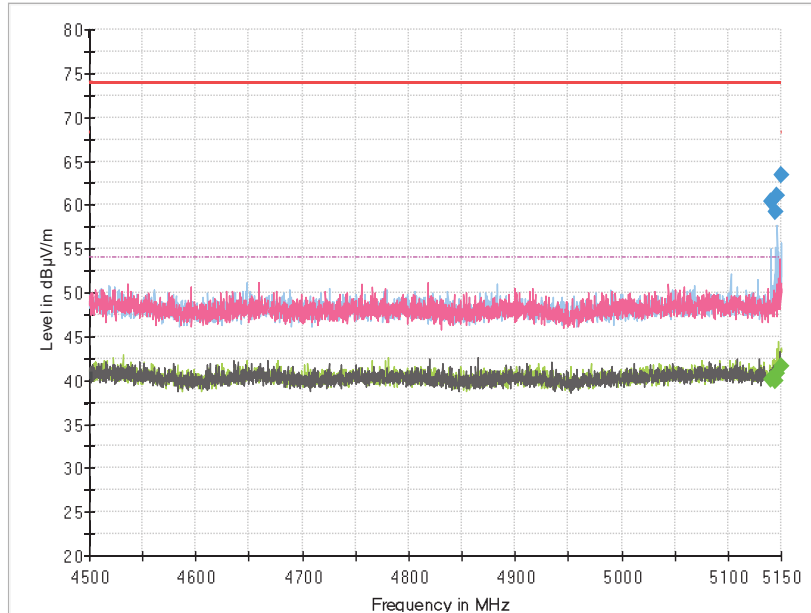
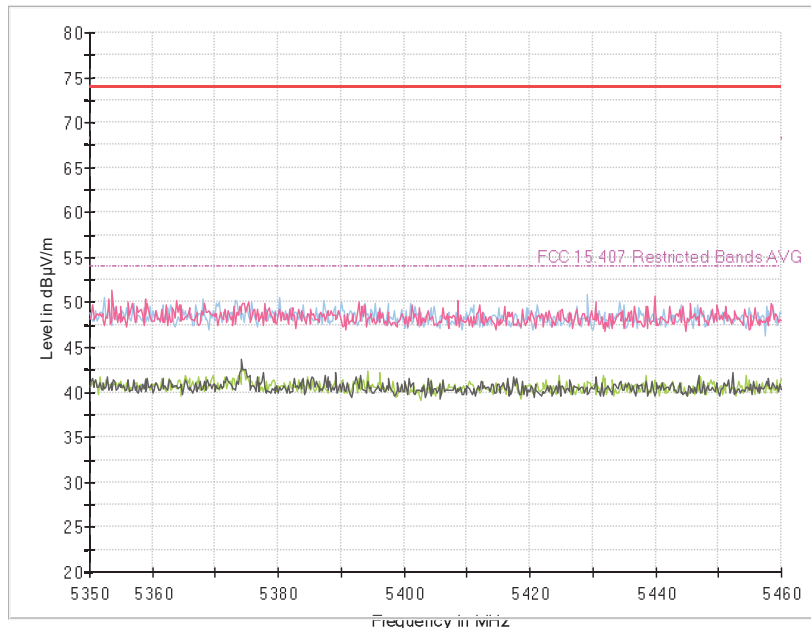


- **MIMO 802.11 ac40:**

- Lower Band Edge Channel 38 (Restricted Band 4.50-5.15 GHz)

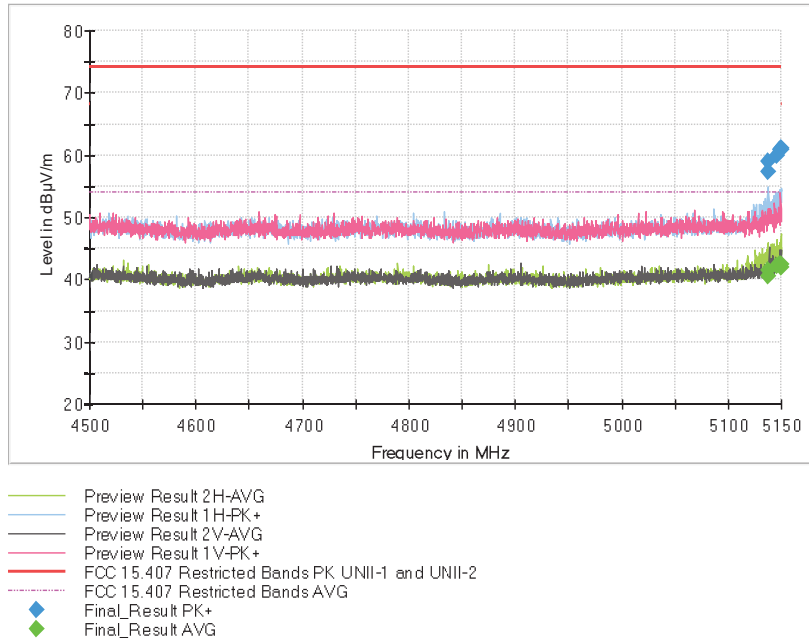


- Upper Band Edge Channel 46 (Restricted Band 5.35-5.46 GHz)

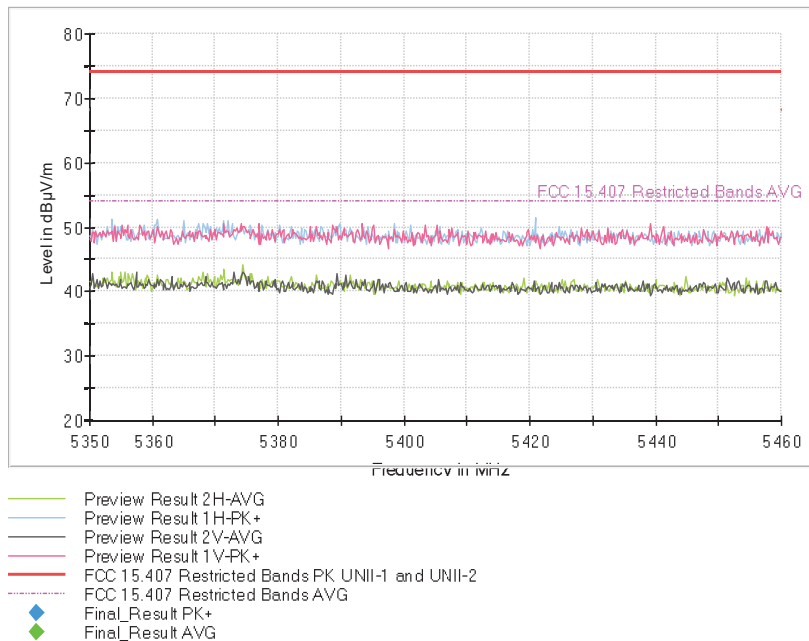


• **MIMO 802.11 ac80:**

- Lower Band Edge Channel 42 (Restricted Band 4.50-5.15 GHz)



- Upper Band Edge Channel 42 (Restricted Band 5.35-5.46 GHz)



Appendix C: Tests results for the U-NII-3 Band 5.725 – 5.85 GHz

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Transmitter Band Edge Radiated Emissions.139

TEST CONDITIONS

POWER SUPPLY:

V nominal: 12 Vdc
Type of Power Supply: DC External (Car Battery).

ANTENNAS:

Type of Antenna: External.

Maximum Declared Antenna Gain:

- SISO Antenna – WLAN1_CORE-0_Port3: +0.9 dBi
- MIMO Antennas – WLAN0_CORE-MIMO_Port1 & Port4:
 - Port1: +3.2 dBi
 - Port4: +2.3 dBi

Technology Tested:	WLAN (IEEE 802.11 a/n/ac): U-NII-3 band	
Modes:	802.11a: 6, 9, 12, 18, 24, 36, 48 & 54 Mbps	
	802.11n HT20: MCS0 to MCS7	
	802.11n HT40: MCS0 to MCS7	
	802.11ac VHT20: MCS0 to MCS8	
	802.11ac VHT40: MCS0 to MCS9	
	802.11ac VHT80: MCS0 to MCS9	
Setting of cores / ports:	3, 1+4.	
Beamforming:	No	
Frequency Range:	5725 MHz to 5850 MHz	
Channel Spacing:	20 MHz	
Transmit Channels	Channel	Channel Frequency (MHz)
	Low: 149	5745
	Middle: 157	5785
	High: 165	5825
Channel Spacing:	40 MHz	
Transmit Channels	Channel	Channel Frequency (MHz)
	Low: 151	5755
	High: 159	5795
Channel Spacing:	80 MHz	
Transmit Channels	Middle: 155	5775

The test set-up was made in accordance to the general provisions of FCC Unlicensed National Information Infrastructure (U-NII) Devices 789033 D02 General U-NII Test Procedures New Rules v02r01 dated Dec 14, 2017.

The EUT was tested in the following operating mode:

- Continuously transmitting with a modulated carrier at maximum power in all required channels using the supported data rates/modulations types.

The field strength at the band edges was evaluated for each mode individually on the lowest and highest channels at the rated power for the channel under test.

For all modes, the EUT was configured in test mode using a software application. The application was used to enable a continuous transmission and to select the test channels as required. The client supplied scripts to configure the EUT. The customer supplied a document containing the setup instructions.

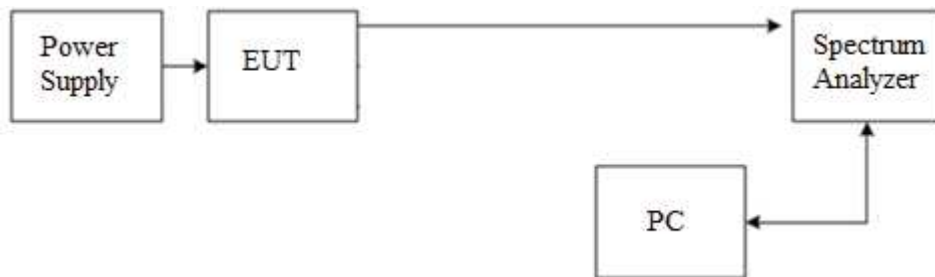
The worst cases for testing were identified for output power and spurious levels at the band edges which were selected based on preliminary testing that correspond to next data rates:

- 802.11a20: 6 Mbits
- 802.11n HT20: MCS0
- 802.11n HT40: MCS0
- 802.11ac VHT20: MCS0
- 802.11ac VHT40: MCS0
- 802.11ac VHT80: MCS0

CONDUCTED MEASUREMENTS:

The equipment under test was set up in a shielded room and connected to the spectrum analyzer using a low loss RF cable. The reading in the spectrum analyzer is corrected taking into account the internal and external RF cable loss.

For all modes:



The DC supply voltage is applied using an external power supply.

RADIATED MEASUREMENTS:

All radiated tests were performed in a semi-anechoic chamber. The measurement antenna (Bilog antenna for the range between 30 MHz to 1000 MHz) and 1 GHz-18 GHz Double ridge horn antenna is situated at a distance of 3 m and a distance of 1 m for the frequency range 17 GHz-40 GHz (18 GHz-40 GHz horn antenna).

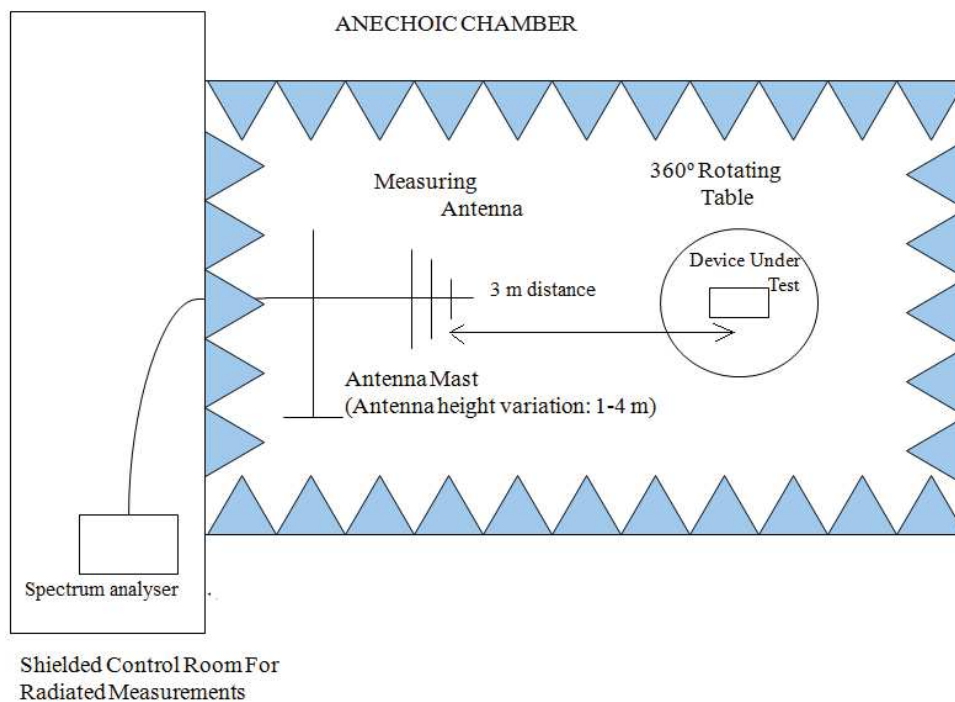
For radiated emissions in the range 17 GHz-40 GHz that is performed at a distance closer than the specified distance, an inverse proportionality factor of 20 dB per decade is used to normalize the measured data for determining compliance.

