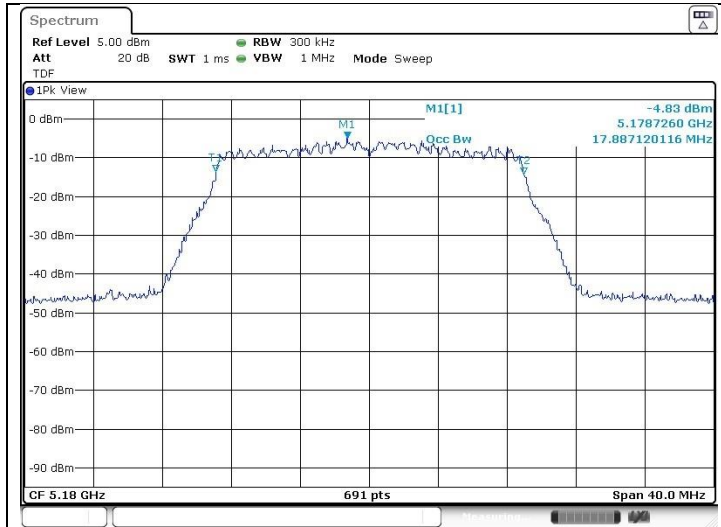
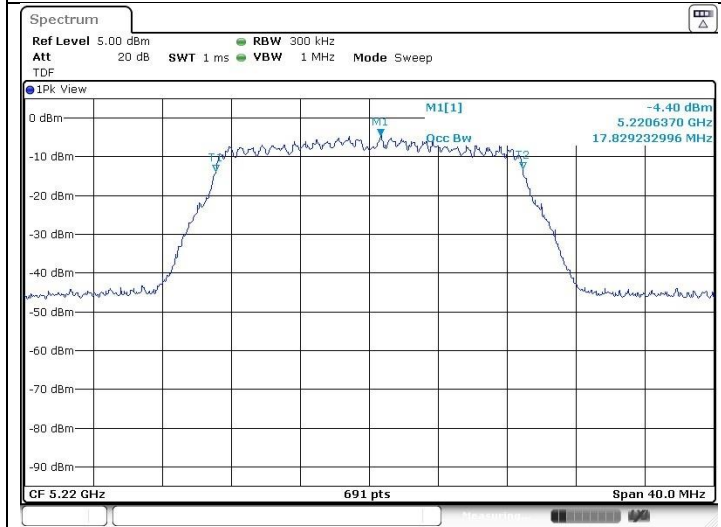


802.11ac_VHT20 (Band 1)

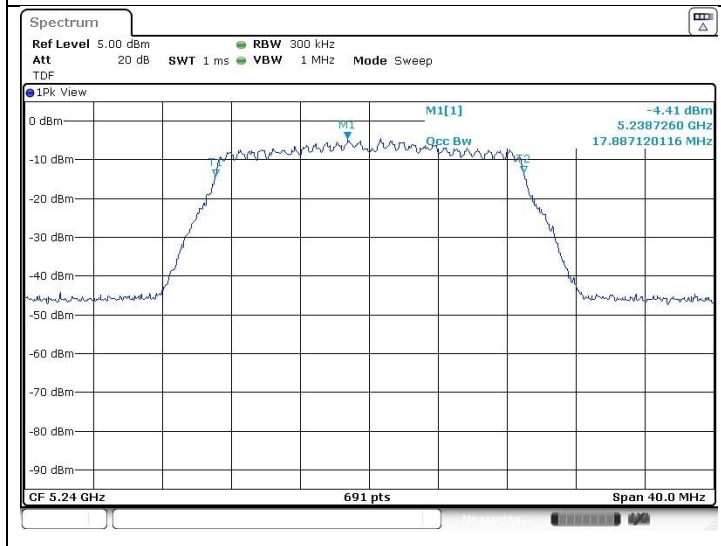
Low Channel
(5 180 MHz)



Middle Channel
(5 220 MHz)

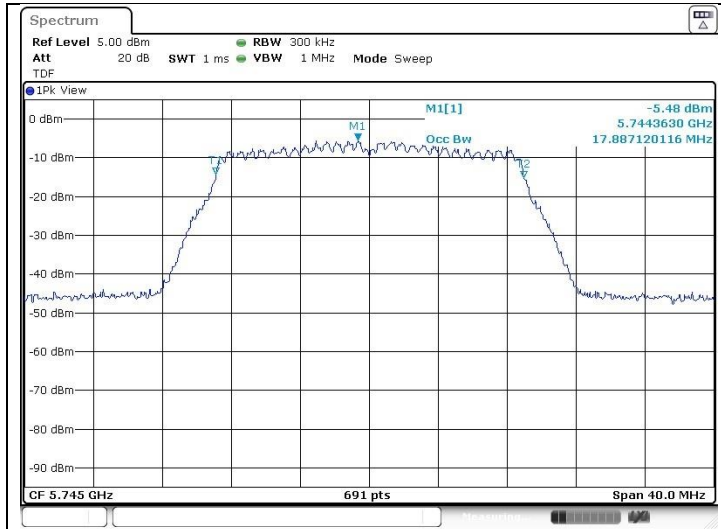


High Channel
(5 240 MHz)

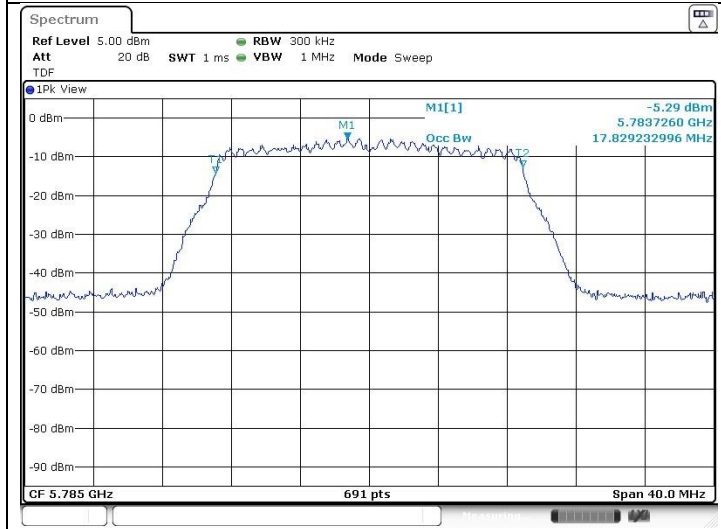


802.11ac_VHT20 (Band 3)

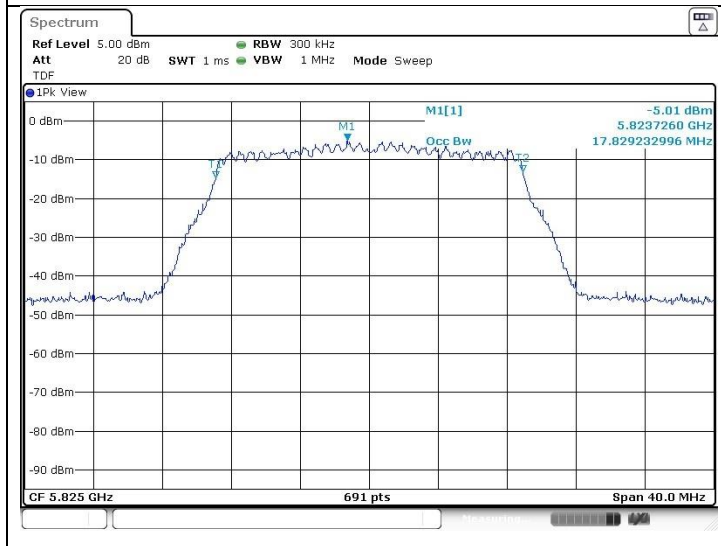
Low Channel
(5 745 MHz)



Middle Channel
(5 785 MHz)

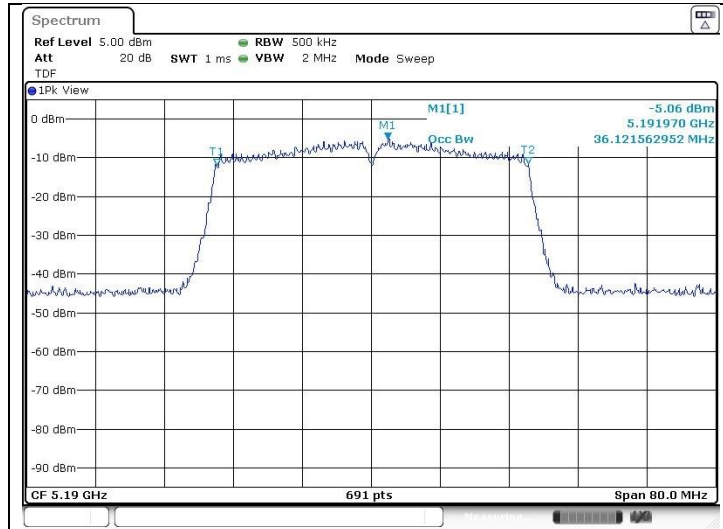


High Channel
(5 825 MHz)

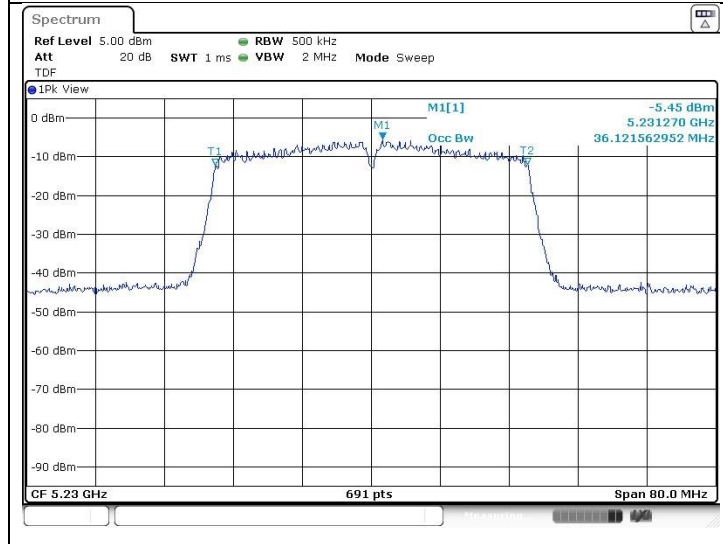


802.11ac_VHT40 (Band 1)

Low Channel
(5 190 MHz)

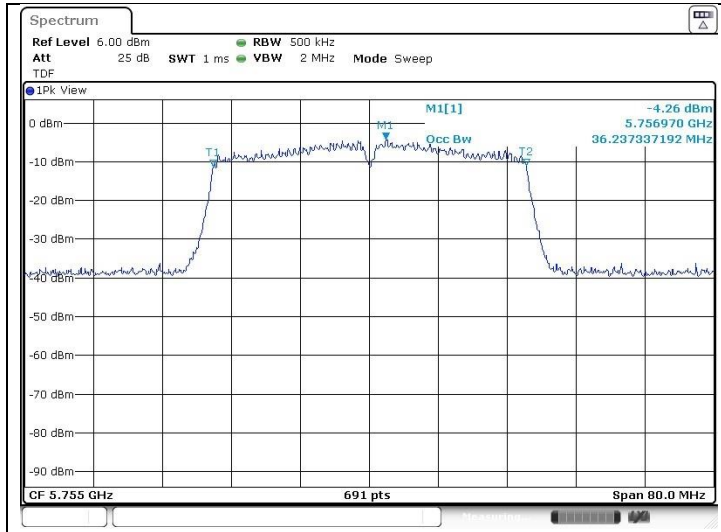


High Channel
(5 230 MHz)

