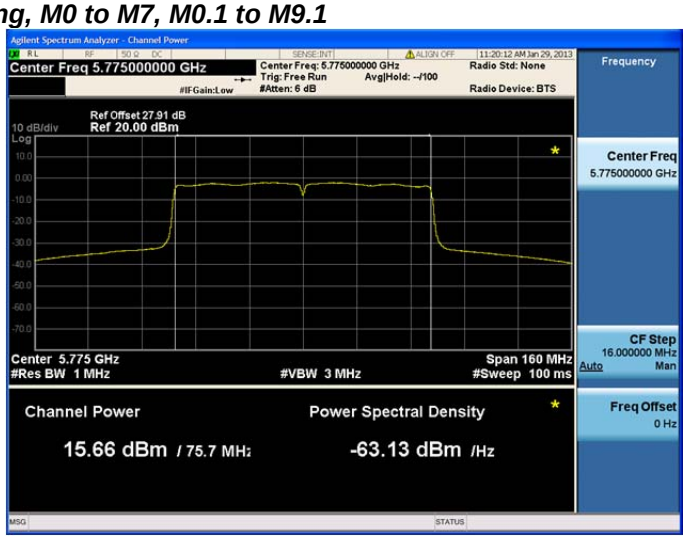
Peak Output Power, 5745 MHz, HT/VHT80 Beam Forming, M0 to M7, M0.1 to M9.1

Antenna A

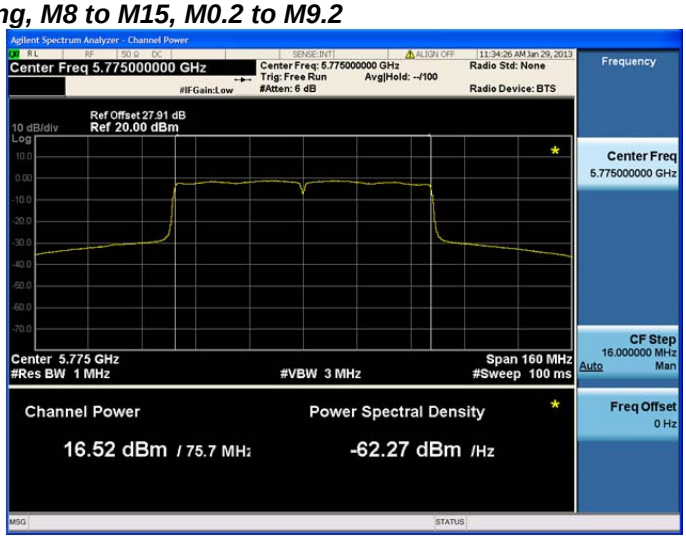


Antenna B

Antenna C

Peak Output Power, 5745 MHz, HT/VHT80 Beam Forming, M8 to M15, M0.2 to M9.2

Antenna A

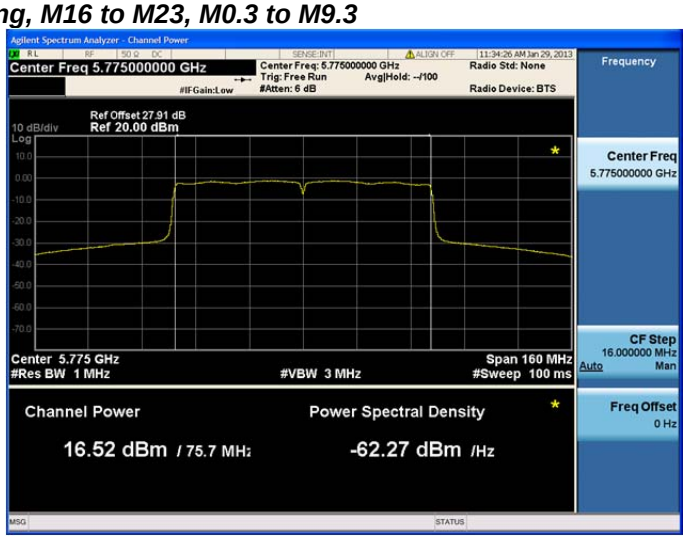


Antenna B

Antenna C

Peak Output Power, 5745 MHz, HT/VHT80 Beam Forming, M16 to M23, M0.3 to M9.3

Antenna A

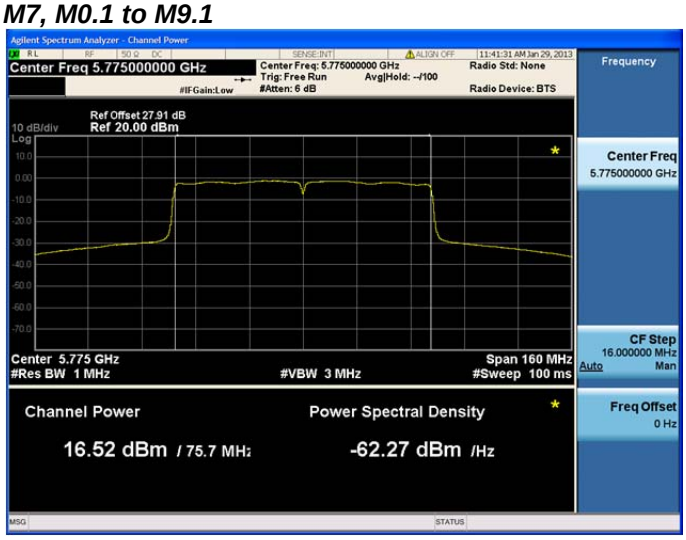


Antenna B

Antenna C

Peak Output Power, 5745 MHz, HT/VHT80 STBC, M0 to M7, M0.1 to M9.1

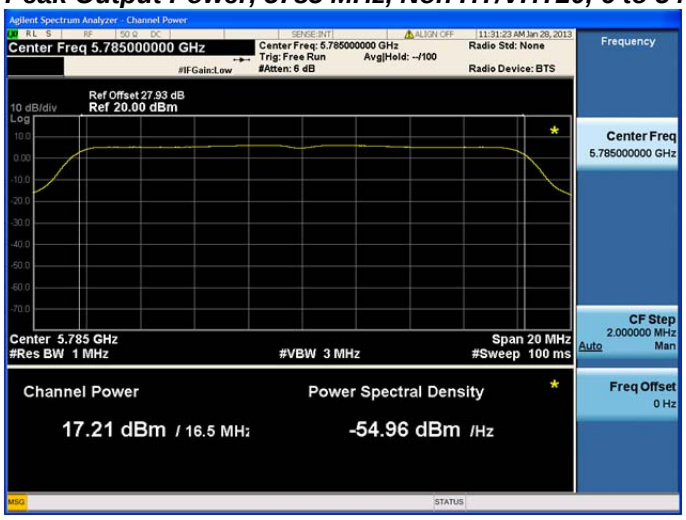
Antenna A



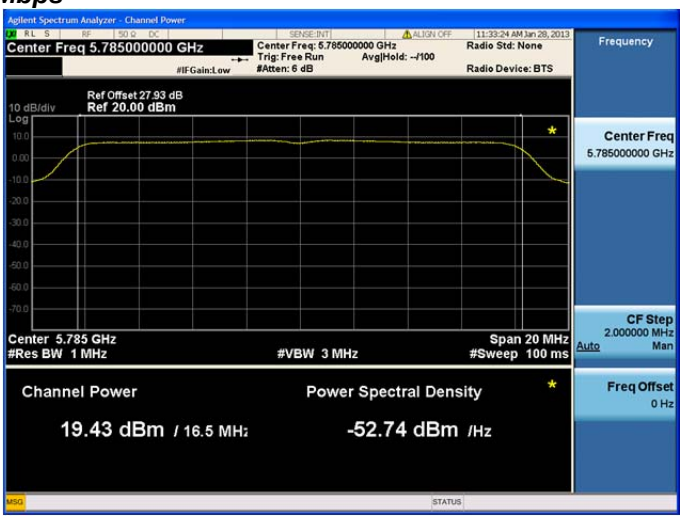
Antenna B

Antenna C

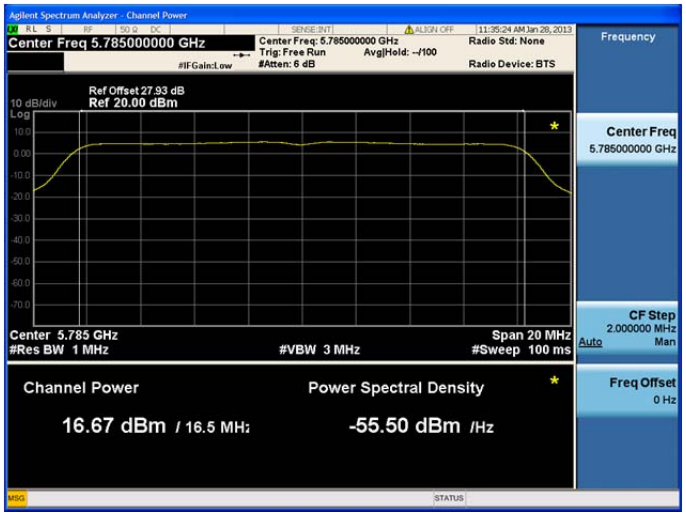
Peak Output Power, 5785 MHz, Non HT/VHT20, 6 to 54 Mbps



Antenna A

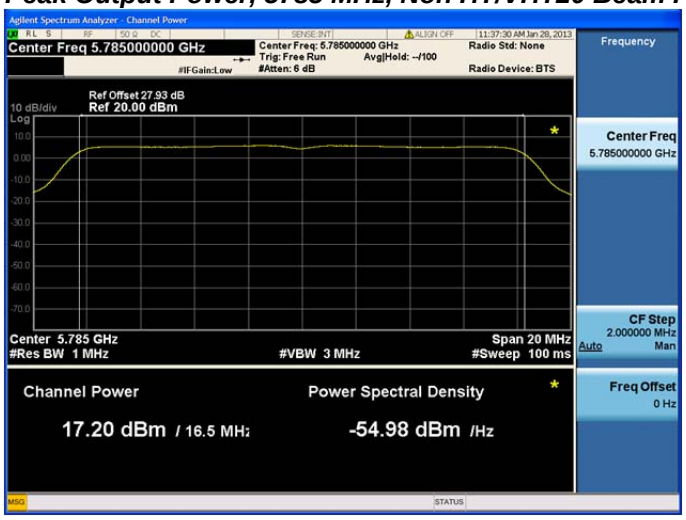


Antenna B

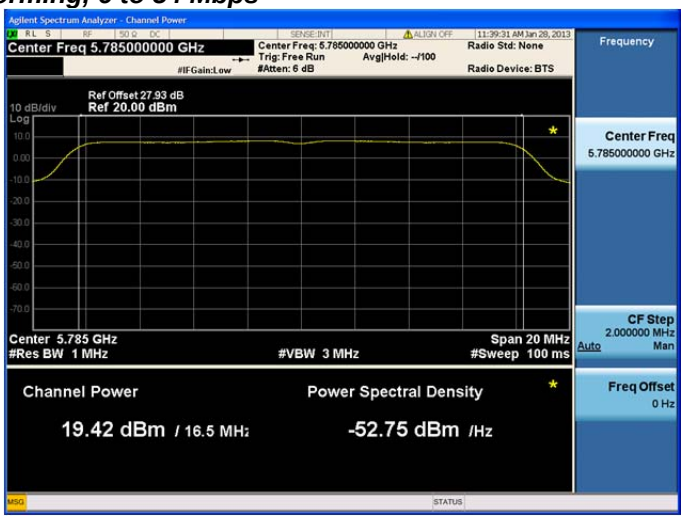


Antenna C

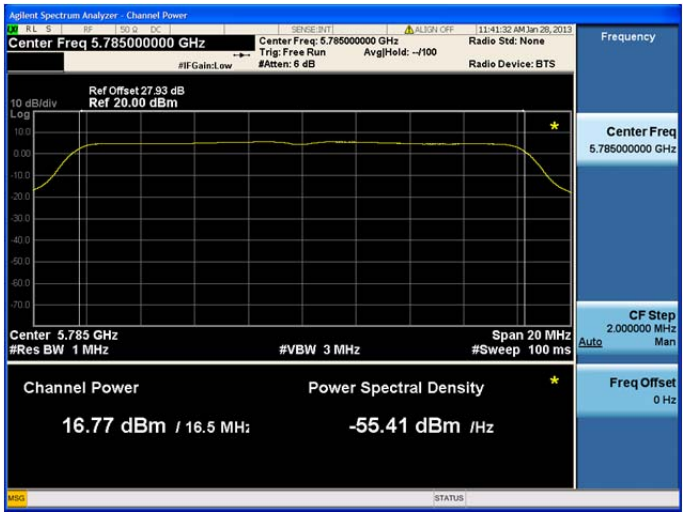
Peak Output Power, 5785 MHz, Non HT/VHT20 Beam Forming, 6 to 54 Mbps



Antenna A

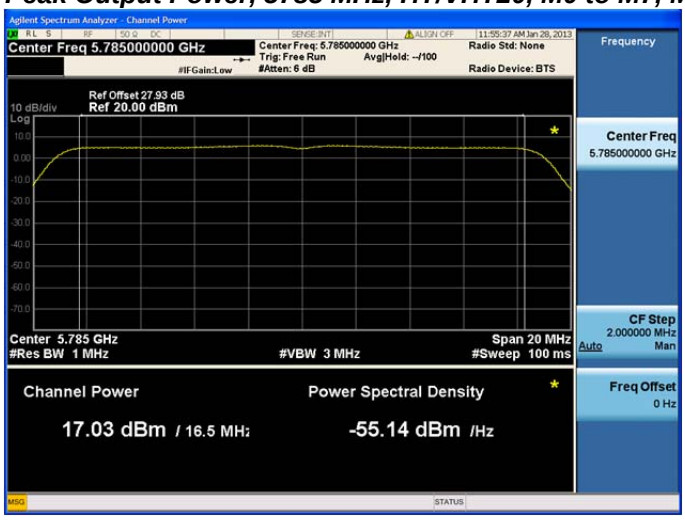


Antenna B

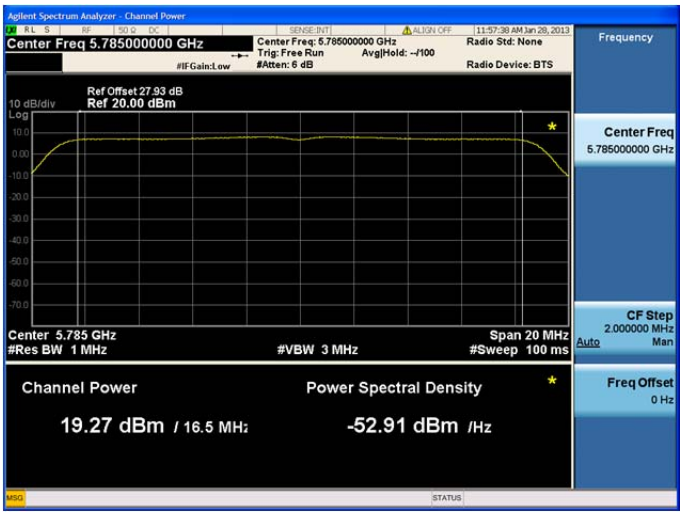


Antenna C

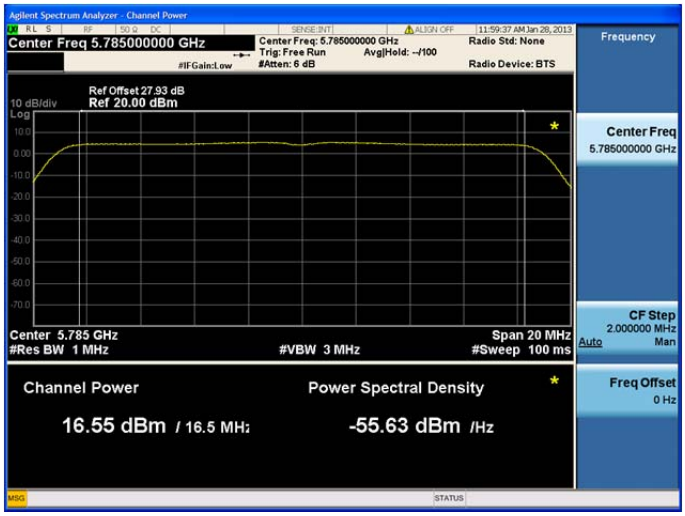
Peak Output Power, 5785 MHz, HT/VHT20, M0 to M7, M0.1 to M9.1