The equipment under test was set up on a non-conductive platform above the ground plane and the situation and orientation was varied to find the maximum radiated emission. It was also rotated 360° and the antenna height (Bilog antenna and Double ridge horn antenna) was varied from 1 to 4 meters to find the maximum radiated emission.

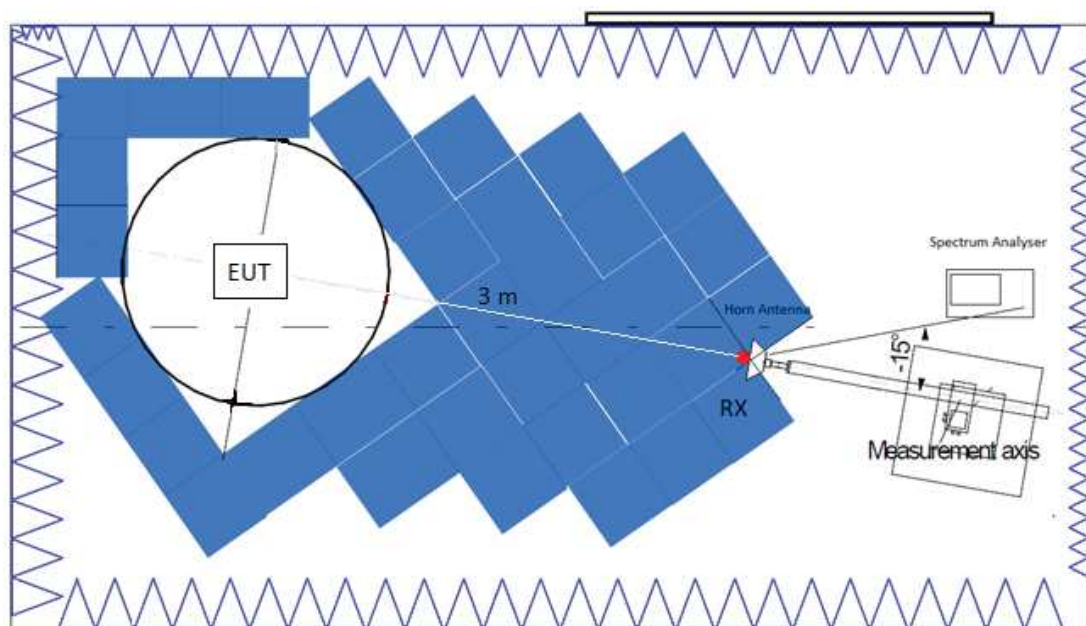
Measurements were made in both horizontal and vertical planes of polarization.

The final measured value, for the given emission, in the tables below incorporates the calibrated antenna factor and cable loss.

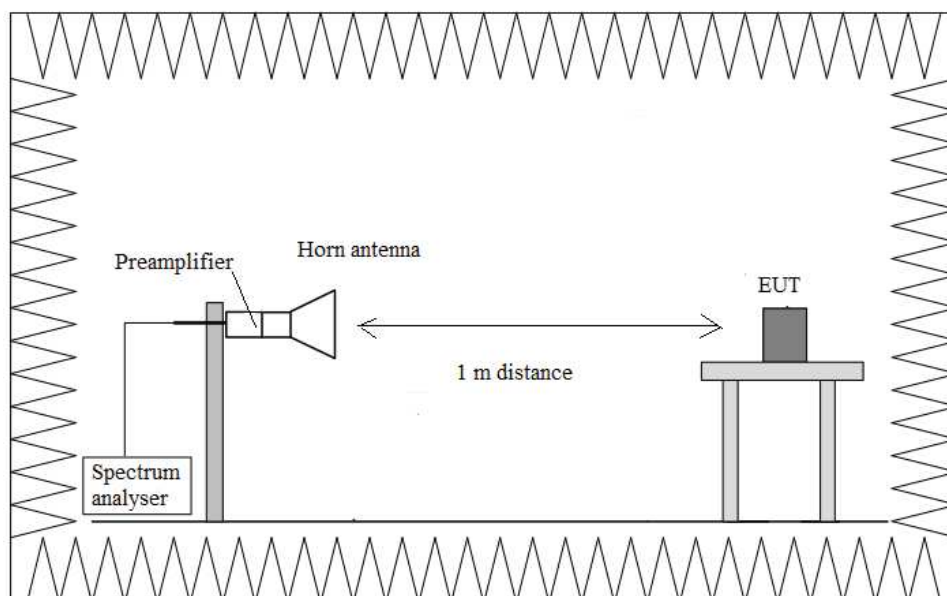
Radiated measurements setup $f < 1$ GHz:



Radiated measurements setup from 1 GHz to 17 GHz:



Radiated measurements setup $f > 17$ GHz up to 40 GHz:



FCC 15.407 (e) / RSS-247 6.2.4.1. 6 dB Bandwidth

SPECIFICATION:

The minimum 6 dB bandwidth shall be at least 500 kHz.

RESULTS:

The following modes and data rates were selected based on preliminary testing that identified those corresponding to the worst cases:

- 802.11a20: 6 Mbits
- 802.11n HT20: MCS0
- 802.11n HT40: MCS0
- 802.11ac VHT80: MCS0

- Preliminary tests determined the SISO worst case: WLAN1_CORE-0_Port3.

SISO worst case:

SISO 802.11 a20:

	Low Channel 149 (5745 MHz)	Middle Channel 157 (5785 MHz)	High Channel 165 (5825 MHz)
6 dB Bandwidth (MHz)	16.32383	16.308	16.332
Measurement uncertainty (kHz)	<±23.02		

SISO 802.11 n20 (HT20):

	Low Channel 149 (5745 MHz)	Middle Channel 157 (5785 MHz)	High Channel 165 (5825 MHz)
6 dB Bandwidth (MHz)	17.54383	17.296	17.576
Measurement uncertainty (kHz)	<±23.02		

SISO 802.11 ac20 (VHT20):

	Low Channel 149 (5745 MHz)	Middle Channel 157 (5785 MHz)	High Channel 165 (5825 MHz)
6 dB Bandwidth (MHz)	17.33583	17.316	17.568
Measurement uncertainty (kHz)	<±23.02		

SISO 802.11 n40 (HT40):

	Low Channel 151 (5755 MHz)	High Channel 159 (5795 MHz)
6 dB Bandwidth (MHz)	35.72474	35.736
Measurement uncertainty (kHz)	<±53.05	

SISO 802.11 ac40 (VHT40):

	Low Channel 151 (5755 MHz)	High Channel 159 (5795 MHz)
6 dB Bandwidth (MHz)	35.73274	35.736
Measurement uncertainty (kHz)	<±53.05	

SISO 802.11 ac80 (VHT80):

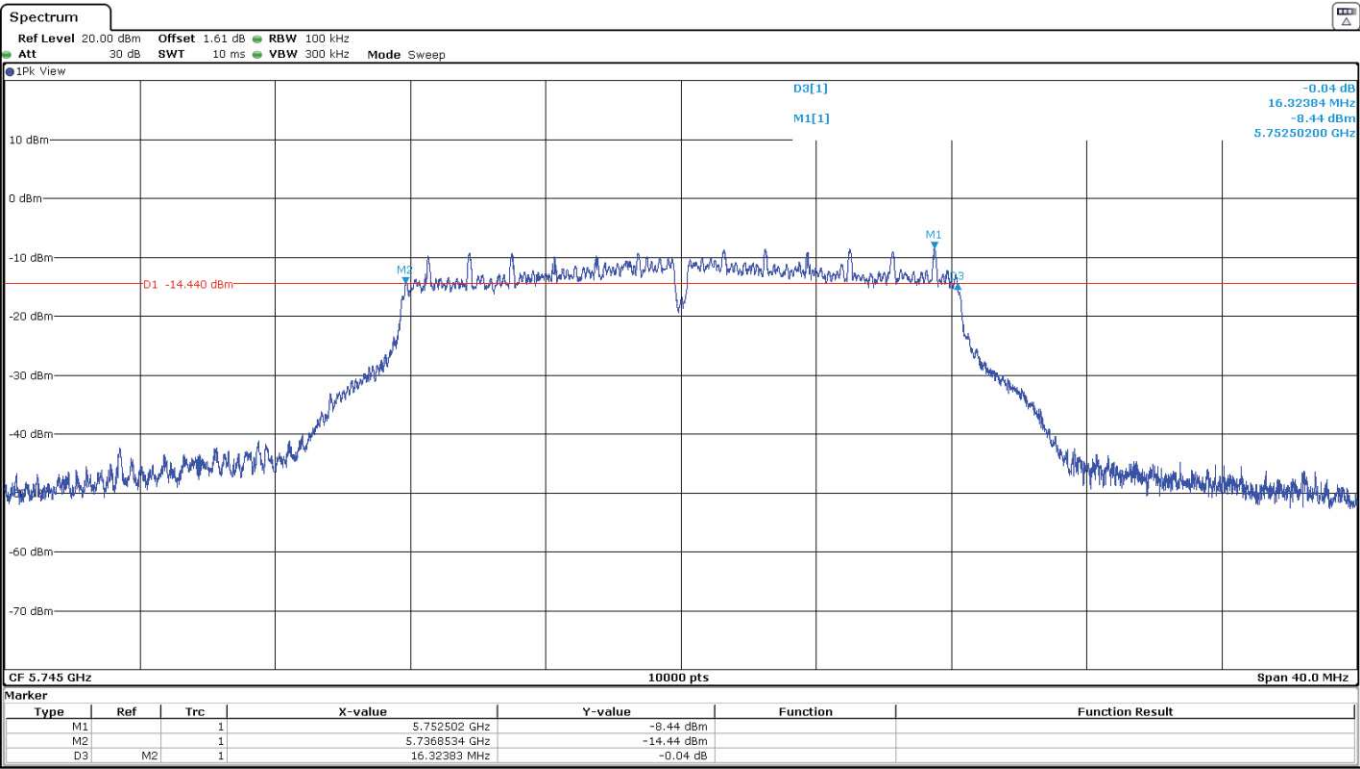
	Single Channel 155 (5775 MHz)
6 dB bandwidth (MHz)	75.128
Measurement uncertainty (kHz)	<±103.10

Verdict: PASS

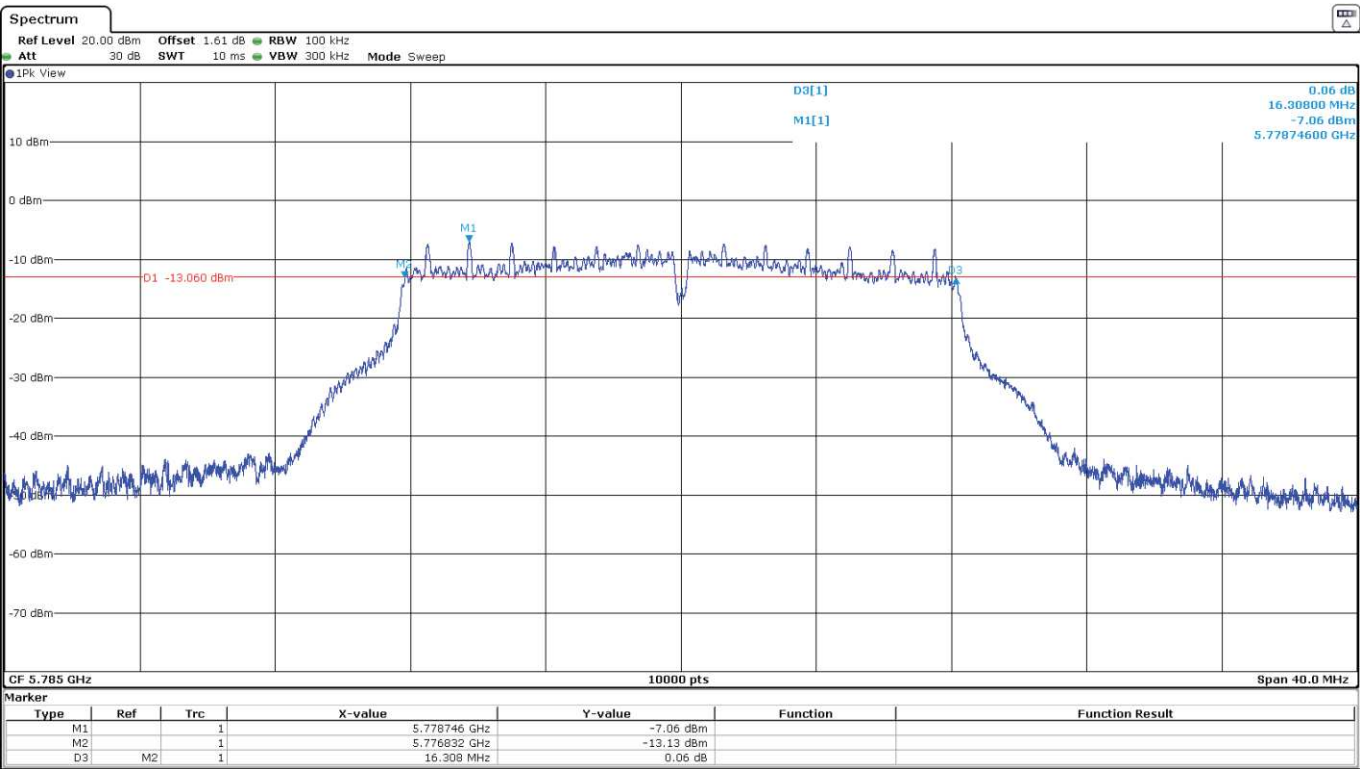
SISO worst case:

SISO 802.11 a20:

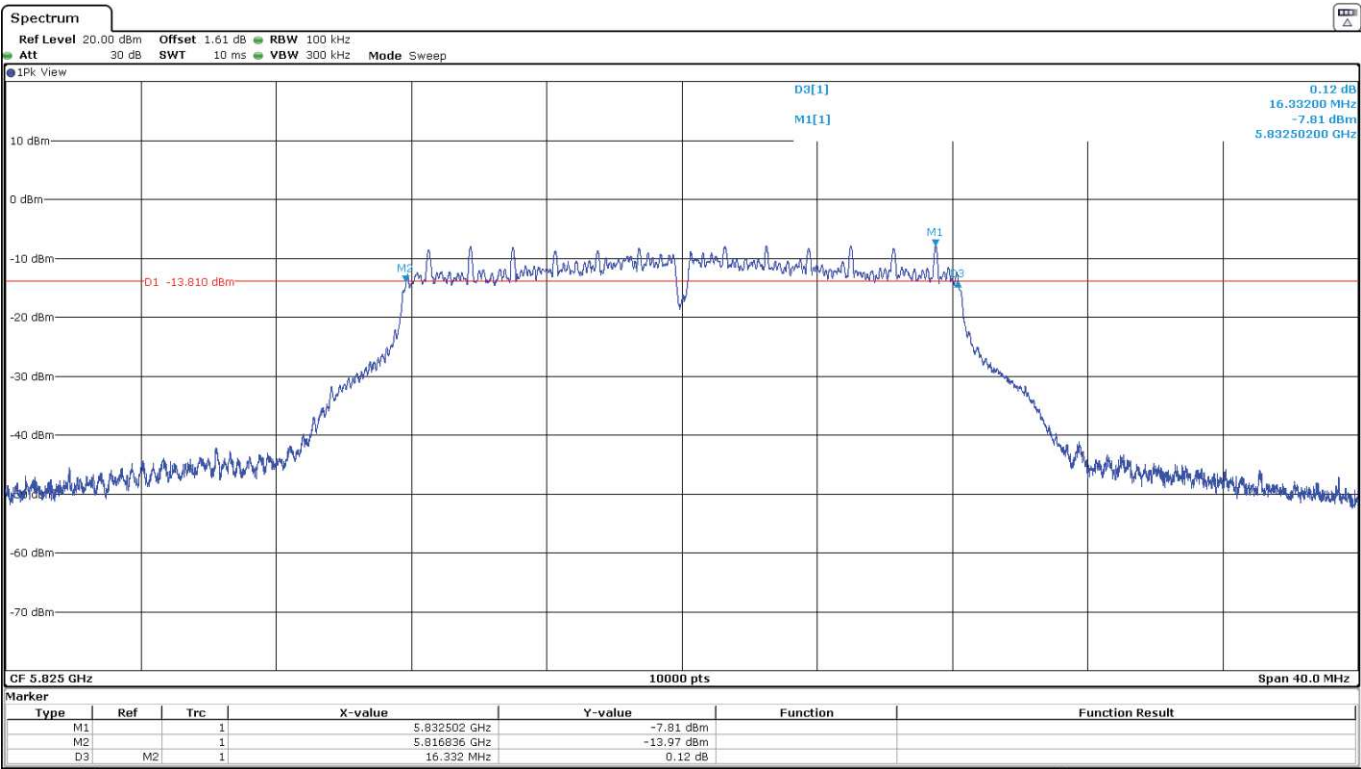
- Low Channel 149:



- Middle Channel 157:

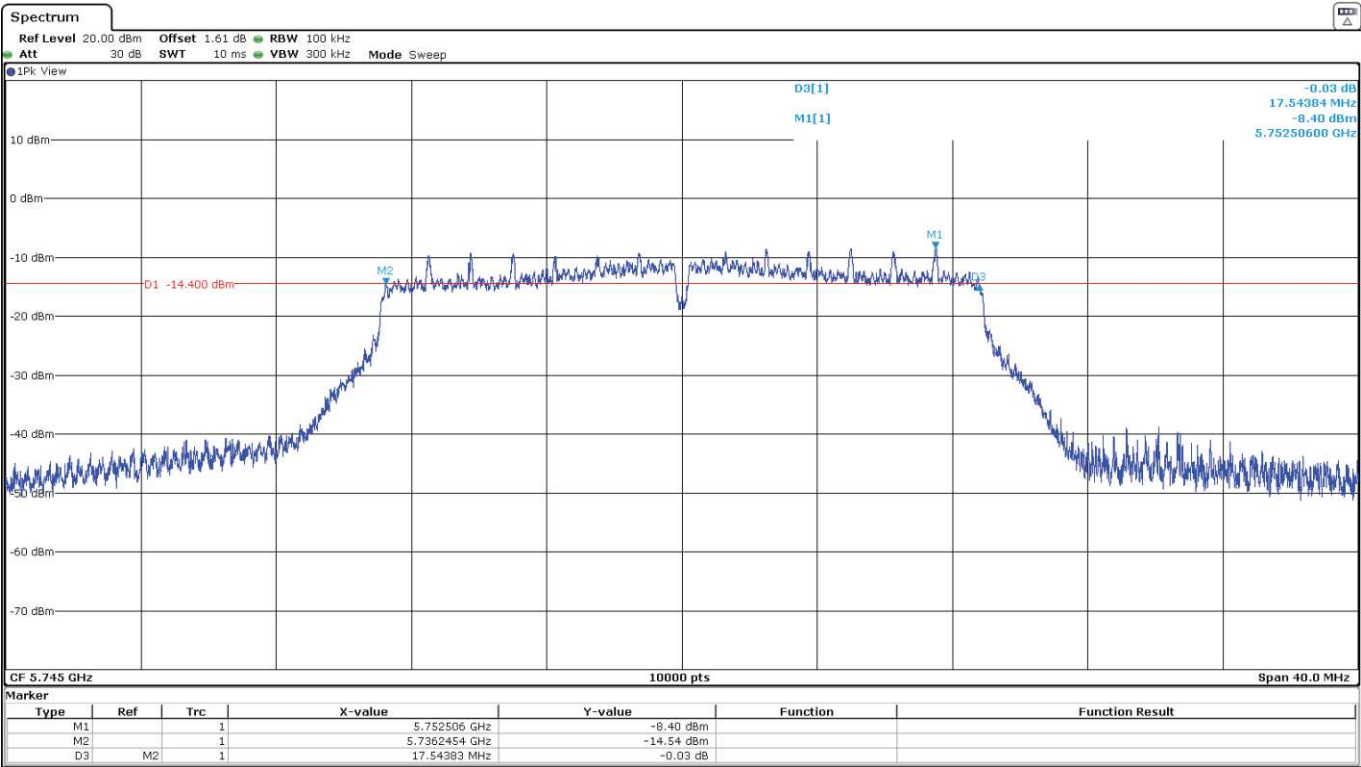


- High Channel 165:

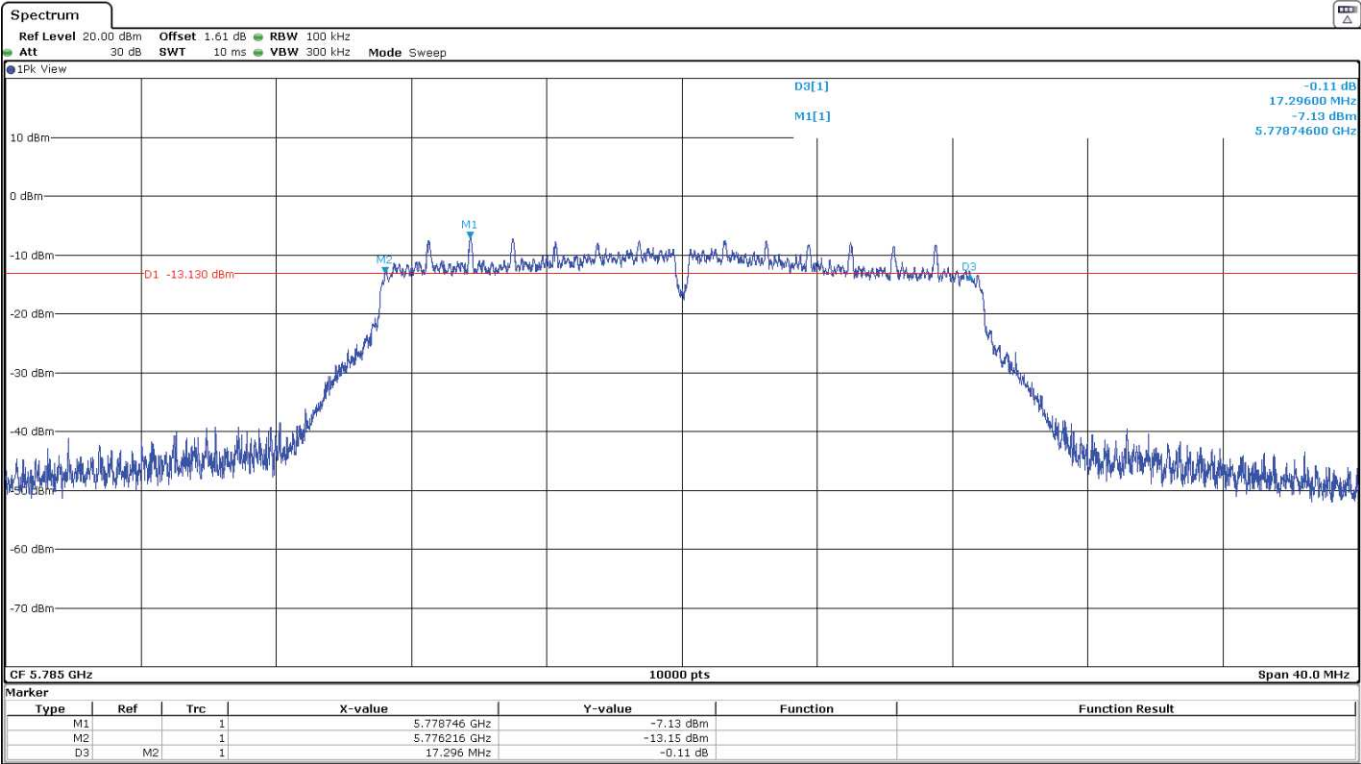


SISO 802.11 n20 (HT20):

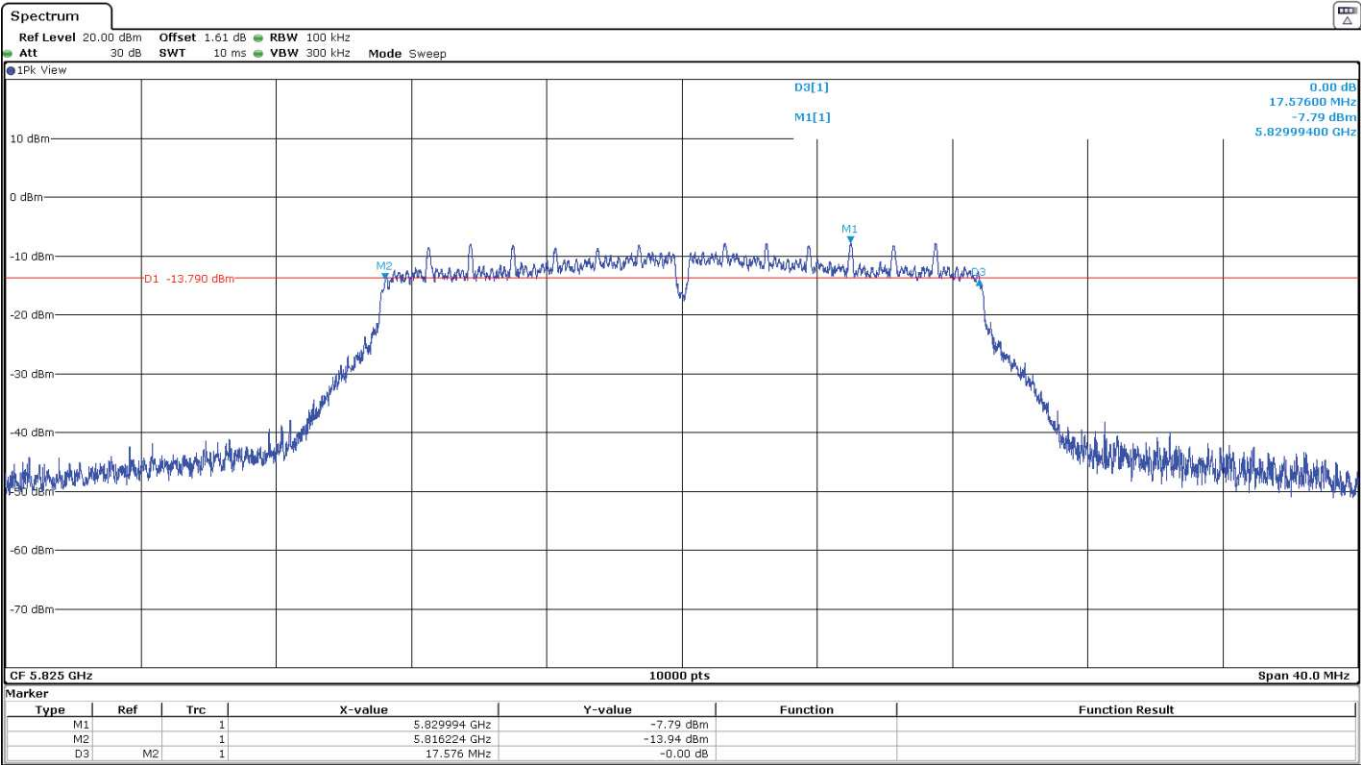
- Low Channel 149:



