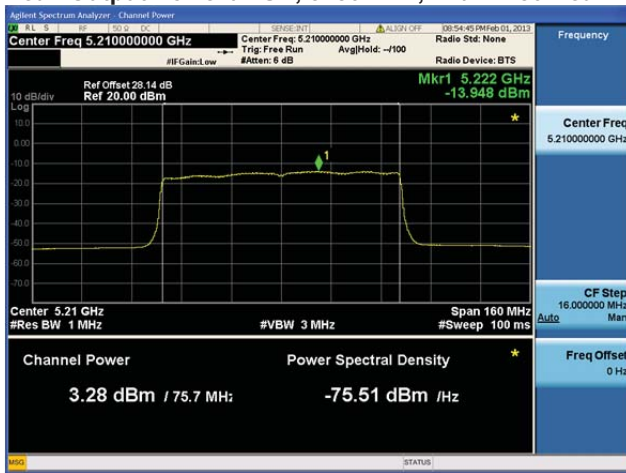
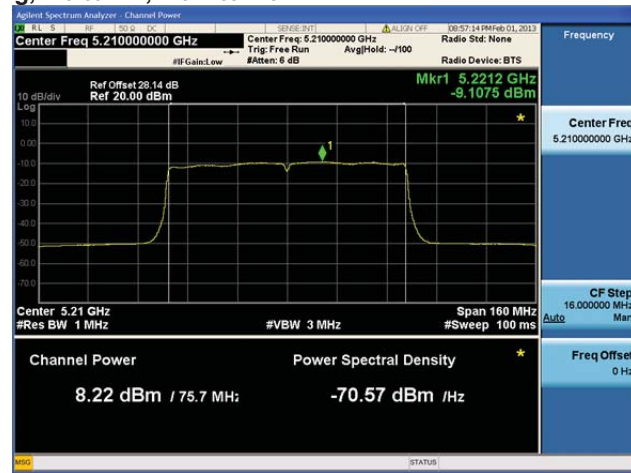


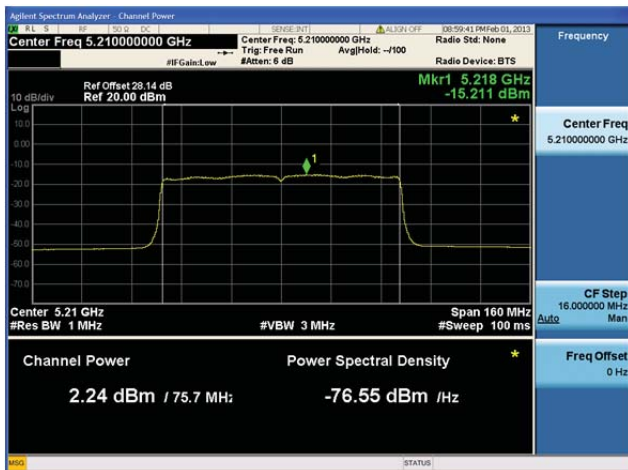
Peak Output Power / PSD, 5180 MHz, HT/VHT80 Beam Forming, M0 to M7, M0.1 to M9.1



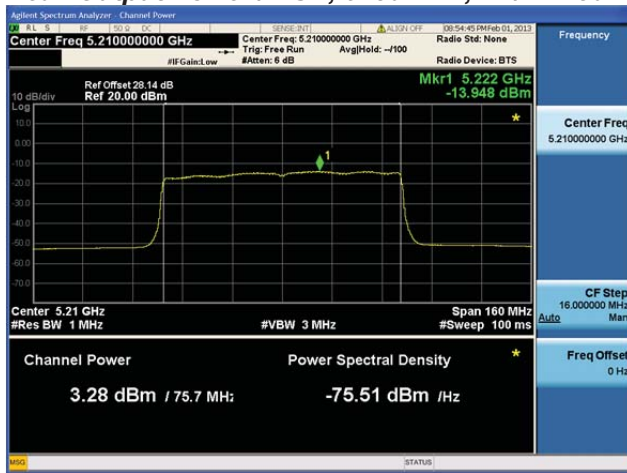
Antenna A

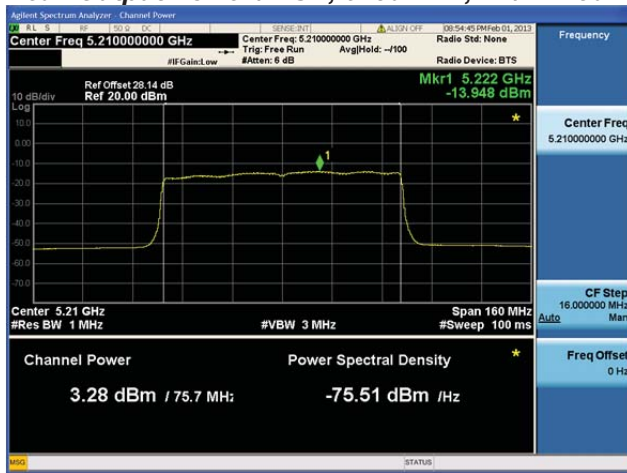


Antenna B



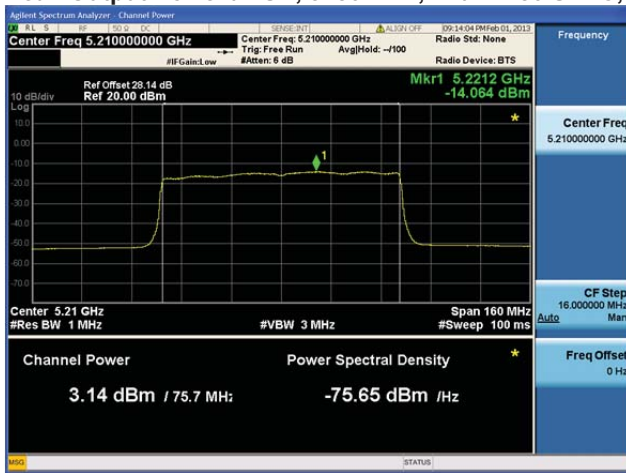
Antenna C

Peak Output Power / PSD, 5180 MHz, HT/VHT80 Beam Forming, M8 to M15, M0.2 to M9.2**Antenna A****Antenna B****Antenna C**

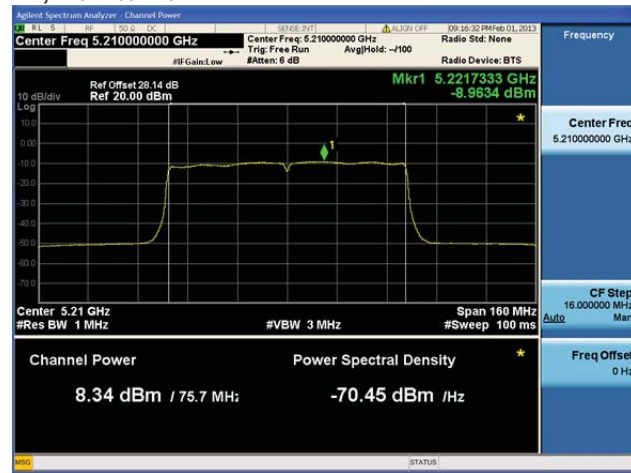
Peak Output Power / PSD, 5180 MHz, HT/VHT80 Beam Forming, M16 to M23, M0.3 to M9.3**Antenna A****Antenna B****Antenna C**

Peak Output Power / PSD, 5180 MHz, HT/VHT80 STBC, M0 to M7, M0.1 to M9.1**Antenna A****Antenna B**