Antenna A

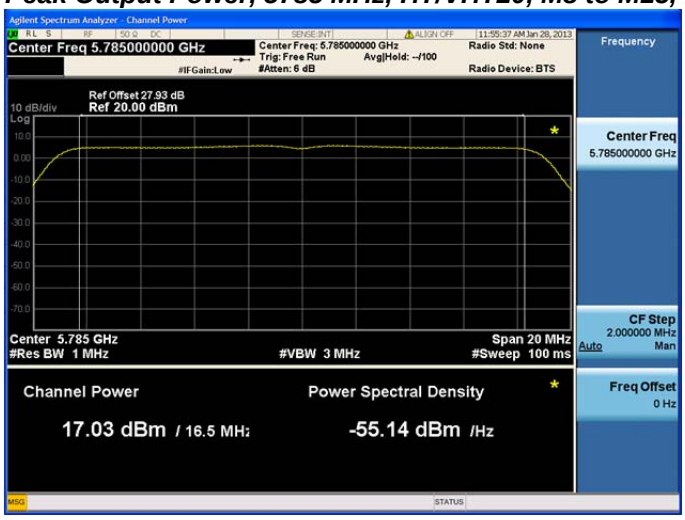


Antenna B

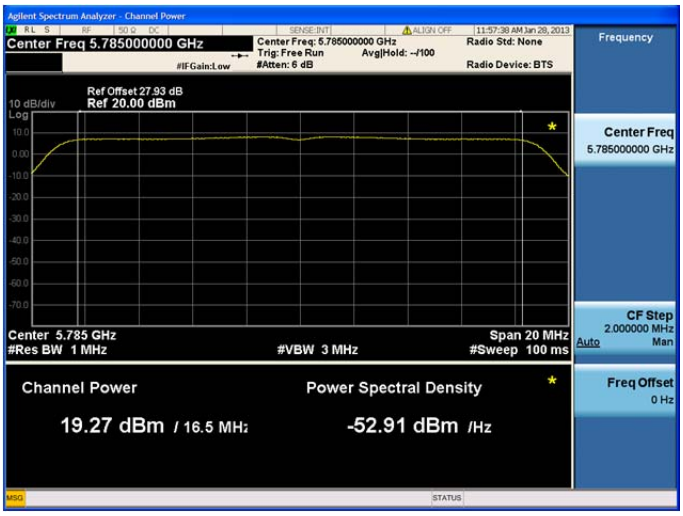


Antenna C

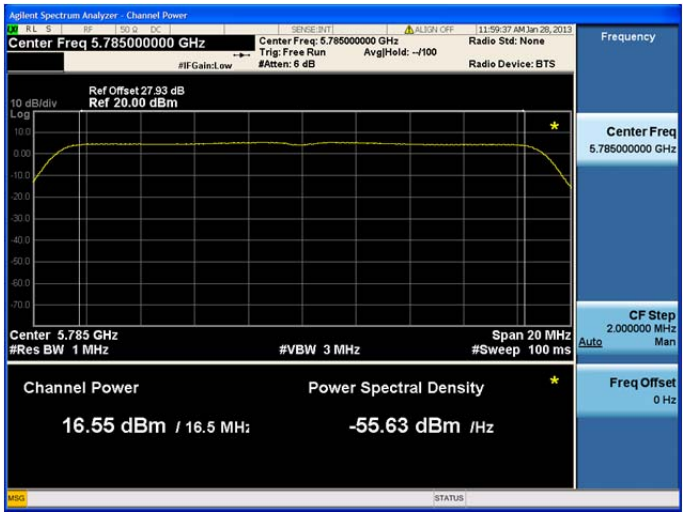
Peak Output Power, 5785 MHz, HT/VHT20, M8 to M15, M0.2 to M9.2



Antenna A

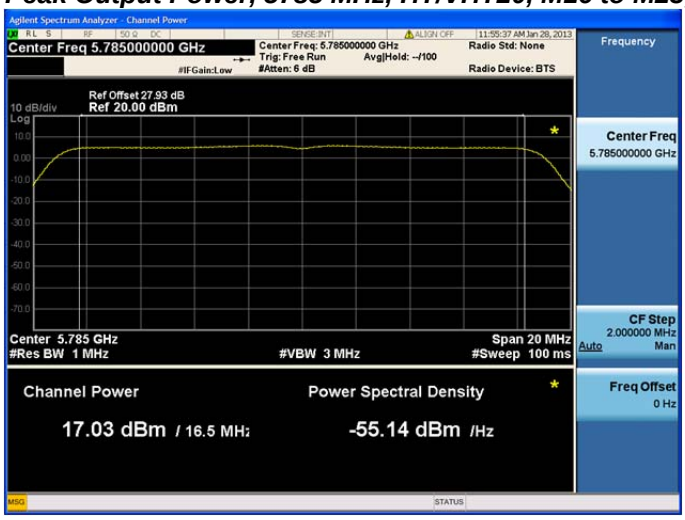


Antenna B

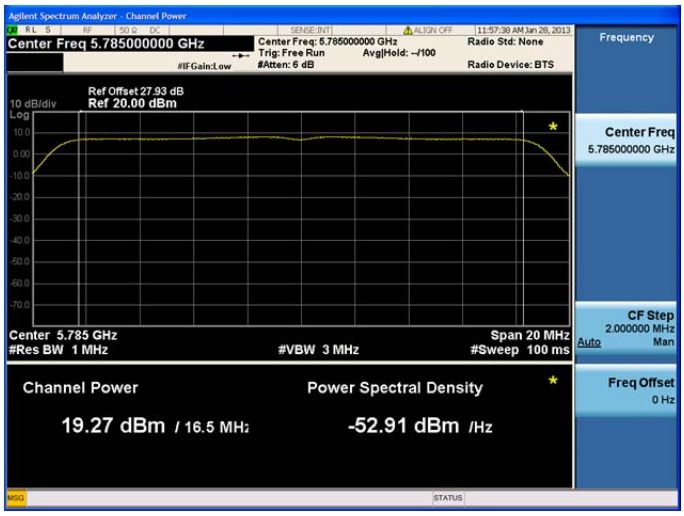


Antenna C

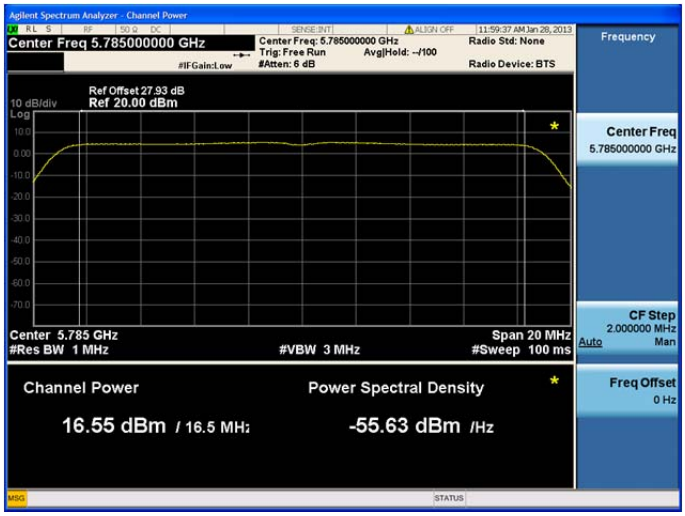
Peak Output Power, 5785 MHz, HT/VHT20, M16 to M23, M0.3 to M9.3



