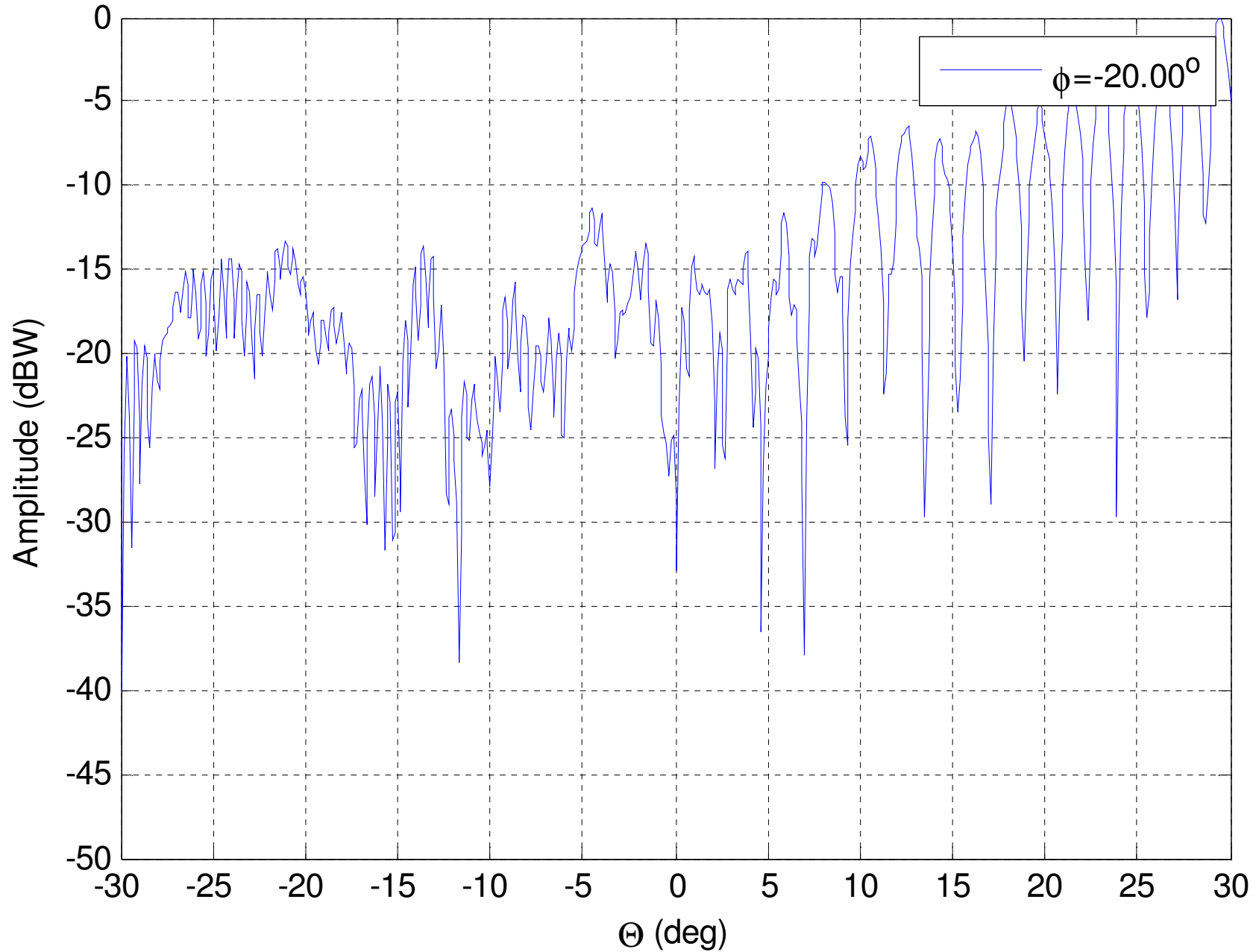
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--30.cut, Peak: 0.26 dBW, Date: 16-Dec-2011



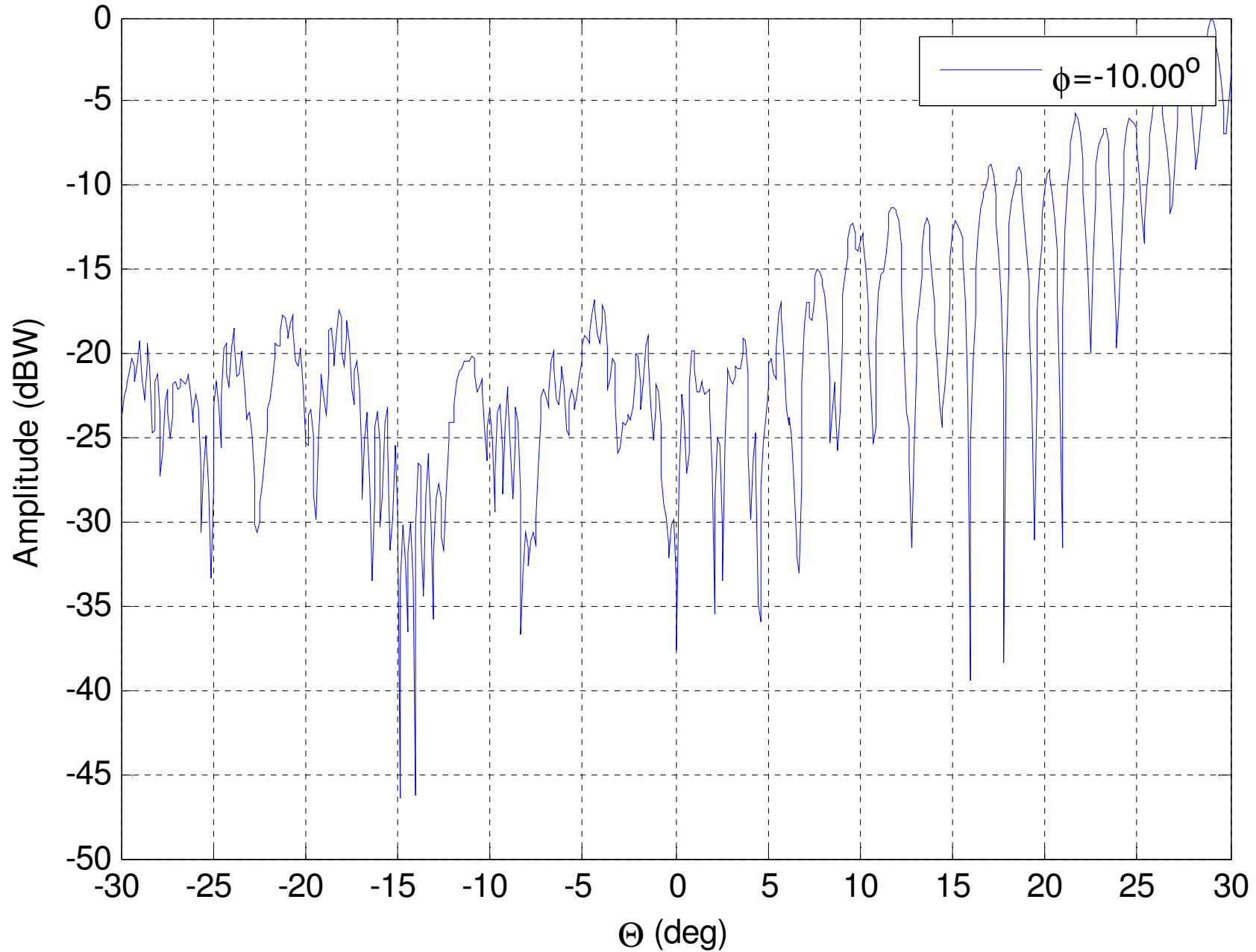
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--20.cut, Peak: 5.77 dBW, Date: 16-Dec-2011



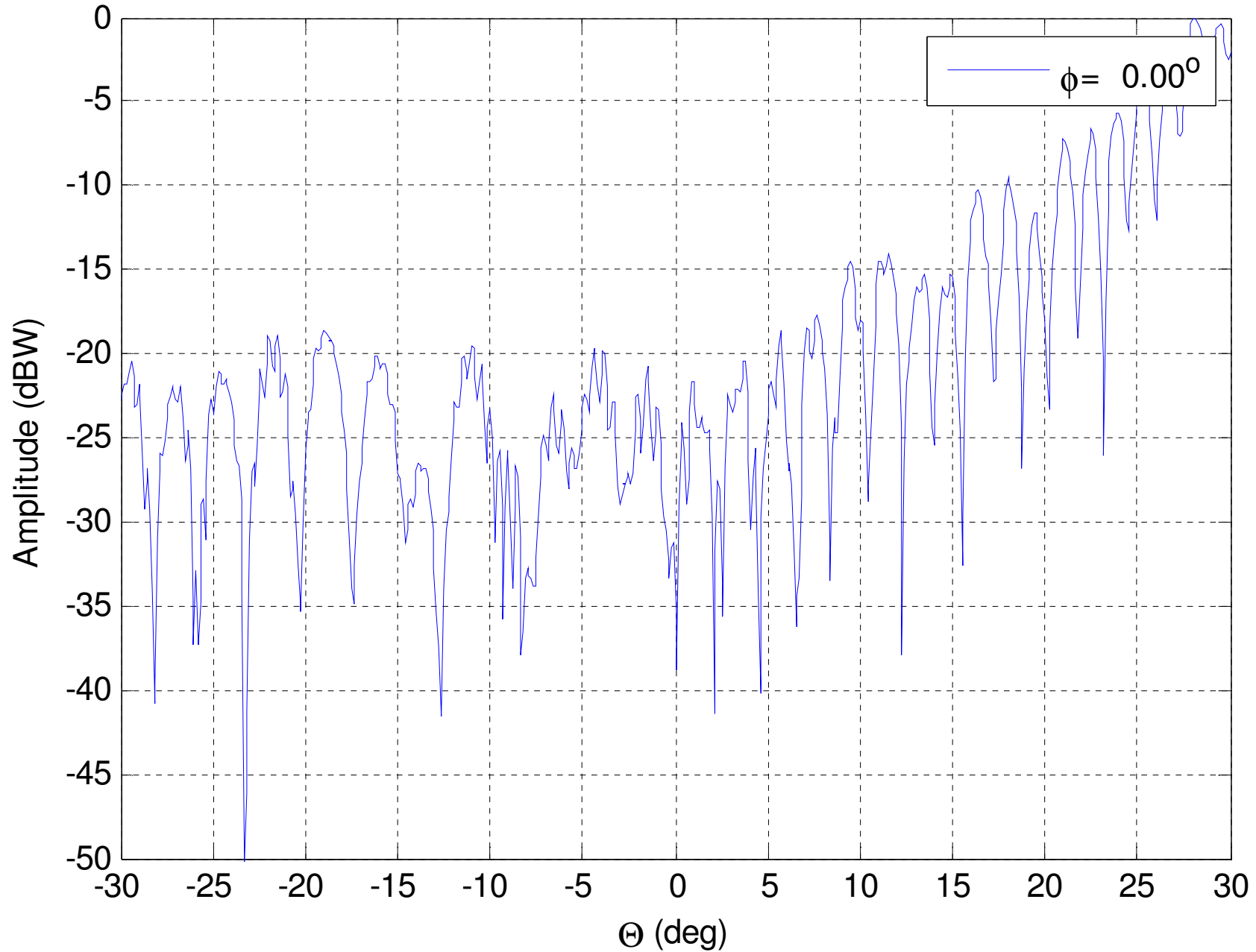
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--10.cut, Peak: 10.96 dBW, Date: 16-Dec-2011



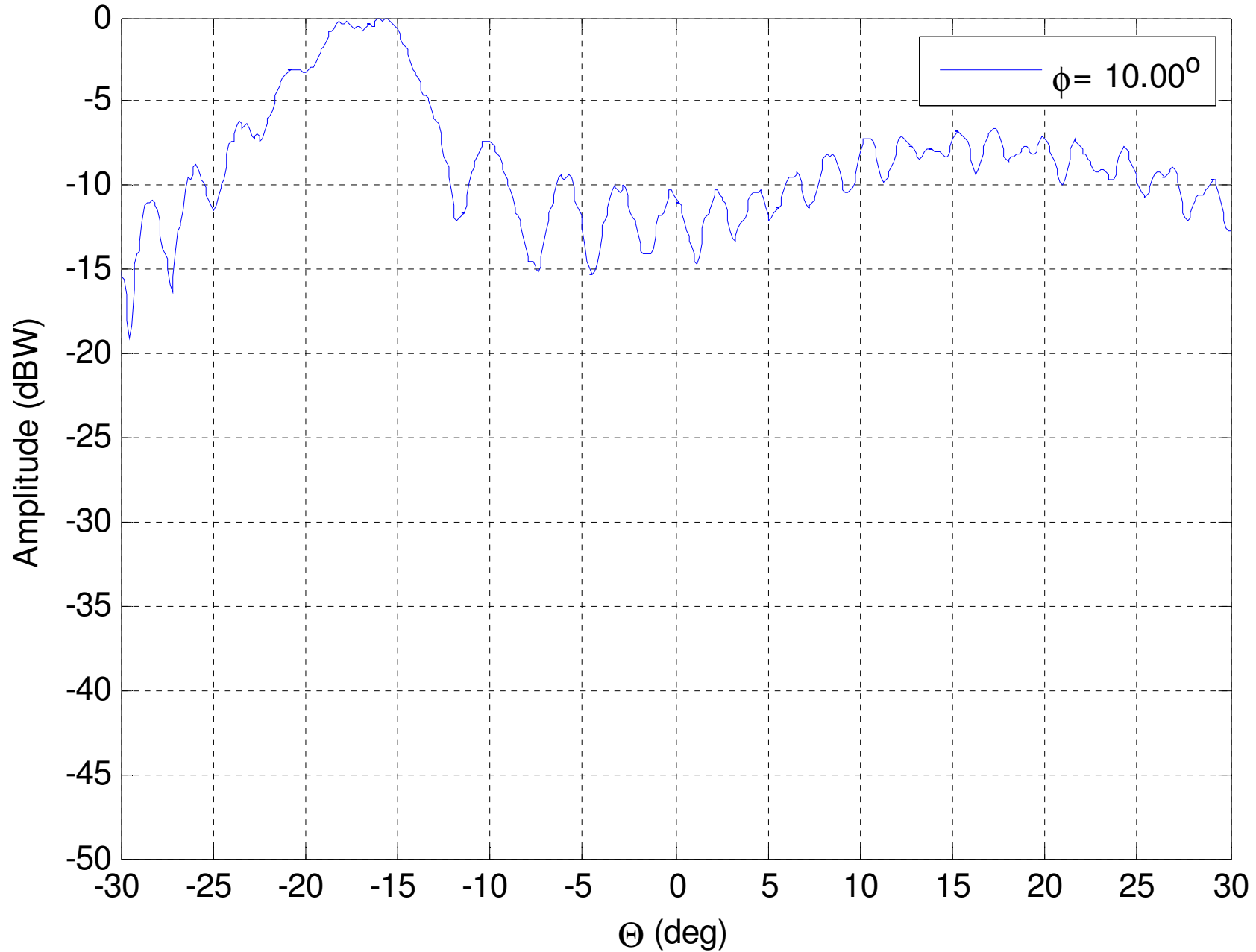
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-0.cut, Peak: 12.49 dBW, Date: 16-Dec-2011



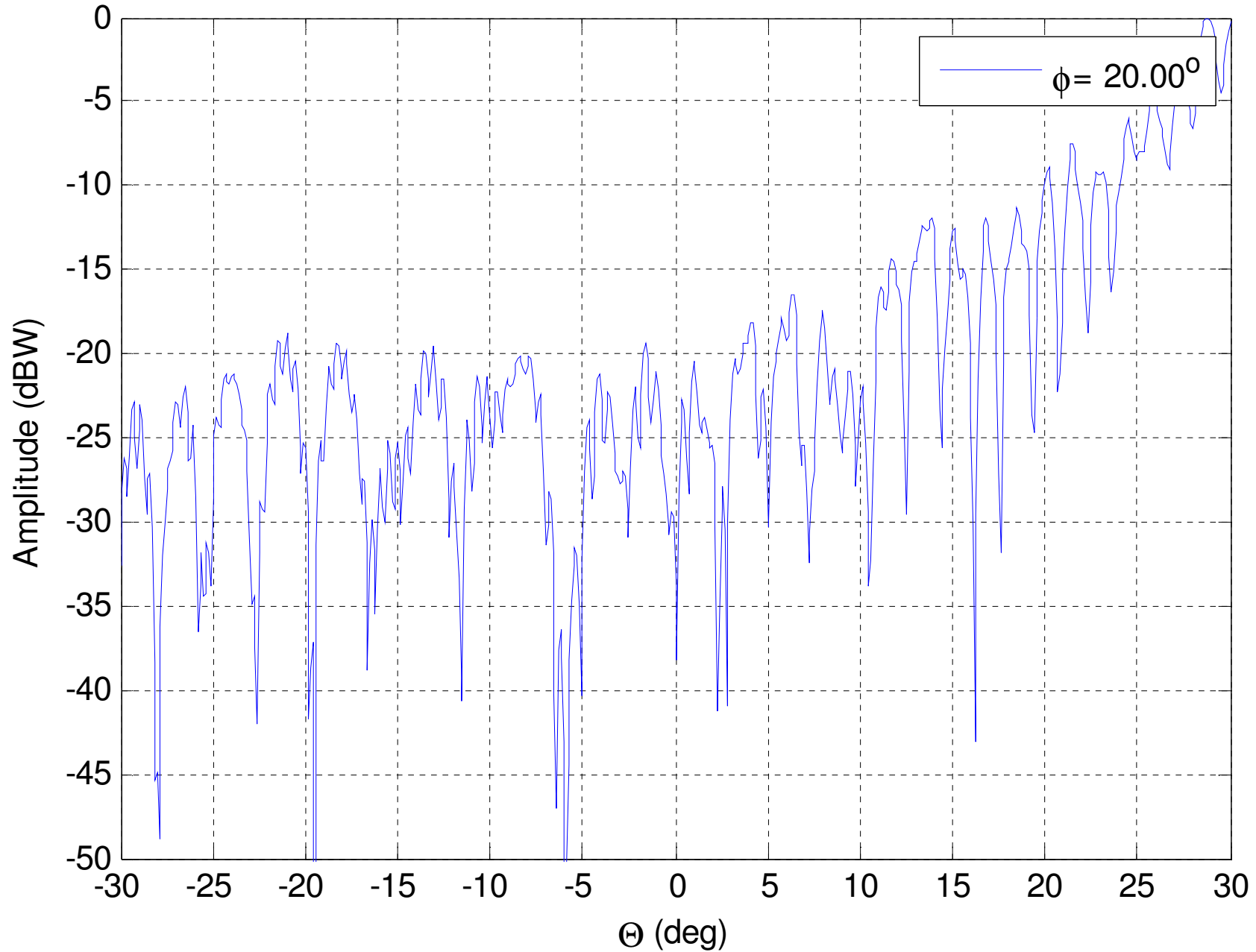
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-10.cut, Peak: 13.33 dBW, Date: 16-Dec-2011



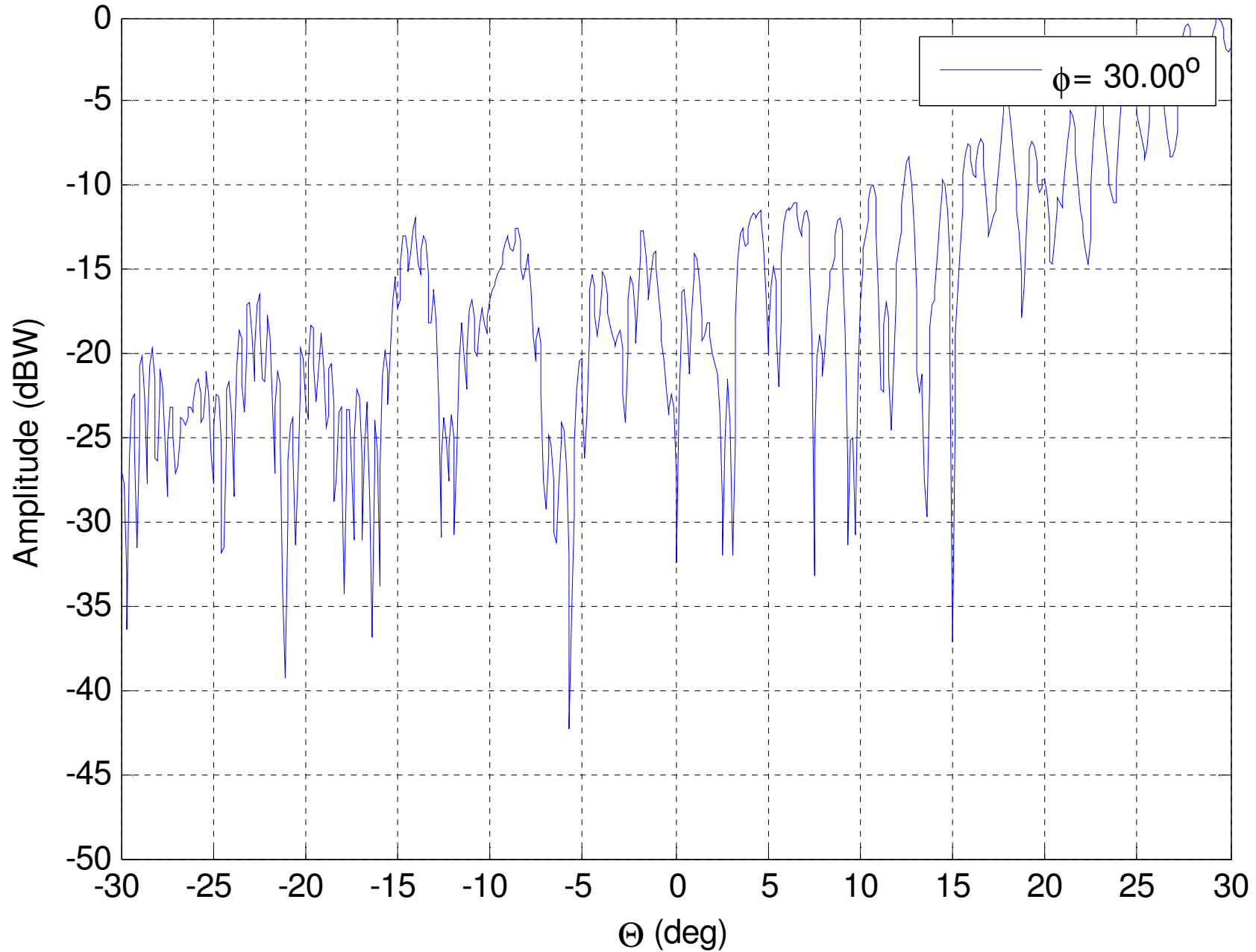
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-20.cut, Peak: 11.03 dBW, Date: 16-Dec-2011



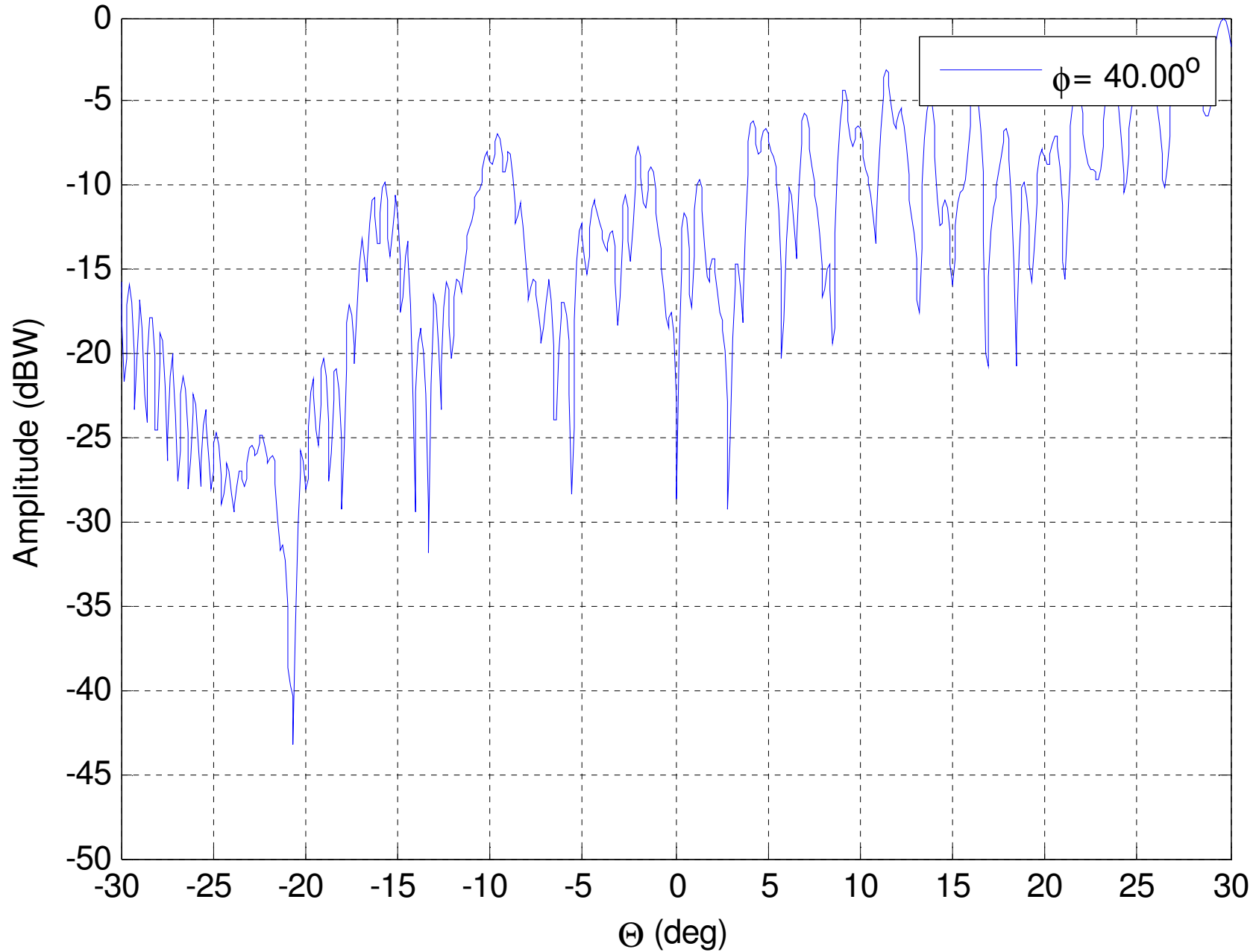
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-30.cut, Peak: 4.44 dBW, Date: 16-Dec-2011



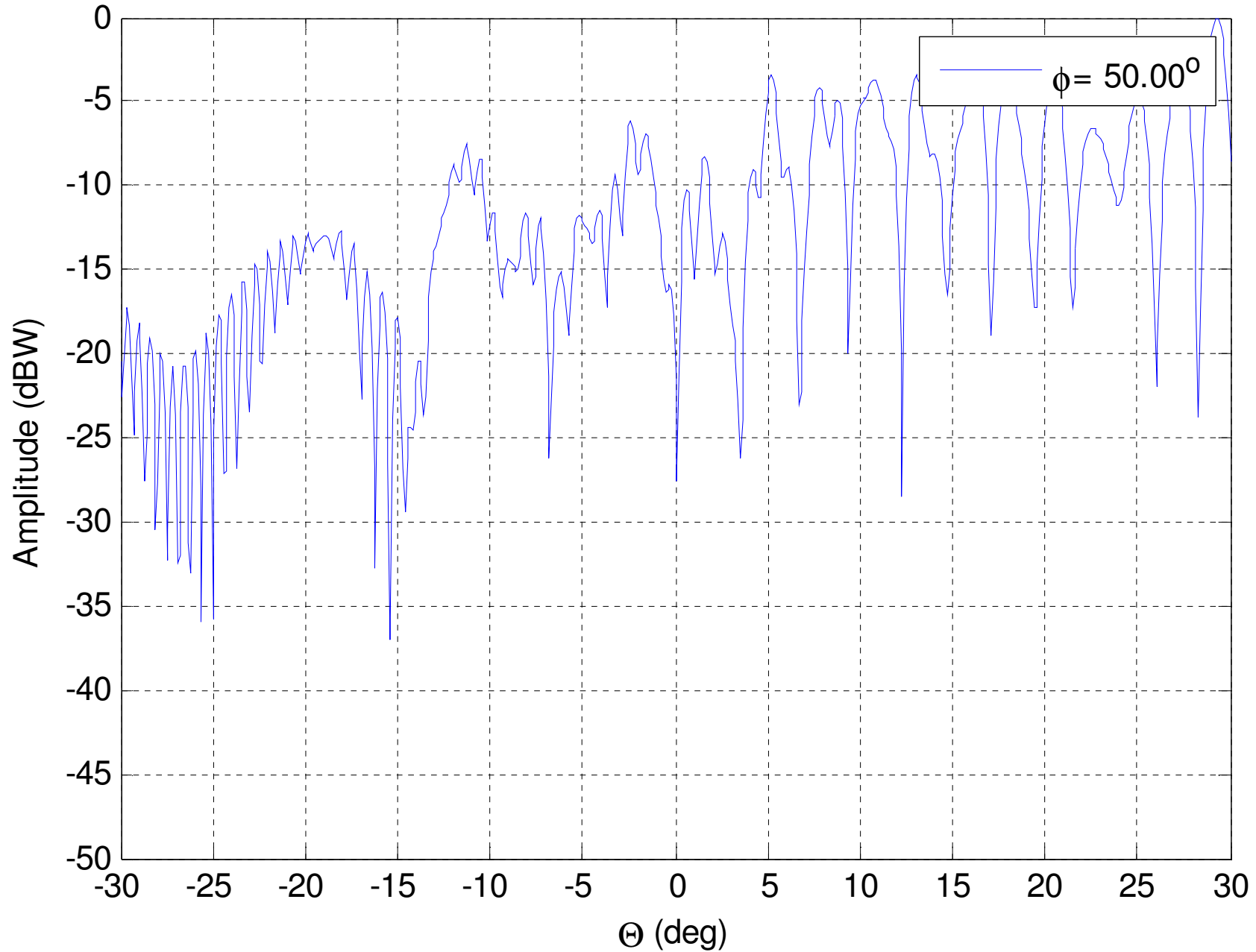
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-40.cut, Peak: -0.09 dBW, Date: 16-Dec-2011



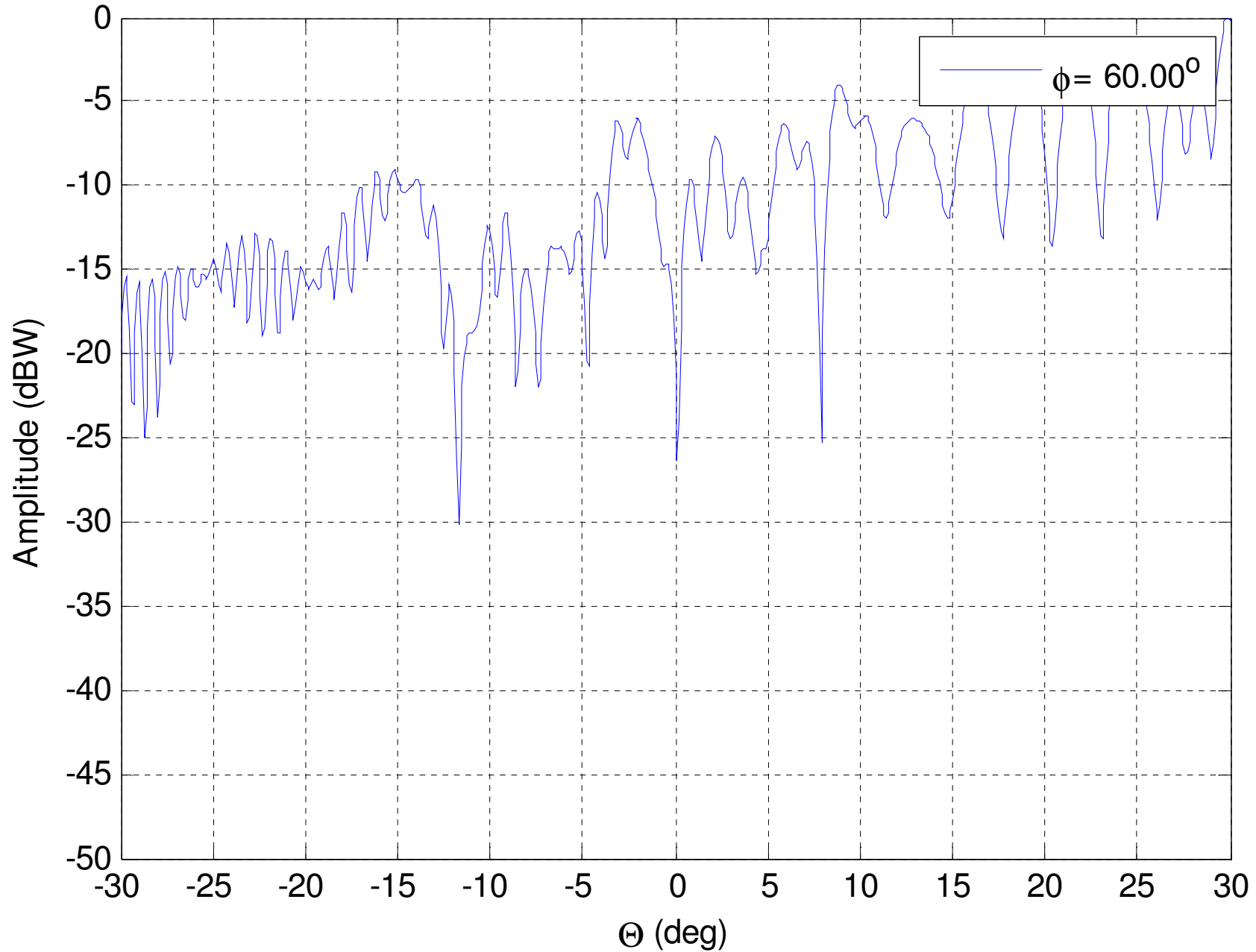
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-50.cut, Peak: -1.35 dBW, Date: 16-Dec-2011



Normalized pattern cuts - farfield

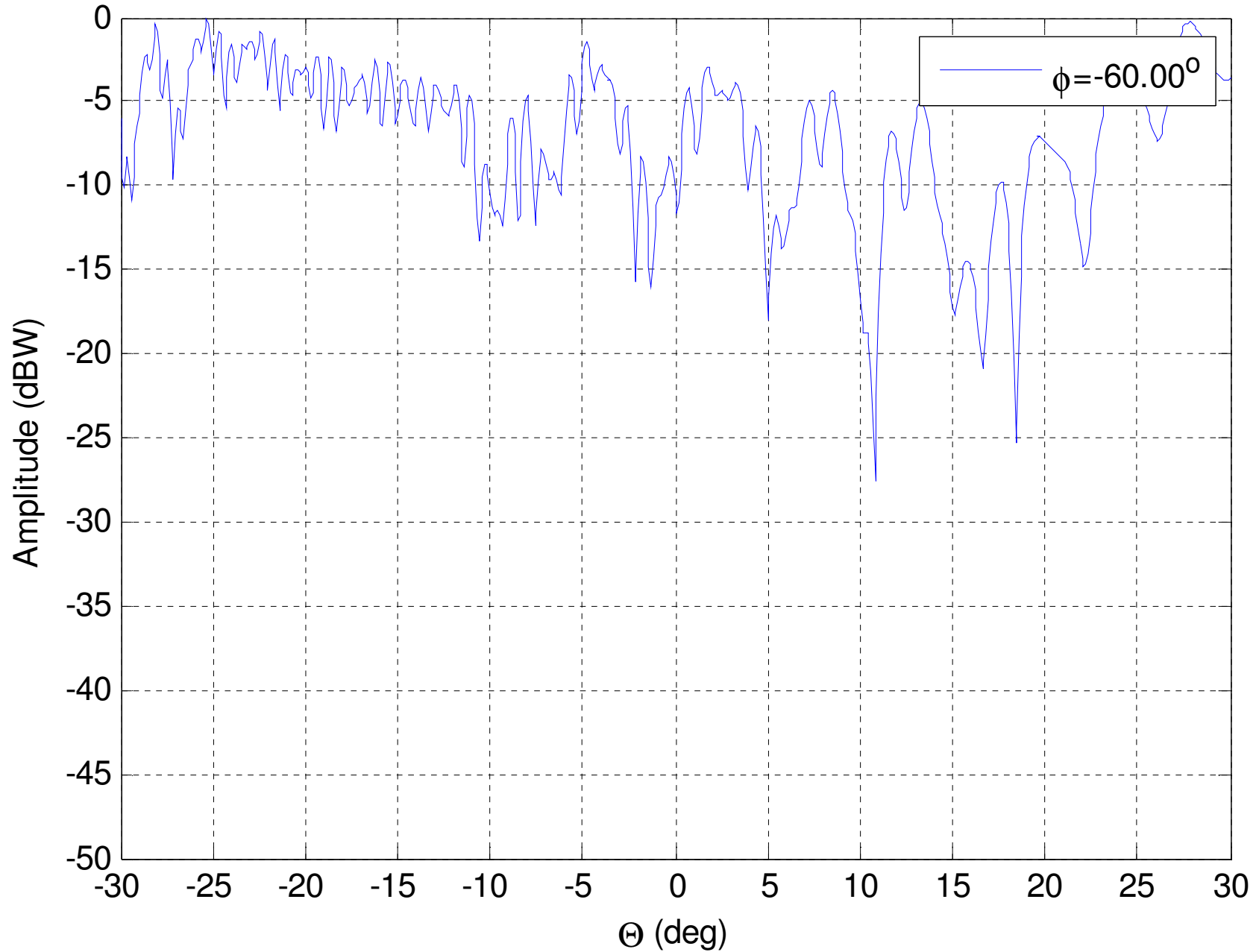
Input file: tx-17.3-rhcp-60.cut, Peak: -1.69 dBW, Date: 16-Dec-2011



LHCP at 17.3 GHz

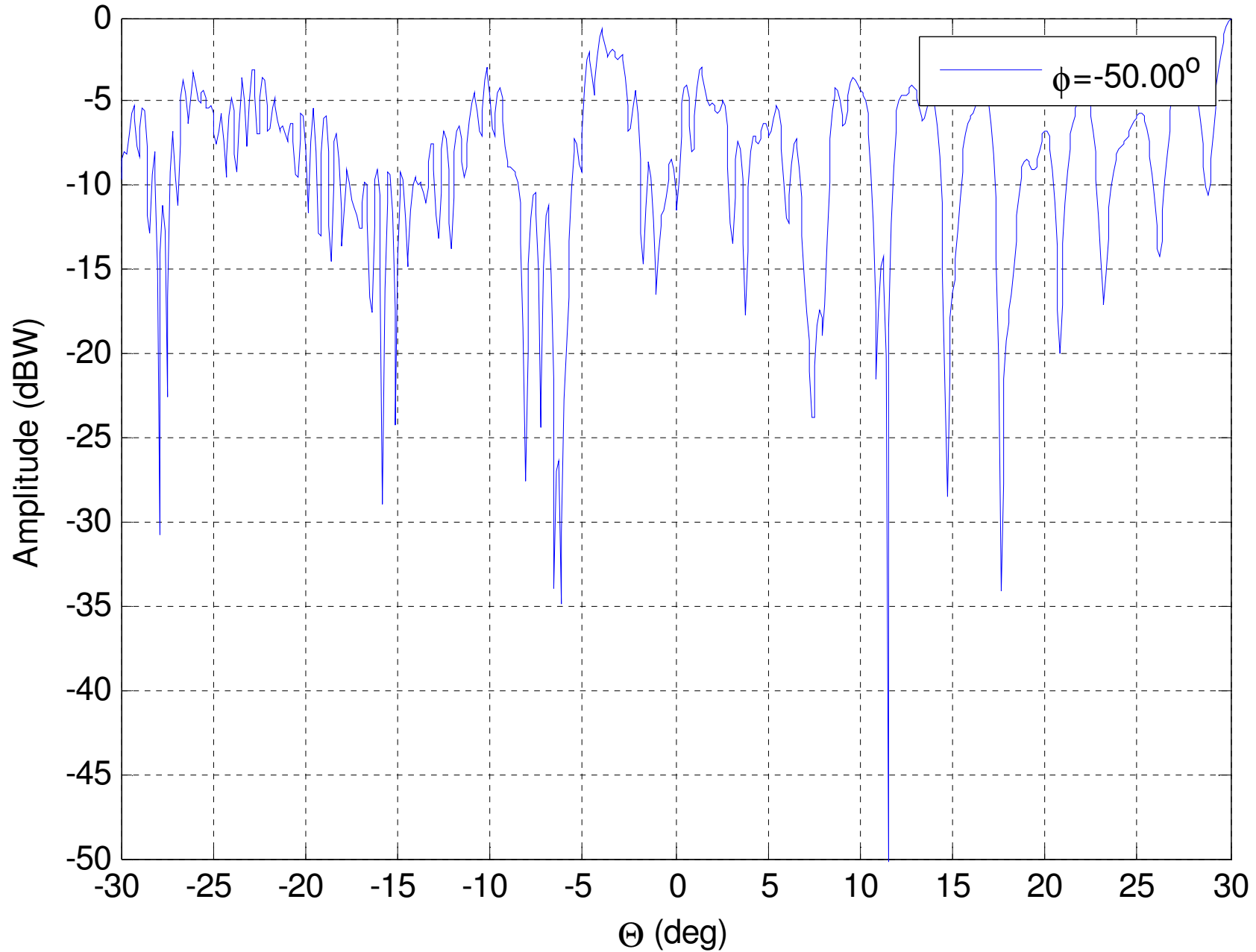
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp--60.cut, Peak: -4.25 dBW, Date: 16-Dec-2011



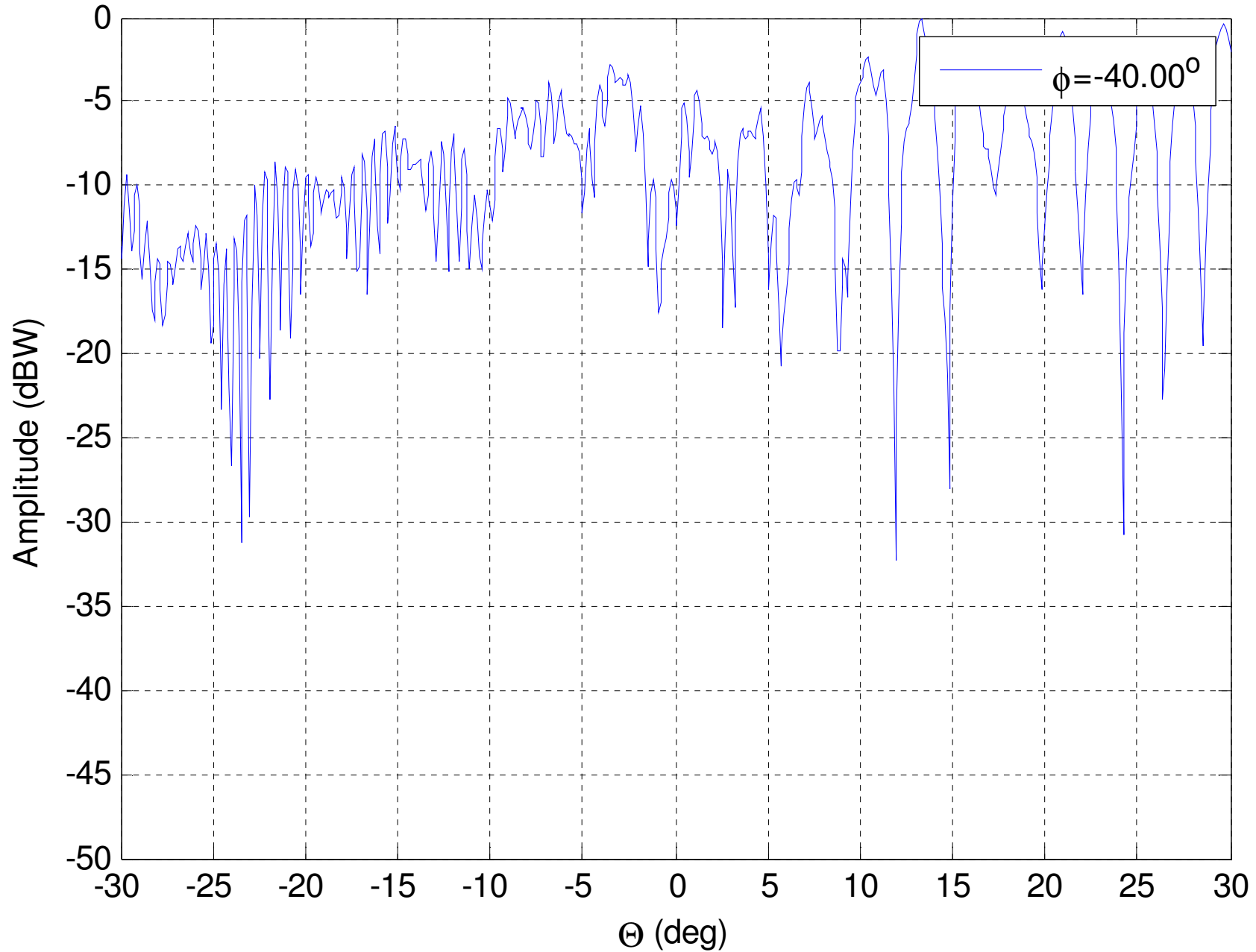
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp--50.cut, Peak: -4.35 dBW, Date: 16-Dec-2011



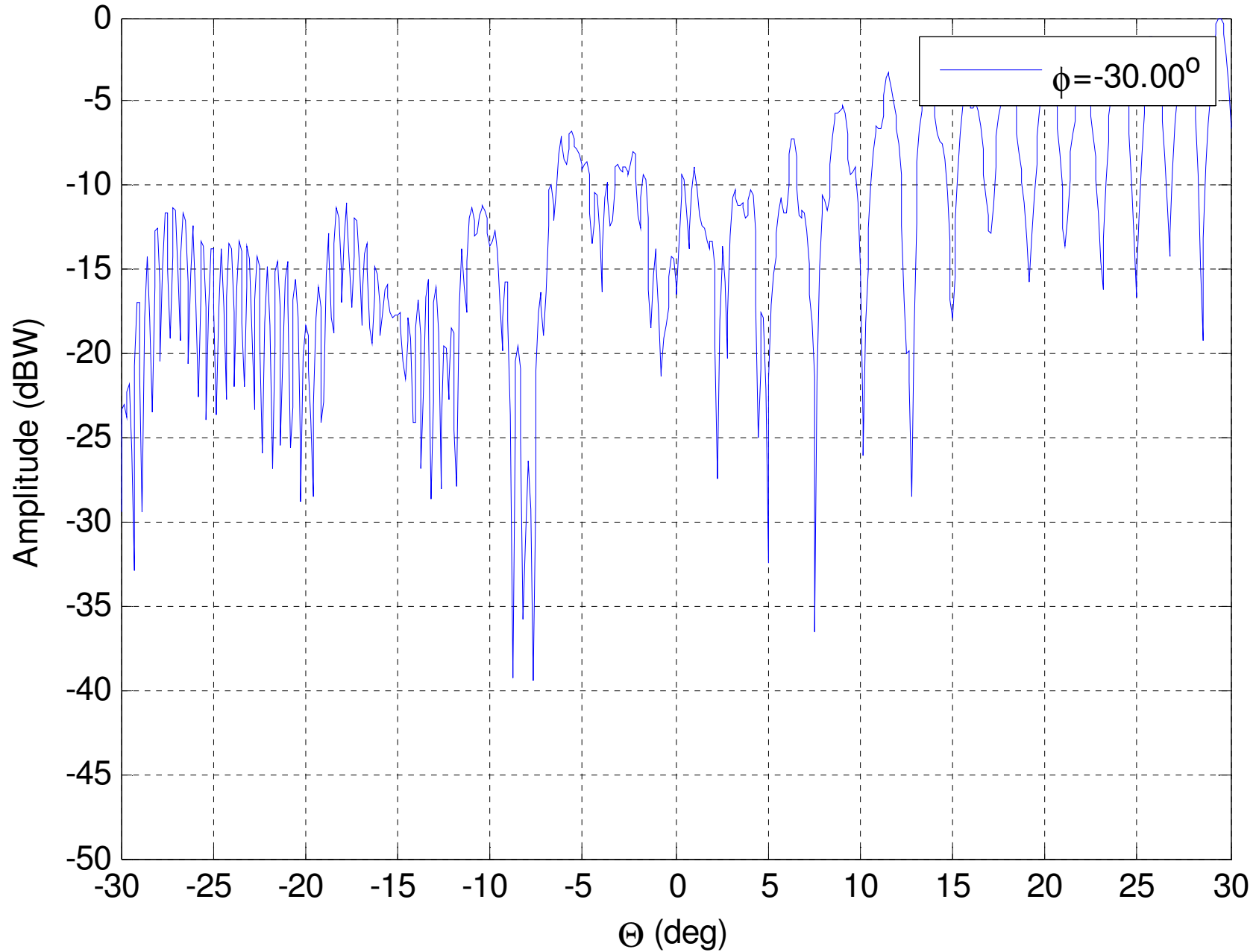
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp--40.cut, Peak: -3.18 dBW, Date: 16-Dec-2011



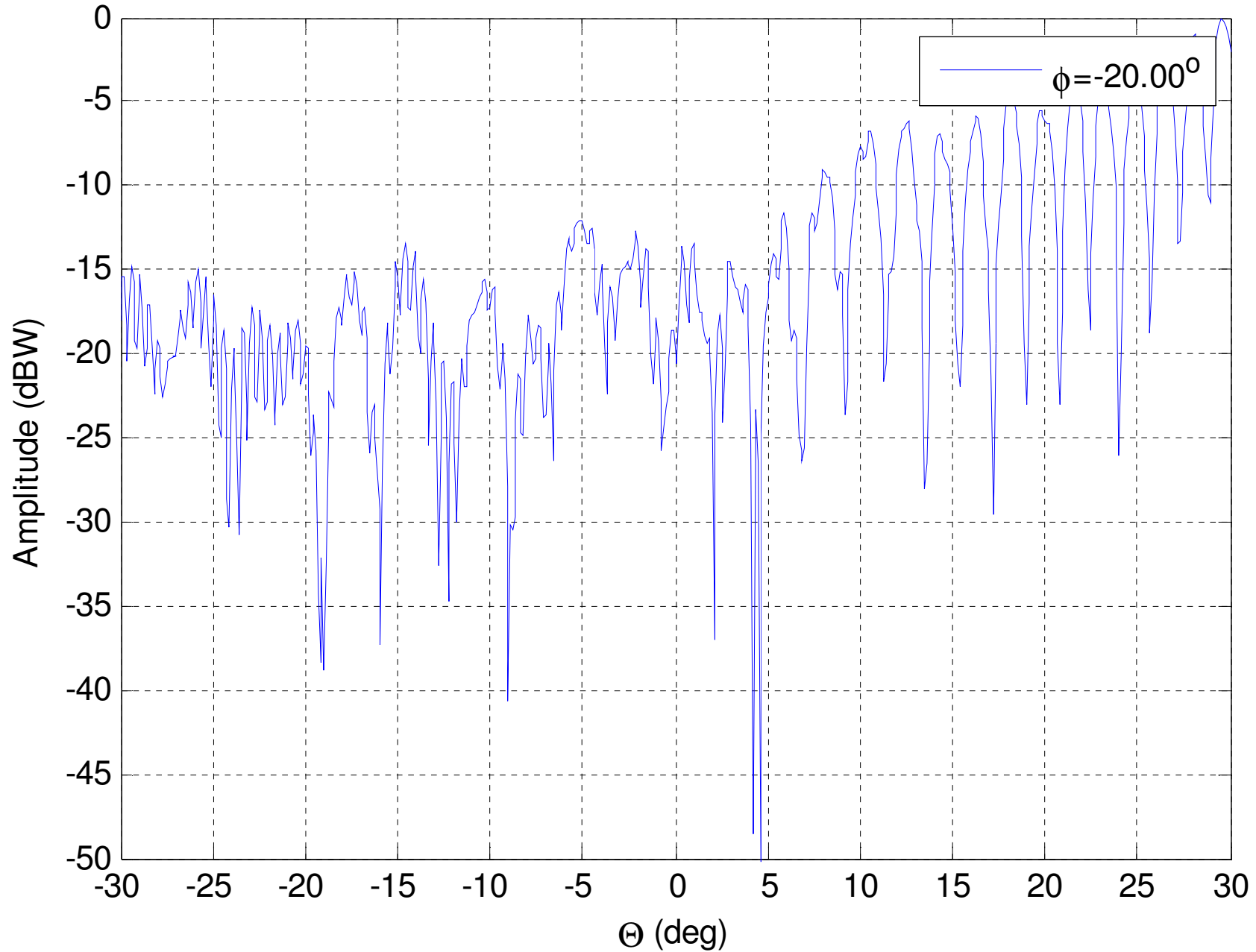
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp--30.cut, Peak: 1.11 dBW, Date: 16-Dec-2011



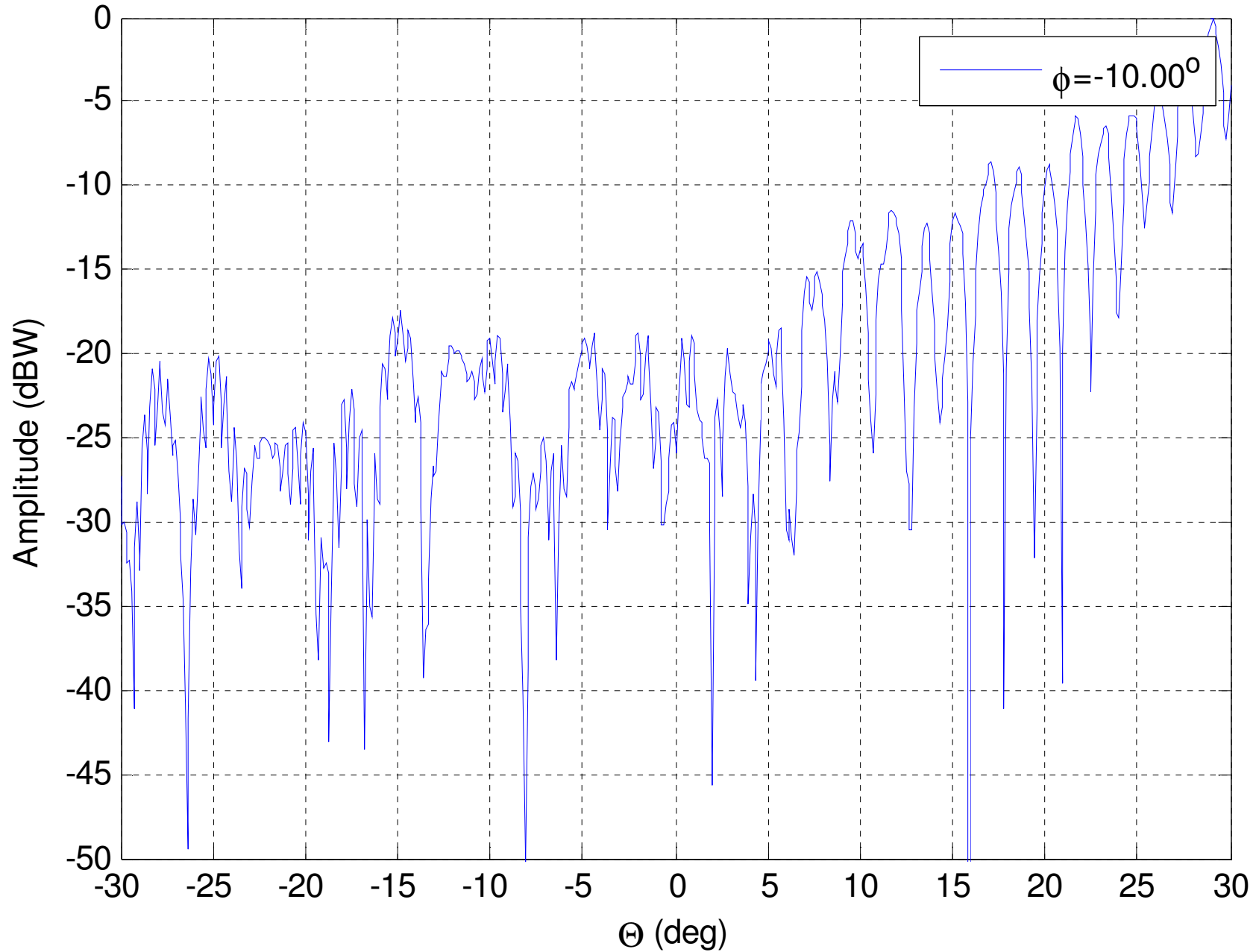
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp--20.cut, Peak: 5.44 dBW, Date: 16-Dec-2011



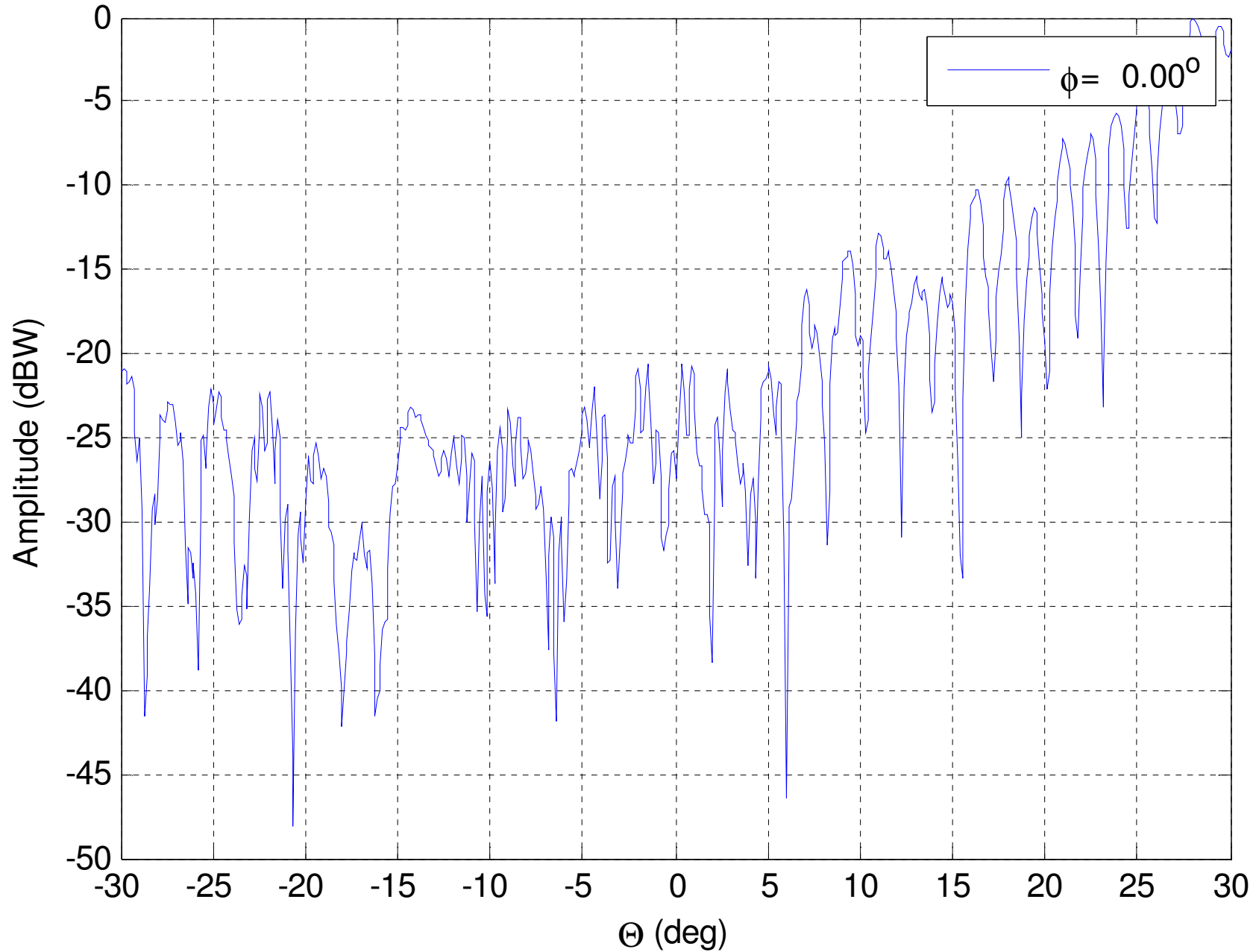
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp--10.cut, Peak: 10.87 dBW, Date: 16-Dec-2011



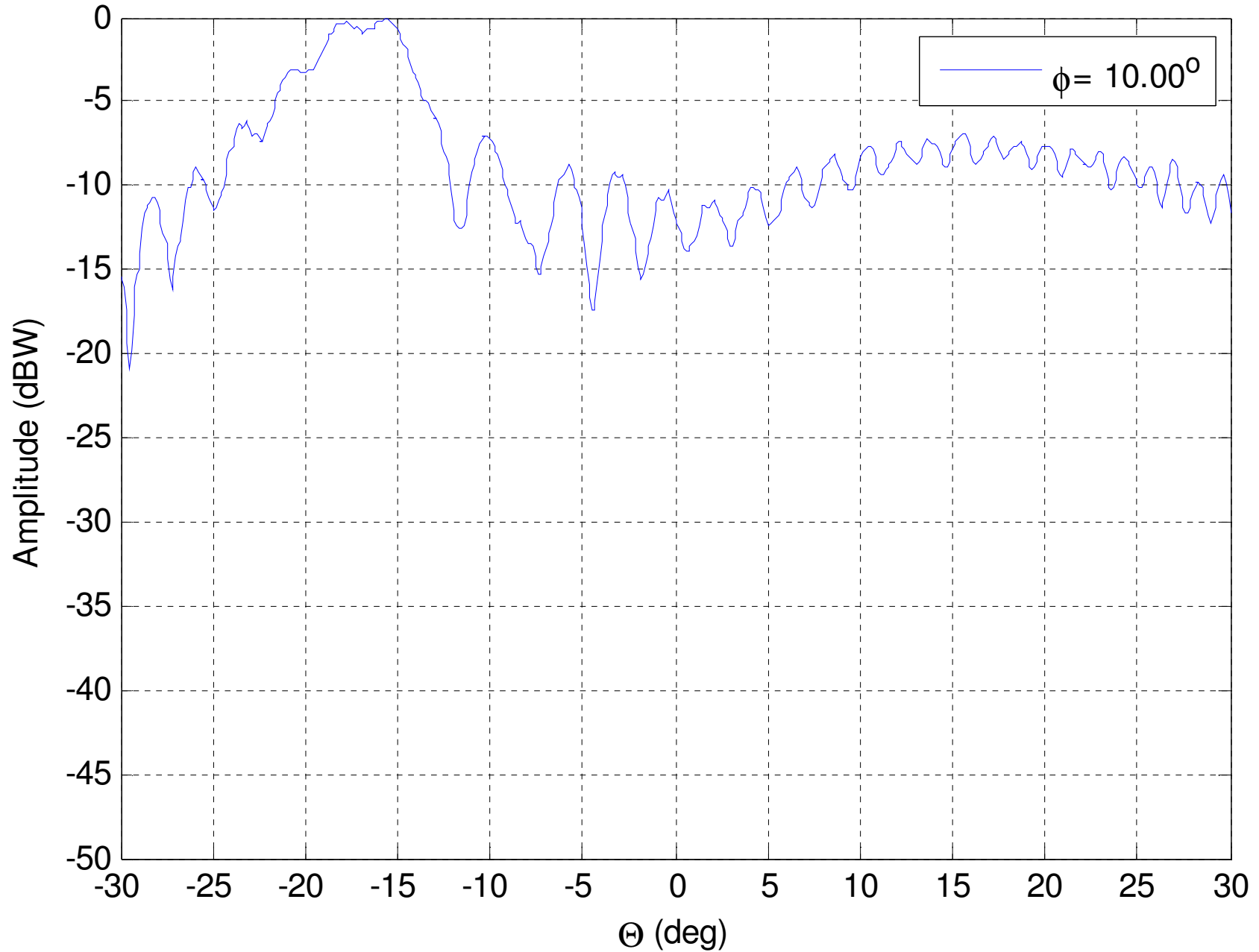
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp-0.cut, Peak: 12.52 dBW, Date: 16-Dec-2011



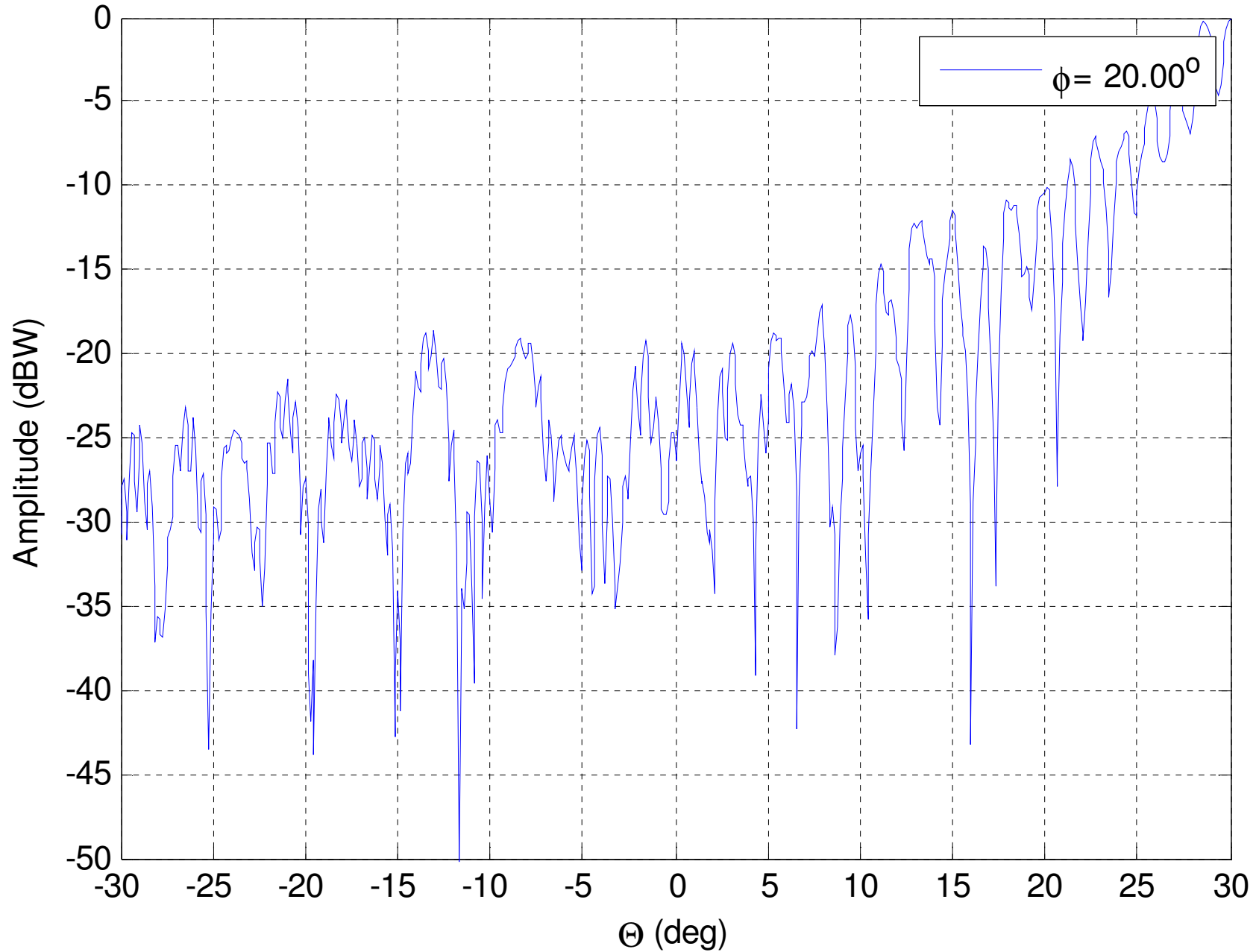
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp-10.cut, Peak: 13.44 dBW, Date: 16-Dec-2011



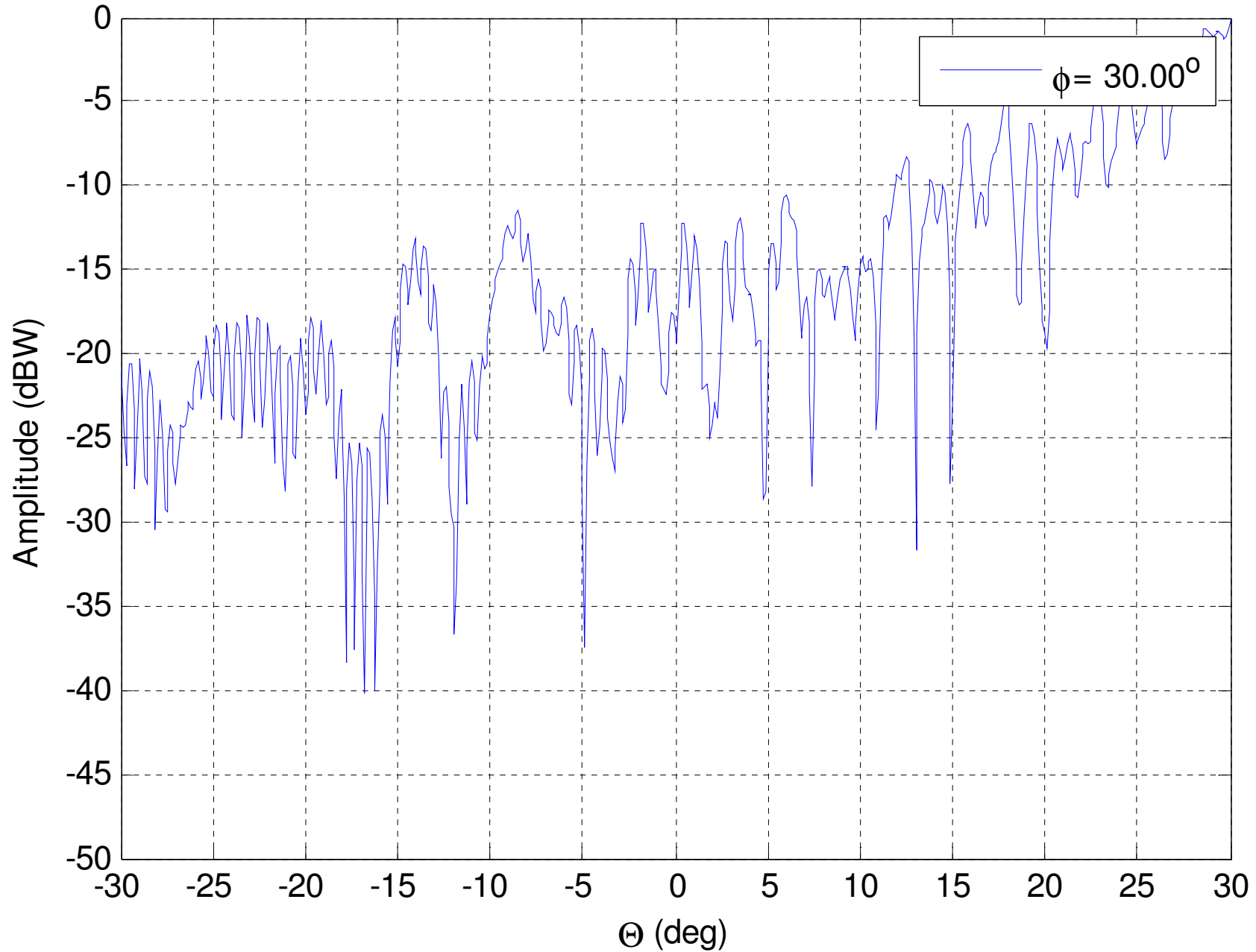
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp-20.cut, Peak: 11.31 dBW, Date: 16-Dec-2011



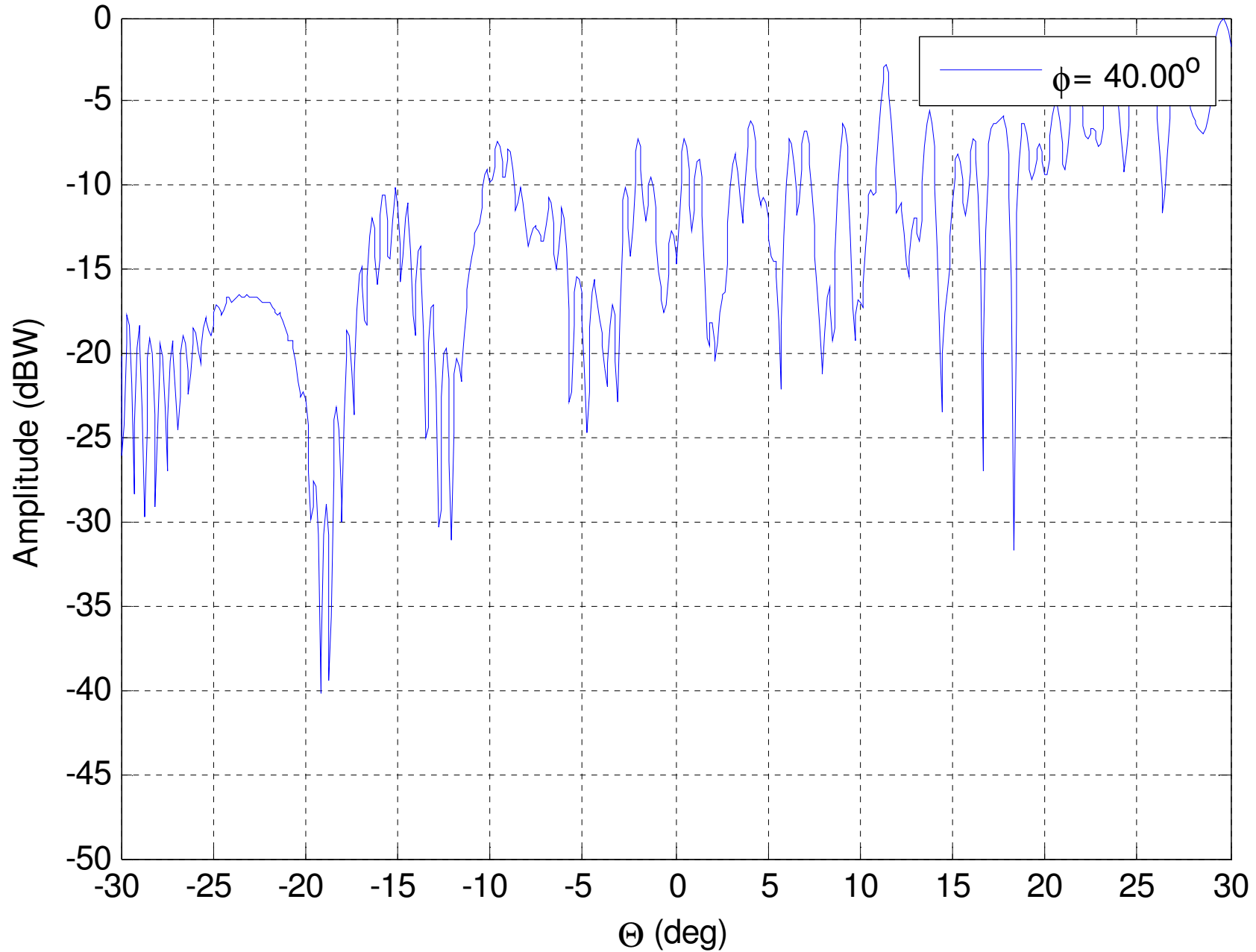
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp-30.cut, Peak: 4.20 dBW, Date: 16-Dec-2011



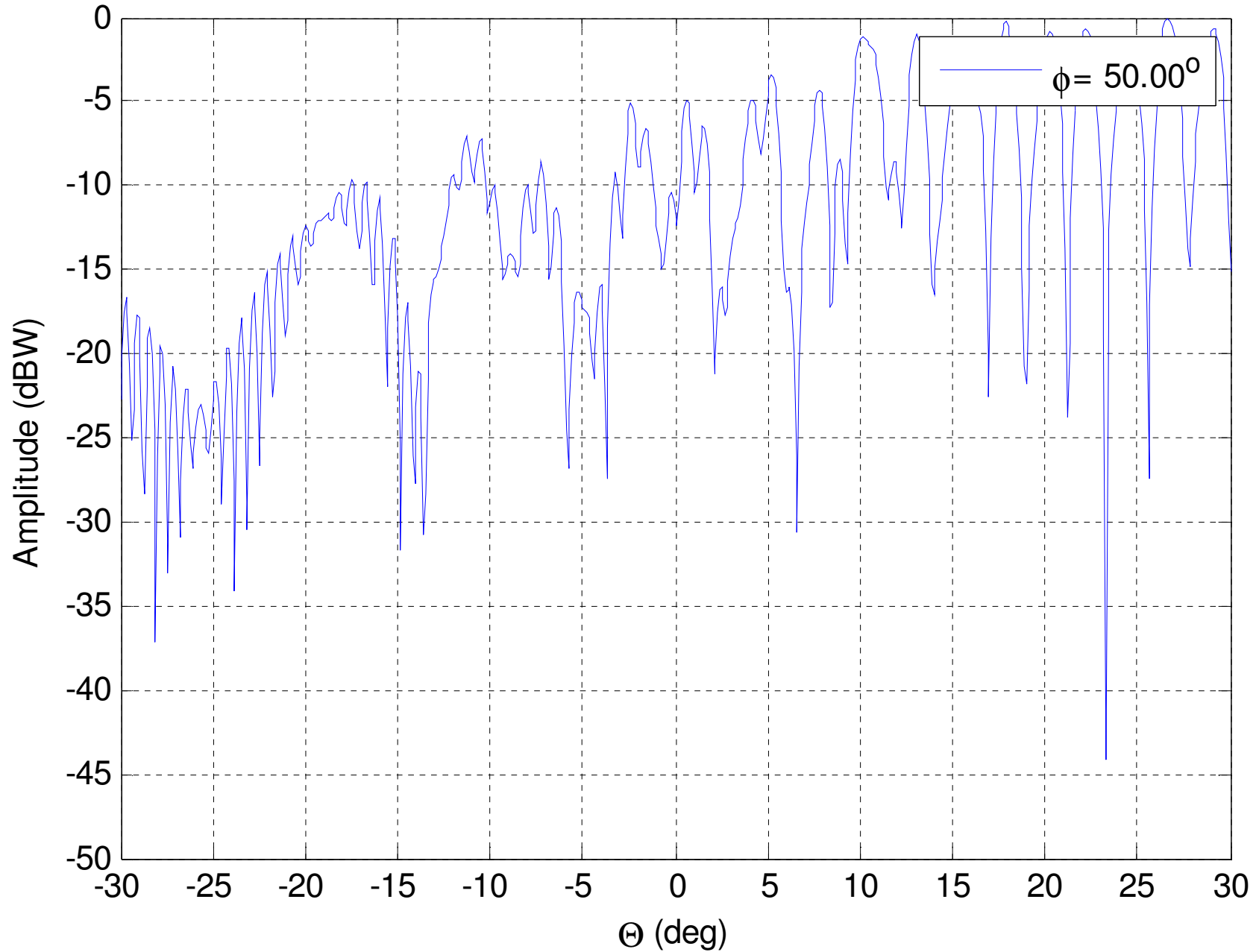
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp-40.cut, Peak: -0.61 dBW, Date: 16-Dec-2011



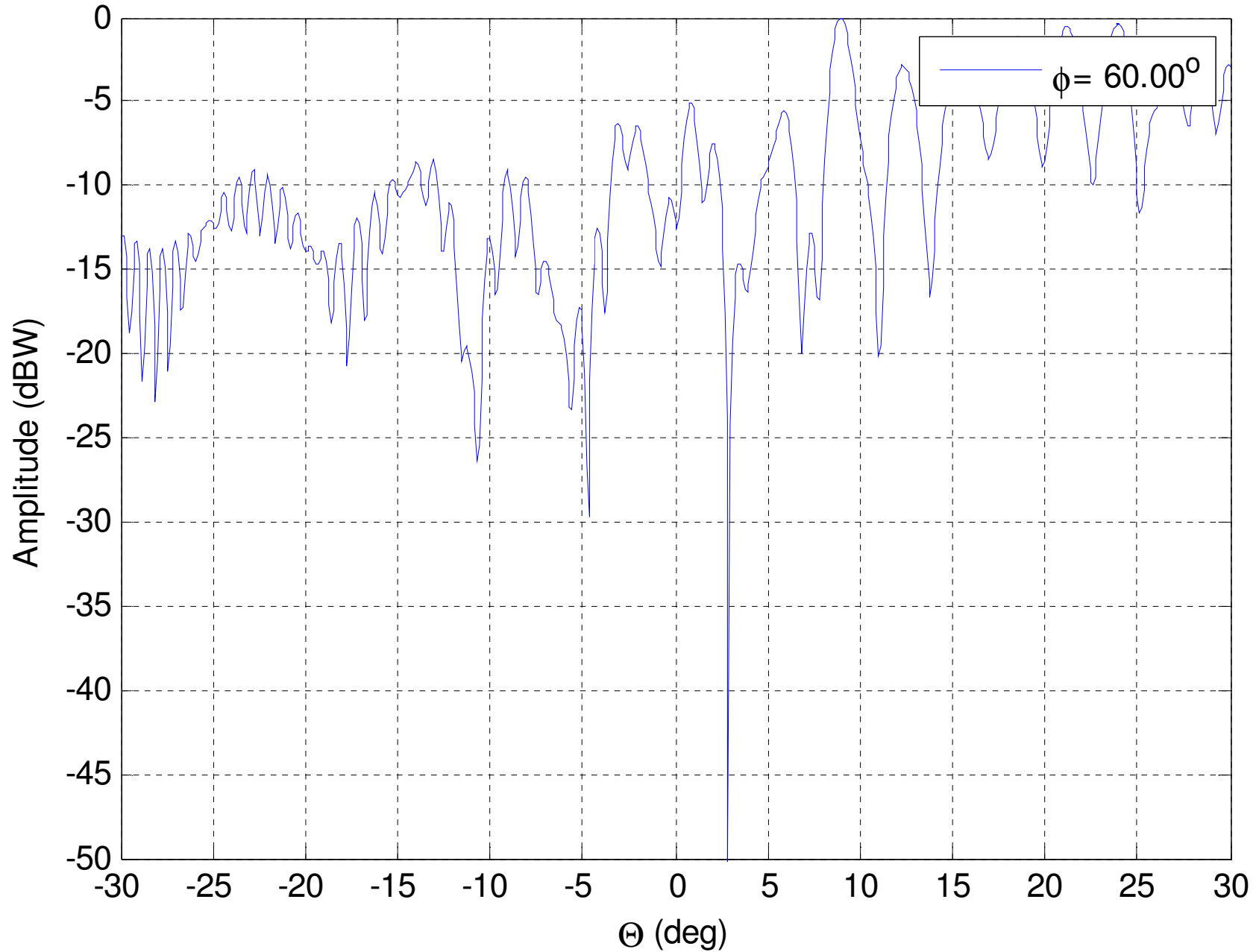
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp-50.cut, Peak: -2.93 dBW, Date: 16-Dec-2011



Normalized pattern cuts - farfield

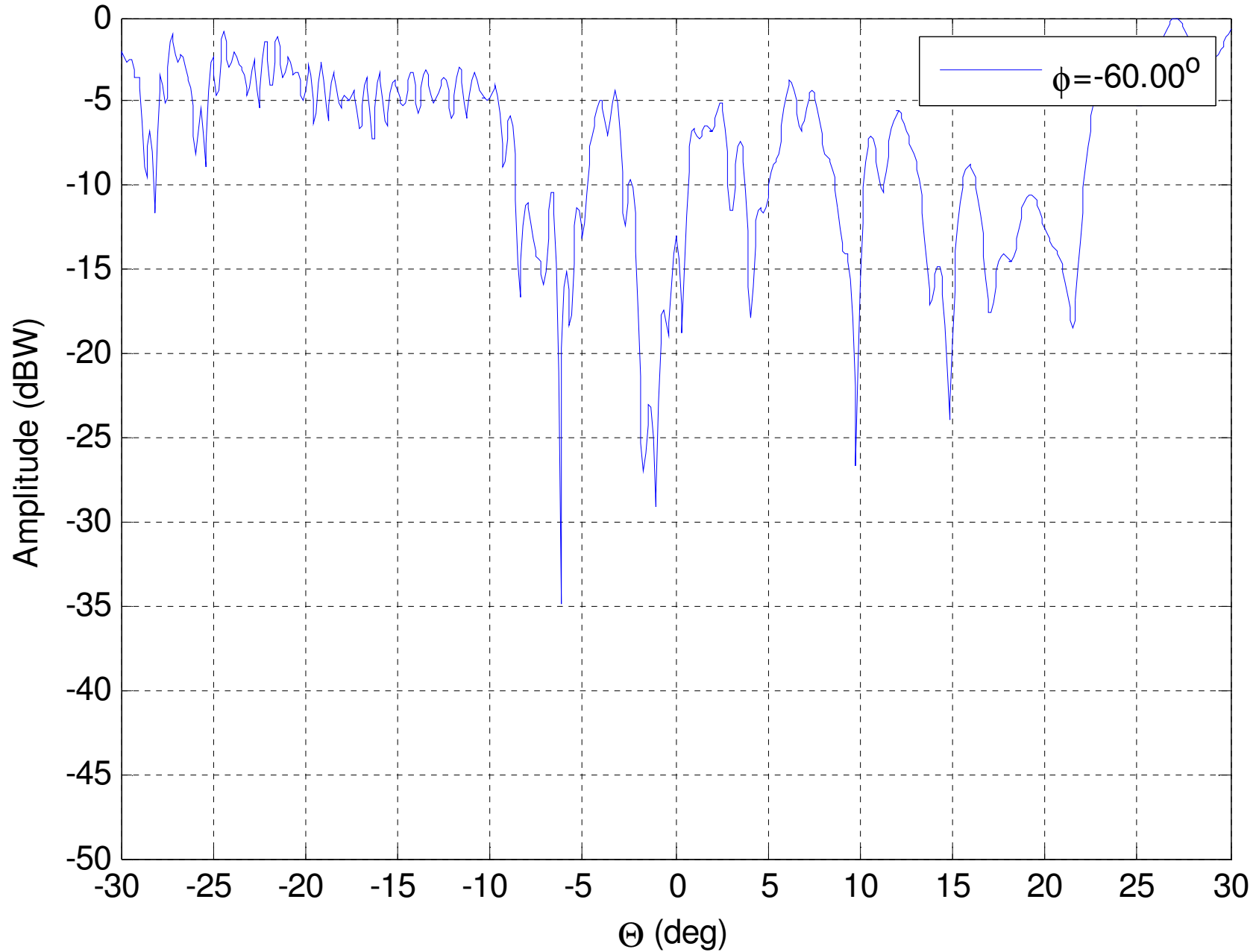
Input file: tx-17.3-lhcp-60.cut, Peak: -2.65 dBW, Date: 16-Dec-2011



RHCP at 17.5 GHz

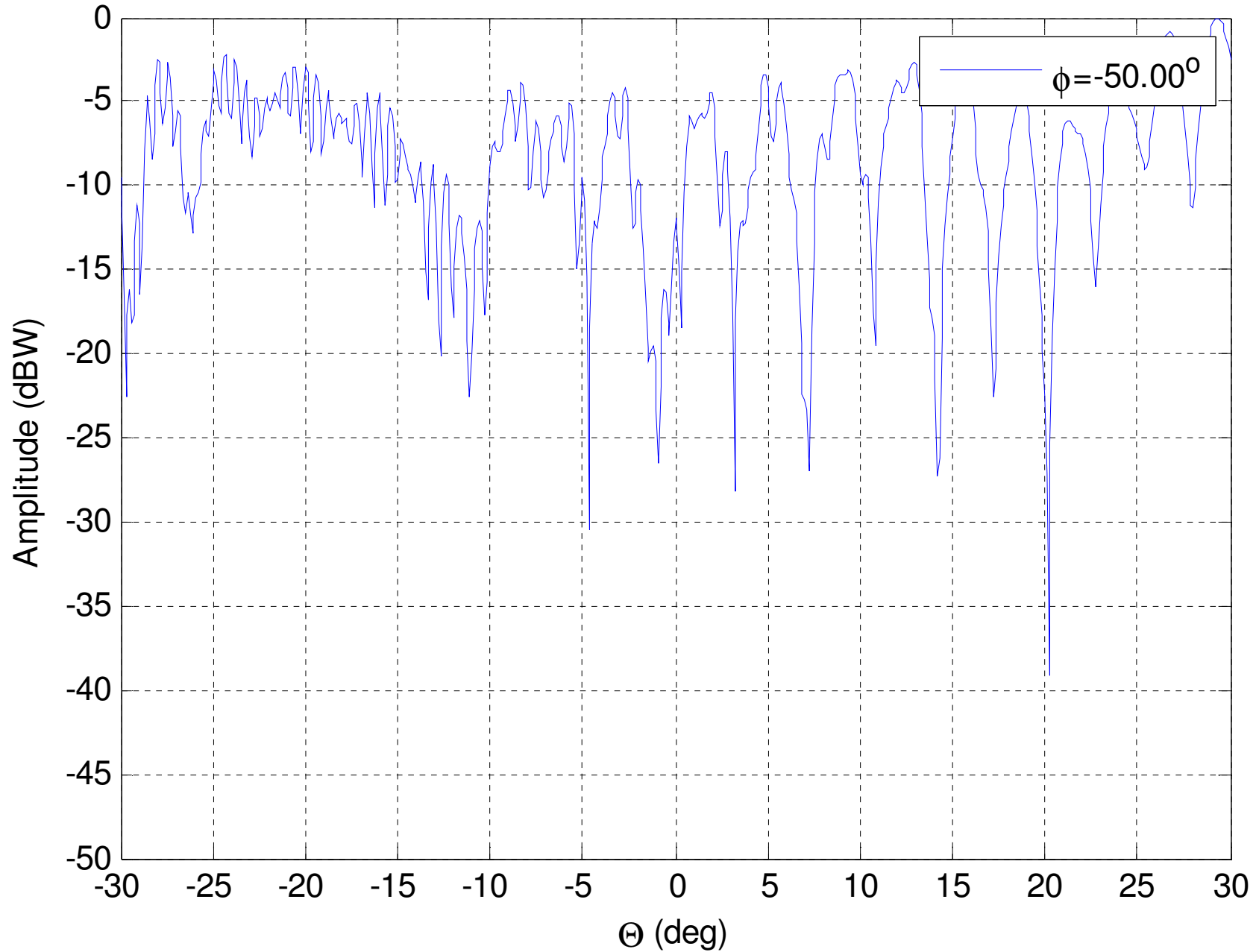
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--60.cut, Peak: -3.39 dBW, Date: 16-Dec-2011



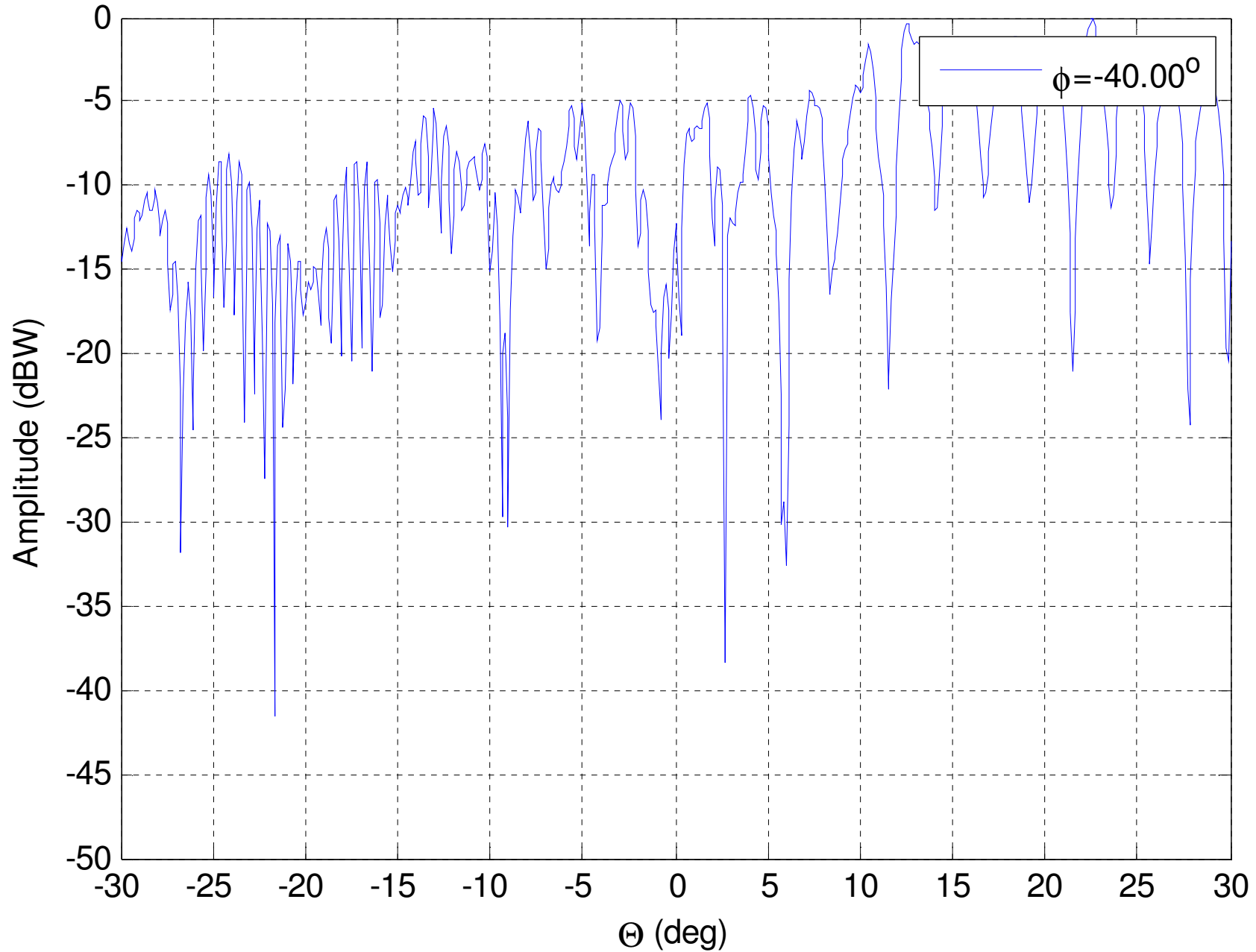
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--50.cut, Peak: -4.46 dBW, Date: 16-Dec-2011



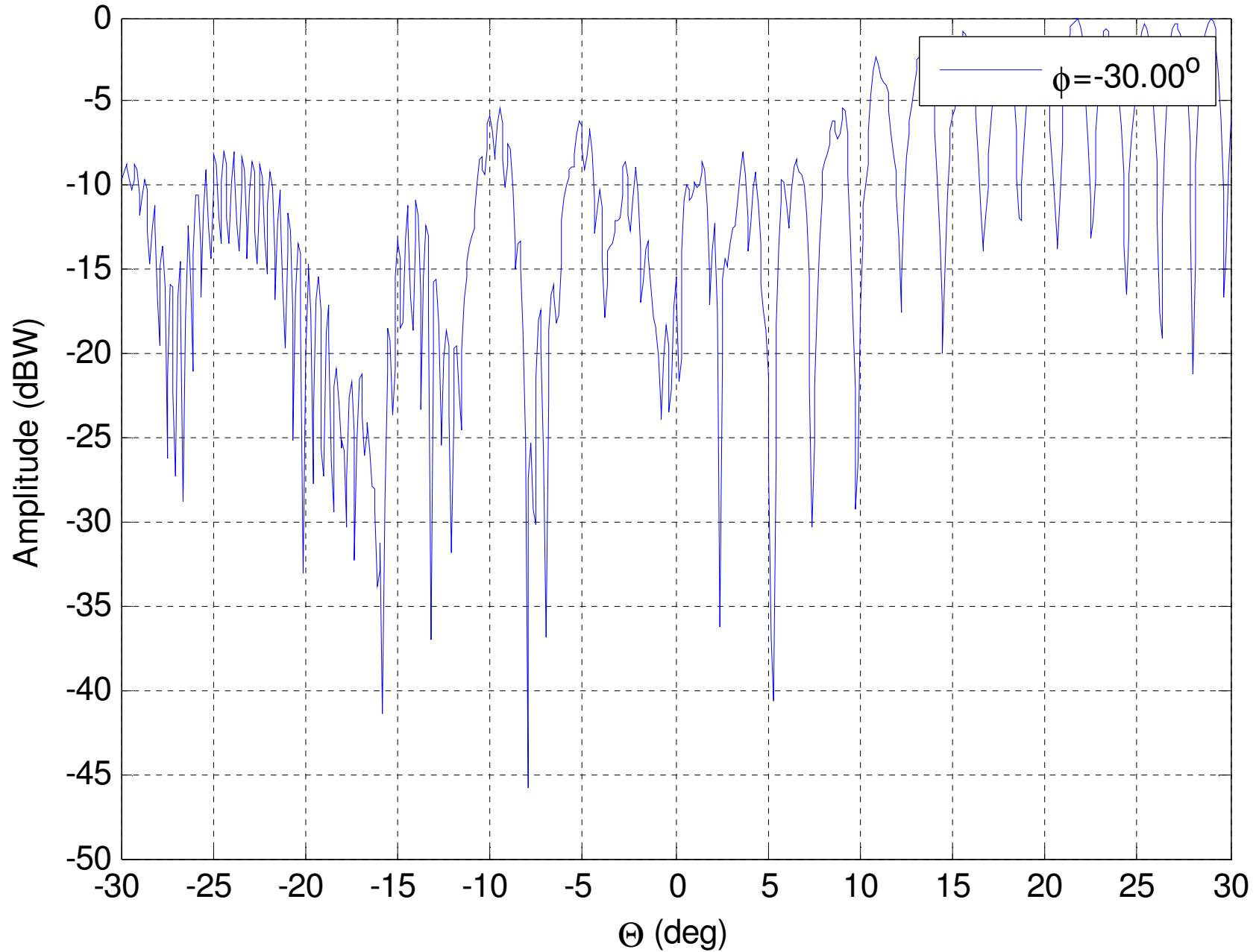
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--40.cut, Peak: -4.12 dBW, Date: 16-Dec-2011



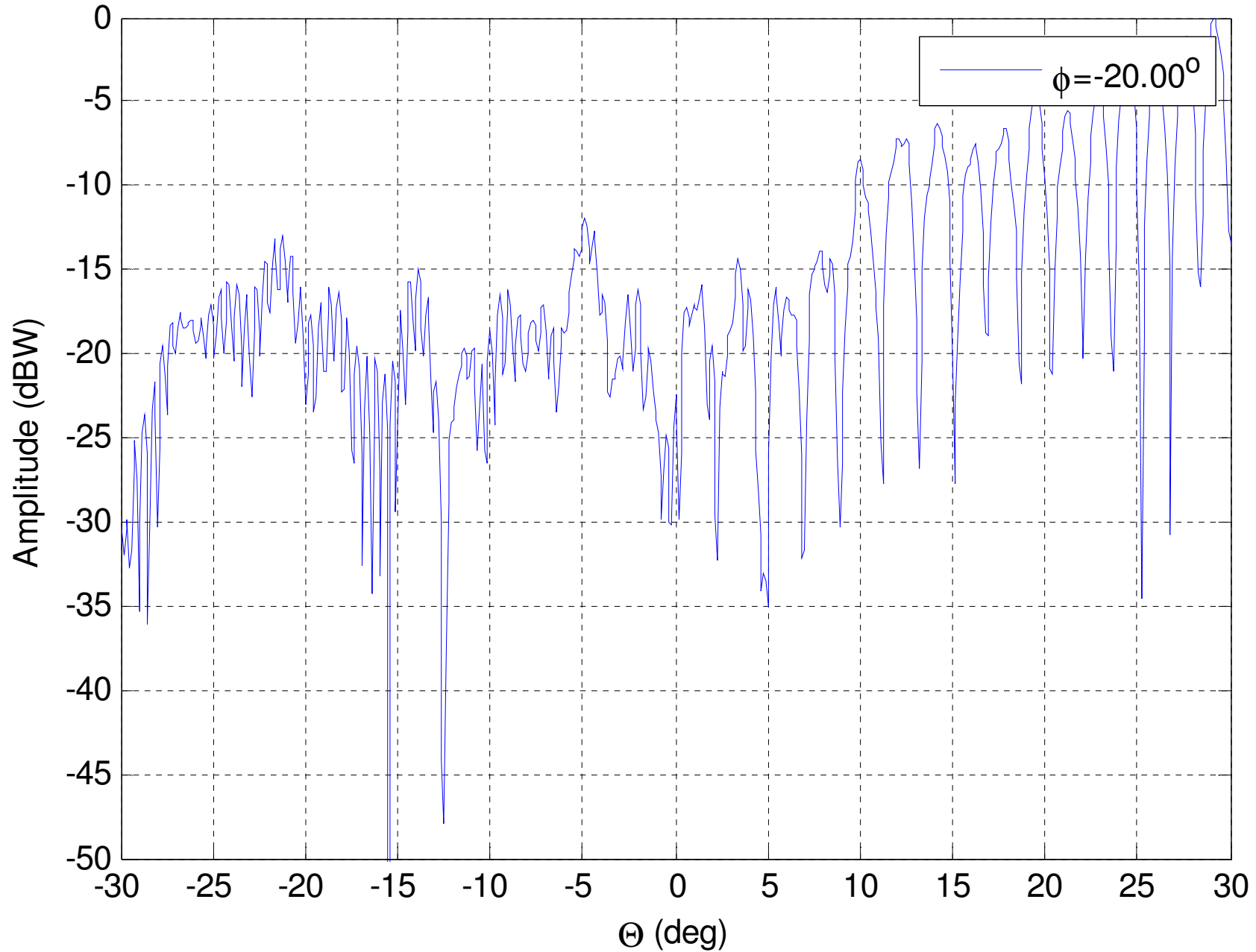
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--30.cut, Peak: -0.96 dBW, Date: 16-Dec-2011



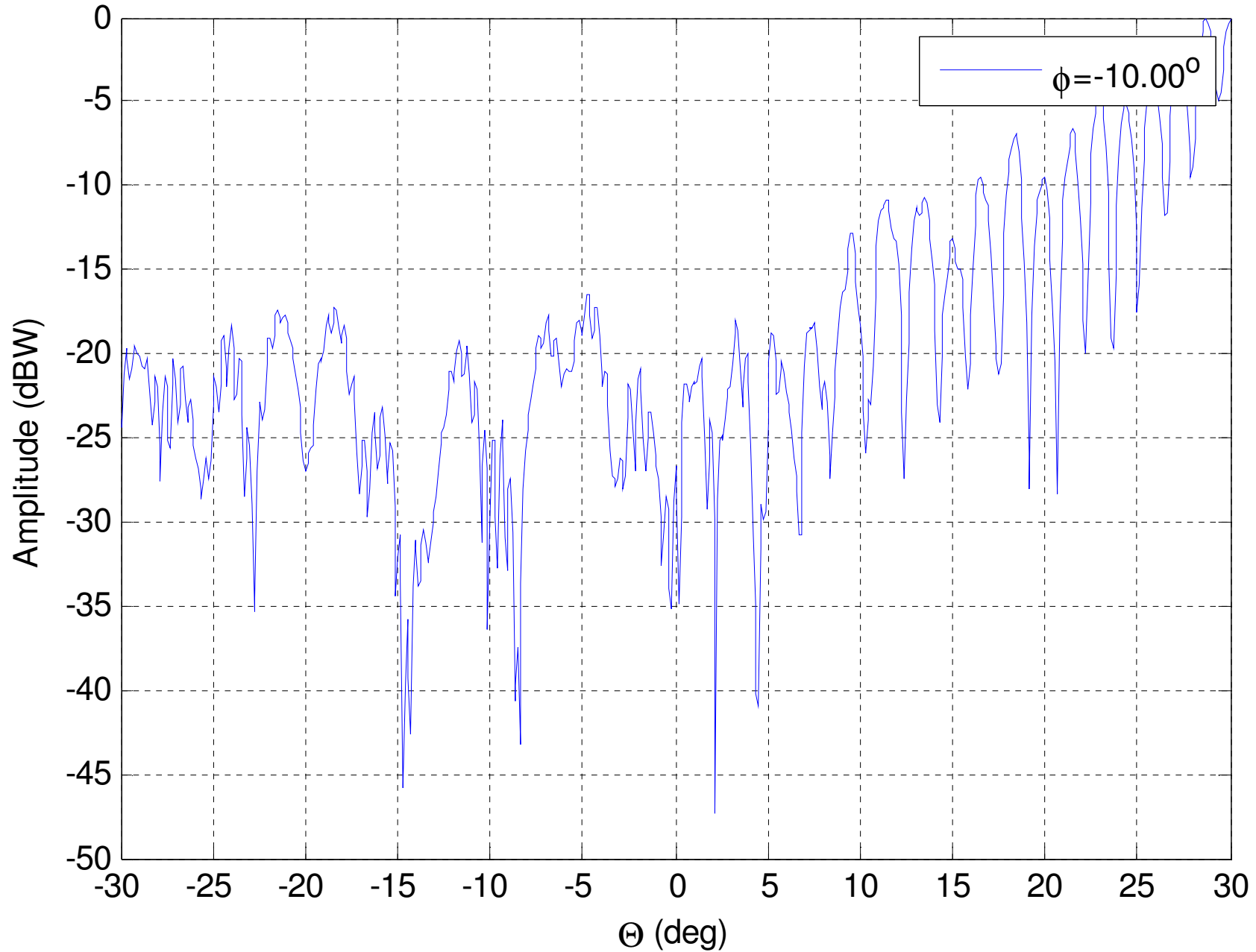
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--20.cut, Peak: 6.03 dBW, Date: 16-Dec-2011



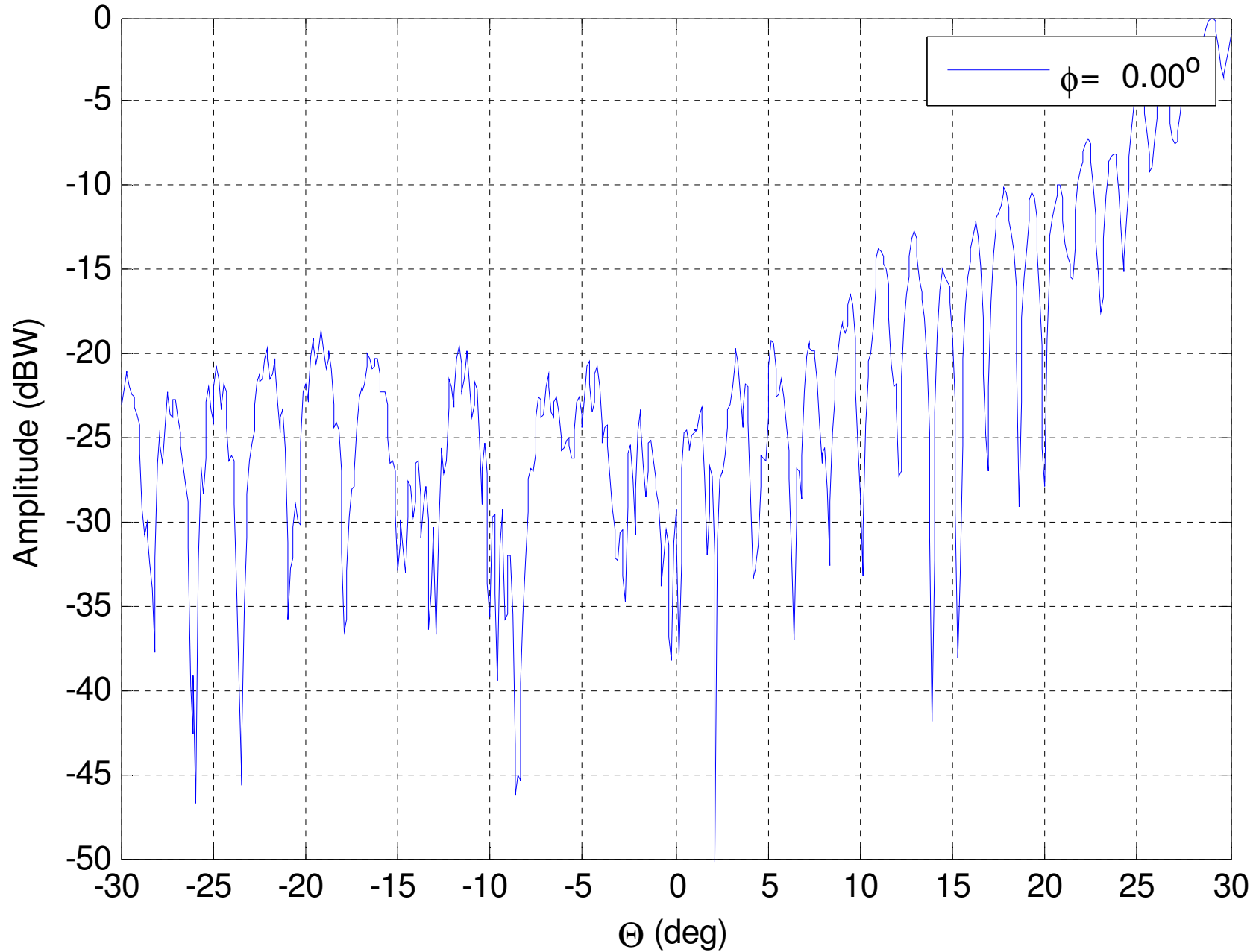
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--10.cut, Peak: 10.31 dBW, Date: 16-Dec-2011



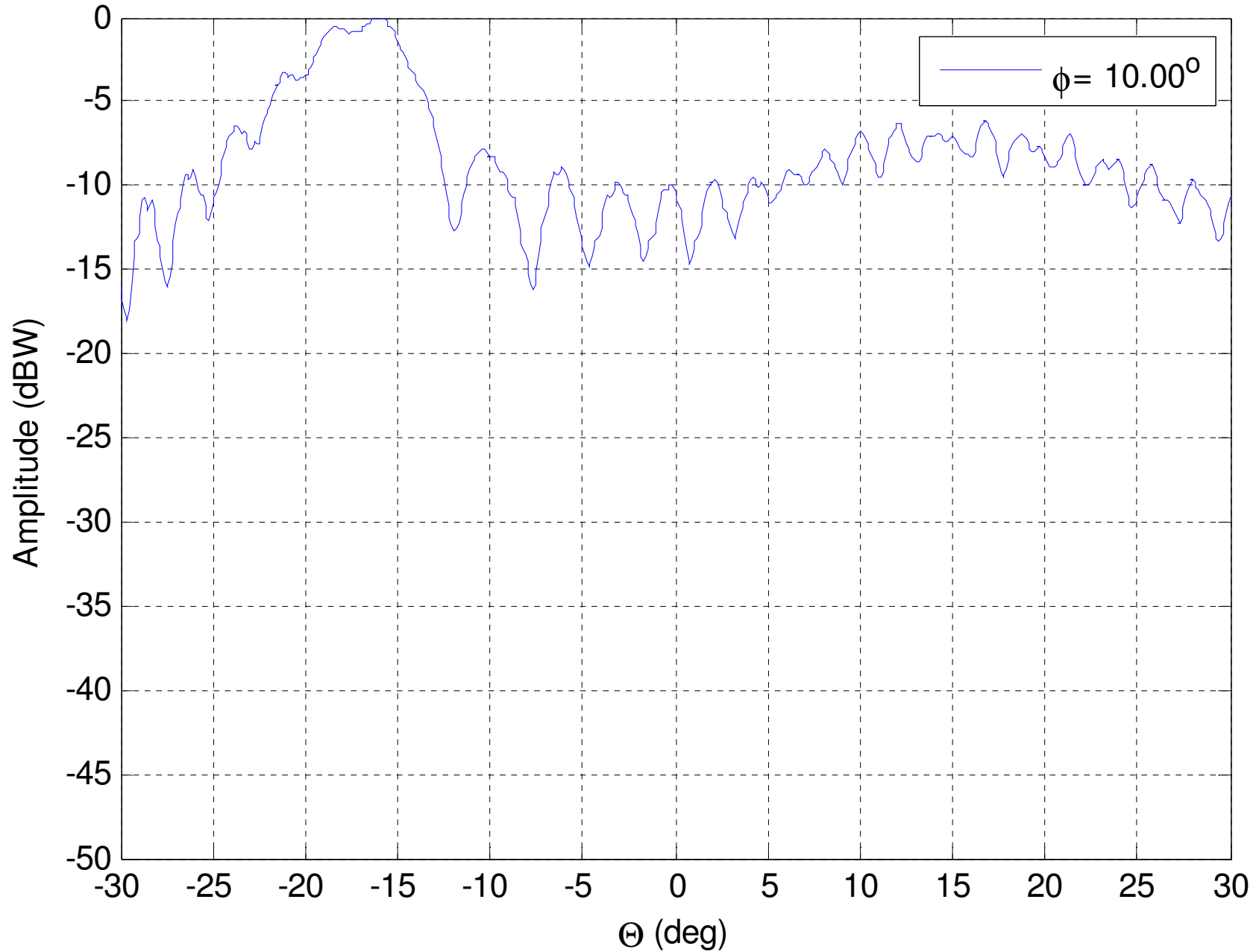
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-0.cut, Peak: 12.89 dBW, Date: 16-Dec-2011



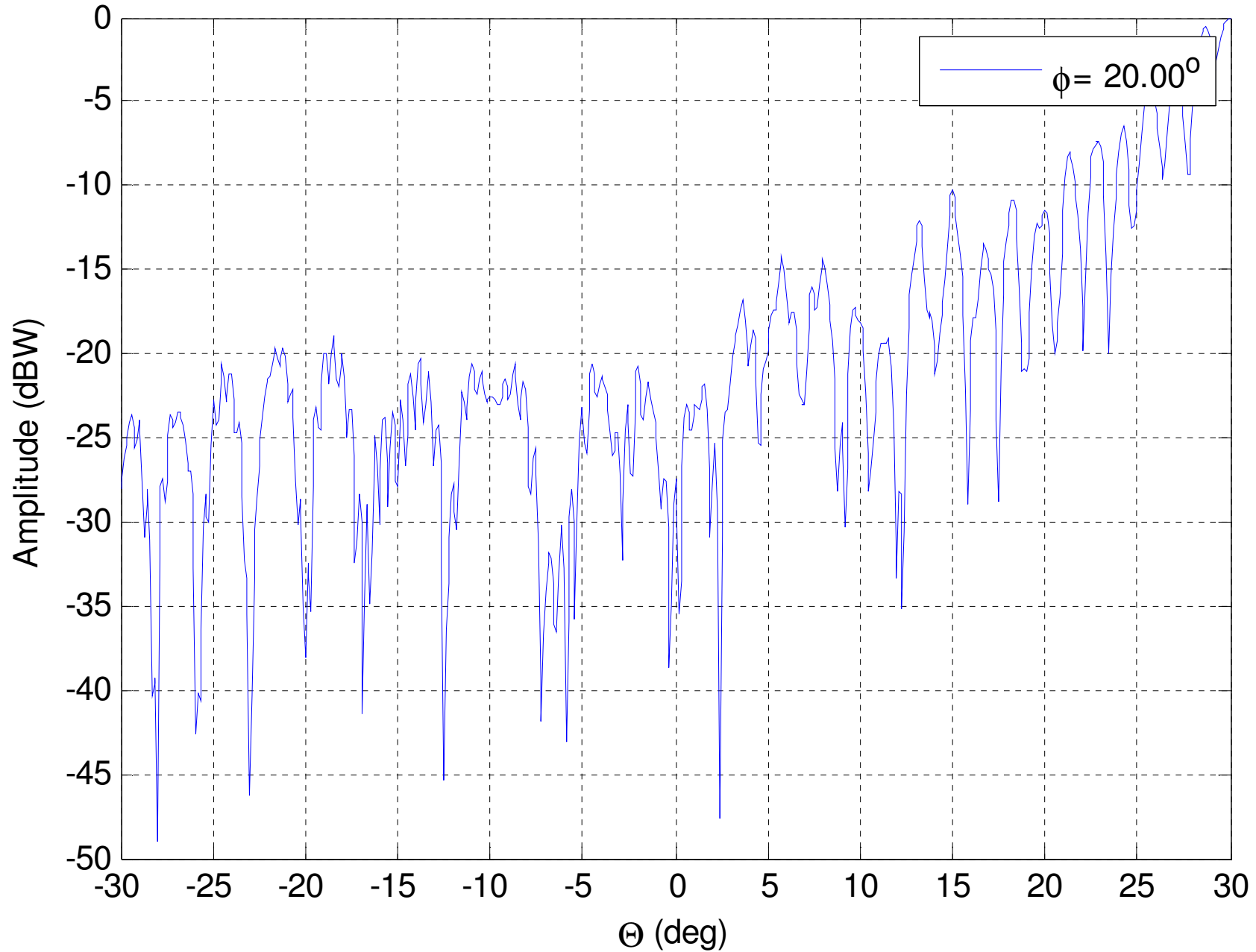
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-10.cut, Peak: 13.21 dBW, Date: 16-Dec-2011



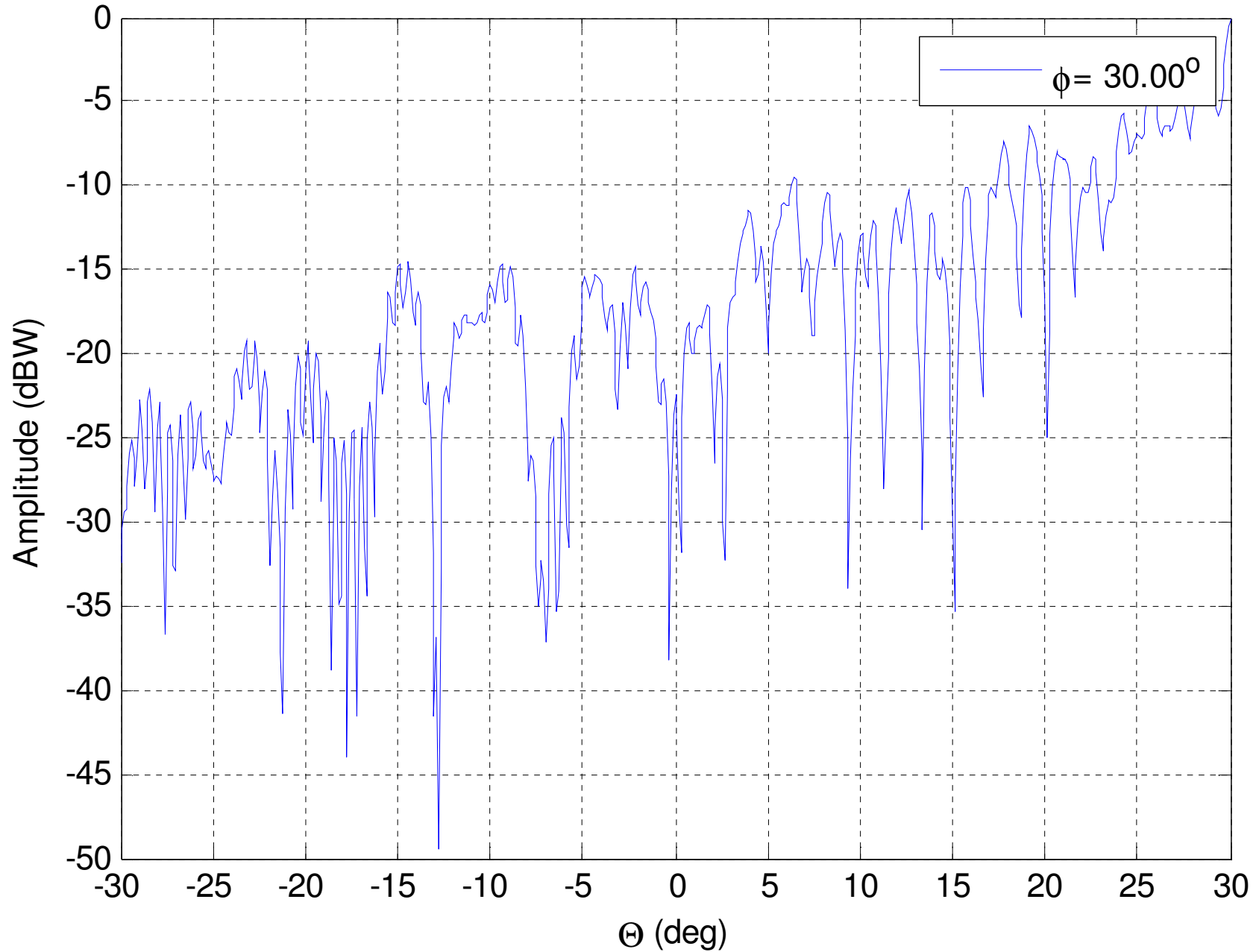
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-20.cut, Peak: 11.06 dBW, Date: 16-Dec-2011



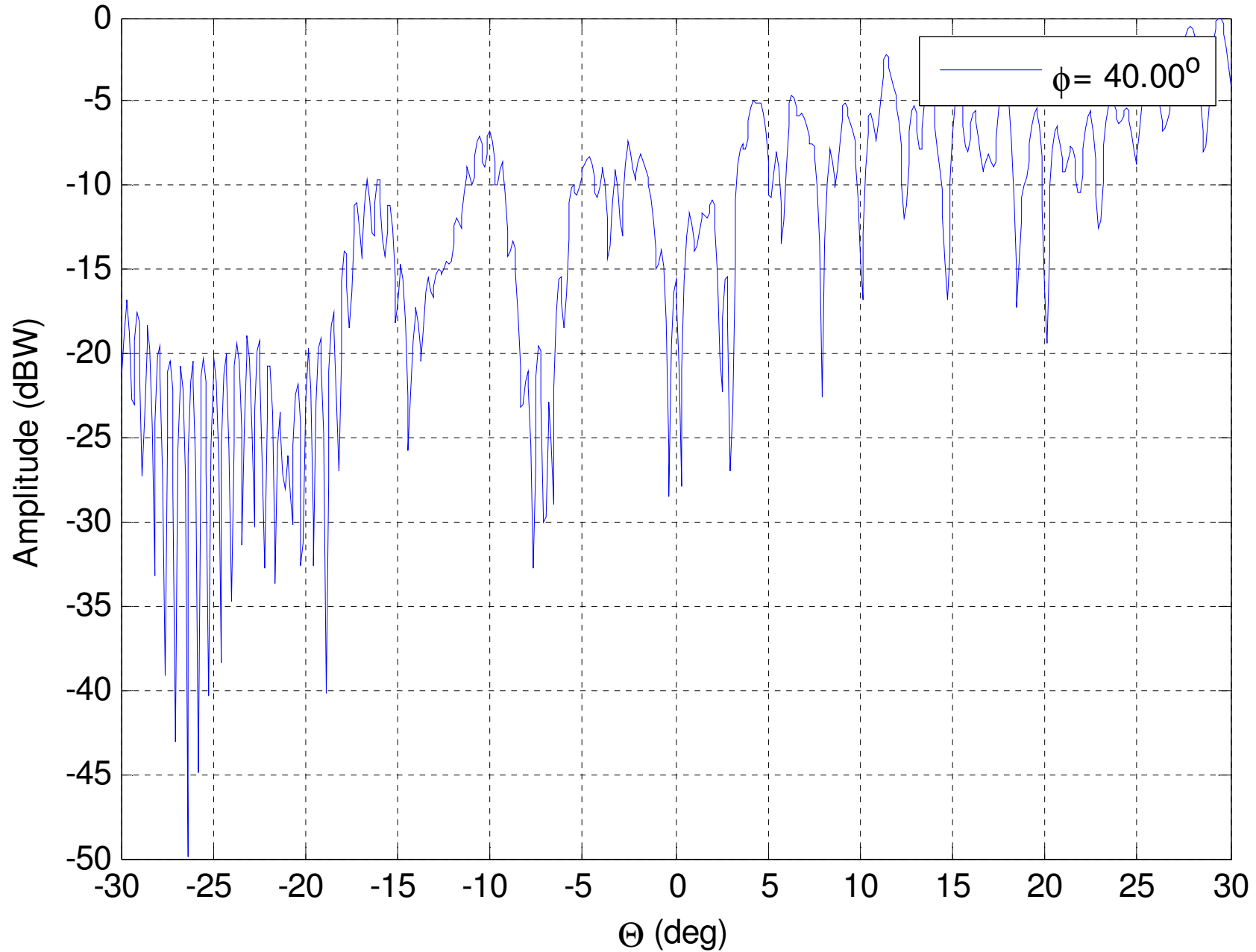
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-30.cut, Peak: 6.01 dBW, Date: 16-Dec-2011



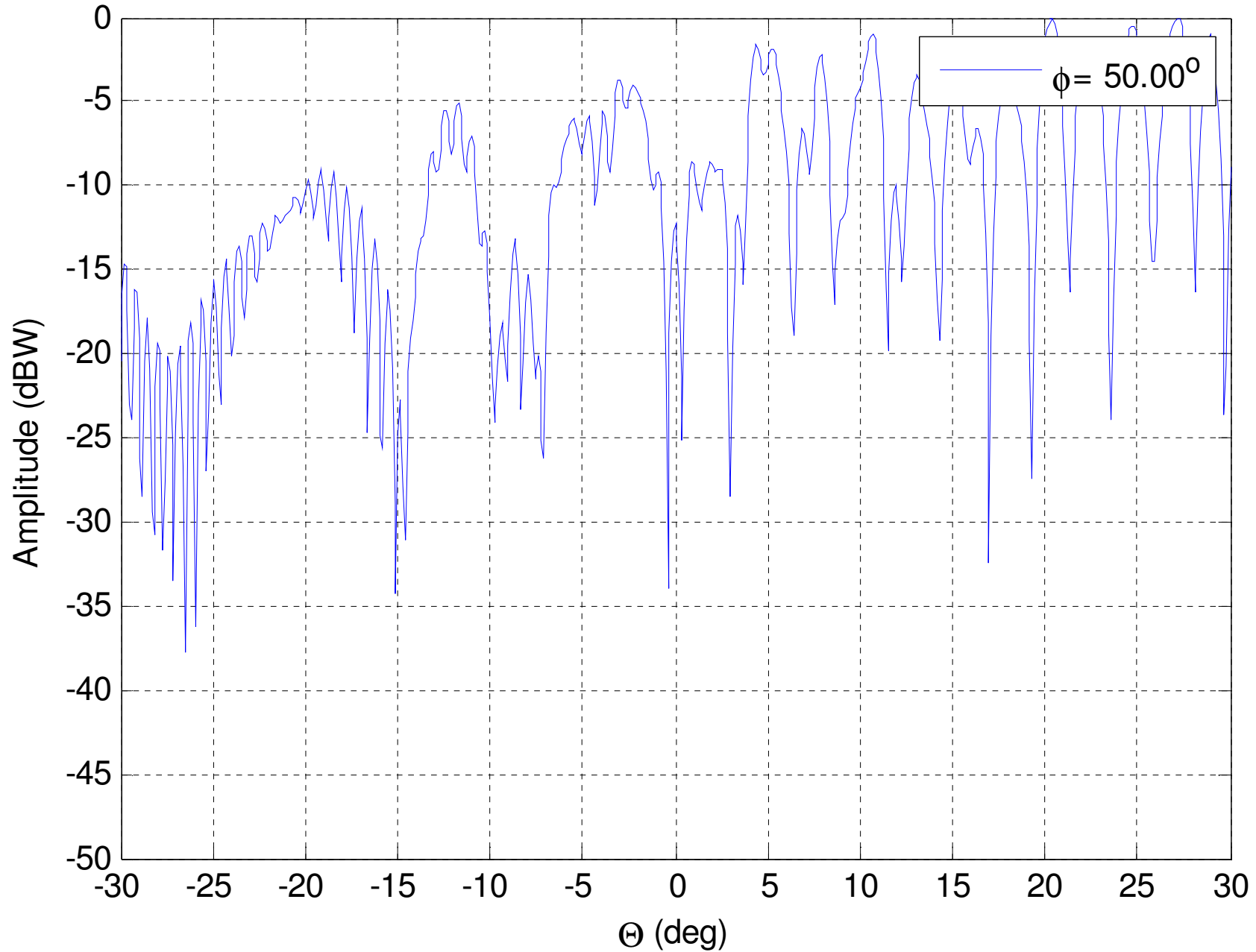
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-40.cut, Peak: -0.83 dBW, Date: 16-Dec-2011



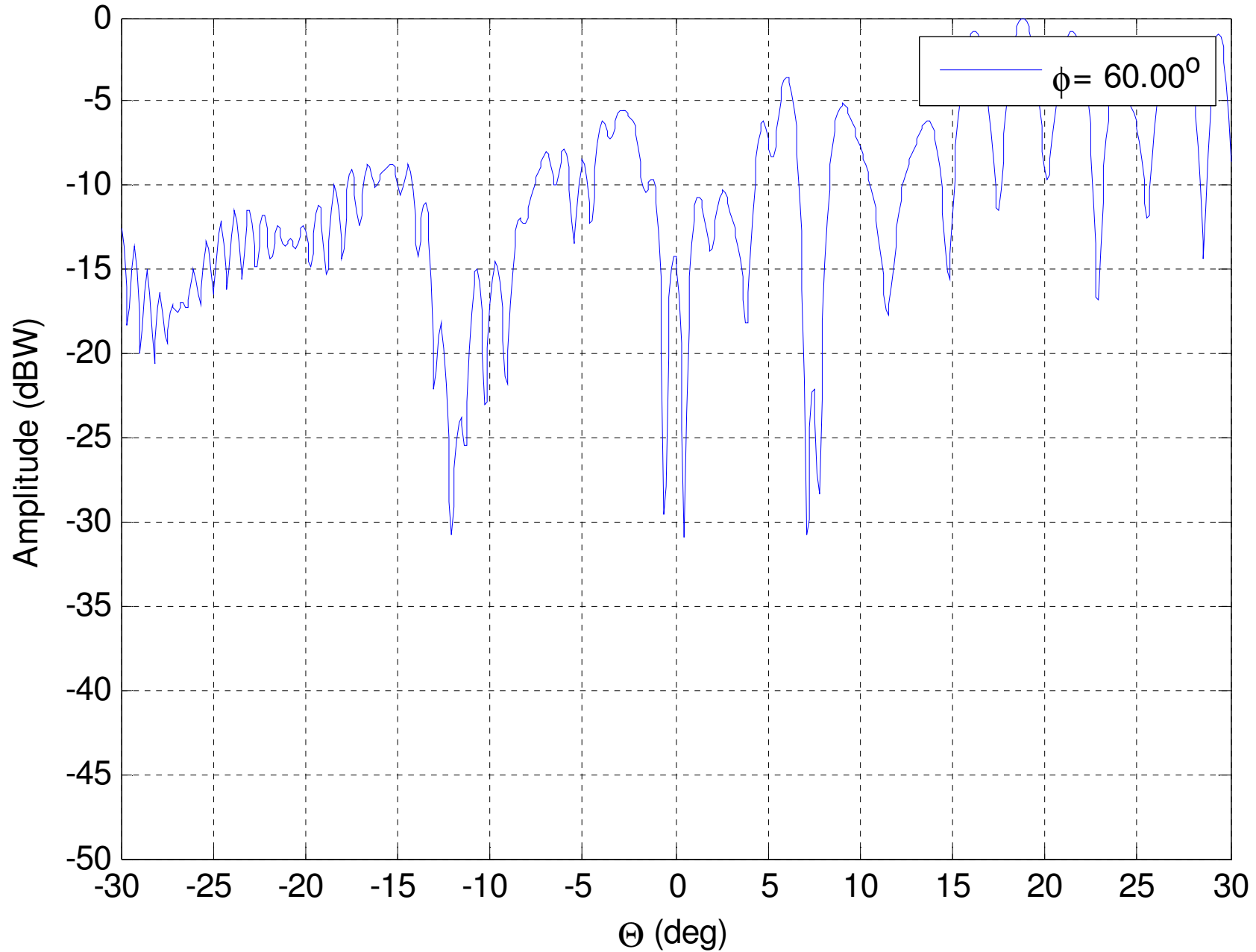
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-50.cut, Peak: -4.13 dBW, Date: 16-Dec-2011



Normalized pattern cuts - farfield

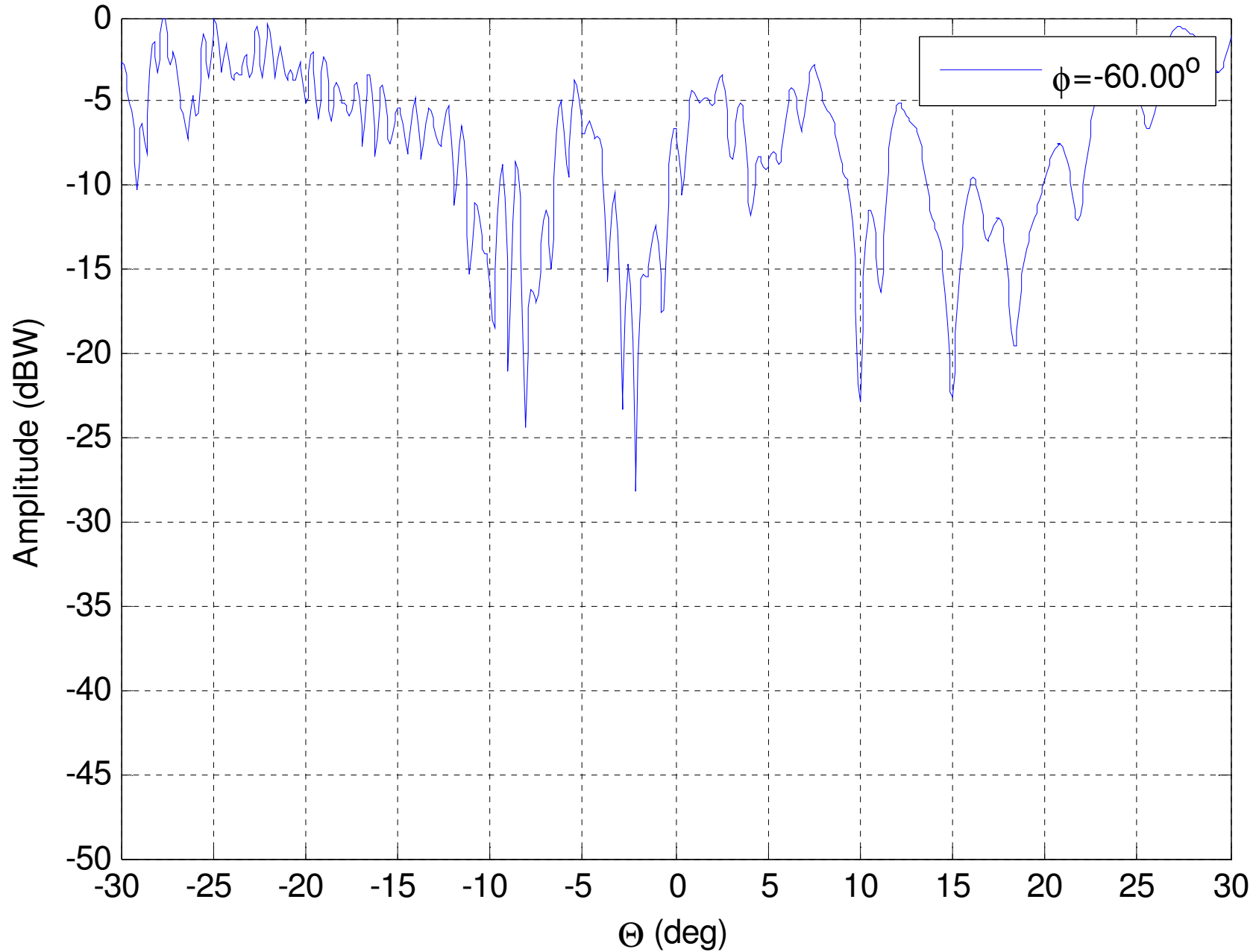
Input file: tx-17.5-rhcp-60.cut, Peak: -2.27 dBW, Date: 16-Dec-2011



LHCP at 17.5 GHz

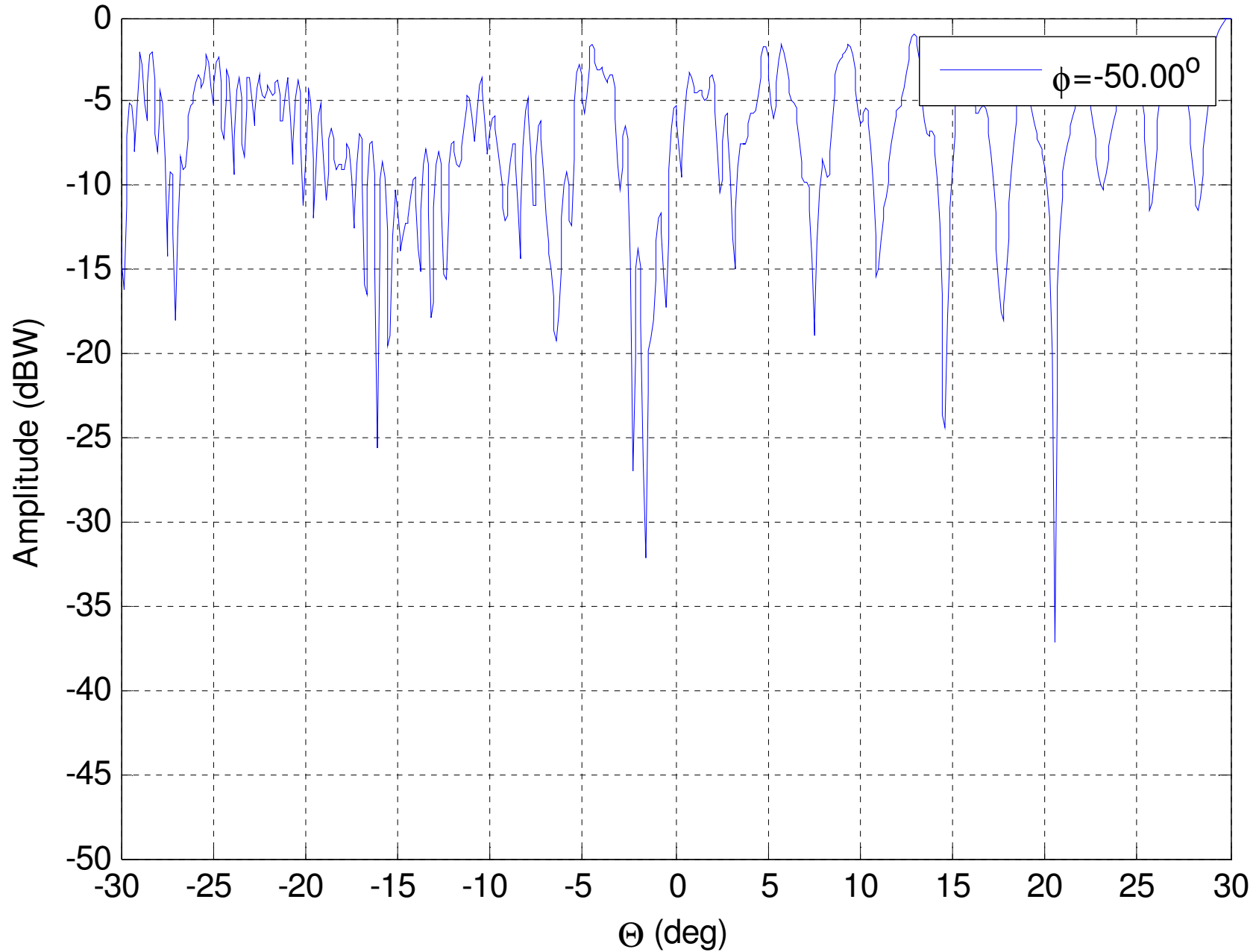
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--60.cut, Peak: -4.07 dBW, Date: 16-Dec-2011



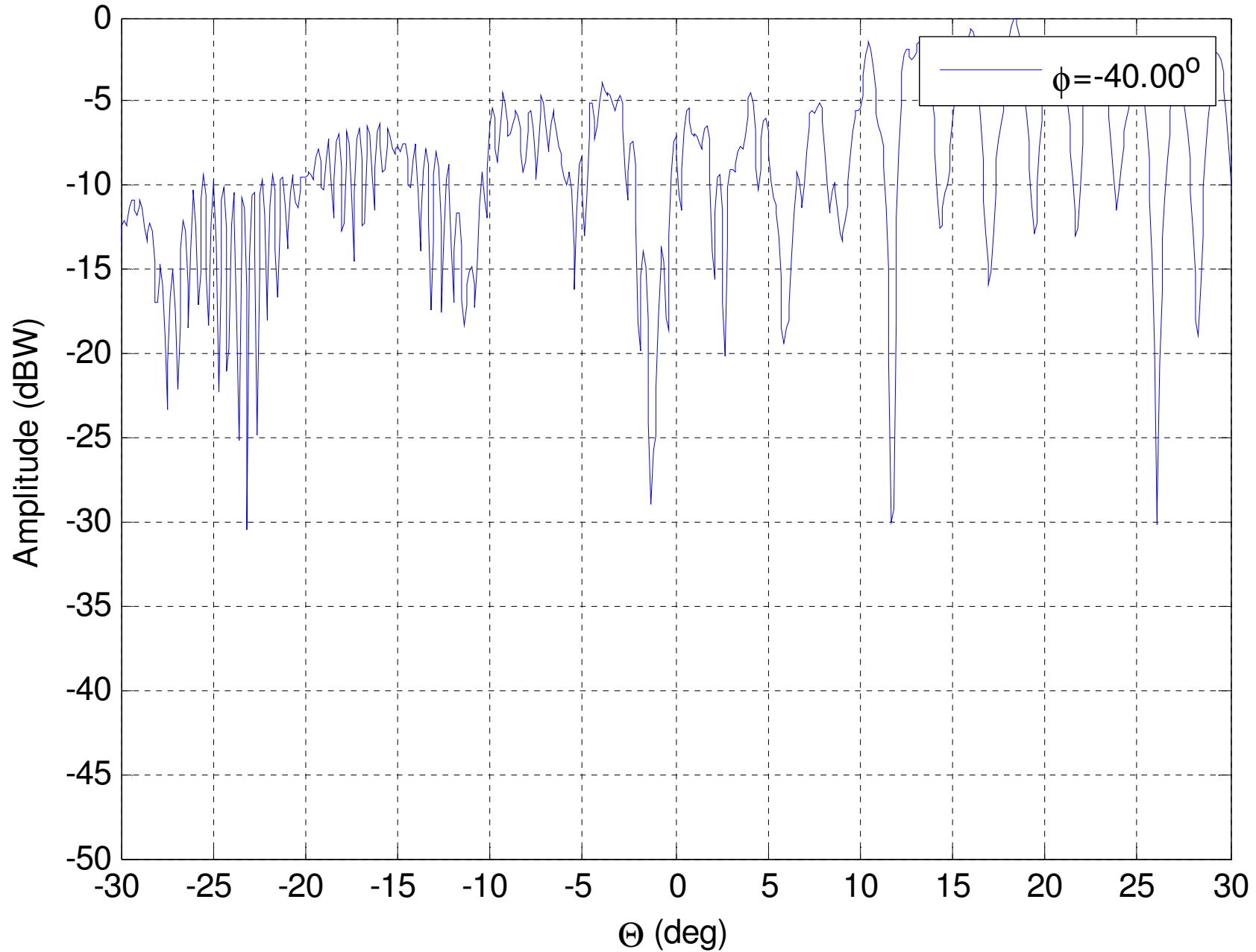
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--50.cut, Peak: -5.42 dBW, Date: 16-Dec-2011



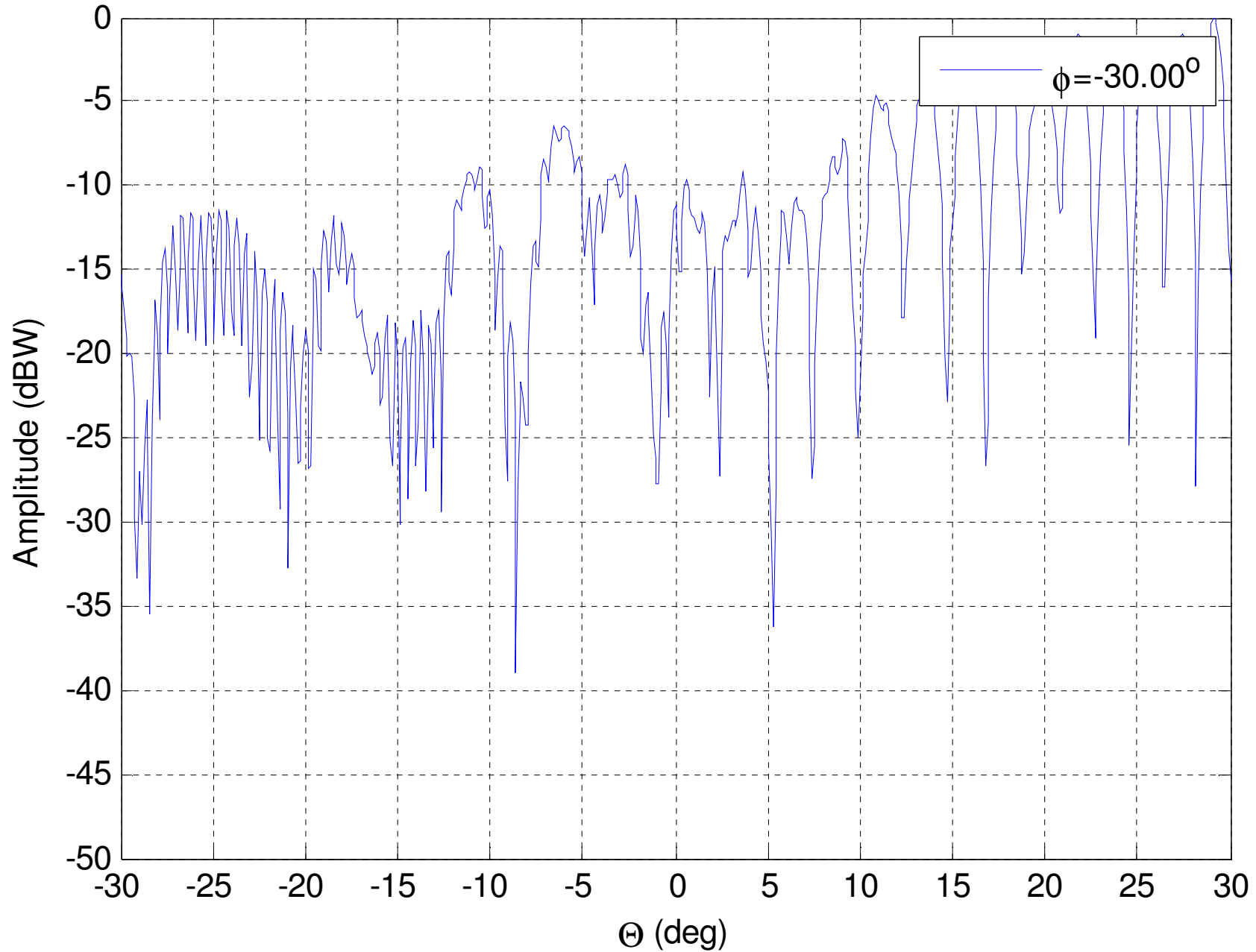
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--40.cut, Peak: -3.56 dBW, Date: 16-Dec-2011



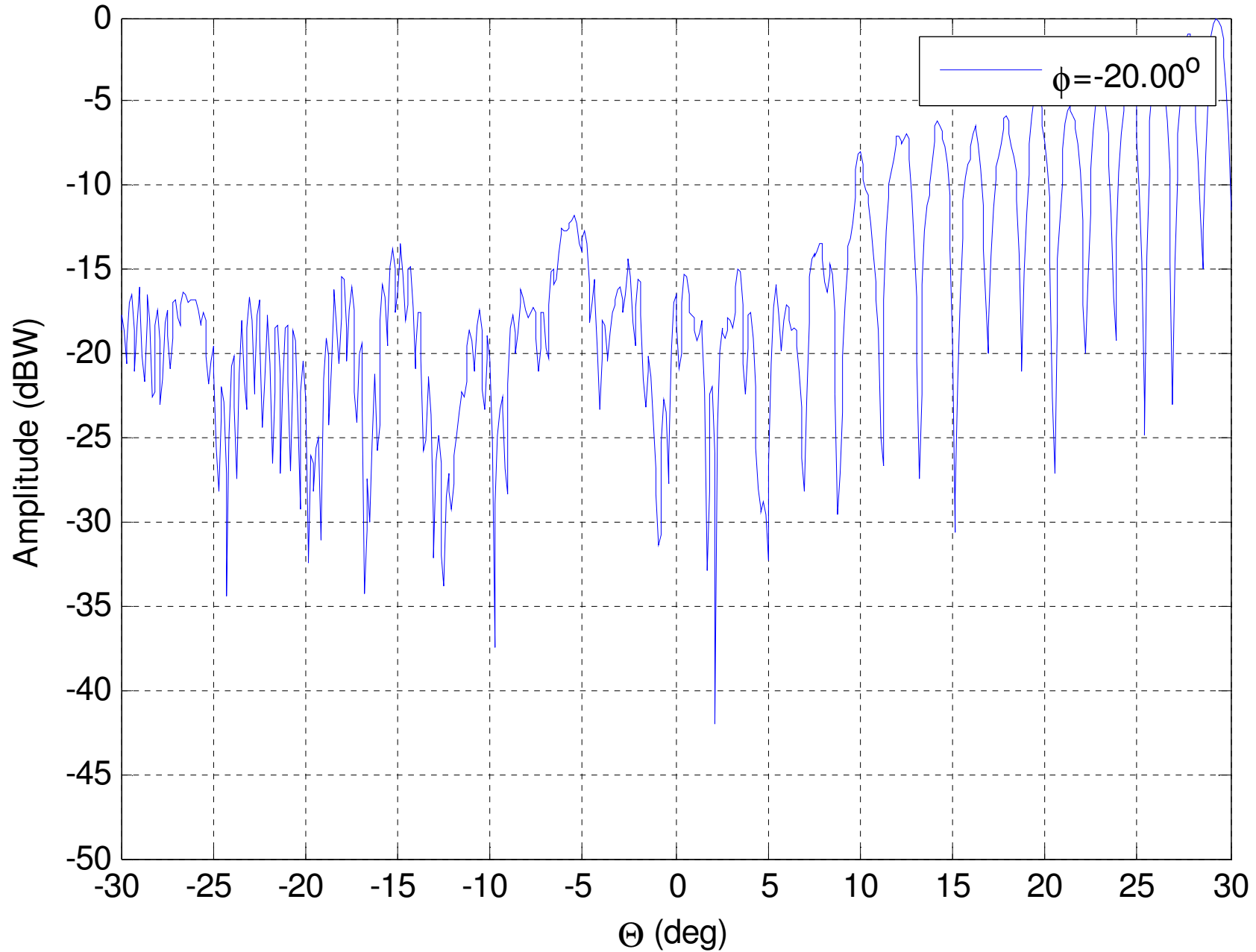
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--30.cut, Peak: 0.52 dBW, Date: 16-Dec-2011



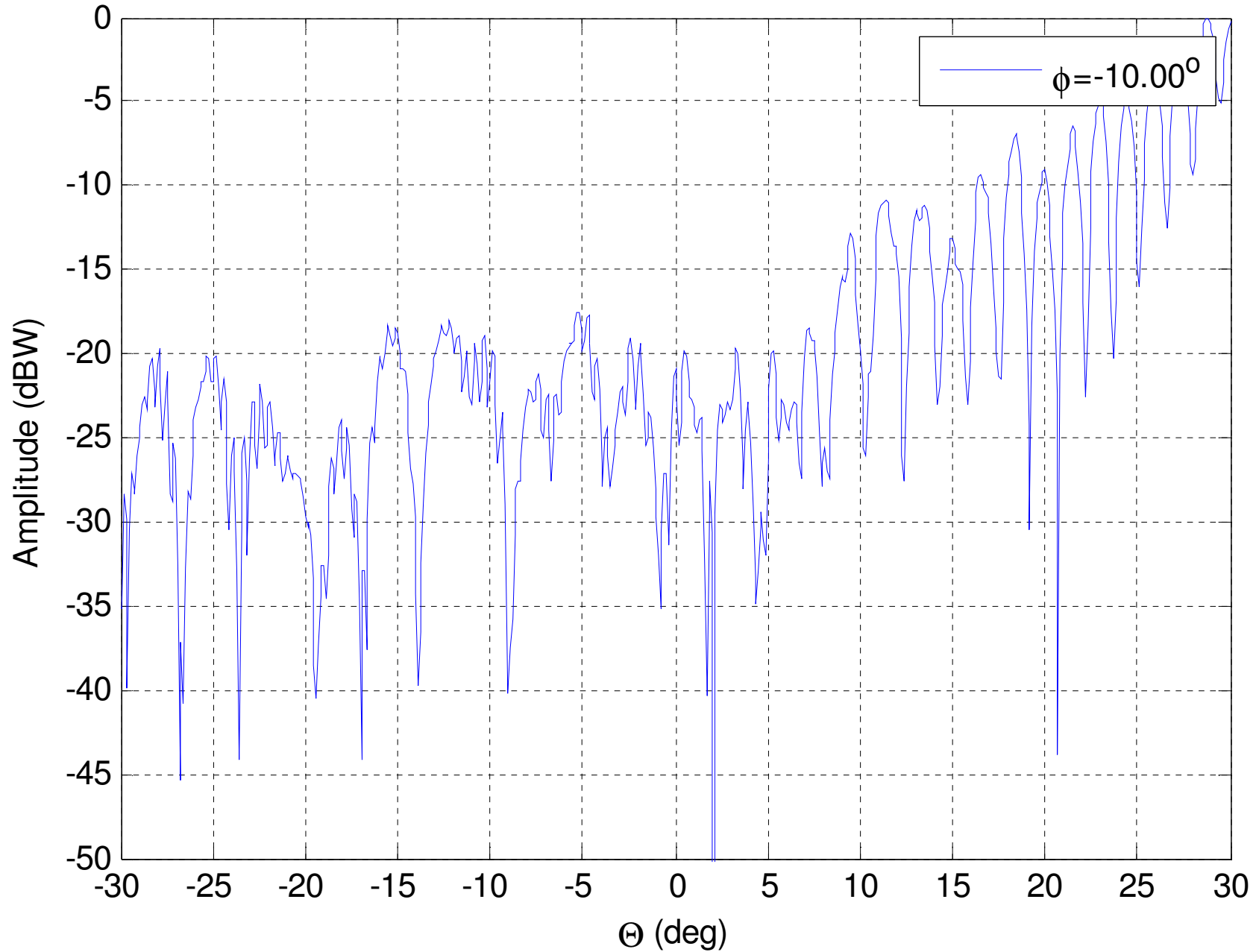
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--20.cut, Peak: 5.85 dBW, Date: 16-Dec-2011



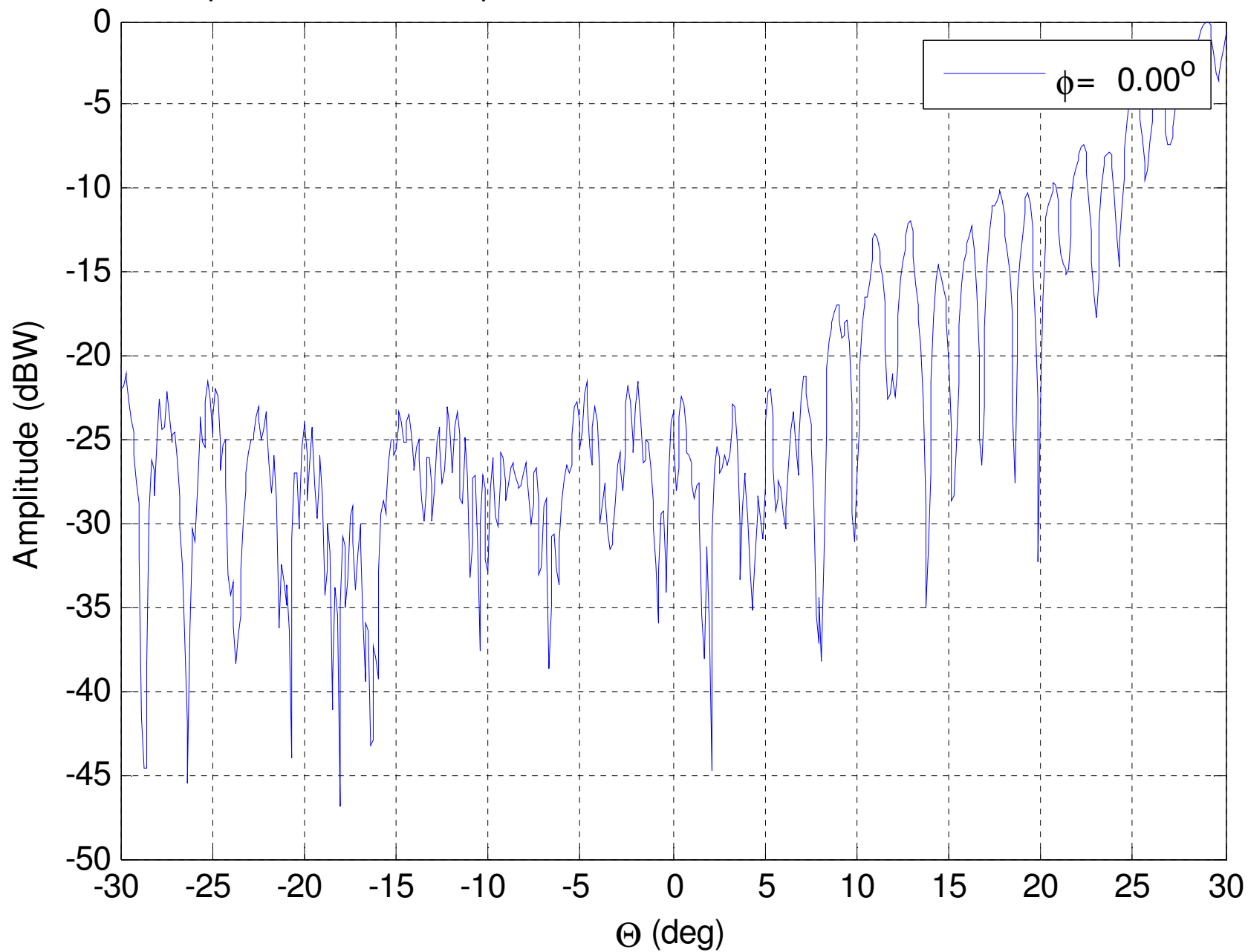
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--10.cut, Peak: 10.24 dBW, Date: 16-Dec-2011



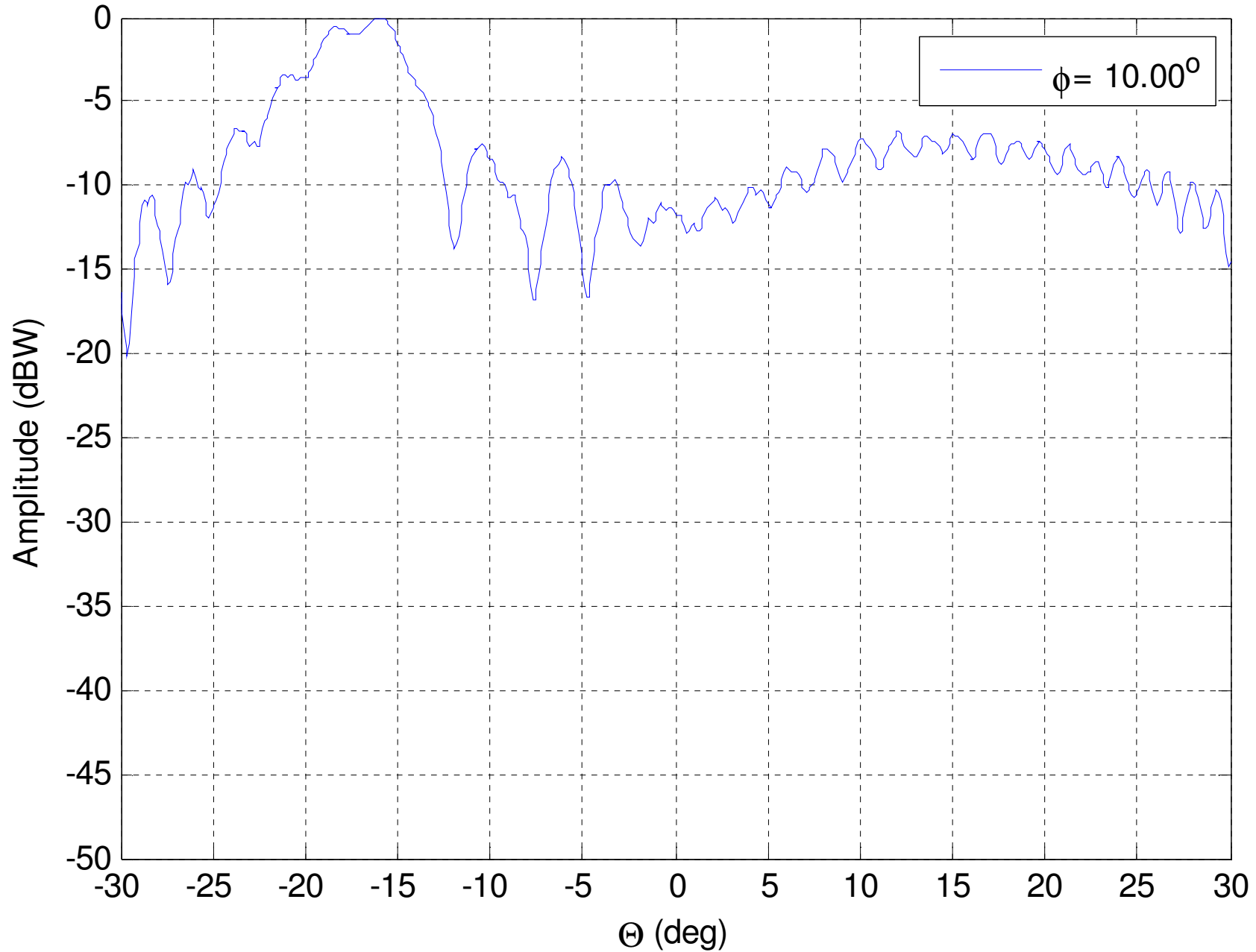
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-0.cut, Peak: 12.72 dBW, Date: 16-Dec-2011



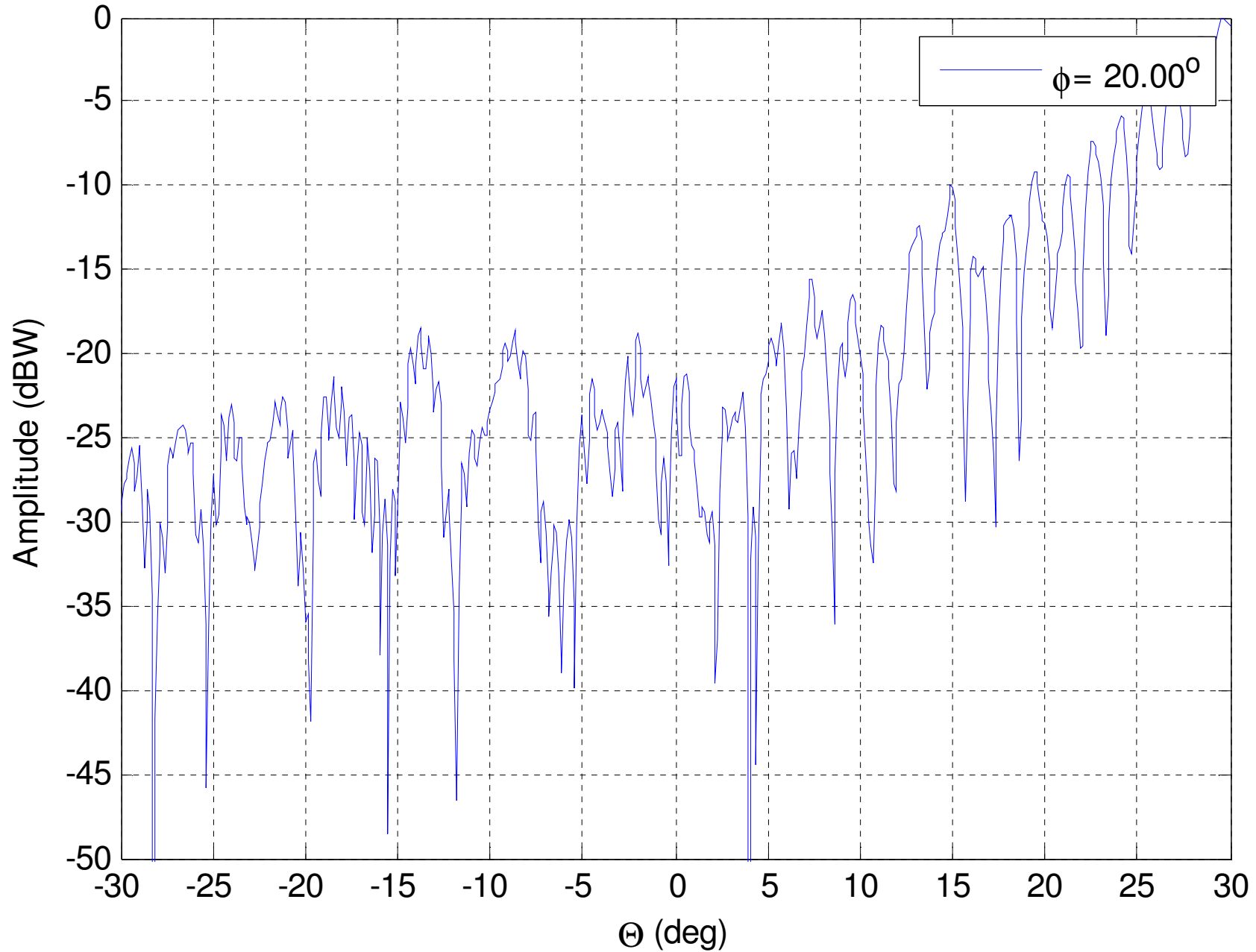
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-10.cut, Peak: 13.32 dBW, Date: 16-Dec-2011



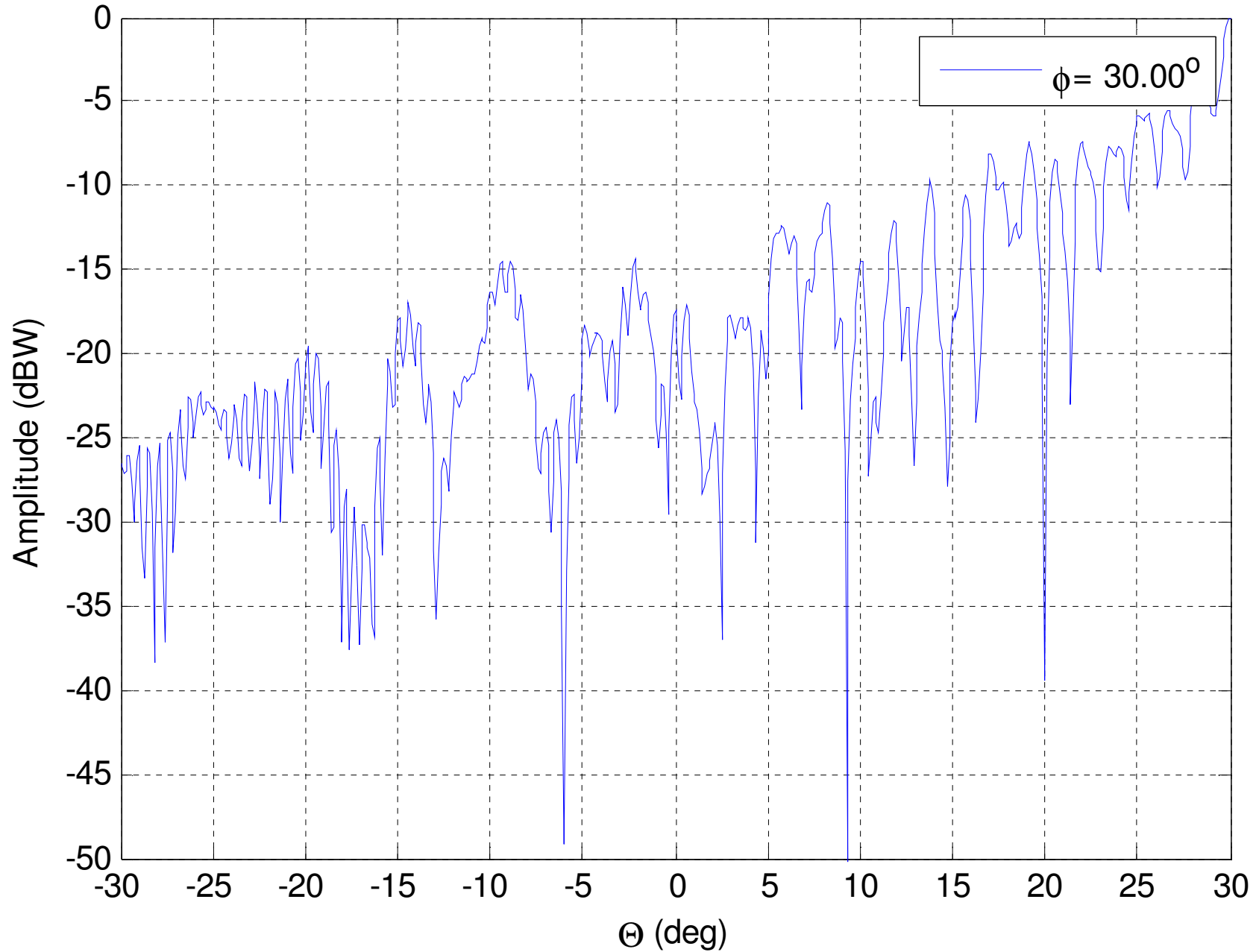
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-20.cut, Peak: 10.94 dBW, Date: 16-Dec-2011



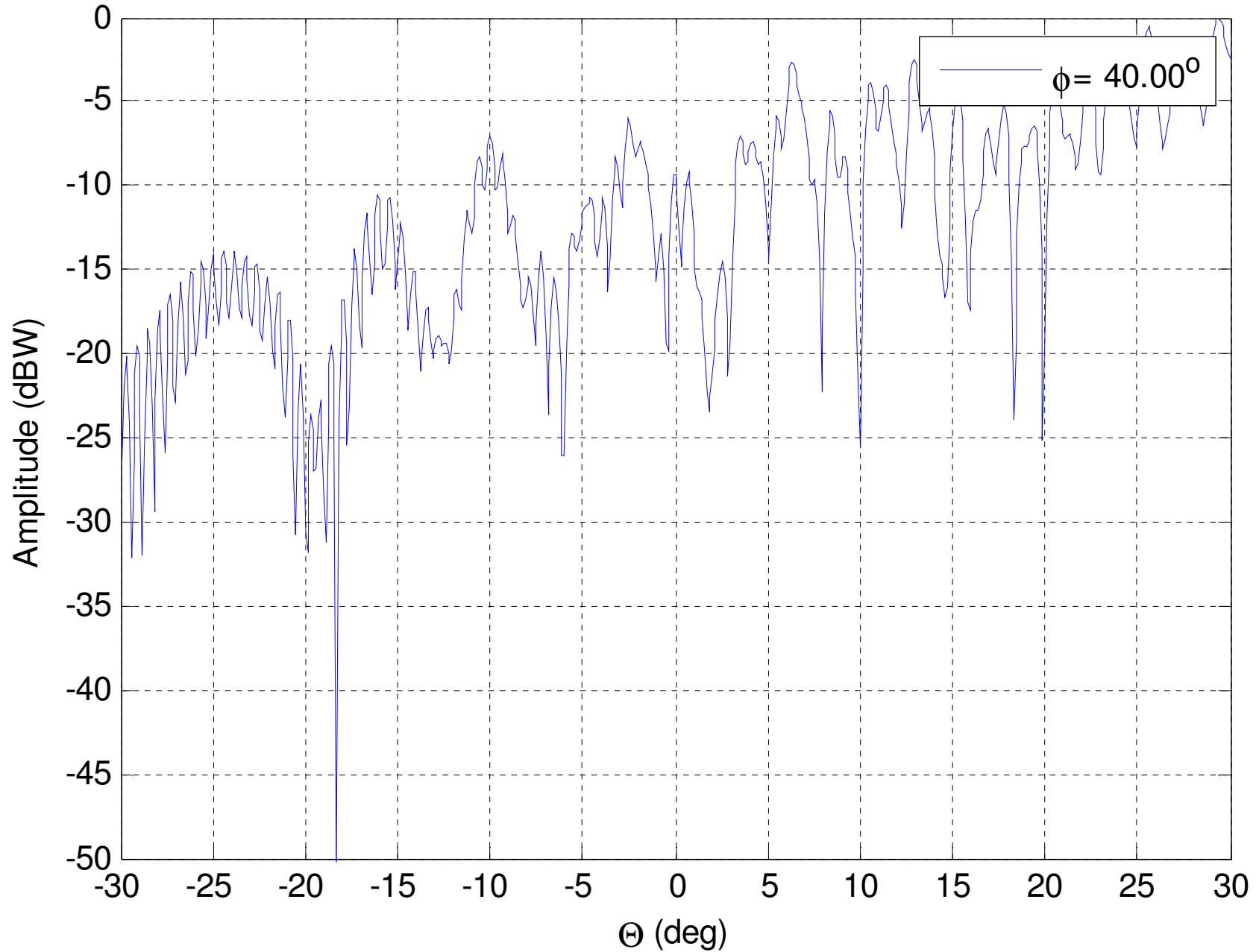
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-30.cut, Peak: 6.84 dBW, Date: 16-Dec-2011



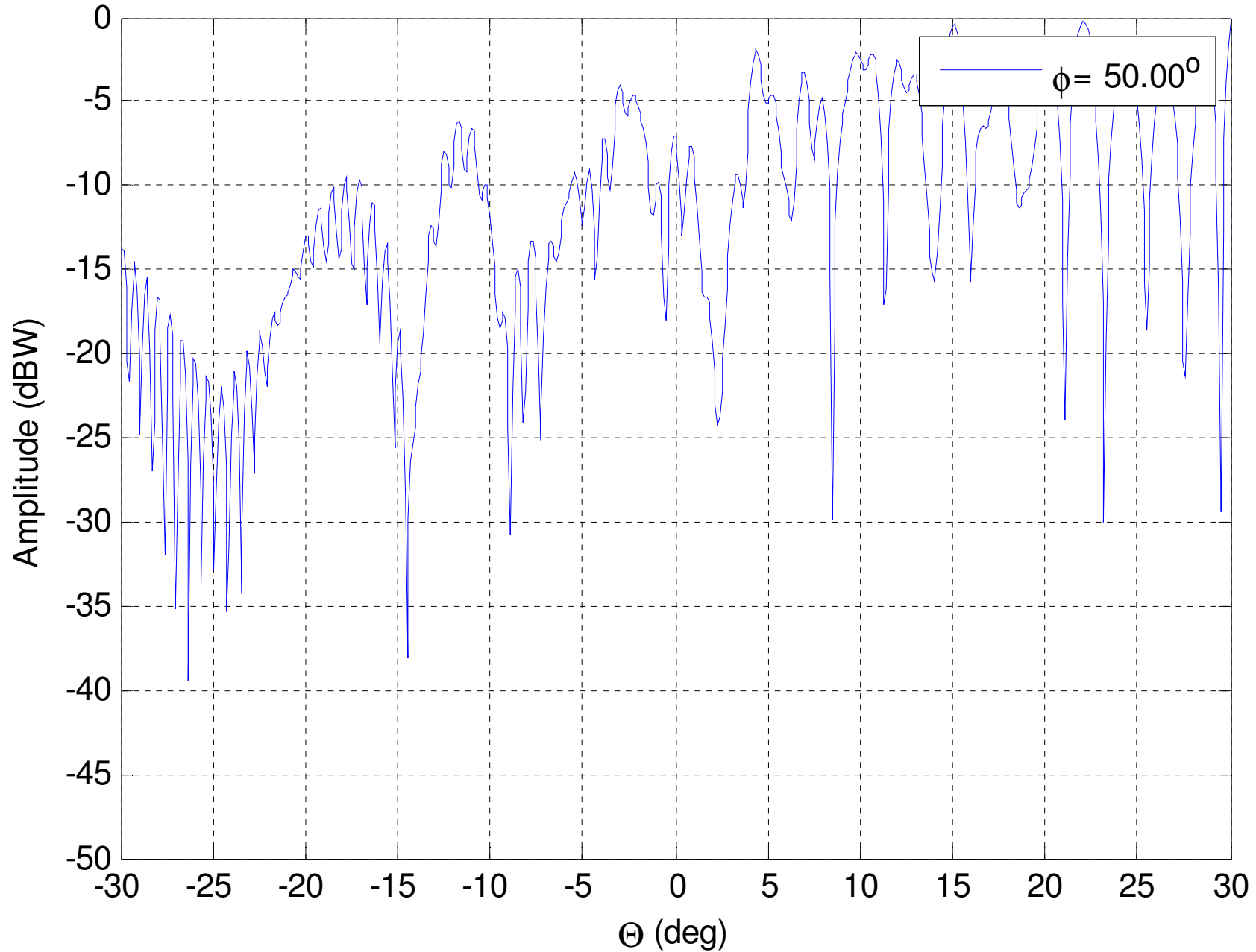
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-40.cut, Peak: -1.36 dBW, Date: 16-Dec-2011



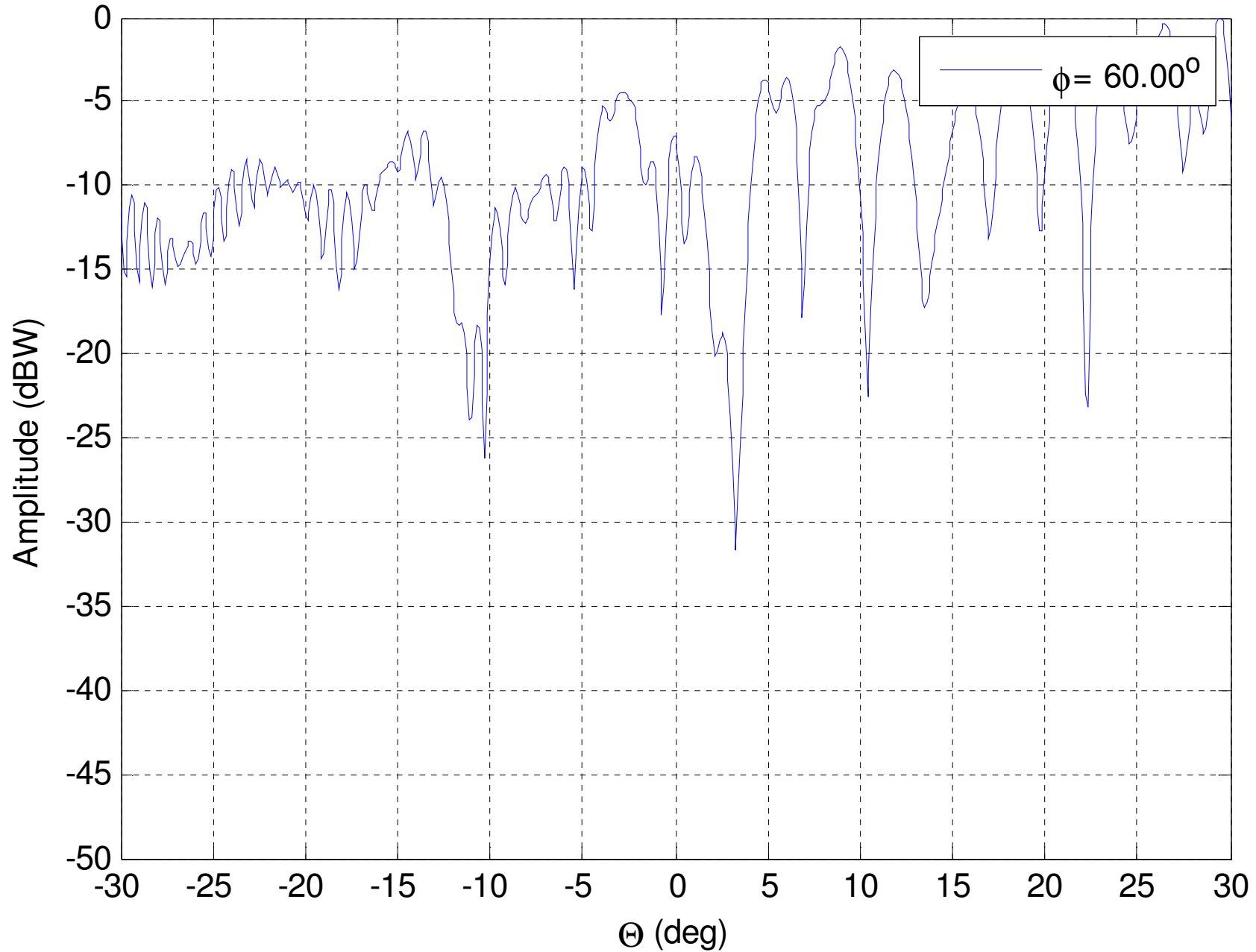
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-50.cut, Peak: -3.53 dBW, Date: 16-Dec-2011



Normalized pattern cuts - farfield

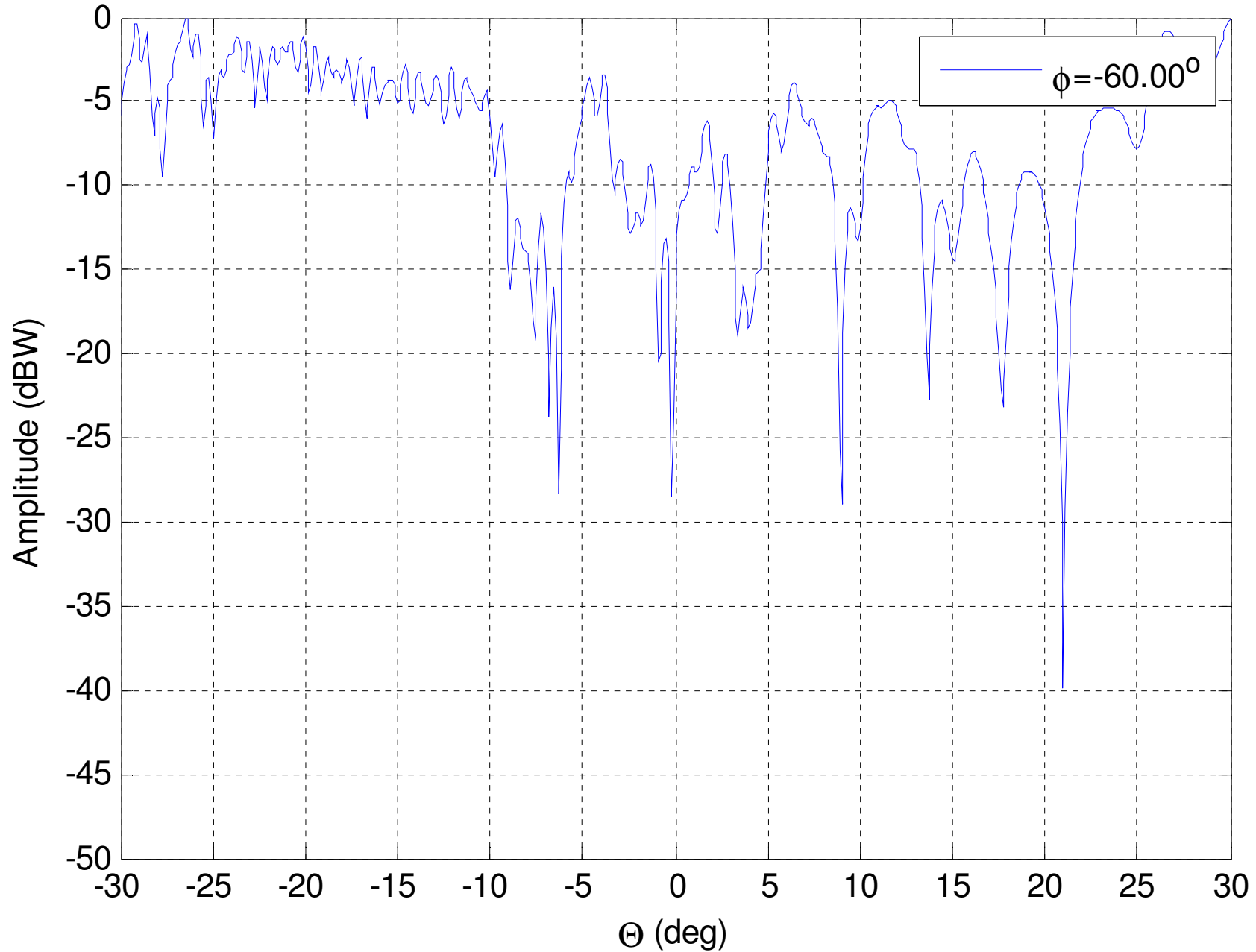
Input file: tx-17.5-lhcp-60.cut, Peak: -3.50 dBW, Date: 16-Dec-2011



RHCP at 17.7 GHz

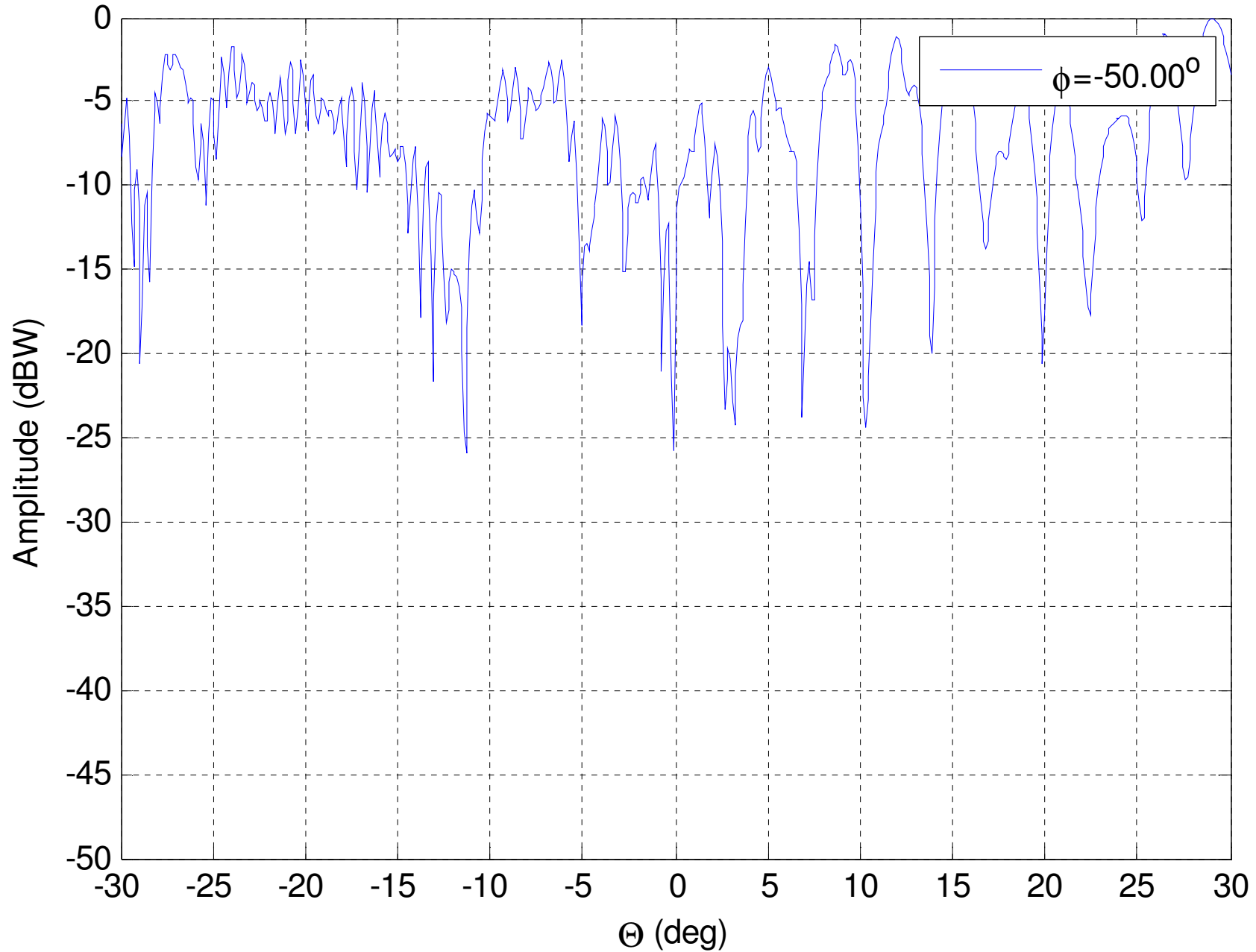
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--60.cut, Peak: -3.96 dBW, Date: 16-Dec-2011



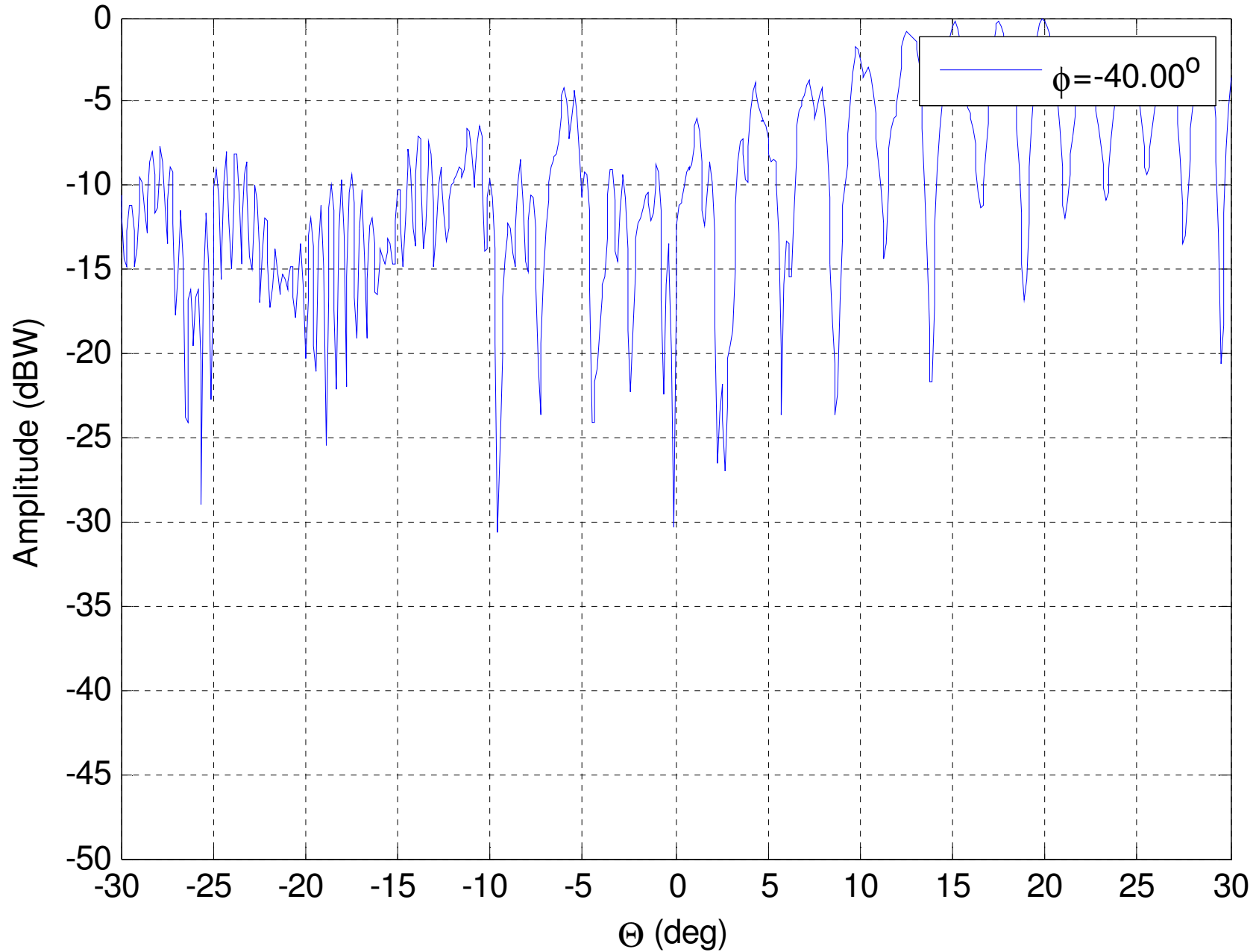
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--50.cut, Peak: -4.99 dBW, Date: 16-Dec-2011



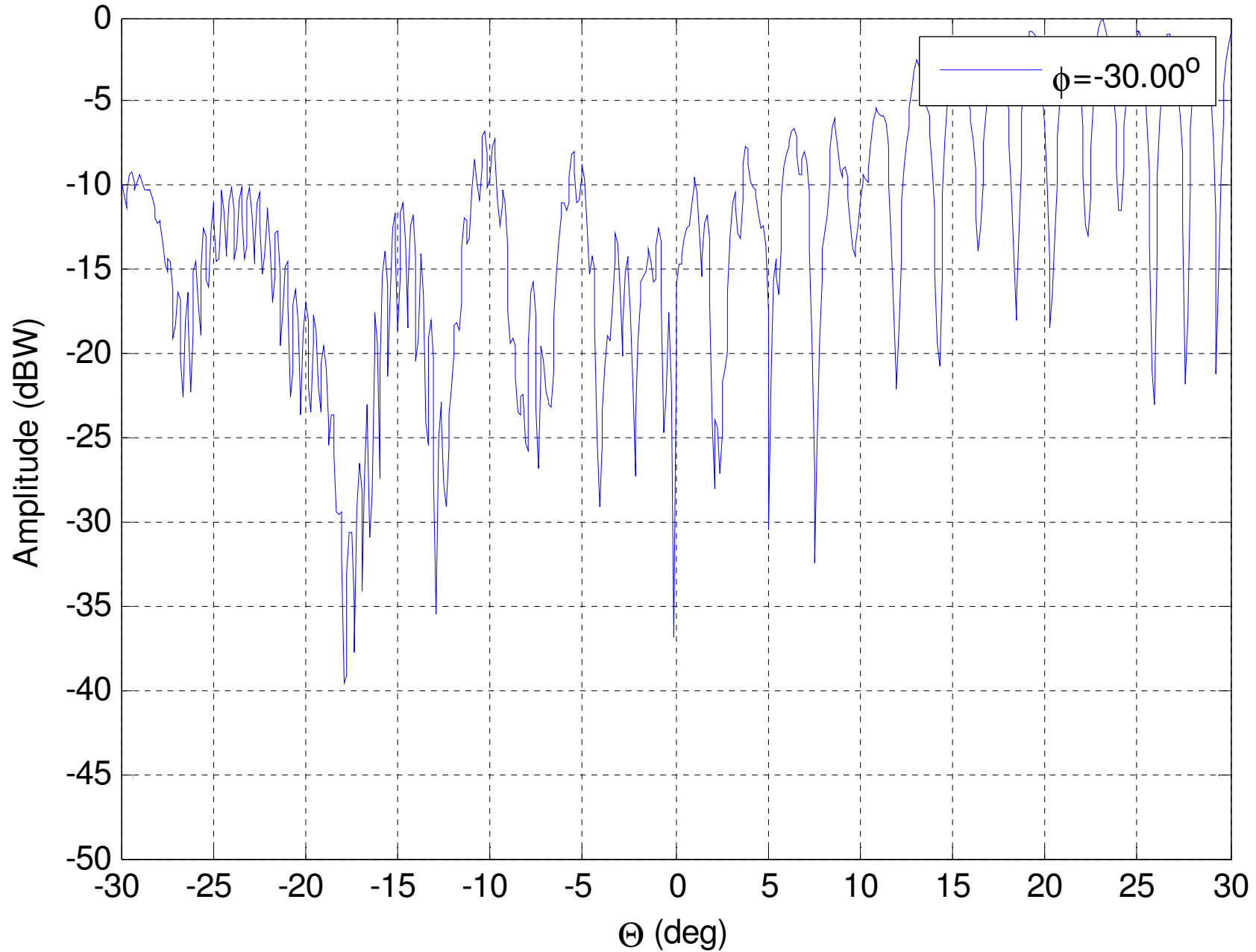
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--40.cut, Peak: -3.82 dBW, Date: 16-Dec-2011



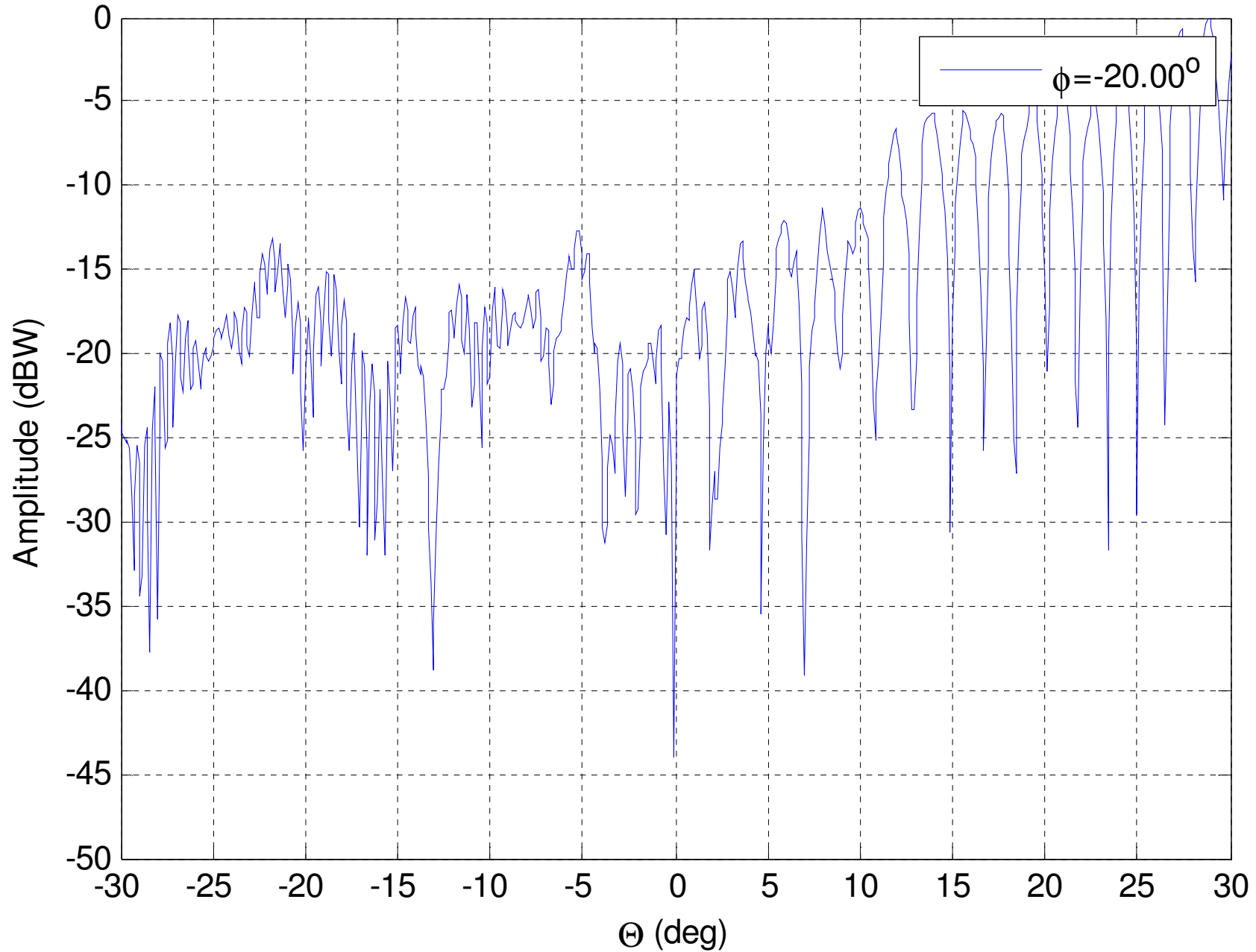
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--30.cut, Peak: -0.20 dBW, Date: 16-Dec-2011



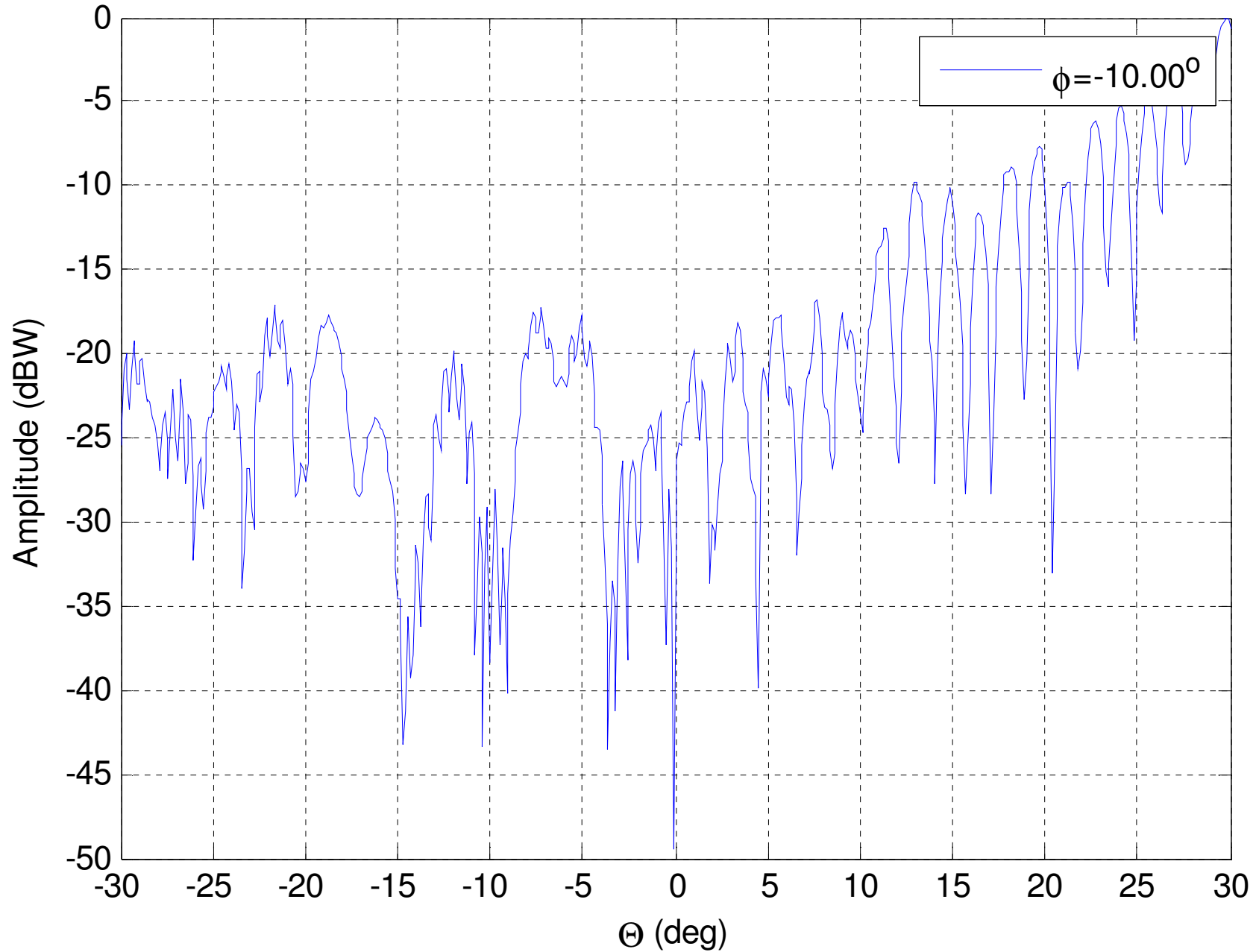
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--20.cut, Peak: 5.40 dBW, Date: 16-Dec-2011



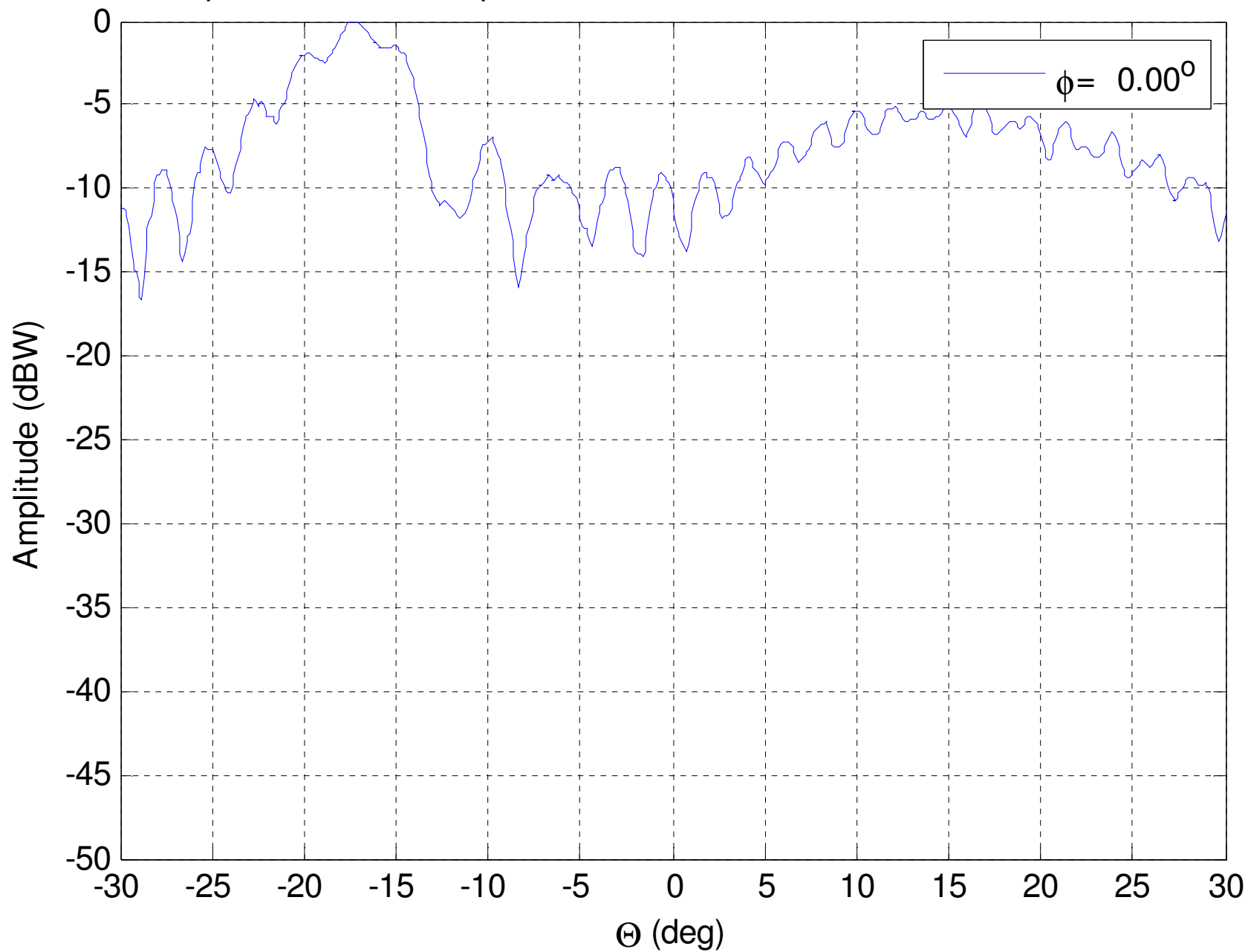
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--10.cut, Peak: 10.54 dBW, Date: 16-Dec-2011



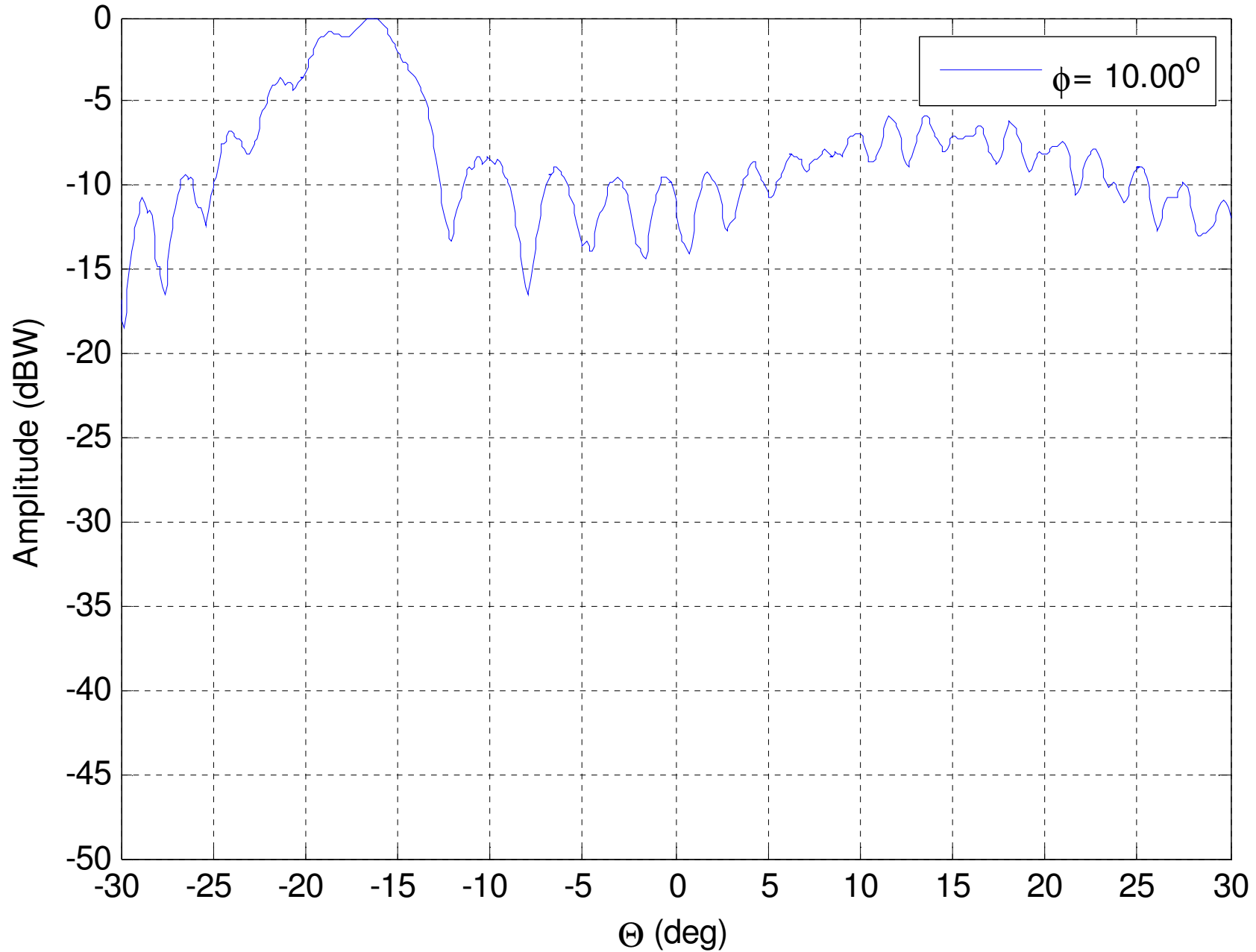
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-0.cut, Peak: 12.85 dBW, Date: 16-Dec-2011



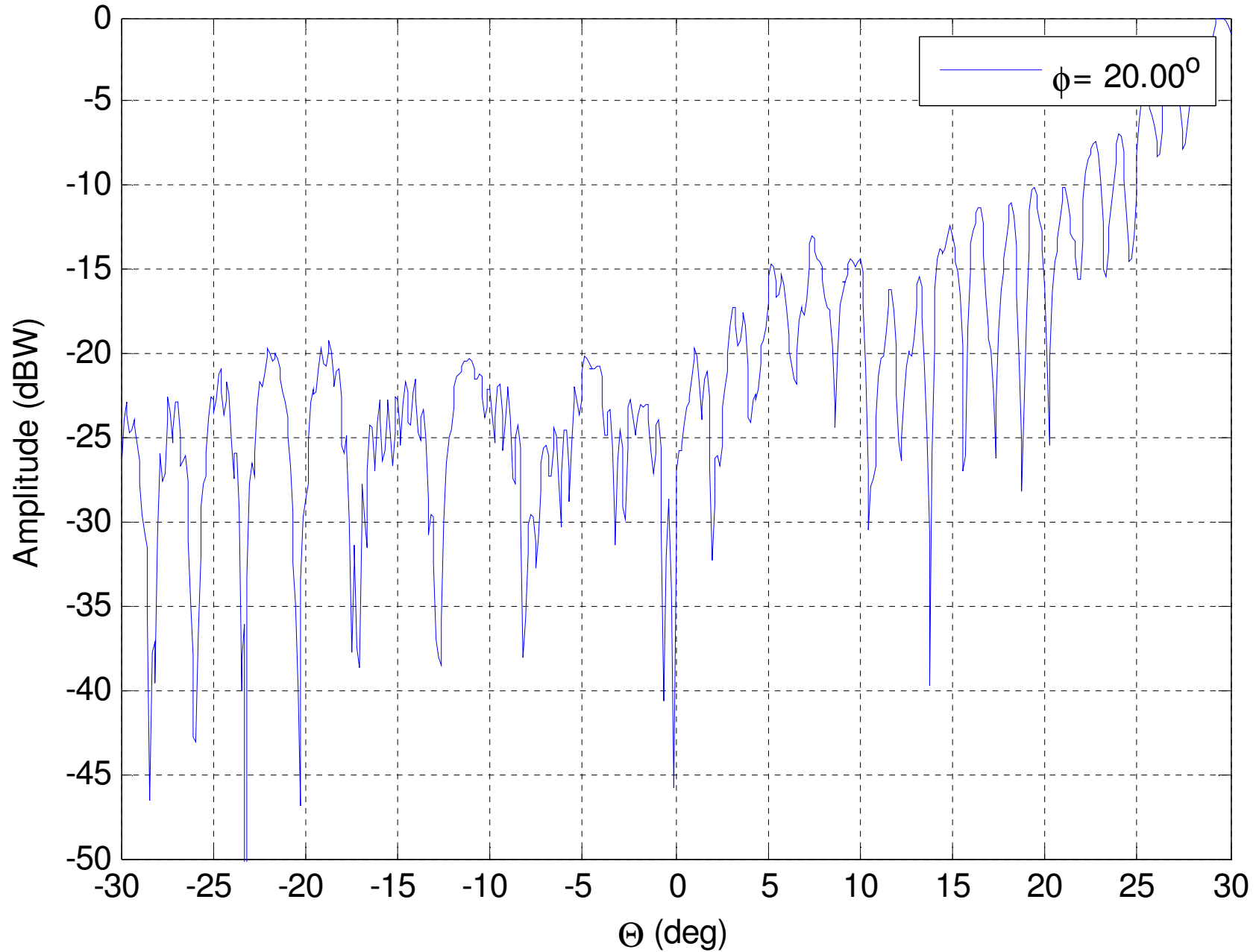
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-10.cut, Peak: 13.06 dBW, Date: 16-Dec-2011



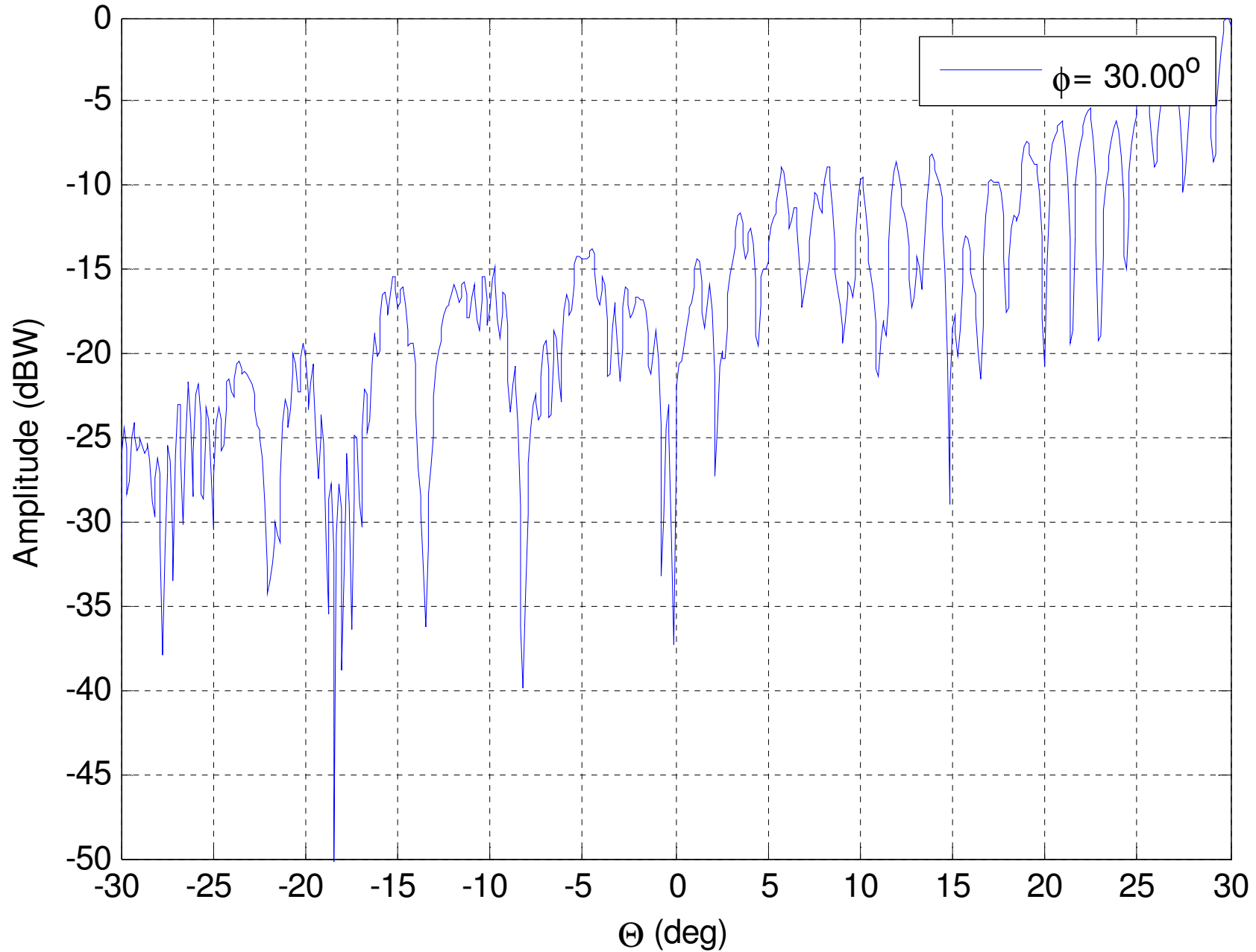
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-20.cut, Peak: 10.85 dBW, Date: 16-Dec-2011



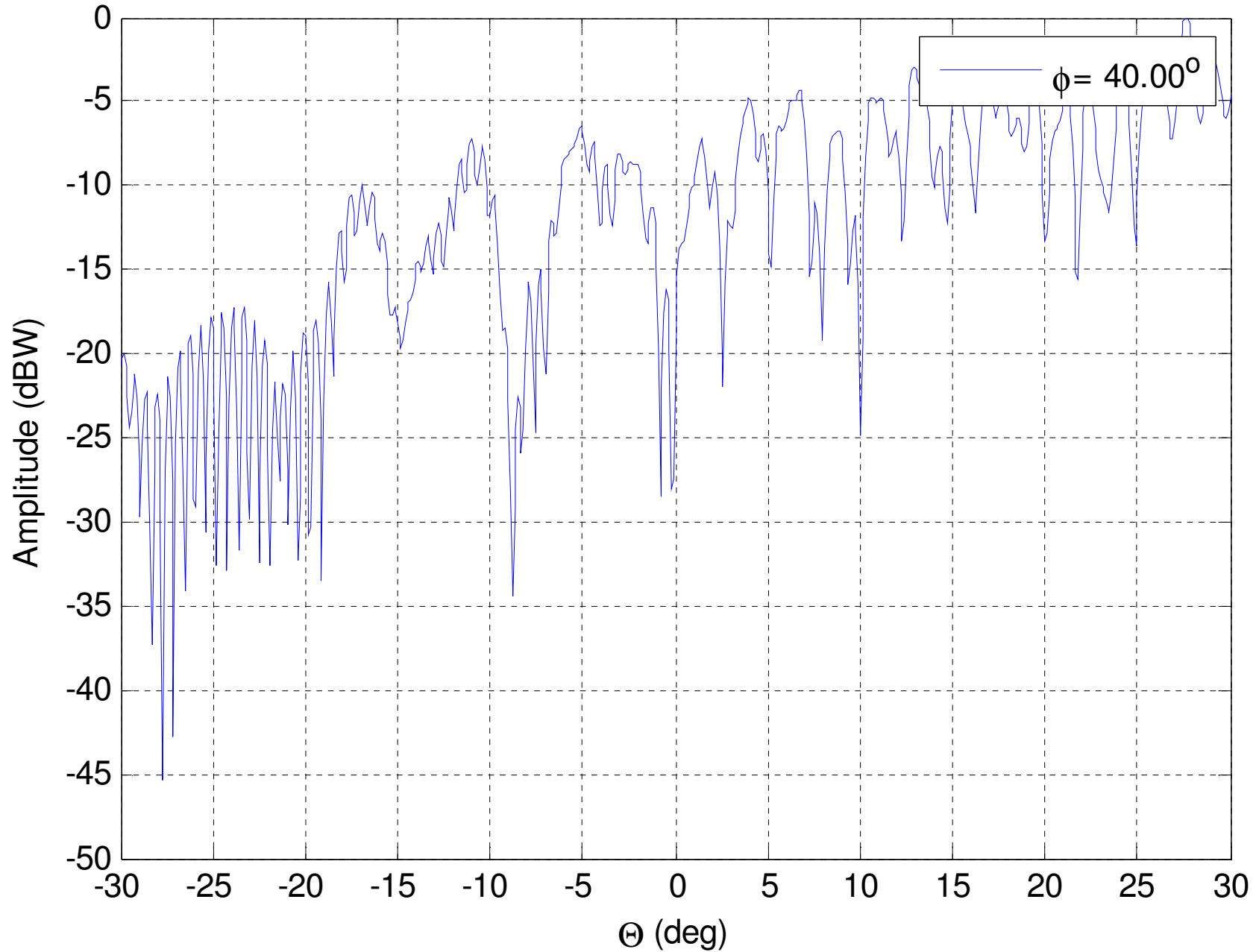
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-30.cut, Peak: 5.57 dBW, Date: 16-Dec-2011



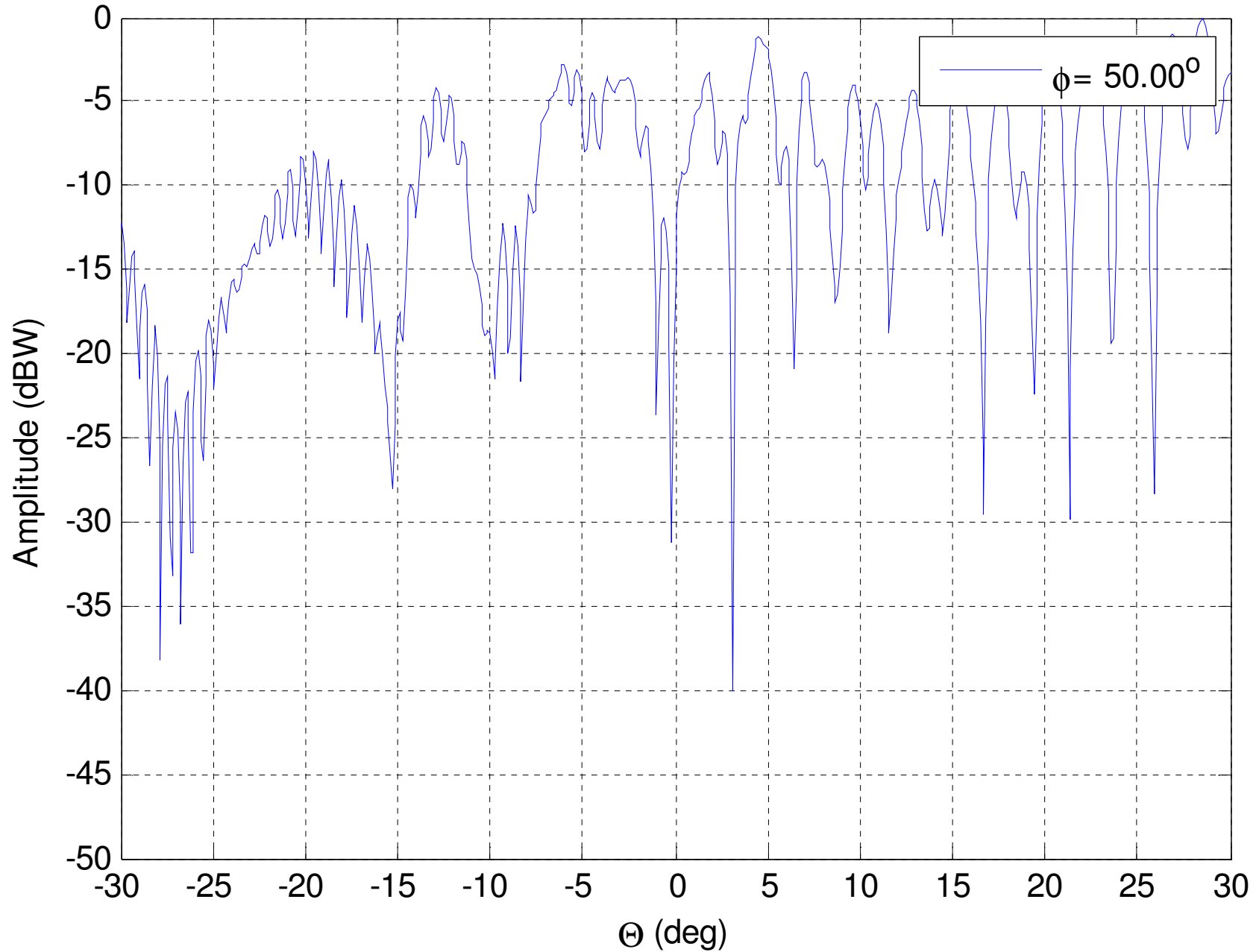
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-40.cut, Peak: -1.39 dBW, Date: 16-Dec-2011



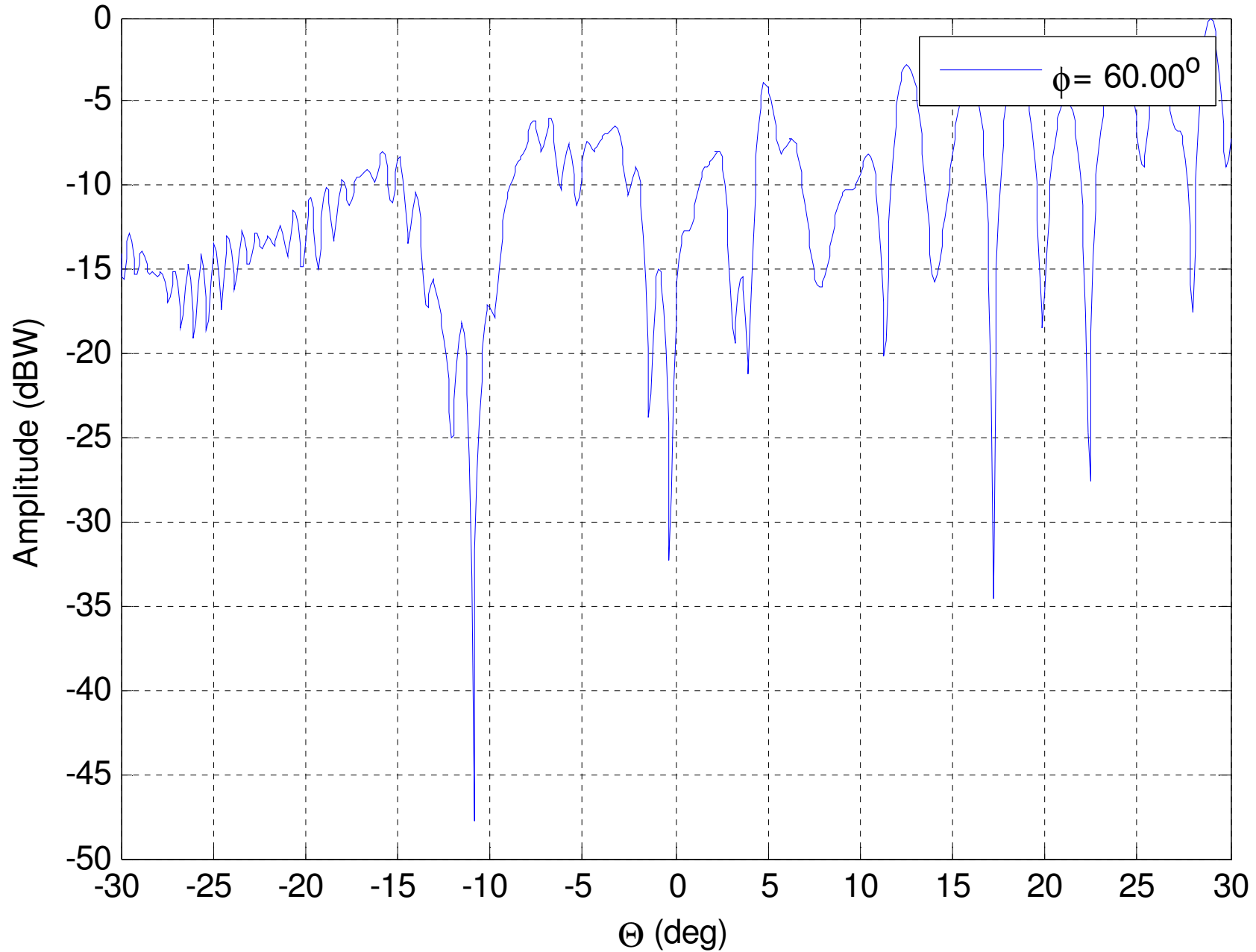
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-50.cut, Peak: -5.48 dBW, Date: 16-Dec-2011



Normalized pattern cuts - farfield

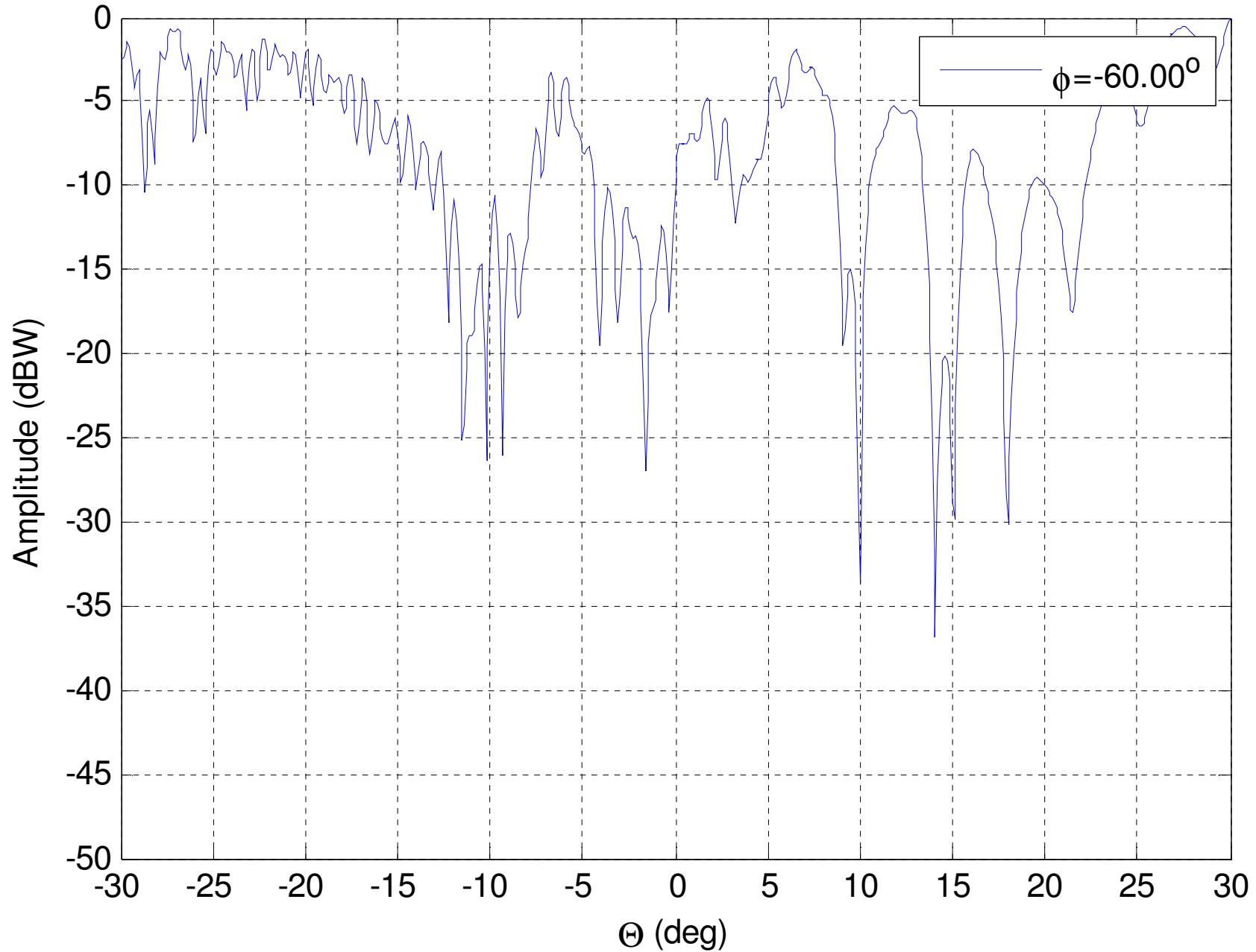
Input file: tx-17.7-rhcp-60.cut, Peak: -2.00 dBW, Date: 16-Dec-2011



LHCP at 17.7 GHz

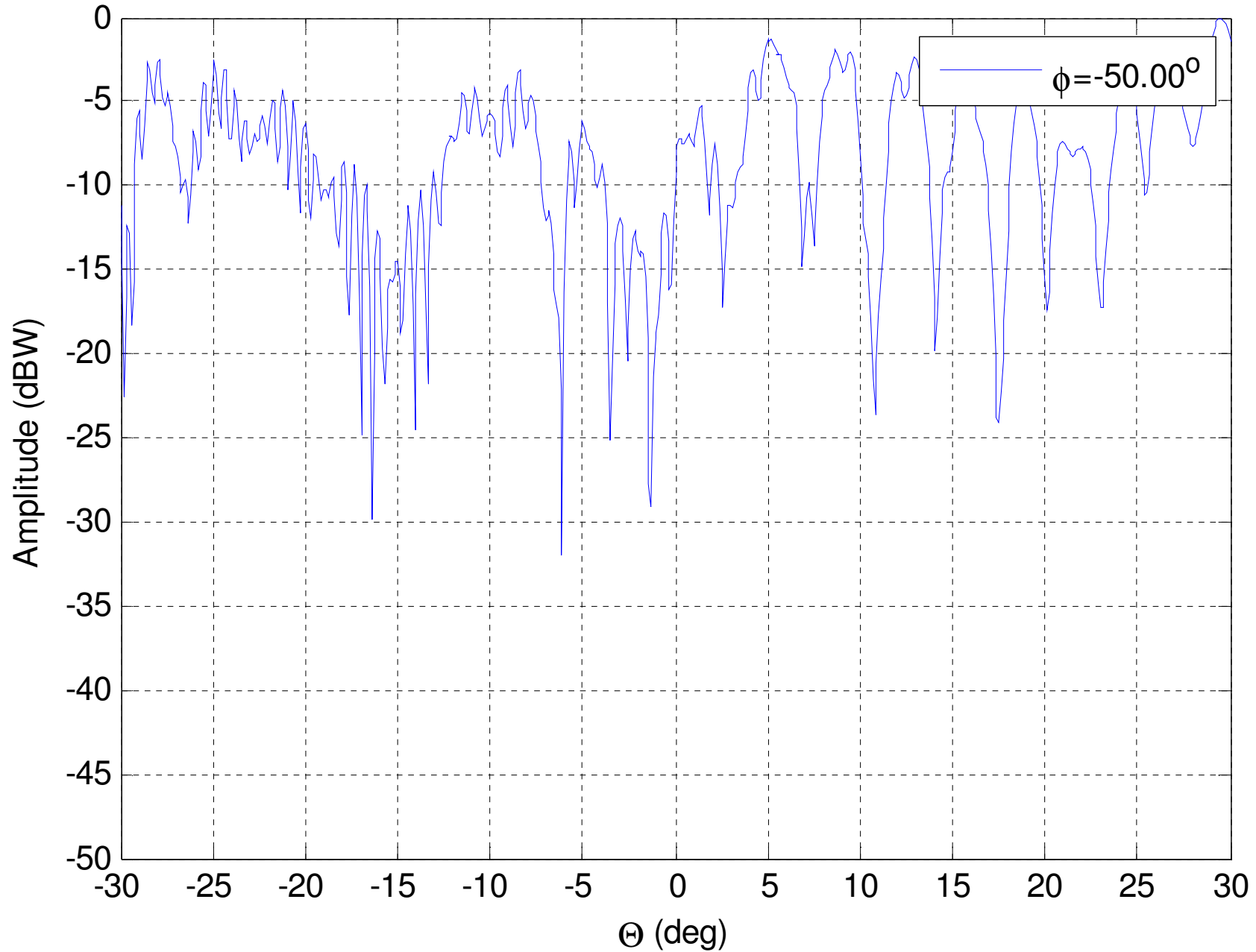
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--60.cut, Peak: -3.88 dBW, Date: 16-Dec-2011



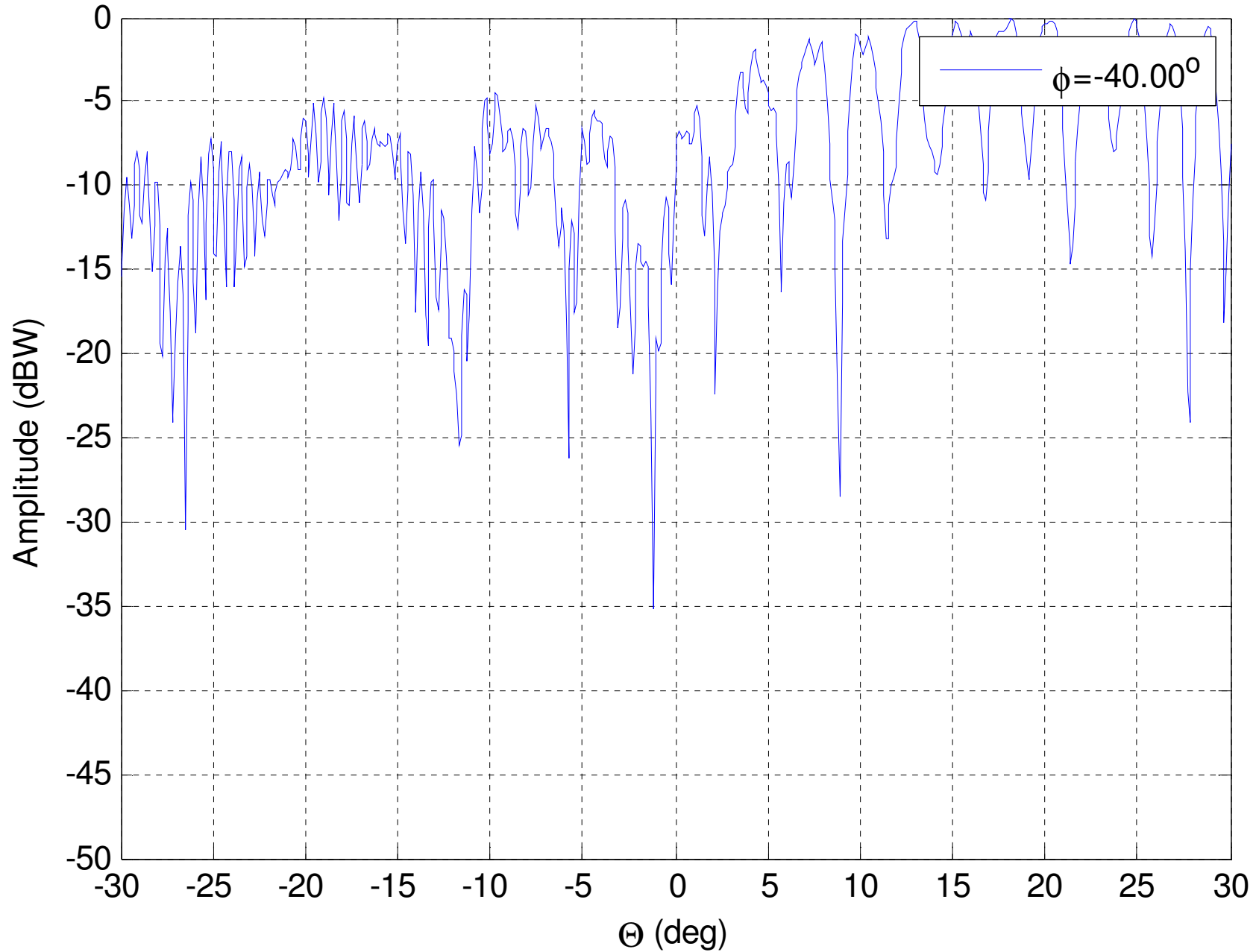
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--50.cut, Peak: -4.24 dBW, Date: 16-Dec-2011



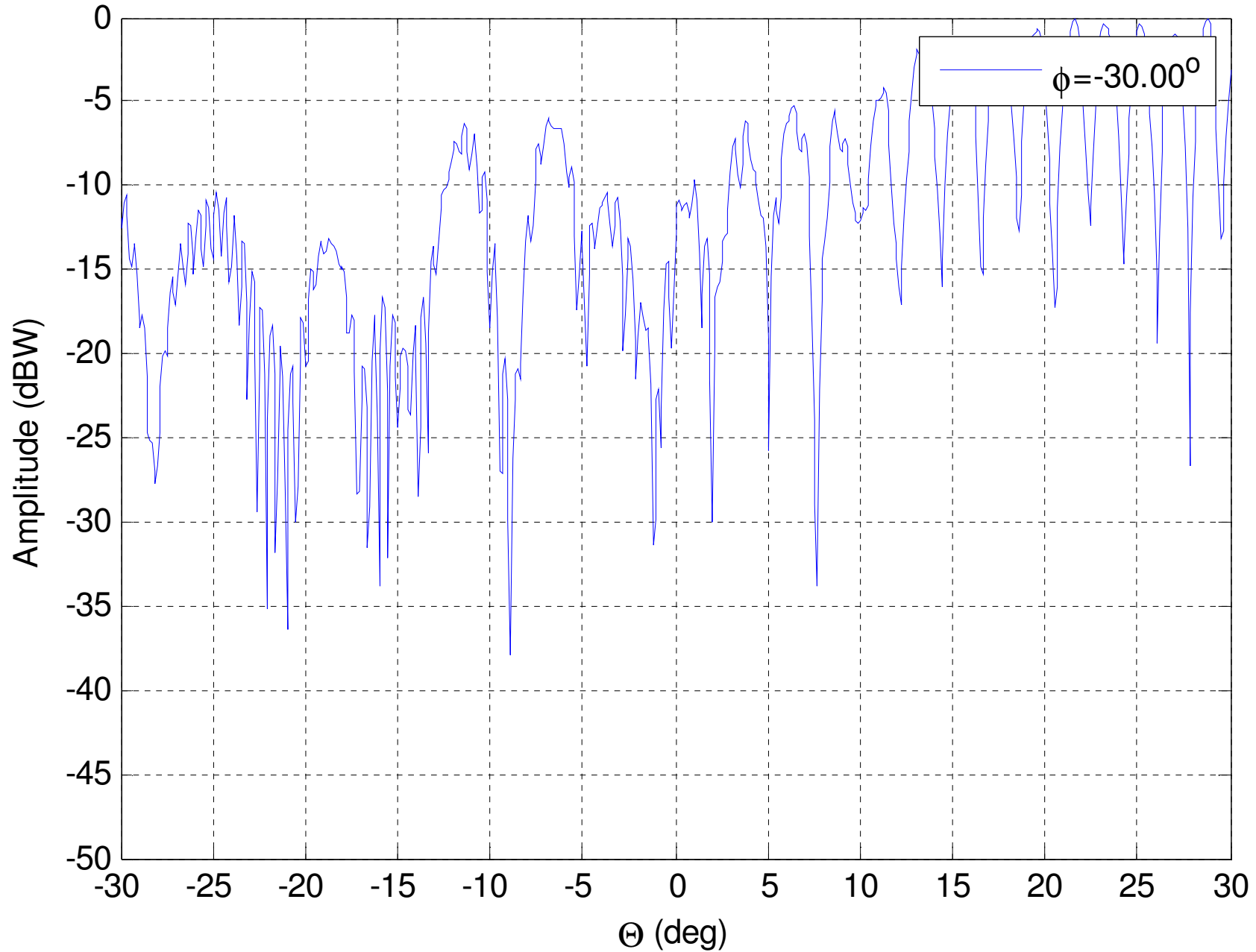
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--40.cut, Peak: -4.71 dBW, Date: 16-Dec-2011



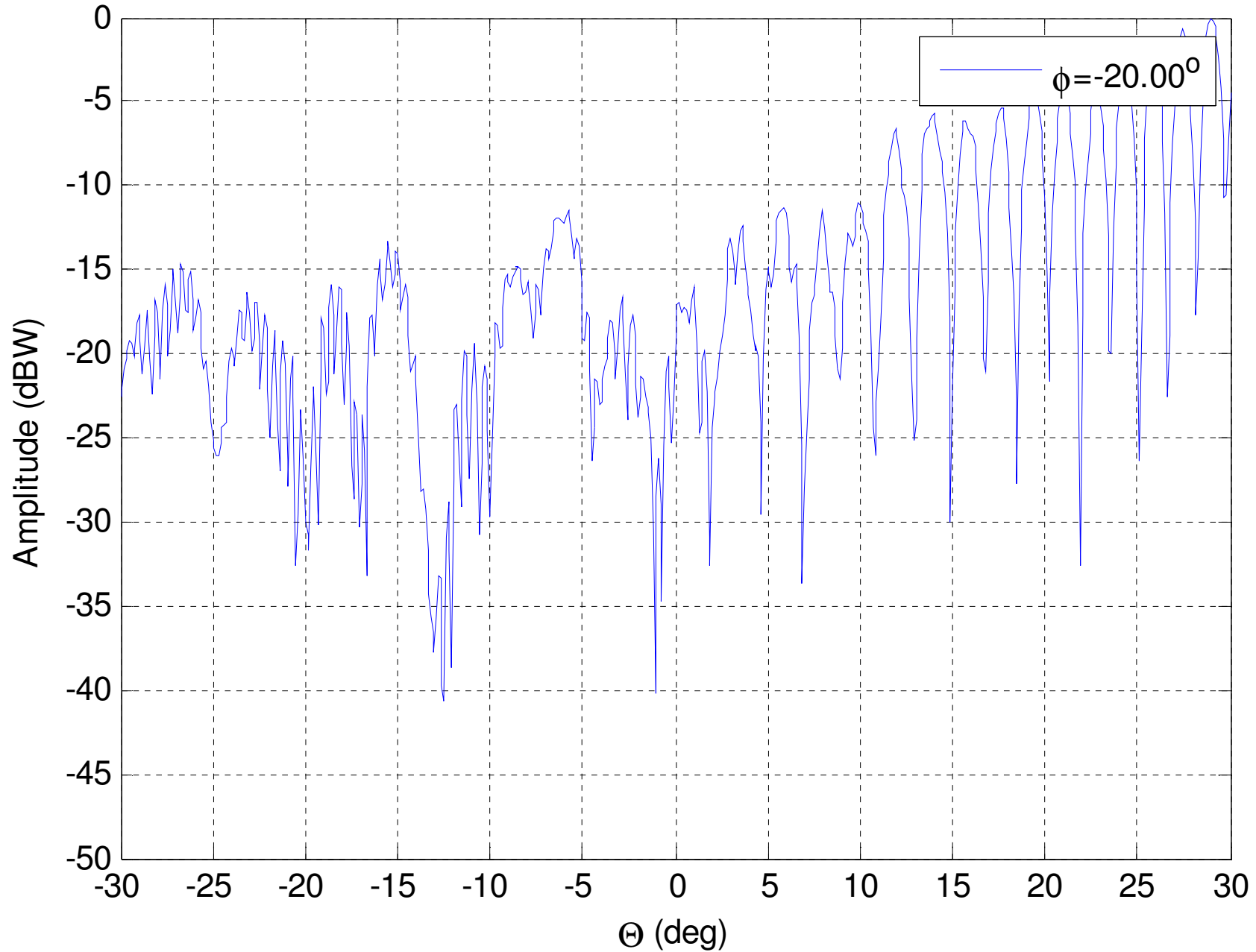
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--30.cut, Peak: -0.74 dBW, Date: 16-Dec-2011



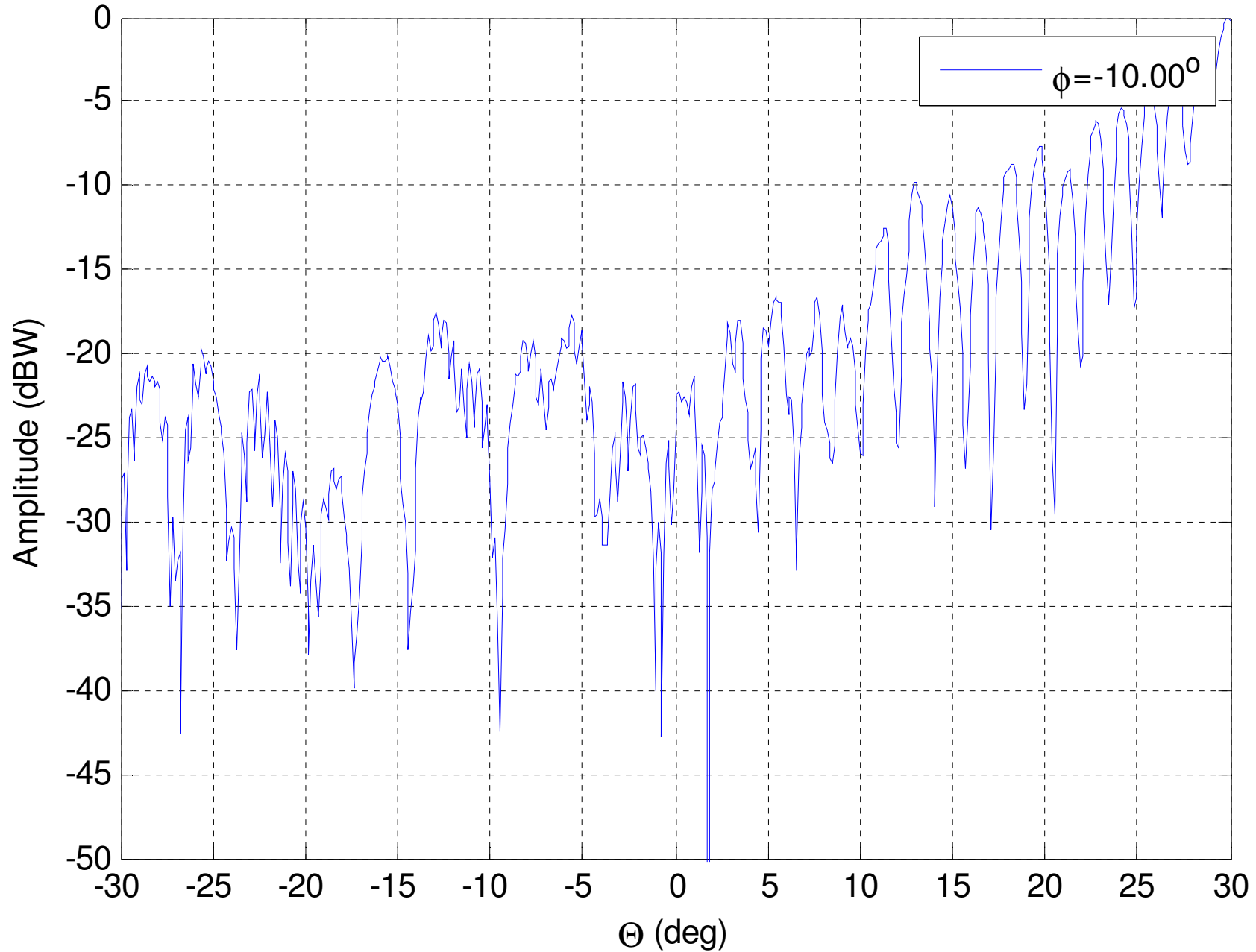
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--20.cut, Peak: 5.33 dBW, Date: 16-Dec-2011



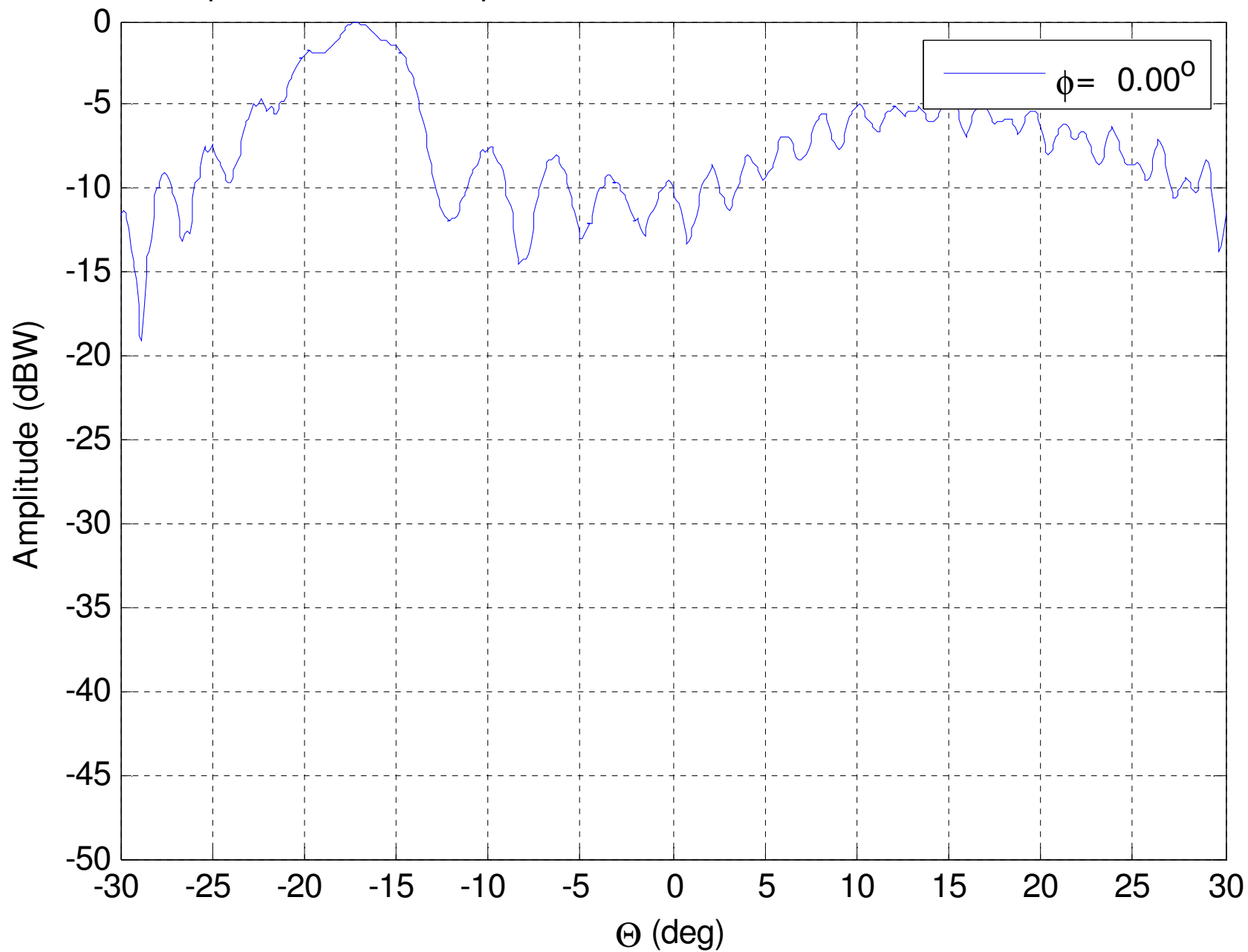
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--10.cut, Peak: 10.52 dBW, Date: 16-Dec-2011



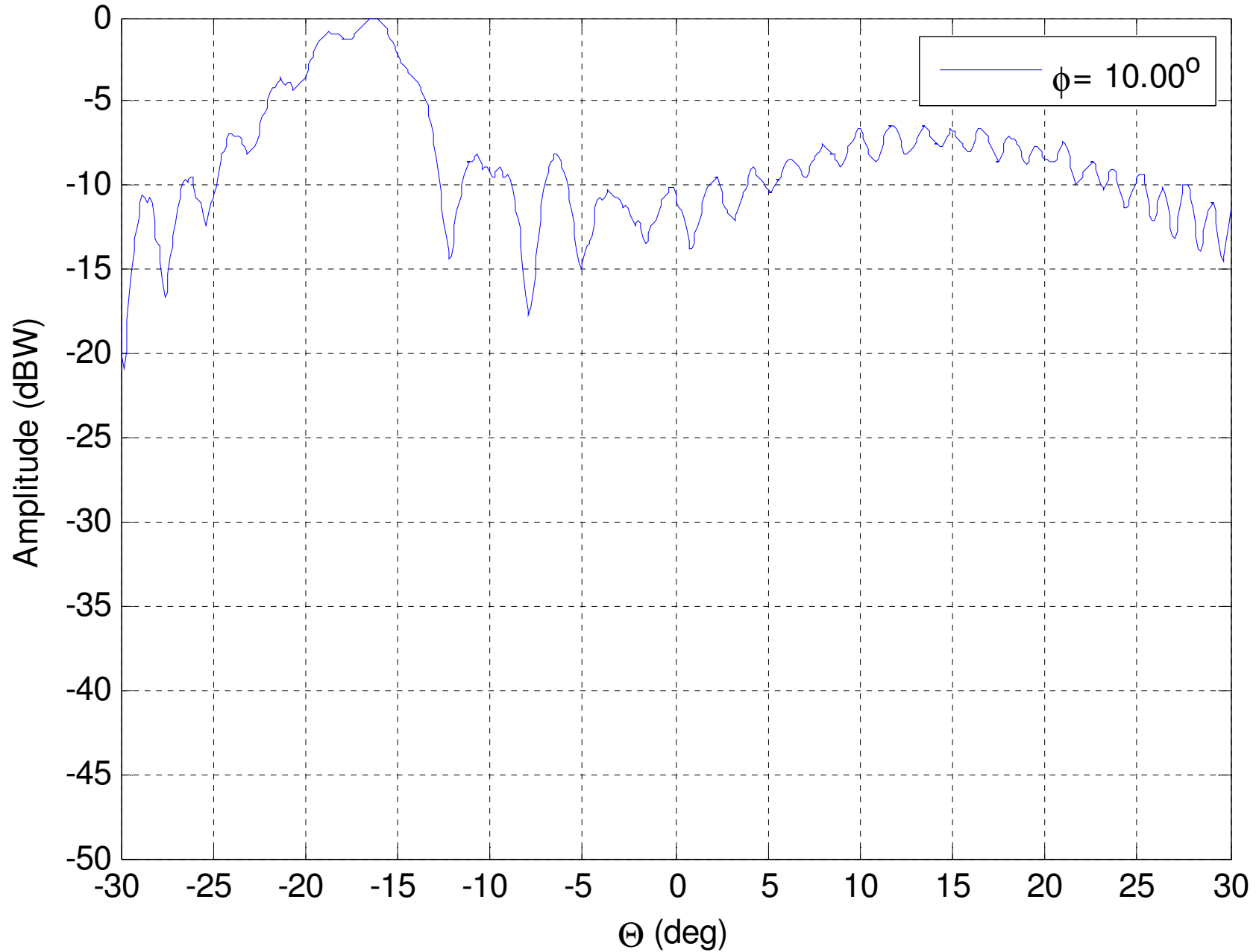
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-0.cut, Peak: 12.64 dBW, Date: 16-Dec-2011



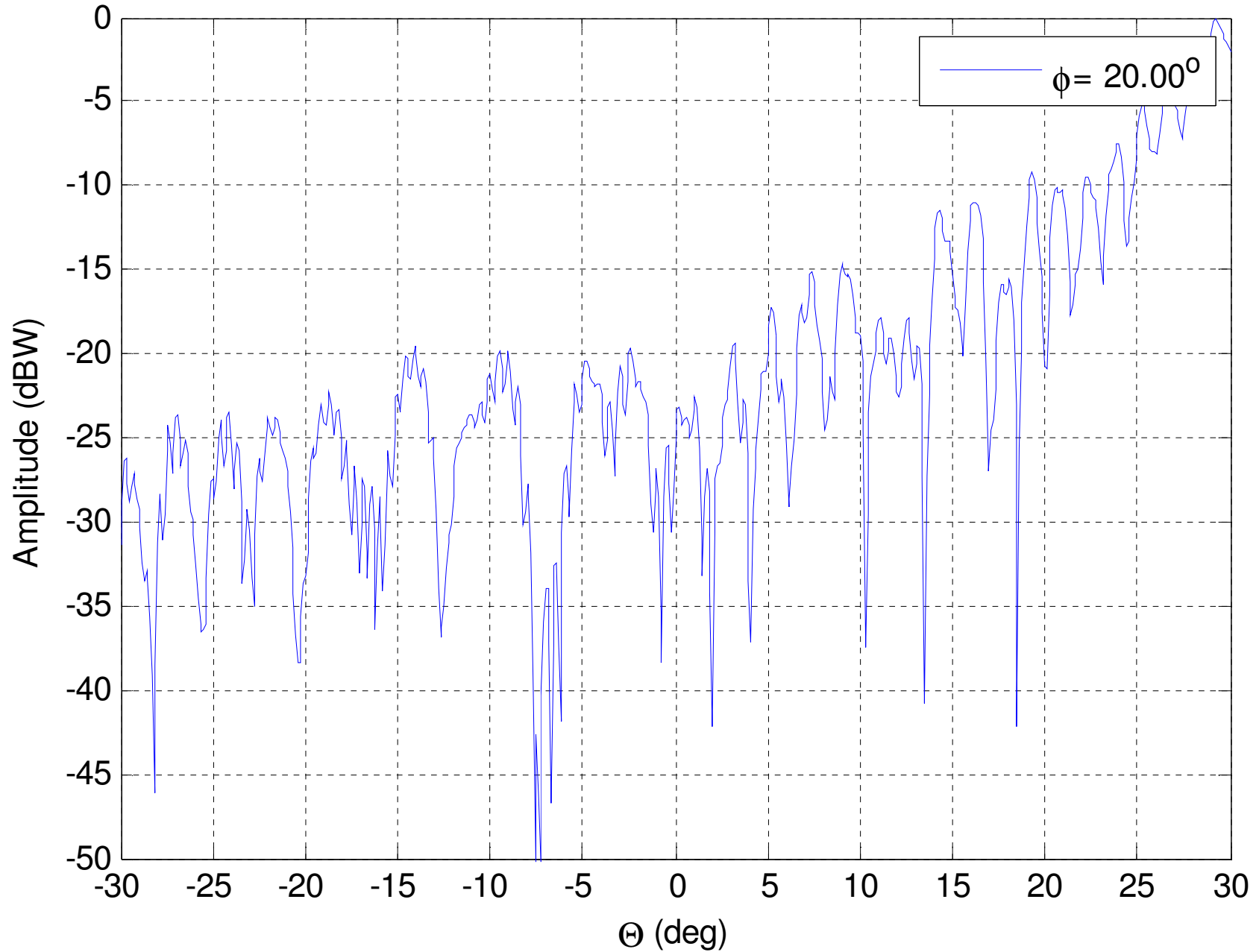
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-10.cut, Peak: 13.18 dBW, Date: 16-Dec-2011



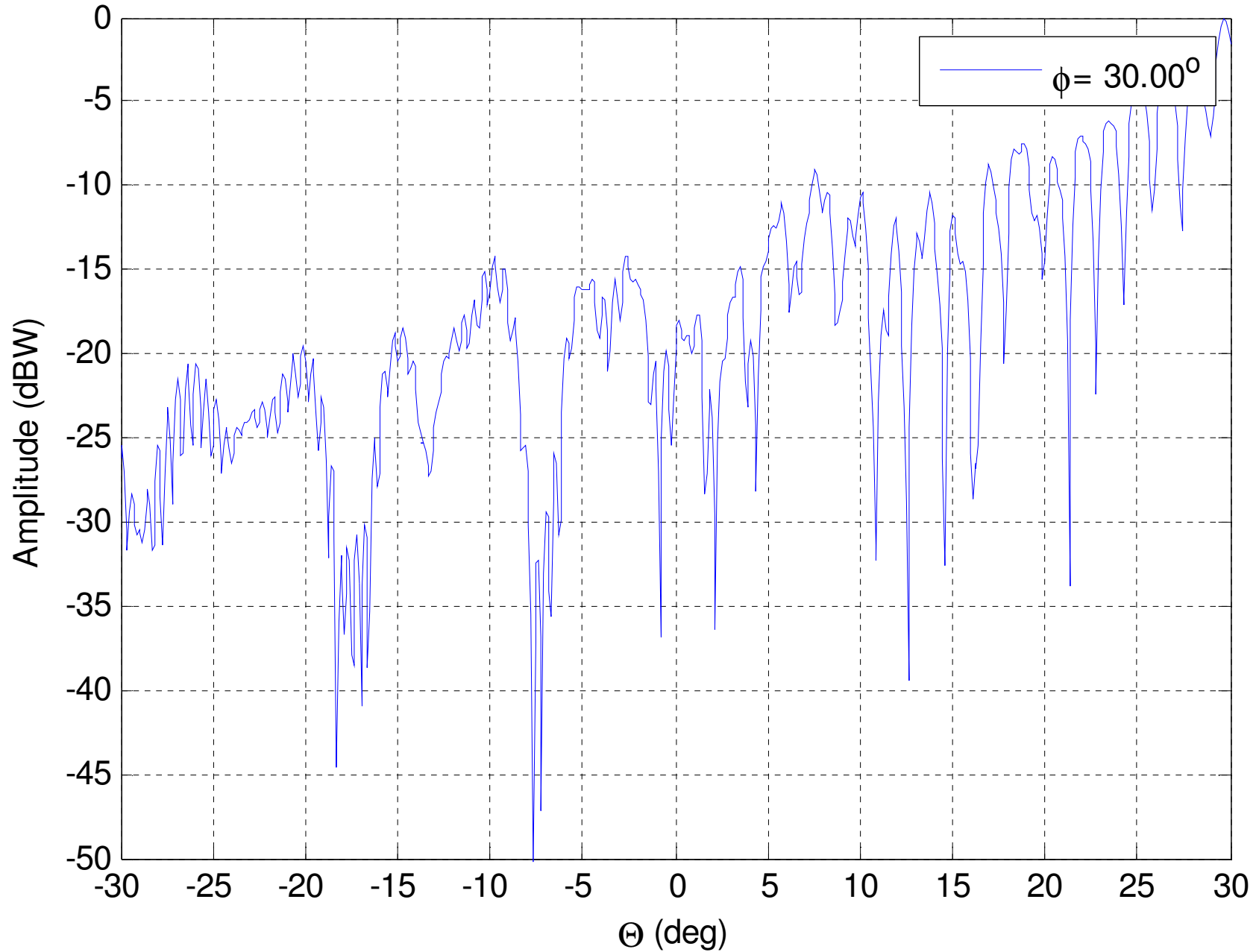
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-20.cut, Peak: 11.28 dBW, Date: 16-Dec-2011



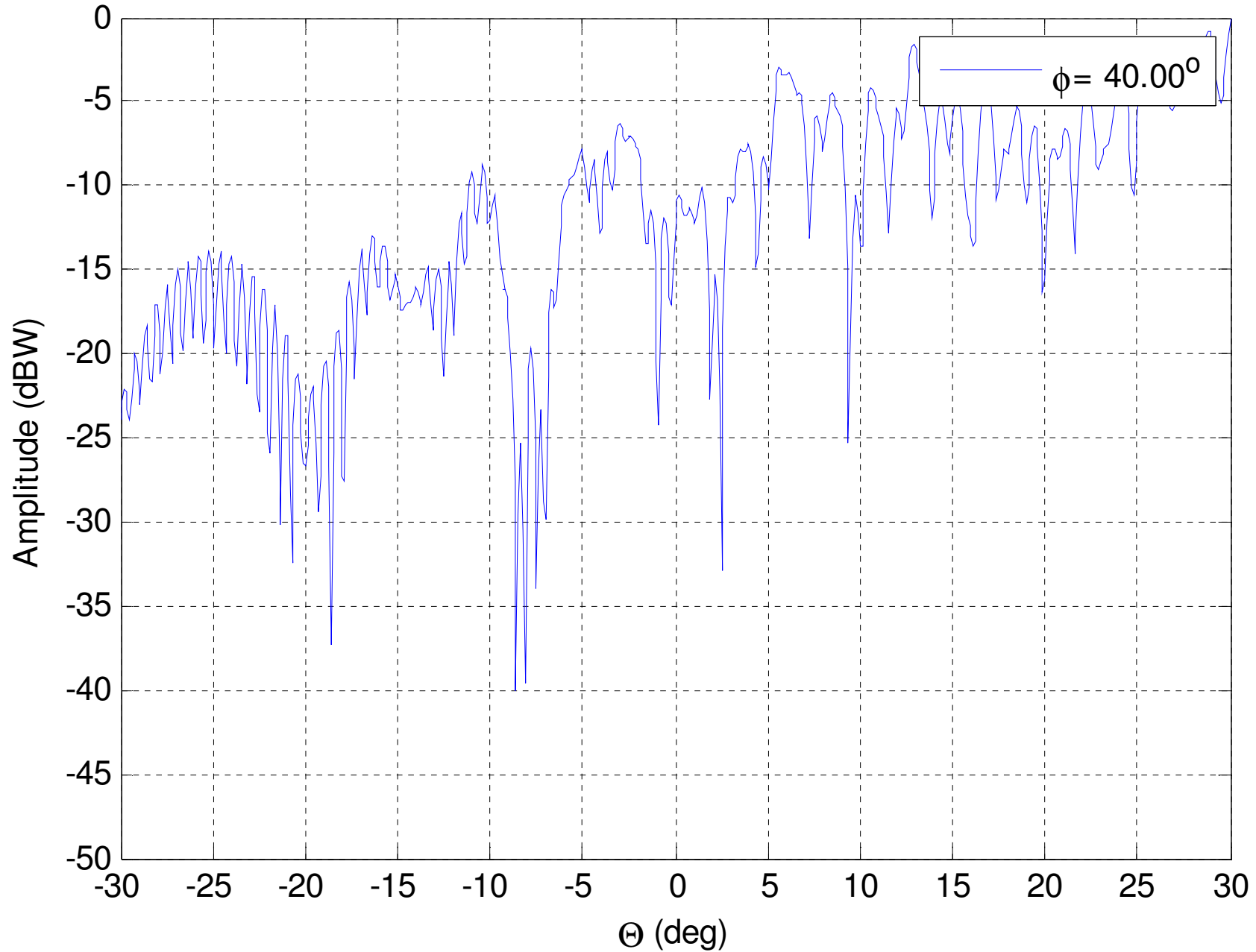
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-30.cut, Peak: 6.19 dBW, Date: 16-Dec-2011



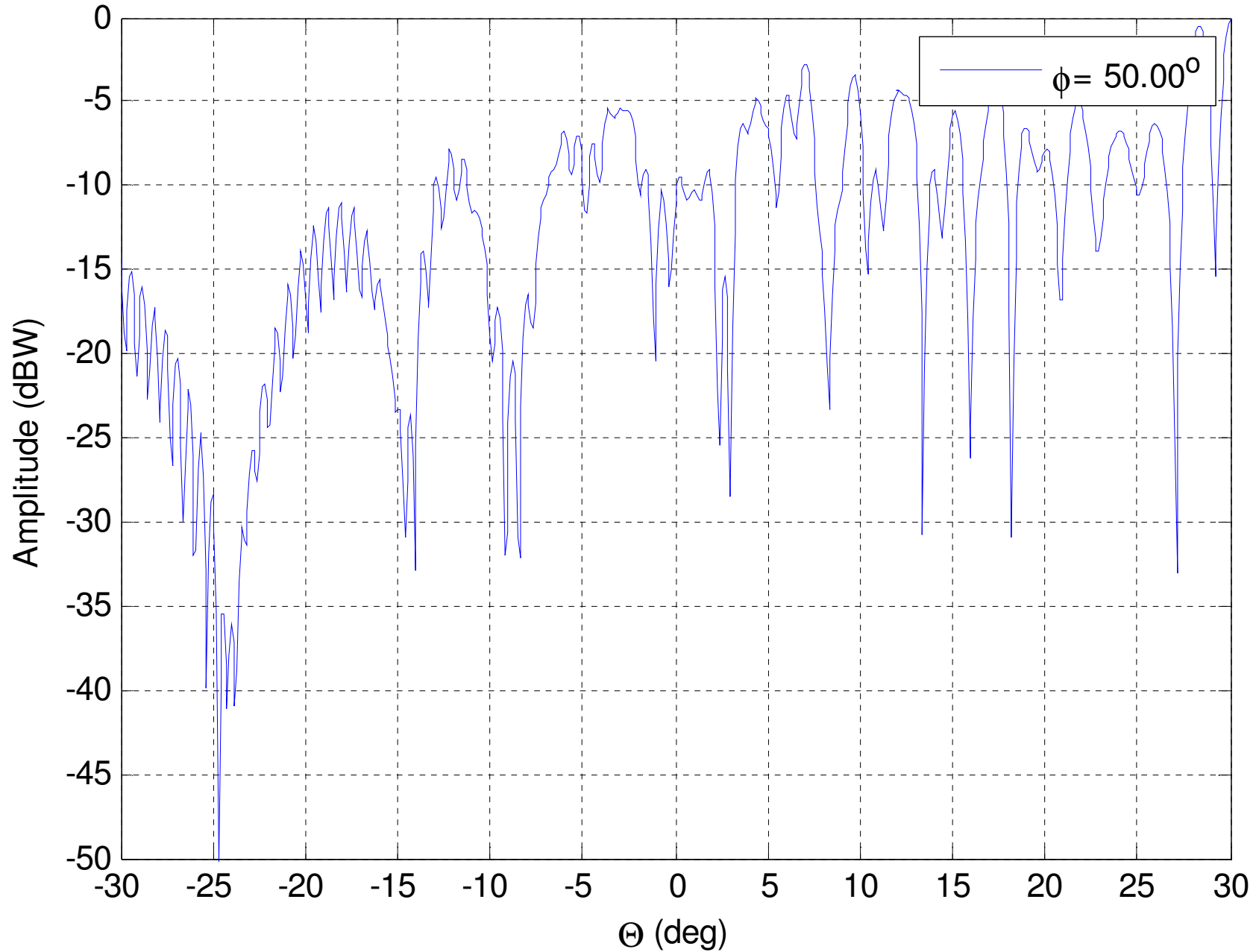
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-40.cut, Peak: -1.44 dBW, Date: 16-Dec-2011



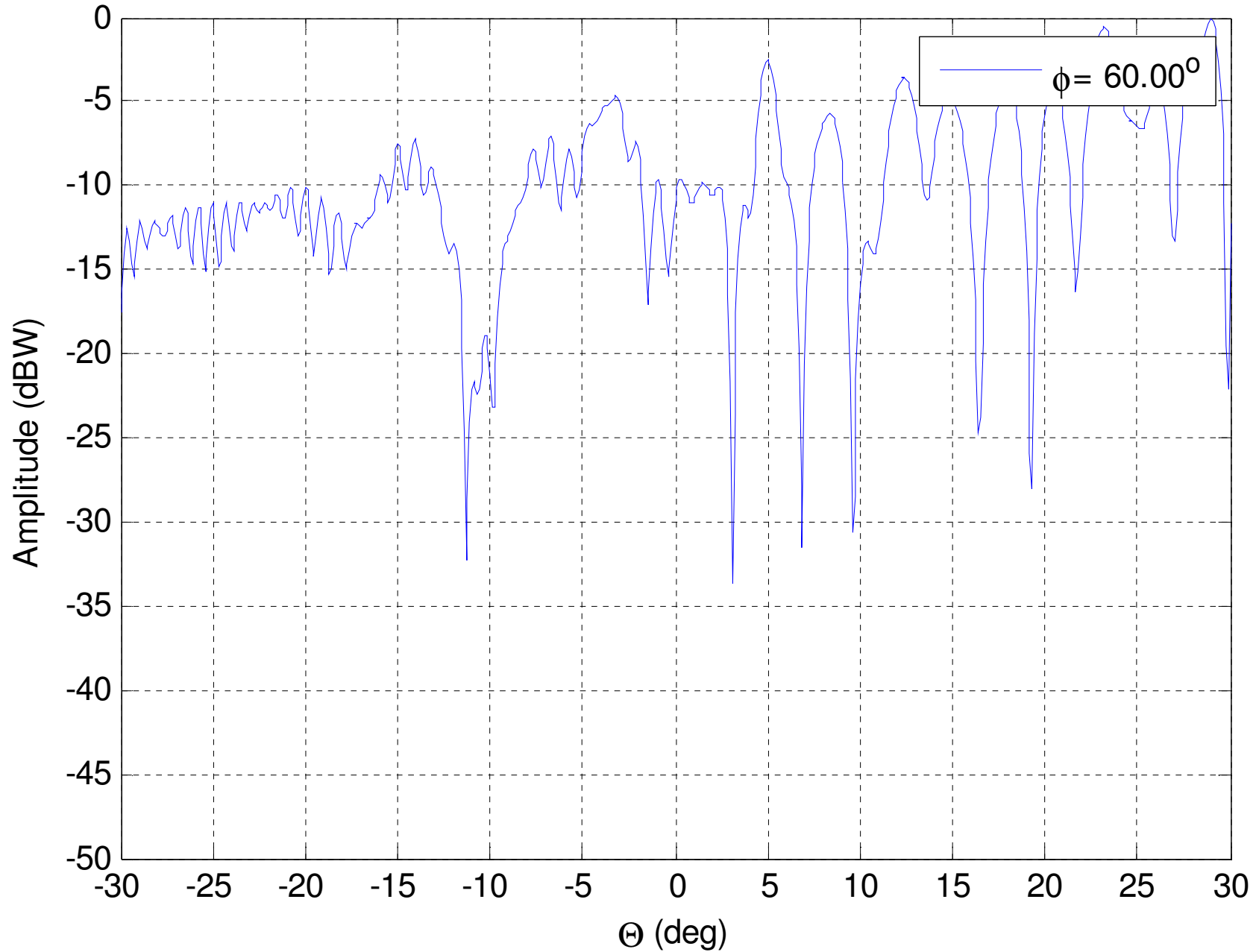
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-50.cut, Peak: -2.58 dBW, Date: 16-Dec-2011



Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-60.cut, Peak: -2.62 dBW, Date: 16-Dec-2011



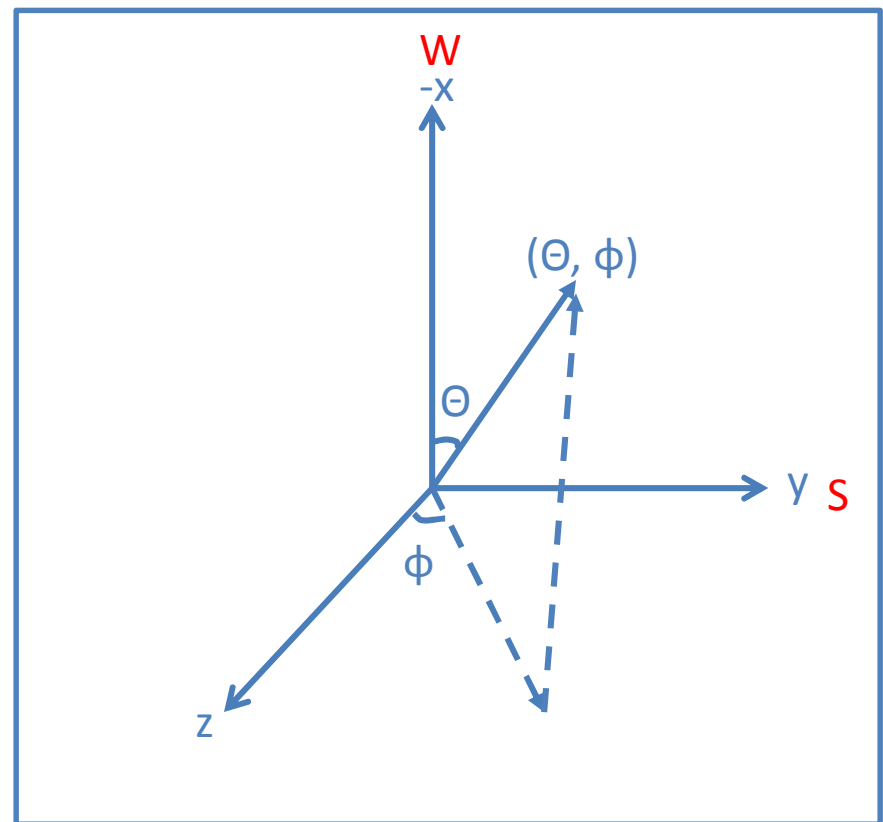
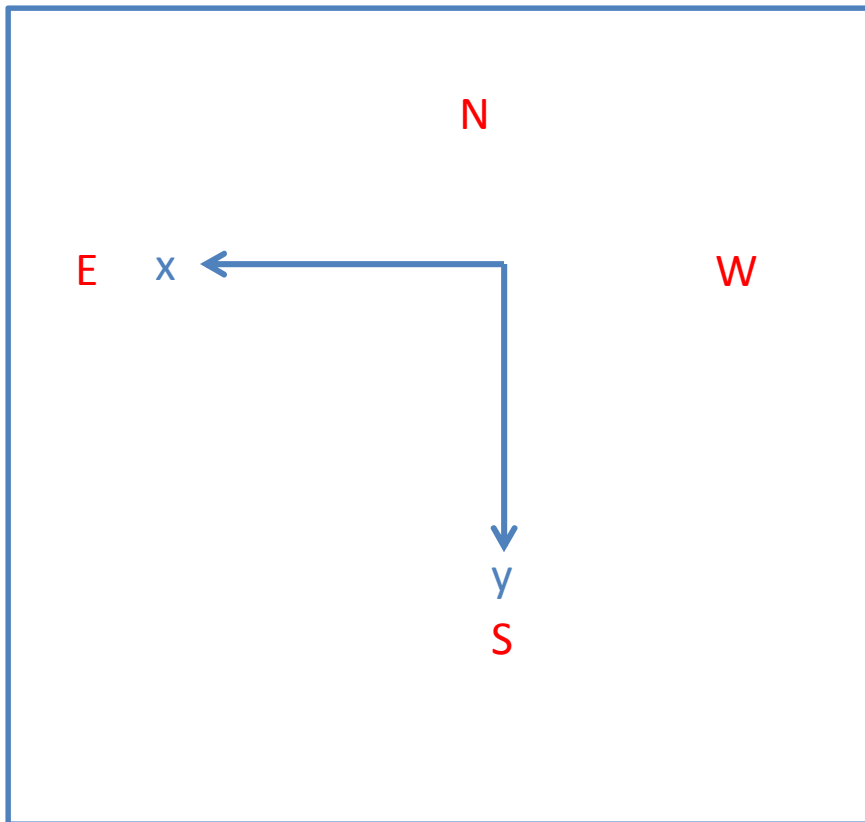
December 13, 2011

119 West Adjacent Satellite Off Axis Antenna Performance Spot Beam 49 cf: 0 dBW

Maximum Allowable EIRP to meet the -117dBW/m²/100 kHz

Maximum EIRP Allowed	
Spec Max flux density, dBW/m ² /100kHz	-117
Desired channel band width, MHz	25.8
Symbol rate band width modification factor	1
Effective channel bandwidth, MHz	25.8
Effective bandwidth, dB-100kHz	24.1
Flux density allowed per channel, dBW/m ²	-92.9
R, radial distance to GEO, km	42164.0
Angle of separation between satellites, deg	0.1
range between satellites, km	73.59
Spreading factor, dB/m ²	-108.3
Atmospheric loss, dB	0
Max satellite EIRP allowed, dBW	15.4

Coordinate System



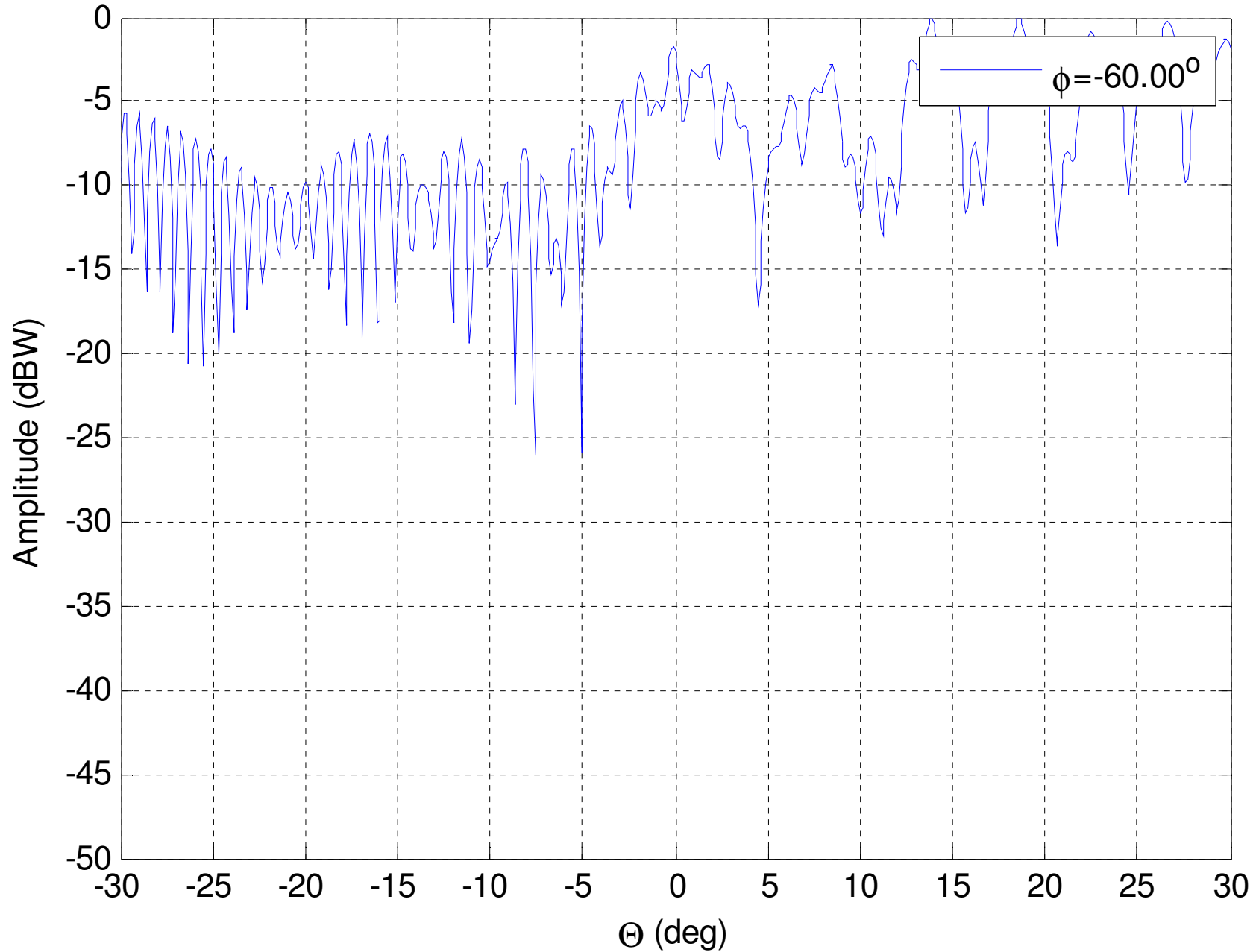
Spot Beam49, -X Axis Plots

- Both polarizations; RHCP, LHCP
- $-30 < \Theta < 30$ ($\Theta=0$: -X -axis)
- $-60 < \phi < 60$
- Freq = 17.3, 17.5, and 17.7 GHz
- The Zero reference line is the peak gain listed in the title of each chart
- All levels are significantly below the required 15.4 dBW EIRP shown on chart 2

RHCP at 17.3 GHz

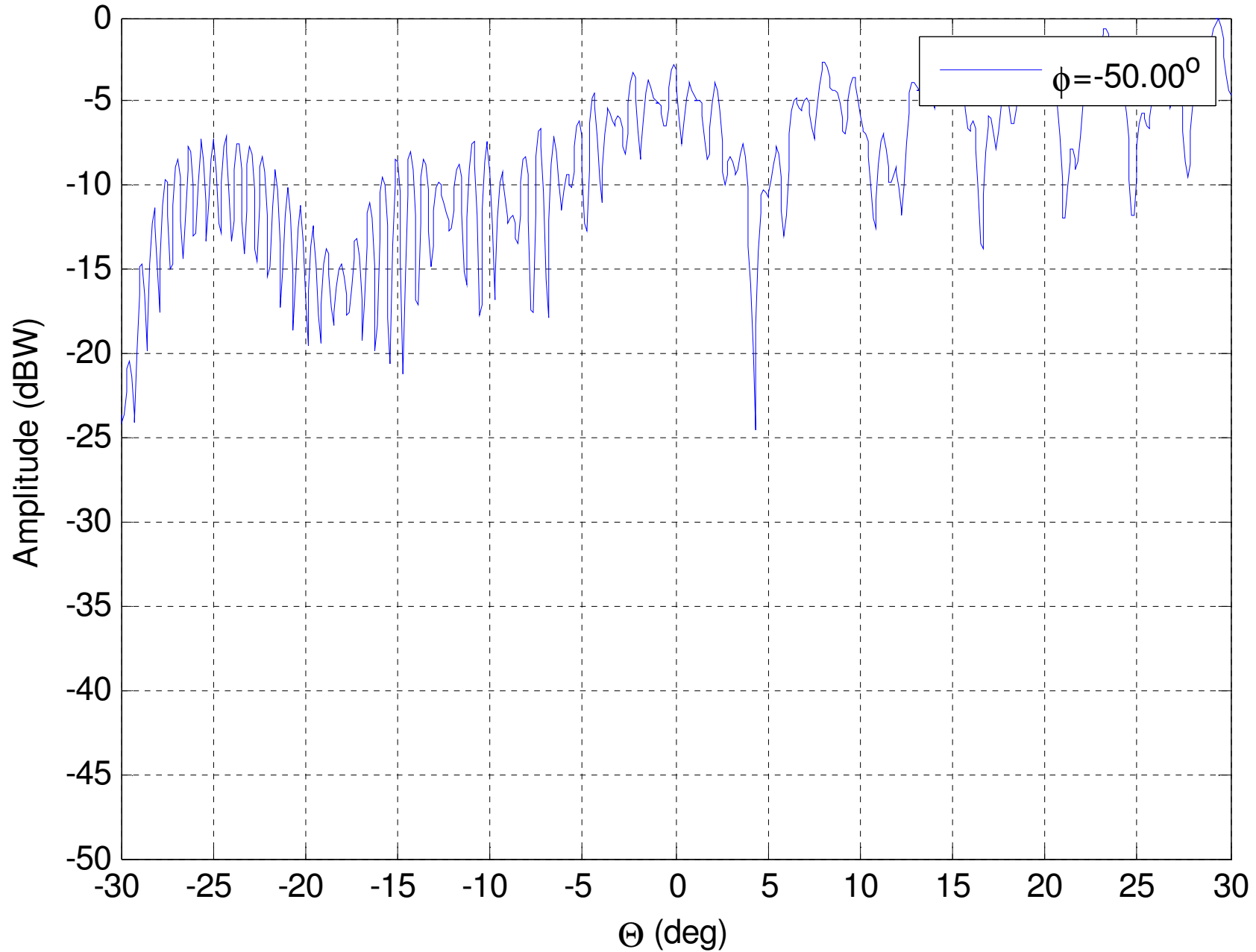
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--60.cut, Peak: -12.56 dBW, Date: 16-Dec-2011



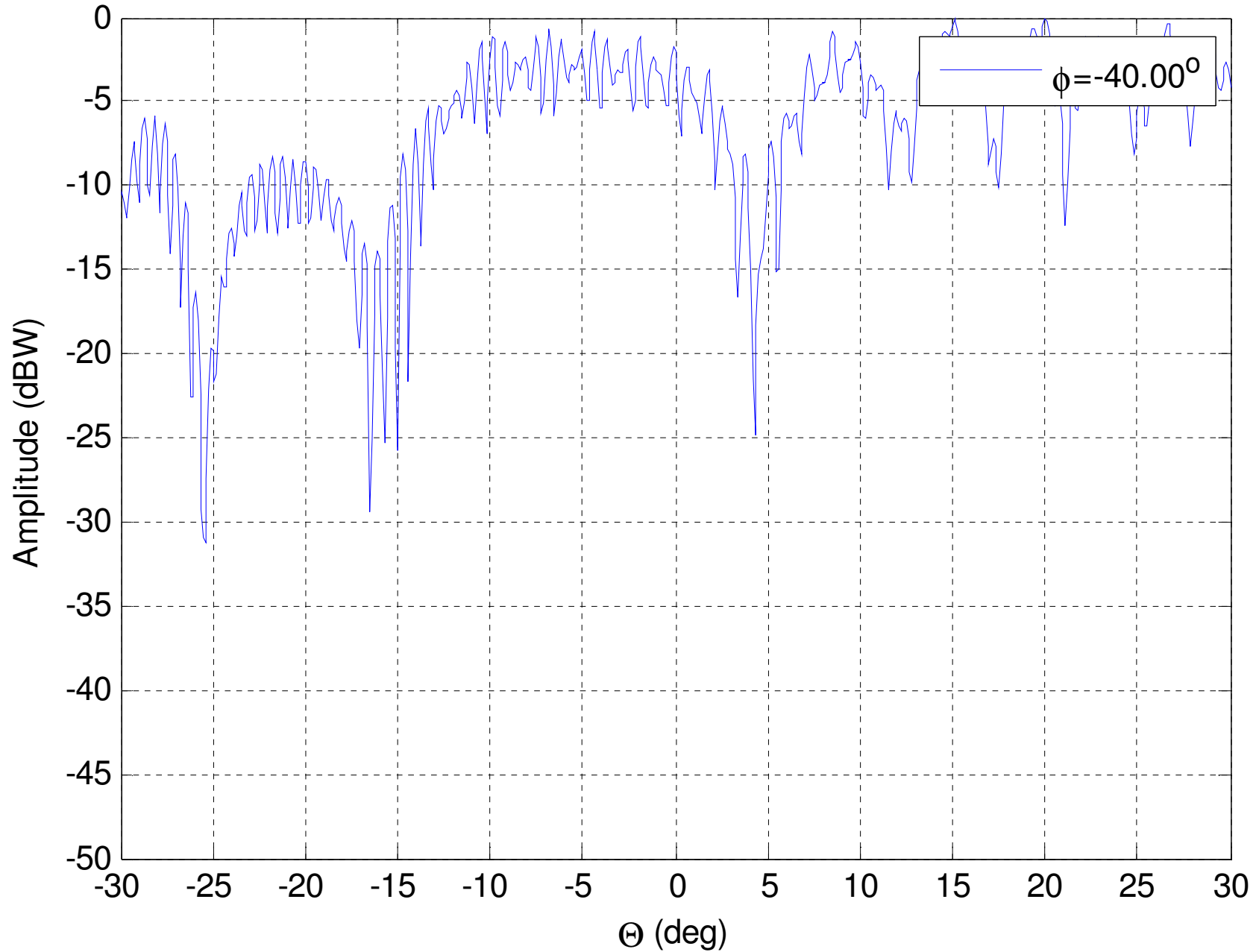
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--50.cut, Peak: -11.45 dBW, Date: 16-Dec-2011



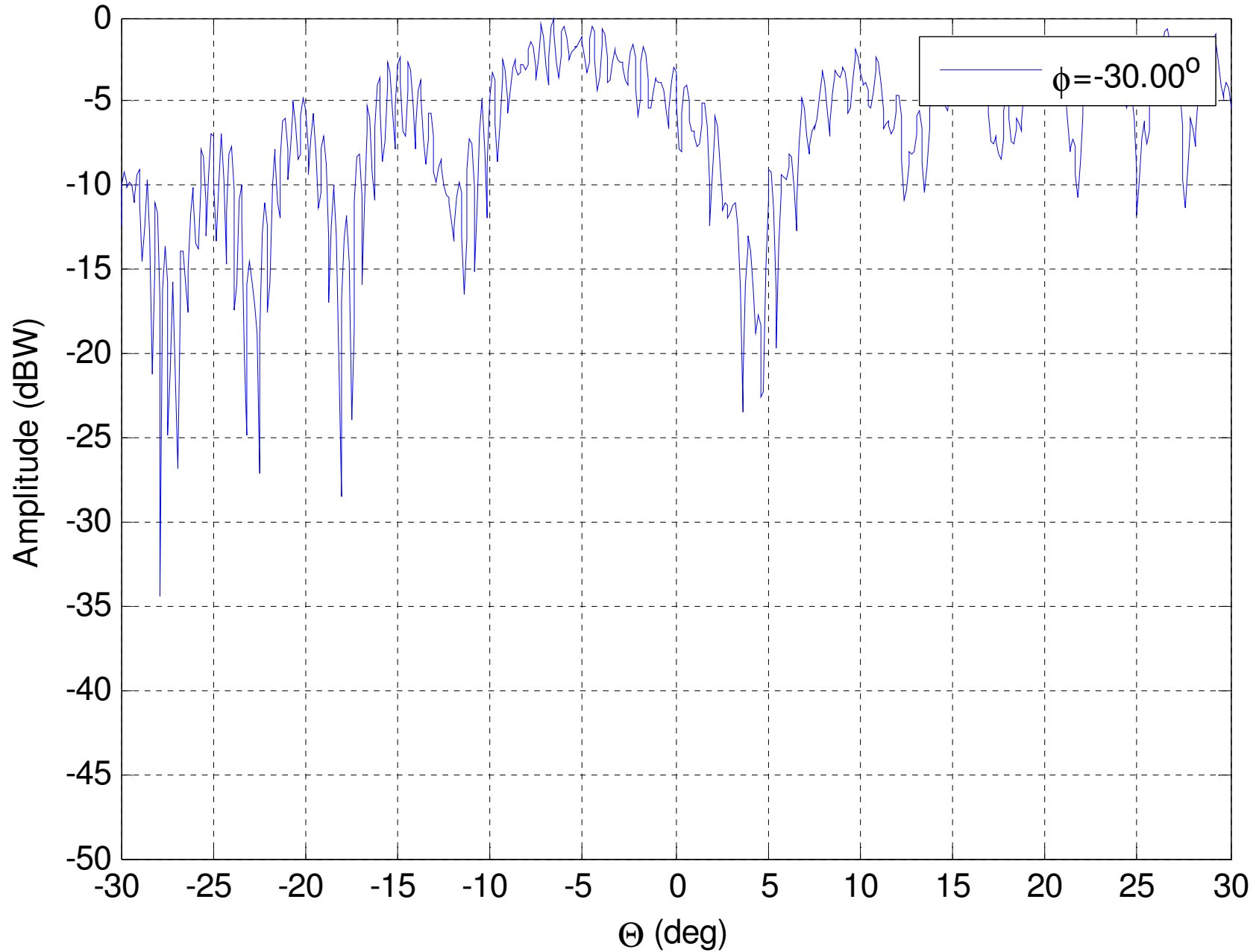
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--40.cut, Peak: -12.47 dBW, Date: 16-Dec-2011



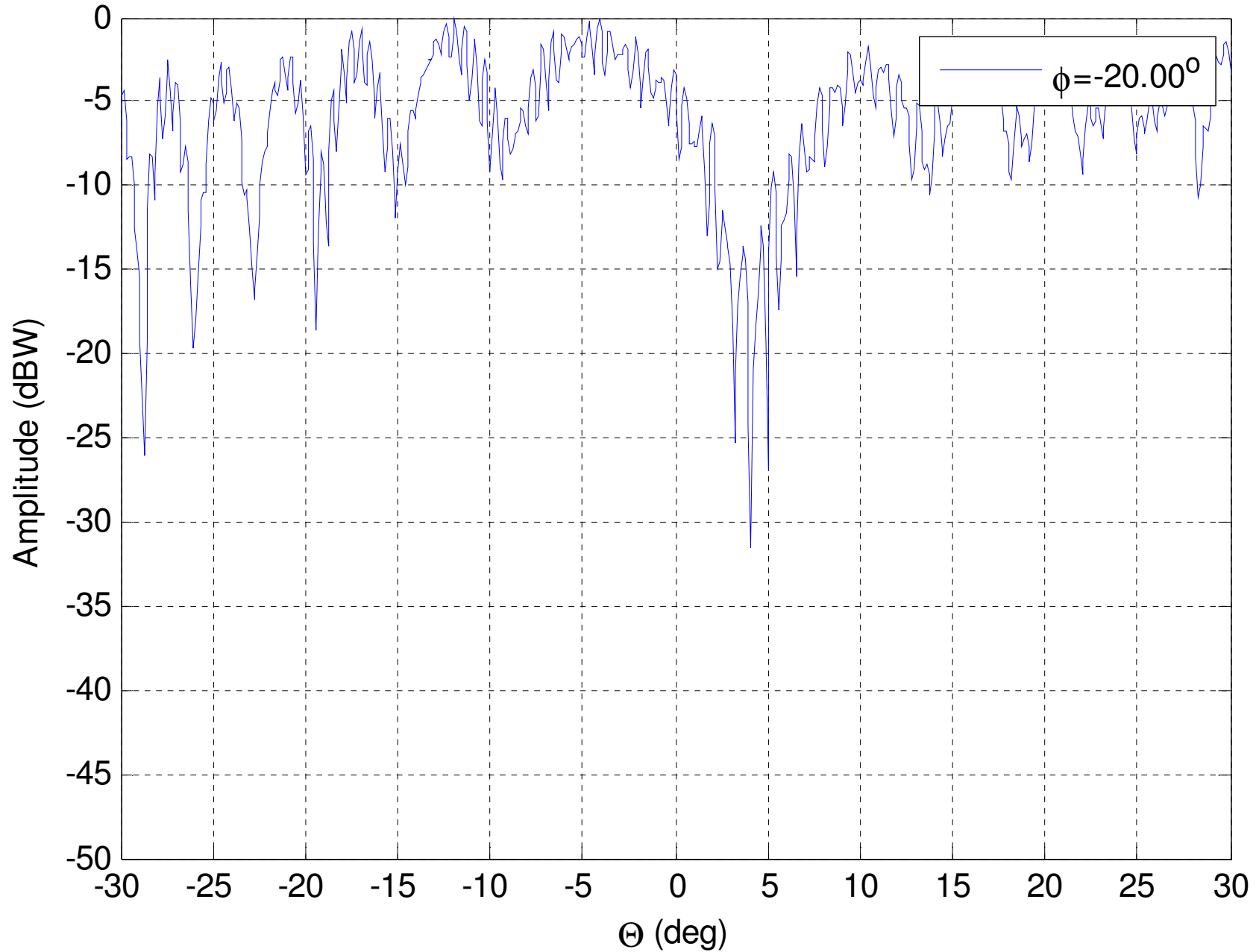
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--30.cut, Peak: -11.28 dBW, Date: 16-Dec-2011



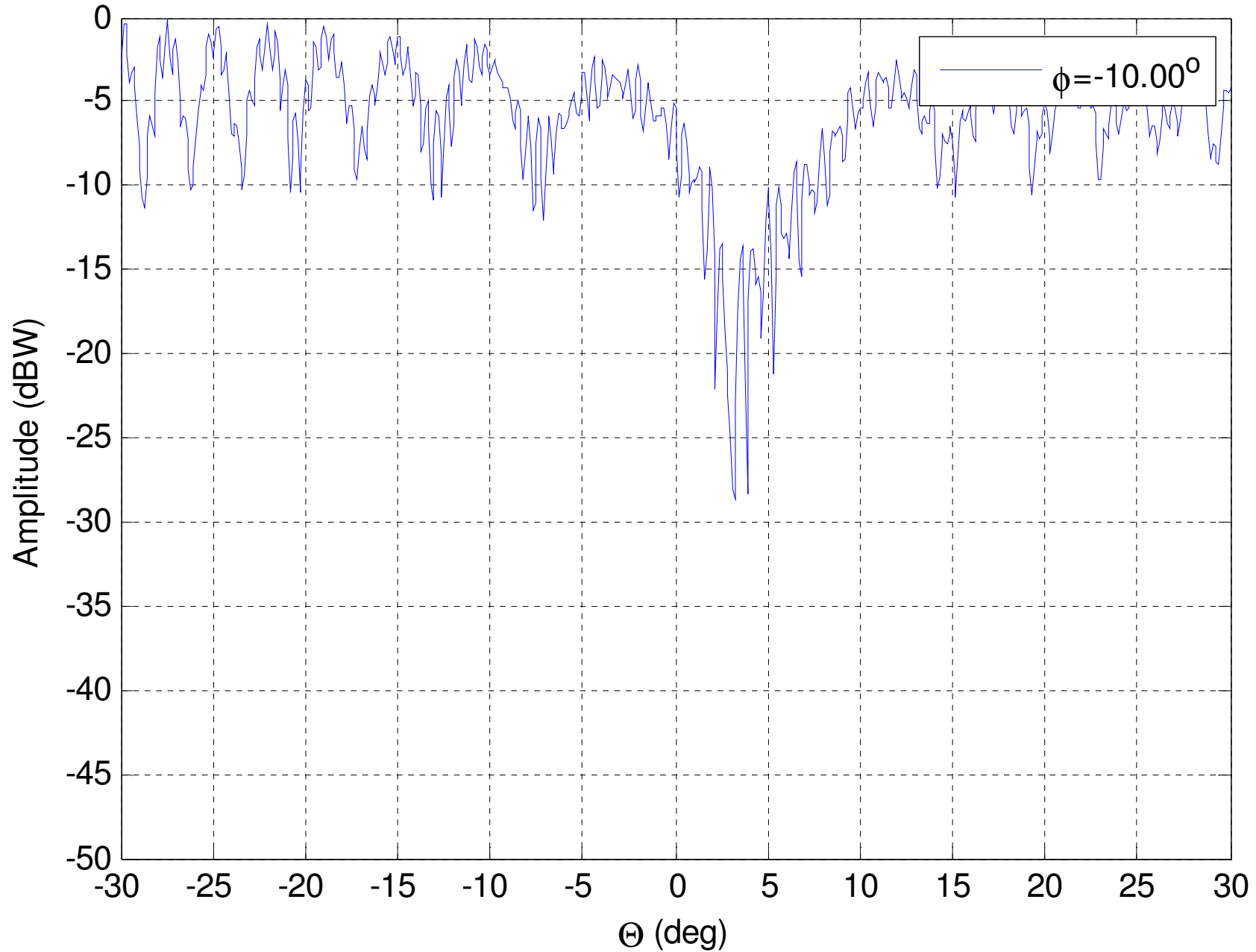
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--20.cut, Peak: -11.13 dBW, Date: 16-Dec-2011



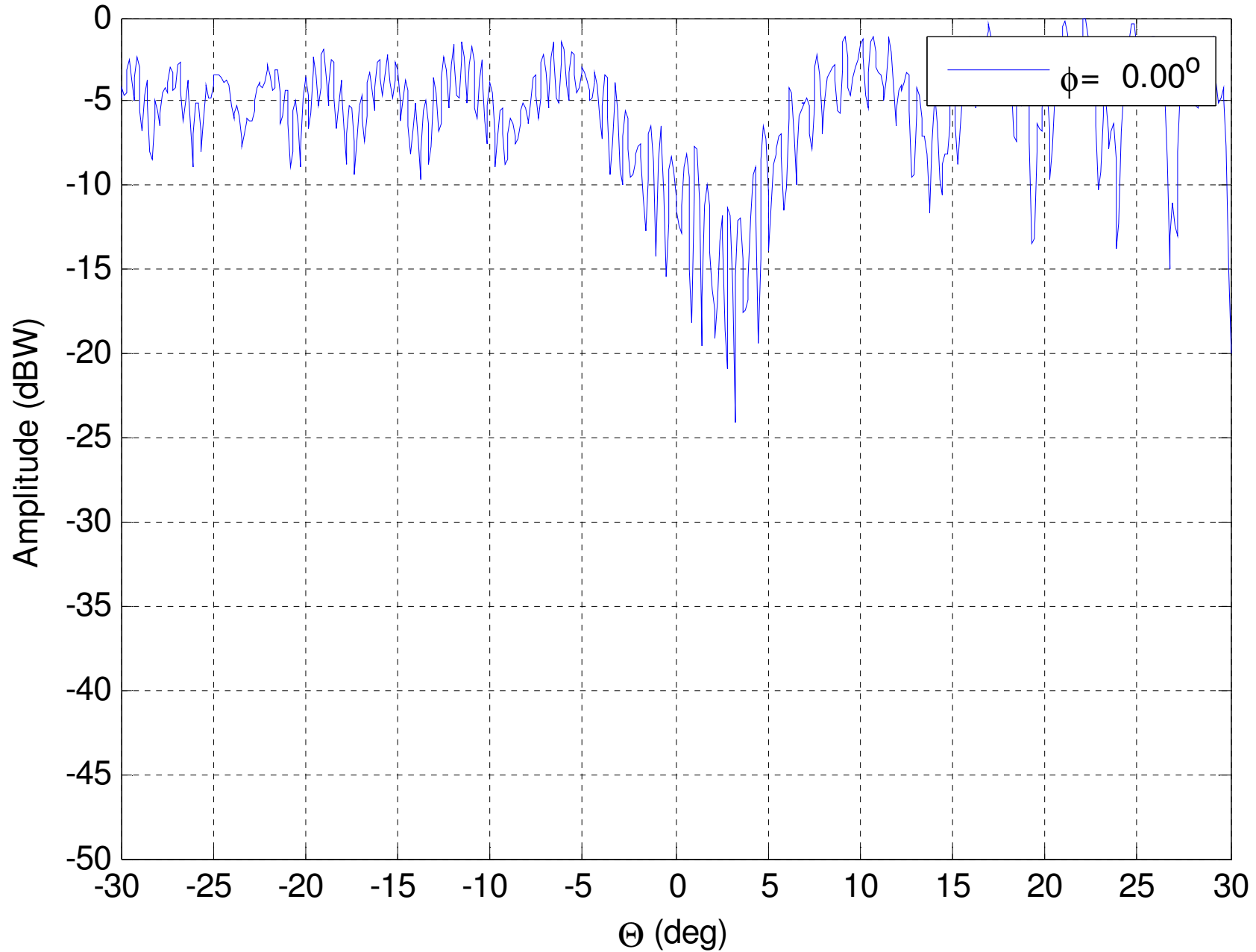
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--10.cut, Peak: -9.12 dBW, Date: 16-Dec-2011



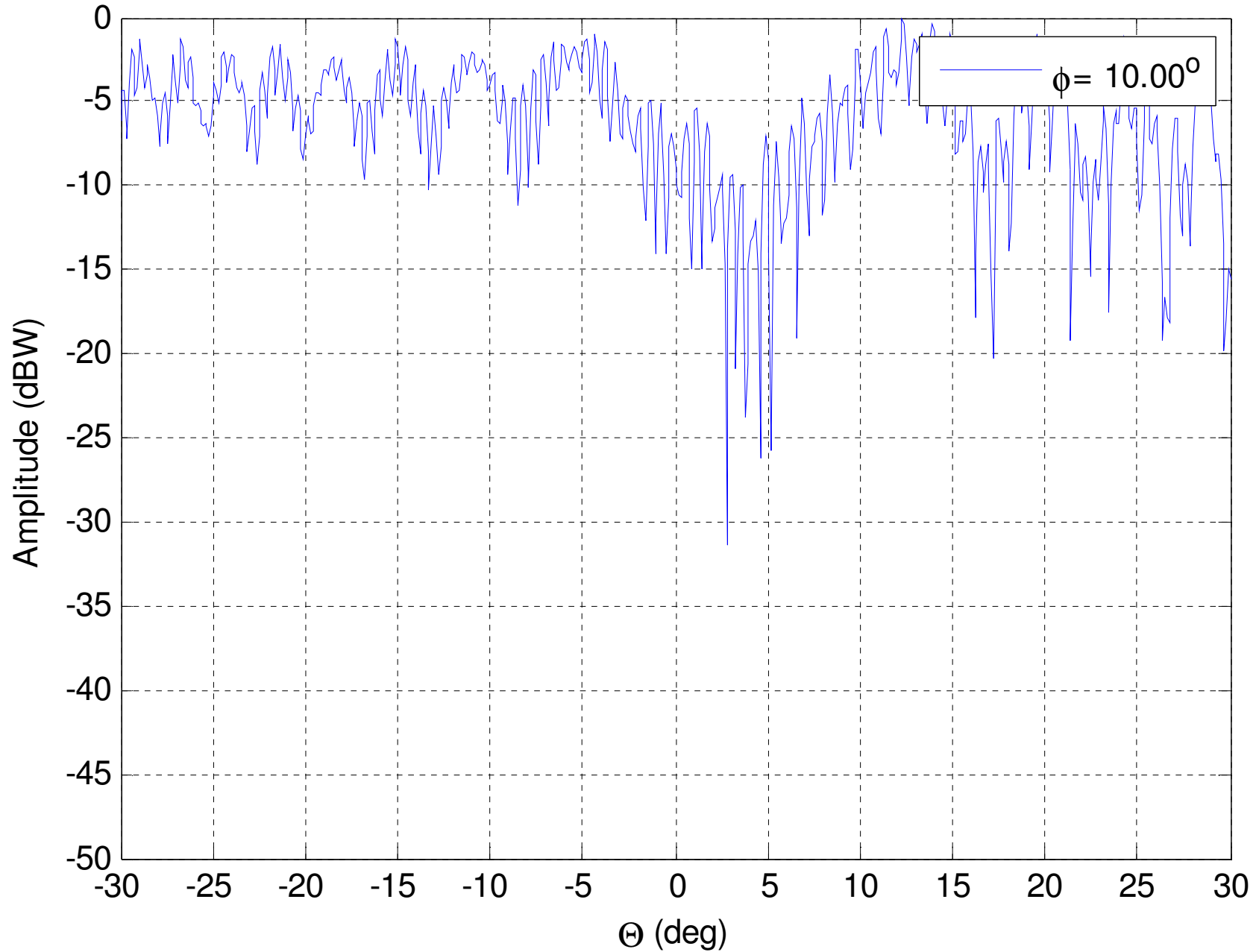
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-0.cut, Peak: -9.83 dBW, Date: 16-Dec-2011



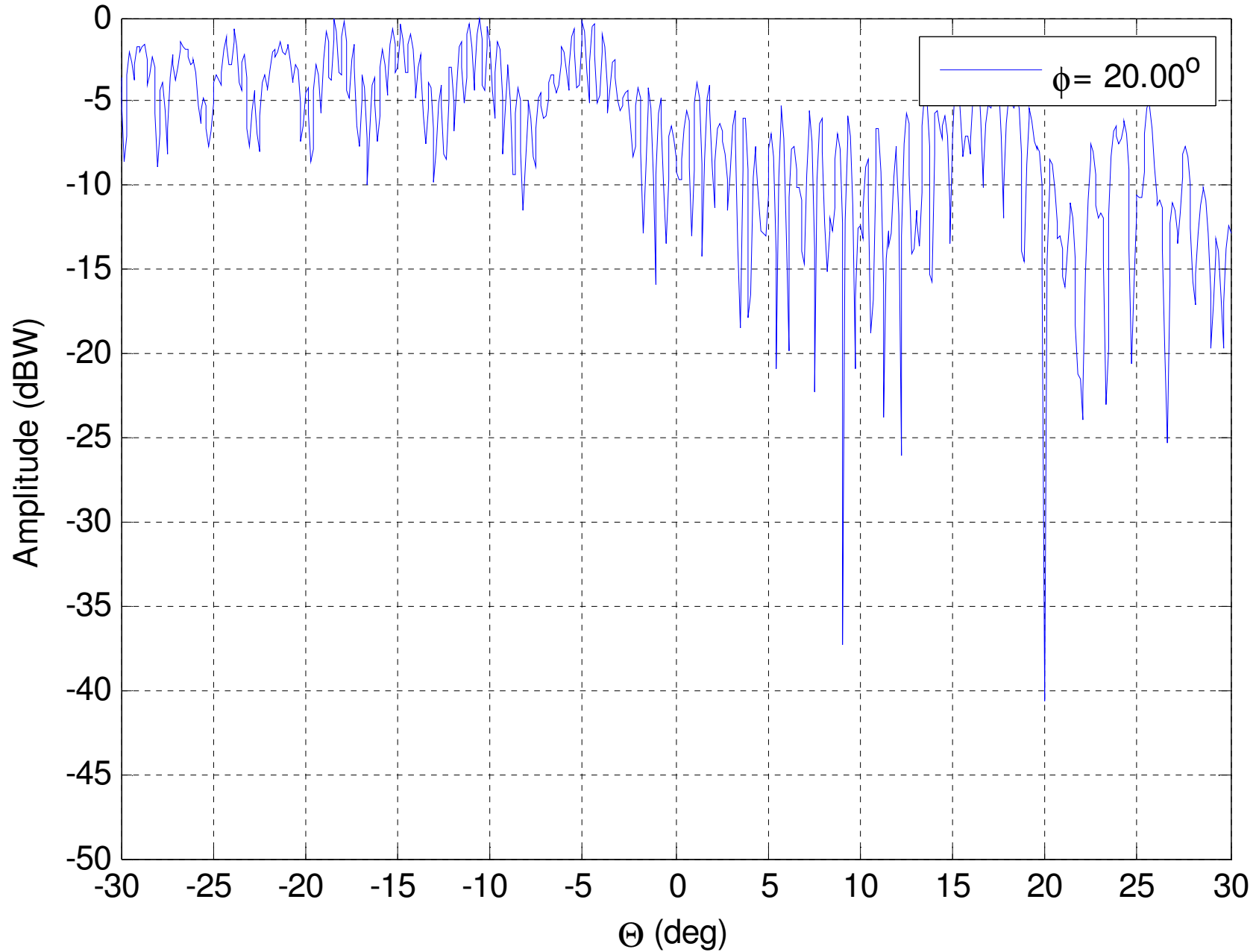
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-10.cut, Peak: -11.44 dBW, Date: 16-Dec-2011



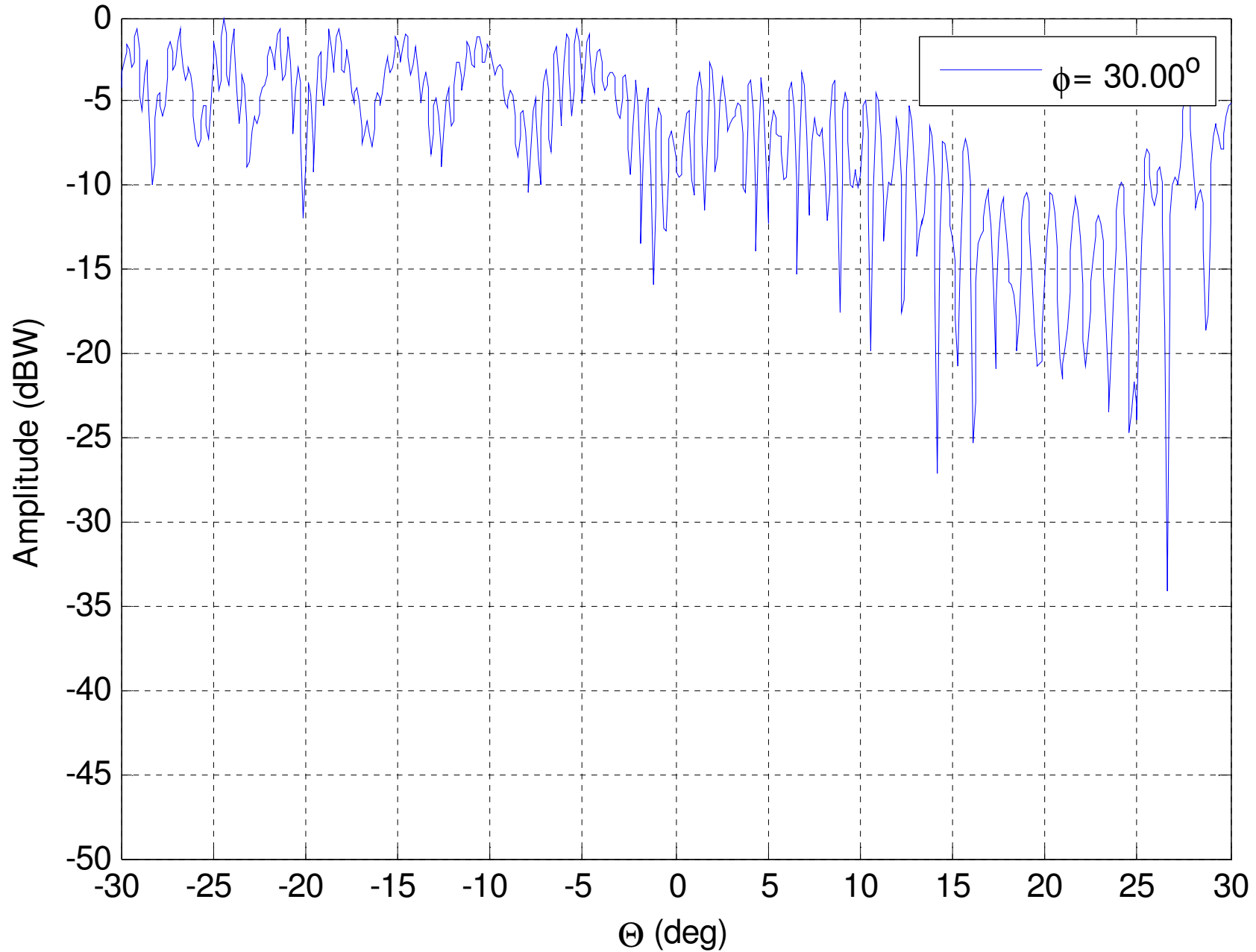
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-20.cut, Peak: -12.06 dBW, Date: 16-Dec-2011



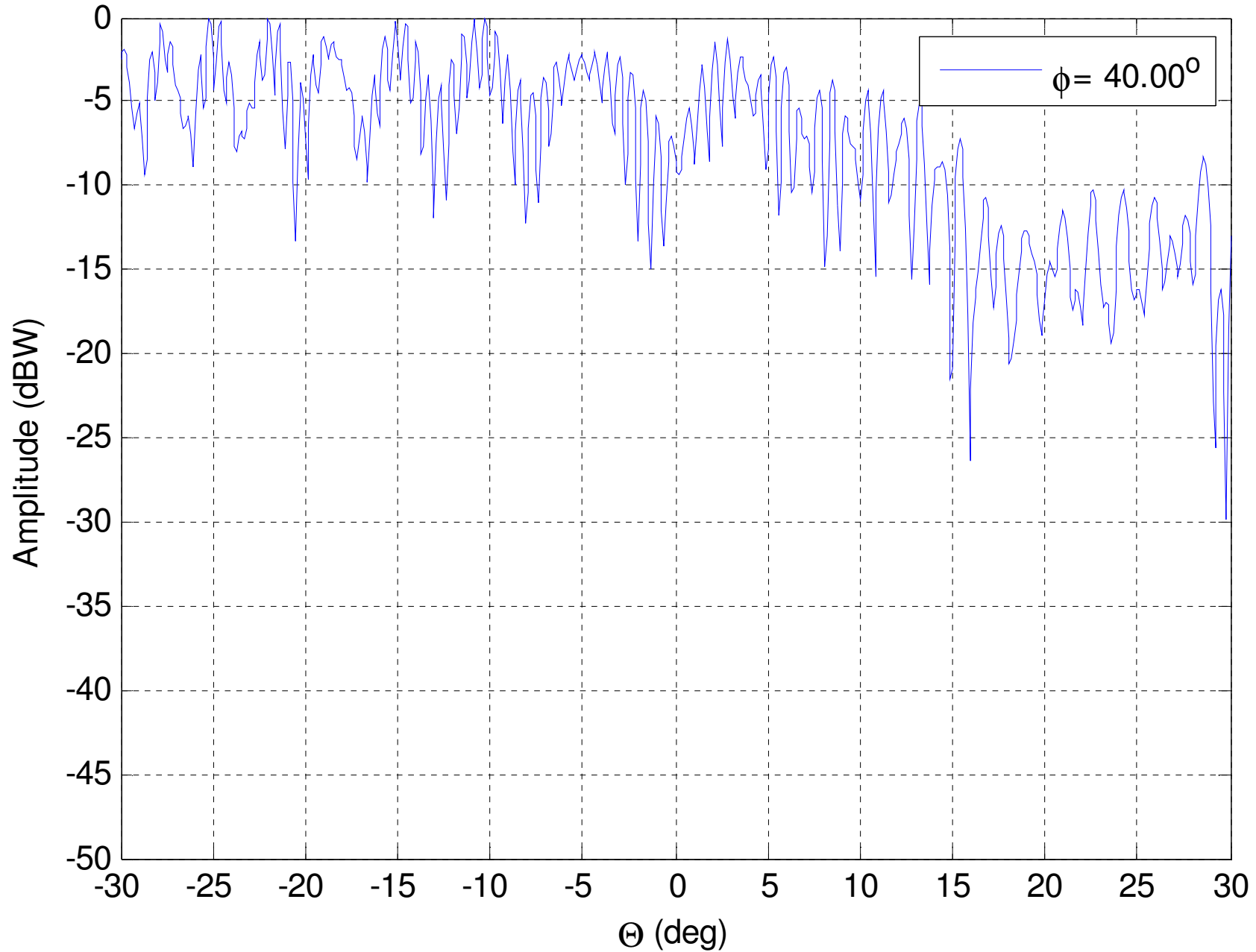
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-30.cut, Peak: -11.97 dBW, Date: 16-Dec-2011



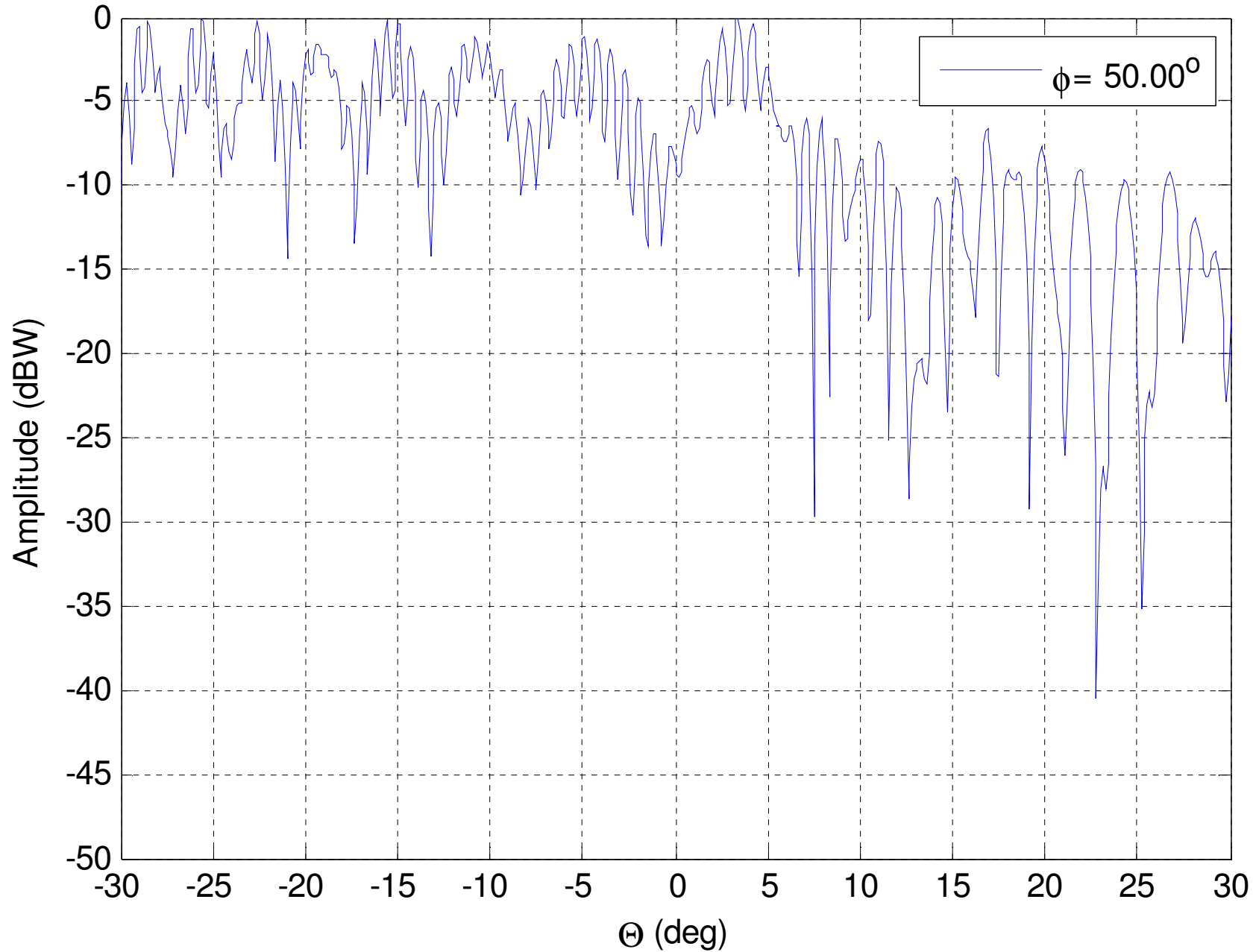
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-40.cut, Peak: -11.95 dBW, Date: 16-Dec-2011



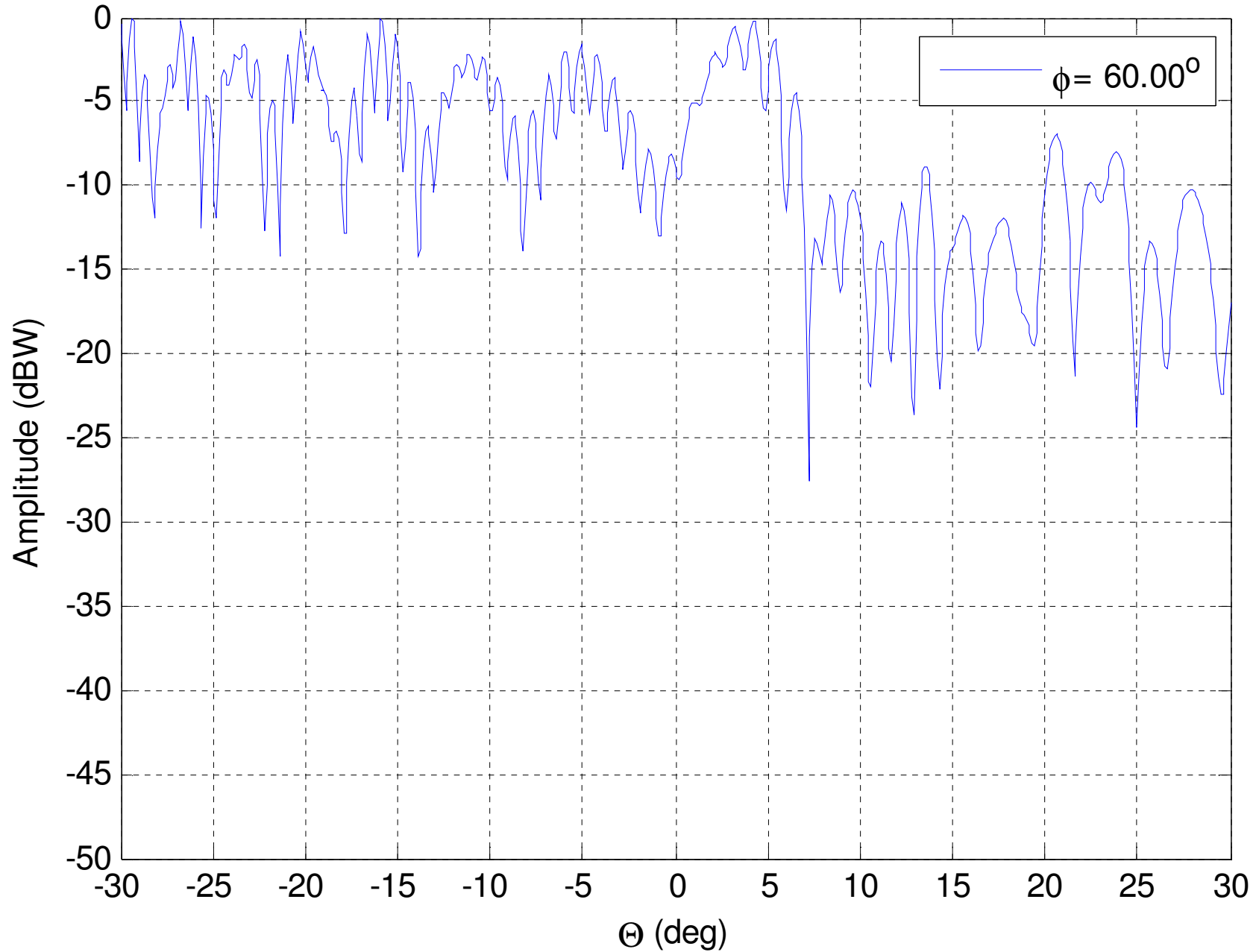
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-50.cut, Peak: -11.67 dBW, Date: 16-Dec-2011



Normalized pattern cuts - farfield

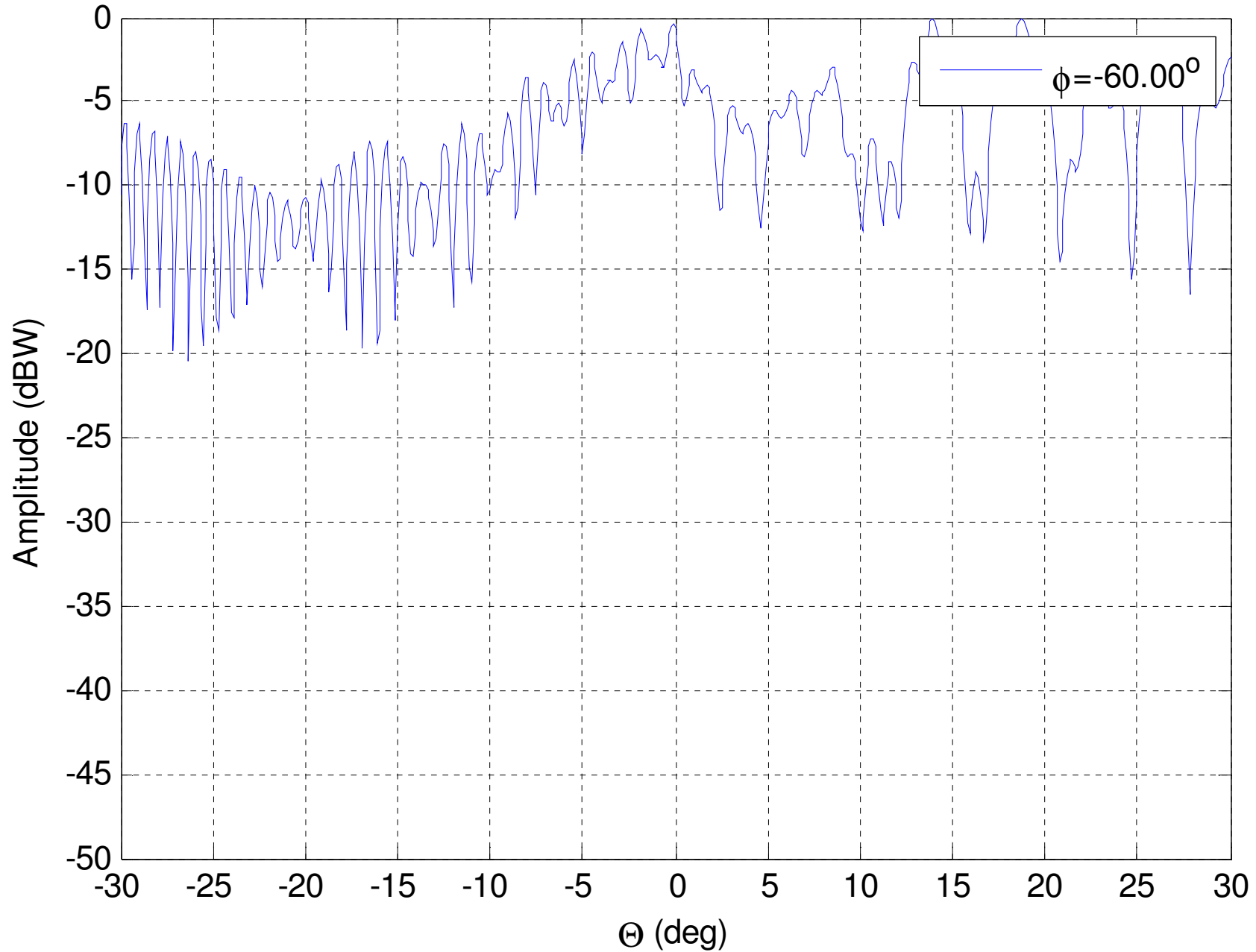
Input file: tx-17.3-rhcp-60.cut, Peak: -11.50 dBW, Date: 16-Dec-2011



LHCP at 17.3 GHz

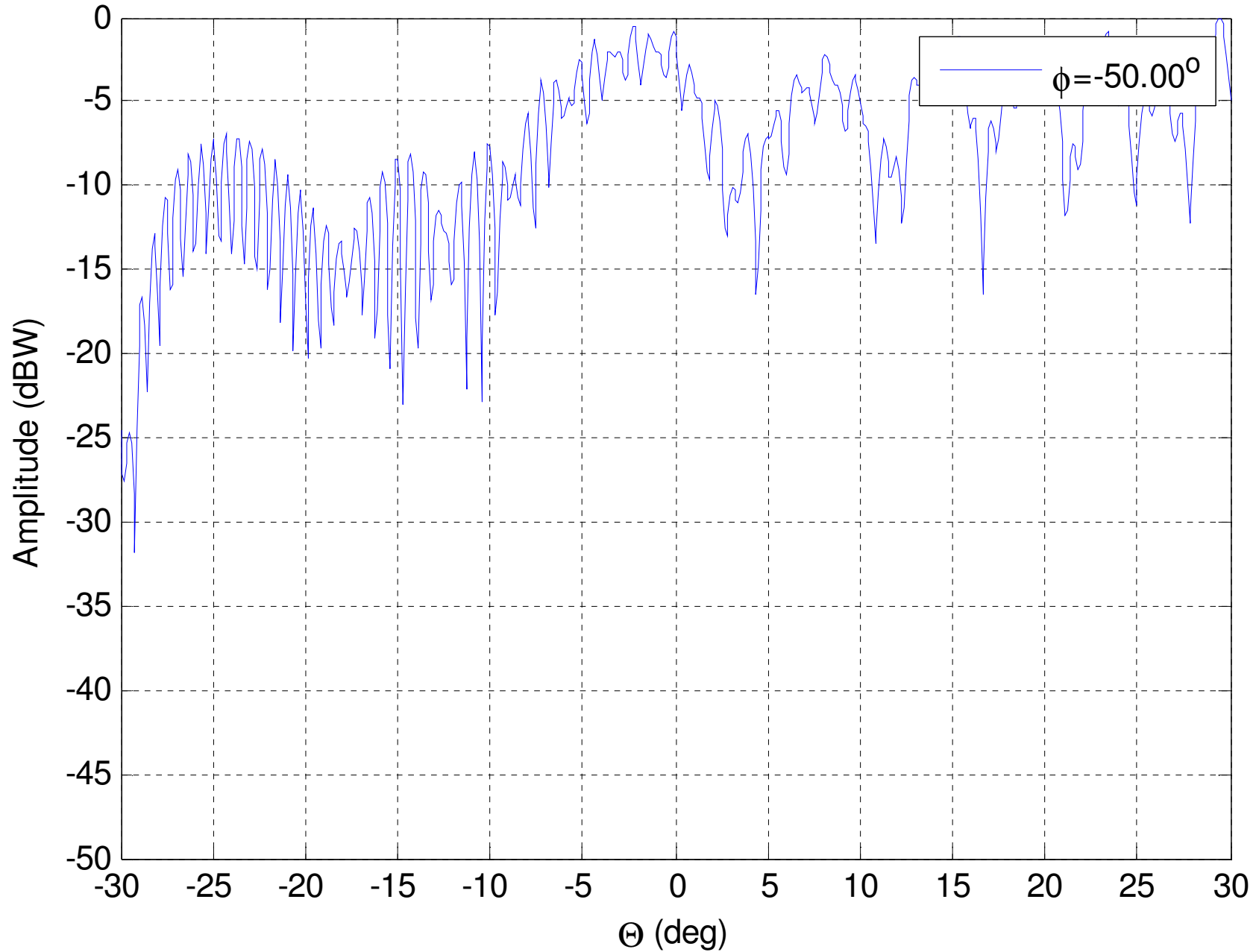
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp--60.cut, Peak: -12.40 dBW, Date: 16-Dec-2011



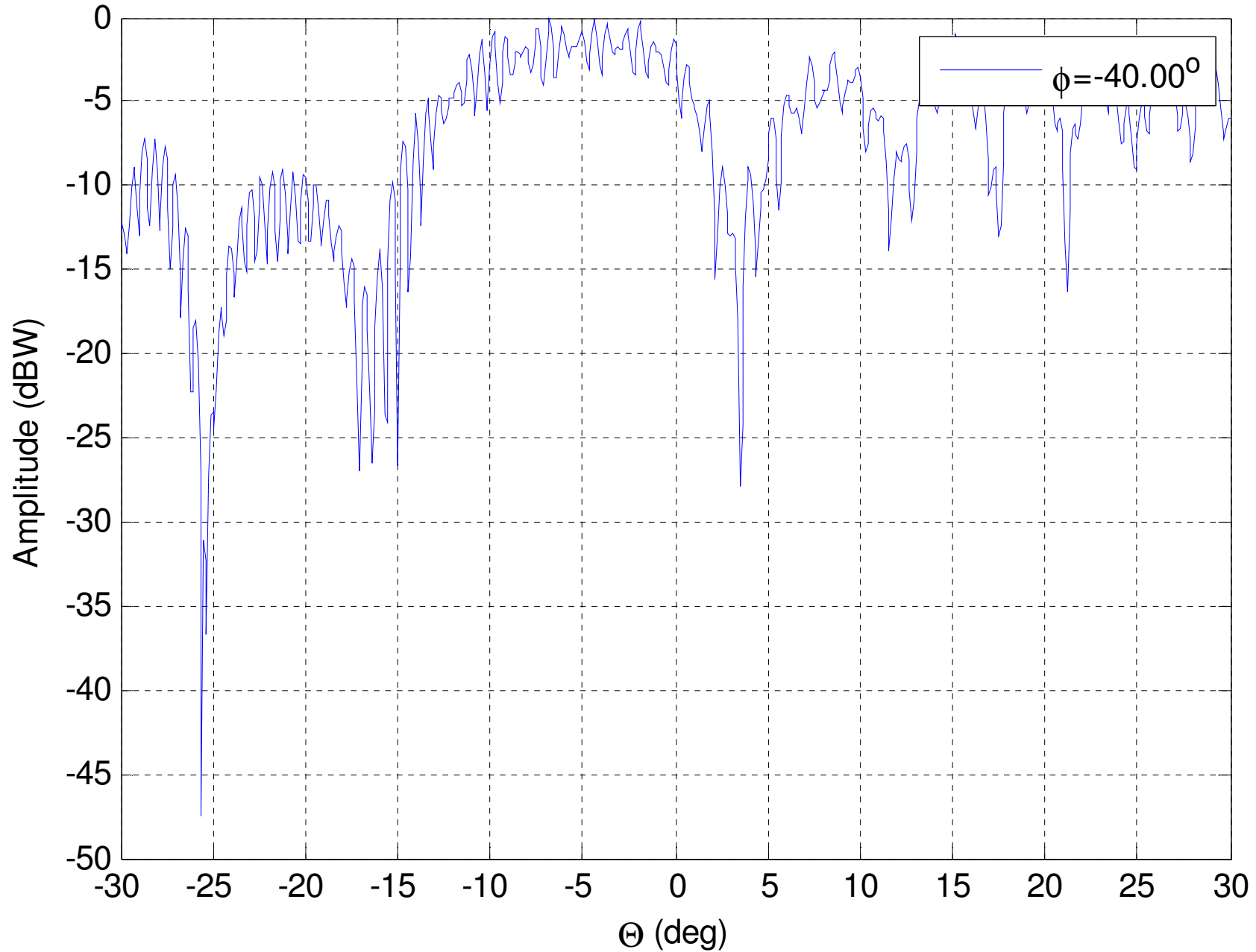
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp--50.cut, Peak: -11.93 dBW, Date: 16-Dec-2011



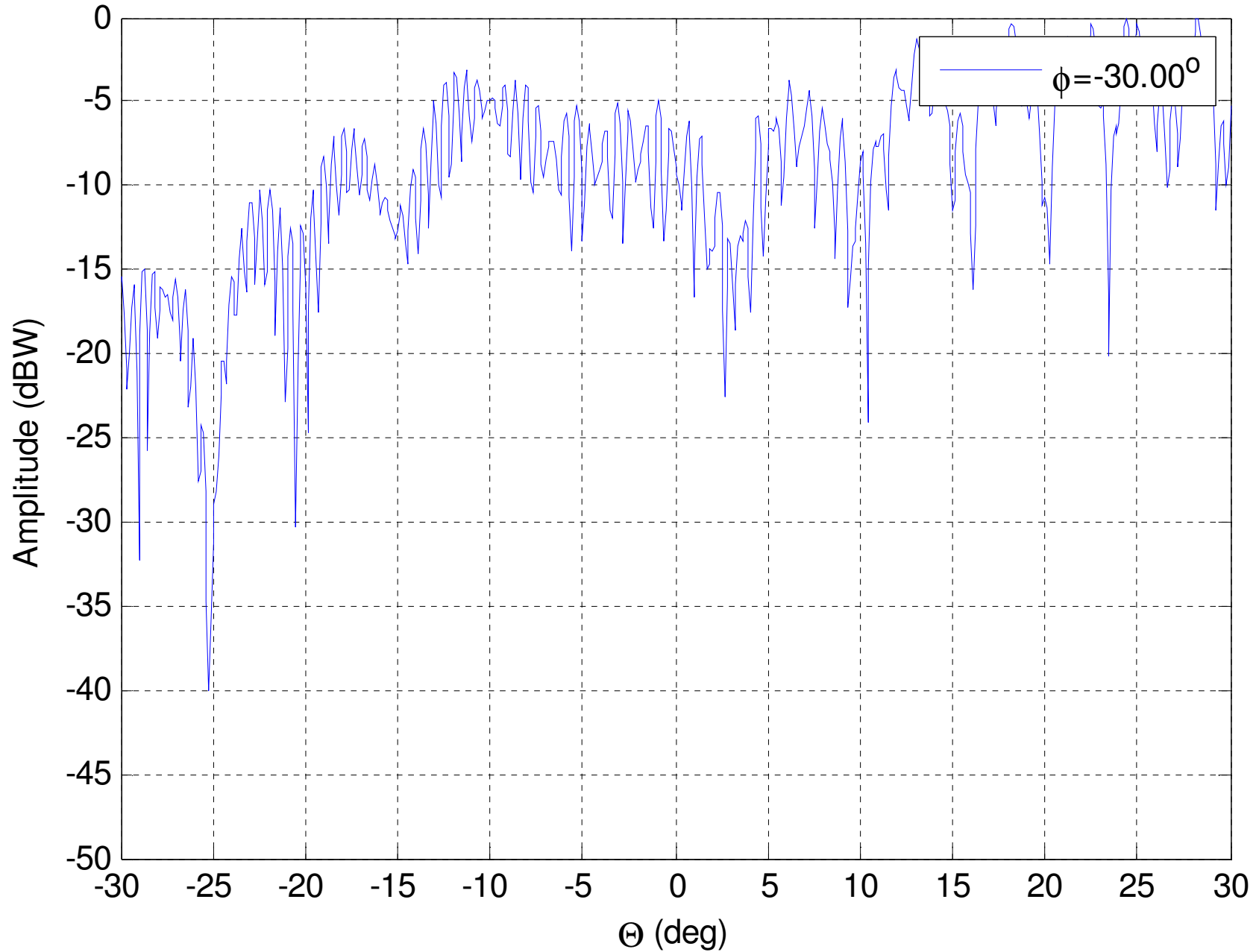
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp--40.cut, Peak: -11.51 dBW, Date: 16-Dec-2011



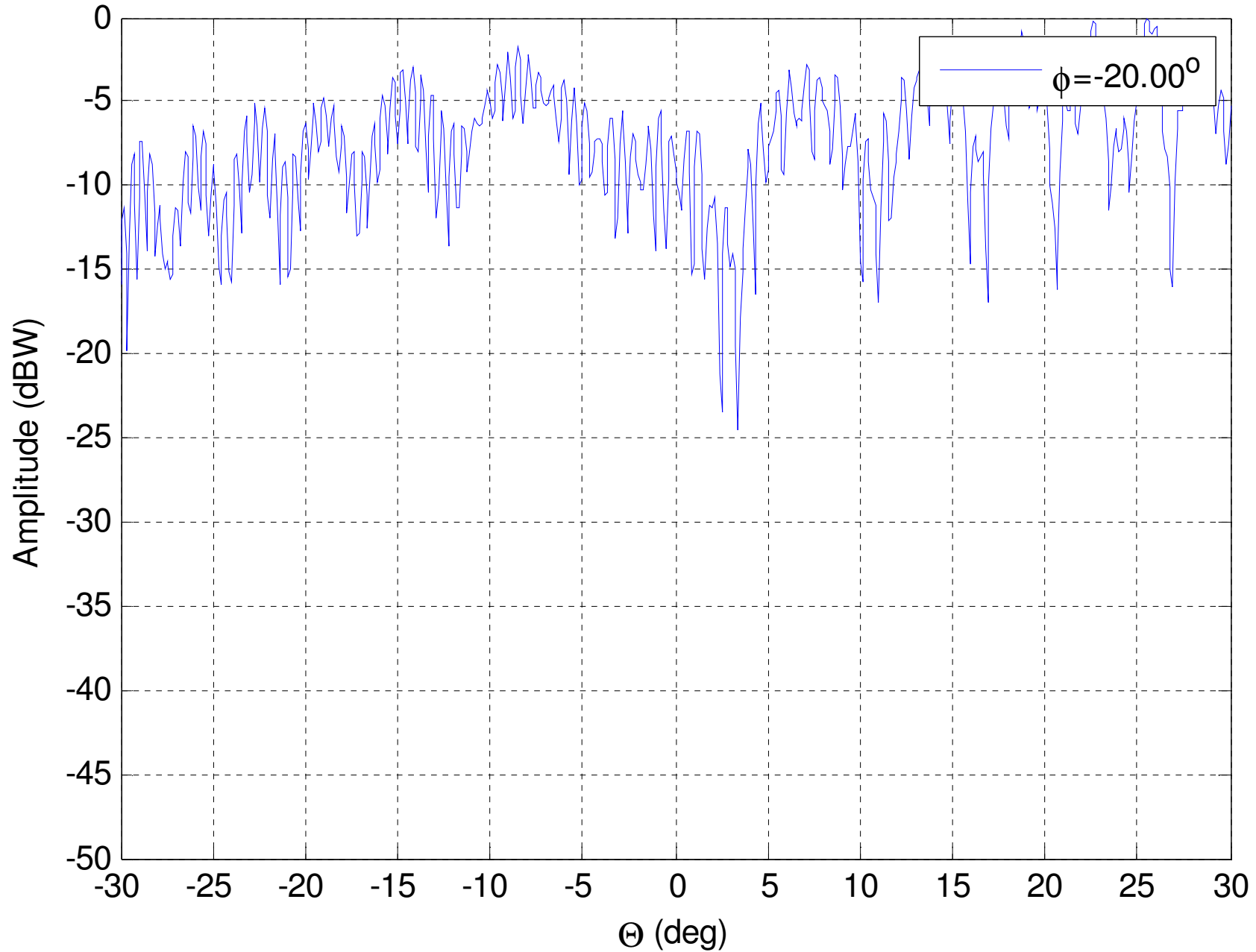
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp--30.cut, Peak: -10.37 dBW, Date: 16-Dec-2011



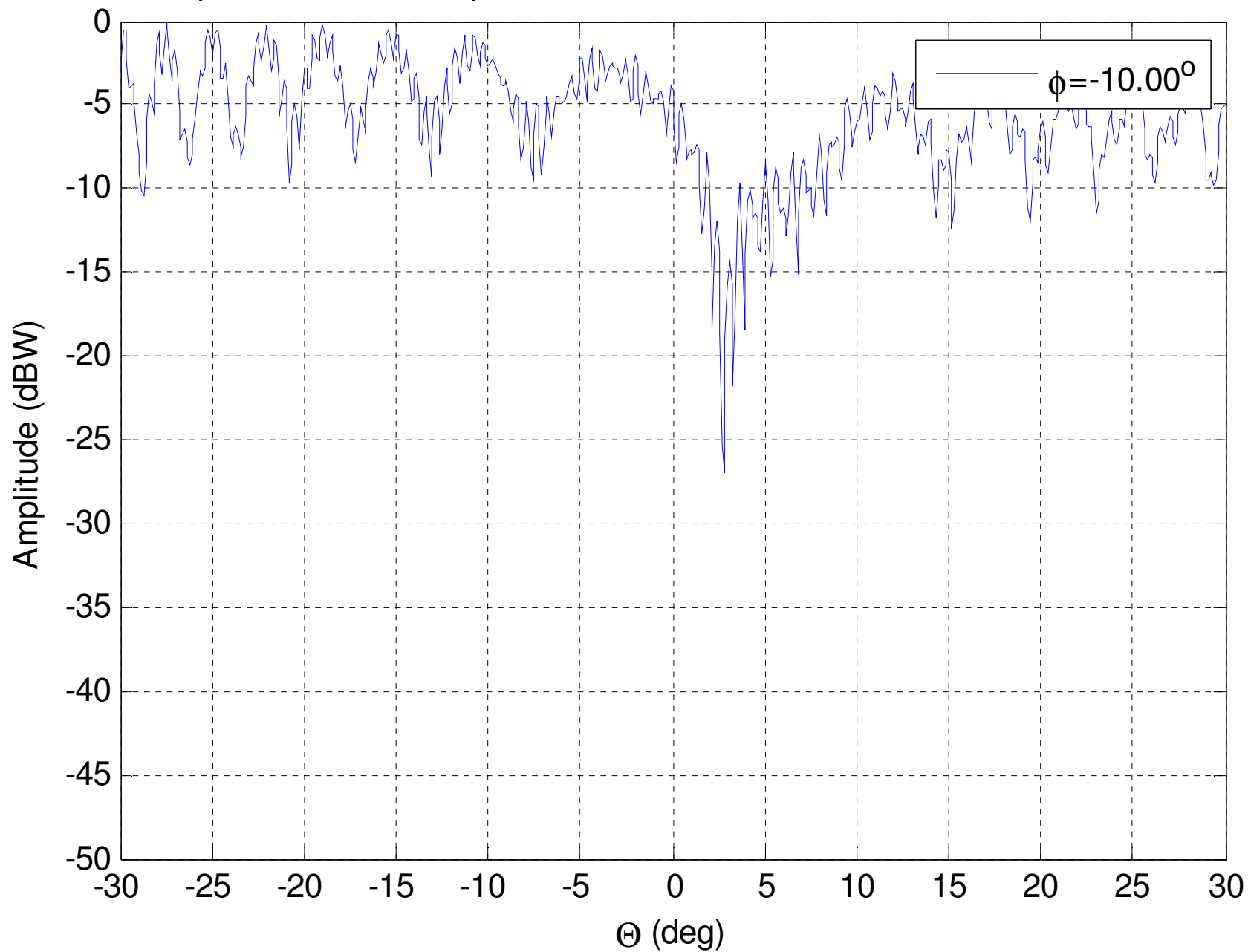
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp--20.cut, Peak: -10.03 dBW, Date: 16-Dec-2011



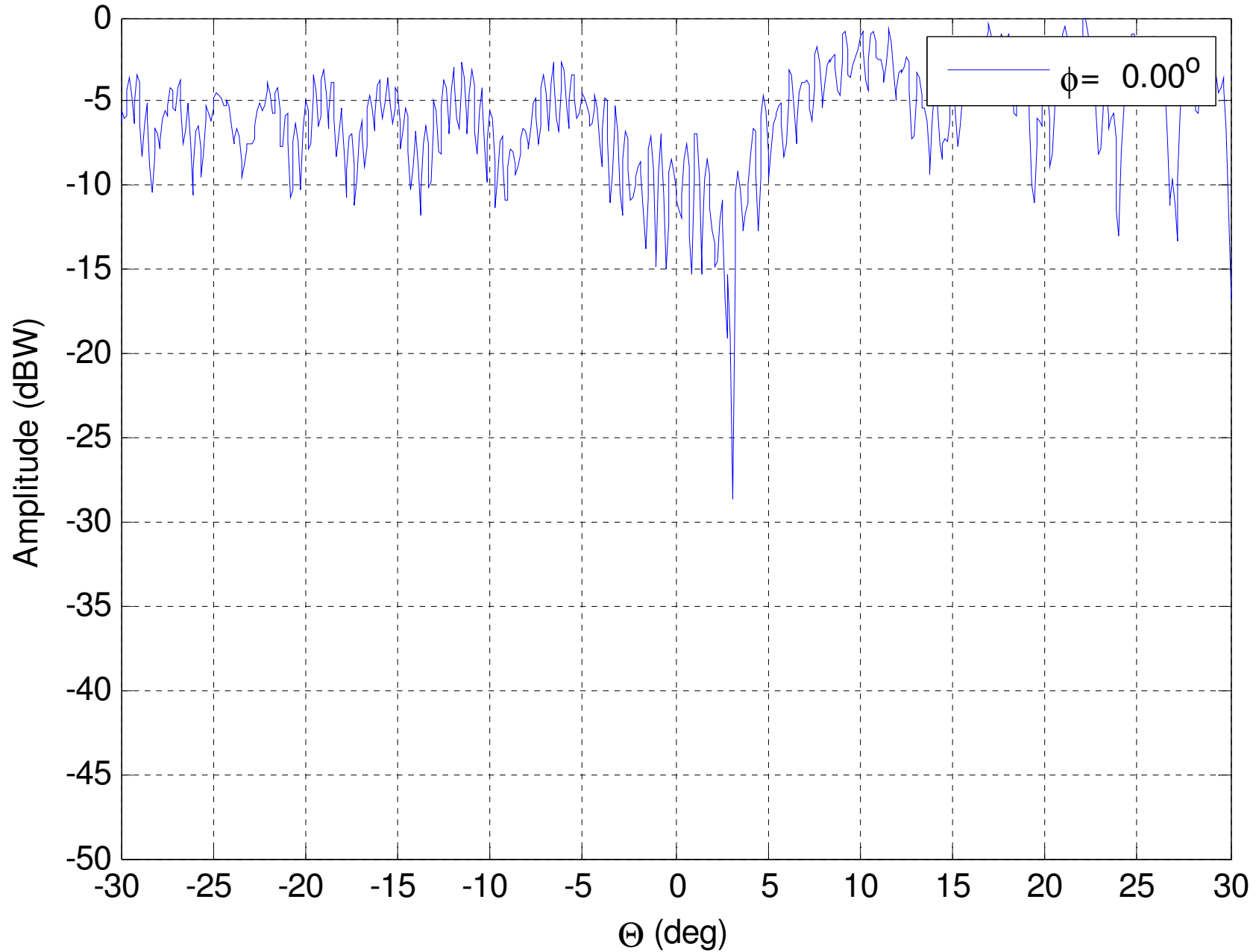
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp--10.cut, Peak: -8.92 dBW, Date: 16-Dec-2011



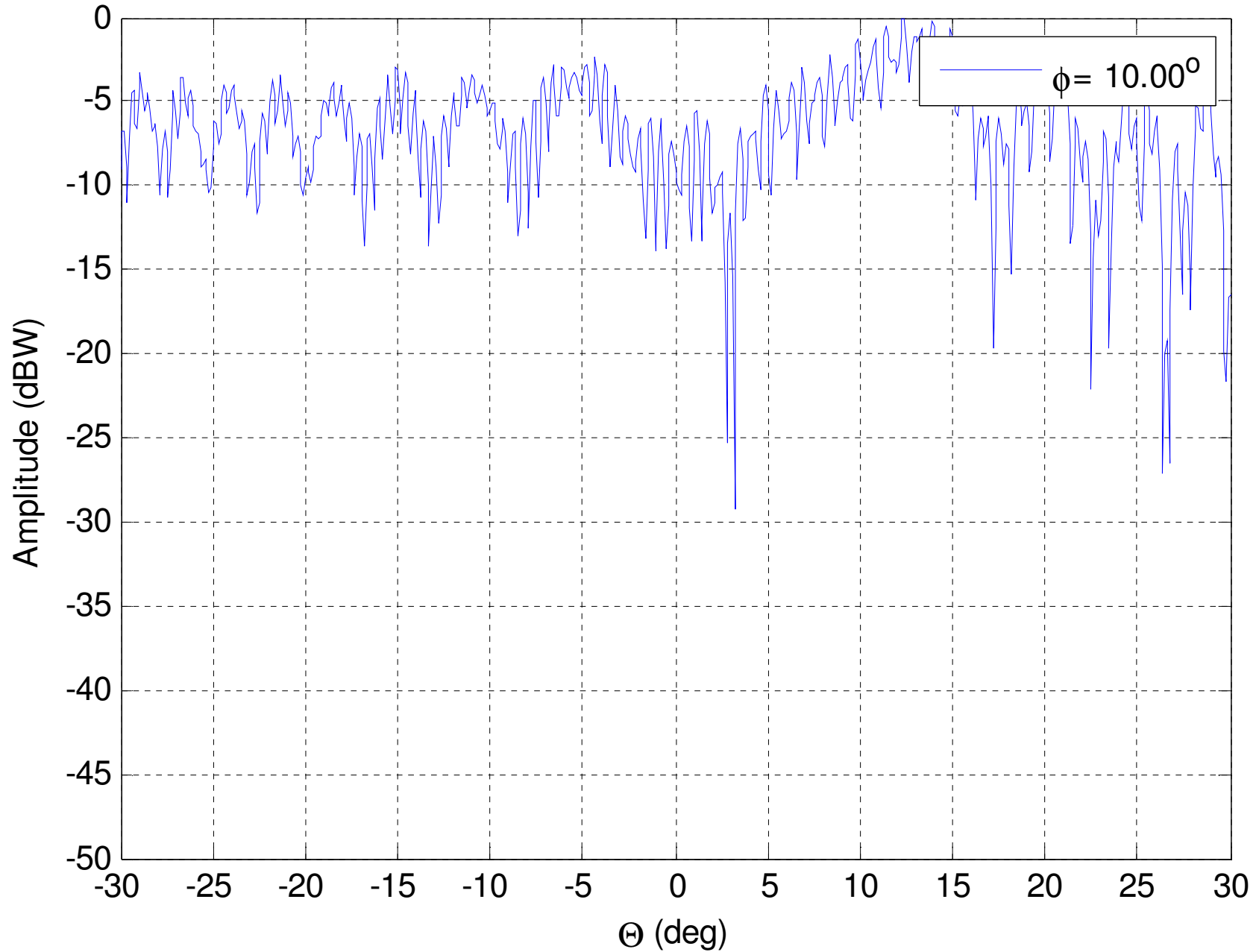
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp-0.cut, Peak: -8.99 dBW, Date: 16-Dec-2011



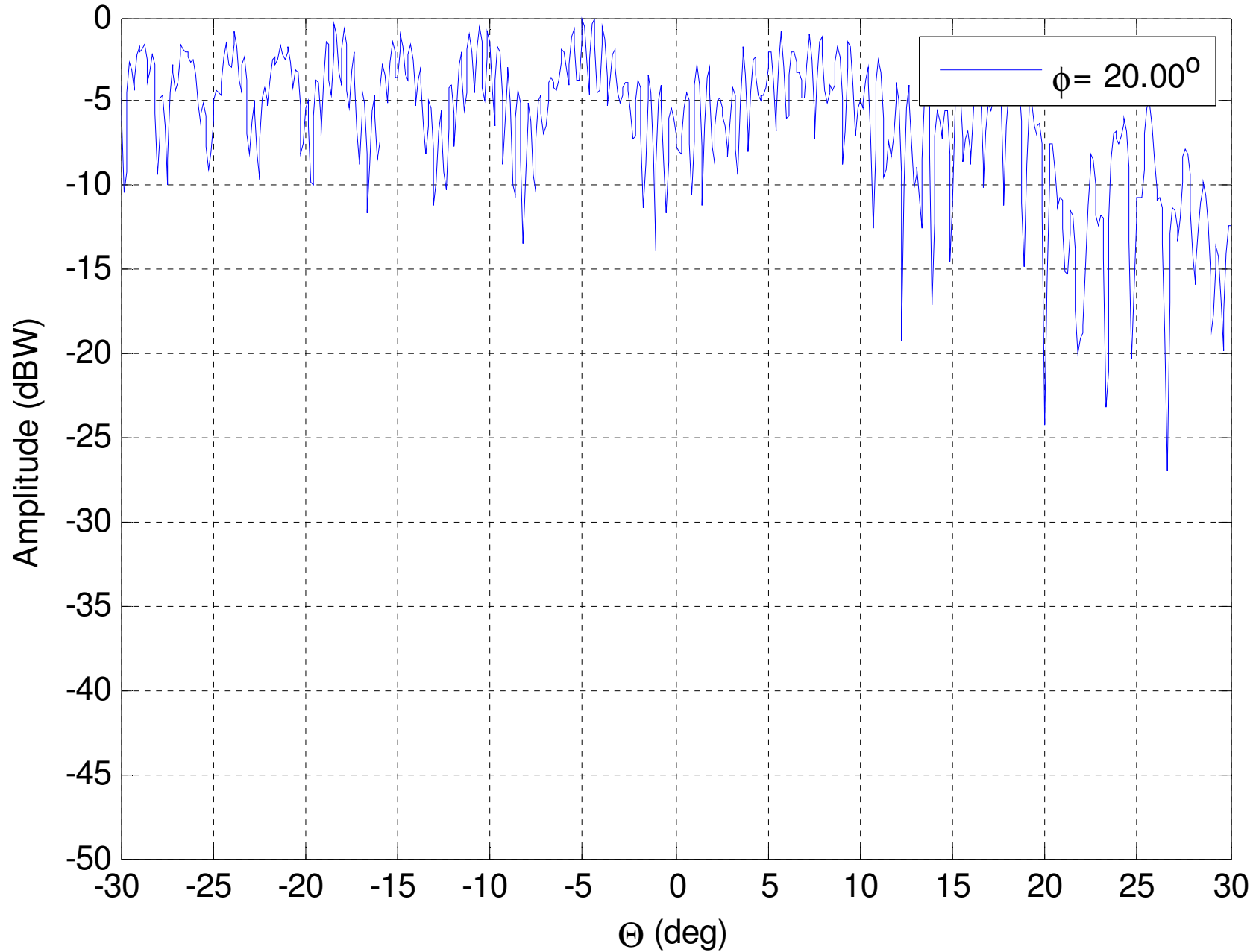
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp-10.cut, Peak: -10.06 dBW, Date: 16-Dec-2011



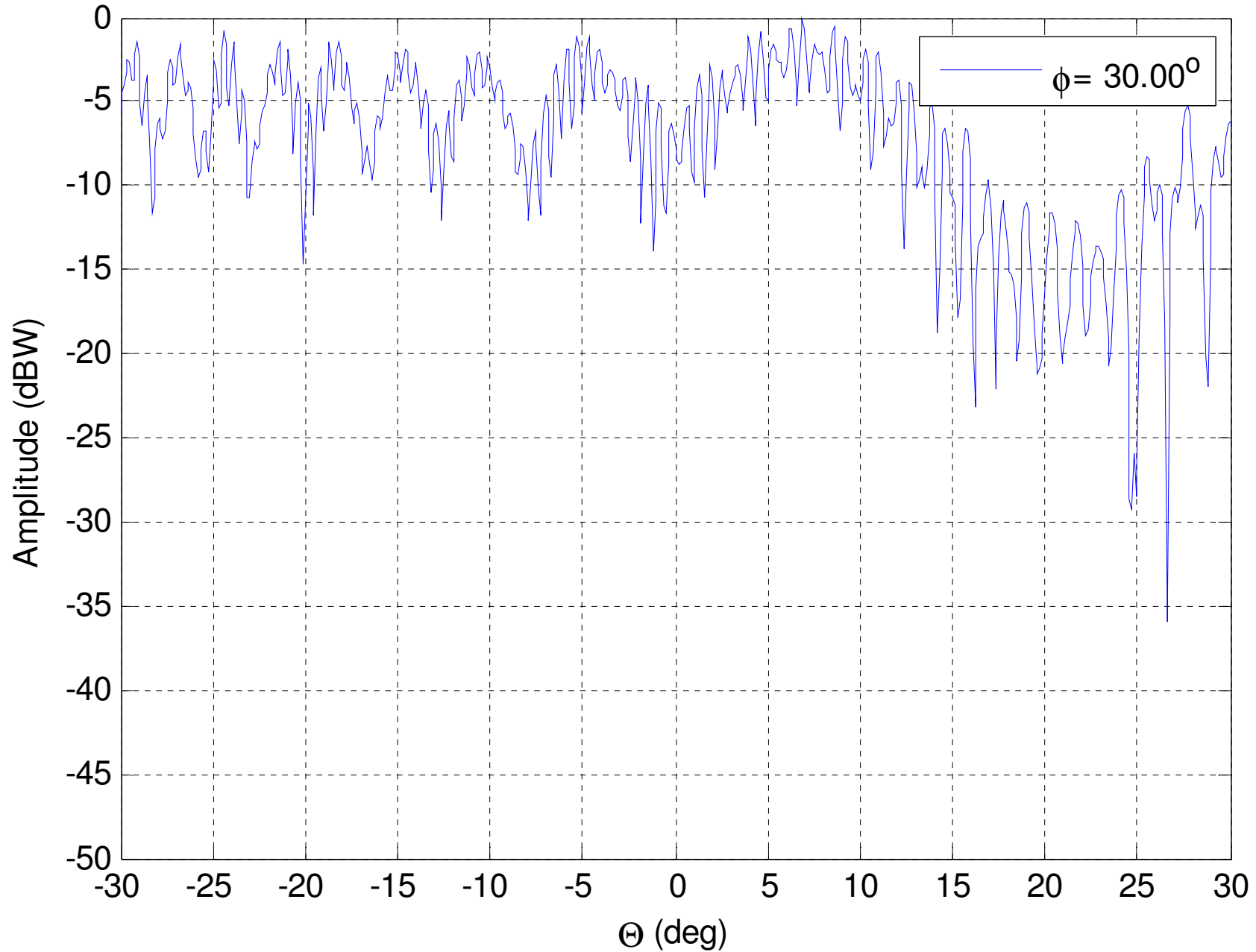
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp-20.cut, Peak: -12.18 dBW, Date: 16-Dec-2011



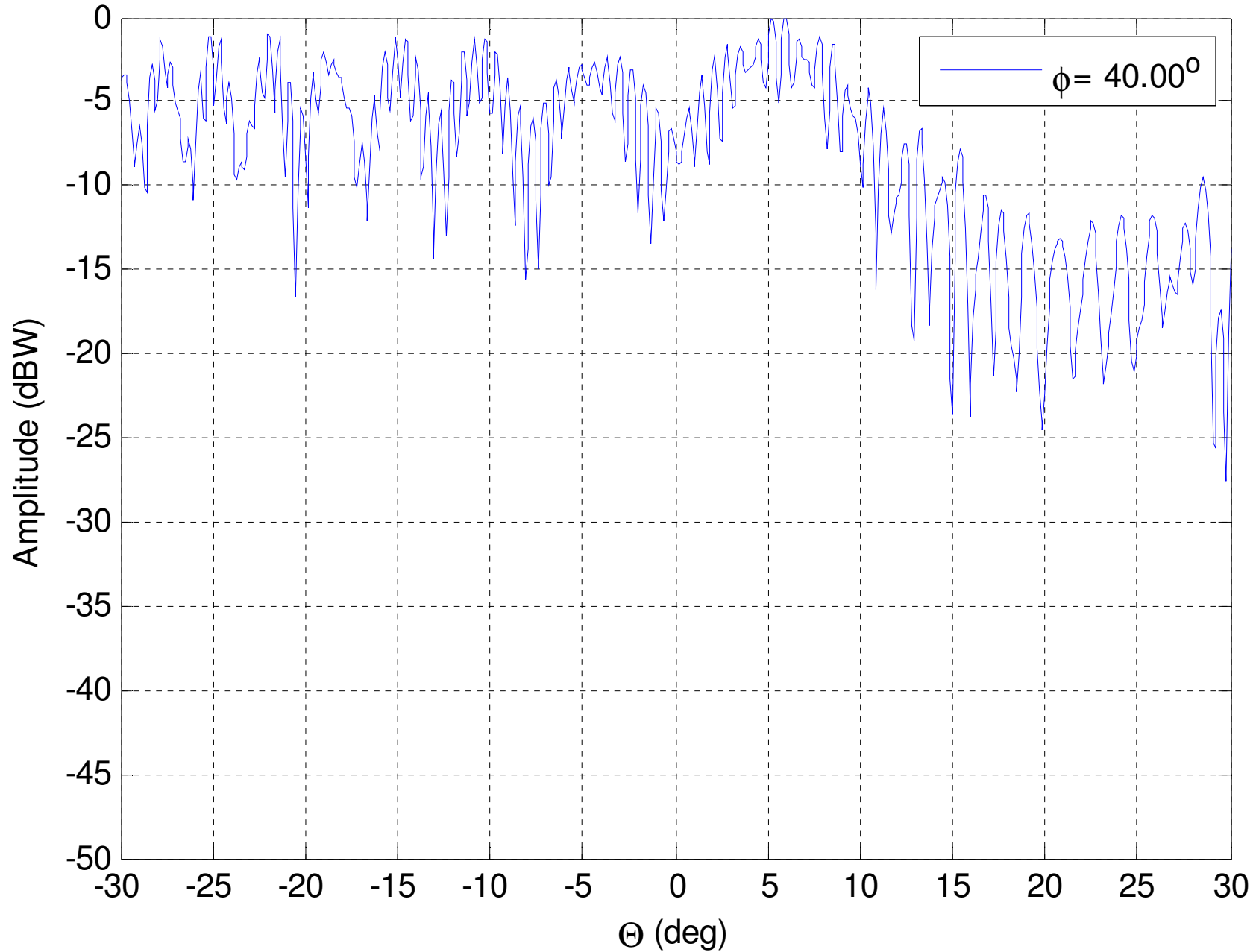
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp-30.cut, Peak: -11.38 dBW, Date: 16-Dec-2011



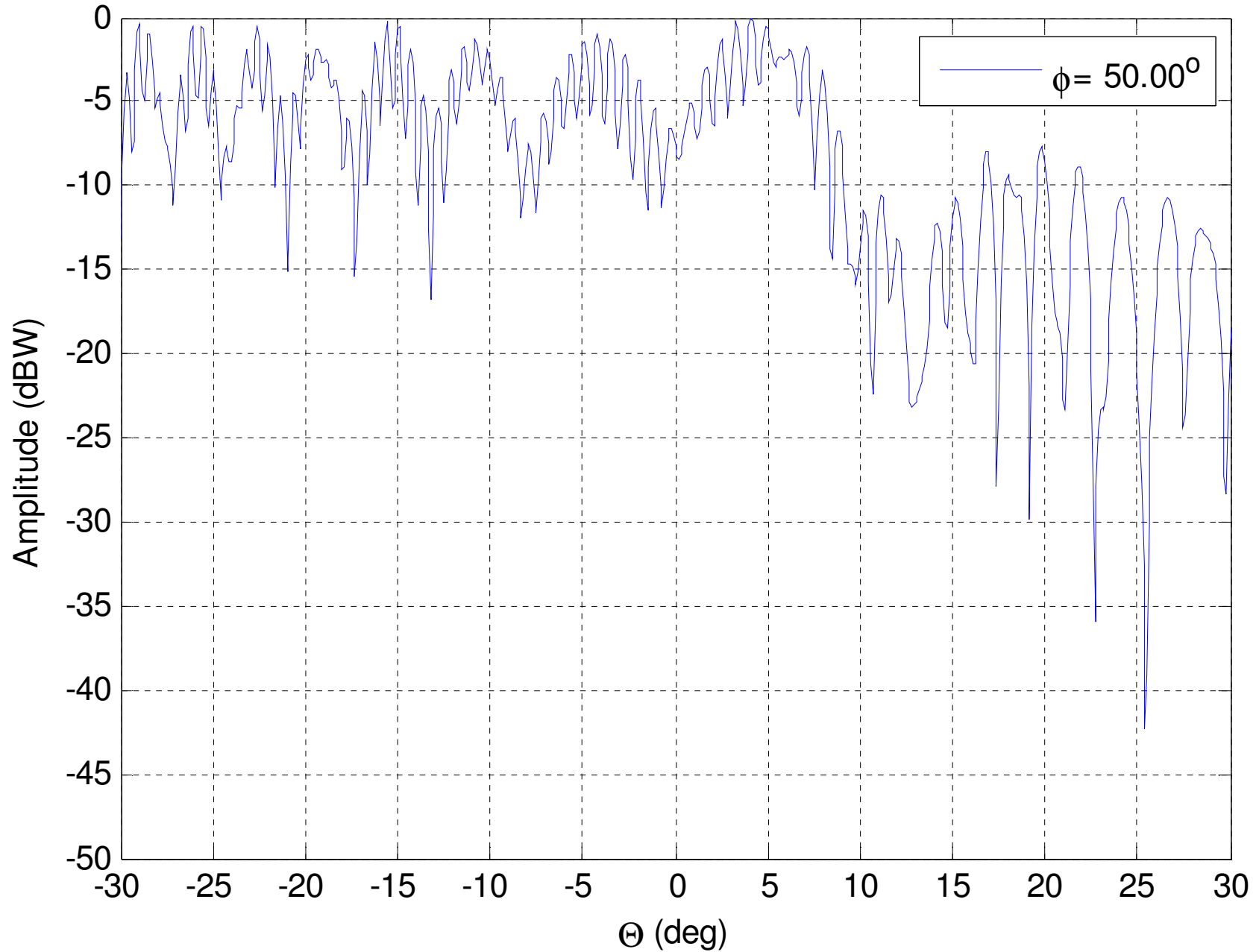
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp-40.cut, Peak: -11.28 dBW, Date: 16-Dec-2011



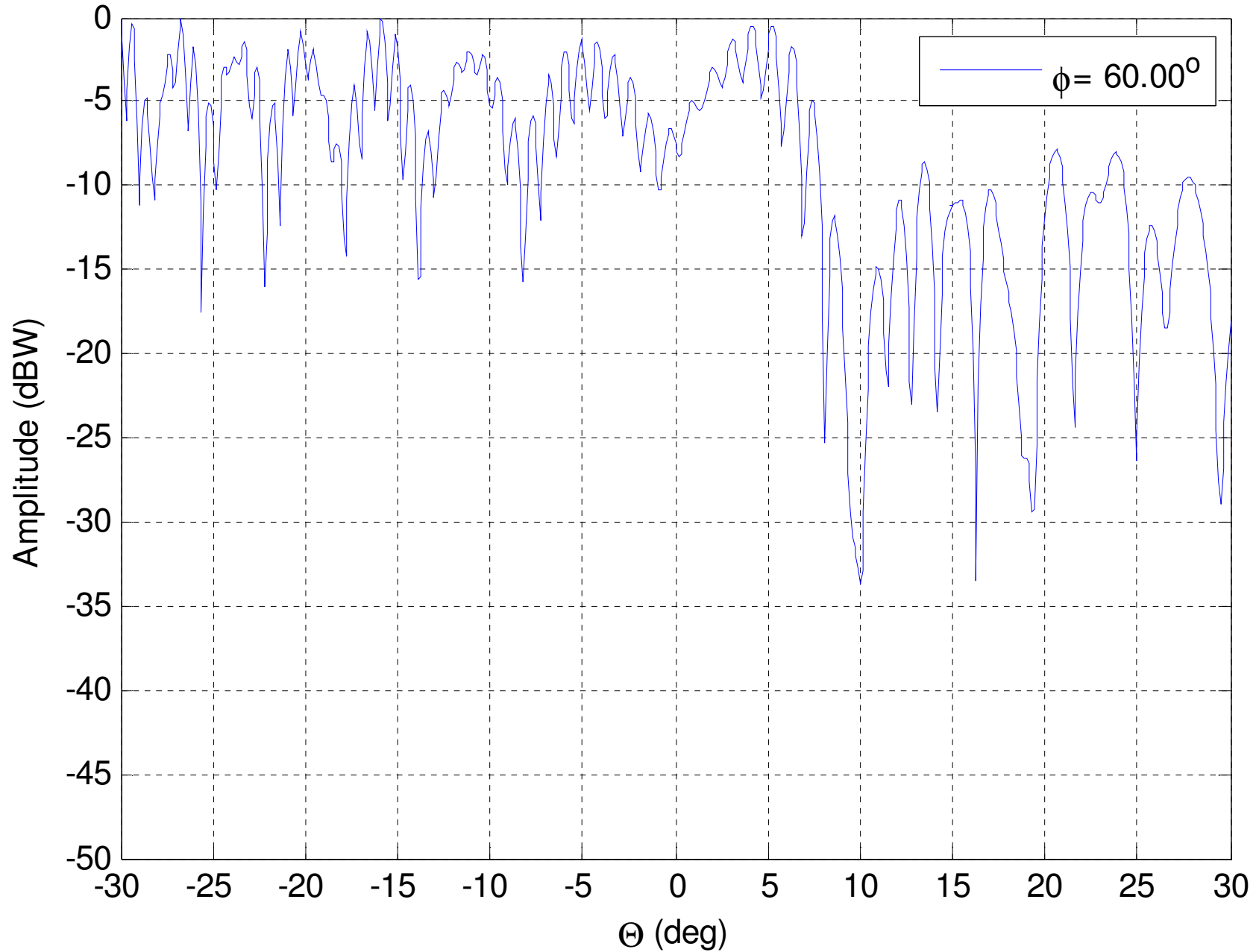
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp-50.cut, Peak: -11.61 dBW, Date: 16-Dec-2011



Normalized pattern cuts - farfield

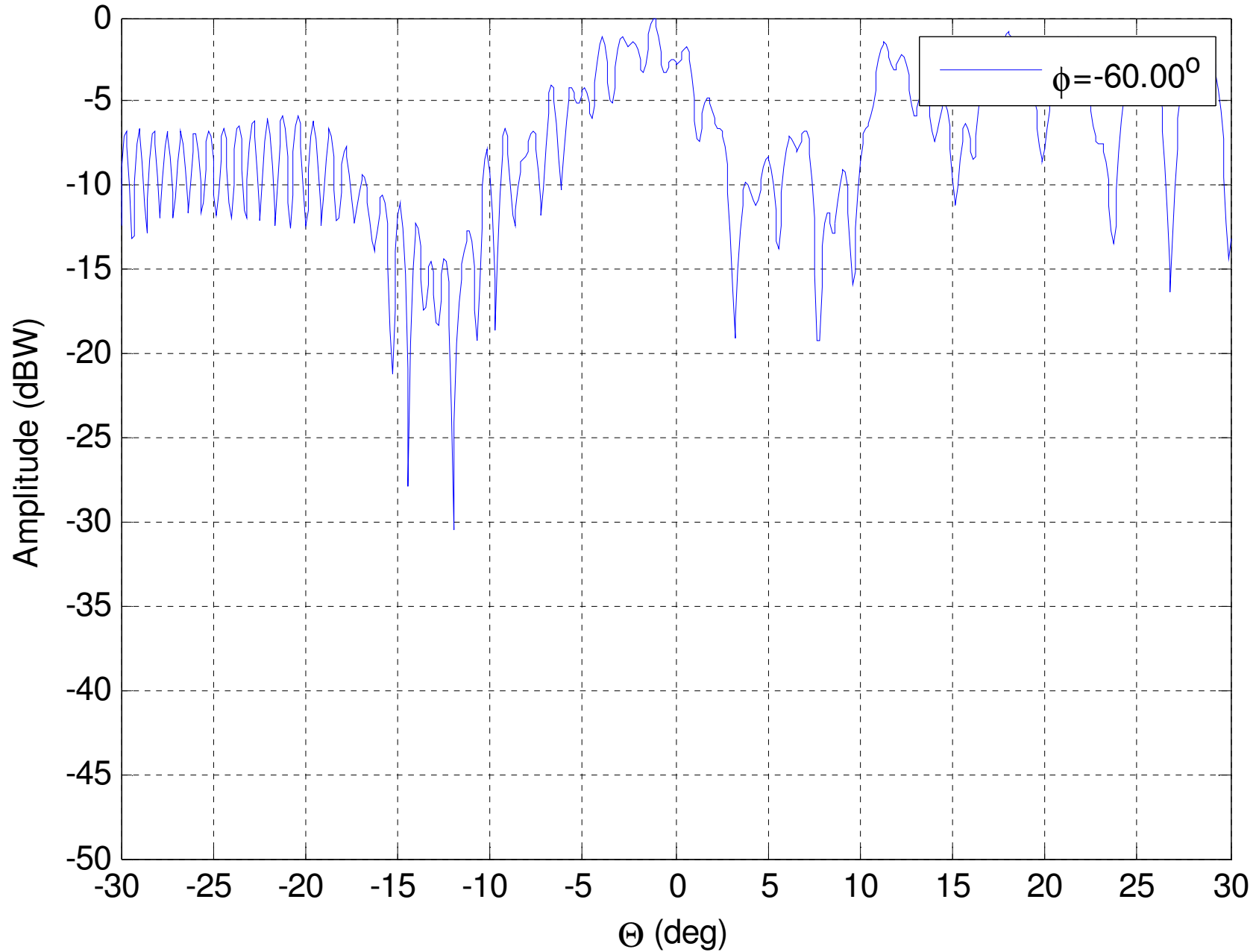
Input file: tx-17.3-lhcp-60.cut, Peak: -11.74 dBW, Date: 16-Dec-2011



RHCP at 17.5 GHz

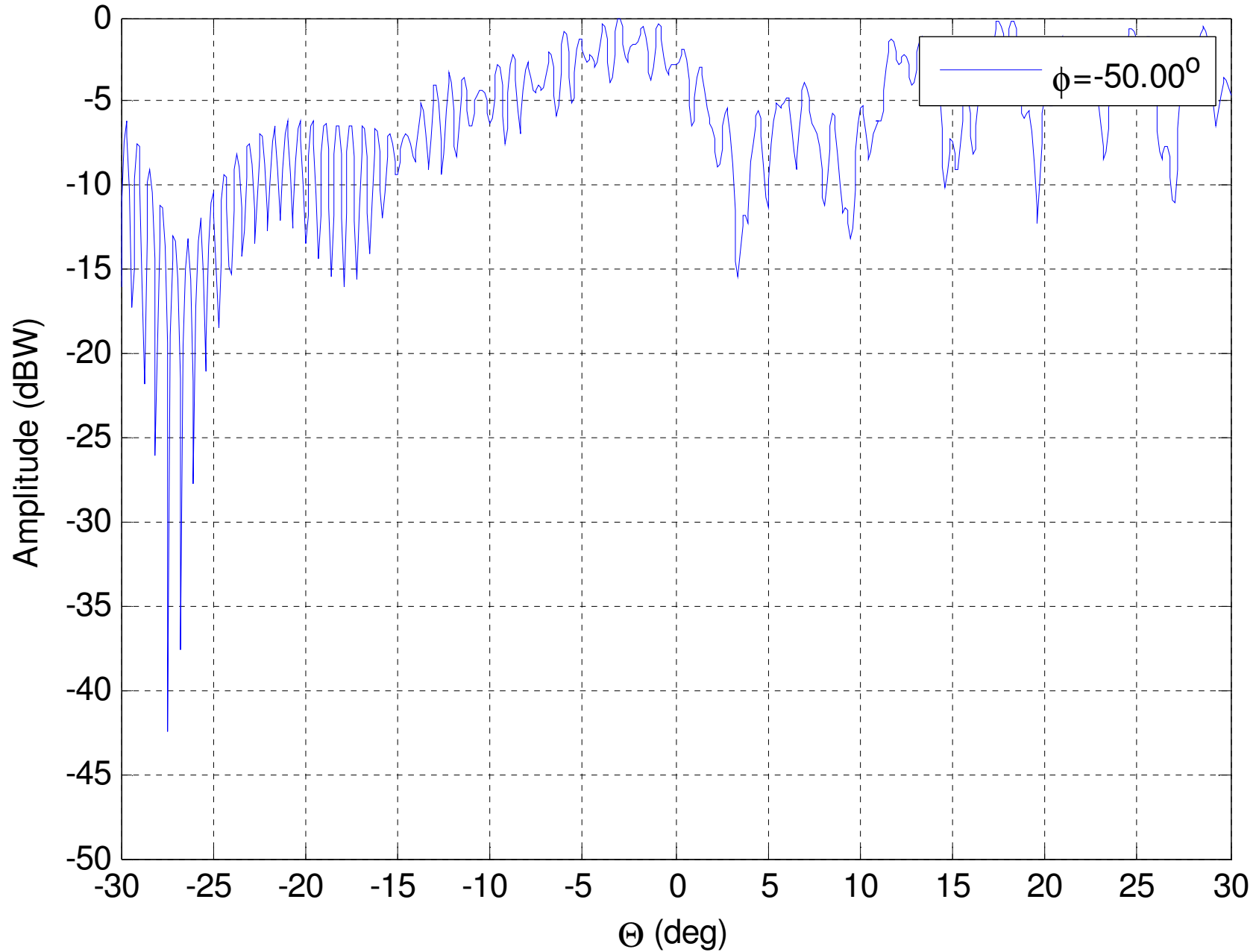
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--60.cut, Peak: -12.71 dBW, Date: 16-Dec-2011



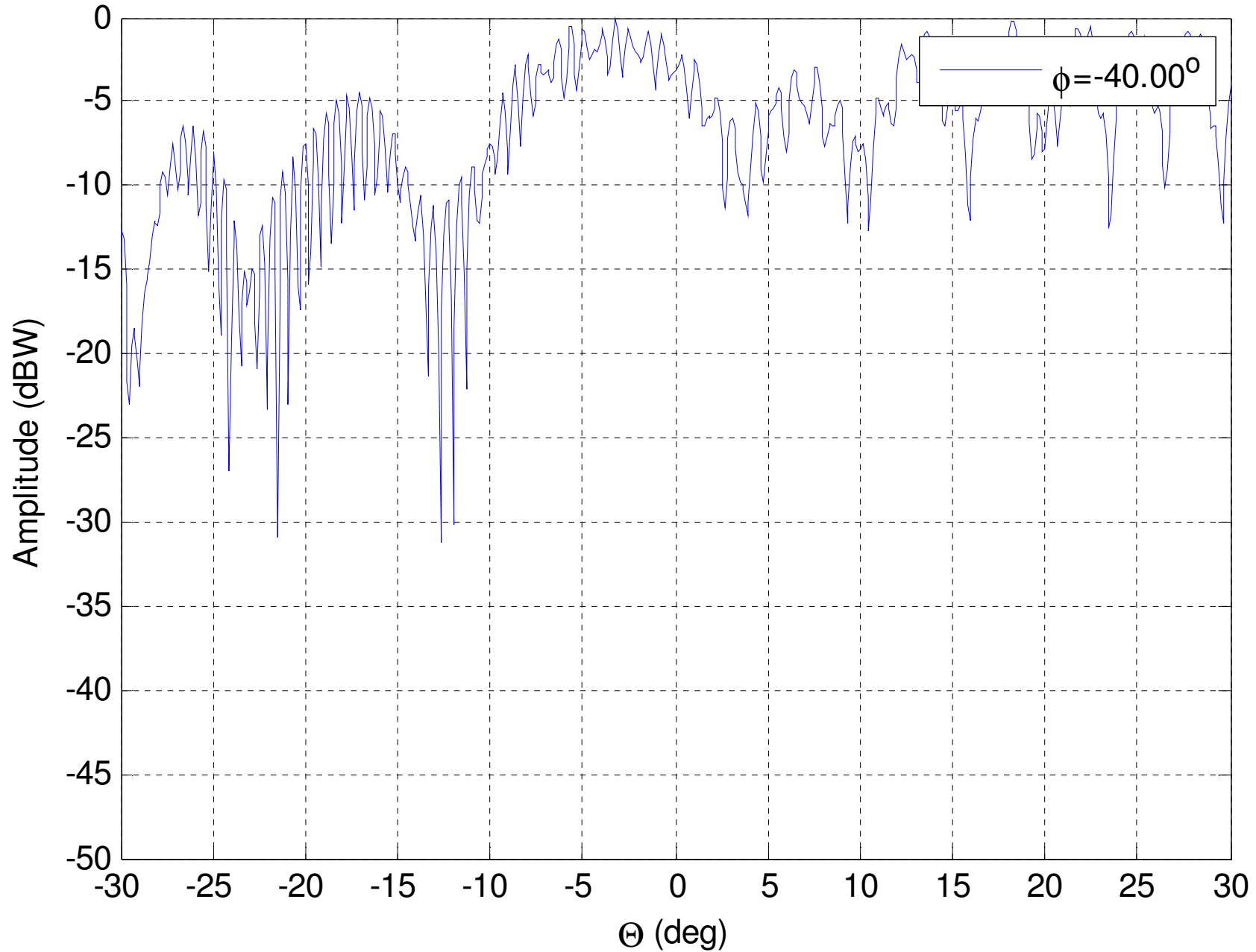
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--50.cut, Peak: -12.56 dBW, Date: 16-Dec-2011



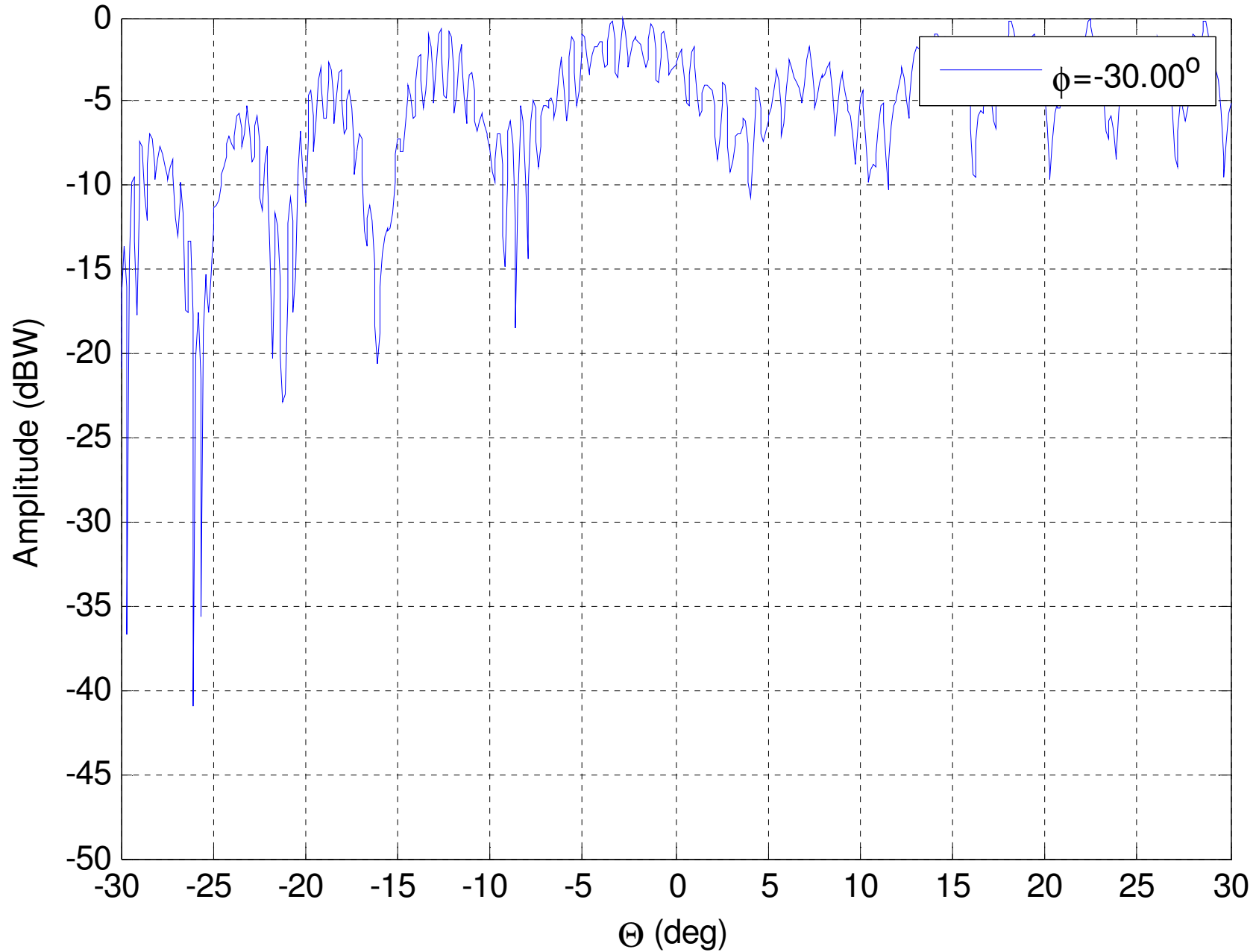
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--40.cut, Peak: -12.15 dBW, Date: 16-Dec-2011



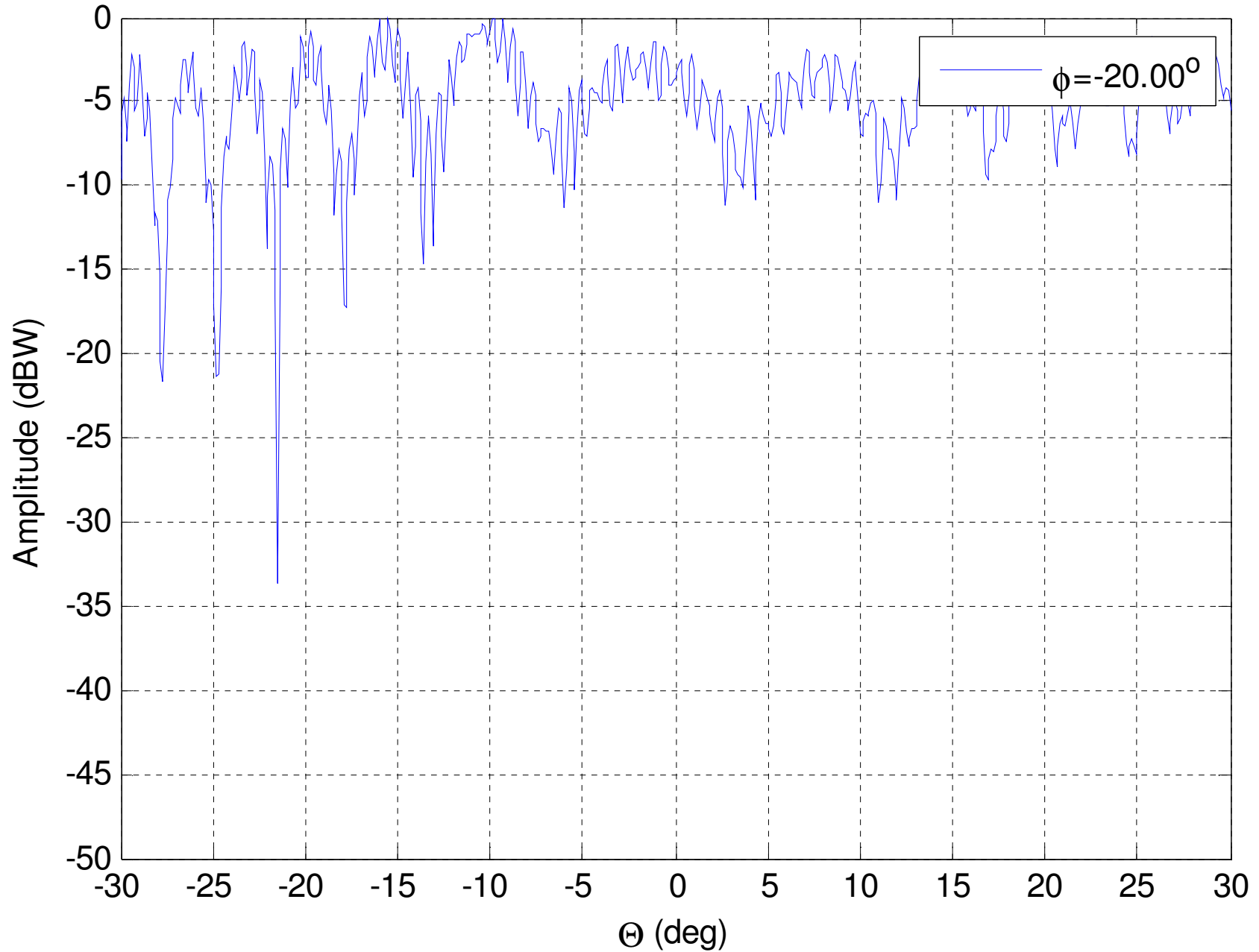
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--30.cut, Peak: -12.54 dBW, Date: 16-Dec-2011



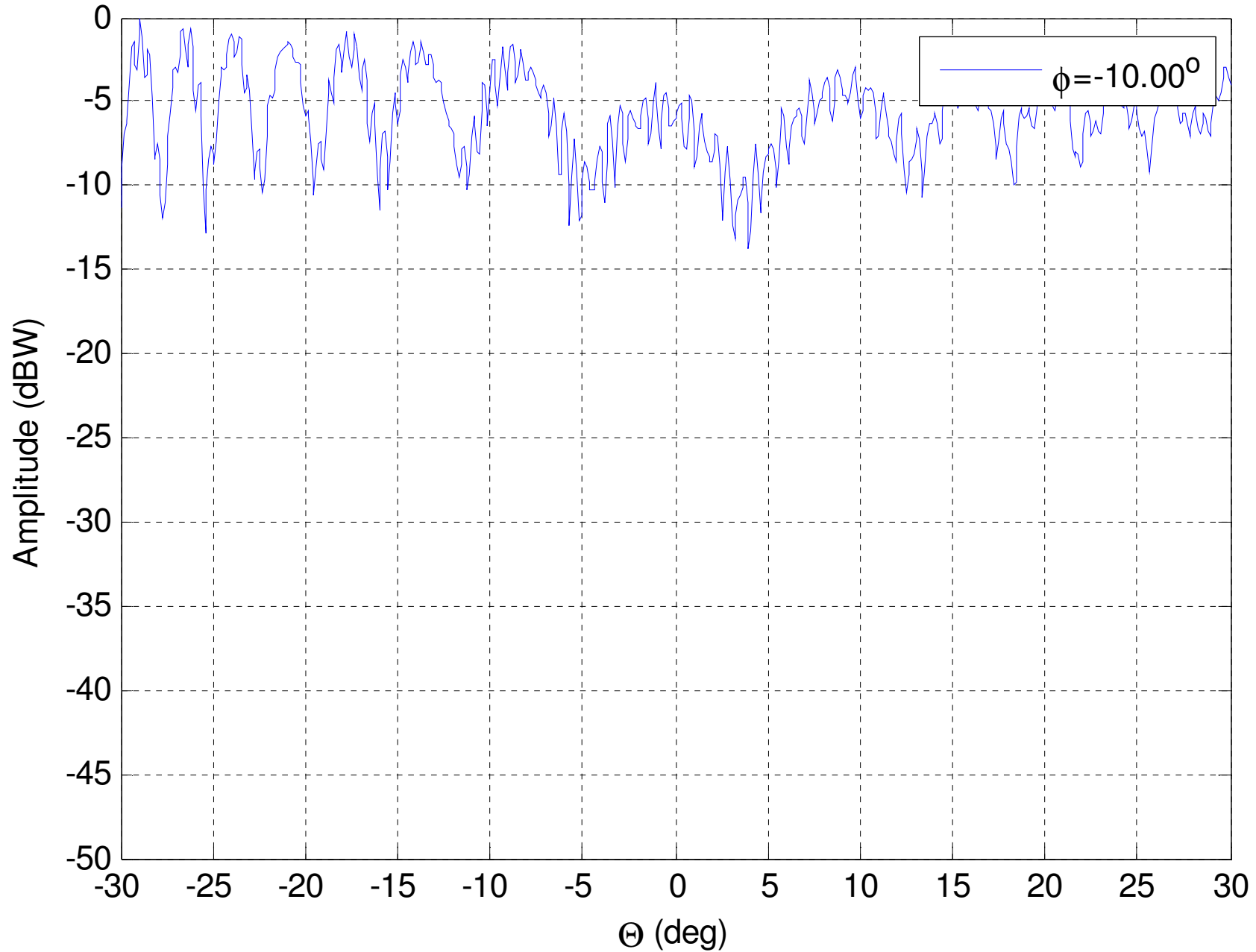
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--20.cut, Peak: -11.80 dBW, Date: 16-Dec-2011