Peak Output Power / PSD, 5180 MHz, HT/VHT80 STBC, M0 to M7, M0.1 to M9.1



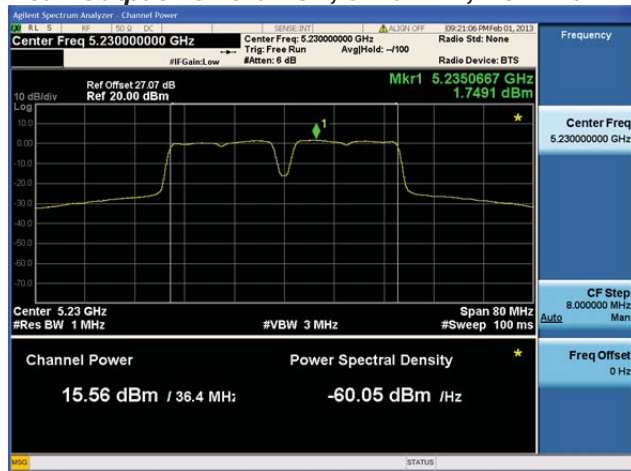
Antenna A



Antenna B



Antenna C

Peak Output Power / PSD, 5220 MHz, Non HT/VHT40, 6 to 54 Mbps**Antenna A**

**Peak Output Power / PSD, 5220 MHz, Non HT/VHT40, 6 to 54 Mbps****Antenna A****Antenna B**



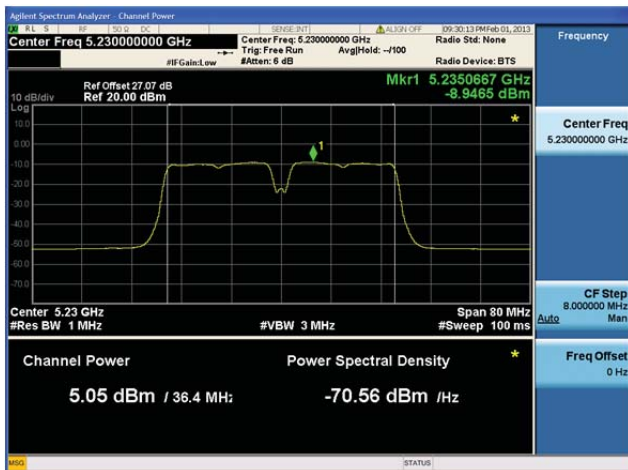
Peak Output Power / PSD, 5220 MHz, Non HT/VHT40, 6 to 54 Mbps



Antenna A

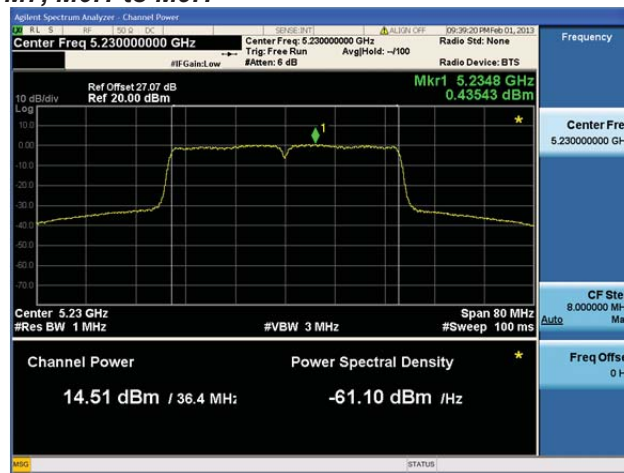


Antenna B



Antenna C

Peak Output Power / PSD, 5220 MHz, HT/VHT40, M0 to M7, M0.1 to M9.1**Antenna A**

Peak Output Power / PSD, 5220 MHz, HT/VHT40, M0 to M7, M0.1 to M9.1**Antenna A****Antenna B**



Peak Output Power / PSD, 5220 MHz, HT/VHT40, M8 to M15, M0.2 to M9.2



Antenna A



Antenna B

Peak Output Power / PSD, 5220 MHz, HT/VHT40, M0 to M7, M0.1 to M9.1



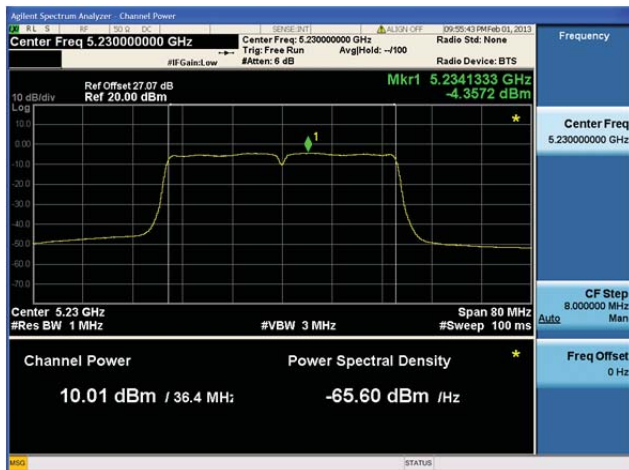
Antenna A



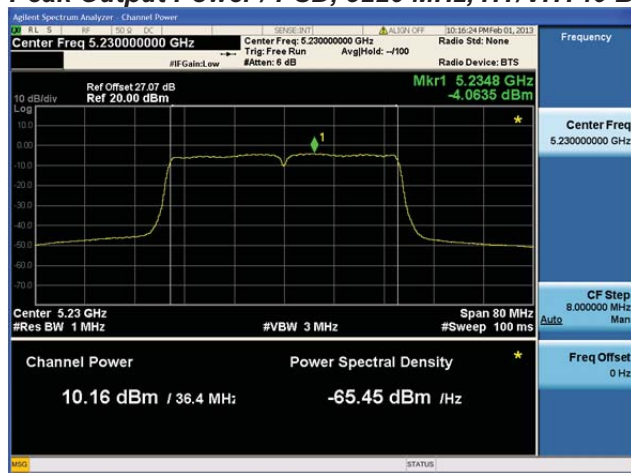
Antenna B



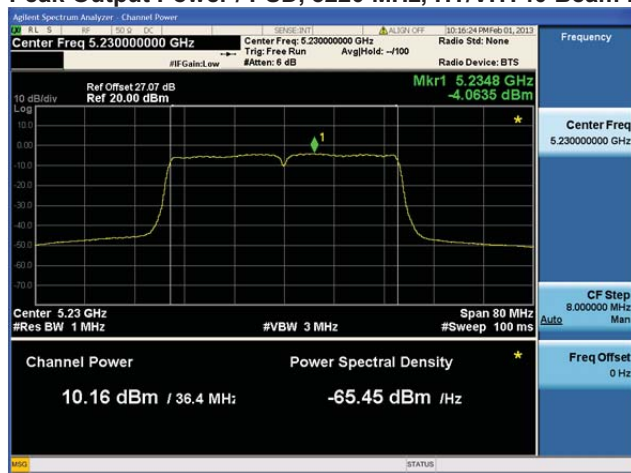
Antenna C

Peak Output Power / PSD, 5220 MHz, HT/VHT40, M8 to M15, M0.2 to M9.2**Antenna A****Antenna B****Antenna C**