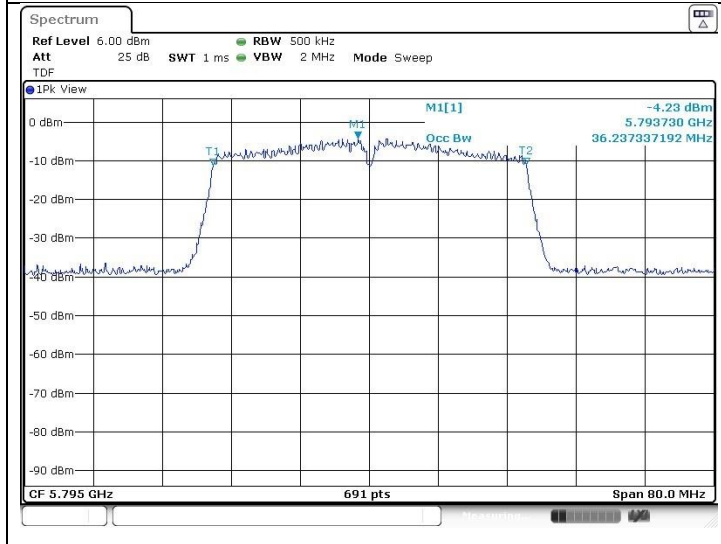


802.11ac_VHT40 (Band 3)

Low Channel
(5 755 MHz)

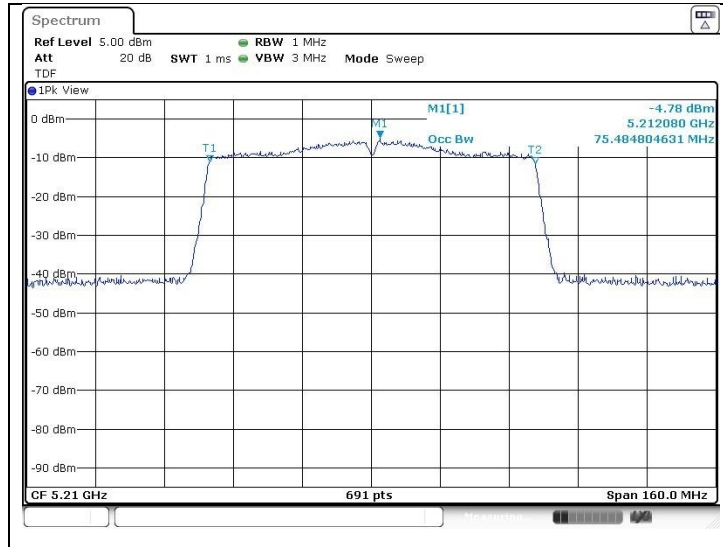


High Channel
(5 795 MHz)



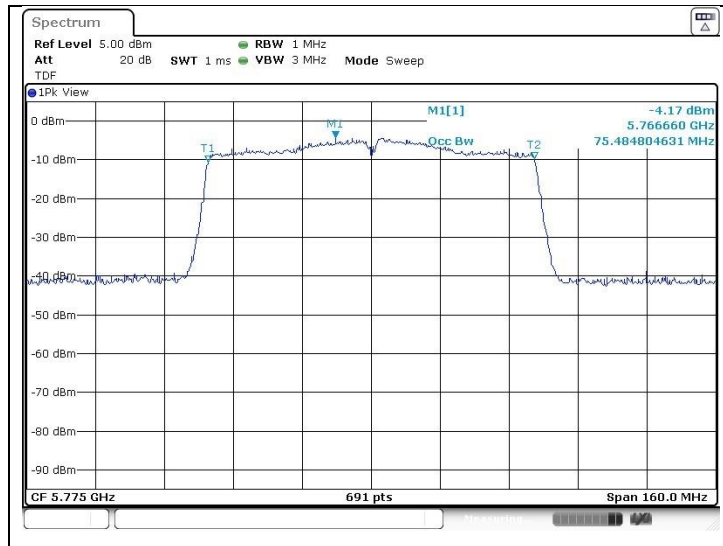
802.11ac_VHT80 (Band 1)

Middle Channel
(5 210 MHz)



802.11ac_VHT80 (Band 3)

Middle Channel
(5 775 MHz)



4.6 dB Bandwidth

4.1. Test Setup



4.2. Limit

4.2.1. FCC

According to §15.407(e), within the 5.725-5.85 GHz band, the minimum 6 dB bandwidth of U-NII devices shall be at least 500 kHz.

4.2.2. IC

According to RSS-247 Issue 2, 6.2.4.1, the minimum 6 dB Bandwidth shall be at least 500 kHz.

4.3. Test Procedure

1. This measurement settings are specified in section II.C.2 of KDB 789033 D02 General UNII Test Procedures New Rules v02r01.
2. Set RBW = 100 kHz.
3. Set the video bandwidth (VBW) $\geq 3 \times$ RBW.
4. Detector = Peak.
5. Trace mode = max hold.
6. Sweep = auto couple.
7. Allow the trace to stabilize.
8. Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.

4.4. Test Result

Ambient temperature : (23 ± 1) °C
 Relative humidity : 47 % R.H.

- SISO_Ant.1

Band	Mode	Frequency (MHz)	Ch.	Data Rate (Mbps)	6 dB Bandwidth (MHz)	Minimum Bandwidth (kHz)
U-NII 3	11a	5 745	149	6	16.344	500
		5 785	157		16.324	
		5 825	165		16.324	
	11ac_VHT20	5 745	149	MCS0	17.602	
		5 785	157		17.622	
		5 825	165		17.562	
	11ac_VHT40	5 755	151	MCS0	35.564	
		5 795	159		35.804	
	11ac_VHT80	5 775	155	MCS0	75.604	

- SISO_Ant.2

Band	Mode	Frequency (MHz)	Ch.	Data Rate (Mbps)	6 dB Bandwidth (MHz)	Minimum Bandwidth (kHz)
U-NII 3	11a	5 745	149	6	16.284	500
		5 785	157		15.804	
		5 825	165		16.304	
	11ac_VHT20	5 745	149	MCS0	17.582	
		5 785	157		17.263	
		5 825	165		17.343	
	11ac_VHT40	5 755	151	MCS0	35.525	
		5 795	159		36.004	
	11ac_VHT80	5 775	155	MCS0	75.285	

- MIMO

Band	Mode	Frequency (MHz)	Ch.	Data Rate (Mbps)	6 dB Bandwidth (MHz)		Minimum Bandwidth (kHz)
					ANT 1	ANT 2	
U-NII 3	11a	5 745	149	6	16.344	16.384	500
		5 785	157		16.344	16.364	
		5 825	165		16.324	16.344	
	11ac_VHT20	5 745	149	MCS0	17.582	17.622	
		5 785	157		17.562	17.622	
		5 825	165		17.363	17.582	
	11ac_VHT40	5 755	151	MCS0	35.445	36.364	
		5 795	159		36.084	36.364	
	11ac_VHT80	5 775	155	MCS0	75.445	75.365	

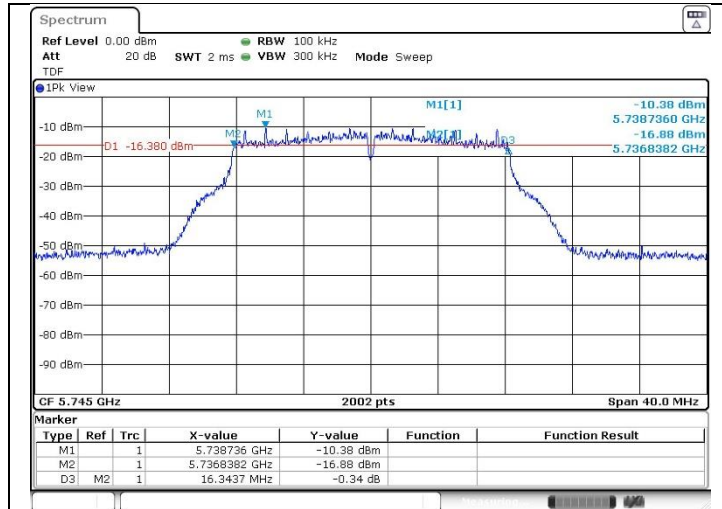
2

- Test plots

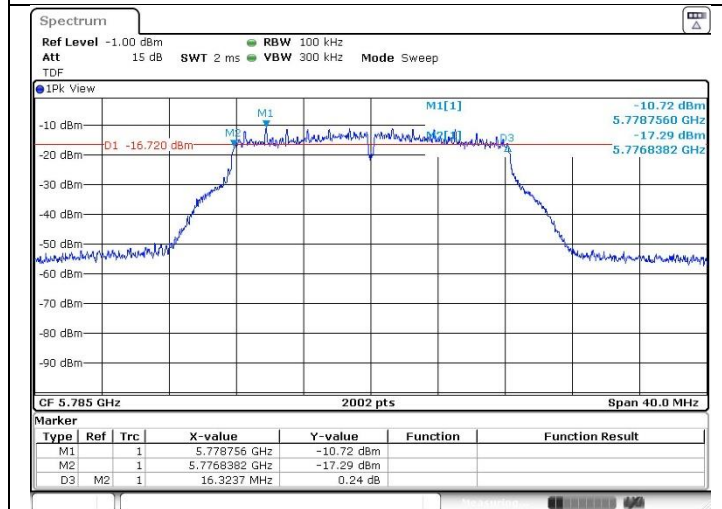
- SISO_Ant.1

802.11a (Band 3)

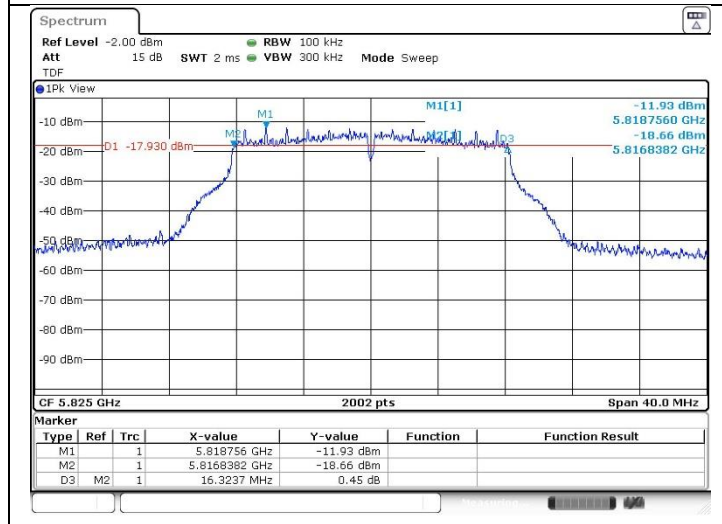
Low Channel
(5 745 MHz)



Middle Channel
(5 785 MHz)

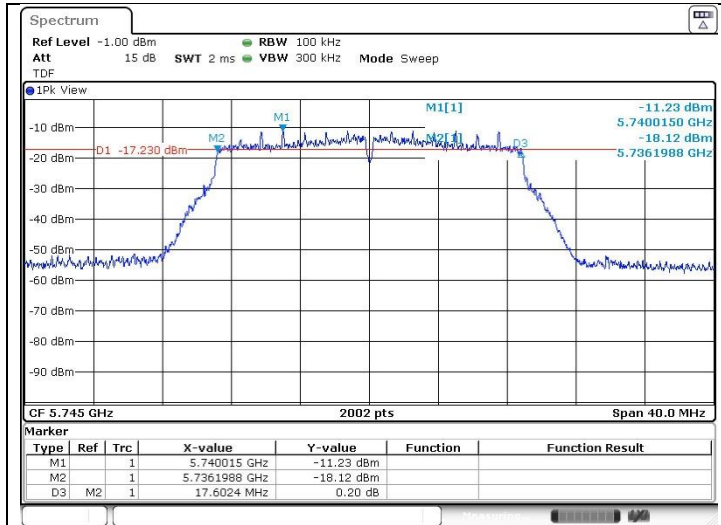


High Channel
(5 825 MHz)