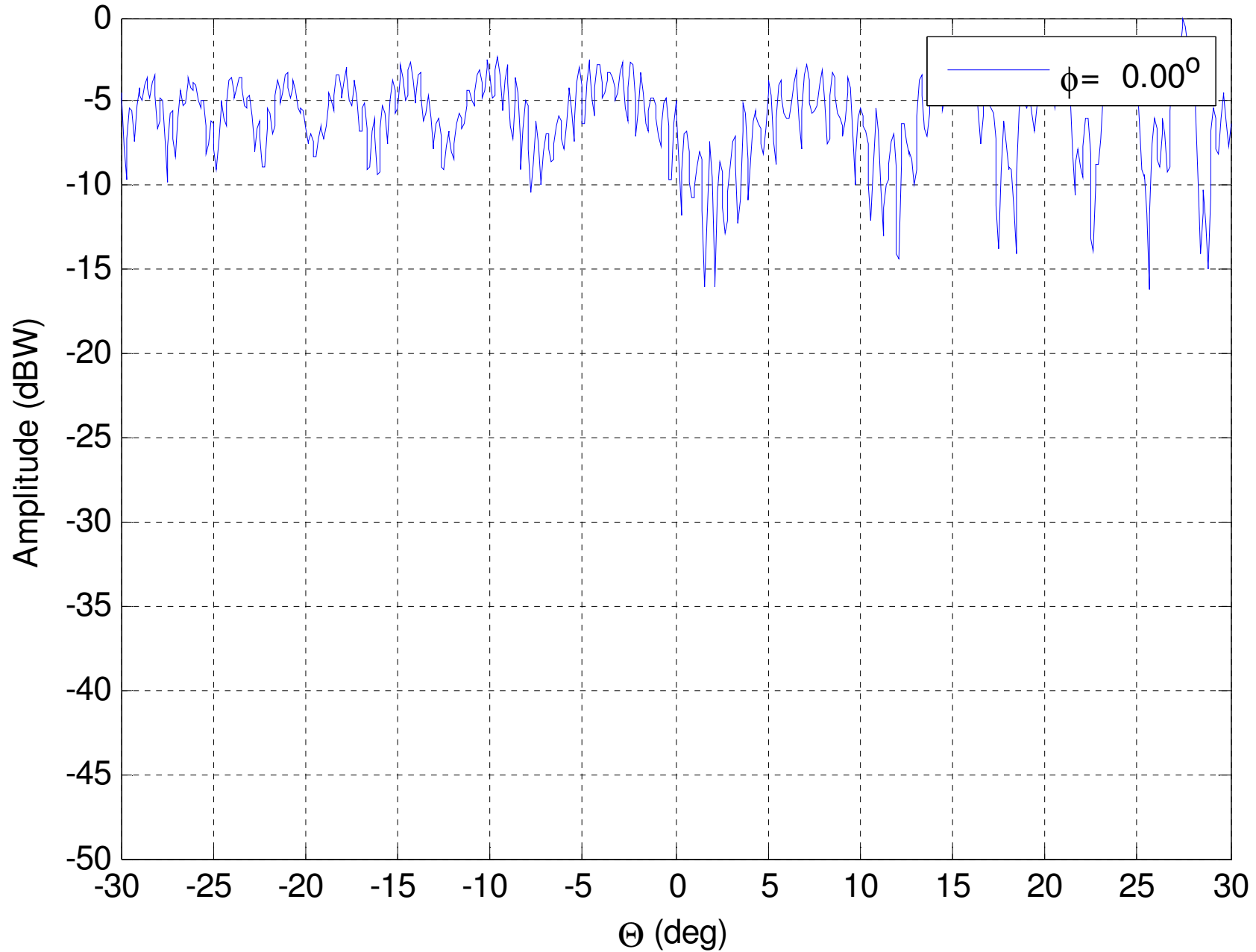
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--10.cut, Peak: -9.32 dBW, Date: 16-Dec-2011



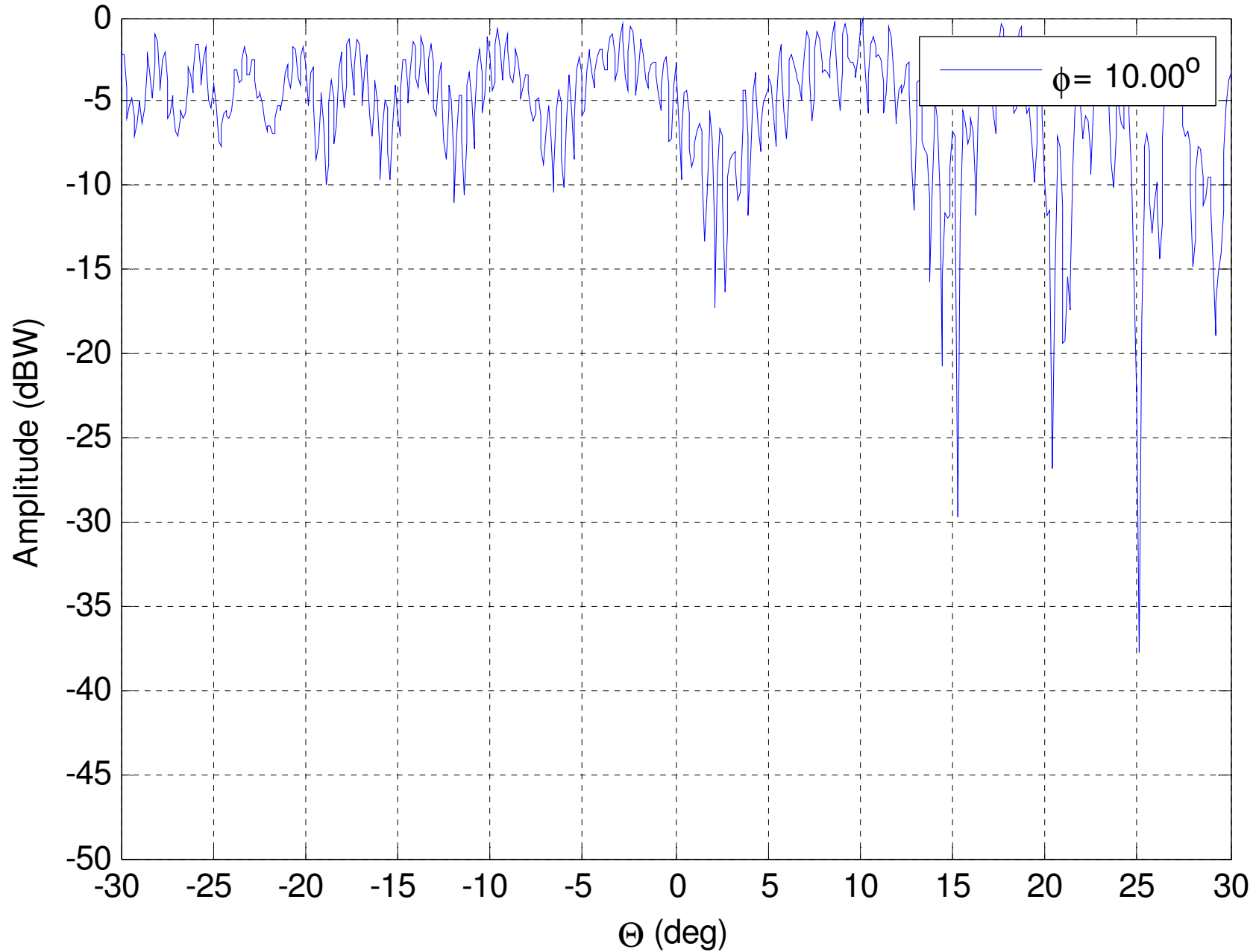
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-0.cut, Peak: -9.51 dBW, Date: 16-Dec-2011



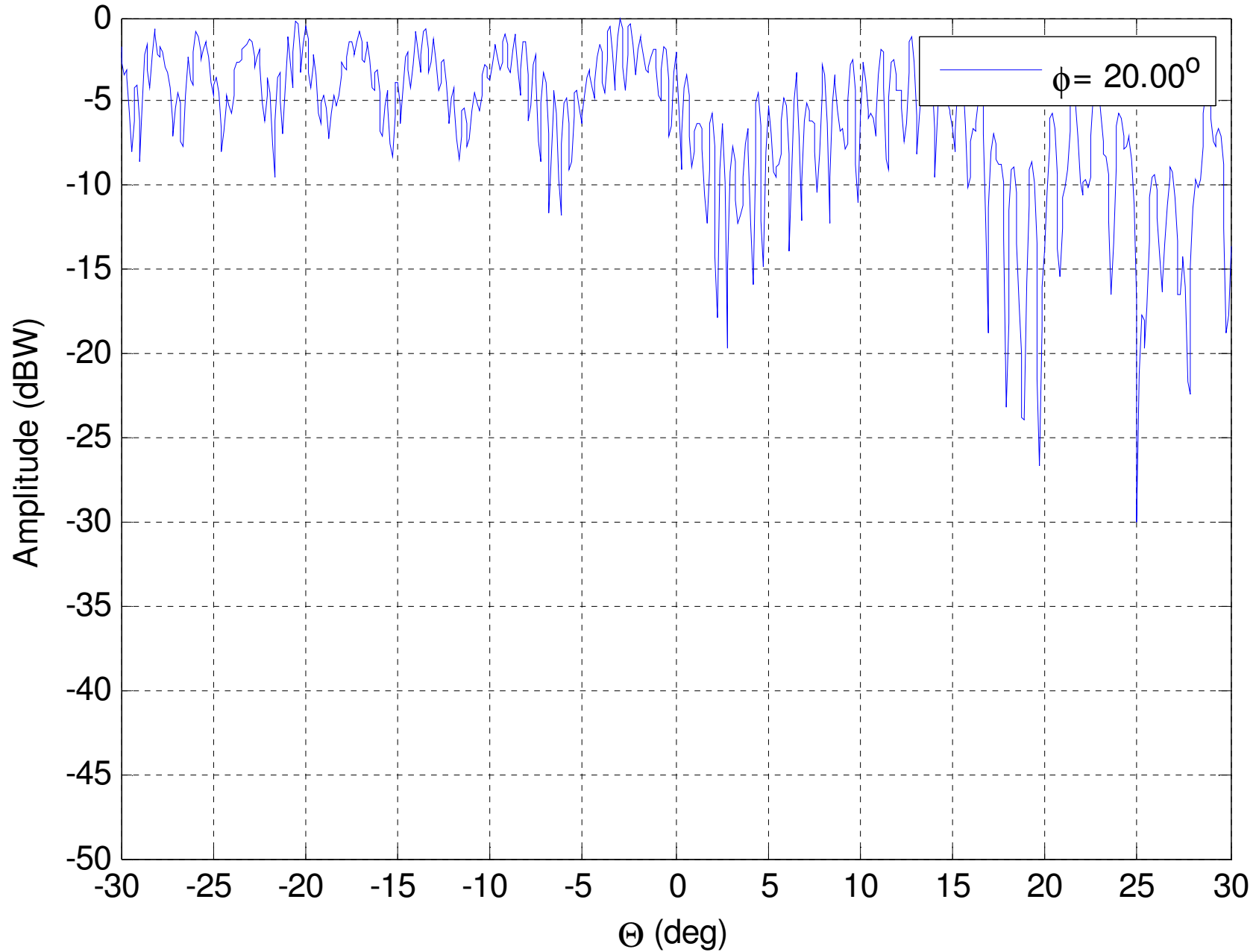
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-10.cut, Peak: -11.84 dBW, Date: 16-Dec-2011



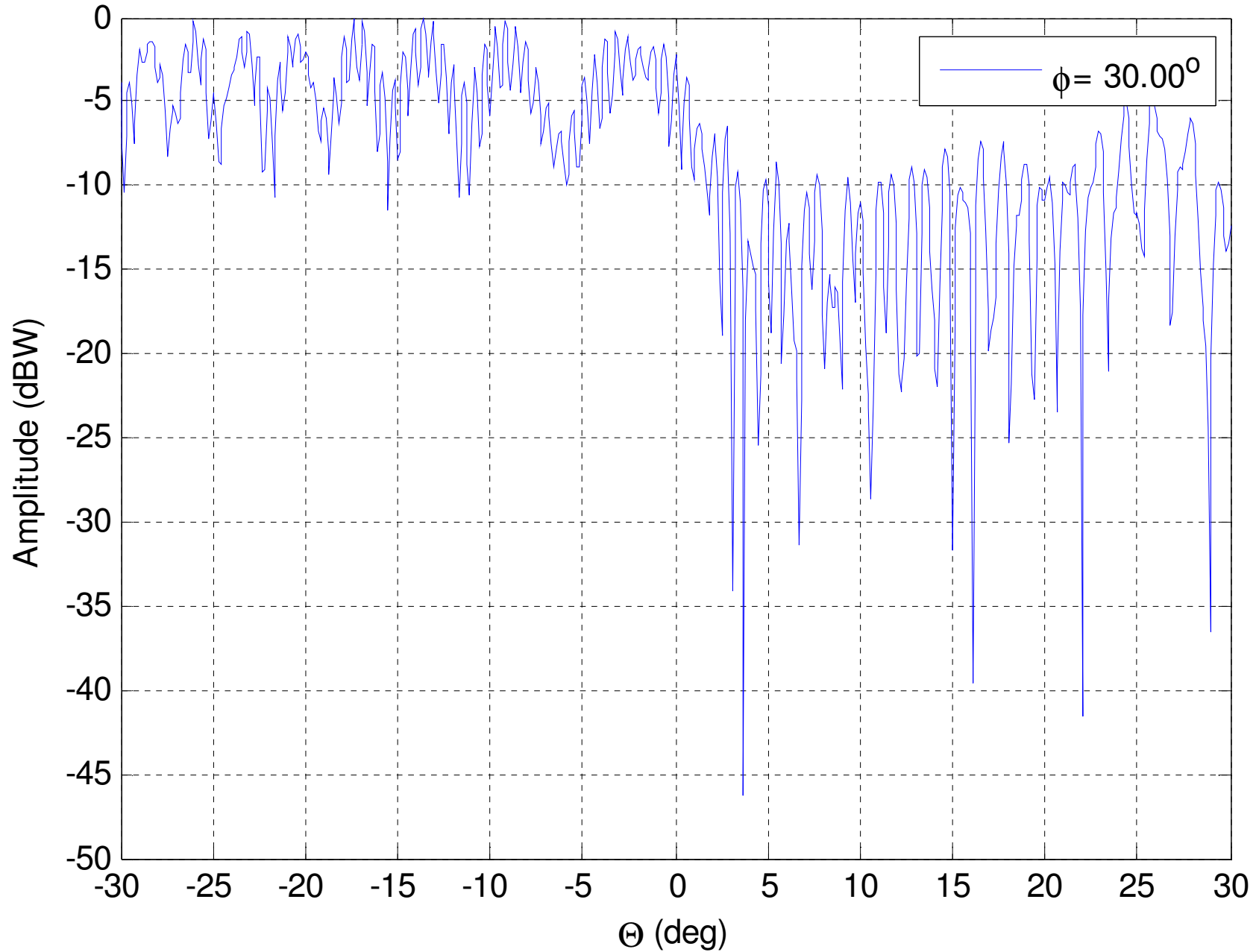
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-20.cut, Peak: -12.46 dBW, Date: 16-Dec-2011



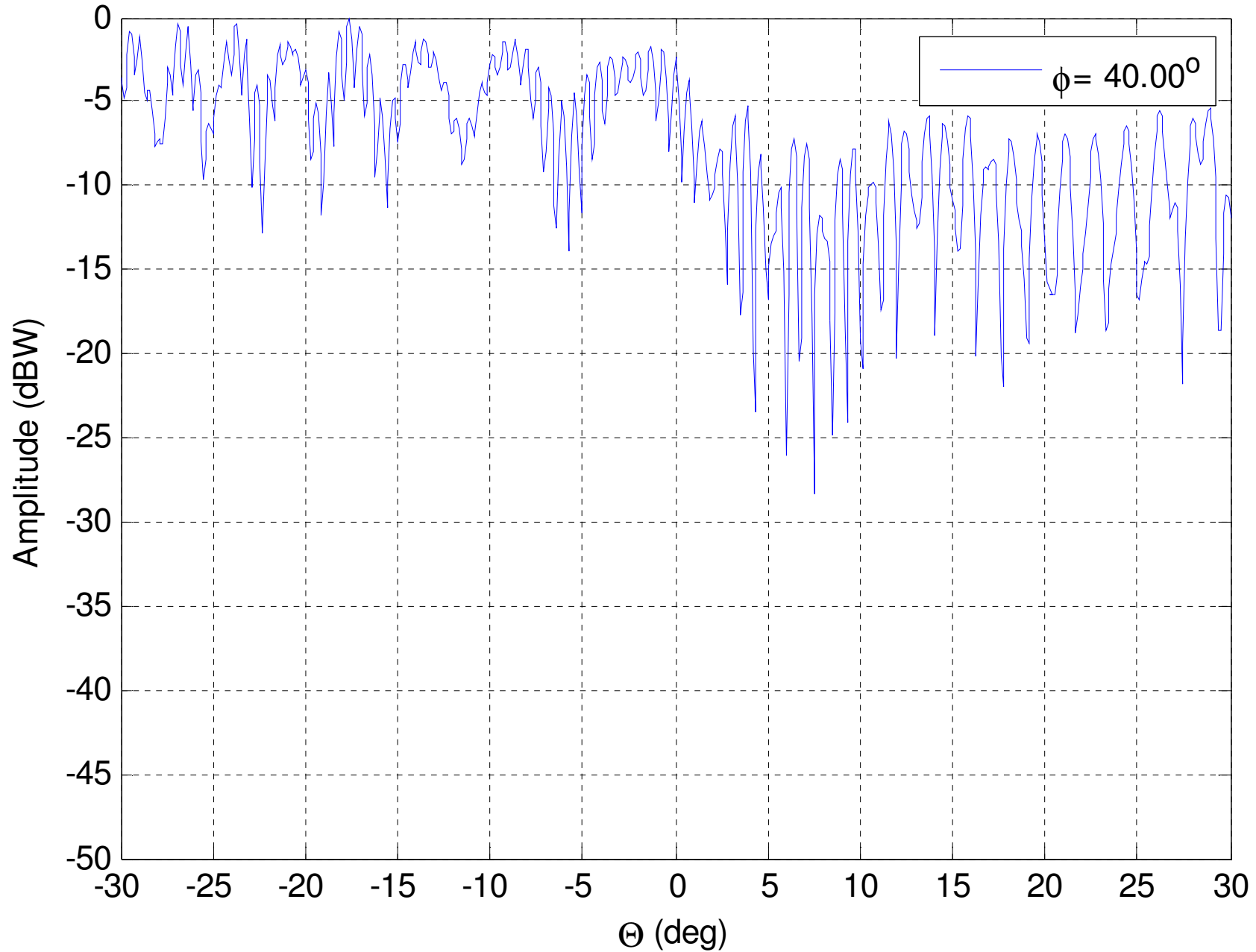
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-30.cut, Peak: -12.25 dBW, Date: 16-Dec-2011



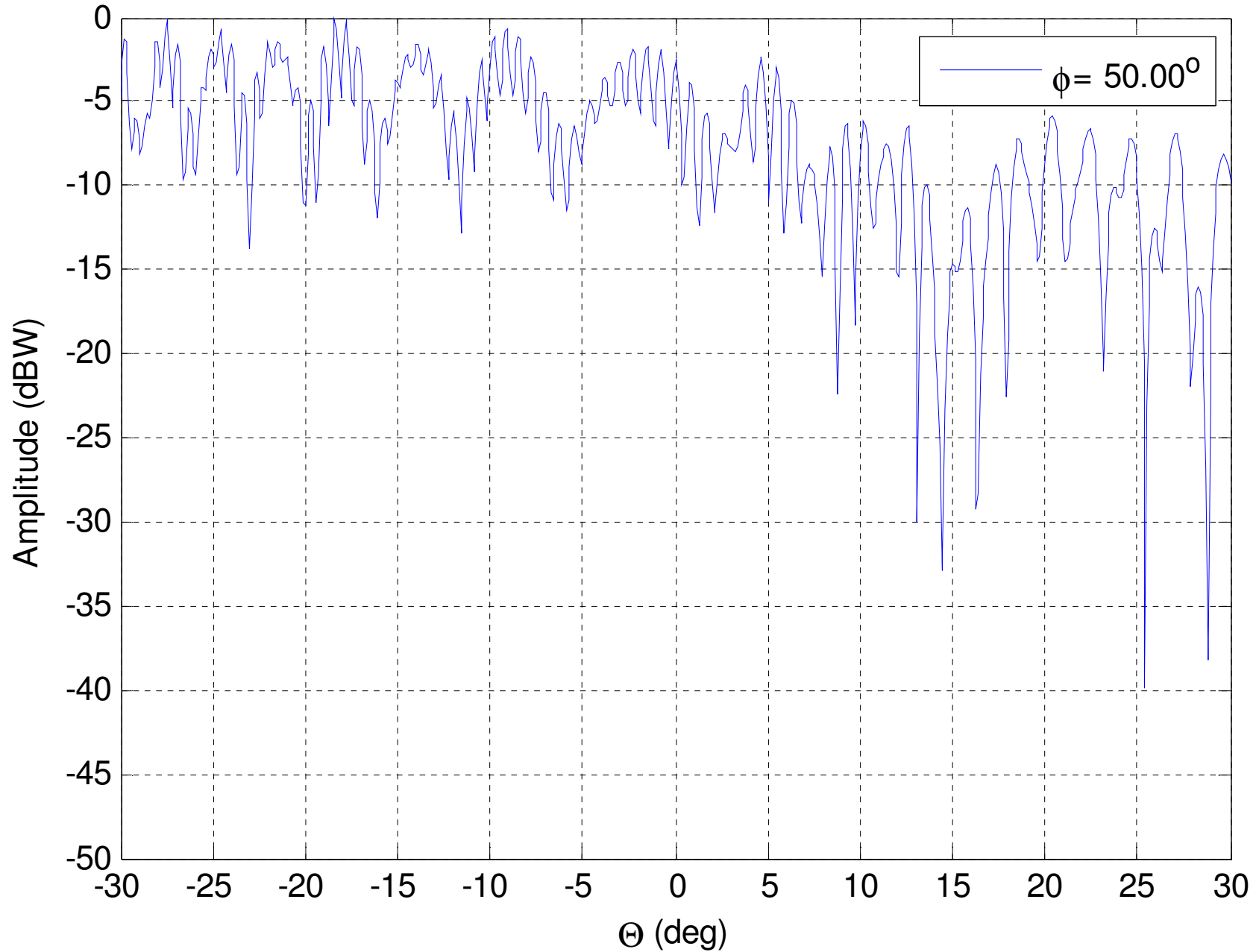
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-40.cut, Peak: -12.03 dBW, Date: 16-Dec-2011



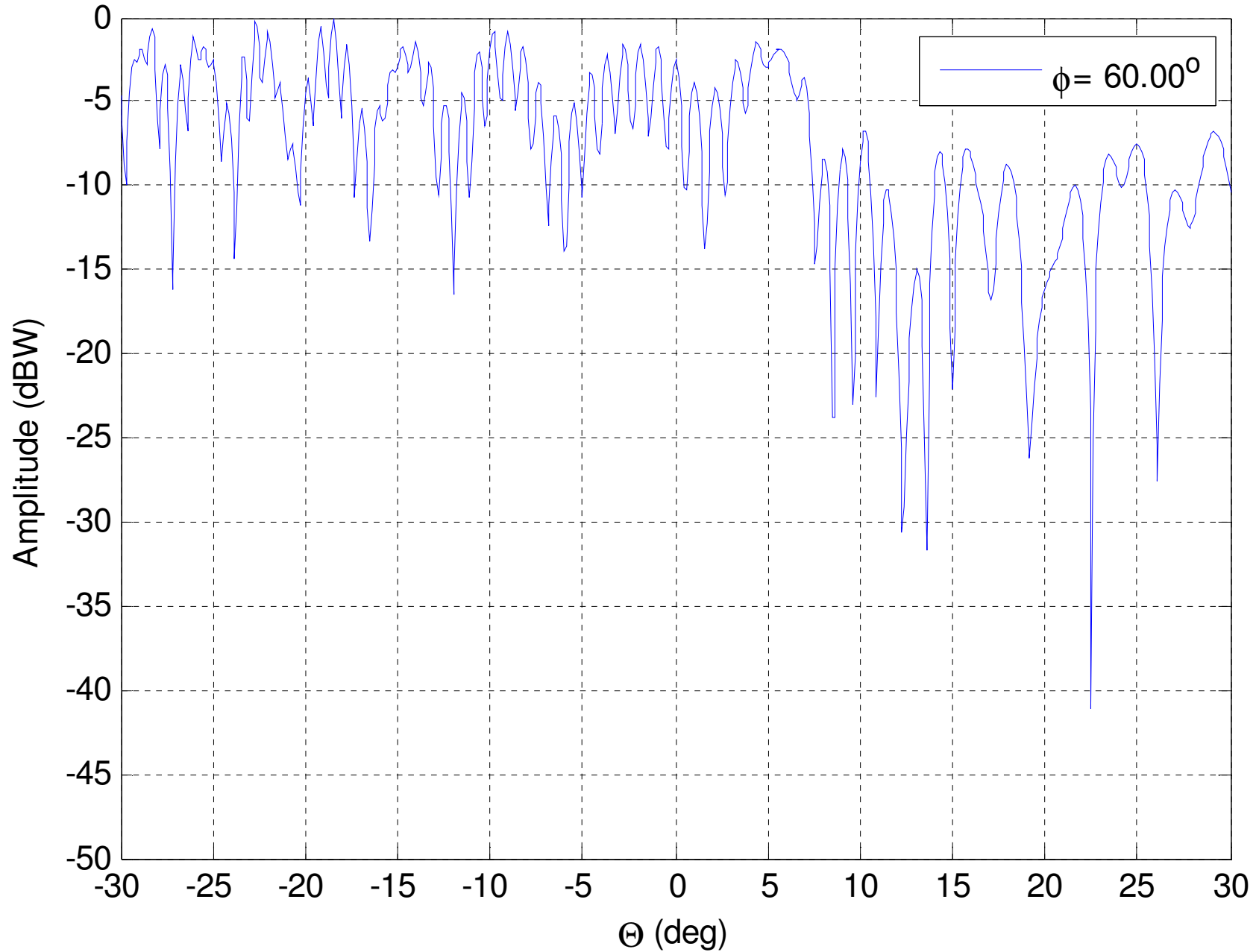
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-50.cut, Peak: -11.89 dBW, Date: 16-Dec-2011



Normalized pattern cuts - farfield

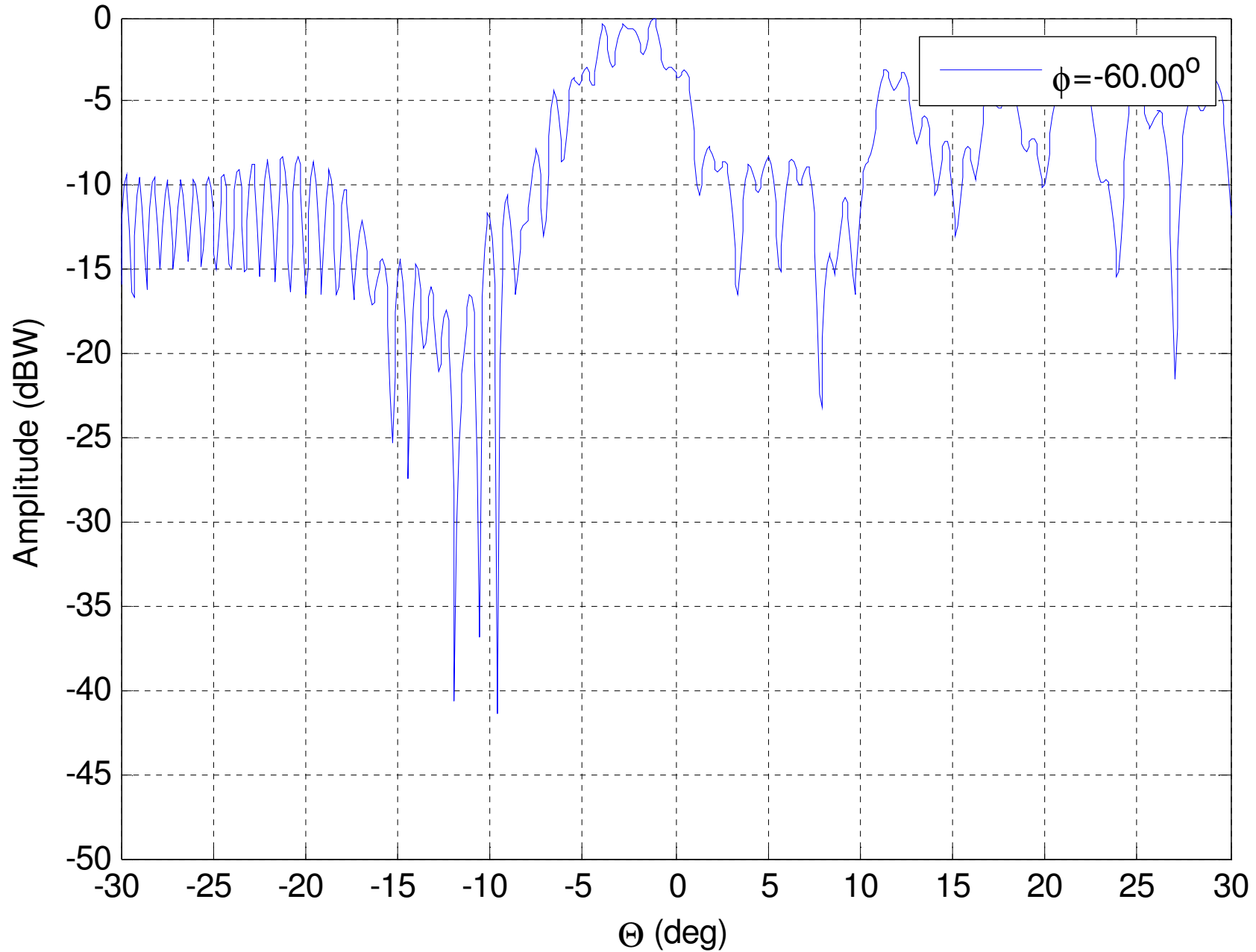
Input file: tx-17.5-rhcp-60.cut, Peak: -11.94 dBW, Date: 16-Dec-2011



LHCP at 17.5 GHz

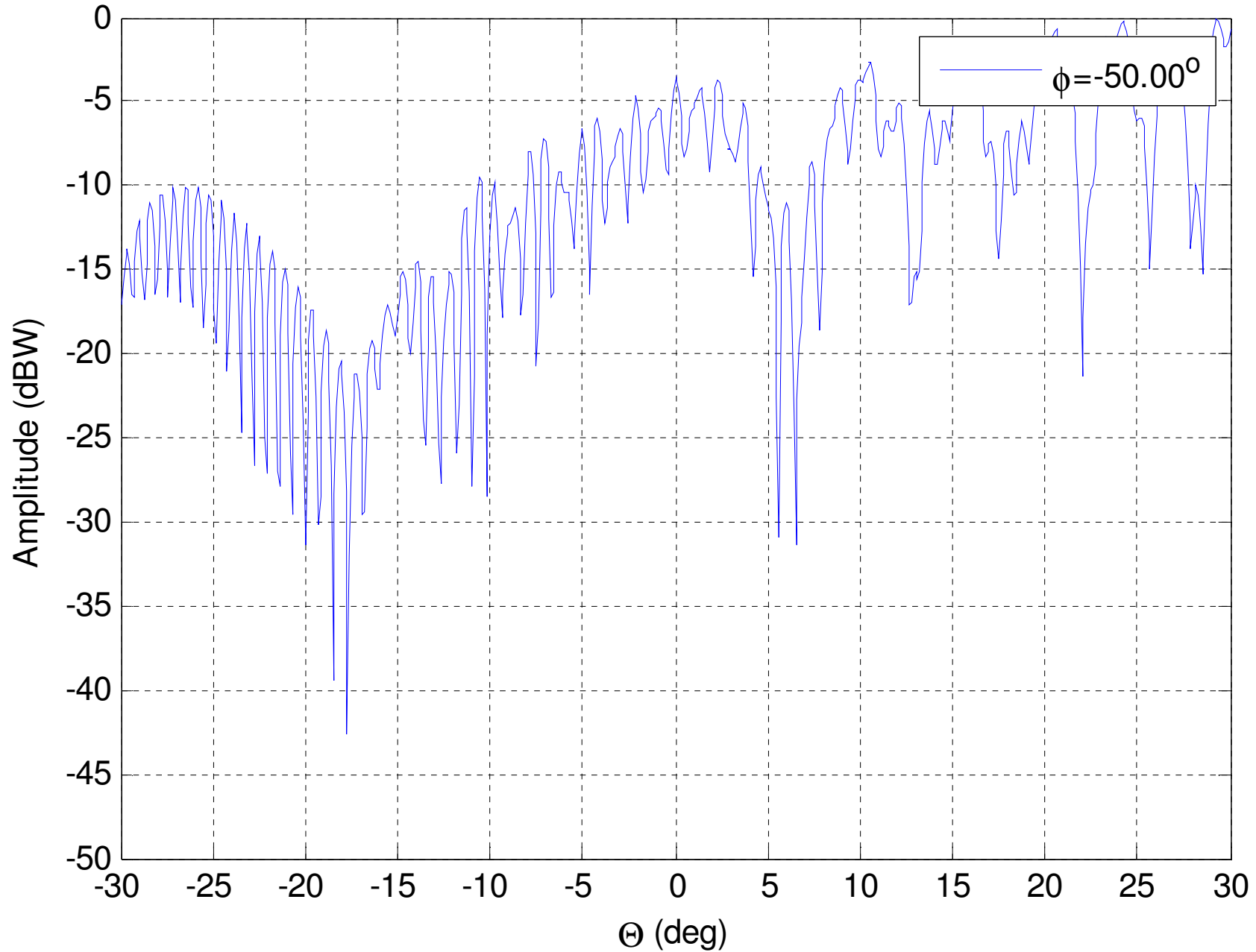
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--60.cut, Peak: -10.96 dBW, Date: 16-Dec-2011



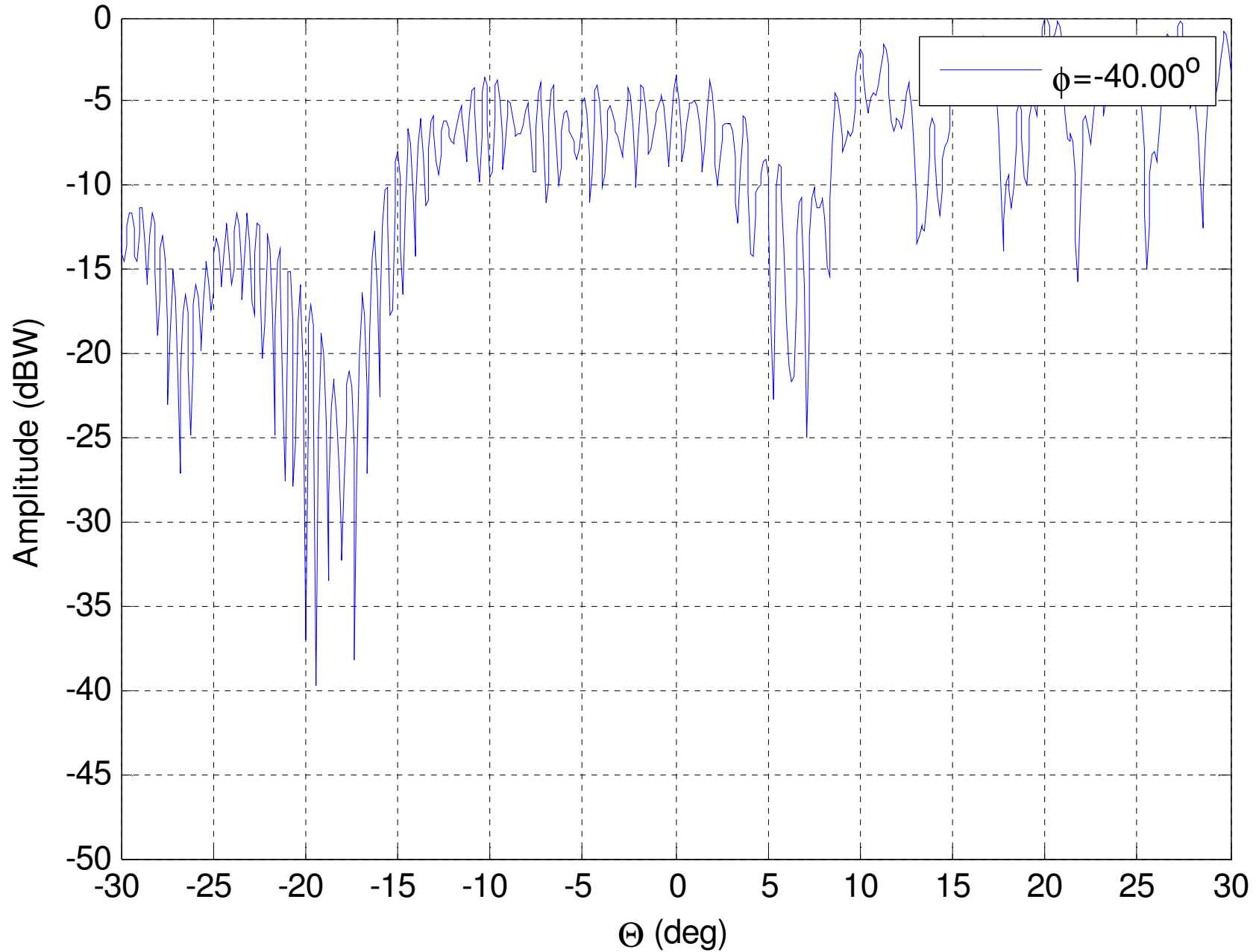
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--50.cut, Peak: -10.57 dBW, Date: 16-Dec-2011



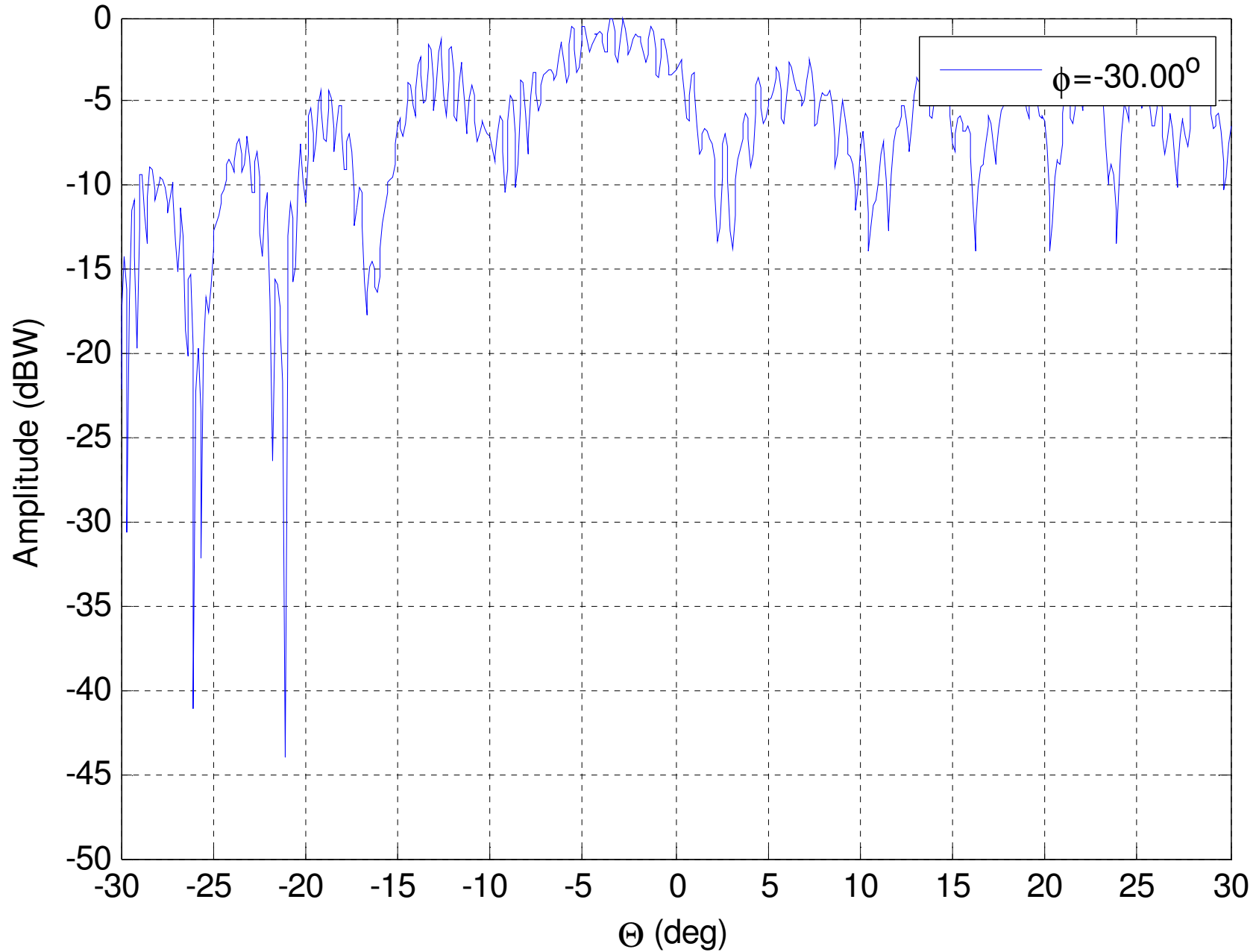
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--40.cut, Peak: -10.72 dBW, Date: 16-Dec-2011



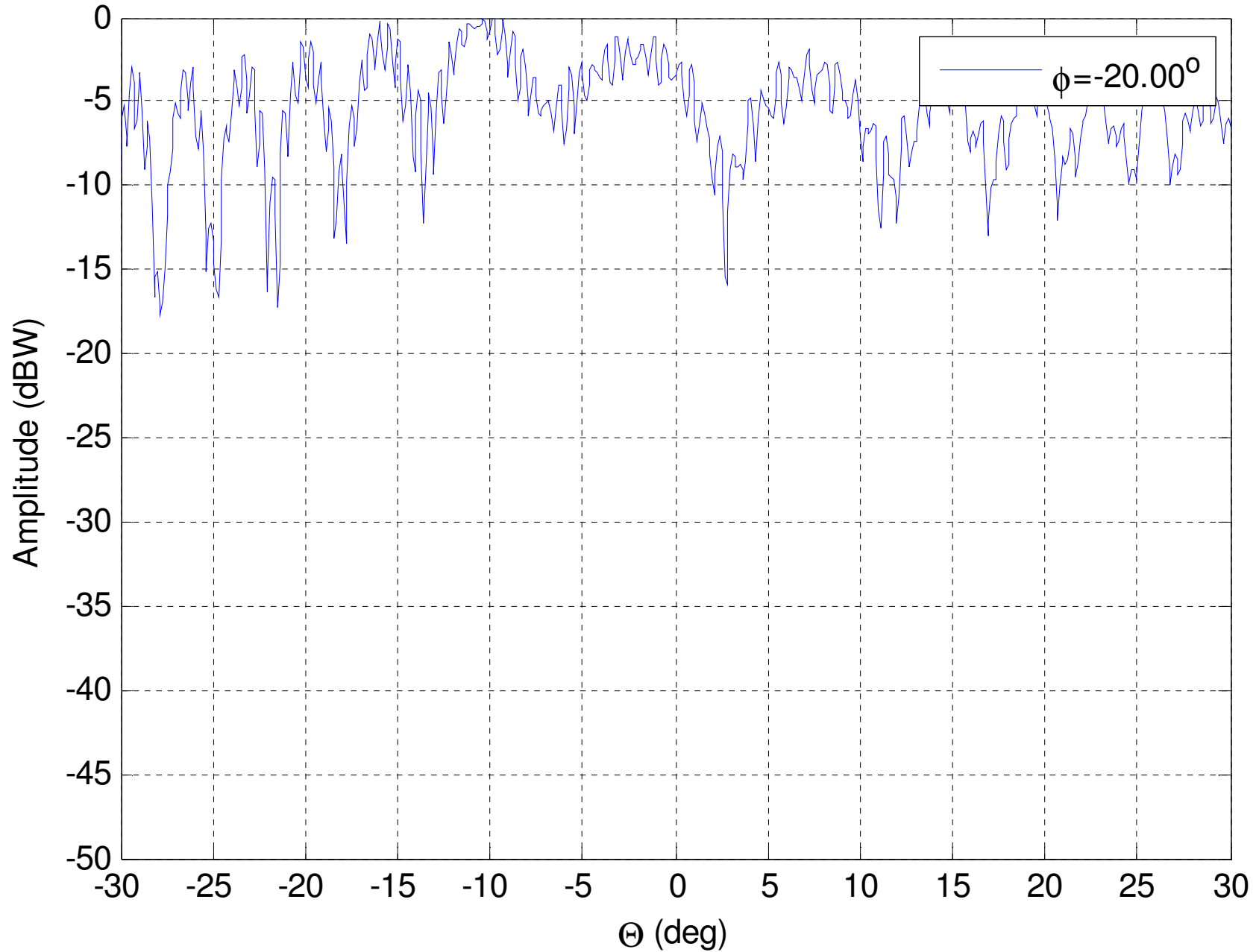
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--30.cut, Peak: -10.95 dBW, Date: 16-Dec-2011



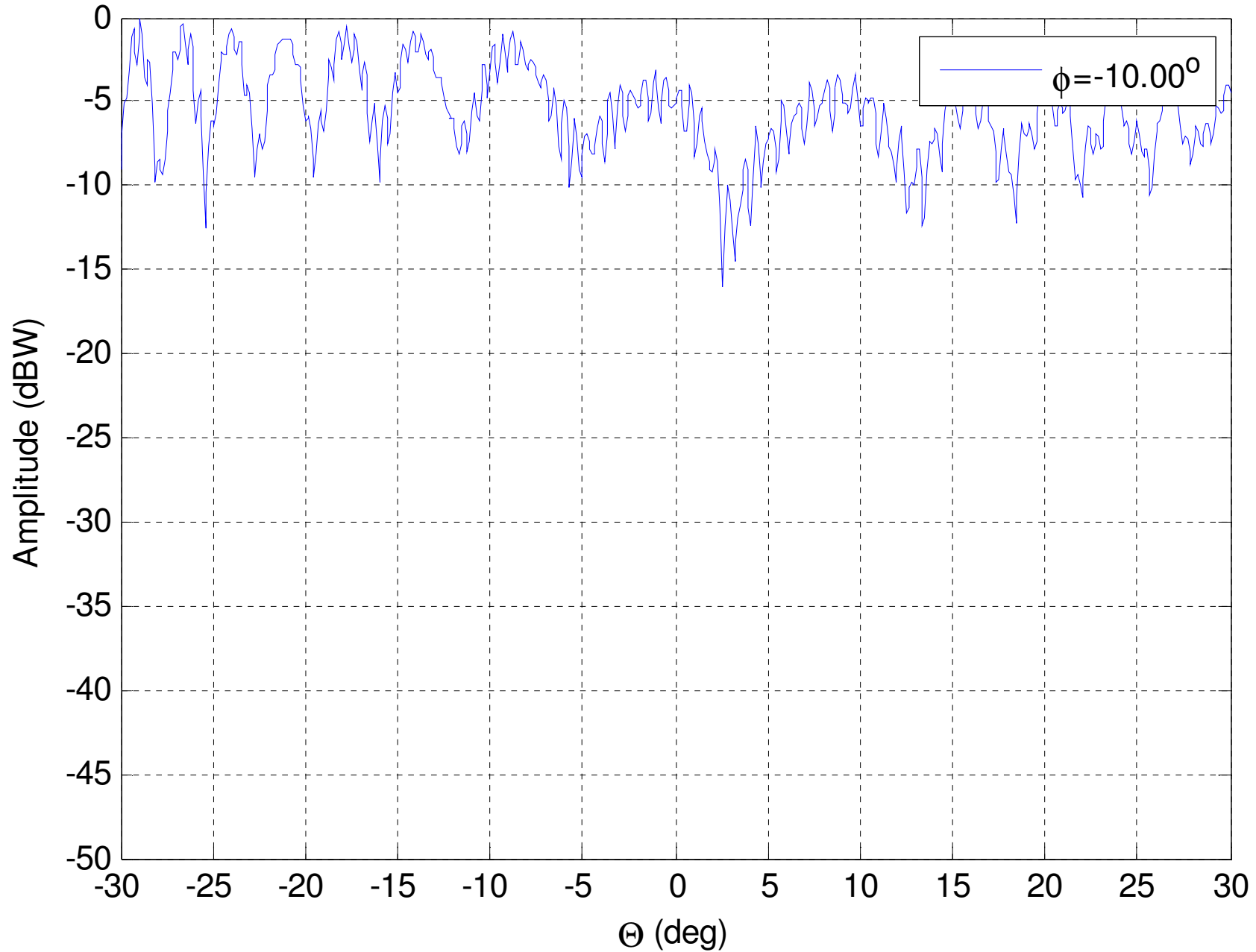
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--20.cut, Peak: -10.84 dBW, Date: 16-Dec-2011



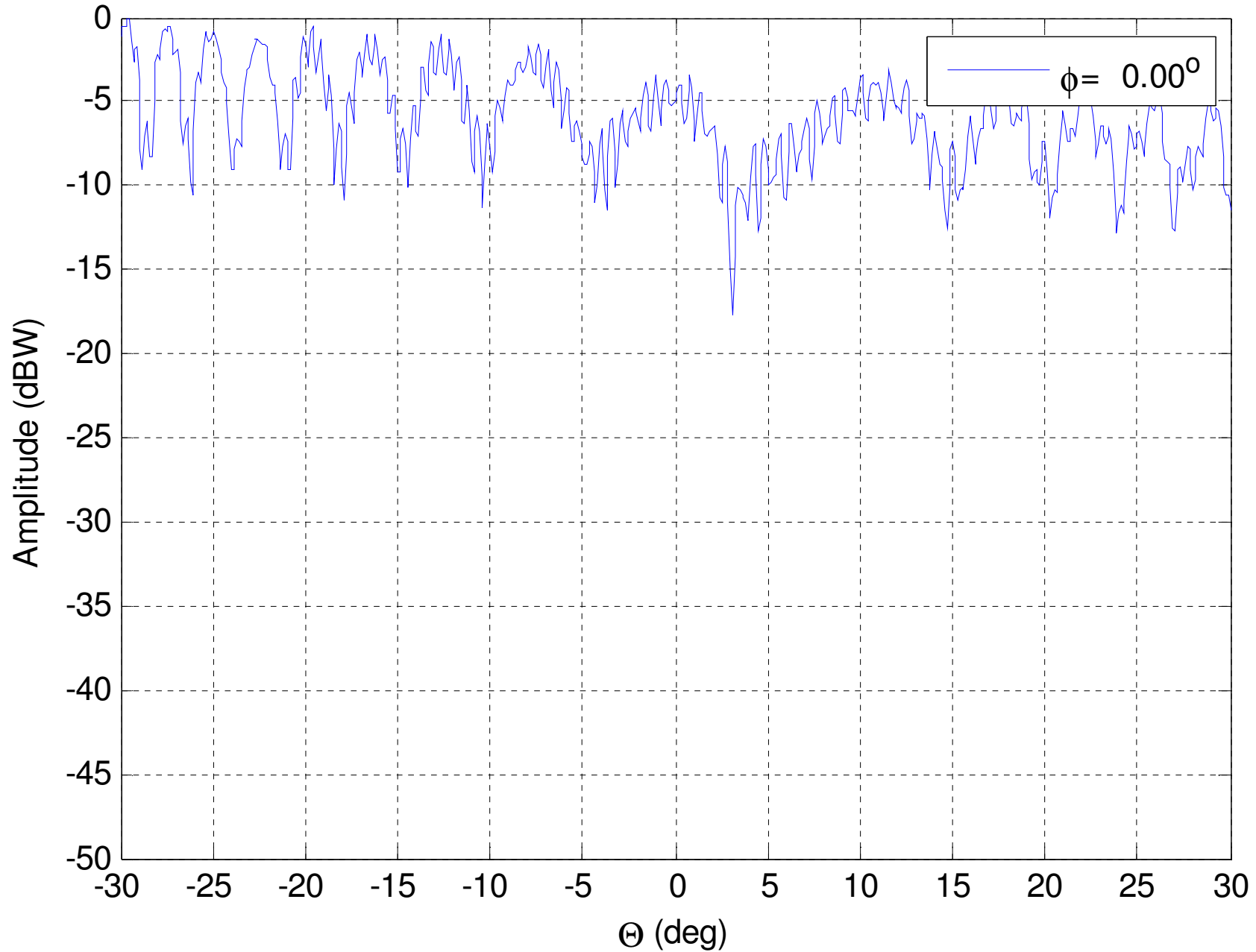
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--10.cut, Peak: -9.16 dBW, Date: 16-Dec-2011



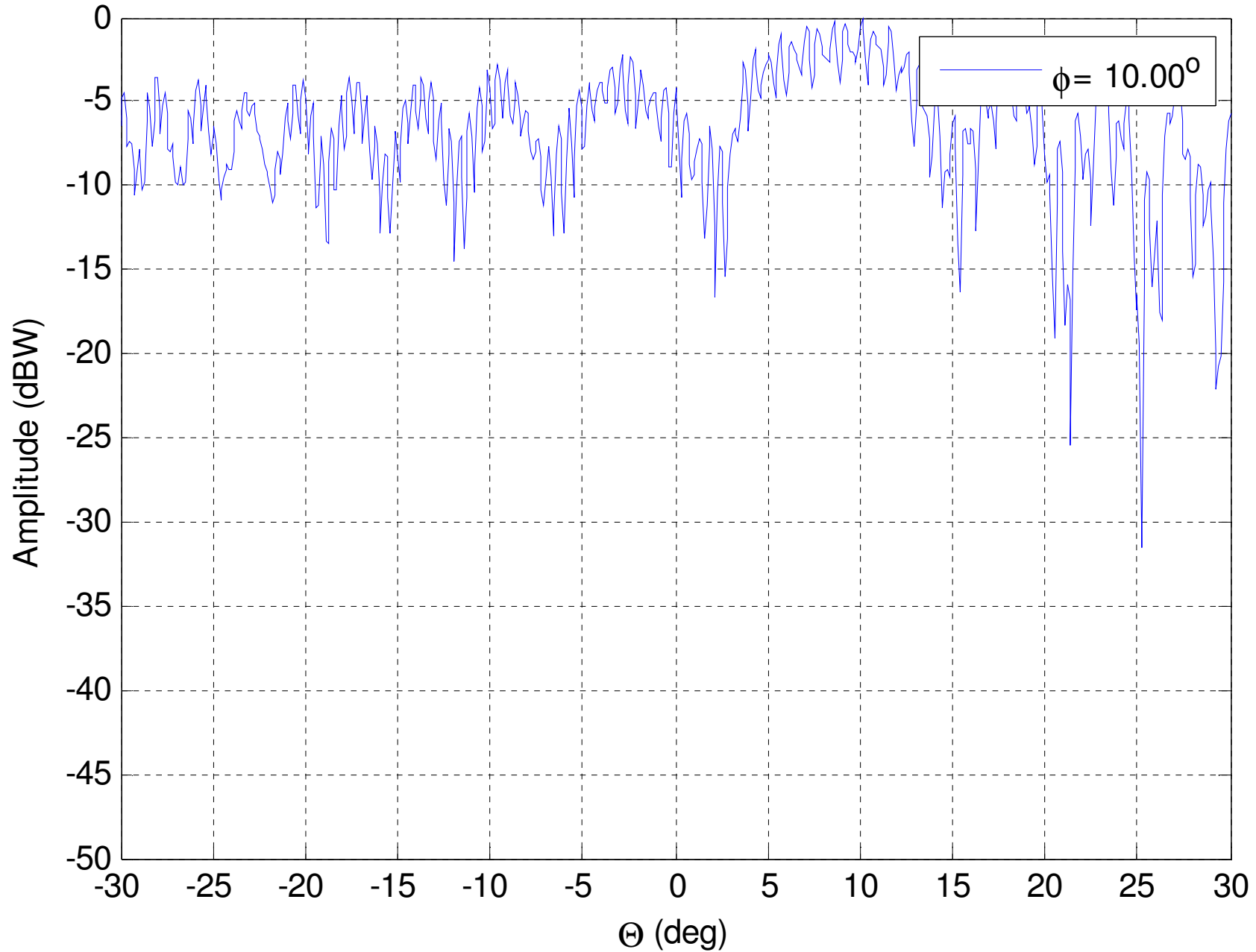
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-0.cut, Peak: -9.36 dBW, Date: 16-Dec-2011



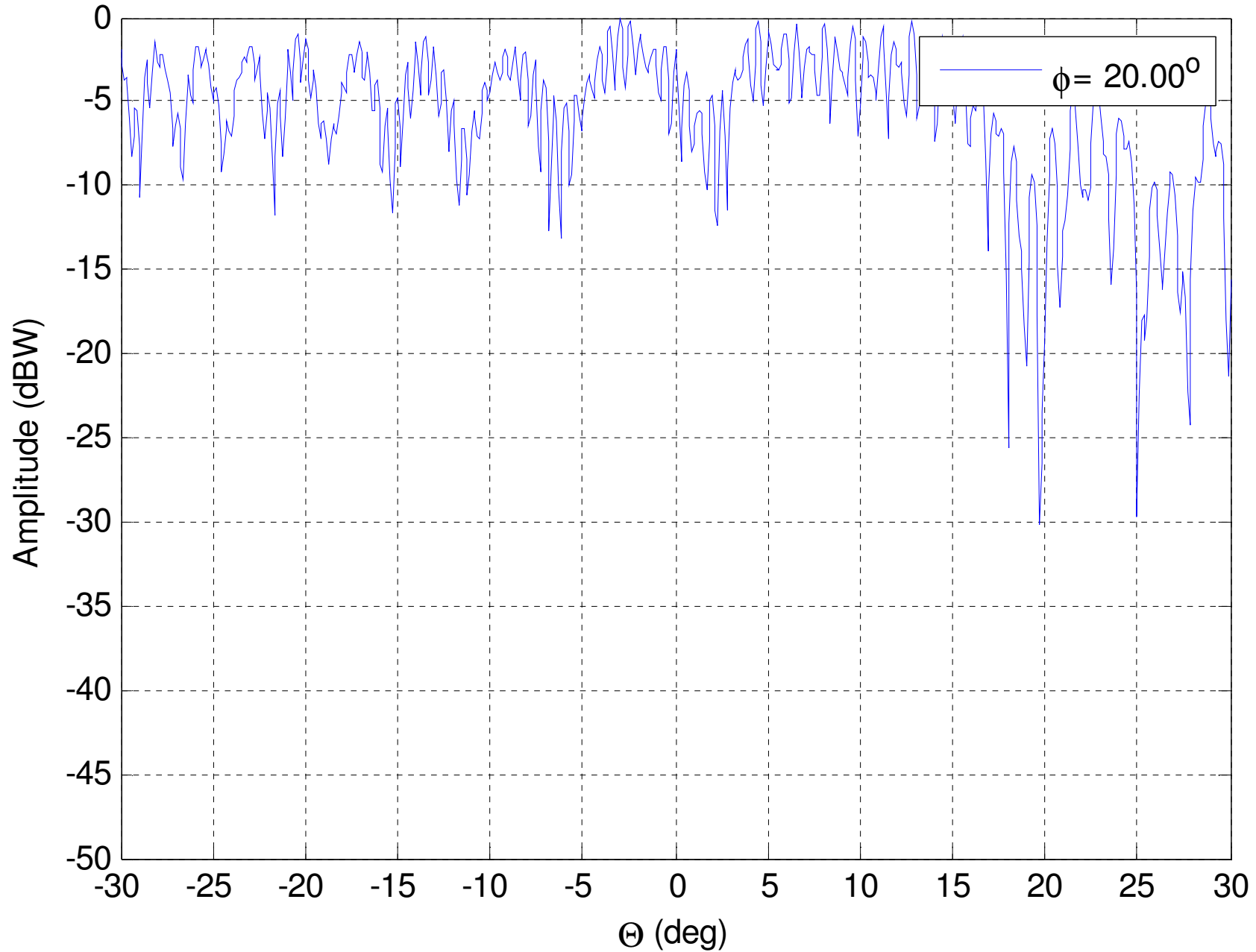
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-10.cut, Peak: -9.90 dBW, Date: 16-Dec-2011



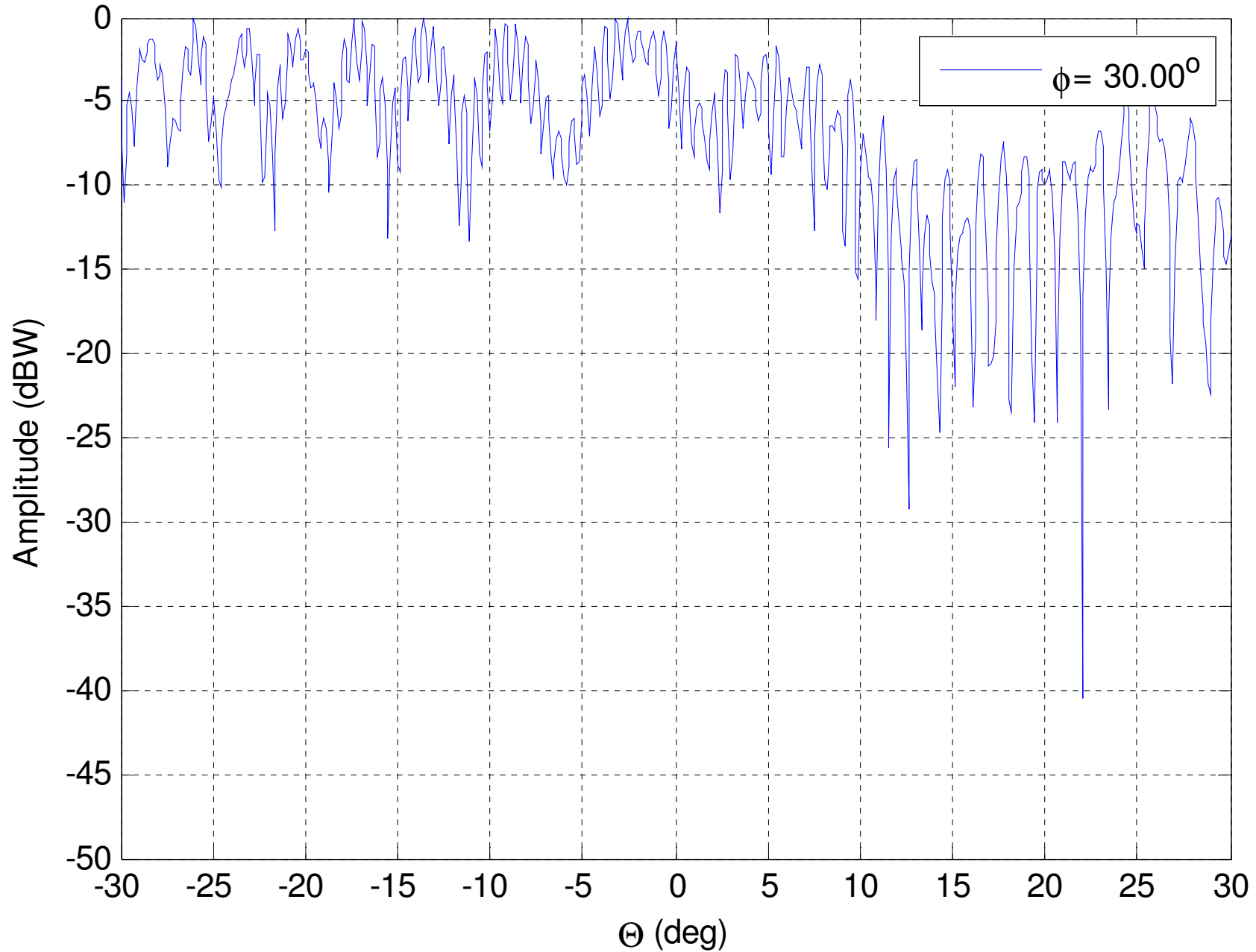
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-20.cut, Peak: -12.19 dBW, Date: 16-Dec-2011



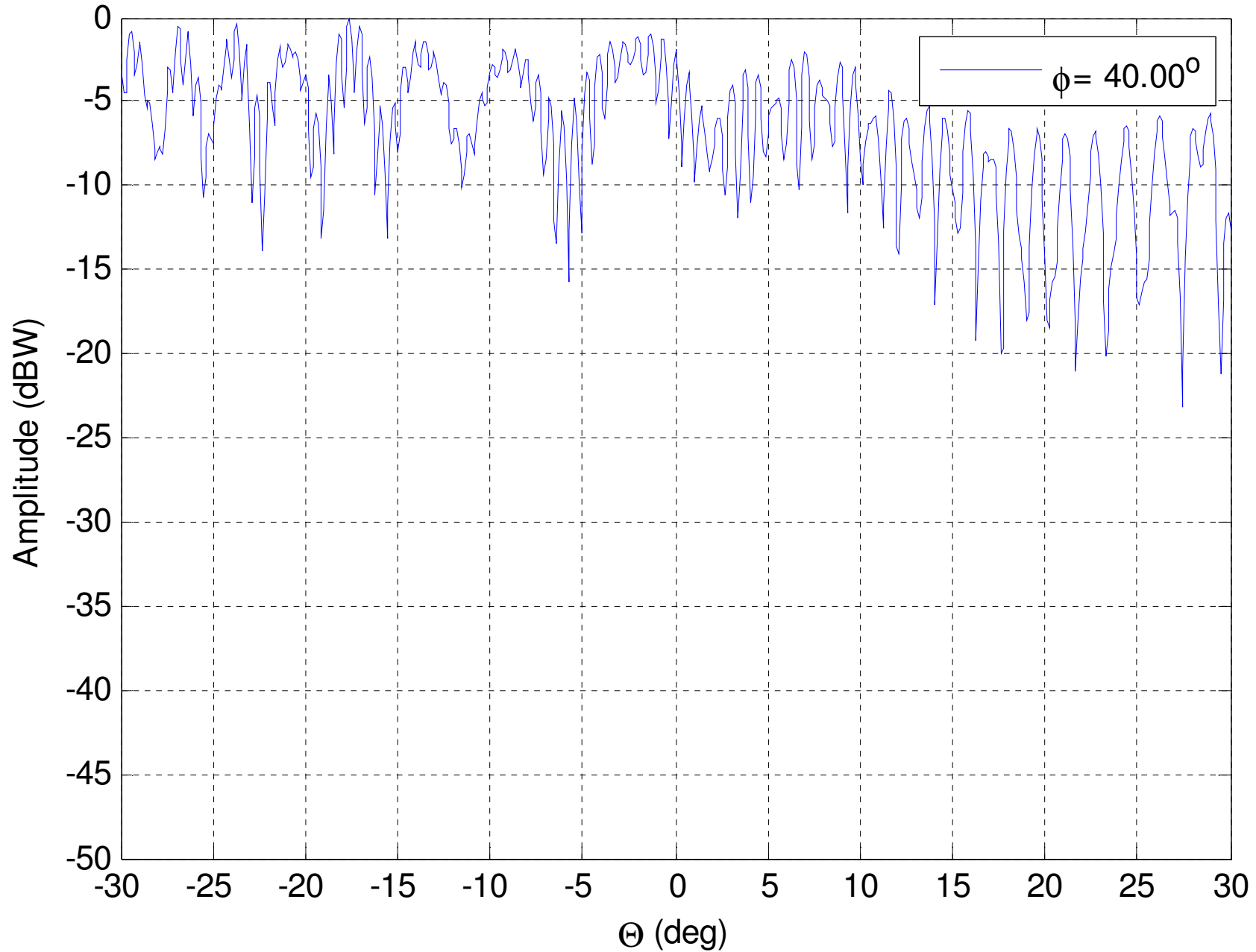
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-30.cut, Peak: -12.68 dBW, Date: 16-Dec-2011



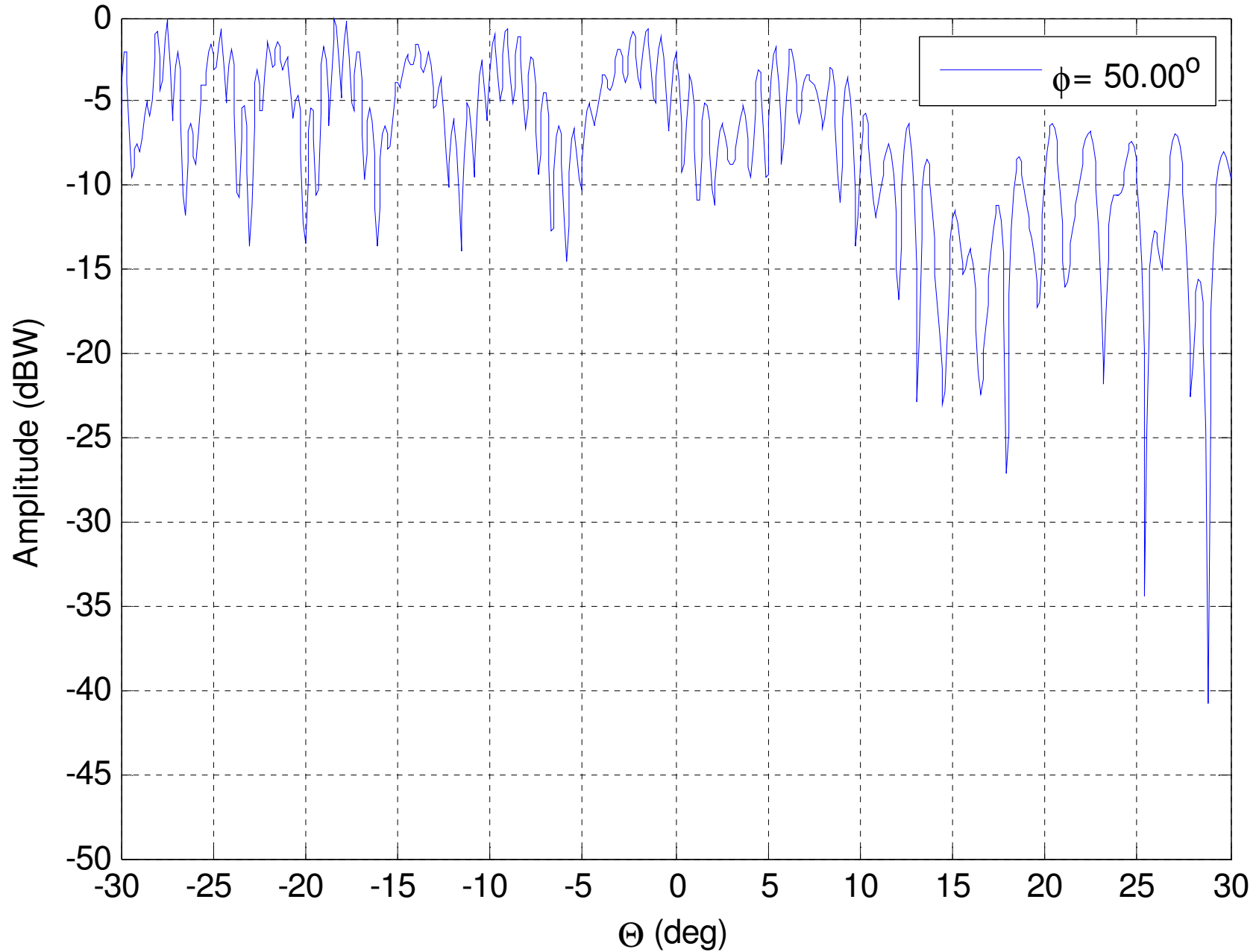
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-40.cut, Peak: -12.26 dBW, Date: 16-Dec-2011



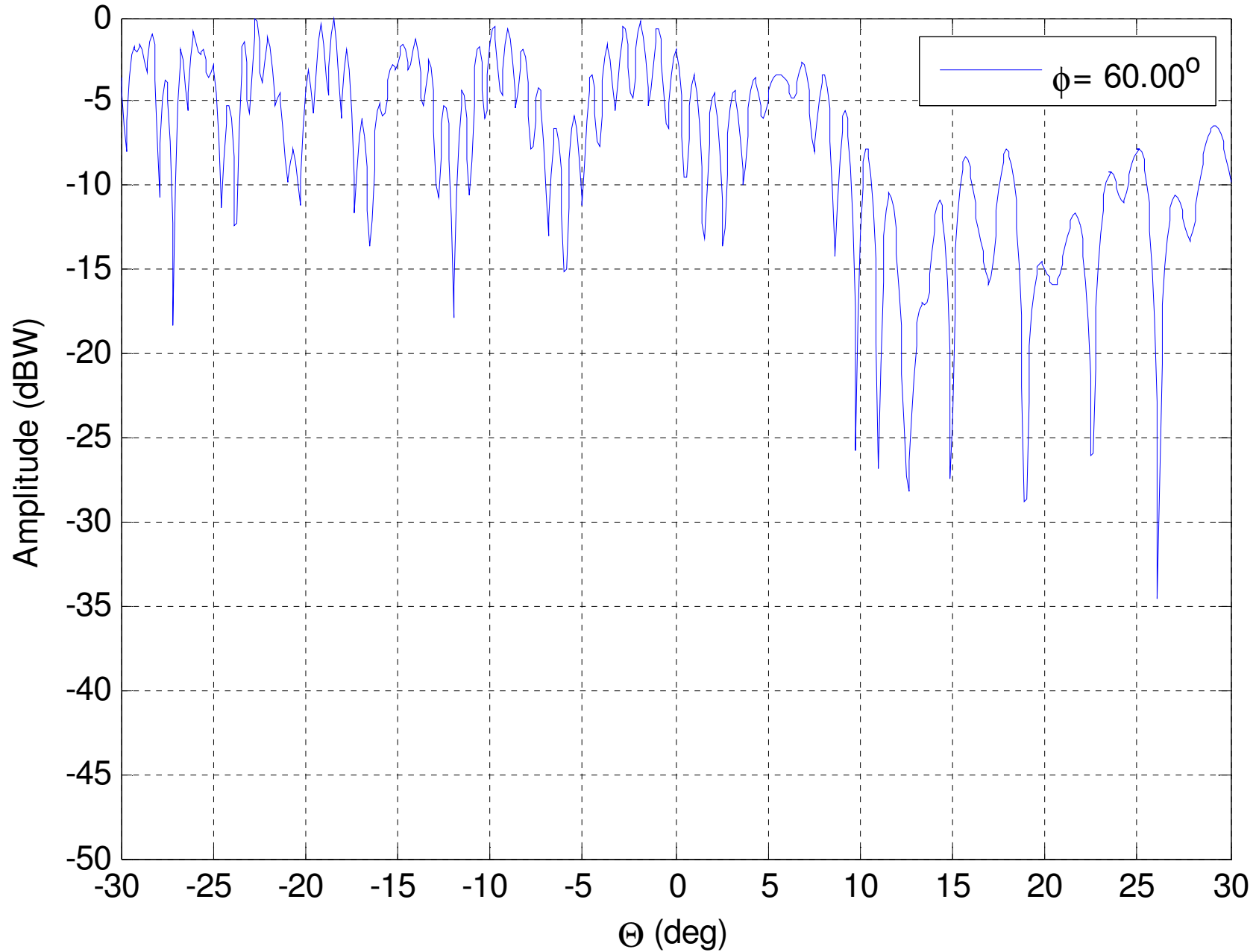
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-50.cut, Peak: -12.14 dBW, Date: 16-Dec-2011



Normalized pattern cuts - farfield

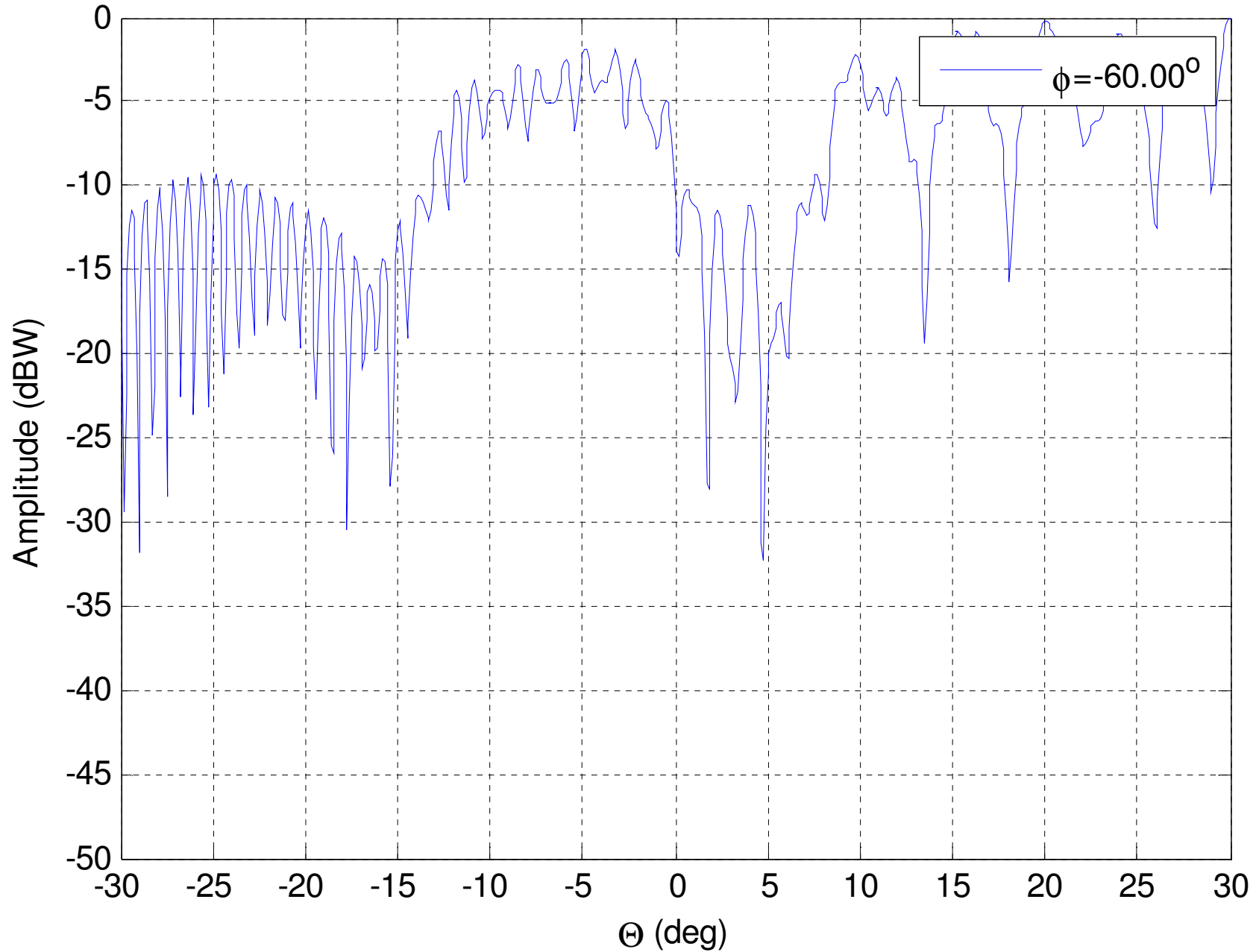
Input file: tx-17.5-lhcp-60.cut, Peak: -12.31 dBW, Date: 16-Dec-2011



RHCP at 17.7 GHz

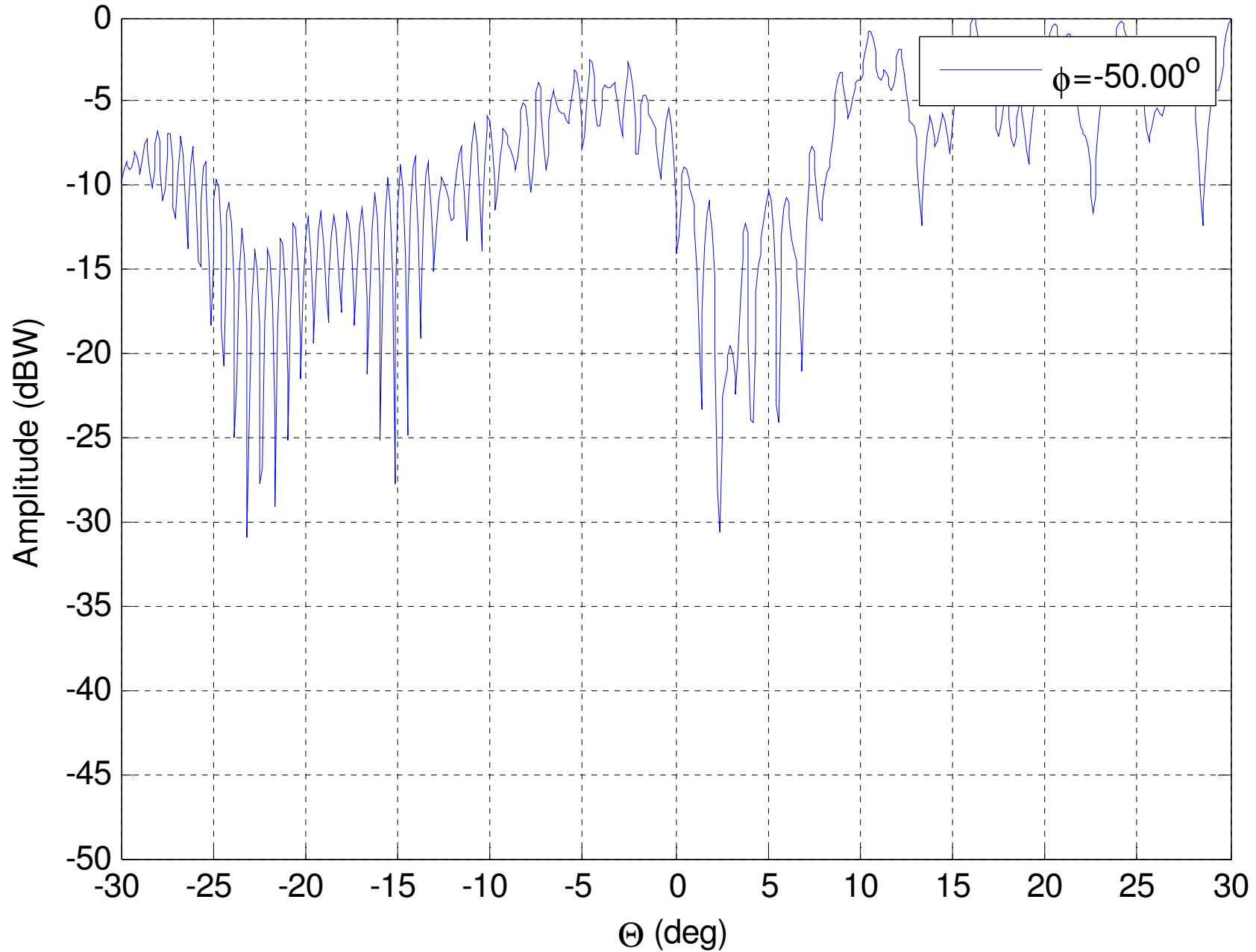
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--60.cut, Peak: -12.70 dBW, Date: 16-Dec-2011



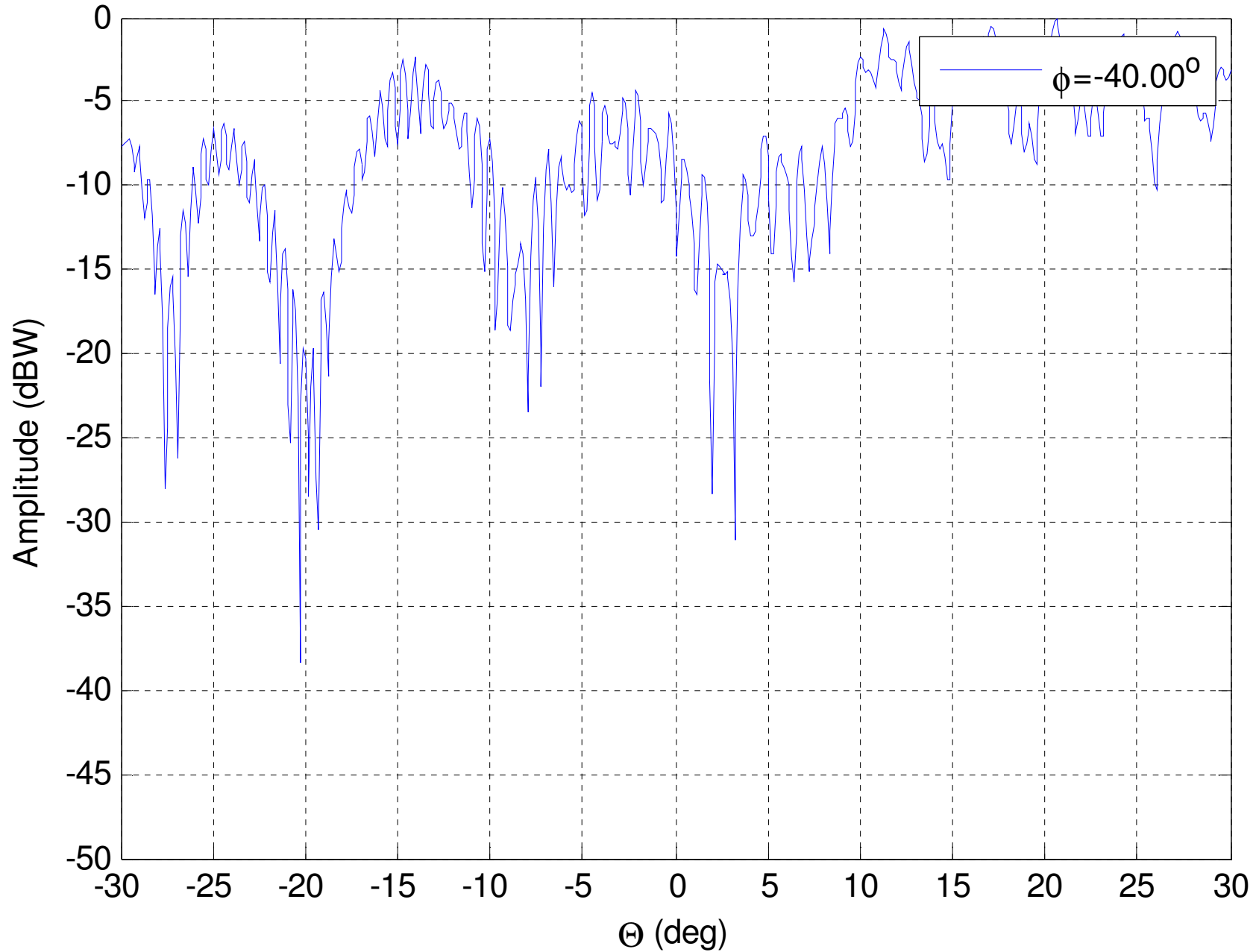
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--50.cut, Peak: -12.72 dBW, Date: 16-Dec-2011



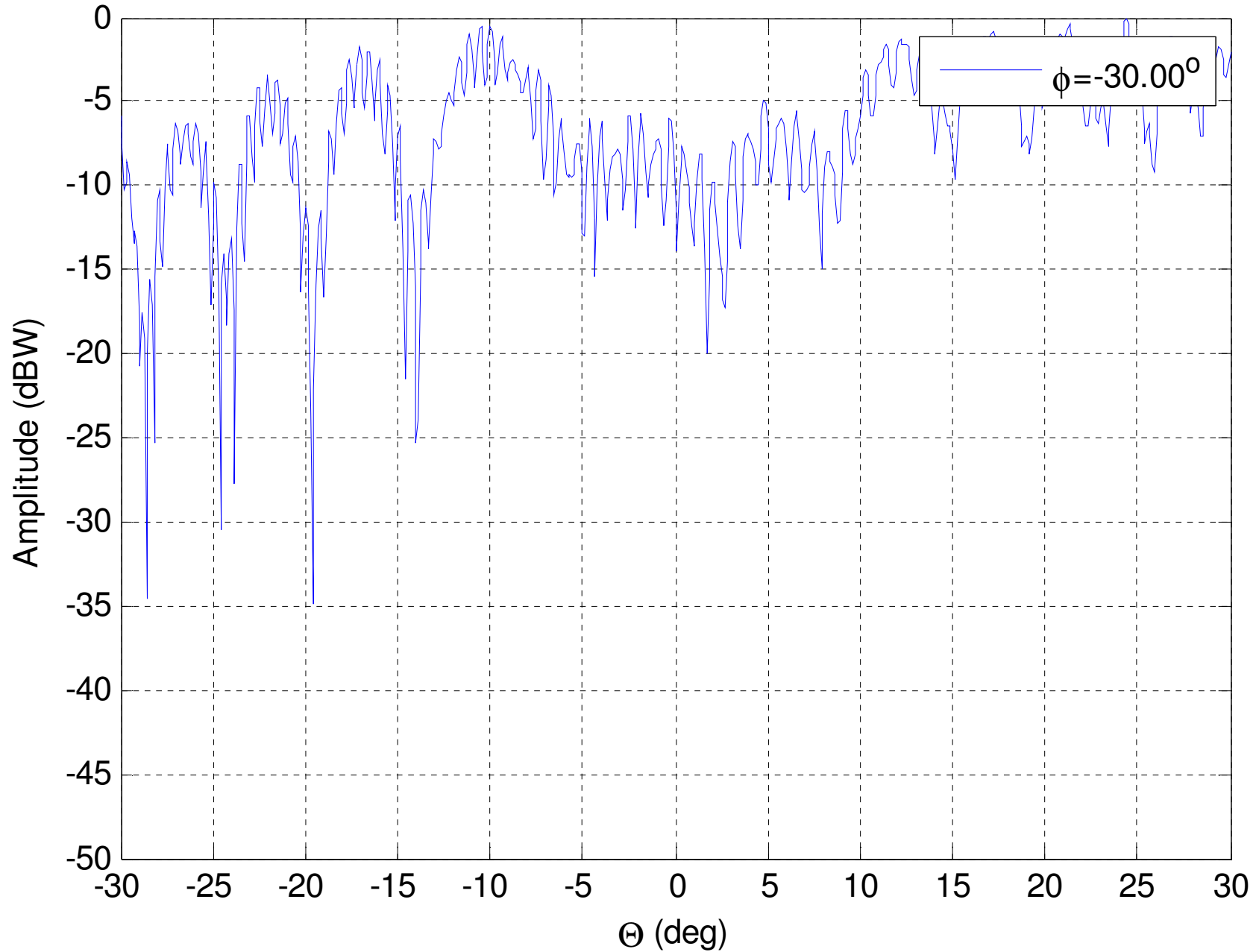
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--40.cut, Peak: -12.52 dBW, Date: 16-Dec-2011



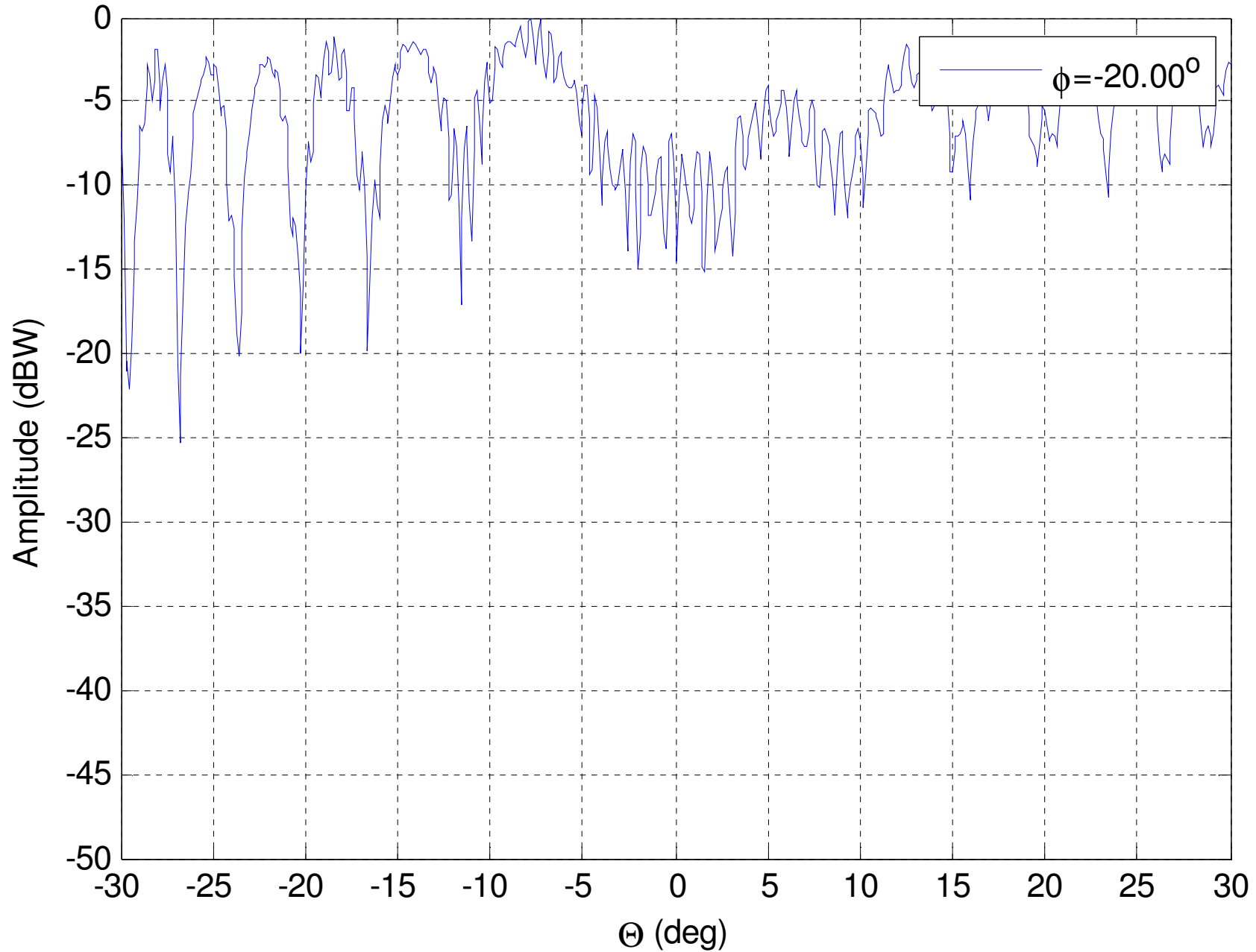
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--30.cut, Peak: -12.52 dBW, Date: 16-Dec-2011



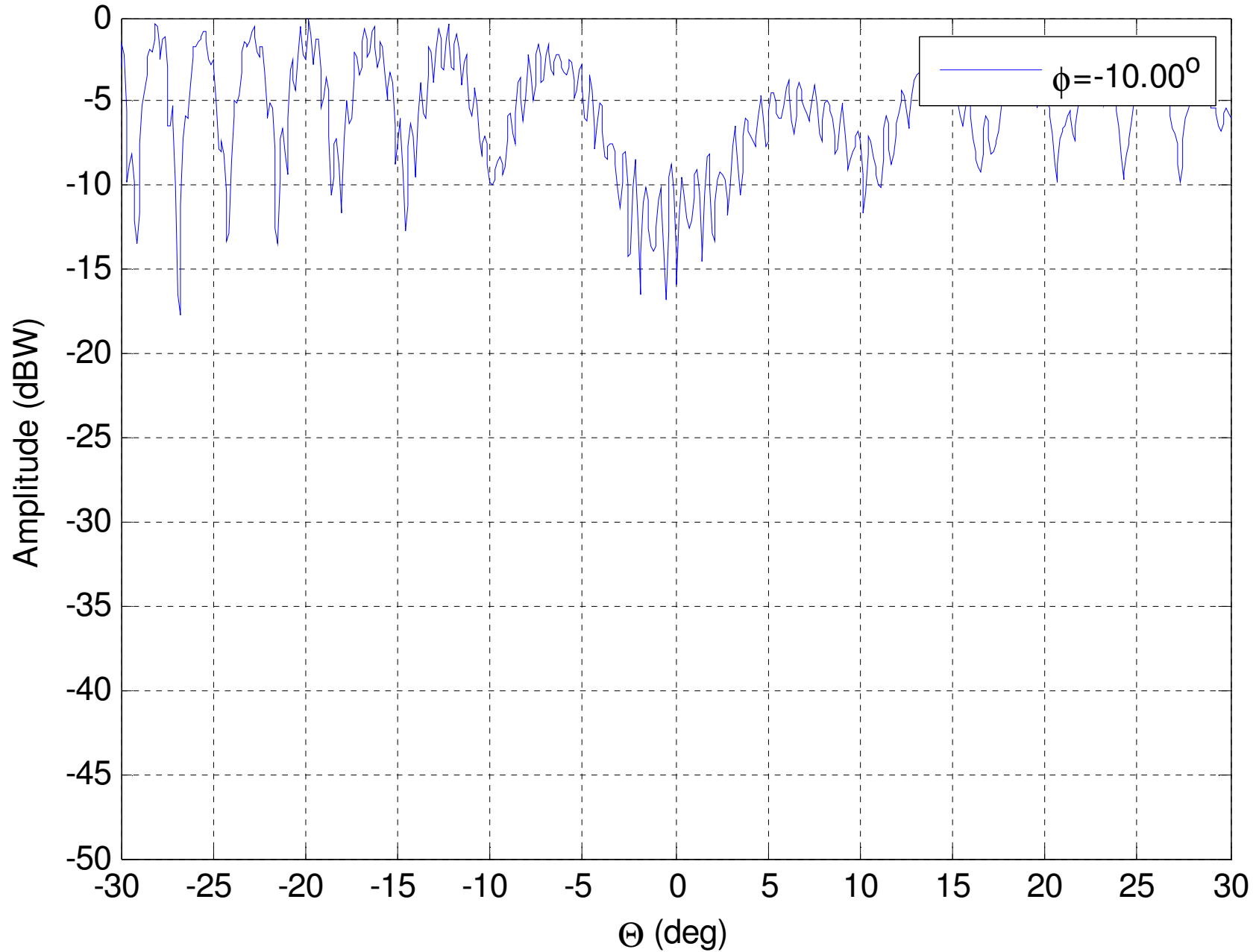
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--20.cut, Peak: -11.69 dBW, Date: 16-Dec-2011



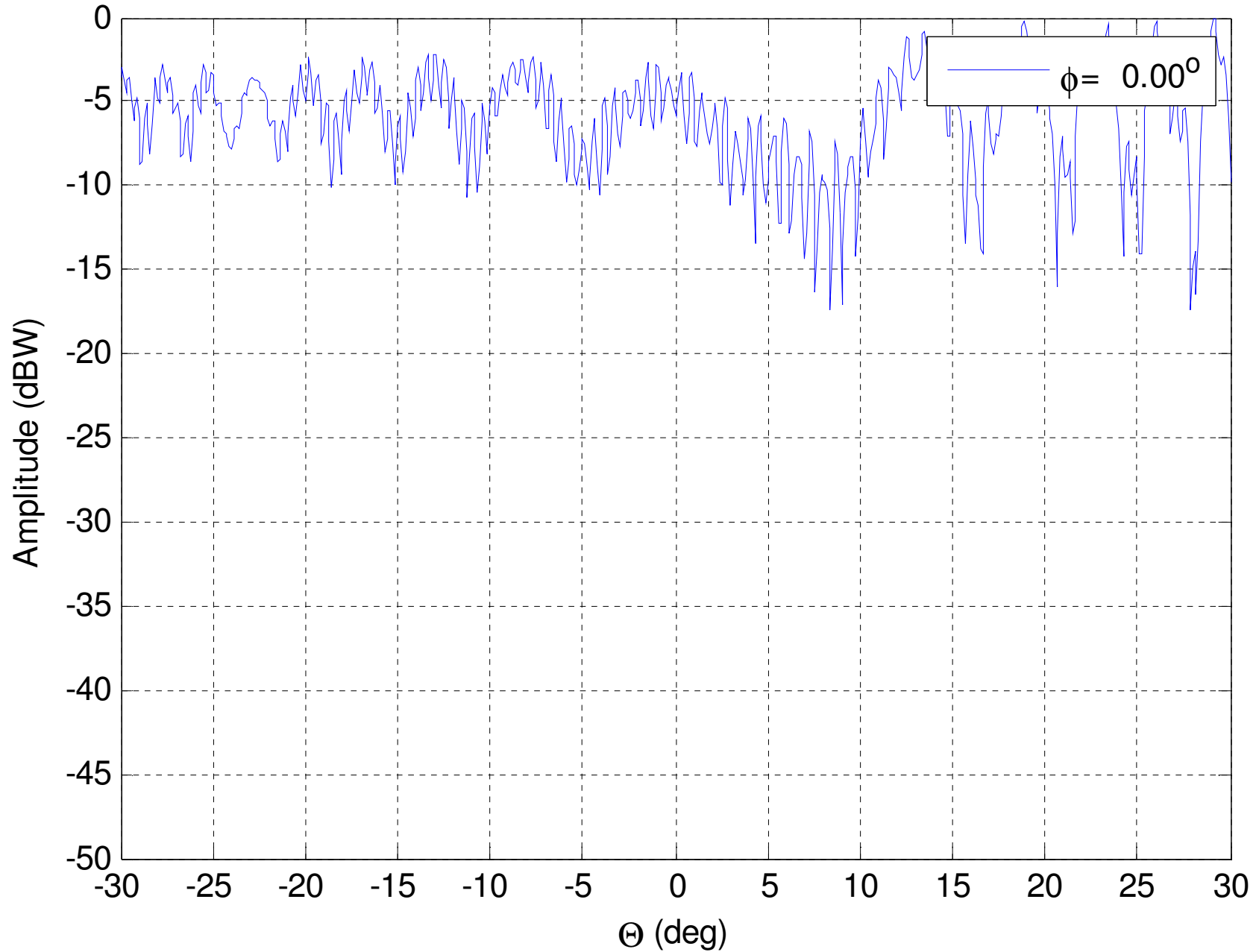
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--10.cut, Peak: -10.01 dBW, Date: 16-Dec-2011



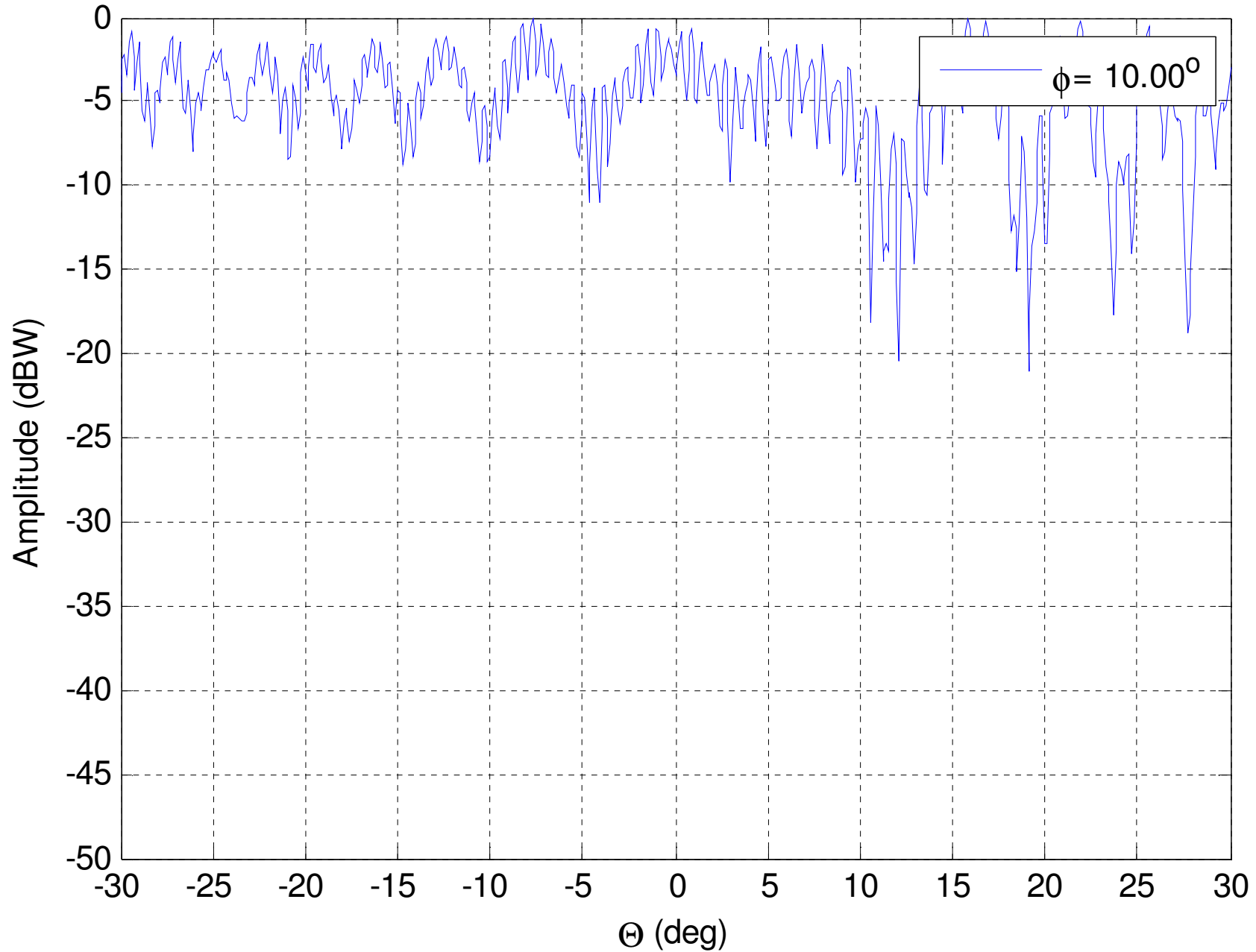
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-0.cut, Peak: -10.05 dBW, Date: 16-Dec-2011



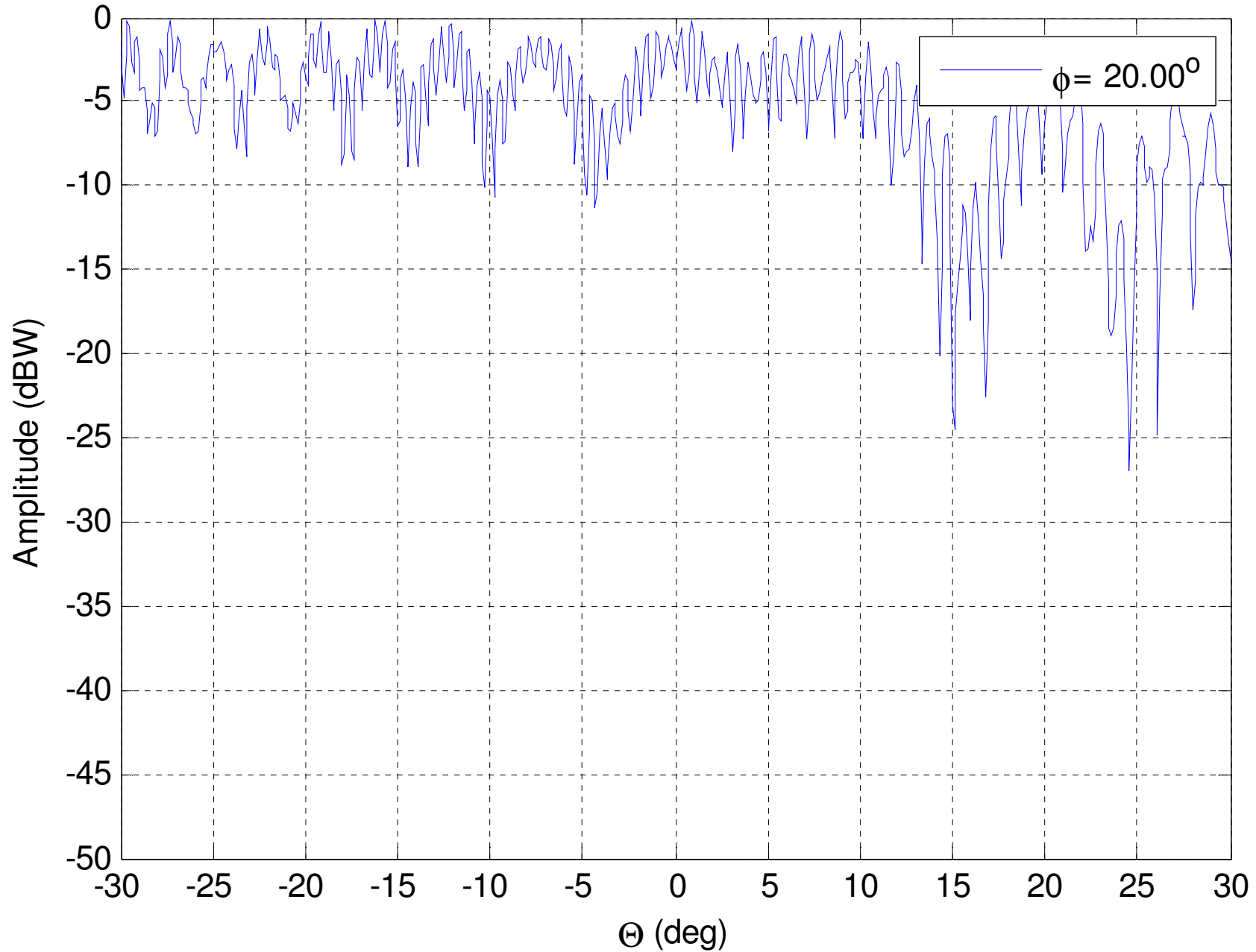
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-10.cut, Peak: -12.48 dBW, Date: 16-Dec-2011



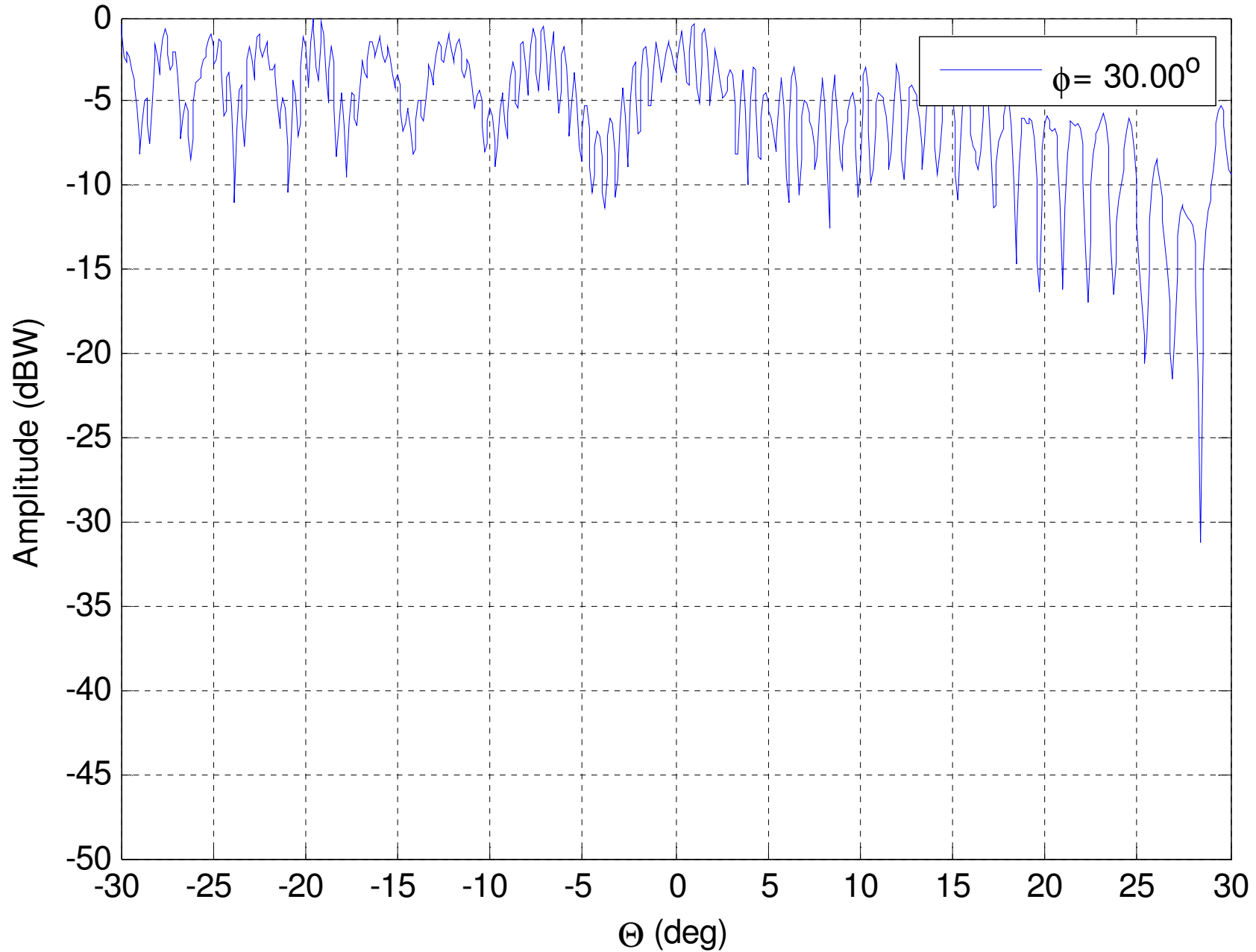
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-20.cut, Peak: -12.73 dBW, Date: 16-Dec-2011



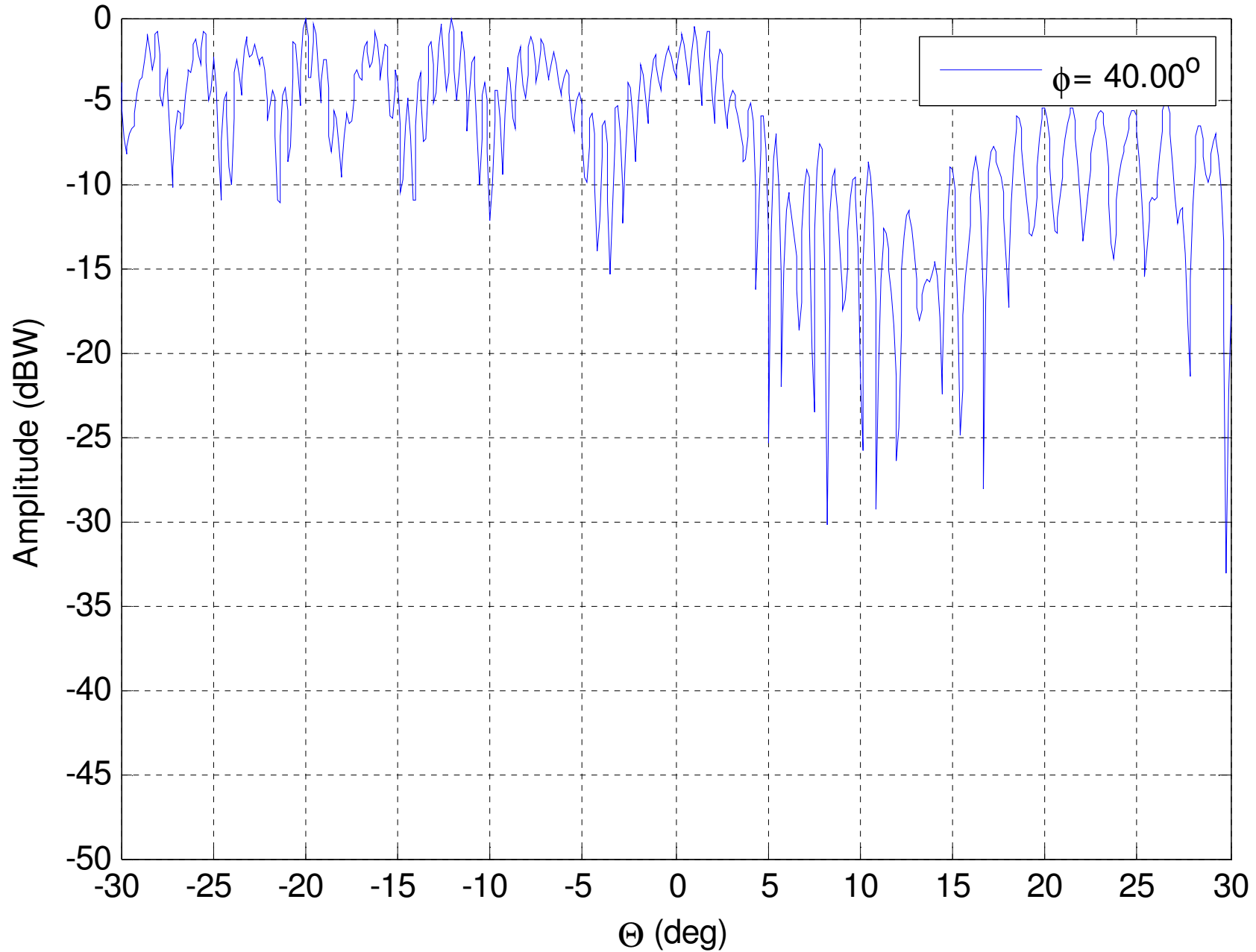
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-30.cut, Peak: -12.56 dBW, Date: 16-Dec-2011



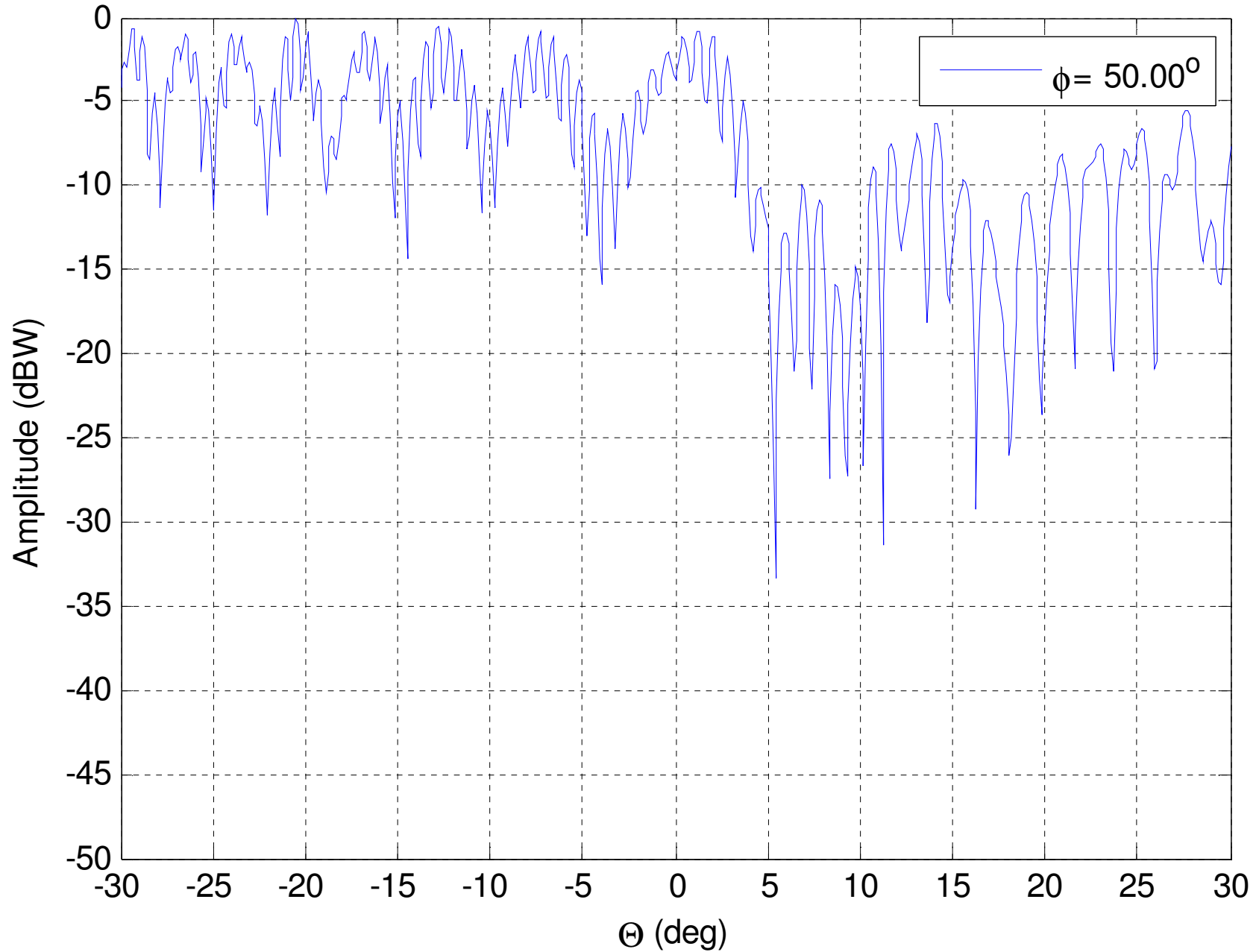
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-40.cut, Peak: -12.33 dBW, Date: 16-Dec-2011



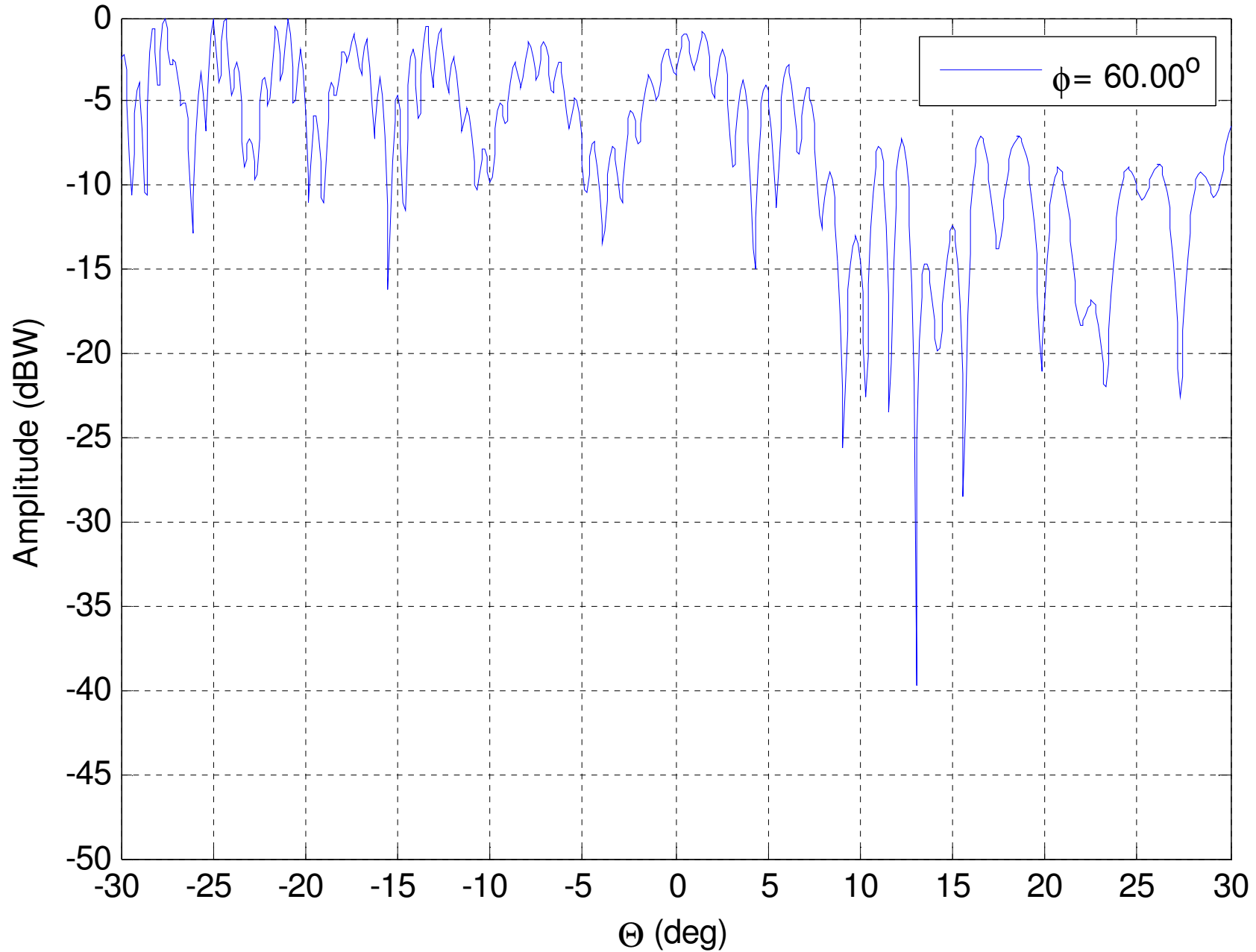
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-50.cut, Peak: -12.16 dBW, Date: 16-Dec-2011



Normalized pattern cuts - farfield

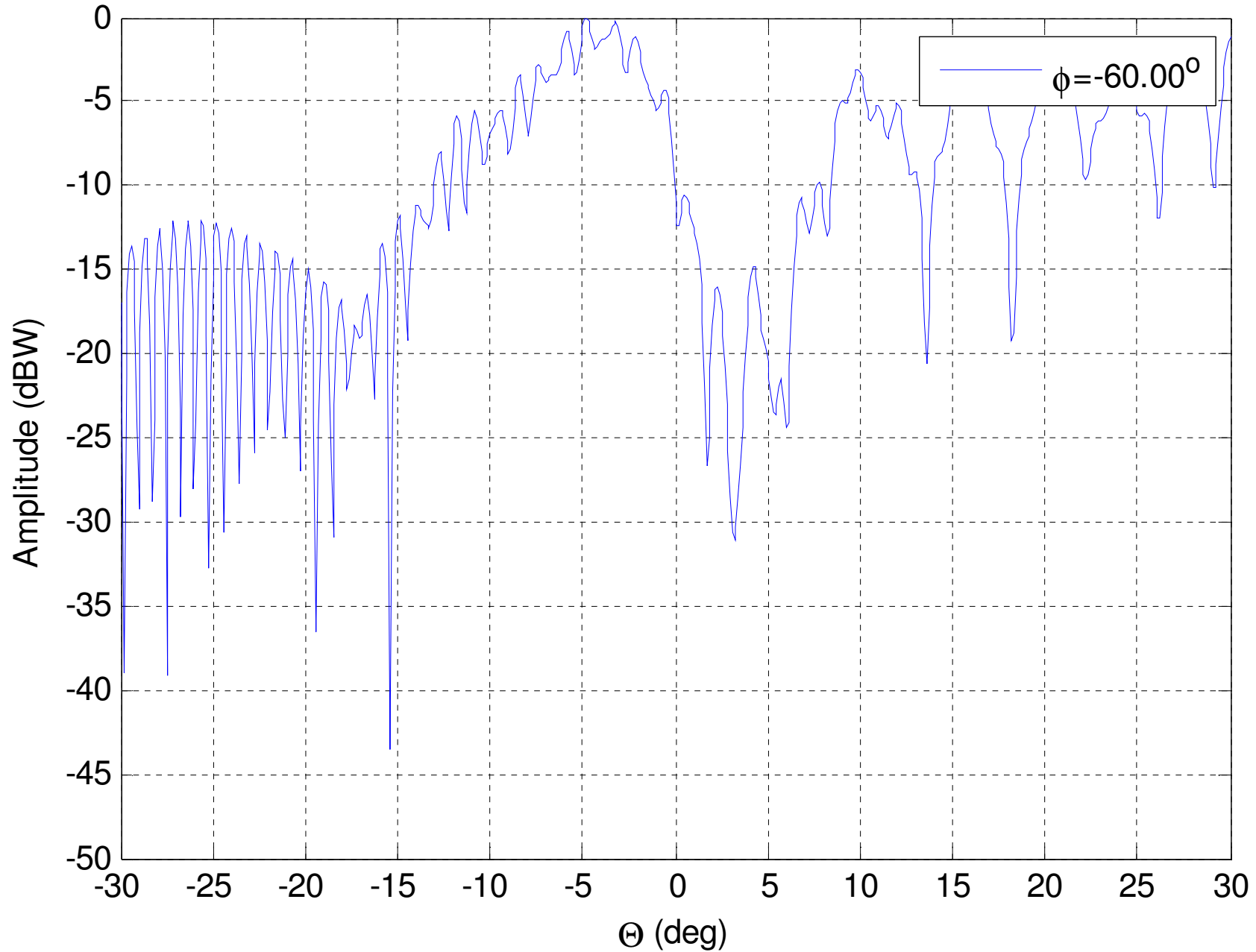
Input file: tx-17.7-rhcp-60.cut, Peak: -12.44 dBW, Date: 16-Dec-2011



LHCP at 17.7 GHz

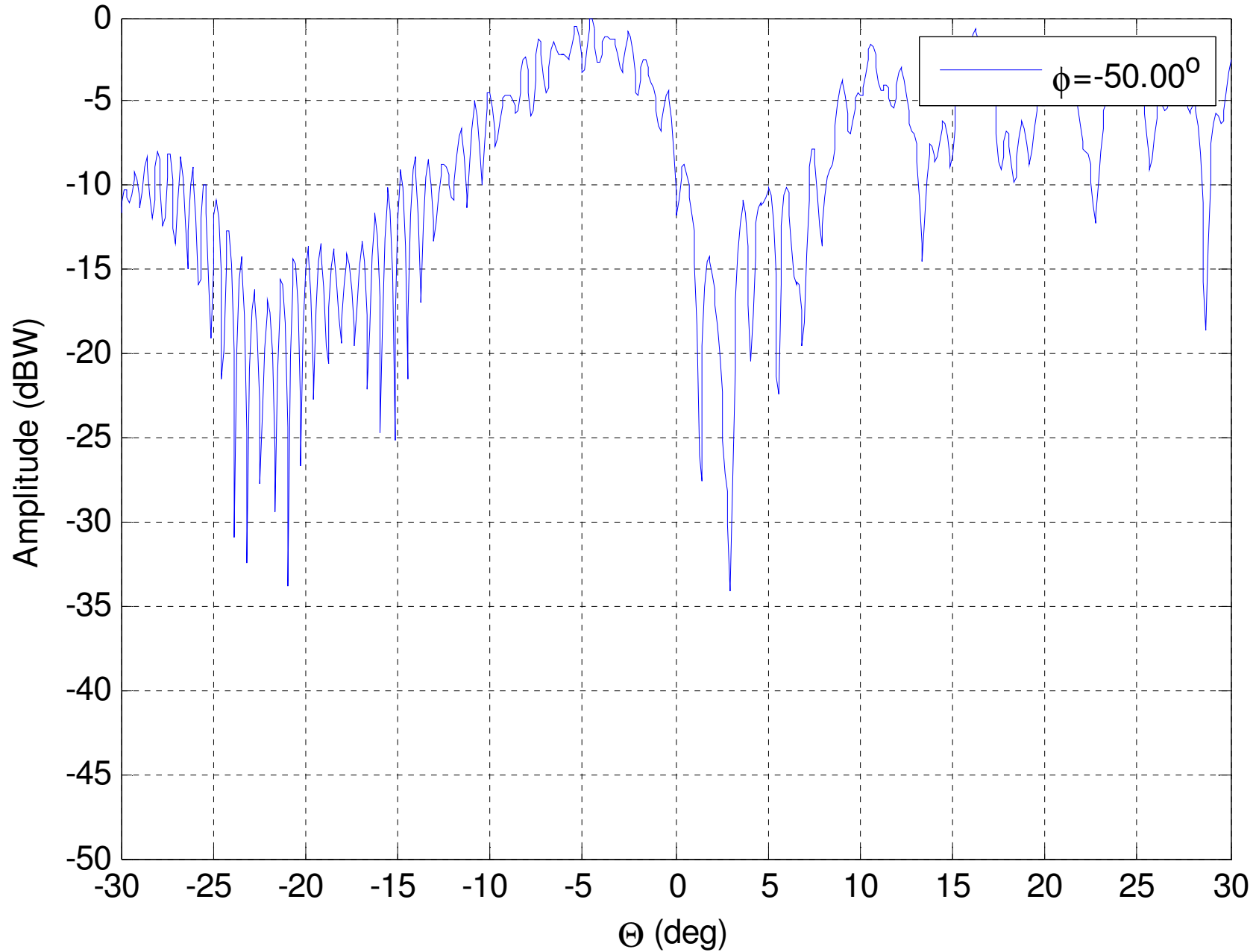
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--60.cut, Peak: -11.50 dBW, Date: 16-Dec-2011



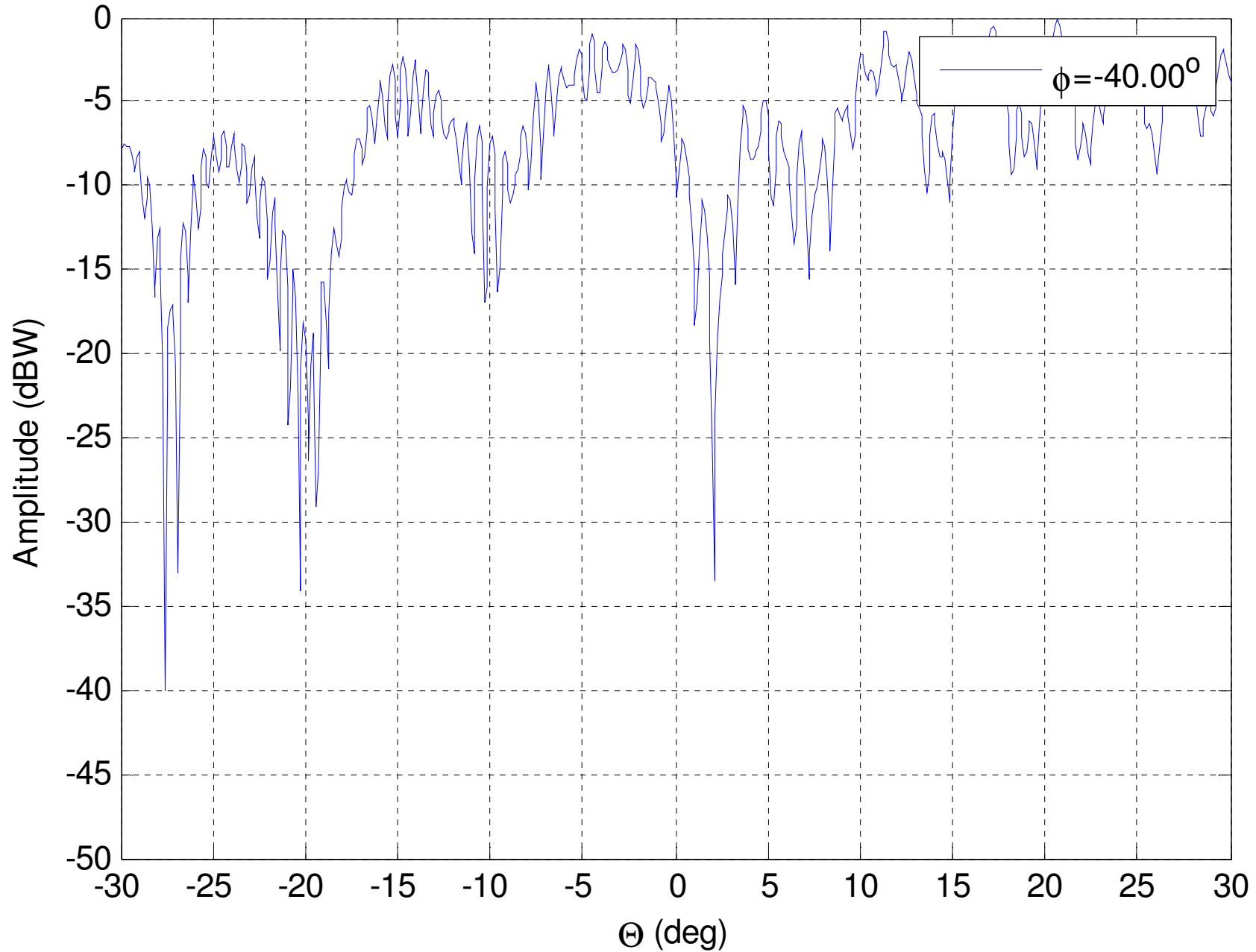
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--50.cut, Peak: -12.04 dBW, Date: 16-Dec-2011



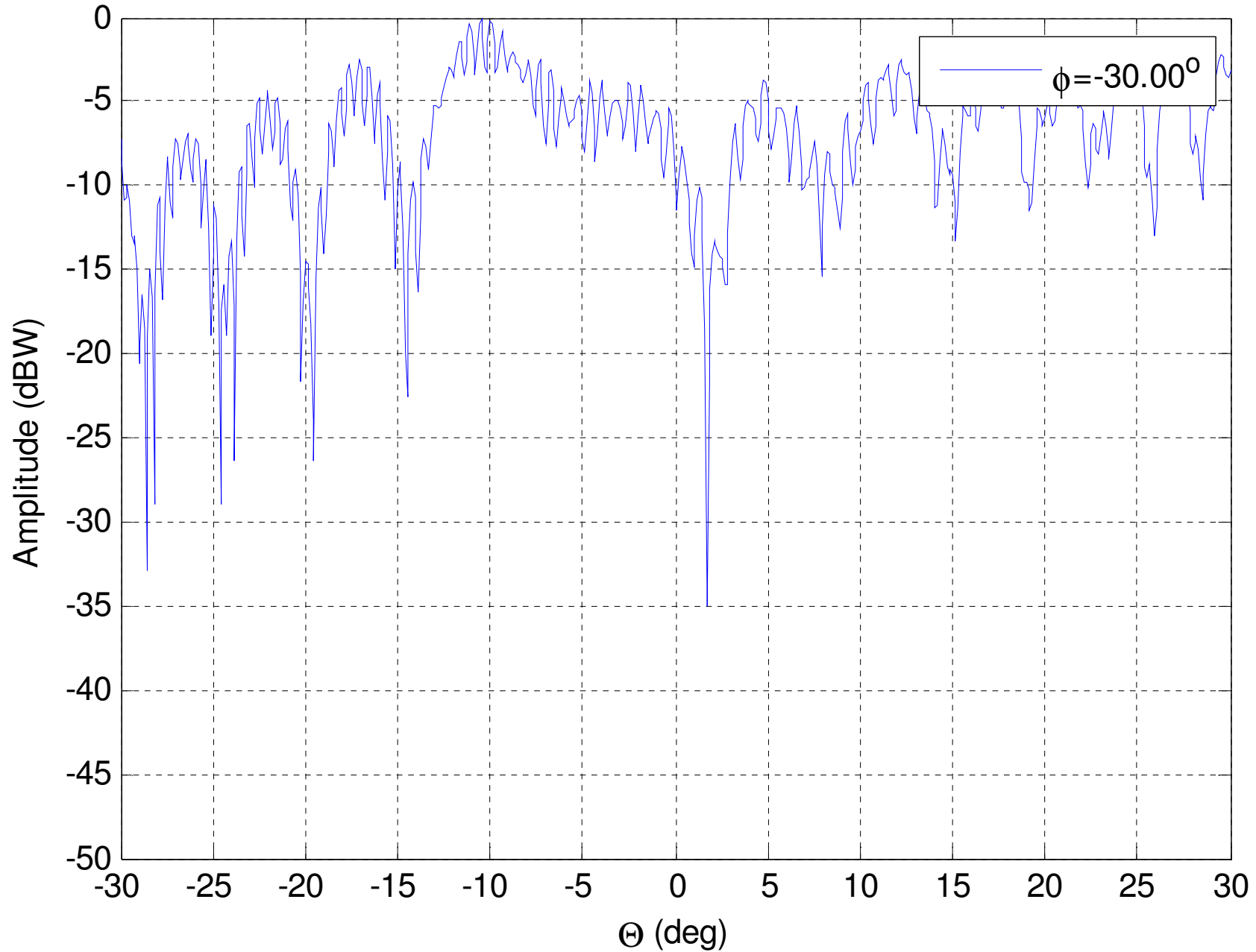
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--40.cut, Peak: -12.74 dBW, Date: 16-Dec-2011



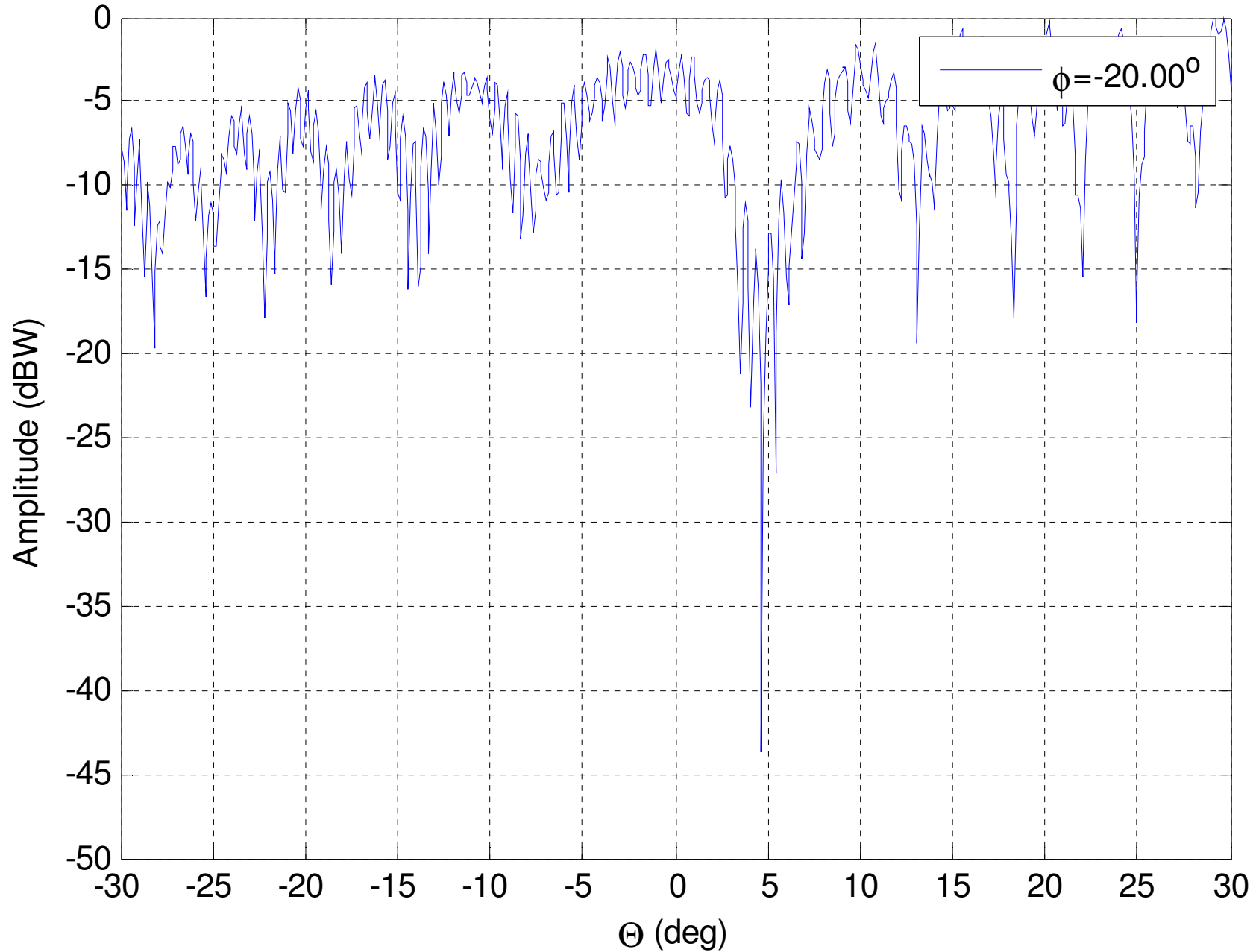
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--30.cut, Peak: -11.65 dBW, Date: 16-Dec-2011



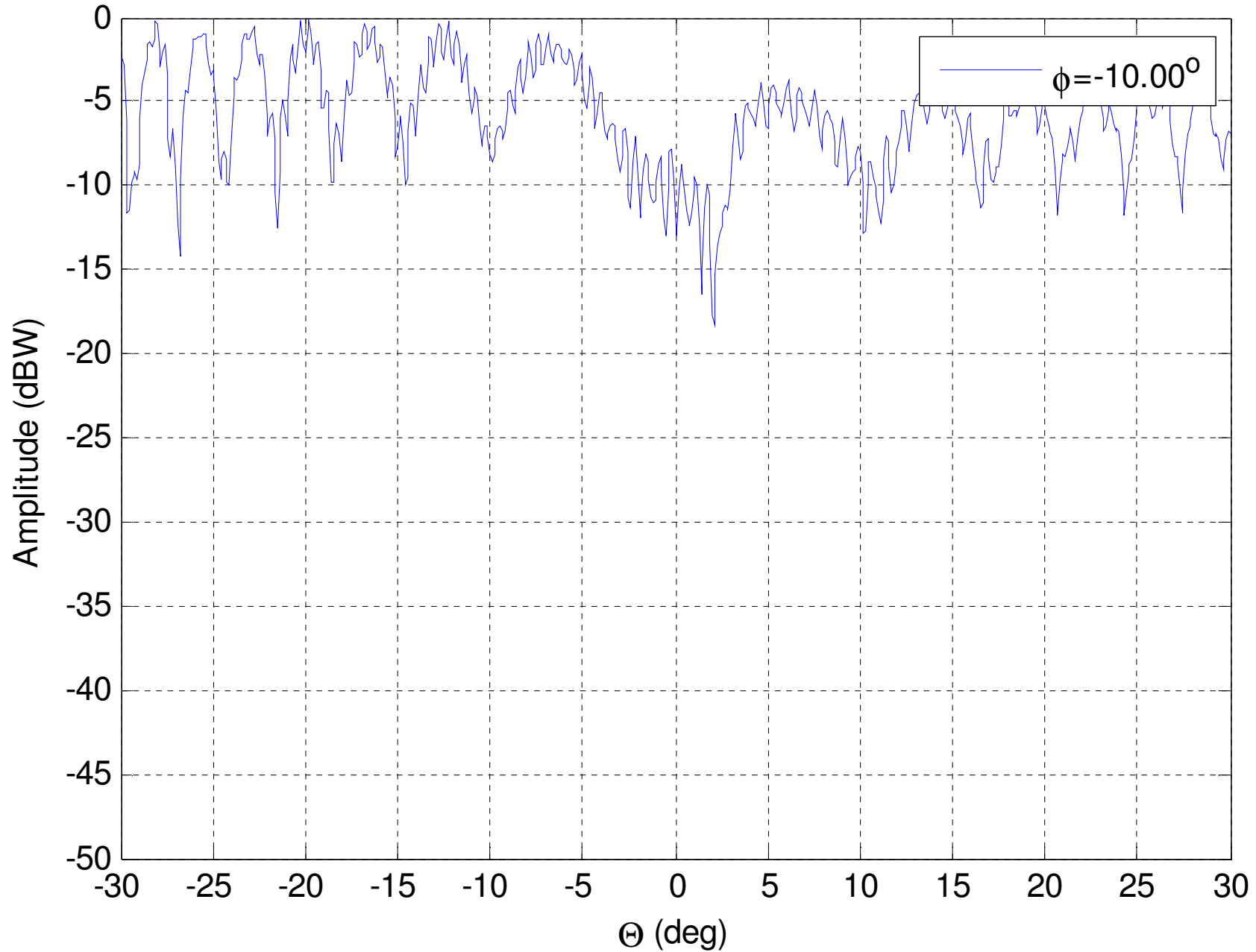
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--20.cut, Peak: -10.86 dBW, Date: 16-Dec-2011



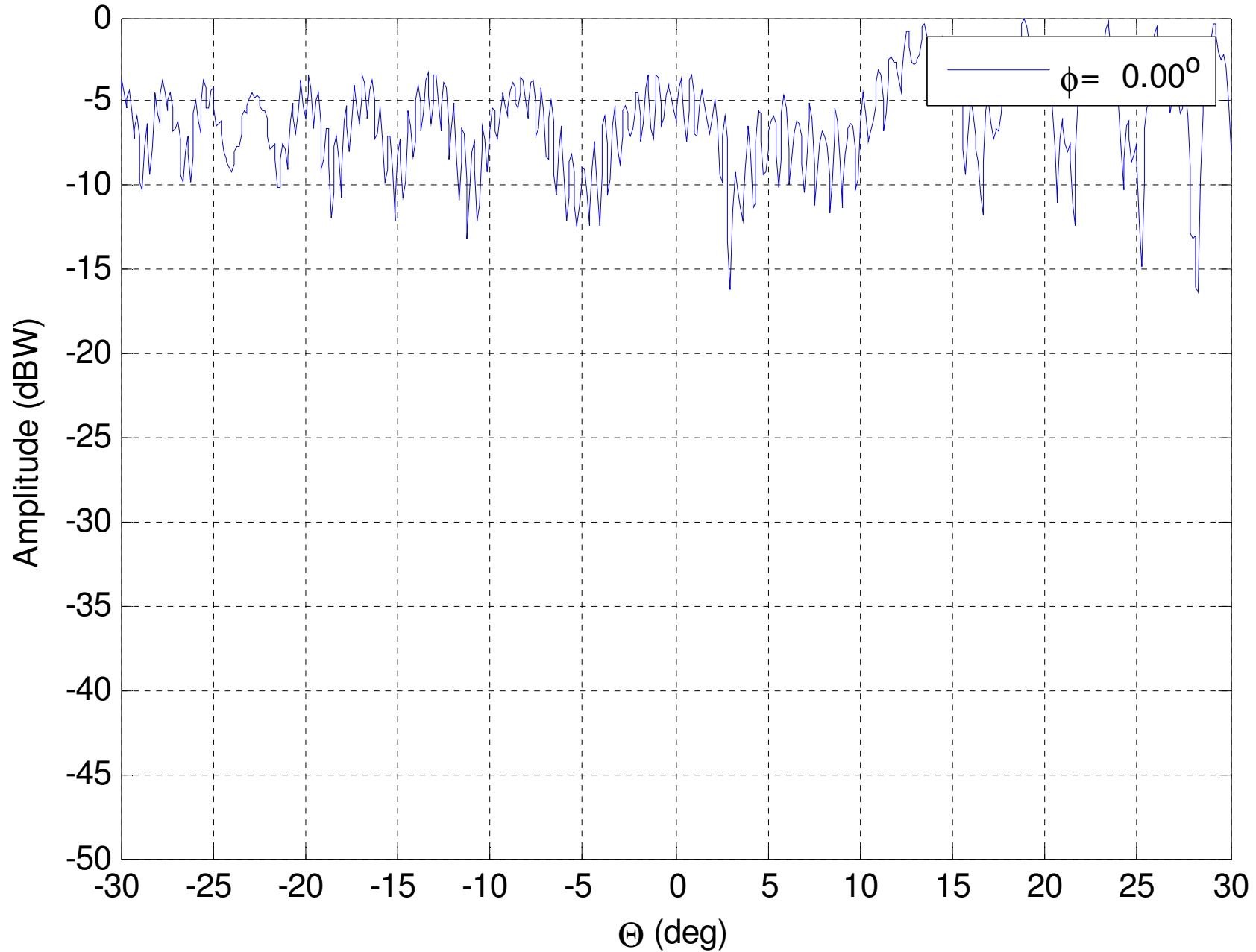
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--10.cut, Peak: -9.70 dBW, Date: 16-Dec-2011



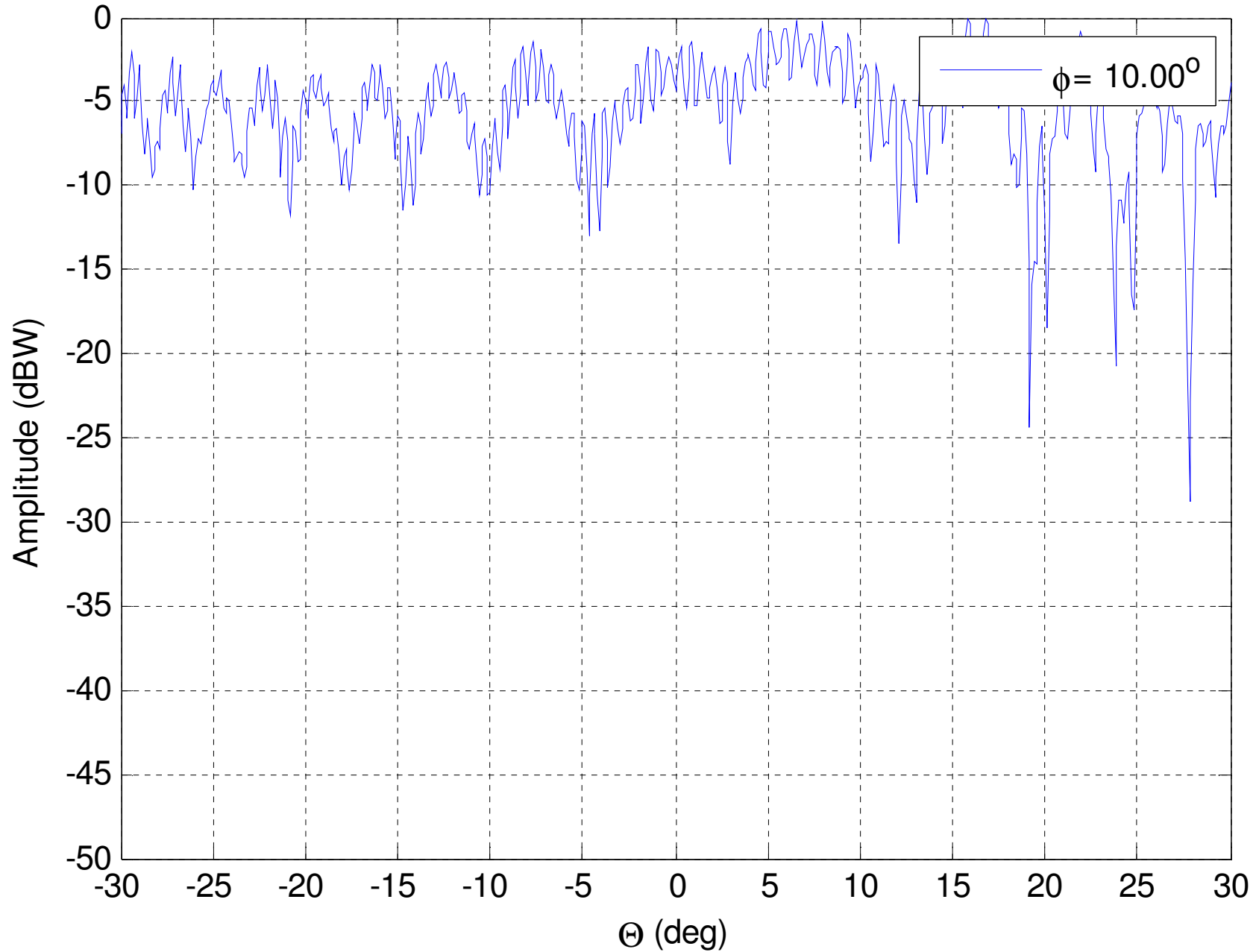
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-0.cut, Peak: -9.53 dBW, Date: 16-Dec-2011



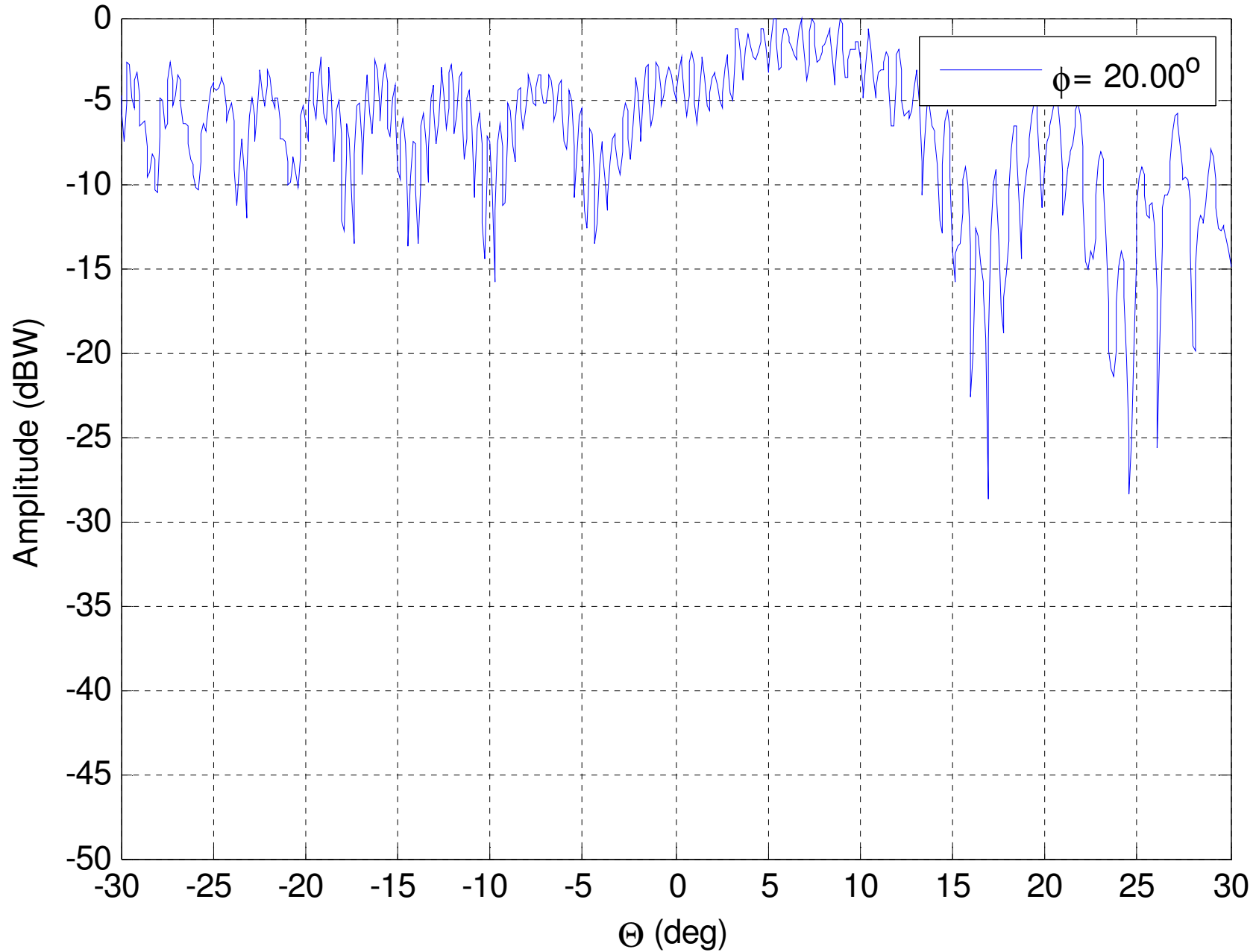
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-10.cut, Peak: -11.33 dBW, Date: 16-Dec-2011



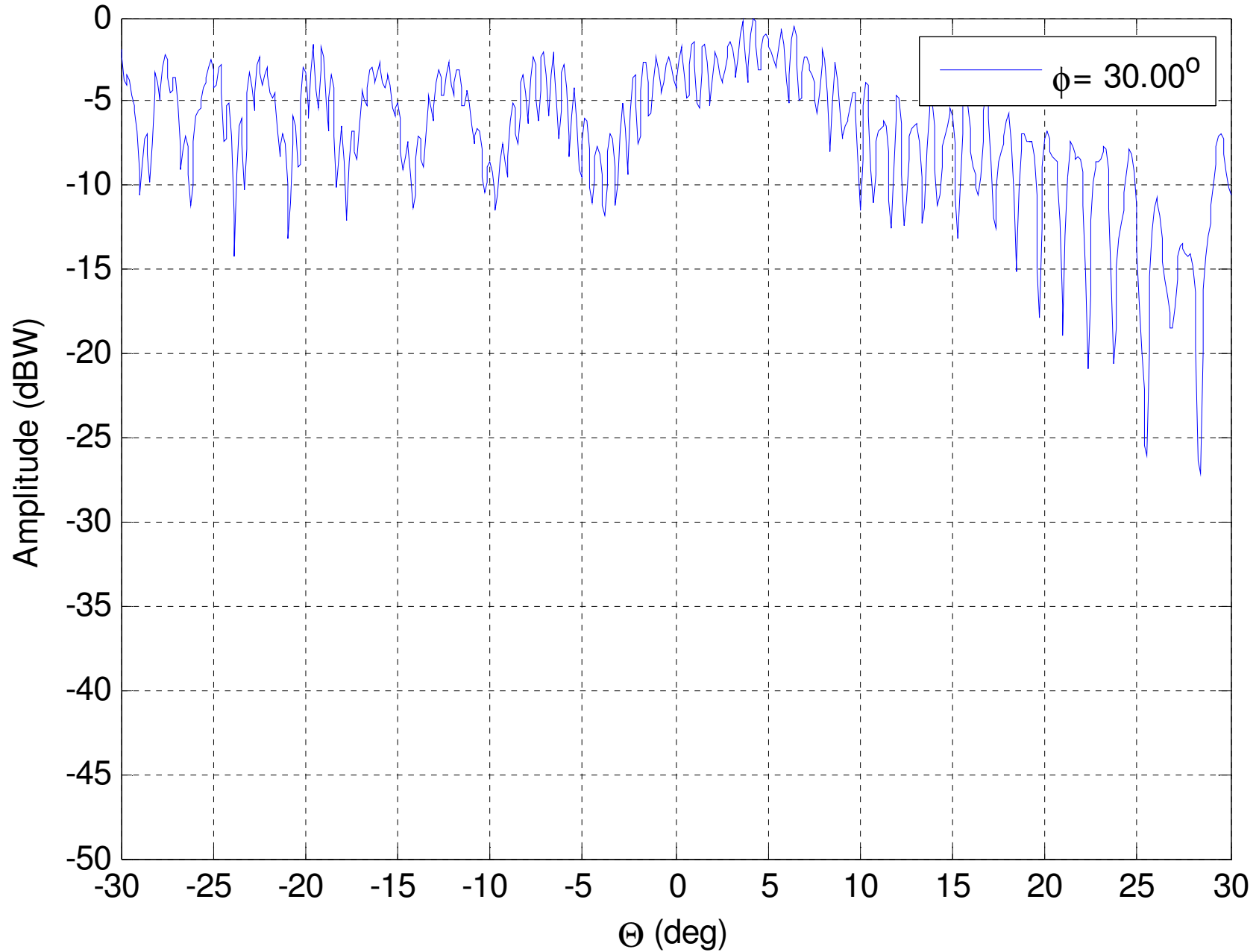
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-20.cut, Peak: -10.74 dBW, Date: 16-Dec-2011



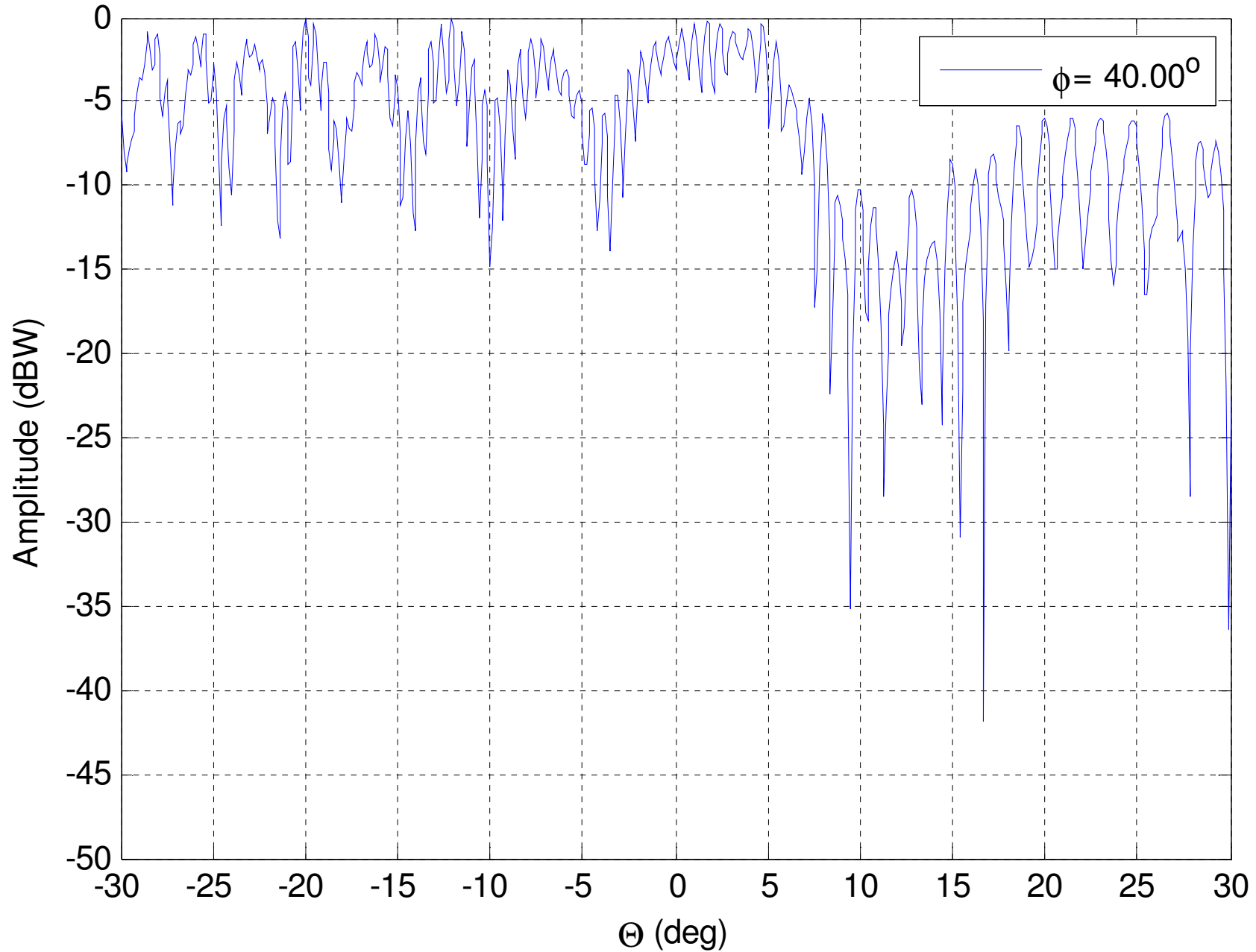
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-30.cut, Peak: -11.39 dBW, Date: 16-Dec-2011



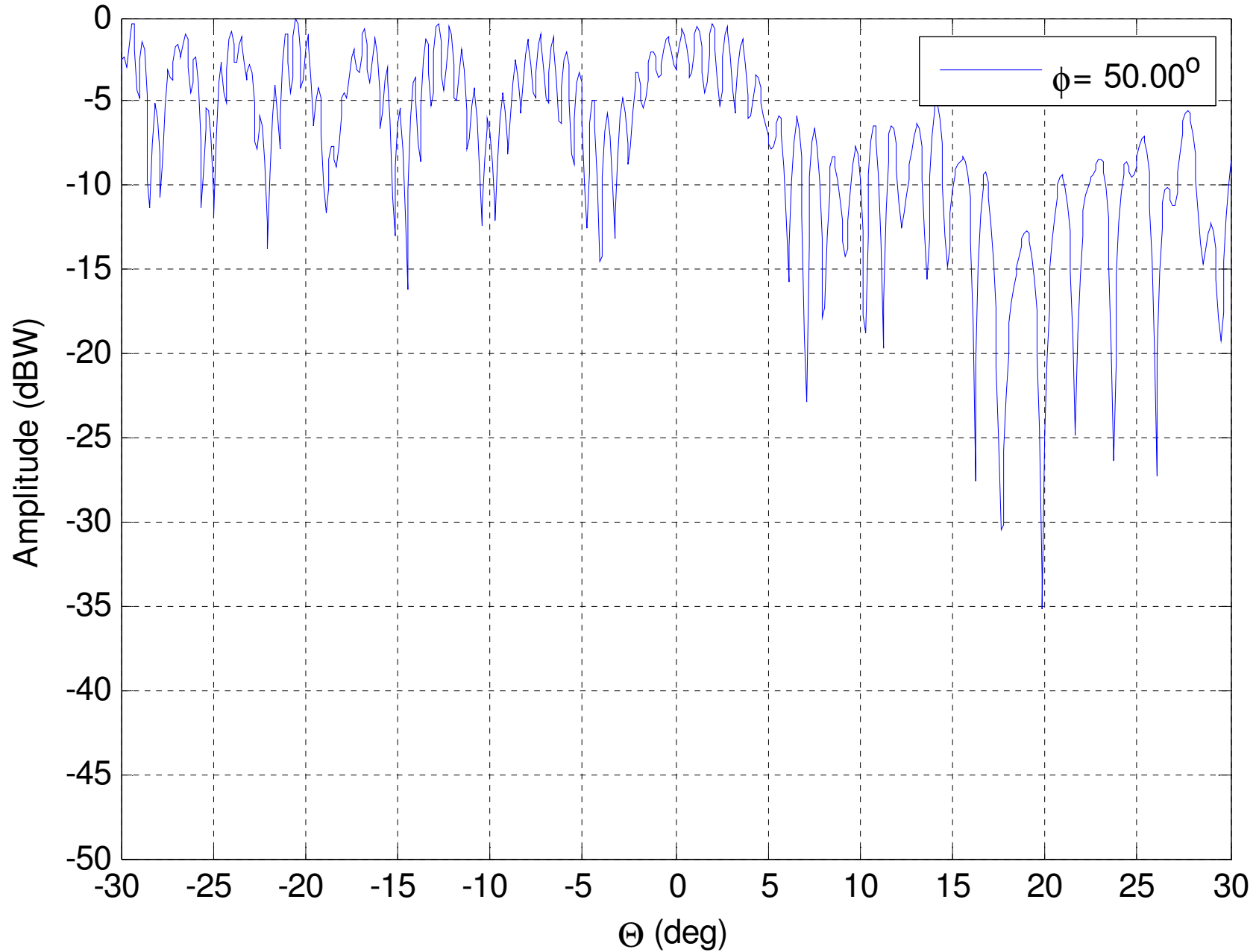
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-40.cut, Peak: -12.58 dBW, Date: 16-Dec-2011



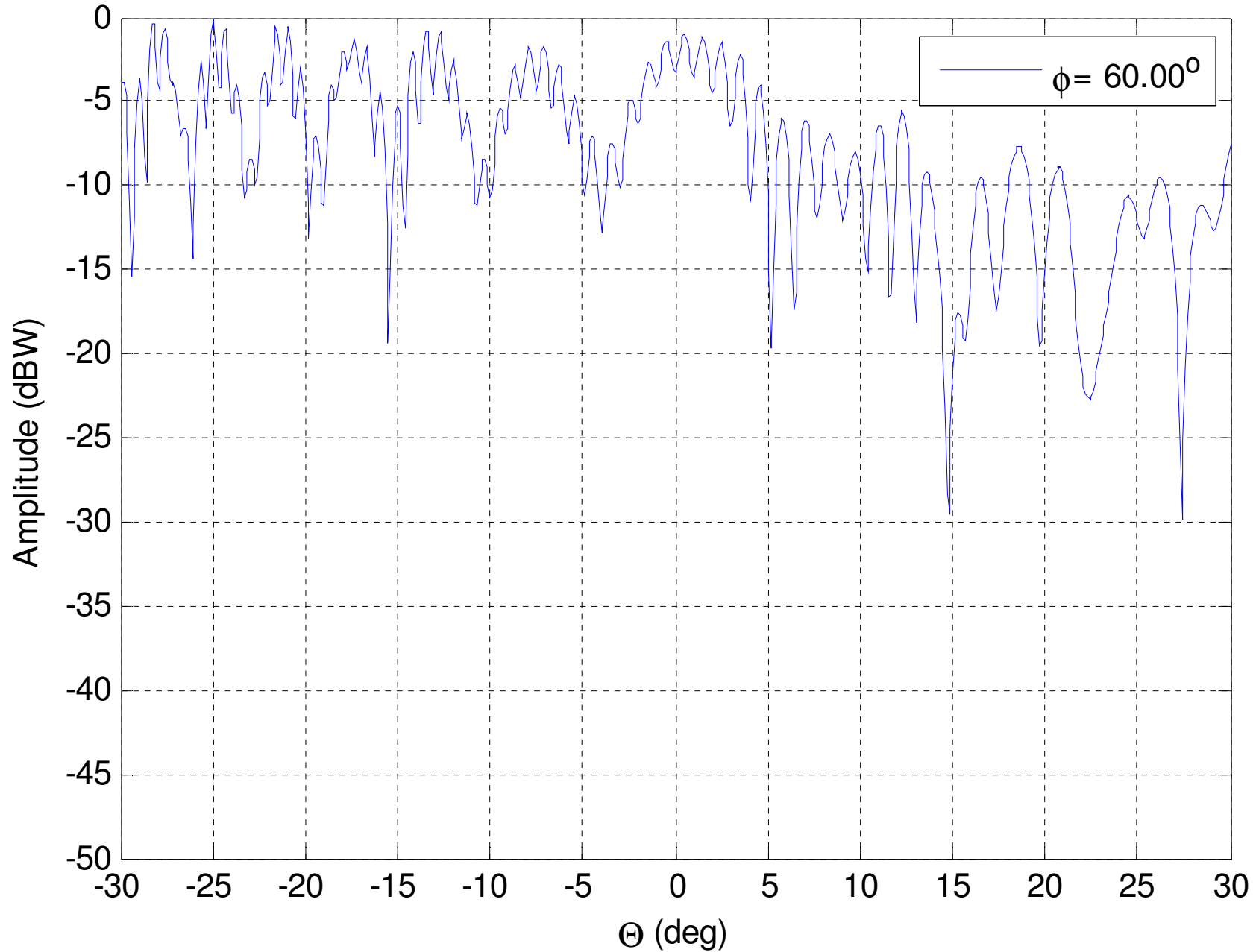
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-50.cut, Peak: -12.53 dBW, Date: 16-Dec-2011



Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-60.cut, Peak: -12.32 dBW, Date: 16-Dec-2011



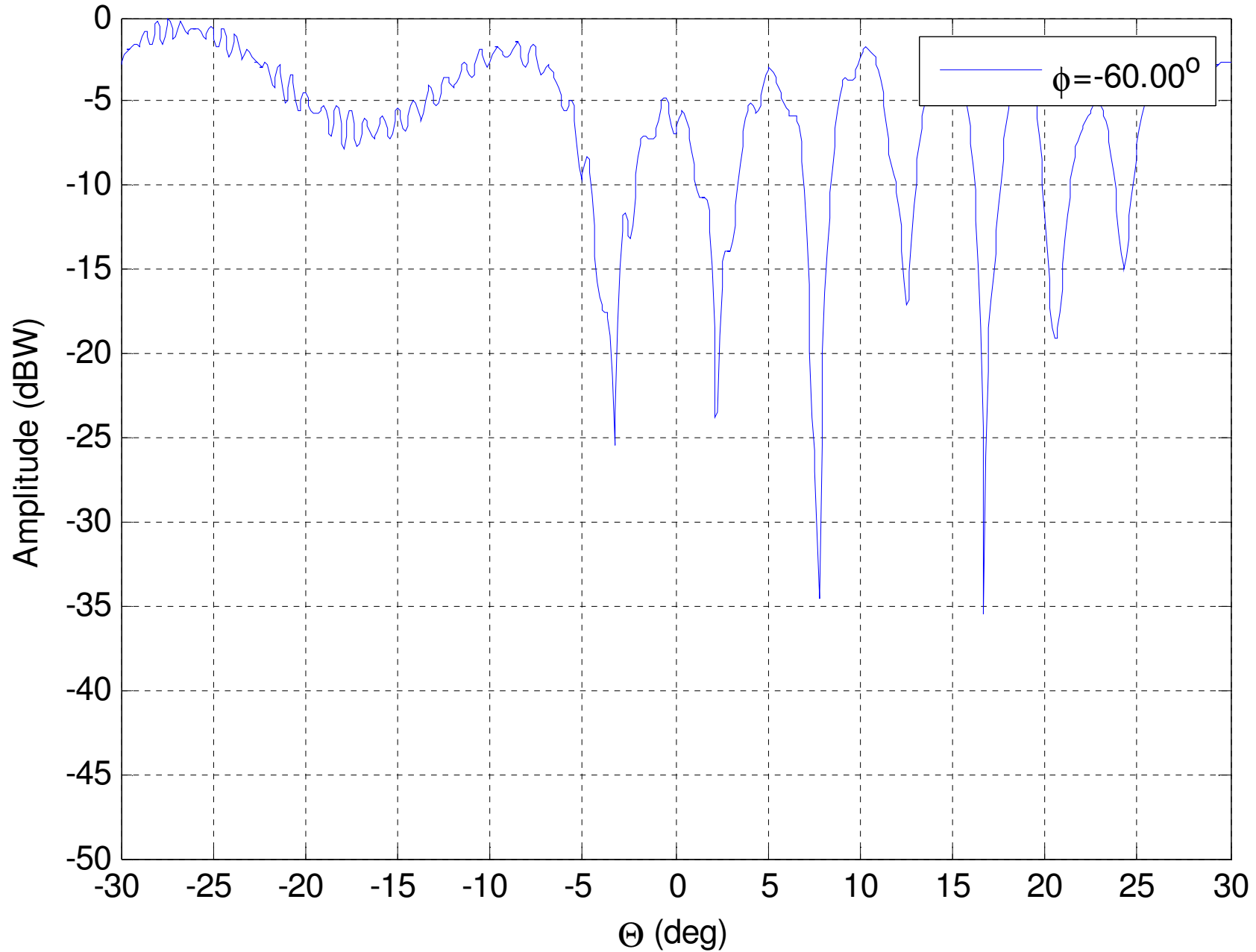
Spot Beam49, +X Axis Plots

- Both polarizations; RHCP, LHCP
- $-30 < \Theta < 30$ ($\Theta=0$: = +X-axis)
- $-60 < \phi < 60$
- Freq = 17.3, 17.5, and 17.7 GHz
- The Zero reference line is the peak gain listed in the title of each chart
- All levels are significantly below the required 20.9 dBW EIRP shown on chart 2

RHCP at 17.3 GHz

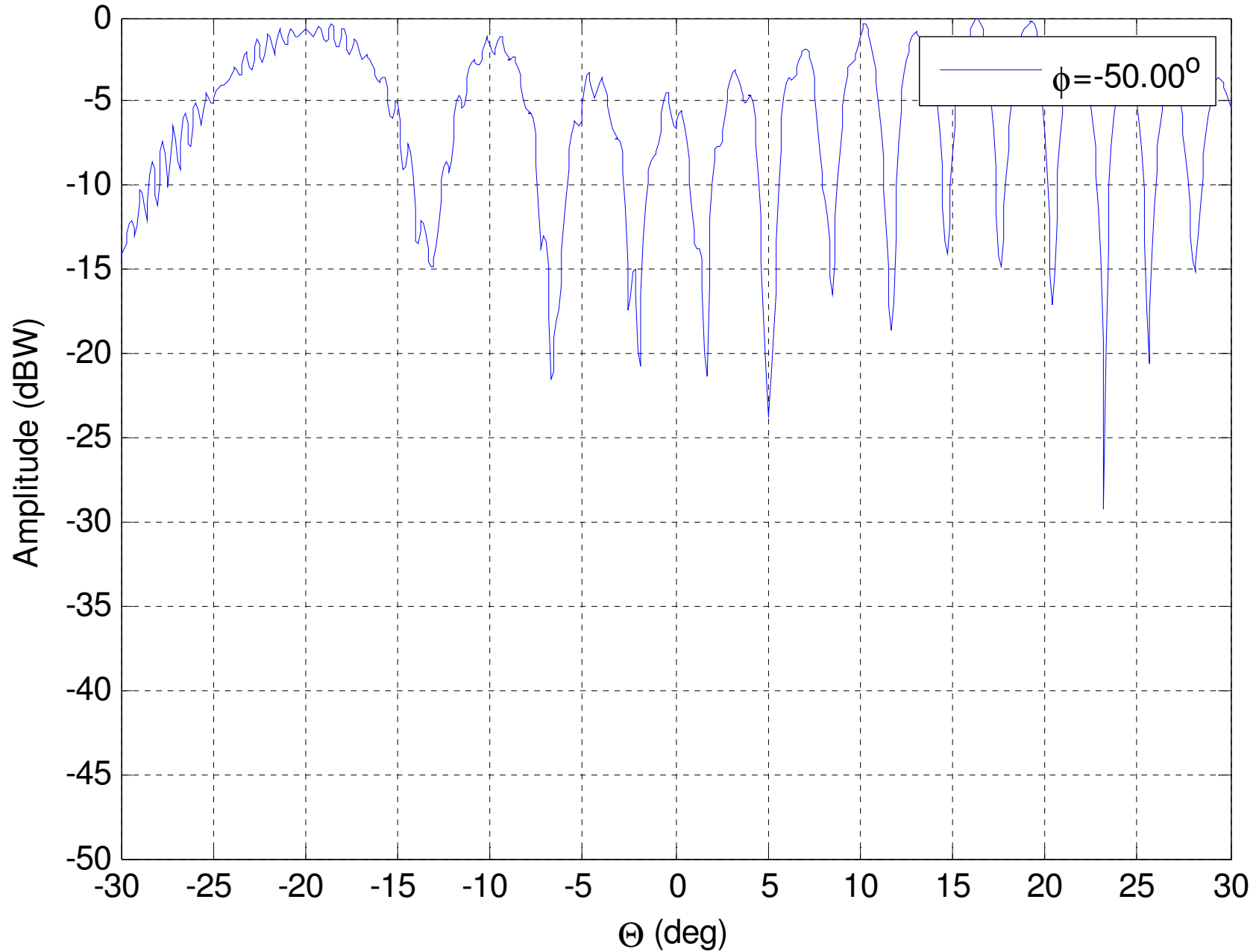
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--60.cut, Peak: -12.59 dBW, Date: 16-Dec-2011



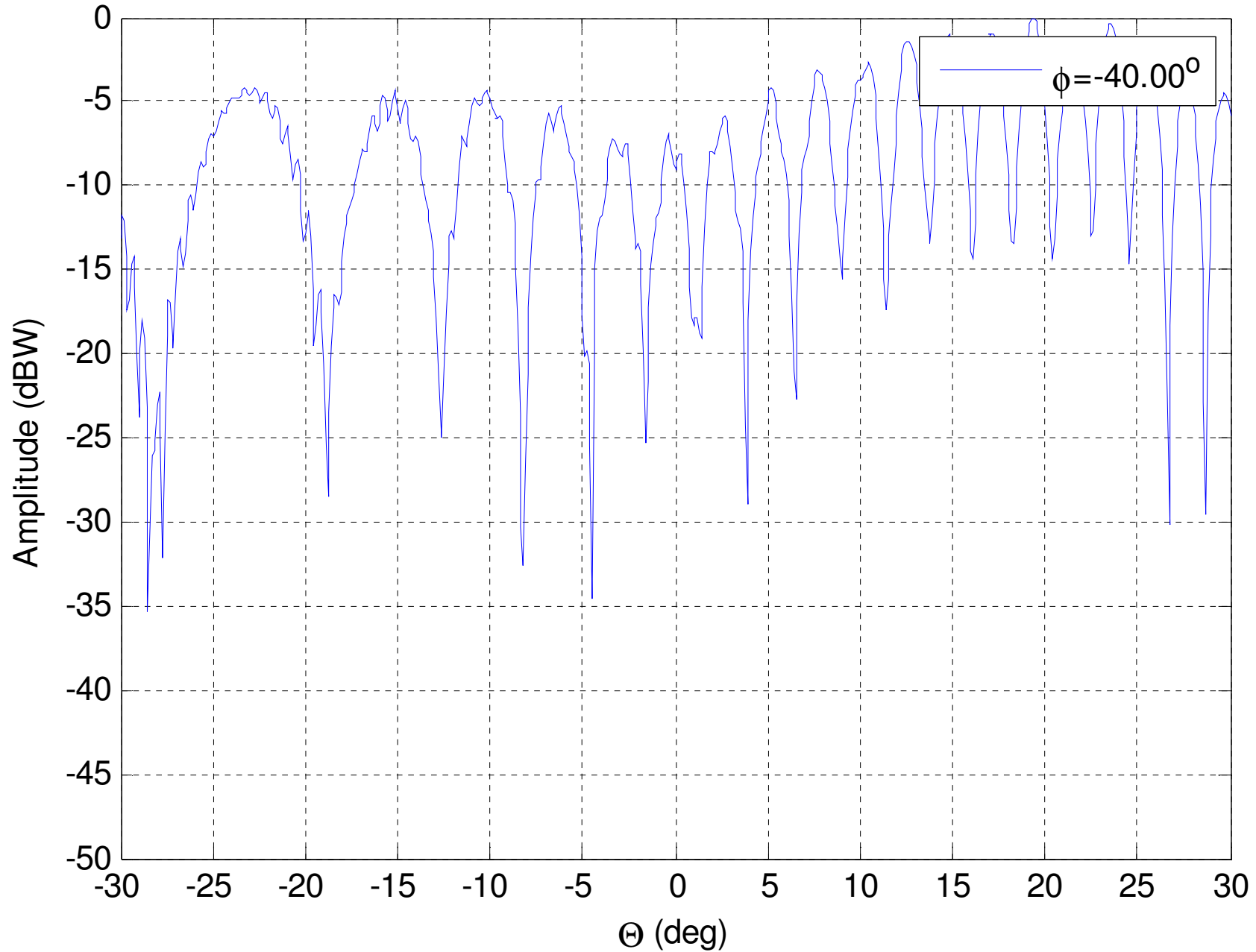
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--50.cut, Peak: -12.91 dBW, Date: 16-Dec-2011



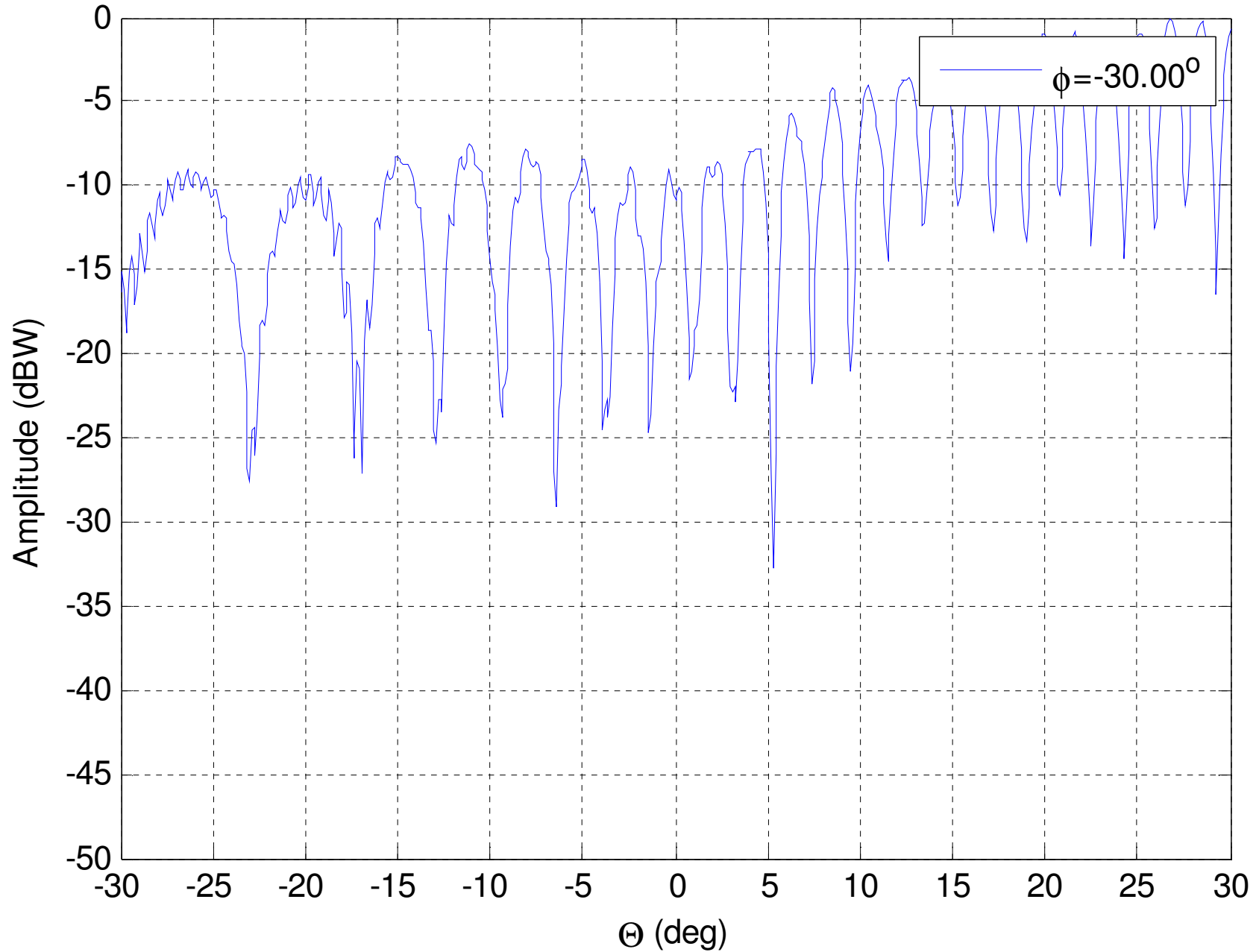
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--40.cut, Peak: -10.49 dBW, Date: 16-Dec-2011



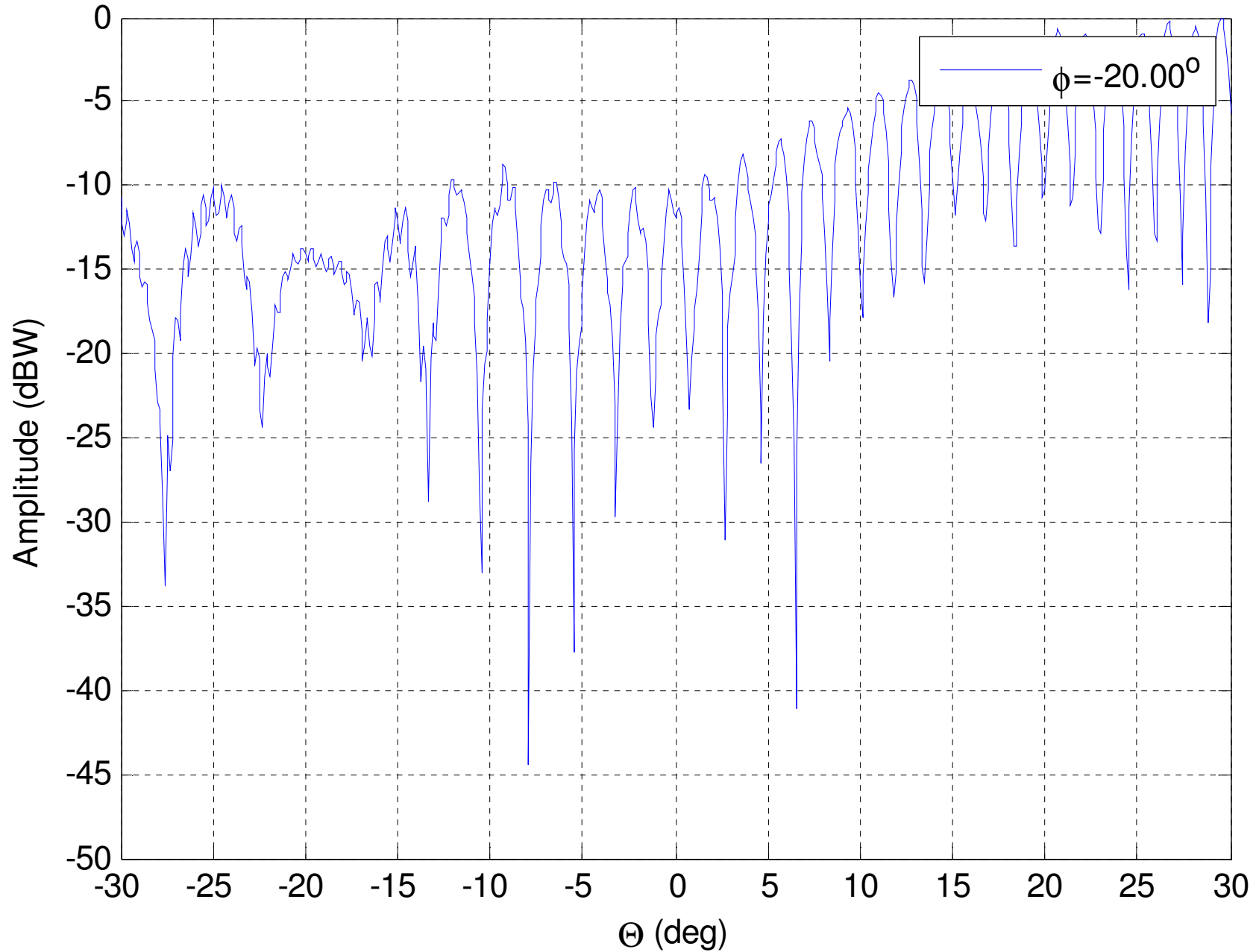
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--30.cut, Peak: -8.56 dBW, Date: 16-Dec-2011



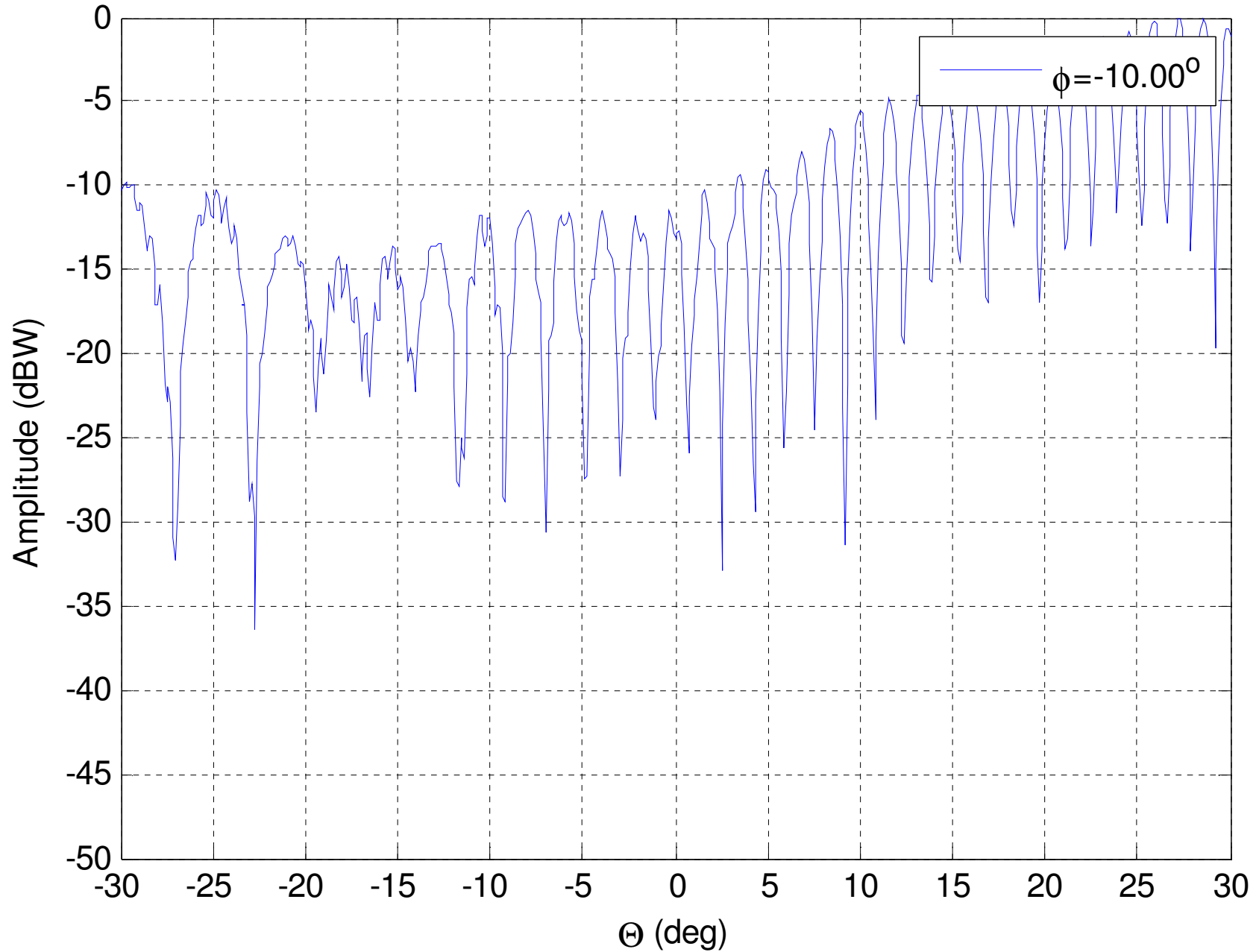
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--20.cut, Peak: -7.46 dBW, Date: 16-Dec-2011



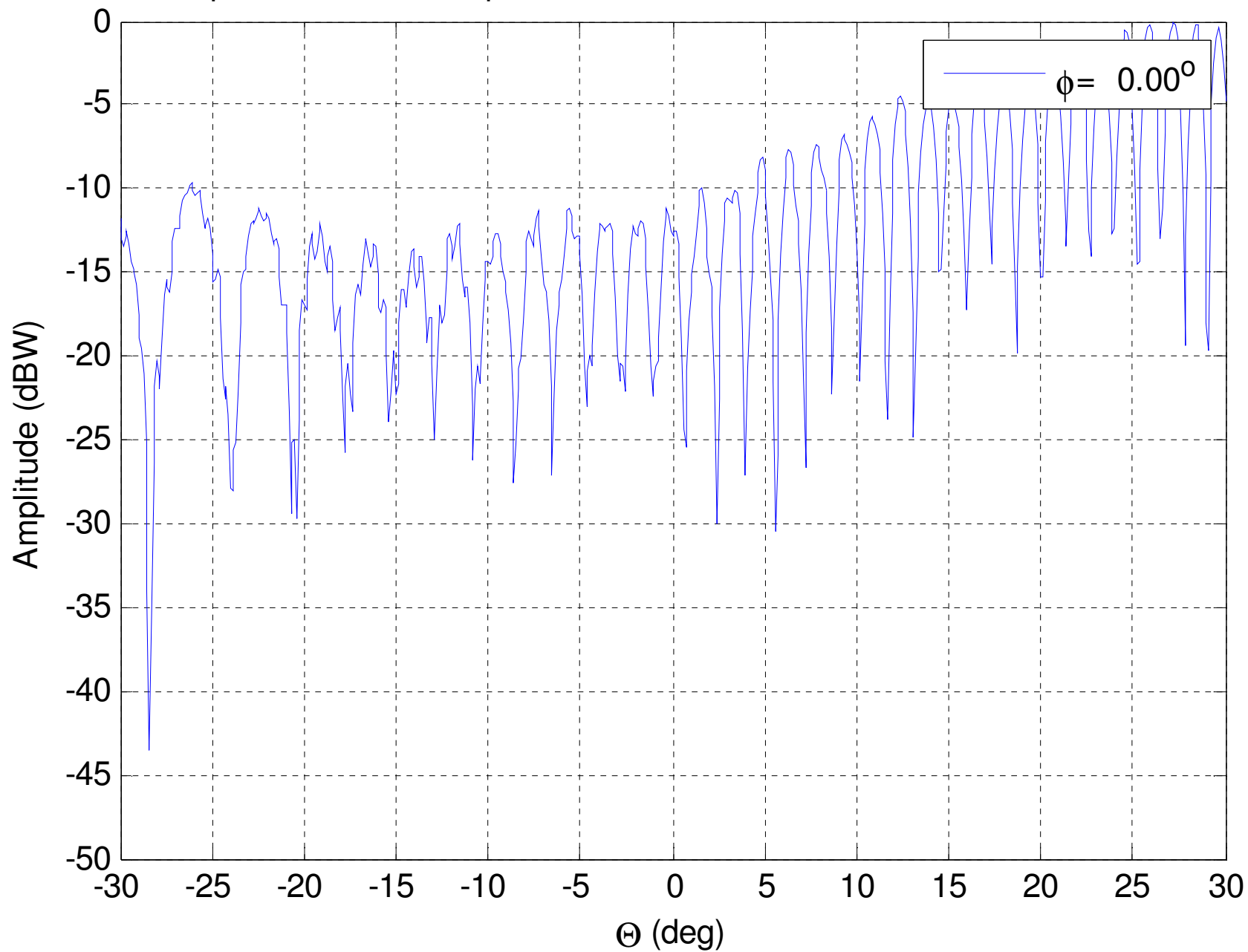
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--10.cut, Peak: -6.26 dBW, Date: 16-Dec-2011



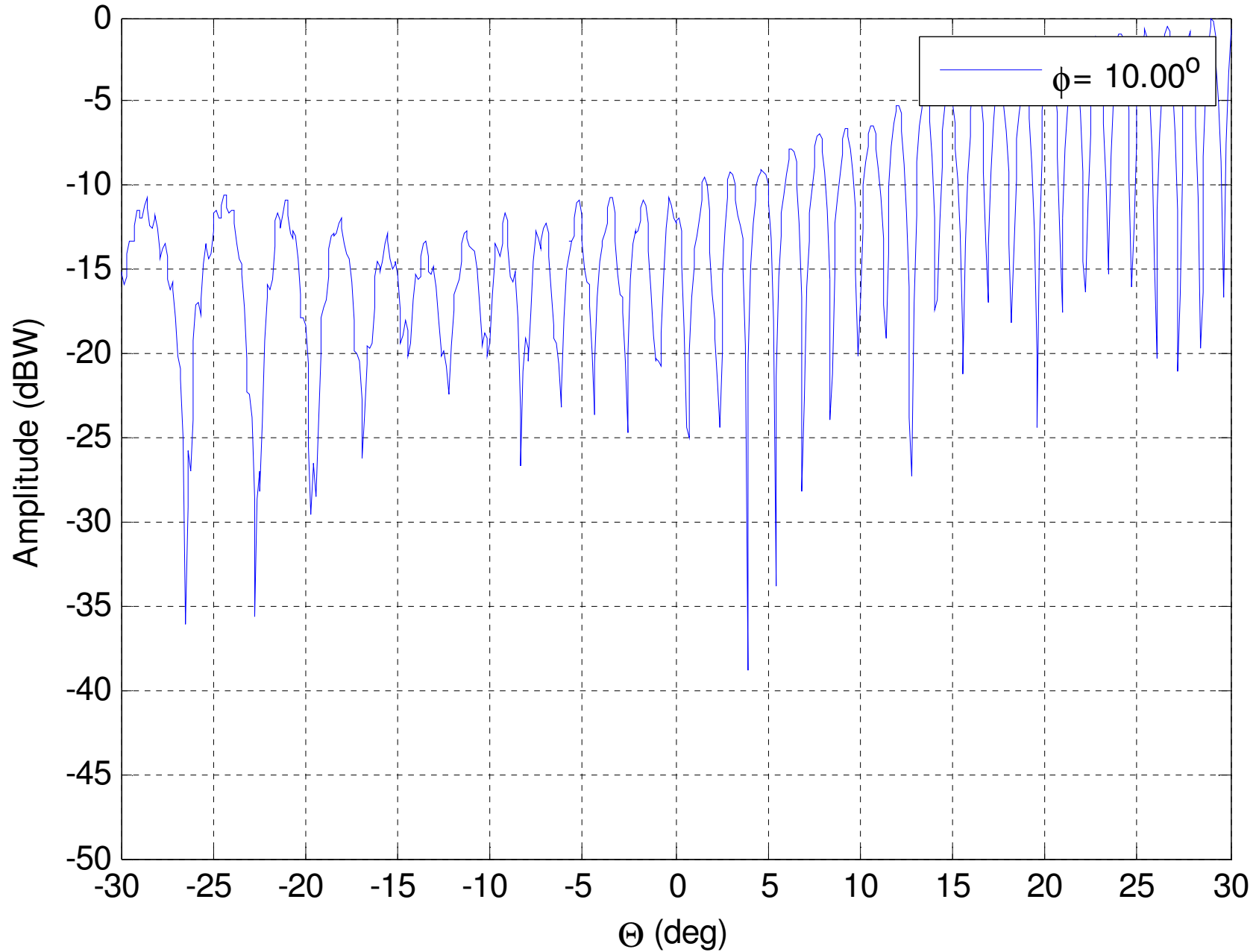
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-0.cut, Peak: -6.59 dBW, Date: 16-Dec-2011



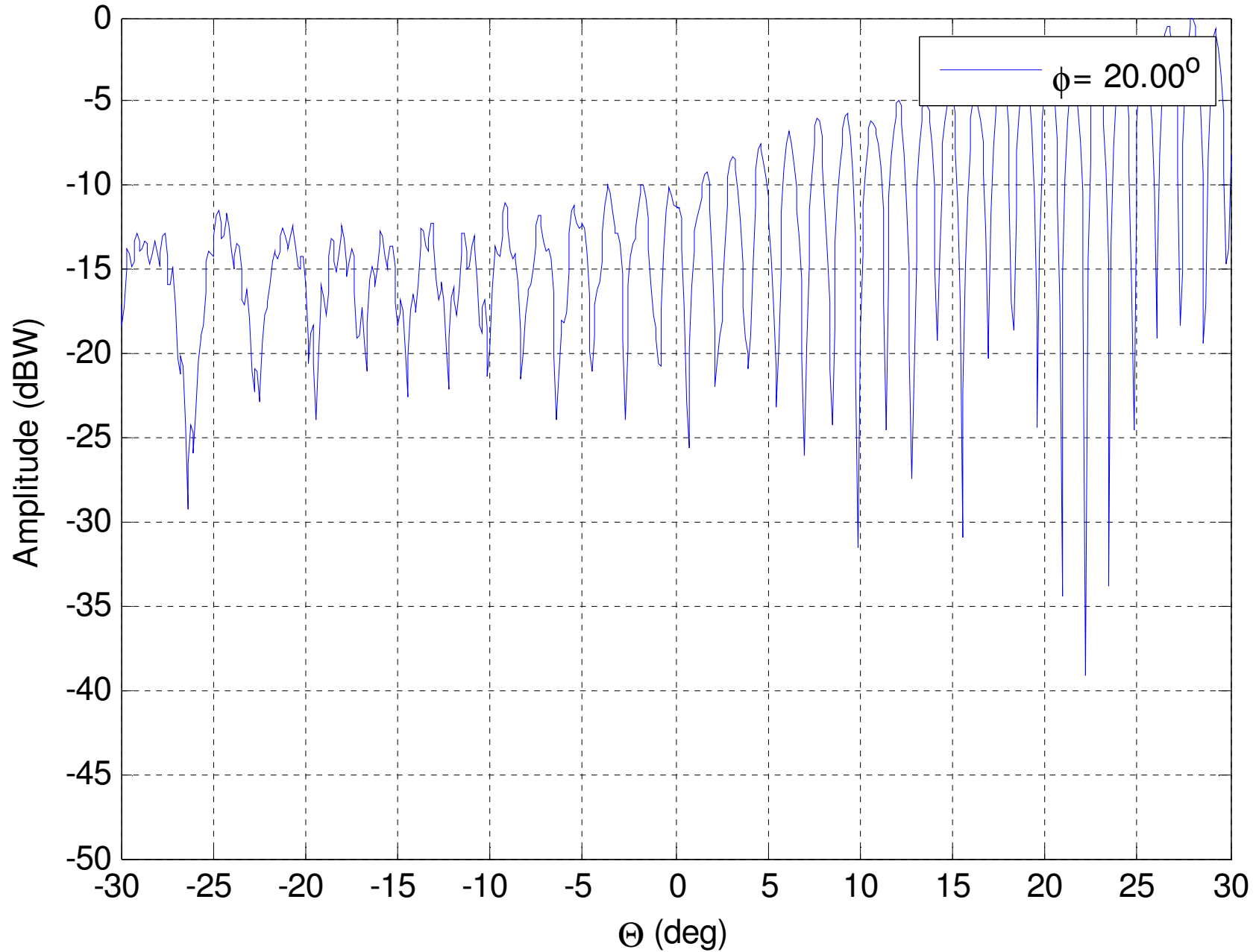
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-10.cut, Peak: -7.19 dBW, Date: 16-Dec-2011



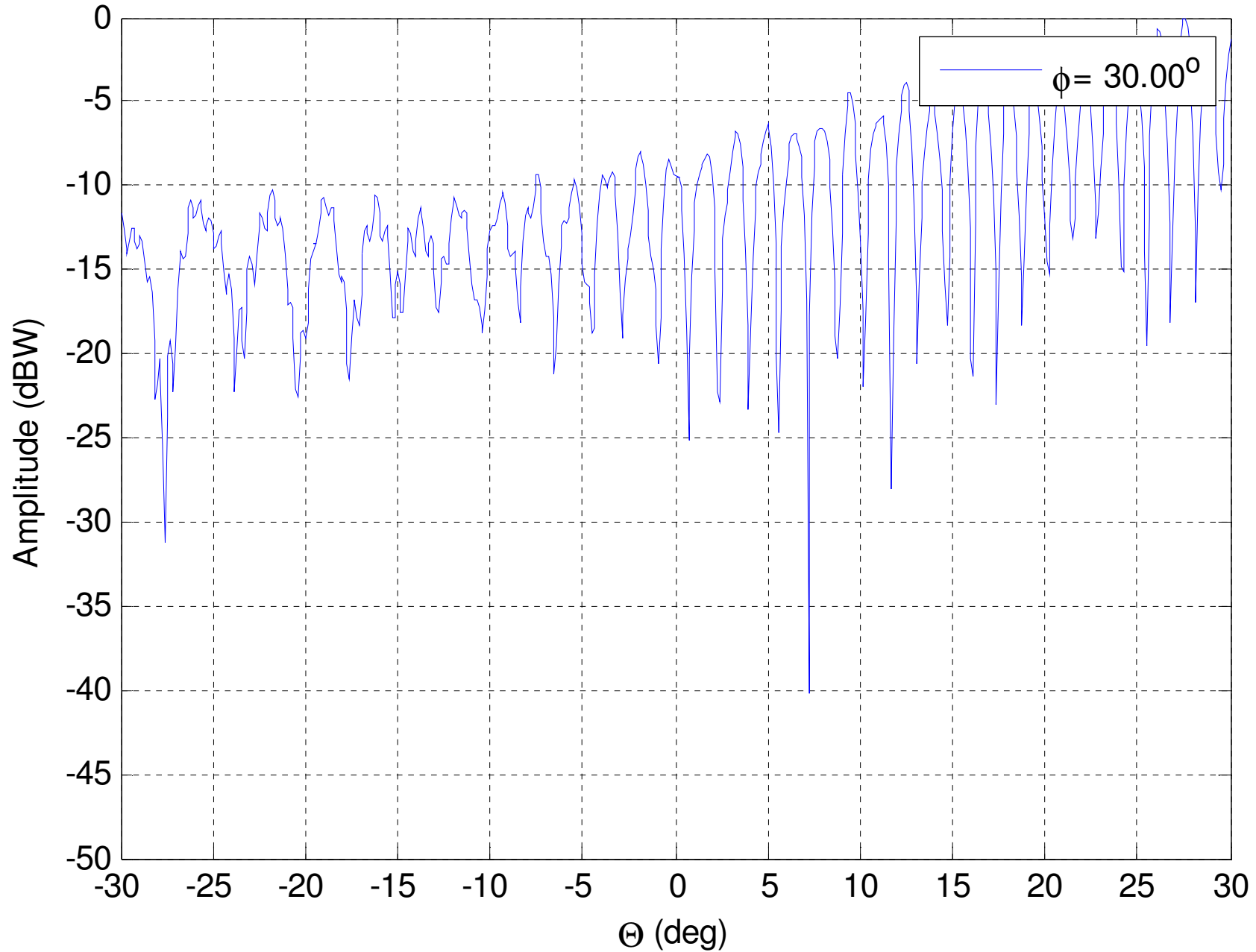
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-20.cut, Peak: -7.94 dBW, Date: 16-Dec-2011



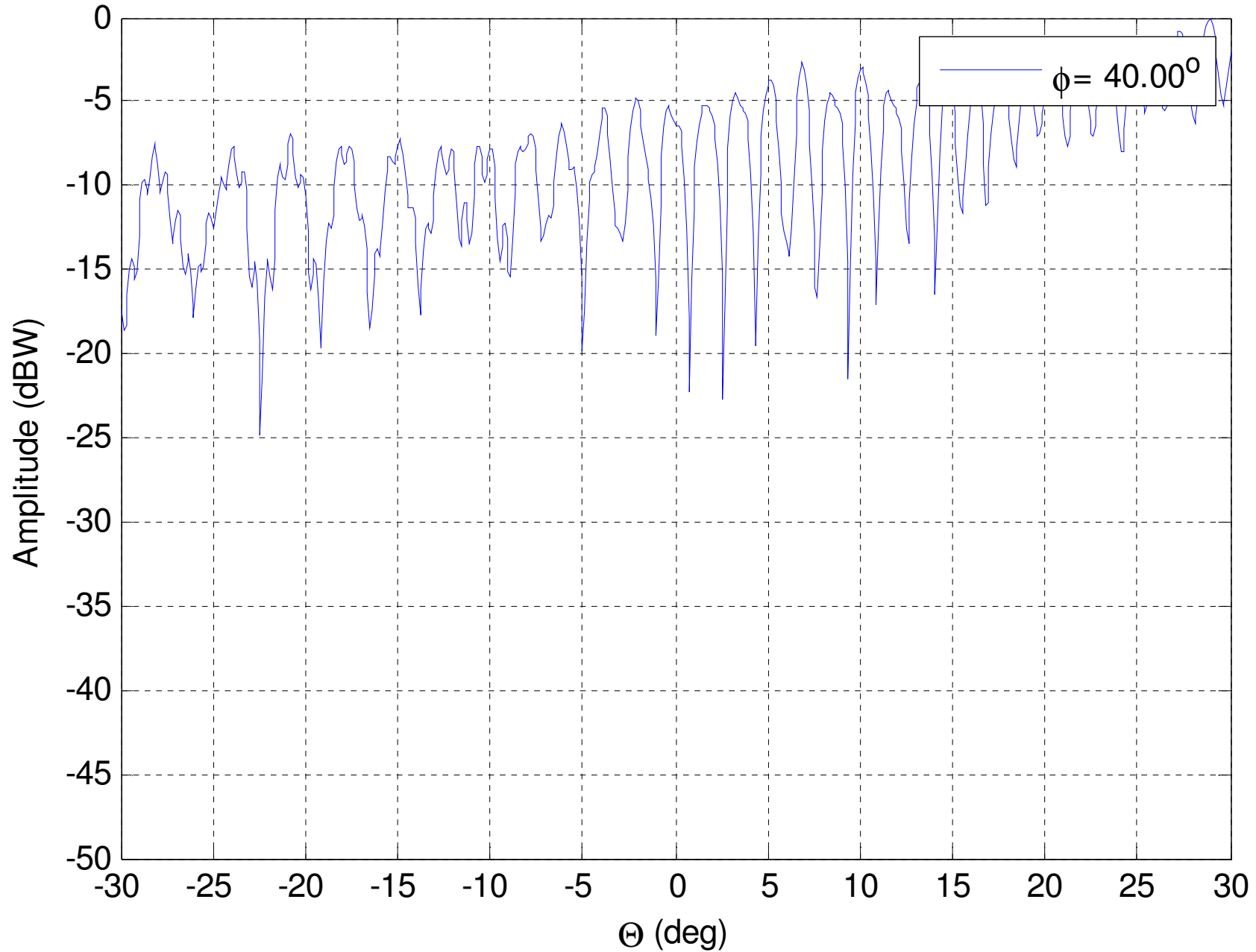
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-30.cut, Peak: -9.80 dBW, Date: 16-Dec-2011



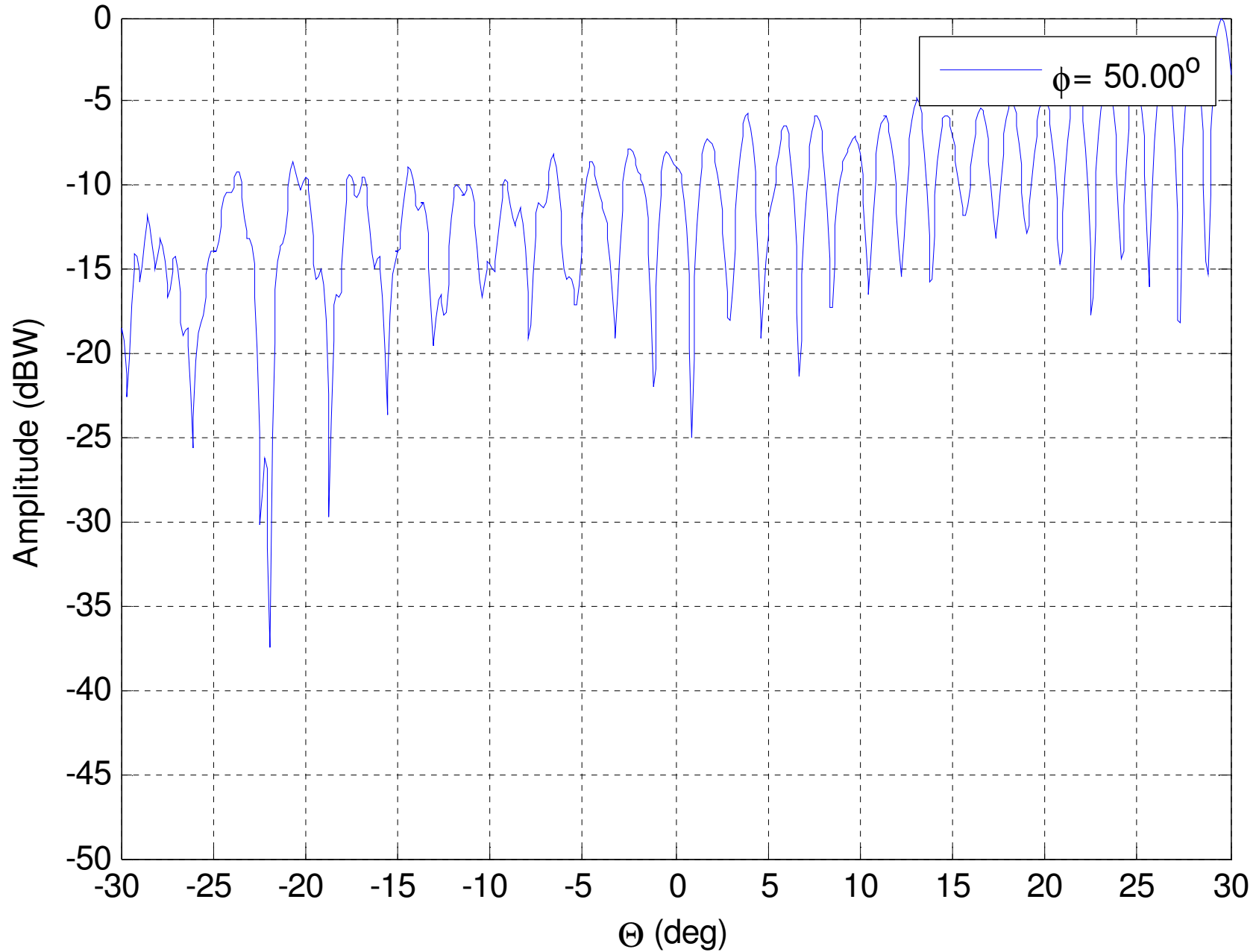
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-40.cut, Peak: -13.04 dBW, Date: 16-Dec-2011



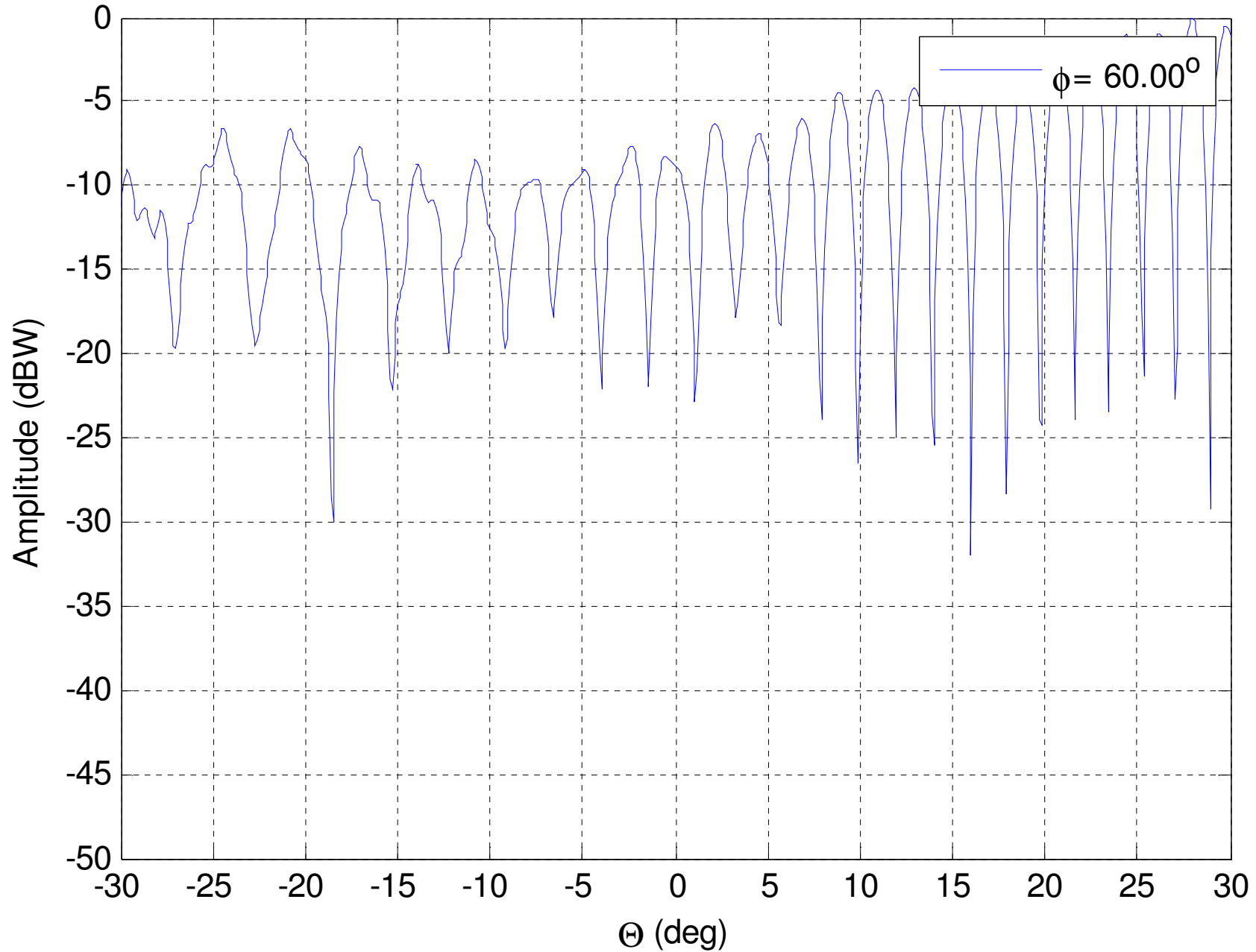
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-50.cut, Peak: -10.56 dBW, Date: 16-Dec-2011



Normalized pattern cuts - farfield

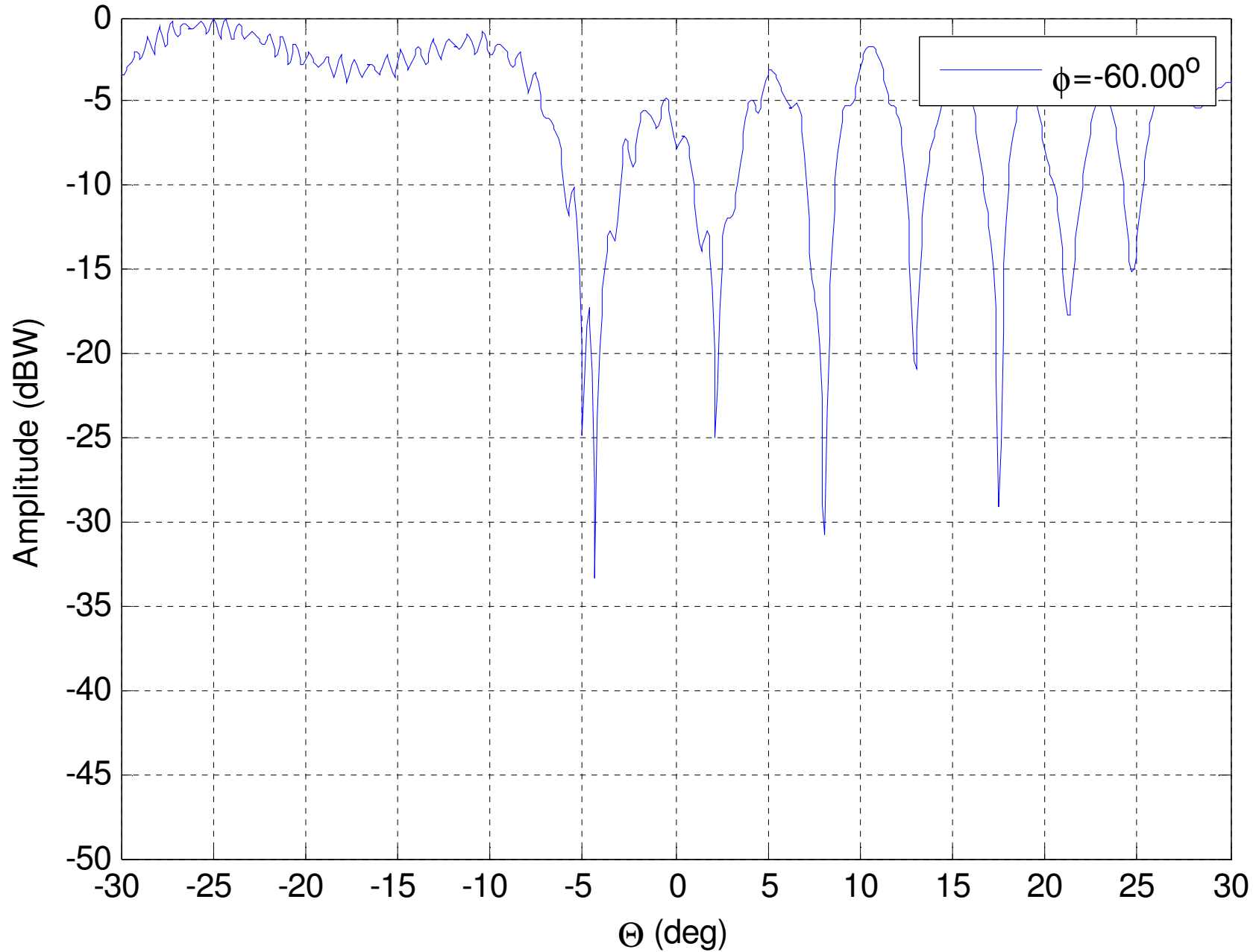
Input file: tx-17.3-rhcp-60.cut, Peak: -10.66 dBW, Date: 16-Dec-2011



LHCP at 17.3 GHz

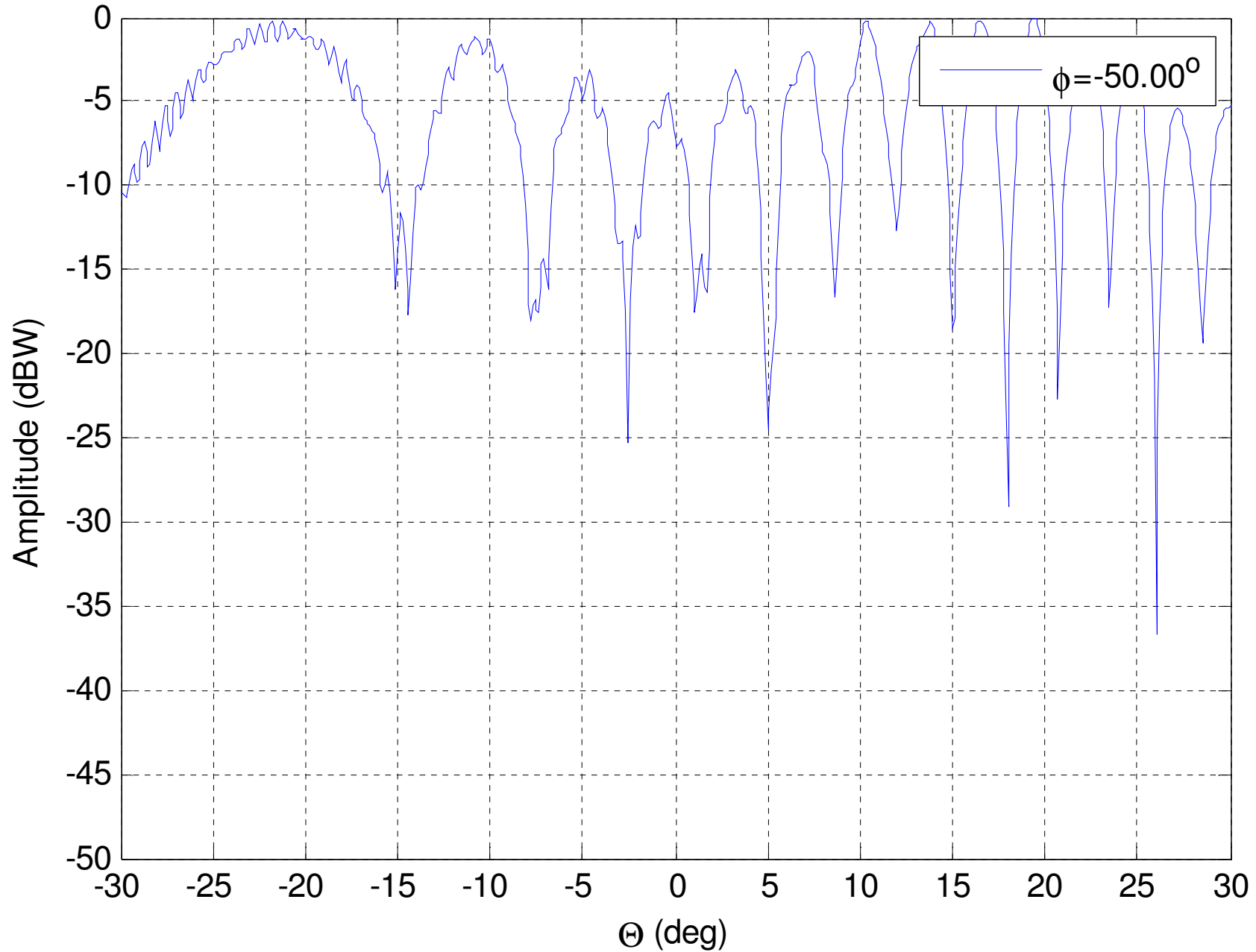
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp--60.cut, Peak: -12.50 dBW, Date: 16-Dec-2011



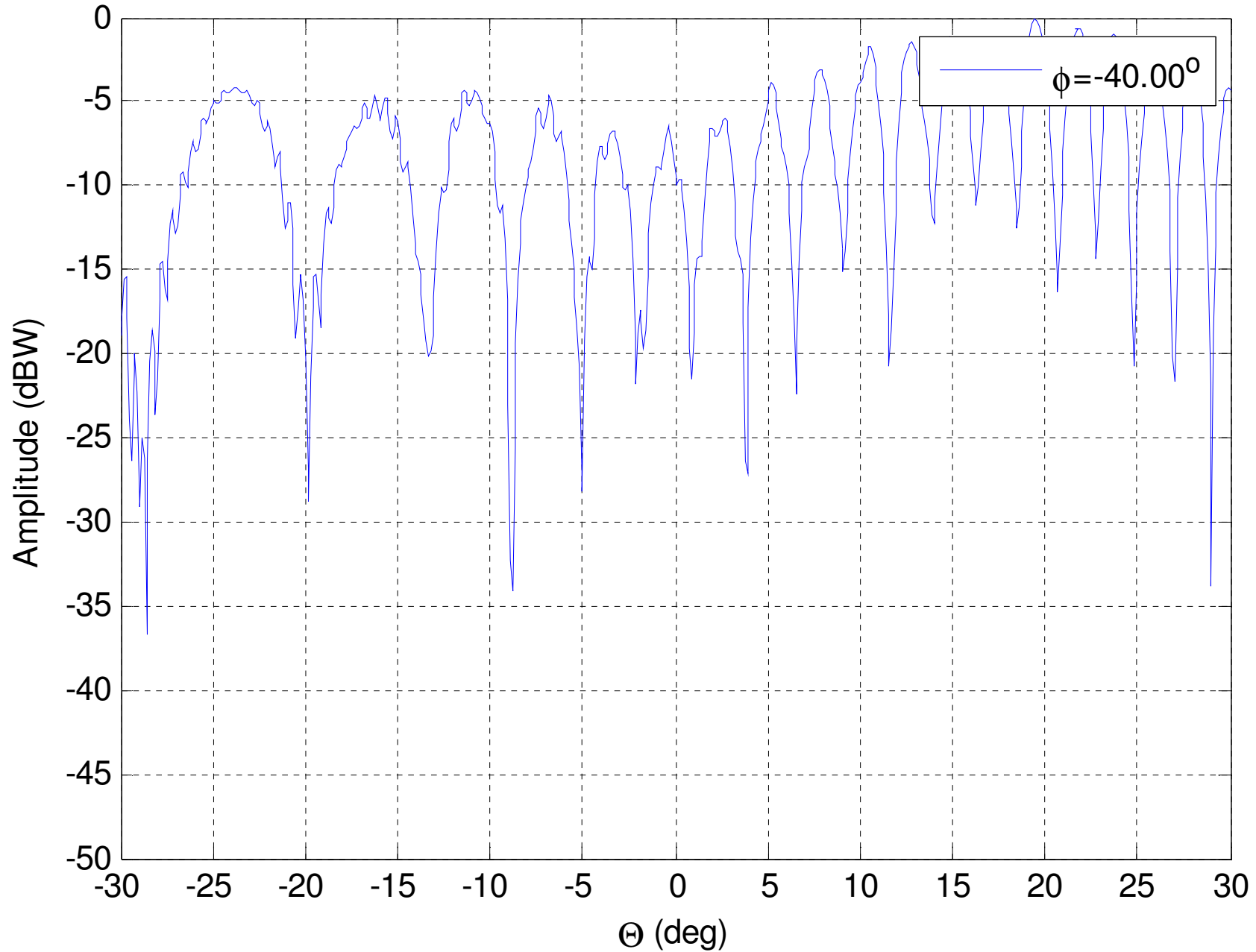
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp--50.cut, Peak: -12.71 dBW, Date: 16-Dec-2011



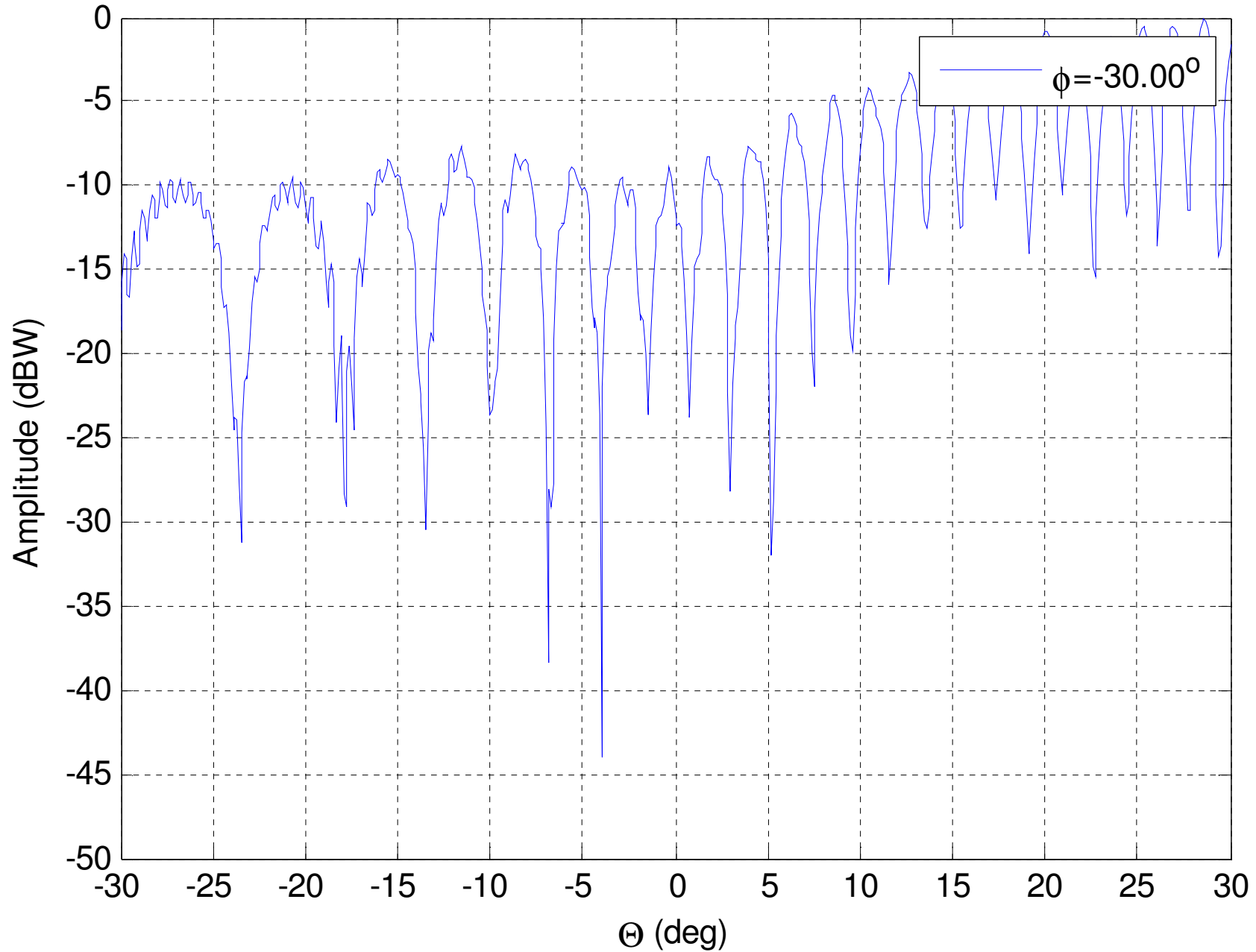
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp--40.cut, Peak: -10.63 dBW, Date: 16-Dec-2011



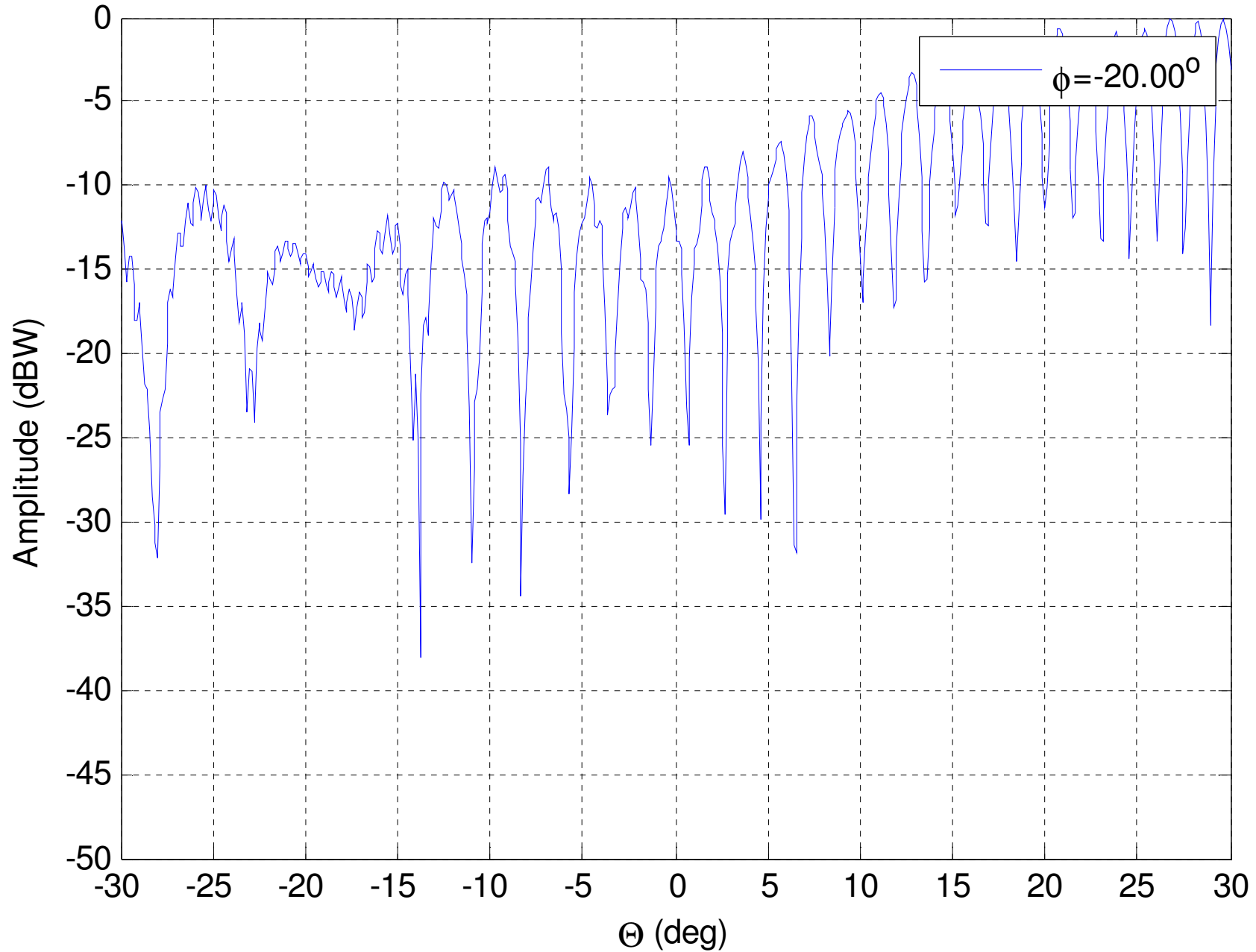
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp--30.cut, Peak: -8.27 dBW, Date: 16-Dec-2011



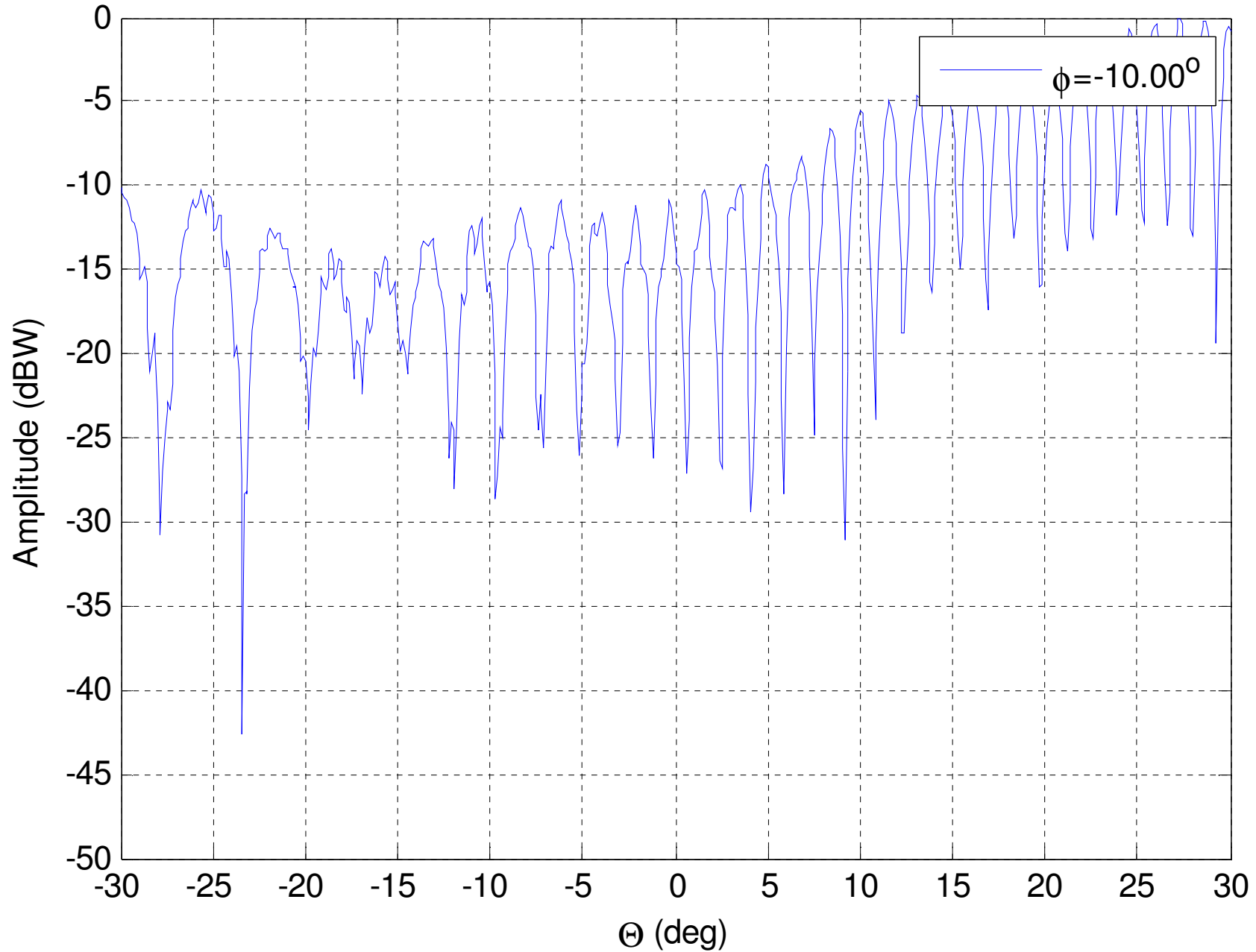
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp--20.cut, Peak: -7.49 dBW, Date: 16-Dec-2011



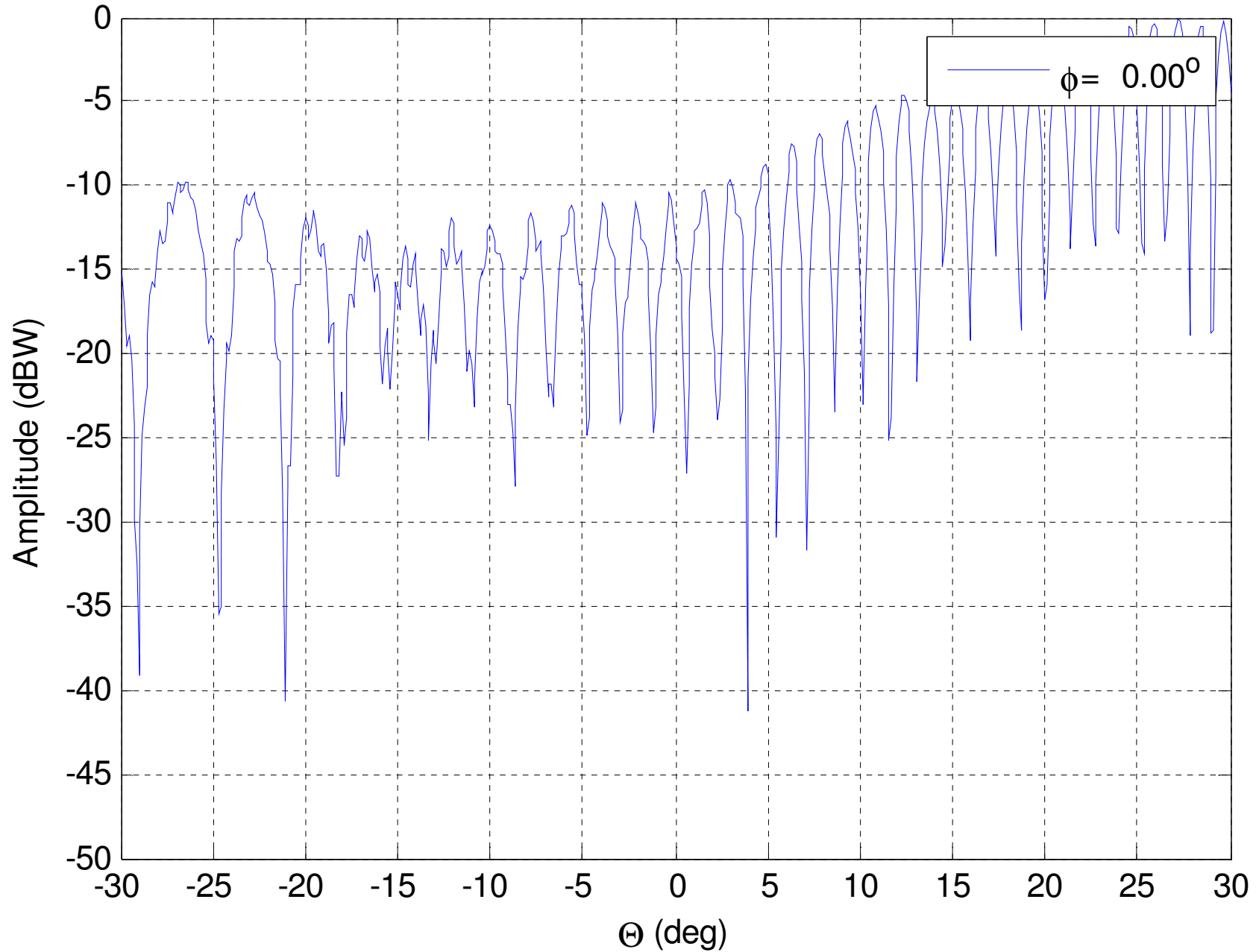
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp--10.cut, Peak: -6.14 dBW, Date: 16-Dec-2011



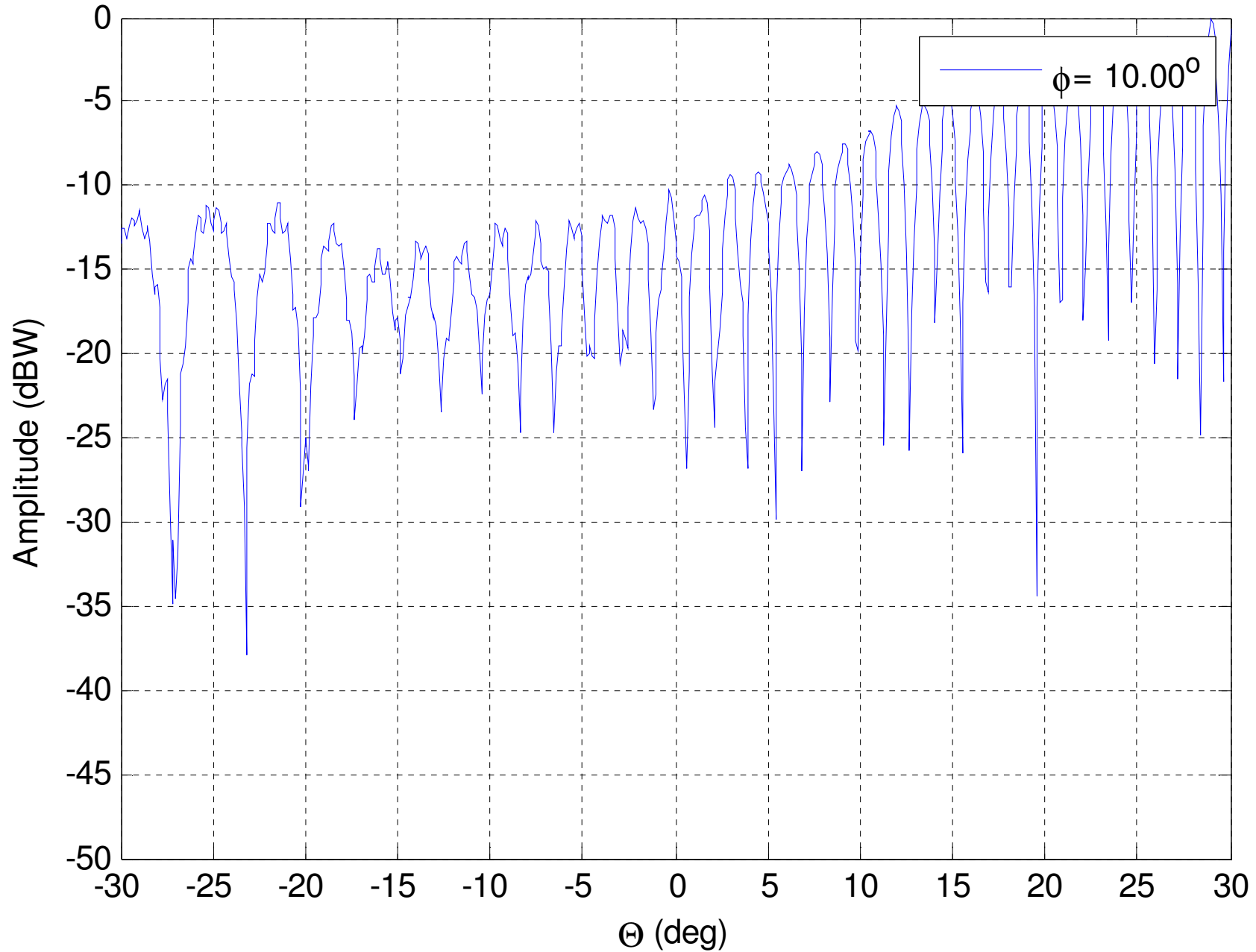
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp-0.cut, Peak: -6.55 dBW, Date: 16-Dec-2011



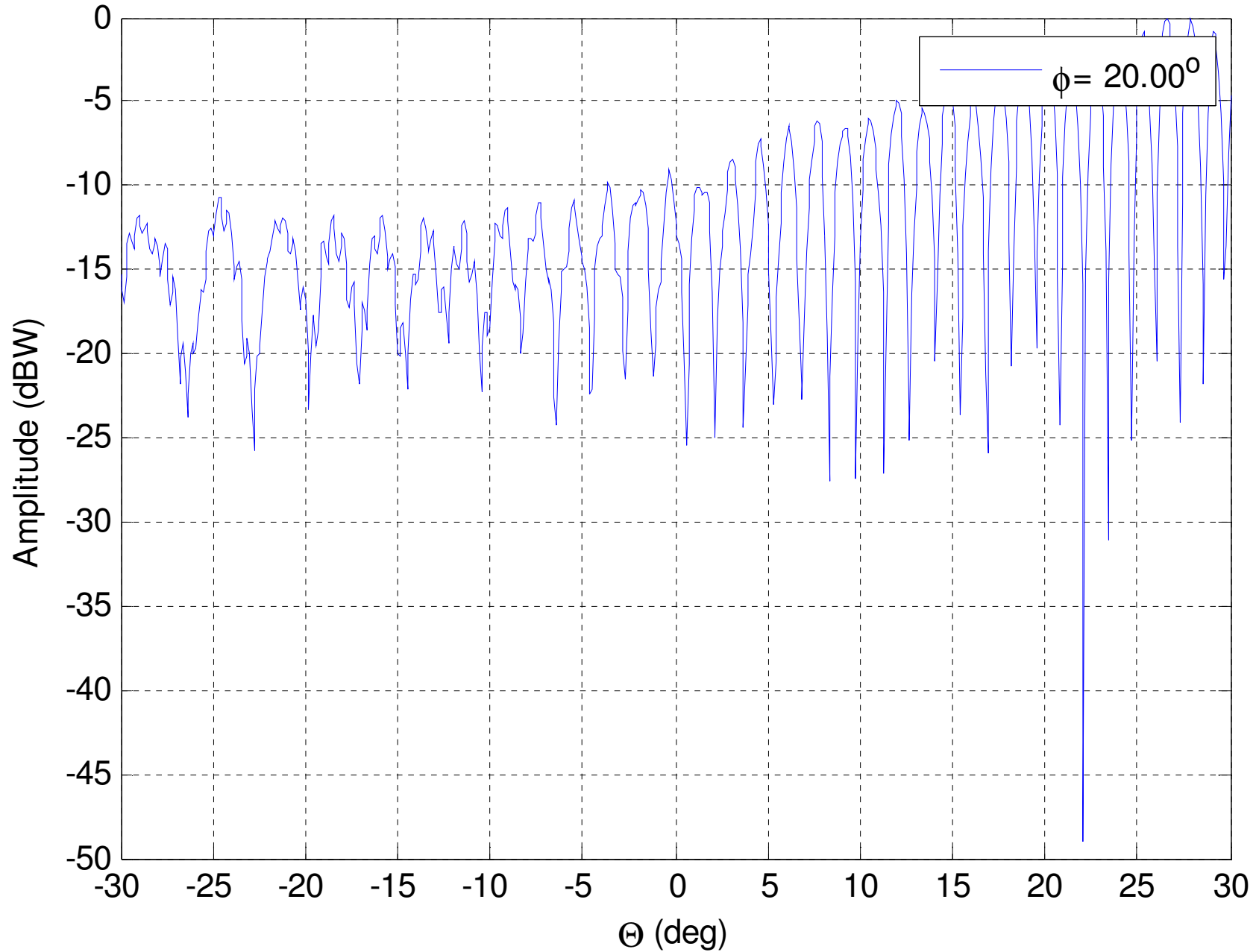
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp-10.cut, Peak: -6.83 dBW, Date: 16-Dec-2011



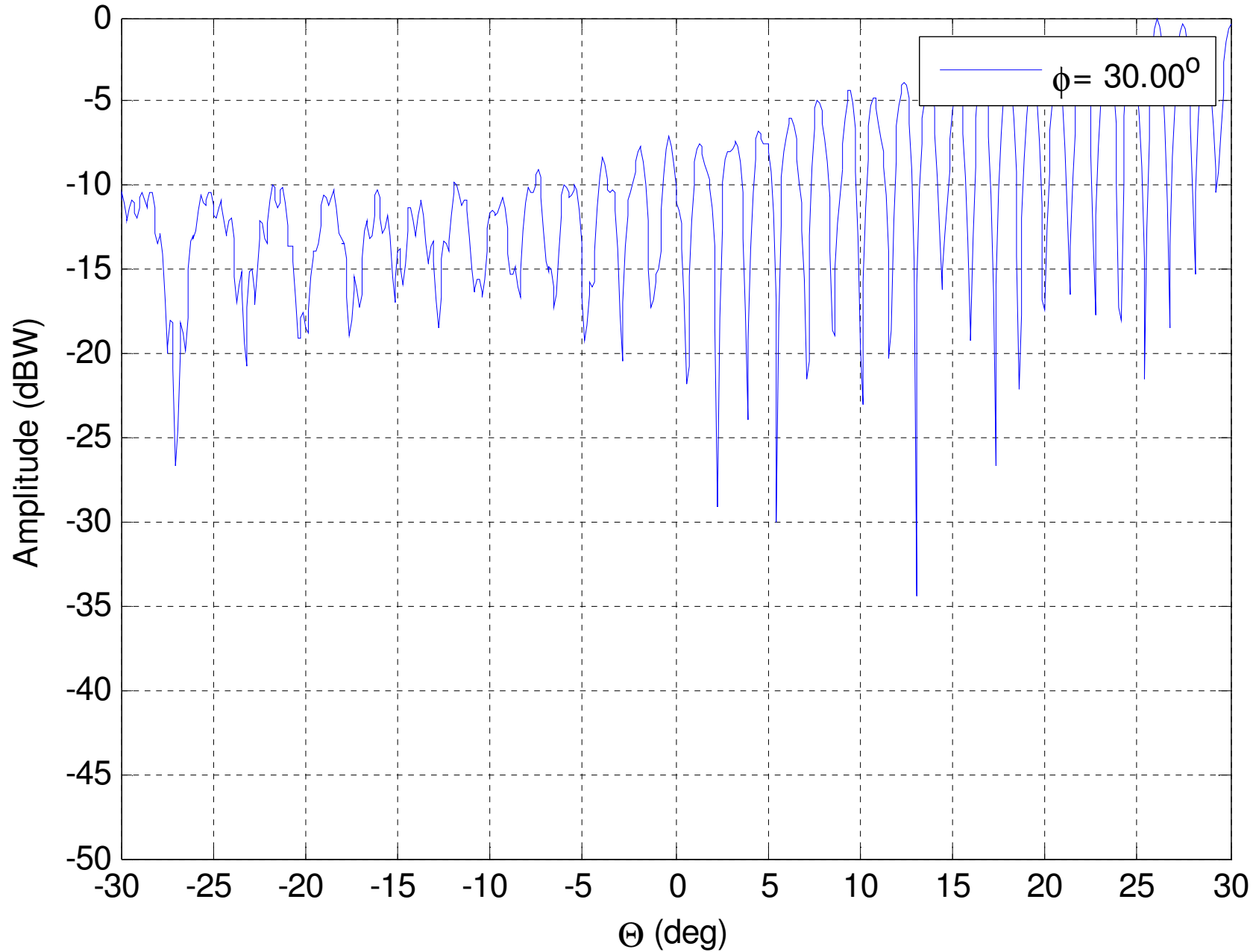
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp-20.cut, Peak: -8.02 dBW, Date: 16-Dec-2011



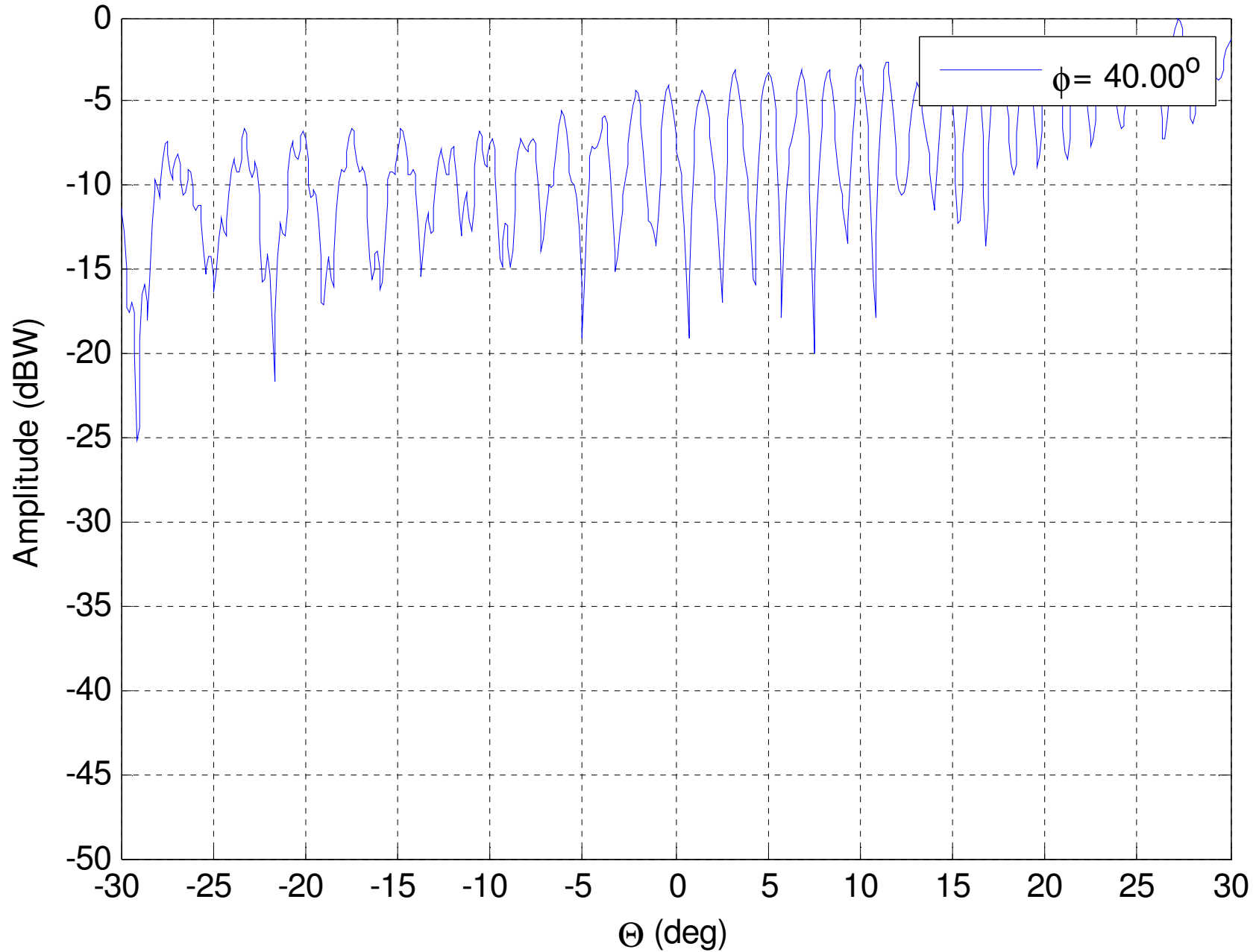
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp-30.cut, Peak: -10.18 dBW, Date: 16-Dec-2011



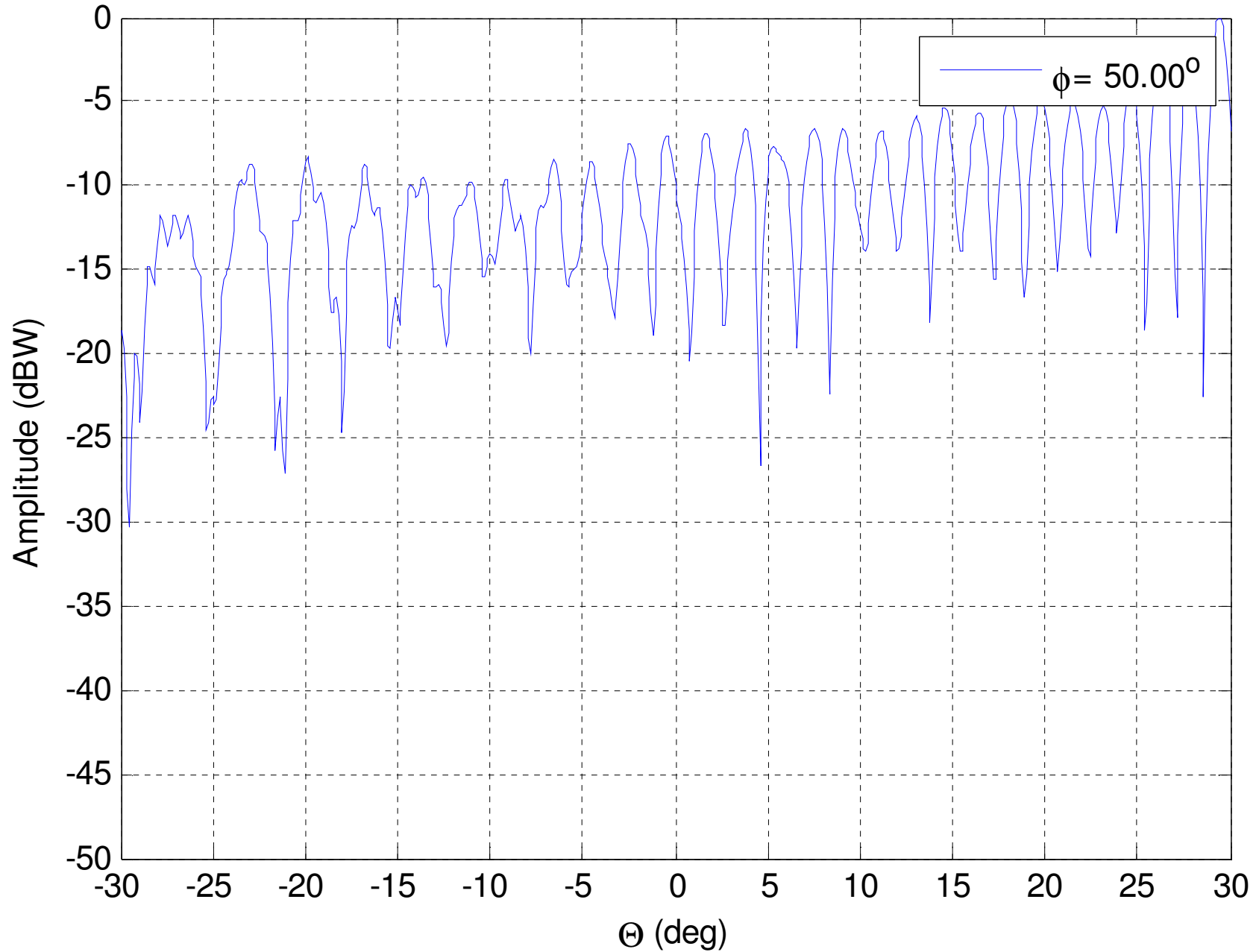
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp-40.cut, Peak: -13.17 dBW, Date: 16-Dec-2011



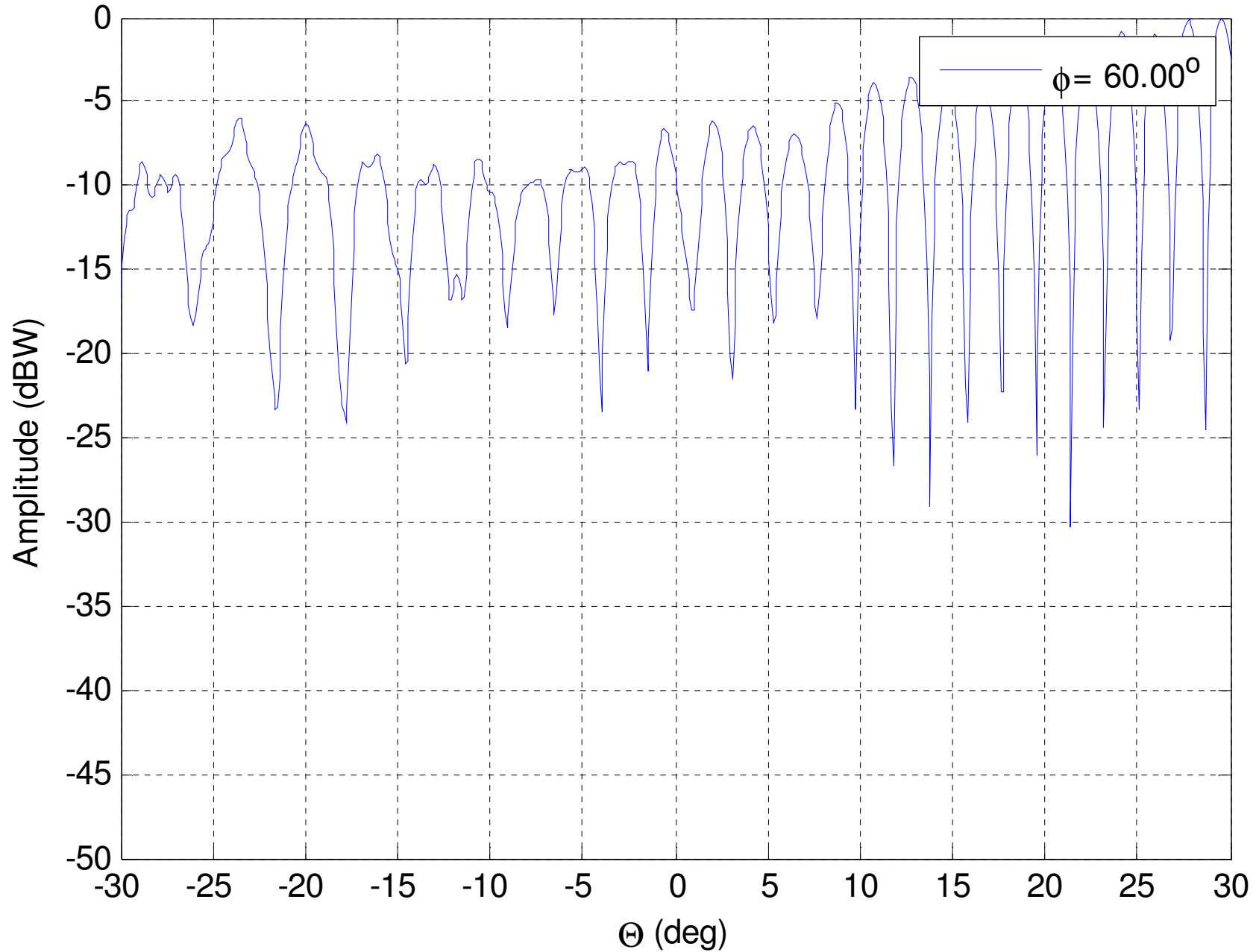
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp-50.cut, Peak: -10.26 dBW, Date: 16-Dec-2011



Normalized pattern cuts - farfield

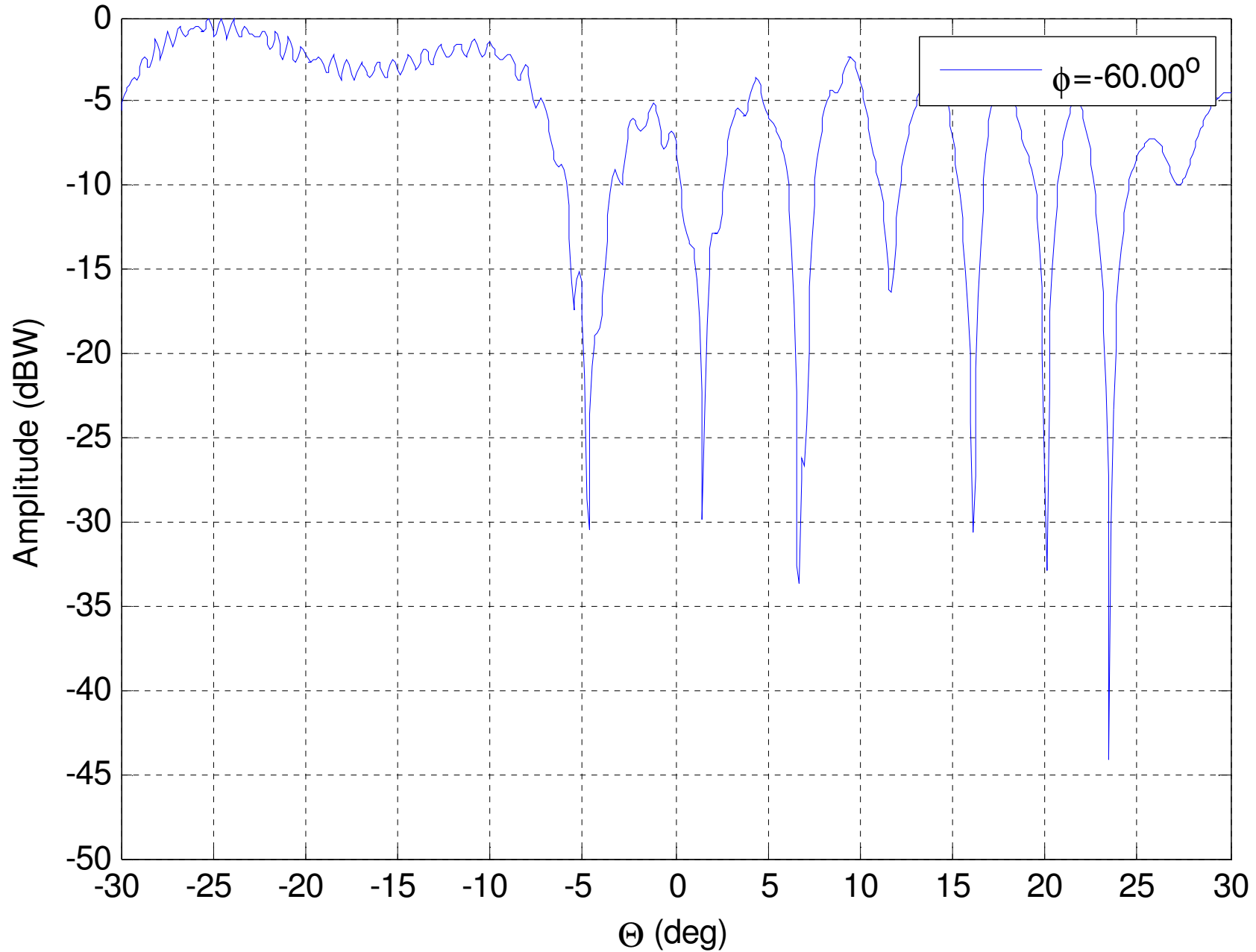
Input file: tx-17.3-lhcp-60.cut, Peak: -10.85 dBW, Date: 16-Dec-2011



RHCP at 17.5 GHz

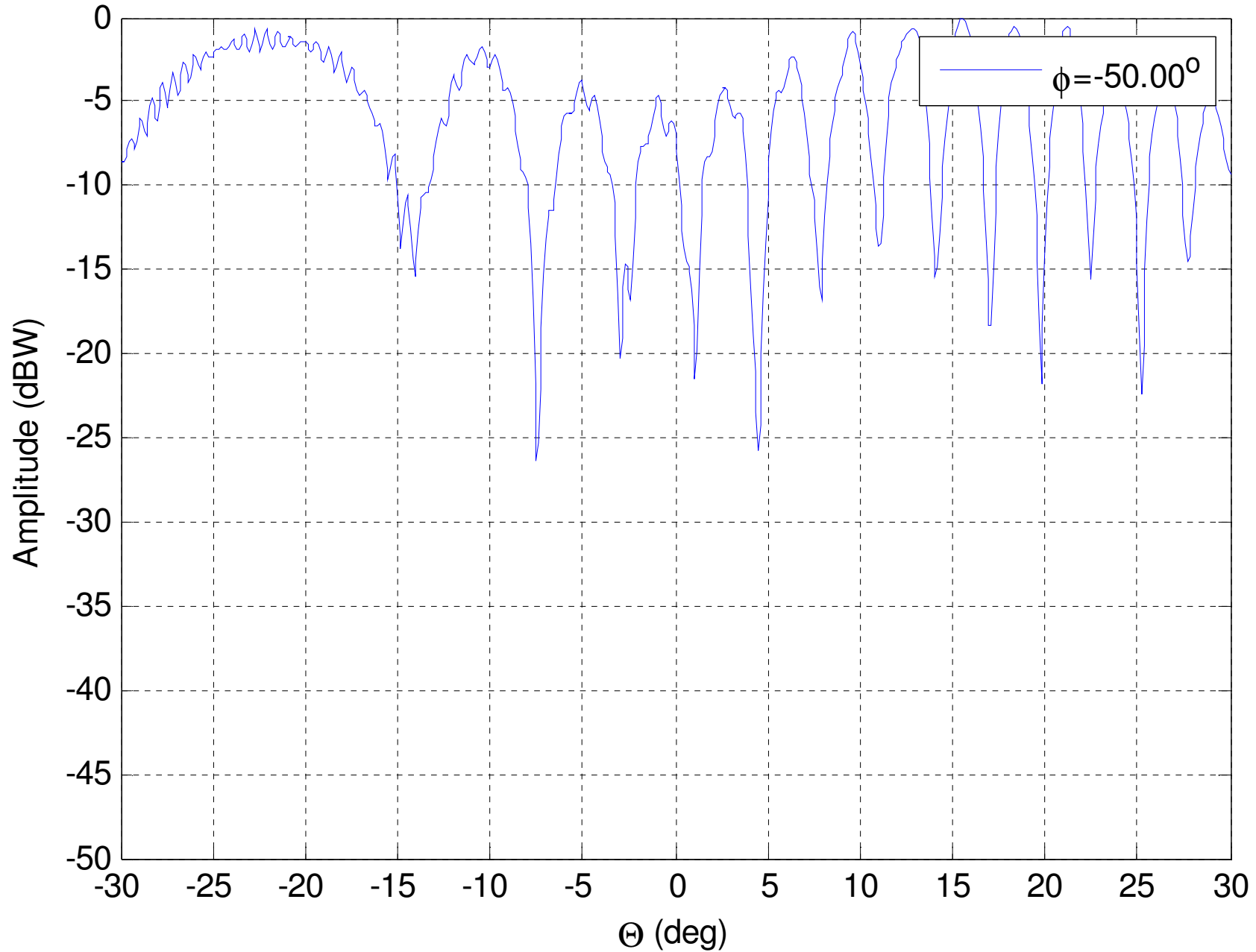
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--60.cut, Peak: -12.05 dBW, Date: 16-Dec-2011



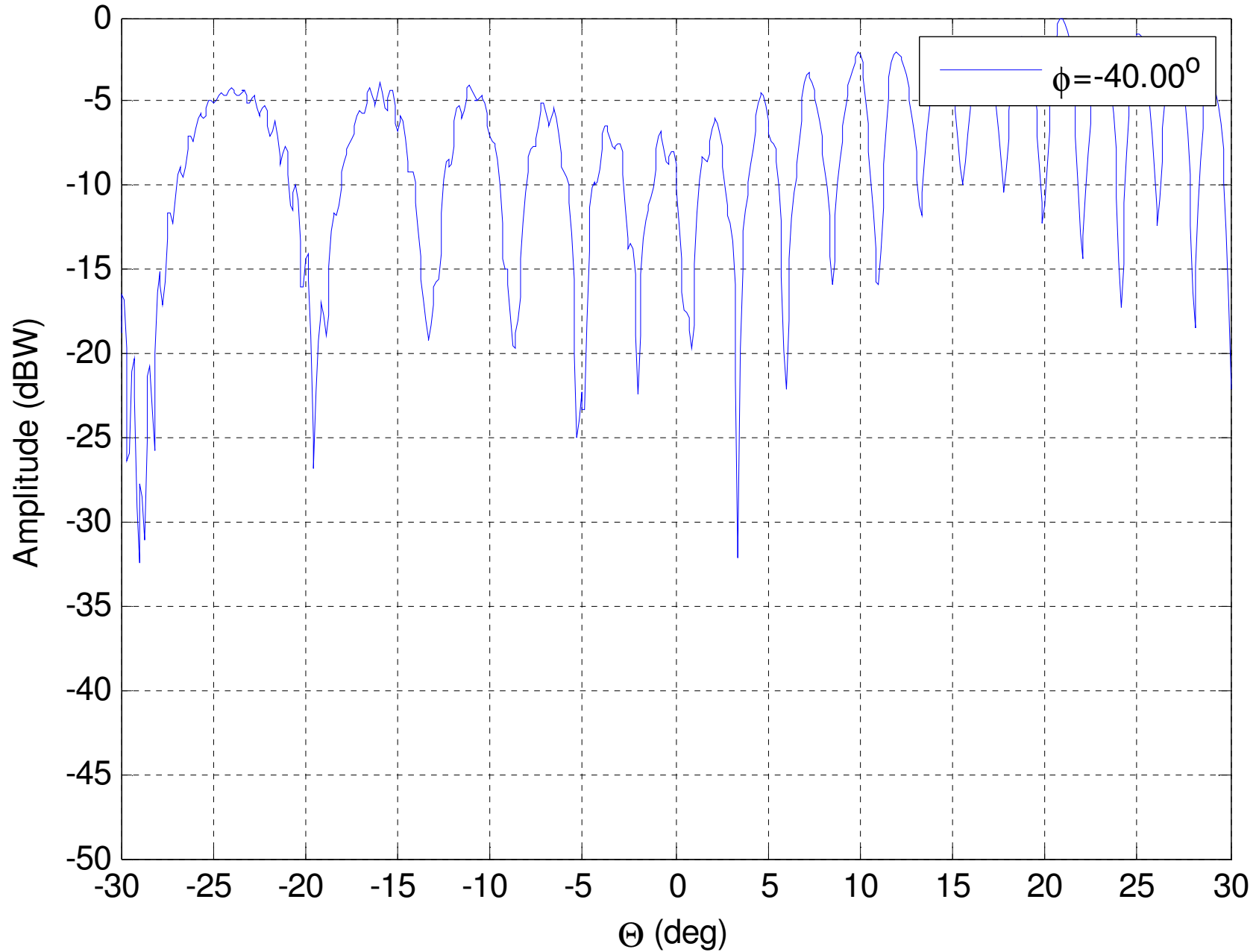
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--50.cut, Peak: -12.51 dBW, Date: 16-Dec-2011



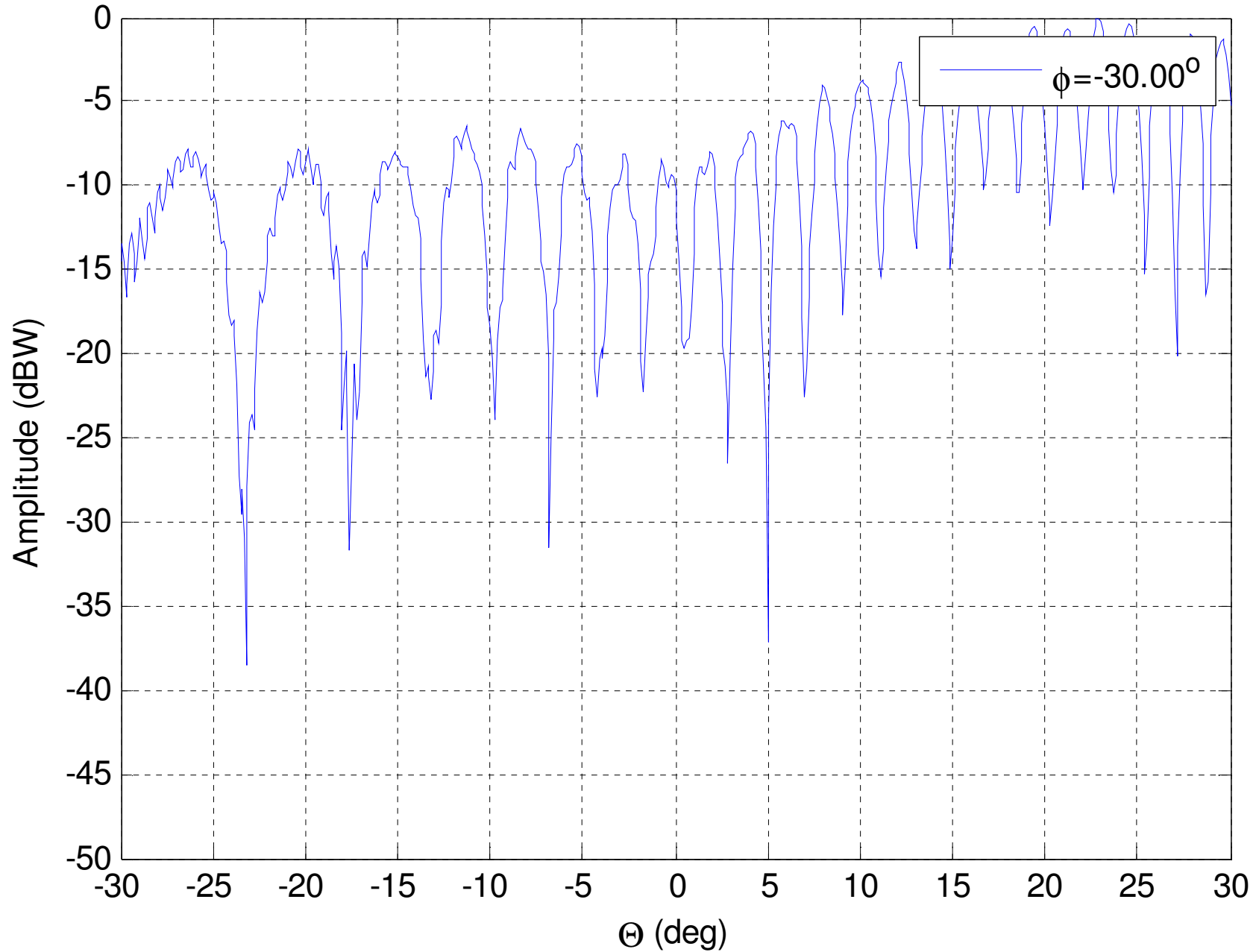
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--40.cut, Peak: -10.63 dBW, Date: 16-Dec-2011



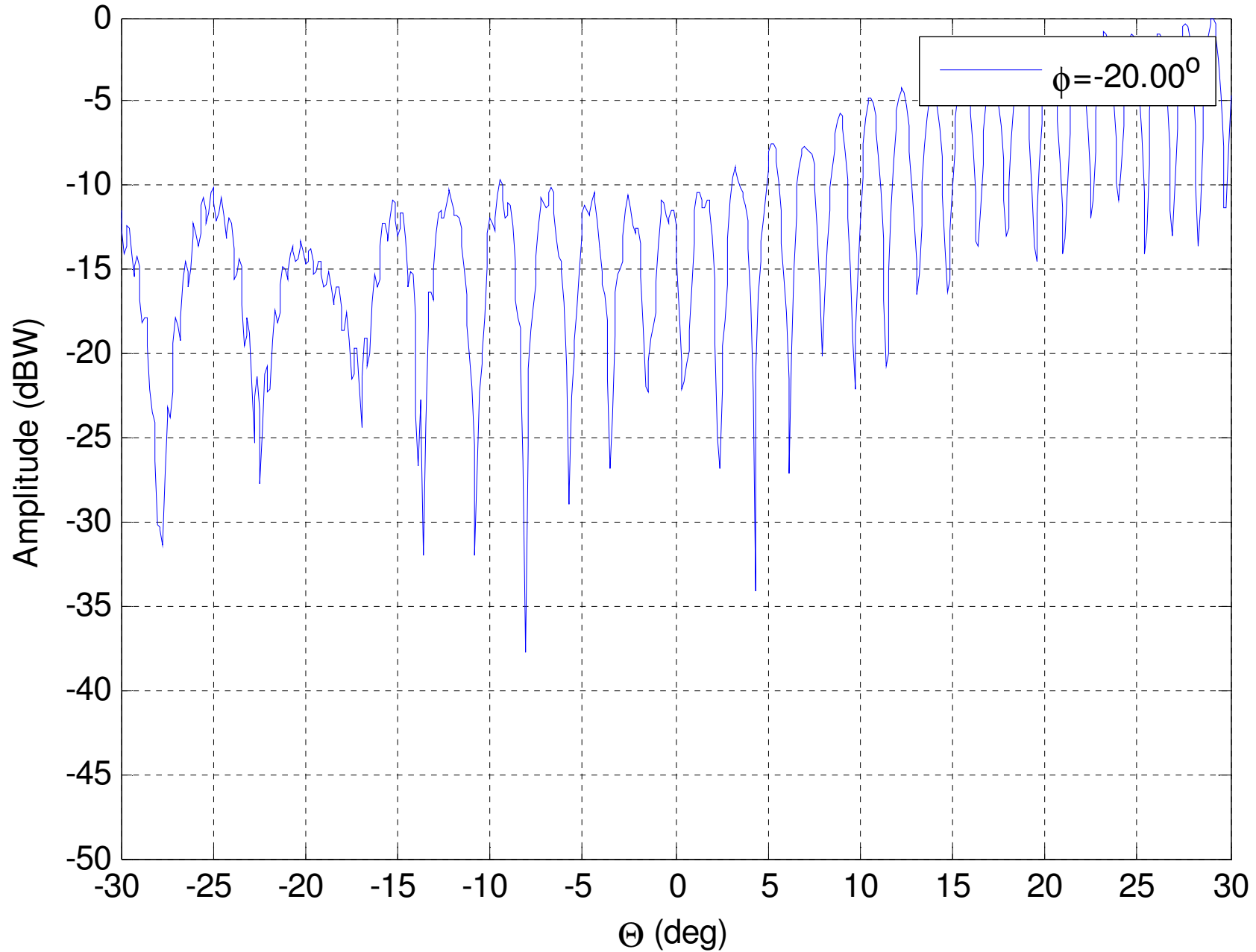
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--30.cut, Peak: -9.13 dBW, Date: 16-Dec-2011



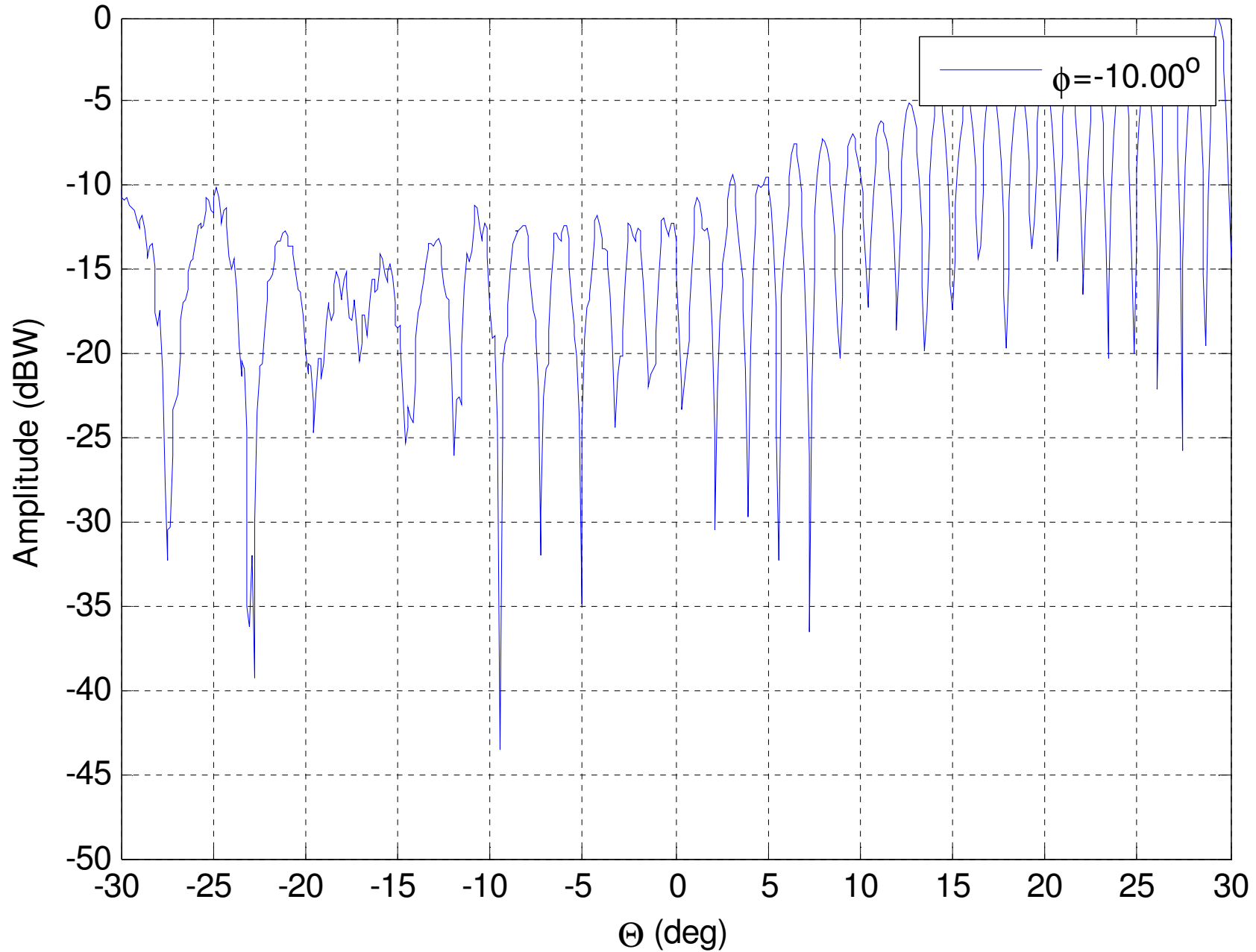
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--20.cut, Peak: -6.99 dBW, Date: 16-Dec-2011



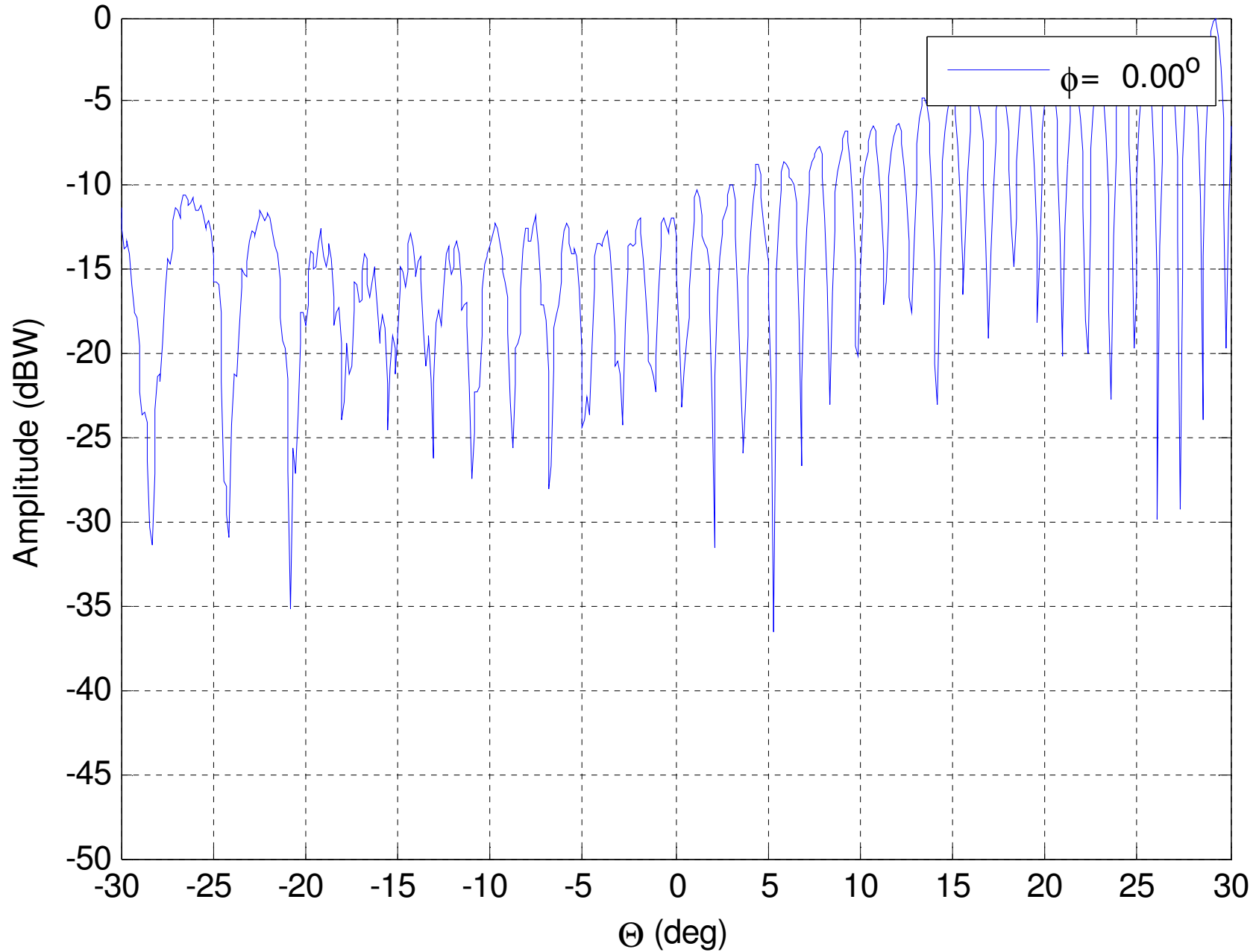
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--10.cut, Peak: -6.16 dBW, Date: 16-Dec-2011



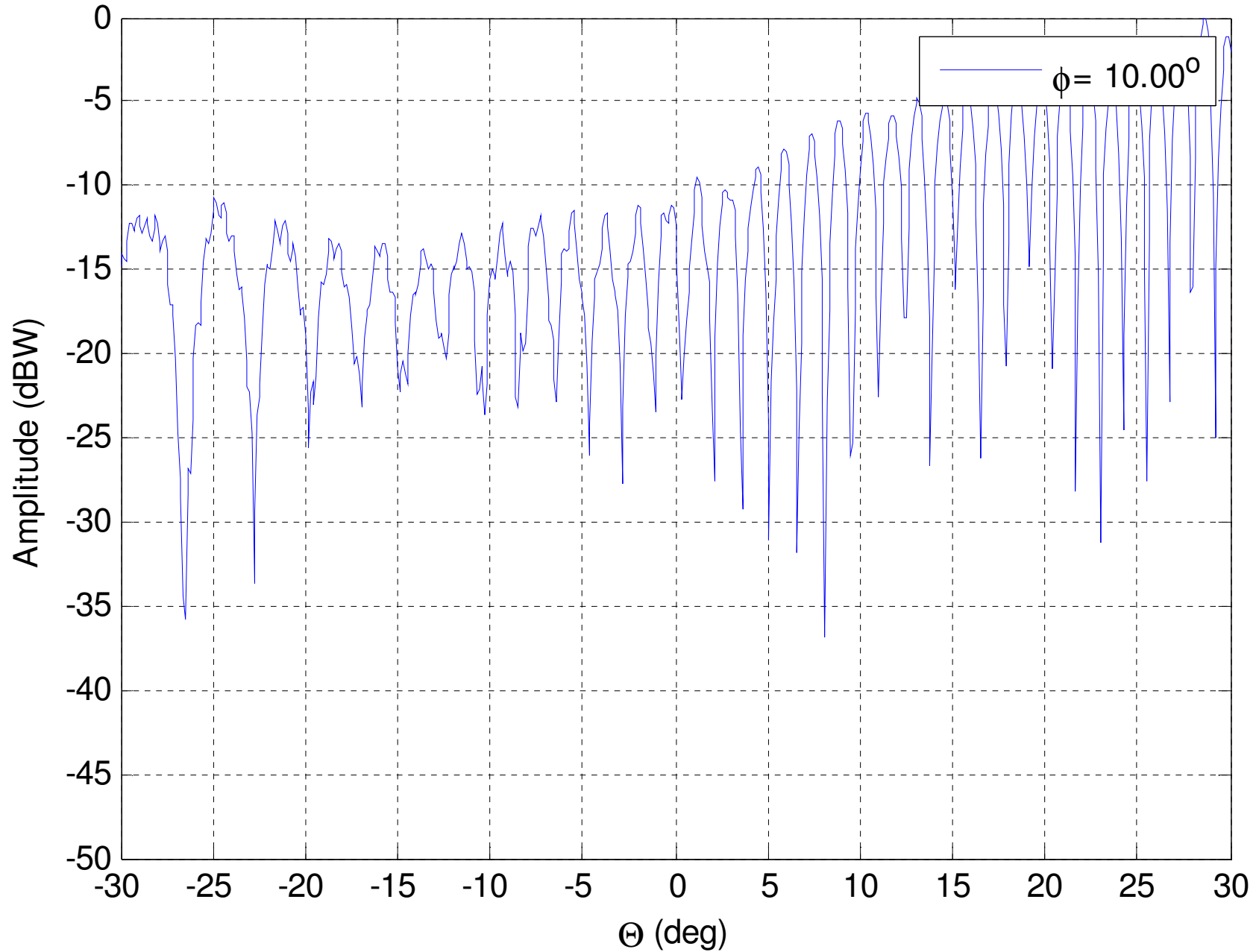
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-0.cut, Peak: -6.41 dBW, Date: 16-Dec-2011



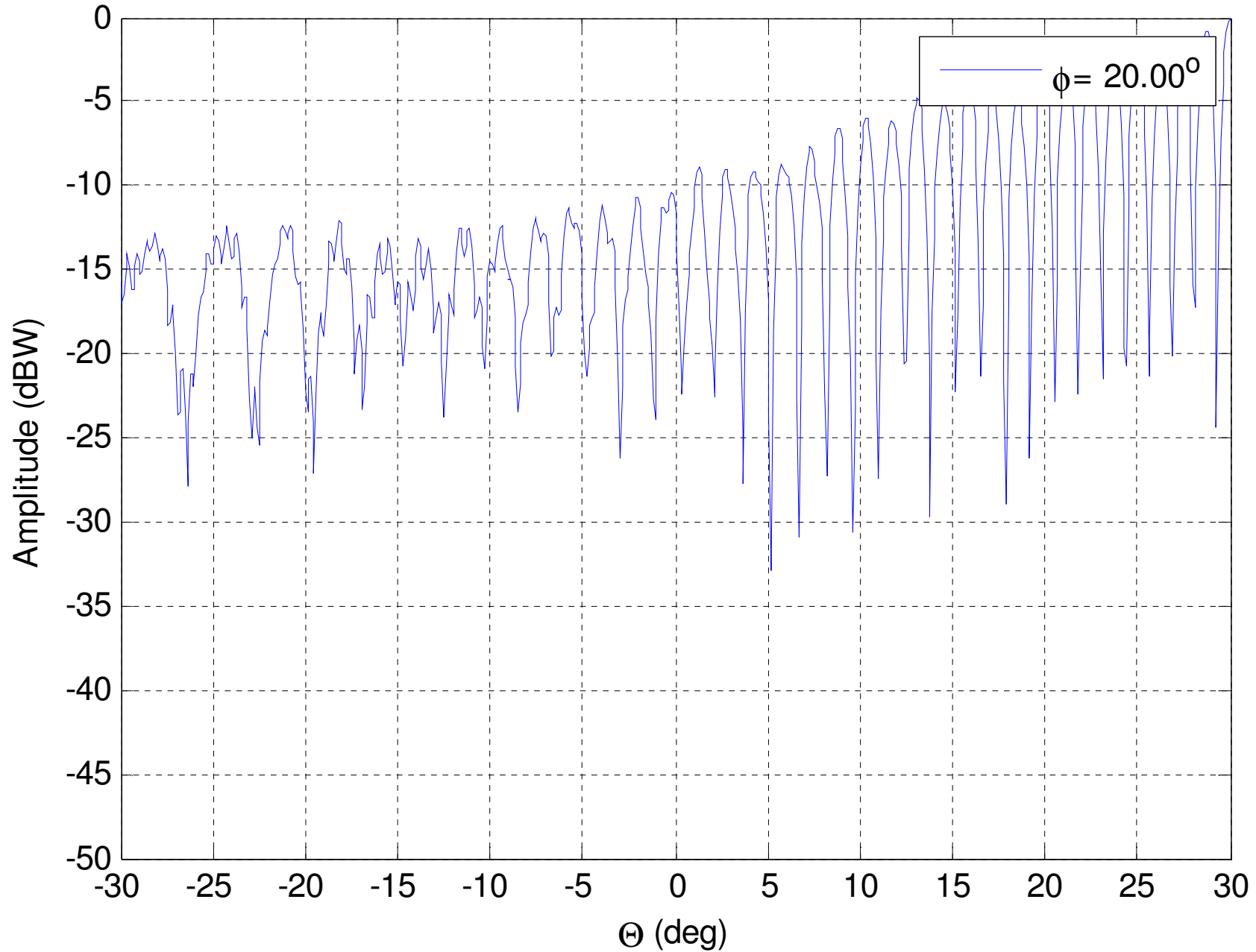
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-10.cut, Peak: -7.07 dBW, Date: 16-Dec-2011



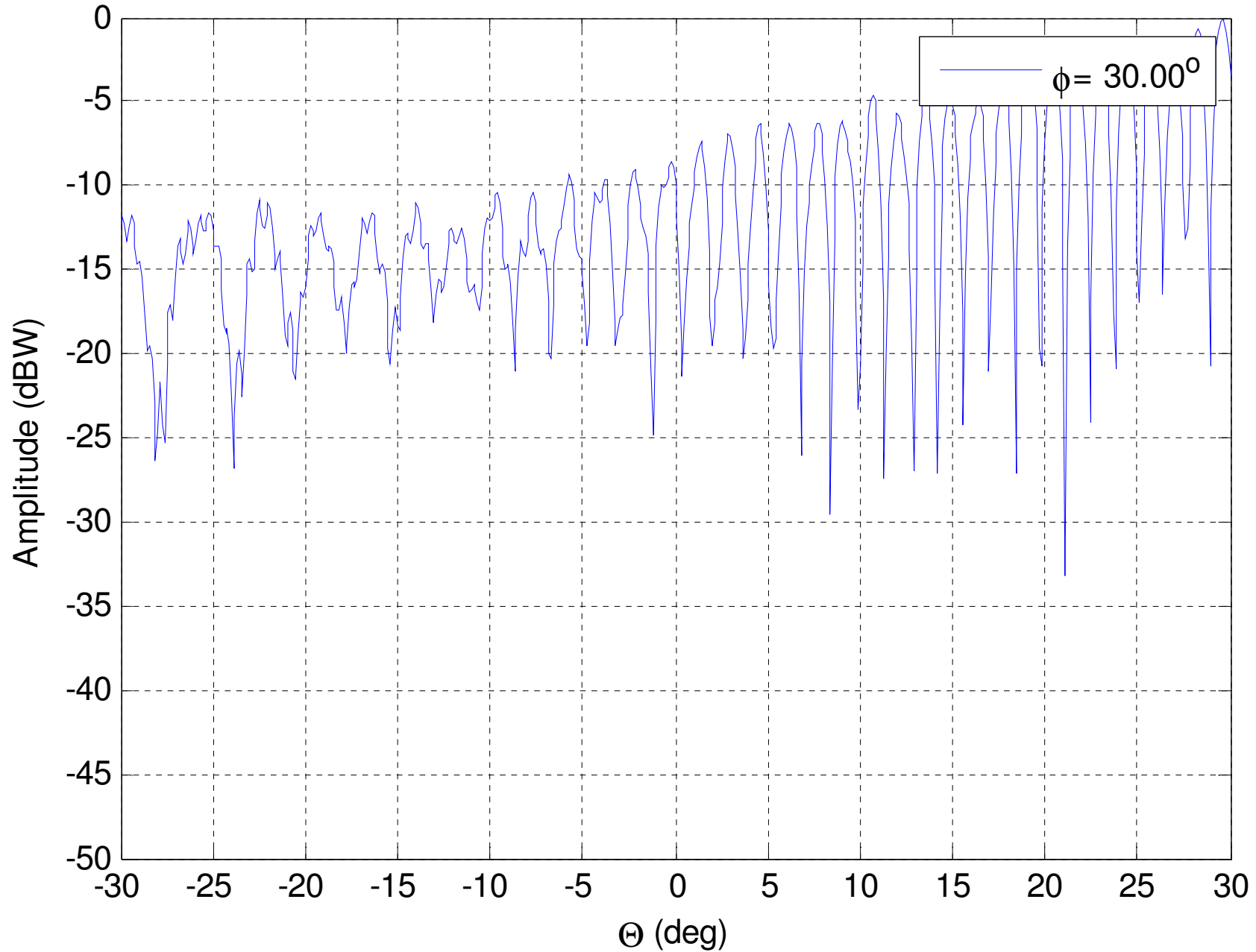
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-20.cut, Peak: -7.76 dBW, Date: 16-Dec-2011



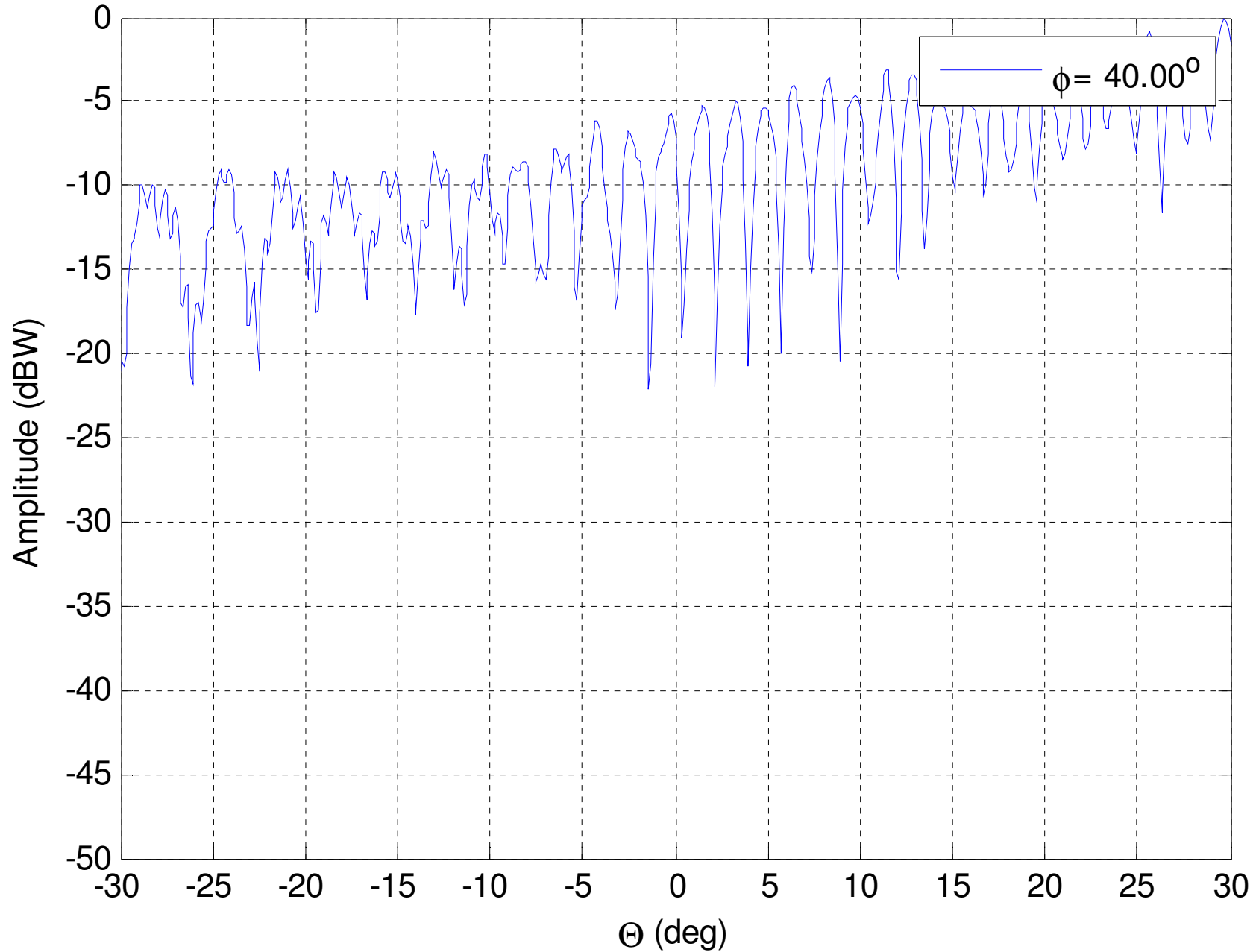
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-30.cut, Peak: -9.53 dBW, Date: 16-Dec-2011



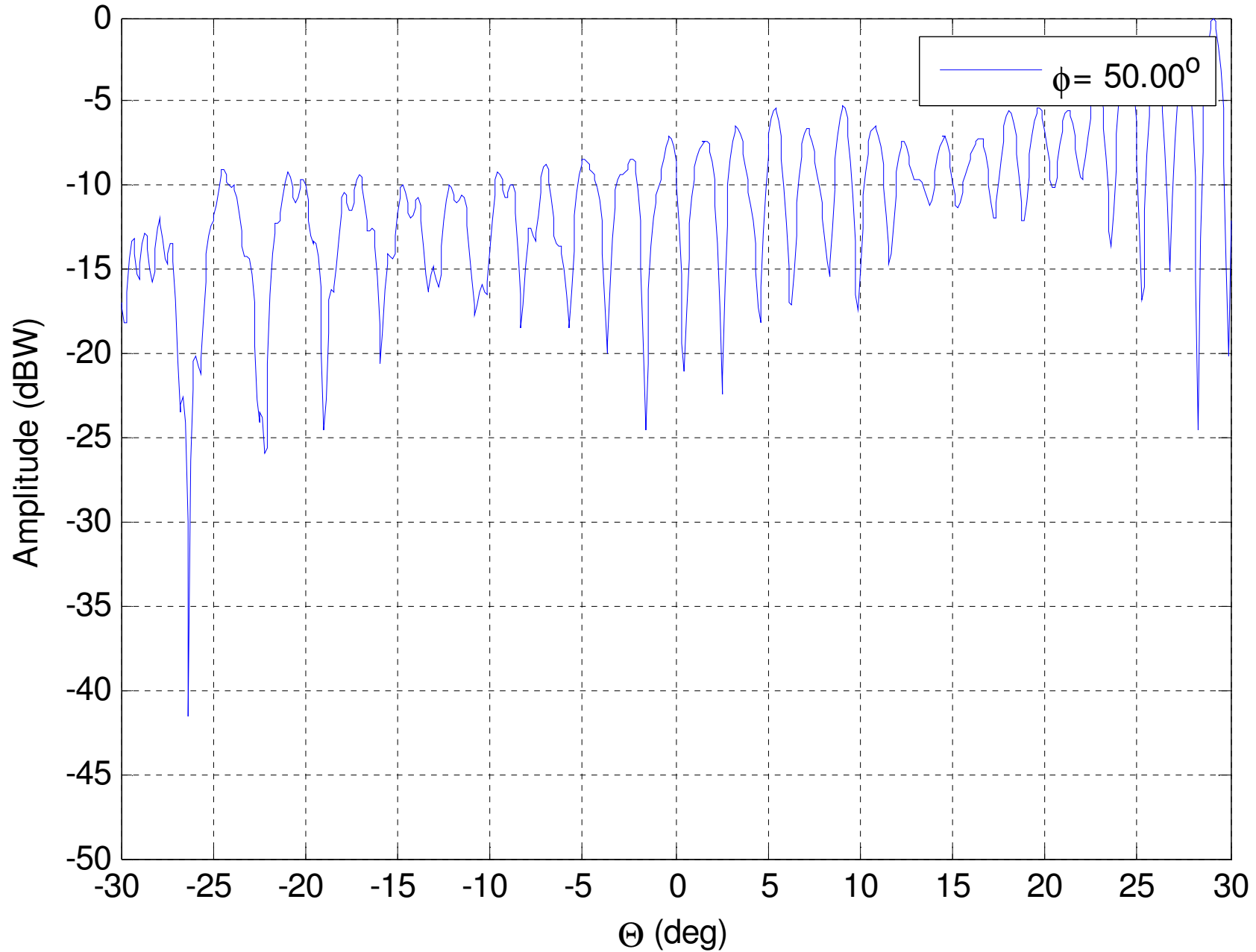
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-40.cut, Peak: -12.26 dBW, Date: 16-Dec-2011



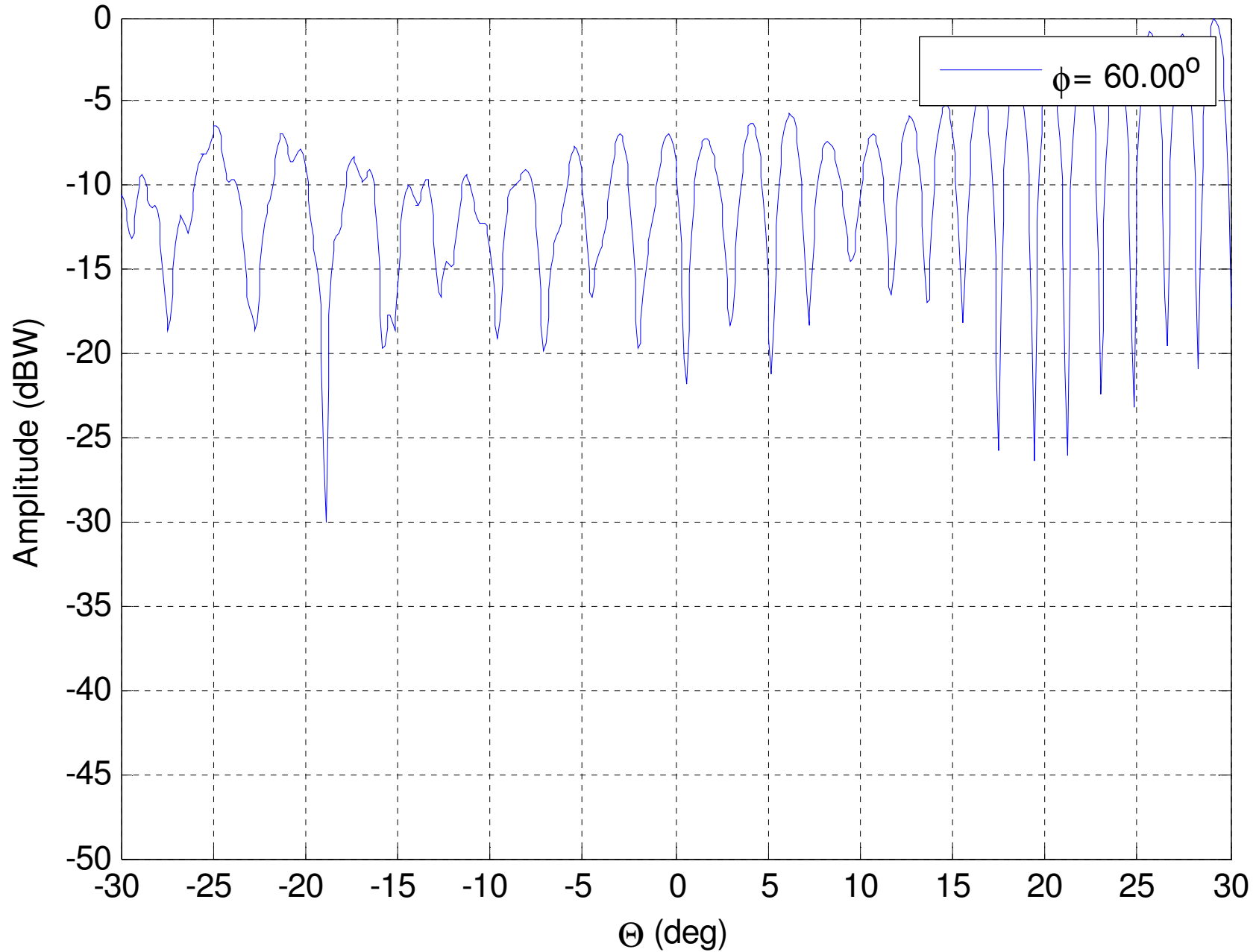
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-50.cut, Peak: -10.88 dBW, Date: 16-Dec-2011



Normalized pattern cuts - farfield

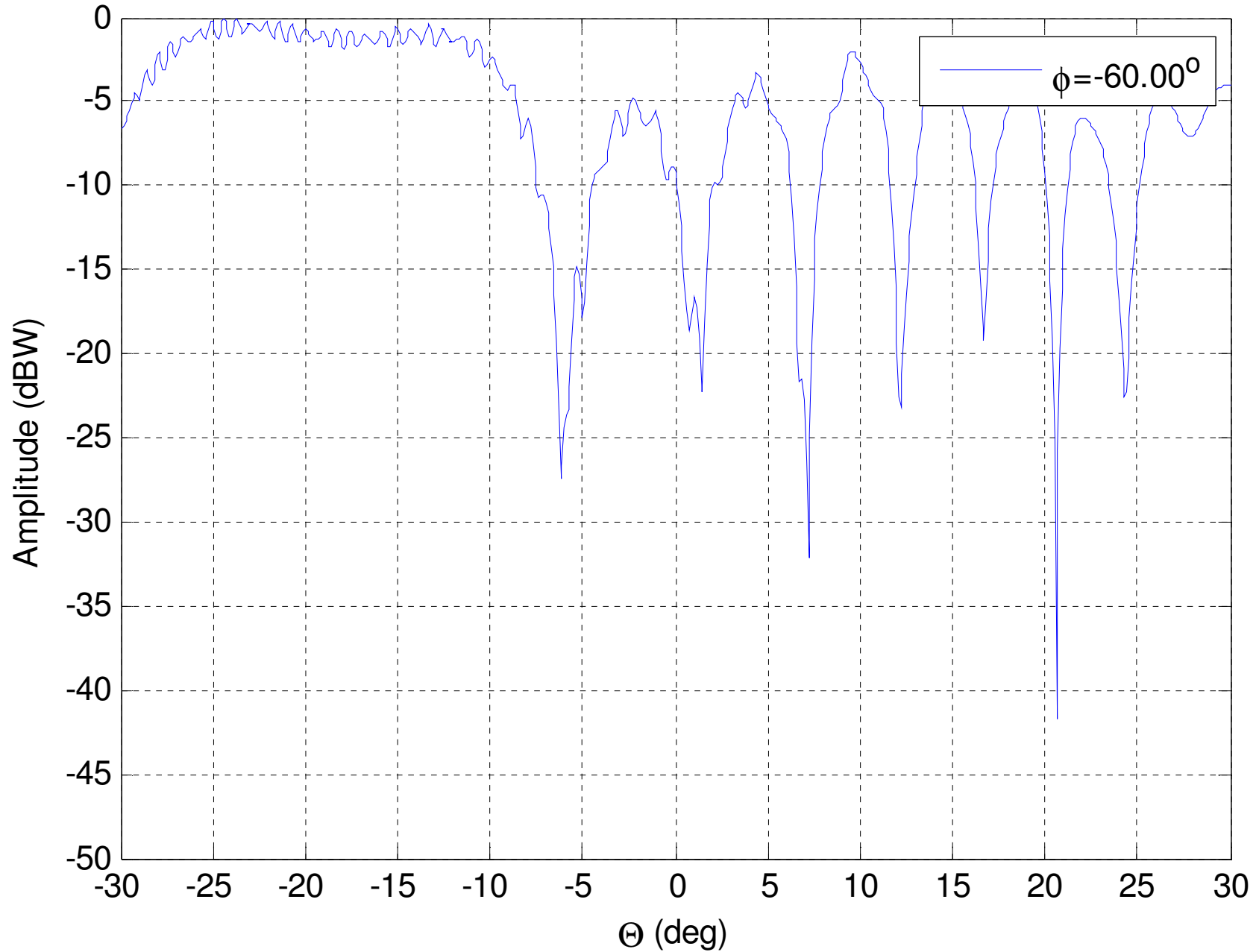
Input file: tx-17.5-rhcp-60.cut, Peak: -10.90 dBW, Date: 16-Dec-2011



LHCP at 17.5 GHz

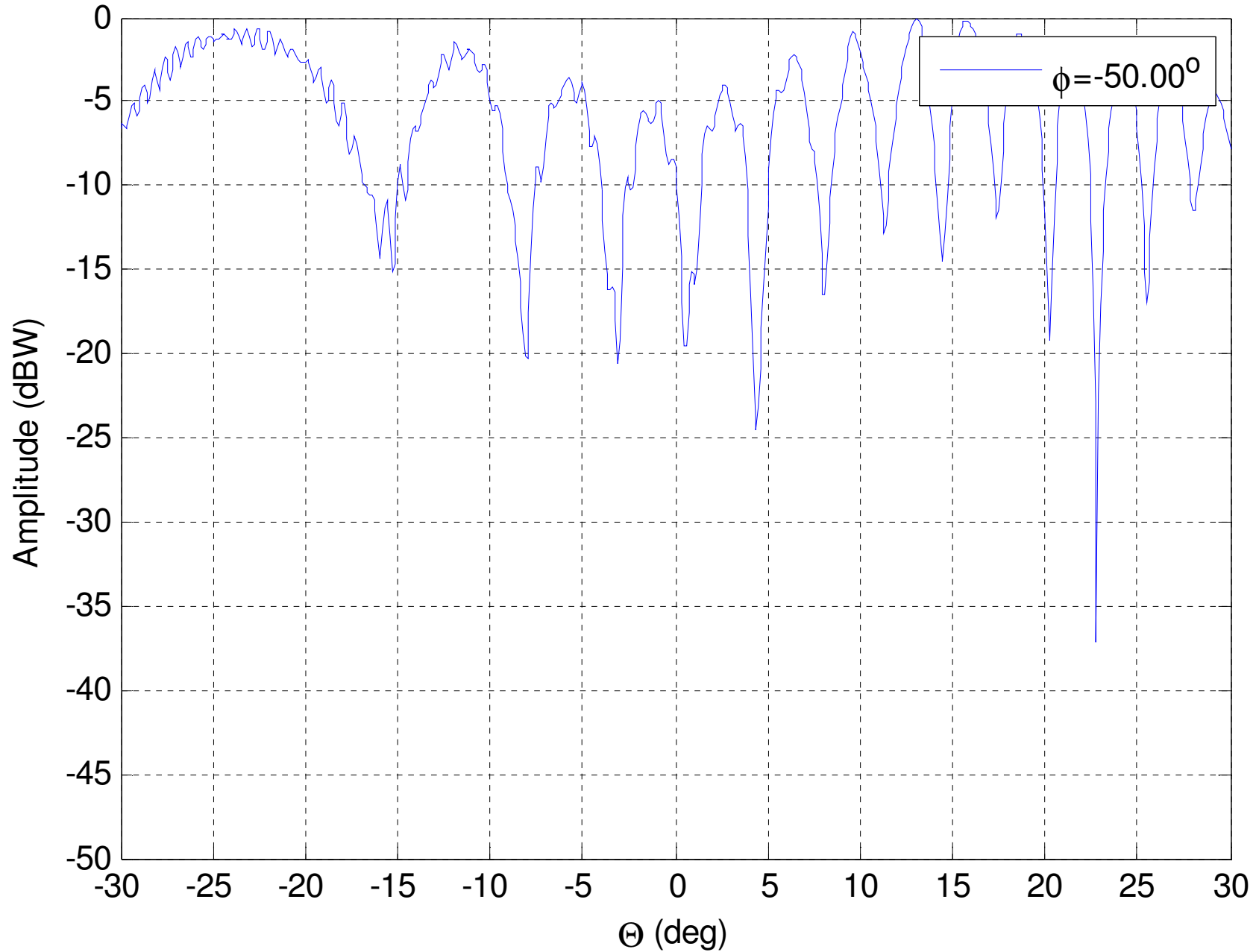
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--60.cut, Peak: -12.24 dBW, Date: 16-Dec-2011



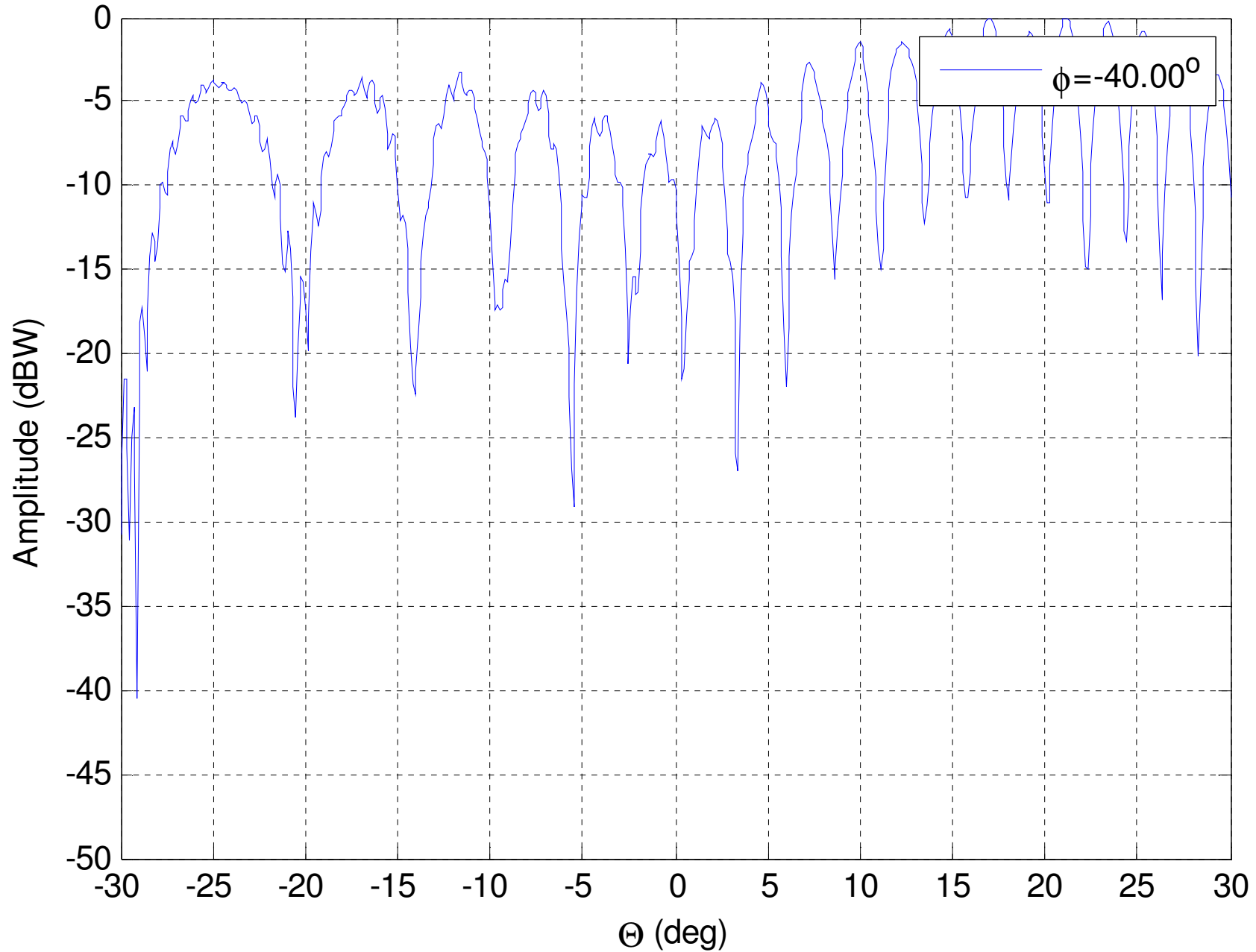
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--50.cut, Peak: -12.51 dBW, Date: 16-Dec-2011



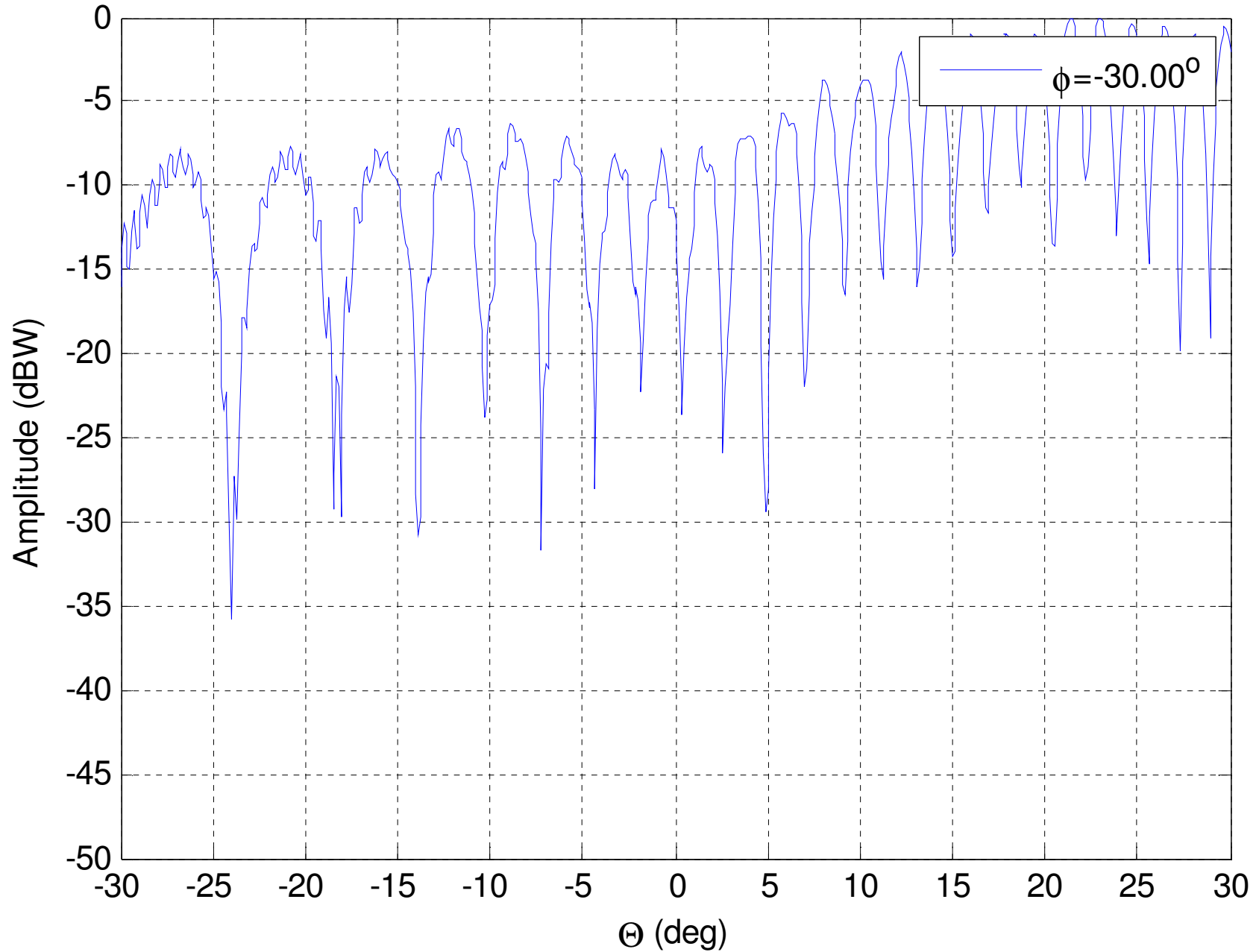
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--40.cut, Peak: -11.15 dBW, Date: 16-Dec-2011



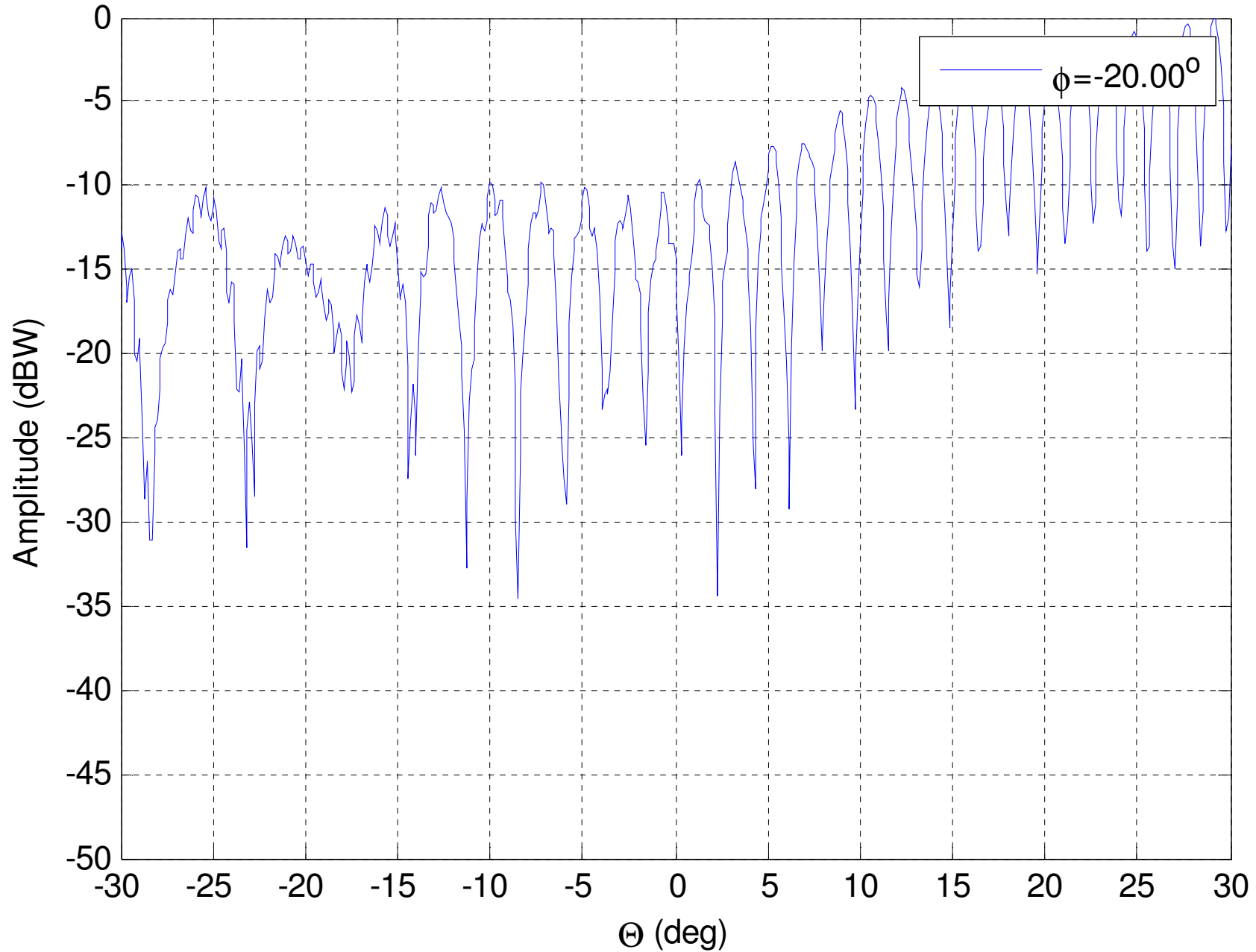
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--30.cut, Peak: -9.36 dBW, Date: 16-Dec-2011



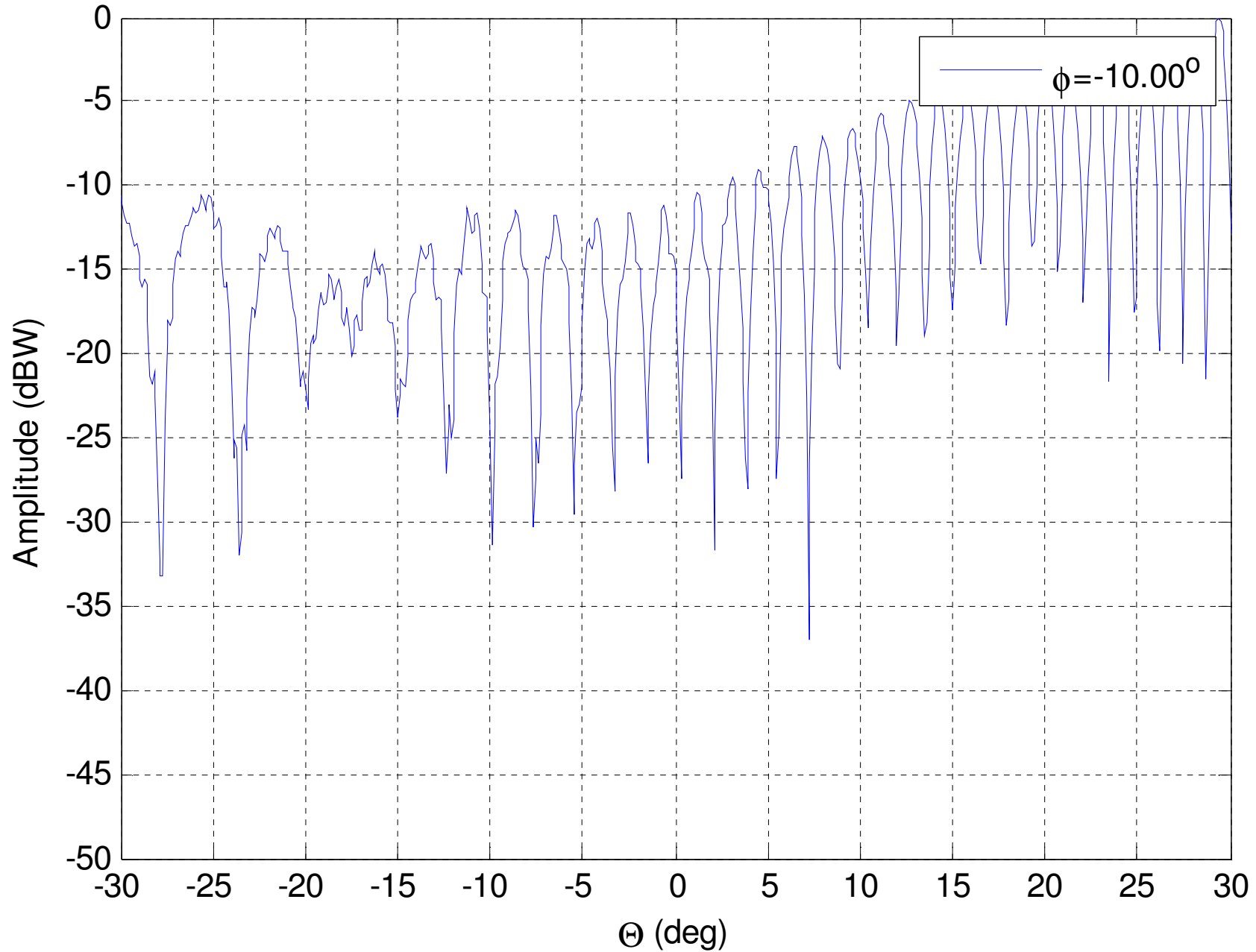
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--20.cut, Peak: -7.02 dBW, Date: 16-Dec-2011



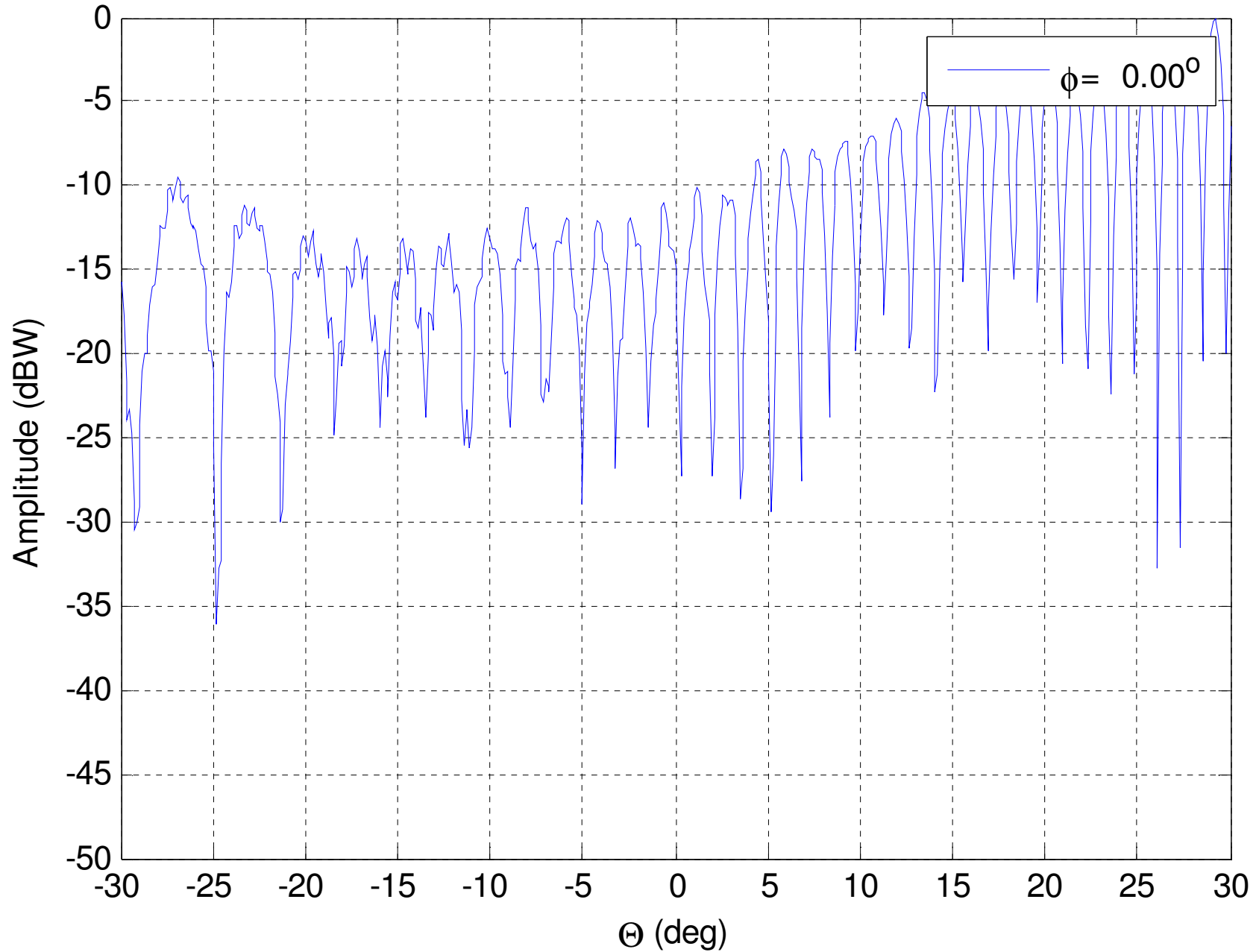
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--10.cut, Peak: -6.24 dBW, Date: 16-Dec-2011



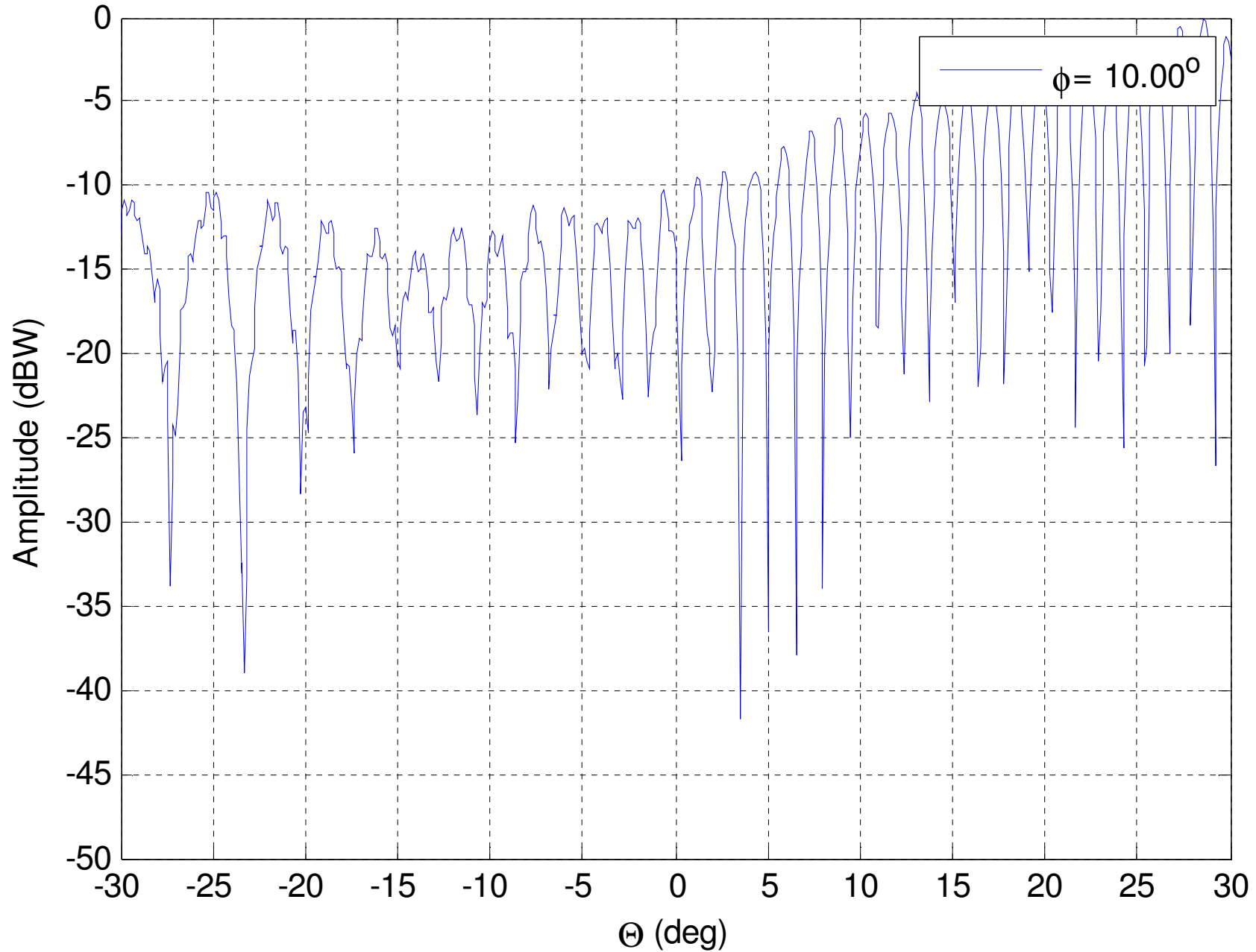
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-0.cut, Peak: -6.49 dBW, Date: 16-Dec-2011



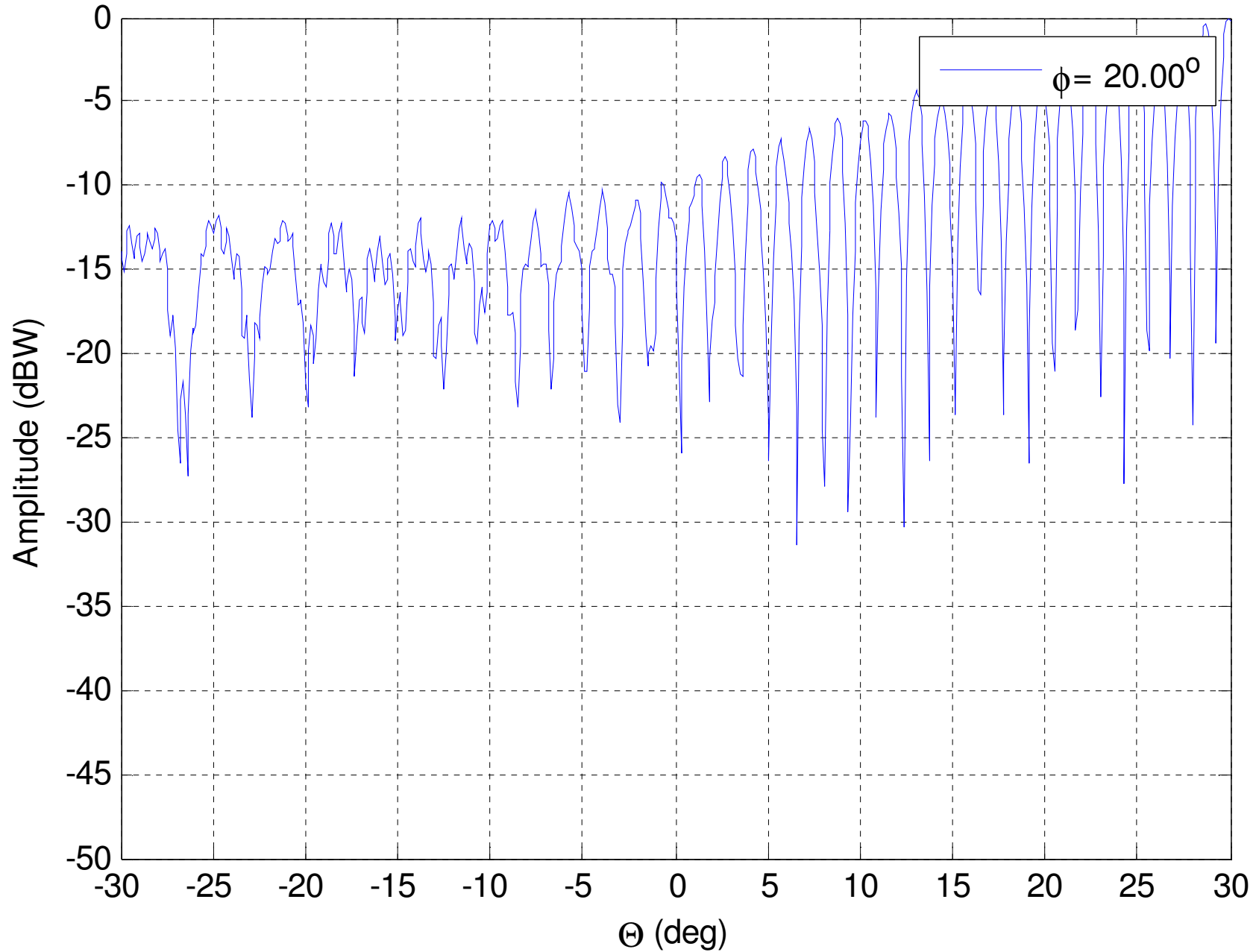
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-10.cut, Peak: -7.37 dBW, Date: 16-Dec-2011



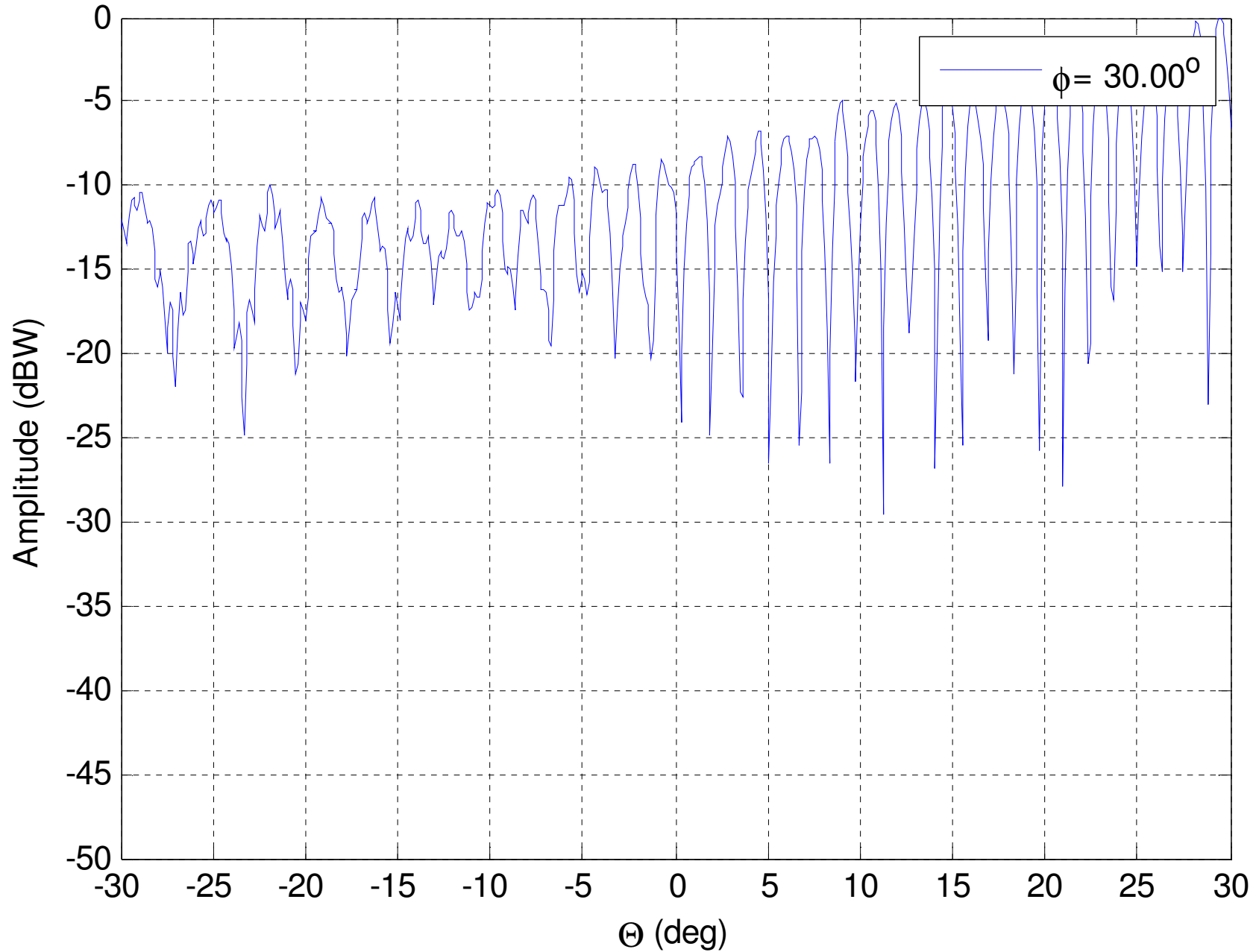
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-20.cut, Peak: -8.05 dBW, Date: 16-Dec-2011



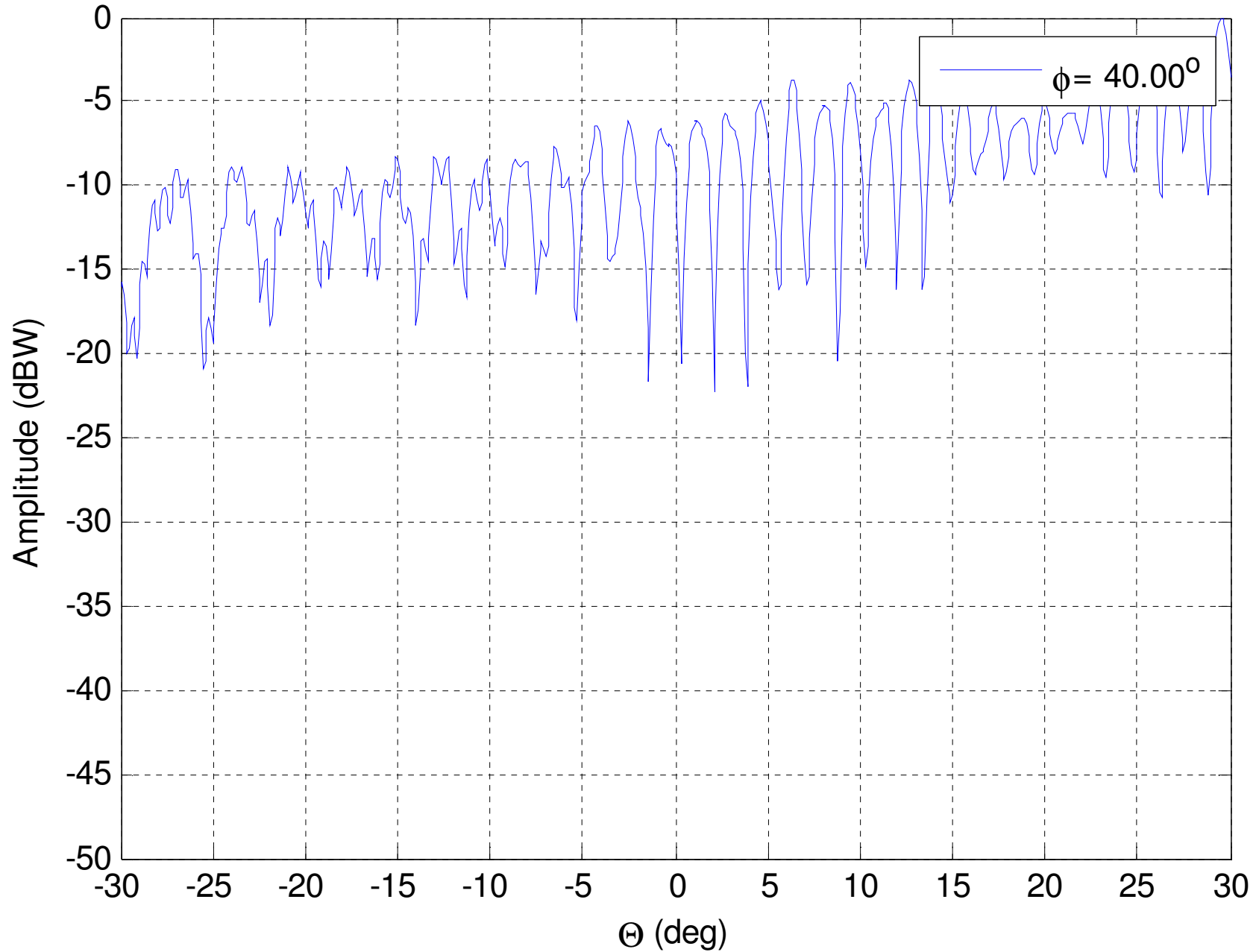
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-30.cut, Peak: -9.77 dBW, Date: 16-Dec-2011



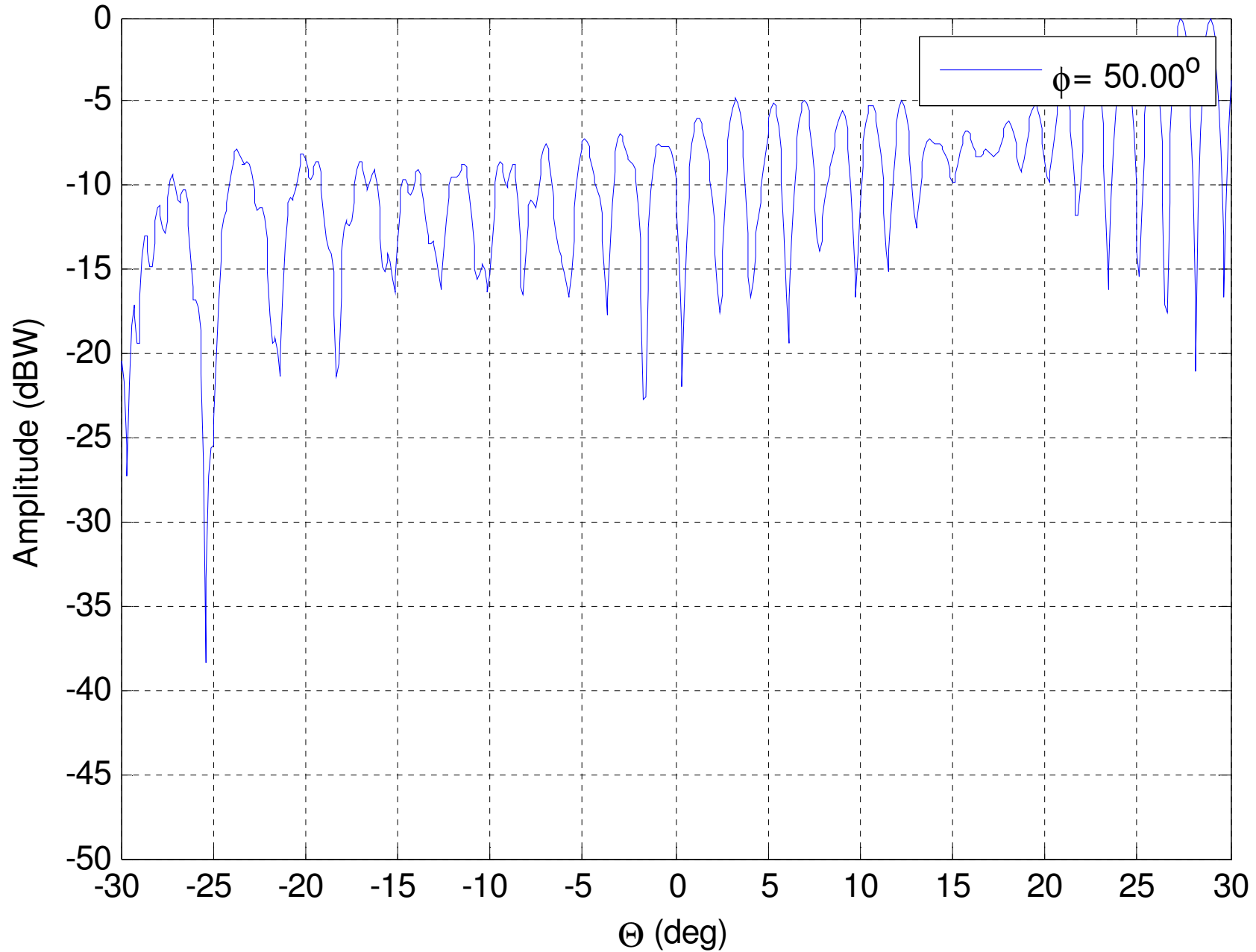
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-40.cut, Peak: -12.00 dBW, Date: 16-Dec-2011



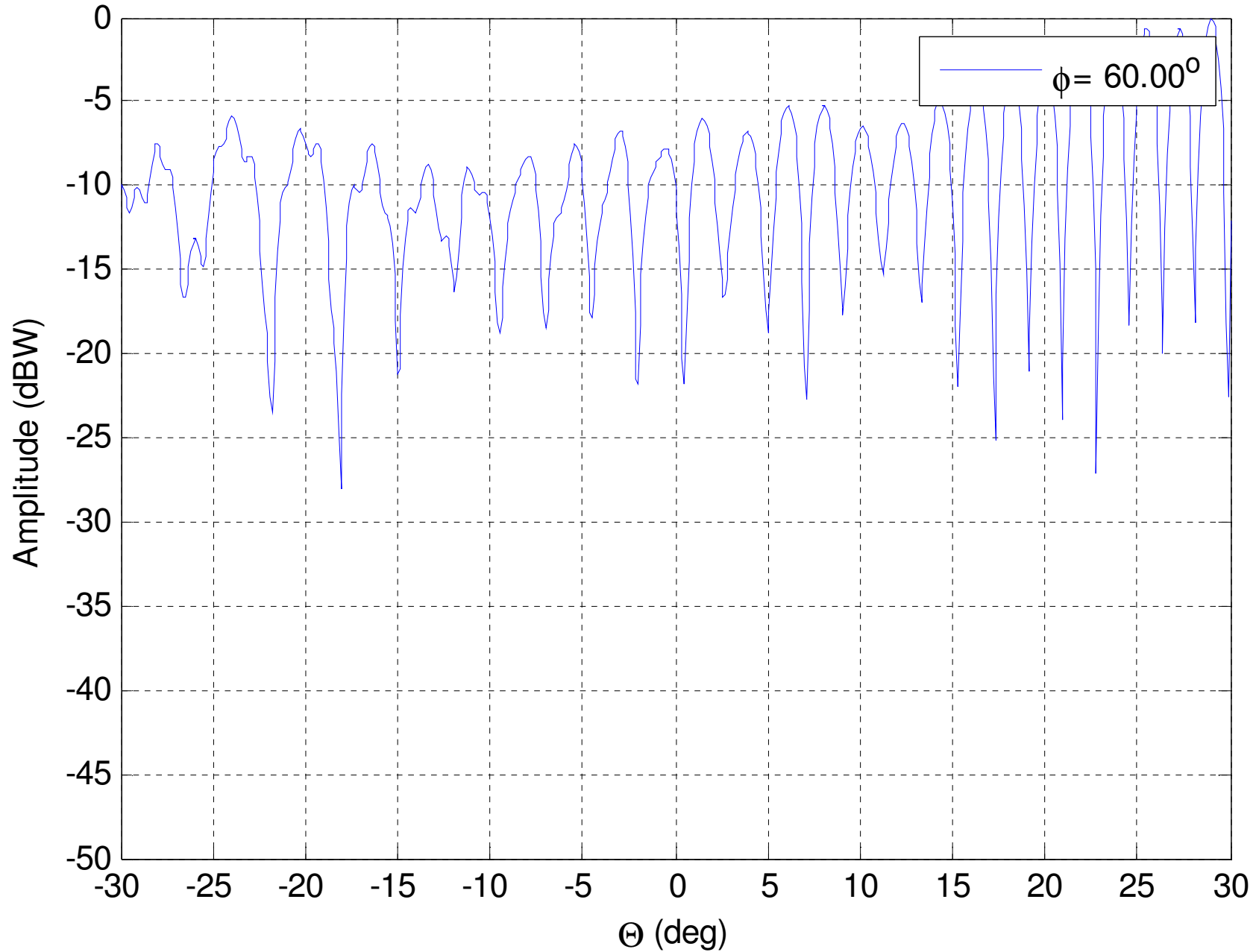
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-50.cut, Peak: -11.71 dBW, Date: 16-Dec-2011



Normalized pattern cuts - farfield

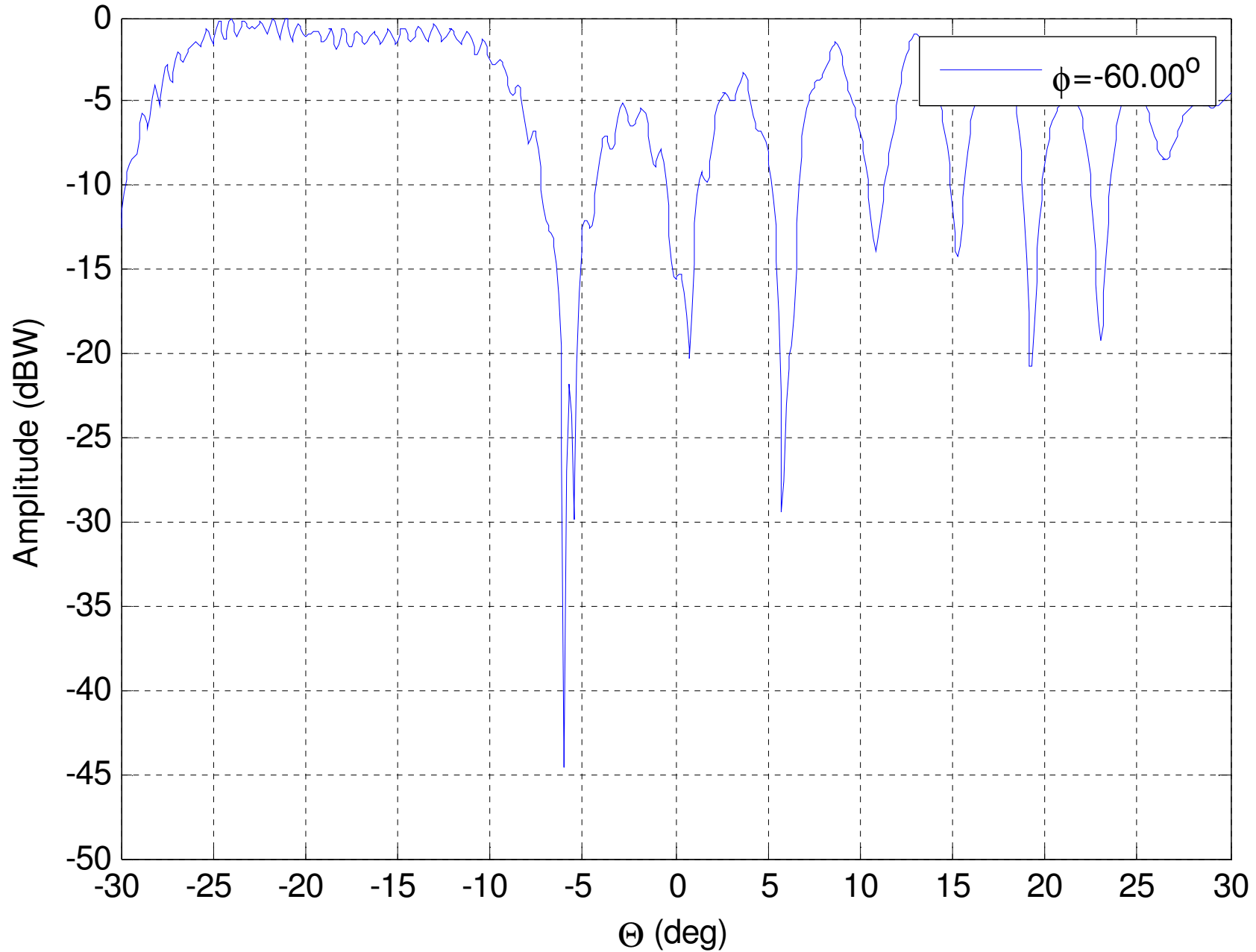
Input file: tx-17.5-lhcp-60.cut, Peak: -11.23 dBW, Date: 16-Dec-2011



RHCP at 17.7 GHz

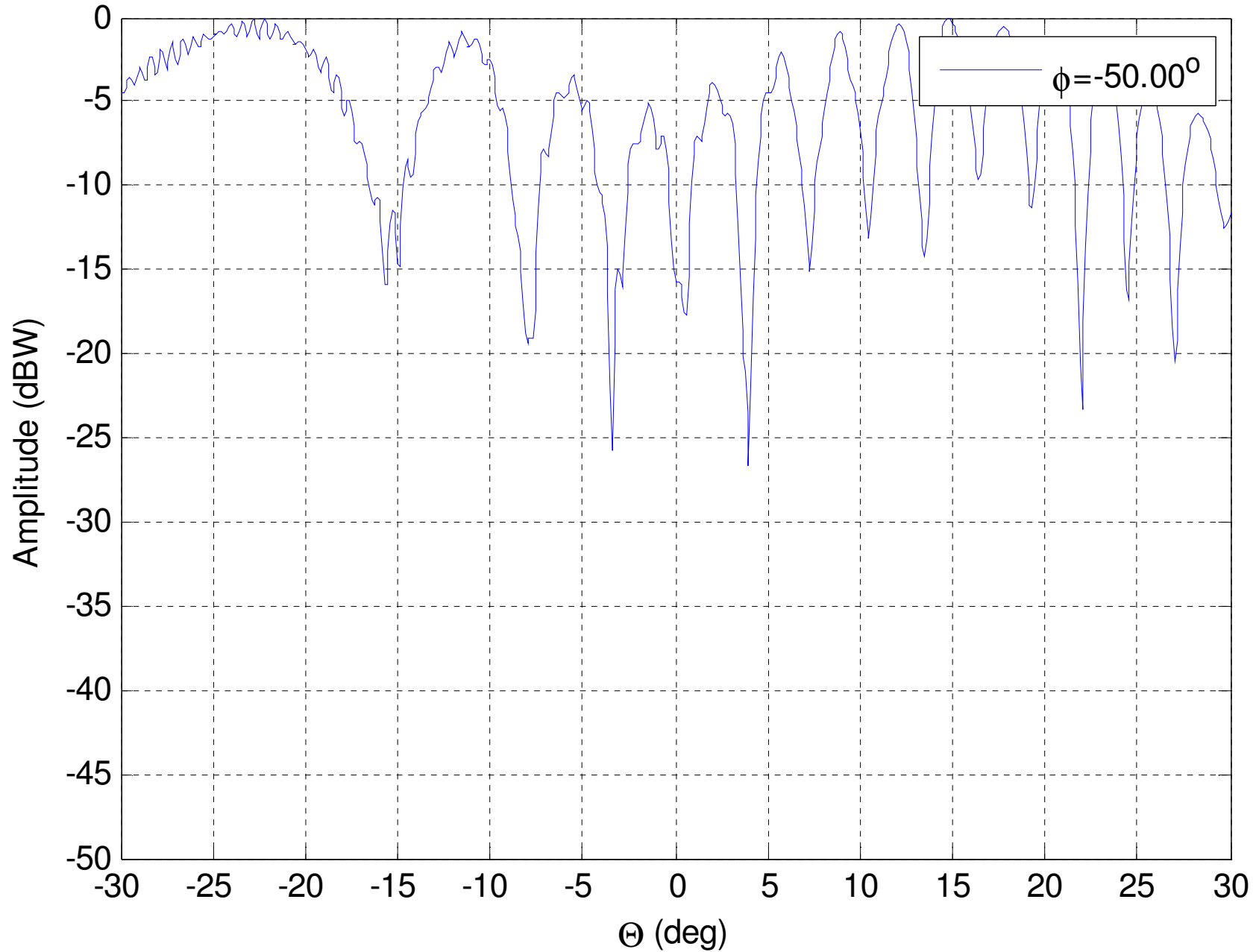
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--60.cut, Peak: -12.84 dBW, Date: 16-Dec-2011



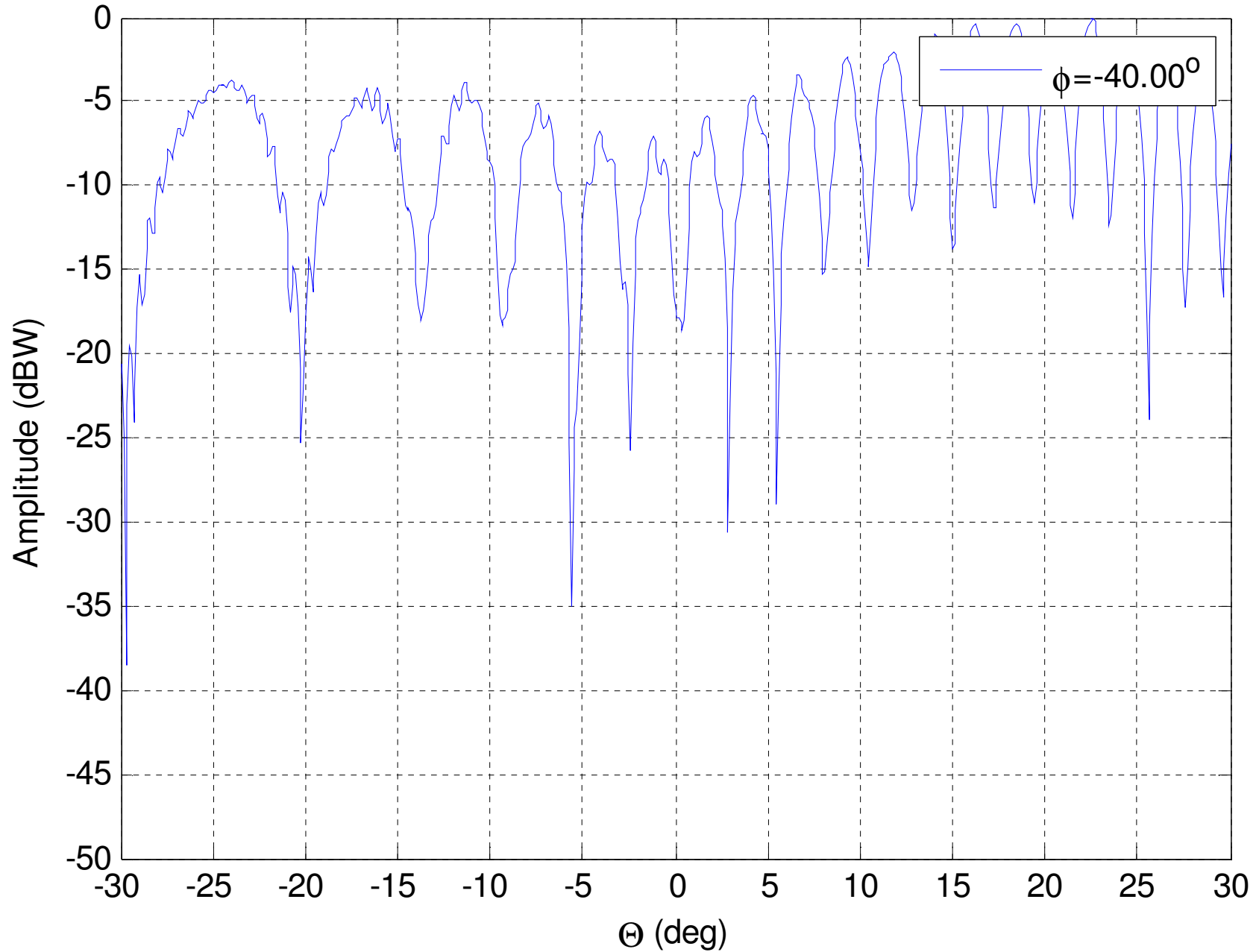
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--50.cut, Peak: -12.78 dBW, Date: 16-Dec-2011



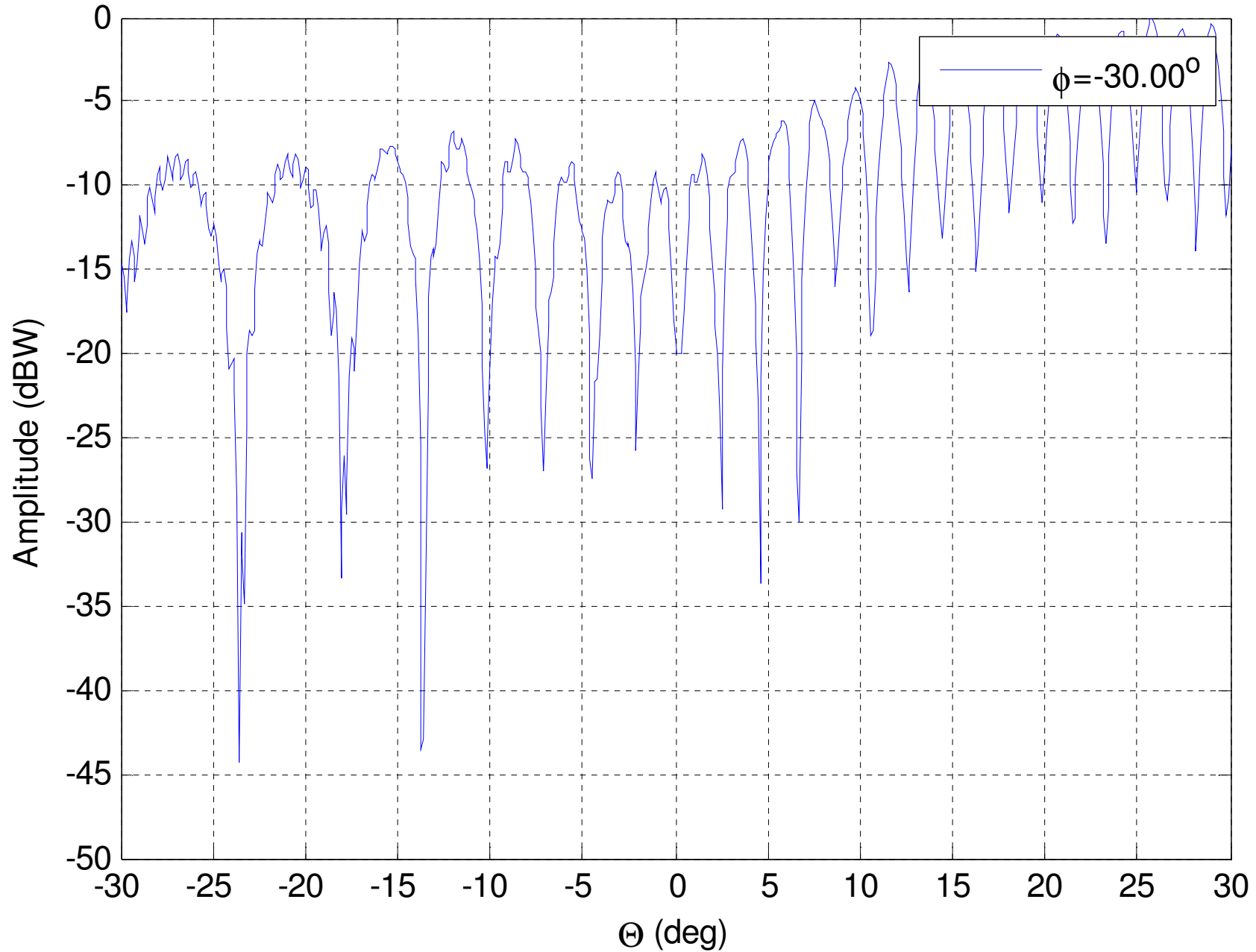
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--40.cut, Peak: -10.82 dBW, Date: 16-Dec-2011



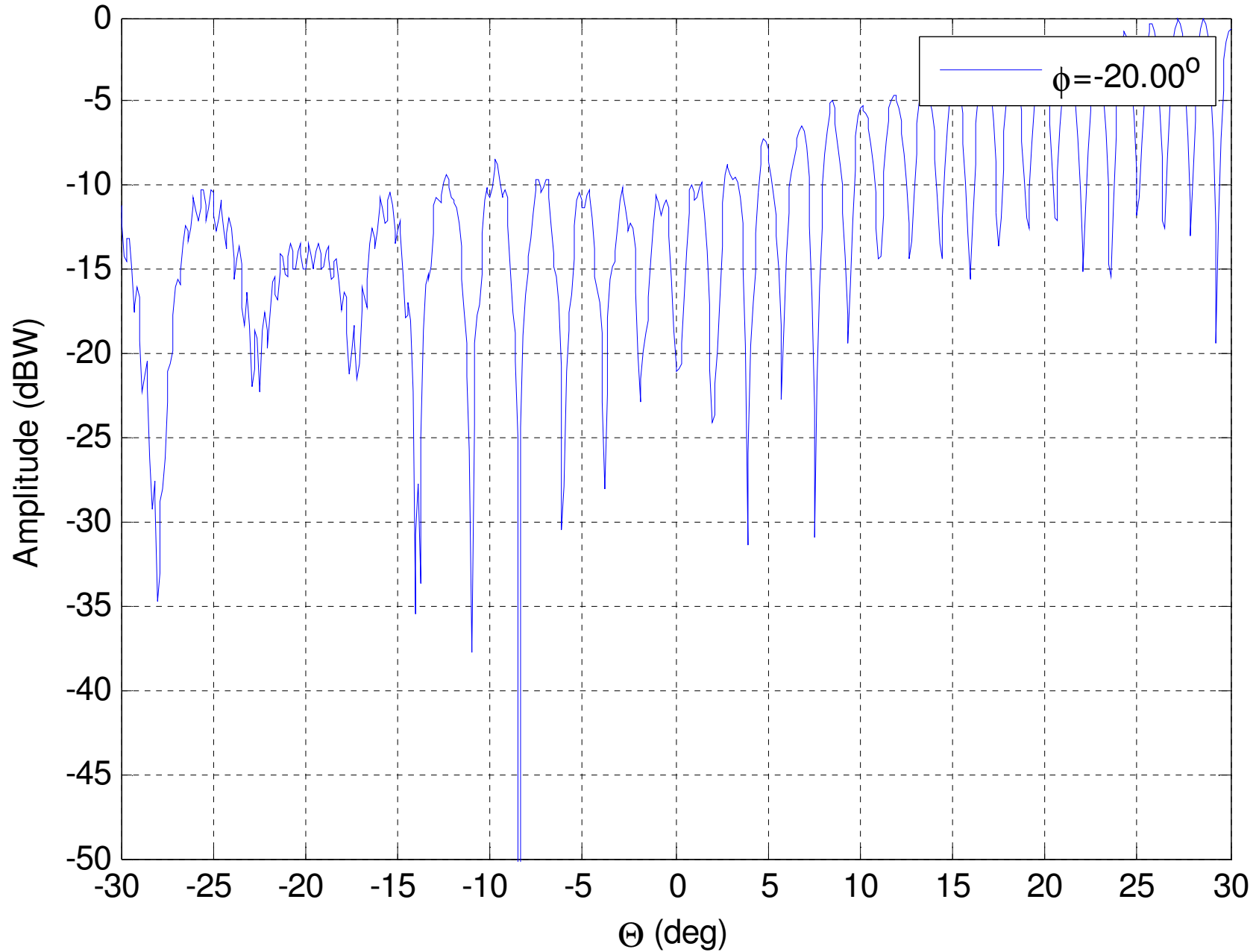
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--30.cut, Peak: -8.81 dBW, Date: 16-Dec-2011



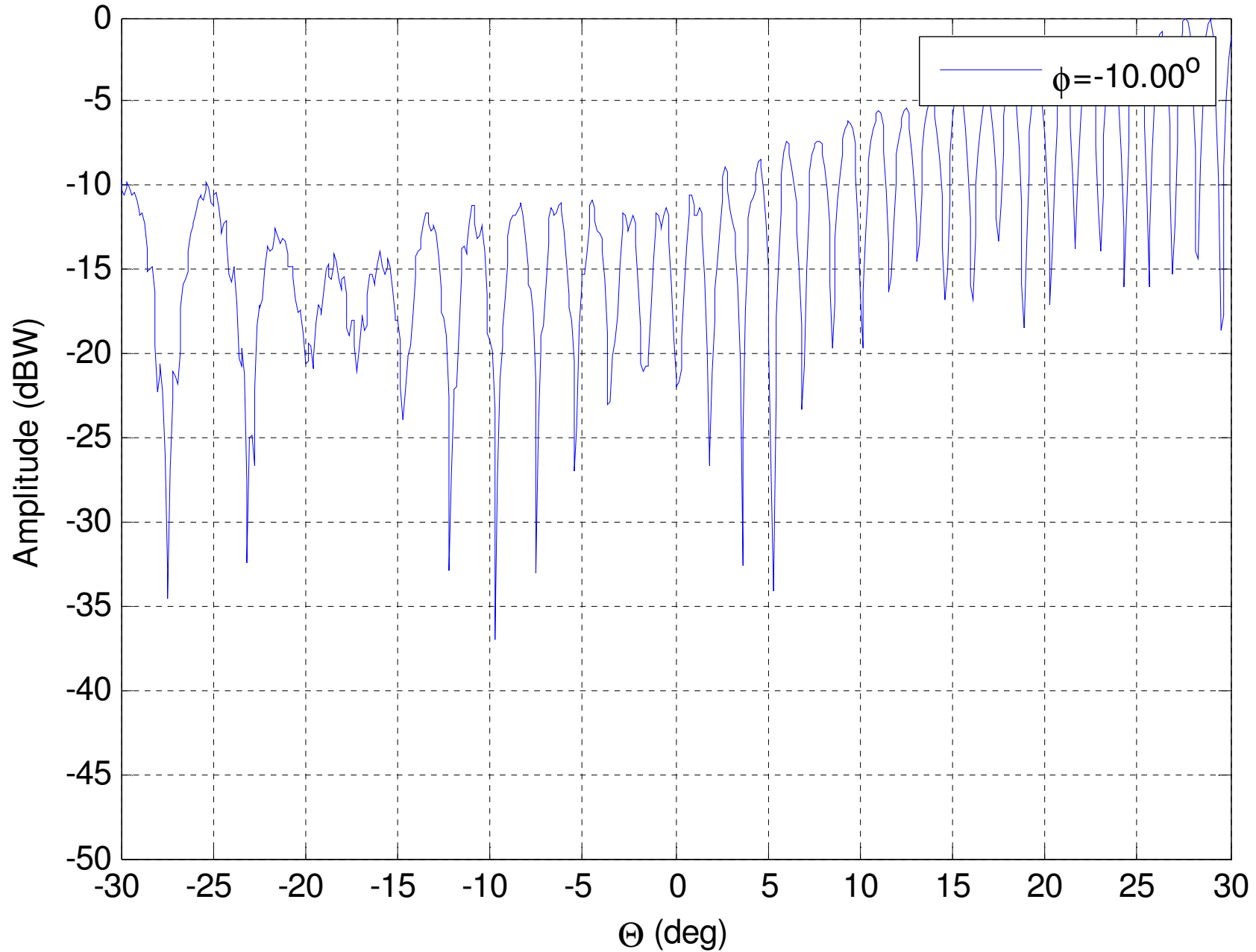
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--20.cut, Peak: -7.75 dBW, Date: 16-Dec-2011



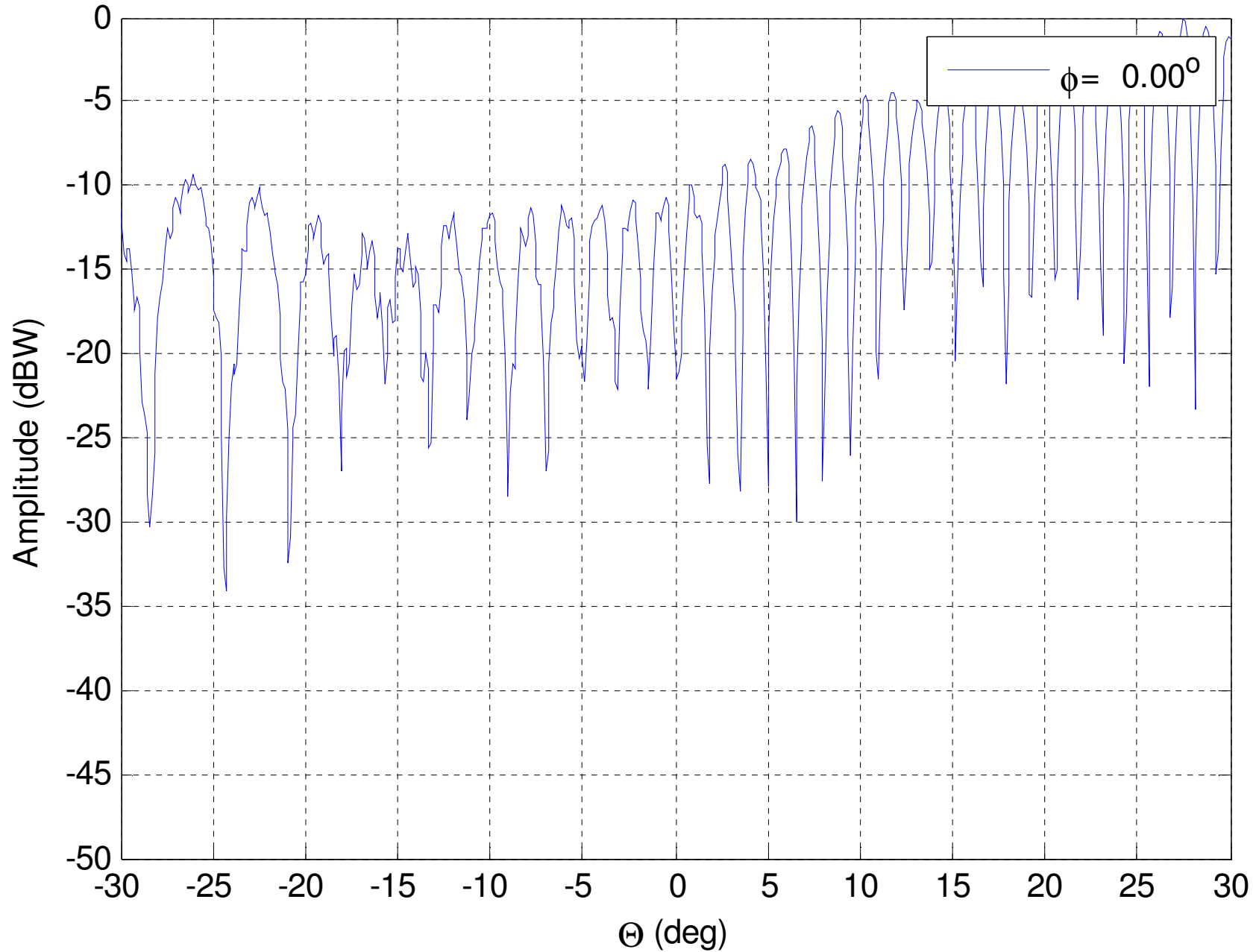
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--10.cut, Peak: -7.00 dBW, Date: 16-Dec-2011



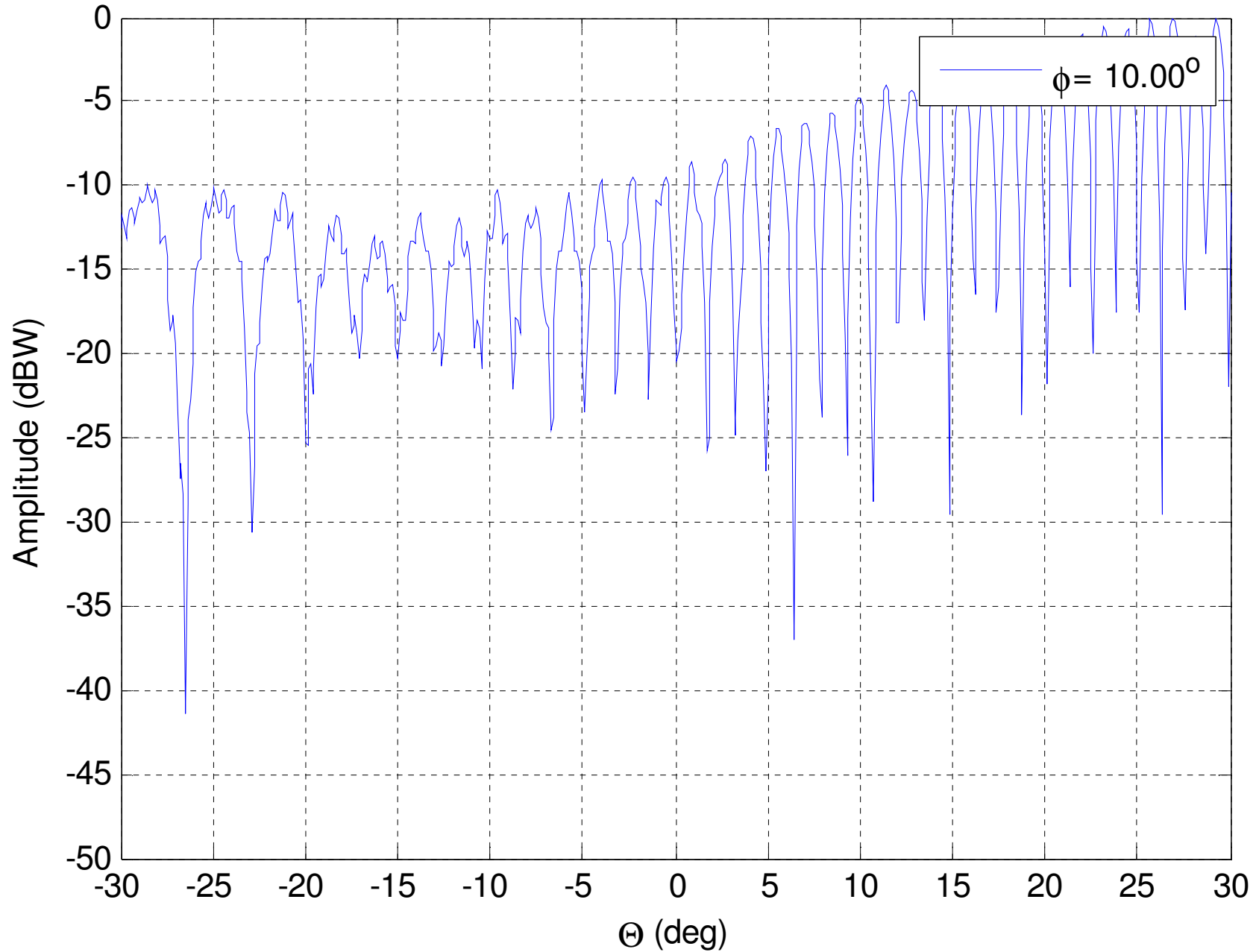
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-0.cut, Peak: -7.44 dBW, Date: 16-Dec-2011



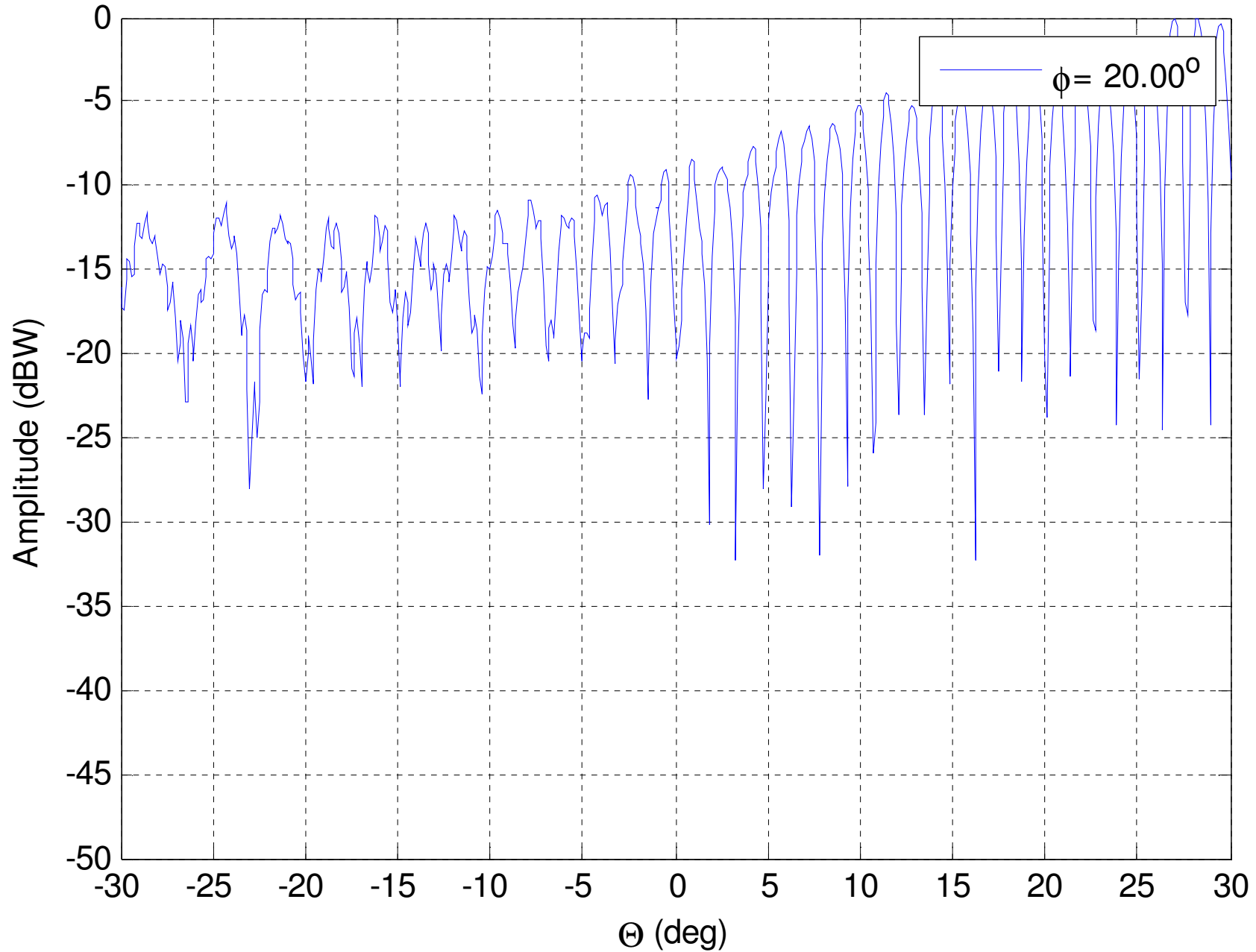
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-10.cut, Peak: -8.56 dBW, Date: 16-Dec-2011



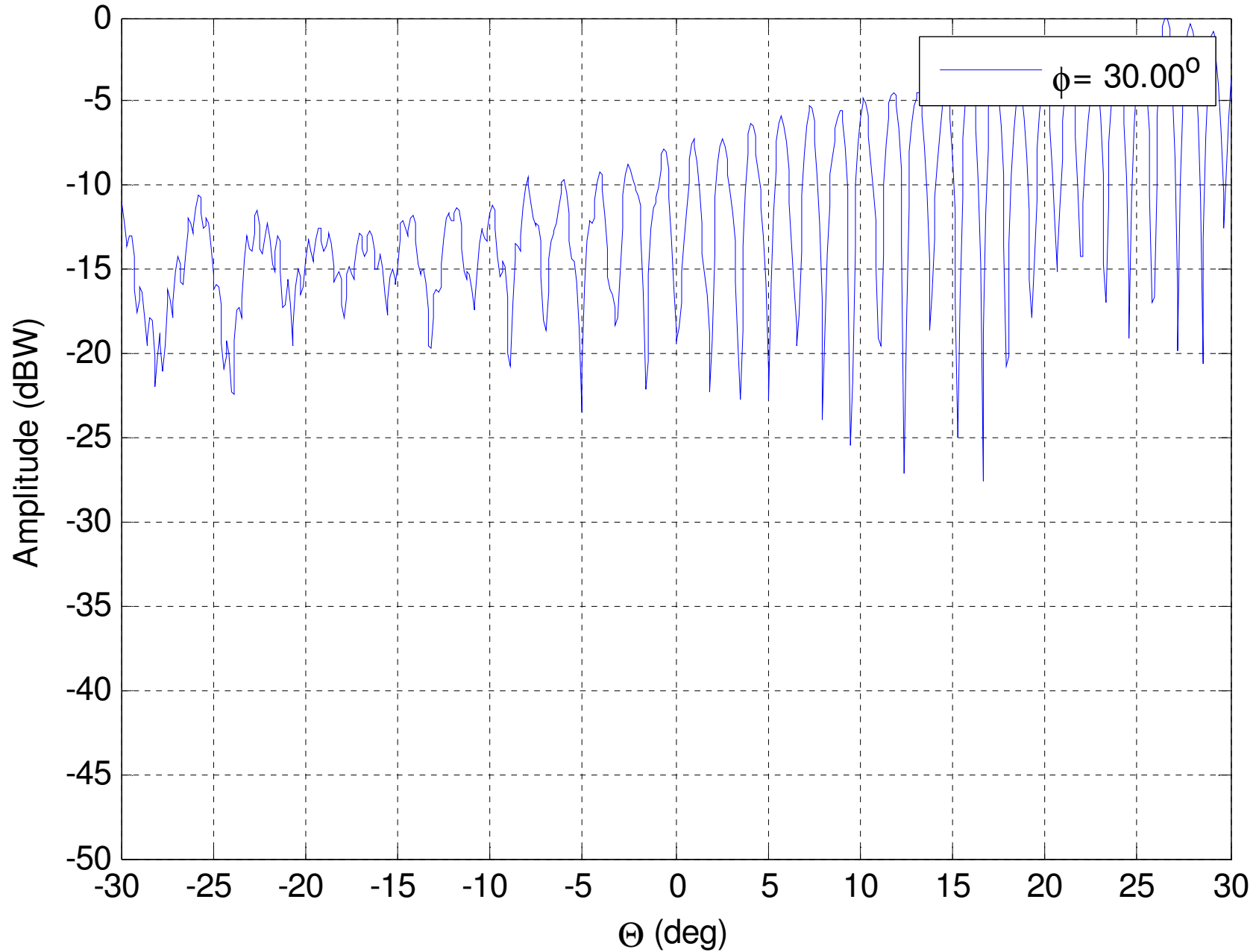
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-20.cut, Peak: -8.77 dBW, Date: 16-Dec-2011