Antenna A



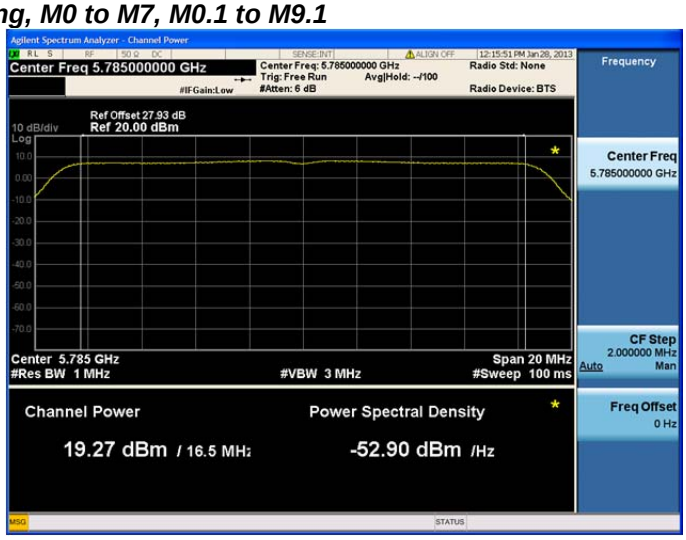
Antenna B



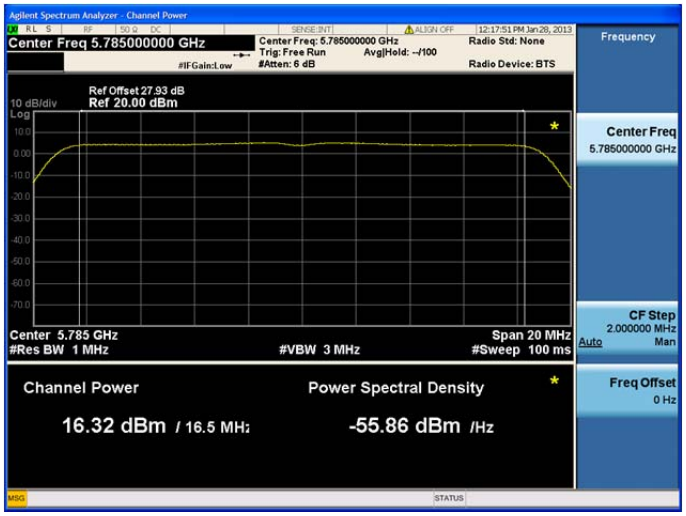
Antenna C

Peak Output Power, 5785 MHz, HT/VHT20 Beam Forming, M0 to M7, M0.1 to M9.1

Antenna A



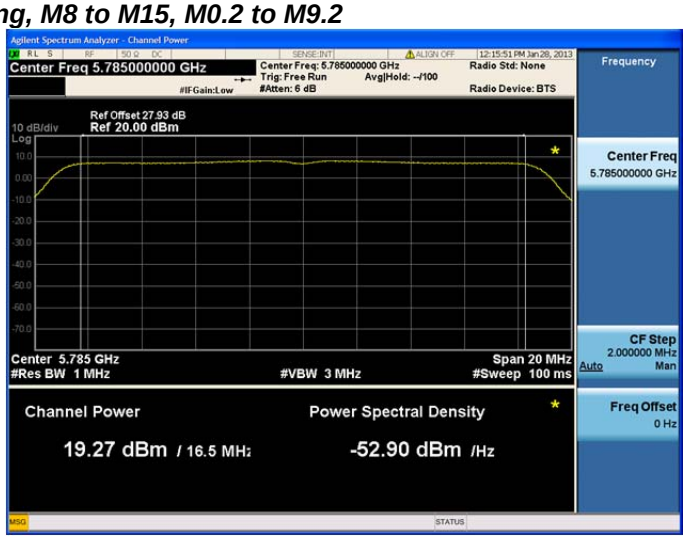
Antenna B



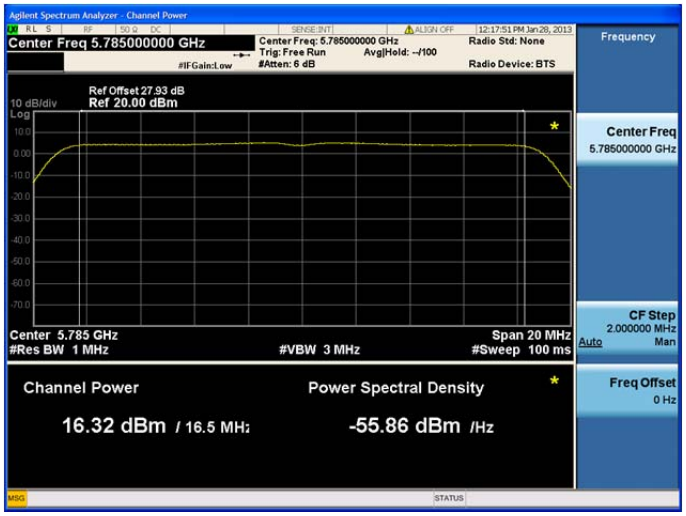
Antenna C

Peak Output Power, 5785 MHz, HT/VHT20 Beam Forming, M8 to M15, M0.2 to M9.2

Antenna A



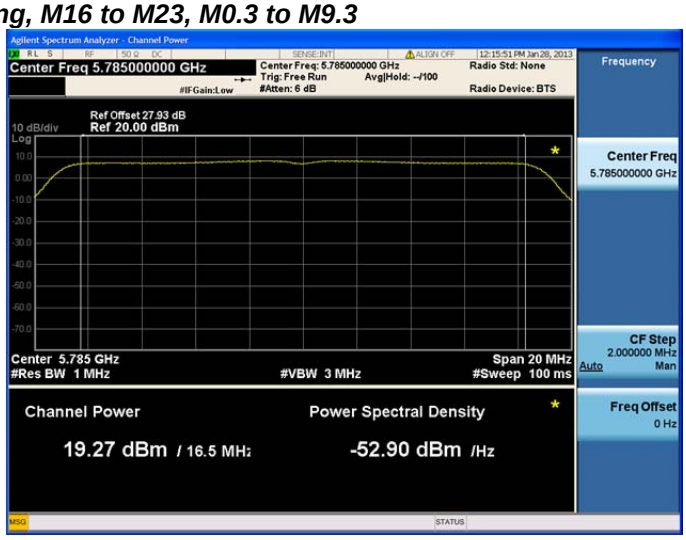
Antenna B



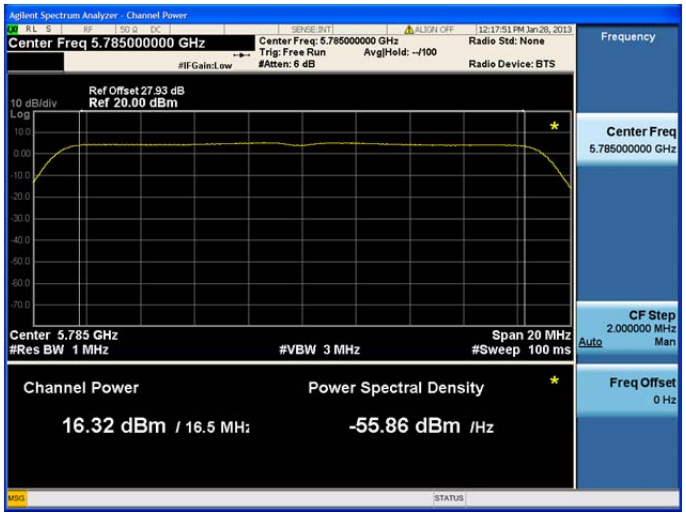
Antenna C

Peak Output Power, 5785 MHz, HT/VHT20 Beam Forming, M16 to M23, M0.3 to M9.3

Antenna A

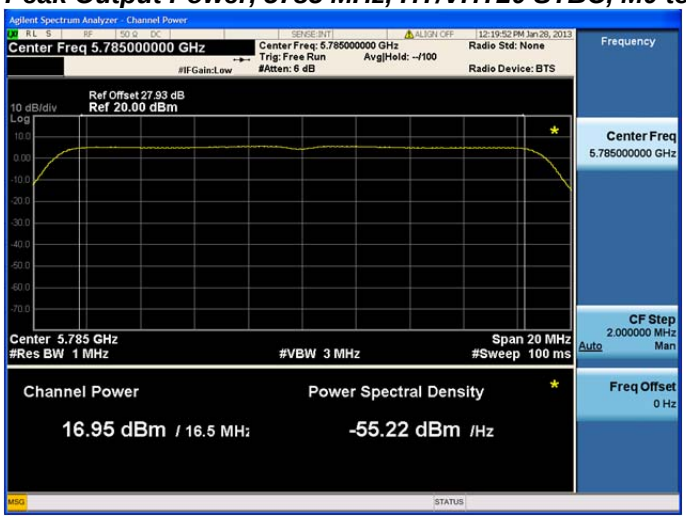


Antenna B

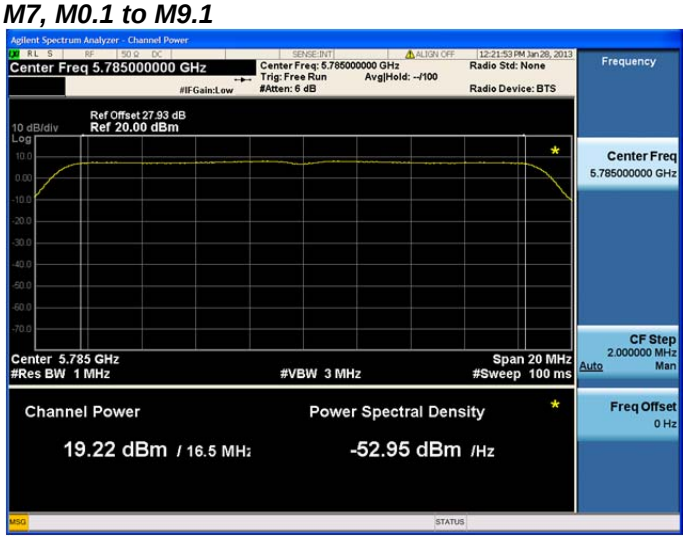


Antenna C

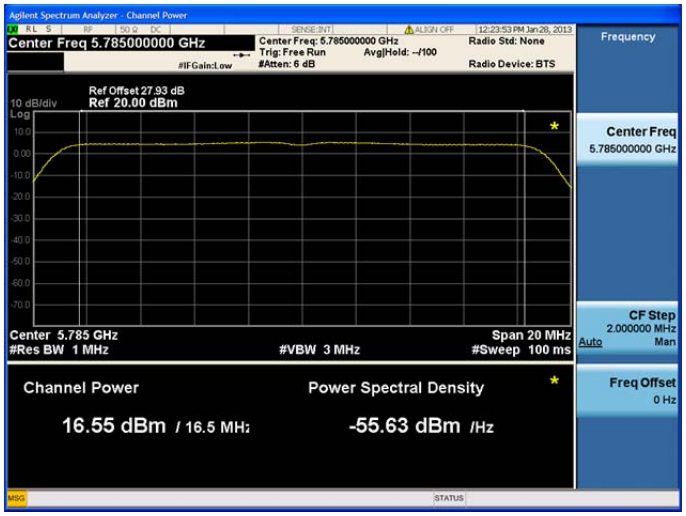
Peak Output Power, 5785 MHz, HT/VHT20 STBC, M0 to M7, M0.1 to M9.1