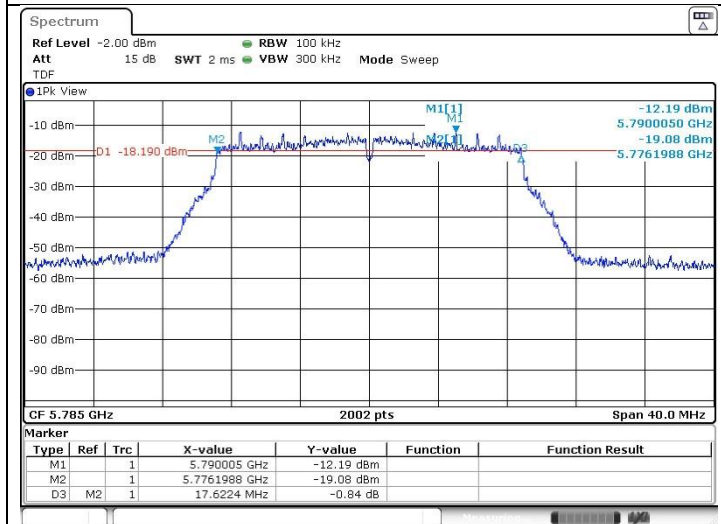


802.11ac_VHT20 (Band 3)

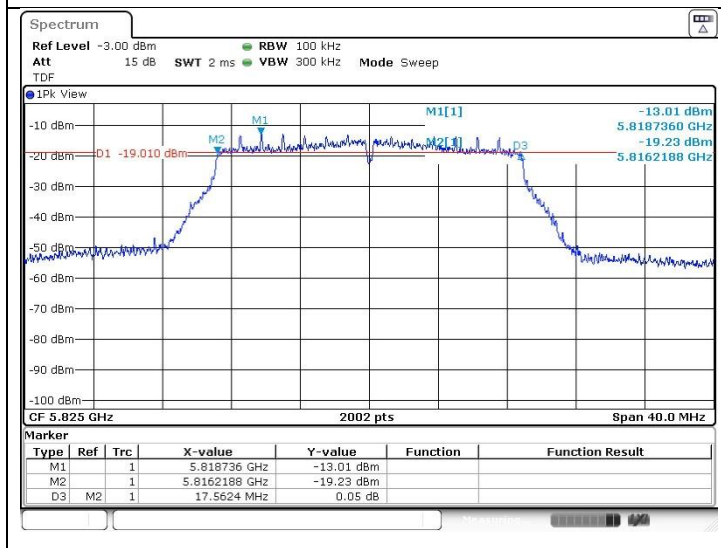
Low Channel
(5 745 MHz)



Middle Channel
(5 785 MHz)

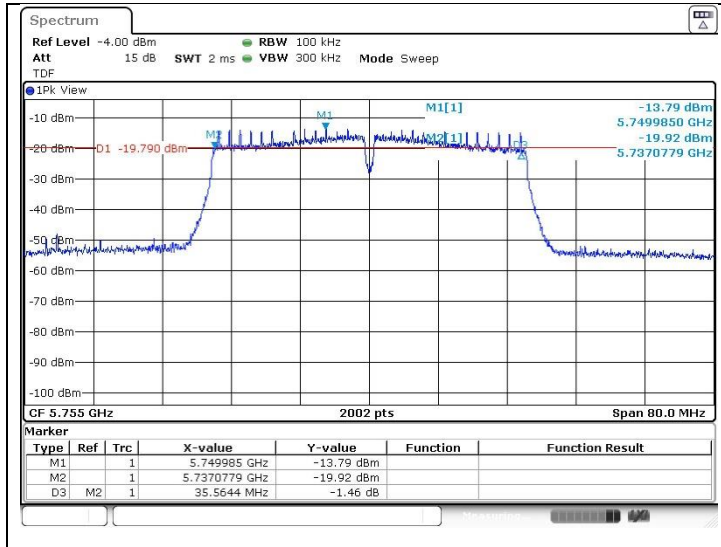


High Channel
(5 825 MHz)

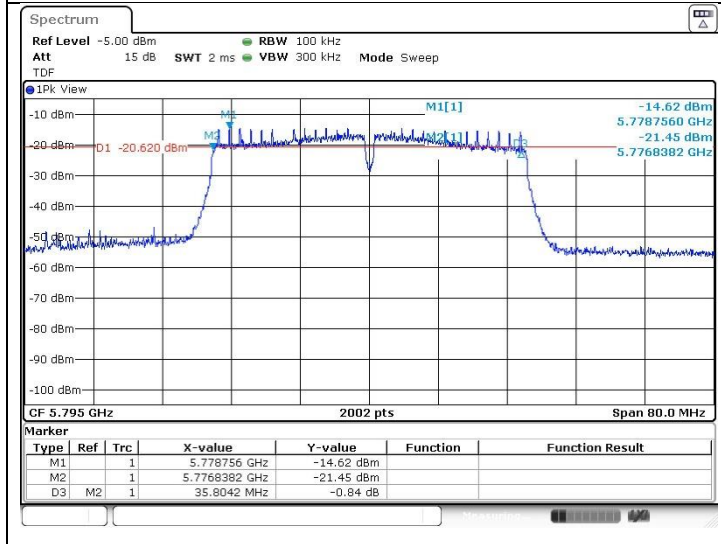


802.11ac_VHT40 (Band 3)

Low Channel
(5 755 MHz)

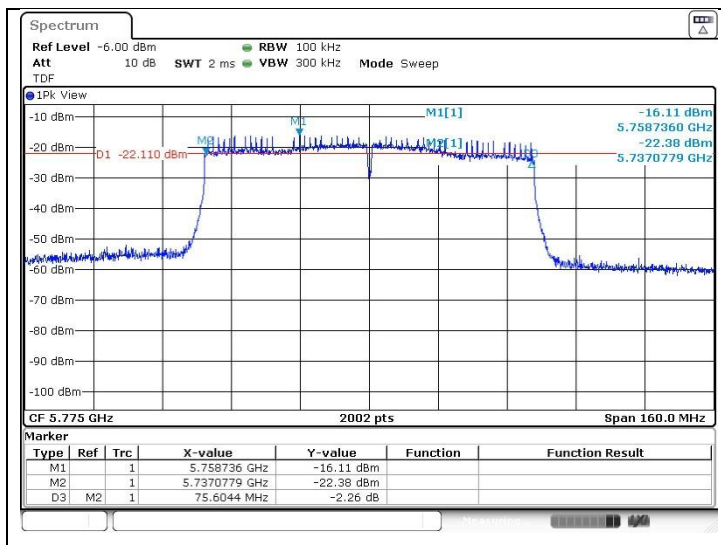


High Channel
(5 795 MHz)



802.11ac_VHT80 (Band 3)

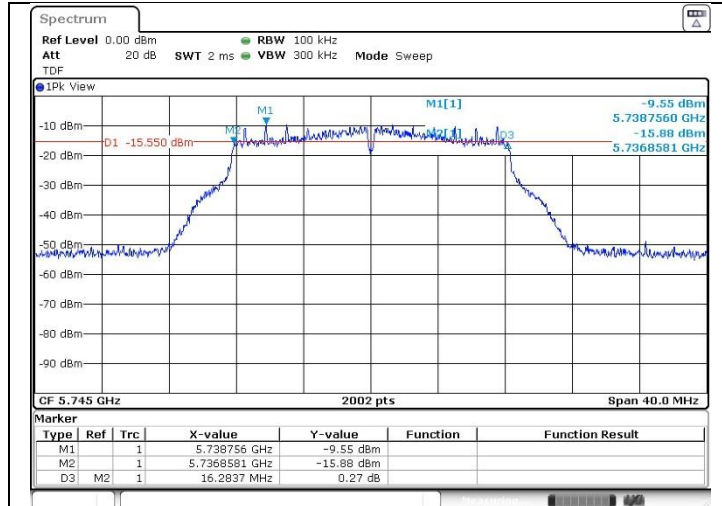
Middle Channel
(5 775 MHz)



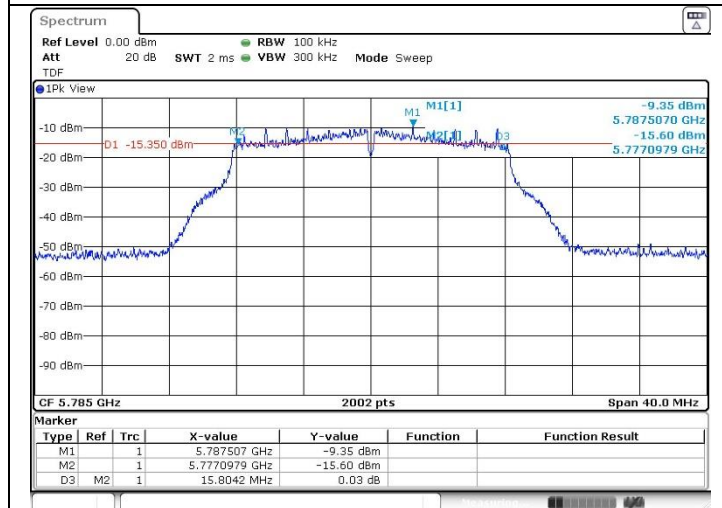
- SISO_Ant.2

802.11a (Band 3)

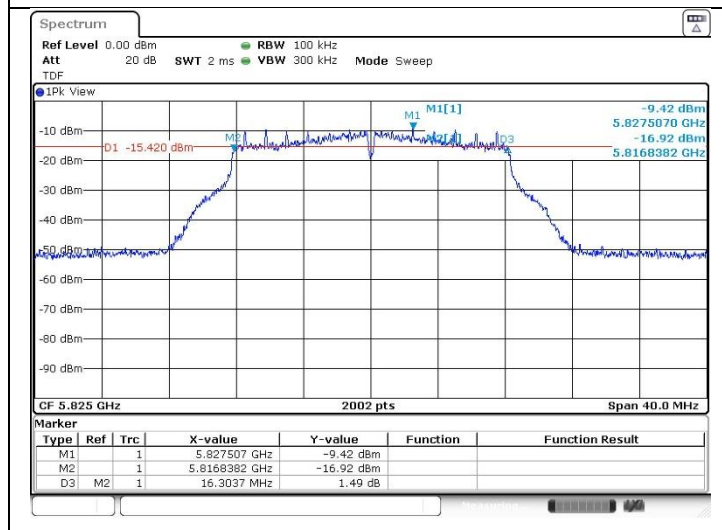
Low Channel
(5 745 MHz)



Middle Channel
(5 785 MHz)

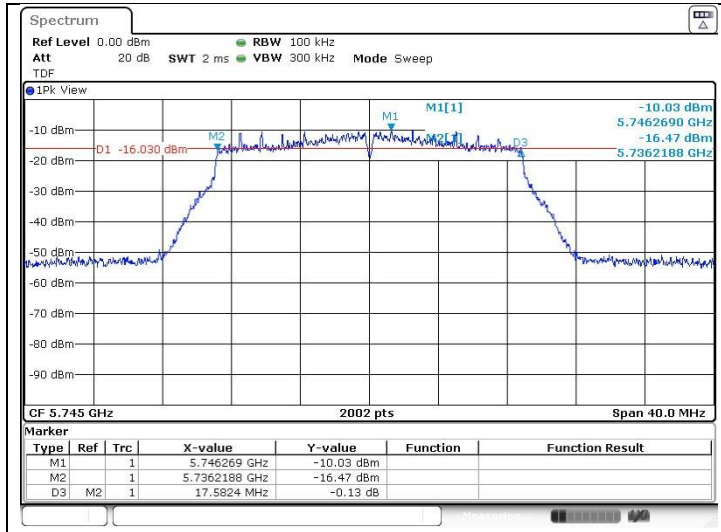


High Channel
(5 825 MHz)

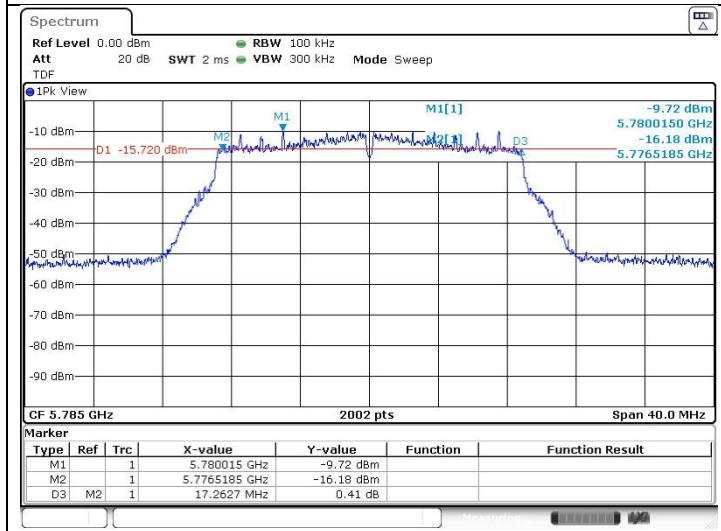


802.11ac_VHT20 (Band 3)