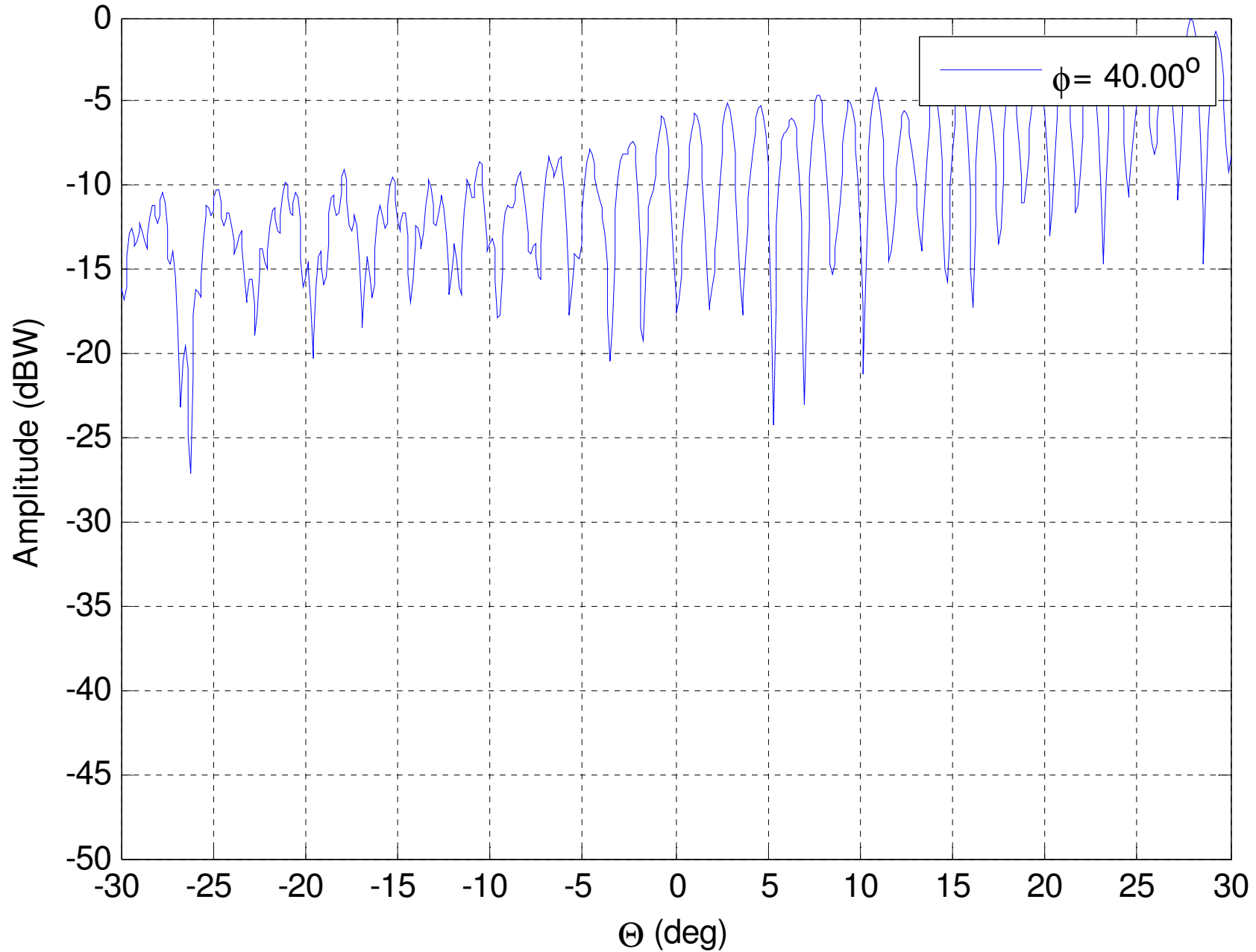
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-30.cut, Peak: -9.90 dBW, Date: 16-Dec-2011



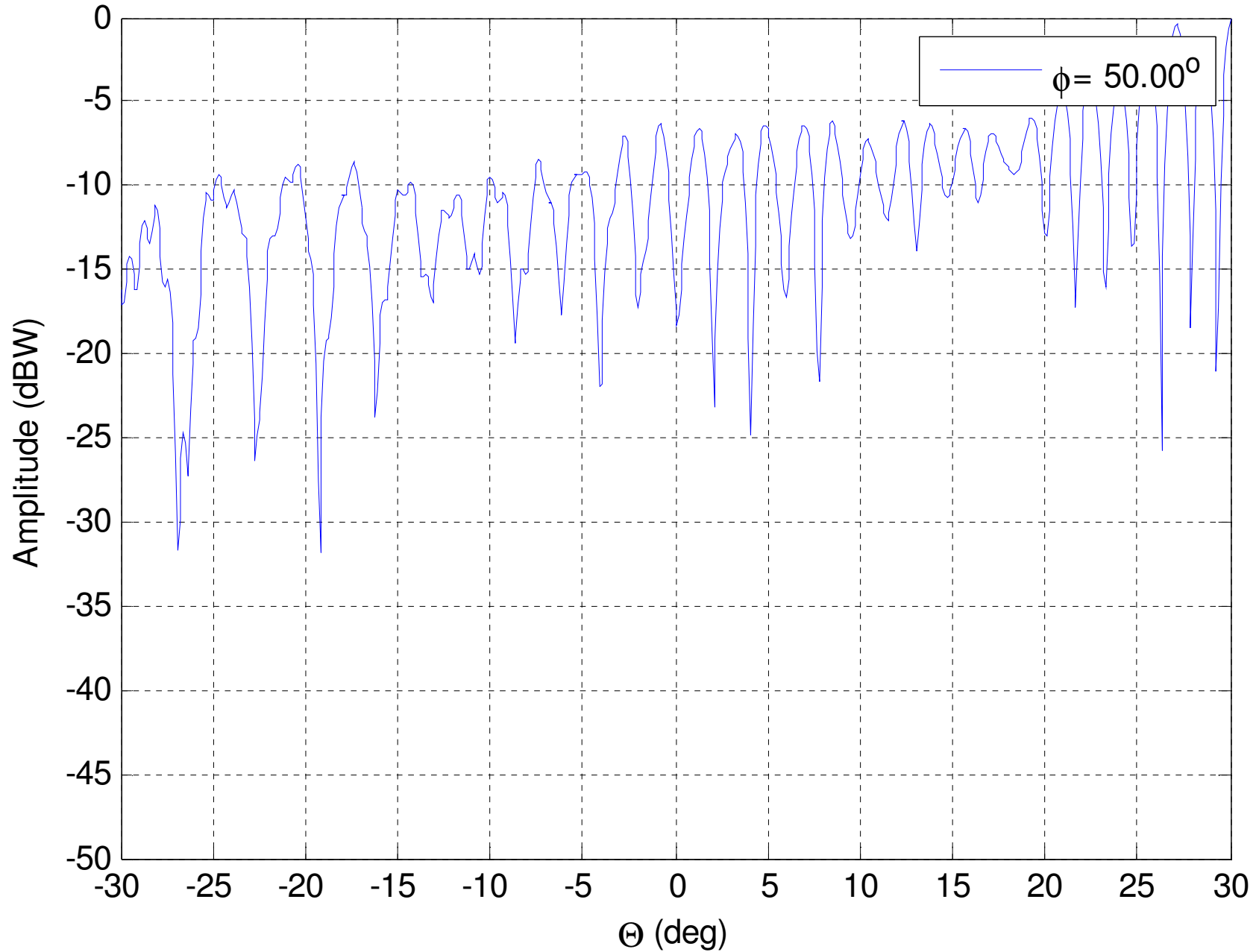
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-40.cut, Peak: -11.67 dBW, Date: 16-Dec-2011



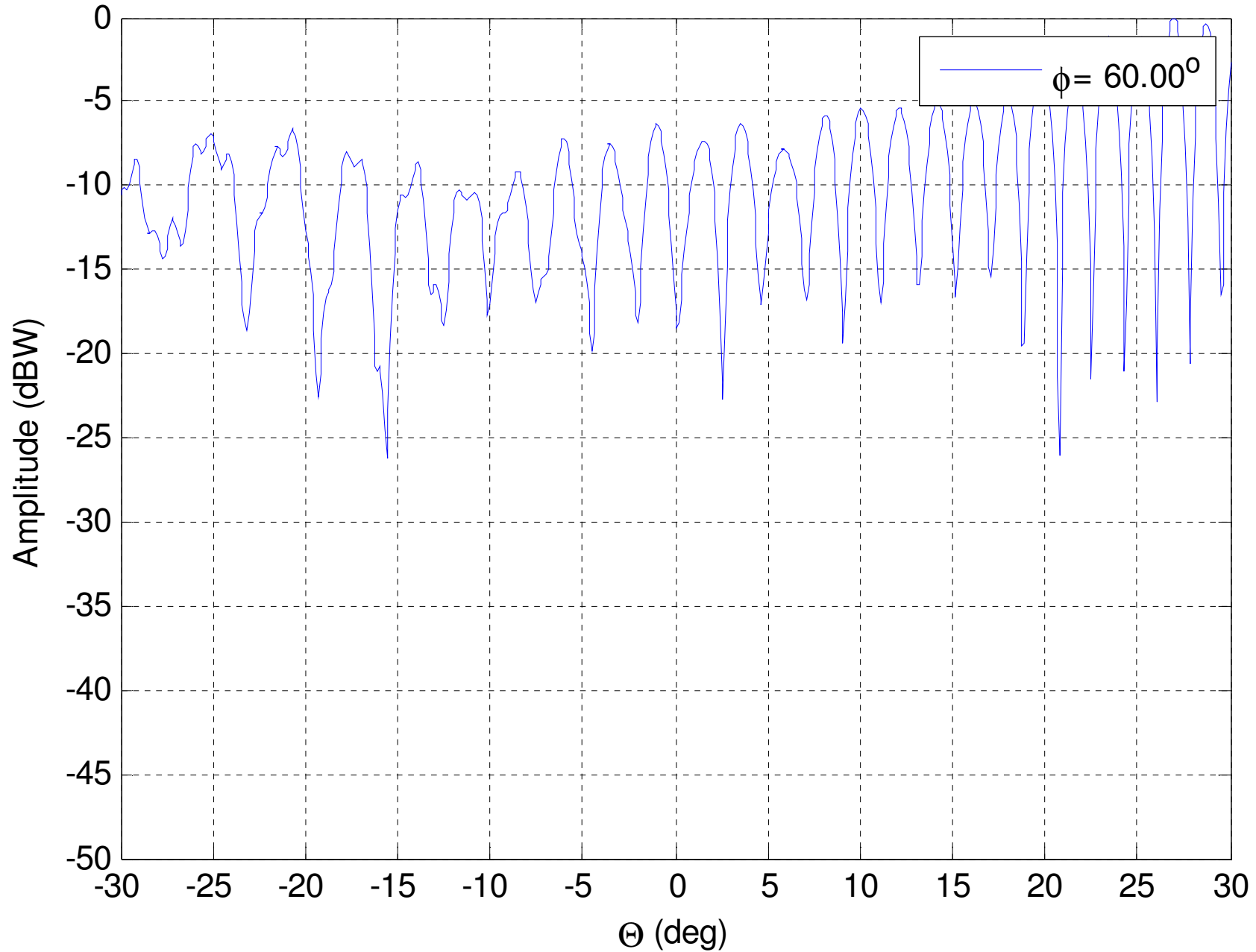
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-50.cut, Peak: -11.12 dBW, Date: 16-Dec-2011



Normalized pattern cuts - farfield

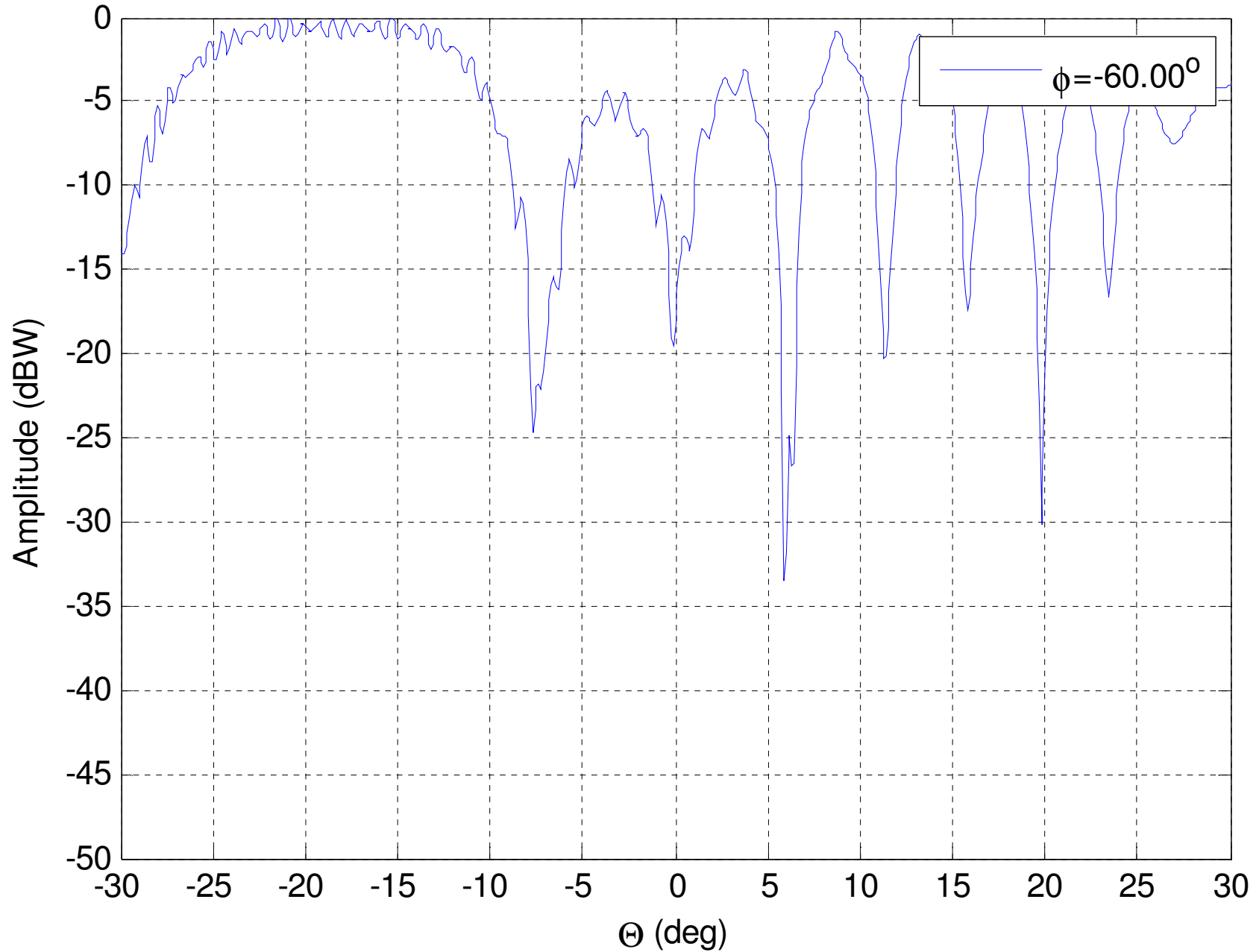
Input file: tx-17.7-rhcp-60.cut, Peak: -11.07 dBW, Date: 16-Dec-2011



LHCP at 17.7 GHz

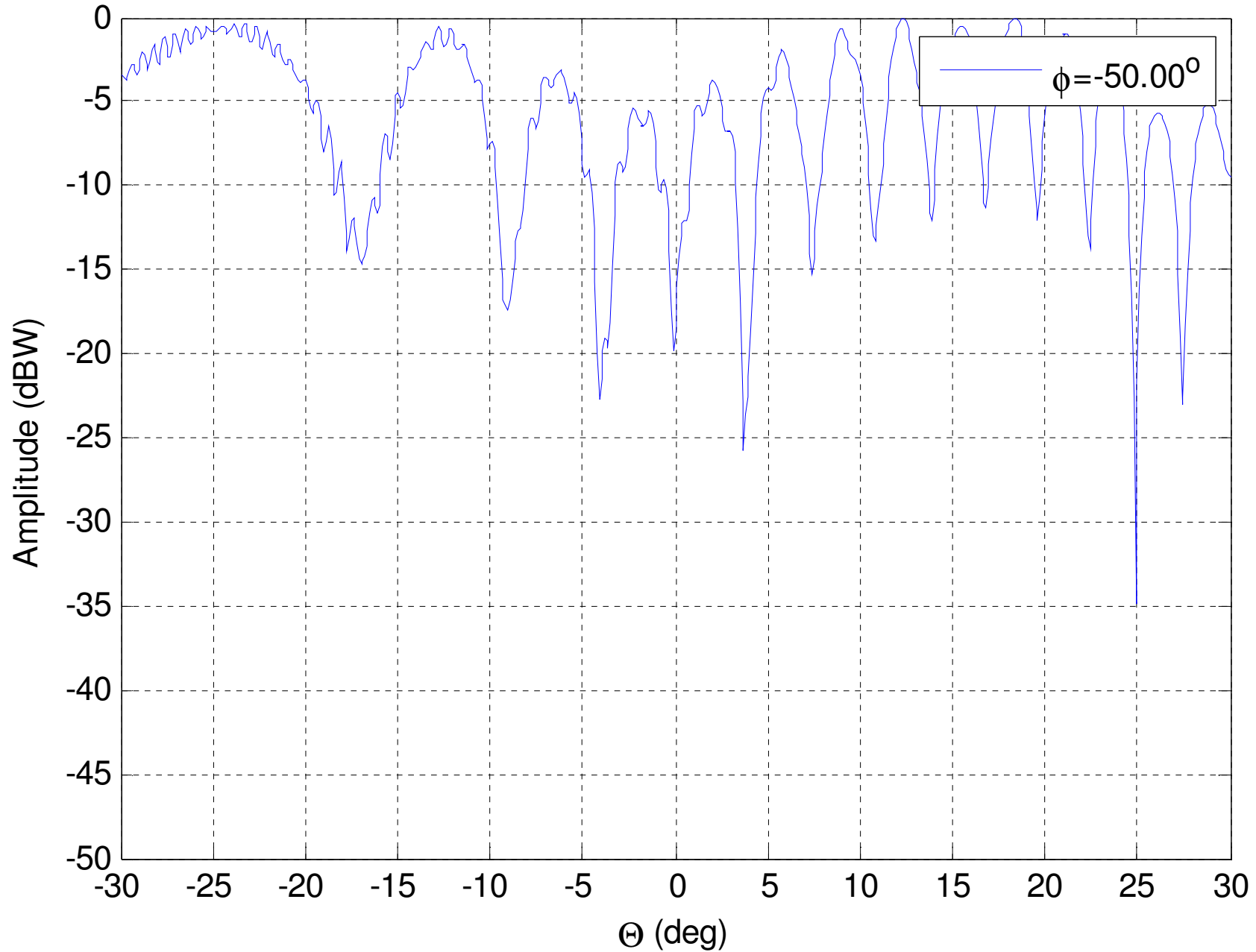
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--60.cut, Peak: -13.27 dBW, Date: 16-Dec-2011



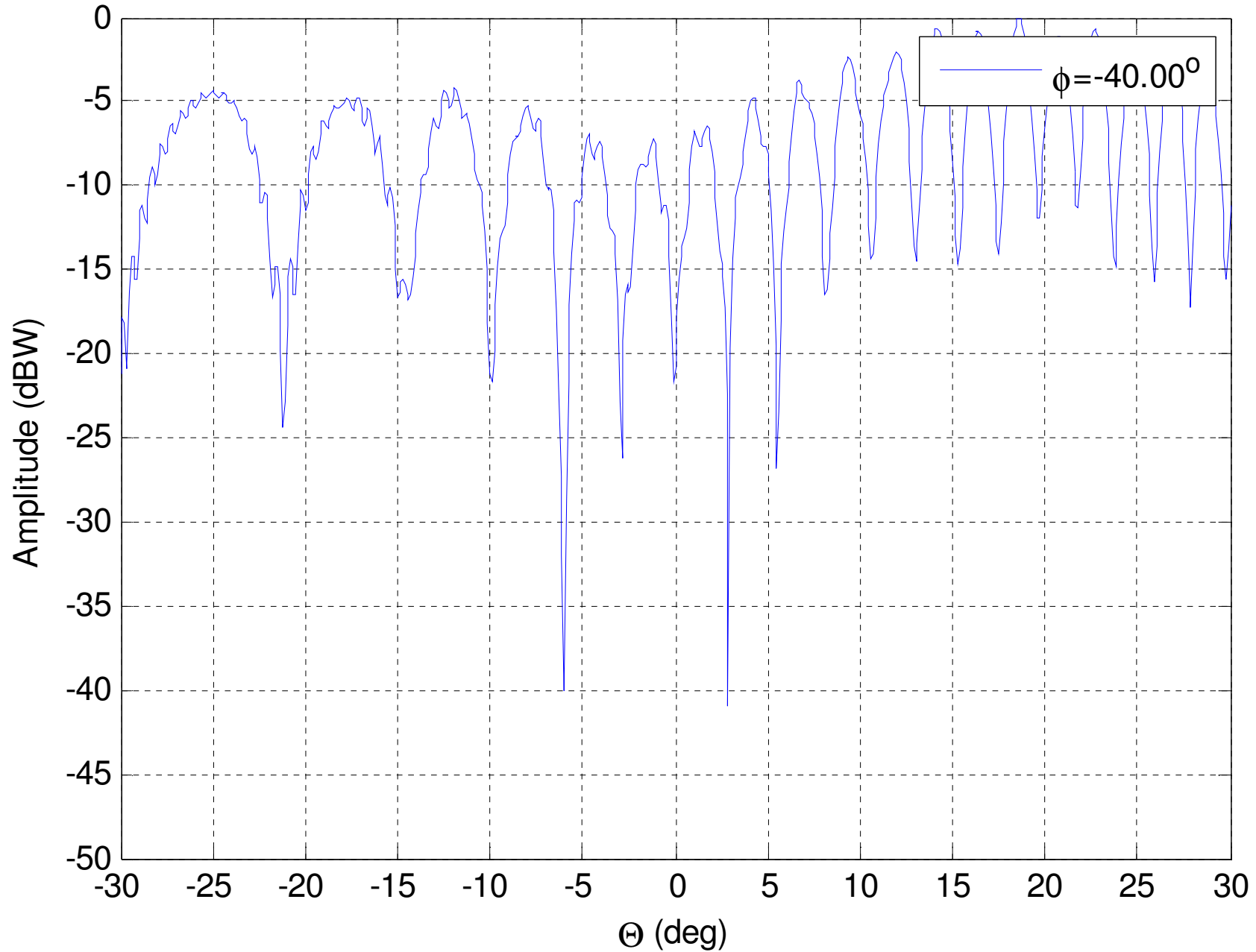
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--50.cut, Peak: -12.88 dBW, Date: 16-Dec-2011



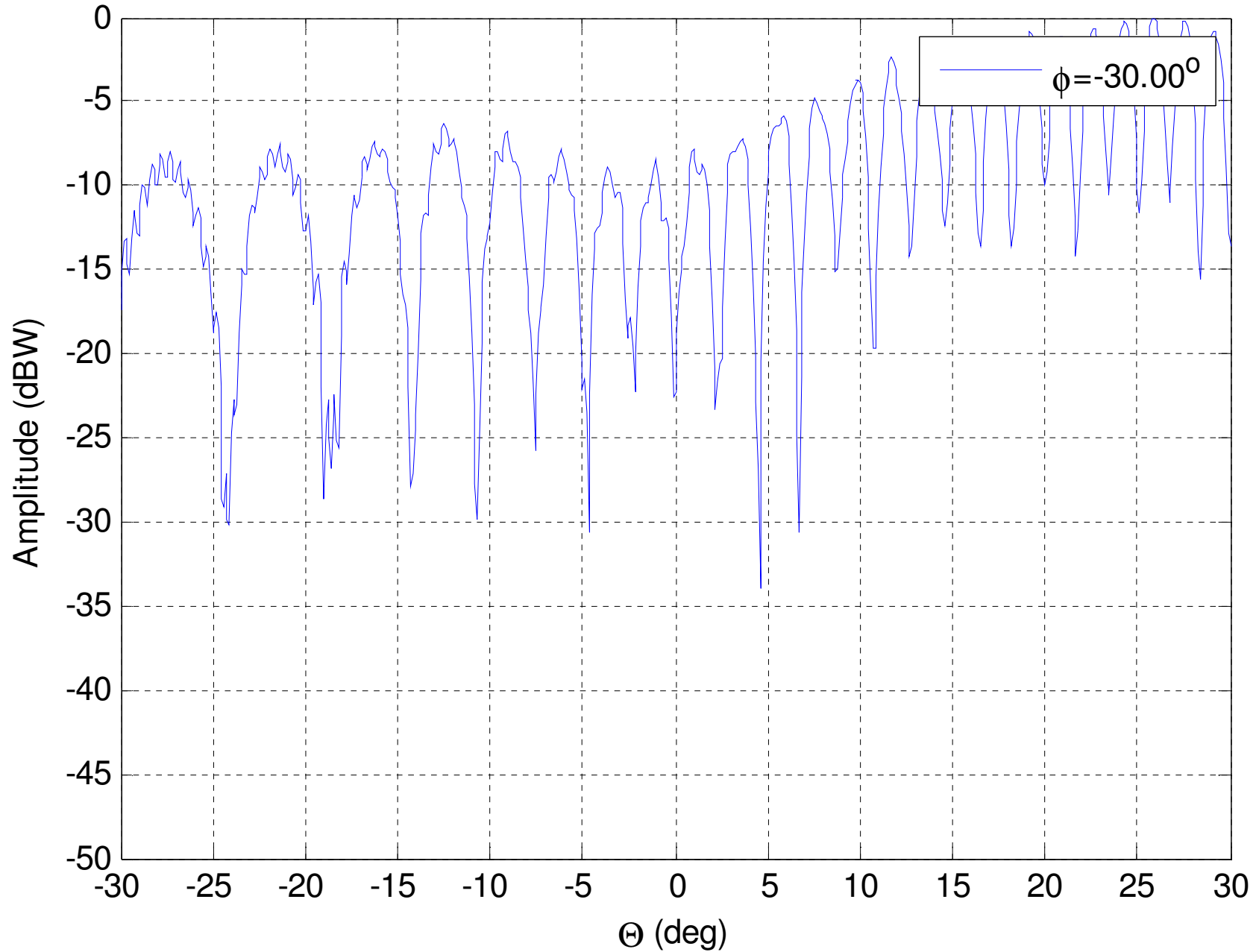
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--40.cut, Peak: -10.55 dBW, Date: 16-Dec-2011



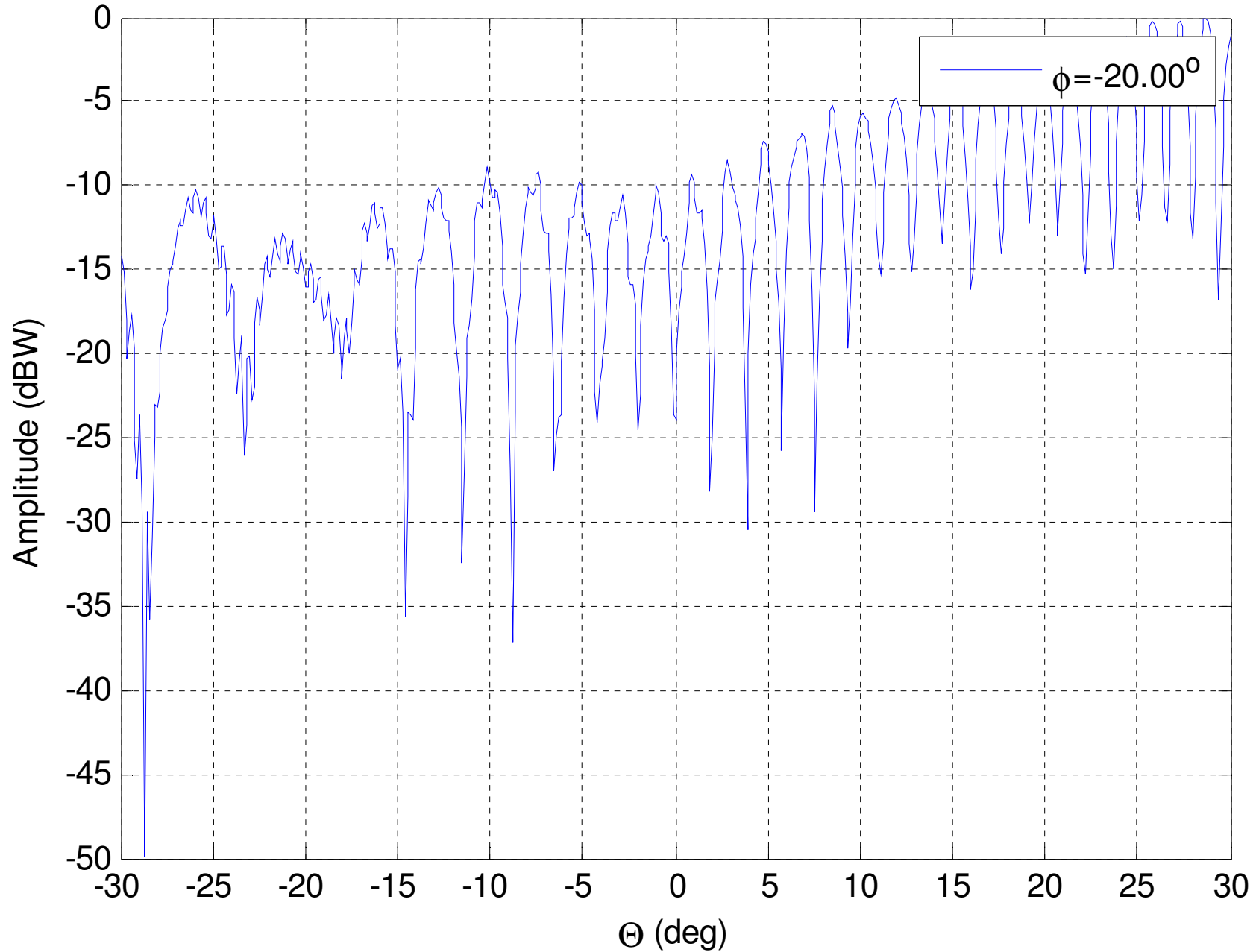
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--30.cut, Peak: -9.07 dBW, Date: 16-Dec-2011



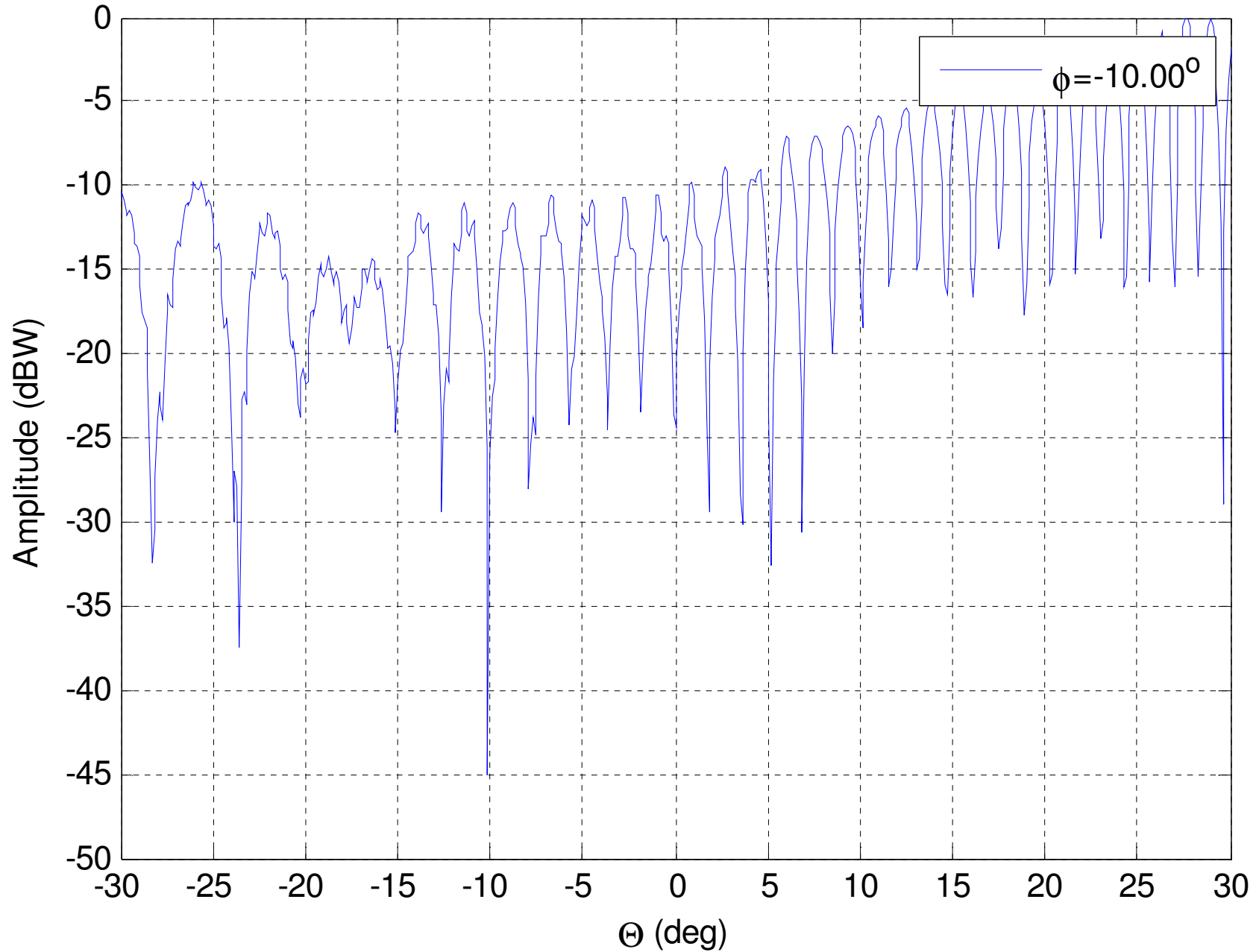
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--20.cut, Peak: -7.40 dBW, Date: 16-Dec-2011



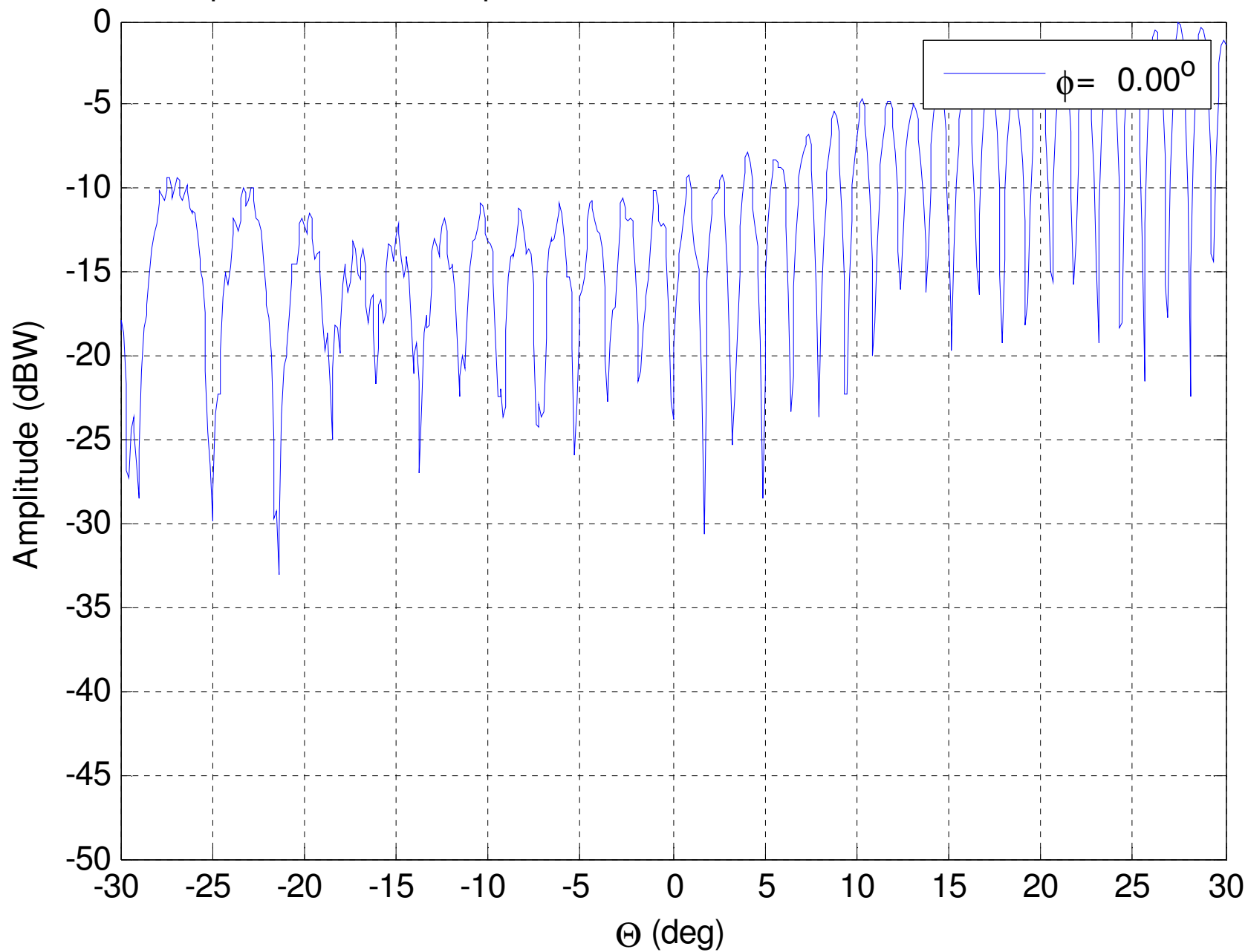
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--10.cut, Peak: -6.95 dBW, Date: 16-Dec-2011



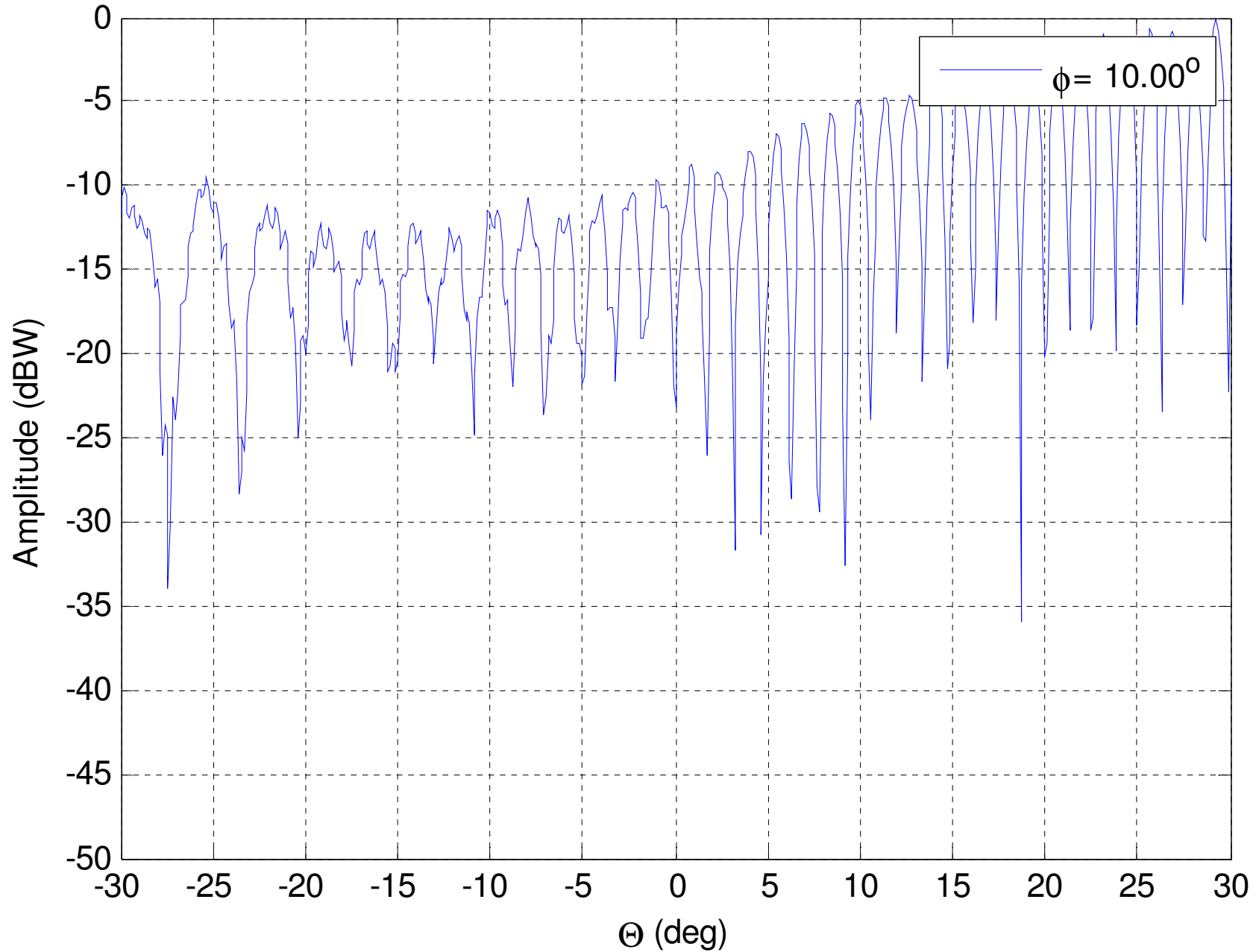
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-0.cut, Peak: -7.56 dBW, Date: 16-Dec-2011



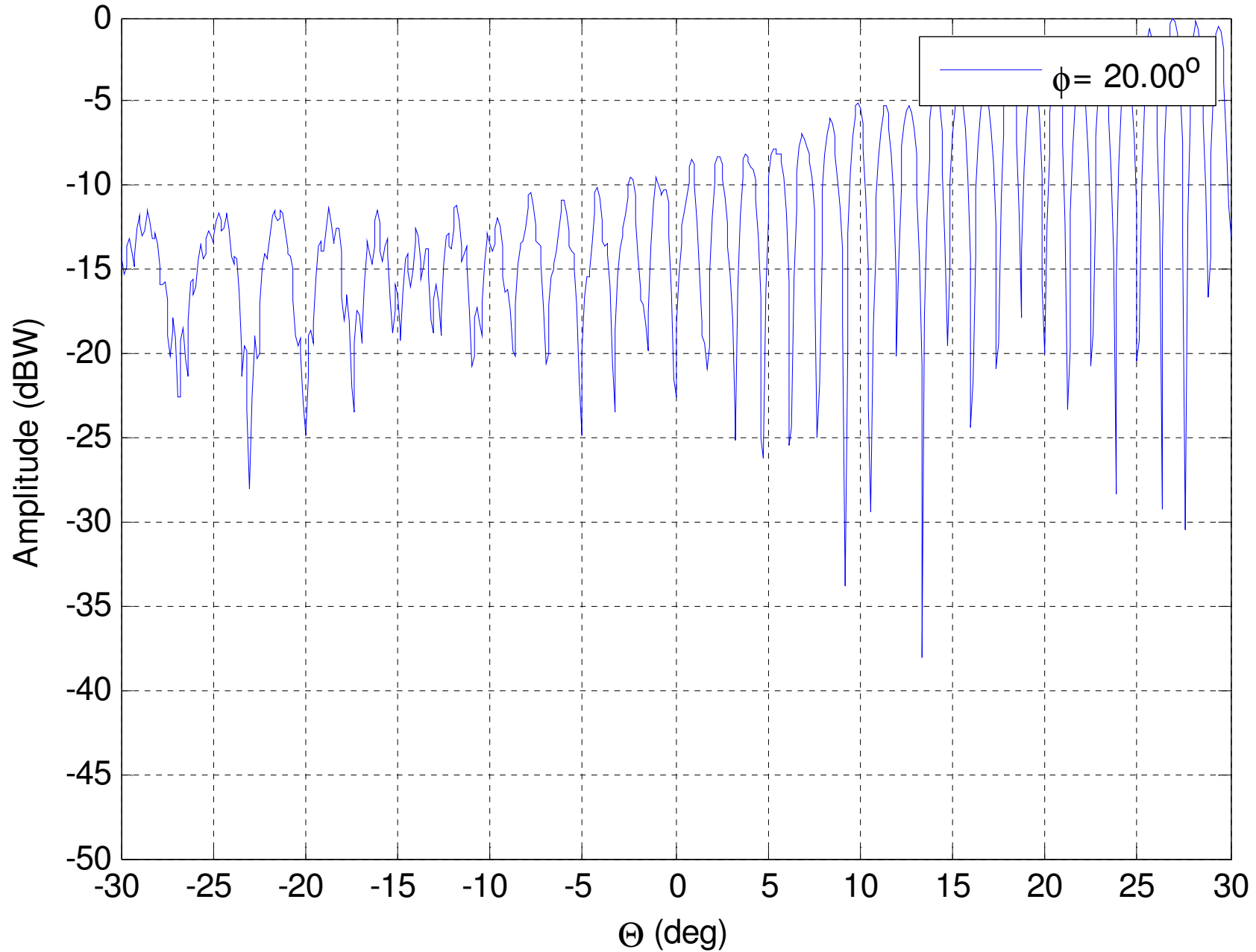
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-10.cut, Peak: -8.15 dBW, Date: 16-Dec-2011



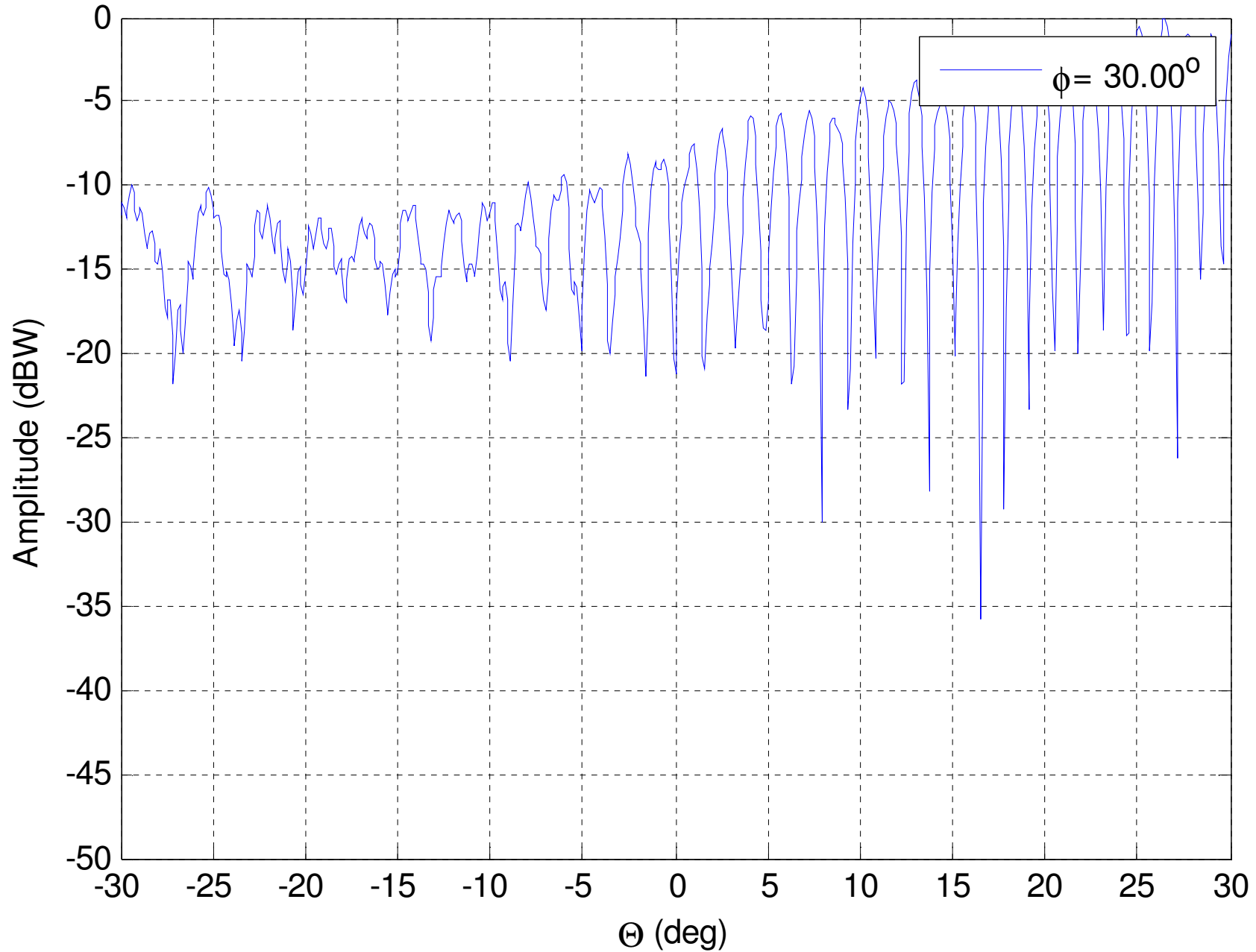
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-20.cut, Peak: -8.67 dBW, Date: 16-Dec-2011



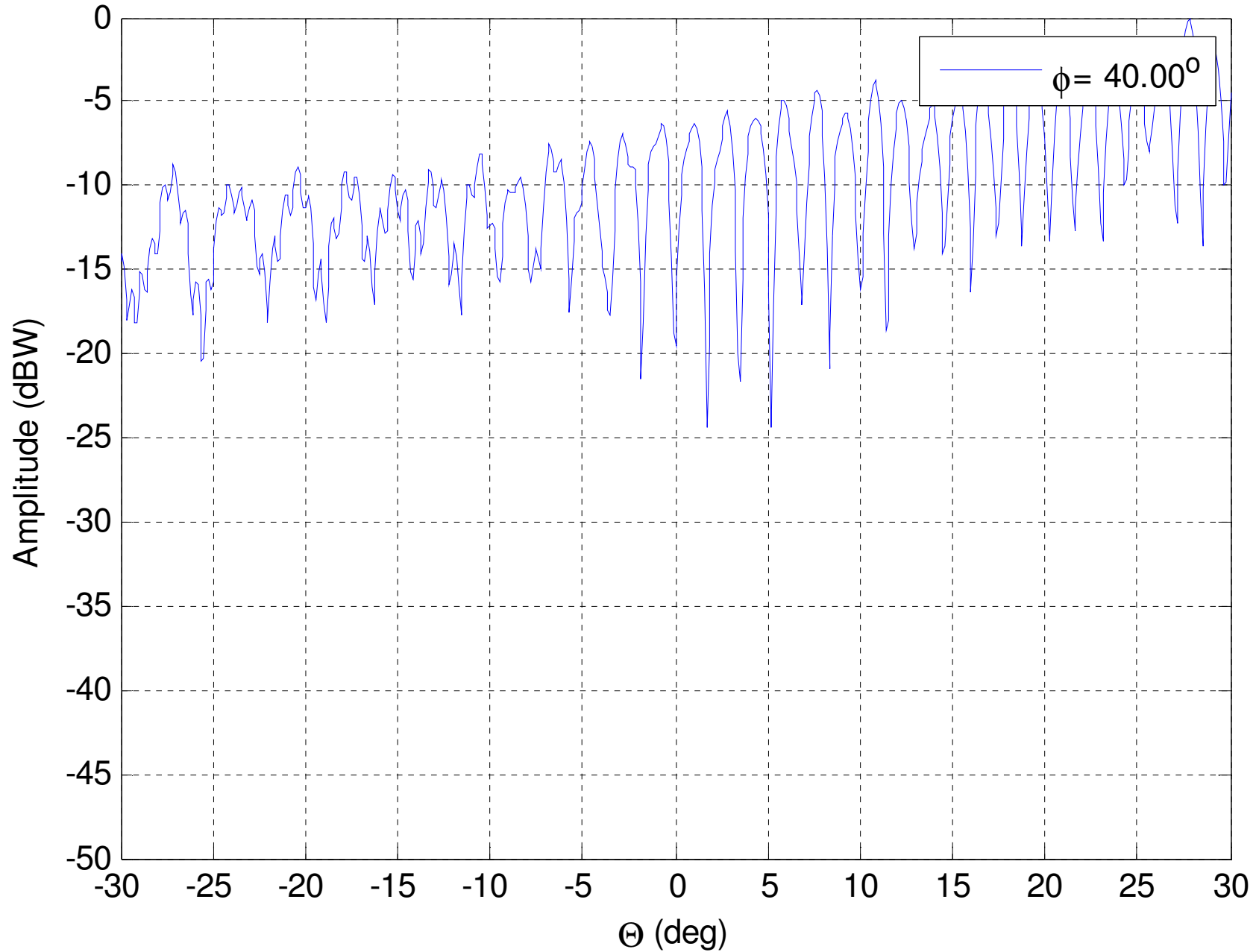
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-30.cut, Peak: -10.04 dBW, Date: 16-Dec-2011



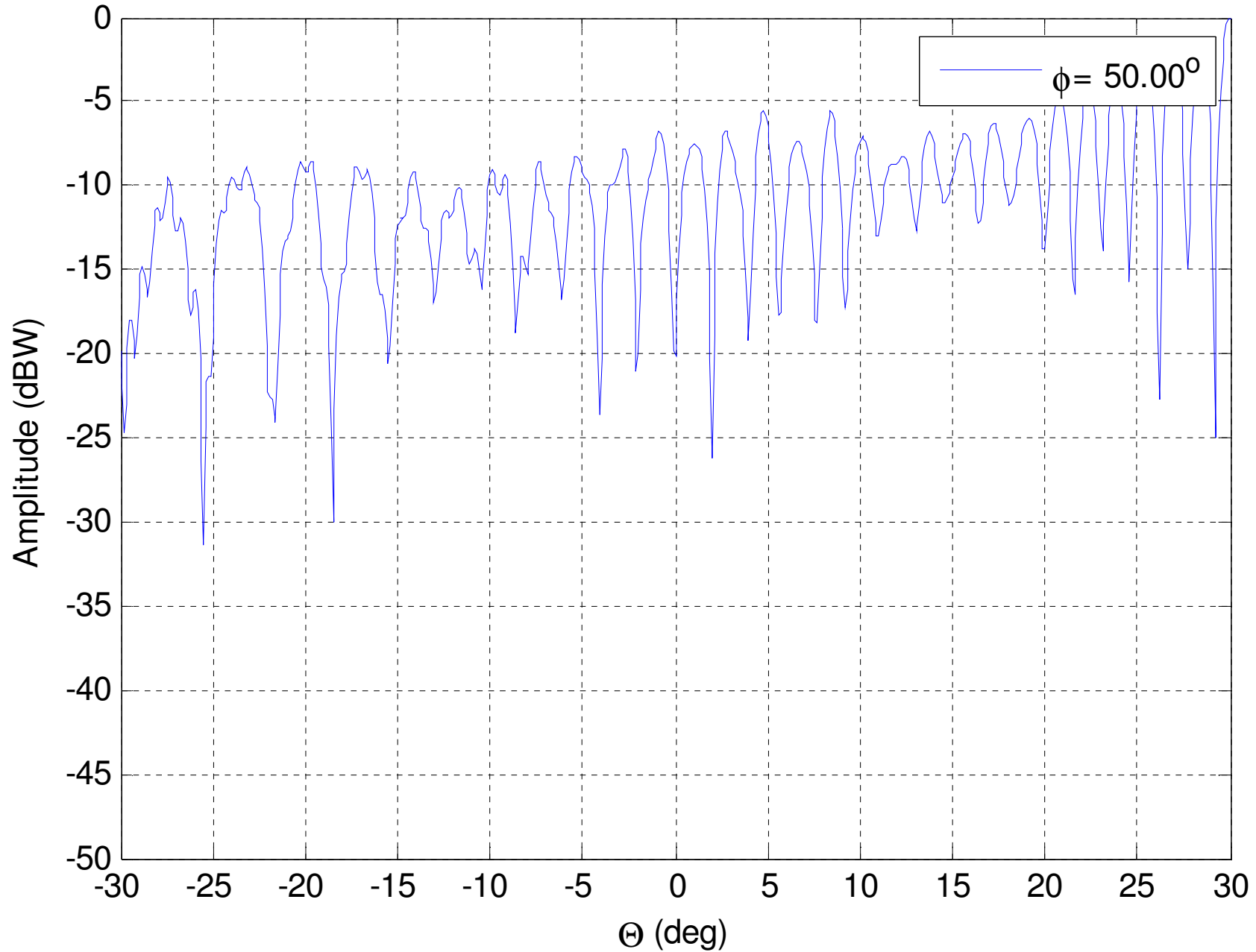
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-40.cut, Peak: -11.84 dBW, Date: 16-Dec-2011



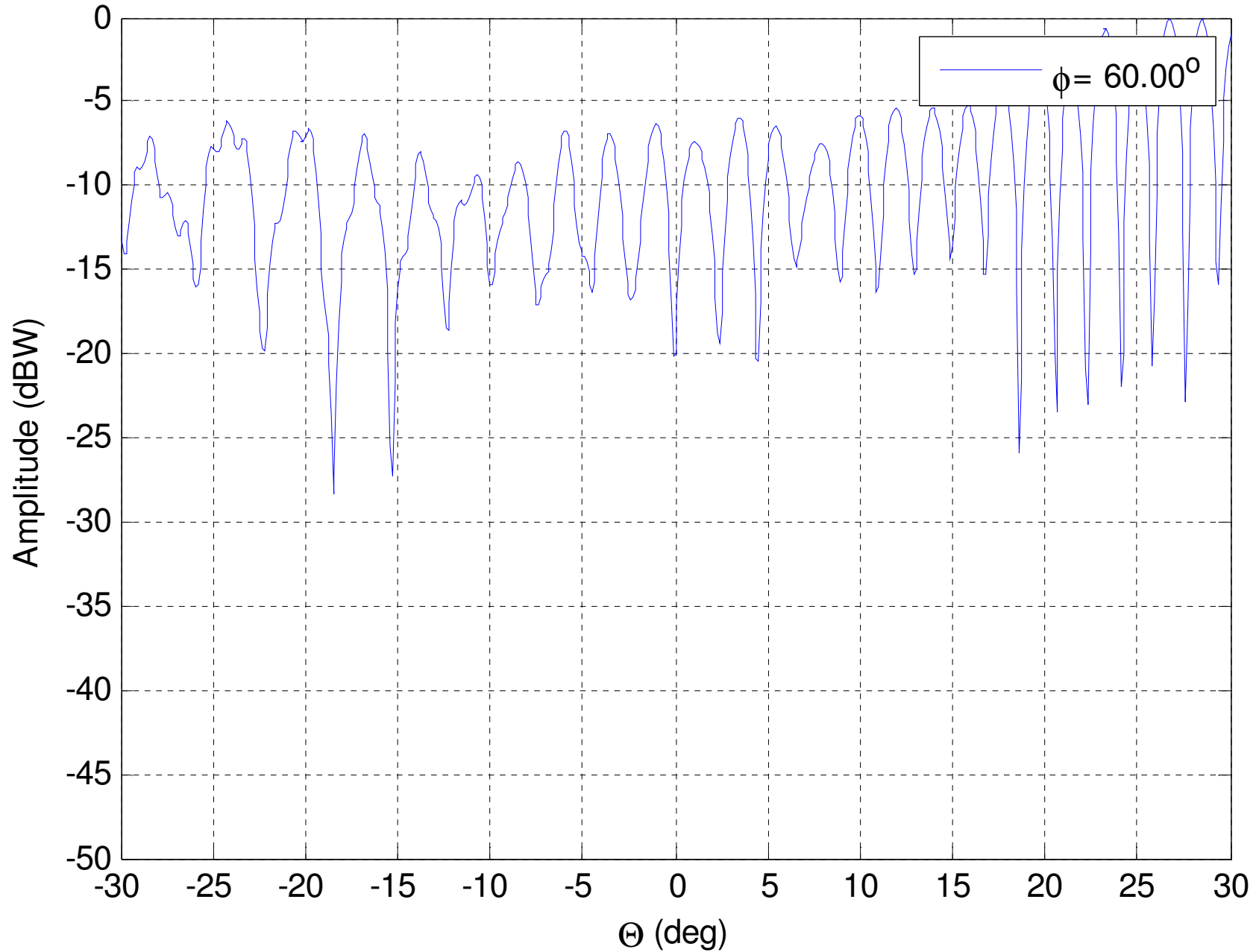
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-50.cut, Peak: -11.12 dBW, Date: 16-Dec-2011



Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-60.cut, Peak: -11.28 dBW, Date: 16-Dec-2011



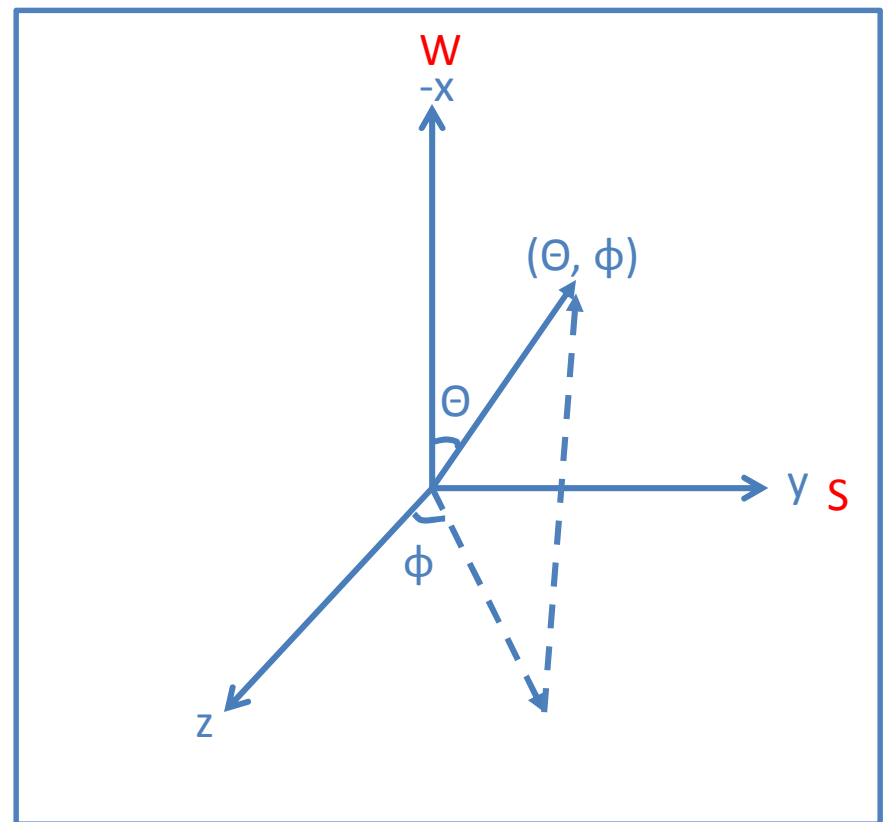
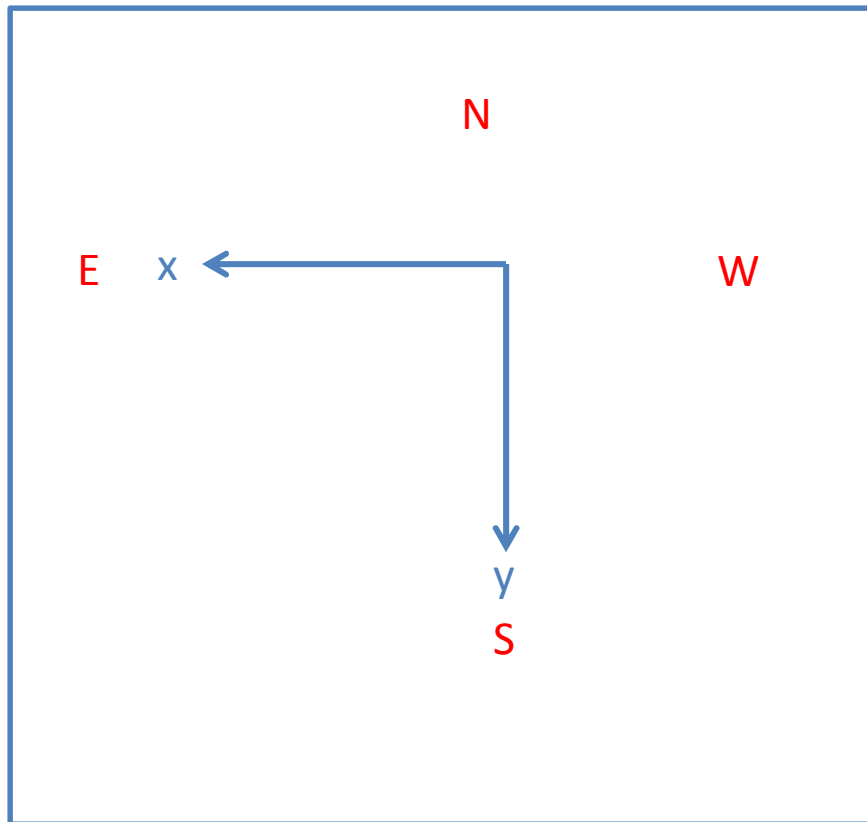
December 13, 2011

119 West Adjacent Satellite Off Axis Antenna Performance Spot Beam 50 cf: 0.6 dBW

Maximum Allowable EIRP to meet the -117dBW/m²/100 kHz

Maximum EIRP Allowed	
Spec Max flux density, dBW/m ² /100kHz	-117
Desired channel band width, MHz	25.8
Symbol rate band width modification factor	1
Effective channel bandwidth, MHz	25.8
Effective bandwidth, dB-100kHz	24.1
Flux density allowed per channel, dBW/m ²	-92.9
R, radial distance to GEO, km	42164.0
Angle of separation between satellites, deg	0.1
range between satellites, km	73.59
Spreading factor, dB/m ²	-108.3
Atmospheric loss, dB	0
Max satellite EIRP allowed, dBW	15.4

Coordinate System



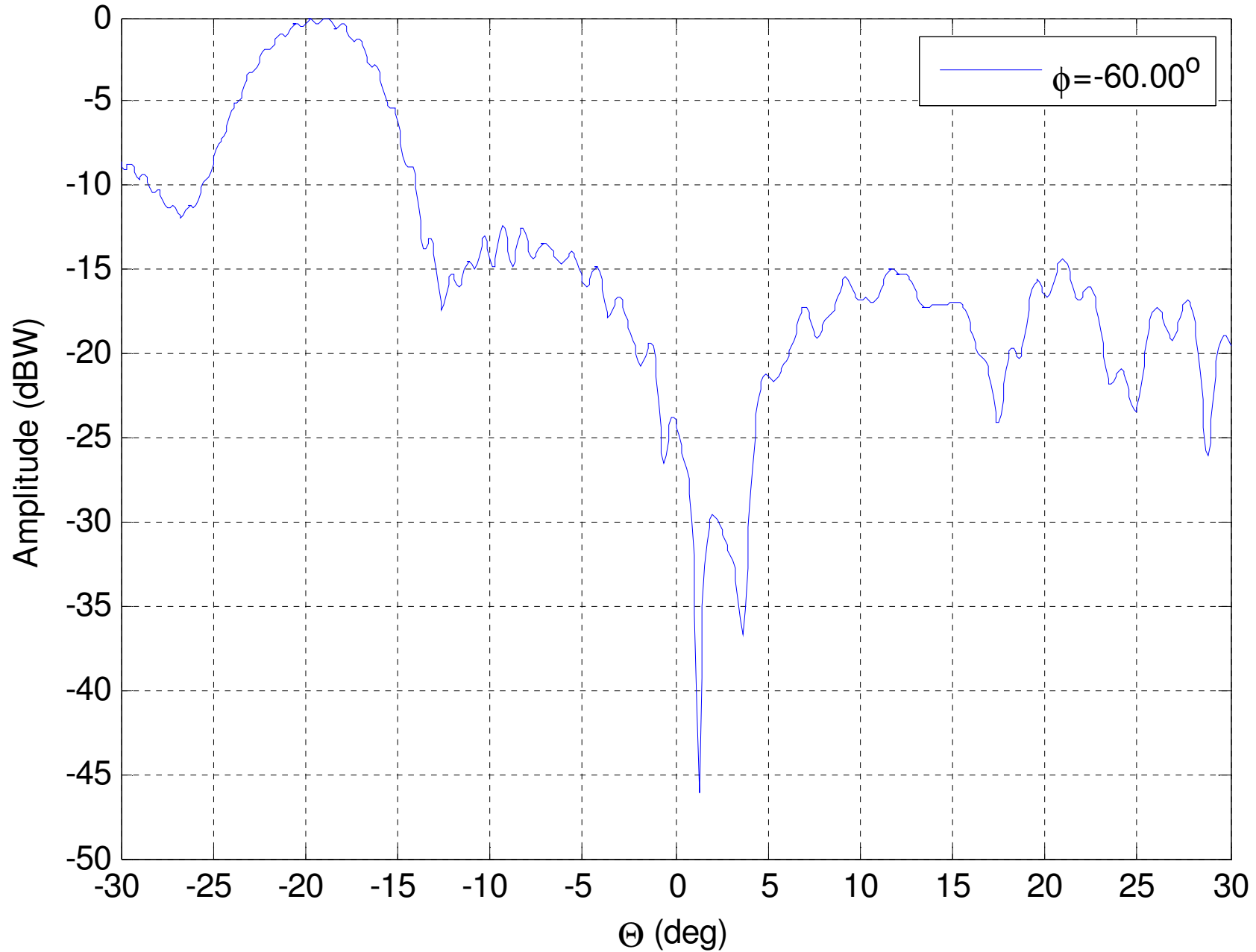
Spot Beam50, -X Axis Plots

- Both polarizations; RHCP, LHCP
- $-30 < \Theta < 30$ ($\Theta=0$: -X -axis)
- $-60 < \phi < 60$
- Freq = 17.3, 17.5, and 17.7 GHz
- The Zero reference line is the peak gain listed in the title of each chart
- All levels are significantly below the required 15.4 dBW EIRP shown on chart 2

RHCP at 17.3 GHz

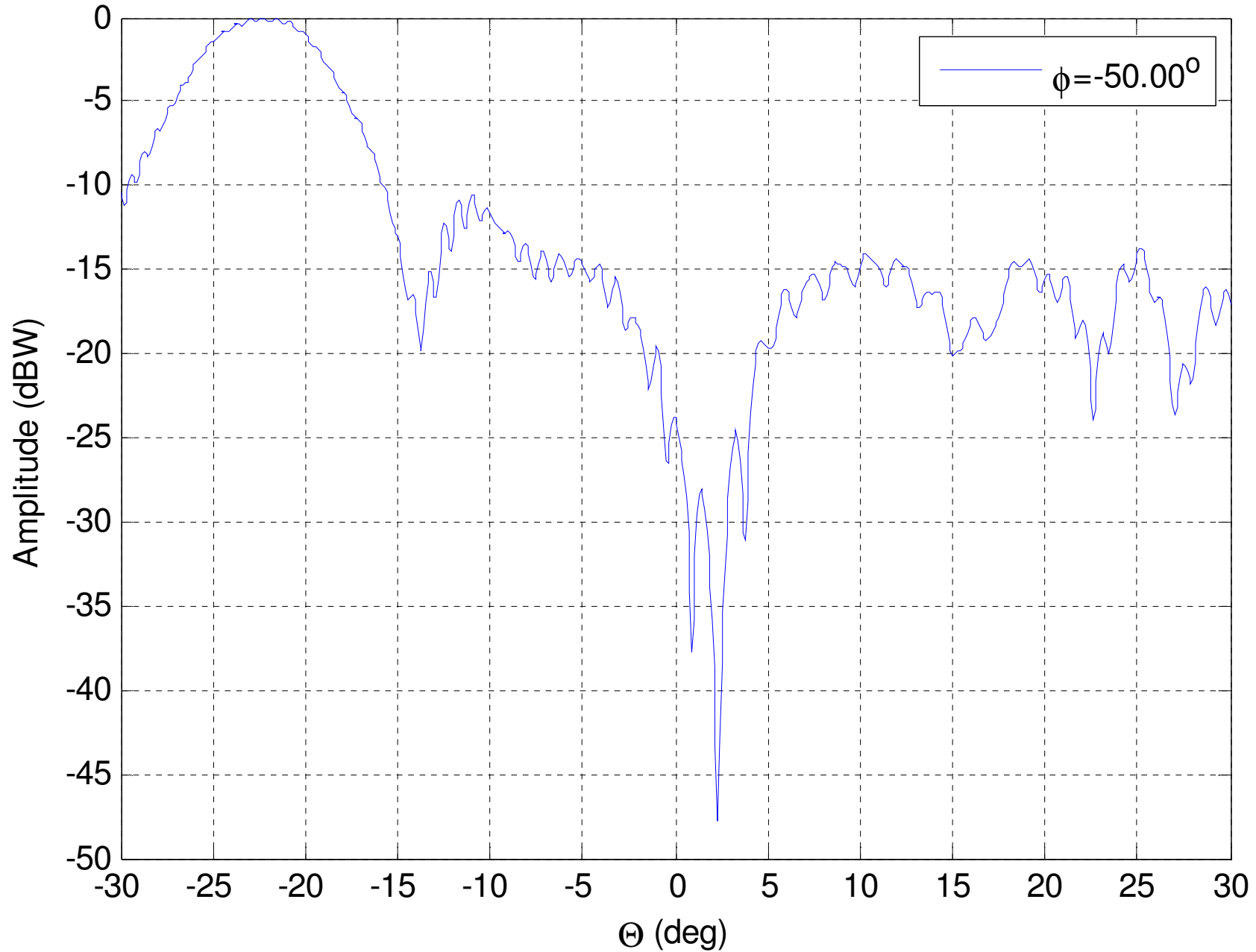
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--60.cut, Peak: -3.78 dBW, Date: 16-Dec-2011



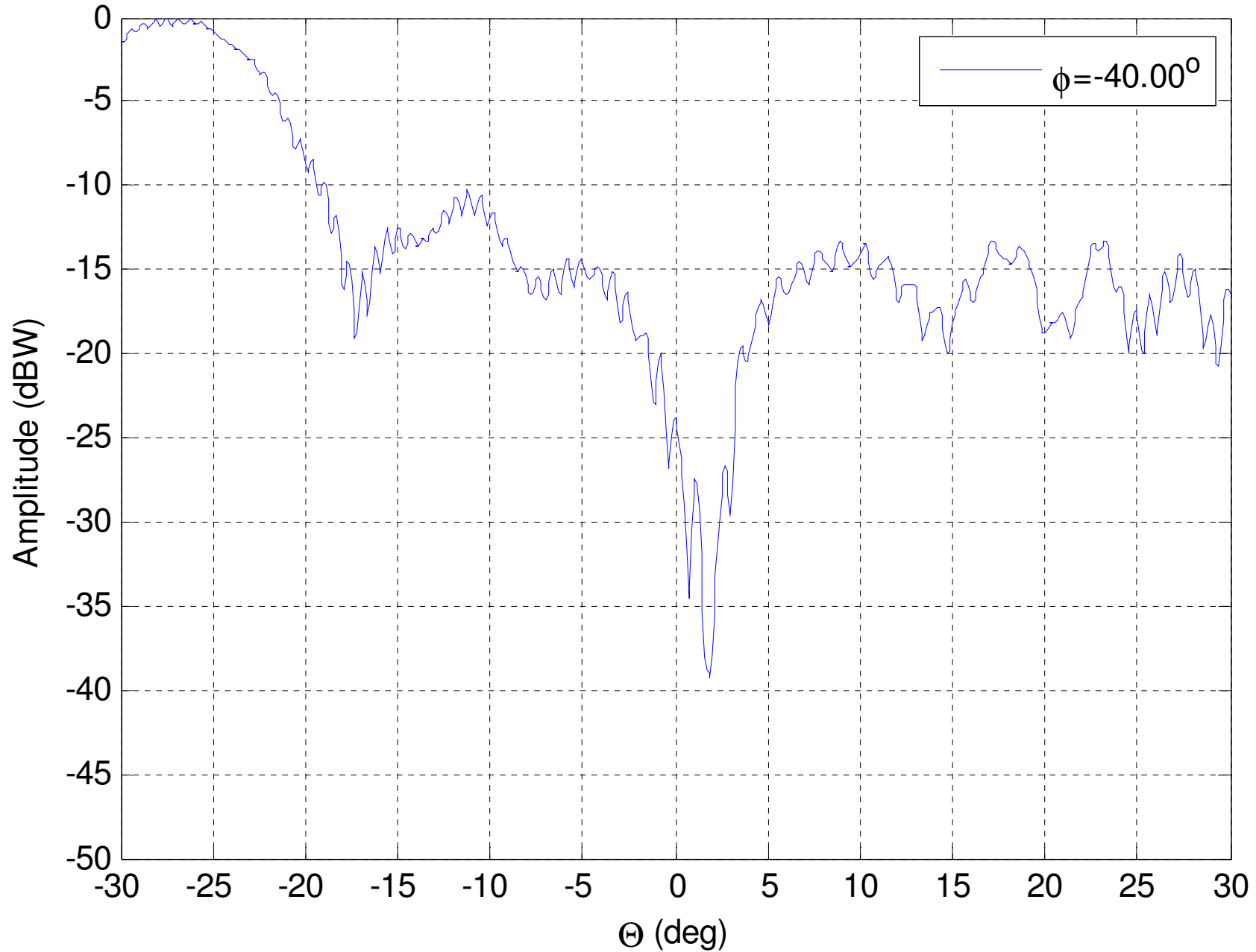
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--50.cut, Peak: -3.93 dBW, Date: 16-Dec-2011



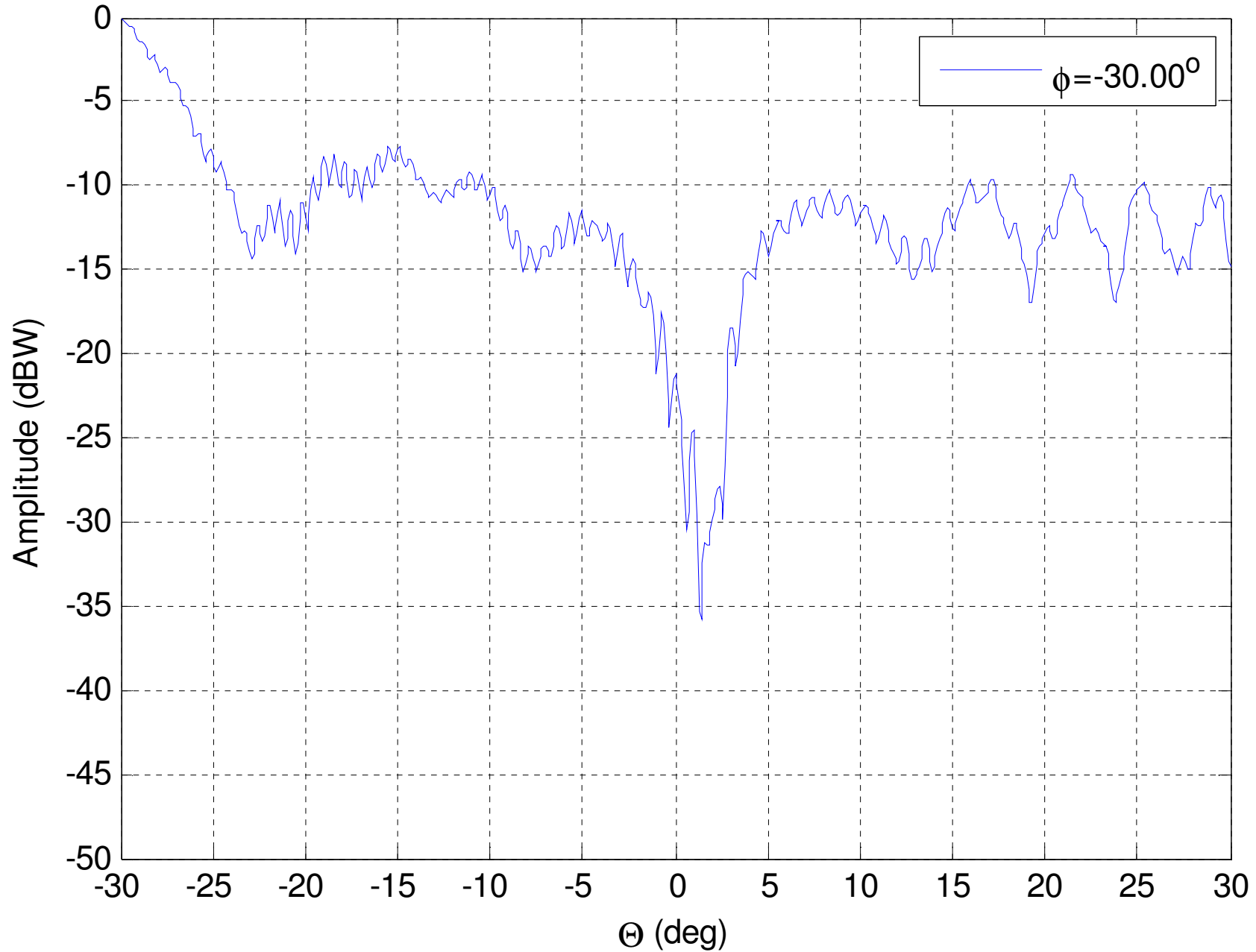
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--40.cut, Peak: -3.84 dBW, Date: 16-Dec-2011



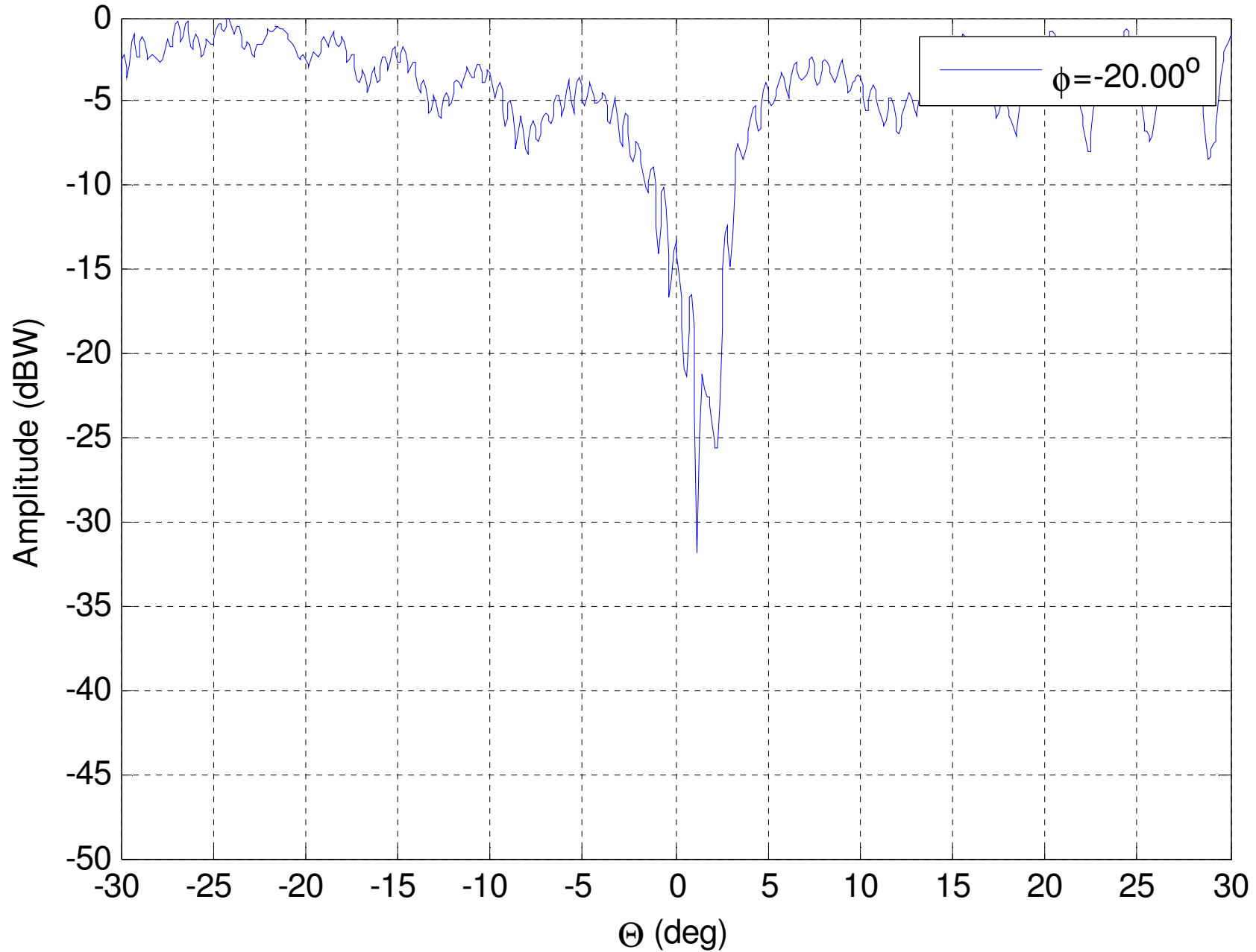
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--30.cut, Peak: -6.55 dBW, Date: 16-Dec-2011



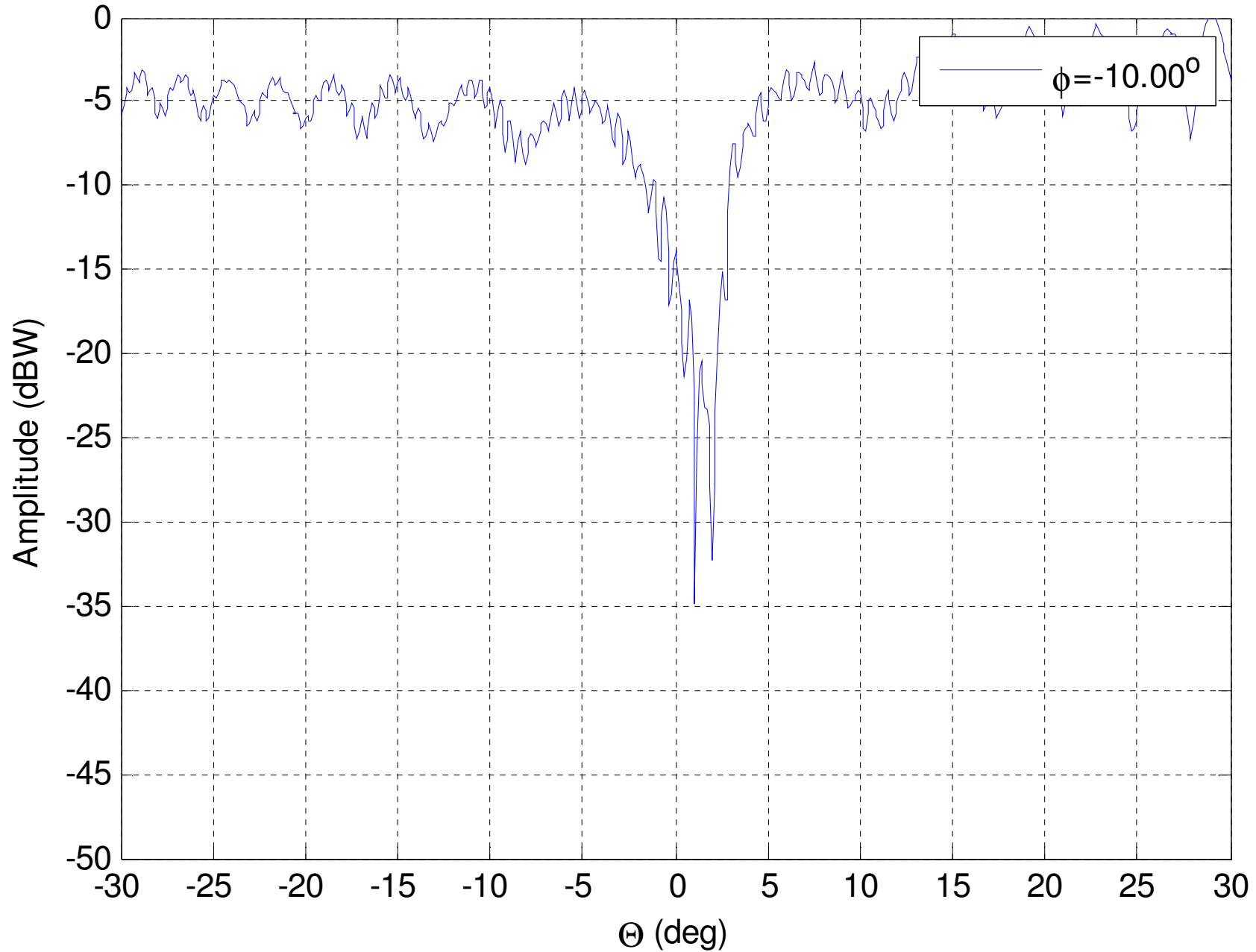
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--20.cut, Peak: -14.34 dBW, Date: 16-Dec-2011



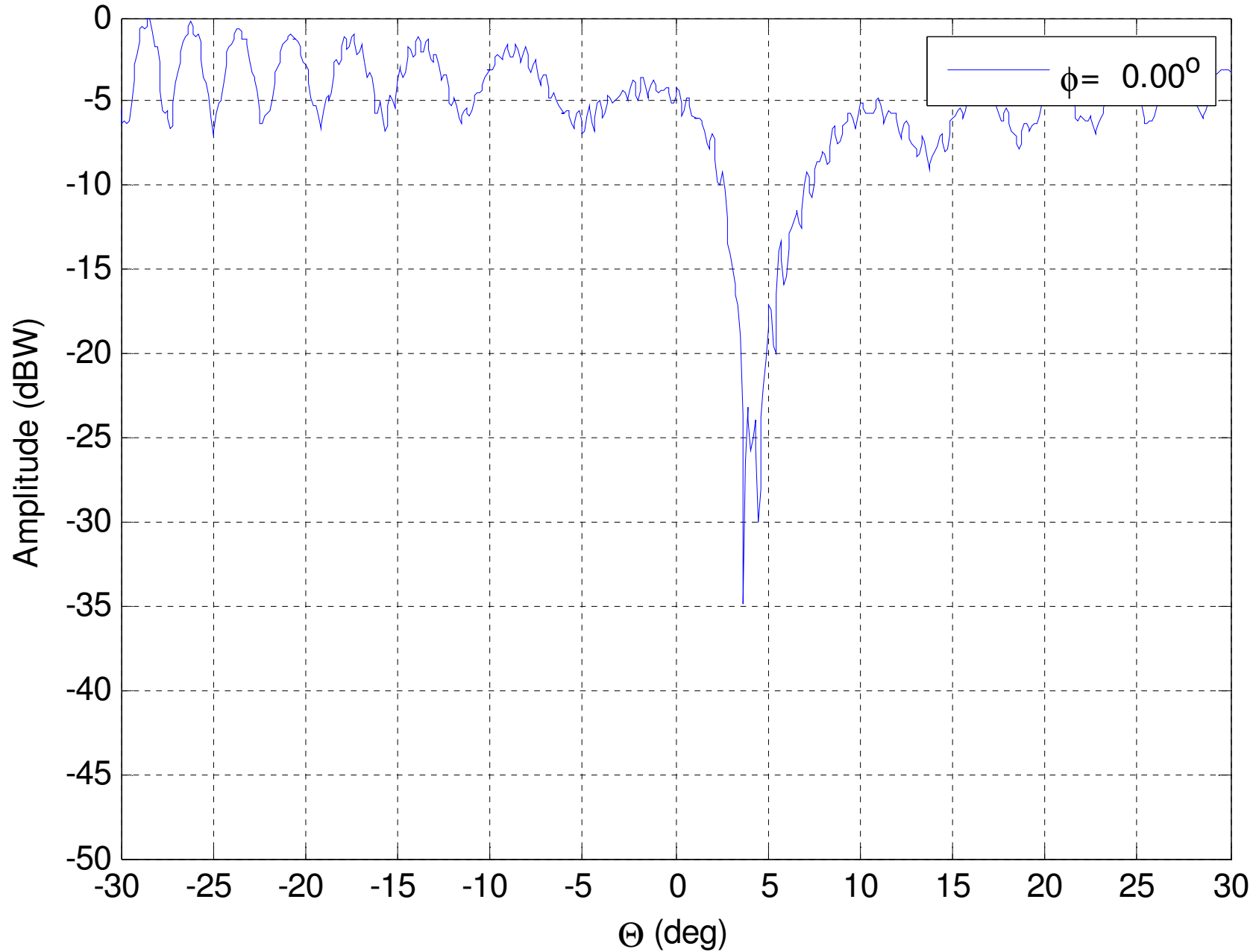
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--10.cut, Peak: -13.79 dBW, Date: 16-Dec-2011



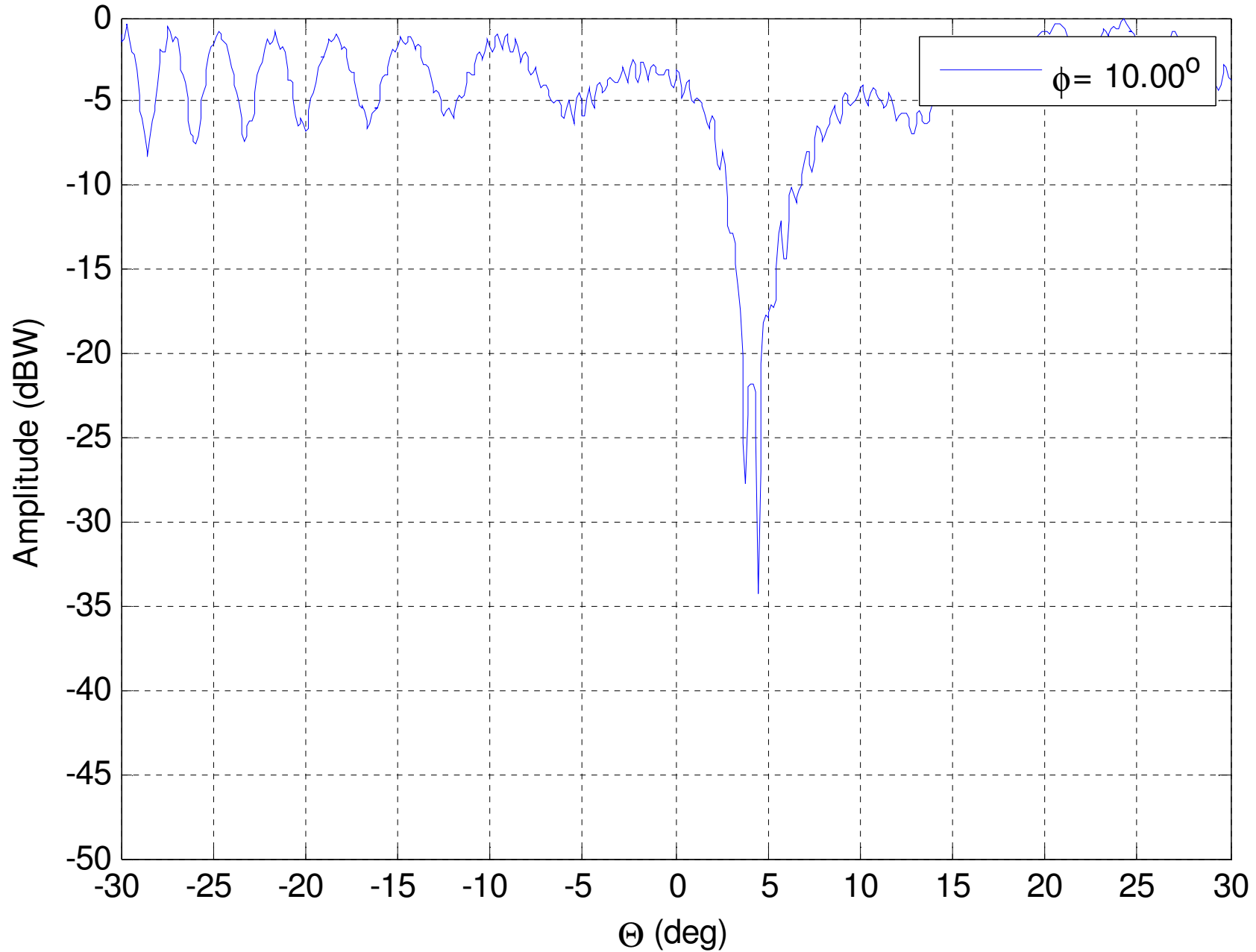
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-0.cut, Peak: -13.33 dBW, Date: 16-Dec-2011



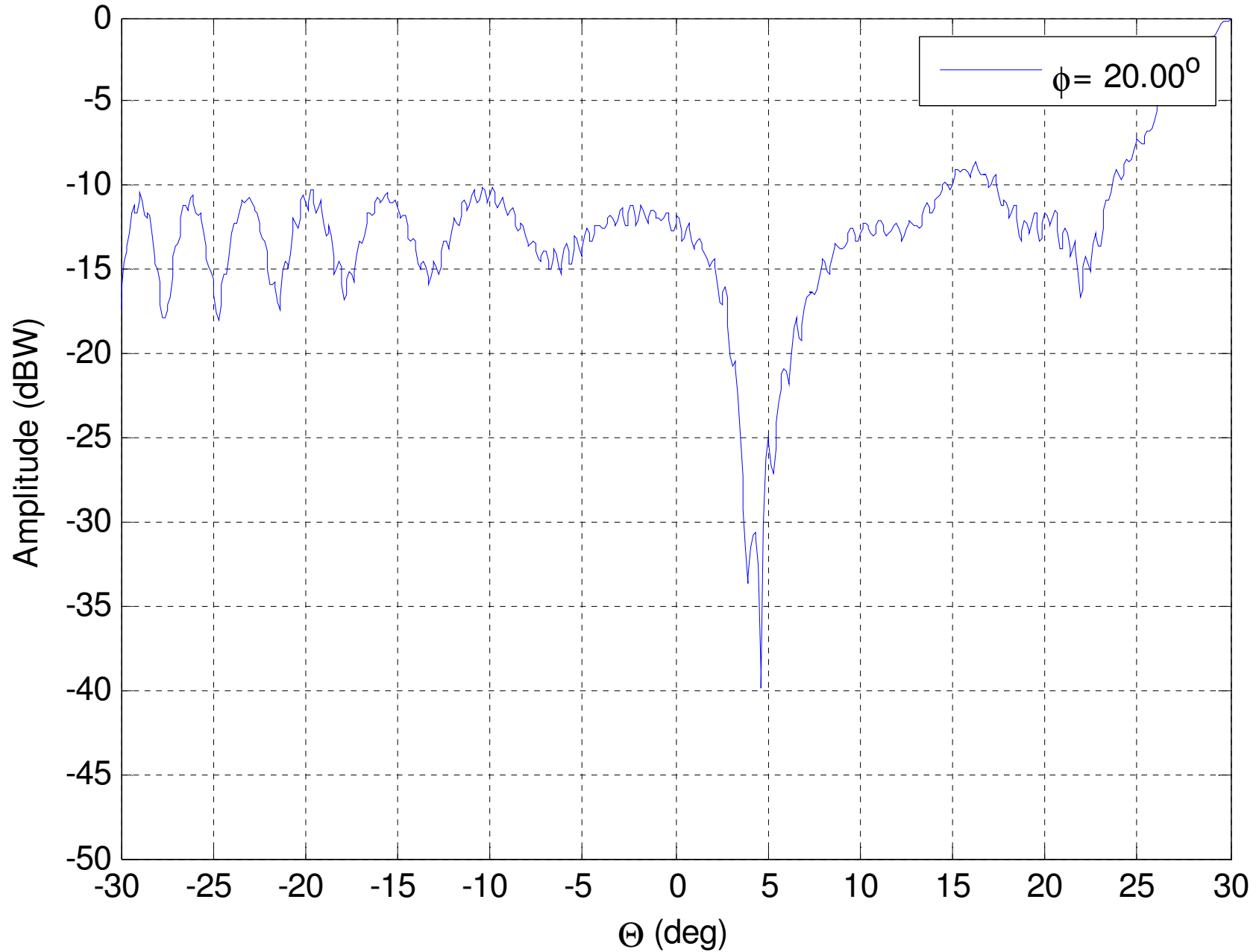
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-10.cut, Peak: -14.31 dBW, Date: 16-Dec-2011



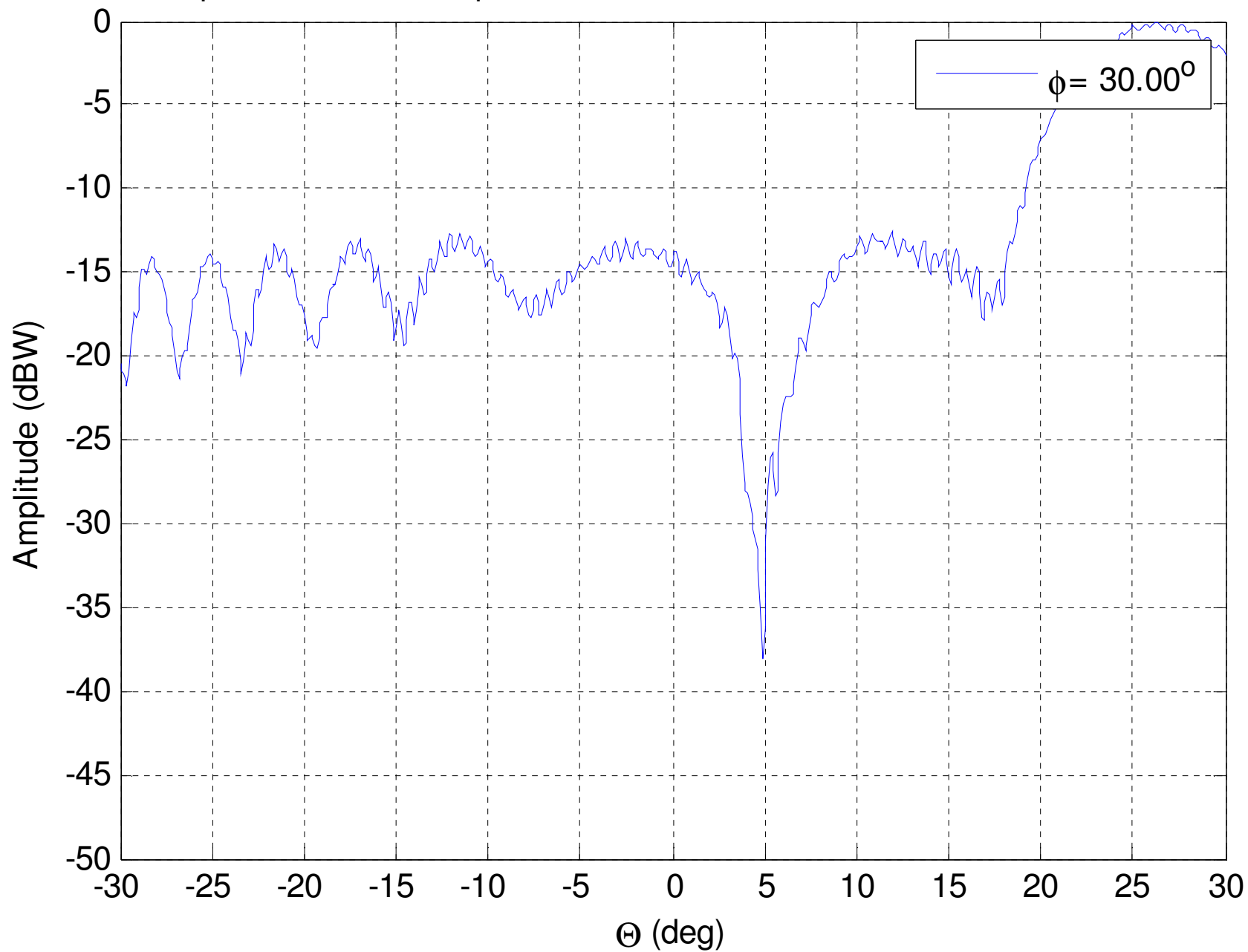
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-20.cut, Peak: -5.73 dBW, Date: 16-Dec-2011



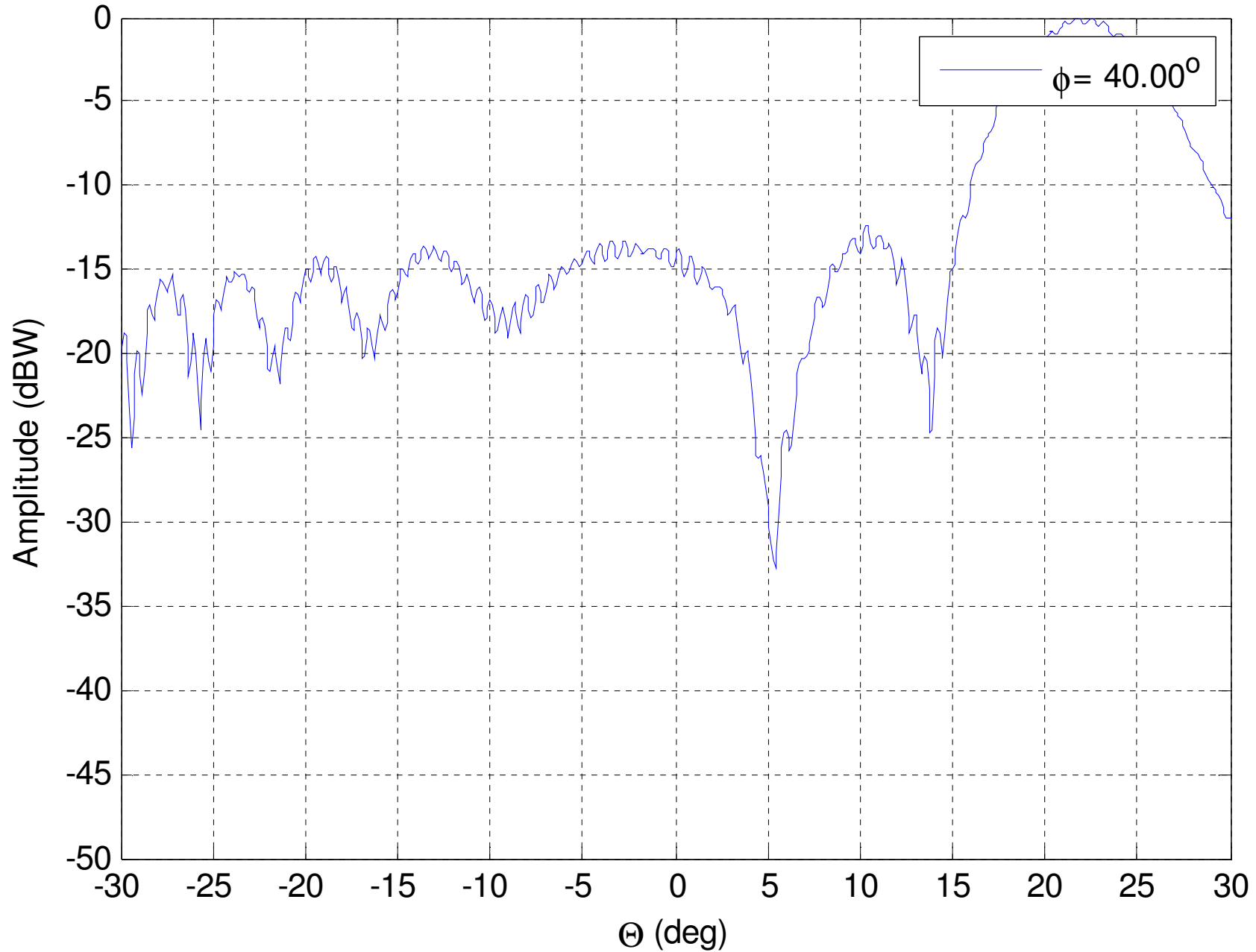
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-30.cut, Peak: -3.75 dBW, Date: 16-Dec-2011



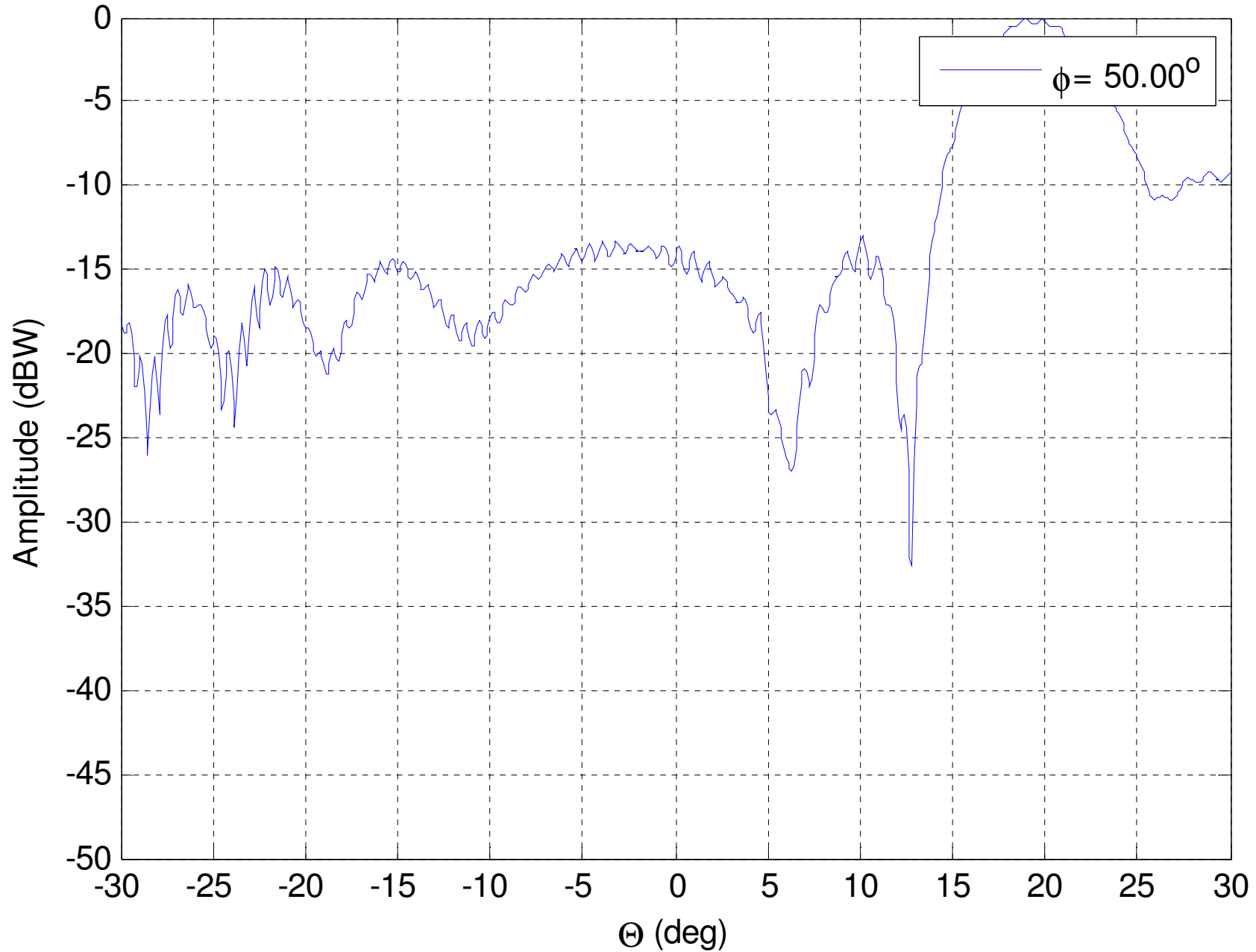
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-40.cut, Peak: -3.65 dBW, Date: 16-Dec-2011



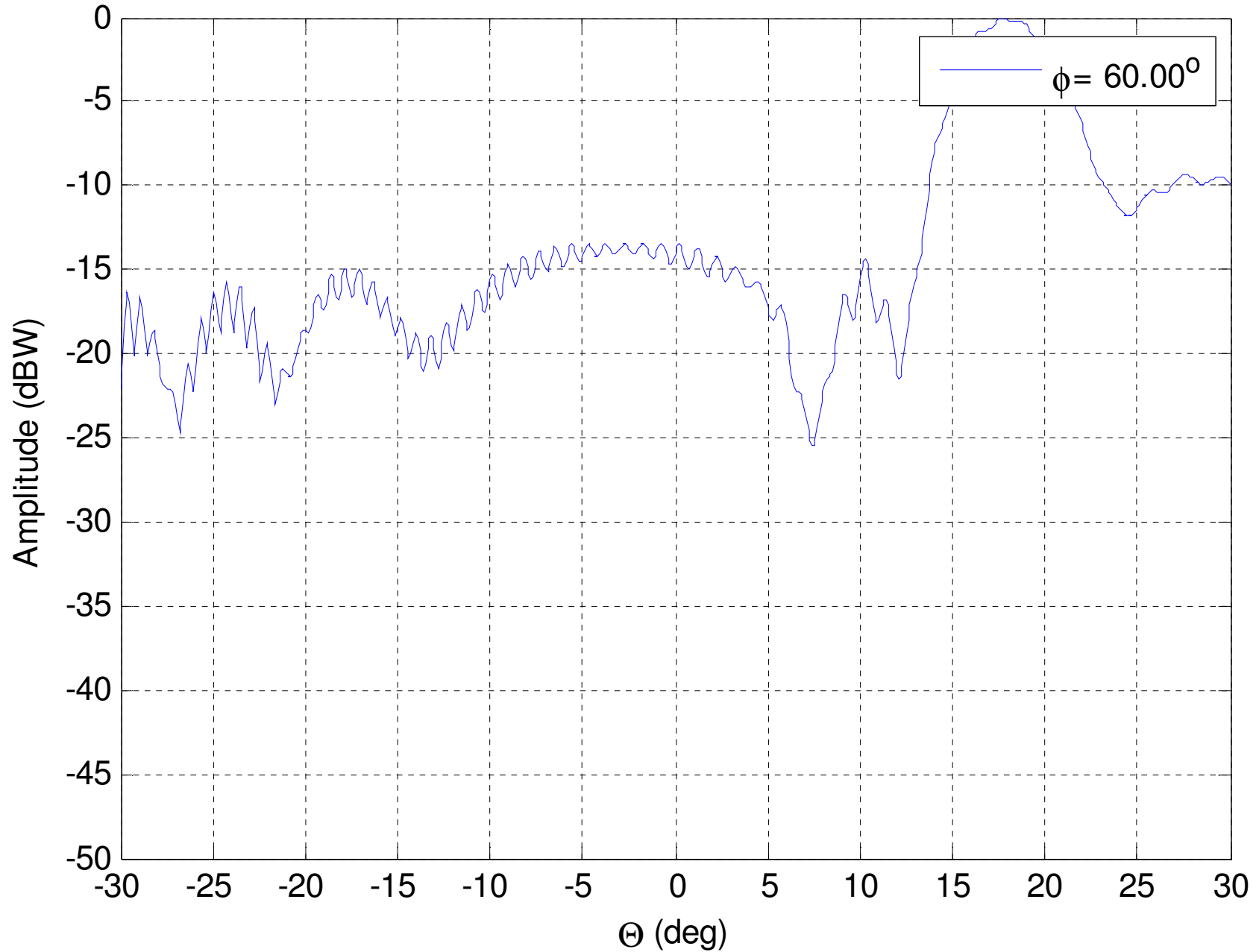
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-50.cut, Peak: -3.78 dBW, Date: 16-Dec-2011



Normalized pattern cuts - farfield

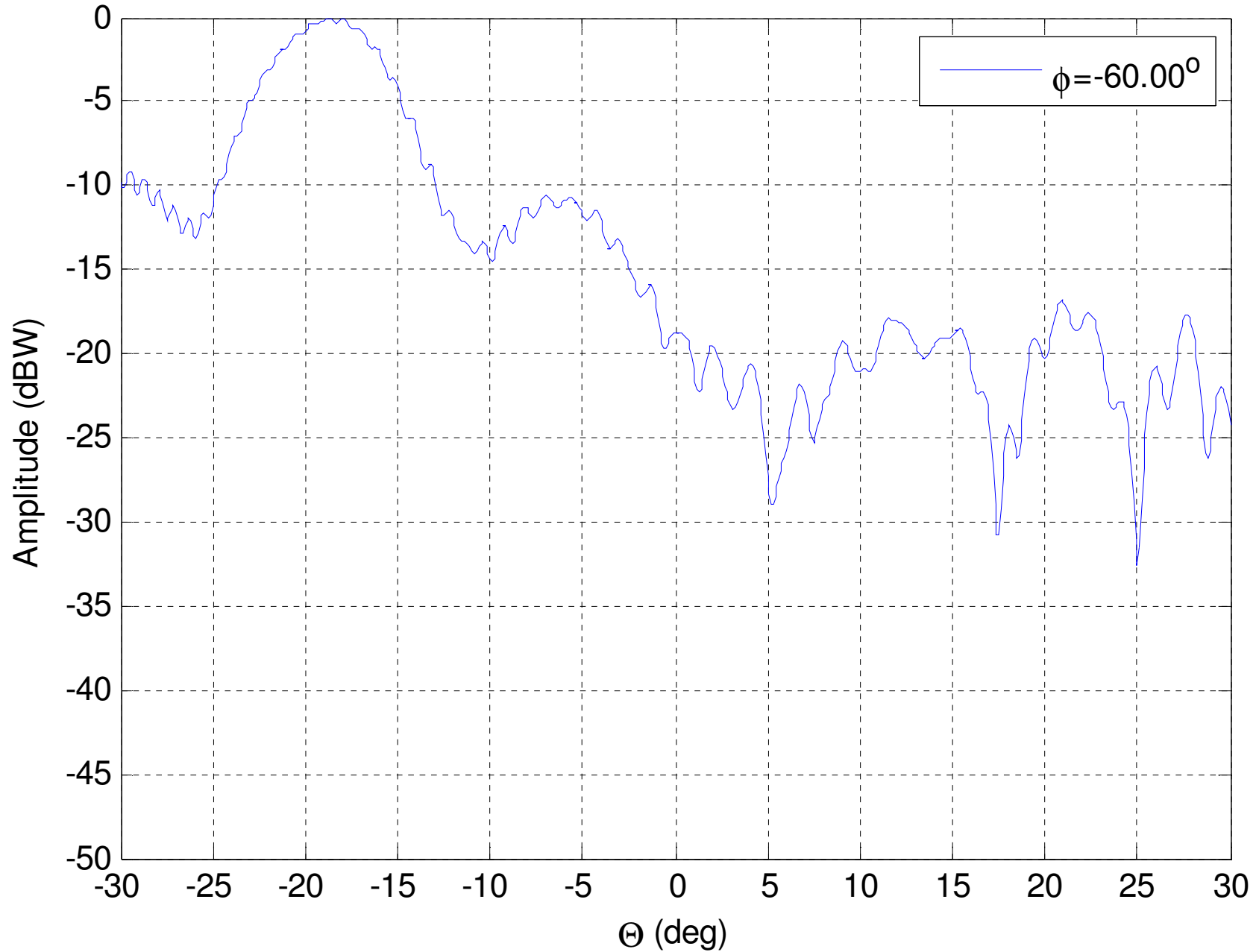
Input file: tx-17.3-rhcp-60.cut, Peak: -3.94 dBW, Date: 16-Dec-2011



LHCP at 17.3 GHz

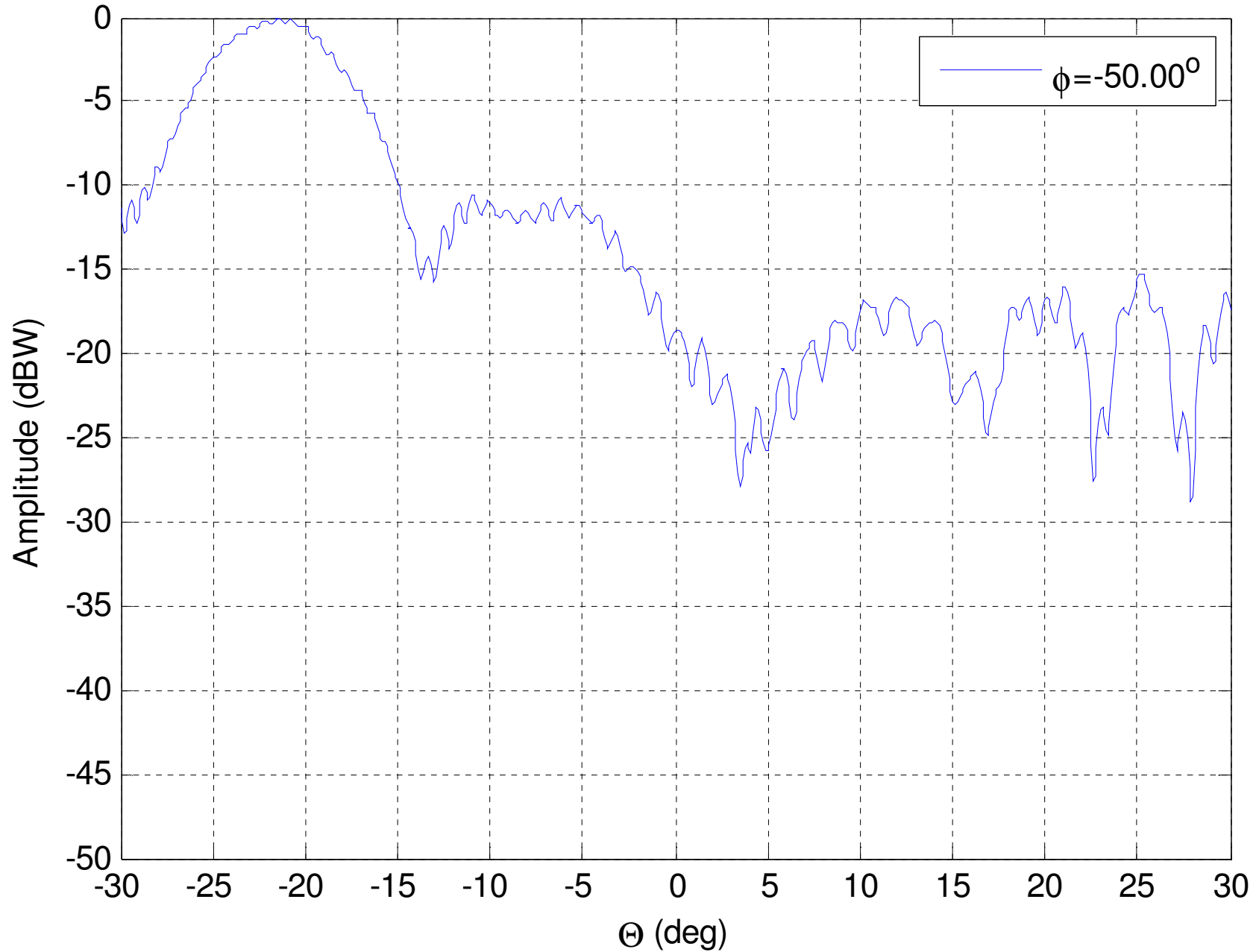
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp--60.cut, Peak: -3.52 dBW, Date: 16-Dec-2011



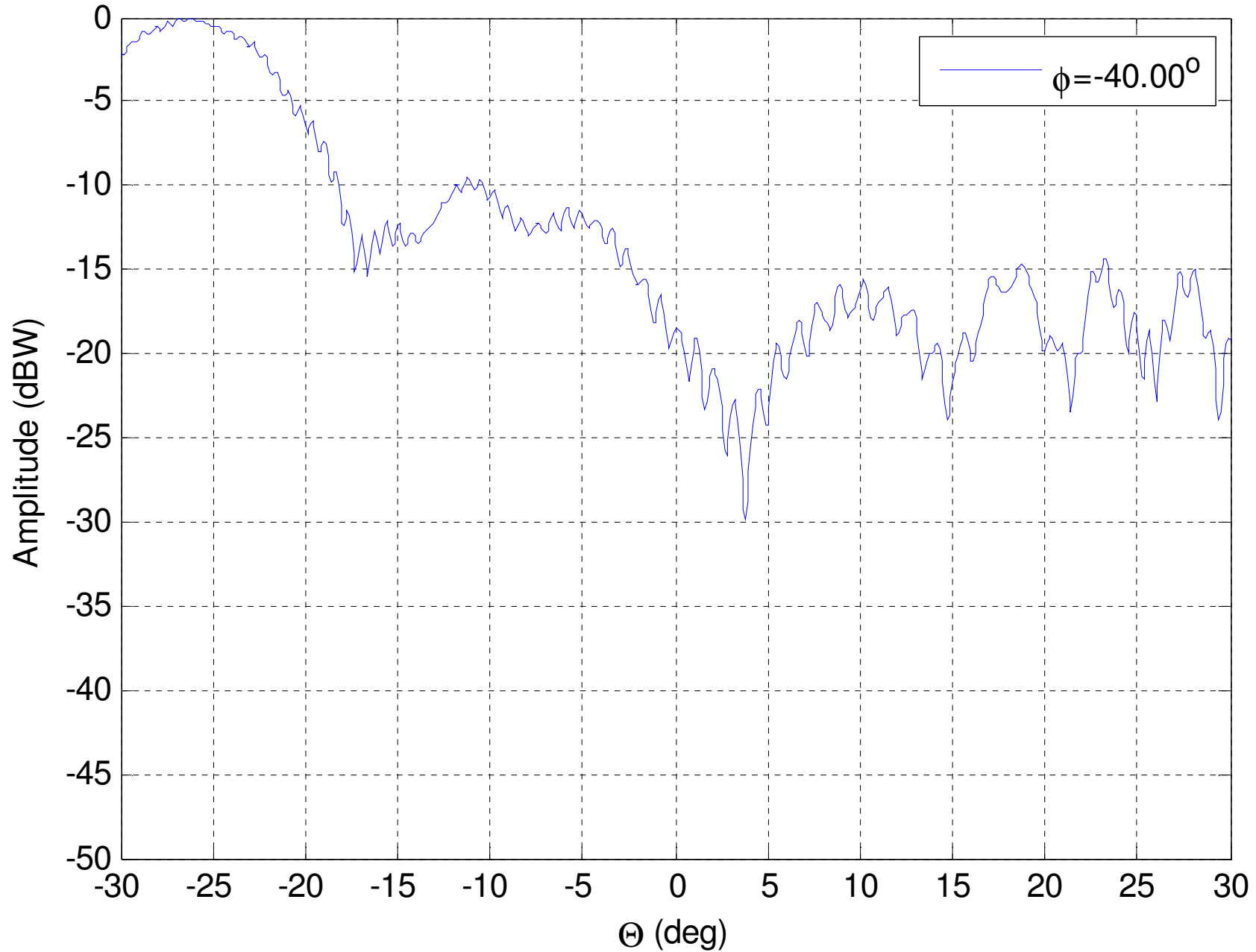
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp--50.cut, Peak: -3.59 dBW, Date: 16-Dec-2011



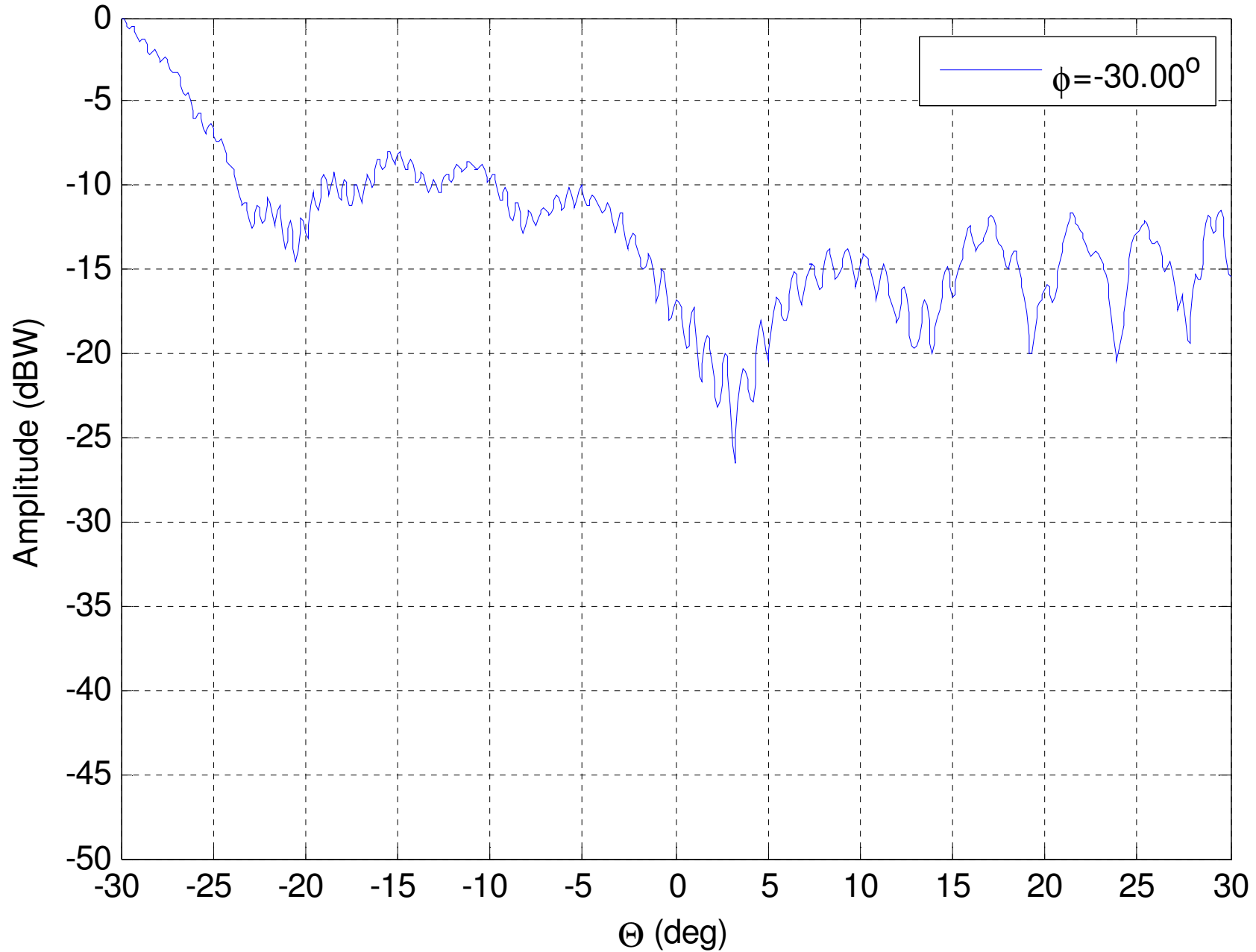
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp--40.cut, Peak: -3.69 dBW, Date: 16-Dec-2011



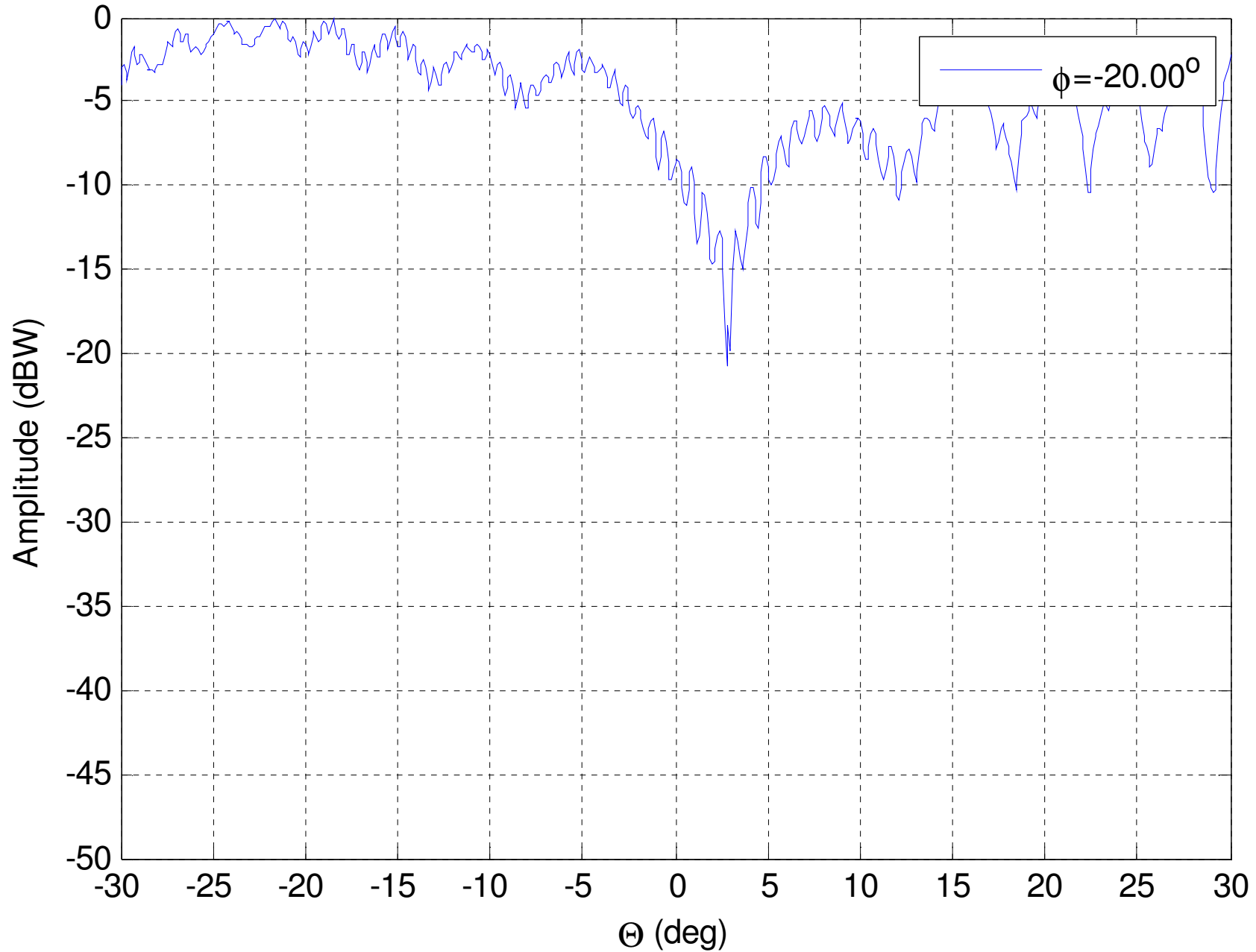
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp--30.cut, Peak: -5.40 dBW, Date: 16-Dec-2011



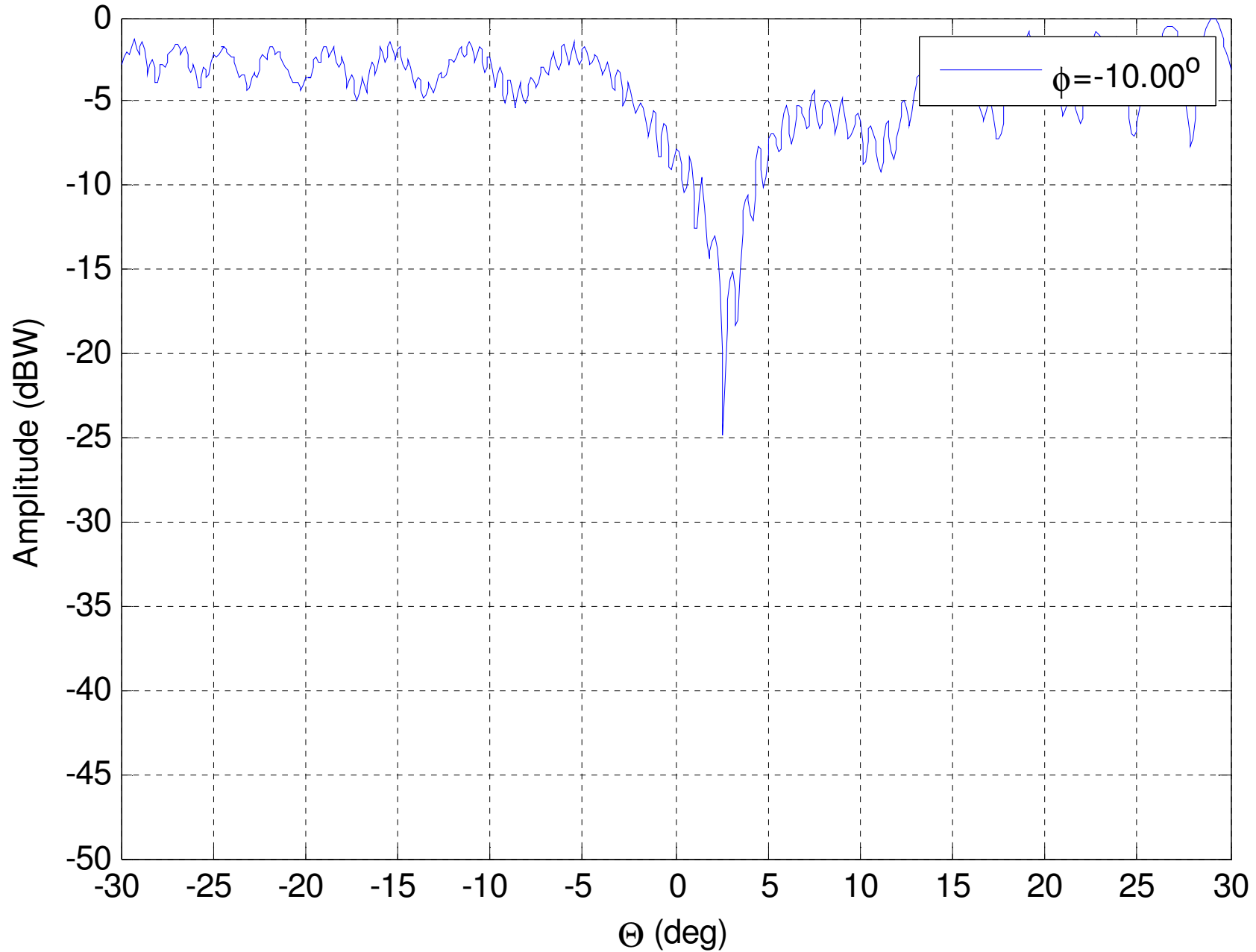
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp--20.cut, Peak: -13.69 dBW, Date: 16-Dec-2011



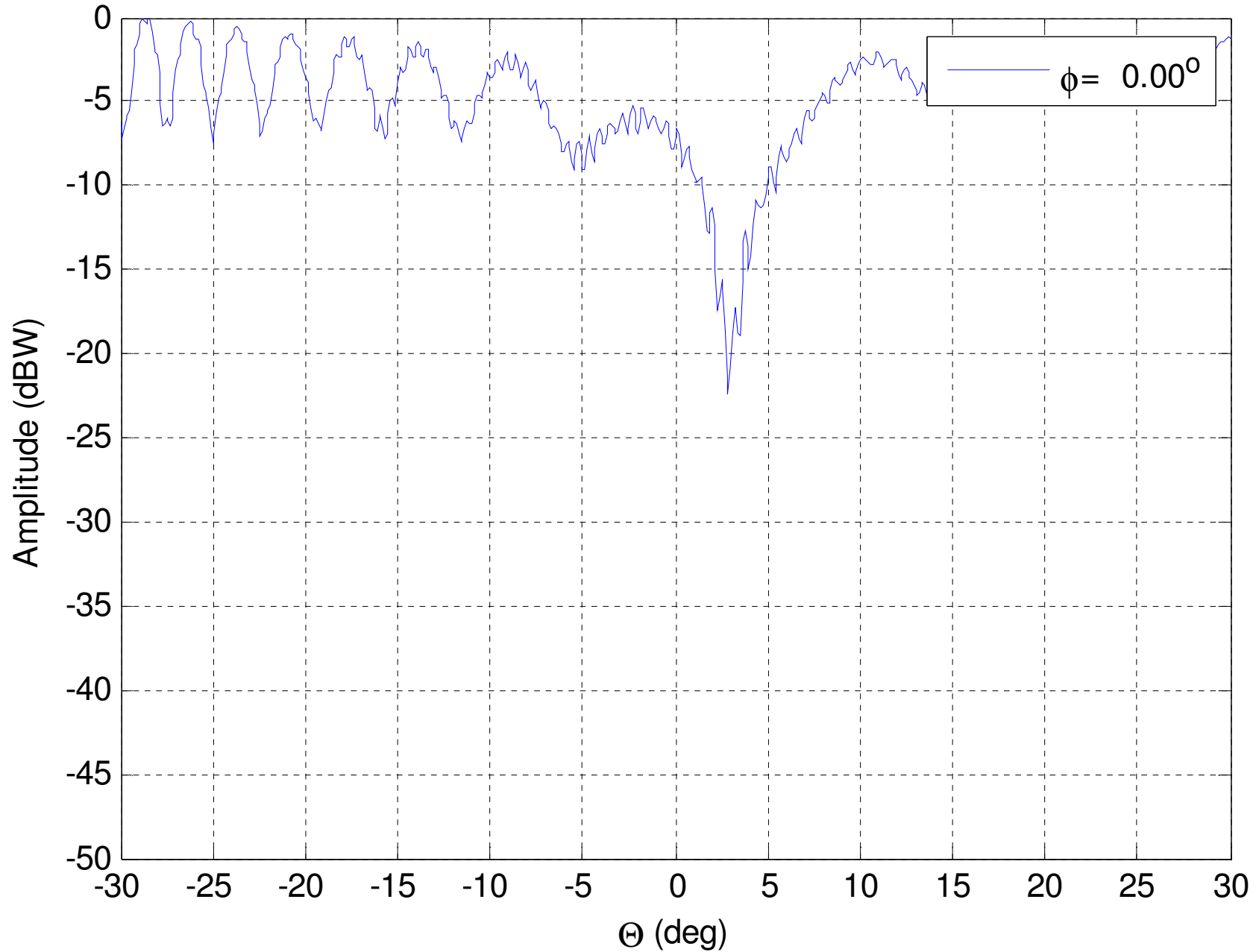
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp--10.cut, Peak: -14.35 dBW, Date: 16-Dec-2011



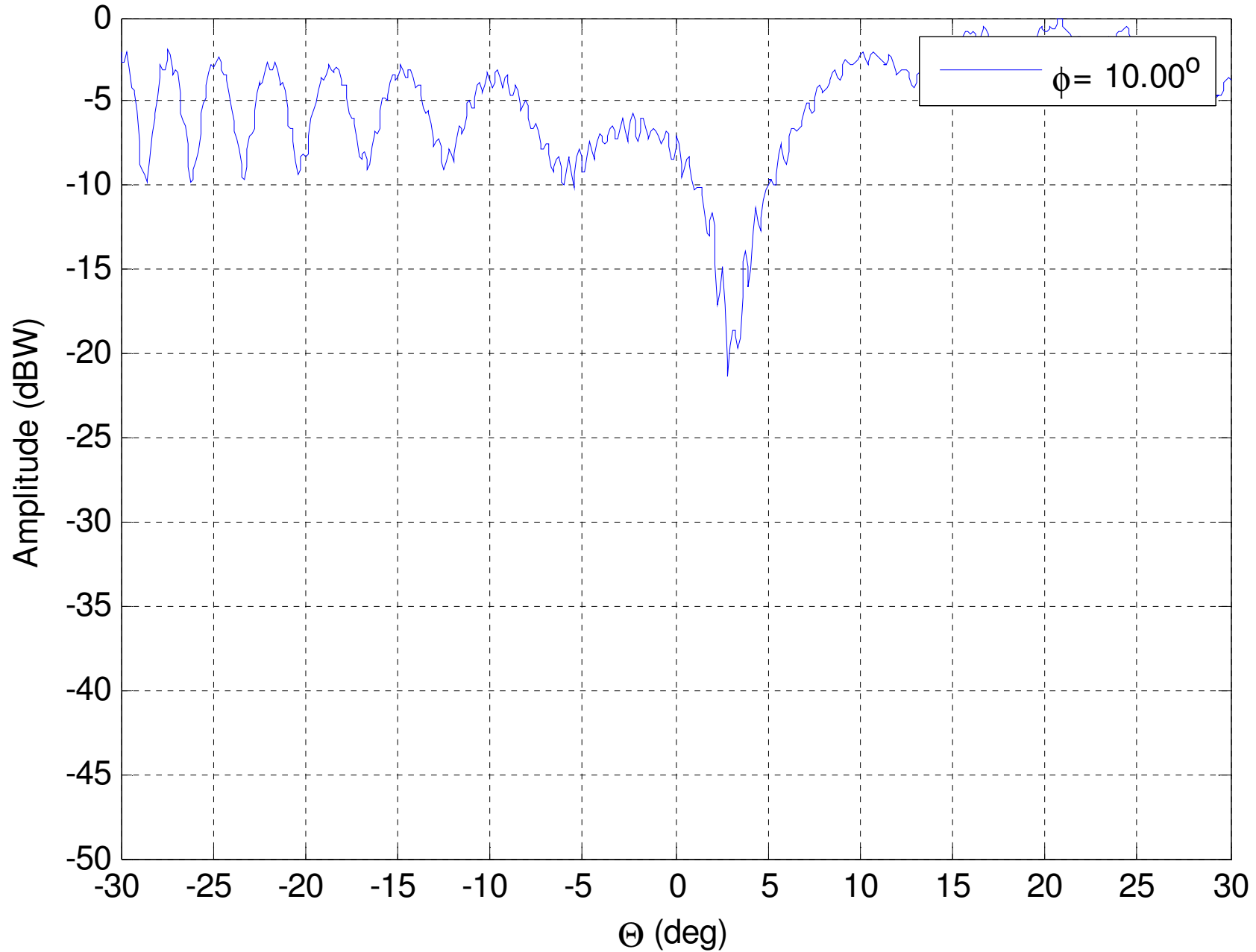
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp-0.cut, Peak: -13.87 dBW, Date: 16-Dec-2011



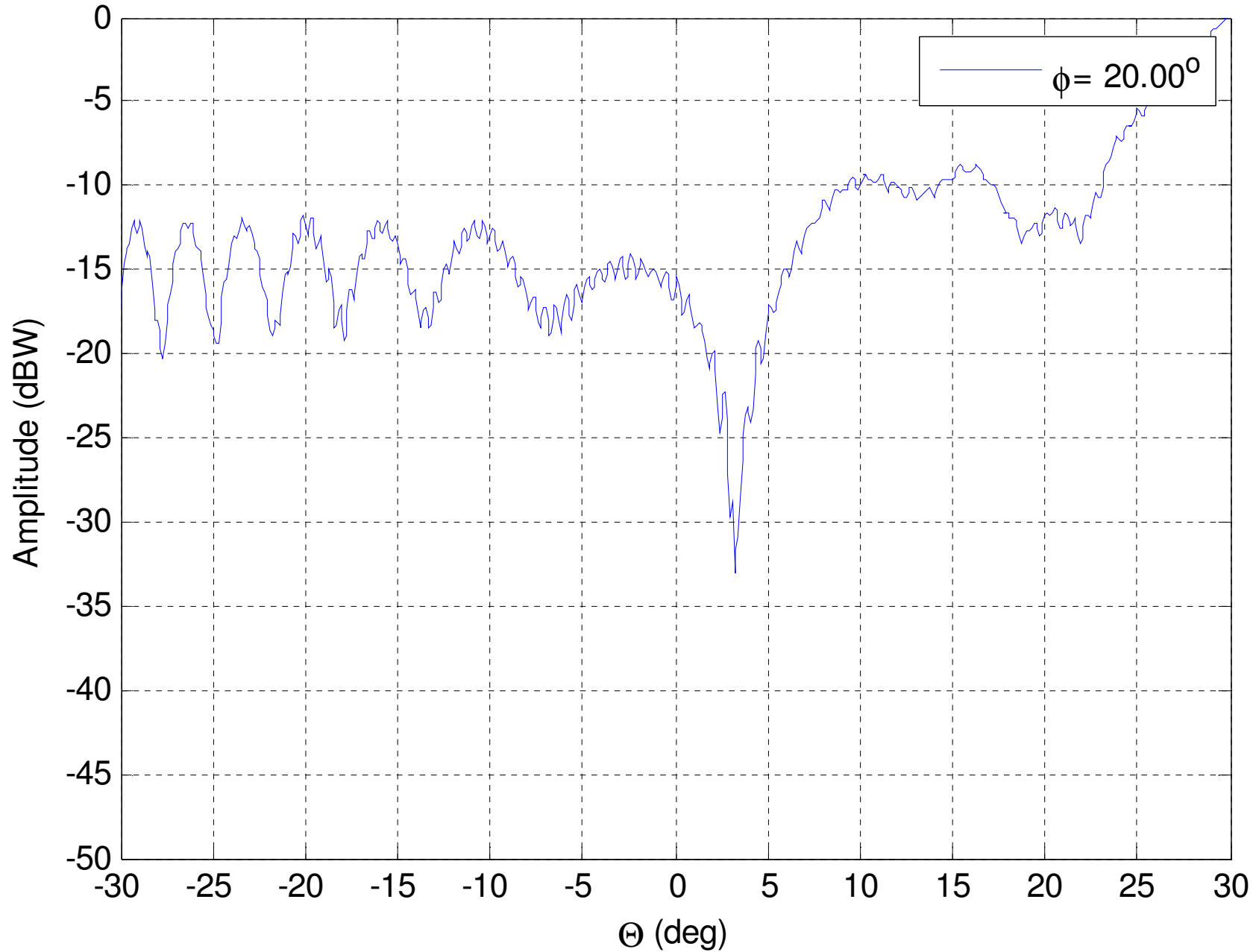
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp-10.cut, Peak: -13.28 dBW, Date: 16-Dec-2011



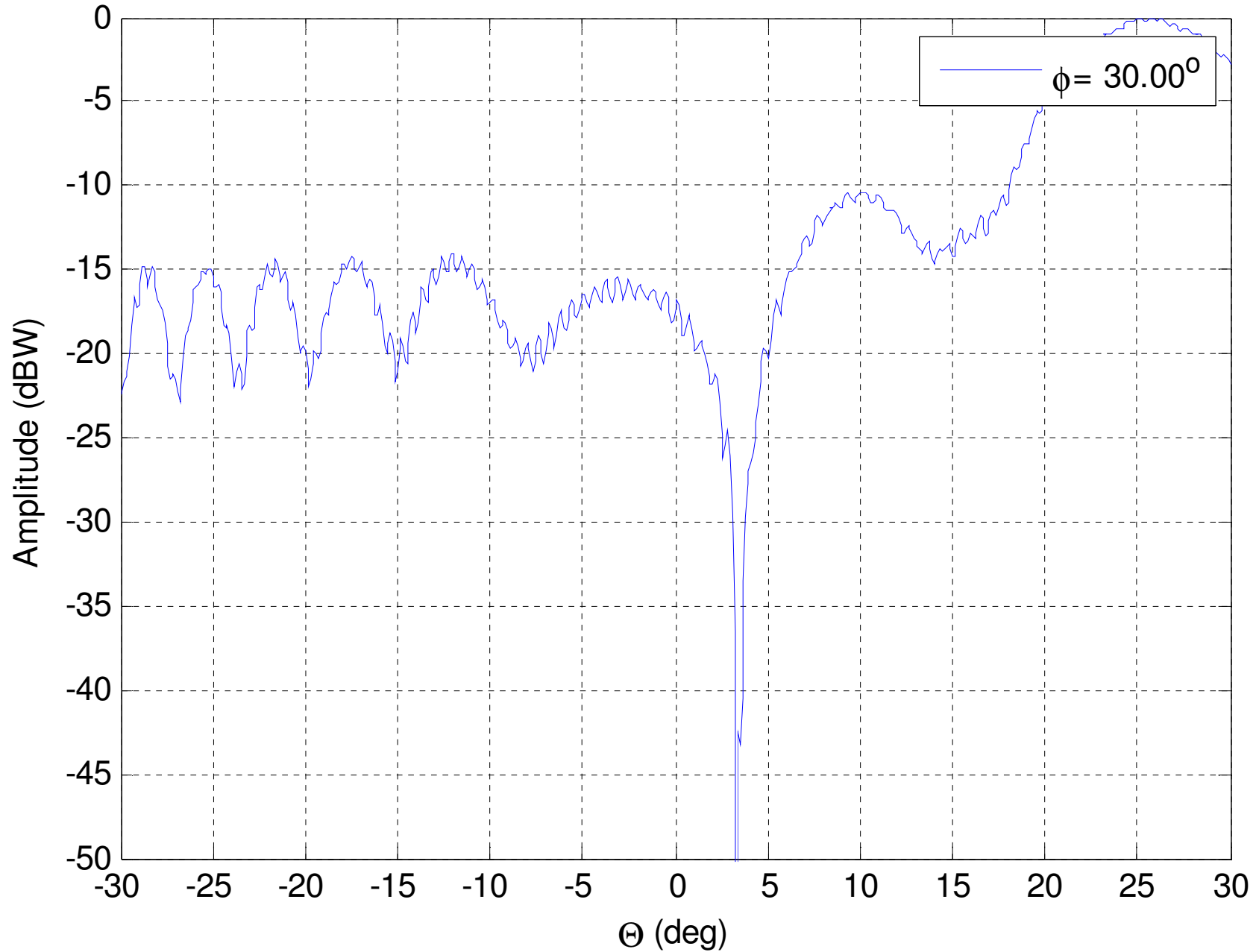
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp-20.cut, Peak: -4.96 dBW, Date: 16-Dec-2011



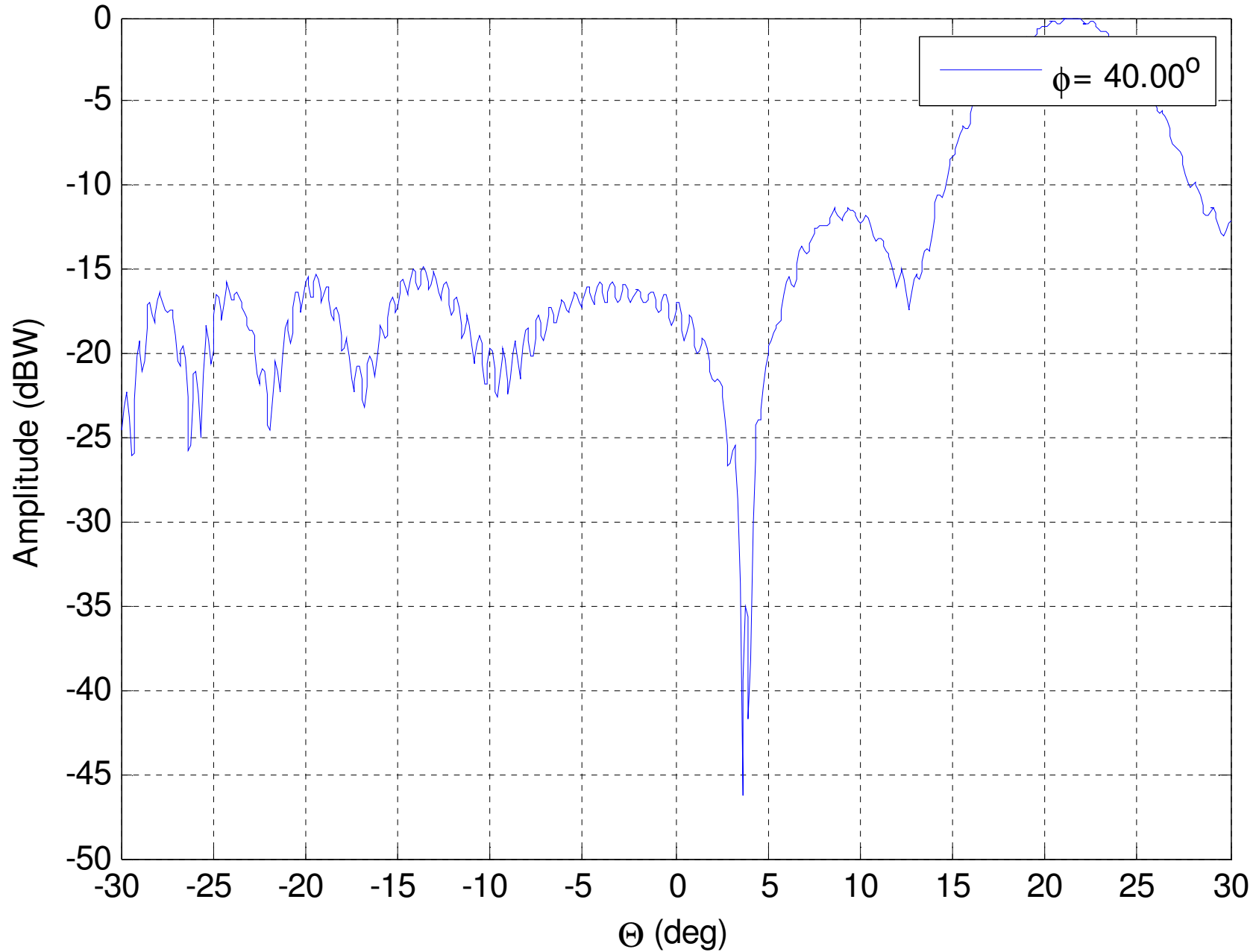
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp-30.cut, Peak: -3.65 dBW, Date: 16-Dec-2011



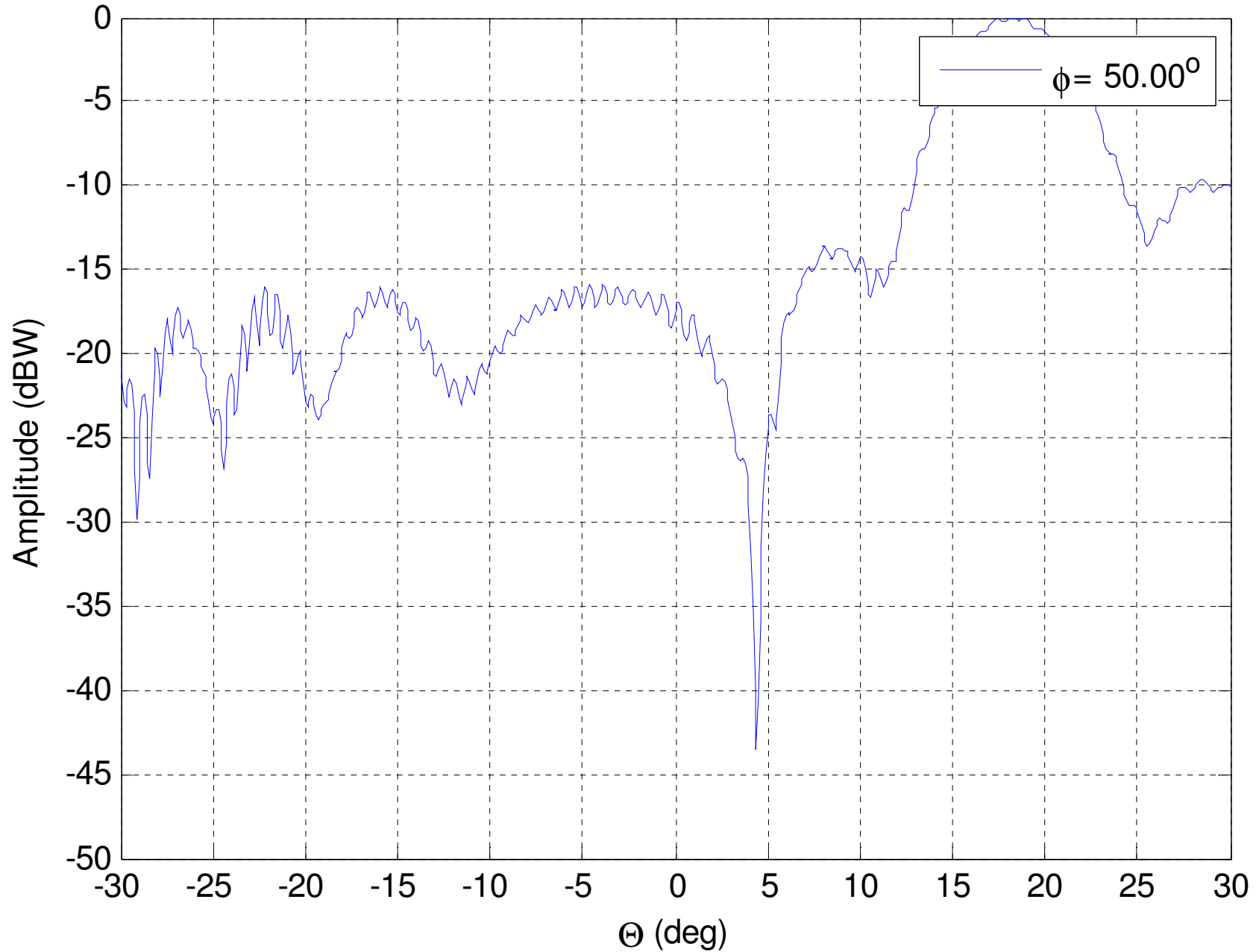
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp-40.cut, Peak: -3.55 dBW, Date: 16-Dec-2011



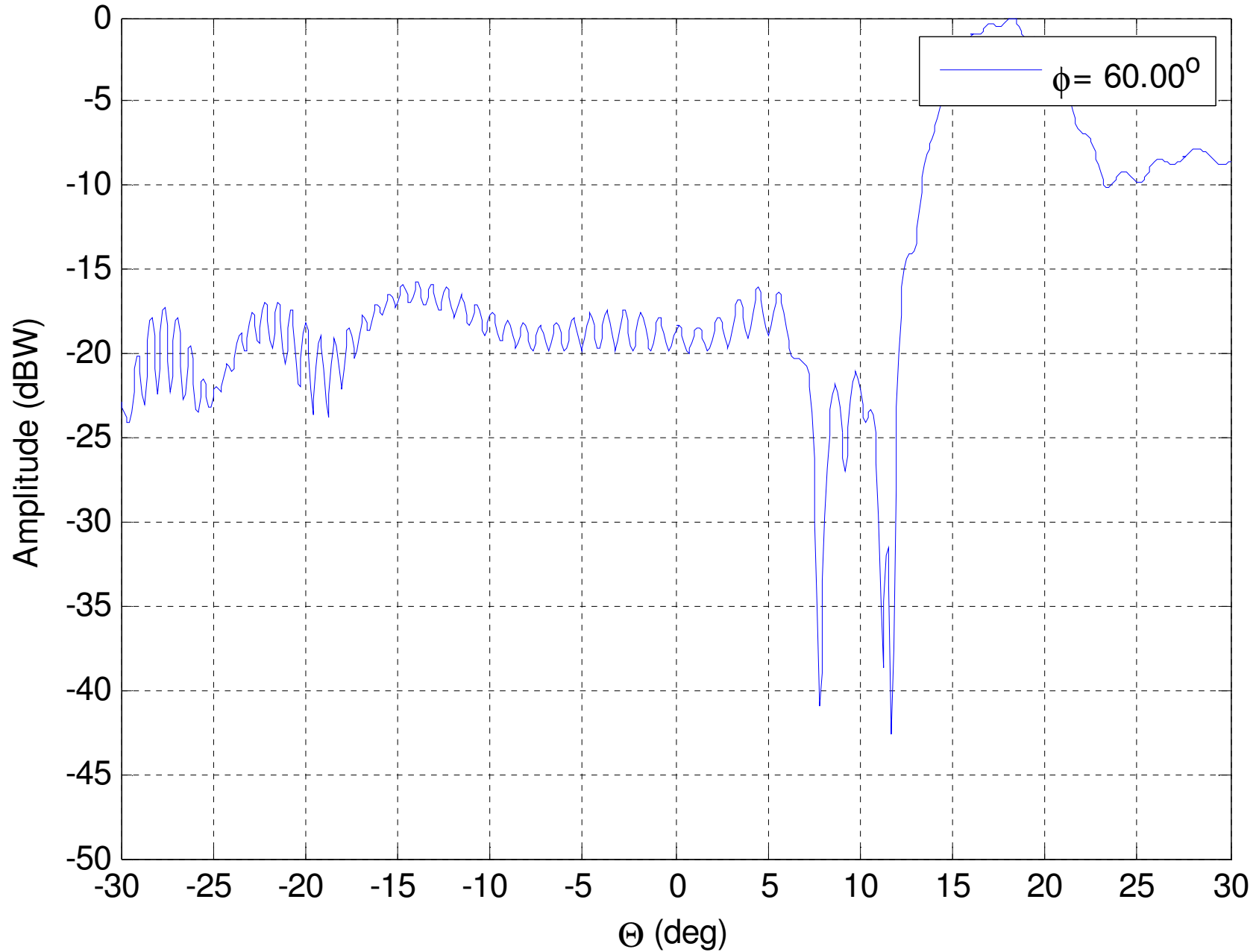
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp-50.cut, Peak: -3.53 dBW, Date: 16-Dec-2011



Normalized pattern cuts - farfield

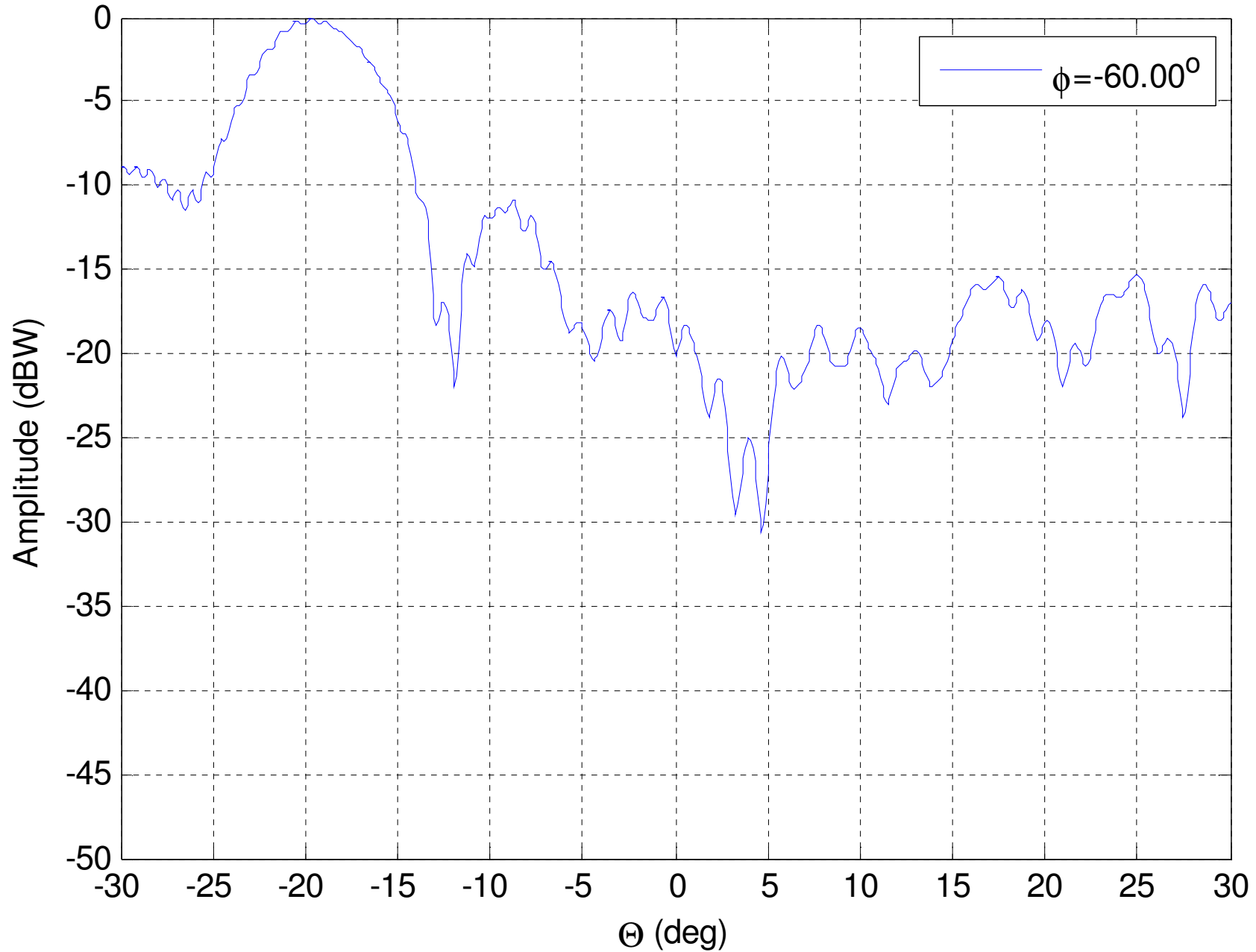
Input file: tx-17.3-lhcp-60.cut, Peak: -3.71 dBW, Date: 16-Dec-2011



RHCP at 17.5 GHz

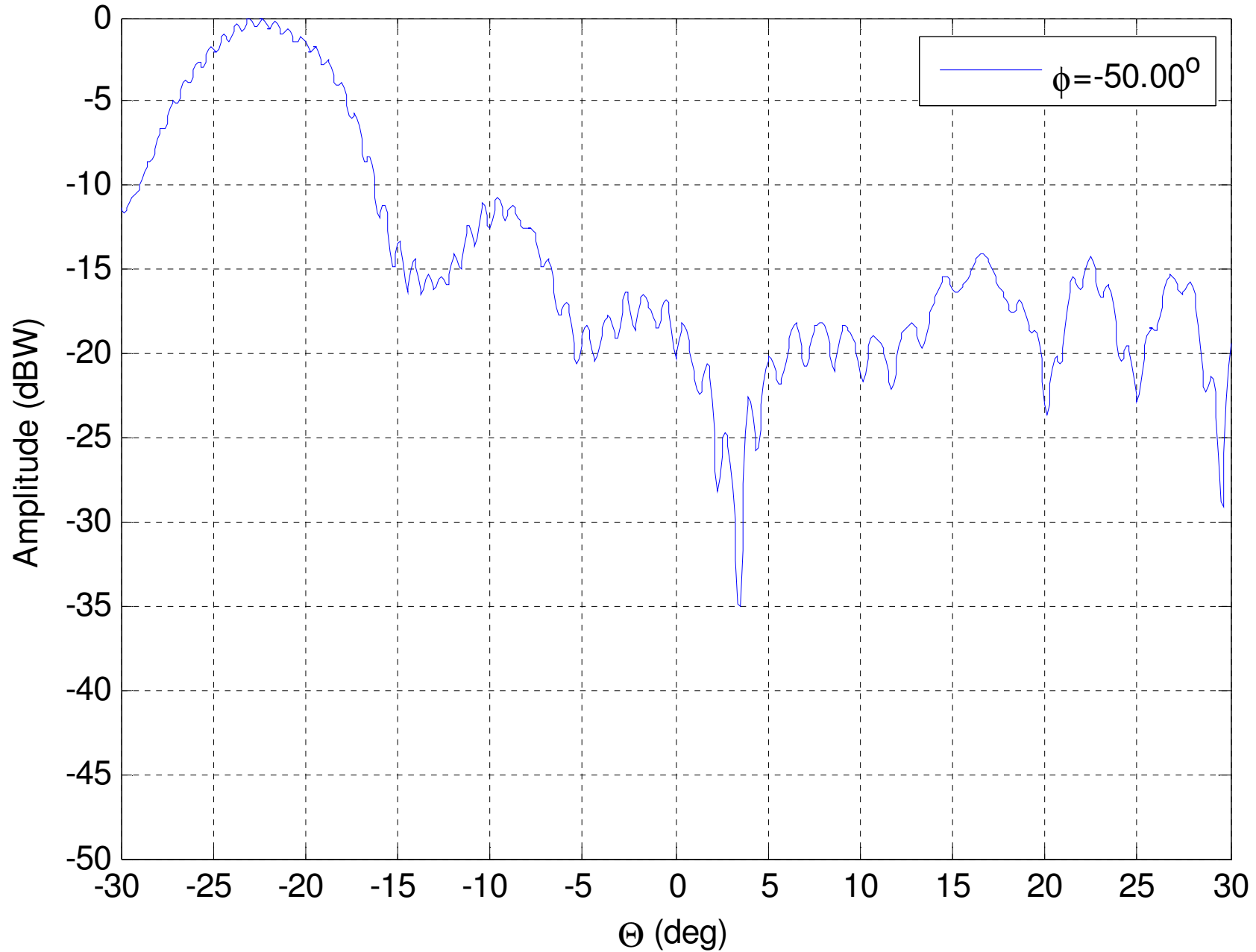
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--60.cut, Peak: -3.74 dBW, Date: 16-Dec-2011



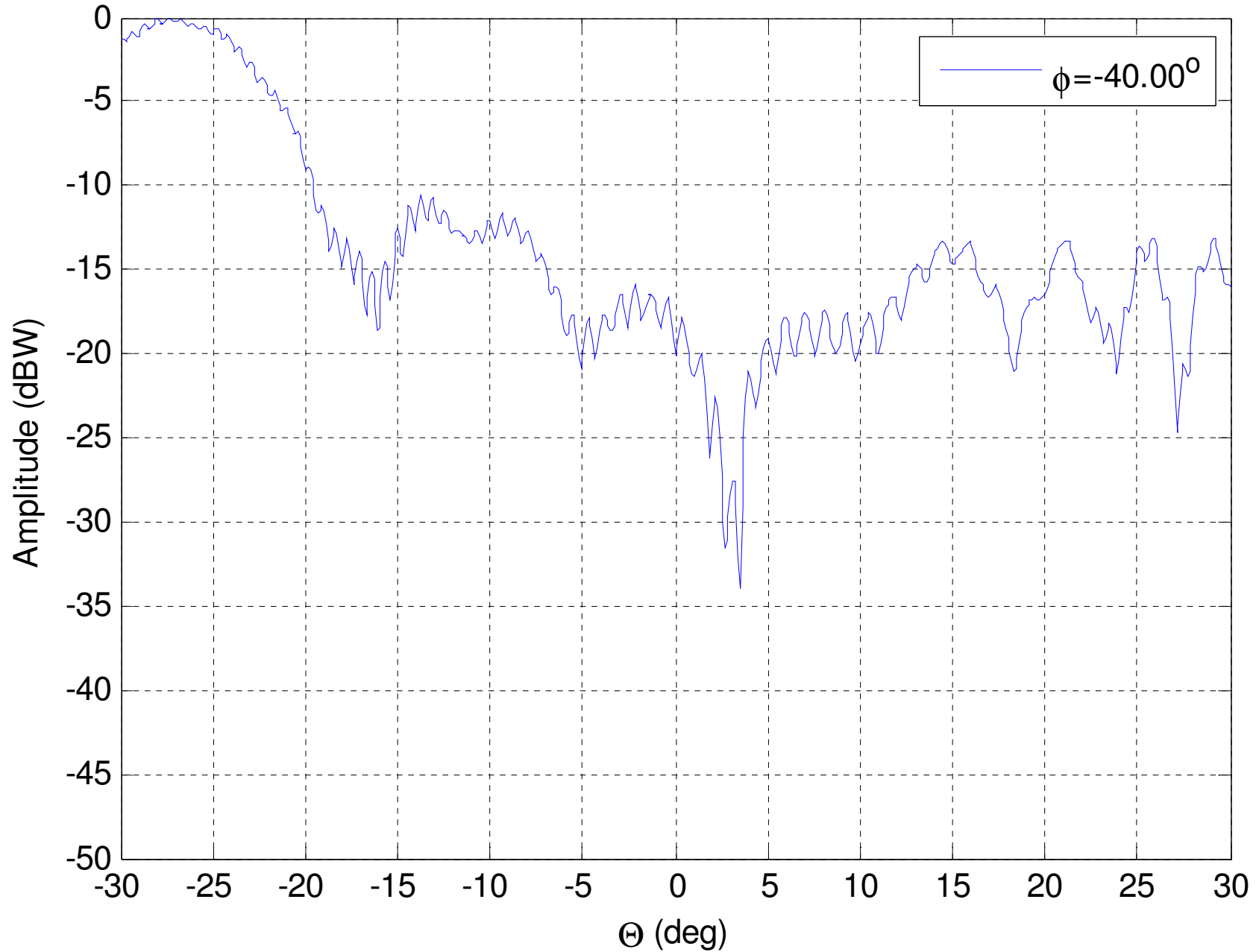
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--50.cut, Peak: -3.60 dBW, Date: 16-Dec-2011



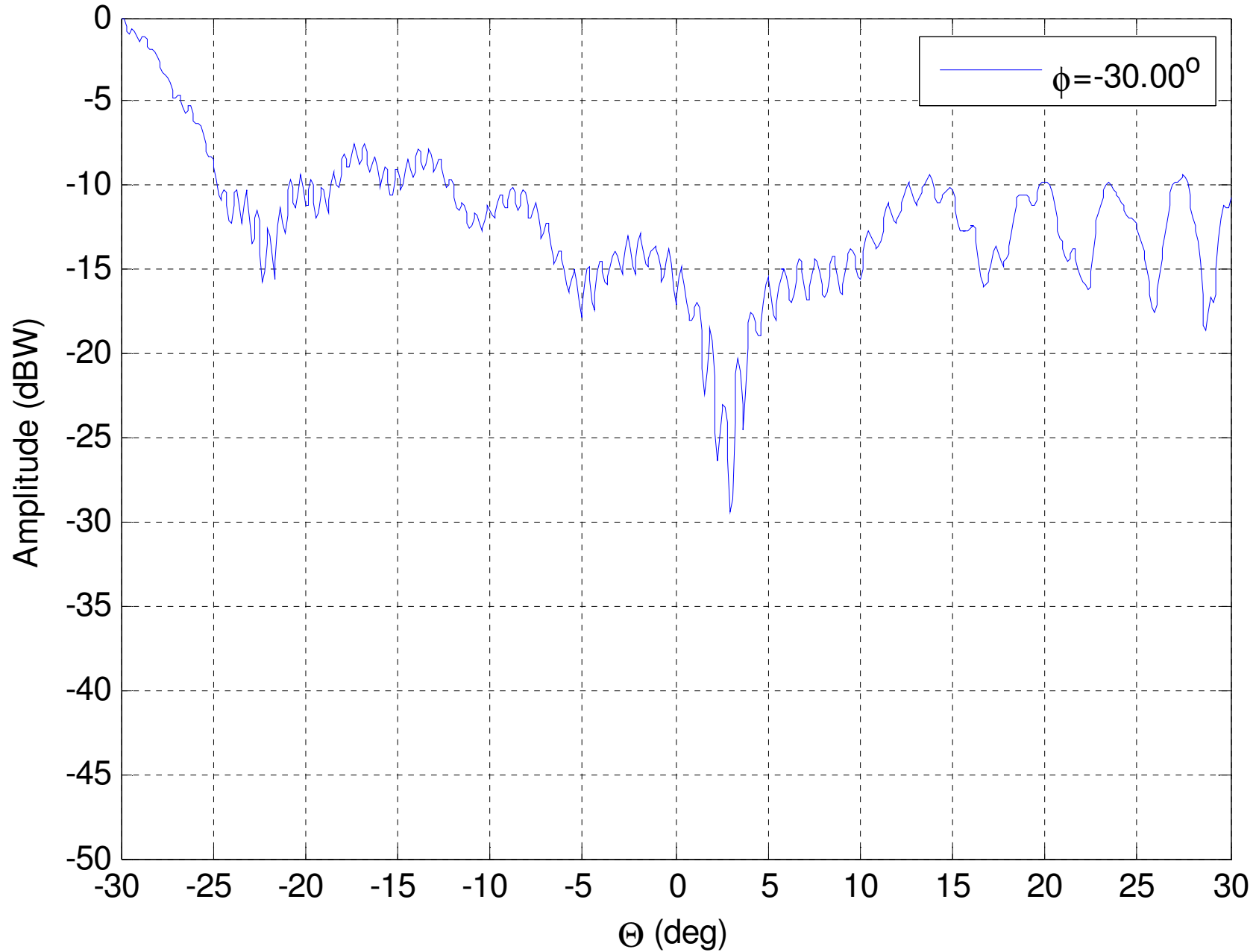
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--40.cut, Peak: -3.76 dBW, Date: 16-Dec-2011



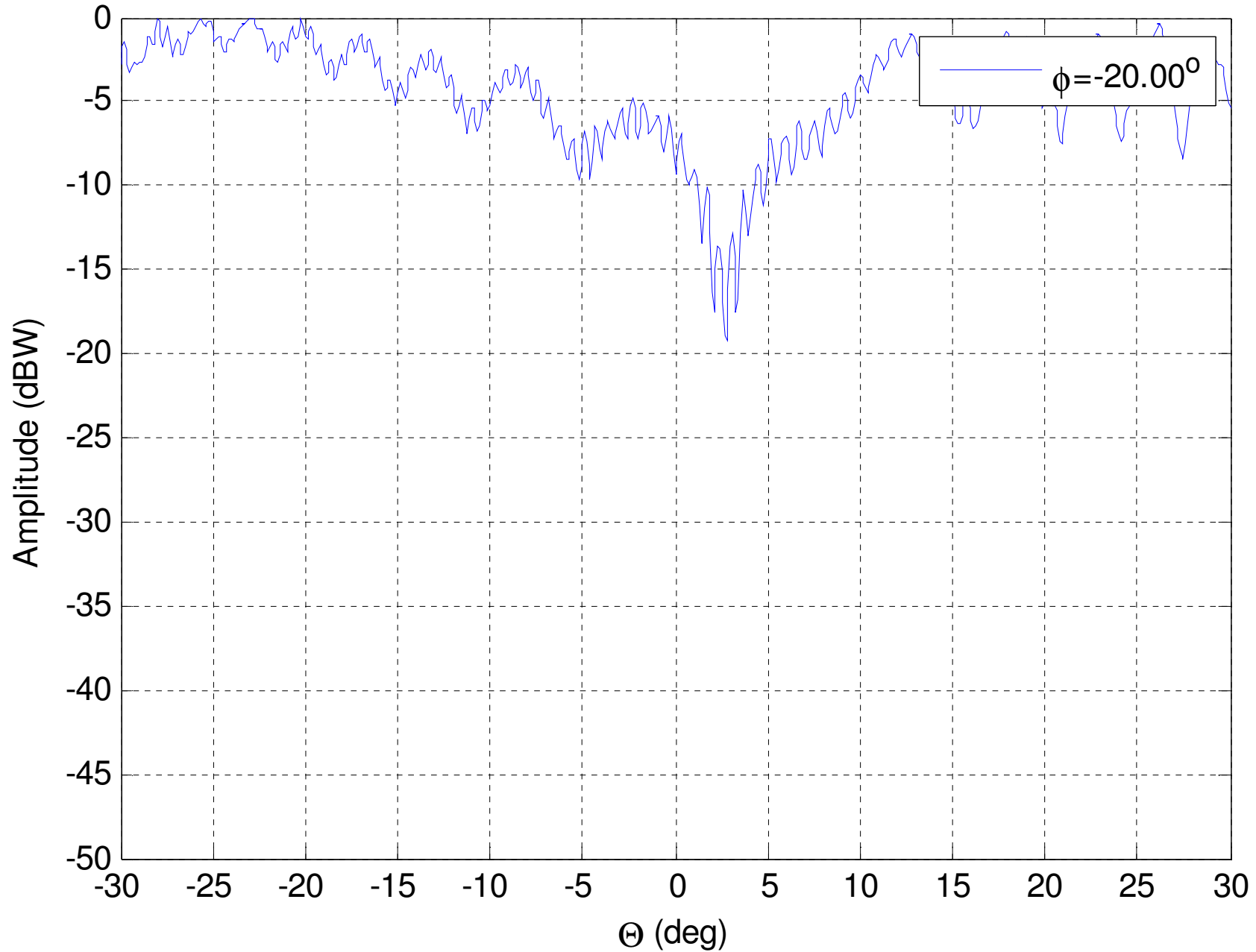
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--30.cut, Peak: -6.70 dBW, Date: 16-Dec-2011



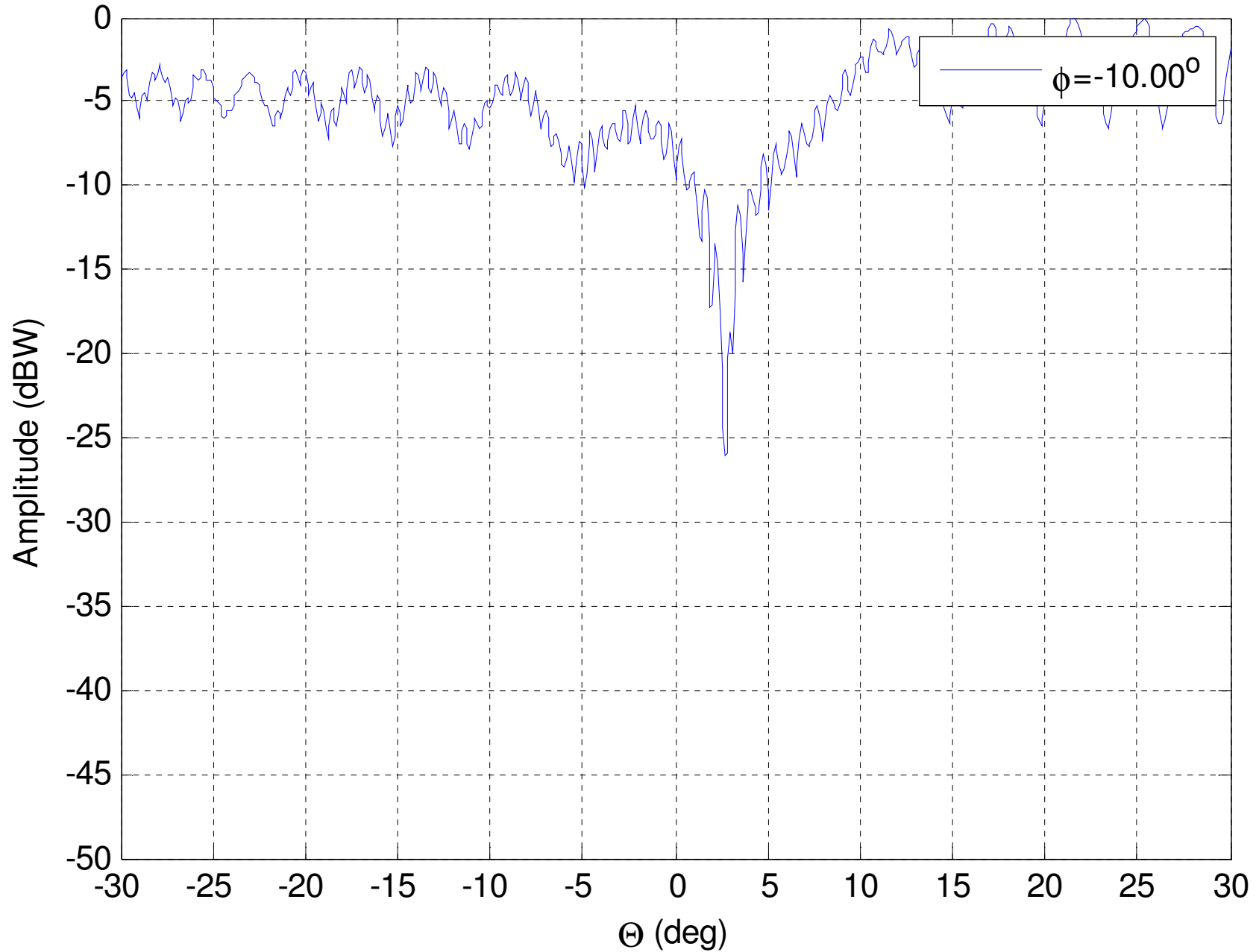
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--20.cut, Peak: -14.55 dBW, Date: 16-Dec-2011



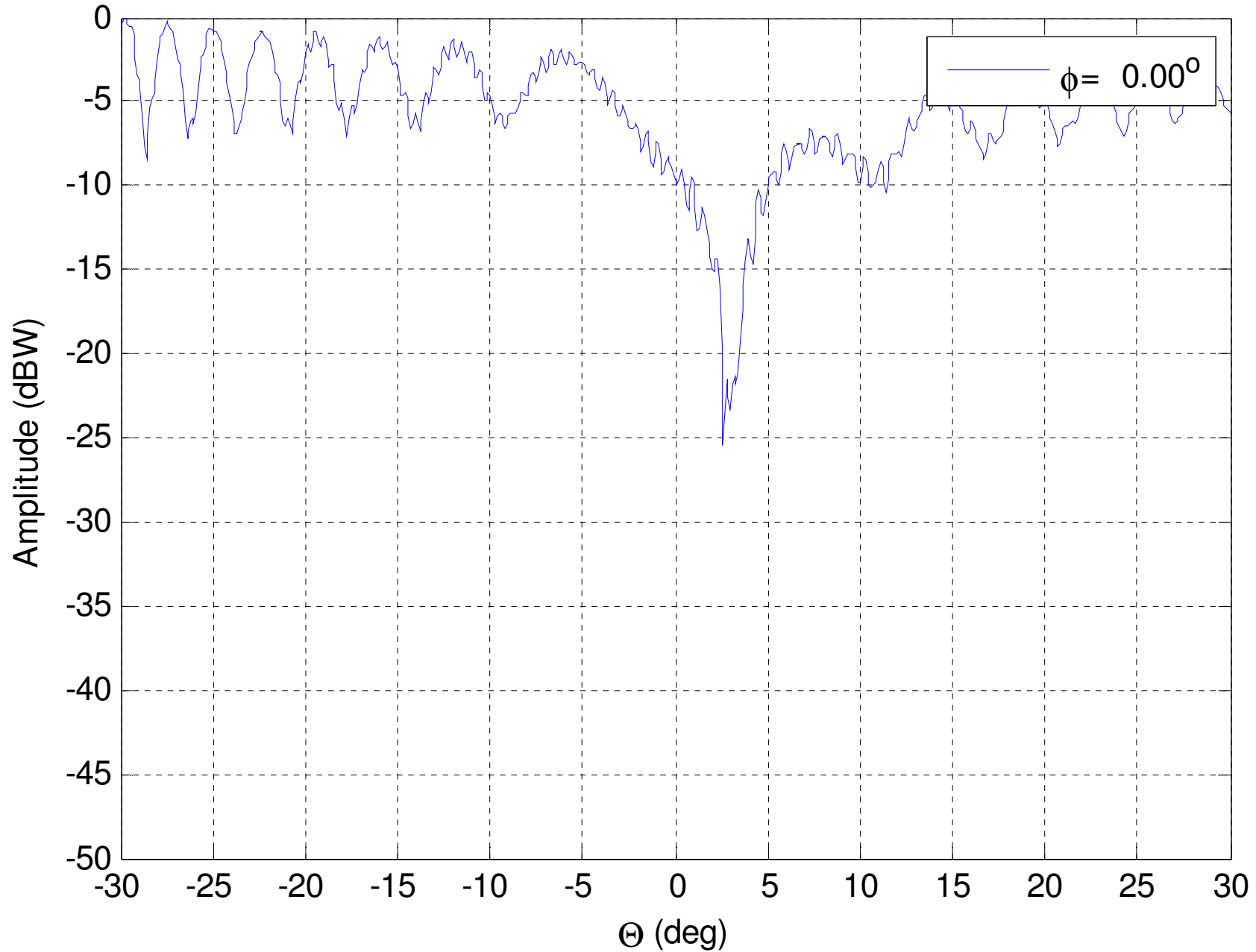
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--10.cut, Peak: -14.15 dBW, Date: 16-Dec-2011



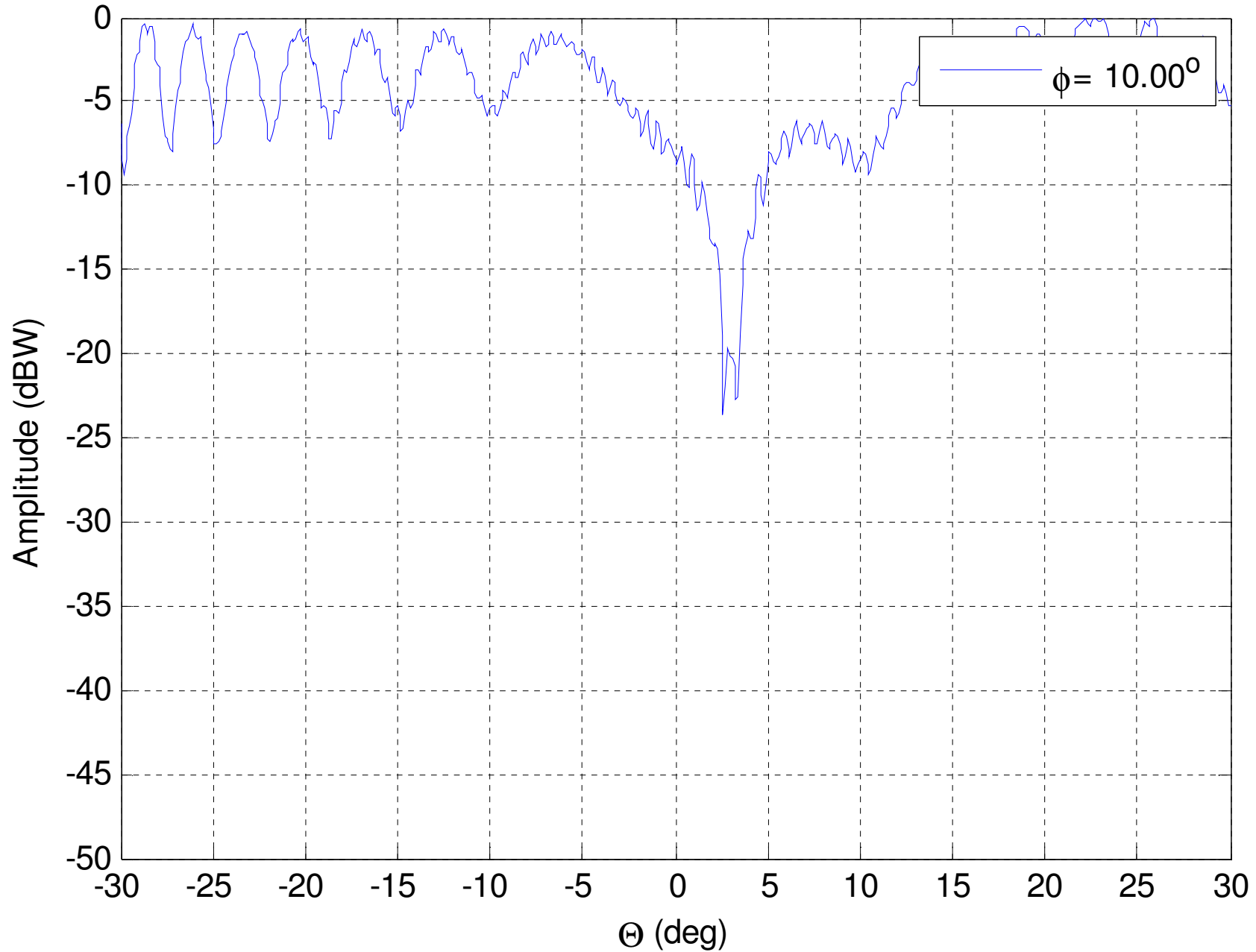
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-0.cut, Peak: -13.27 dBW, Date: 16-Dec-2011



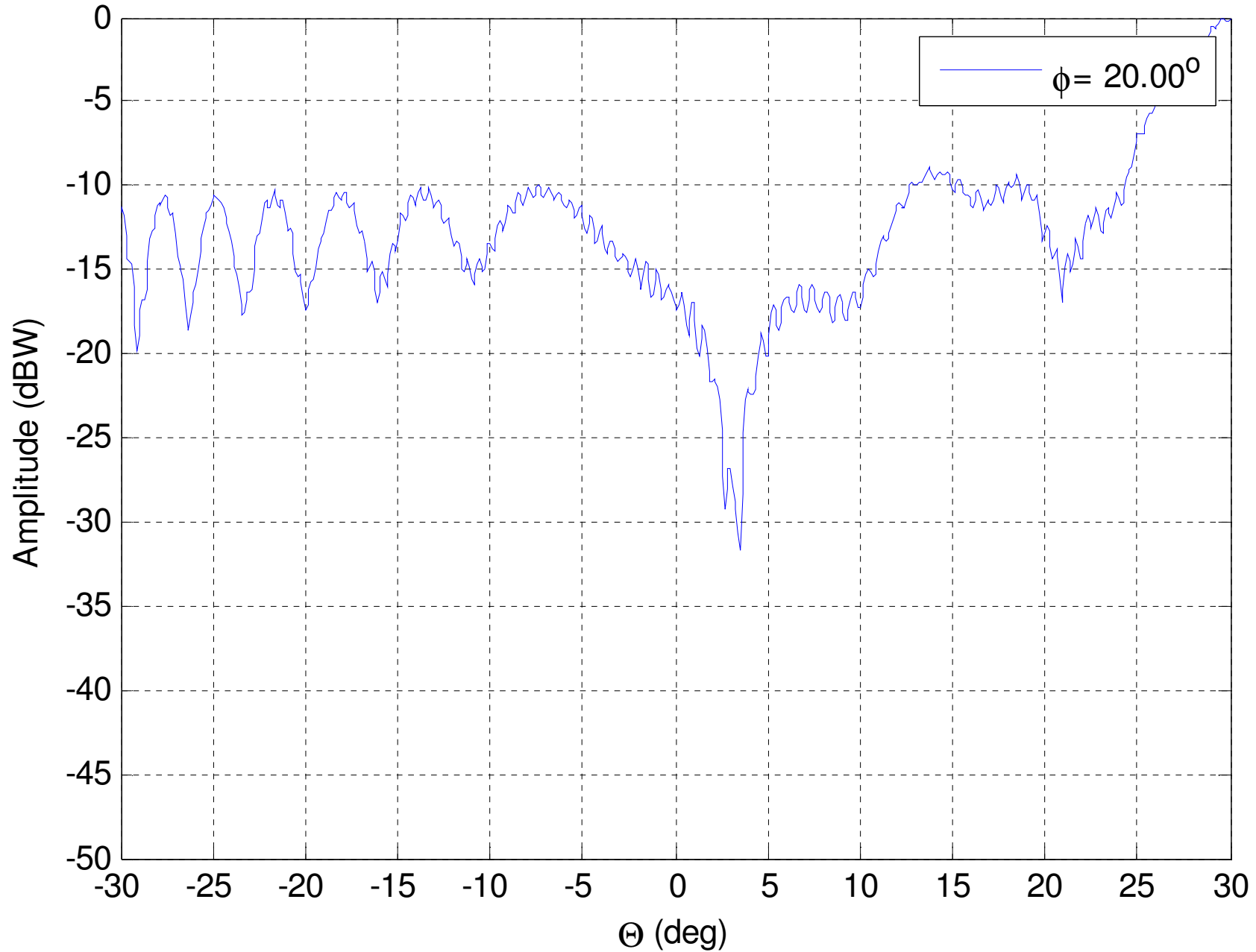
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-10.cut, Peak: -14.54 dBW, Date: 16-Dec-2011



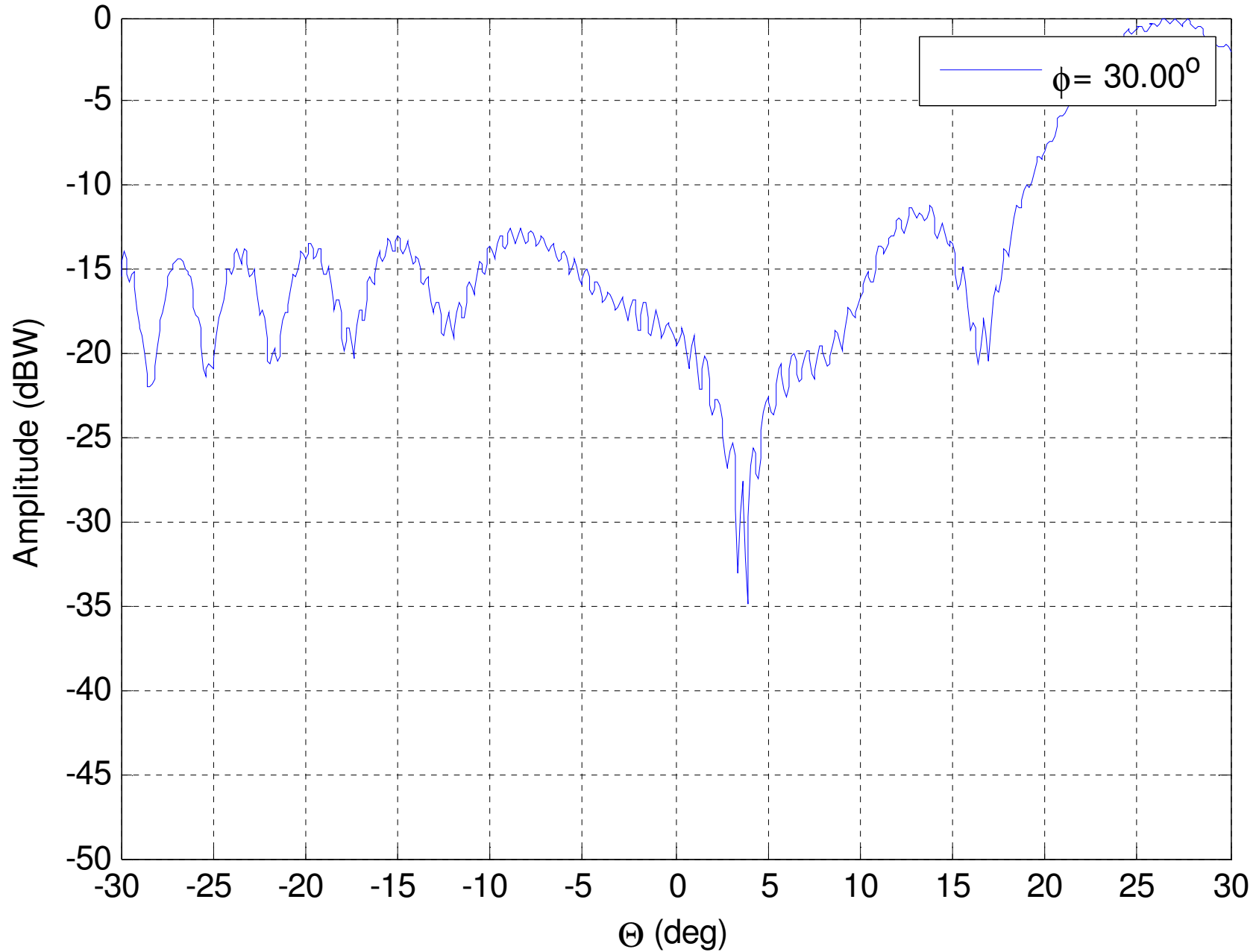
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-20.cut, Peak: -5.85 dBW, Date: 16-Dec-2011



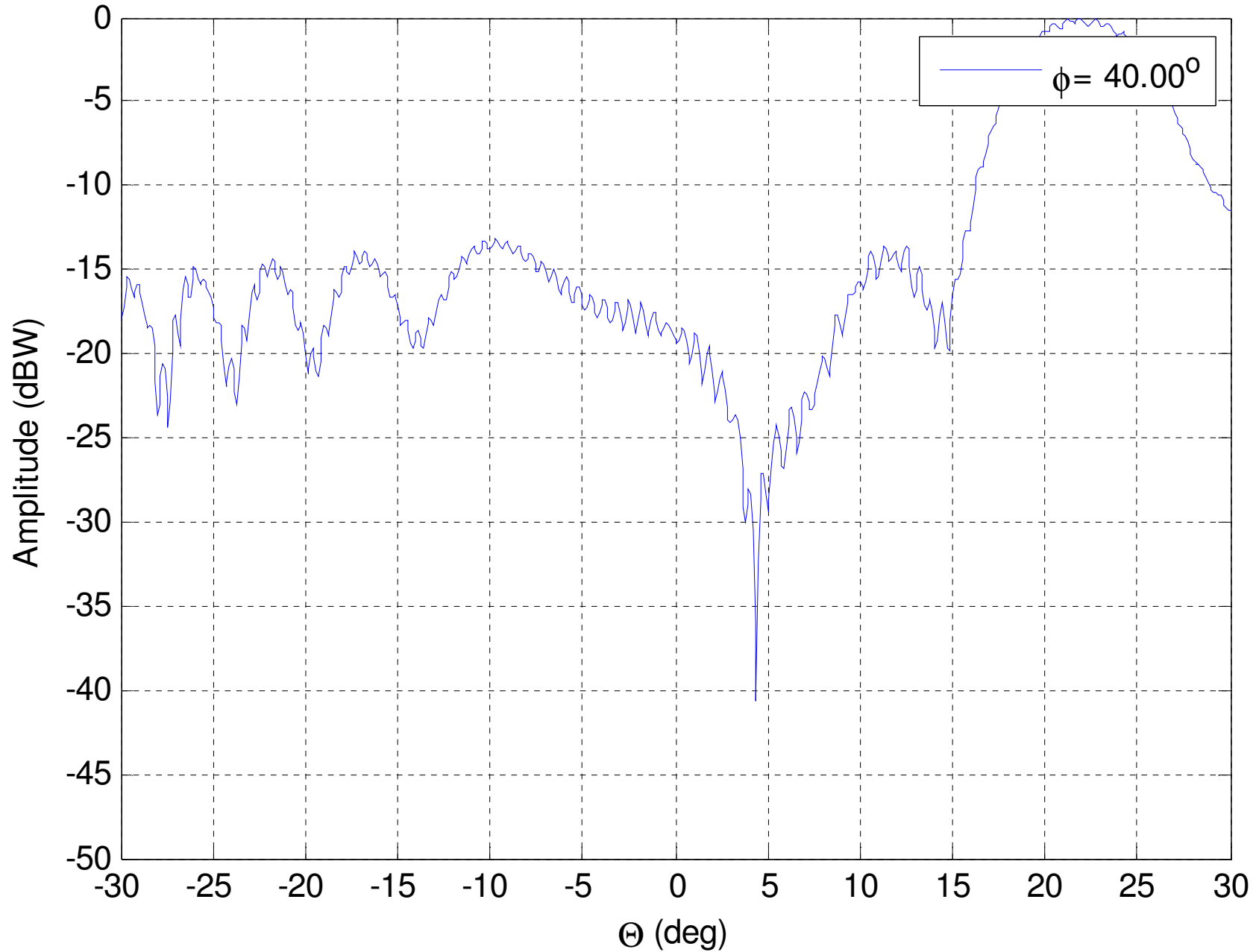
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-30.cut, Peak: -3.69 dBW, Date: 16-Dec-2011



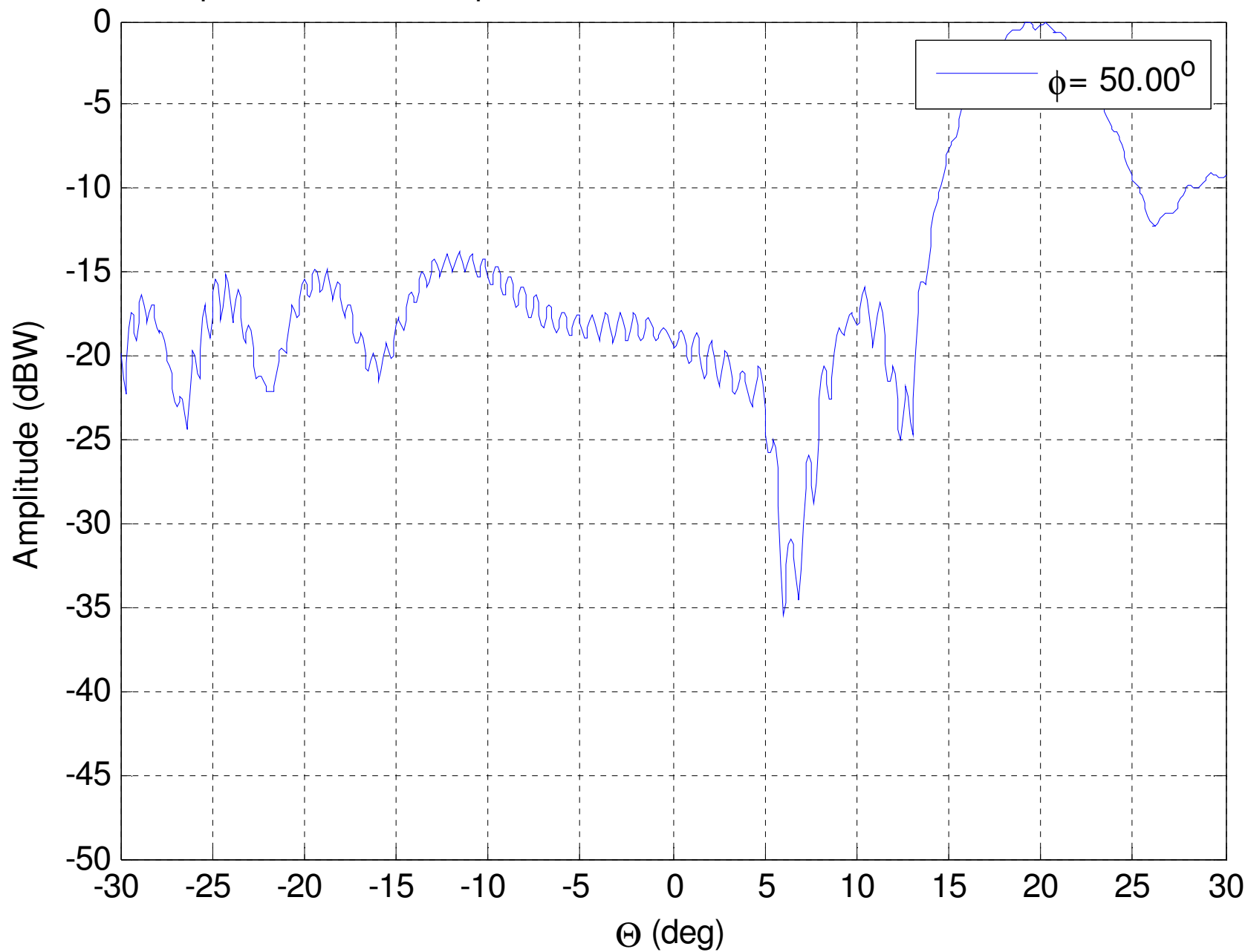
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-40.cut, Peak: -3.80 dBW, Date: 16-Dec-2011



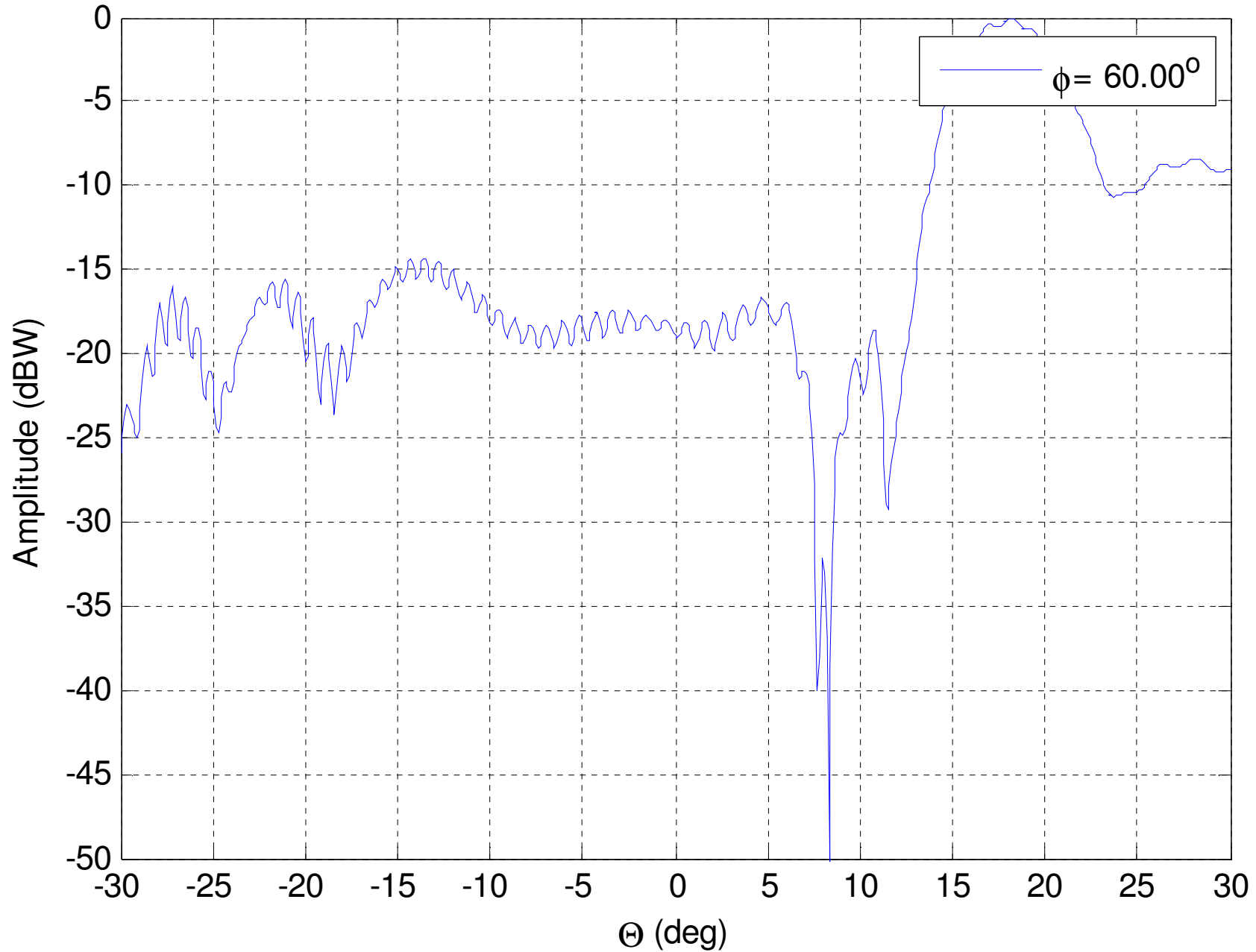
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-50.cut, Peak: -3.68 dBW, Date: 16-Dec-2011



Normalized pattern cuts - farfield

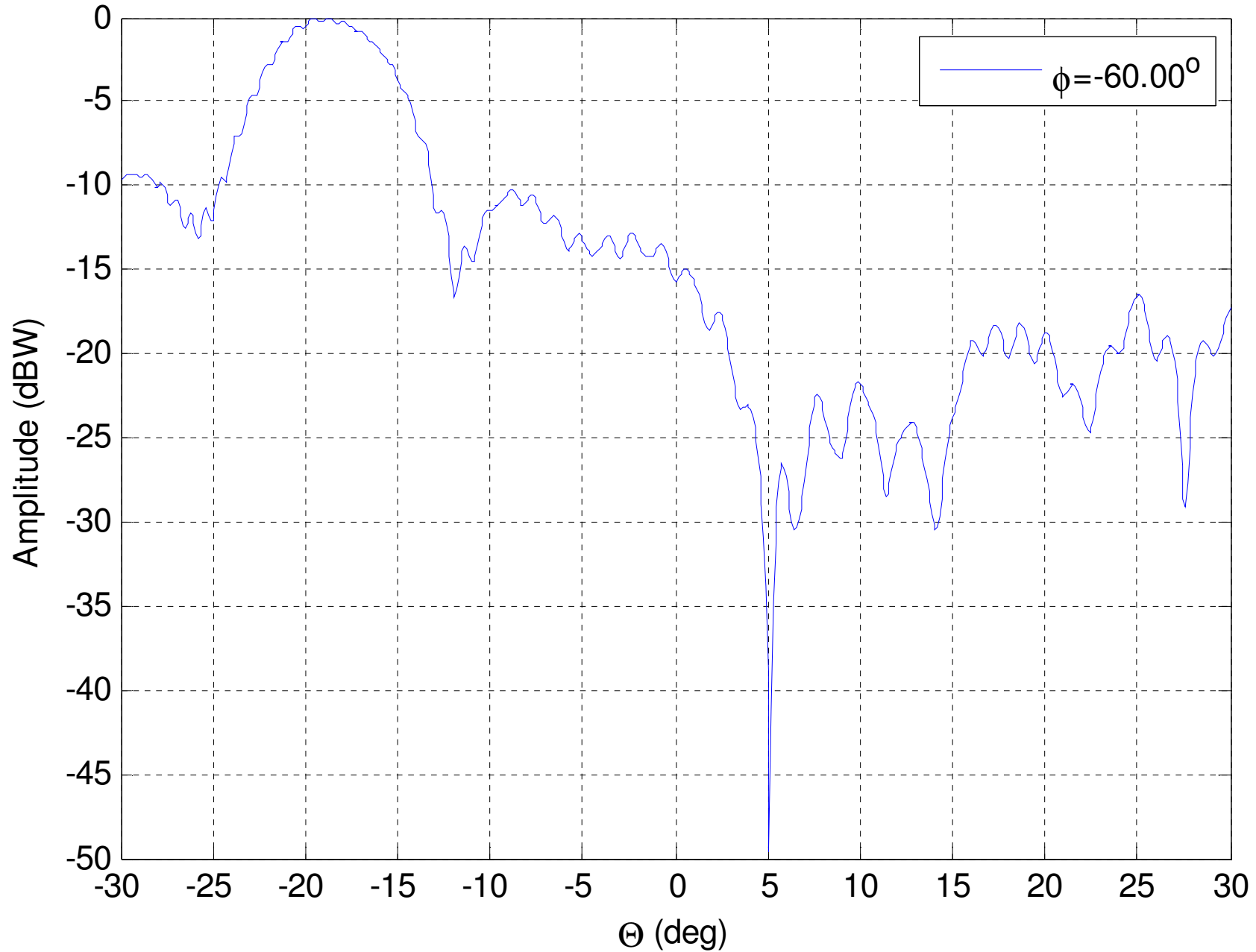
Input file: tx-17.5-rhcp-60.cut, Peak: -4.07 dBW, Date: 16-Dec-2011



LHCP at 17.5 GHz

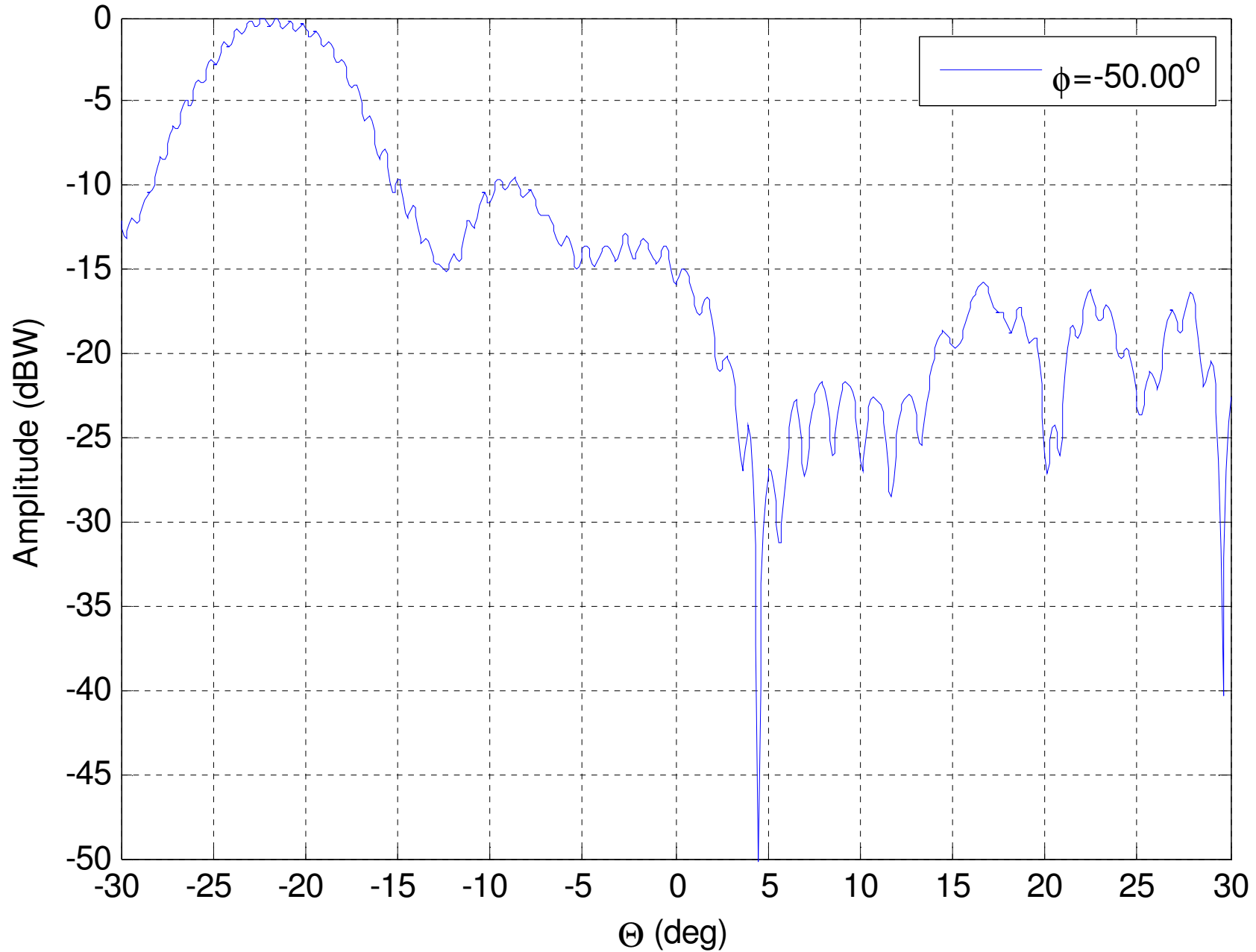
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--60.cut, Peak: -3.69 dBW, Date: 16-Dec-2011



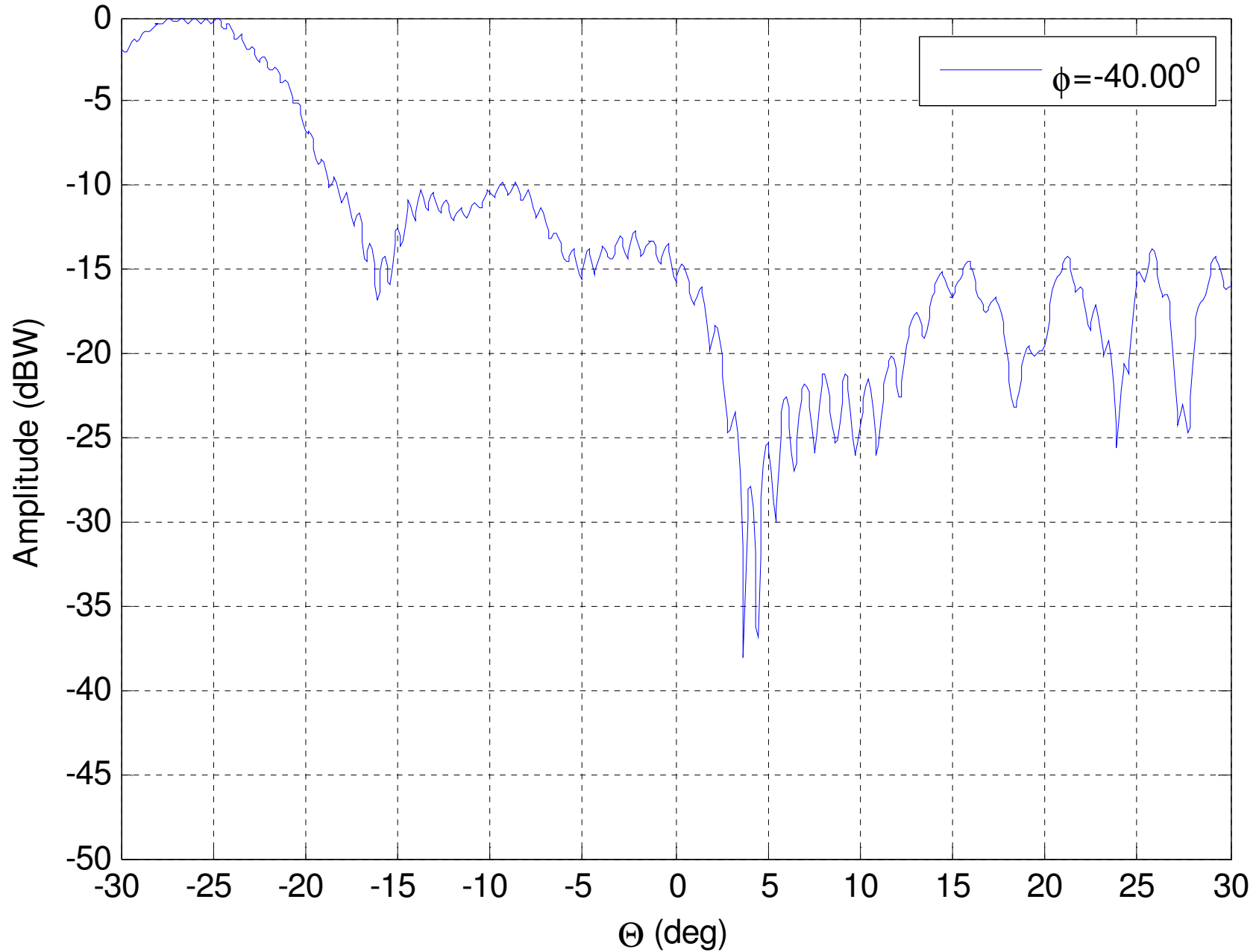
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--50.cut, Peak: -3.59 dBW, Date: 16-Dec-2011



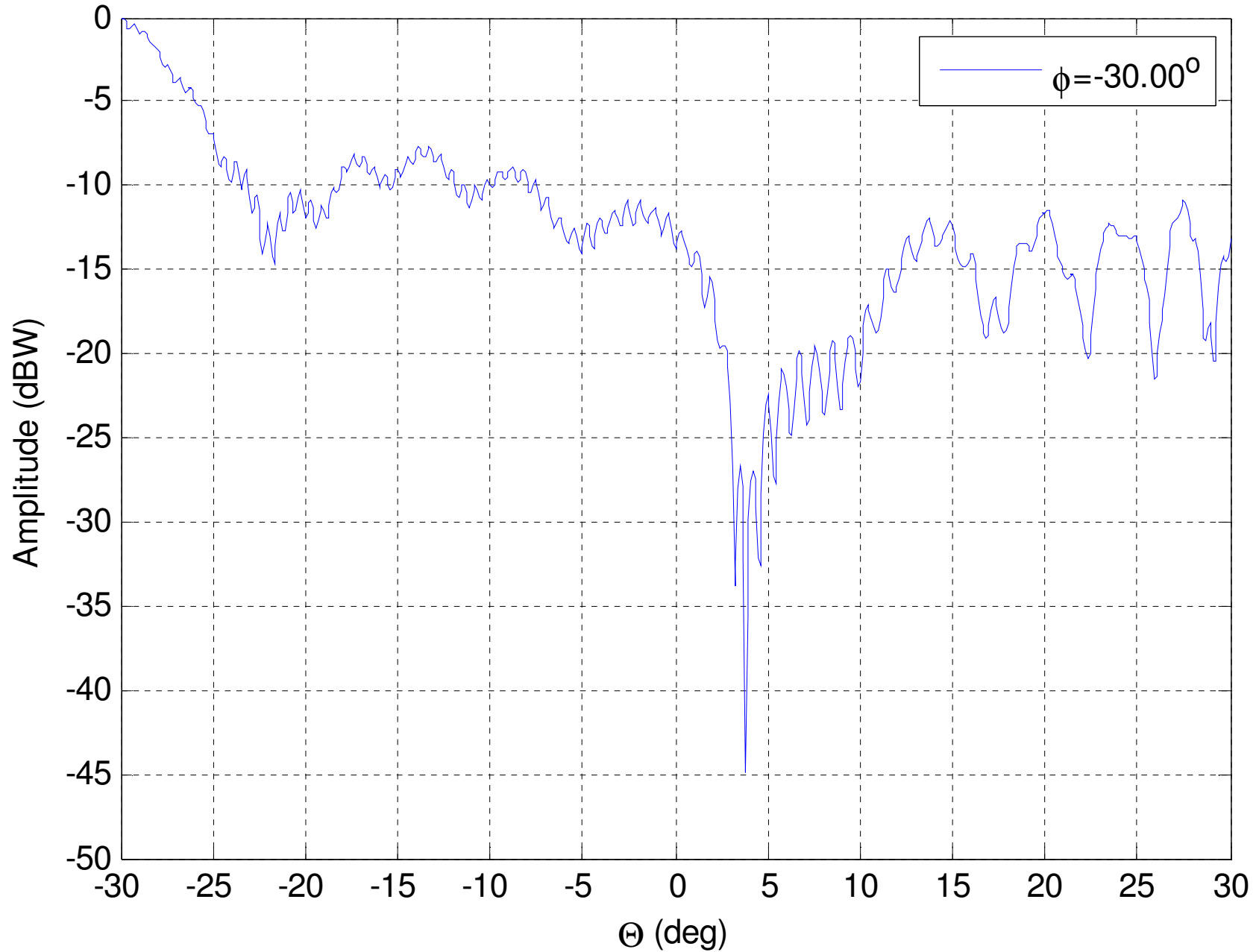
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--40.cut, Peak: -3.75 dBW, Date: 16-Dec-2011



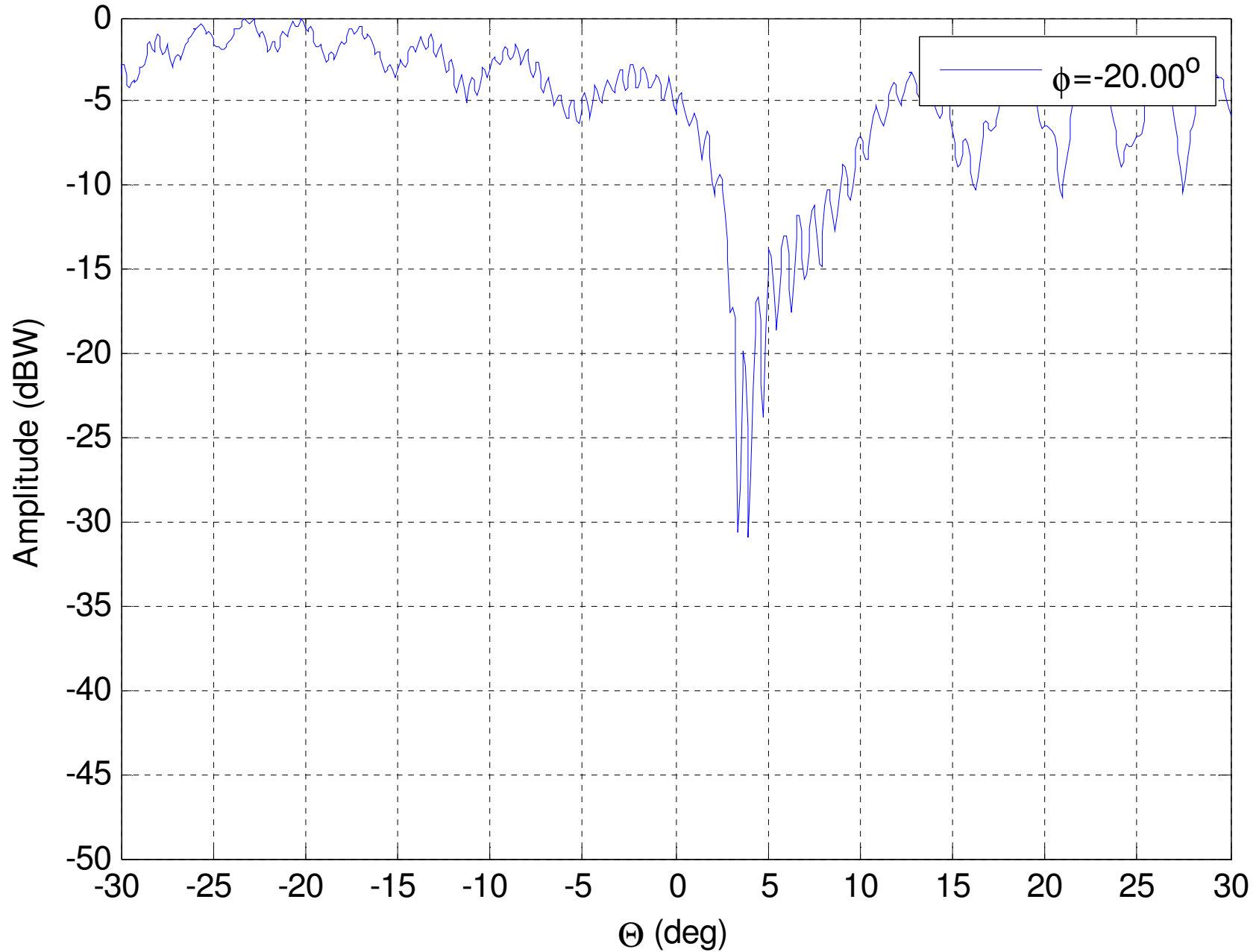
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--30.cut, Peak: -5.66 dBW, Date: 16-Dec-2011



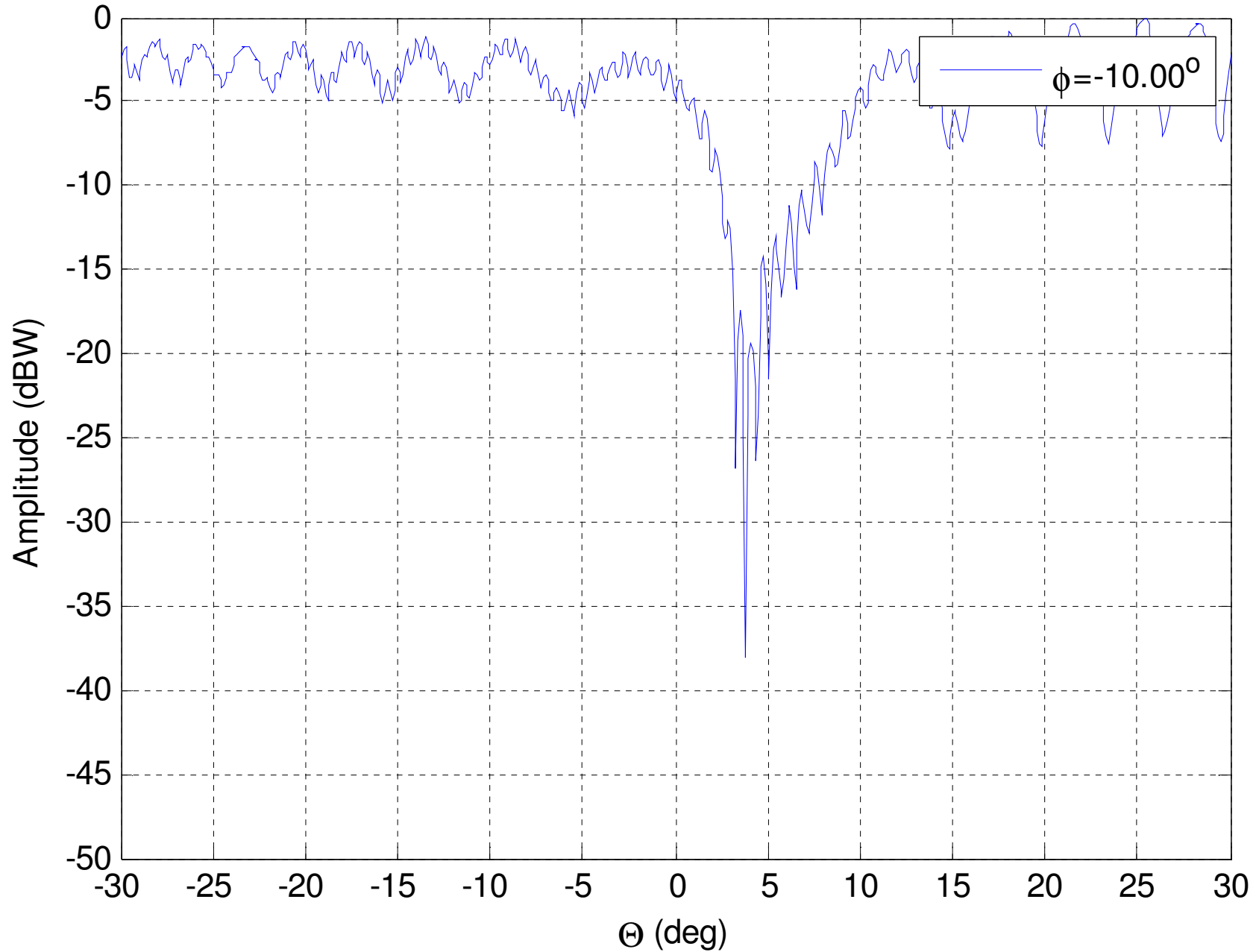
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--20.cut, Peak: -13.72 dBW, Date: 16-Dec-2011



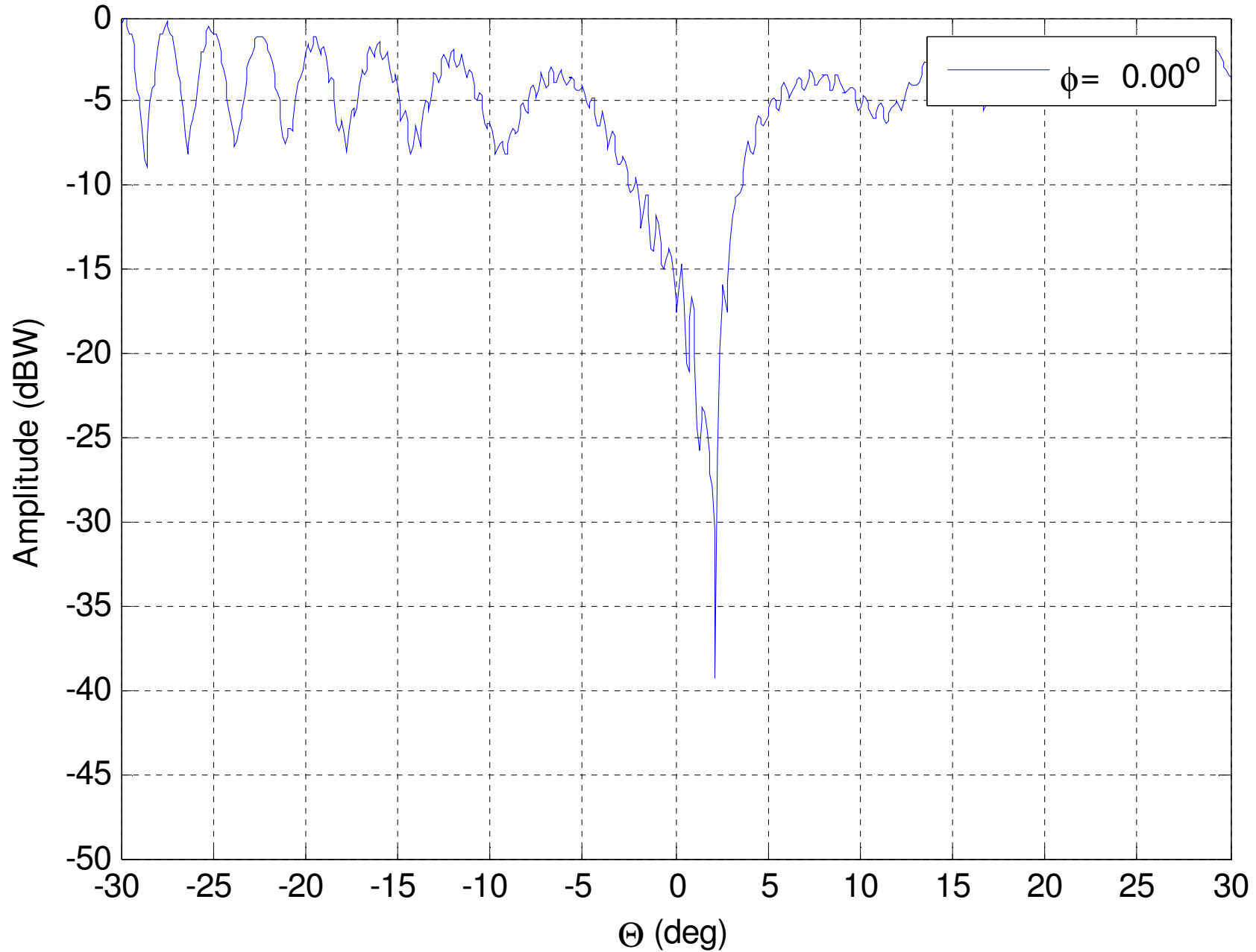
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--10.cut, Peak: -14.53 dBW, Date: 16-Dec-2011



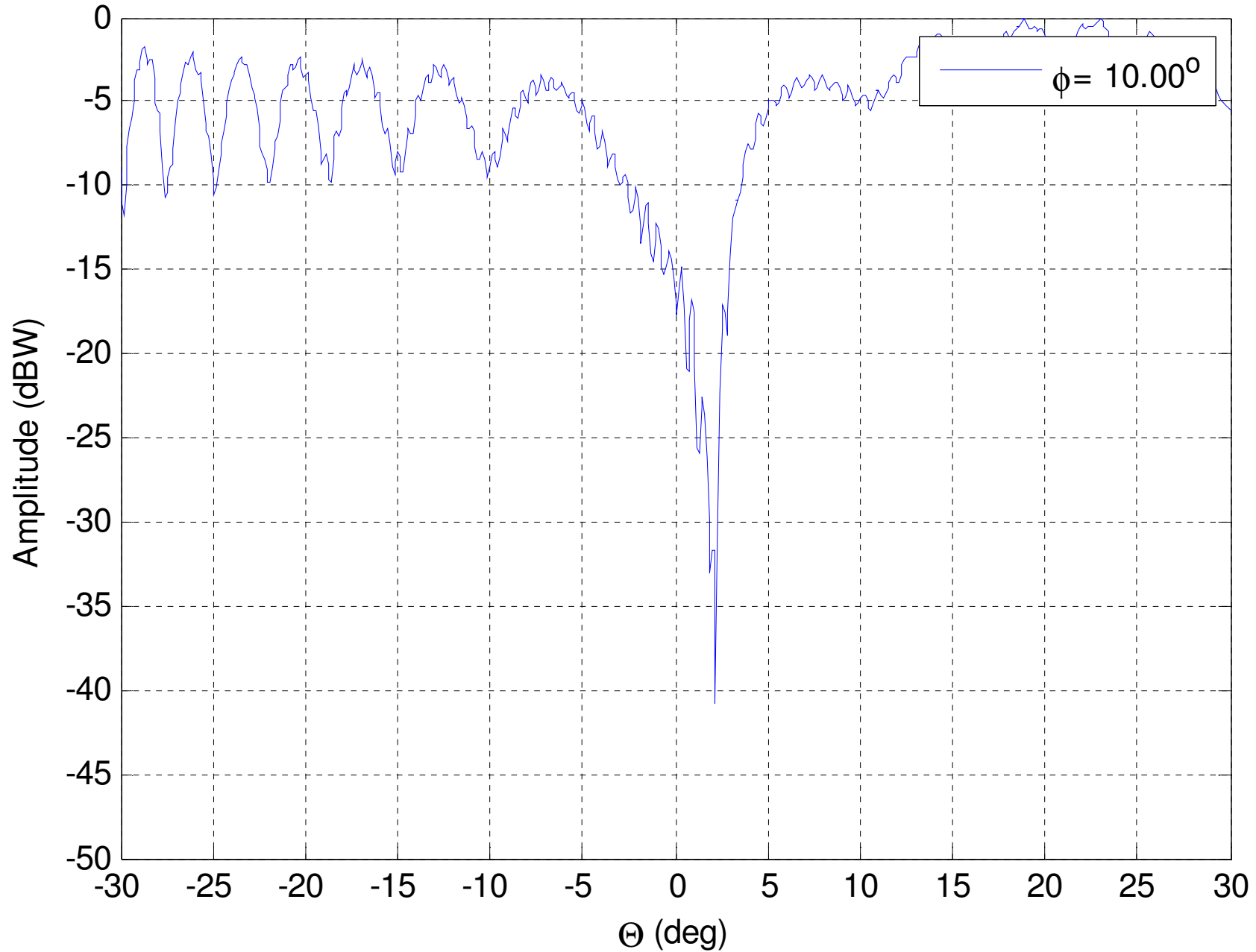
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-0.cut, Peak: -13.57 dBW, Date: 16-Dec-2011



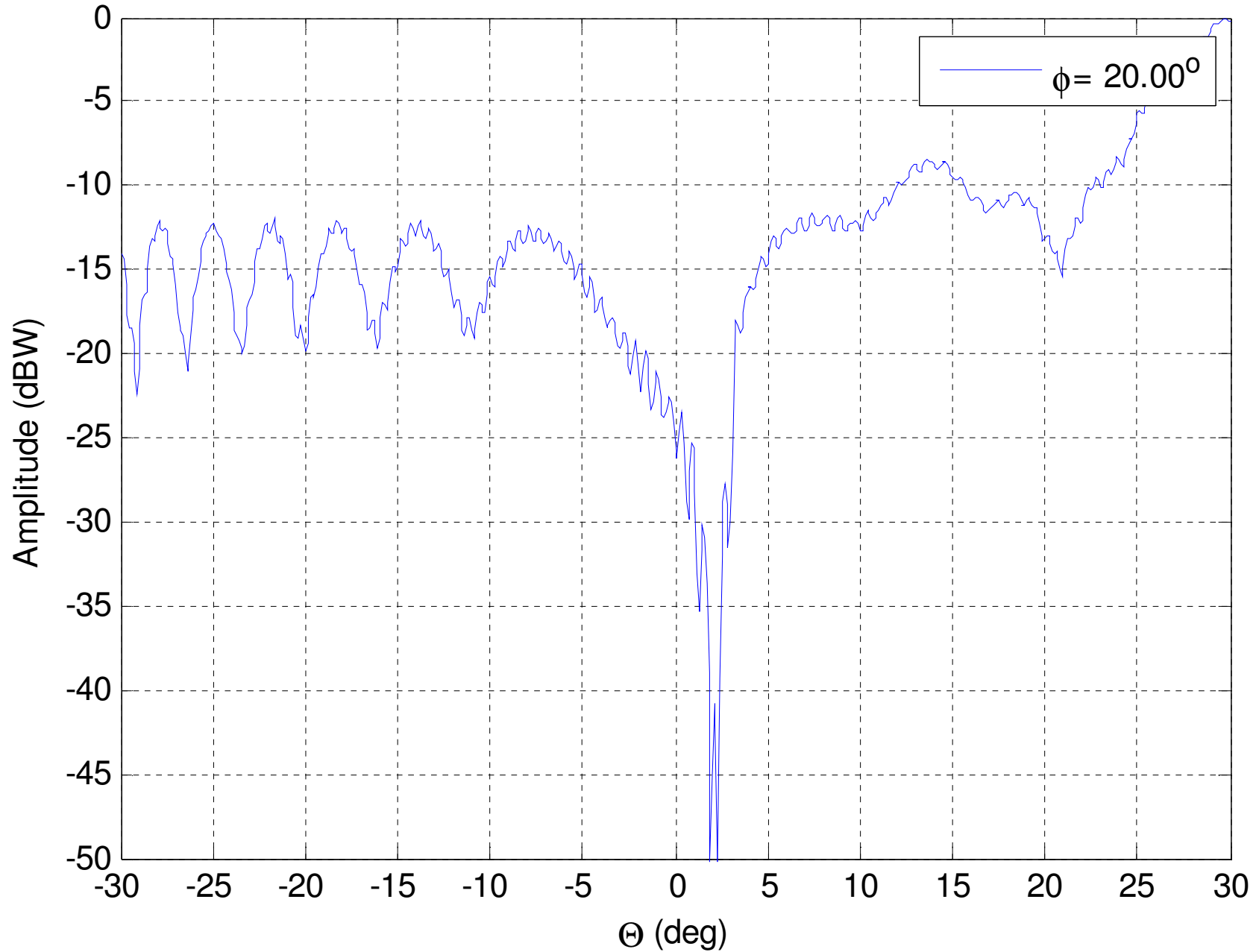
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-10.cut, Peak: -13.40 dBW, Date: 16-Dec-2011



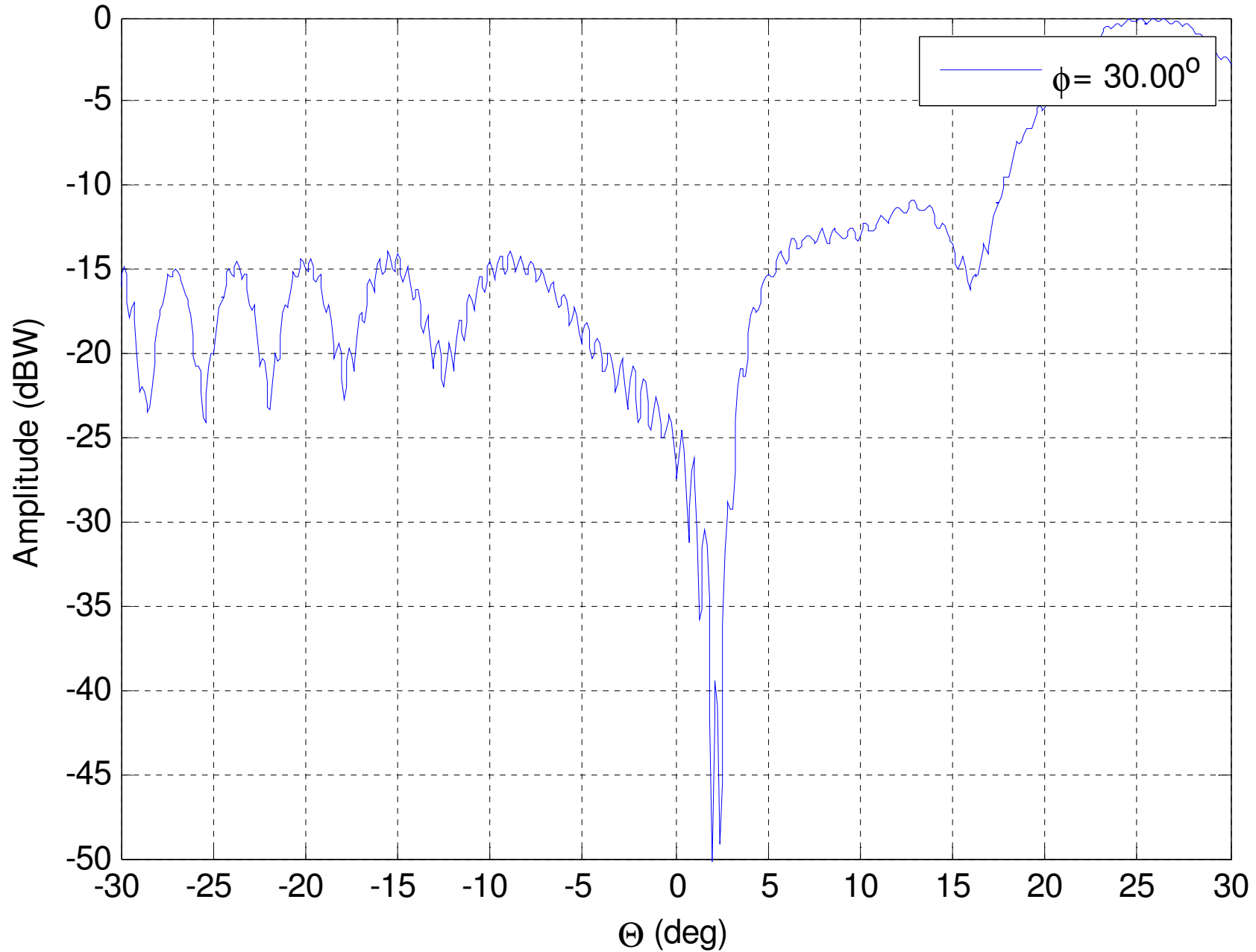
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-20.cut, Peak: -4.84 dBW, Date: 16-Dec-2011



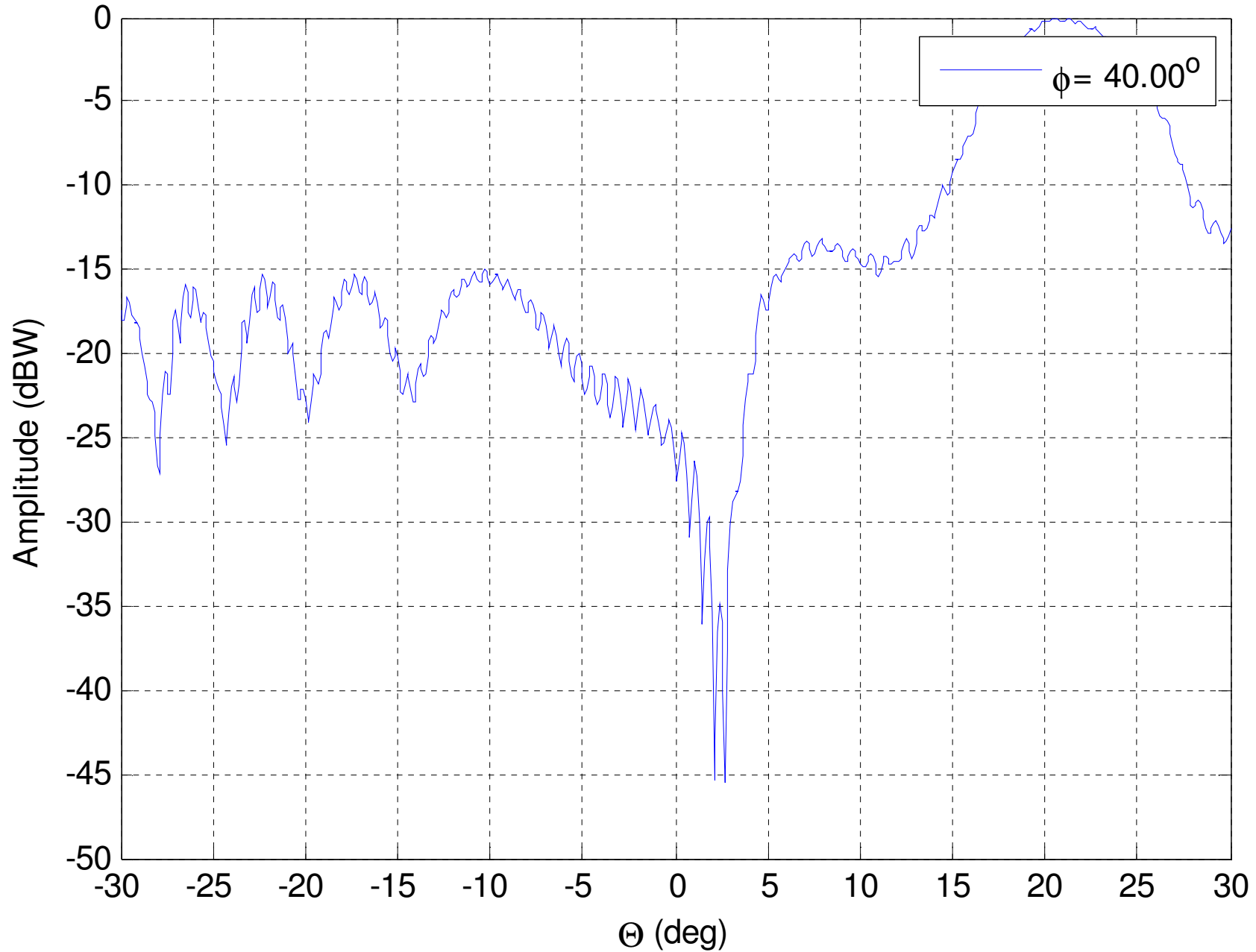
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-30.cut, Peak: -3.70 dBW, Date: 16-Dec-2011



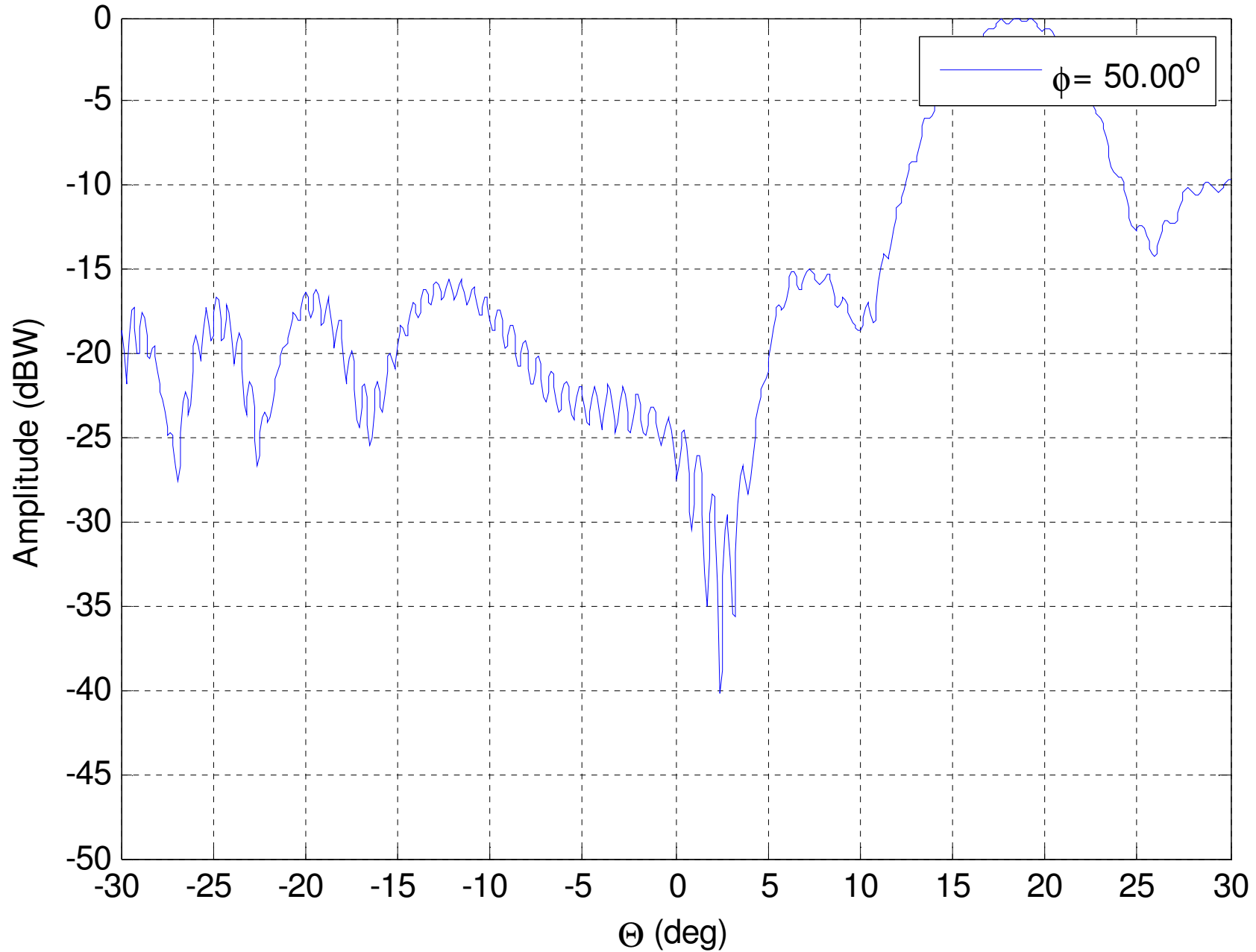
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-40.cut, Peak: -3.48 dBW, Date: 16-Dec-2011



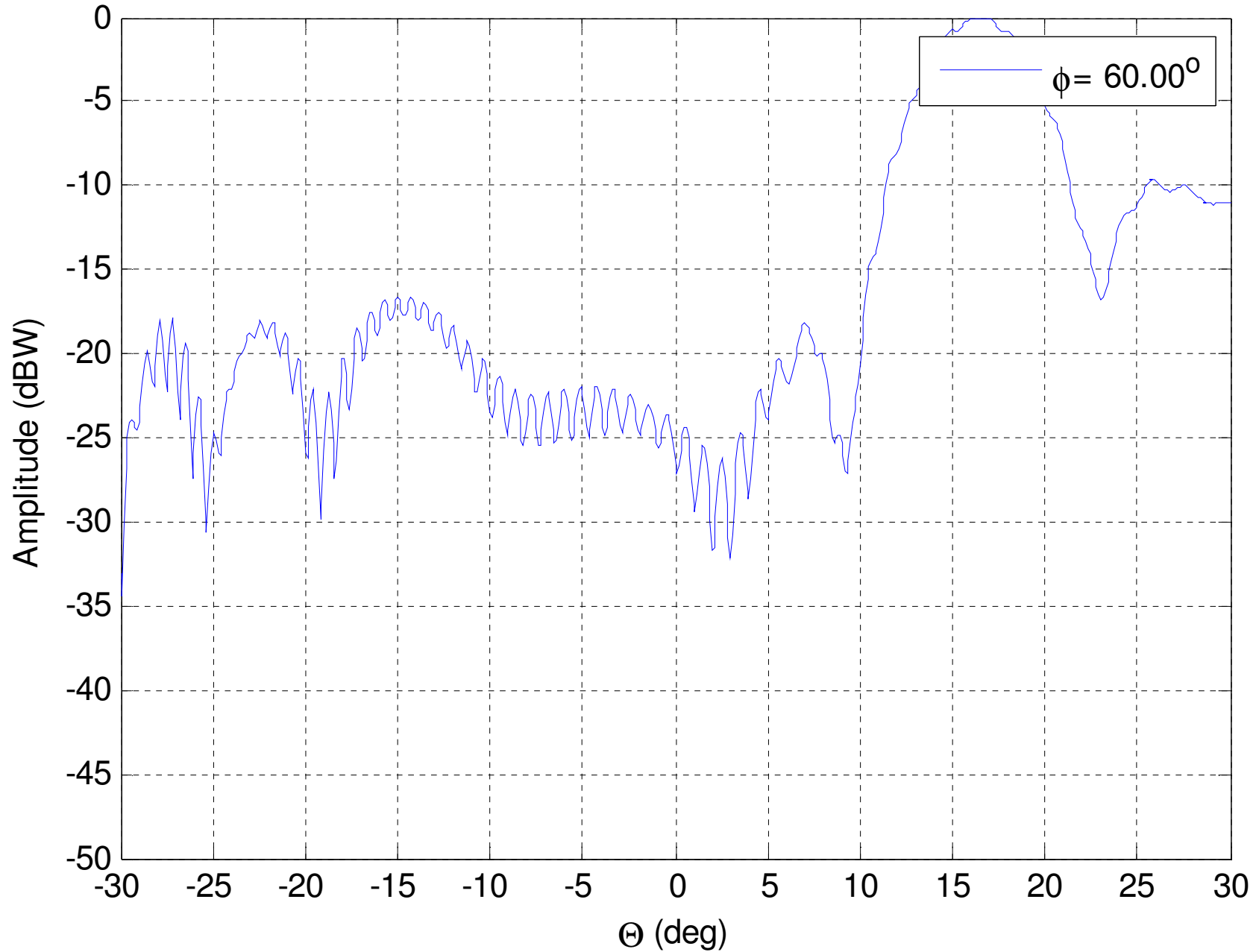
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-50.cut, Peak: -3.65 dBW, Date: 16-Dec-2011



Normalized pattern cuts - farfield

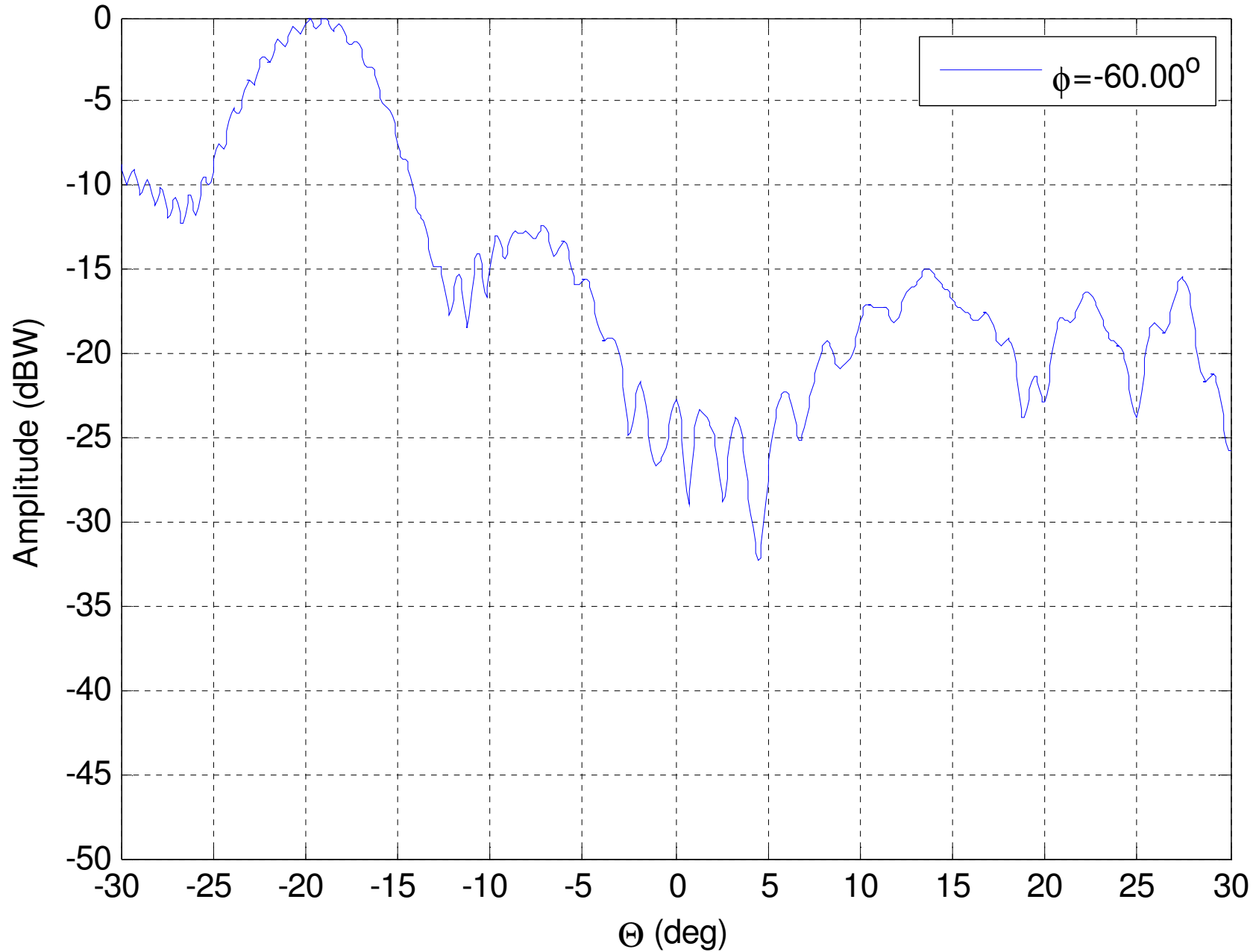
Input file: tx-17.5-lhcp-60.cut, Peak: -3.84 dBW, Date: 16-Dec-2011



RHCP at 17.7 GHz

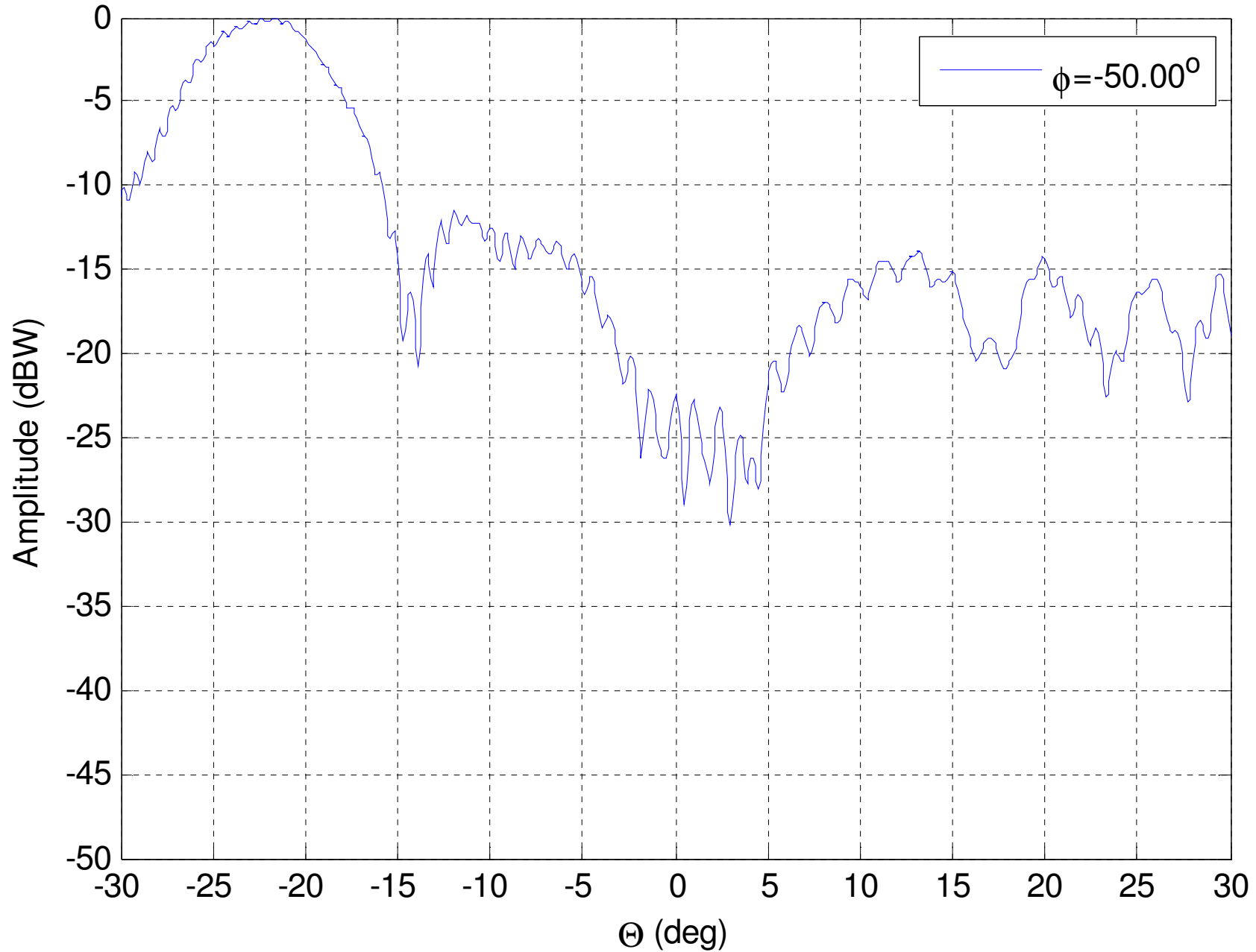
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--60.cut, Peak: -3.48 dBW, Date: 16-Dec-2011



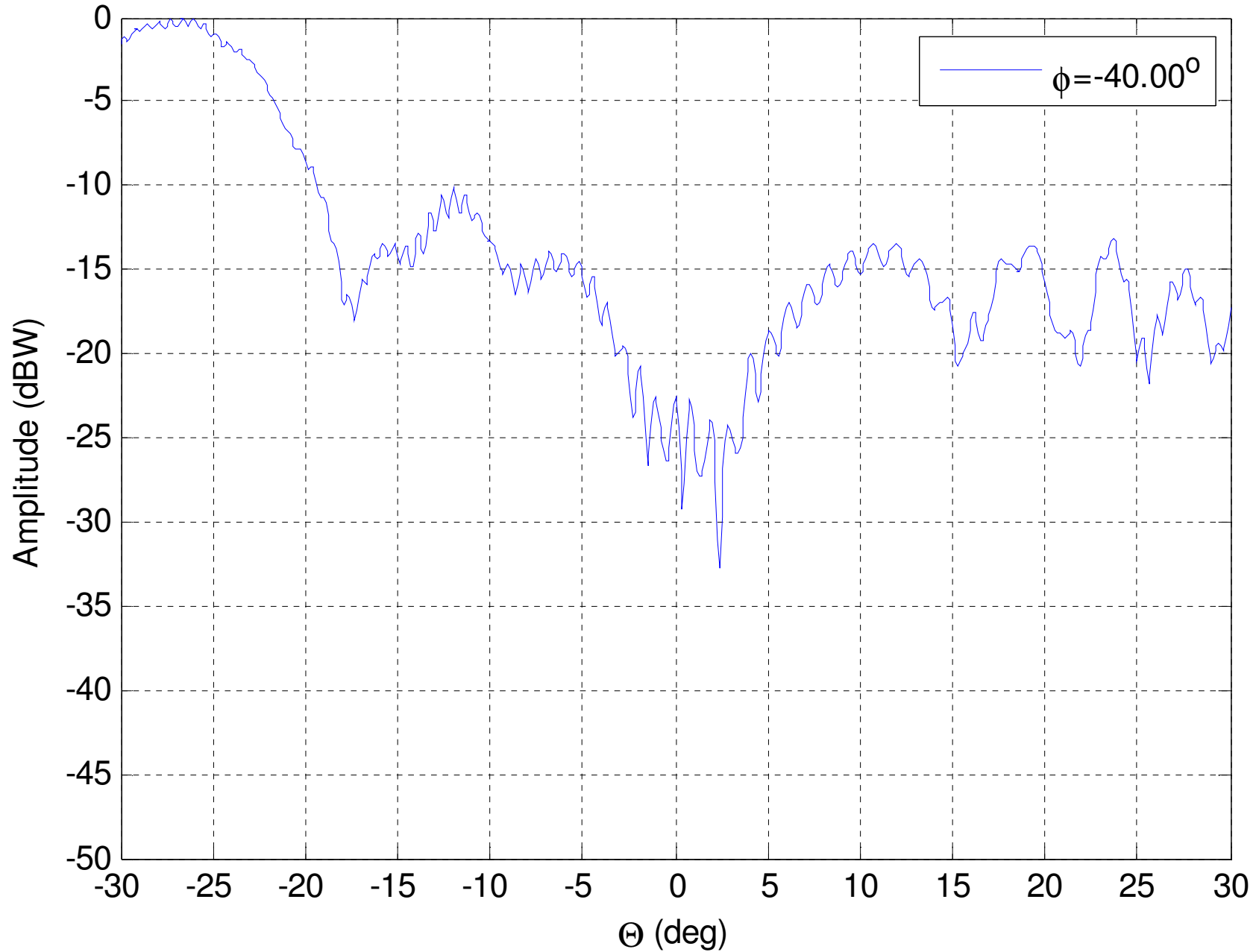
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--50.cut, Peak: -3.76 dBW, Date: 16-Dec-2011



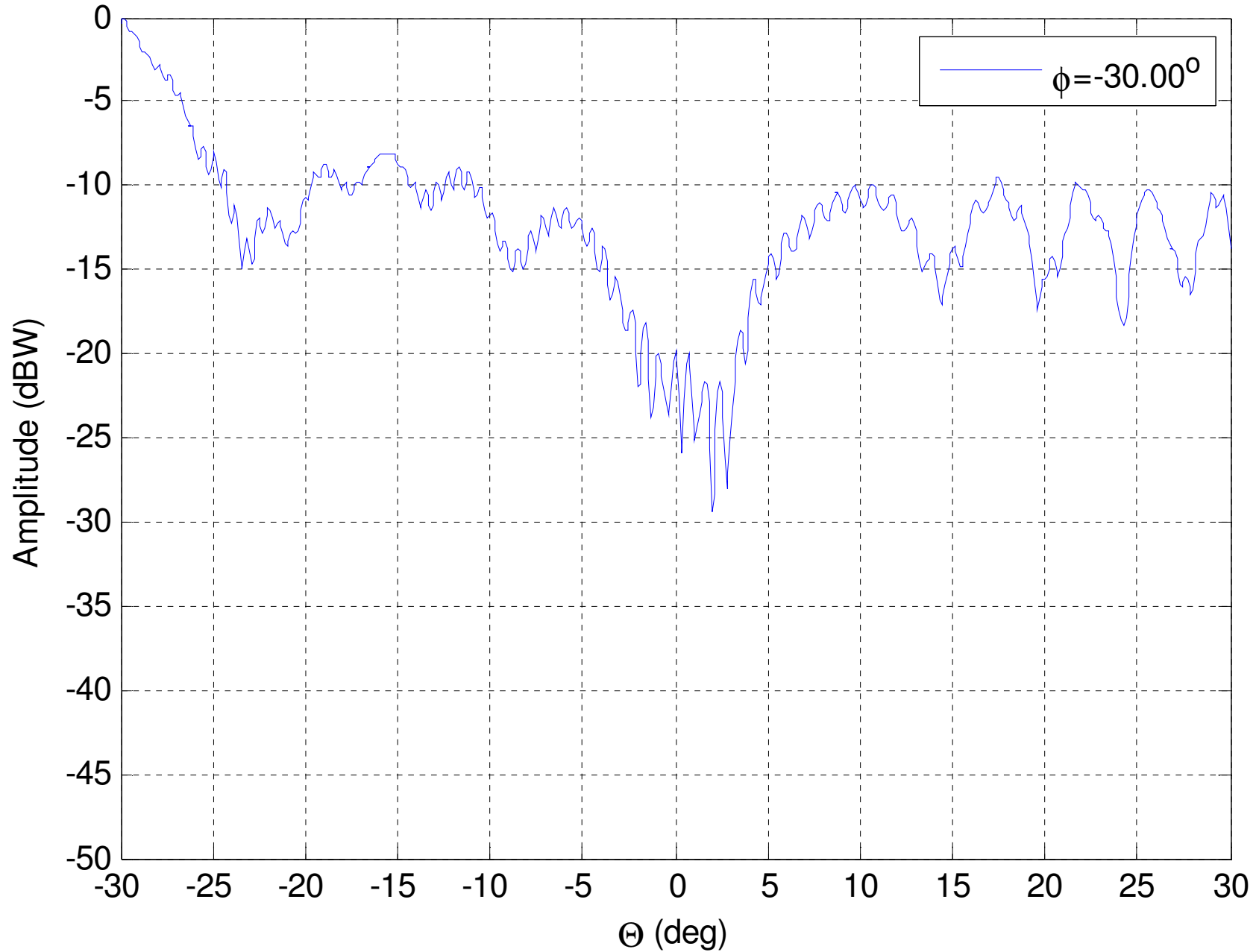
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--40.cut, Peak: -3.66 dBW, Date: 16-Dec-2011



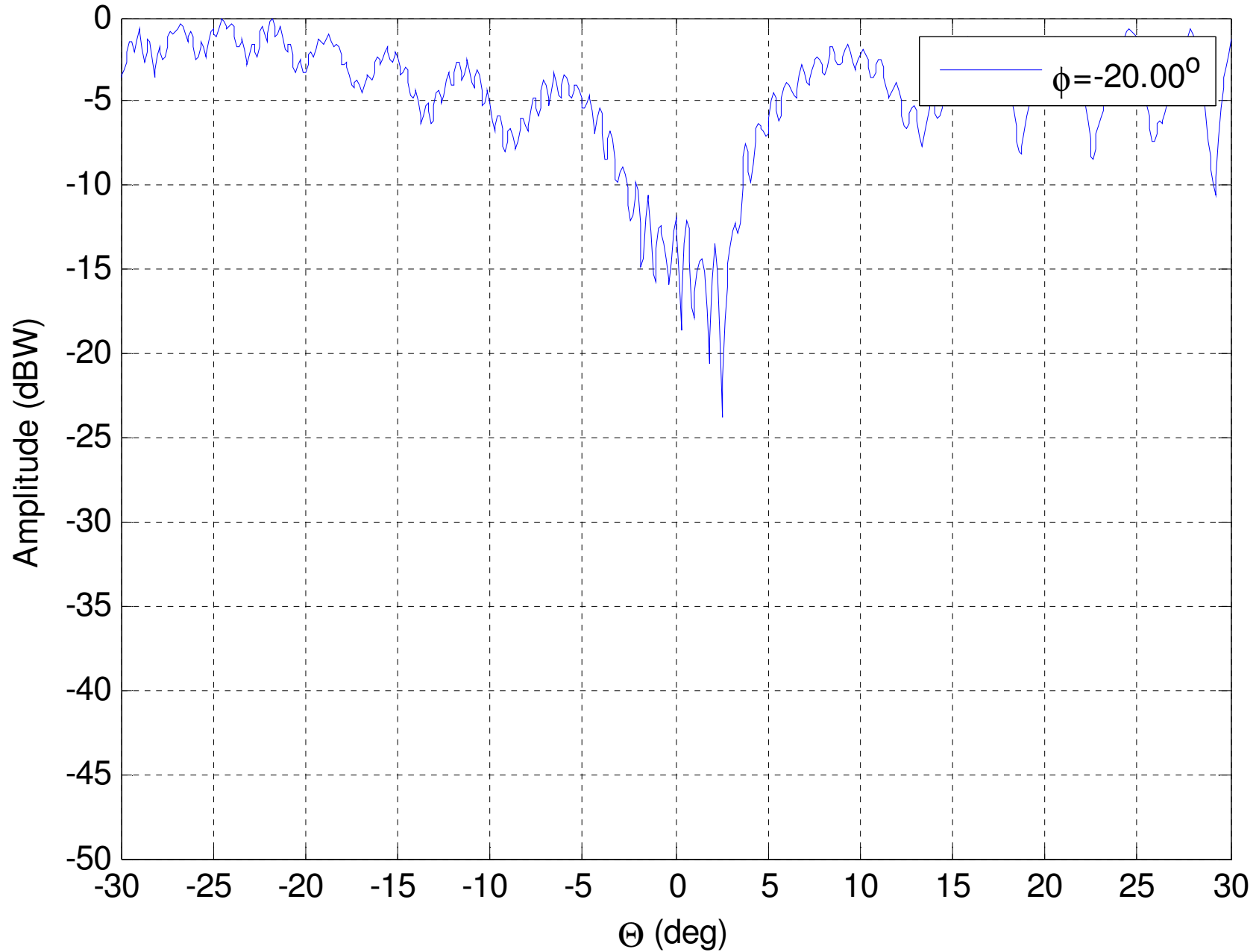
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--30.cut, Peak: -6.45 dBW, Date: 16-Dec-2011



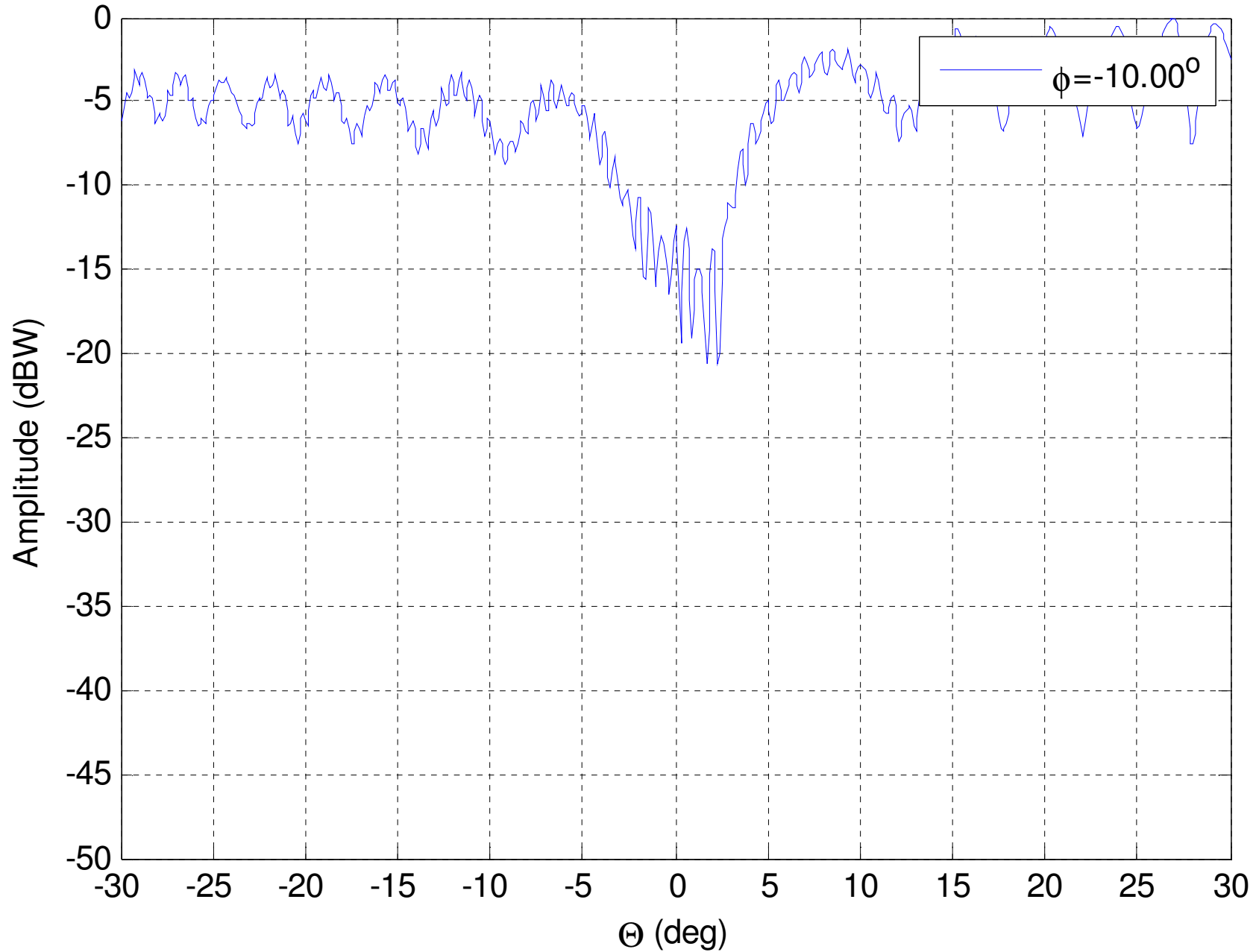
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--20.cut, Peak: -14.31 dBW, Date: 16-Dec-2011



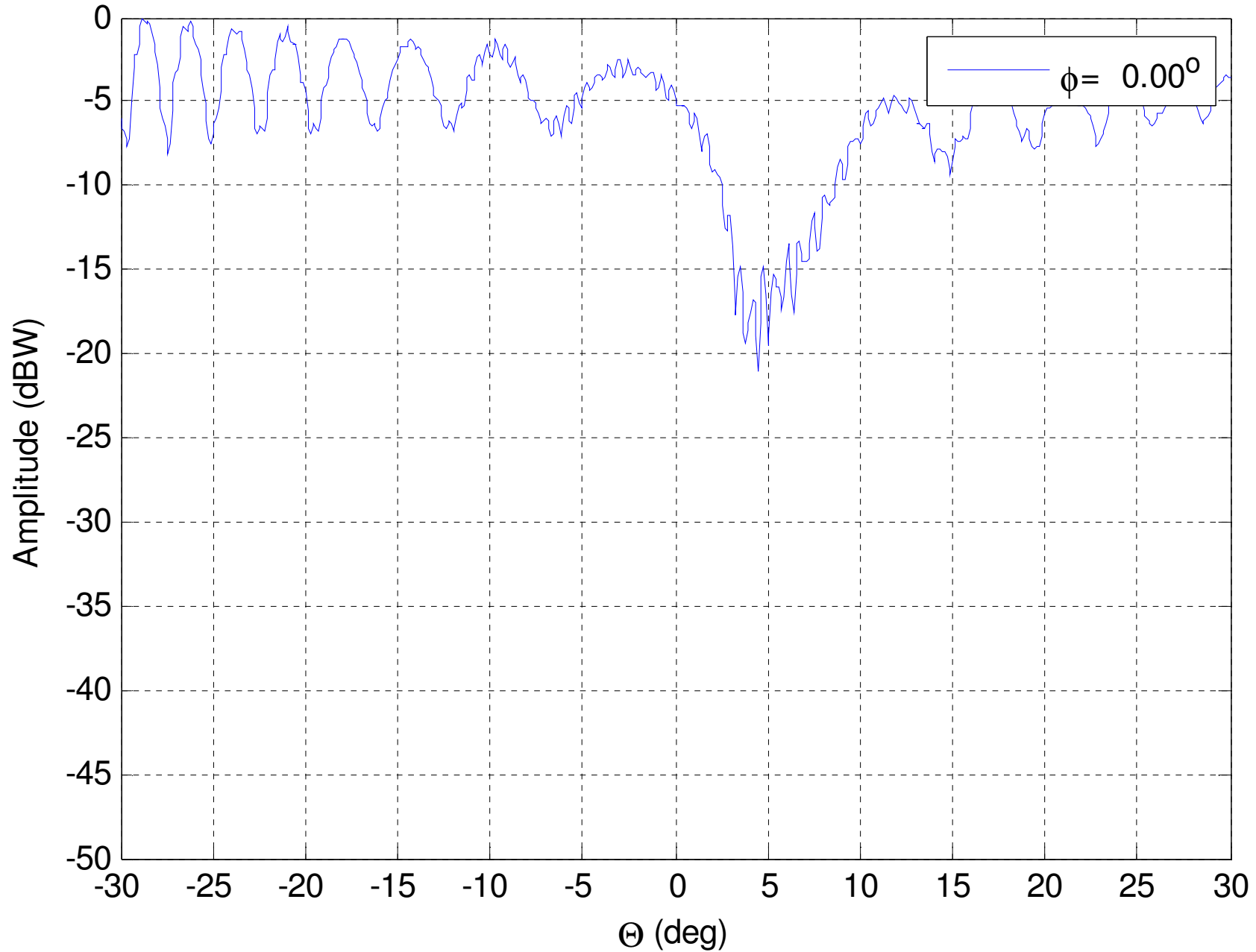
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--10.cut, Peak: -13.81 dBW, Date: 16-Dec-2011



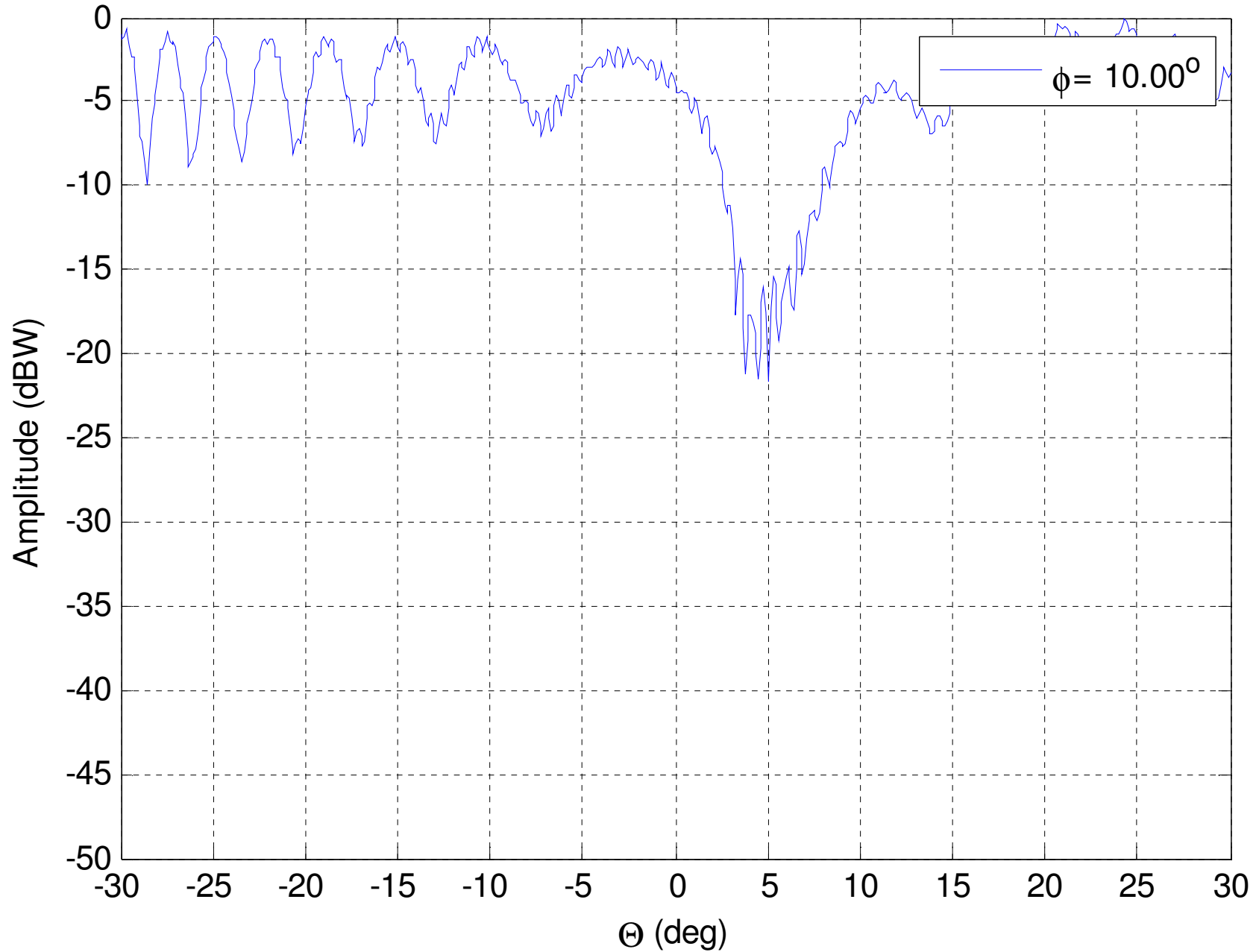
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-0.cut, Peak: -13.32 dBW, Date: 16-Dec-2011



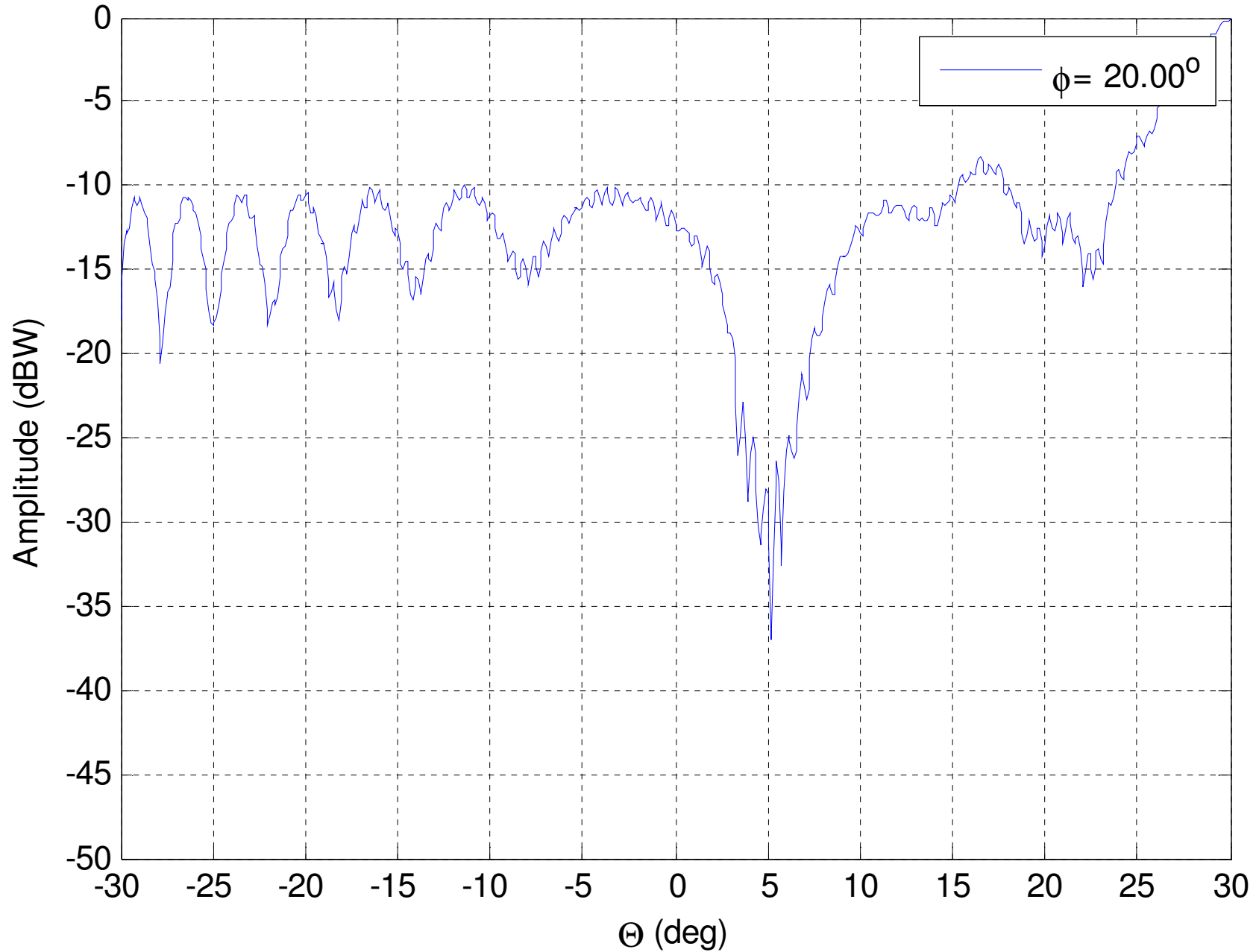
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-10.cut, Peak: -14.06 dBW, Date: 16-Dec-2011



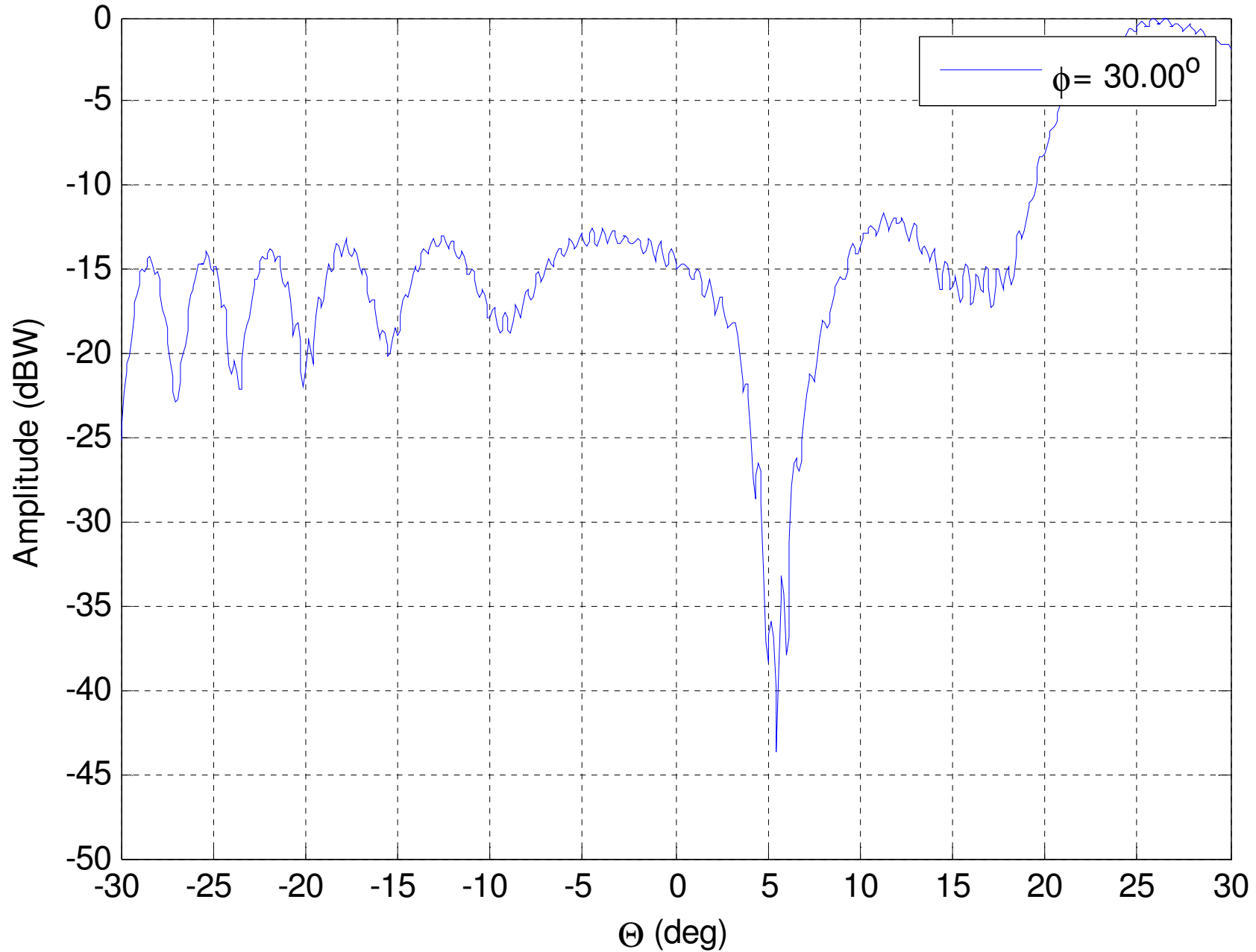
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-20.cut, Peak: -5.85 dBW, Date: 16-Dec-2011



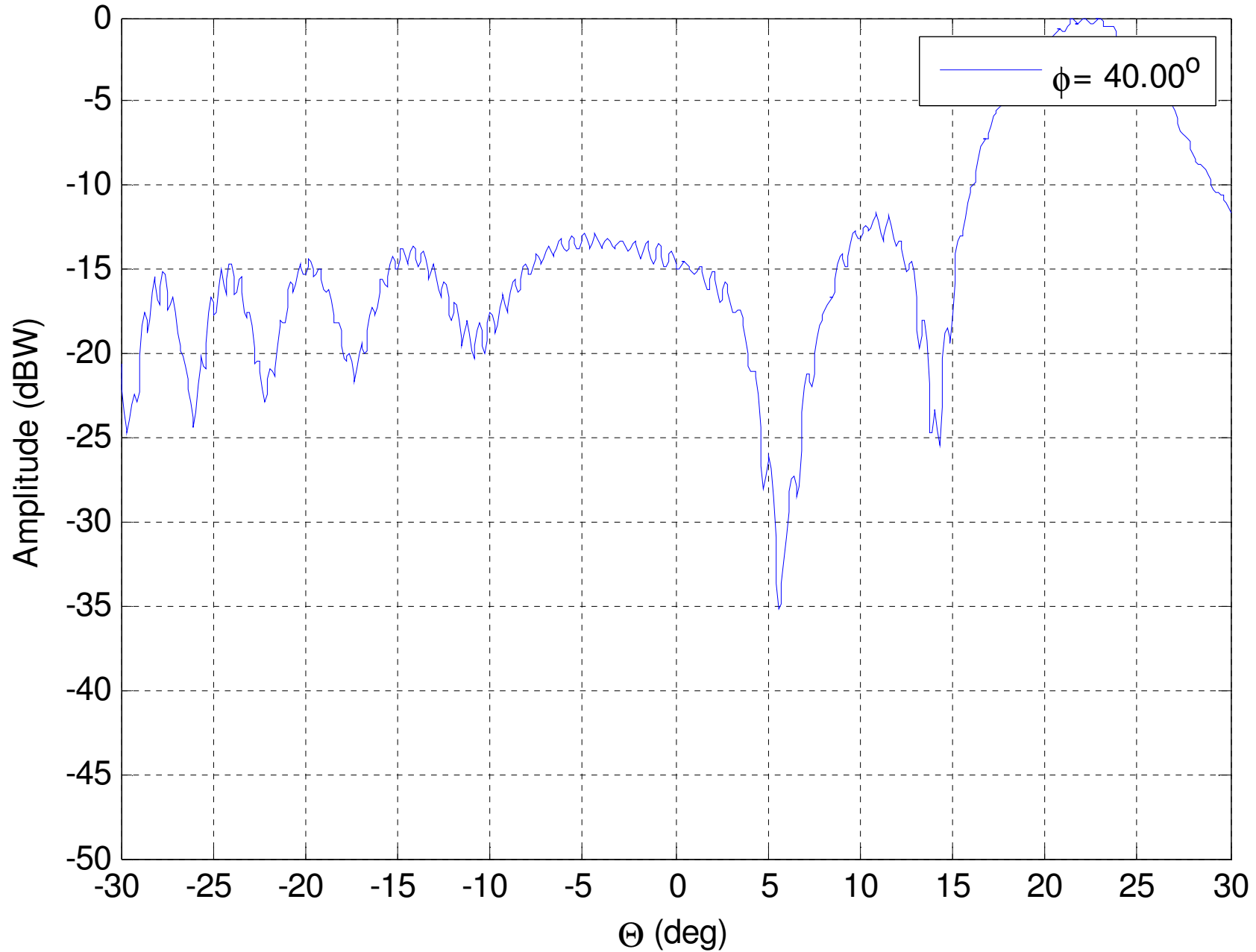
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-30.cut, Peak: -3.61 dBW, Date: 16-Dec-2011



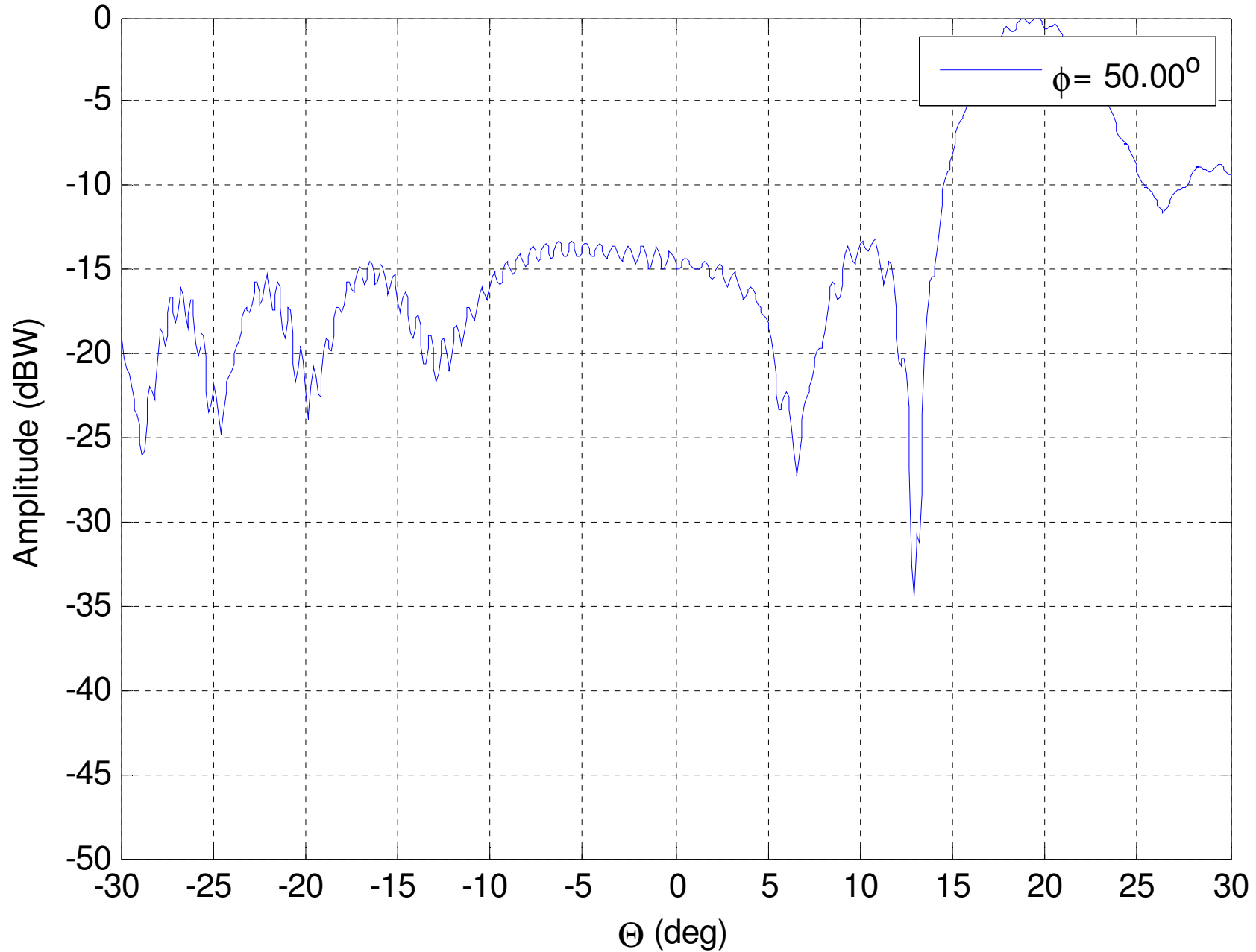
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-40.cut, Peak: -3.59 dBW, Date: 16-Dec-2011



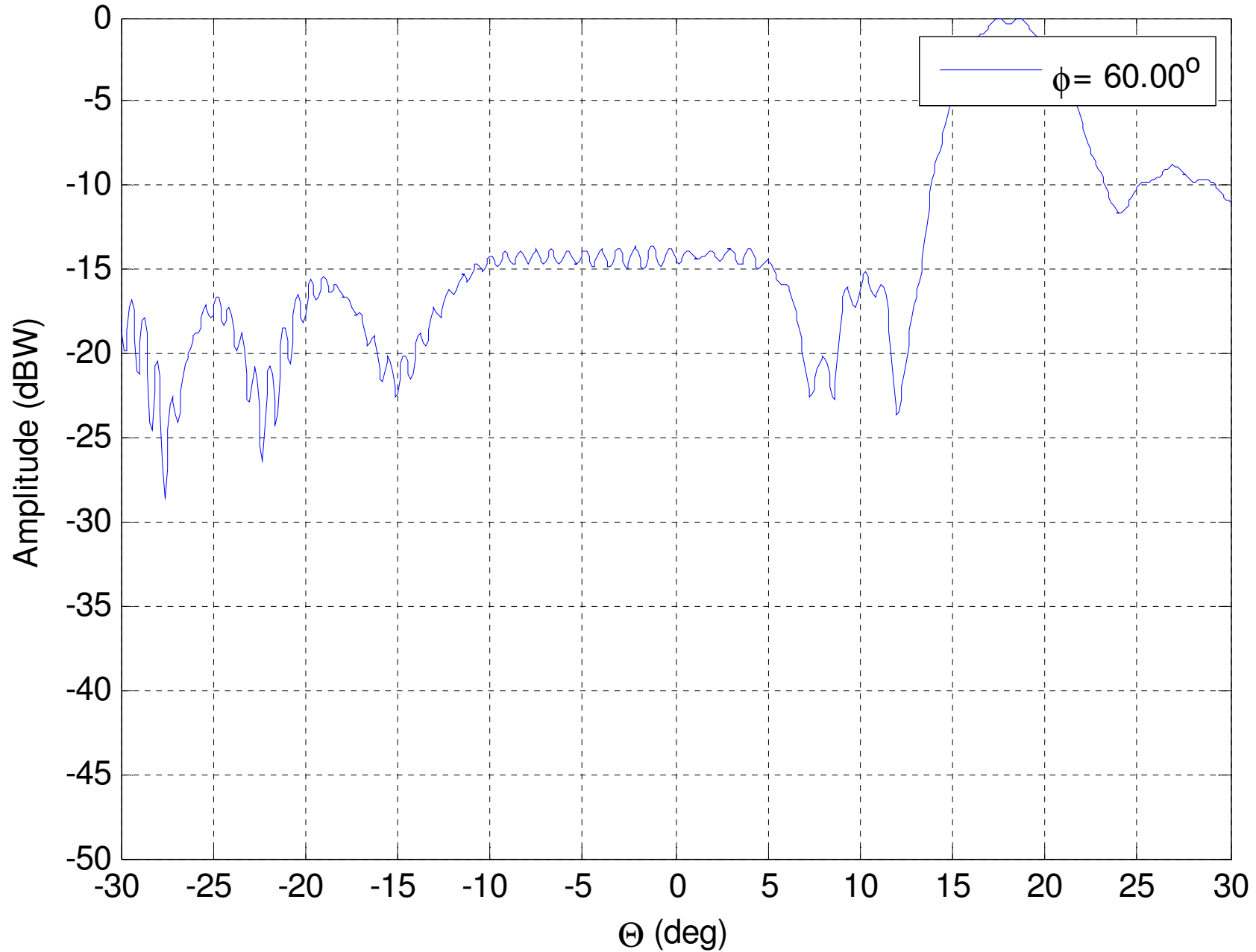
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-50.cut, Peak: -3.58 dBW, Date: 16-Dec-2011



Normalized pattern cuts - farfield

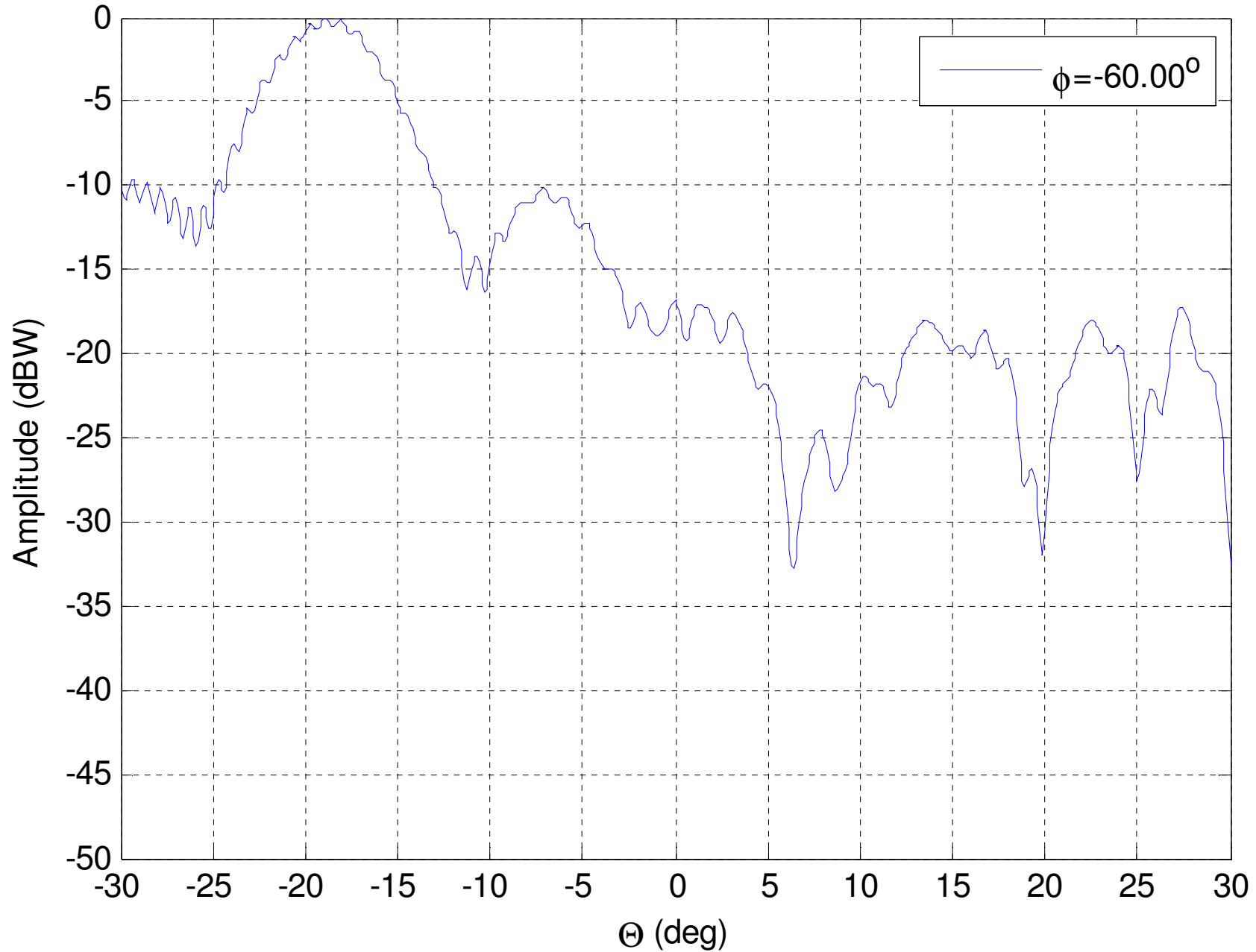
Input file: tx-17.7-rhcp-60.cut, Peak: -3.90 dBW, Date: 16-Dec-2011



LHCP at 17.7 GHz

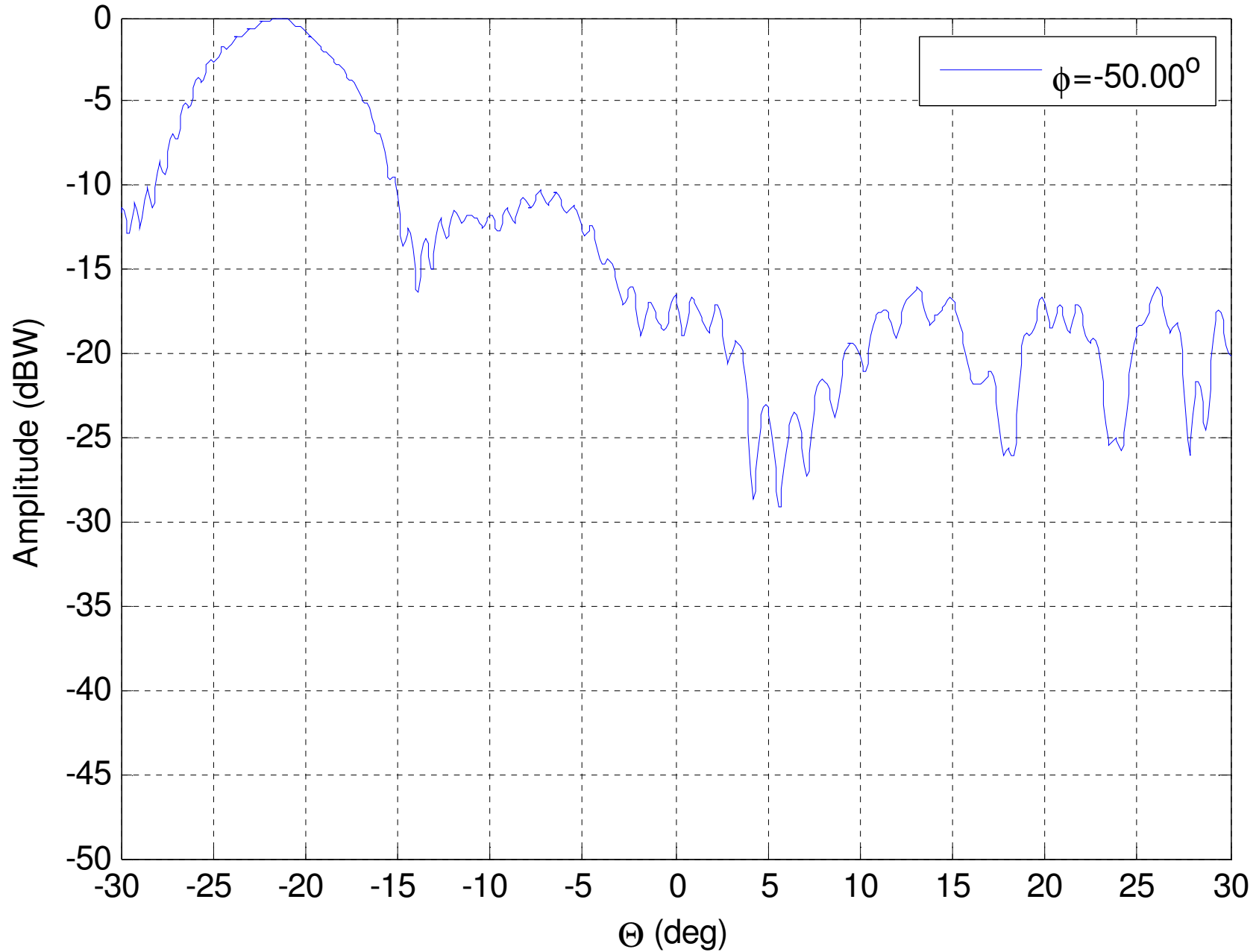
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--60.cut, Peak: -3.21 dBW, Date: 16-Dec-2011



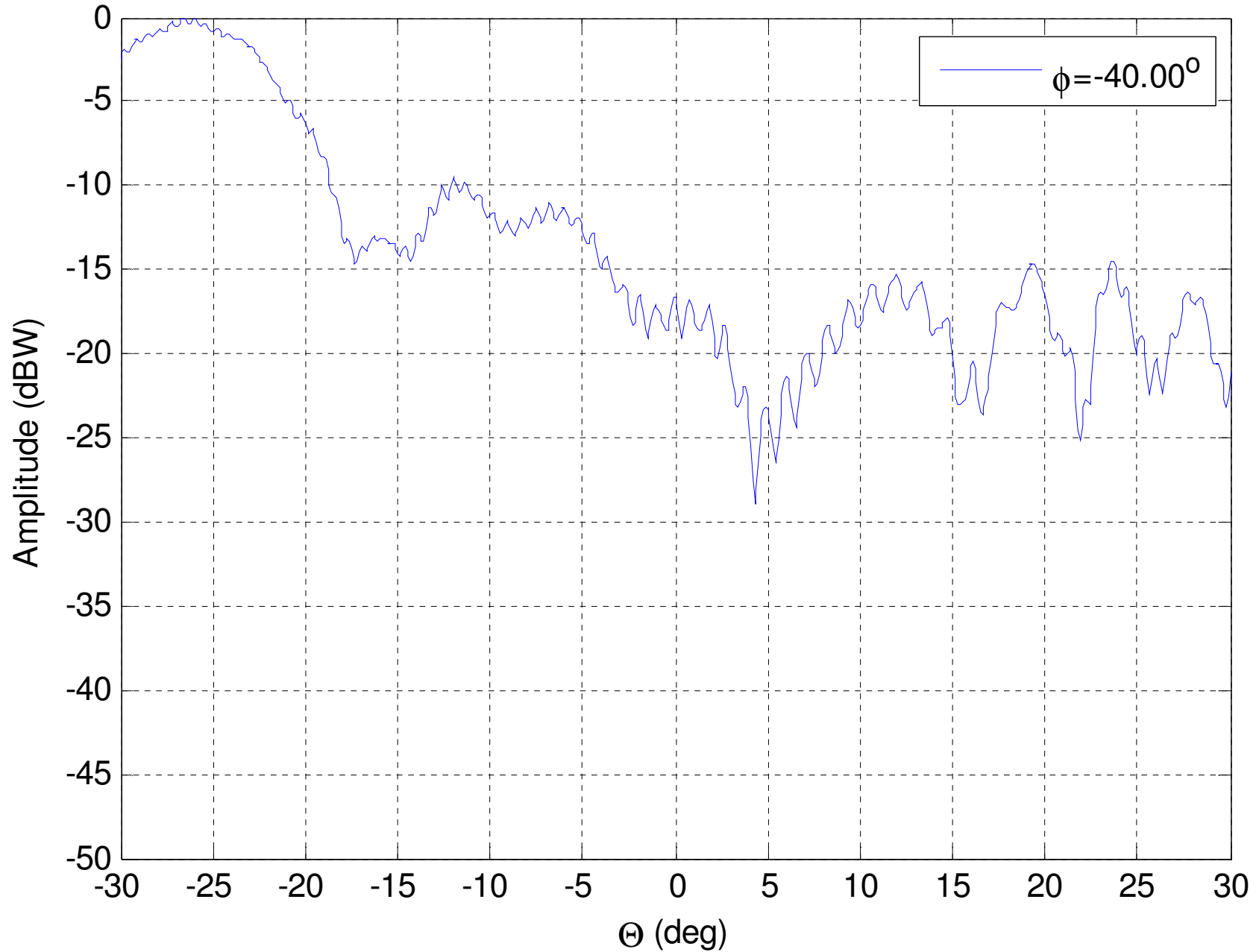
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--50.cut, Peak: -3.53 dBW, Date: 16-Dec-2011



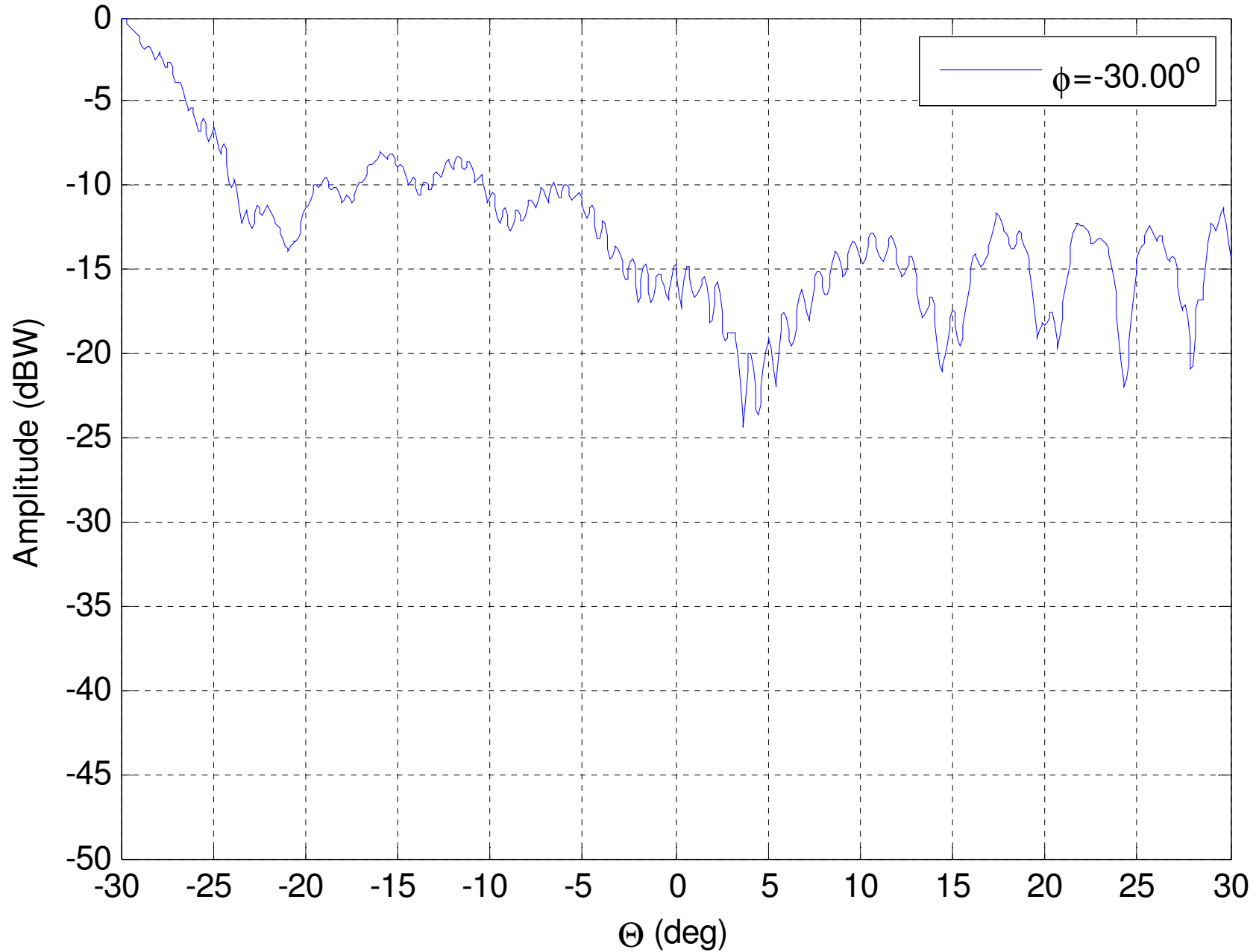
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--40.cut, Peak: -3.46 dBW, Date: 16-Dec-2011



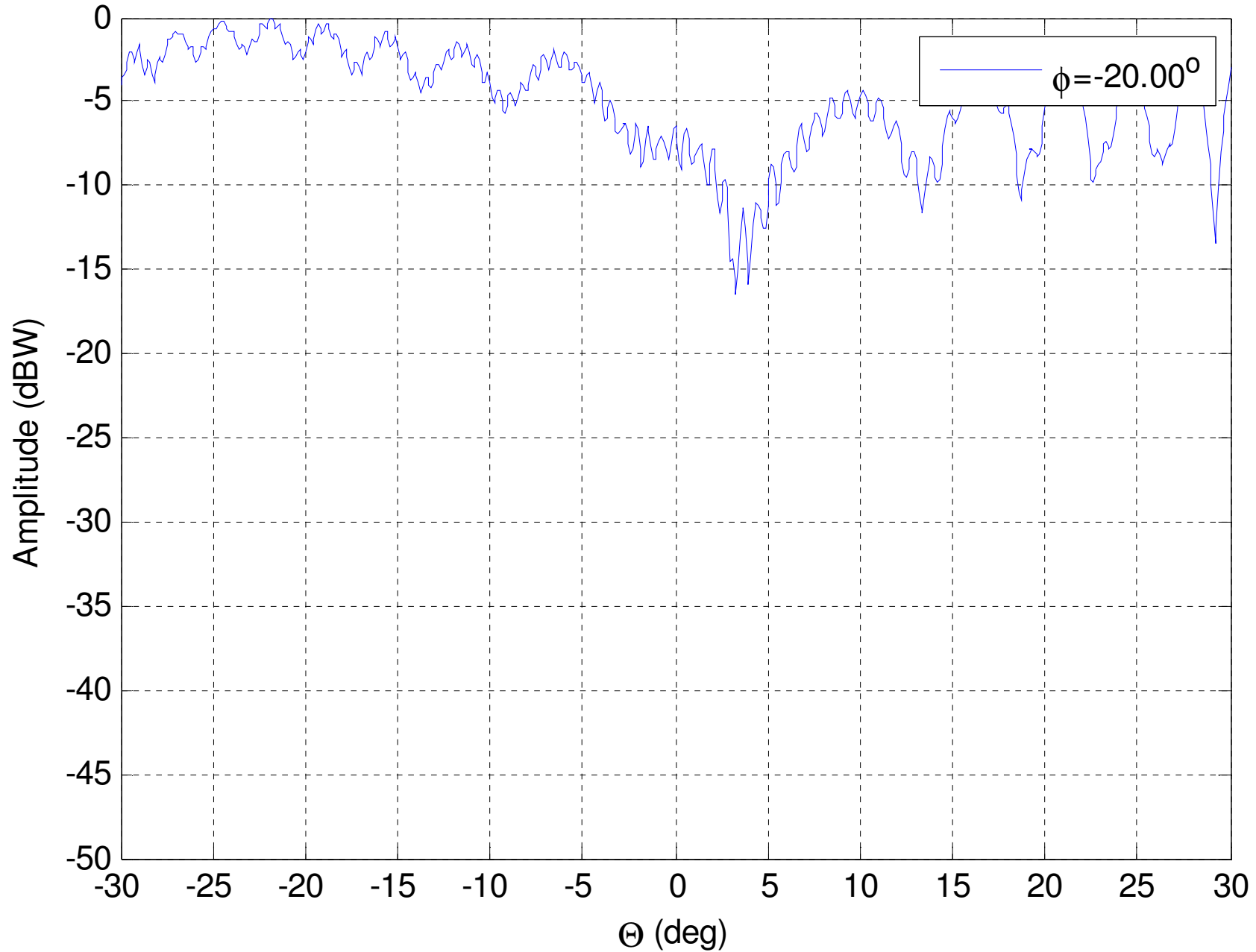
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--30.cut, Peak: -5.42 dBW, Date: 16-Dec-2011



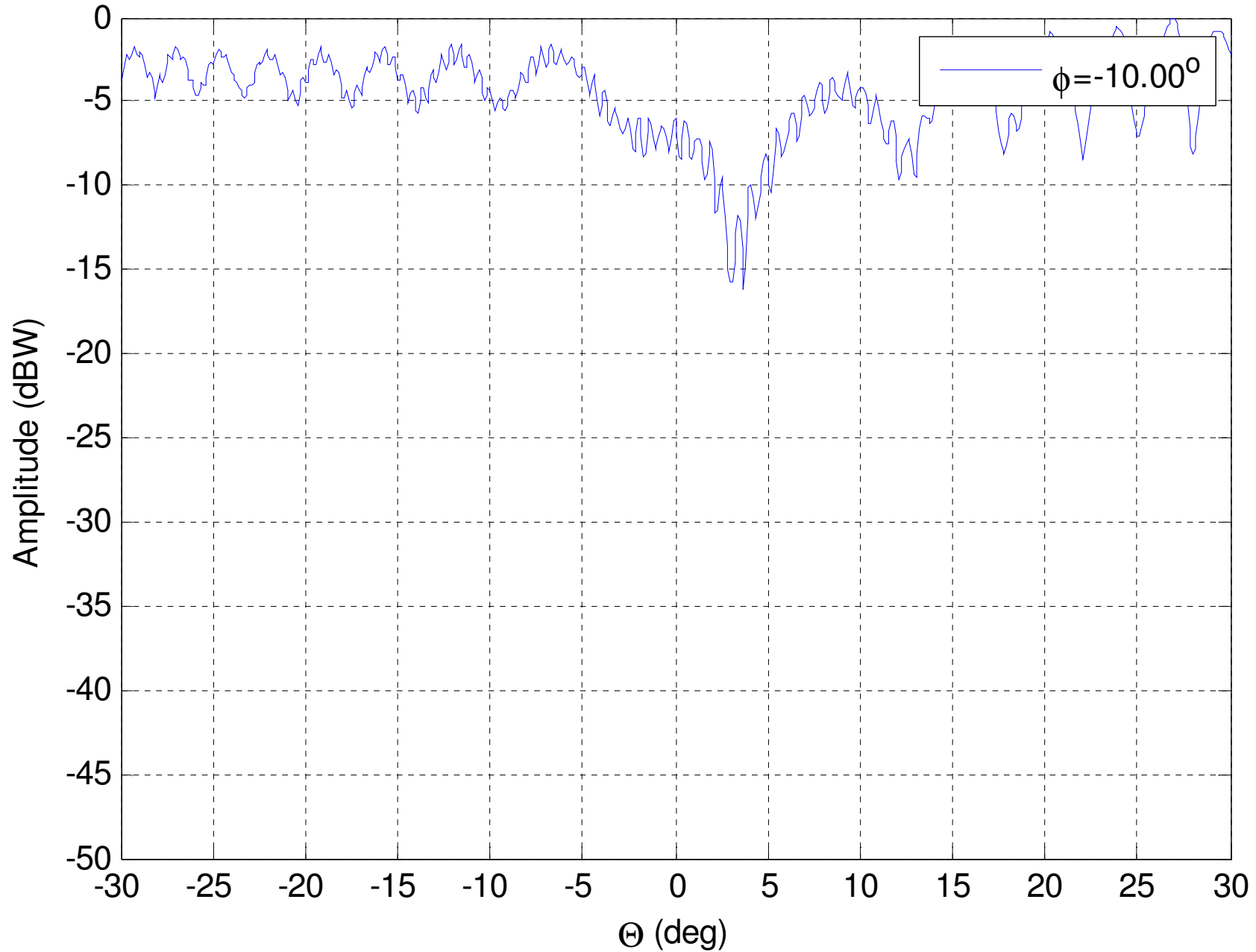
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--20.cut, Peak: -13.58 dBW, Date: 16-Dec-2011



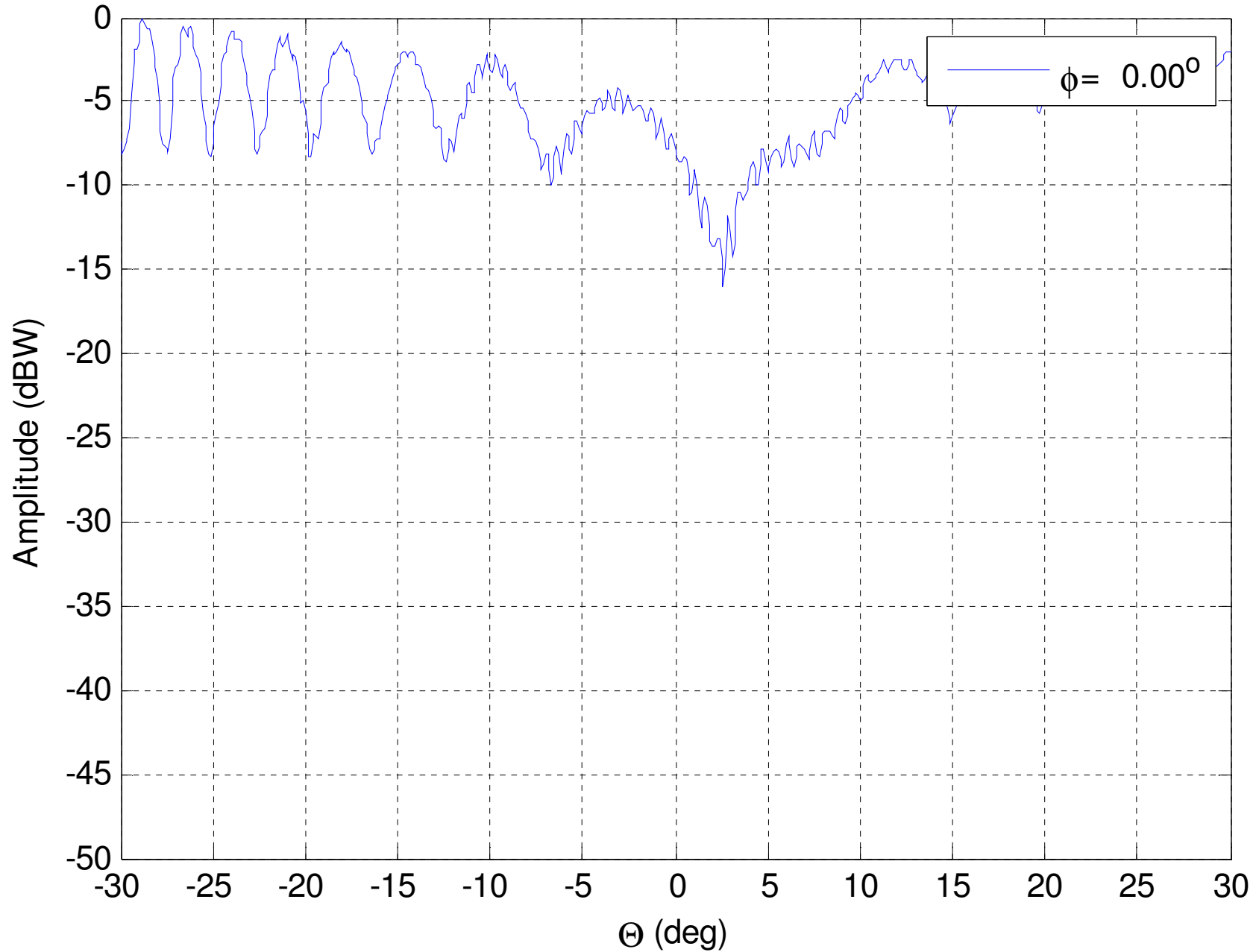
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--10.cut, Peak: -14.10 dBW, Date: 16-Dec-2011



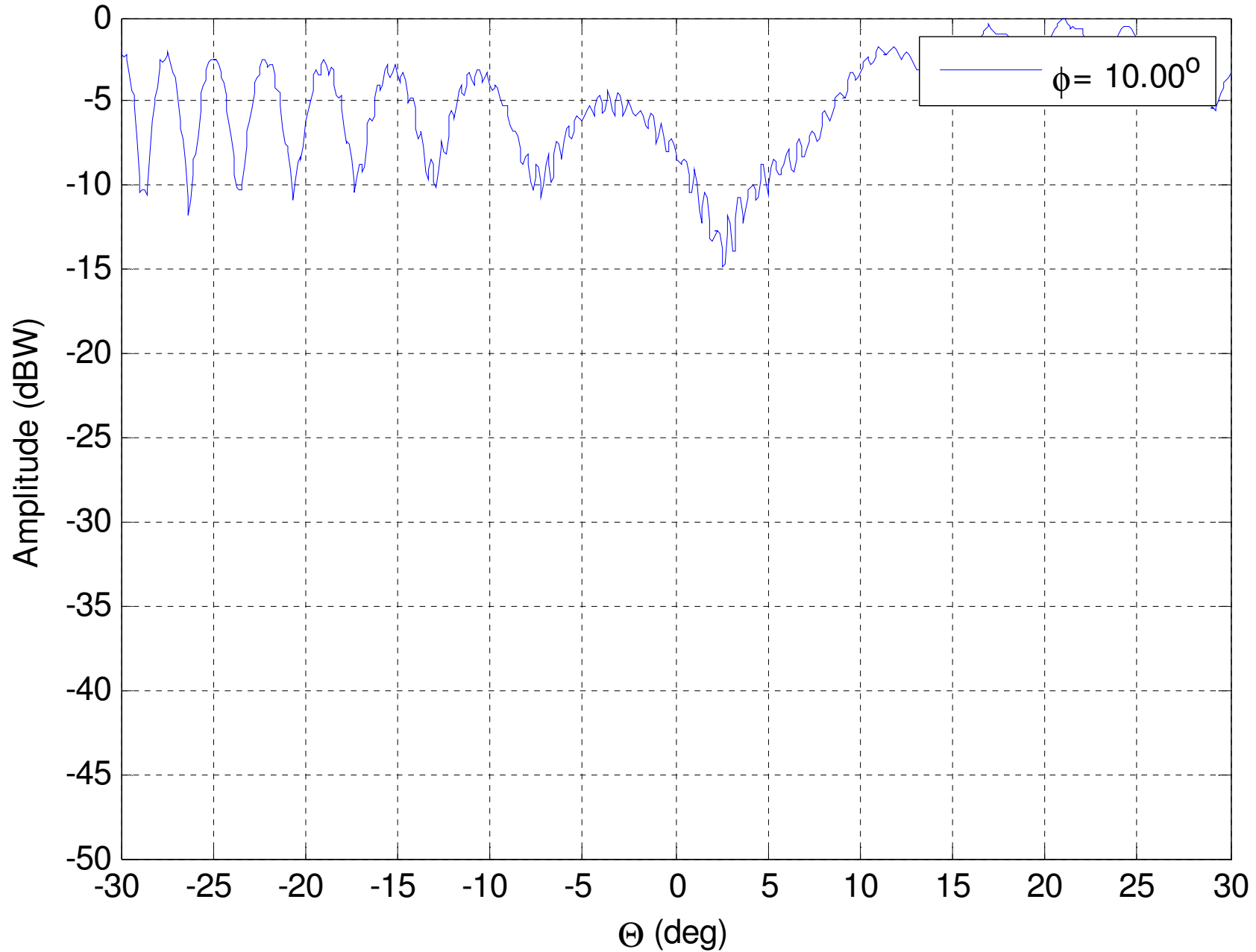
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-0.cut, Peak: -13.47 dBW, Date: 16-Dec-2011



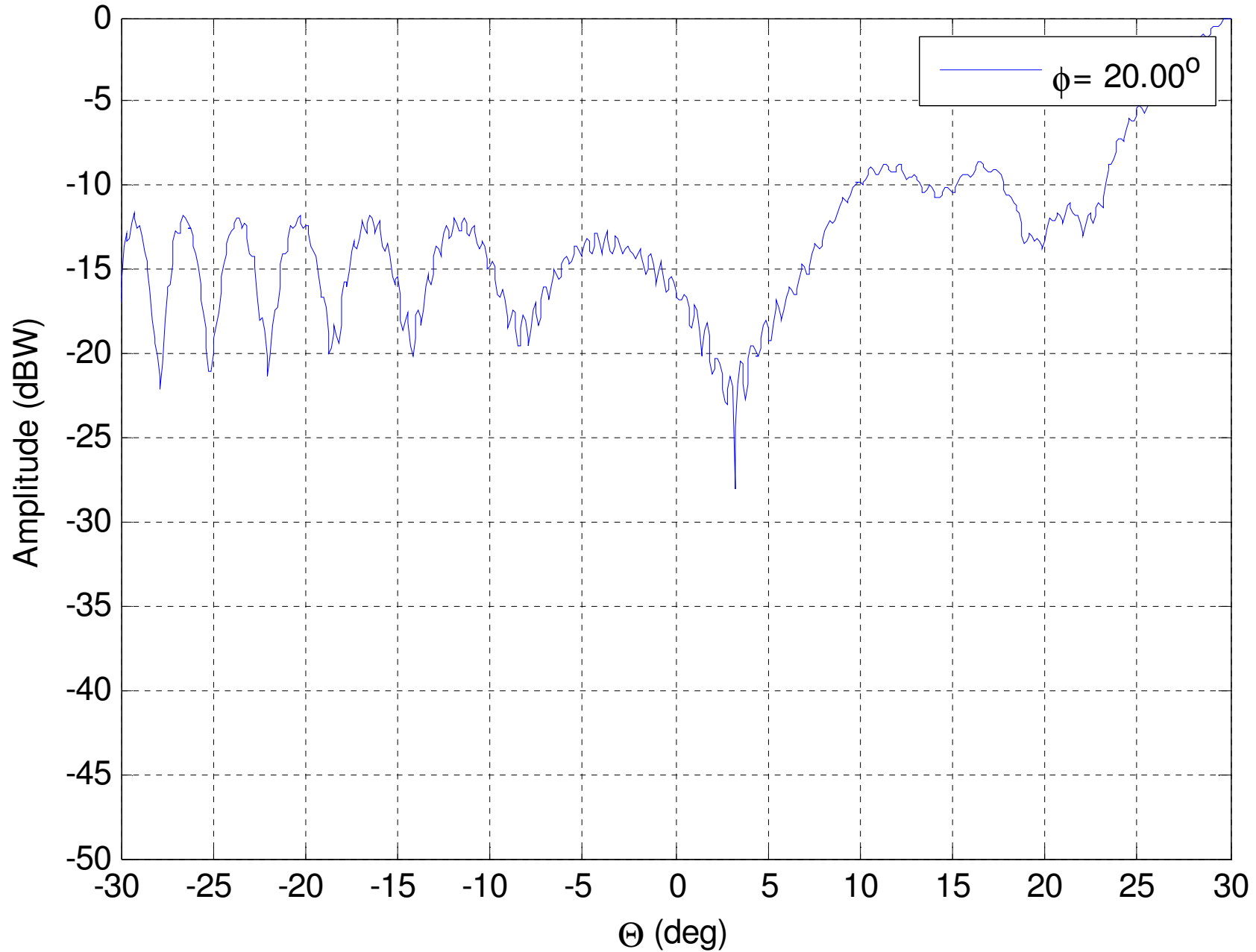
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-10.cut, Peak: -13.30 dBW, Date: 16-Dec-2011



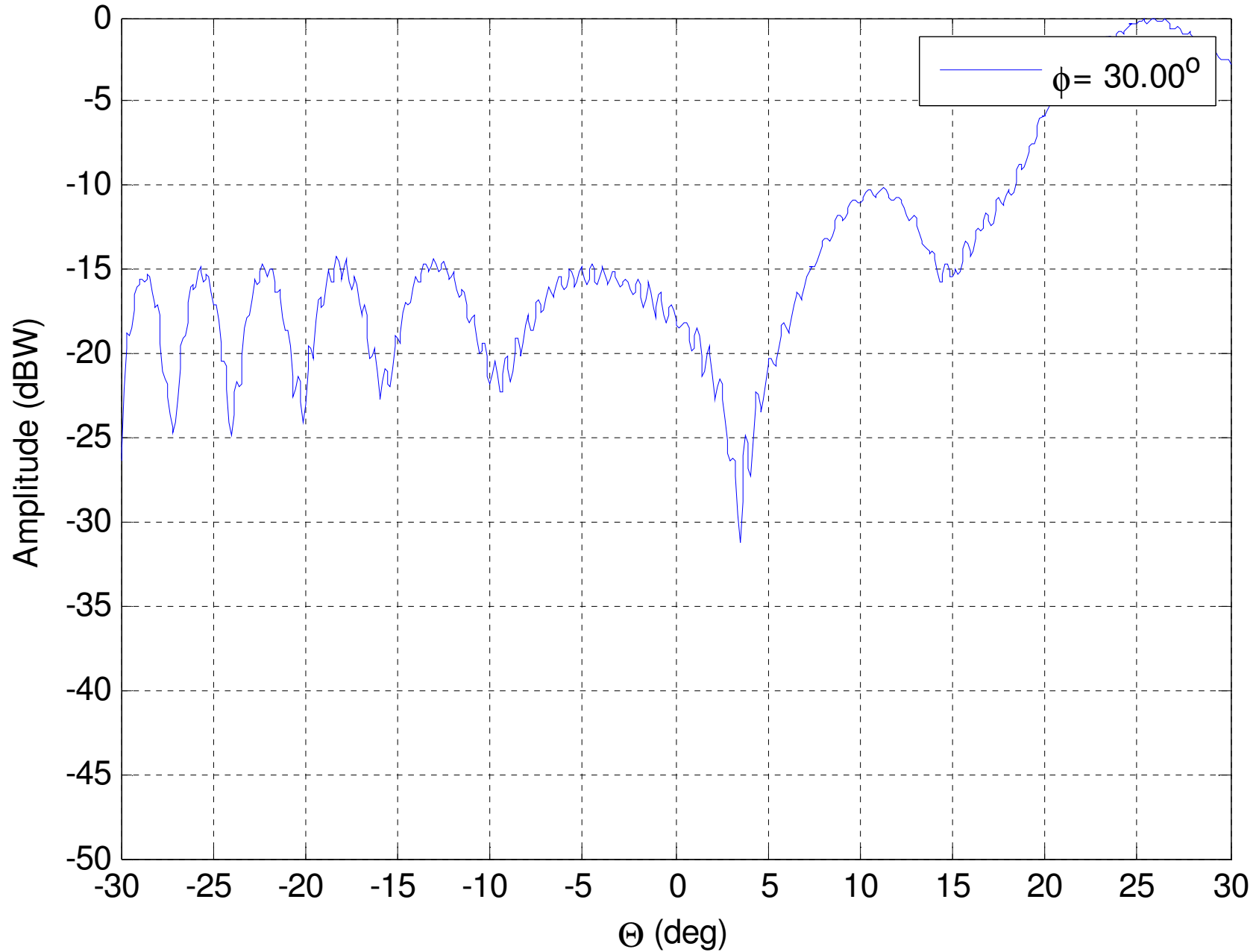
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-20.cut, Peak: -5.09 dBW, Date: 16-Dec-2011



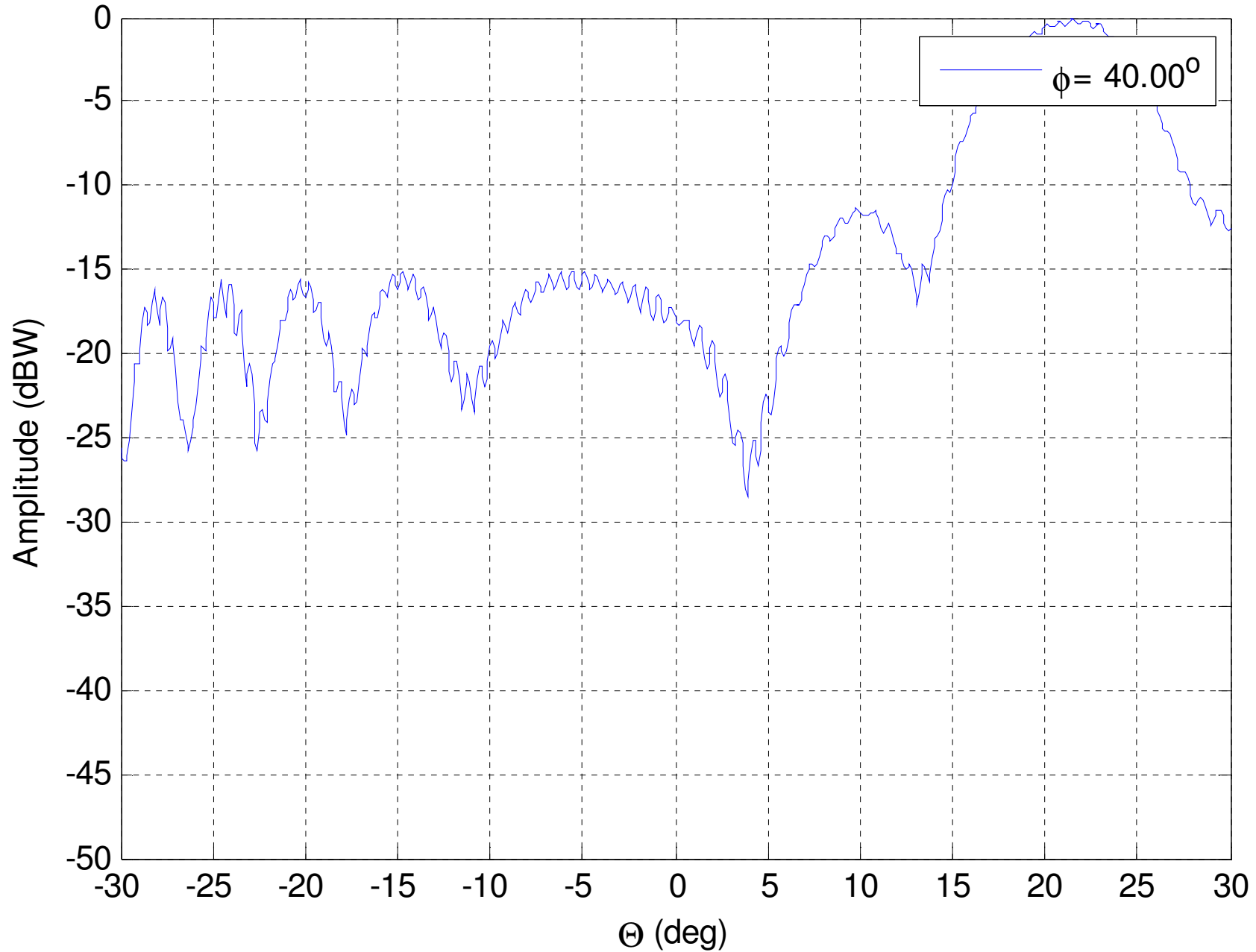
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-30.cut, Peak: -3.44 dBW, Date: 16-Dec-2011



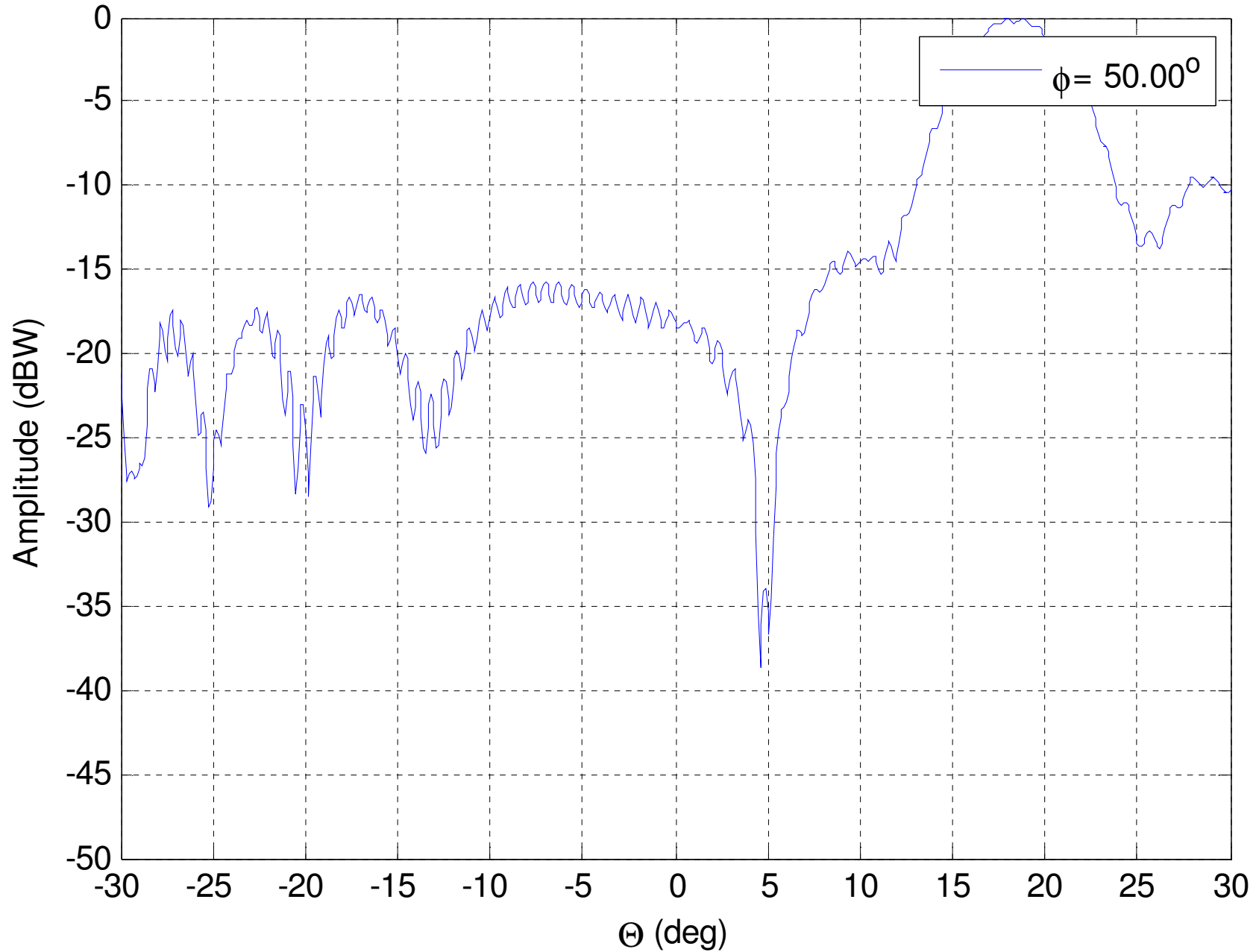
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-40.cut, Peak: -3.48 dBW, Date: 16-Dec-2011



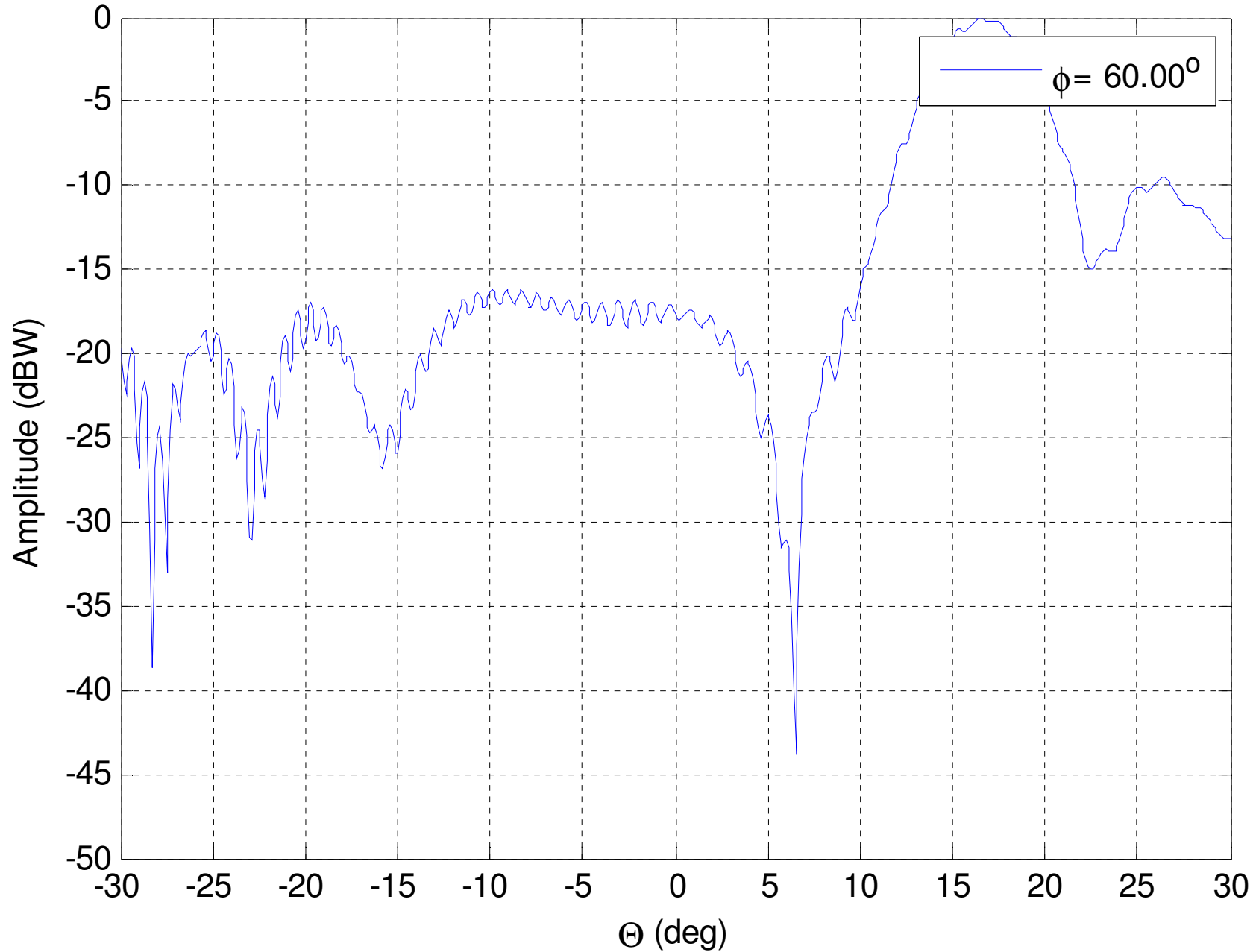
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-50.cut, Peak: -3.27 dBW, Date: 16-Dec-2011



Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-60.cut, Peak: -3.76 dBW, Date: 16-Dec-2011



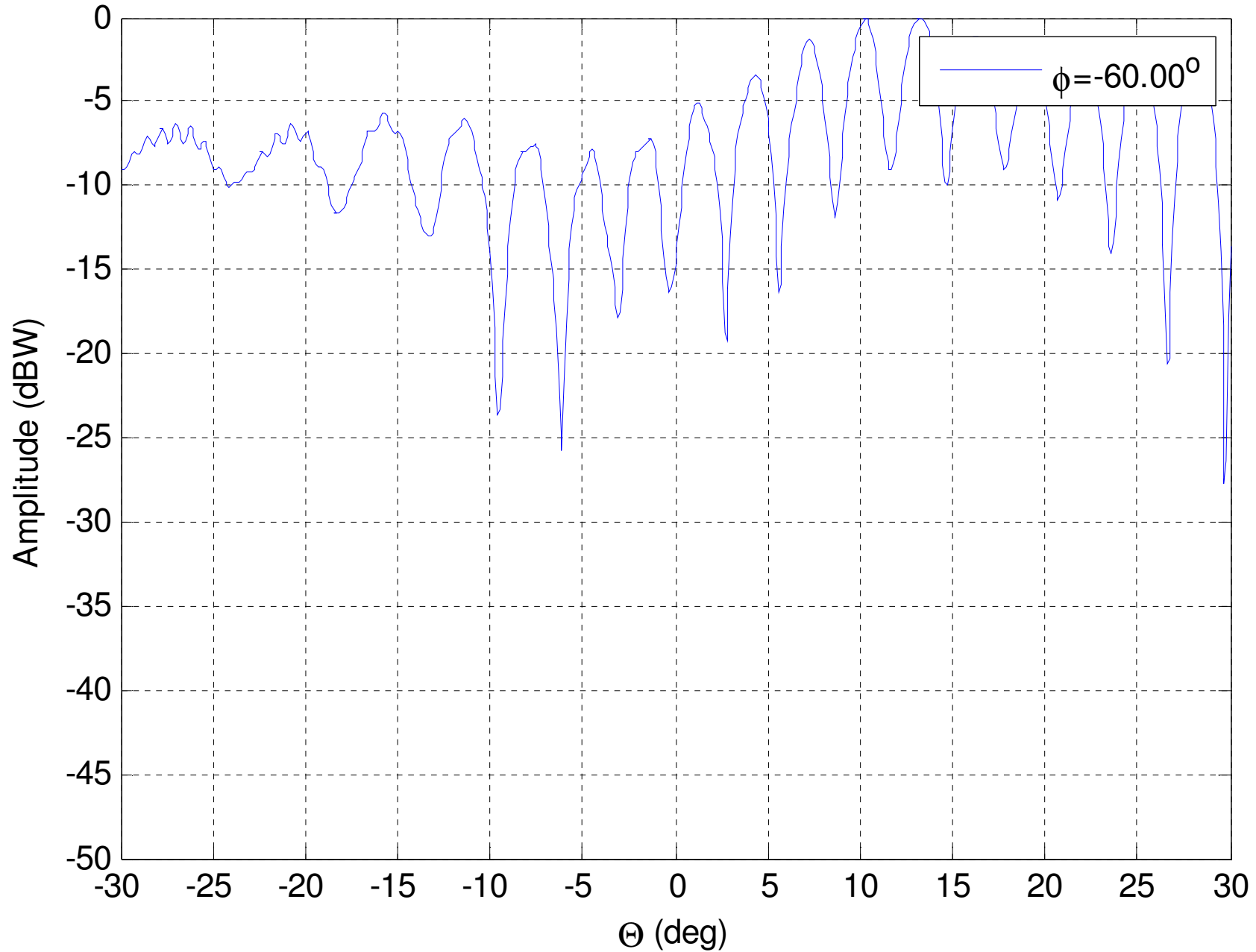
Spot Beam50, +X Axis Plots

- Both polarizations; RHCP, LHCP
- $-30 < \Theta < 30$ ($\Theta=0$: = +X-axis)
- $-60 < \phi < 60$
- Freq = 17.3, 17.5, and 17.7 GHz
- The Zero reference line is the peak gain listed in the title of each chart
- All levels are significantly below the required 20.9 dBW EIRP shown on chart 2

RHCP at 17.3 GHz

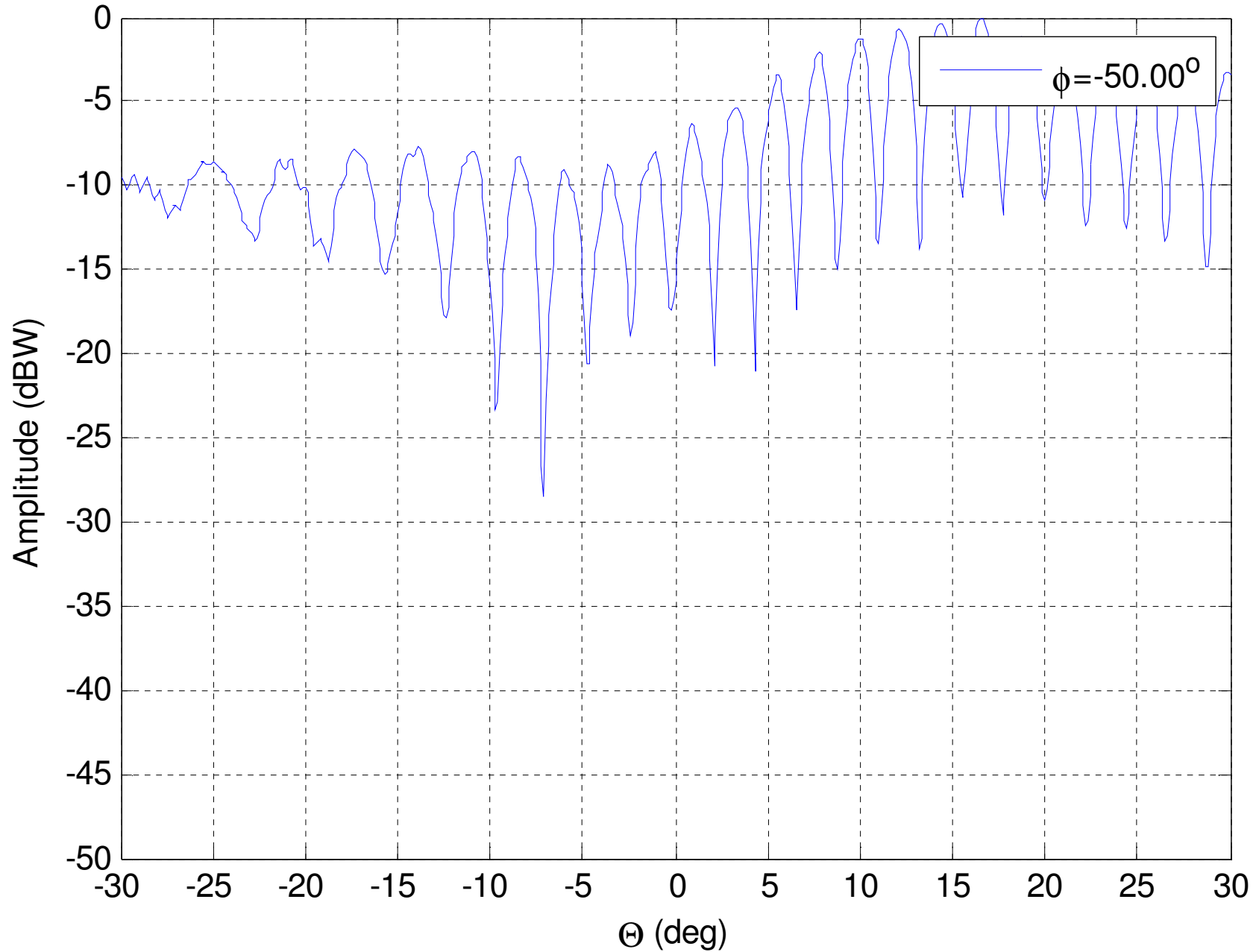
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--60.cut, Peak: -7.93 dBW, Date: 16-Dec-2011



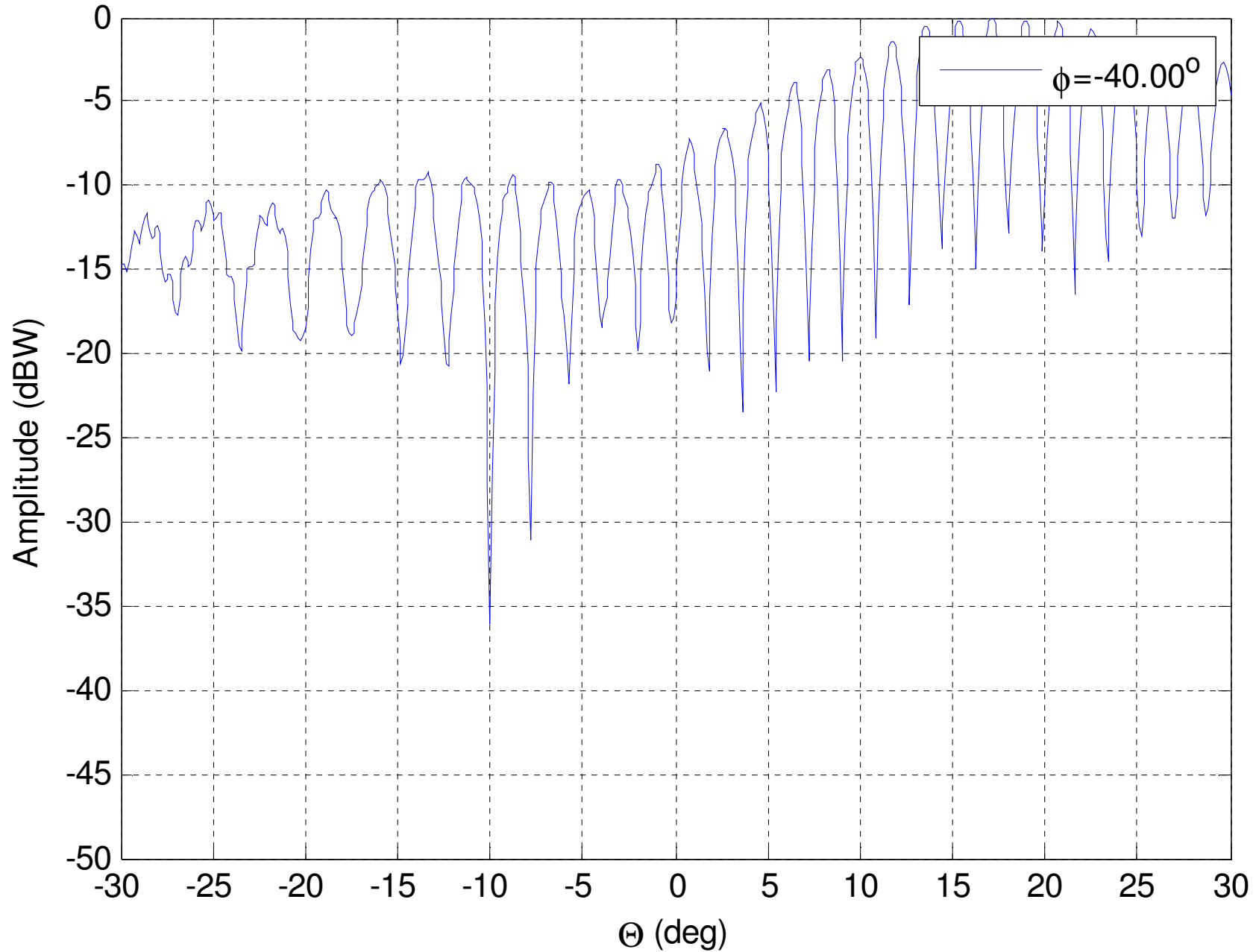
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--50.cut, Peak: -6.76 dBW, Date: 16-Dec-2011



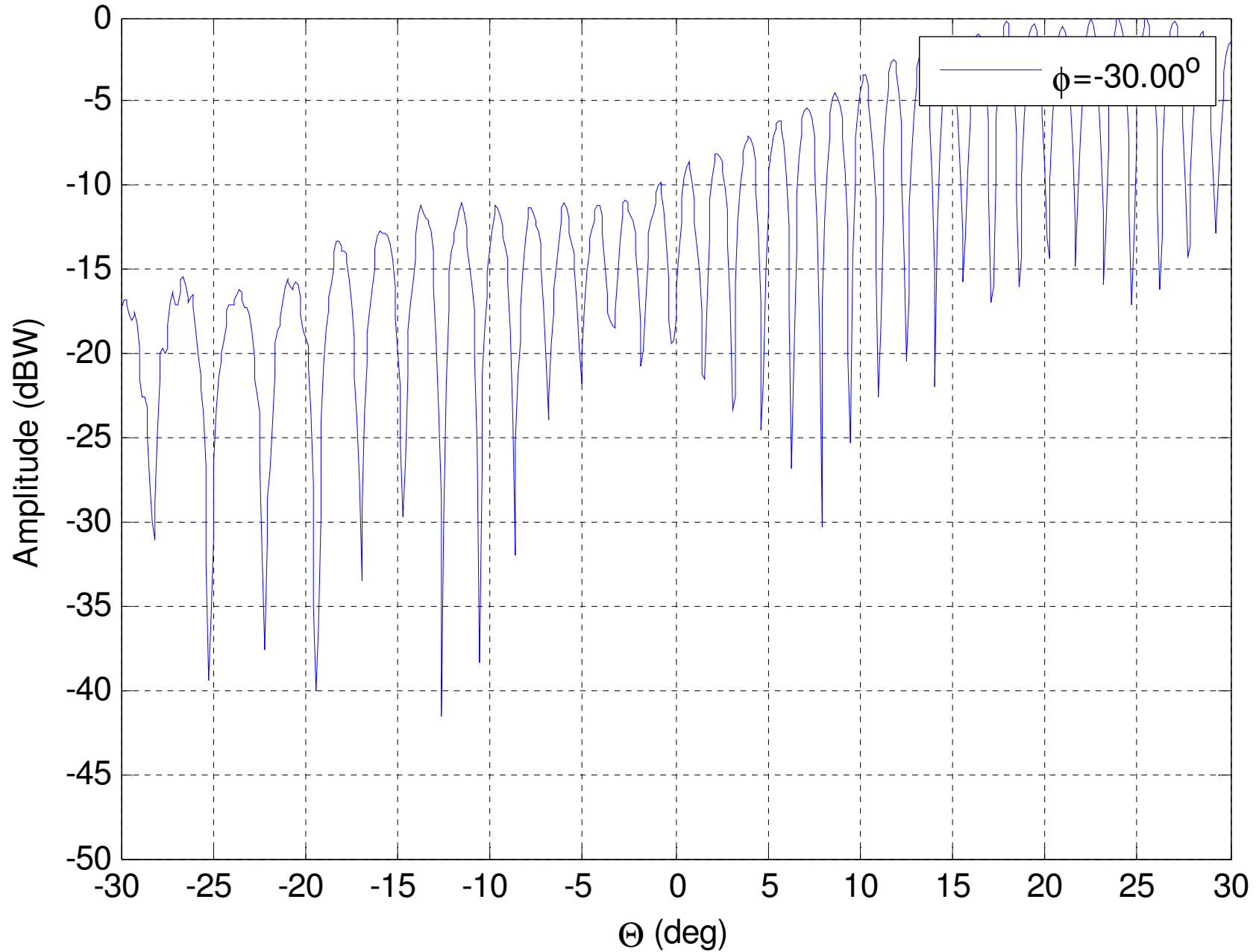
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--40.cut, Peak: -5.90 dBW, Date: 16-Dec-2011



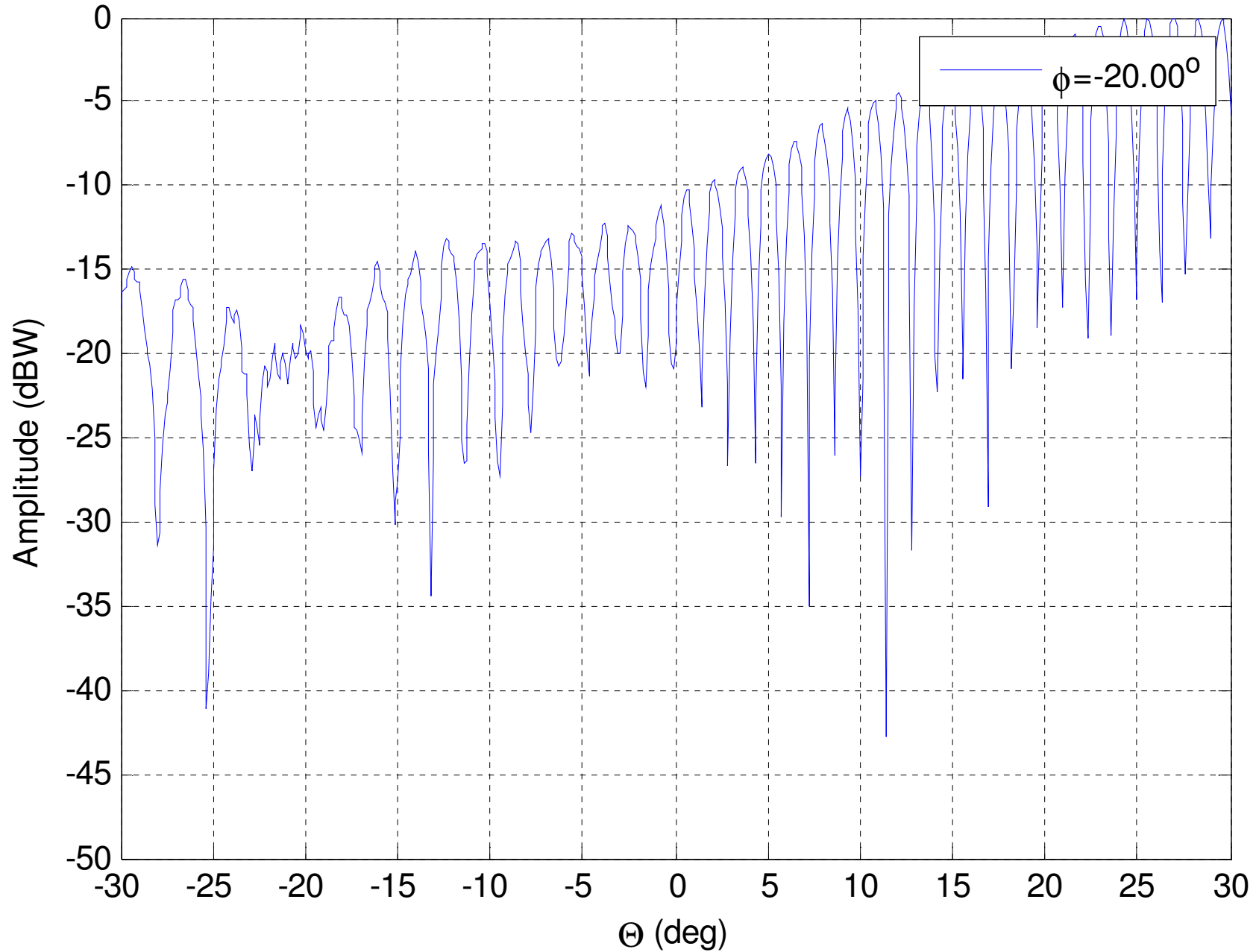
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--30.cut, Peak: -4.59 dBW, Date: 16-Dec-2011



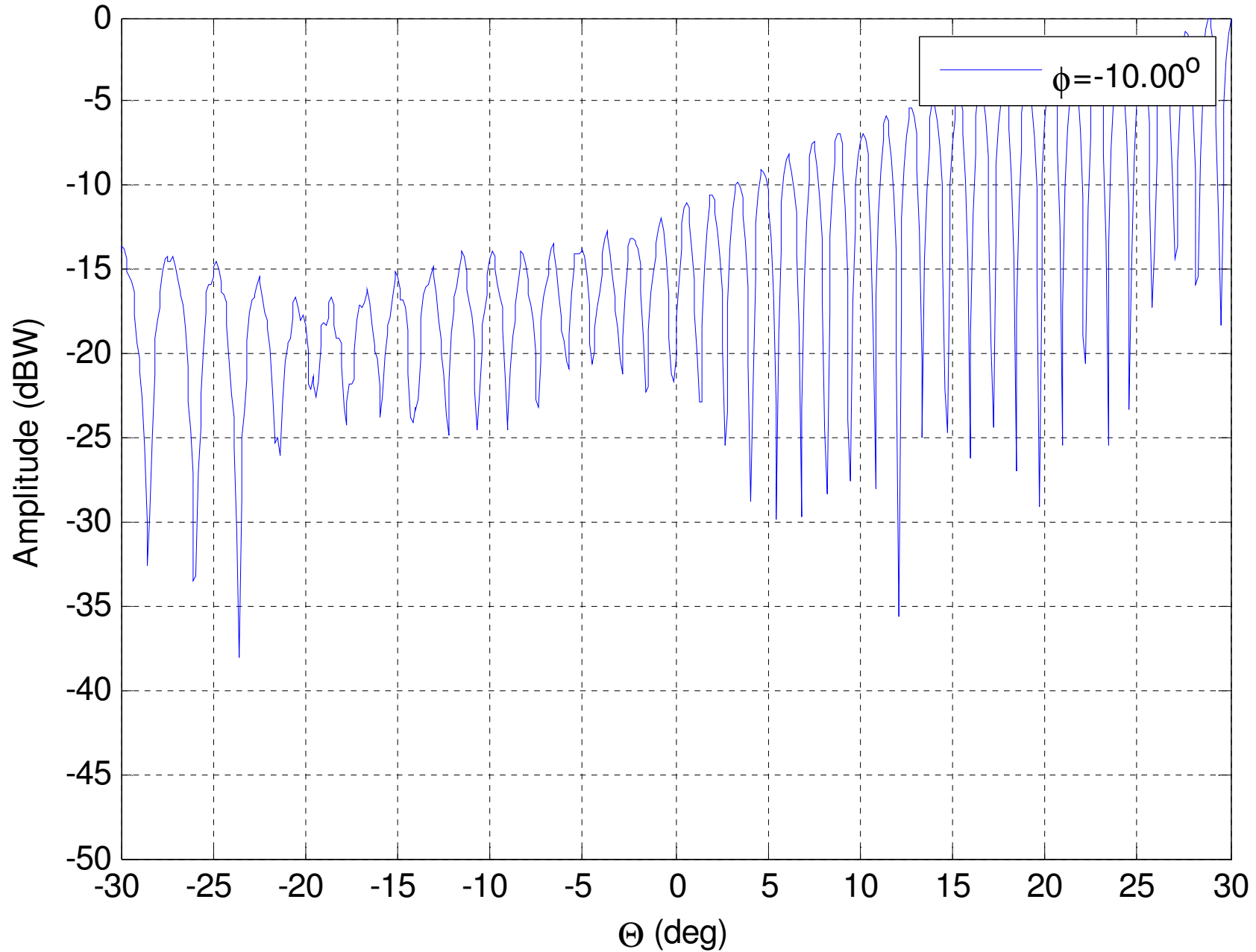
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--20.cut, Peak: -3.10 dBW, Date: 16-Dec-2011



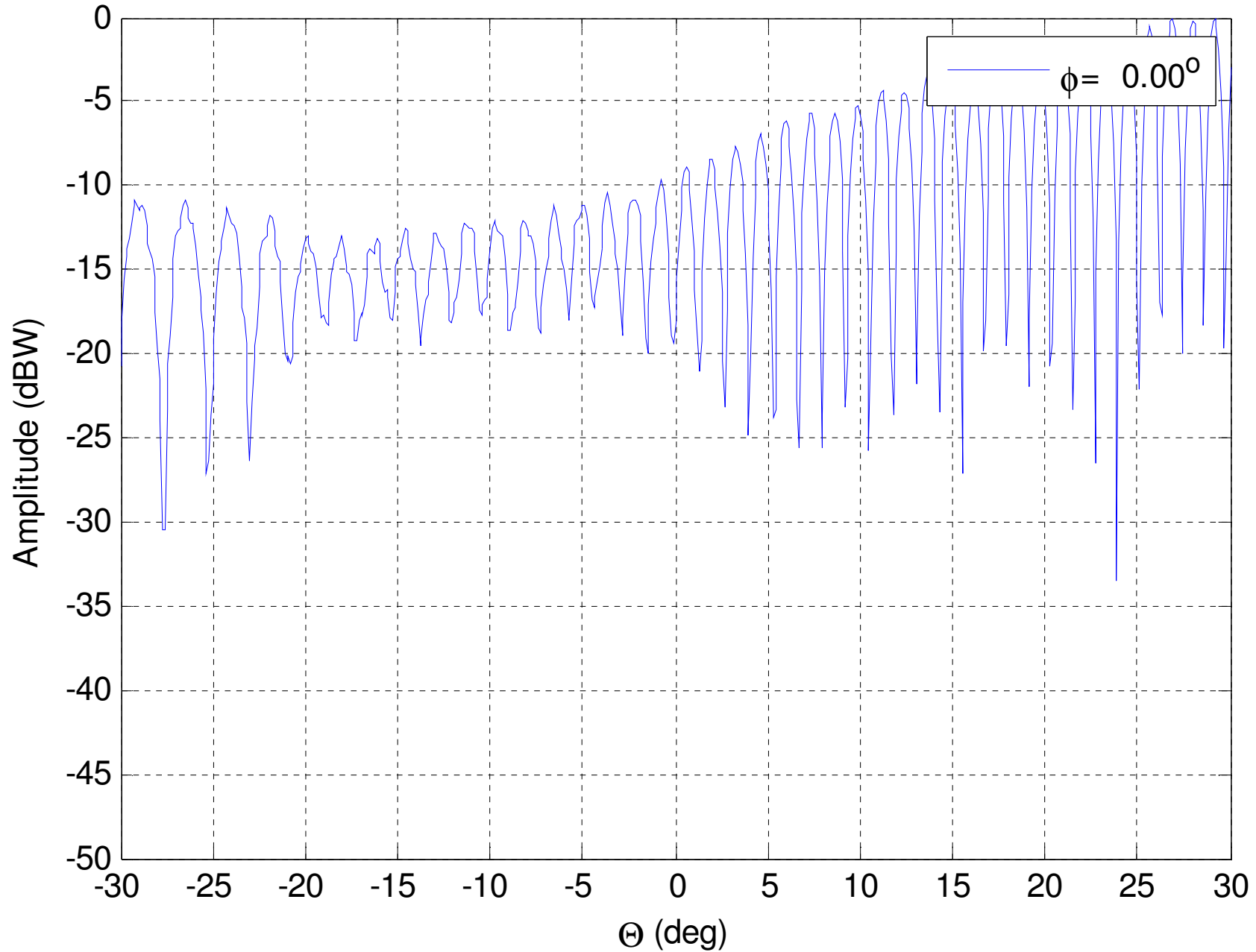
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--10.cut, Peak: -2.35 dBW, Date: 16-Dec-2011



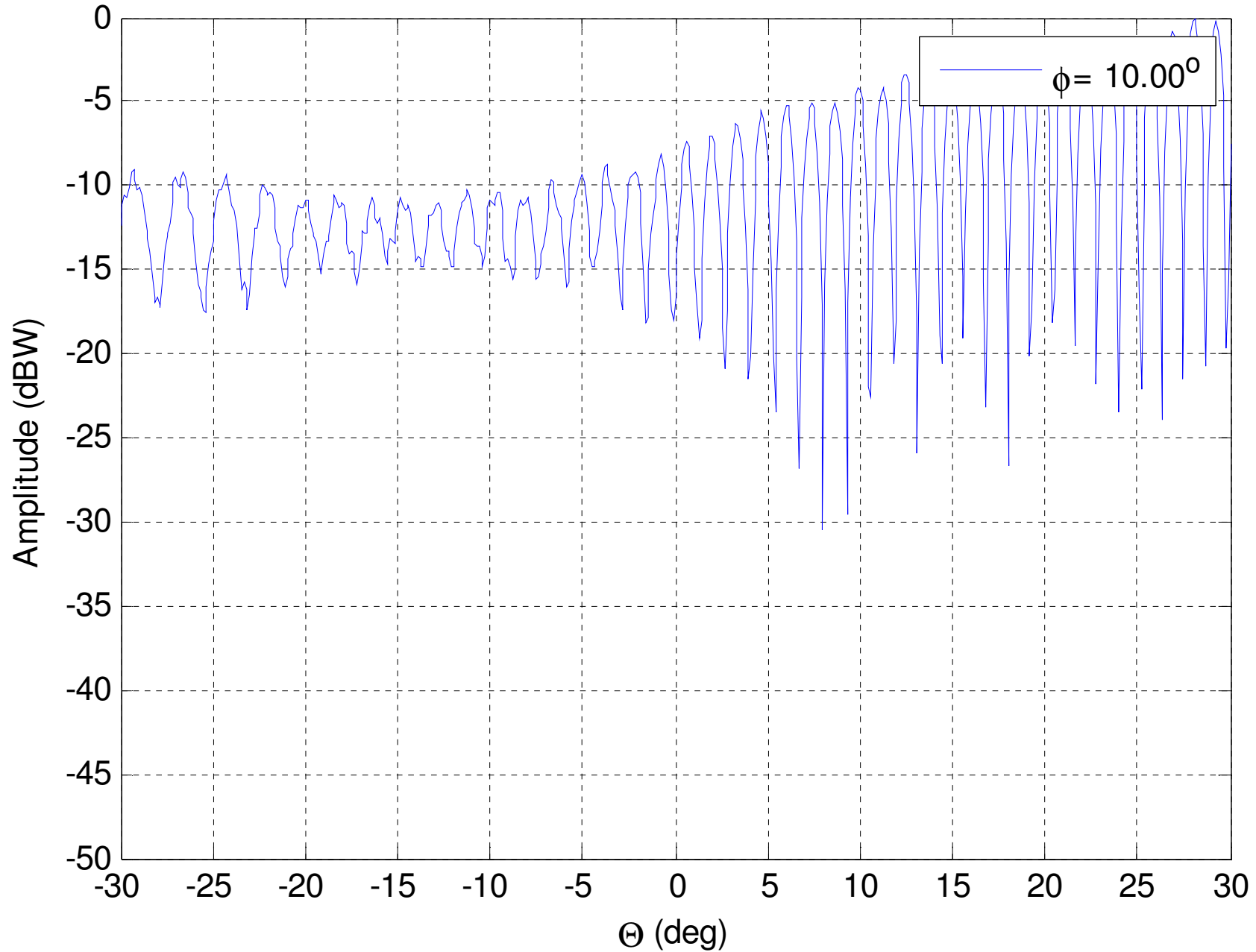
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-0.cut, Peak: -4.56 dBW, Date: 16-Dec-2011



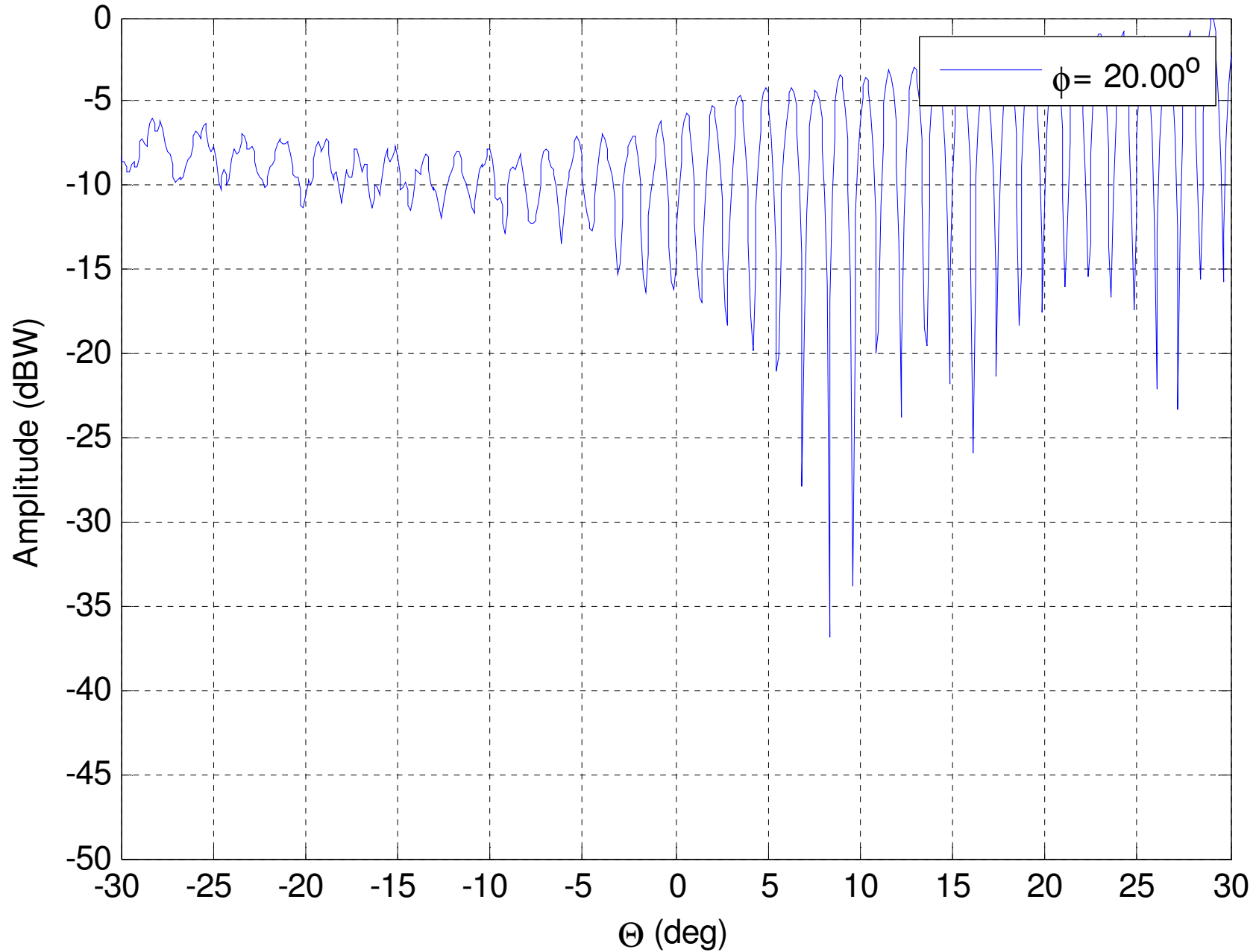
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-10.cut, Peak: -6.01 dBW, Date: 16-Dec-2011



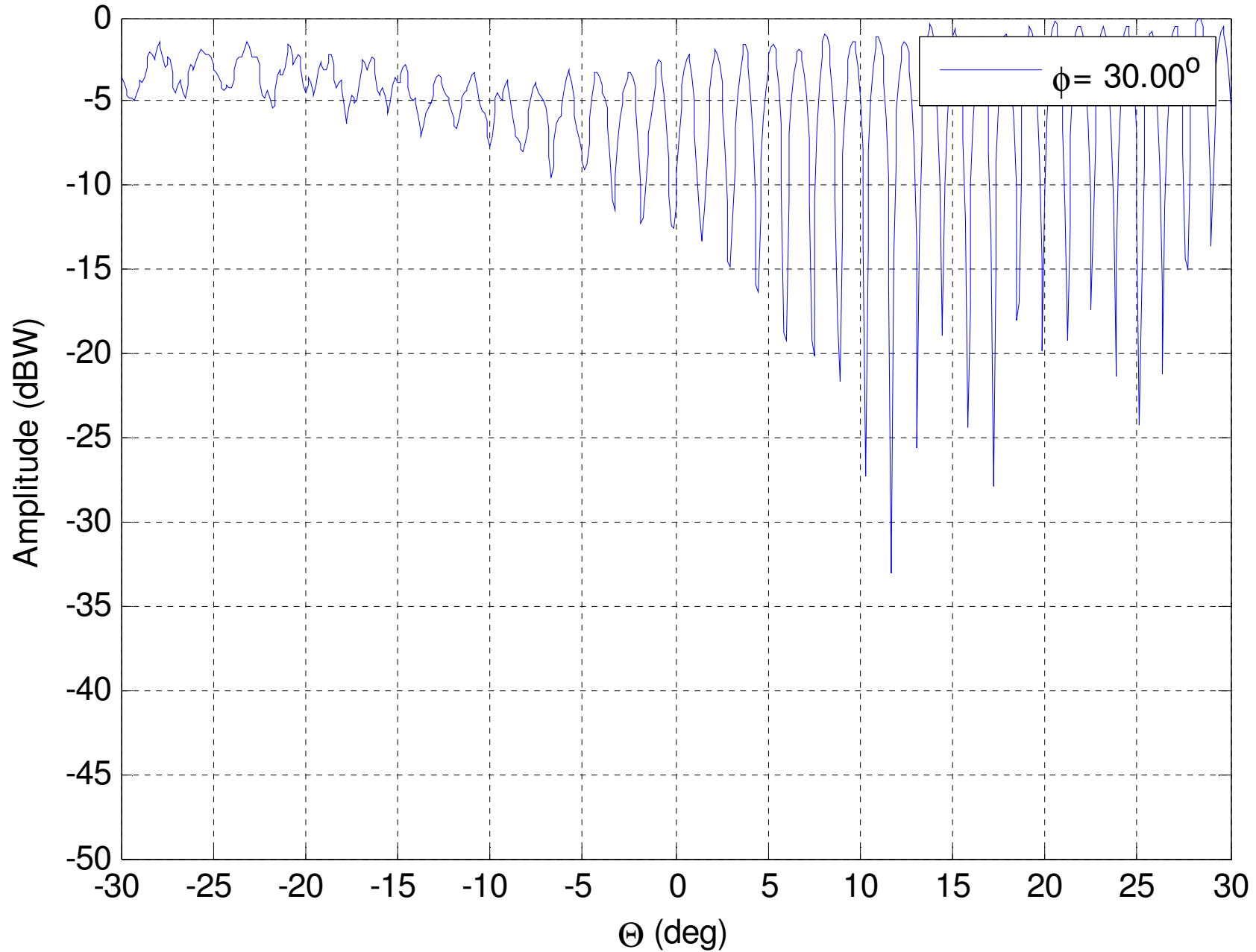
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-20.cut, Peak: -7.81 dBW, Date: 16-Dec-2011



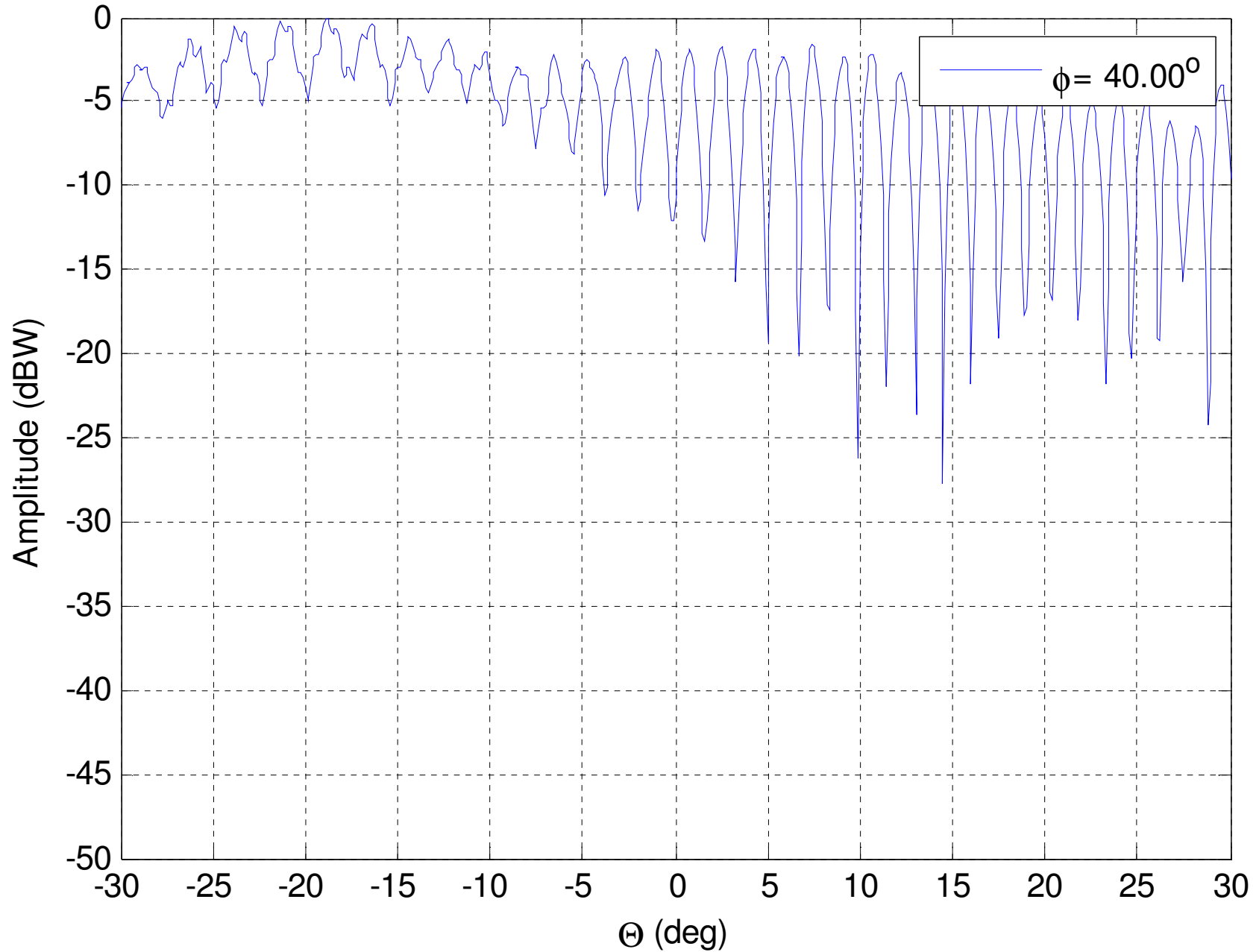
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-30.cut, Peak: -11.29 dBW, Date: 16-Dec-2011



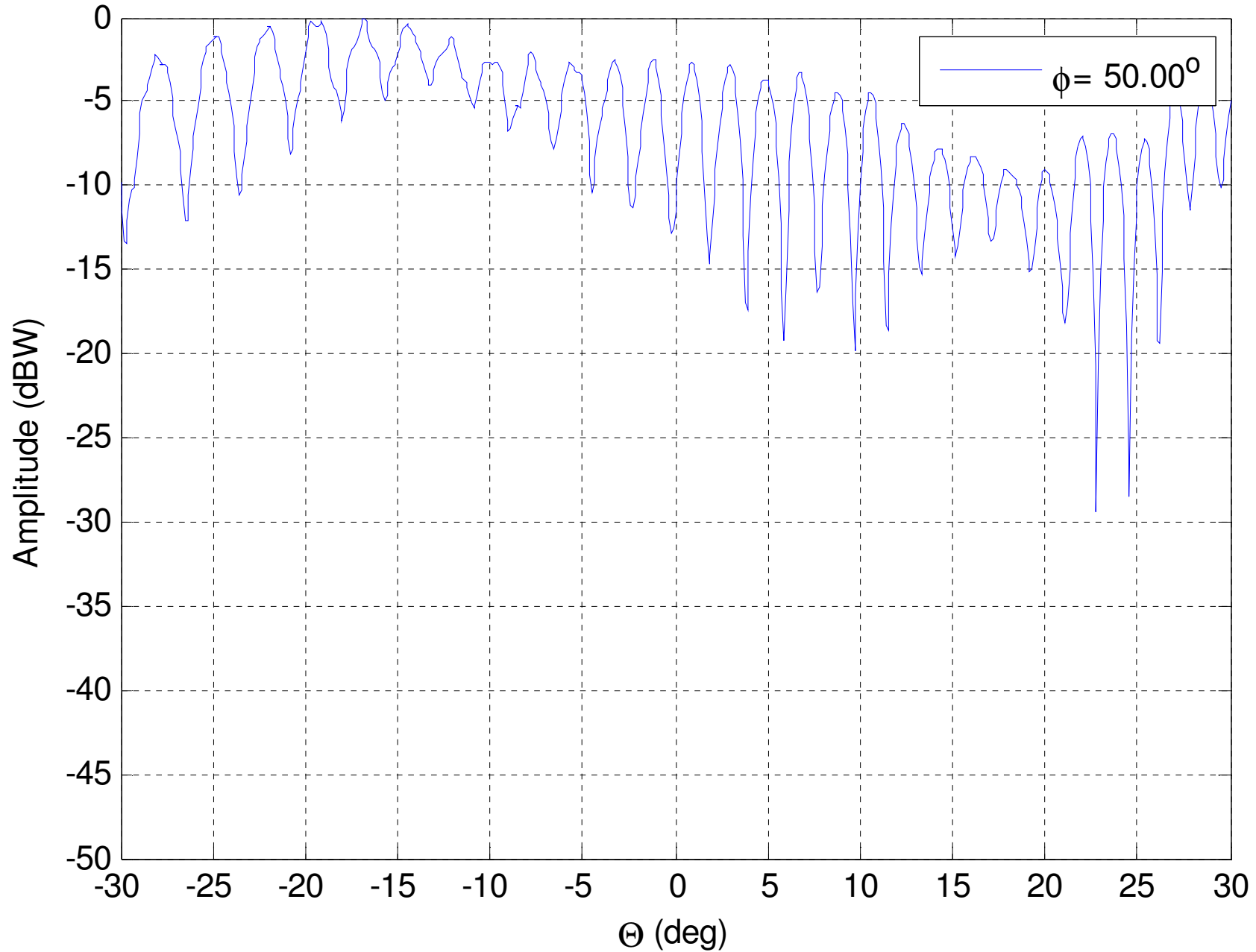
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-40.cut, Peak: -11.76 dBW, Date: 16-Dec-2011