Antenna A



Antenna B



Antenna C

Peak Output Power, 5785 MHz, Non HT/VHT40, 6 to 54 Mbps

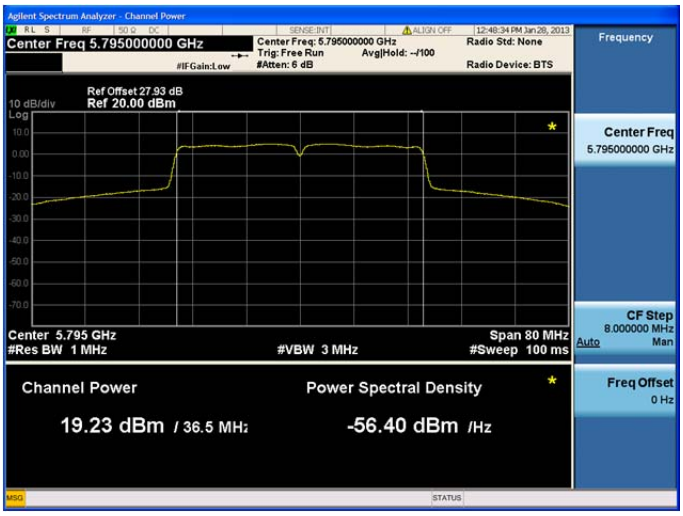
Antenna A

Antenna B

Antenna C

Peak Output Power, 5785 MHz, HT/VHT40, M0 to M7, M0.1 to M9.1

Antenna A

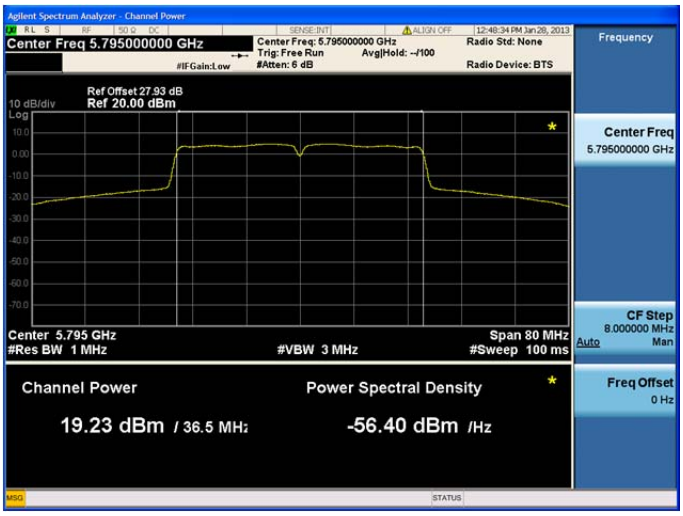


Antenna B

Antenna C

Peak Output Power, 5785 MHz, HT/VHT40, M8 to M15, M0.2 to M9.2

Antenna A

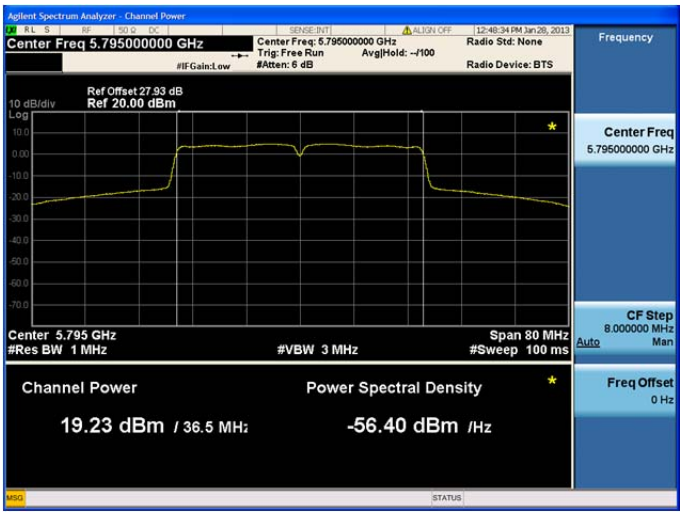


Antenna B

Antenna C

Peak Output Power, 5785 MHz, HT/VHT40, M16 to M23, M0.3 to M9.3

Antenna A

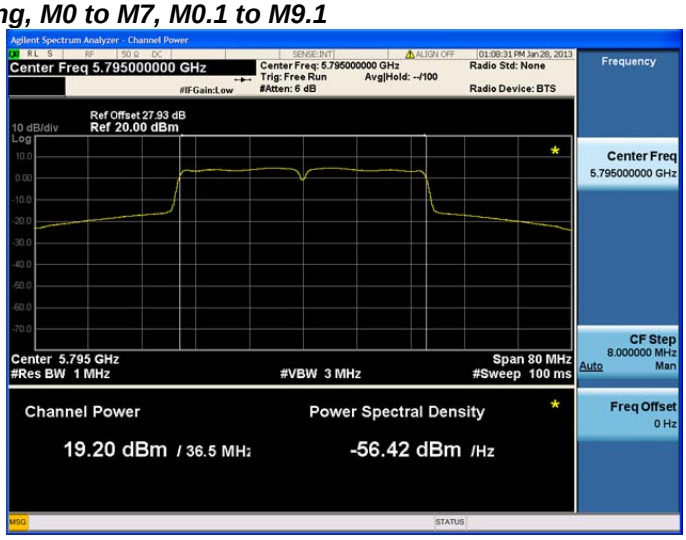


Antenna B

Antenna C

Peak Output Power, 5785 MHz, HT/VHT40 Beam Forming, M0 to M7, M0.1 to M9.1

Antenna A

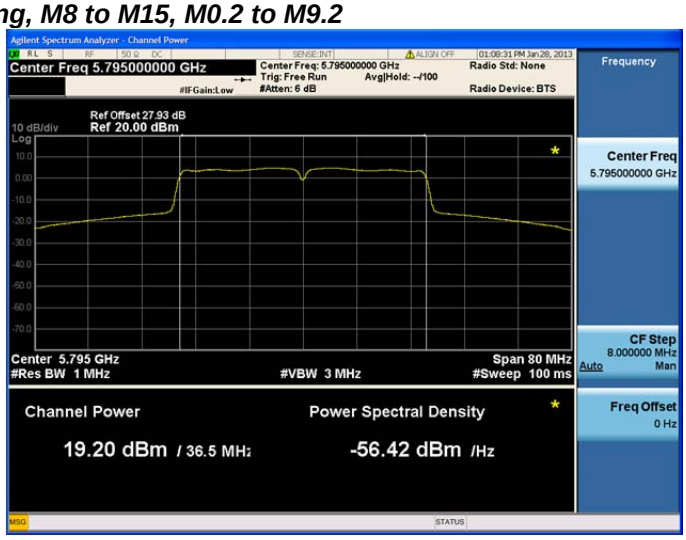


Antenna B

Antenna C

Peak Output Power, 5785 MHz, HT/VHT40 Beam Forming, M8 to M15, M0.2 to M9.2

Antenna A

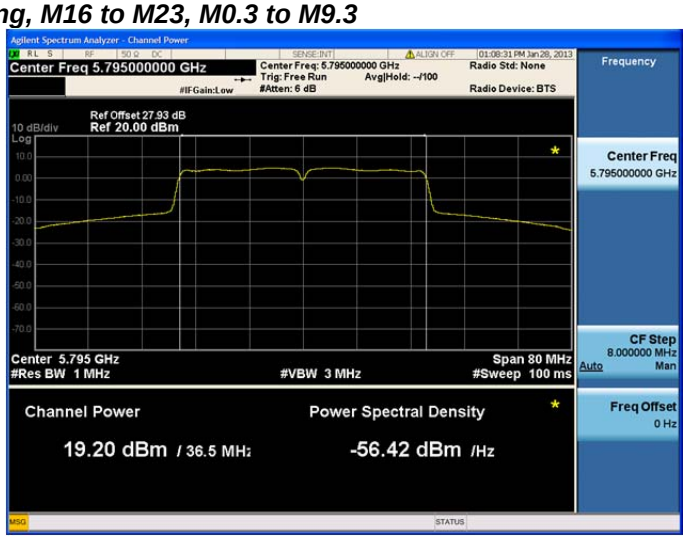


Antenna B

Antenna C

Peak Output Power, 5785 MHz, HT/VHT40 Beam Forming, M16 to M23, M0.3 to M9.3

Antenna A

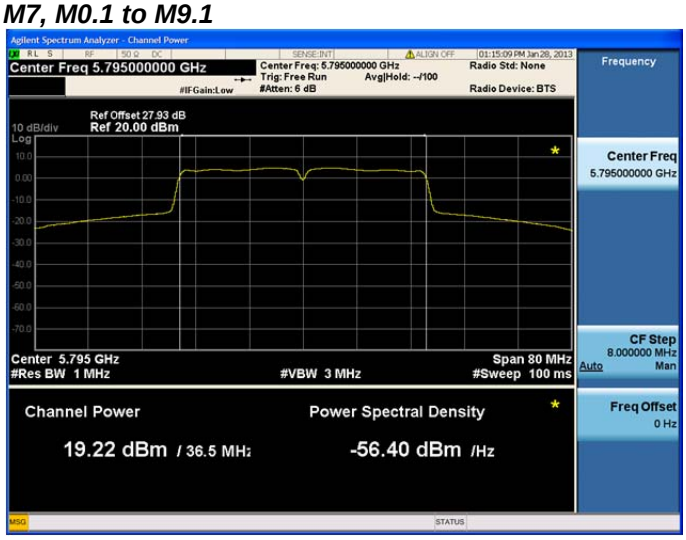


Antenna B

Antenna C

Peak Output Power, 5785 MHz, HT/VHT40 STBC, M0 to M7, M0.1 to M9.1

Antenna A

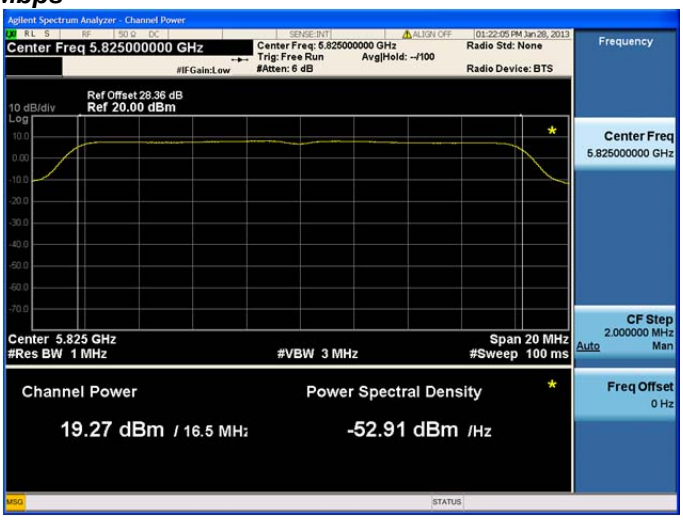


Antenna B

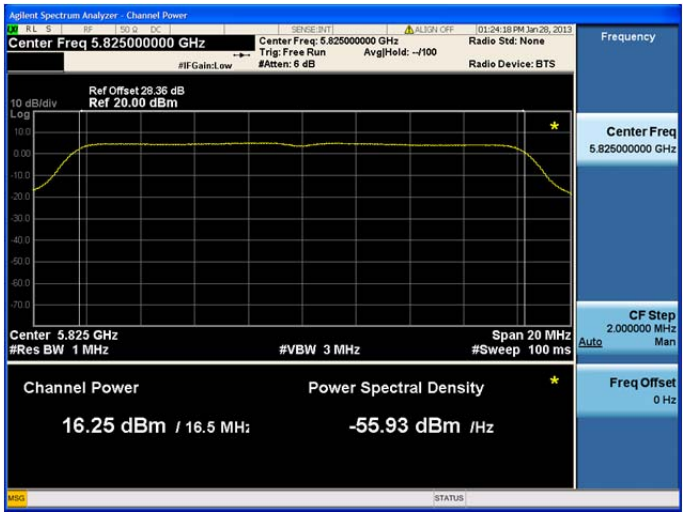
Antenna C

Peak Output Power, 5825 MHz, Non HT/VHT20, 6 to 54 Mbps

Antenna A

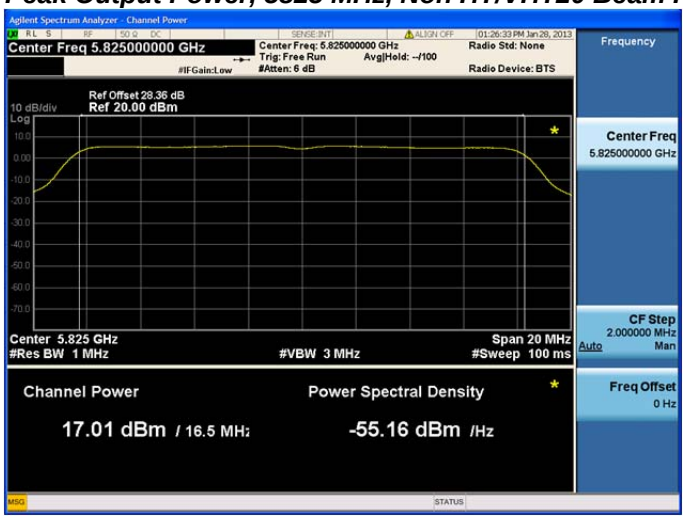


Antenna B

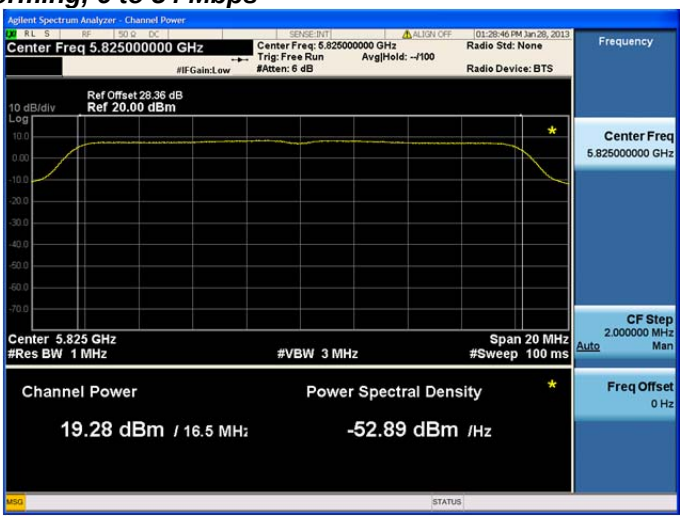


Antenna C

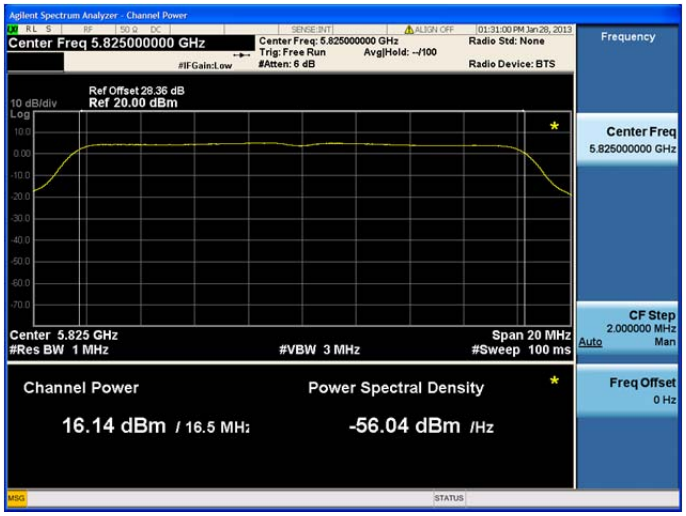
Peak Output Power, 5825 MHz, Non HT/VHT20 Beam Forming, 6 to 54 Mbps