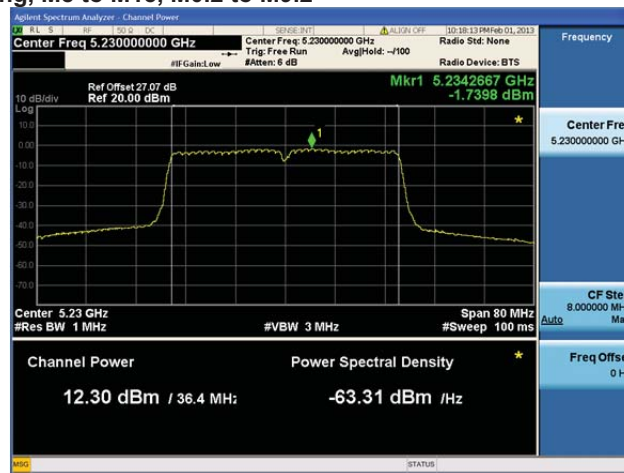
Peak Output Power / PSD, 5220 MHz, HT/VHT40, M16 to M23, M0.3 to M9.3**Antenna A****Antenna B****Antenna C**

Peak Output Power / PSD, 5220 MHz, HT/VHT40 Beam Forming, M0 to M7, M0.1 to M9.1**Antenna A****Antenna B**

Peak Output Power / PSD, 5220 MHz, HT/VHT40 Beam Forming, M8 to M15, M0.2 to M9.2

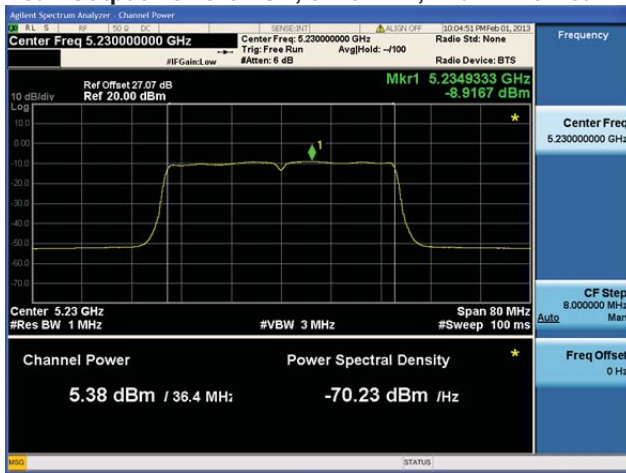


Antenna A



Antenna B

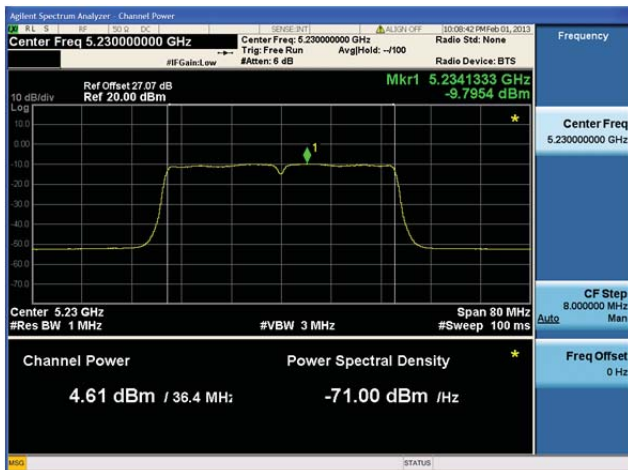
Peak Output Power / PSD, 5220 MHz, HT/VHT40 Beam Forming, M0 to M7, M0.1 to M9.1



Antenna A



Antenna B



Antenna C

Peak Output Power / PSD, 5220 MHz, HT/VHT40 Beam Forming, M8 to M15, M0.2 to M9.2**Antenna A****Antenna B****Antenna C**

Peak Output Power / PSD, 5220 MHz, HT/VHT40 Beam Forming, M16 to M23, M0.3 to M9.3**Antenna A****Antenna B****Antenna C**

**Peak Output Power / PSD, 5220 MHz, HT/VHT40 STBC, M0 to M7, M0.1 to M9.1****Antenna A****Antenna B**

Peak Output Power / PSD, 5220 MHz, HT/VHT40 STBC, M0 to M7, M0.1 to M9.1



Antenna A

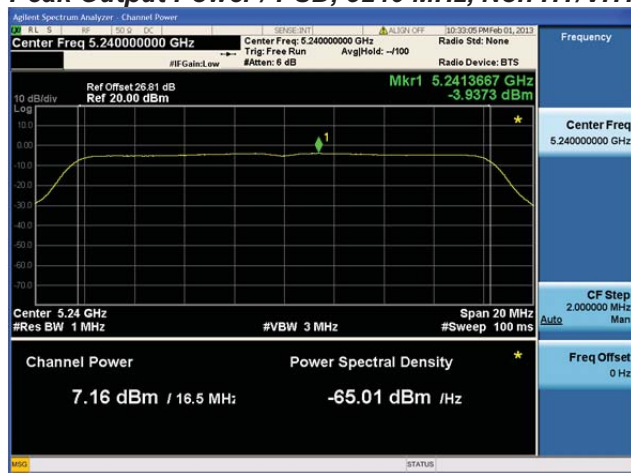


Antenna B



Antenna C

Peak Output Power / PSD, 5240 MHz, Non HT/VHT20, 6 to 54 Mbps**Antenna A**

Peak Output Power / PSD, 5240 MHz, Non HT/VHT20, 6 to 54 Mbps**Antenna A****Antenna B**

Peak Output Power / PSD, 5240 MHz, Non HT/VHT20, 6 to 54 Mbps



Antenna A



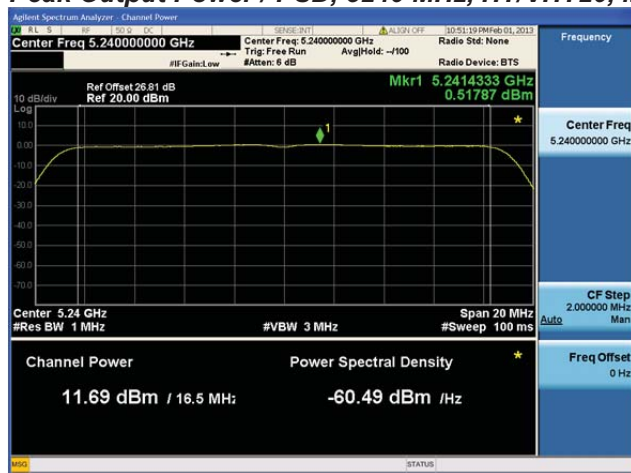
Antenna B

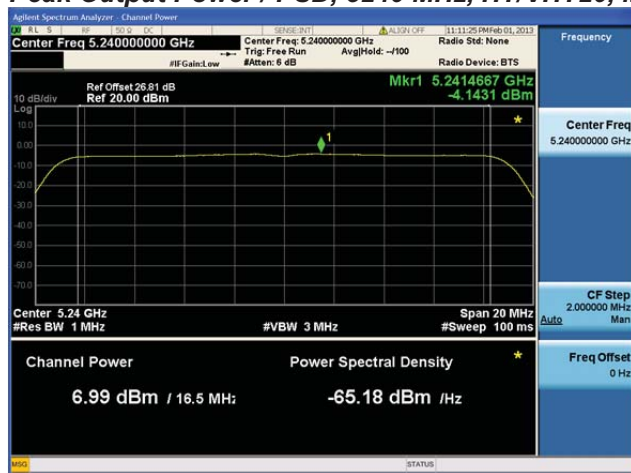
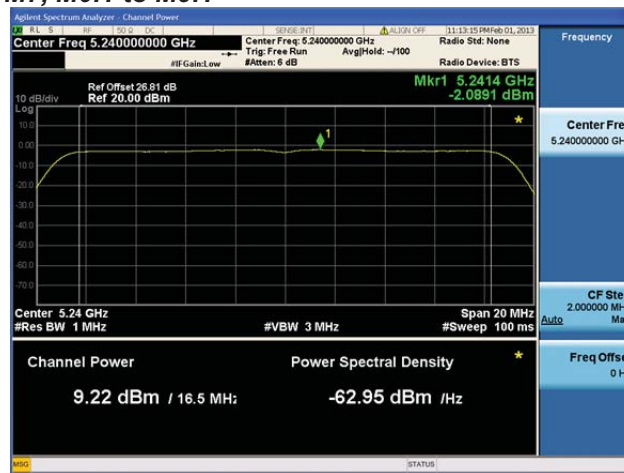