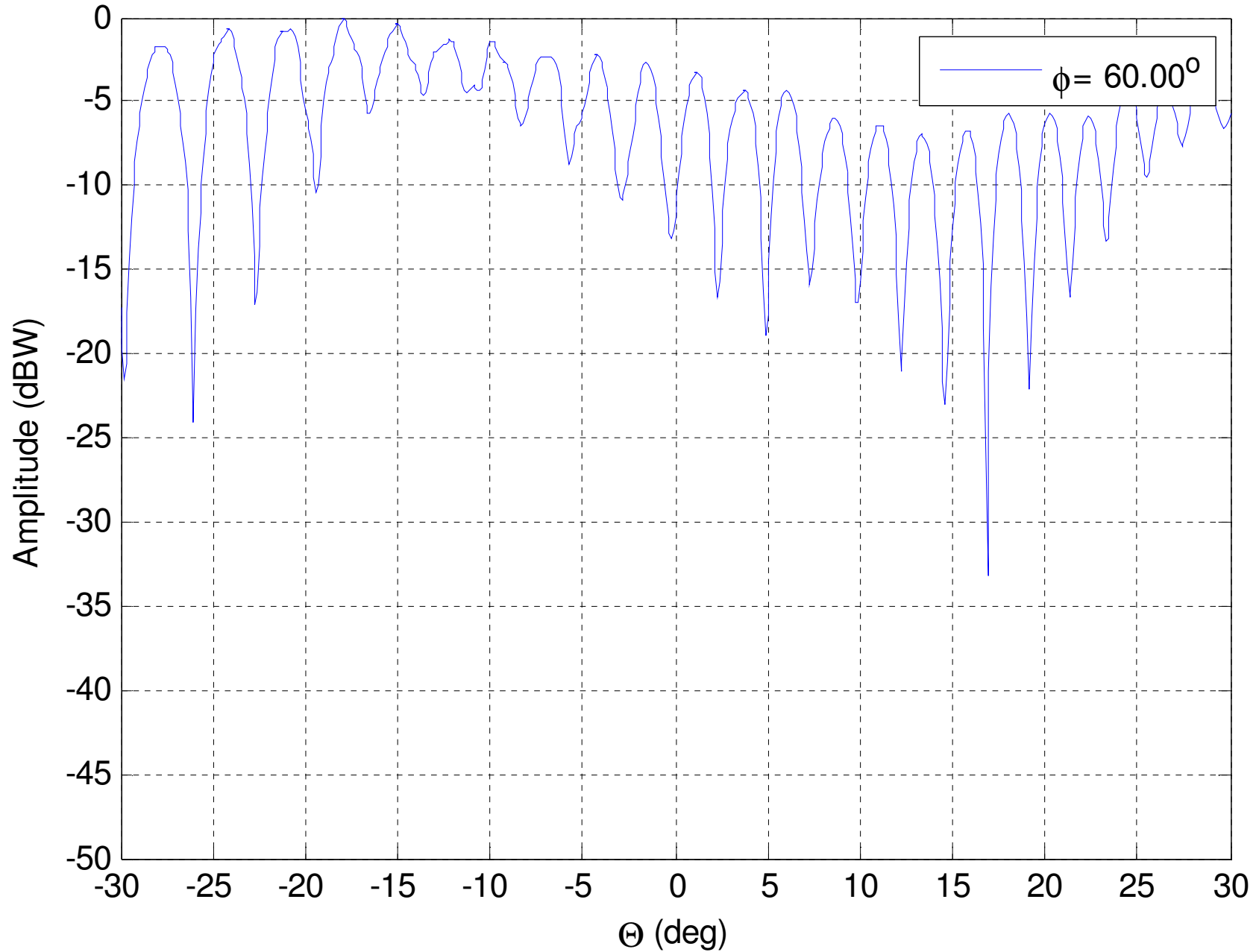
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-50.cut, Peak: -11.11 dBW, Date: 16-Dec-2011



Normalized pattern cuts - farfield

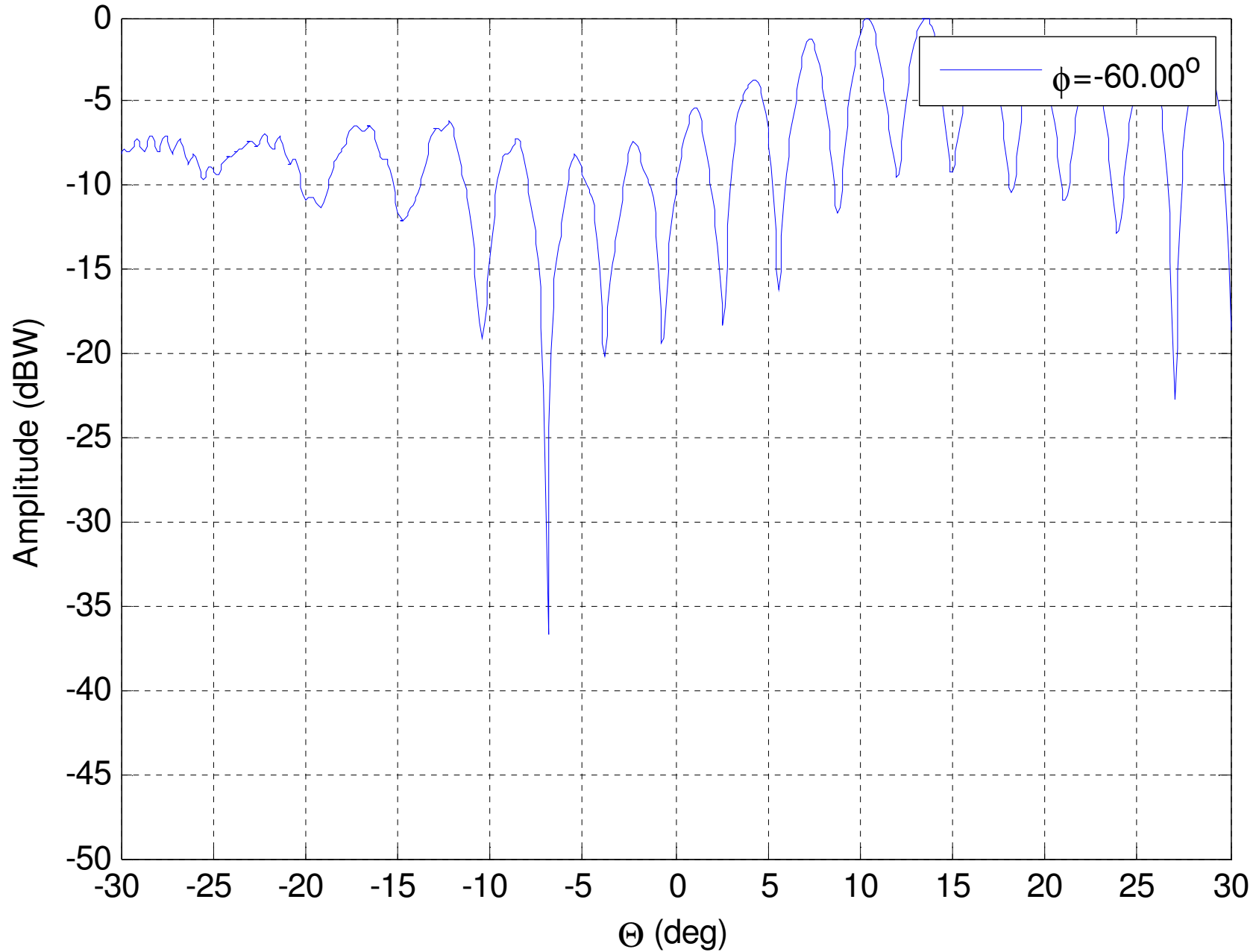
Input file: tx-17.3-rhcp-60.cut, Peak: -10.79 dBW, Date: 16-Dec-2011



LHCP at 17.3 GHz

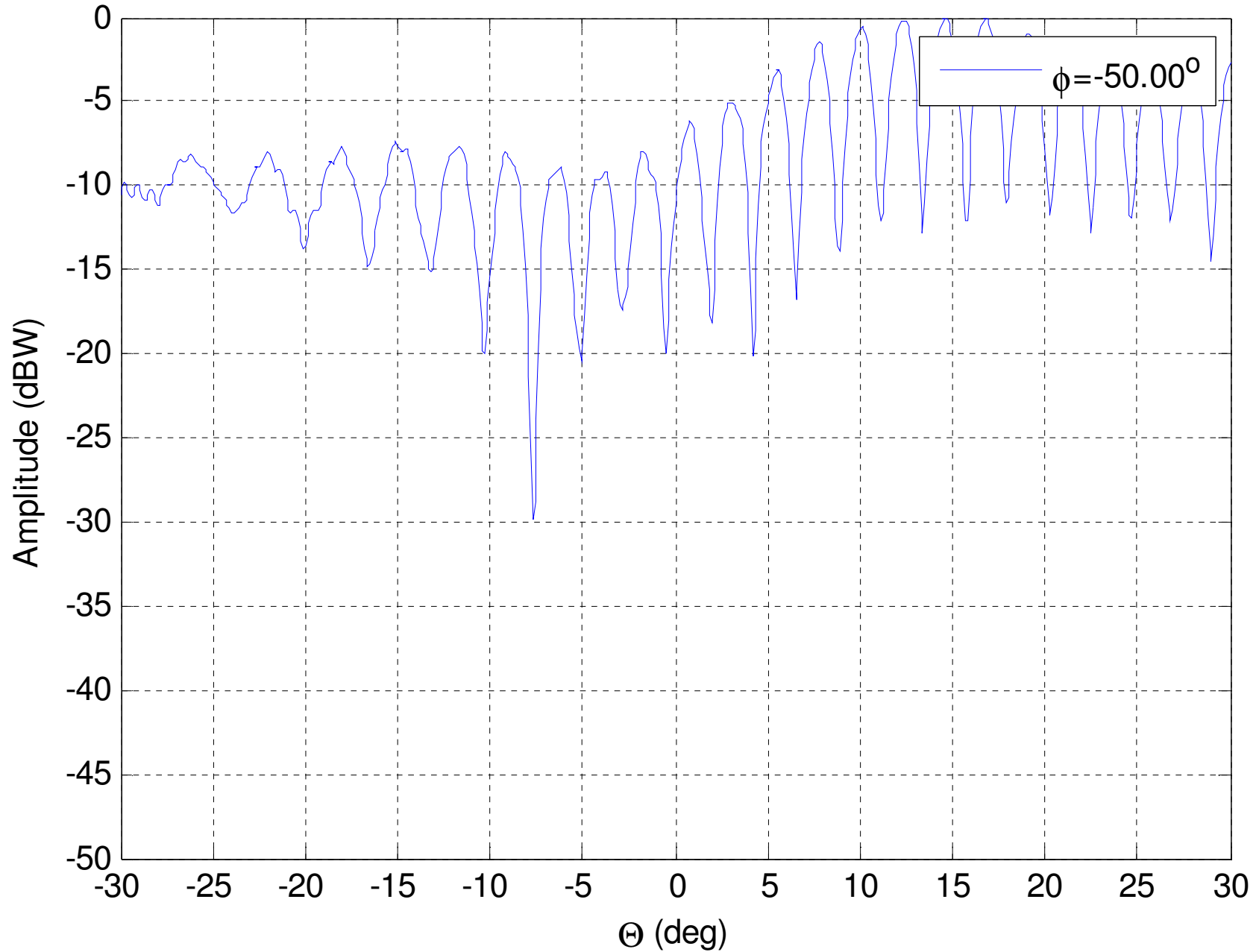
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp--60.cut, Peak: -7.84 dBW, Date: 16-Dec-2011



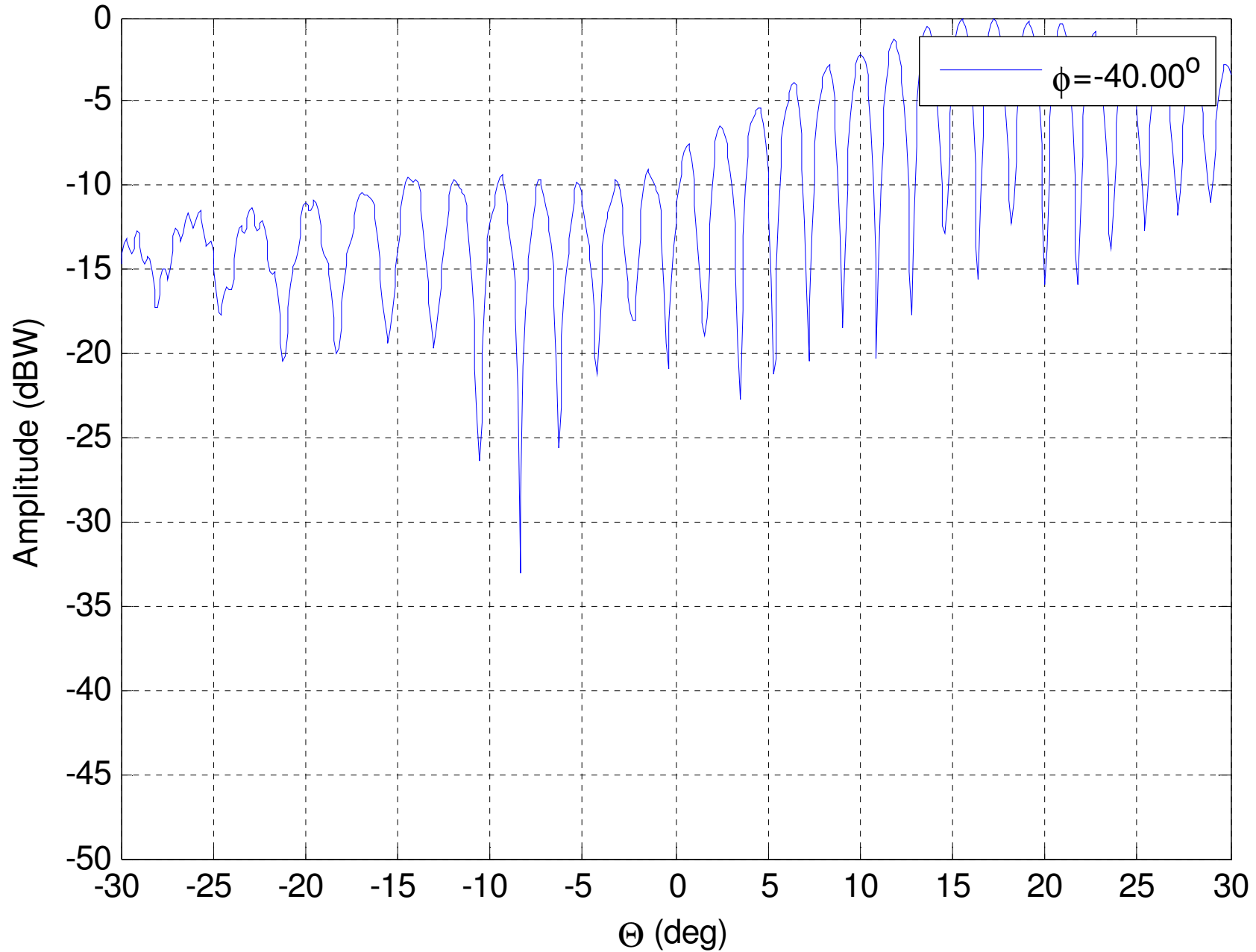
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp--50.cut, Peak: -7.18 dBW, Date: 16-Dec-2011



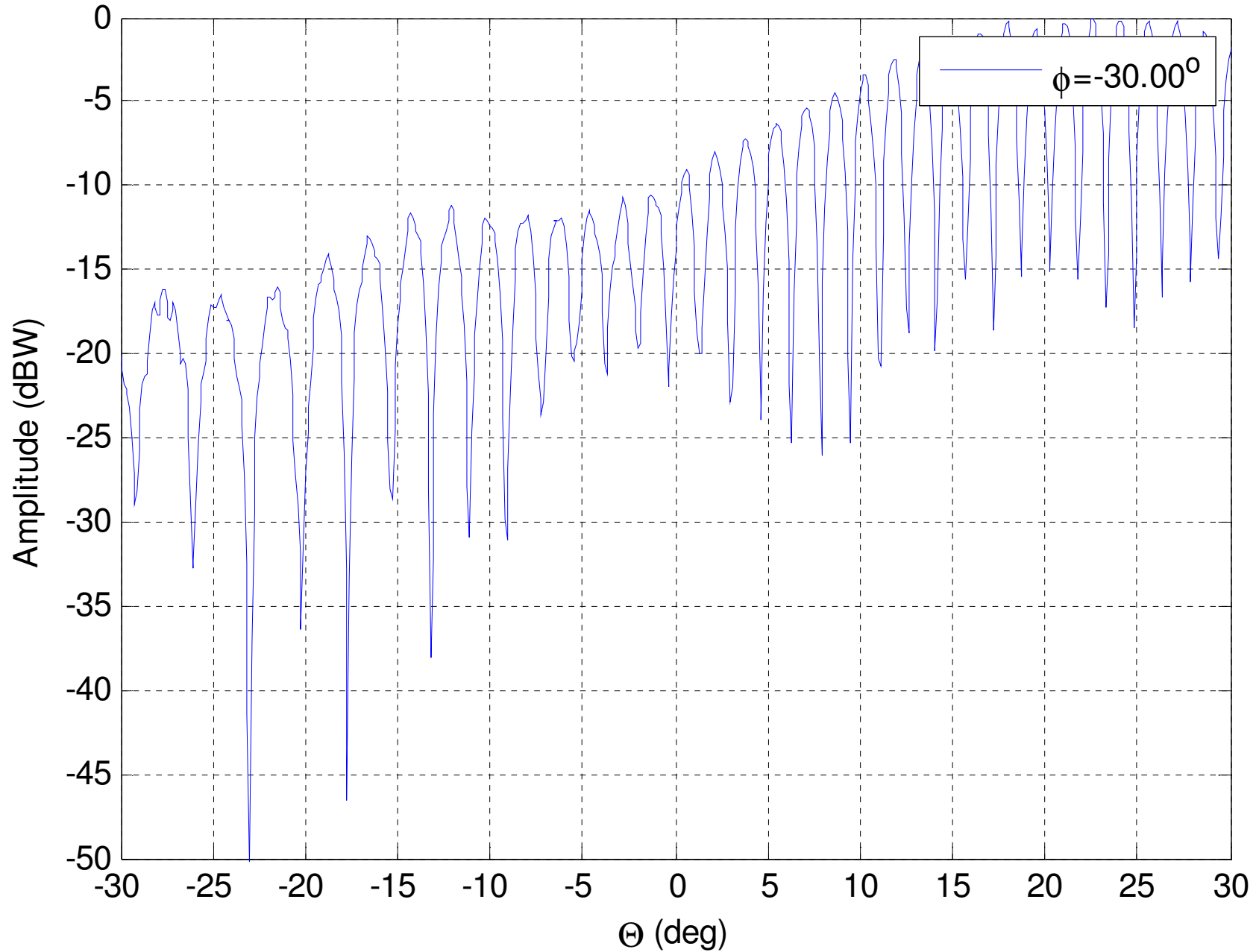
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp--40.cut, Peak: -5.97 dBW, Date: 16-Dec-2011



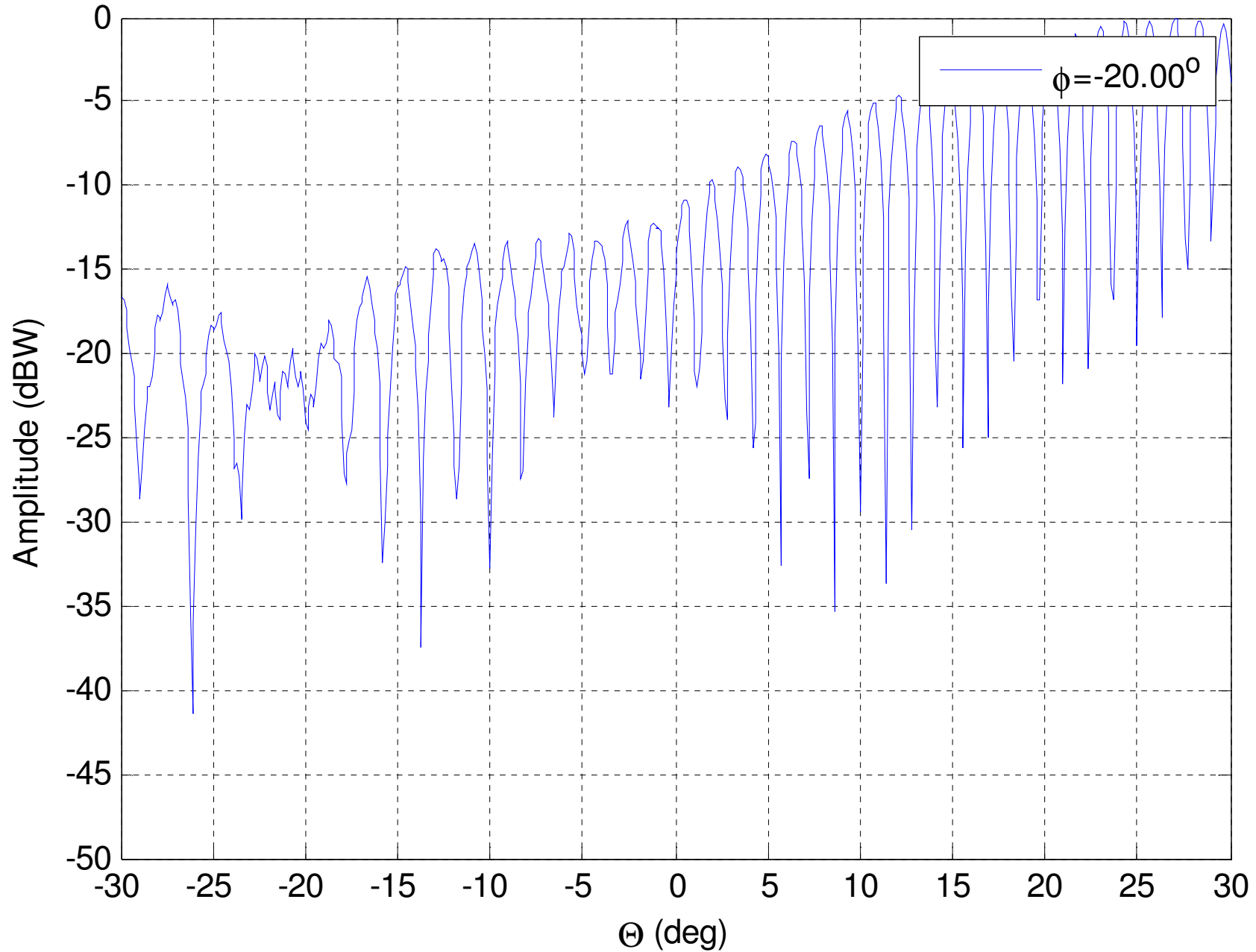
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp--30.cut, Peak: -4.52 dBW, Date: 16-Dec-2011



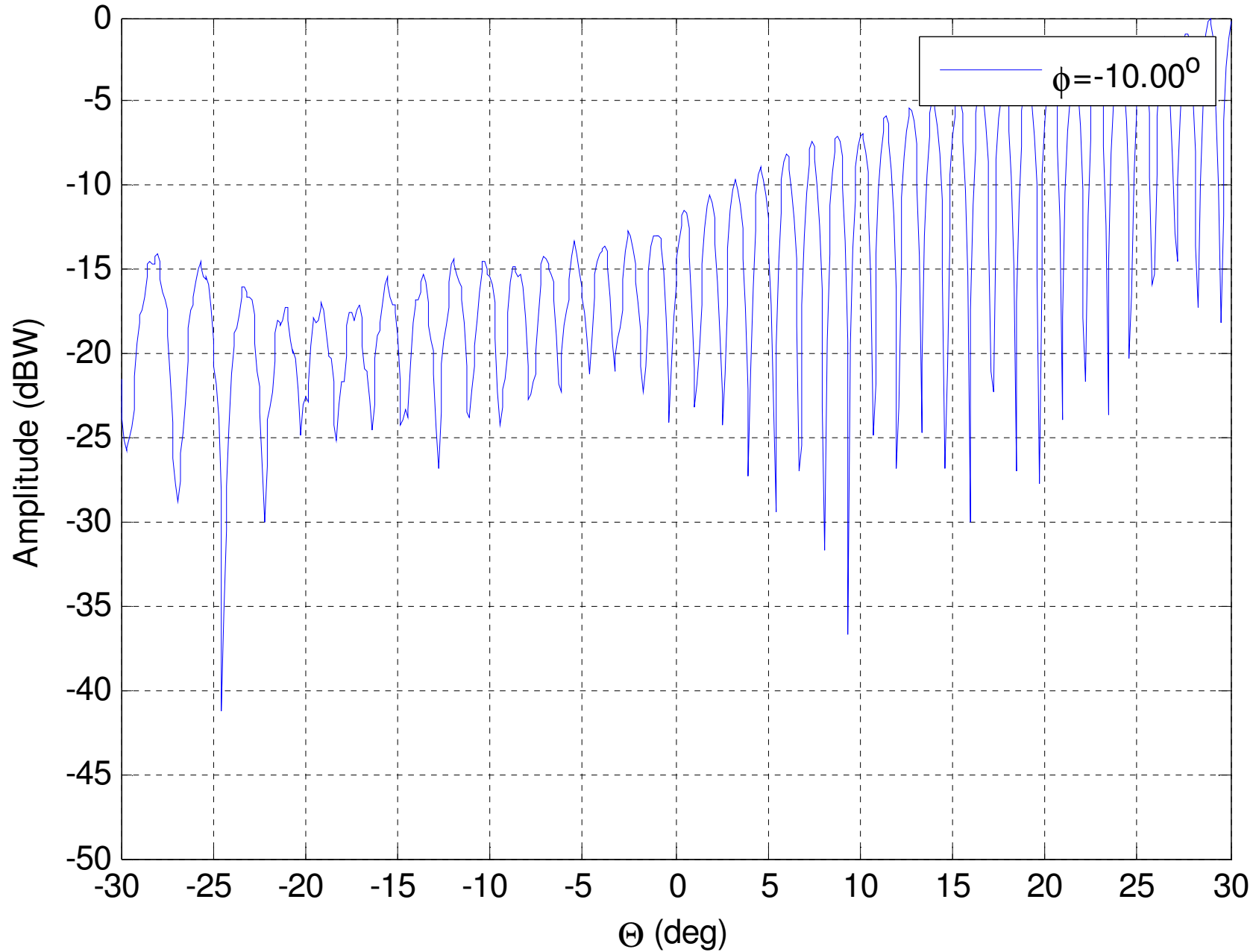
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp--20.cut, Peak: -2.96 dBW, Date: 16-Dec-2011



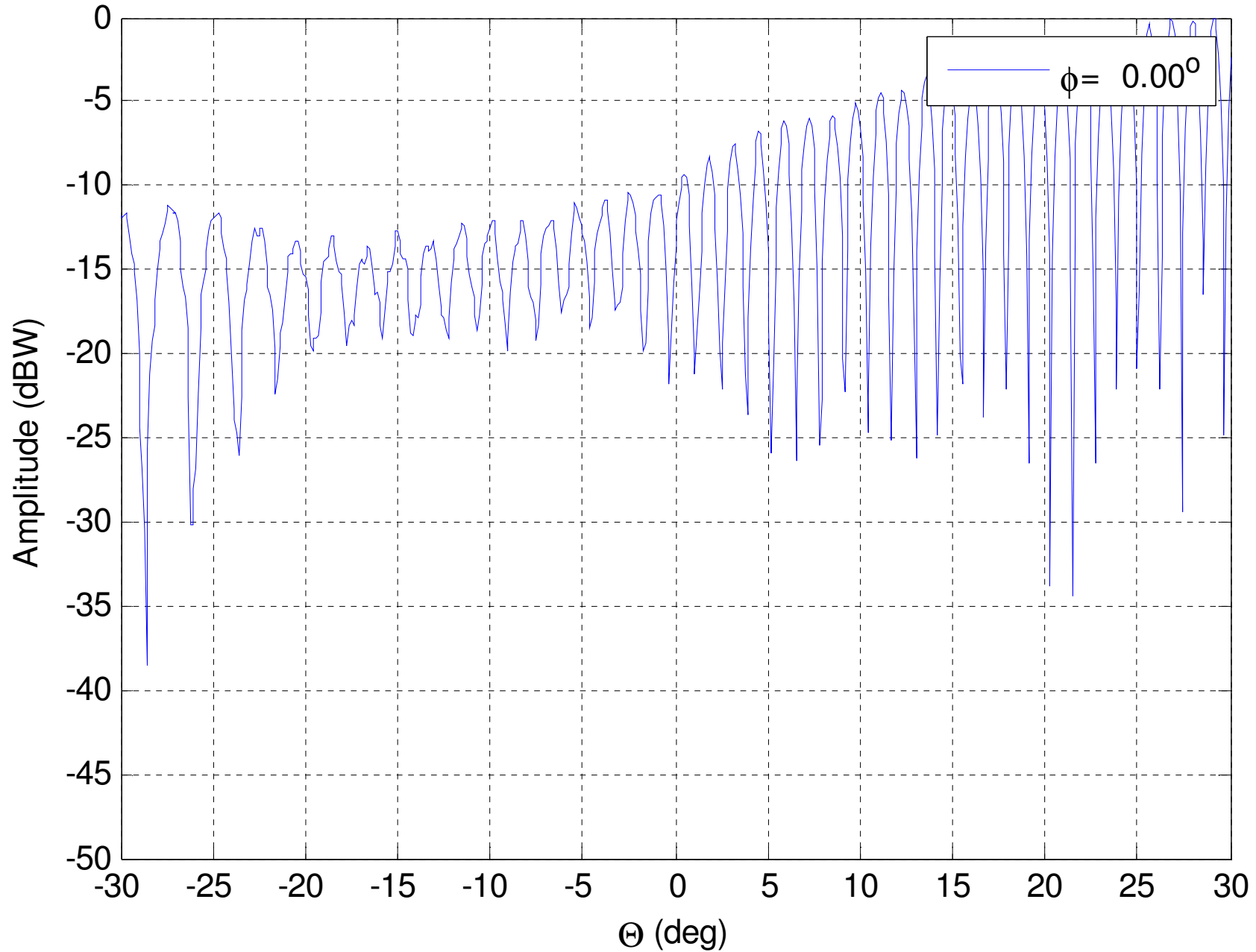
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp--10.cut, Peak: -2.30 dBW, Date: 16-Dec-2011



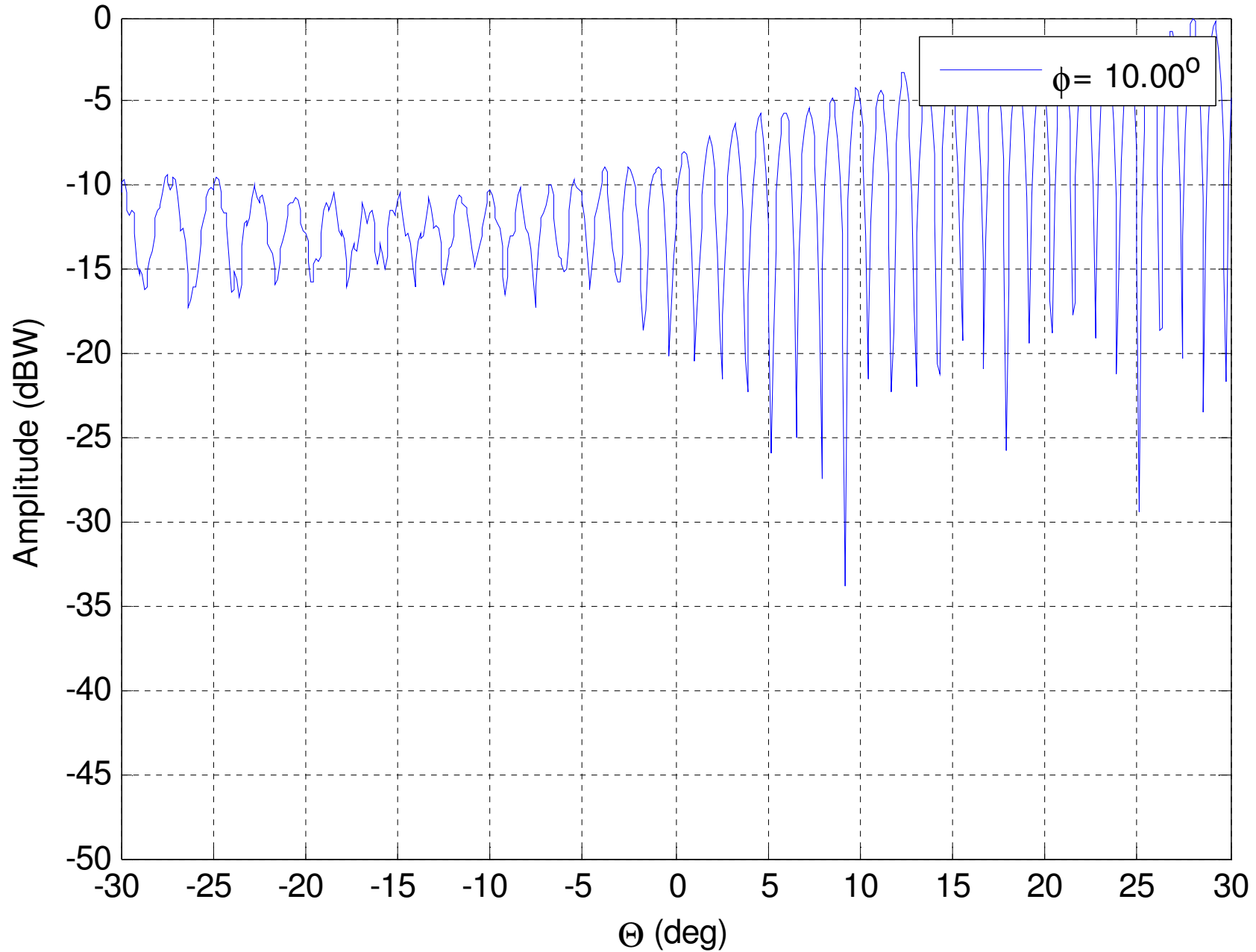
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp-0.cut, Peak: -4.58 dBW, Date: 16-Dec-2011



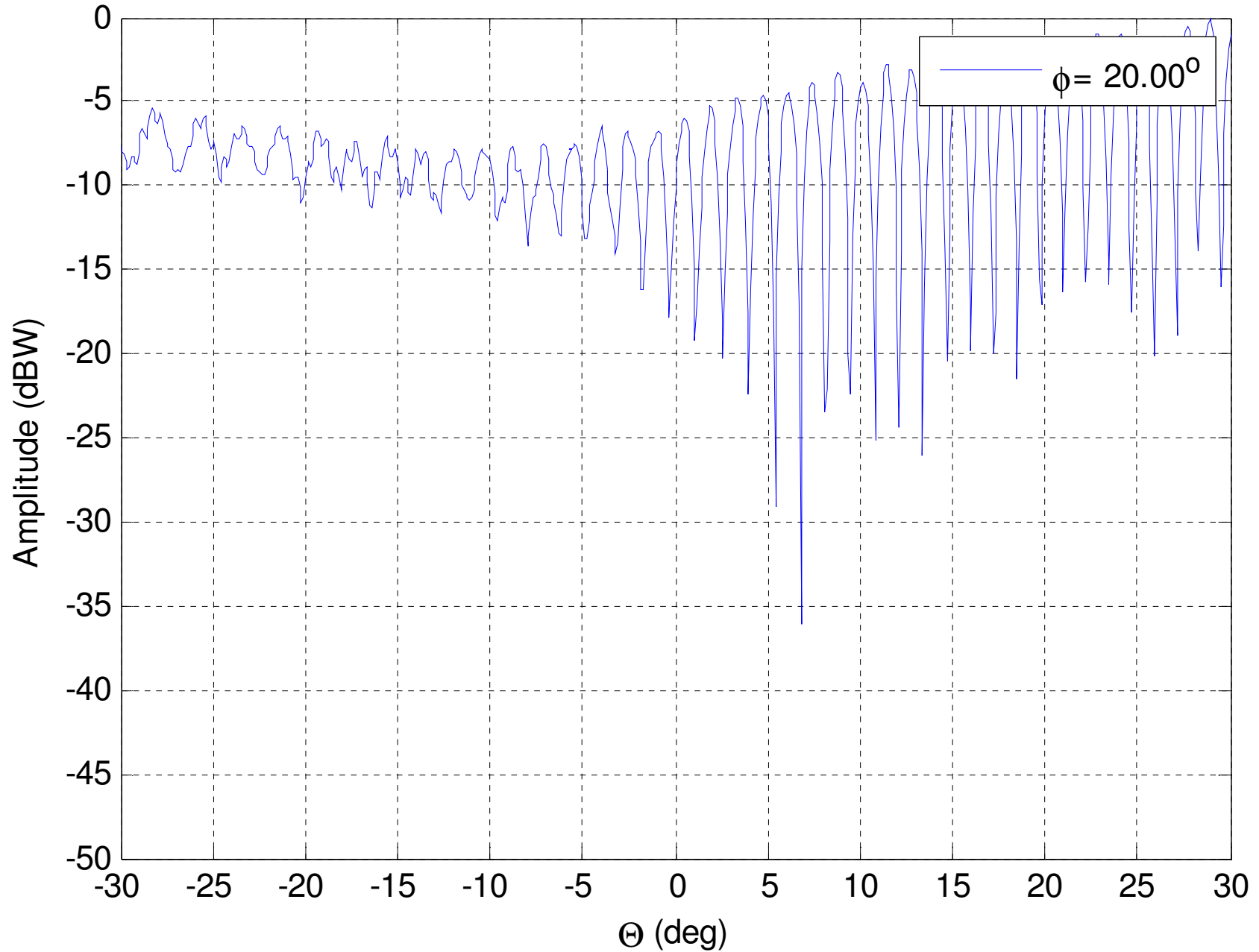
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp-10.cut, Peak: -6.05 dBW, Date: 16-Dec-2011



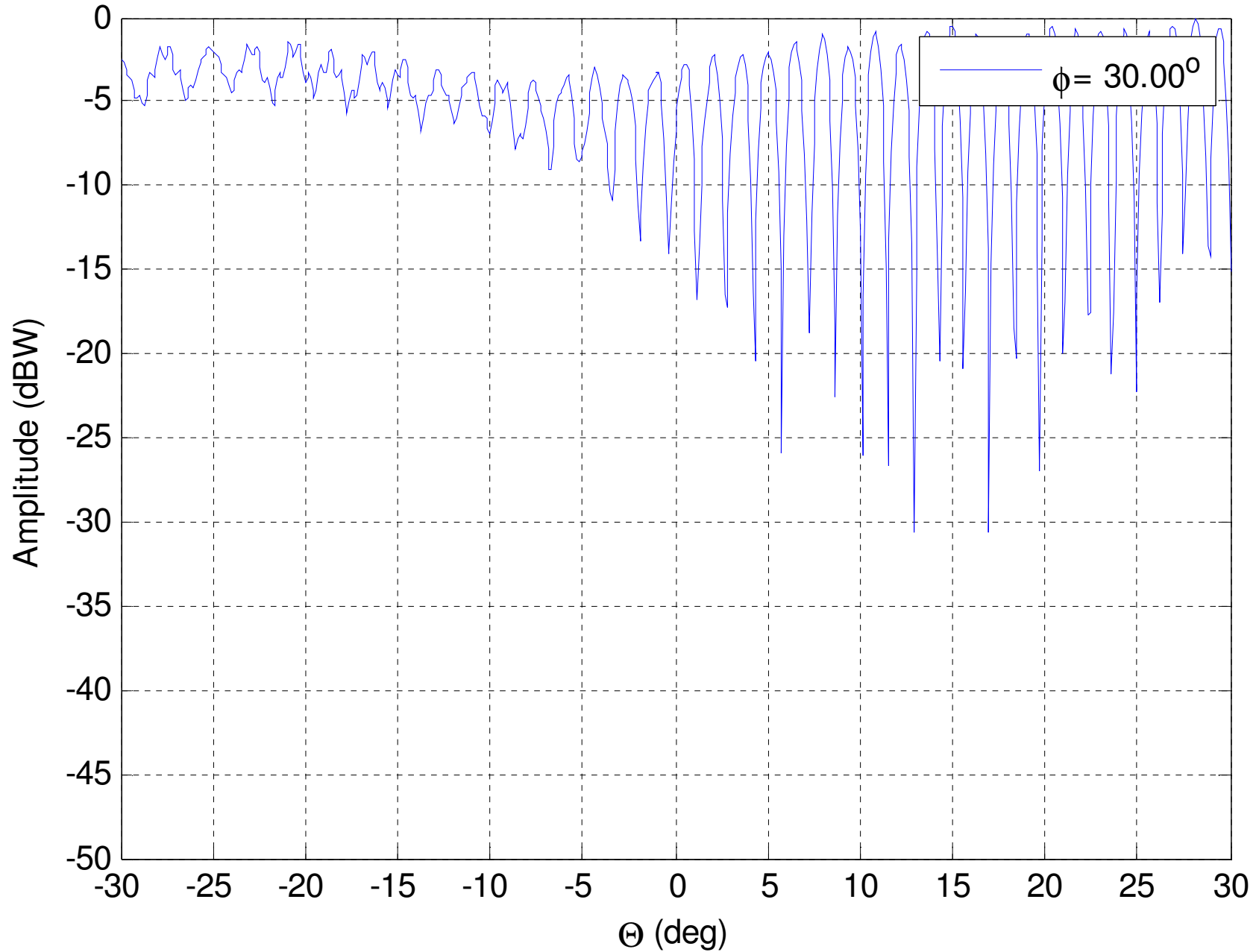
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp-20.cut, Peak: -8.04 dBW, Date: 16-Dec-2011



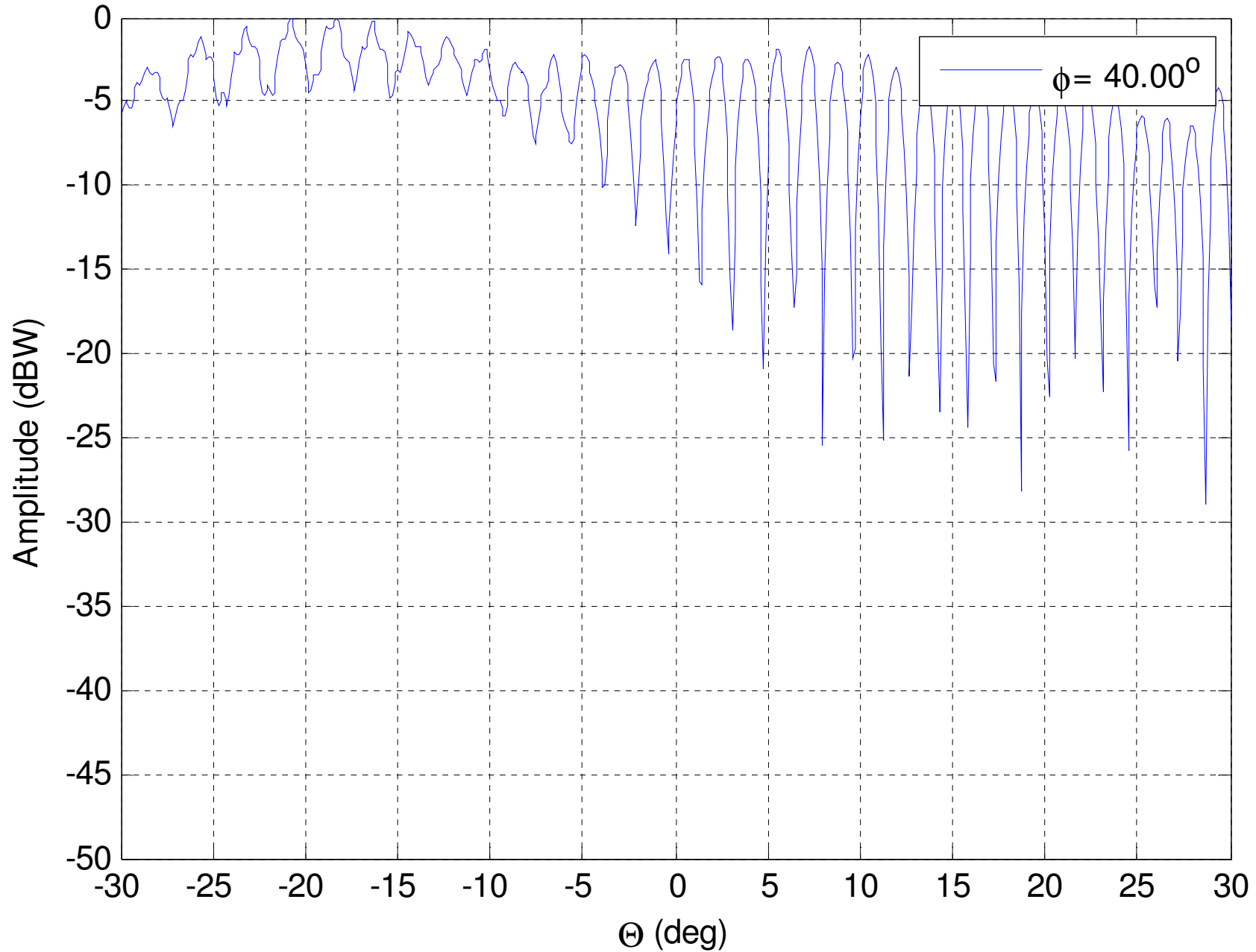
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp-30.cut, Peak: -11.39 dBW, Date: 16-Dec-2011



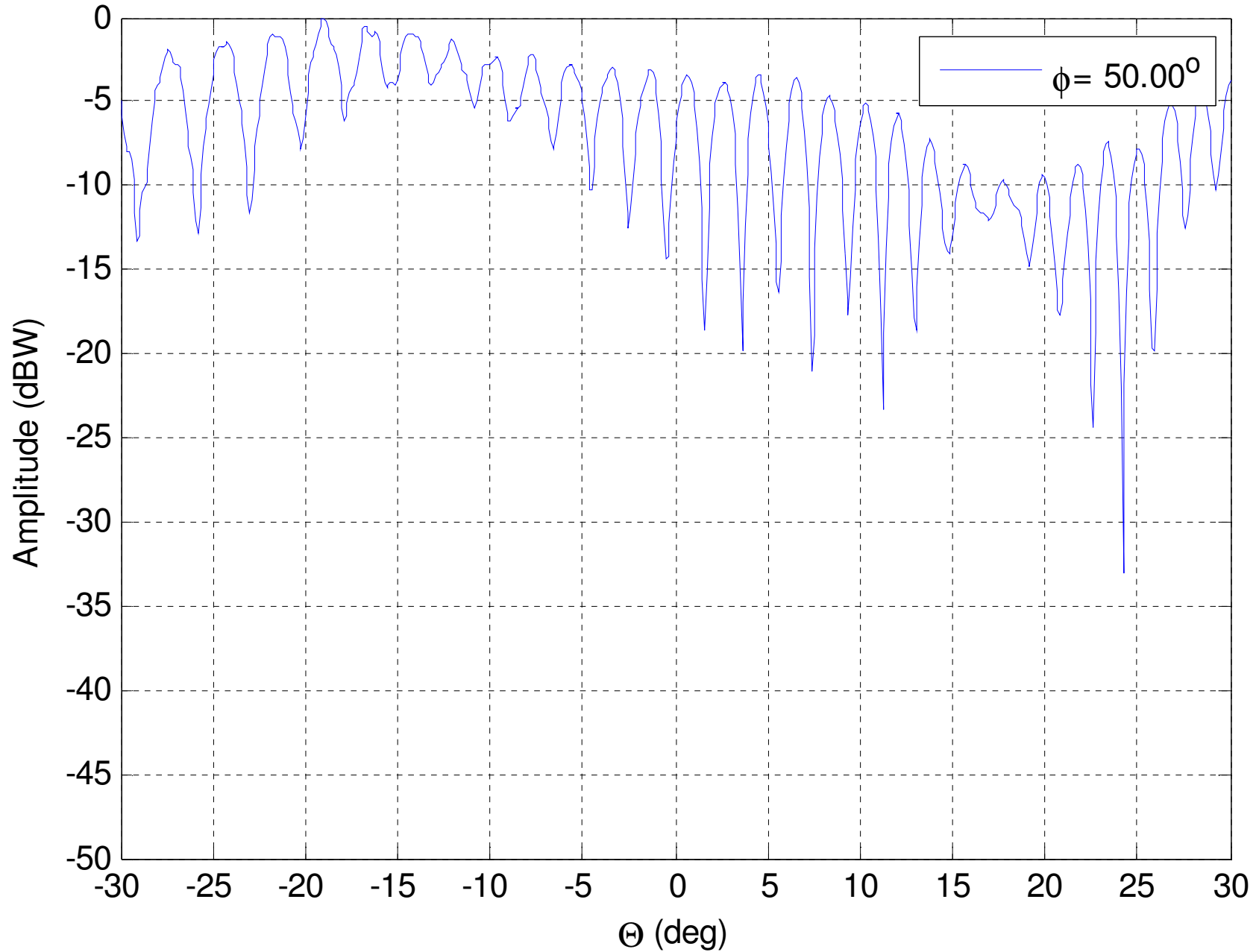
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp-40.cut, Peak: -11.84 dBW, Date: 16-Dec-2011



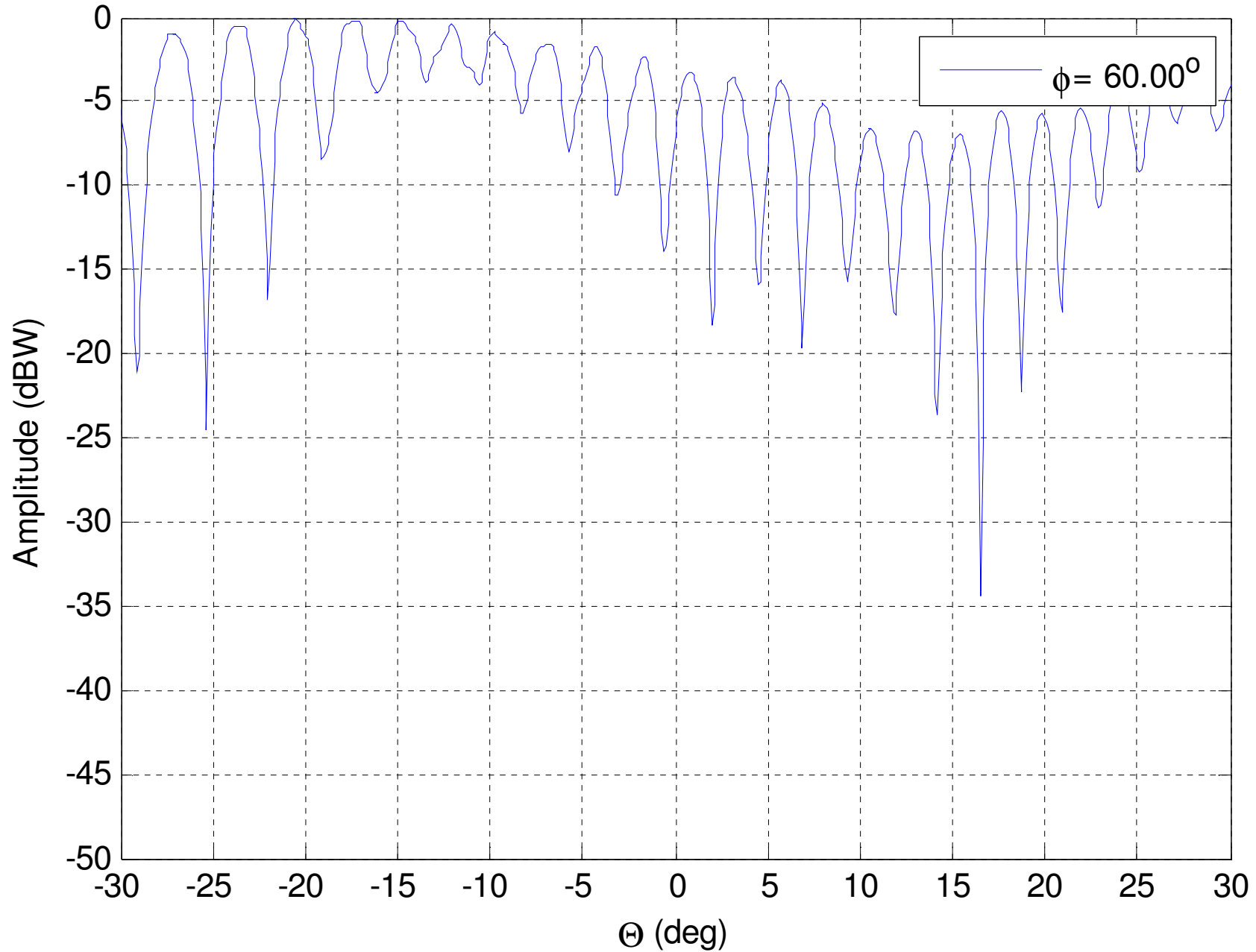
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp-50.cut, Peak: -10.99 dBW, Date: 16-Dec-2011



Normalized pattern cuts - farfield

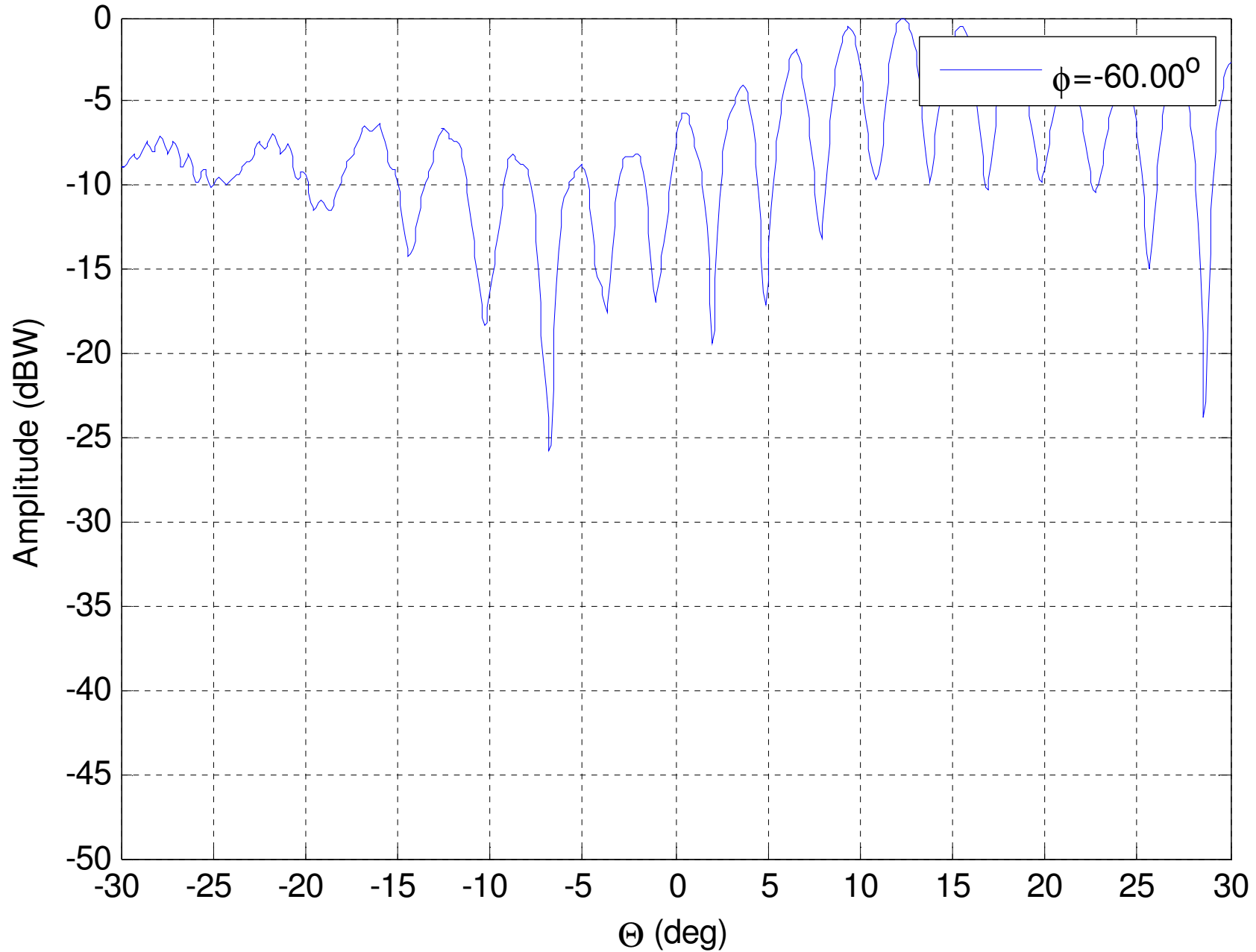
Input file: tx-17.3-lhcp-60.cut, Peak: -11.34 dBW, Date: 16-Dec-2011



RHCP at 17.5 GHz

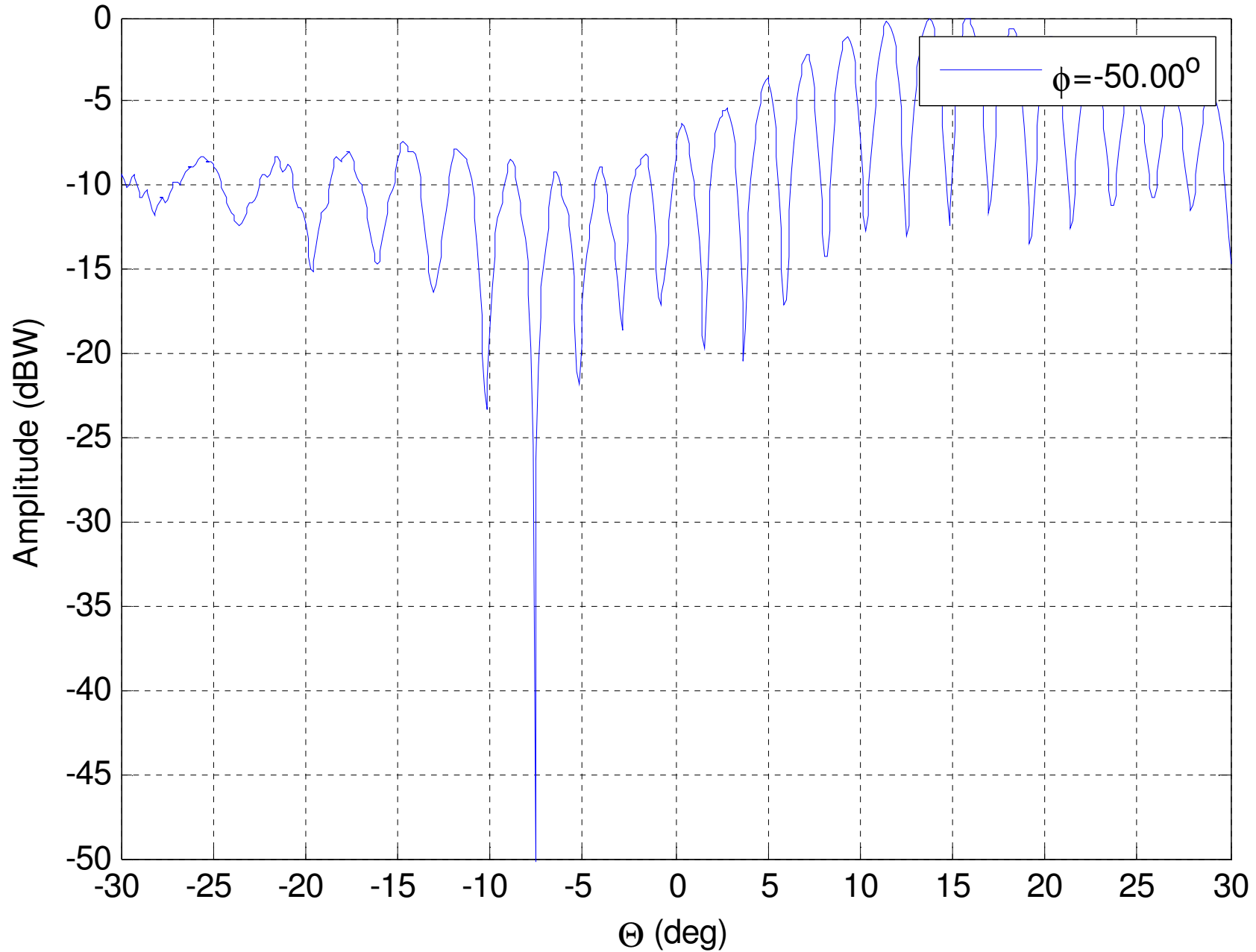
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--60.cut, Peak: -7.52 dBW, Date: 16-Dec-2011



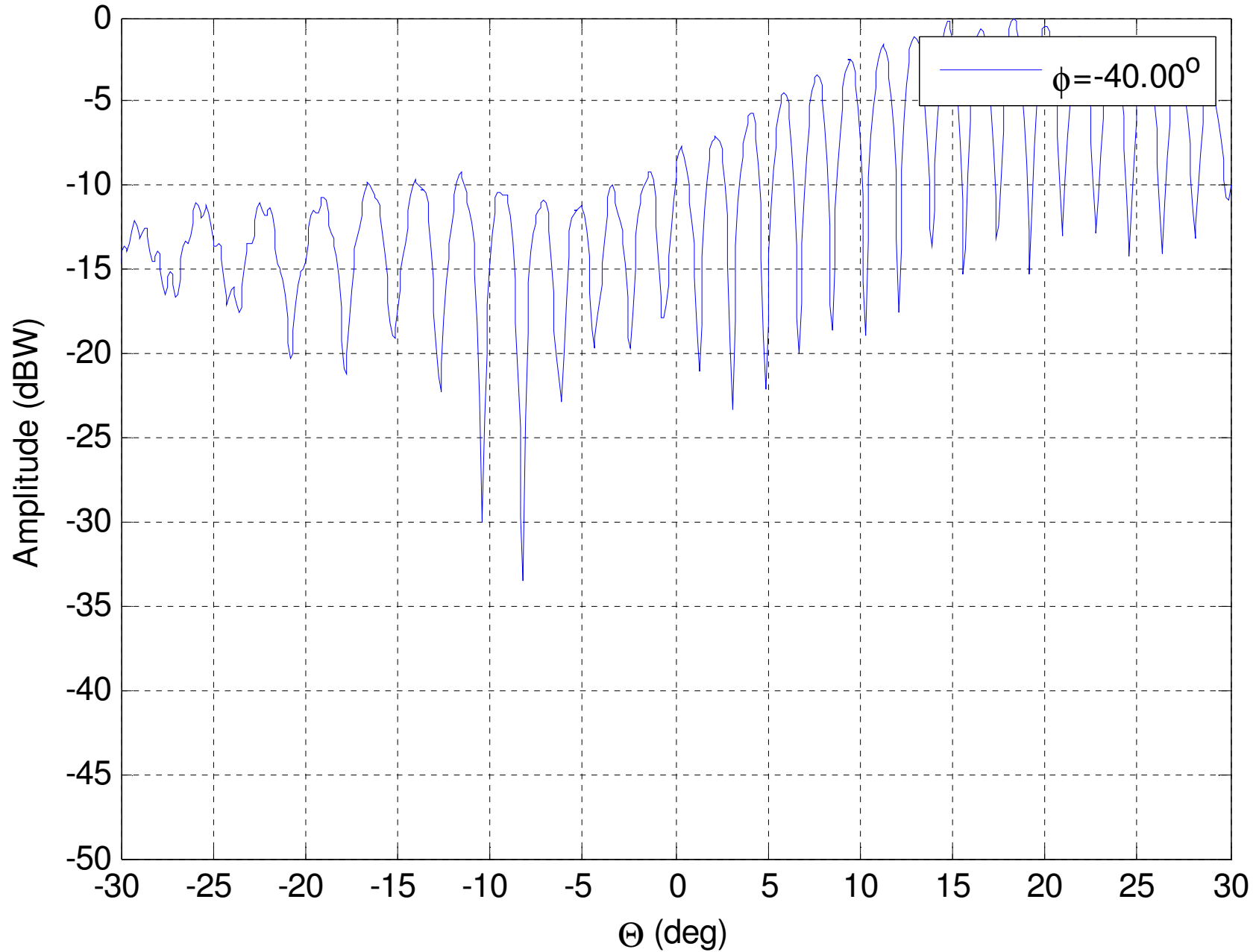
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--50.cut, Peak: -6.86 dBW, Date: 16-Dec-2011



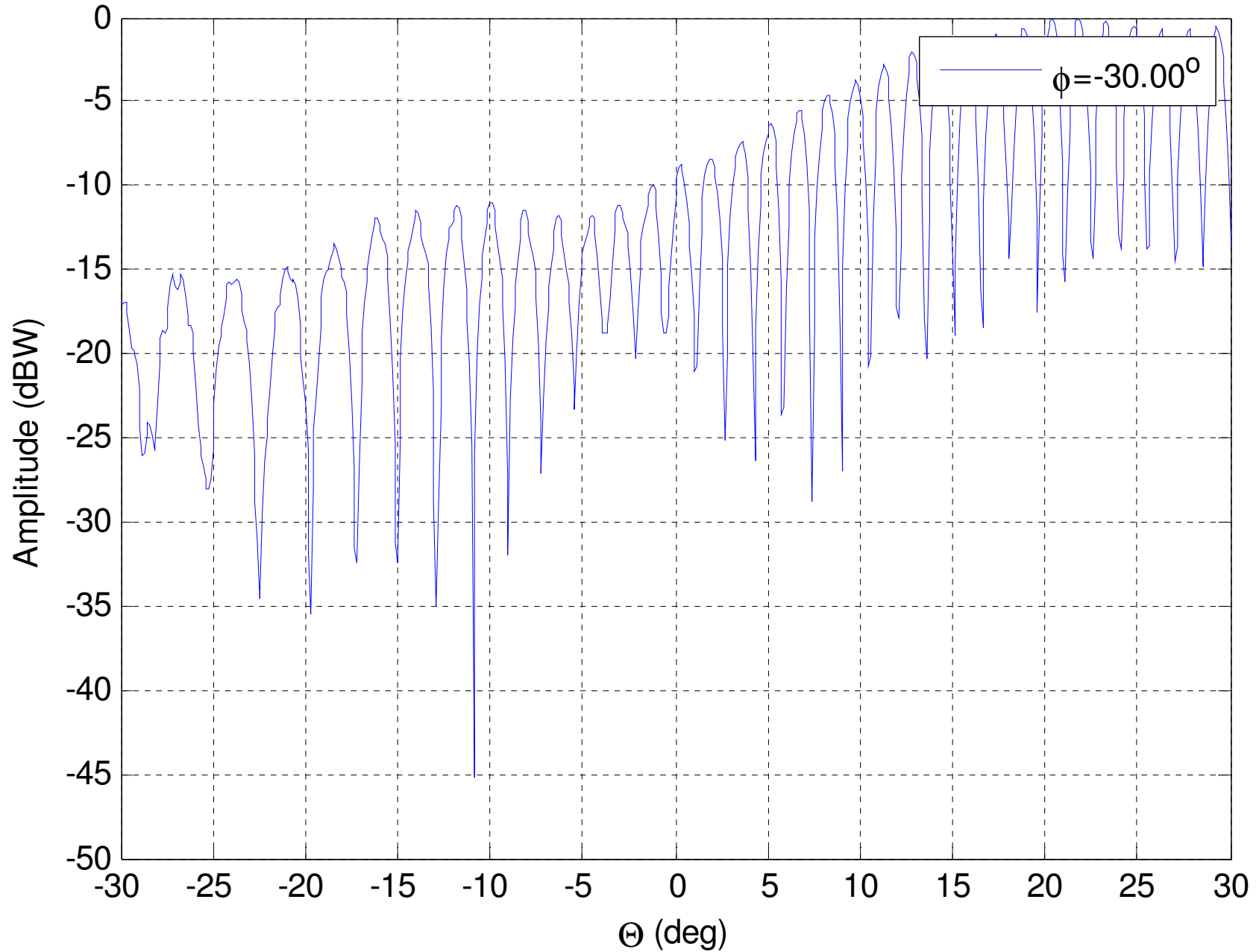
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--40.cut, Peak: -5.56 dBW, Date: 16-Dec-2011



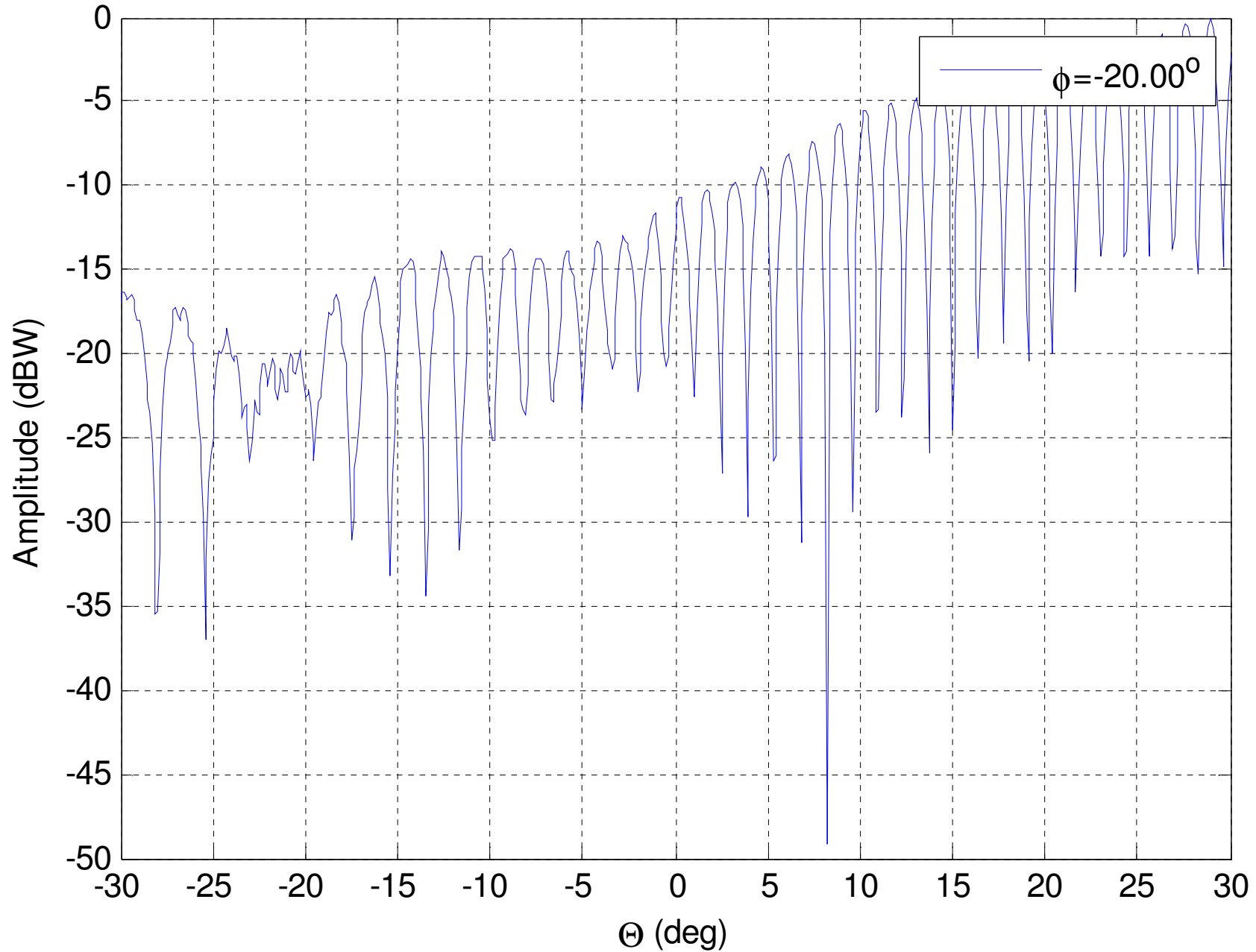
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--30.cut, Peak: -4.47 dBW, Date: 16-Dec-2011



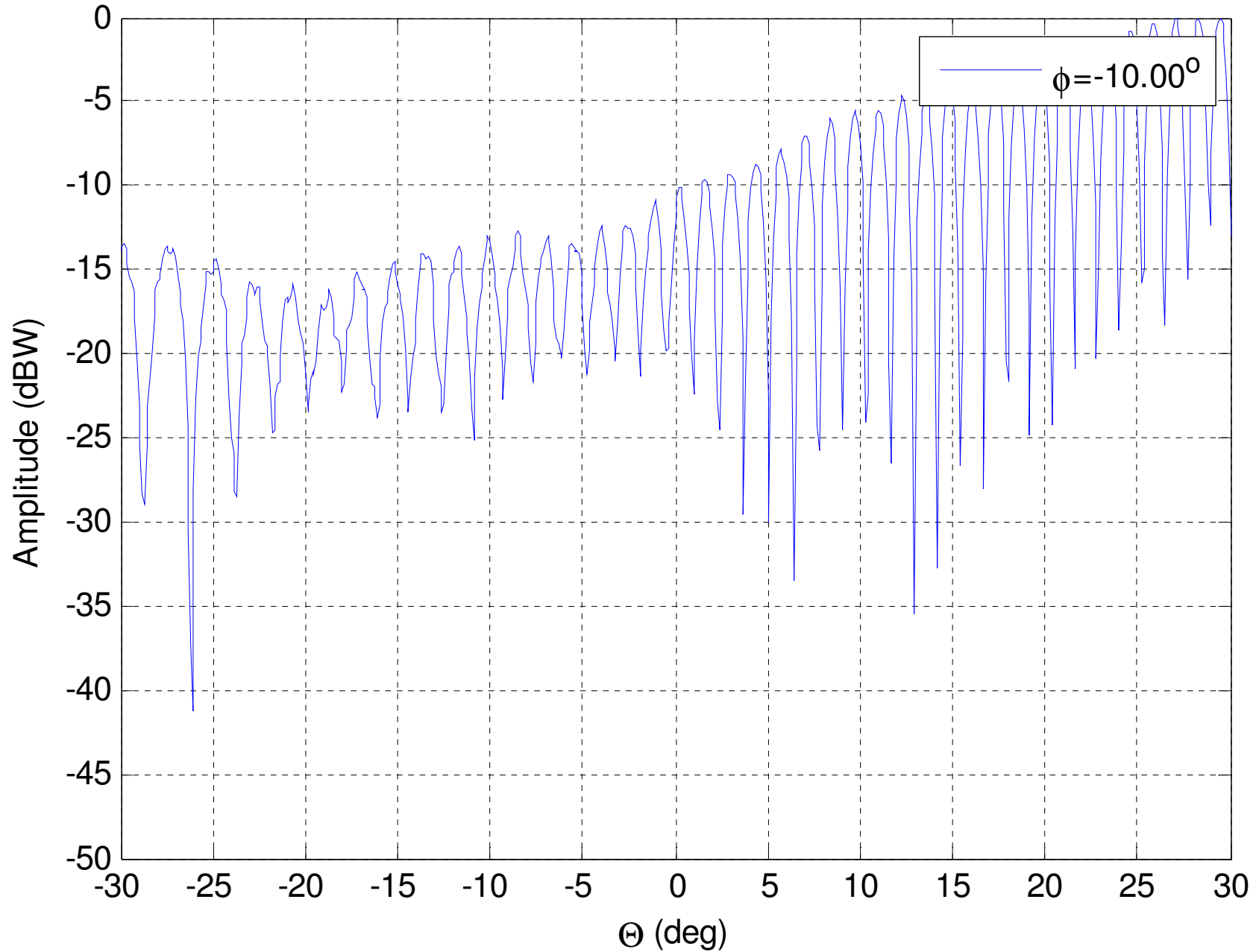
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--20.cut, Peak: -2.59 dBW, Date: 16-Dec-2011



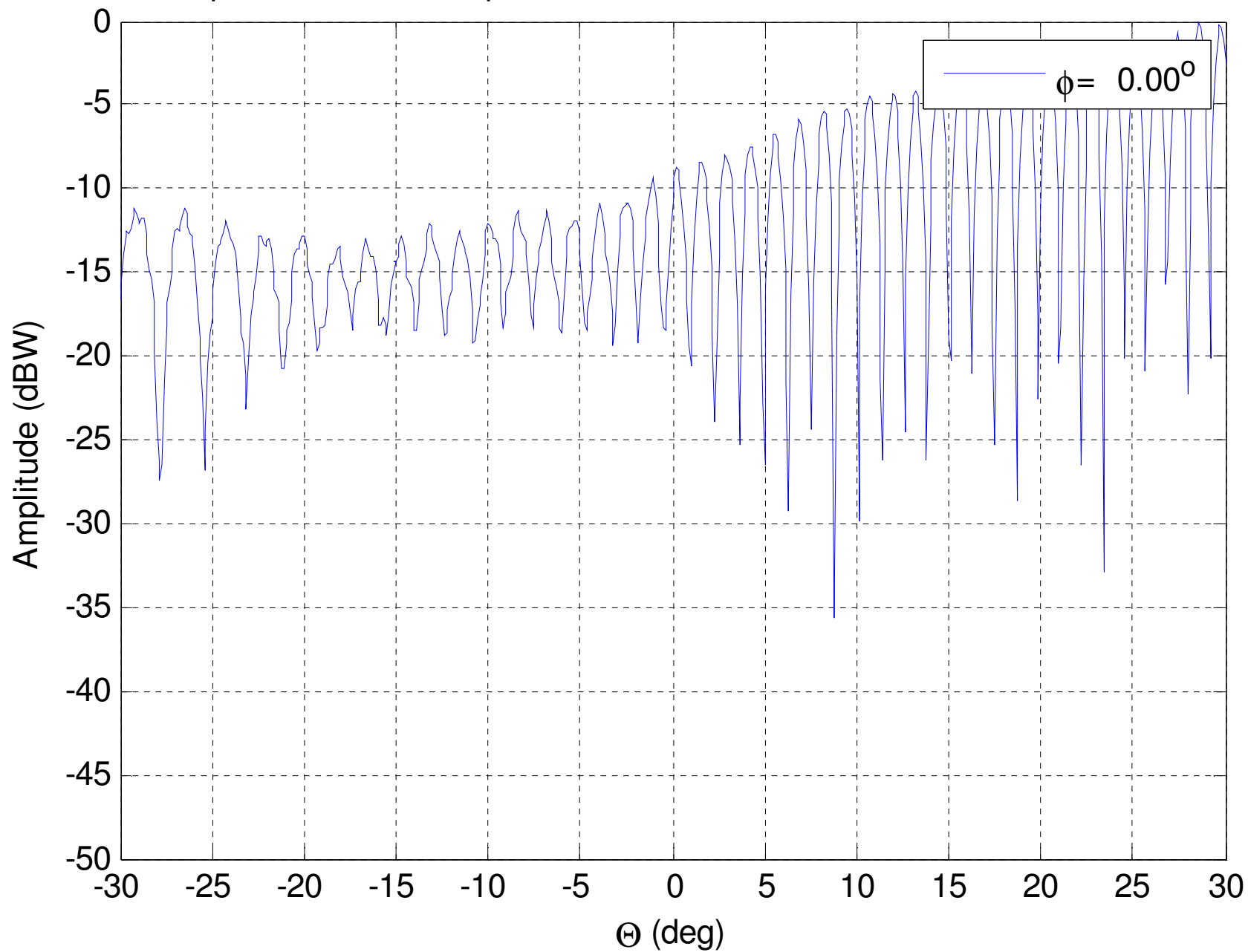
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--10.cut, Peak: -3.28 dBW, Date: 16-Dec-2011



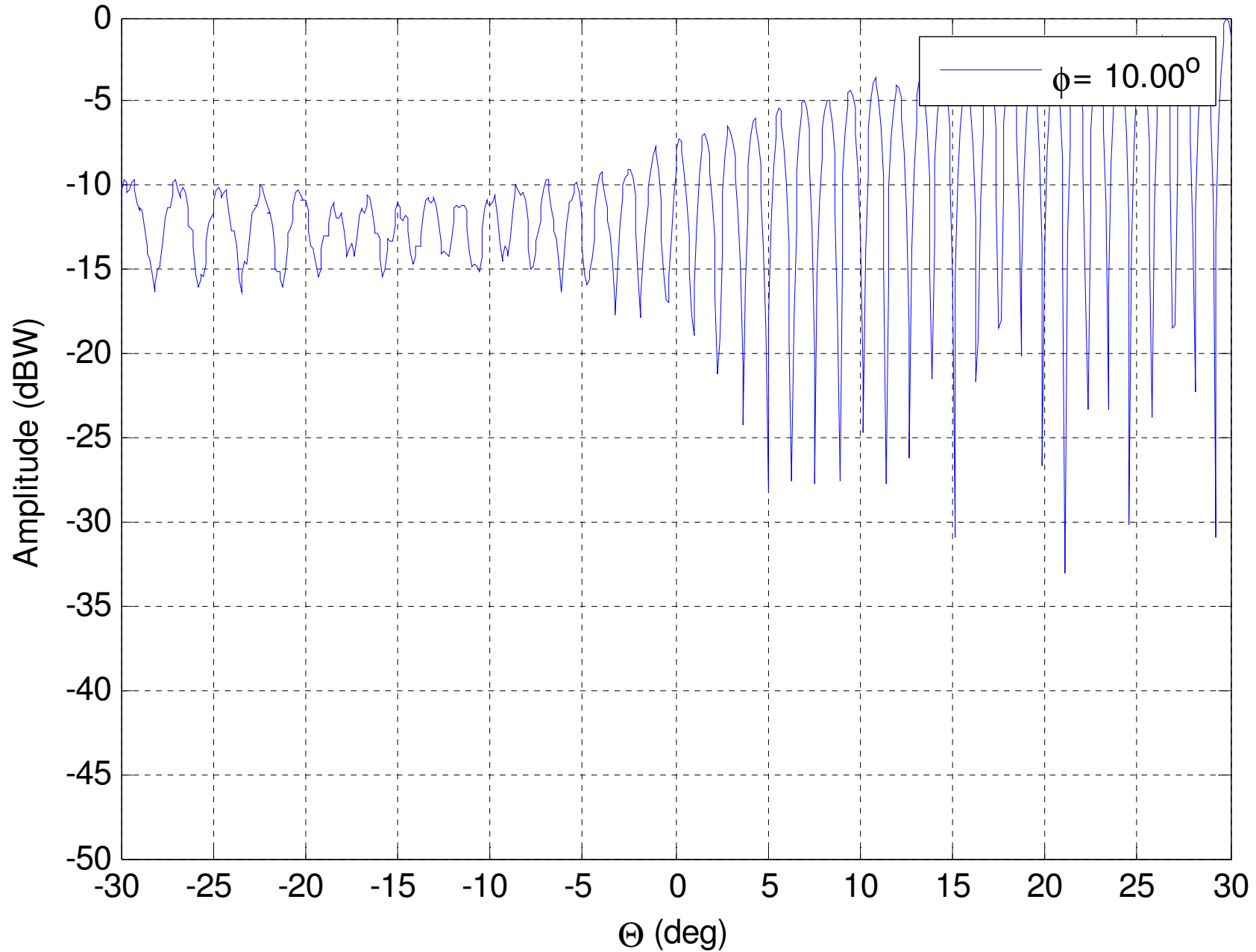
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-0.cut, Peak: -4.60 dBW, Date: 16-Dec-2011



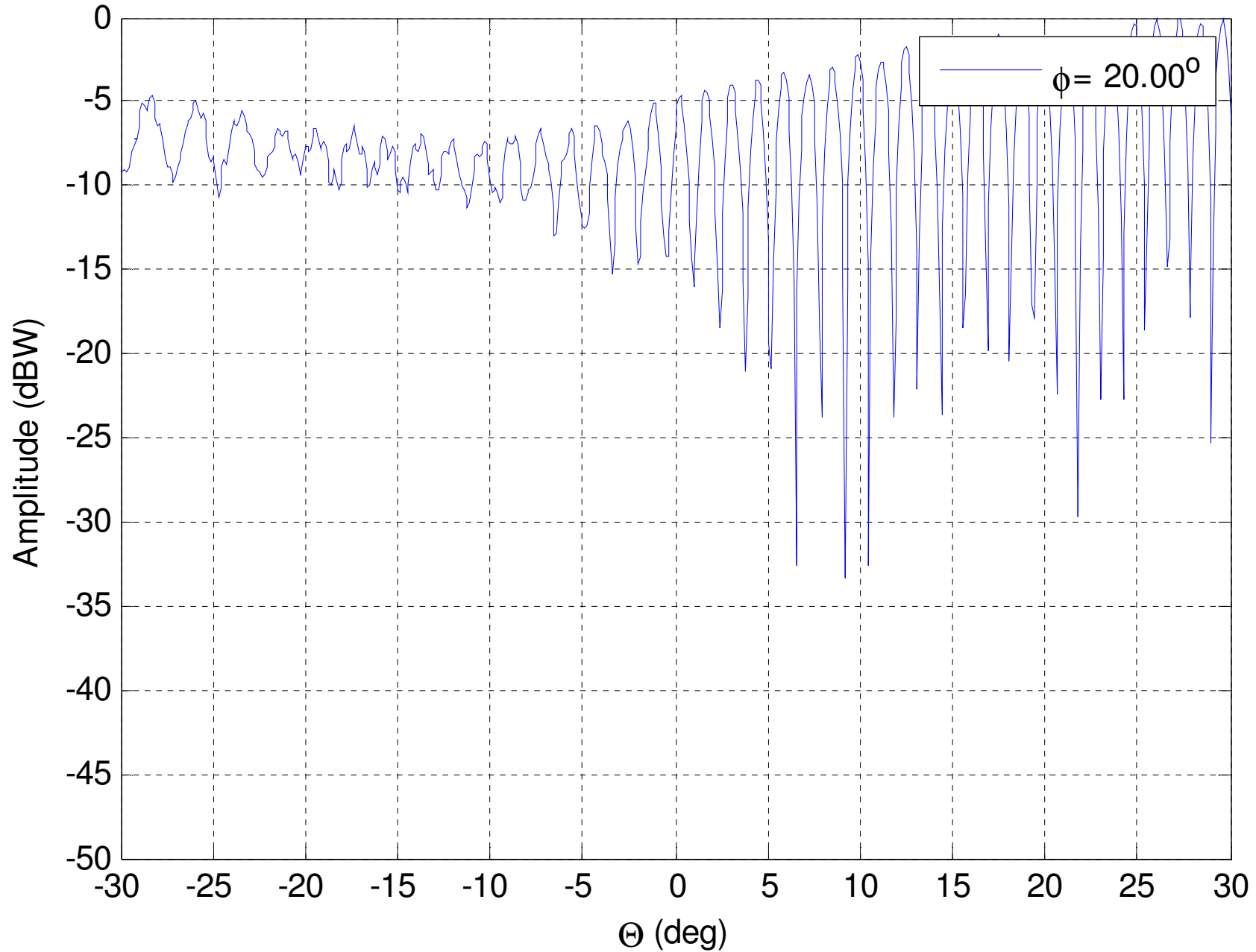
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-10.cut, Peak: -6.11 dBW, Date: 16-Dec-2011



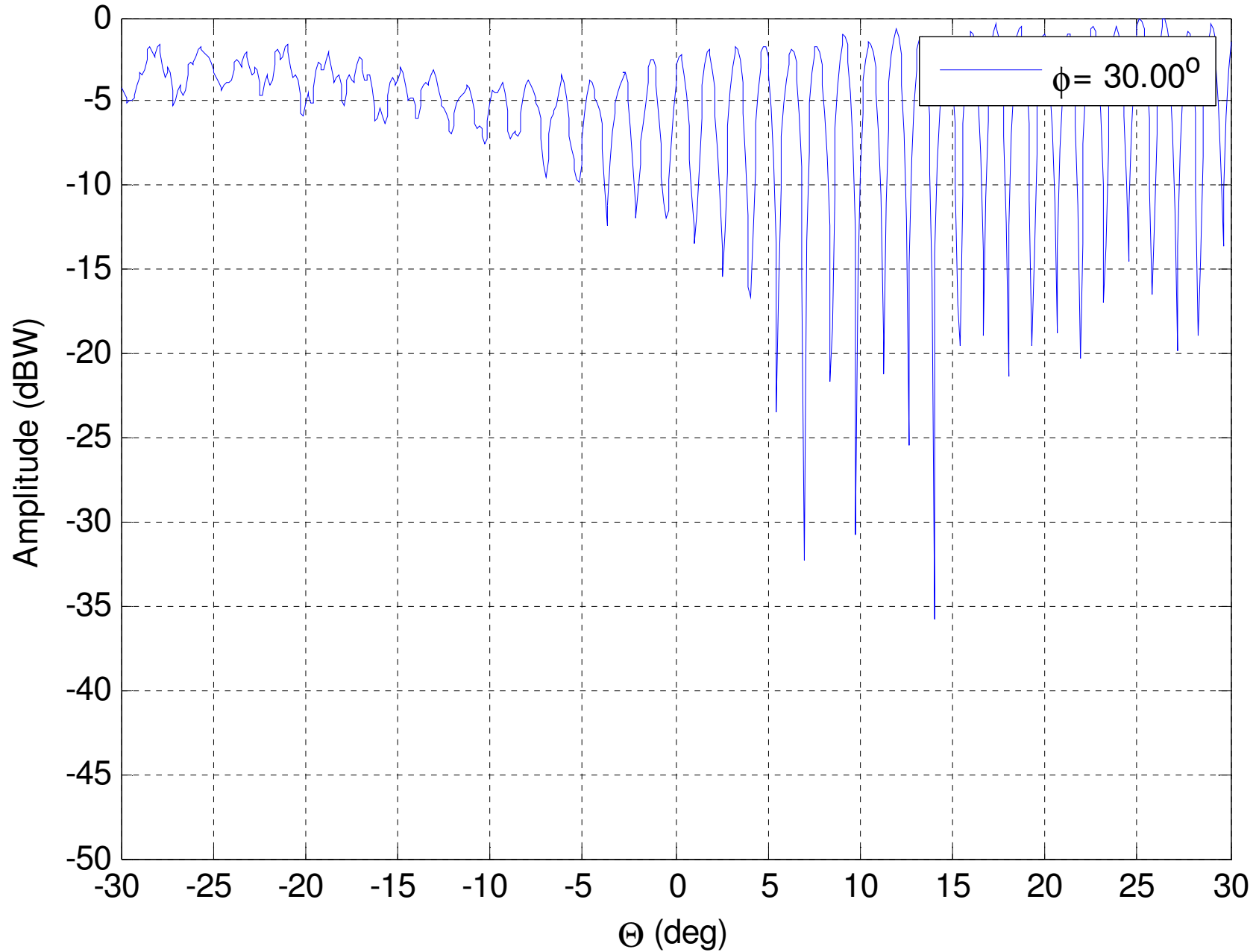
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-20.cut, Peak: -8.71 dBW, Date: 16-Dec-2011



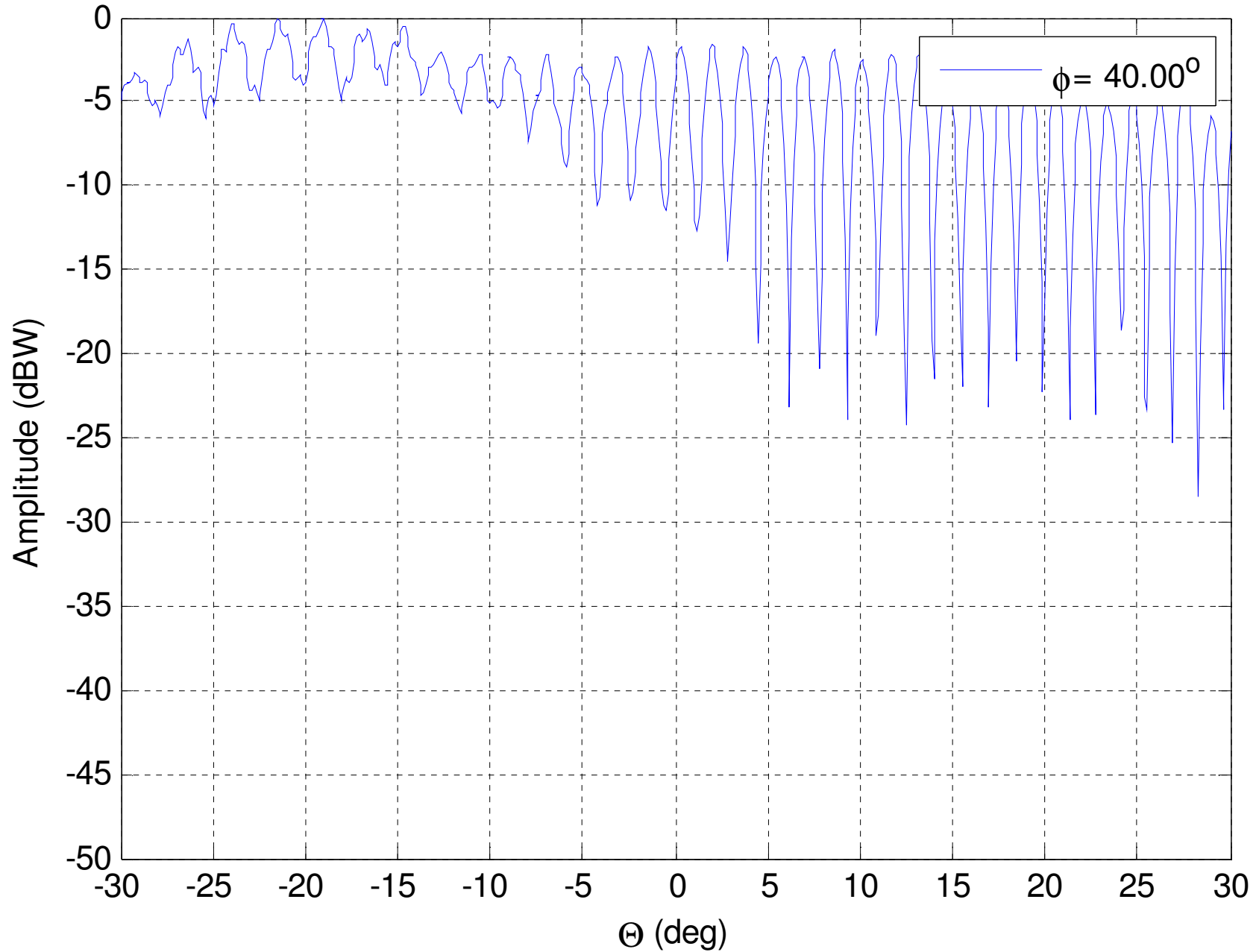
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-30.cut, Peak: -11.21 dBW, Date: 16-Dec-2011



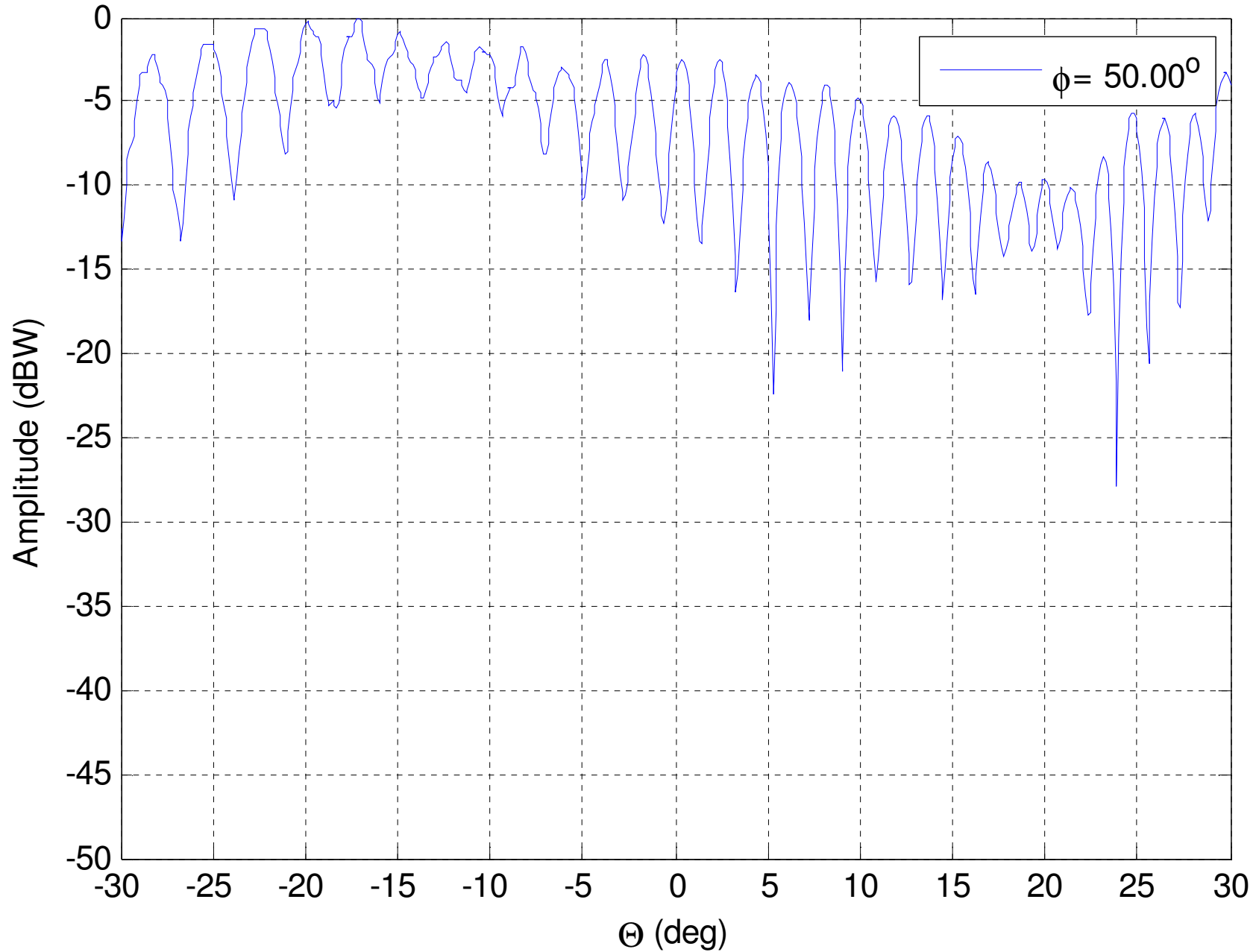
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-40.cut, Peak: -11.70 dBW, Date: 16-Dec-2011



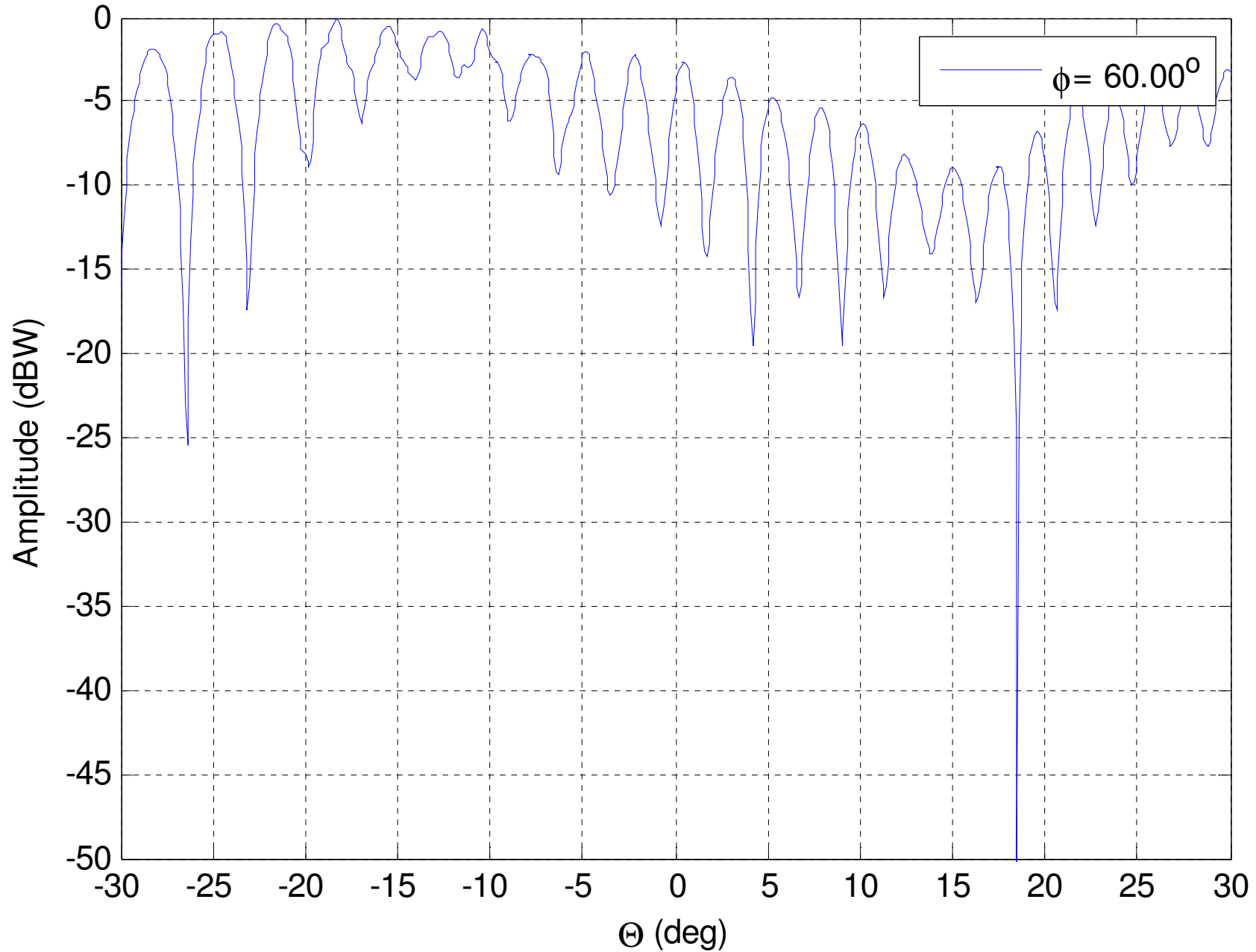
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-50.cut, Peak: -11.02 dBW, Date: 16-Dec-2011



Normalized pattern cuts - farfield

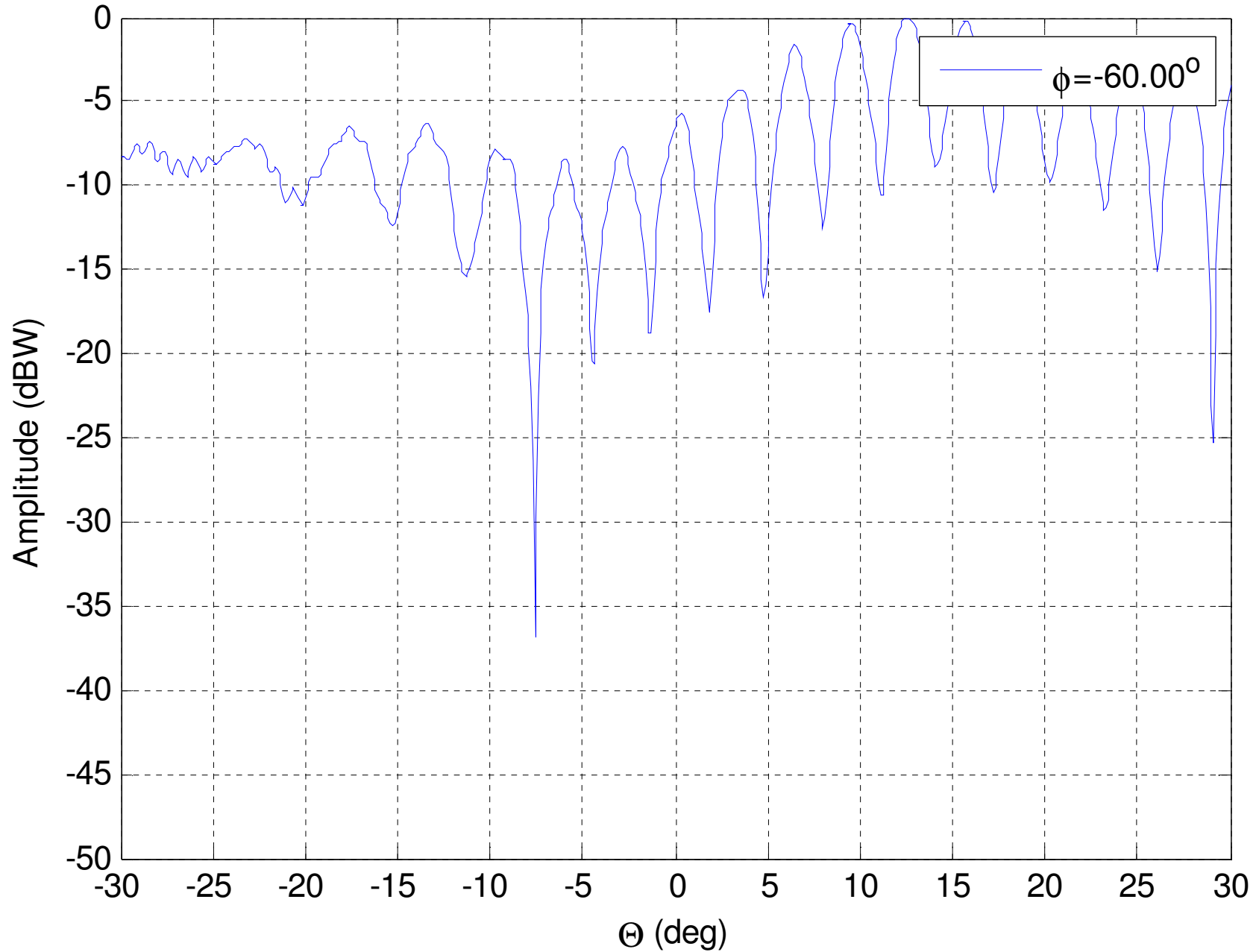
Input file: tx-17.5-rhcp-60.cut, Peak: -10.83 dBW, Date: 16-Dec-2011



LHCP at 17.5 GHz

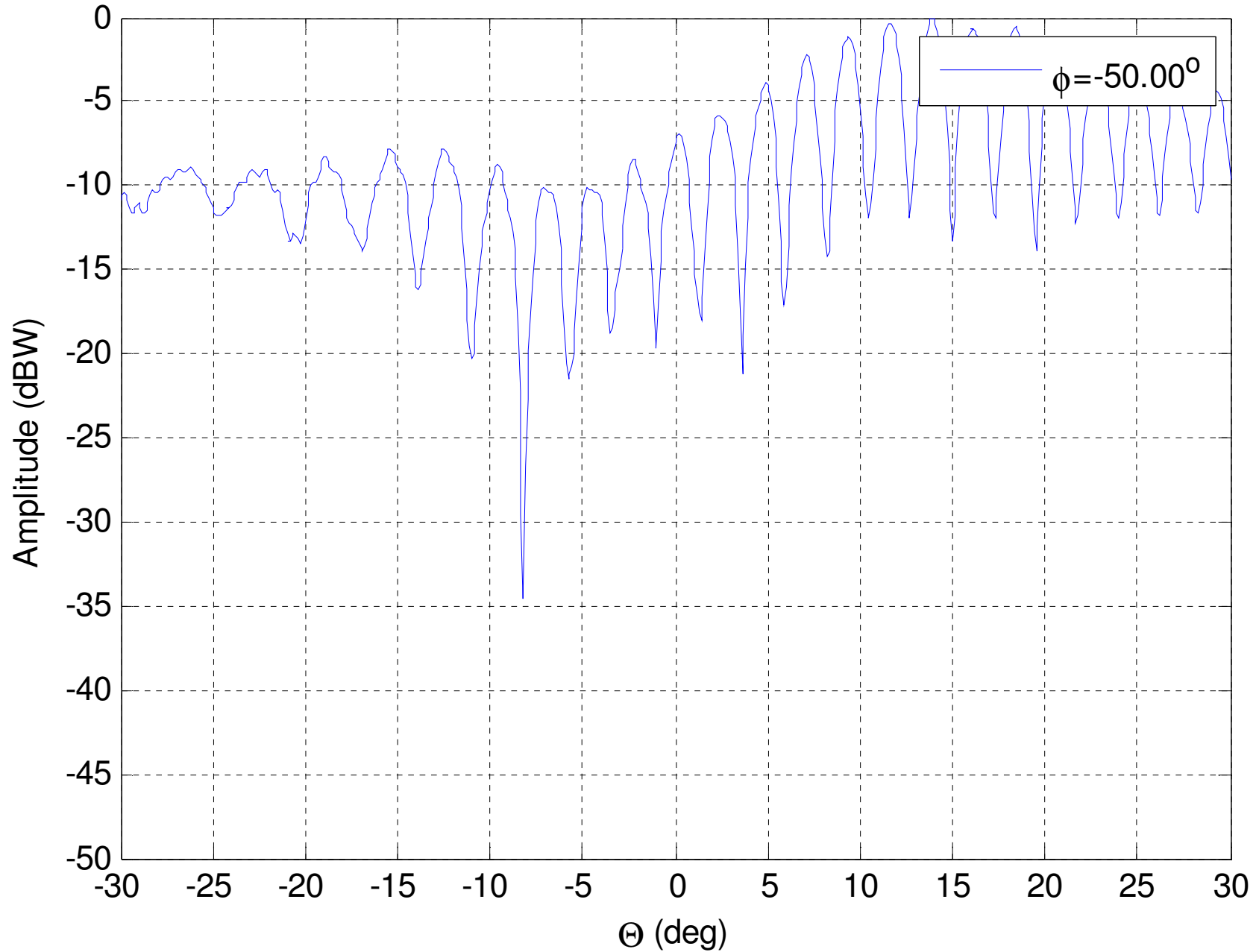
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--60.cut, Peak: -7.72 dBW, Date: 16-Dec-2011



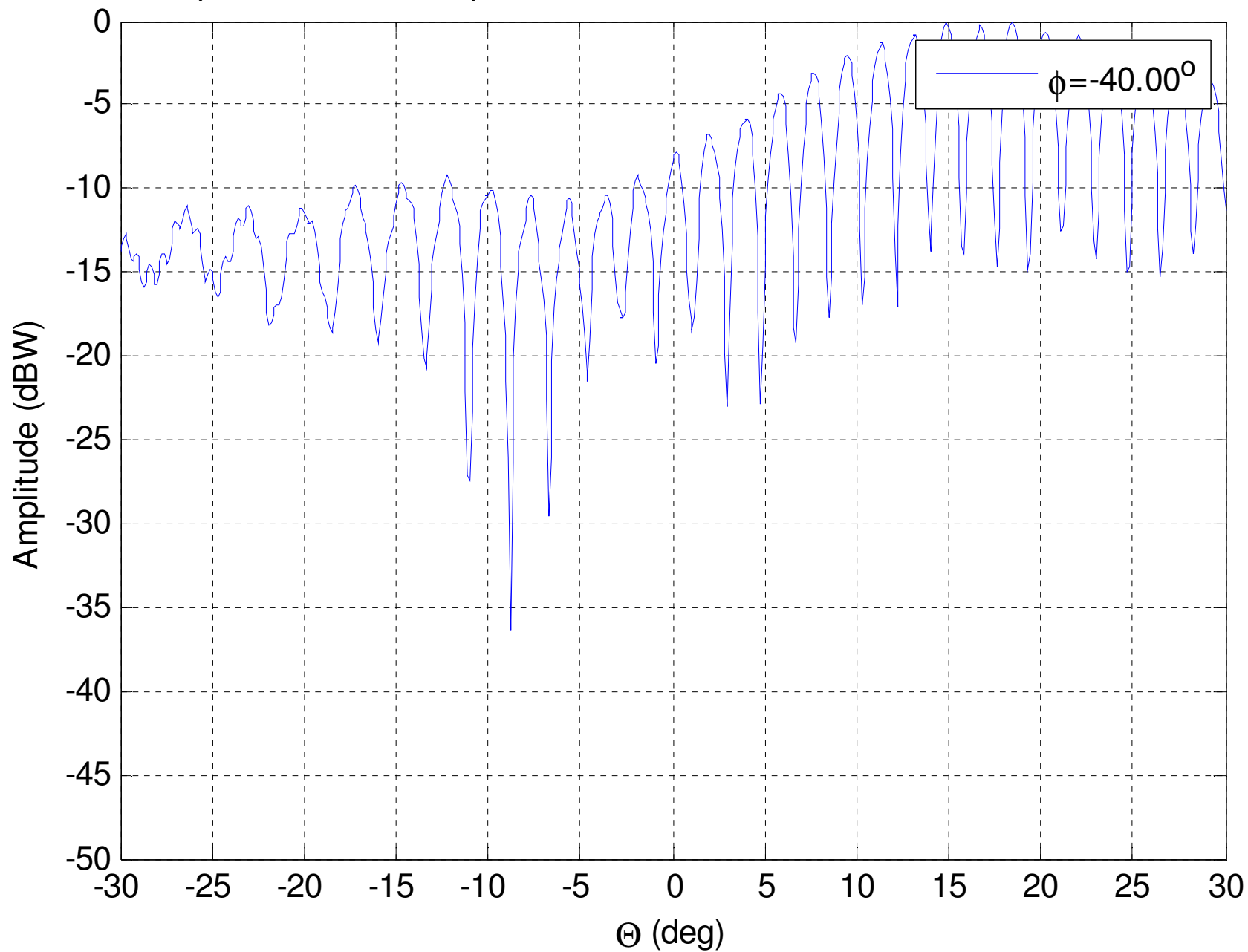
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--50.cut, Peak: -6.65 dBW, Date: 16-Dec-2011



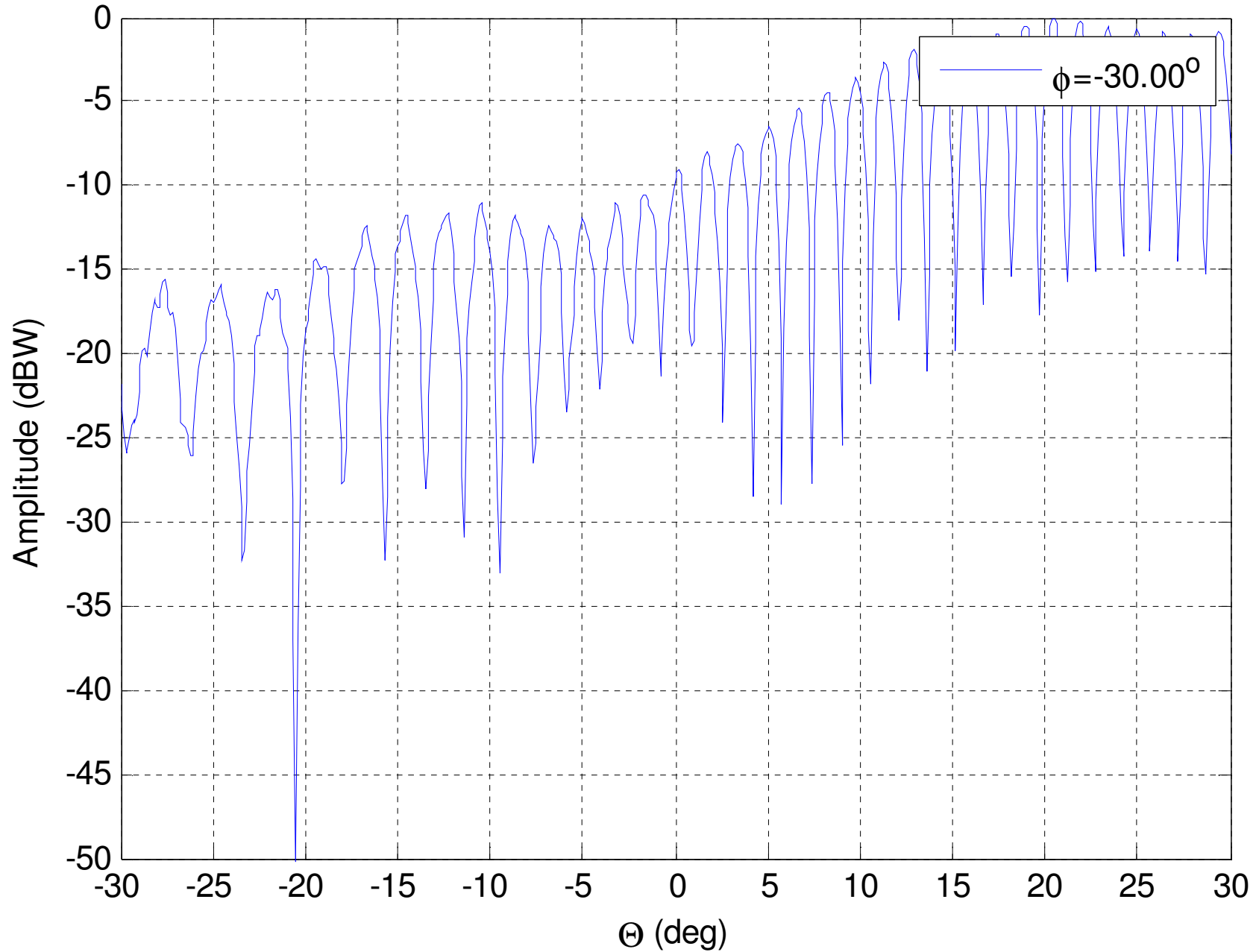
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--40.cut, Peak: -5.78 dBW, Date: 16-Dec-2011



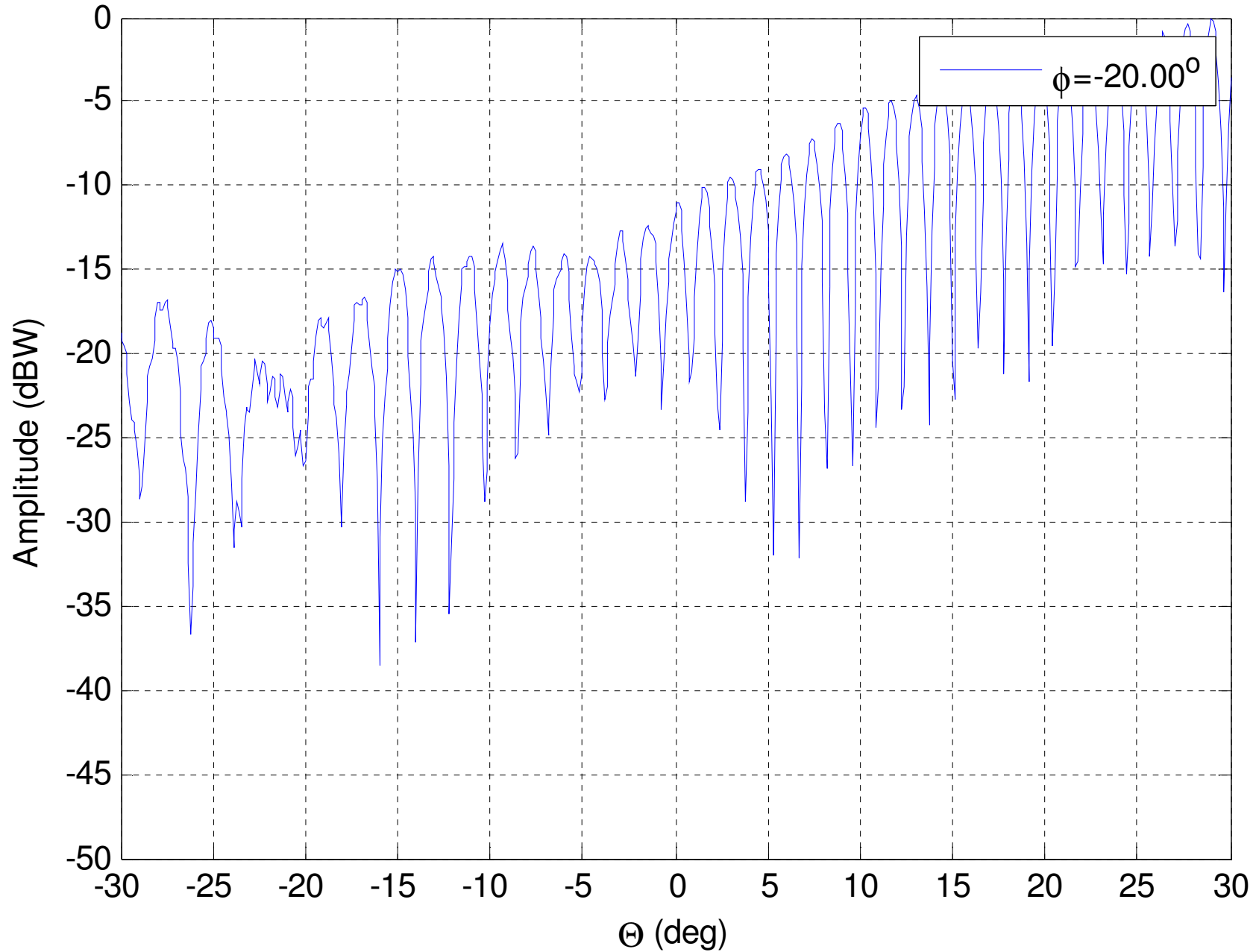
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--30.cut, Peak: -4.53 dBW, Date: 16-Dec-2011



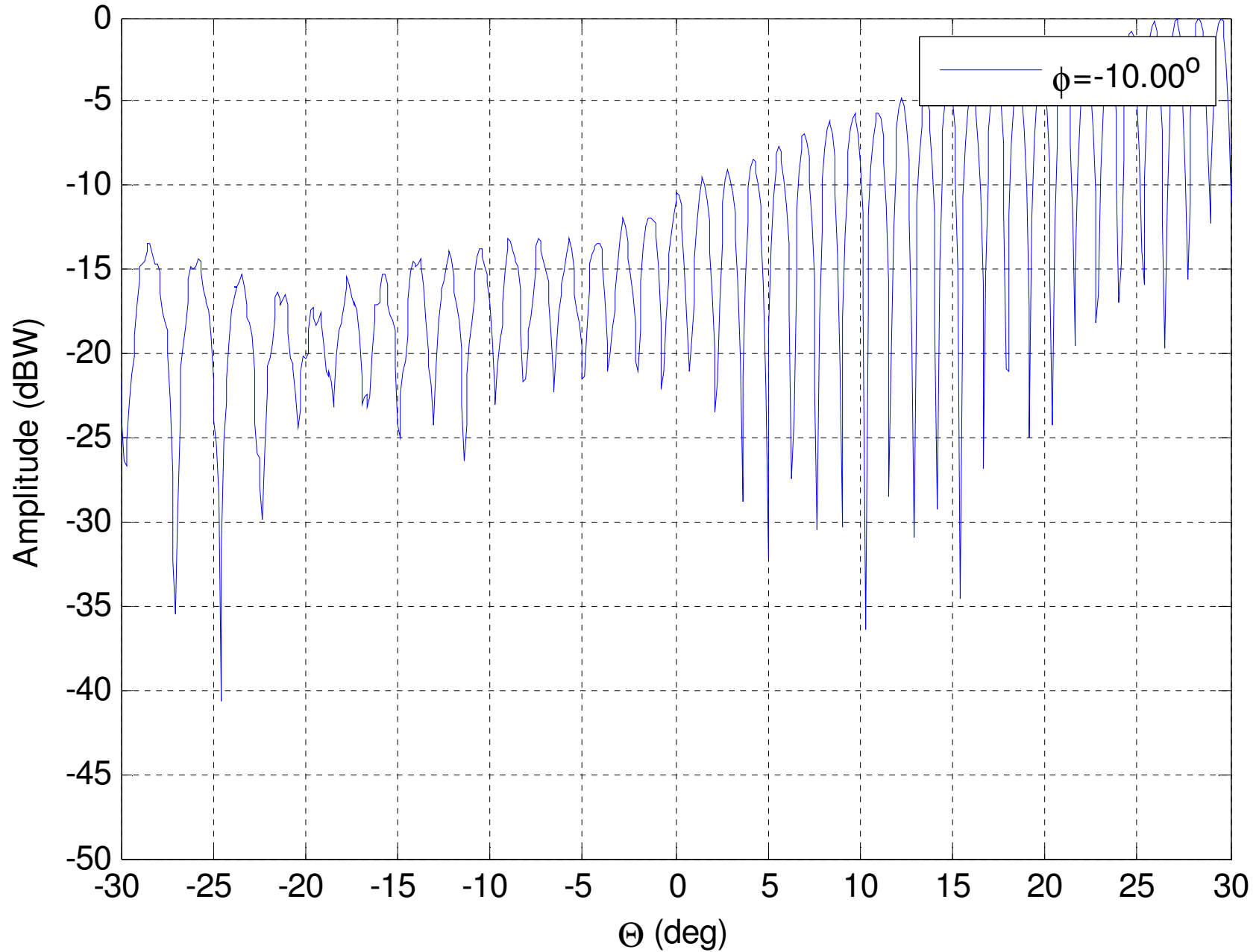
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--20.cut, Peak: -2.65 dBW, Date: 16-Dec-2011



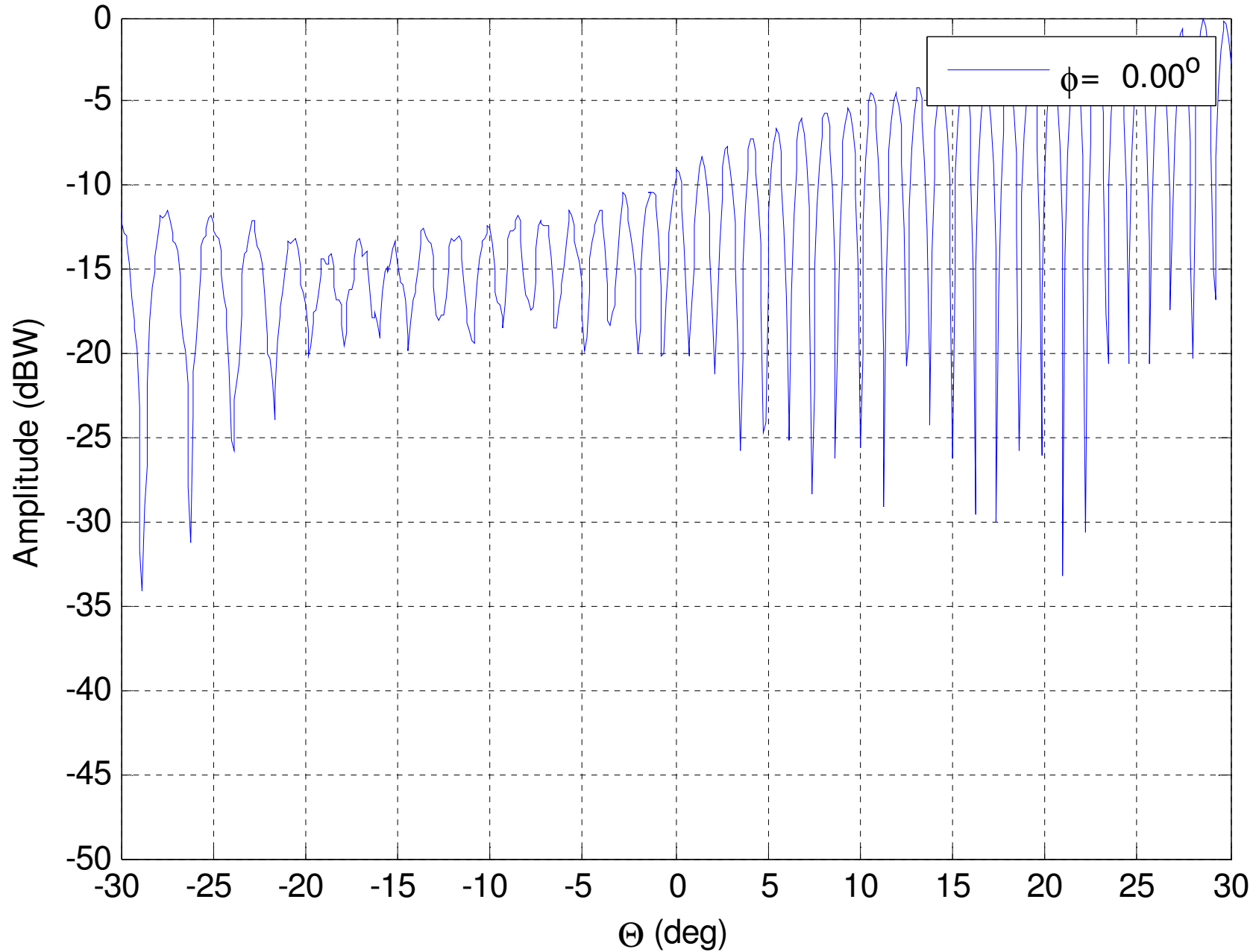
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--10.cut, Peak: -3.21 dBW, Date: 16-Dec-2011



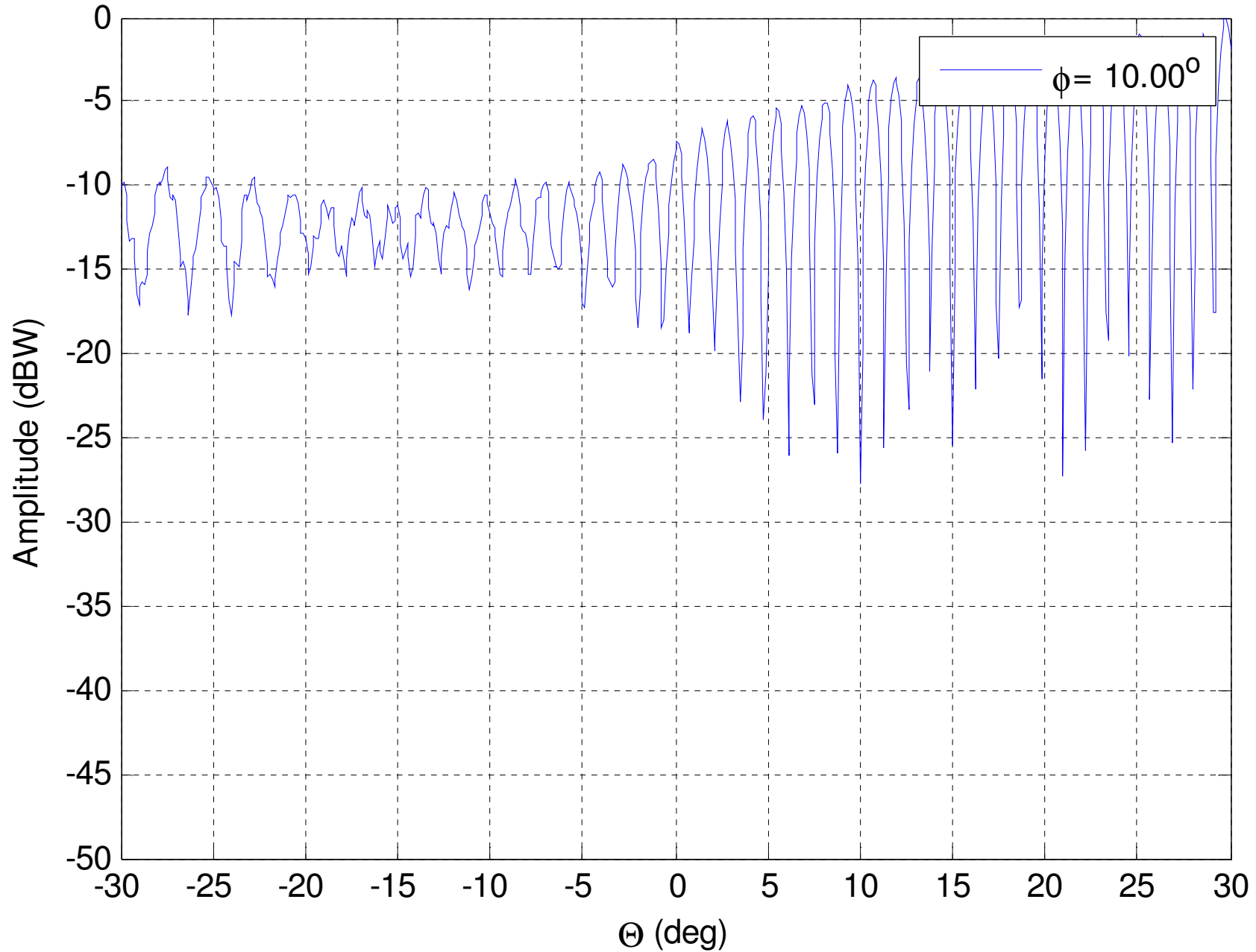
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-0.cut, Peak: -4.62 dBW, Date: 16-Dec-2011



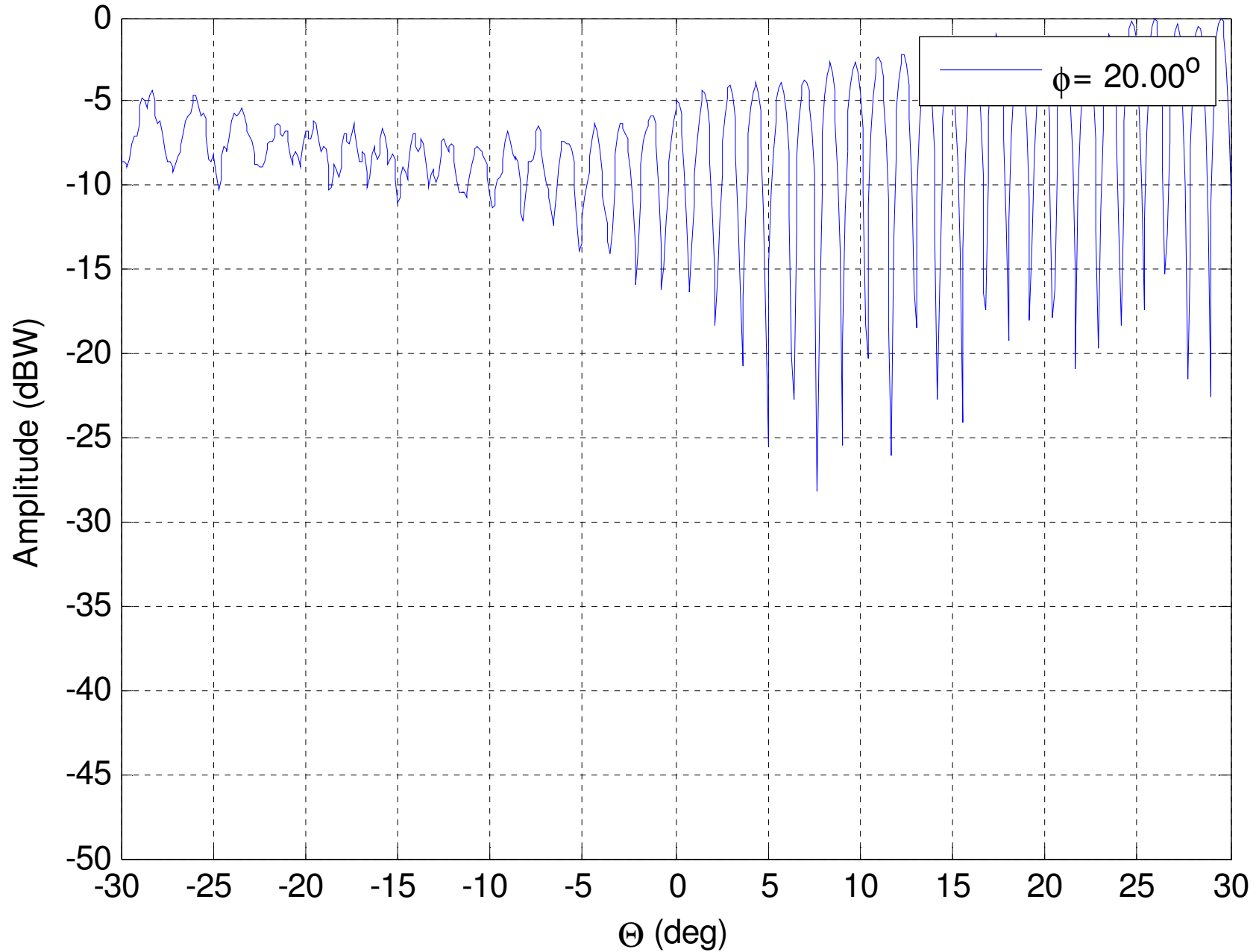
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-10.cut, Peak: -6.27 dBW, Date: 16-Dec-2011



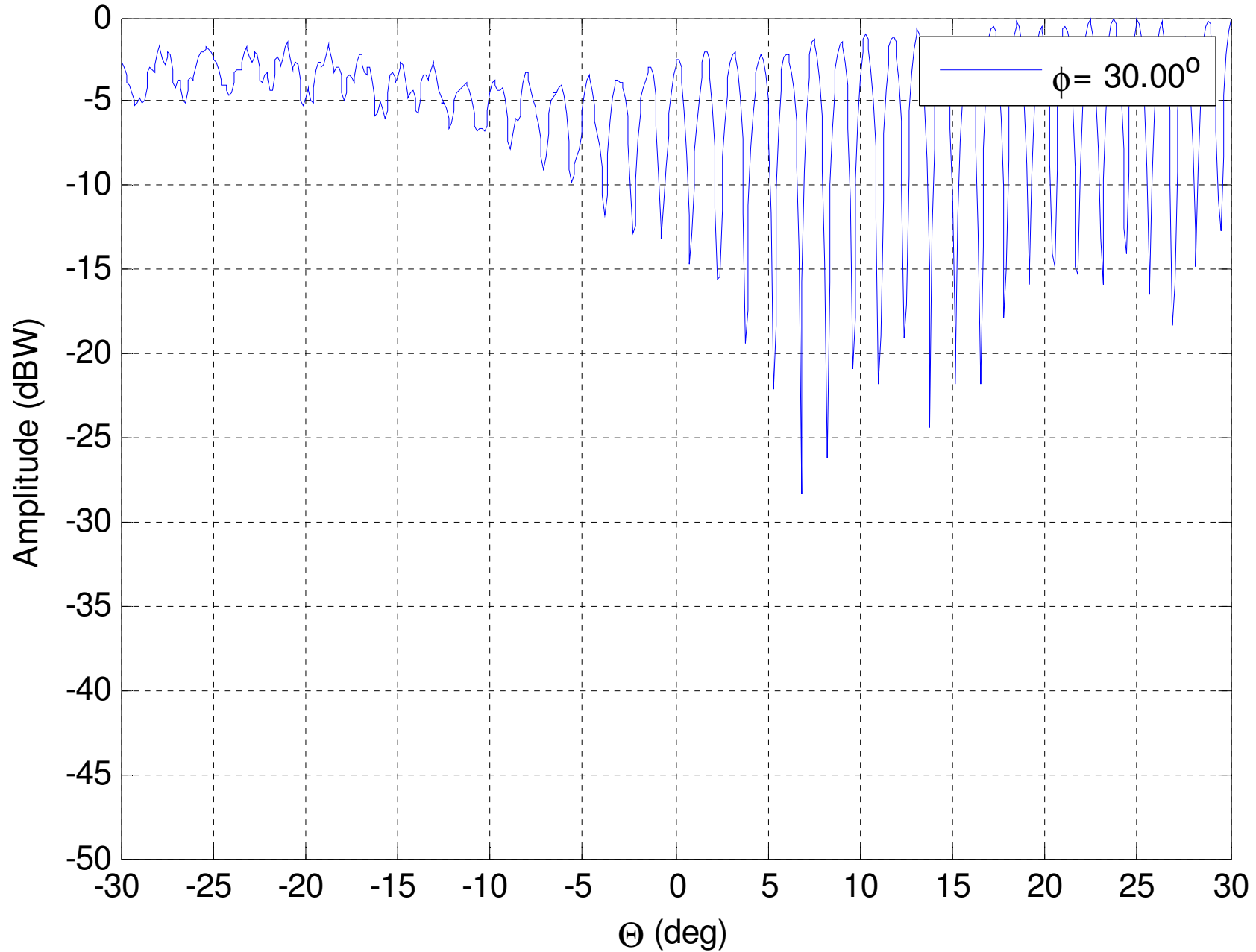
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-20.cut, Peak: -8.74 dBW, Date: 16-Dec-2011



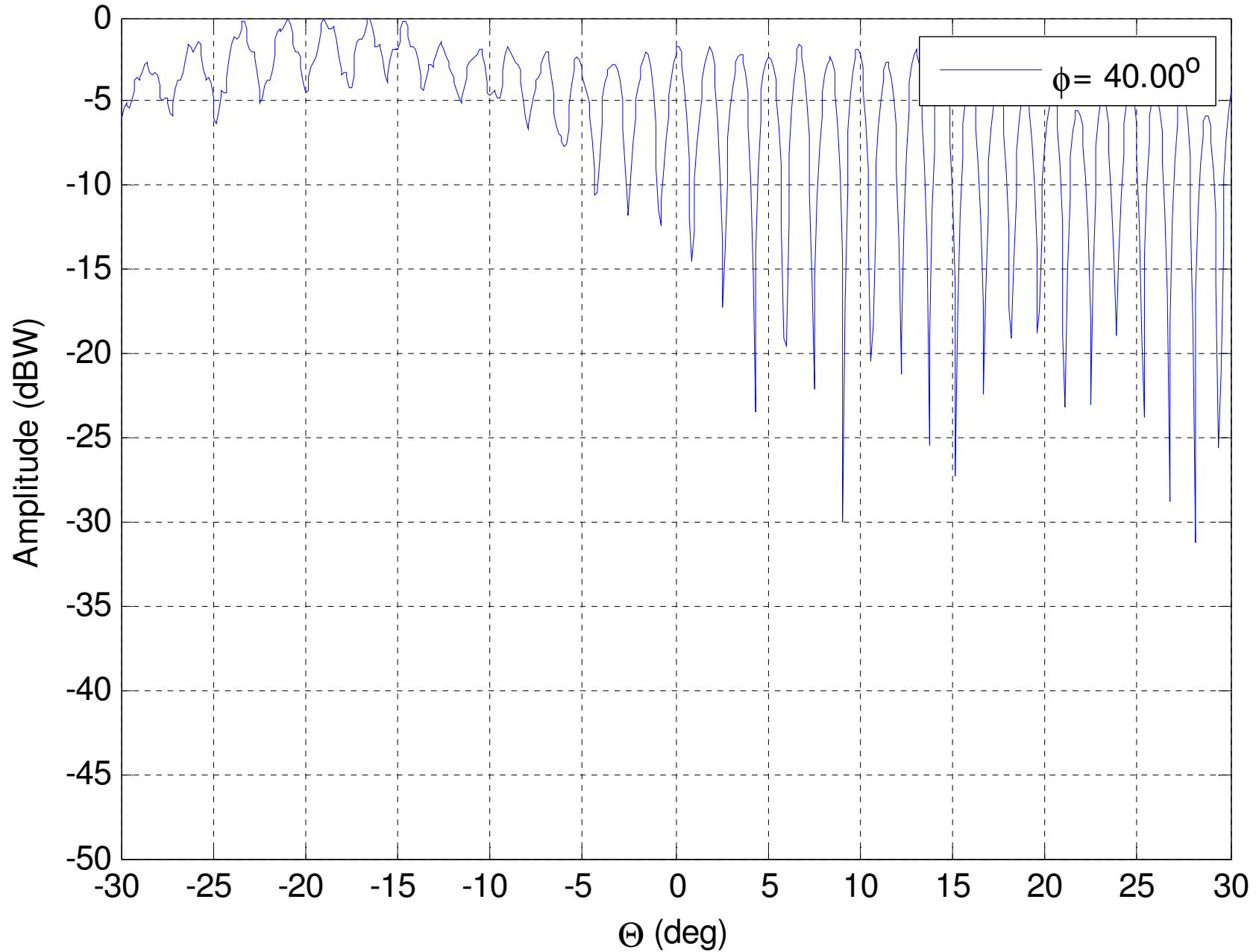
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-30.cut, Peak: -11.30 dBW, Date: 16-Dec-2011



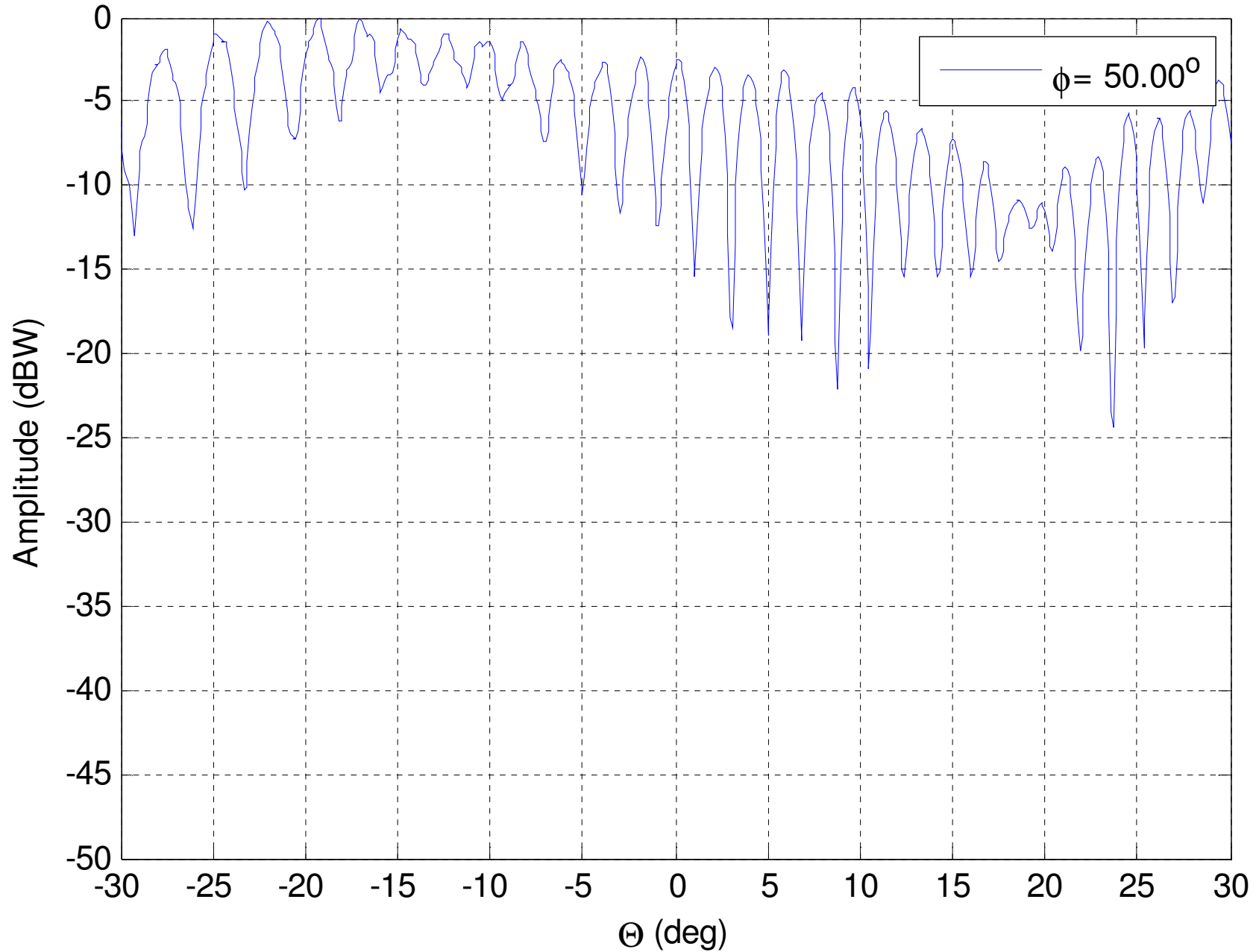
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-40.cut, Peak: -11.96 dBW, Date: 16-Dec-2011



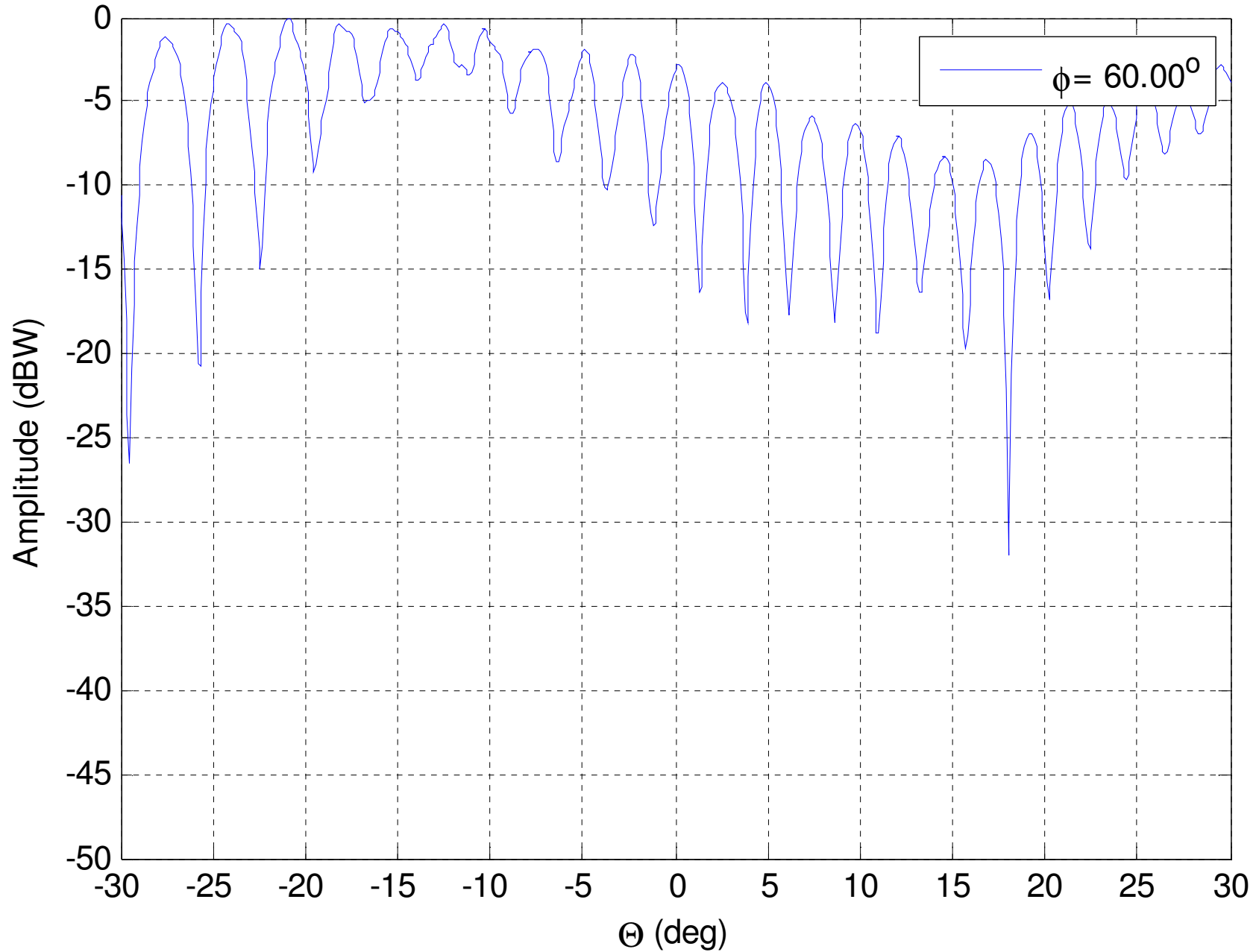
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-50.cut, Peak: -11.31 dBW, Date: 16-Dec-2011



Normalized pattern cuts - farfield

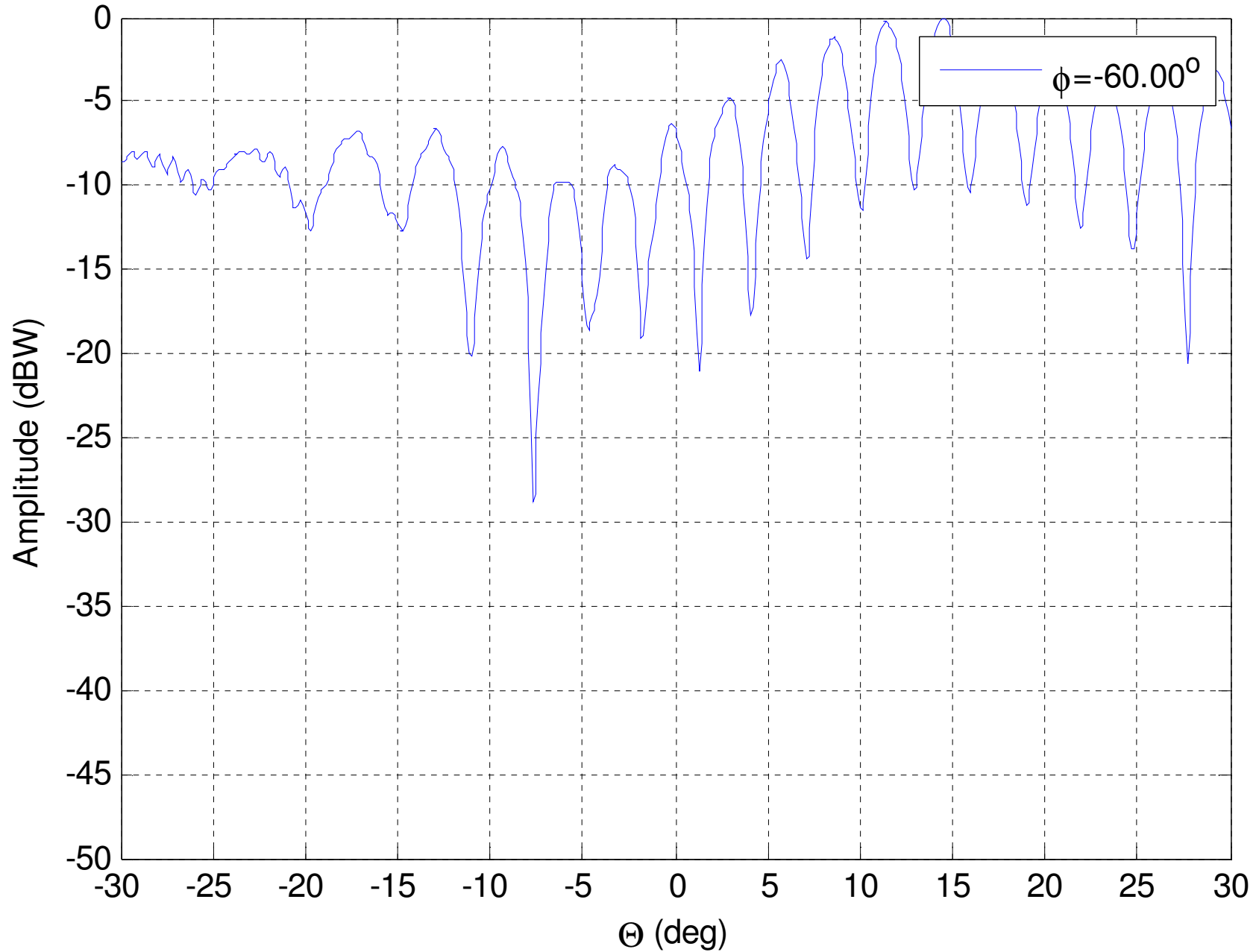
Input file: tx-17.5-lhcp-60.cut, Peak: -11.04 dBW, Date: 16-Dec-2011



RHCP at 17.7 GHz

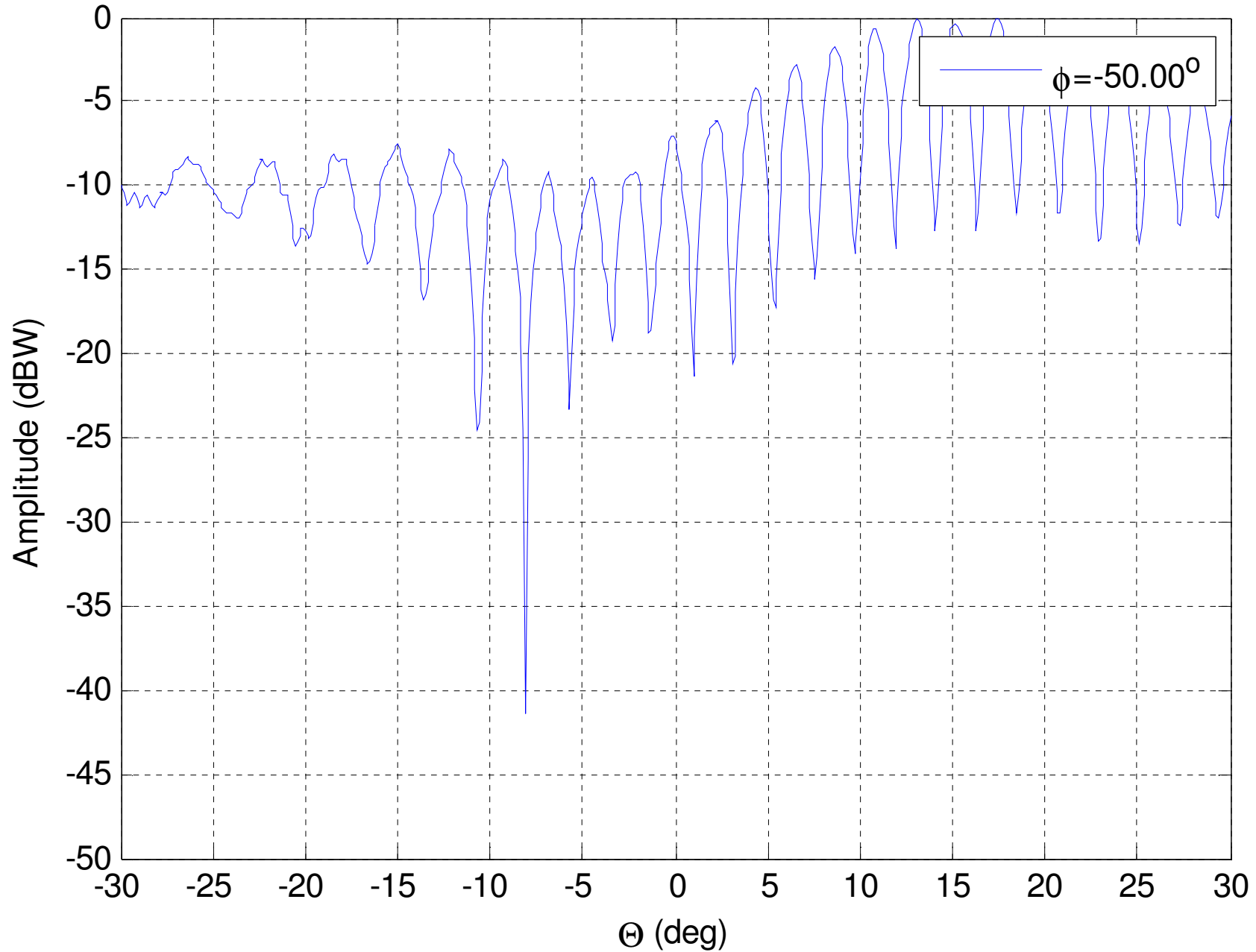
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--60.cut, Peak: -7.43 dBW, Date: 16-Dec-2011



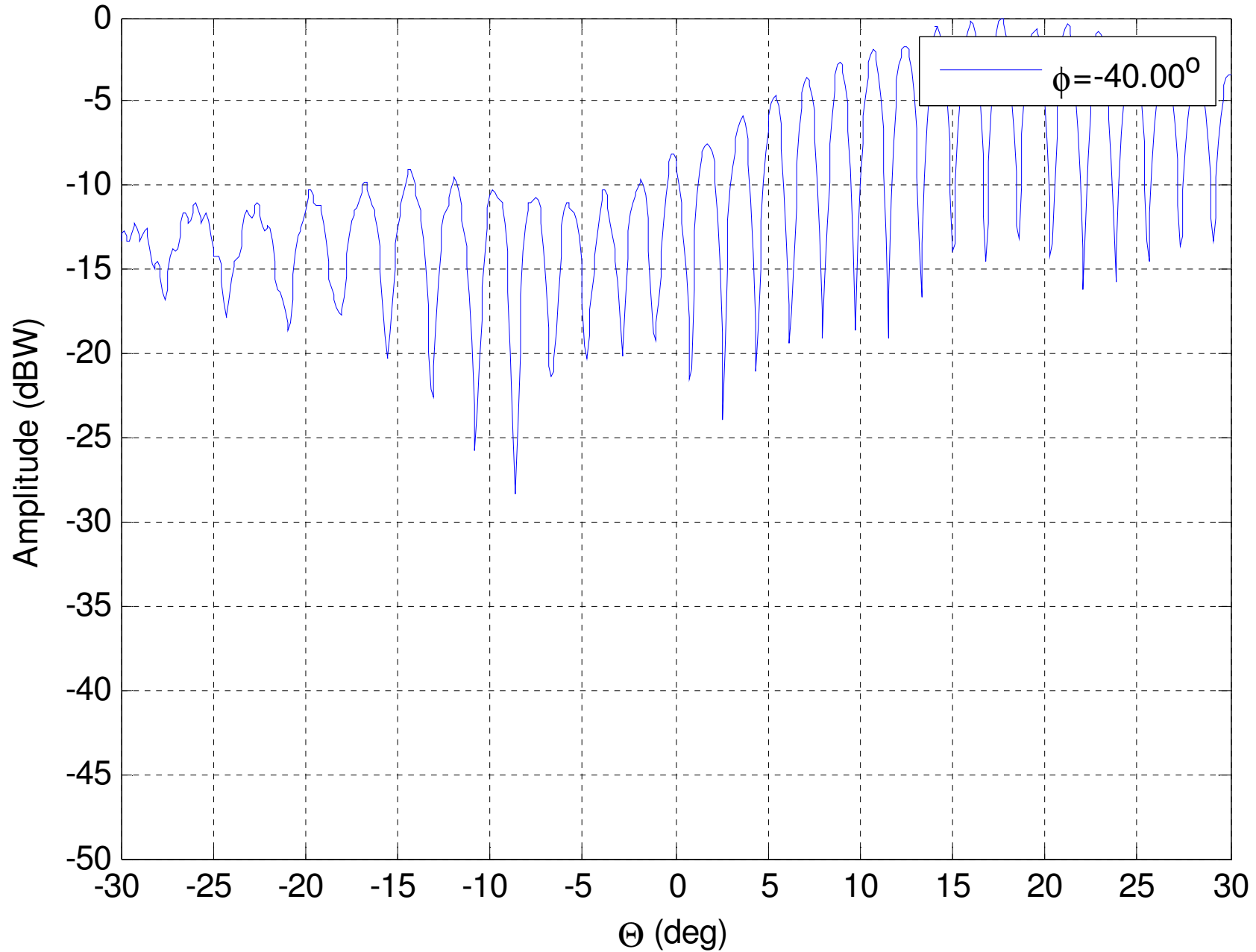
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--50.cut, Peak: -6.72 dBW, Date: 16-Dec-2011



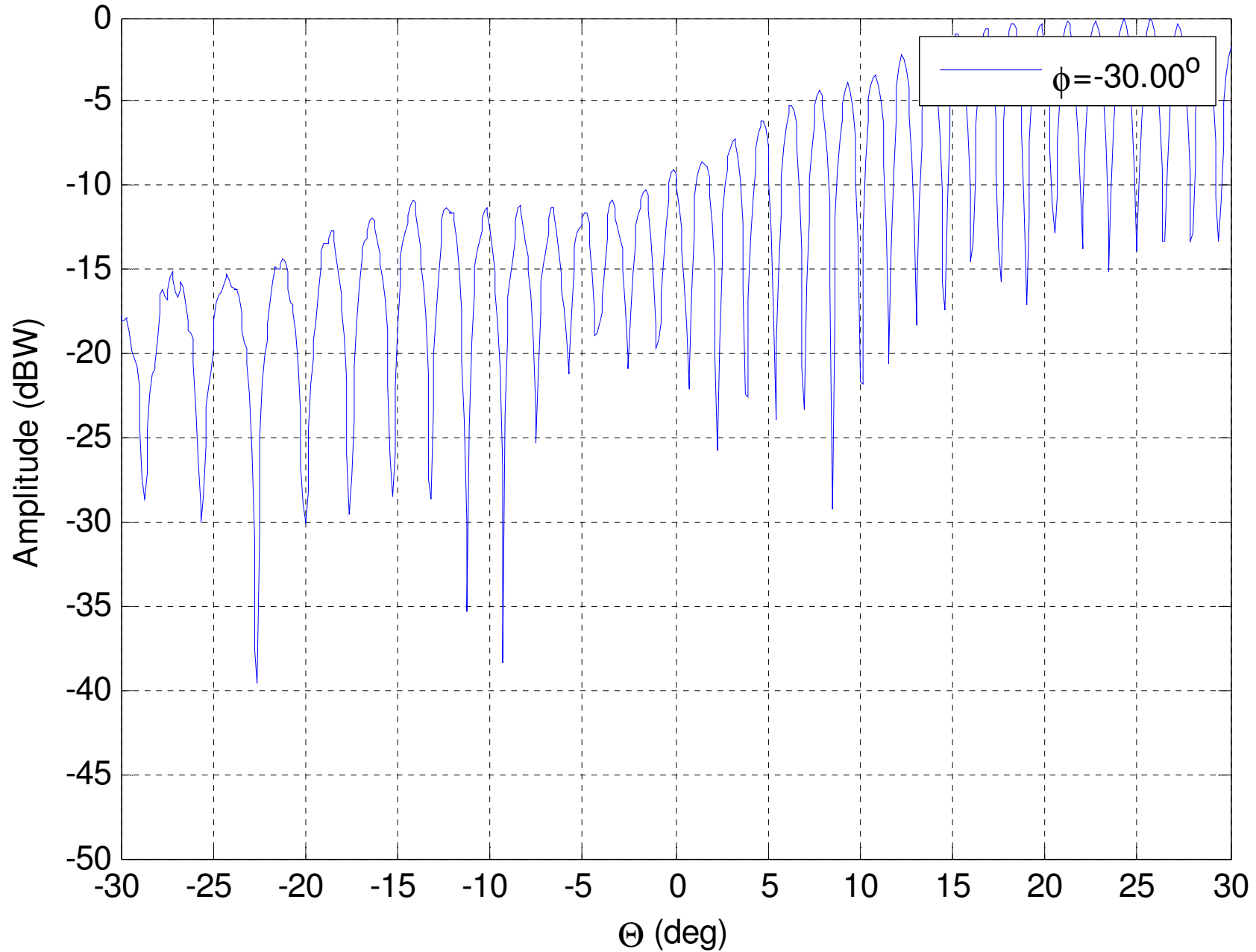
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--40.cut, Peak: -5.66 dBW, Date: 16-Dec-2011



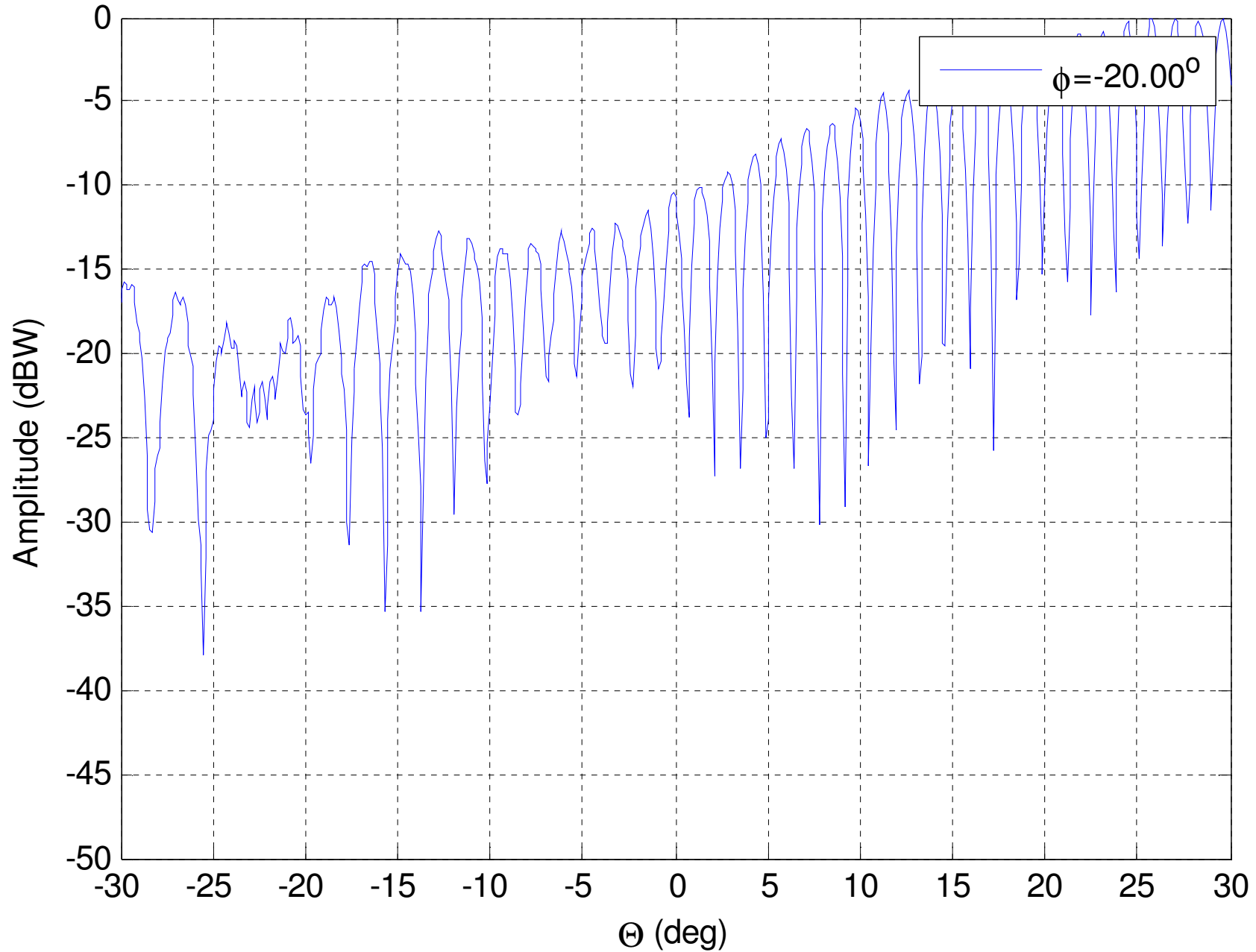
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--30.cut, Peak: -4.76 dBW, Date: 16-Dec-2011



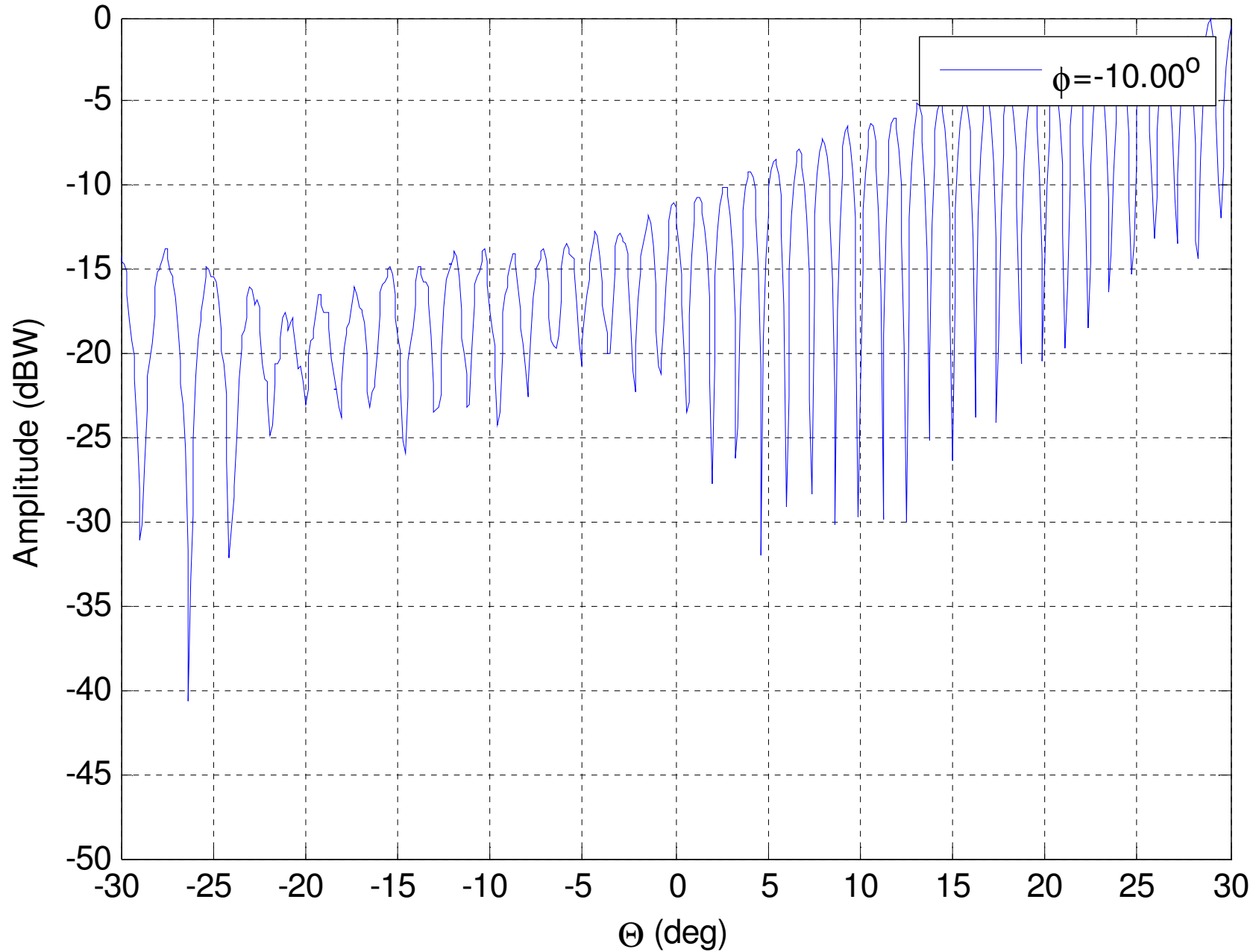
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--20.cut, Peak: -3.35 dBW, Date: 16-Dec-2011



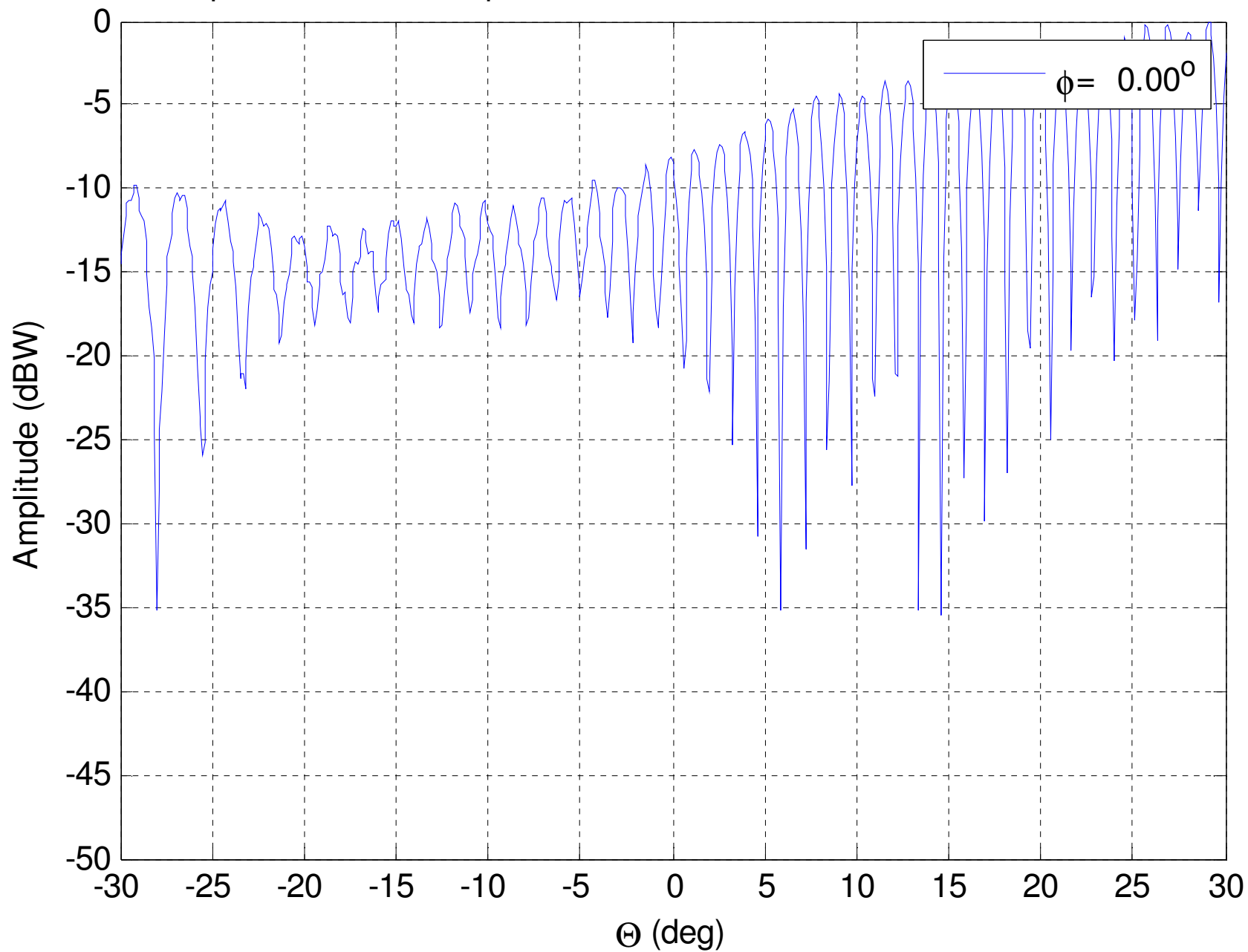
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--10.cut, Peak: -2.78 dBW, Date: 16-Dec-2011



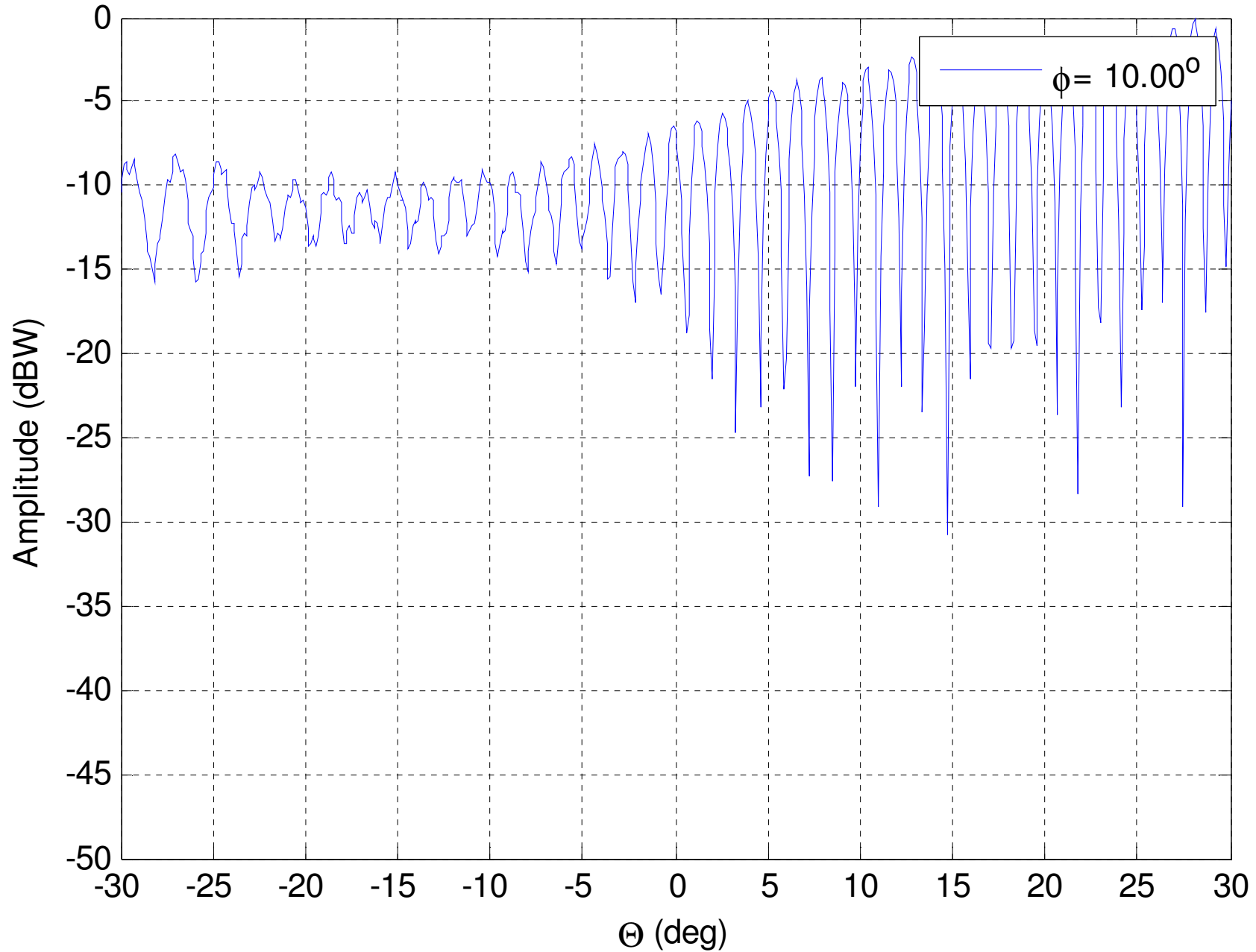
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-0.cut, Peak: -5.68 dBW, Date: 16-Dec-2011



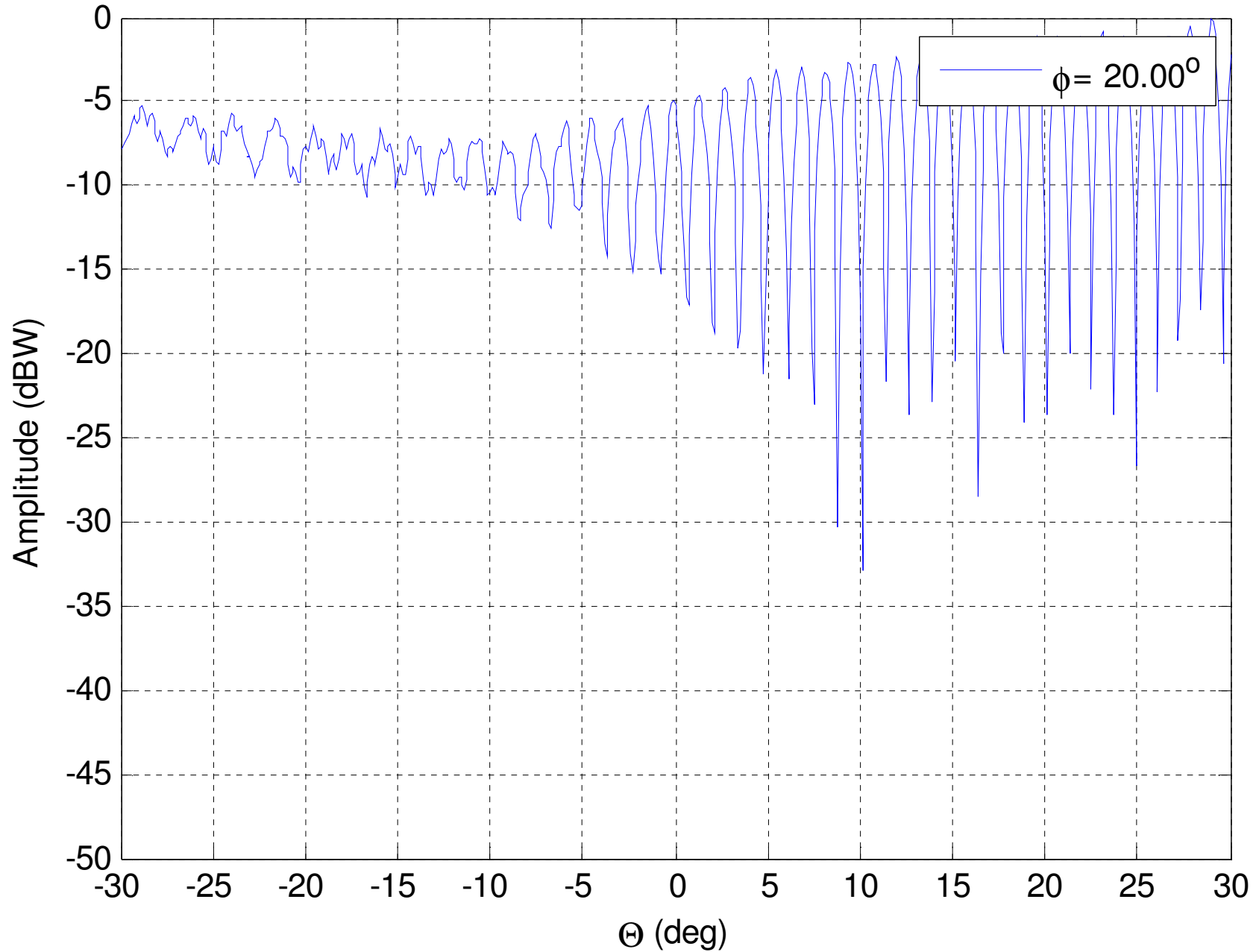
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-10.cut, Peak: -7.34 dBW, Date: 16-Dec-2011



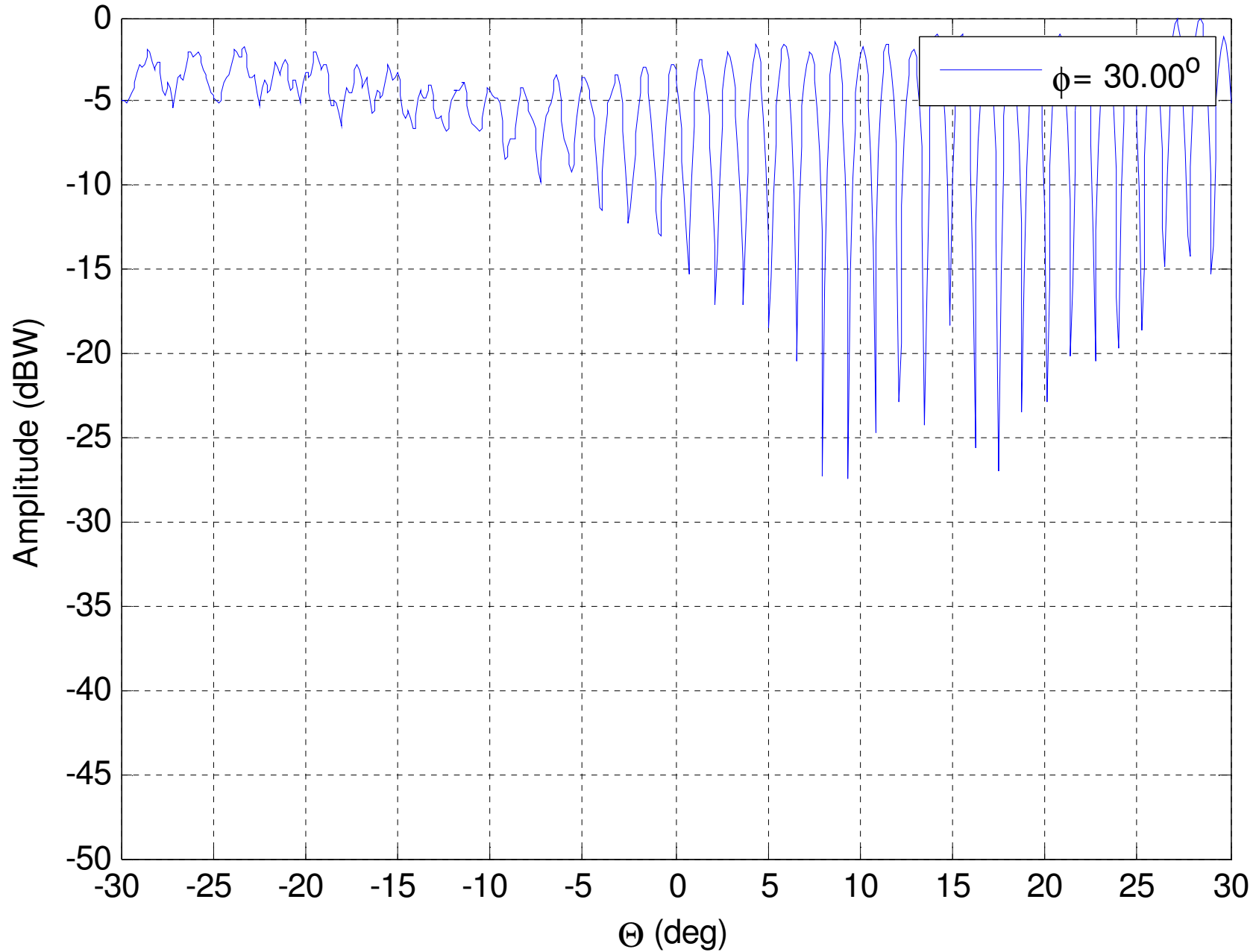
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-20.cut, Peak: -8.80 dBW, Date: 16-Dec-2011



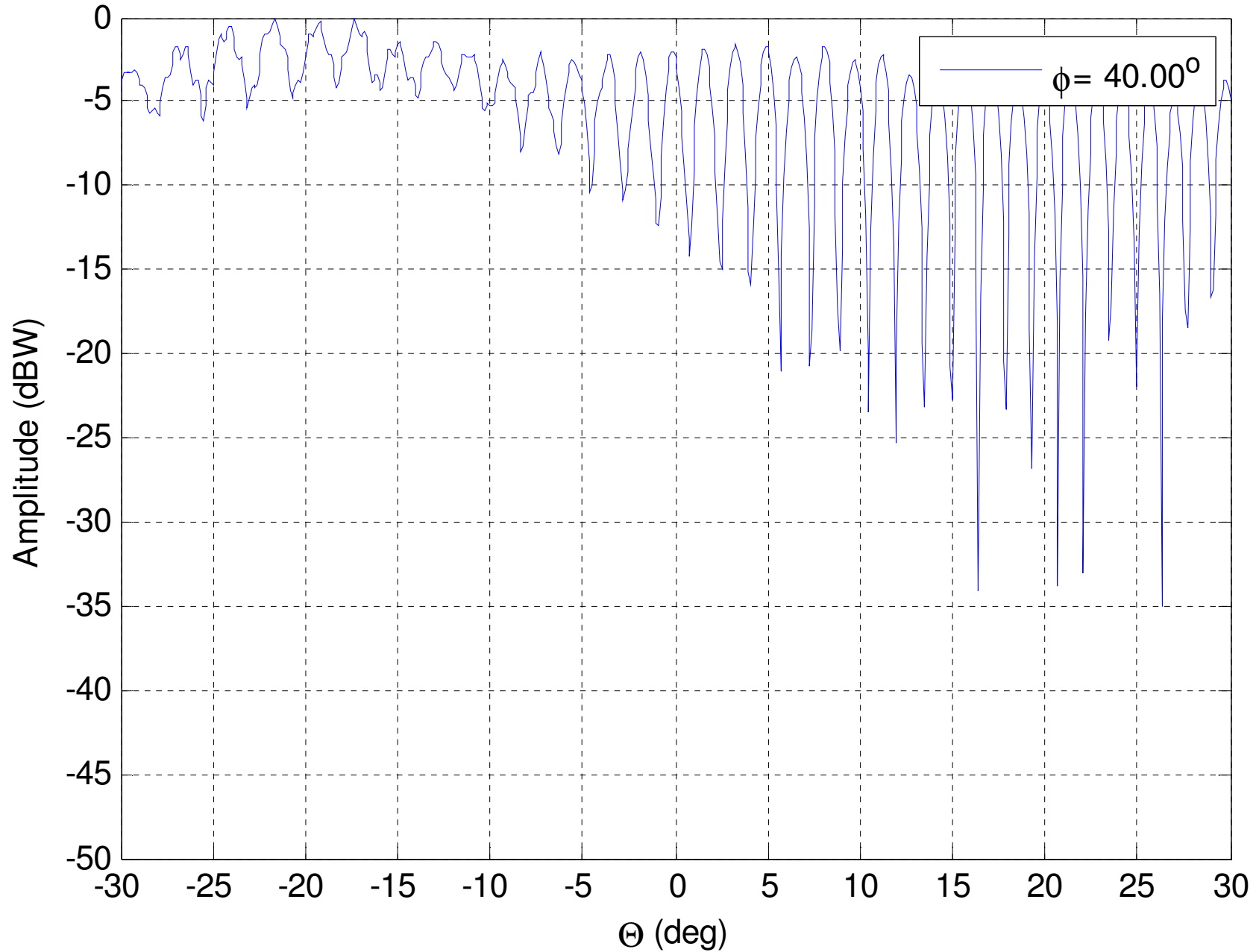
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-30.cut, Peak: -10.99 dBW, Date: 16-Dec-2011



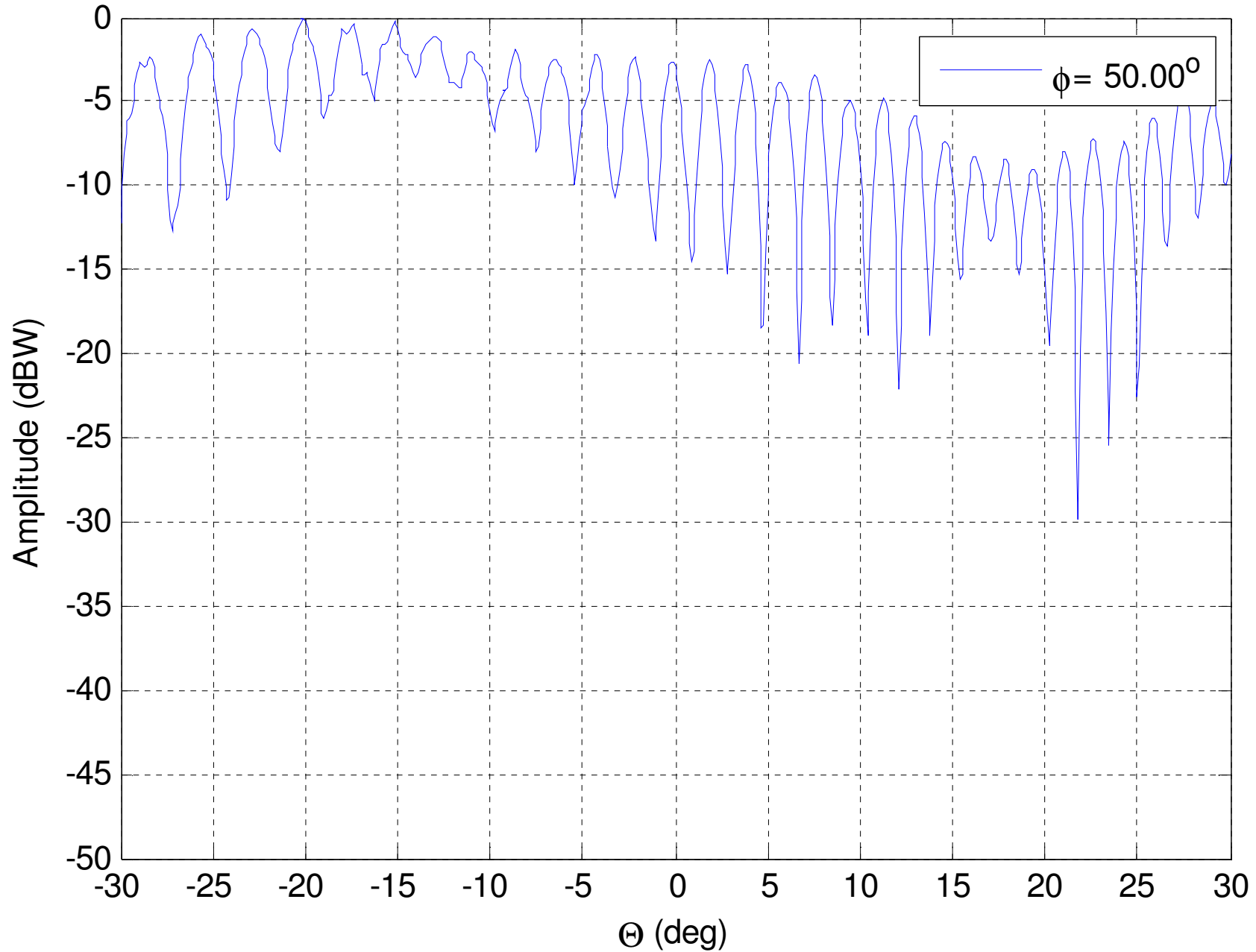
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-40.cut, Peak: -11.70 dBW, Date: 16-Dec-2011



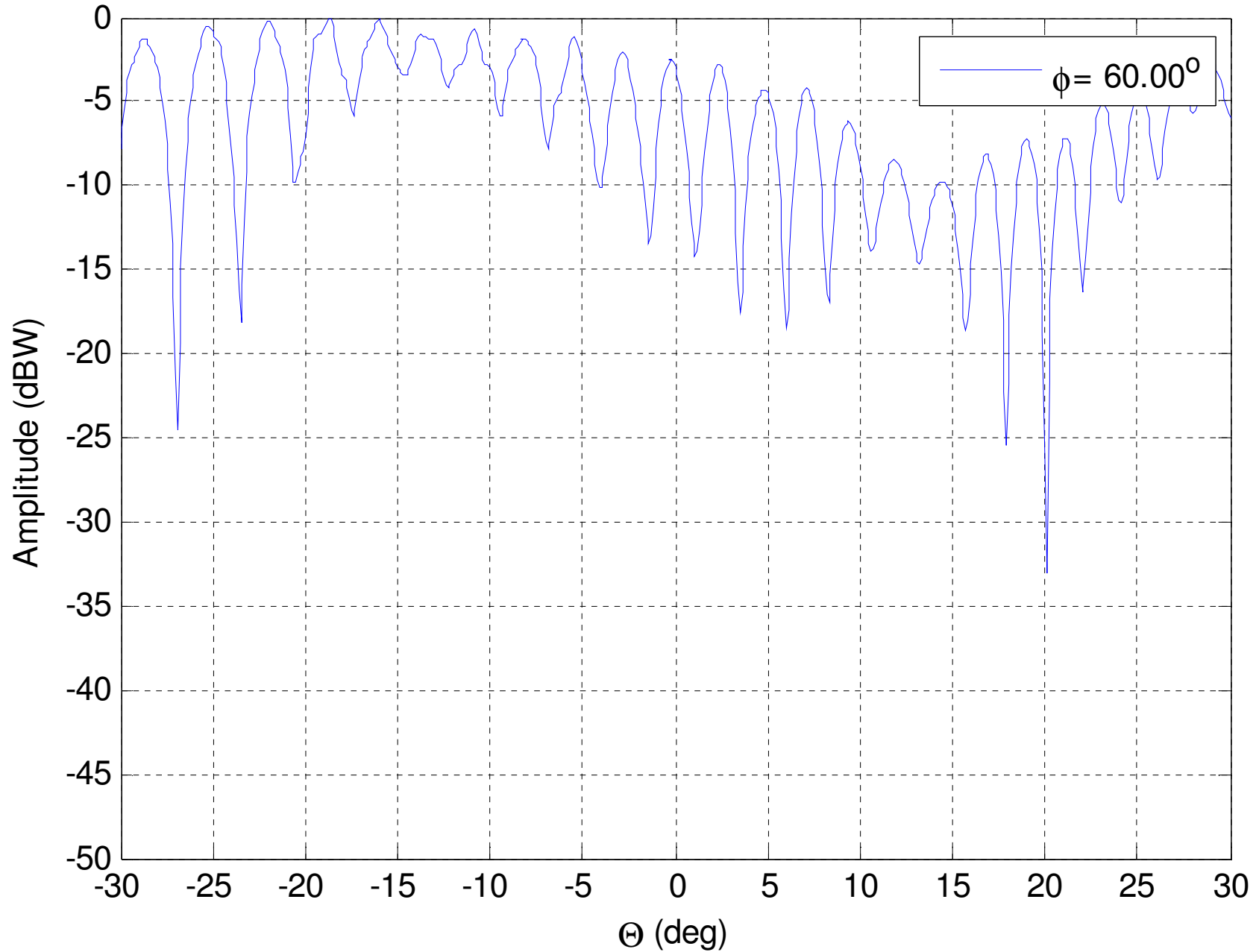
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-50.cut, Peak: -11.10 dBW, Date: 16-Dec-2011



Normalized pattern cuts - farfield

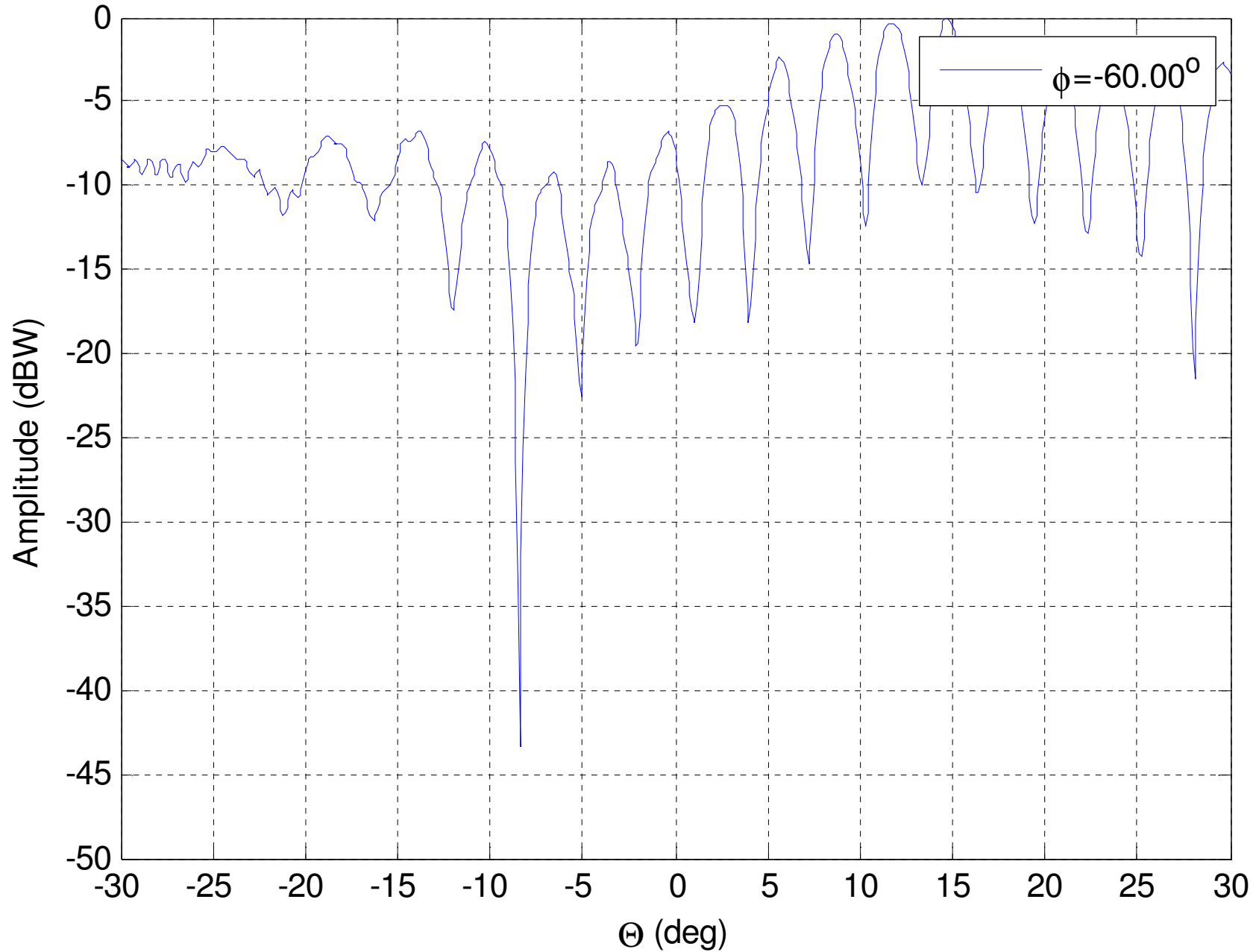
Input file: tx-17.7-rhcp-60.cut, Peak: -11.19 dBW, Date: 16-Dec-2011



LHCP at 17.7 GHz

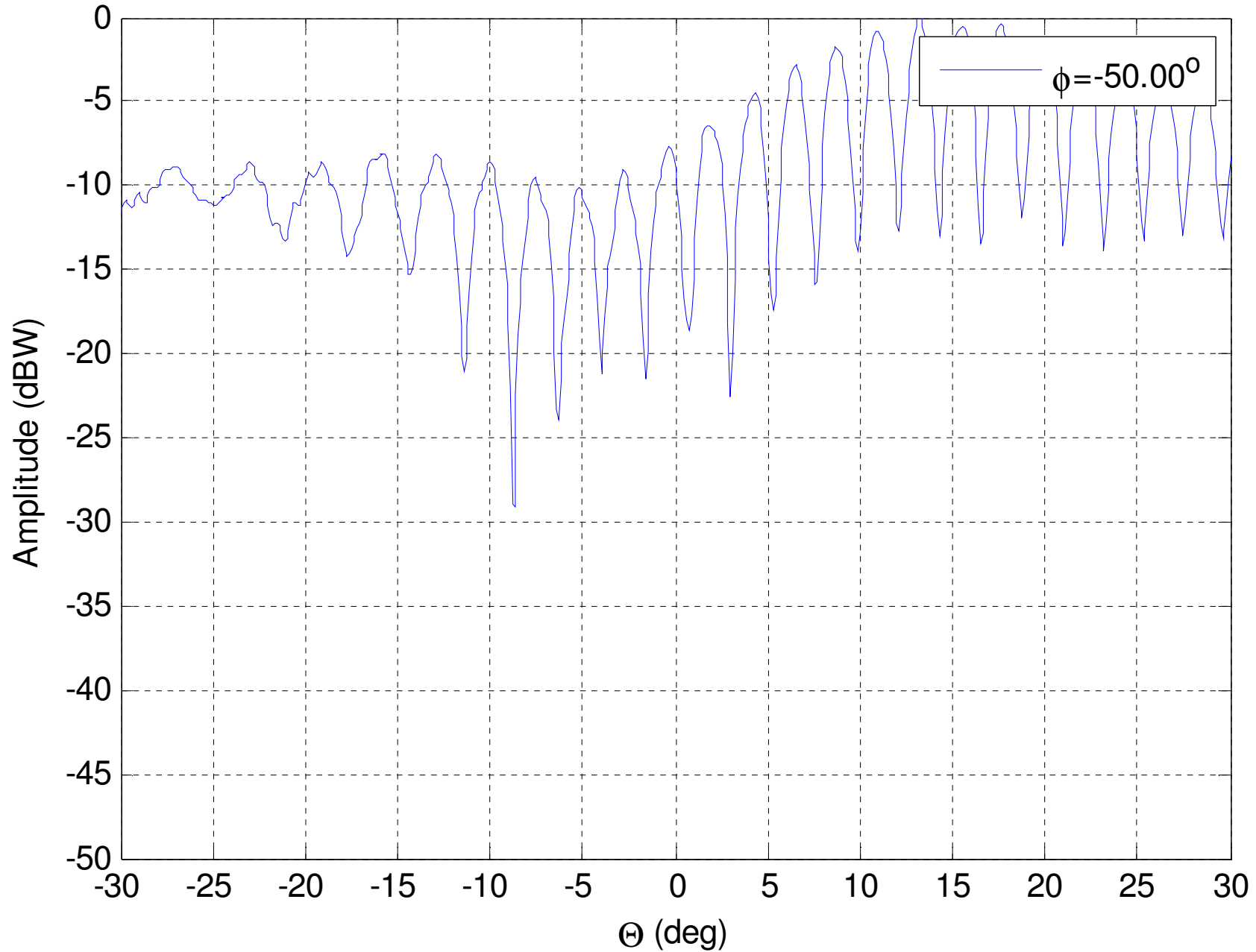
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--60.cut, Peak: -7.56 dBW, Date: 16-Dec-2011



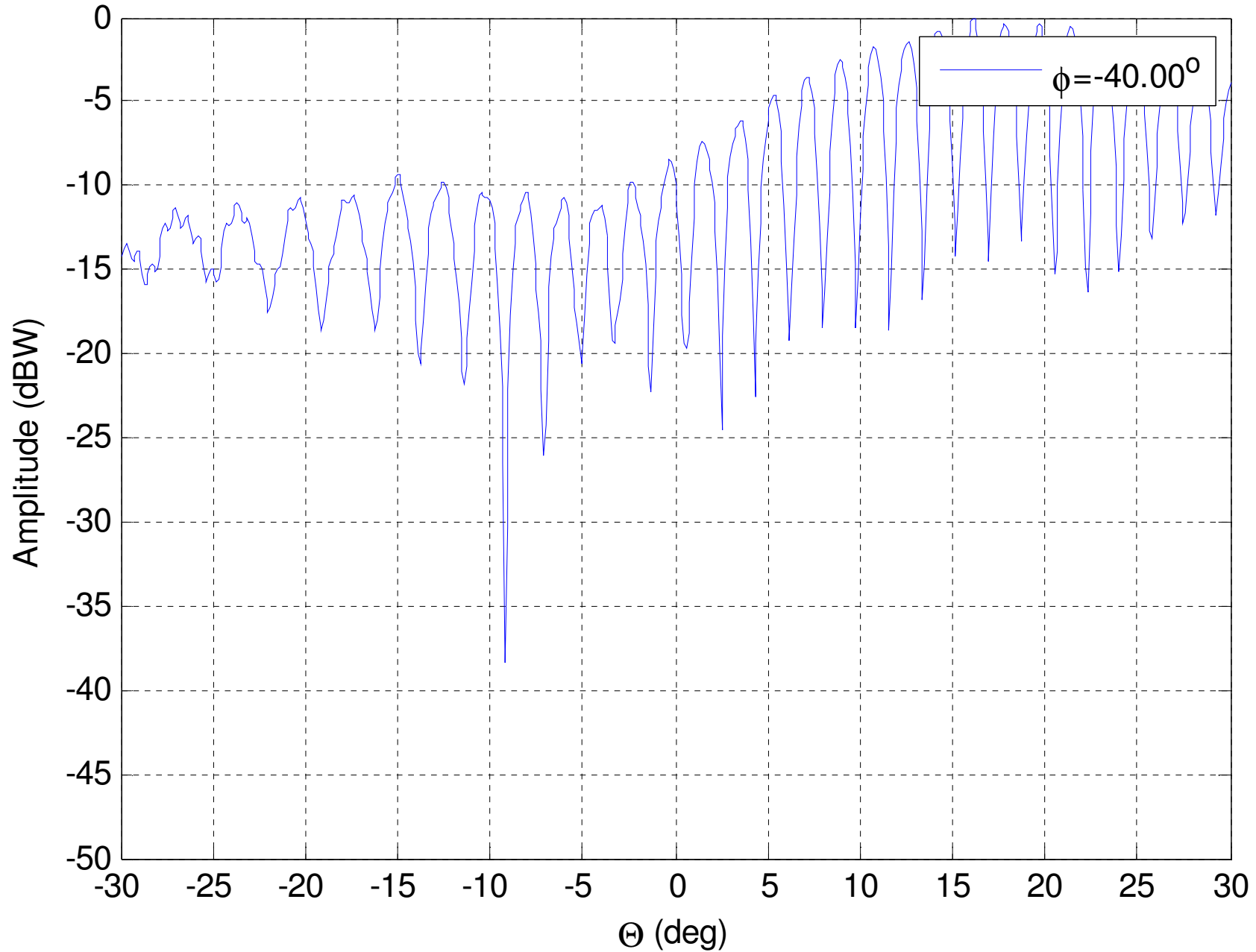
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--50.cut, Peak: -6.60 dBW, Date: 16-Dec-2011



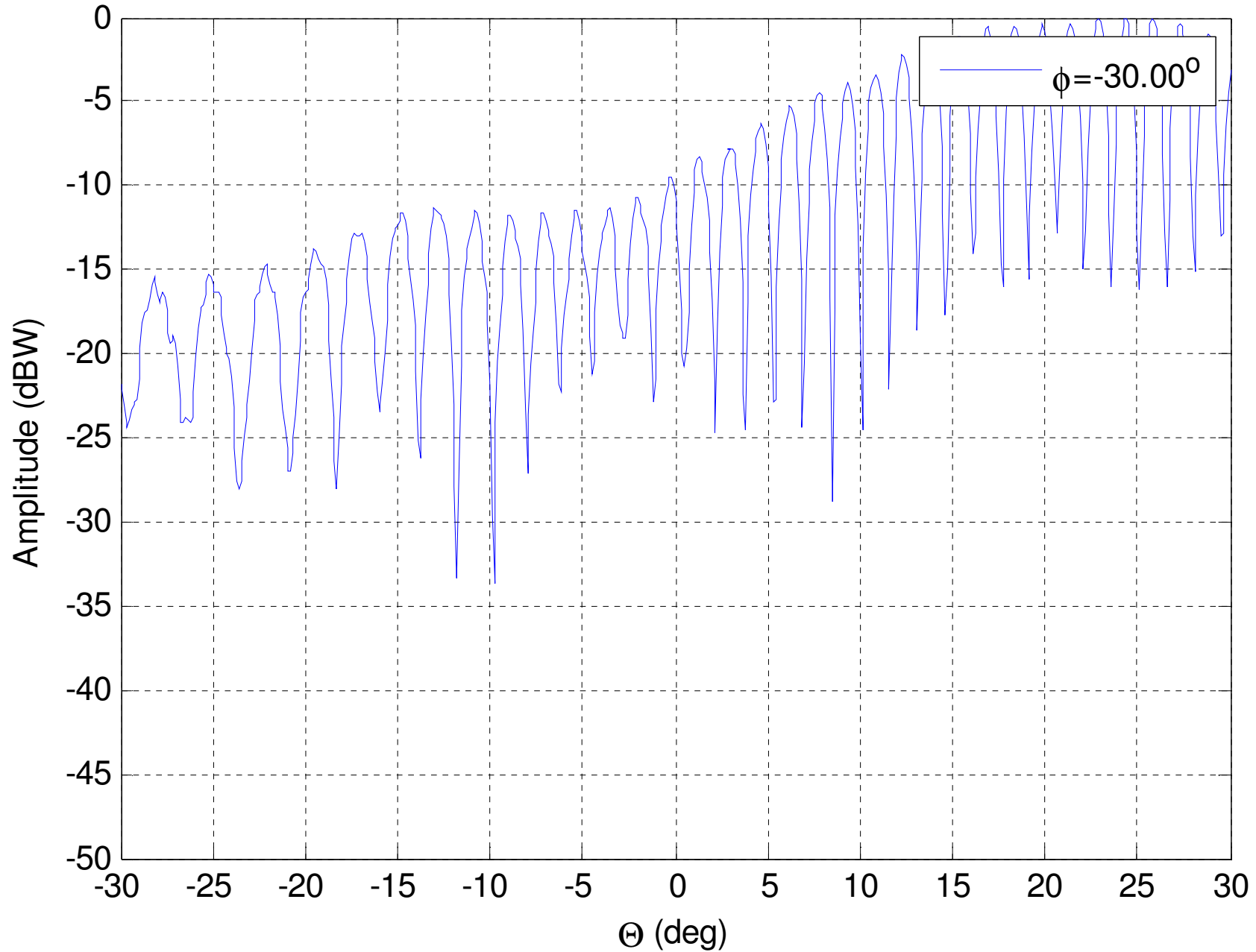
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--40.cut, Peak: -5.68 dBW, Date: 16-Dec-2011



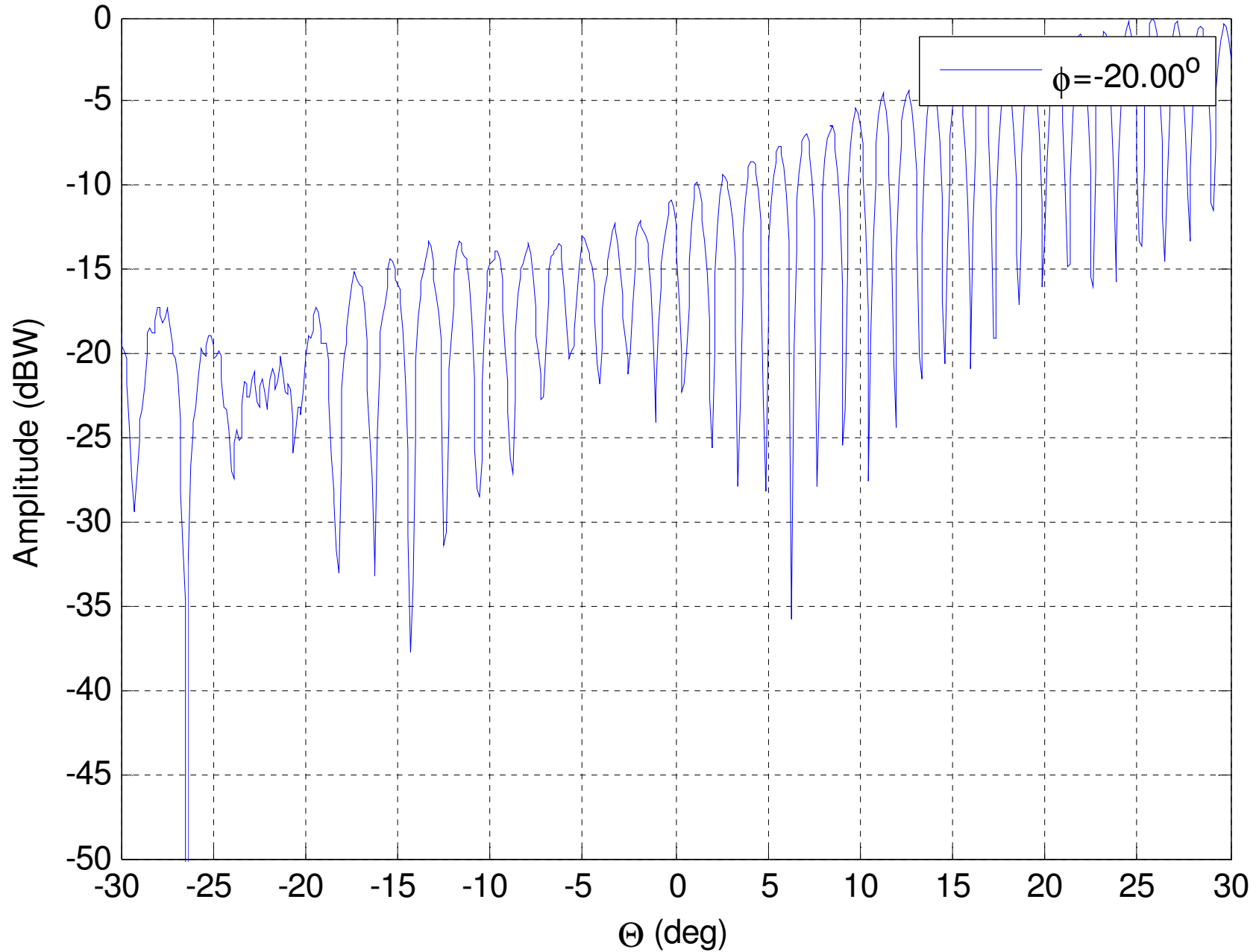
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--30.cut, Peak: -4.73 dBW, Date: 16-Dec-2011



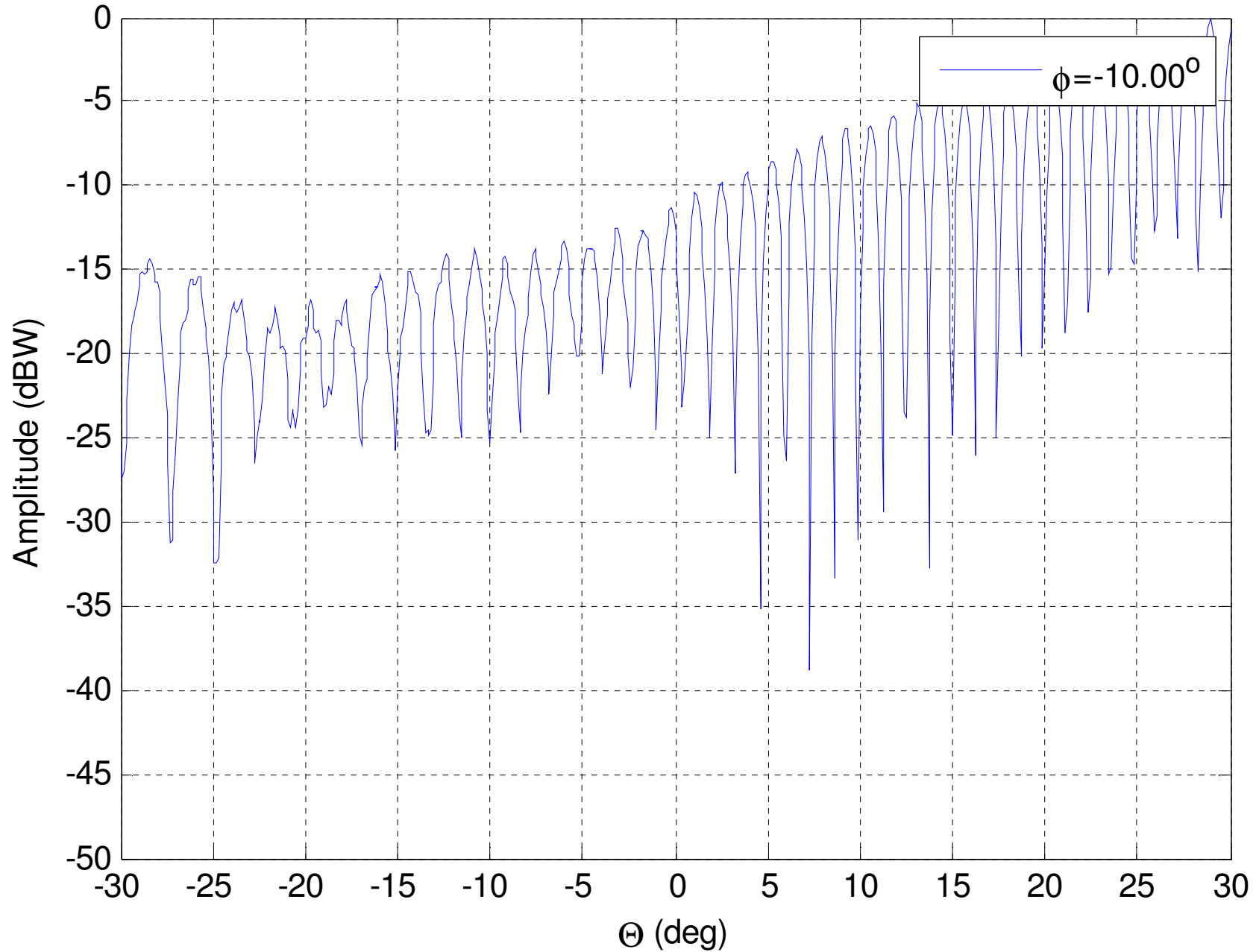
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--20.cut, Peak: -3.24 dBW, Date: 16-Dec-2011



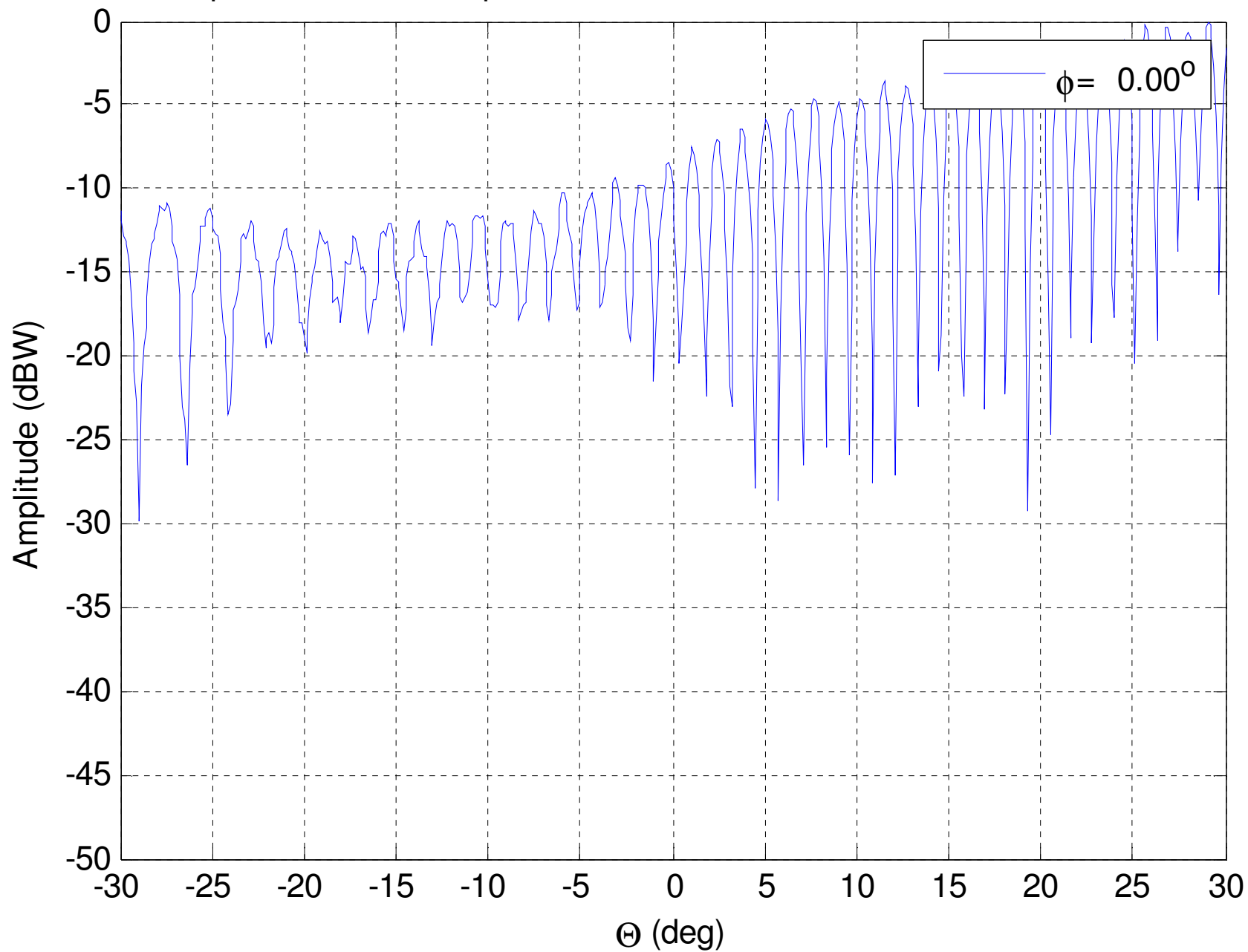
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--10.cut, Peak: -2.75 dBW, Date: 16-Dec-2011



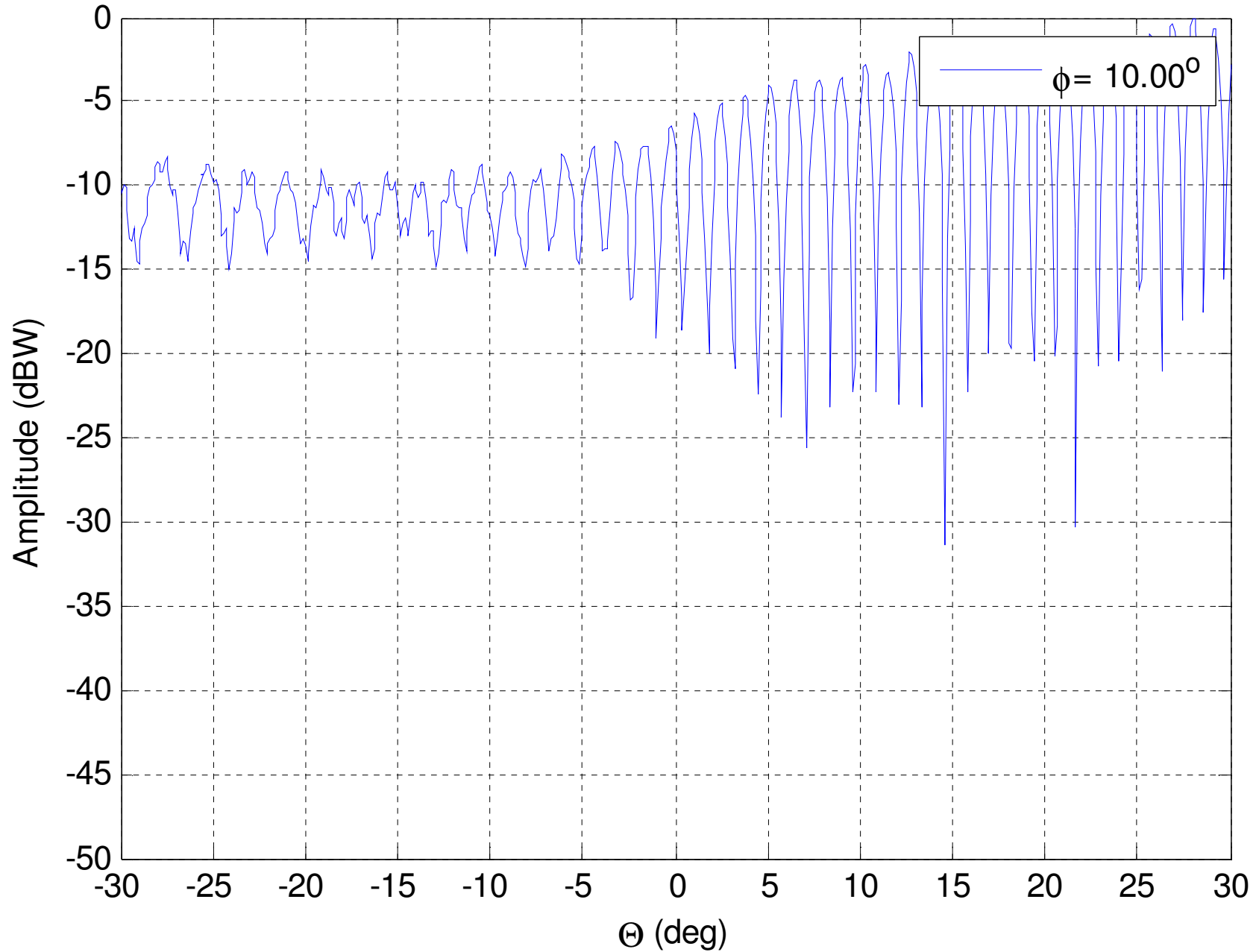
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-0.cut, Peak: -5.59 dBW, Date: 16-Dec-2011



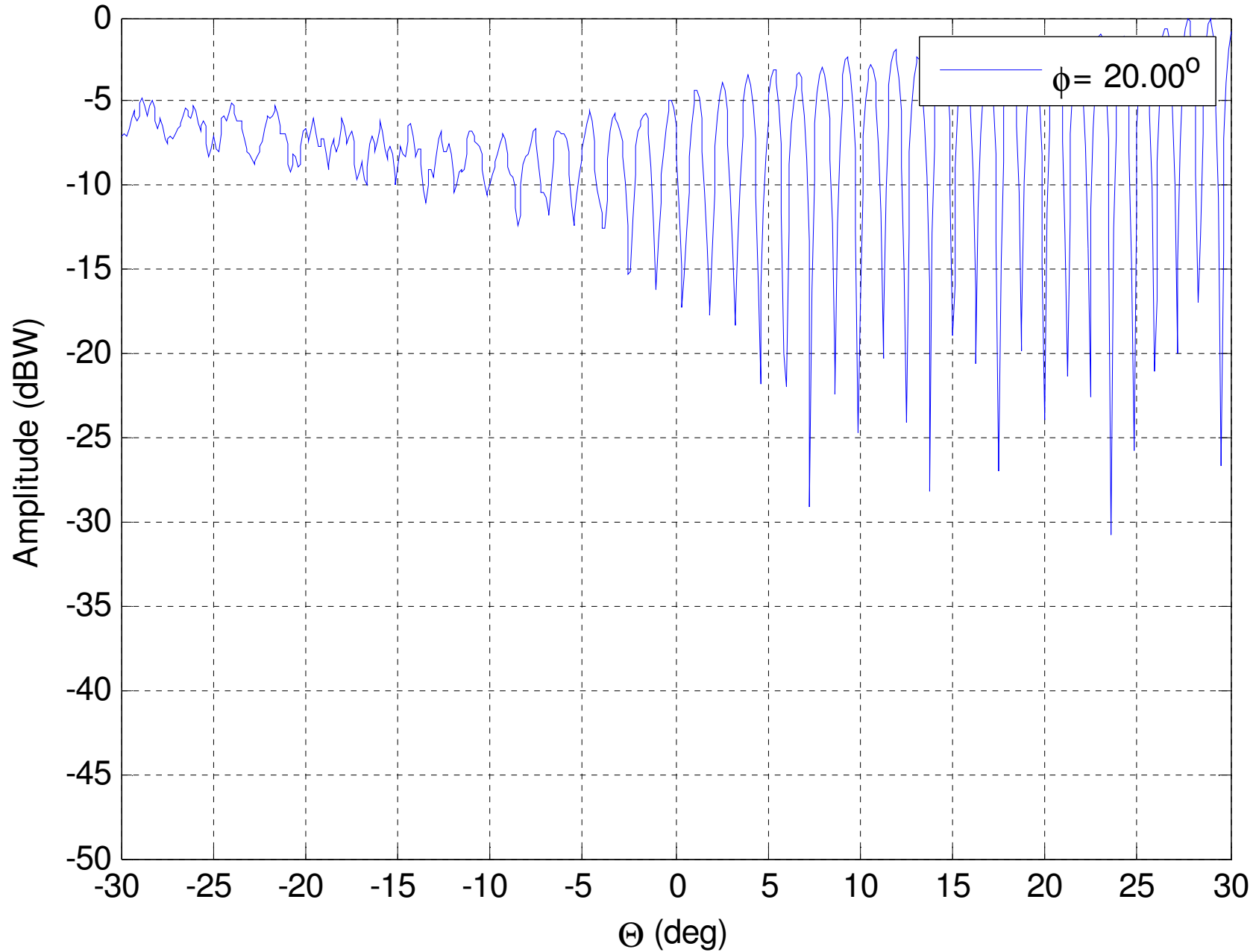
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-10.cut, Peak: -7.56 dBW, Date: 16-Dec-2011



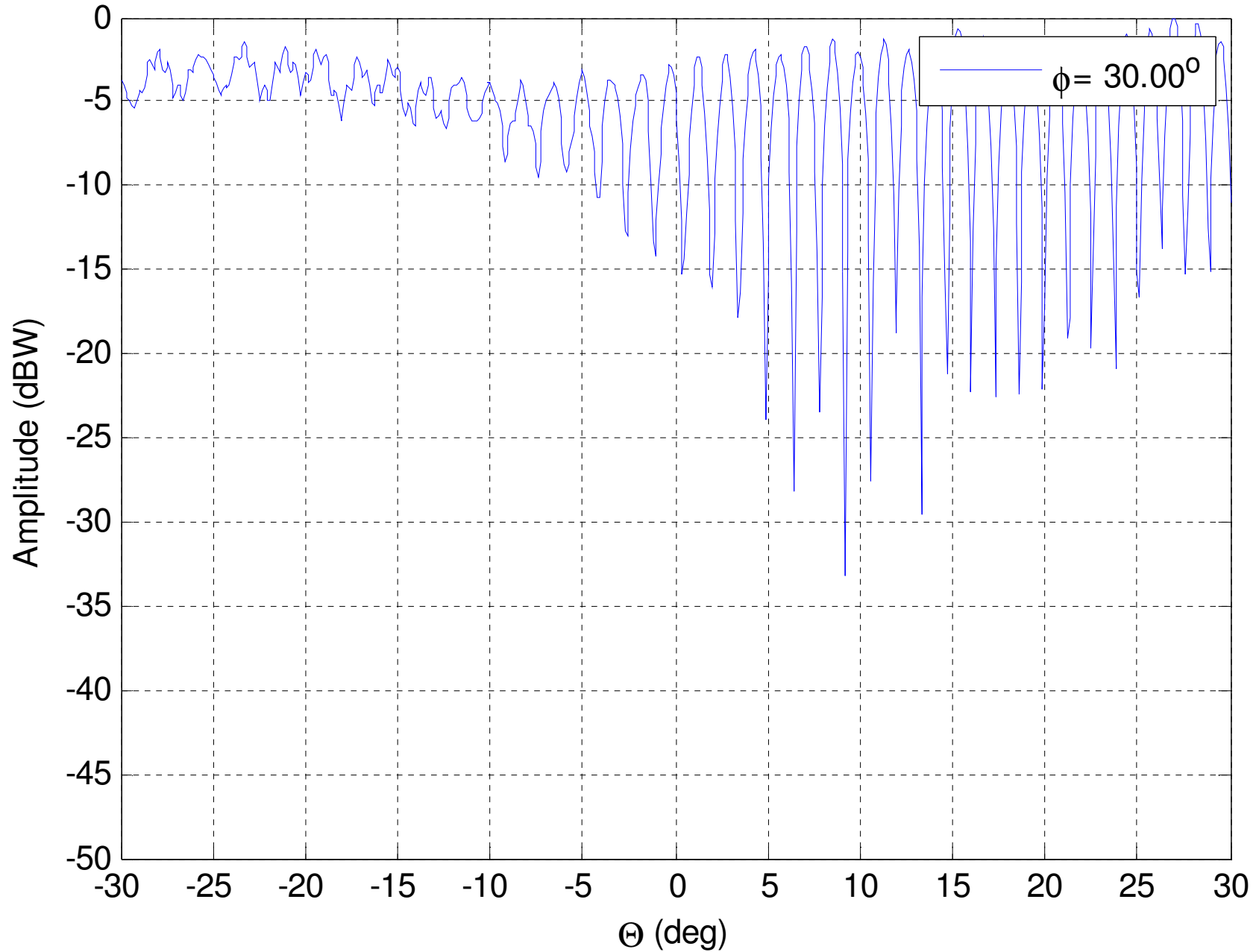
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-20.cut, Peak: -9.10 dBW, Date: 16-Dec-2011



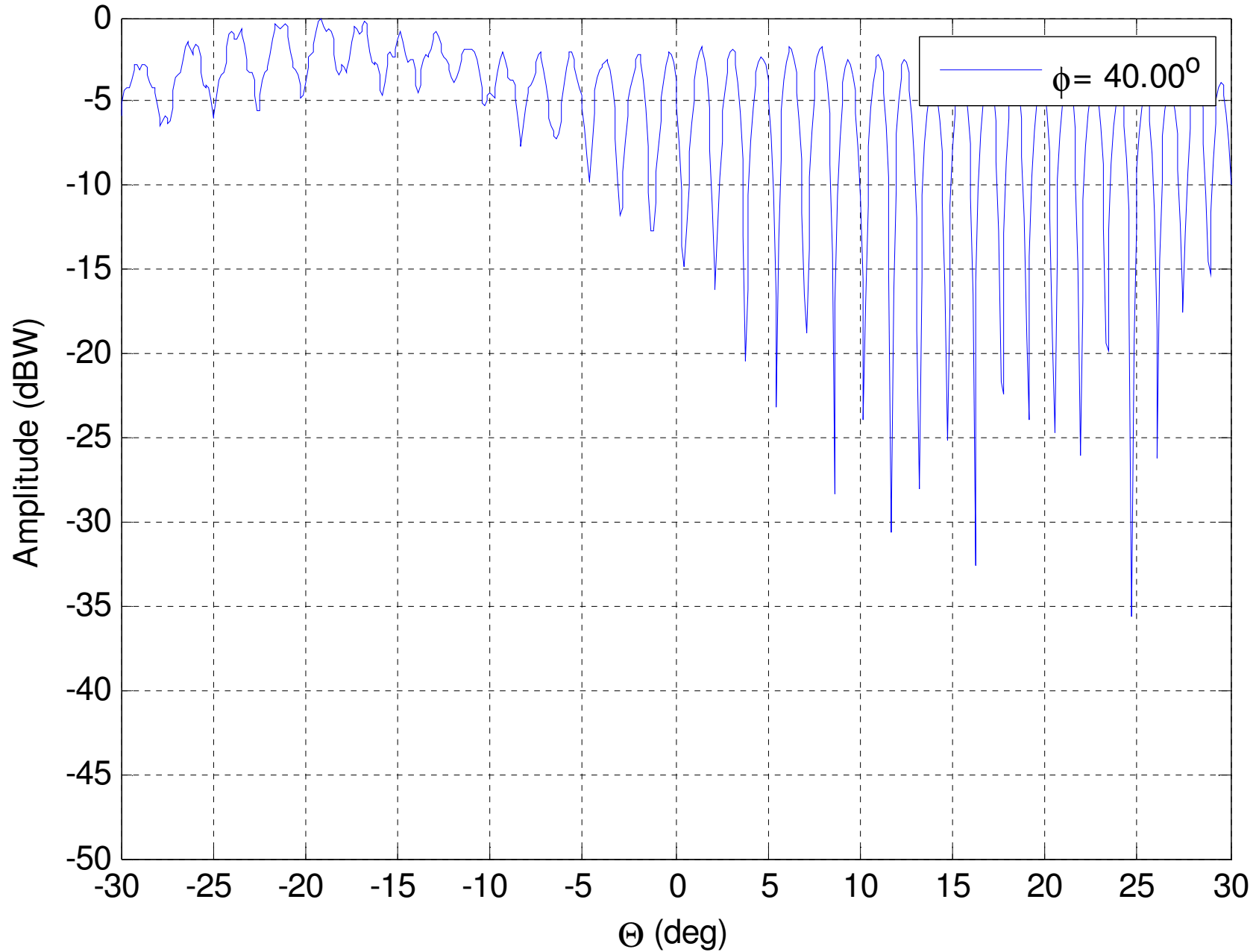
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-30.cut, Peak: -11.12 dBW, Date: 16-Dec-2011



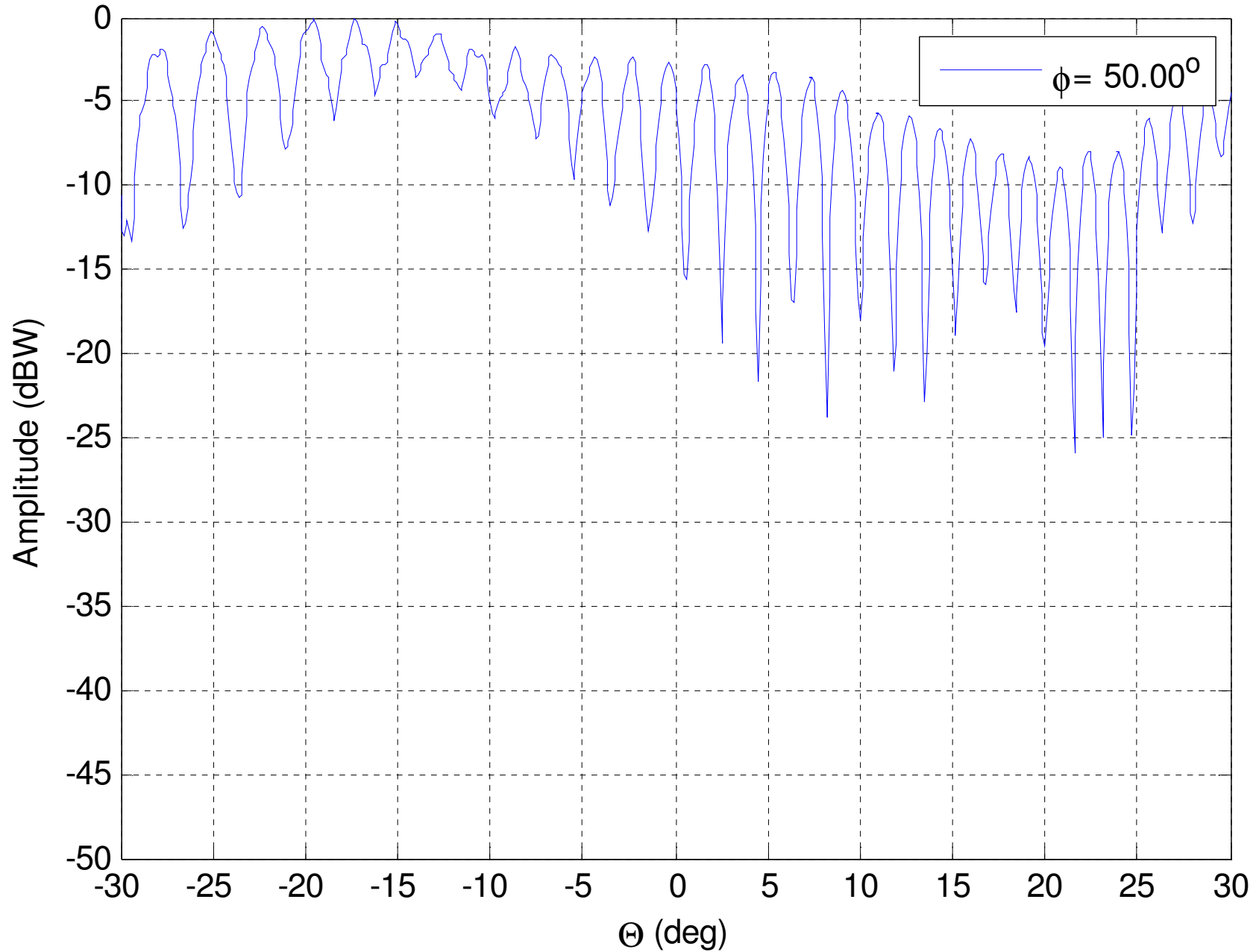
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-40.cut, Peak: -11.88 dBW, Date: 16-Dec-2011



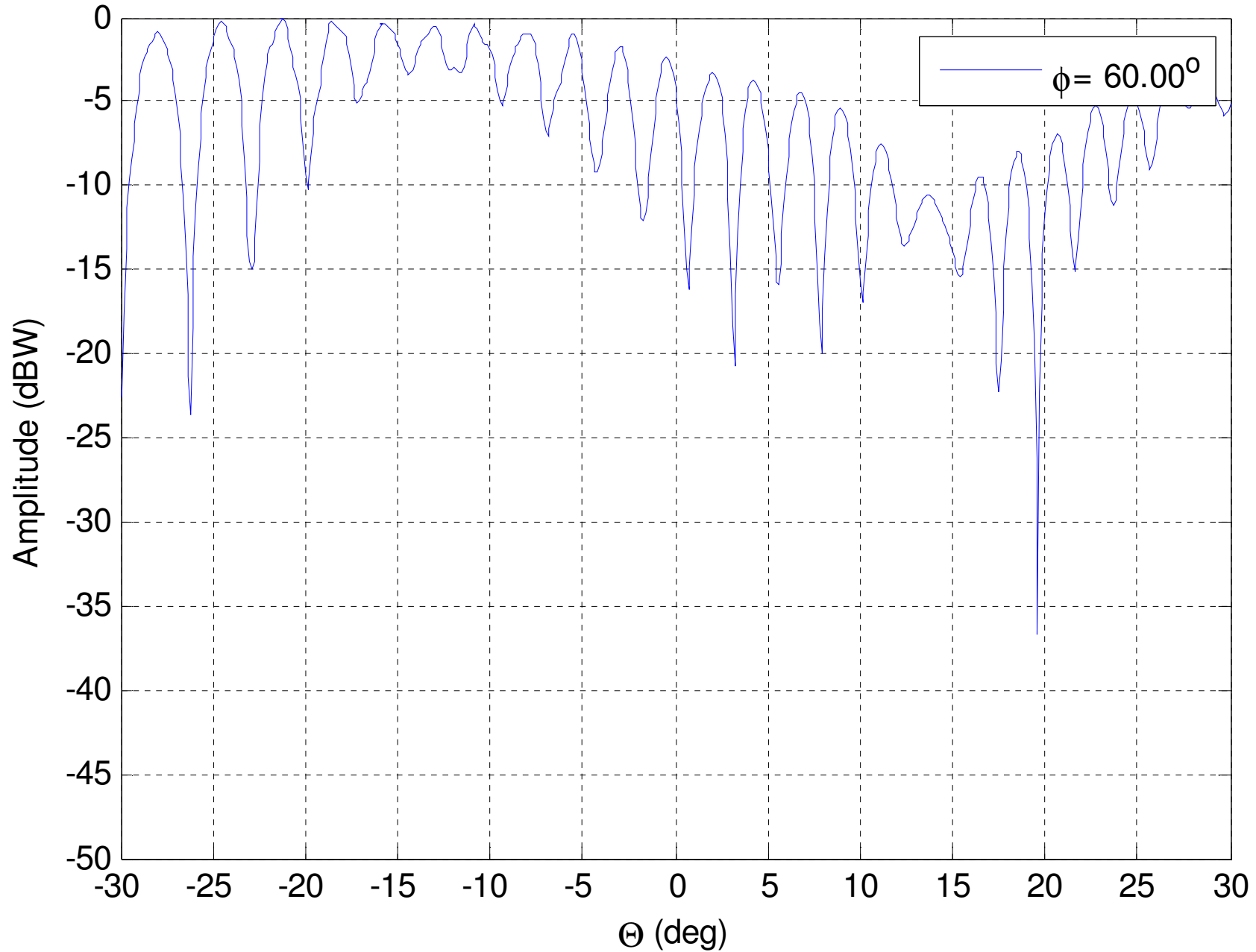
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-50.cut, Peak: -11.24 dBW, Date: 16-Dec-2011



Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-60.cut, Peak: -11.41 dBW, Date: 16-Dec-2011



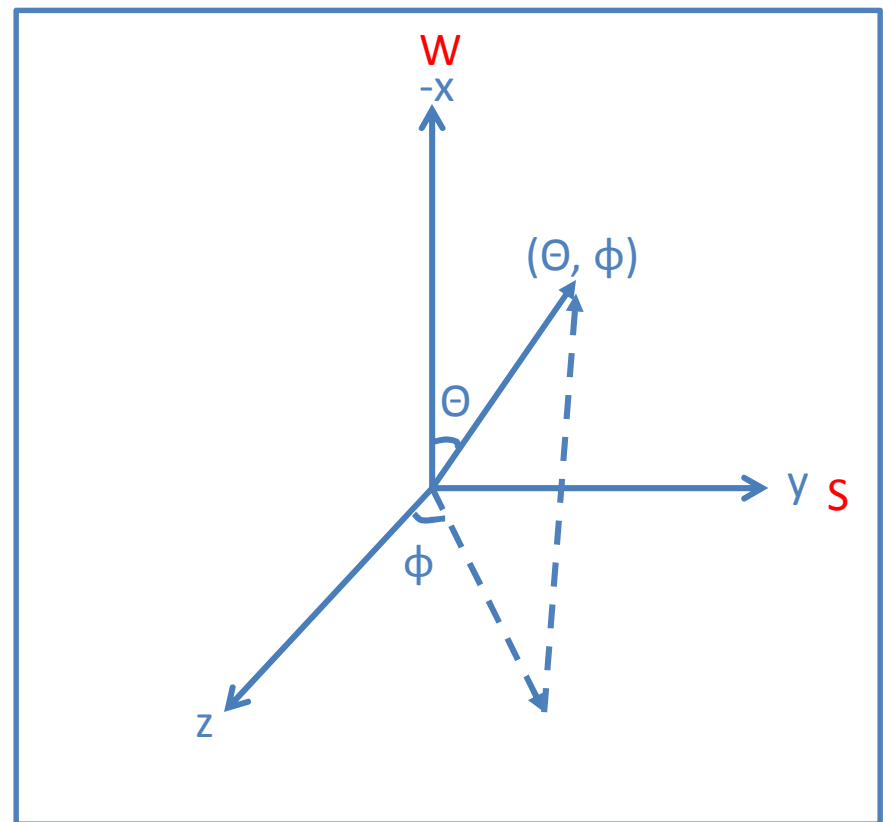
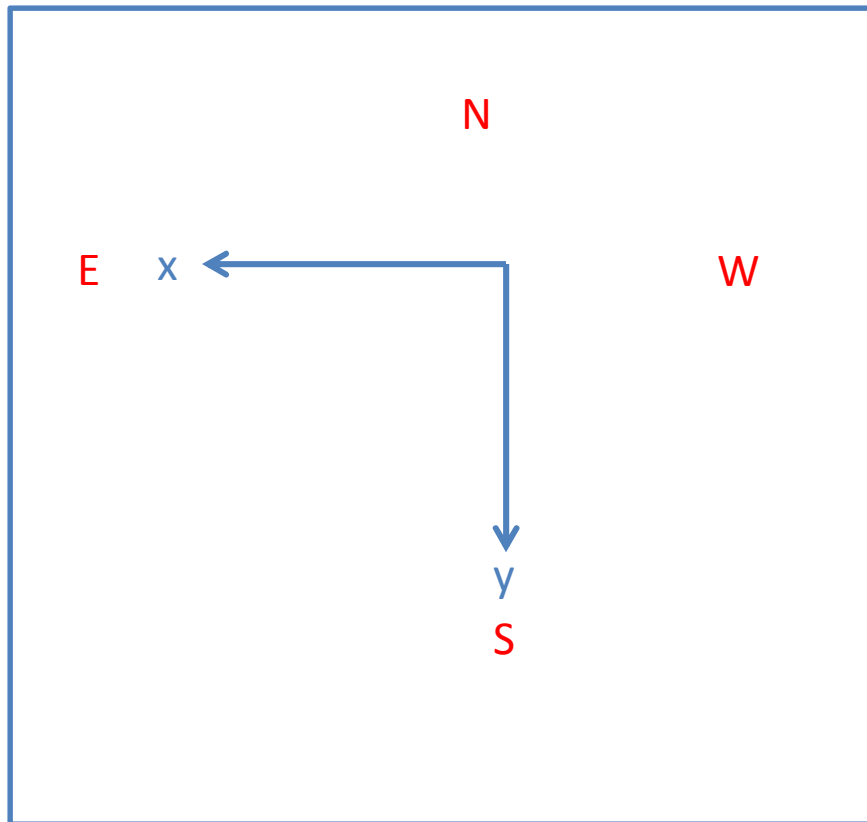
December 13, 2011

119 West Adjacent Satellite Off Axis Antenna Performance Spot Beam 51 cf: 7.3 dBW

Maximum Allowable EIRP to meet the -117dBW/m²/100 kHz

Maximum EIRP Allowed	
Spec Max flux density, dBW/m ² /100kHz	-117
Desired channel band width, MHz	25.8
Symbol rate band width modification factor	1
Effective channel bandwidth, MHz	25.8
Effective bandwidth, dB-100kHz	24.1
Flux density allowed per channel, dBW/m ²	-92.9
R, radial distance to GEO, km	42164.0
Angle of separation between satellites, deg	0.1
range between satellites, km	73.59
Spreading factor, dB/m ²	-108.3
Atmospheric loss, dB	0
Max satellite EIRP allowed, dBW	15.4

Coordinate System



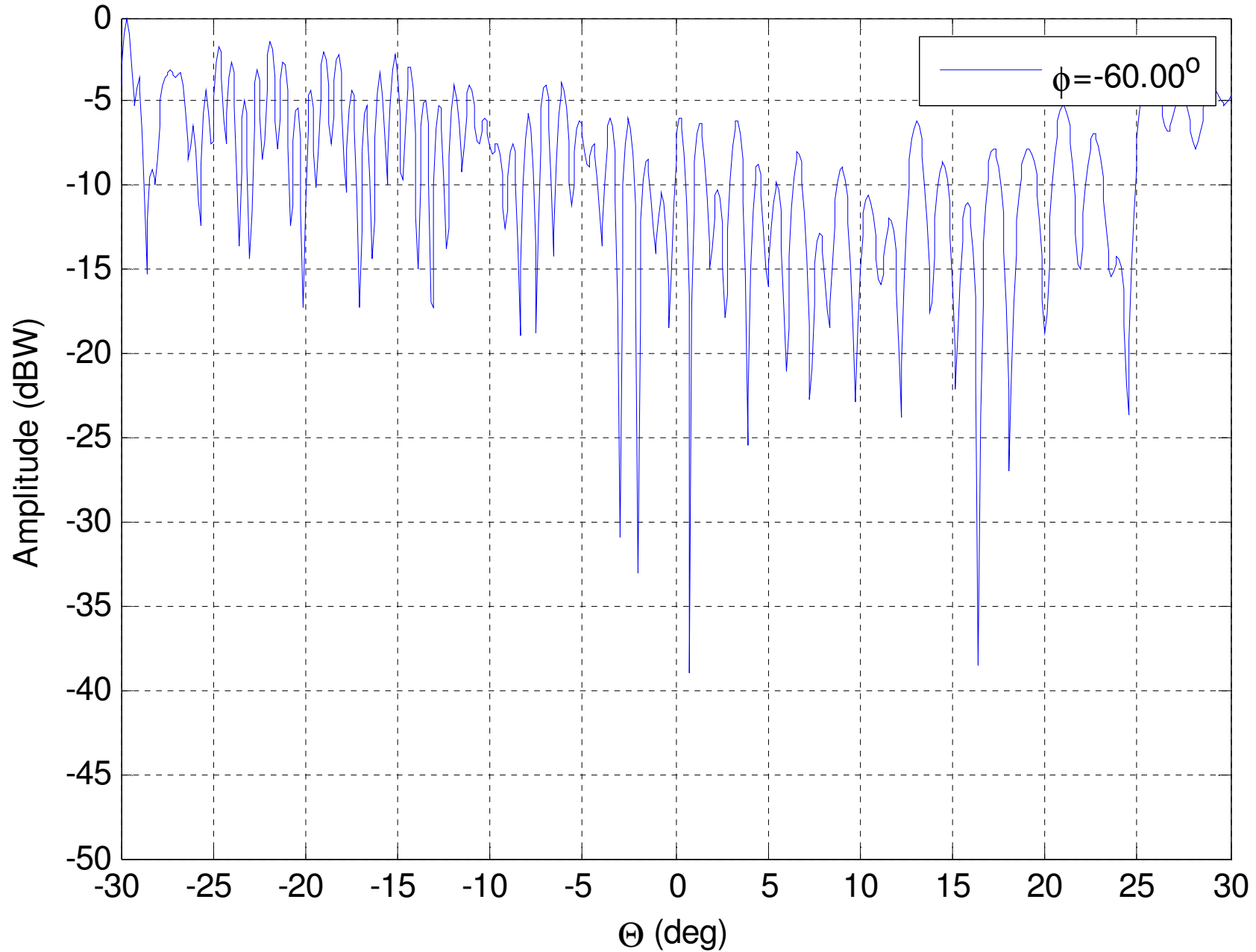
Spot Beam51, -X Axis Plots

- Both polarizations; RHCP, LHCP
- $-30 < \Theta < 30$ ($\Theta=0$: -X -axis)
- $-60 < \phi < 60$
- Freq = 17.3, 17.5, and 17.7 GHz
- The Zero reference line is the peak gain listed in the title of each chart
- All levels are significantly below the required 15.4 dBW EIRP shown on chart 2

RHCP at 17.3 GHz

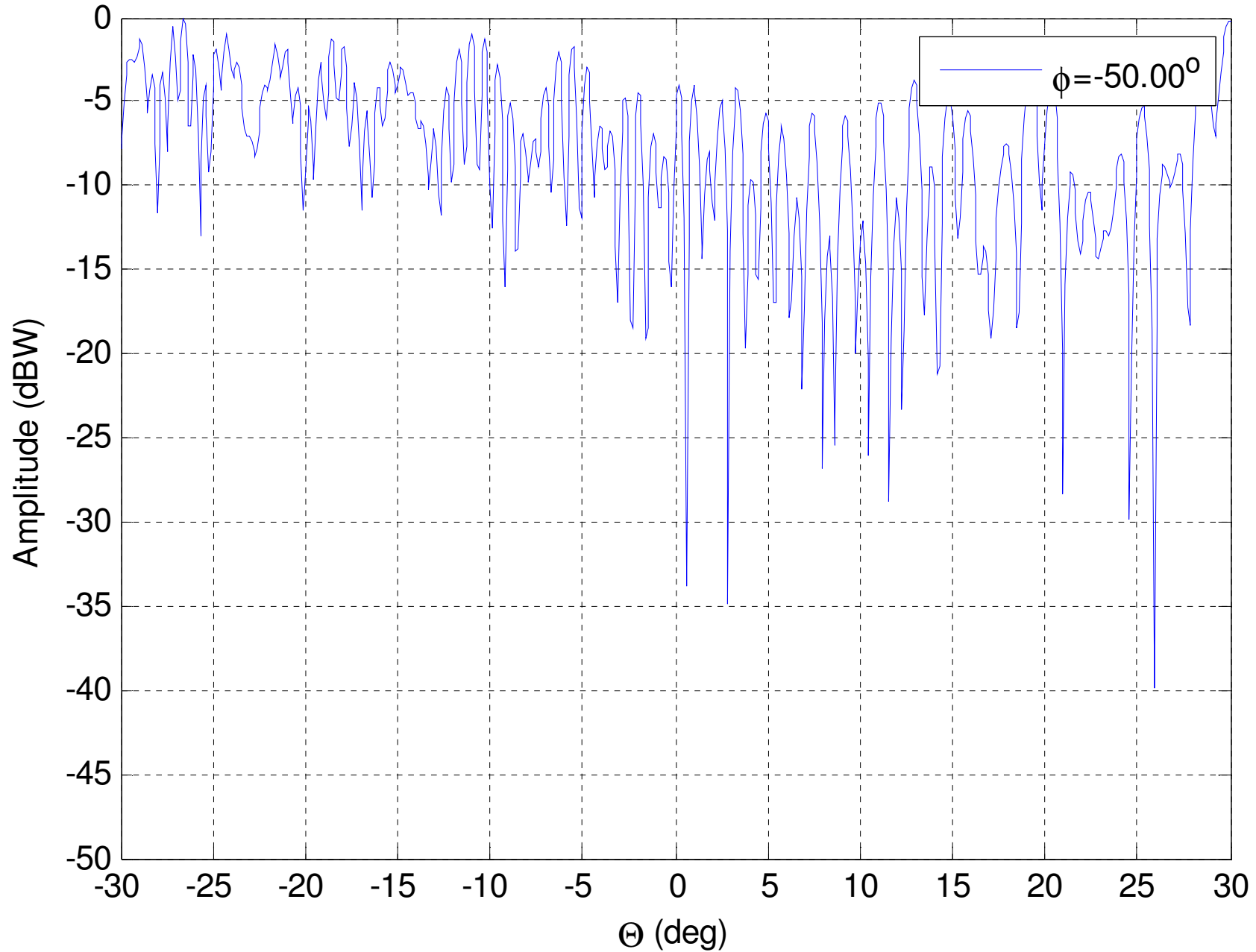
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--60.cut, Peak: -3.60 dBW, Date: 16-Dec-2011



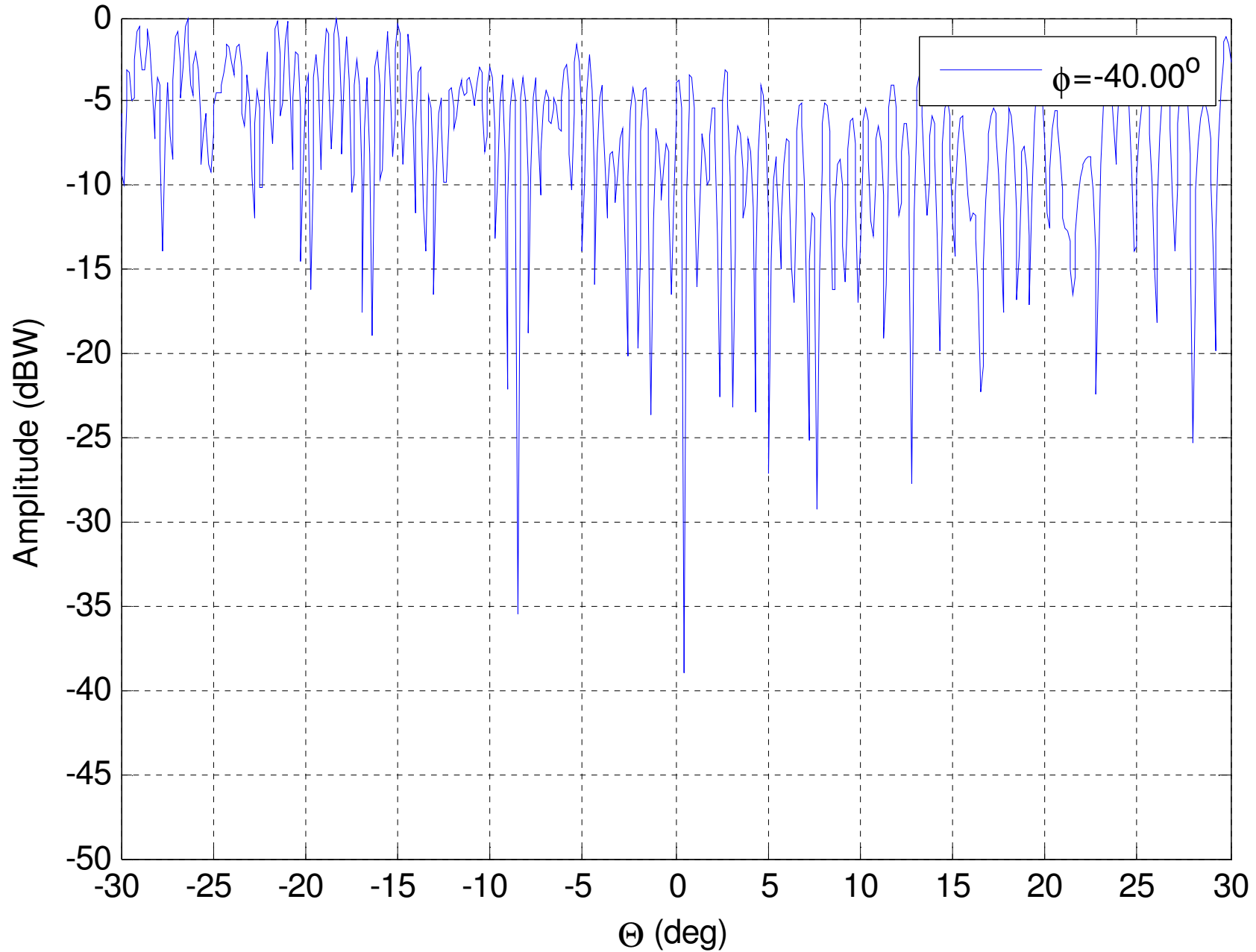
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--50.cut, Peak: -5.55 dBW, Date: 16-Dec-2011



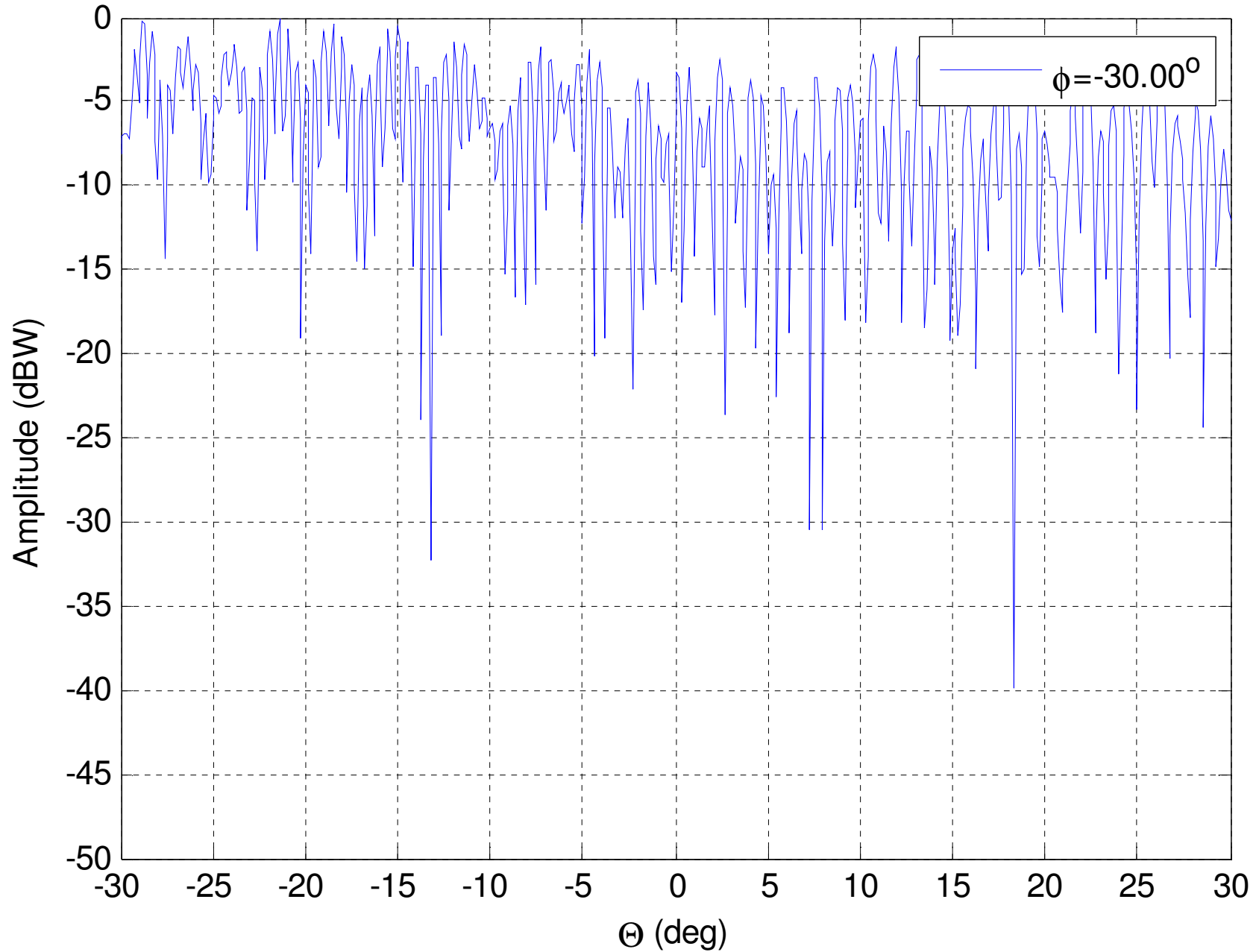
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--40.cut, Peak: -6.06 dBW, Date: 16-Dec-2011



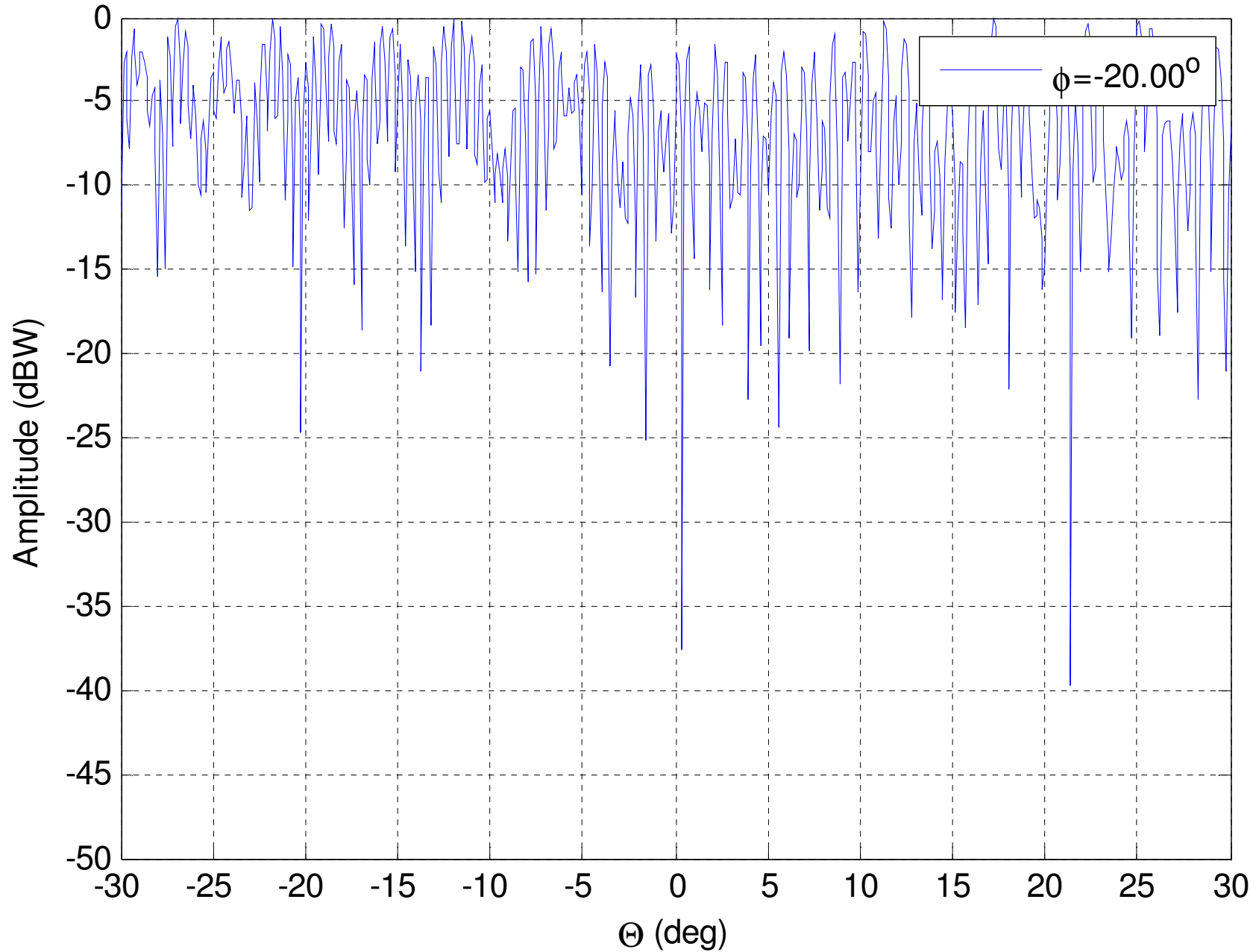
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--30.cut, Peak: -6.55 dBW, Date: 16-Dec-2011



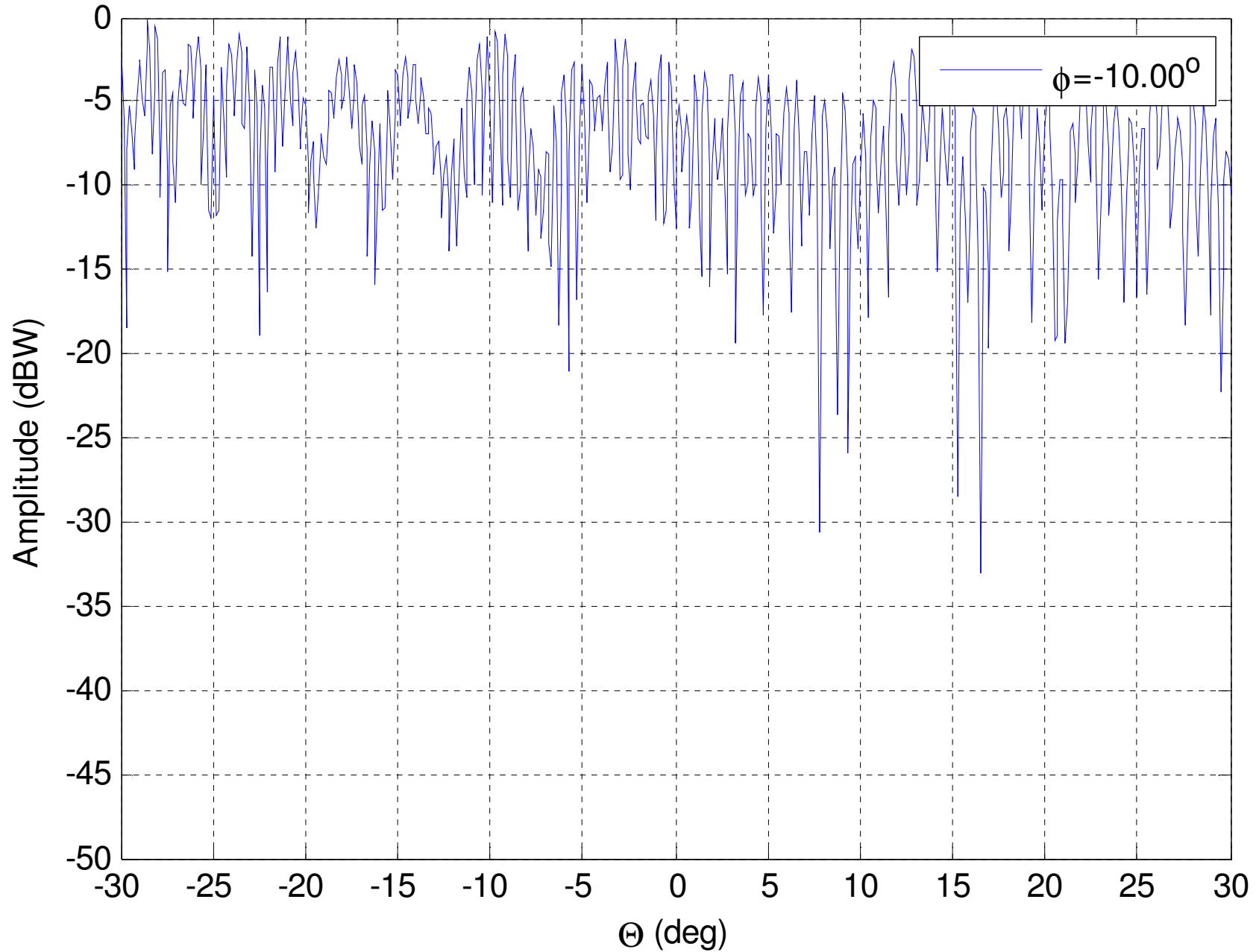
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--20.cut, Peak: -7.58 dBW, Date: 16-Dec-2011



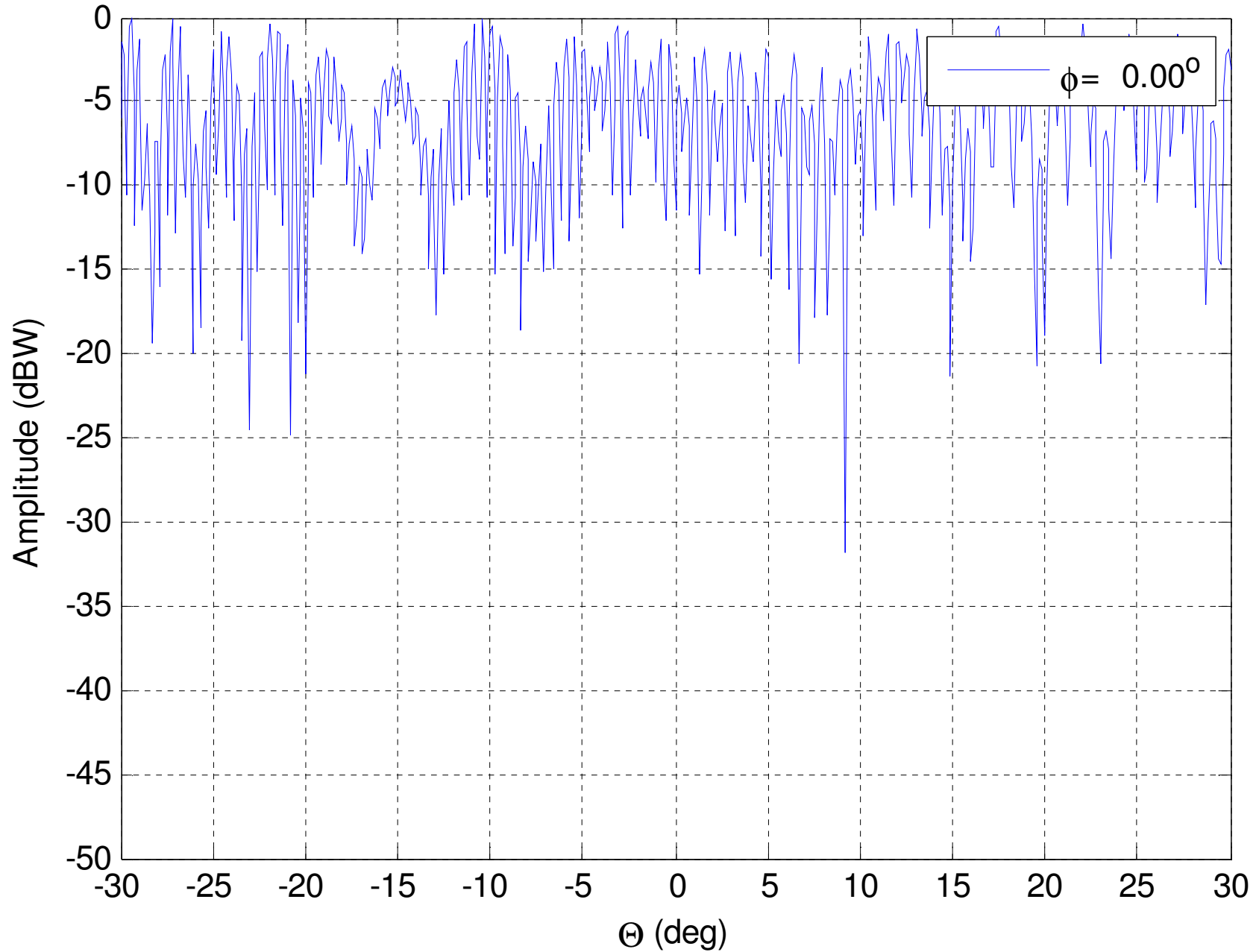
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--10.cut, Peak: -6.85 dBW, Date: 16-Dec-2011



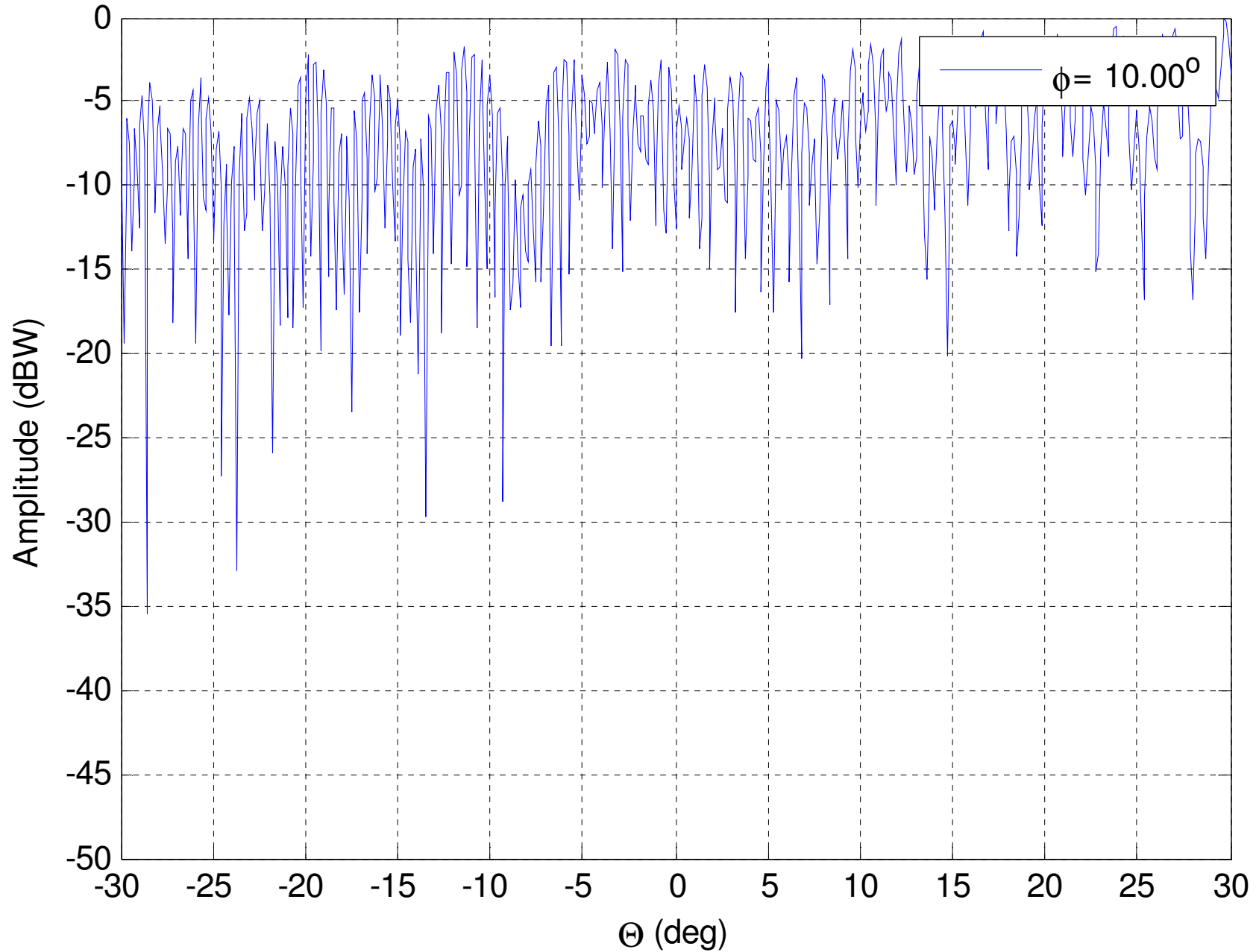
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-0.cut, Peak: -7.94 dBW, Date: 16-Dec-2011



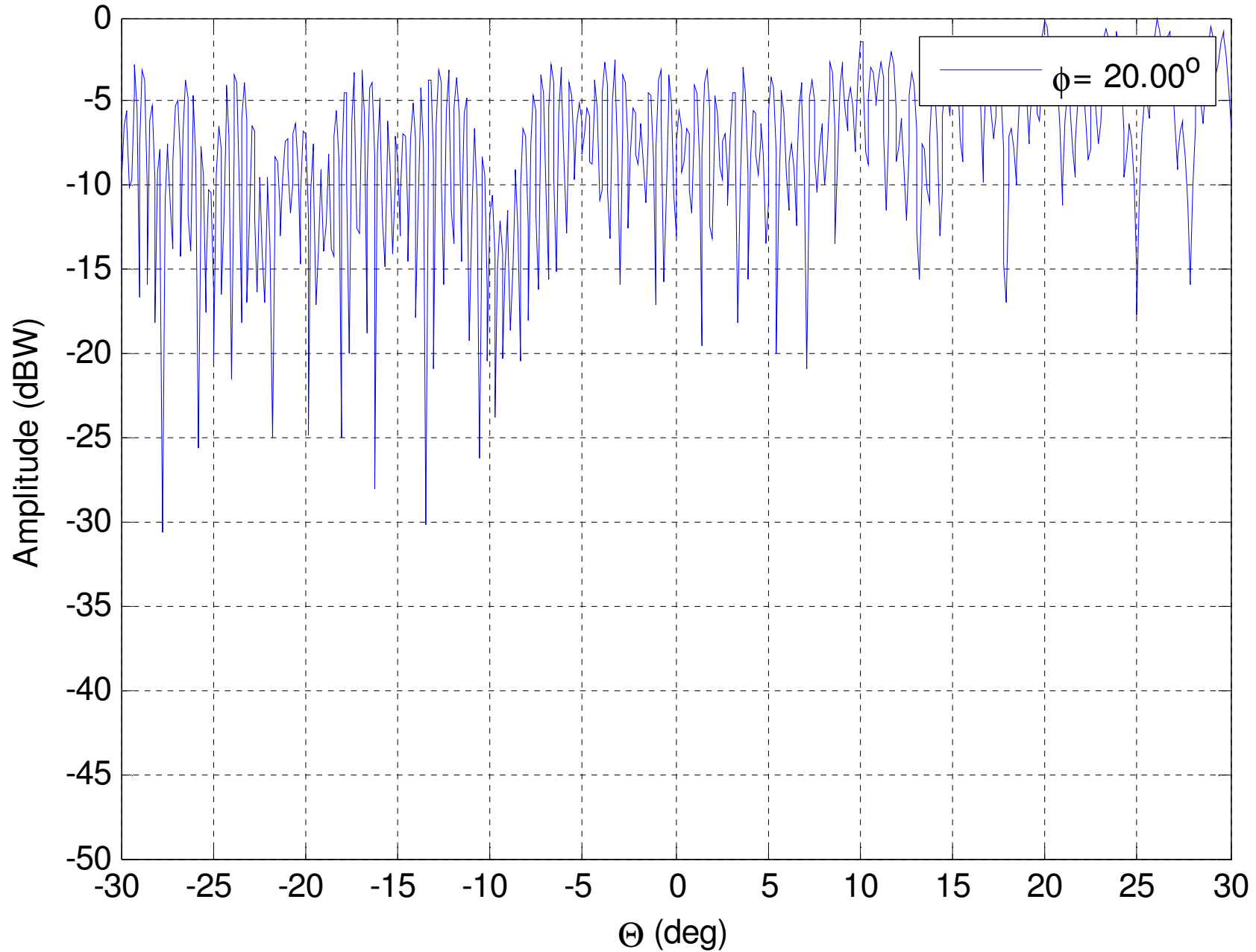
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-10.cut, Peak: -6.76 dBW, Date: 16-Dec-2011



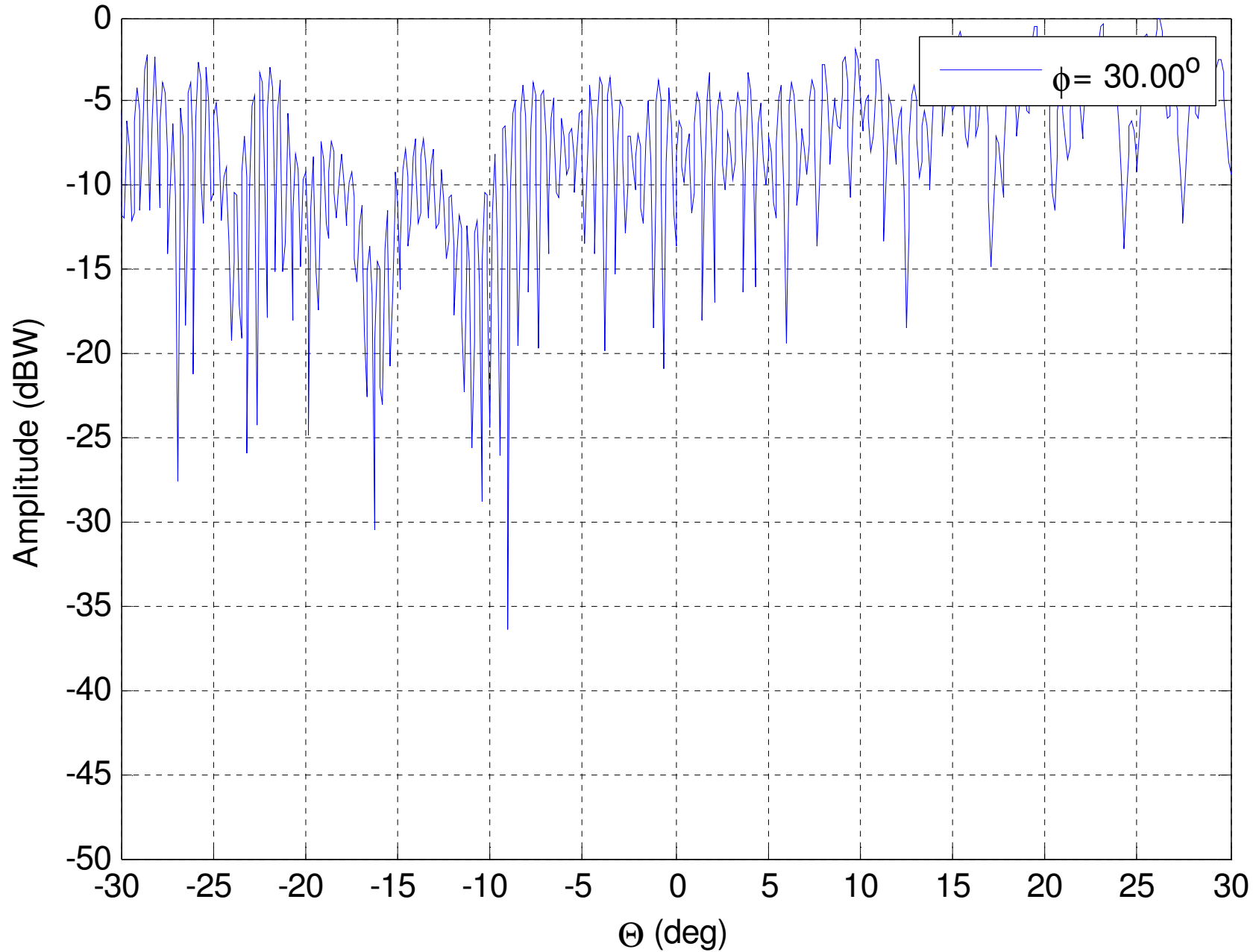
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-20.cut, Peak: -6.32 dBW, Date: 16-Dec-2011



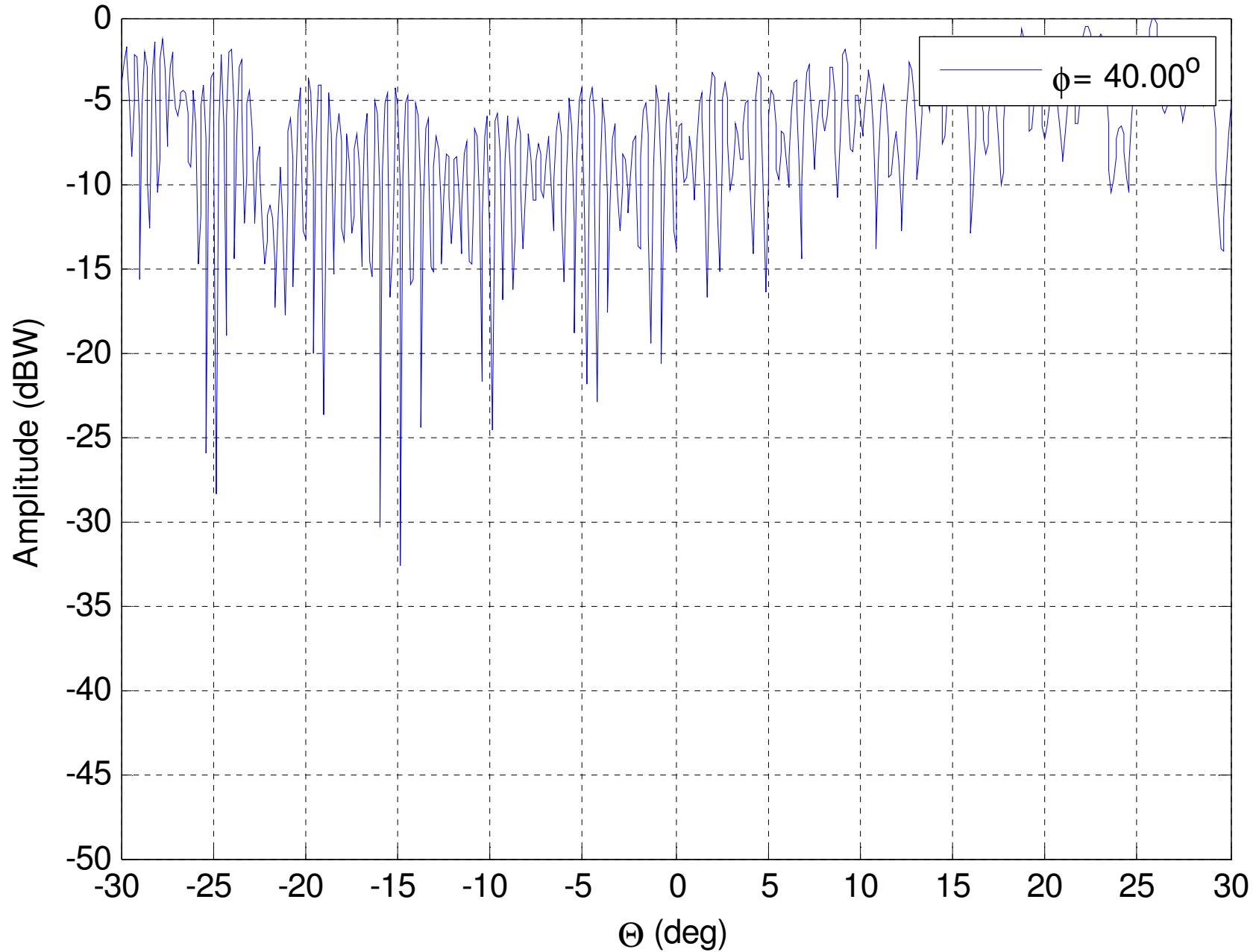
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-30.cut, Peak: -5.74 dBW, Date: 16-Dec-2011



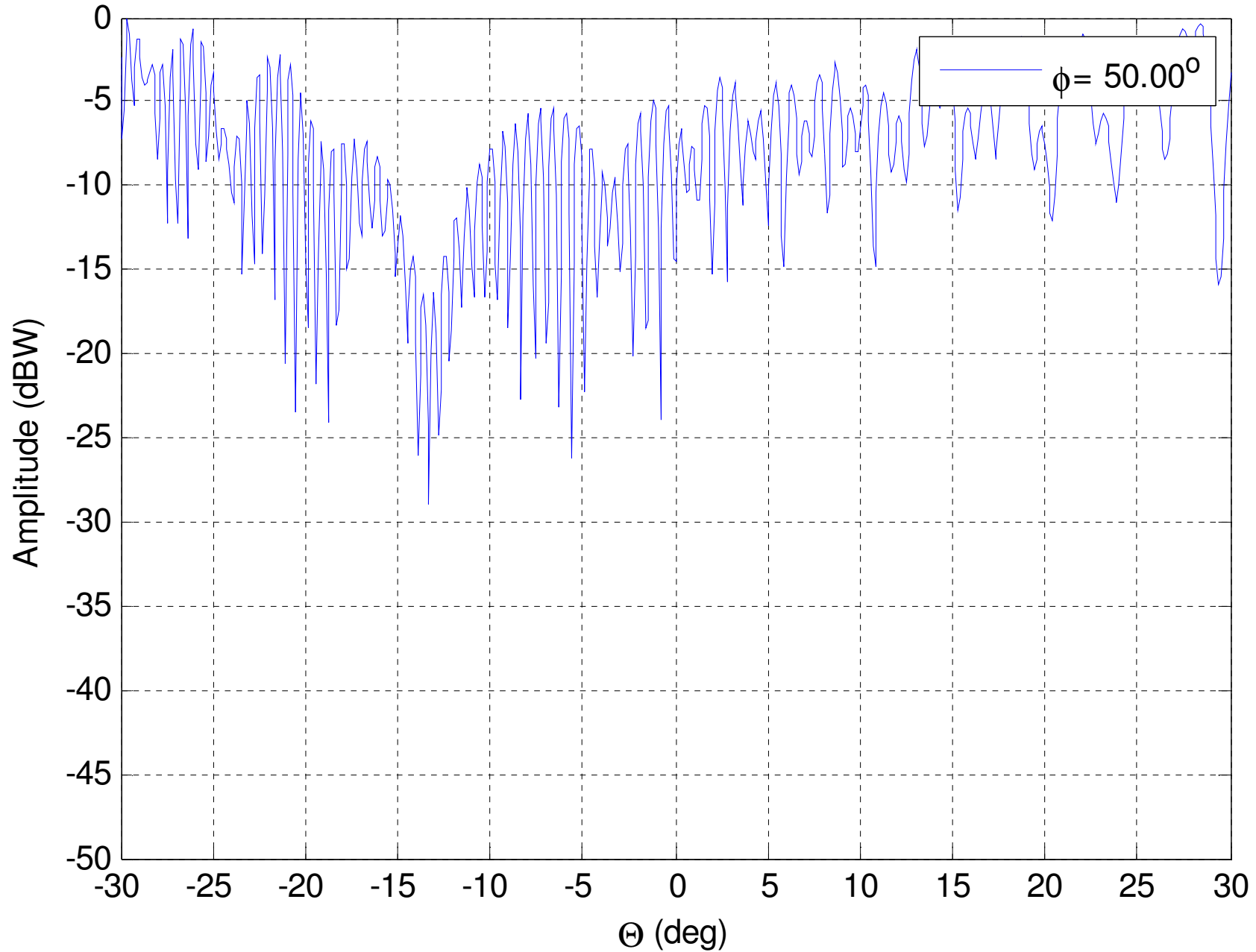
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-40.cut, Peak: -5.57 dBW, Date: 16-Dec-2011



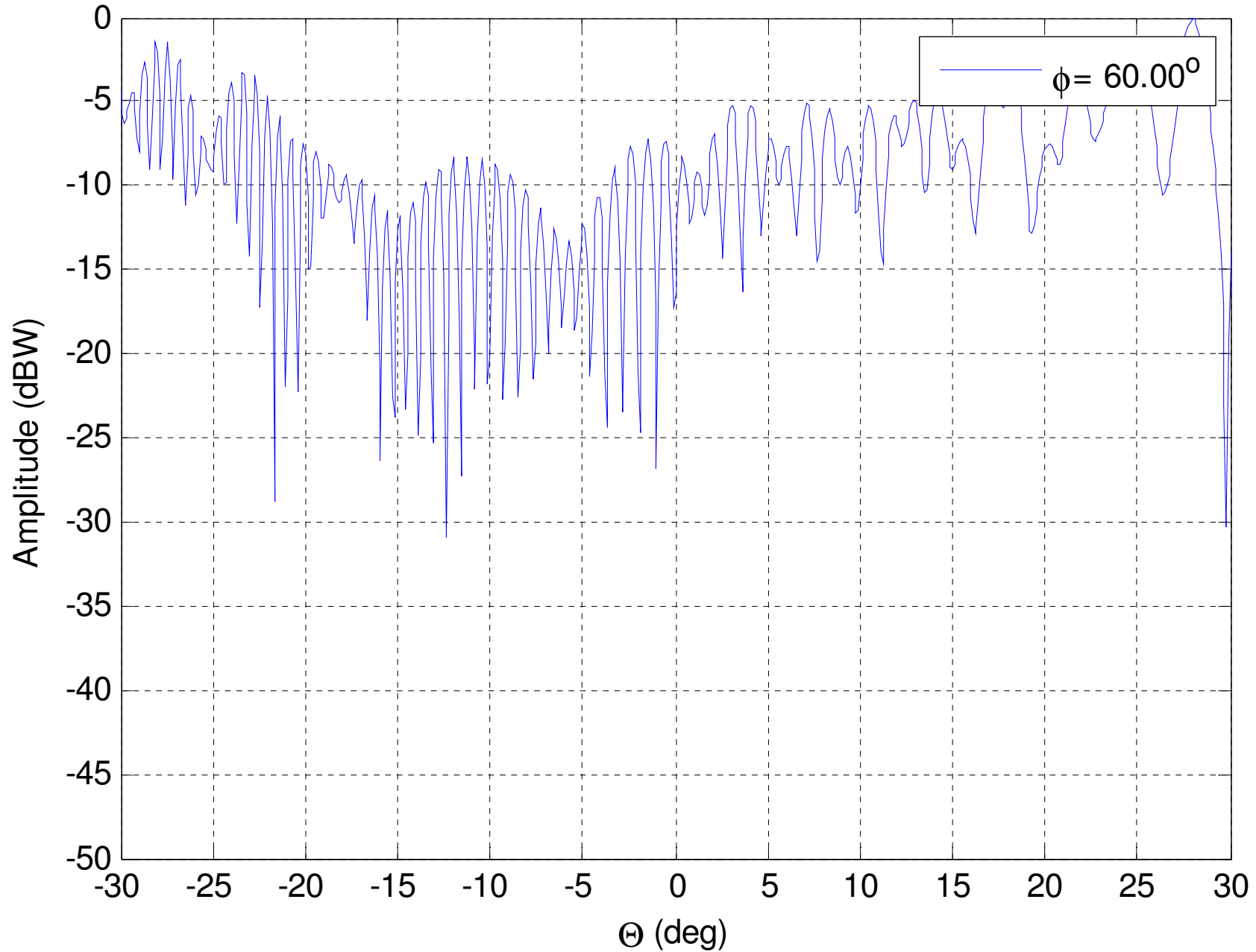
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-50.cut, Peak: -4.86 dBW, Date: 16-Dec-2011



Normalized pattern cuts - farfield

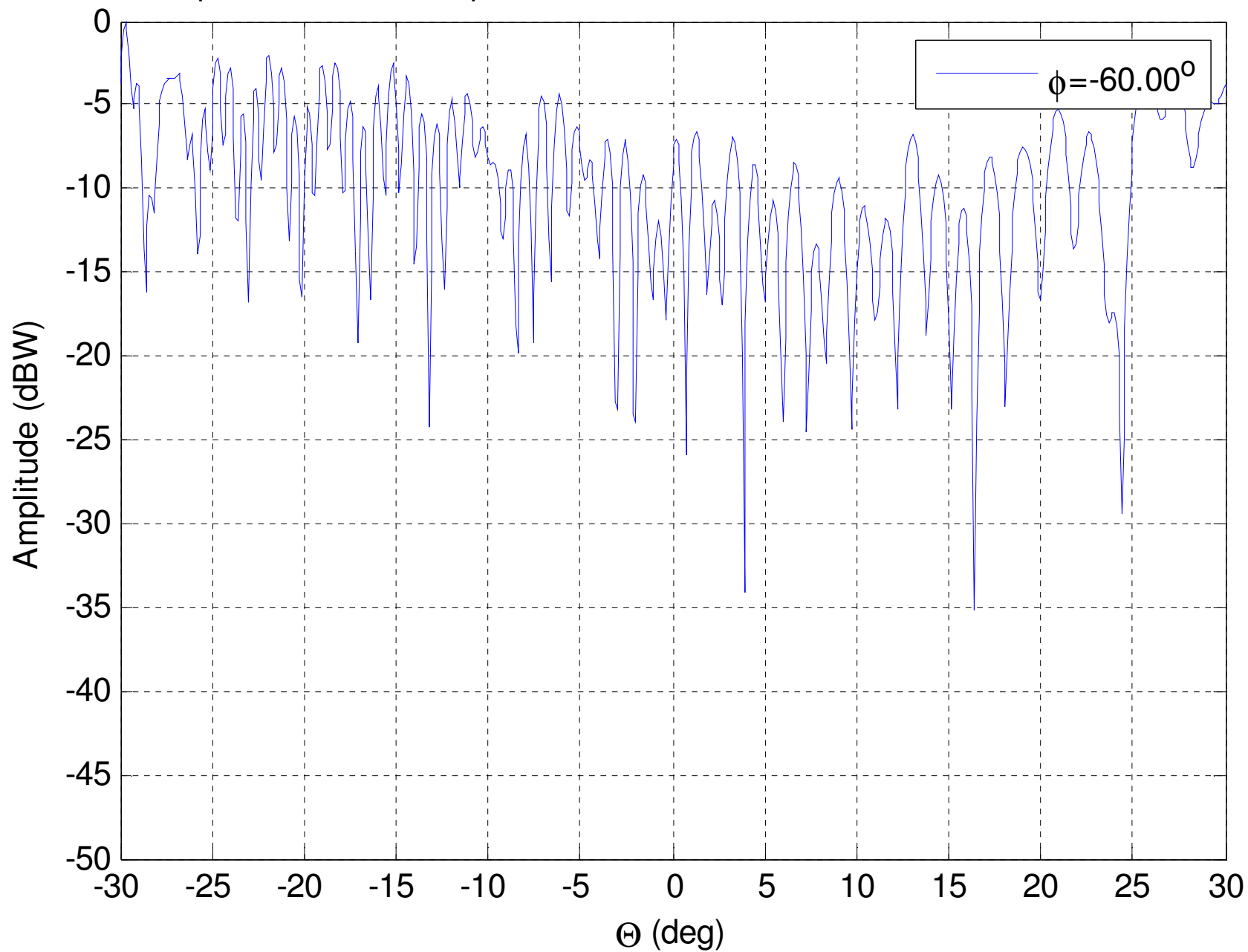
Input file: tx-17.3-rhcp-60.cut, Peak: -2.99 dBW, Date: 16-Dec-2011



LHCP at 17.3 GHz

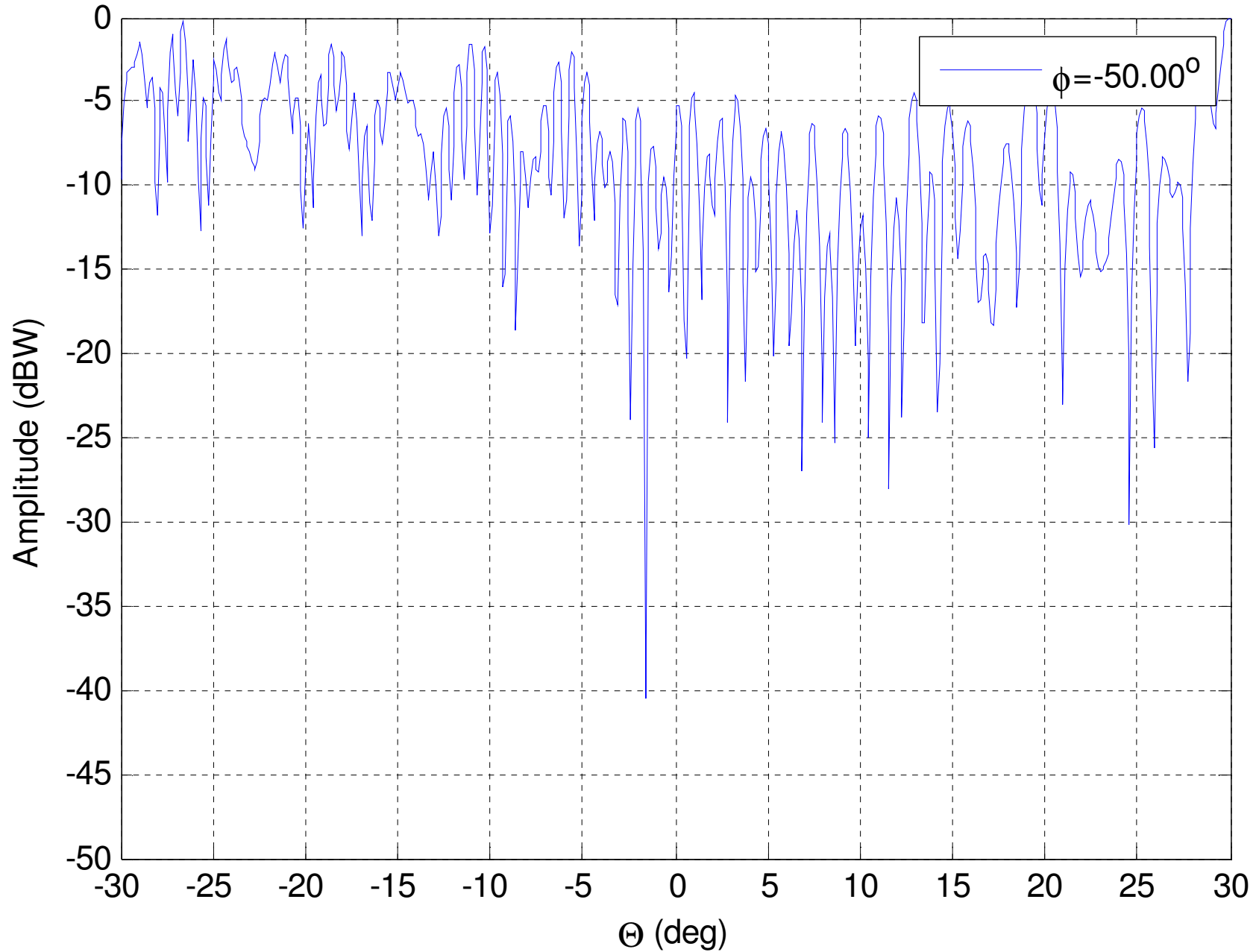
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp--60.cut, Peak: -3.04 dBW, Date: 16-Dec-2011



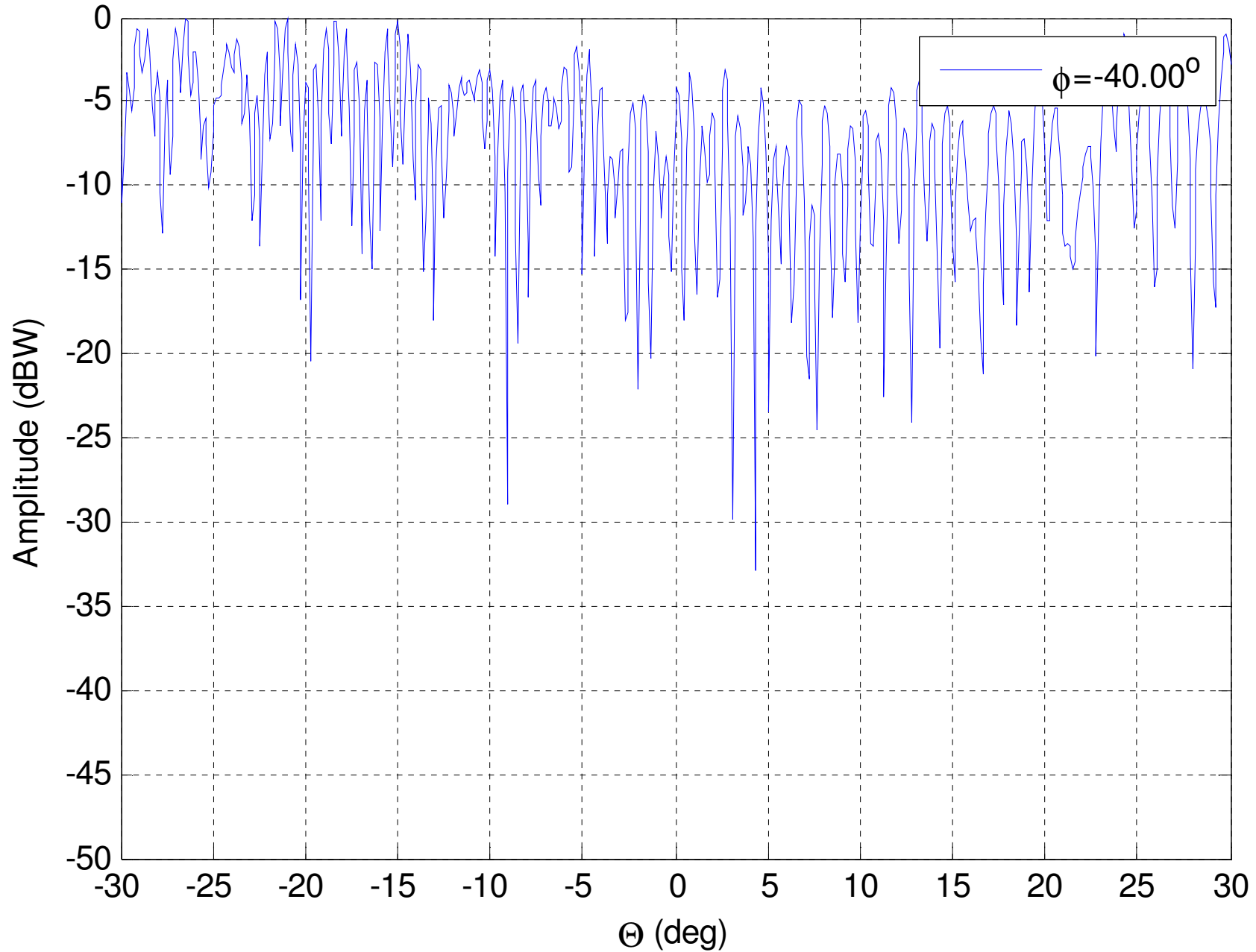
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp--50.cut, Peak: -5.03 dBW, Date: 16-Dec-2011



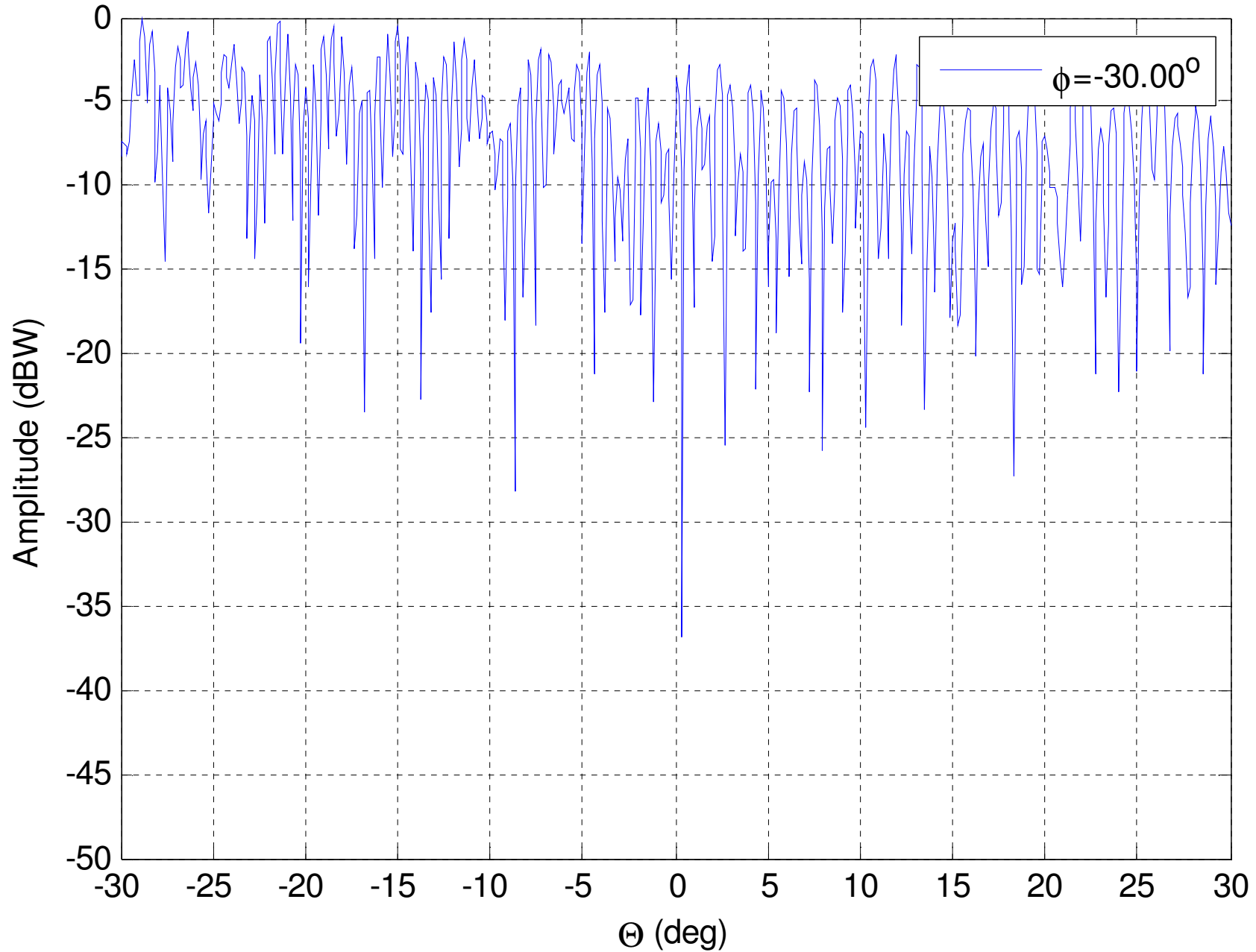
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp--40.cut, Peak: -6.08 dBW, Date: 16-Dec-2011



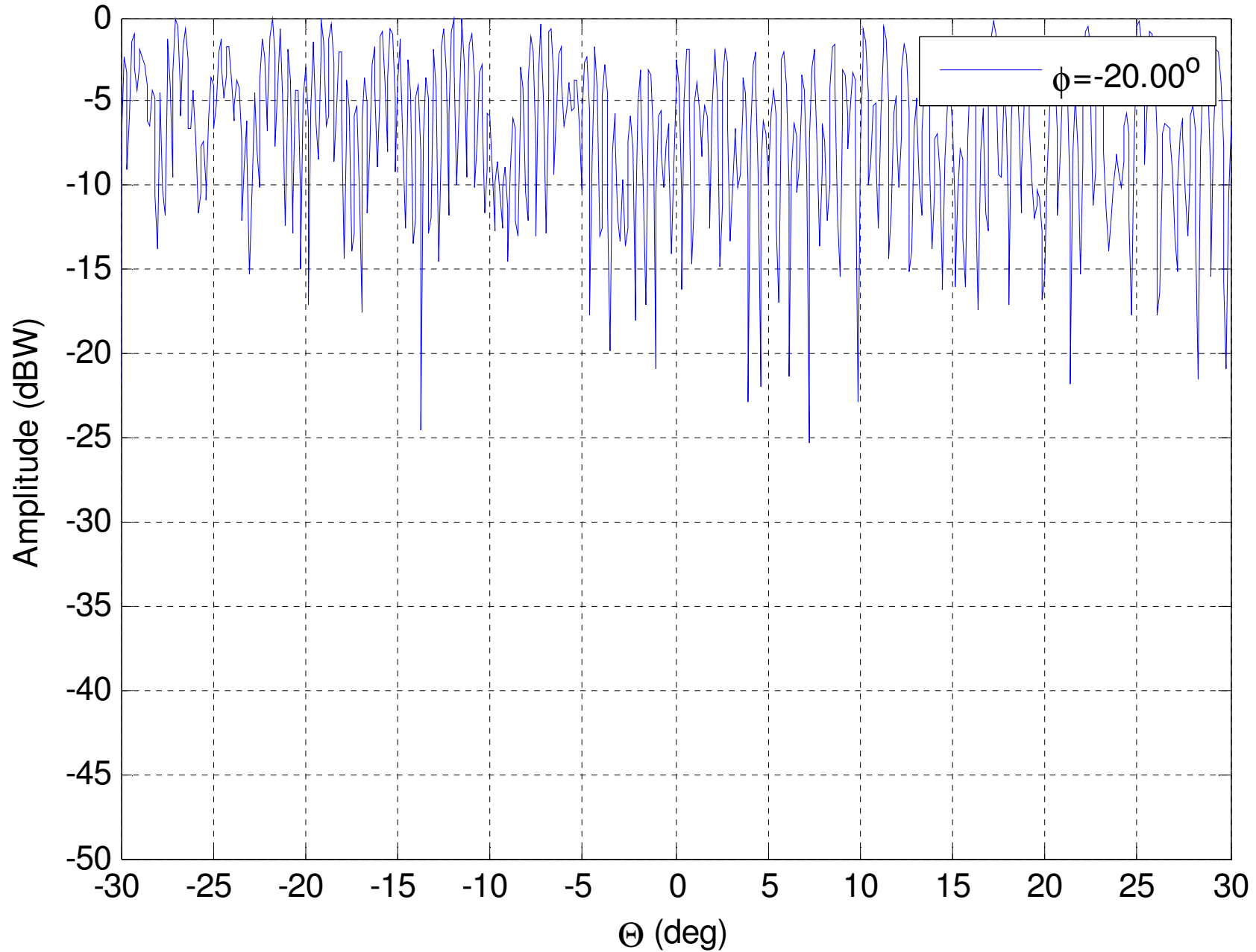
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp--30.cut, Peak: -6.55 dBW, Date: 16-Dec-2011



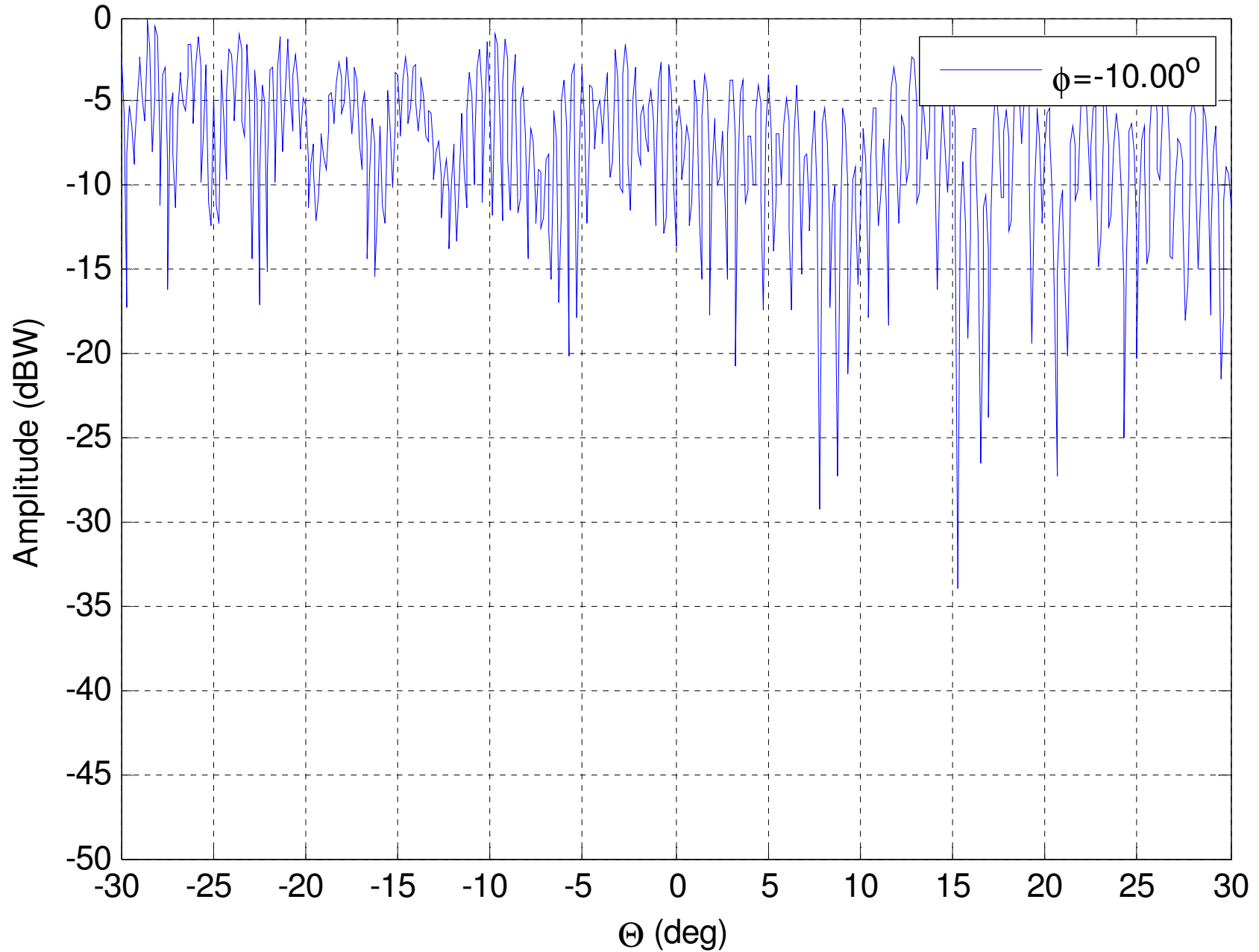
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp--20.cut, Peak: -7.74 dBW, Date: 16-Dec-2011



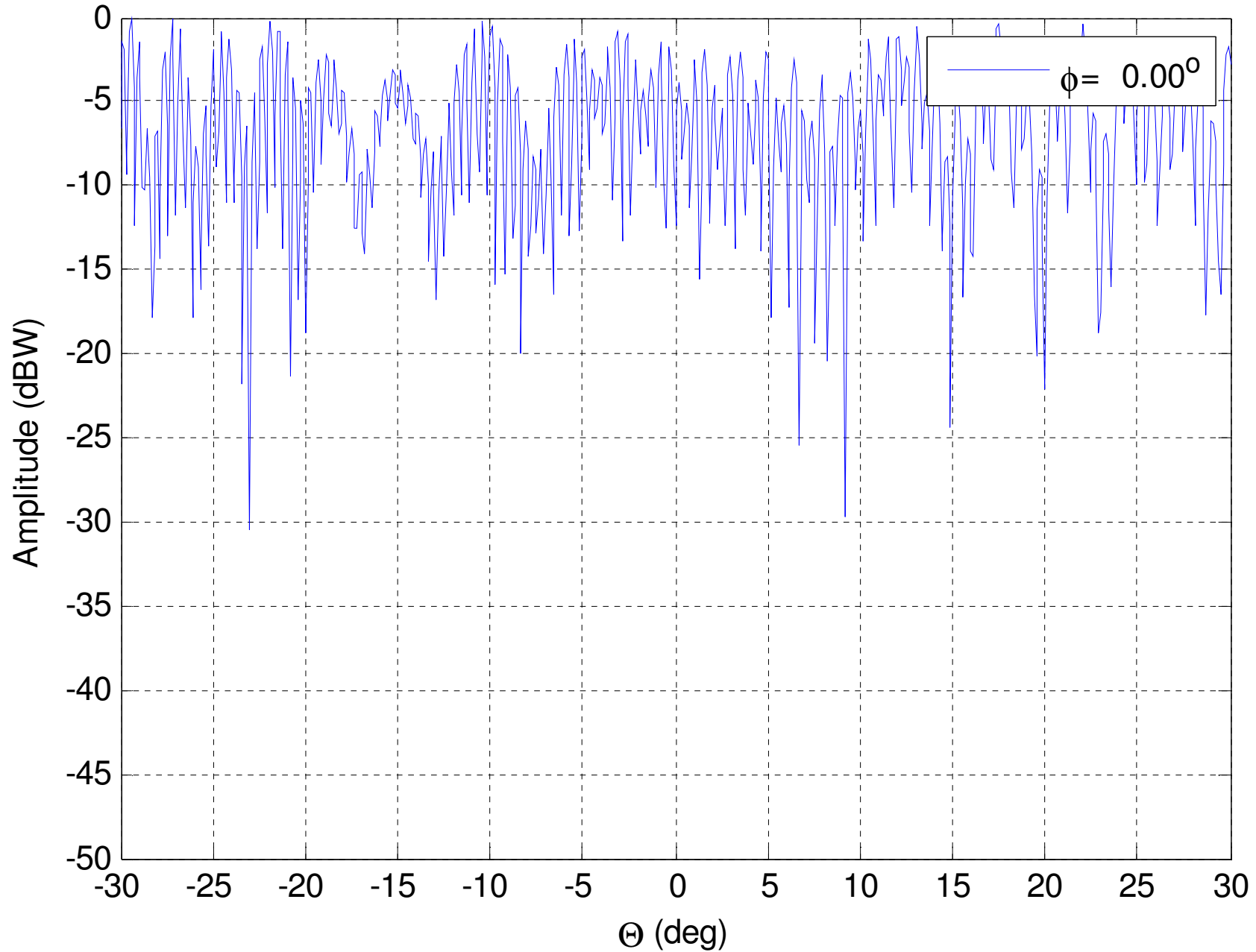
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp--10.cut, Peak: -6.82 dBW, Date: 16-Dec-2011



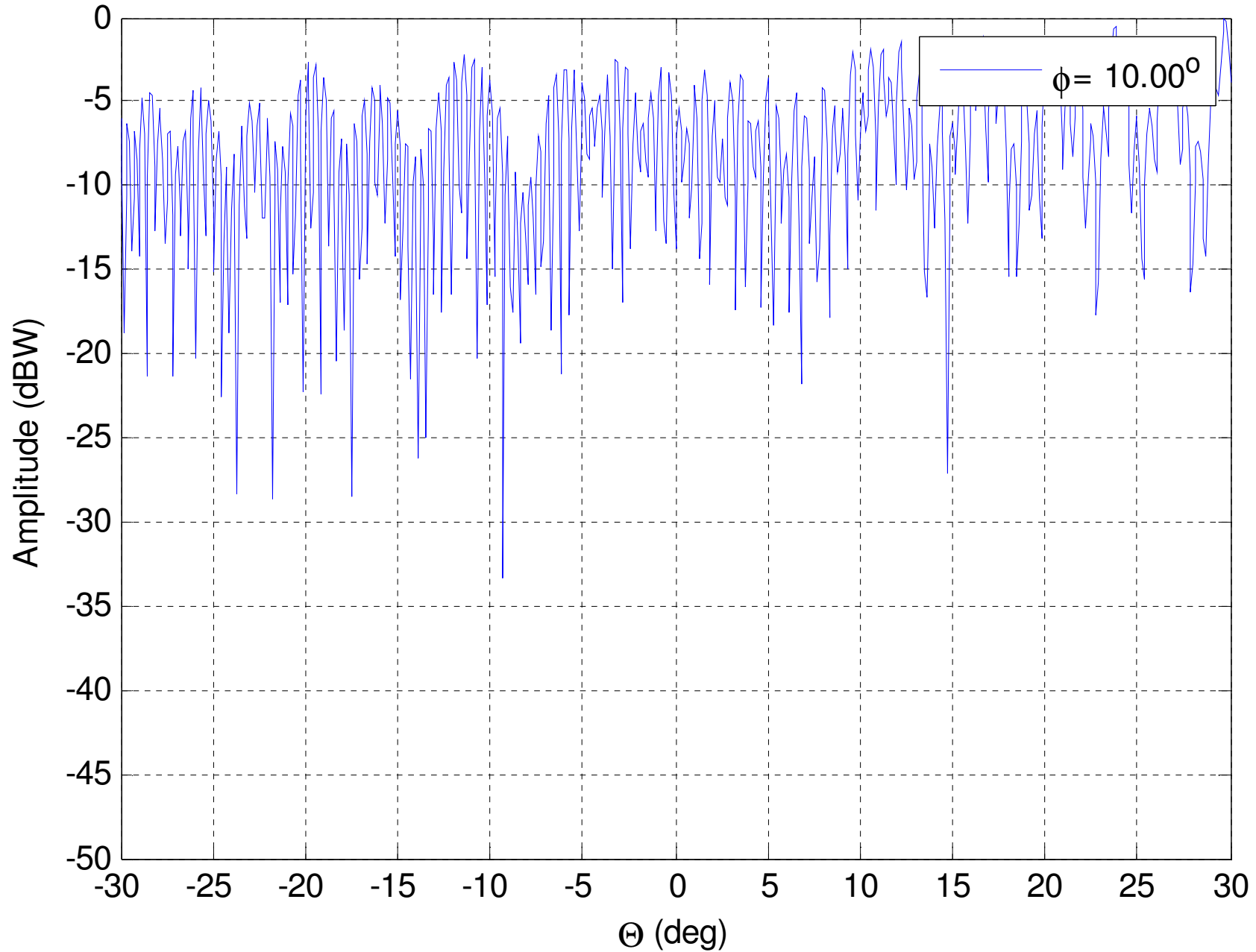
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp-0.cut, Peak: -8.05 dBW, Date: 16-Dec-2011



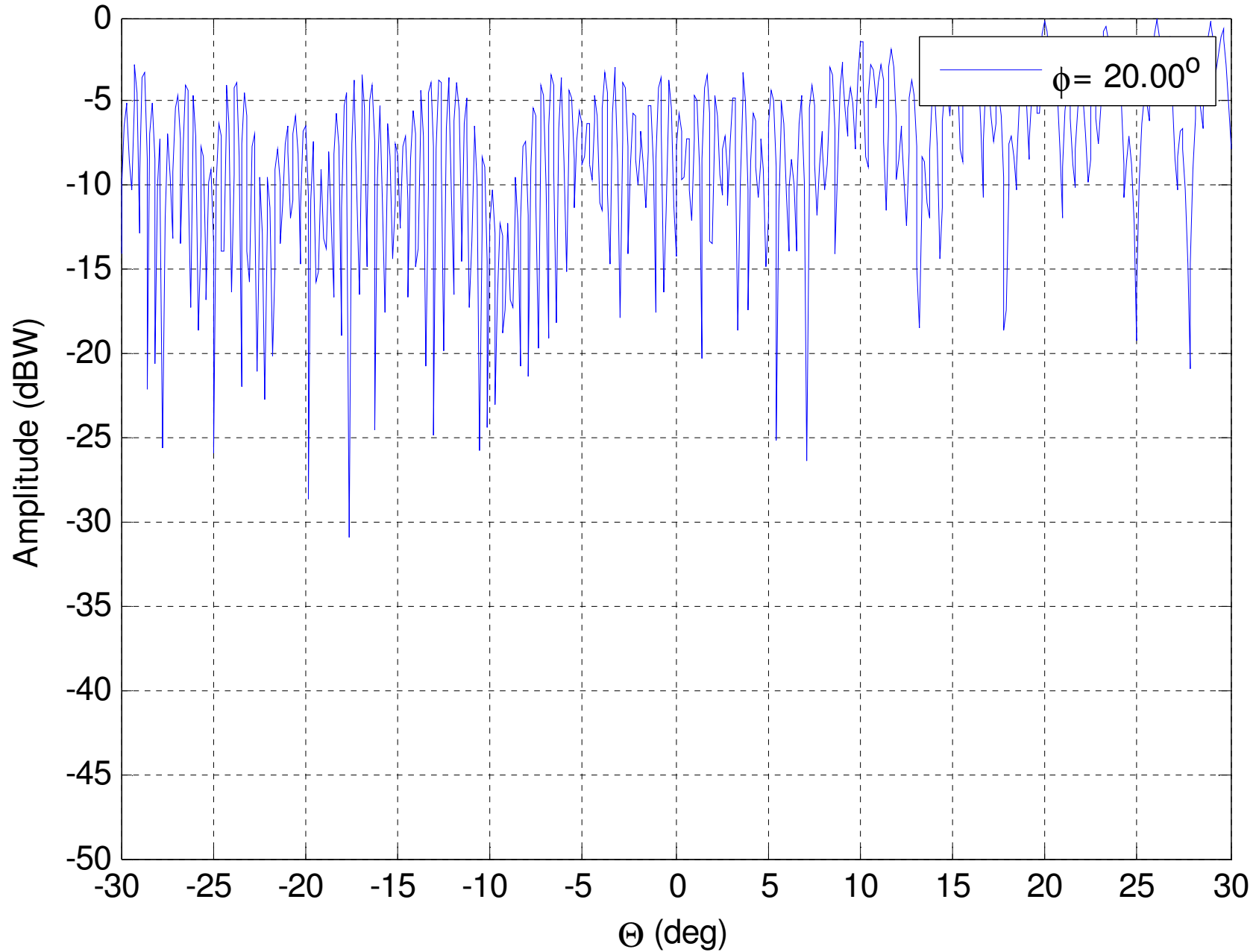
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp-10.cut, Peak: -6.60 dBW, Date: 16-Dec-2011



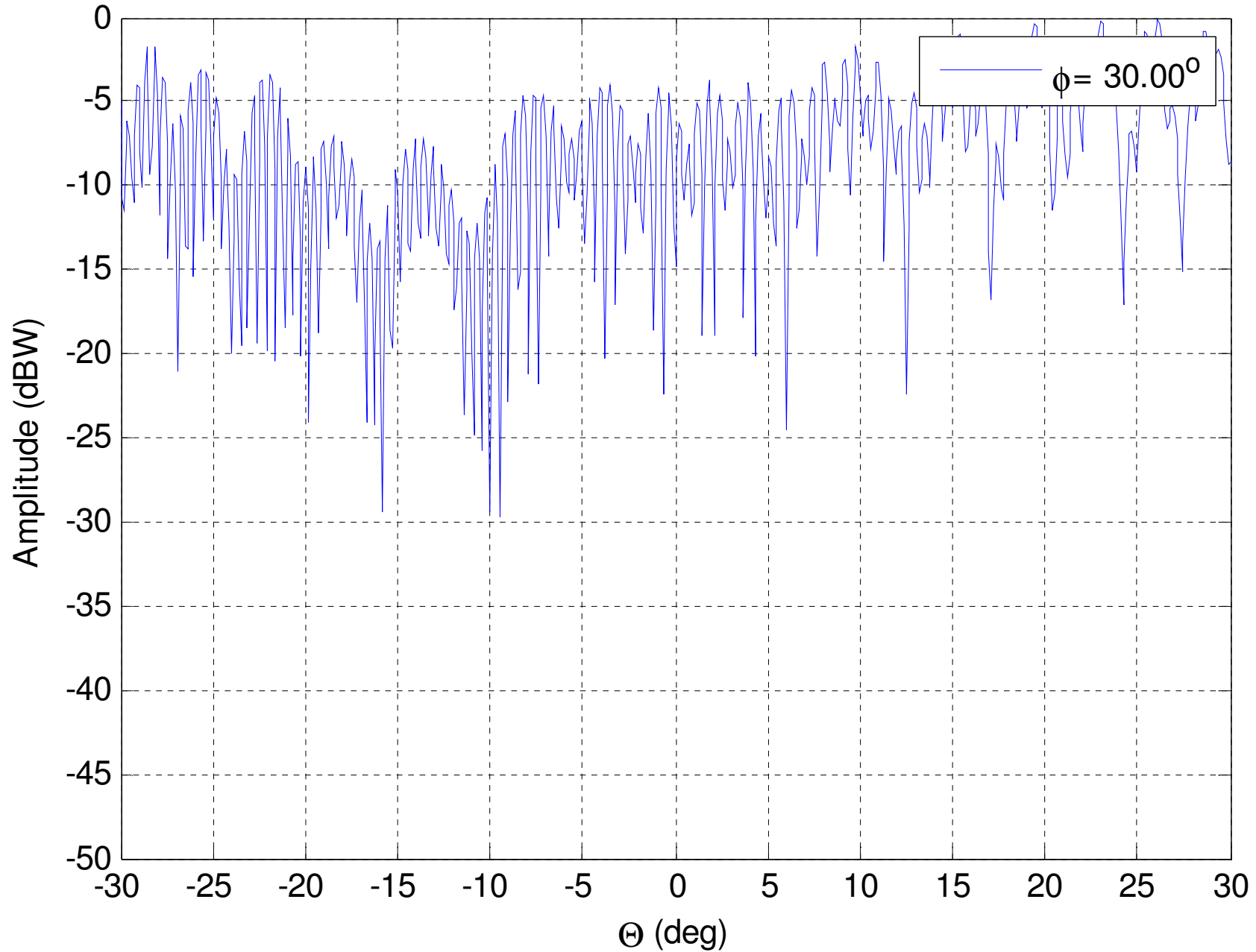
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp-20.cut, Peak: -6.19 dBW, Date: 16-Dec-2011



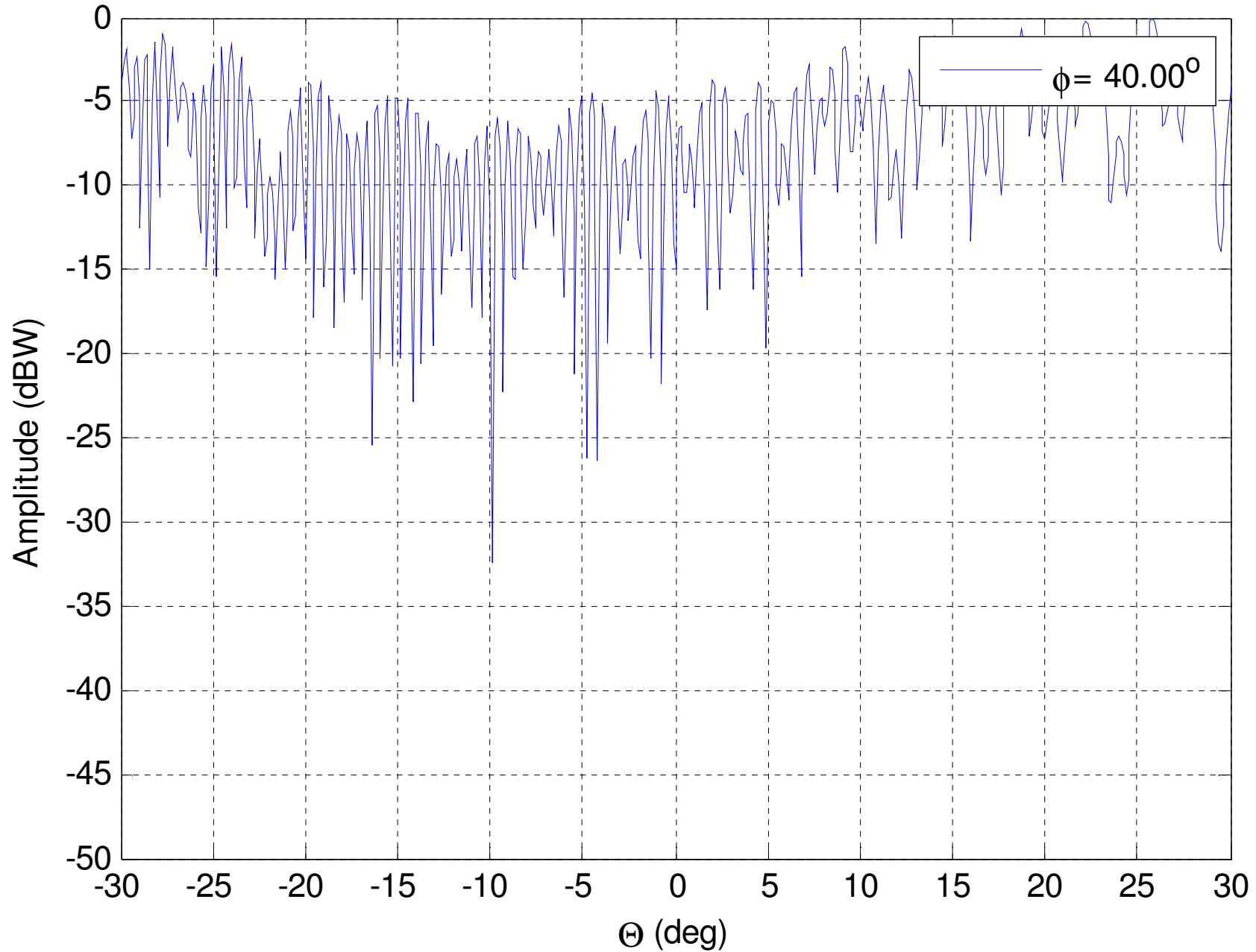
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp-30.cut, Peak: -5.60 dBW, Date: 16-Dec-2011



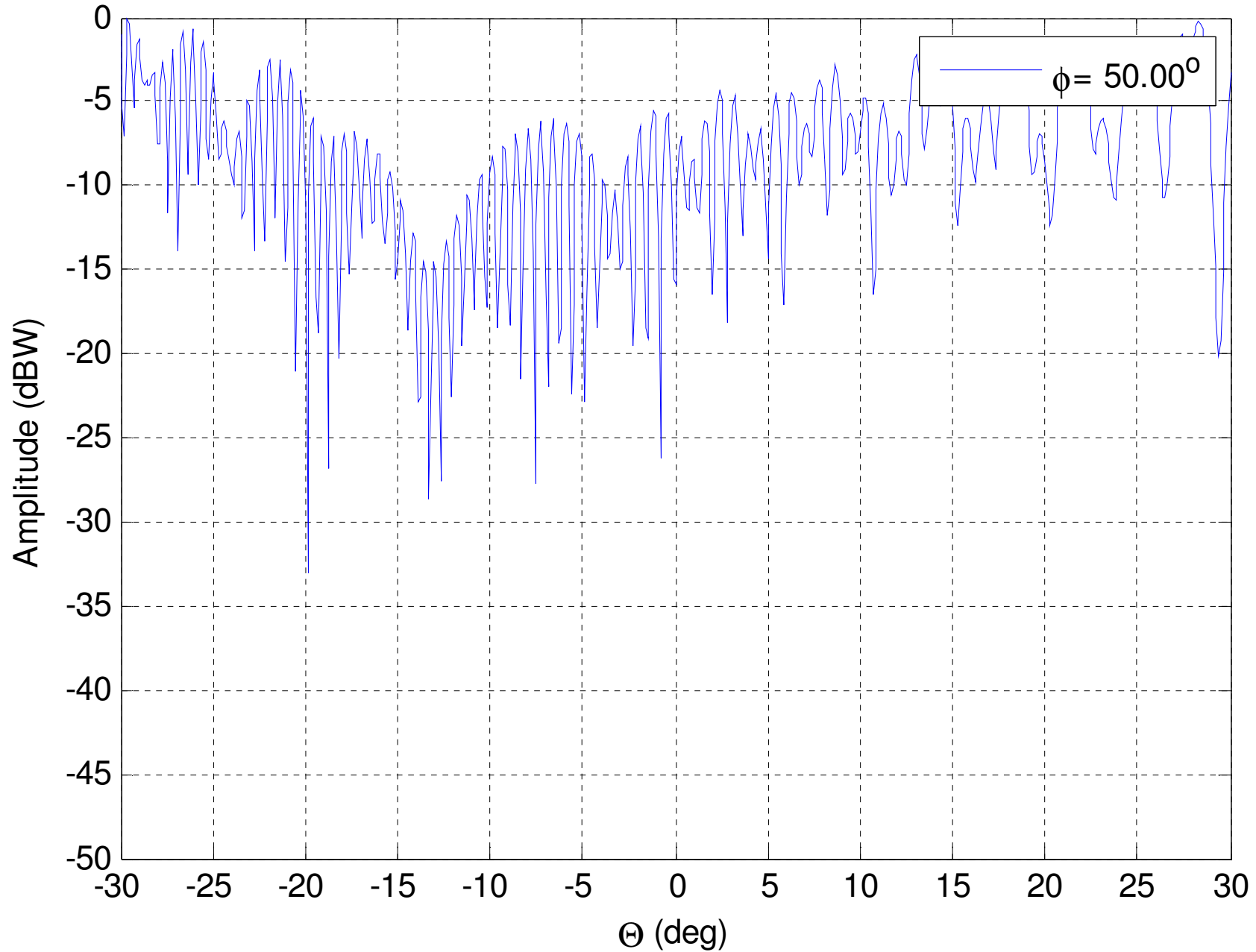
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp-40.cut, Peak: -5.45 dBW, Date: 16-Dec-2011



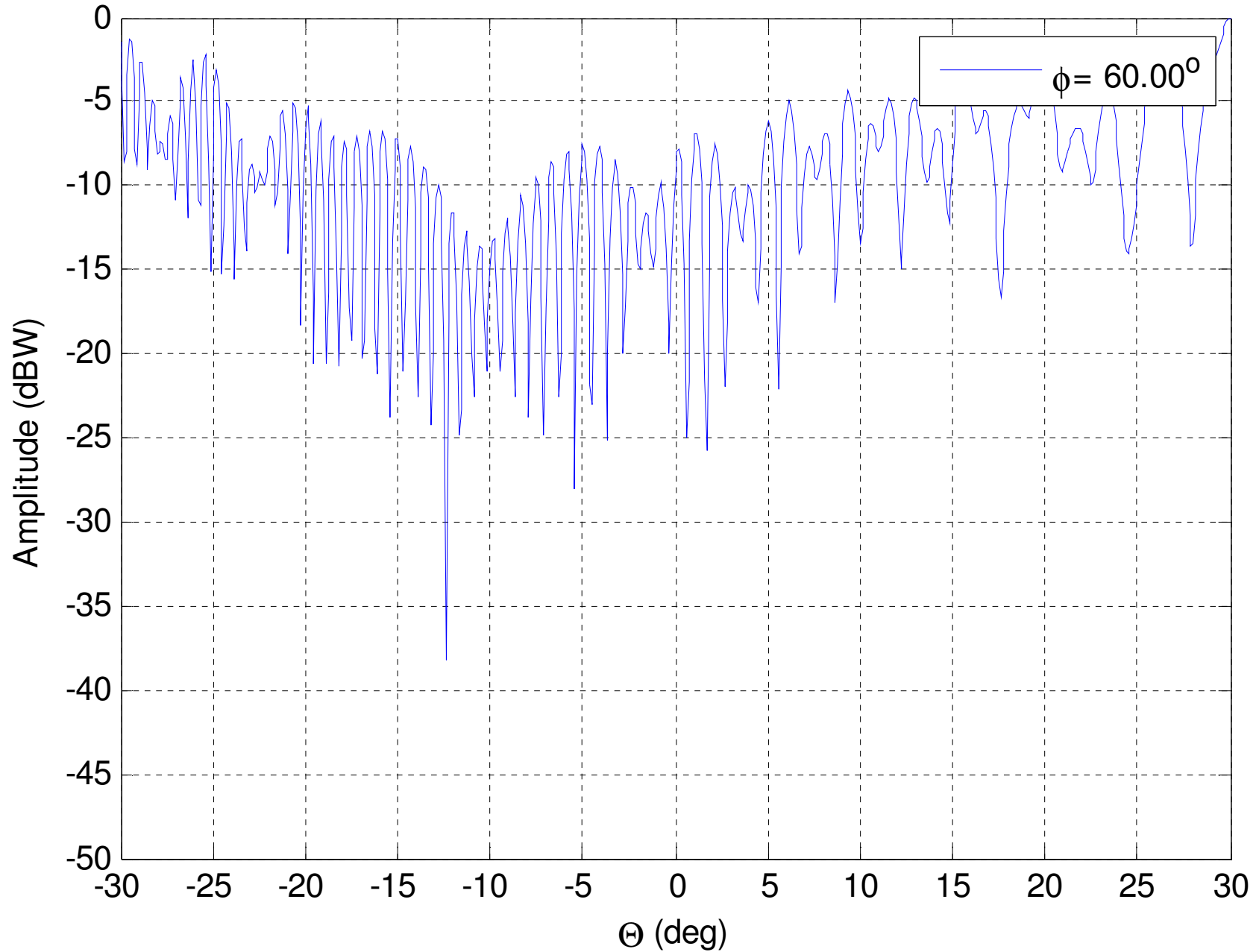
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp-50.cut, Peak: -4.50 dBW, Date: 16-Dec-2011



Normalized pattern cuts - farfield

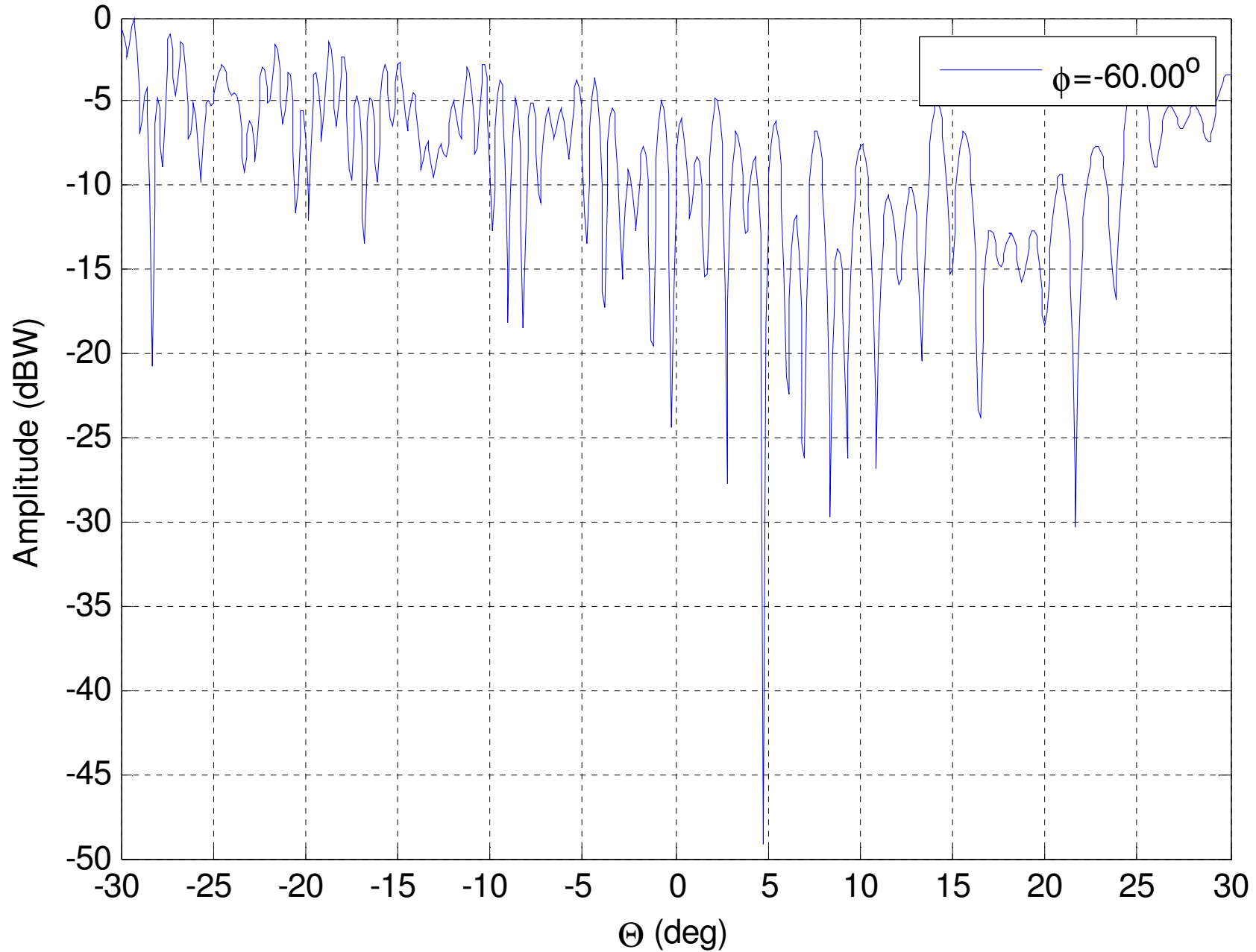
Input file: tx-17.3-lhcp-60.cut, Peak: -2.67 dBW, Date: 16-Dec-2011



RHCP at 17.5 GHz

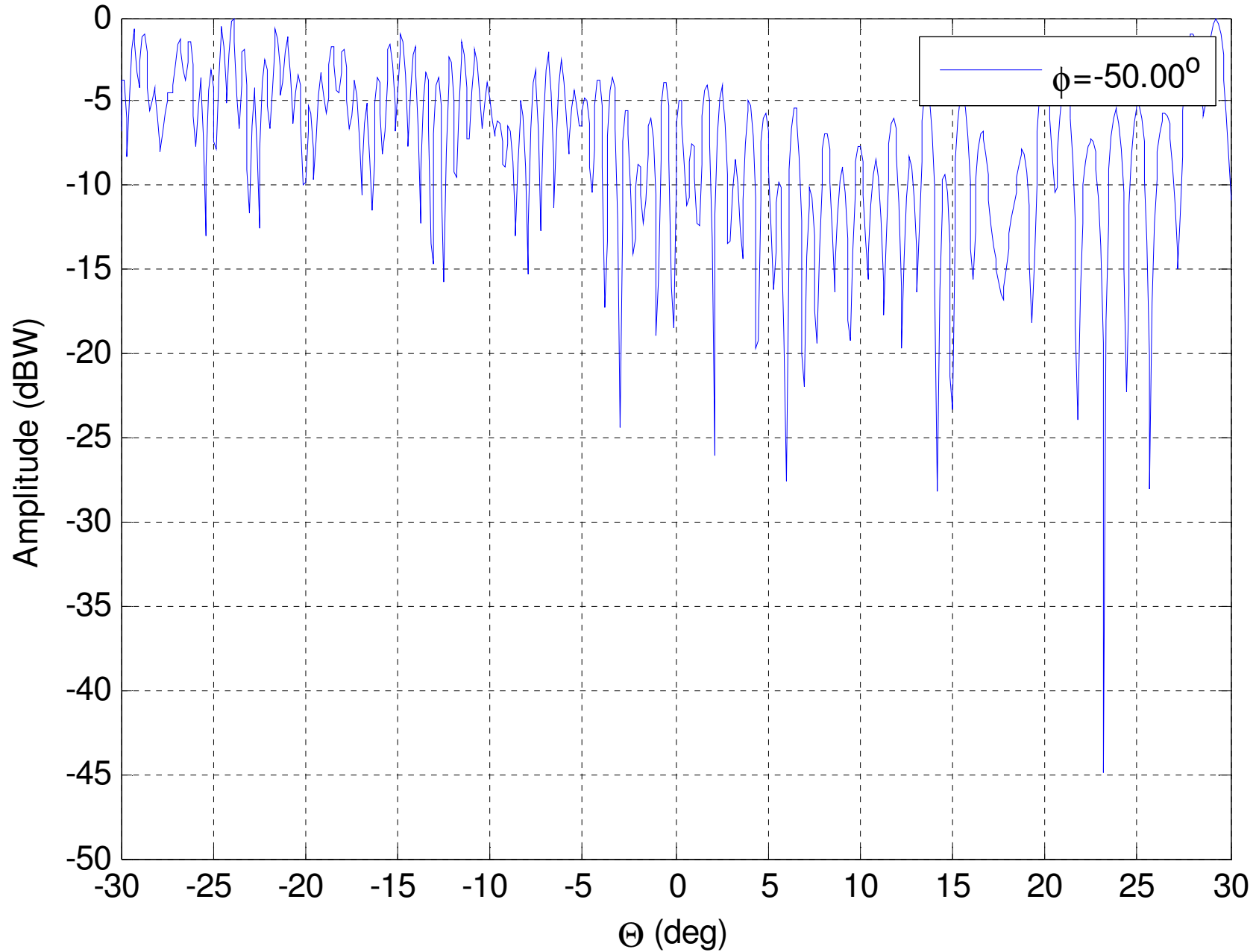
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--60.cut, Peak: -4.43 dBW, Date: 16-Dec-2011



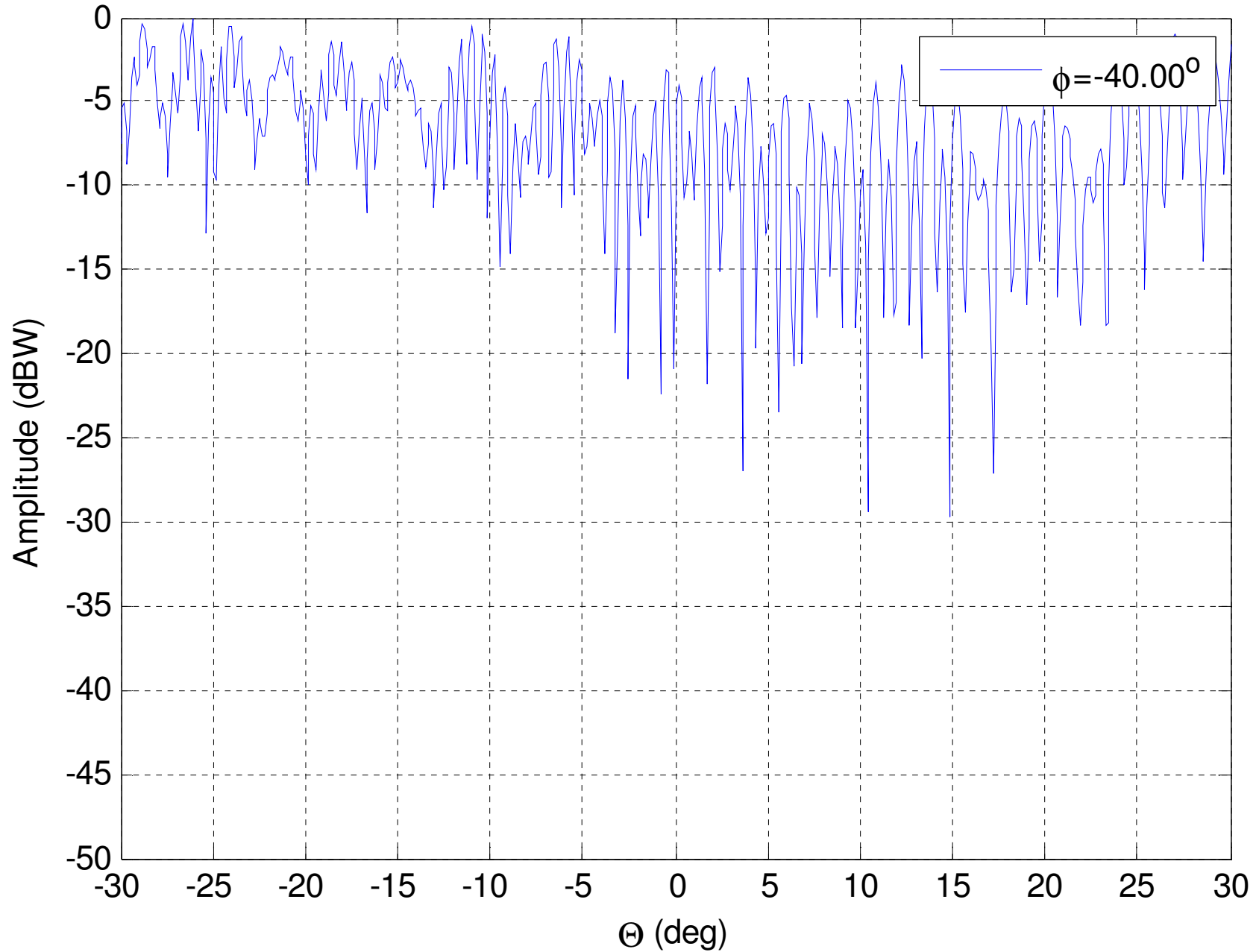
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--50.cut, Peak: -5.54 dBW, Date: 16-Dec-2011



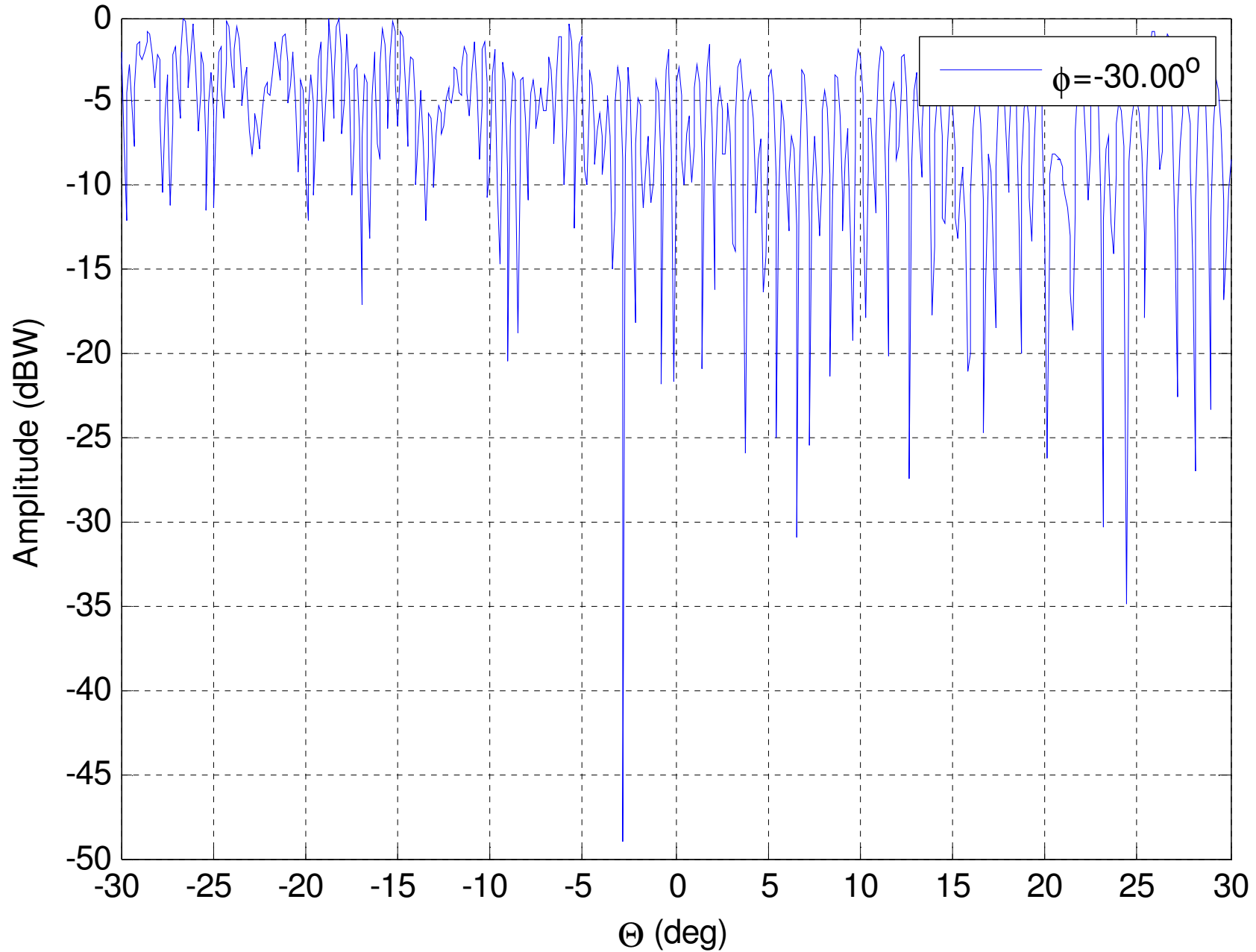
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--40.cut, Peak: -6.25 dBW, Date: 16-Dec-2011



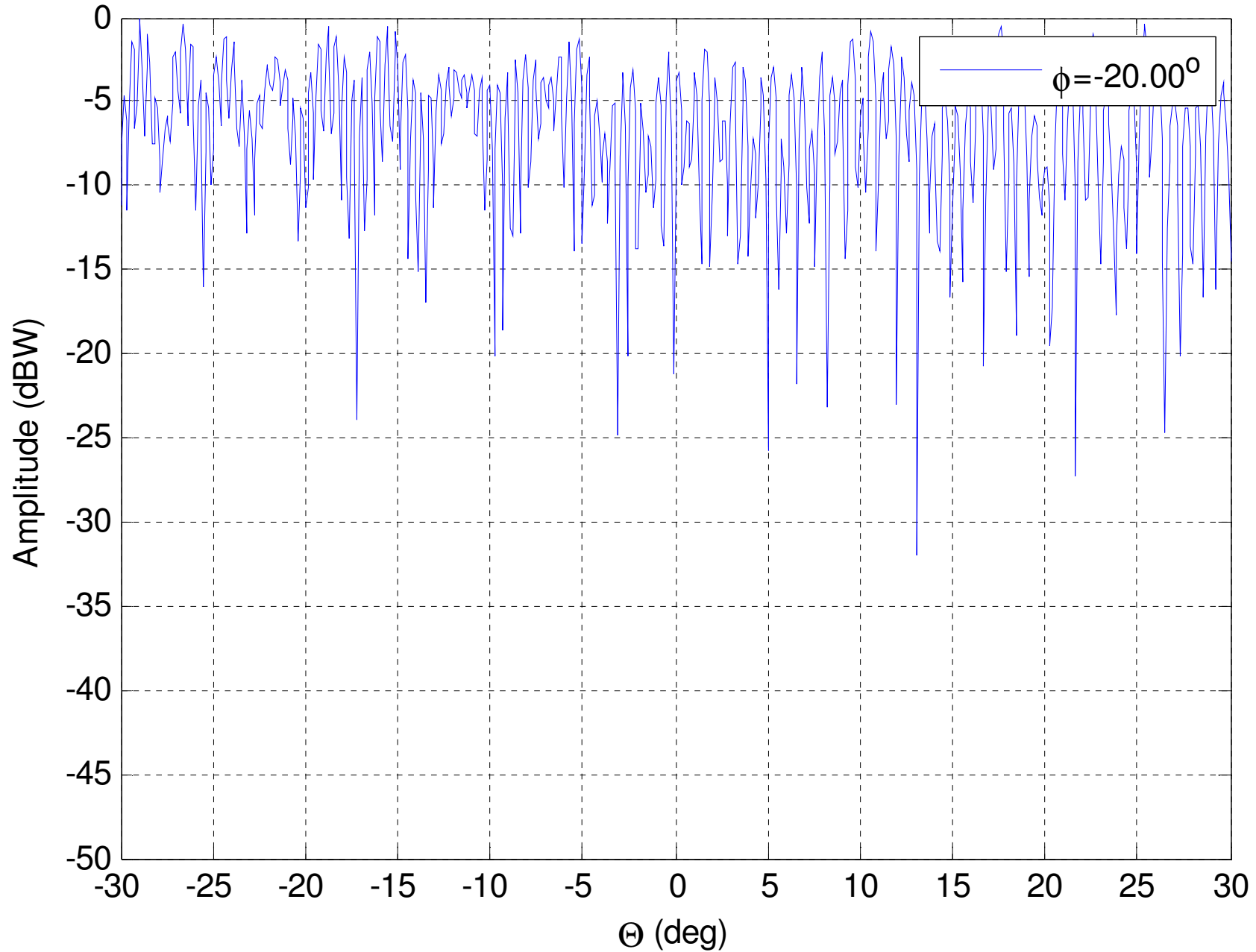
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--30.cut, Peak: -7.25 dBW, Date: 16-Dec-2011



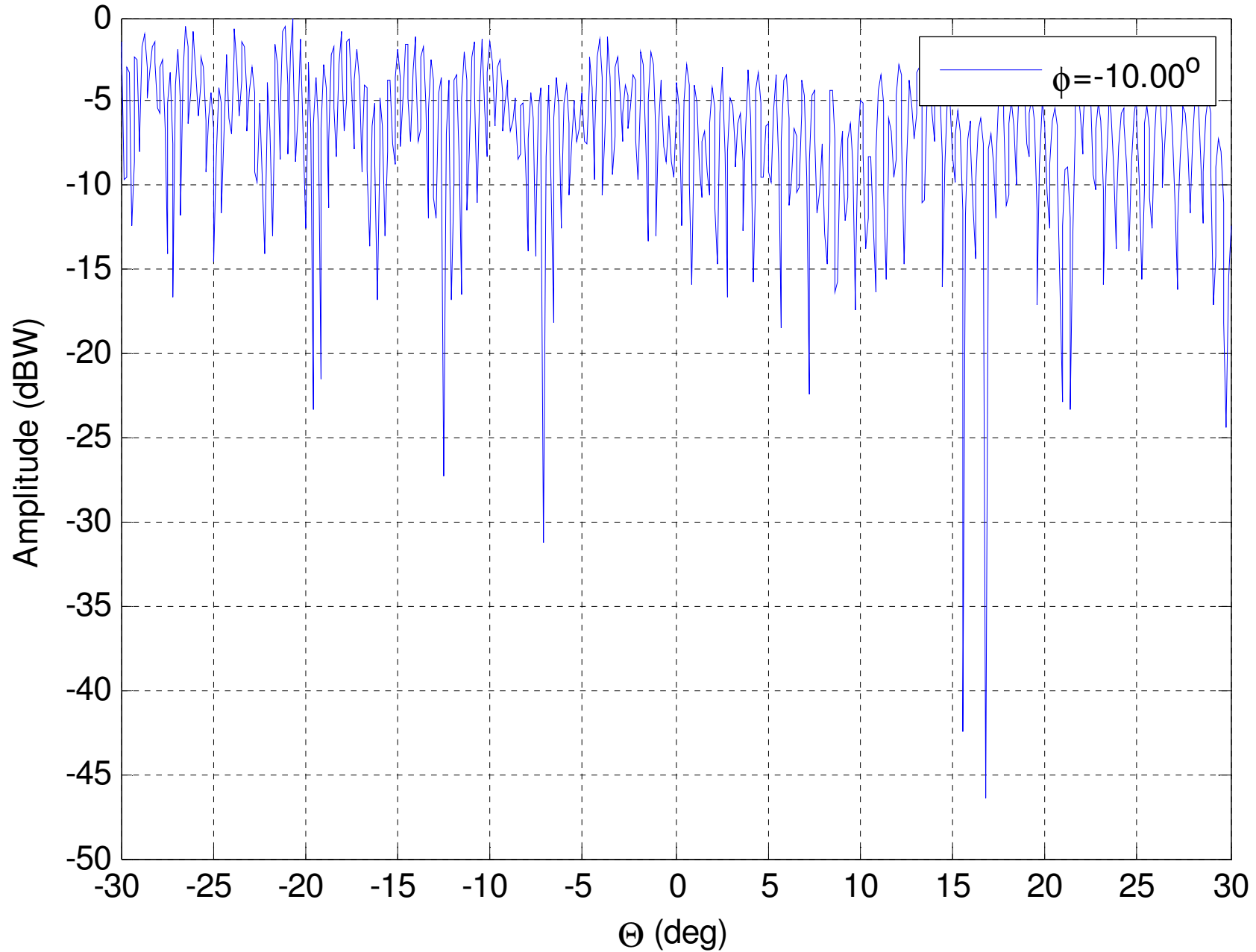
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--20.cut, Peak: -7.17 dBW, Date: 16-Dec-2011



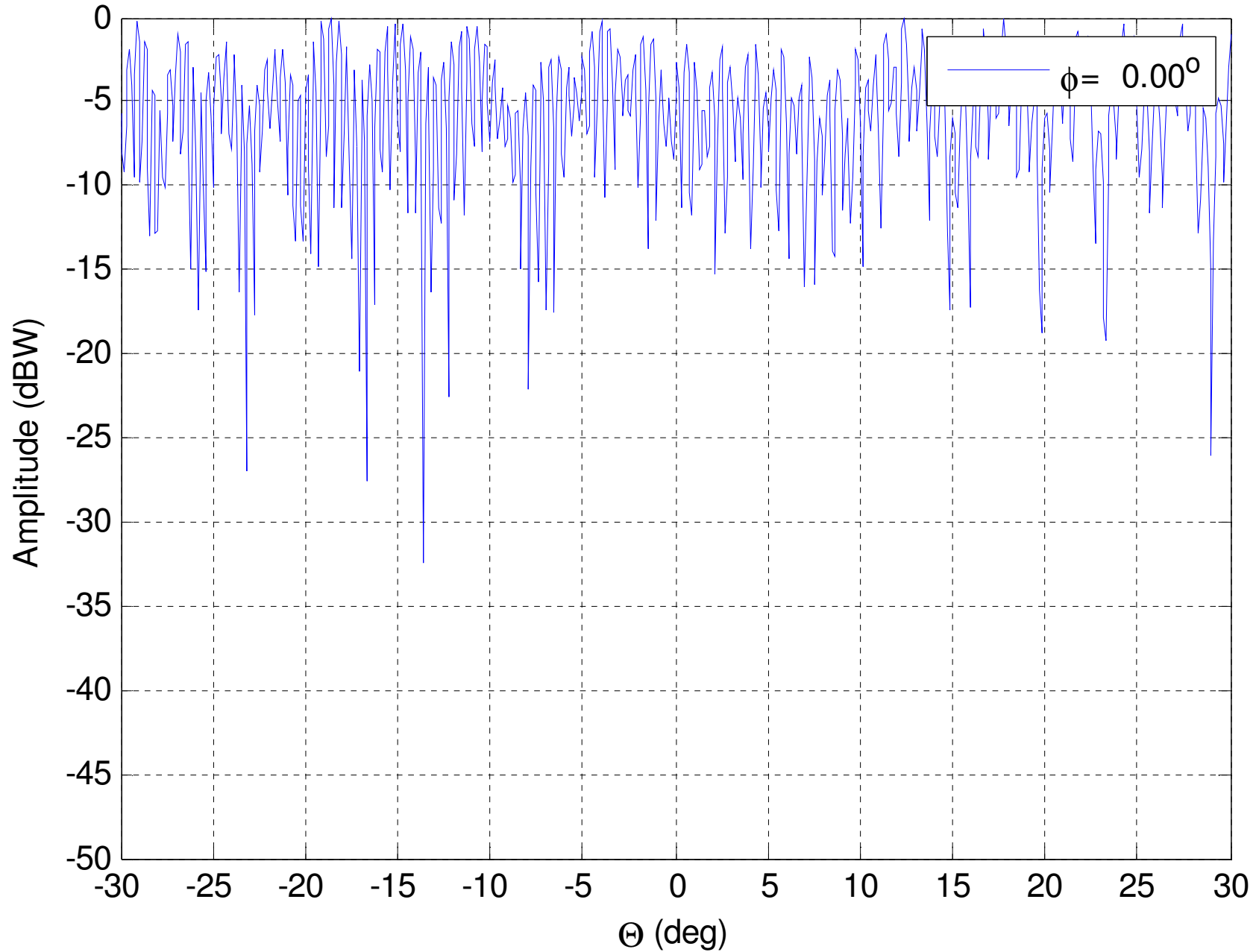
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--10.cut, Peak: -6.89 dBW, Date: 16-Dec-2011



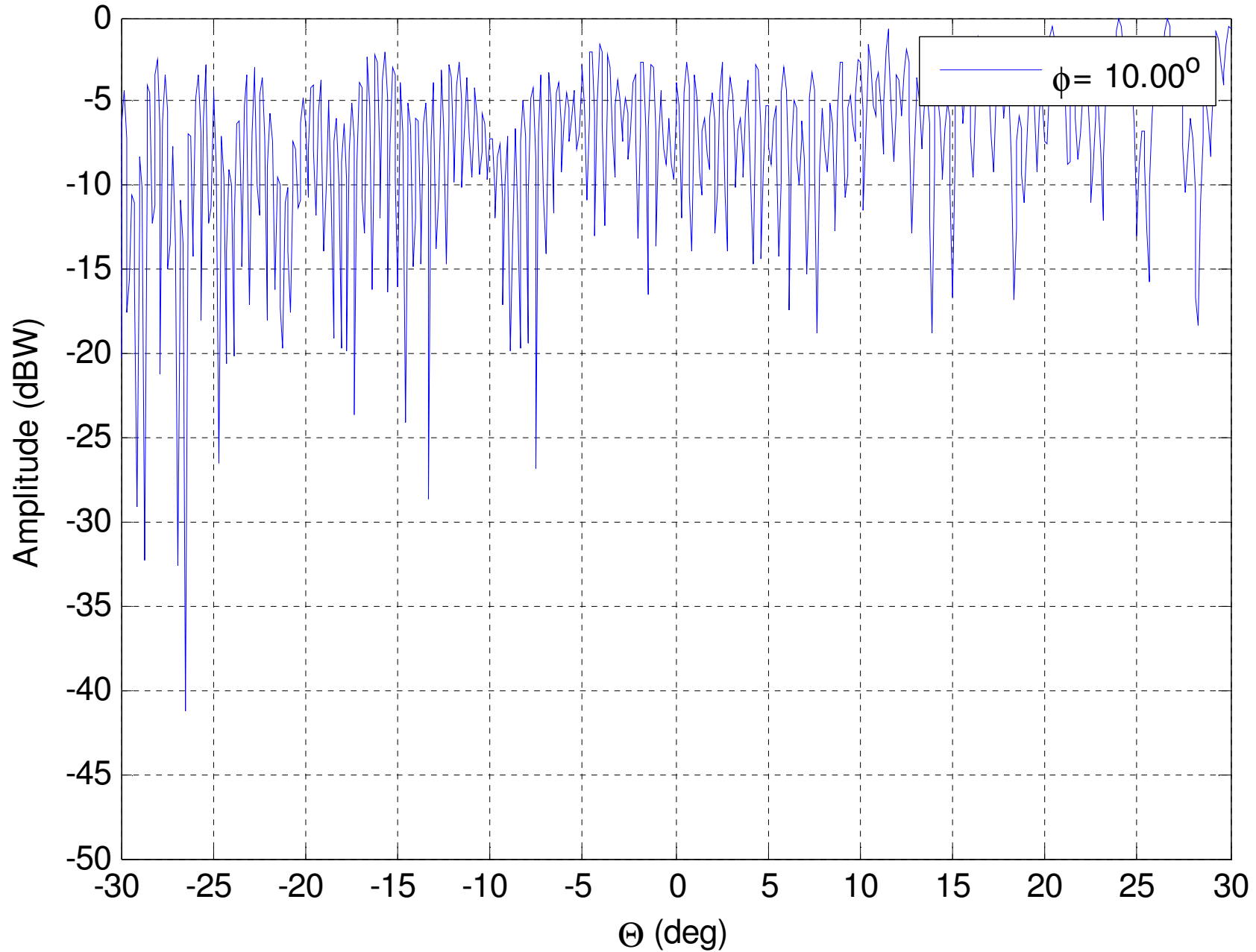
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-0.cut, Peak: -8.03 dBW, Date: 16-Dec-2011



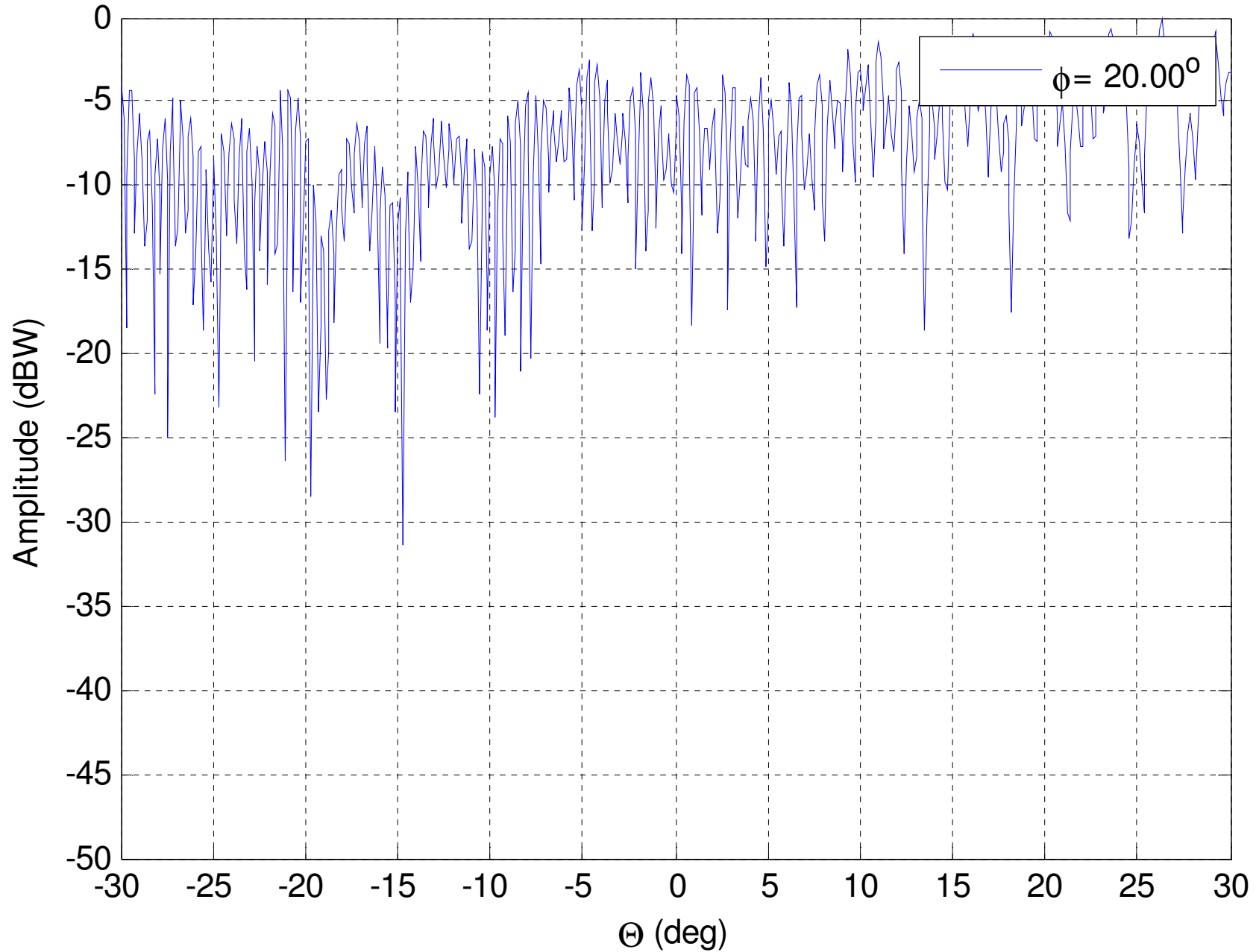
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-10.cut, Peak: -6.89 dBW, Date: 16-Dec-2011



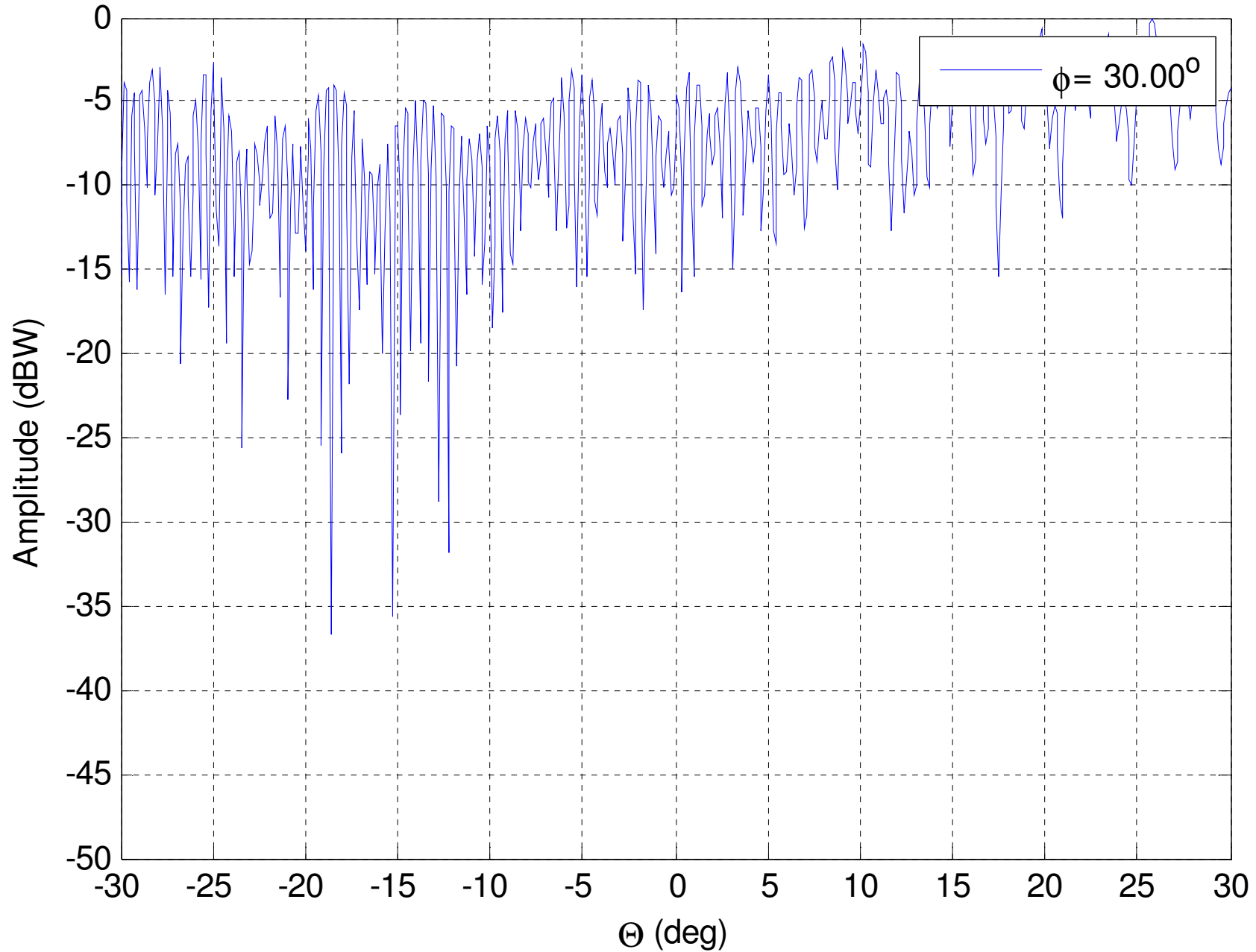
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-20.cut, Peak: -6.09 dBW, Date: 16-Dec-2011



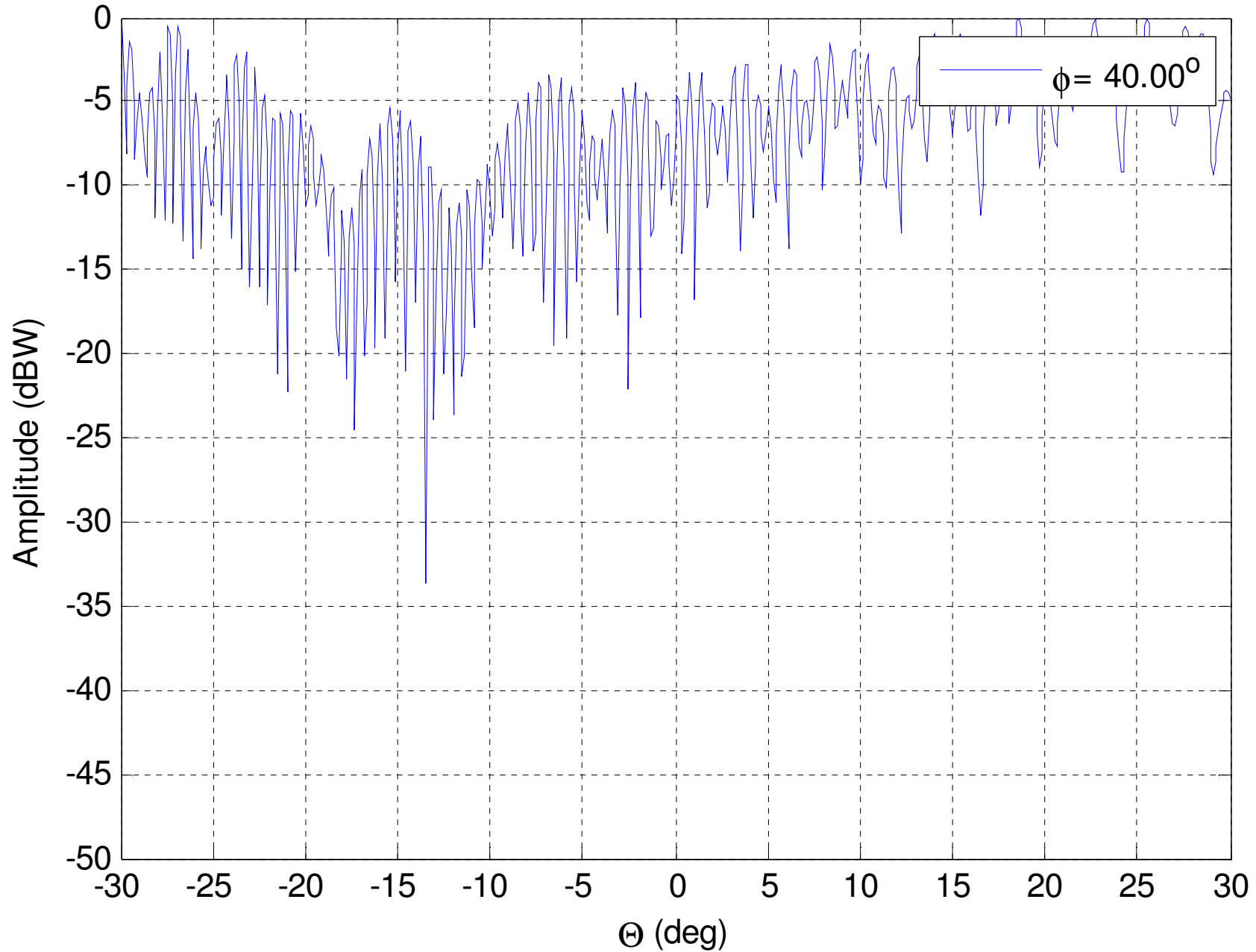
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-30.cut, Peak: -6.04 dBW, Date: 16-Dec-2011



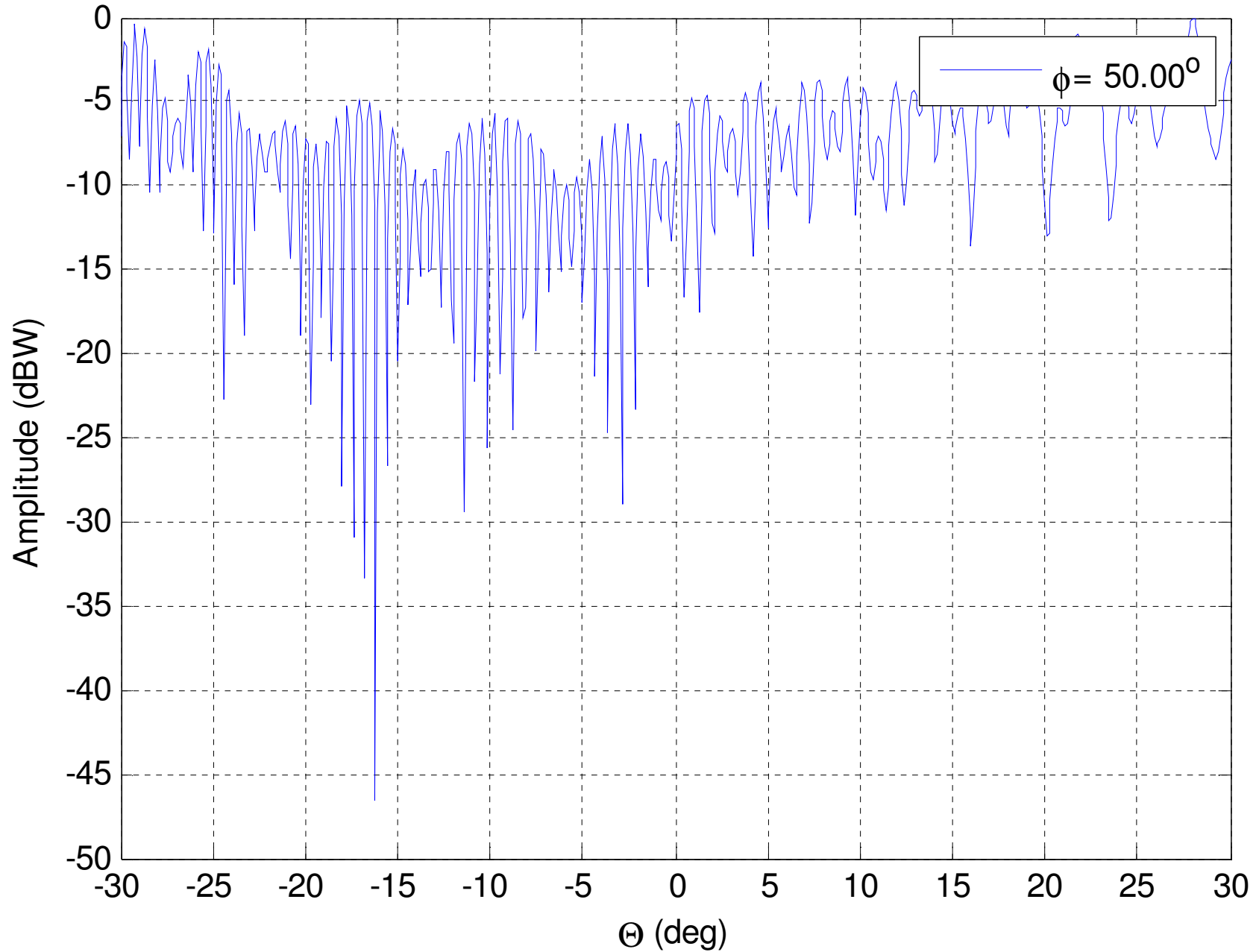
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-40.cut, Peak: -6.11 dBW, Date: 16-Dec-2011



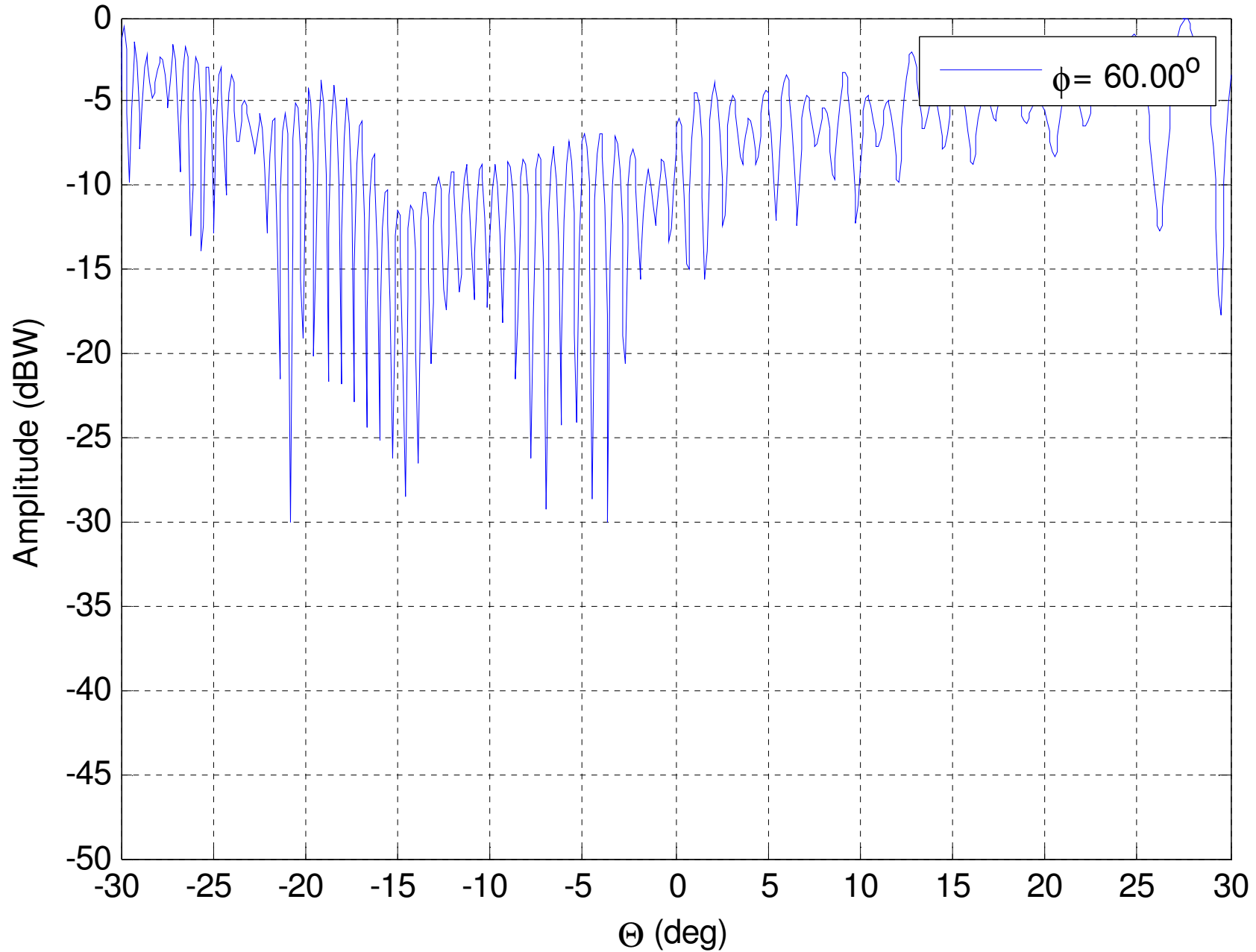
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-50.cut, Peak: -4.41 dBW, Date: 16-Dec-2011



Normalized pattern cuts - farfield

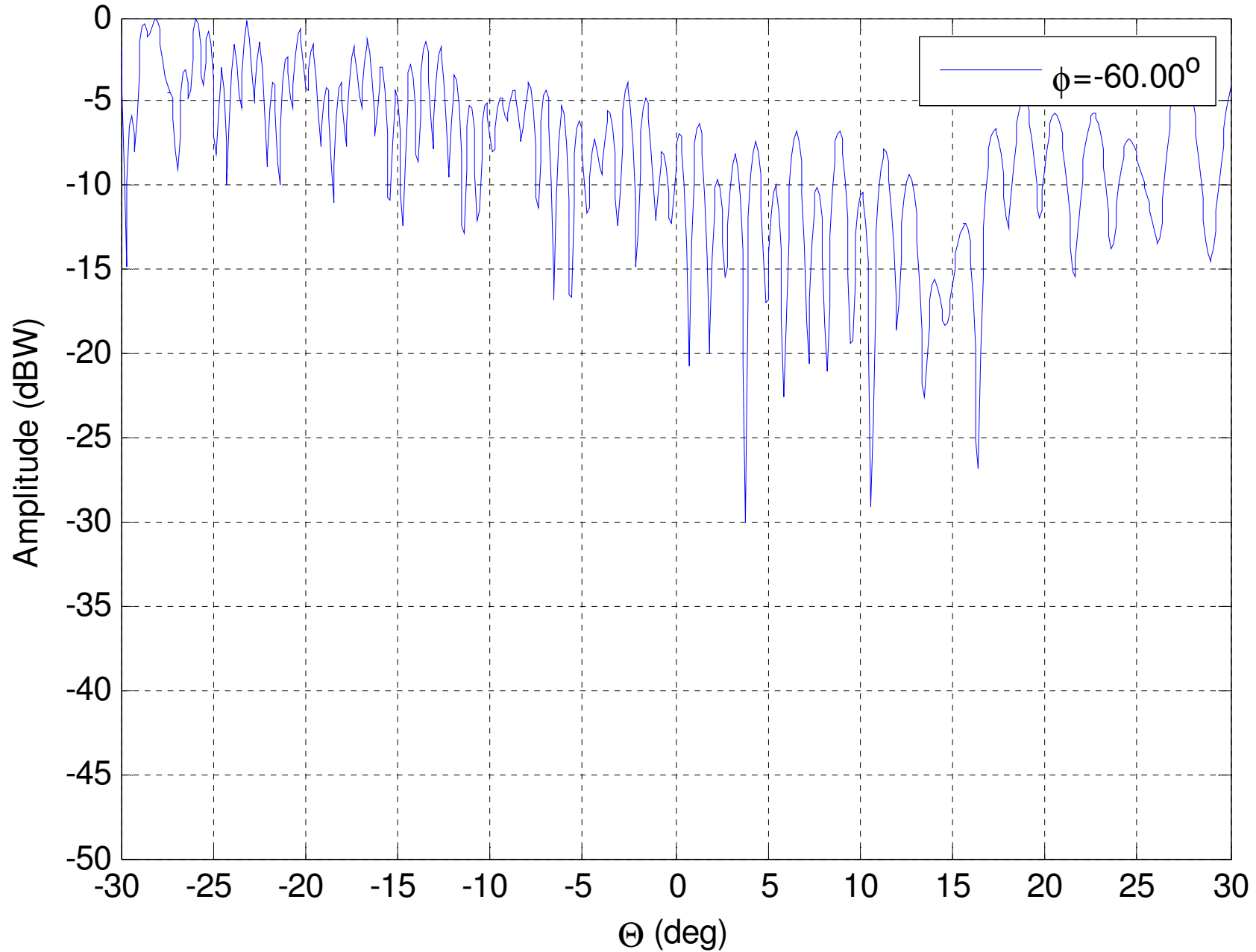
Input file: tx-17.5-rhcp-60.cut, Peak: -4.62 dBW, Date: 16-Dec-2011