Antenna A

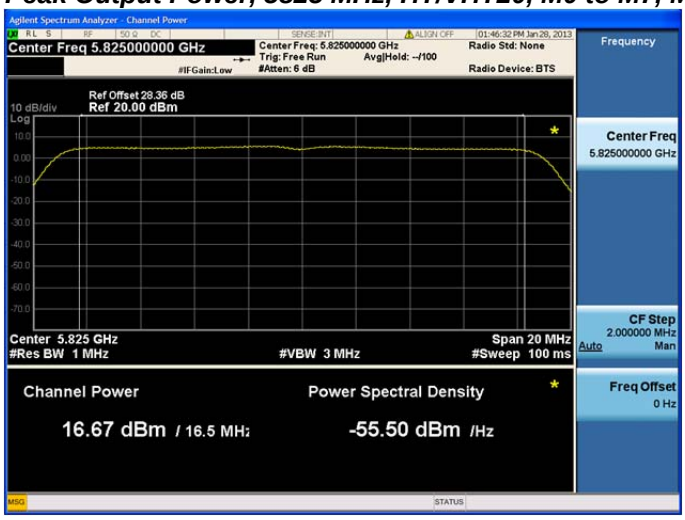


Antenna B

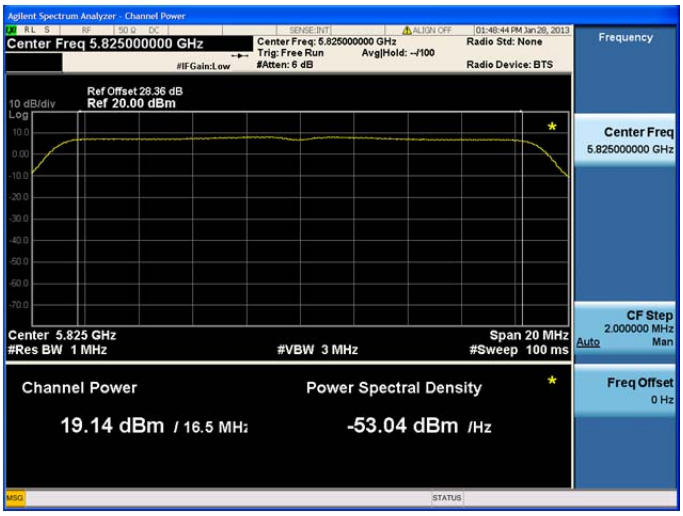


Antenna C

Peak Output Power, 5825 MHz, HT/VHT20, M0 to M7, M0.1 to M9.1



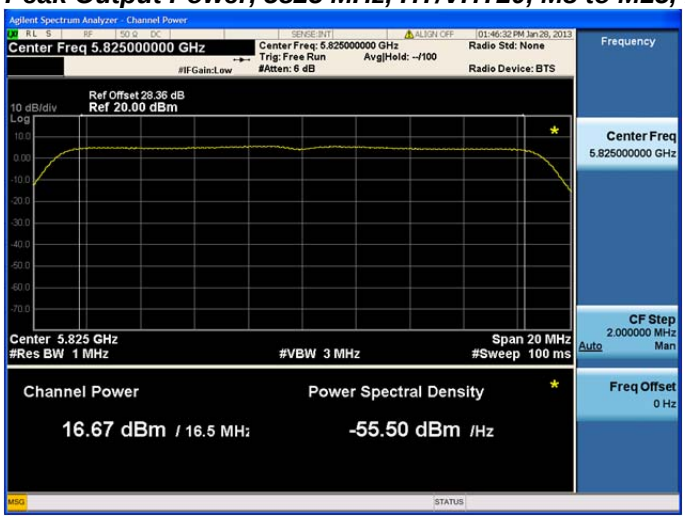
Antenna A



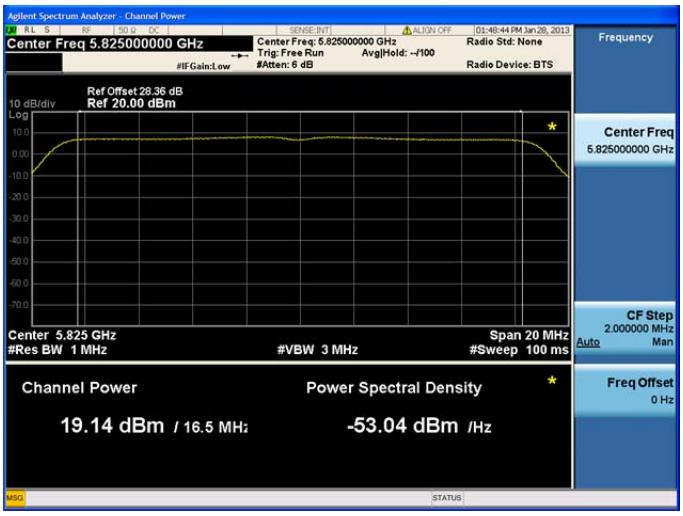
Antenna B

Antenna C

Peak Output Power, 5825 MHz, HT/VHT20, M8 to M15, M0.2 to M9.2



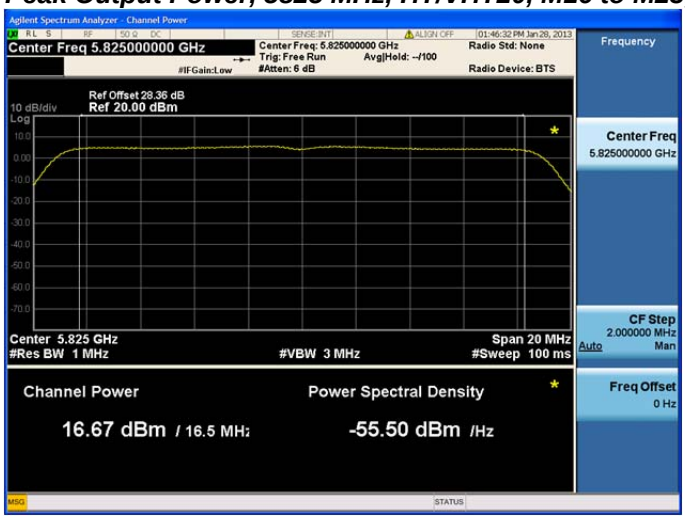
Antenna A



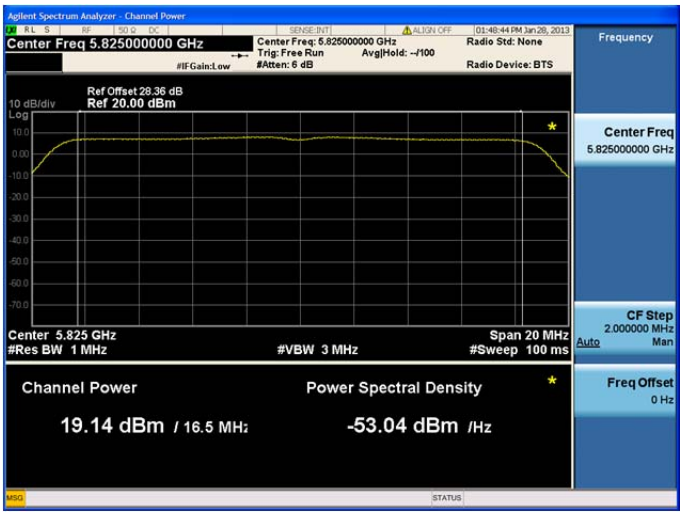
Antenna B

Antenna C

Peak Output Power, 5825 MHz, HT/VHT20, M16 to M23, M0.3 to M9.3



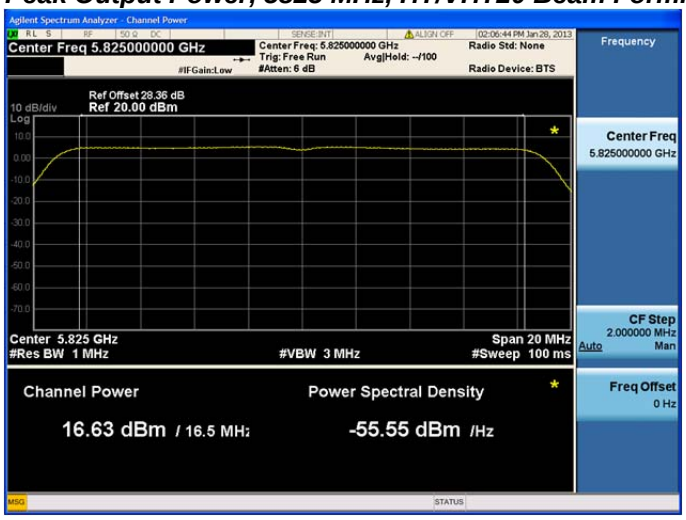
Antenna A



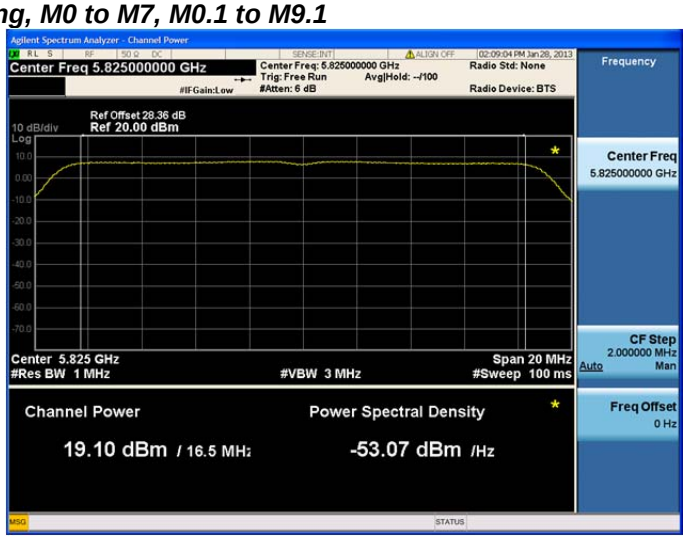
Antenna B

Antenna C

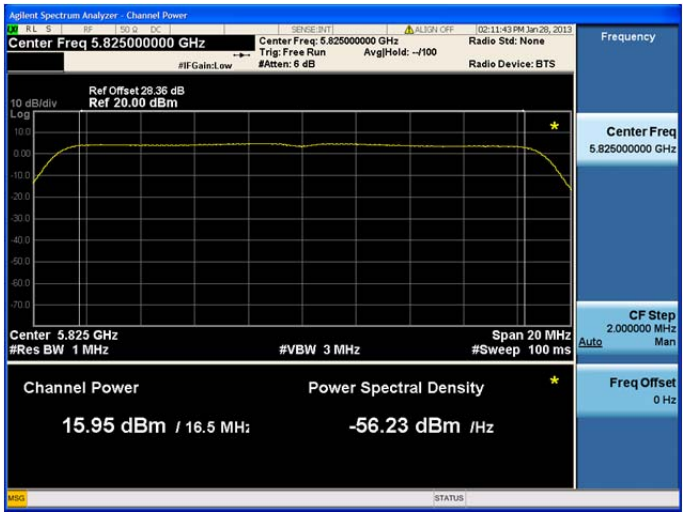
Peak Output Power, 5825 MHz, HT/VHT20 Beam Forming, M0 to M7, M0.1 to M9.1



Antenna A

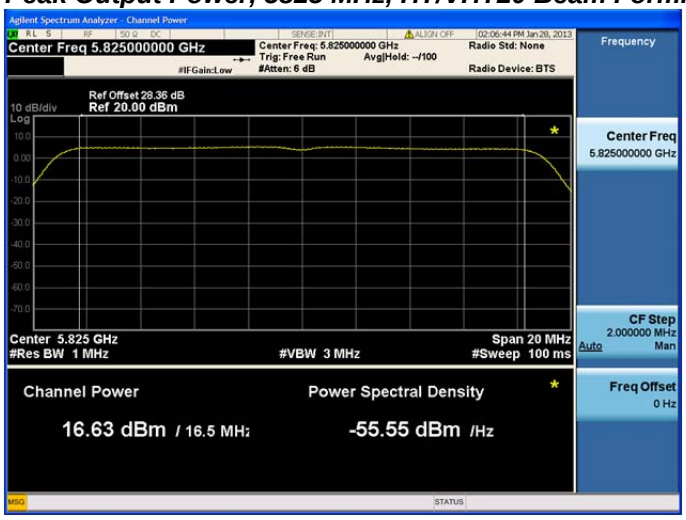


Antenna B

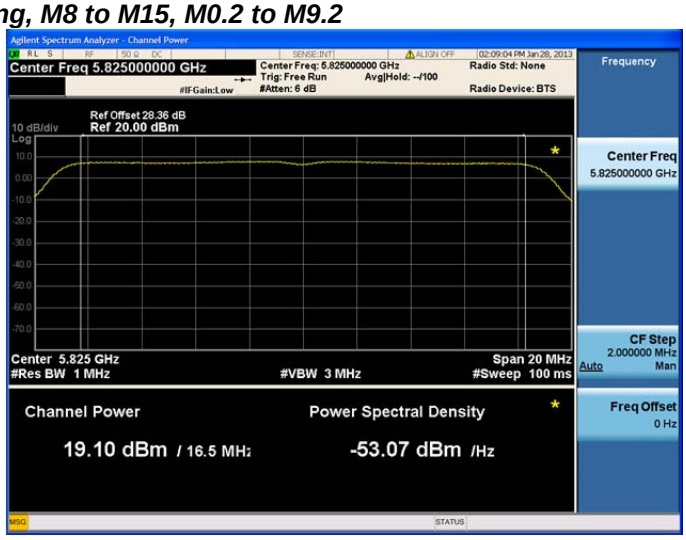


Antenna C

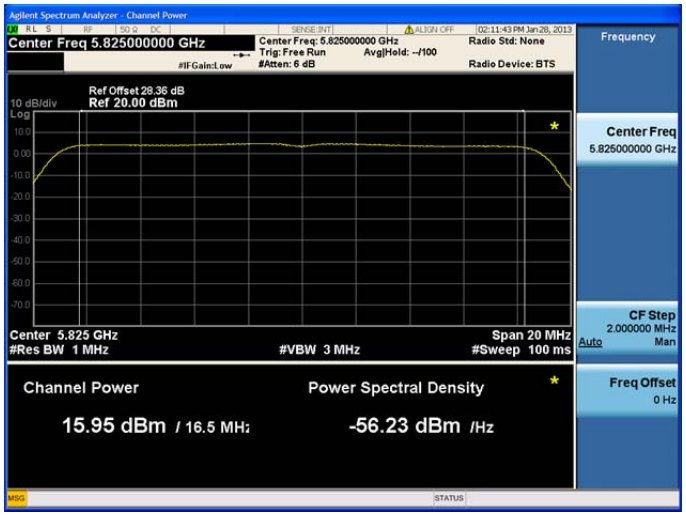
Peak Output Power, 5825 MHz, HT/VHT20 Beam Forming, M8 to M15, M0.2 to M9.2



Antenna A

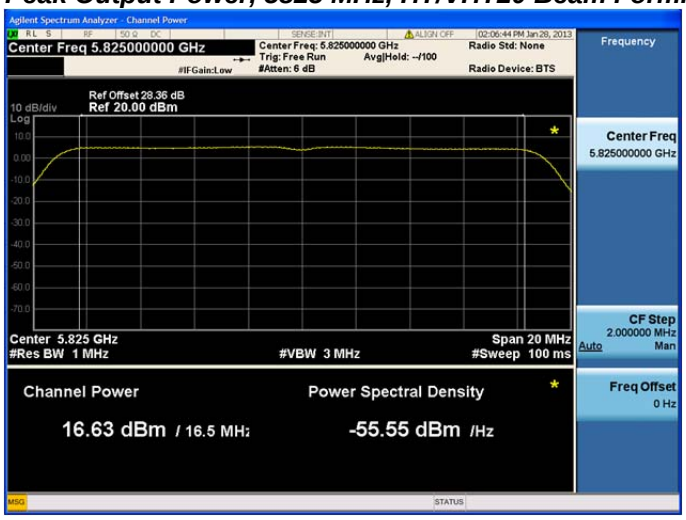


Antenna B

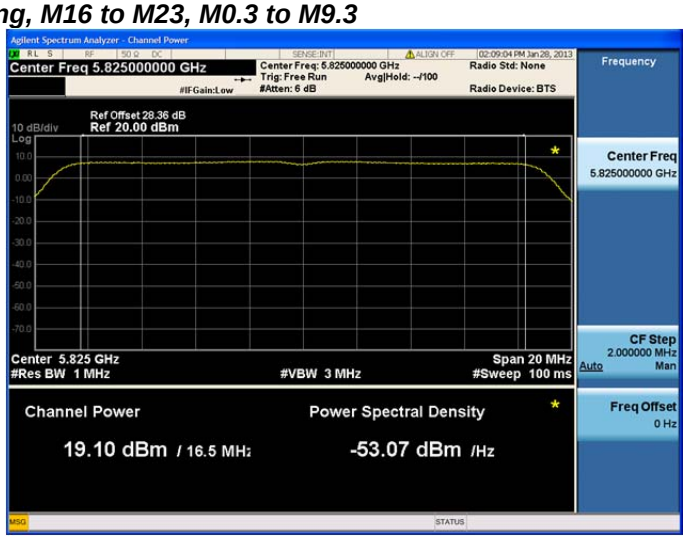


Antenna C

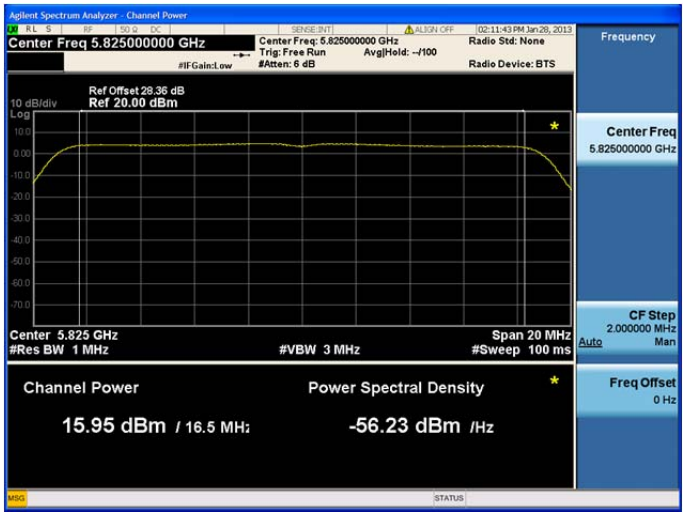
Peak Output Power, 5825 MHz, HT/VHT20 Beam Forming, M16 to M23, M0.3 to M9.3



Antenna A

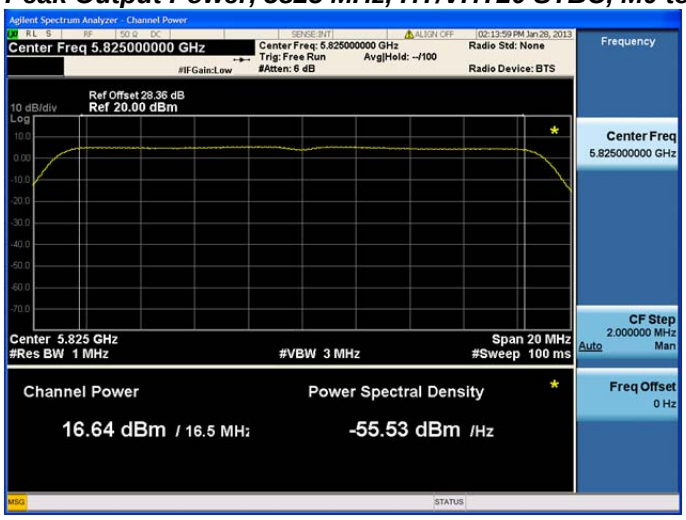


Antenna B

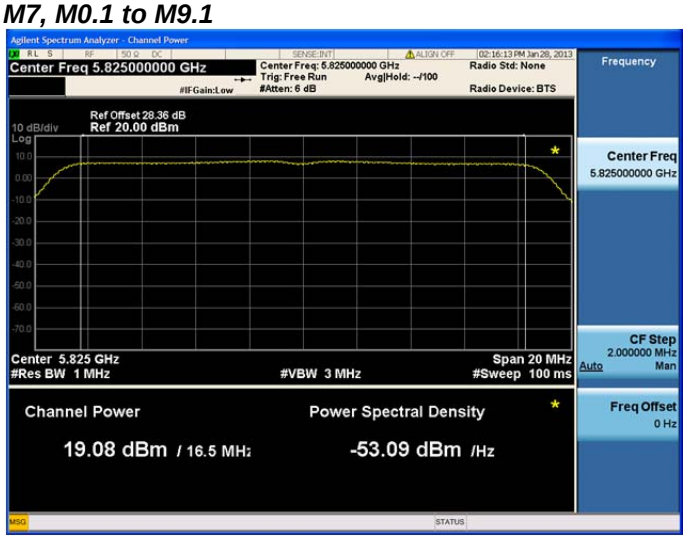


Antenna C

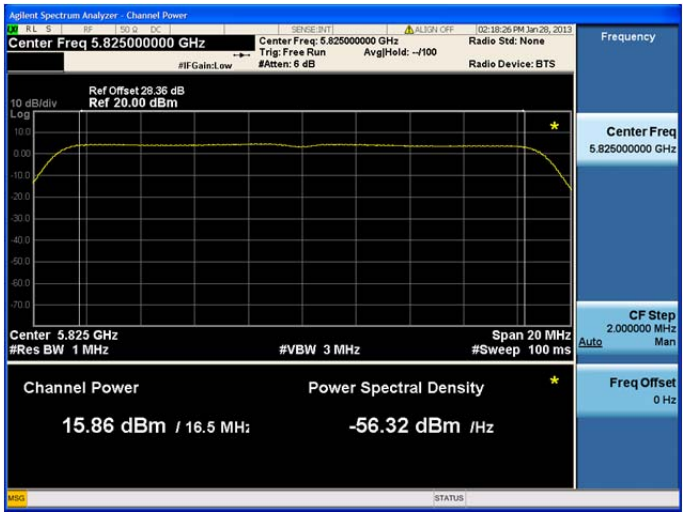
Peak Output Power, 5825 MHz, HT/VHT20 STBC, M0 to M7, M0.1 to M9.1



Antenna A



Antenna B



Antenna C

Power Spectral Density

15.247: For digitally modulated systems, the peak power spectral density conducted from the intentional radiator to the antenna shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission.

Connect the antenna port(s) to the spectrum analyzer input. Place the radio in continuous transmit mode. Configure the spectrum analyzer as shown below.