- Middle Channel 157:

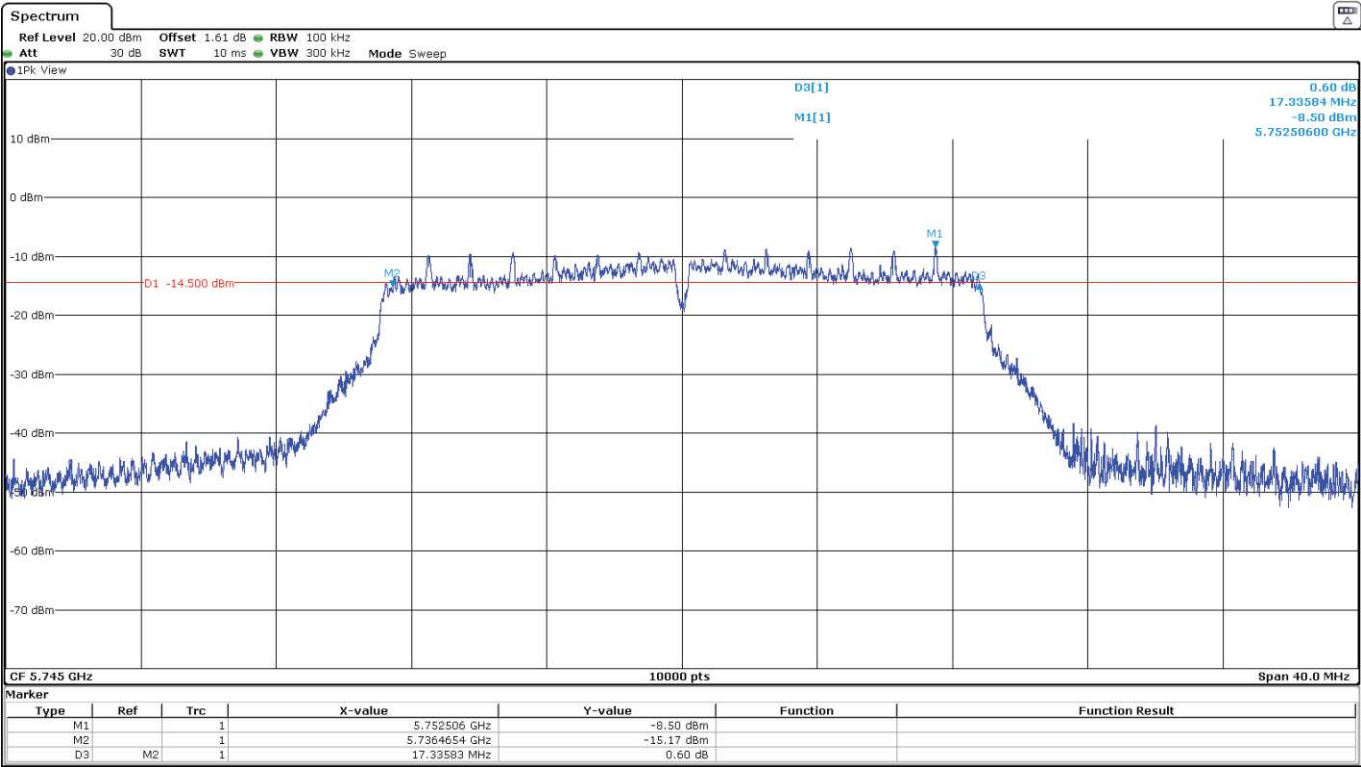


- High Channel 165:

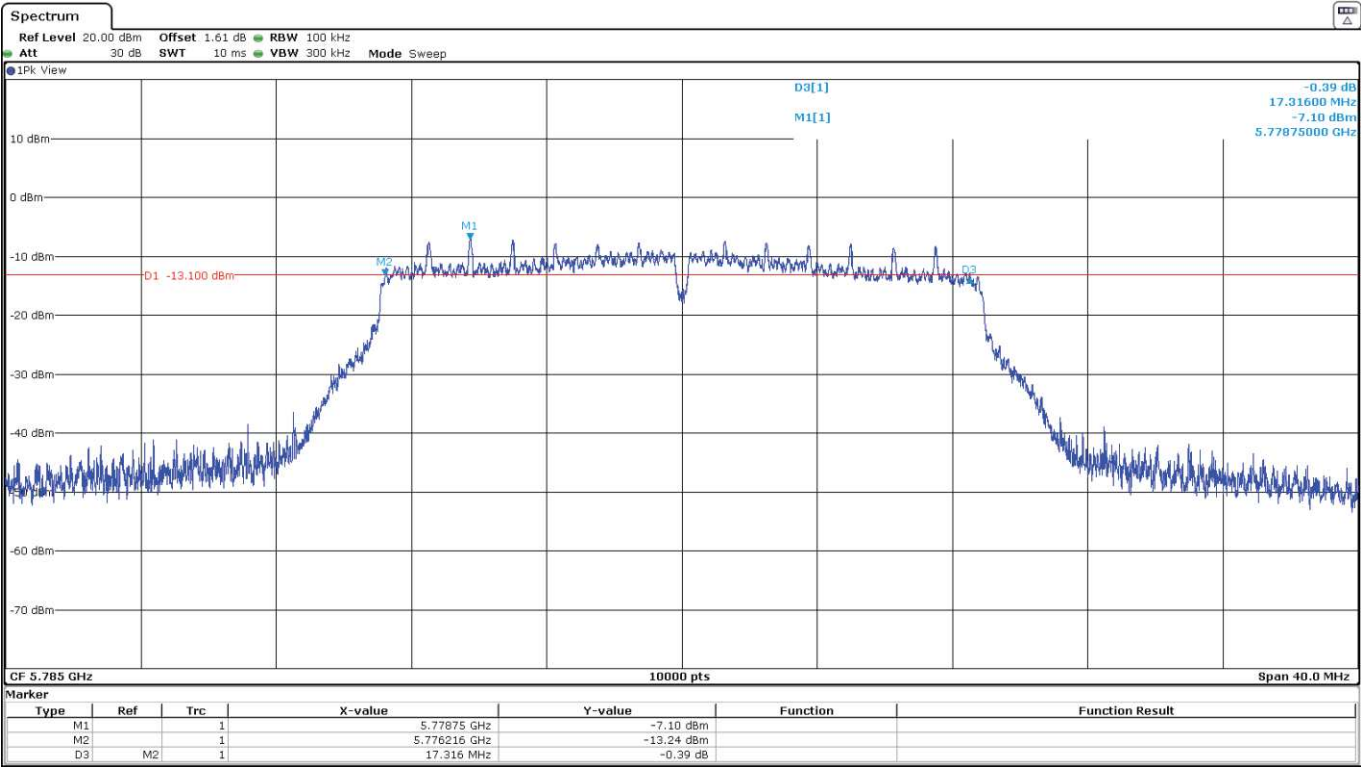


SISO 802.11 ac20 (VHT20):

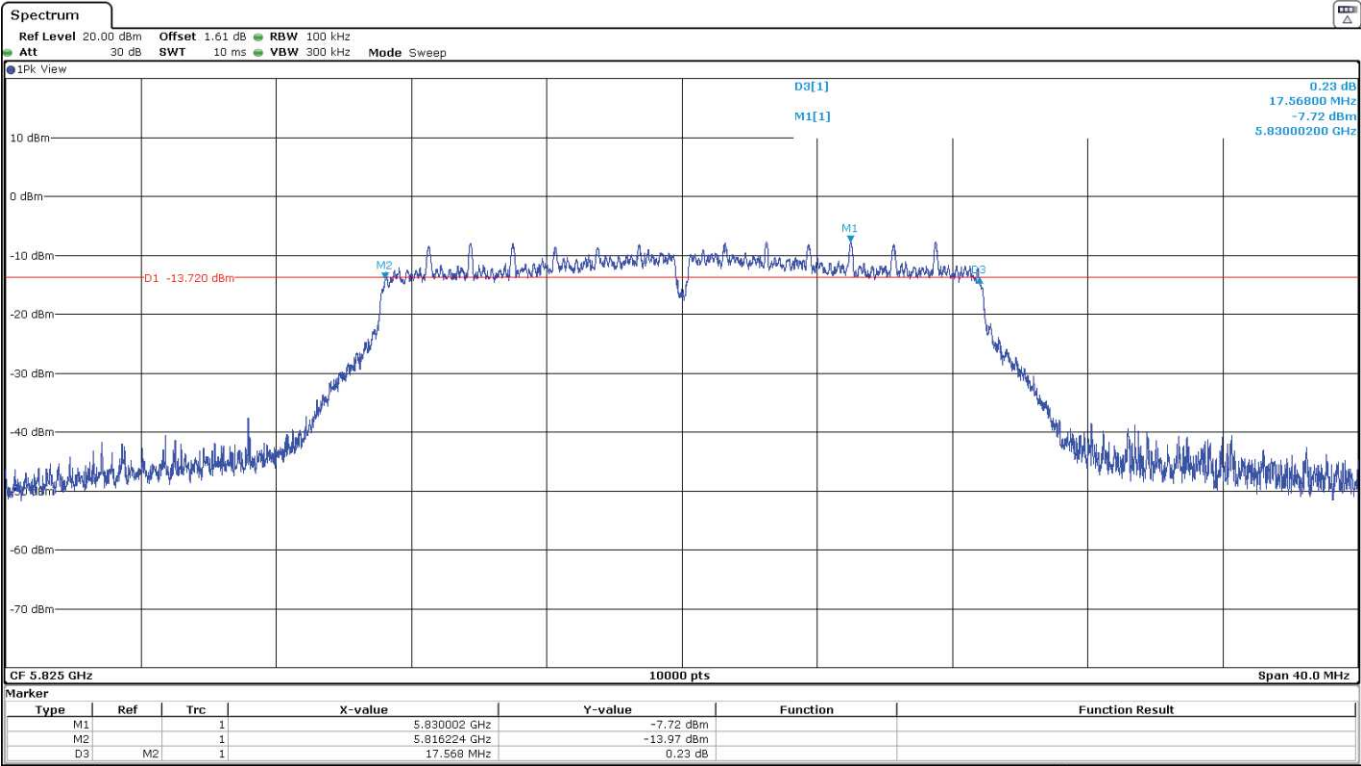
- Low Channel 149:



- Middle Channel 157:

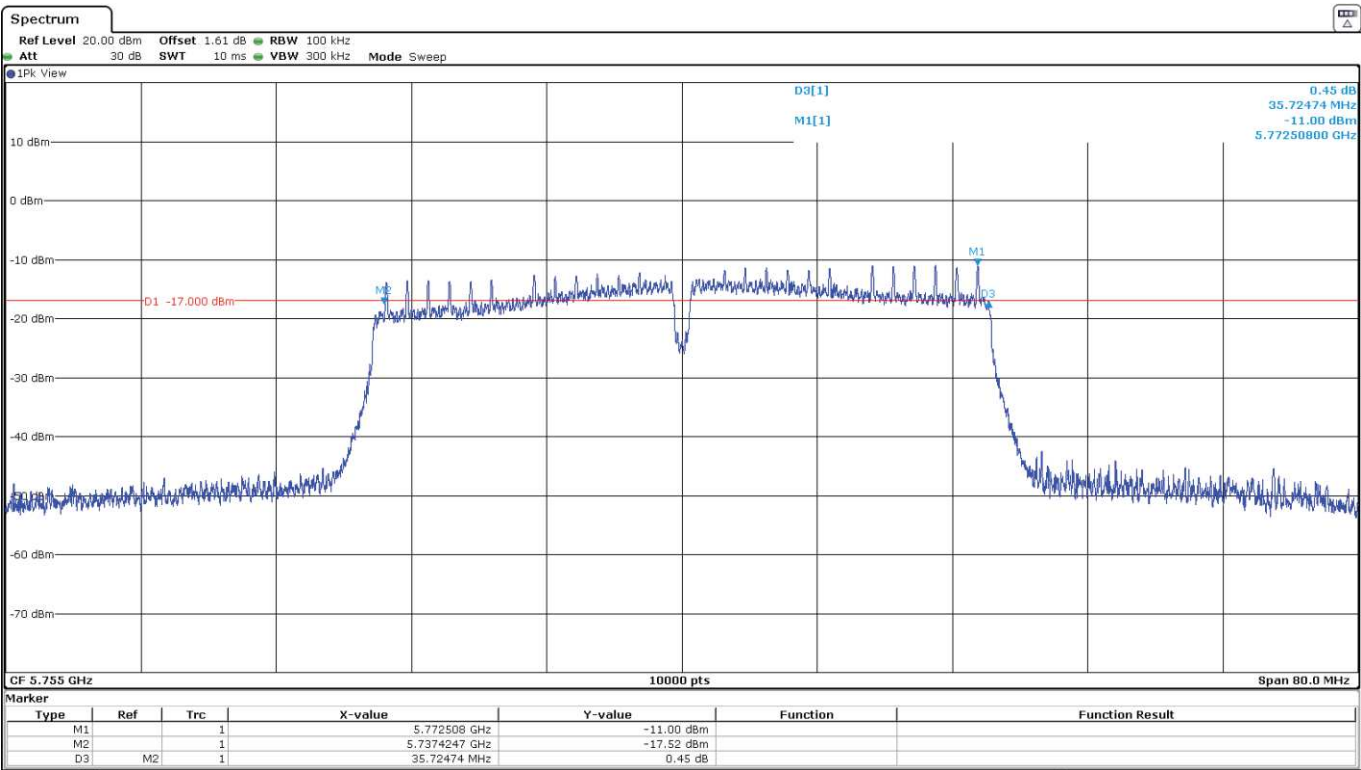


- High Channel 165:

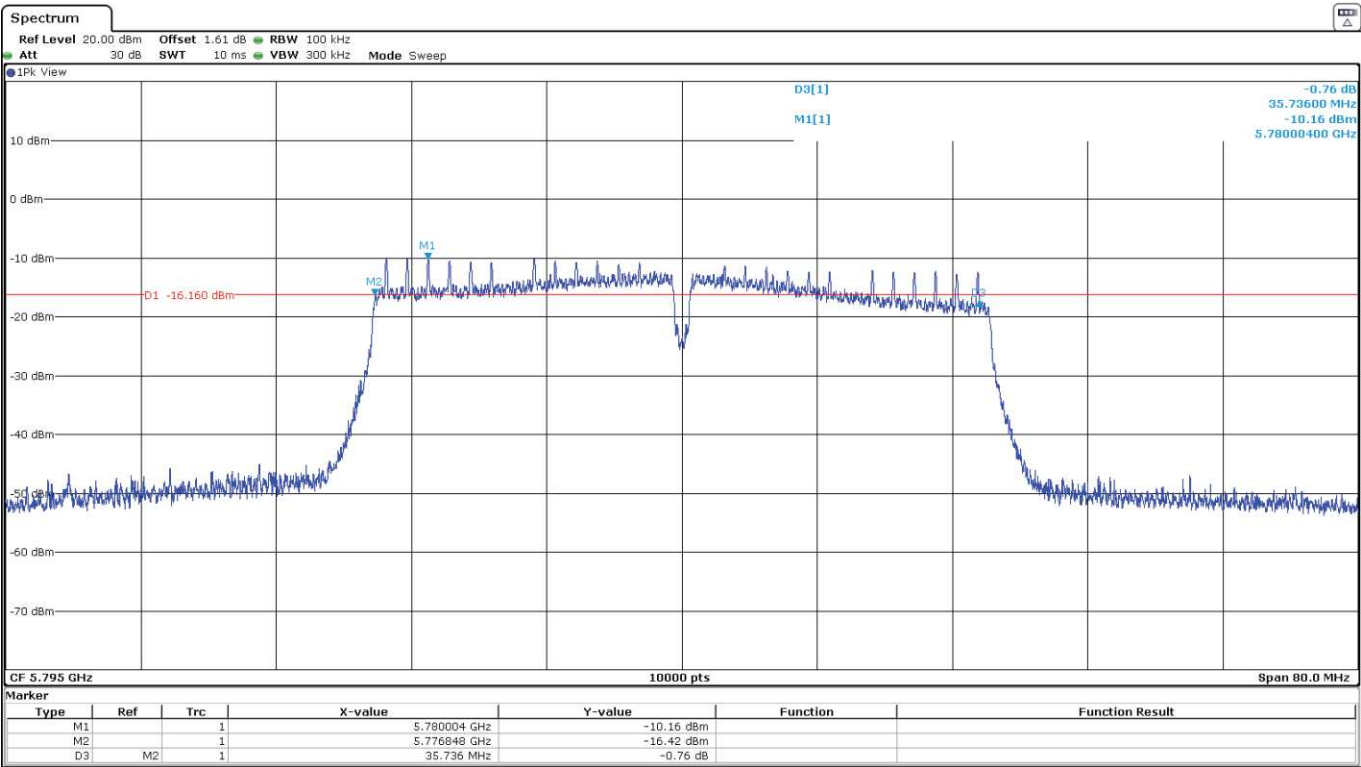


SISO 802.11 n40 (HT40):

- Low Channel 151:

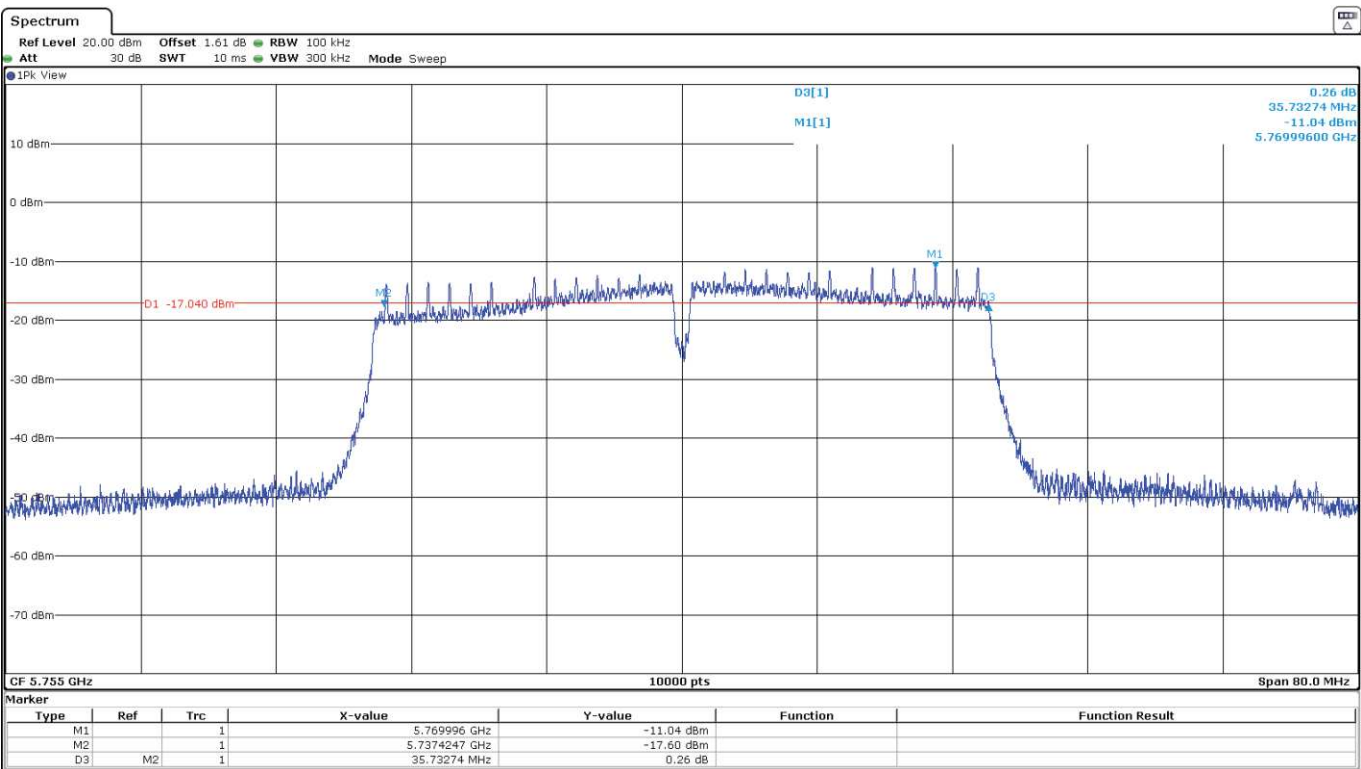


- High Channel 159:

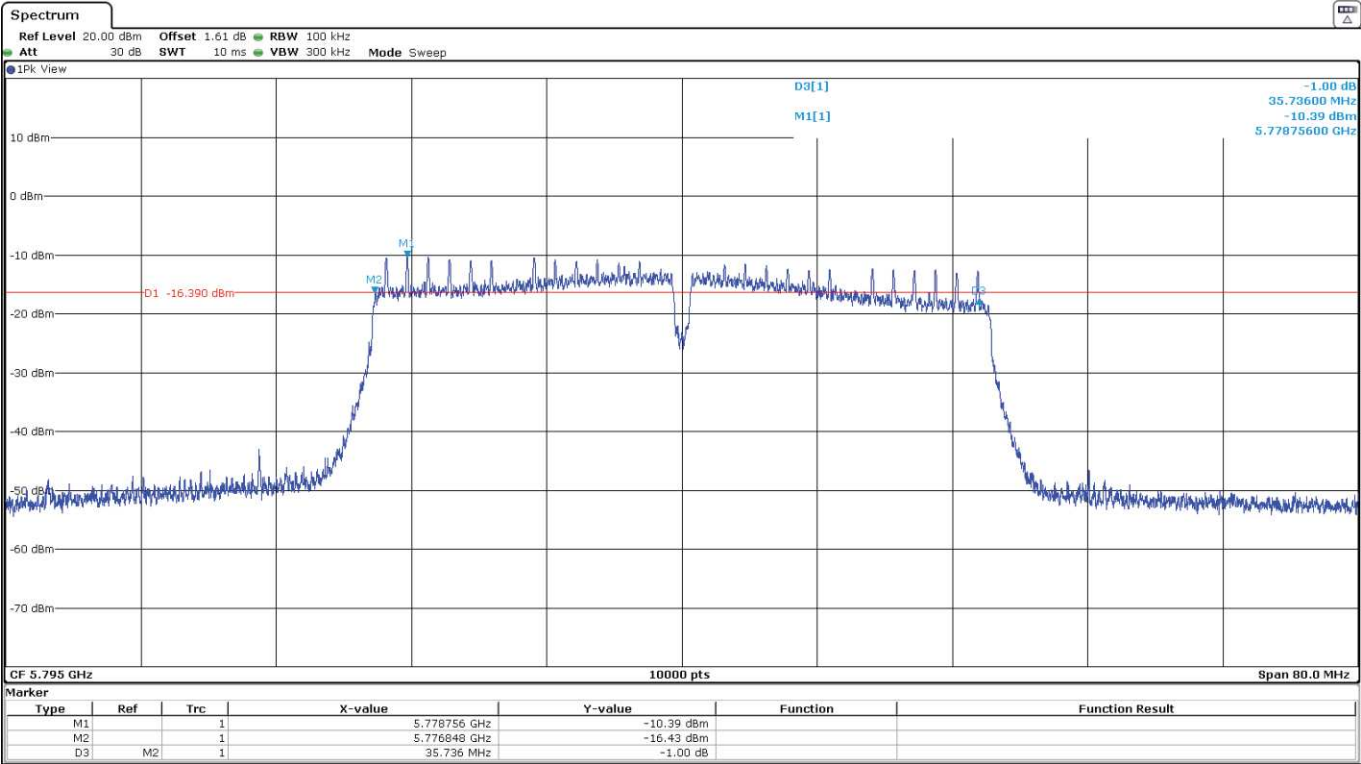


SISO 802.11 ac40 (VHT40):

- Low Channel 151:

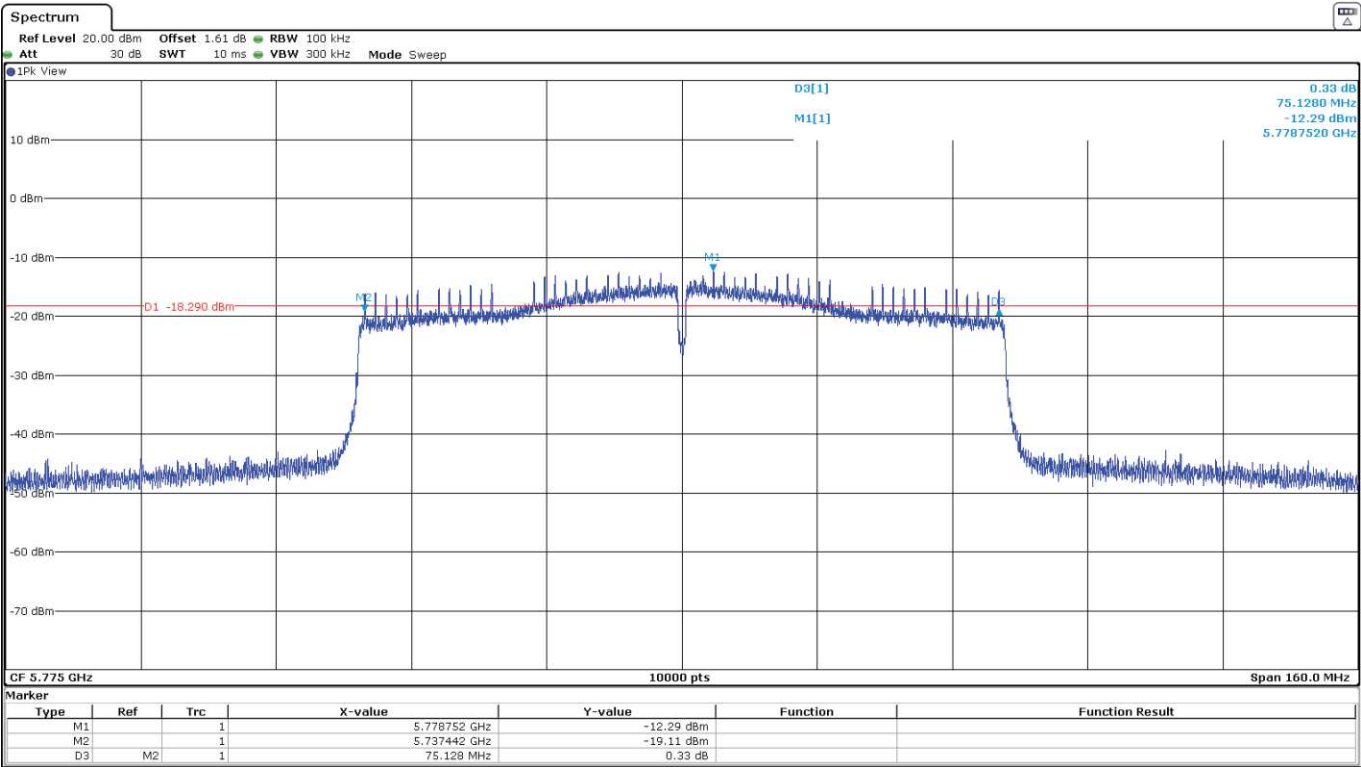


- High Channel 159:



SISO 802.11 ac80 (VHT80):

- Single Channel 155:



MIMO worst case:

MIMO 802.11 ac20 (VHT20):

Channels	Low Channel 149 (5745 MHz)		Middle Channel 157 (5785 MHz)		High Channel 165 (5825 MHz)	
	WLAN0_CORE- MIMO_Port1	WLAN0_CORE -MIMO_Port4	WLAN0_CORE -MIMO_Port1	WLAN0_CORE -MIMO_Port4	WLAN0_CORE -MIMO_Port1	WLAN0_CORE -MIMO_Port4
6 dB Bandwidth (MHz)	17.5421	17.5821	17.5394	17.5674	17.3073	16.9633
Measurement uncertainty (kHz)	<±23.02					

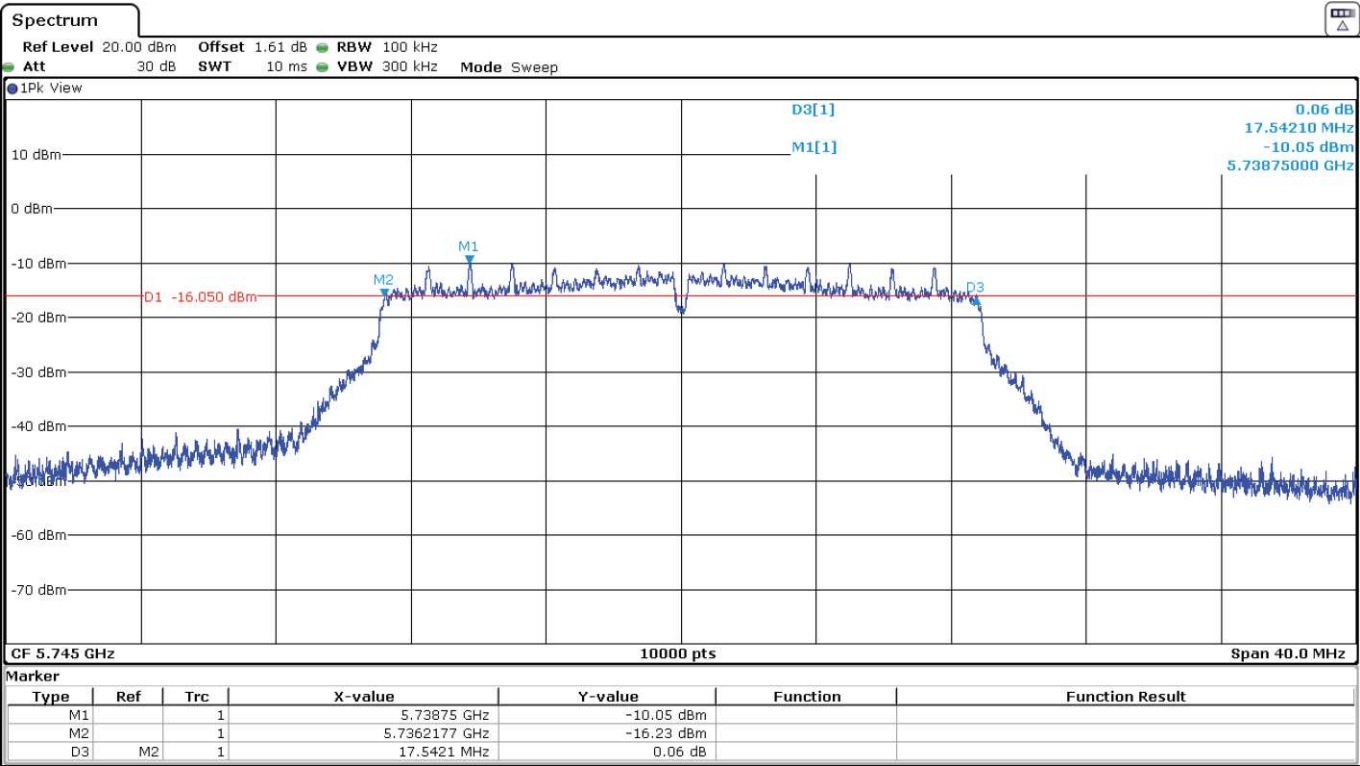
Verdict: PASS

MIMO worst case:

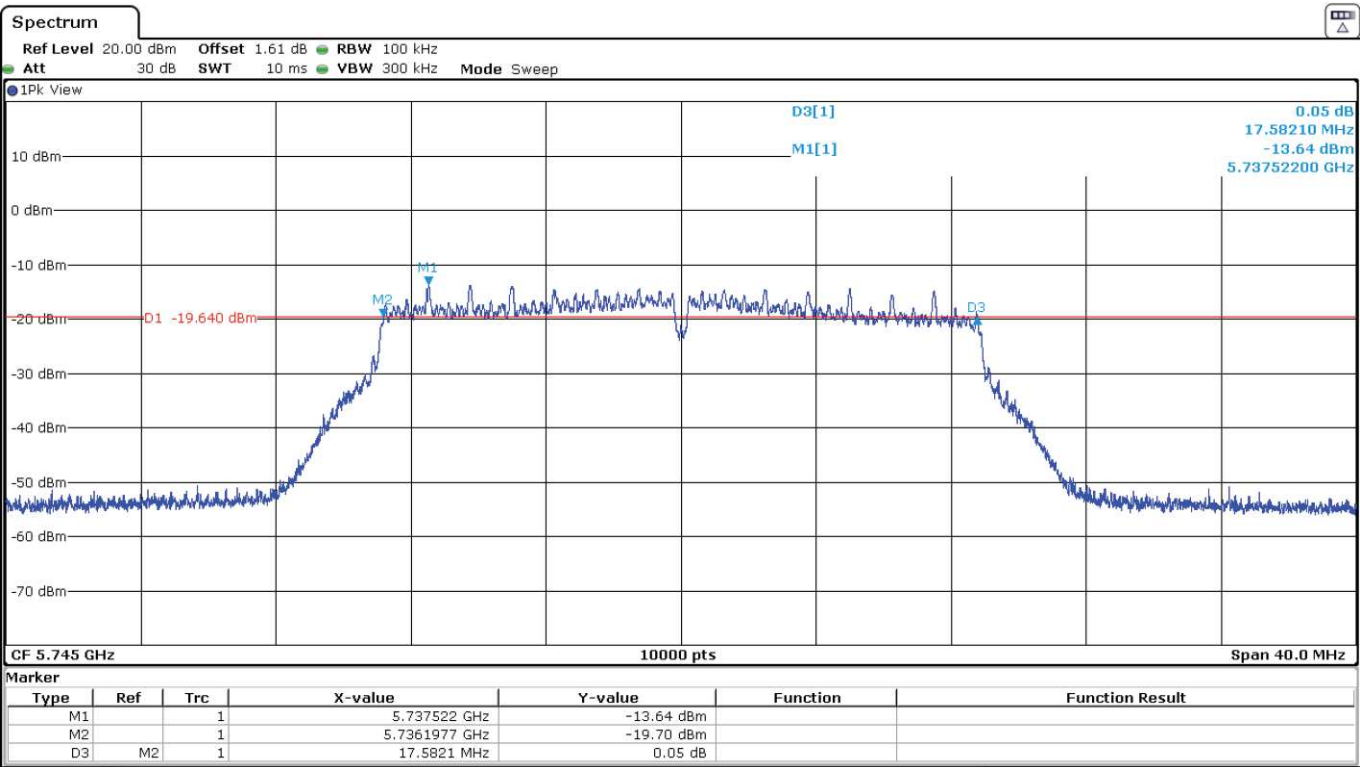
Mode 802.11 ac20 (VHT20):

- Low Channel 149 (5745 MHz):

Port 1 Antenna

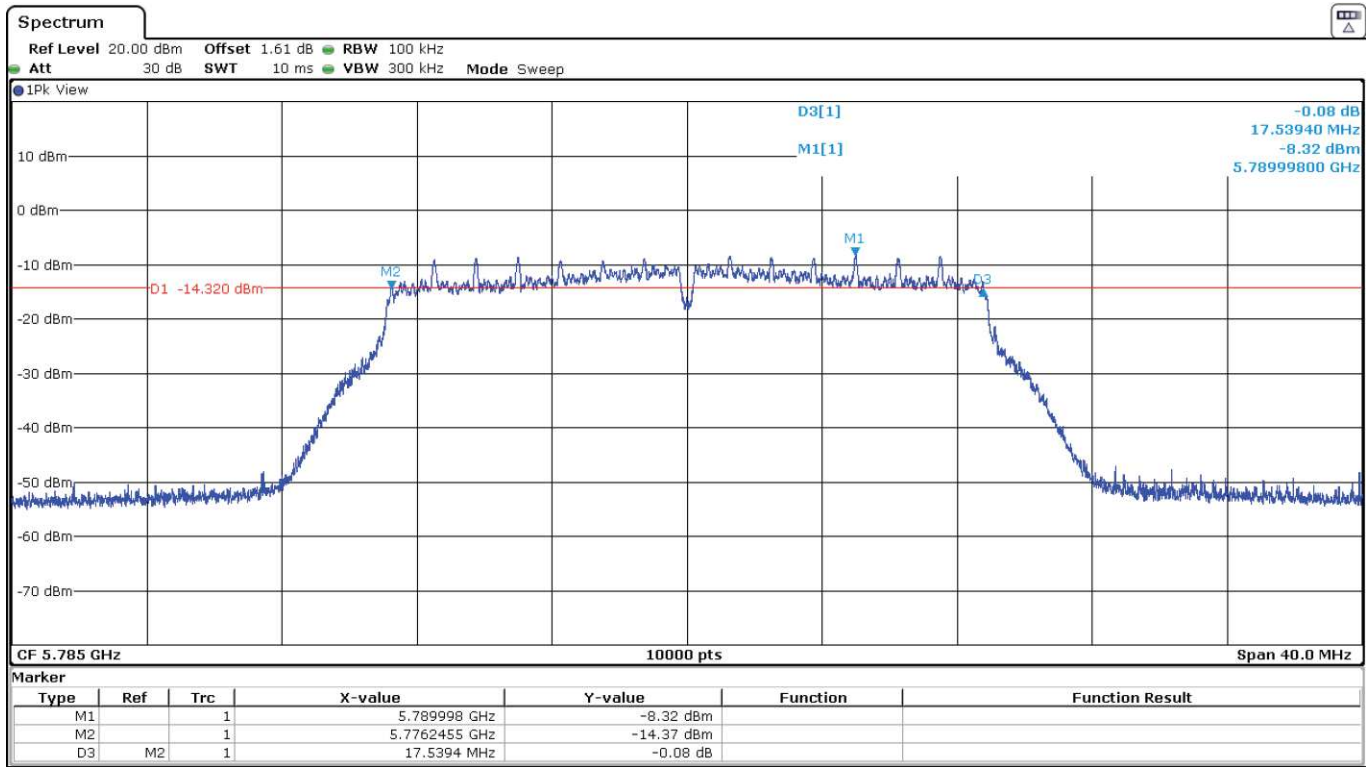


Port 4 Antenna

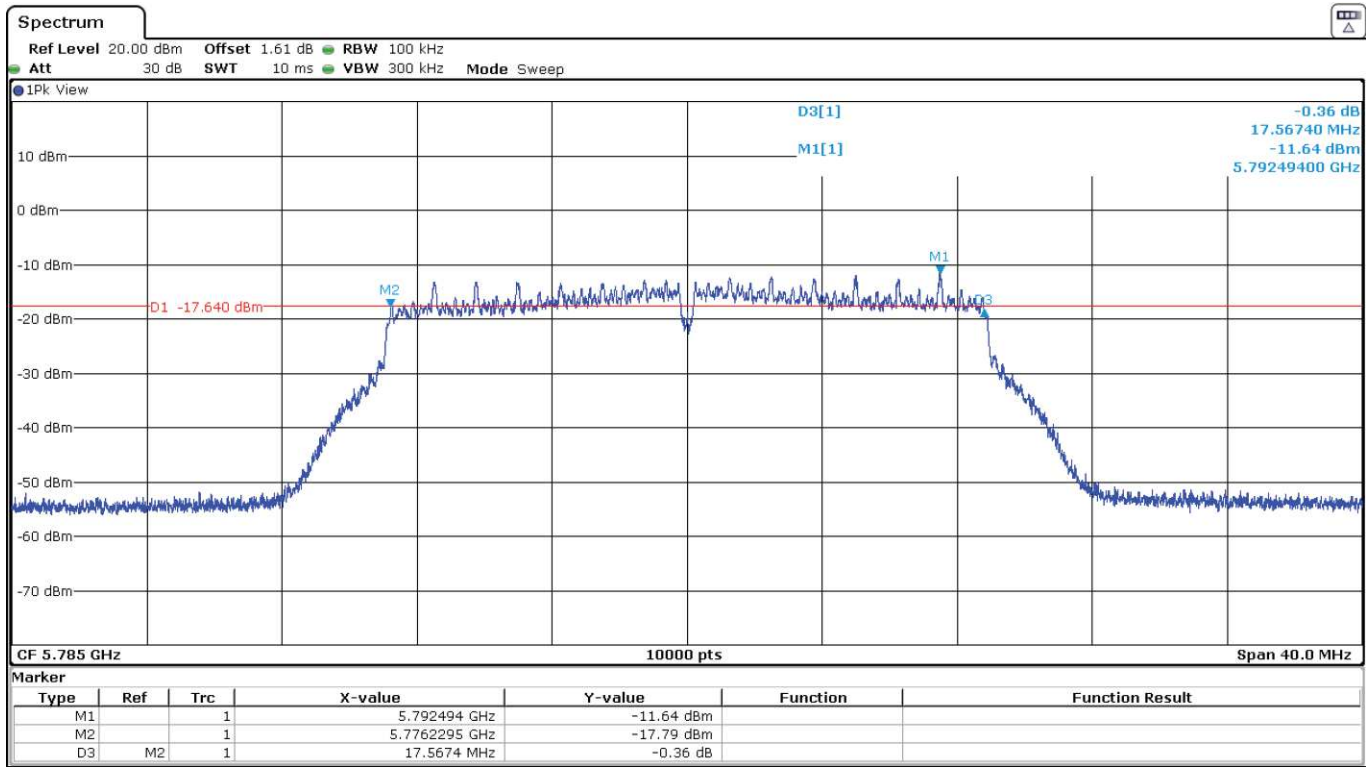


- Middle Channel 157 (5785 MHz):