Antenna C

Peak Output Power / PSD, 5240 MHz, Non HT/VHT20 Beam Forming, 6 to 54 Mbps**Antenna A****Antenna B**

Peak Output Power / PSD, 5240 MHz, Non HT/VHT20 Beam Forming, 6 to 54 Mbps**Antenna A****Antenna B****Antenna C**

Peak Output Power / PSD, 5240 MHz, HT/VHT20, M0 to M7, M0.1 to M9.1**Antenna A**

Peak Output Power / PSD, 5240 MHz, HT/VHT20, M0 to M7, M0.1 to M9.1**Antenna A****Antenna B**

Peak Output Power / PSD, 5240 MHz, HT/VHT20, M8 to M15, M0.2 to M9.2



Antenna A



Antenna B

Peak Output Power / PSD, 5240 MHz, HT/VHT20, M0 to M7, M0.1 to M9.1



Antenna A

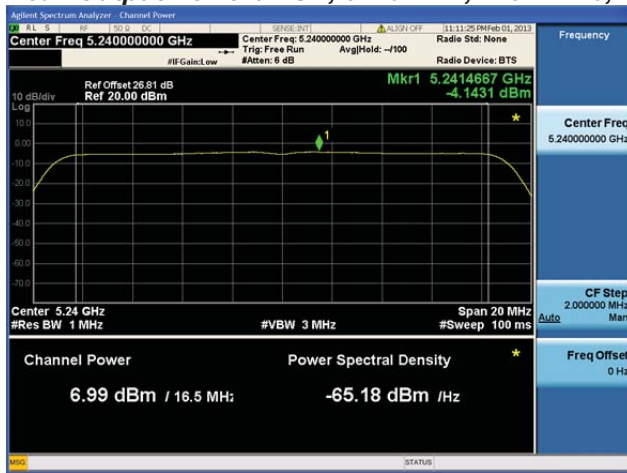


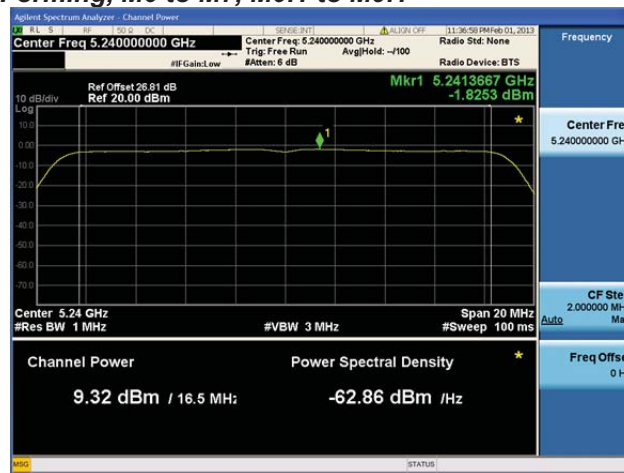
Antenna B



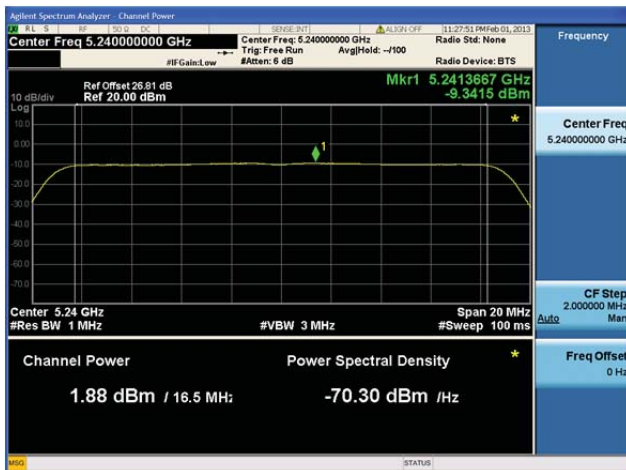
Antenna C

**Peak Output Power / PSD, 5240 MHz, HT/VHT20, M8 to M15, M0.2 to M9.2****Antenna A****Antenna B****Antenna C**

**Peak Output Power / PSD, 5240 MHz, HT/VHT20, M16 to M23, M0.3 to M9.3****Antenna A****Antenna B****Antenna C**

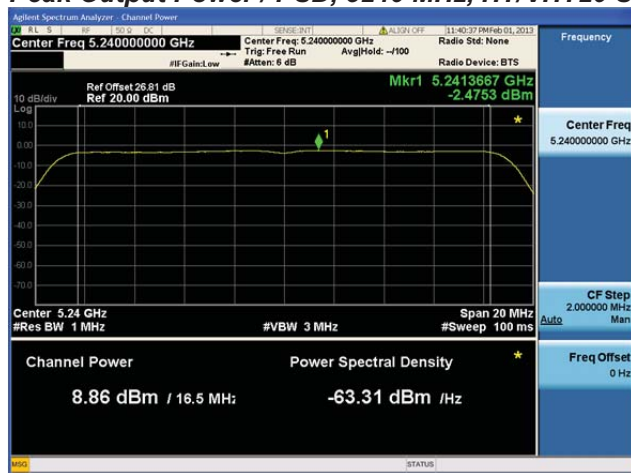
Peak Output Power / PSD, 5240 MHz, HT/VHT20 Beam Forming, M0 to M7, M0.1 to M9.1**Antenna A****Antenna B**

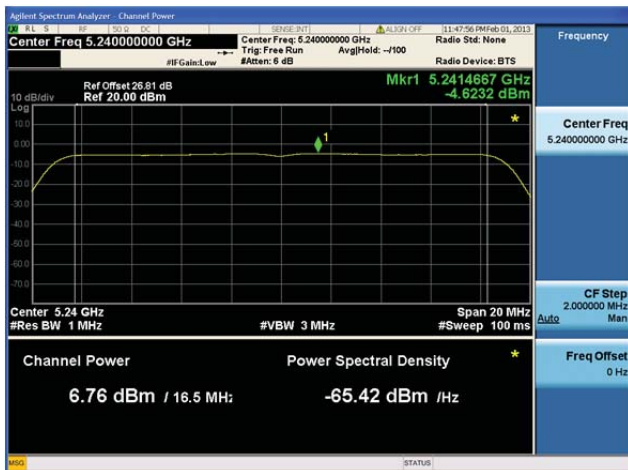
Peak Output Power / PSD, 5240 MHz, HT/VHT20 Beam Forming, M8 to M15, M0.2 to M9.2**Antenna A****Antenna B**

Peak Output Power / PSD, 5240 MHz, HT/VHT20 Beam Forming, M0 to M7, M0.1 to M9.1**Antenna A****Antenna B****Antenna C**

**Peak Output Power / PSD, 5240 MHz, HT/VHT20 Beam Forming, M8 to M15, M0.2 to M9.2****Antenna A****Antenna B****Antenna C**

**Peak Output Power / PSD, 5240 MHz, HT/VHT20 Beam Forming, M16 to M23, M0.3 to M9.3****Antenna A****Antenna B****Antenna C**

**Peak Output Power / PSD, 5240 MHz, HT/VHT20 STBC, M0 to M7, M0.1 to M9.1****Antenna A****Antenna B**

**Peak Output Power / PSD, 5240 MHz, HT/VHT20 STBC, M0 to M7, M0.1 to M9.1****Antenna A****Antenna B****Antenna C**



Peak Excursion

15.407: The ratio of the peak excursion of the modulation envelope (measured using a peak hold function) to the maximum conducted output power (measured as specified above) shall not exceed 13 dB across any 1 MHz bandwidth or the emission bandwidth whichever is less.