LHCP at 17.5 GHz

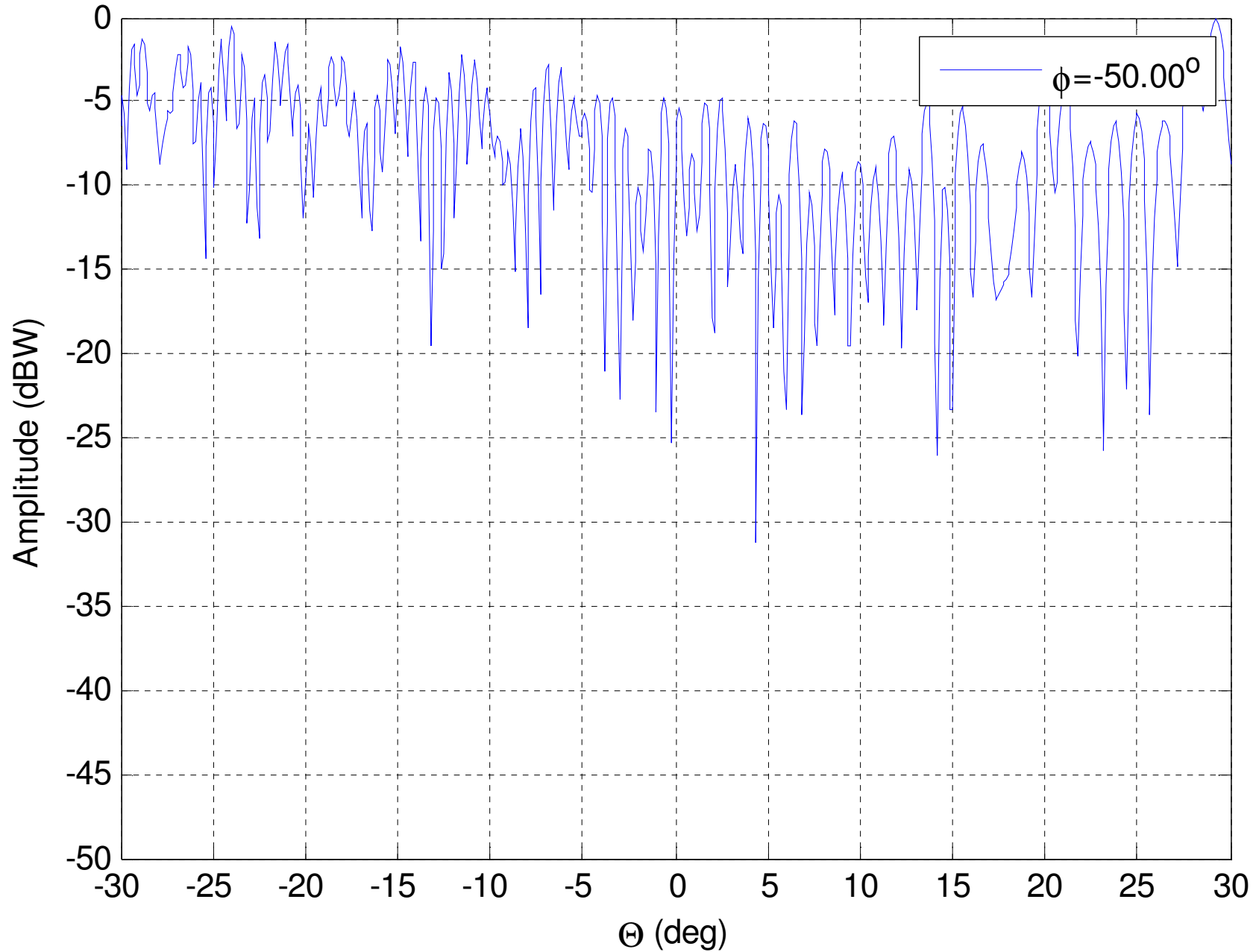
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--60.cut, Peak: -4.18 dBW, Date: 16-Dec-2011



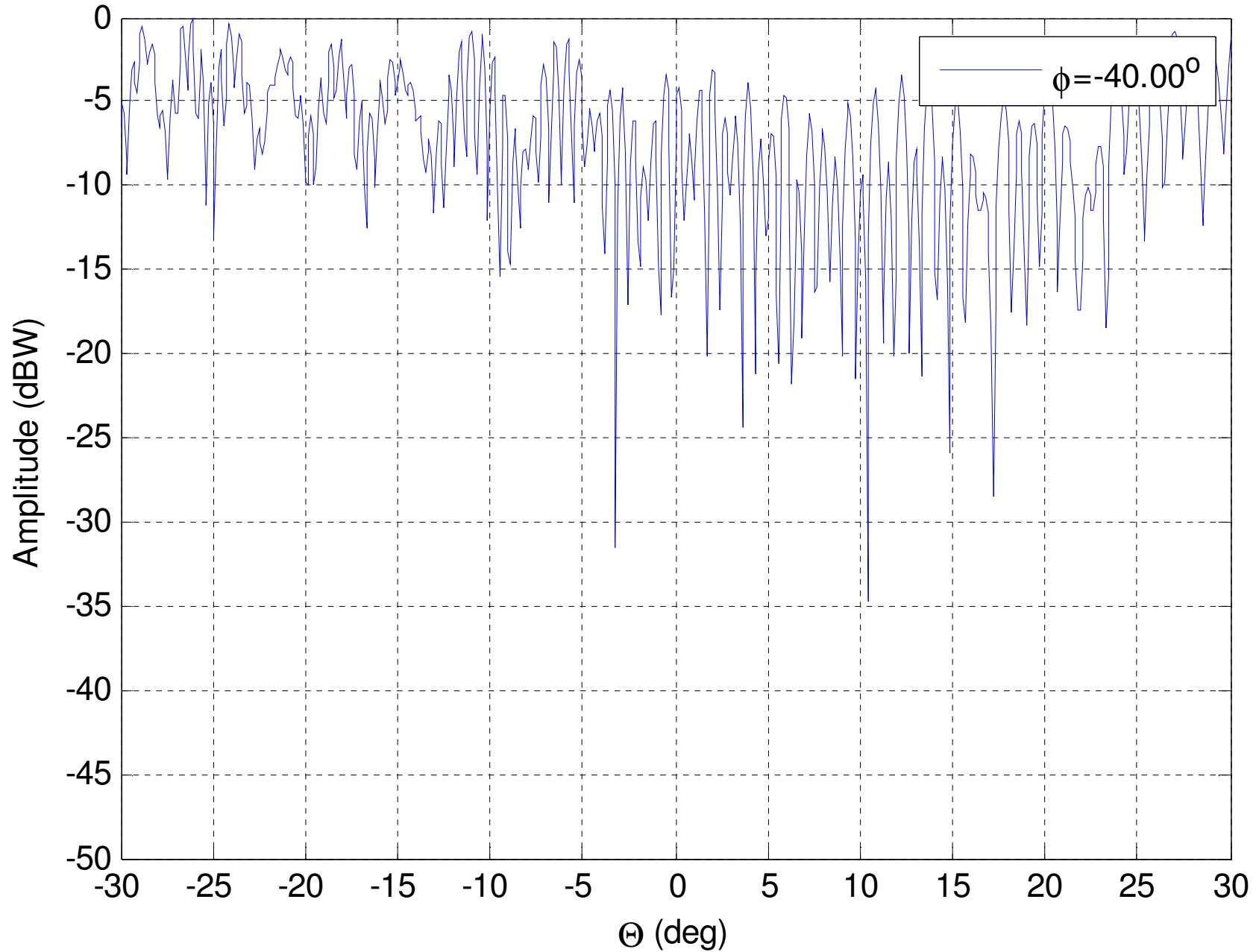
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--50.cut, Peak: -4.78 dBW, Date: 16-Dec-2011



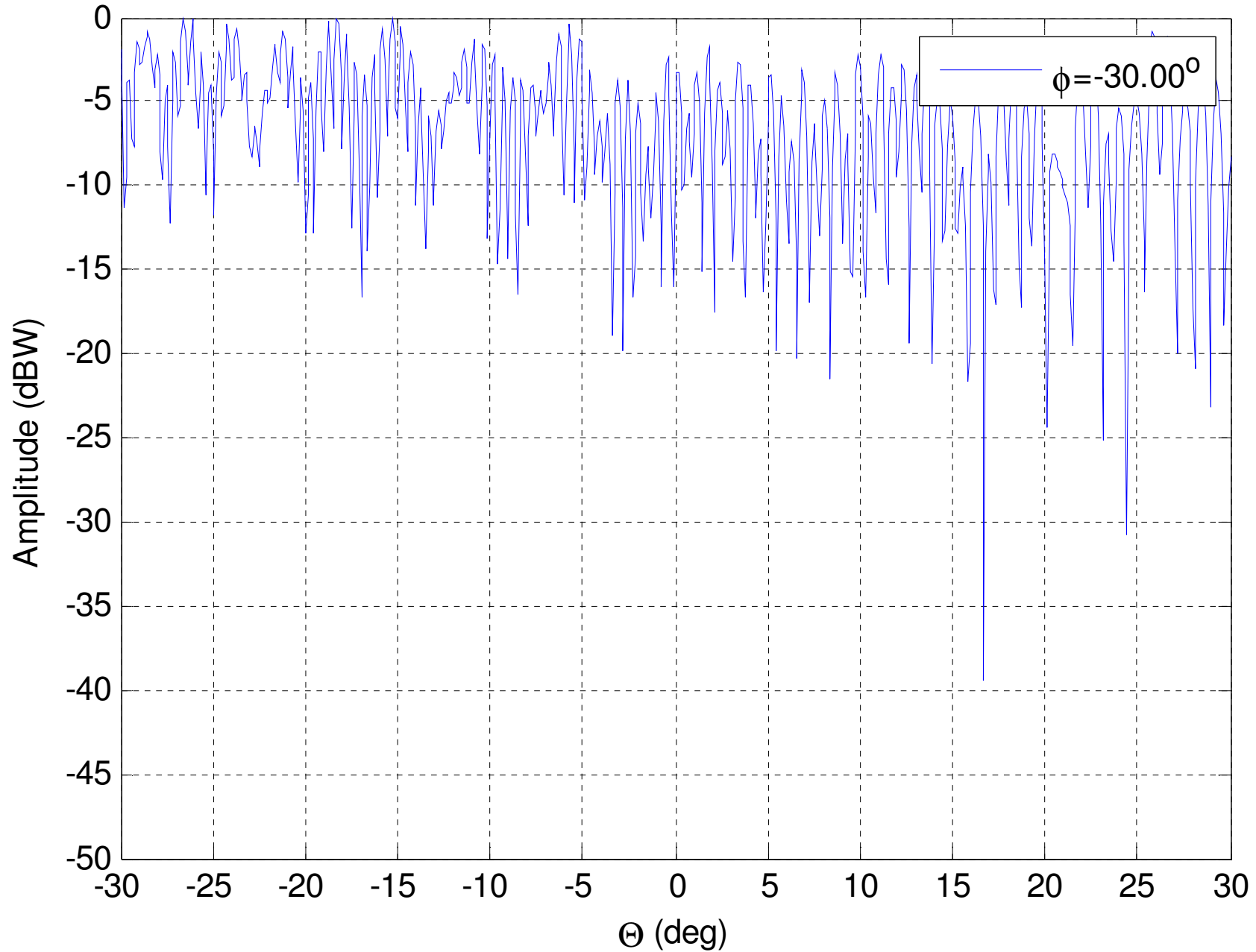
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--40.cut, Peak: -6.10 dBW, Date: 16-Dec-2011



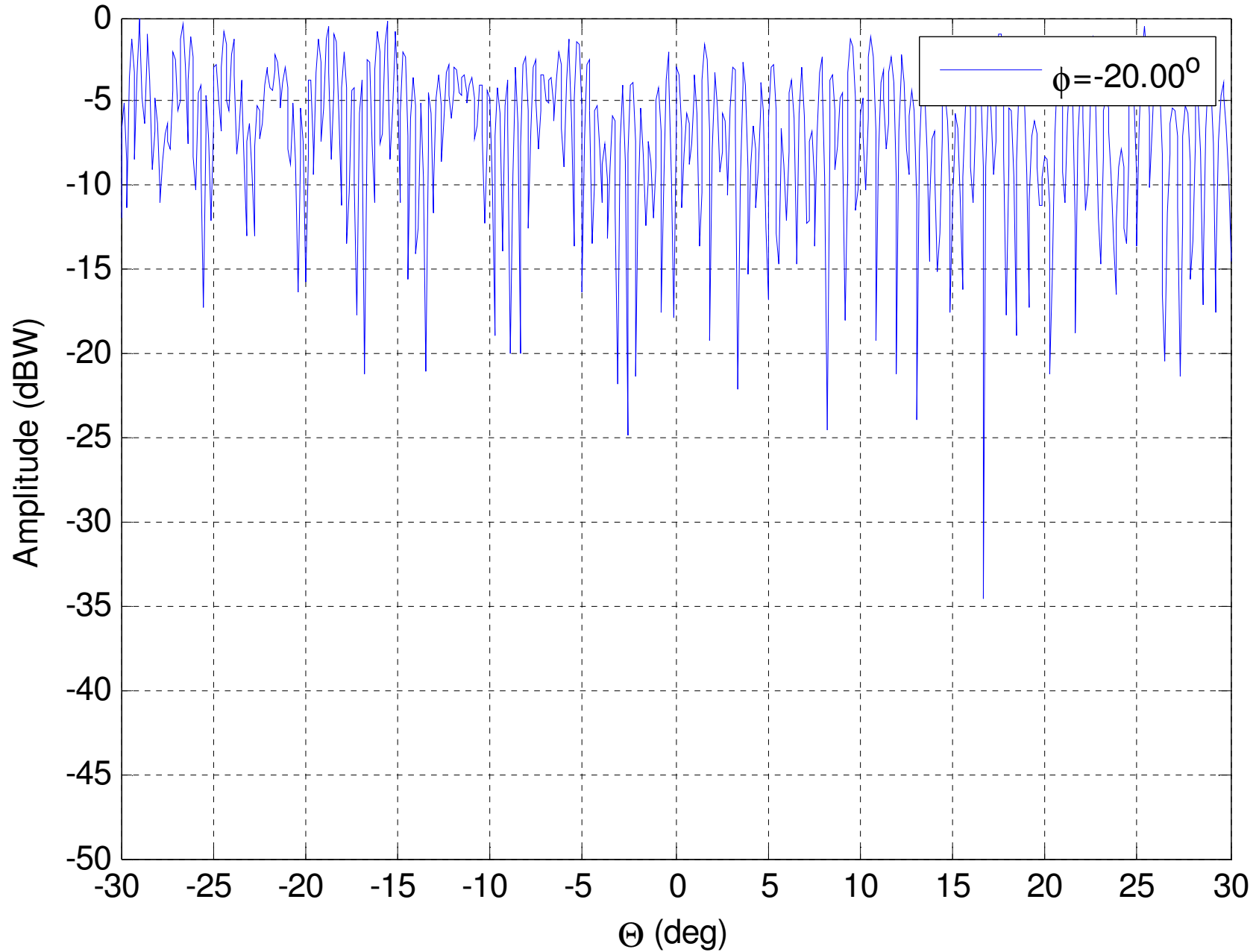
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--30.cut, Peak: -7.22 dBW, Date: 16-Dec-2011



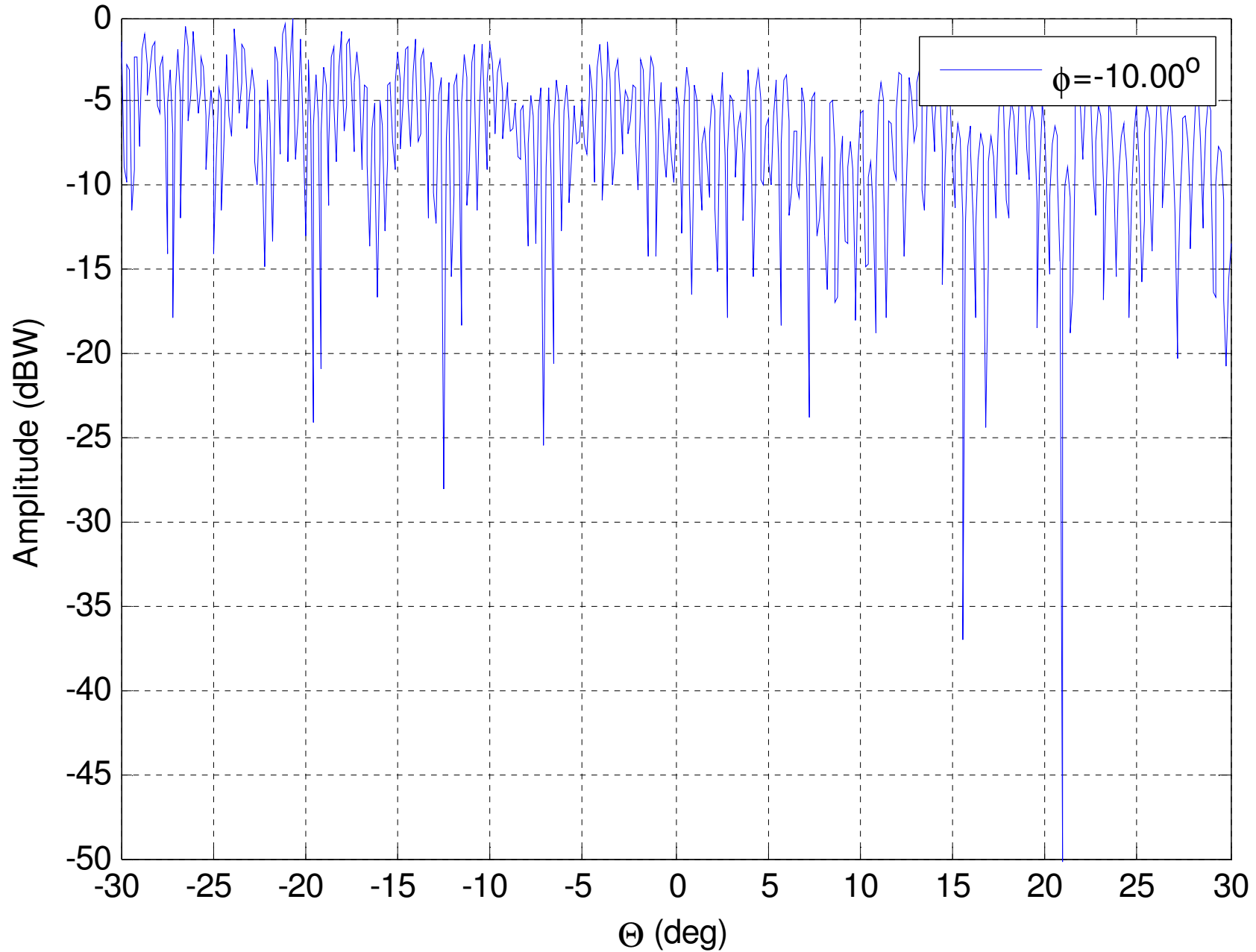
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--20.cut, Peak: -7.34 dBW, Date: 16-Dec-2011



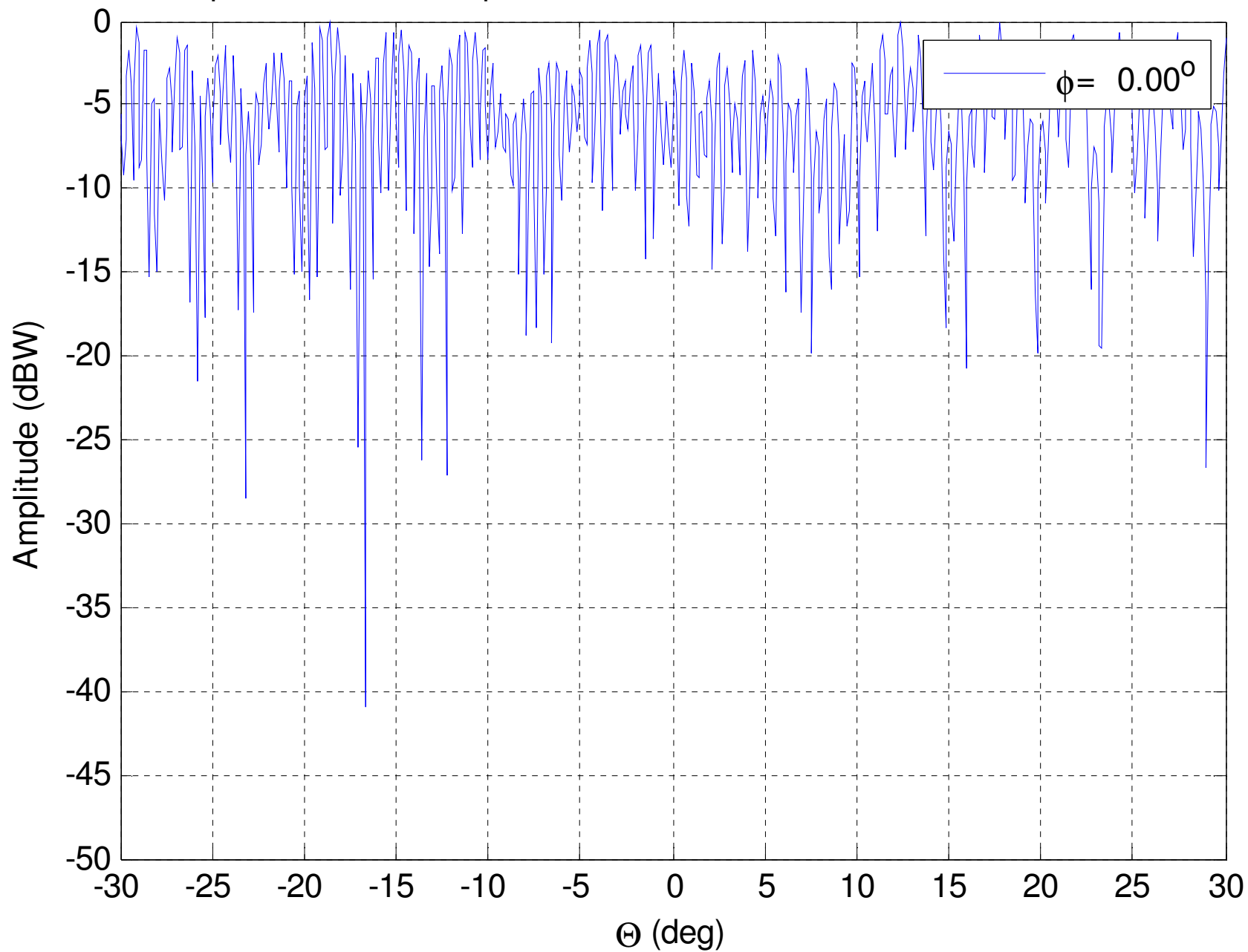
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--10.cut, Peak: -6.91 dBW, Date: 16-Dec-2011



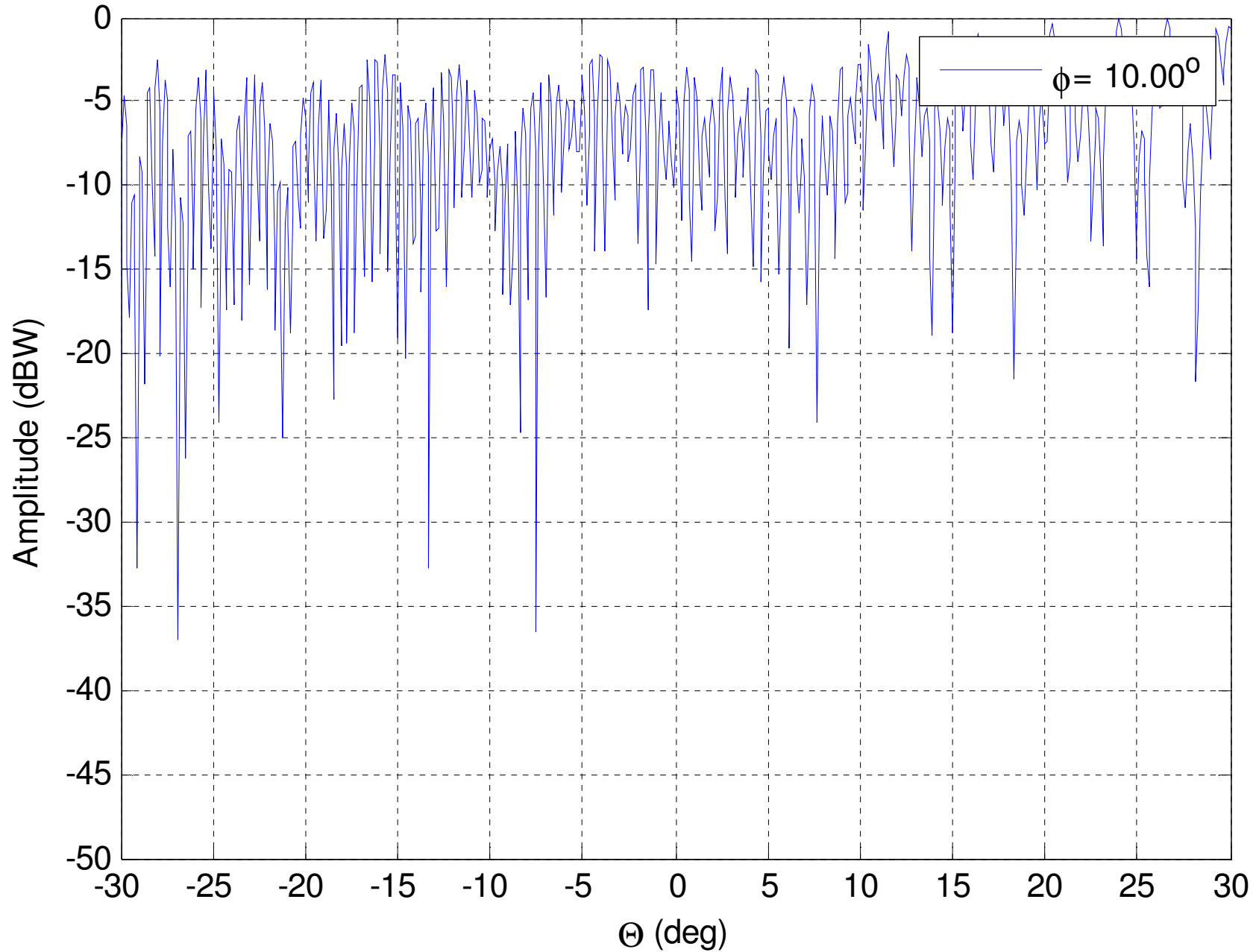
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-0.cut, Peak: -8.07 dBW, Date: 16-Dec-2011



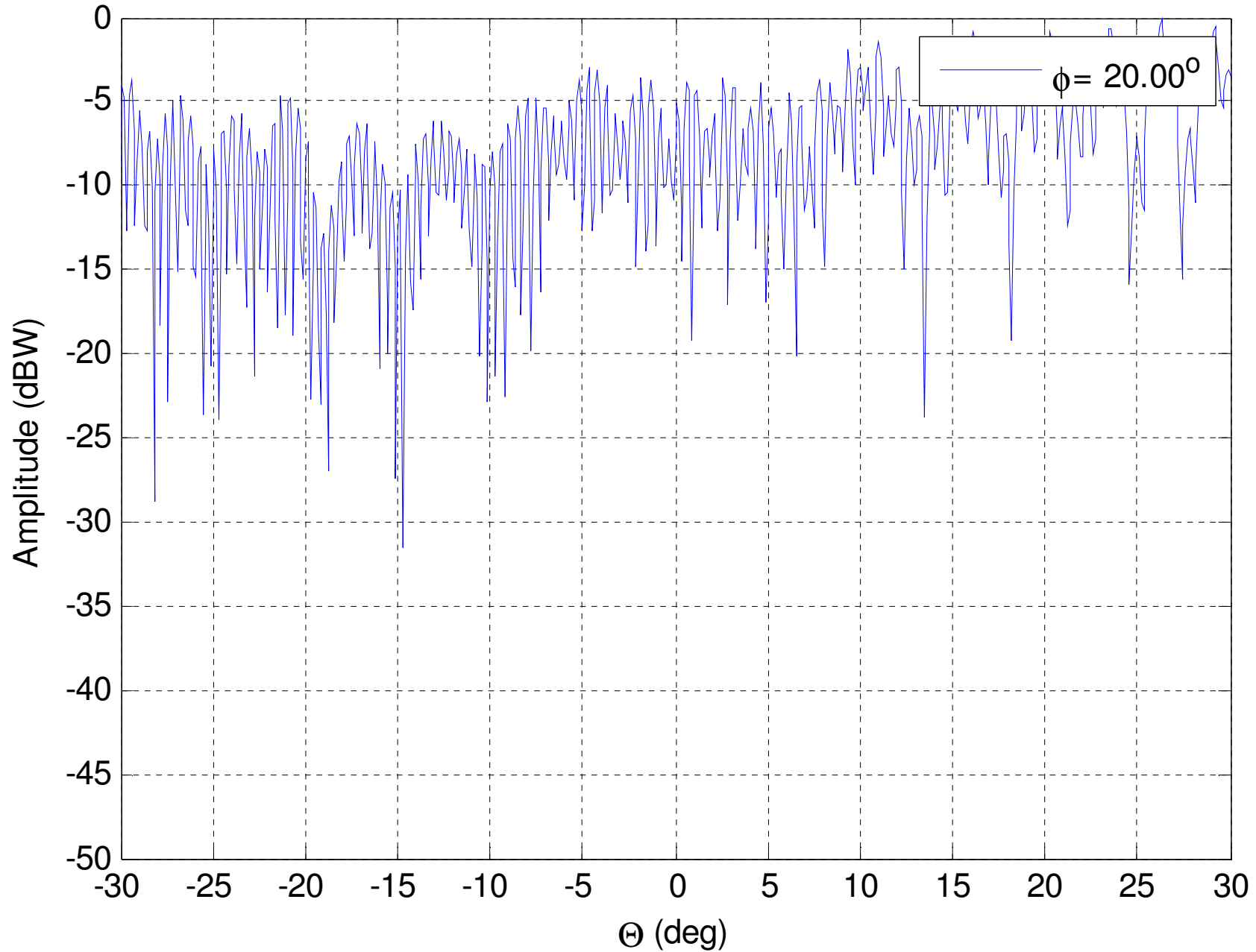
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-10.cut, Peak: -6.81 dBW, Date: 16-Dec-2011



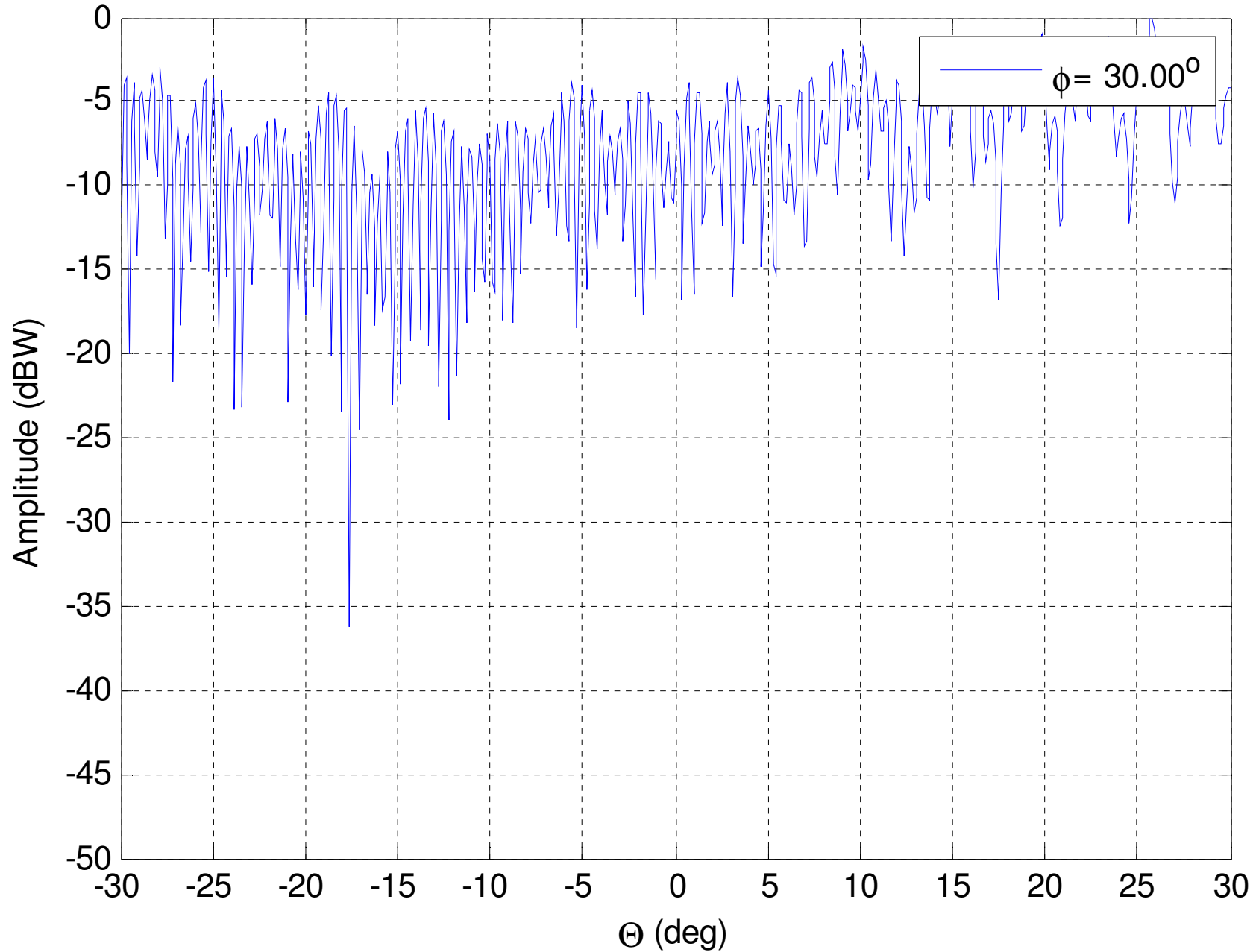
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-20.cut, Peak: -6.01 dBW, Date: 16-Dec-2011



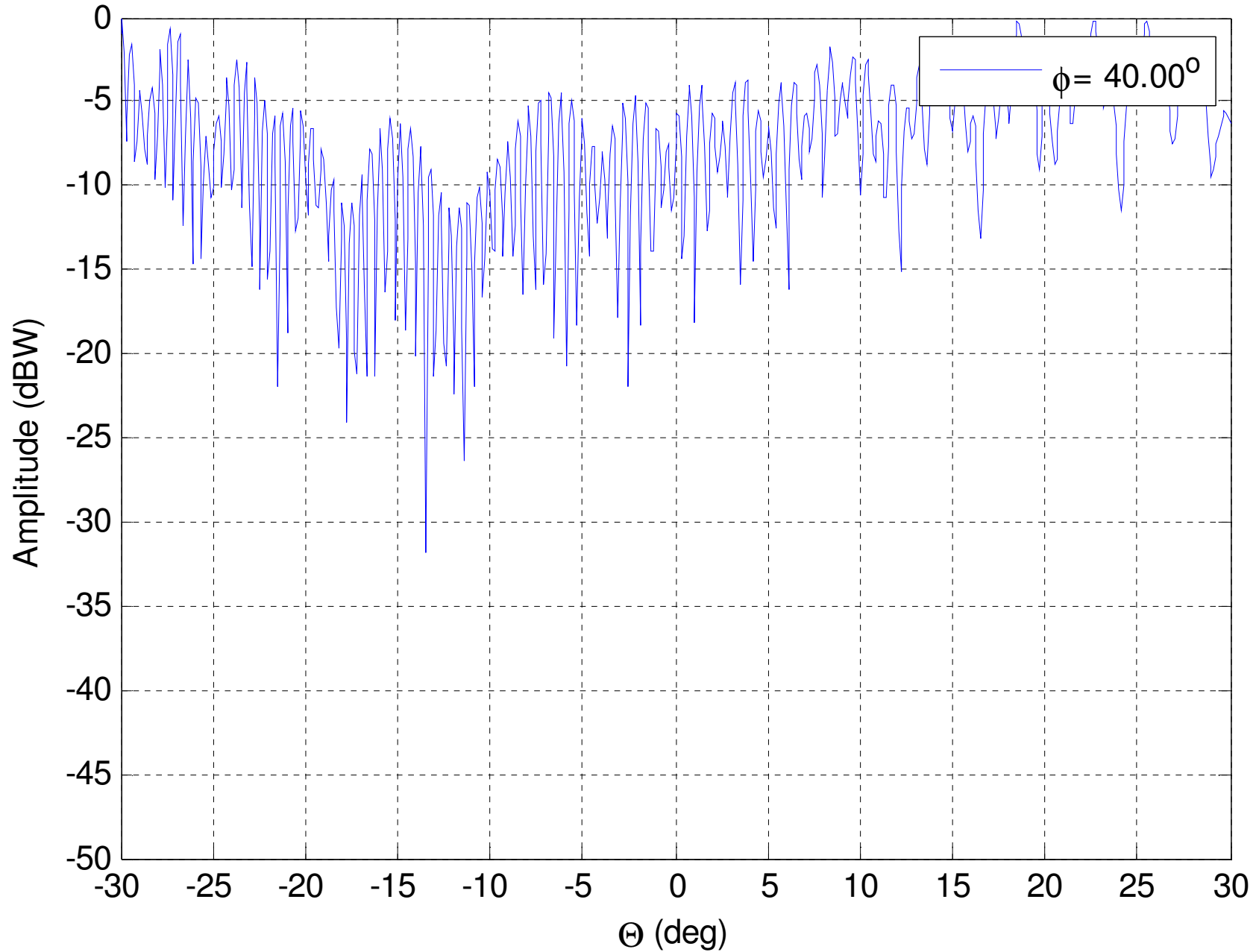
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-30.cut, Peak: -5.68 dBW, Date: 16-Dec-2011



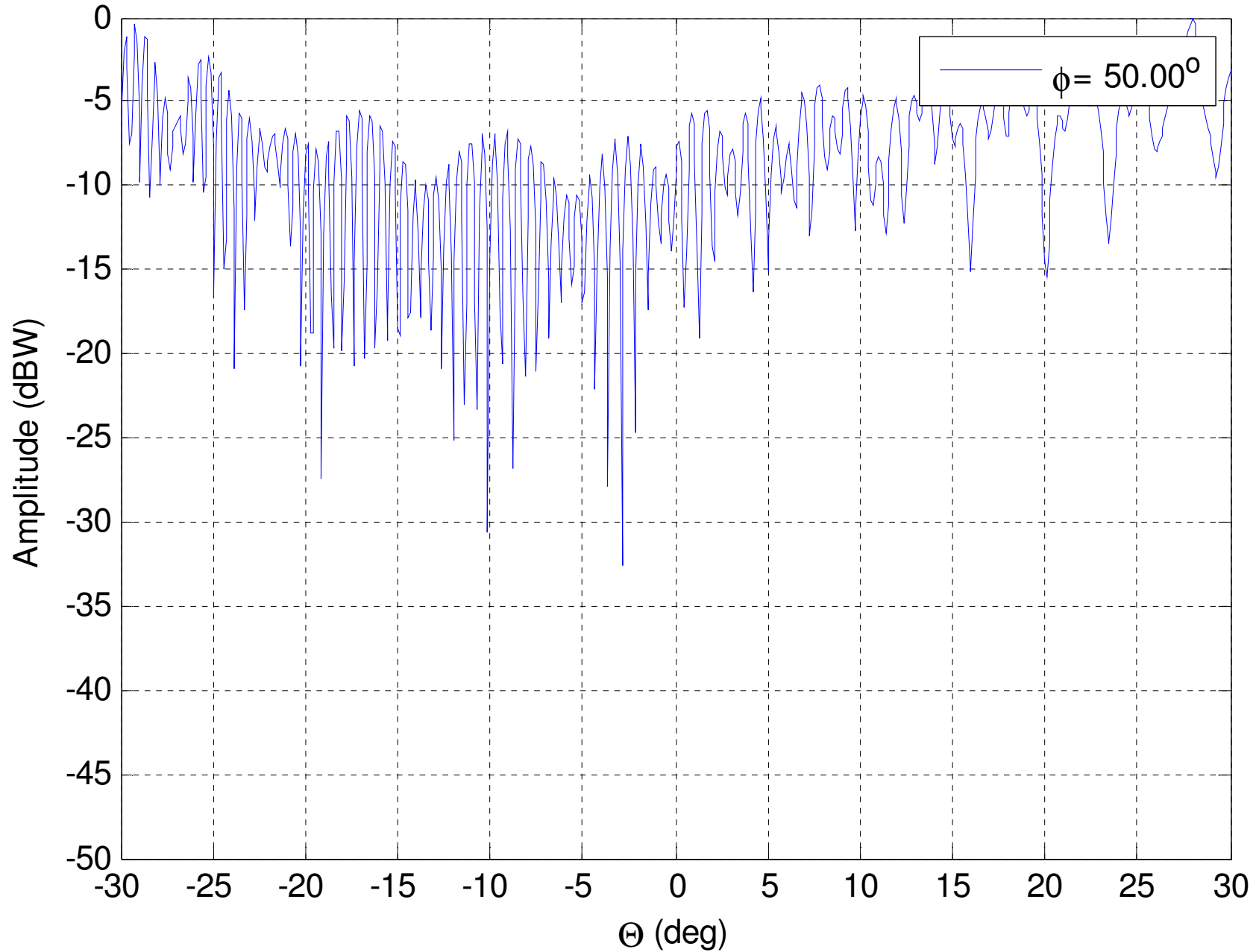
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-40.cut, Peak: -5.59 dBW, Date: 16-Dec-2011



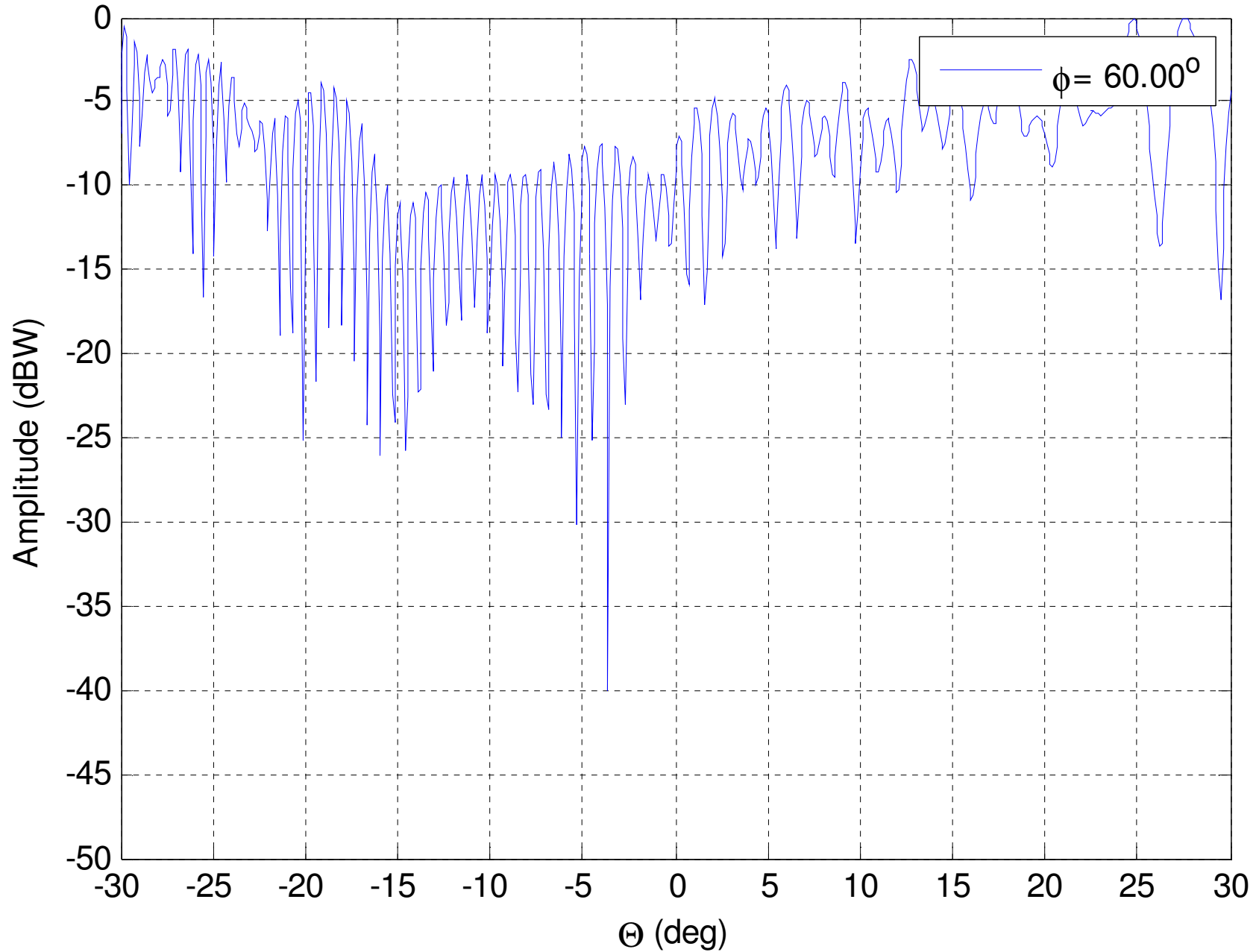
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-50.cut, Peak: -3.78 dBW, Date: 16-Dec-2011



Normalized pattern cuts - farfield

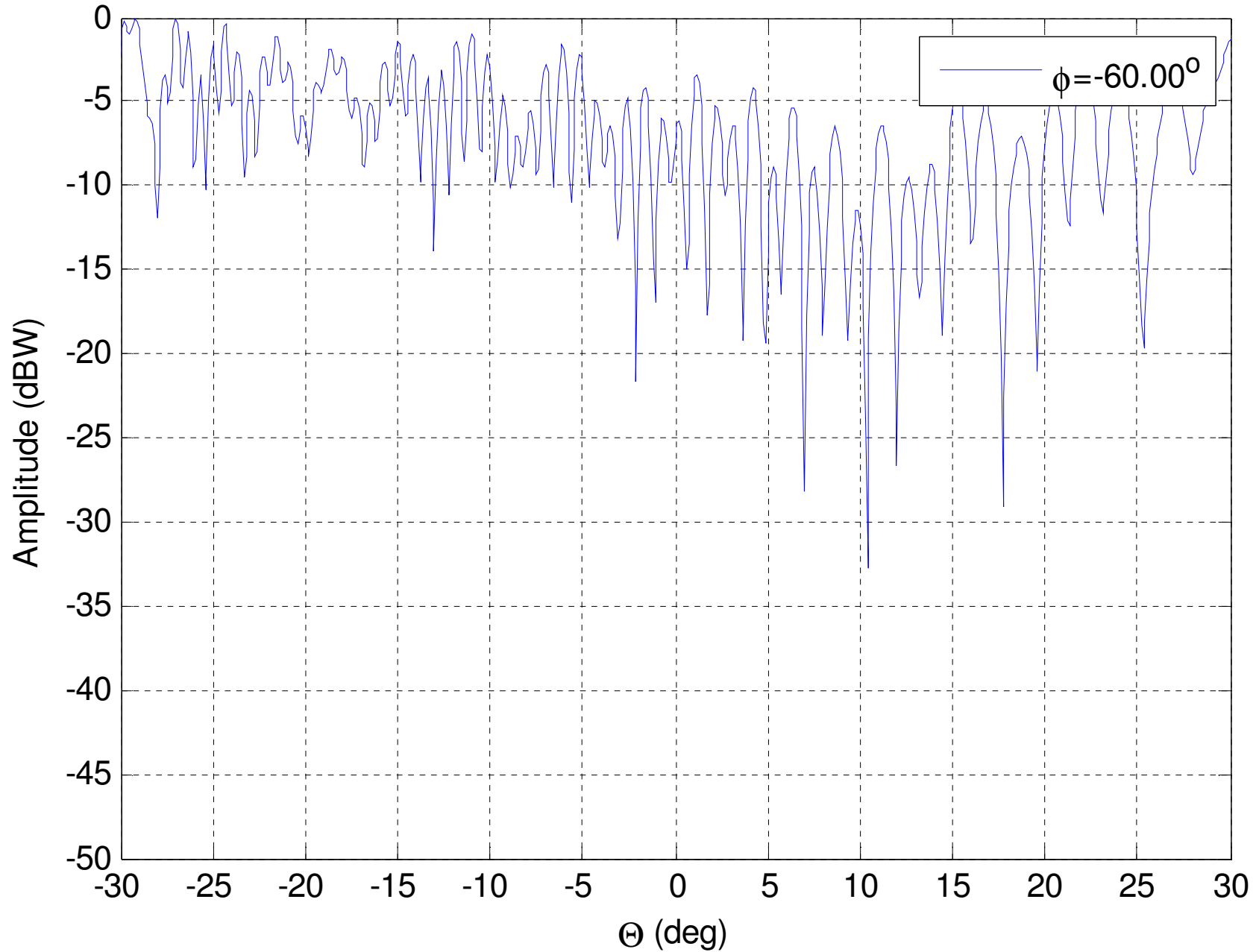
Input file: tx-17.5-lhcp-60.cut, Peak: -4.01 dBW, Date: 16-Dec-2011



RHCP at 17.7 GHz

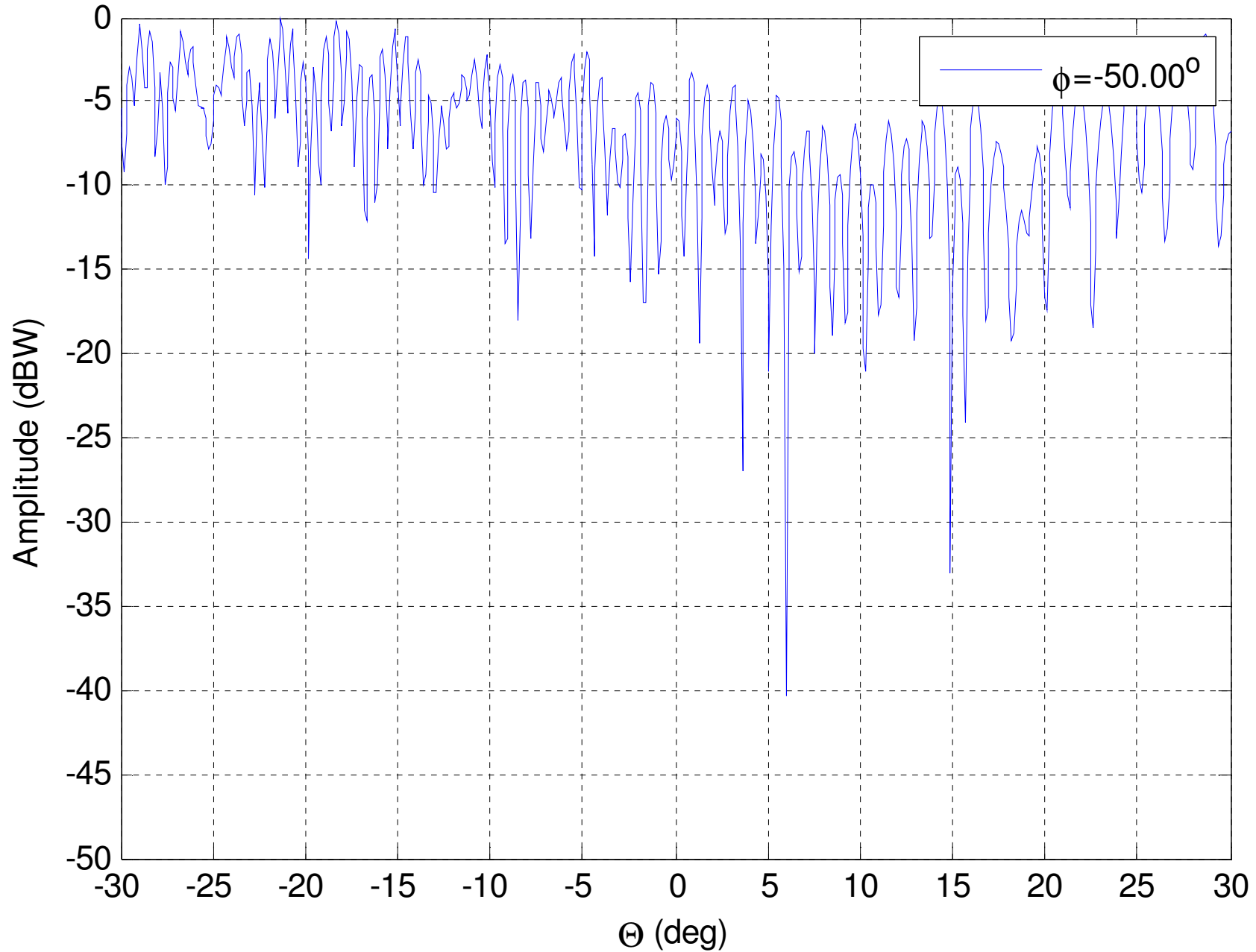
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--60.cut, Peak: -5.48 dBW, Date: 16-Dec-2011



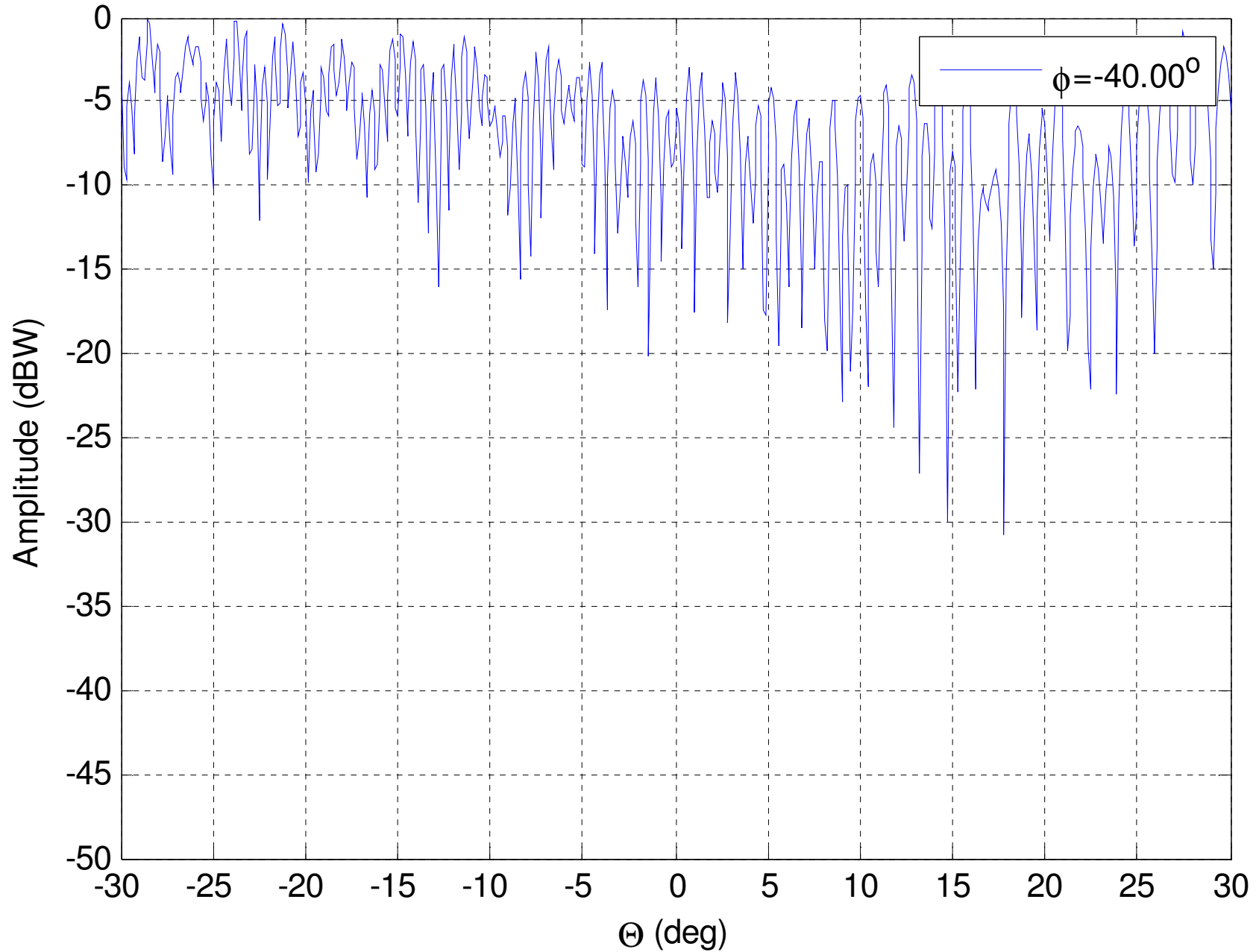
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--50.cut, Peak: -5.75 dBW, Date: 16-Dec-2011



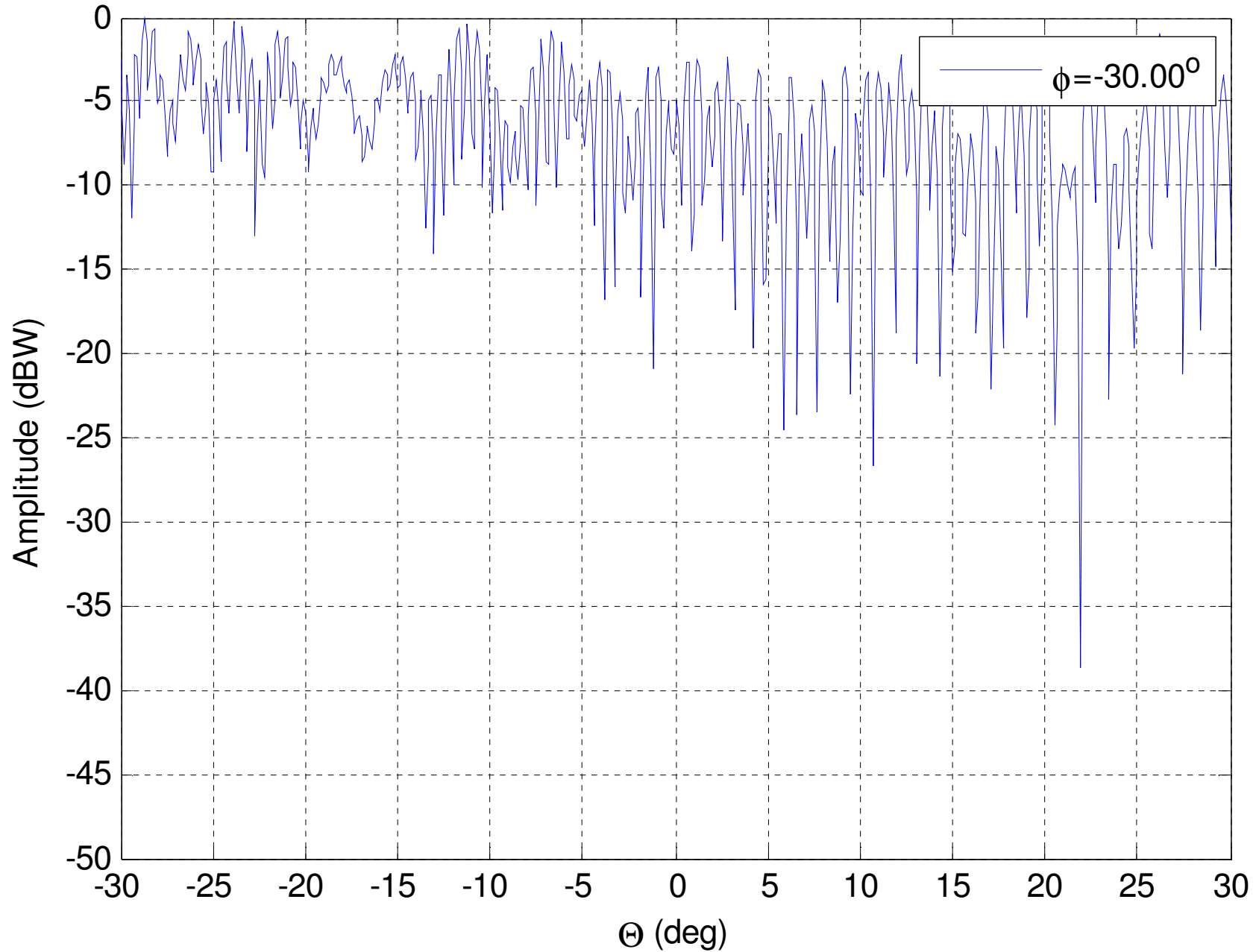
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--40.cut, Peak: -6.21 dBW, Date: 16-Dec-2011



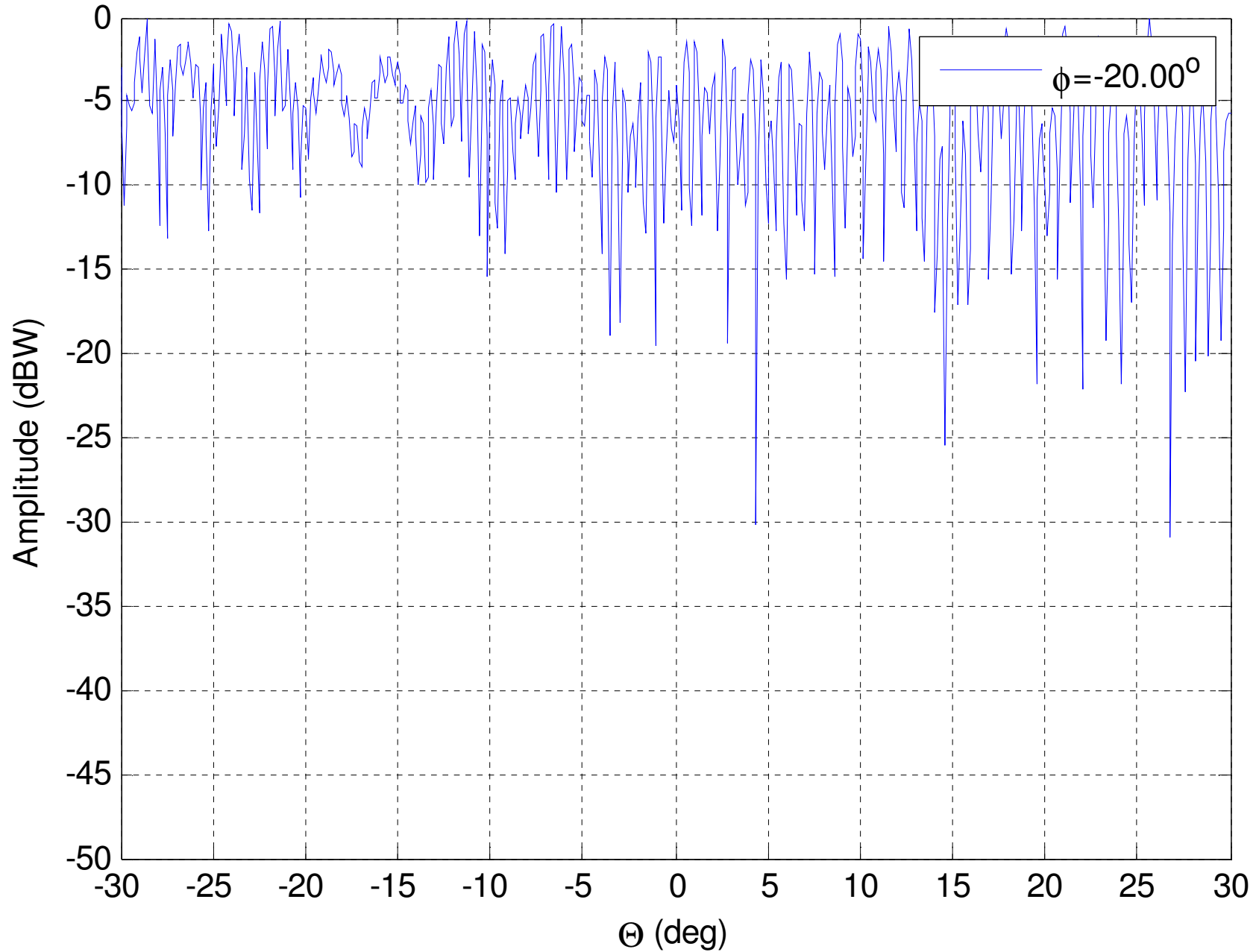
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--30.cut, Peak: -6.82 dBW, Date: 16-Dec-2011



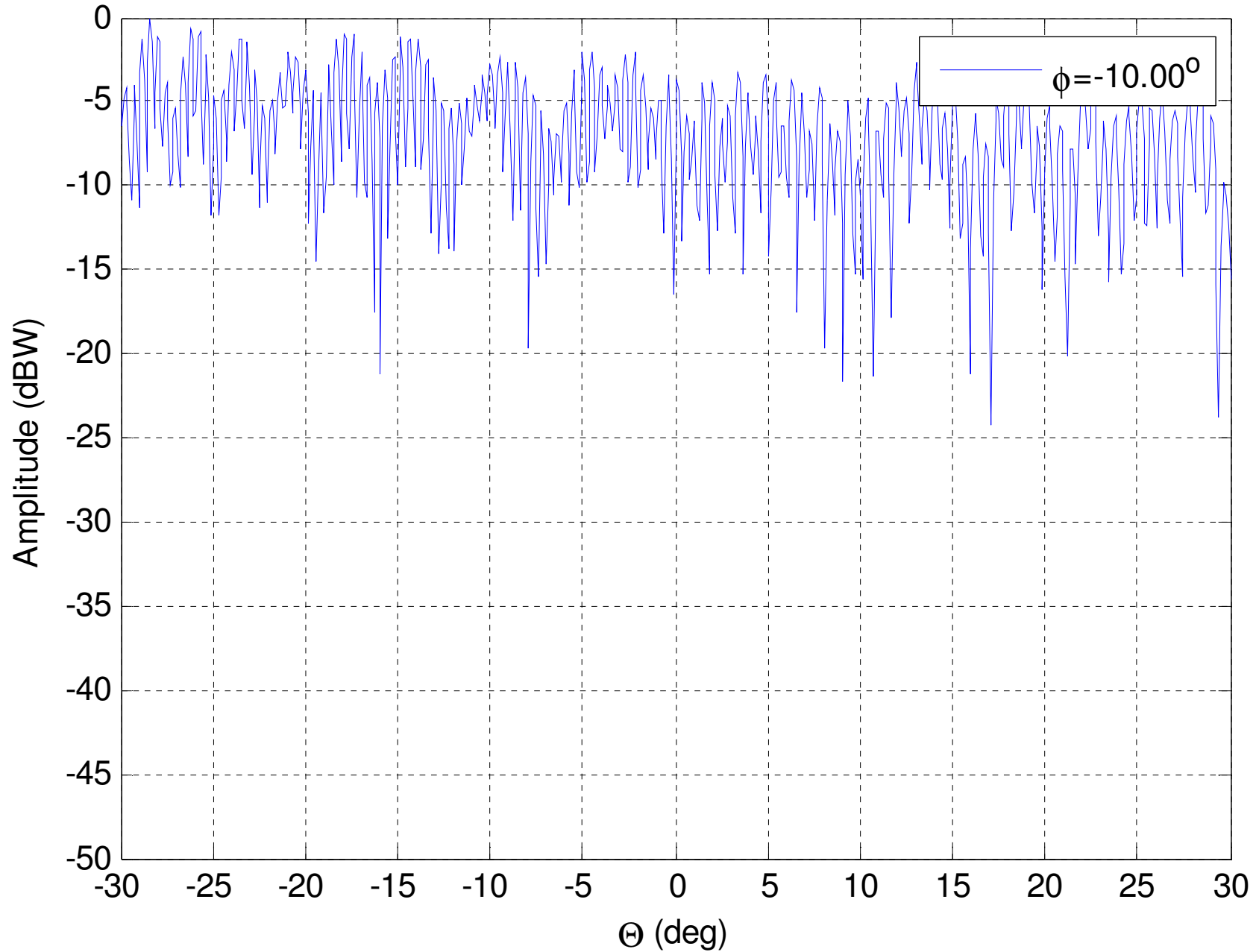
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--20.cut, Peak: -7.75 dBW, Date: 16-Dec-2011



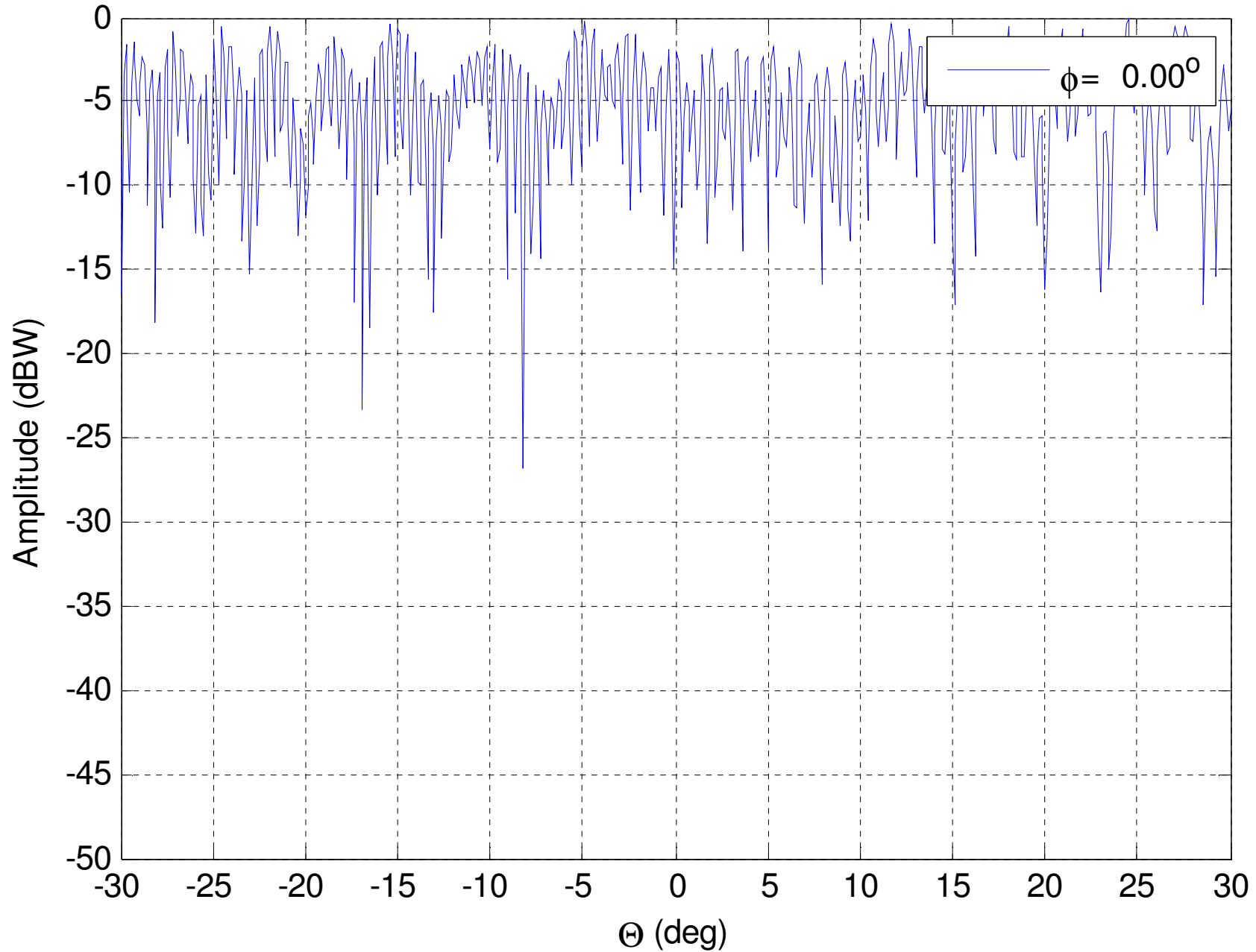
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--10.cut, Peak: -6.31 dBW, Date: 16-Dec-2011



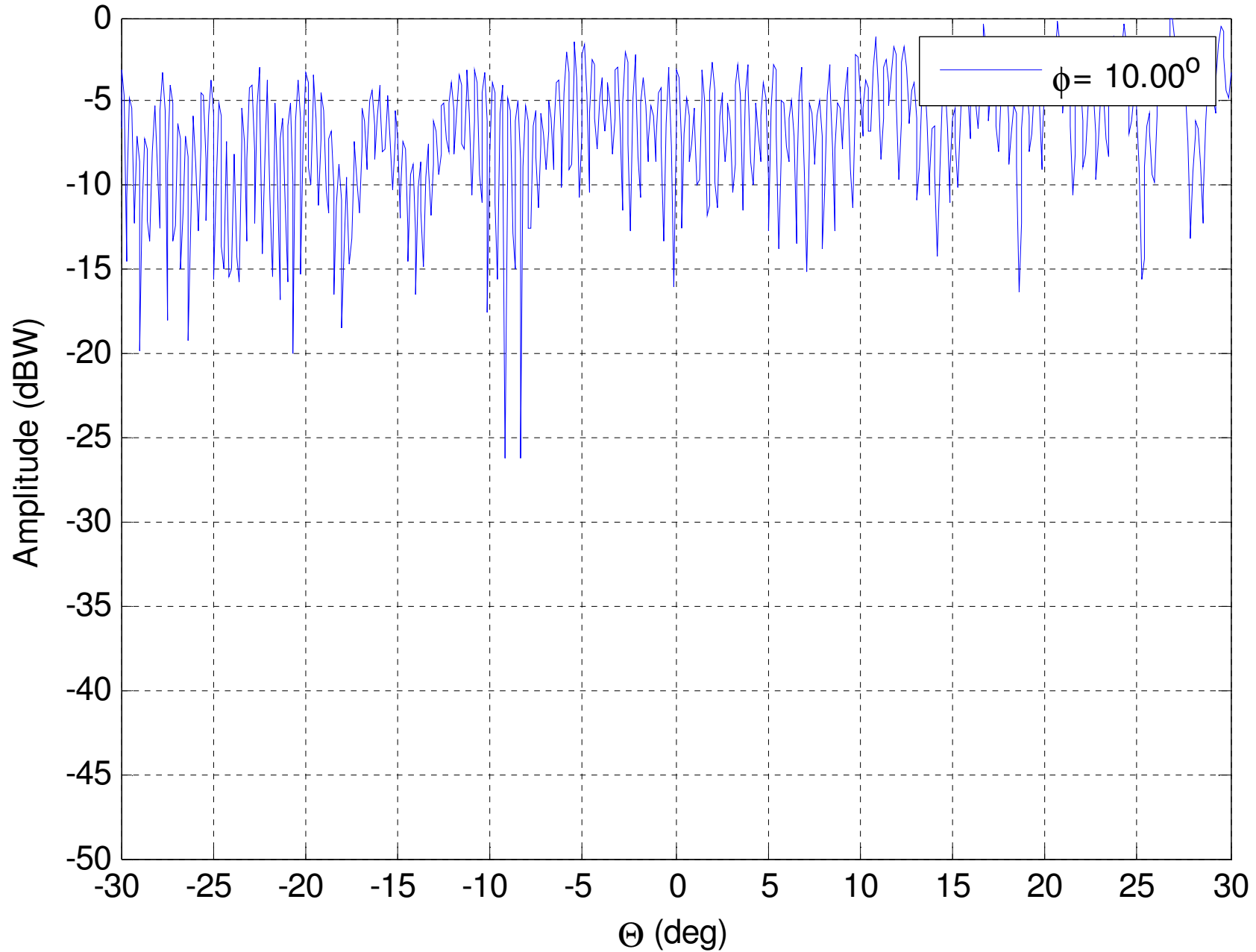
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-0.cut, Peak: -8.01 dBW, Date: 16-Dec-2011



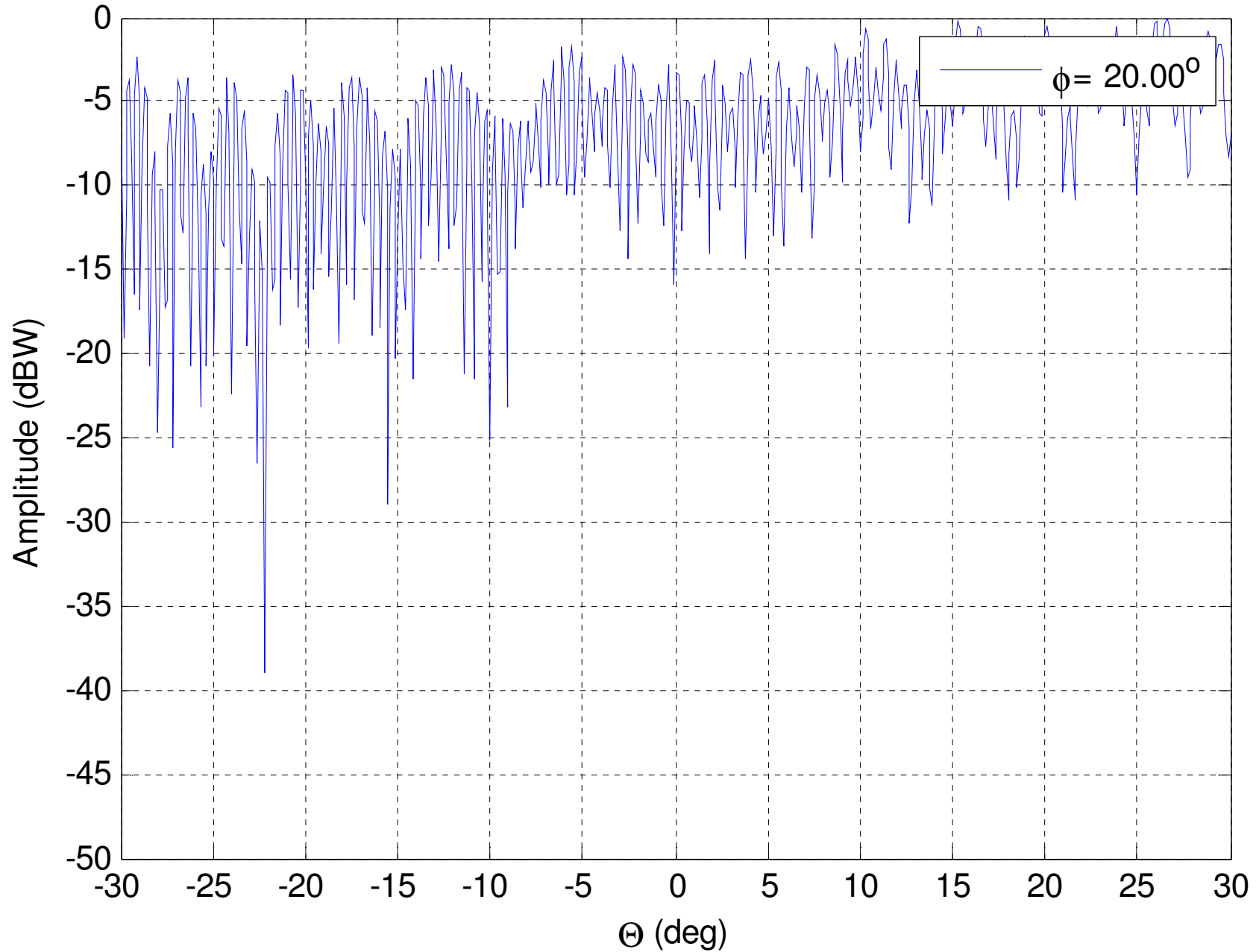
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-10.cut, Peak: -6.97 dBW, Date: 16-Dec-2011



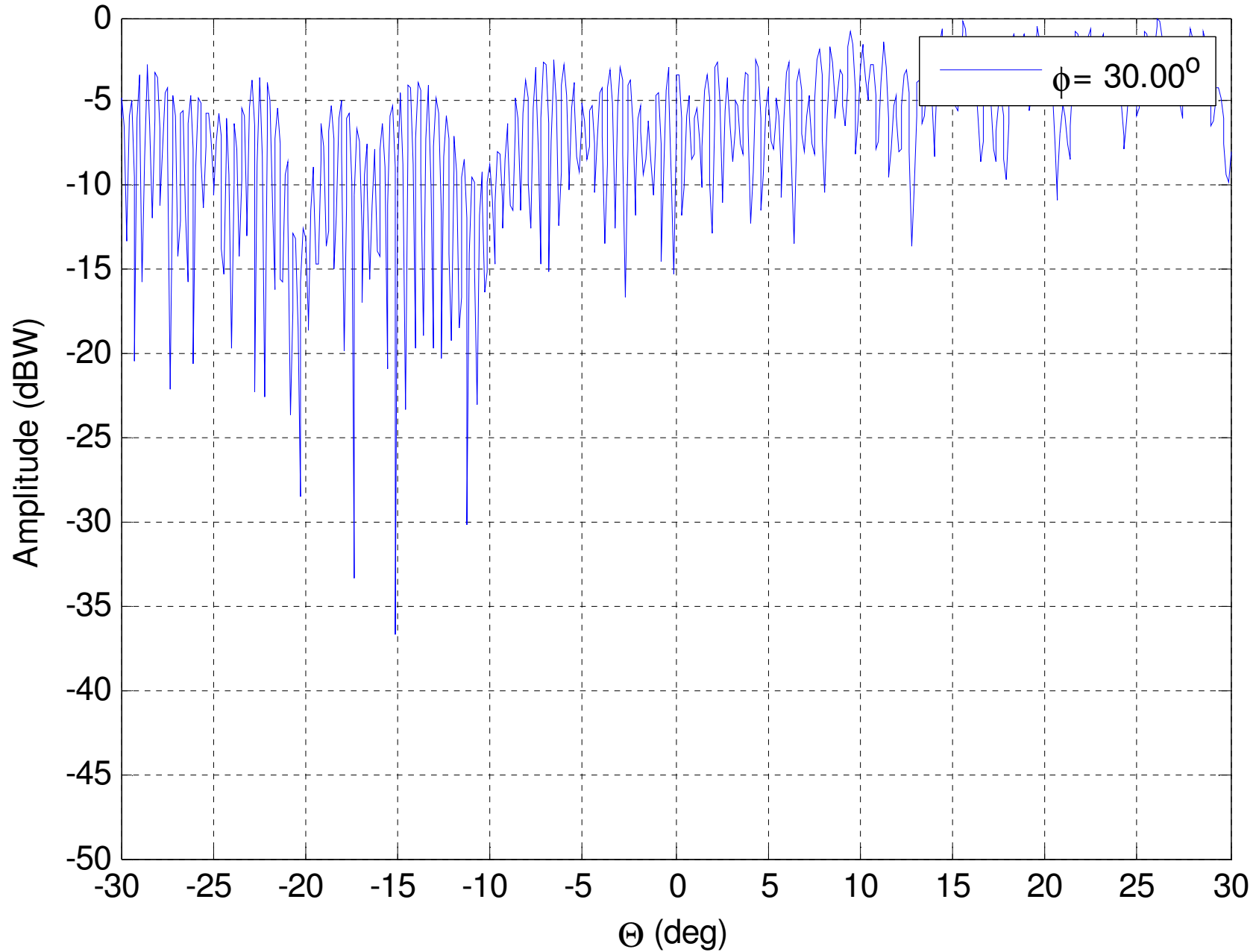
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-20.cut, Peak: -6.89 dBW, Date: 16-Dec-2011



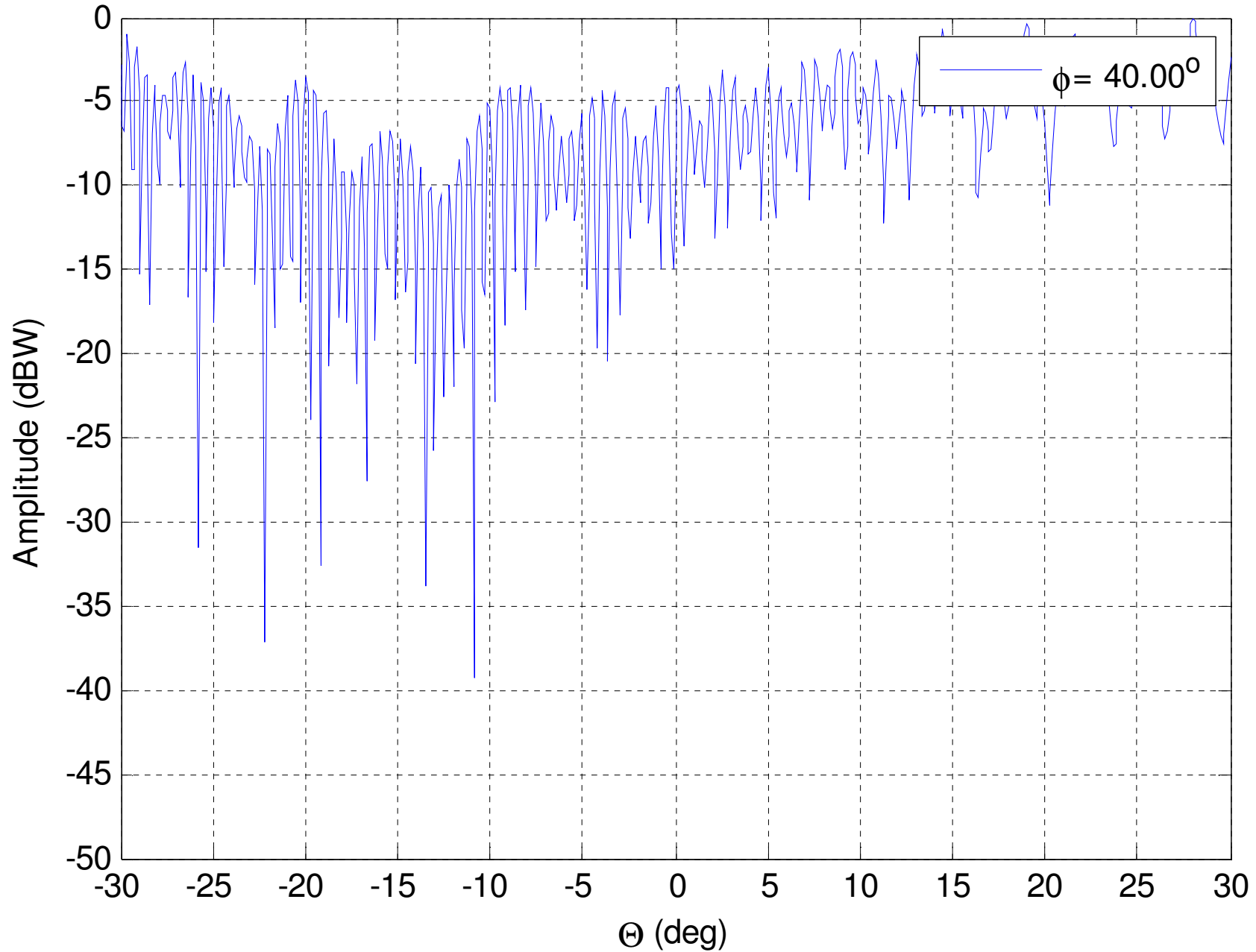
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-30.cut, Peak: -6.68 dBW, Date: 16-Dec-2011



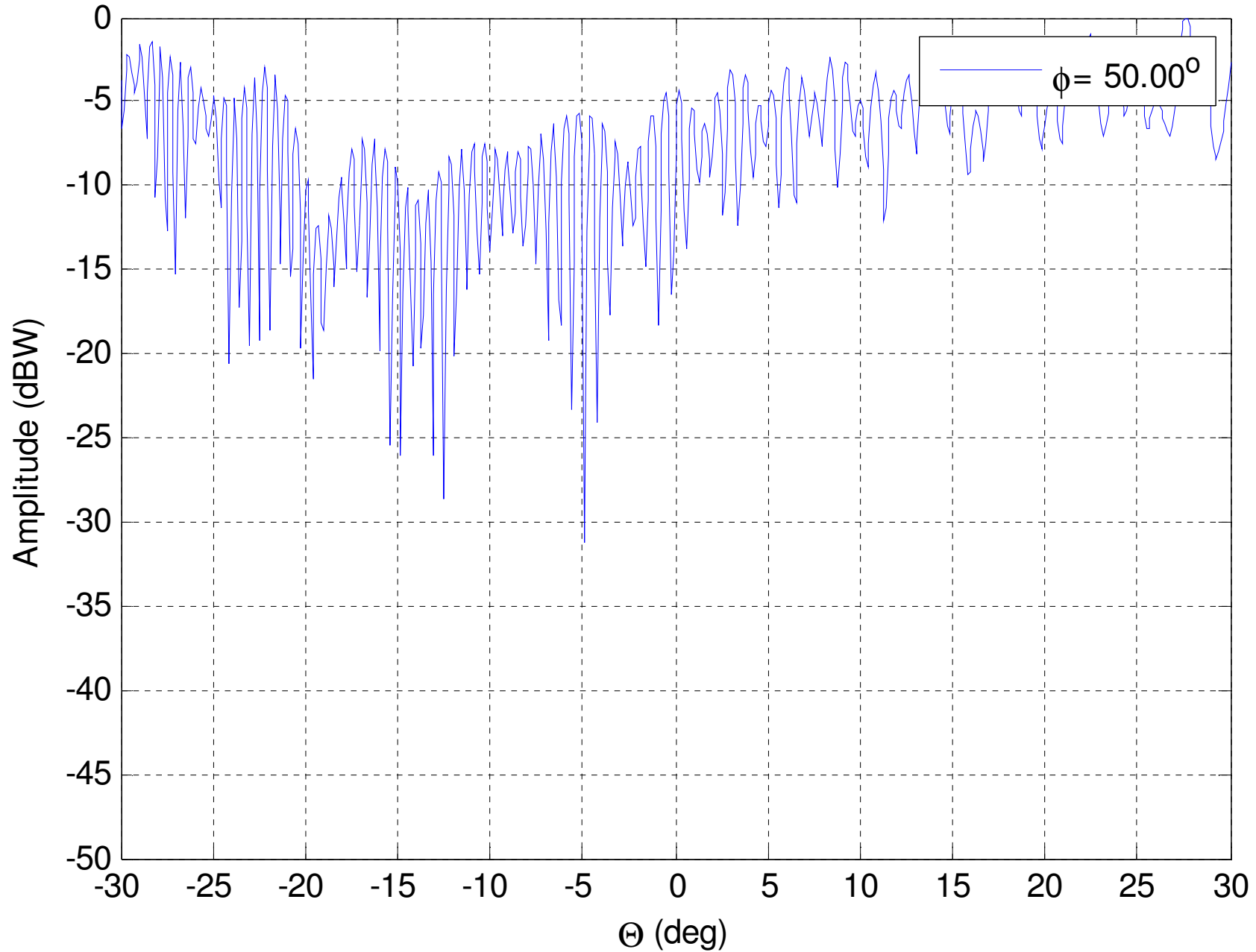
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-40.cut, Peak: -5.82 dBW, Date: 16-Dec-2011



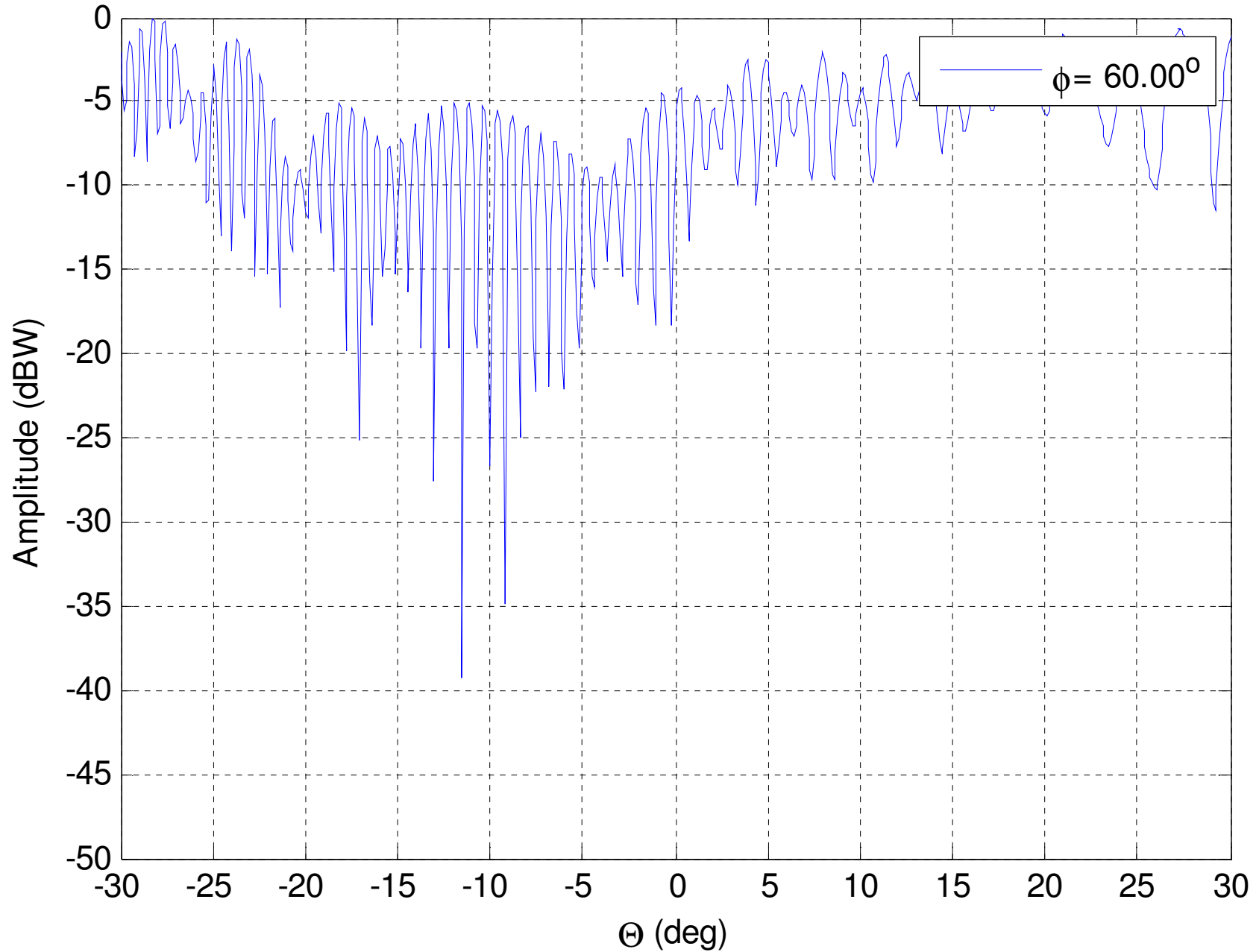
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-50.cut, Peak: -5.32 dBW, Date: 16-Dec-2011



Normalized pattern cuts - farfield

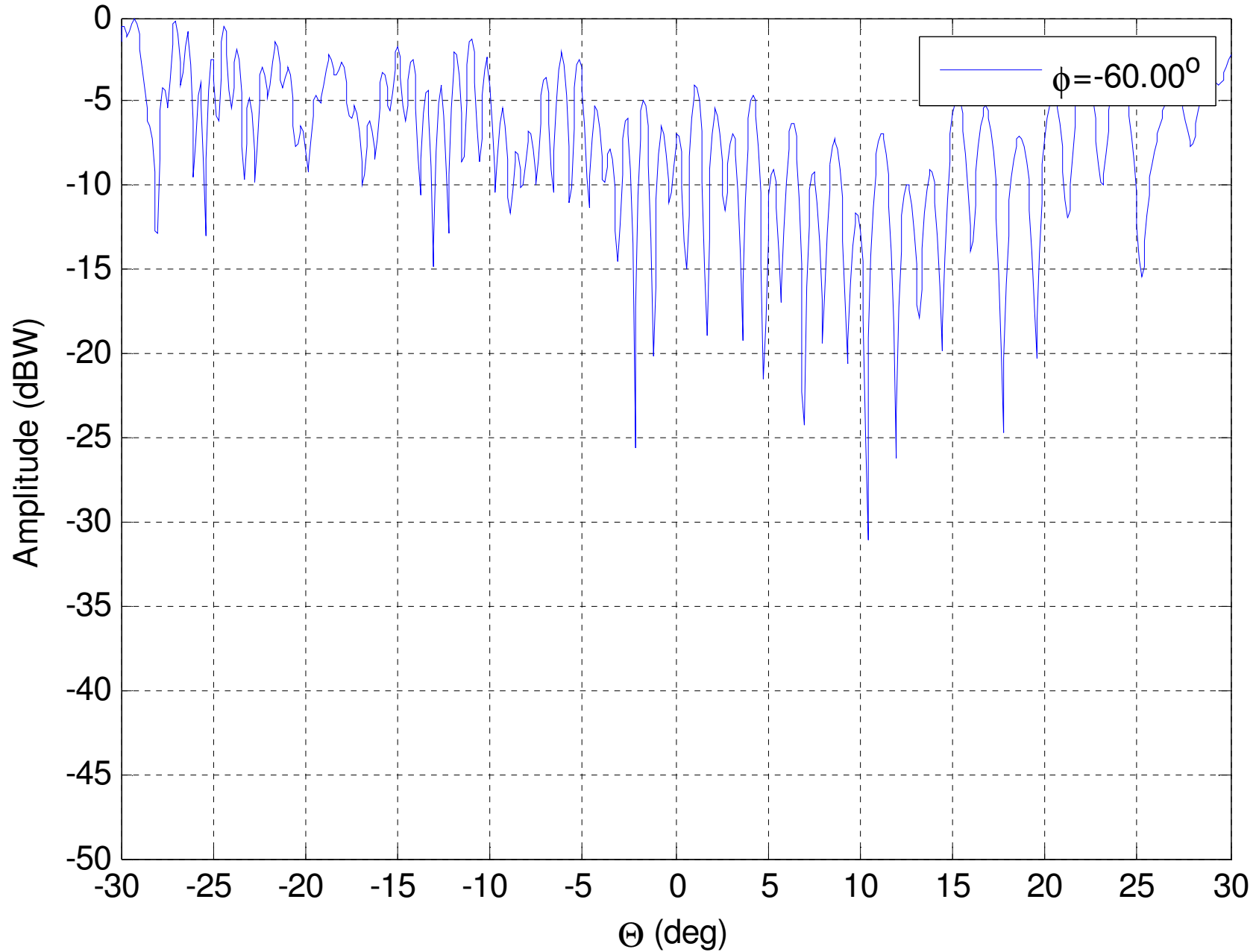
Input file: tx-17.7-rhcp-60.cut, Peak: -5.55 dBW, Date: 16-Dec-2011



LHCP at 17.7 GHz

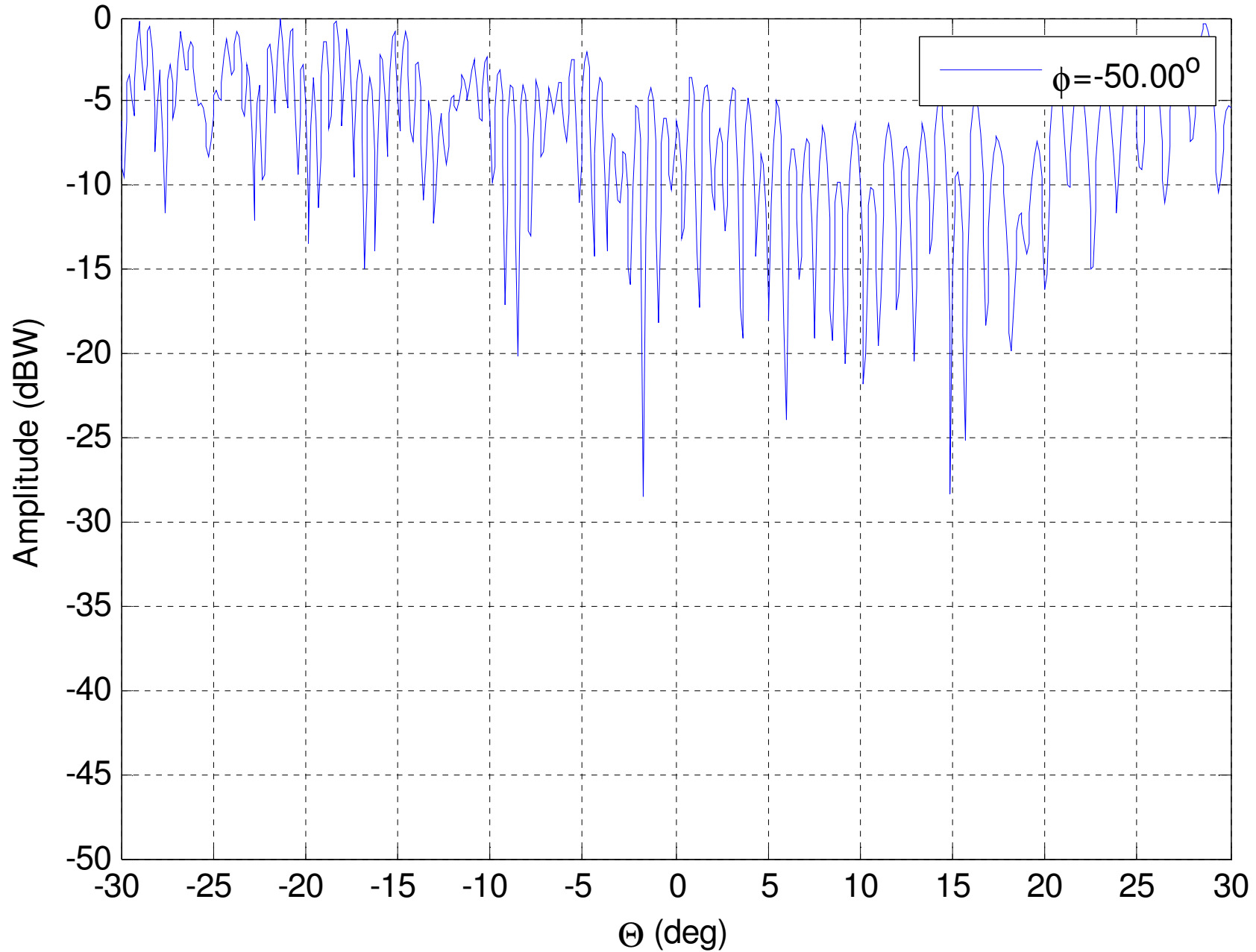
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--60.cut, Peak: -4.98 dBW, Date: 16-Dec-2011



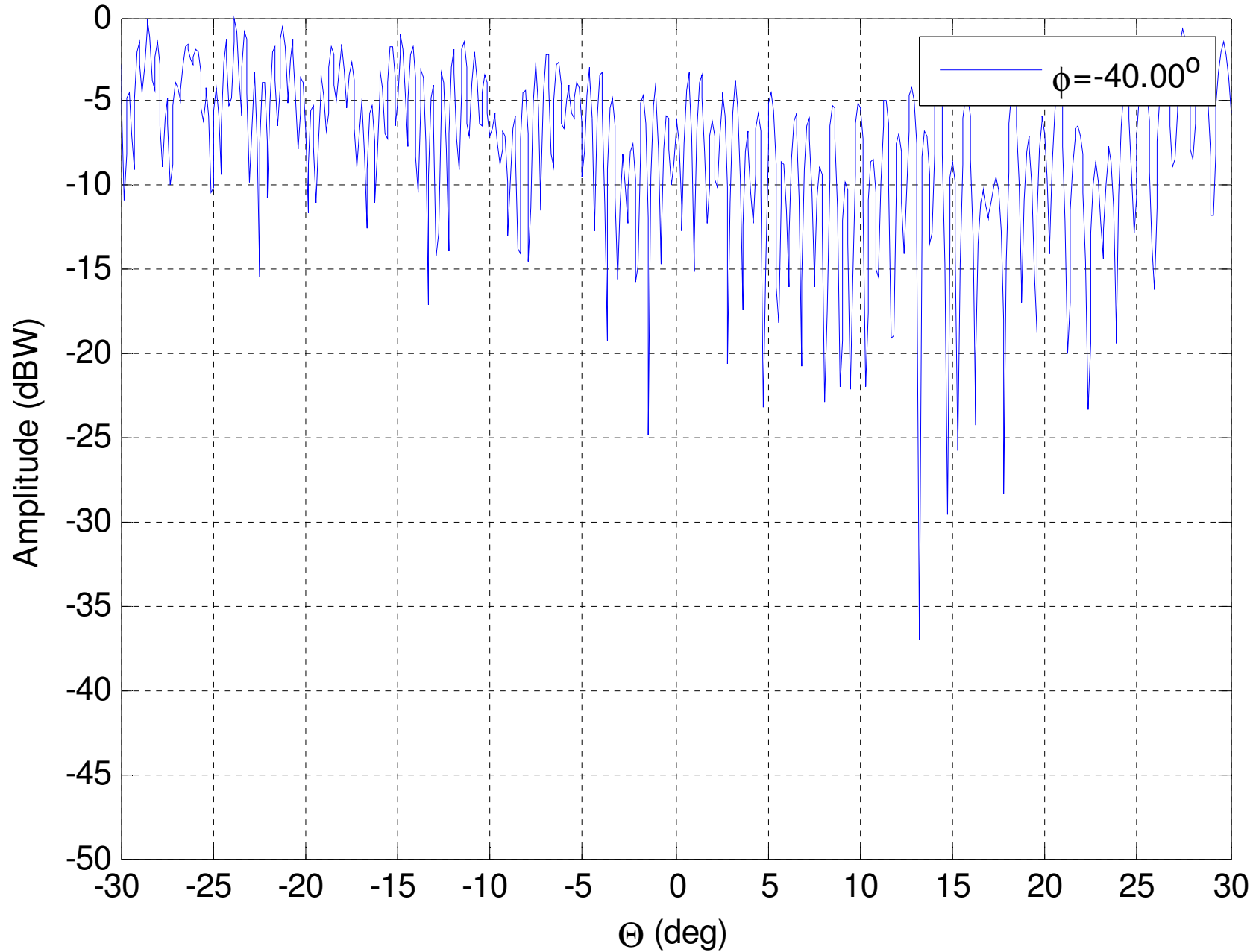
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--50.cut, Peak: -5.69 dBW, Date: 16-Dec-2011



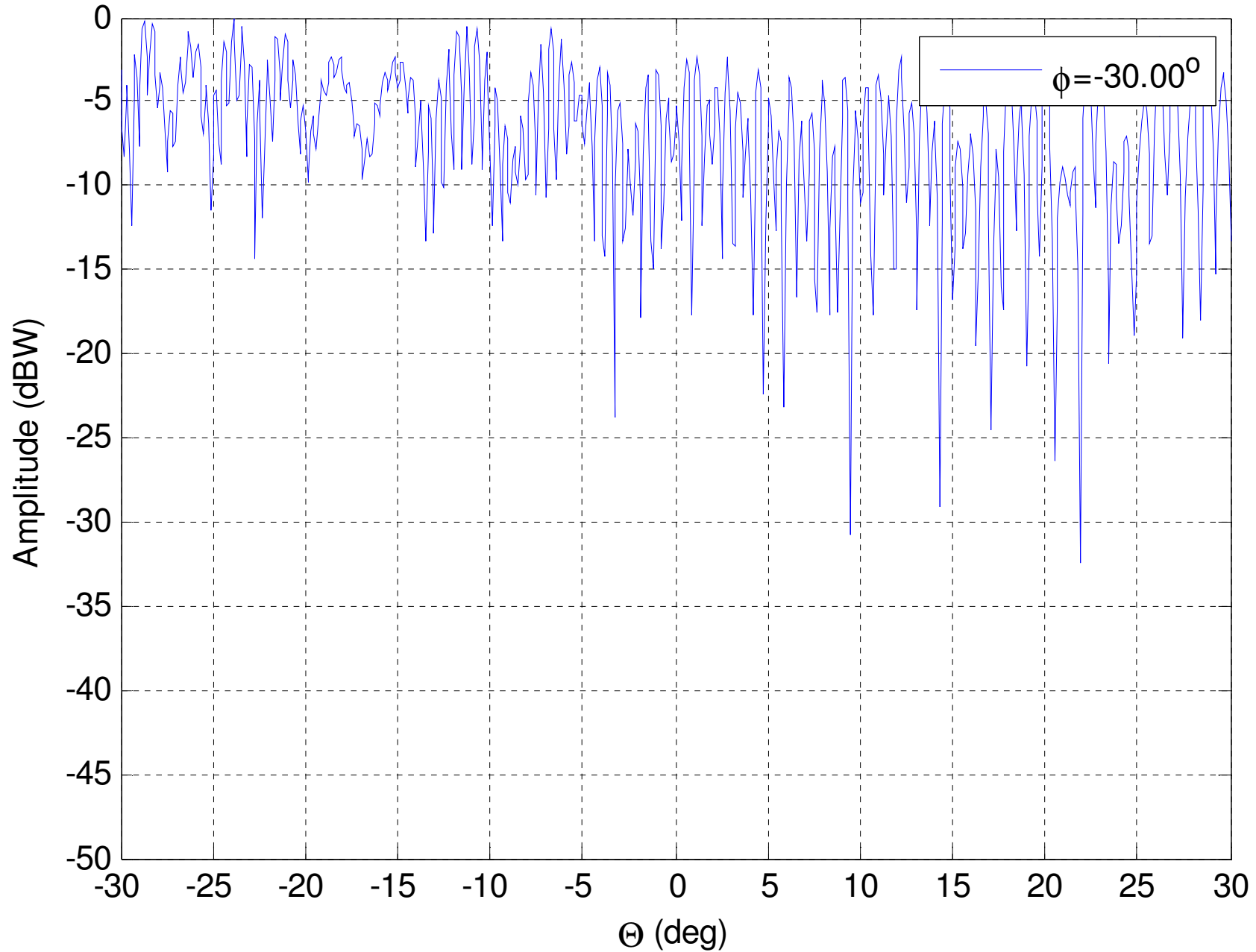
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--40.cut, Peak: -5.95 dBW, Date: 16-Dec-2011



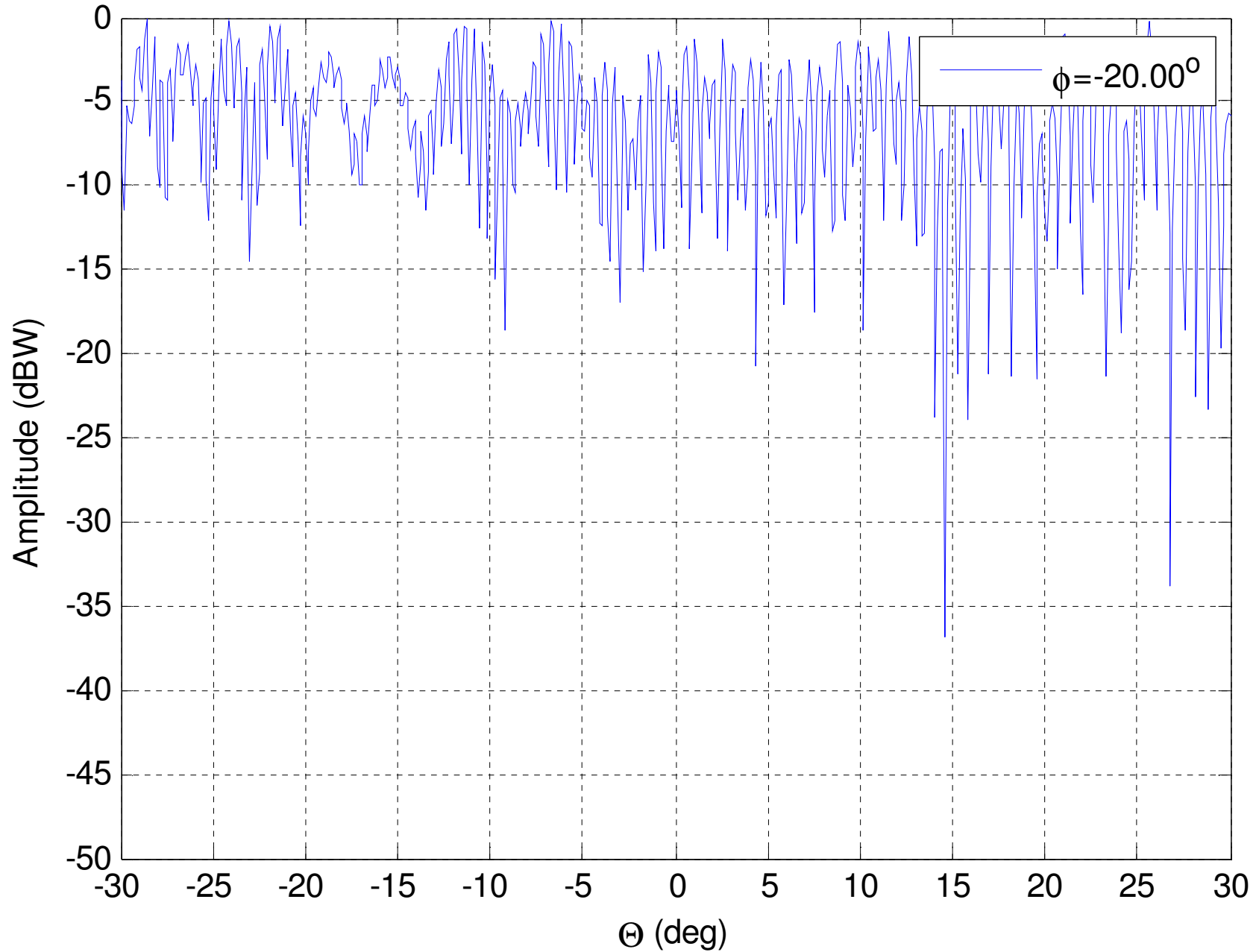
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--30.cut, Peak: -6.84 dBW, Date: 16-Dec-2011



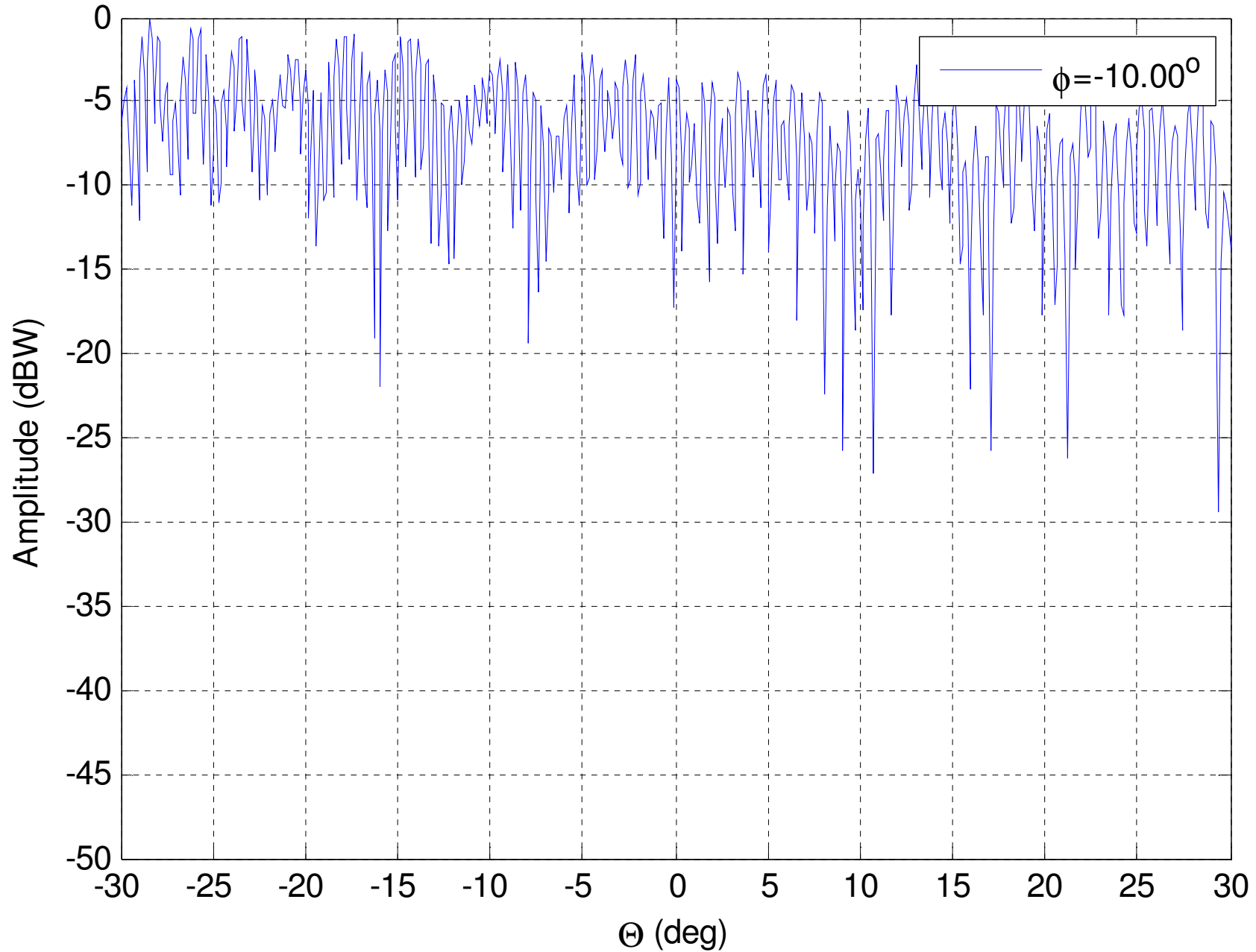
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--20.cut, Peak: -7.76 dBW, Date: 16-Dec-2011



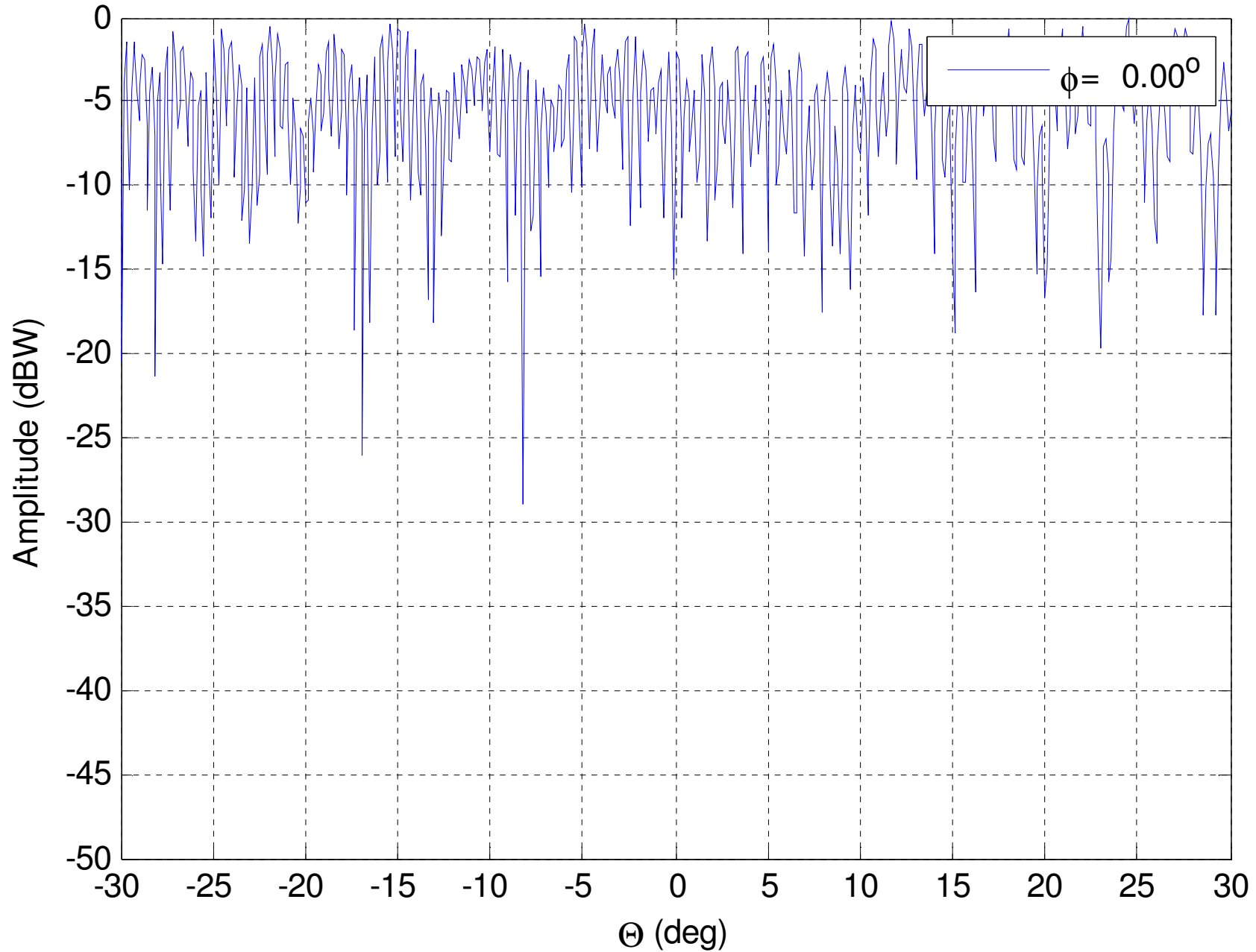
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--10.cut, Peak: -6.36 dBW, Date: 16-Dec-2011



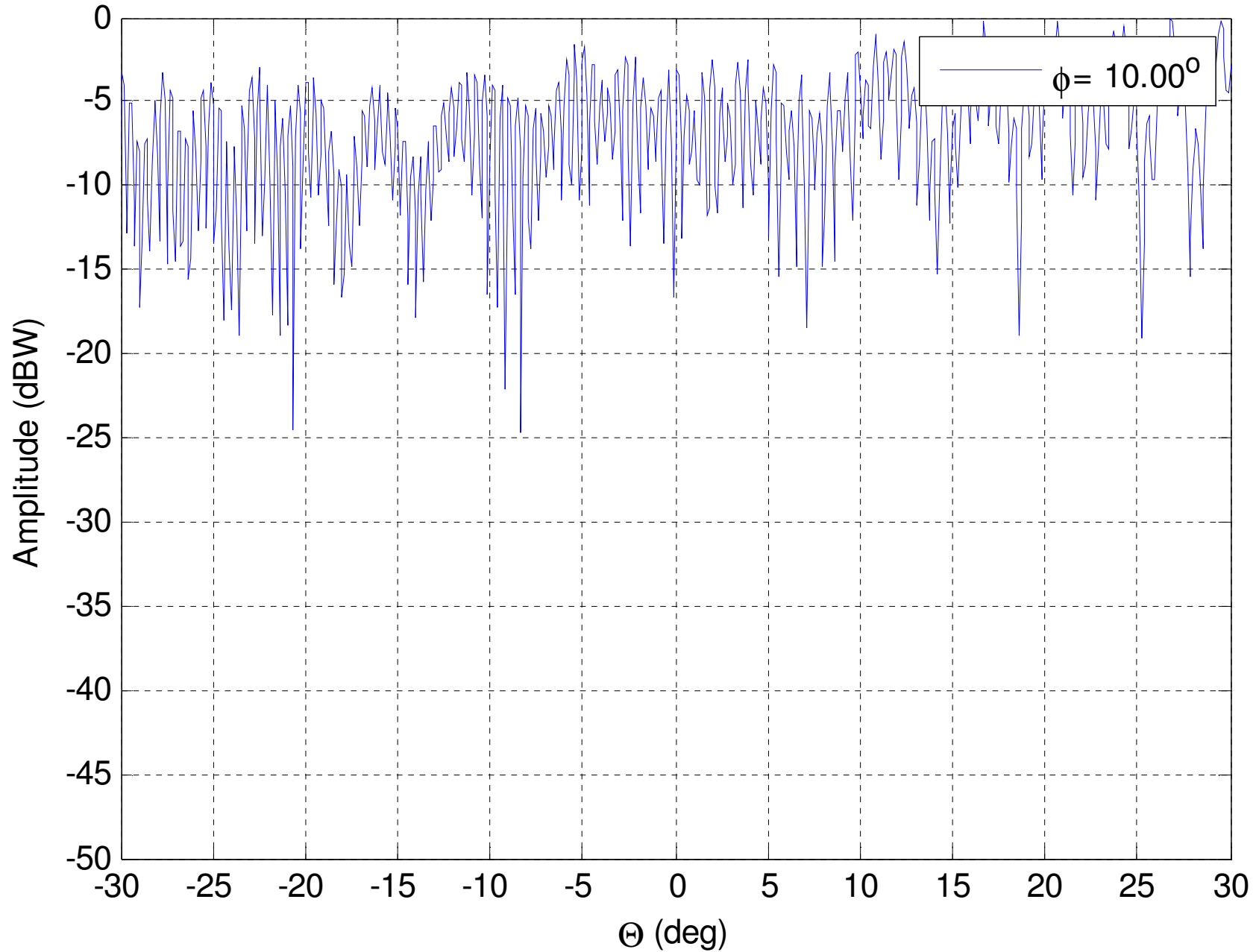
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-0.cut, Peak: -8.13 dBW, Date: 16-Dec-2011



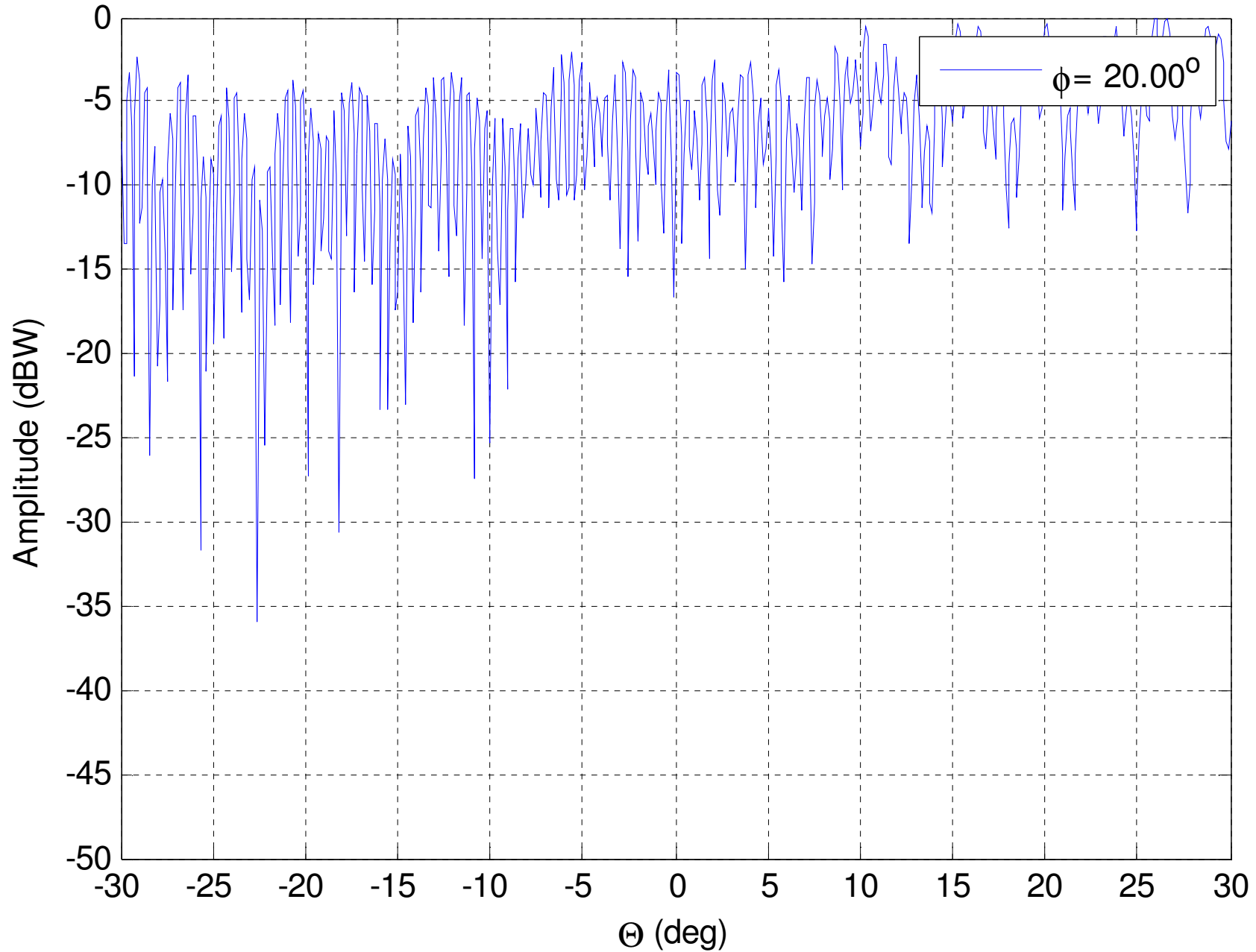
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-10.cut, Peak: -7.06 dBW, Date: 16-Dec-2011



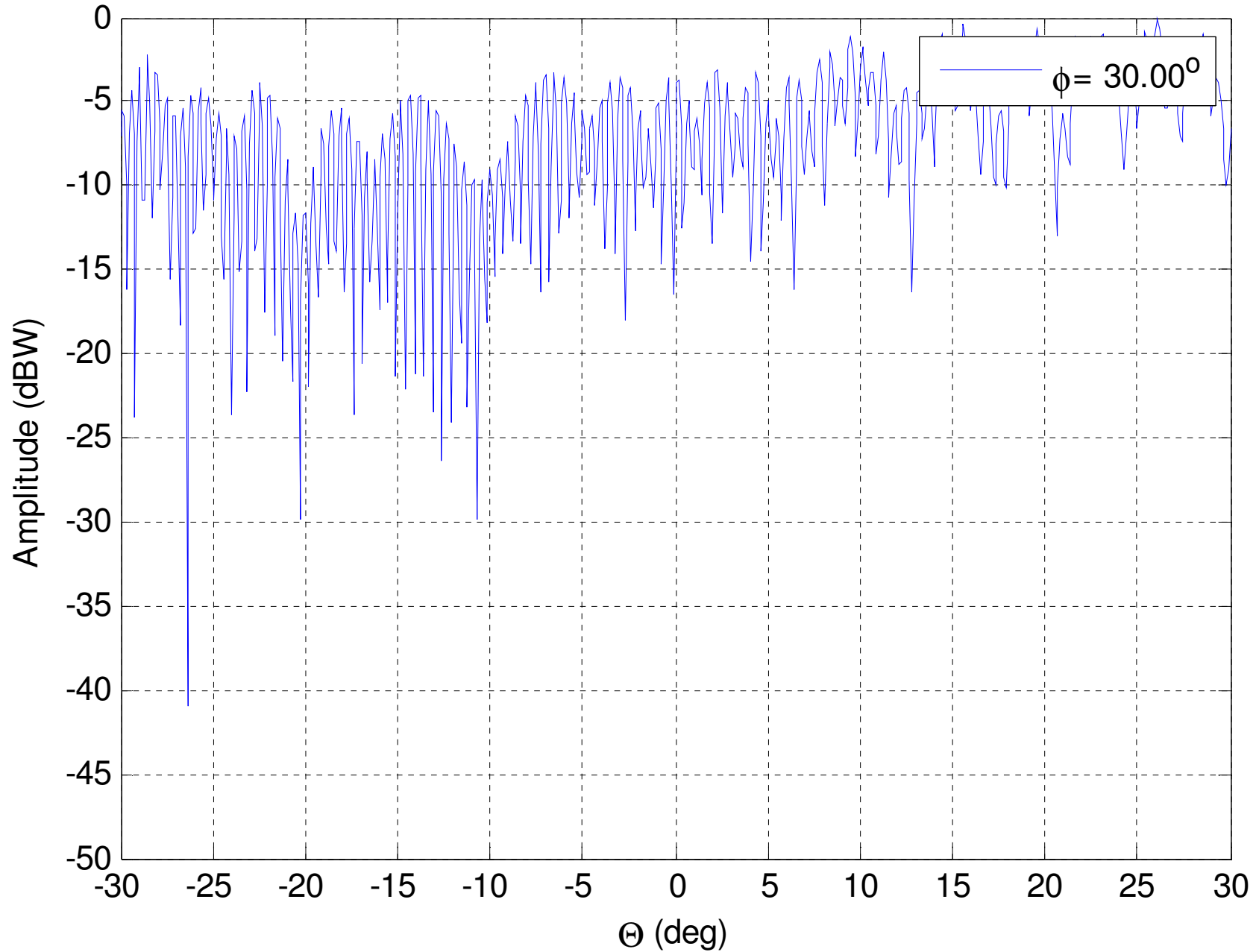
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-20.cut, Peak: -6.84 dBW, Date: 16-Dec-2011



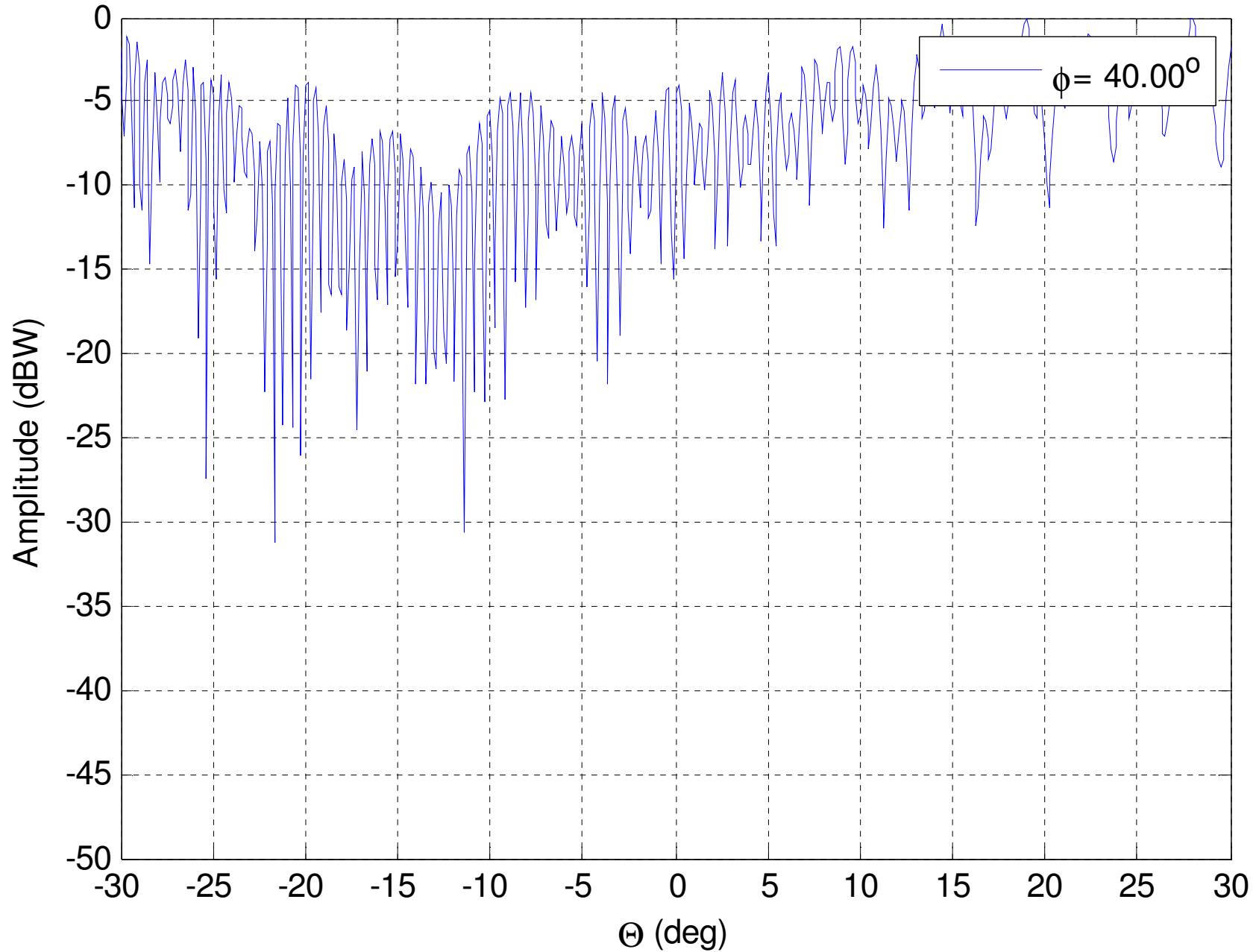
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-30.cut, Peak: -6.30 dBW, Date: 16-Dec-2011



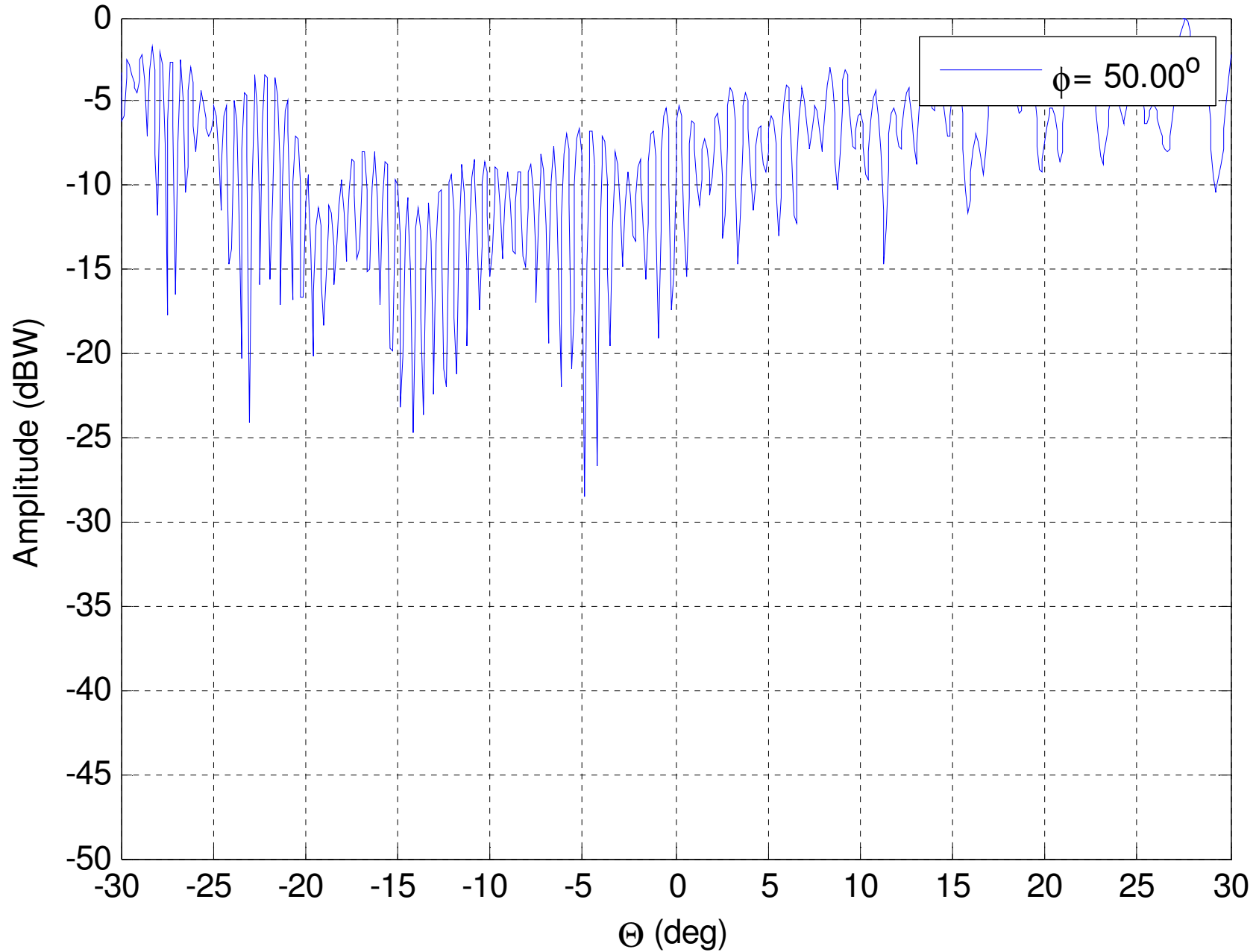
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-40.cut, Peak: -5.84 dBW, Date: 16-Dec-2011



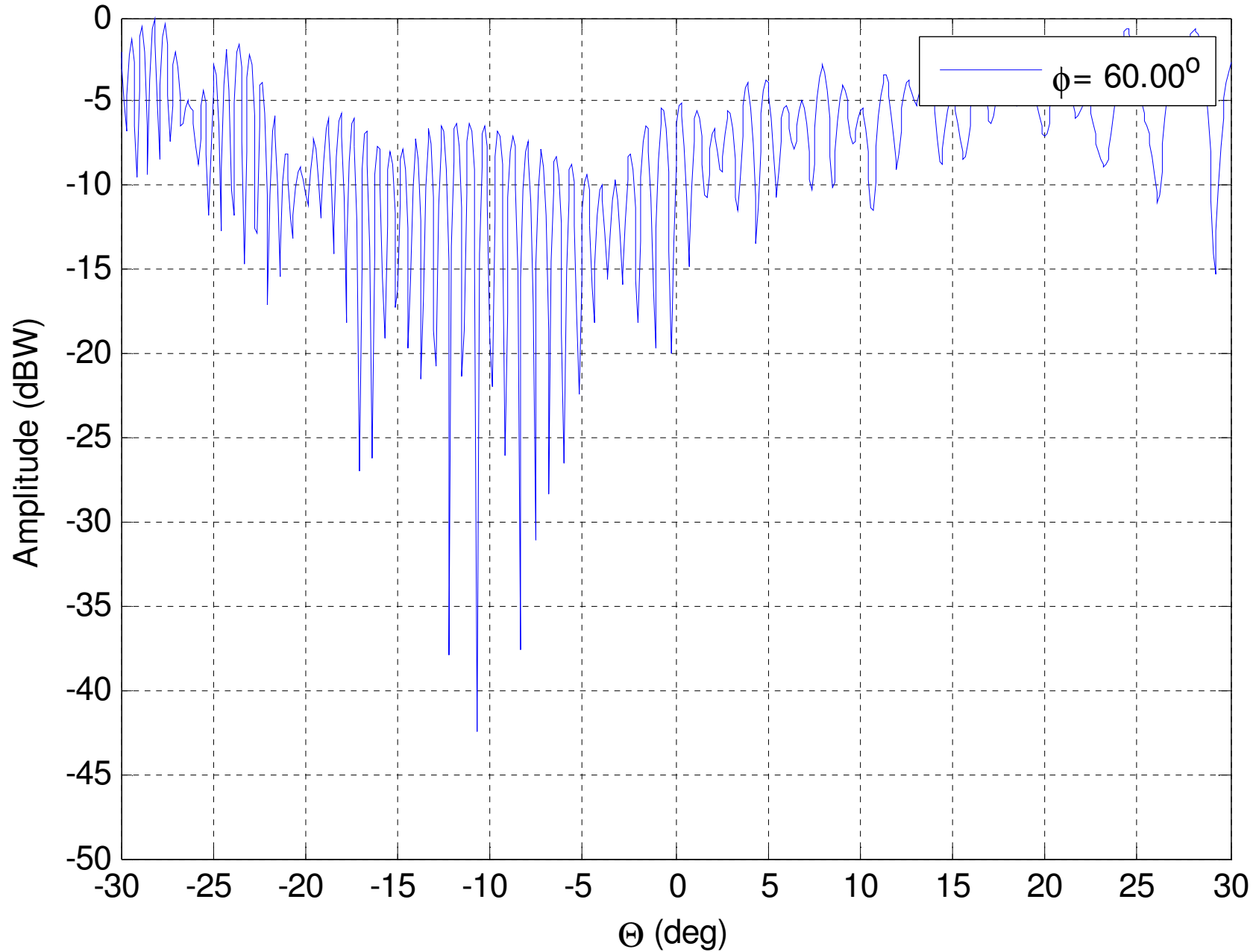
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-50.cut, Peak: -4.56 dBW, Date: 16-Dec-2011



Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-60.cut, Peak: -4.67 dBW, Date: 16-Dec-2011



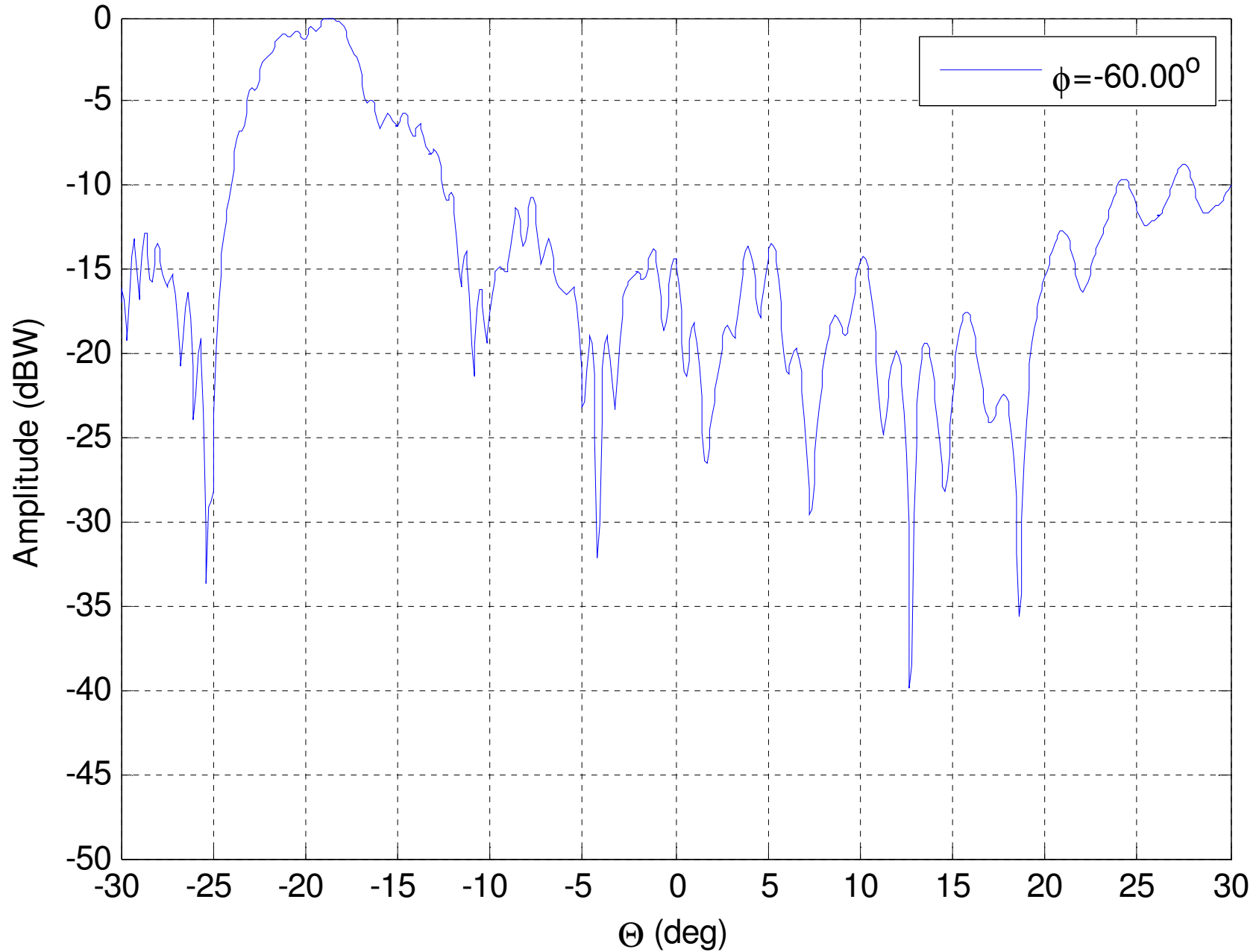
Spot Beam51, +X Axis Plots

- Both polarizations; RHCP, LHCP
- $-30 < \Theta < 30$ ($\Theta=0$: = +X-axis)
- $-60 < \phi < 60$
- Freq = 17.3, 17.5, and 17.7 GHz
- The Zero reference line is the peak gain listed in the title of each chart
- All levels are significantly below the required 20.9 dBW EIRP shown on chart 2

RHCP at 17.3 GHz

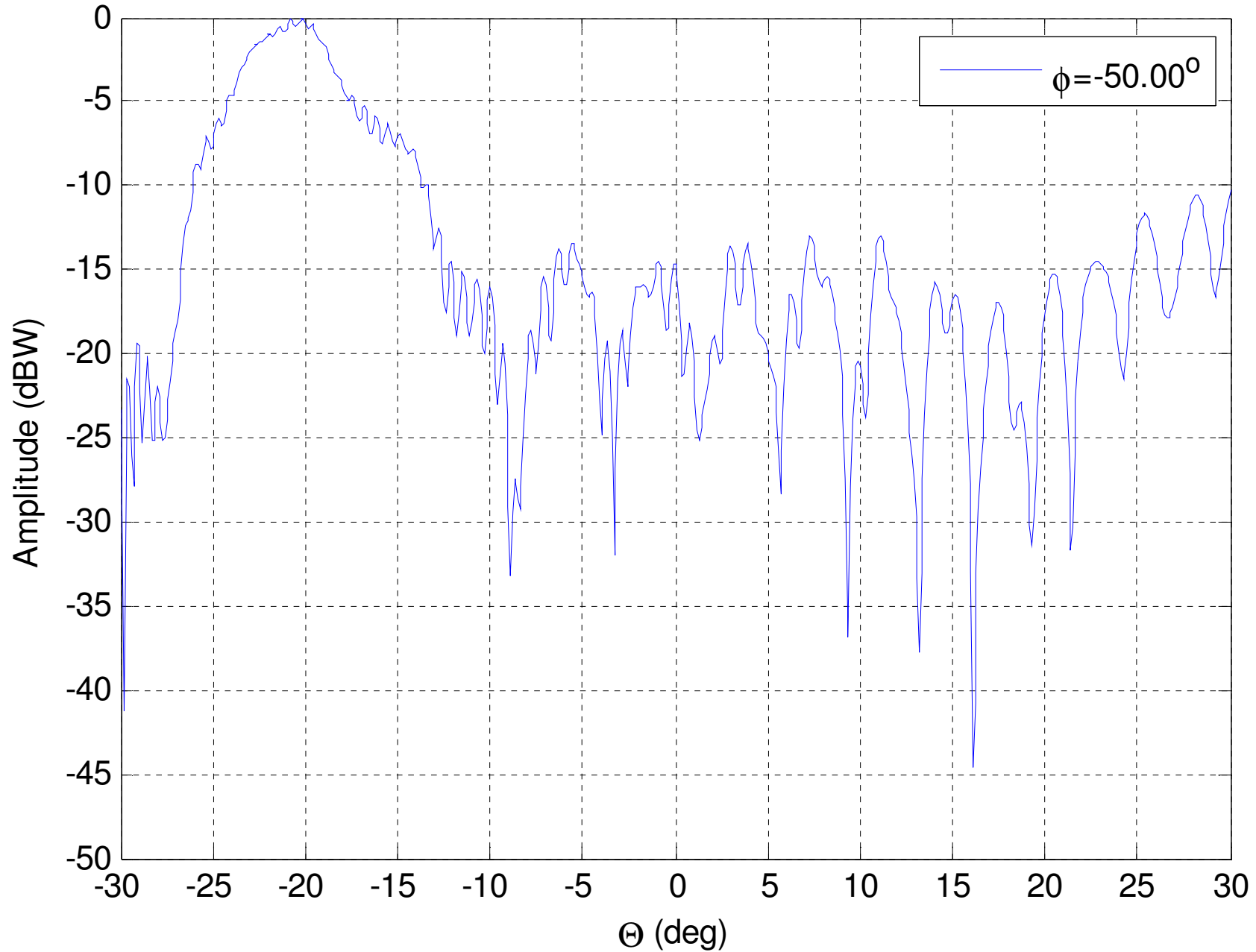
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--60.cut, Peak: 2.29 dBW, Date: 16-Dec-2011



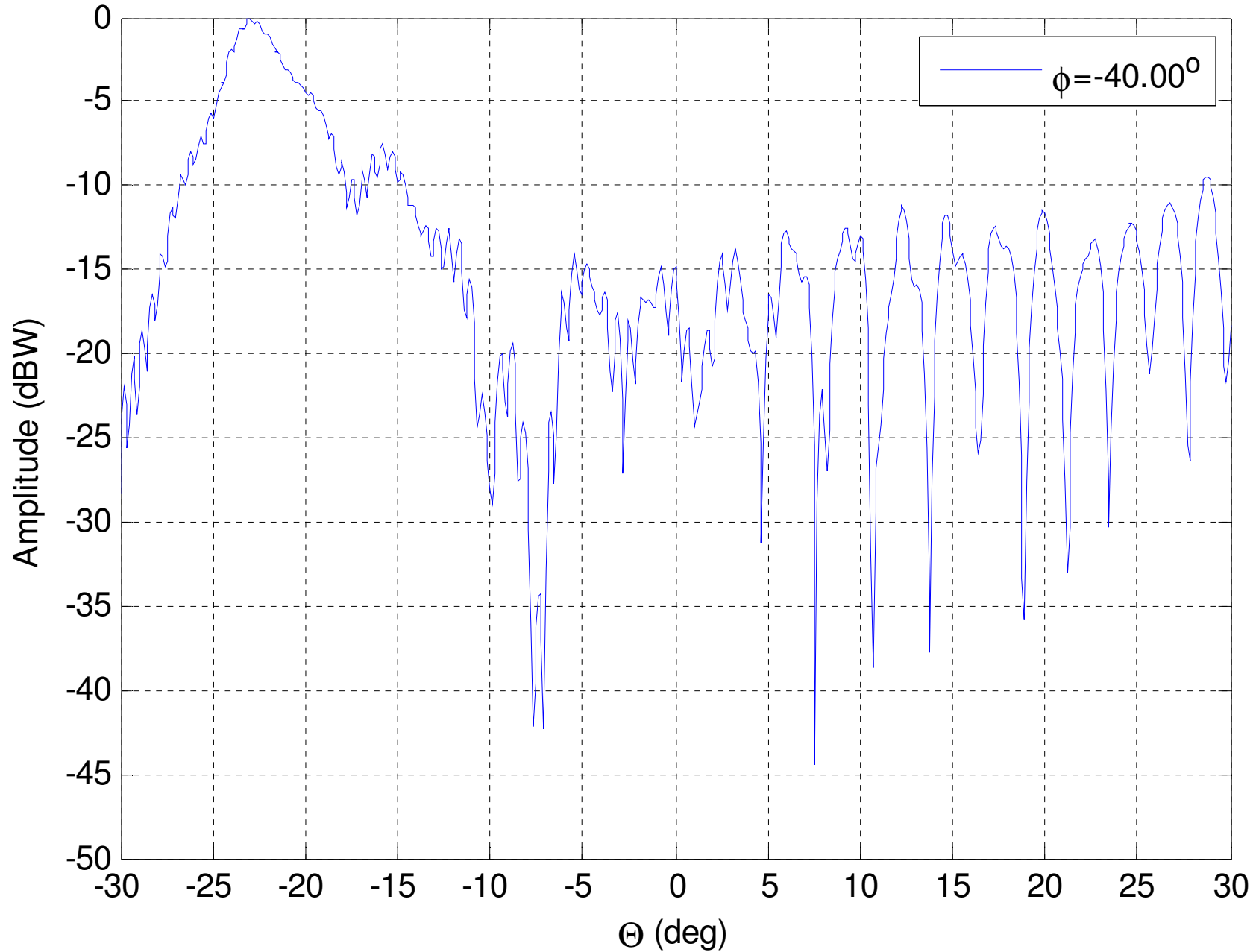
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--50.cut, Peak: 2.57 dBW, Date: 16-Dec-2011



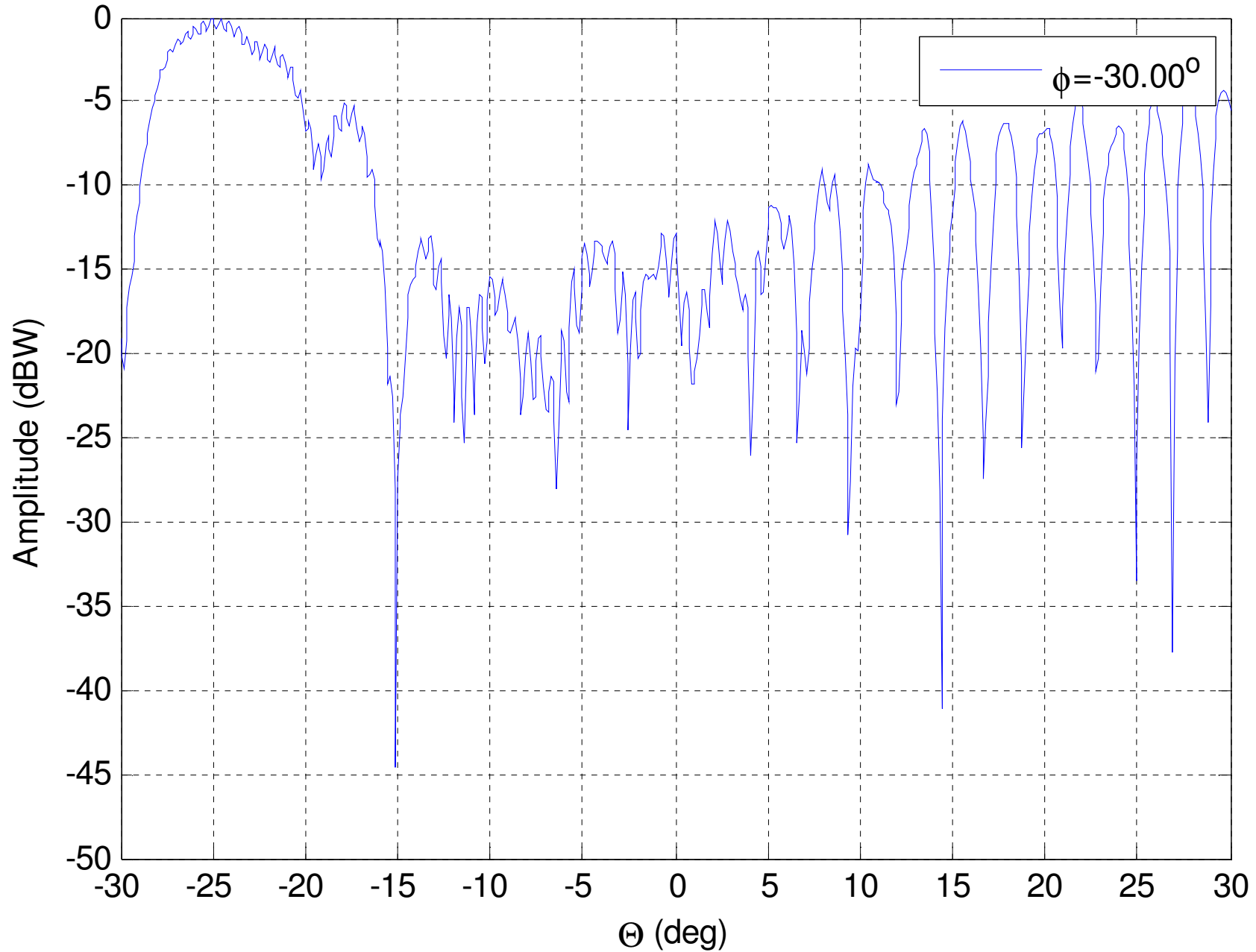
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--40.cut, Peak: 2.76 dBW, Date: 16-Dec-2011



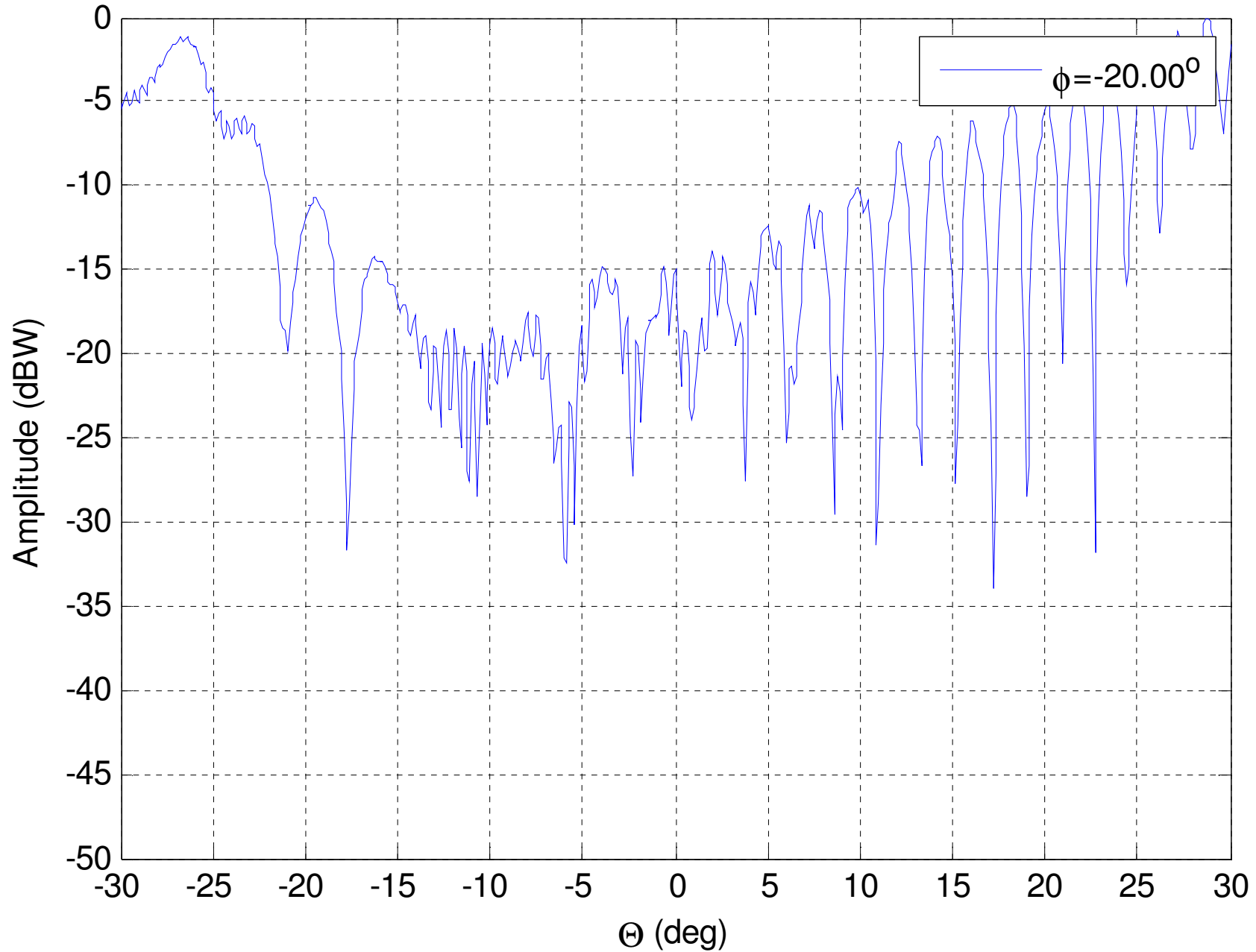
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--30.cut, Peak: 0.74 dBW, Date: 16-Dec-2011



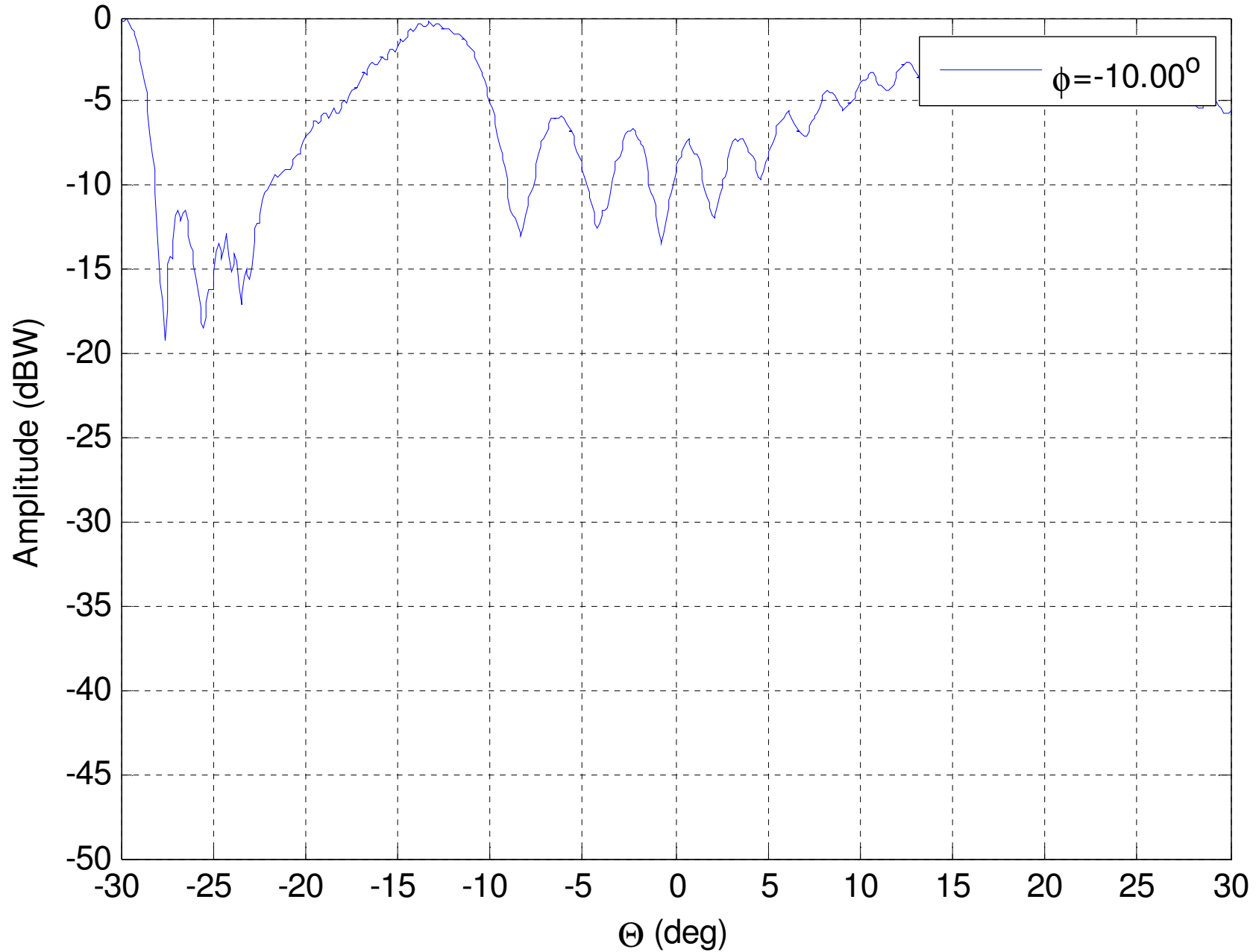
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--20.cut, Peak: 2.87 dBW, Date: 16-Dec-2011



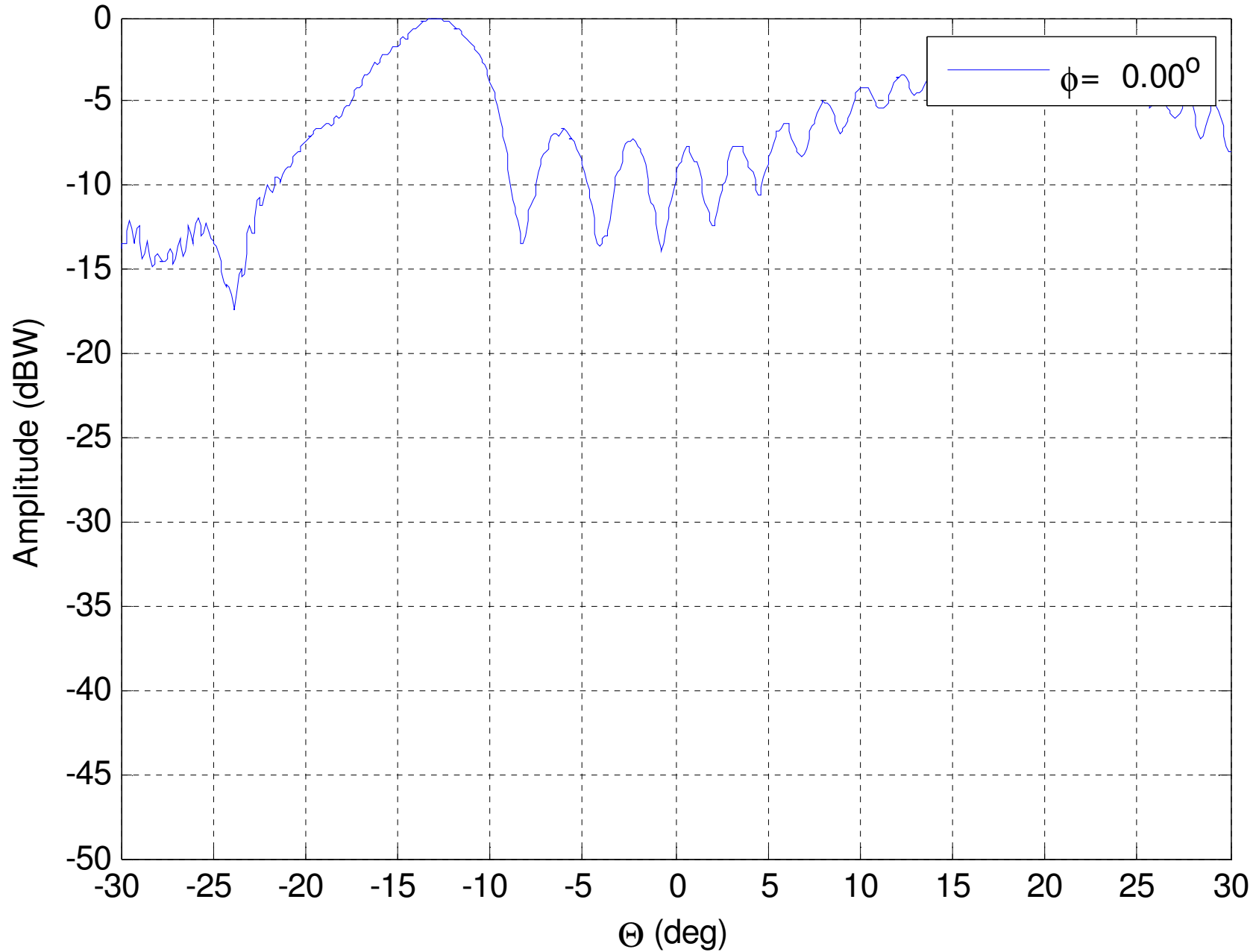
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--10.cut, Peak: 7.60 dBW, Date: 16-Dec-2011



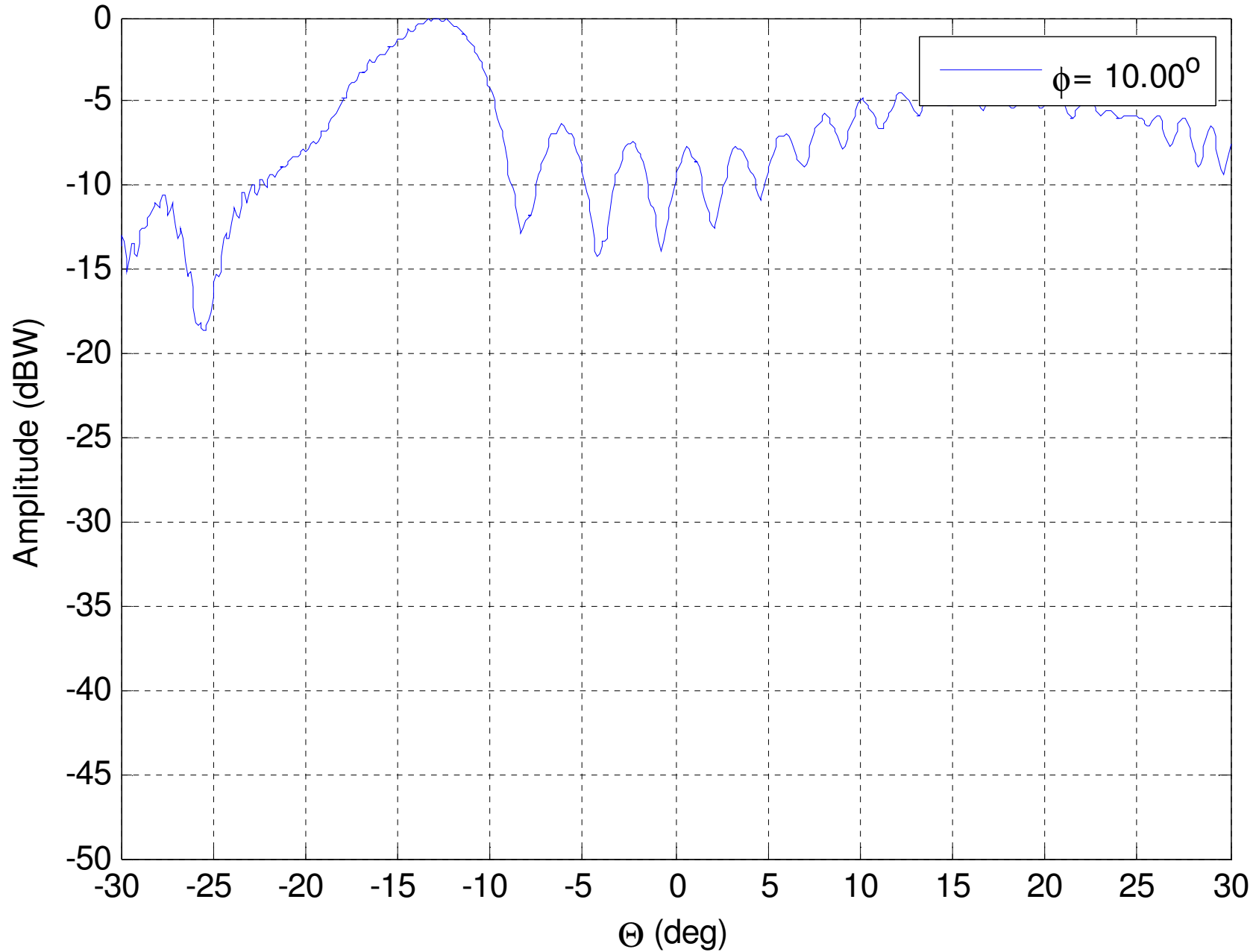
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-0.cut, Peak: 8.06 dBW, Date: 16-Dec-2011



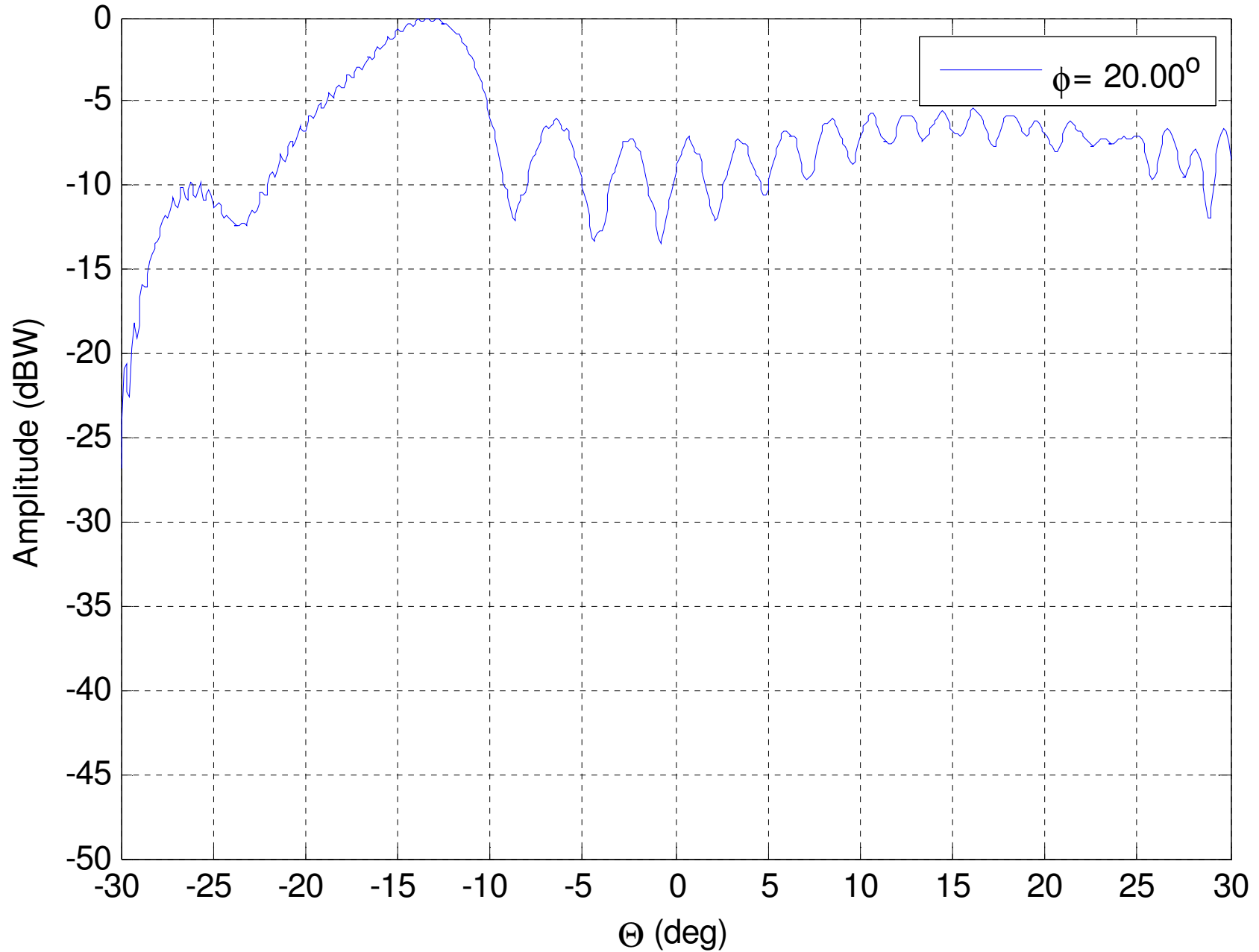
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-10.cut, Peak: 8.09 dBW, Date: 16-Dec-2011



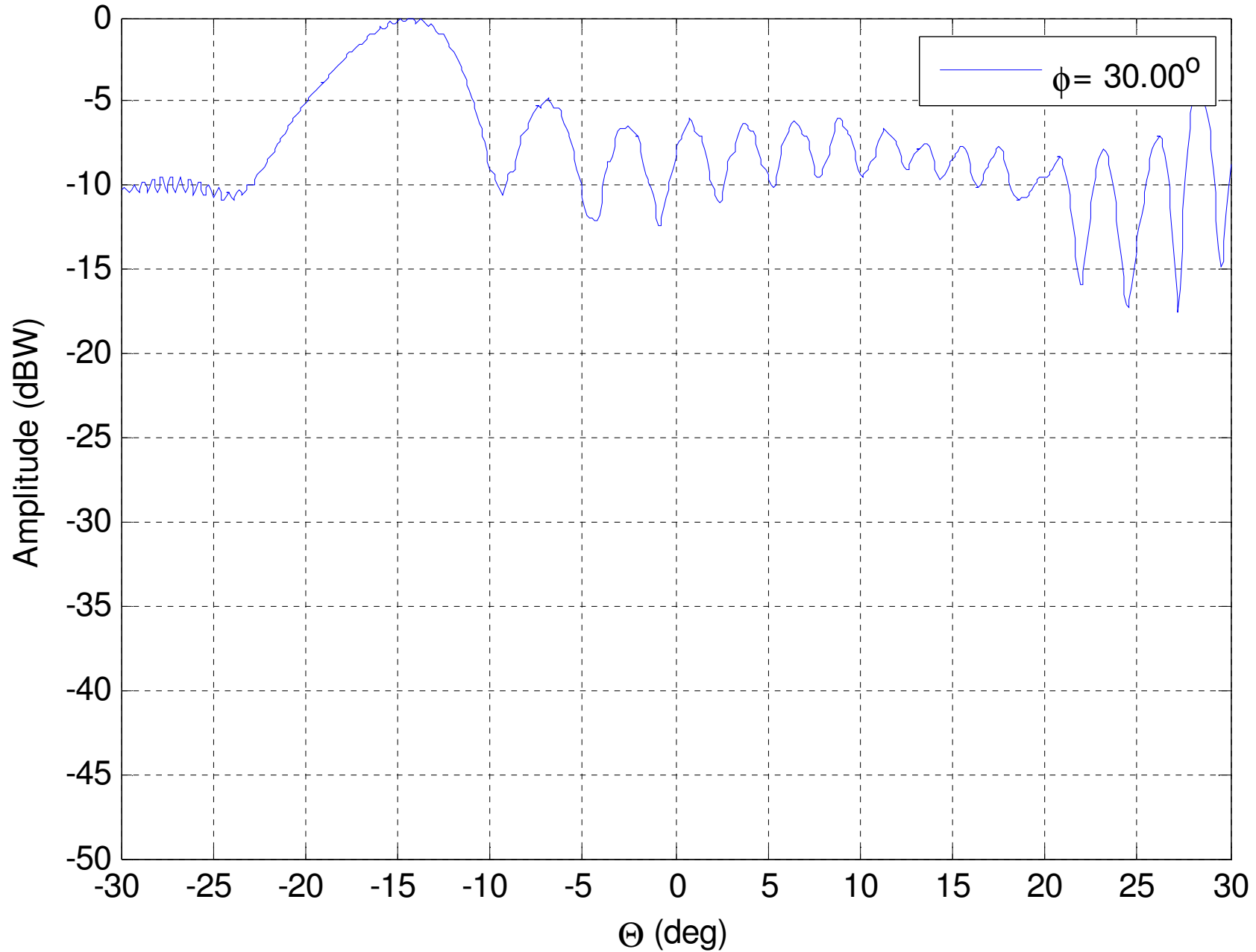
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-20.cut, Peak: 7.63 dBW, Date: 16-Dec-2011



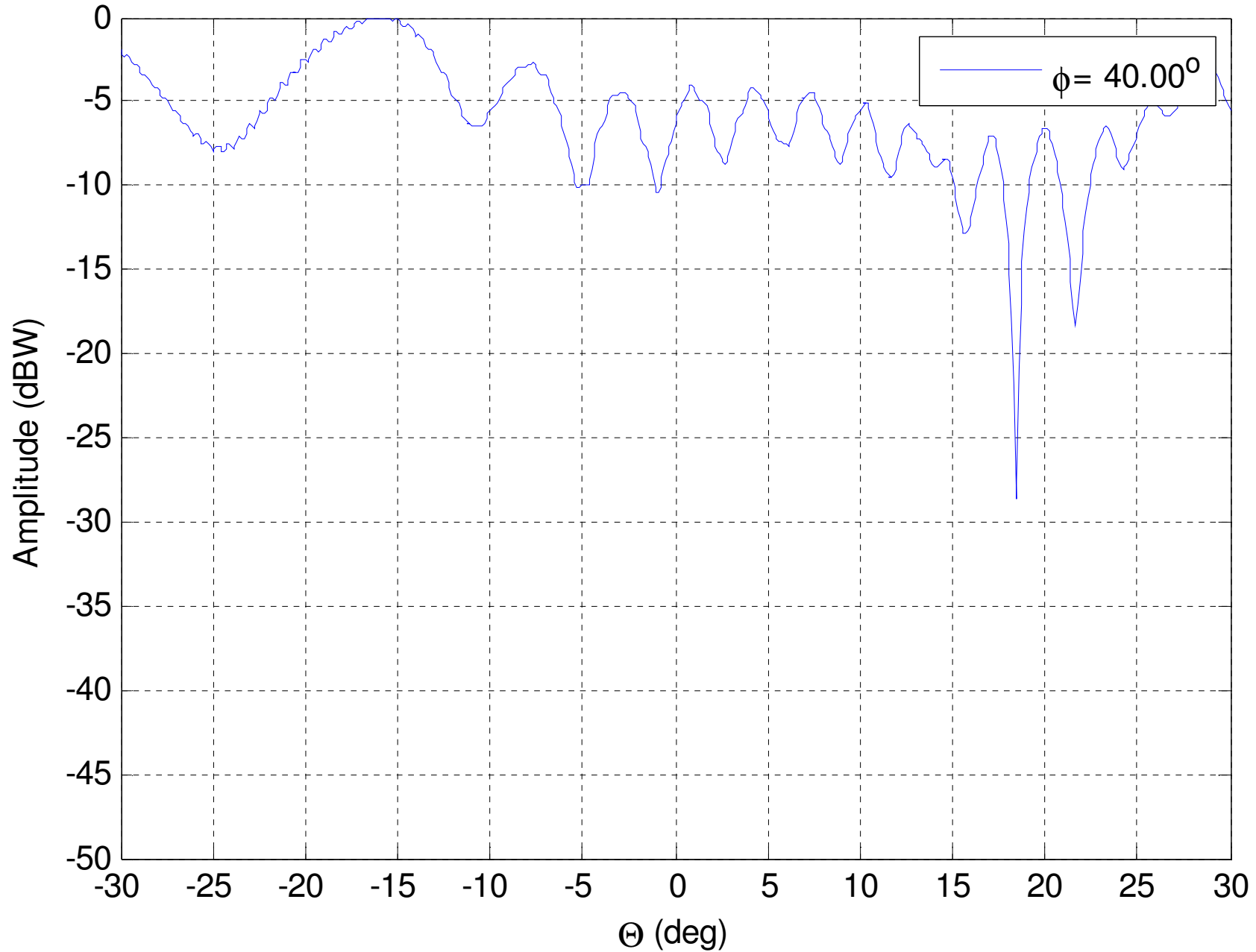
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-30.cut, Peak: 6.65 dBW, Date: 16-Dec-2011



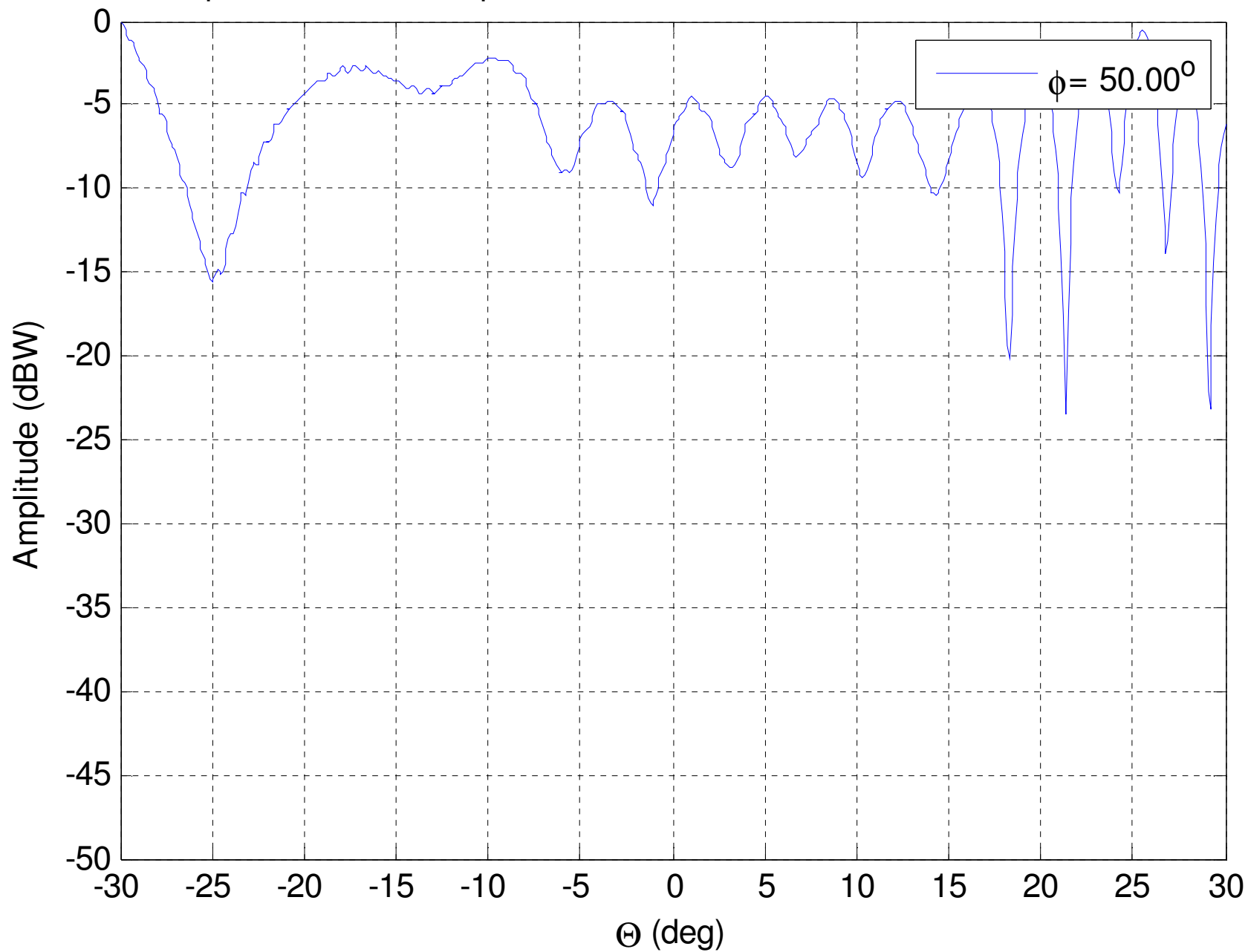
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-40.cut, Peak: 4.68 dBW, Date: 16-Dec-2011



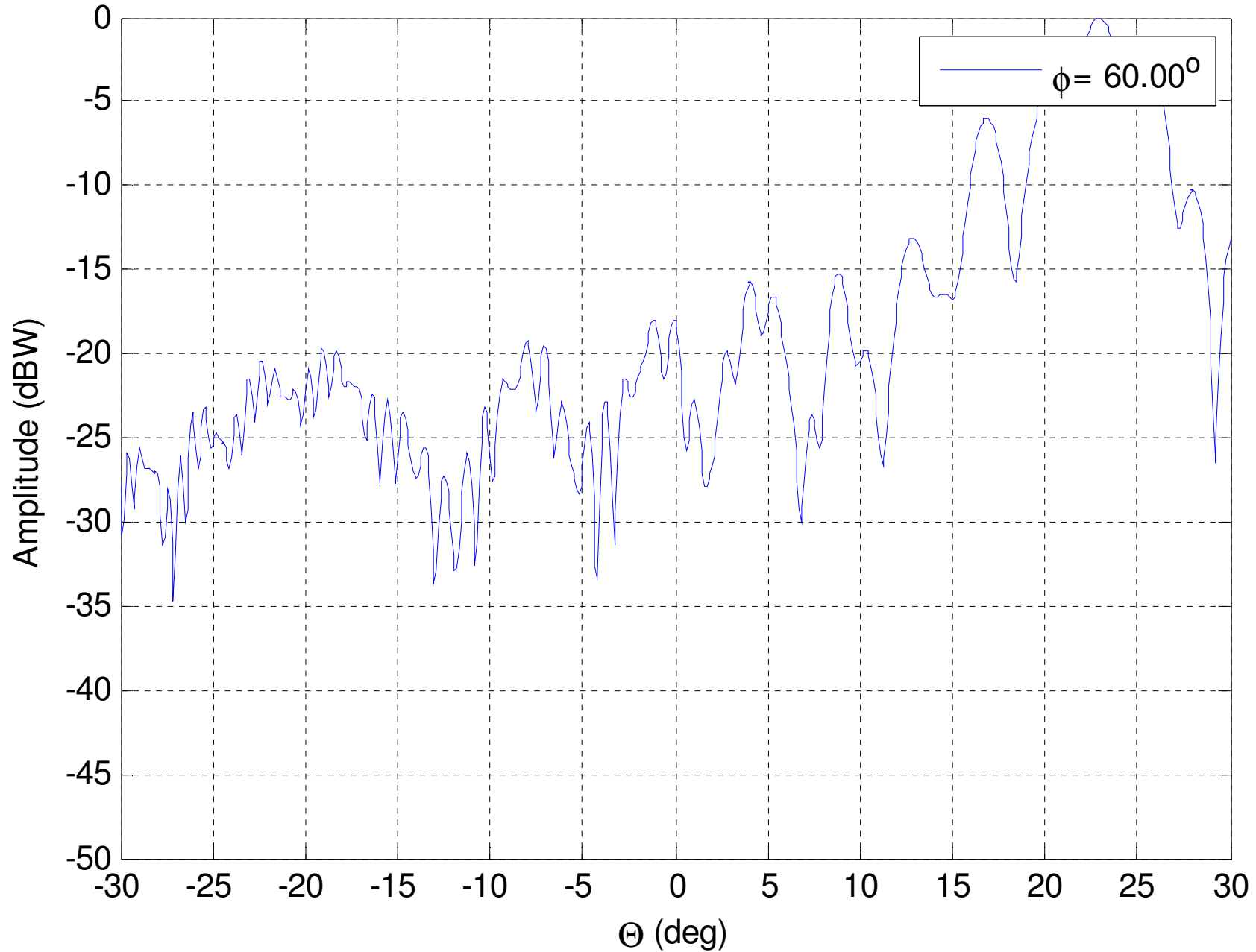
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-50.cut, Peak: 5.17 dBW, Date: 16-Dec-2011



Normalized pattern cuts - farfield

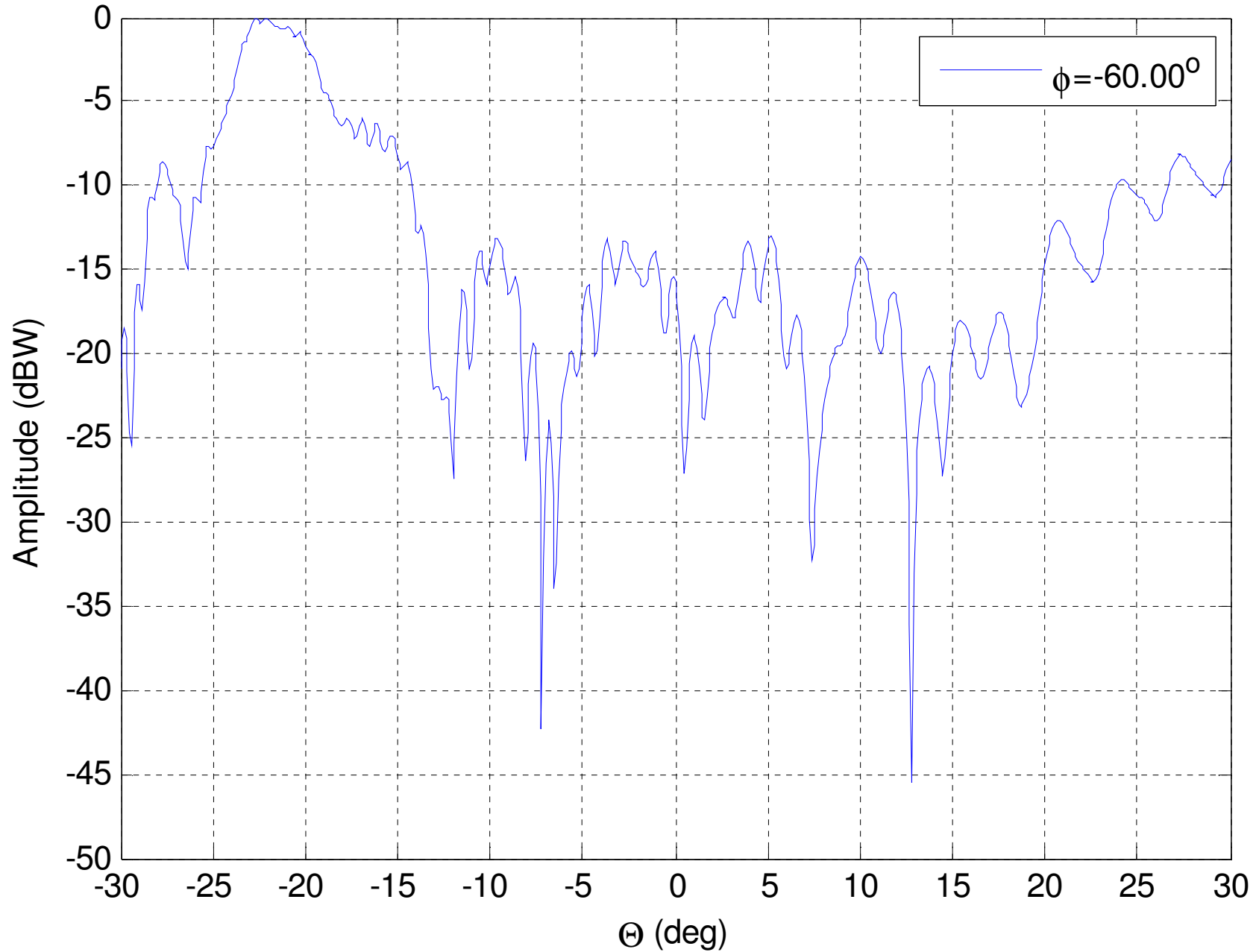
Input file: tx-17.3-rhcp-60.cut, Peak: 5.95 dBW, Date: 16-Dec-2011



LHCP at 17.3 GHz

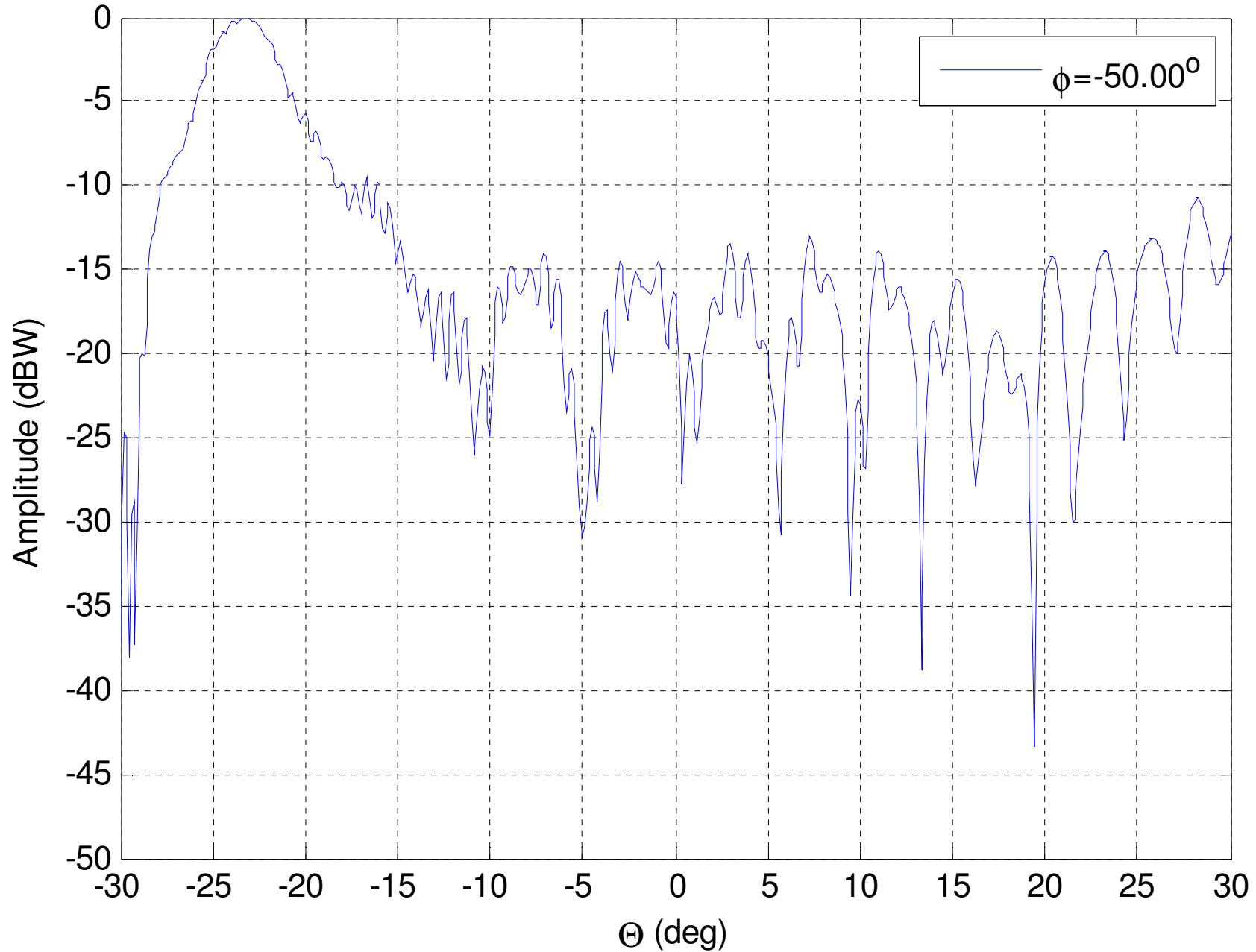
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp--60.cut, Peak: 1.64 dBW, Date: 16-Dec-2011



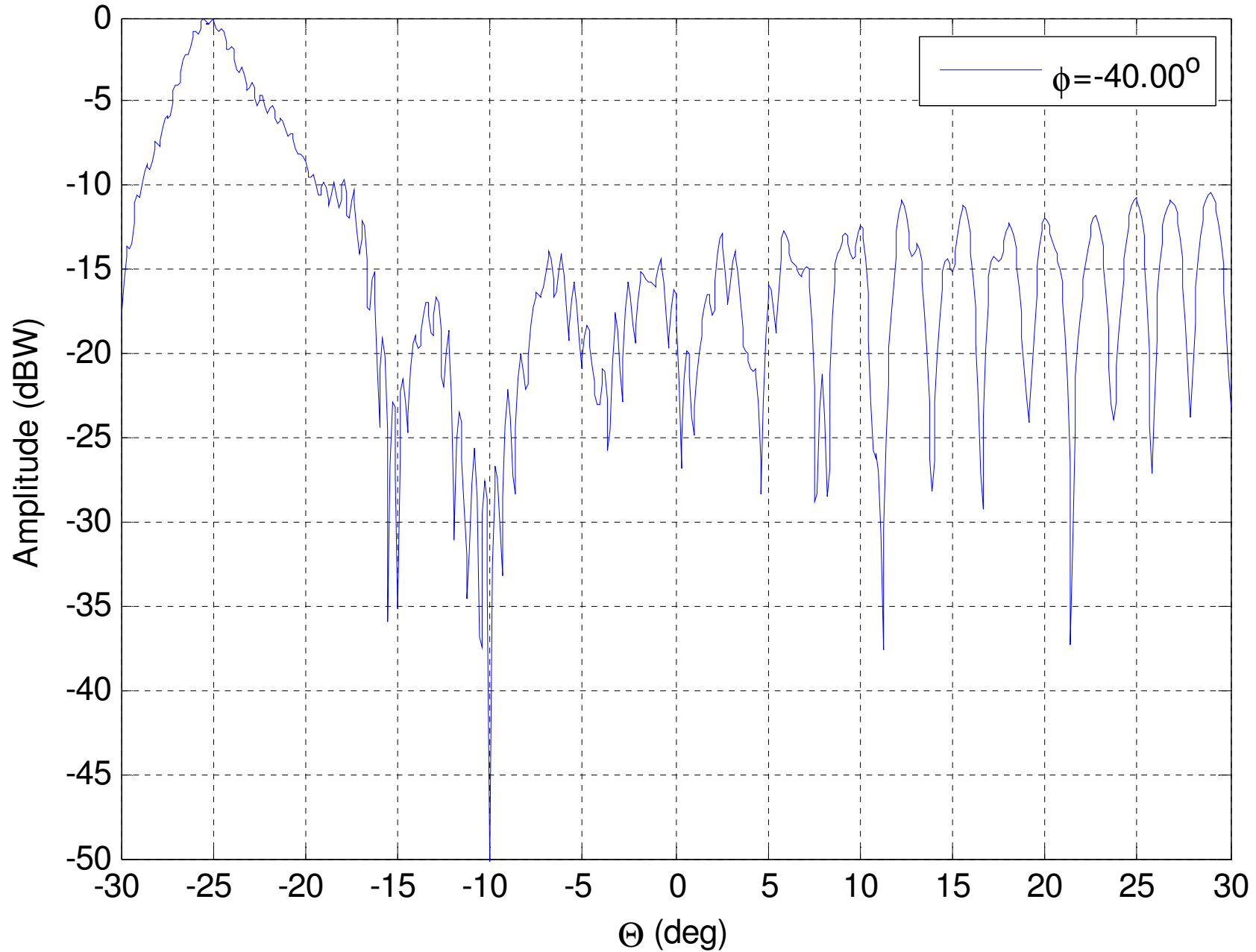
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp--50.cut, Peak: 2.55 dBW, Date: 16-Dec-2011



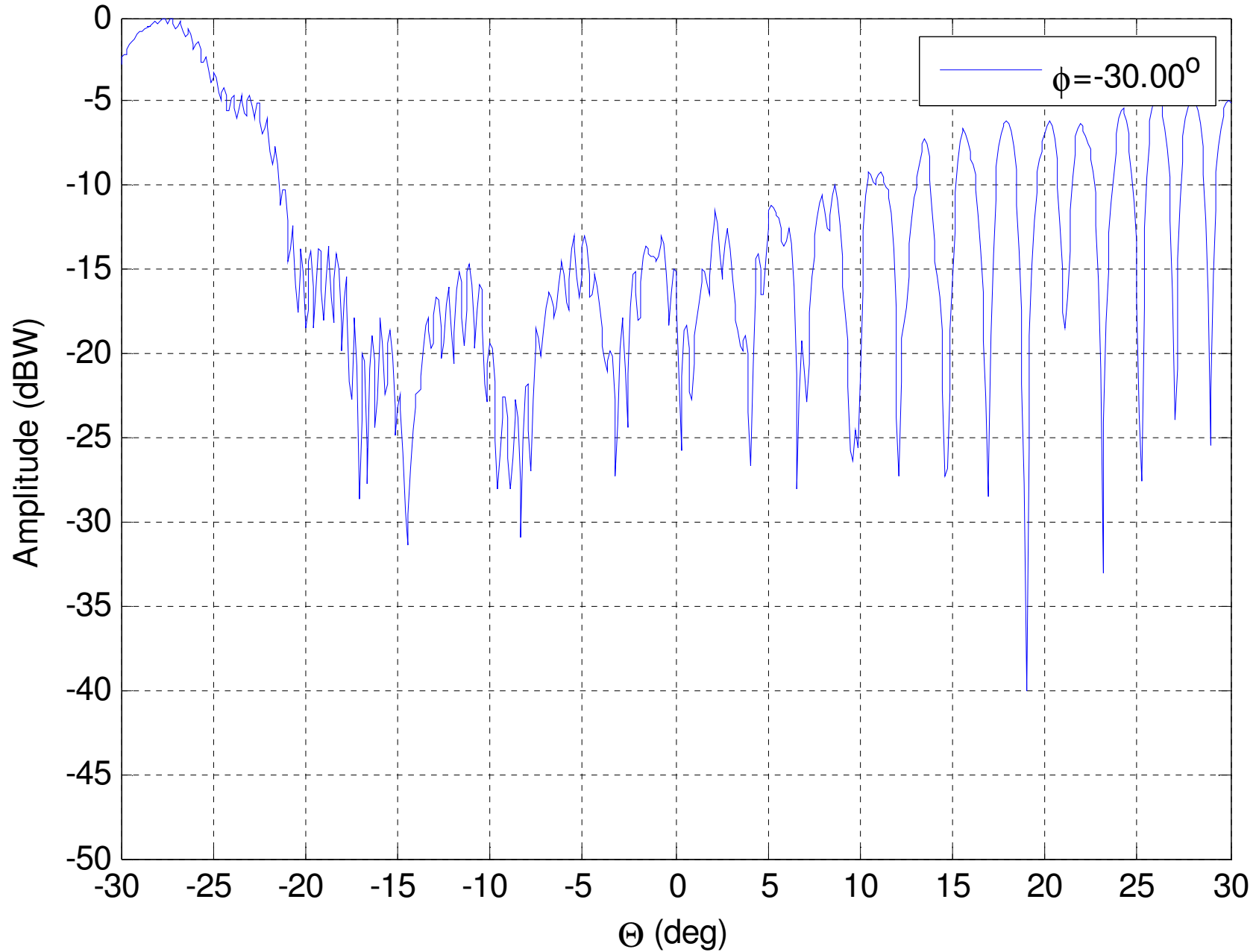
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp--40.cut, Peak: 2.42 dBW, Date: 16-Dec-2011



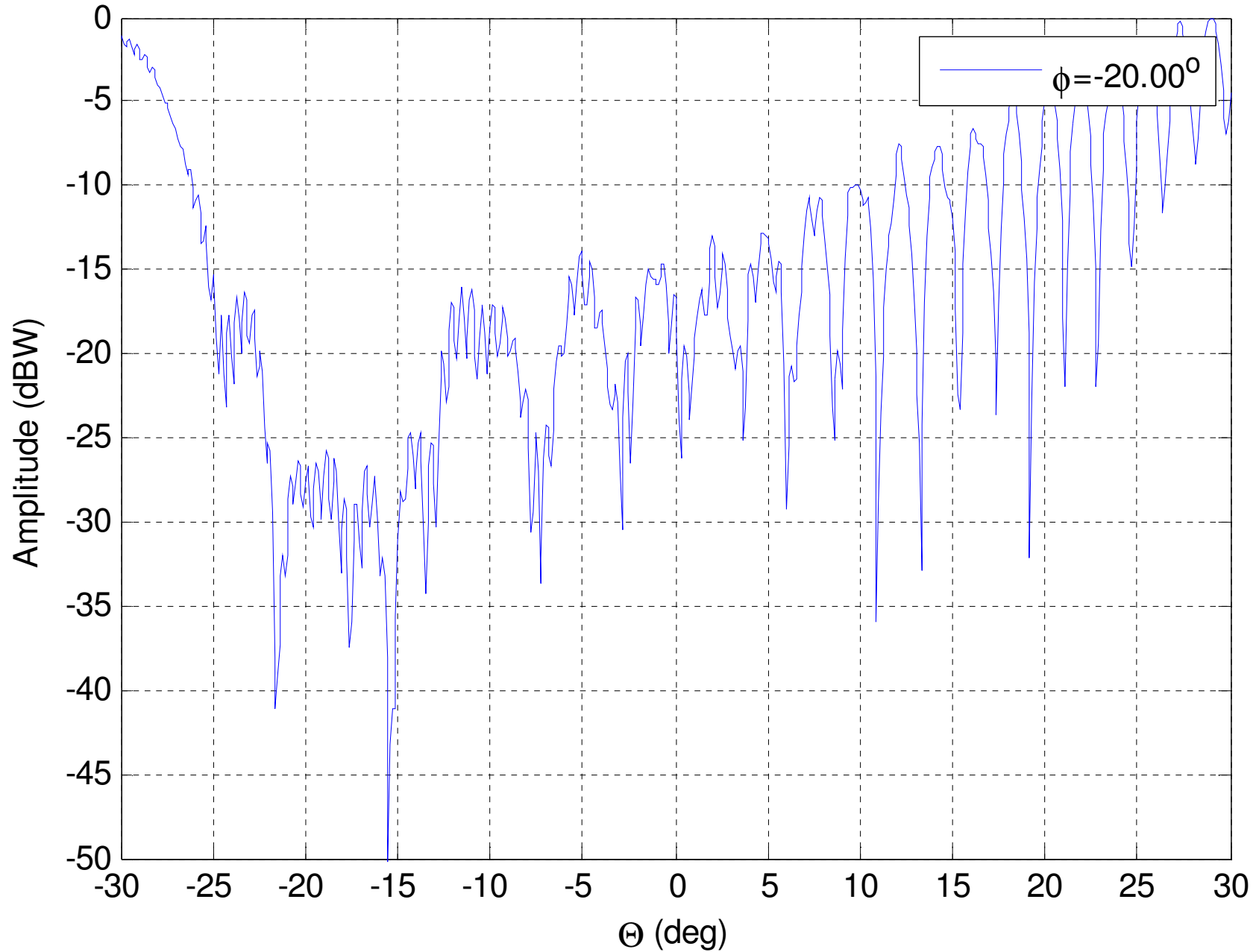
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp--30.cut, Peak: 1.07 dBW, Date: 16-Dec-2011



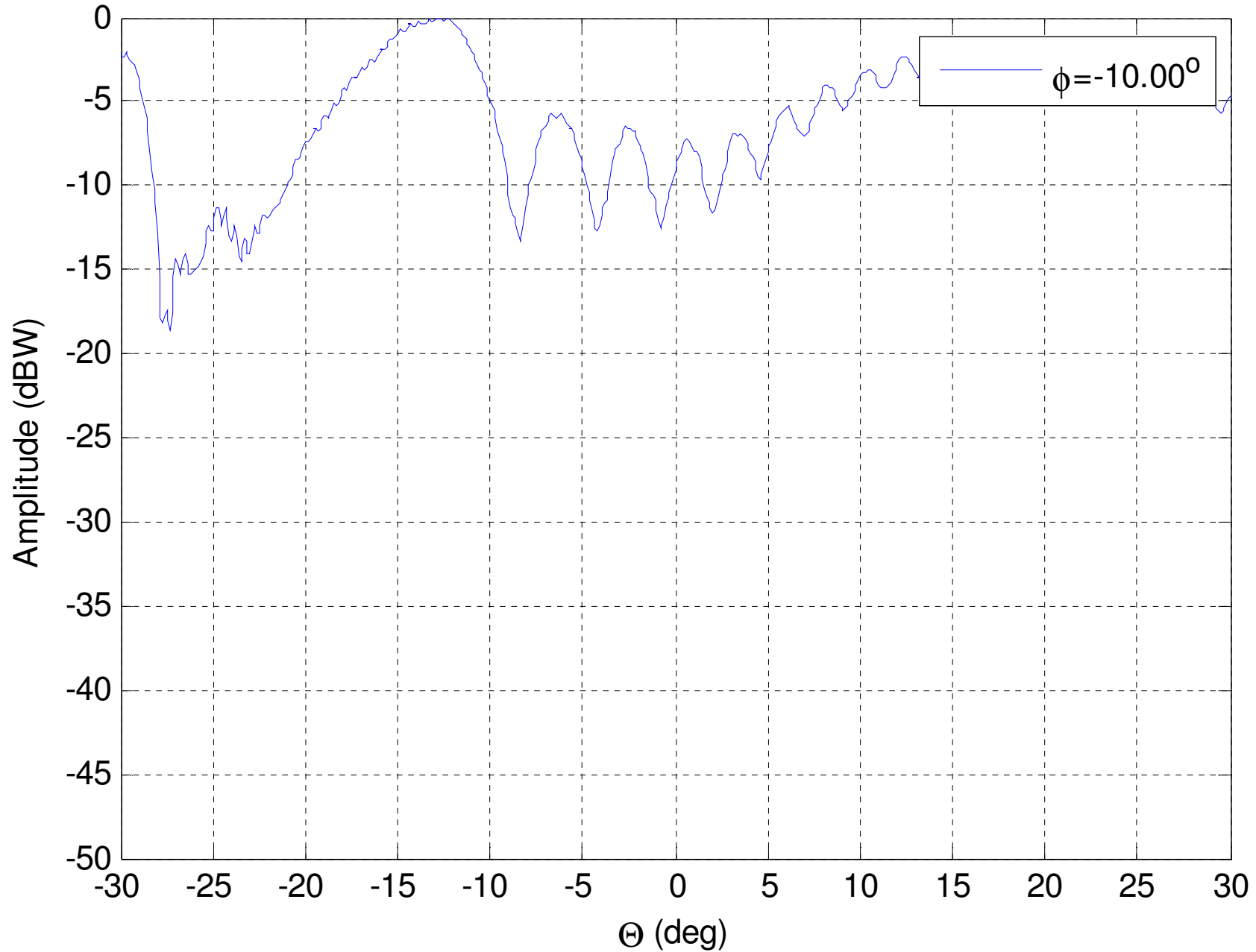
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp--20.cut, Peak: 2.56 dBW, Date: 16-Dec-2011



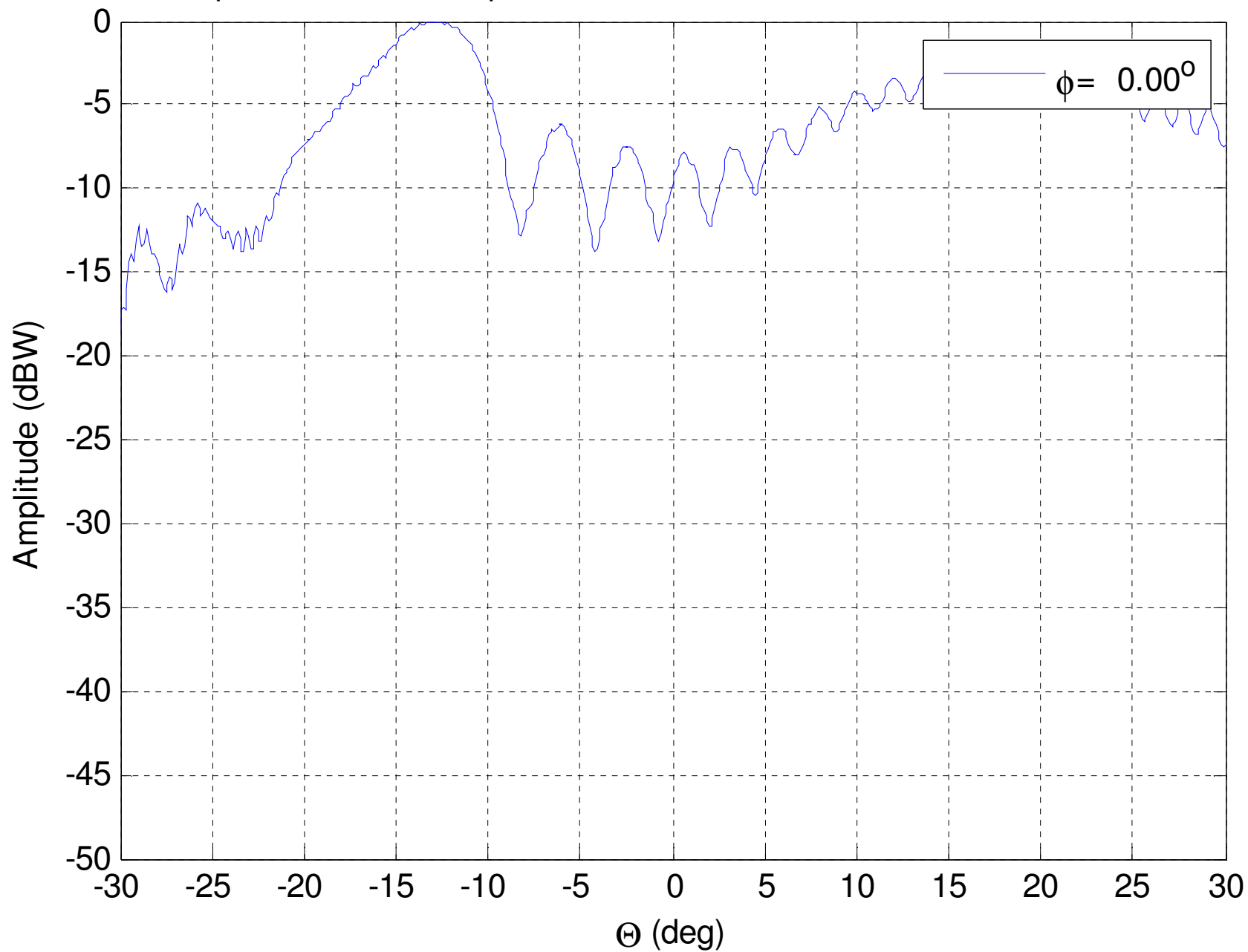
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp--10.cut, Peak: 7.36 dBW, Date: 16-Dec-2011



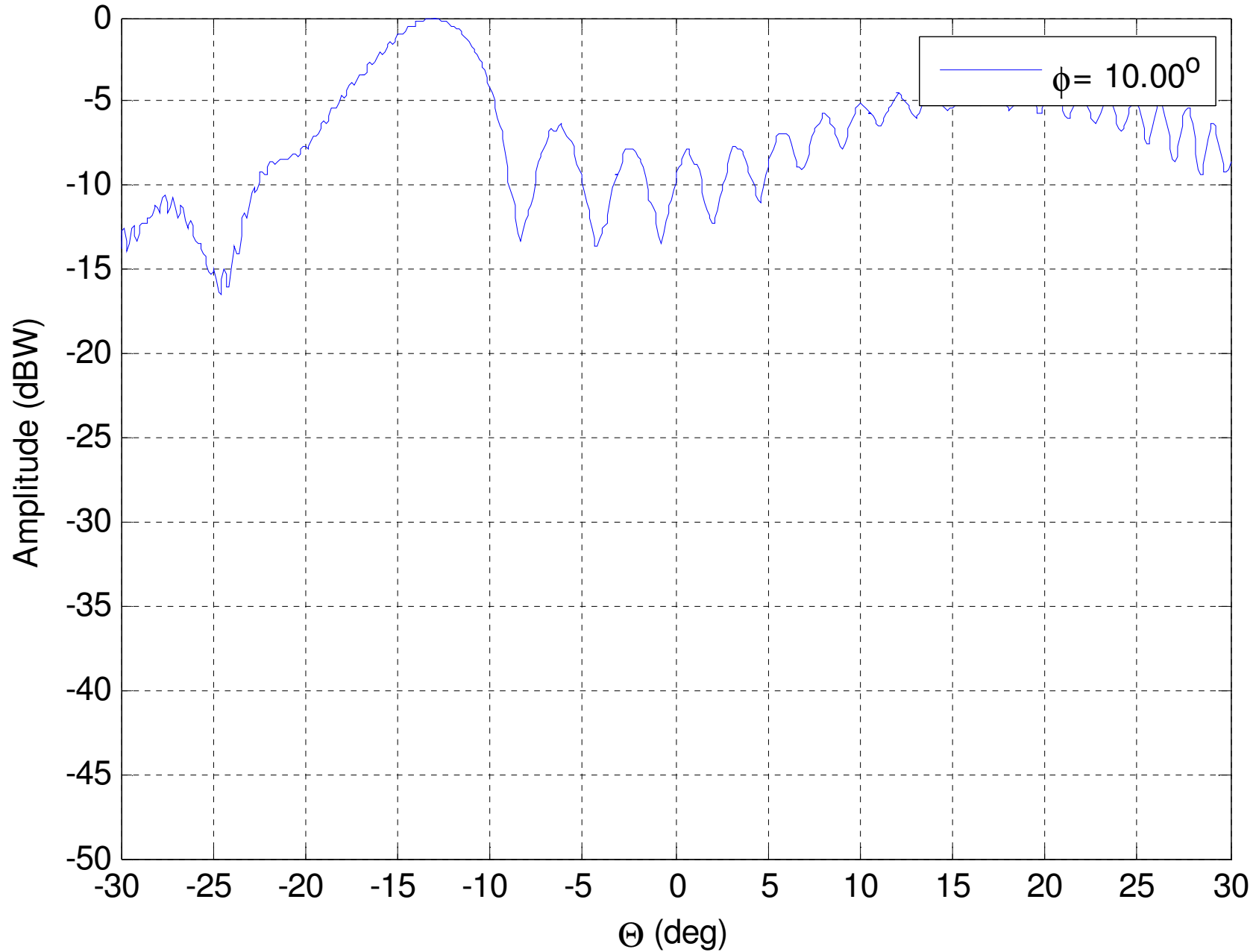
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp-0.cut, Peak: 7.97 dBW, Date: 16-Dec-2011



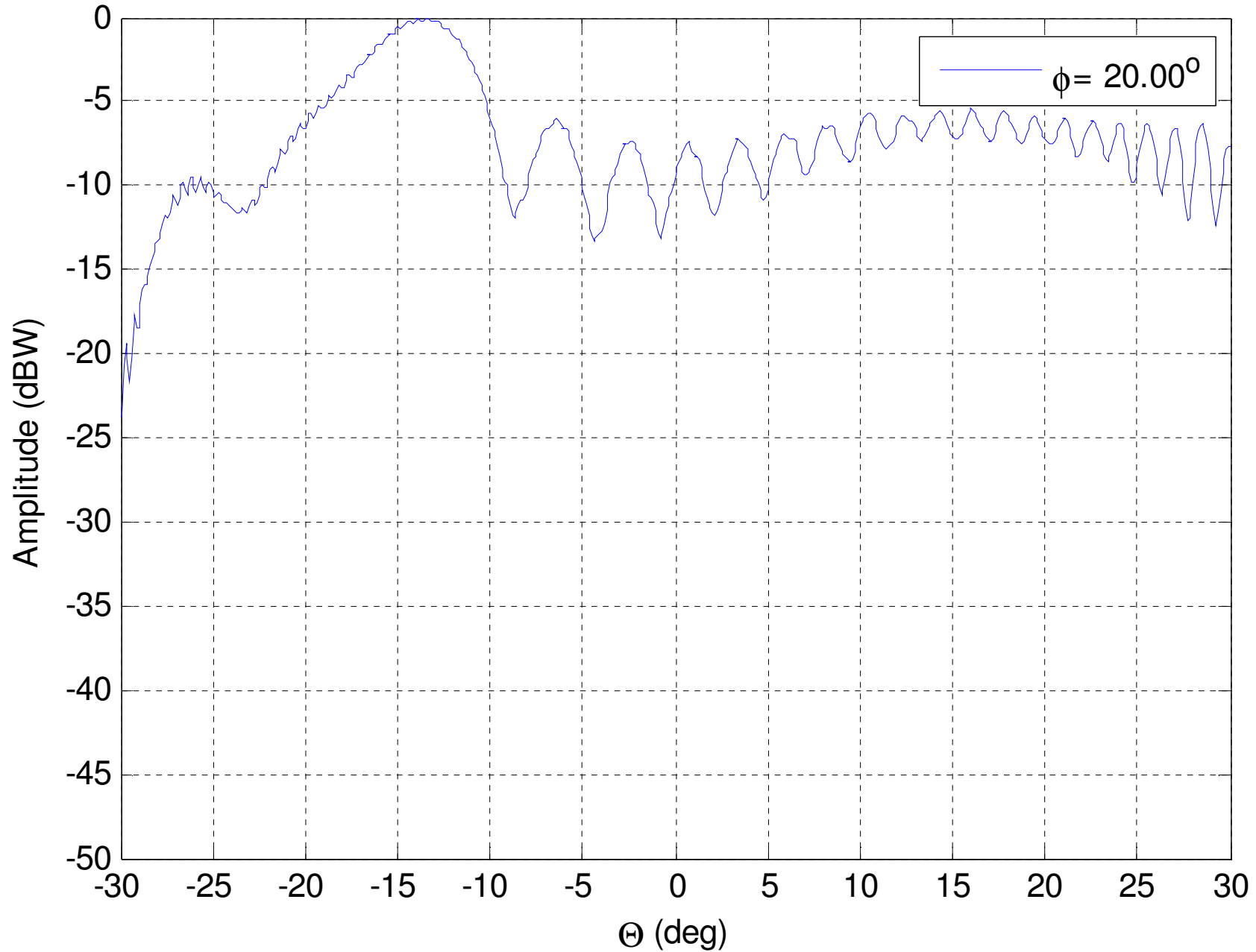
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp-10.cut, Peak: 8.09 dBW, Date: 16-Dec-2011



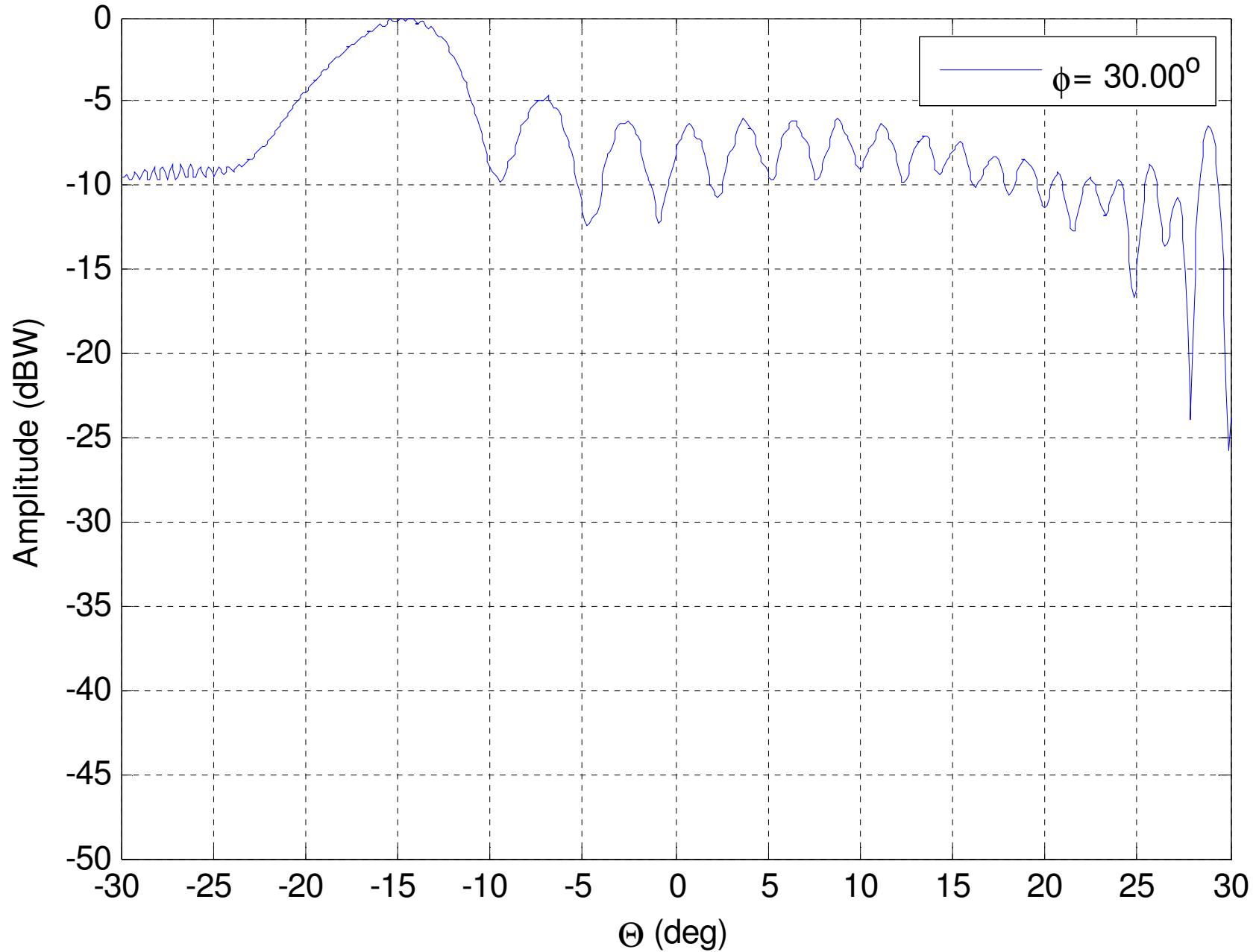
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp-20.cut, Peak: 7.68 dBW, Date: 16-Dec-2011



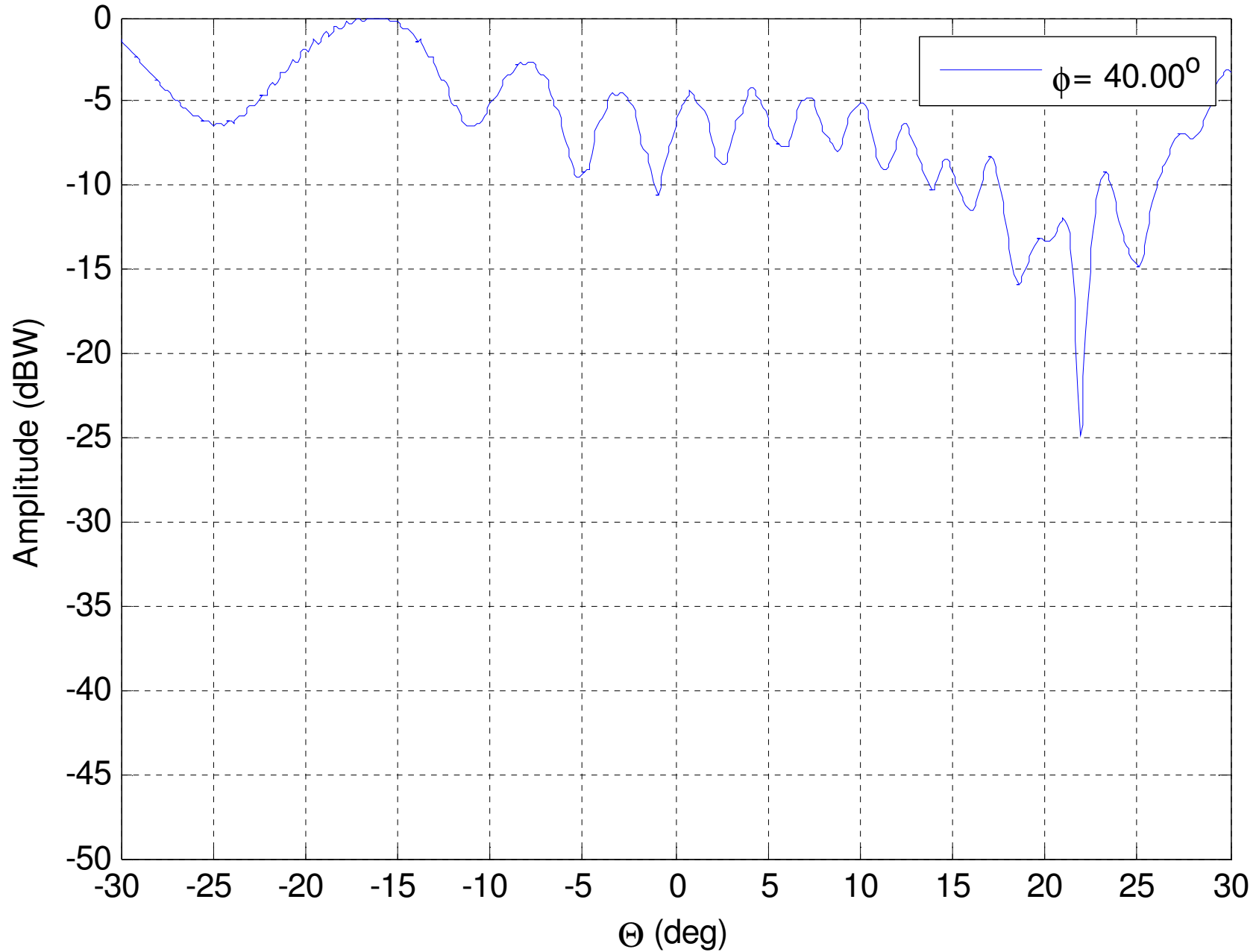
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp-30.cut, Peak: 6.54 dBW, Date: 16-Dec-2011



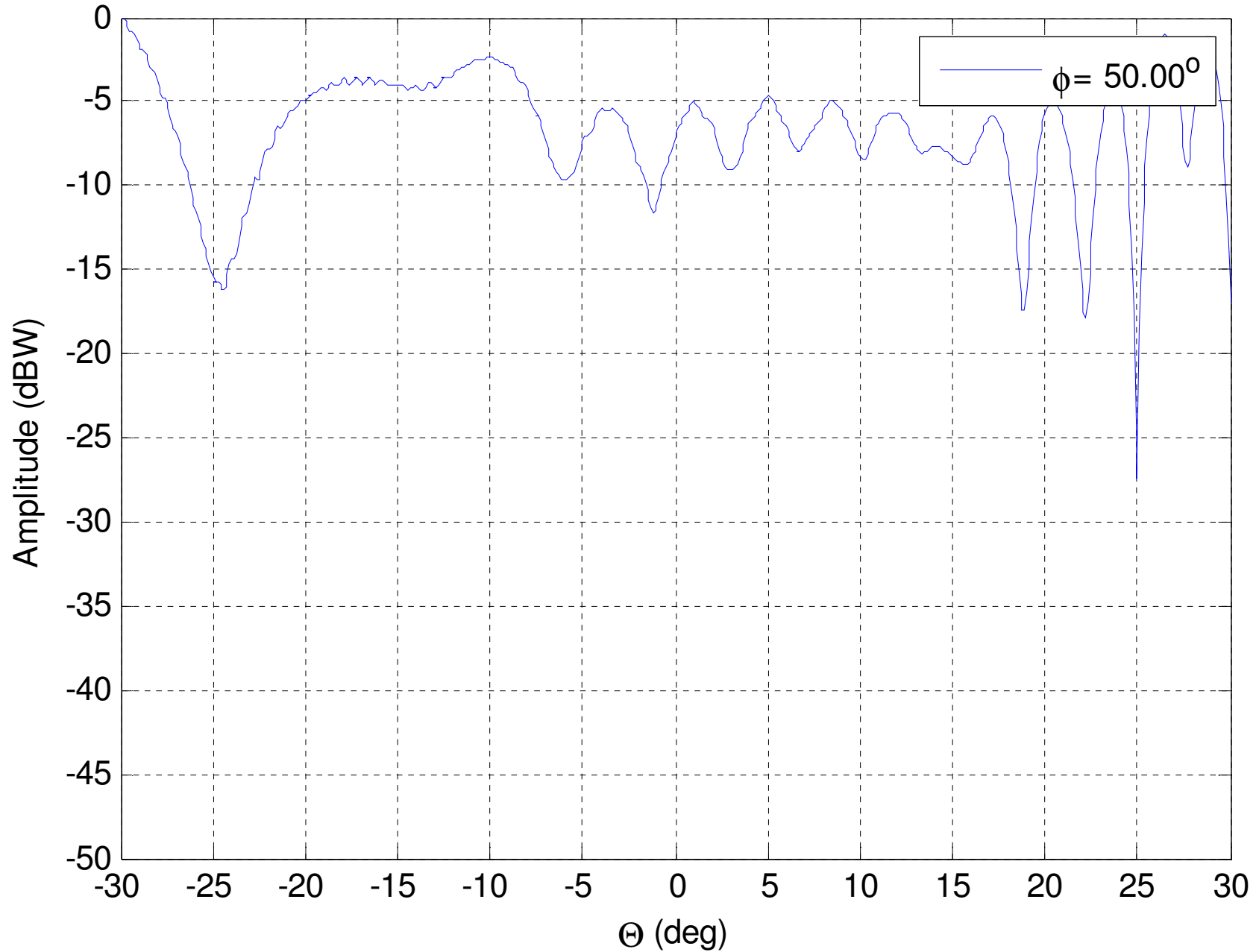
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp-40.cut, Peak: 4.74 dBW, Date: 16-Dec-2011



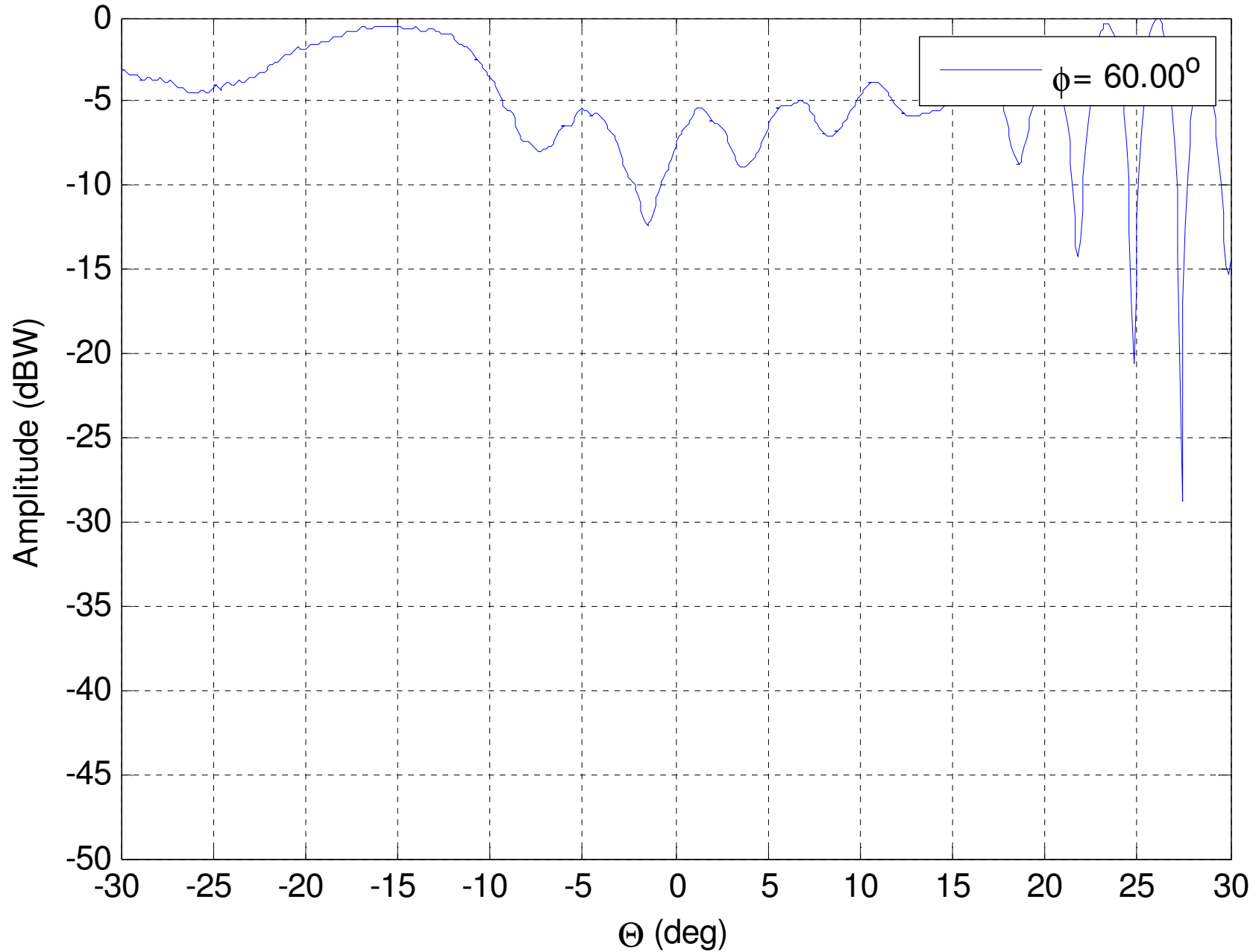
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp-50.cut, Peak: 5.47 dBW, Date: 16-Dec-2011



Normalized pattern cuts - farfield

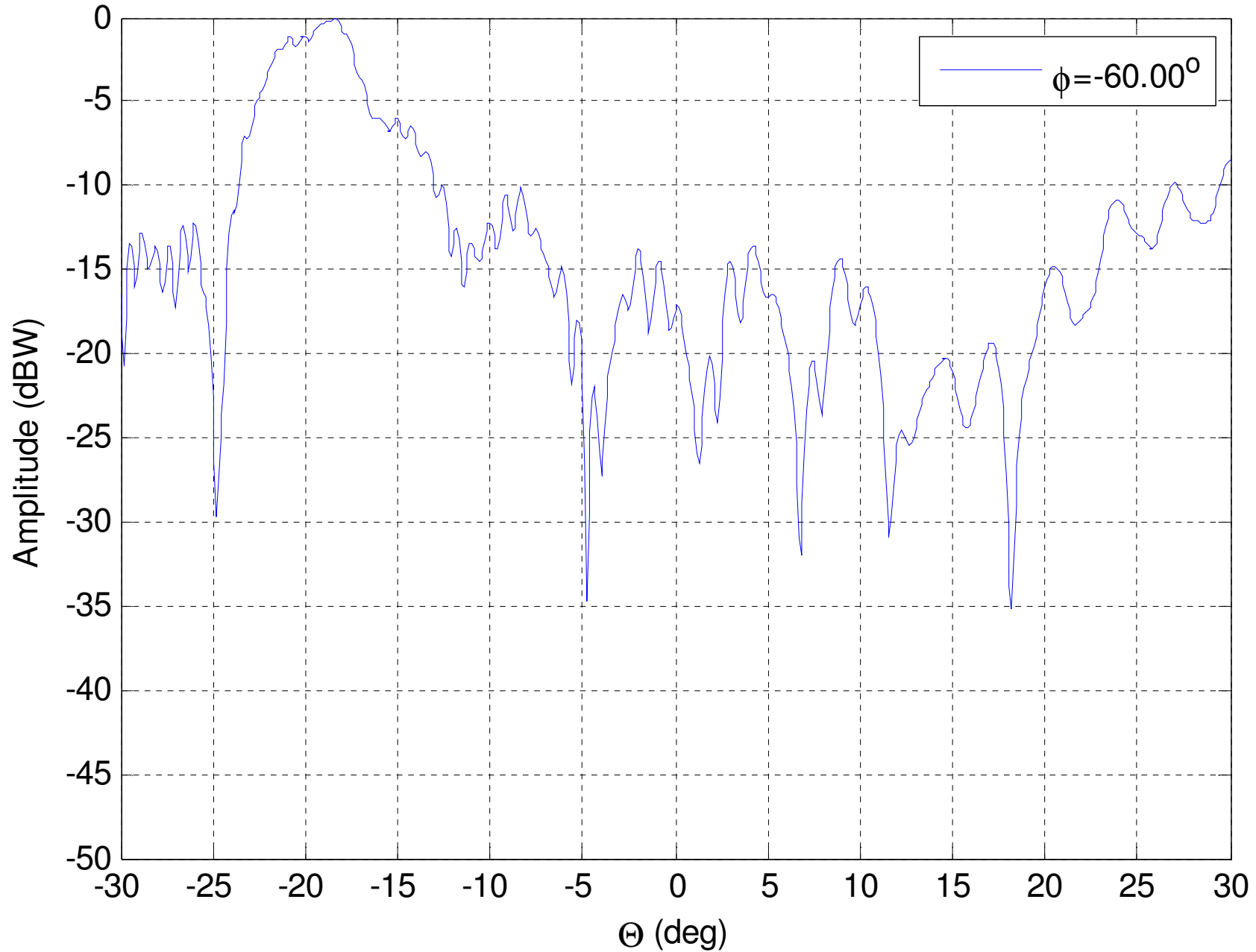
Input file: tx-17.3-lhcp-60.cut, Peak: 6.03 dBW, Date: 16-Dec-2011



RHCP at 17.5 GHz

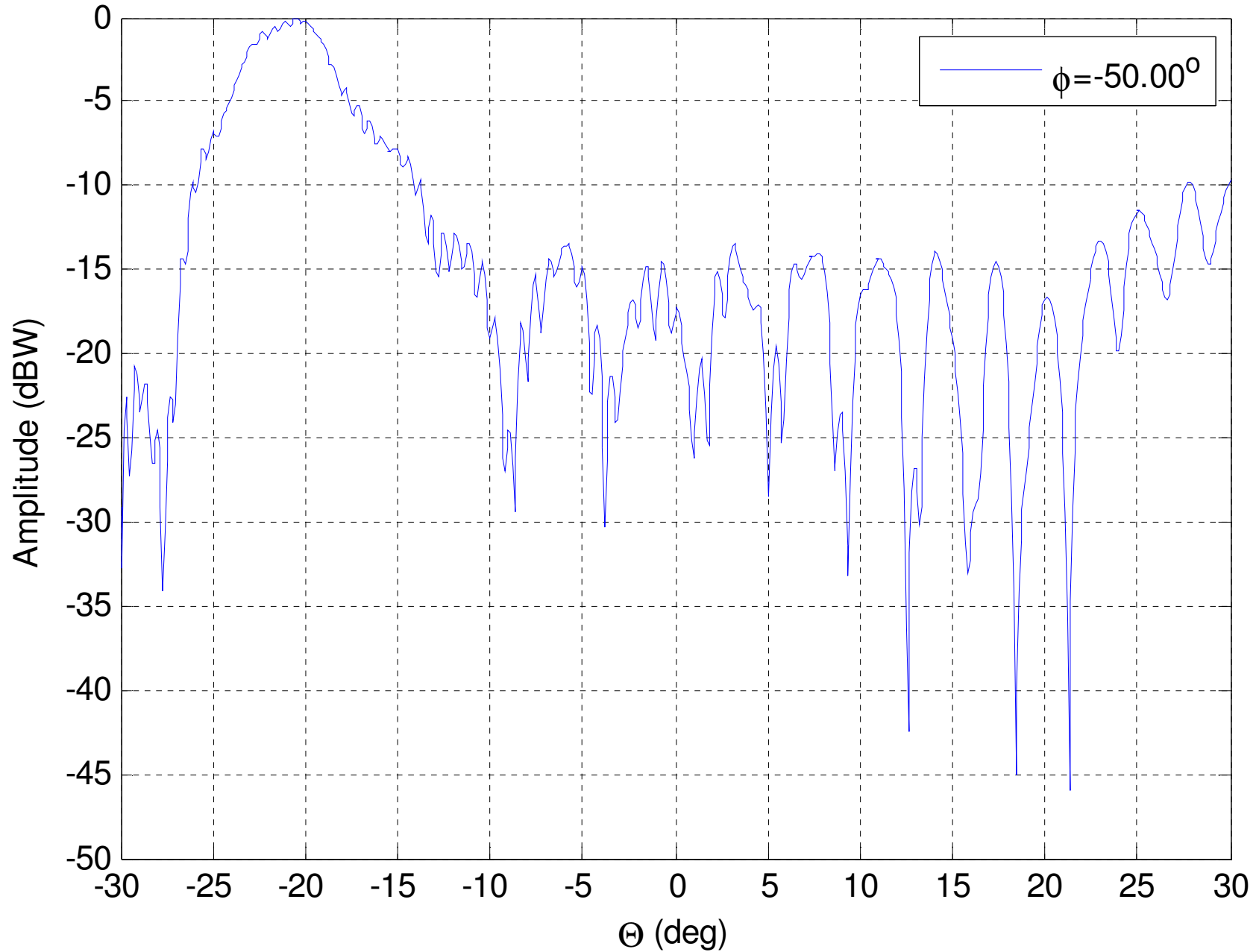
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--60.cut, Peak: 2.21 dBW, Date: 16-Dec-2011



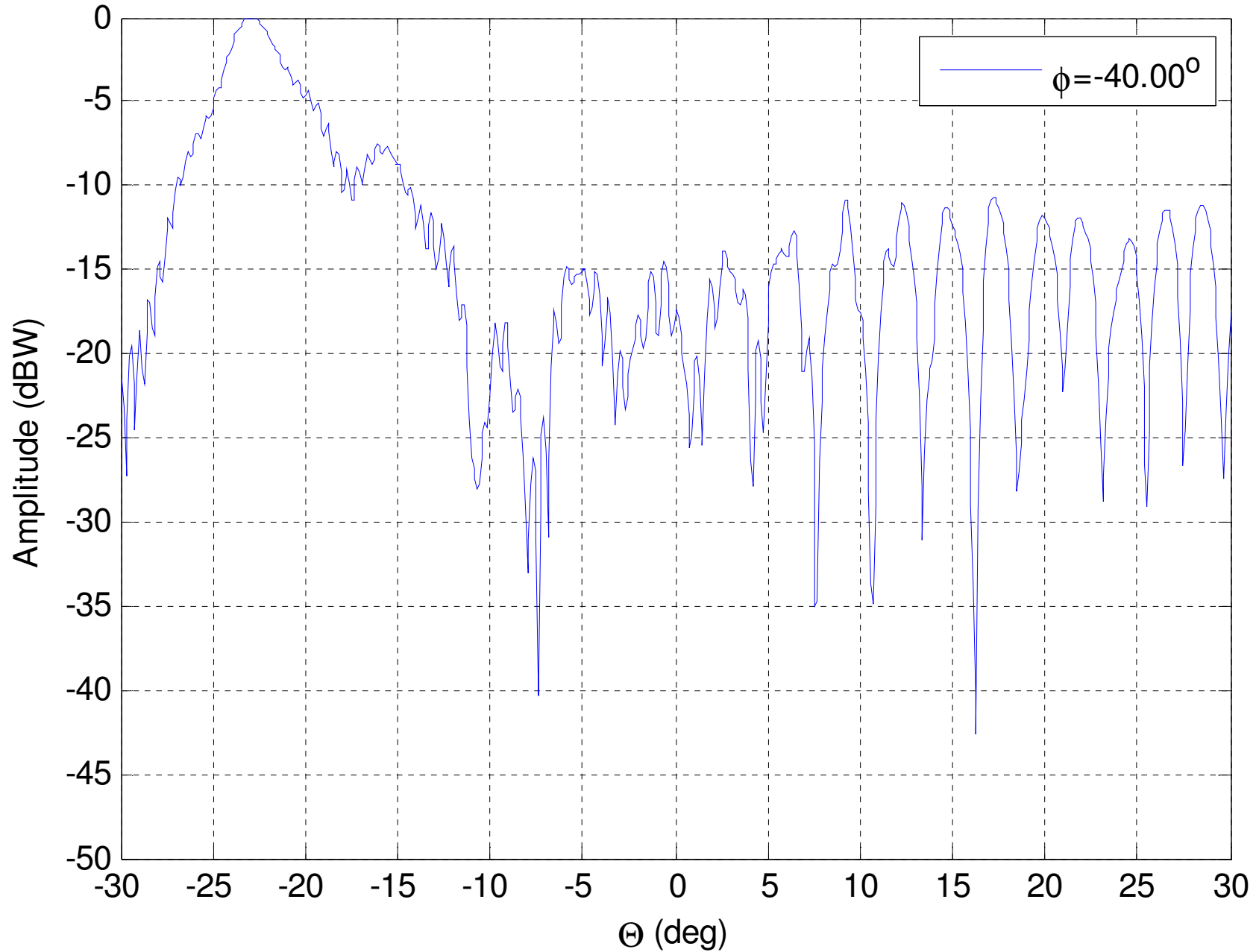
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--50.cut, Peak: 2.37 dBW, Date: 16-Dec-2011



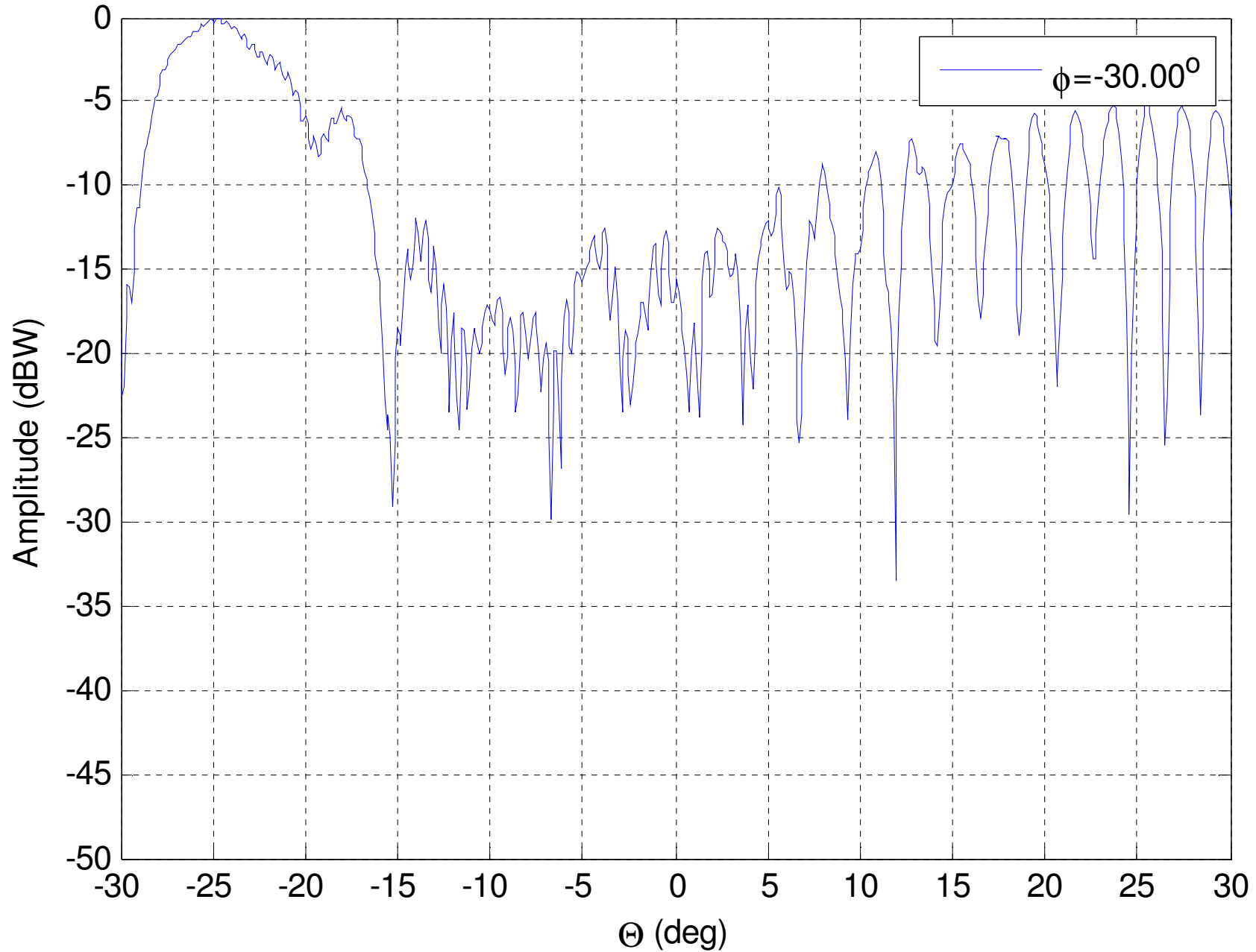
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--40.cut, Peak: 2.50 dBW, Date: 16-Dec-2011



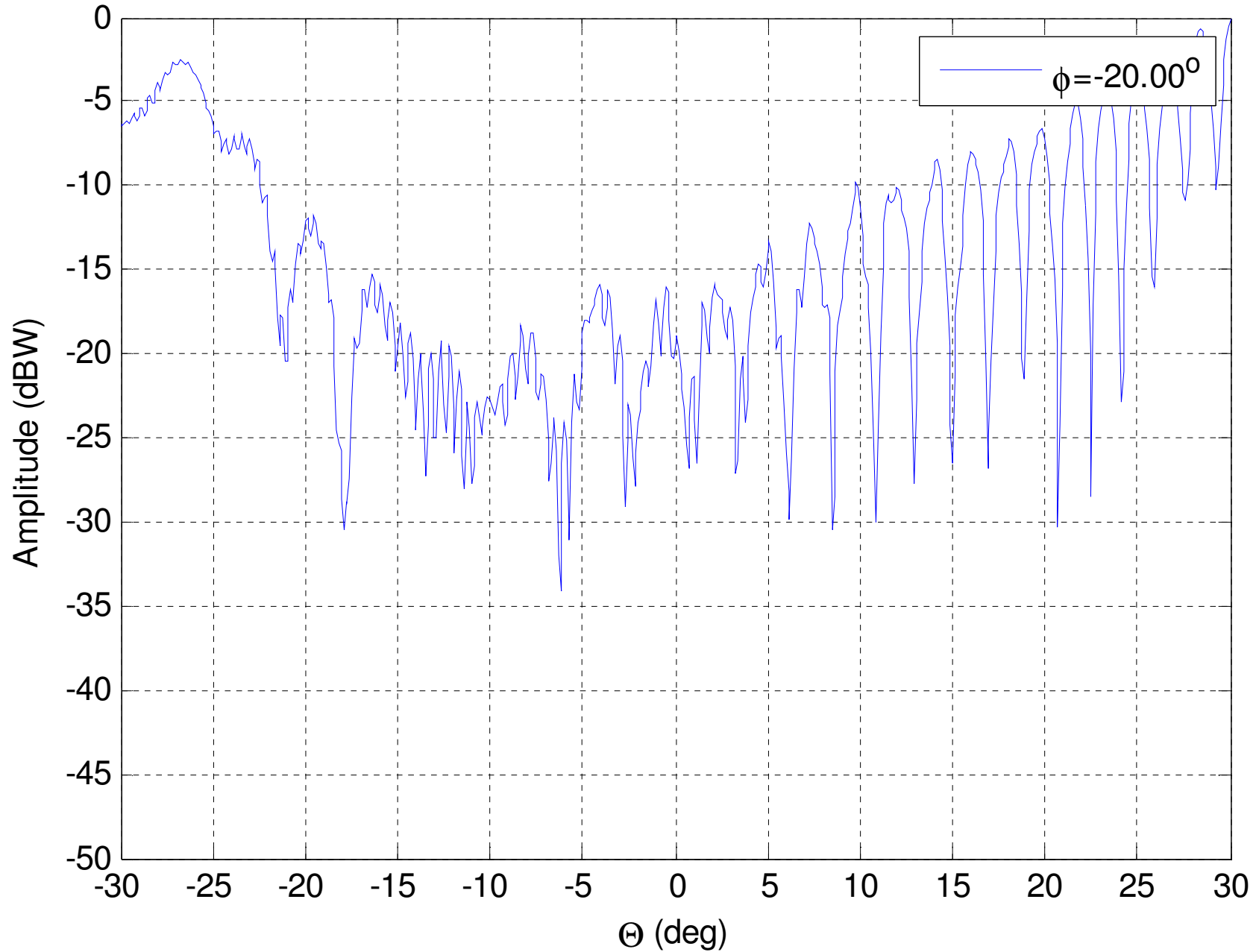
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--30.cut, Peak: 0.77 dBW, Date: 16-Dec-2011



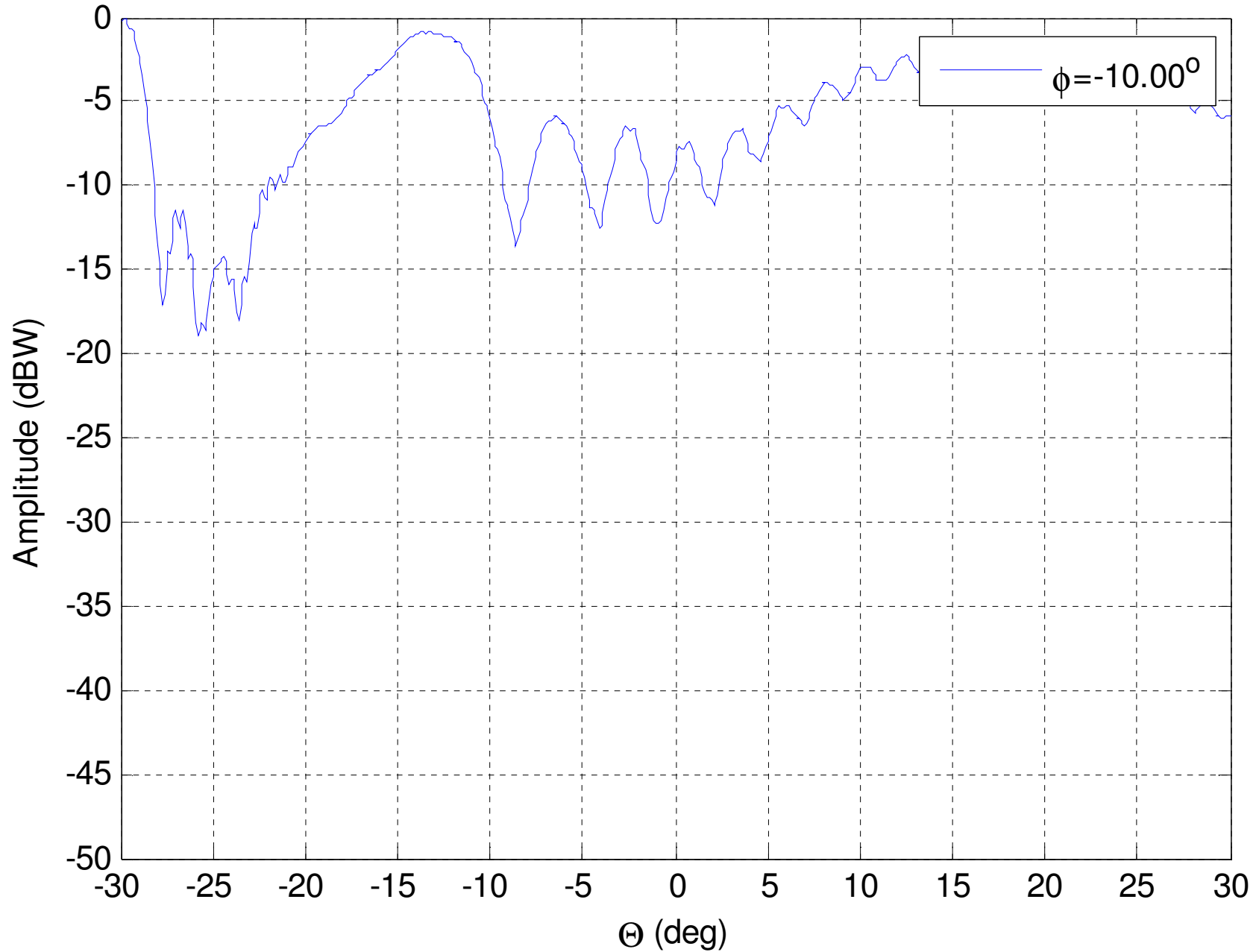
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--20.cut, Peak: 4.08 dBW, Date: 16-Dec-2011



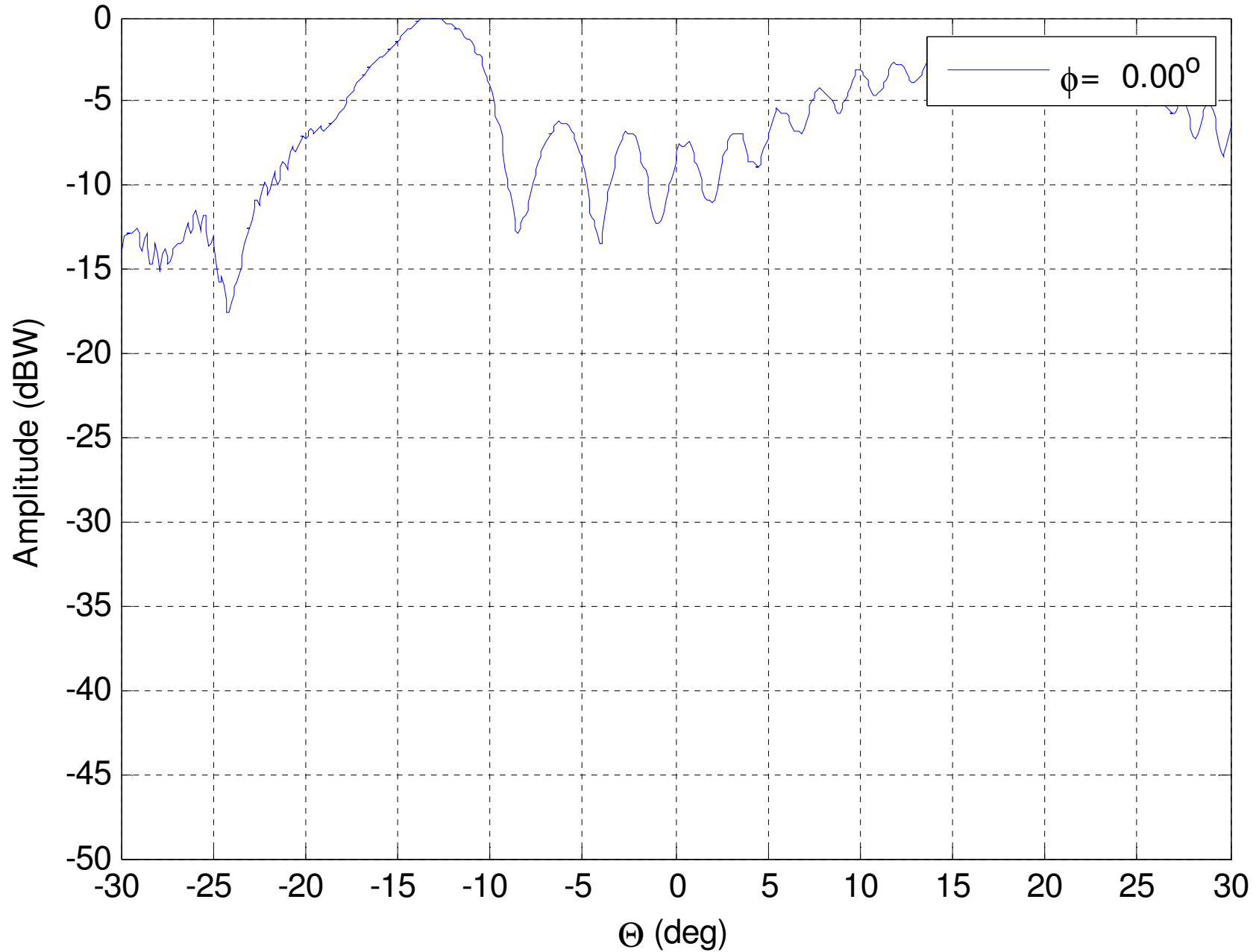
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--10.cut, Peak: 7.60 dBW, Date: 16-Dec-2011



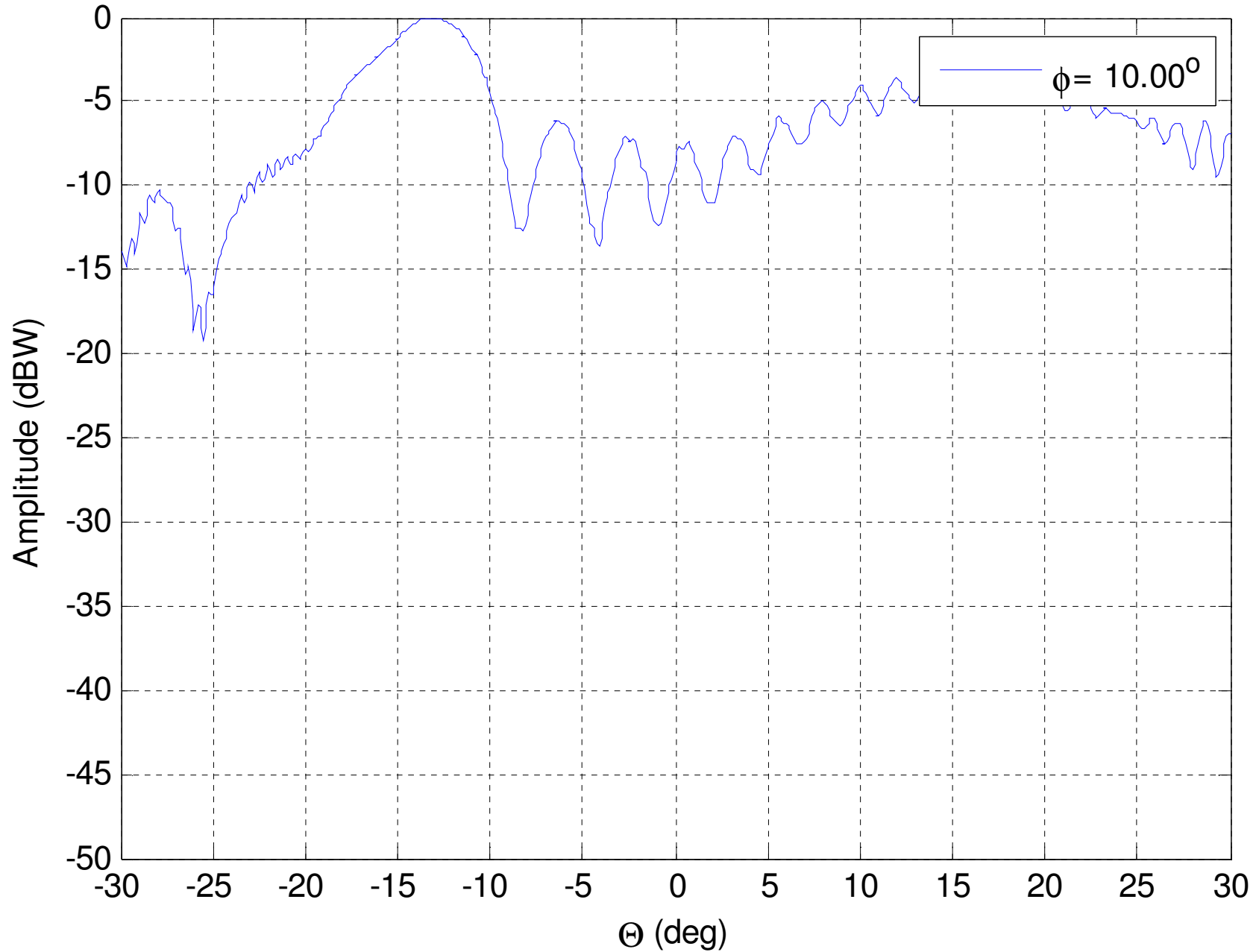
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-0.cut, Peak: 7.61 dBW, Date: 16-Dec-2011



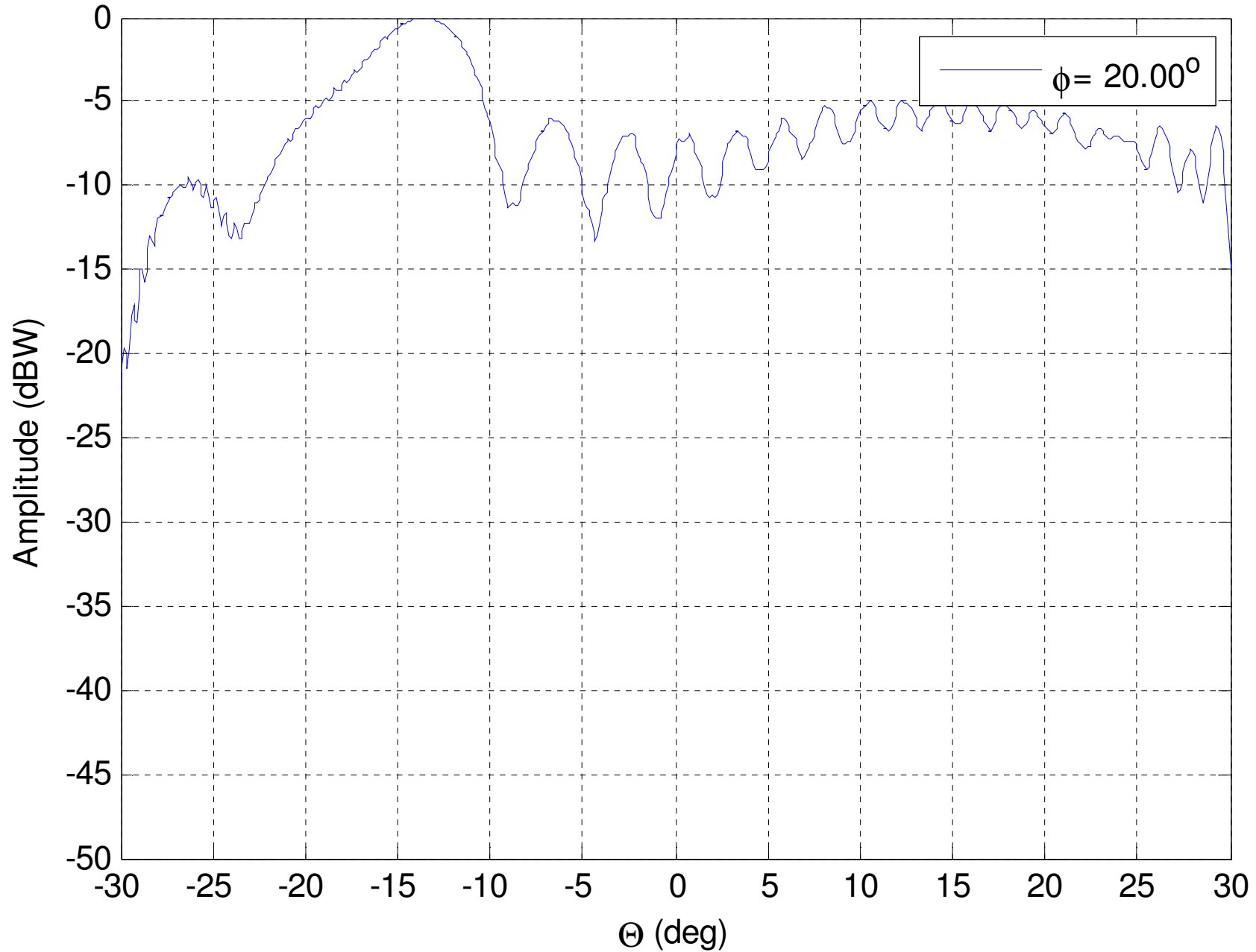
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-10.cut, Peak: 7.69 dBW, Date: 16-Dec-2011



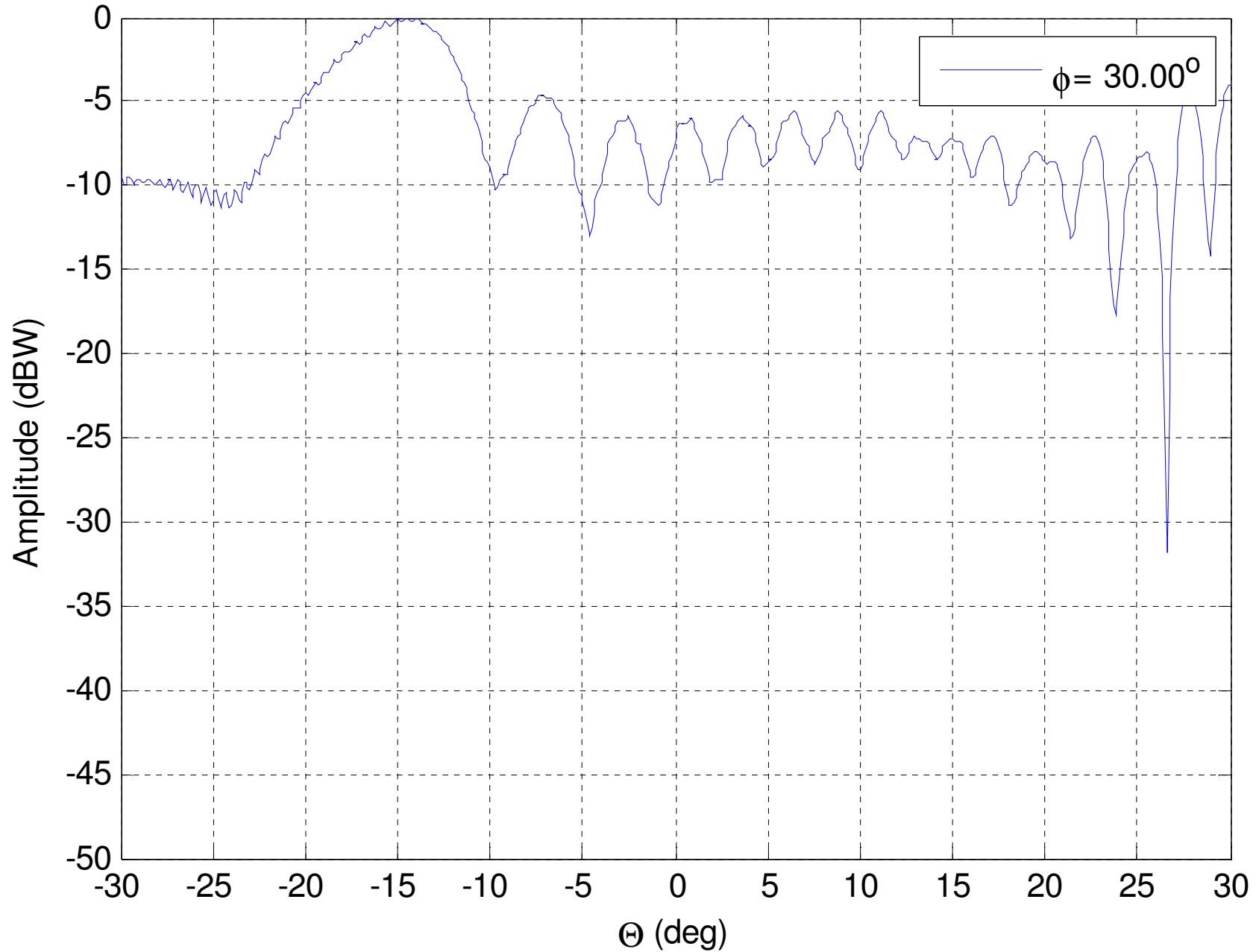
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-20.cut, Peak: 7.27 dBW, Date: 16-Dec-2011



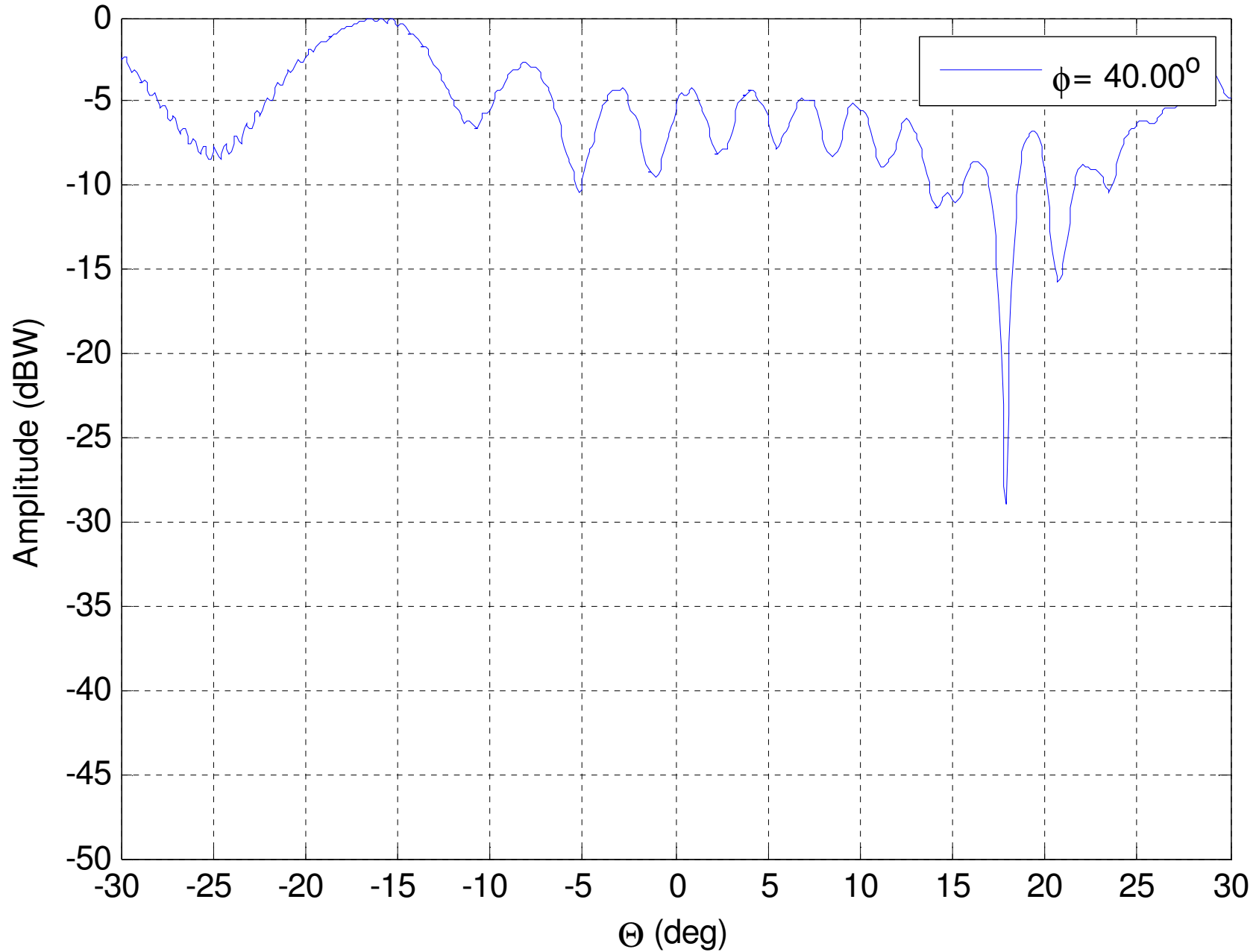
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-30.cut, Peak: 6.32 dBW, Date: 16-Dec-2011



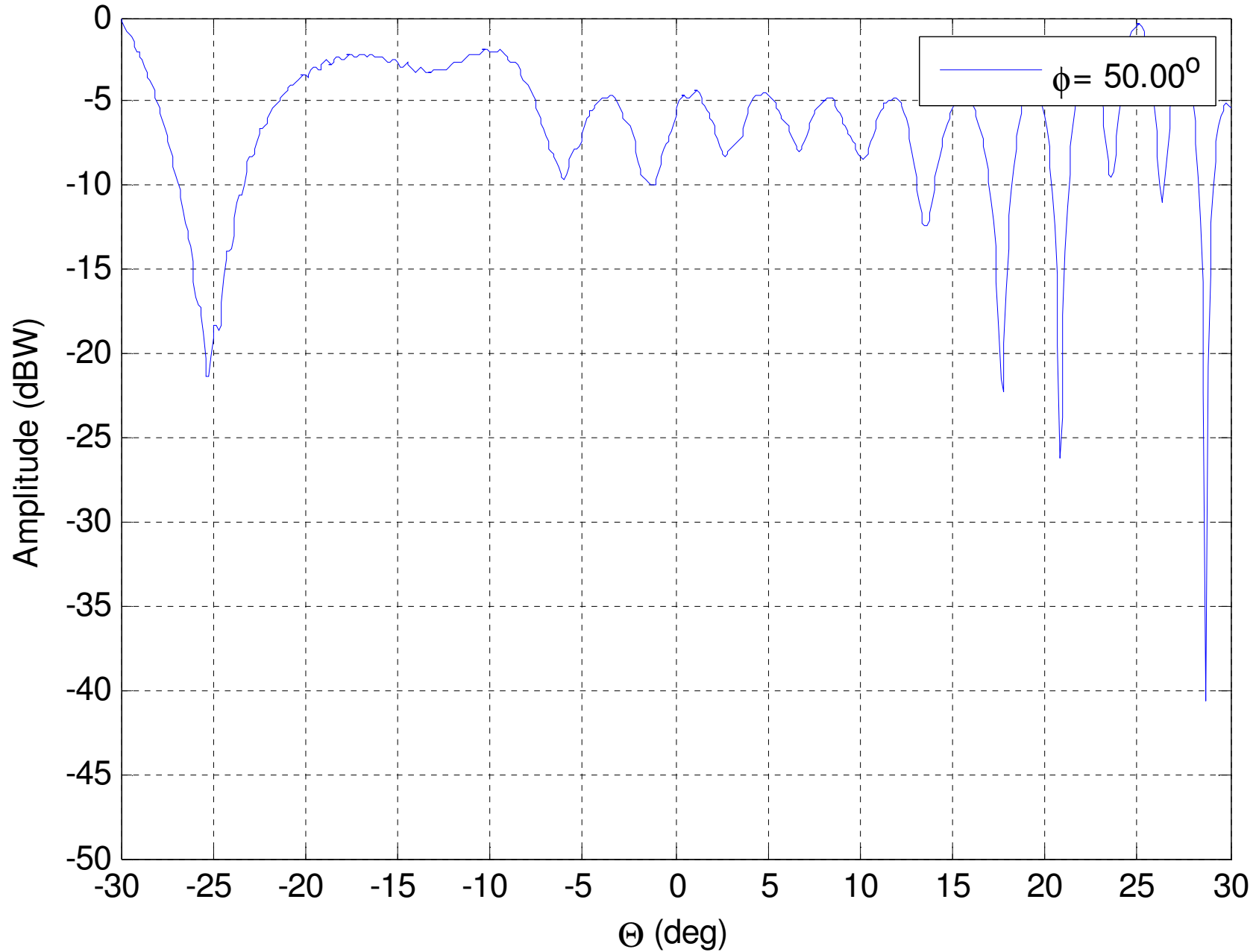
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-40.cut, Peak: 4.63 dBW, Date: 16-Dec-2011



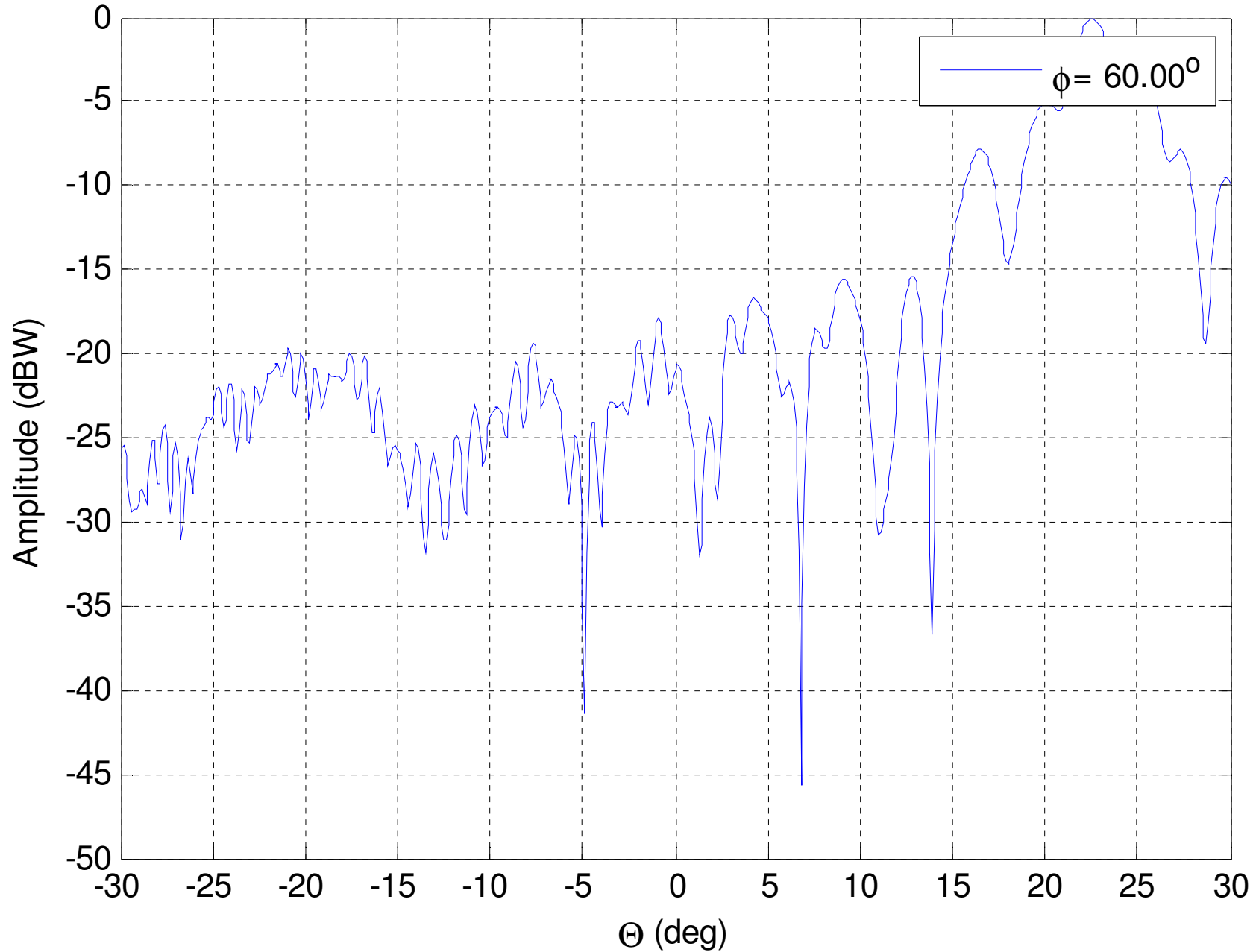
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-50.cut, Peak: 4.91 dBW, Date: 16-Dec-2011



Normalized pattern cuts - farfield

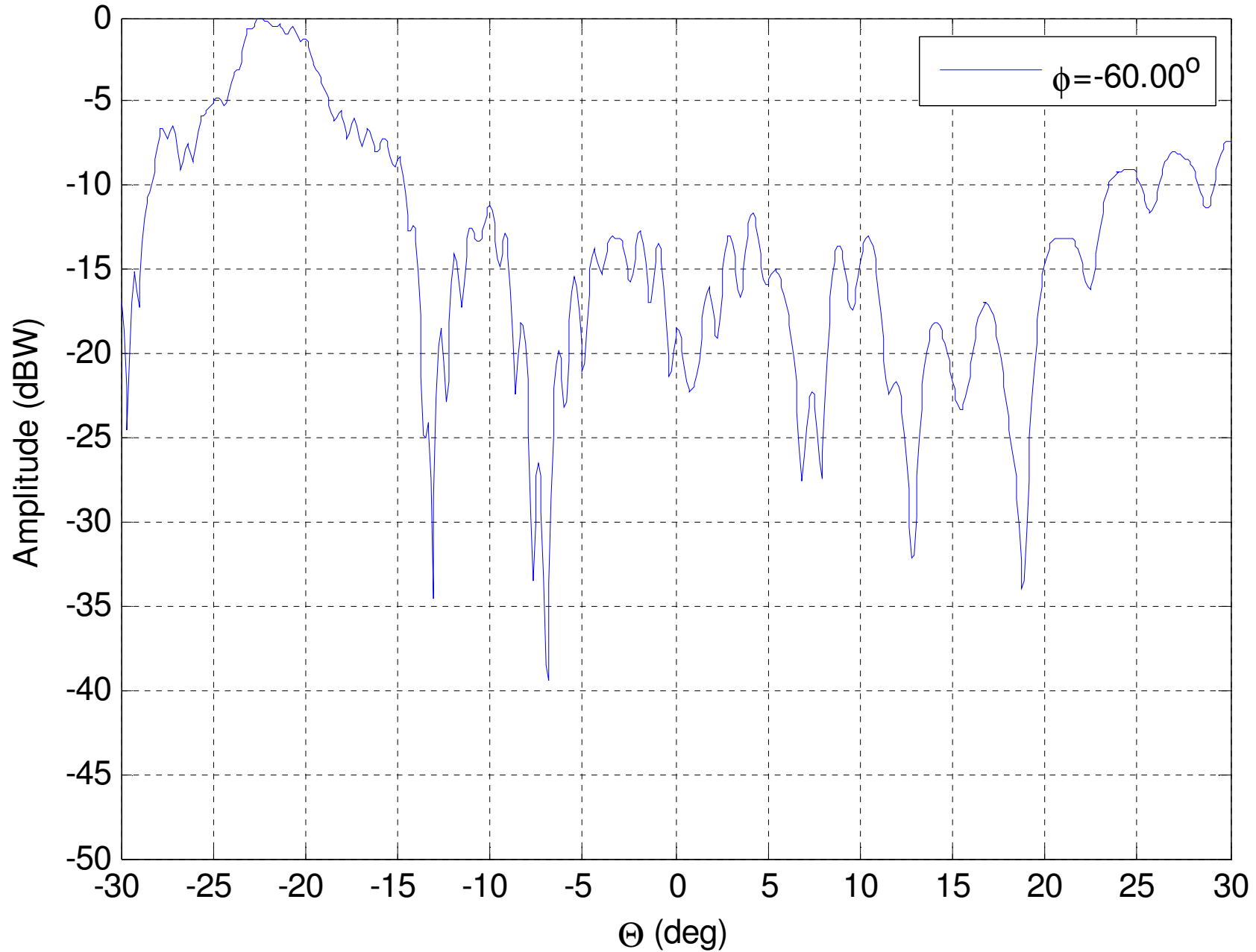
Input file: tx-17.5-rhcp-60.cut, Peak: 5.75 dBW, Date: 16-Dec-2011



LHCP at 17.5 GHz

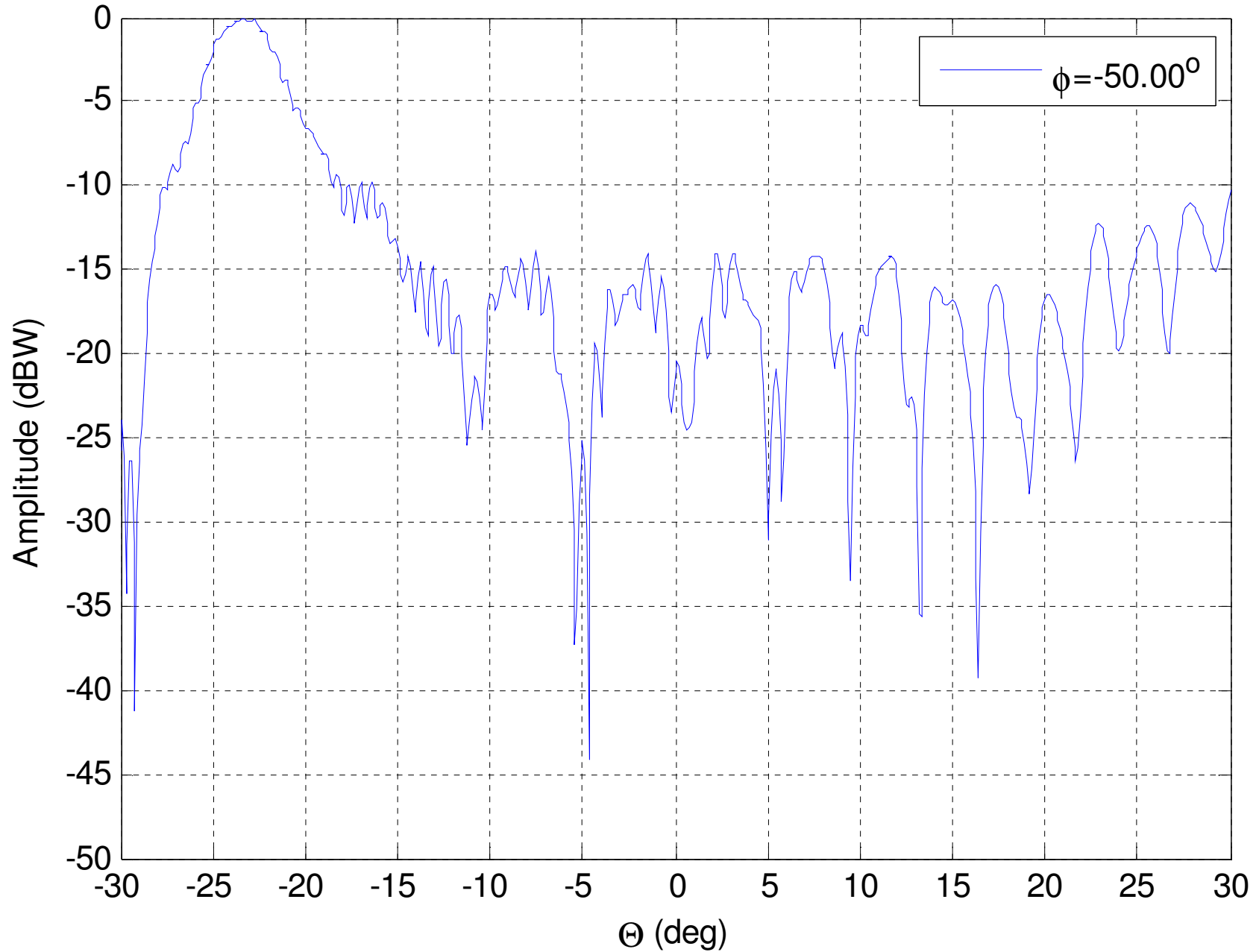
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--60.cut, Peak: 0.46 dBW, Date: 16-Dec-2011



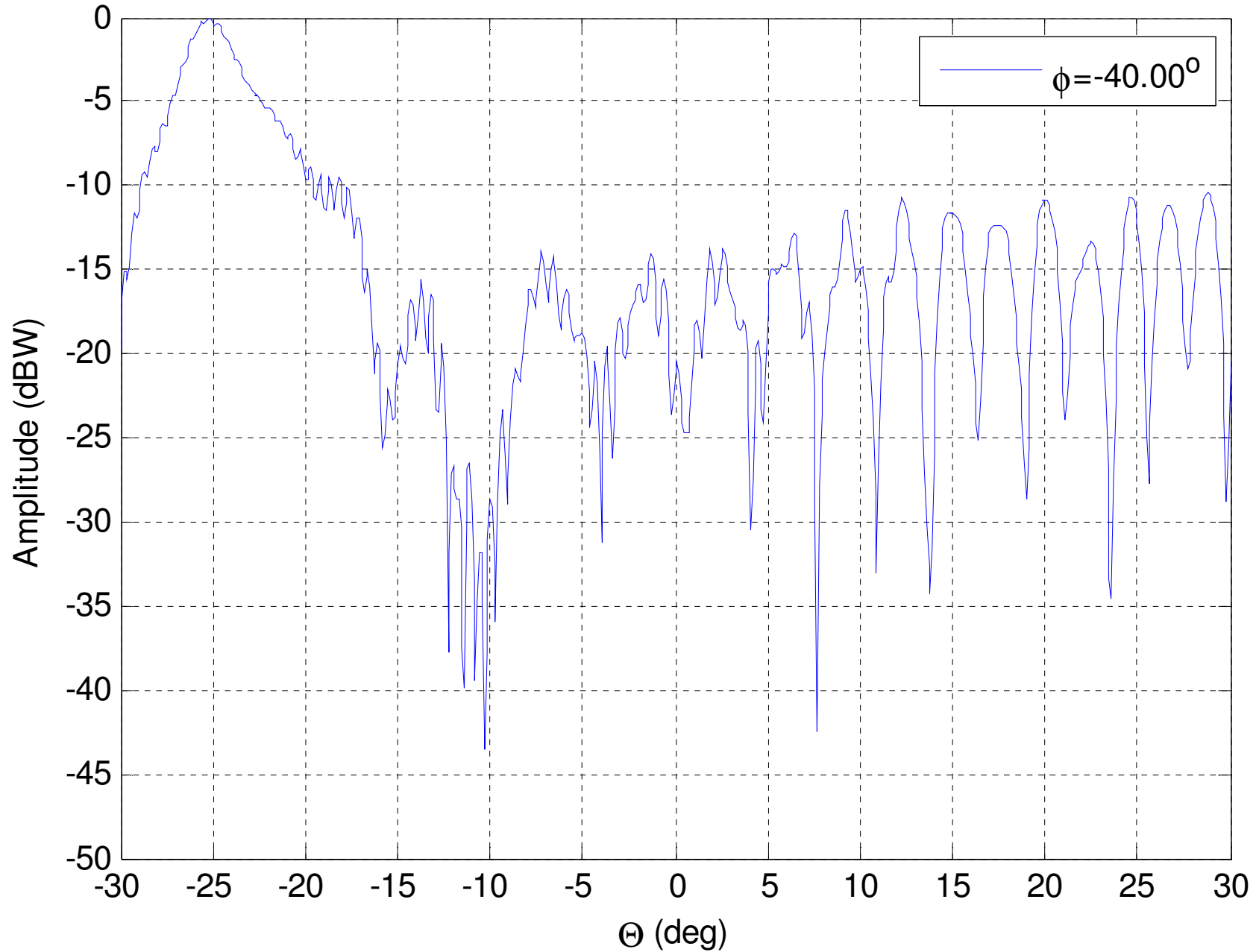
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--50.cut, Peak: 2.39 dBW, Date: 16-Dec-2011



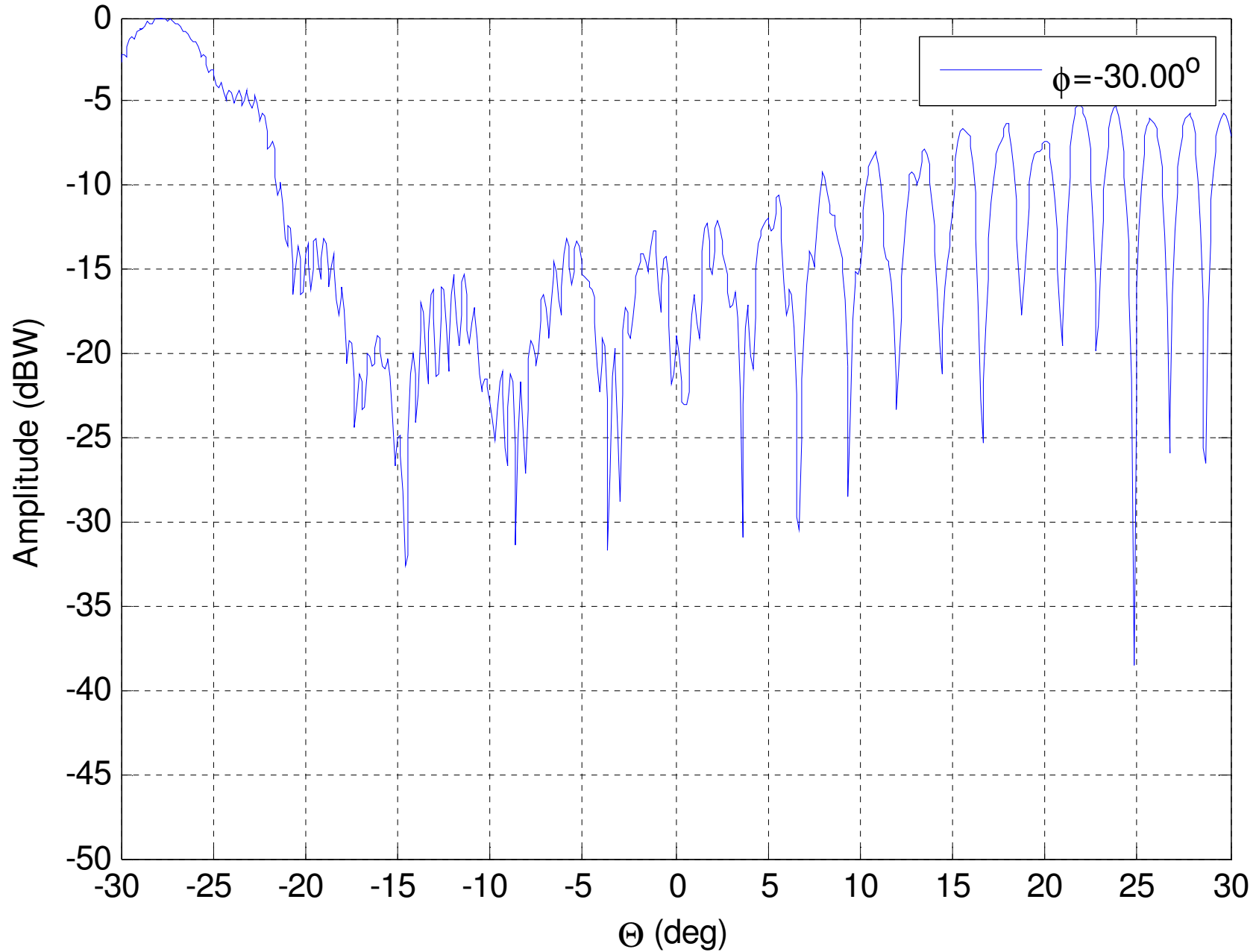
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--40.cut, Peak: 2.45 dBW, Date: 16-Dec-2011



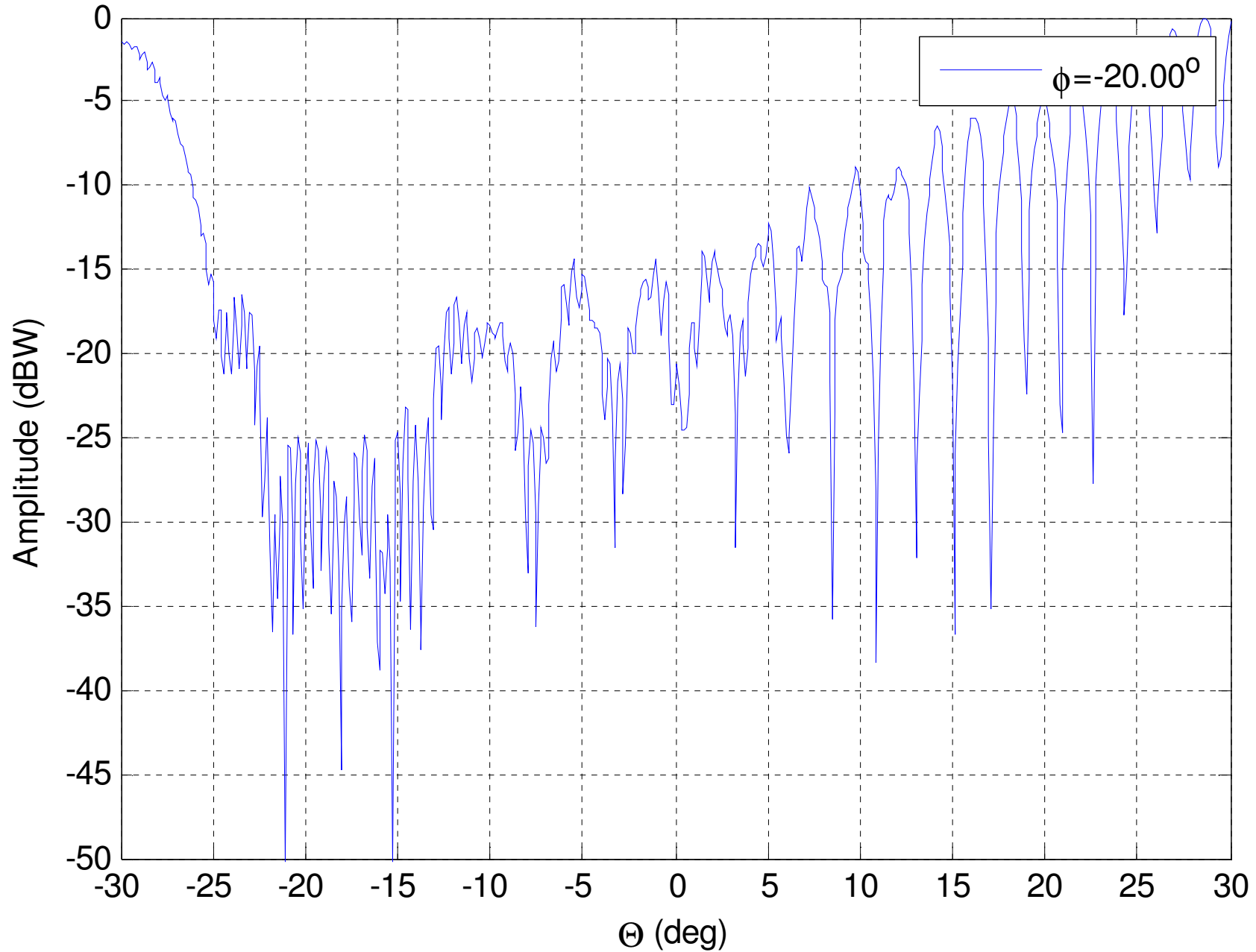
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--30.cut, Peak: 0.86 dBW, Date: 16-Dec-2011



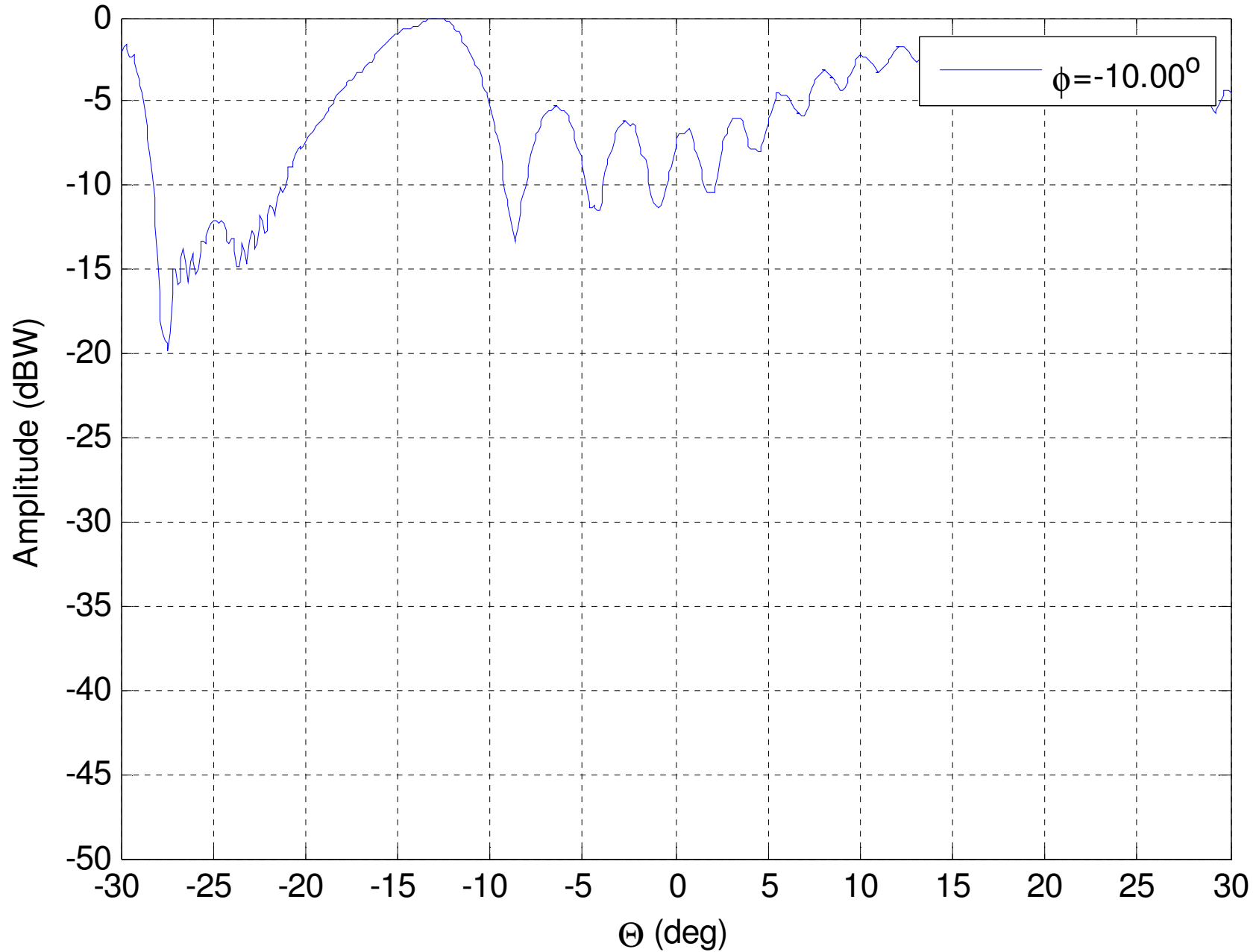
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--20.cut, Peak: 2.48 dBW, Date: 16-Dec-2011



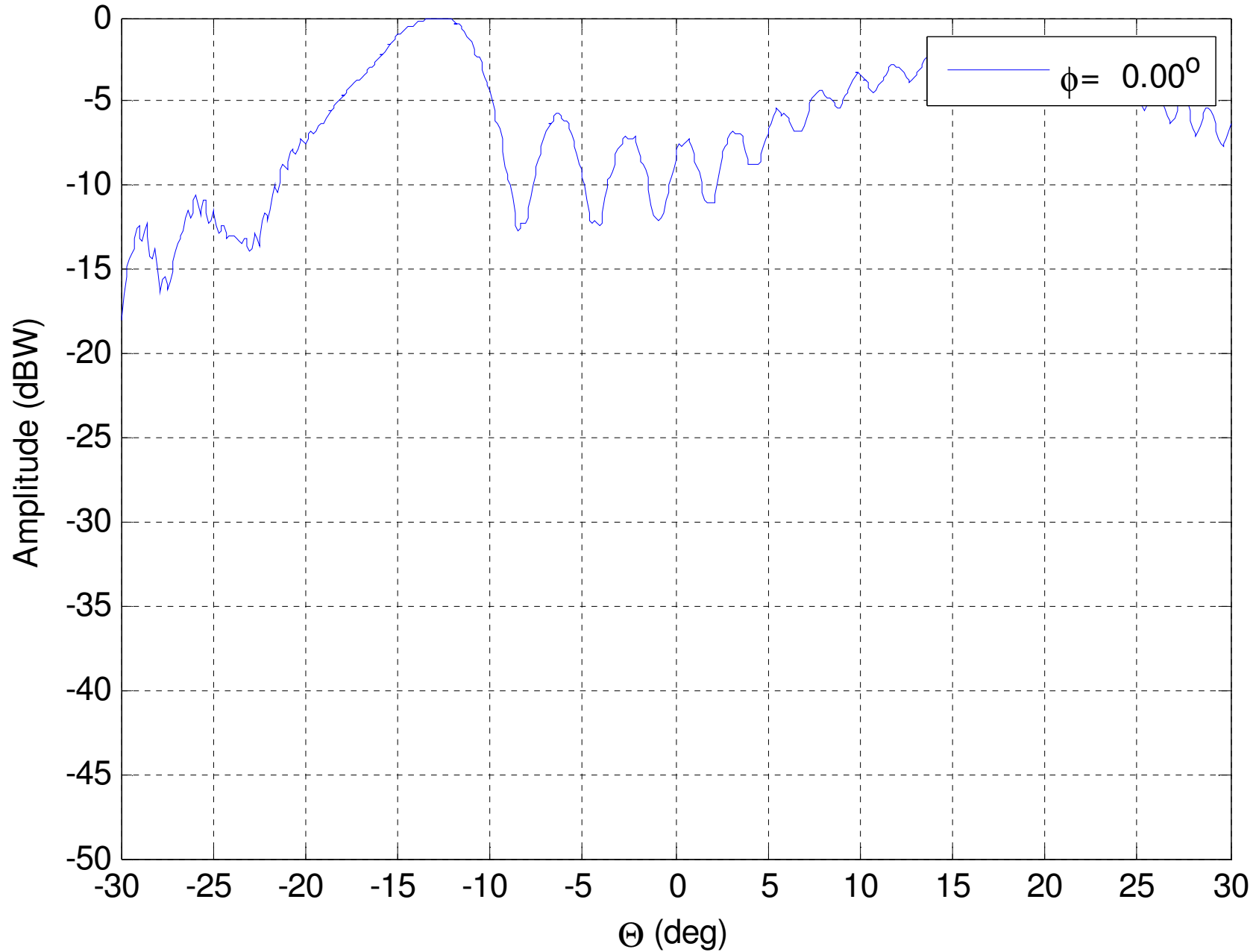
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--10.cut, Peak: 6.91 dBW, Date: 16-Dec-2011



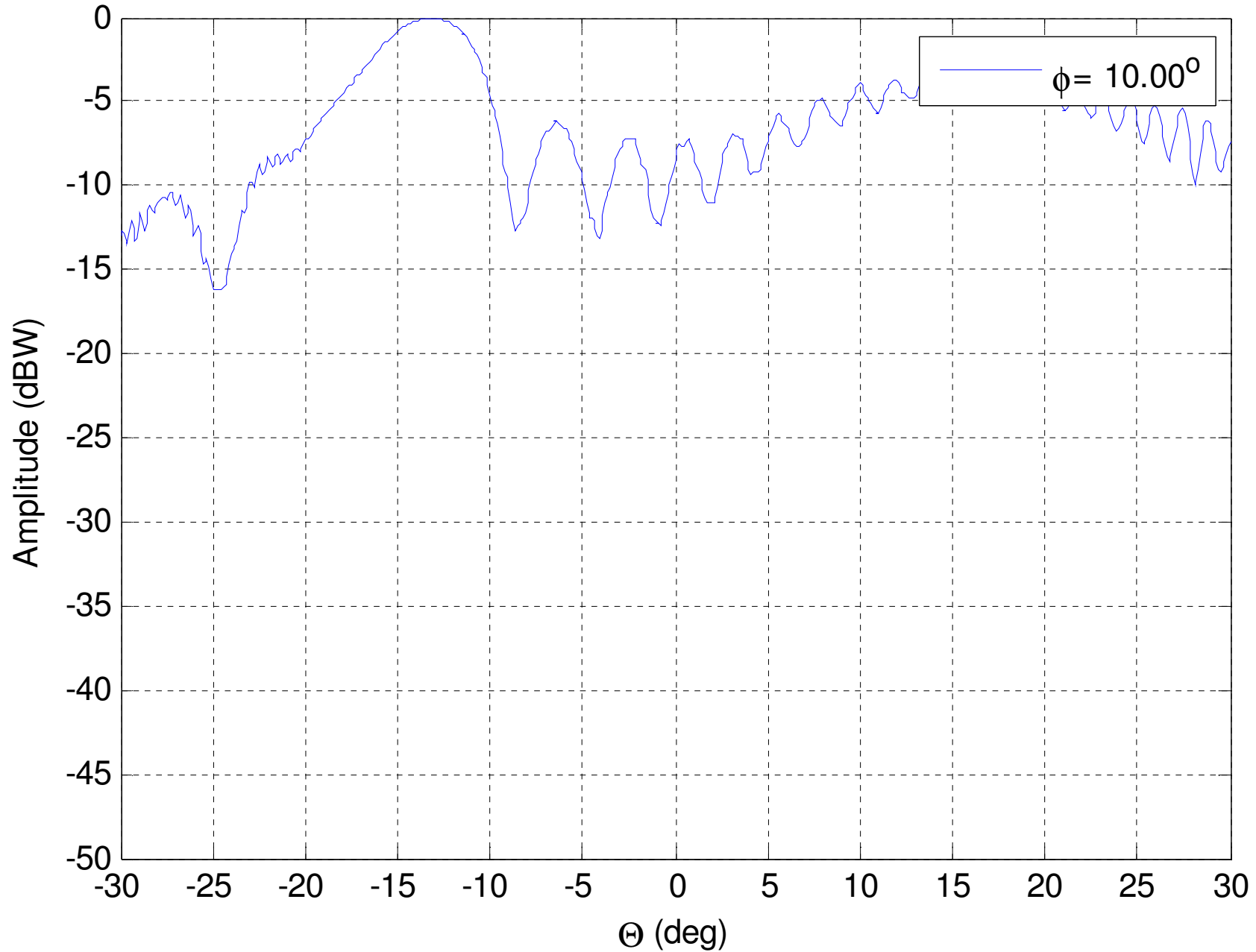
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-0.cut, Peak: 7.56 dBW, Date: 16-Dec-2011



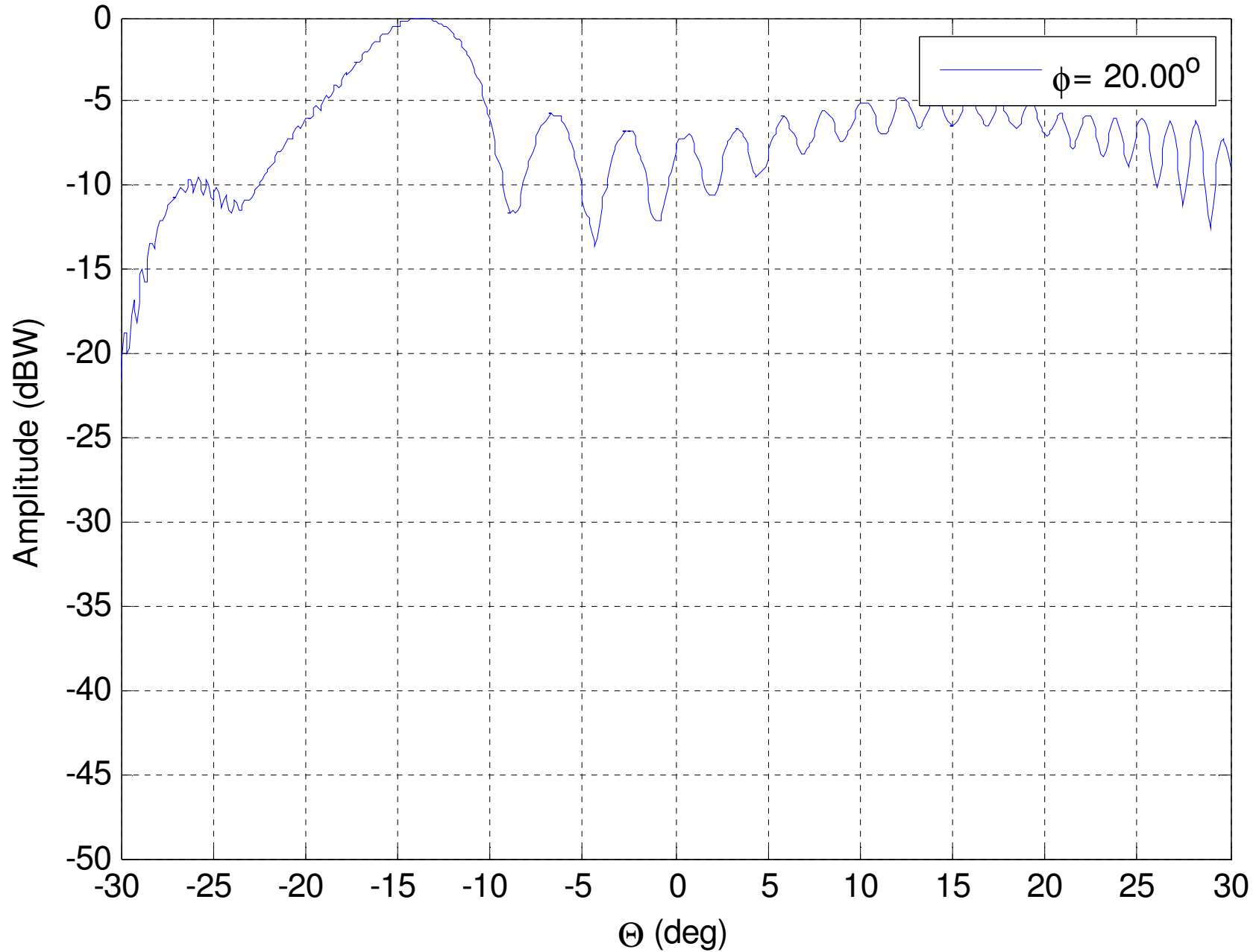
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-10.cut, Peak: 7.61 dBW, Date: 16-Dec-2011



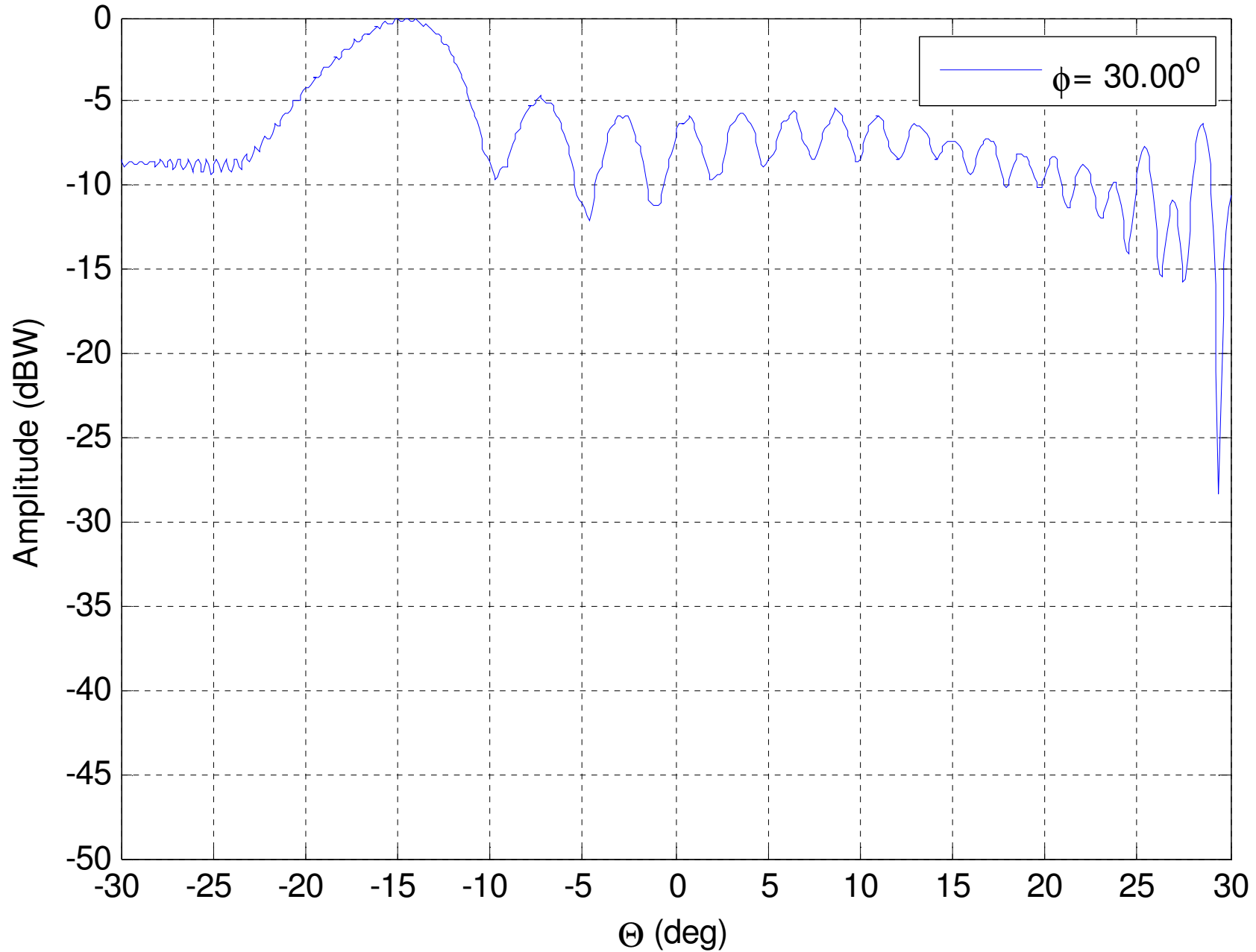
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-20.cut, Peak: 7.22 dBW, Date: 16-Dec-2011



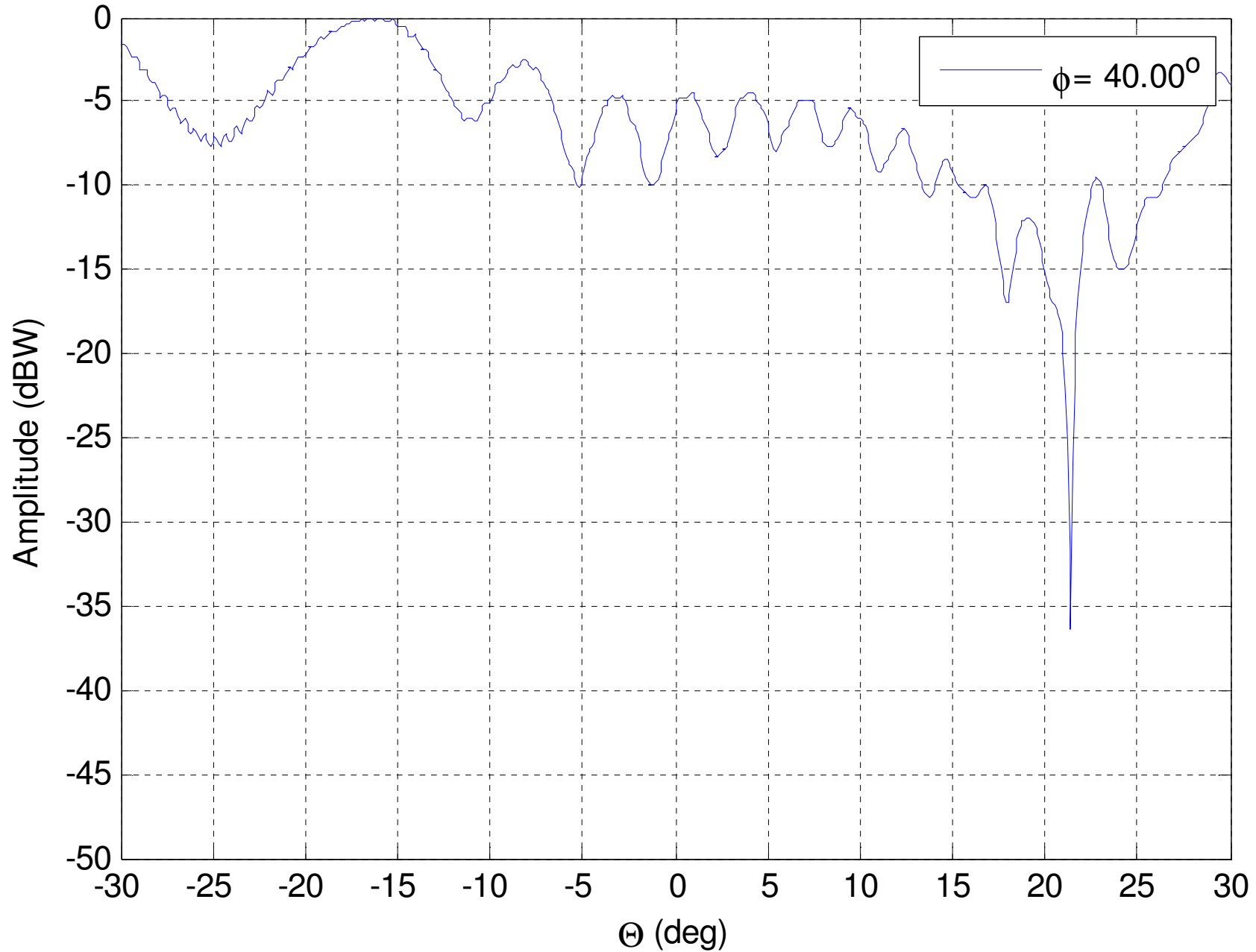
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-30.cut, Peak: 6.23 dBW, Date: 16-Dec-2011



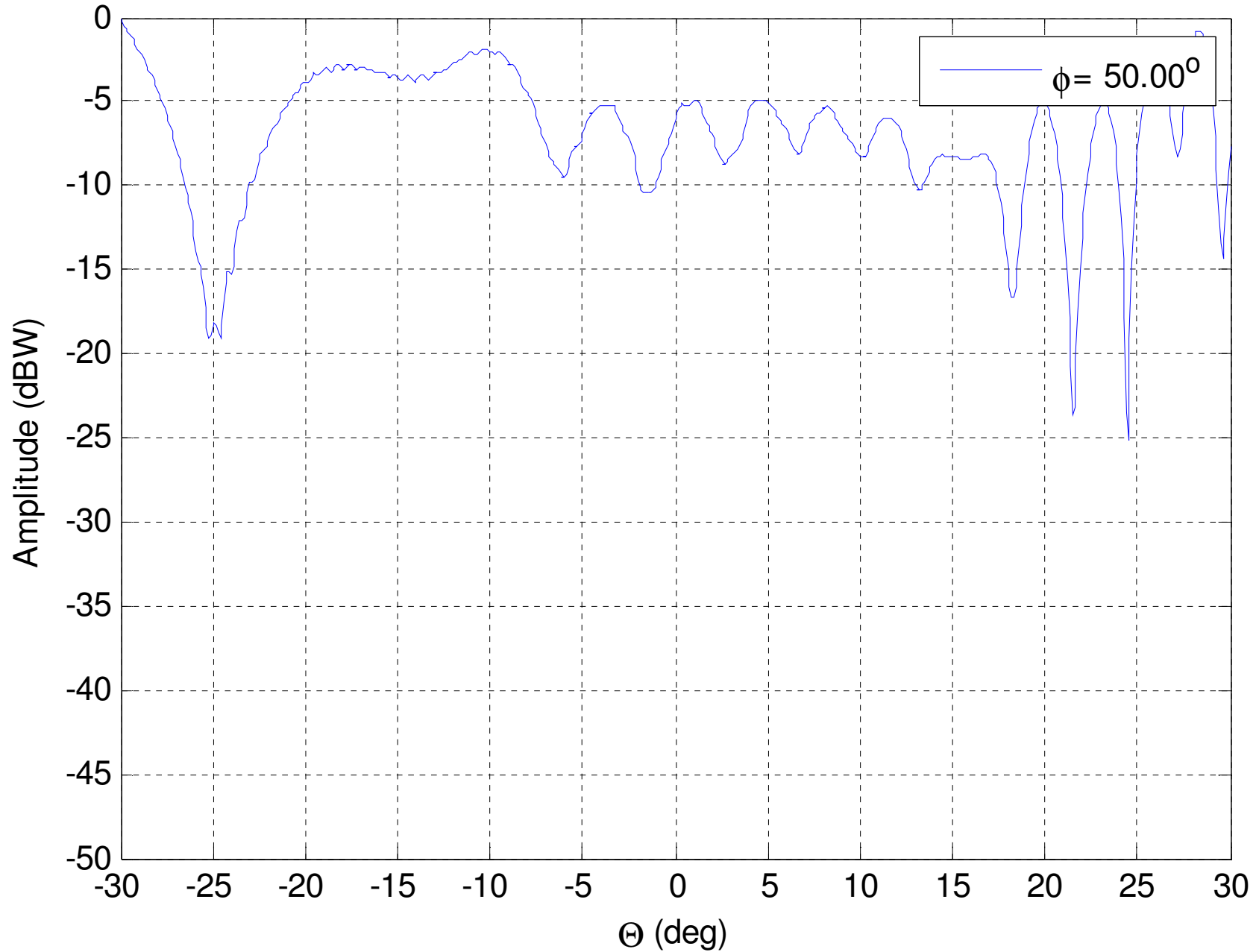
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-40.cut, Peak: 4.80 dBW, Date: 16-Dec-2011



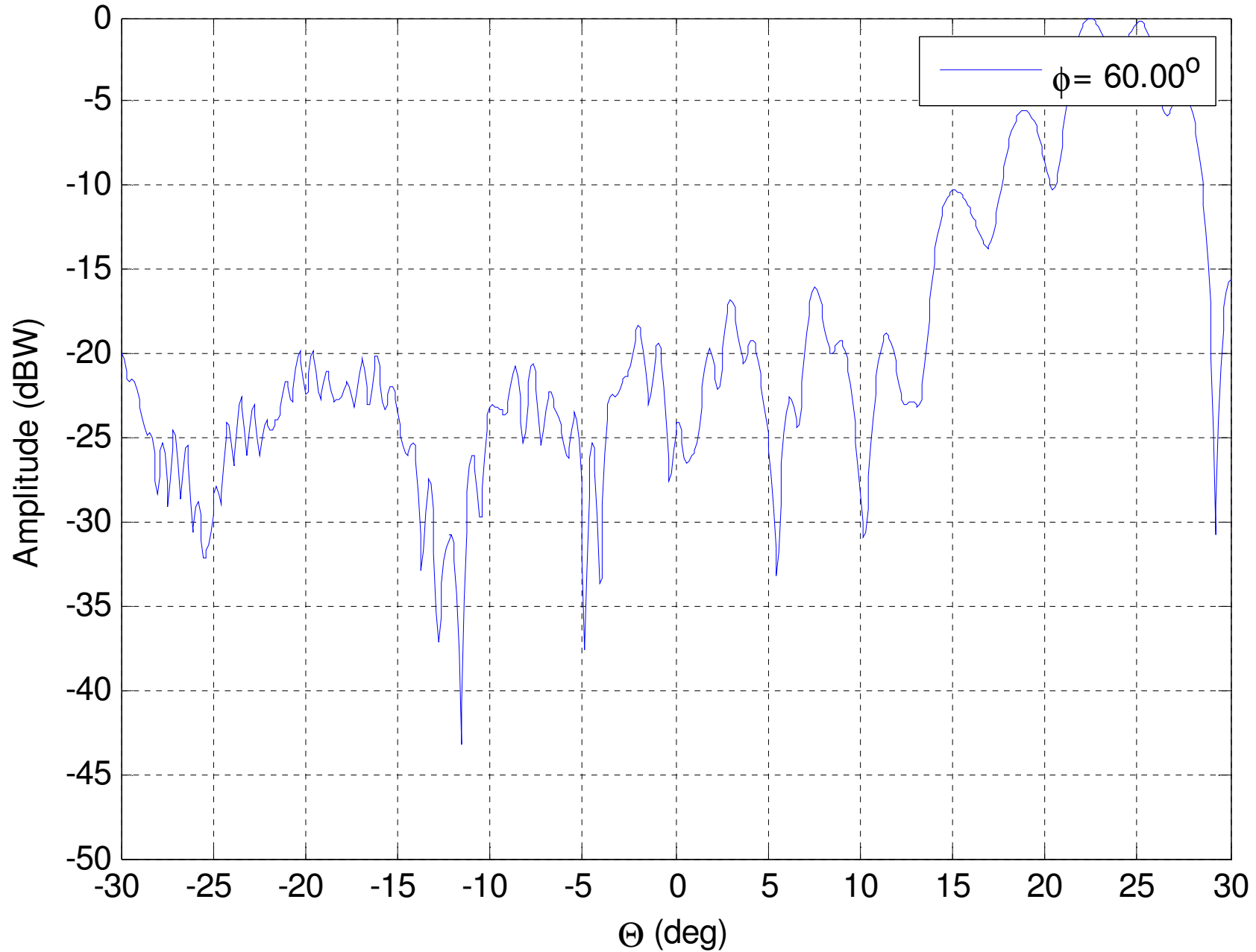
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-50.cut, Peak: 5.24 dBW, Date: 16-Dec-2011



Normalized pattern cuts - farfield

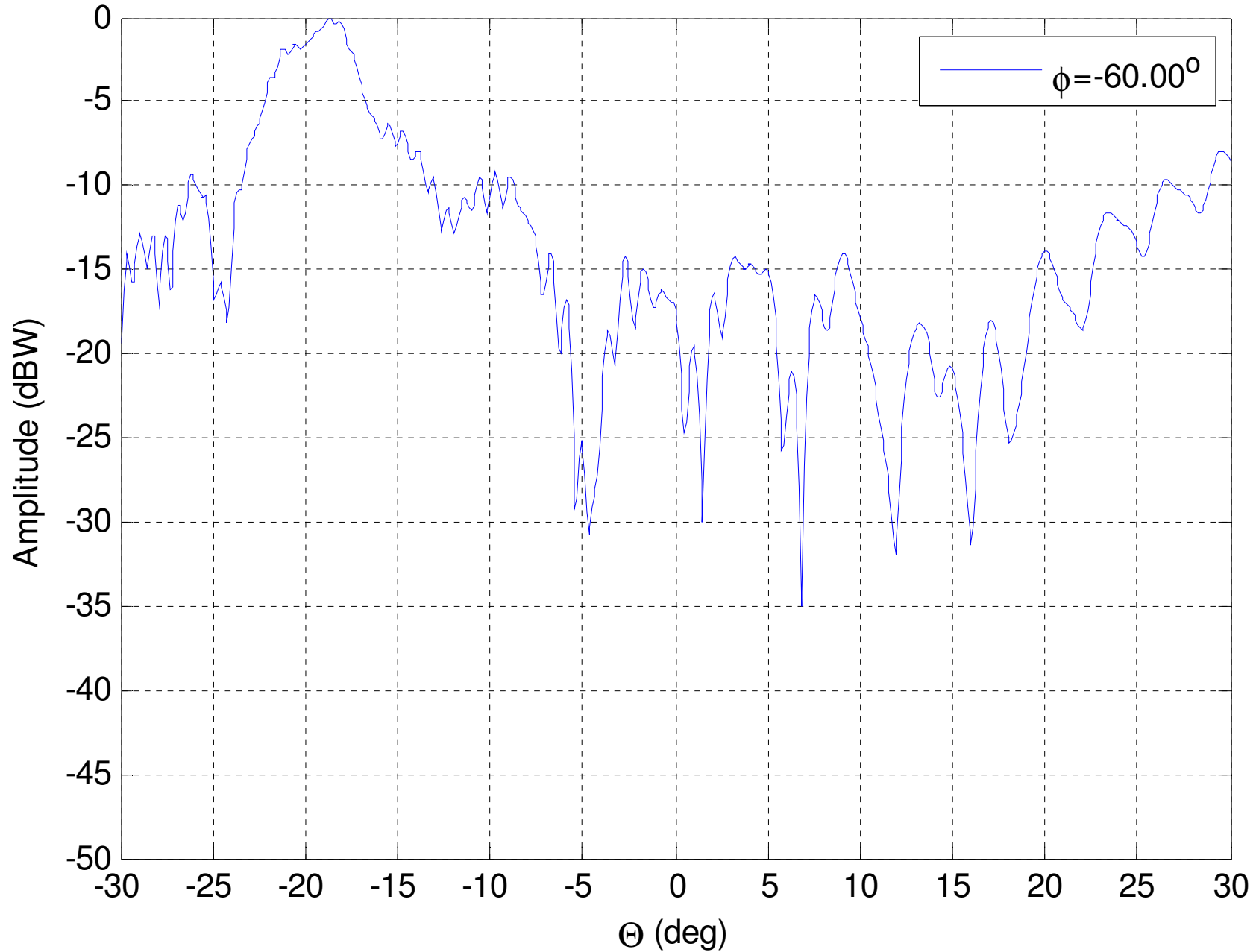
Input file: tx-17.5-lhcp-60.cut, Peak: 6.14 dBW, Date: 16-Dec-2011



RHCP at 17.7 GHz

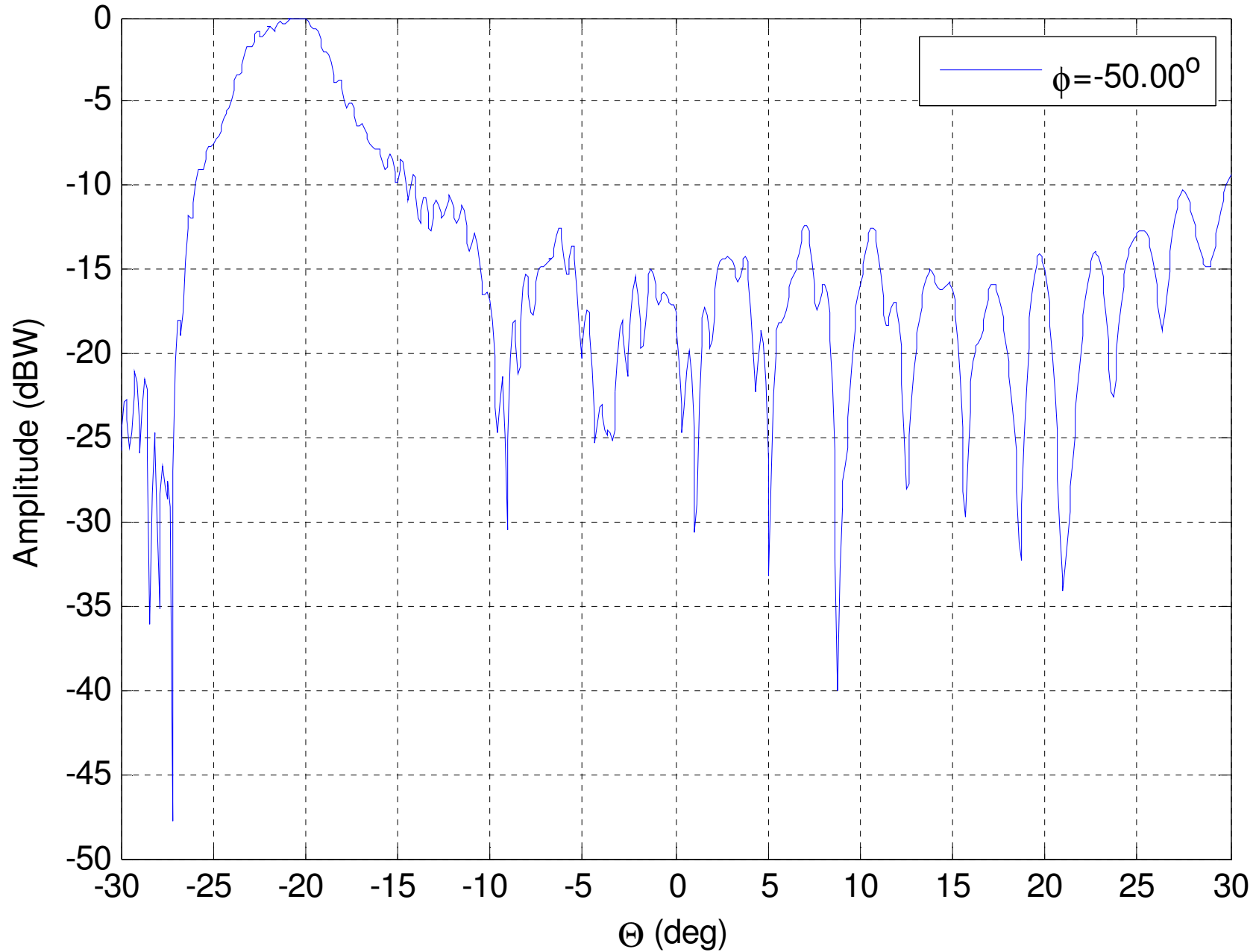
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--60.cut, Peak: 1.72 dBW, Date: 16-Dec-2011



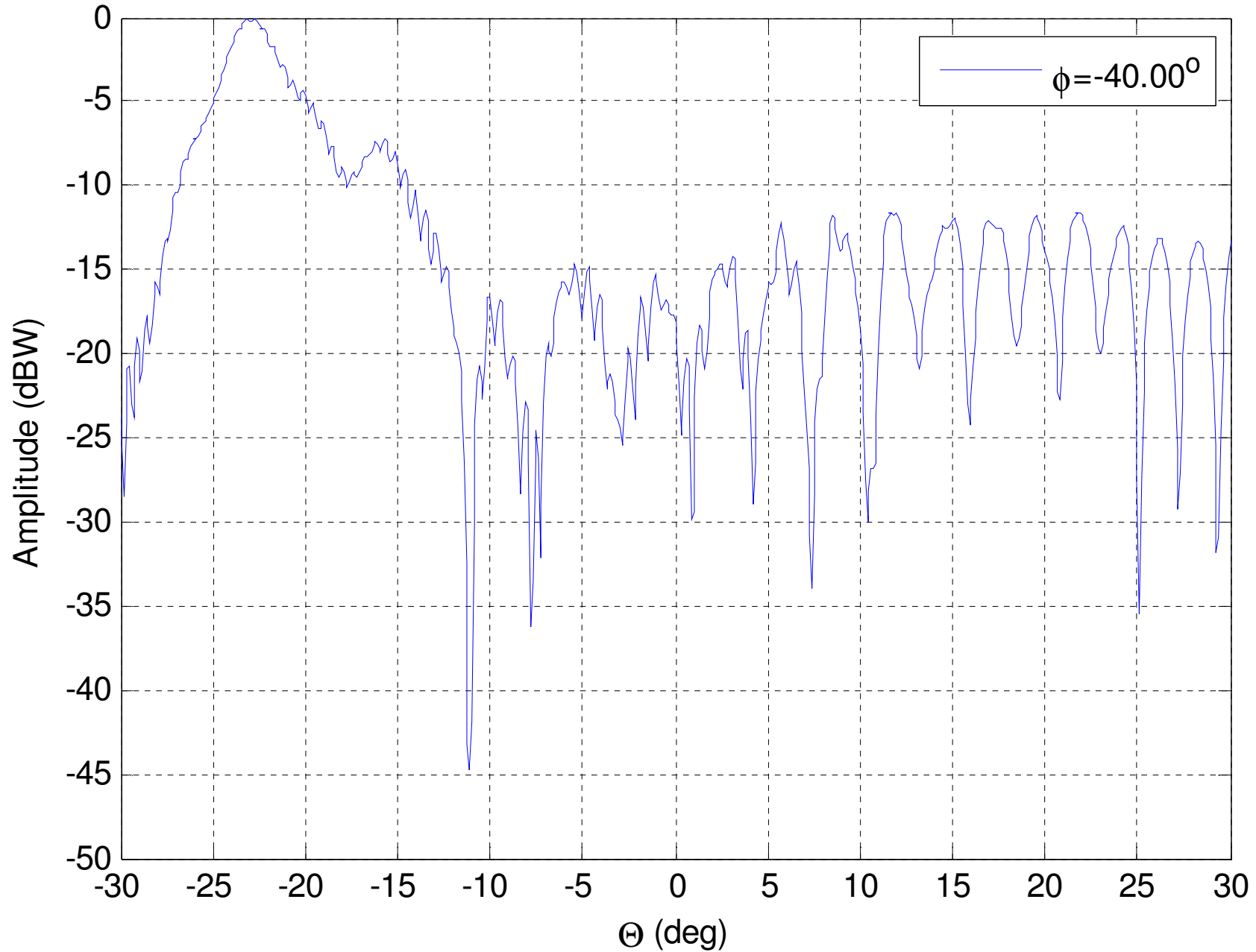
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--50.cut, Peak: 1.90 dBW, Date: 16-Dec-2011



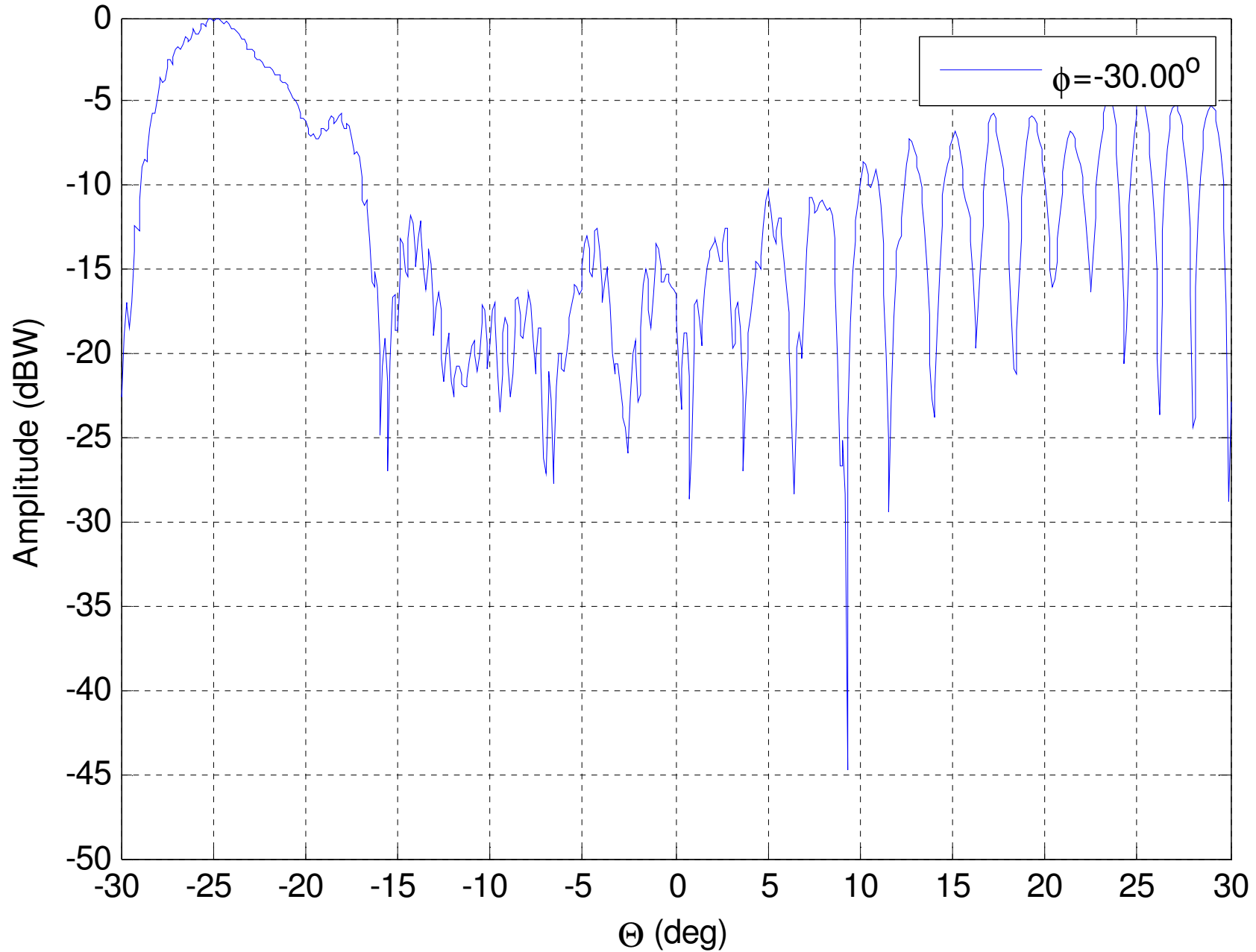
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--40.cut, Peak: 2.49 dBW, Date: 16-Dec-2011



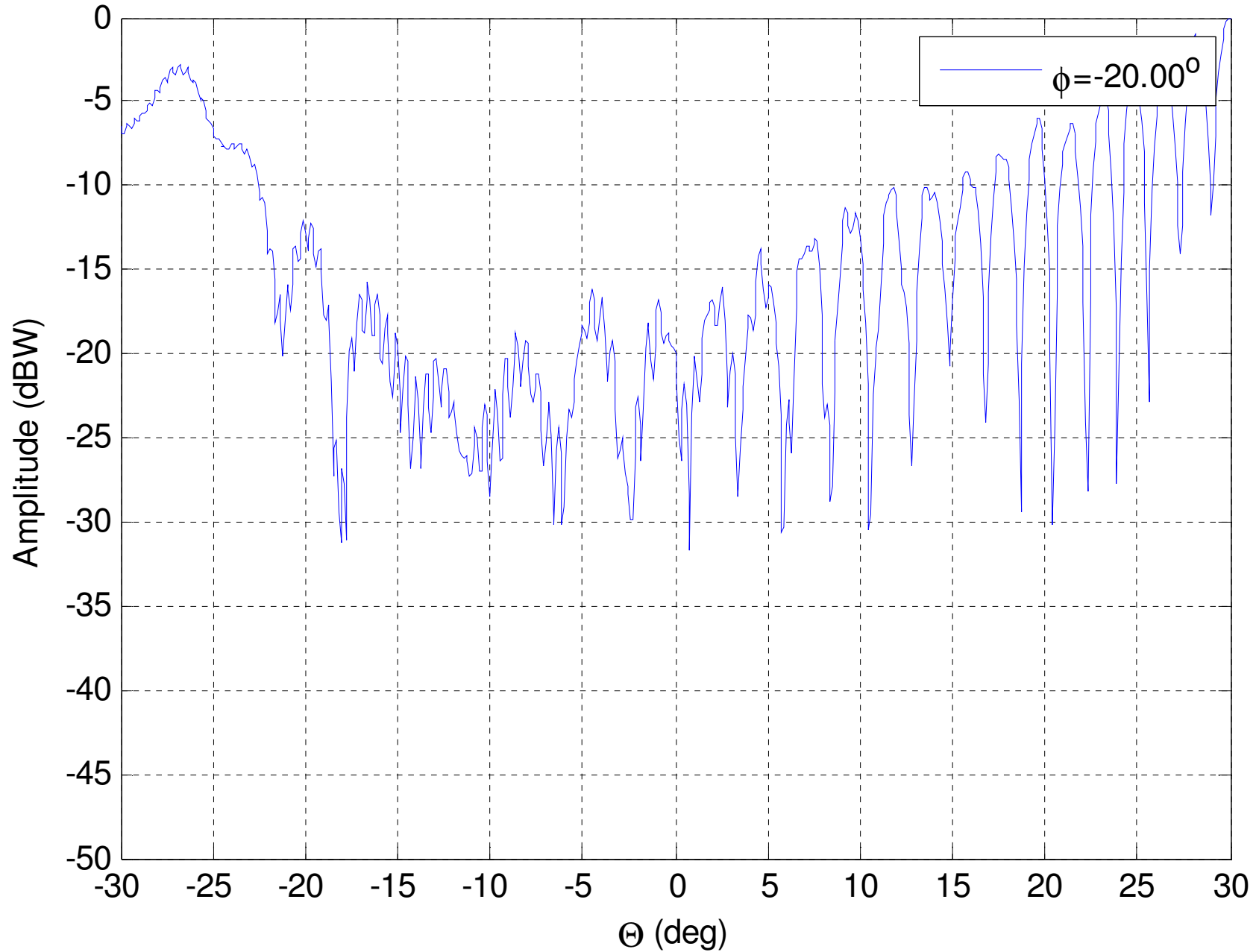
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--30.cut, Peak: 0.89 dBW, Date: 16-Dec-2011



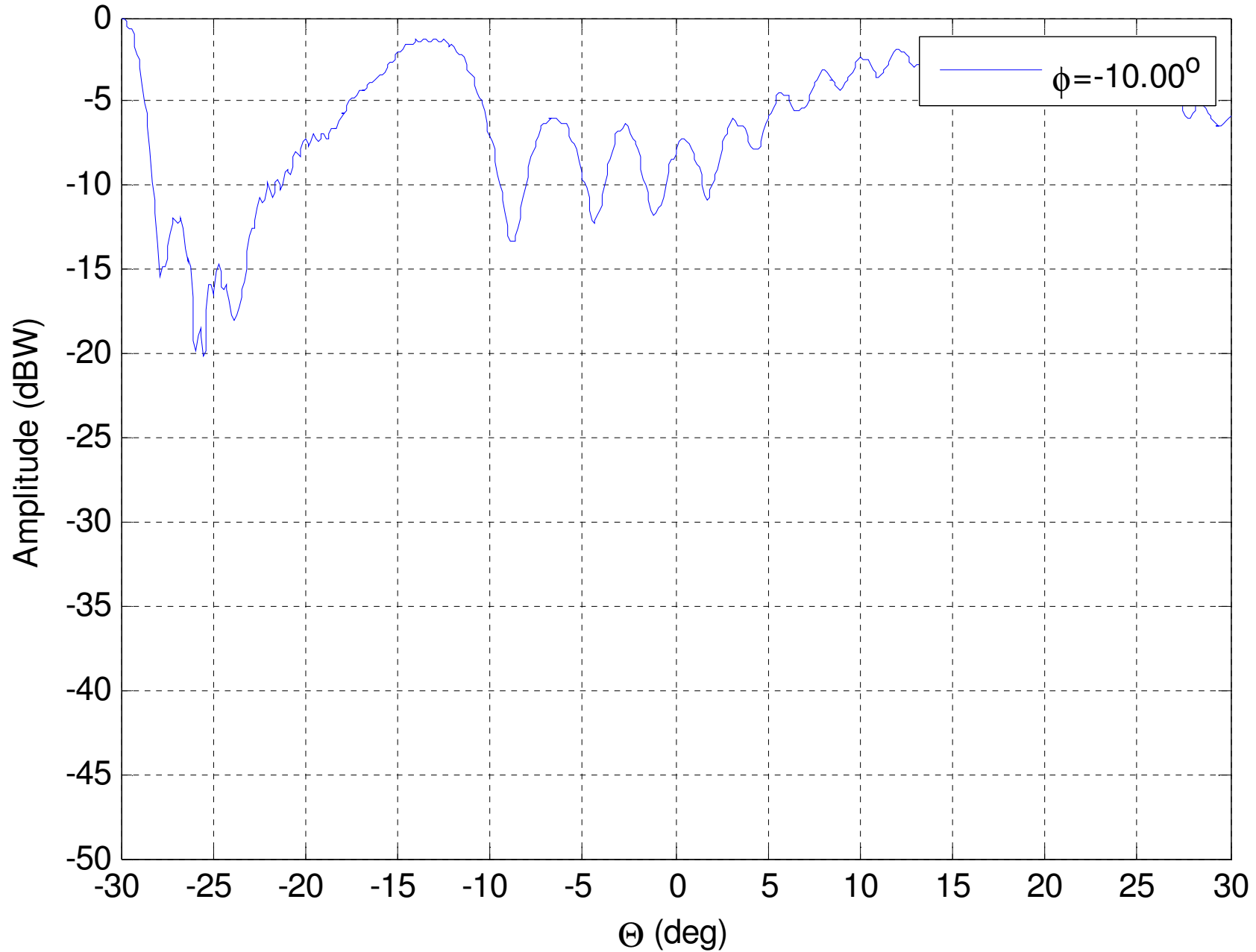
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--20.cut, Peak: 4.37 dBW, Date: 16-Dec-2011



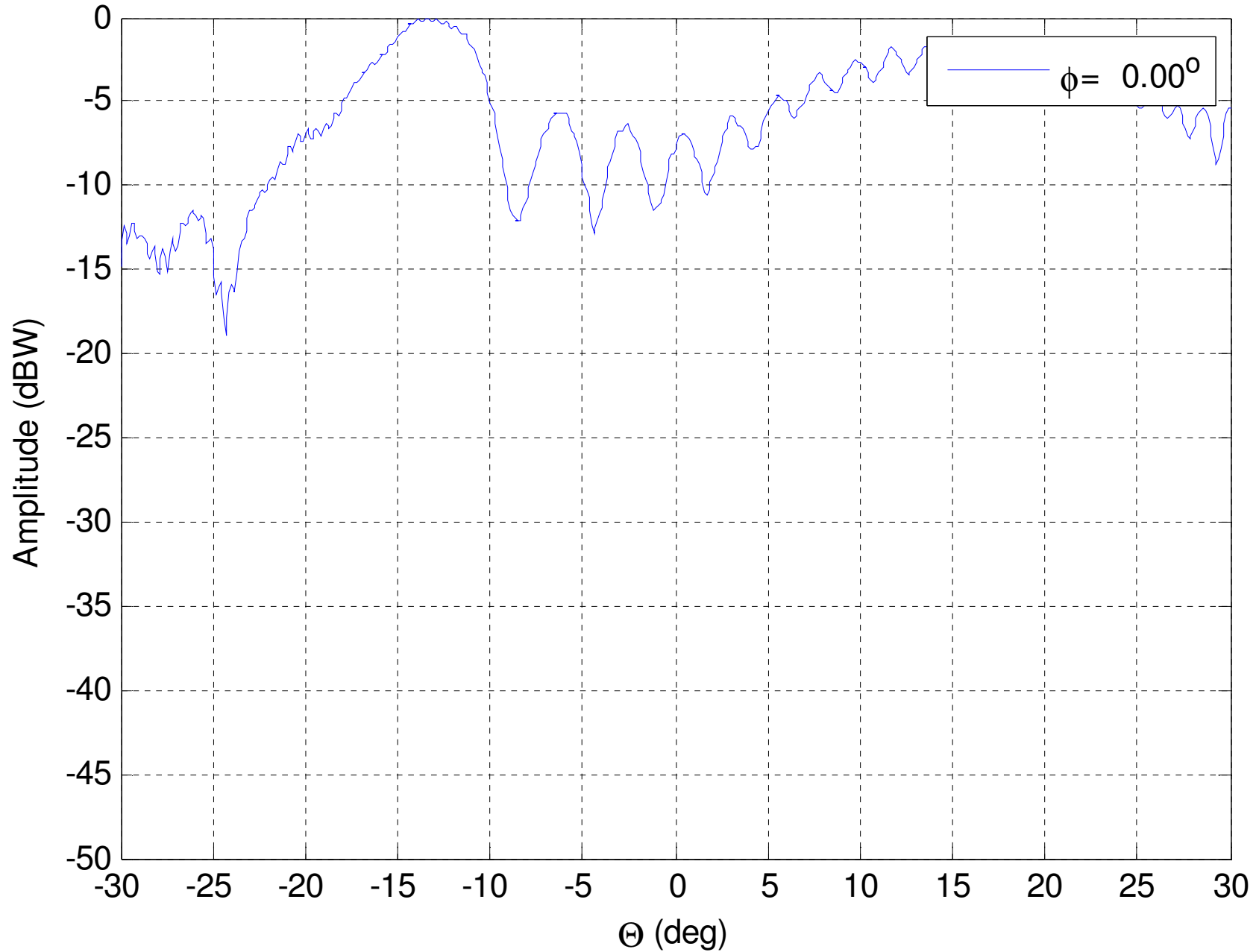
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--10.cut, Peak: 7.54 dBW, Date: 16-Dec-2011



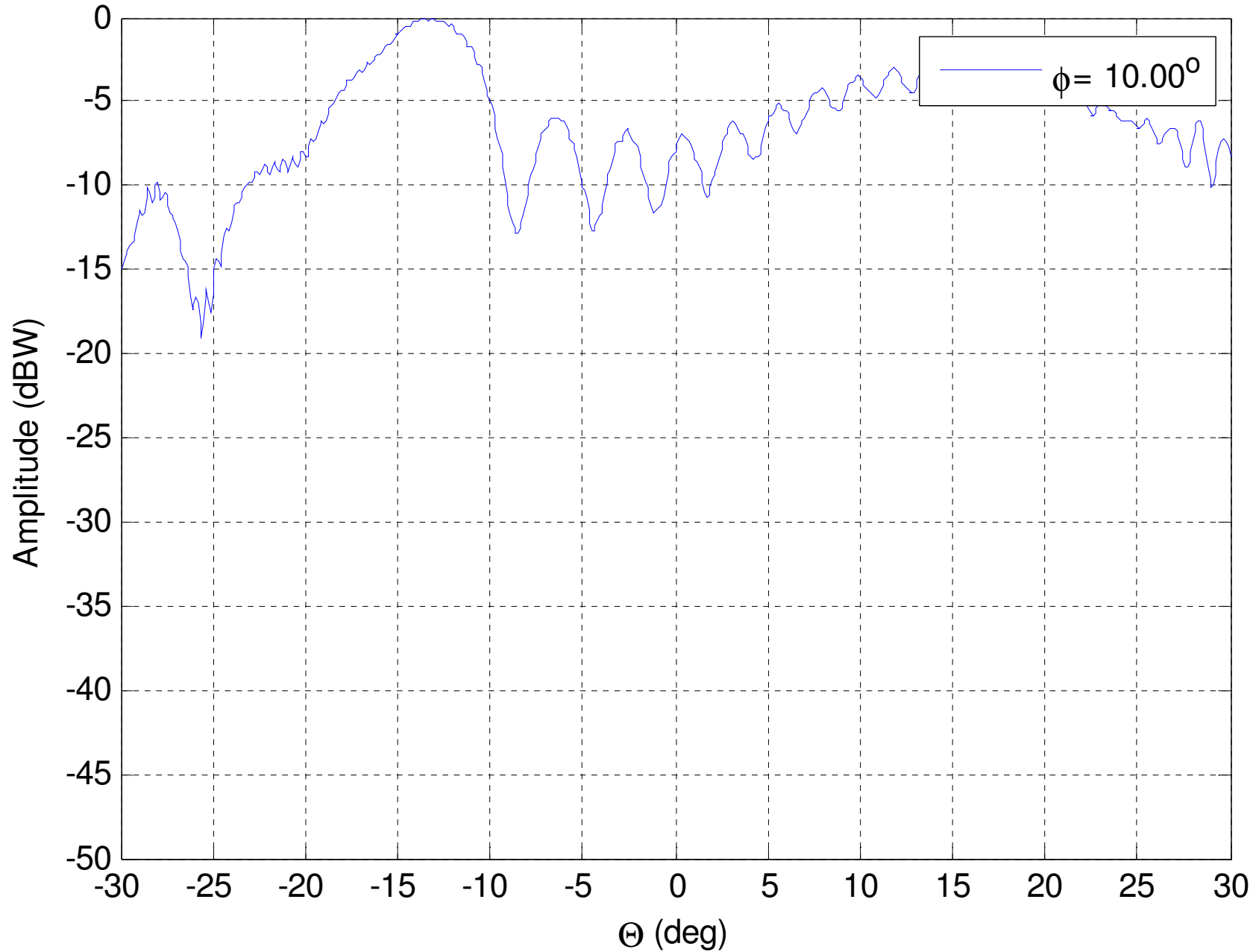
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-0.cut, Peak: 7.22 dBW, Date: 16-Dec-2011



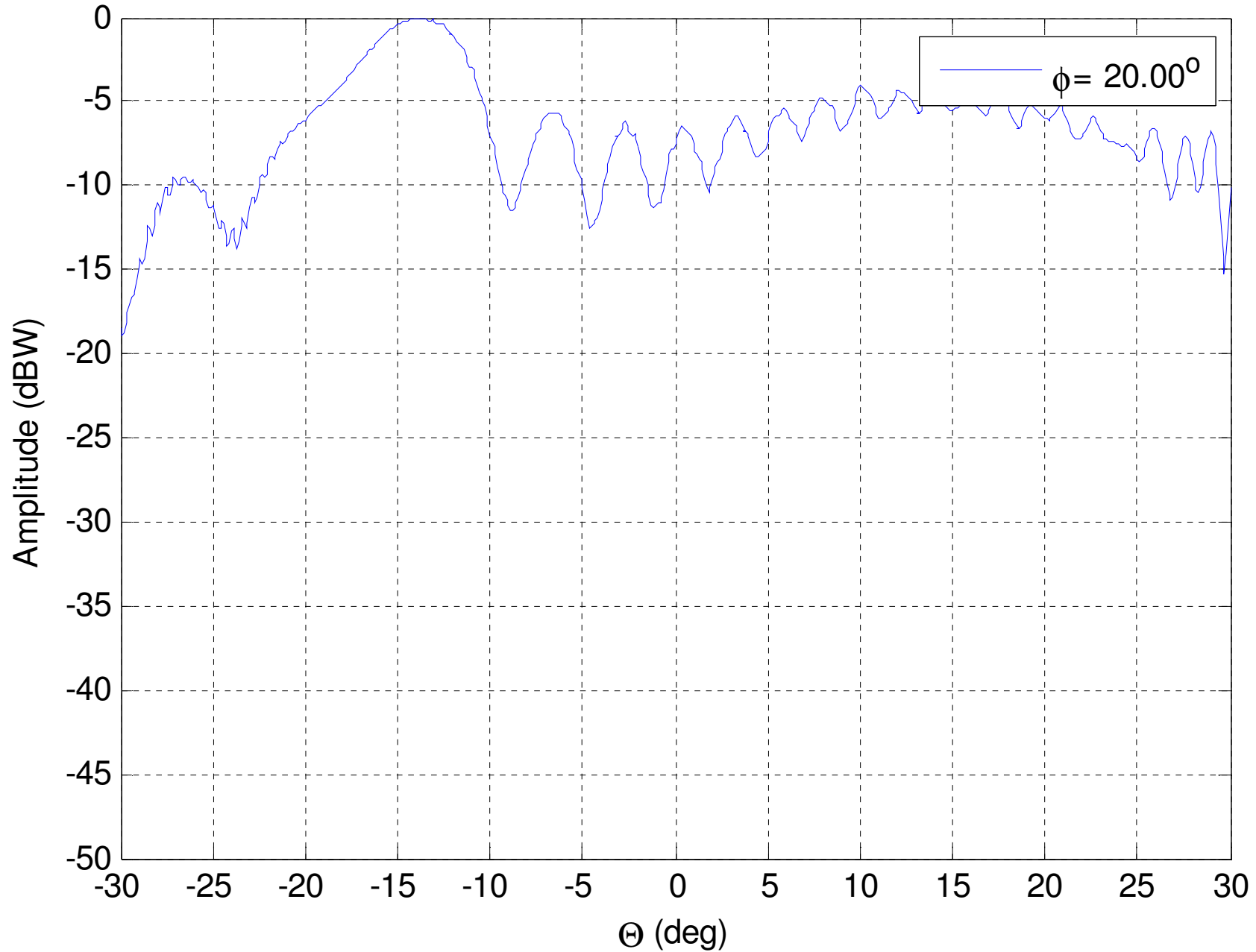
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-10.cut, Peak: 7.35 dBW, Date: 16-Dec-2011



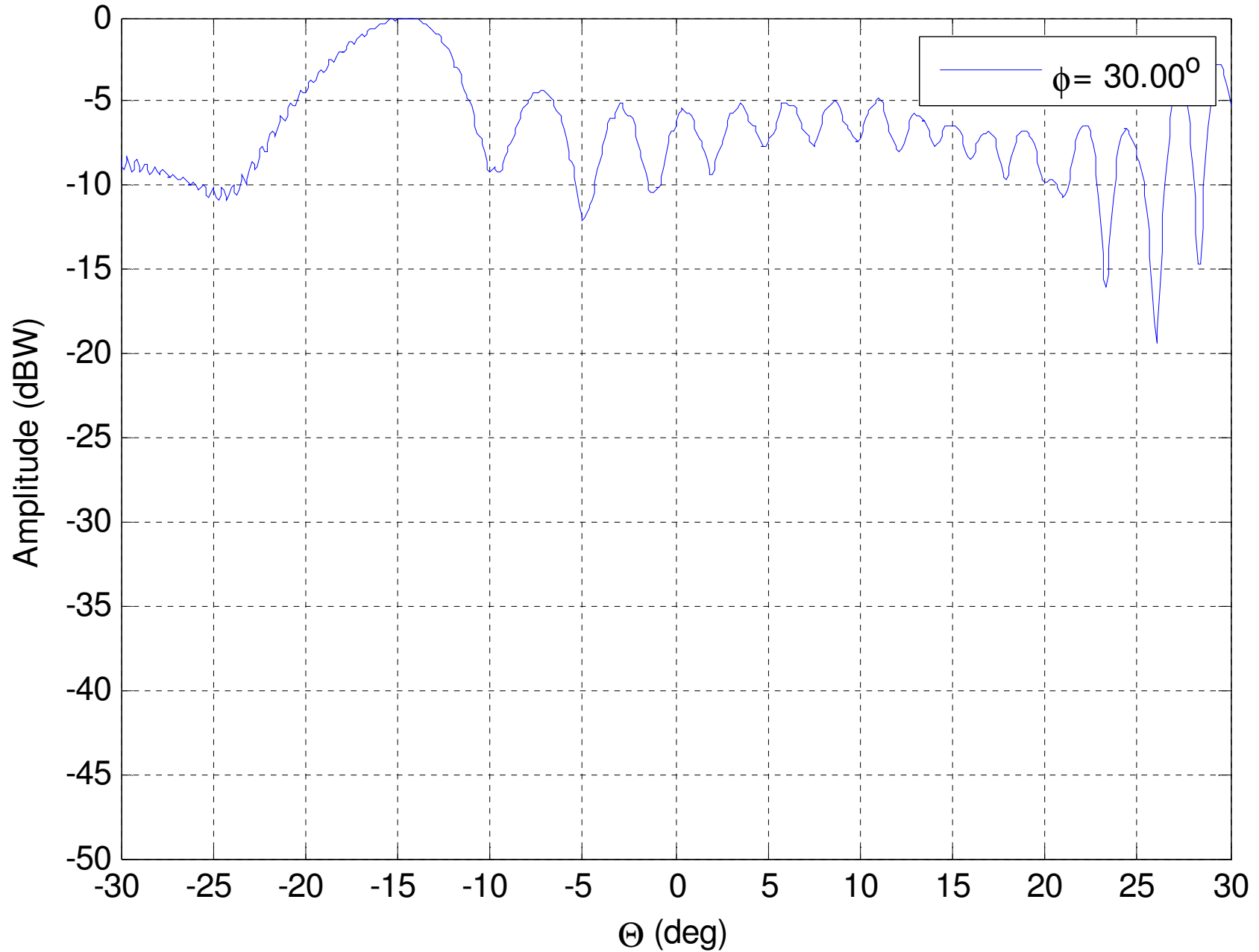
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-20.cut, Peak: 6.91 dBW, Date: 16-Dec-2011



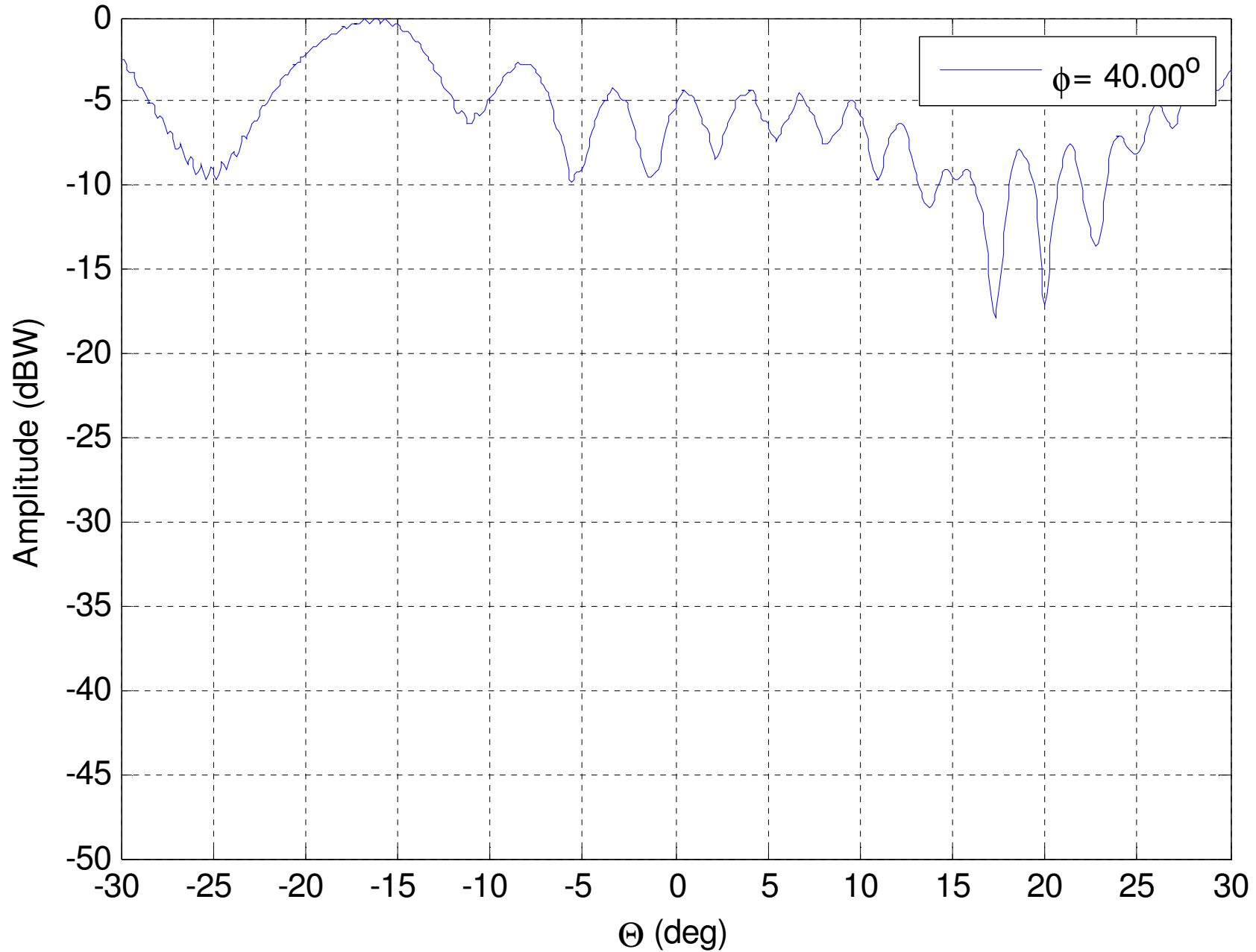
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-30.cut, Peak: 5.87 dBW, Date: 16-Dec-2011



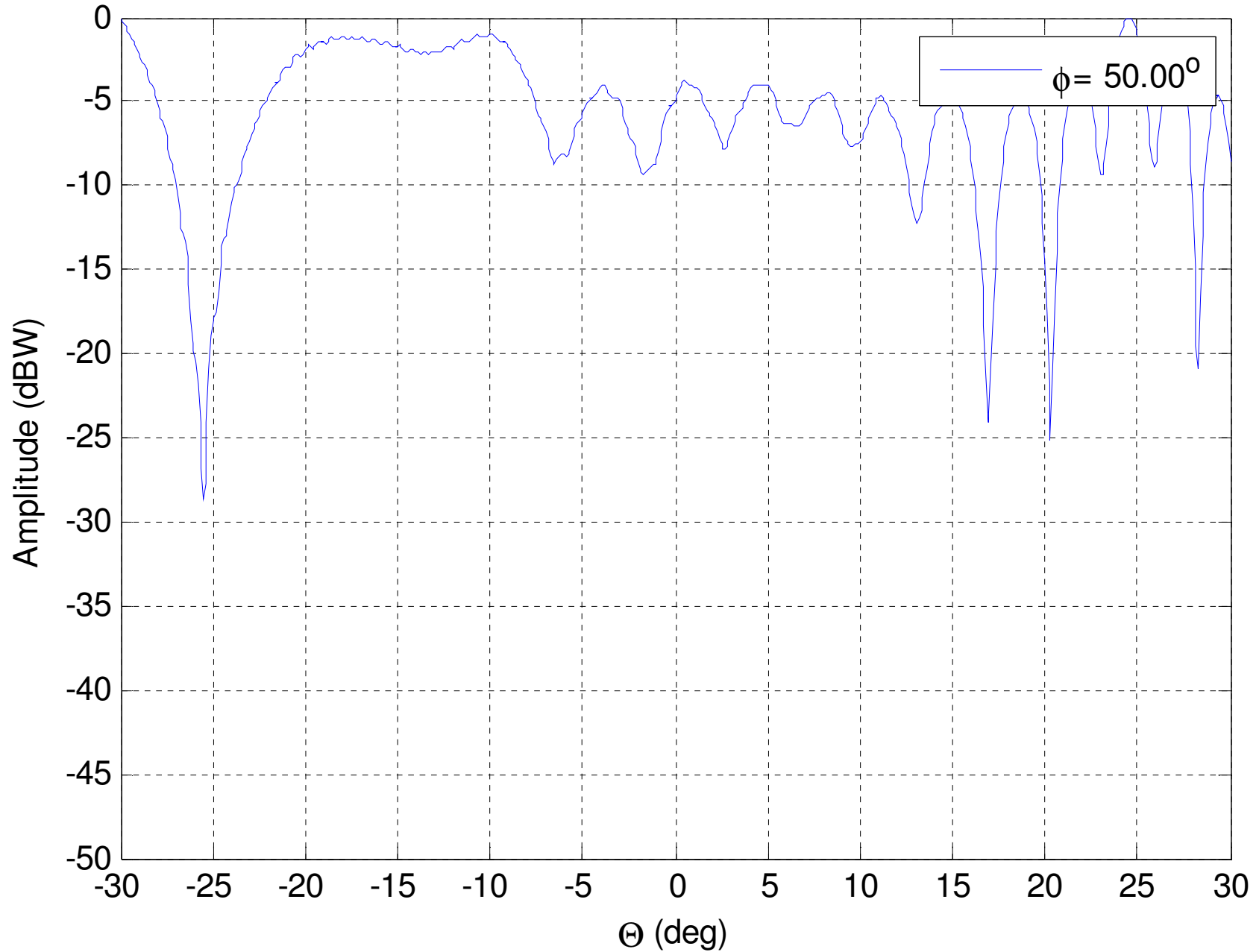
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-40.cut, Peak: 4.76 dBW, Date: 16-Dec-2011



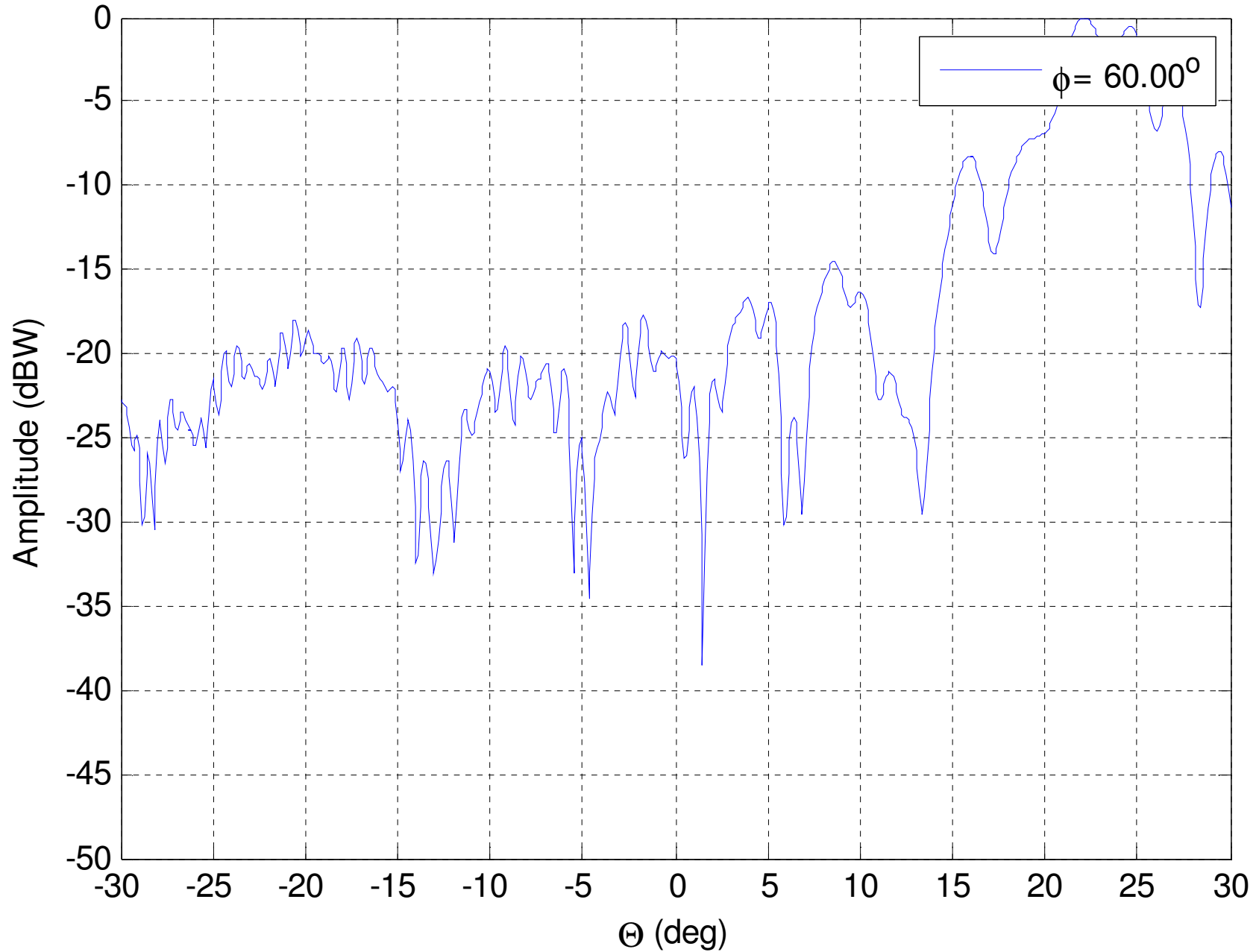
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-50.cut, Peak: 4.26 dBW, Date: 16-Dec-2011



Normalized pattern cuts - farfield

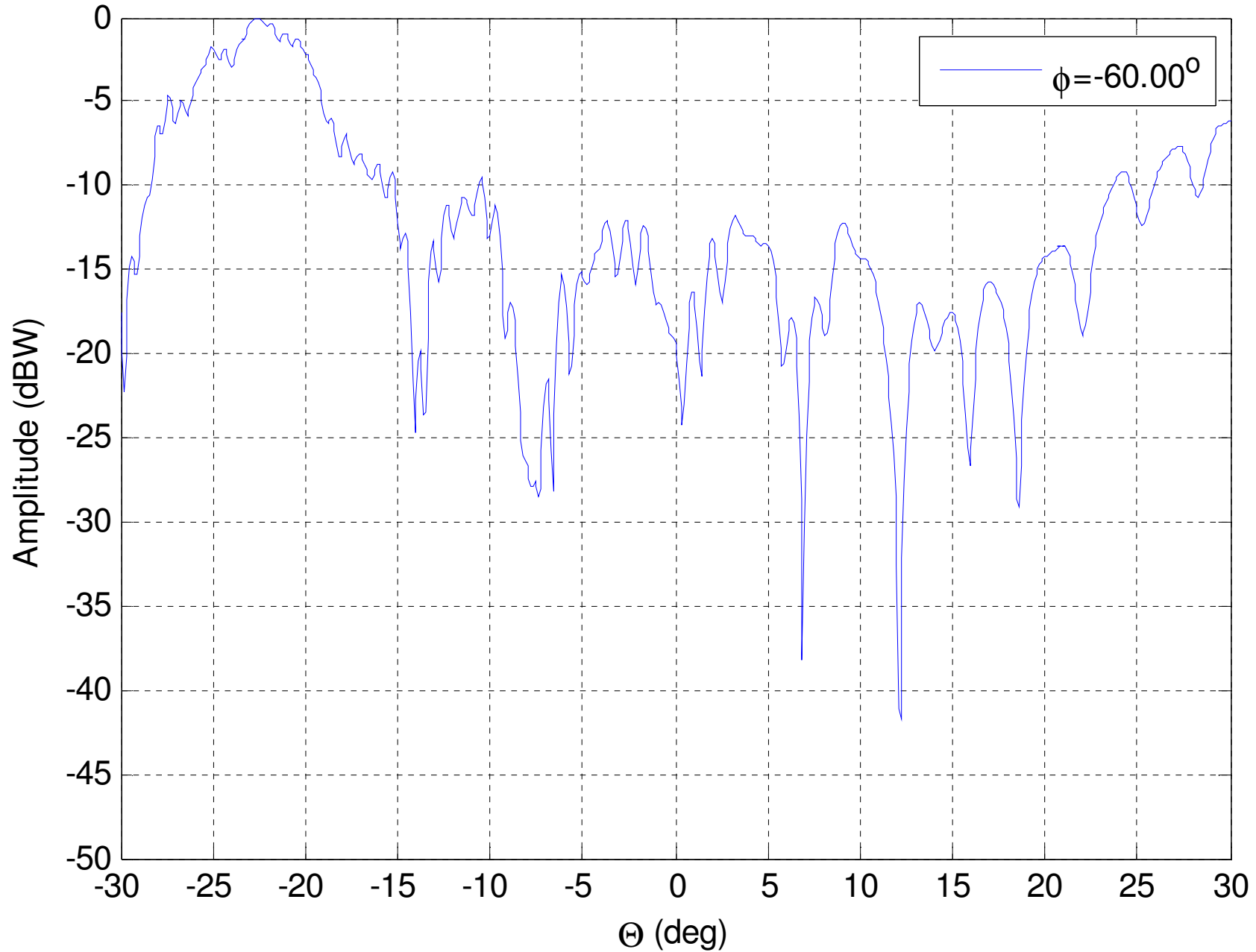
Input file: tx-17.7-rhcp-60.cut, Peak: 4.60 dBW, Date: 16-Dec-2011



LHCP at 17.7 GHz

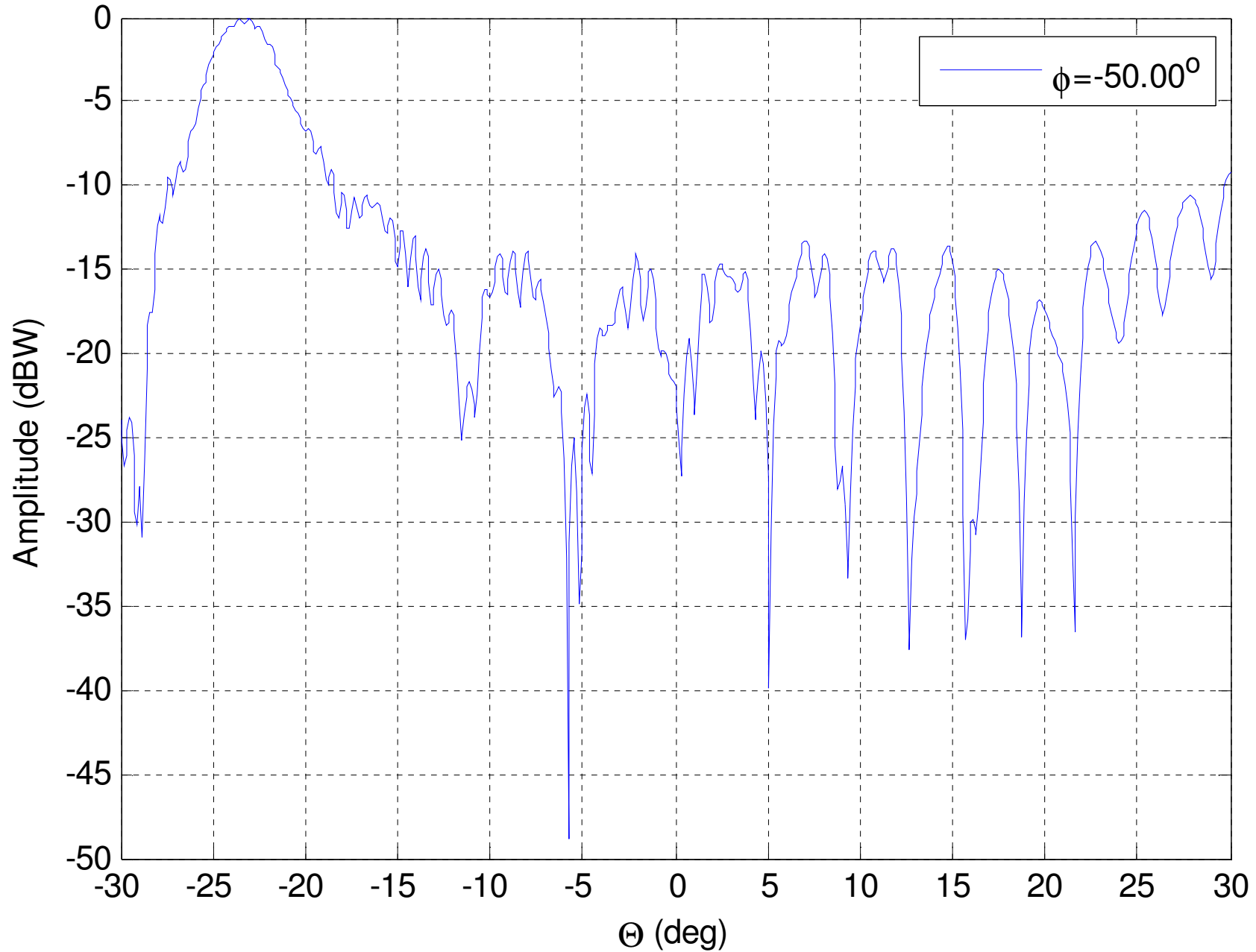
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--60.cut, Peak: -0.48 dBW, Date: 16-Dec-2011



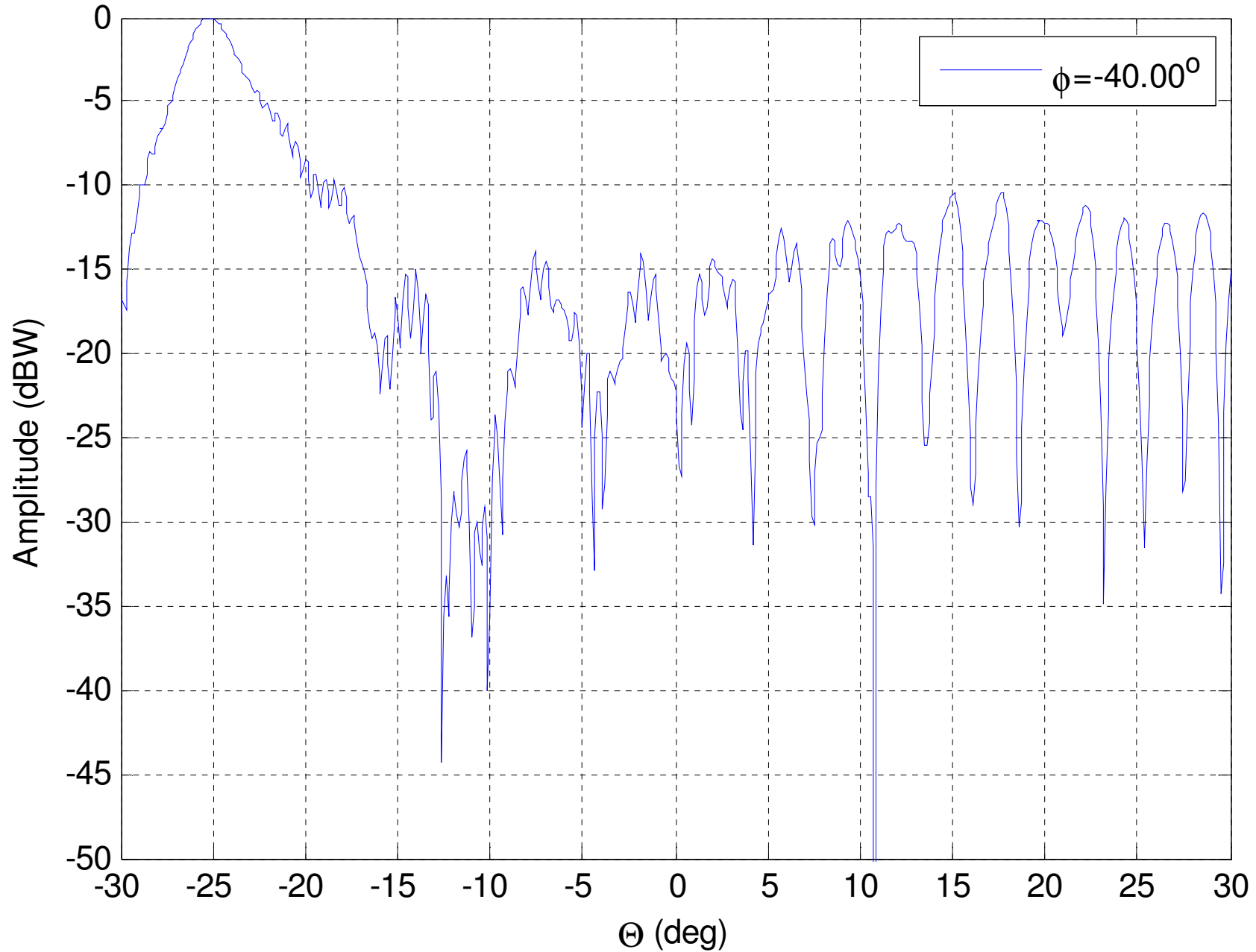
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--50.cut, Peak: 2.15 dBW, Date: 16-Dec-2011



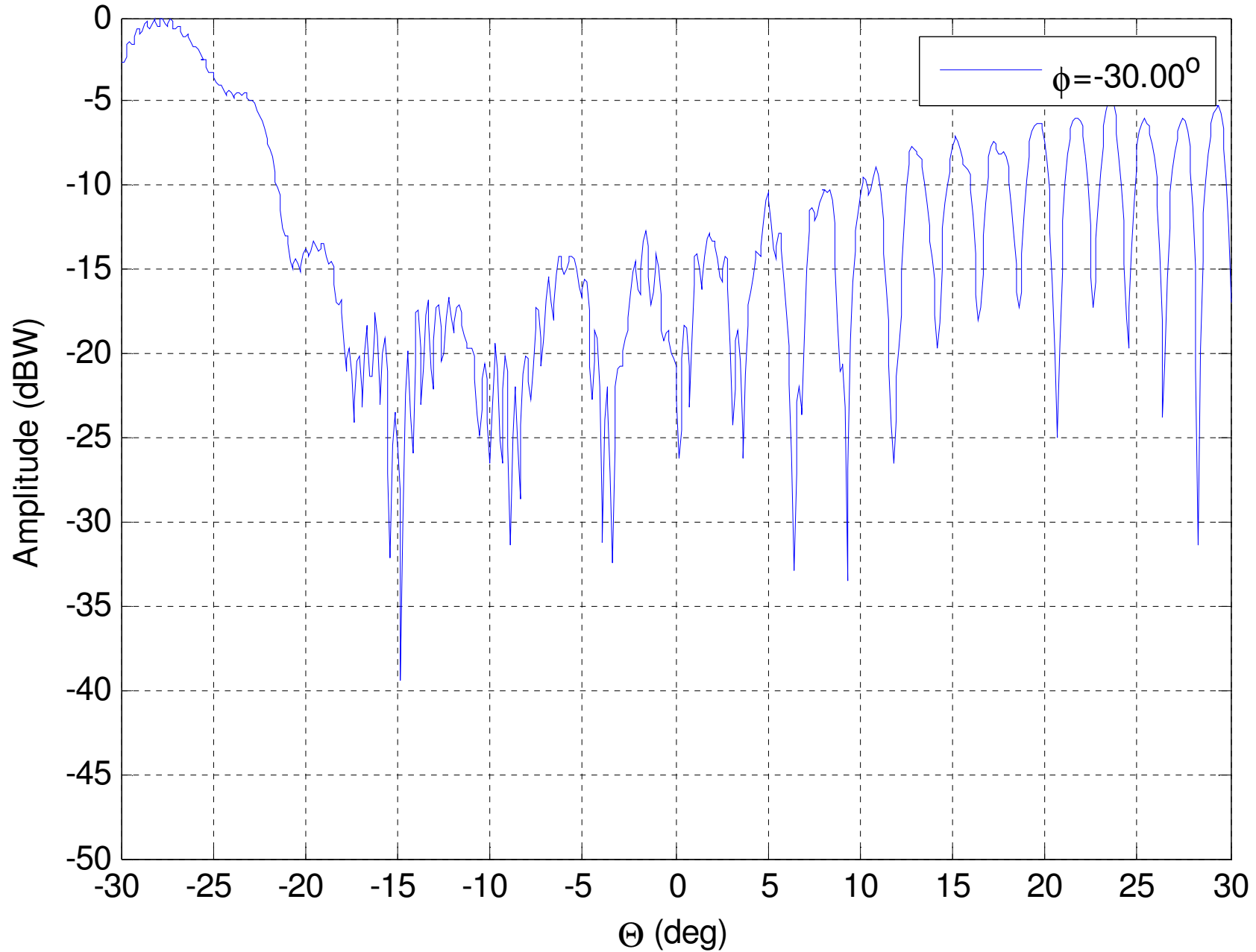
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--40.cut, Peak: 2.32 dBW, Date: 16-Dec-2011