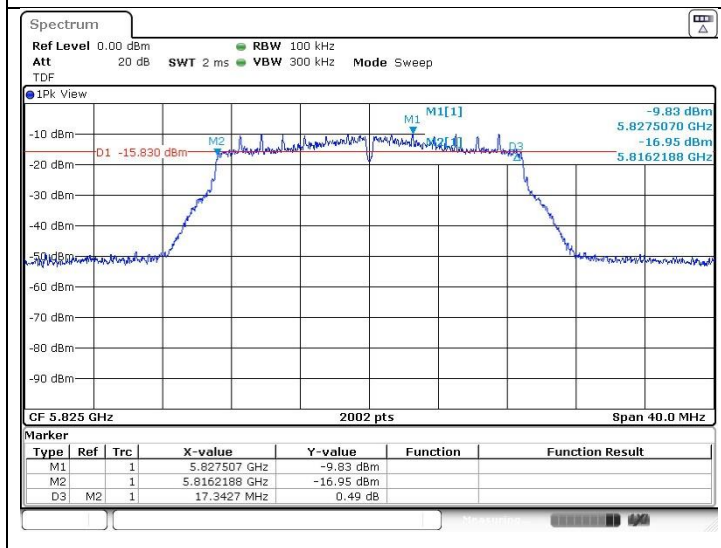
Low Channel
(5 745 MHz)



Middle Channel
(5 785 MHz)

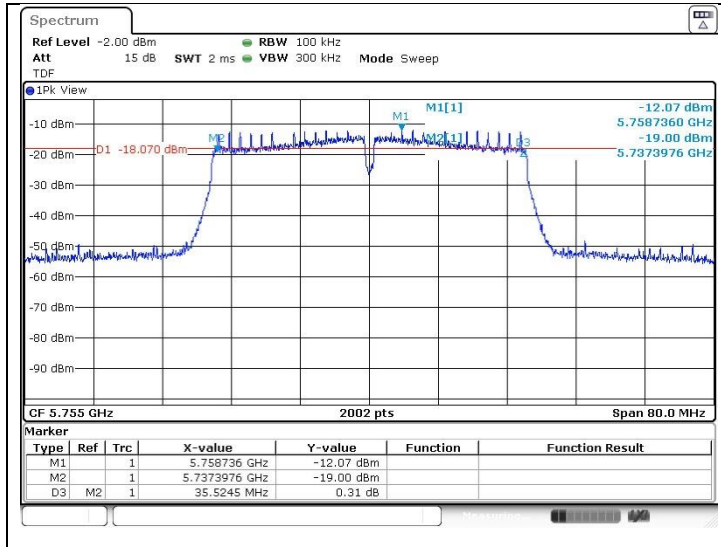


High Channel
(5 825 MHz)

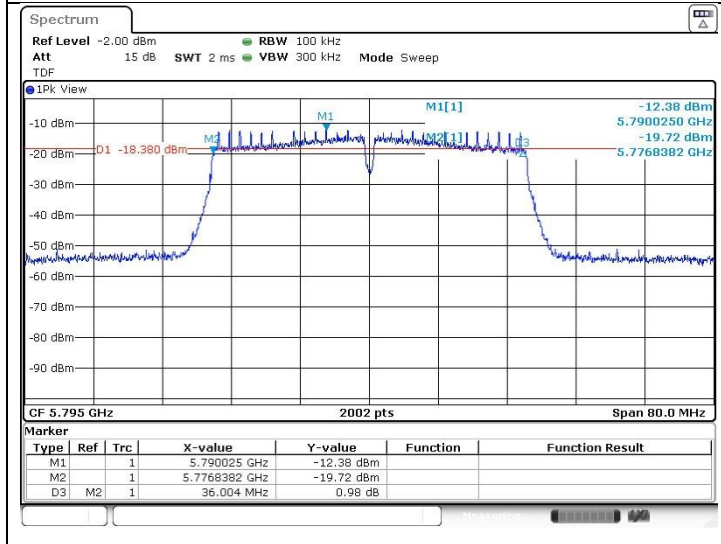


802.11ac_VHT40 (Band 3)

Low Channel
(5 755 MHz)

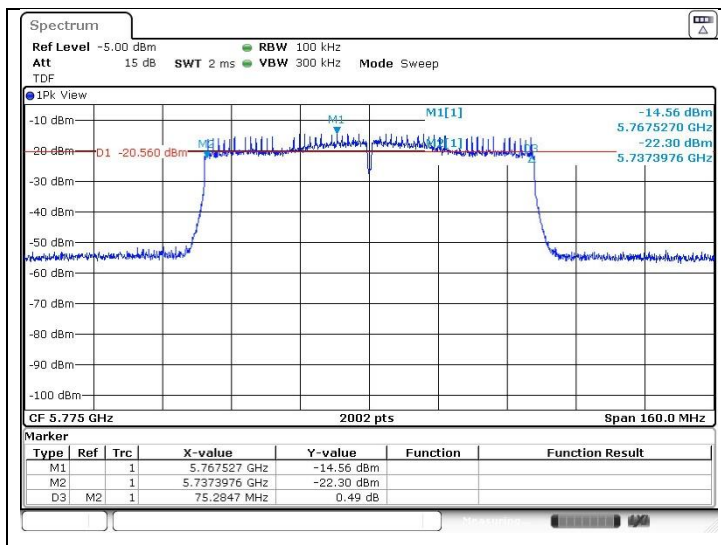


High Channel
(5 795 MHz)



802.11ac_VHT80 (Band 3)

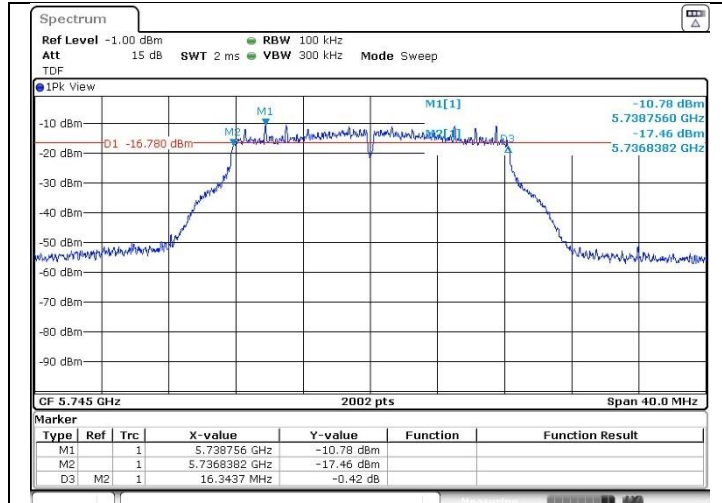
Middle Channel
(5 775 MHz)



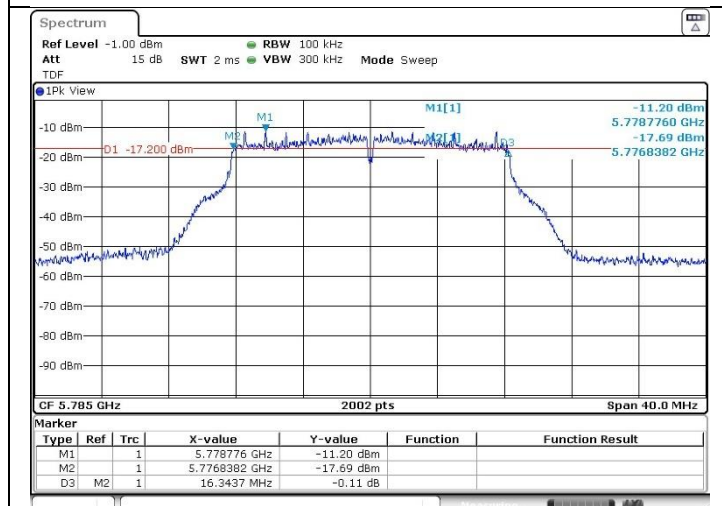
- MIMO_Ant.1

802.11a (Band 3)

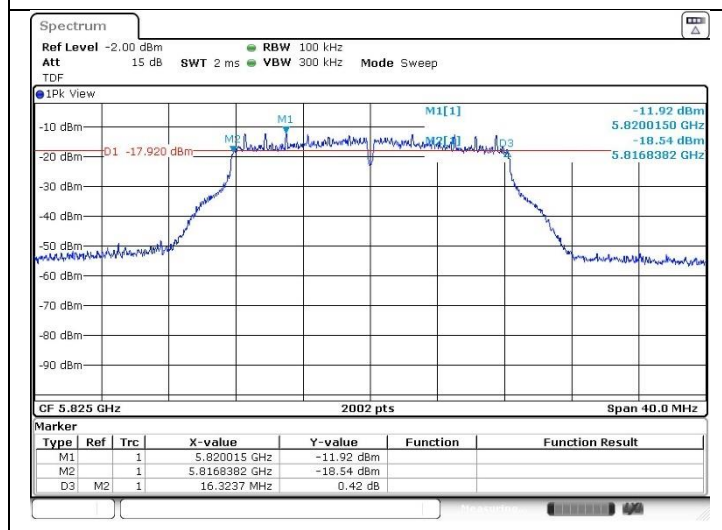
Low Channel
(5 745 MHz)



Middle Channel
(5 785 MHz)

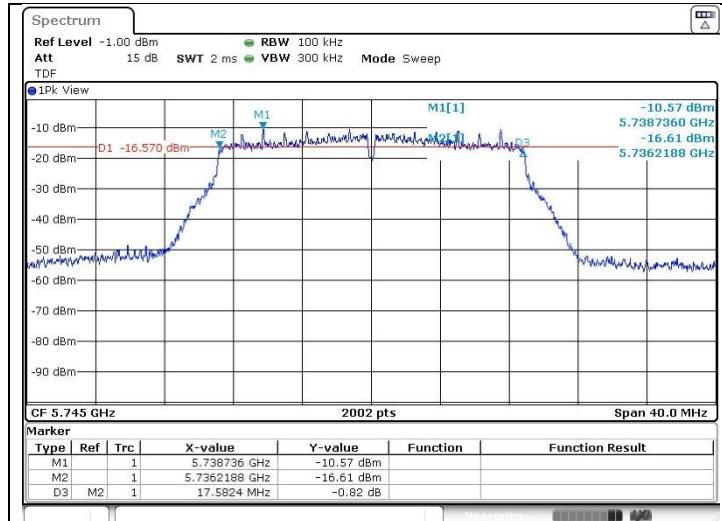


High Channel
(5 825 MHz)

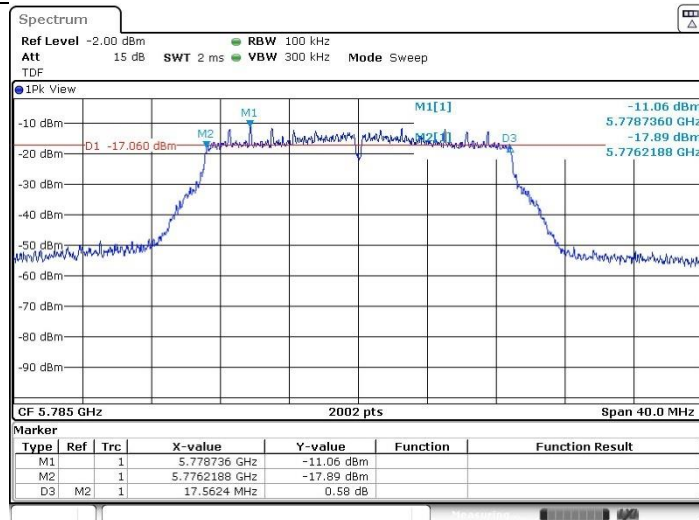


802.11ac_VHT20 (Band 3)