Set the spectrum analyzer span to view the entire emission bandwidth. The largest difference between the following two traces must be ≤ 13 dB for all frequencies across the emission bandwidth.

Set the spectrum analyzer span to view the entire emission bandwidth. The largest difference between the following two traces must be ≤ 13 dB for all frequencies across the emission bandwidth.

1st Trace: (Peak)

Set Span to encompass the entire emission bandwidth of the signal.

RBW = 1 MHz, VBW = 3 MHz

Detector = Peak

Sweep = 10 s

Trace 1 = Max-hold

Ref Level Offset = correct for attenuator and cable loss

Ref Level = 20dBm

Atten = 10dBm

2nd Trace: (Average)

Trace 2 = clear right

Detector = Sample

Avg/VBW type = Pwr(RMS)

Average = 100

Sweep = single

Set marker Deltas

Trace 1 & Peak search

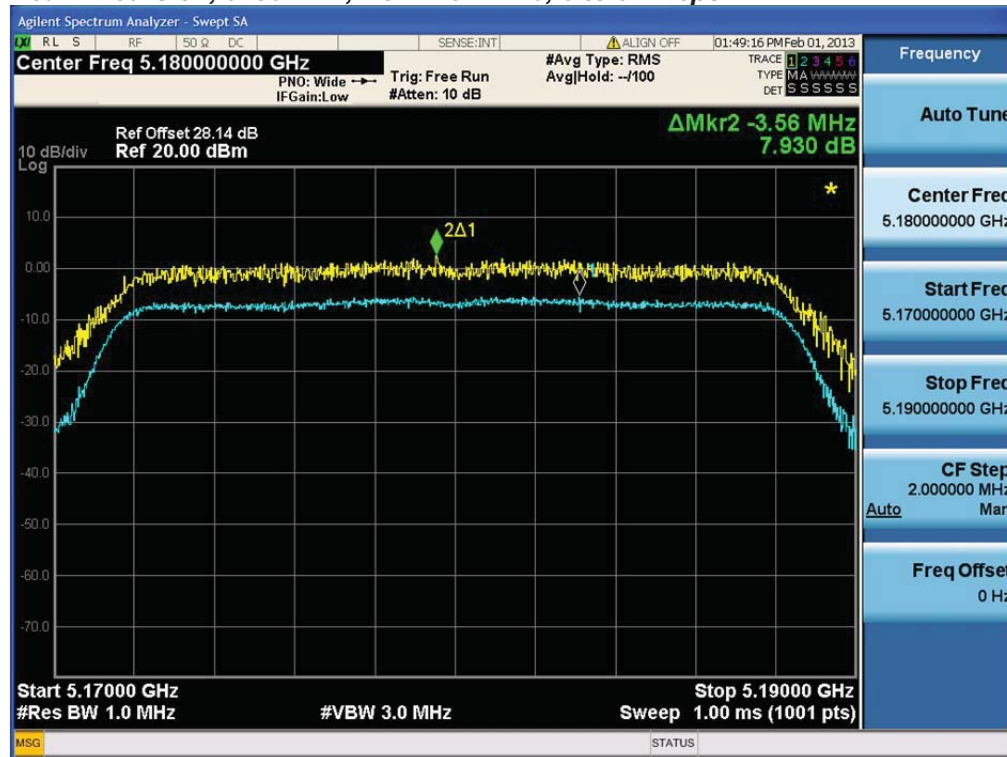
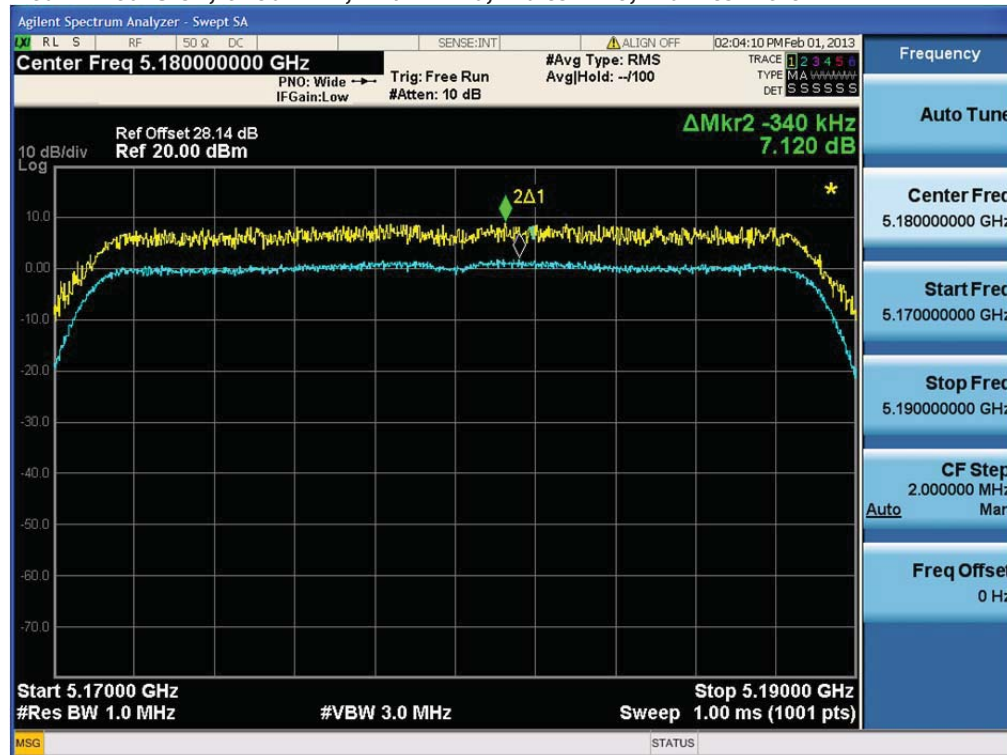
Marker Delta