Port 1 Antenna

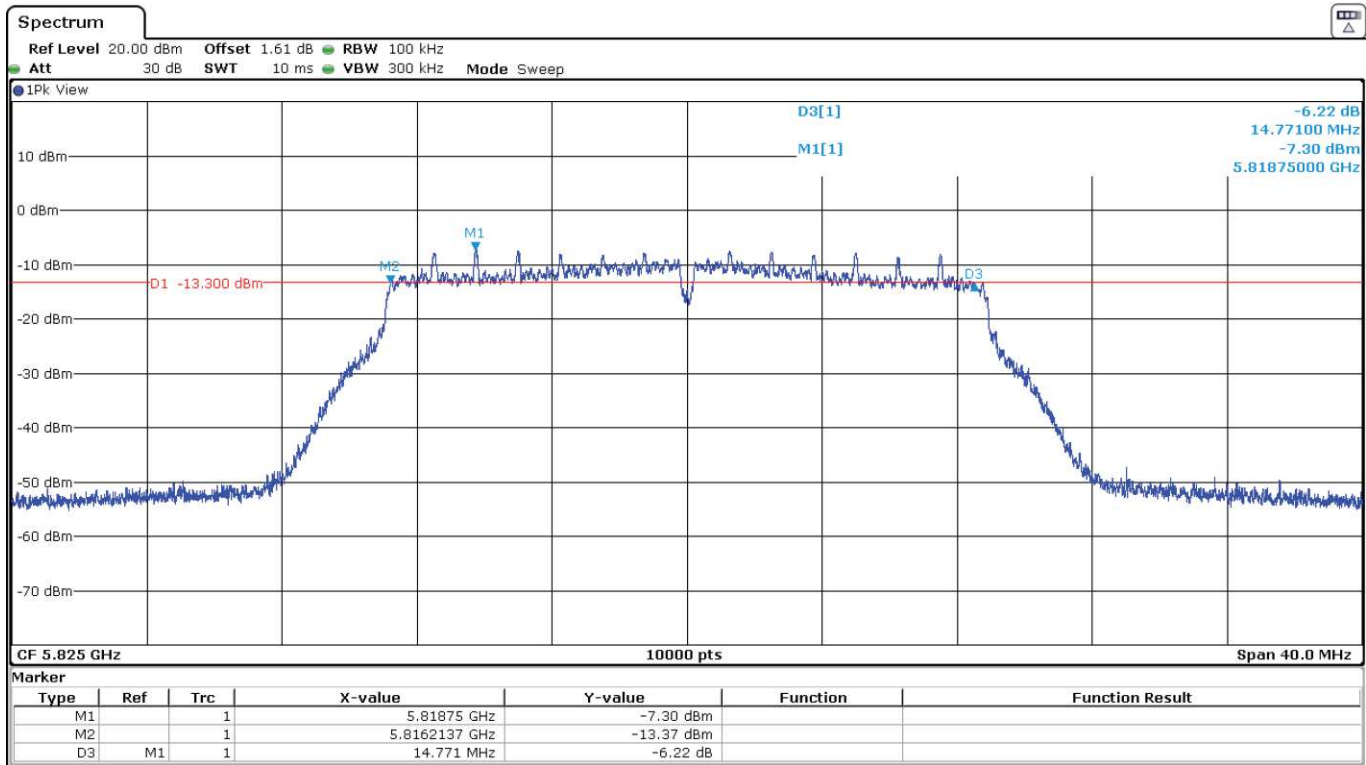


Port 4 Antenna

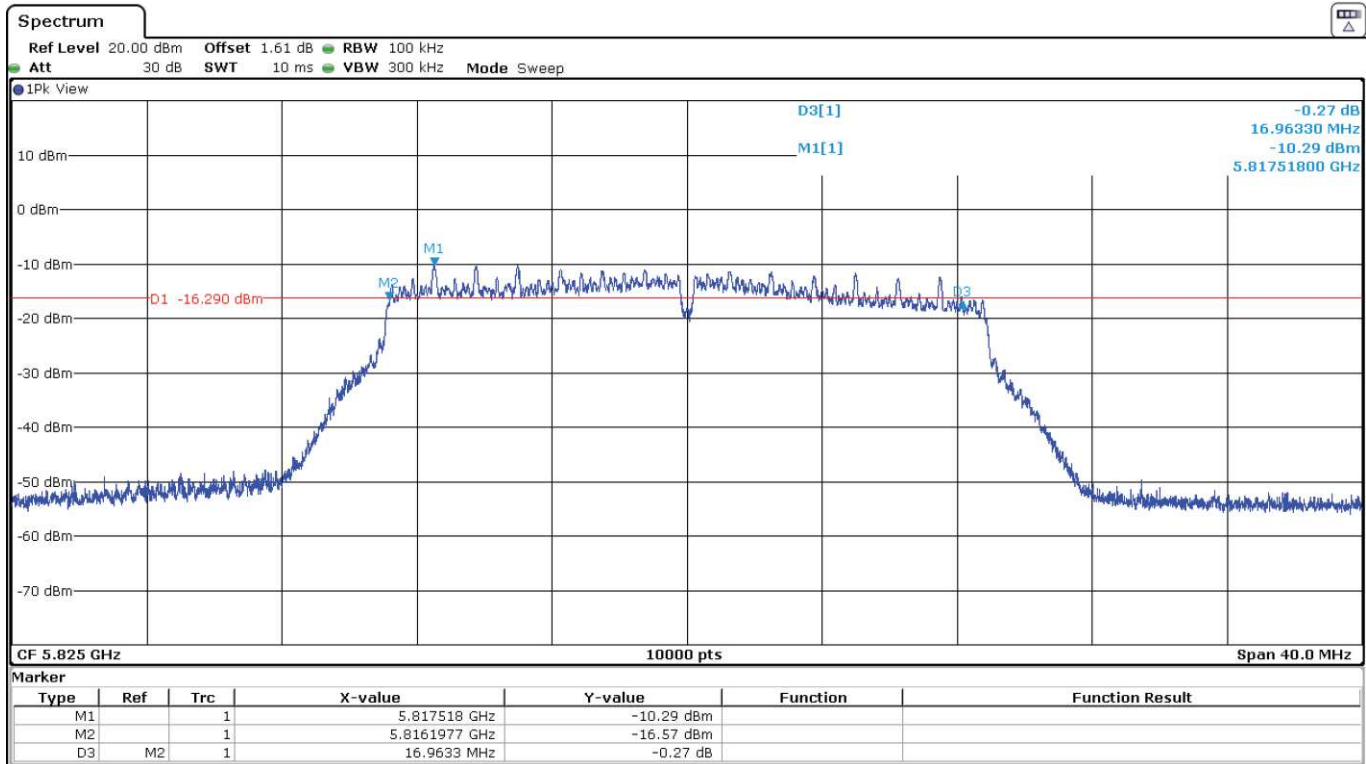


- High Channel 165 (5825 MHz):

Port 1 Antenna



Port 4 Antenna



FCC 15.407 (a)(3) / RSS-247 6.2.4.1. Maximum Conducted Output Power

SPECIFICATION:

FCC 15.407 / RSS-247: For the band 5.725-5.850 GHz, the maximum conducted output power over the frequency band of operation shall not exceed 1 W (30 dBm). If transmitting antennas of directional gain greater than 6 dBi are used, the maximum conducted output power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

RESULTS:

The maximum conducted output power was measured using the channel power integration method according to point E) 2) b) (Method SA-1) of 789033 D02 General UNII Test Procedures New Rules v02r01 when the duty cycle is >98% and the channel power integration method according to point E) 2) d) (Method SA-2) of 789033 D02 General UNII Test Procedures New Rules v02r01 when the duty cycle is <98%.

For data rates where the EUT was transmitting at <98% duty cycle, the duty calculated in Appendix A was added to the measured power in order to calculate the total average power during the actual transmission time.

The e.i.r.p. levels are calculated by adding the declared maximum antenna gain (dBi).

- Preliminary tests determined the SISO worst case: WLAN1_CORE-0_Port3.
- Preliminary tests determined the MIMO worst case: WLAN0_CORE-MIMO_Port1 & Port4.

Maximum Declared Antenna Gain:

- SISO Antenna – WLAN1_CORE-0_Port3: +0.9 dBi
- MIMO Antennas – WLAN0_CORE-MIMO_Port1 & Port4:
 - Port1: +3.2 dBi
 - Port4: +2.3 dBi

For all SISO and MIMO modes of operation, the antenna gain is less than 6dBi.

SISO worst case:

SISO 802.11 a20:

	Low Channel 149 (5745 MHz)	Middle Channel 157 (5785 MHz)	High Channel 165 (5825 MHz)
Max. Conducted Power (dBm)	2.21	3.39	3.04
Maximum EIRP power (dBm)	3.11	4.29	3.94
Duty Cycle Correction Factor (dB)	0.946668879		
Max. Conducted Power Corrected (dBm)	3.156668879	4.336668879	3.986668879
Maximum EIRP Power Corrected (dBm)	4.056668879	5.236668879	4.886668879
Measurement uncertainty (dB)	<±1.20		

SISO 802.11 n20 (HT20):

	Low Channel 149 (5745 MHz)	Middle Channel 157 (5785 MHz)	High Channel 165 (5825 MHz)
Max. Conducted Power (dBm)	1.91	3.45	2.99
Maximum EIRP power (dBm)	2.81	4.35	3.89
Duty Cycle Correction Factor (dB)	1.007402155		
Max. Conducted Power Corrected (dBm)	2.917402155	4.457402155	3.997402155
Maximum EIRP Power Corrected (dBm)	3.817402155	5.357402155	4.897402155
Measurement uncertainty (dB)	<±1.20		

SISO 802.11 ac20 (VHT20):

	Low Channel 149 (5745 MHz)	Middle Channel 157 (5785 MHz)	High Channel 165 (5825 MHz)
Max. Conducted Power (dBm)	1.93	3.45	2.99
Maximum EIRP power (dBm)	2.83	4.35	3.89
Duty Cycle Correction Factor (dB)	1.002990889		
Max. Conducted Power Corrected (dBm)	2.932990889	4.452990889	3.992990889
Maximum EIRP Power Corrected (dBm)	3.832990889	5.352990889	4.892990889
Measurement uncertainty (dB)	<±1.20		

SISO 802.11 n40 (HT40):

	Low Channel 151 (5755 MHz)	High Channel 159 (5795 MHz)
Max. Conducted Power (dBm)	0.86	1.81
Maximum EIRP power (dBm)	1.76	2.71
Duty Cycle Correction Factor (dB)	1.850026905	
Max. Conducted Power Corrected (dBm)	2.710026905	3.660026905
Maximum EIRP Power Corrected (dBm)	3.610026905	4.560026905
Measurement uncertainty (dB)	<±1.20	

SISO 802.11 ac40 (VHT40):

	Low Channel 151 (5755 MHz)	High Channel 159 (5795 MHz)
Max. Conducted Power (dBm)	0.92	1.56
Maximum EIRP power (dBm)	1.82	2.46
Duty Cycle Correction Factor (dB)	1.840509073	
Max. Conducted Power Corrected (dBm)	2.760509073	3.400509073
Maximum EIRP power Corrected (dBm)	3.660509073	4.300509073
Measurement uncertainty (dB)	<±1.20	