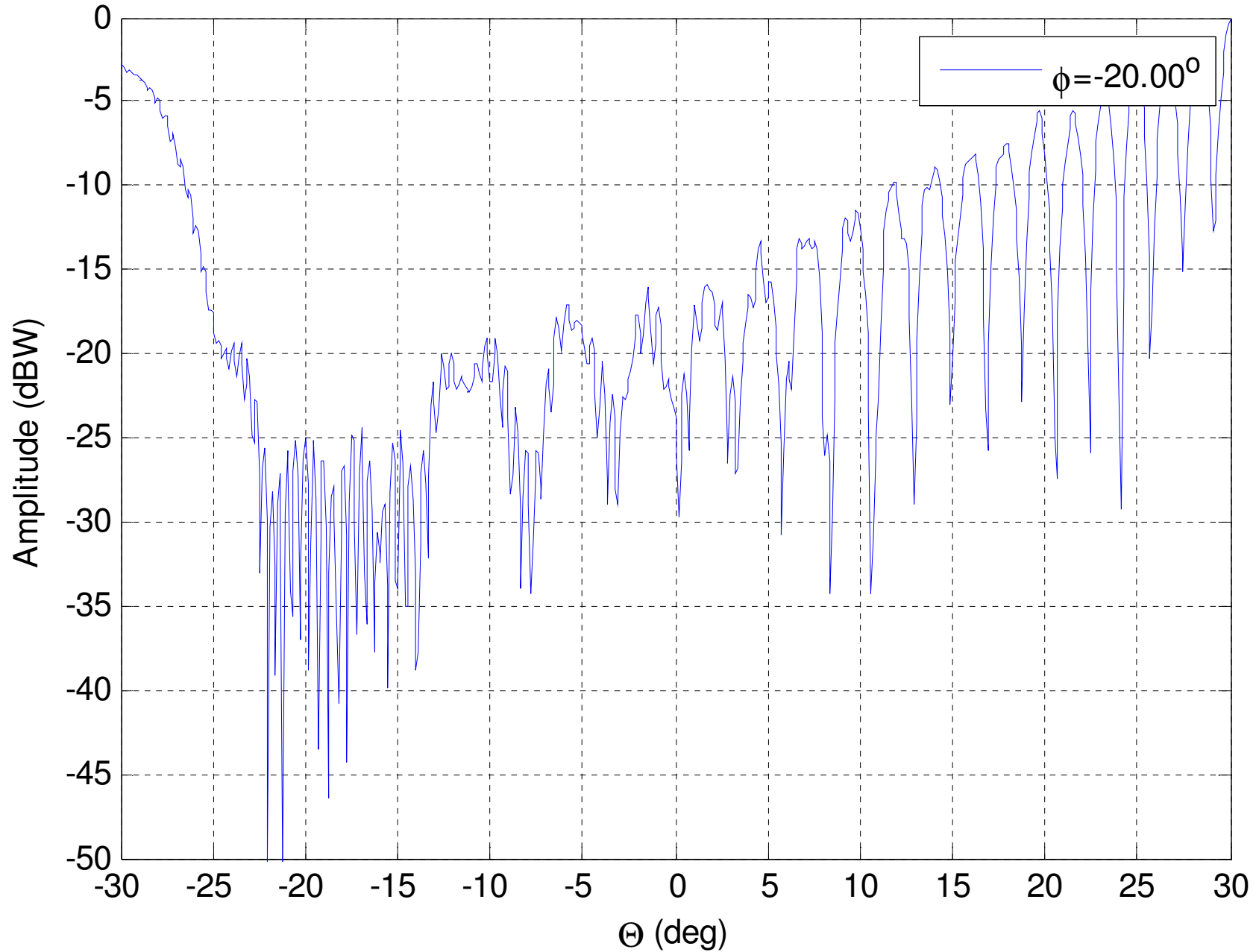
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--30.cut, Peak: 0.93 dBW, Date: 16-Dec-2011



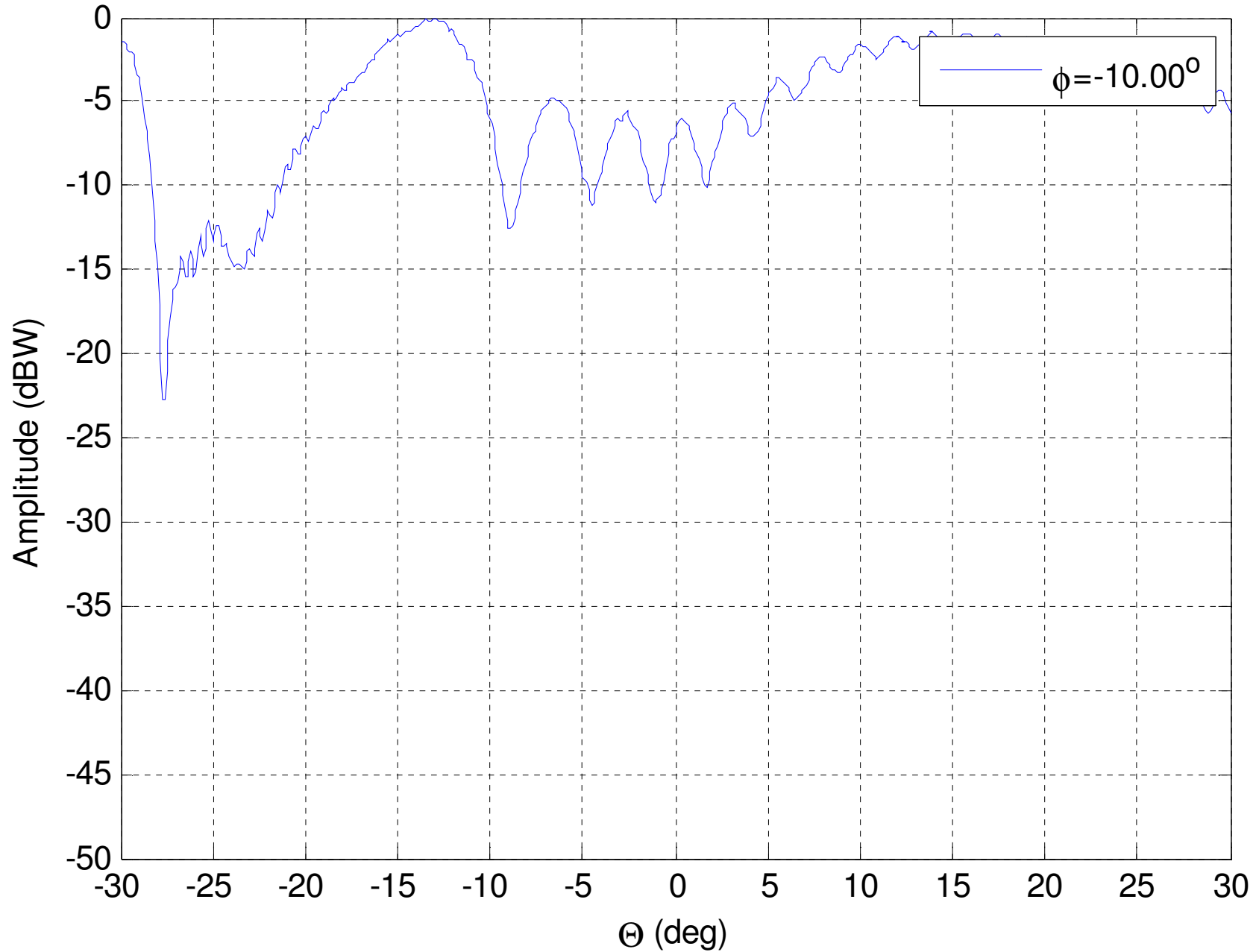
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--20.cut, Peak: 3.92 dBW, Date: 16-Dec-2011



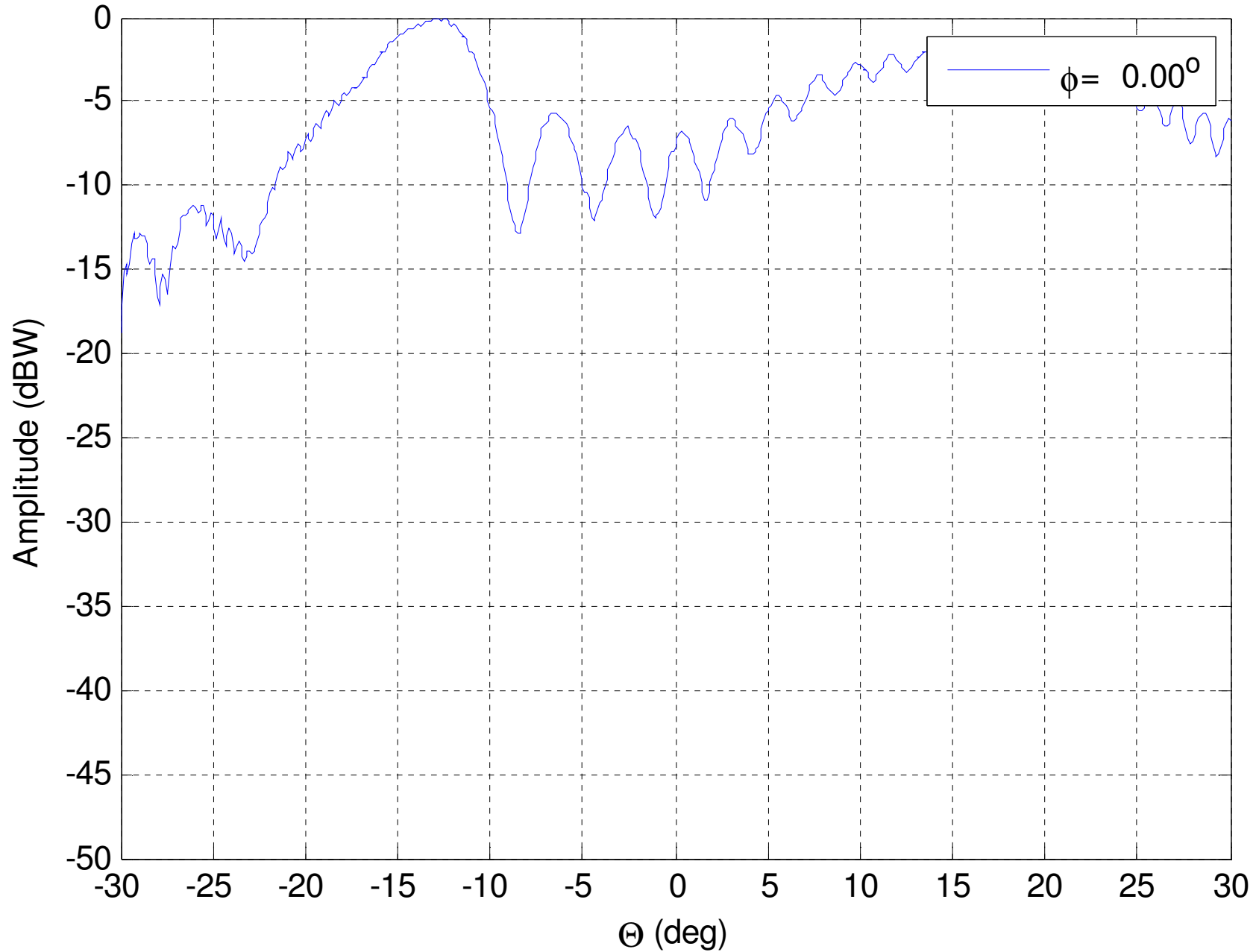
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--10.cut, Peak: 6.58 dBW, Date: 16-Dec-2011



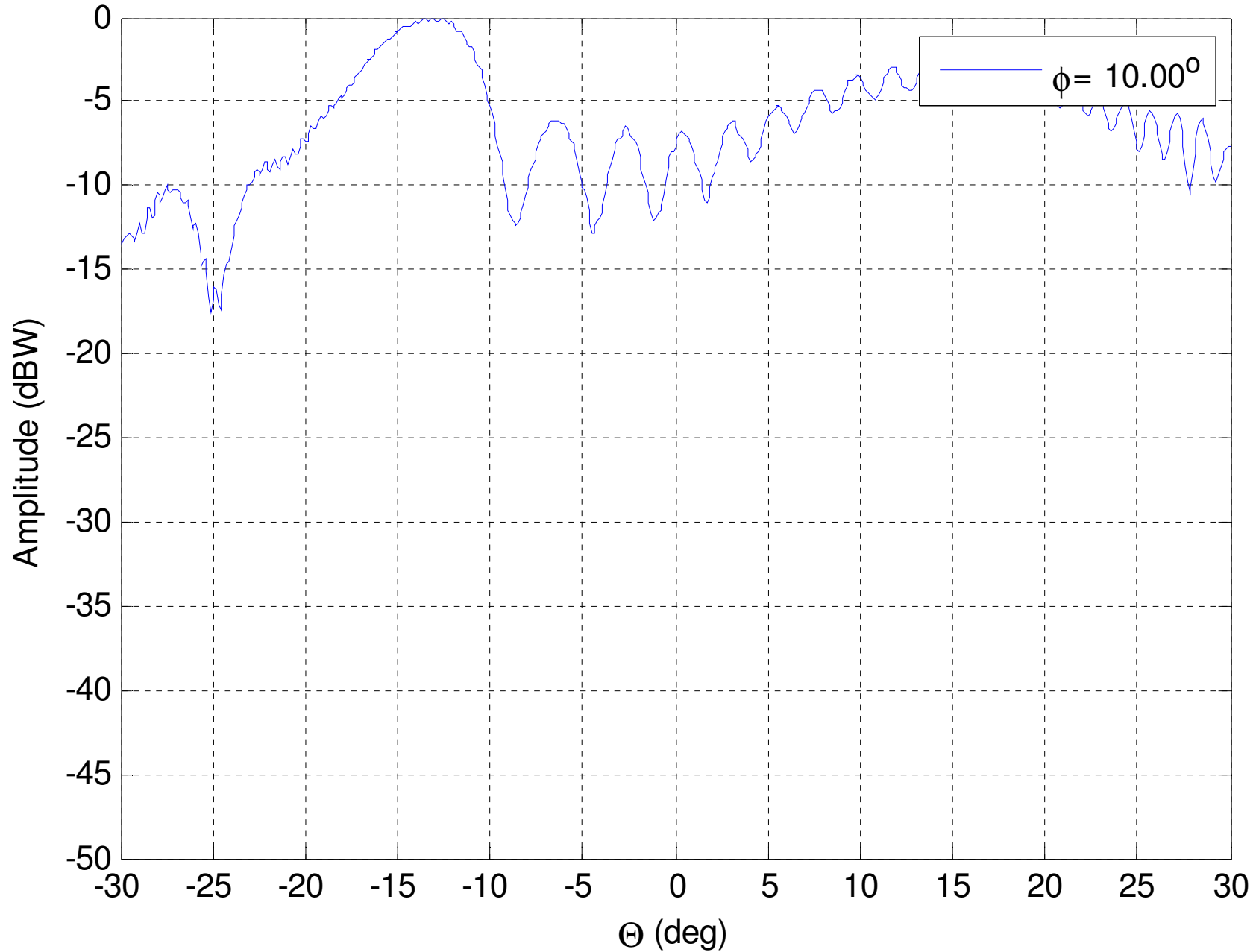
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-0.cut, Peak: 7.33 dBW, Date: 16-Dec-2011



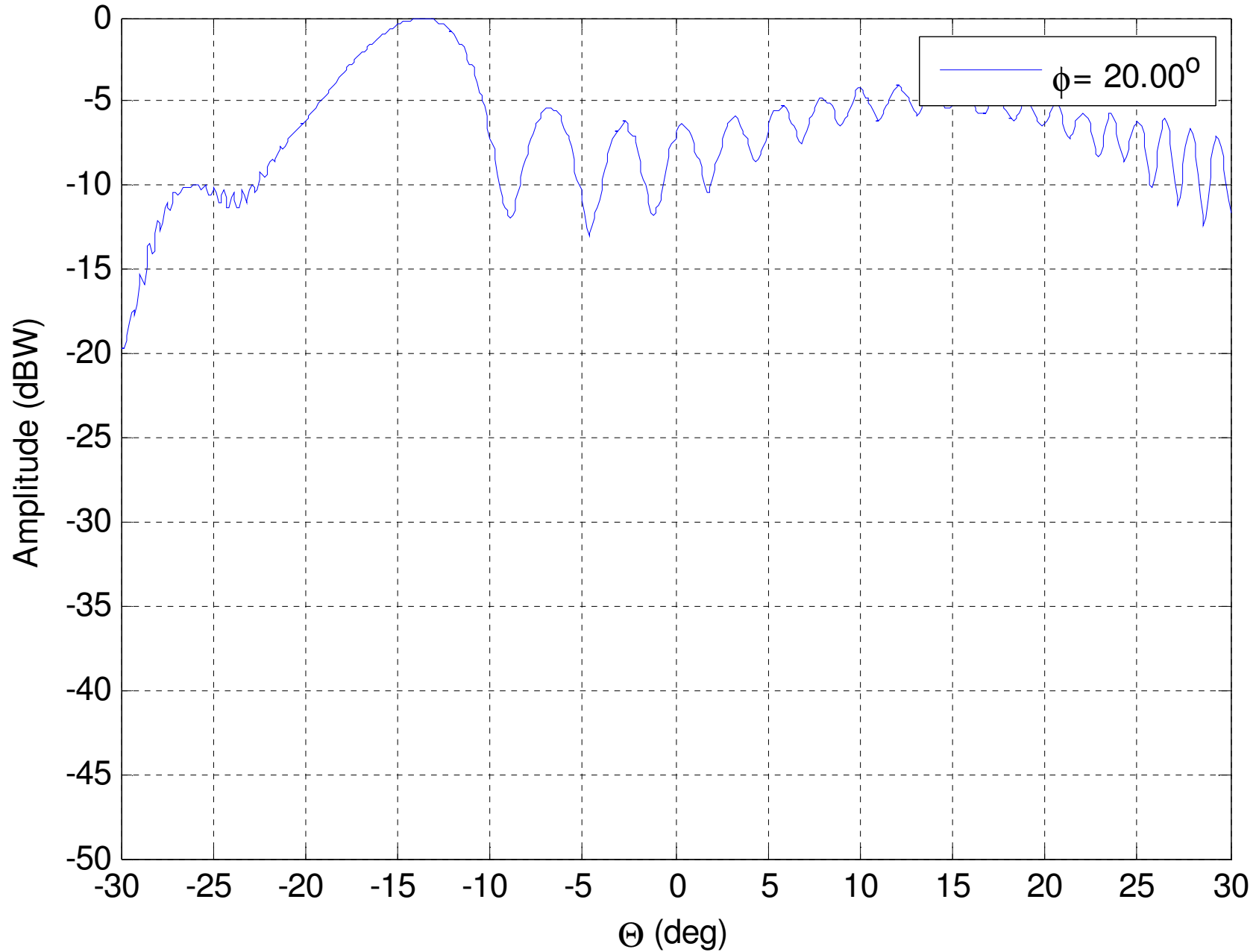
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-10.cut, Peak: 7.34 dBW, Date: 16-Dec-2011



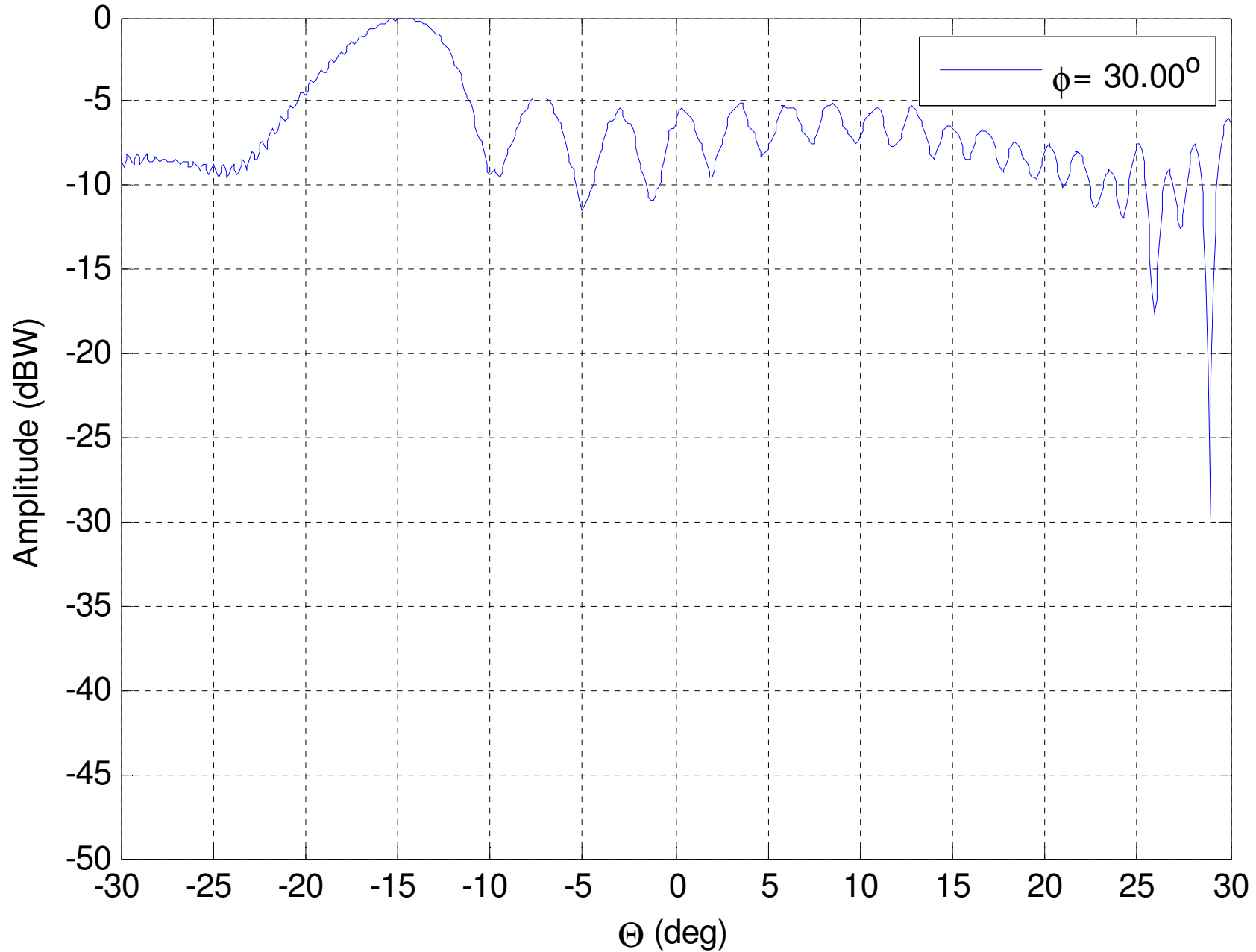
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-20.cut, Peak: 6.87 dBW, Date: 16-Dec-2011



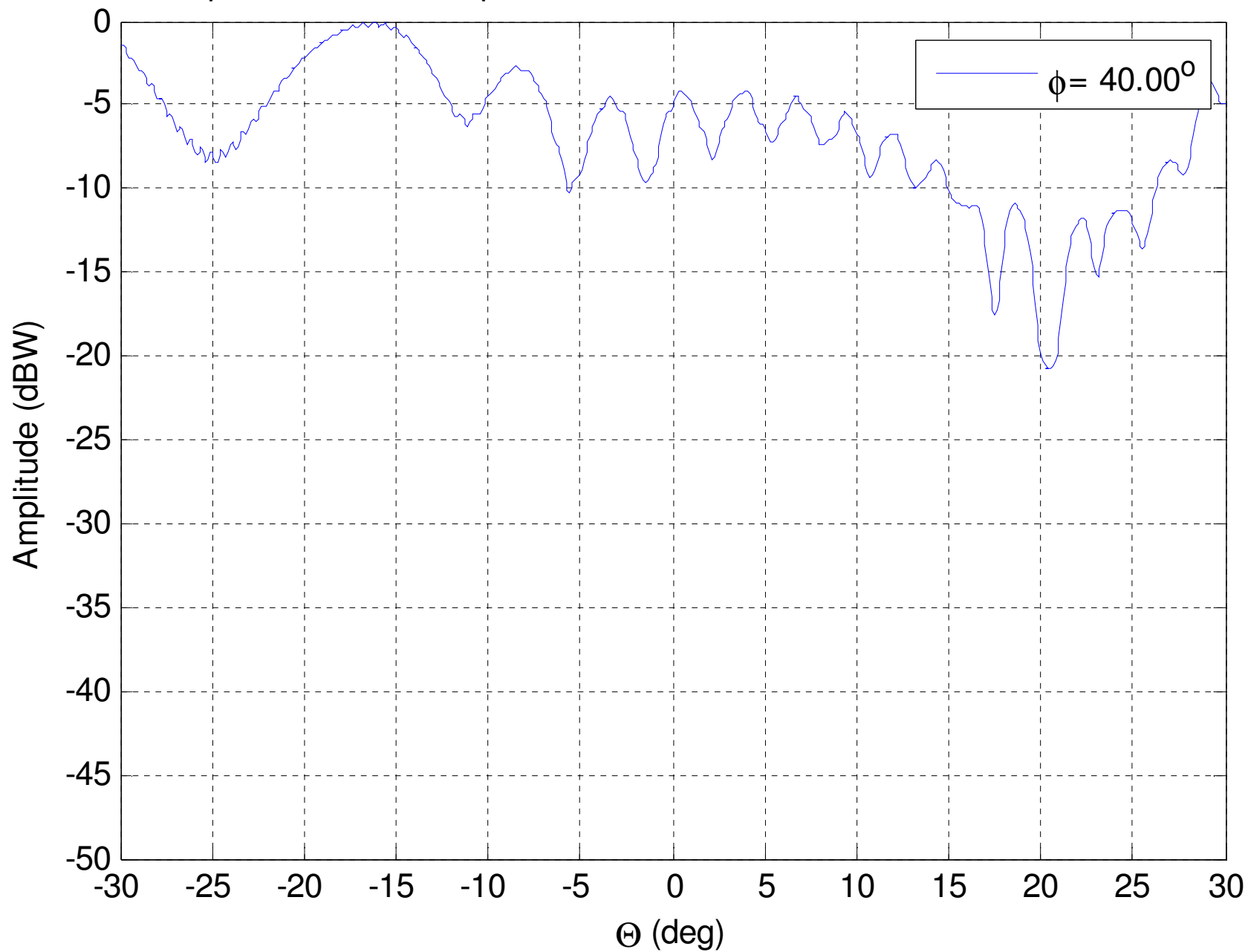
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-30.cut, Peak: 5.98 dBW, Date: 16-Dec-2011



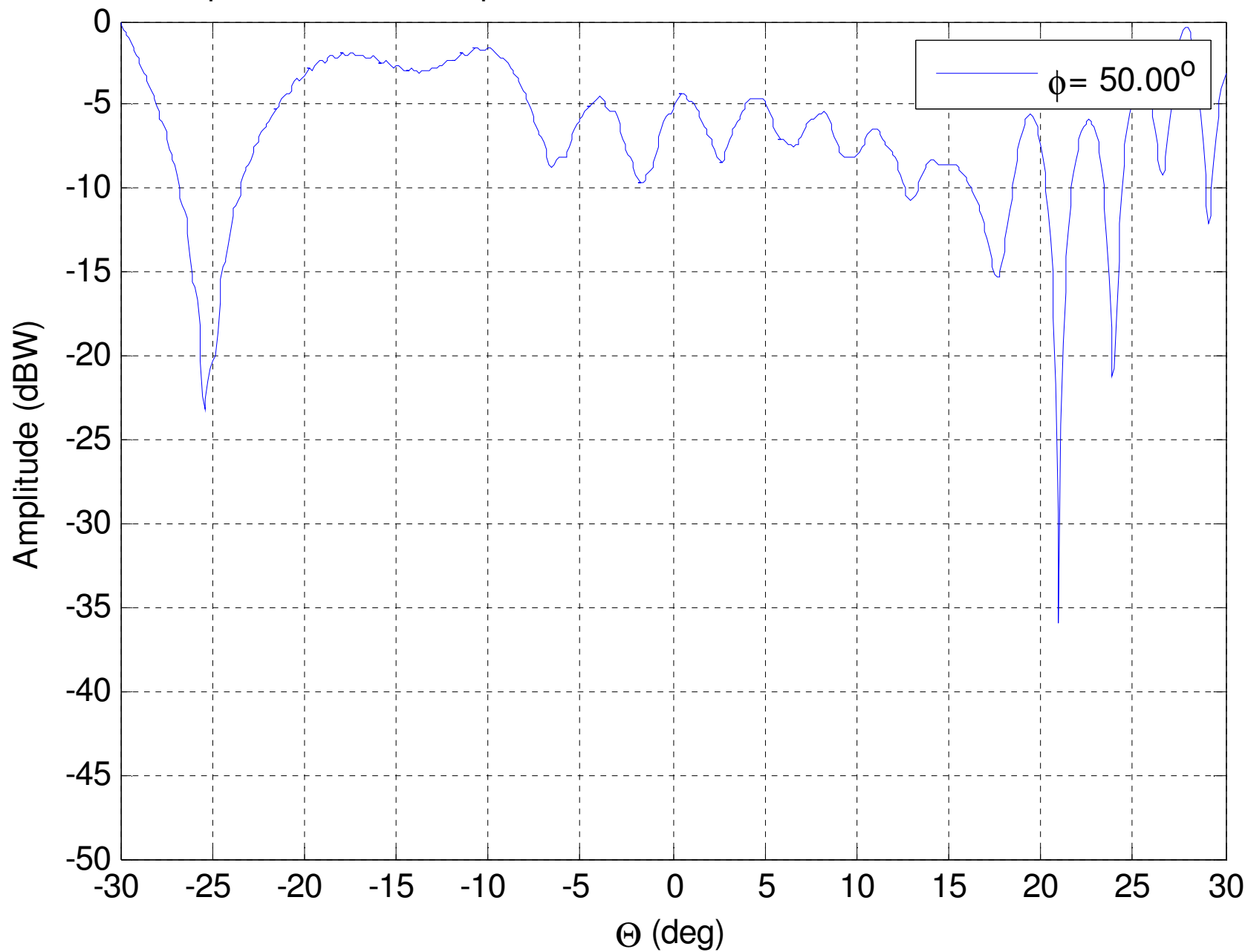
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-40.cut, Peak: 4.78 dBW, Date: 16-Dec-2011



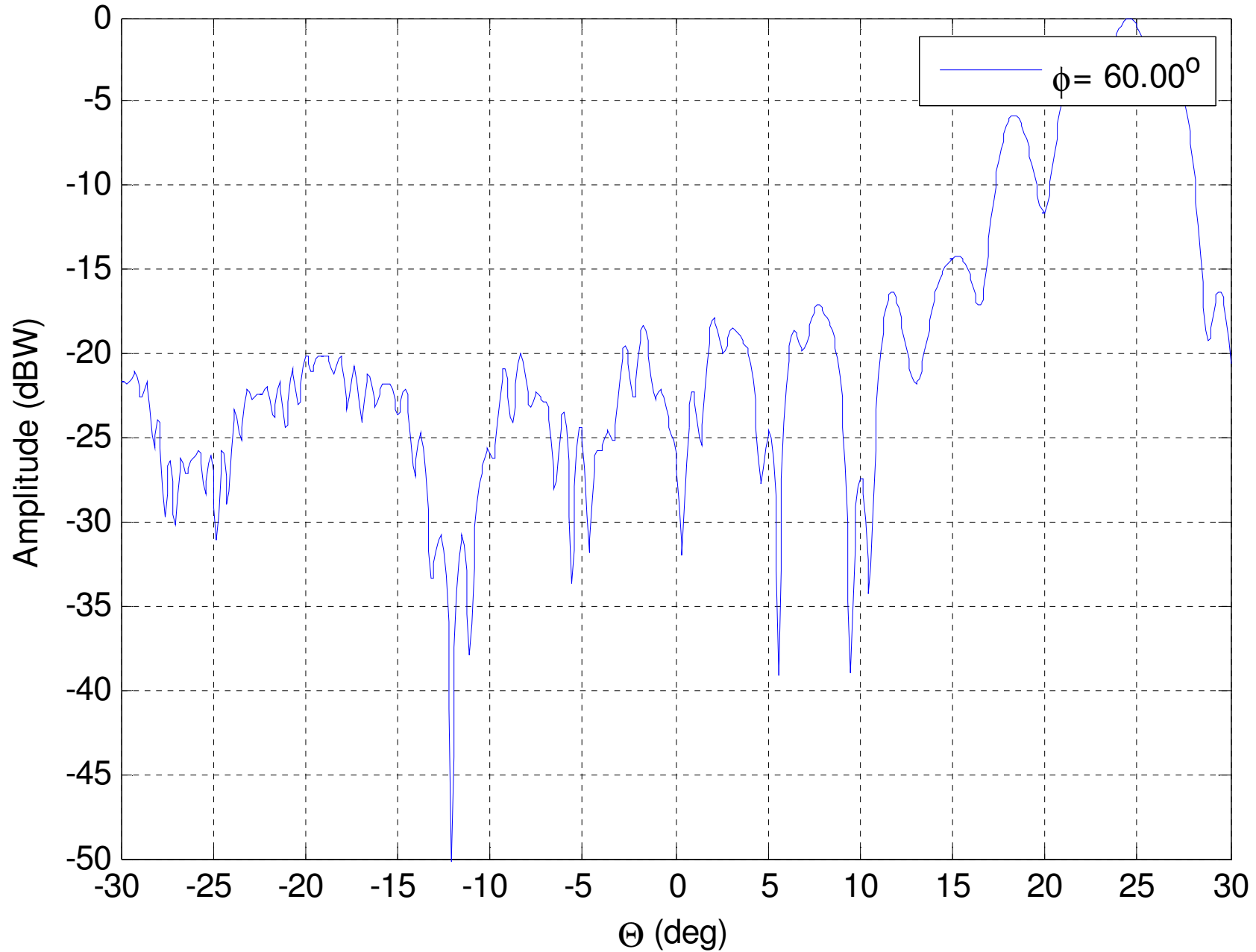
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-50.cut, Peak: 4.95 dBW, Date: 16-Dec-2011



Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-60.cut, Peak: 5.97 dBW, Date: 16-Dec-2011



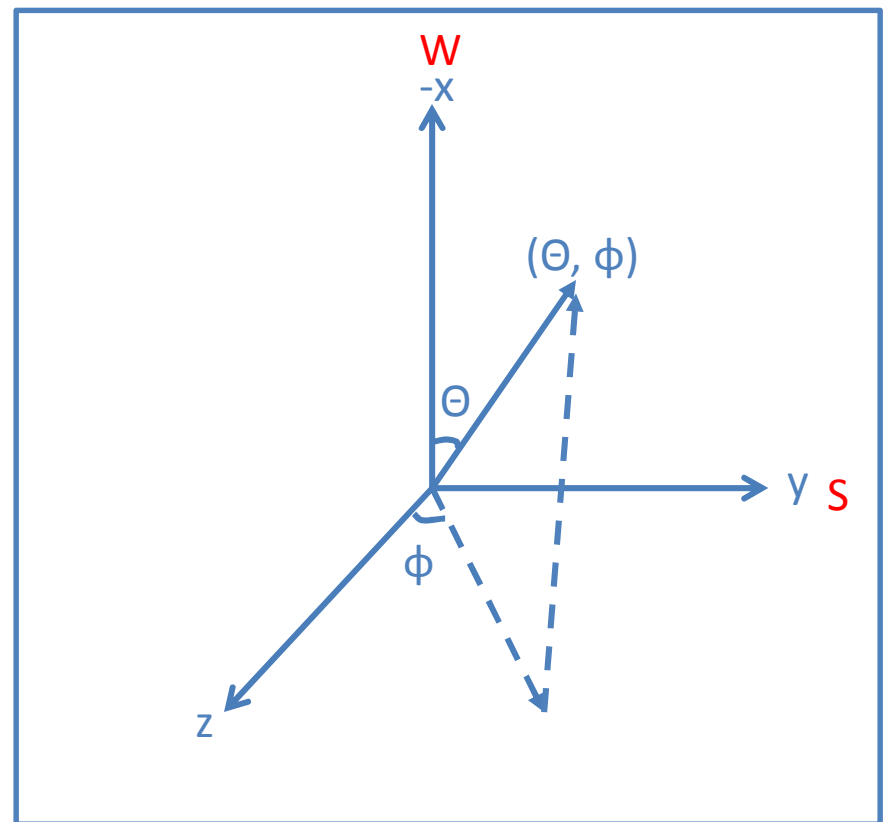
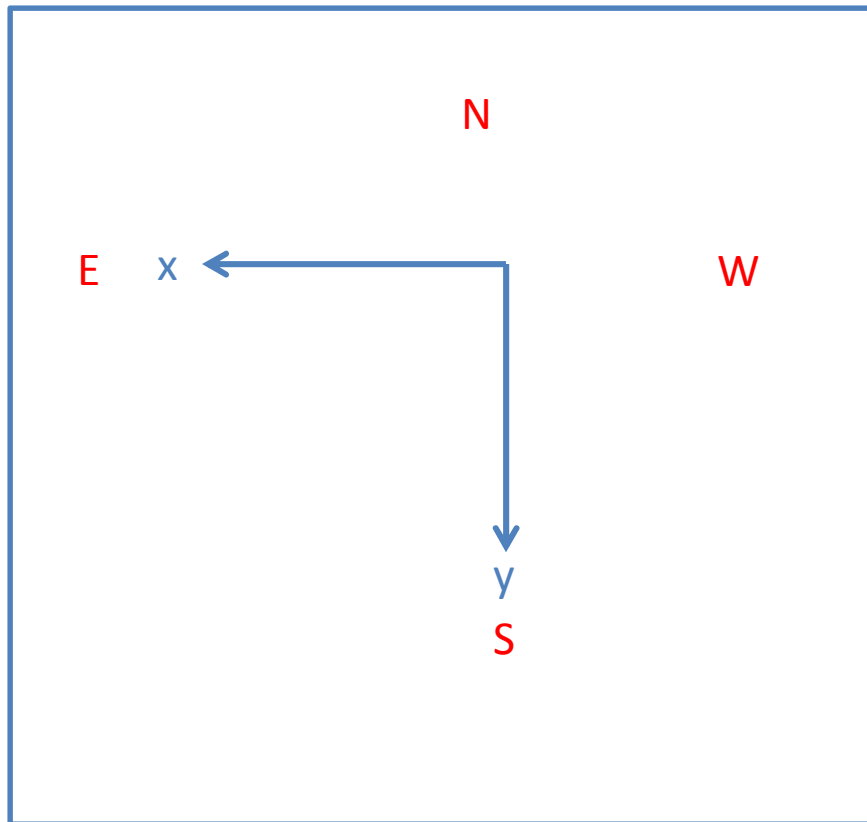
December 13, 2011

119 West Adjacent Satellite Off Axis Antenna Performance Spot Beam 52 cf: 7.0 dBW

Maximum Allowable EIRP to meet the -117dBW/m²/100 kHz

Maximum EIRP Allowed	
Spec Max flux density, dBW/m ² /100kHz	-117
Desired channel band width, MHz	25.8
Symbol rate band width modification factor	1
Effective channel bandwidth, MHz	25.8
Effective bandwidth, dB-100kHz	24.1
Flux density allowed per channel, dBW/m ²	-92.9
R, radial distance to GEO, km	42164.0
Angle of separation between satellites, deg	0.1
range between satellites, km	73.59
Spreading factor, dB/m ²	-108.3
Atmospheric loss, dB	0
Max satellite EIRP allowed, dBW	15.4

Coordinate System



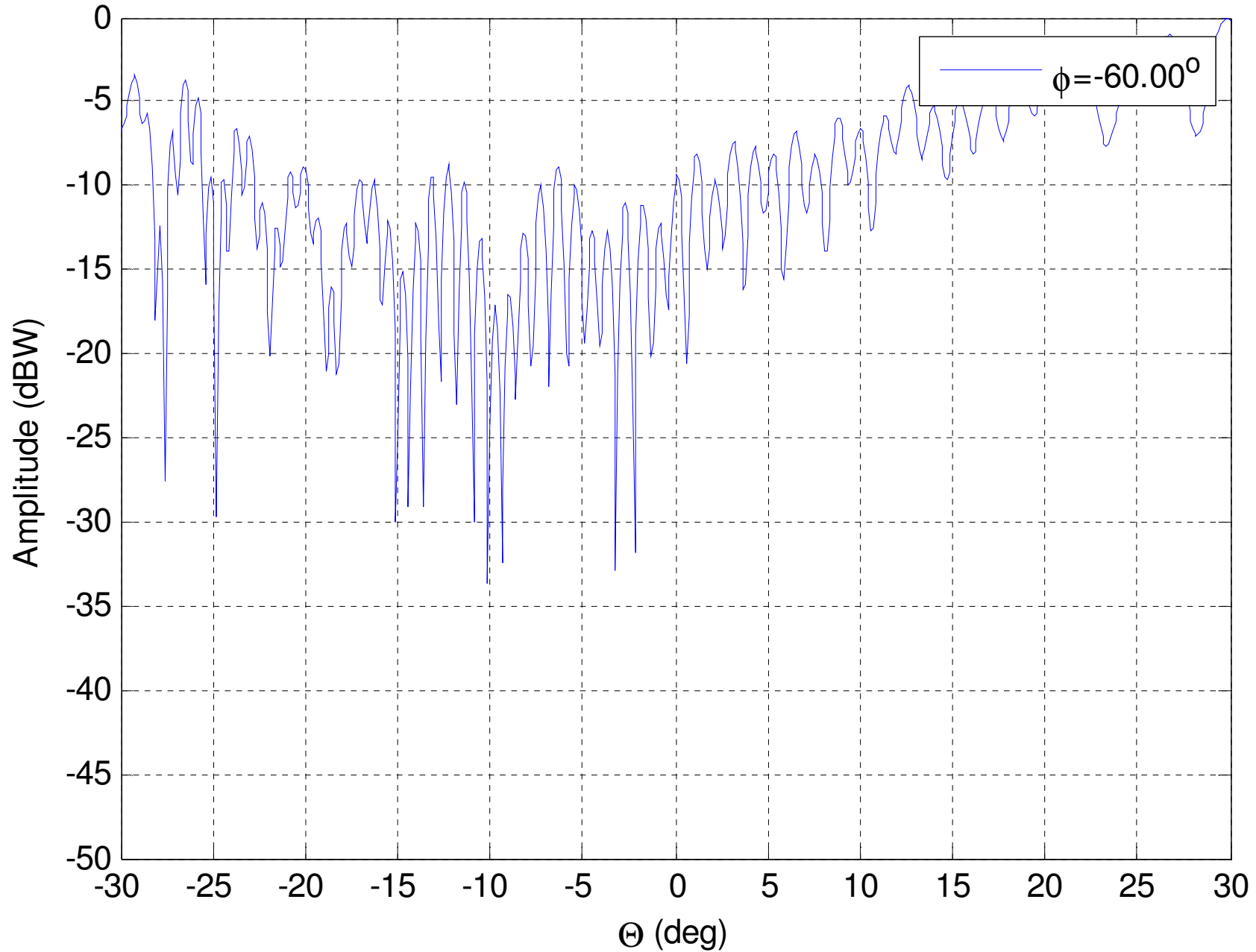
Spot Beam52, -X Axis Plots

- Both polarizations; RHCP, LHCP
- $-30 < \Theta < 30$ ($\Theta=0$: -X -axis)
- $-60 < \phi < 60$
- Freq = 17.3, 17.5, and 17.7 GHz
- The Zero reference line is the peak gain listed in the title of each chart
- All levels are significantly below the required 15.4 dBW EIRP shown on chart 2

RHCP at 17.3 GHz

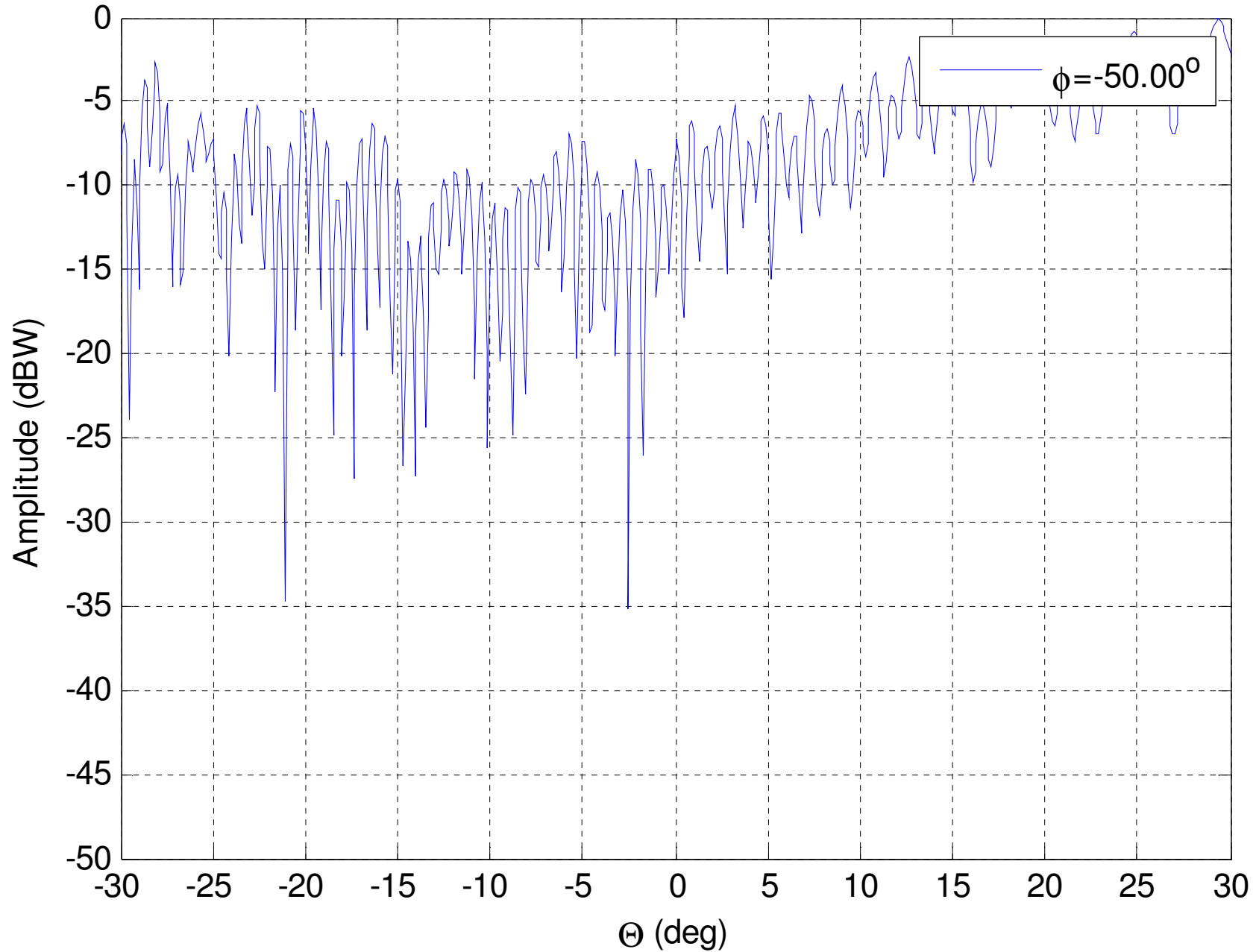
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--60.cut, Peak: 0.56 dBW, Date: 16-Dec-2011



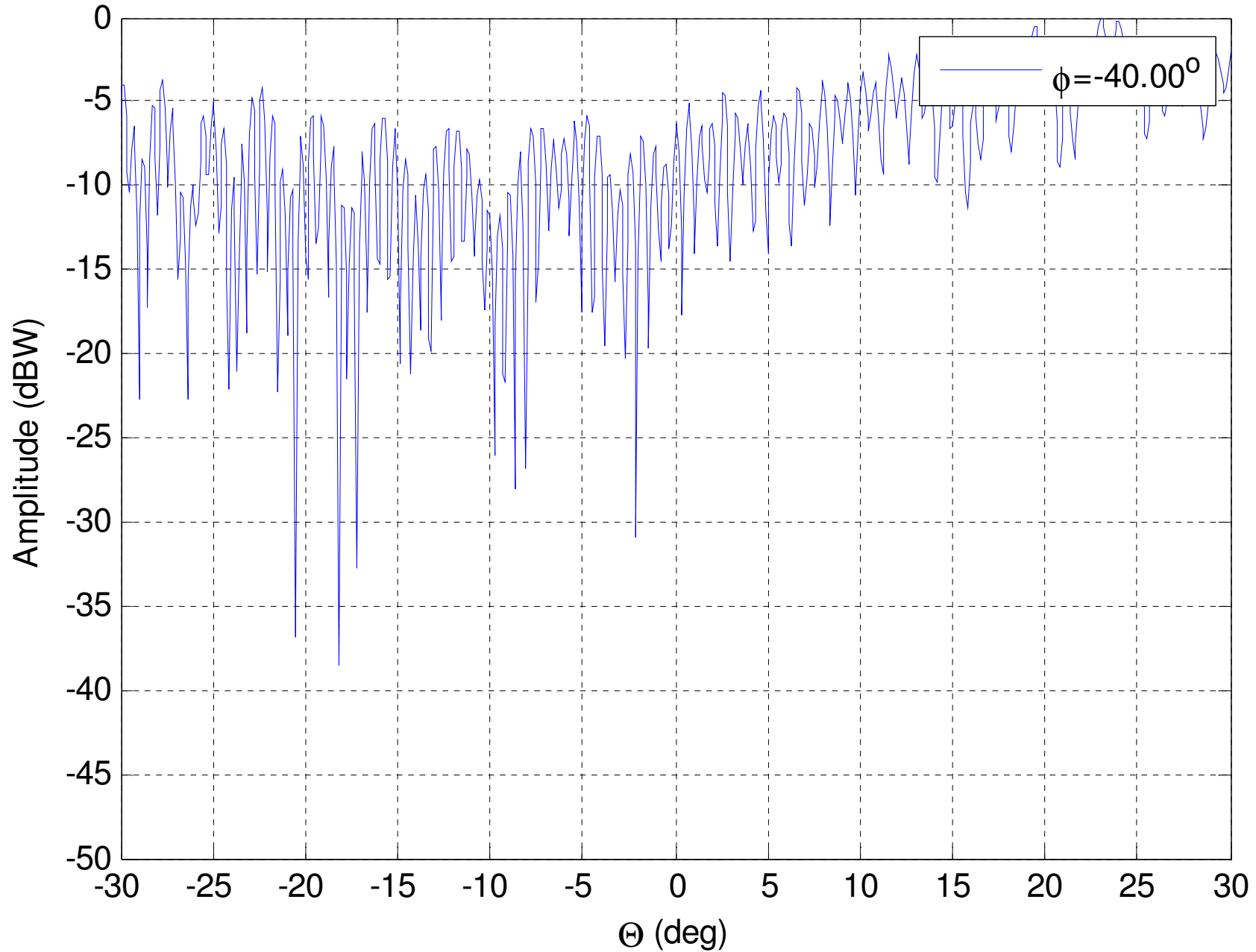
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--50.cut, Peak: -1.50 dBW, Date: 16-Dec-2011



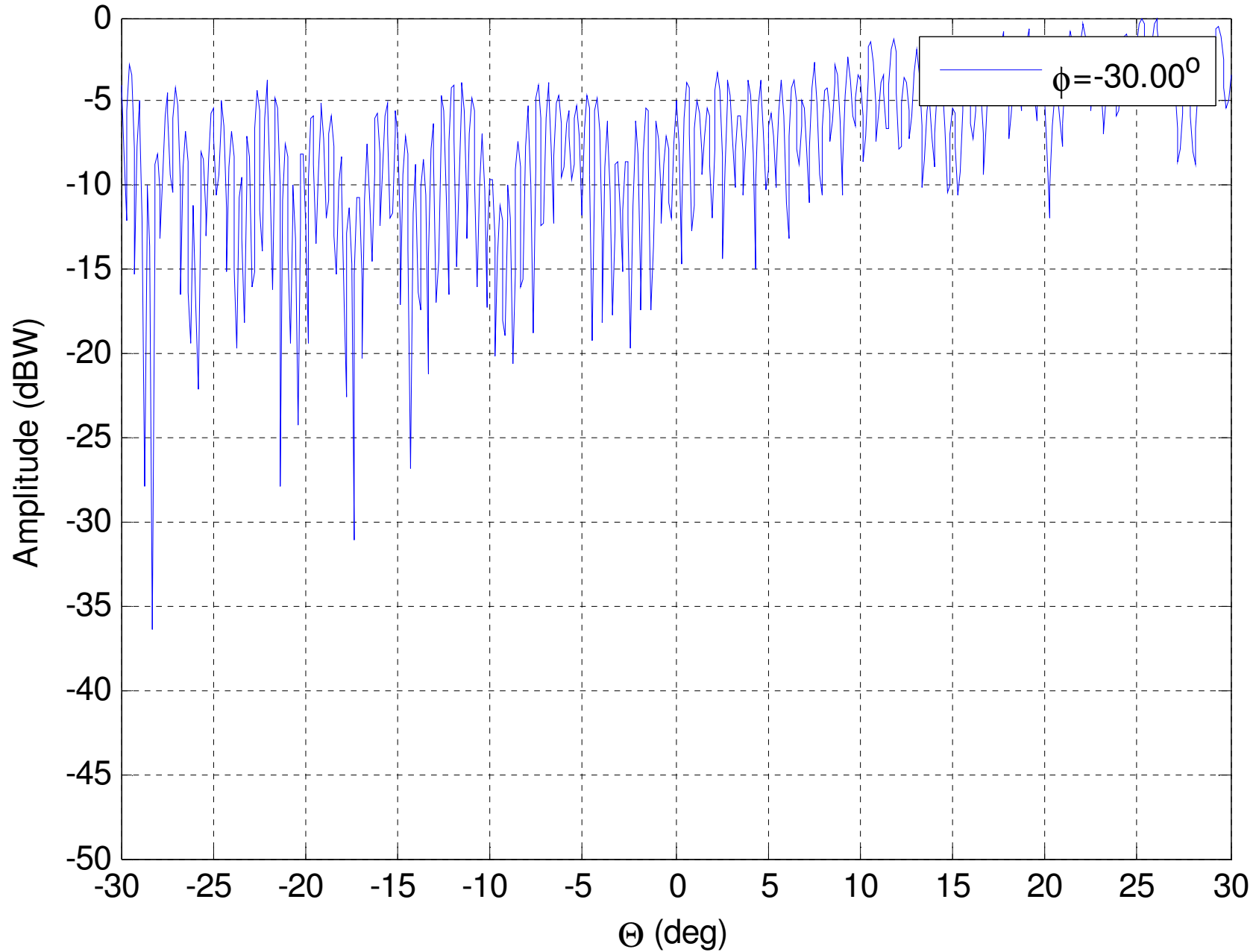
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--40.cut, Peak: -2.63 dBW, Date: 16-Dec-2011



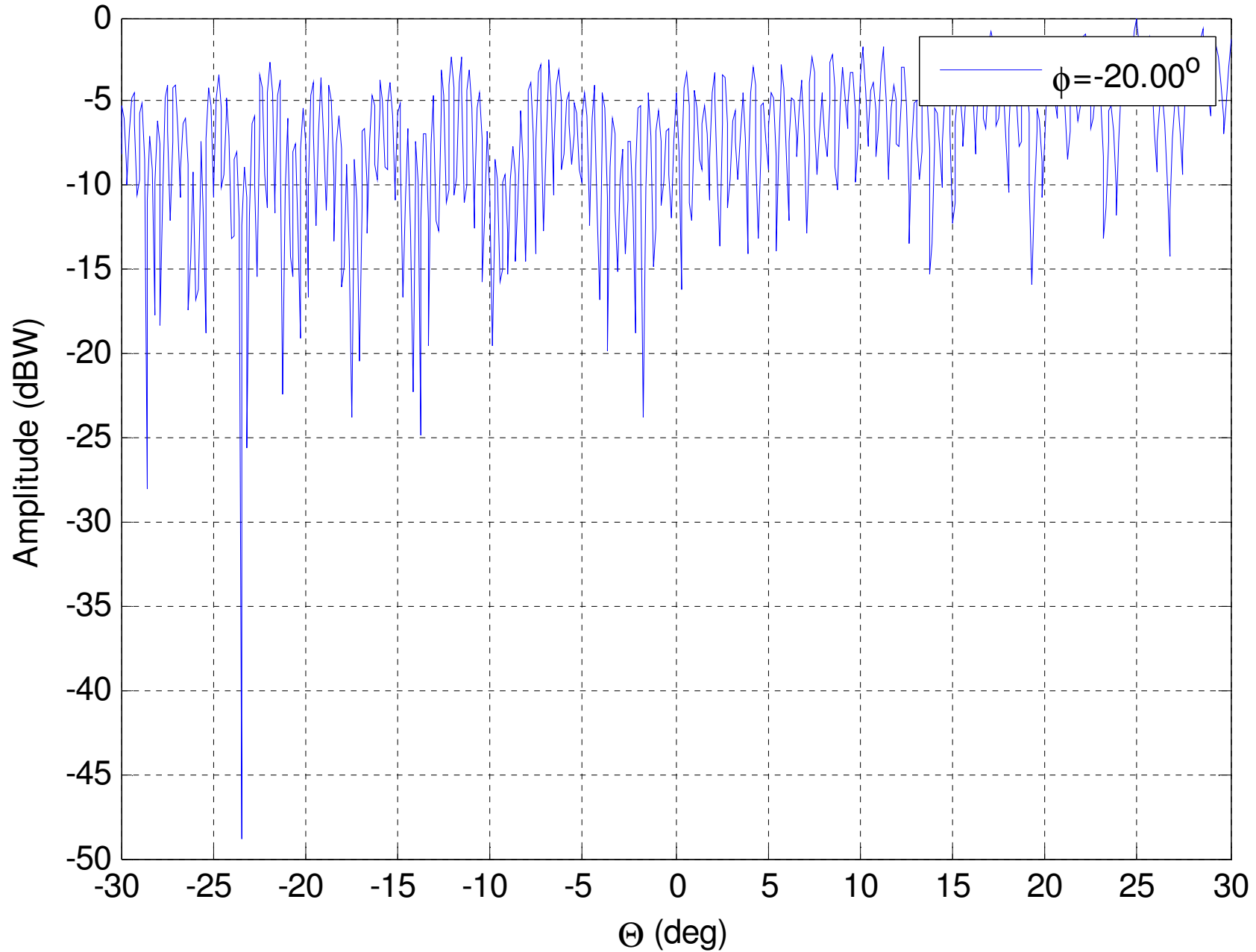
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--30.cut, Peak: -4.10 dBW, Date: 16-Dec-2011



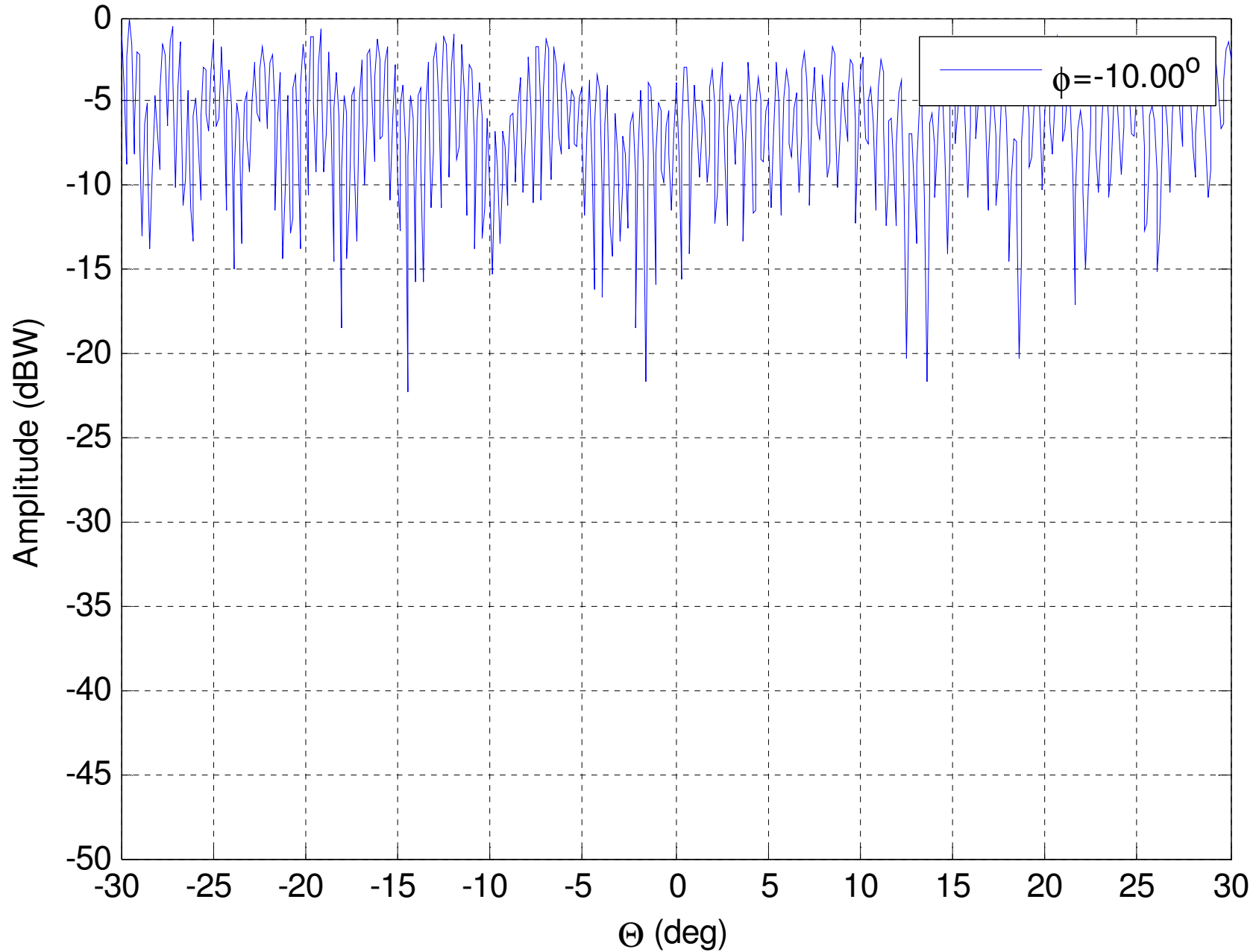
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--20.cut, Peak: -4.65 dBW, Date: 16-Dec-2011



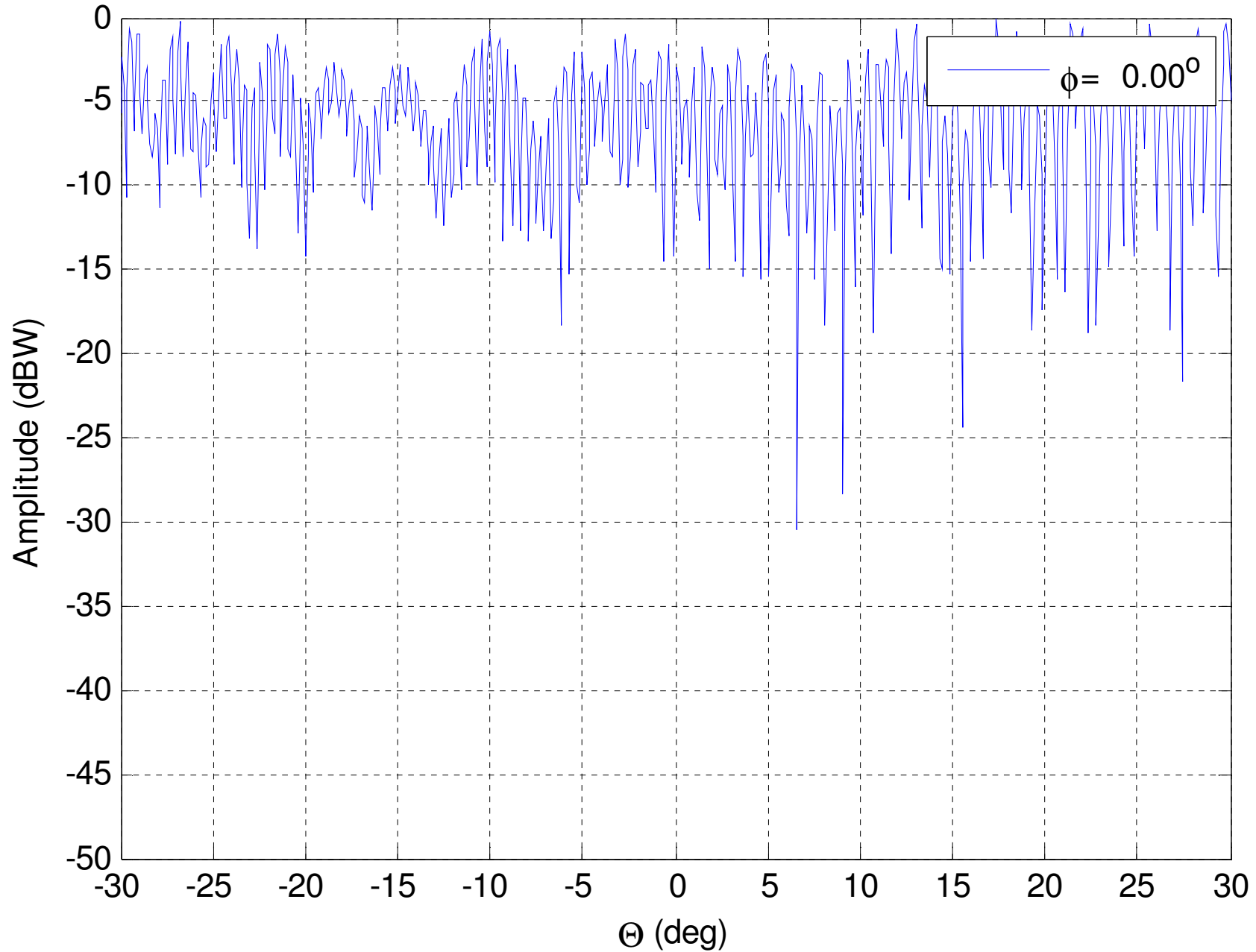
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--10.cut, Peak: -5.30 dBW, Date: 16-Dec-2011



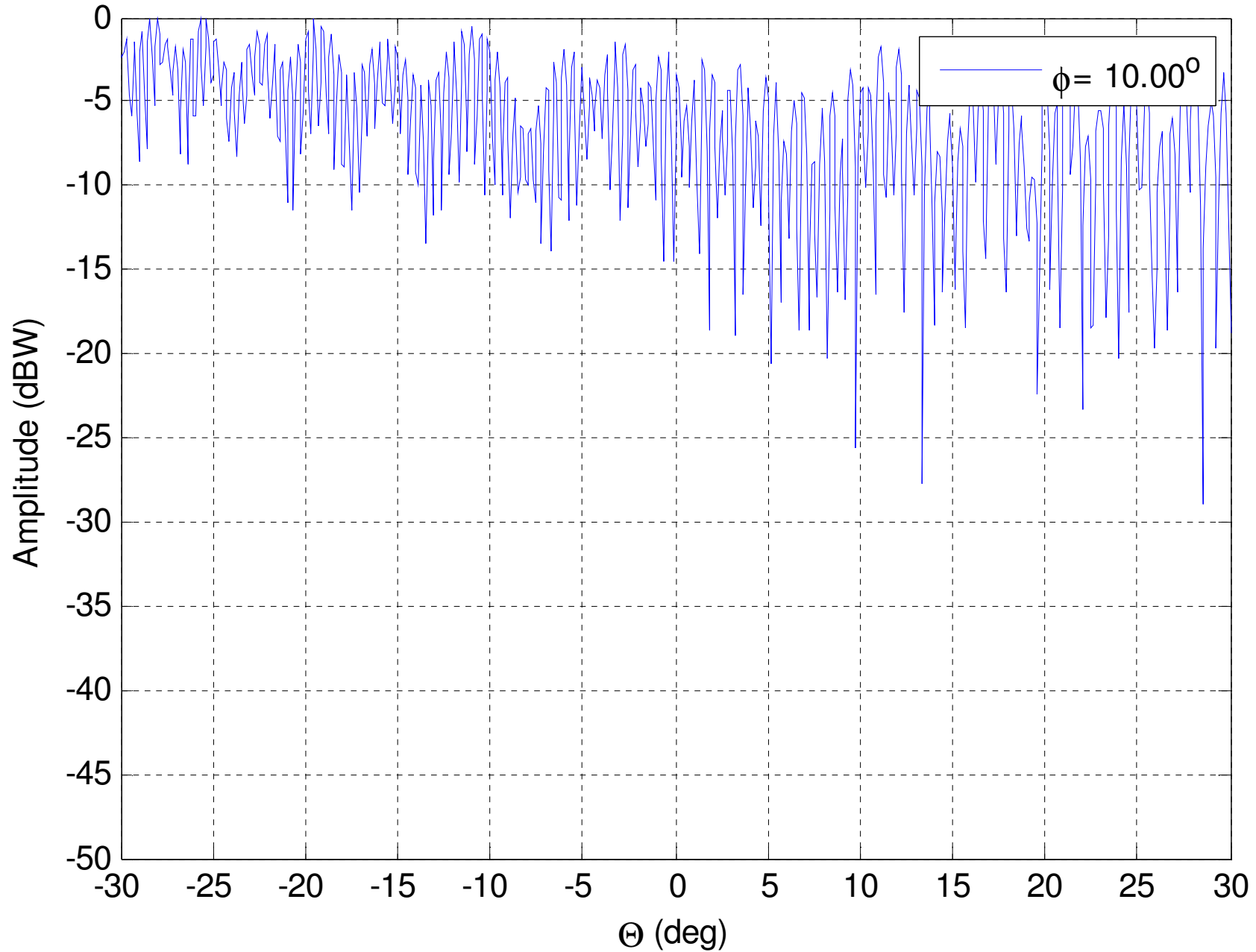
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-0.cut, Peak: -5.71 dBW, Date: 16-Dec-2011



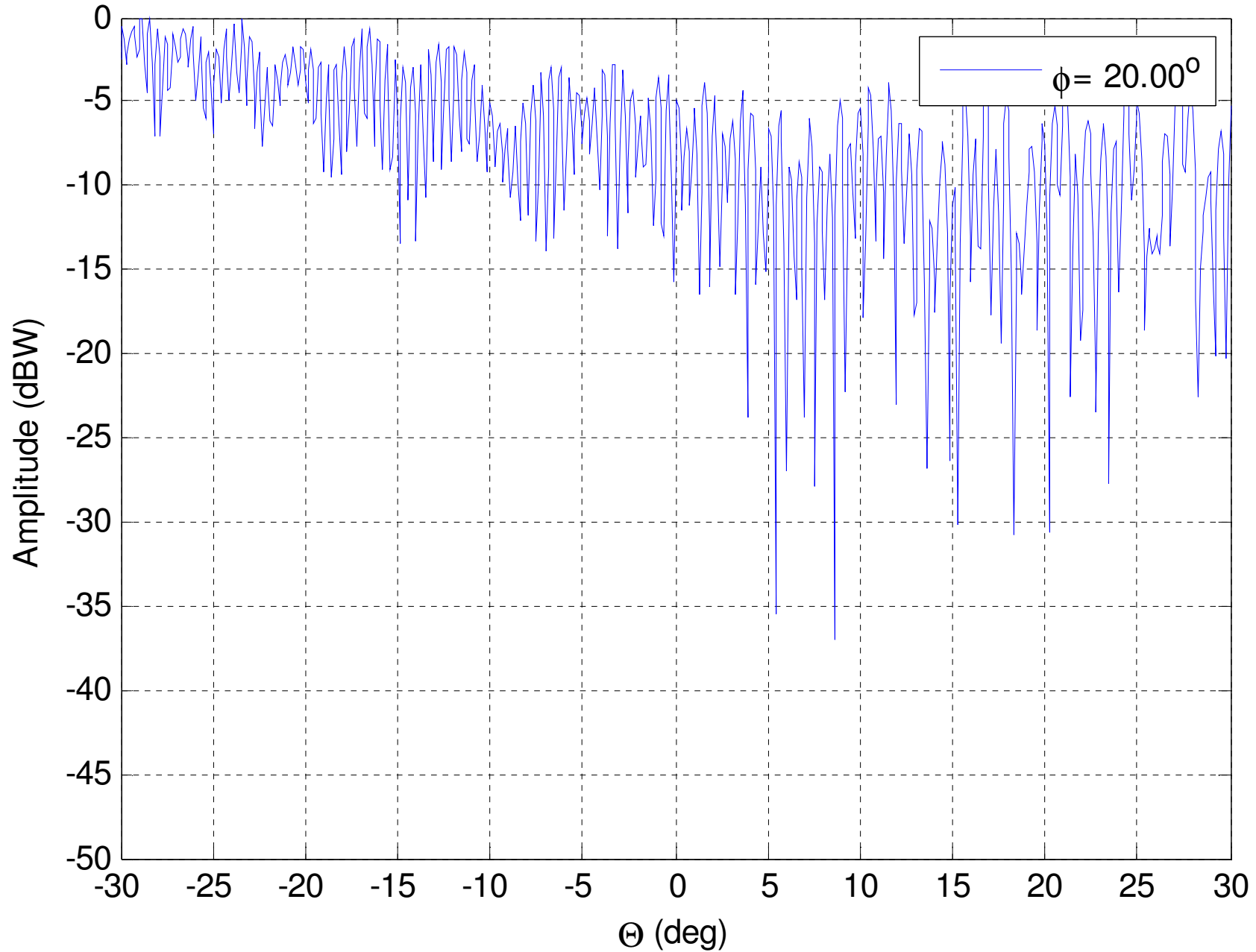
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-10.cut, Peak: -5.22 dBW, Date: 16-Dec-2011



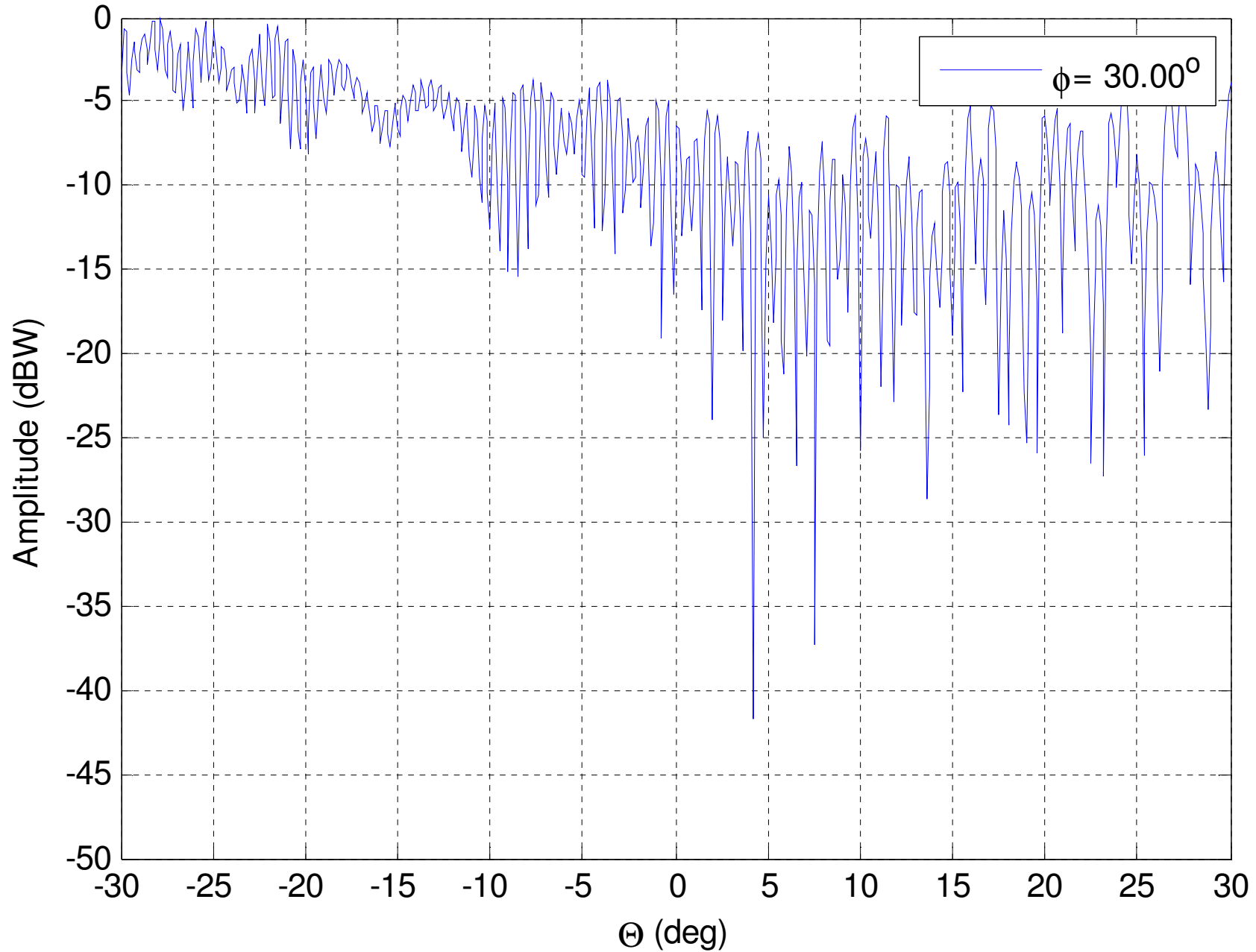
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-20.cut, Peak: -3.78 dBW, Date: 16-Dec-2011



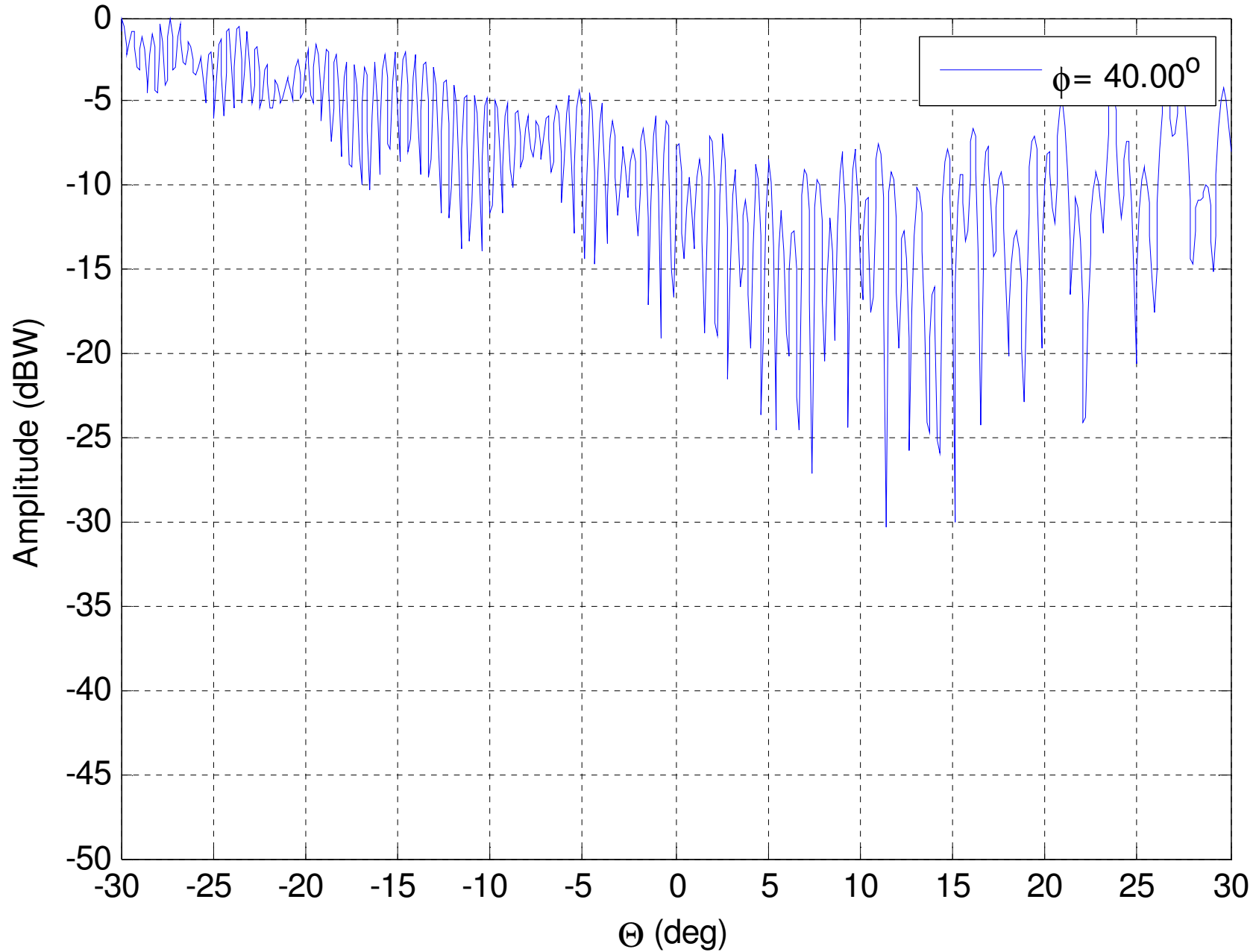
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-30.cut, Peak: -2.36 dBW, Date: 16-Dec-2011



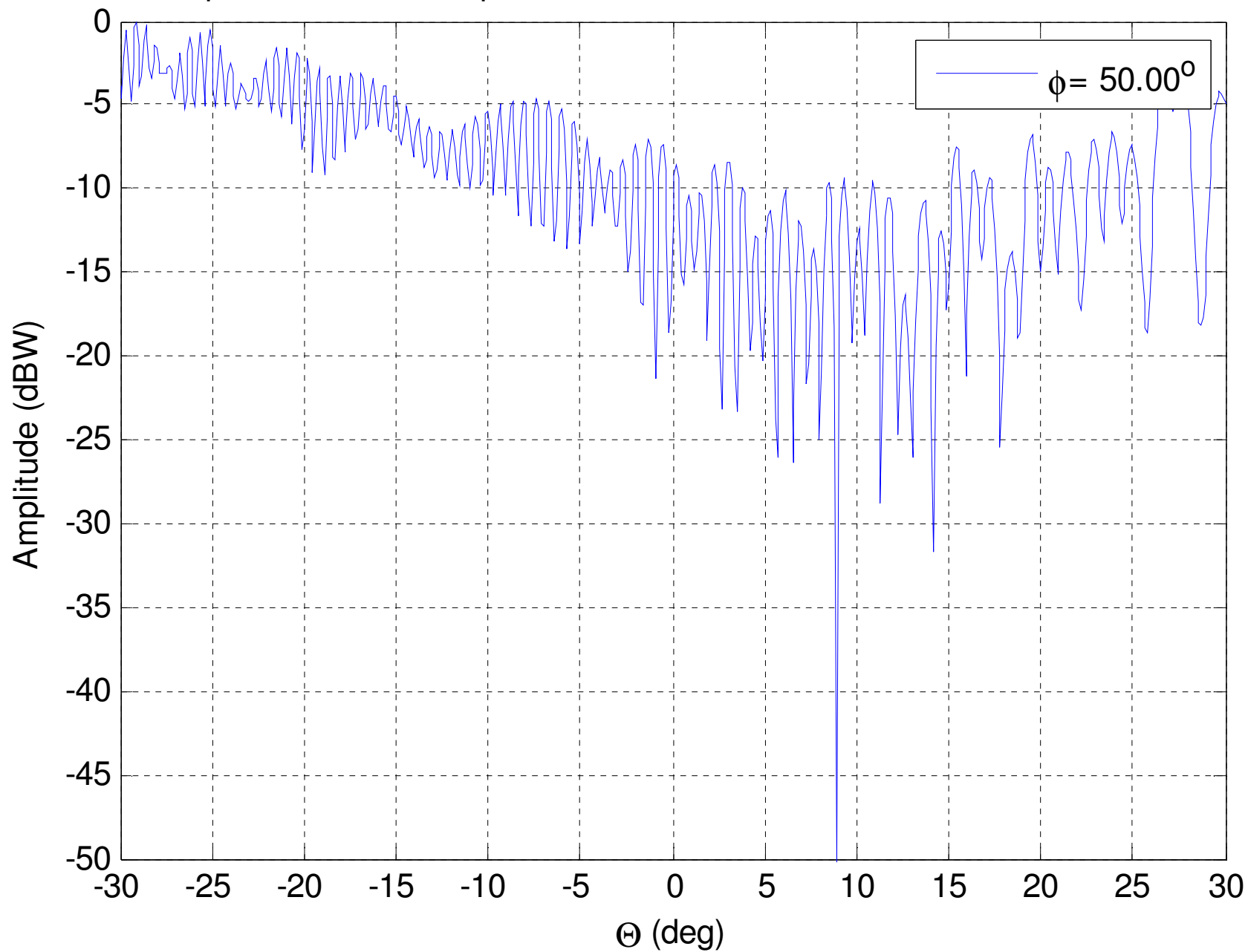
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-40.cut, Peak: -1.18 dBW, Date: 16-Dec-2011



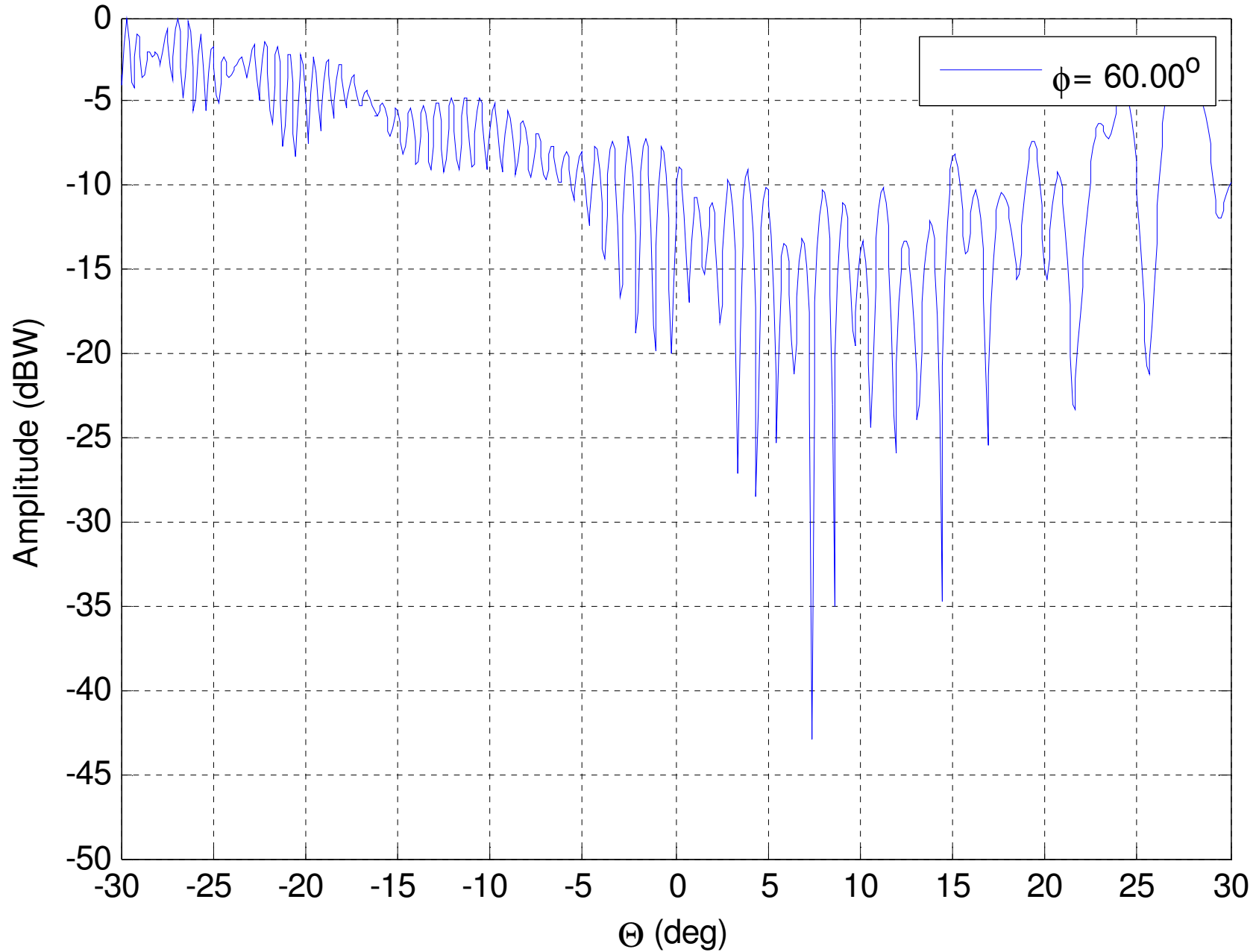
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-50.cut, Peak: 0.07 dBW, Date: 16-Dec-2011



Normalized pattern cuts - farfield

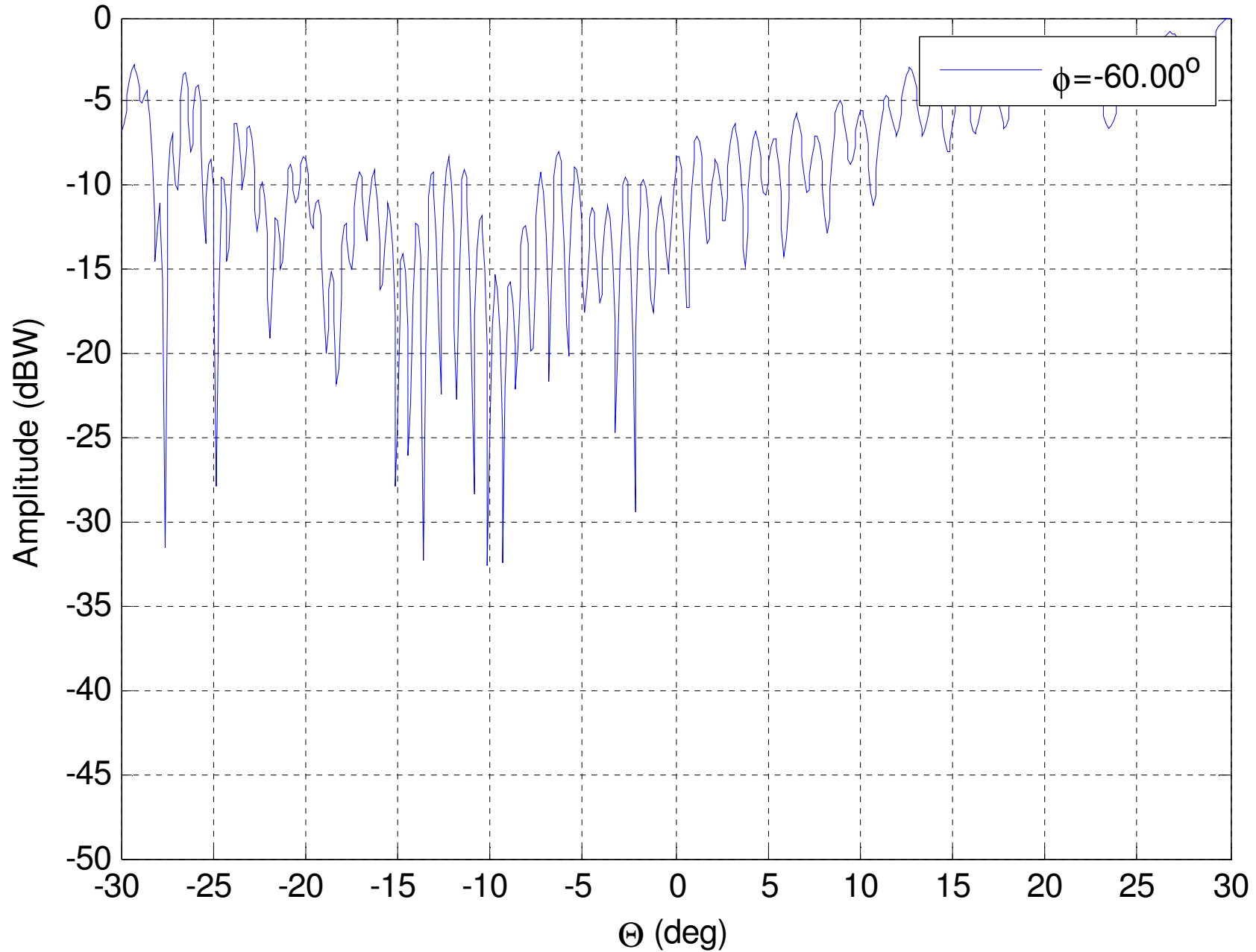
Input file: tx-17.3-rhcp-60.cut, Peak: 0.39 dBW, Date: 16-Dec-2011



LHCP at 17.3 GHz

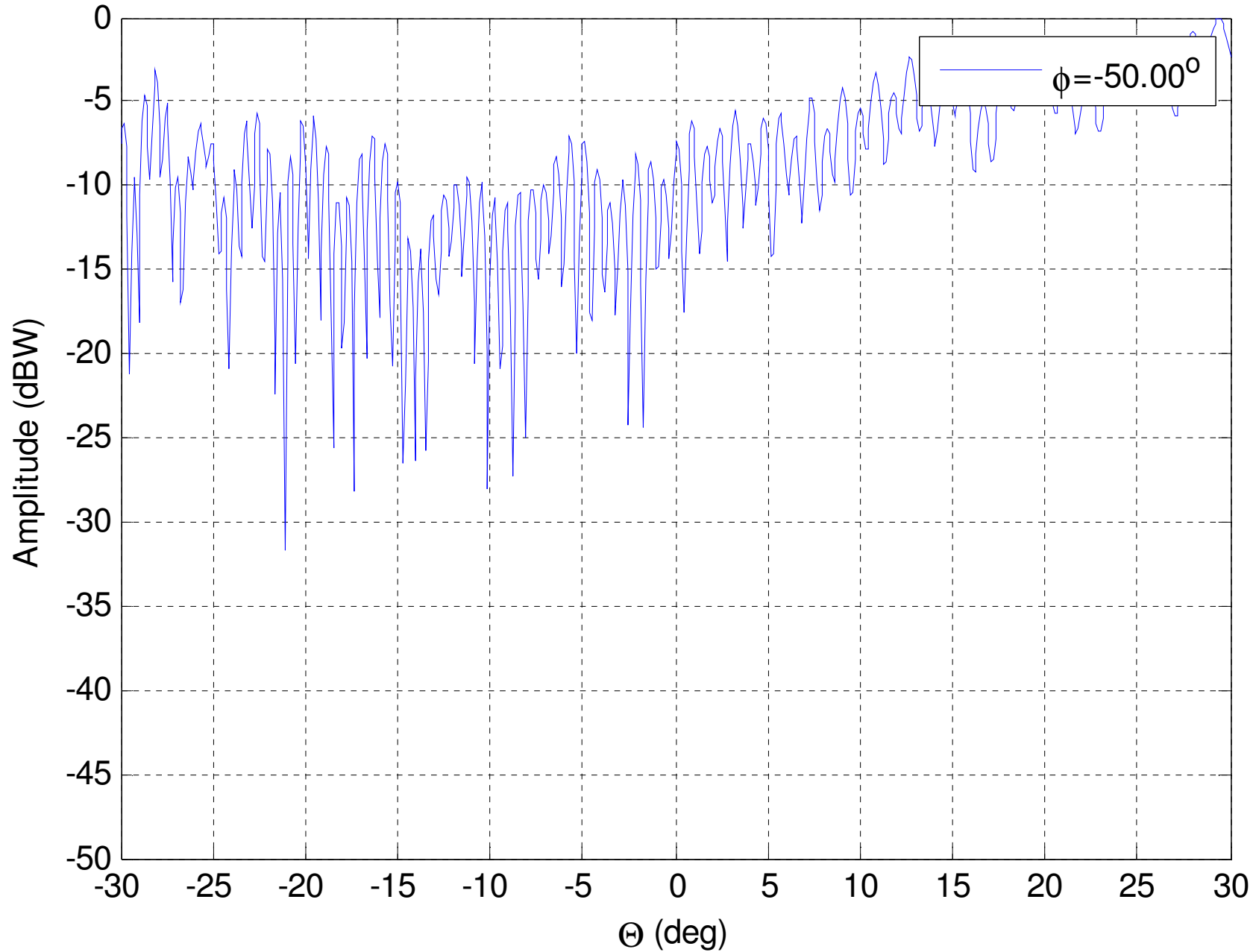
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp--60.cut, Peak: -0.07 dBW, Date: 16-Dec-2011



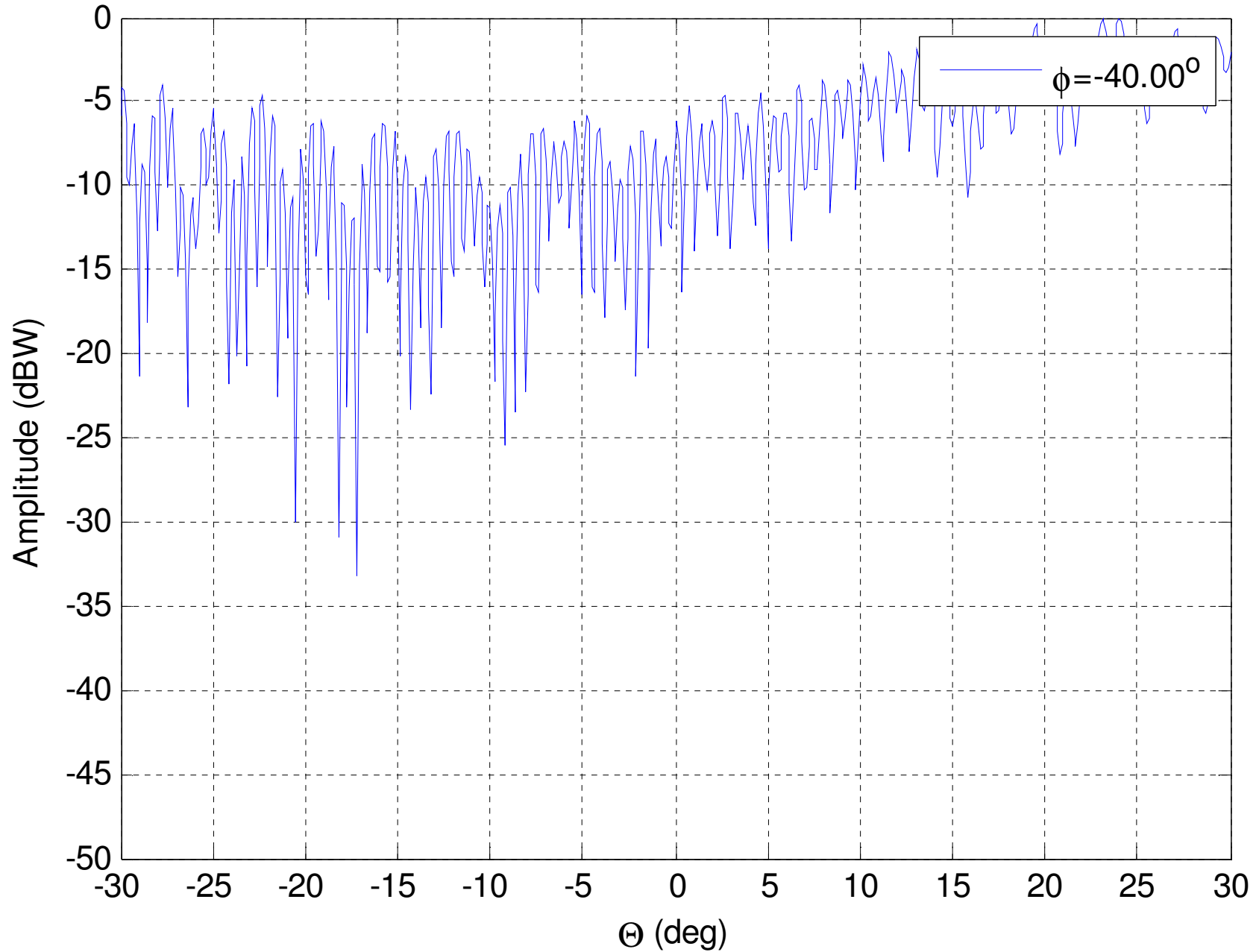
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp--50.cut, Peak: -0.99 dBW, Date: 16-Dec-2011



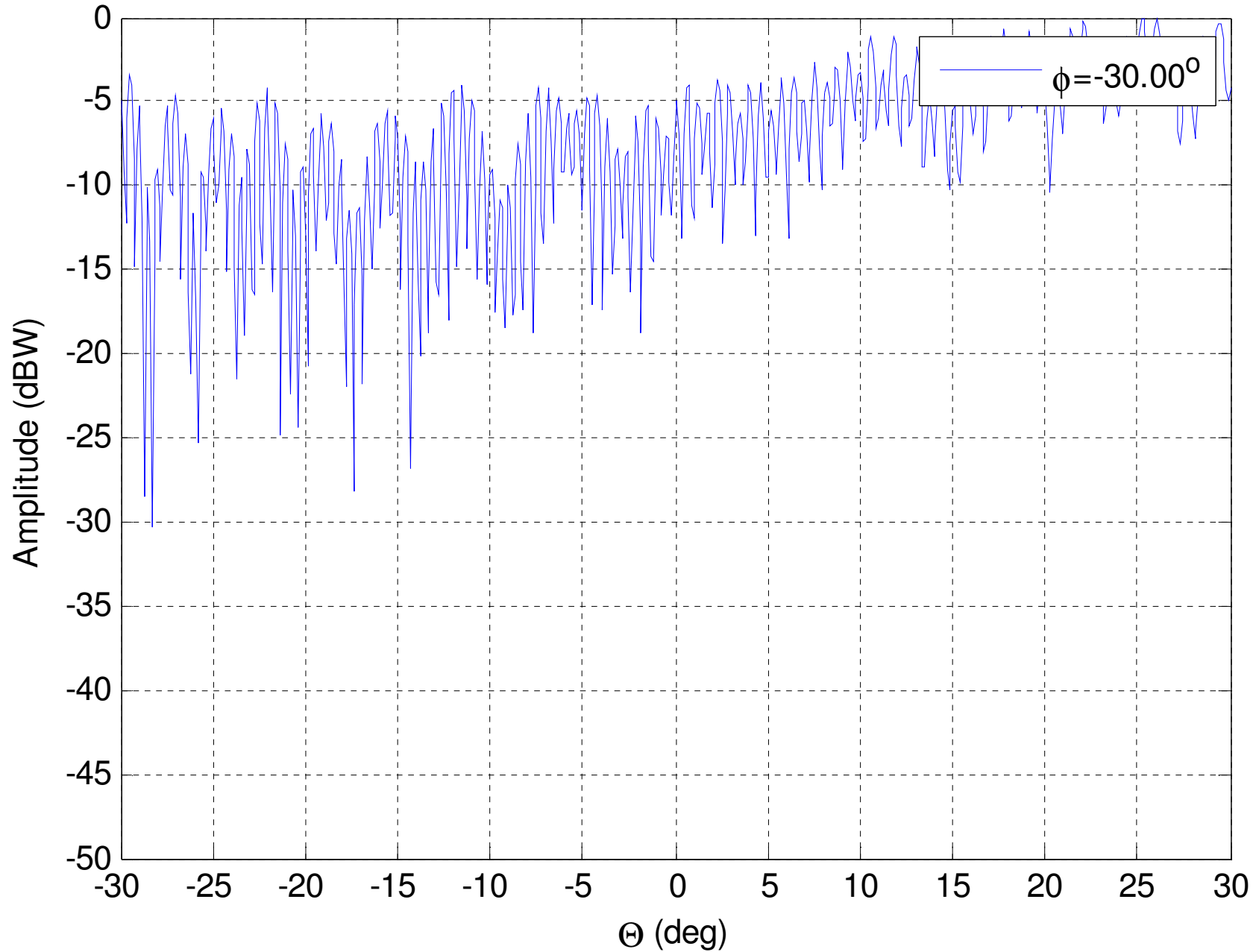
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp--40.cut, Peak: -2.28 dBW, Date: 16-Dec-2011



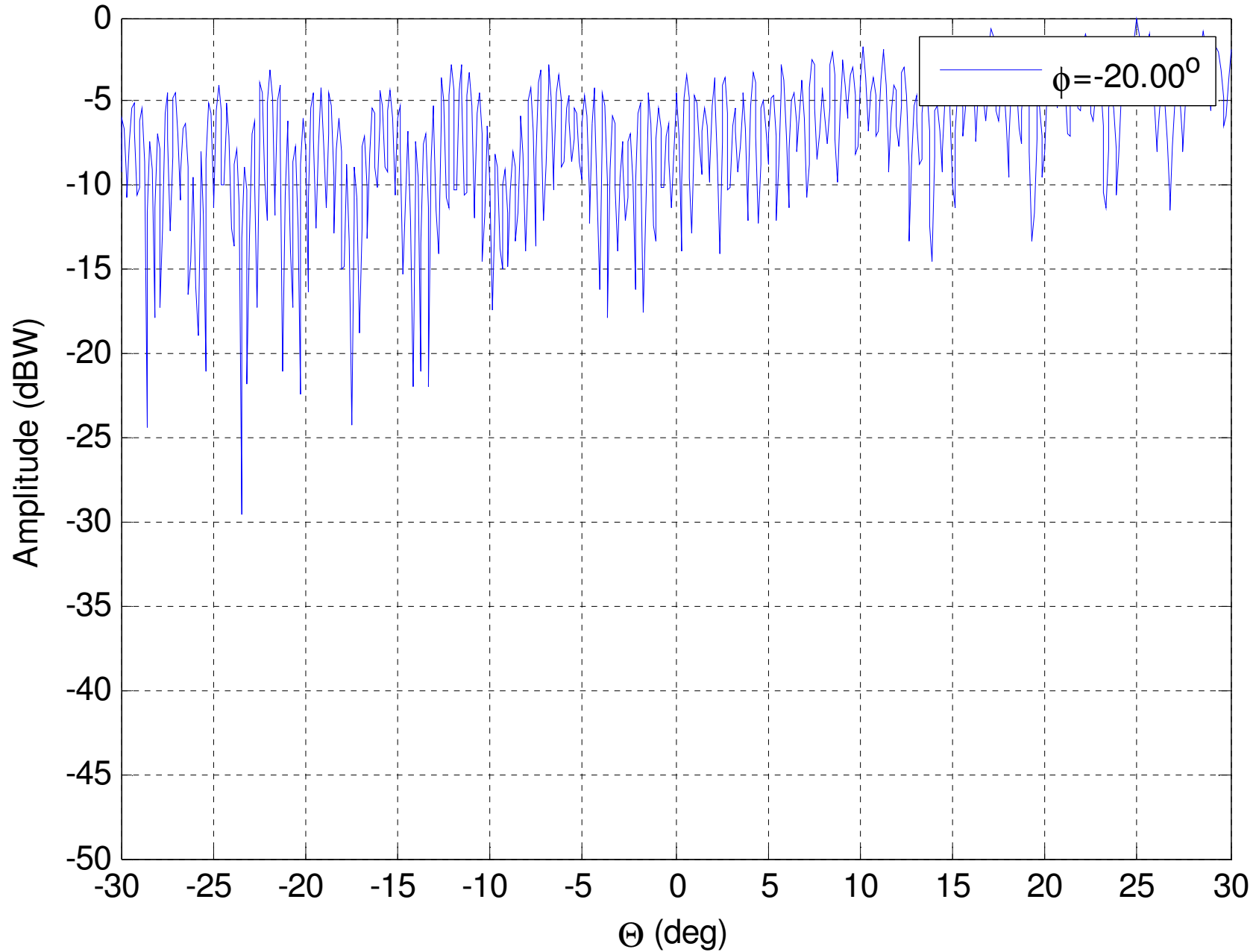
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp--30.cut, Peak: -3.55 dBW, Date: 16-Dec-2011



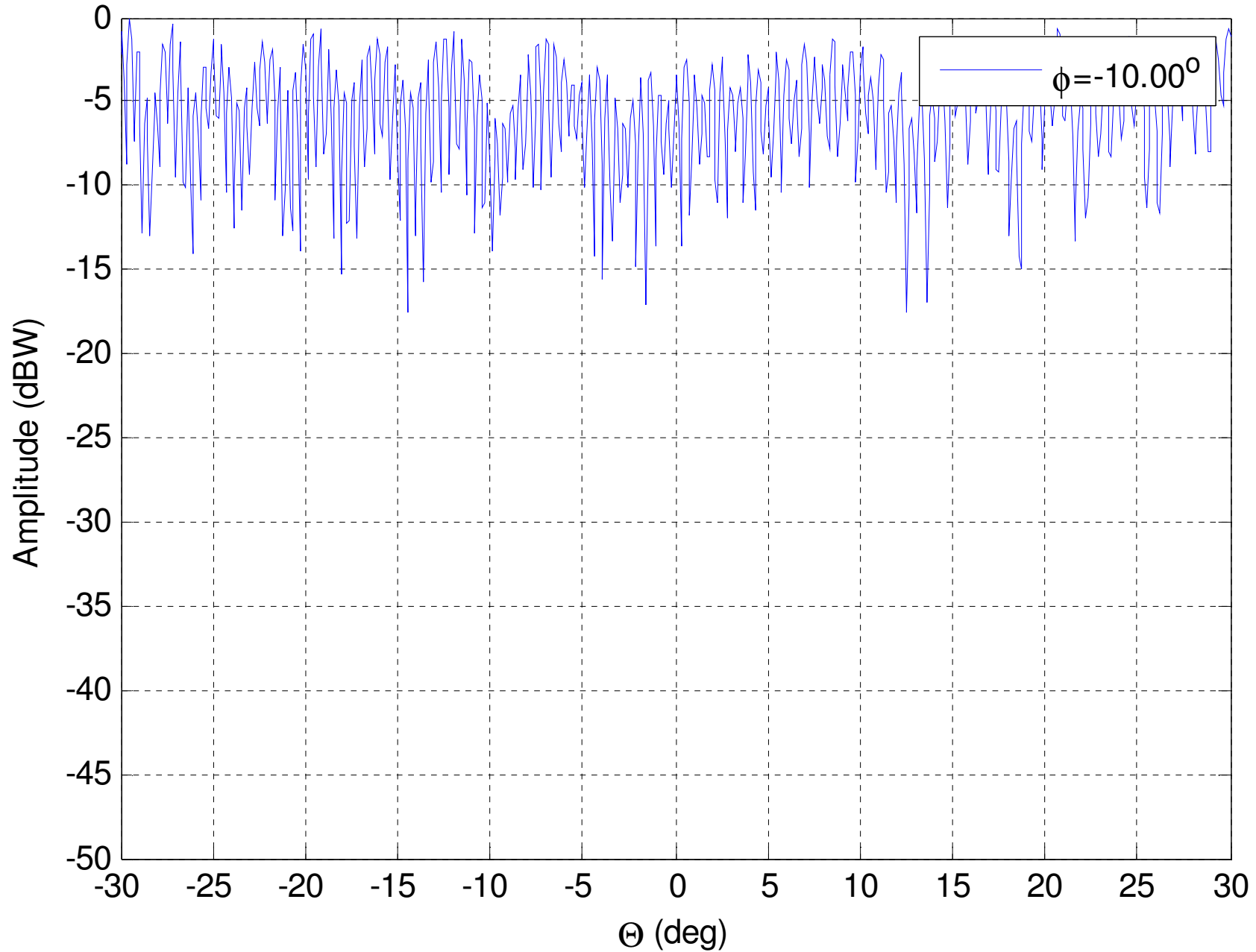
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp--20.cut, Peak: -4.01 dBW, Date: 16-Dec-2011



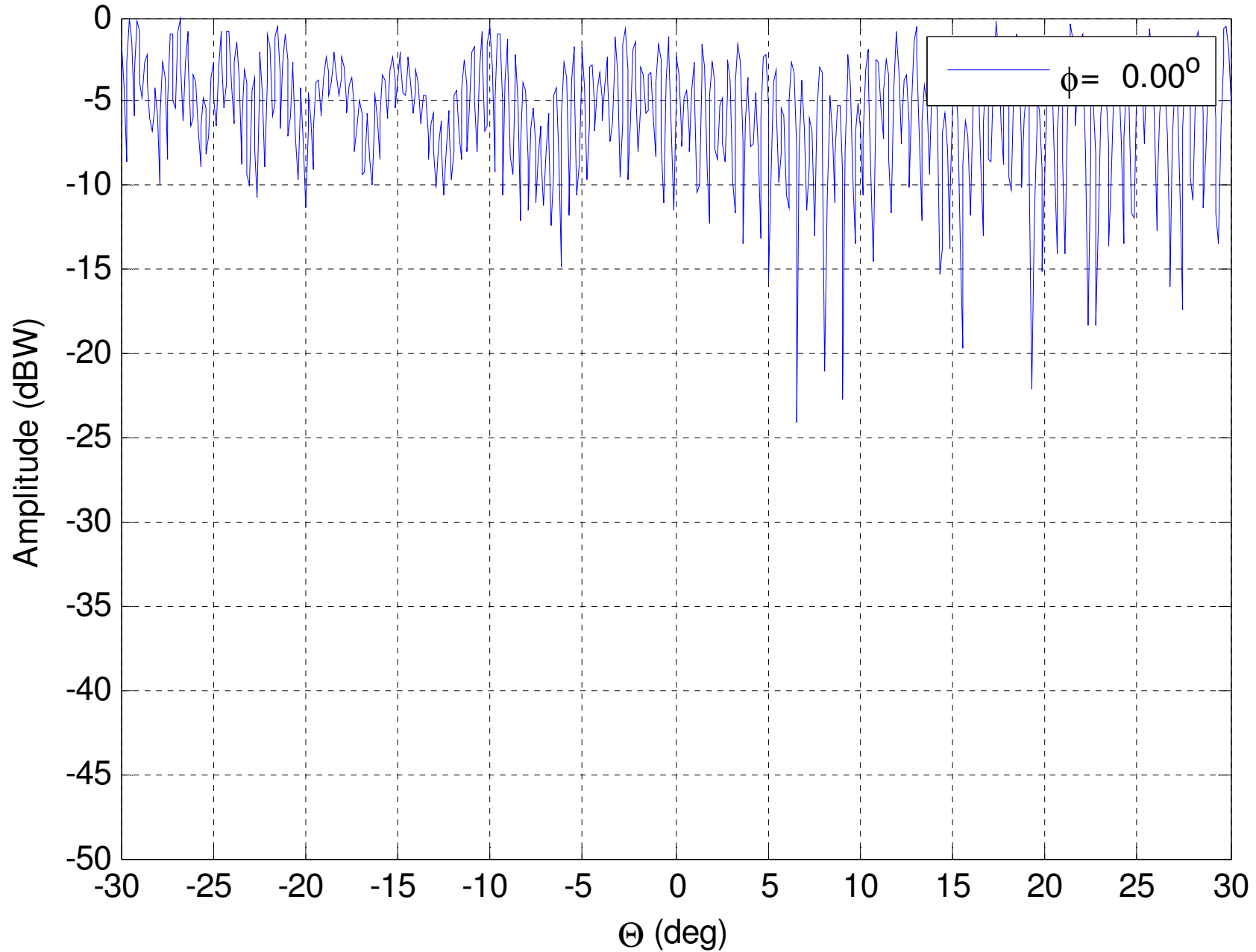
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp--10.cut, Peak: -5.19 dBW, Date: 16-Dec-2011



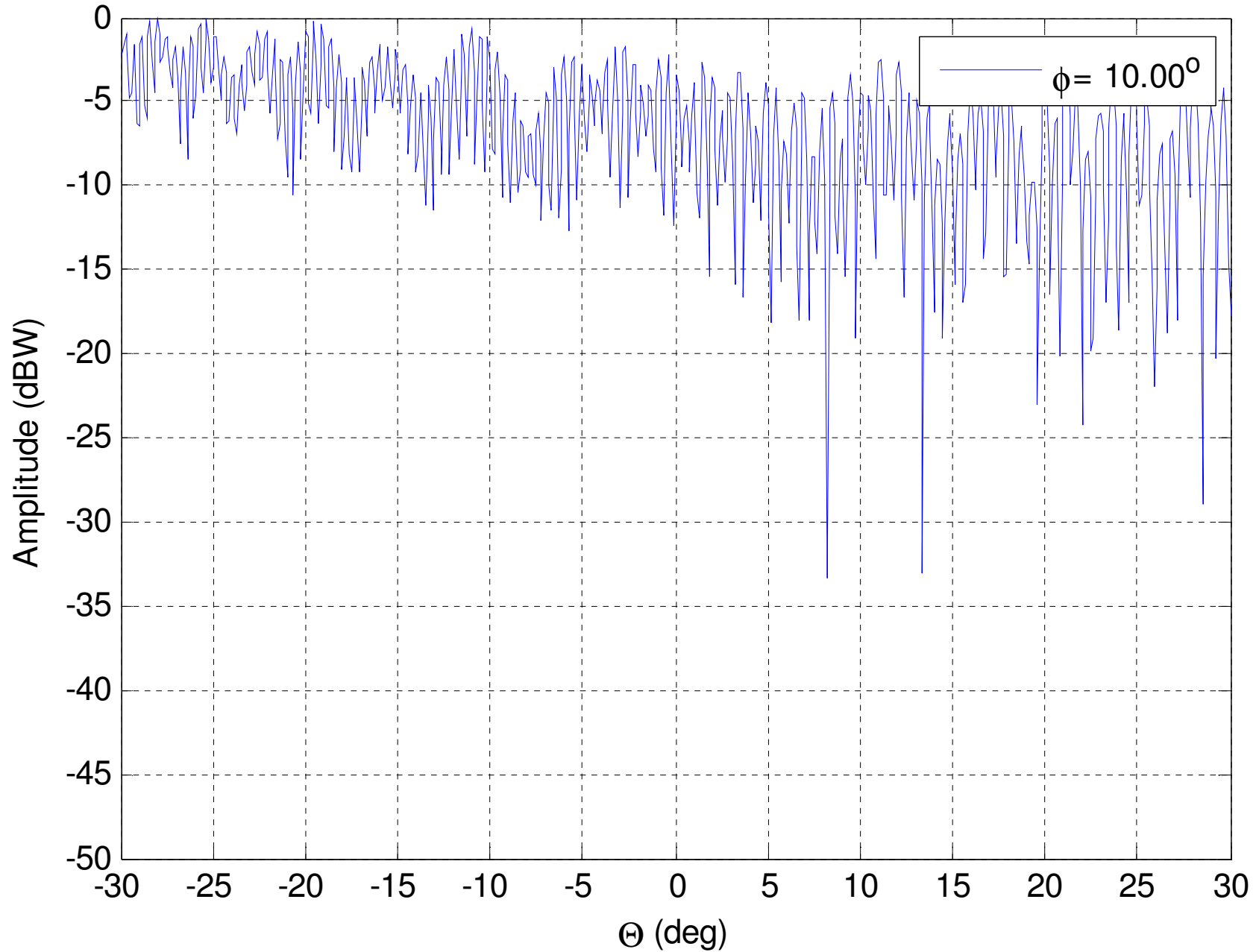
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp-0.cut, Peak: -5.39 dBW, Date: 16-Dec-2011



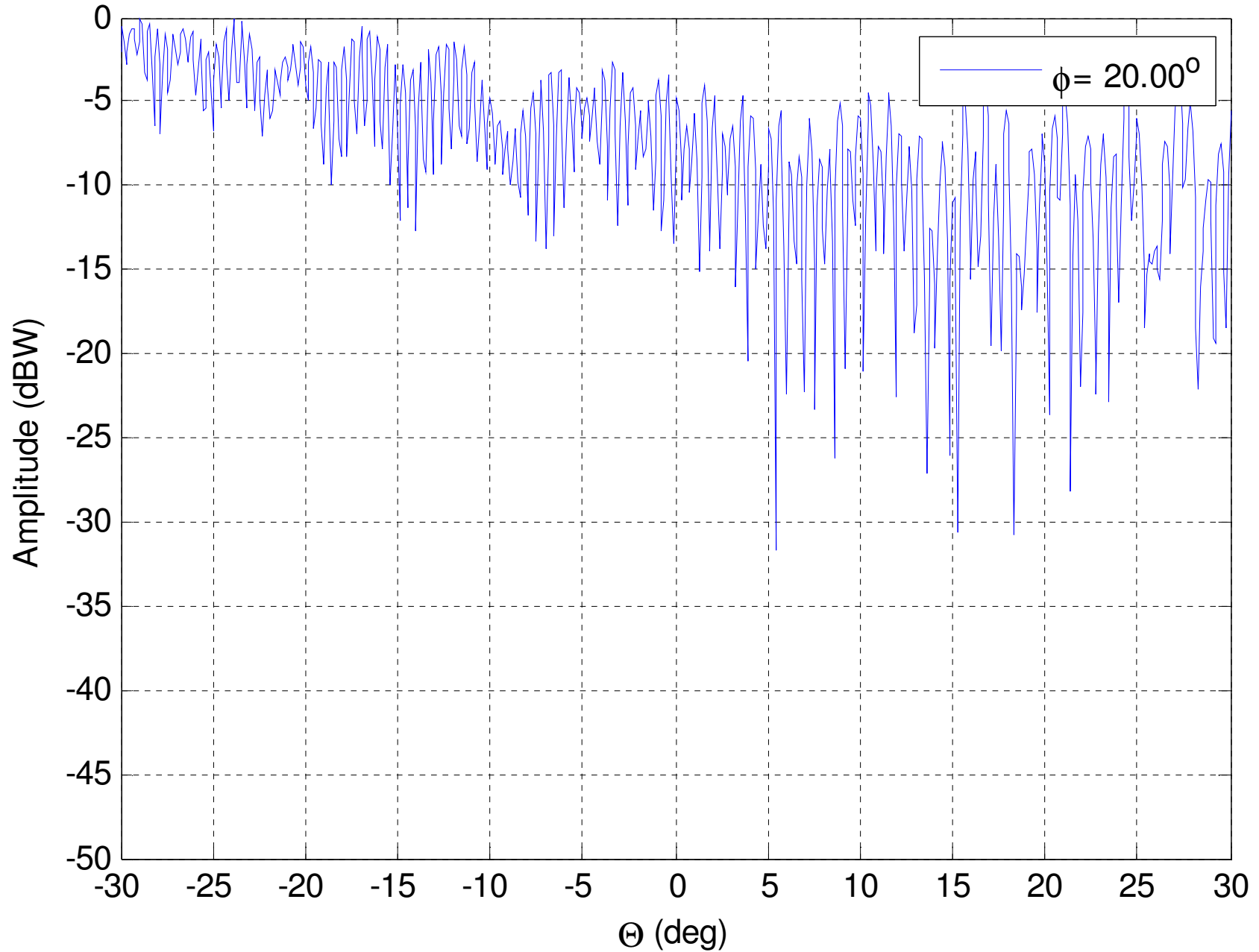
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp-10.cut, Peak: -4.38 dBW, Date: 16-Dec-2011



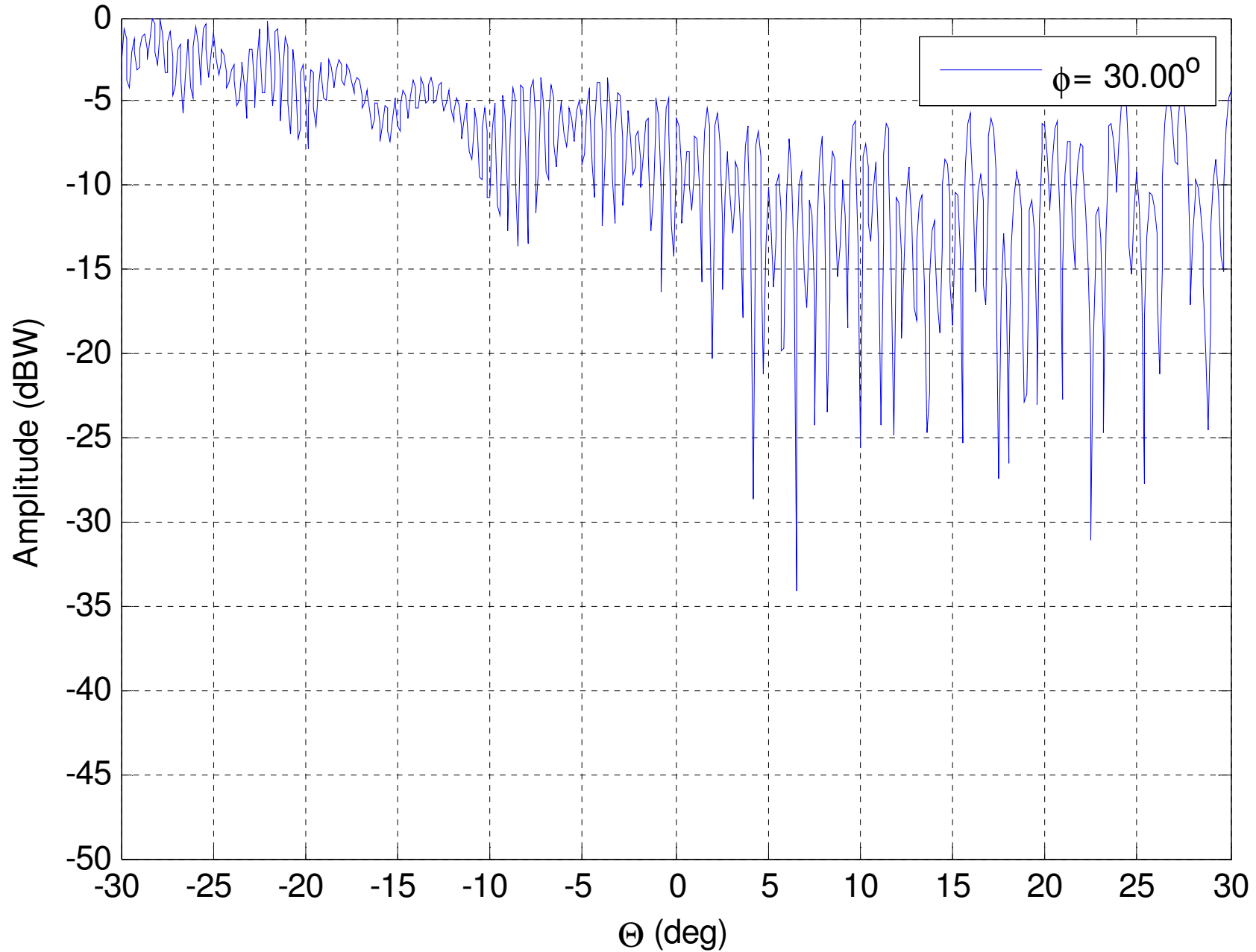
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp-20.cut, Peak: -3.05 dBW, Date: 16-Dec-2011



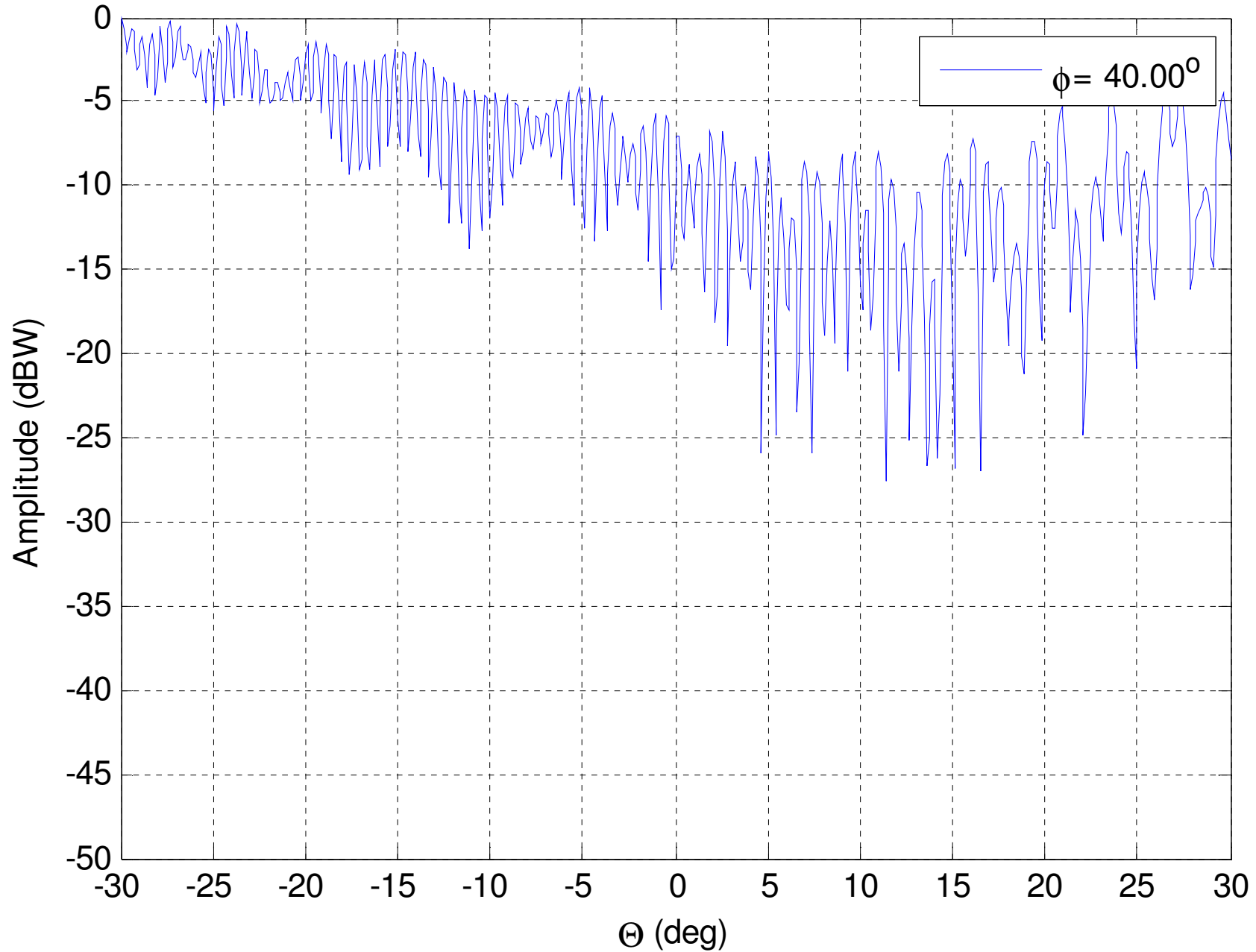
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp-30.cut, Peak: -1.84 dBW, Date: 16-Dec-2011



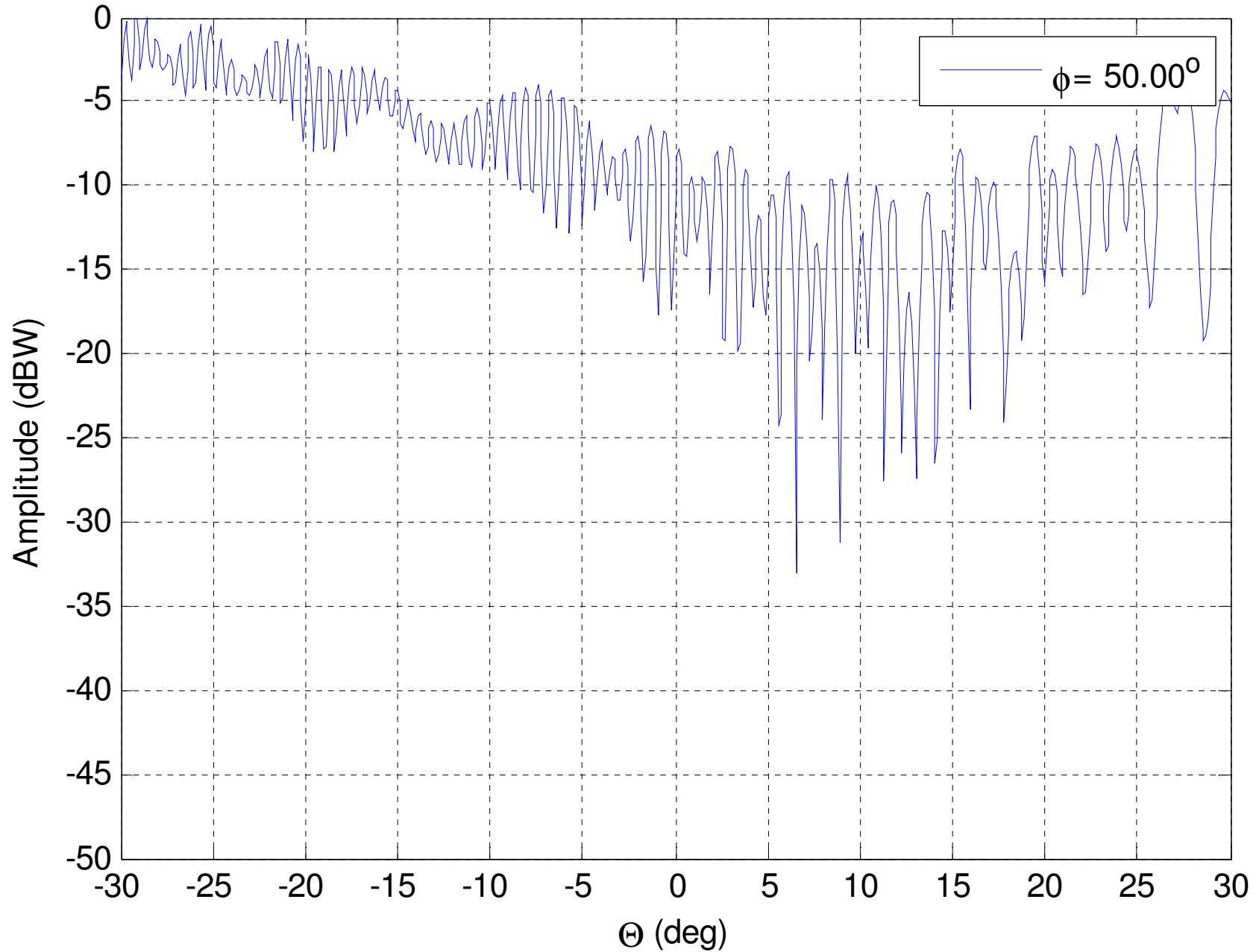
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp-40.cut, Peak: -0.80 dBW, Date: 16-Dec-2011



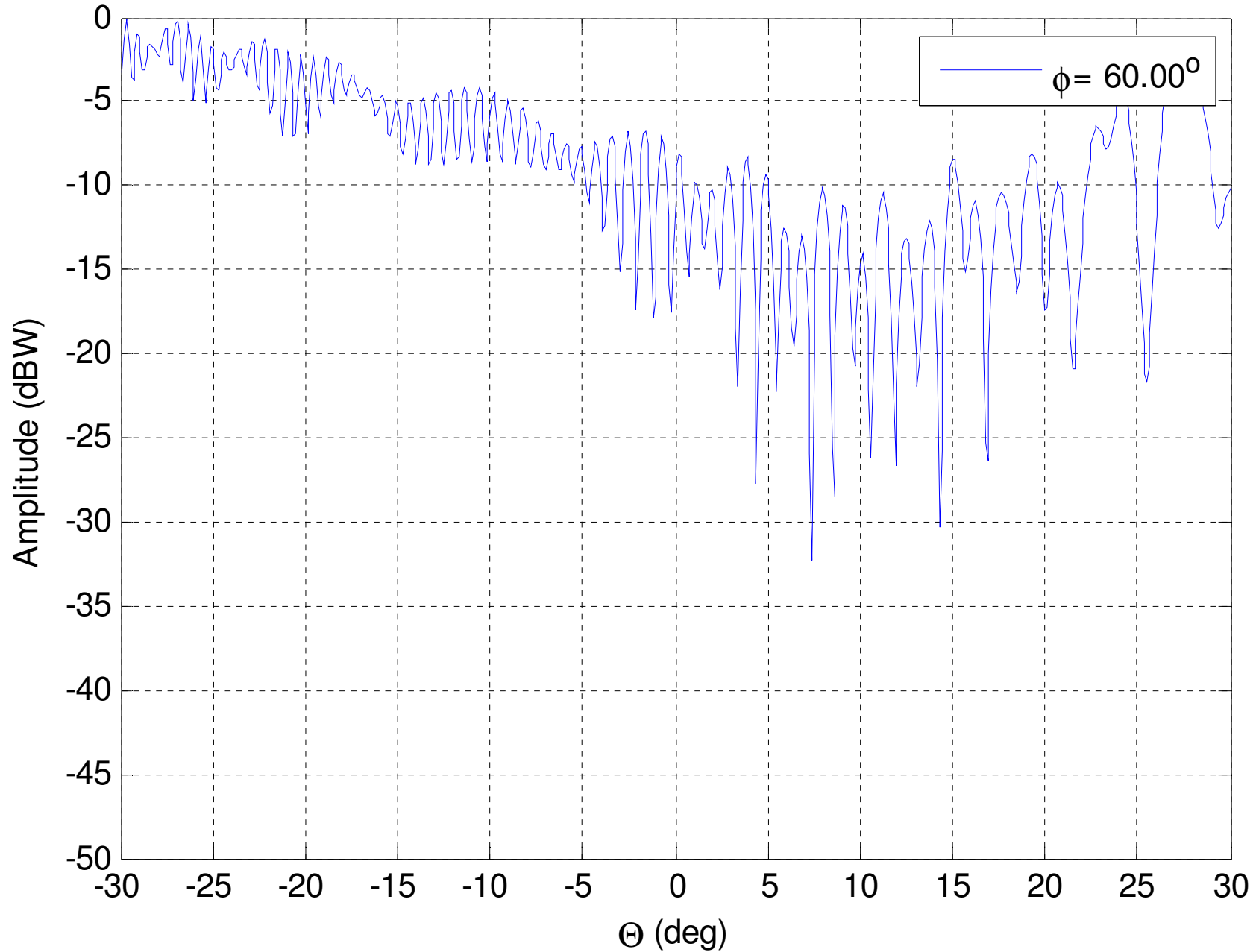
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp-50.cut, Peak: 0.15 dBW, Date: 16-Dec-2011



Normalized pattern cuts - farfield

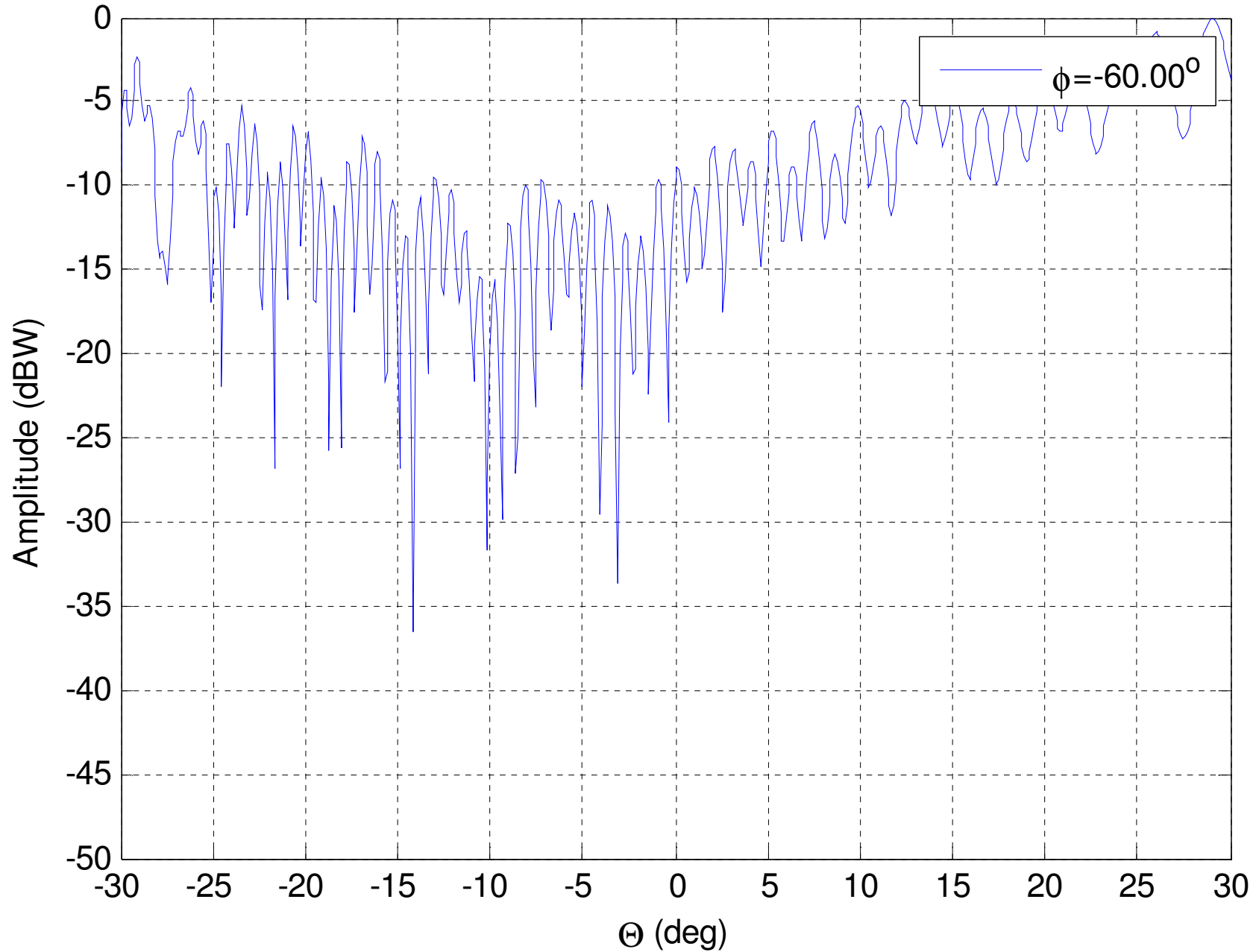
Input file: tx-17.3-lhcp-60.cut, Peak: 0.50 dBW, Date: 16-Dec-2011



RHCP at 17.5 GHz

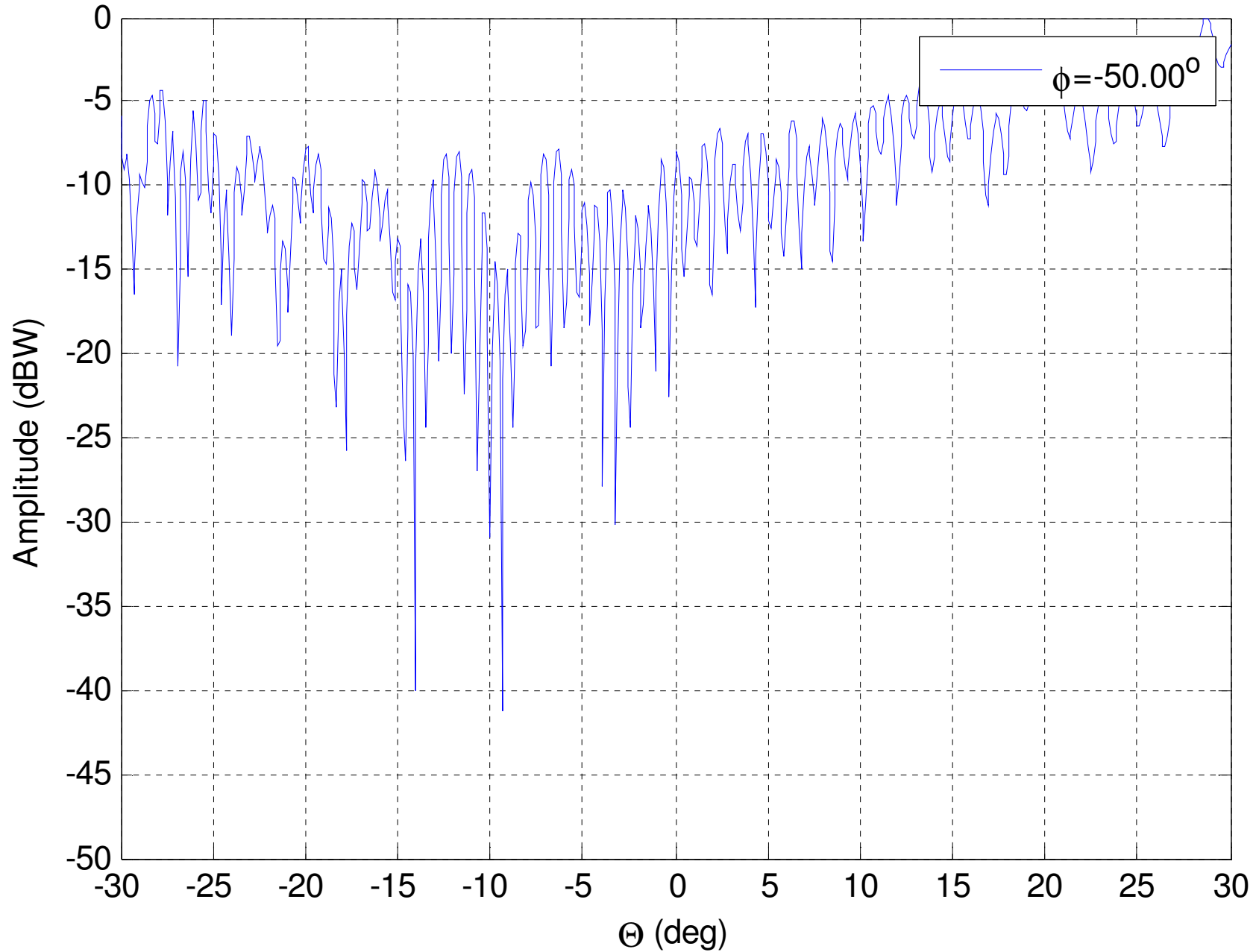
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--60.cut, Peak: 0.13 dBW, Date: 16-Dec-2011



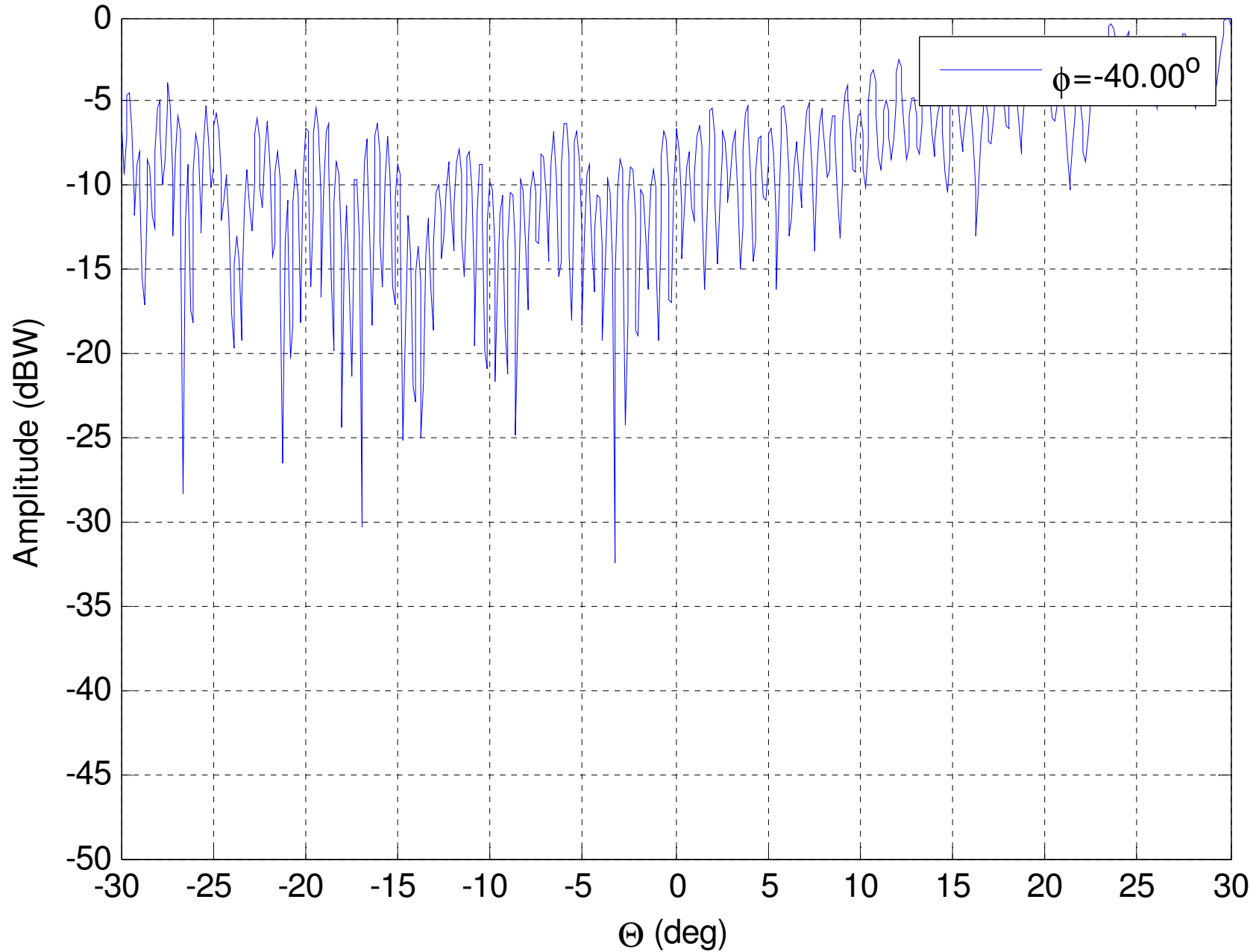
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--50.cut, Peak: -0.83 dBW, Date: 16-Dec-2011



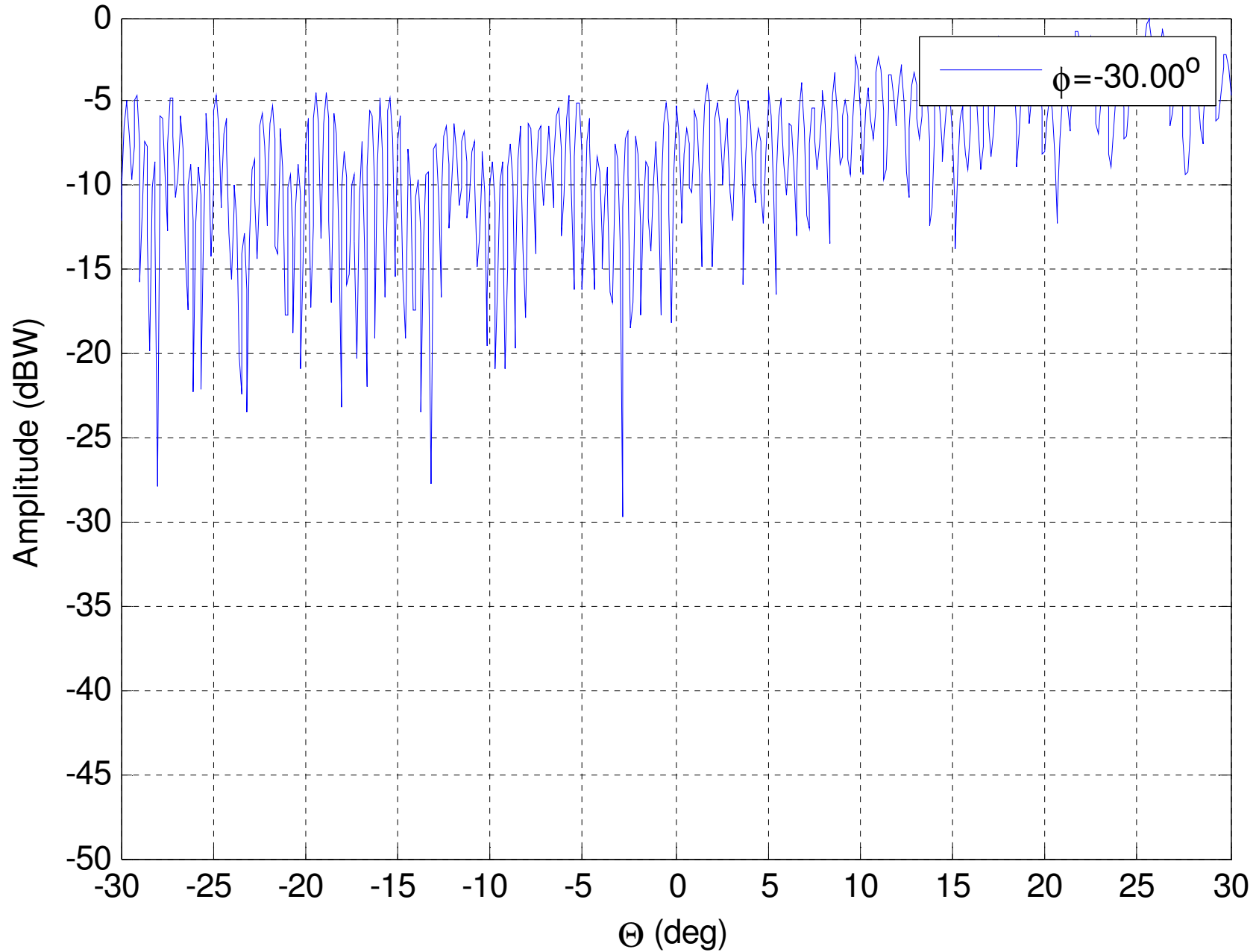
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--40.cut, Peak: -2.30 dBW, Date: 16-Dec-2011



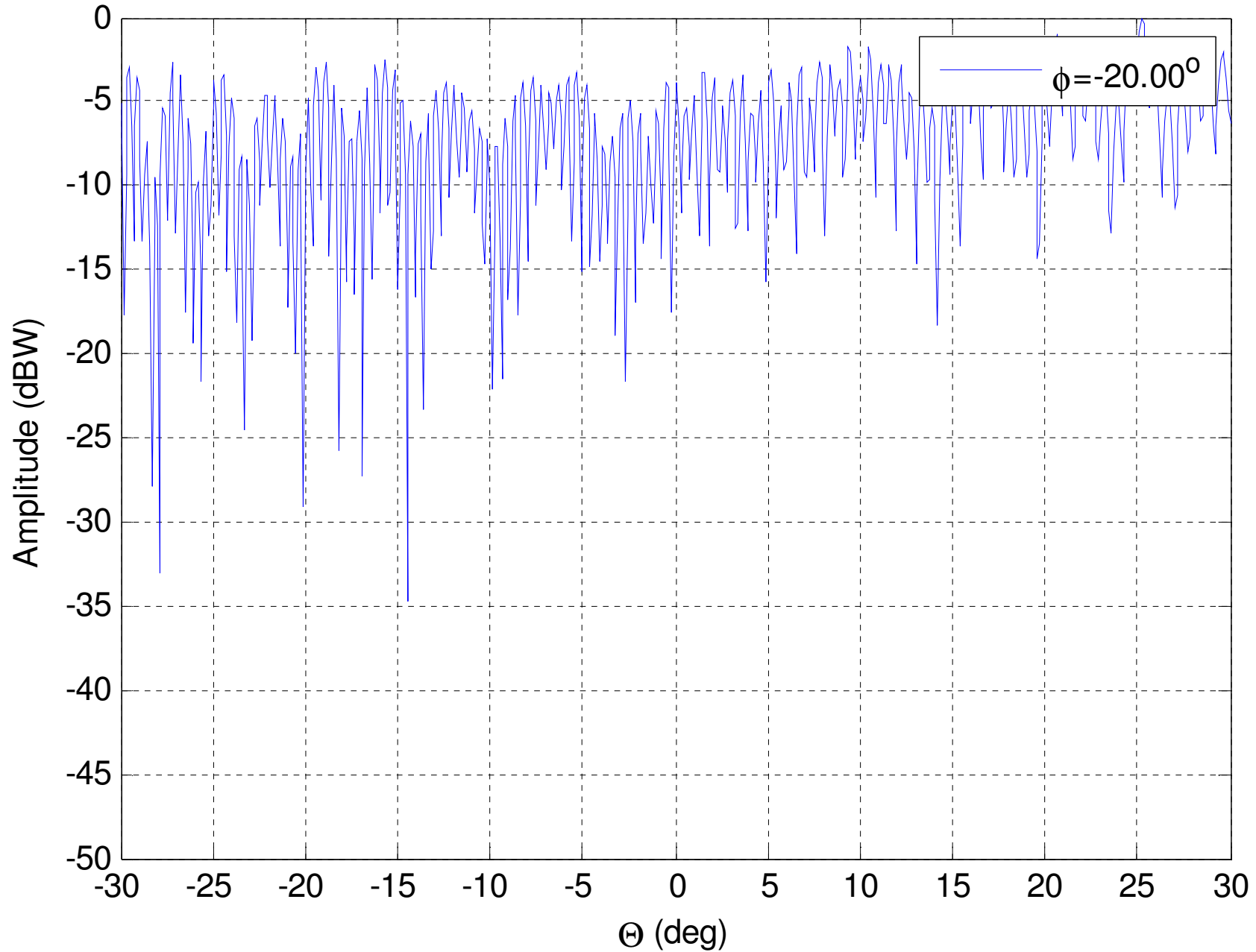
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--30.cut, Peak: -3.74 dBW, Date: 16-Dec-2011



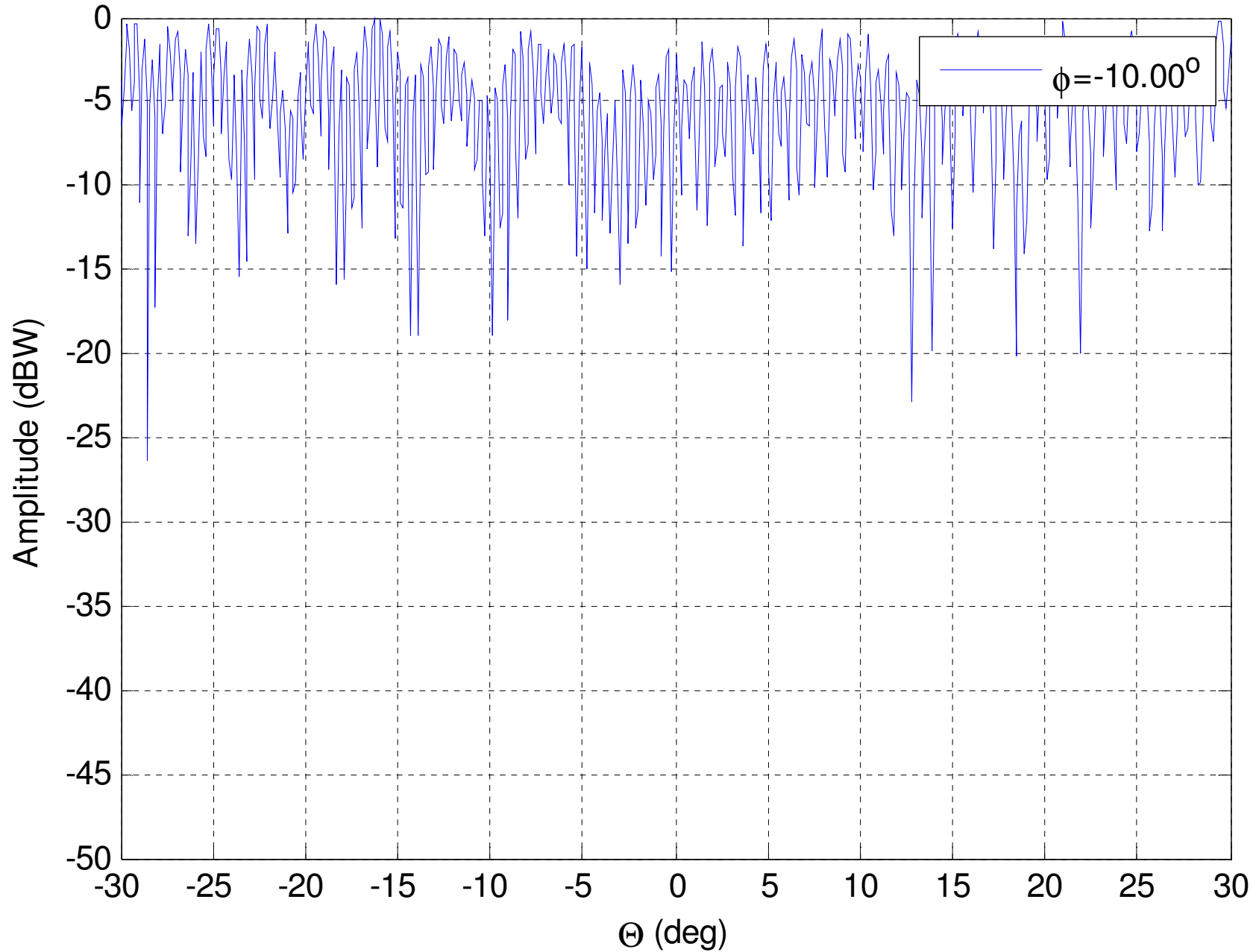
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--20.cut, Peak: -5.09 dBW, Date: 16-Dec-2011



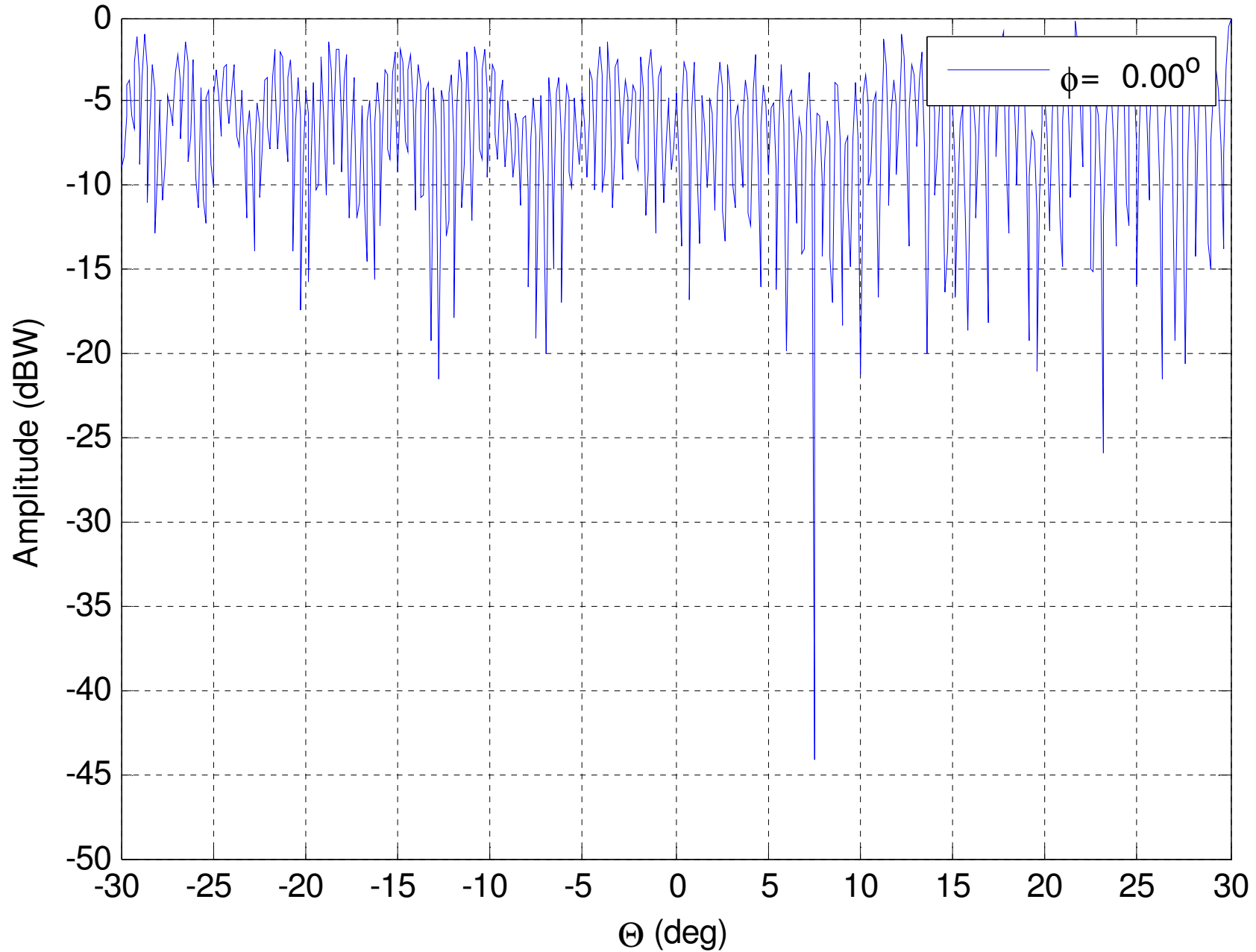
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--10.cut, Peak: -6.91 dBW, Date: 16-Dec-2011



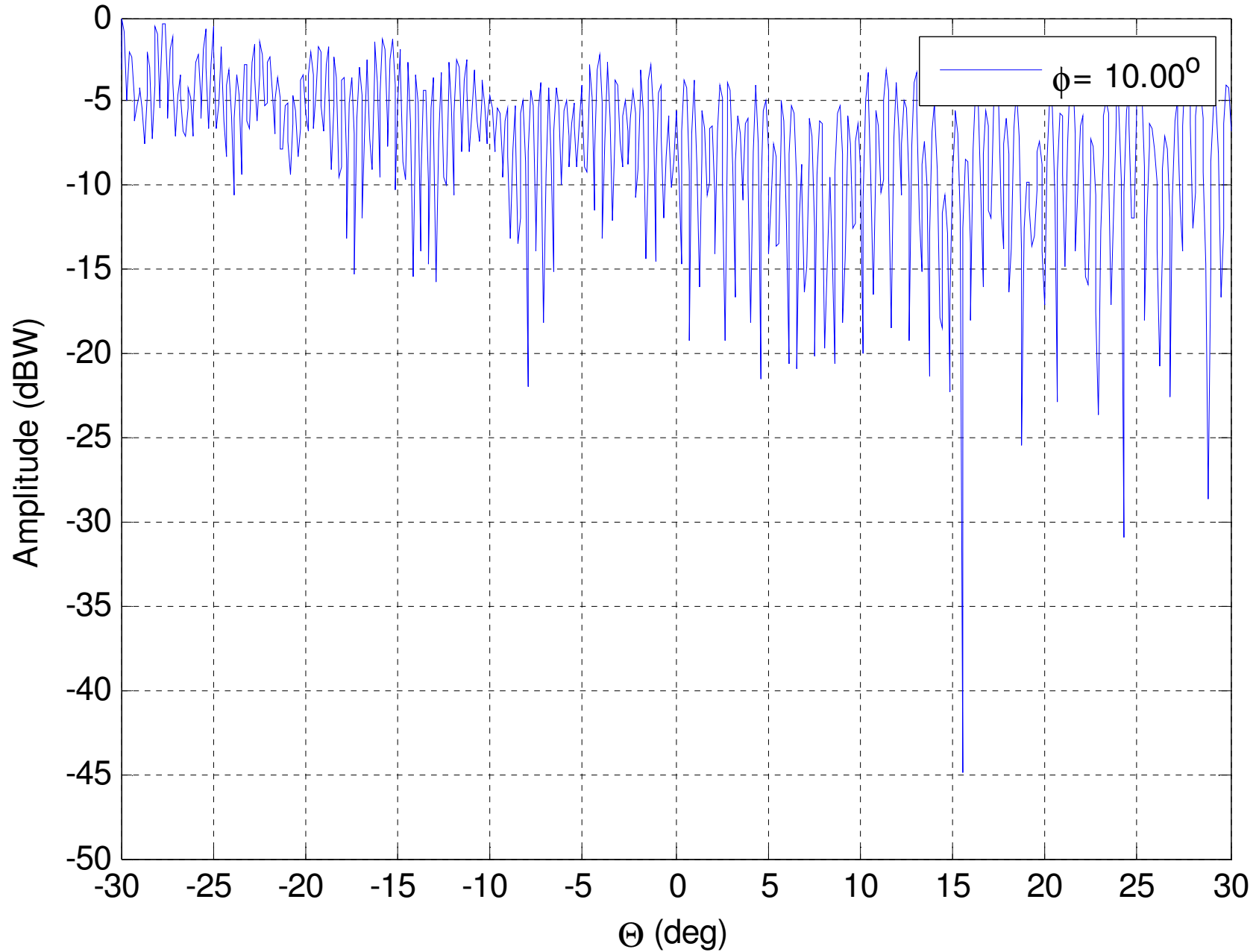
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-0.cut, Peak: -5.73 dBW, Date: 16-Dec-2011



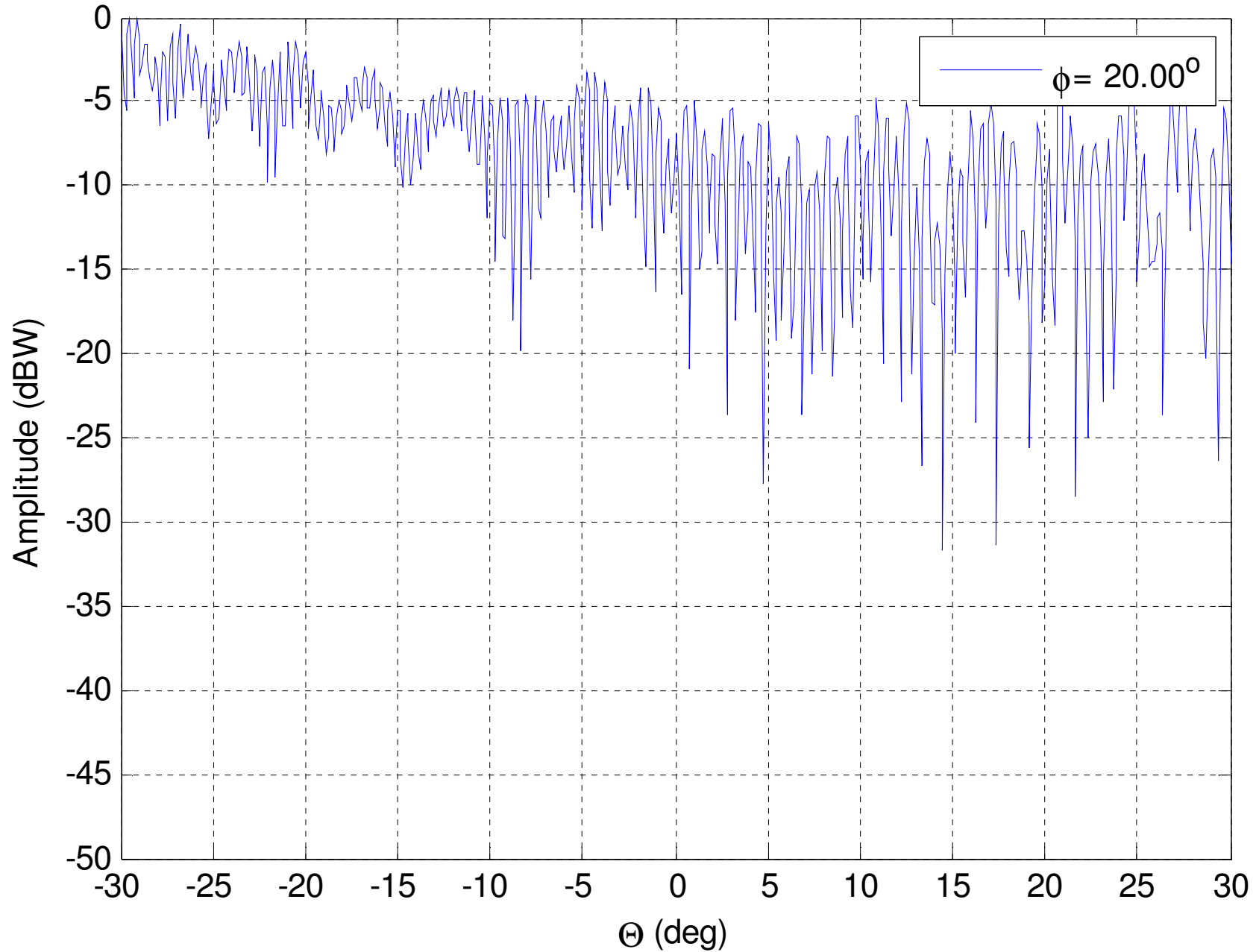
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-10.cut, Peak: -4.76 dBW, Date: 16-Dec-2011



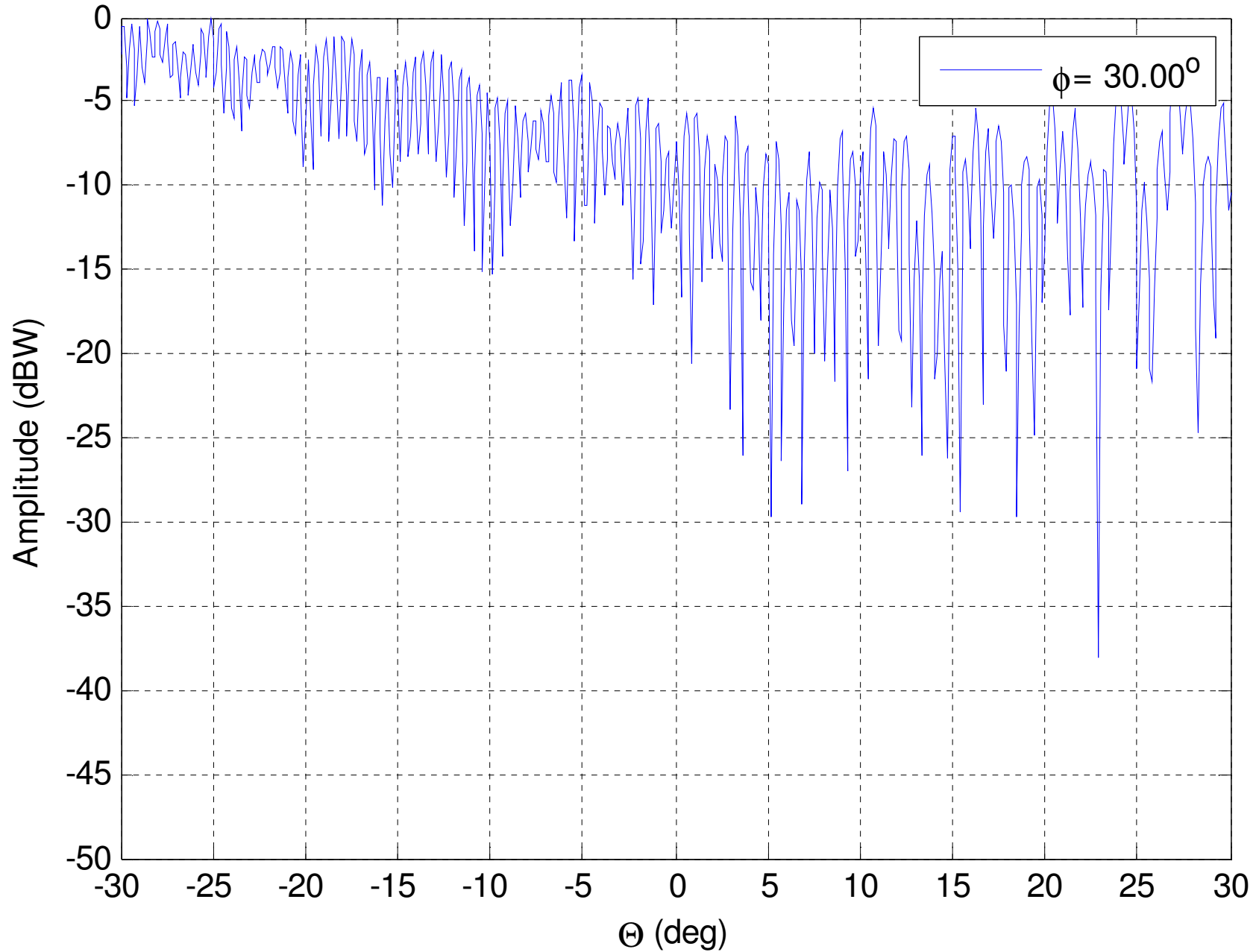
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-20.cut, Peak: -3.36 dBW, Date: 16-Dec-2011



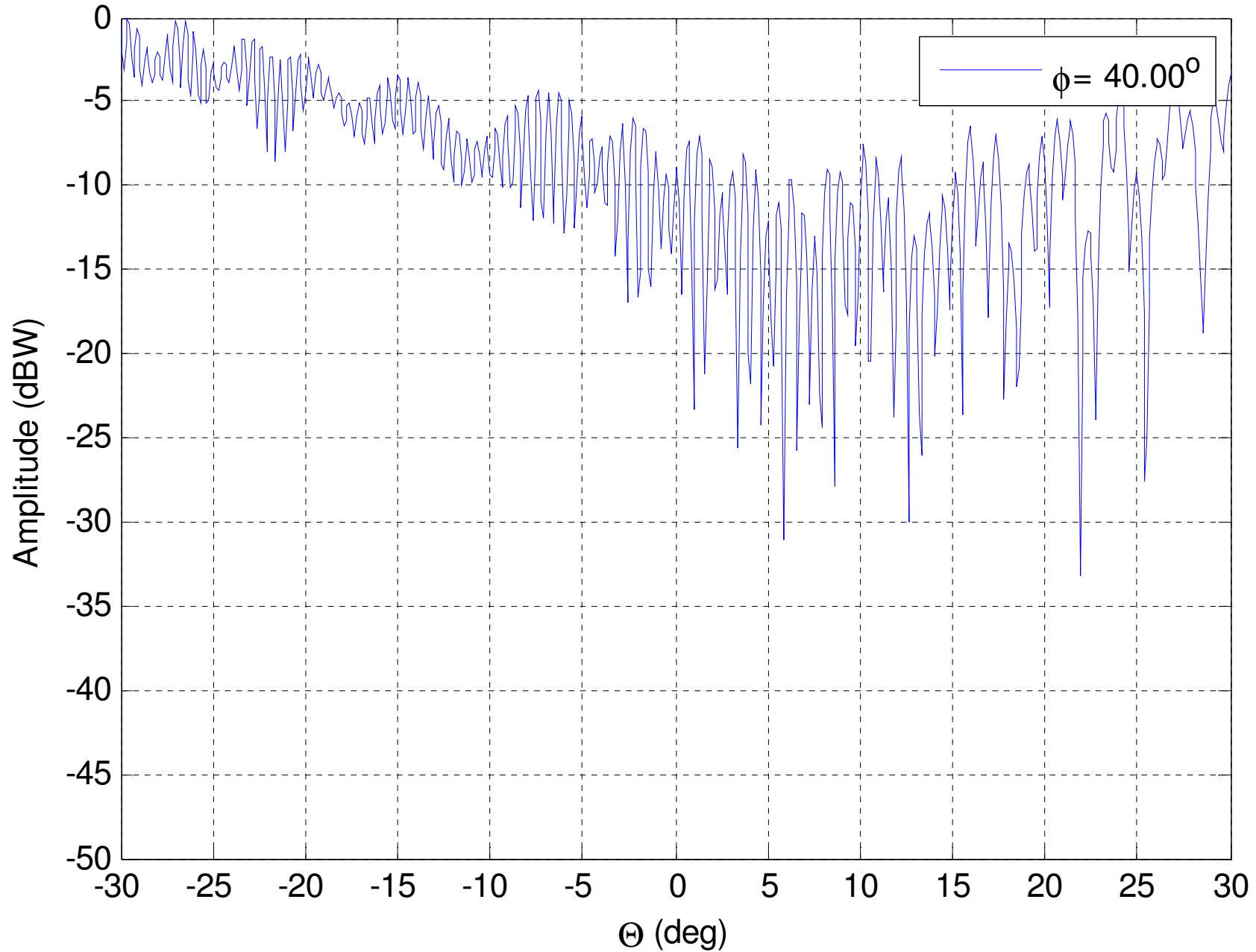
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-30.cut, Peak: -2.73 dBW, Date: 16-Dec-2011



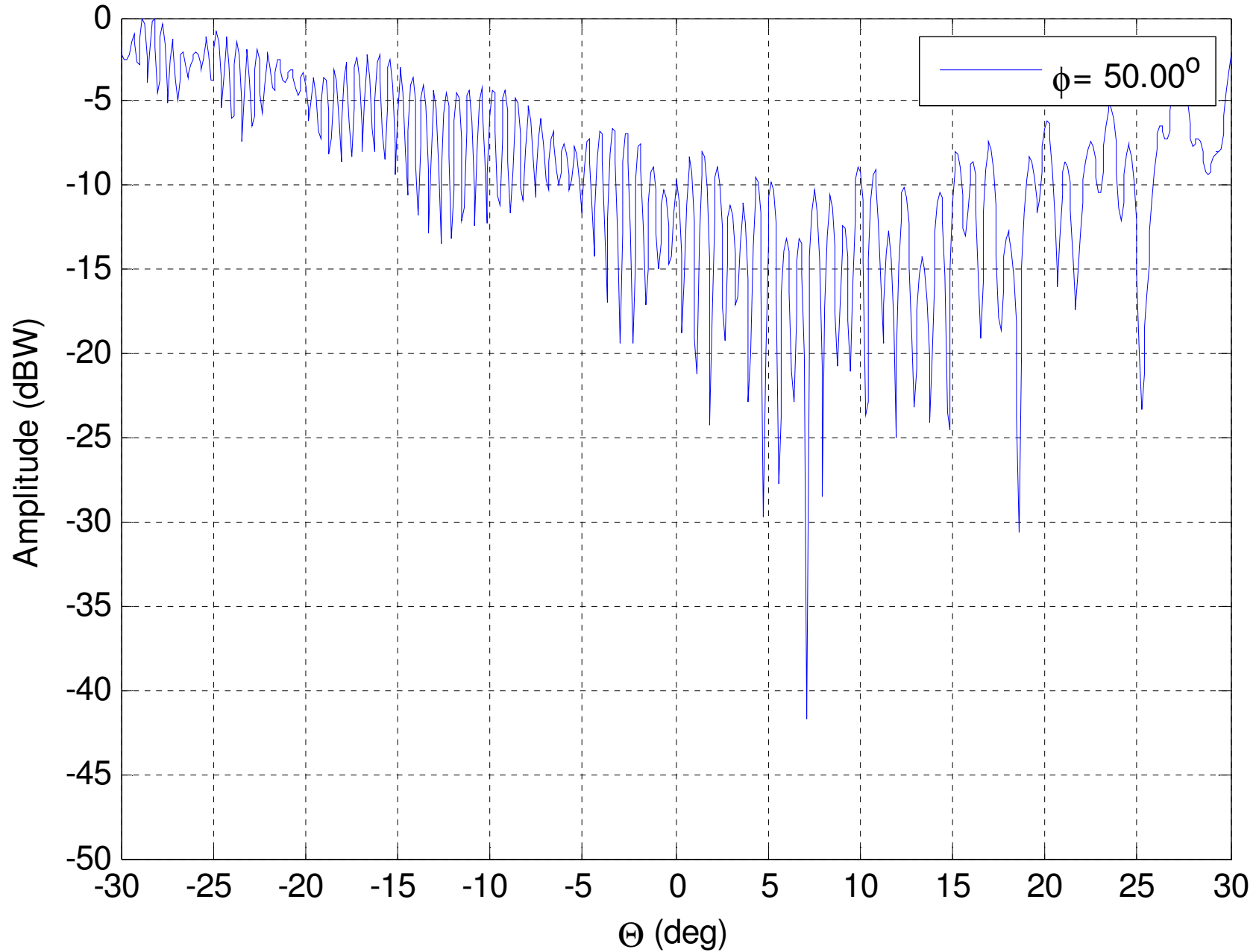
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-40.cut, Peak: -1.19 dBW, Date: 16-Dec-2011



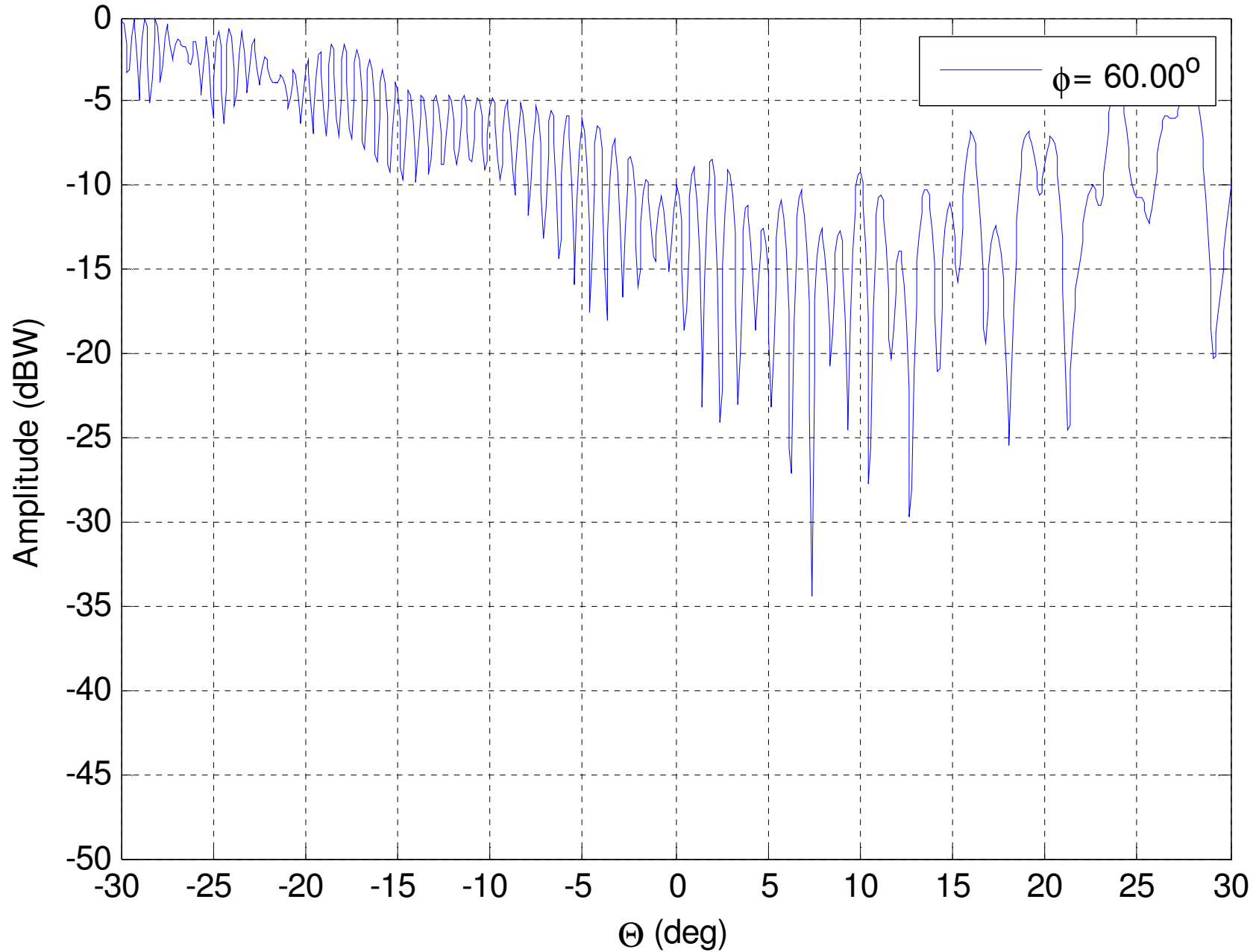
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-50.cut, Peak: -0.36 dBW, Date: 16-Dec-2011



Normalized pattern cuts - farfield

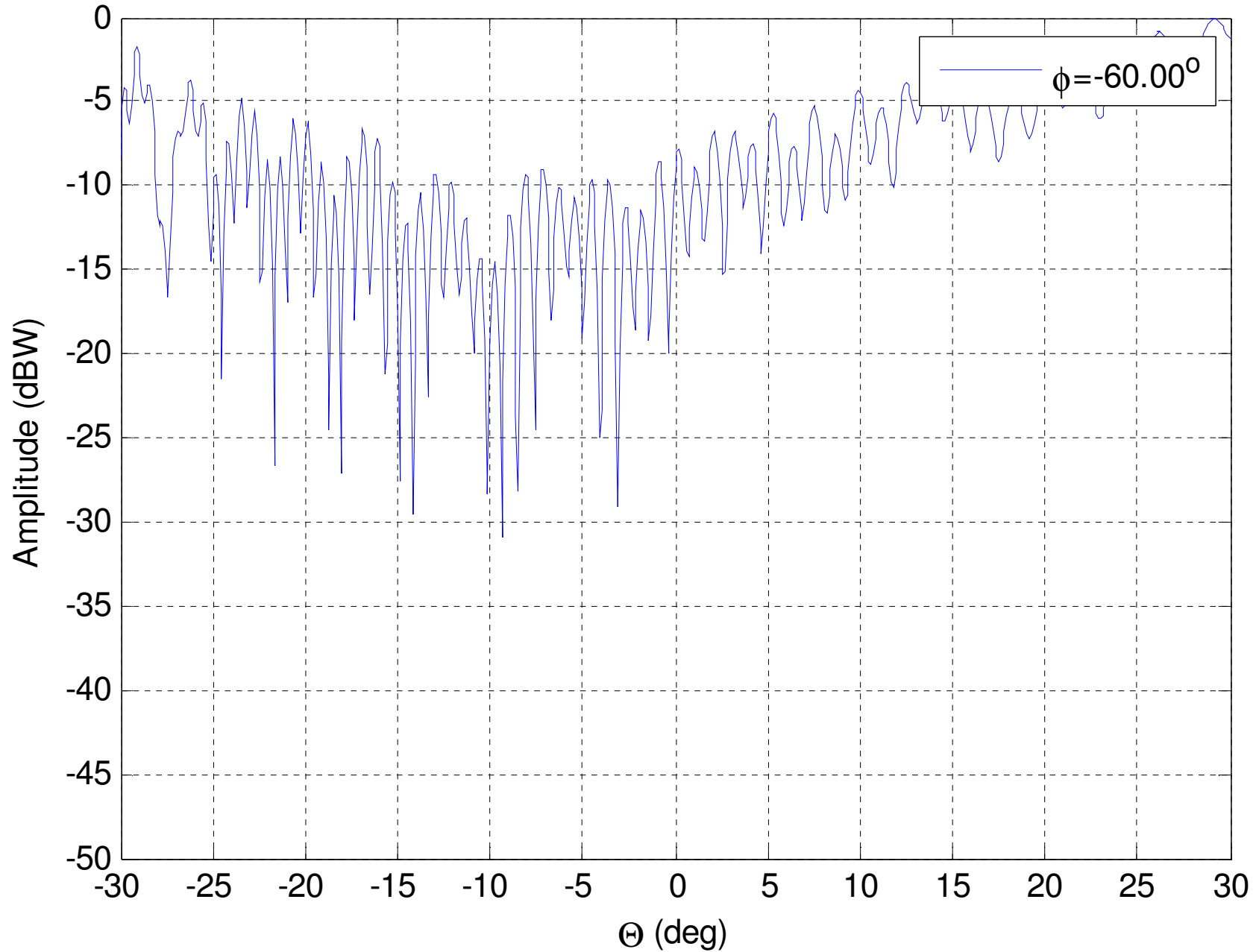
Input file: tx-17.5-rhcp-60.cut, Peak: -0.03 dBW, Date: 16-Dec-2011



LHCP at 17.5 GHz

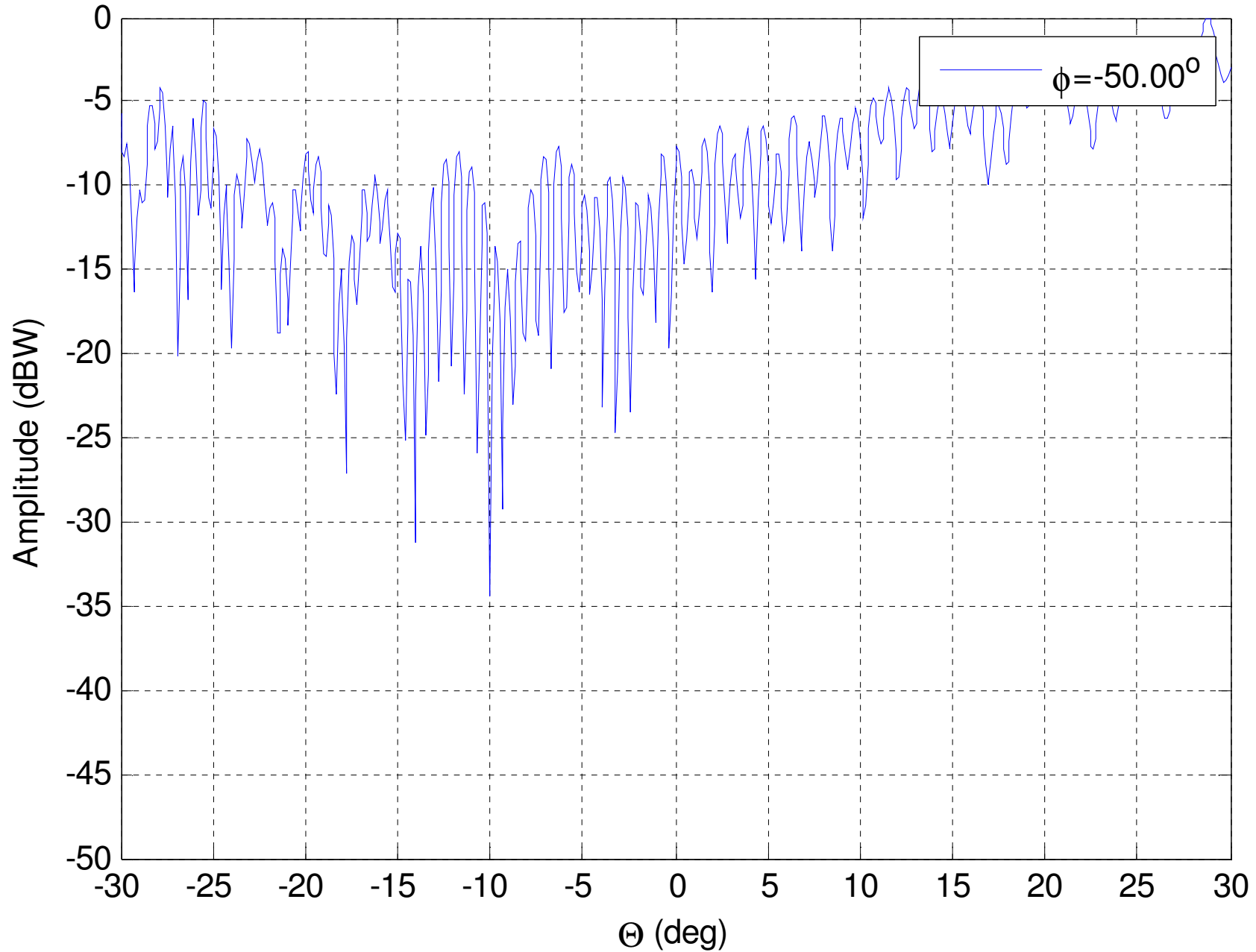
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--60.cut, Peak: -0.48 dBW, Date: 16-Dec-2011



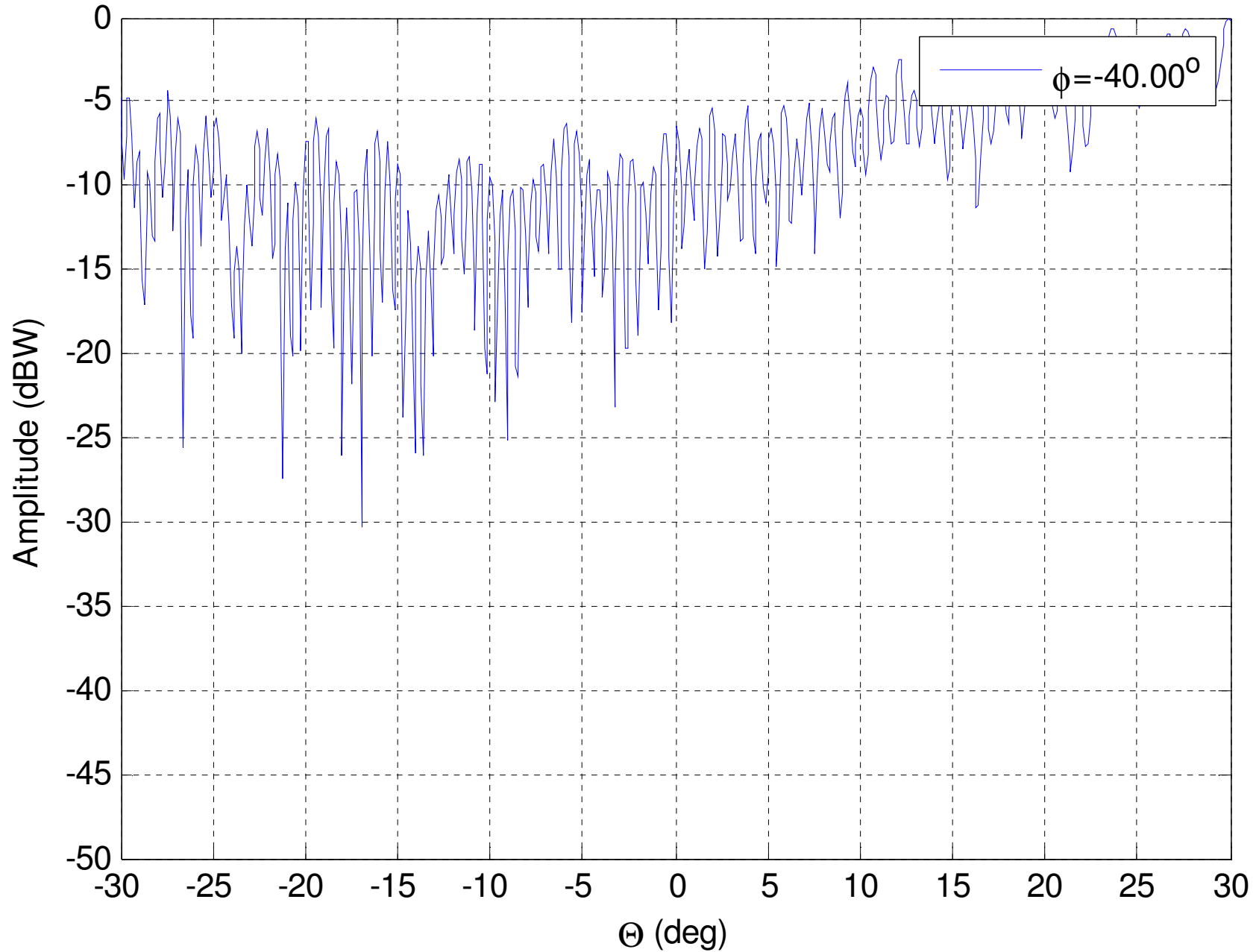
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--50.cut, Peak: -0.71 dBW, Date: 16-Dec-2011



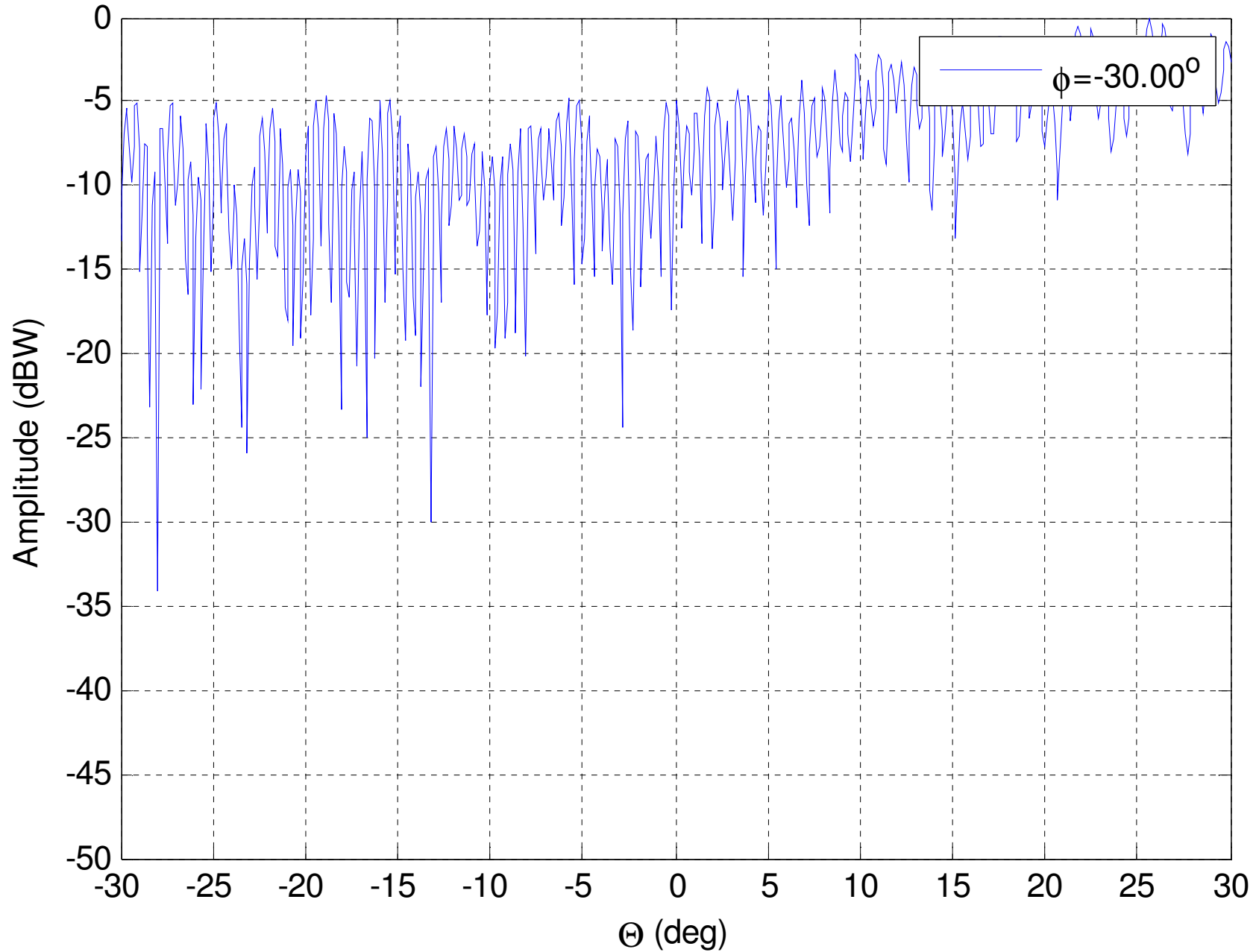
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--40.cut, Peak: -1.83 dBW, Date: 16-Dec-2011



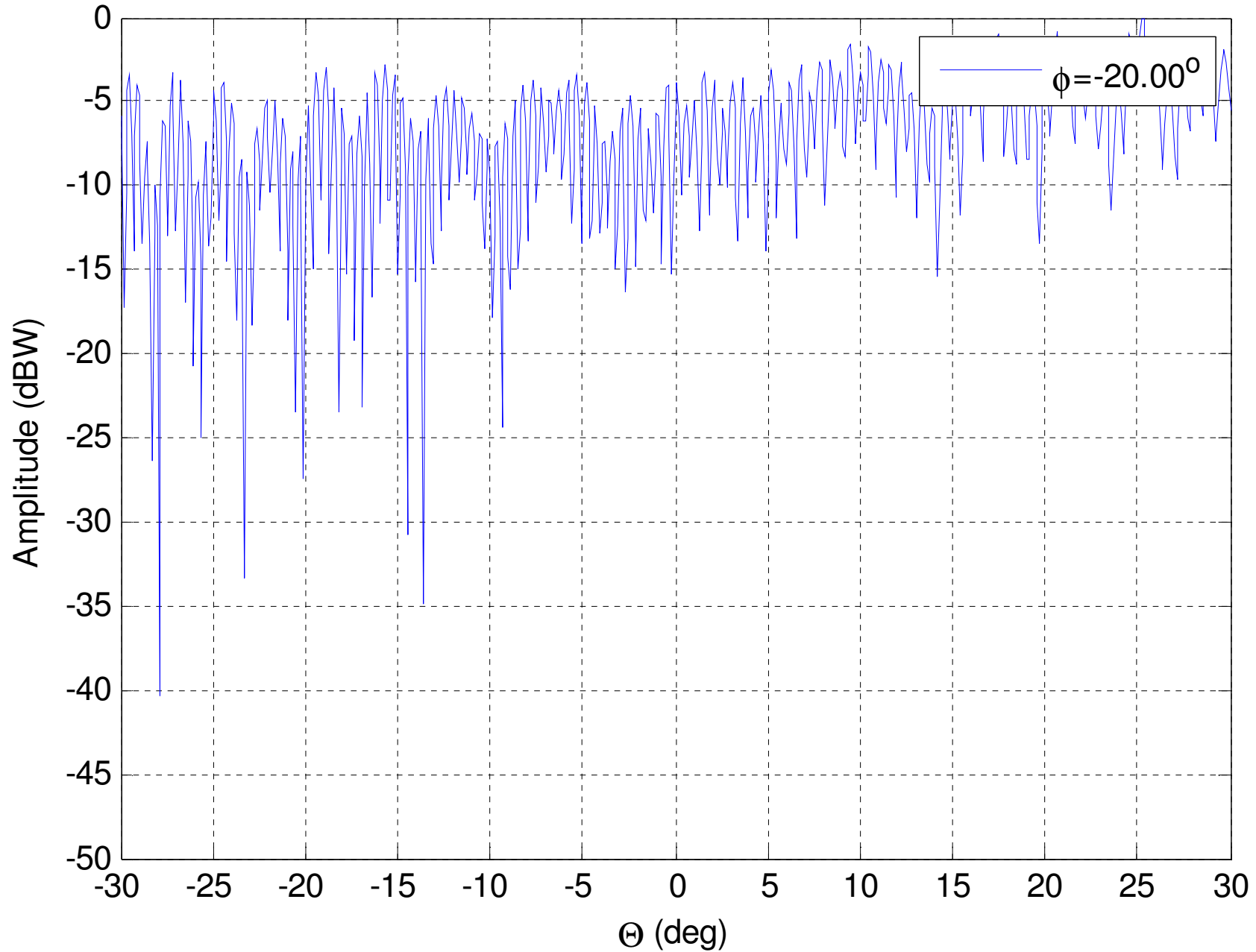
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--30.cut, Peak: -3.35 dBW, Date: 16-Dec-2011



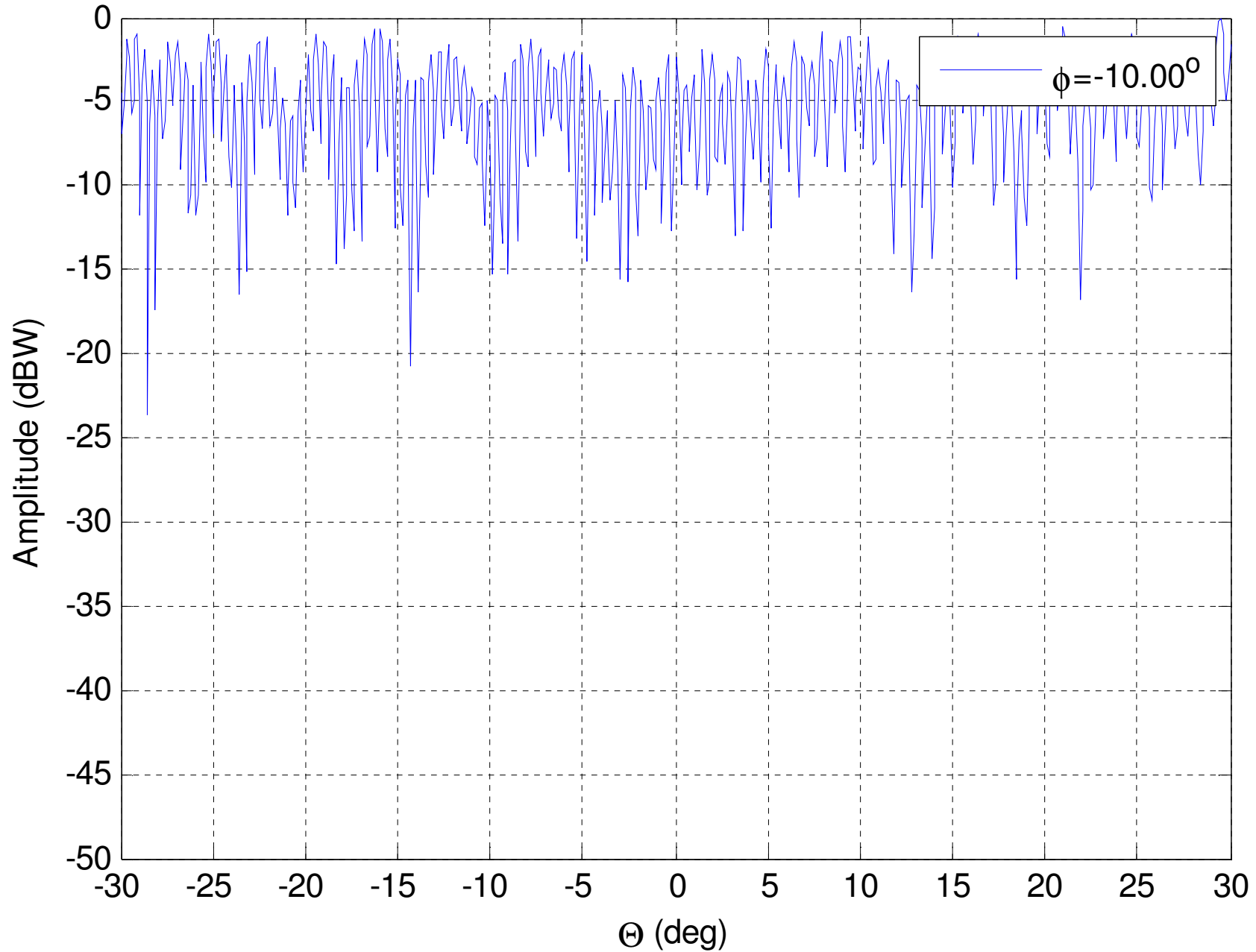
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--20.cut, Peak: -4.51 dBW, Date: 16-Dec-2011



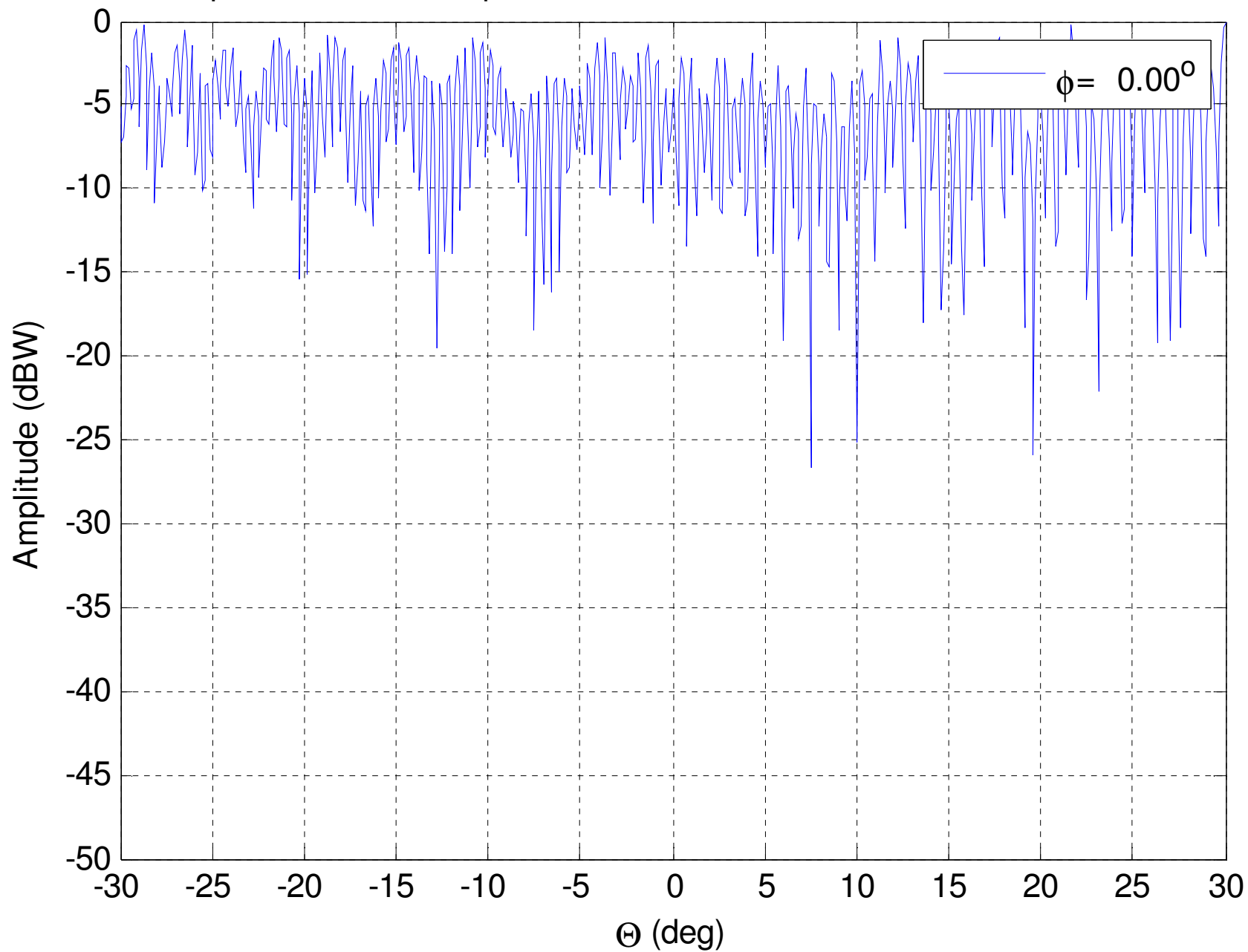
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--10.cut, Peak: -6.01 dBW, Date: 16-Dec-2011



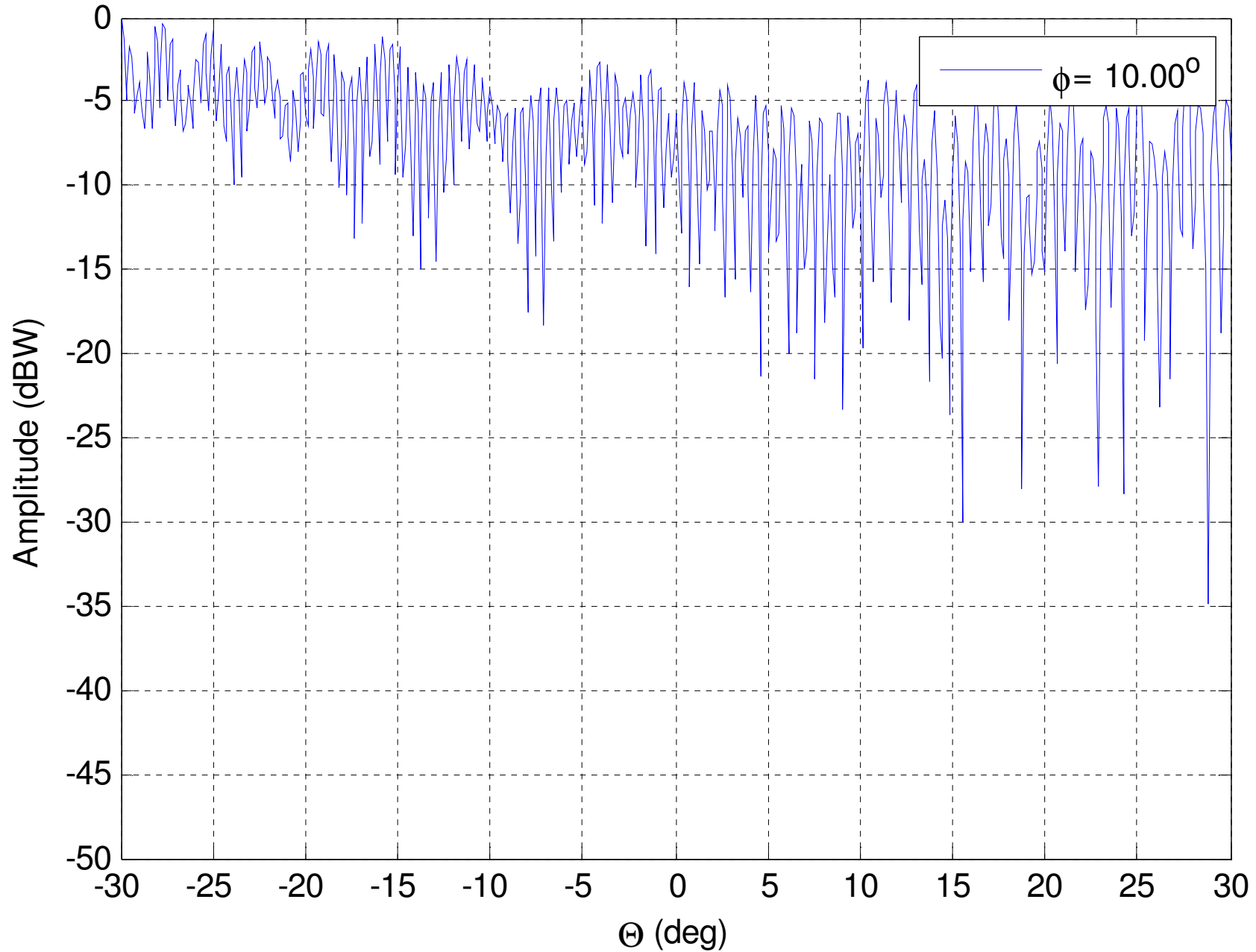
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-0.cut, Peak: -5.55 dBW, Date: 16-Dec-2011



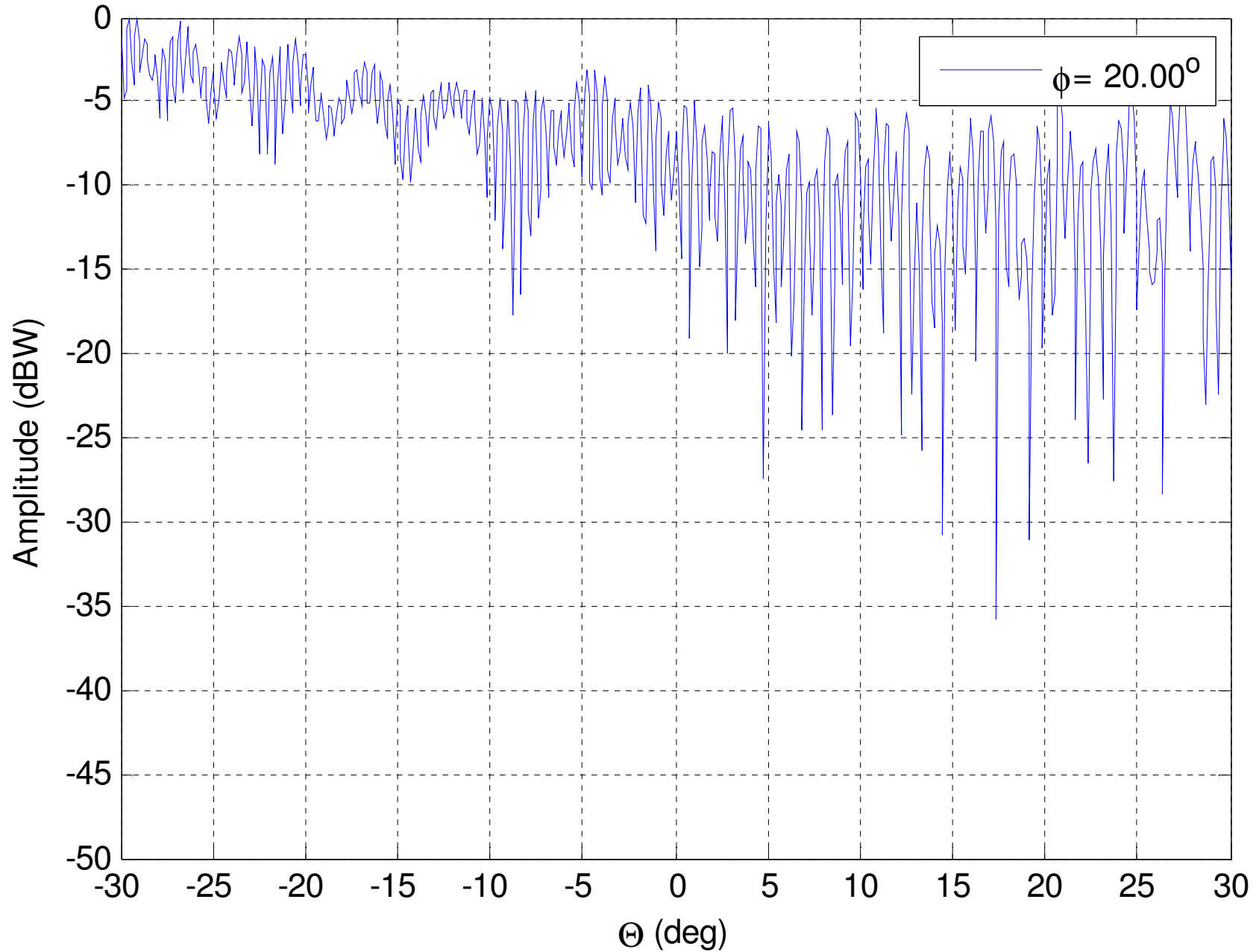
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-10.cut, Peak: -3.88 dBW, Date: 16-Dec-2011



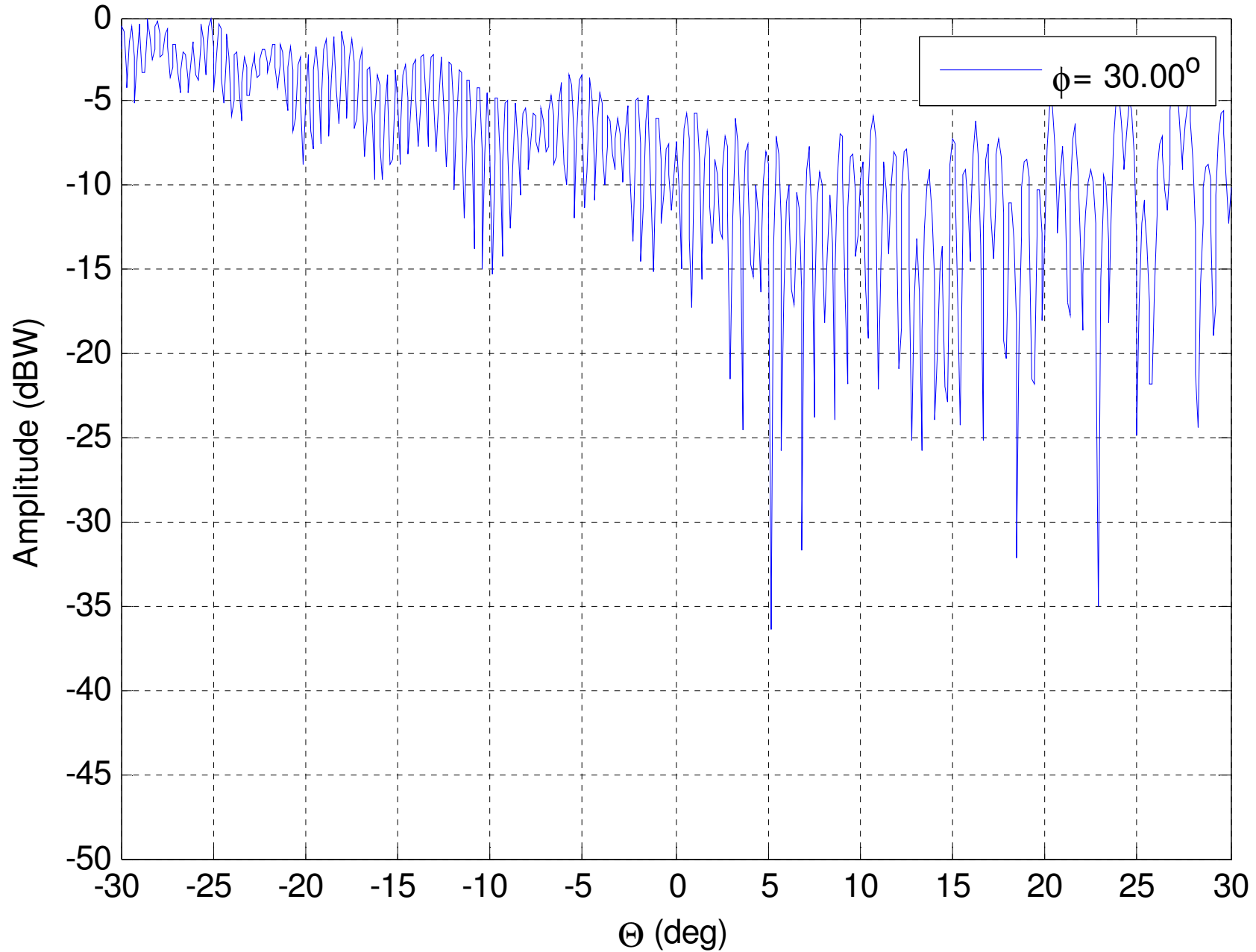
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-20.cut, Peak: -2.80 dBW, Date: 16-Dec-2011



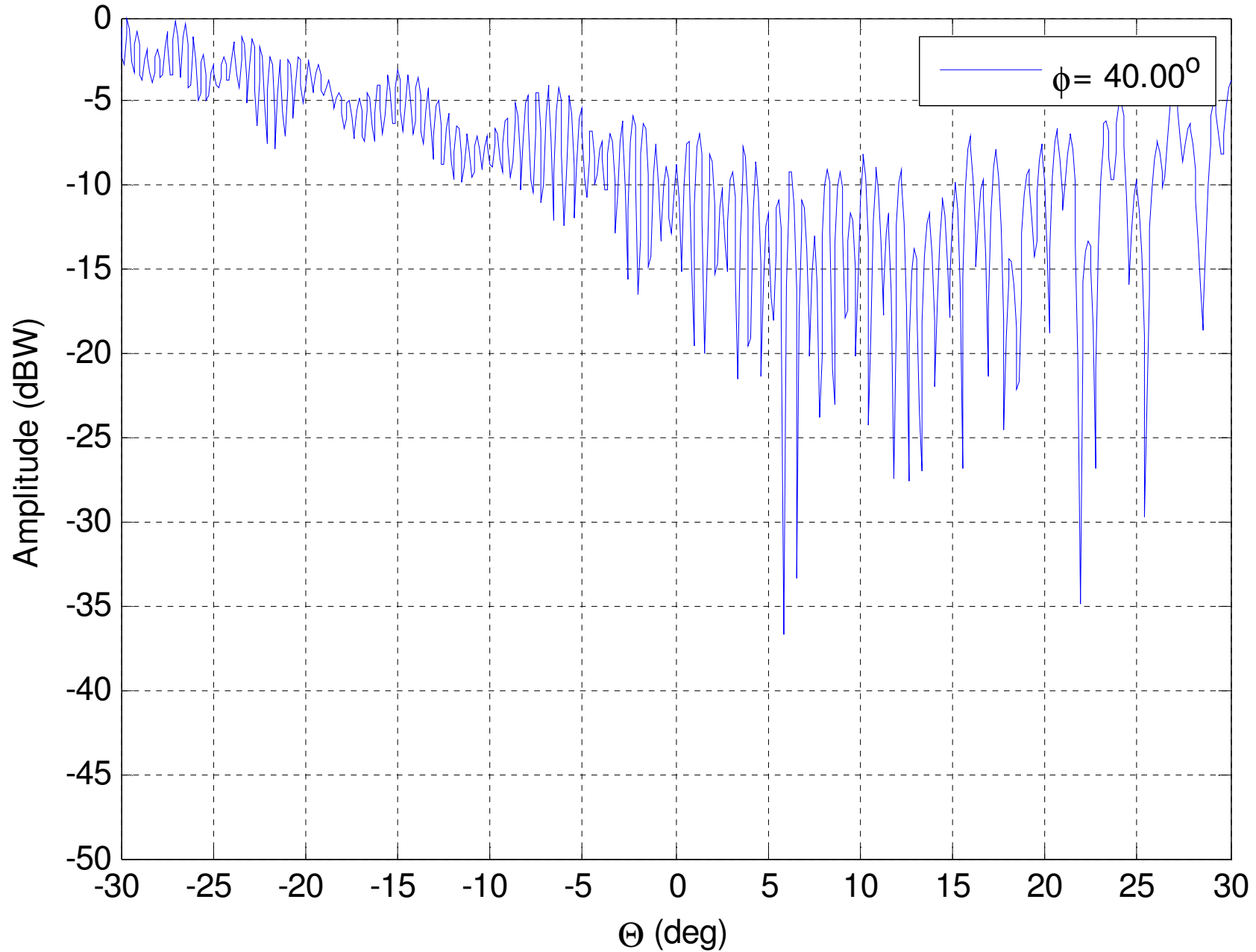
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-30.cut, Peak: -2.20 dBW, Date: 16-Dec-2011



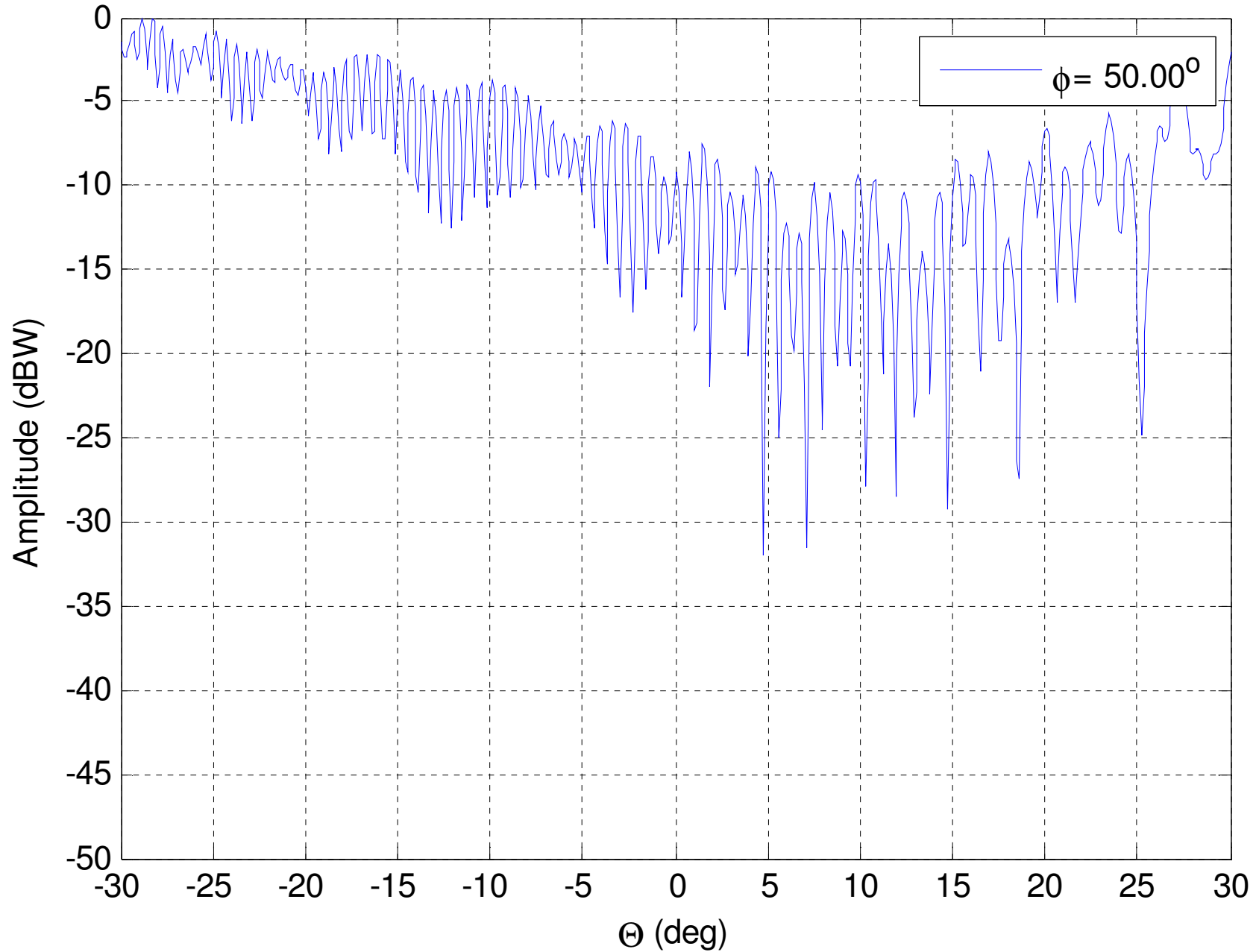
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-40.cut, Peak: -0.72 dBW, Date: 16-Dec-2011



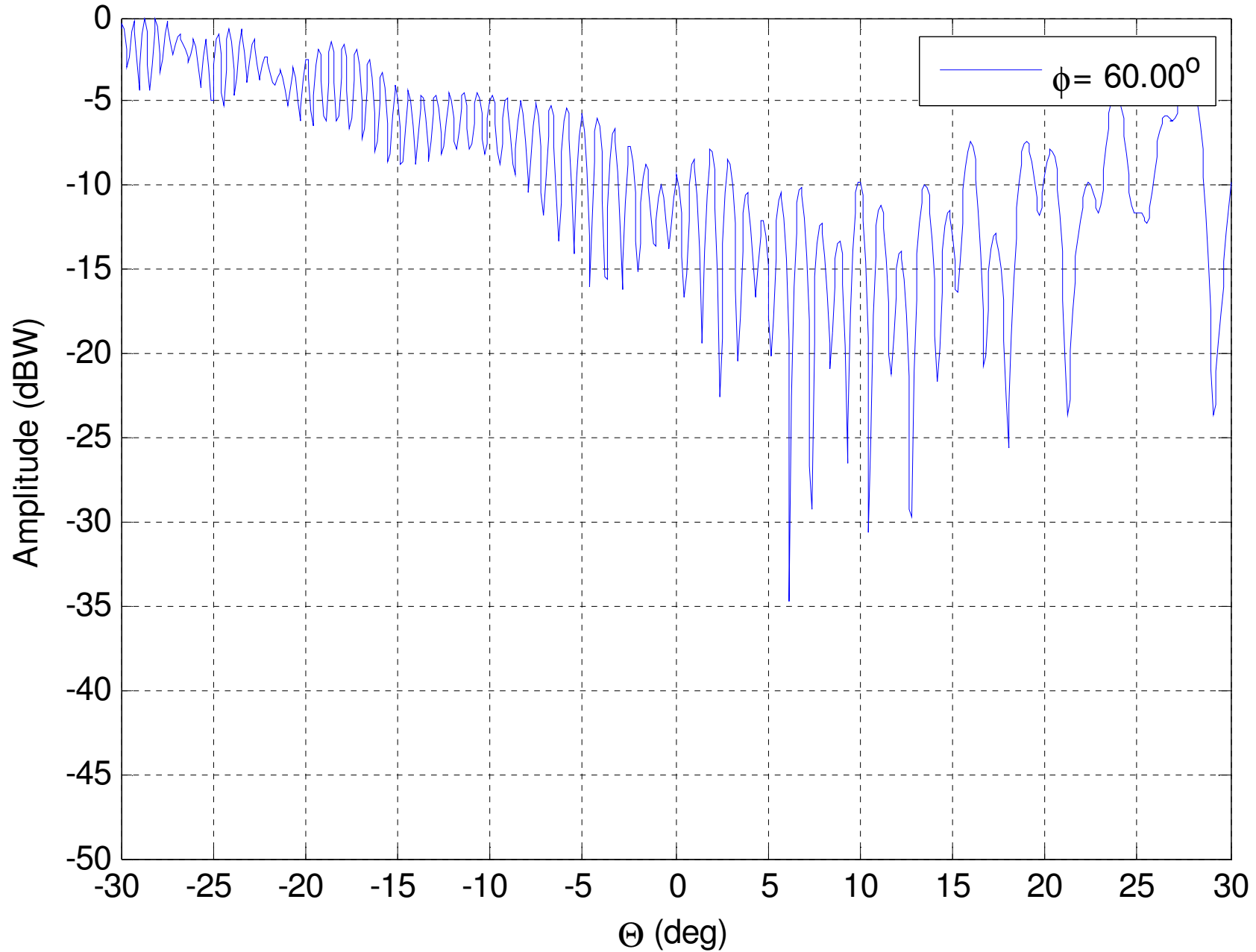
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-50.cut, Peak: -0.13 dBW, Date: 16-Dec-2011



Normalized pattern cuts - farfield

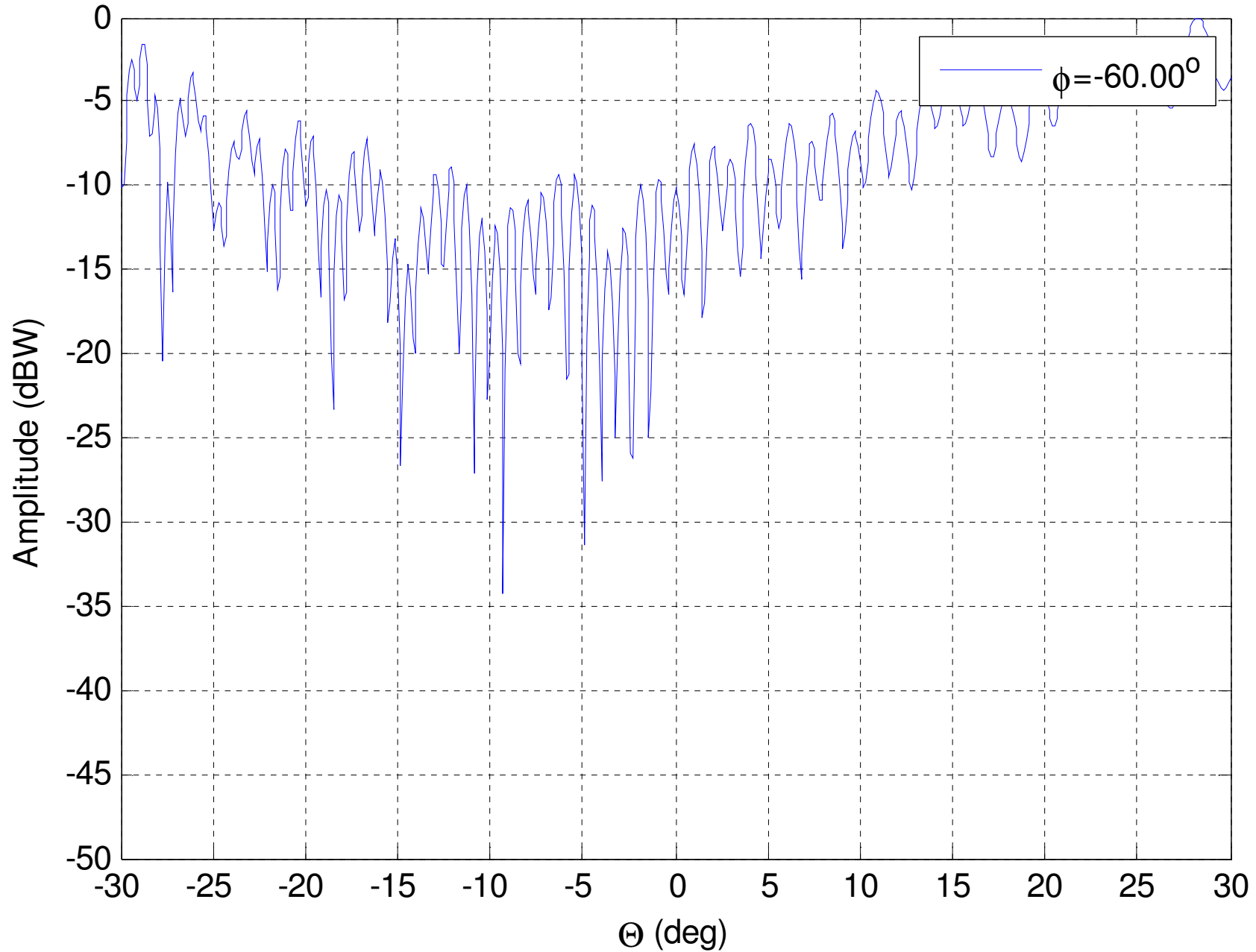
Input file: tx-17.5-lhcp-60.cut, Peak: 0.14 dBW, Date: 16-Dec-2011



RHCP at 17.7 GHz

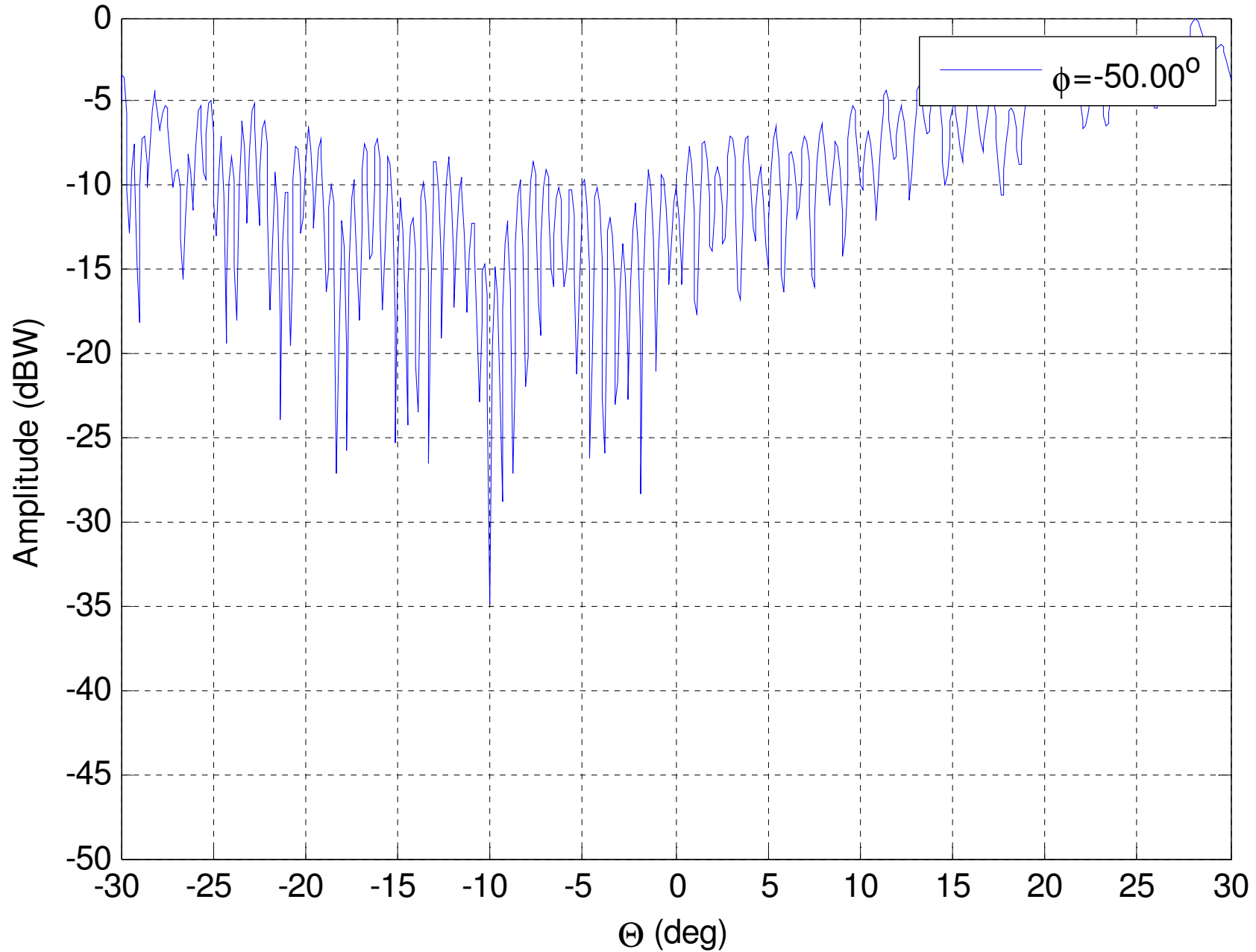
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--60.cut, Peak: -0.76 dBW, Date: 16-Dec-2011



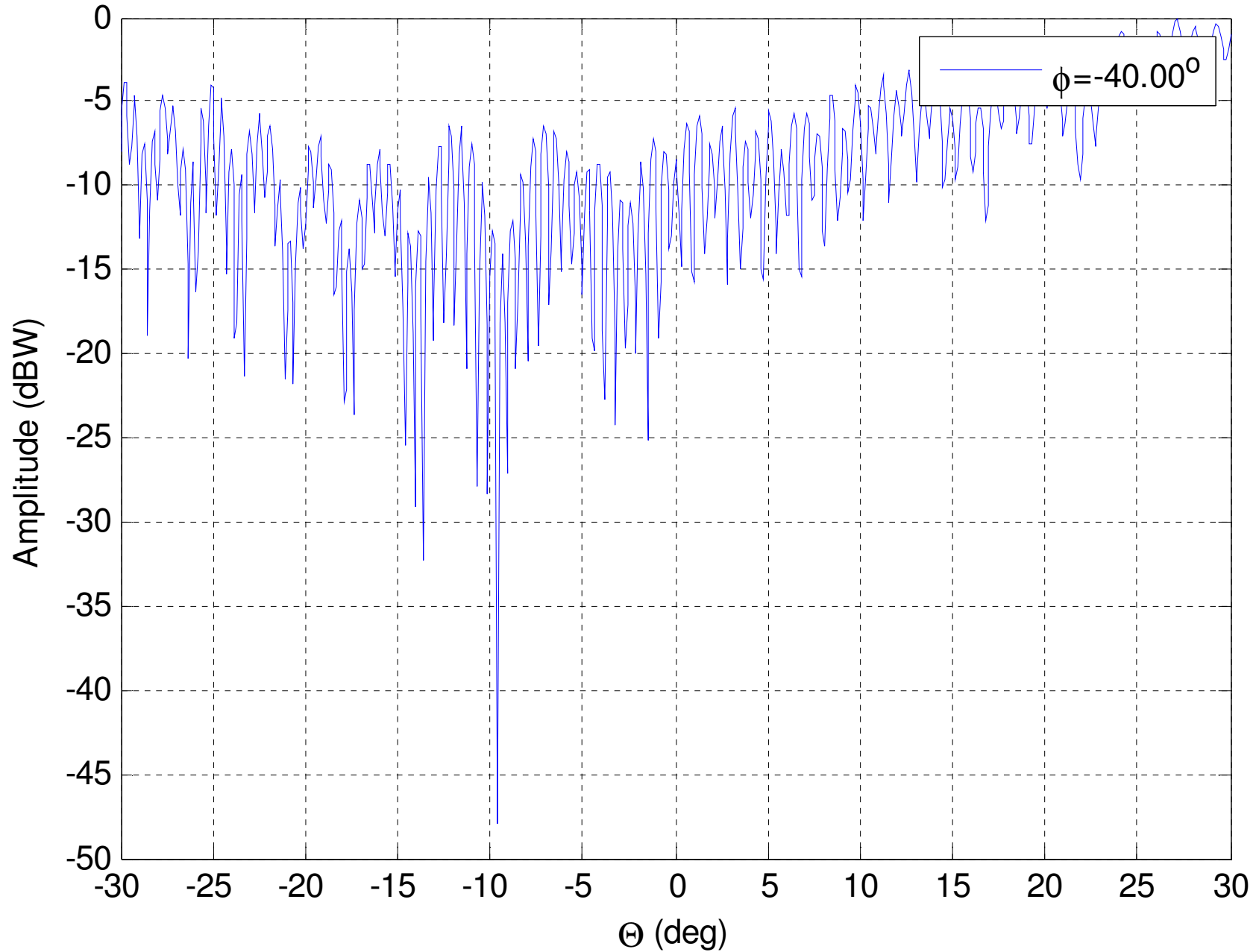
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--50.cut, Peak: -1.02 dBW, Date: 16-Dec-2011



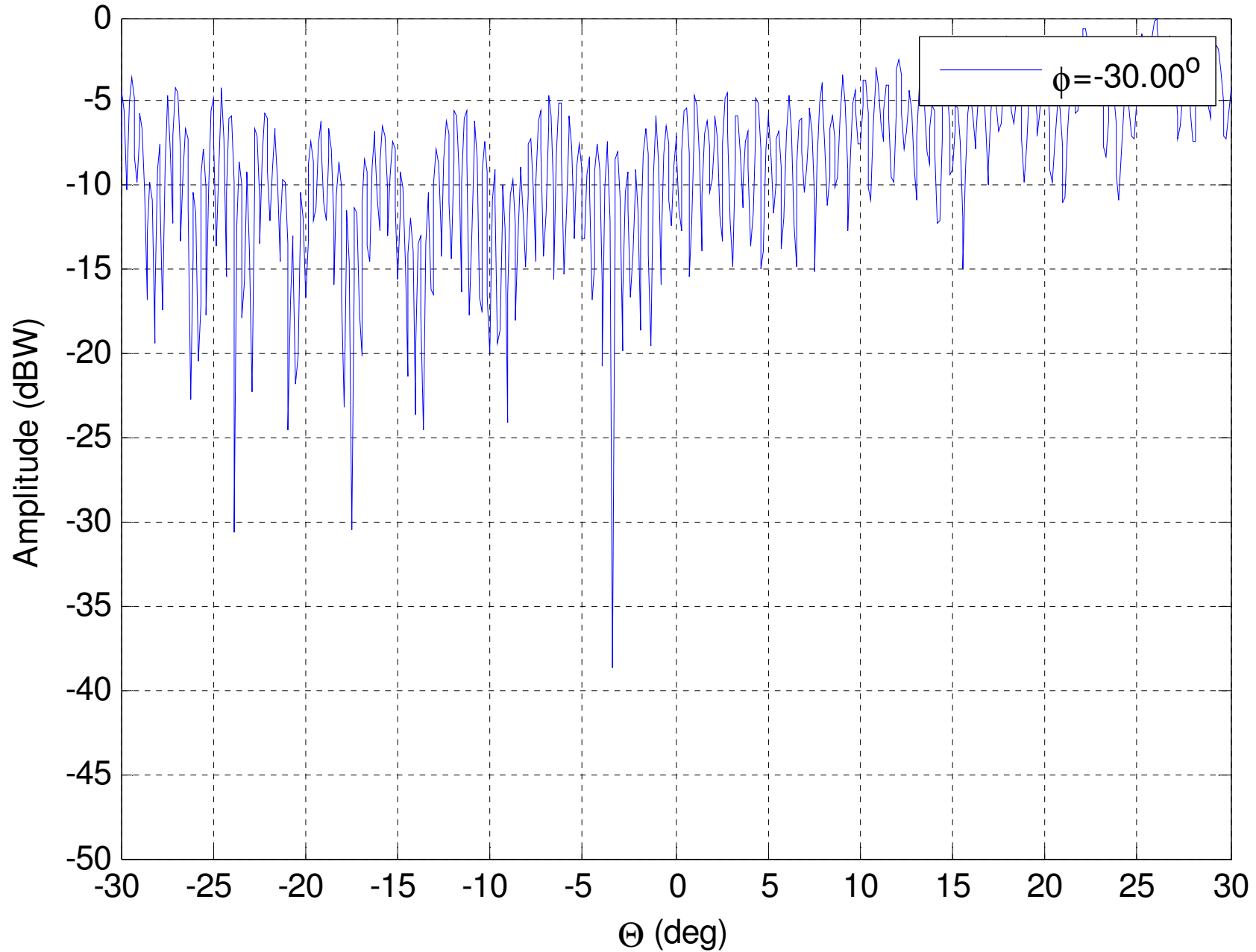
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--40.cut, Peak: -2.51 dBW, Date: 16-Dec-2011



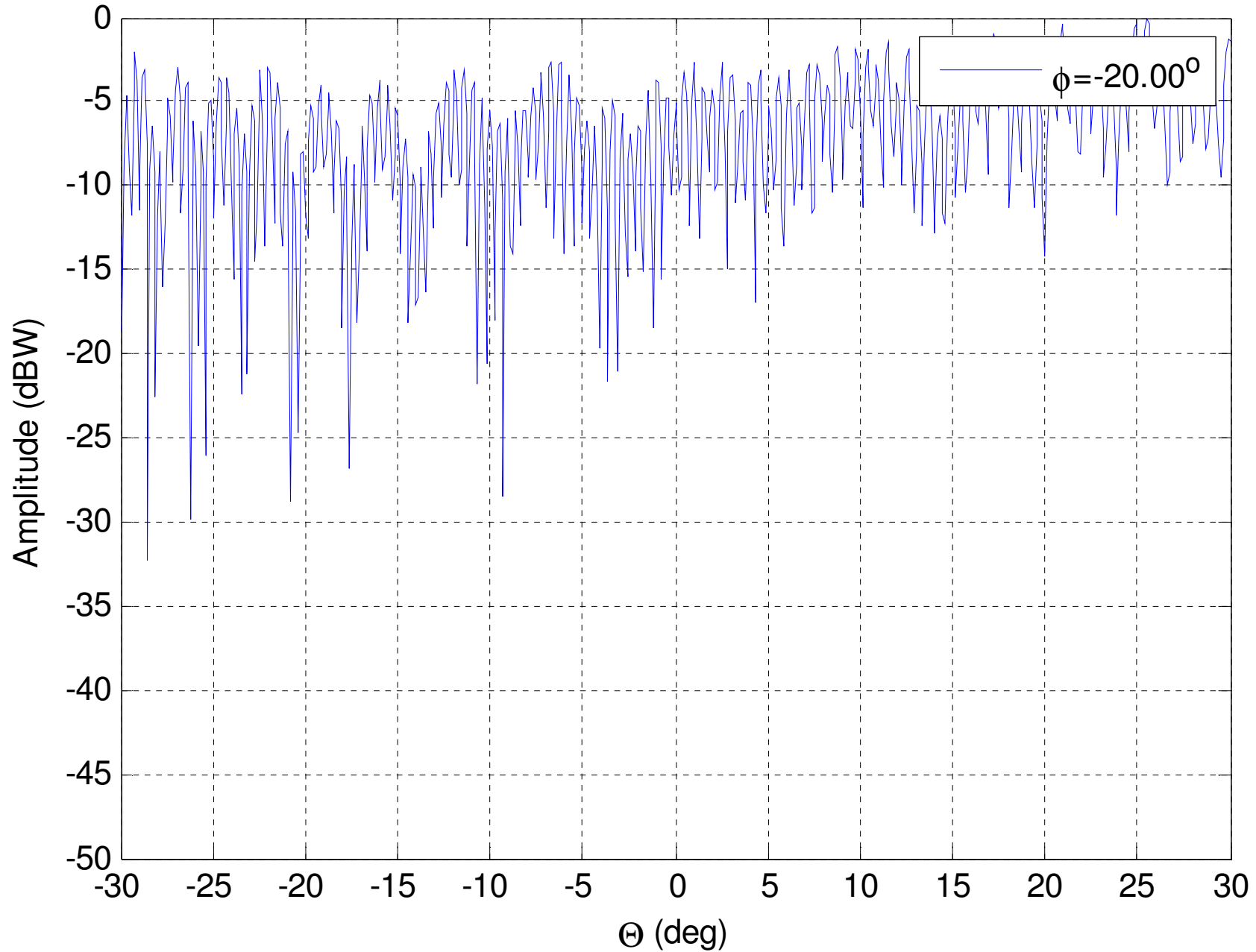
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--30.cut, Peak: -3.81 dBW, Date: 16-Dec-2011



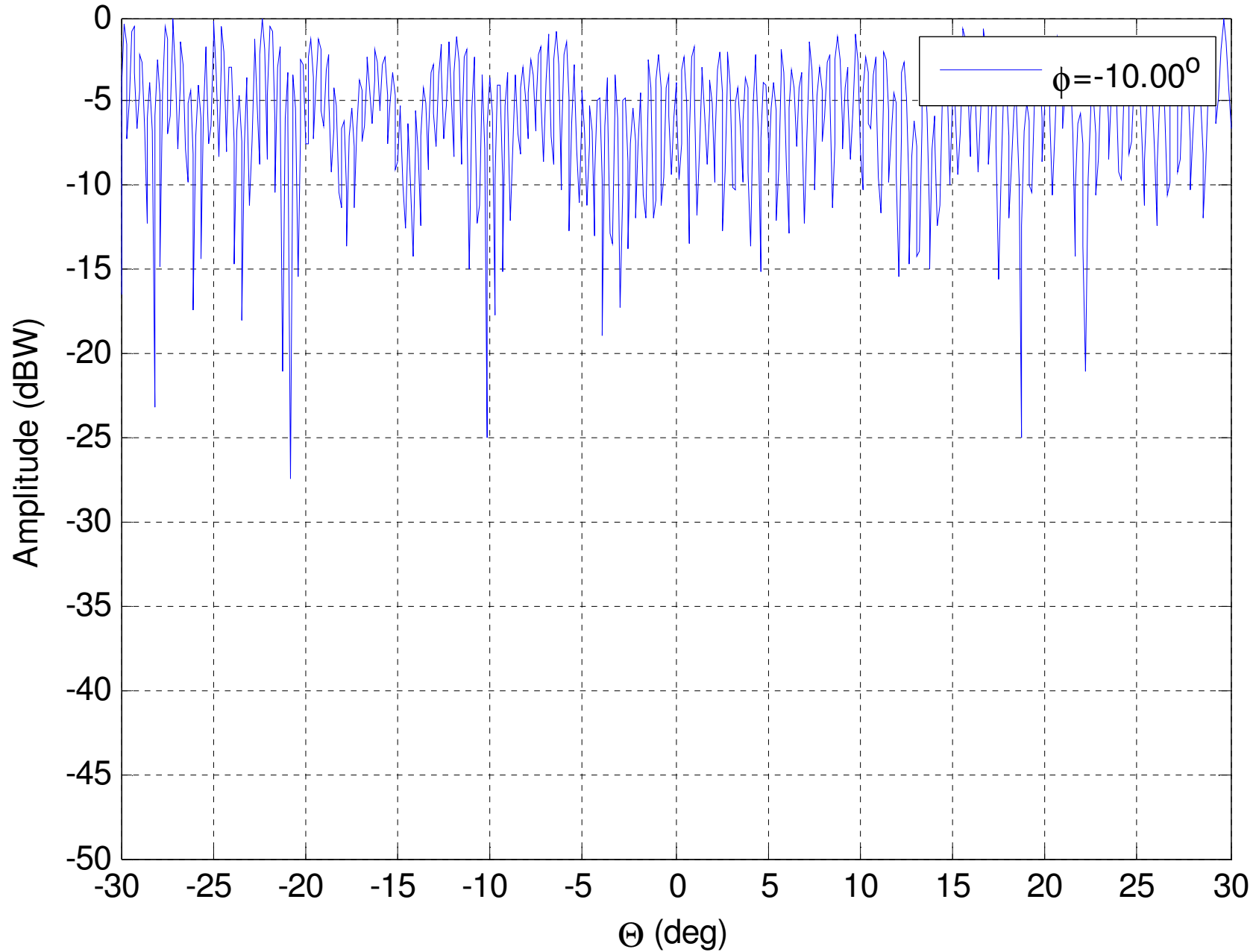
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--20.cut, Peak: -5.87 dBW, Date: 16-Dec-2011



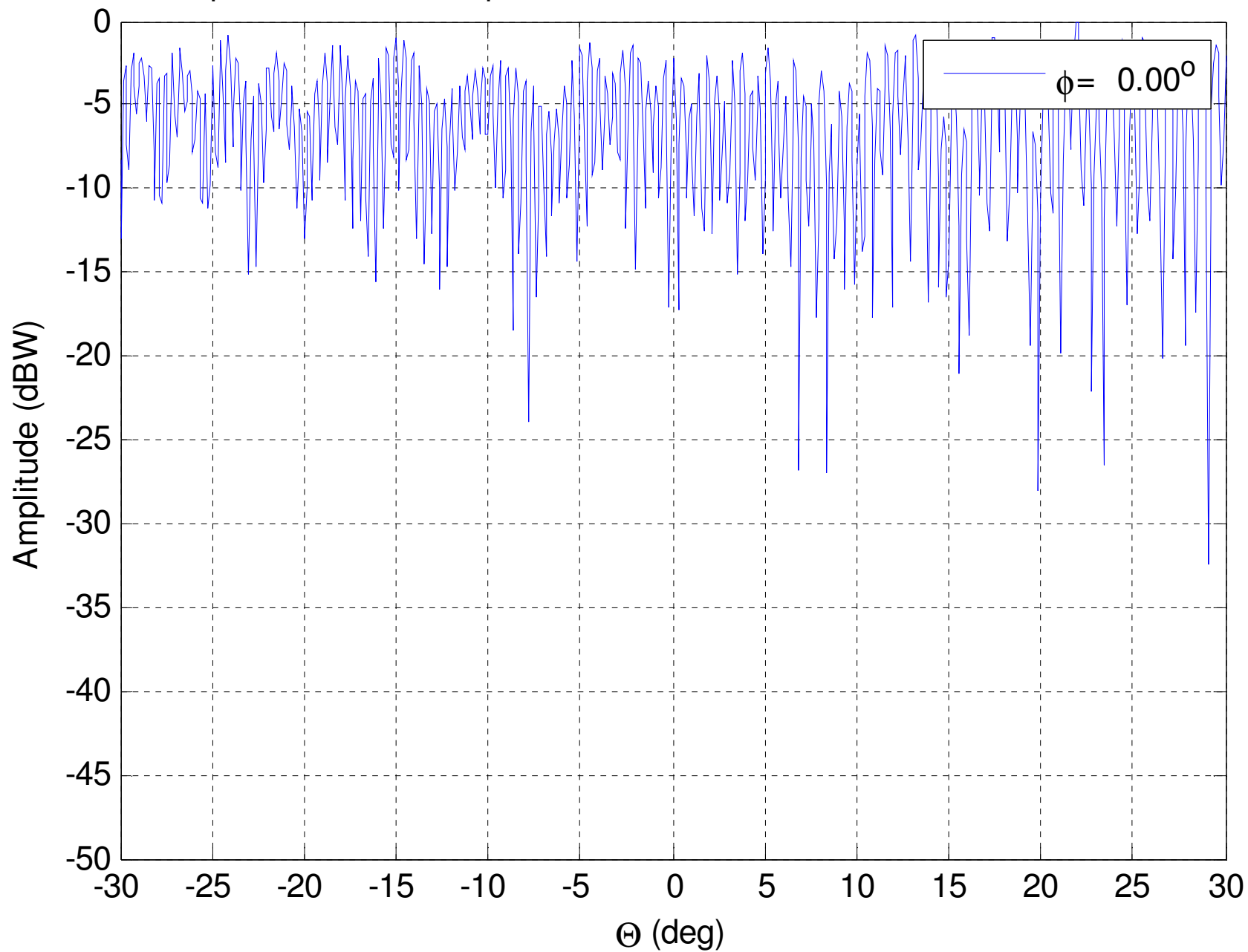
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--10.cut, Peak: -7.01 dBW, Date: 16-Dec-2011



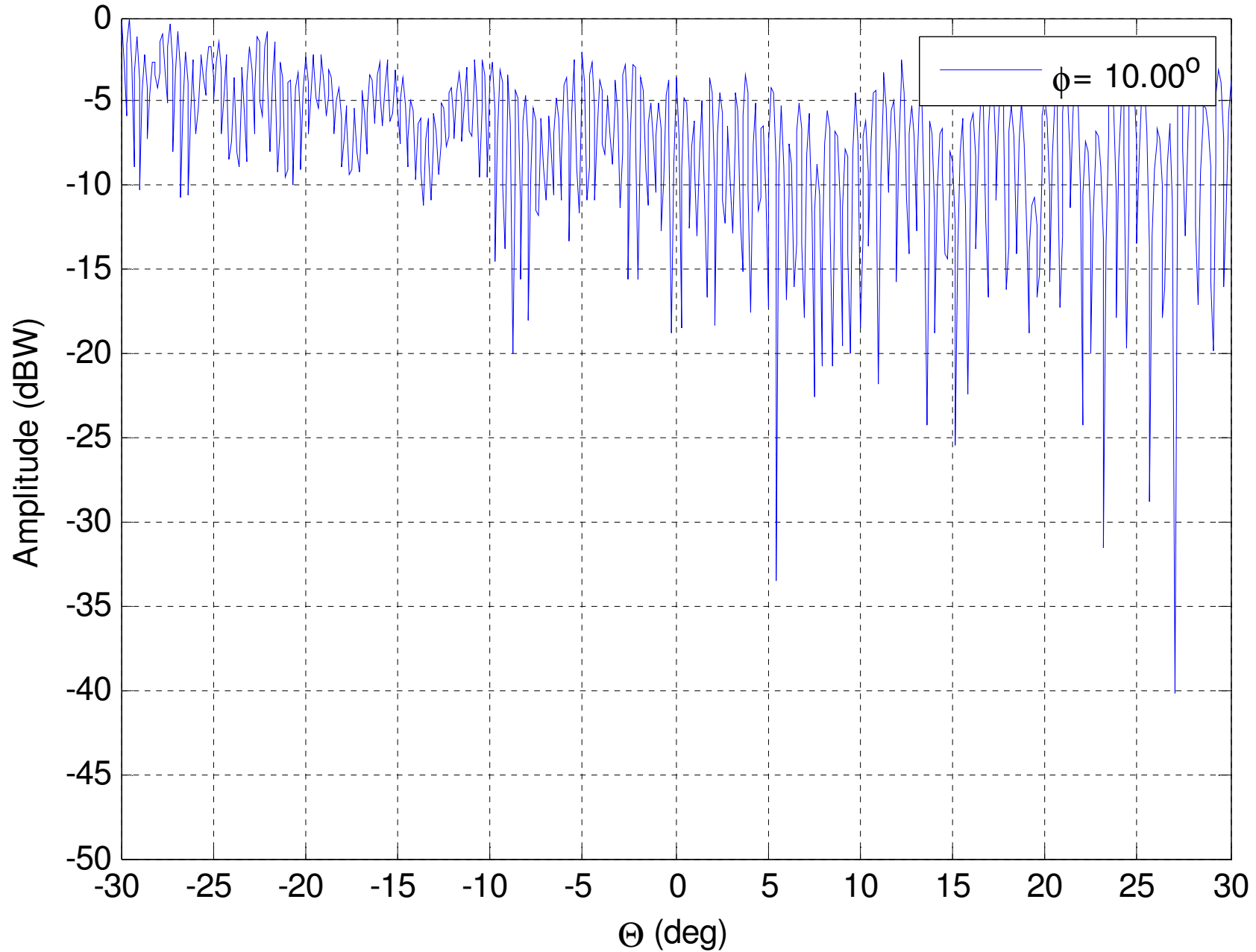
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-0.cut, Peak: -6.71 dBW, Date: 16-Dec-2011



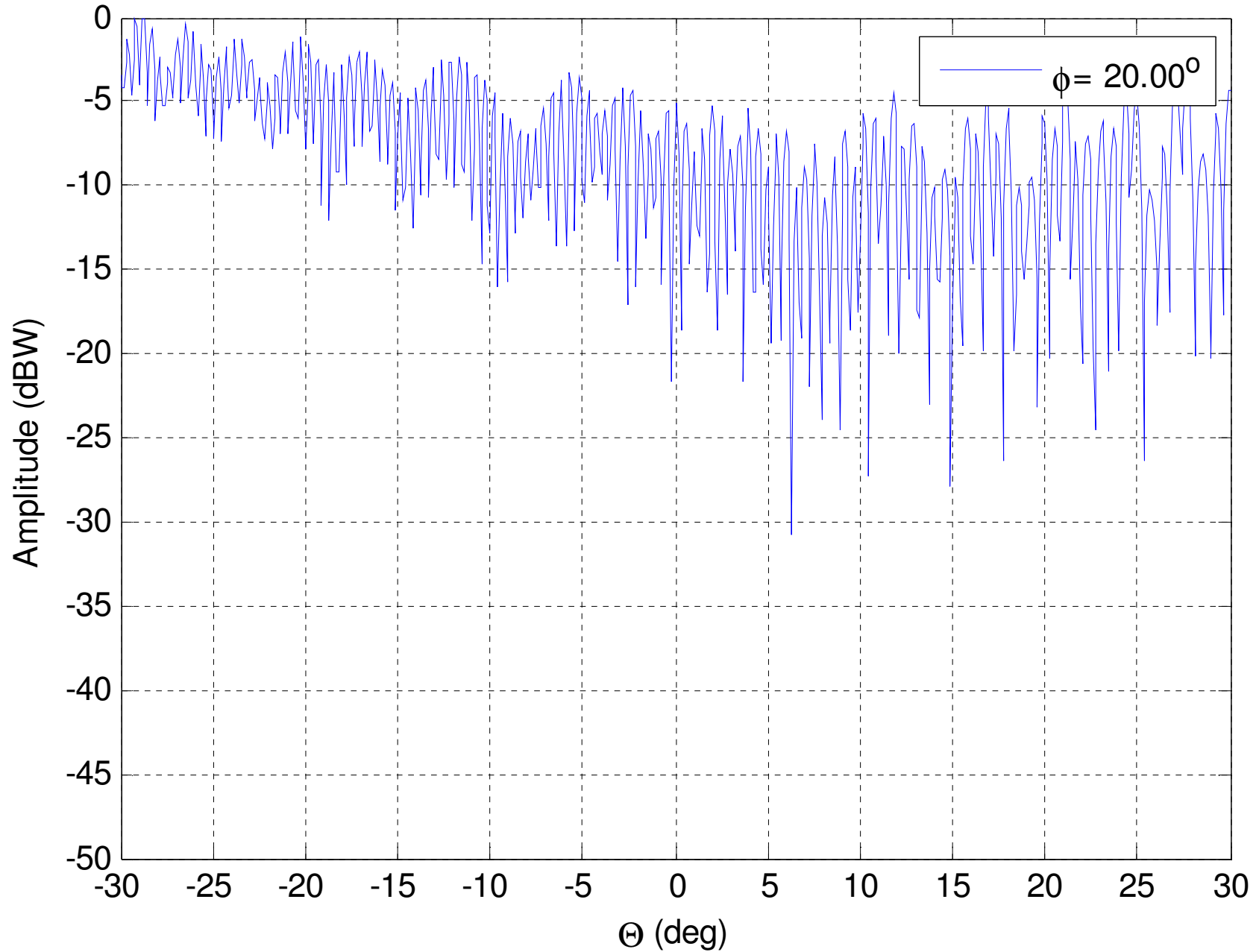
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-10.cut, Peak: -5.35 dBW, Date: 16-Dec-2011



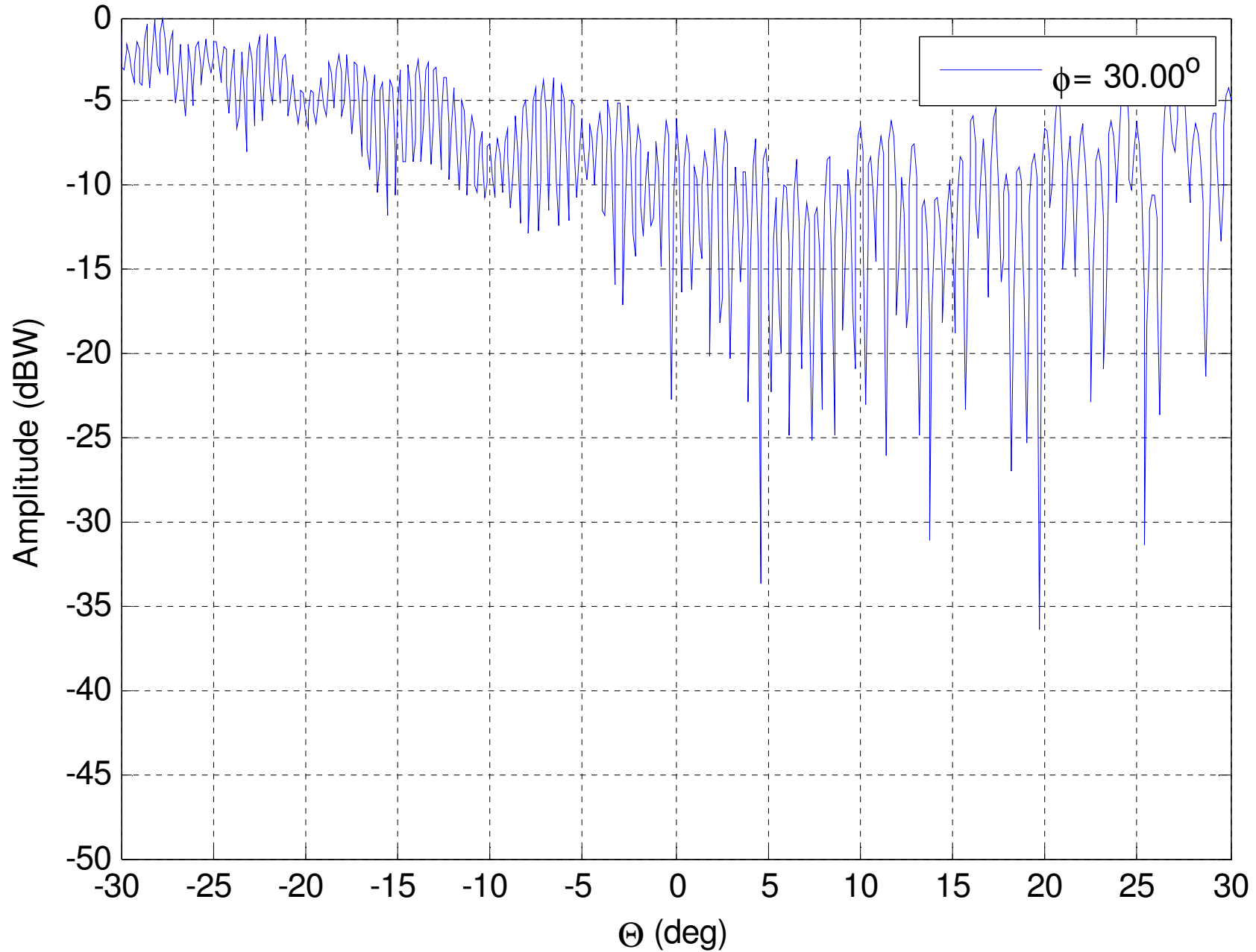
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-20.cut, Peak: -3.73 dBW, Date: 16-Dec-2011



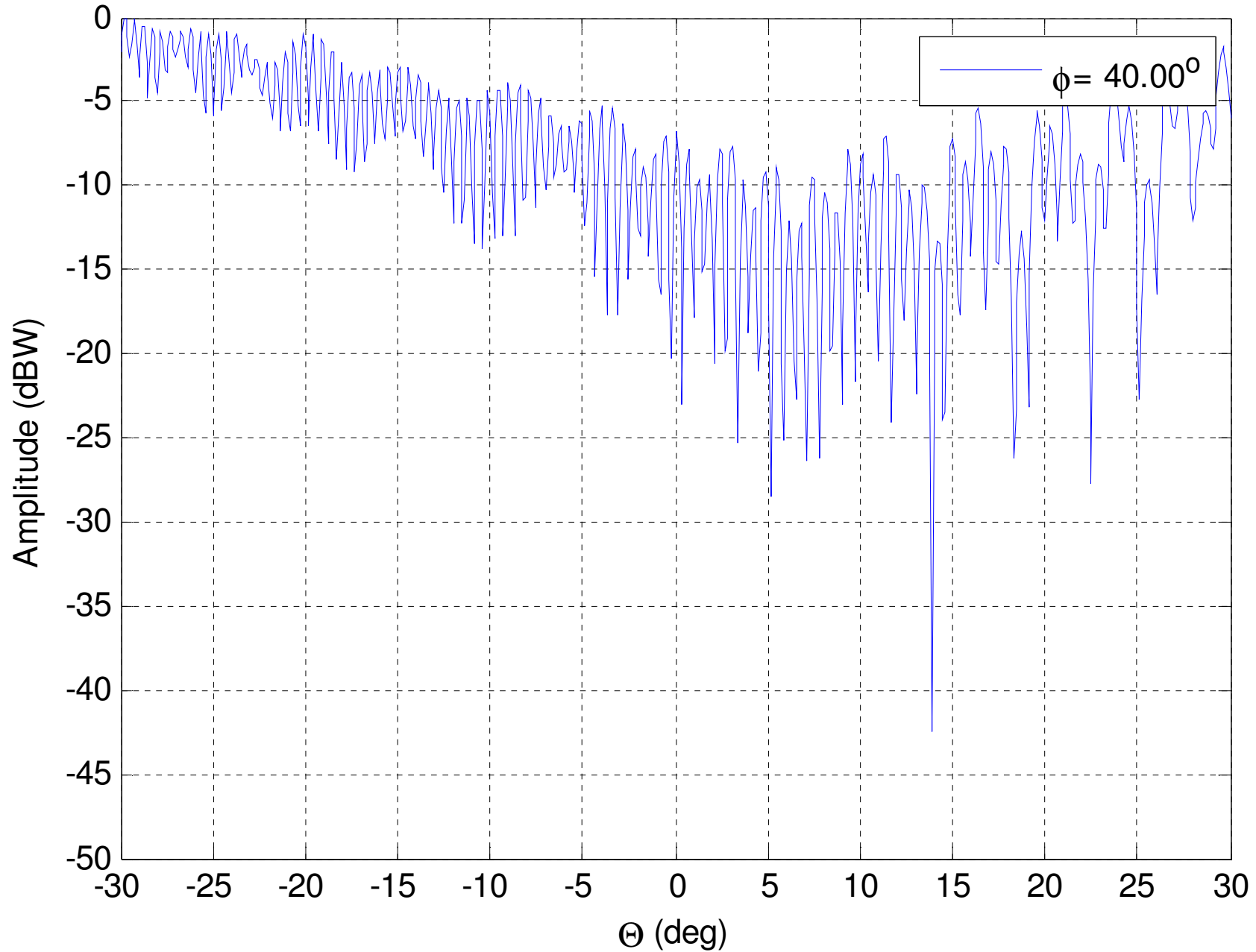
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-30.cut, Peak: -2.71 dBW, Date: 16-Dec-2011



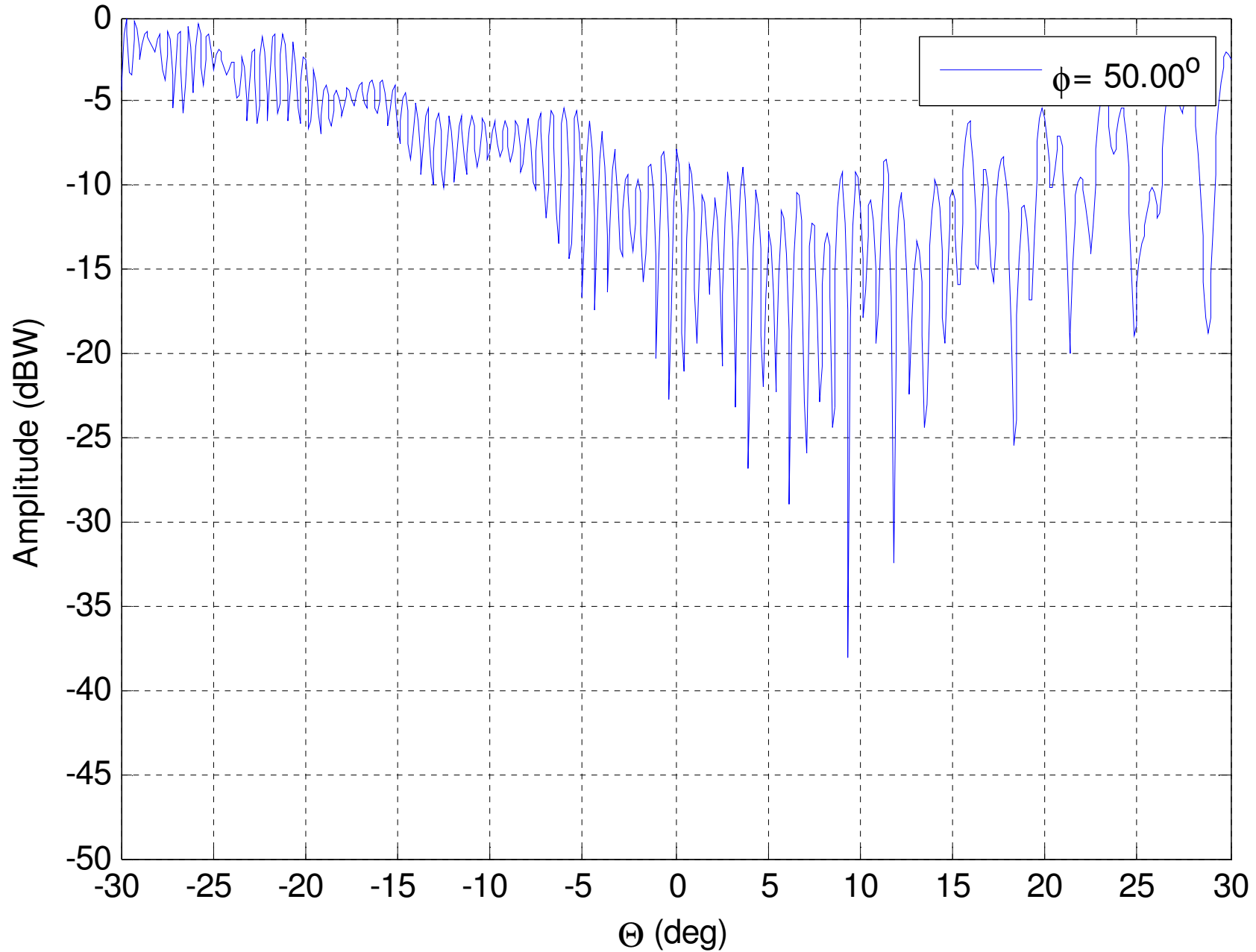
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-40.cut, Peak: -1.84 dBW, Date: 16-Dec-2011



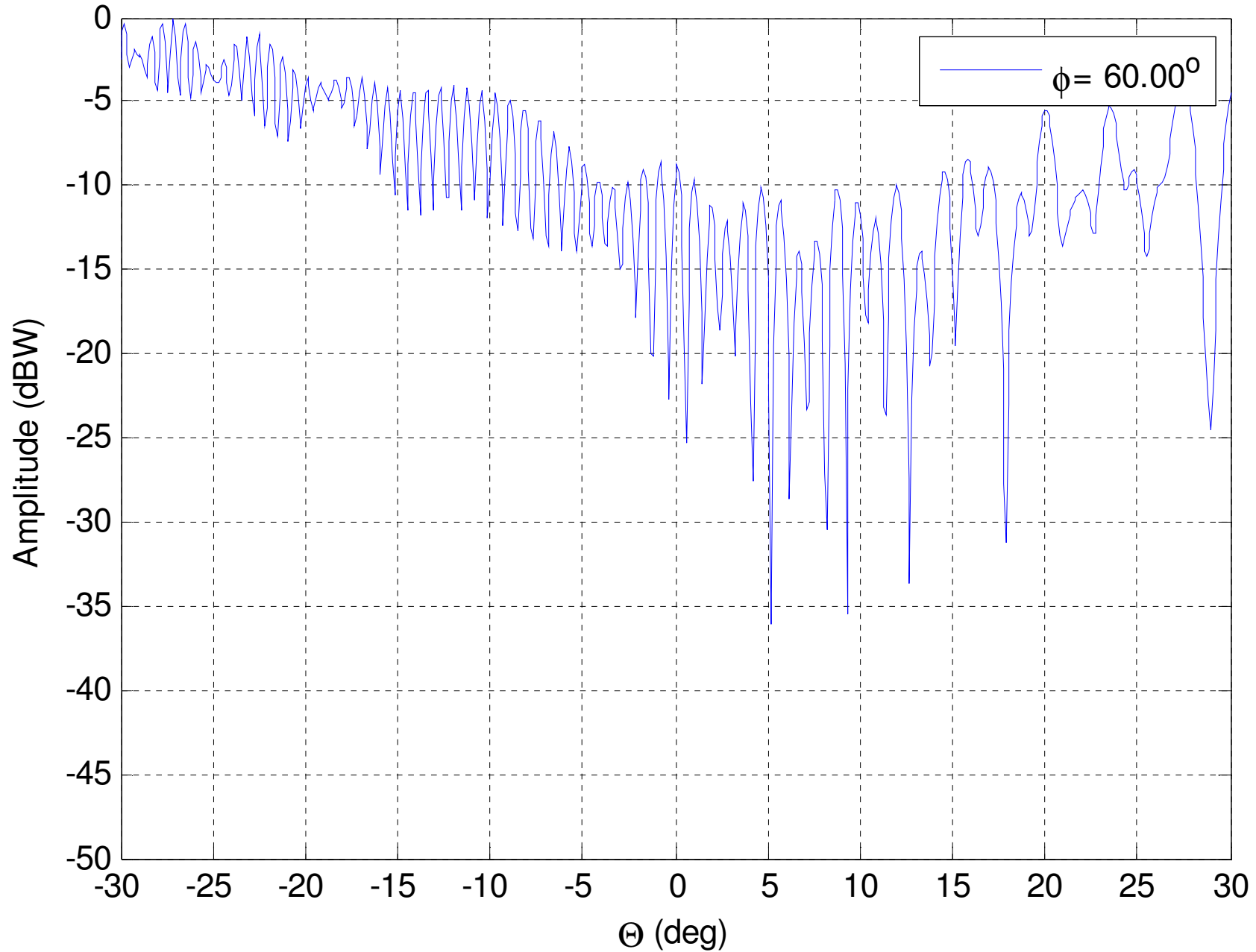
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-50.cut, Peak: -0.79 dBW, Date: 16-Dec-2011



Normalized pattern cuts - farfield

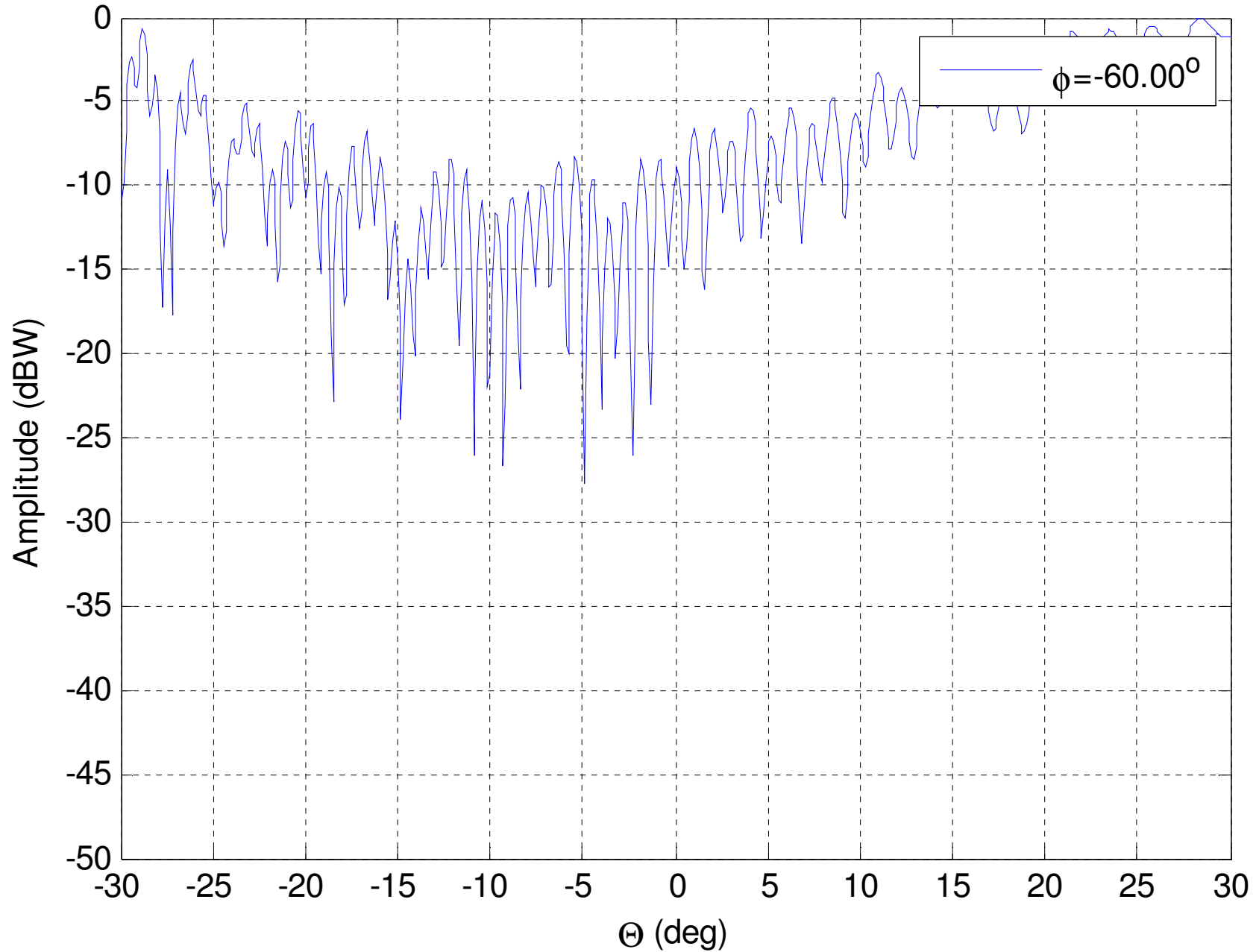
Input file: tx-17.7-rhcp-60.cut, Peak: 0.16 dBW, Date: 16-Dec-2011



LHCP at 17.7 GHz

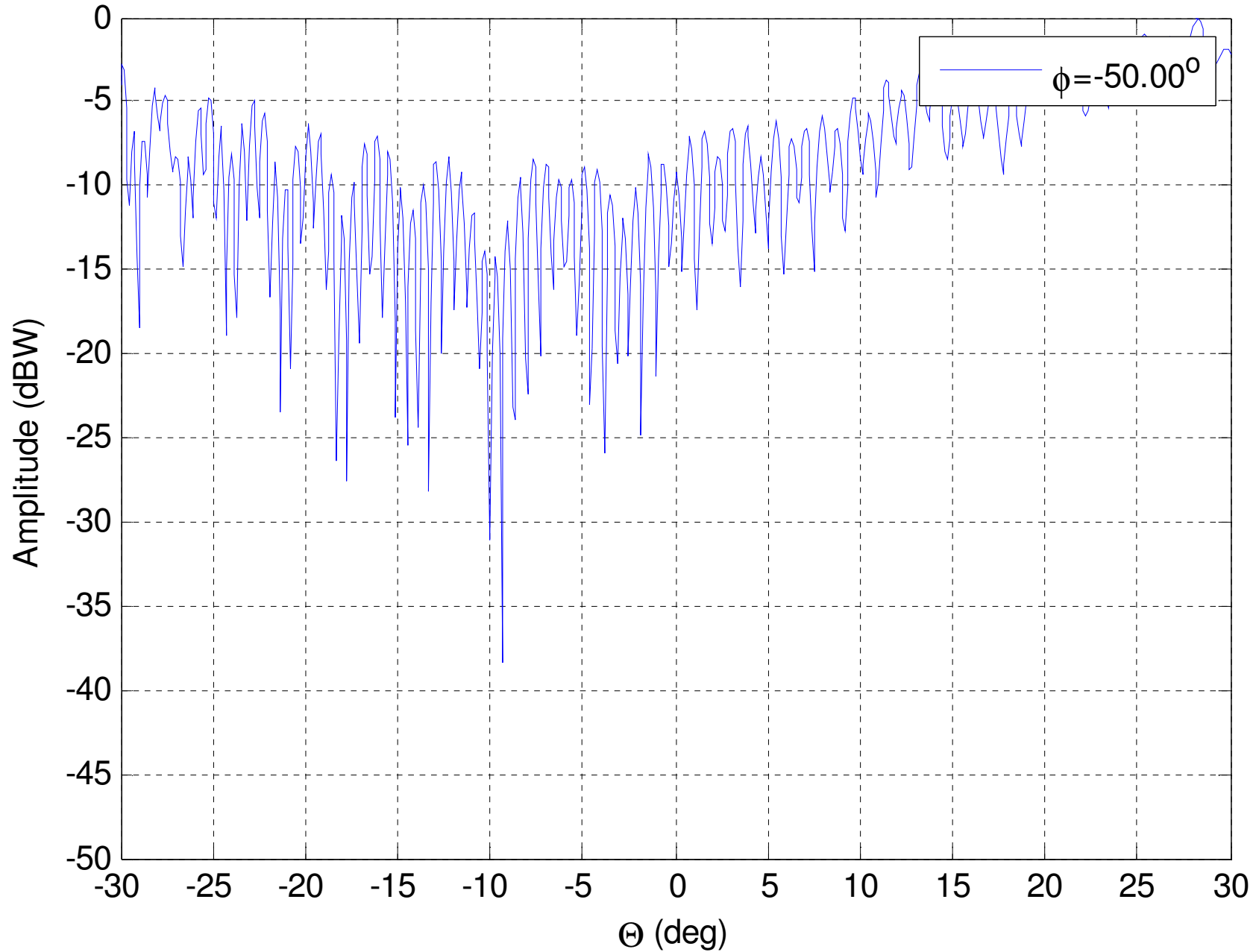
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--60.cut, Peak: -1.44 dBW, Date: 16-Dec-2011



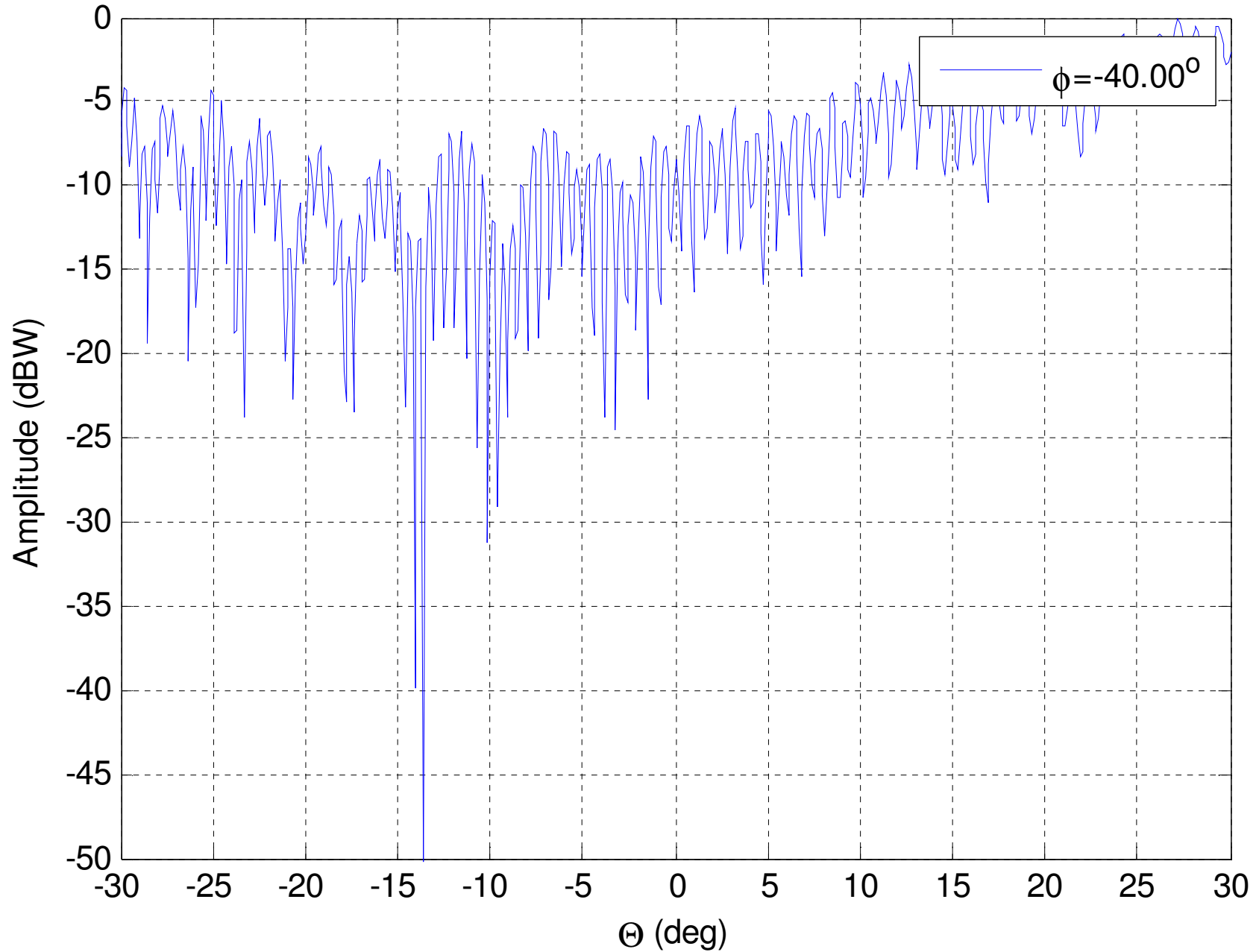
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--50.cut, Peak: -1.23 dBW, Date: 16-Dec-2011



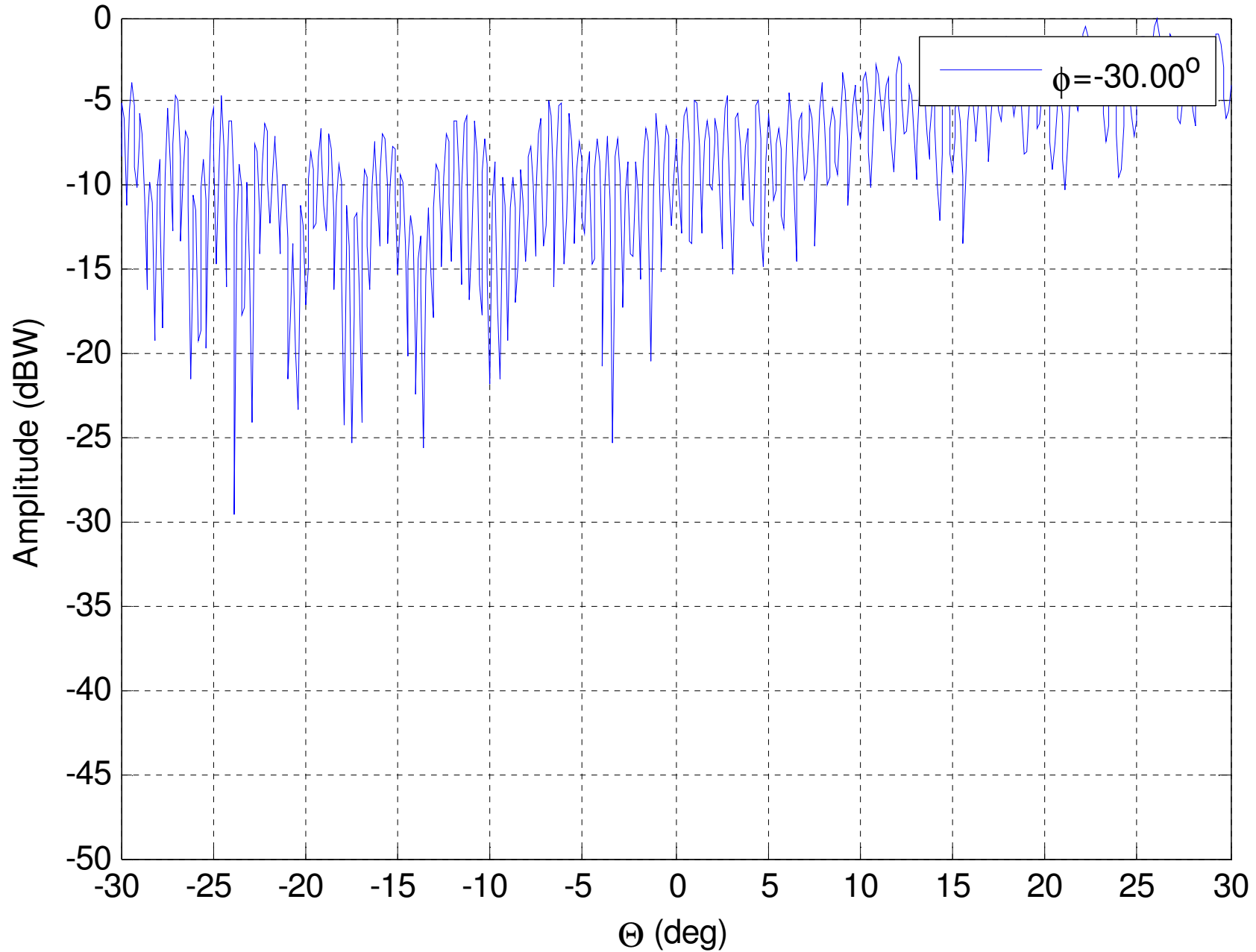
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--40.cut, Peak: -2.18 dBW, Date: 16-Dec-2011



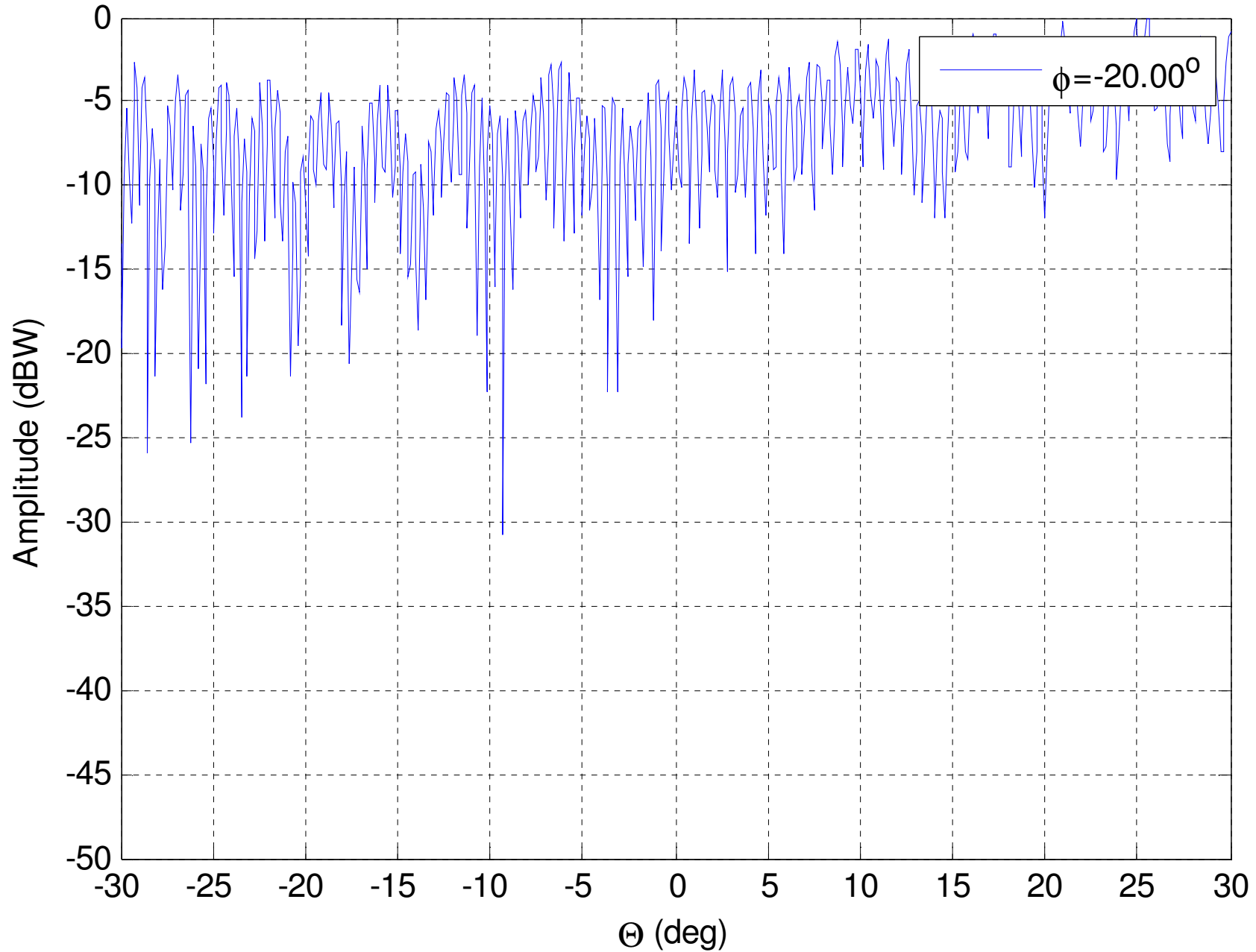
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--30.cut, Peak: -3.34 dBW, Date: 16-Dec-2011



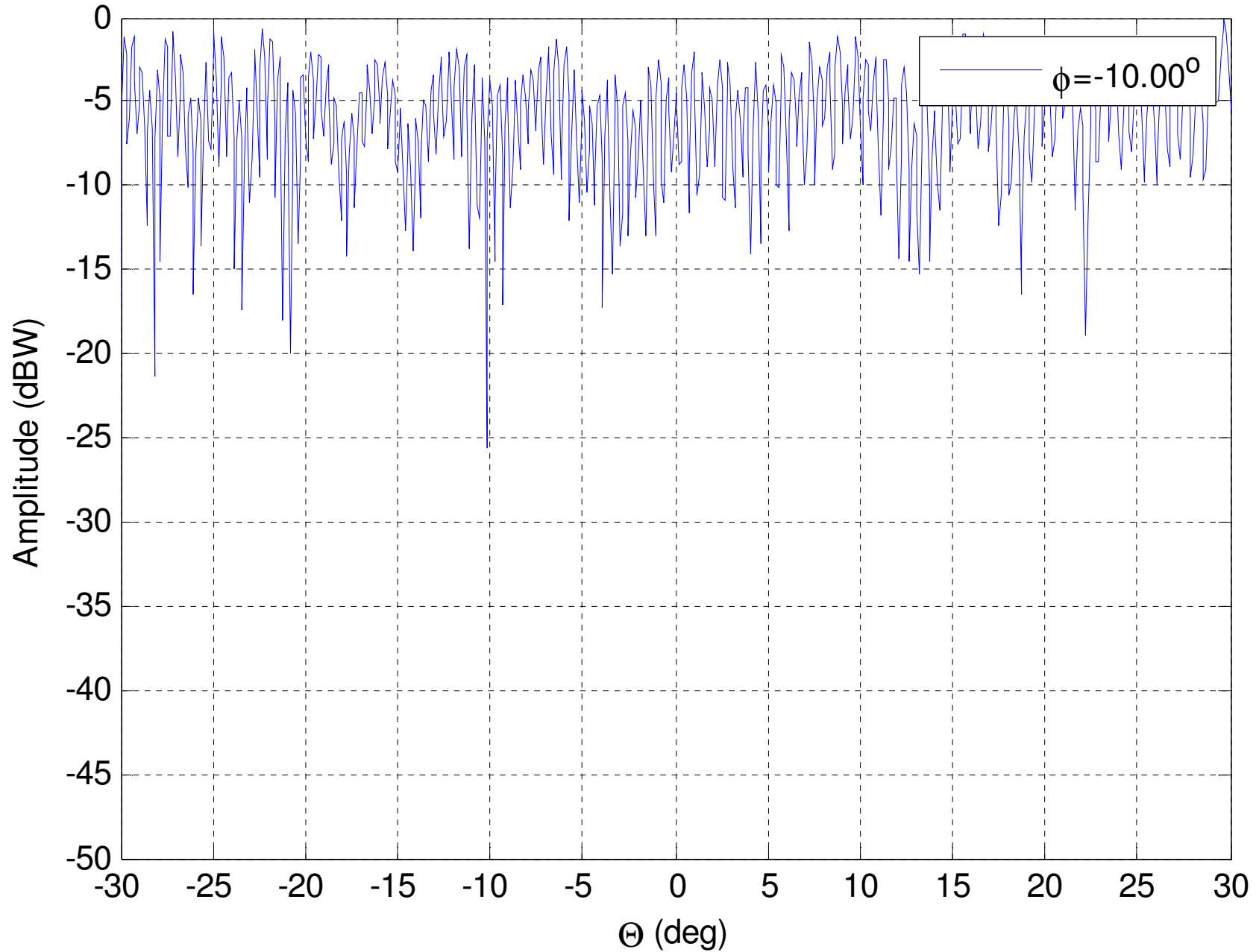
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--20.cut, Peak: -5.33 dBW, Date: 16-Dec-2011



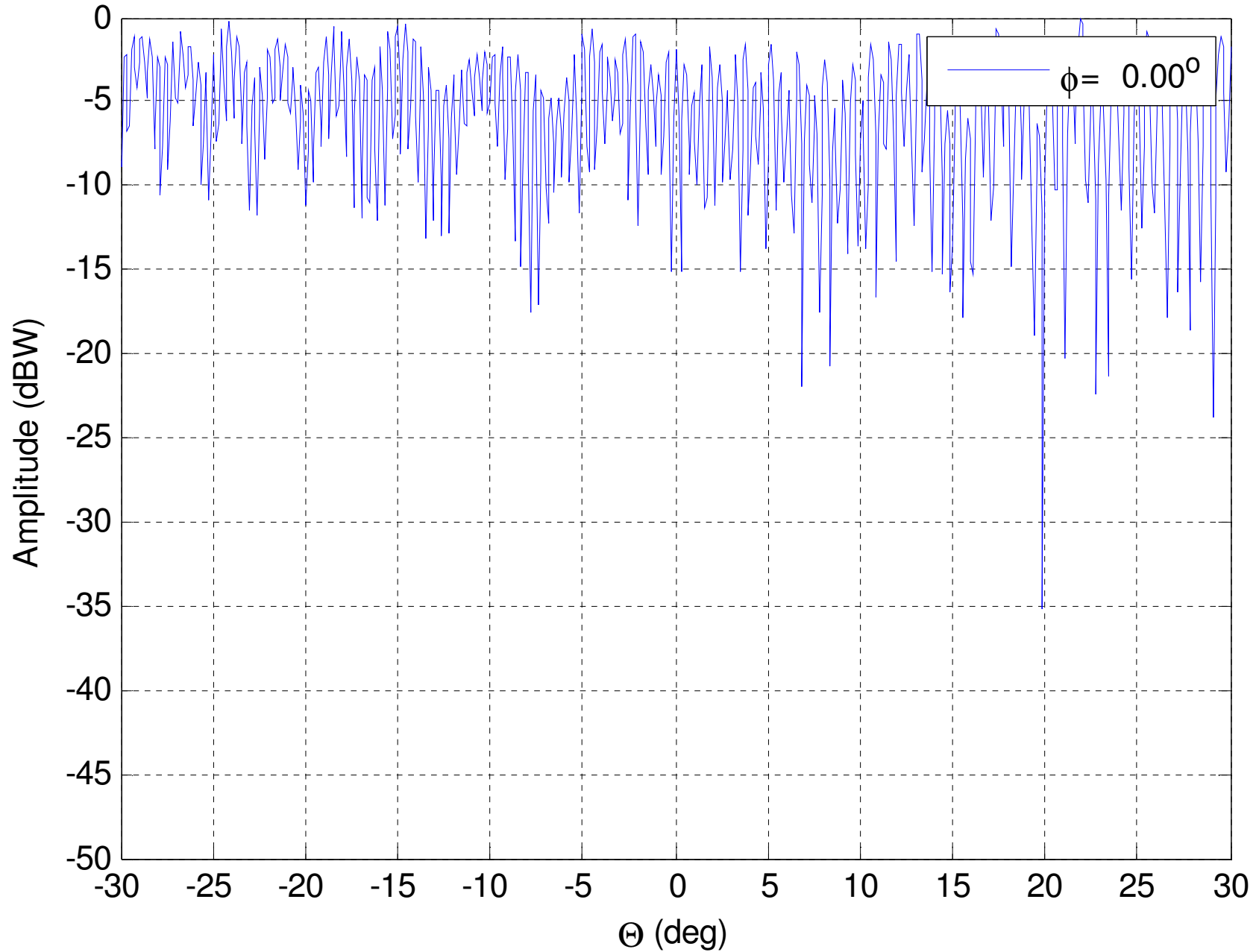
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--10.cut, Peak: -6.15 dBW, Date: 16-Dec-2011



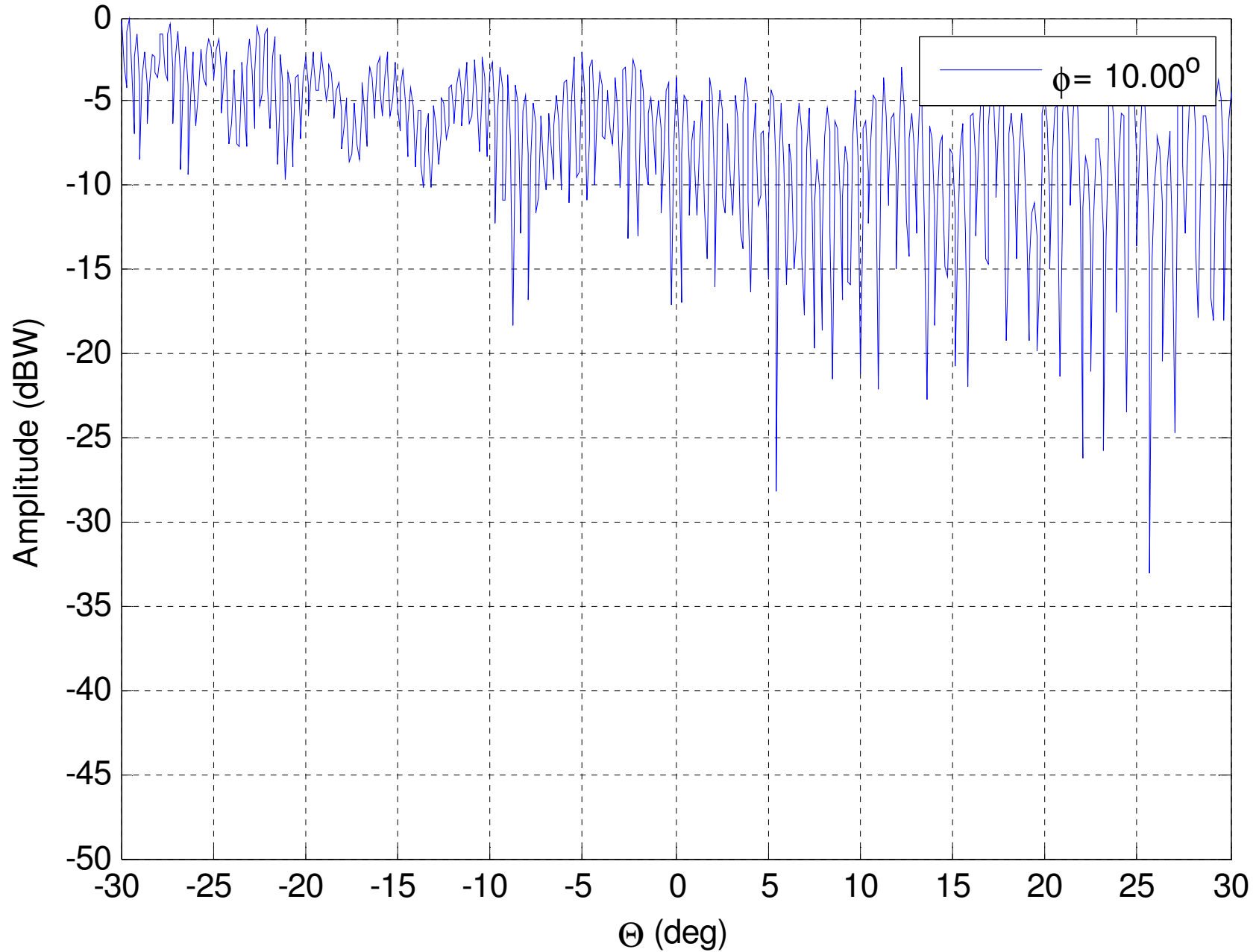
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-0.cut, Peak: -6.47 dBW, Date: 16-Dec-2011



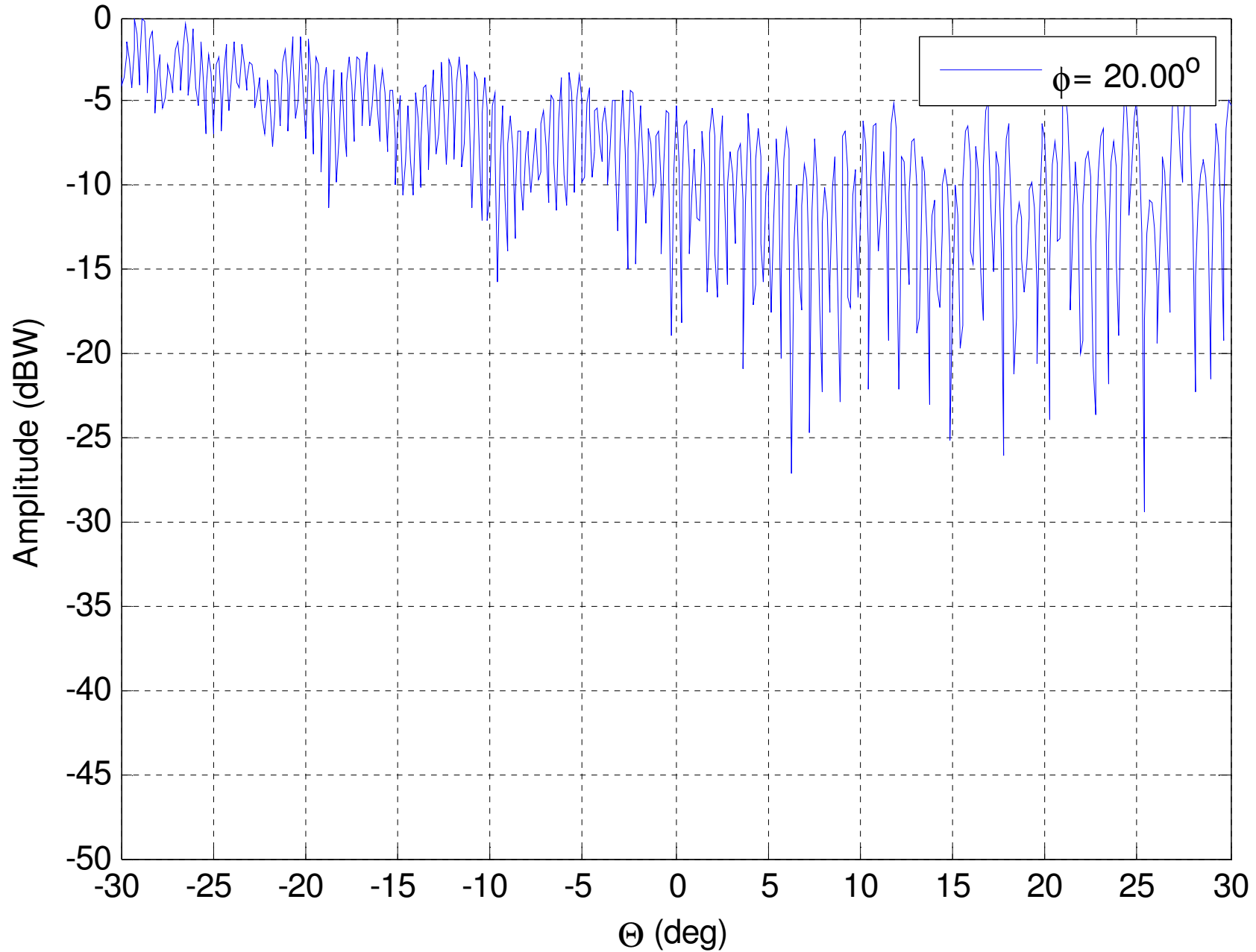
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-10.cut, Peak: -4.72 dBW, Date: 16-Dec-2011



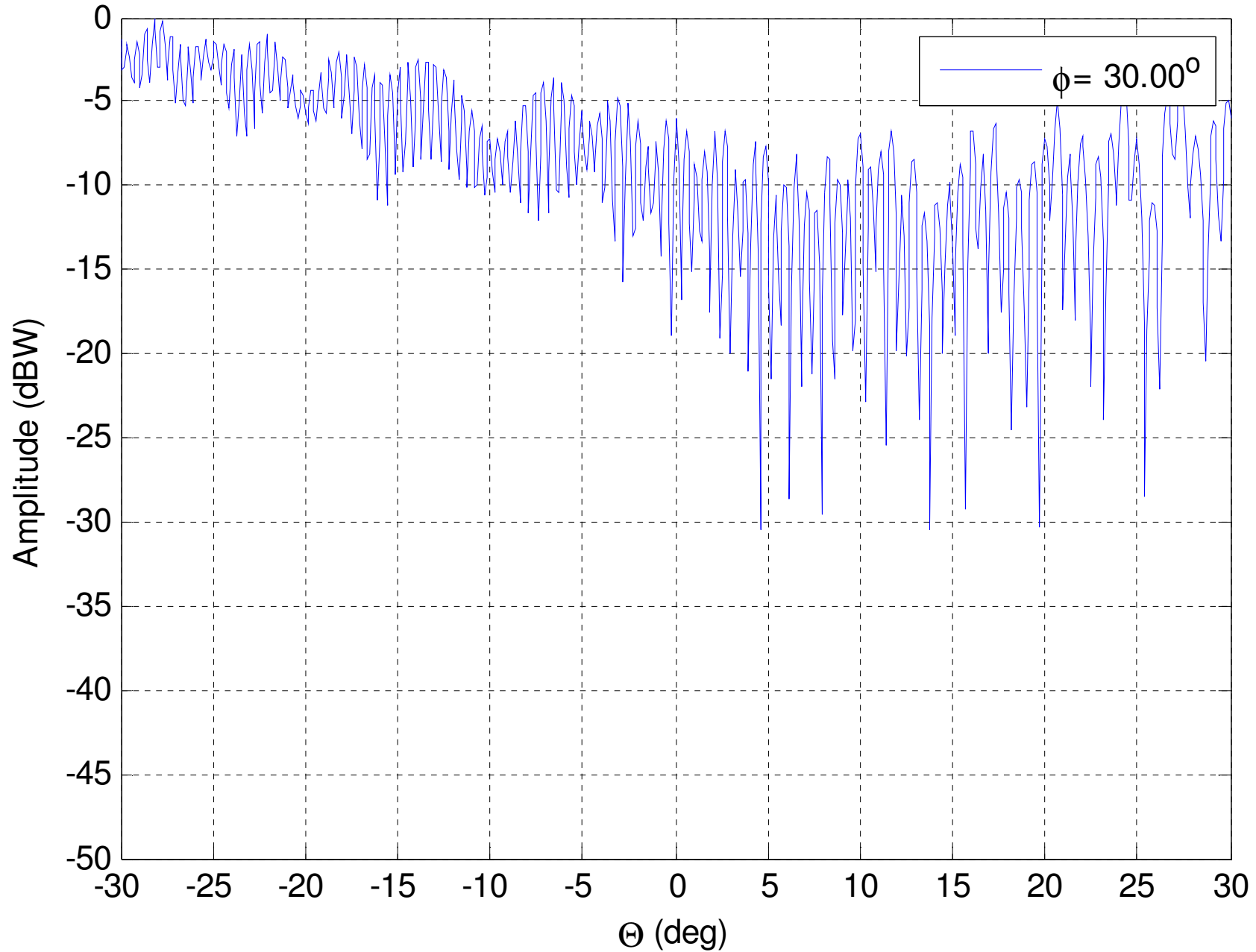
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-20.cut, Peak: -3.04 dBW, Date: 16-Dec-2011



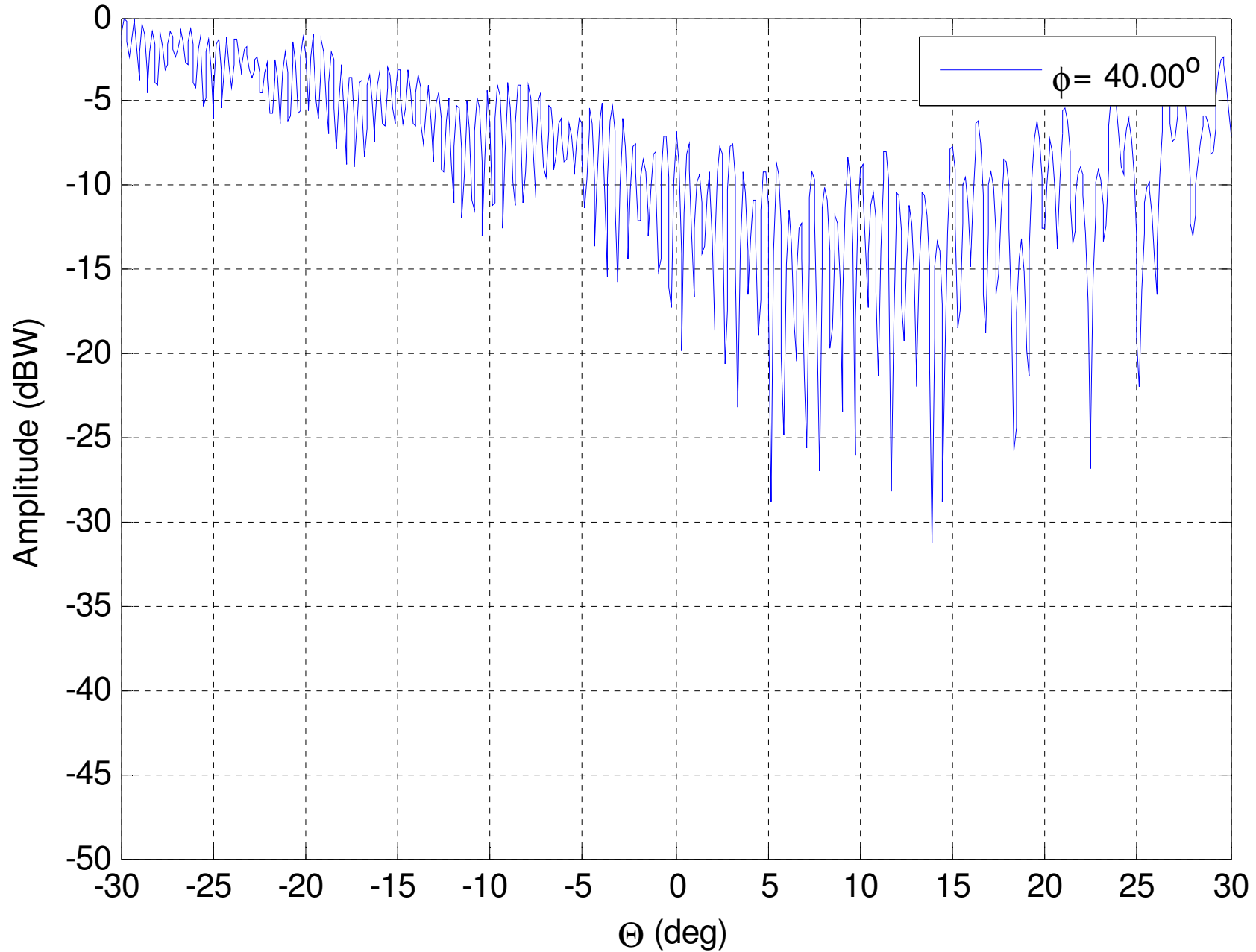
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-30.cut, Peak: -2.08 dBW, Date: 16-Dec-2011



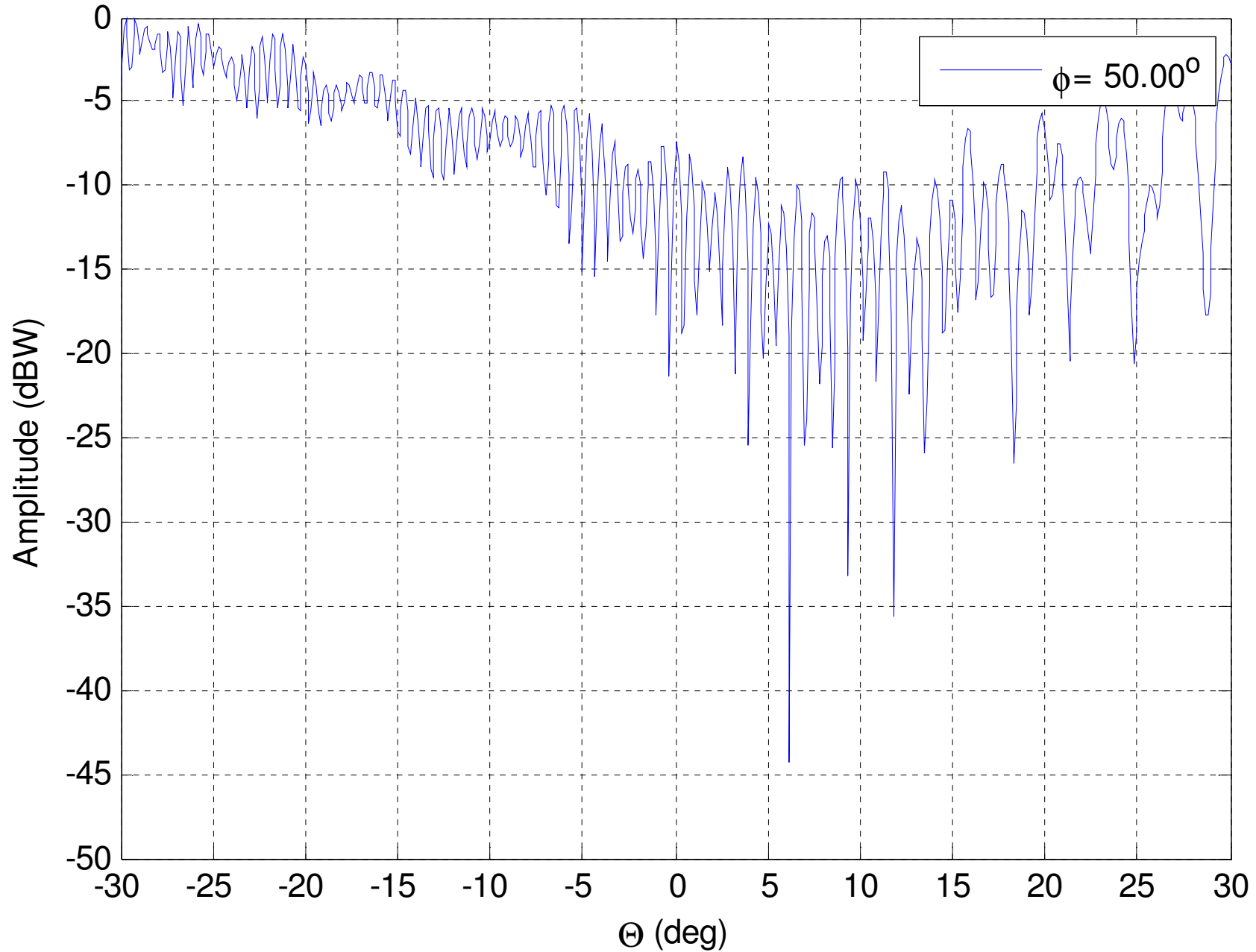
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-40.cut, Peak: -1.32 dBW, Date: 16-Dec-2011



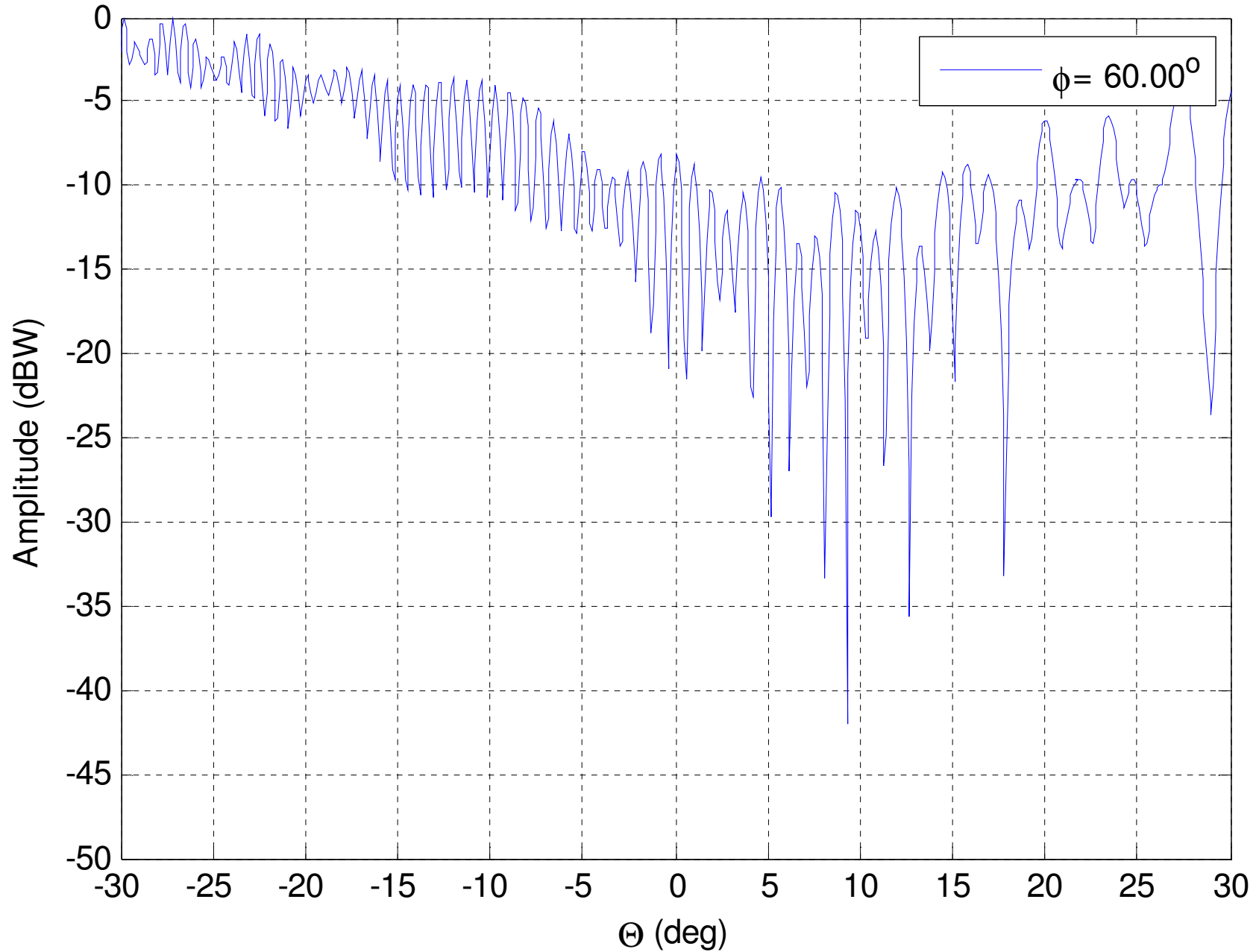
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-50.cut, Peak: -0.52 dBW, Date: 16-Dec-2011



Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-60.cut, Peak: 0.22 dBW, Date: 16-Dec-2011



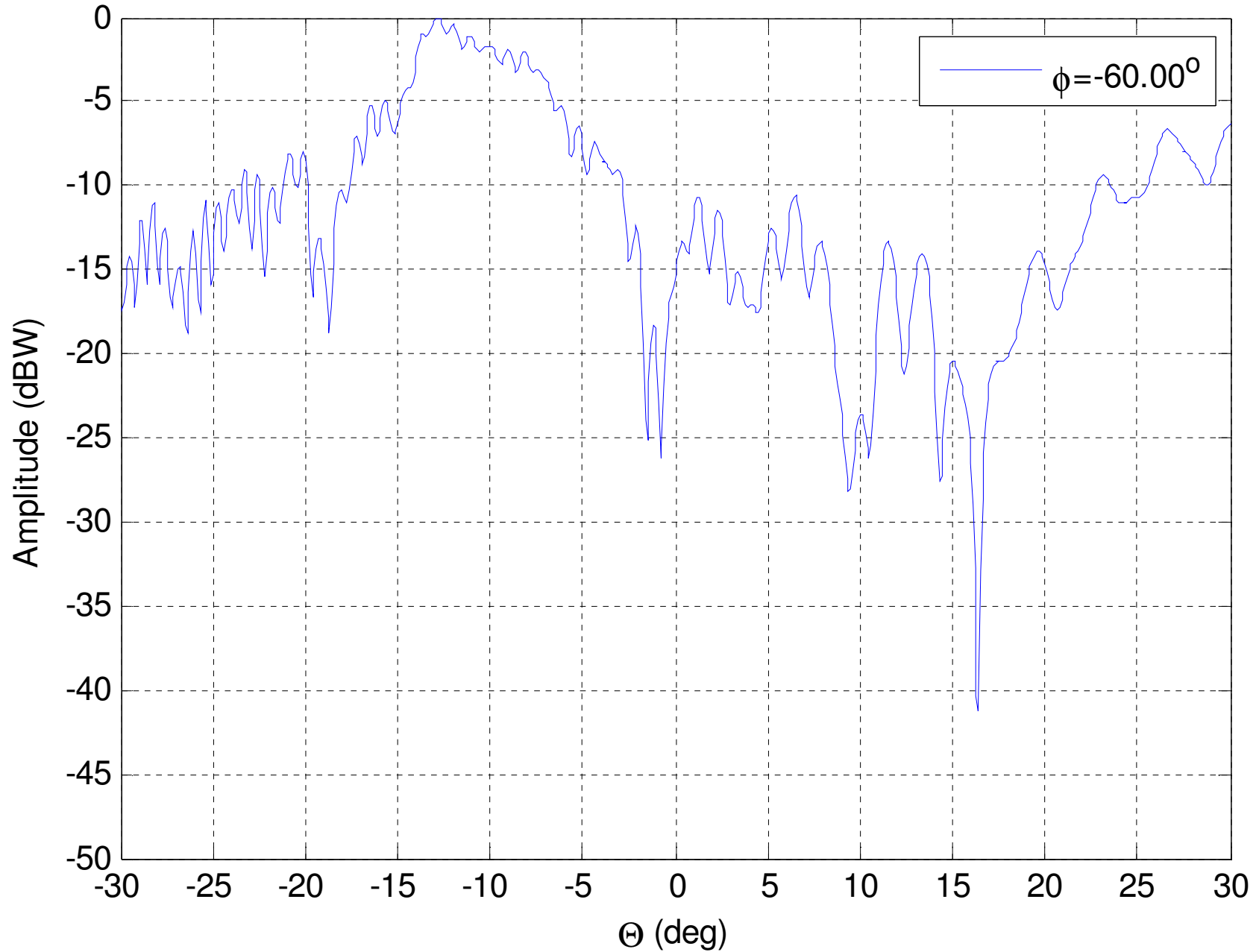
Spot Beam52, +X Axis Plots

- Both polarizations; RHCP, LHCP
- $-30 < \Theta < 30$ ($\Theta=0$: = +X-axis)
- $-60 < \phi < 60$
- Freq = 17.3, 17.5, and 17.7 GHz
- The Zero reference line is the peak gain listed in the title of each chart
- All levels are significantly below the required 20.9 dBW EIRP shown on chart 2

RHCP at 17.3 GHz

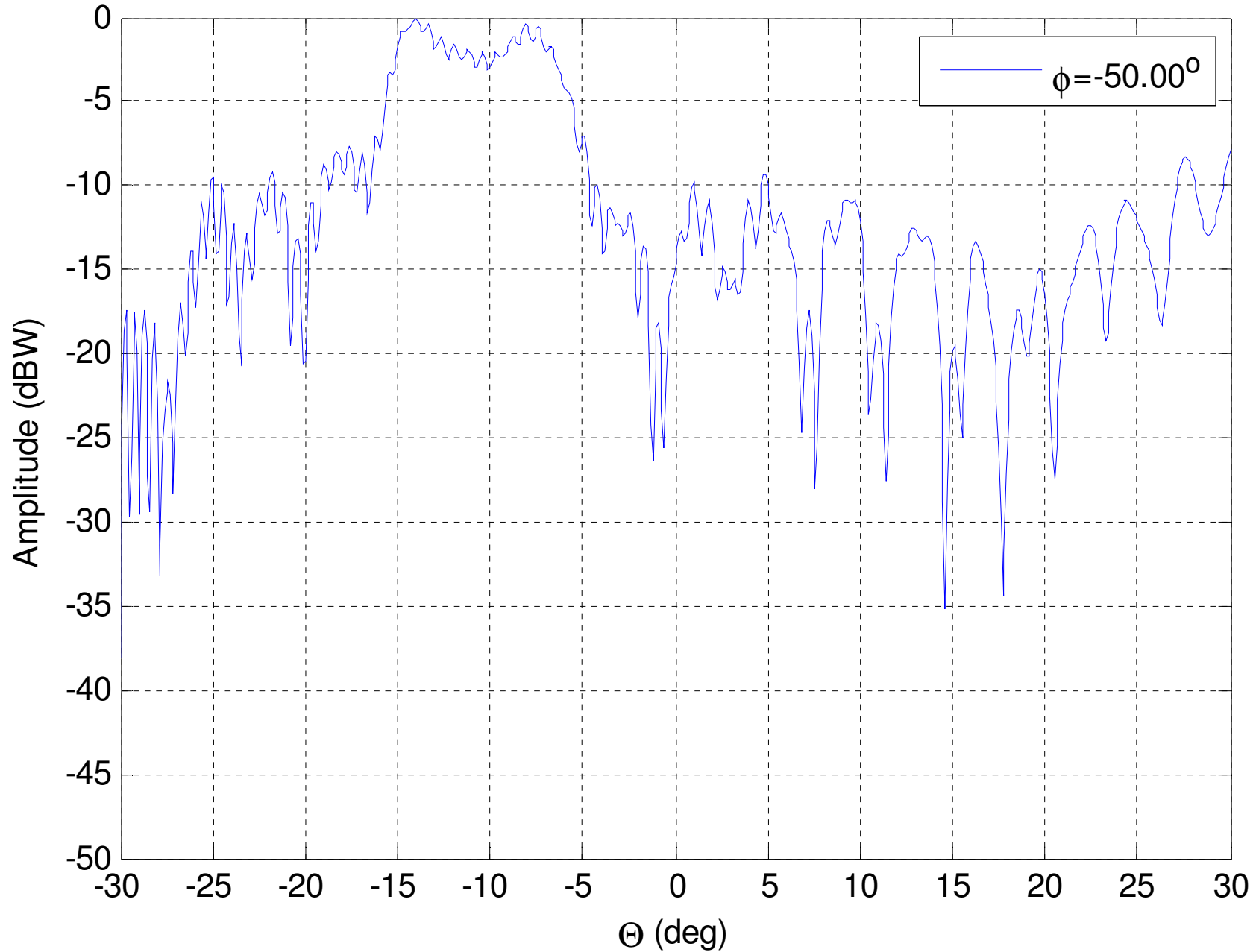
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--60.cut, Peak: -0.08 dBW, Date: 16-Dec-2011



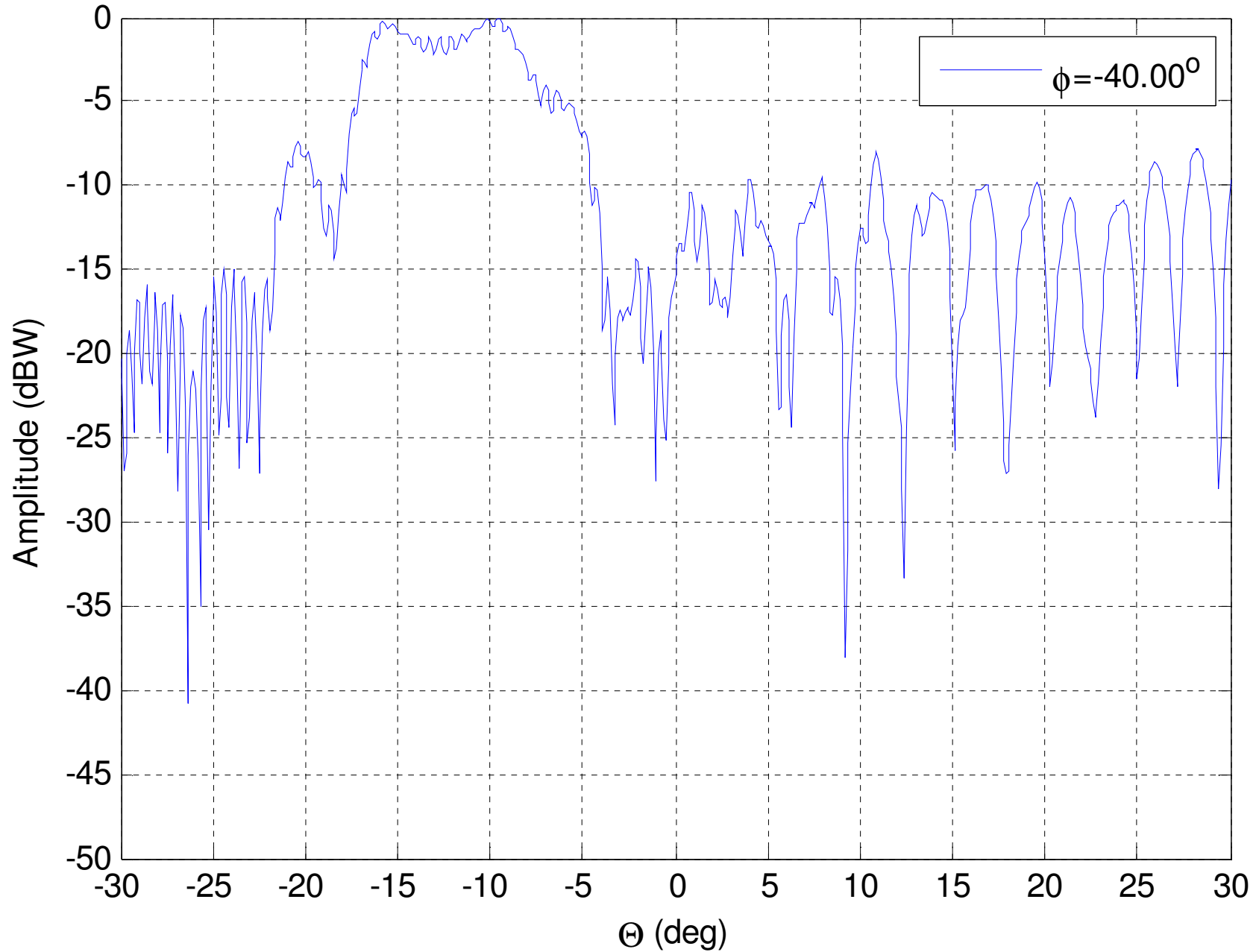
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--50.cut, Peak: -0.72 dBW, Date: 16-Dec-2011



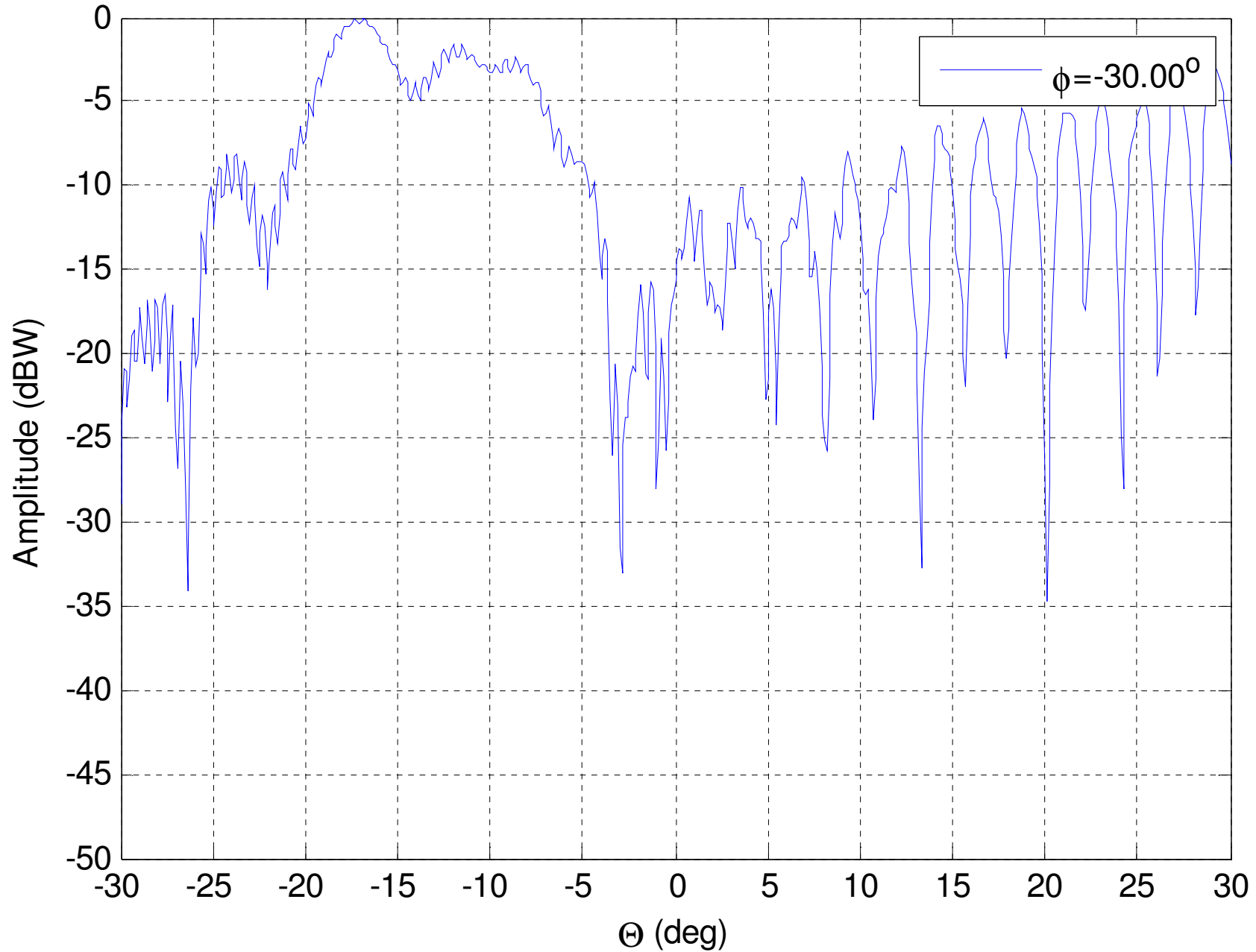
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--40.cut, Peak: -0.10 dBW, Date: 16-Dec-2011



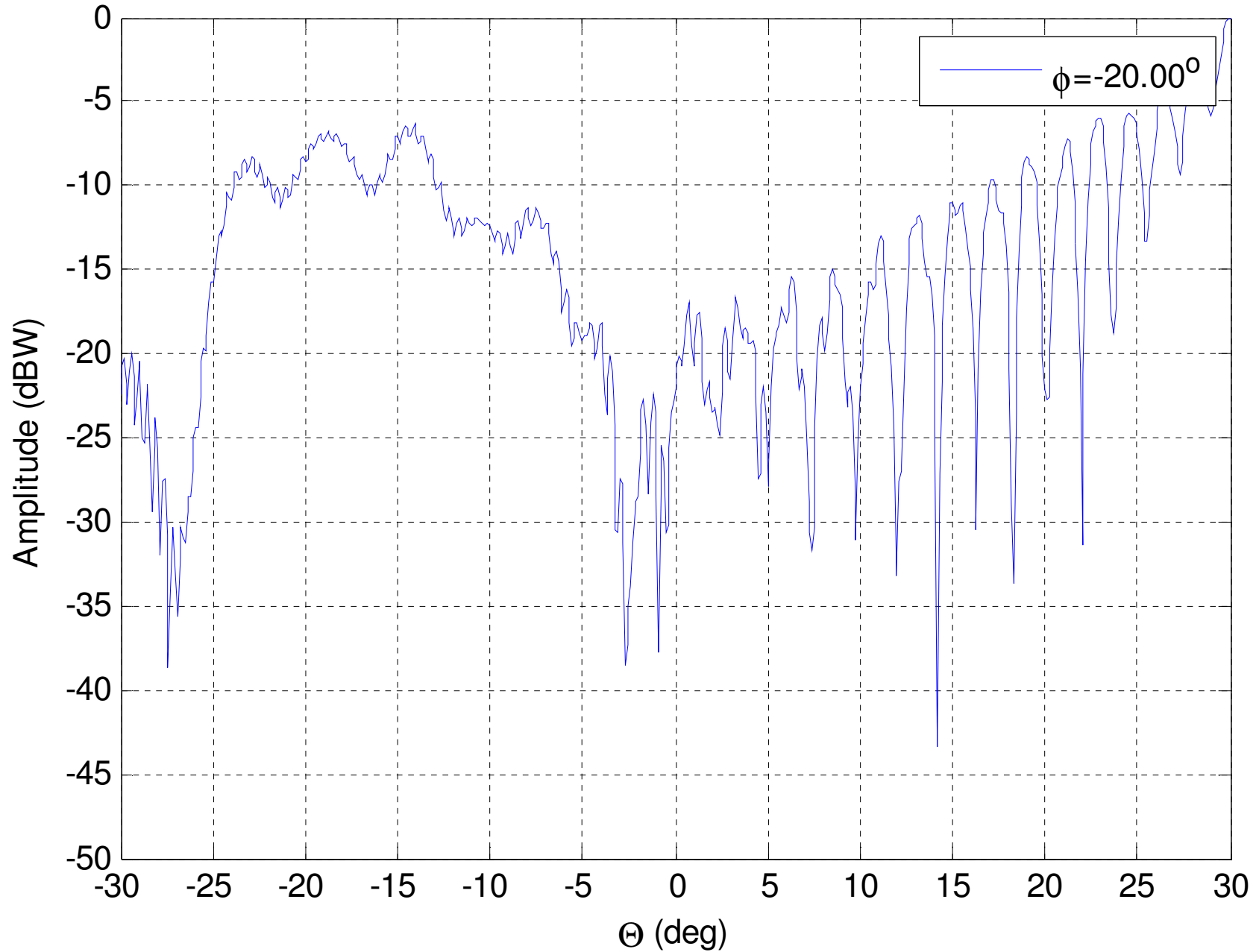
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--30.cut, Peak: 0.26 dBW, Date: 16-Dec-2011



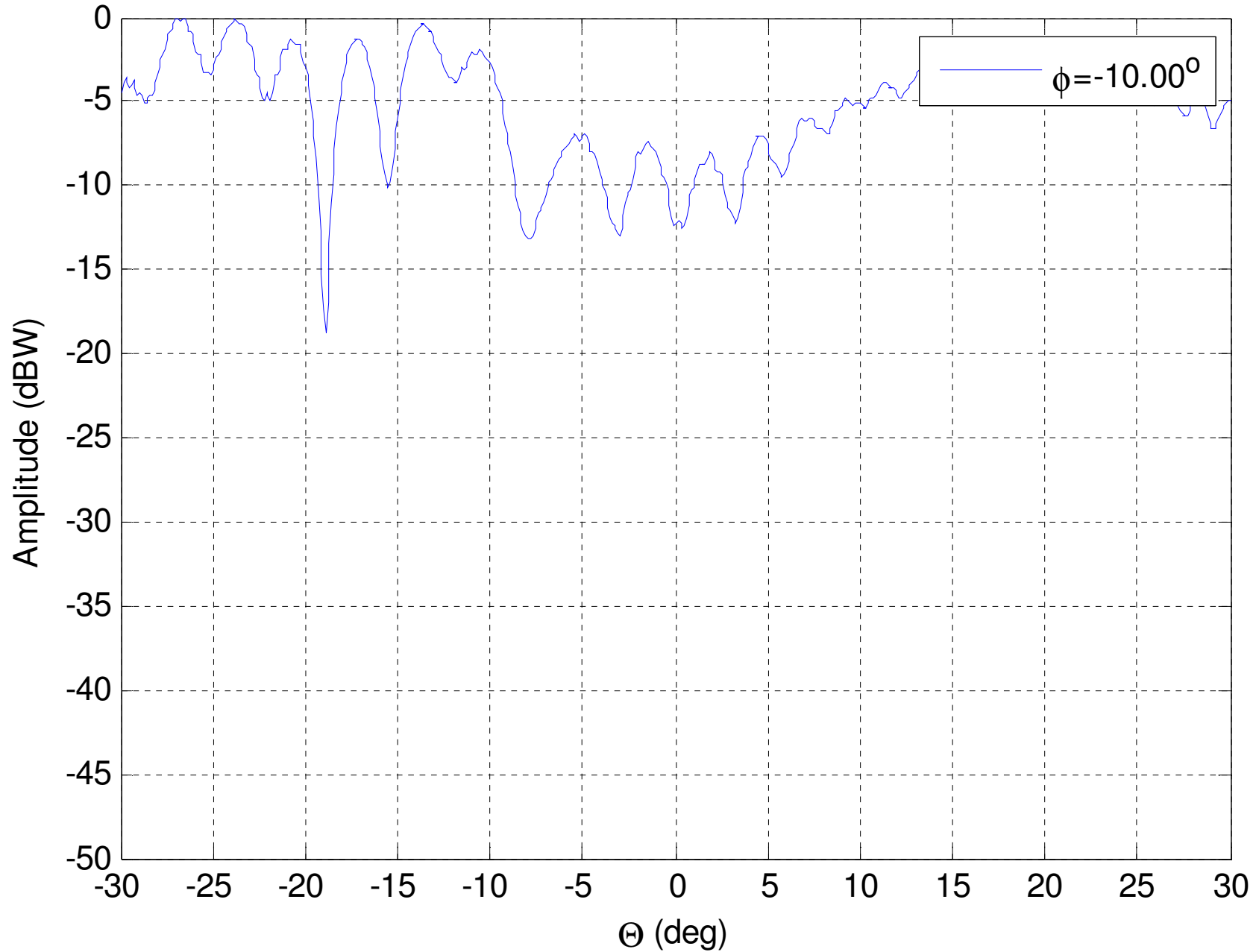
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--20.cut, Peak: 6.61 dBW, Date: 16-Dec-2011



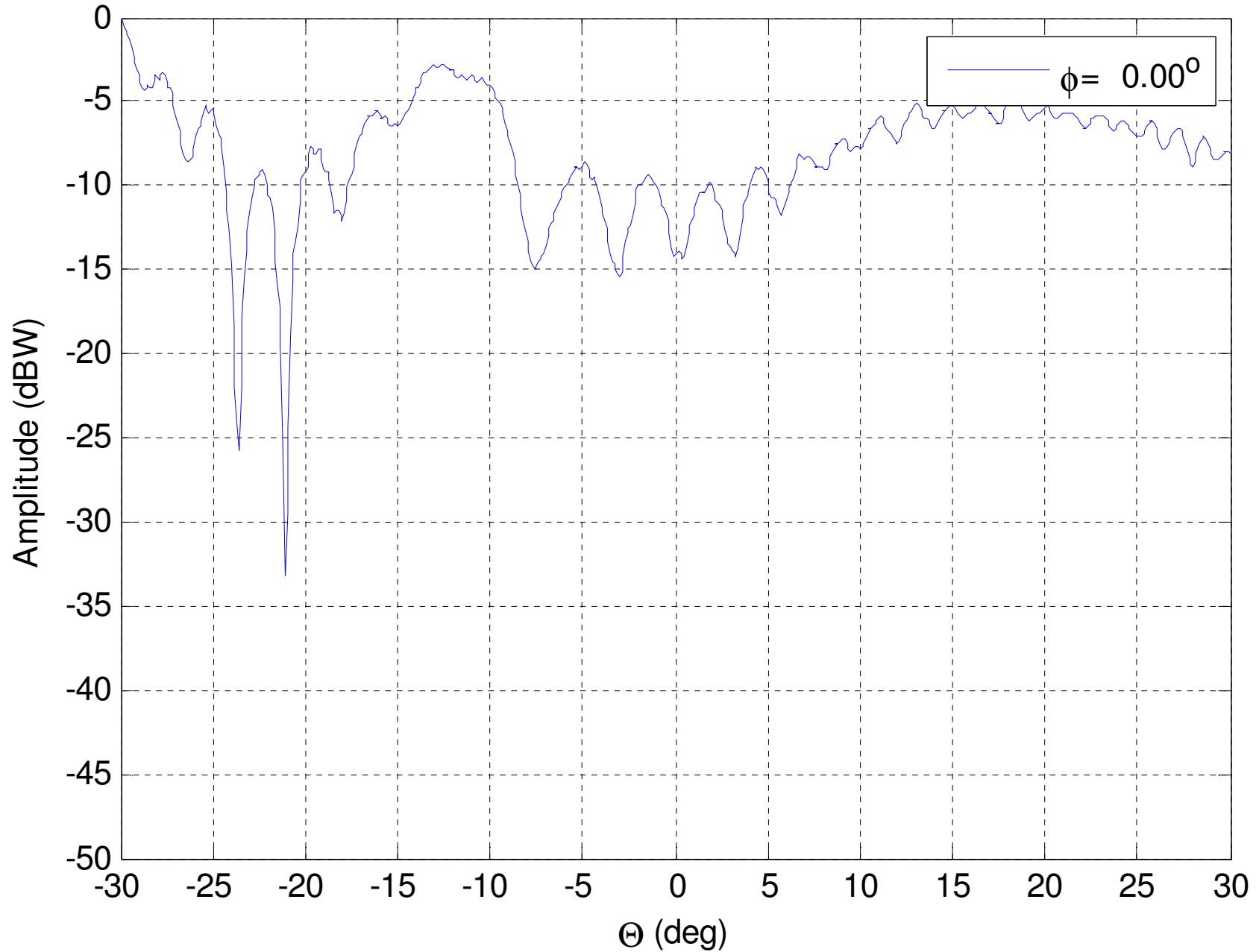
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--10.cut, Peak: 7.87 dBW, Date: 16-Dec-2011



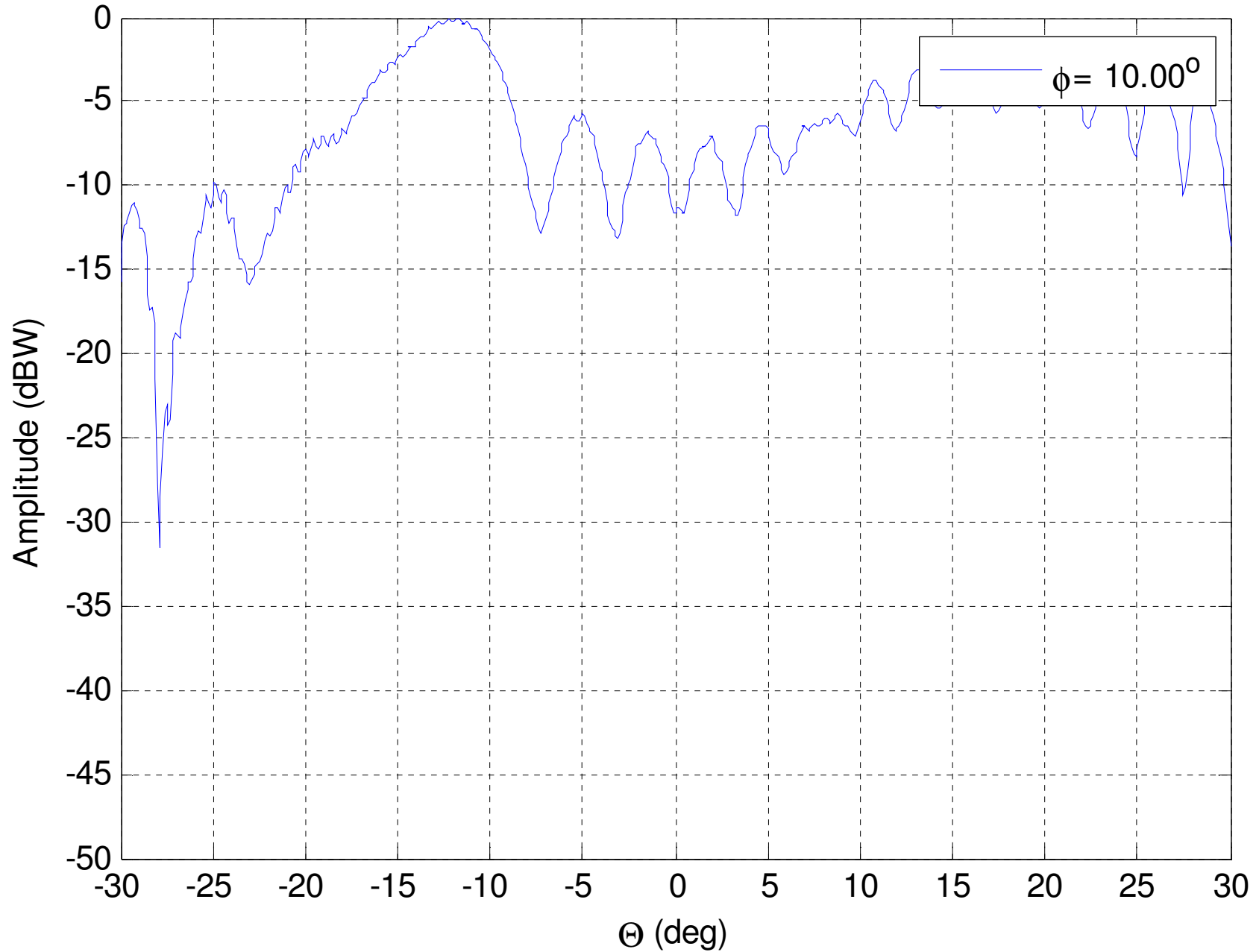
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-0.cut, Peak: 9.70 dBW, Date: 16-Dec-2011



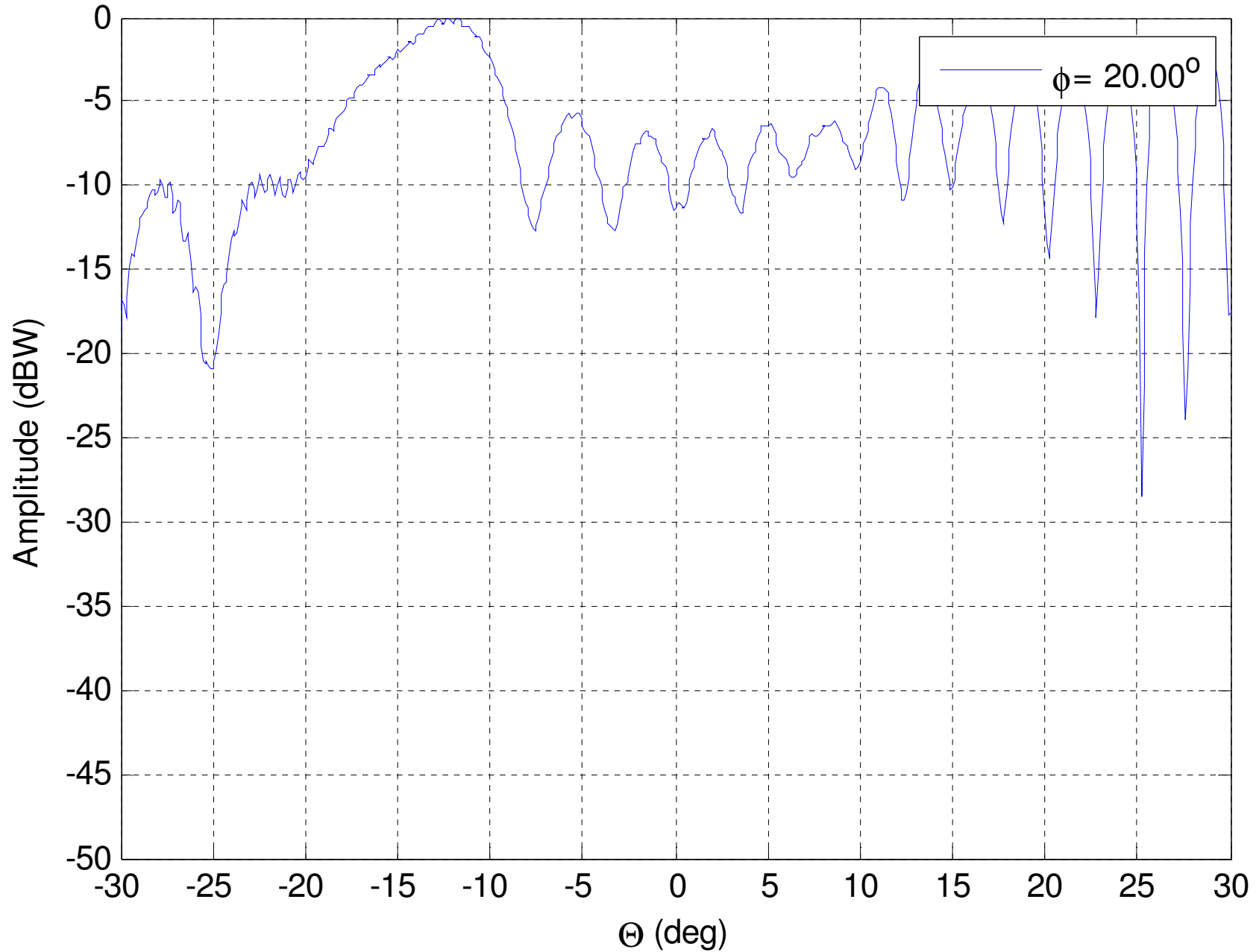
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-10.cut, Peak: 7.06 dBW, Date: 16-Dec-2011



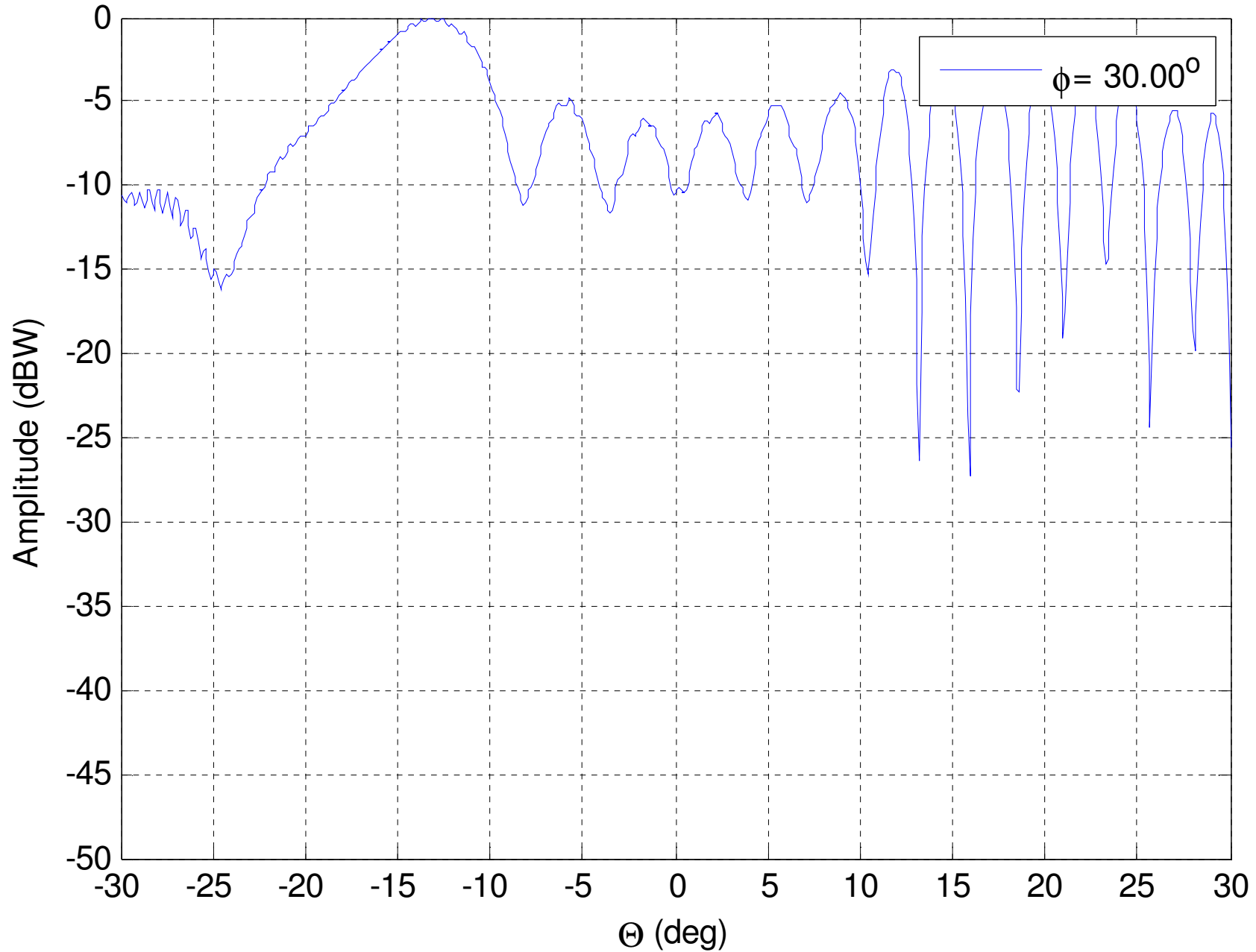
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-20.cut, Peak: 6.82 dBW, Date: 16-Dec-2011



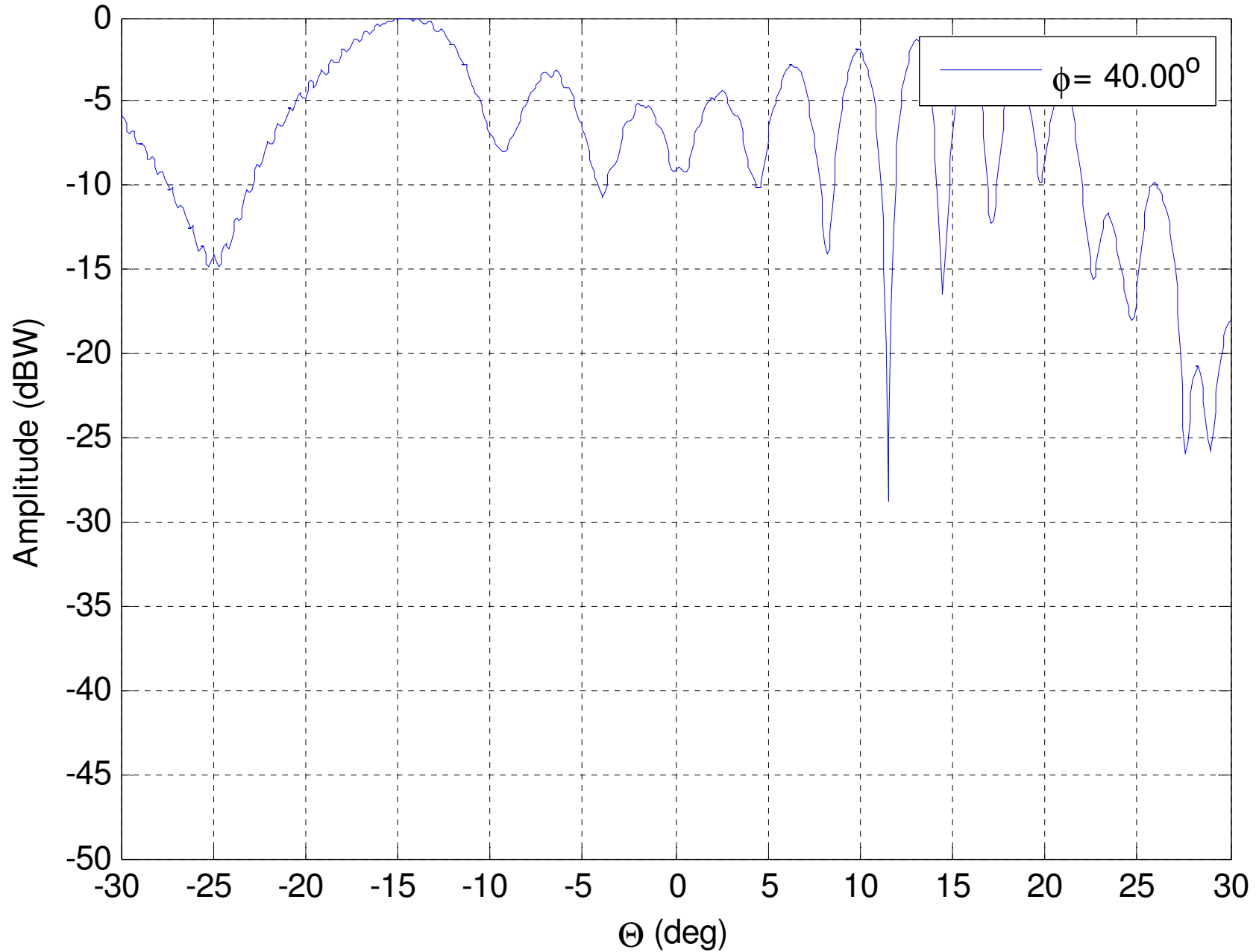
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-30.cut, Peak: 5.91 dBW, Date: 16-Dec-2011



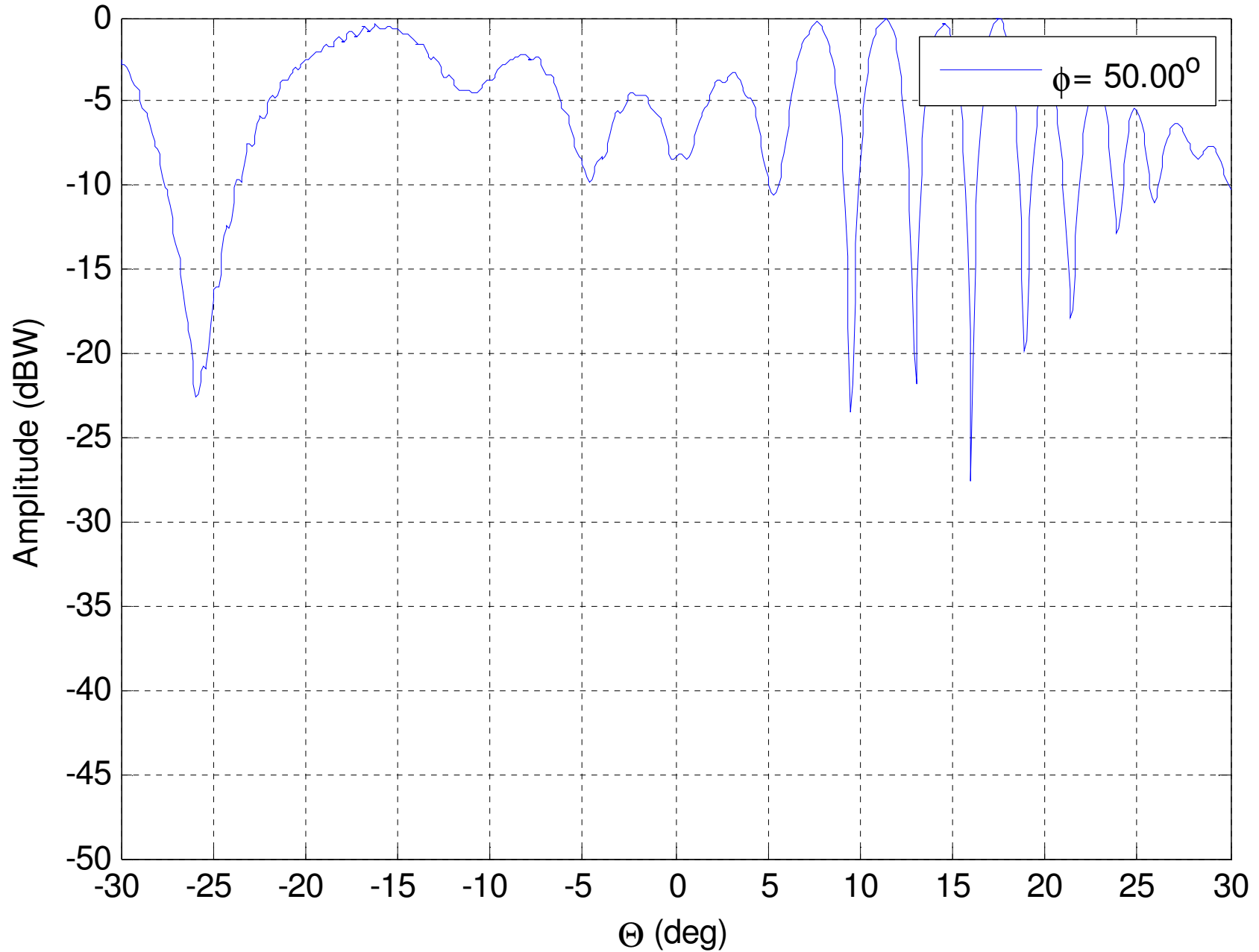
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-40.cut, Peak: 4.67 dBW, Date: 16-Dec-2011



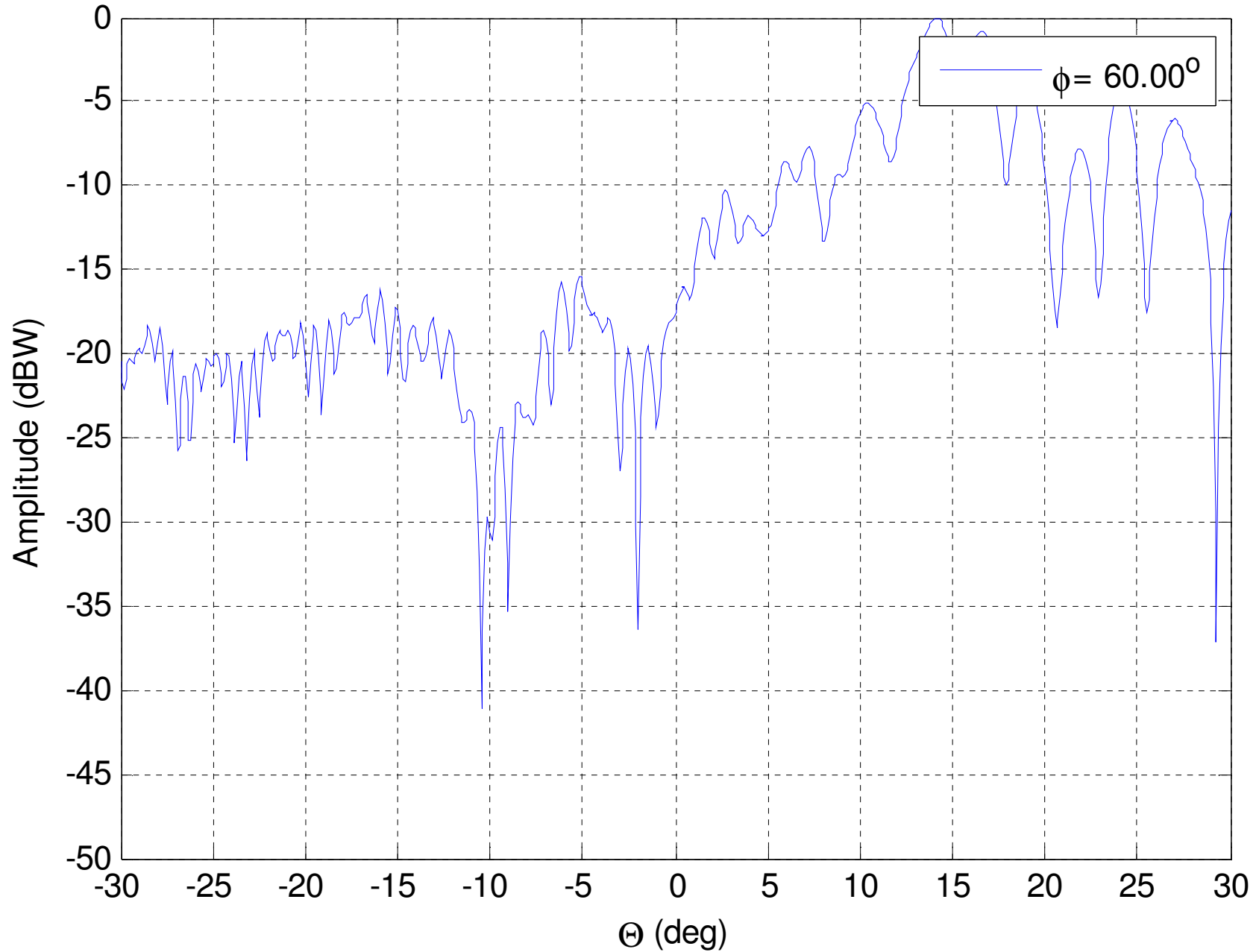
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-50.cut, Peak: 3.91 dBW, Date: 16-Dec-2011



Normalized pattern cuts - farfield

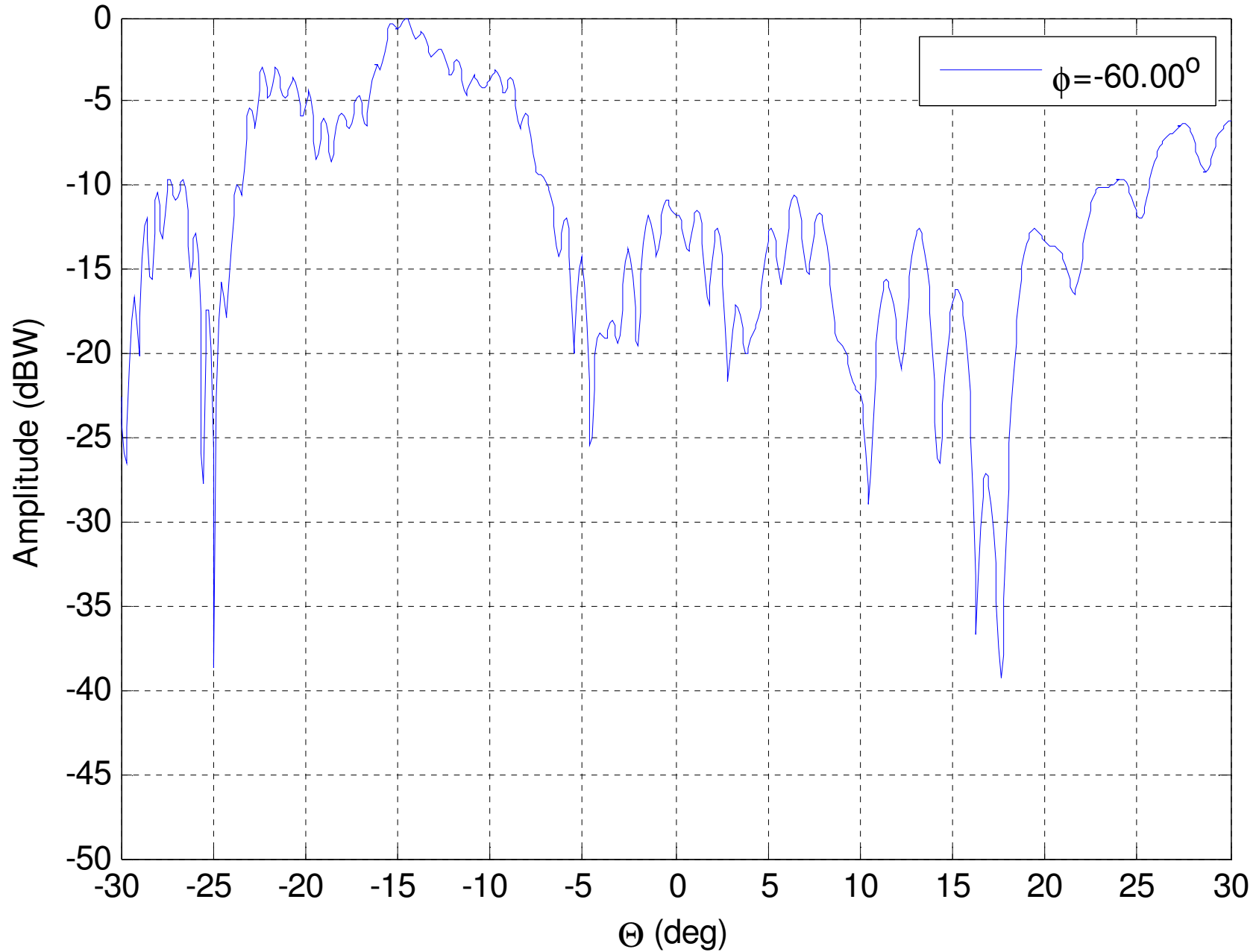
Input file: tx-17.3-rhcp-60.cut, Peak: 2.19 dBW, Date: 16-Dec-2011



LHCP at 17.3 GHz

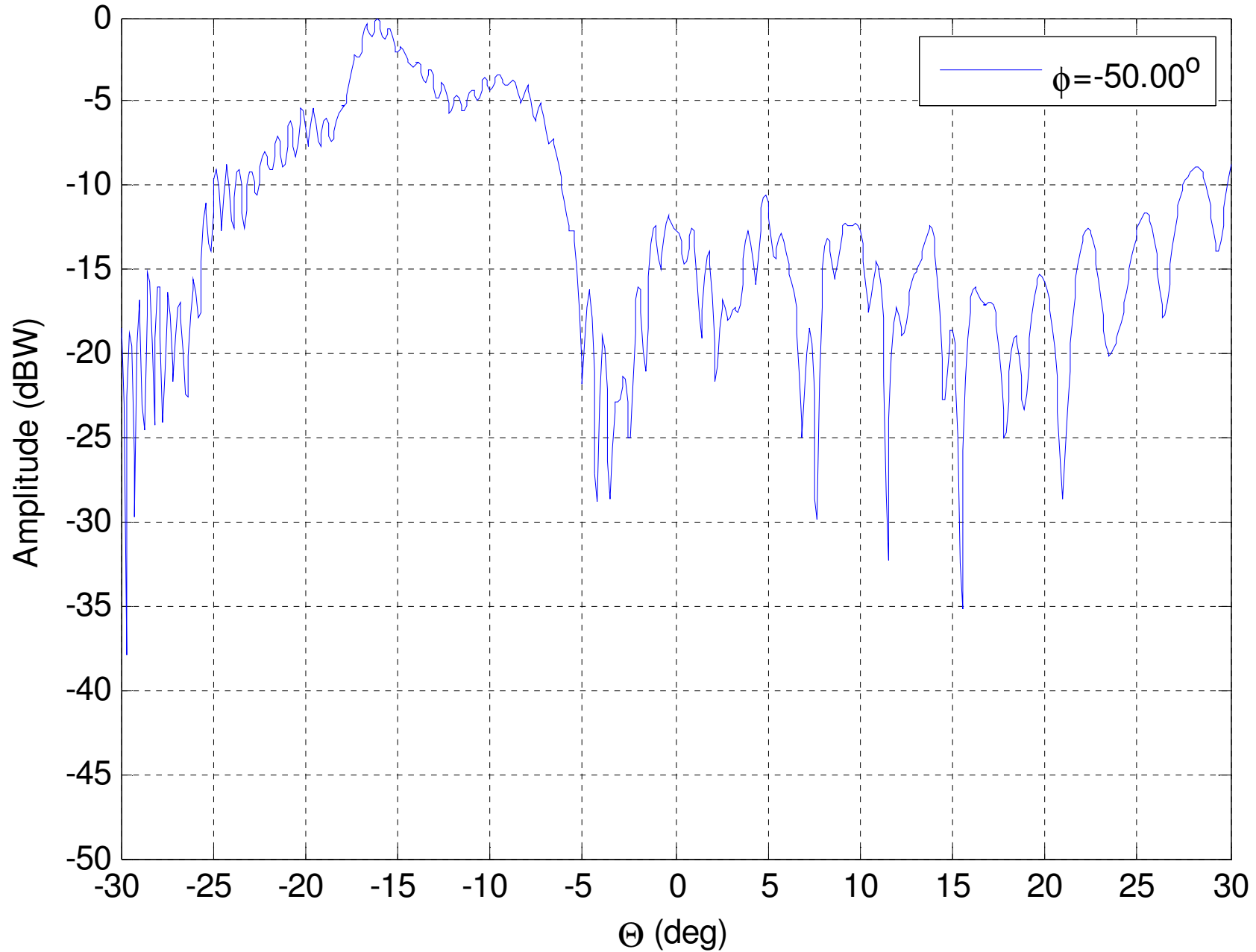
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp--60.cut, Peak: -0.77 dBW, Date: 16-Dec-2011



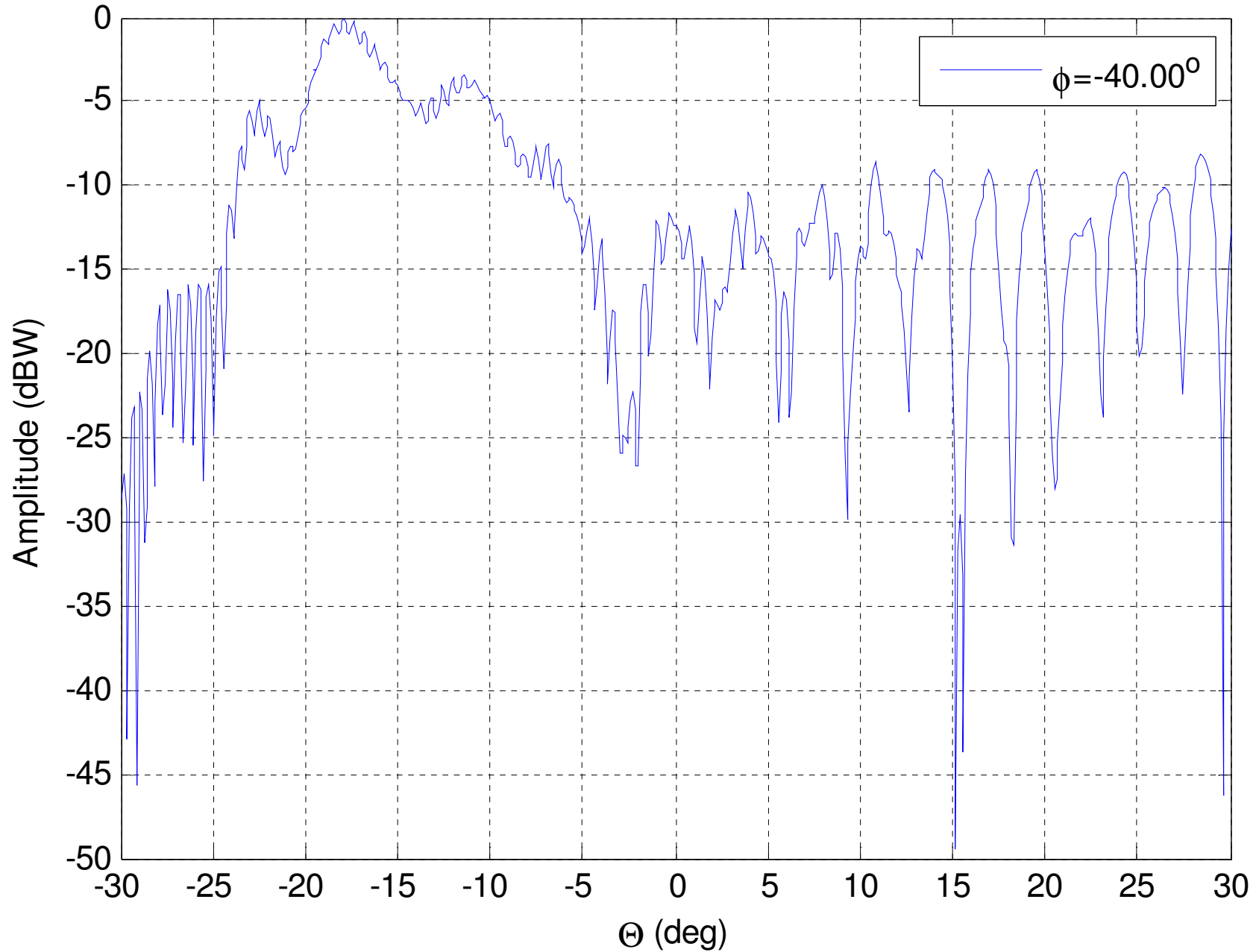
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp--50.cut, Peak: 0.13 dBW, Date: 16-Dec-2011



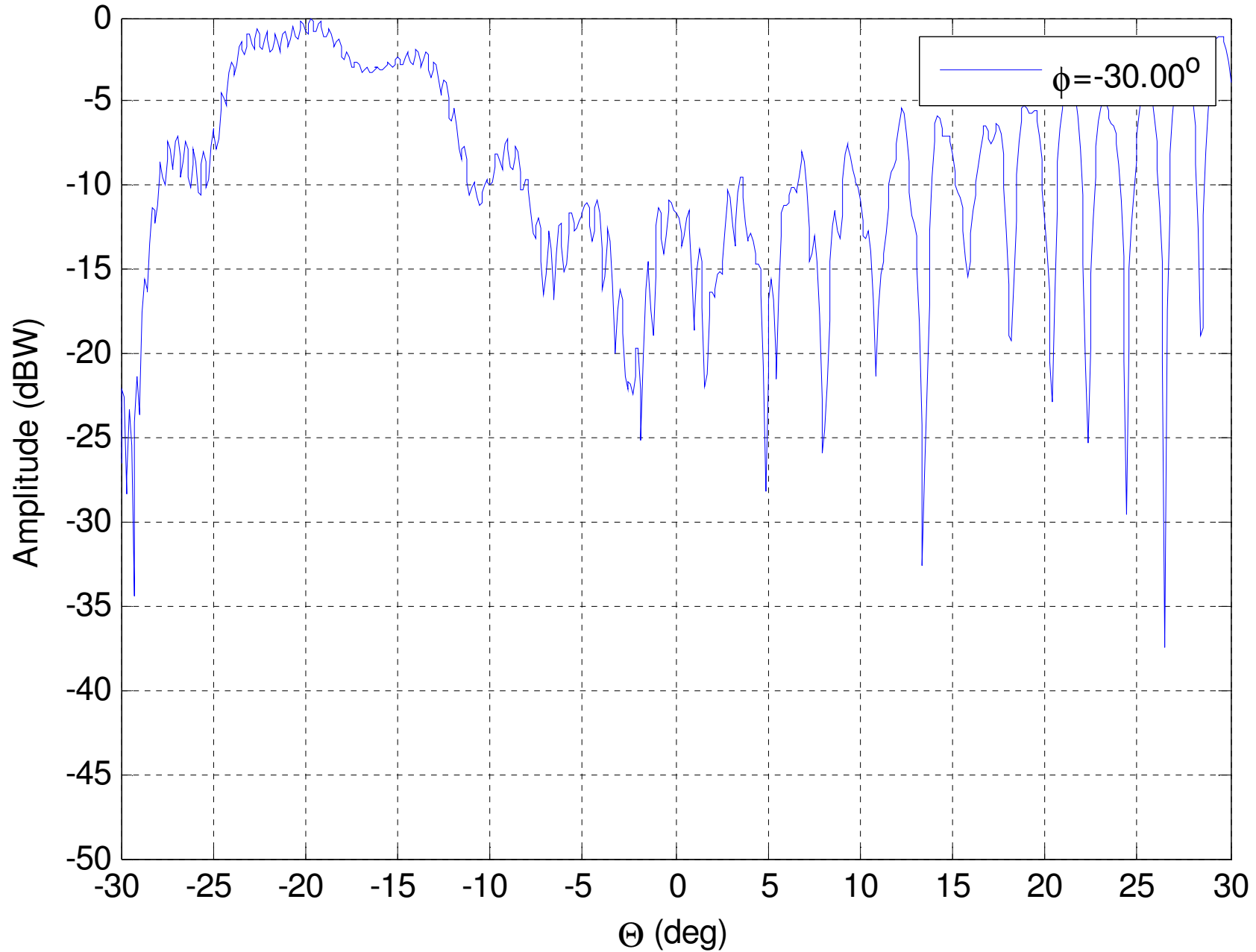
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp--40.cut, Peak: -0.04 dBW, Date: 16-Dec-2011



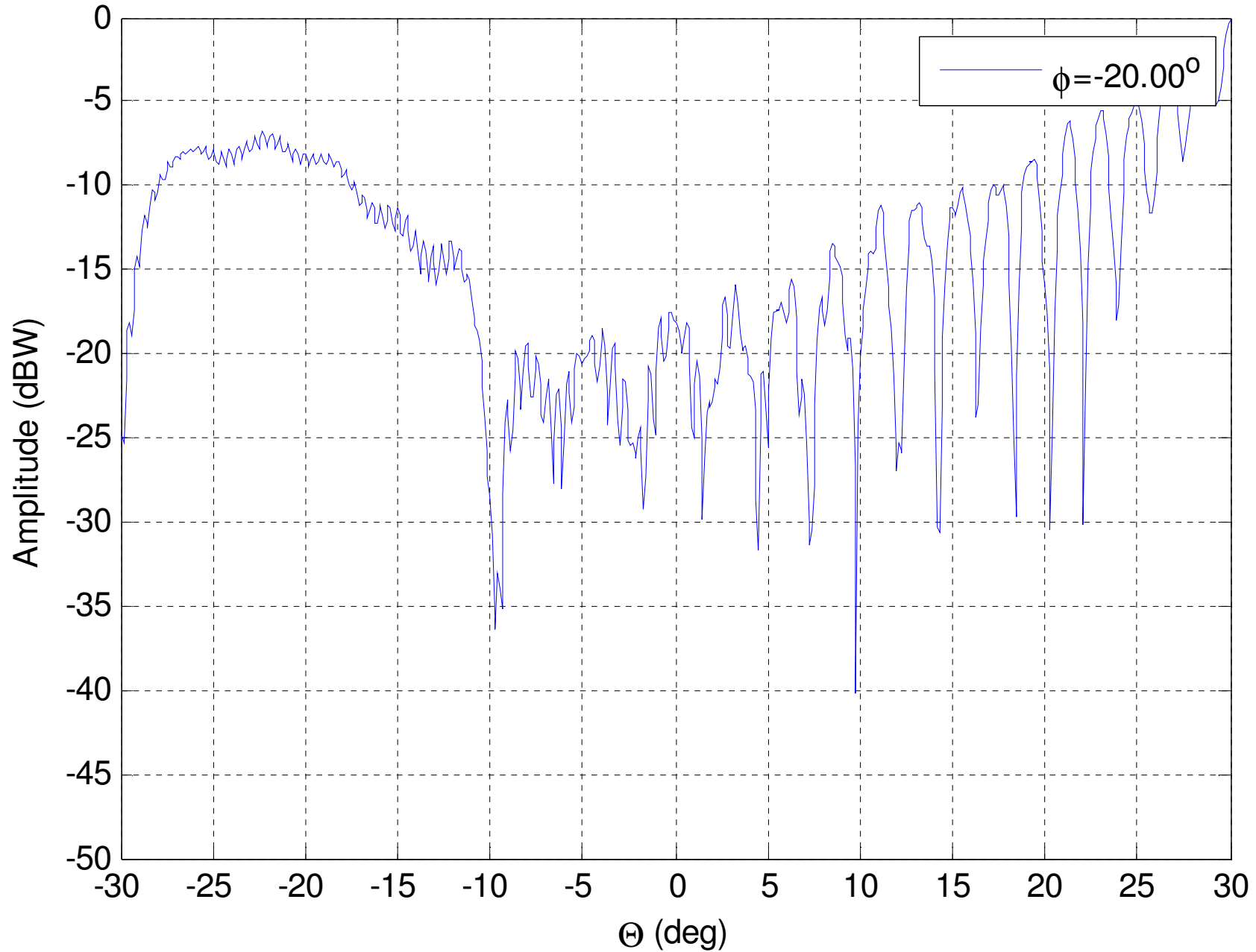
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp--30.cut, Peak: -0.86 dBW, Date: 16-Dec-2011



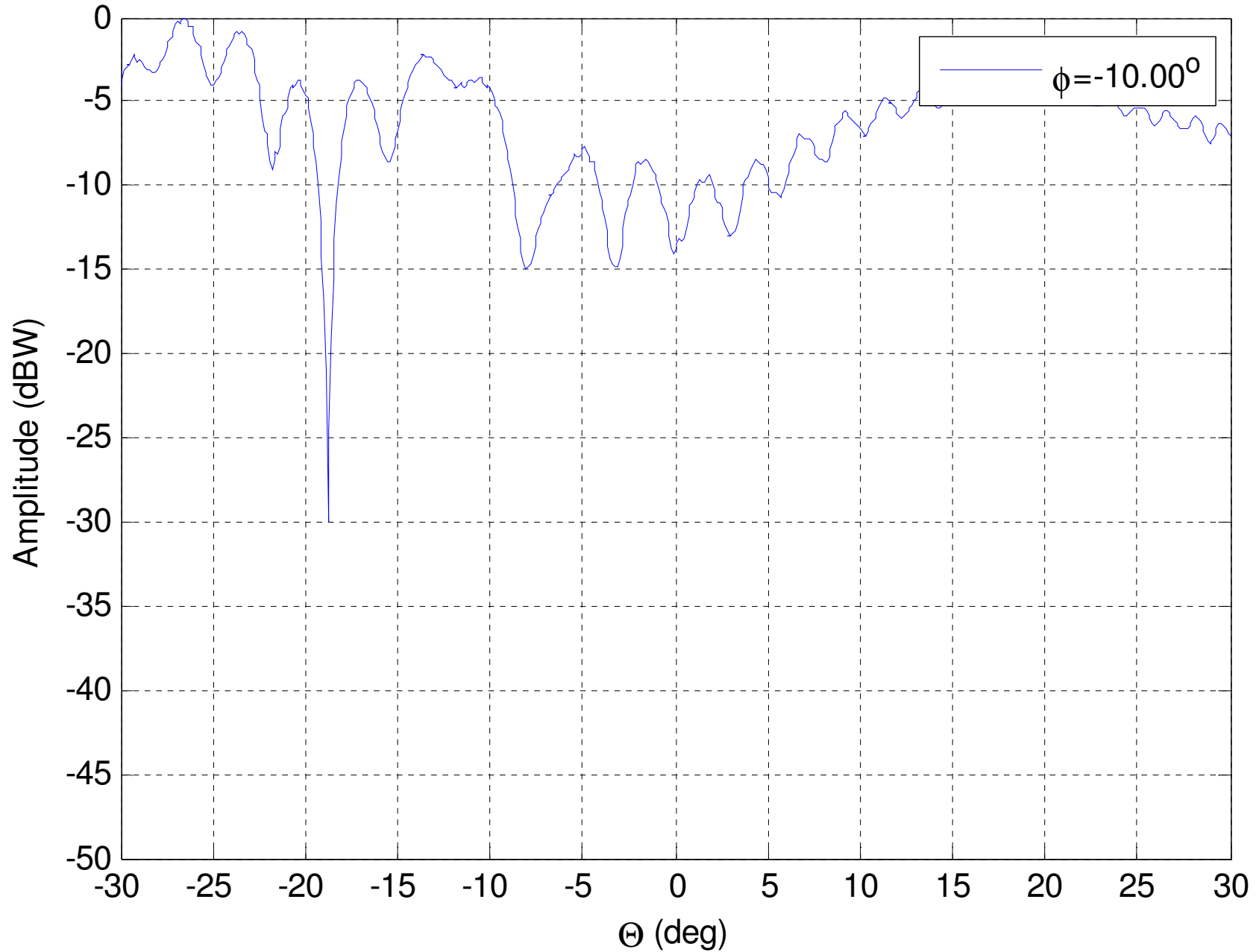
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp--20.cut, Peak: 5.71 dBW, Date: 16-Dec-2011