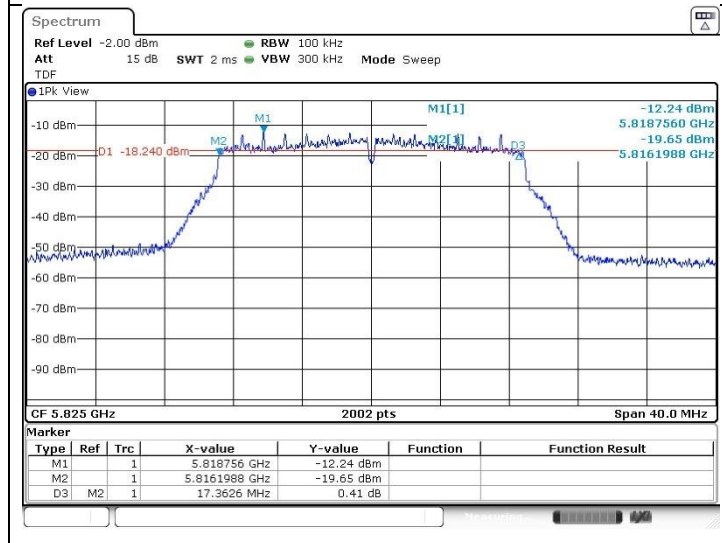
Low Channel
(5 745 MHz)



Middle Channel
(5 785 MHz)

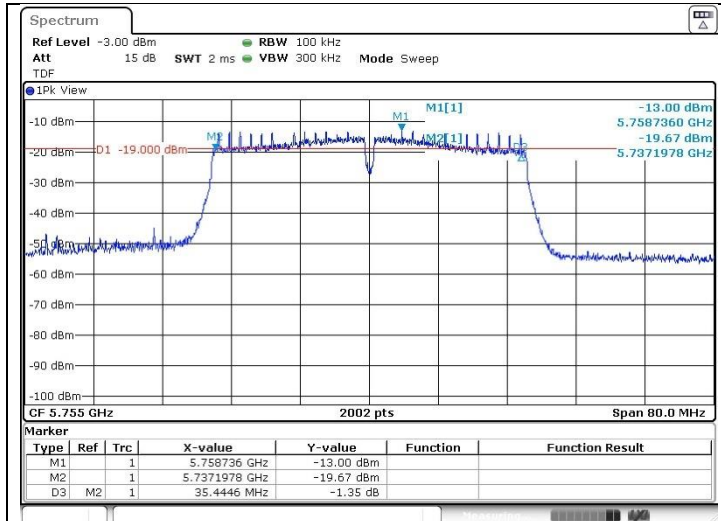


High Channel
(5 825 MHz)

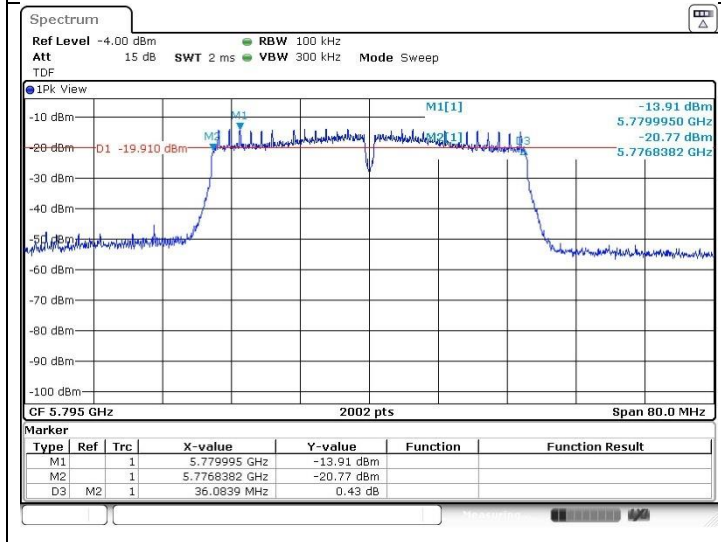


802.11ac_VHT40 (Band 3)

Low Channel
(5 755 MHz)

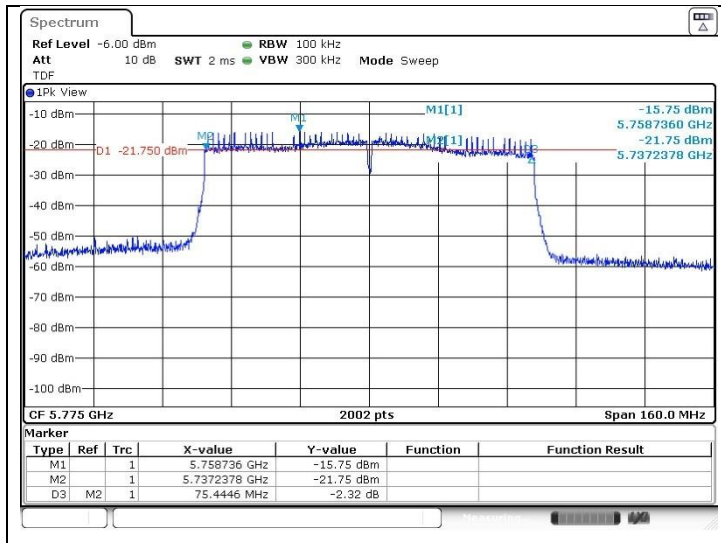


High Channel
(5 795 MHz)



802.11ac_VHT80 (Band 3)

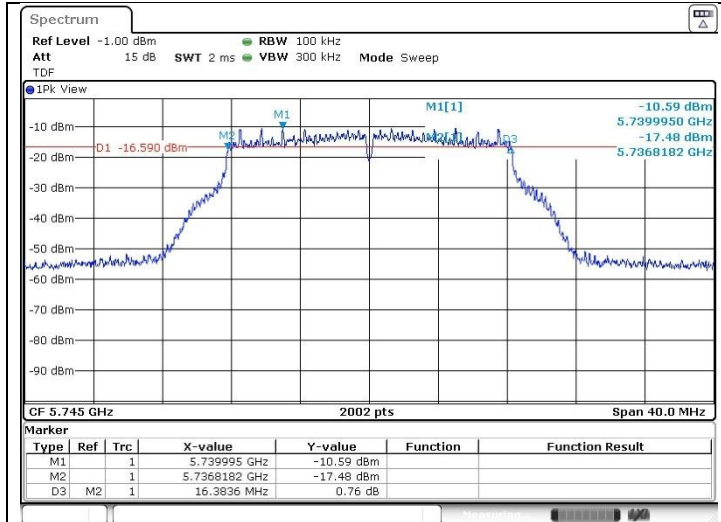
Middle Channel
(5 775 MHz)



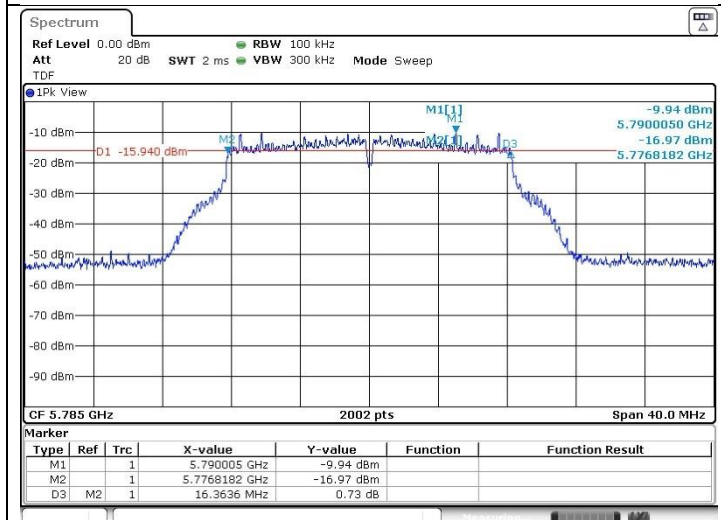
- MIMO_Ant.2

802.11a (Band 3)

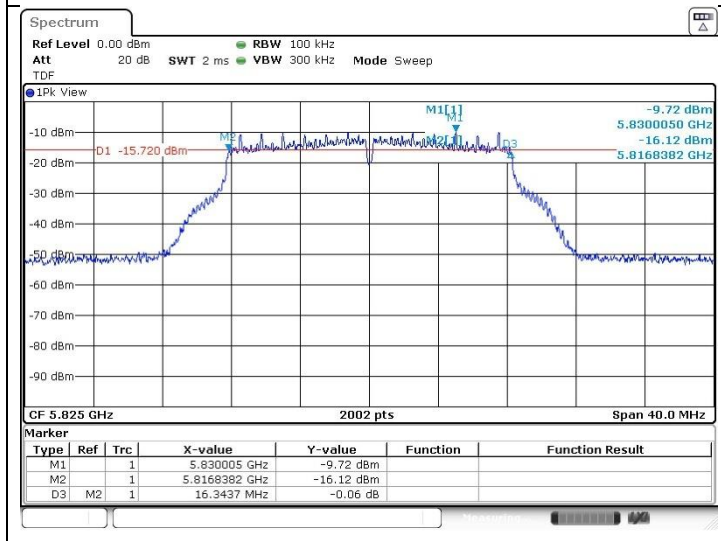
Low Channel
(5 745 MHz)



Middle Channel
(5 785 MHz)

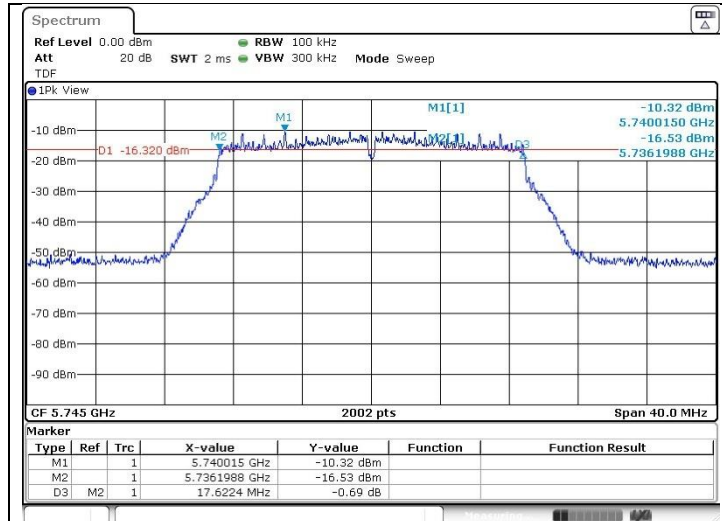


High Channel
(5 825 MHz)

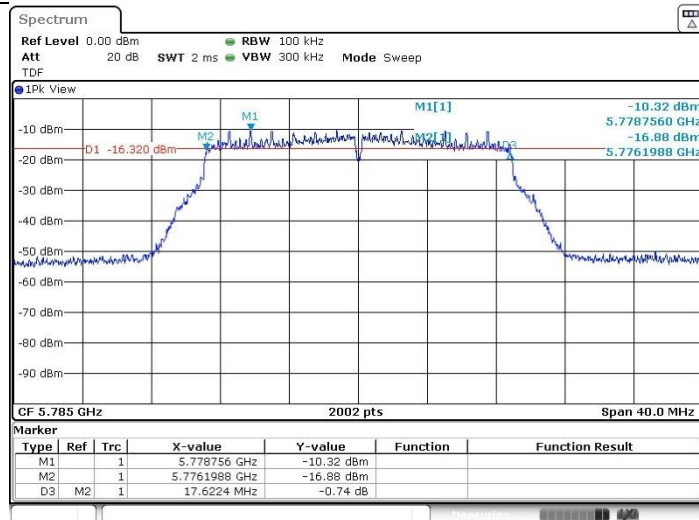


802.11ac_VHT20 (Band 3)