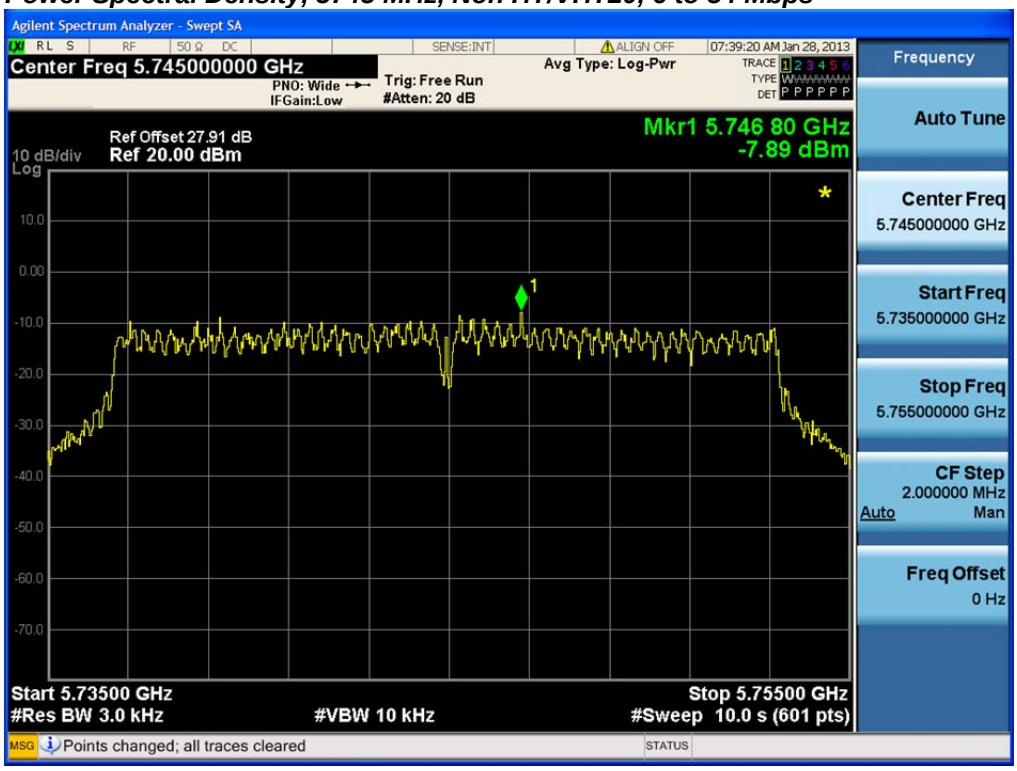
Center Frequency:	Frequency from table below
Span:	20 MHz
Ref Level Offset:	Correct for attenuator and cable loss.
Reference Level:	20 dBm
Attenuation:	20 dB
Sweep Time:	10s
Resolution Bandwidth:	3 kHz
Video Bandwidth:	10 kHz
Detector:	Peak
Trace:	Single
Marker:	Peak Search

Record the Marker value.

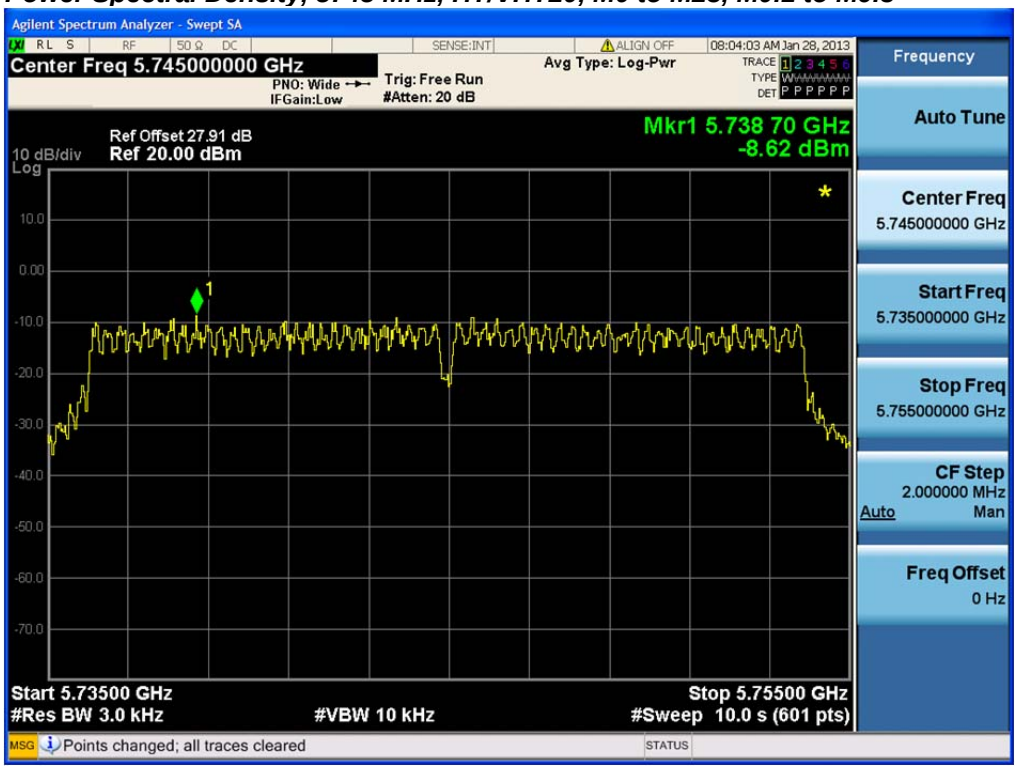
The “Measure and add 10 log(N) dB technique”, where N is the number of outputs, is used for measuring in-band Power Spectral Density. With this technique, spectrum measurements are performed at each output of the device, and the quantity 10 log(4) (or 6dB) is added to the worst case spectrum value before comparing to the emission limit.

Frequency (MHz)	Mode	Data Rate (Mbps)	PSD / Antenna (dBm/3kHz)	Total PSD (dBm/3kHz)	Limit (dBm/3kHz)	Margin (dB)
5745	Non HT/VHT20, 6 to 54 Mbps	6	-7.887	-1.87	8	9.87
	HT/VHT20, M0 to M23, M0.1 to M9.3	M0.	-8.623	-2.60	8	10.60
	Non HT/VHT40, 6 to 54 Mbps	6	-14.377	-8.36	8	16.36
	HT/VHT40, M0 to M23, M0.1 to M9.3	M0.	-12.426	-6.41	8	14.41
	Non HT/VHT80, 6 to 54 Mbps	6	-19.09	-13.07	8	21.07
	HT/VHT80, M0 to M23, M0.1 to M9.3	M0x1	-18.125	-12.10	8	20.10
5785	Non HT/VHT20, 6 to 54 Mbps	6	-8.855	-2.83	8	10.83
	HT/VHT20, M0 to M23, M0.1 to M9.3	M0.	-8.888	-2.87	8	10.87
	Non HT/VHT40, 6 to 54 Mbps	6	-12.021	-6.00	8	14.00
	HT/VHT40, M0 to M23, M0.1 to M9.3	M0.	-12.997	-6.98	8	14.98
5825	Non HT/VHT20, 6 to 54 Mbps	6	-8.752	-2.73	8	10.73
	HT/VHT20, M0 to M23, M0.1 to M9.3	M0.	-9.442	-3.42	8	11.42

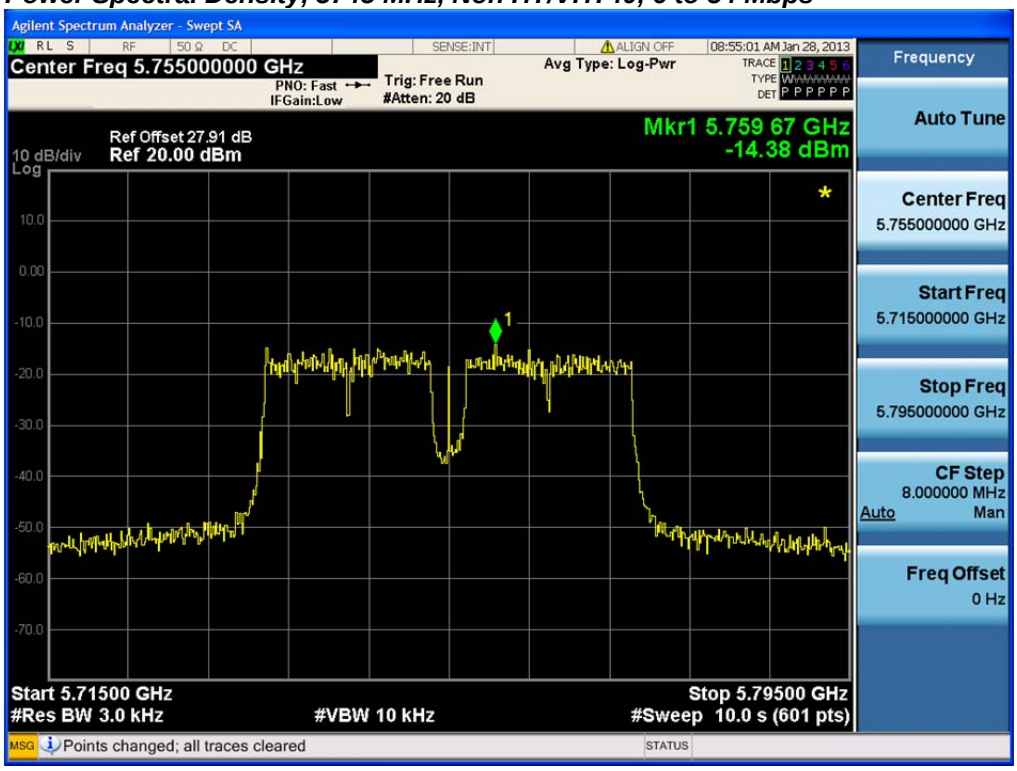
Power Spectral Density, 5745 MHz, Non HT/VHT20, 6 to 54 Mbps



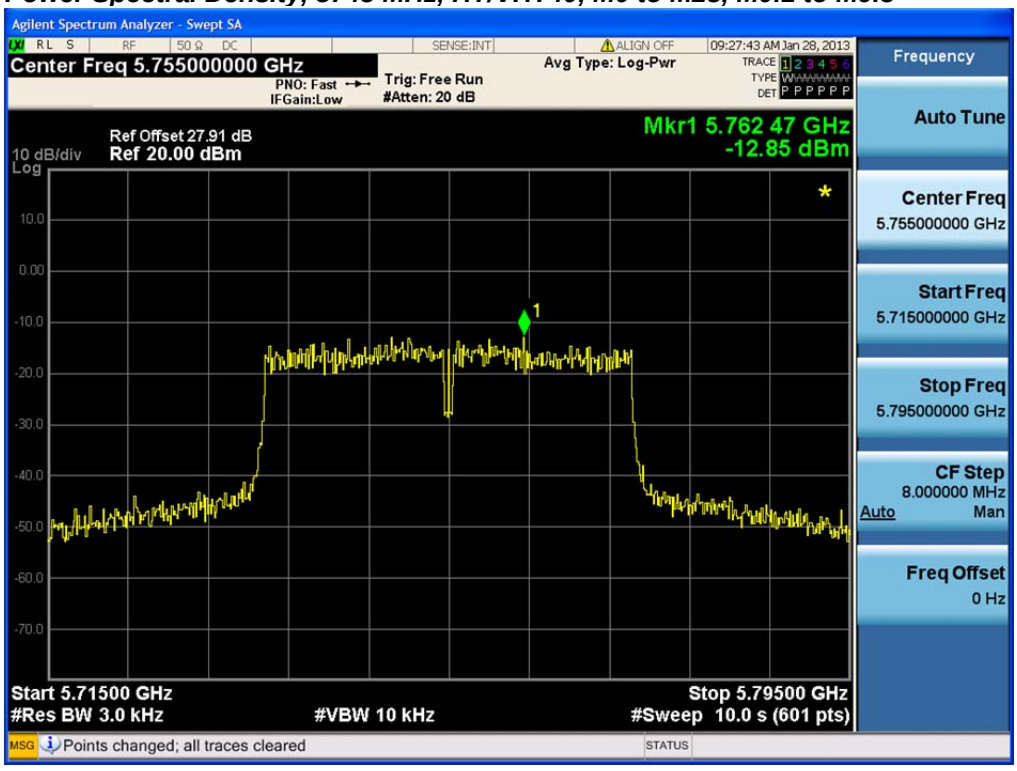
Power Spectral Density, 5745 MHz, HT/VHT20, M0 to M23, M0.1 to M9.3



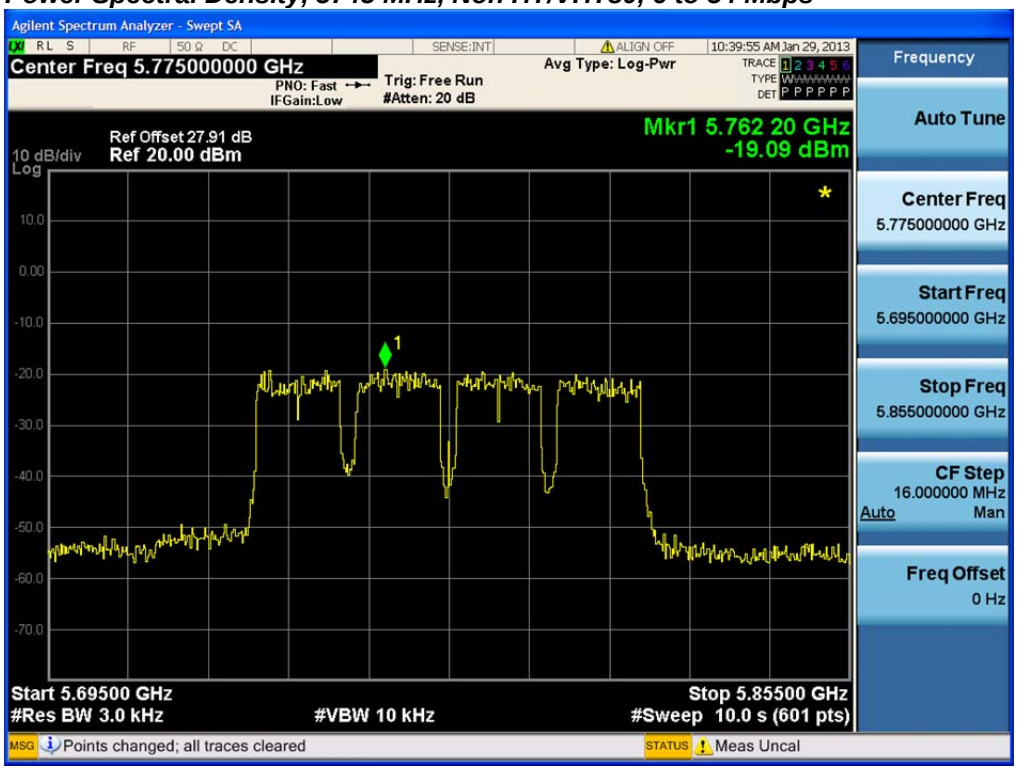
Power Spectral Density, 5745 MHz, Non HT/VHT40, 6 to 54 Mbps