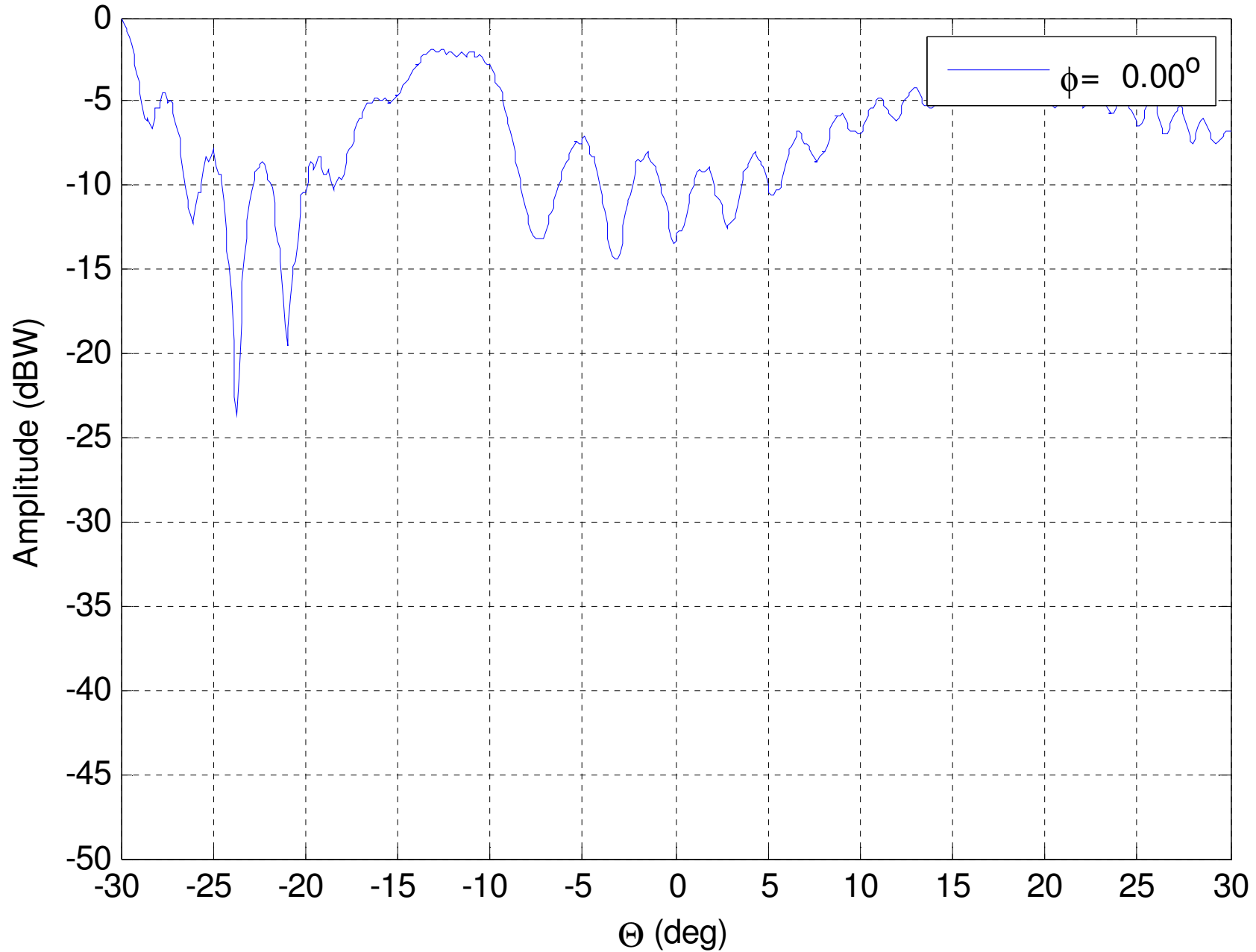
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp--10.cut, Peak: 9.07 dBW, Date: 16-Dec-2011



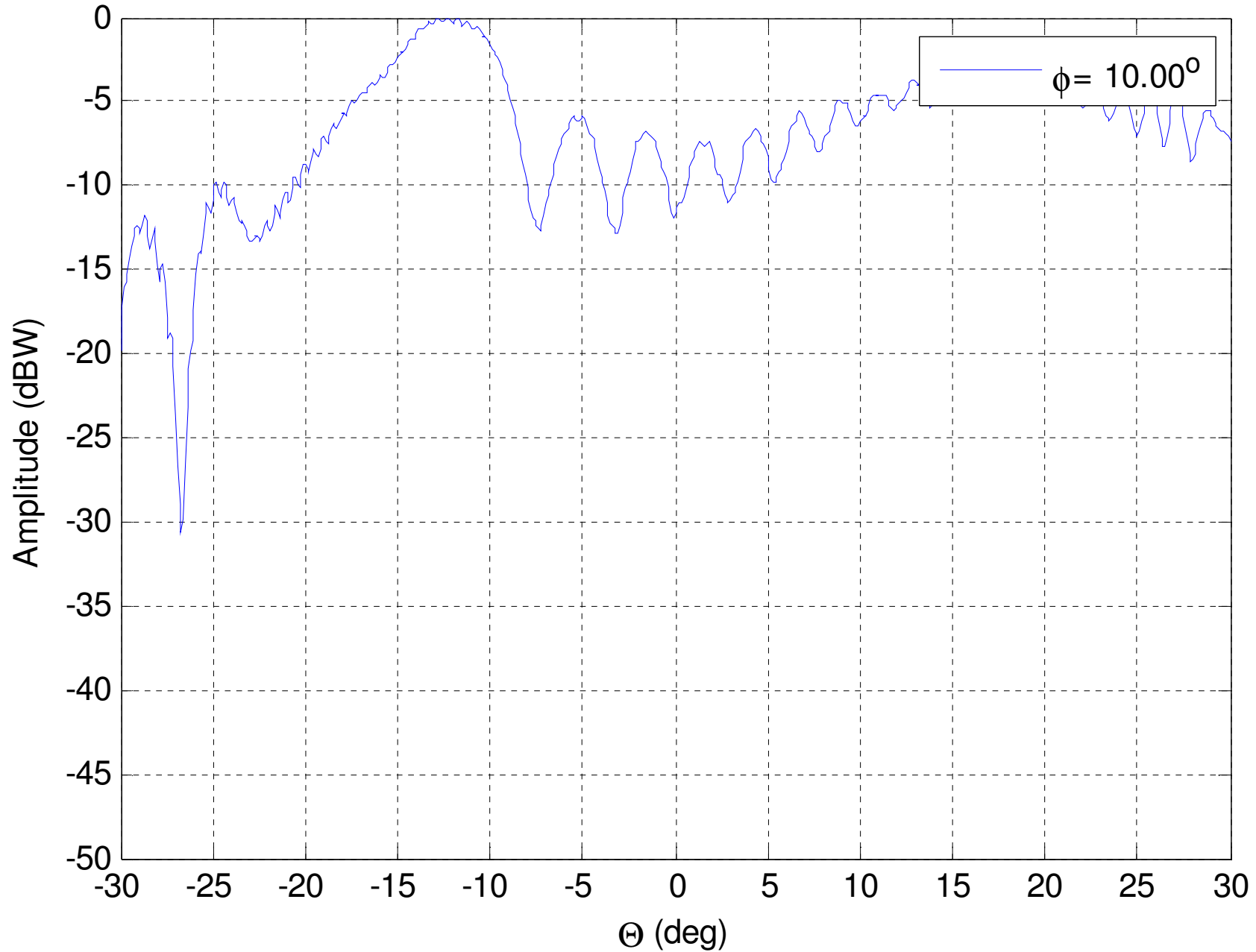
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp-0.cut, Peak: 8.54 dBW, Date: 16-Dec-2011



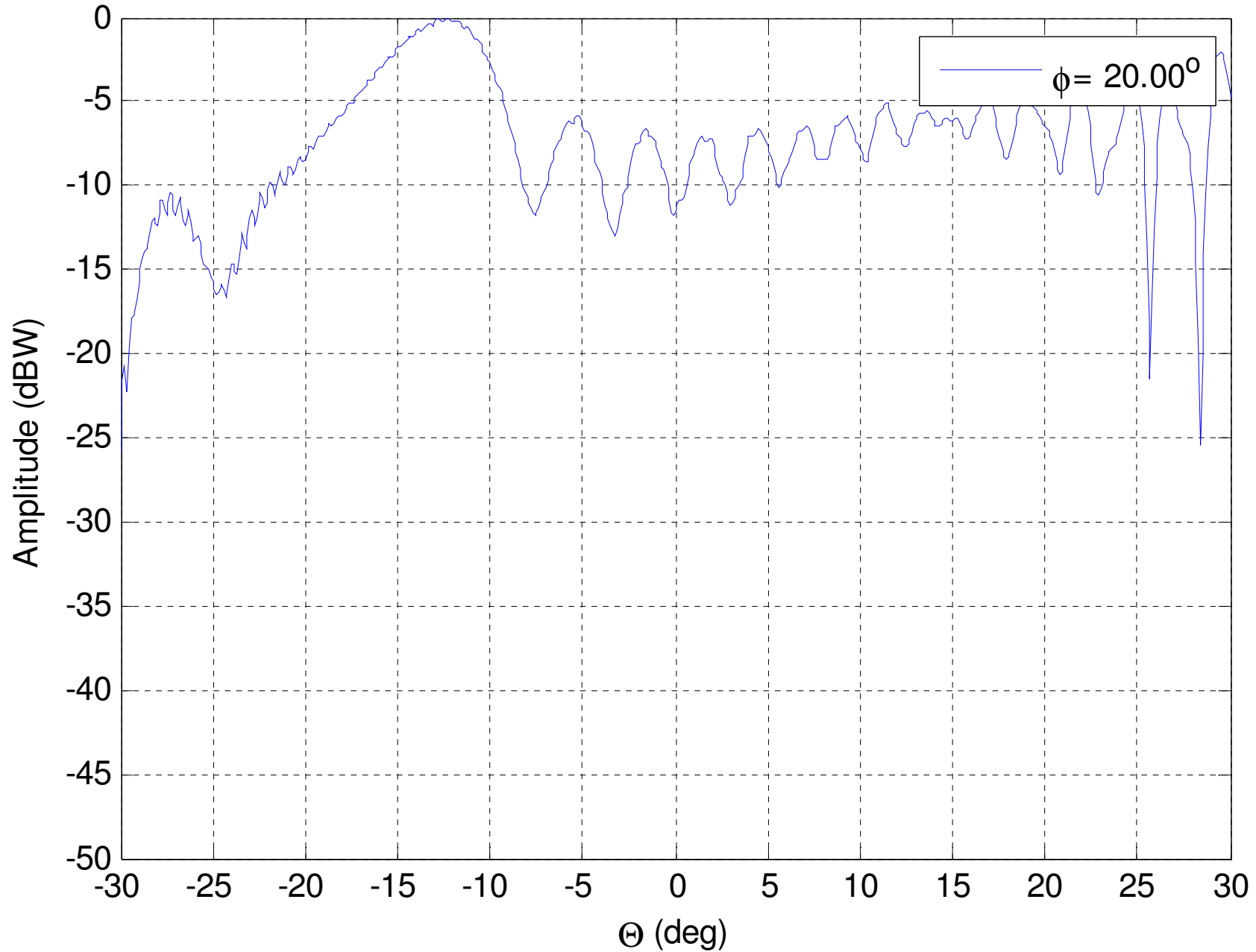
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp-10.cut, Peak: 6.98 dBW, Date: 16-Dec-2011



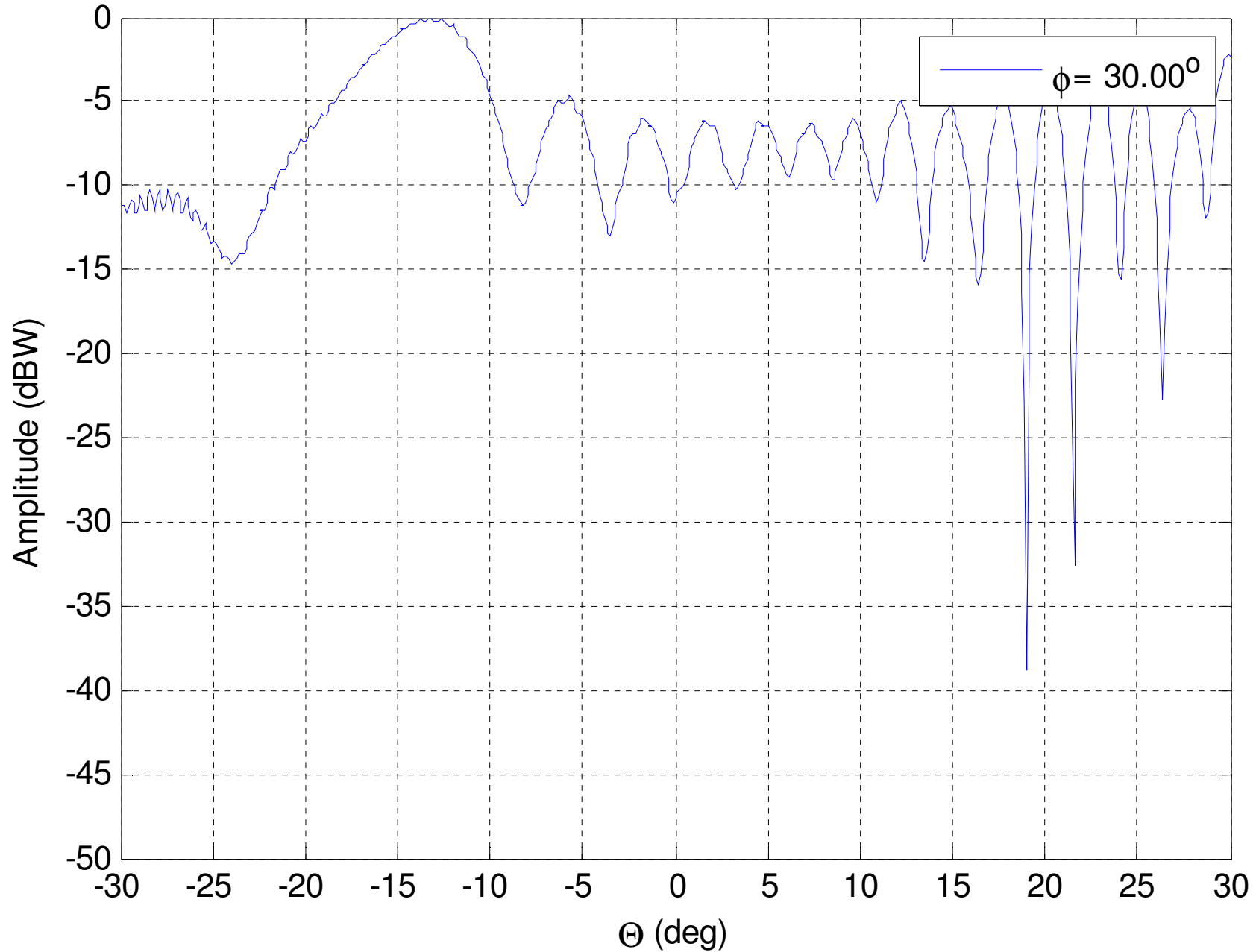
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp-20.cut, Peak: 6.85 dBW, Date: 16-Dec-2011



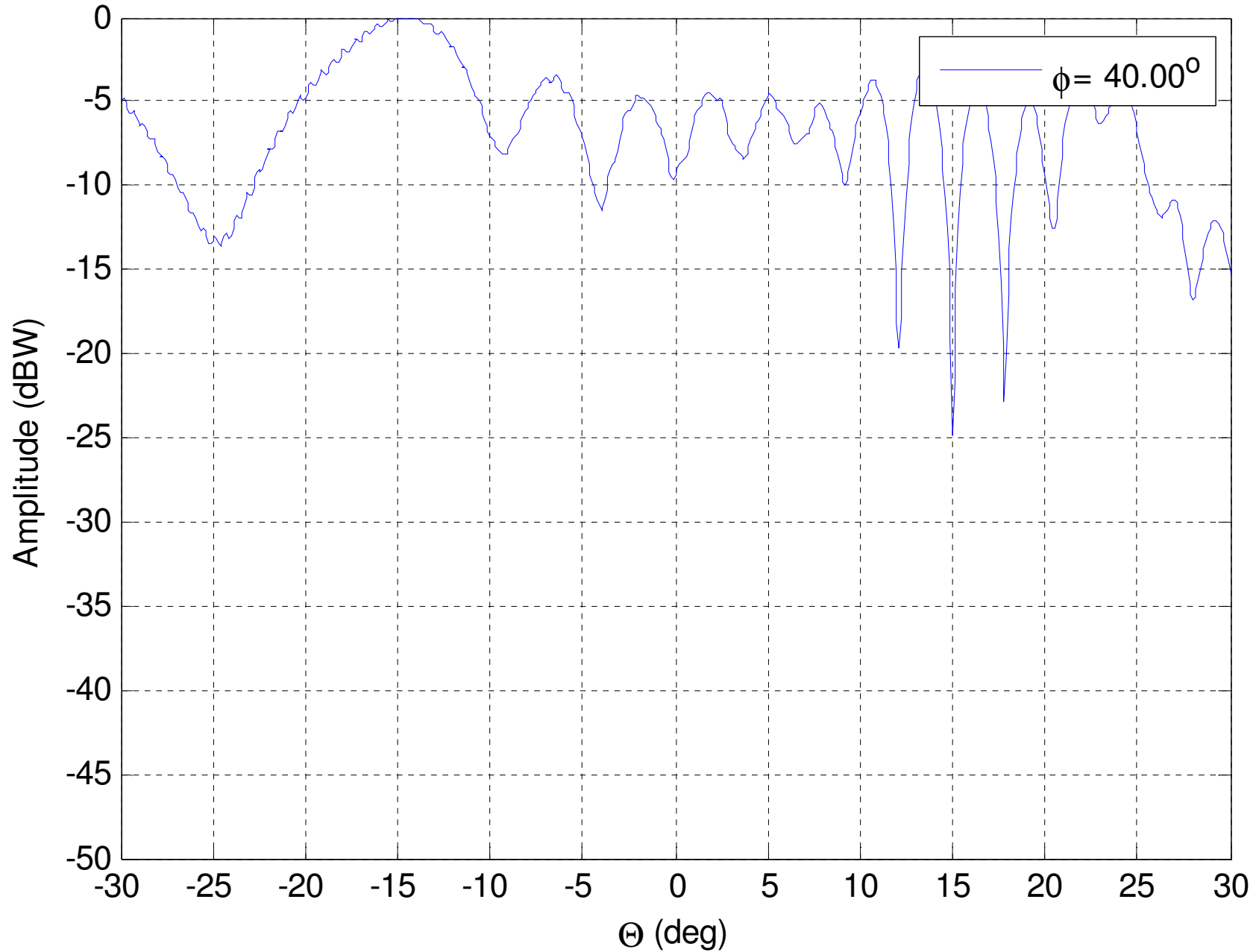
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp-30.cut, Peak: 6.11 dBW, Date: 16-Dec-2011



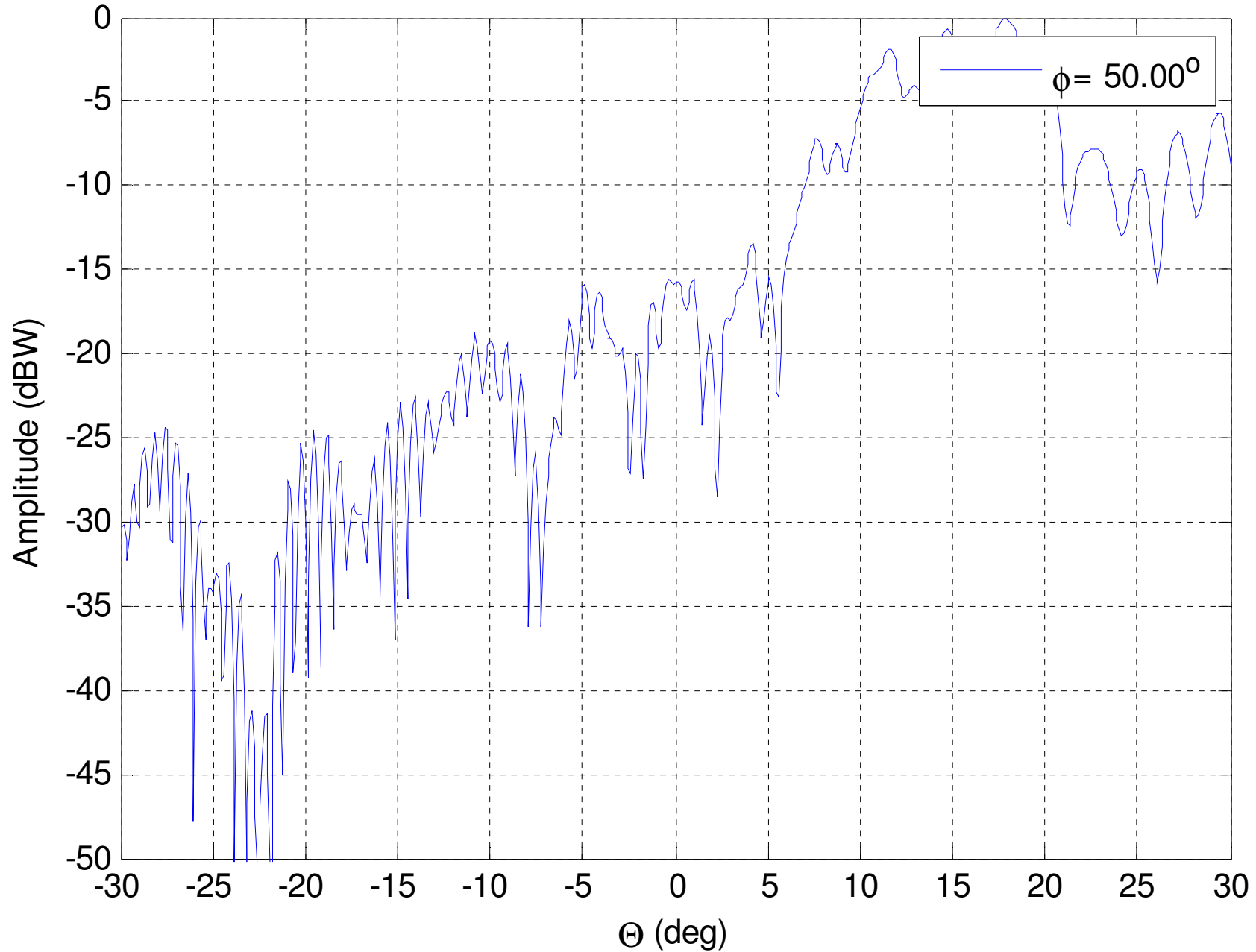
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp-40.cut, Peak: 4.68 dBW, Date: 16-Dec-2011



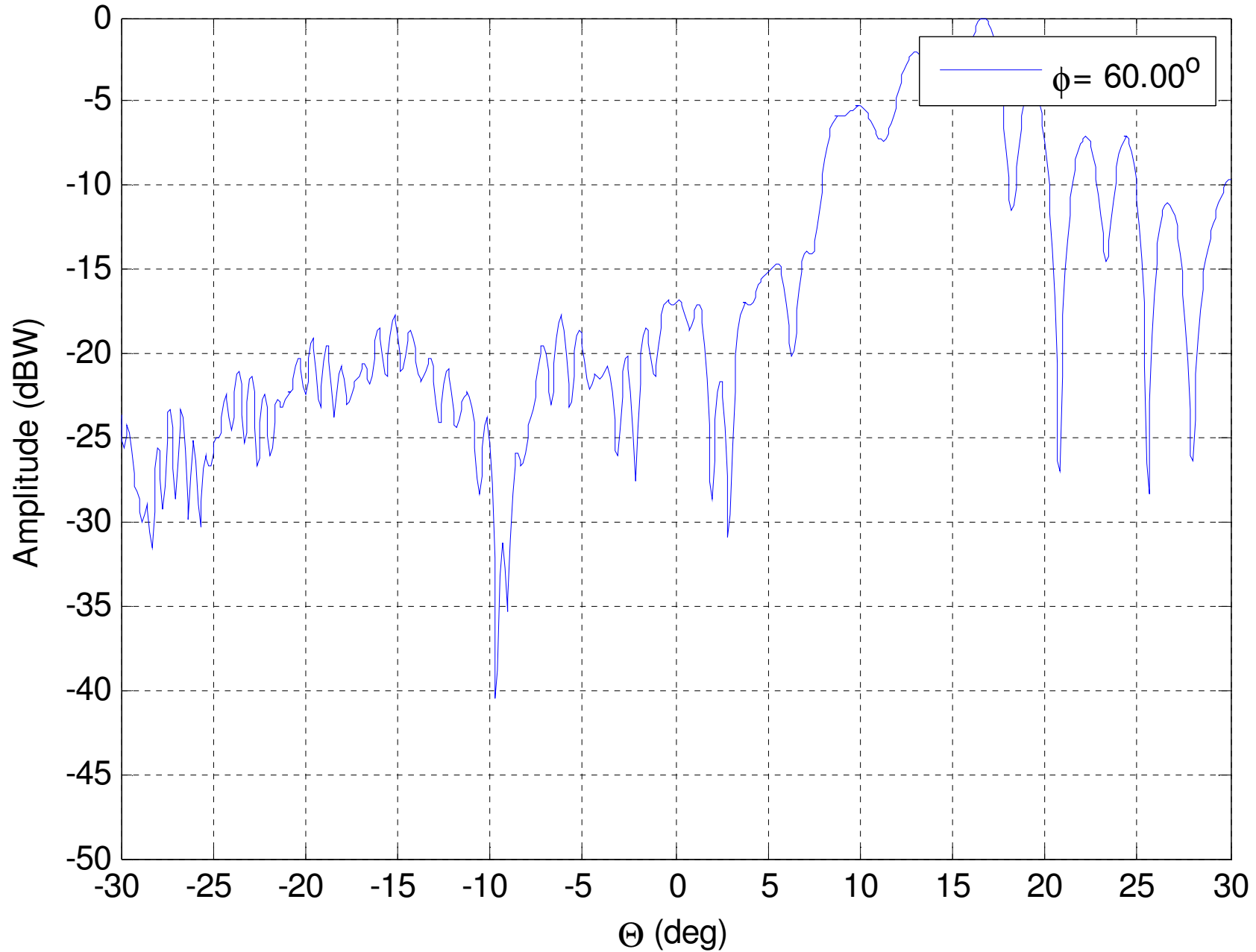
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp-50.cut, Peak: 3.33 dBW, Date: 16-Dec-2011



Normalized pattern cuts - farfield

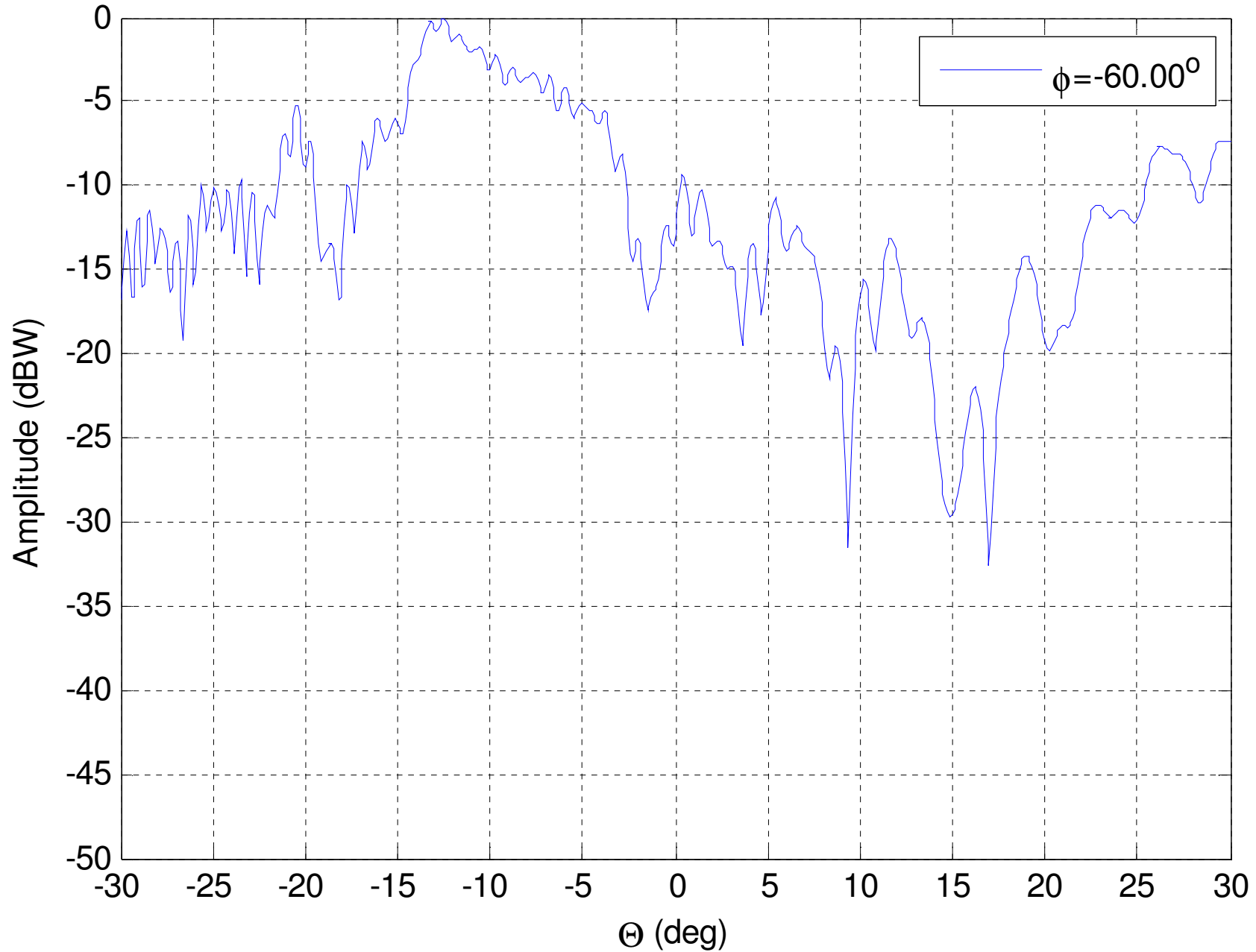
Input file: tx-17.3-lhcp-60.cut, Peak: 4.50 dBW, Date: 16-Dec-2011



RHCP at 17.5 GHz

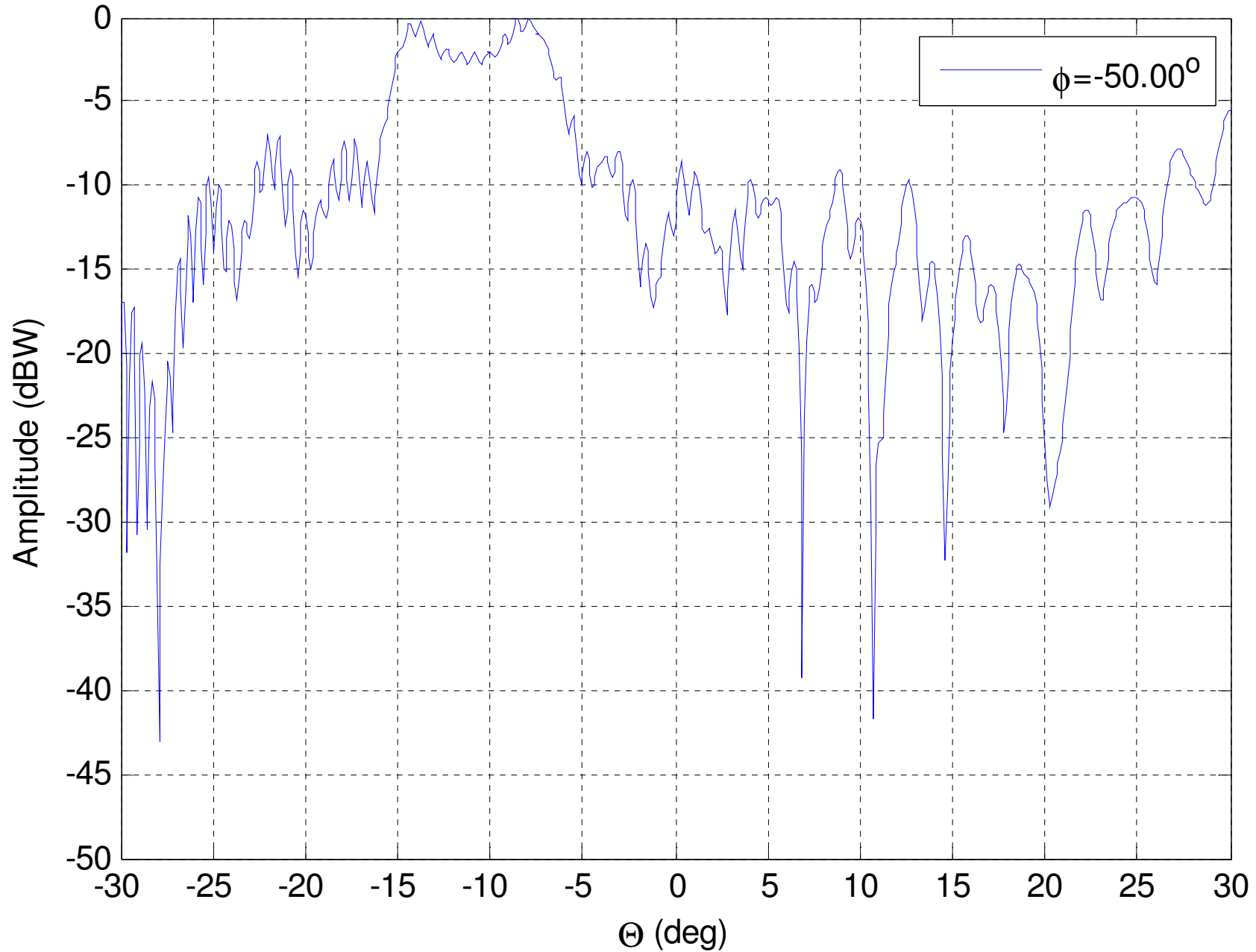
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--60.cut, Peak: -0.44 dBW, Date: 16-Dec-2011



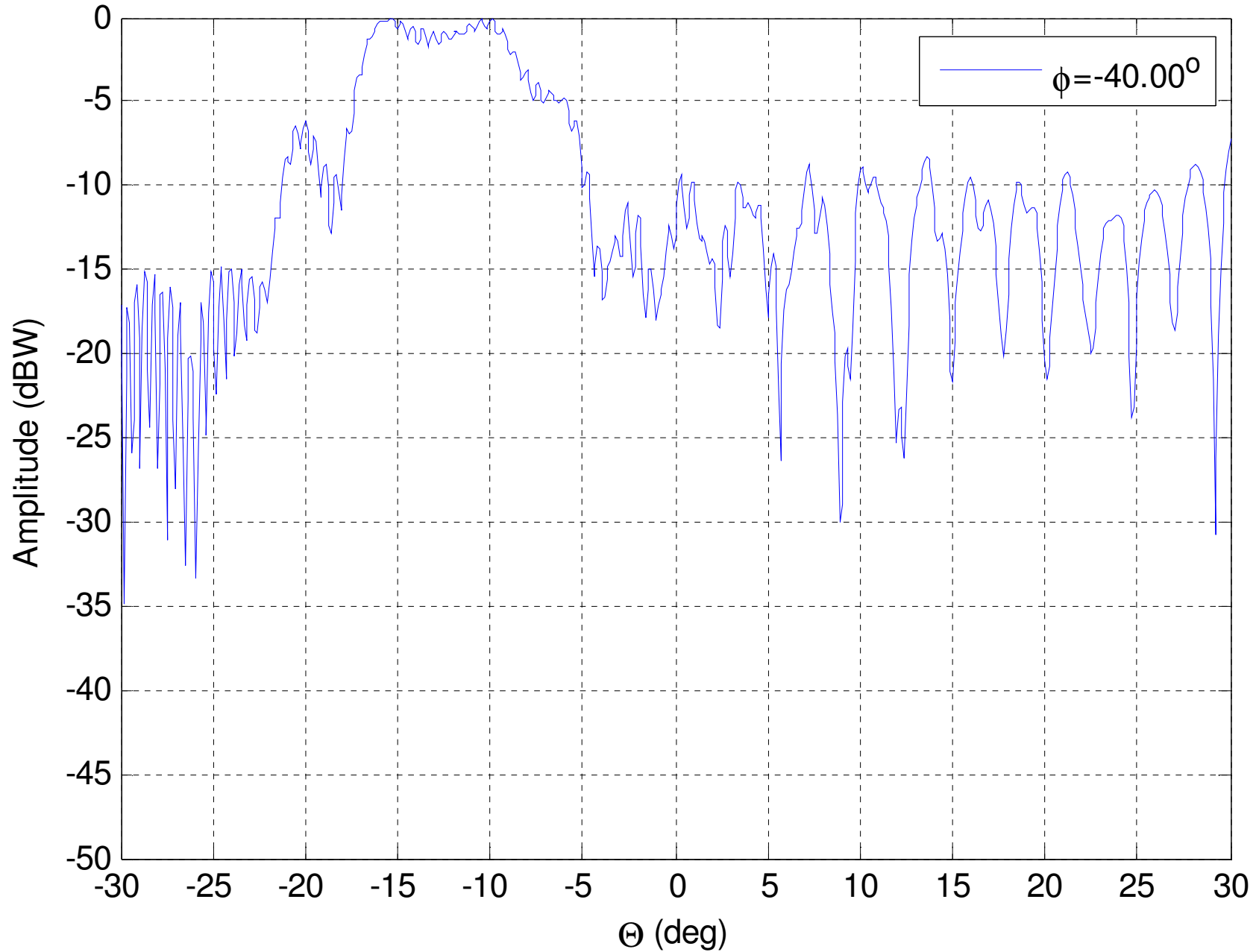
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--50.cut, Peak: -1.15 dBW, Date: 16-Dec-2011



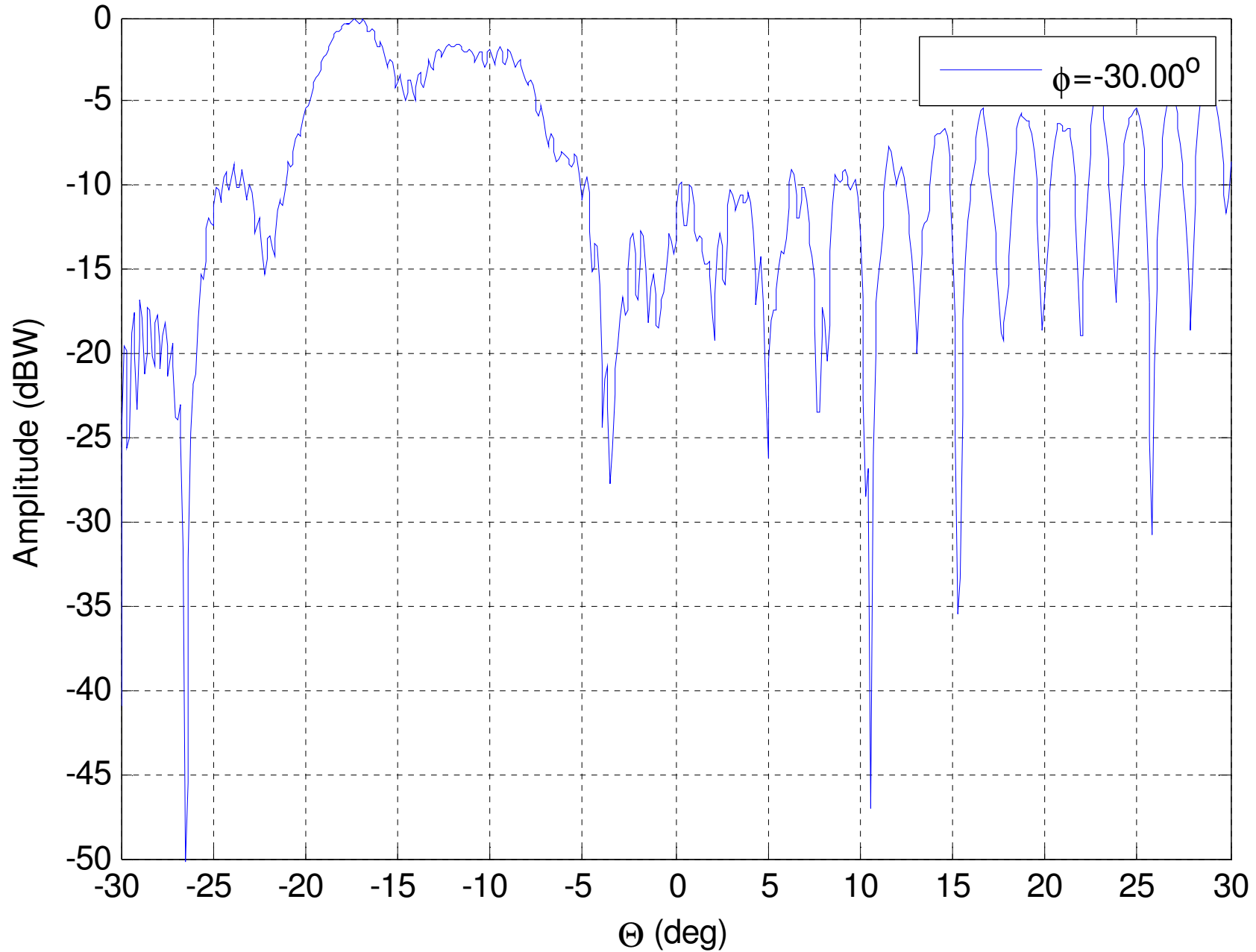
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--40.cut, Peak: -0.35 dBW, Date: 16-Dec-2011



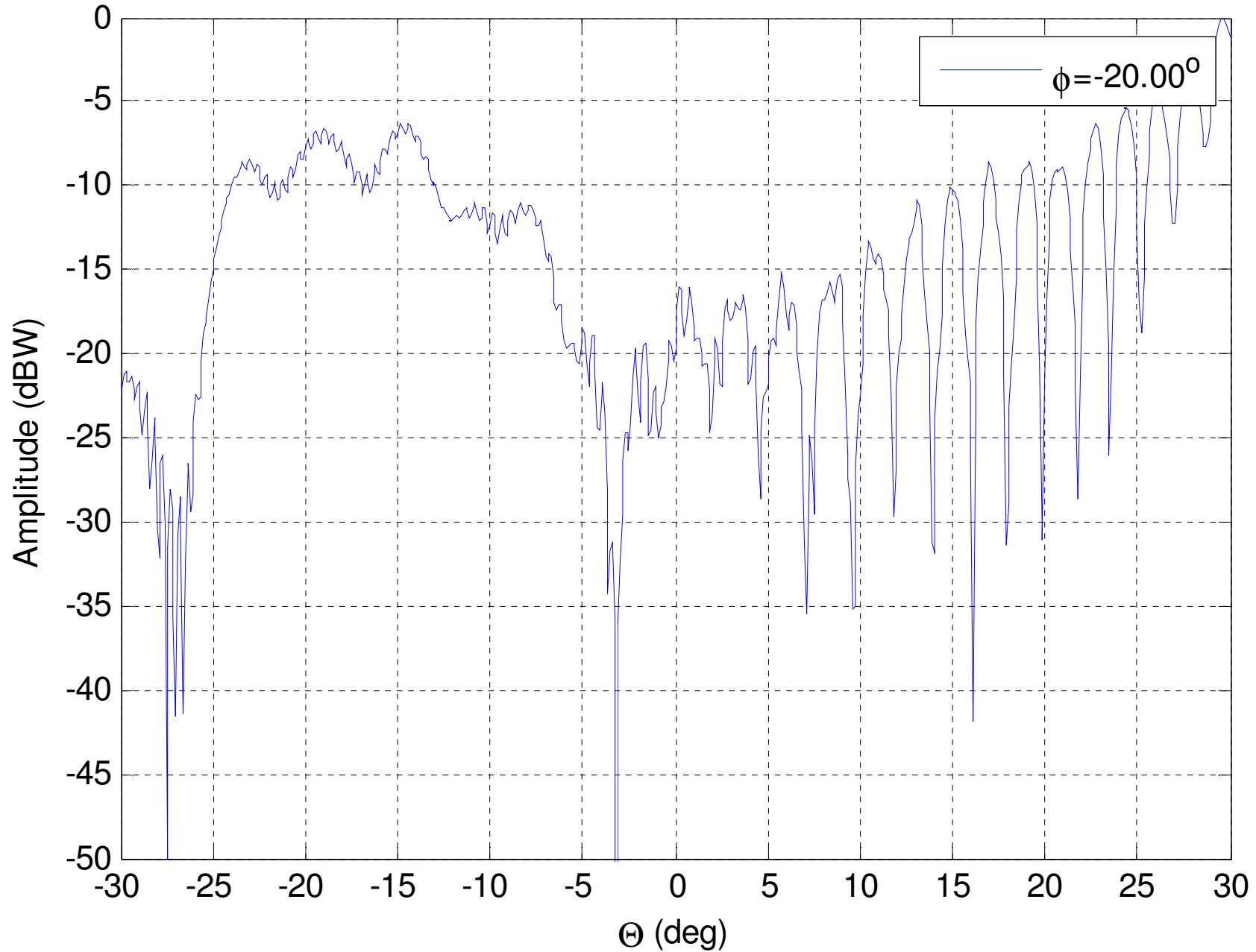
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--30.cut, Peak: 0.03 dBW, Date: 16-Dec-2011



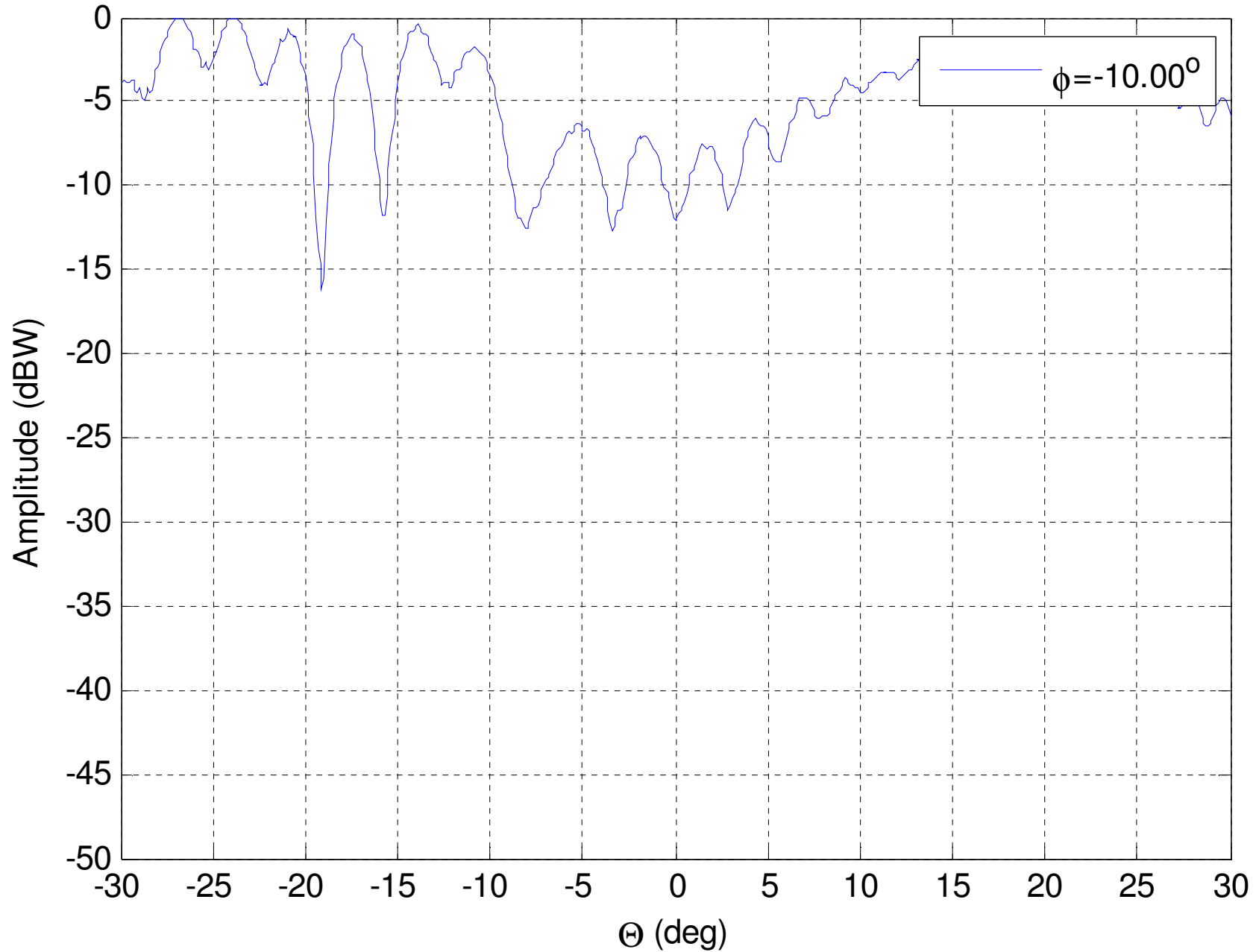
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--20.cut, Peak: 6.36 dBW, Date: 16-Dec-2011



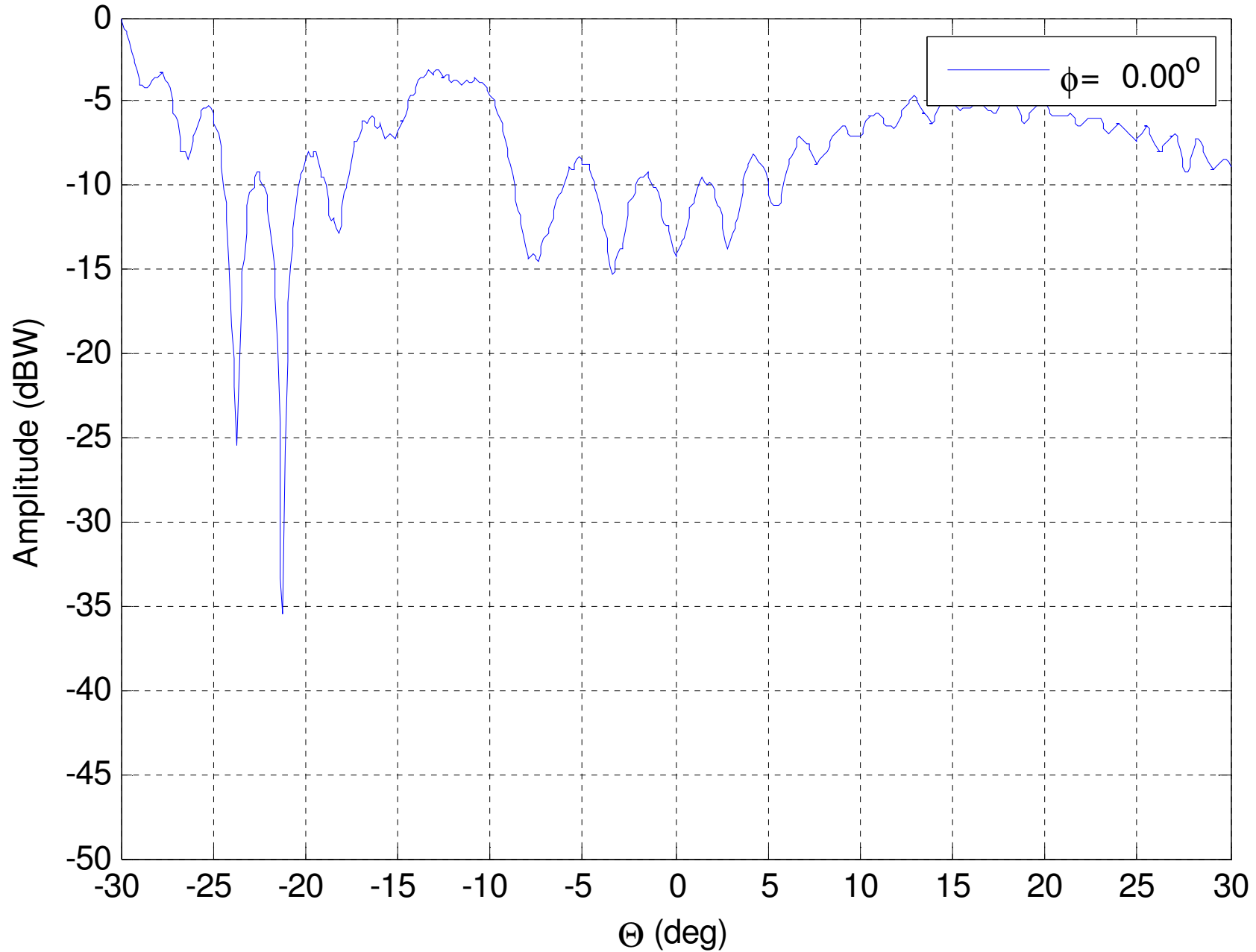
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--10.cut, Peak: 7.50 dBW, Date: 16-Dec-2011



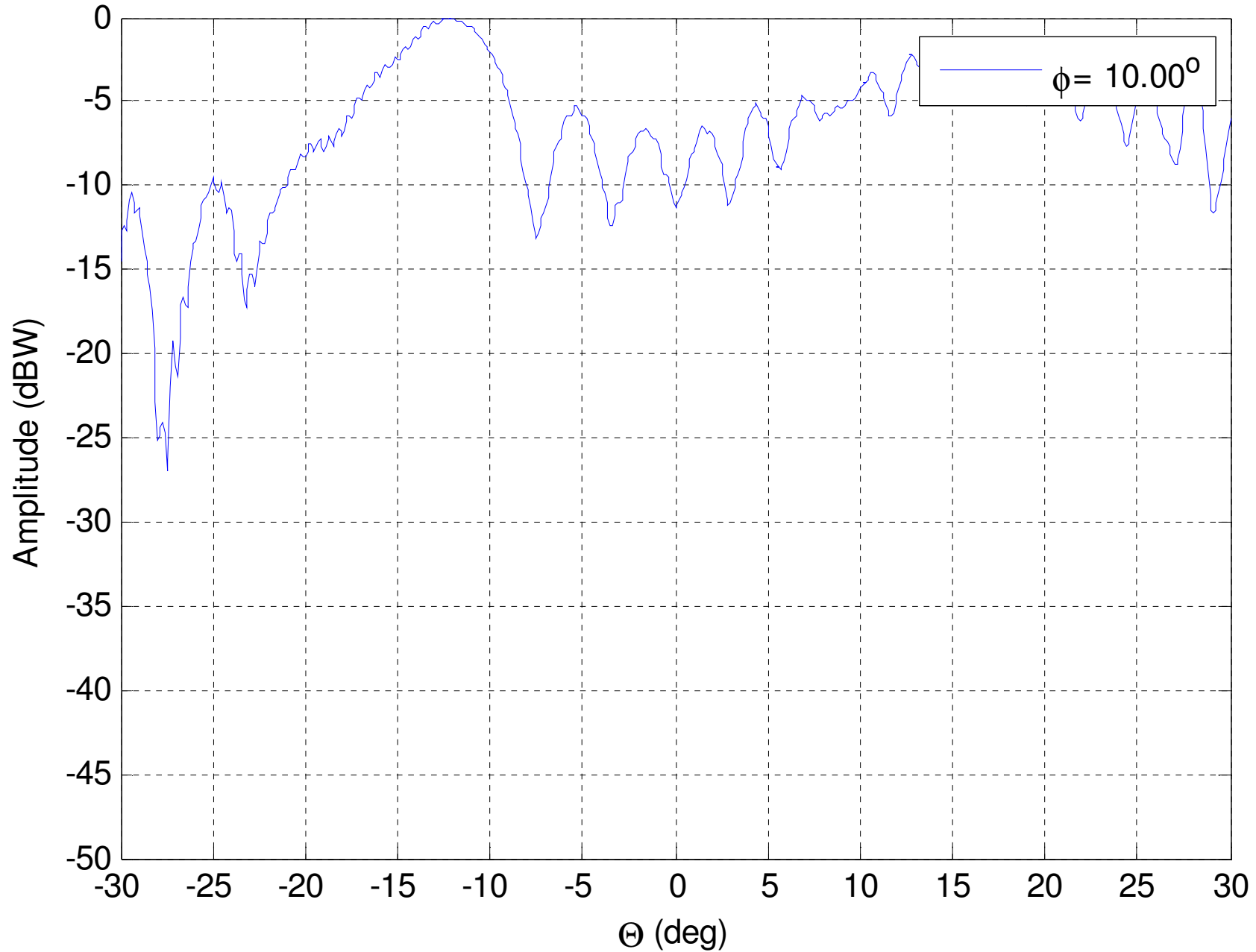
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-0.cut, Peak: 9.59 dBW, Date: 16-Dec-2011



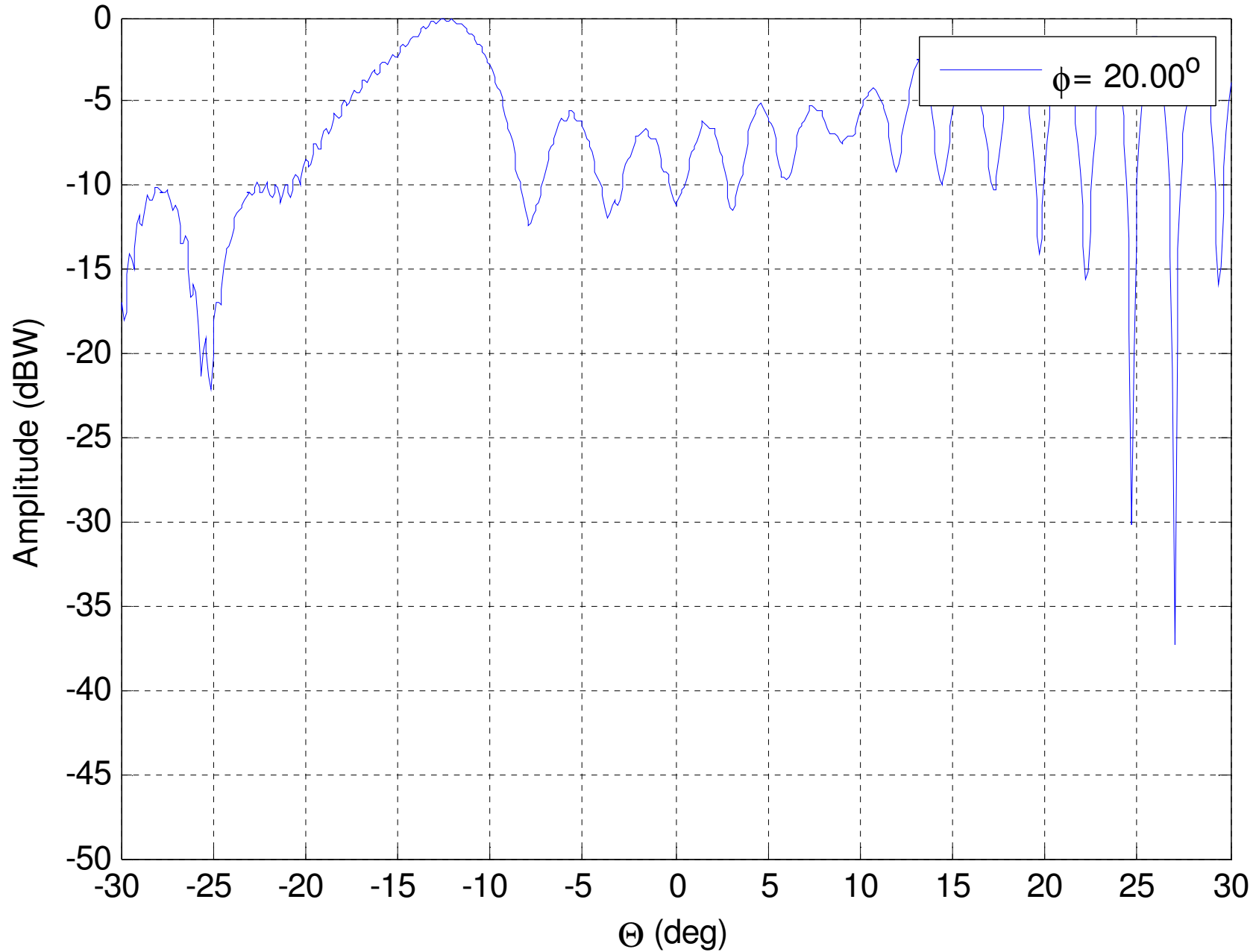
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-10.cut, Peak: 6.64 dBW, Date: 16-Dec-2011



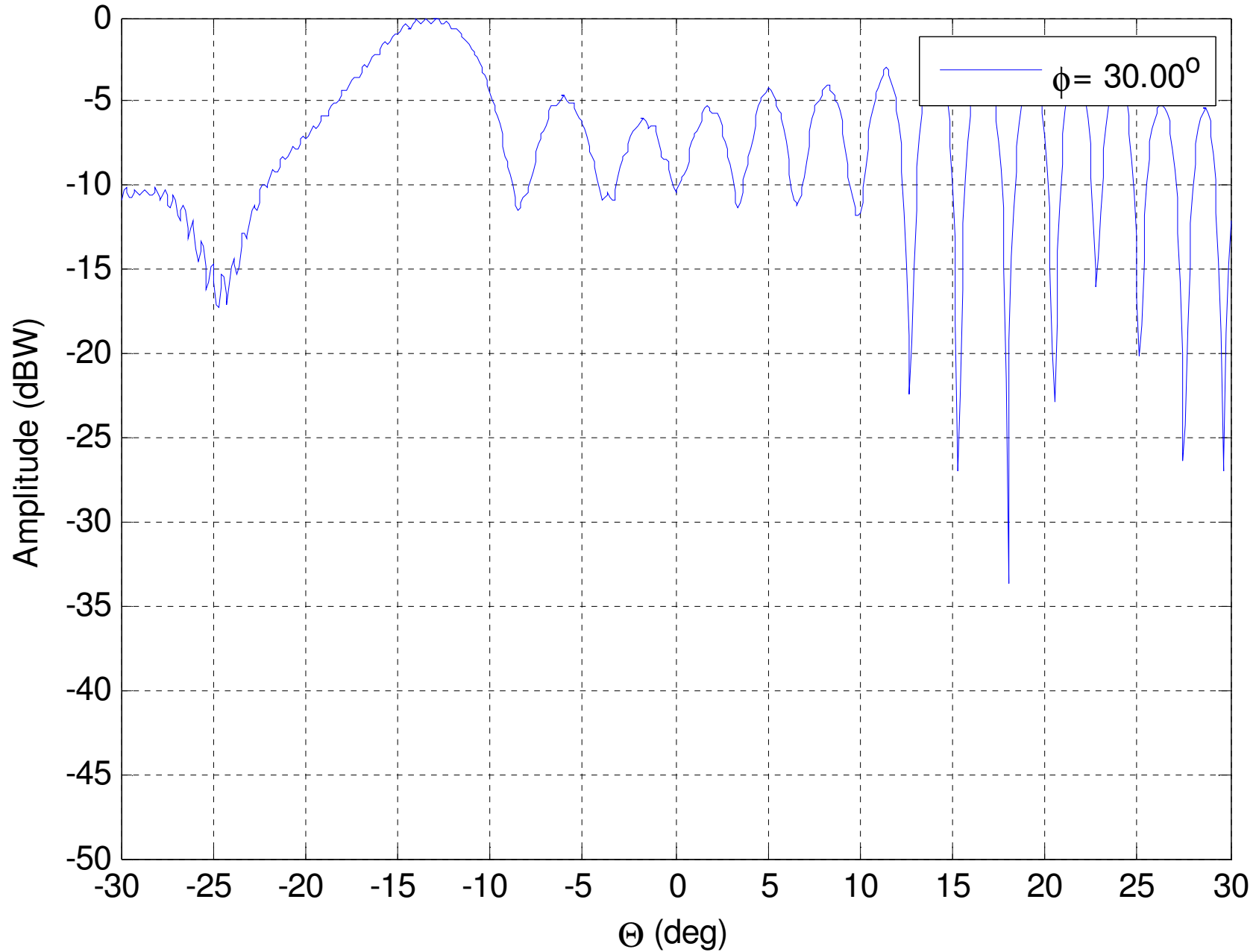
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-20.cut, Peak: 6.53 dBW, Date: 16-Dec-2011



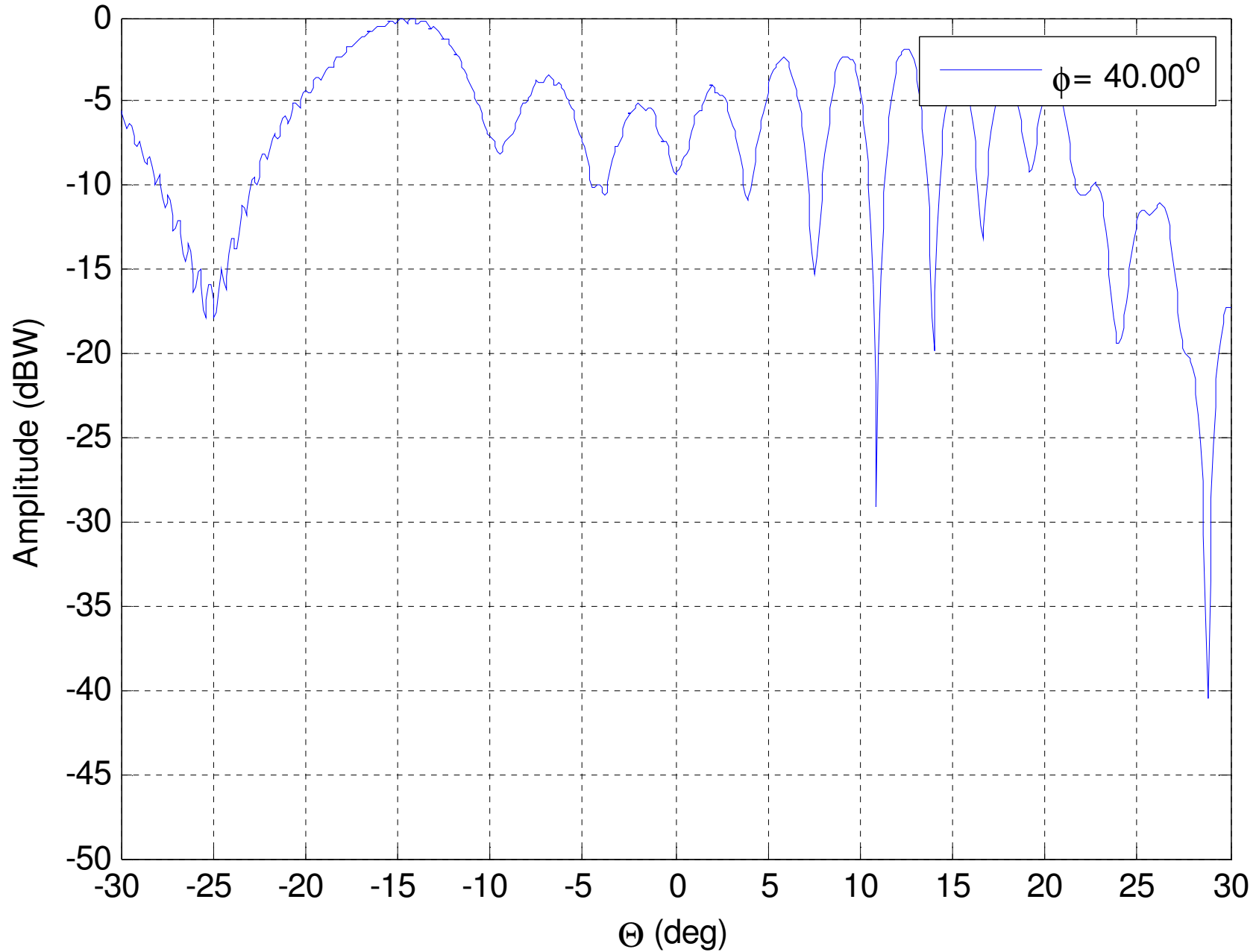
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-30.cut, Peak: 5.73 dBW, Date: 16-Dec-2011



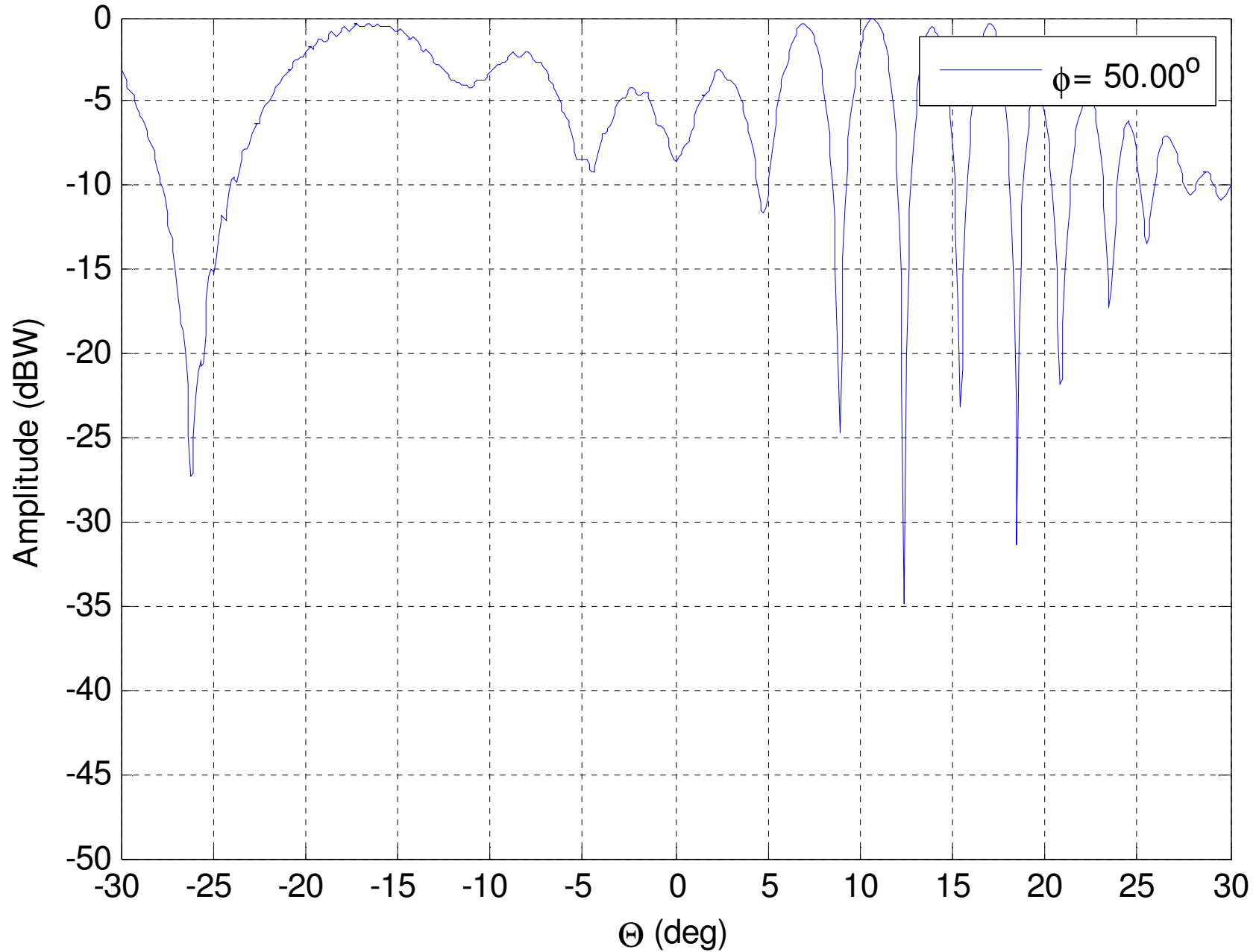
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-40.cut, Peak: 4.68 dBW, Date: 16-Dec-2011



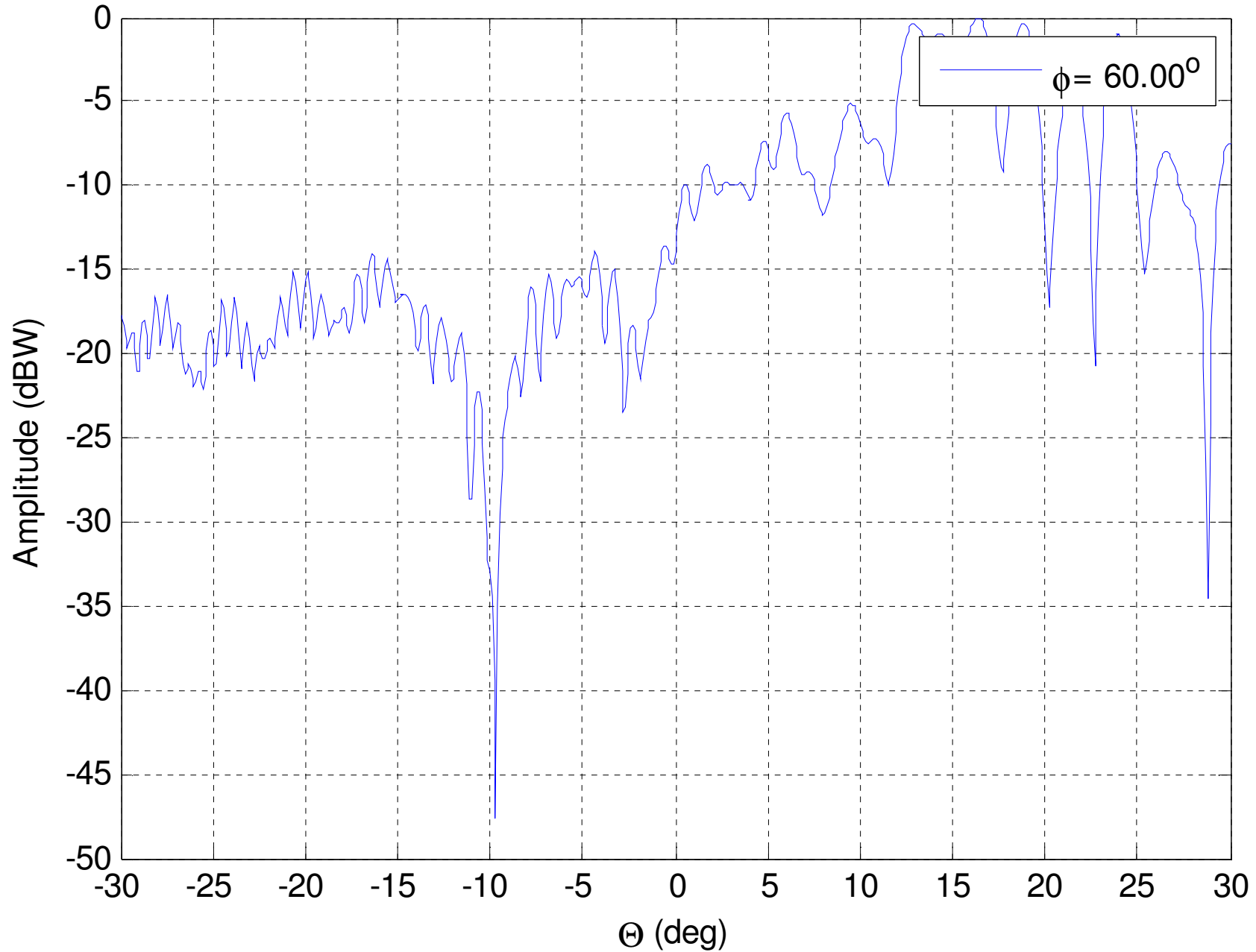
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-50.cut, Peak: 3.94 dBW, Date: 16-Dec-2011



Normalized pattern cuts - farfield

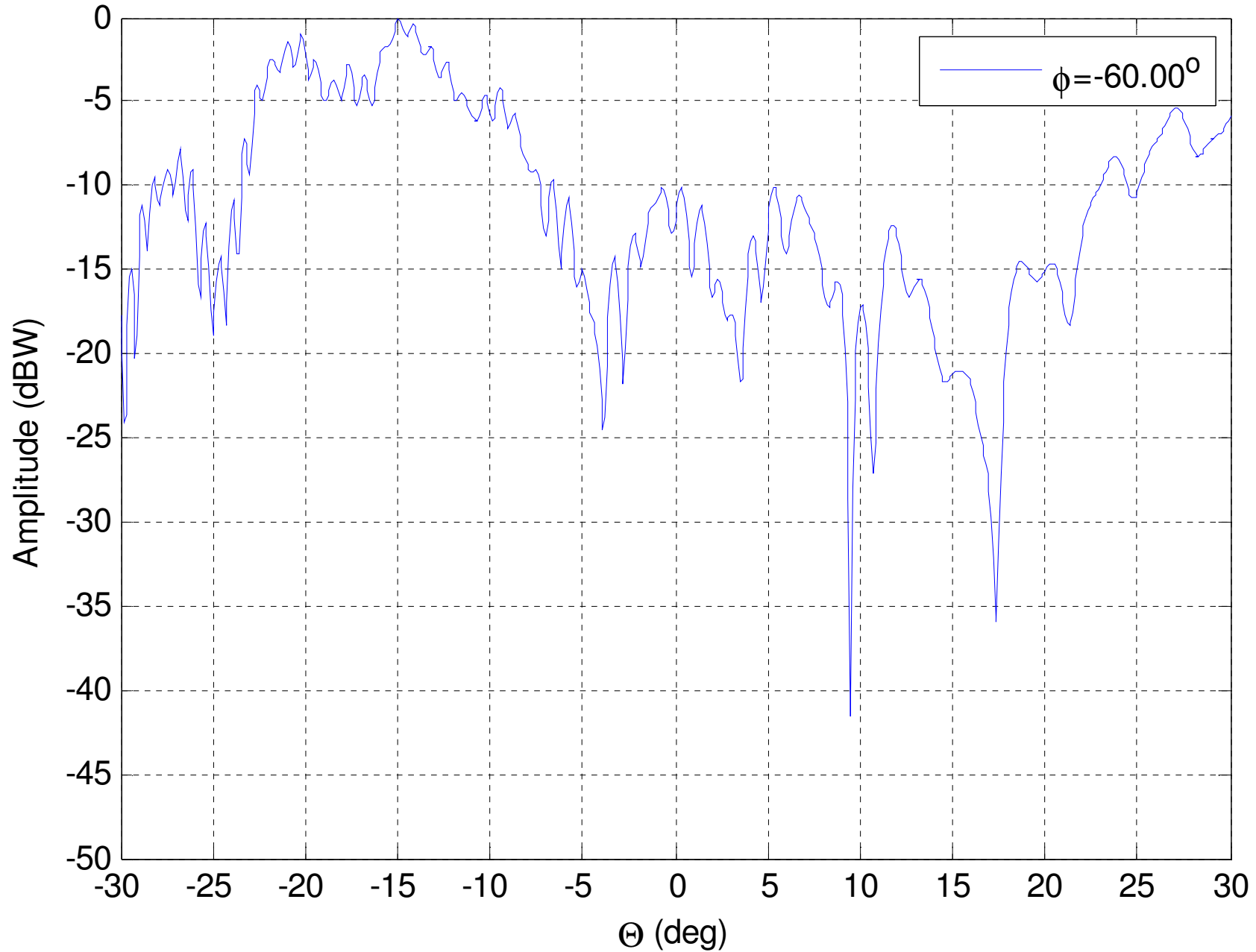
Input file: tx-17.5-rhcp-60.cut, Peak: 0.59 dBW, Date: 16-Dec-2011



LHCP at 17.5 GHz

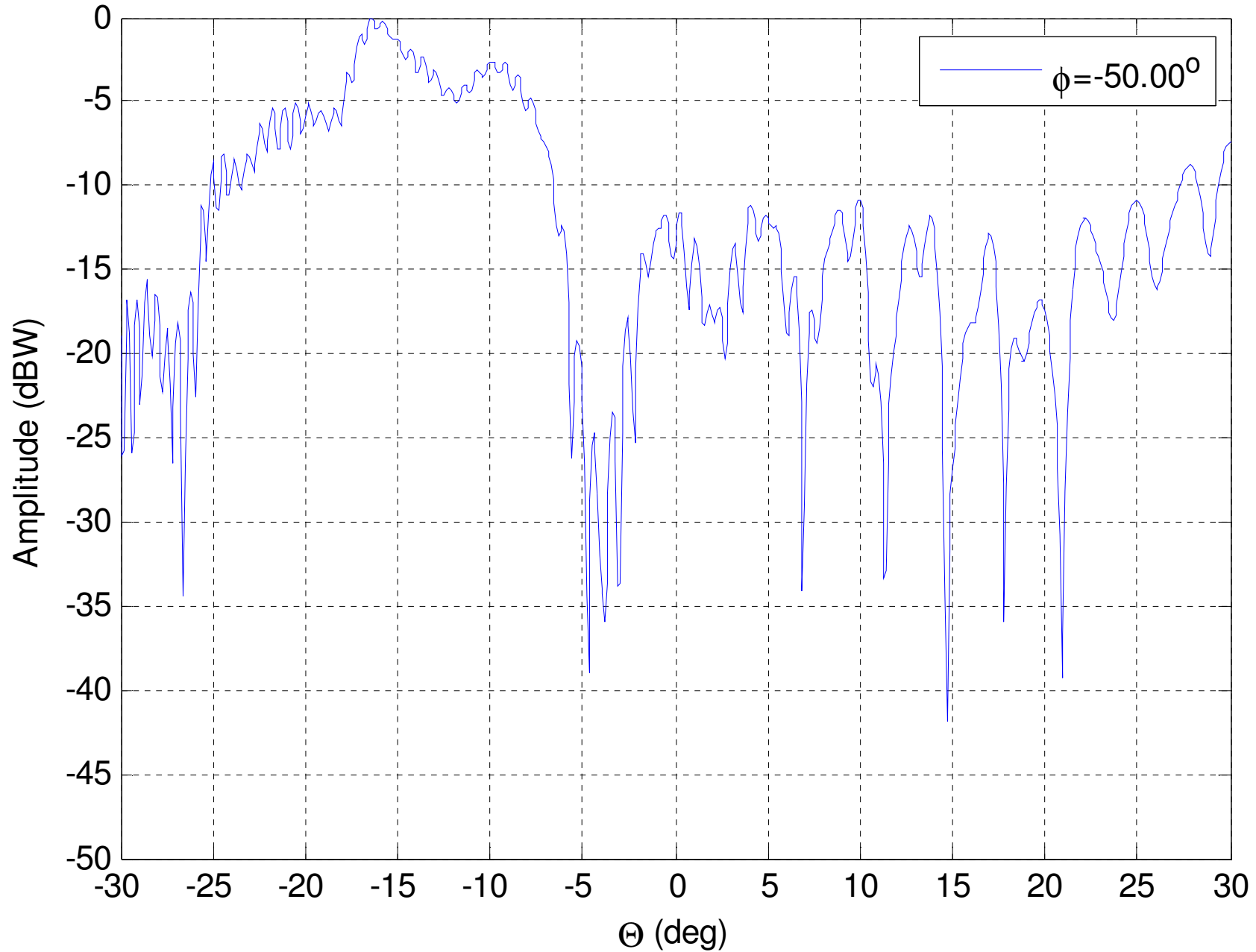
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--60.cut, Peak: -1.77 dBW, Date: 16-Dec-2011



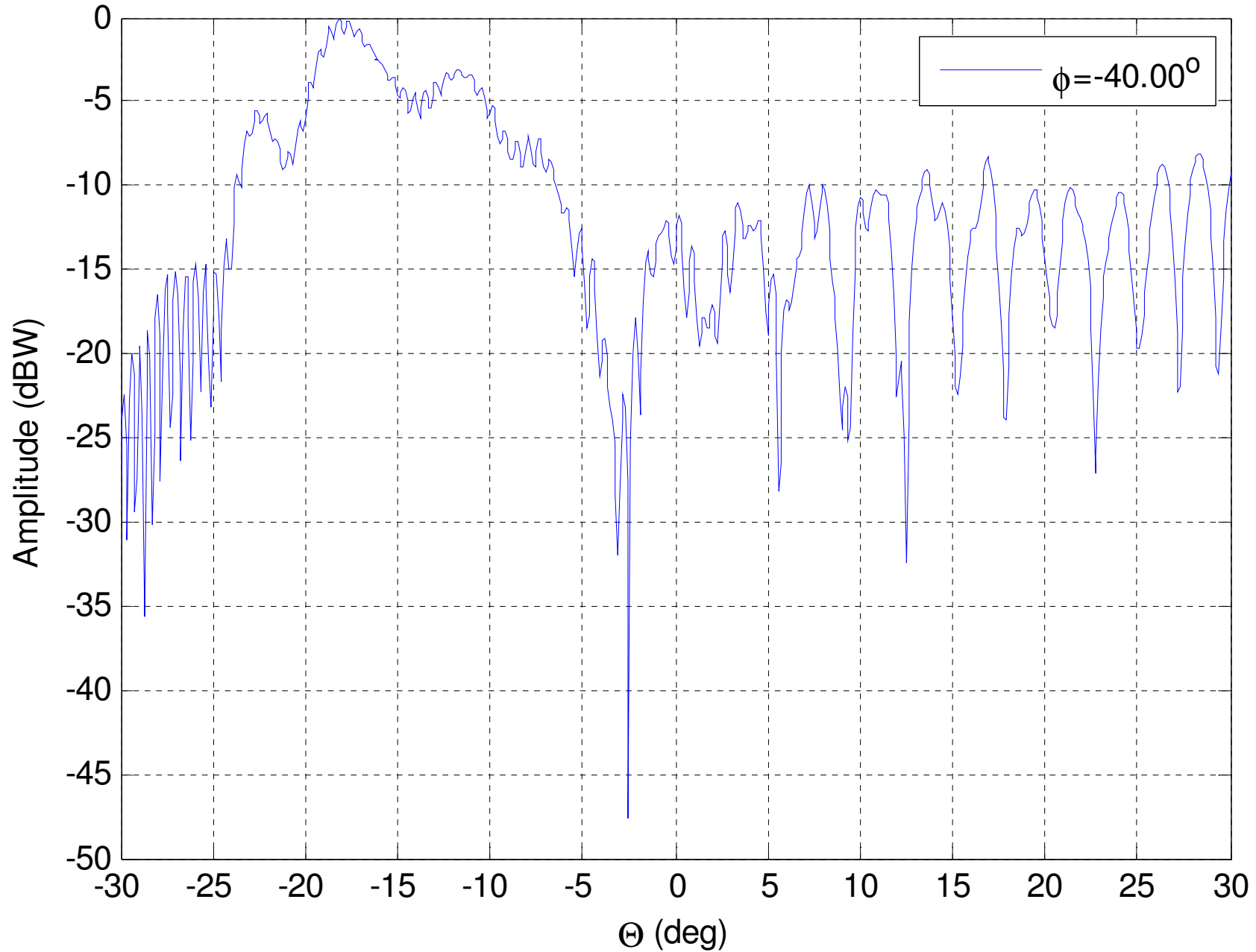
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--50.cut, Peak: -0.29 dBW, Date: 16-Dec-2011



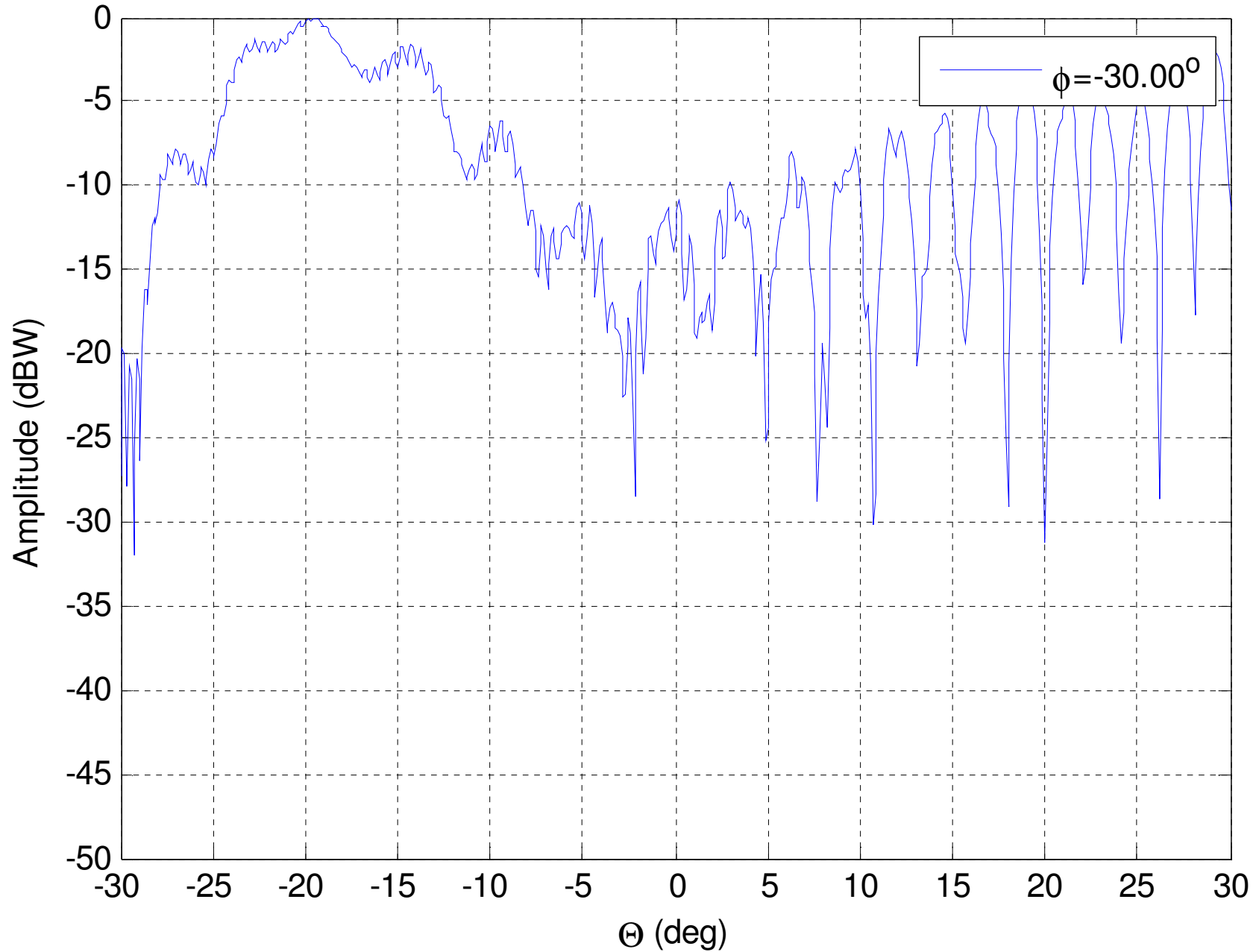
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--40.cut, Peak: -0.07 dBW, Date: 16-Dec-2011



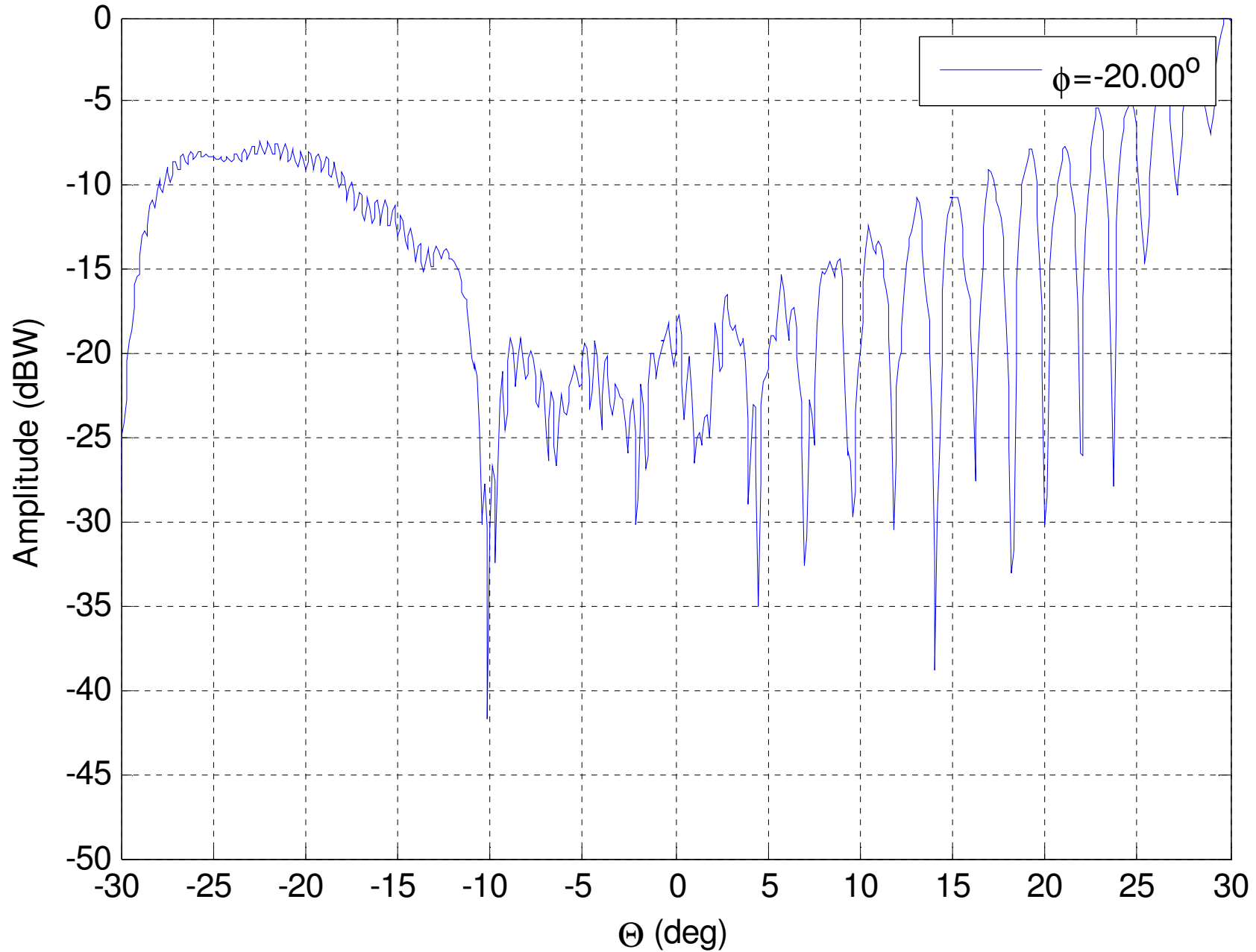
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--30.cut, Peak: -0.89 dBW, Date: 16-Dec-2011



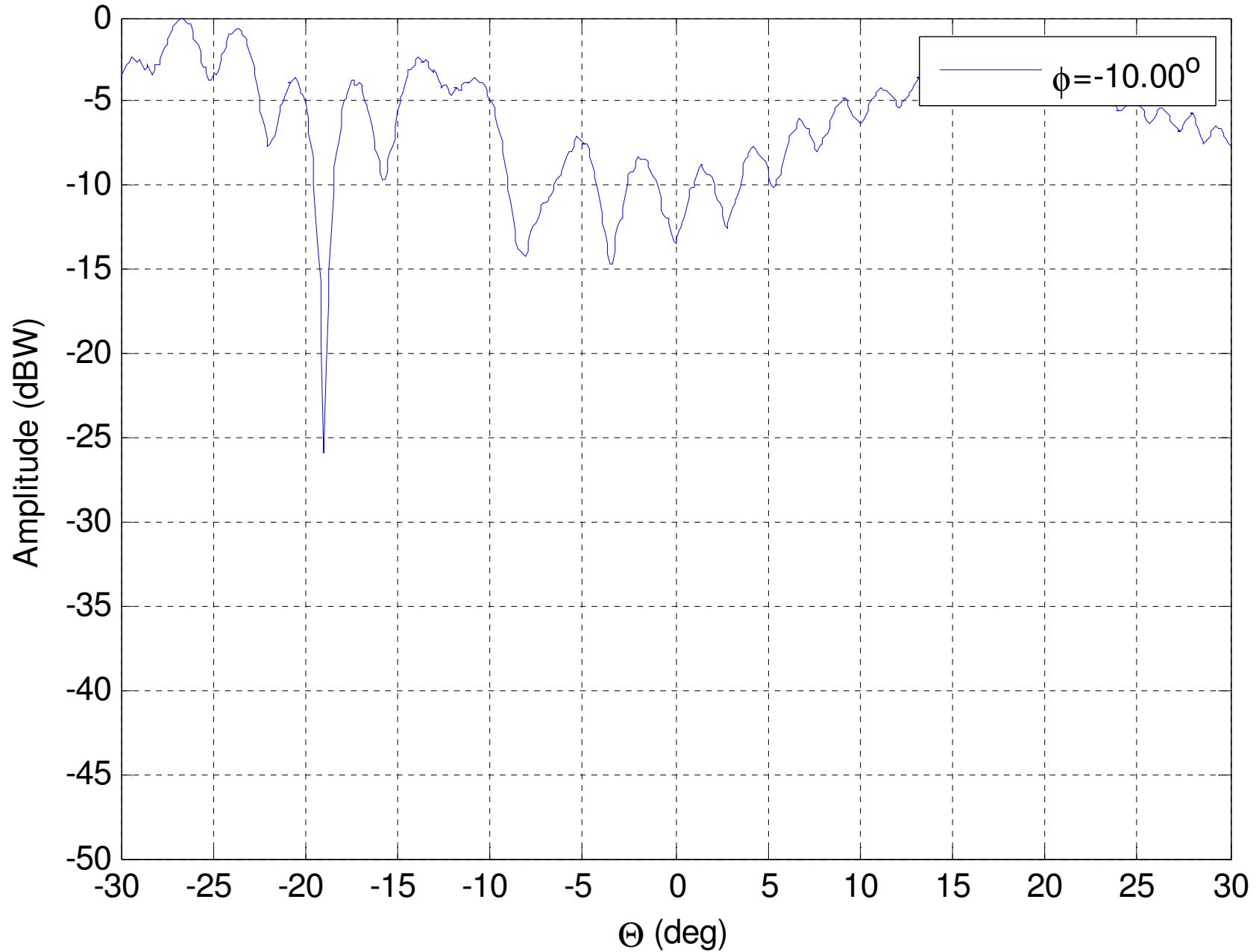
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--20.cut, Peak: 5.90 dBW, Date: 16-Dec-2011



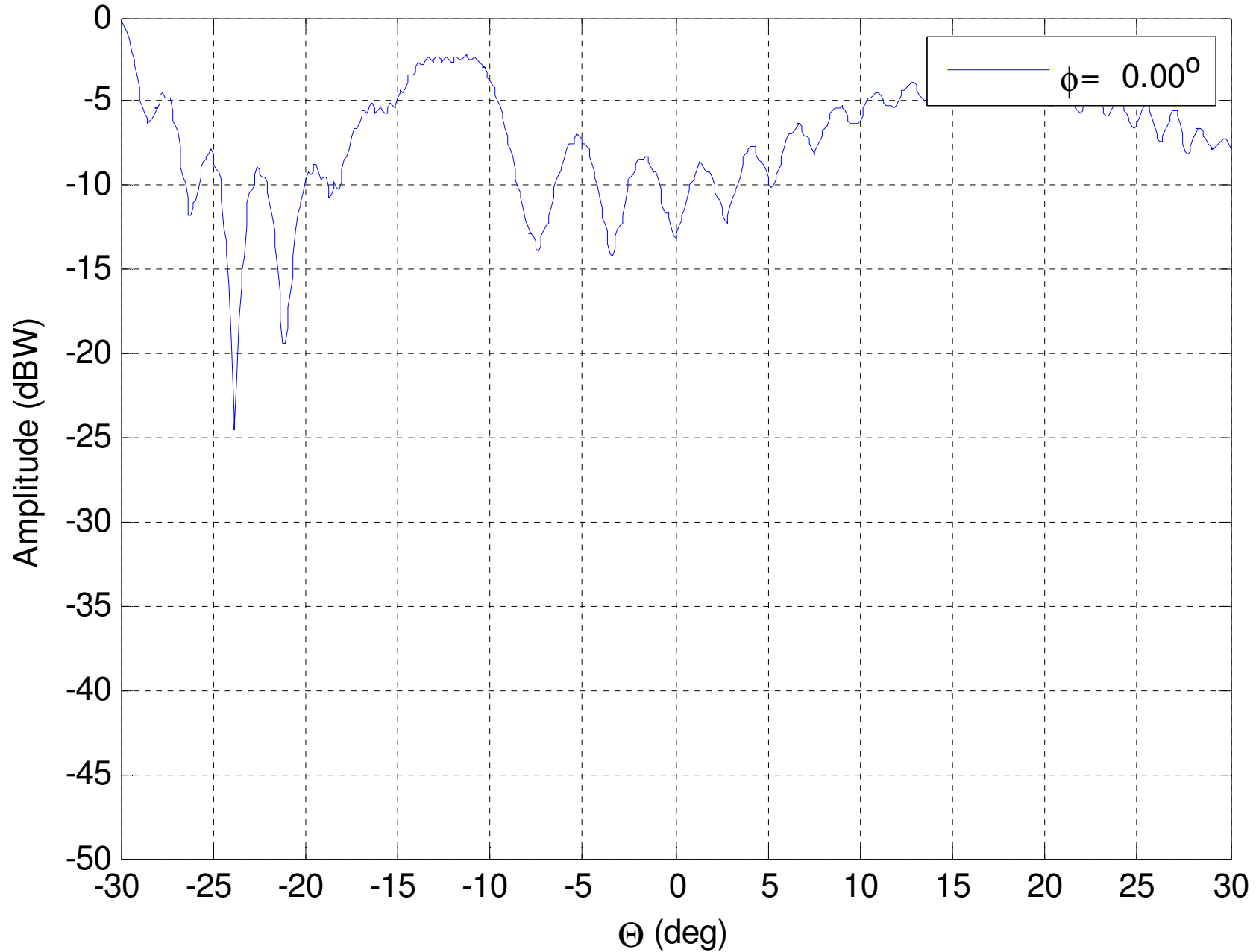
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--10.cut, Peak: 8.83 dBW, Date: 16-Dec-2011



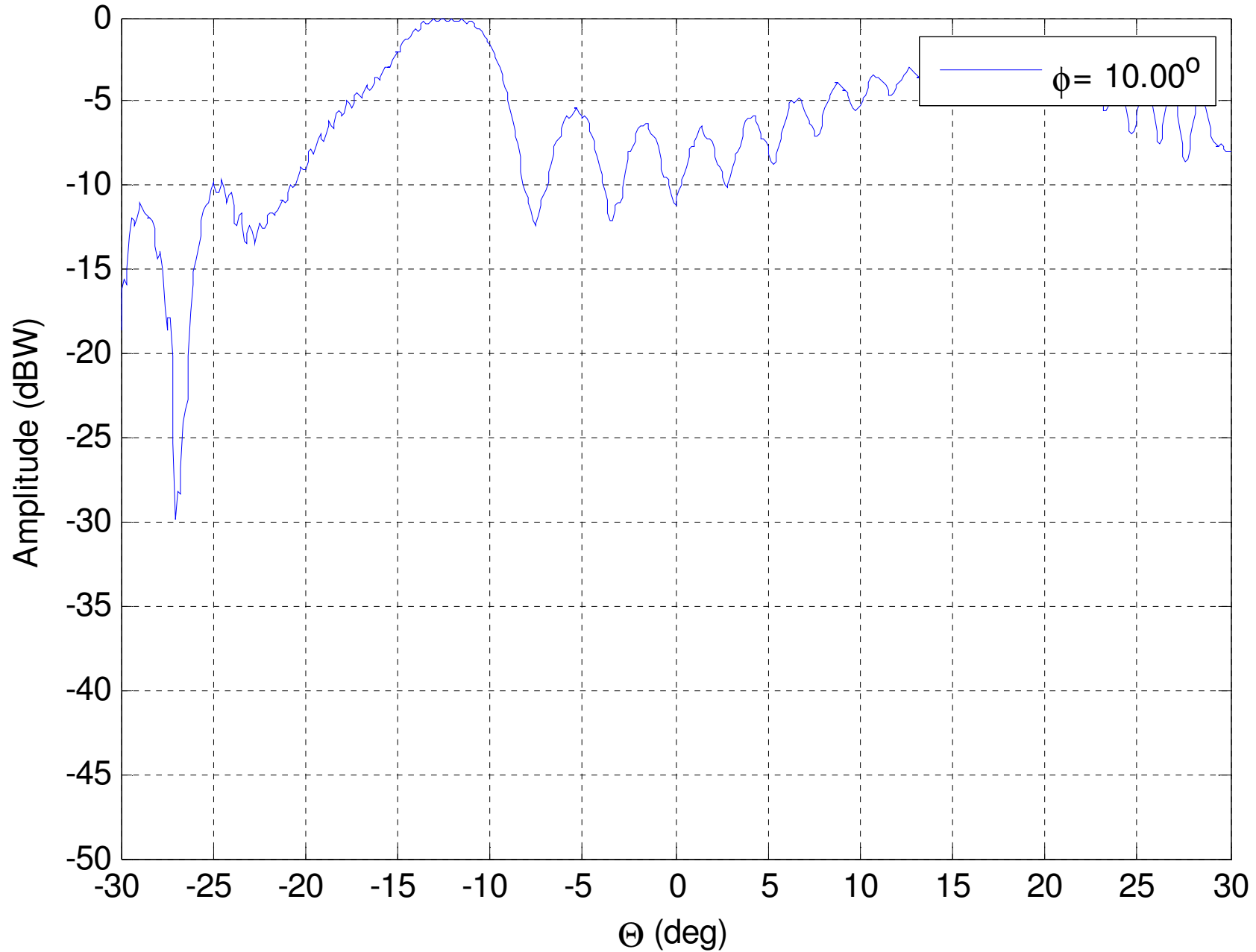
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-0.cut, Peak: 8.51 dBW, Date: 16-Dec-2011



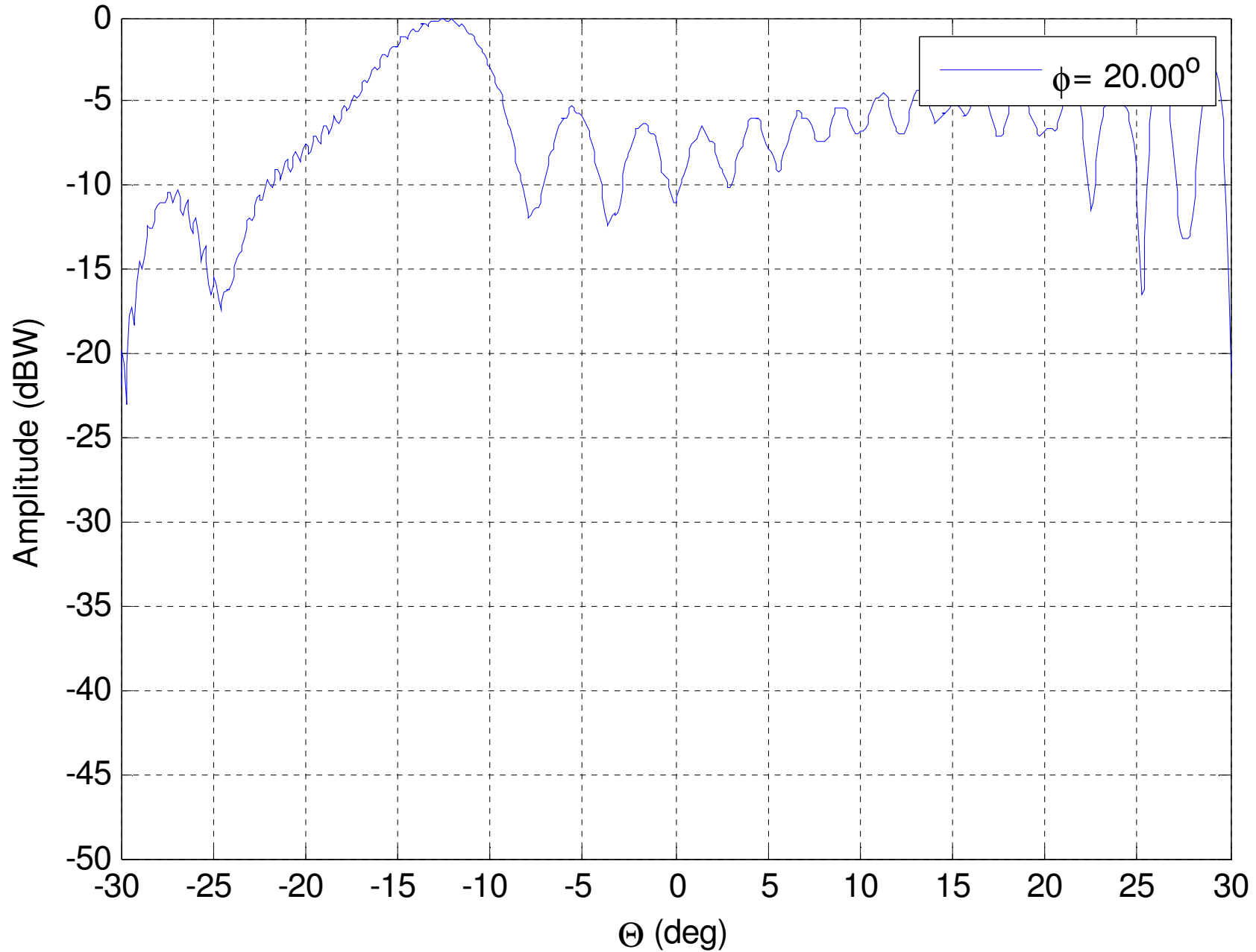
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-10.cut, Peak: 6.48 dBW, Date: 16-Dec-2011



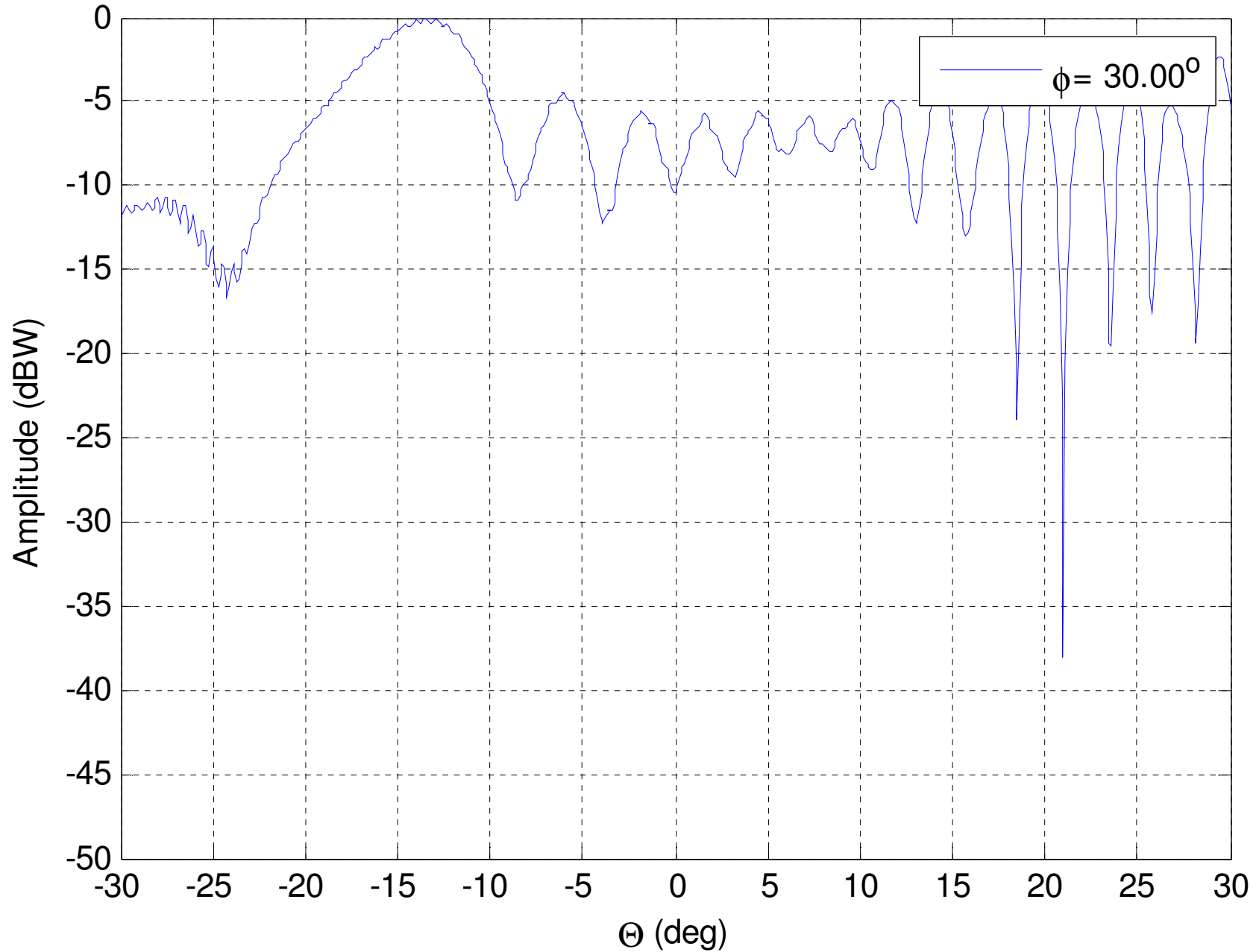
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-20.cut, Peak: 6.42 dBW, Date: 16-Dec-2011



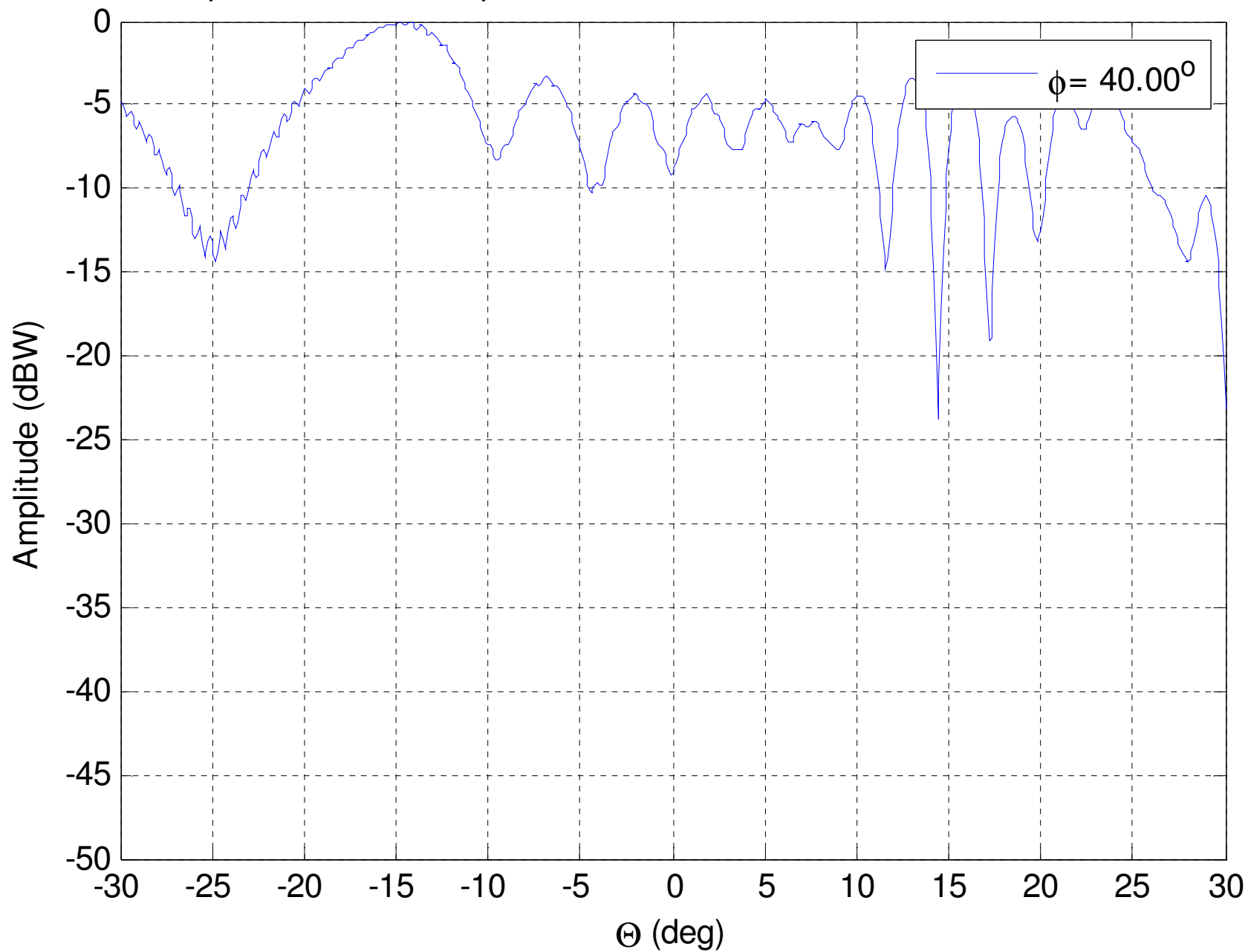
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-30.cut, Peak: 5.77 dBW, Date: 16-Dec-2011



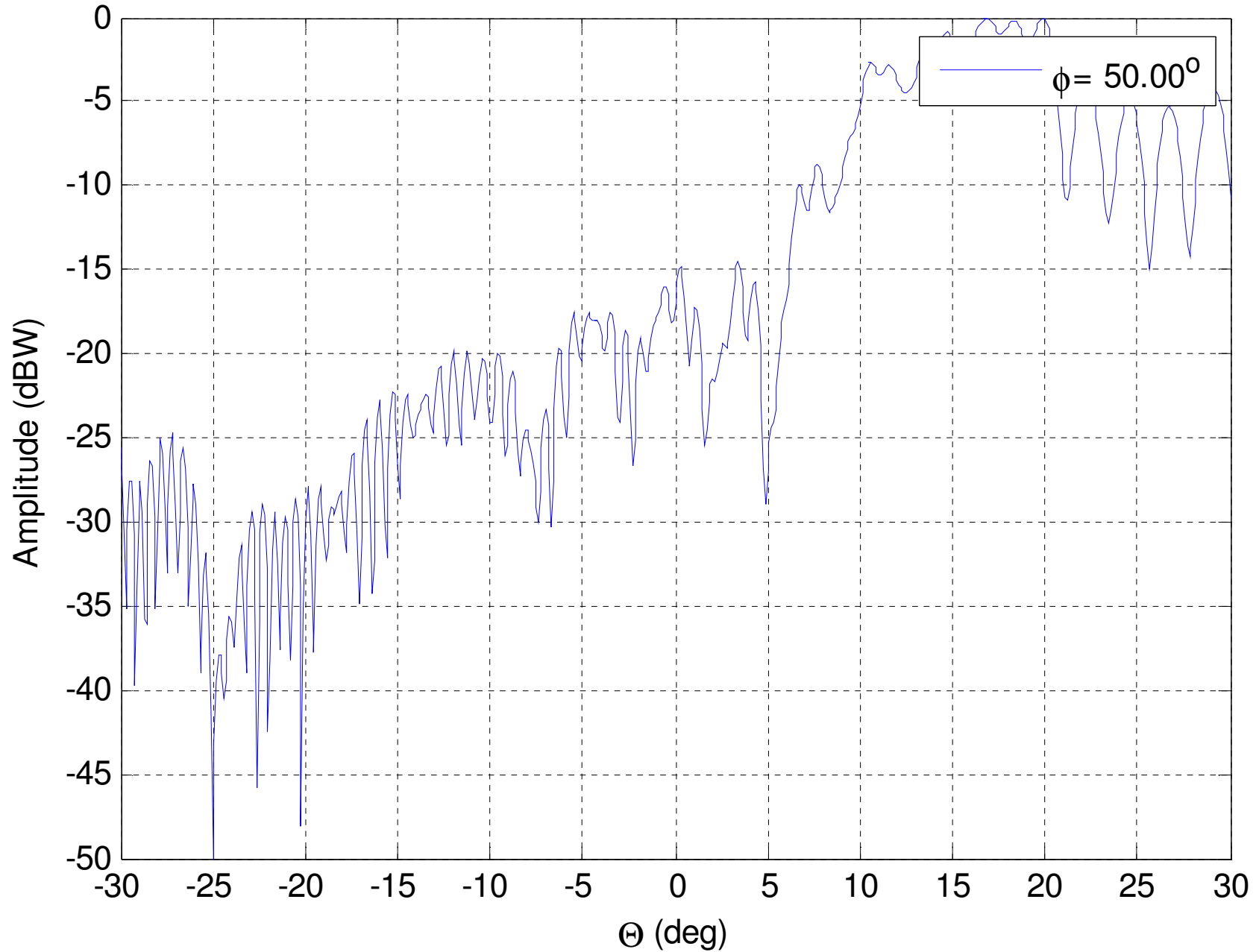
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-40.cut, Peak: 4.47 dBW, Date: 16-Dec-2011



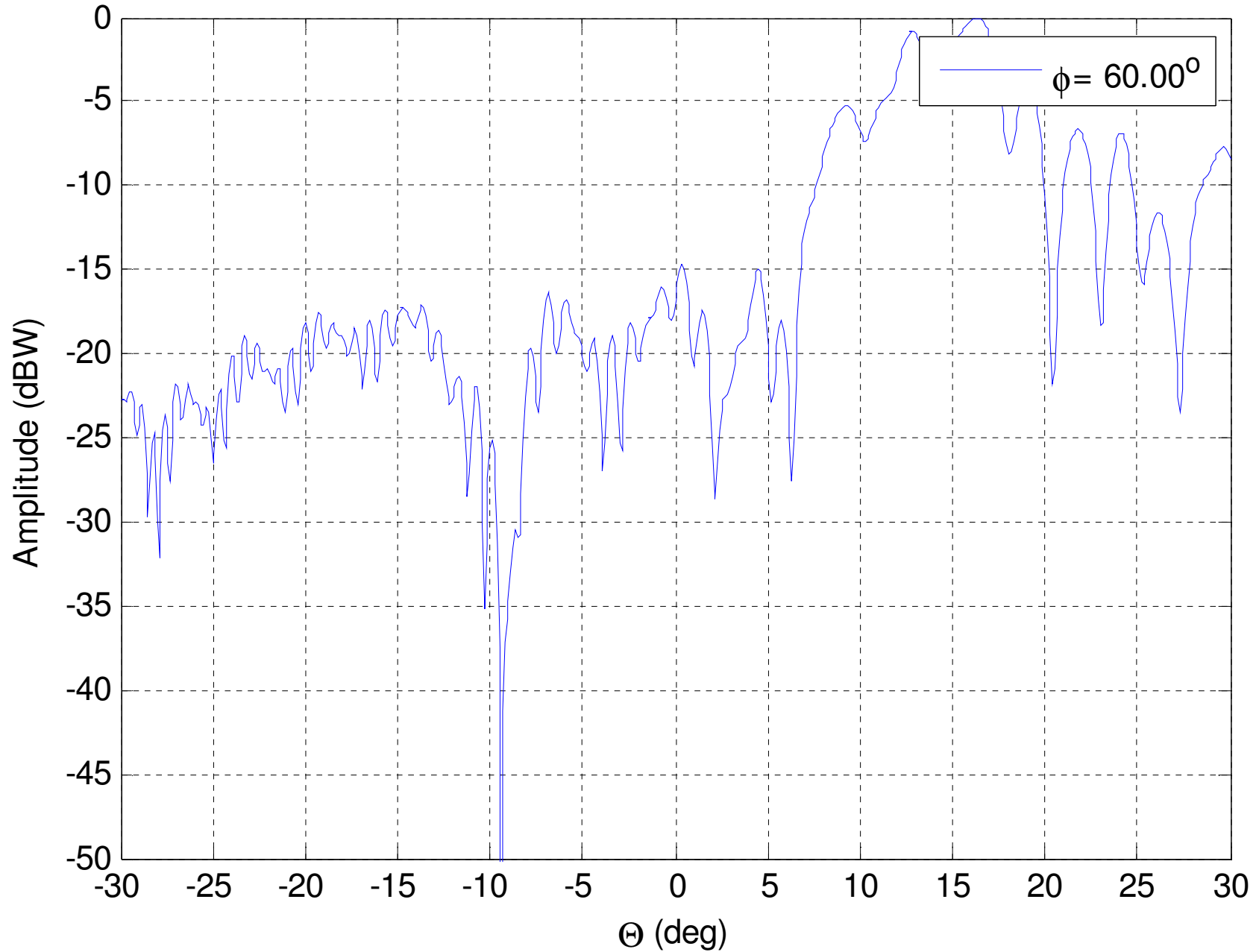
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-50.cut, Peak: 3.14 dBW, Date: 16-Dec-2011



Normalized pattern cuts - farfield

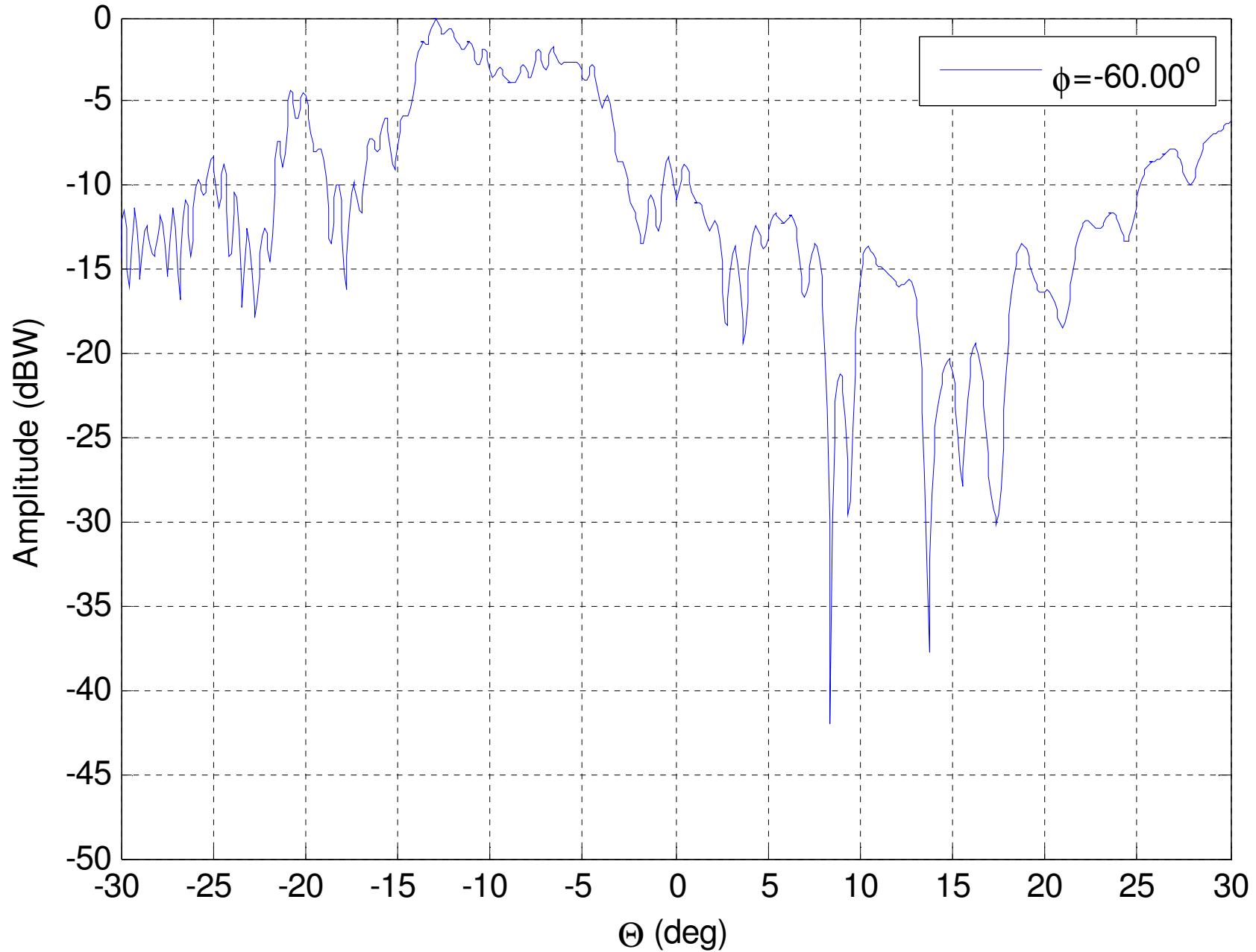
Input file: tx-17.5-lhcp-60.cut, Peak: 2.97 dBW, Date: 16-Dec-2011



RHCP at 17.7 GHz

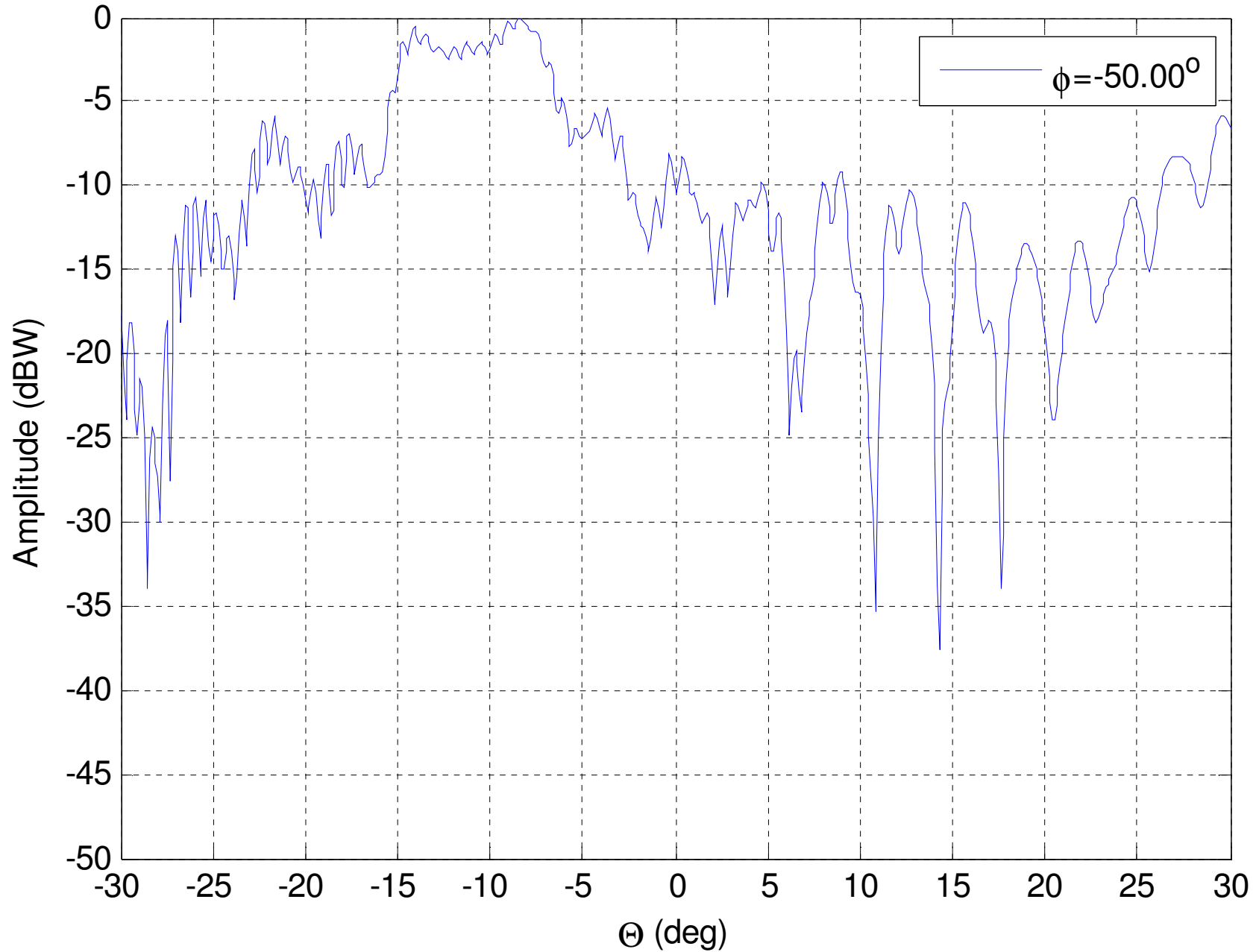
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--60.cut, Peak: -1.03 dBW, Date: 16-Dec-2011



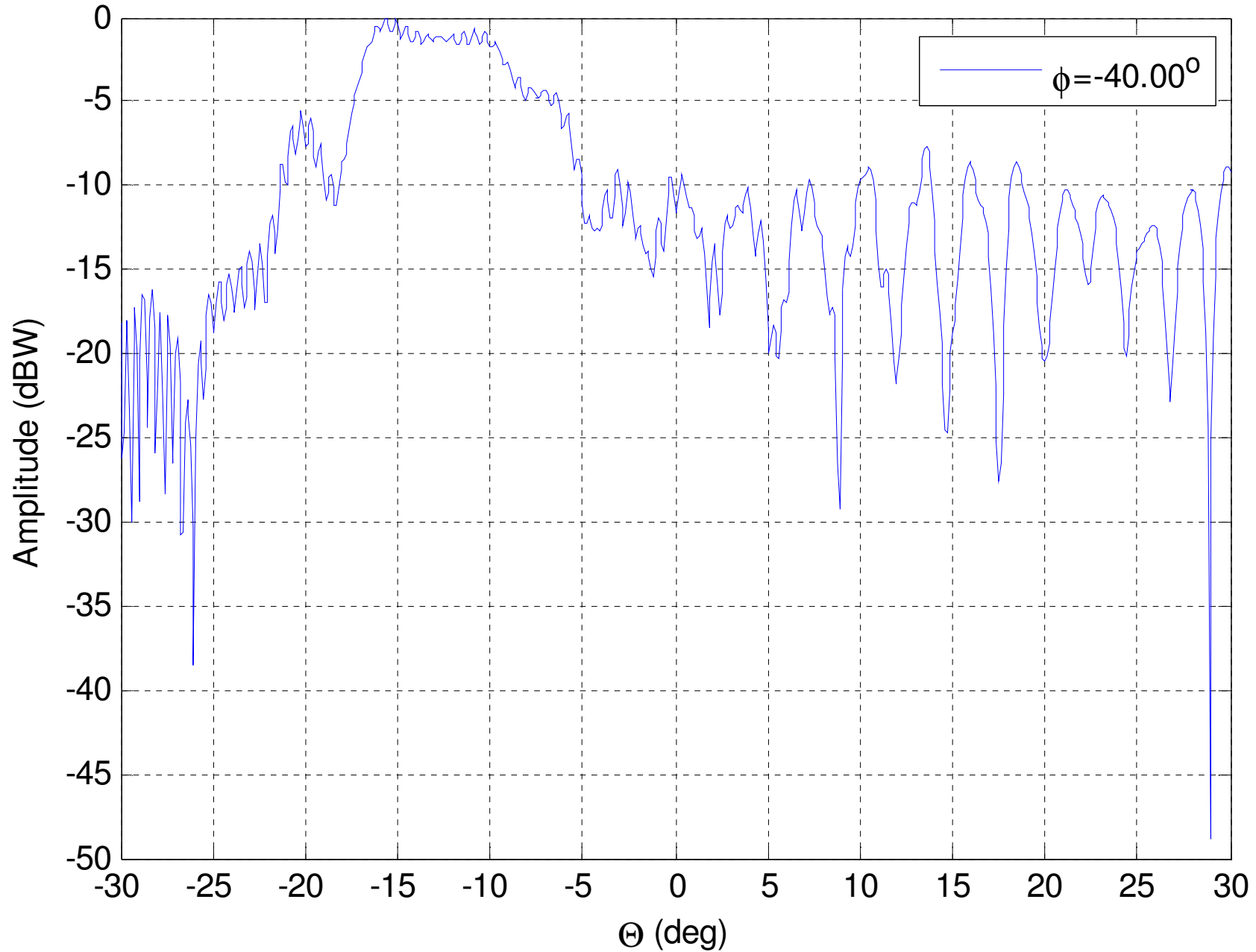
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--50.cut, Peak: -1.25 dBW, Date: 16-Dec-2011



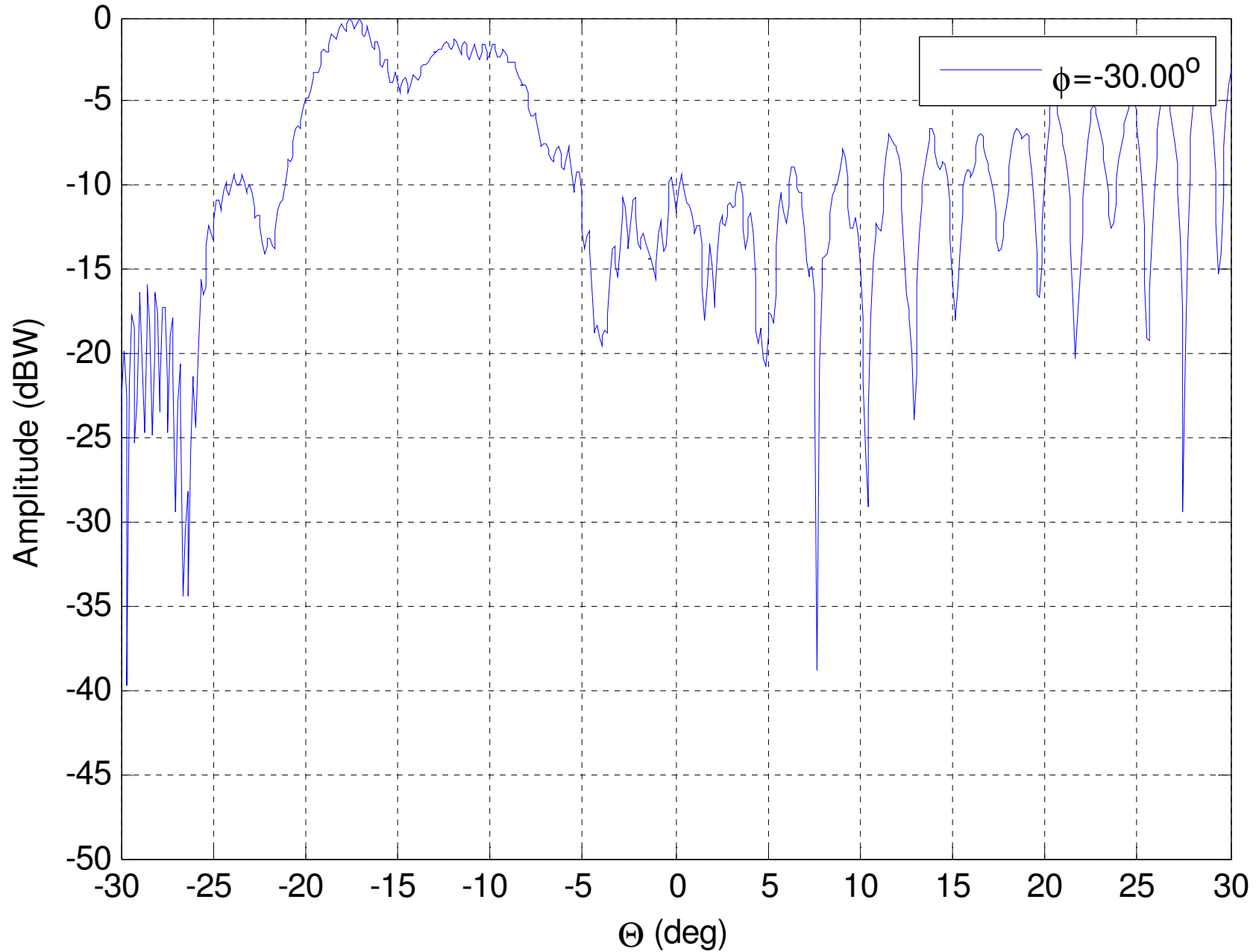
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--40.cut, Peak: -0.09 dBW, Date: 16-Dec-2011



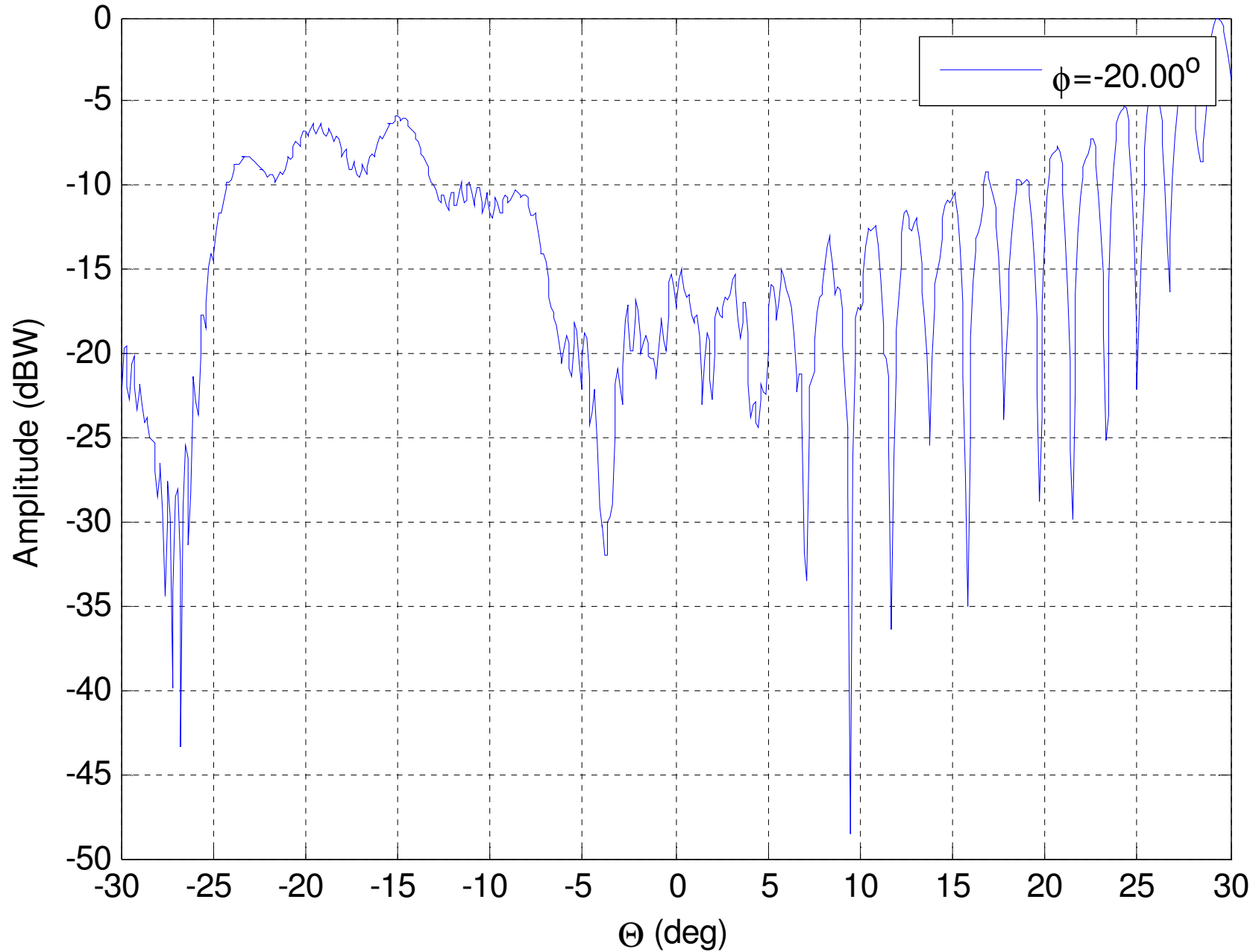
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--30.cut, Peak: -0.05 dBW, Date: 16-Dec-2011



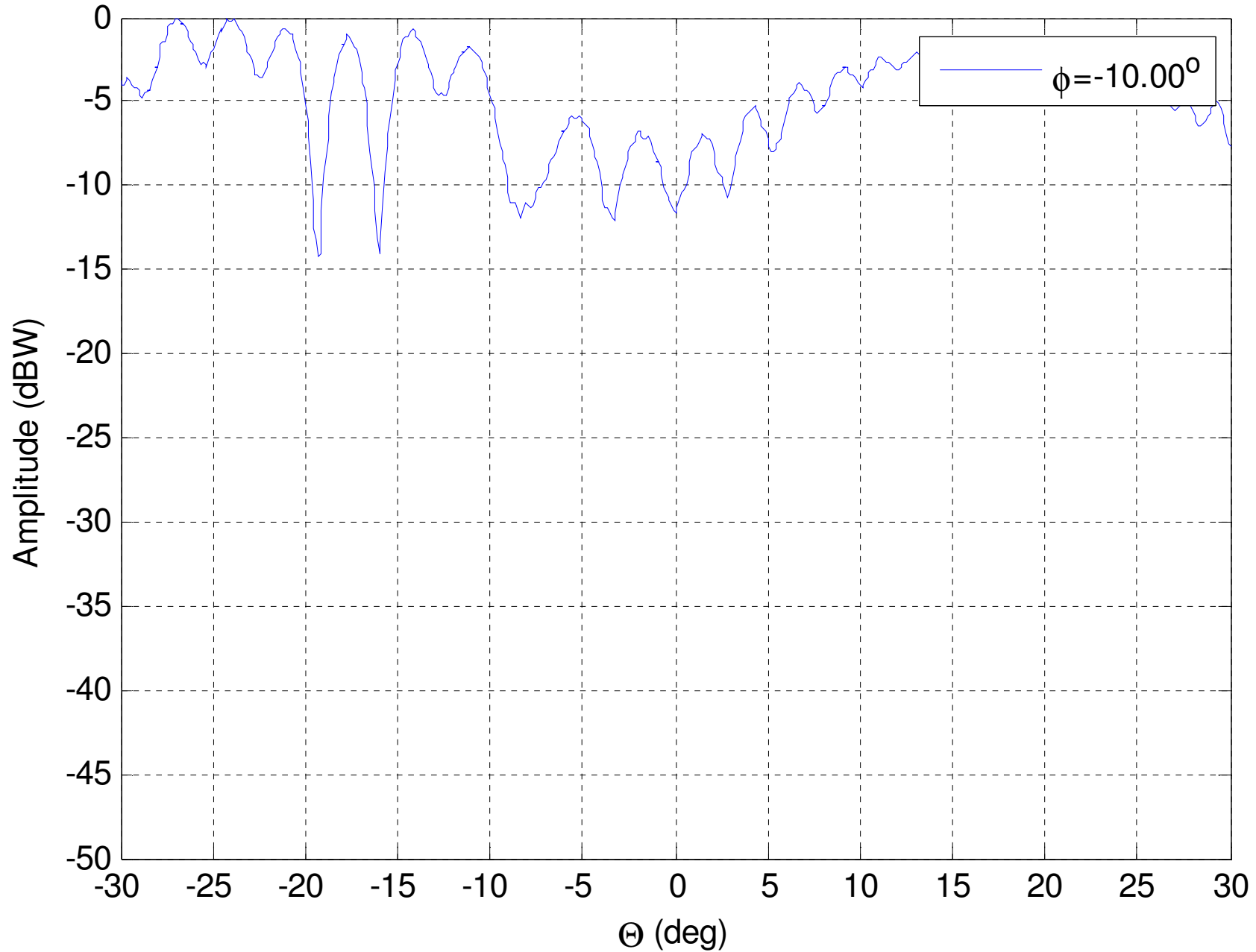
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--20.cut, Peak: 5.64 dBW, Date: 16-Dec-2011



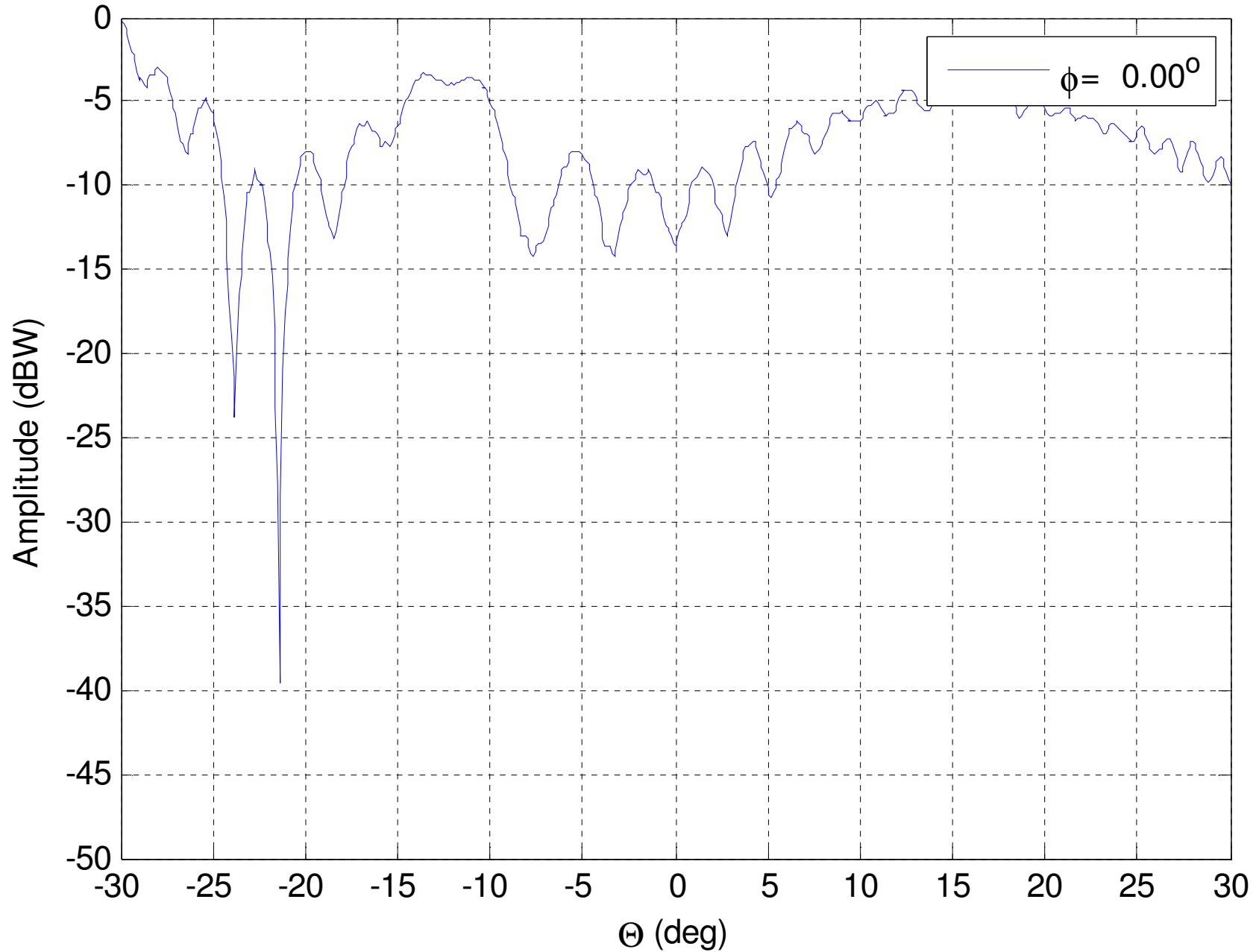
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--10.cut, Peak: 7.33 dBW, Date: 16-Dec-2011



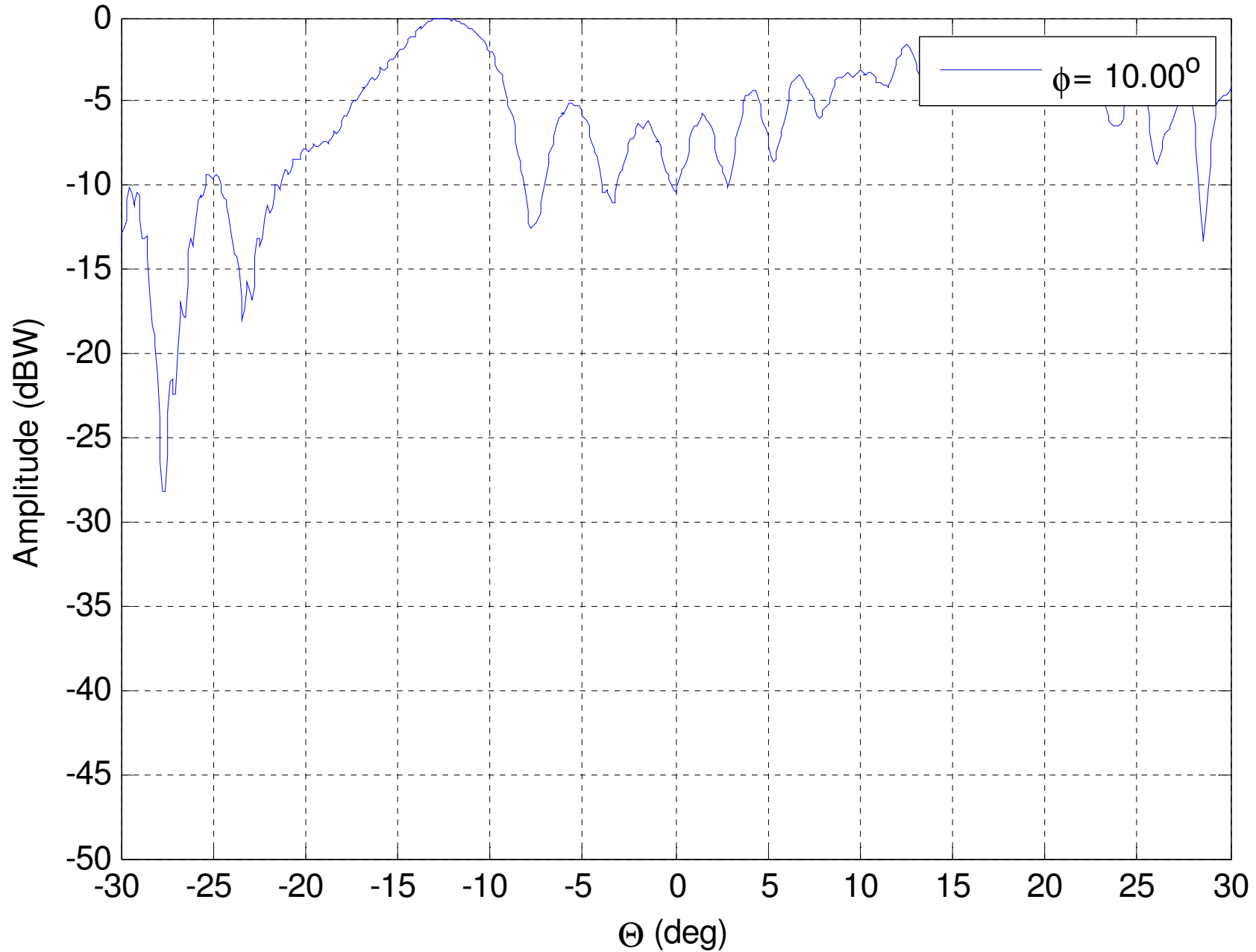
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-0.cut, Peak: 9.26 dBW, Date: 16-Dec-2011



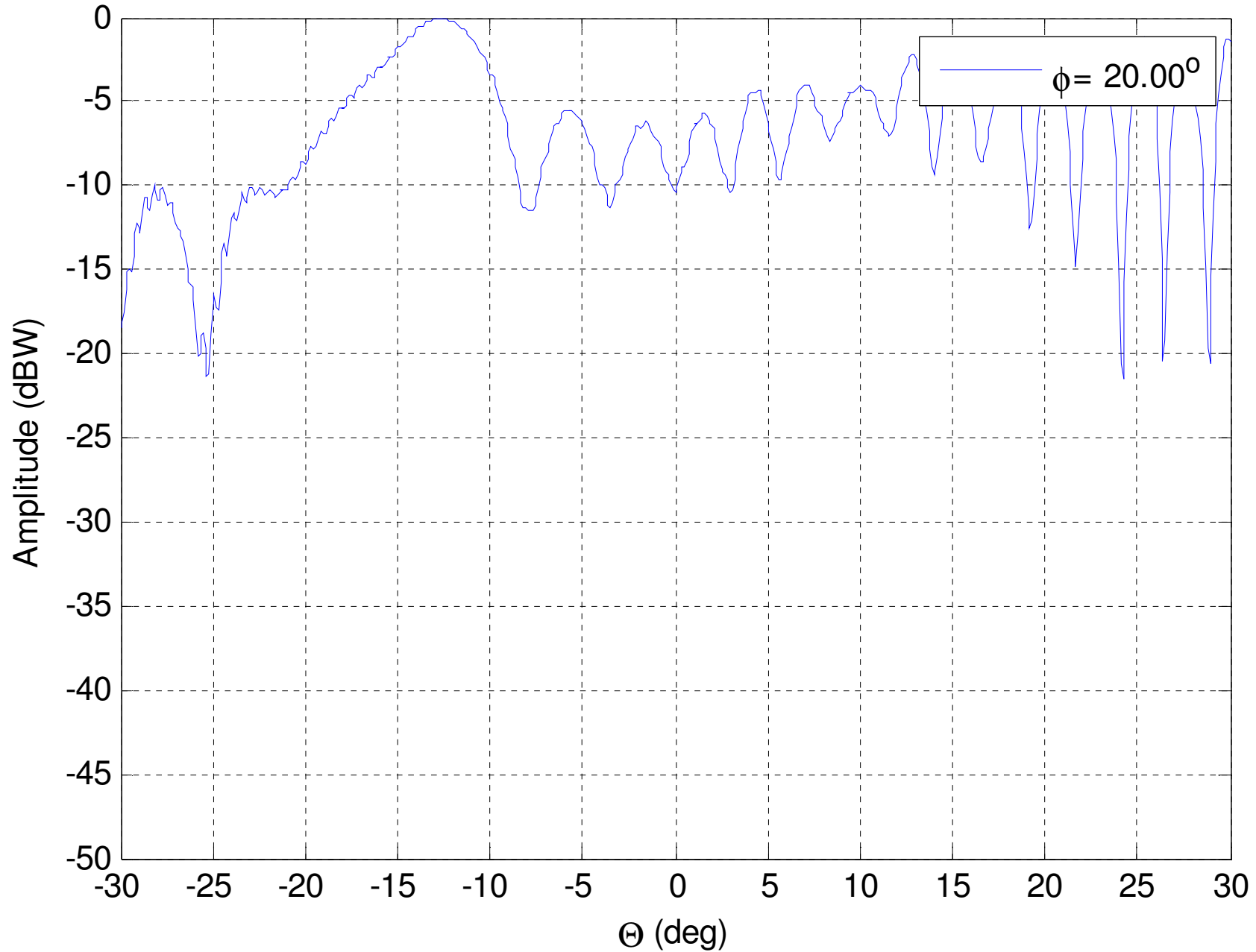
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-10.cut, Peak: 6.14 dBW, Date: 16-Dec-2011



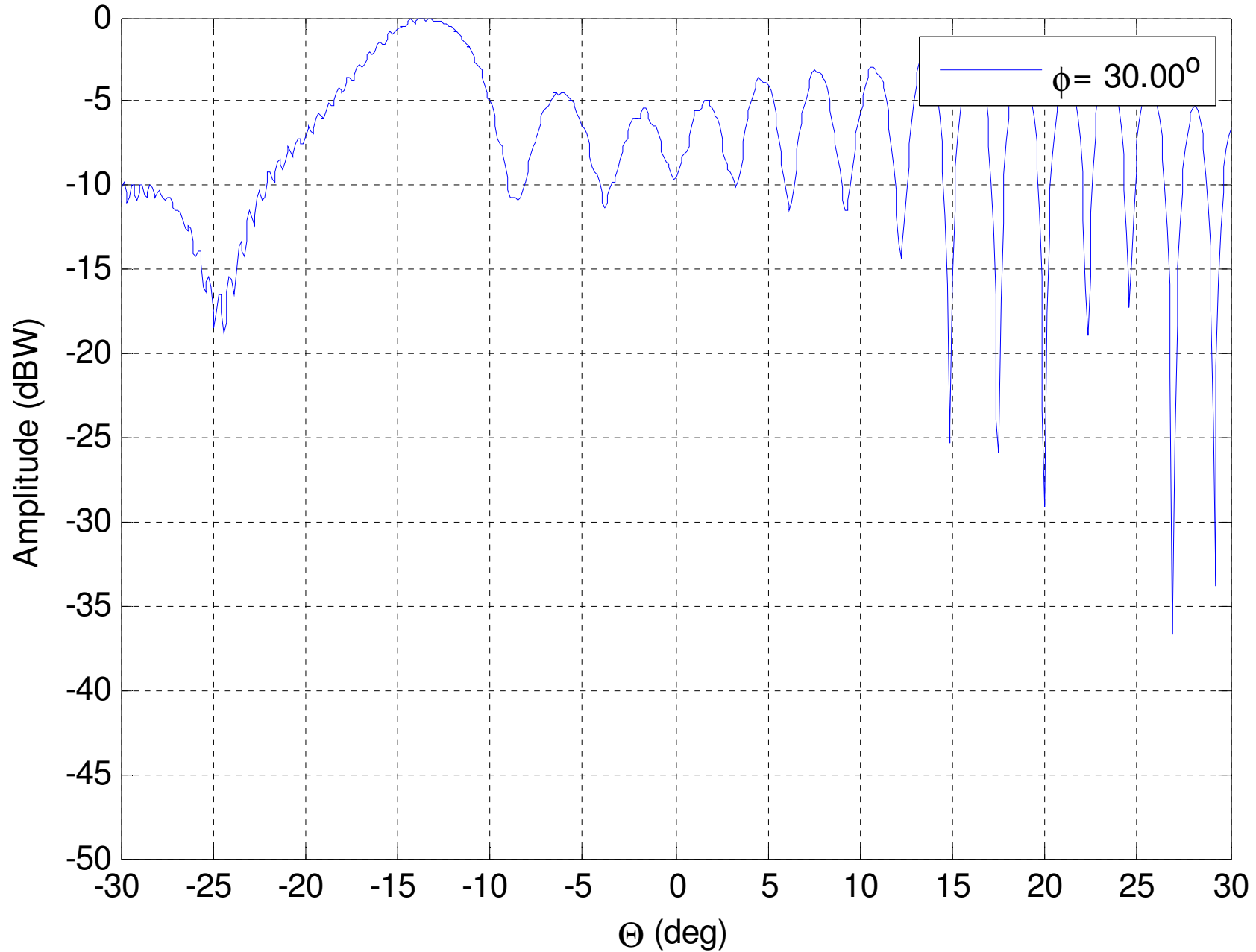
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-20.cut, Peak: 6.12 dBW, Date: 16-Dec-2011



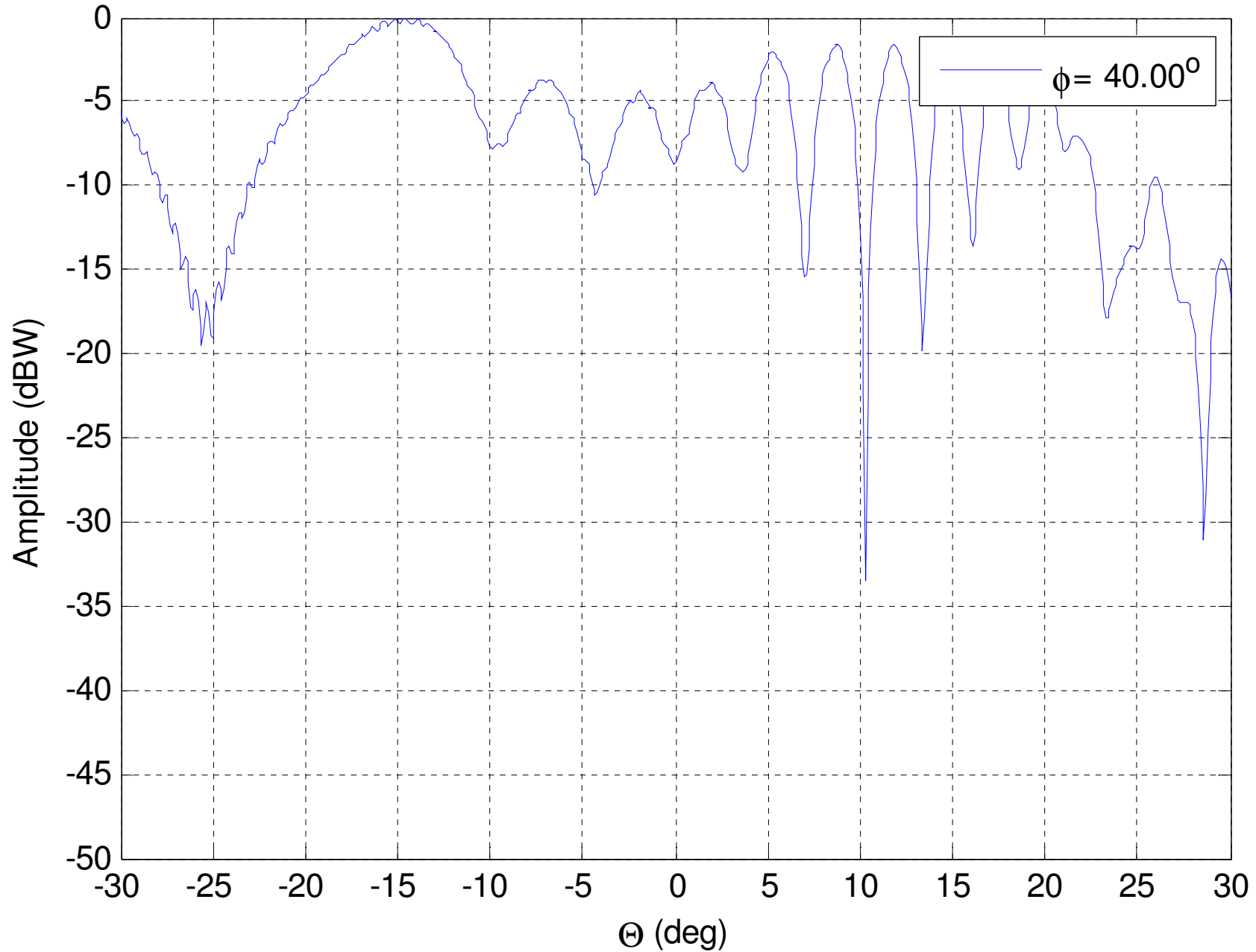
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-30.cut, Peak: 5.42 dBW, Date: 16-Dec-2011



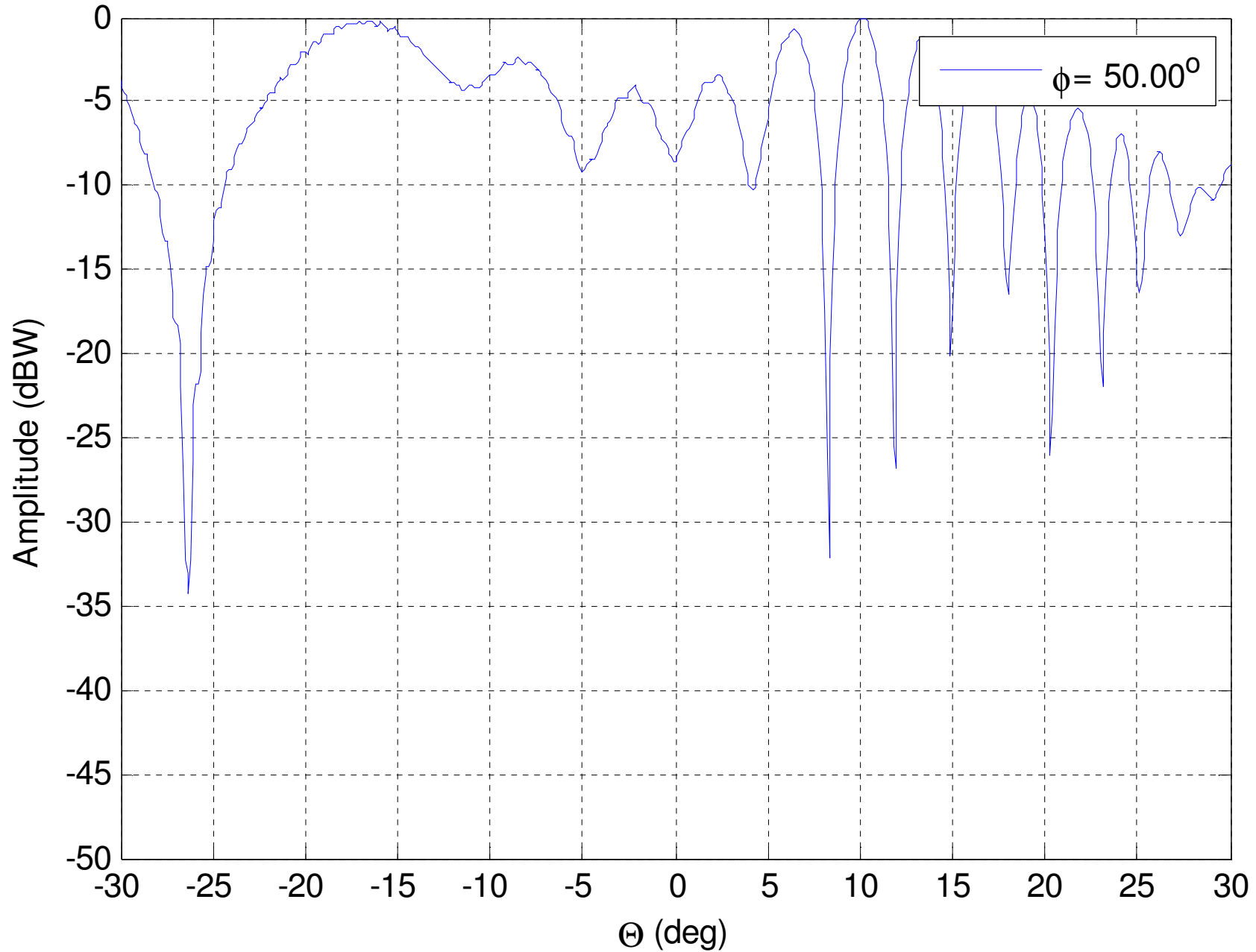
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-40.cut, Peak: 4.47 dBW, Date: 16-Dec-2011



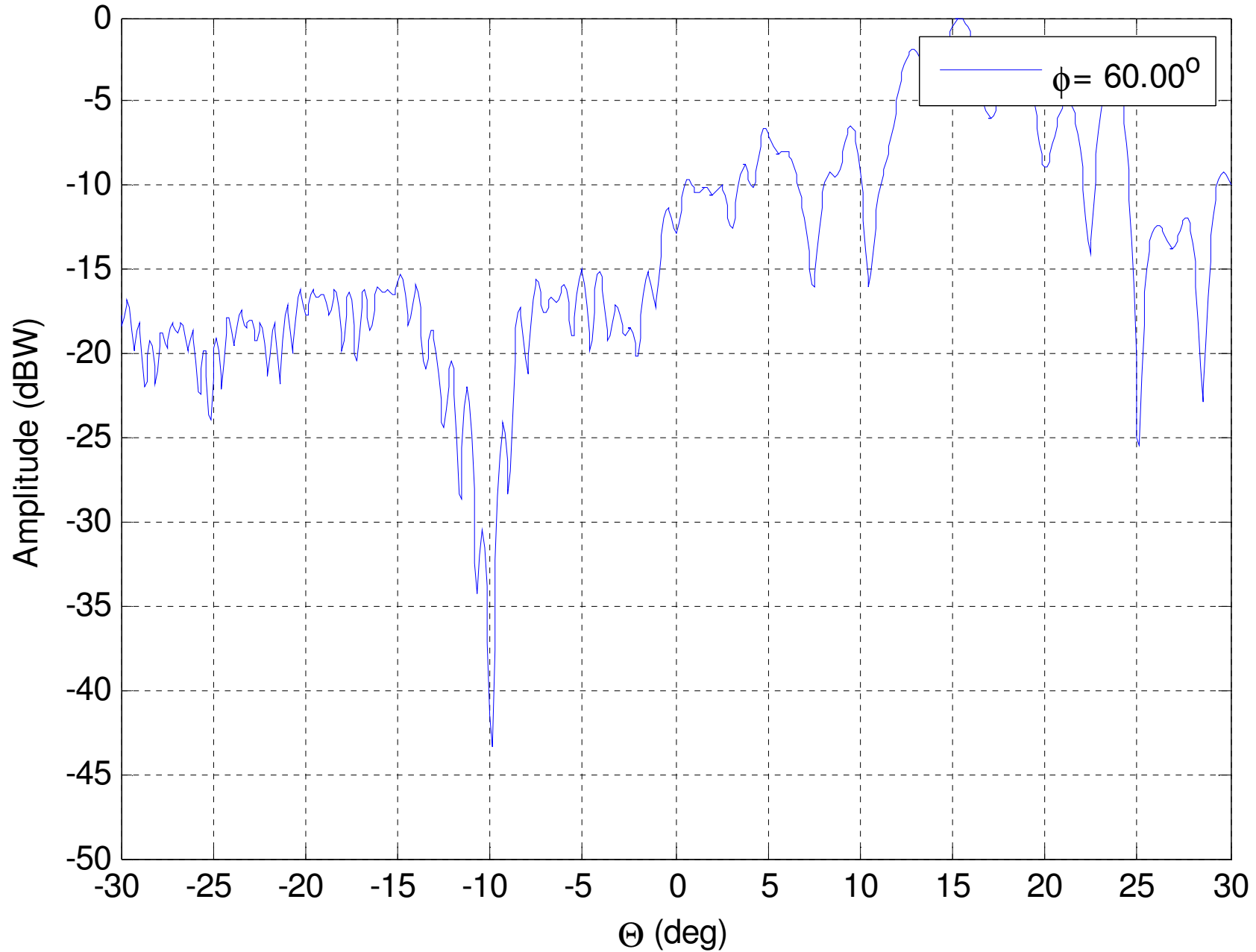
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-50.cut, Peak: 4.25 dBW, Date: 16-Dec-2011



Normalized pattern cuts - farfield

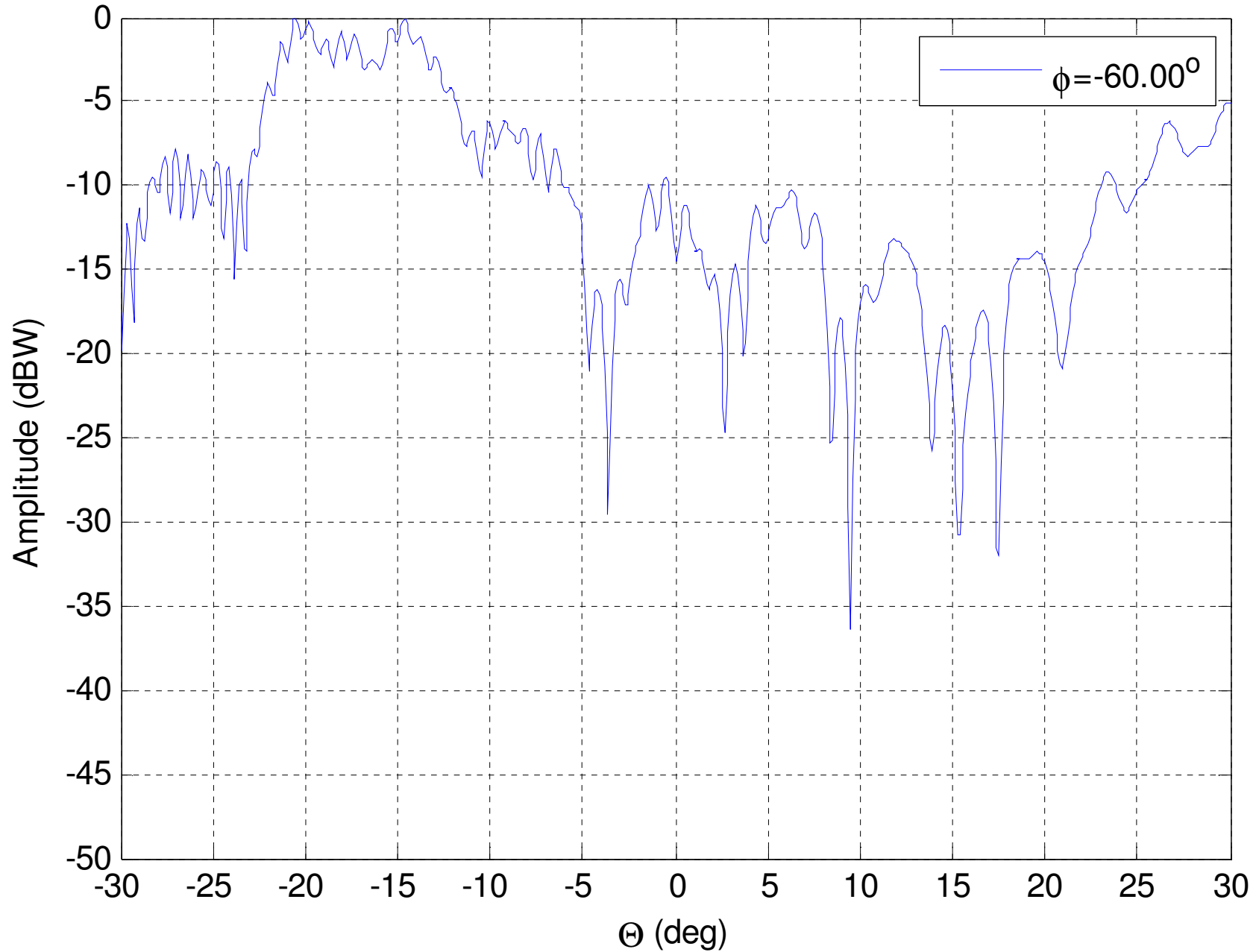
Input file: tx-17.7-rhcp-60.cut, Peak: 1.19 dBW, Date: 16-Dec-2011



LHCP at 17.7 GHz

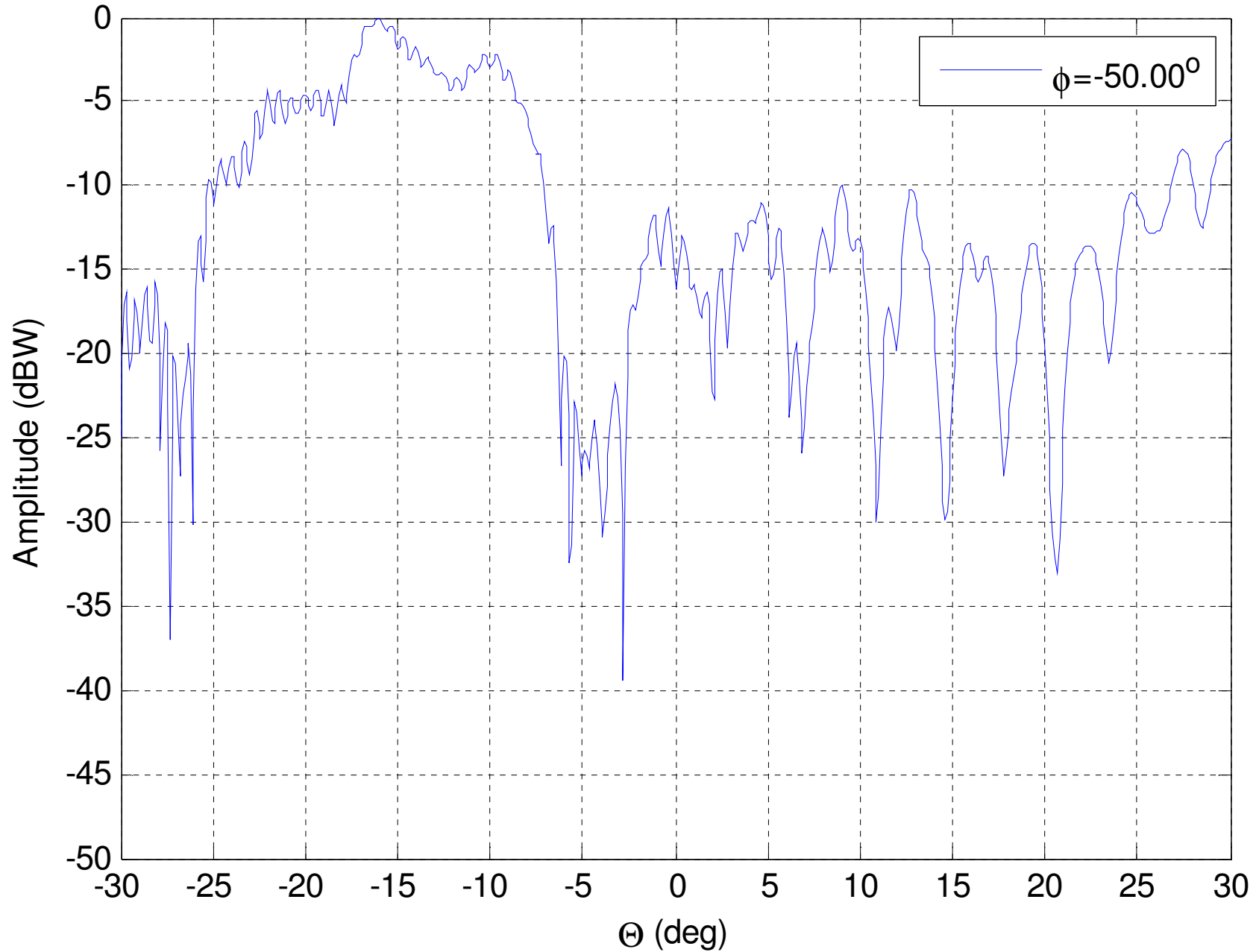
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--60.cut, Peak: -2.26 dBW, Date: 16-Dec-2011



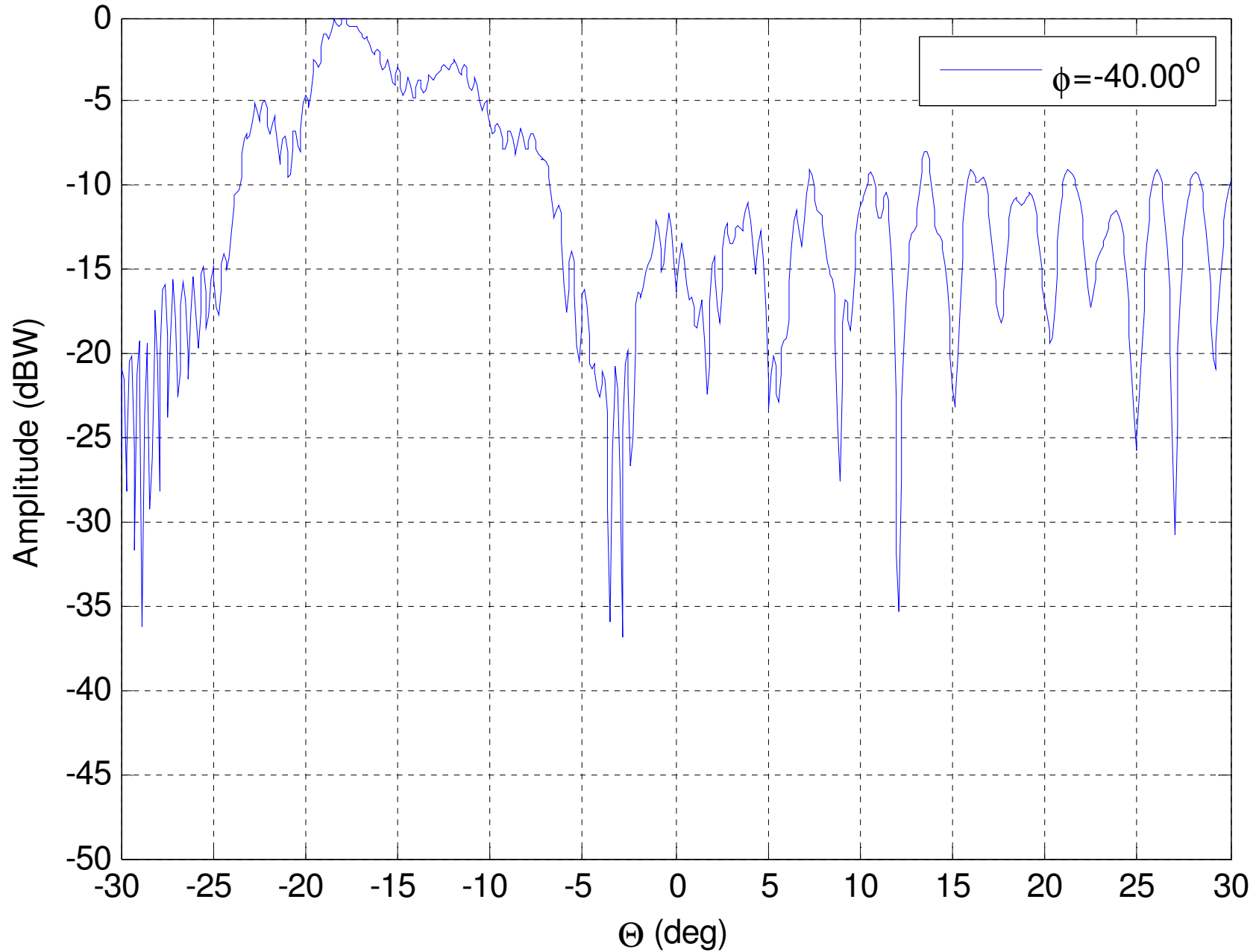
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--50.cut, Peak: -0.53 dBW, Date: 16-Dec-2011



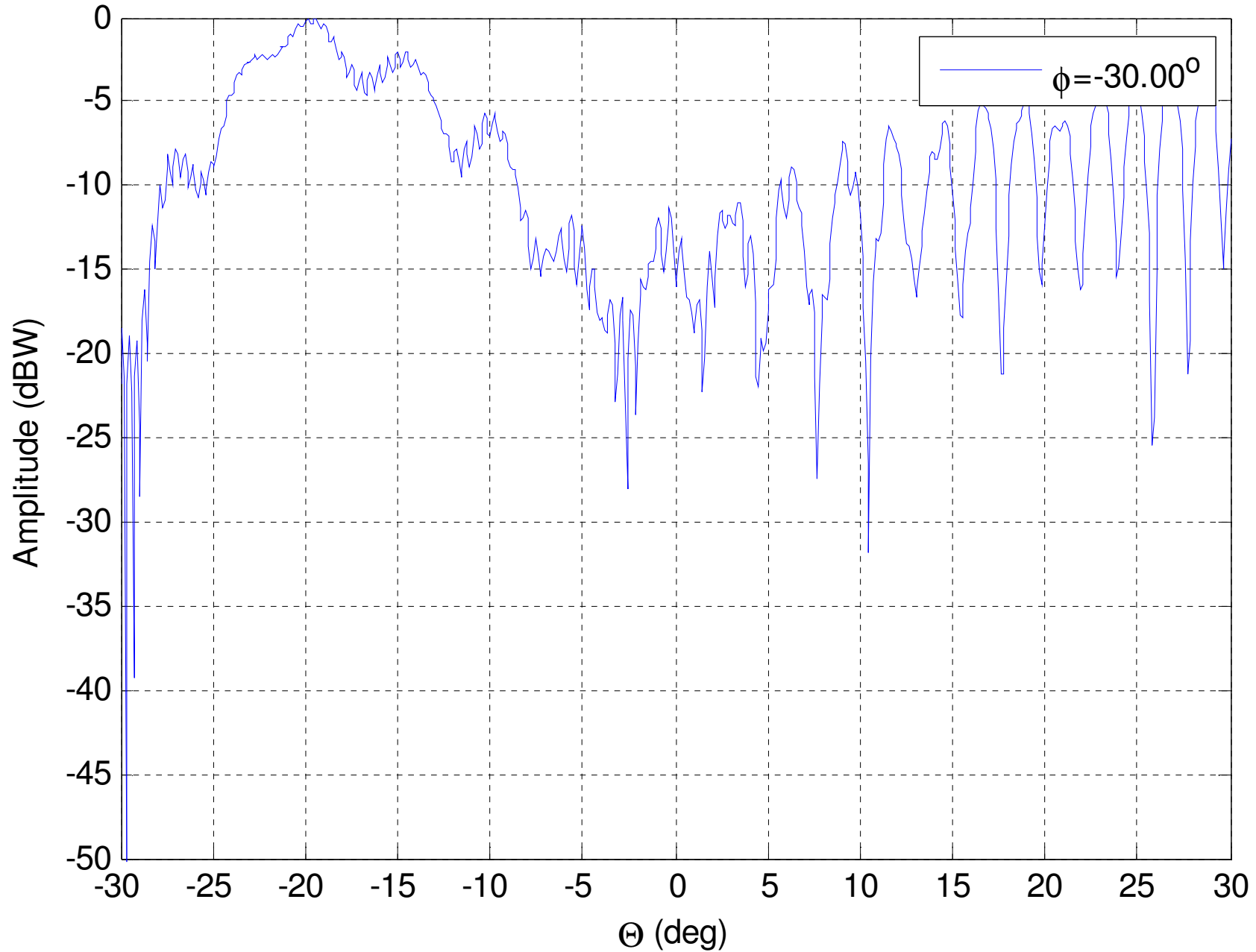
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--40.cut, Peak: -0.31 dBW, Date: 16-Dec-2011



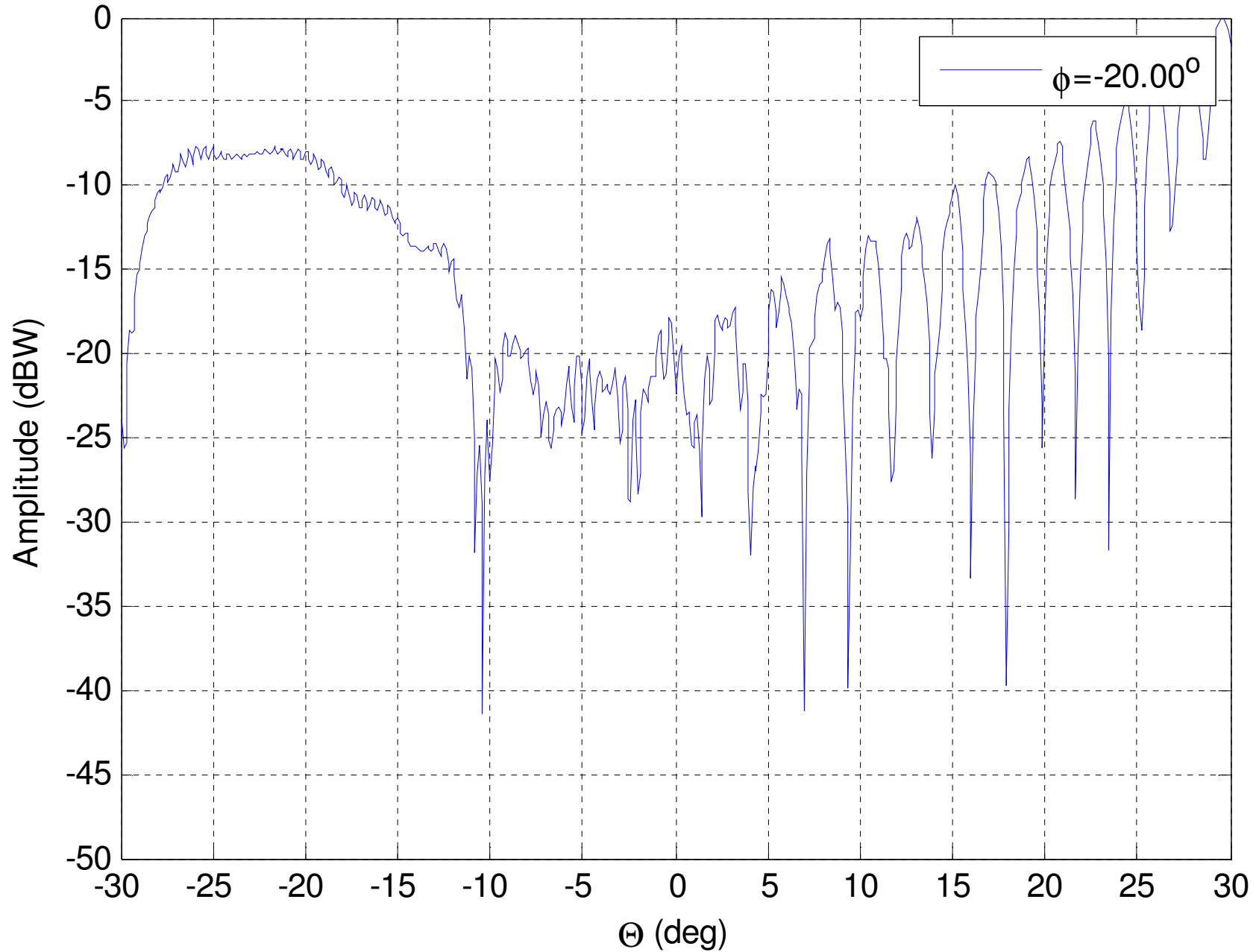
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--30.cut, Peak: -0.60 dBW, Date: 16-Dec-2011



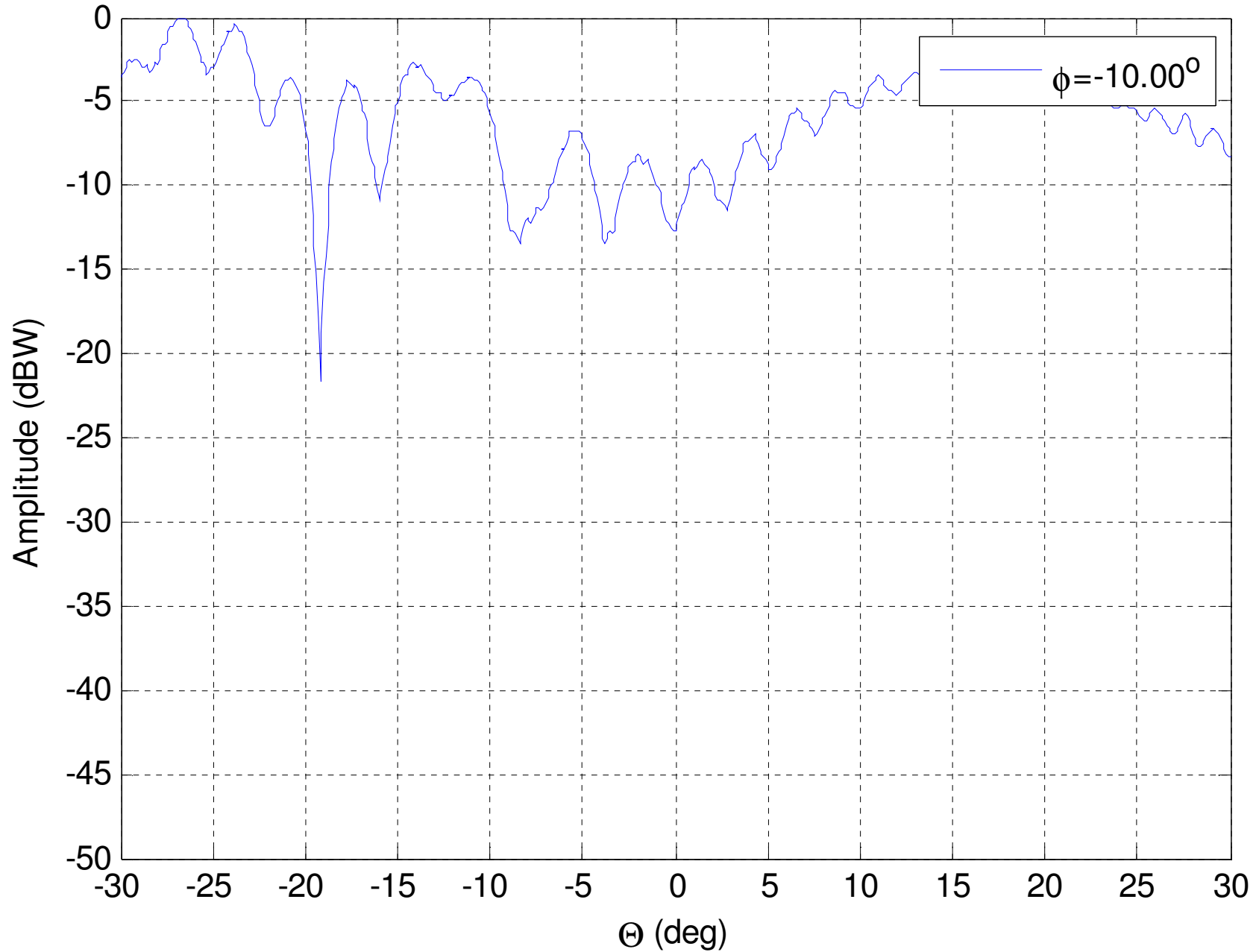
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--20.cut, Peak: 5.83 dBW, Date: 16-Dec-2011



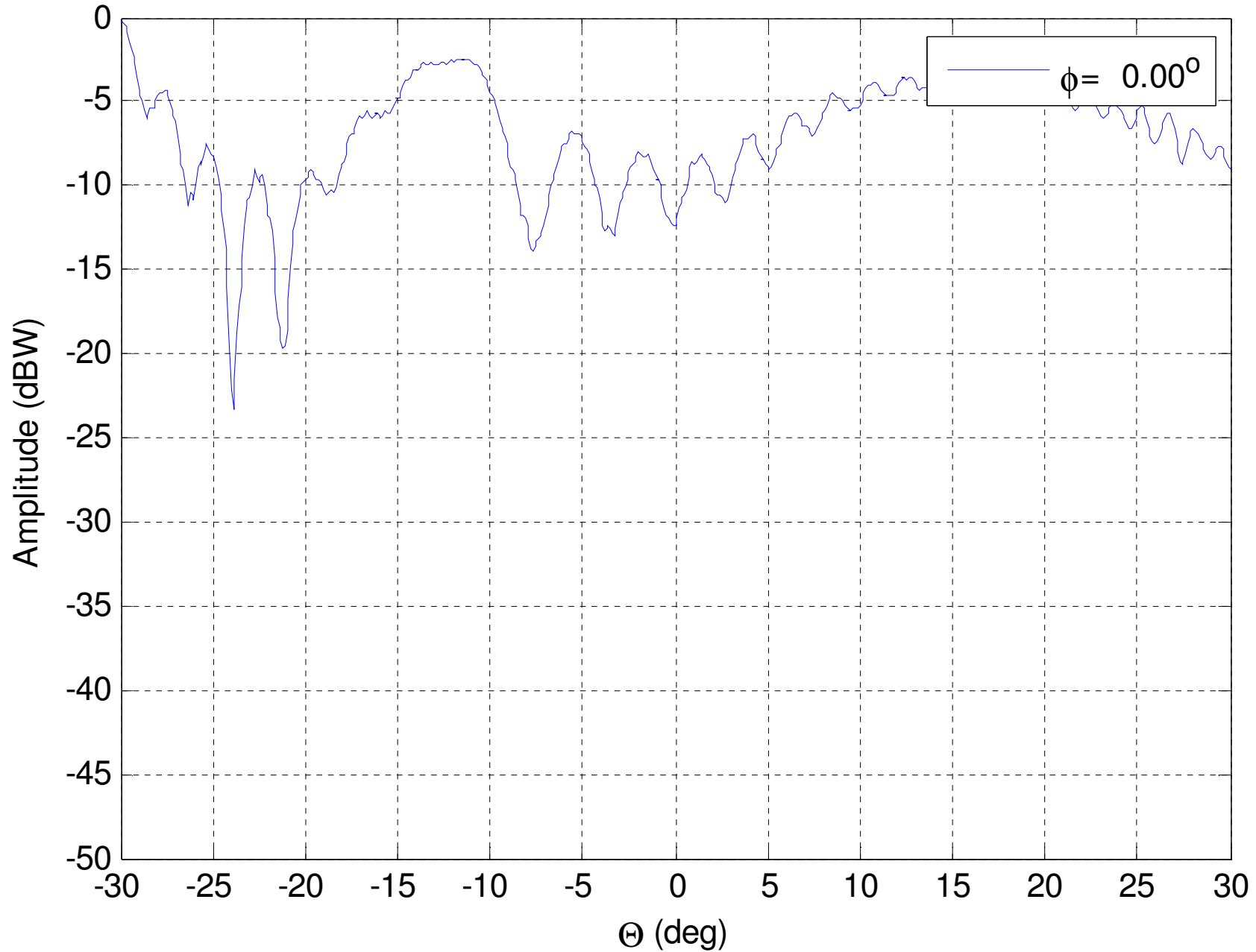
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--10.cut, Peak: 8.60 dBW, Date: 16-Dec-2011



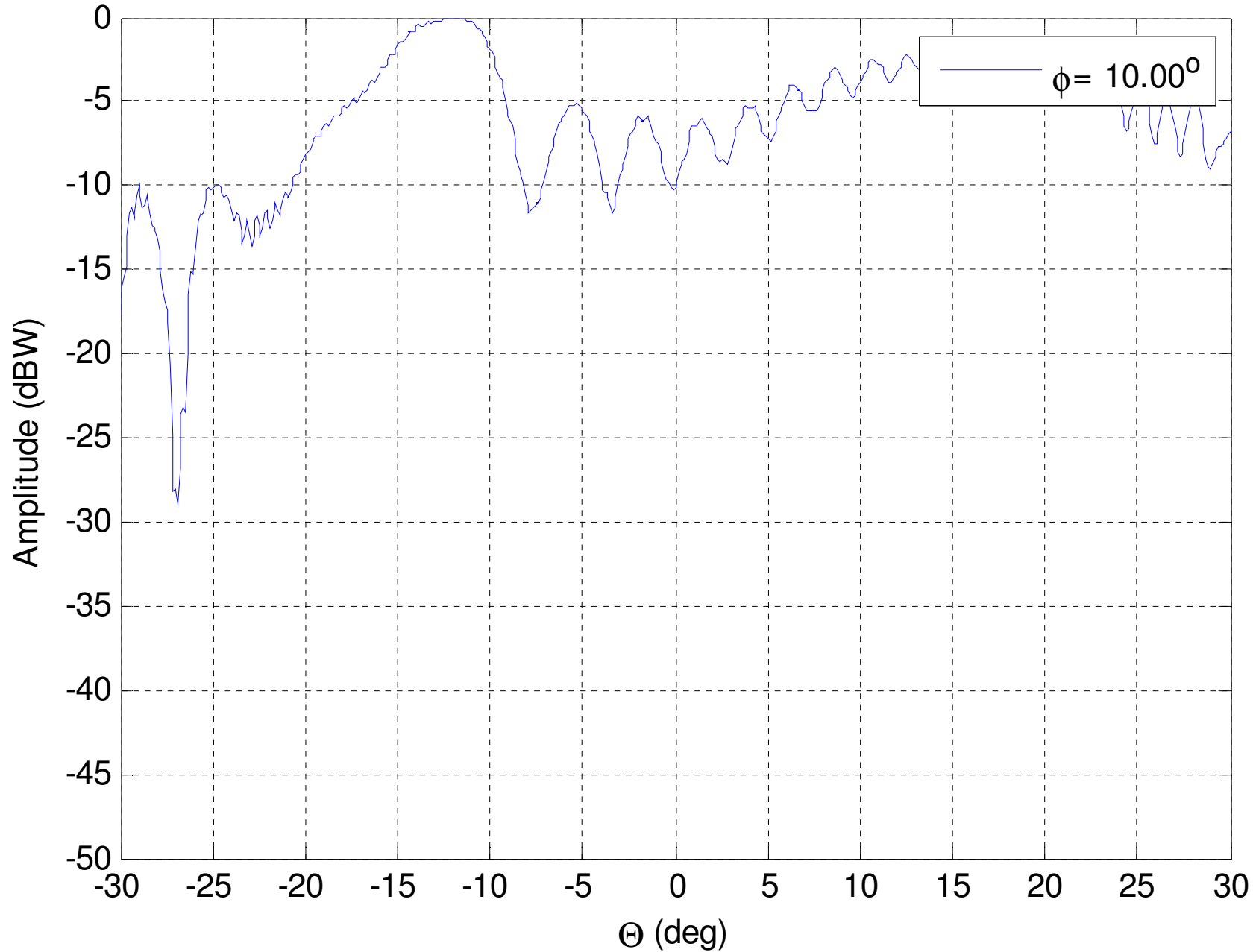
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-0.cut, Peak: 8.26 dBW, Date: 16-Dec-2011



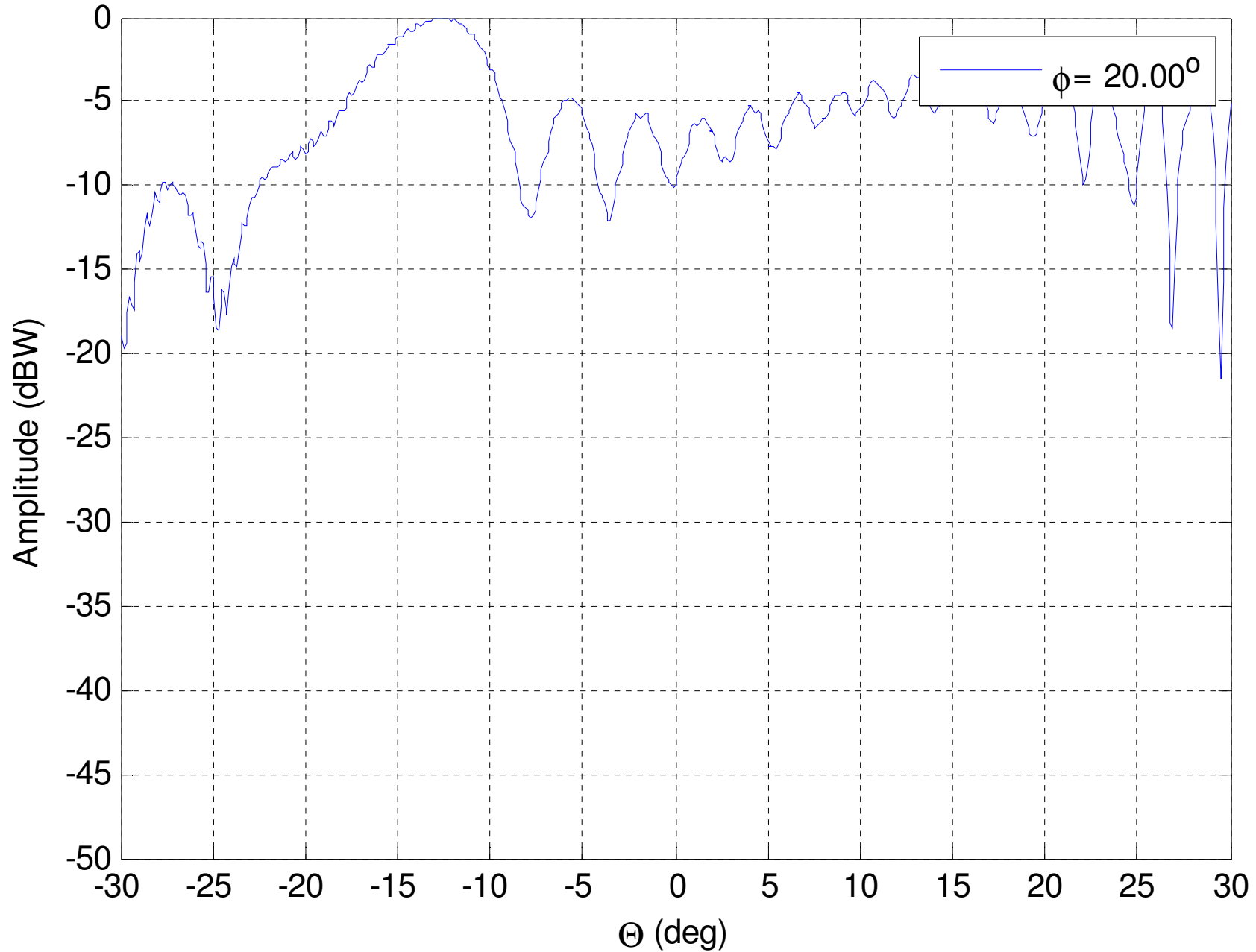
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-10.cut, Peak: 6.07 dBW, Date: 16-Dec-2011



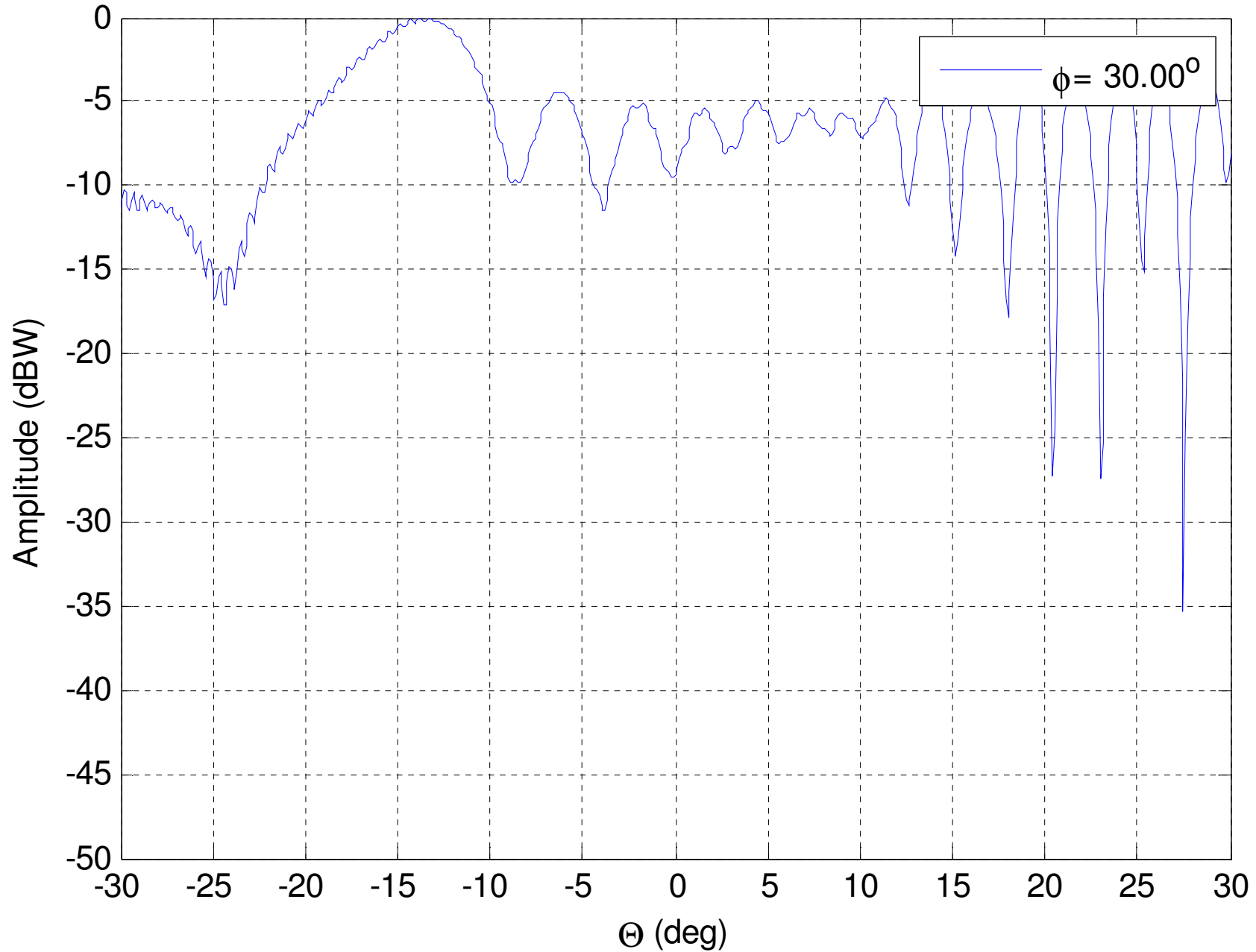
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-20.cut, Peak: 5.90 dBW, Date: 16-Dec-2011



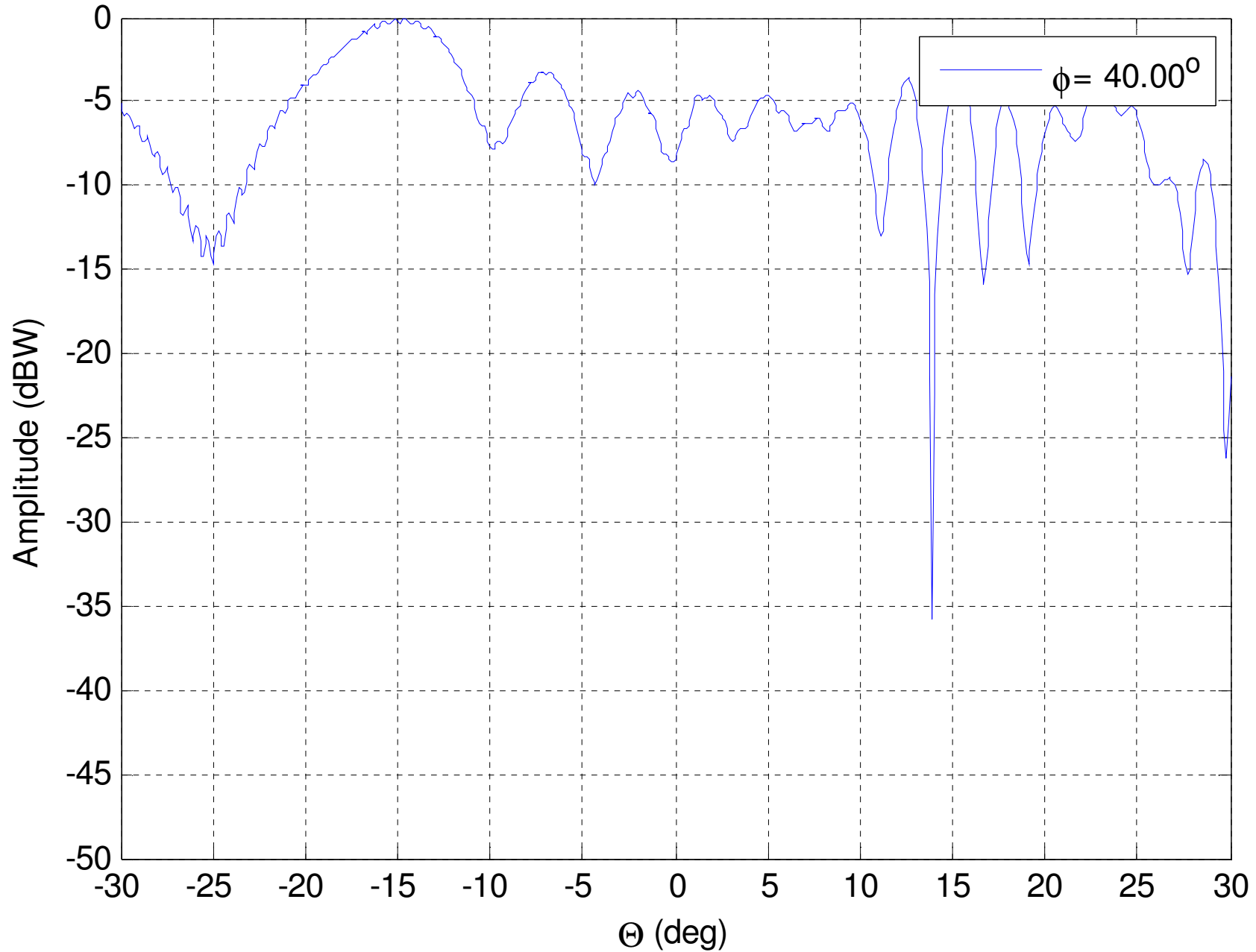
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-30.cut, Peak: 5.29 dBW, Date: 16-Dec-2011



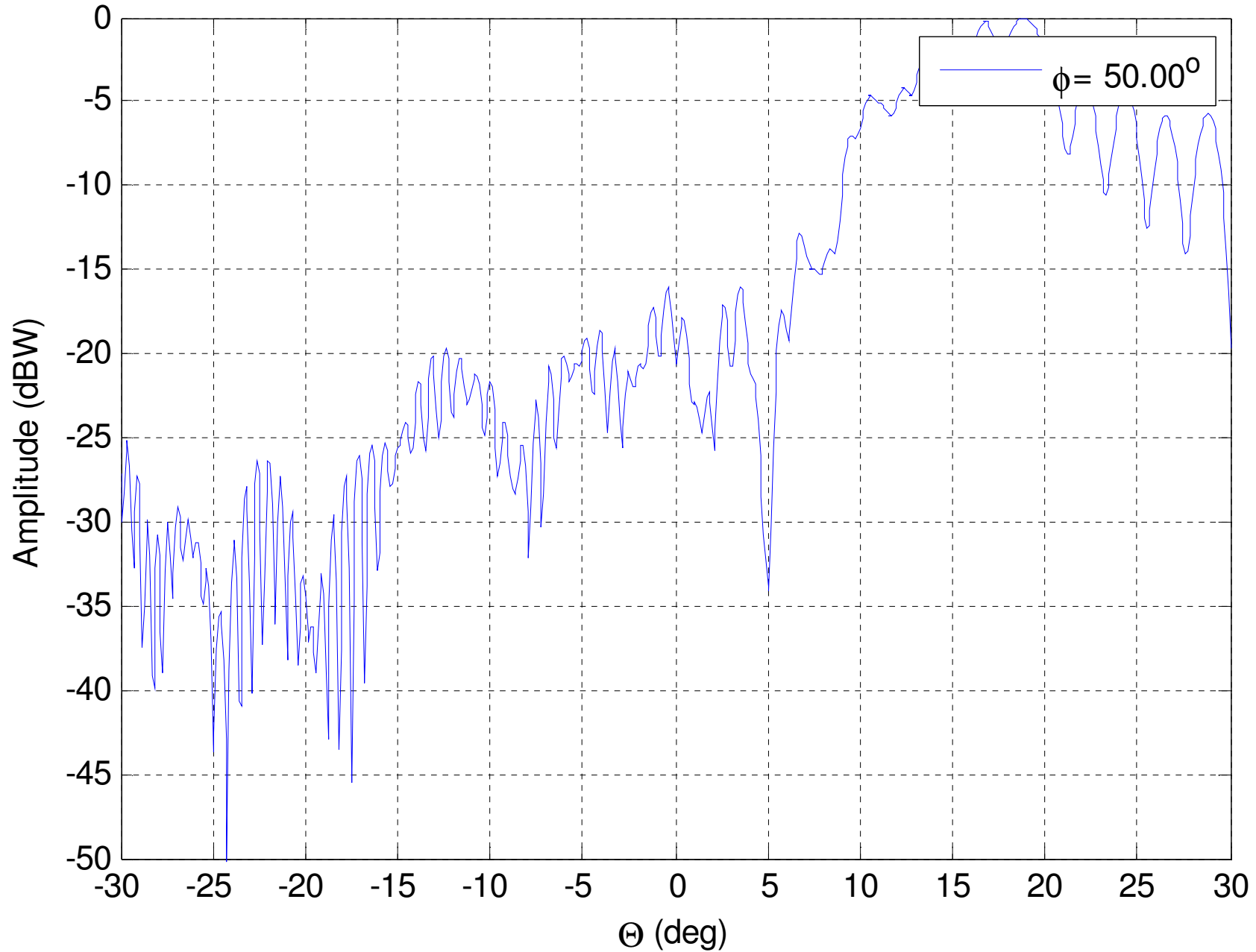
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-40.cut, Peak: 4.34 dBW, Date: 16-Dec-2011



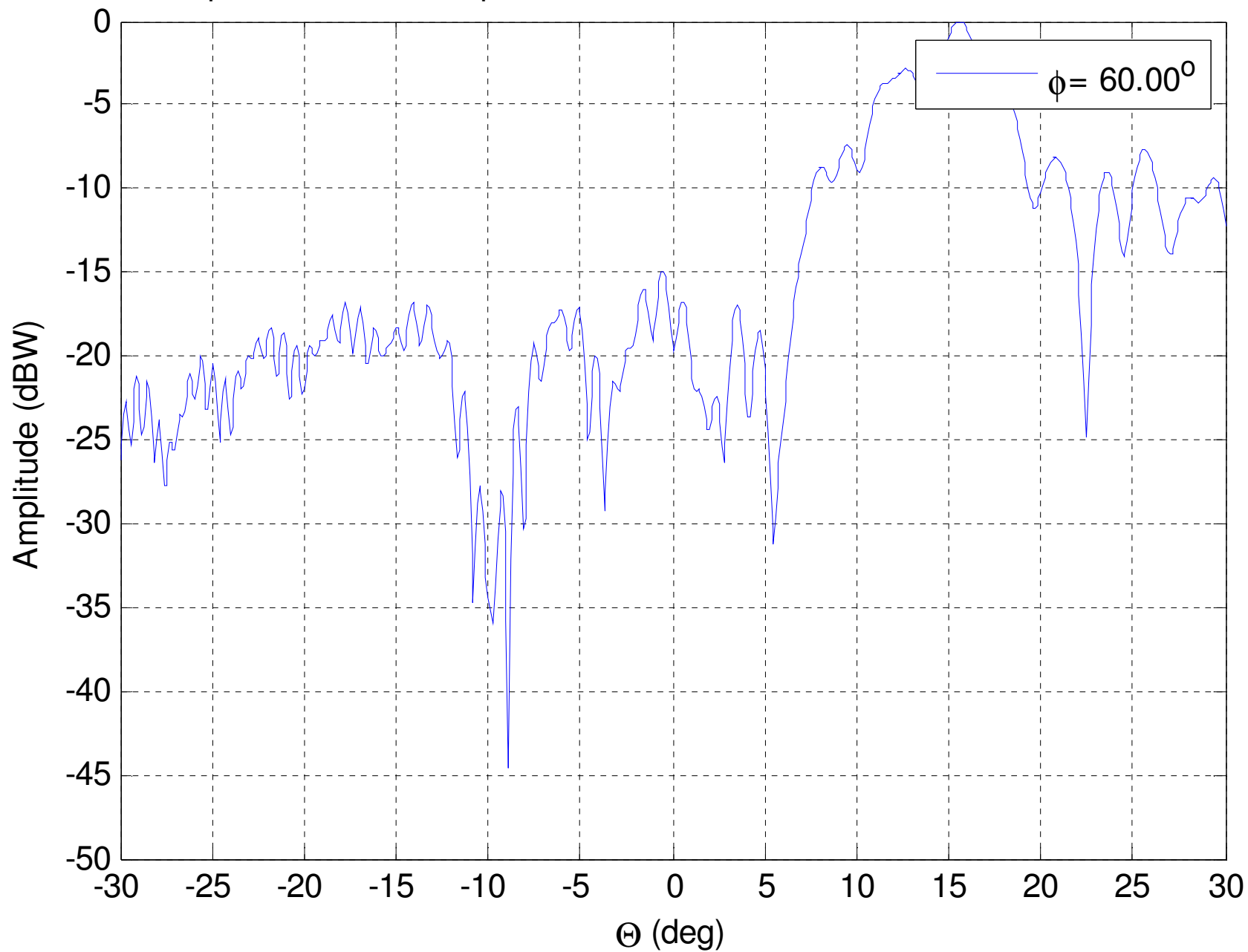
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-50.cut, Peak: 3.92 dBW, Date: 16-Dec-2011



Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-60.cut, Peak: 2.89 dBW, Date: 16-Dec-2011



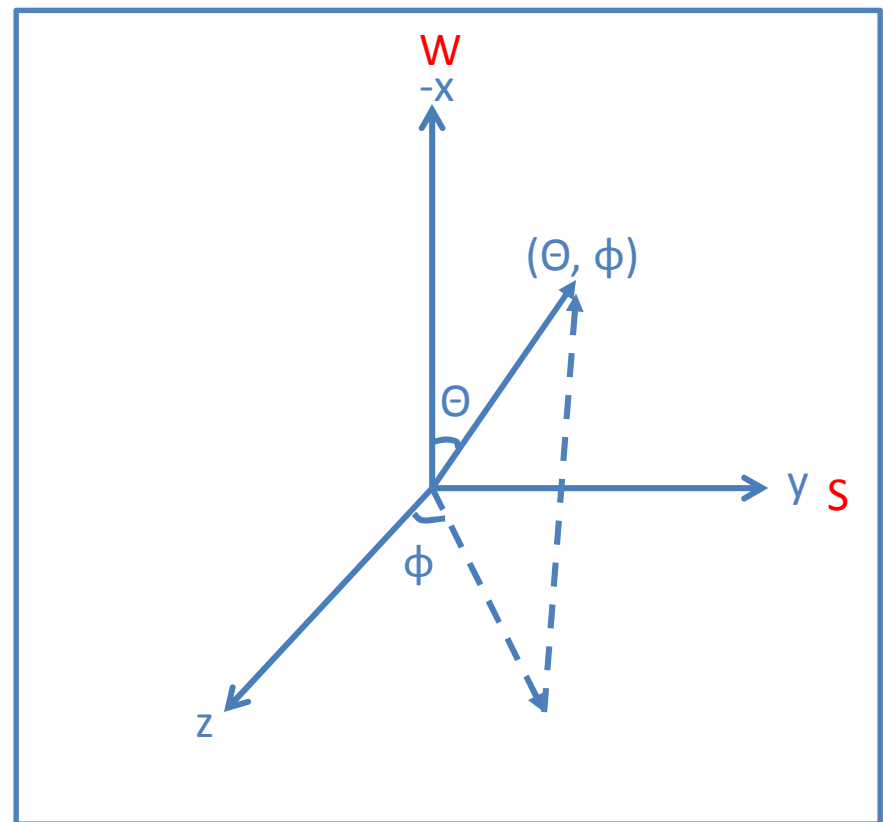
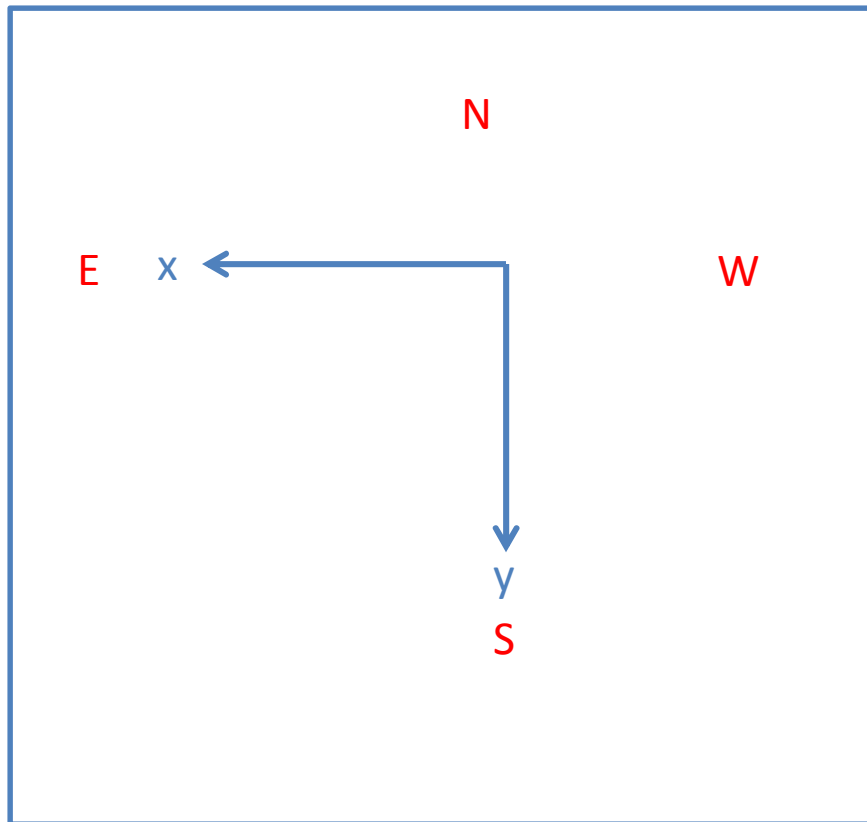
December 13, 2011

119 West Adjacent Satellite Off Axis Antenna Performance Spot Beam 53 cf: 0.0 dBW

Maximum Allowable EIRP to meet the -117dBW/m²/100 kHz

Maximum EIRP Allowed	
Spec Max flux density, dBW/m ² /100kHz	-117
Desired channel band width, MHz	25.8
Symbol rate band width modification factor	1
Effective channel bandwidth, MHz	25.8
Effective bandwidth, dB-100kHz	24.1
Flux density allowed per channel, dBW/m ²	-92.9
R, radial distance to GEO, km	42164.0
Angle of separation between satellites, deg	0.1
range between satellites, km	73.59
Spreading factor, dB/m ²	-108.3
Atmospheric loss, dB	0
Max satellite EIRP allowed, dBW	15.4

Coordinate System



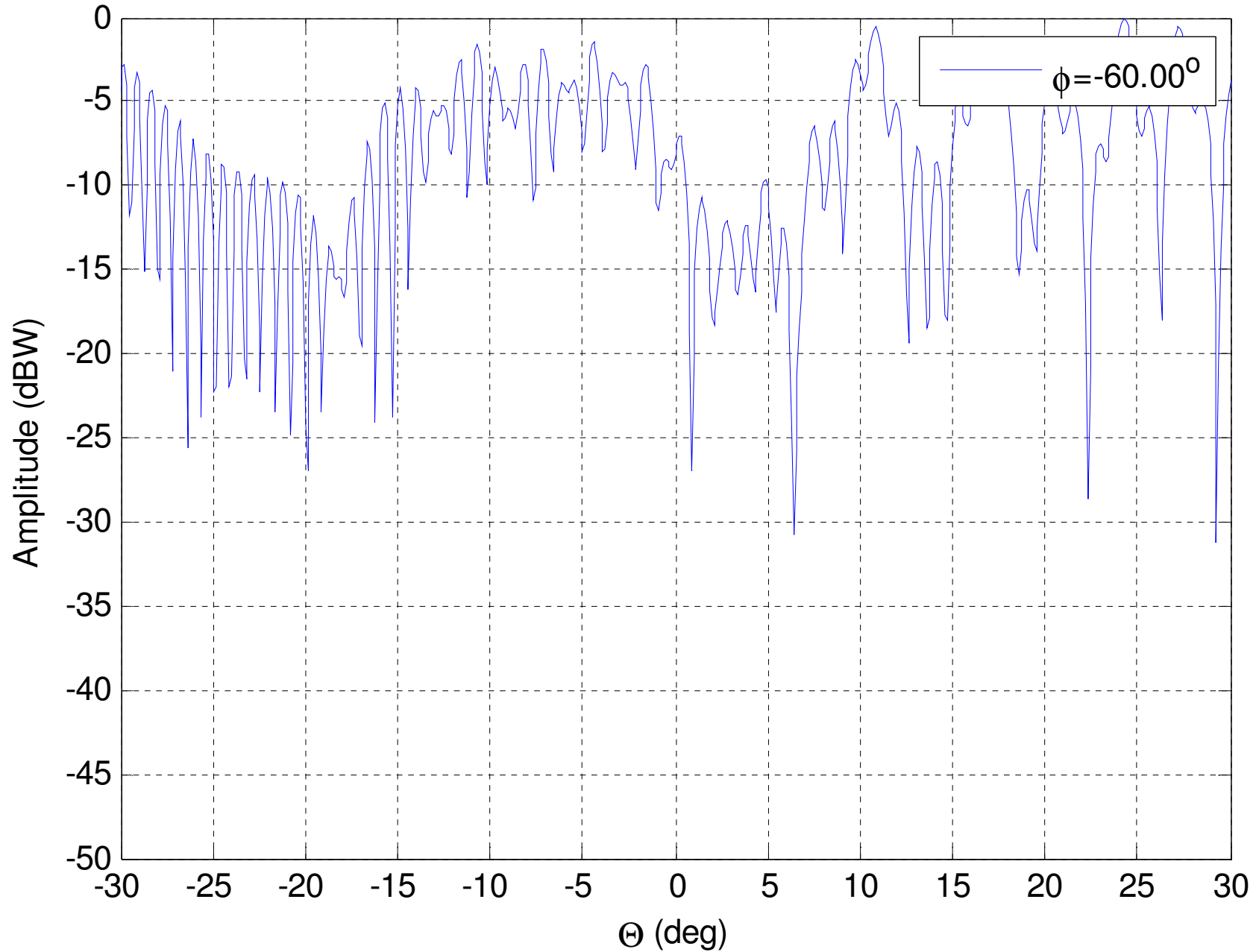
Spot Beam53, -X Axis Plots

- Both polarizations; RHCP, LHCP
- $-30 < \Theta < 30$ ($\Theta=0$: -X -axis)
- $-60 < \phi < 60$
- Freq = 17.3, 17.5, and 17.7 GHz
- The Zero reference line is the peak gain listed in the title of each chart
- All levels are significantly below the required 15.4 dBW EIRP shown on chart 2

RHCP at 17.3 GHz

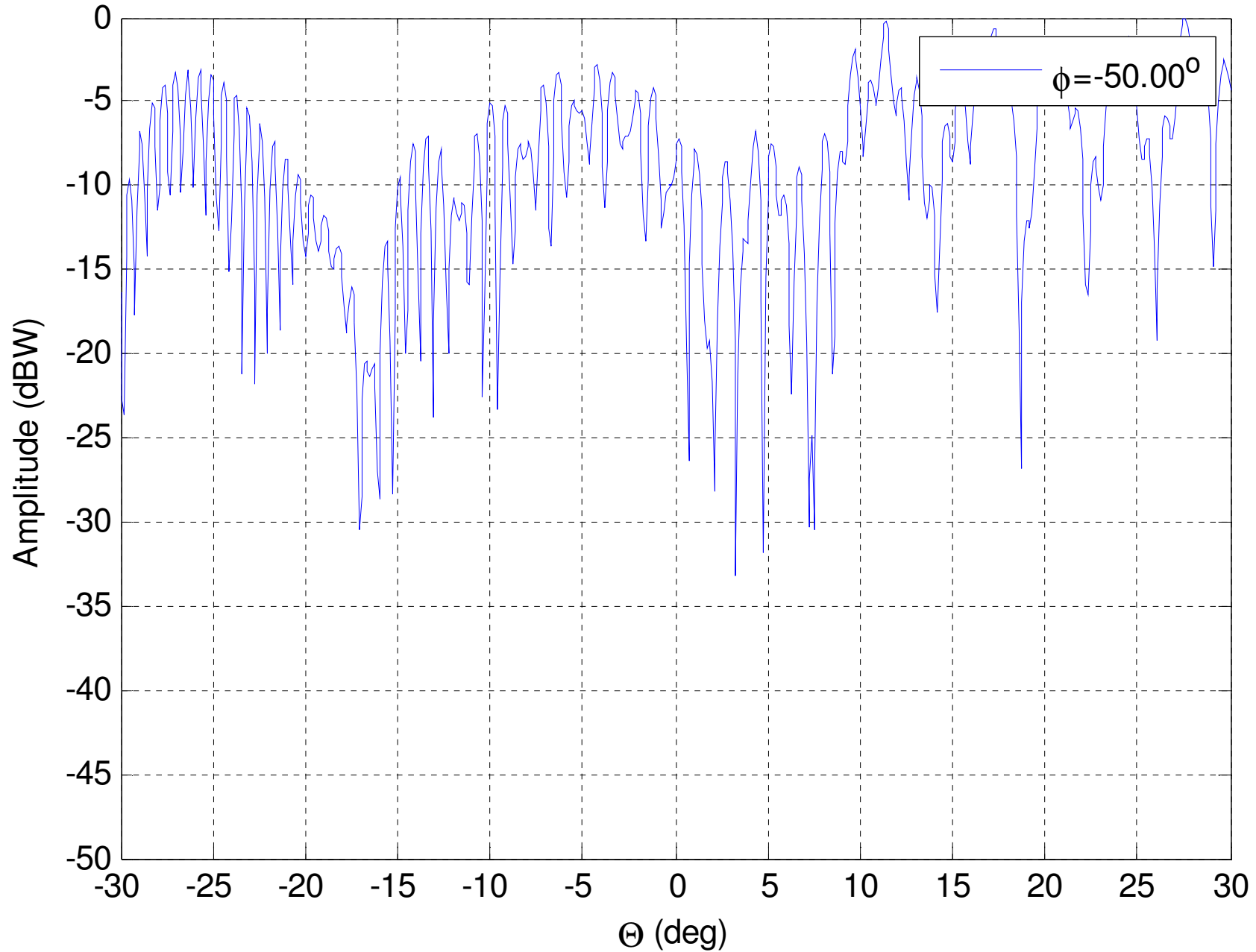
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--60.cut, Peak: -21.97 dBW, Date: 16-Dec-2011



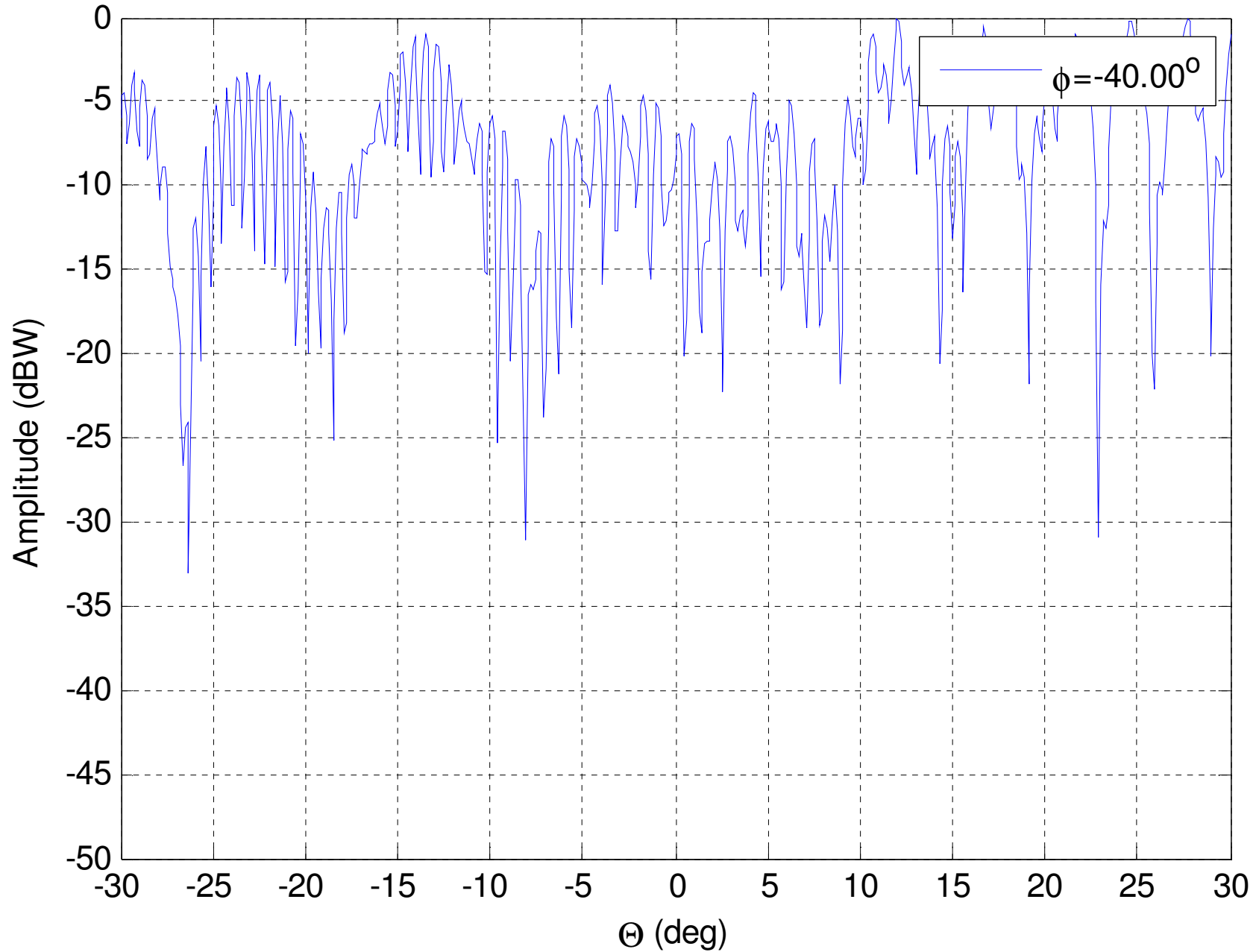
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--50.cut, Peak: -21.67 dBW, Date: 16-Dec-2011



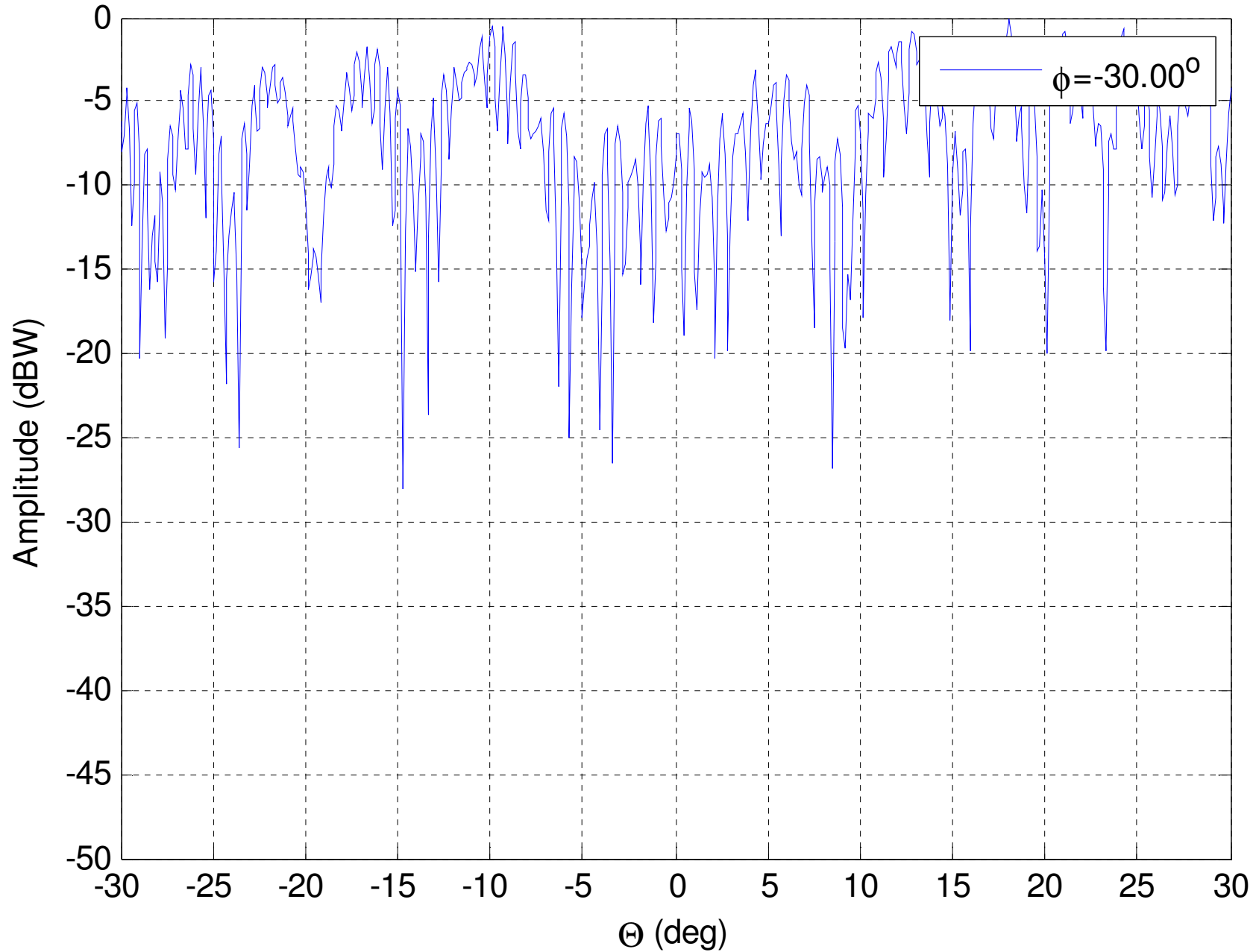
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--40.cut, Peak: -21.93 dBW, Date: 16-Dec-2011



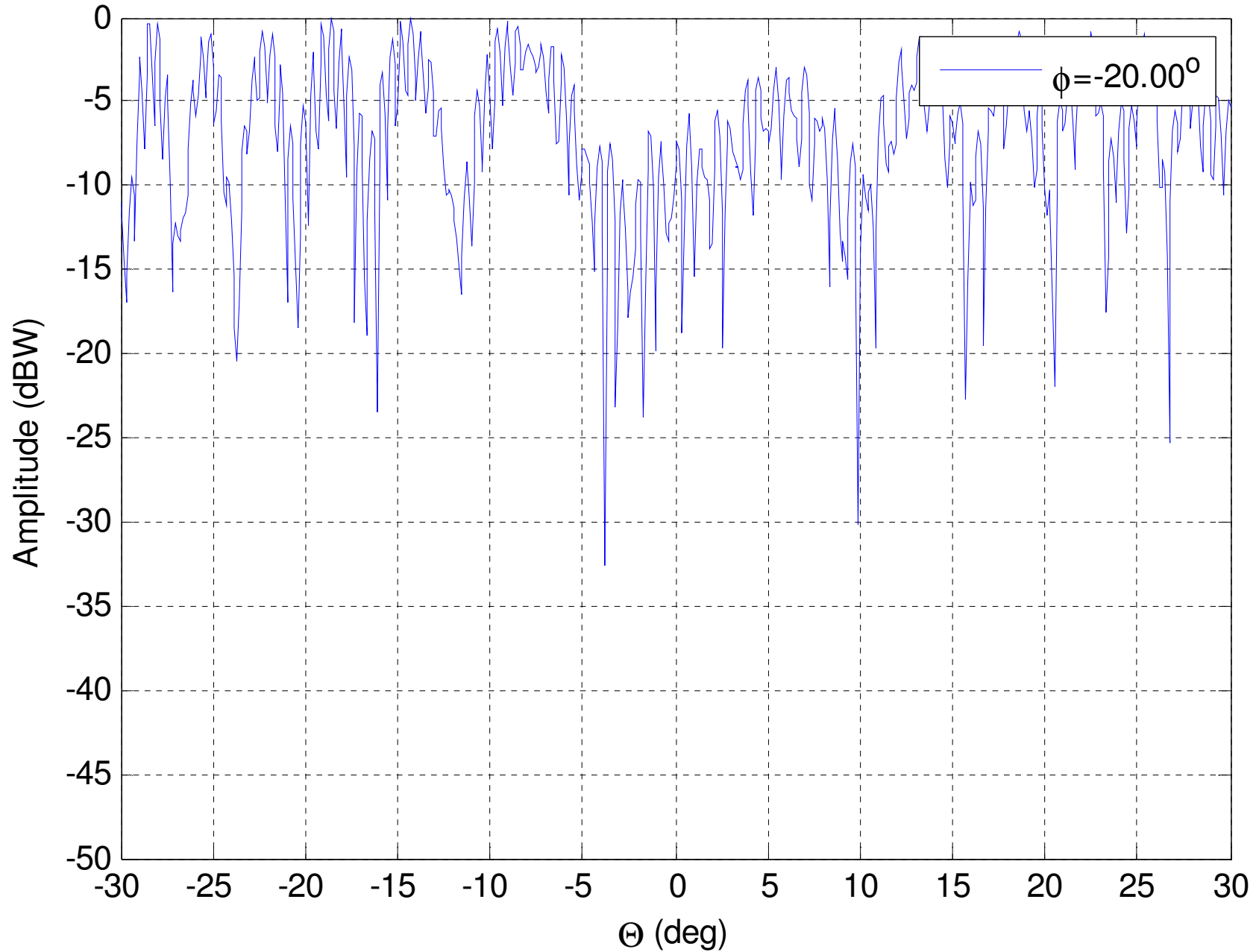
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--30.cut, Peak: -22.04 dBW, Date: 16-Dec-2011



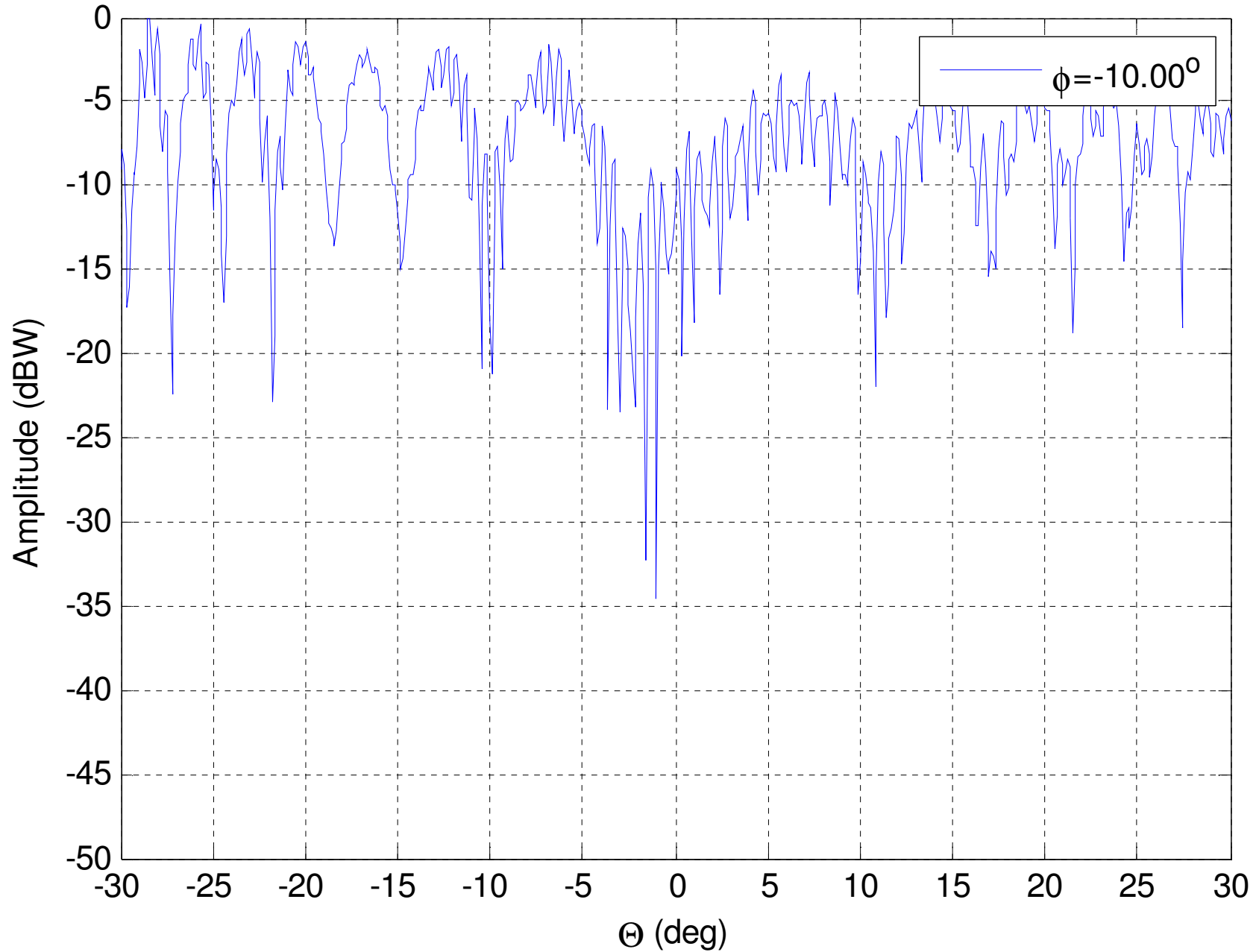
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--20.cut, Peak: -21.42 dBW, Date: 16-Dec-2011



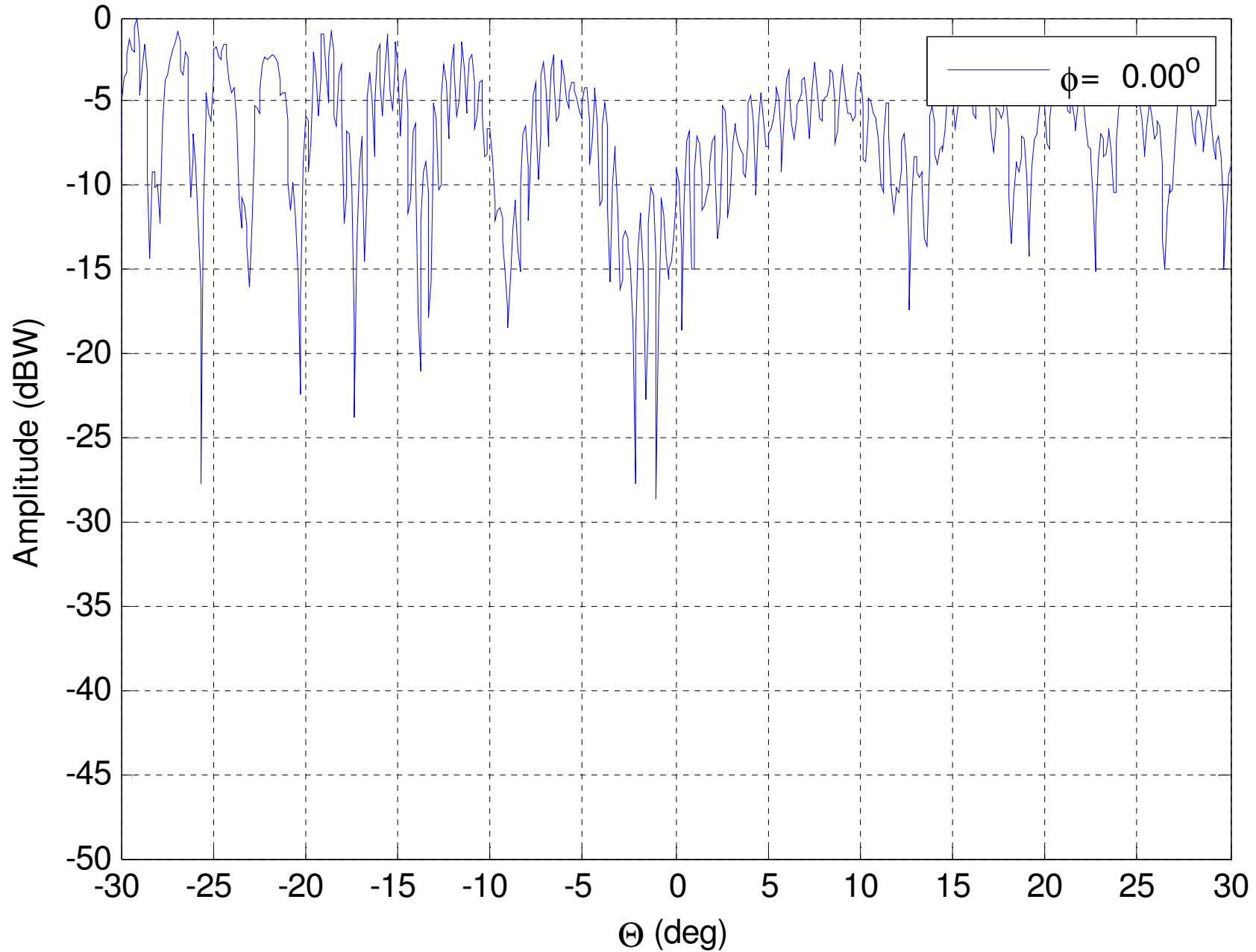
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--10.cut, Peak: -19.77 dBW, Date: 16-Dec-2011



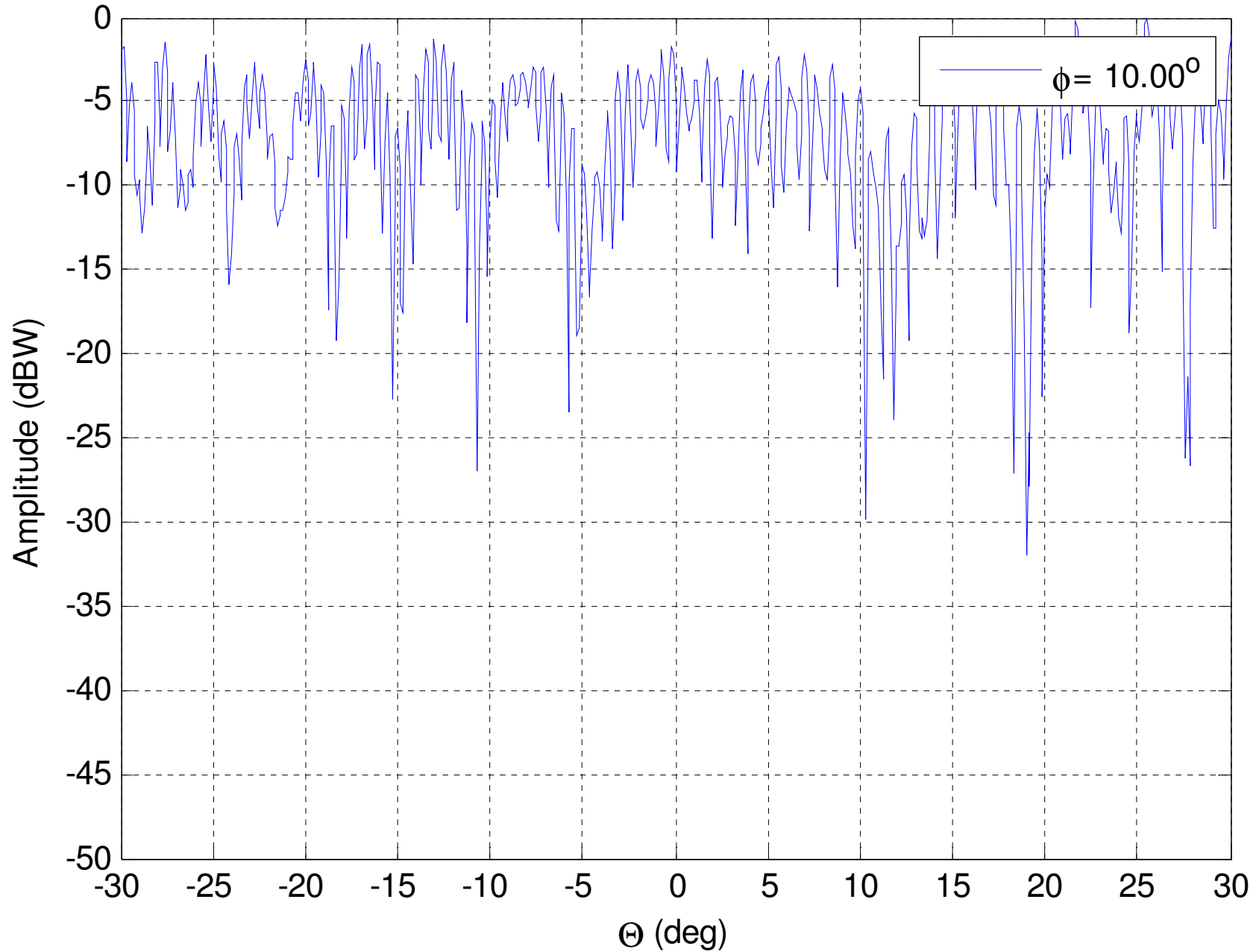
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-0.cut, Peak: -19.69 dBW, Date: 16-Dec-2011



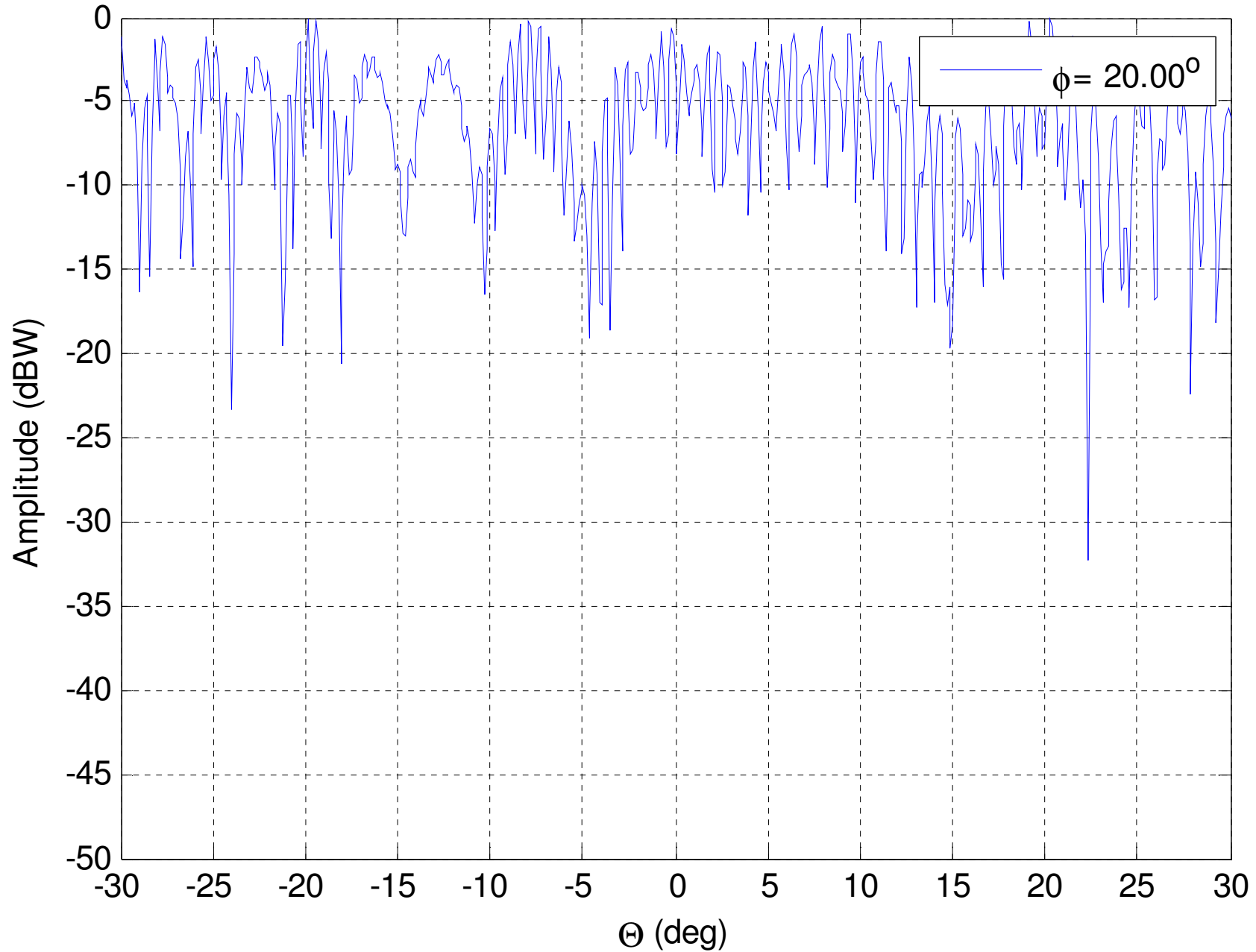
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-10.cut, Peak: -20.76 dBW, Date: 16-Dec-2011



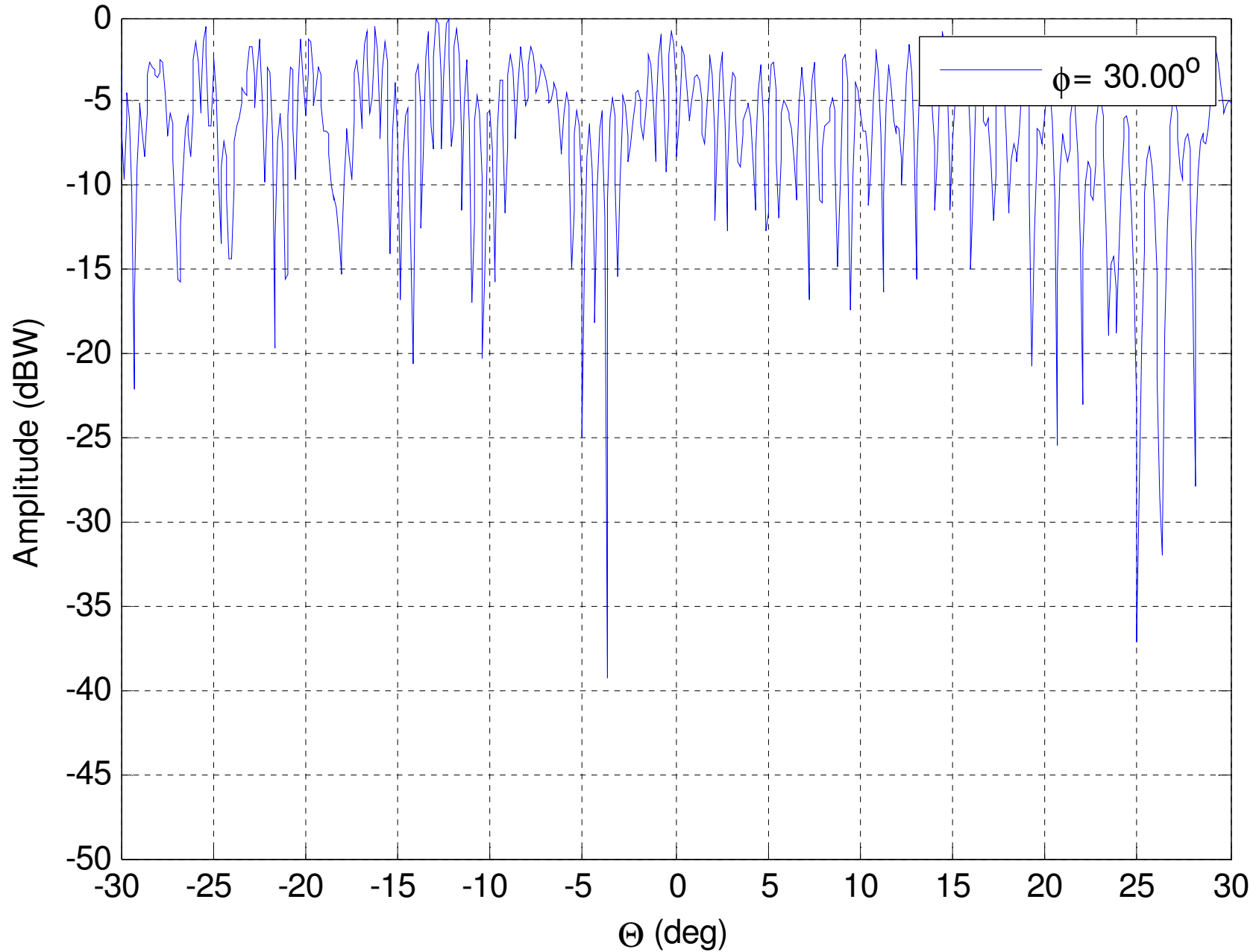
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-20.cut, Peak: -21.85 dBW, Date: 16-Dec-2011



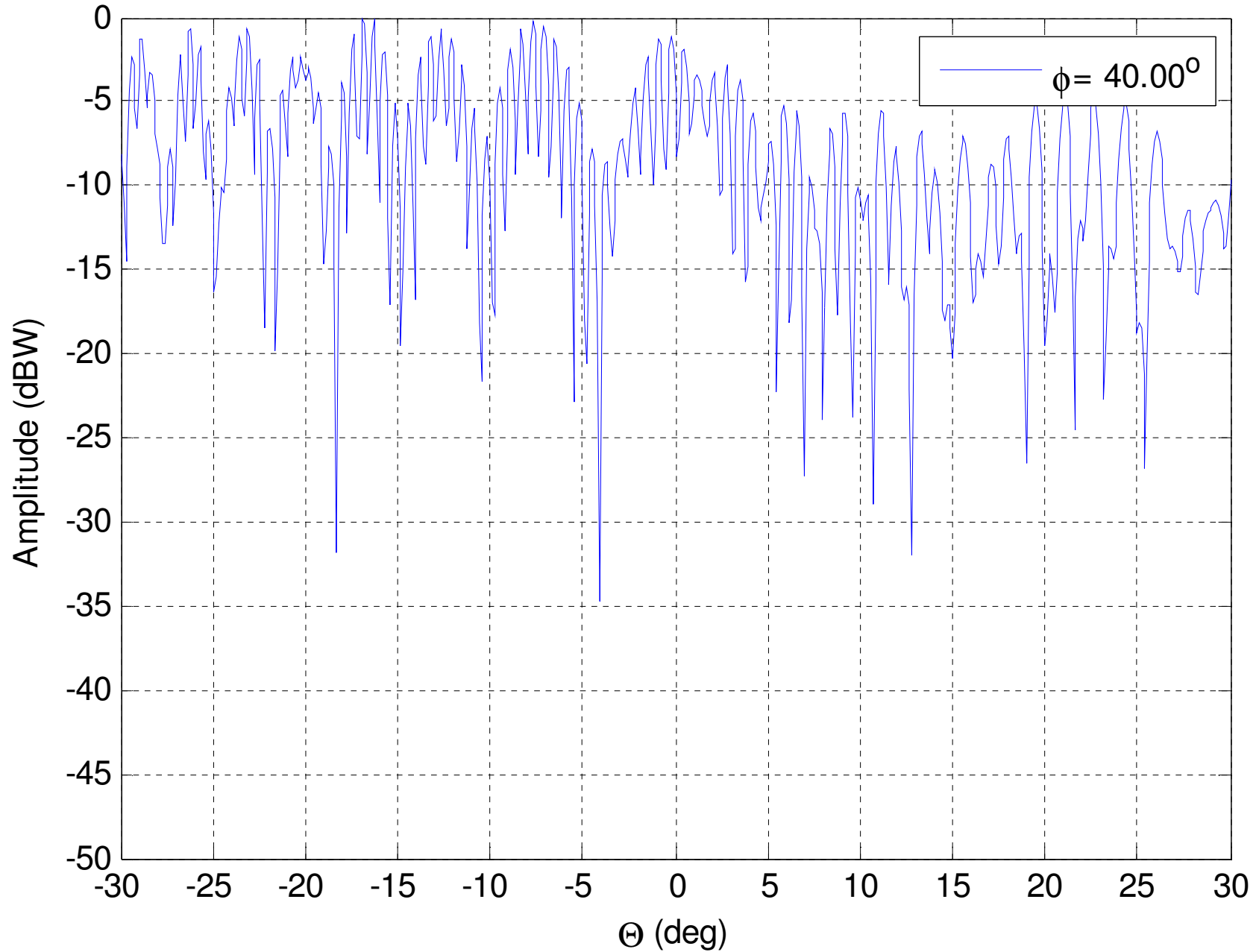
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-30.cut, Peak: -21.62 dBW, Date: 16-Dec-2011



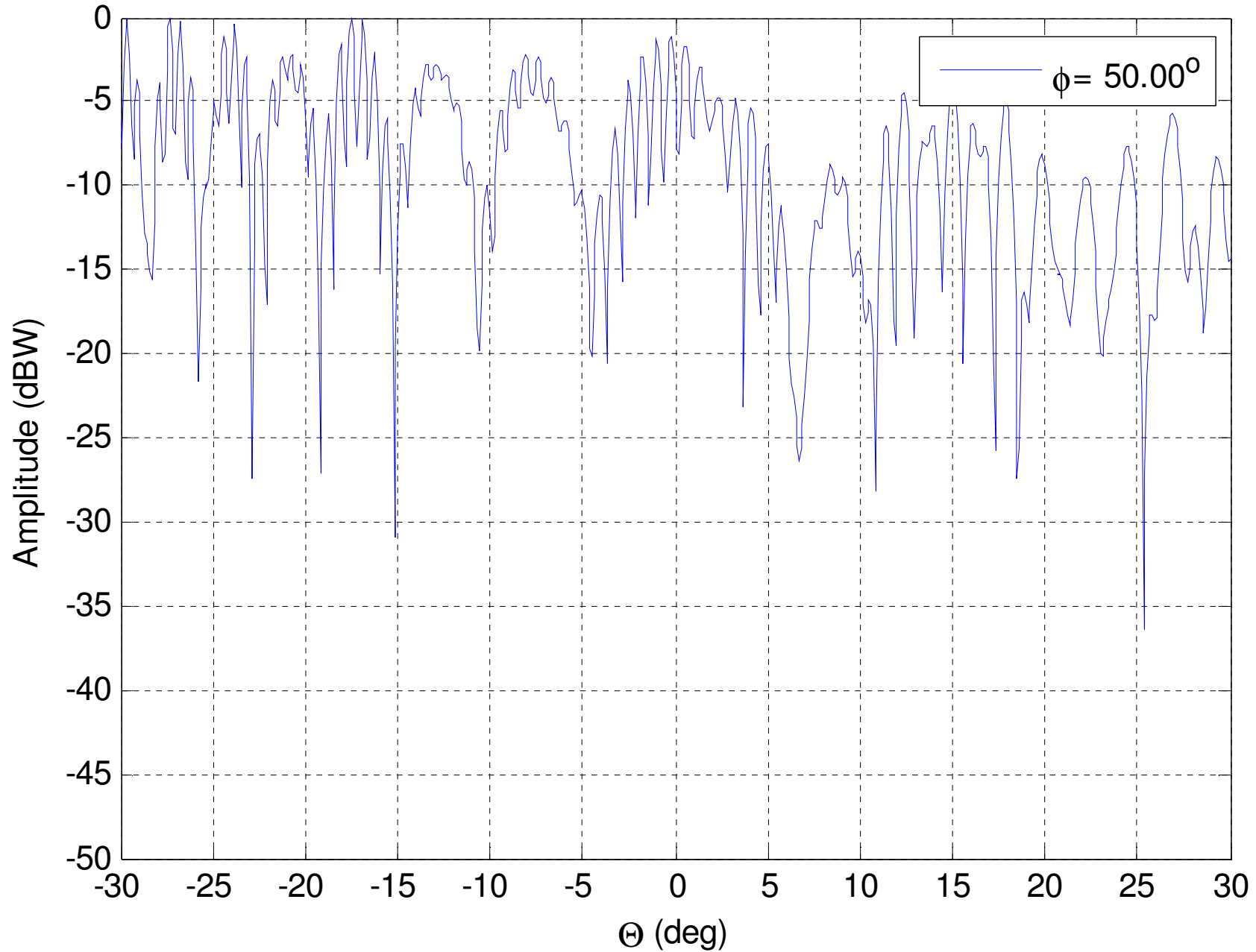
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-40.cut, Peak: -21.39 dBW, Date: 16-Dec-2011



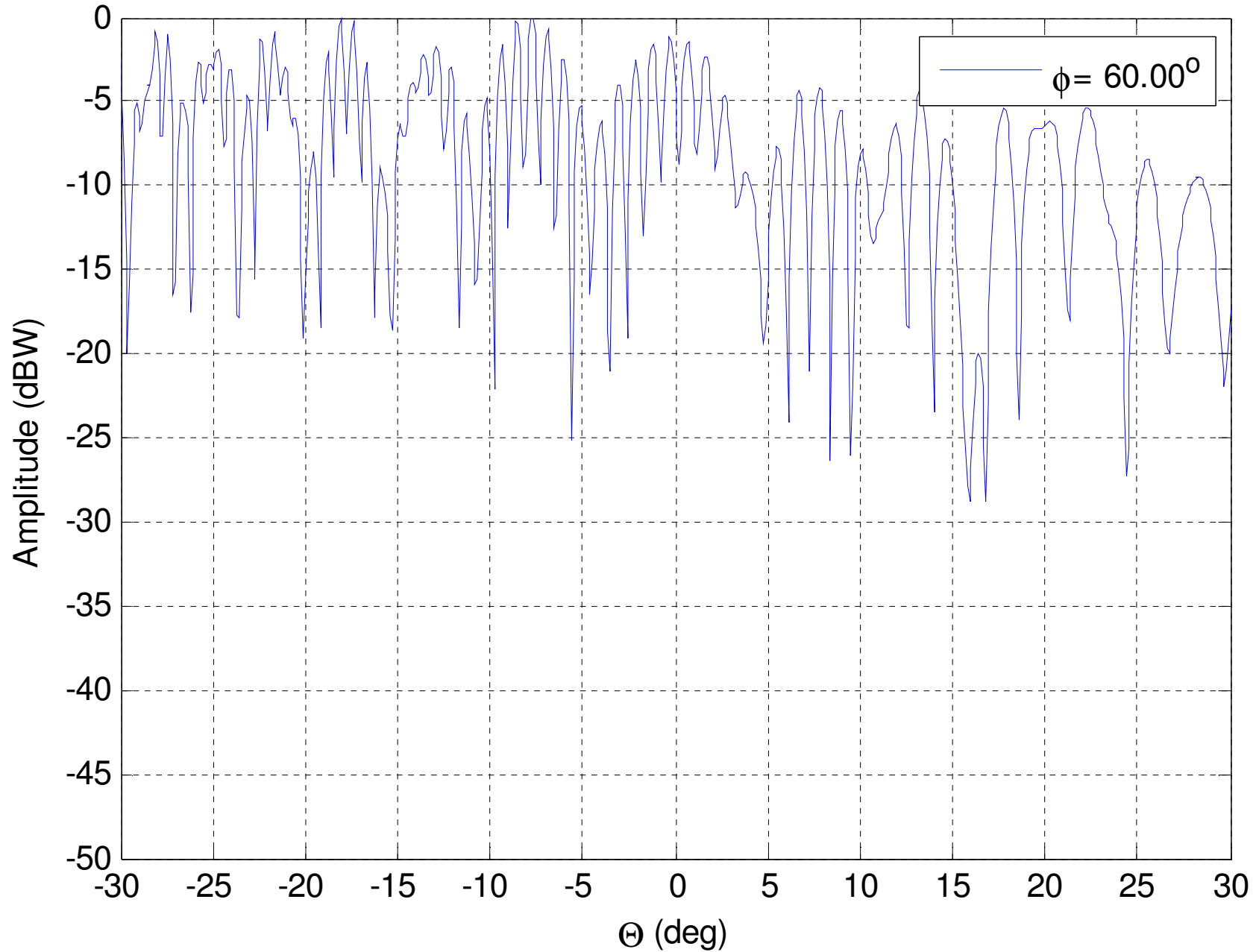
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-50.cut, Peak: -21.39 dBW, Date: 16-Dec-2011



Normalized pattern cuts - farfield

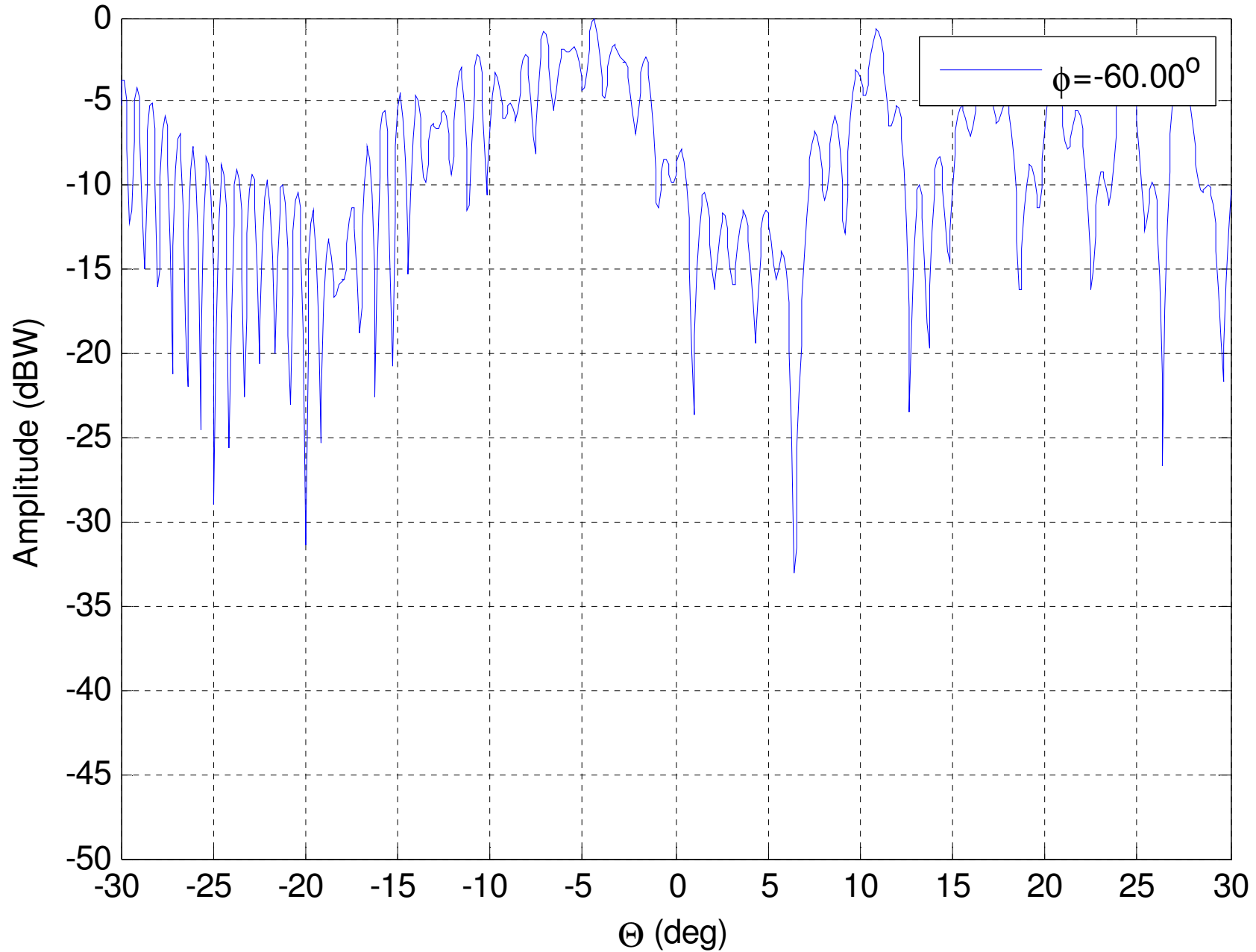
Input file: tx-17.3-rhcp-60.cut, Peak: -21.44 dBW, Date: 16-Dec-2011



LHCP at 17.3 GHz

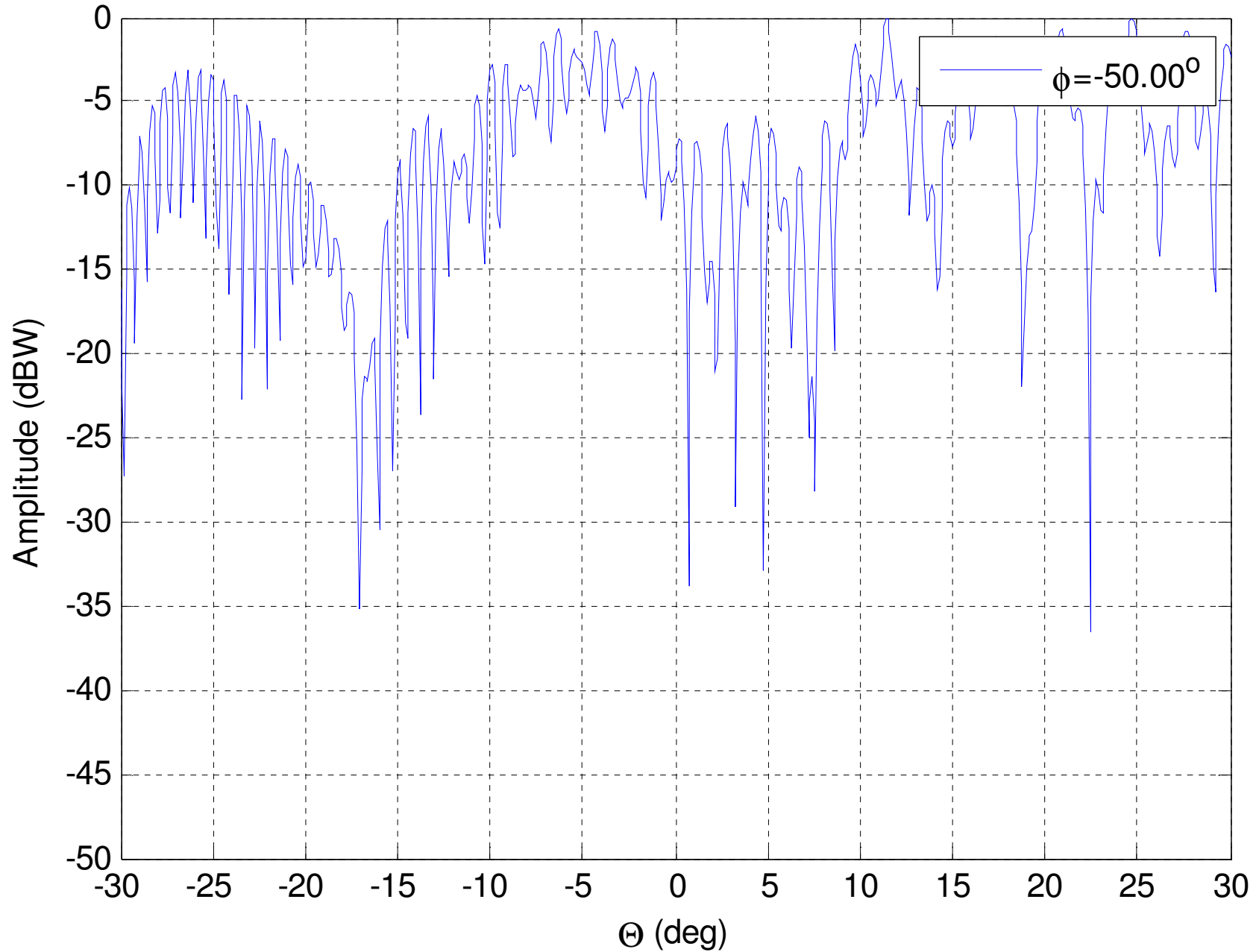
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp--60.cut, Peak: -21.49 dBW, Date: 16-Dec-2011



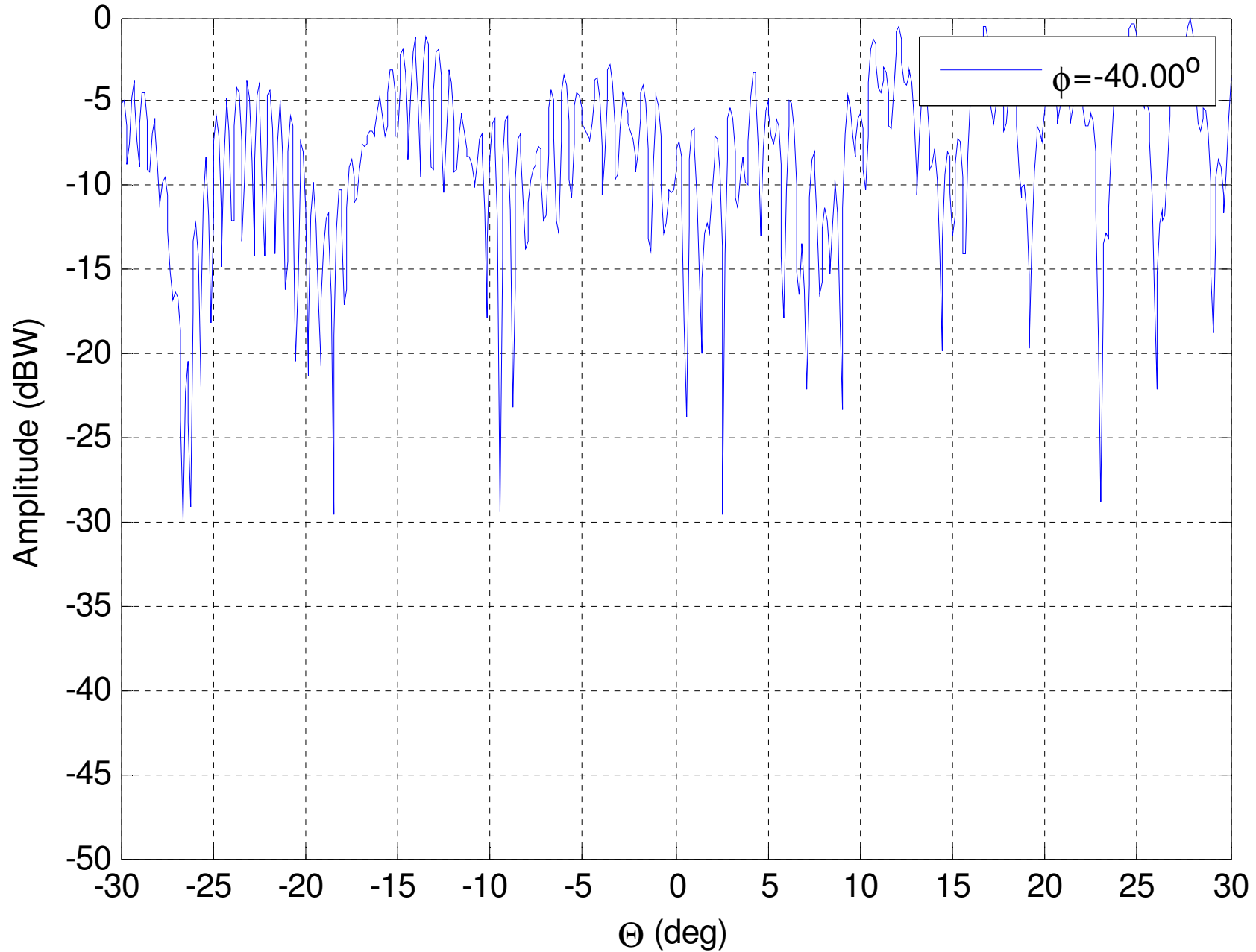
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp--50.cut, Peak: -21.98 dBW, Date: 16-Dec-2011



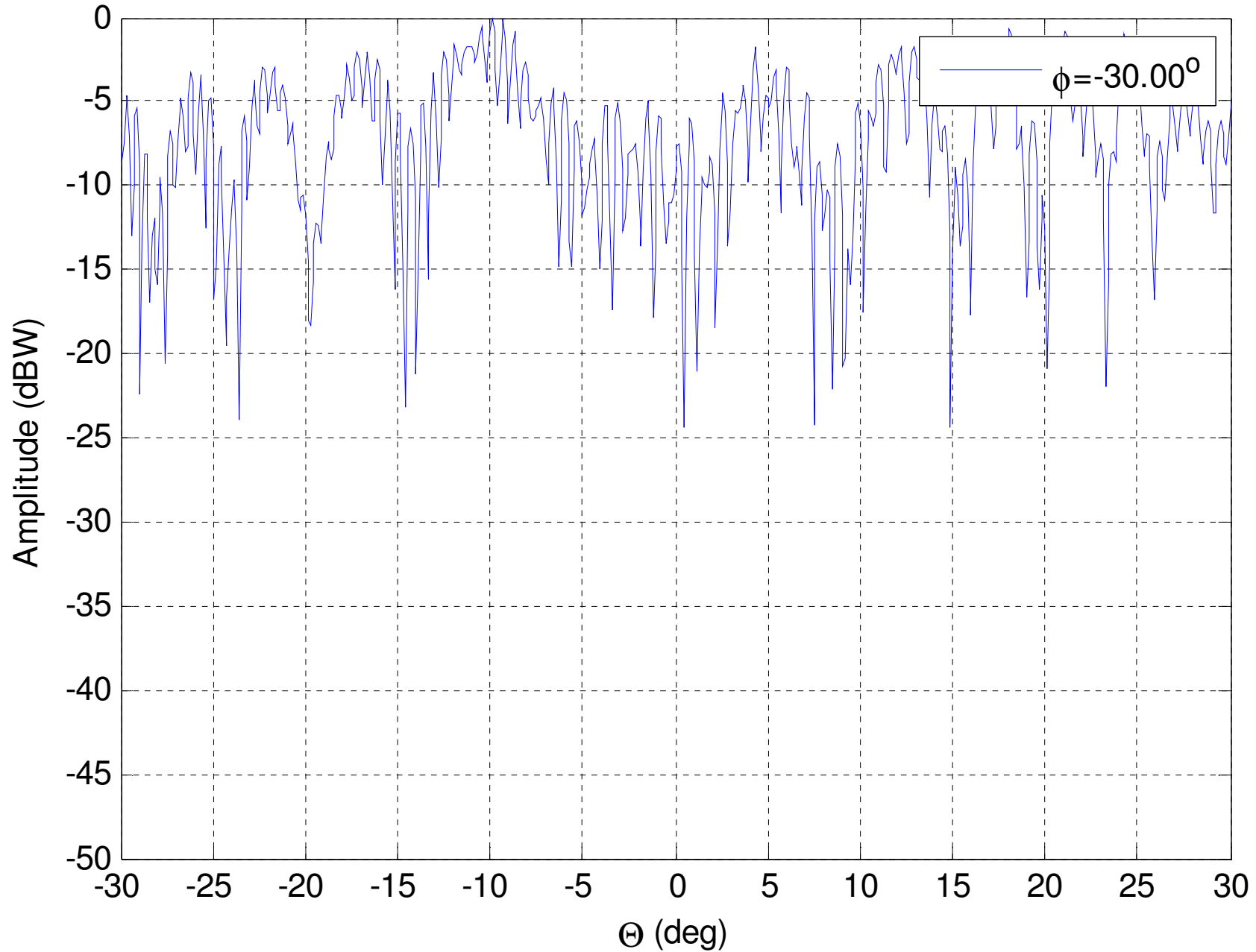
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp--40.cut, Peak: -21.75 dBW, Date: 16-Dec-2011



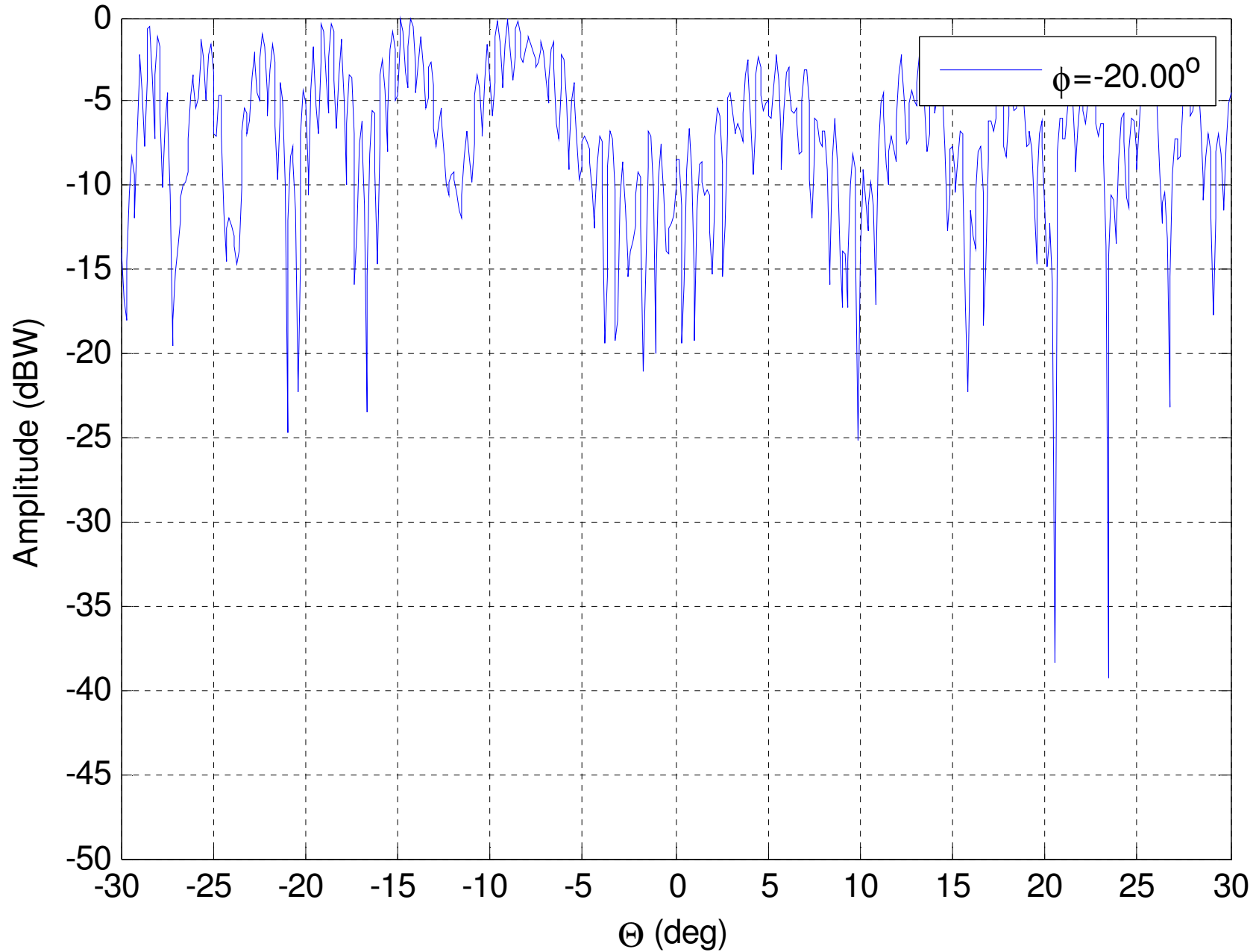
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp--30.cut, Peak: -21.73 dBW, Date: 16-Dec-2011



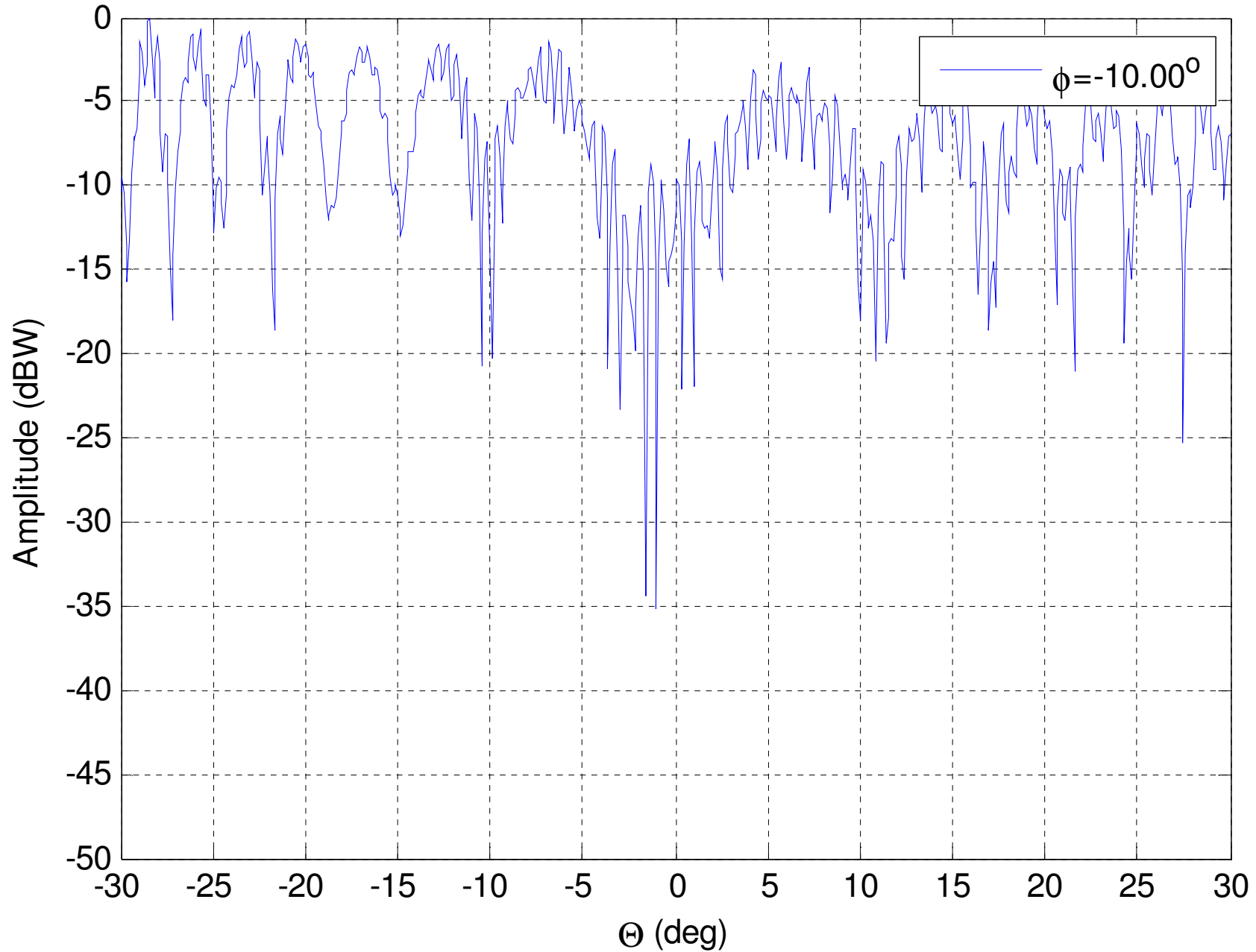
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp--20.cut, Peak: -20.91 dBW, Date: 16-Dec-2011



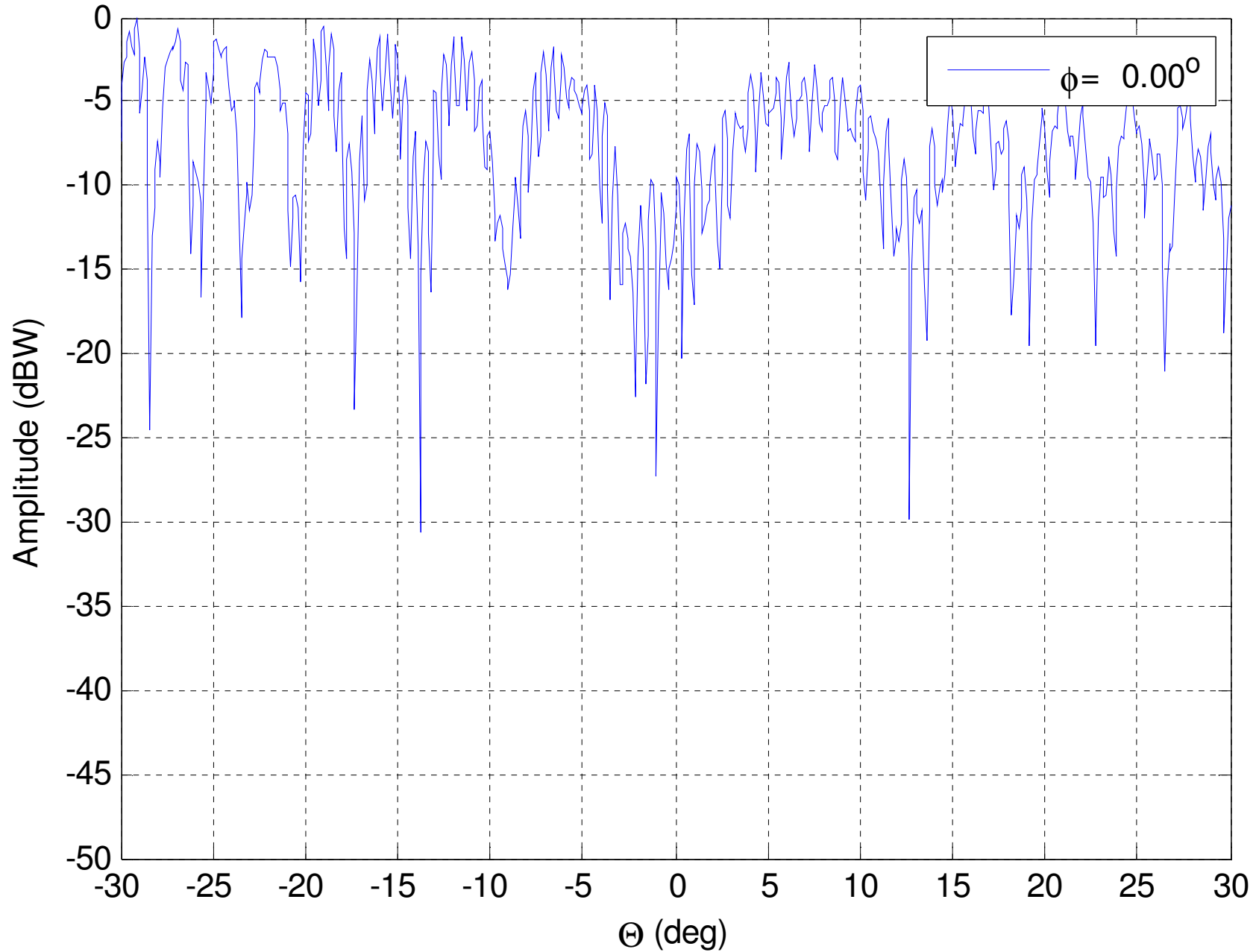
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp--10.cut, Peak: -19.57 dBW, Date: 16-Dec-2011



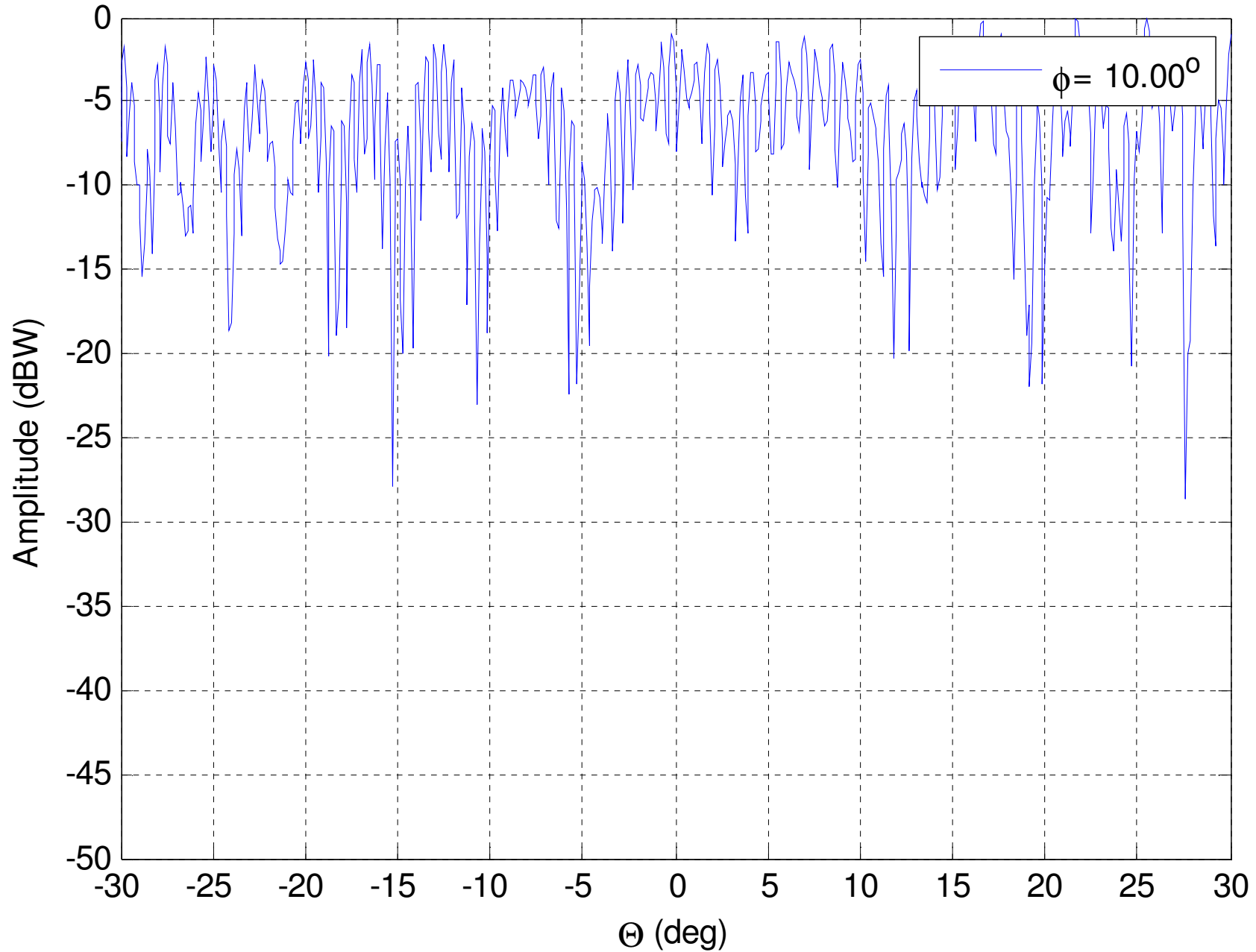
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp-0.cut, Peak: -19.68 dBW, Date: 16-Dec-2011



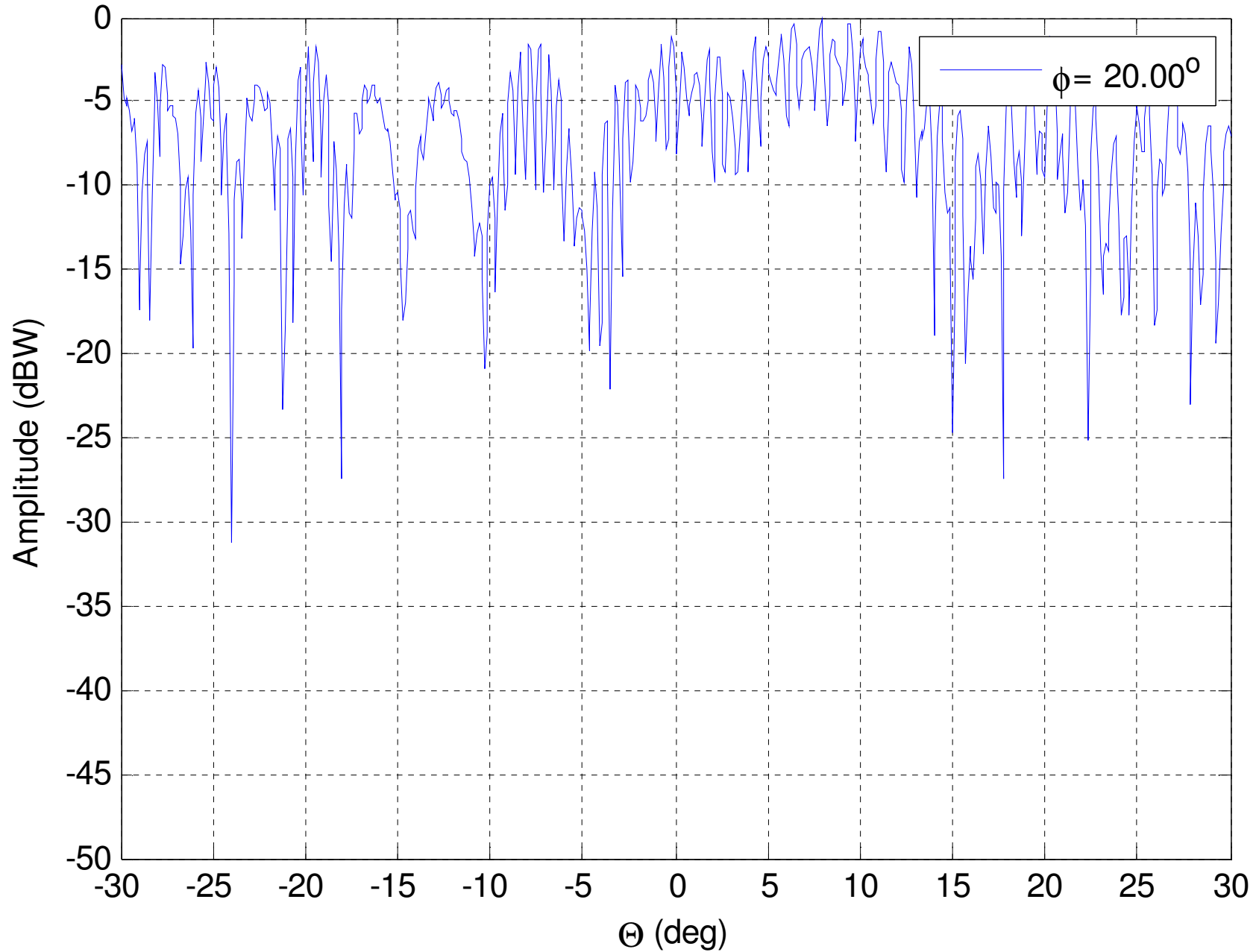
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp-10.cut, Peak: -20.78 dBW, Date: 16-Dec-2011



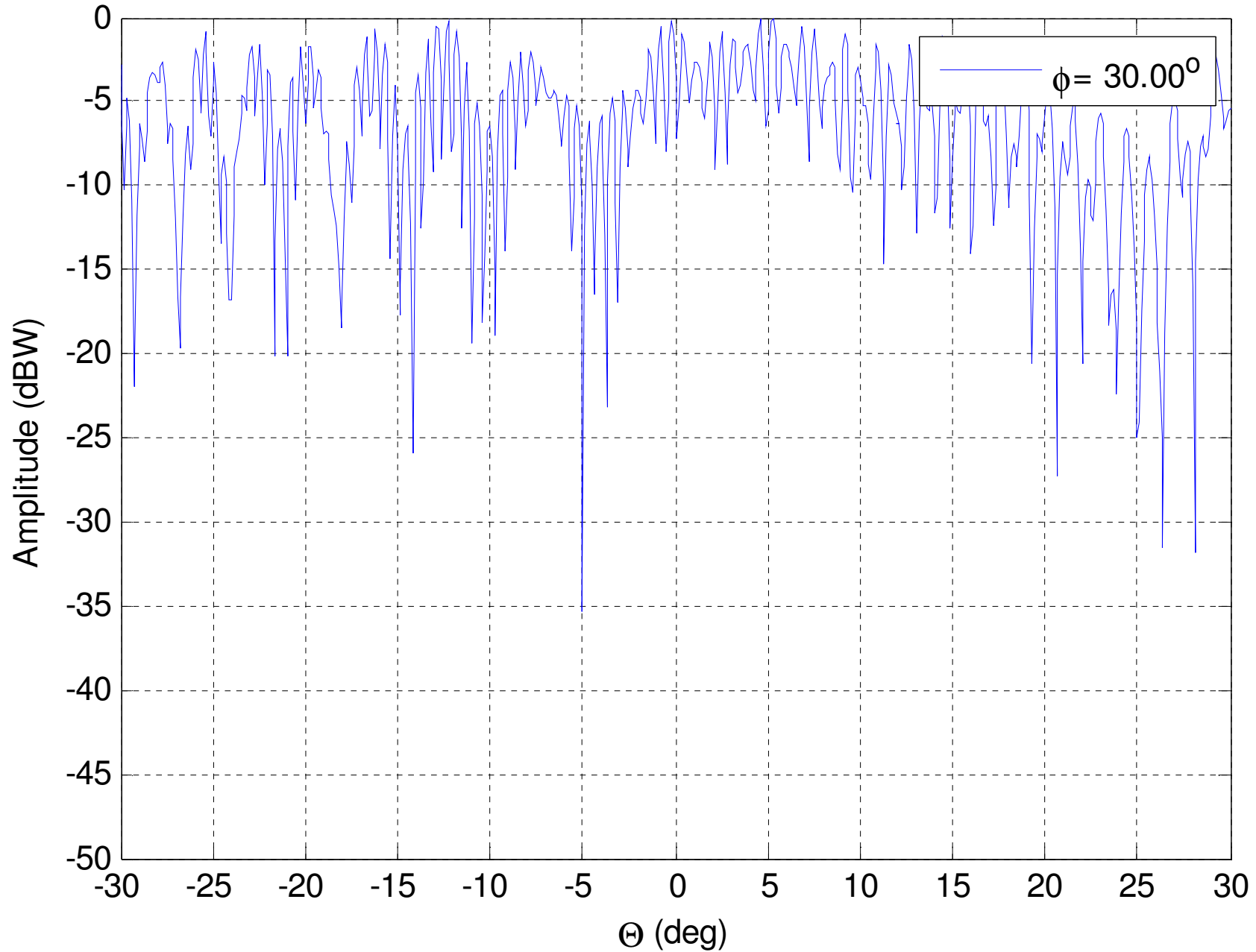
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp-20.cut, Peak: -20.60 dBW, Date: 16-Dec-2011



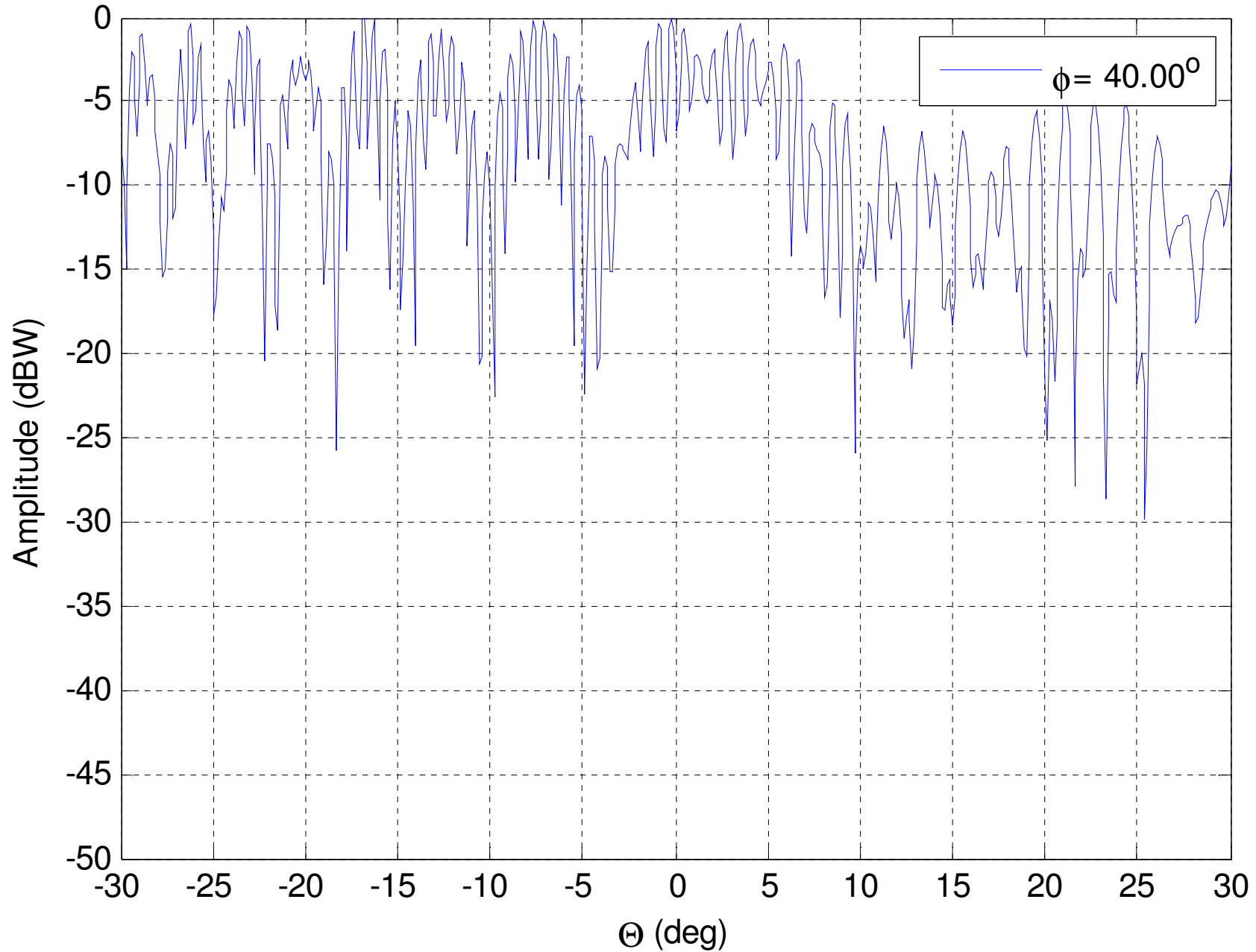
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp-30.cut, Peak: -21.53 dBW, Date: 16-Dec-2011



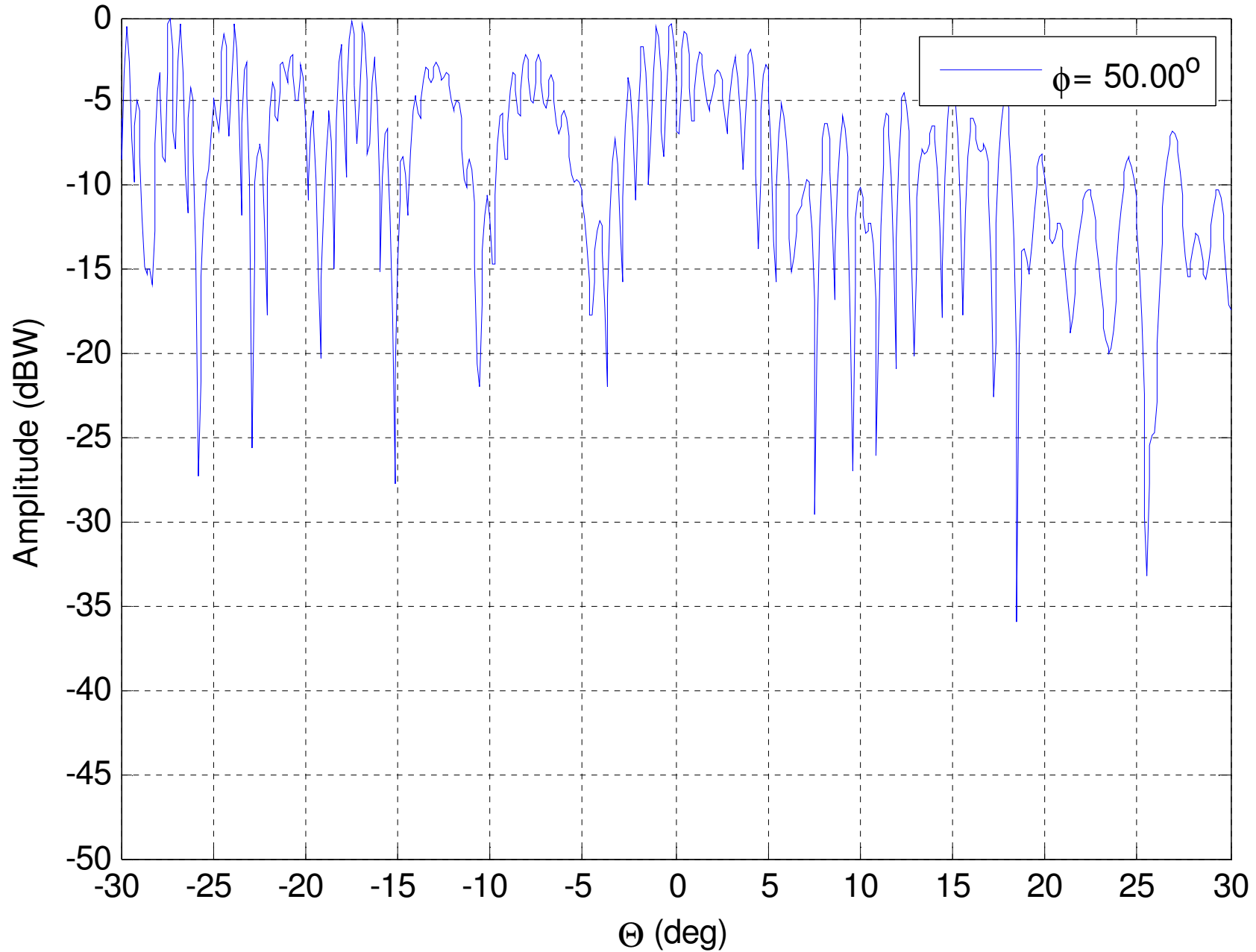
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp-40.cut, Peak: -21.73 dBW, Date: 16-Dec-2011



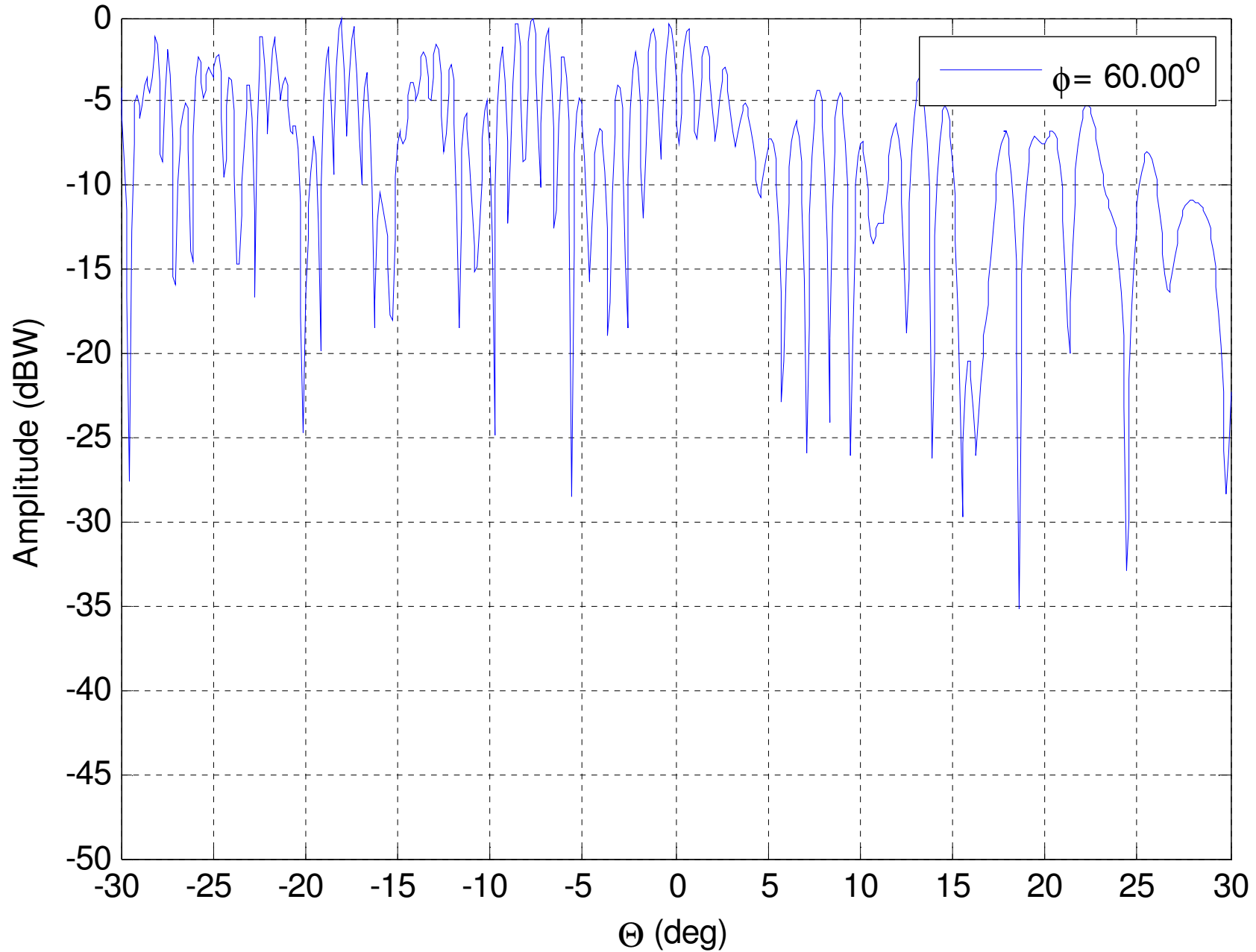
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp-50.cut, Peak: -21.47 dBW, Date: 16-Dec-2011



Normalized pattern cuts - farfield

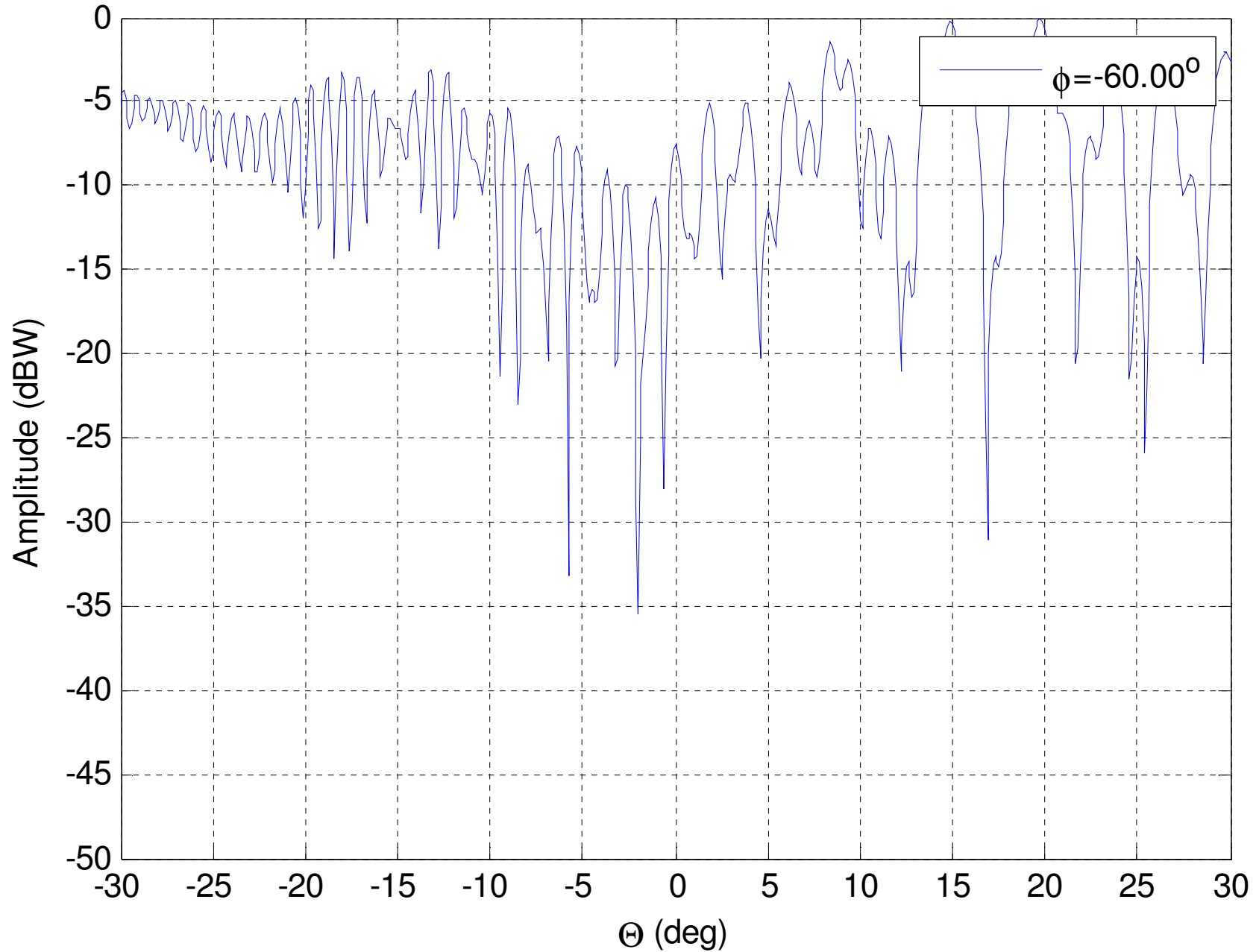
Input file: tx-17.3-lhcp-60.cut, Peak: -21.47 dBW, Date: 16-Dec-2011



RHCP at 17.5 GHz

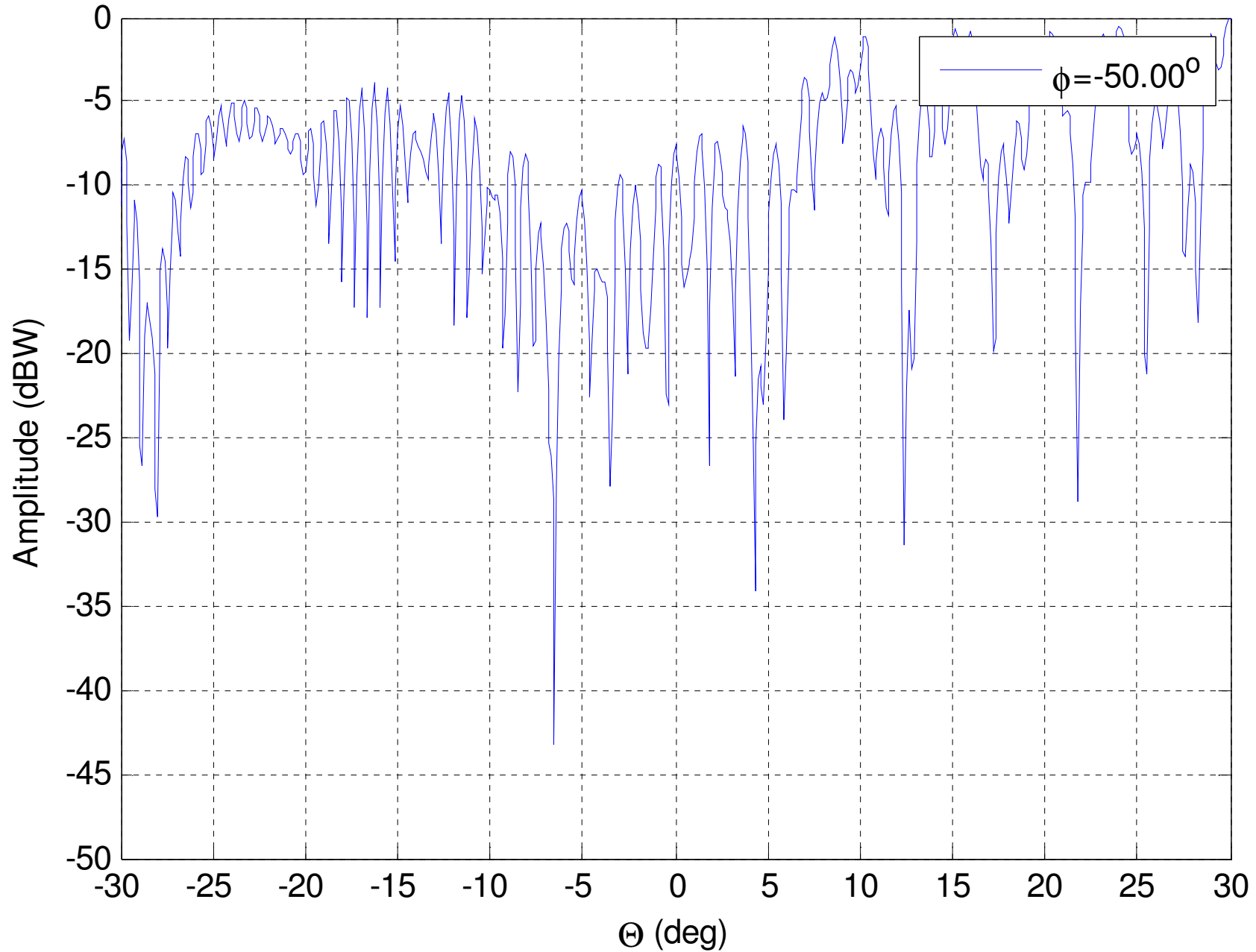
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--60.cut, Peak: -22.23 dBW, Date: 16-Dec-2011



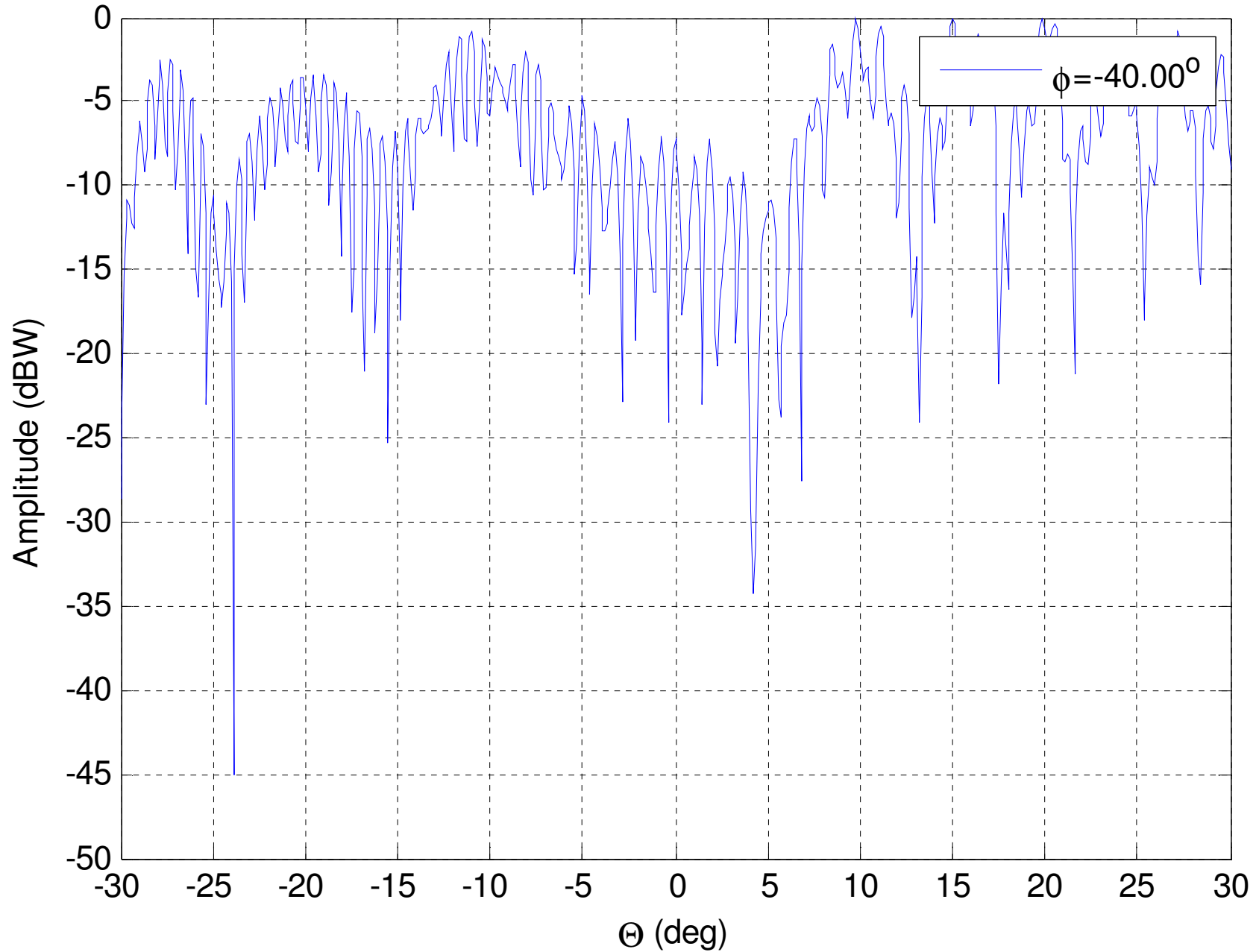
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--50.cut, Peak: -22.18 dBW, Date: 16-Dec-2011



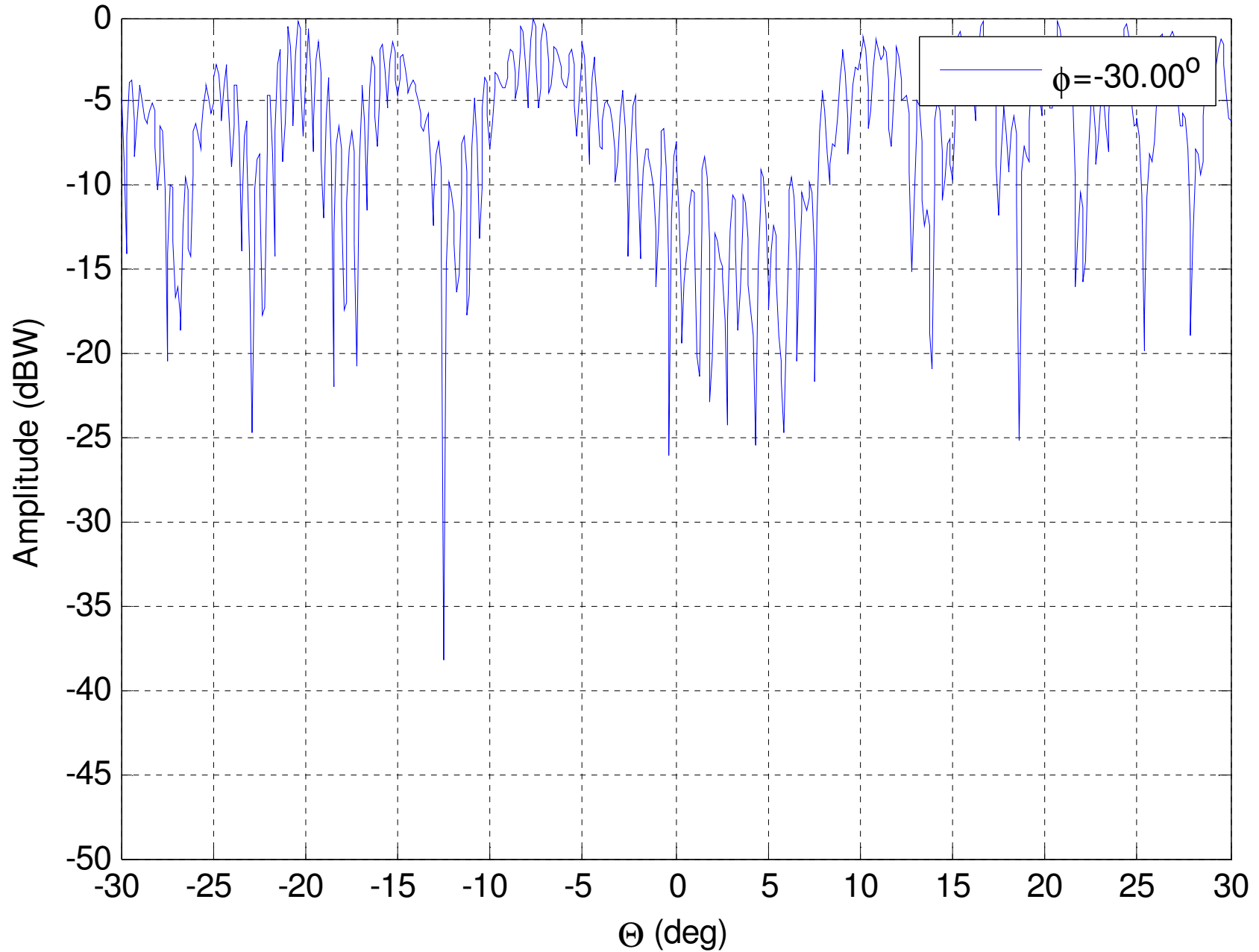
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--40.cut, Peak: -22.61 dBW, Date: 16-Dec-2011



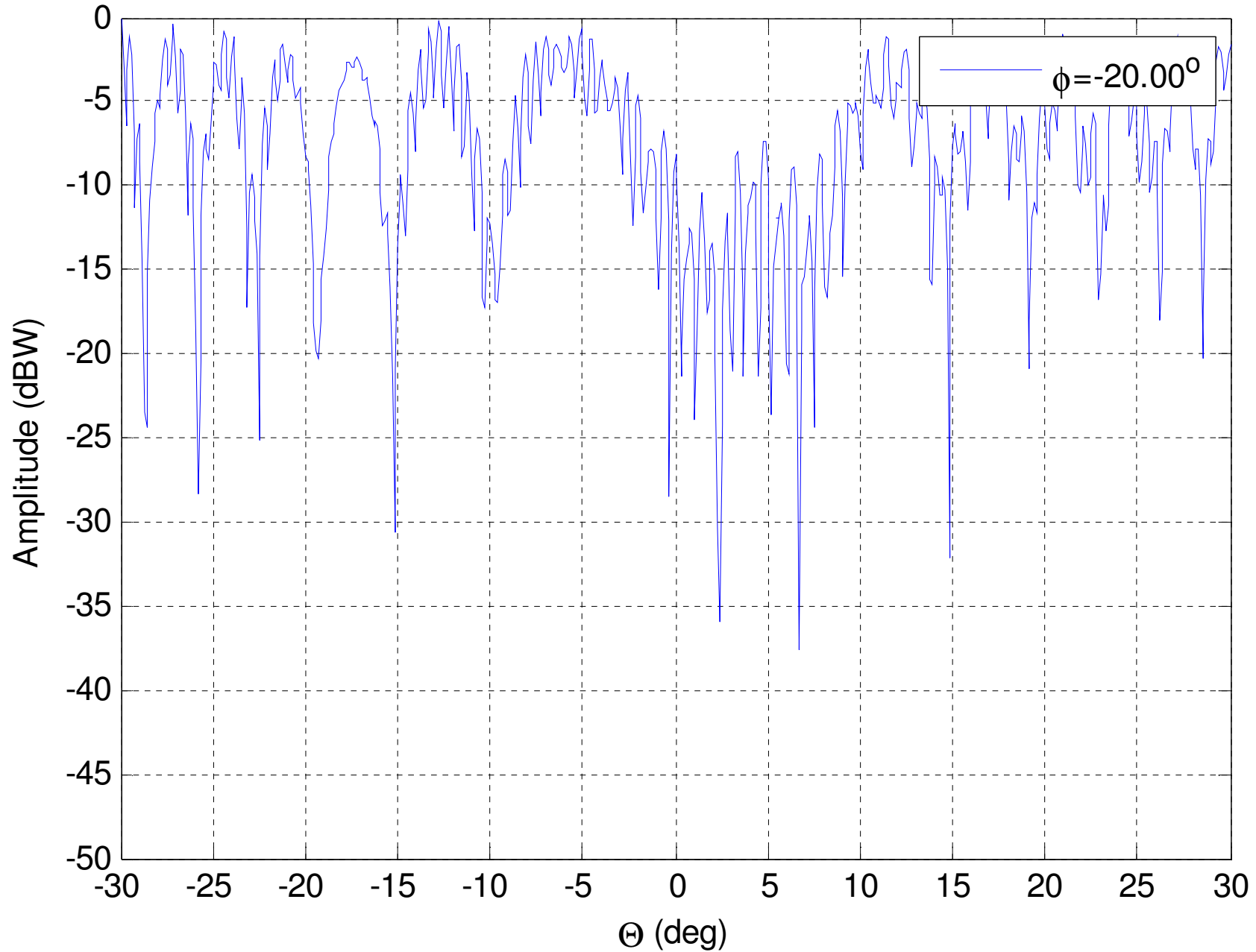
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--30.cut, Peak: -22.45 dBW, Date: 16-Dec-2011



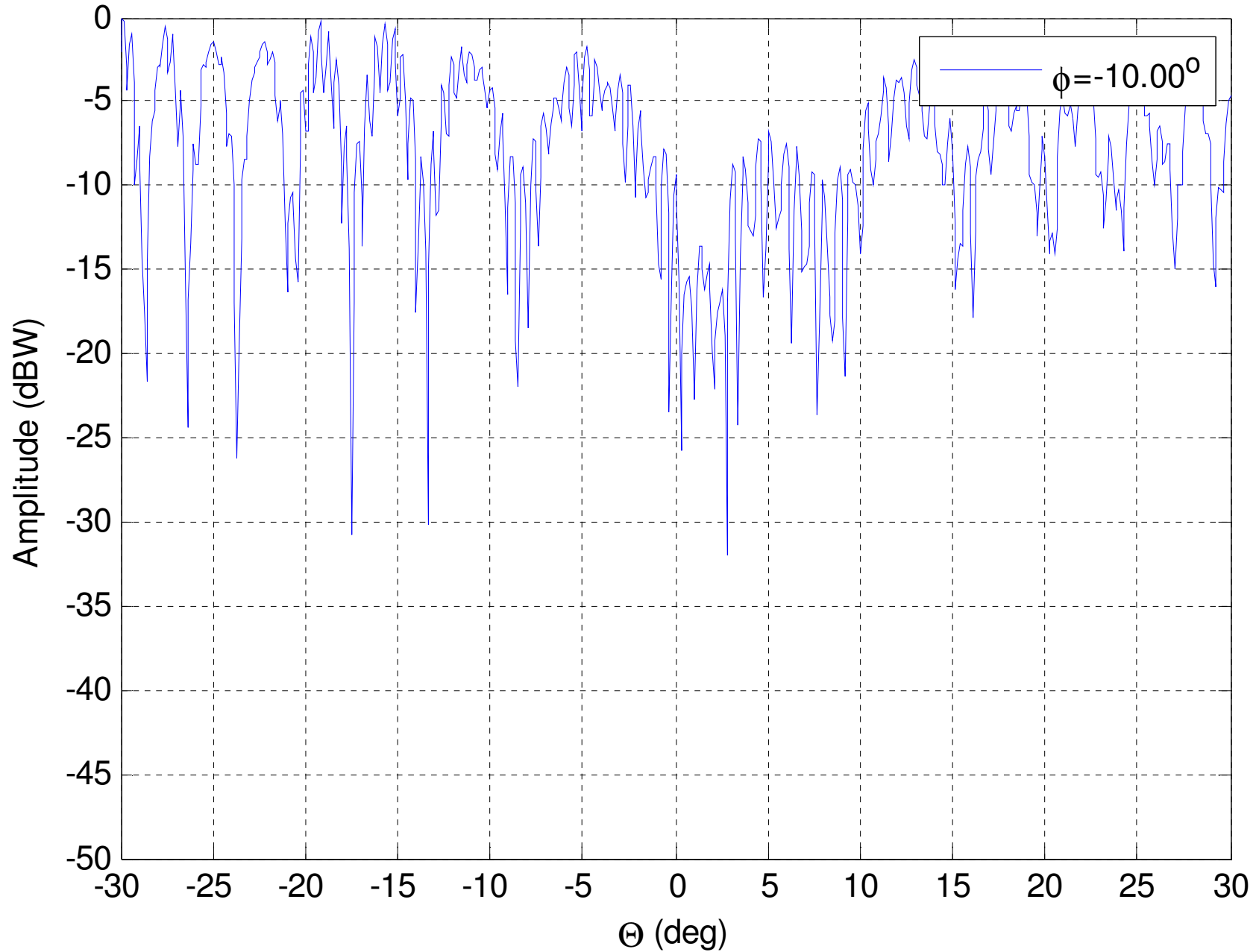
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--20.cut, Peak: -21.69 dBW, Date: 16-Dec-2011



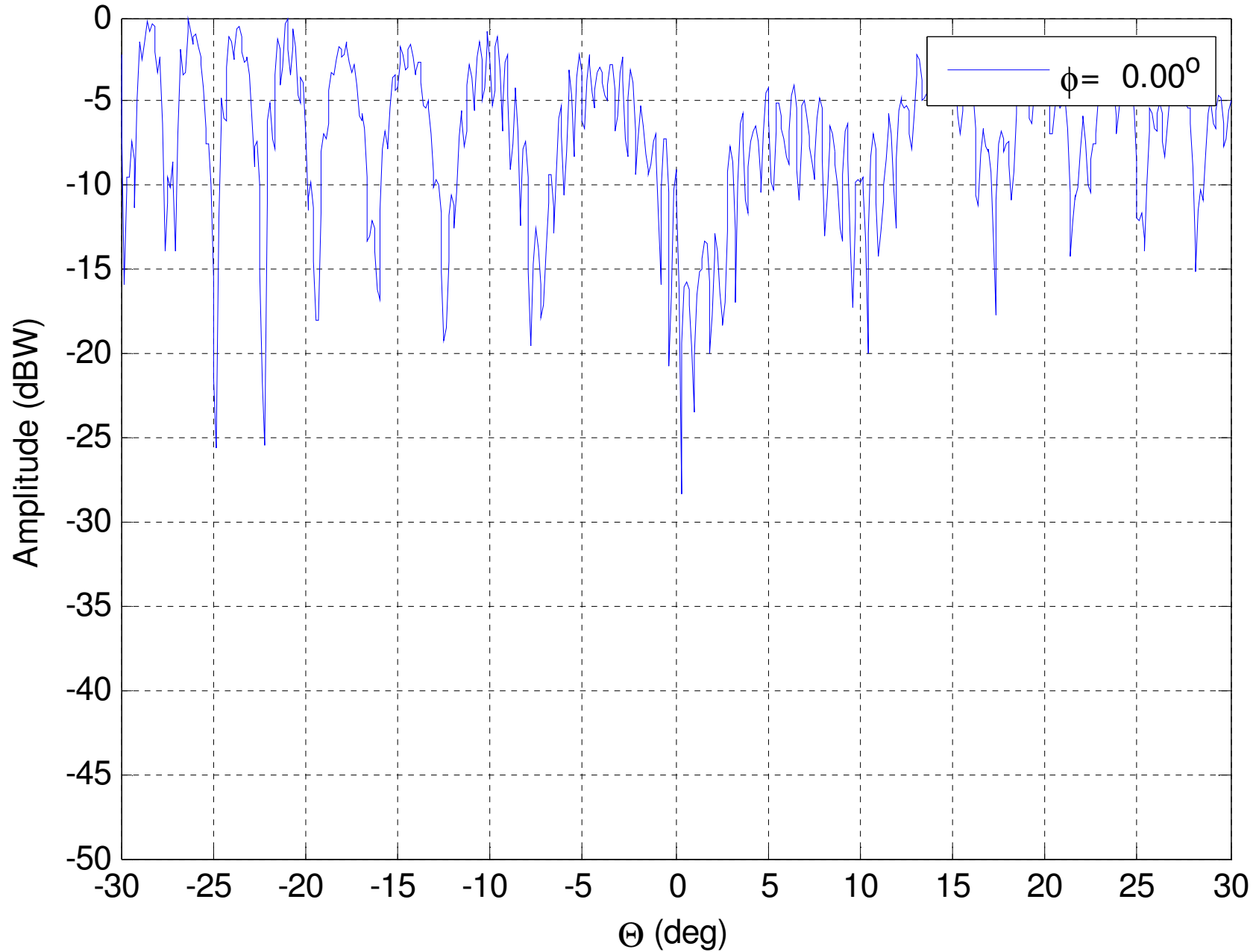
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--10.cut, Peak: -20.36 dBW, Date: 16-Dec-2011



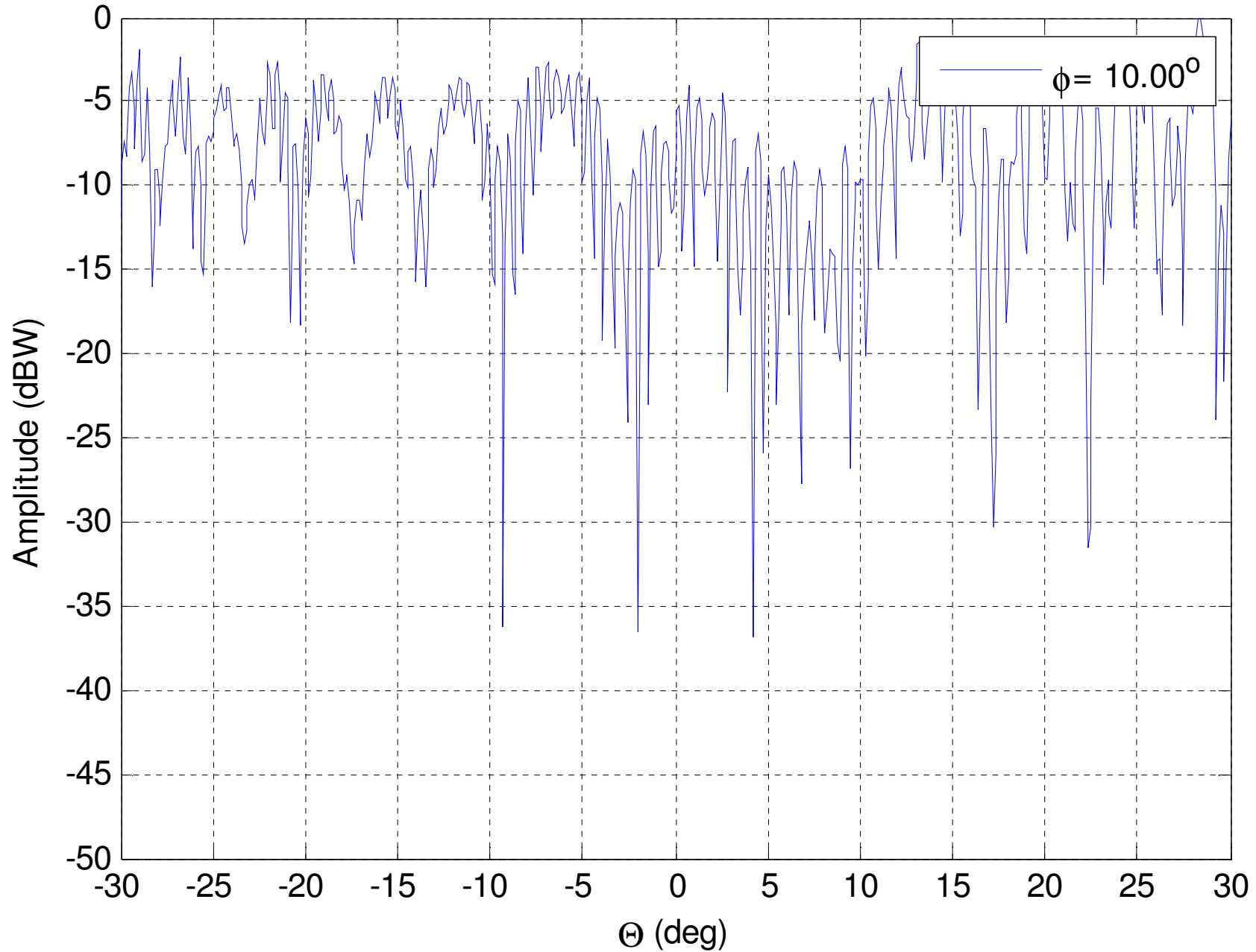
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-0.cut, Peak: -20.74 dBW, Date: 16-Dec-2011



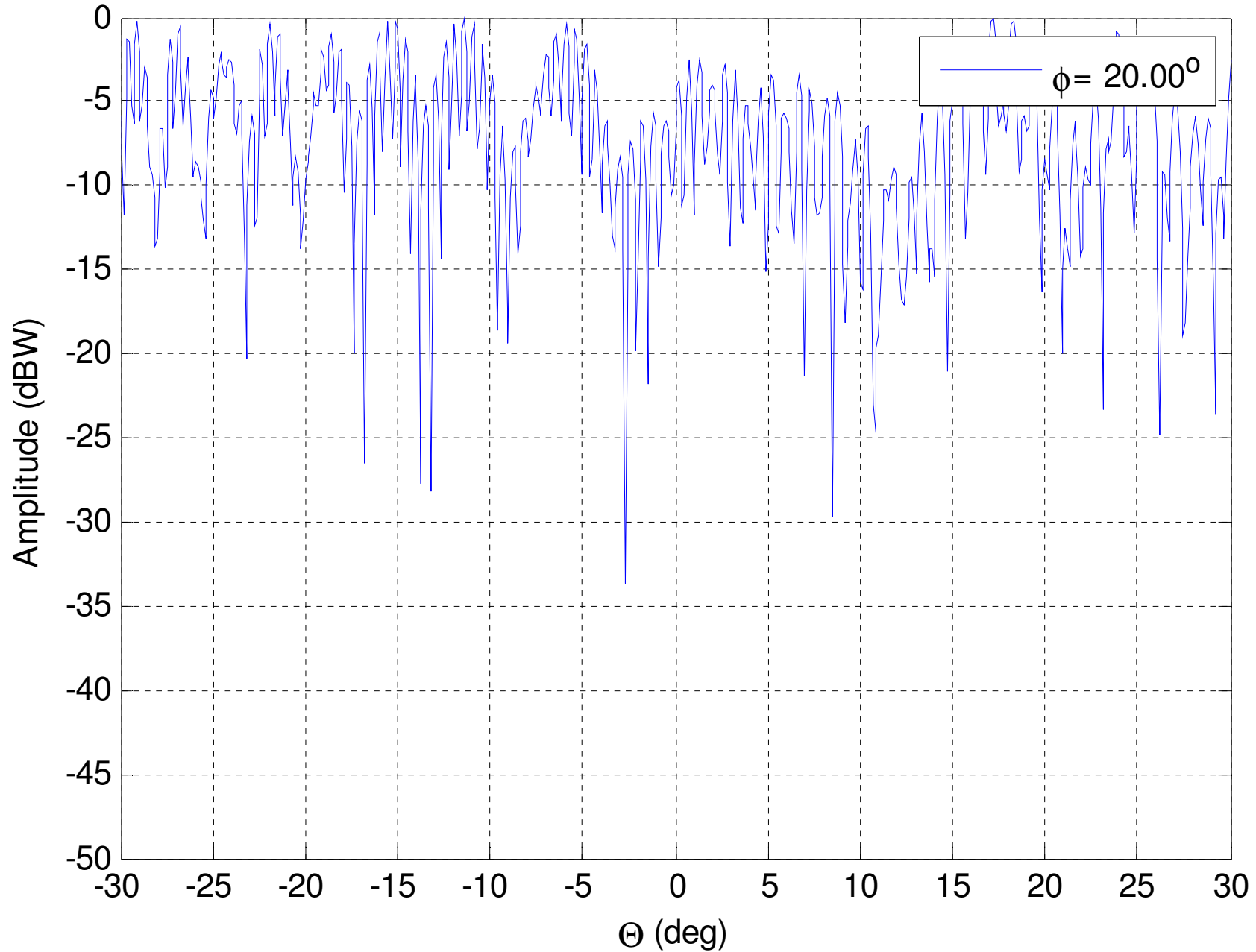
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-10.cut, Peak: -20.75 dBW, Date: 16-Dec-2011



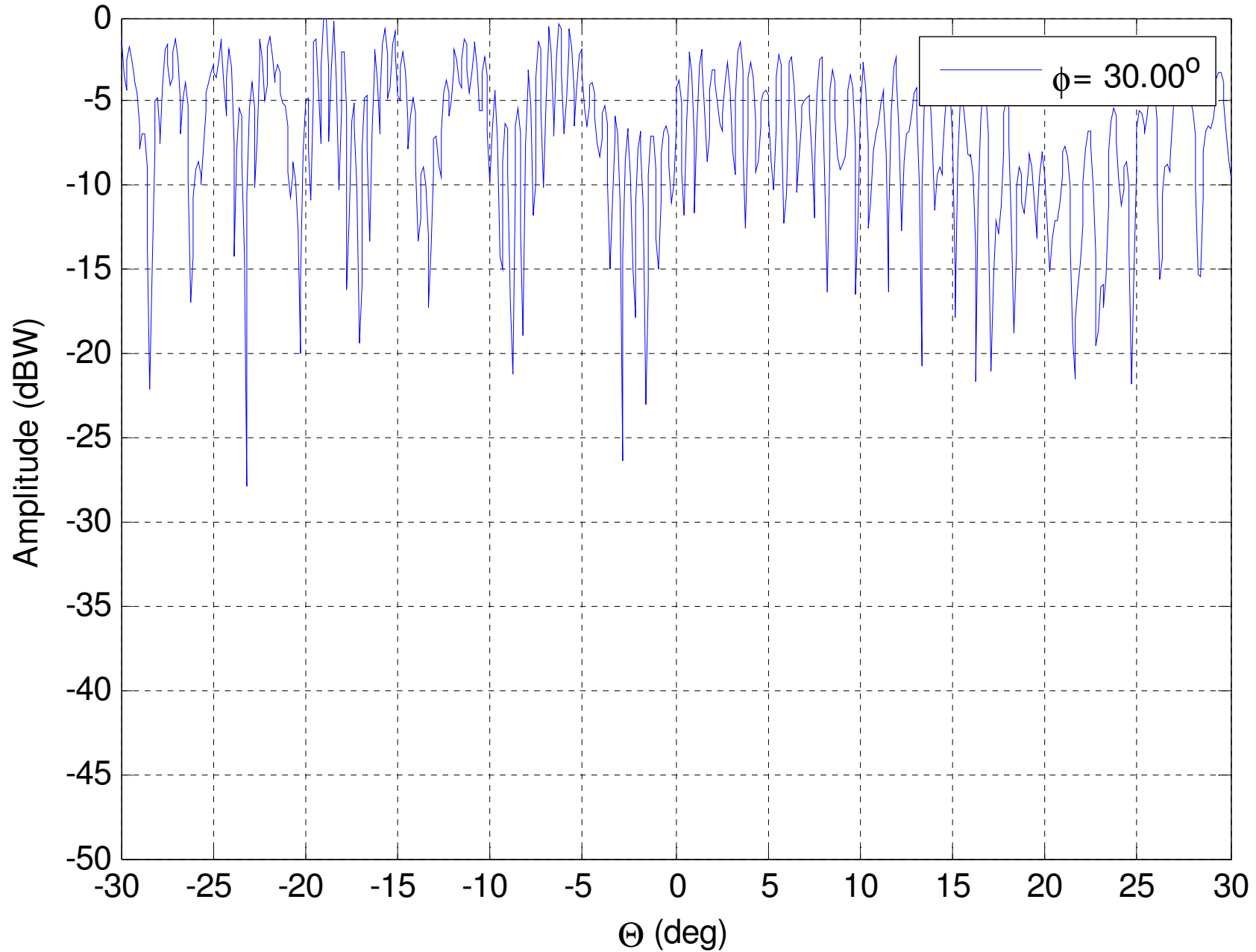
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-20.cut, Peak: -22.17 dBW, Date: 16-Dec-2011



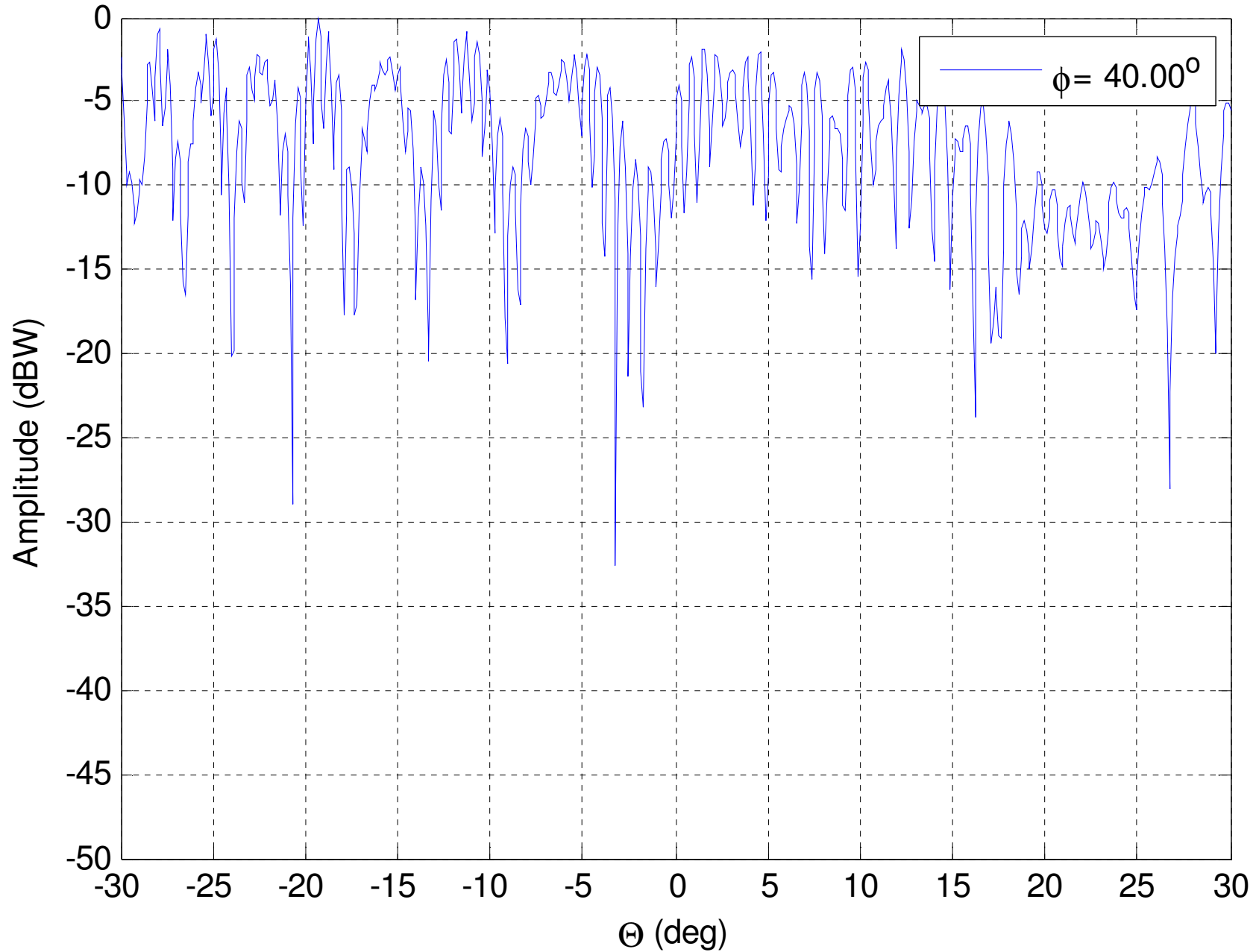
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-30.cut, Peak: -22.20 dBW, Date: 16-Dec-2011



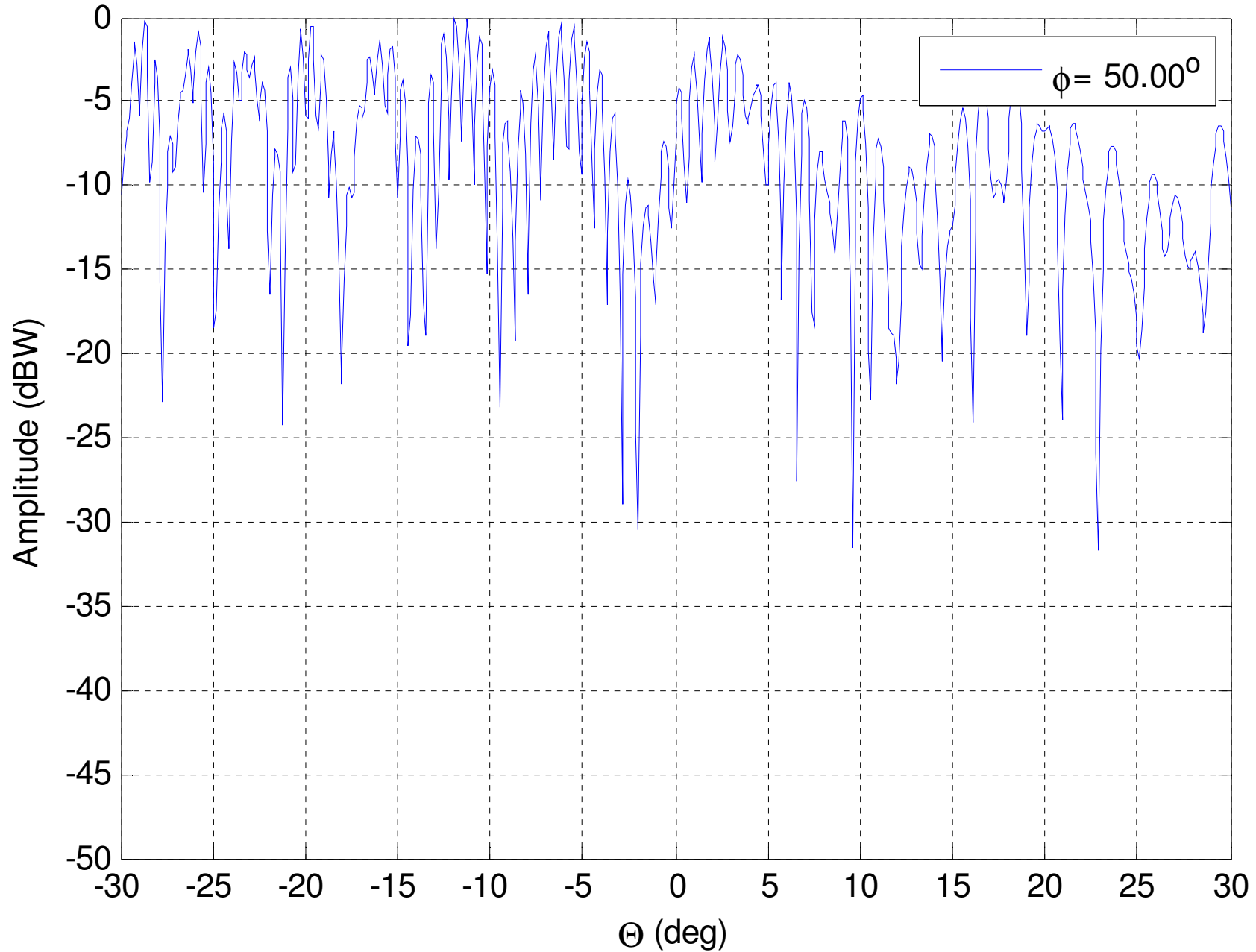
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-40.cut, Peak: -21.73 dBW, Date: 16-Dec-2011



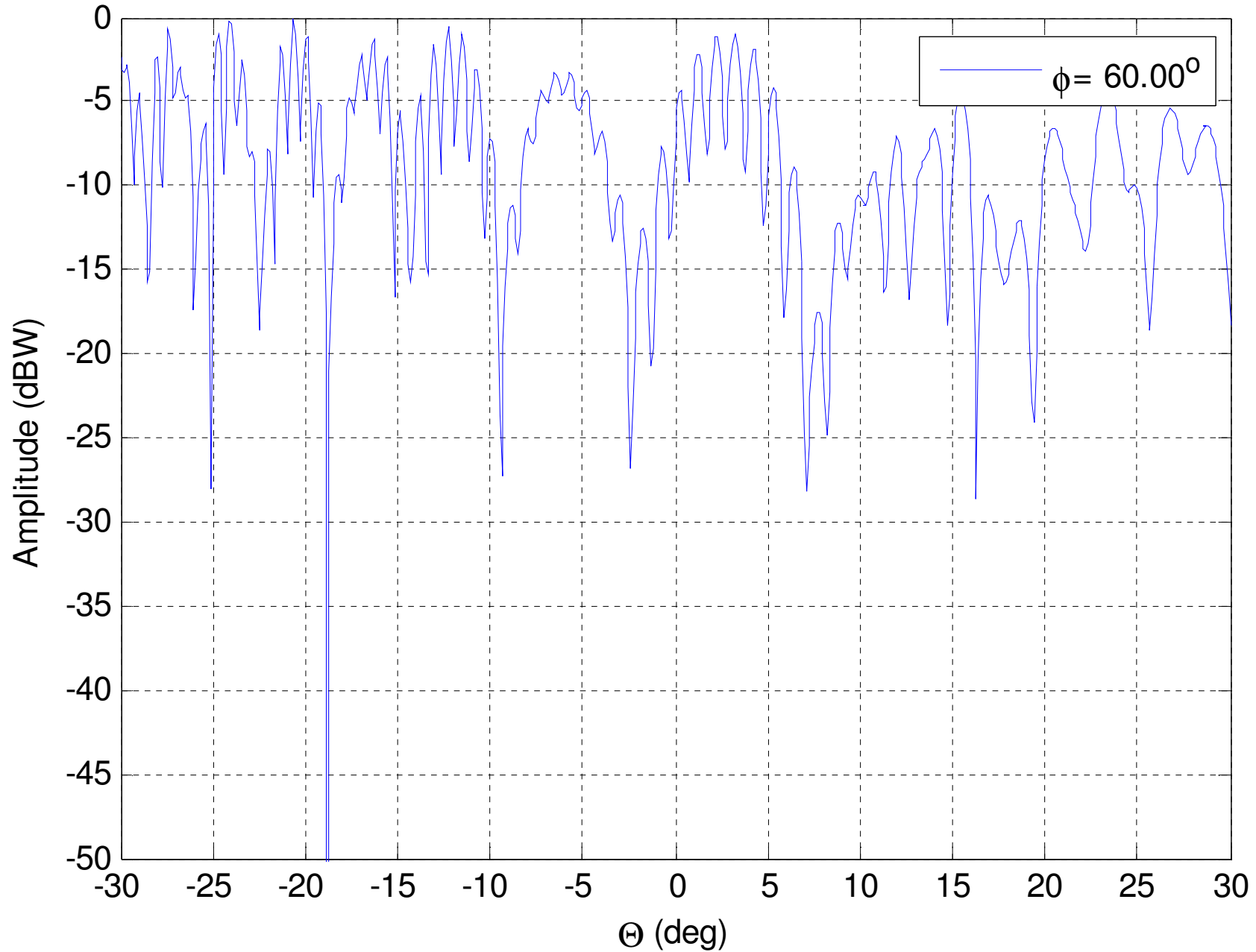
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-50.cut, Peak: -21.62 dBW, Date: 16-Dec-2011



Normalized pattern cuts - farfield

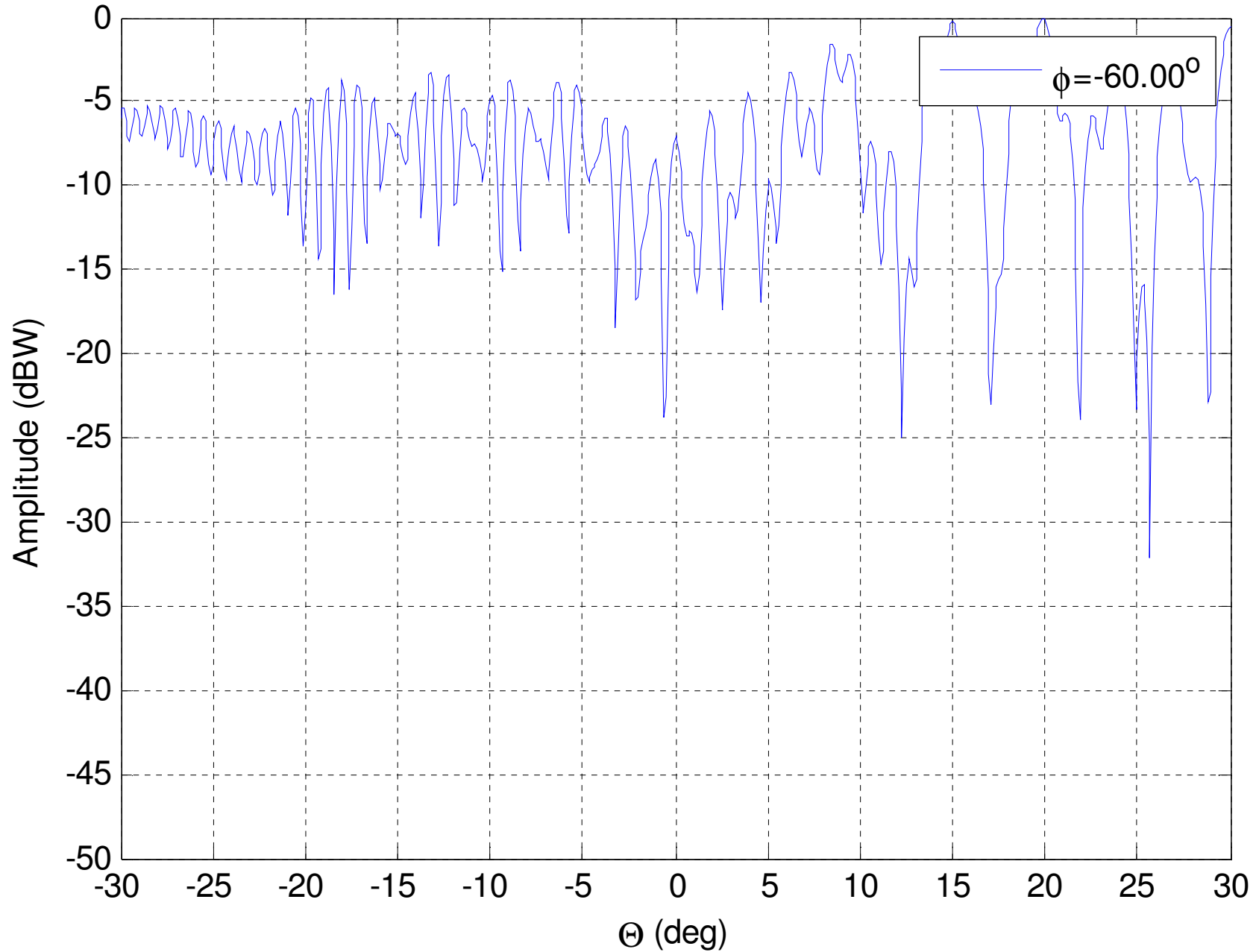
Input file: tx-17.5-rhcp-60.cut, Peak: -21.45 dBW, Date: 16-Dec-2011



LHCP at 17.5 GHz

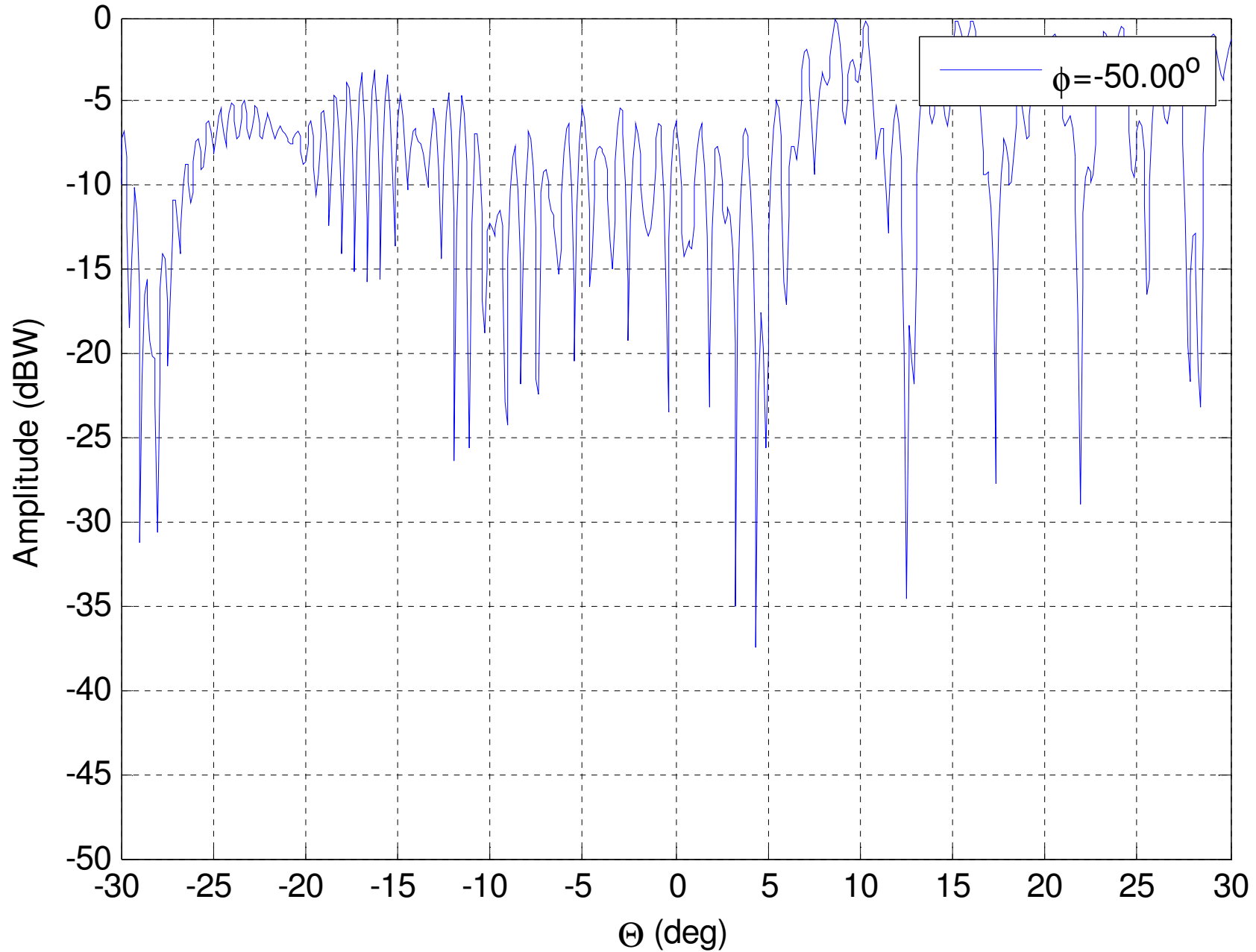
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--60.cut, Peak: -22.09 dBW, Date: 16-Dec-2011



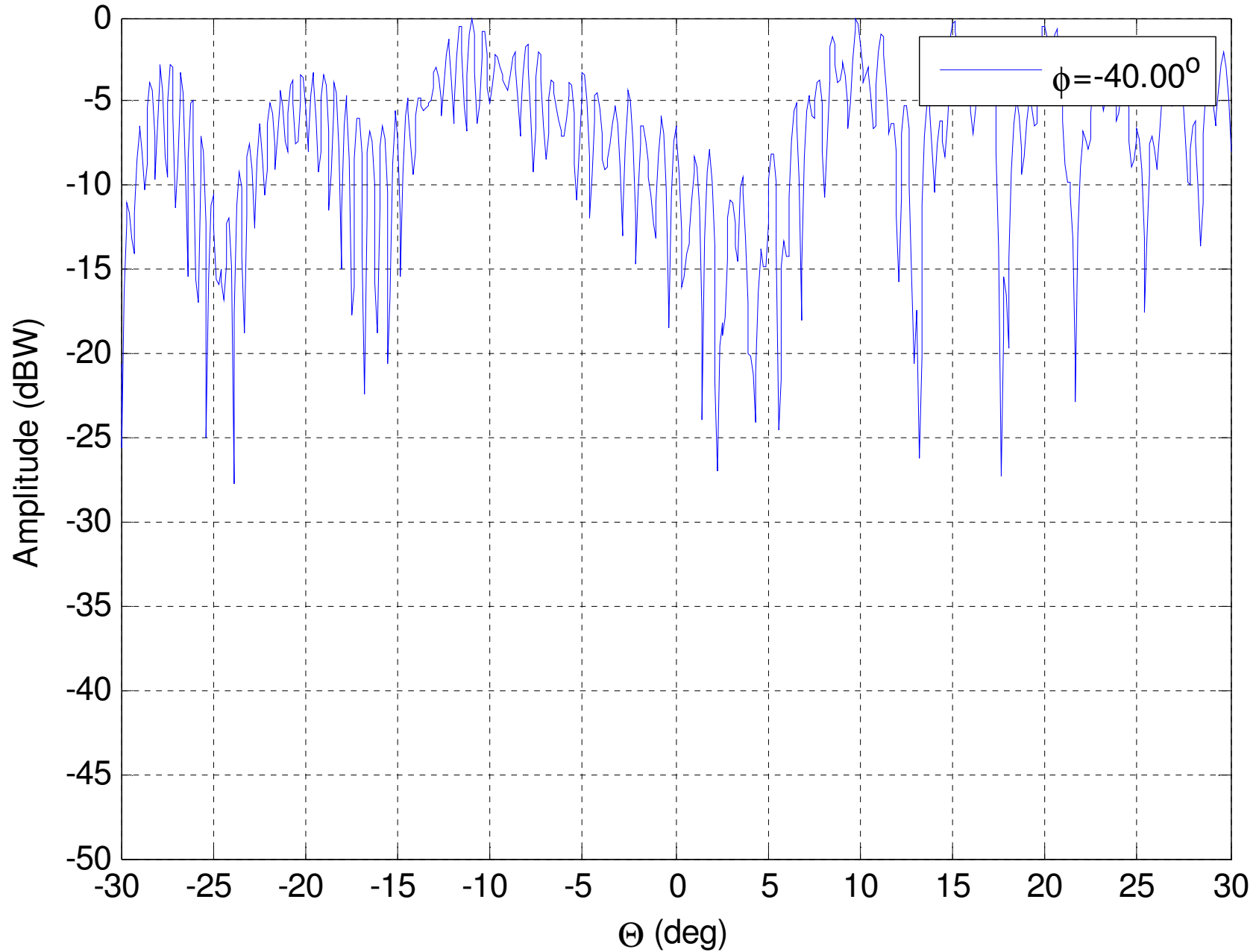
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--50.cut, Peak: -23.03 dBW, Date: 16-Dec-2011



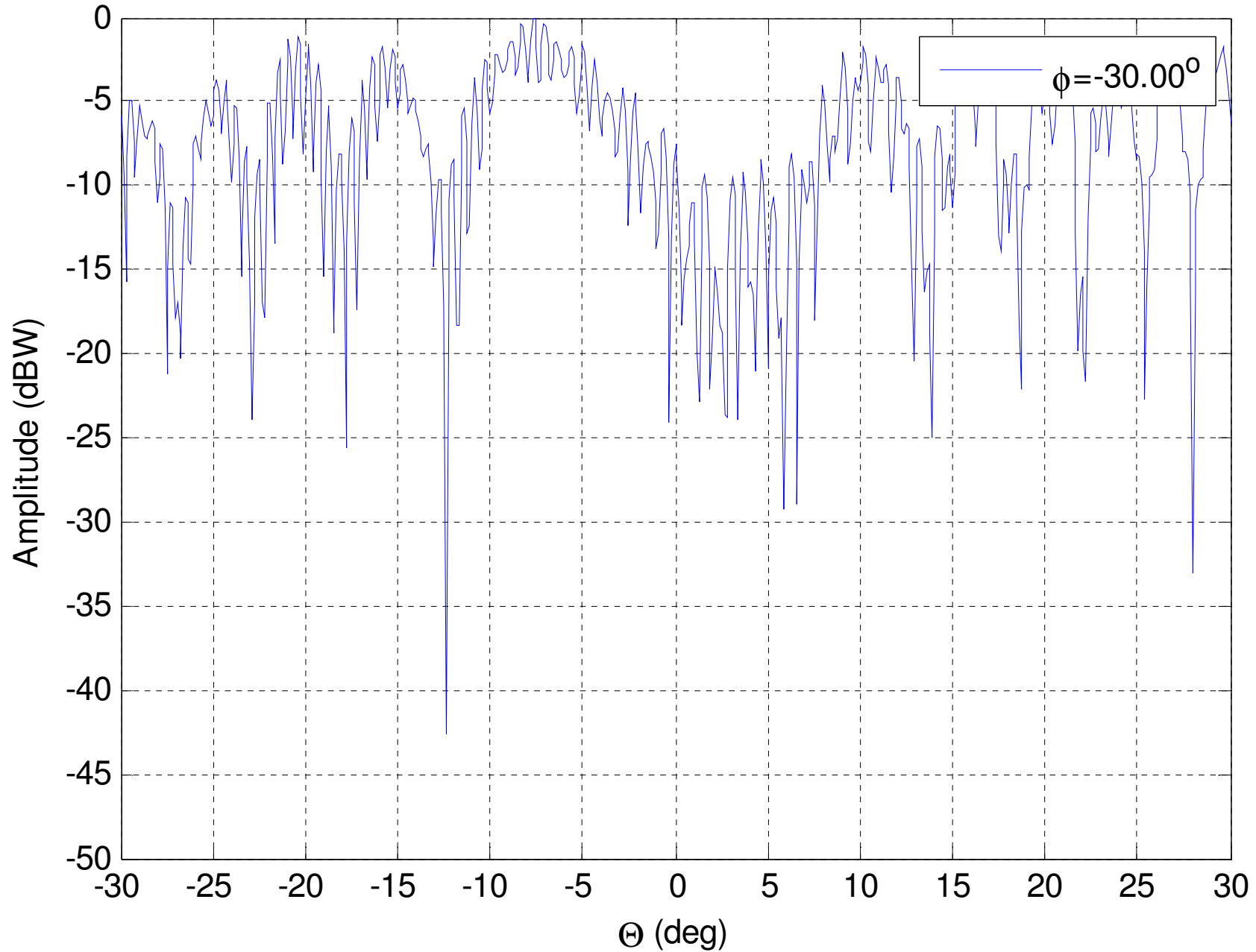
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--40.cut, Peak: -22.68 dBW, Date: 16-Dec-2011



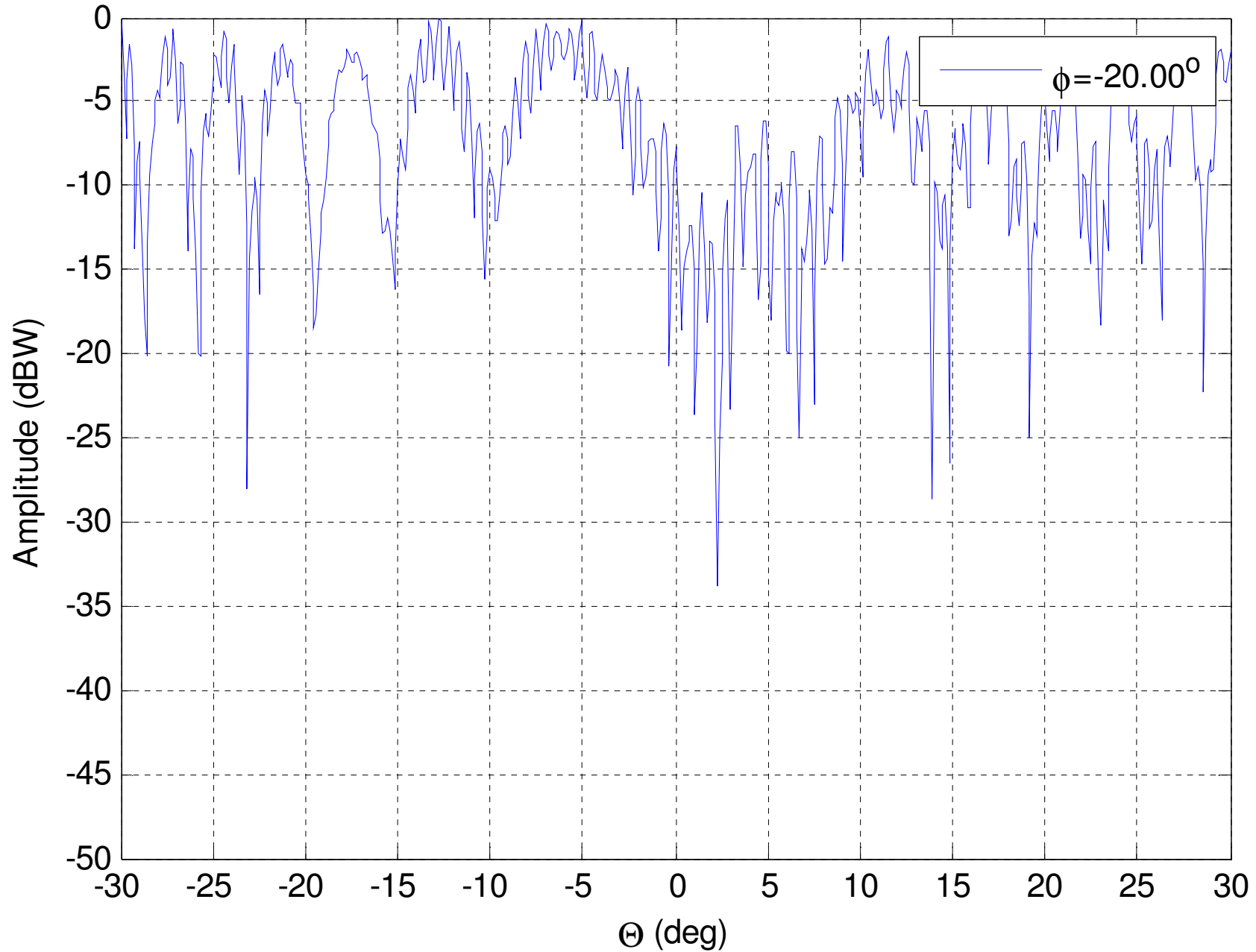
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--30.cut, Peak: -21.56 dBW, Date: 16-Dec-2011



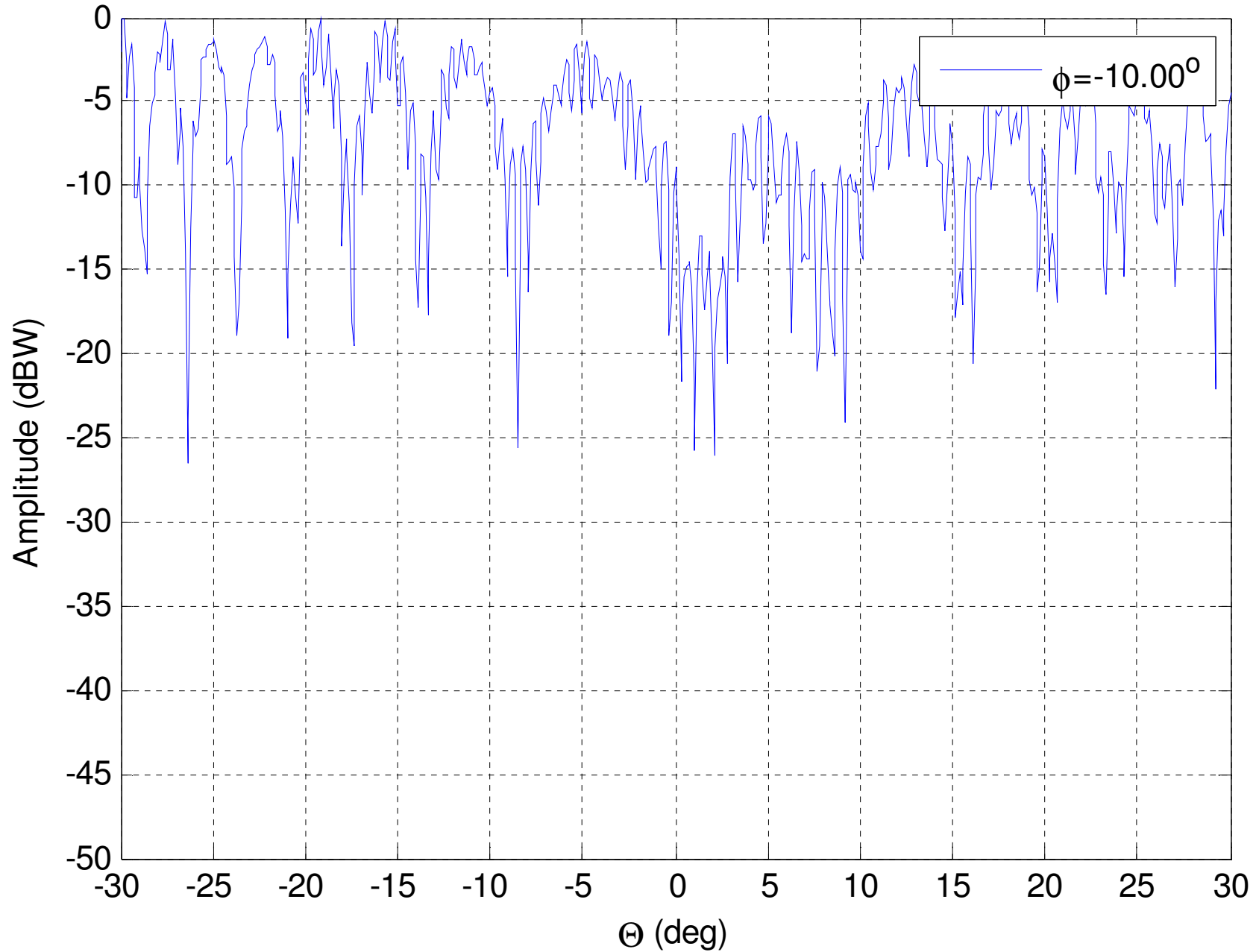
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--20.cut, Peak: -21.47 dBW, Date: 16-Dec-2011



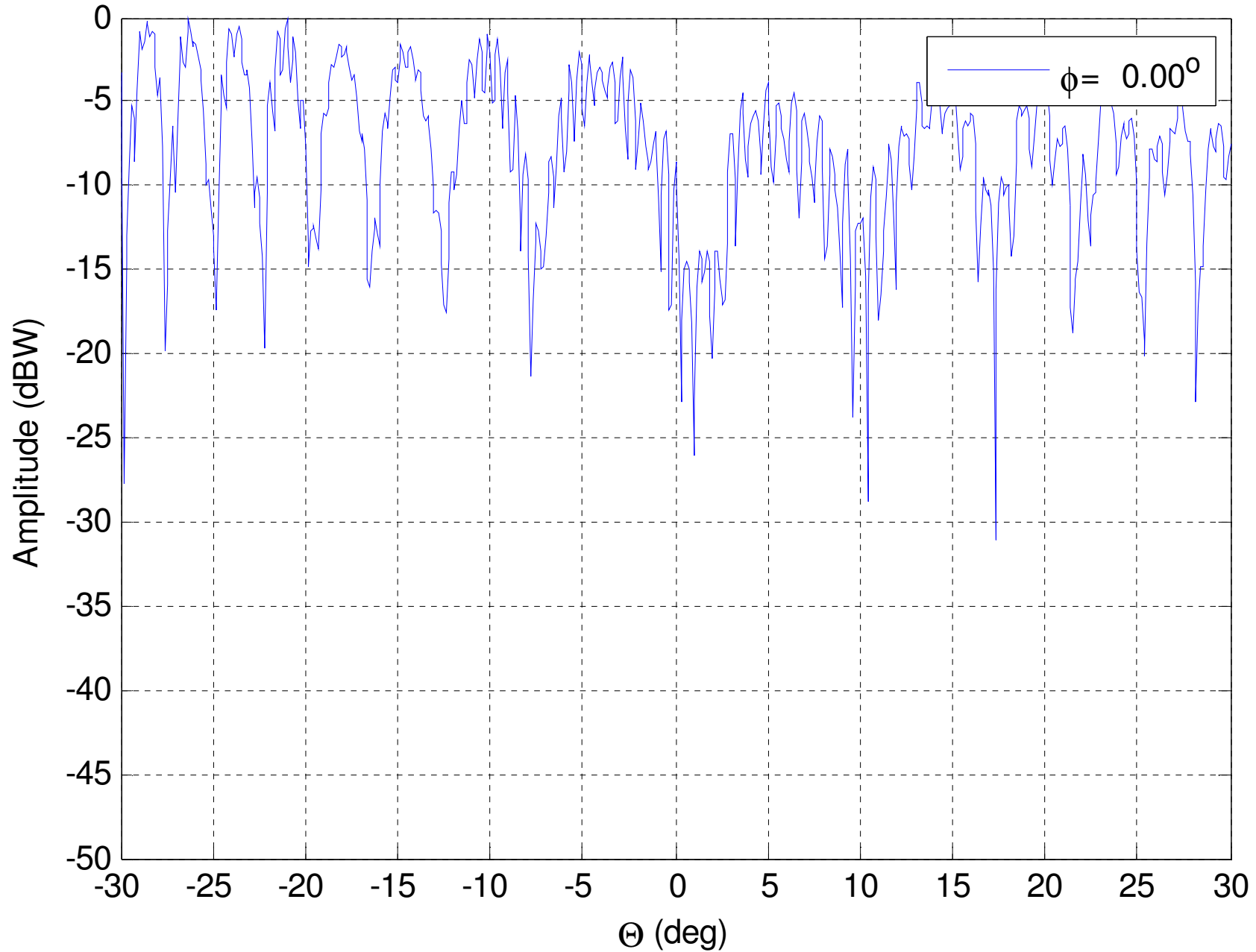
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--10.cut, Peak: -20.29 dBW, Date: 16-Dec-2011



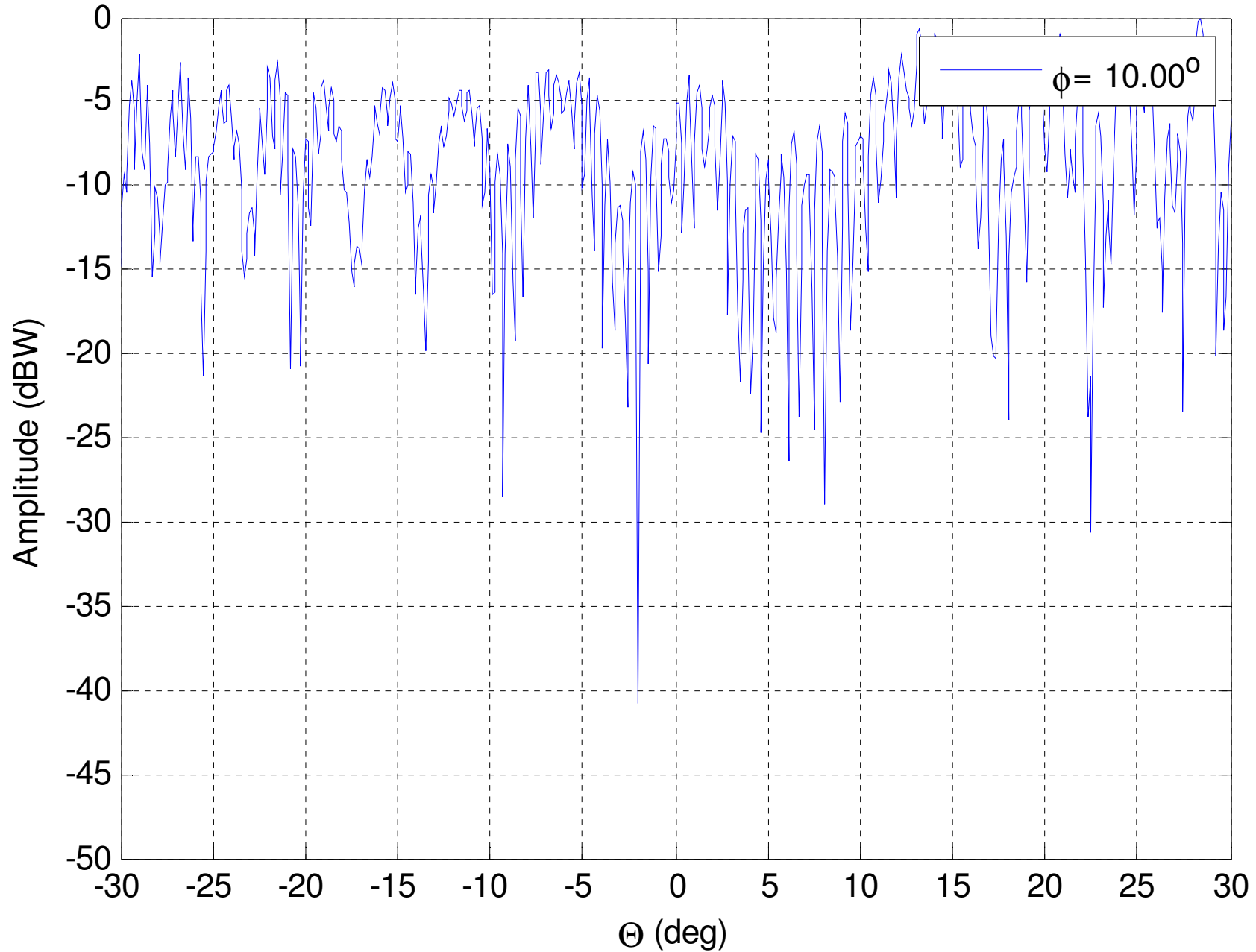
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-0.cut, Peak: -20.54 dBW, Date: 16-Dec-2011



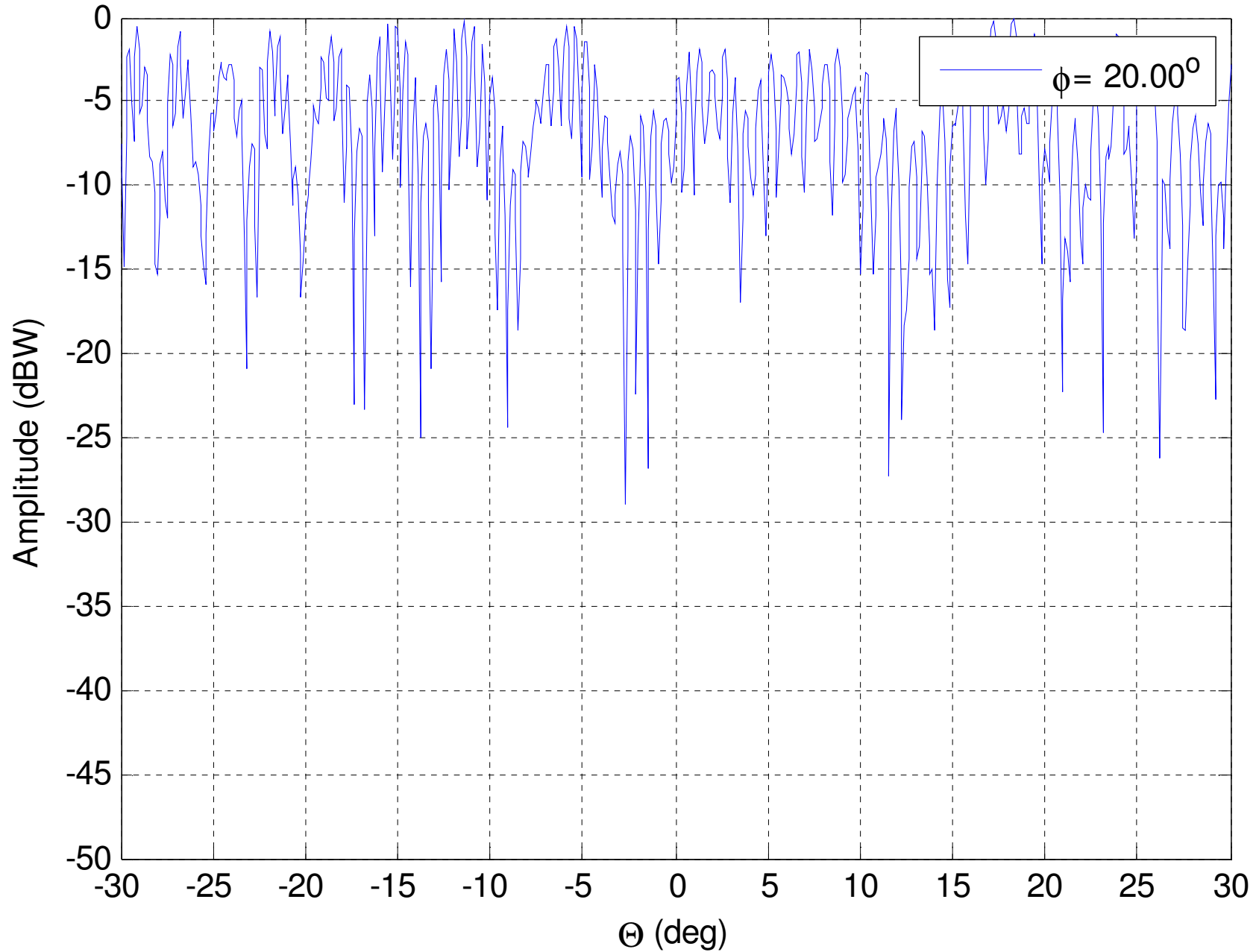
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-10.cut, Peak: -20.62 dBW, Date: 16-Dec-2011