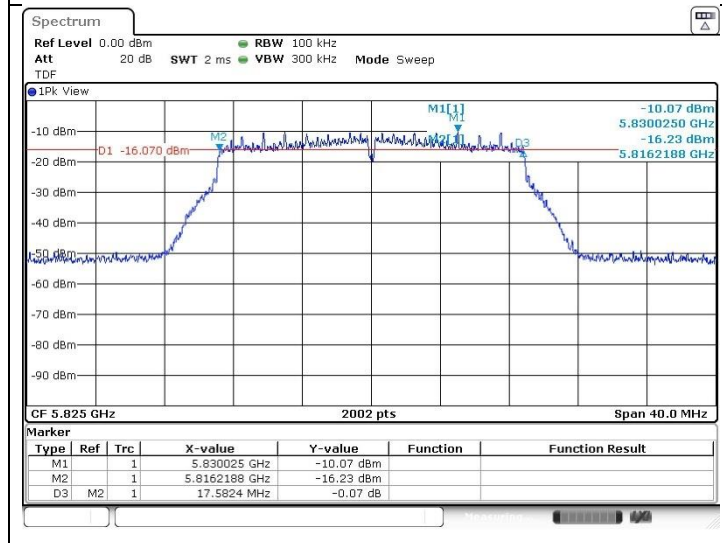
Low Channel
(5 745 MHz)



Middle Channel
(5 785 MHz)

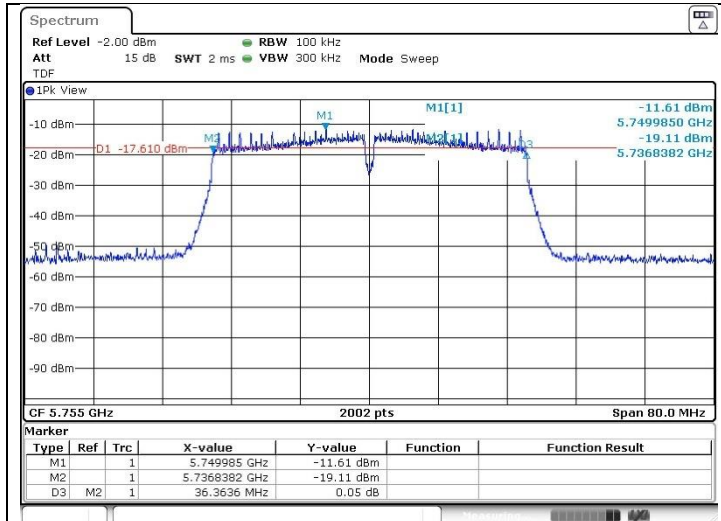


High Channel
(5 825 MHz)

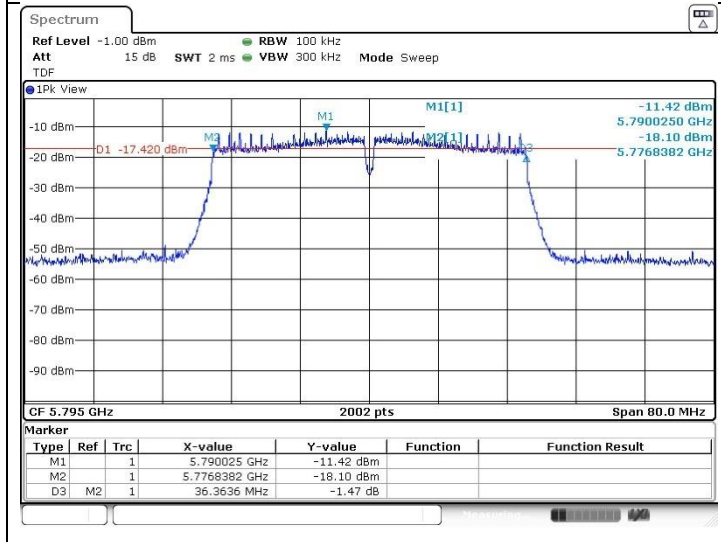


802.11ac_VHT40 (Band 3)

Low Channel
(5 755 MHz)

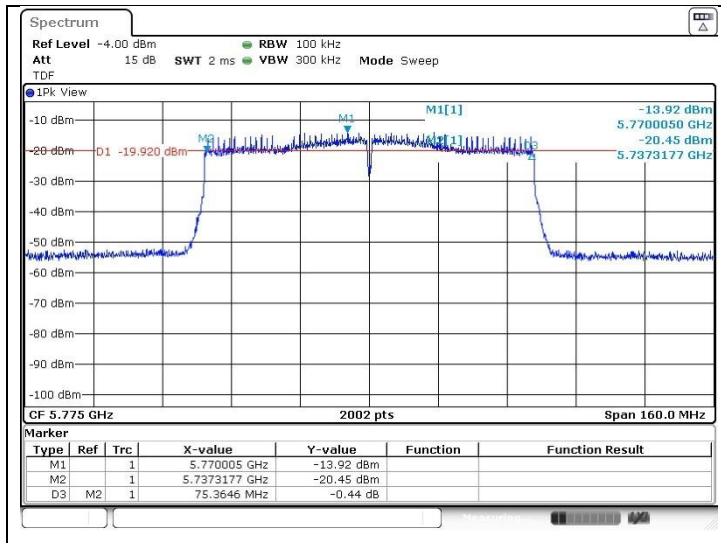


High Channel
(5 795 MHz)



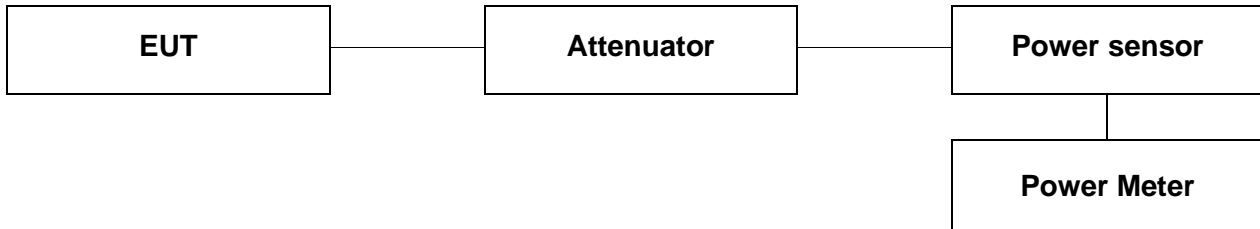
802.11ac_VHT80 (Band 3)

Middle Channel
(5 775 MHz)



5. Maximum Conducted Output Power

5.1. Test Setup



5.2. Limit

5.2.1. FCC

According to 15.407(a)(1)(iv)

For client devices in the 5.15-5.25 GHz band, the maximum conducted output power over the frequency band of operation shall not exceed 250 mW provided the maximum antenna gain does not exceed 6 dB i. In addition, the maximum power spectral density shall not exceed 11 dB m in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dB i are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dB i.

According to 15.407(a)(3)

For the band 5.725-5.85 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W. In addition, the maximum power spectral density shall not exceed 30 dB m in any 500-kHz band. If transmitting antennas of directional gain greater than 6 dB i are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dB i. However, fixed point-to point U-NII devices operating in this band may employ transmitting antennas with directional gain greater than 6 dB i without any corresponding reduction in transmitter conducted power. Fixed, point-to-point operations exclude the use of point-to-multipoint systems, omnidirectional applications, and multiple collocated transmitters transmitting the same information. The operator of the U-NII device, or if the equipment is professionally installed, the installer, is responsible for ensuring that systems employing high gain directional antennas are used exclusively for fixed, point-to-point operations.

5.2.2. IC

According to RSS-247 Issue 2,

6.2.1.1 Frequency band 5 150-5 250 MHz

For OEM devices installed in vehicles, the maximum e.i.r.p. shall not exceed 30 mW or $1.76 + 10 \log_{10} B$, dB m, whichever is less. Devices shall implement transmitter power control (TPC) in order to have the capability to operate at least 3 dB below the maximum permitted e.i.r.p. of 30 mW.

For other devices, the maximum e.i.r.p. shall not exceed 200 mW or $10 + 10 \log_{10} B$, dB m, whichever power is less. B is the 99 % emission bandwidth in megahertz. The e.i.r.p. spectral density shall not exceed 10 dB m in any 1.0 MHz band.

6.2.4.1 Frequency band 5 725-5 850 MHz

For equipment operating in the band 5 725-5 850 MHz, the minimum 6 dB bandwidth shall be at least 500 kHz. The maximum conducted output power shall not exceed 1 W. The output power spectral density shall not exceed 30 dB m in any 500 kHz band. If transmitting antennas of directional gain greater than 6 dB i are used, both the maximum conducted output power and the output power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dB i. However, fixed point-to-point devices operating in this band may employ transmitting antennas with directional gain greater than 6 dB i without any corresponding reduction in transmitter conducted power. Fixed point-to-point operations exclude the use of point-to-multipoint³ systems, omnidirectional applications and multiple collocated transmitters transmitting the same information.

5.3. Test Procedure

1. This measurement settings are specified in section II.E.3.a of KDB 789033 D02 General UNII Test Procedures New Rules v02r01.
2. Measurements may be performed using a wideband RF power meter with a thermocouple detector or equivalent if all of the conditions listed below are satisfied:
 - The EUT is configured to transmit continuously or to transmit with a consistent duty cycle.
 - At all times when the EUT is transmitting, it must be transmitting at its maximum power control level.
 - The integration period of the power meter exceeds the repetition period of the transmitted signal by at least a factor of five.
3. If the transmitter does not transmit continuously, measure the duty cycle, x , of the transmitter output signal as described in section II.B.
4. Measure the average power of the transmitter. This measurement is an average over both the on and off periods of the transmitter.
5. Adjust the measurement in dBm by adding $10 \log (1/x)$ where x is the duty cycle (e.g., $10 \log (1/0.25)$ if the duty cycle is 25 %).

5.4. Test Result

Ambient temperature : (23 ± 1) °C
 Relative humidity : 47 % R.H.

- SISO_Ant.1

Test mode: 11a

Band	Frequency (MHz)	Data Rate (Mbps)	Average Power (dB m)	Duty Cycle Correction Factor (dB)	Average Power Result (dB m)
U-NII 1	5 180	6	0.40	0.29	0.69
	5 220		0.40		0.69
	5 240		0.11		0.40
U-NII 3	5 745		1.33		1.62
	5 785		0.60		0.89
	5 825		-0.30		-0.01

Band	Frequency (MHz)	Data Rate (Mbps)	Average Power Result (dB m)	Antenna Gain (dB i)	E.I.R.P. (dB m)
U-NII 1	5 180	6	0.69	2.92	3.61
	5 220		0.69		3.61
	5 240		0.40		3.32
U-NII 3	5 745		1.62		4.54
	5 785		0.89		3.81
	5 825		-0.01		2.91

Band	FCC Limit						
	Frequency (MHz)	Fixed Limit (dB m)	26 dB BW (MHz)	11+10LogB (dB m)	Antenna Gain (dB i)	Limit (dB m)	
U-NII 1	5 180	23.98	/	2.92	23.98		
	5 220						
	5 240						
U-NII 3	5 745	30		/		2.92	30
	5 785						
	5 825						

Band	IC Limit					
	Frequency (MHz)	Fixed Limit (dB m)	99 % BW (MHz)	1.76+10LogB (dB m)	Antenna Gain (dB i)	Limit (dB m)
U-NII 1	5 180	14.77	17.019	14.07	2.92	14.07
	5 220		17.019	14.07		14.07
	5 240		17.077	14.08		14.08

Band	IC Limit					
	Frequency (MHz)	Fixed Limit (dB m)	99 % BW (MHz)	11+10LogB (dB m)	Antenna Gain (dB i)	Limit (dB m)
U-NII 3	5 745	30	/		2.92	30
	5 785					
	5 825					

Remark;

1. Average Power Result (dB m) = Average Power (dB m) + Duty Cycle Correction Factor (dB)
2. E.I.R.P. (dB m) = Average Power Result (dB m) + Antenna Gain (dB i)
3. Antenna Gain applied Final Antenna Gain reflecting permanently mounted cable losses in accordance with clause 1.18.