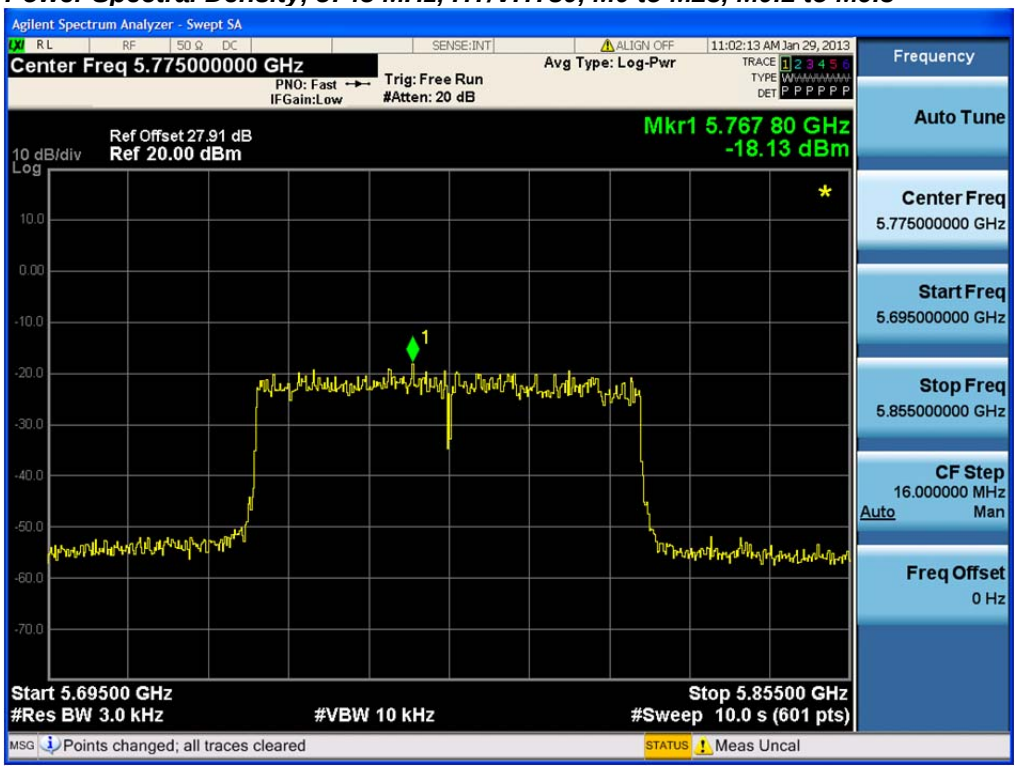
Power Spectral Density, 5745 MHz, HT/VHT40, M0 to M23, M0.1 to M9.3



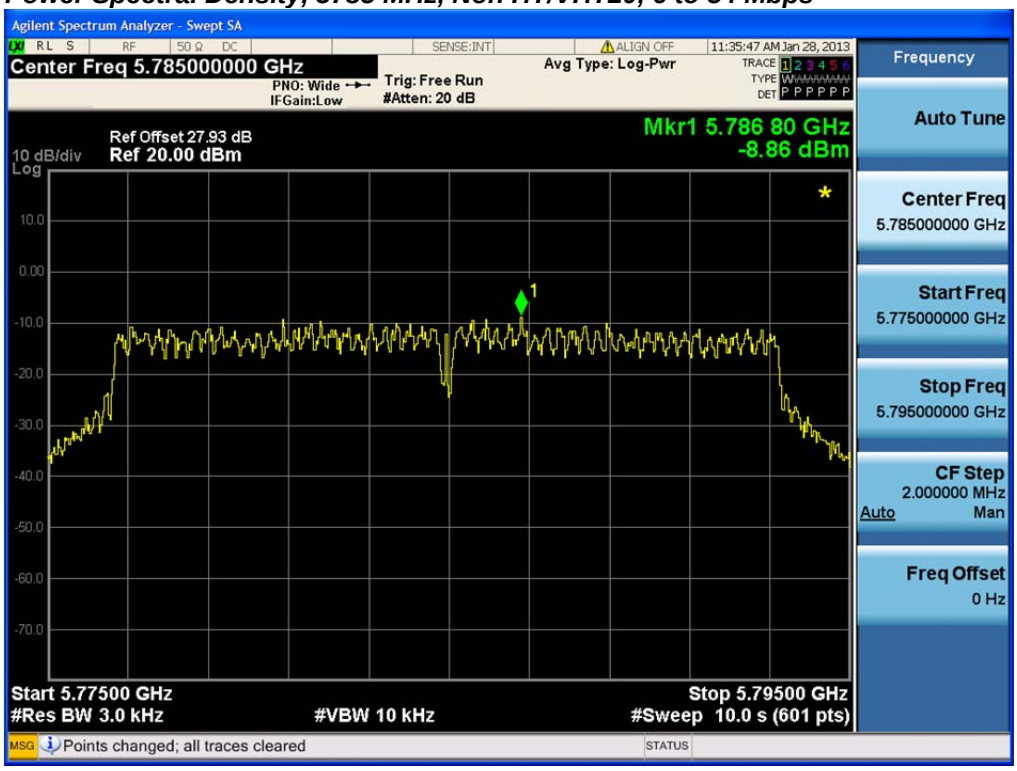
Power Spectral Density, 5745 MHz, Non HT/VHT80, 6 to 54 Mbps



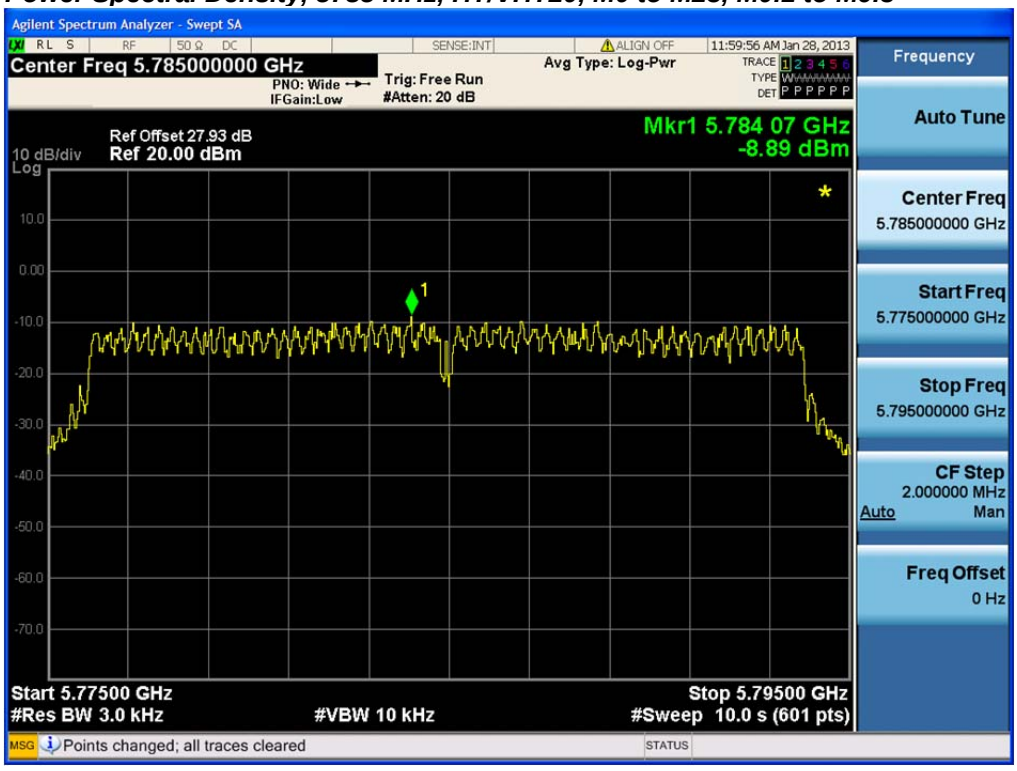
Power Spectral Density, 5745 MHz, HT/VHT80, M0 to M23, M0.1 to M9.3



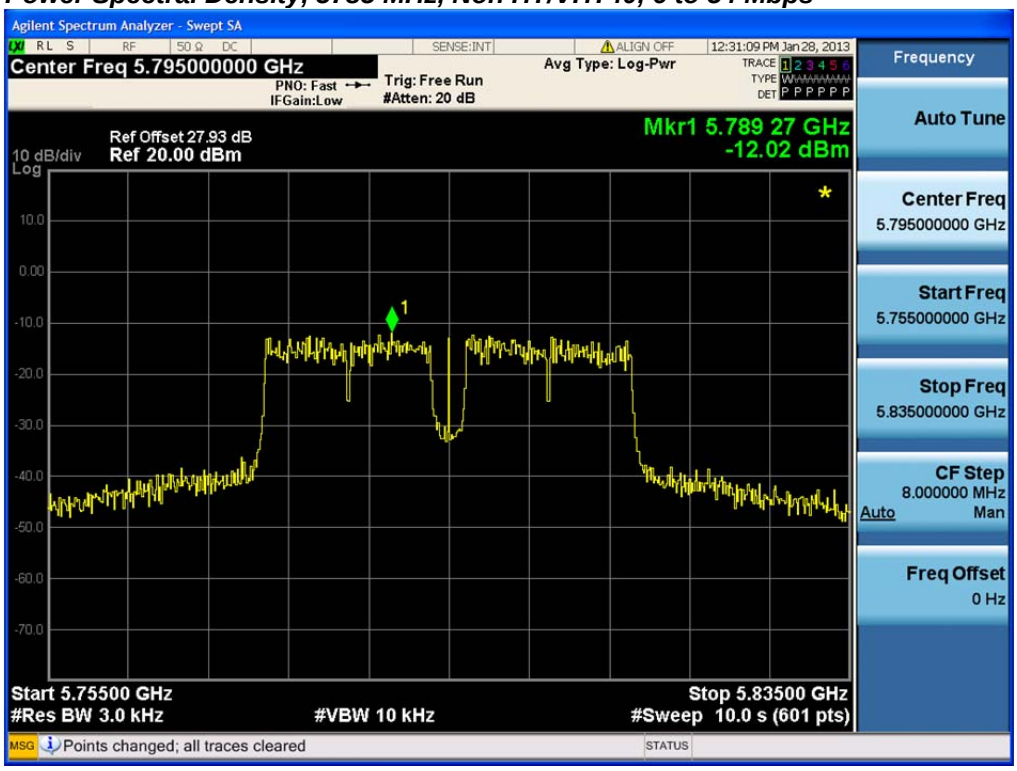
Power Spectral Density, 5785 MHz, Non HT/VHT20, 6 to 54 Mbps



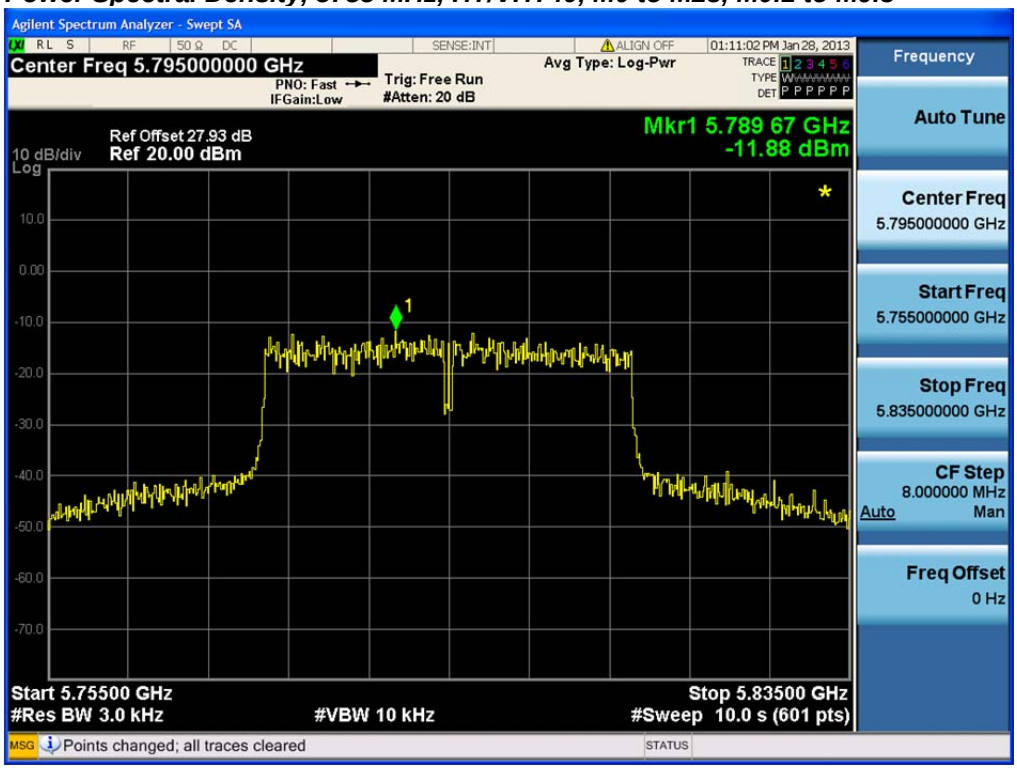
Power Spectral Density, 5785 MHz, HT/VHT20, M0 to M23, M0.1 to M9.3



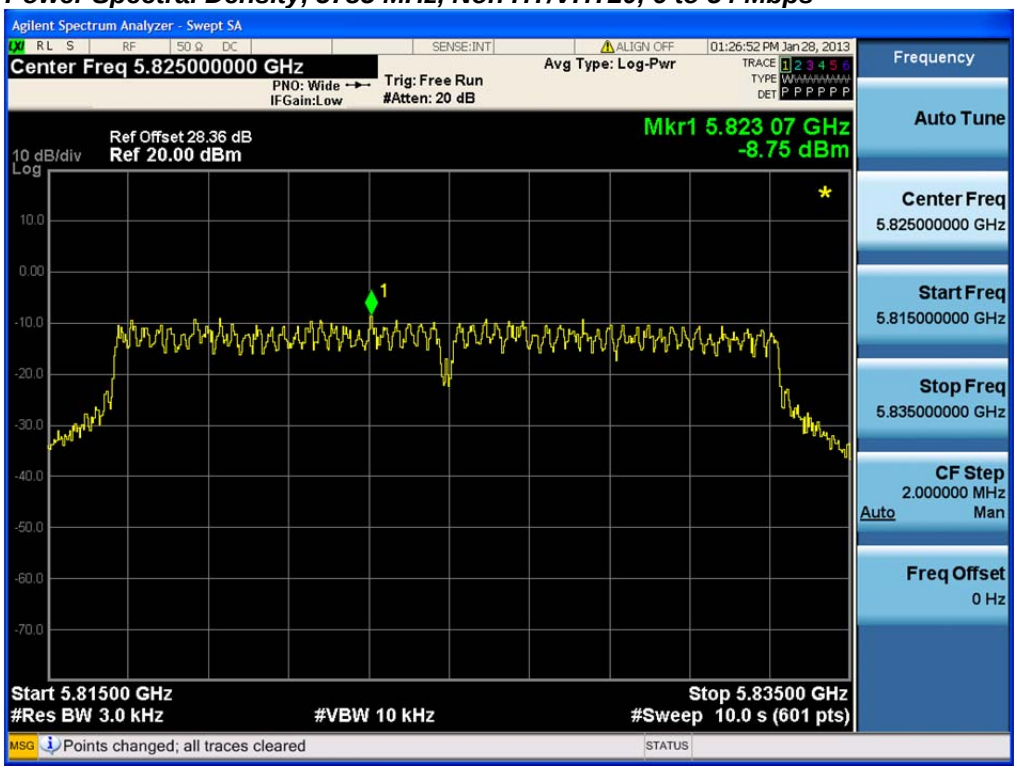
Power Spectral Density, 5785 MHz, Non HT/VHT40, 6 to 54 Mbps