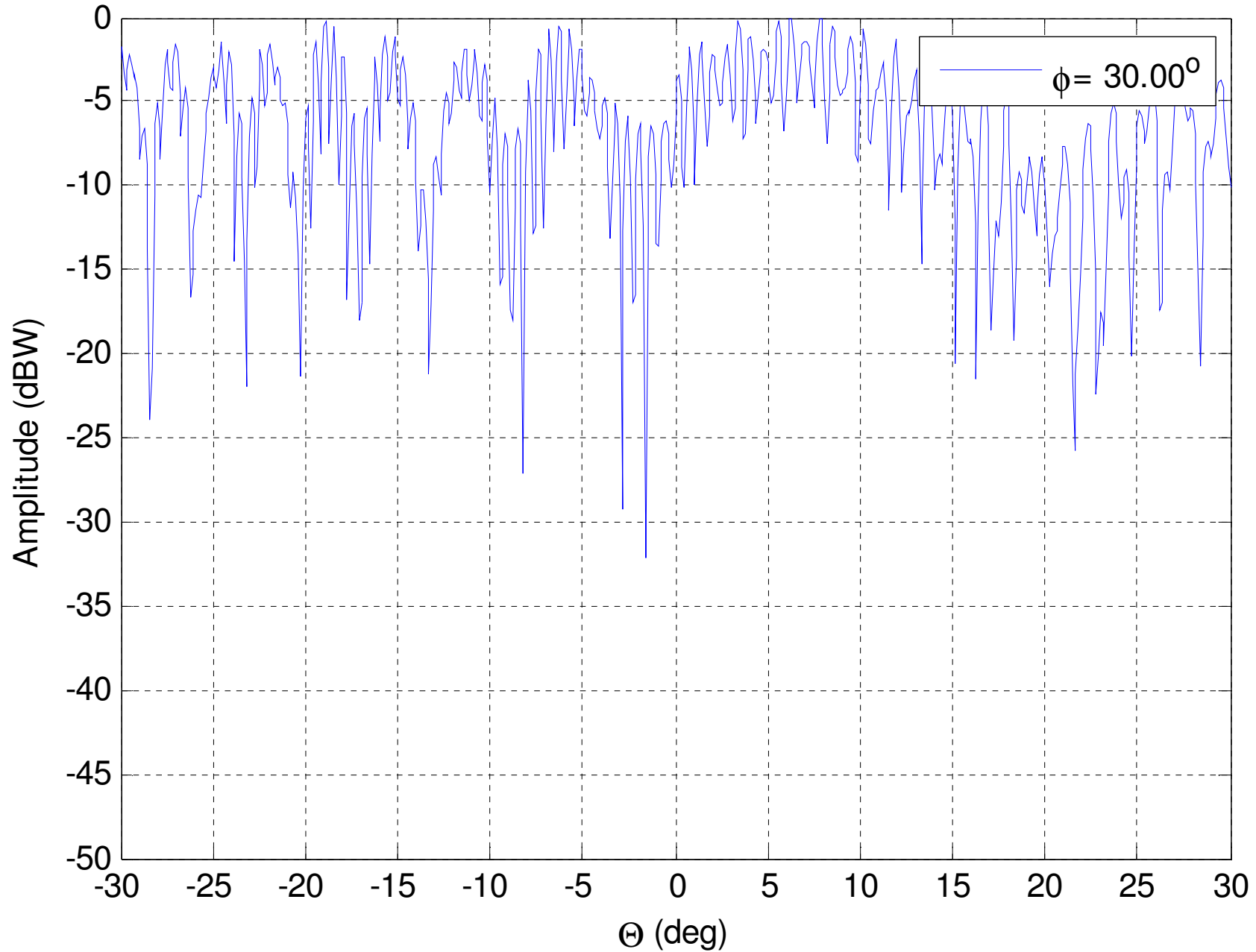
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-20.cut, Peak: -22.06 dBW, Date: 16-Dec-2011



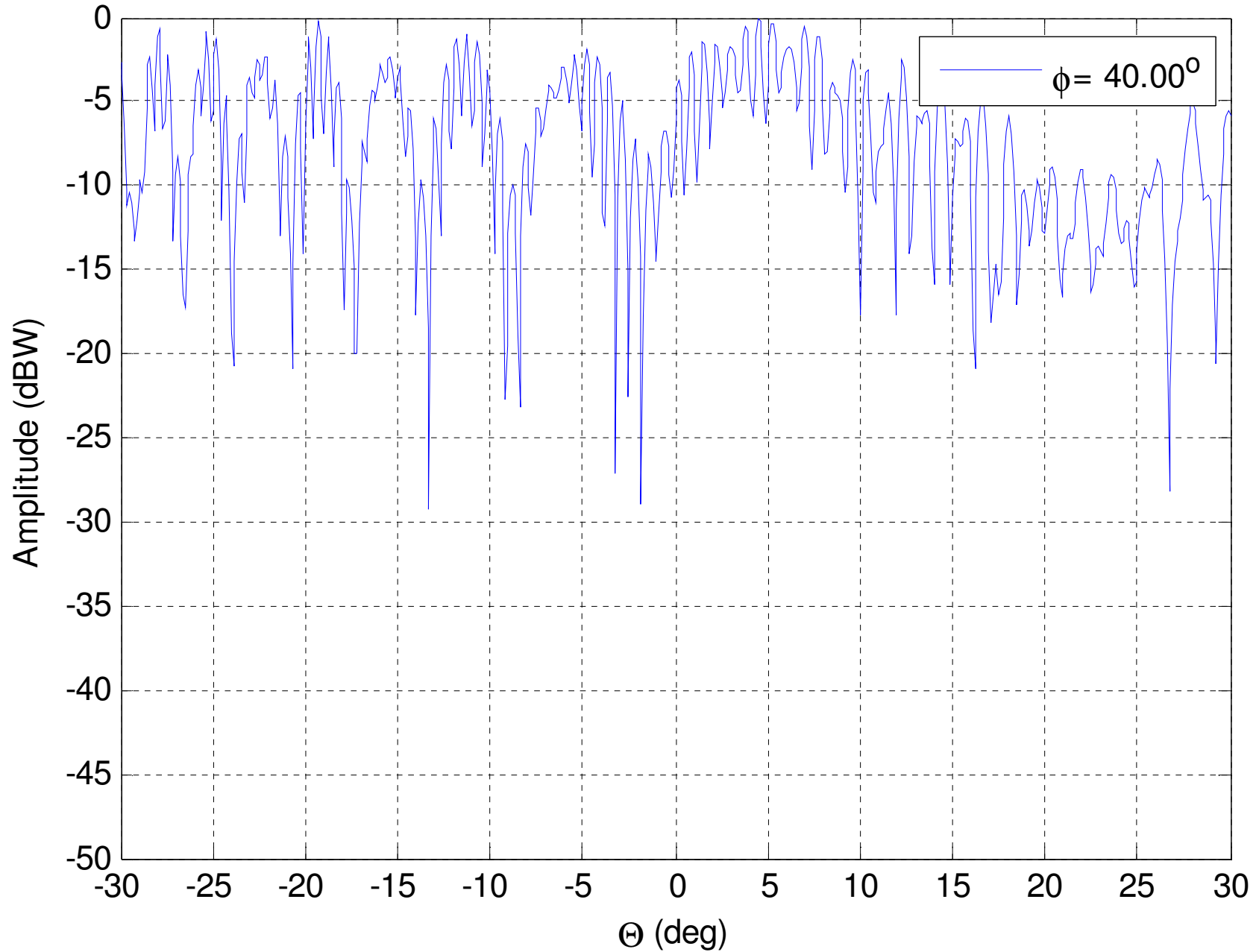
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-30.cut, Peak: -22.14 dBW, Date: 16-Dec-2011



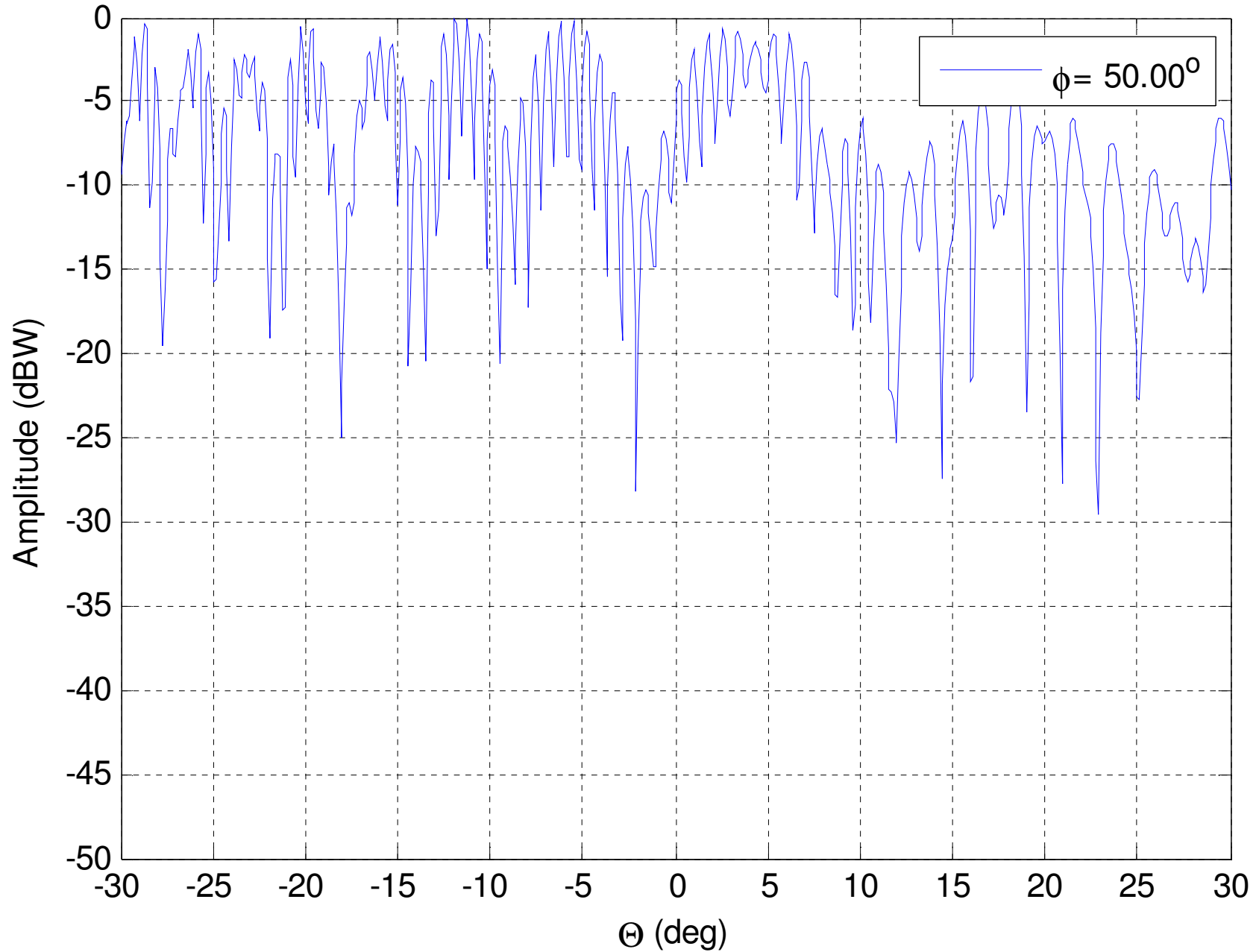
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-40.cut, Peak: -21.79 dBW, Date: 16-Dec-2011



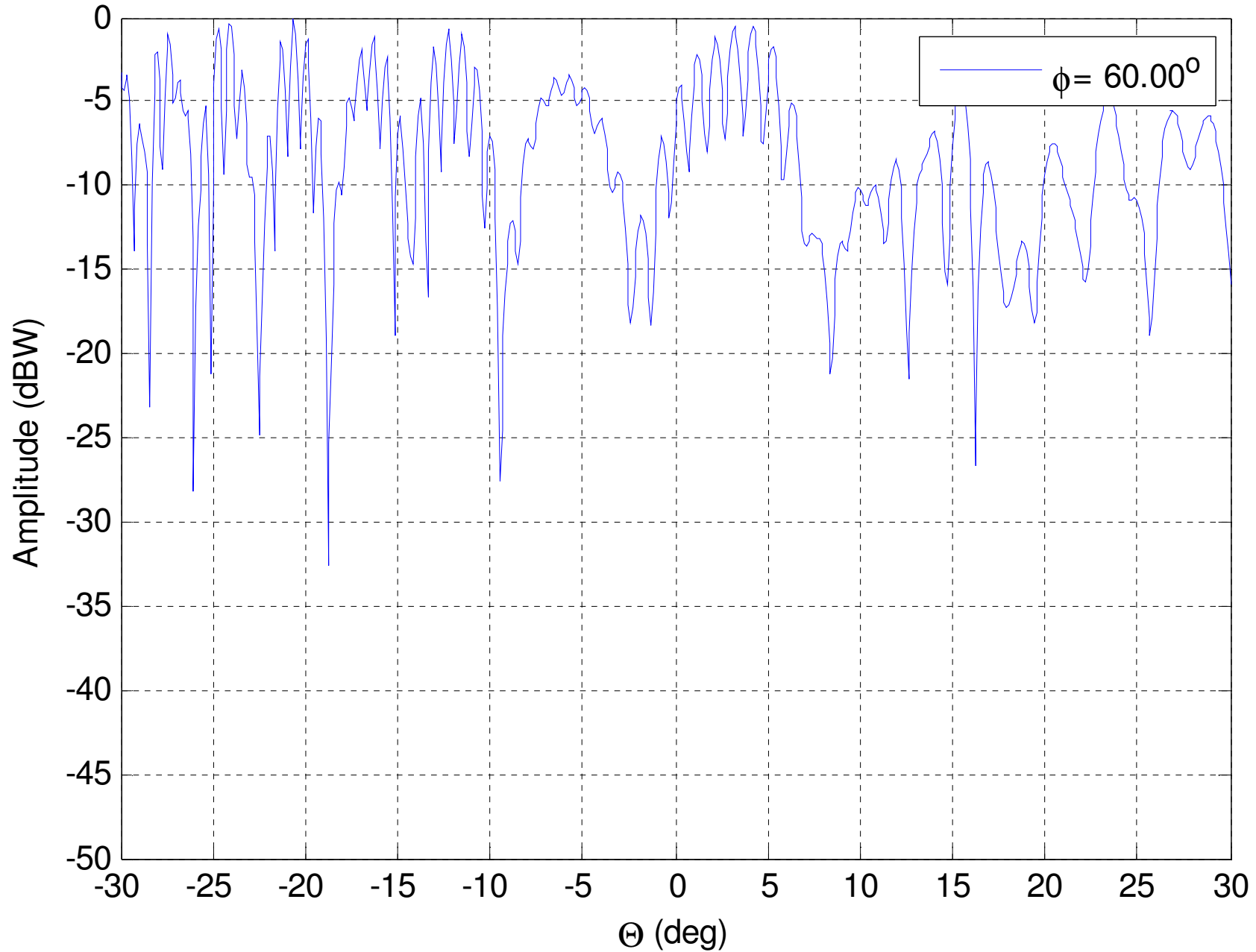
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-50.cut, Peak: -21.81 dBW, Date: 16-Dec-2011



Normalized pattern cuts - farfield

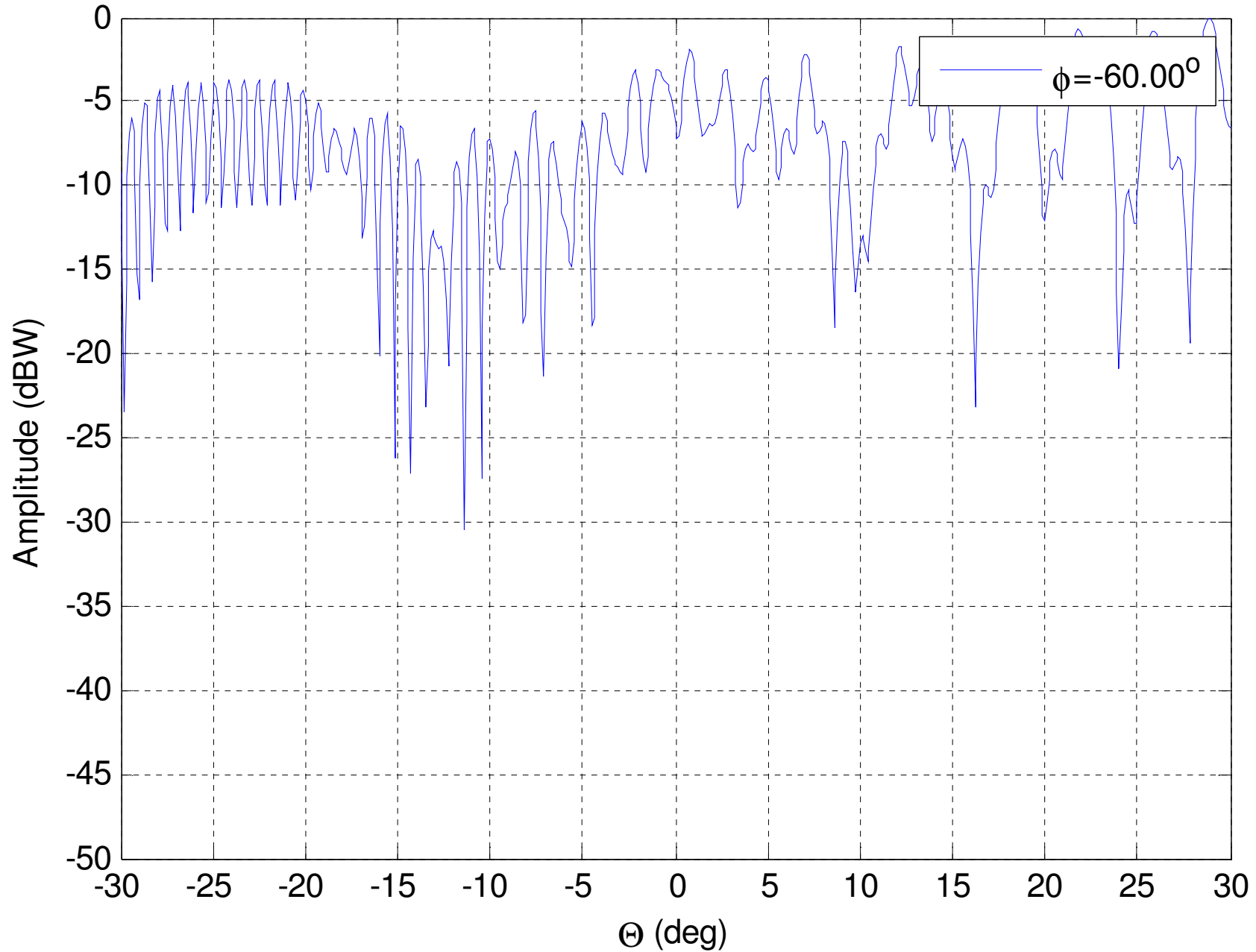
Input file: tx-17.5-lhcp-60.cut, Peak: -21.48 dBW, Date: 16-Dec-2011



RHCP at 17.7 GHz

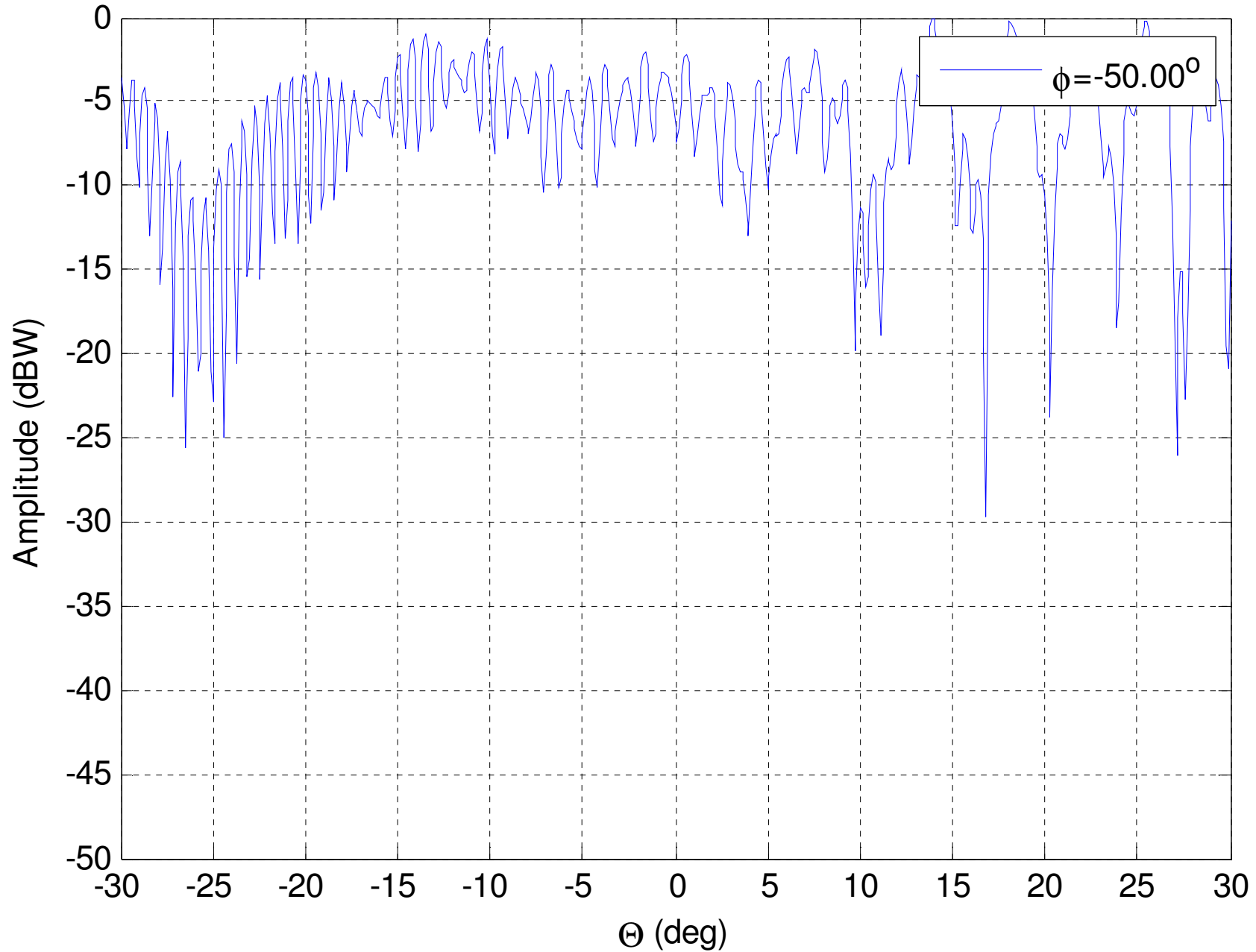
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--60.cut, Peak: -22.62 dBW, Date: 16-Dec-2011



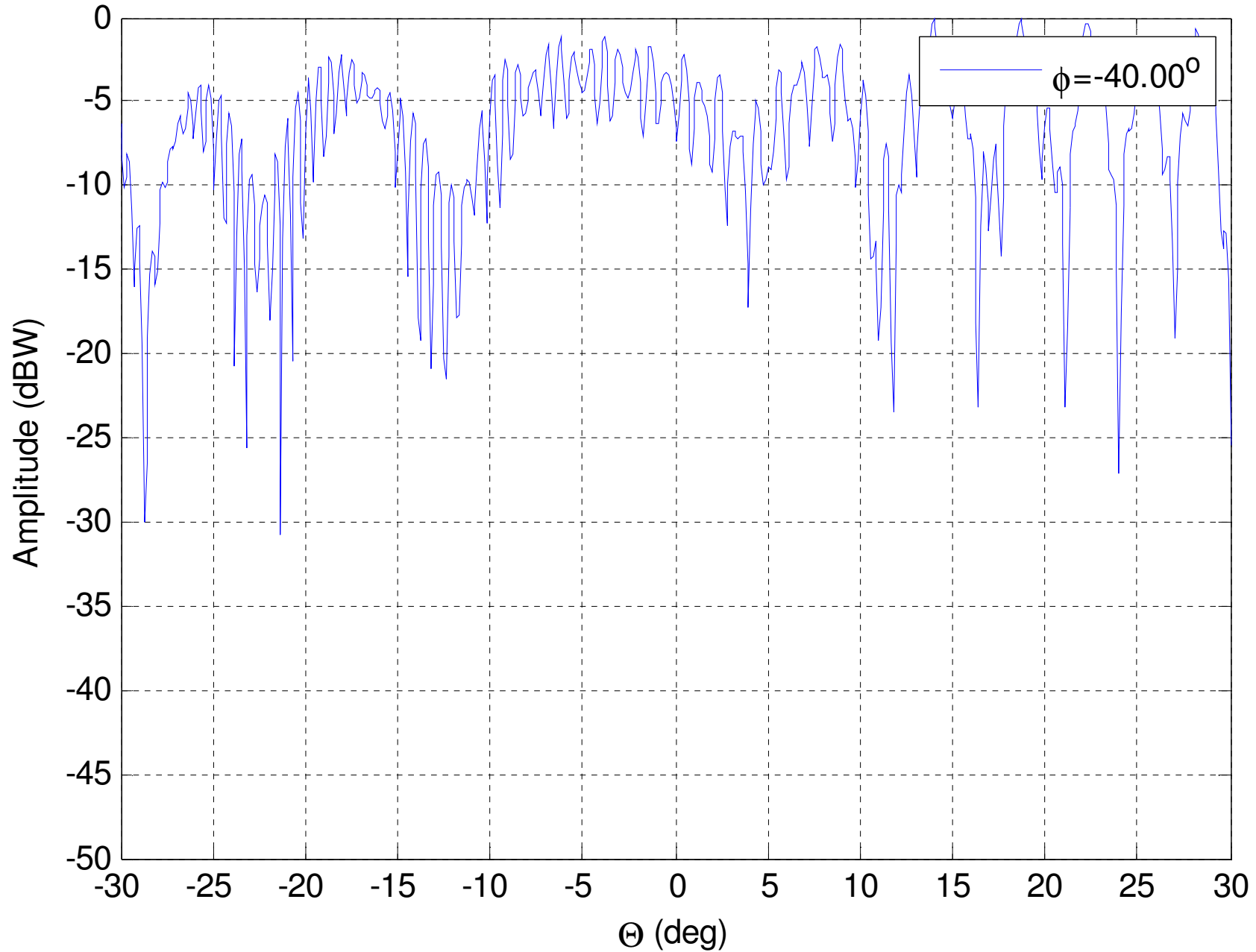
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--50.cut, Peak: -22.46 dBW, Date: 16-Dec-2011



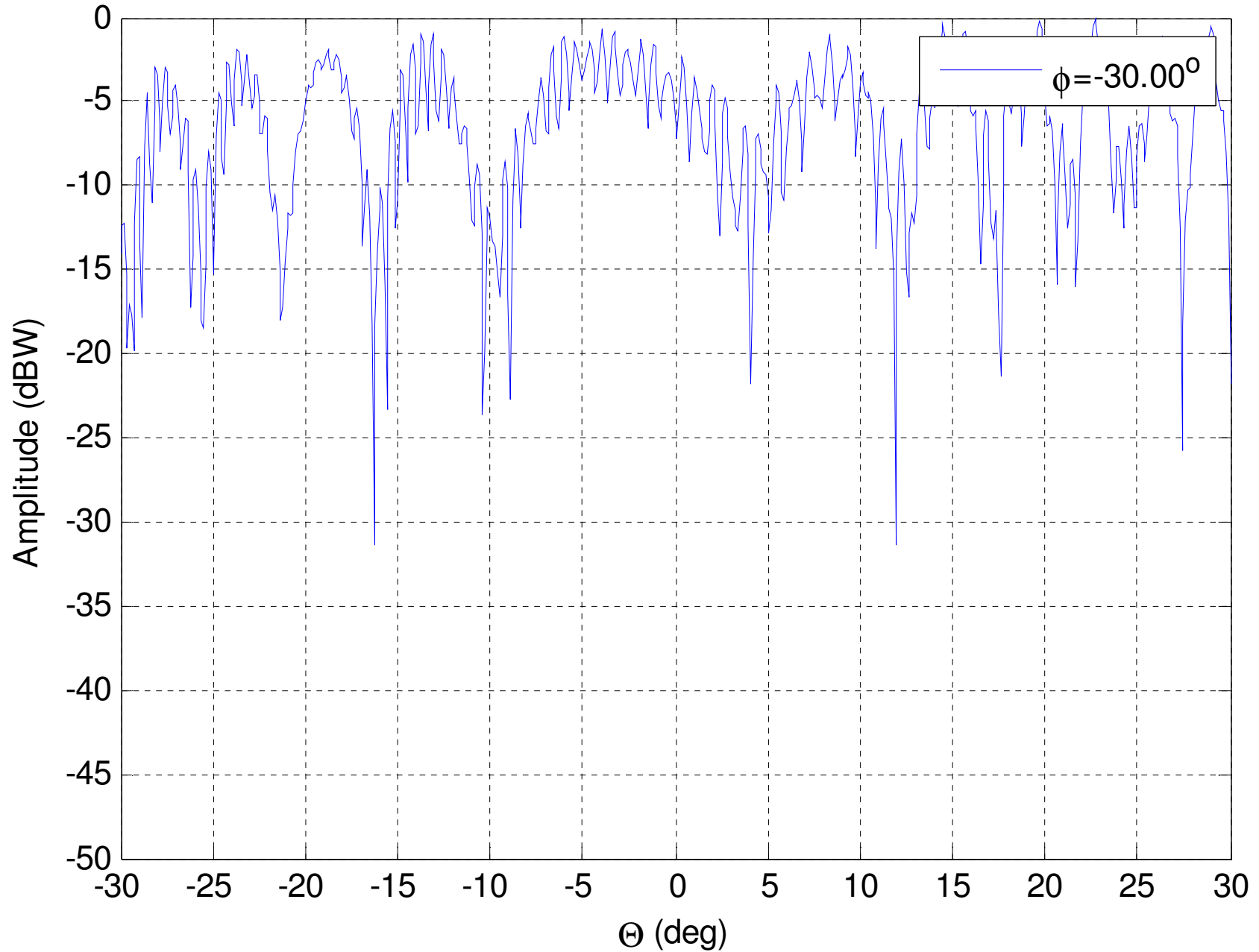
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--40.cut, Peak: -22.46 dBW, Date: 16-Dec-2011



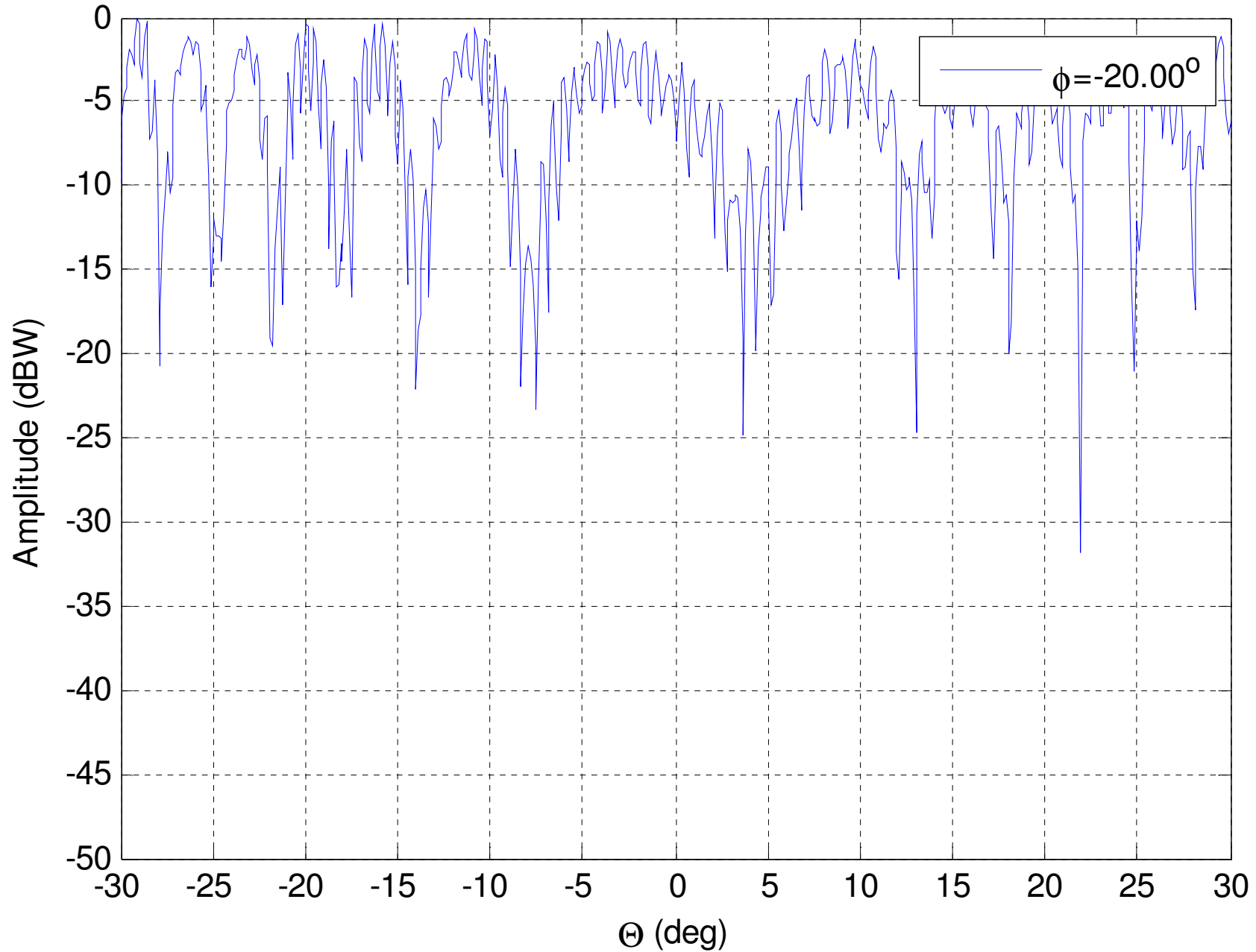
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--30.cut, Peak: -22.43 dBW, Date: 16-Dec-2011



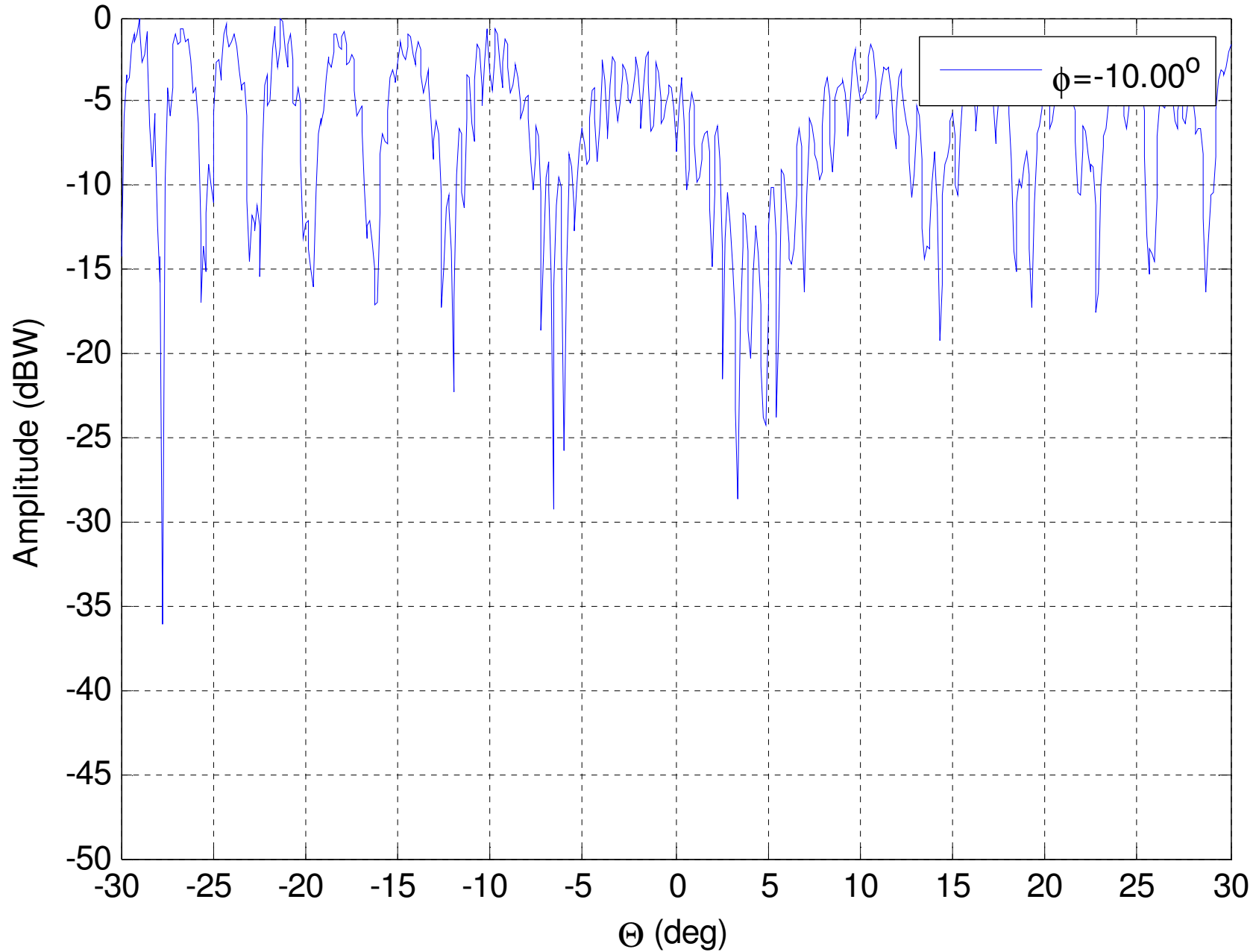
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--20.cut, Peak: -22.20 dBW, Date: 16-Dec-2011



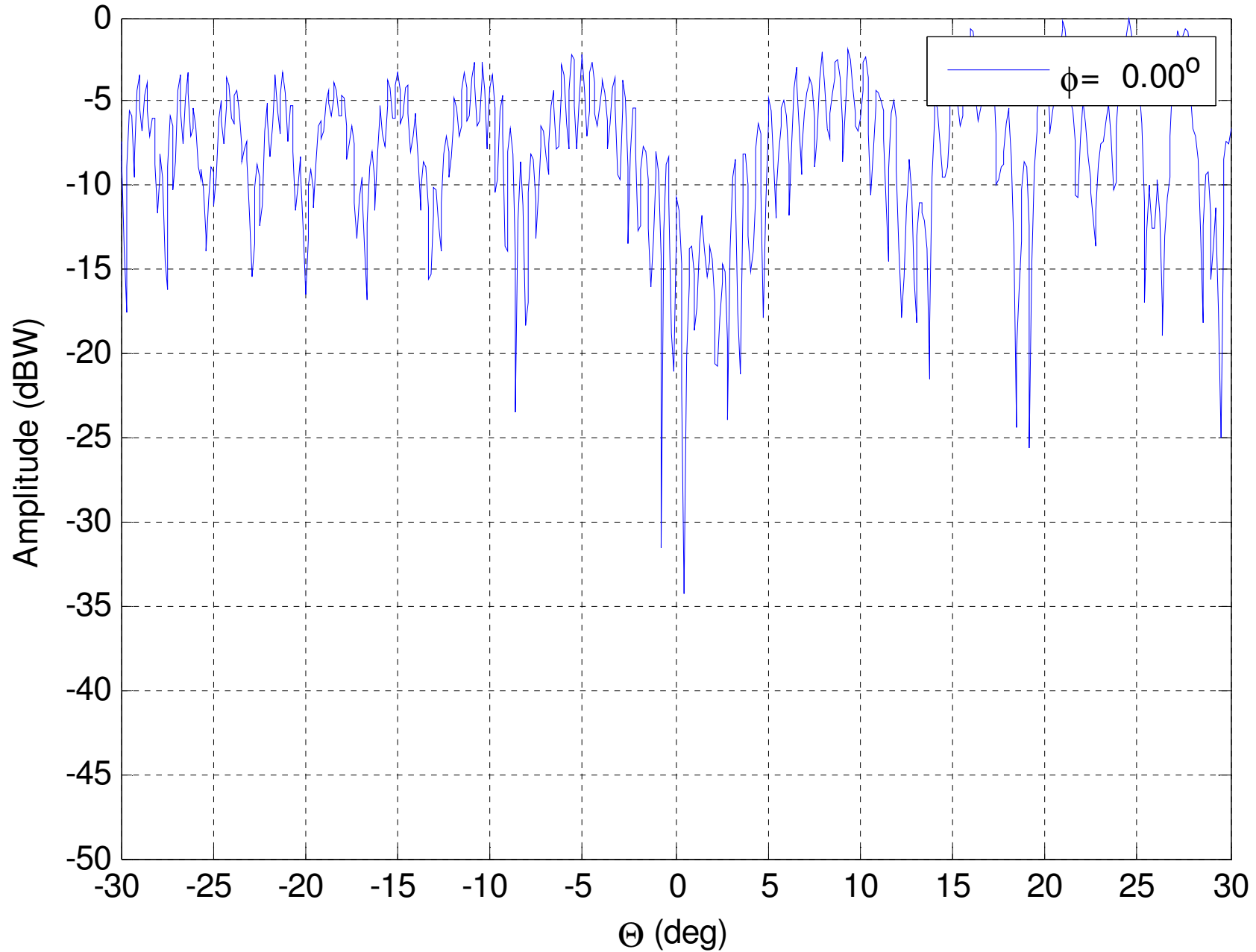
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--10.cut, Peak: -21.44 dBW, Date: 16-Dec-2011



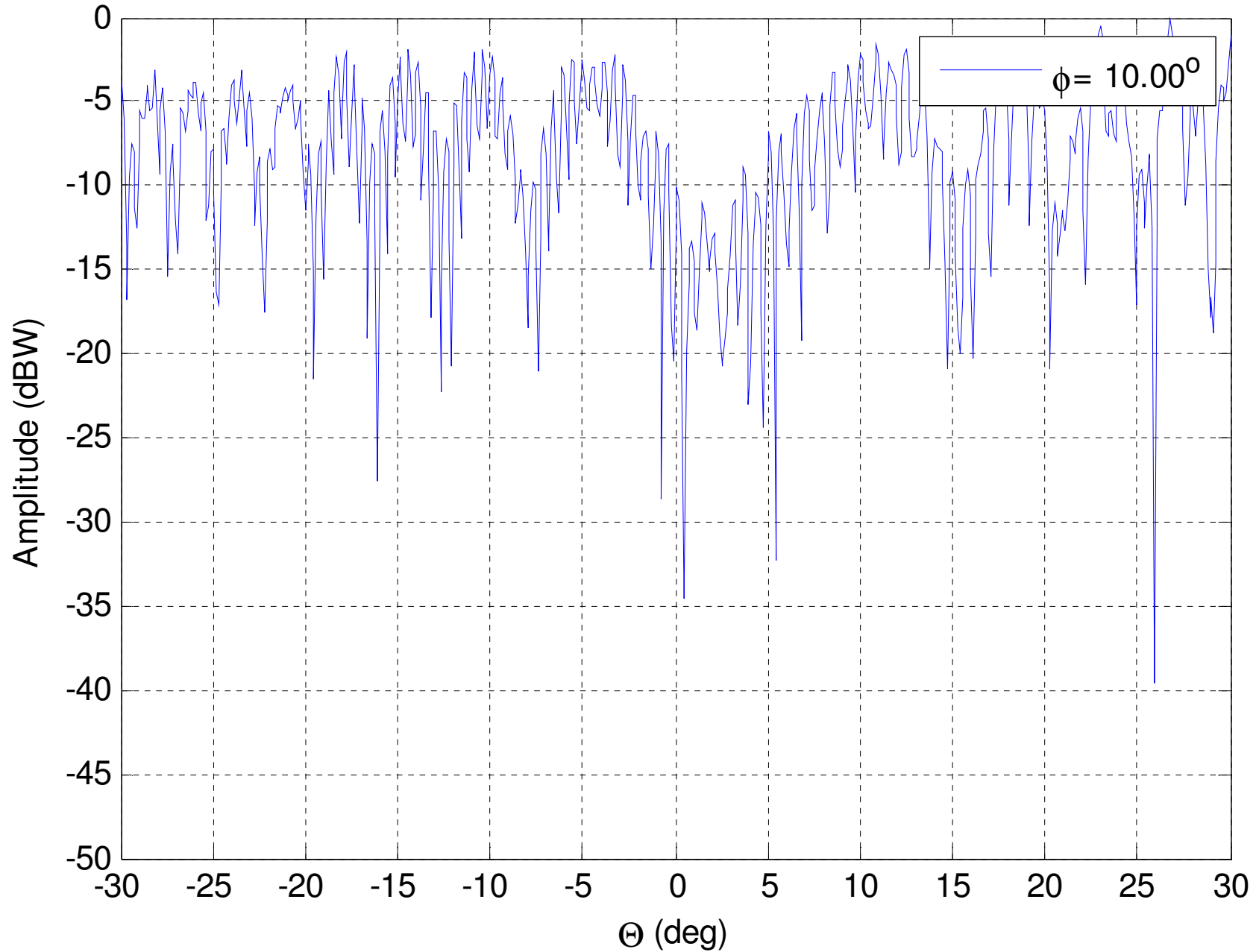
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-0.cut, Peak: -20.61 dBW, Date: 16-Dec-2011



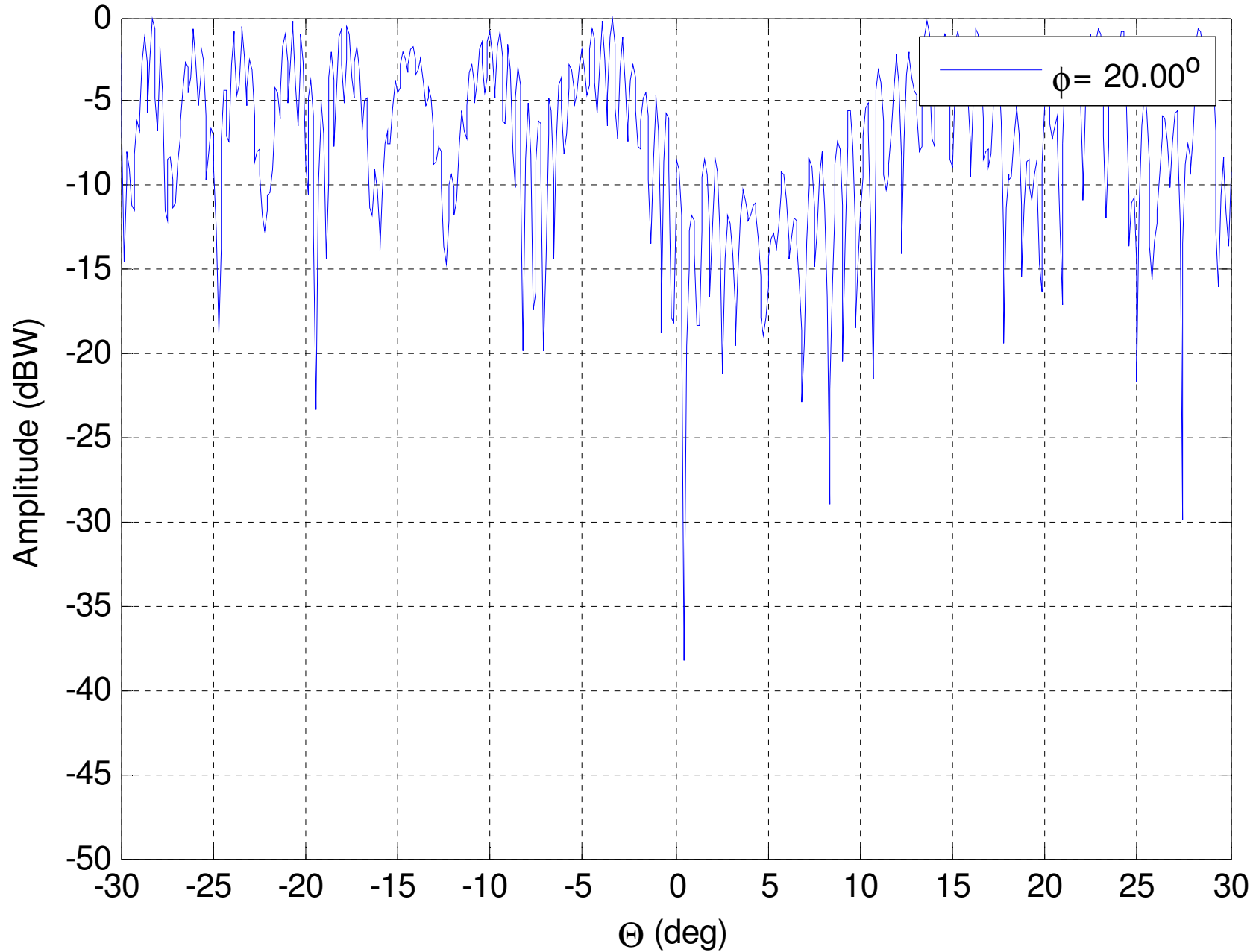
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-10.cut, Peak: -21.21 dBW, Date: 16-Dec-2011



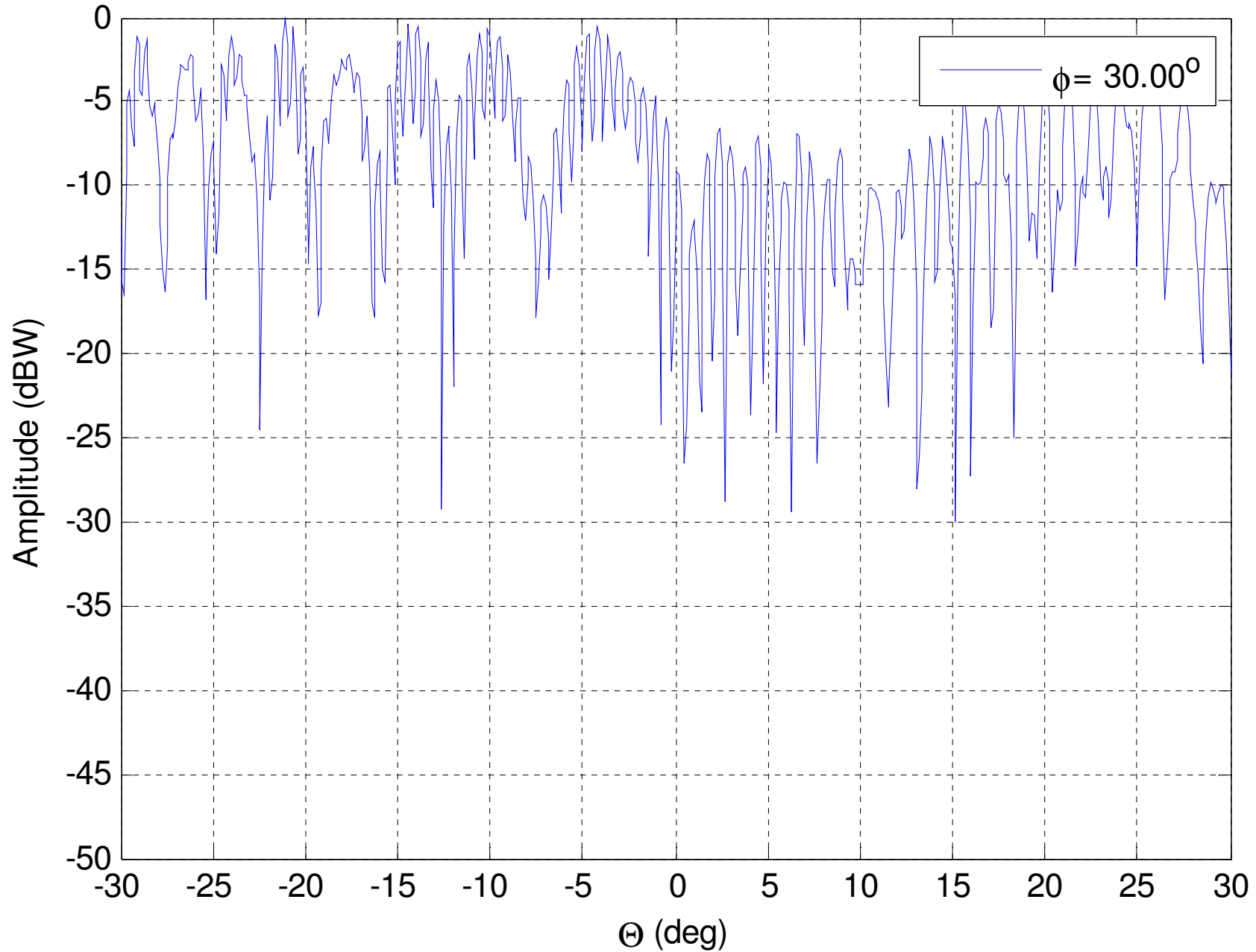
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-20.cut, Peak: -22.91 dBW, Date: 16-Dec-2011



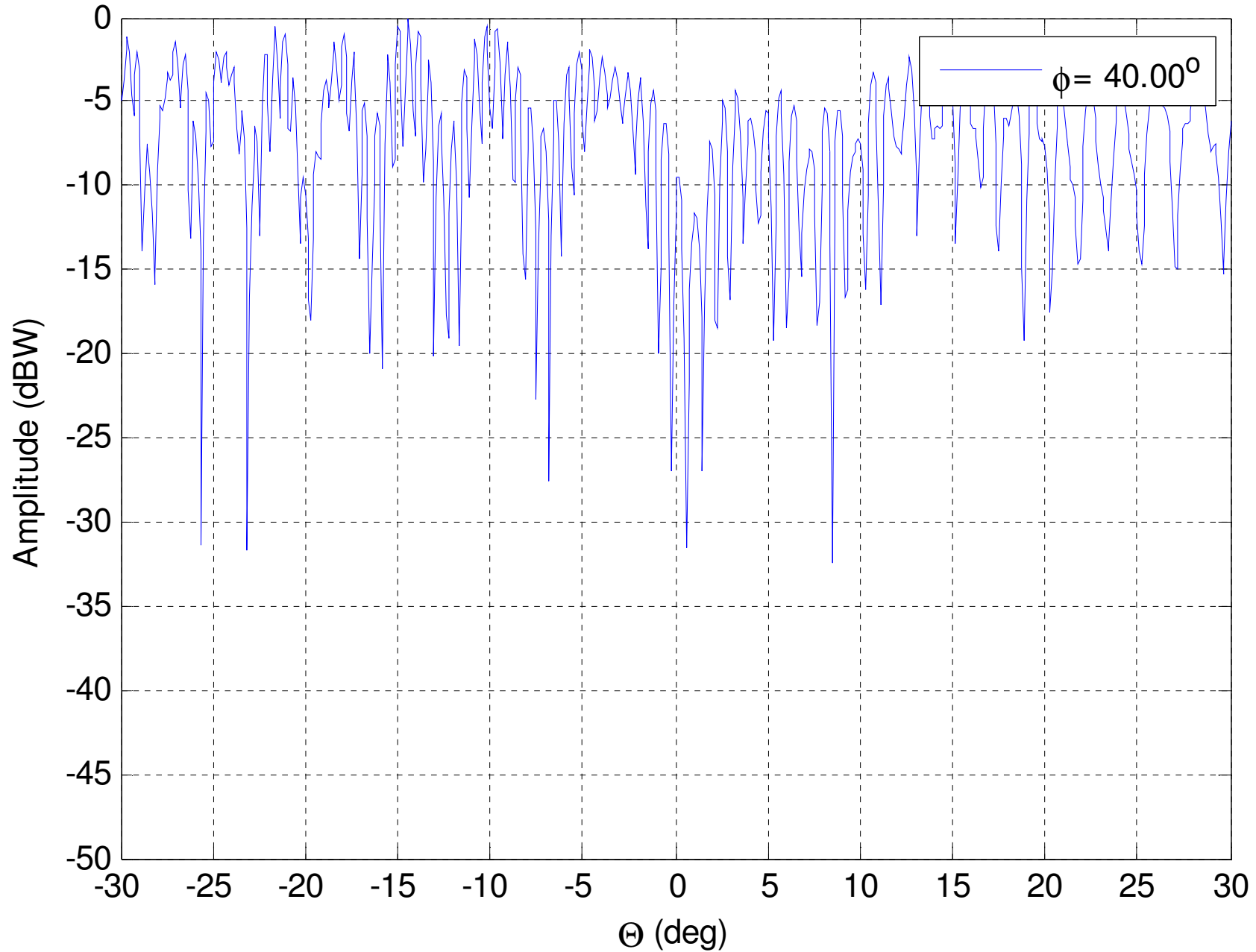
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-30.cut, Peak: -22.30 dBW, Date: 16-Dec-2011



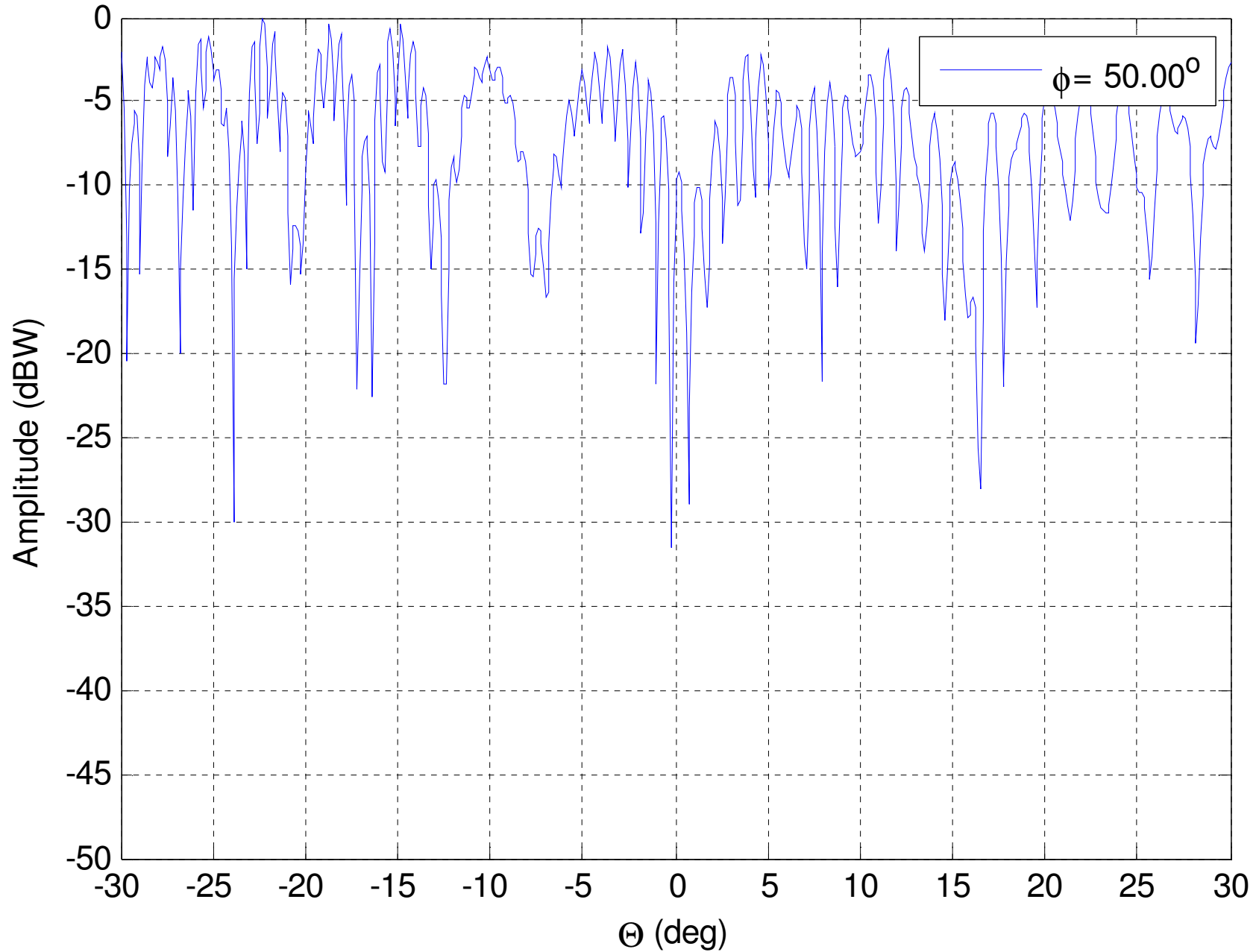
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-40.cut, Peak: -22.02 dBW, Date: 16-Dec-2011



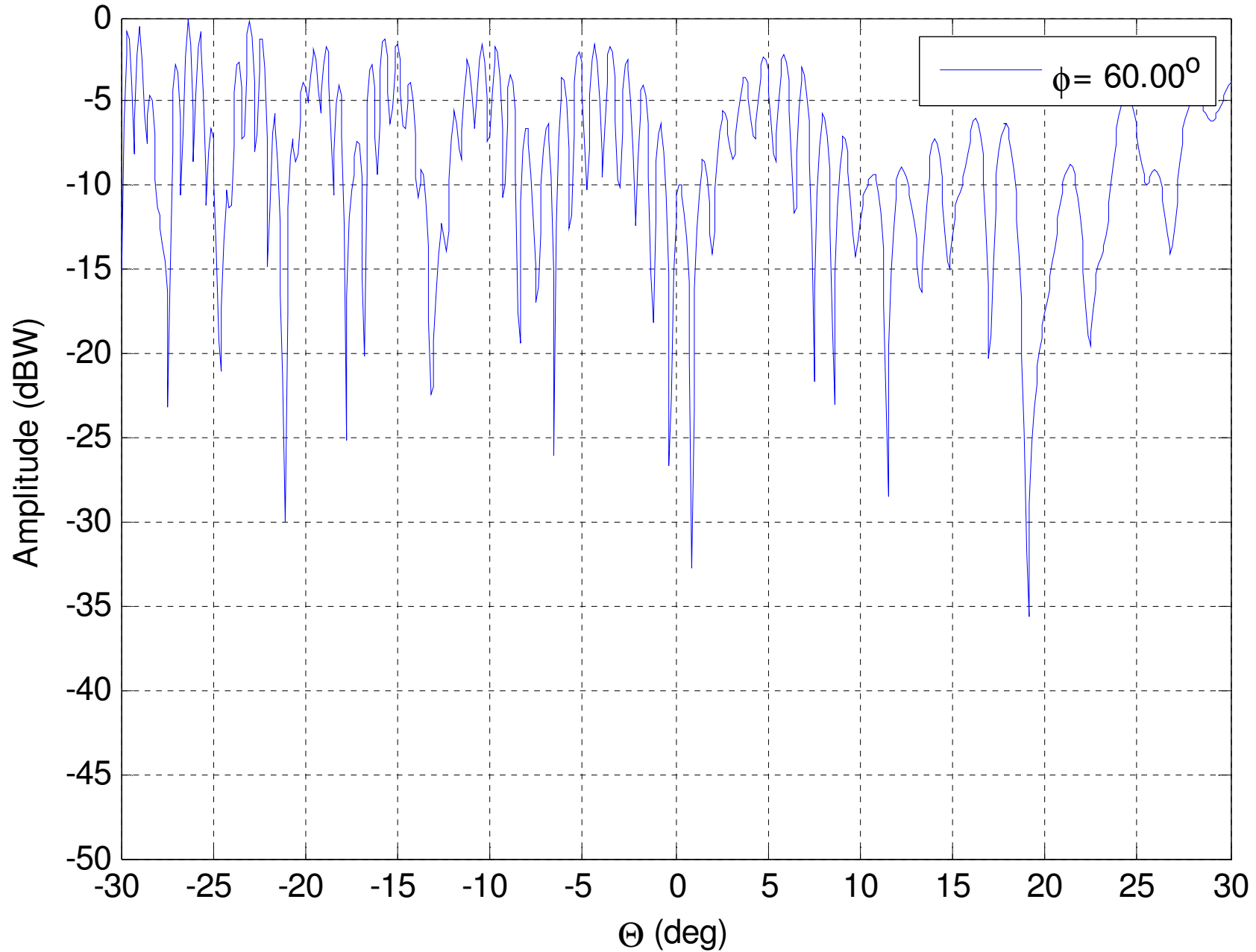
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-50.cut, Peak: -22.10 dBW, Date: 16-Dec-2011



Normalized pattern cuts - farfield

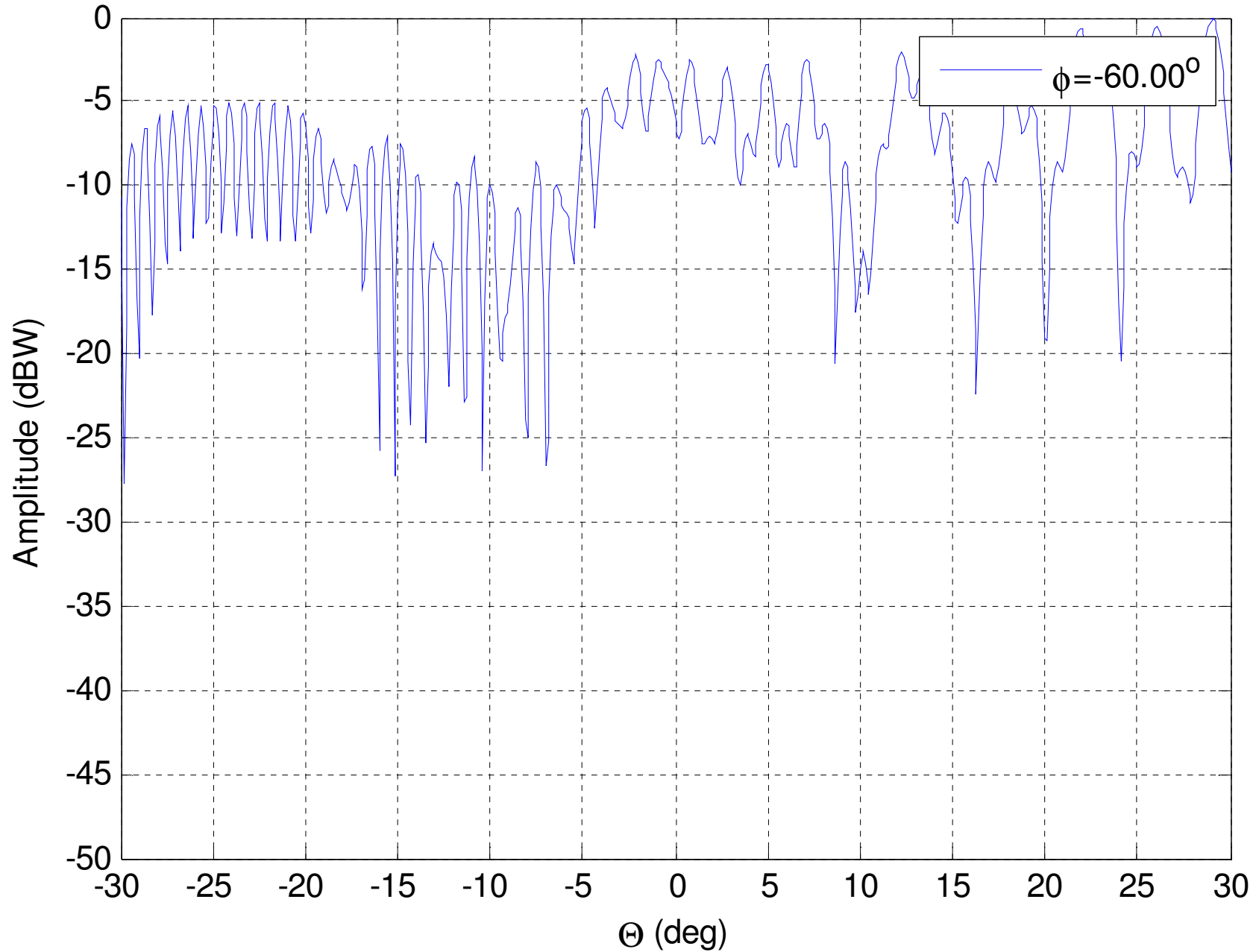
Input file: tx-17.7-rhcp-60.cut, Peak: -21.41 dBW, Date: 16-Dec-2011



LHCP at 17.7 GHz

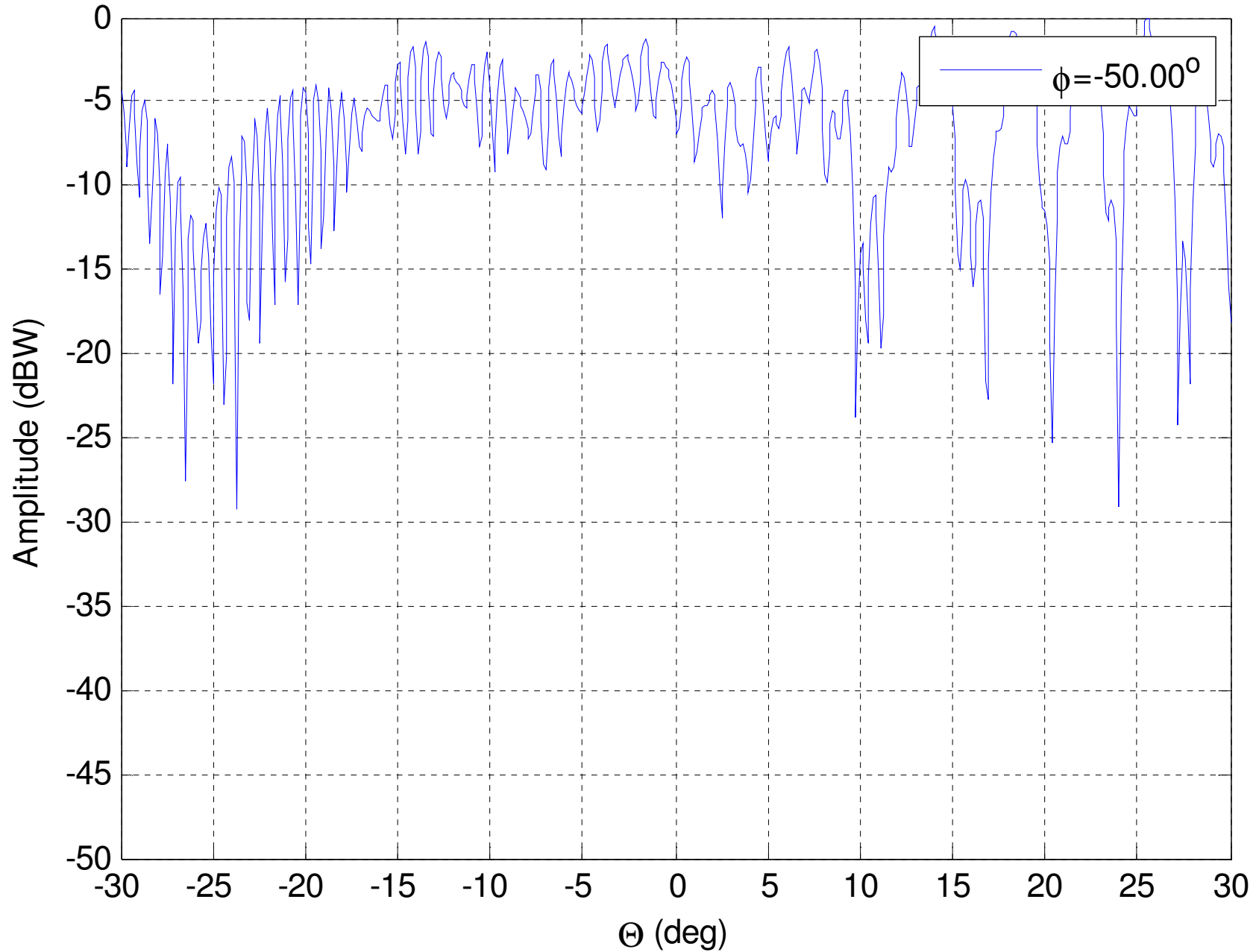
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--60.cut, Peak: -22.02 dBW, Date: 16-Dec-2011



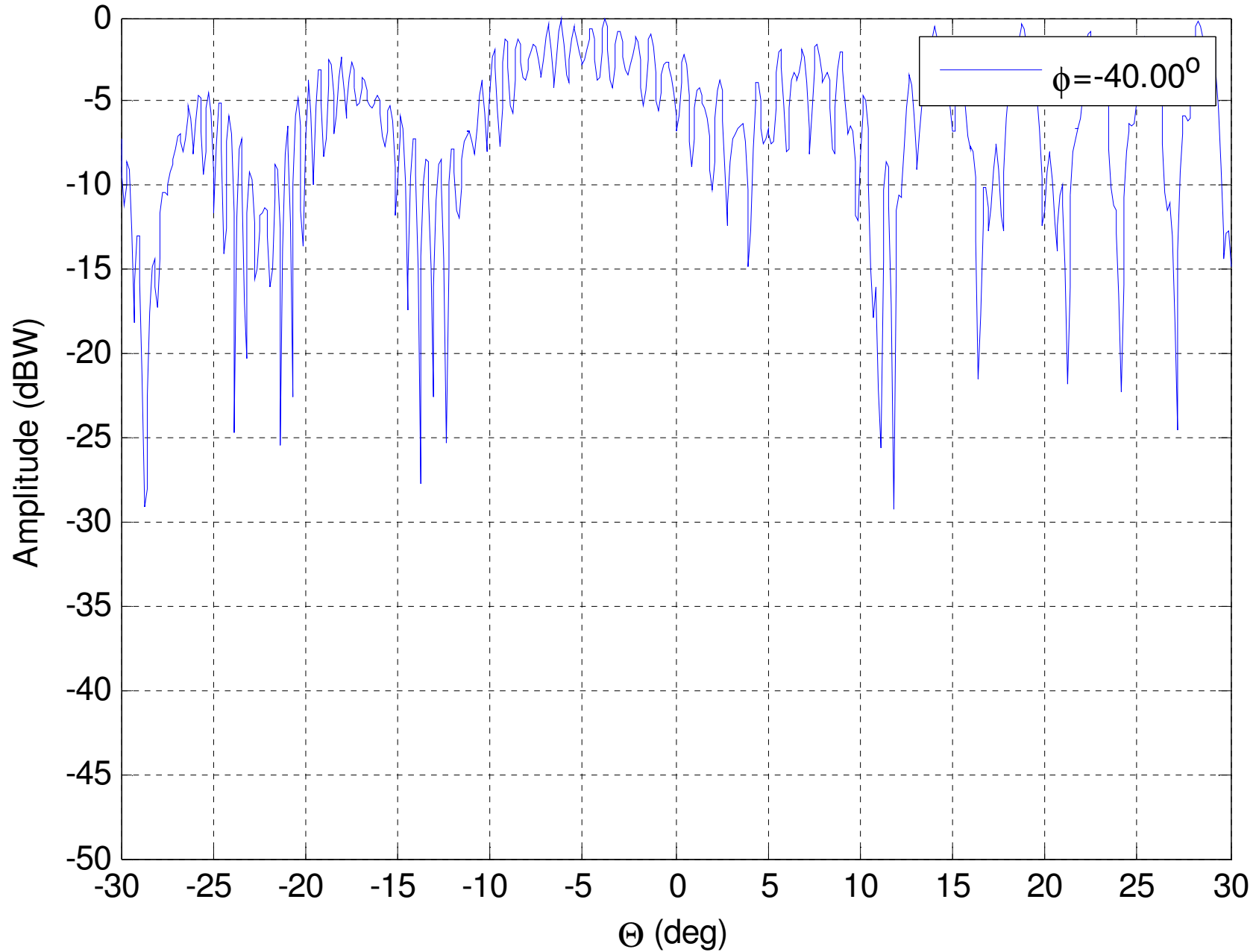
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--50.cut, Peak: -22.10 dBW, Date: 16-Dec-2011



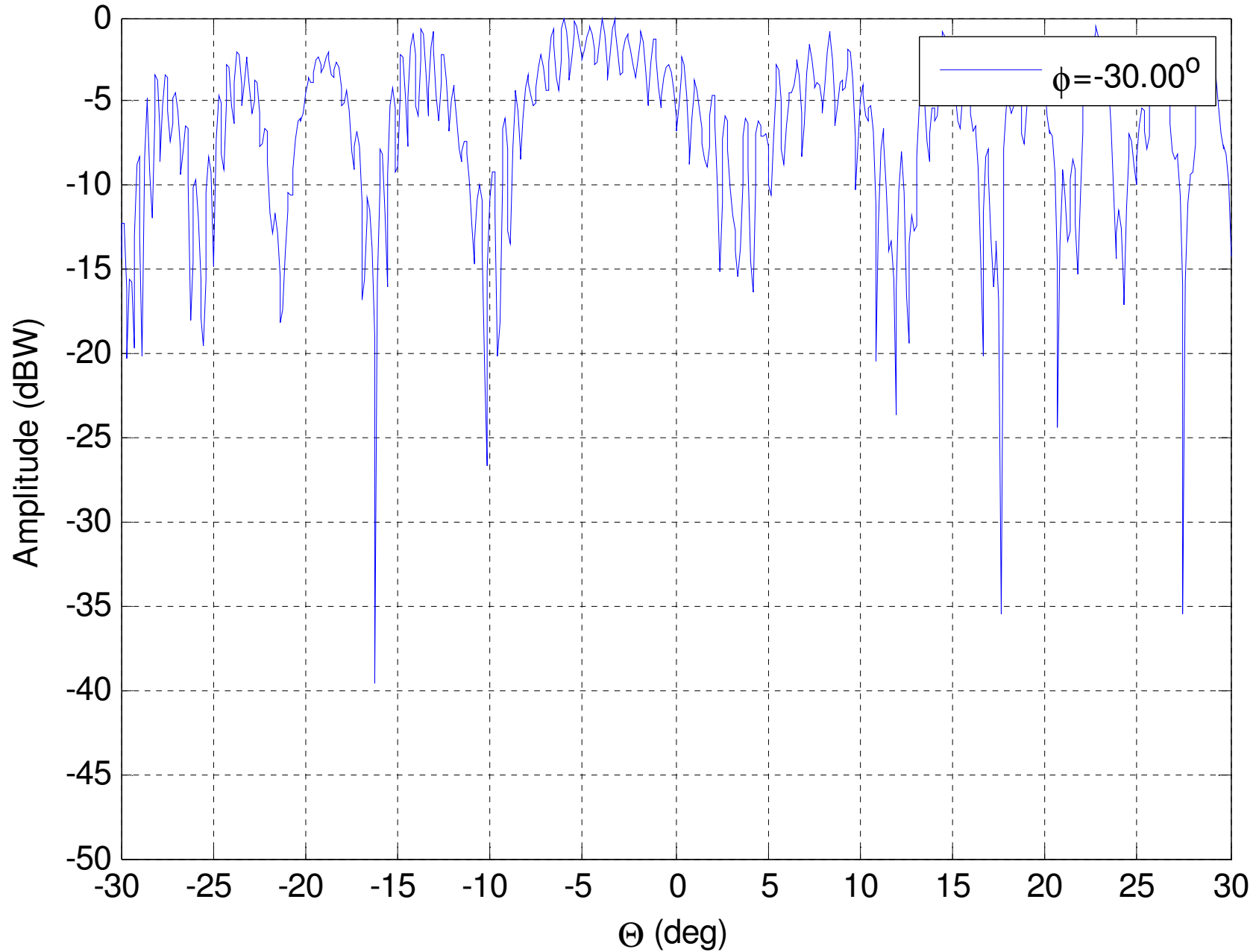
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--40.cut, Peak: -22.29 dBW, Date: 16-Dec-2011



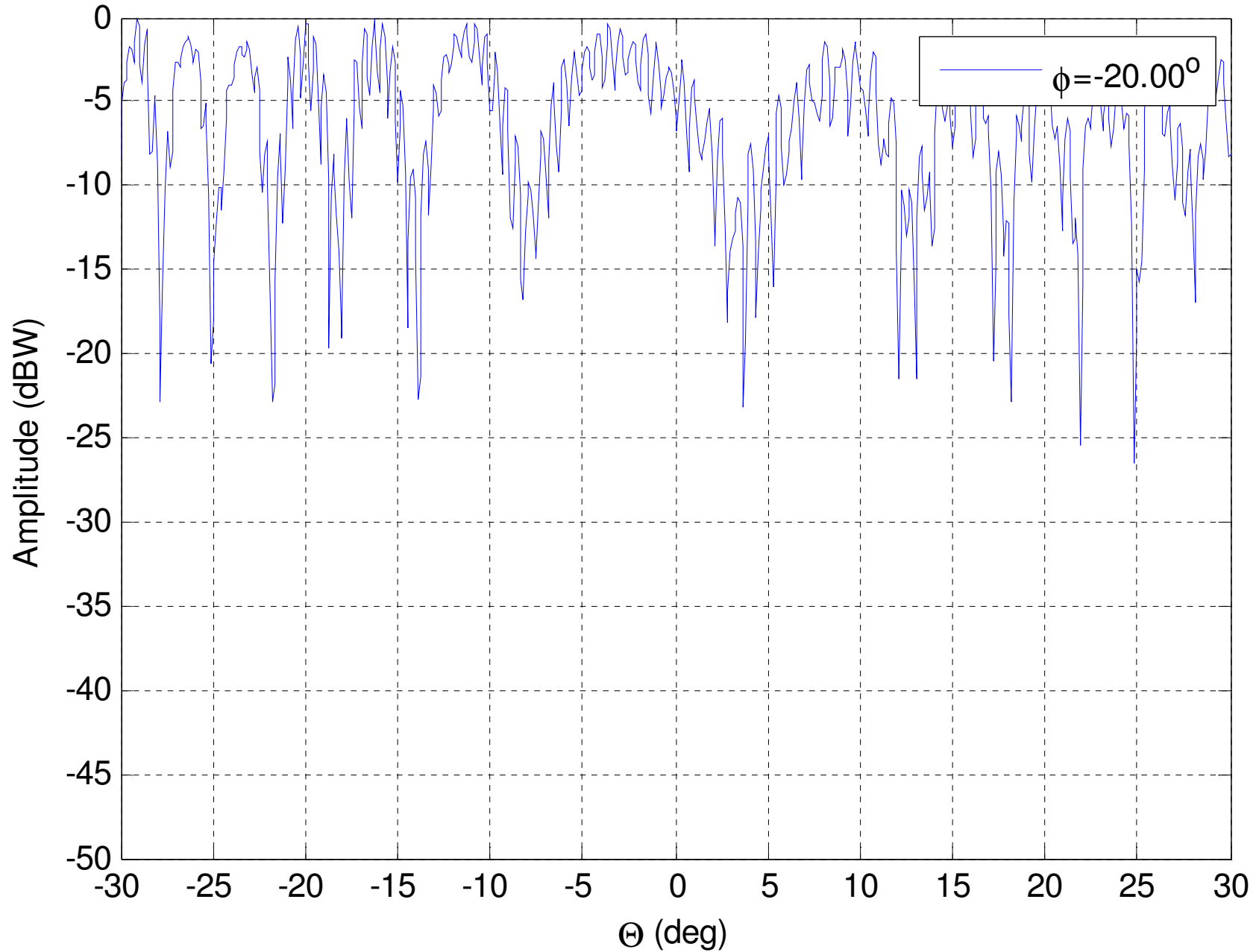
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--30.cut, Peak: -22.22 dBW, Date: 16-Dec-2011



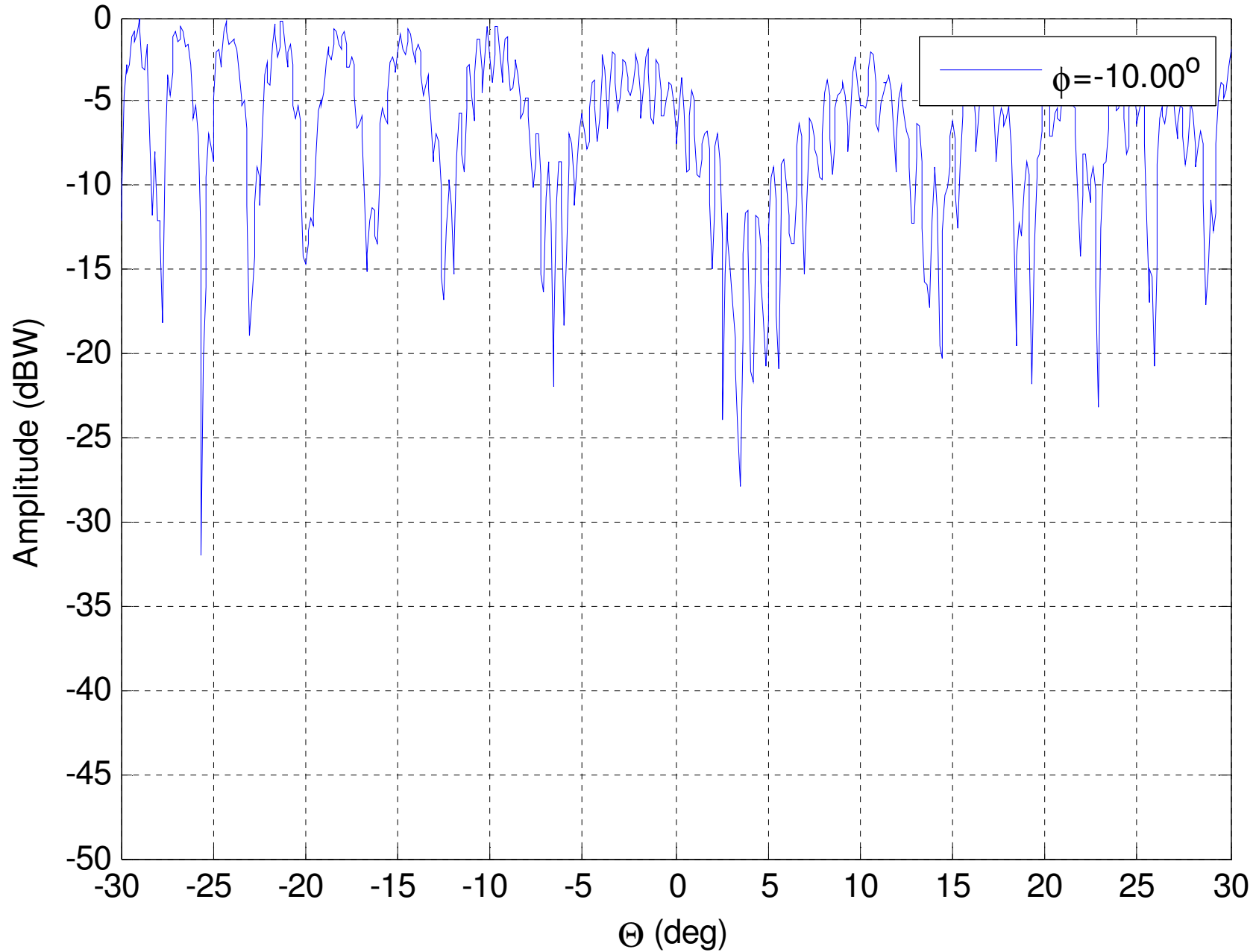
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--20.cut, Peak: -22.06 dBW, Date: 16-Dec-2011



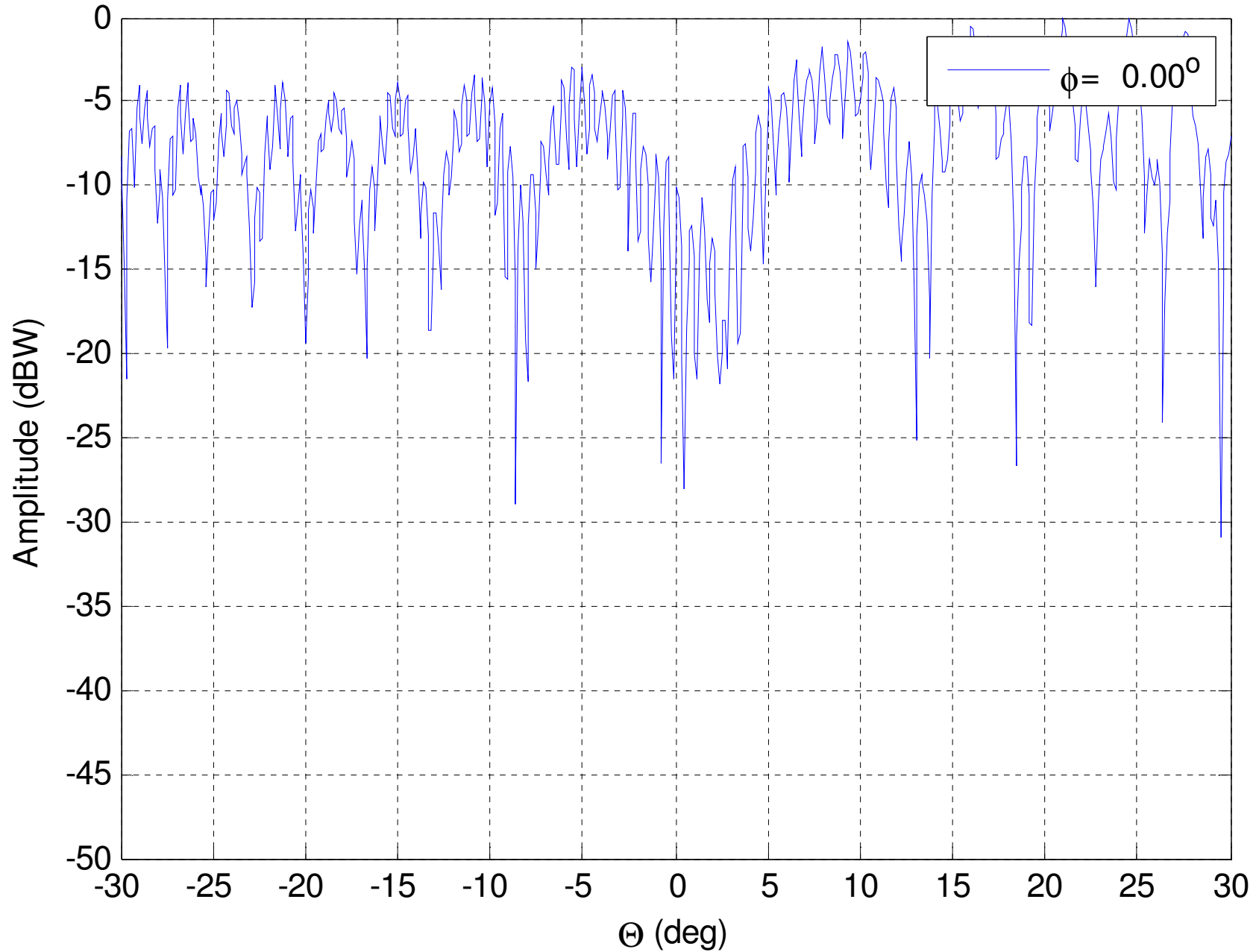
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--10.cut, Peak: -21.22 dBW, Date: 16-Dec-2011



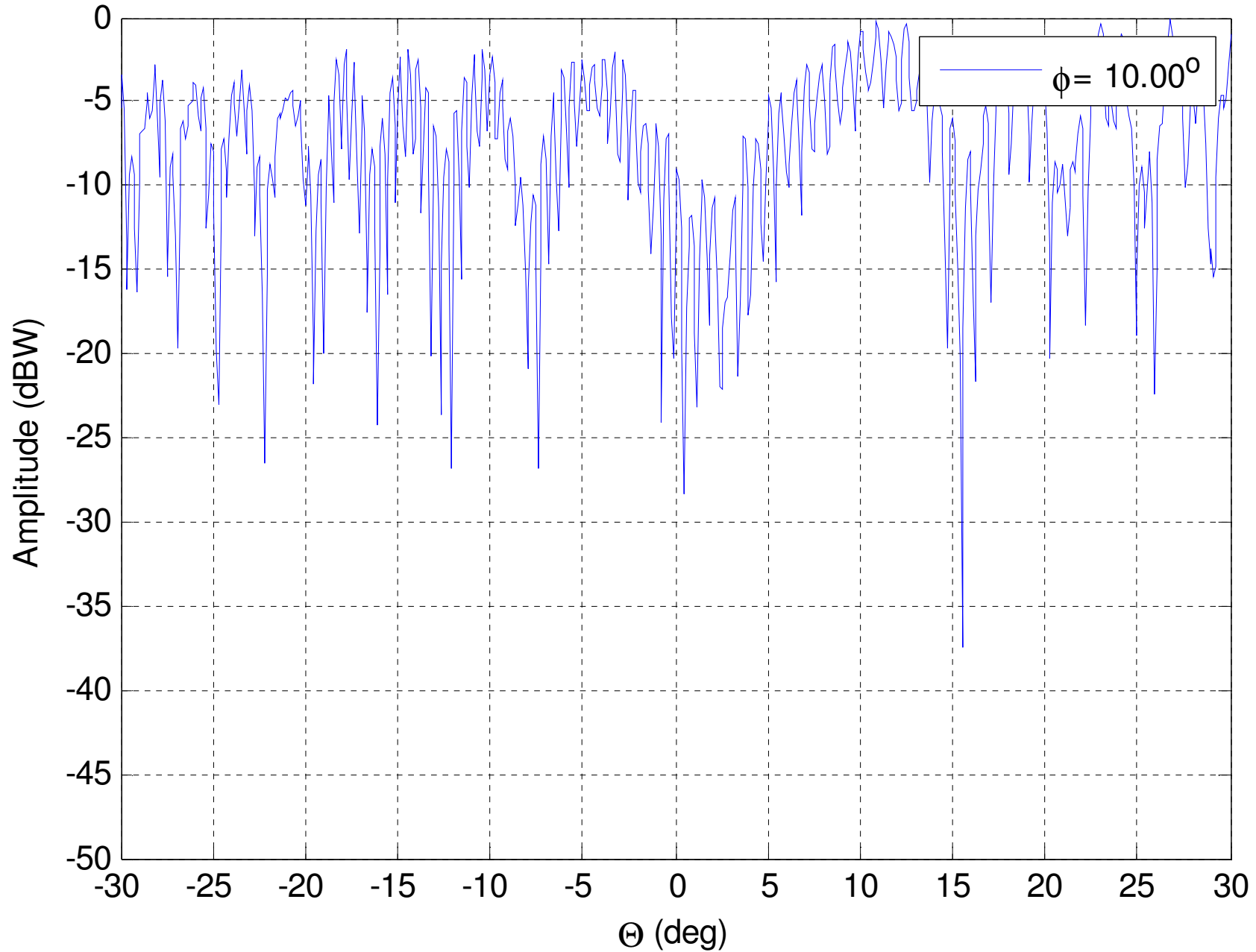
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-0.cut, Peak: -20.26 dBW, Date: 16-Dec-2011



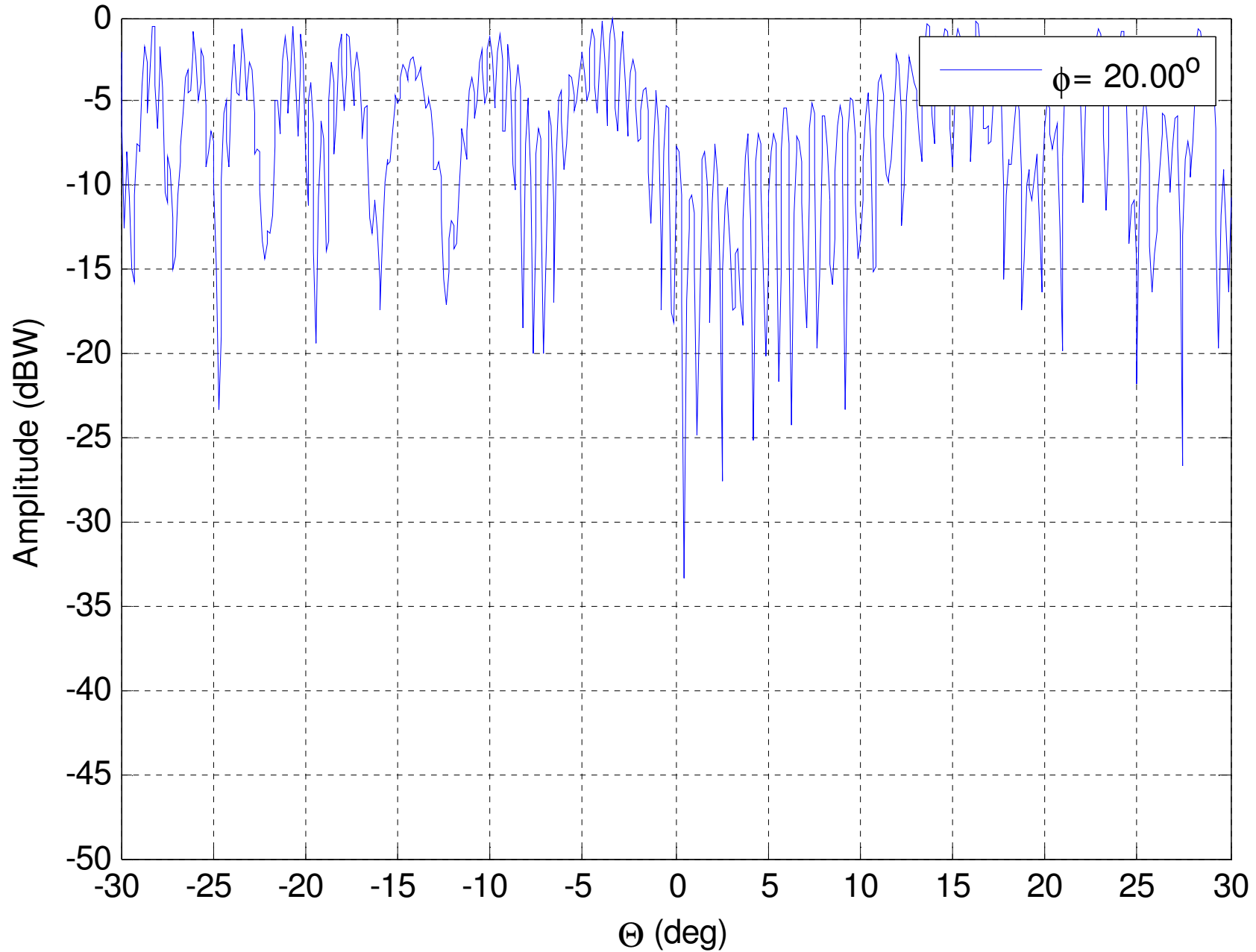
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-10.cut, Peak: -21.36 dBW, Date: 16-Dec-2011



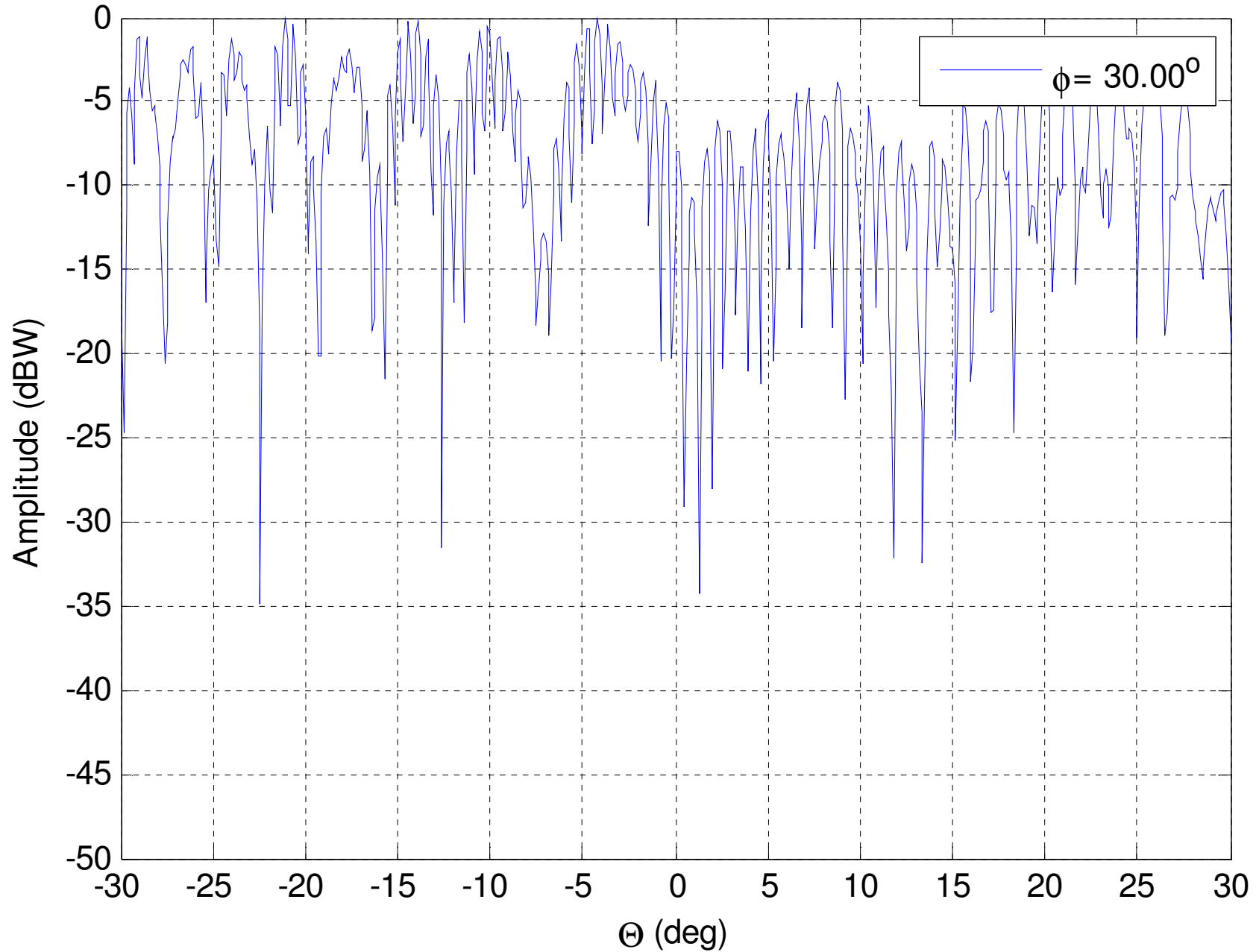
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-20.cut, Peak: -22.87 dBW, Date: 16-Dec-2011



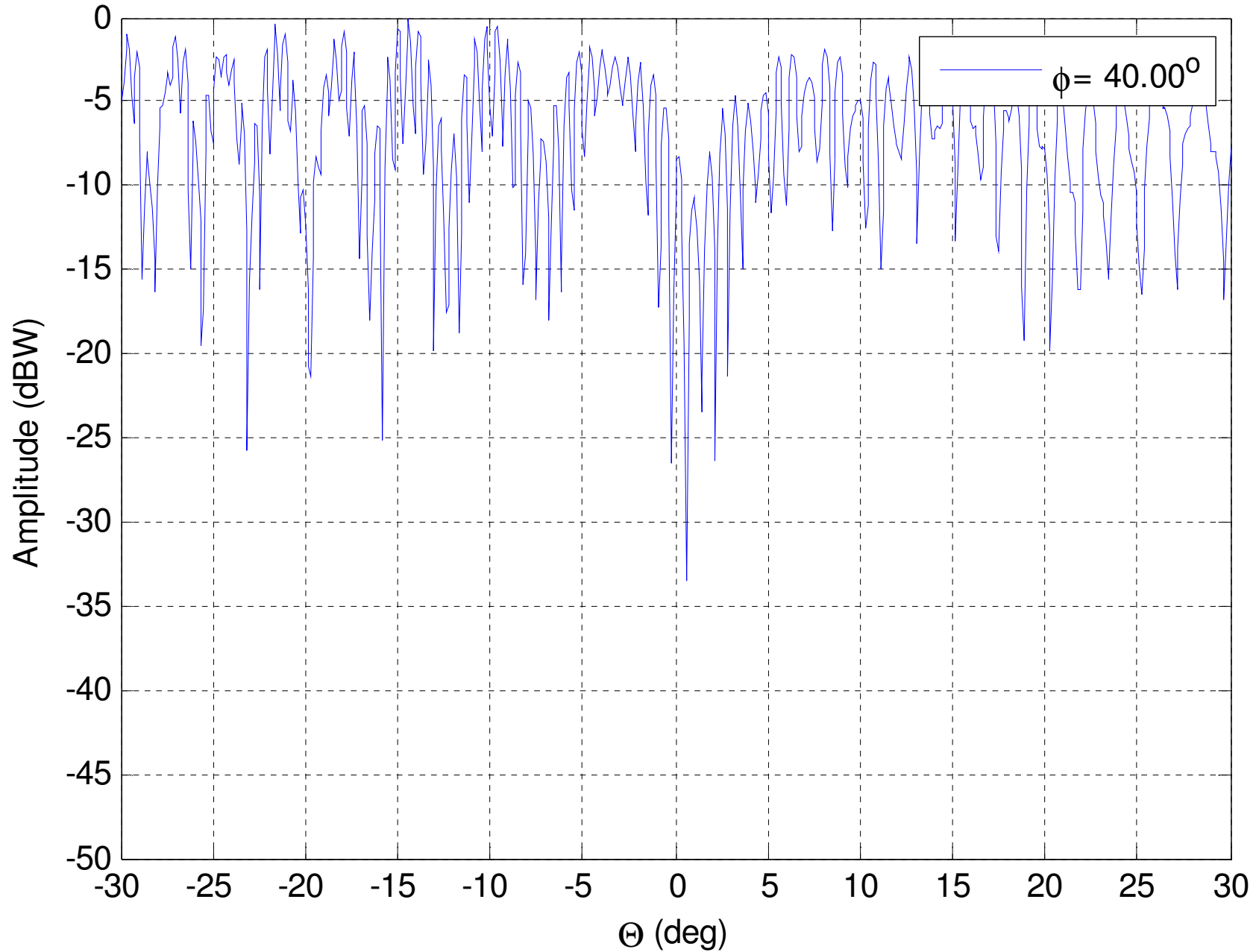
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-30.cut, Peak: -22.65 dBW, Date: 16-Dec-2011



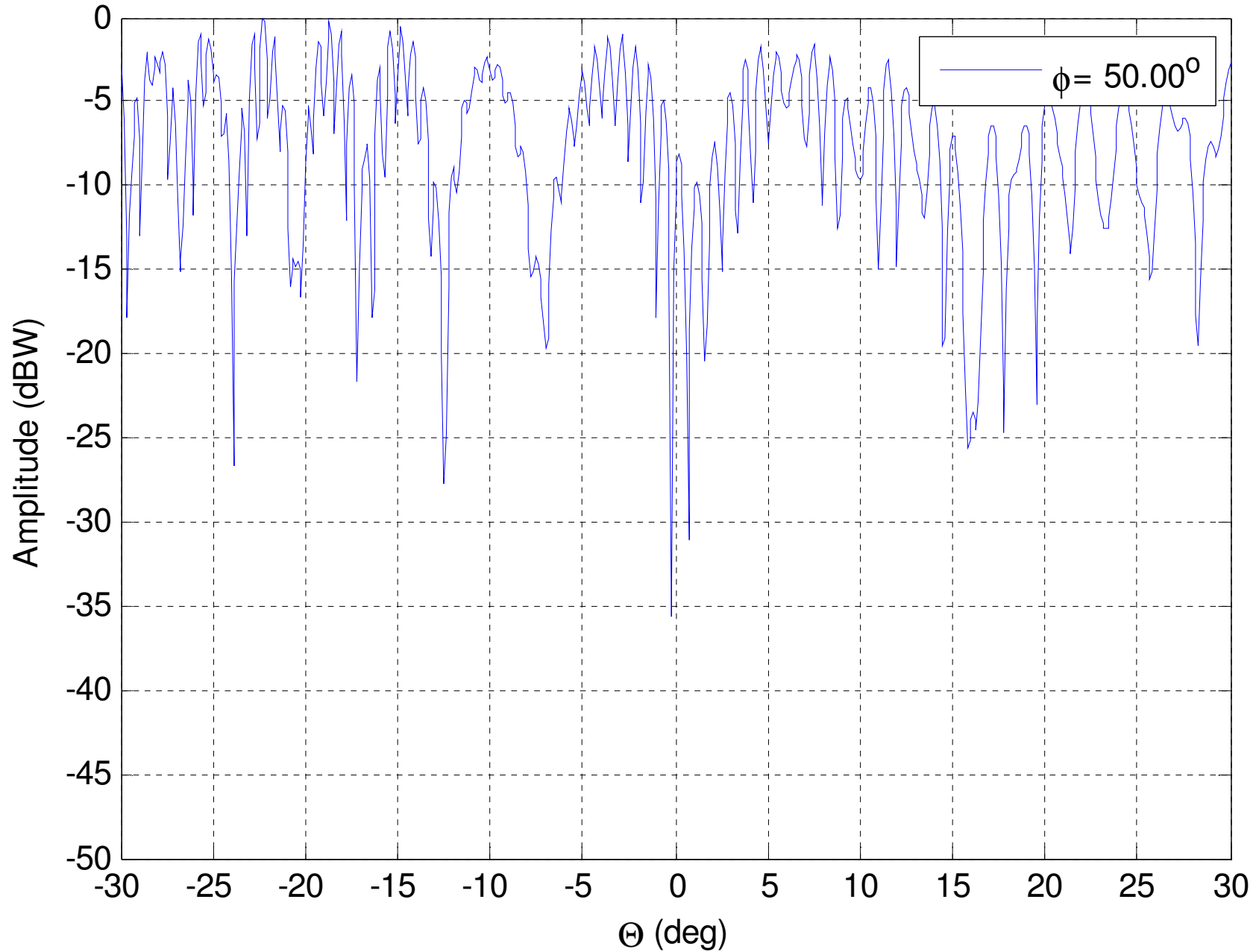
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-40.cut, Peak: -22.31 dBW, Date: 16-Dec-2011



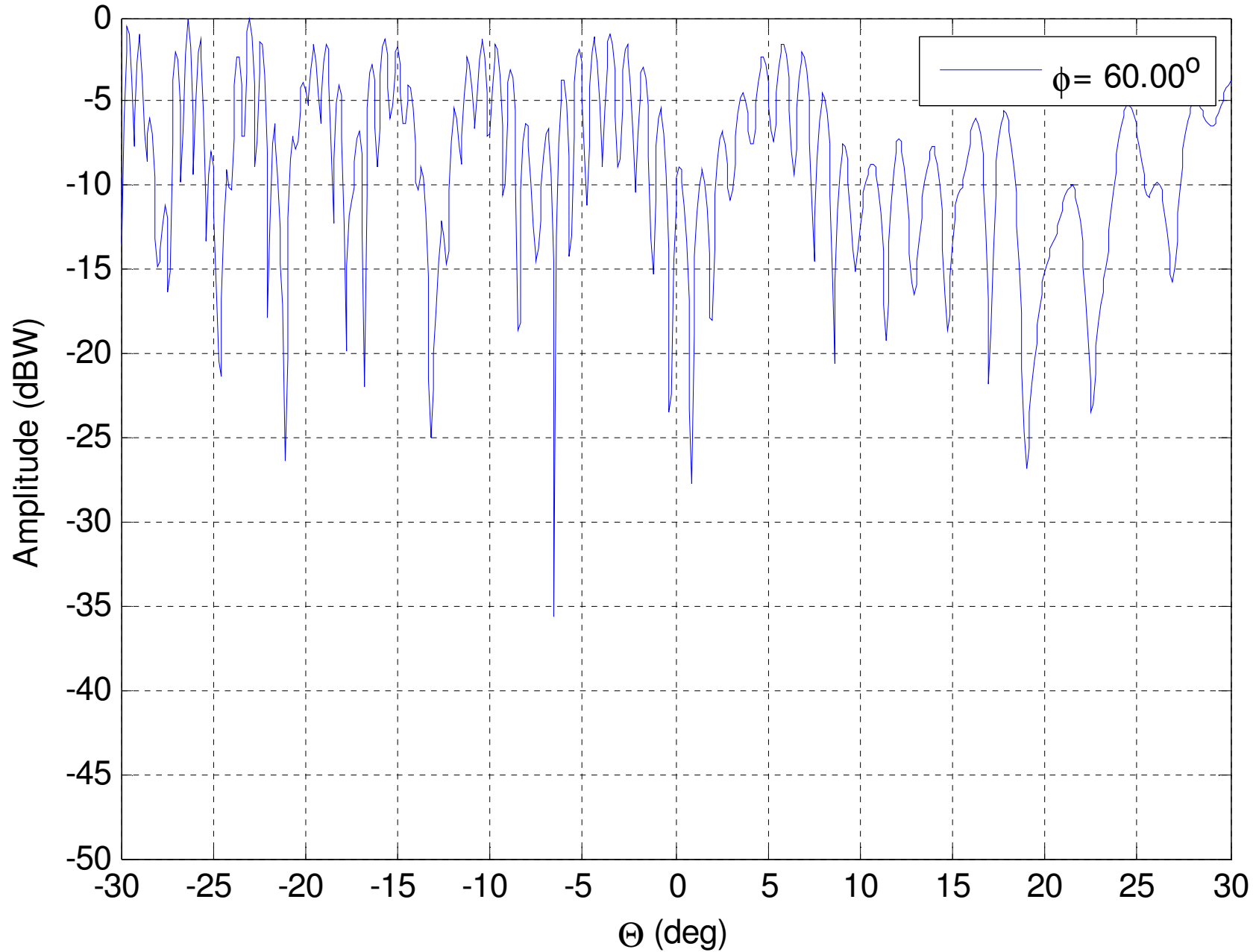
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-50.cut, Peak: -22.31 dBW, Date: 16-Dec-2011



Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-60.cut, Peak: -21.57 dBW, Date: 16-Dec-2011



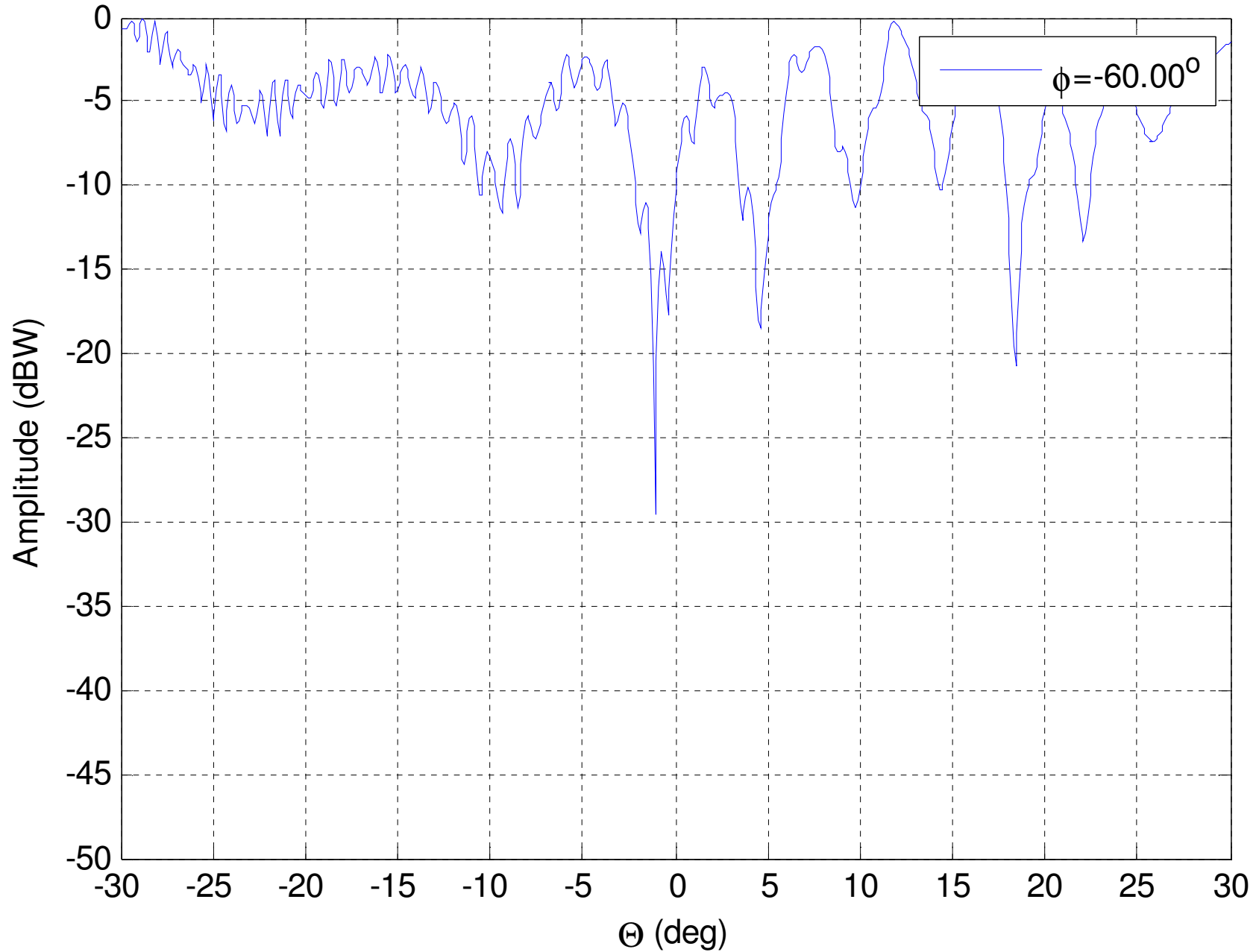
Spot Beam53, +X Axis Plots

- Both polarizations; RHCP, LHCP
- $-30 < \Theta < 30$ ($\Theta=0$: = +X-axis)
- $-60 < \phi < 60$
- Freq = 17.3, 17.5, and 17.7 GHz
- The Zero reference line is the peak gain listed in the title of each chart
- All levels are significantly below the required 20.9 dBW EIRP shown on chart 2

RHCP at 17.3 GHz

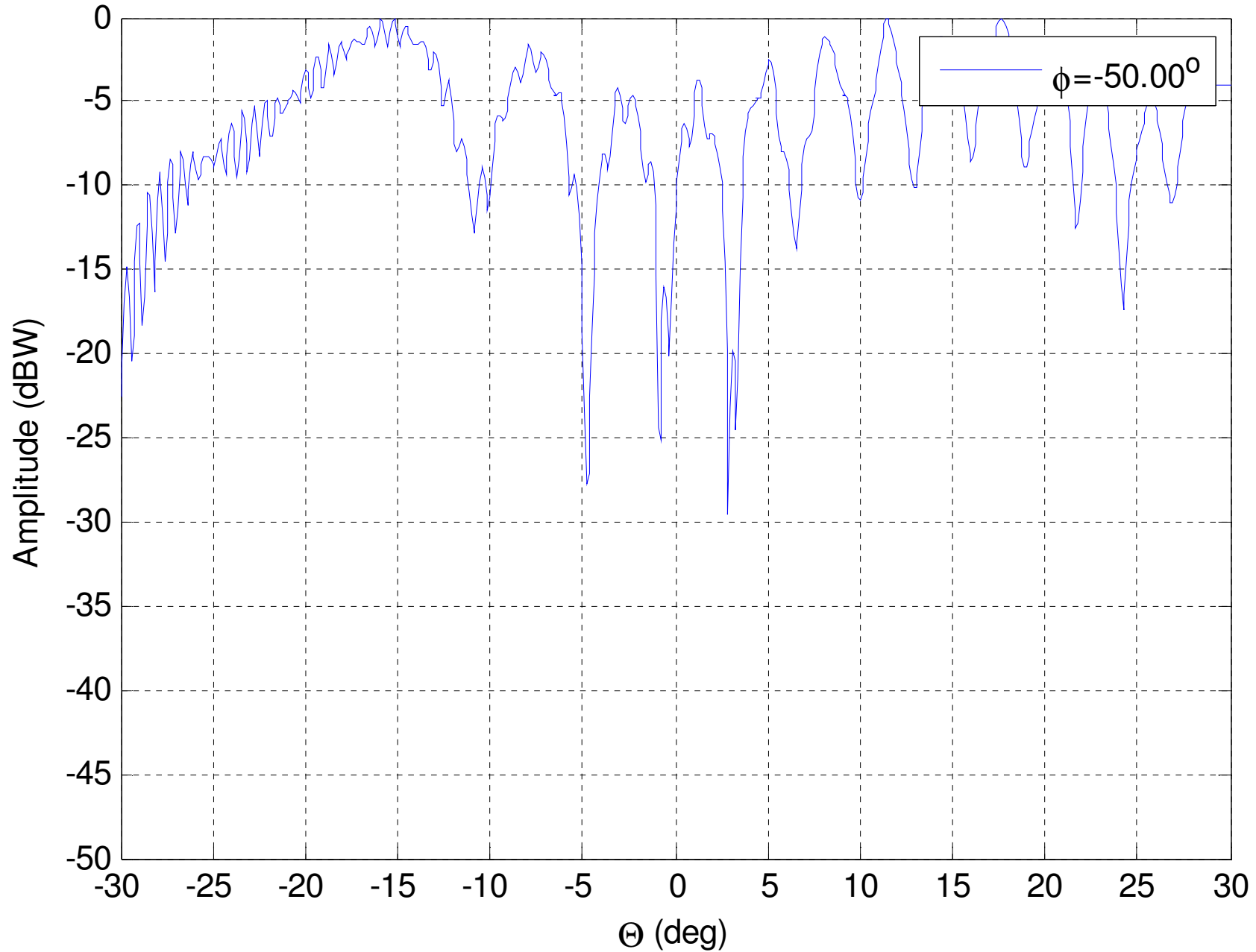
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--60.cut, Peak: -15.27 dBW, Date: 16-Dec-2011



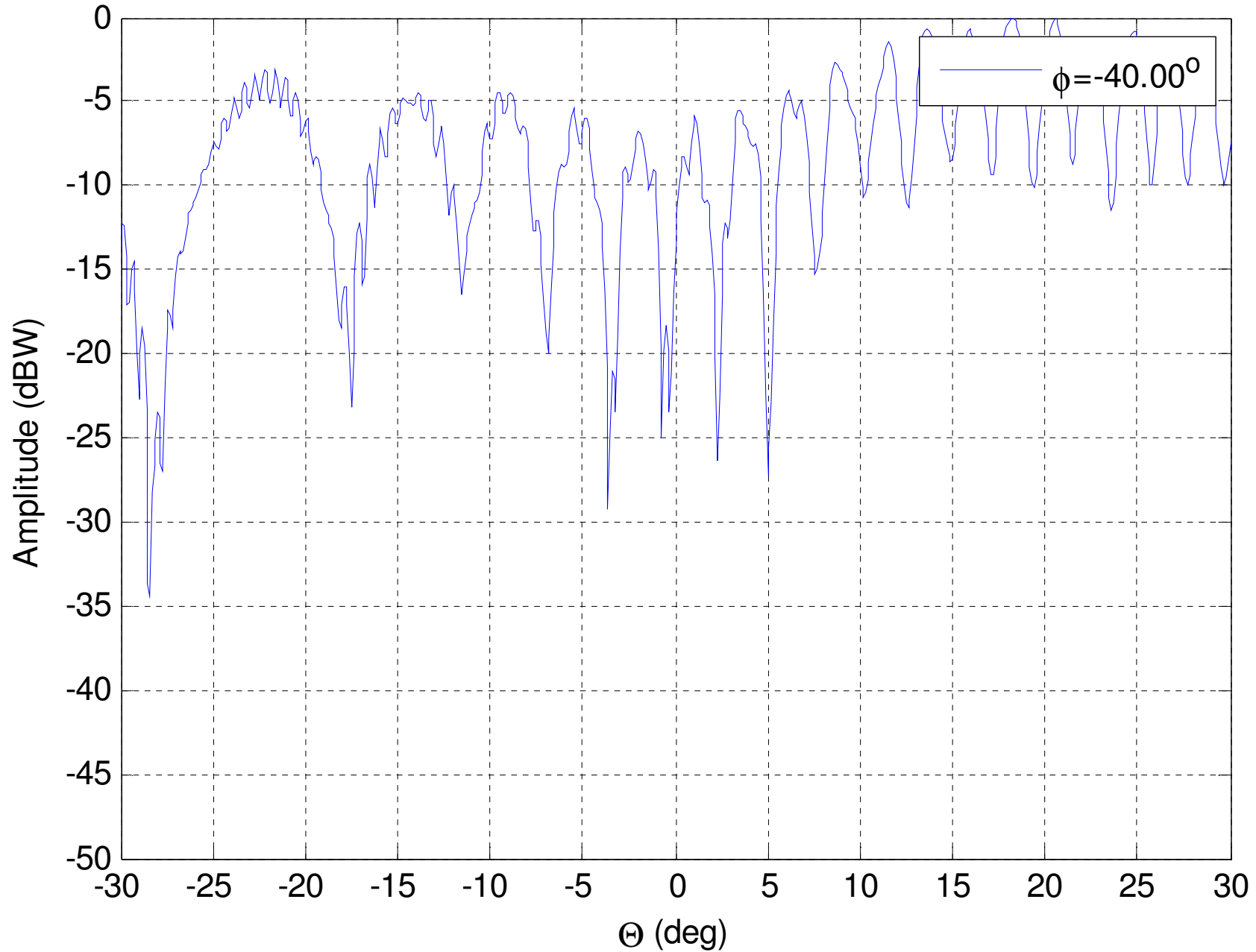
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--50.cut, Peak: -14.25 dBW, Date: 16-Dec-2011



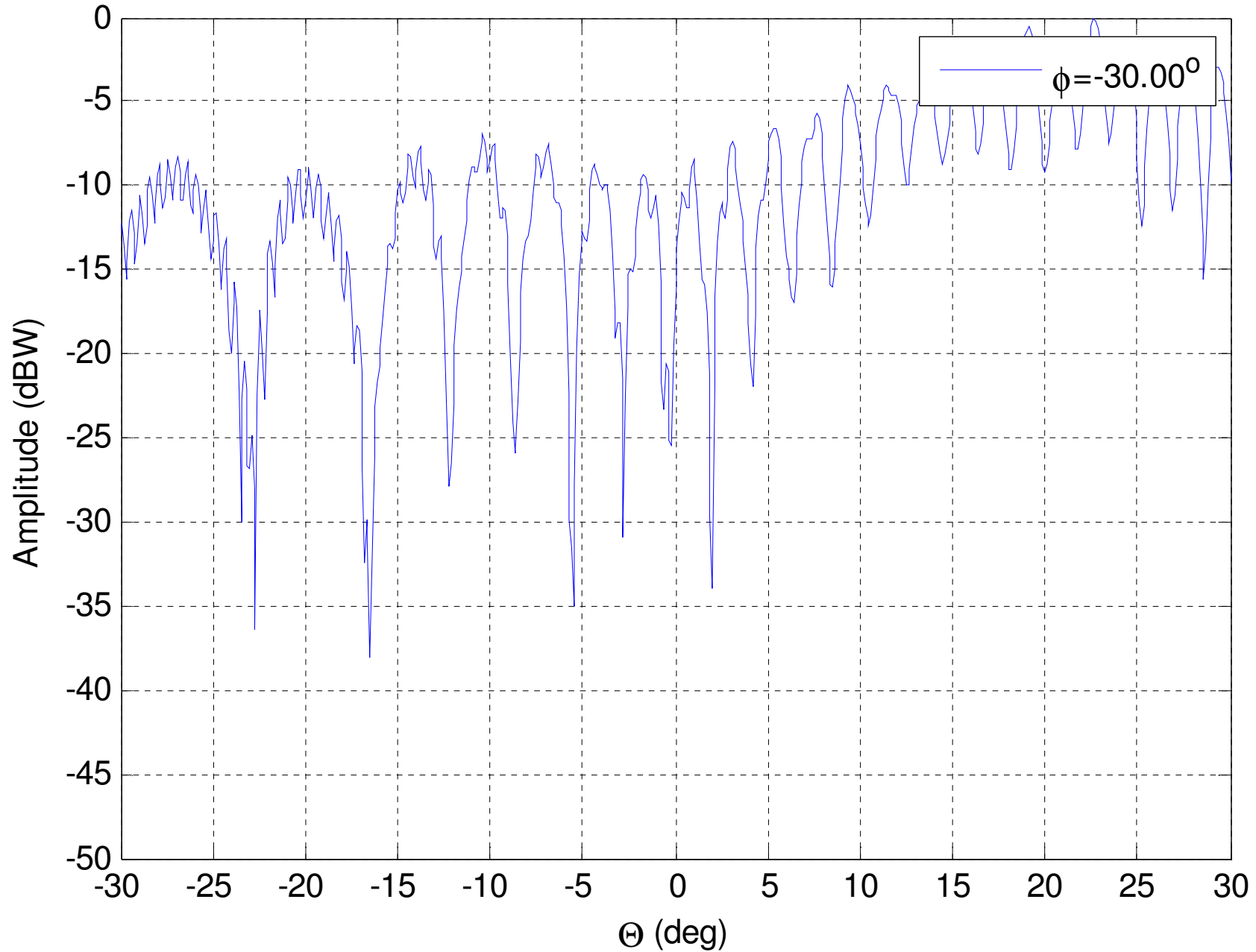
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--40.cut, Peak: -12.09 dBW, Date: 16-Dec-2011



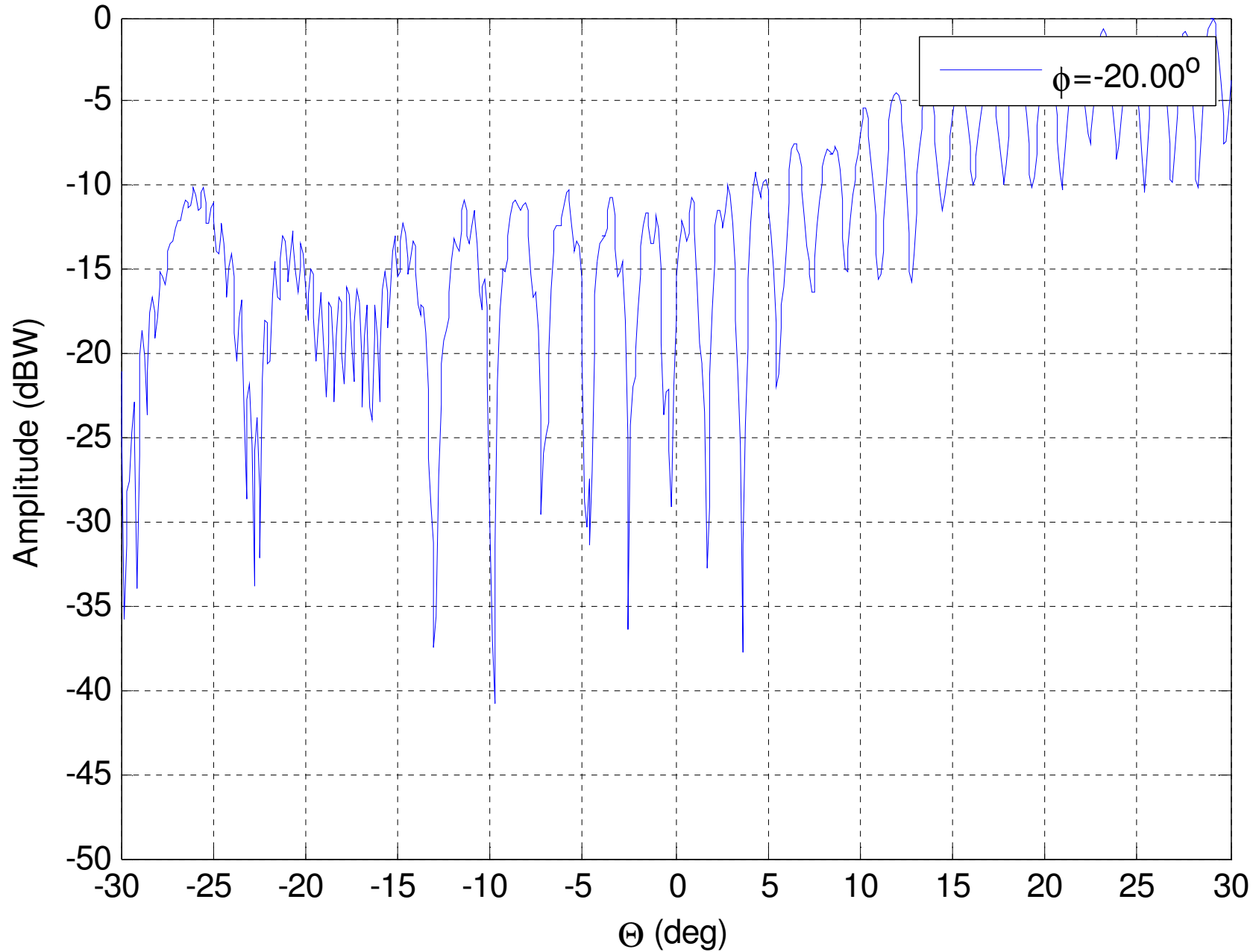
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--30.cut, Peak: -9.64 dBW, Date: 16-Dec-2011



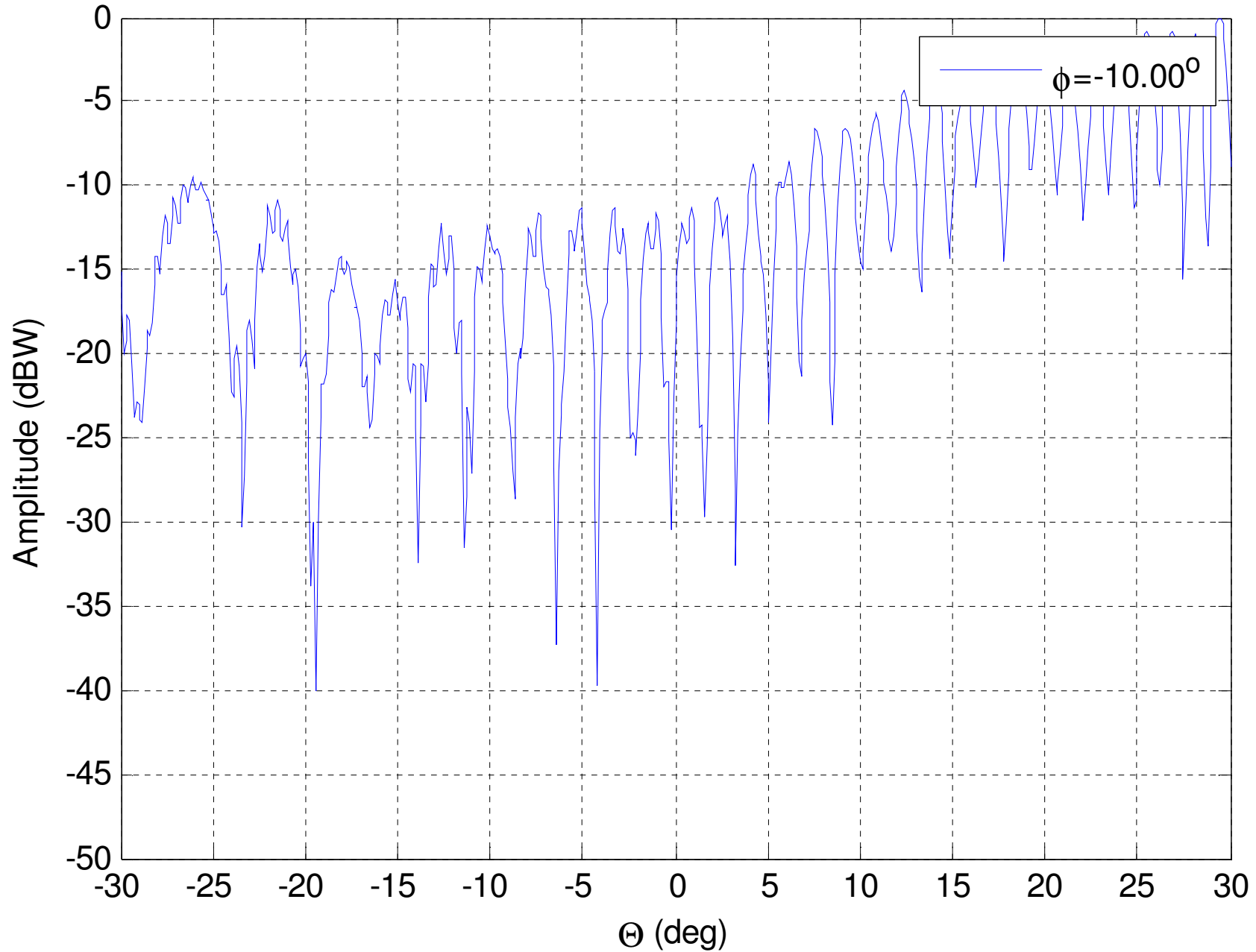
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--20.cut, Peak: -7.72 dBW, Date: 16-Dec-2011



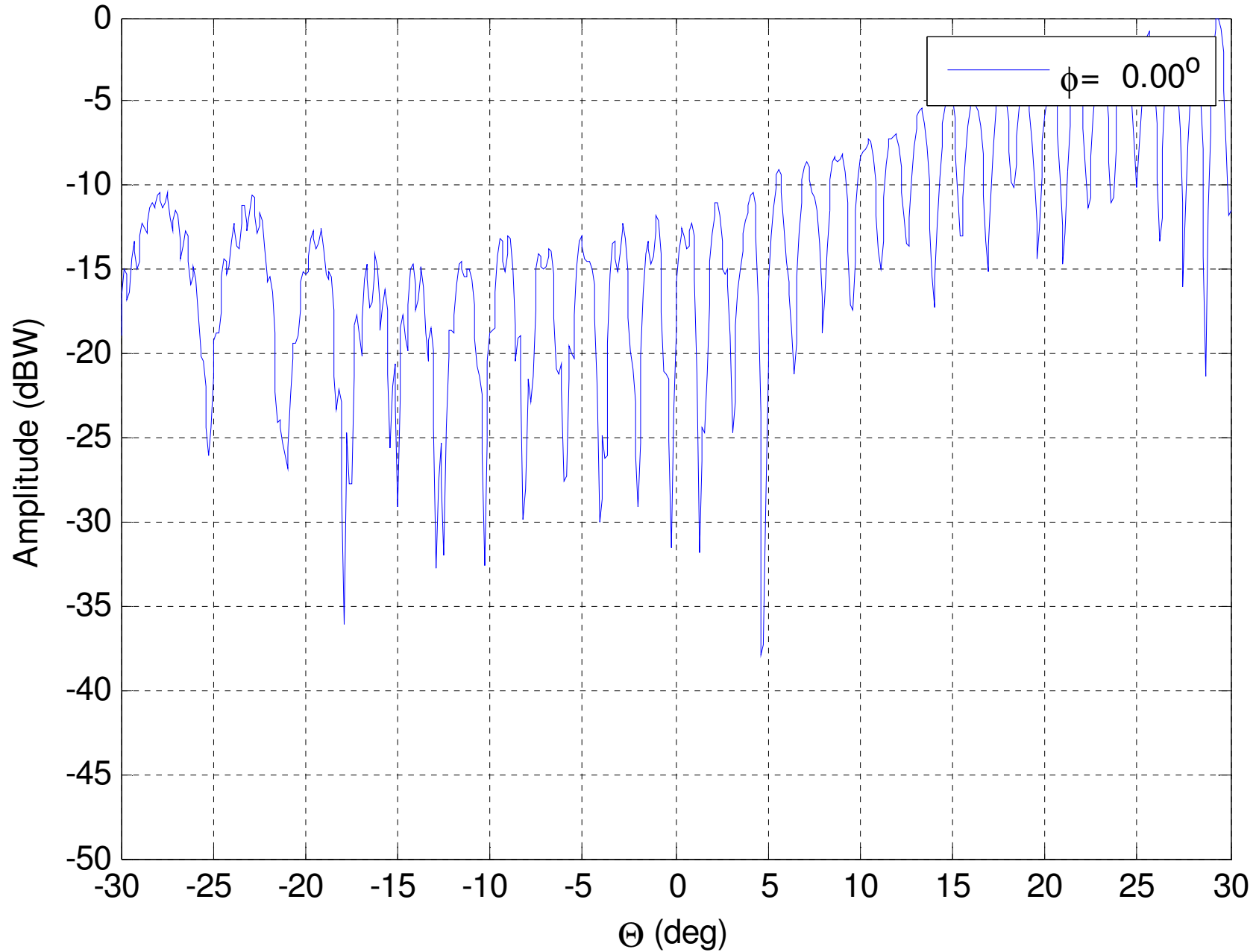
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp--10.cut, Peak: -7.44 dBW, Date: 16-Dec-2011



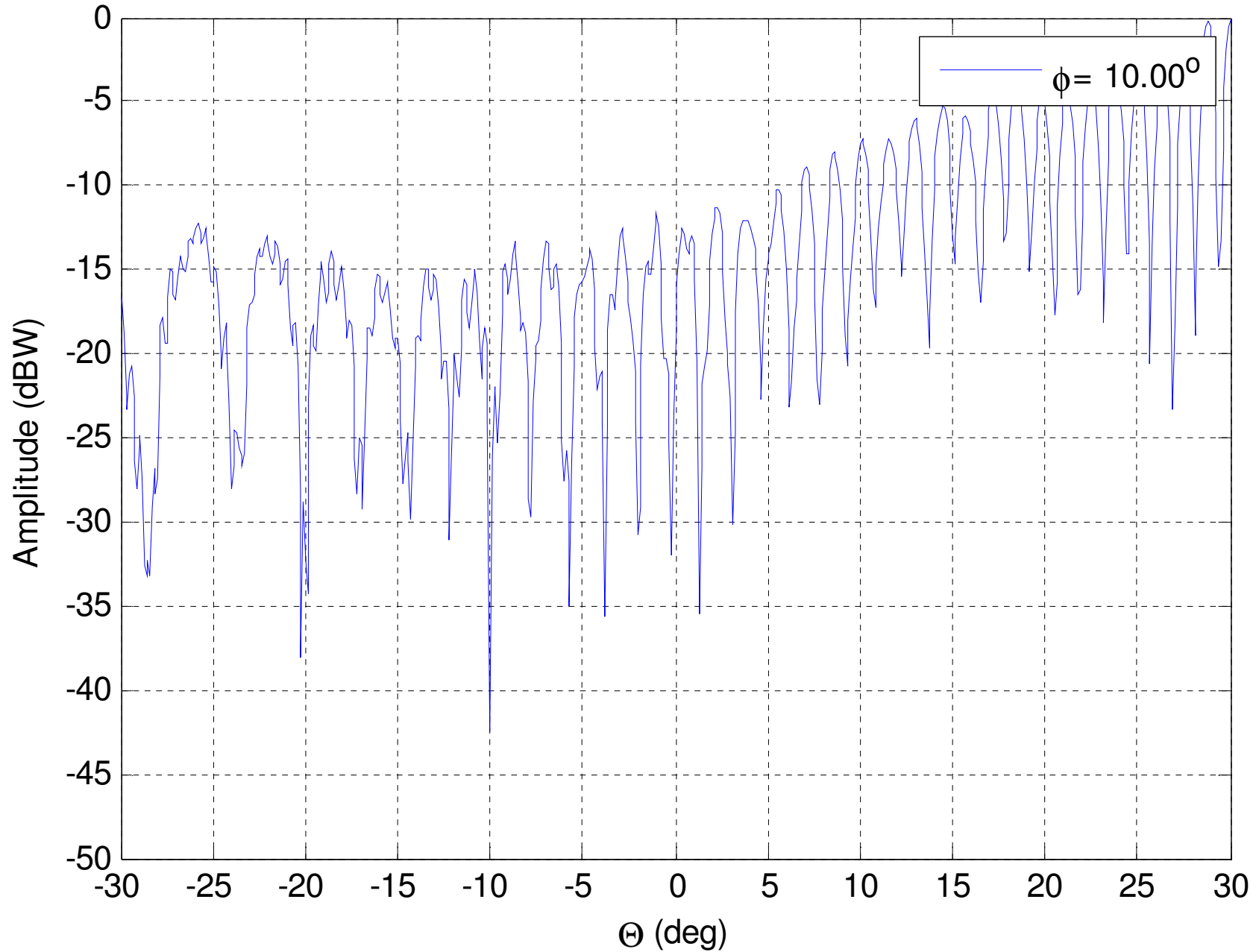
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-0.cut, Peak: -7.04 dBW, Date: 16-Dec-2011



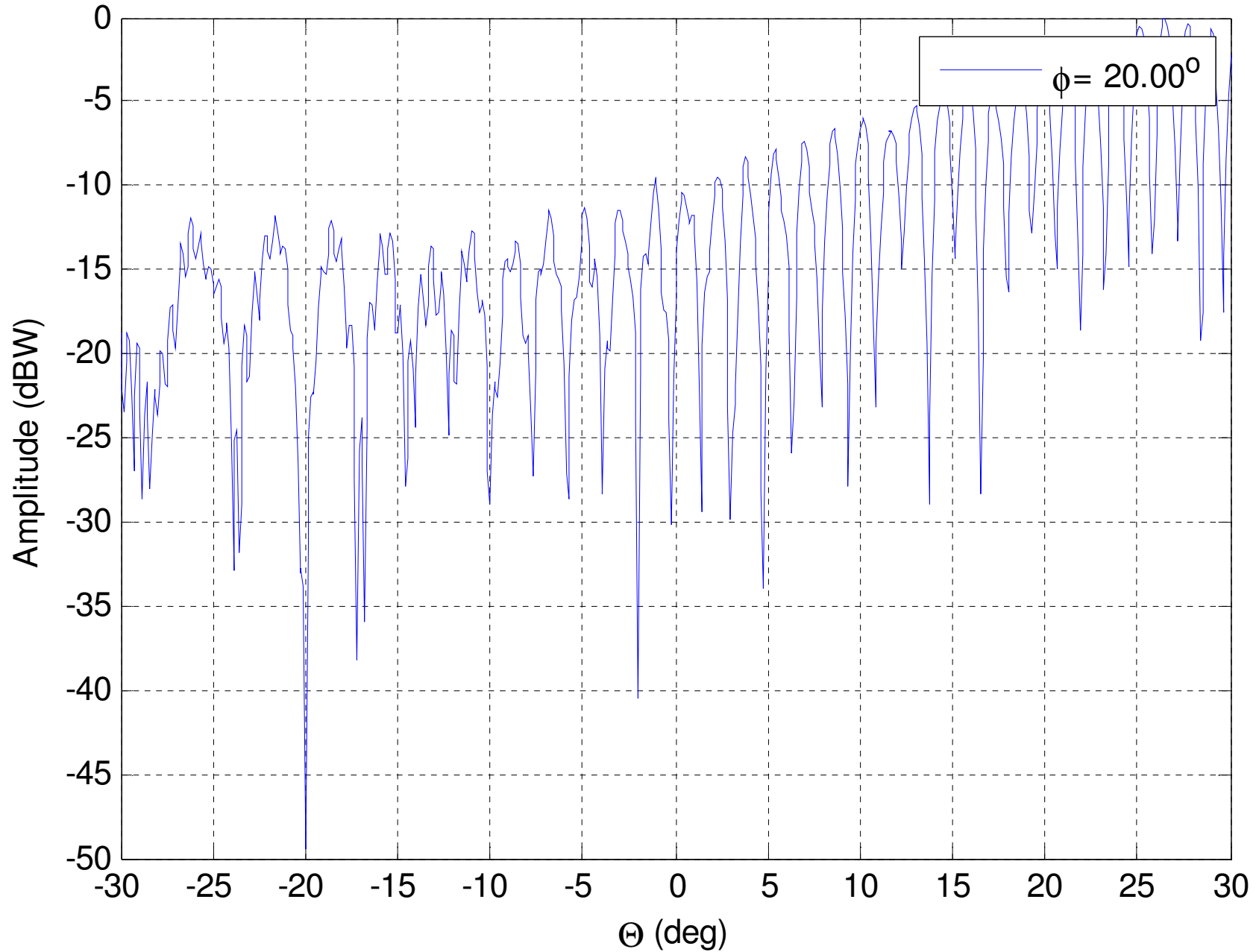
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-10.cut, Peak: -6.92 dBW, Date: 16-Dec-2011



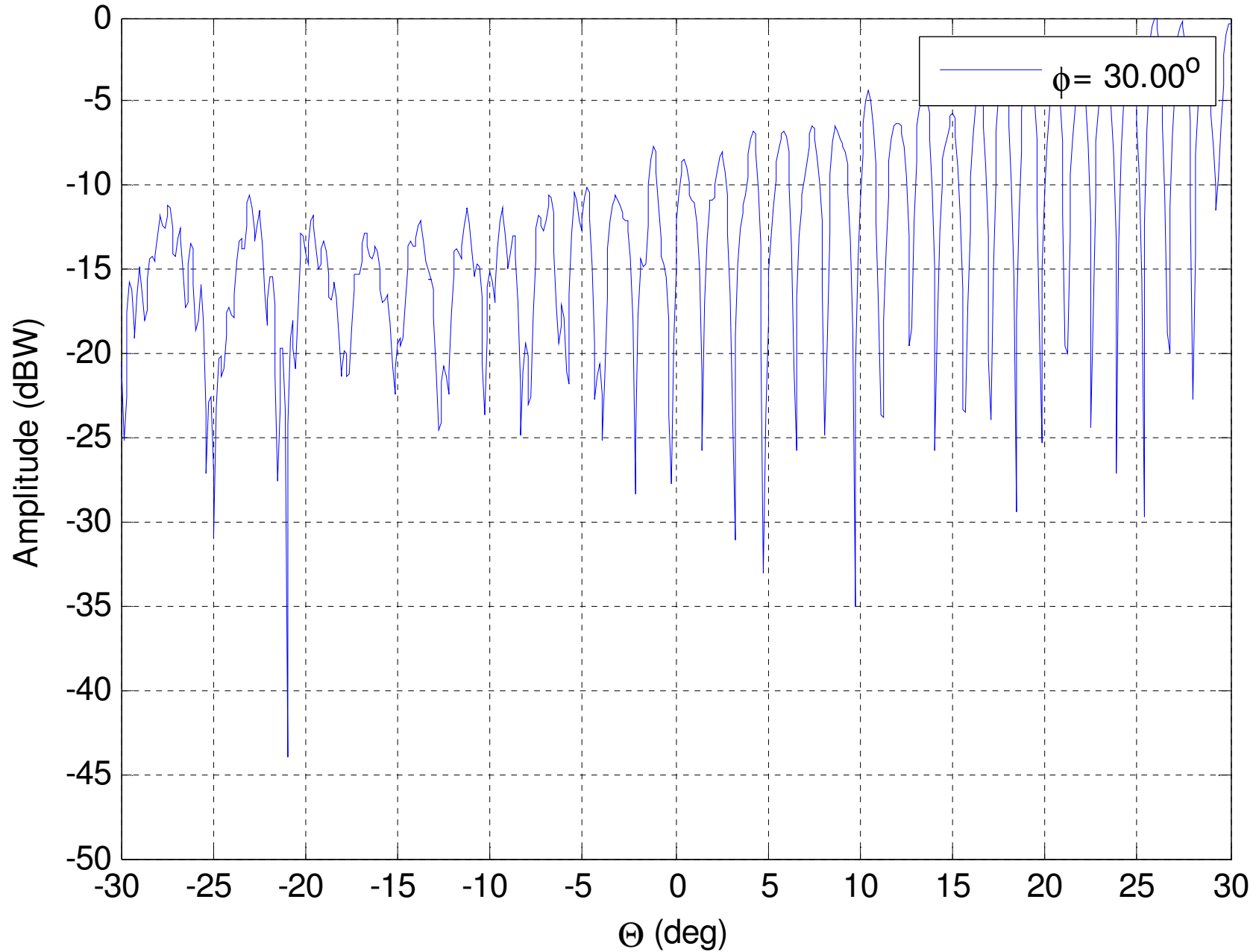
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-20.cut, Peak: -8.95 dBW, Date: 16-Dec-2011



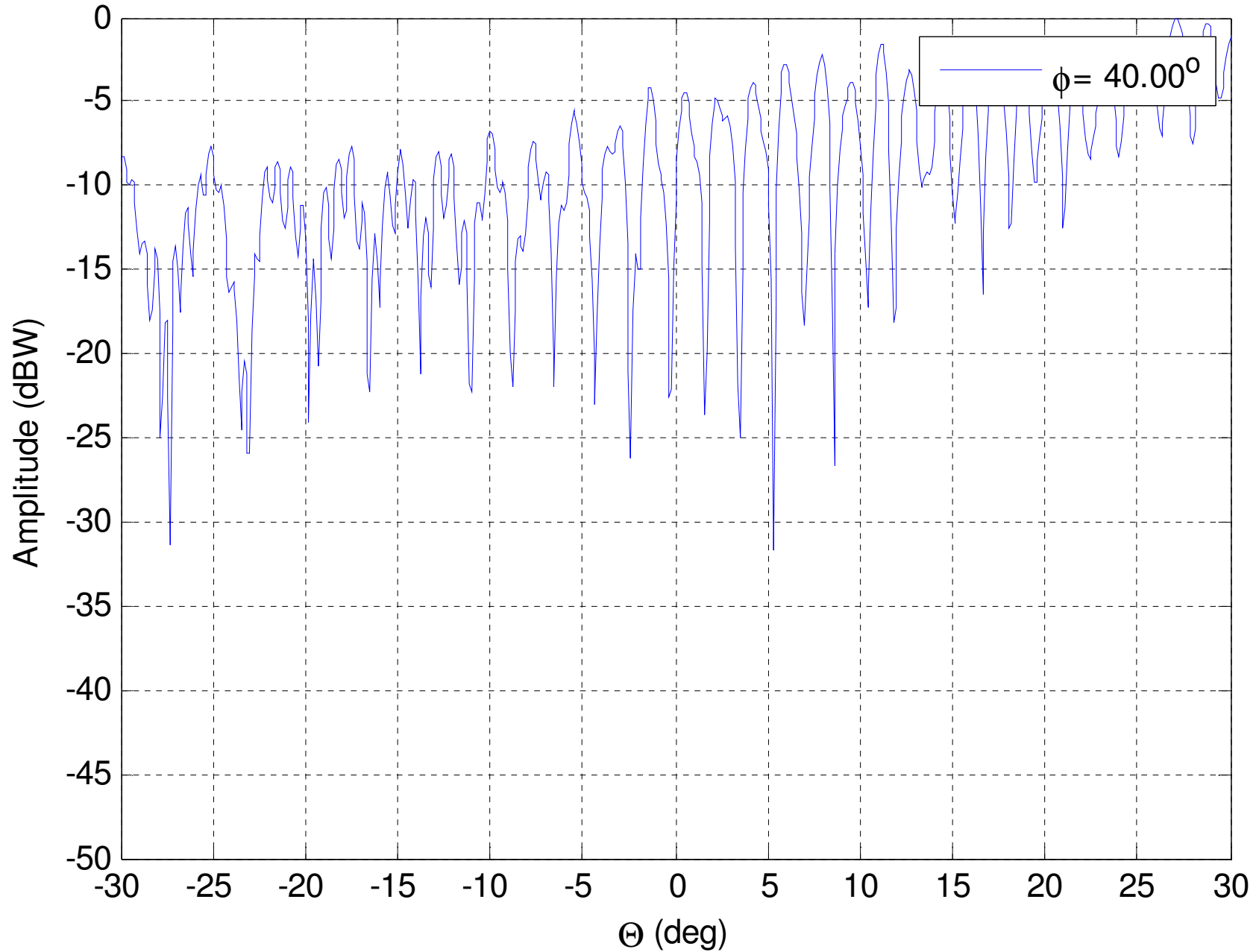
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-30.cut, Peak: -10.81 dBW, Date: 16-Dec-2011



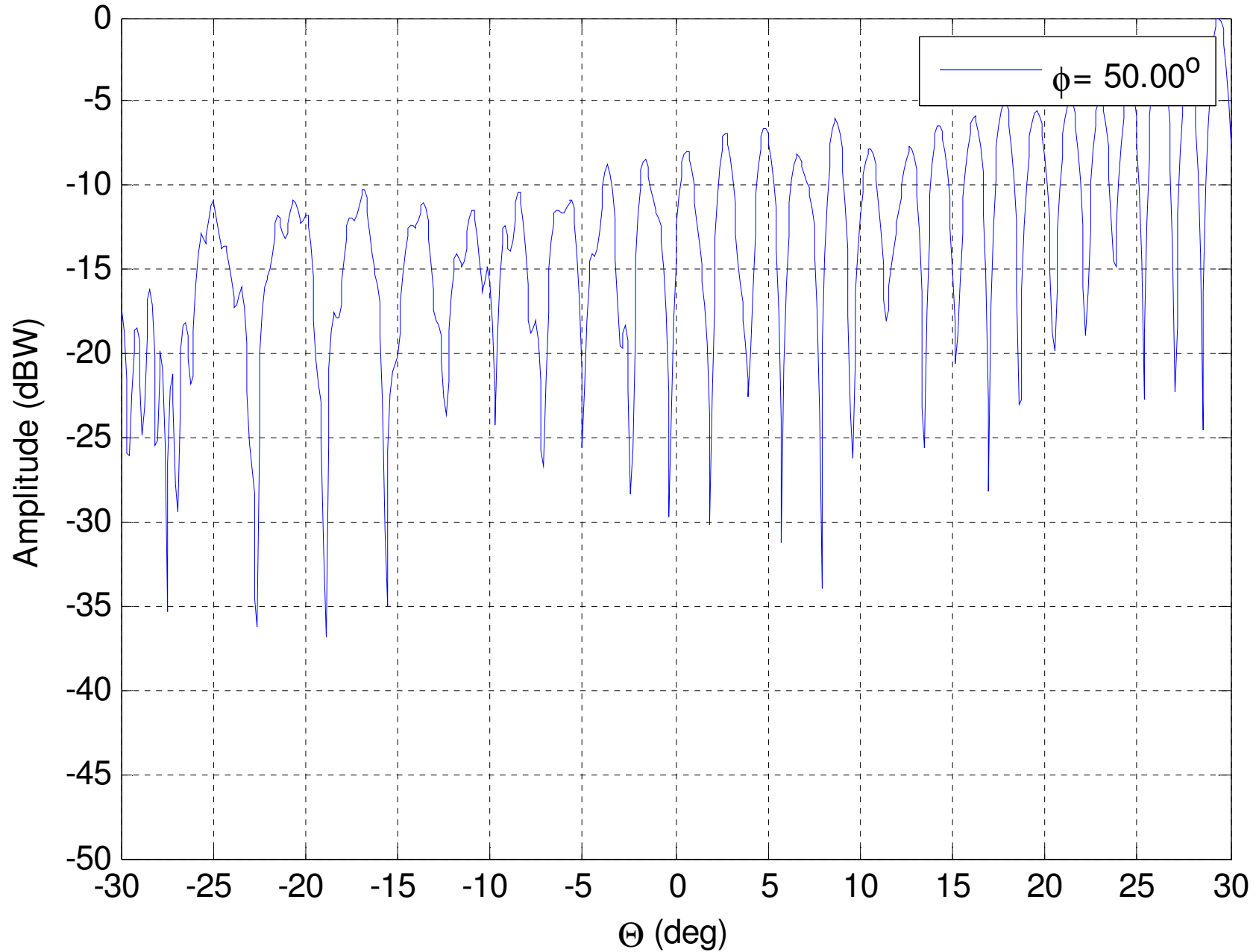
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-40.cut, Peak: -14.69 dBW, Date: 16-Dec-2011



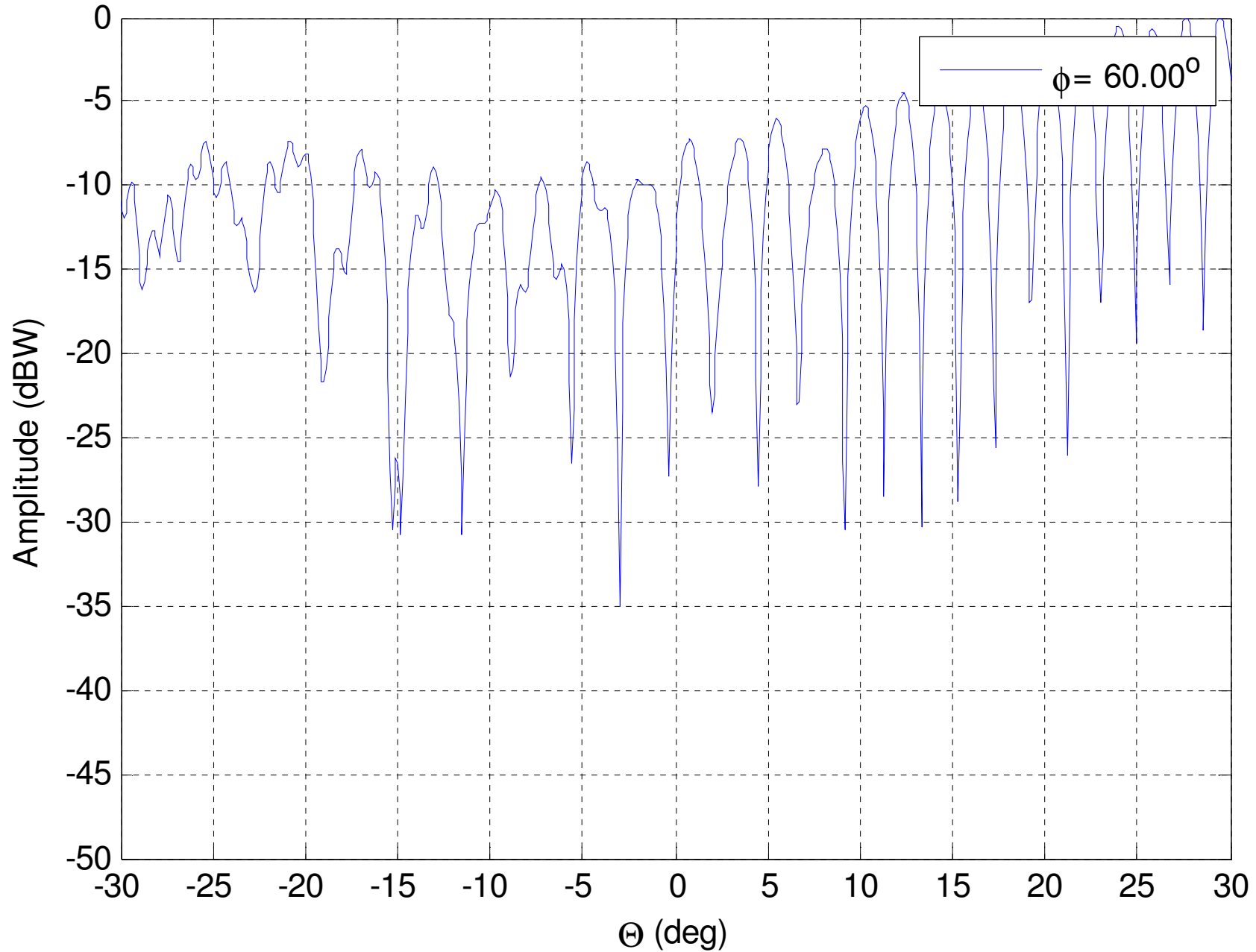
Normalized pattern cuts - farfield

Input file: tx-17.3-rhcp-50.cut, Peak: -11.13 dBW, Date: 16-Dec-2011



Normalized pattern cuts - farfield

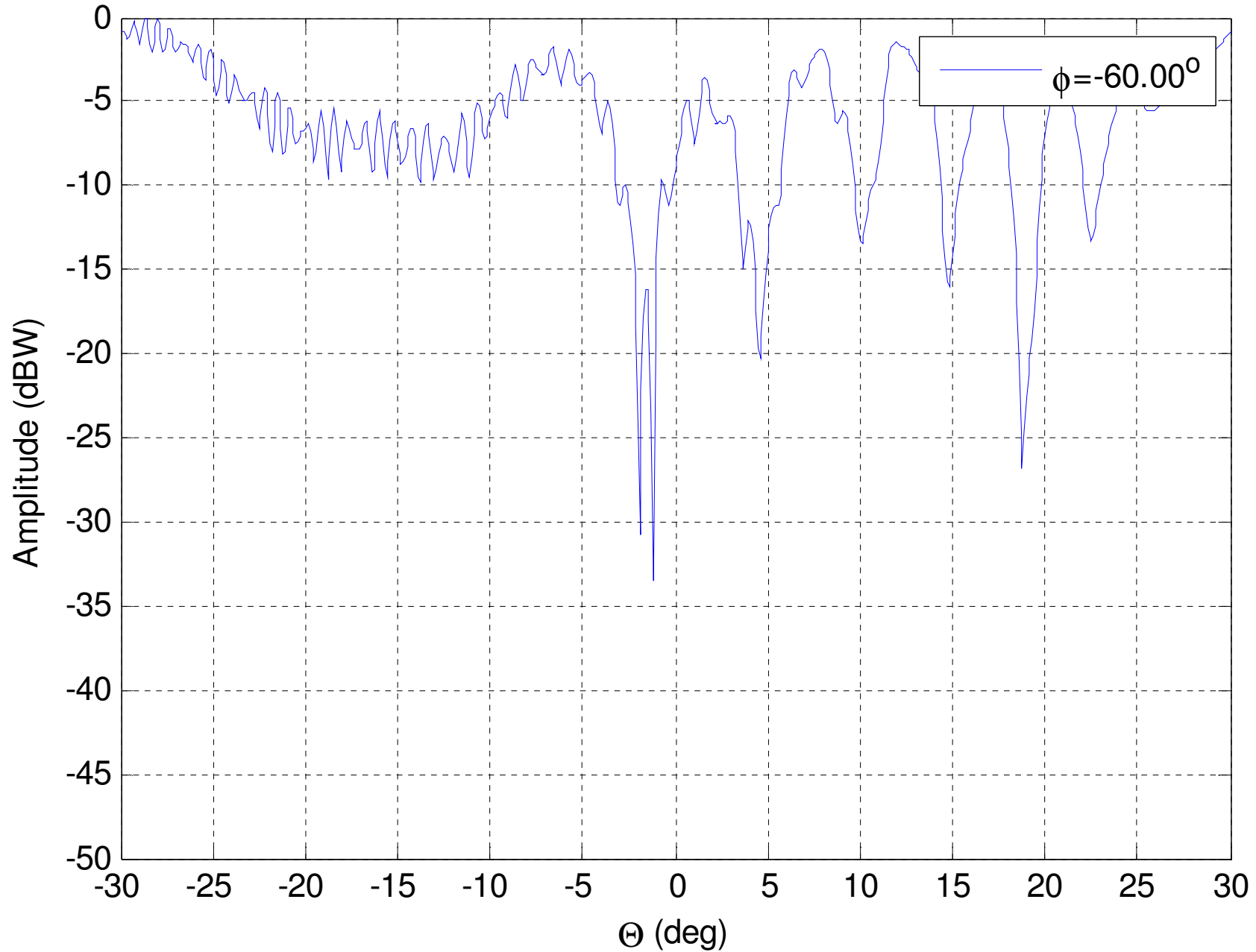
Input file: tx-17.3-rhcp-60.cut, Peak: -11.71 dBW, Date: 16-Dec-2011



LHCP at 17.3 GHz

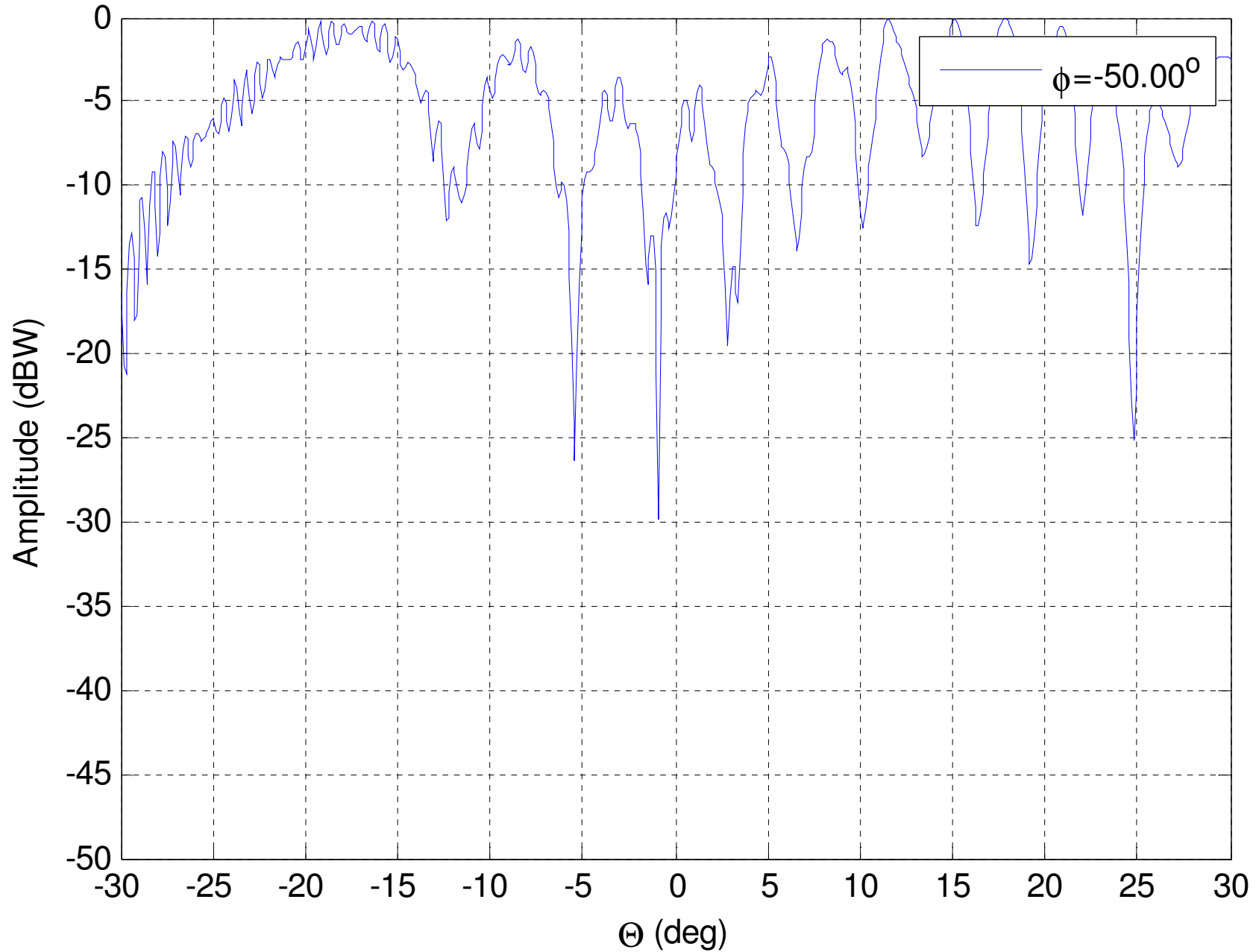
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp--60.cut, Peak: -14.63 dBW, Date: 16-Dec-2011



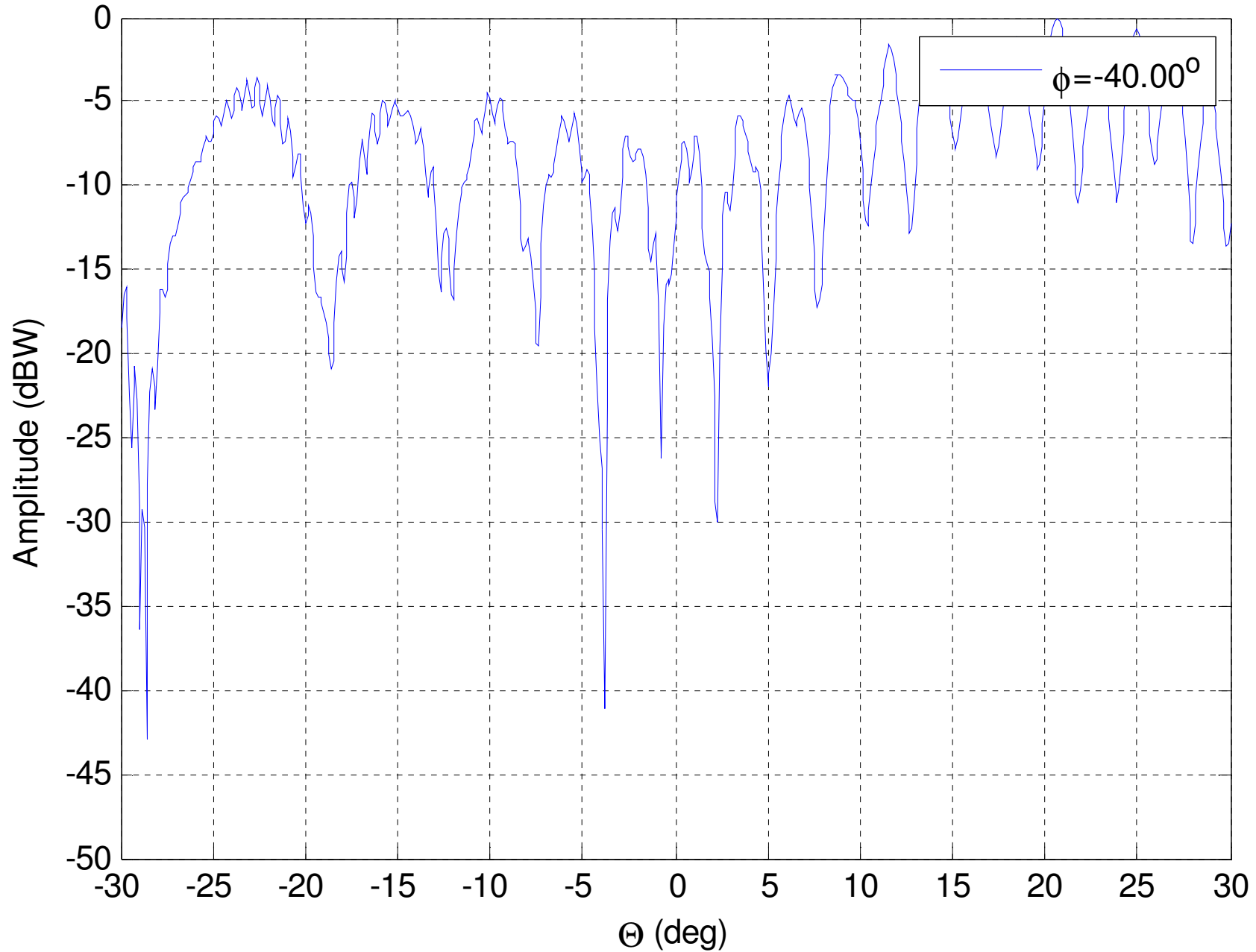
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp--50.cut, Peak: -14.26 dBW, Date: 16-Dec-2011



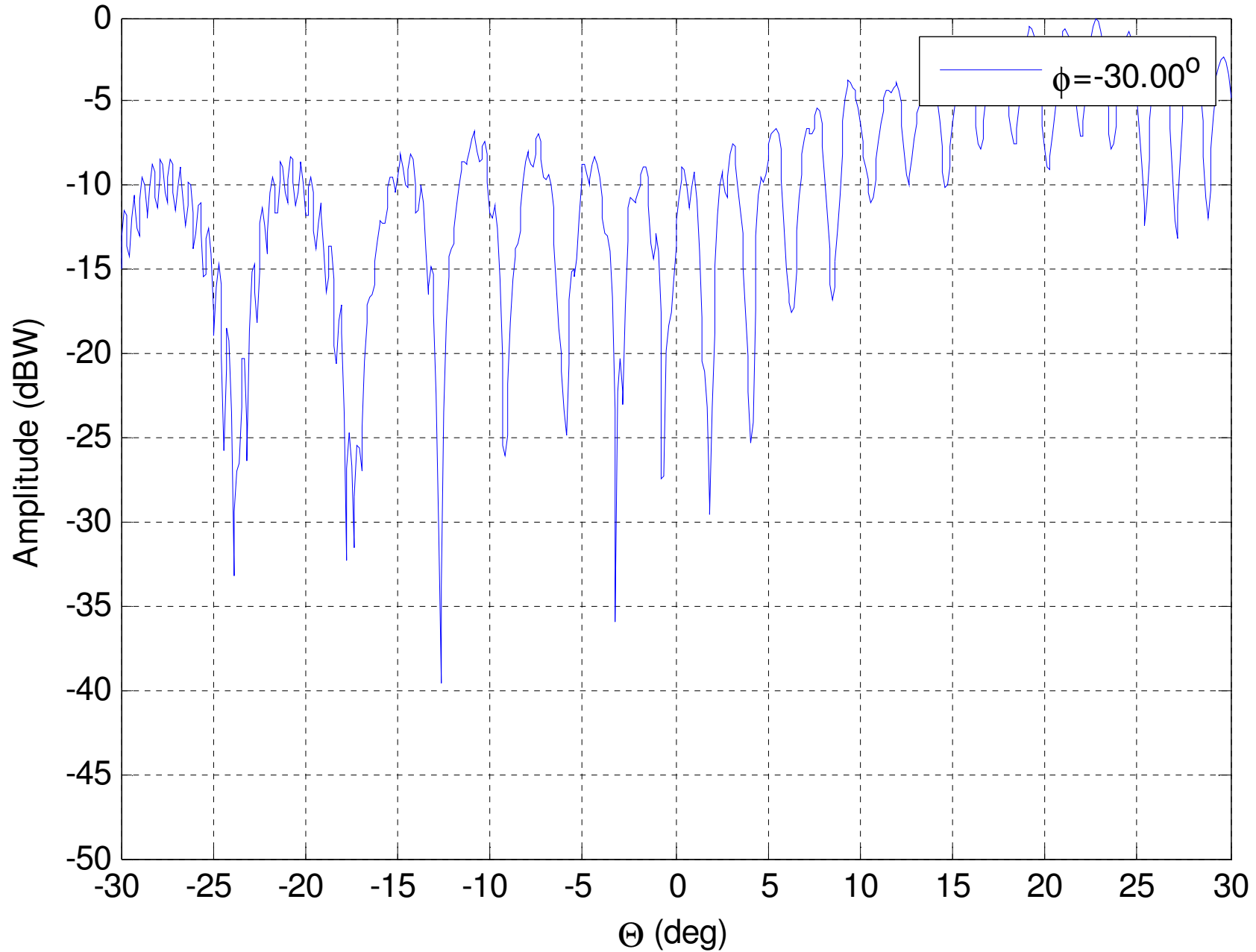
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp--40.cut, Peak: -11.59 dBW, Date: 16-Dec-2011



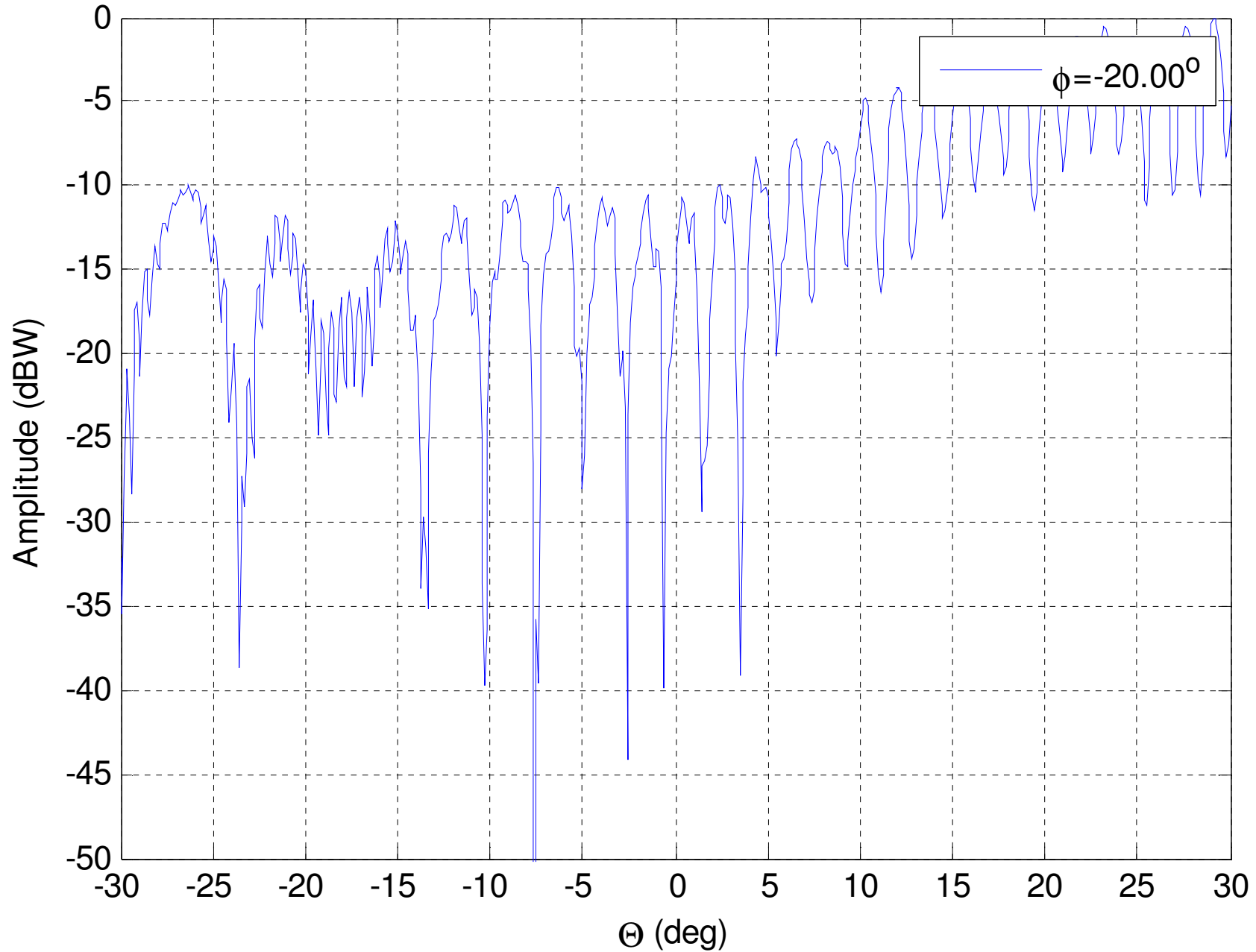
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp--30.cut, Peak: -9.91 dBW, Date: 16-Dec-2011



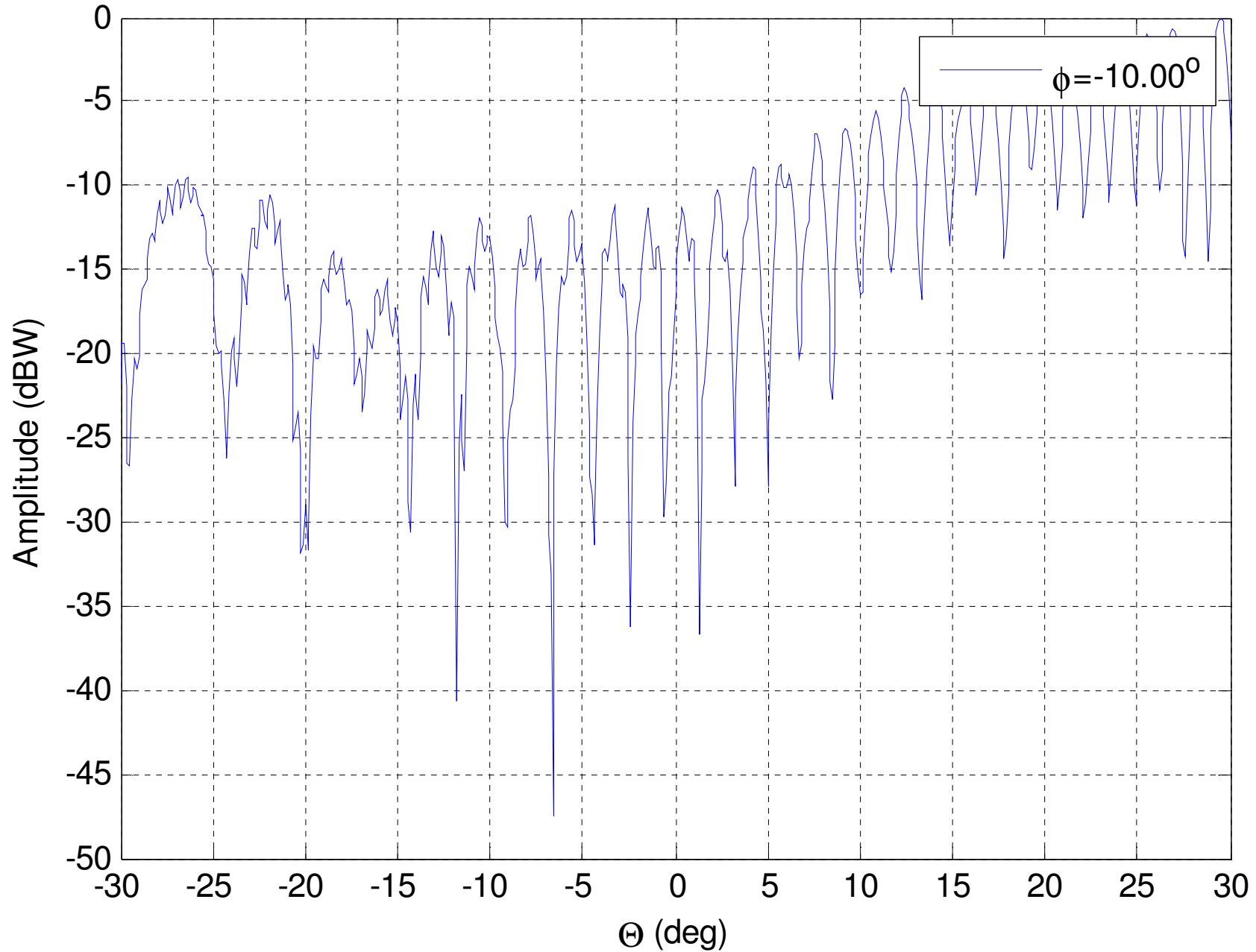
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp--20.cut, Peak: -8.03 dBW, Date: 16-Dec-2011



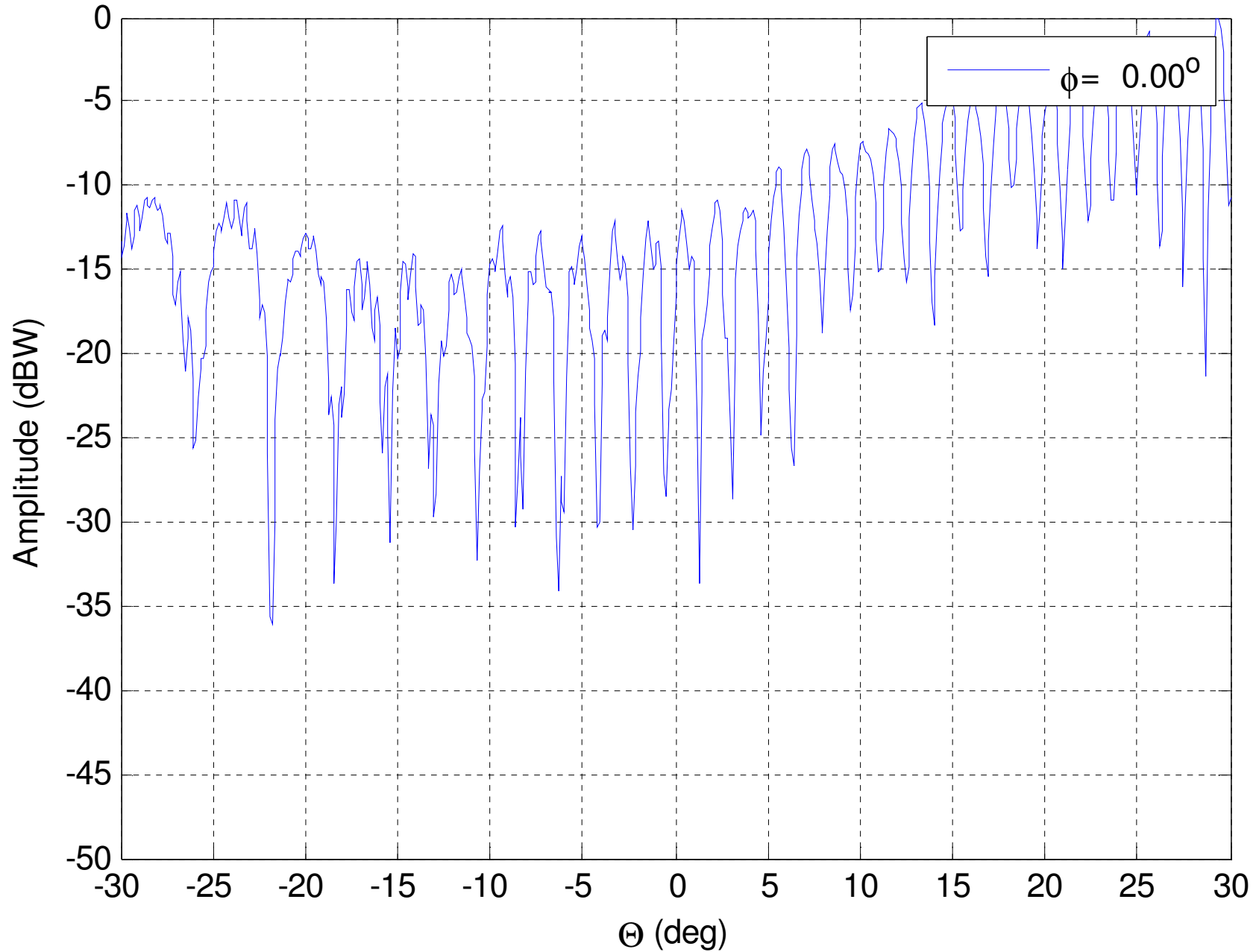
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp--10.cut, Peak: -7.34 dBW, Date: 16-Dec-2011



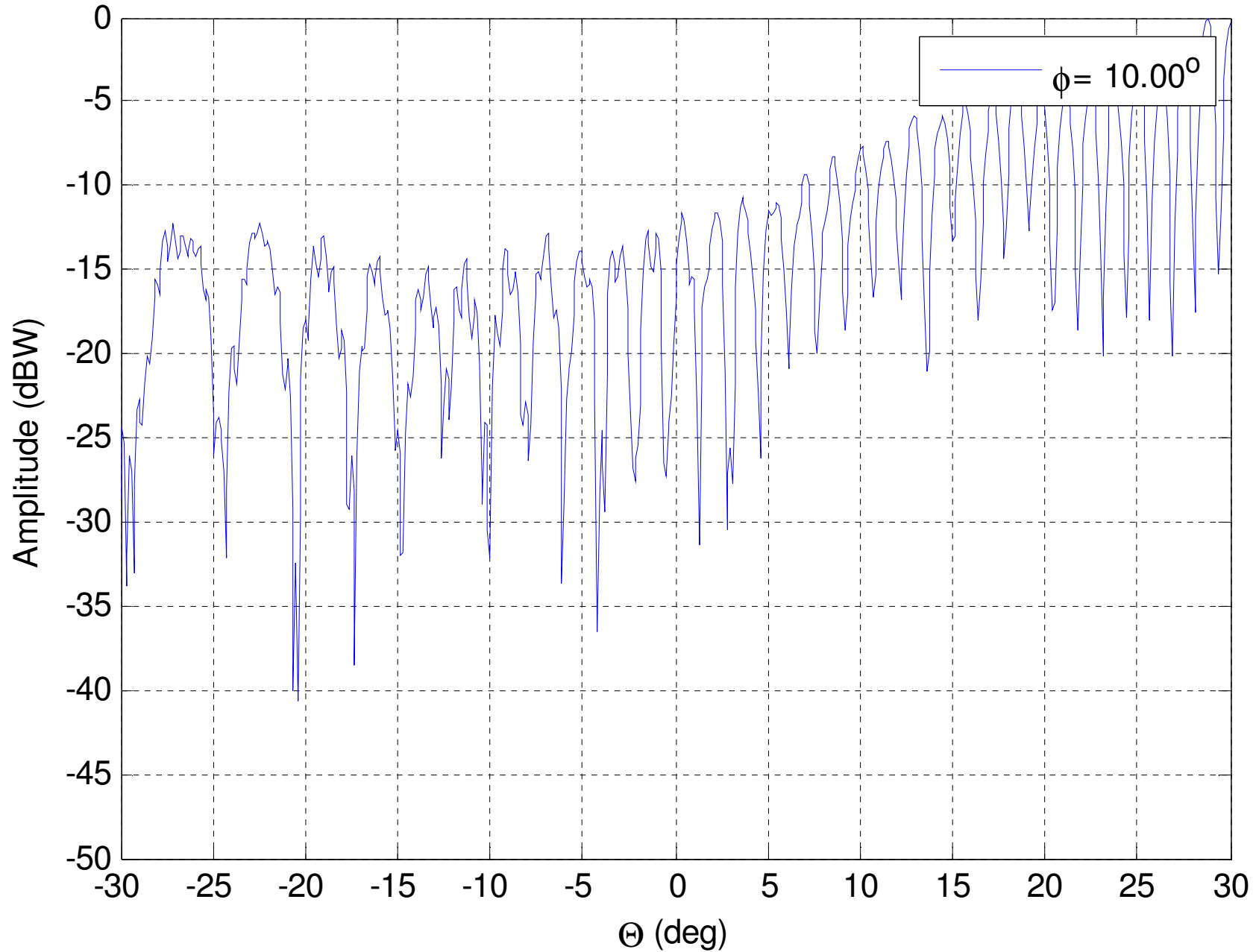
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp-0.cut, Peak: -7.03 dBW, Date: 16-Dec-2011



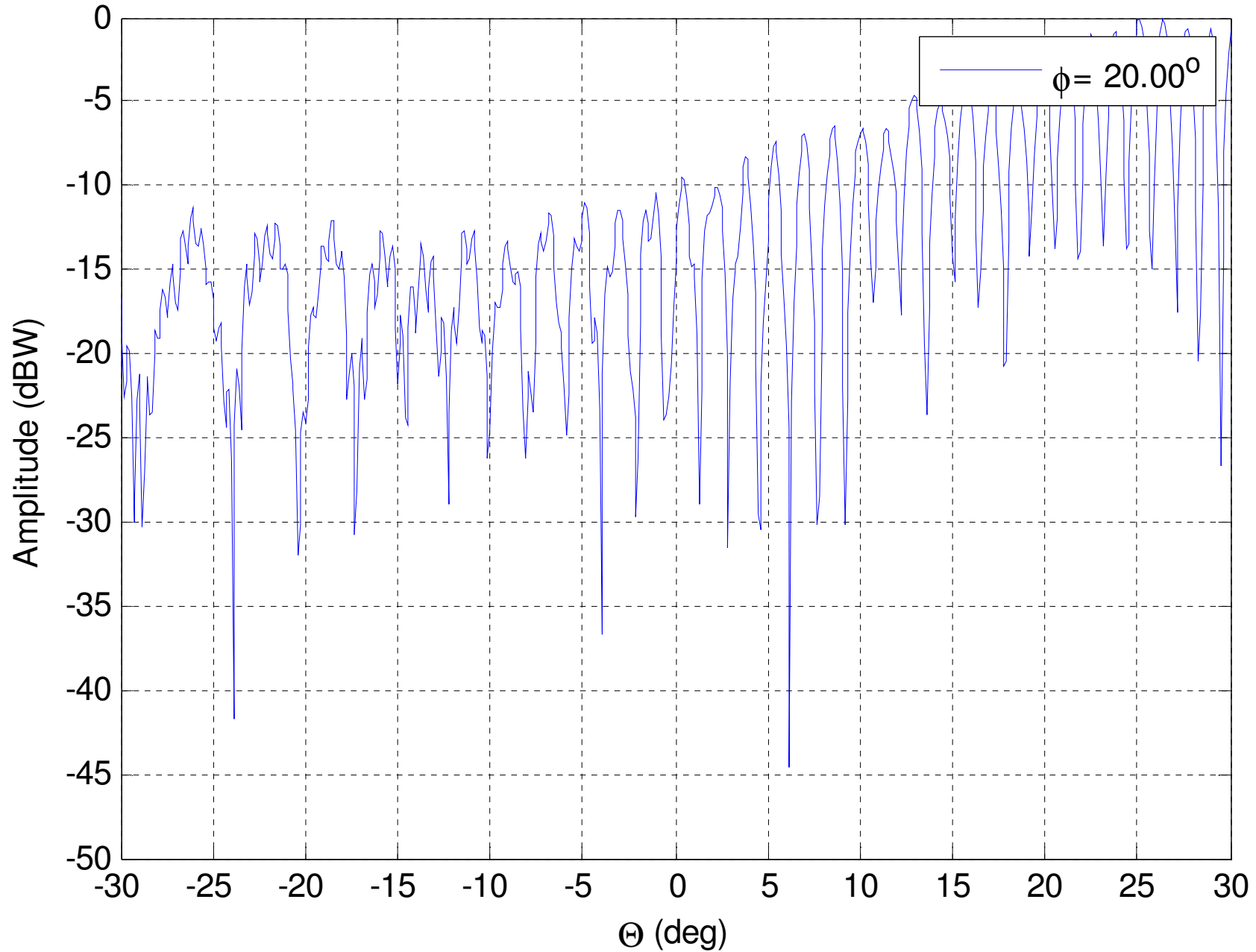
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp-10.cut, Peak: -6.92 dBW, Date: 16-Dec-2011



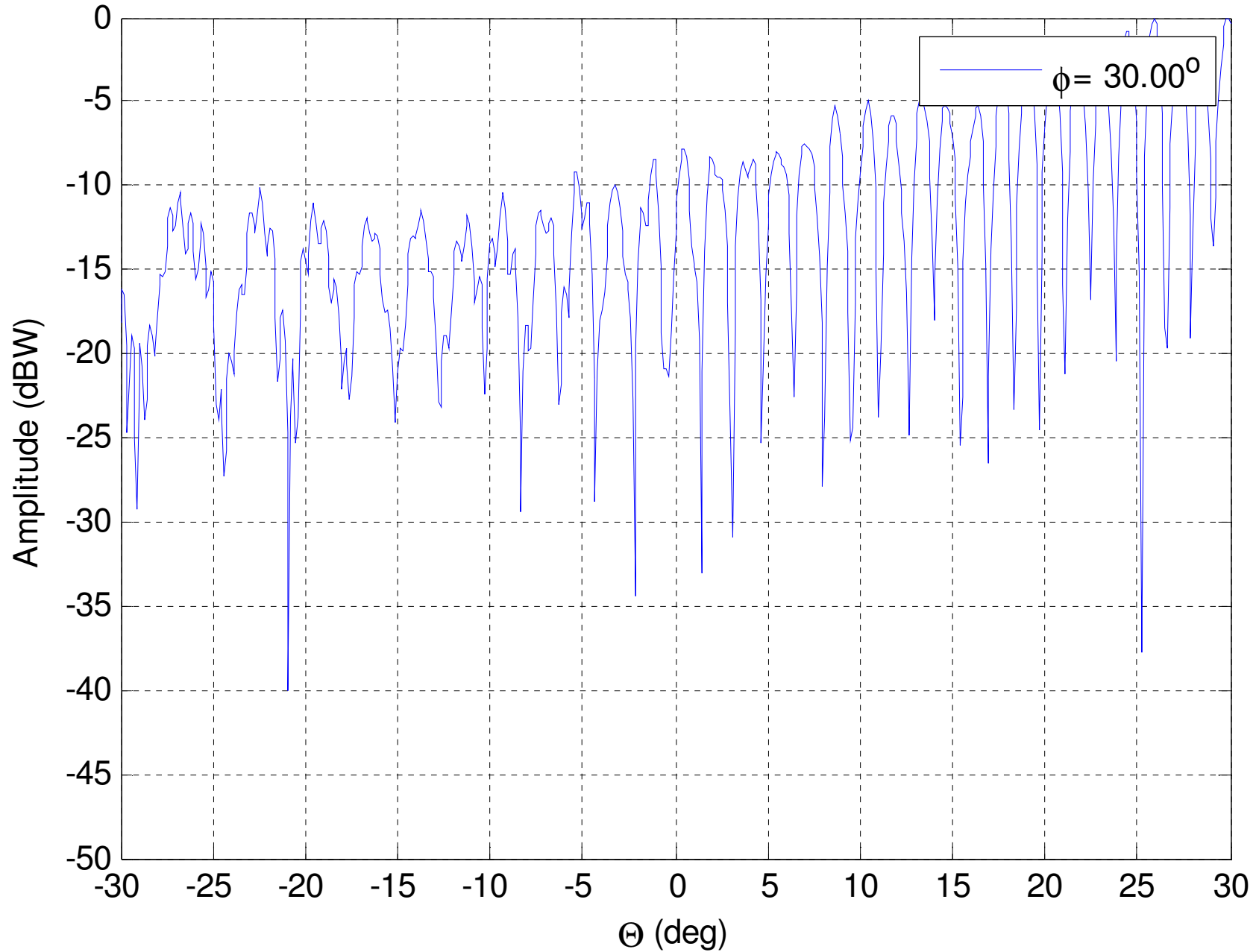
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp-20.cut, Peak: -9.03 dBW, Date: 16-Dec-2011



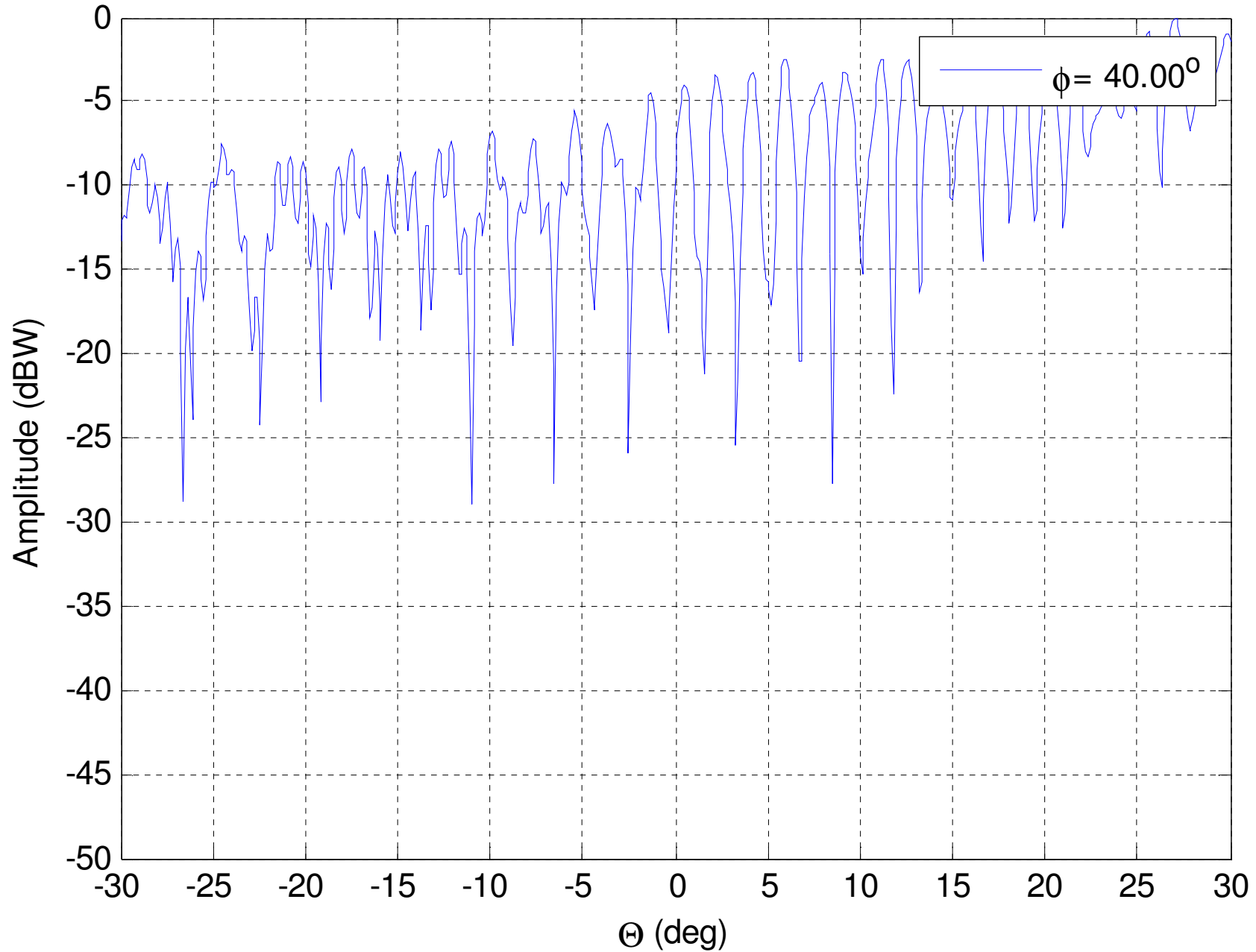
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp-30.cut, Peak: -10.81 dBW, Date: 16-Dec-2011



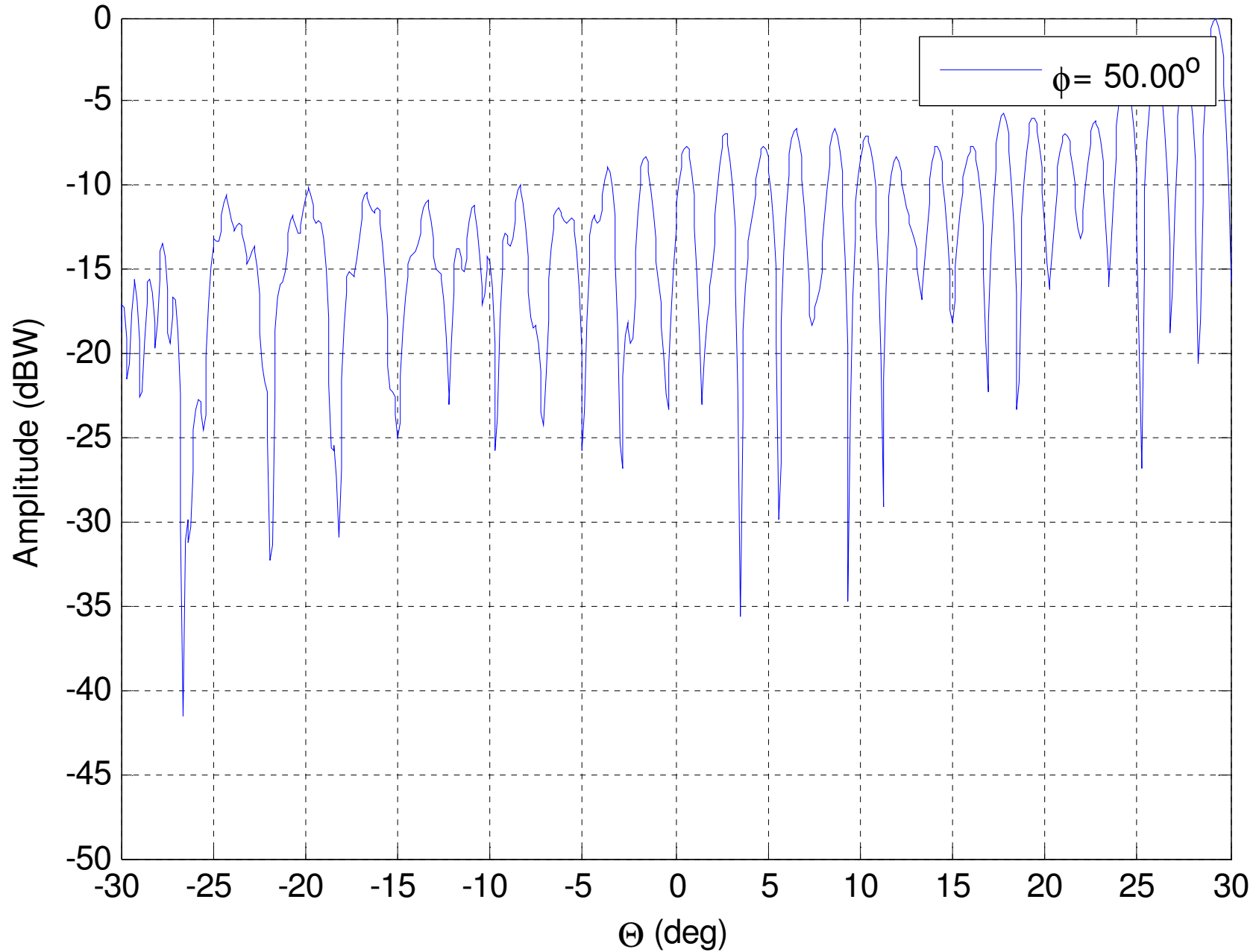
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp-40.cut, Peak: -14.53 dBW, Date: 16-Dec-2011



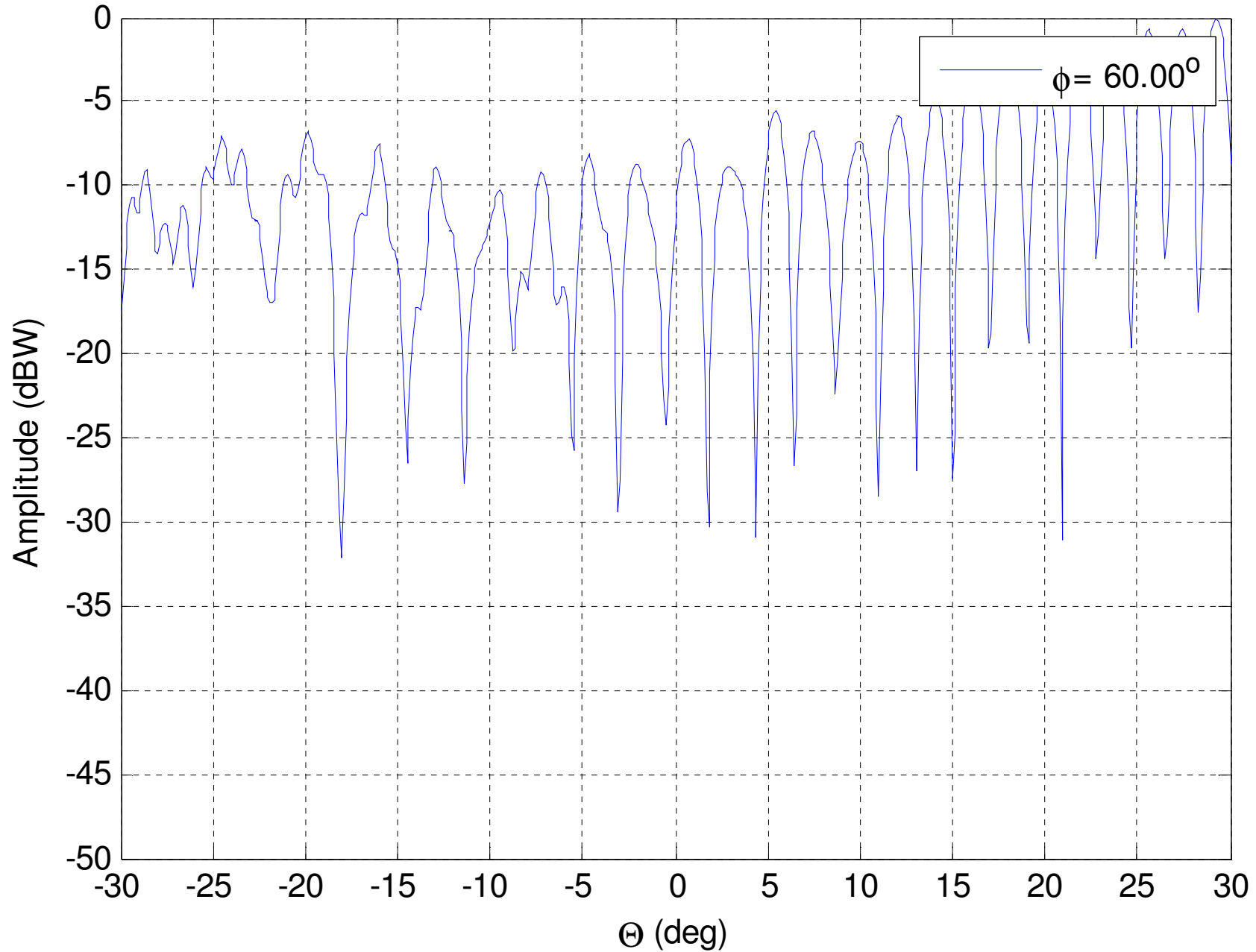
Normalized pattern cuts - farfield

Input file: tx-17.3-lhcp-50.cut, Peak: -11.02 dBW, Date: 16-Dec-2011



Normalized pattern cuts - farfield

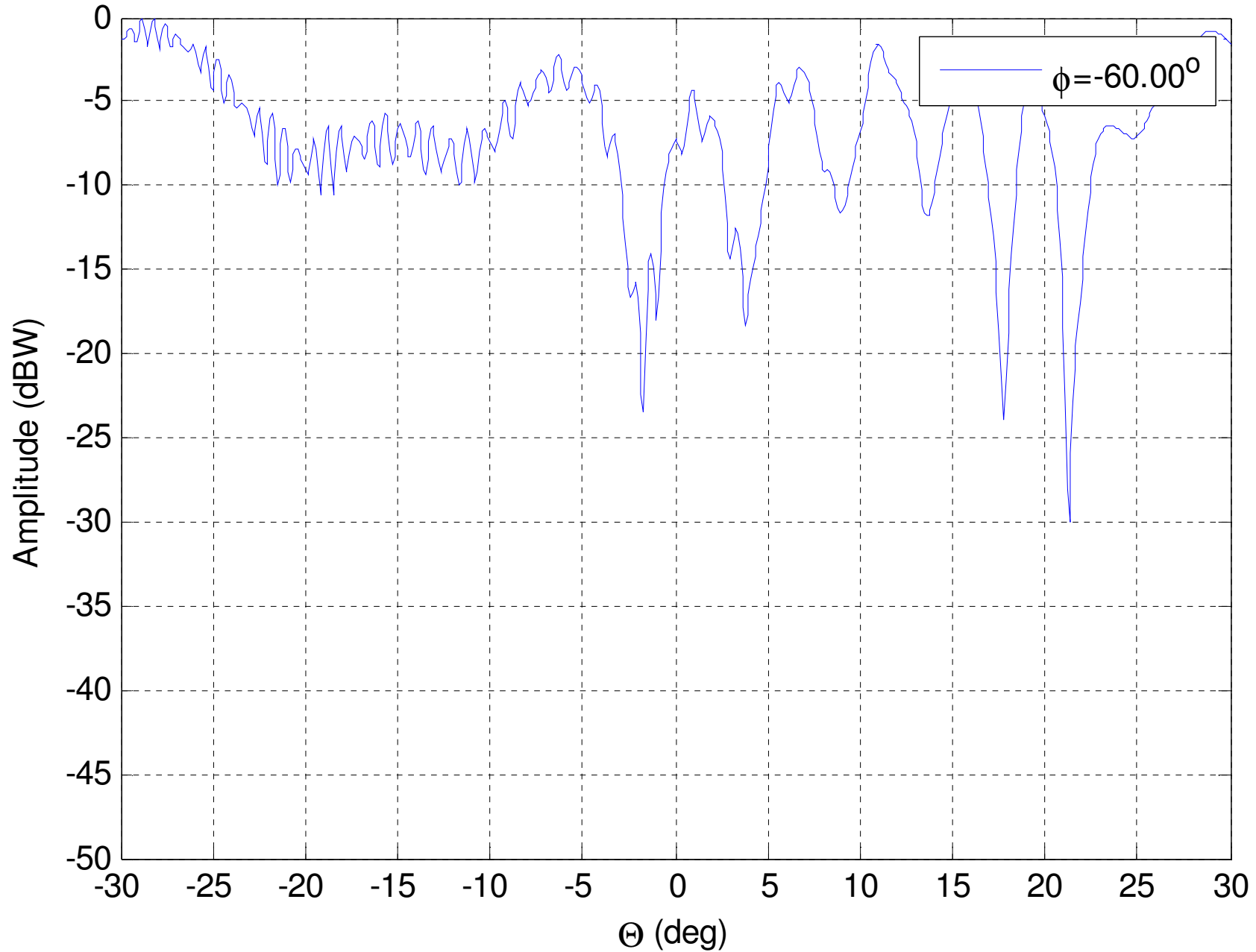
Input file: tx-17.3-lhcp-60.cut, Peak: -11.56 dBW, Date: 16-Dec-2011



RHCP at 17.5 GHz

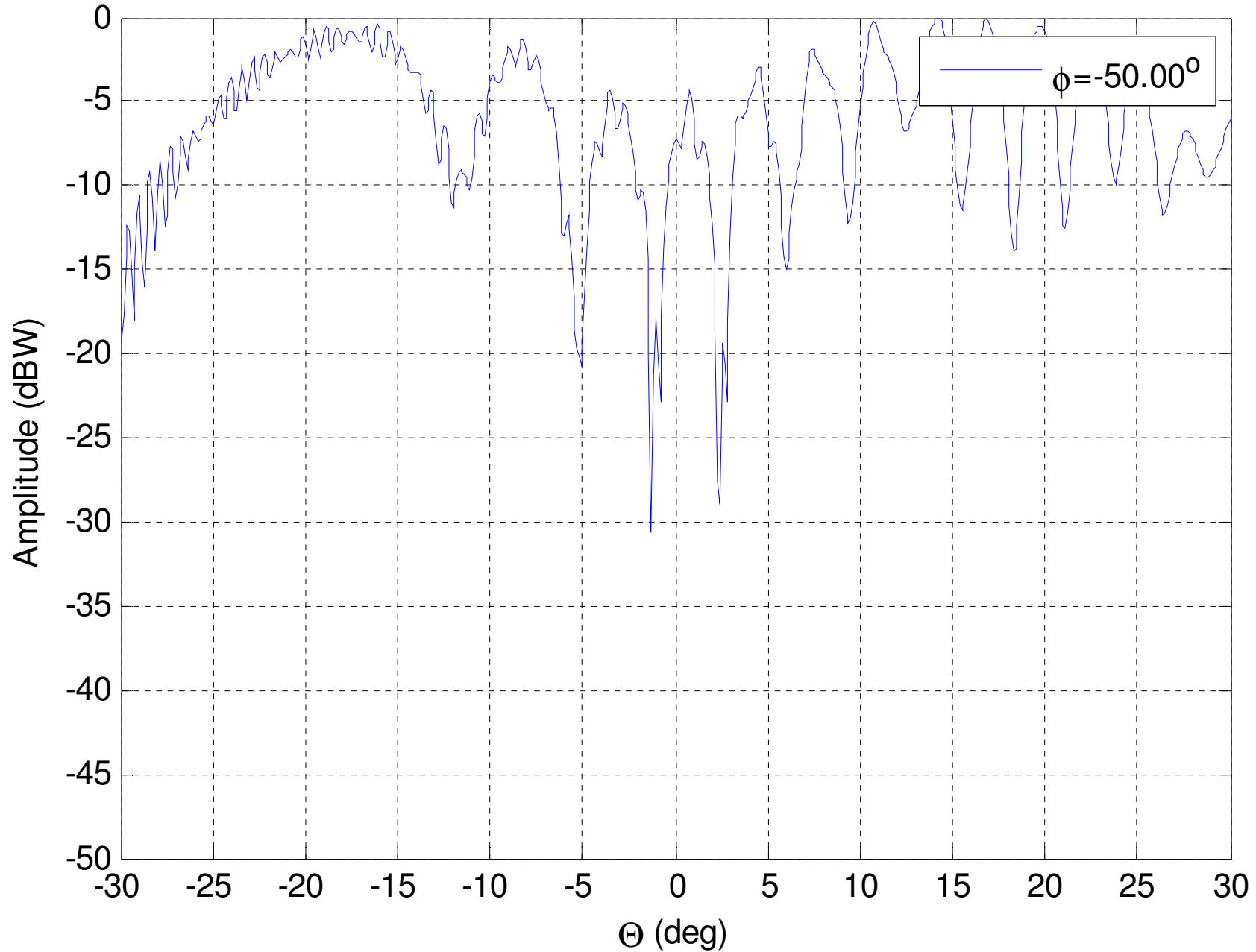
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--60.cut, Peak: -14.02 dBW, Date: 16-Dec-2011



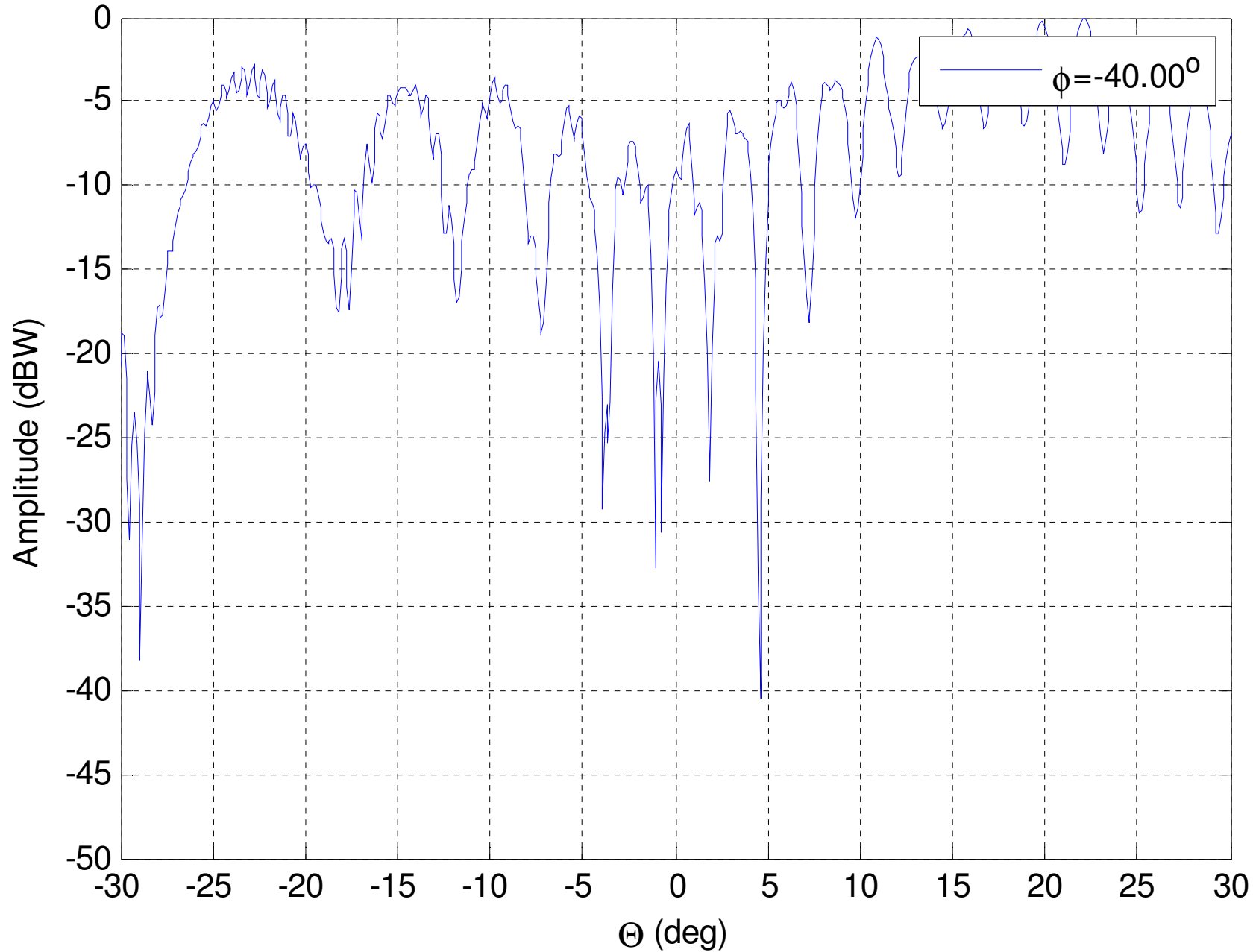
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--50.cut, Peak: -14.11 dBW, Date: 16-Dec-2011



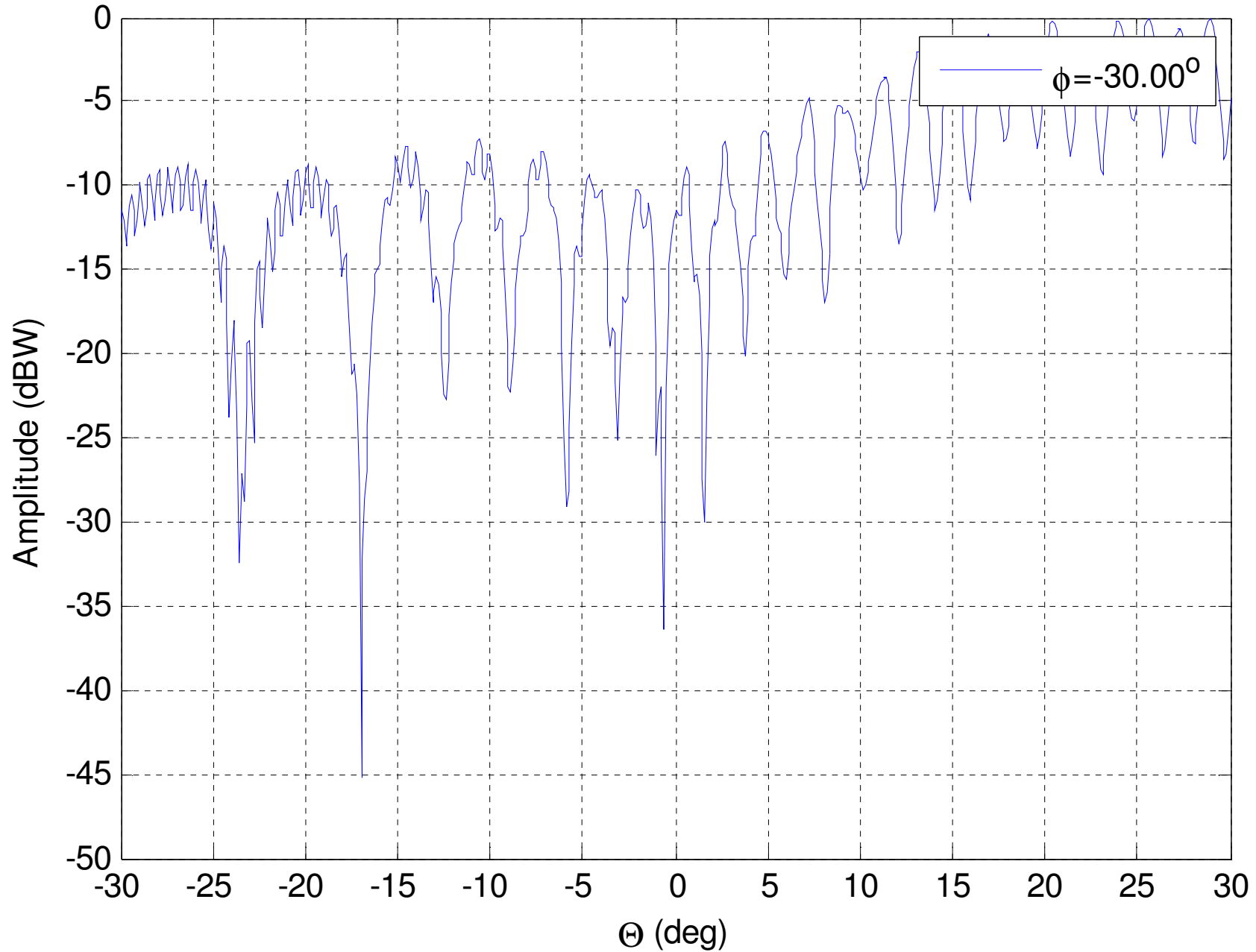
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--40.cut, Peak: -12.22 dBW, Date: 16-Dec-2011



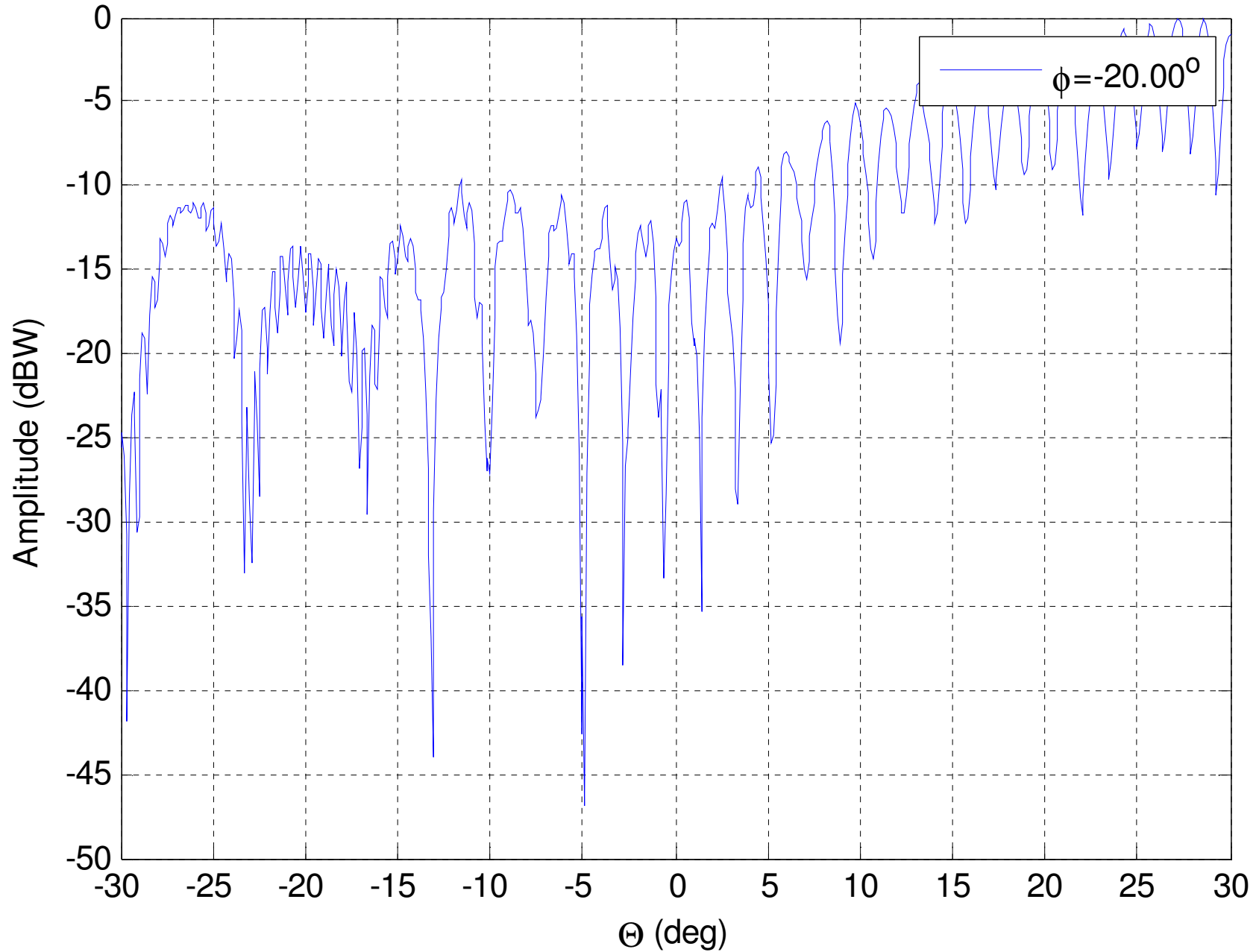
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--30.cut, Peak: -9.87 dBW, Date: 16-Dec-2011



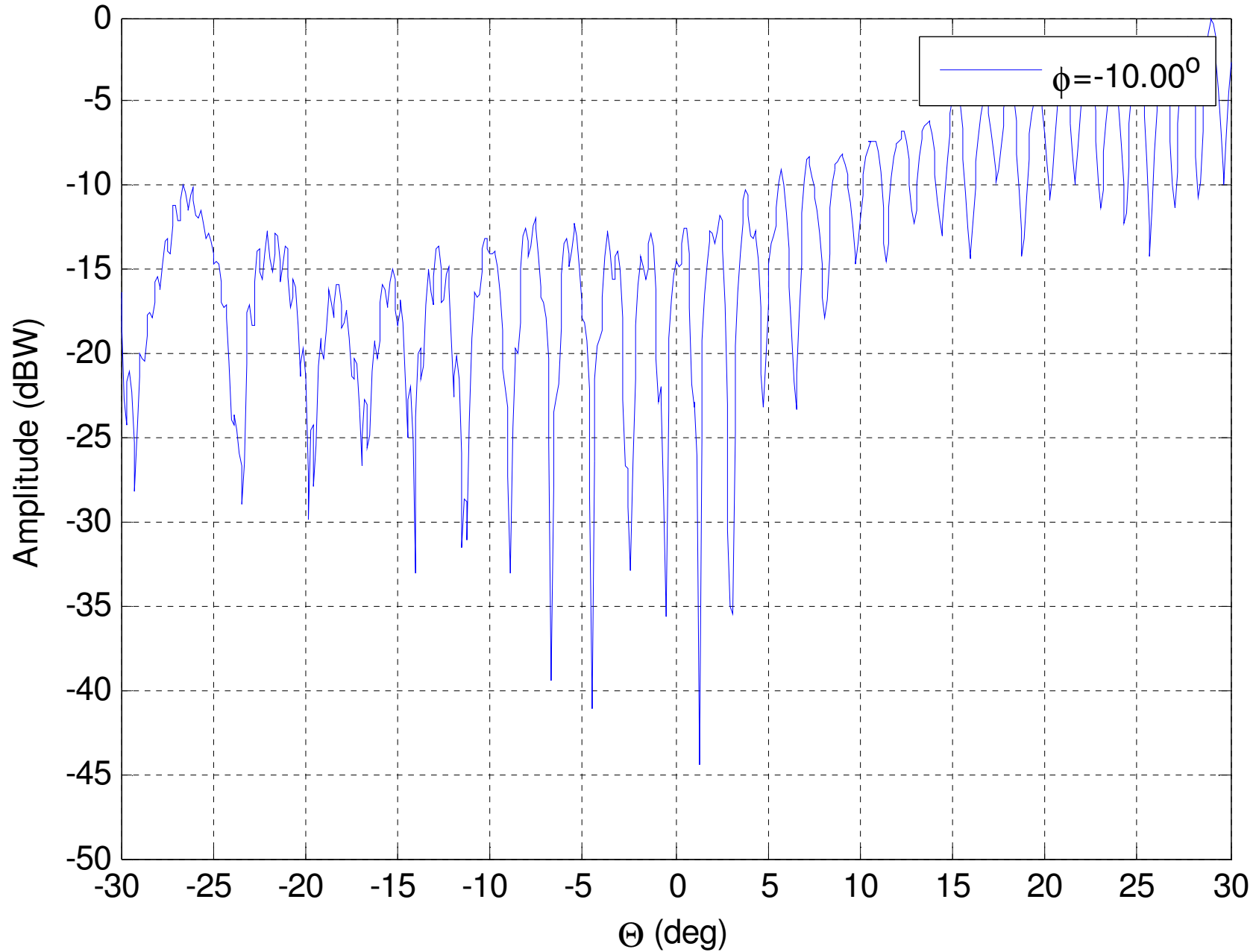
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--20.cut, Peak: -8.11 dBW, Date: 16-Dec-2011



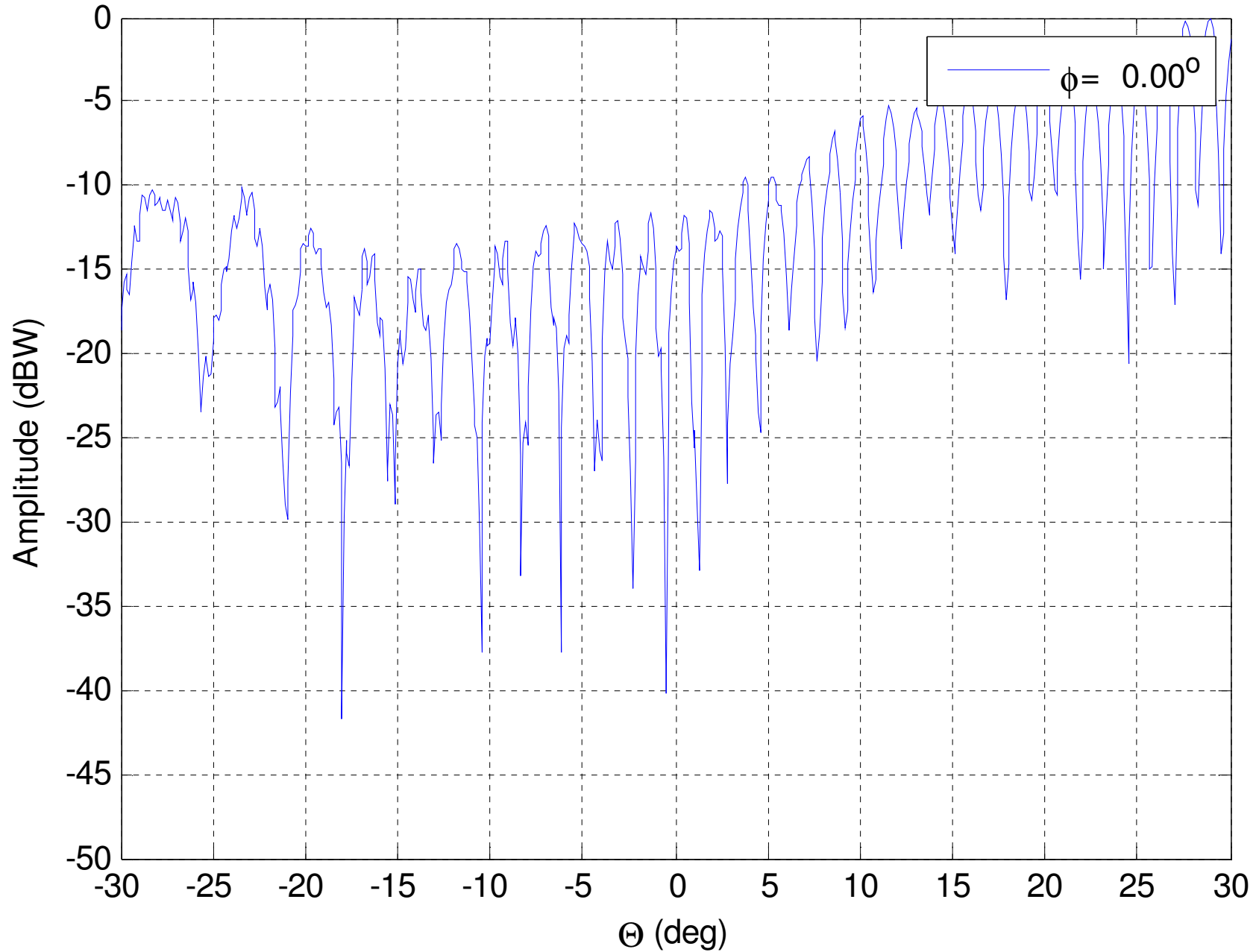
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp--10.cut, Peak: -6.78 dBW, Date: 16-Dec-2011



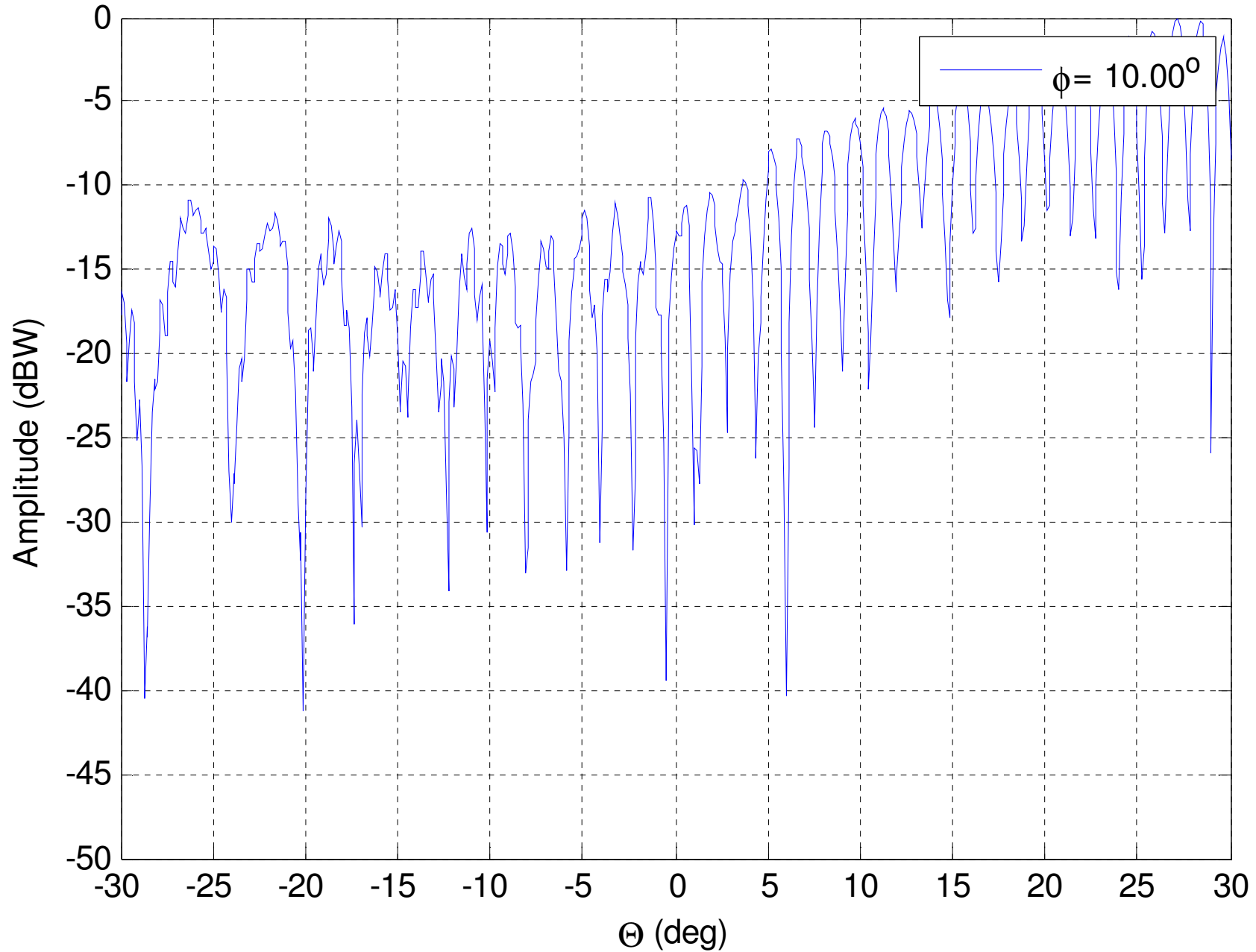
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-0.cut, Peak: -7.60 dBW, Date: 16-Dec-2011



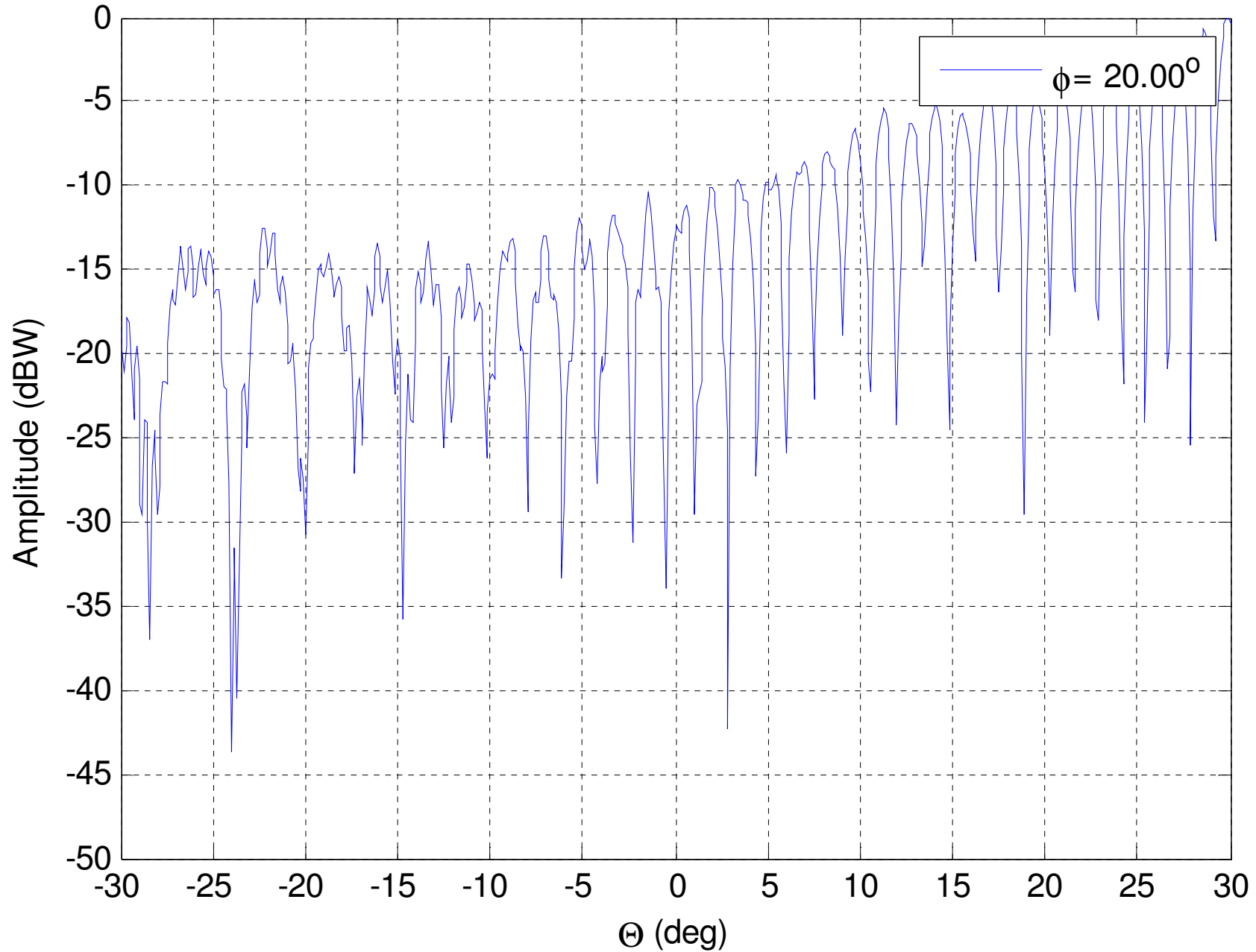
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-10.cut, Peak: -8.48 dBW, Date: 16-Dec-2011



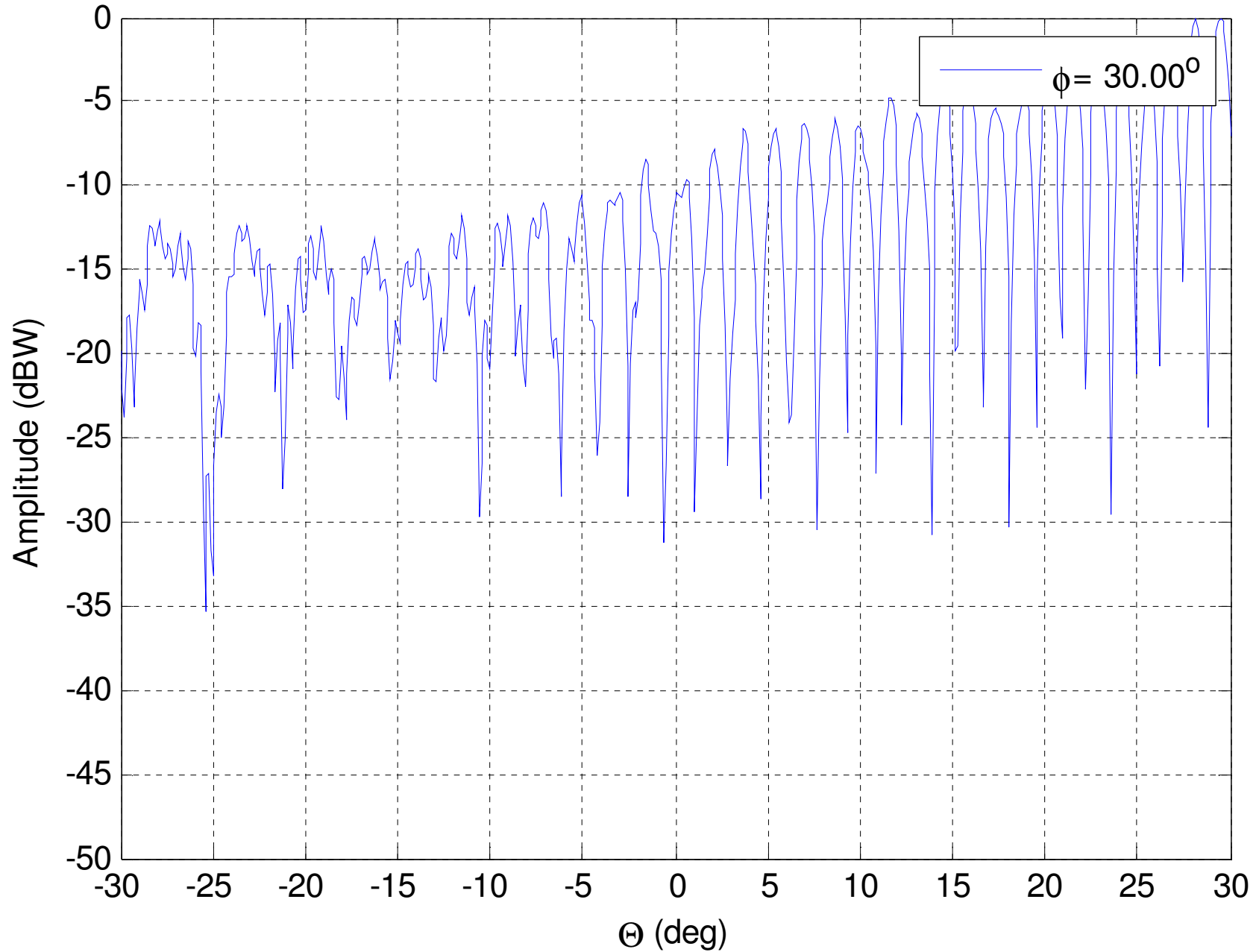
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-20.cut, Peak: -8.70 dBW, Date: 16-Dec-2011



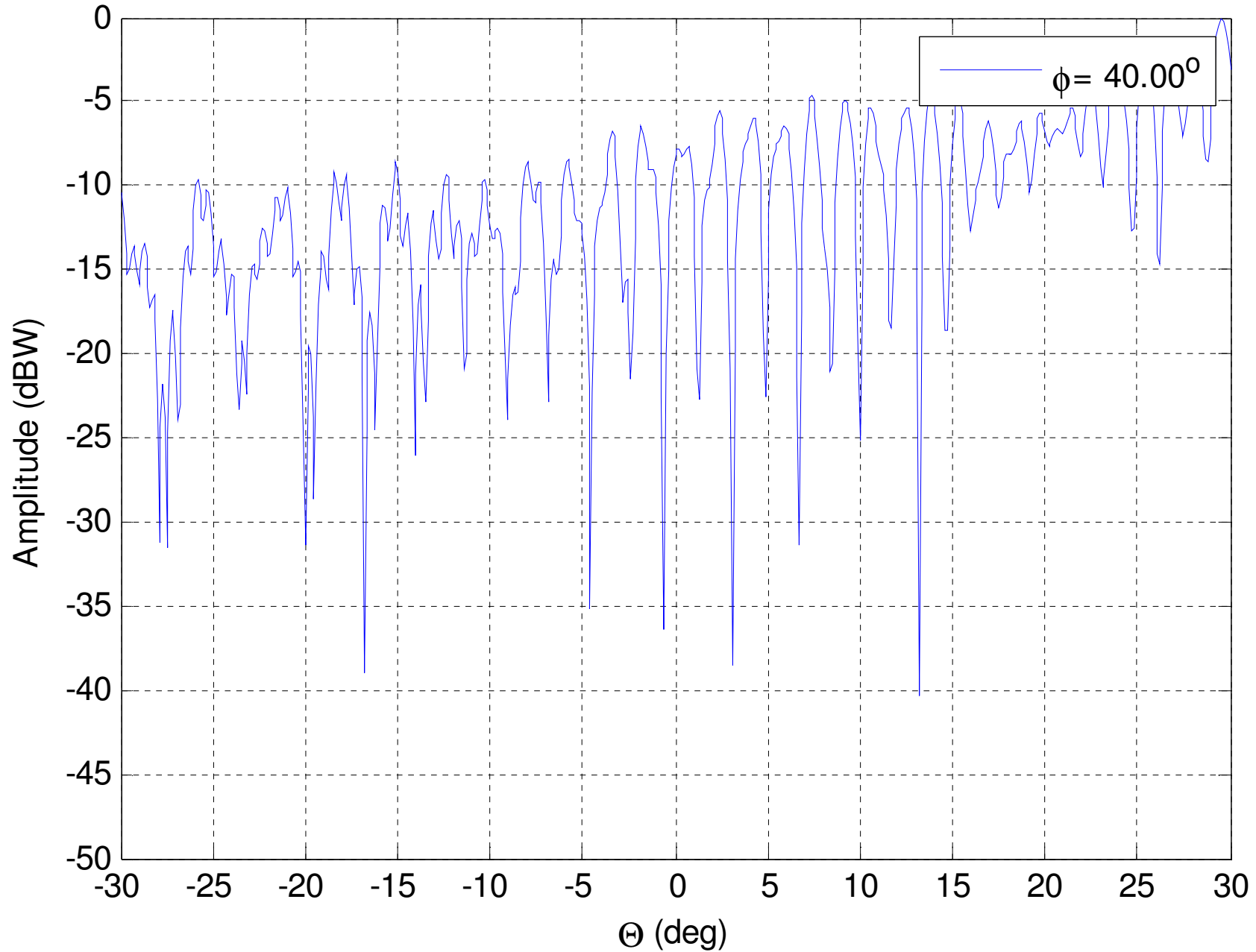
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-30.cut, Peak: -10.69 dBW, Date: 16-Dec-2011



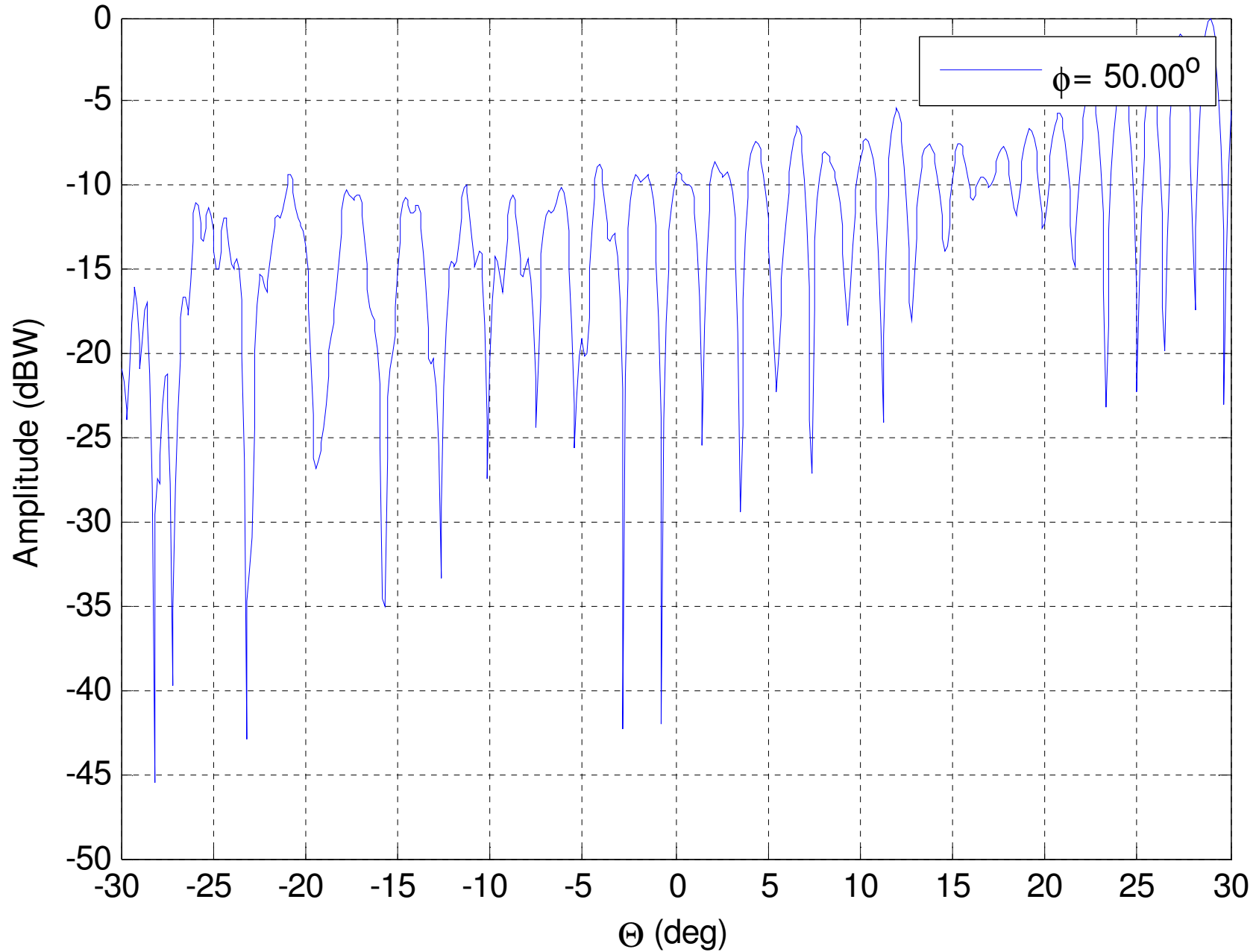
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-40.cut, Peak: -13.19 dBW, Date: 16-Dec-2011



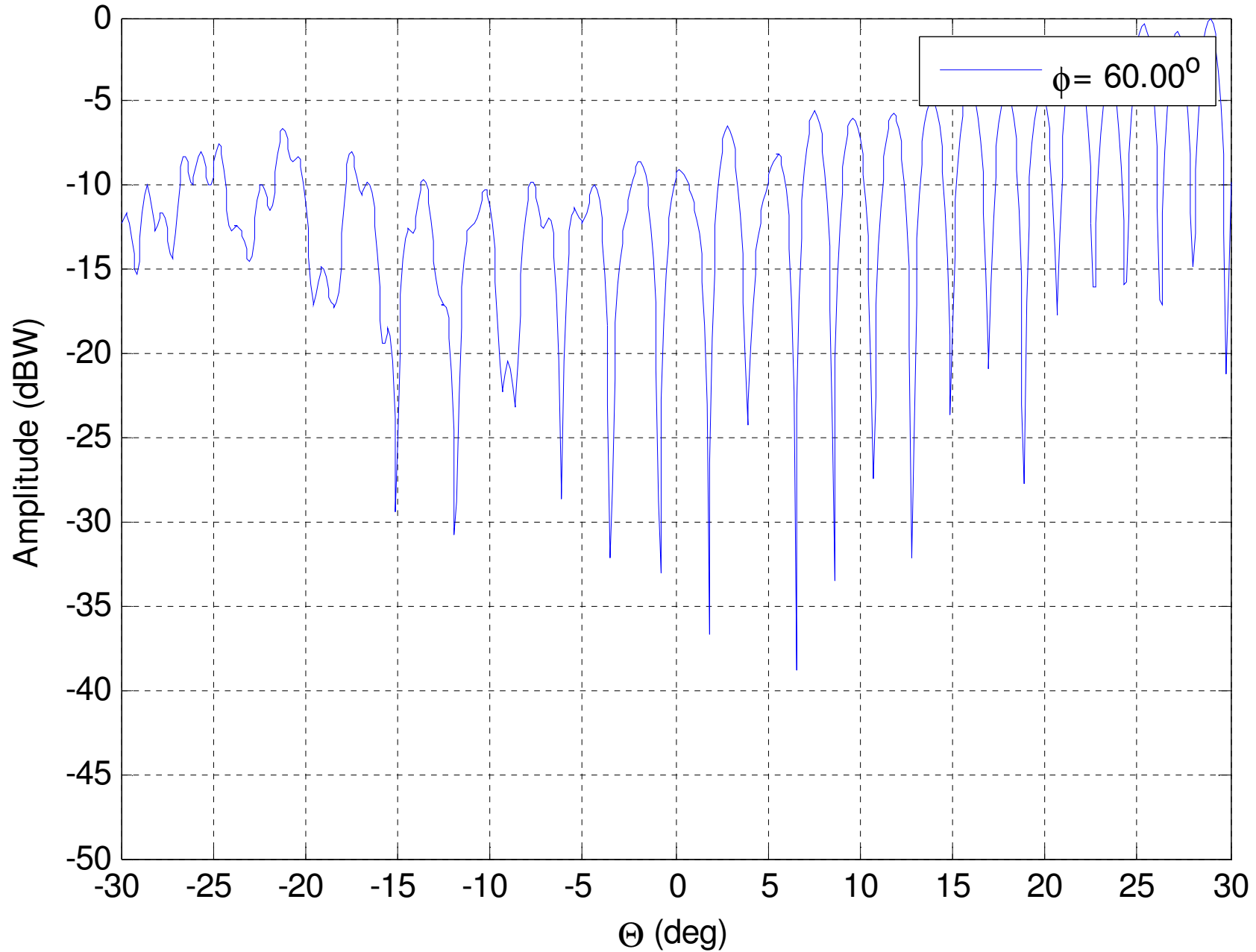
Normalized pattern cuts - farfield

Input file: tx-17.5-rhcp-50.cut, Peak: -11.69 dBW, Date: 16-Dec-2011



Normalized pattern cuts - farfield

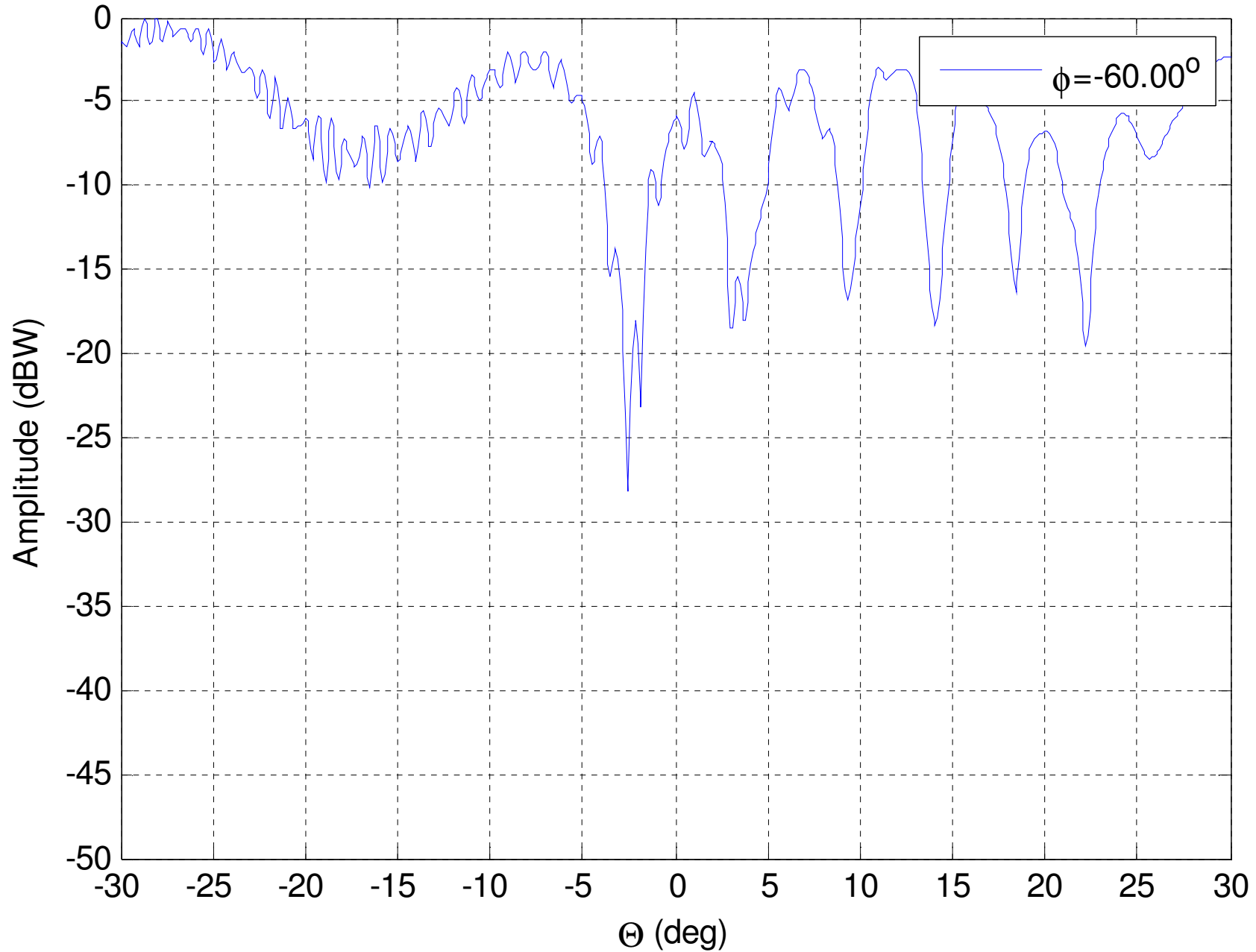
Input file: tx-17.5-rhcp-60.cut, Peak: -11.72 dBW, Date: 16-Dec-2011



LHCP at 17.5 GHz

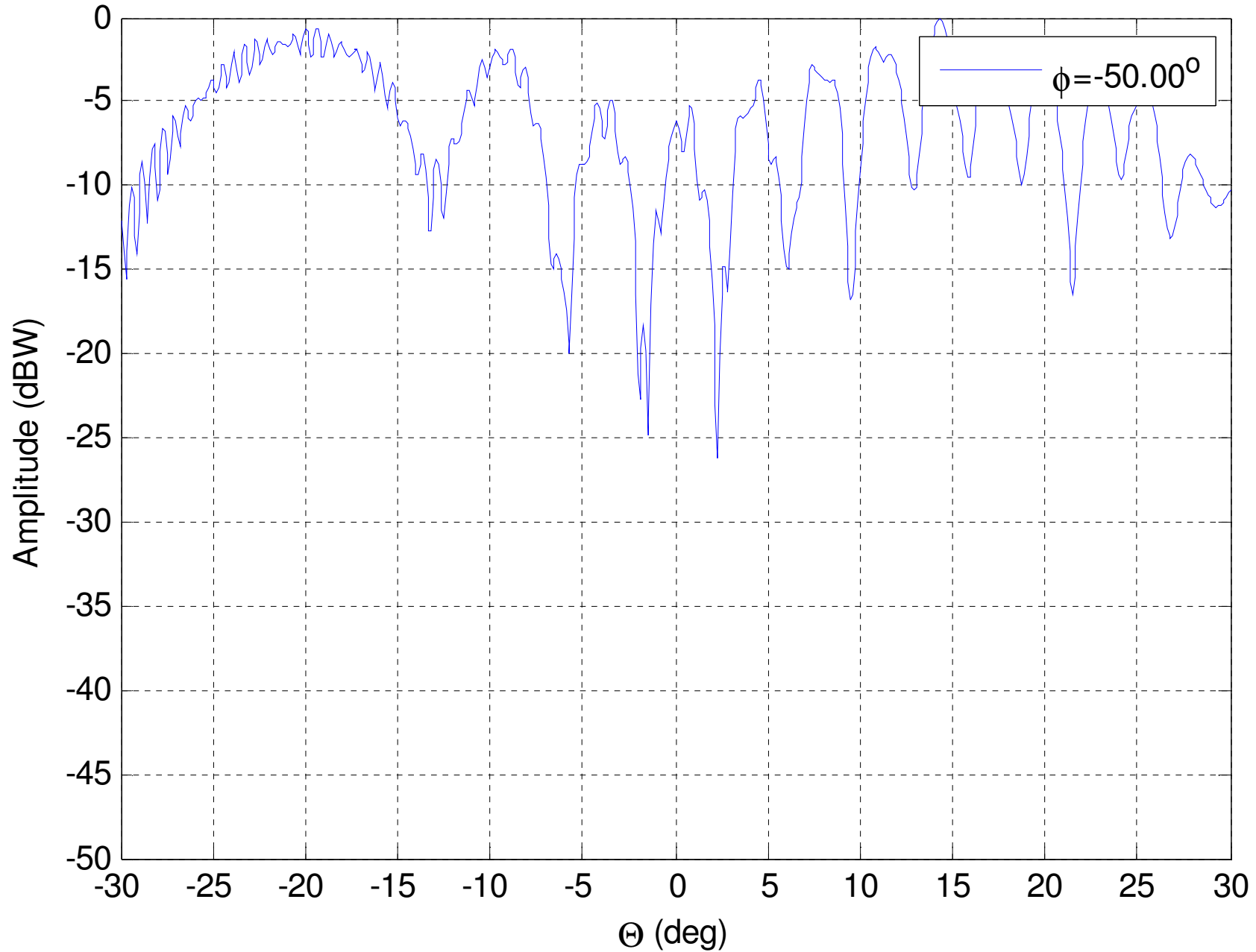
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--60.cut, Peak: -13.66 dBW, Date: 16-Dec-2011



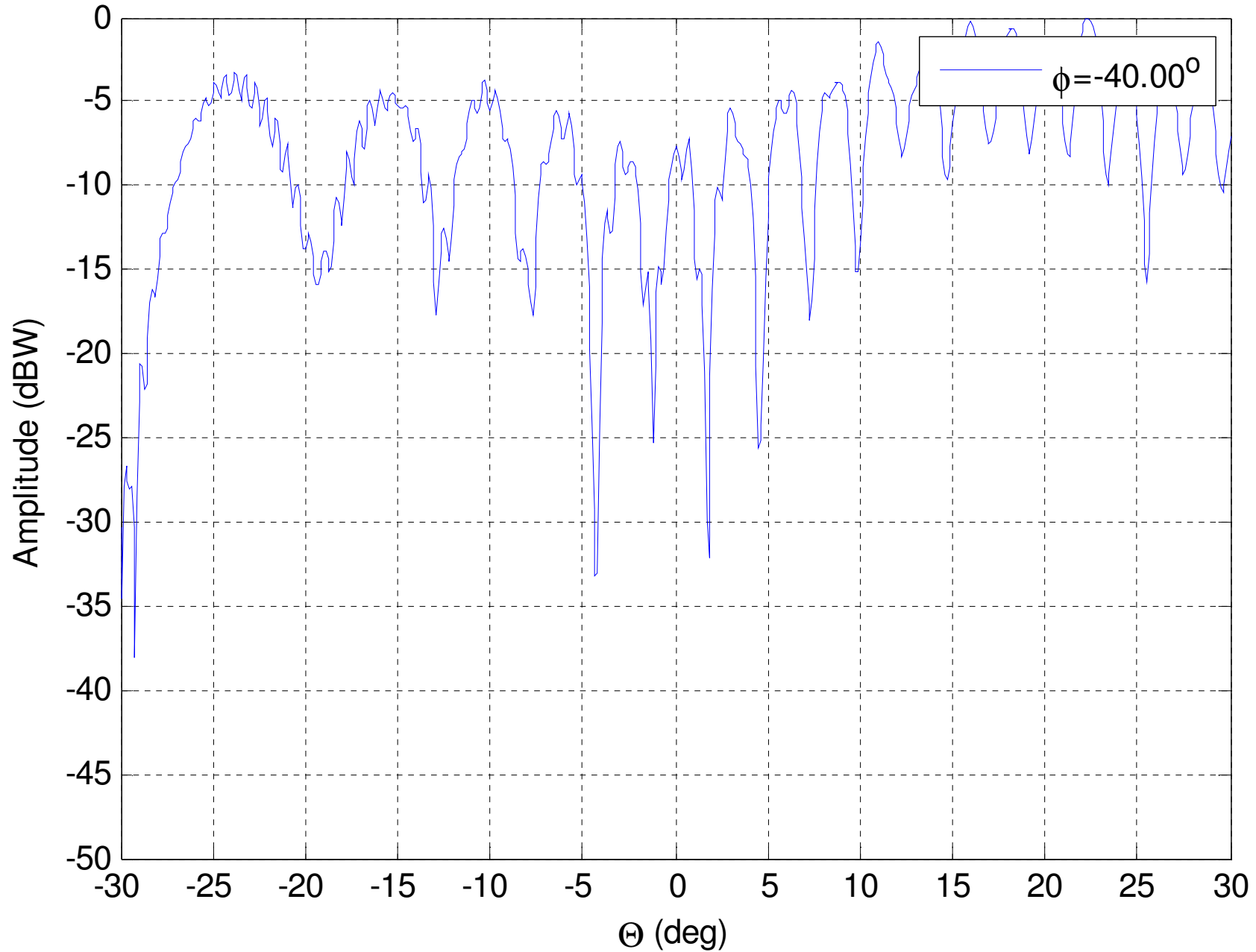
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--50.cut, Peak: -13.40 dBW, Date: 16-Dec-2011



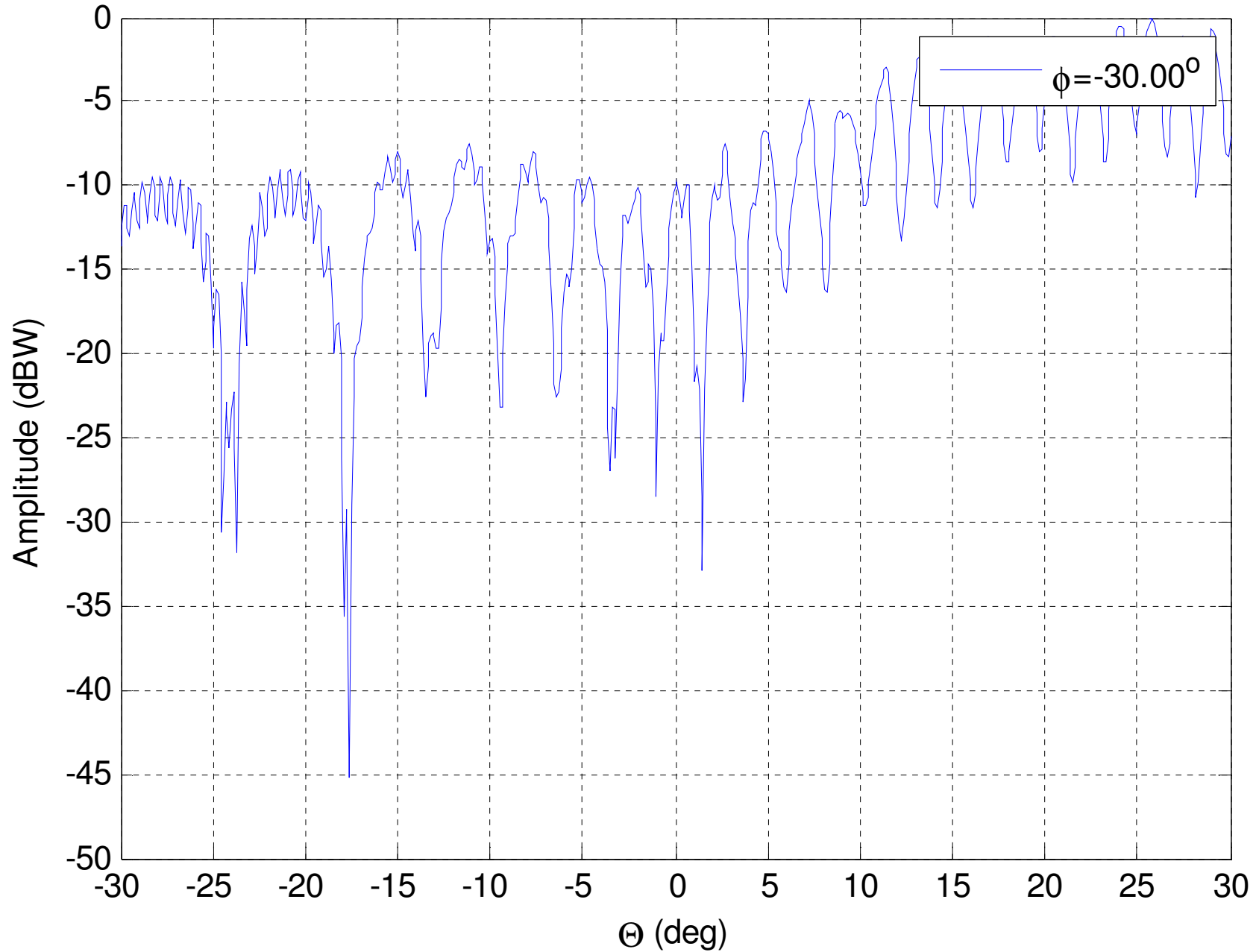
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--40.cut, Peak: -11.90 dBW, Date: 16-Dec-2011



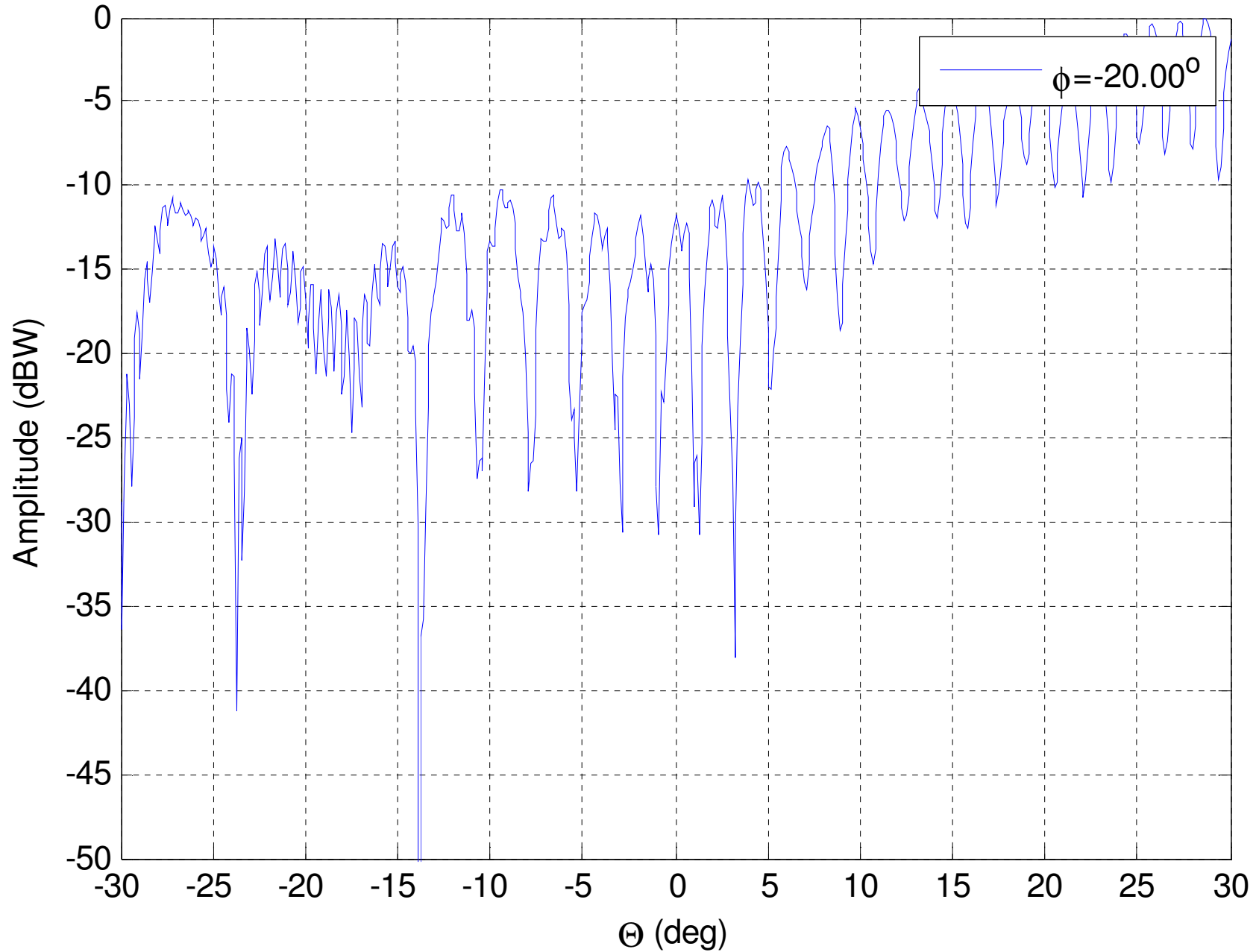
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--30.cut, Peak: -9.72 dBW, Date: 16-Dec-2011



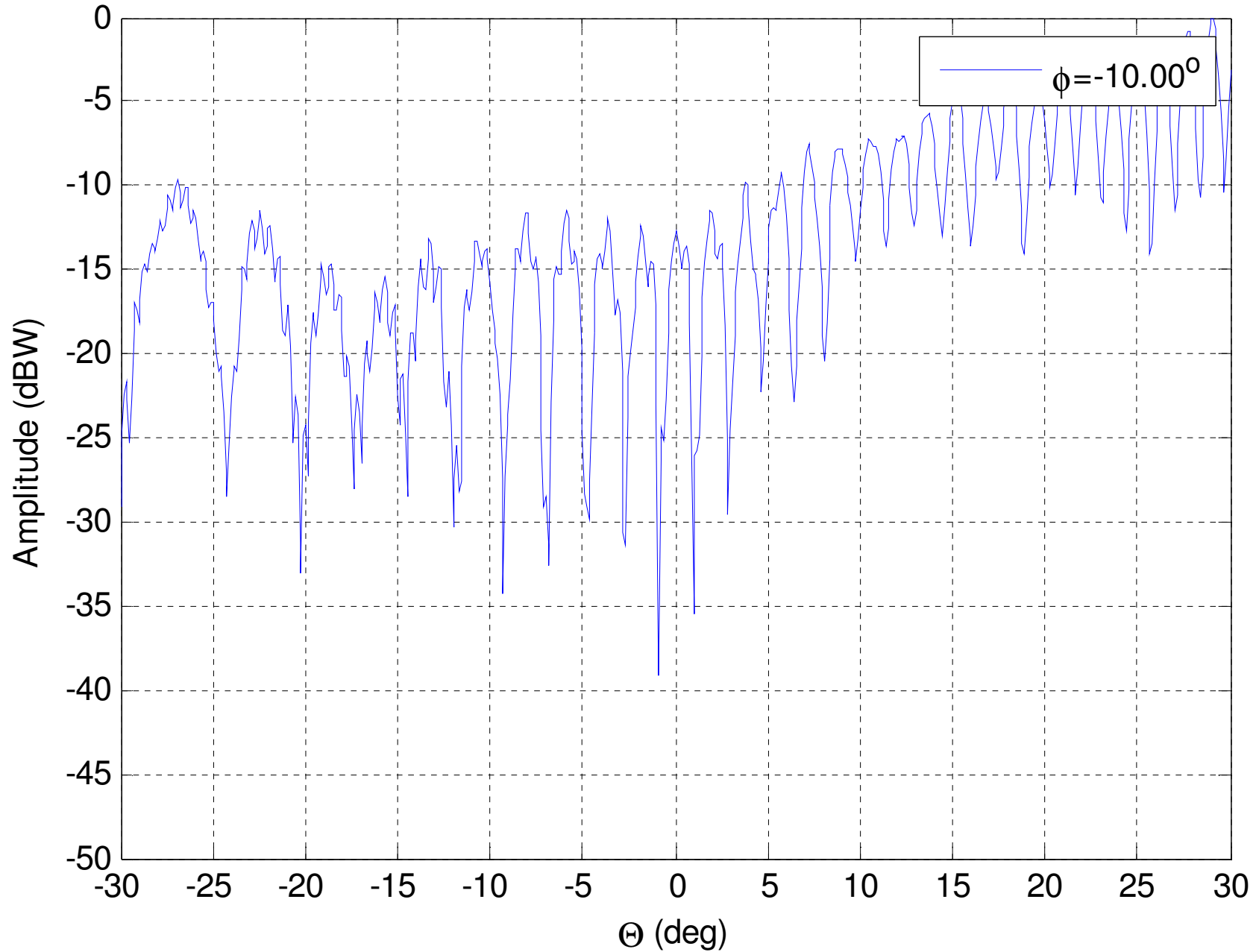
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--20.cut, Peak: -7.82 dBW, Date: 16-Dec-2011



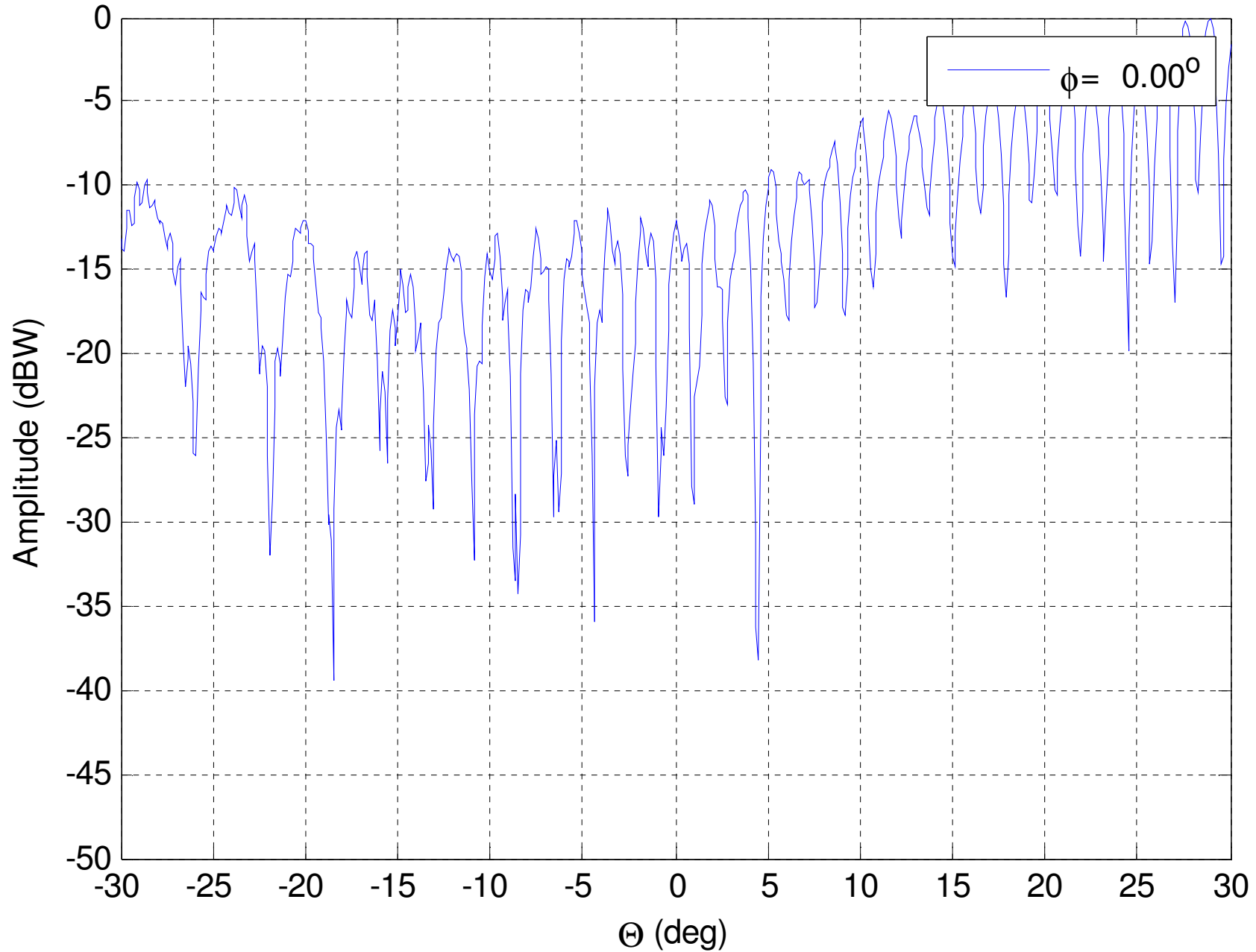
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp--10.cut, Peak: -6.93 dBW, Date: 16-Dec-2011



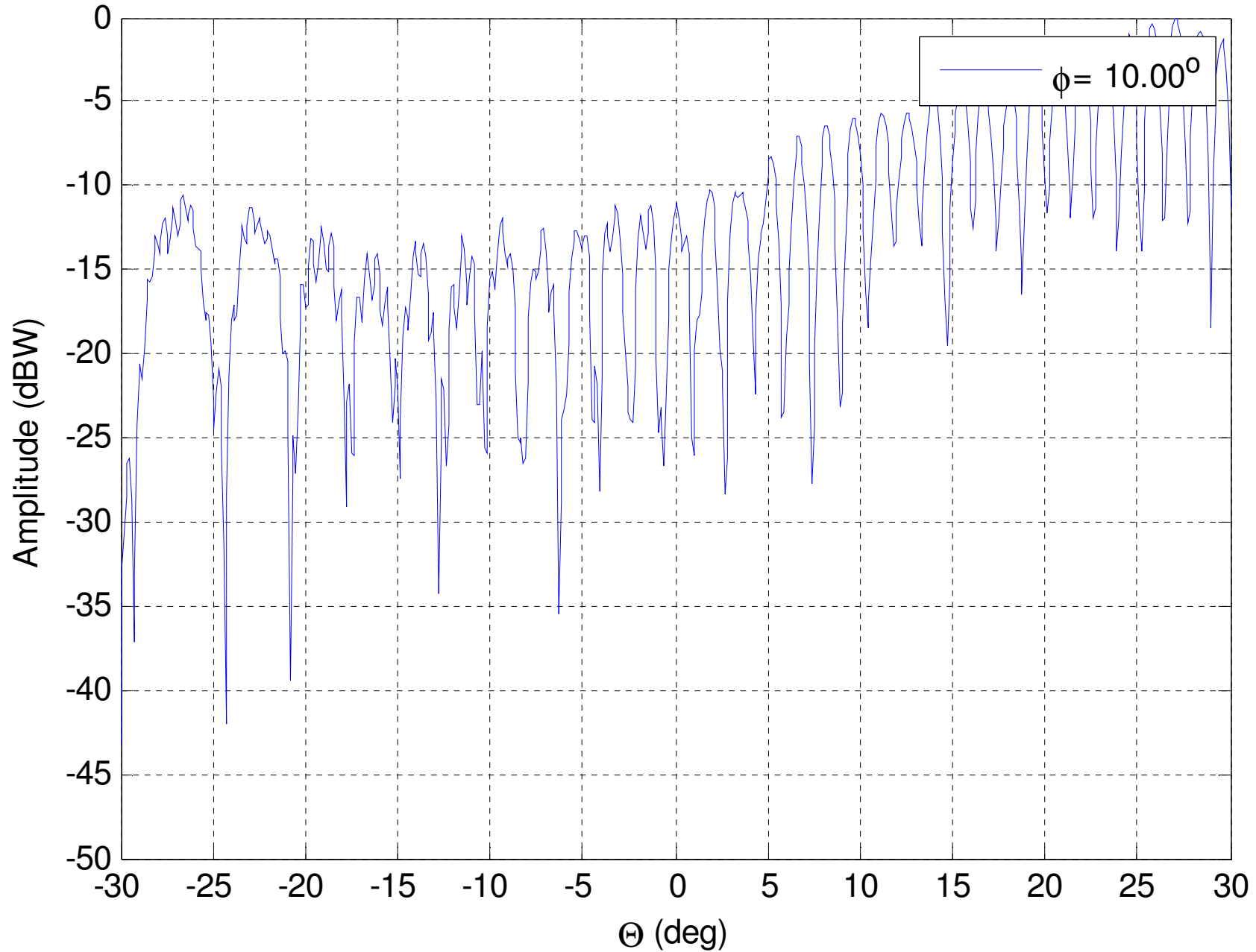
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-0.cut, Peak: -7.56 dBW, Date: 16-Dec-2011



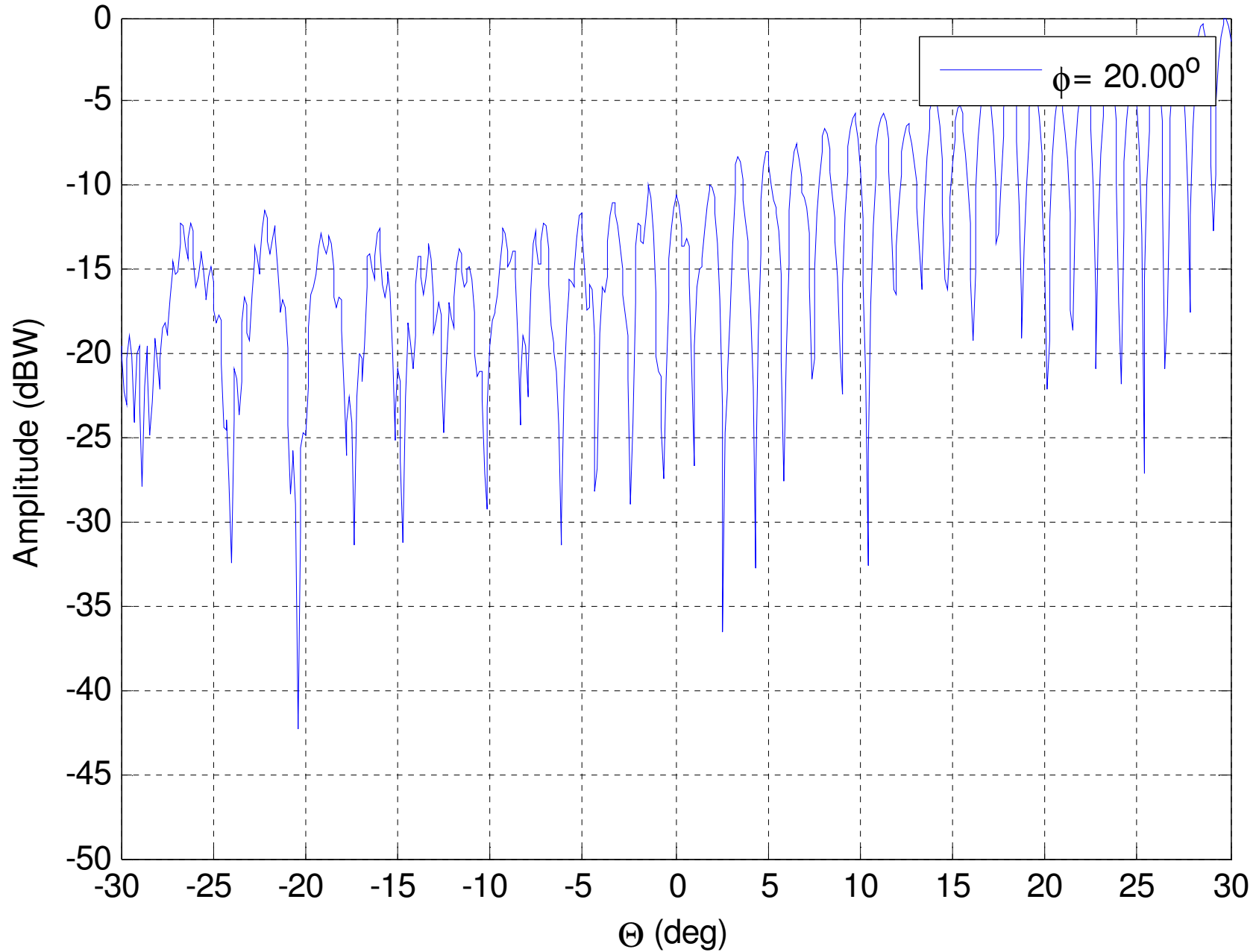
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-10.cut, Peak: -8.51 dBW, Date: 16-Dec-2011



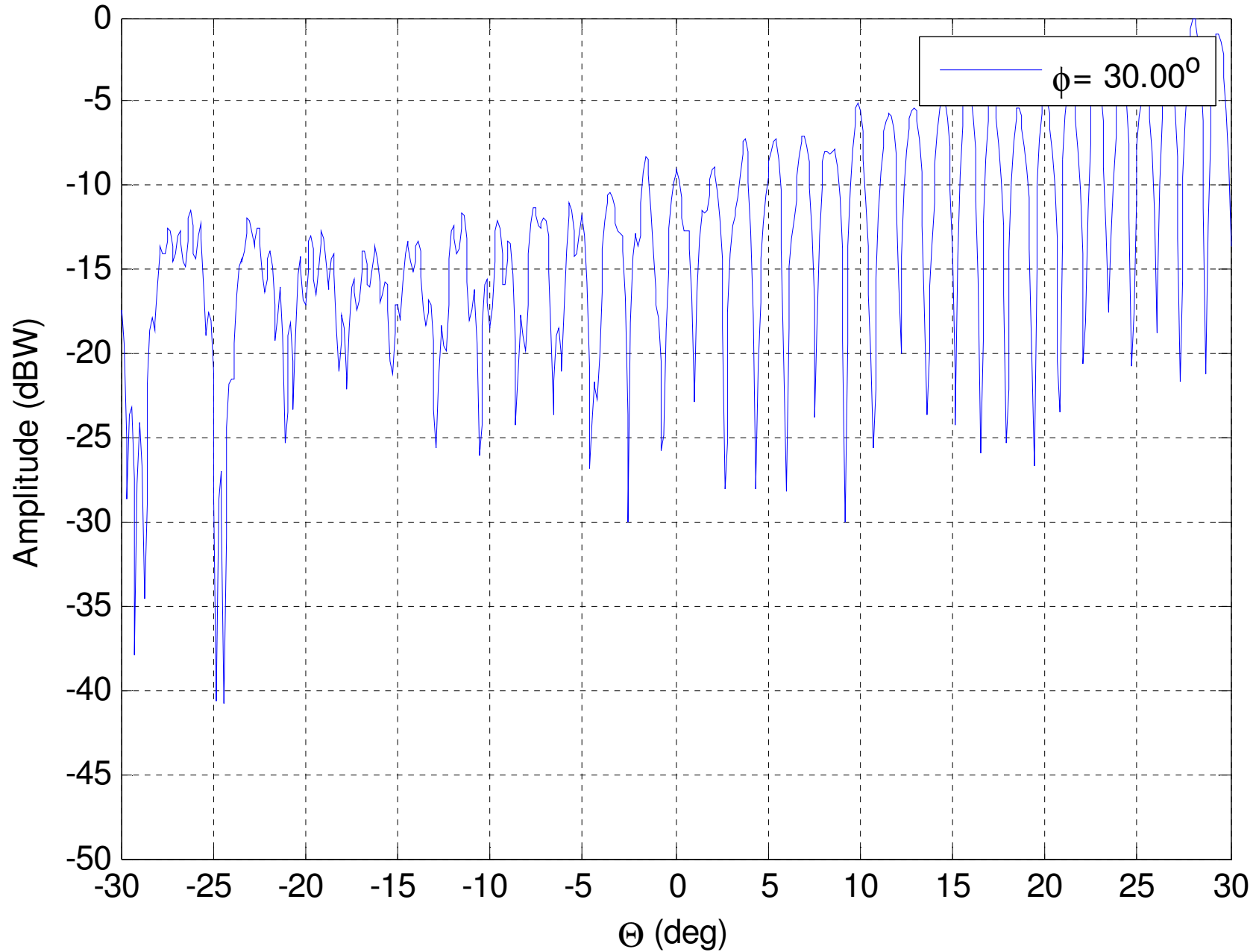
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-20.cut, Peak: -9.06 dBW, Date: 16-Dec-2011



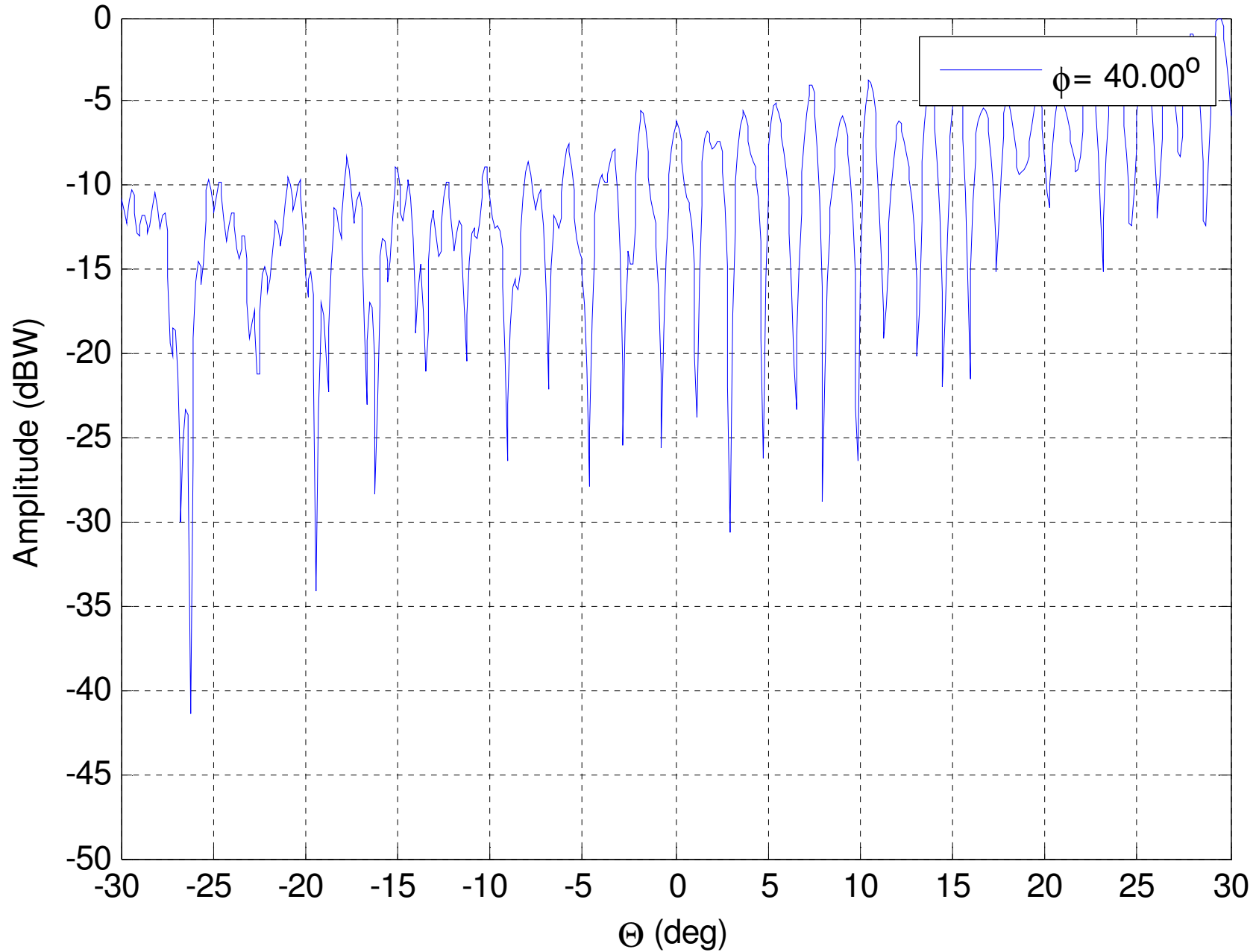
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-30.cut, Peak: -10.49 dBW, Date: 16-Dec-2011



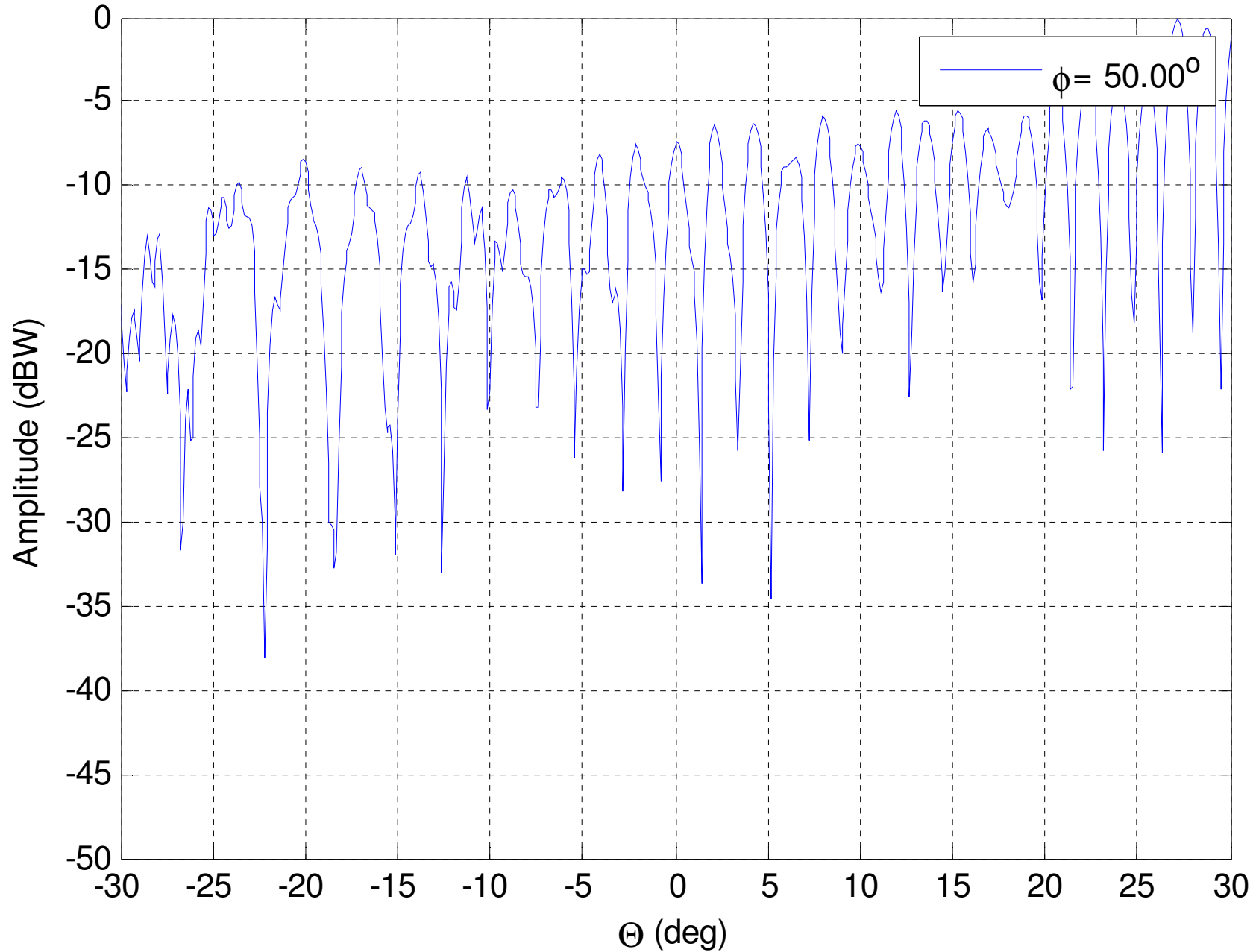
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-40.cut, Peak: -13.31 dBW, Date: 16-Dec-2011



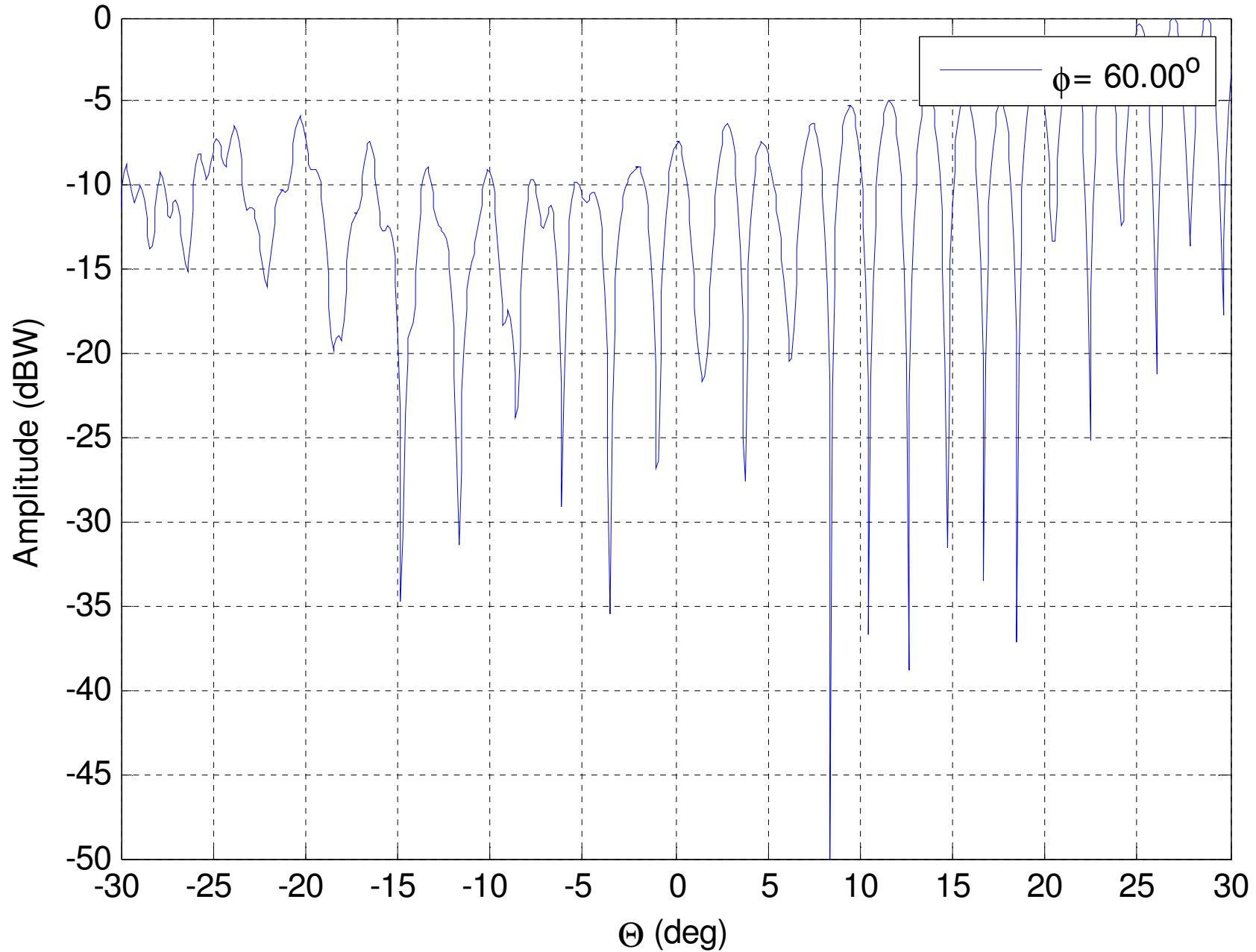
Normalized pattern cuts - farfield

Input file: tx-17.5-lhcp-50.cut, Peak: -12.16 dBW, Date: 16-Dec-2011



Normalized pattern cuts - farfield

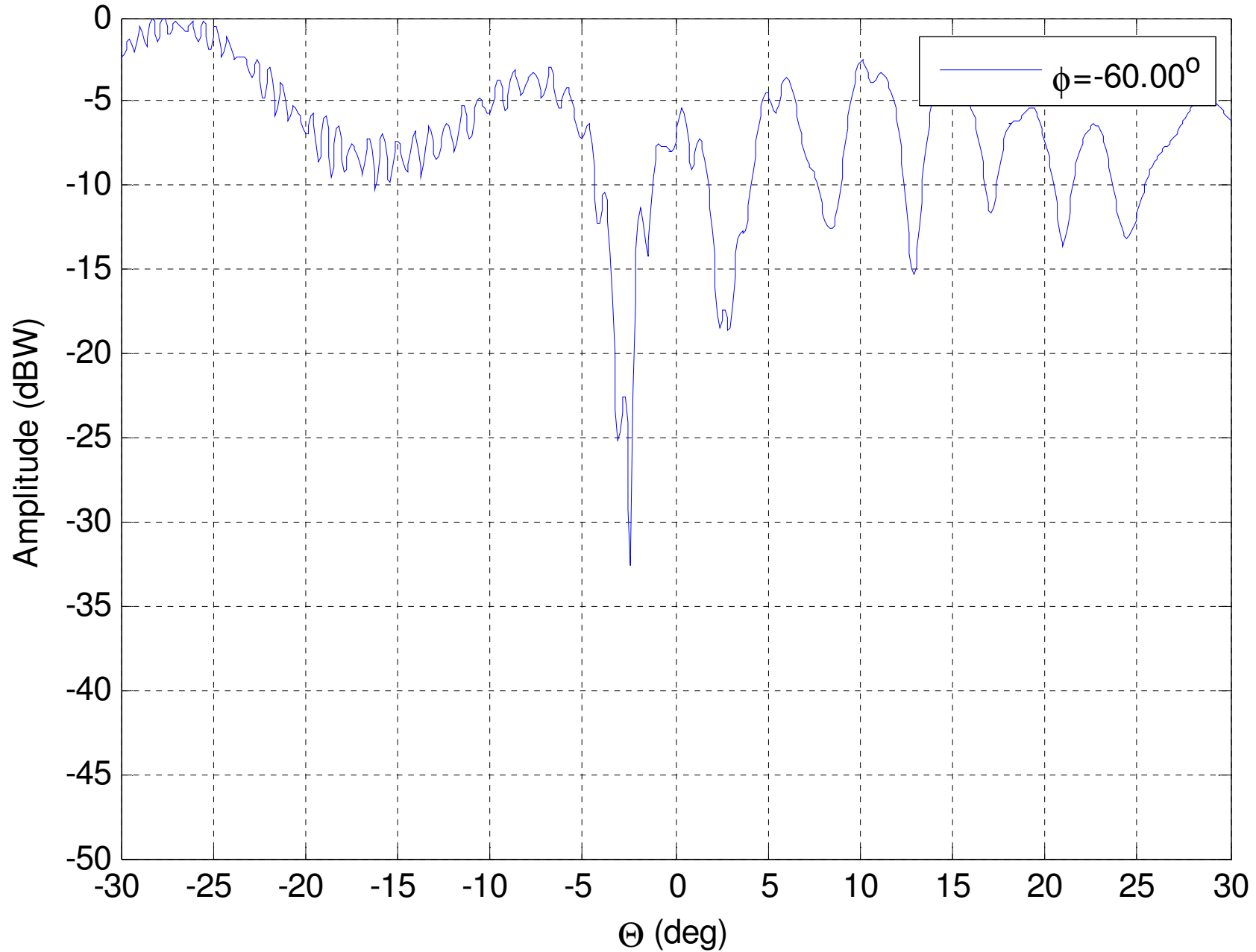
Input file: tx-17.5-lhcp-60.cut, Peak: -12.14 dBW, Date: 16-Dec-2011



RHCP at 17.7 GHz

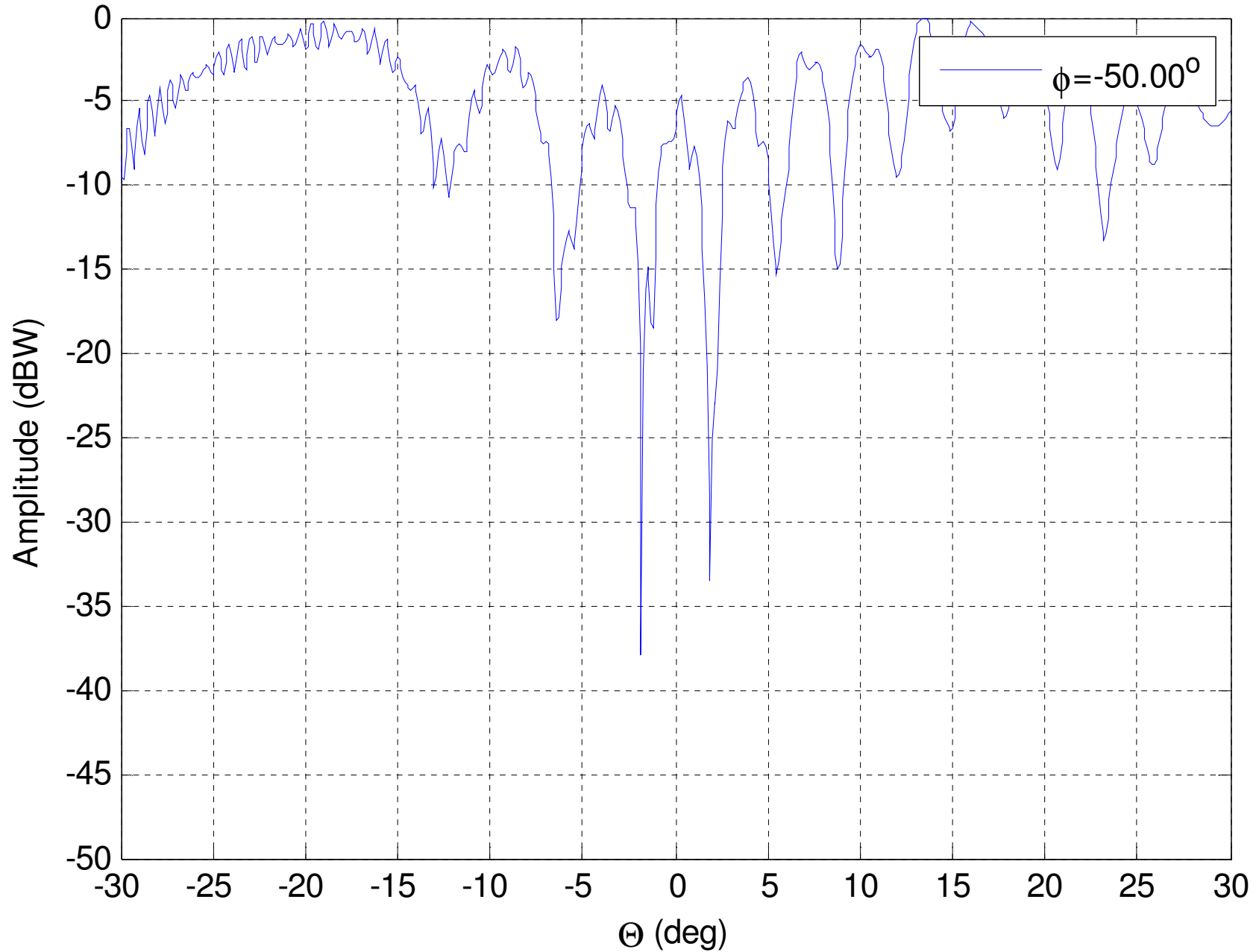
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--60.cut, Peak: -13.45 dBW, Date: 16-Dec-2011



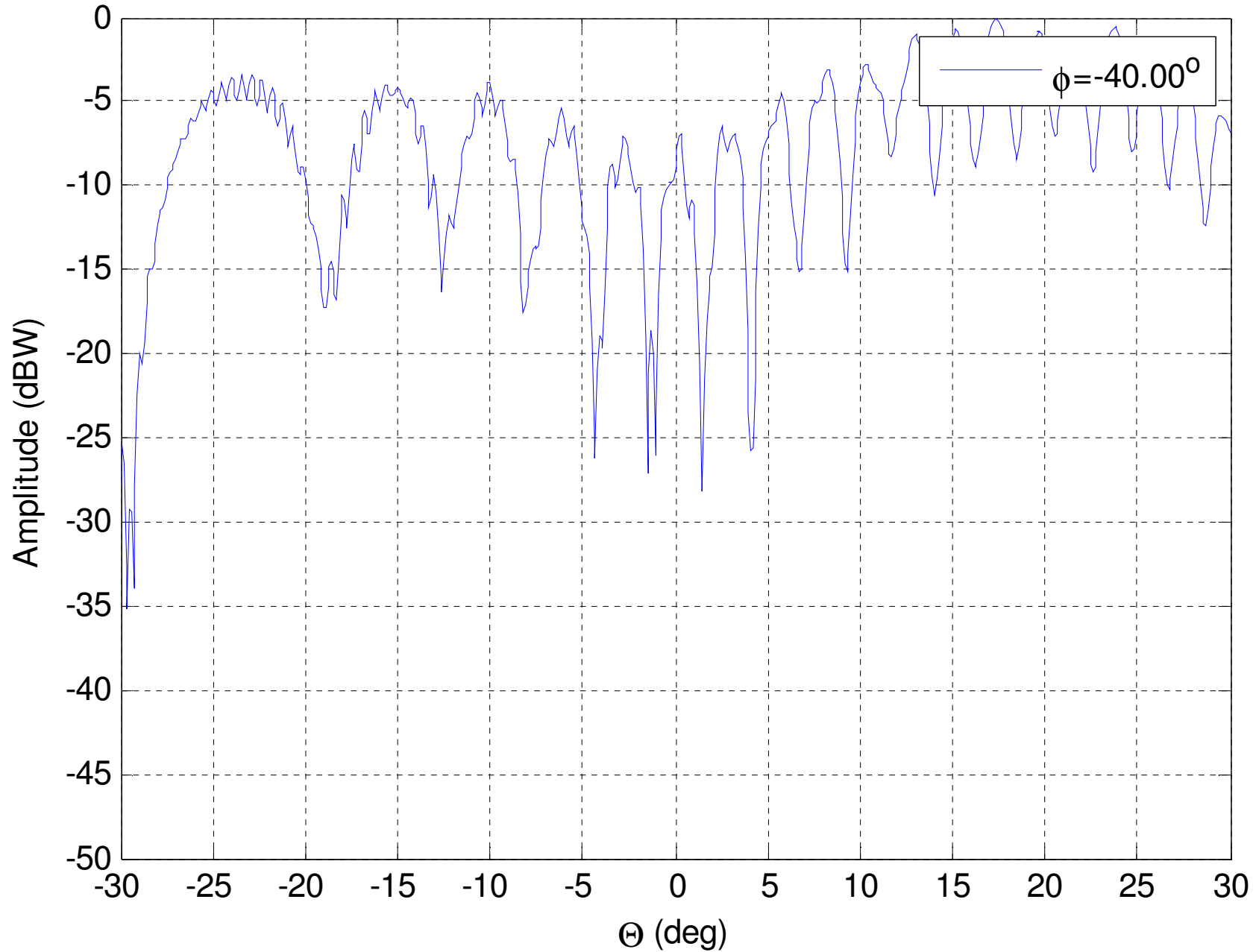
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--50.cut, Peak: -14.16 dBW, Date: 16-Dec-2011



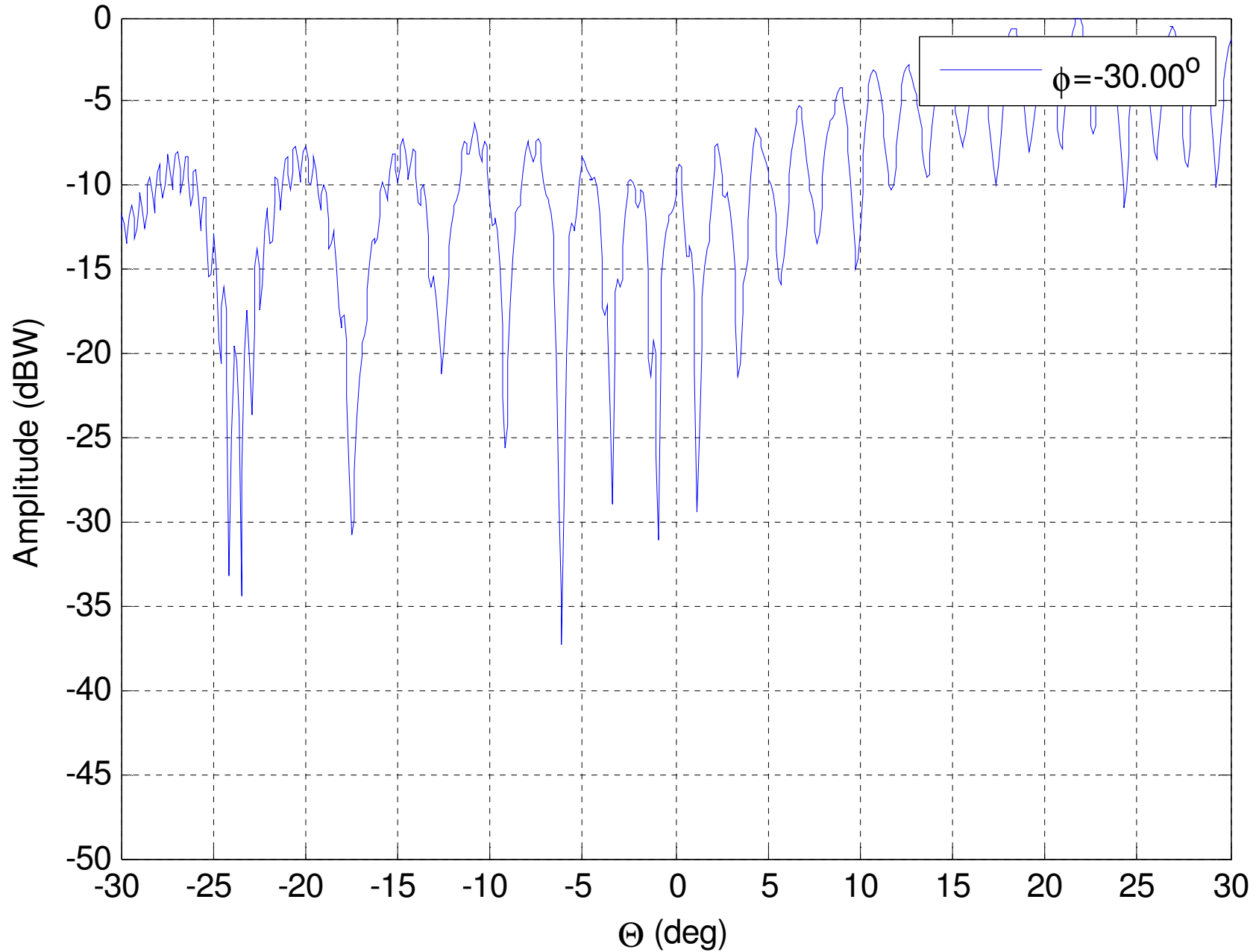
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--40.cut, Peak: -11.97 dBW, Date: 16-Dec-2011



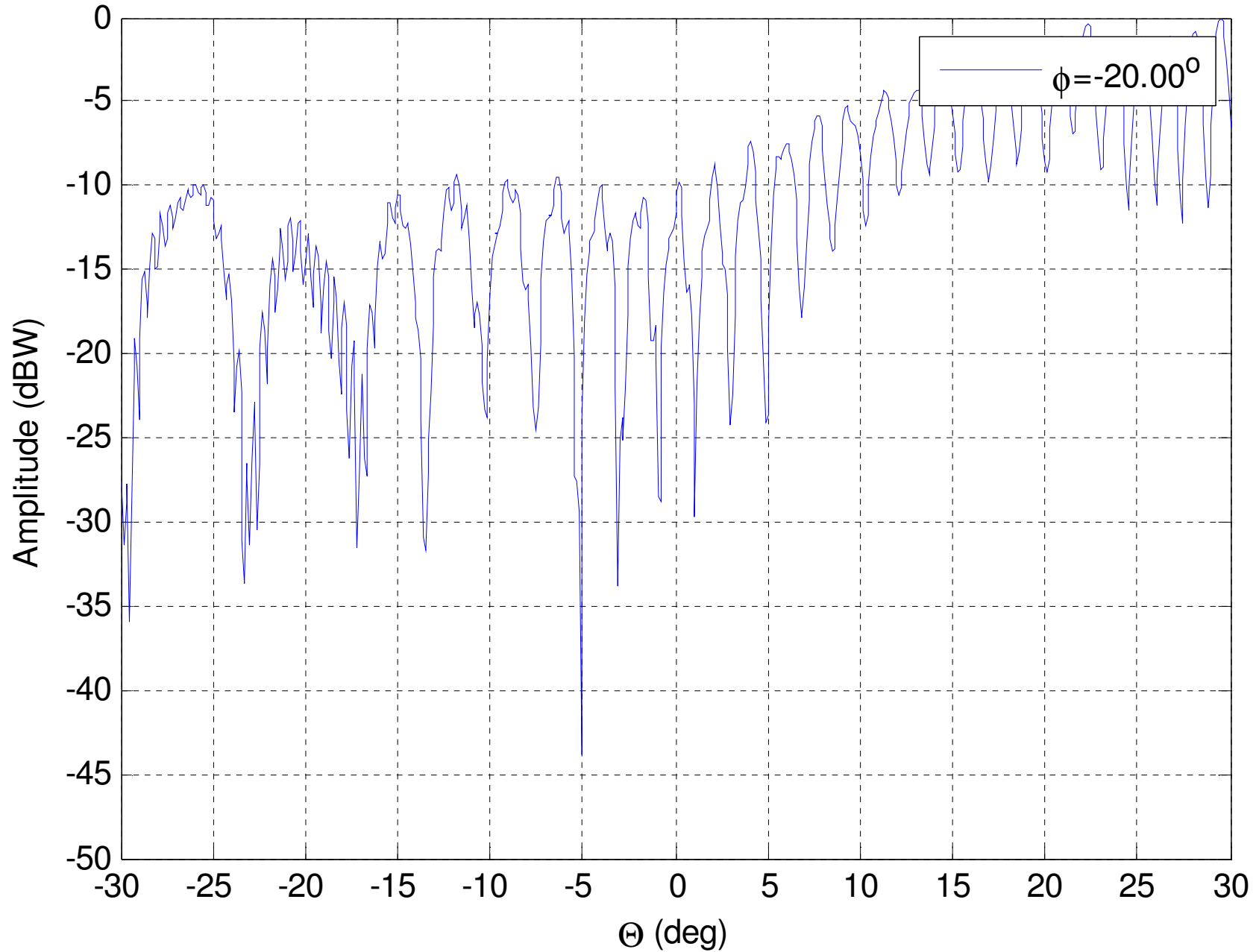
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--30.cut, Peak: -10.27 dBW, Date: 16-Dec-2011



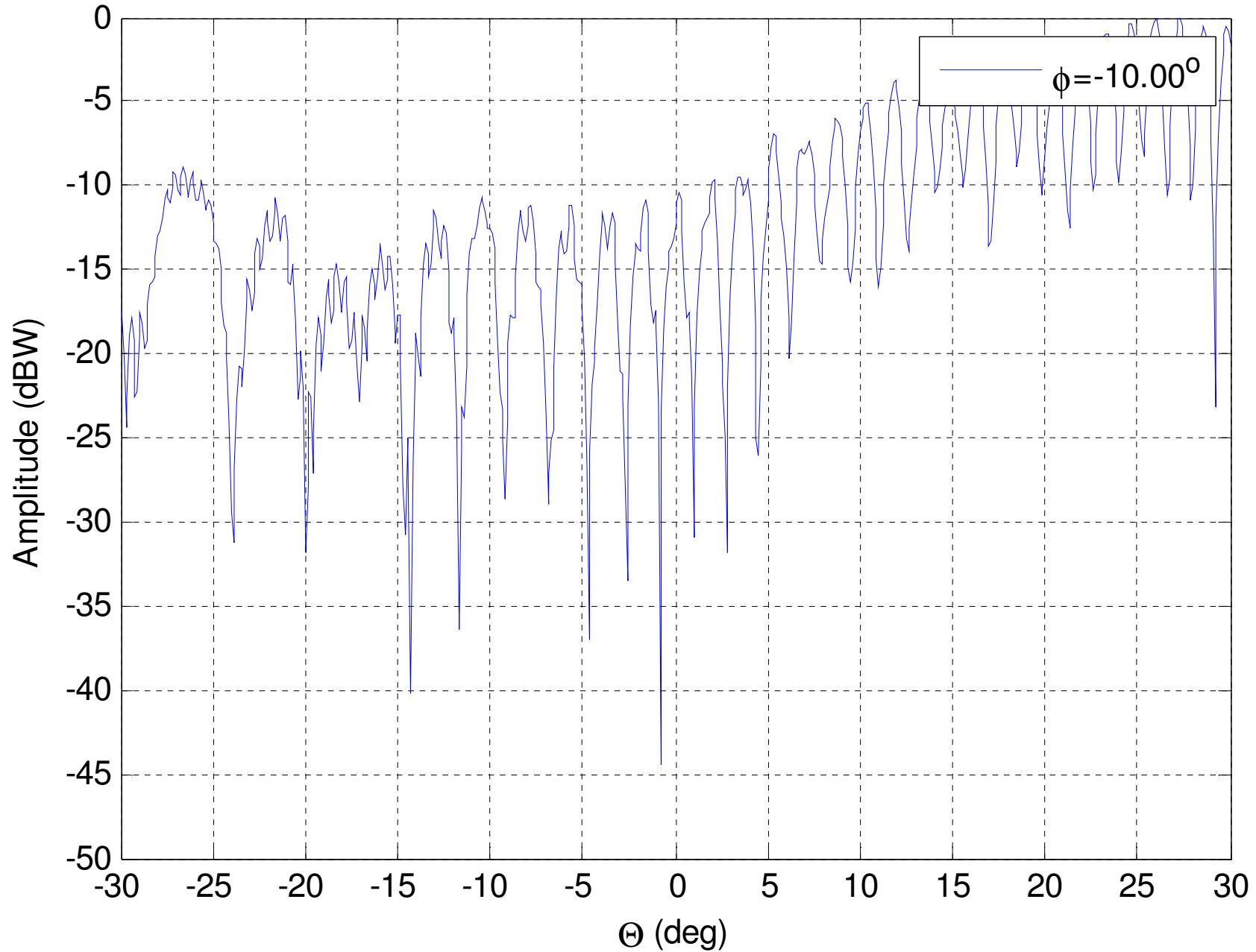
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--20.cut, Peak: -9.15 dBW, Date: 16-Dec-2011



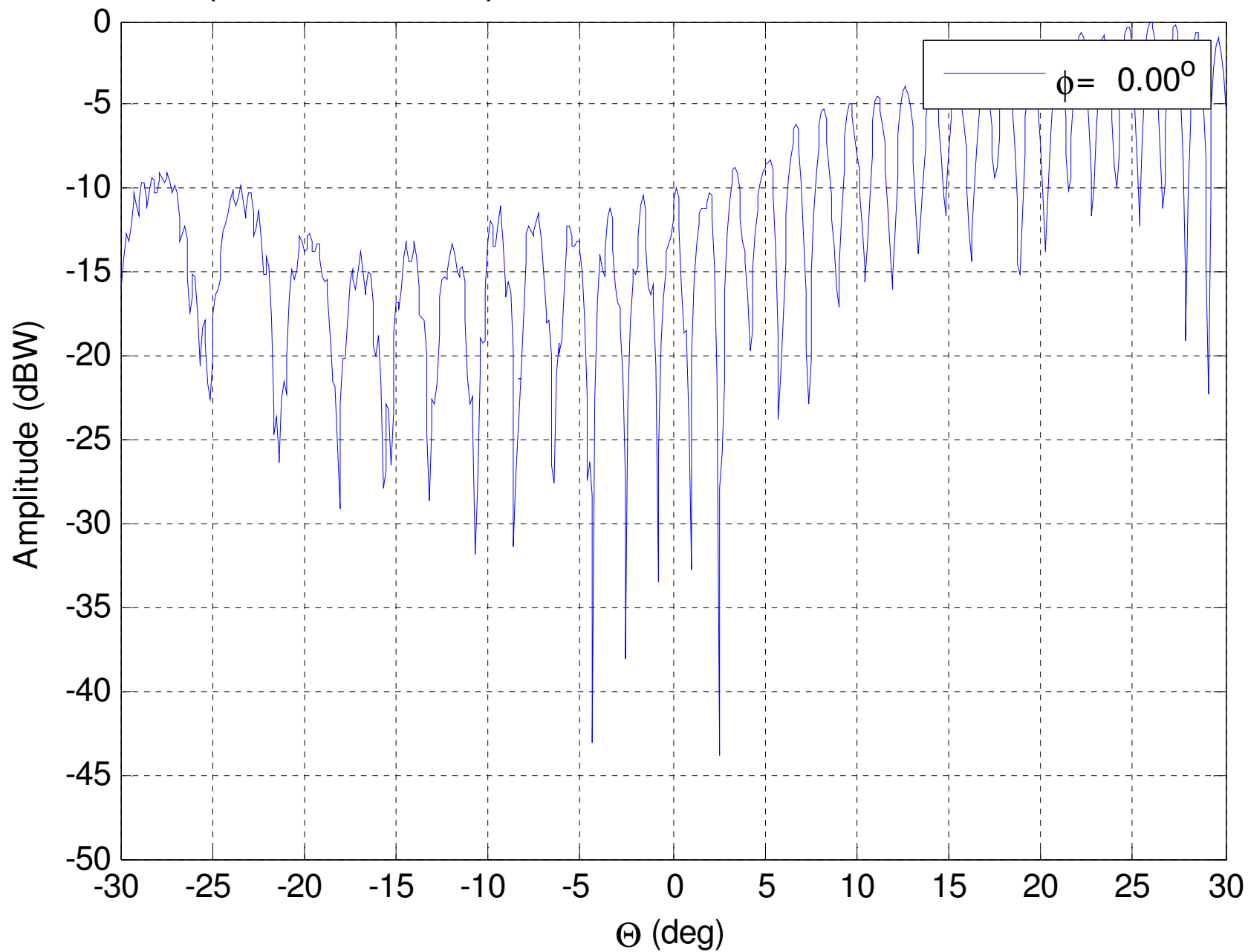
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp--10.cut, Peak: -8.62 dBW, Date: 16-Dec-2011



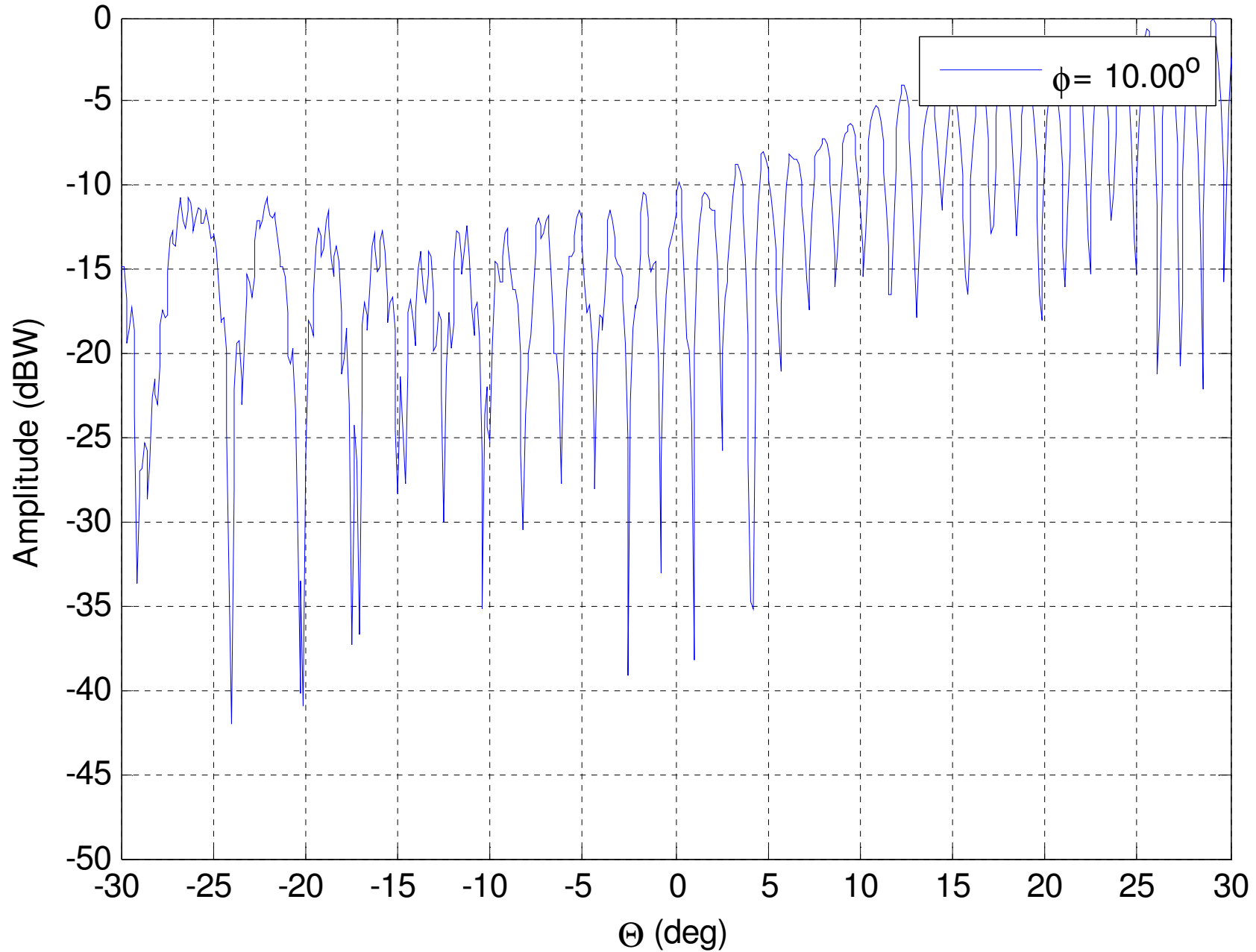
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-0.cut, Peak: -8.97 dBW, Date: 16-Dec-2011



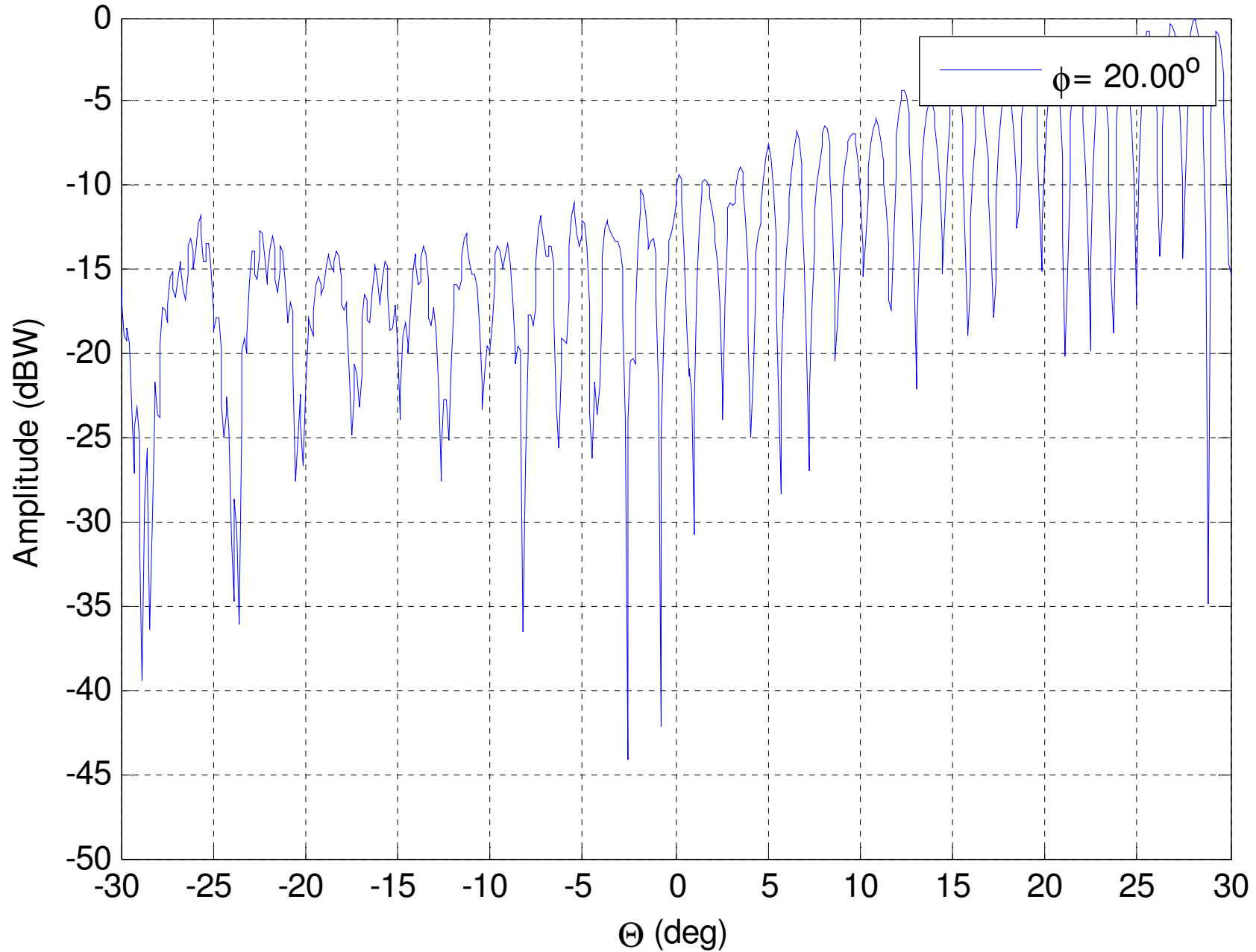
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-10.cut, Peak: -9.26 dBW, Date: 16-Dec-2011



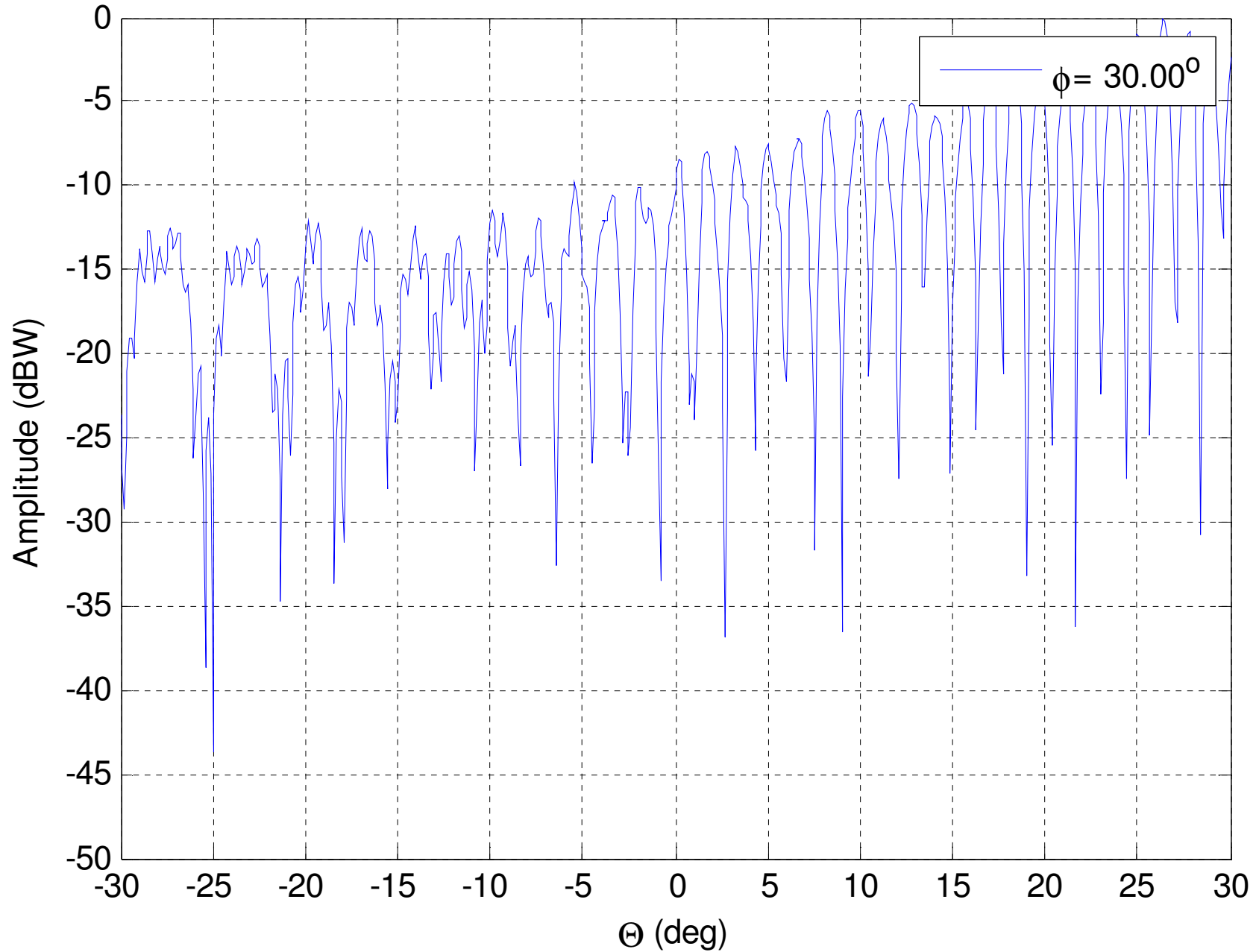
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-20.cut, Peak: -9.75 dBW, Date: 16-Dec-2011



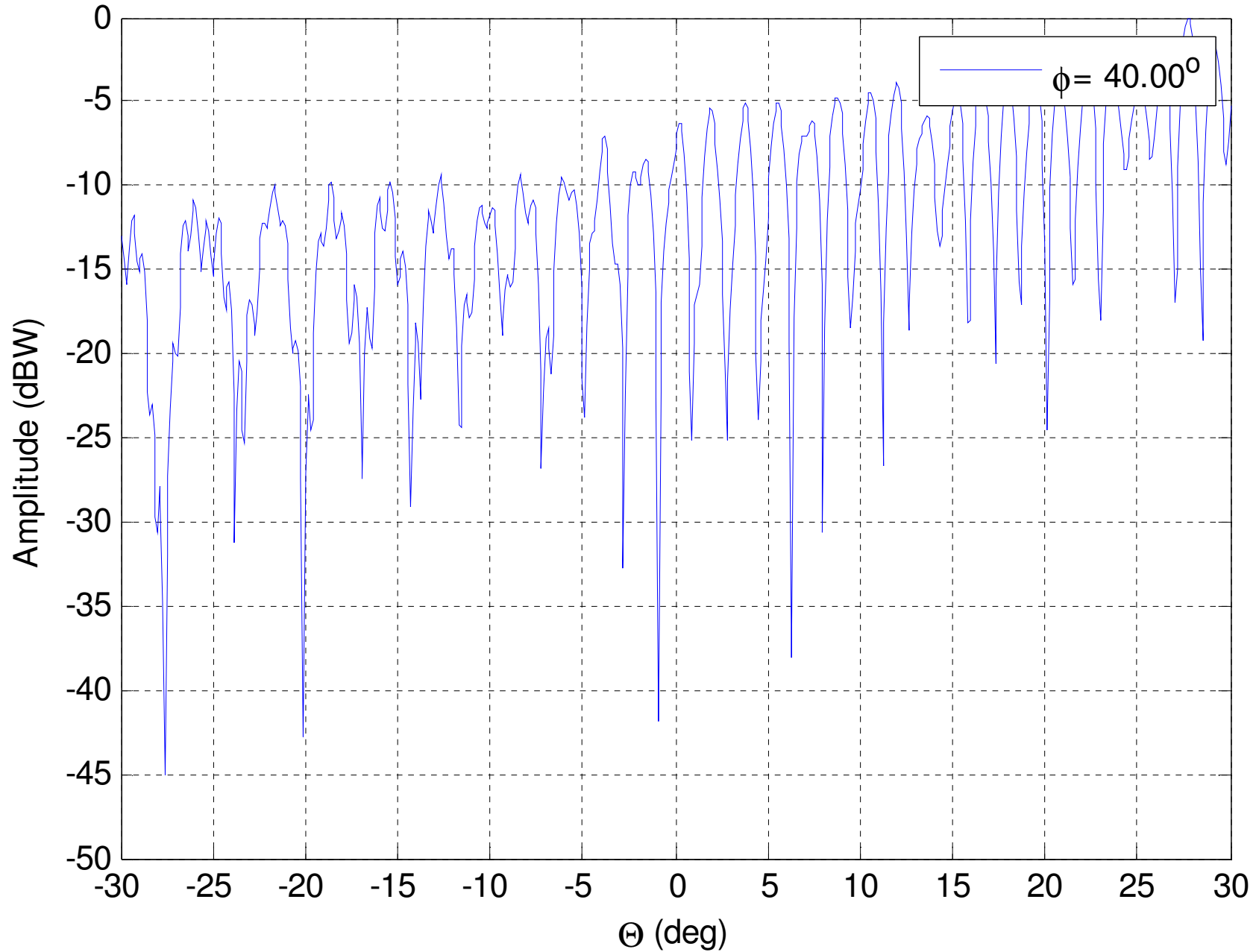
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-30.cut, Peak: -10.77 dBW, Date: 16-Dec-2011



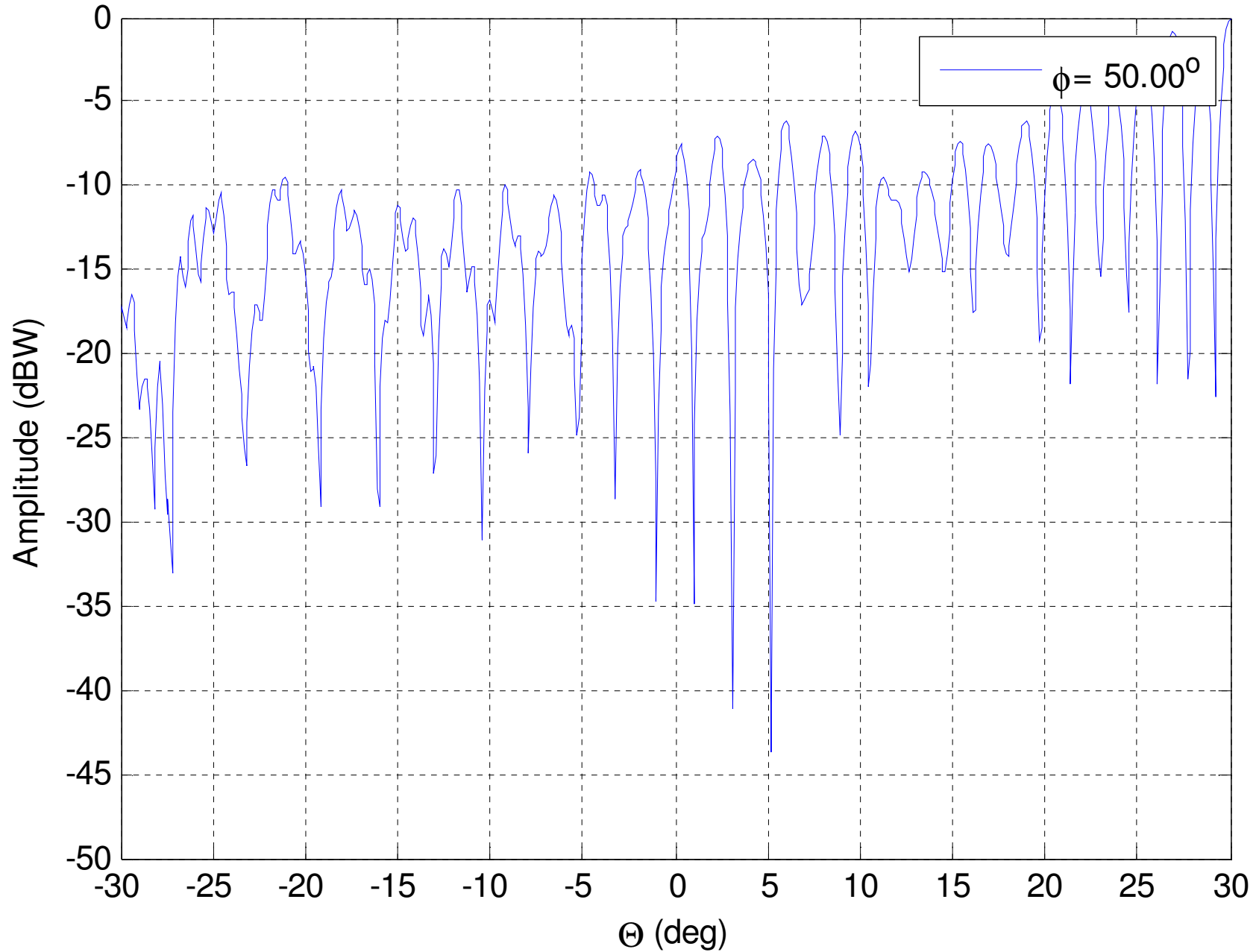
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-40.cut, Peak: -13.00 dBW, Date: 16-Dec-2011



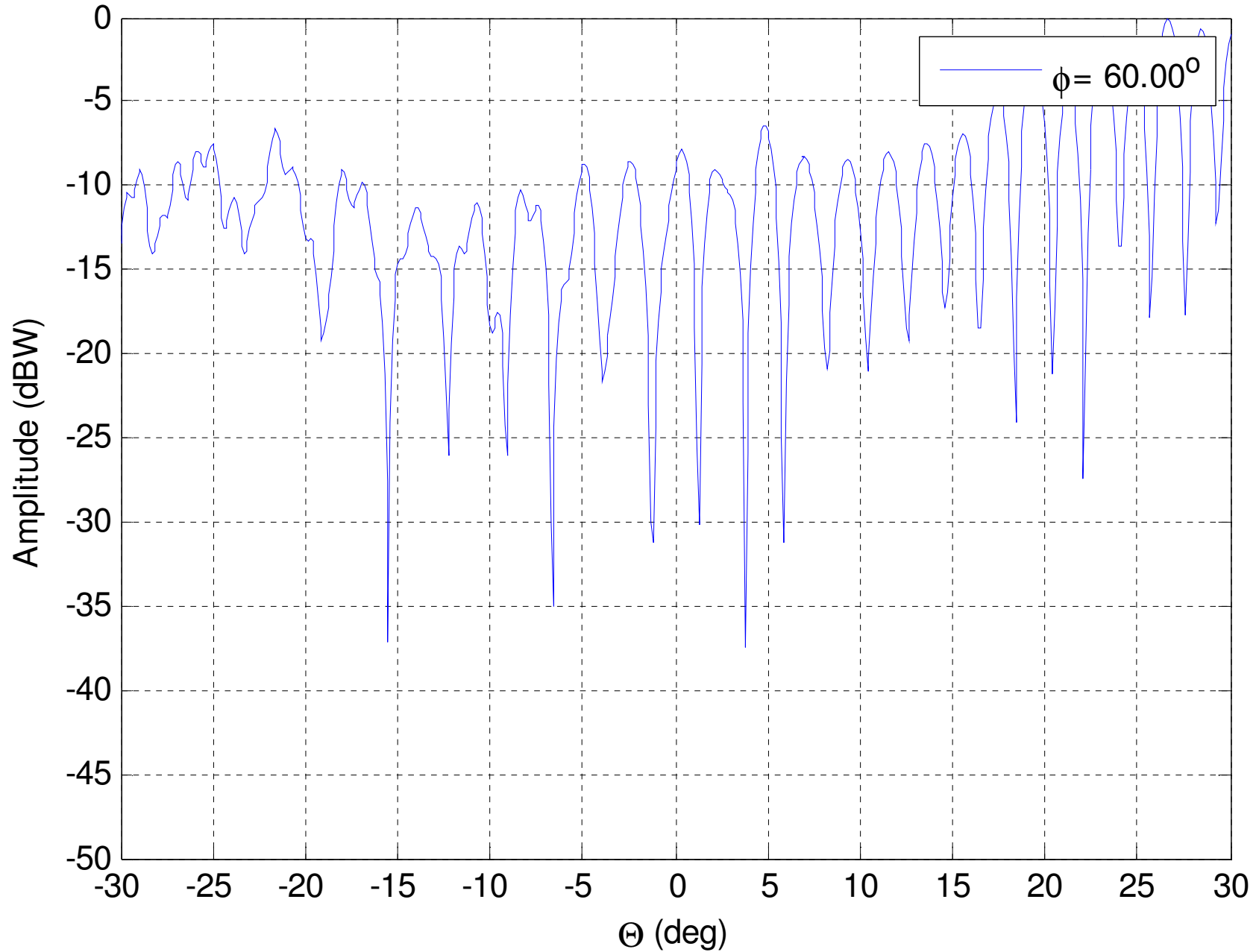
Normalized pattern cuts - farfield

Input file: tx-17.7-rhcp-50.cut, Peak: -11.79 dBW, Date: 16-Dec-2011



Normalized pattern cuts - farfield

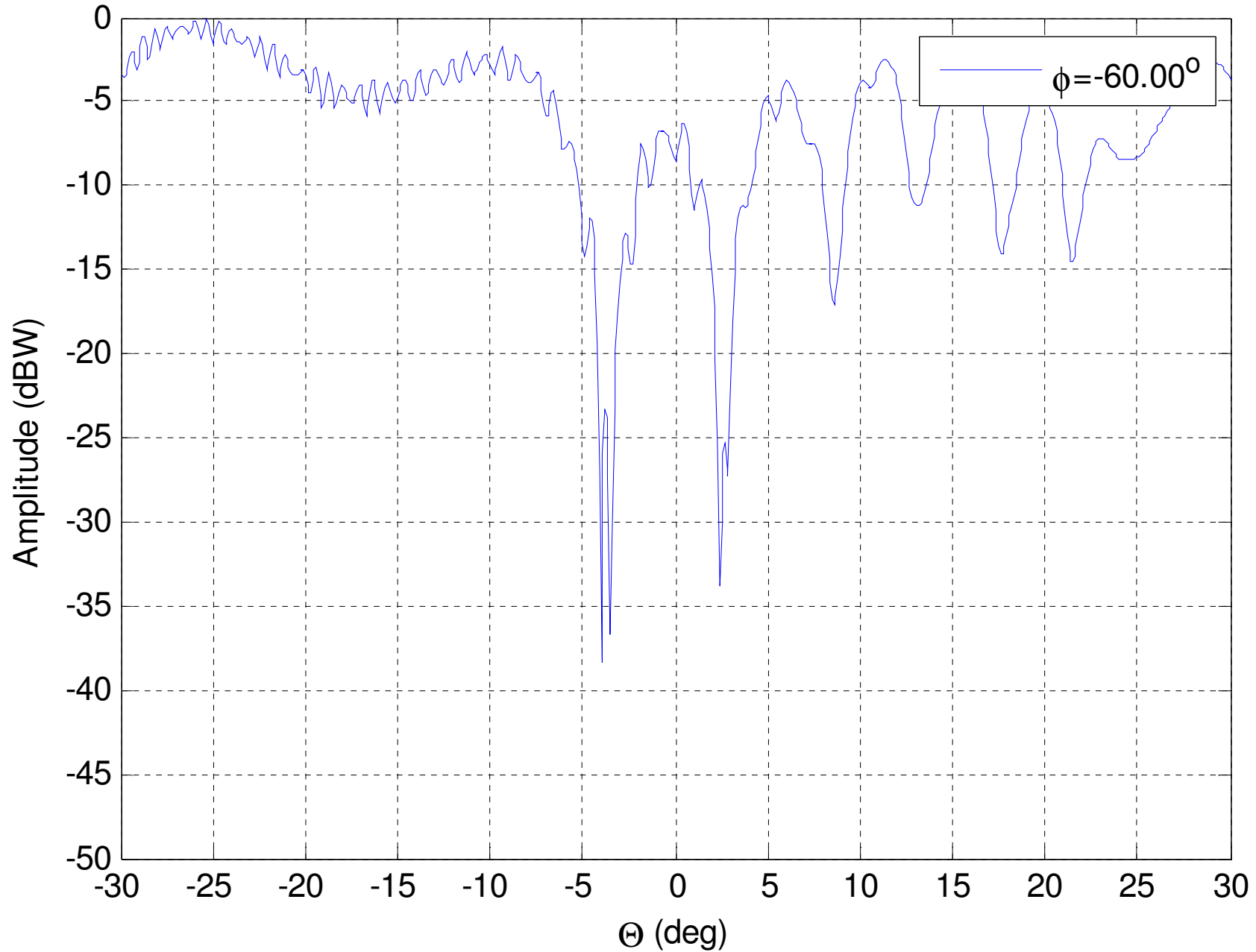
Input file: tx-17.7-rhcp-60.cut, Peak: -11.76 dBW, Date: 16-Dec-2011



LHCP at 17.7 GHz

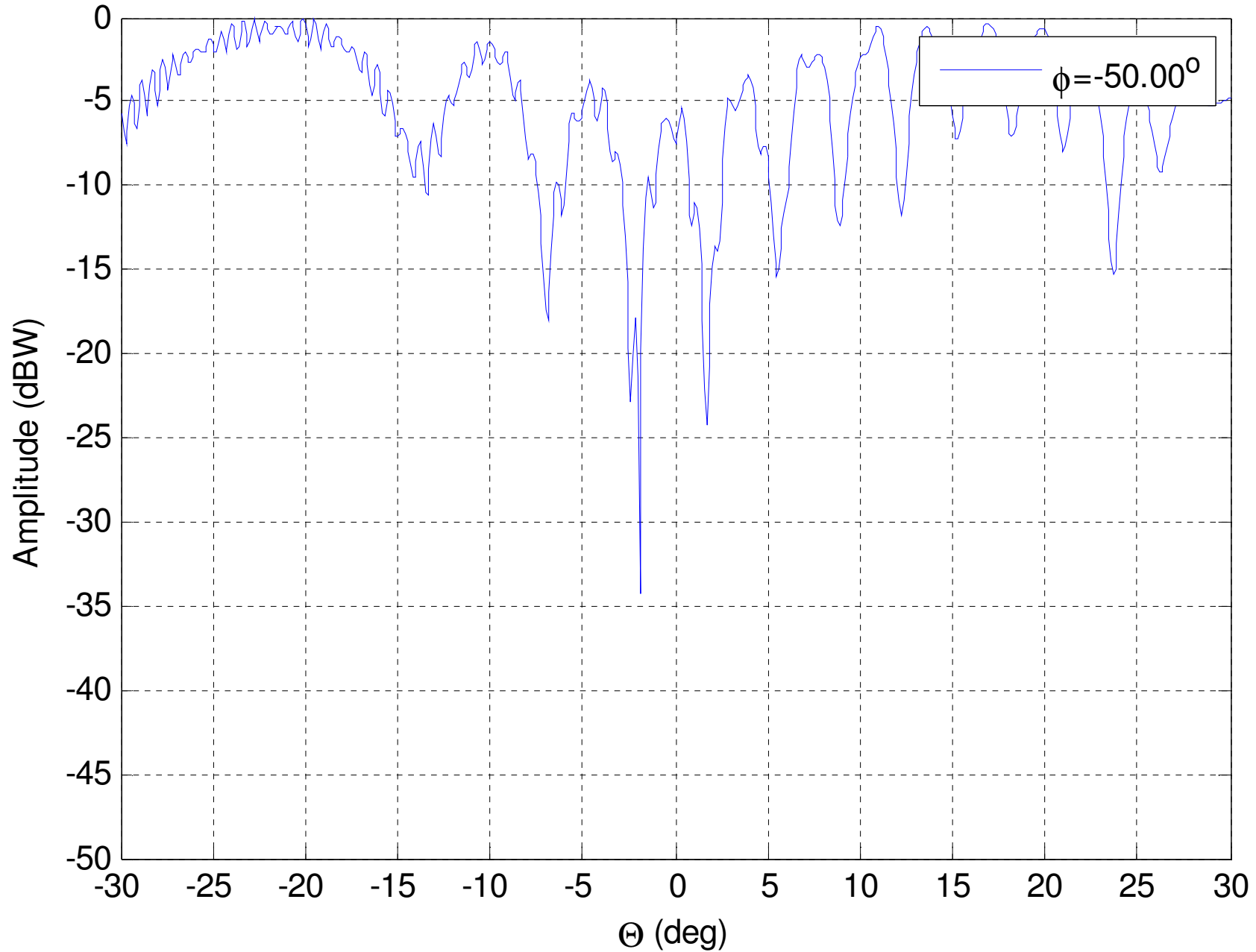
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--60.cut, Peak: -13.16 dBW, Date: 16-Dec-2011



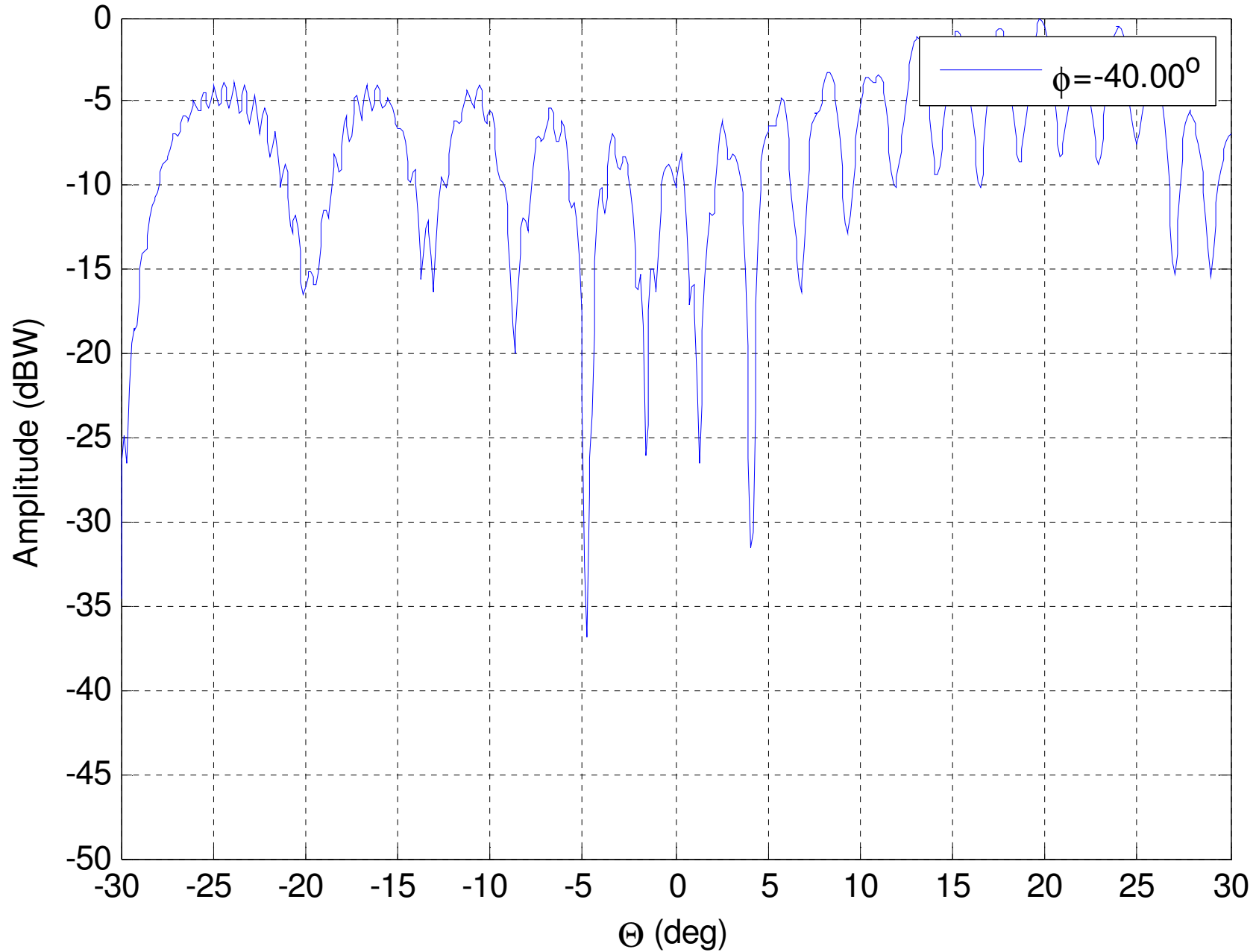
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--50.cut, Peak: -14.19 dBW, Date: 16-Dec-2011



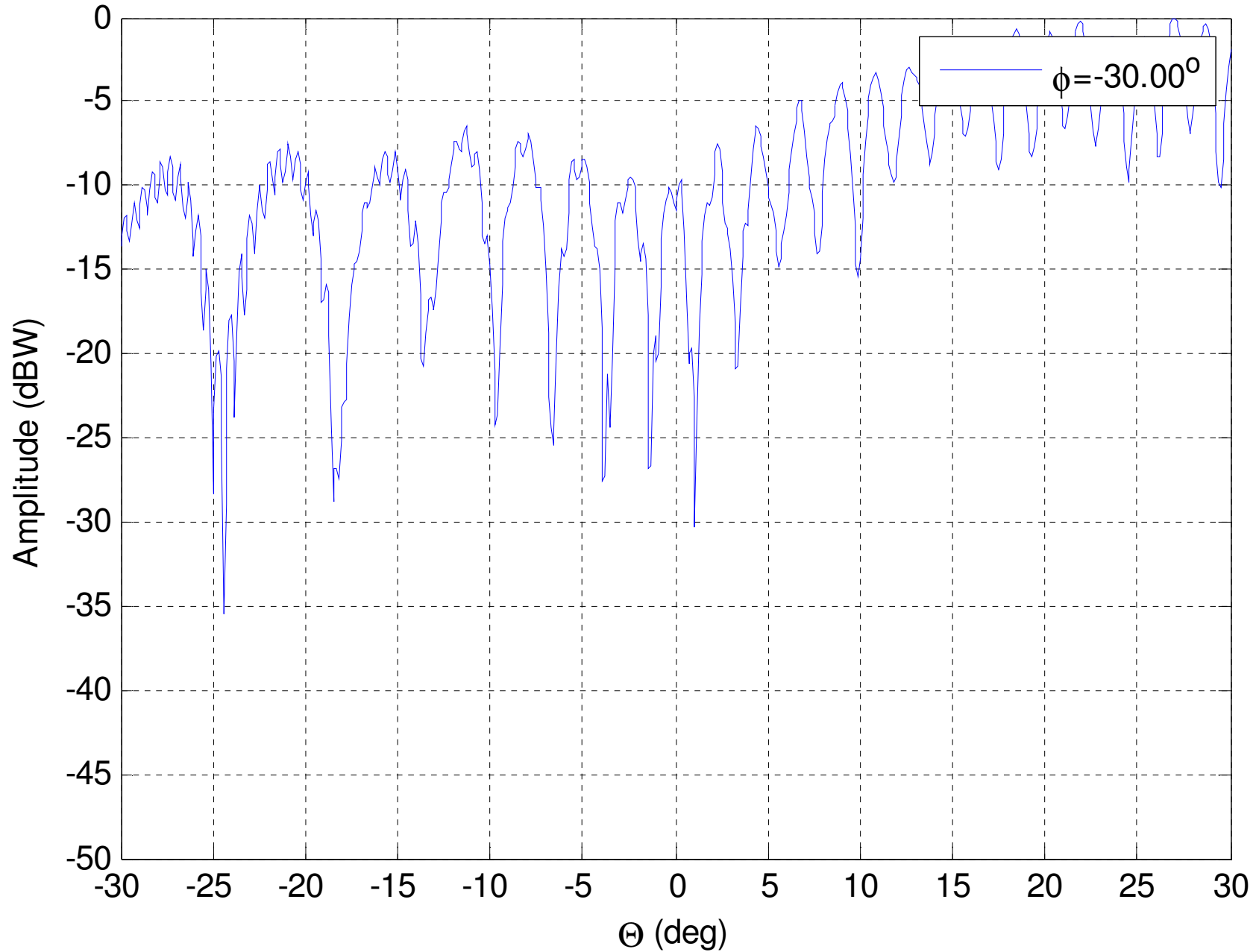
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--40.cut, Peak: -11.67 dBW, Date: 16-Dec-2011



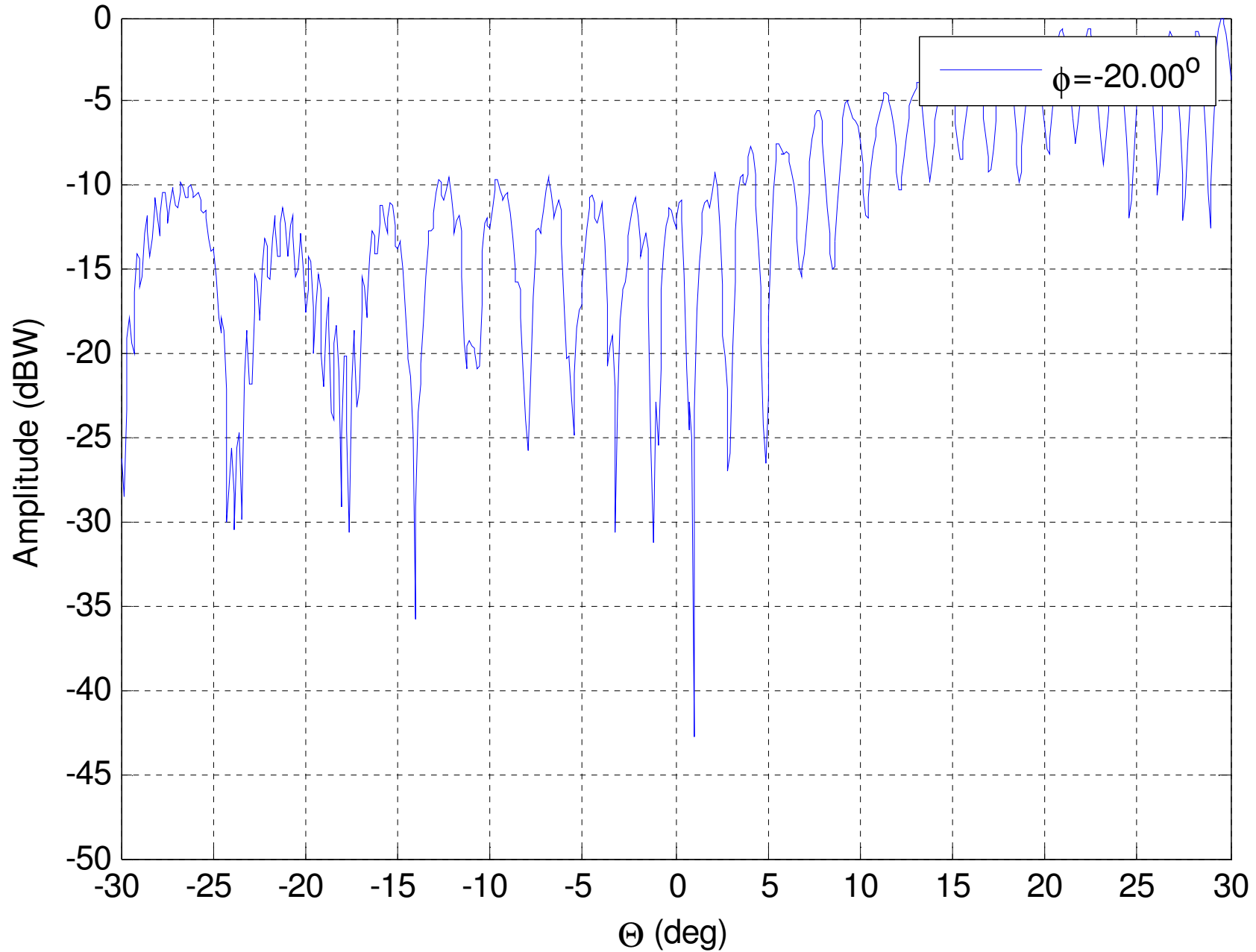
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--30.cut, Peak: -10.30 dBW, Date: 16-Dec-2011



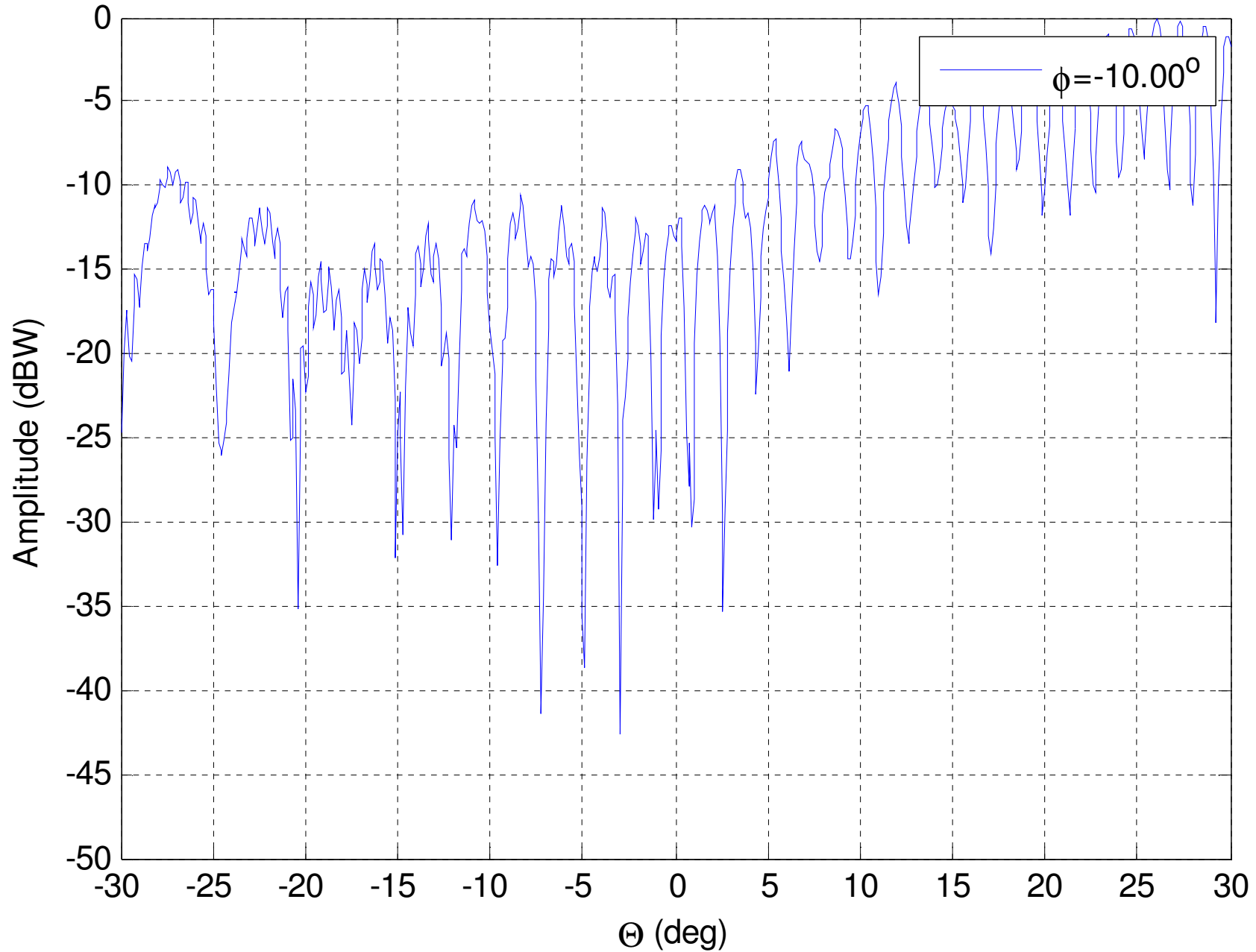
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--20.cut, Peak: -9.26 dBW, Date: 16-Dec-2011



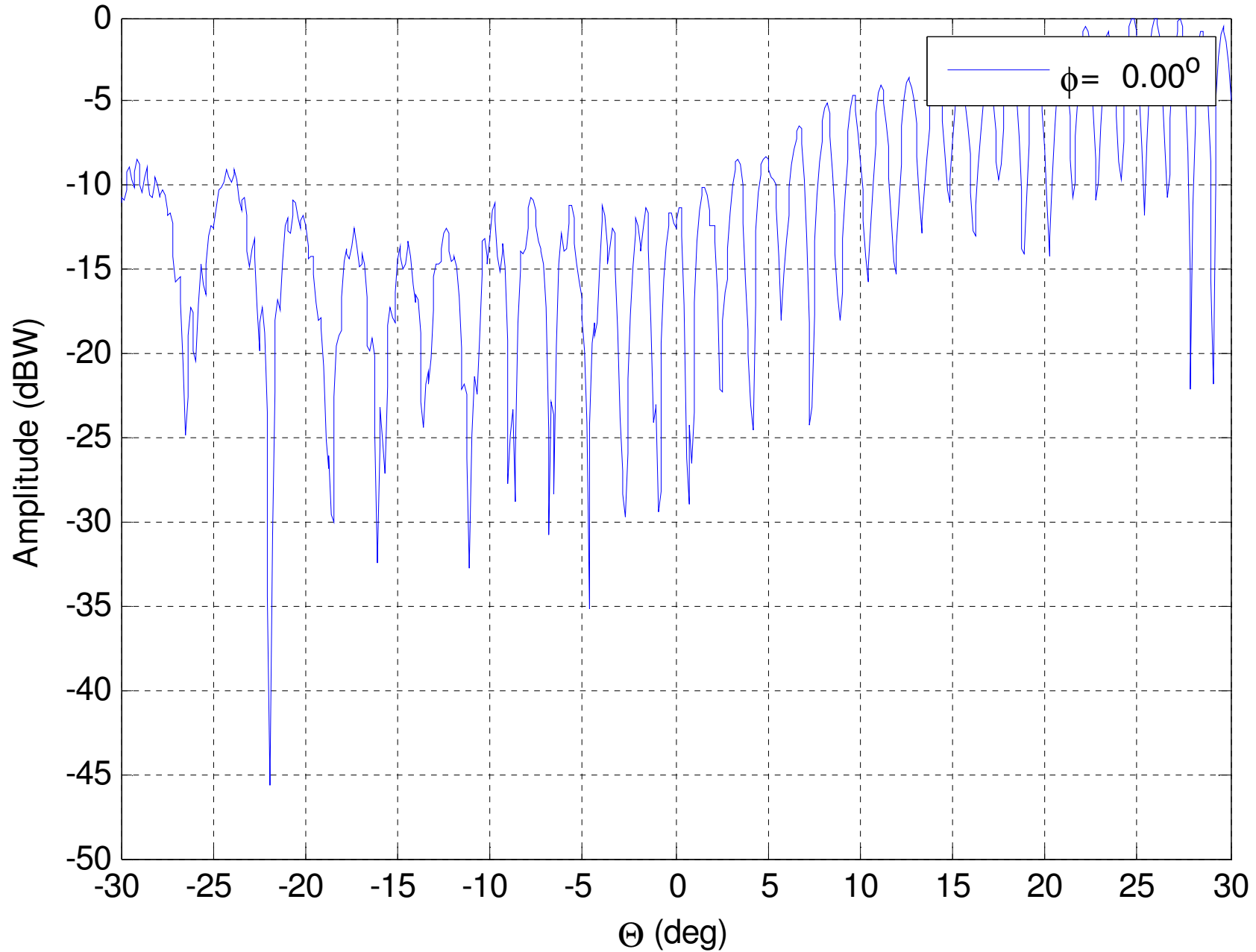
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp--10.cut, Peak: -8.38 dBW, Date: 16-Dec-2011



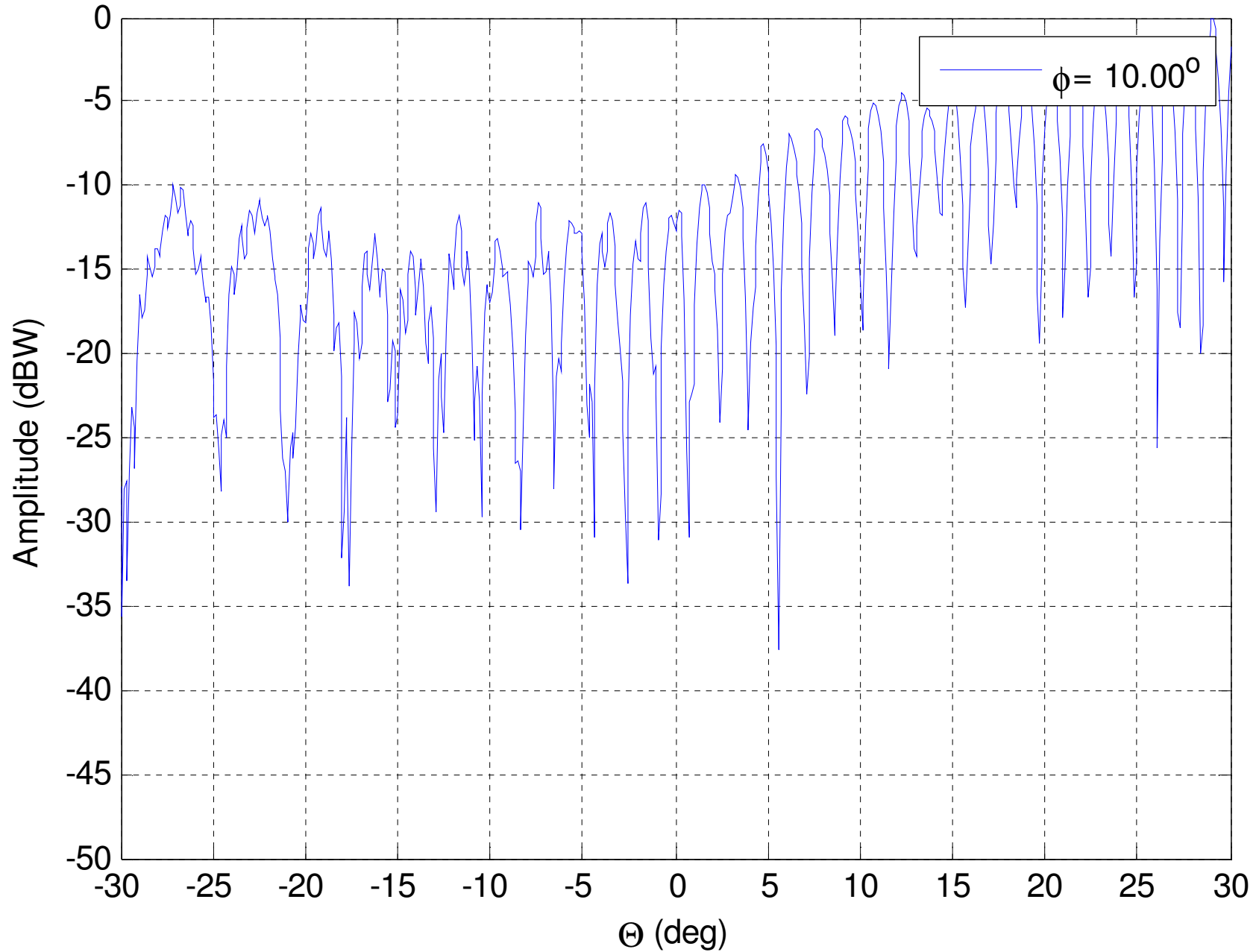
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-0.cut, Peak: -9.15 dBW, Date: 16-Dec-2011



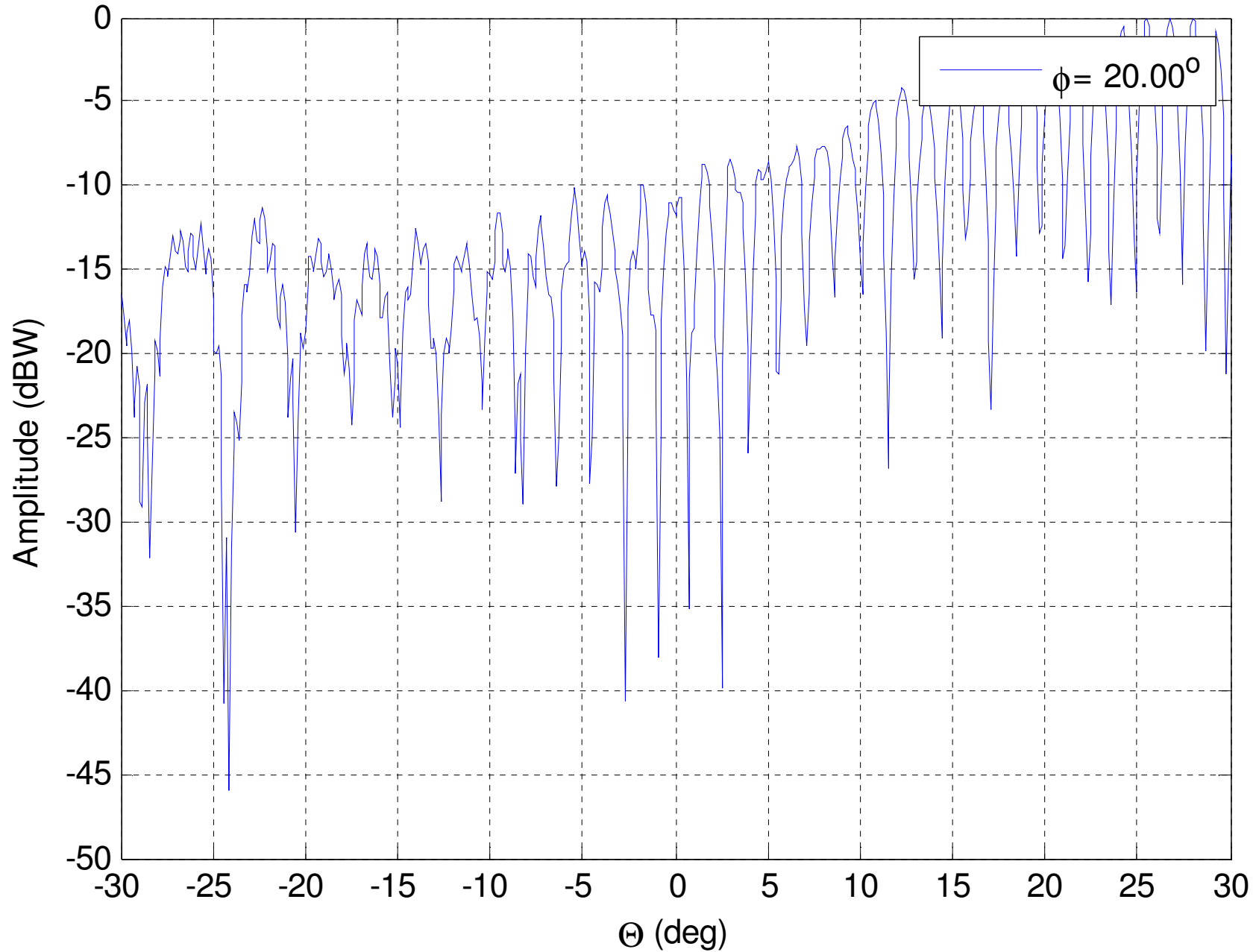
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-10.cut, Peak: -9.08 dBW, Date: 16-Dec-2011



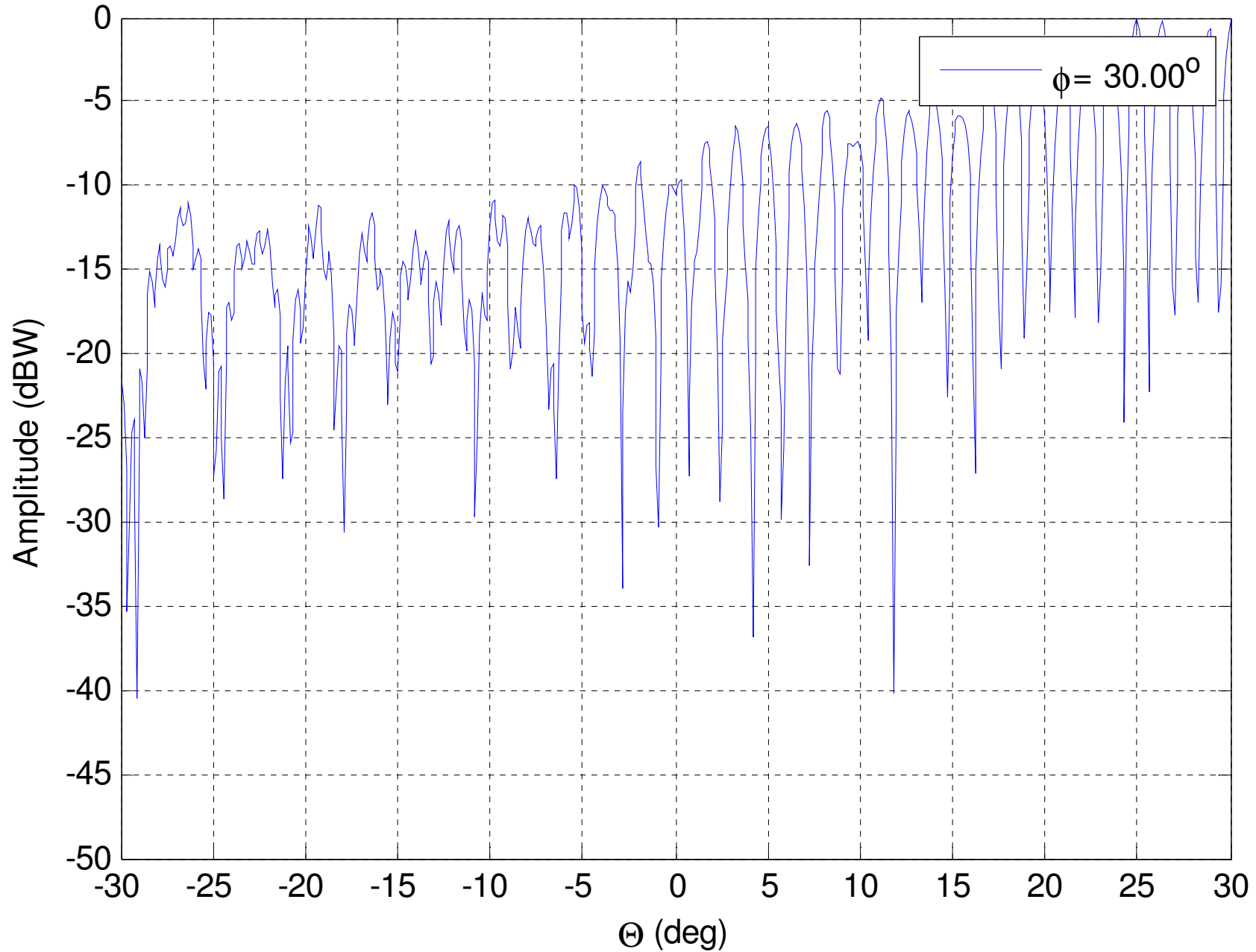
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-20.cut, Peak: -10.01 dBW, Date: 16-Dec-2011



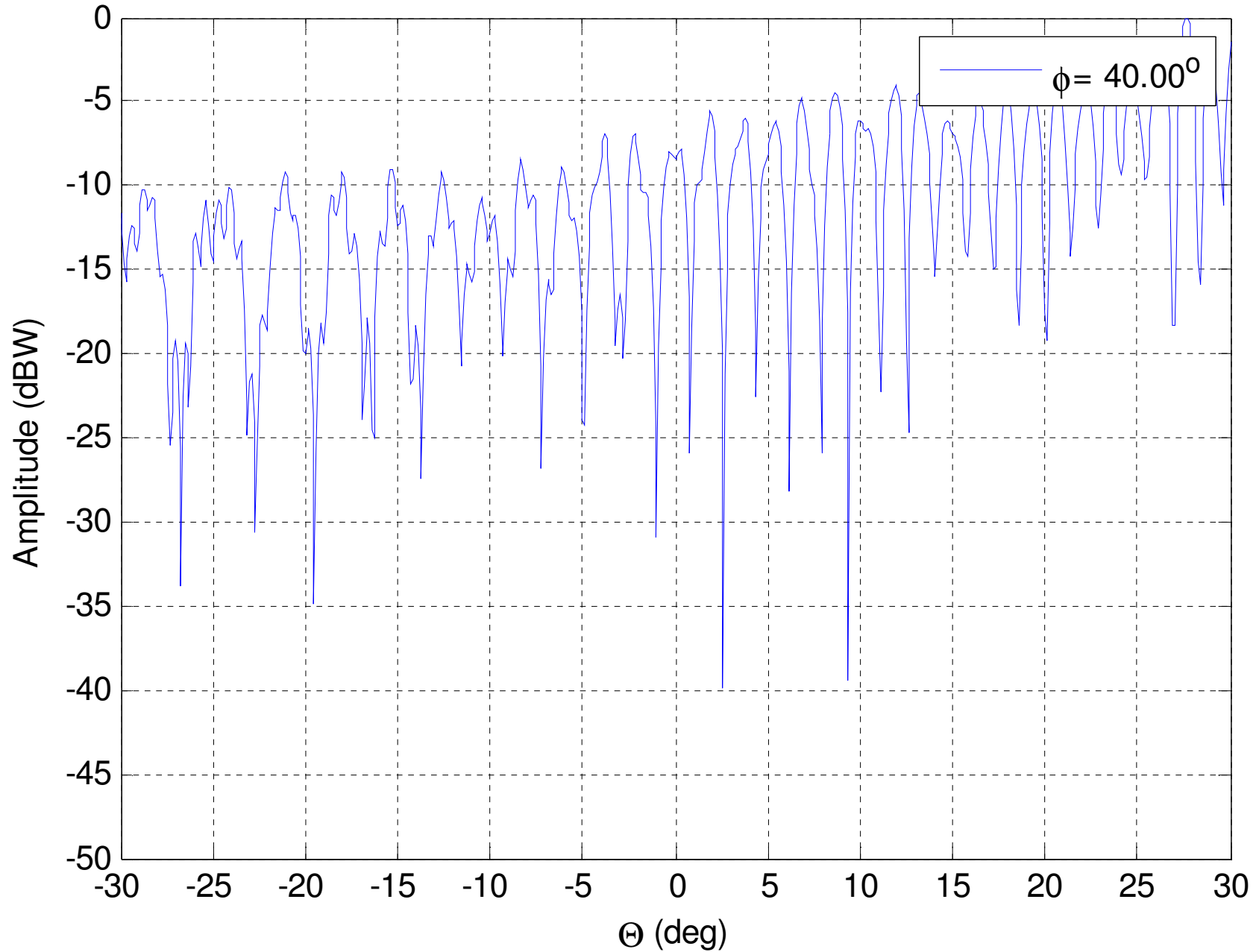
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-30.cut, Peak: -11.19 dBW, Date: 16-Dec-2011



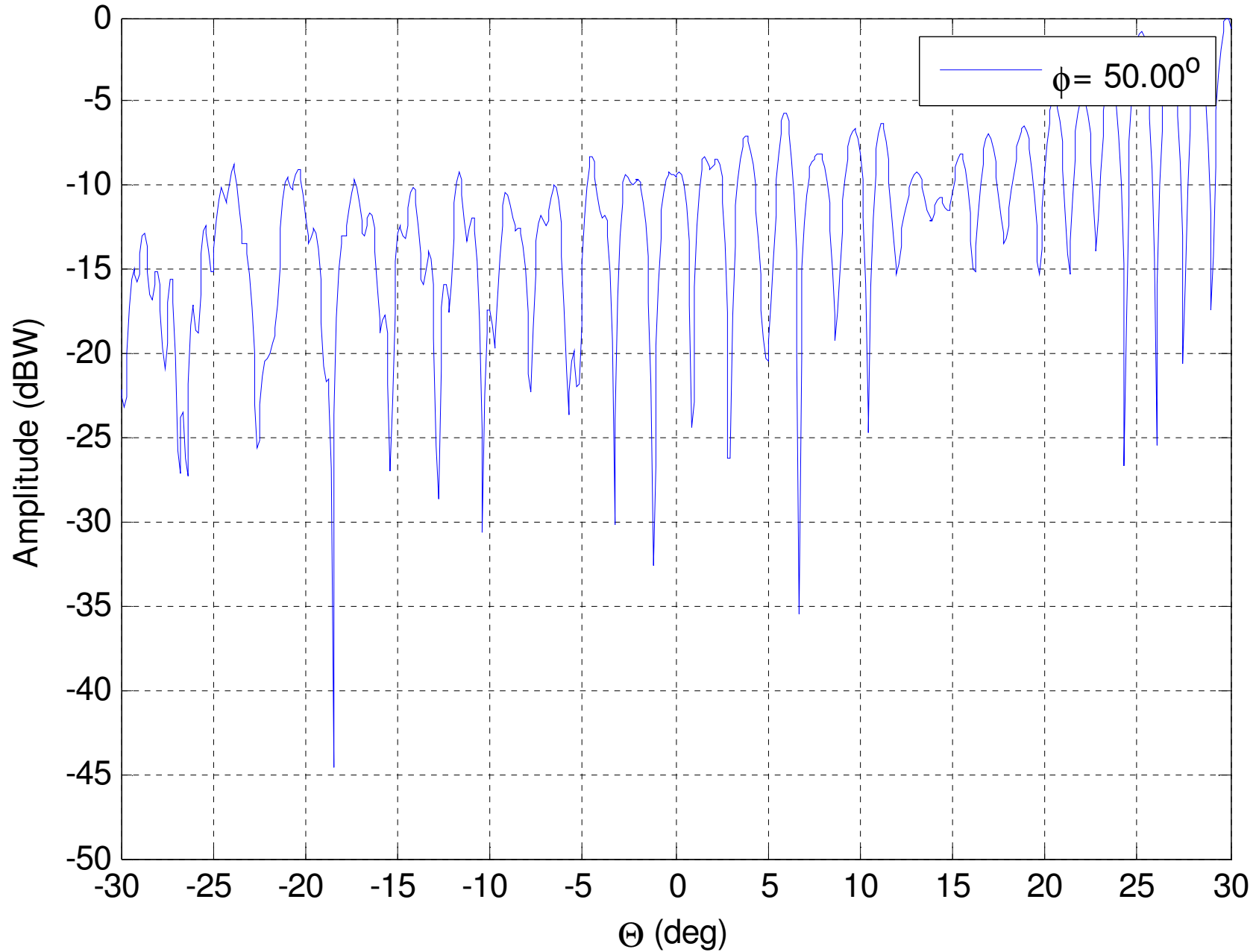
Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-40.cut, Peak: -13.27 dBW, Date: 16-Dec-2011



Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-50.cut, Peak: -12.25 dBW, Date: 16-Dec-2011



Normalized pattern cuts - farfield

Input file: tx-17.7-lhcp-60.cut, Peak: -12.08 dBW, Date: 16-Dec-2011