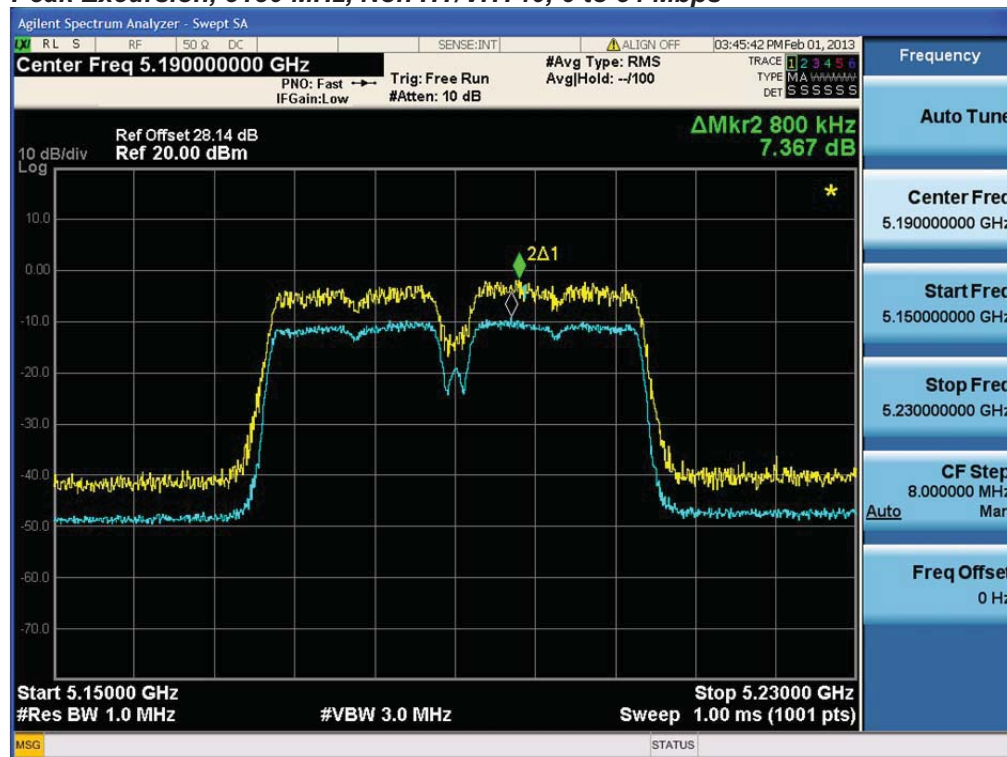
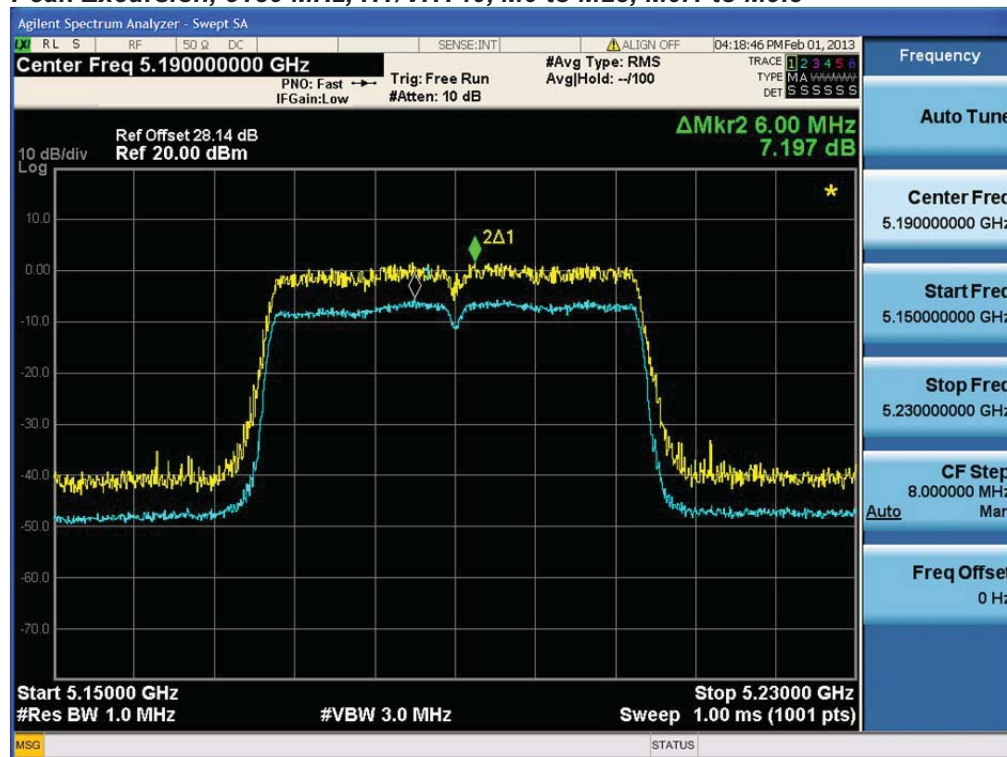
Trace 2 & Peak search

Record the difference between the Peak and Average Markers



Frequency (MHz)	Mode	Data Rate (Mbps)	Peak Excursion (dB)	Limit (dBm/MHz)	Margin (dB)
5180	Non HT/VHT20, 6 to 54 Mbps	6	7	13	6
	HT/VHT20, M0 to M23, M0.1 to M9.3	M0.	7.1	13	5.9
	Non HT/VHT40, 6 to 54 Mbps	6	7.4	13	5.6
	HT/VHT40, M0 to M23, M0.1 to M9.3	M0.	7.2	13	5.8
	Non HT/VHT80, 6 to 54 Mbps	6	7.1	13	5.9
	HT/VHT80, M0 to M23, M0.1 to M9.3	M0x1	7.6	13	5.4
5220	Non HT/VHT40, 6 to 54 Mbps	6	7.3	13	5.7
	HT/VHT40, M0 to M23, M0.1 to M9.3	M0.	7.1	13	5.9
5240	Non HT/VHT20, 6 to 54 Mbps	6	7.3	13	5.7
	HT/VHT20, M0 to M23, M0.1 to M9.3	M0.	7.3	13	5.7

**Peak Excursion, 5180 MHz, Non HT/VHT20, 6 to 54 Mbps****Peak Excursion, 5180 MHz, HT/VHT20, M0 to M23, M0.1 to M9.3**

Peak Excursion, 5180 MHz, Non HT/VHT40, 6 to 54 Mbps**Peak Excursion, 5180 MHz, HT/VHT40, M0 to M23, M0.1 to M9.3**

Agilent Spectrum Analyzer - Swept SA

Center Freq 5.21000000 GHz

Ref Offset 28.14 dB
Ref 20.00 dBm

10 dB/div
Log

Start 5.13000 GHz
#Res BW 1.0 MHz

Stop 5.29000 GHz
Sweep 1.00 ms (1001 pts)

#Avg Type: RMS
Avg/Hold: -/100

Trig: Free Run
#Atten: 10 dB

PNO: Fast
IF Gain: Low

ALIGN OFF

06:20:23 PM Feb 01, 2013

TRACE 1 2 3 4 5 6
TYPE MA WWWW
DET SSSSS

Frequency

Auto Tune

Center Freq
5.21000000 GHz

Start Freq
5.13000000 GHz

Stop Freq
5.29000000 GHz

CF Step
16.00000 MHz

Auto

Freq Offset
0 Hz

Agilent Spectrum Analyzer - Swept SA

Center Freq 5.210000000 GHz

Ref Offset 28.14 dB
Ref 20.00 dBm

10 dB/div
Log

Start 5.13000 GHz
#Res BW 1.0 MHz

Stop 5.29000 GHz
#VBW 3.0 MHz

Sweep 1.00 ms (1001 pts)