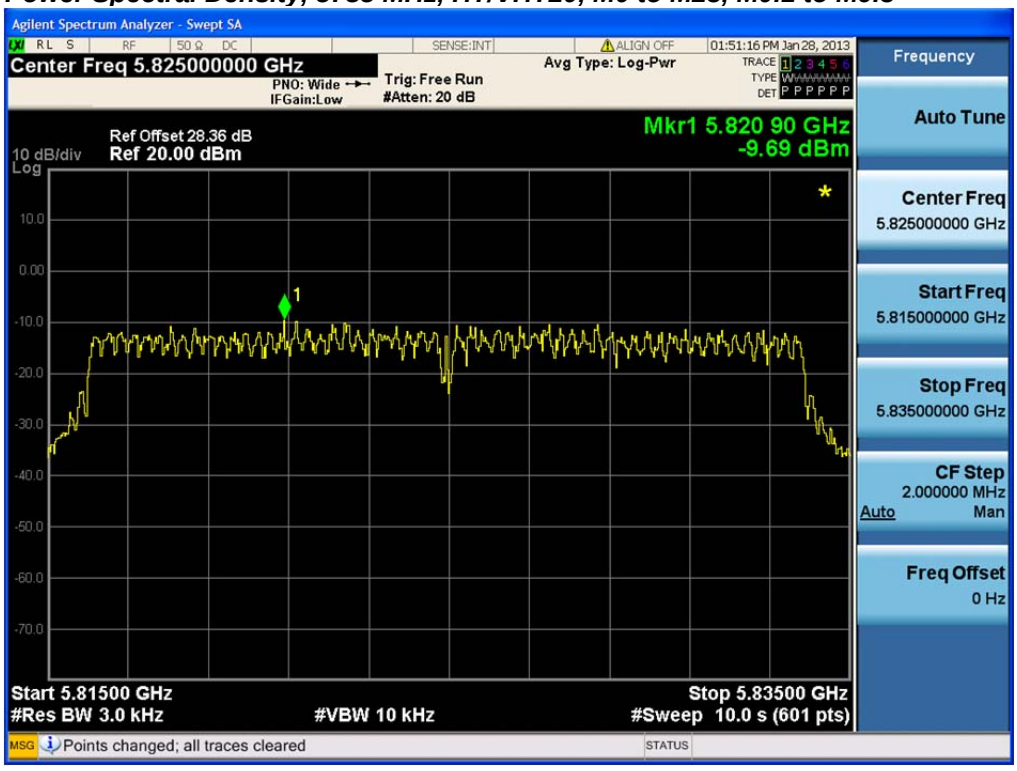
Power Spectral Density, 5785 MHz, HT/VHT40, M0 to M23, M0.1 to M9.3



Power Spectral Density, 5785 MHz, Non HT/VHT20, 6 to 54 Mbps



Power Spectral Density, 5785 MHz, HT/VHT20, M0 to M23, M0.1 to M9.3



Conducted Spurious Emissions

15.247: In any 100 kHz bandwidth outside the frequency band in which the digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 30 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power.

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-26 GHz
Reference Level:	20 dBm
Attenuation:	10 dB
Sweep Time:	5s
Resolution Bandwidth:	100 kHz
Video Bandwidth:	300 kHz
Detector:	Peak
Trace:	Single
Marker:	Peak

Record the marker waveform peak to spur difference

Out-of-band and spurious emissions tests are performed on each output individually without summing or adding 10 log(N) since the measurements are made relative to the in-band emissions on the individual outputs. The worst case output is recorded.

Frequency (MHz)	Mode	Data Rate (Mbps)	Conducted Spur Delta (dB)	Limit (dB c)	Margin (dB)
5745	Non HT/VHT20, 6 to 54 Mbps	6	55.5	30	25.5
	HT/VHT20, M0 to M23, M0.1 to M9.3	M0.	57.6	30	27.6
	Non HT/VHT40, 6 to 54 Mbps	6	53.8	30	23.8
	HT/VHT40, M0 to M23, M0.1 to M9.3	M0.	54.6	30	24.6
	Non HT/VHT80, 6 to 54 Mbps	6	46.9	30	16.9
	HT/VHT80, M0 to M23, M0.1 to M9.3	M0x1	49.4	30	19.4
5785	Non HT/VHT20, 6 to 54 Mbps	6	57.8	30	27.8
	HT/VHT20, M0 to M23, M0.1 to M9.3	M0.	58.3	30	28.3
	Non HT/VHT40, 6 to 54 Mbps	6	56.3	30	26.3
	HT/VHT40, M0 to M23, M0.1 to M9.3	M0.	57.8	30	27.8
5825	Non HT/VHT20, 6 to 54 Mbps	6	55	30	25
	HT/VHT20, M0 to M23, M0.1 to M9.3	M0.	54.8	30	24.8

Conducted Spurs Delta, 5745 MHz, Non HT/VHT20, 6 to 54 Mbps

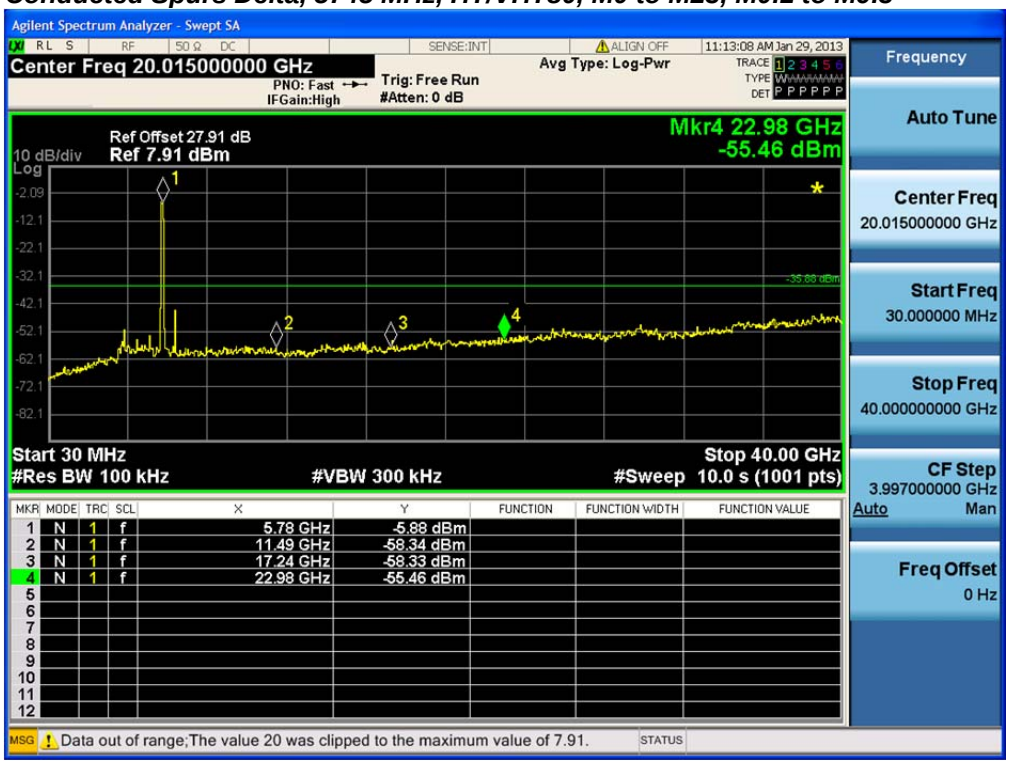
Conducted Spurs Delta, 5745 MHz, HT/VHT20, M0 to M23, M0.1 to M9.3

Conducted Spurs Delta, 5745 MHz, Non HT/VHT40, 6 to 54 Mbps

Conducted Spurs Delta, 5745 MHz, HT/VHT40, M0 to M23, M0.1 to M9.3

Conducted Spurs Delta, 5745 MHz, Non HT/VHT80, 6 to 54 Mbps

Conducted Spurs Delta, 5745 MHz, HT/VHT80, M0 to M23, M0.1 to M9.3



Conducted Spurs Delta, 5785 MHz, Non HT/VHT20, 6 to 54 Mbps

Conducted Spurs Delta, 5785 MHz, HT/VHT20, M0 to M23, M0.1 to M9.3

Conducted Spurs Delta, 5785 MHz, Non HT/VHT40, 6 to 54 Mbps

Conducted Spurs Delta, 5785 MHz, HT/VHT40, M0 to M23, M0.1 to M9.3

Conducted Spurs Delta, 5825 MHz, Non HT/VHT20, 6 to 54 Mbps

Conducted Spurs Delta, 5825 MHz, HT/VHT20, M0 to M23, M0.1 to M9.3

APPENDIX B:
Conducted Bandedge

15.247: In any 100 kHz bandwidth outside the frequency band in which the digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 30 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power.

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-26 GHz
Reference Level:	20 dBm
Attenuation:	10 dB
Sweep Time:	5s
Resolution Bandwidth:	100 kHz
Video Bandwidth:	300 kHz
Detector:	Peak
Trace:	Single
Marker:	Peak

Record the marker waveform peak to spur difference

Out-of-band and spurious emissions tests are performed on each output individually without summing or adding 10 log(N) since the measurements are made relative to the in-band emissions on the individual outputs. The worst case output is recorded.

Frequency (MHz)	Mode	Tx Paths	Conducted Bandedge Delta (dB)	Limit (dB c)	Margin (dB)
5745	Non HT/VHT20, 6 to 54 Mbps	3	31.1	>30	1.1
	Non HT/VHT20 Beam Forming, 6 to 54 Mbps	3	30.15	>30	0.15
	HT/VHT20, M0 to M7, M0.1 to M9.1	3	30.79	>30	0.79
	HT/VHT20, M8 to M15, M0.2 to M9.2	3	31.91	>30	1.91
	HT/VHT20, M16 to M23, M0.3 to M9.3	3	31.76	>30	1.76
	HT/VHT20 Beam Forming, M0 to M7, M0.1 to M9.1	3	33.39	>30	3.39
	HT/VHT20 Beam Forming, M8 to M15, M0.2 to M9.2	3	32.17	>30	2.17
	HT/VHT20 Beam Forming, M16 to M23, M0.3 to M9.3	3	31.04	>30	1.04
	HT/VHT20 STBC, M0 to M7, M0.1 to M9.1	3	30.35	>30	0.35
	Non HT/VHT40, 6 to 54 Mbps	3	31.83	>30	1.83
	HT/VHT40, M0 to M7, M0.1 to M9.1	3	32.81	>30	2.81
	HT/VHT40, M8 to M15, M0.2 to M9.2	3	30.51	>30	0.51
	HT/VHT40, M16 to M23, M0.3 to M9.3	3	31.25	>30	1.25
	HT/VHT40 Beam Forming, M0 to M7, M0.1 to M9.1	3	30.1	>30	0.1
	HT/VHT40 Beam Forming, M8 to M15, M0.2 to M9.2	3	31.05	>30	1.05
	HT/VHT40 Beam Forming, M16 to M23, M0.3 to M9.3	3	33.21	>30	3.21
	HT/VHT40 STBC, M0 to M7, M0.1 to M9.1	3	32.39	>30	2.39
	Non HT/VHT80, 6 to 54 Mbps	3	30.68	>30	0.68
	HT/VHT80, M0 to M7, M0.1 to M9.1	3	31.17	>30	1.17
	HT/VHT80, M8 to M15, M0.2 to M9.2	3	31.44	>30	1.44
	HT/VHT80, M16 to M23, M0.3 to M9.3	3	32.74	>30	2.74
	HT/VHT80 Beam Forming, M0 to M7, M0.1 to M9.1	3	31.82	>30	1.82
	HT/VHT80 Beam Forming, M8 to M15, M0.2 to M9.2	3	30.28	>30	0.28
	HT/VHT80 Beam Forming, M16 to M23, M0.3 to M9.3	3	30.02	>30	0.02
	HT/VHT80 STBC, M0 to M7, M0.1 to M9.1	3	30.22	>30	0.22
5785	Non HT/VHT40, 6 to 54 Mbps	3	41.03	>30	11.03
	HT/VHT40, M0 to M7, M0.1 to M9.1	3	43.73	>30	13.73
	HT/VHT40, M8 to M15, M0.2 to M9.2	3	44.15	>30	14.15
	HT/VHT40, M16 to M23, M0.3 to M9.3	3	39.56	>30	9.56
	HT/VHT40 Beam Forming, M0 to M7, M0.1 to M9.1	3	45.27	>30	15.27
	HT/VHT40 Beam Forming, M8 to M15, M0.2 to M9.2	3	43.08	>30	13.08
	HT/VHT40 Beam Forming, M16 to M23, M0.3 to M9.3	3	42.91	>30	12.91
	HT/VHT40 STBC, M0 to M7, M0.1 to M9.1	3	43.63	>30	13.63
5825	Non HT/VHT20, 6 to 54 Mbps	3	41.48	>30	11.48
	Non HT/VHT20 Beam Forming, 6 to 54 Mbps	3	41.74	>30	11.74
	HT/VHT20, M0 to M7, M0.1 to M9.1	3	40.26	>30	10.26

	HT/VHT20, M8 to M15, M0.2 to M9.2	3	39.06	>30	9.06
	HT/VHT20, M16 to M23, M0.3 to M9.3	3	38.88	>30	8.88
	HT/VHT20 Beam Forming, M0 to M7, M0.1 to M9.1	3	39.67	>30	9.67
	HT/VHT20 Beam Forming, M8 to M15, M0.2 to M9.2	3	35.61	>30	5.61
	HT/VHT20 Beam Forming, M16 to M23, M0.3 to M9.3	3	38.91	>30	8.91
	HT/VHT20 STBC, M0 to M7, M0.1 to M9.1	3	40.34	>30	10.34