Test mode: 11ac_VHT20

Band	Frequency (MHz)	Data Rate (Mbps)	Average Power (dB m)	Duty Cycle Correction Factor (dB)	Average Power Result (dB m)
U-NII 1	5 180	MCS0	0.16	0.34	0.50
	5 220		-0.02		0.32
	5 240		-0.24		0.10
U-NII 3	5 745		1.32		1.66
	5 785		0.50		0.84
	5 825		-0.38		-0.04

Band	Frequency (MHz)	Data Rate (Mbps)	Average Power Result (dB m)	Antenna Gain (dB i)	E.I.R.P. (dB m)
U-NII 1	5 180	MCS0	0.50	2.92	3.42
	5 220		0.32		3.24
	5 240		0.10		3.02
U-NII 3	5 745		1.66		4.58
	5 785		0.84		3.76
	5 825		-0.04		2.88

Band	FCC Limit					
	Frequency (MHz)	Fixed Limit (dB m)	26 dB BW (MHz)	11+10LogB (dB m)	Antenna Gain (dB i)	Limit (dB m)
U-NII 1	5 180	23.98	/		2.92	23.98
	5 220					
	5 240					
U-NII 3	5 745	30	/		2.92	30
	5 785					
	5 825					

Band	IC Limit					
	Frequency (MHz)	Fixed Limit (dB m)	99 % BW (MHz)	1.76+10LogB (dB m)	Antenna Gain (dB i)	Limit (dB m)
U-NII 1	5 180	14.77	18.119	14.34	2.92	14.34
	5 220		18.119	14.34		14.34
	5 240		18.119	14.34		14.34

Band	IC Limit					
	Frequency (MHz)	Fixed Limit (dB m)	99 % BW (MHz)	11+10LogB (dB m)	Antenna Gain (dB i)	Limit (dB m)
U-NII 3	5 745	30	/		2.92	30
	5 785					
	5 825					

Remark;

1. Average Power Result (dB m) = Average Power (dB m) + Duty Cycle Correction Factor (dB)
2. E.I.R.P. (dB m) = Average Power Result (dB m) + Antenna Gain (dB i)
3. Antenna Gain applied Final Antenna Gain reflecting permanently mounted cable losses in accordance with clause 1.18.

Test mode: 11ac_VHT40

Band	Frequency (MHz)	Data Rate (Mbps)	Average Power (dB m)	Duty Cycle Correction Factor (dB)	Average Power Result (dB m)
U-NII 1	5 190	MCS0	-0.98	0.62	-0.36
	5 230		-1.27		-0.65
U-NII 3	5 755		0.67		1.29
	5 795		0.08		0.70

Band	Frequency (MHz)	Data Rate (Mbps)	Average Power Result (dB m)	Antenna Gain (dB i)	E.I.R.P. (dB m)
U-NII 1	5 190	MCS0	-0.36	2.92	2.56
	5 230		-0.65		2.27
U-NII 3	5 755		1.29		4.21
	5 795		0.70		3.62

Band	FCC Limit					
	Frequency (MHz)	Fixed Limit (dB m)	26 dB BW (MHz)	11+10LogB (dB m)	Antenna Gain (dB i)	Limit (dB m)
U-NII 1	5 190	23.98	/		2.92	23.98
	5 230					
U-NII 3	5 755	30	/		2.92	30
	5 795					

Band	IC Limit					
	Frequency (MHz)	Fixed Limit (dB m)	99 % BW (MHz)	1.76+10LogB (dB m)	Antenna Gain (dB i)	Limit (dB m)
U-NII 1	5 190	14.77	36.353	17.37	2.92	14.77
	5 230		36.237	17.35		

Band	IC Limit					
	Frequency (MHz)	Fixed Limit (dB m)	99 % BW (MHz)	11+10LogB (dB m)	Antenna Gain (dB i)	Limit (dB m)
U-NII 3	5 755	30	/		2.92	30
	5 795					

Remark;

1. Average Power Result (dB m) = Average Power (dB m) + Duty Cycle Correction Factor (dB)
2. E.I.R.P. (dB m) = Average Power Result (dB m) + Antenna Gain (dB i)
3. Antenna Gain applied Final Antenna Gain reflecting permanently mounted cable losses in accordance with clause 1.18.

Test mode: 11ac_VHT80

Band	Frequency (MHz)	Data Rate (Mbps)	Average Power (dB m)	Duty Cycle Correction Factor (dB)	Average Power Result (dB m)
U-NII 1	5 210	MCS0	-1.24	1.16	-0.08
U-NII 3	5 775		-0.21		0.95

Band	Frequency (MHz)	Data Rate (Mbps)	Average Power Result (dB m)	Antenna Gain (dB i)	E.I.R.P. (dB m)
U-NII 1	5 210	MCS0	-0.08	2.92	2.84
U-NII 3	5 775		0.95		3.87

Band	FCC Limit					
	Frequency (MHz)	Fixed Limit (dB m)	26 dB BW (MHz)	11+10LogB (dB m)	Antenna Gain (dB i)	Limit (dB m)
U-NII 1	5 210	23.98			2.92	23.98
U-NII 3	5 775	30			2.92	30

Band	IC Limit					
	Frequency (MHz)	Fixed Limit (dB m)	99 % BW (MHz)	1.76+10LogB (dB m)	Antenna Gain (dB i)	Limit (dB m)
U-NII 1	5 210	14.77	75.716	20.55	2.92	14.77

Band	IC Limit					
	Frequency (MHz)	Fixed Limit (dB m)	99 % BW (MHz)	11+10LogB (dB m)	Antenna Gain (dB i)	Limit (dB m)
U-NII 3	5 775	30			2.92	30

Remark;

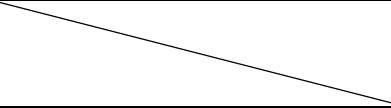
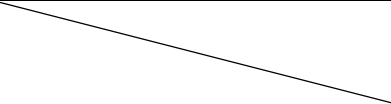
1. Average Power Result (dB m) = Average Power (dB m) + Duty Cycle Correction Factor (dB)
2. E.I.R.P. (dB m) = Average Power Result (dB m) + Antenna Gain (dB i)
3. Antenna Gain applied Final Antenna Gain reflecting permanently mounted cable losses in accordance with clause 1.18.

- SISO_Ant.2

Test mode: 11a

Band	Frequency (MHz)	Data Rate (Mbps)	Average Power (dB m)	Duty Cycle Correction Factor (dB)	Average Power Result (dB m)
U-NII 1	5 180	6	1.89	0.29	2.18
	5 220		1.94		2.23
	5 240		1.94		2.23
U-NII 3	5 745		1.54		1.83
	5 785		1.63		1.92
	5 825		1.54		1.83

Band	Frequency (MHz)	Data Rate (Mbps)	Average Power Result (dB m)	Antenna Gain (dB i)	E.I.R.P. (dB m)
U-NII 1	5 180	6	2.18	2.92	5.10
	5 220		2.23		5.15
	5 240		2.23		5.15
U-NII 3	5 745		1.83		4.75
	5 785		1.92		4.84
	5 825		1.83		4.75

Band	FCC Limit					
	Frequency (MHz)	Fixed Limit (dB m)	26 dB BW (MHz)	11+10LogB (dB m)	Antenna Gain (dB i)	Limit (dB m)
U-NII 1	5 180	23.98			2.92	23.98
	5 220					
	5 240					
U-NII 3	5 745	30			2.92	30
	5 785					
	5 825					

Band	IC Limit					
	Frequency (MHz)	Fixed Limit (dB m)	99 % BW (MHz)	1.76+10LogB (dB m)	Antenna Gain (dB i)	Limit (dB m)
U-NII 1	5 180	14.77	16.961	14.05	2.92	14.05
	5 220		17.019	14.07		14.07
	5 240		17.019	14.07		14.07

Band	IC Limit					
	Frequency (MHz)	Fixed Limit (dB m)	99 % BW (MHz)	11+10LogB (dB m)	Antenna Gain (dB i)	Limit (dB m)
U-NII 3	5 745	30	/		2.92	30
	5 785					
	5 825					

Remark;

1. Average Power Result (dB m) = Average Power (dB m) + Duty Cycle Correction Factor (dB)
2. E.I.R.P. (dB m) = Average Power Result (dB m) + Antenna Gain (dB i)
3. Antenna Gain applied Final Antenna Gain reflecting permanently mounted cable losses in accordance with clause 1.18.

Test mode: 11ac_VHT20

Band	Frequency (MHz)	Data Rate (Mbps)	Average Power (dB m)	Duty Cycle Correction Factor (dB)	Average Power Result (dB m)
U-NII 1	5 180	MCS0	1.63	0.34	1.97
	5 220		1.93		2.27
	5 240		1.69		2.03
U-NII 3	5 745		1.22		1.56
	5 785		1.28		1.62
	5 825		1.20		1.54

Band	Frequency (MHz)	Data Rate (Mbps)	Average Power Result (dB m)	Antenna Gain (dB i)	E.I.R.P. (dB m)
U-NII 1	5 180	MCS0	1.97	2.92	4.89
	5 220		2.27		5.19
	5 240		2.03		4.95
U-NII 3	5 745		1.56		4.48
	5 785		1.62		4.54
	5 825		1.54		4.46

Band	FCC Limit					
	Frequency (MHz)	Fixed Limit (dB m)	26 dB BW (MHz)	11+10LogB (dB m)	Antenna Gain (dB i)	Limit (dB m)
U-NII 1	5 180	23.98	/		2.92	23.98
	5 220					
	5 240					
U-NII 3	5 745	30	/		2.92	30
	5 785					
	5 825					

Band	IC Limit					
	Frequency (MHz)	Fixed Limit (dB m)	99 % BW (MHz)	1.76+10LogB (dB m)	Antenna Gain (dB i)	Limit (dB m)
U-NII 1	5 180	14.77	18.061	14.33	2.92	14.33
	5 220		18.003	14.31		14.31
	5 240		18.061	14.33		14.33

Band	IC Limit					
	Frequency (MHz)	Fixed Limit (dB m)	99 % BW (MHz)	11+10LogB (dB m)	Antenna Gain (dB i)	Limit (dB m)
U-NII 3	5 745	30	/		2.92	30
	5 785					
	5 825					

Remark;

1. Average Power Result (dB m) = Average Power (dB m) + Duty Cycle Correction Factor (dB)
2. E.I.R.P. (dB m) = Average Power Result (dB m) + Antenna Gain (dB i)
3. Antenna Gain applied Final Antenna Gain reflecting permanently mounted cable losses in accordance with clause 1.18.

Test mode: 11ac_VHT40

Band	Frequency (MHz)	Data Rate (Mbps)	Average Power (dB m)	Duty Cycle Correction Factor (dB)	Average Power Result (dB m)
U-NII 1	5 190	MCS0	0.62	0.62	1.24
	5 230		0.56		1.18
U-NII 3	5 755		1.11		1.73
	5 795		1.43		2.05

Band	Frequency (MHz)	Data Rate (Mbps)	Average Power Result (dB m)	Antenna Gain (dB i)	E.I.R.P. (dB m)
U-NII 1	5 190	MCS0	1.24	2.92	4.16
	5 230		1.18		4.10
U-NII 3	5 755		1.73		4.65
	5 795		2.05		4.97

Band	FCC Limit					
	Frequency (MHz)	Fixed Limit (dB m)	26 dB BW (MHz)	11+10LogB (dB m)	Antenna Gain (dB i)	Limit (dB m)
U-NII 1	5 190	23.98	/		2.92	23.98
	5 230					
U-NII 3	5 755	30	/		2.92	30
	5 795					

Band	IC Limit					
	Frequency (MHz)	Fixed Limit (dB m)	99 % BW (MHz)	1.76+10LogB (dB m)	Antenna Gain (dB i)	Limit (dB m)
U-NII 1	5 190	14.77	36.237	17.35	2.92	14.77
	5 230		36.353	17.37		

Band	IC Limit					
	Frequency (MHz)	Fixed Limit (dB m)	99 % BW (MHz)	11+10LogB (dB m)	Antenna Gain (dB i)	Limit (dB m)
U-NII 3	5 755	30	/		2.92	30
	5 795					

Remark;

1. Average Power Result (dB m) = Average Power (dB m) + Duty Cycle Correction Factor (dB)
2. E.I.R.P. (dB m) = Average Power Result (dB m) + Antenna Gain (dB i)
3. Antenna Gain applied Final Antenna Gain reflecting permanently mounted cable losses in accordance with clause 1.18.