Trig: Free Run
#Atten: 10 dB

PNO: Fast \rightarrow
IFGain: Low

#Avg Type: RMS
Avg/Hold: \rightarrow /100

ALIGN OFF

07:47:21 PM Feb 01, 2013

TRACE 1 2 3 4 5 6
TYPE MA WWWW
DET SSSSS

Frequency

Auto Tune

Center Freq
5.210000000 GHz

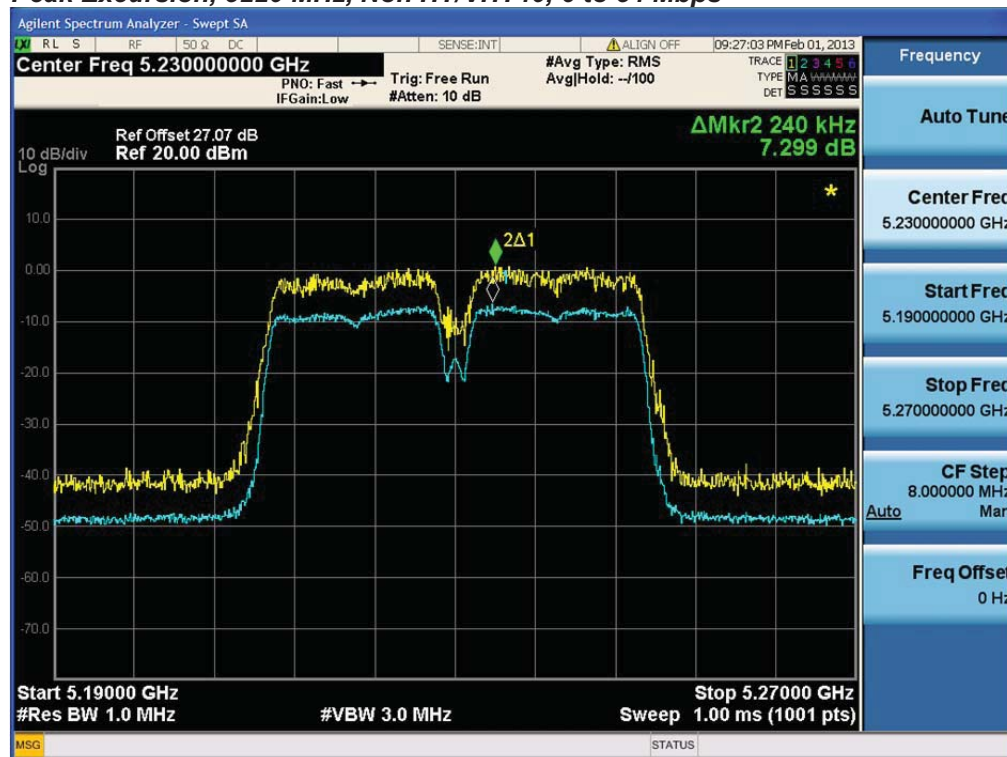
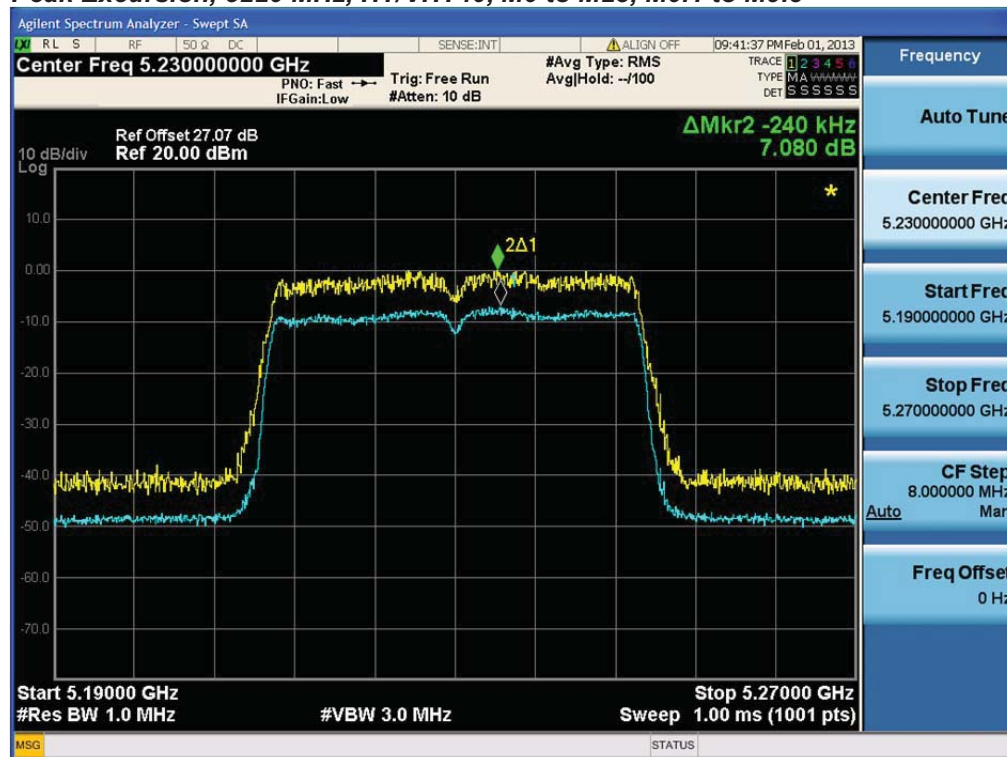
Start Freq
5.130000000 GHz

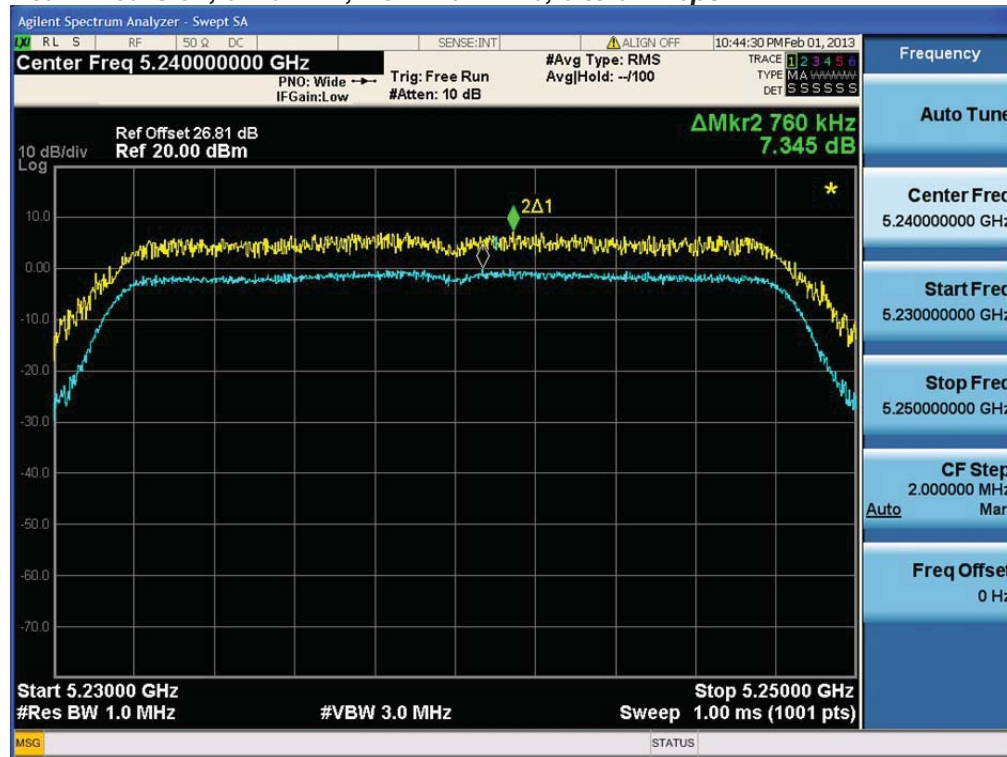
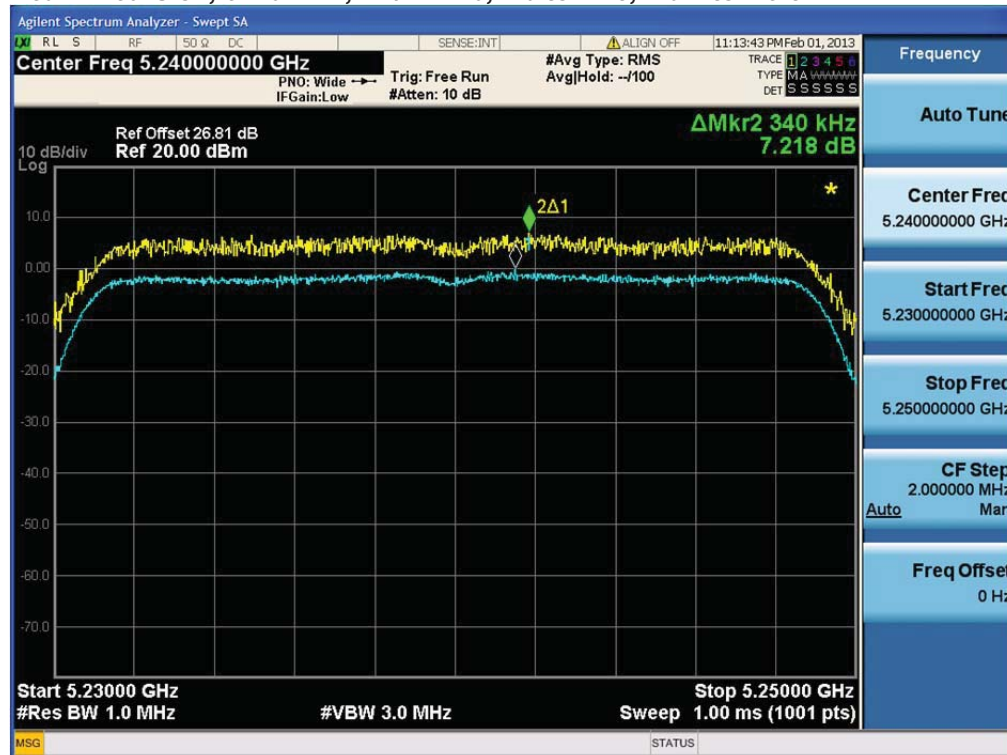
Stop Freq
5.290000000 GHz