Test mode: 11ac_VHT80

Band	Frequency (MHz)	Data Rate (Mbps)	Average Power (dB m)	Duty Cycle Correction Factor (dB)	Average Power Result (dB m)
U-NII 1	5 210	MCS0	0.46	1.16	1.62
U-NII 3	5 775		0.97		2.13

Band	Frequency (MHz)	Data Rate (Mbps)	Average Power Result (dB m)	Antenna Gain (dB i)	E.I.R.P. (dB m)
U-NII 1	5 210	MCS0	1.62	2.92	4.54
U-NII 3	5 775		2.13		5.05

Band	FCC Limit					
	Frequency (MHz)	Fixed Limit (dB m)	26 dB BW (MHz)	11+10LogB (dB m)	Antenna Gain (dB i)	Limit (dB m)
U-NII 1	5 210	23.98			2.92	23.98
U-NII 3	5 775	30			2.92	30

Band	IC Limit					
	Frequency (MHz)	Fixed Limit (dB m)	99 % BW (MHz)	1.76+10LogB (dB m)	Antenna Gain (dB i)	Limit (dB m)
U-NII 1	5 210	14.77	75.716	20.55	2.92	14.77

Band	IC Limit					
	Frequency (MHz)	Fixed Limit (dB m)	99 % BW (MHz)	11+10LogB (dB m)	Antenna Gain (dB i)	Limit (dB m)
U-NII 3	5 775	30			2.92	30

Remark;

1. Average Power Result (dB m) = Average Power (dB m) + Duty Cycle Correction Factor (dB)
2. E.I.R.P. (dB m) = Average Power Result (dB m) + Antenna Gain (dB i)
3. Antenna Gain applied Final Antenna Gain reflecting permanently mounted cable losses in accordance with clause 1.18.

- MIMO

Test mode: 11a

Band	Frequency (MHz)	Data Rate (Mbps)	Ant. 1 Average Power (dB m)	Ant. 2 Average Power (dB m)	Ant. 1+Ant. 2 Average Power (dB m)
U-NII 1	5 180	6	0.33	1.88	4.18
	5 220		0.17	2.24	4.34
	5 240		-0.08	2.09	4.15
U-NII 3	5 745		1.44	1.26	4.36
	5 785		0.57	1.58	4.11
	5 825		-0.44	1.59	3.70

Band	Frequency (MHz)	Data Rate (Mbps)	Ant. 1+Ant. 2 Average Power (dB m)	Duty Cycle Correction Factor (dB)	Ant. 1 + Ant. 2 Average Power Result (dB m)
U-NII 1	5 180	6	4.18	0.32	4.50
	5 220		4.34		4.66
	5 240		4.15		4.47
U-NII 3	5 745		4.36		4.68
	5 785		4.11		4.43
	5 825		3.70		4.02

Band	Frequency (MHz)	Data Rate (Mbps)	Ant. 1 + Ant. 2 Average Power Result (dB m)	Antenna Gain (dB i)	Ant. 1 + Ant. 2 E.I.R.P. (dB m)
U-NII 1	5 180	6	4.50	5.93	10.43
	5 220		4.66		10.59
	5 240		4.47		10.40
U-NII 3	5 745		4.68		10.61
	5 785		4.43		10.36
	5 825		4.02		9.95

Band	FCC Limit						
	Frequency (MHz)	Fixed Limit (dB m)	26 dB BW (MHz)	11+10LogB (dB m)	Antenna Gain (dB i)	Limit (dB m)	
U-NII 1	5 180	23.98	/	5.93	23.98		
	5 220						
	5 240						
U-NII 3	5 745	30		/		5.93	30
	5 785						
	5 825						

Band	IC Limit					
	Frequency (MHz)	Fixed Limit (dB m)	99 % BW (MHz)	1.76+10LogB (dB m)	Antenna Gain (dB i)	Limit (dB m)
U-NII 1	5 180	14.77	17.019	14.07	5.93	14.07
	5 220		16.961	14.05		14.05
	5 240		17.019	14.07		14.07

Band	IC Limit					
	Frequency (MHz)	Fixed Limit (dB m)	99 % BW (MHz)	11+10LogB (dB m)	Antenna Gain (dB i)	Limit (dB m)
U-NII 3	5 745	30	/		5.93	30
	5 785					
	5 825					

Remark;

1. Attenuator and cable offset was compensated in test program (R&S Power Viewer) before measuring.
2. According to KDB 662911 D01 v02r01, average power of each port (Ant. 1+Ant. 2) and antenna gain was combined by using below calculation.
3. Average power: $10 \log \{10^{(\text{Ant. 1 power} / 10)} + 10^{(\text{Ant. 2 power} / 10)}\}$
 Antenna gain: $10 \log \{[10^{(\text{Ant. 1 gain} / 20)} + 10^{(\text{Ant. 2 gain} / 20)}]^{2 / 2}\}$
4. Average Power Result (dB m) = Average Power (dB m) + Duty Cycle Correction Factor (dB)
5. E.I.R.P. (dB m) = Average Power Result (dB m) + Antenna Gain (dB i)
6. Antenna Gain applied Final Antenna Gain reflecting permanently mounted cable losses in accordance with clause 1.18.

Test mode: 11ac_VHT20

Band	Frequency (MHz)	Data Rate (Mbps)	Ant. 1 Average Power (dB m)	Ant. 2 Average Power (dB m)	Ant. 1+Ant. 2 Average Power (dB m)
U-NII 1	5 180	MCS0	0.15	1.55	3.92
	5 220		0.03	1.80	4.01
	5 240		-0.17	2.04	4.08
U-NII 3	5 745		1.26	1.14	4.21
	5 785		0.48	1.39	3.97
	5 825		-0.31	1.14	3.49

Band	Frequency (MHz)	Data Rate (Mbps)	Ant. 1+Ant. 2 Average Power (dB m)	Duty Cycle Correction Factor (dB)	Ant. 1 + Ant. 2 Average Power Result (dB m)
U-NII 1	5 180	MCS0	3.92	0.31	4.23
	5 220		4.01		4.32
	5 240		4.08		4.39
U-NII 3	5 745		4.21		4.52
	5 785		3.97		4.28
	5 825		3.49		3.80

Band	Frequency (MHz)	Data Rate (Mbps)	Ant. 1 + Ant. 2 Average Power Result (dB m)	Antenna Gain (dB i)	Ant. 1 + Ant. 2 E.I.R.P. (dB m)
U-NII 1	5 180	MCS0	4.23	5.93	10.16
	5 220		4.32		10.25
	5 240		4.39		10.32
U-NII 1	5 745		4.52		10.45
	5 785		4.28		10.21
	5 825		3.80		9.73

Band	FCC Limit					
	Frequency (MHz)	Fixed Limit (dB m)	26 dB BW (MHz)	11+10LogB (dB m)	Antenna Gain (dB i)	Limit (dB m)
U-NII 1	5 180	23.98	/		5.93	23.98
	5 220					
	5 240					
U-NII 3	5 745	30				
	5 785					
	5 825					

Band	IC Limit					
	Frequency (MHz)	Fixed Limit (dB m)	99 % BW (MHz)	1.76+10LogB (dB m)	Antenna Gain (dB i)	Limit (dB m)
U-NII 1	5 180	14.77	17.887	14.29	5.93	14.29
	5 220		17.829	14.27		14.27
	5 240		17.887	14.29		14.29

Band	IC Limit					
	Frequency (MHz)	Fixed Limit (dB m)	99 % BW (MHz)	11+10LogB (dB m)	Antenna Gain (dB i)	Limit (dB m)
U-NII 3	5 745	30	/		5.93	30
	5 785					
	5 825					

Remark;

- Attenuator and cable offset was compensated in test program (R&S Power Viewer) before measuring.
- According to KDB 662911 D01 v02r01, average power of each port (Ant. 1+Ant. 2) and antenna gain was combined by using below calculation.
- Average power: $10 \log \{10^{(\text{Ant. 1 power} / 10)} + 10^{(\text{Ant. 2 power} / 10)}\}$
 Antenna gain: $10 \log \{[10^{(\text{Ant. 1 gain} / 20)} + 10^{(\text{Ant. 2 gain} / 20)}]^{2 / 2}\}$
- Average Power Result (dB m) = Average Power (dB m) + Duty Cycle Correction Factor (dB)
- E.I.R.P. (dB m) = Average Power Result (dB m) + Antenna Gain (dB i)
- Antenna Gain applied Final Antenna Gain reflecting permanently mounted cable losses in accordance with clause 1.18.

Test mode: 11ac_VHT40

Band	Frequency (MHz)	Data Rate (Mbps)	Ant. 1 Average Power (dB m)	Ant. 2 Average Power (dB m)	Ant. 1+Ant. 2 Average Power (dB m)
U-NII 1	5 190	MCS0	-0.99	0.66	2.92
	5 230		-0.97	0.84	3.04
U-NII 3	5 755		0.67	1.42	4.07
	5 795		0.03	1.31	3.73

Band	Frequency (MHz)	Data Rate (Mbps)	Ant. 1+Ant. 2 Average Power (dB m)	Duty Cycle Correction Factor (dB)	Ant. 1 + Ant. 2 Average Power Result (dB m)
U-NII 1	5 190	MCS0	2.92	0.62	3.54
	5 230		3.04		3.66
U-NII 3	5 755		4.07		4.69
	5 795		3.73		4.35

Band	Frequency (MHz)	Data Rate (Mbps)	Ant. 1 + Ant. 2 Average Power Result (dB m)	Antenna Gain (dB i)	Ant. 1 + Ant. 2 E.I.R.P. (dB m)
U-NII 1	5 190	MCS0	3.54	5.93	9.47
	5 230		3.66		9.59
U-NII 3	5 755		4.69		10.62
	5 795		4.35		10.28

Band	FCC Limit					
	Frequency (MHz)	Fixed Limit (dB m)	26 dB BW (MHz)	11+10LogB (dB m)	Antenna Gain (dB i)	Limit (dB m)
U-NII 1	5 190	23.98			5.93	23.98
	5 230					
U-NII 3	5 755	30			5.93	30
	5 795					

Band	IC Limit					
	Frequency (MHz)	Fixed Limit (dB m)	99 % BW (MHz)	1.76+10LogB (dB m)	Antenna Gain (dB i)	Limit (dB m)
U-NII 1	5 190	14.77	36.122	17.34	5.93	14.77
	5 230		36.122	17.34		

Band	IC Limit					
	Frequency (MHz)	Fixed Limit (dB m)	99 % BW (MHz)	11+10LogB (dB m)	Antenna Gain (dB i)	Limit (dB m)
U-NII 3	5 755	30			5.93	30
	5 795					

Remark;

1. Attenuator and cable offset was compensated in test program (R&S Power Viewer) before measuring.
2. According to KDB 662911 D01 v02r01, average power of each port (Ant. 1+Ant. 2) and antenna gain was combined by using below calculation.
3. Average power: $10 \log \{10^{(\text{Ant. 1 power} / 10)} + 10^{(\text{Ant. 2 power} / 10)}\}$
Antenna gain: $10 \log \left[\frac{10^{(\text{Ant. 1 gain} / 20)} + 10^{(\text{Ant. 2 gain} / 20)}}{2} \right]$
4. Average Power Result (dB m) = Average Power (dB m) + Duty Cycle Correction Factor (dB)
5. E.I.R.P. (dB m) = Average Power Result (dB m) + Antenna Gain (dB i)
6. Antenna Gain applied Final Antenna Gain reflecting permanently mounted cable losses in accordance with clause 1.18.