CF Step
16.00000 MHz
Man

Freq Offset
0 Hz

MSG STATUS

Peak Excursion, 5220 MHz, Non HT/VHT40, 6 to 54 Mbps**Peak Excursion, 5220 MHz, HT/VHT40, M0 to M23, M0.1 to M9.3**

Peak Excursion, 5220 MHz, Non HT/VHT20, 6 to 54 Mbps**Peak Excursion, 5220 MHz, HT/VHT20, M0 to M23, M0.1 to M9.3**



Conducted Spurious Emissions

15.407: For transmitters operating in the 5.15-5.25 GHz band: all emissions outside of the 5.15-5.35 GHz band shall not exceed an EIRP of -27dBm/MHz.

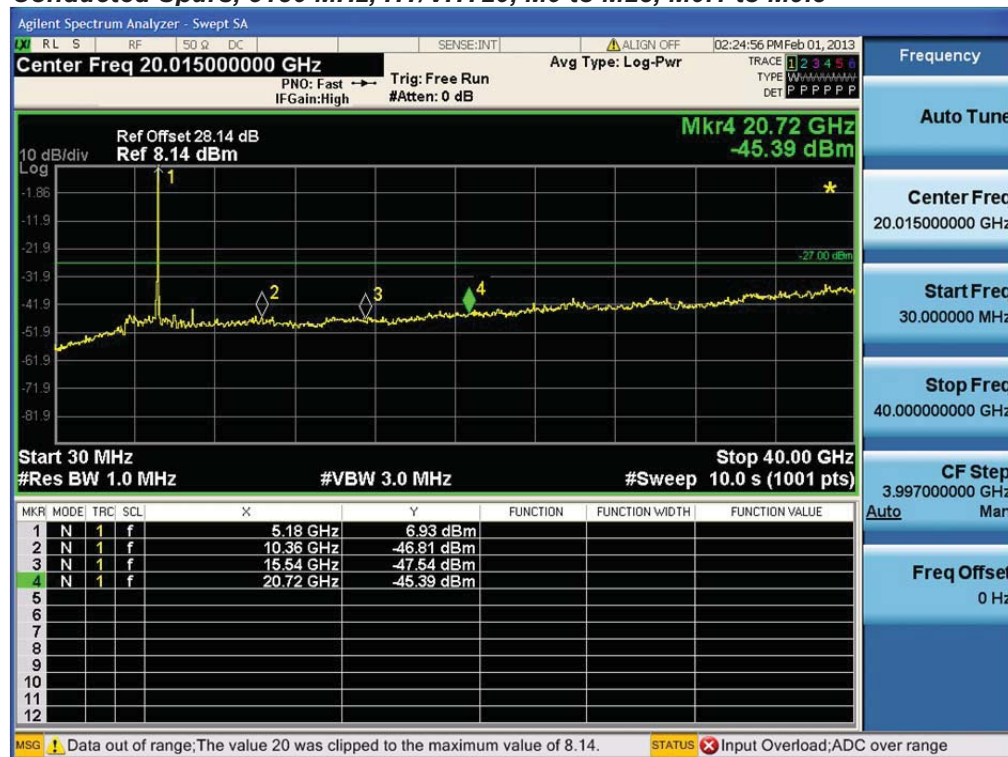
Connect the antenna port(s) to the spectrum analyzer input. Place the radio in continuous transmit mode. Configure the spectrum analyzer as shown below (be sure to enter all losses between the transmitter output and the spectrum analyzer).

Span:	30 MHz-40 GHz
Reference Level:	20 dBm
Attenuation:	10 dB
Sweep Time:	10 s
Resolution Bandwidth:	1 MHz
Video Bandwidth:	3 MHz
Detector:	Peak
Trace:	Single
Marker:	Peak

Record the marker waveform peak to spur difference



Frequency (MHz)	Mode	Tx Paths	Correlated Antenna Gain (dBi)	Conducted Spur (dBm/MHz)	Total Conducted Spur (dBm/MHz)	Limit (dBm)	Margin (dB)
5180	Non HT/VHT20, 6 to 54 Mbps	2	10	-45.4	-32.59	-27	5.59
	HT/VHT20, M0 to M23, M0.1 to M9.3	3	5	-45.4	-35.63	-27	8.63
	Non HT/VHT40, 6 to 54 Mbps	1	5	-45.4	-40.40	-27	13.40
	HT/VHT40, M0 to M23, M0.1 to M9.3	2	8	-45.2	-34.19	-27	7.19
	Non HT/VHT80, 6 to 54 Mbps	1	5	-45.3	-40.30	-27	13.30
	HT/VHT80, M0 to M23, M0.1 to M9.3	2	8	-45.7	-34.69	-27	7.69
5220	Non HT/VHT40, 6 to 54 Mbps	1	5	-47.1	-42.10	-27	15.10
	HT/VHT40, M0 to M23, M0.1 to M9.3	3	5	-47.4	-37.63	-27	10.63
5240	Non HT/VHT20, 6 to 54 Mbps	2	10	-47.5	-34.69	-27	7.69
	HT/VHT20, M0 to M23, M0.1 to M9.3	3	5	-46.7	-36.93	-27	9.93

**Conducted Spurs, 5180 MHz, Non HT/VHT20, 6 to 54 Mbps****Conducted Spurs, 5180 MHz, HT/VHT20, M0 to M23, M0.1 to M9.3**

**Conducted Spurs, 5180 MHz, Non HT/VHT40, 6 to 54 Mbps****Conducted Spurs, 5180 MHz, HT/VHT40, M0 to M23, M0.1 to M9.3**