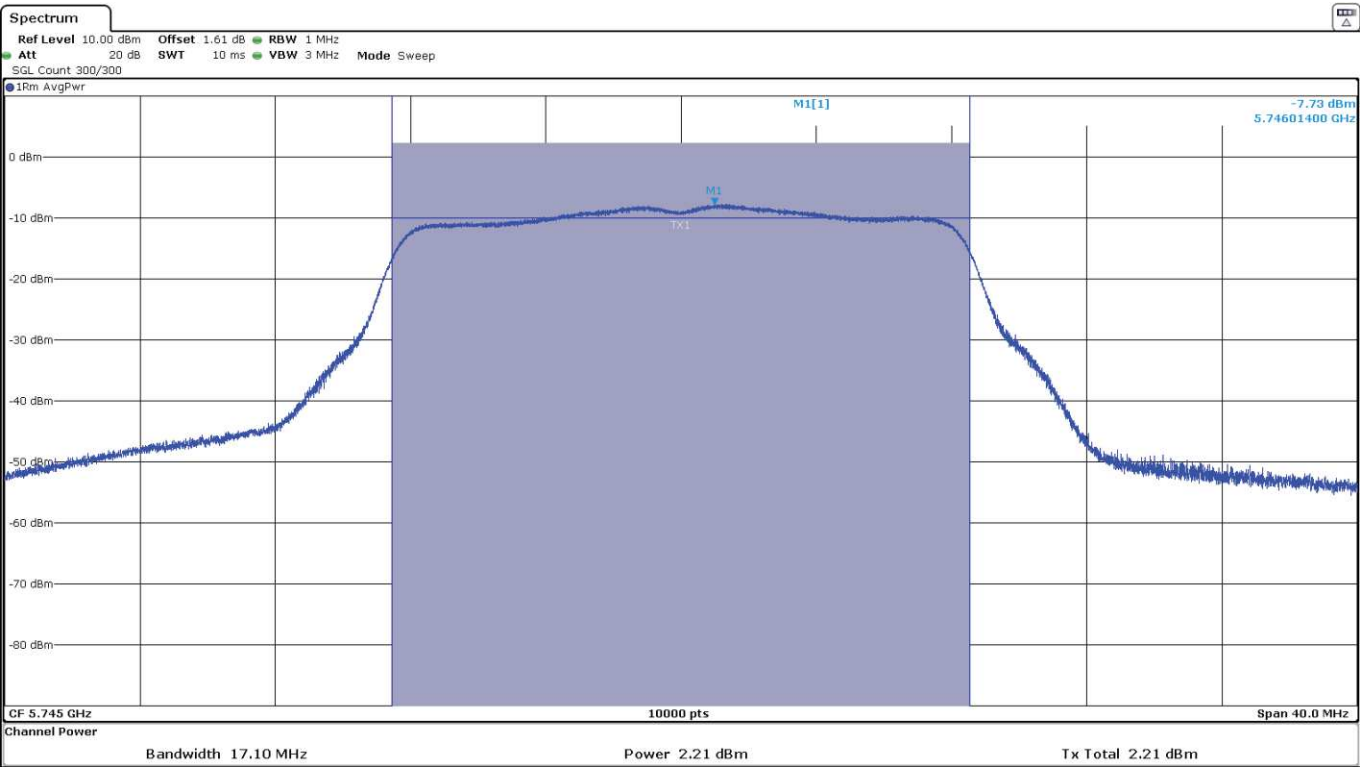
SISO 802.11 ac80 (VHT80):

	Single Channel 155 (5775 MHz)
Max. Conducted Power (dBm)	0.94
Maximum EIRP power (dBm)	1.84
Duty Cycle Correction Factor (dB)	3.202435478
Max. Conducted Power Corrected (dBm)	4.142435478
Maximum EIRP Power Corrected (dBm)	5.042435478
Measurement uncertainty (dB)	<±1.20

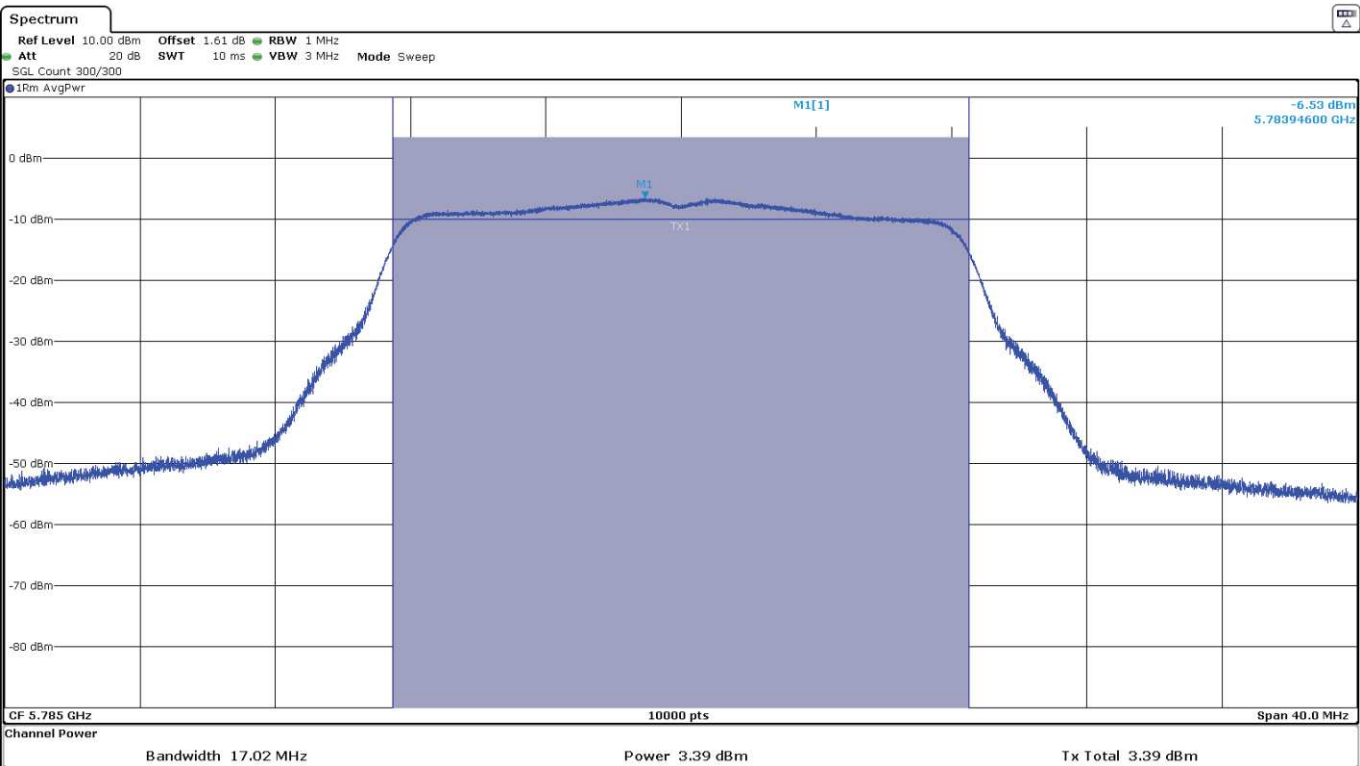
Verdict: PASS

SISO 802.11 a20:

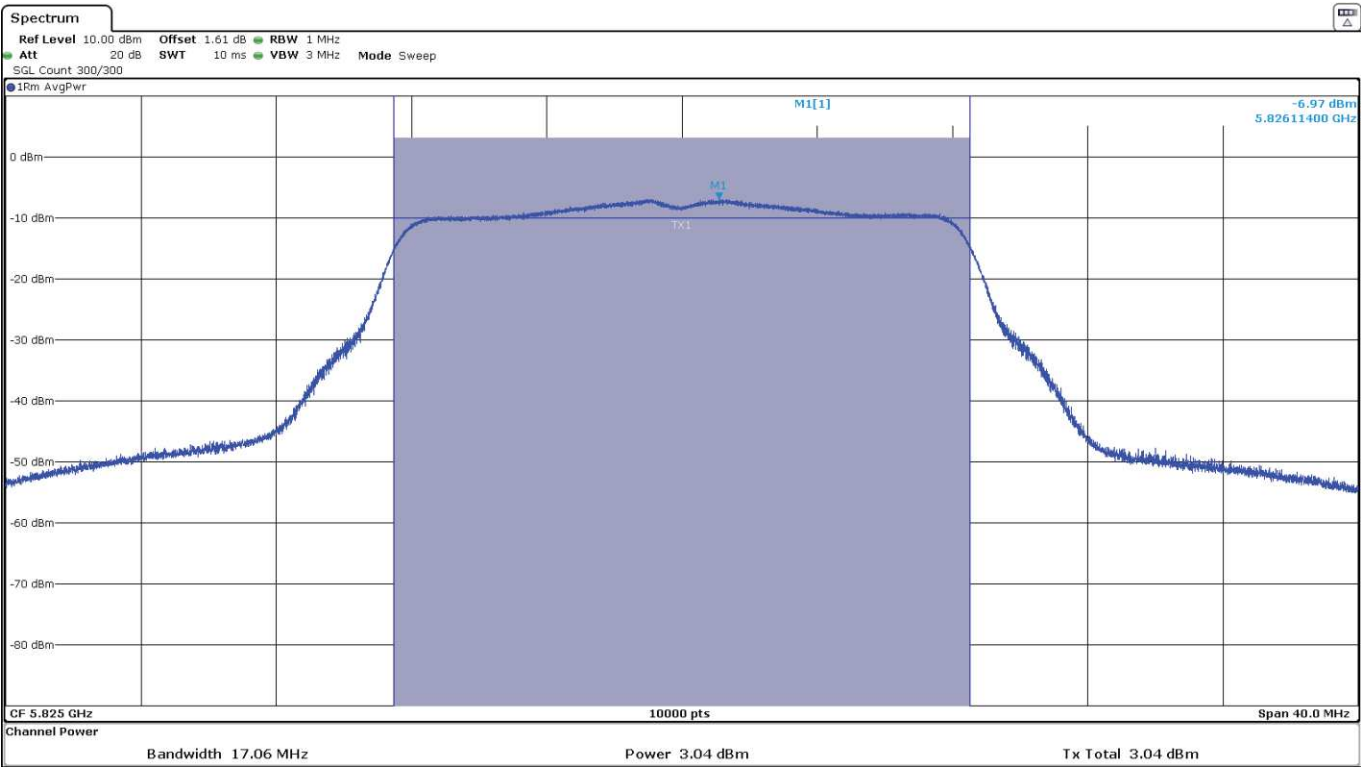
- Low Channel 149:



- Middle Channel 157:

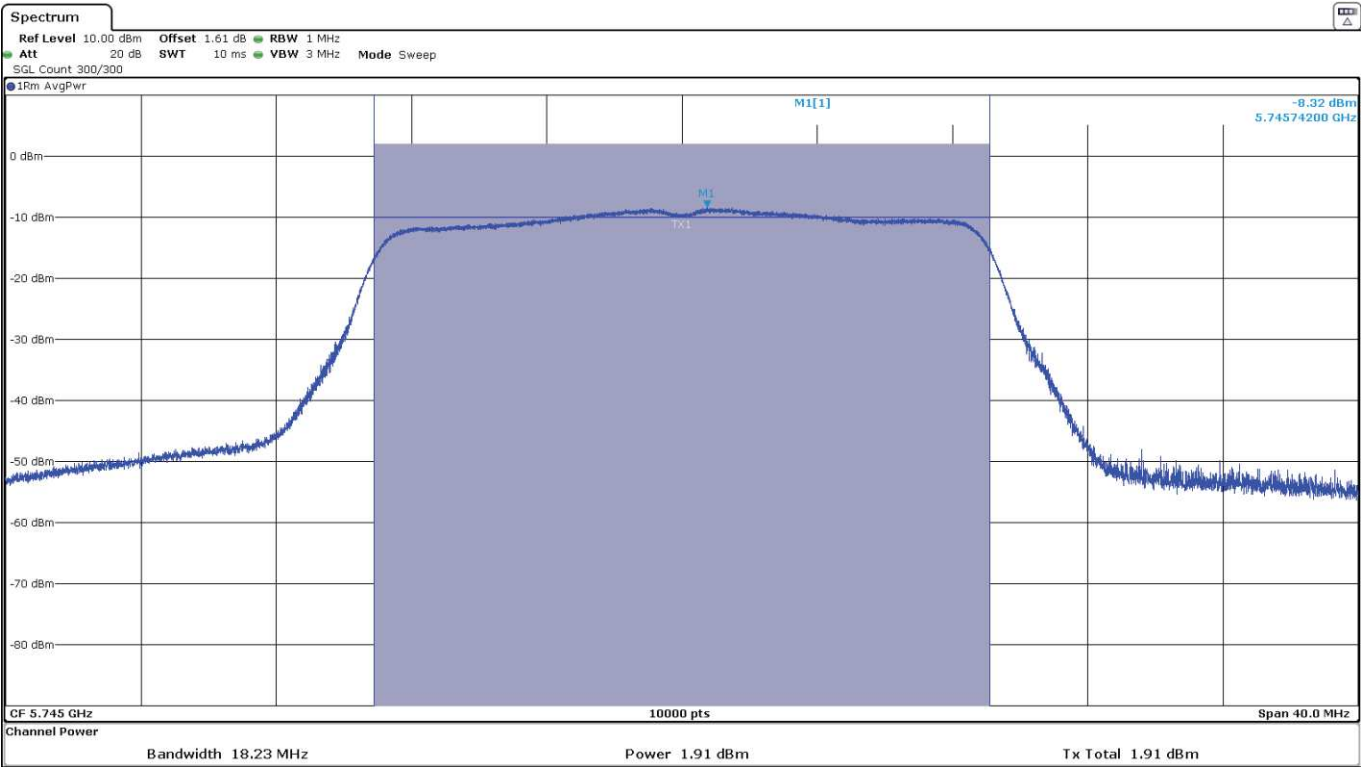


- High Channel 165:

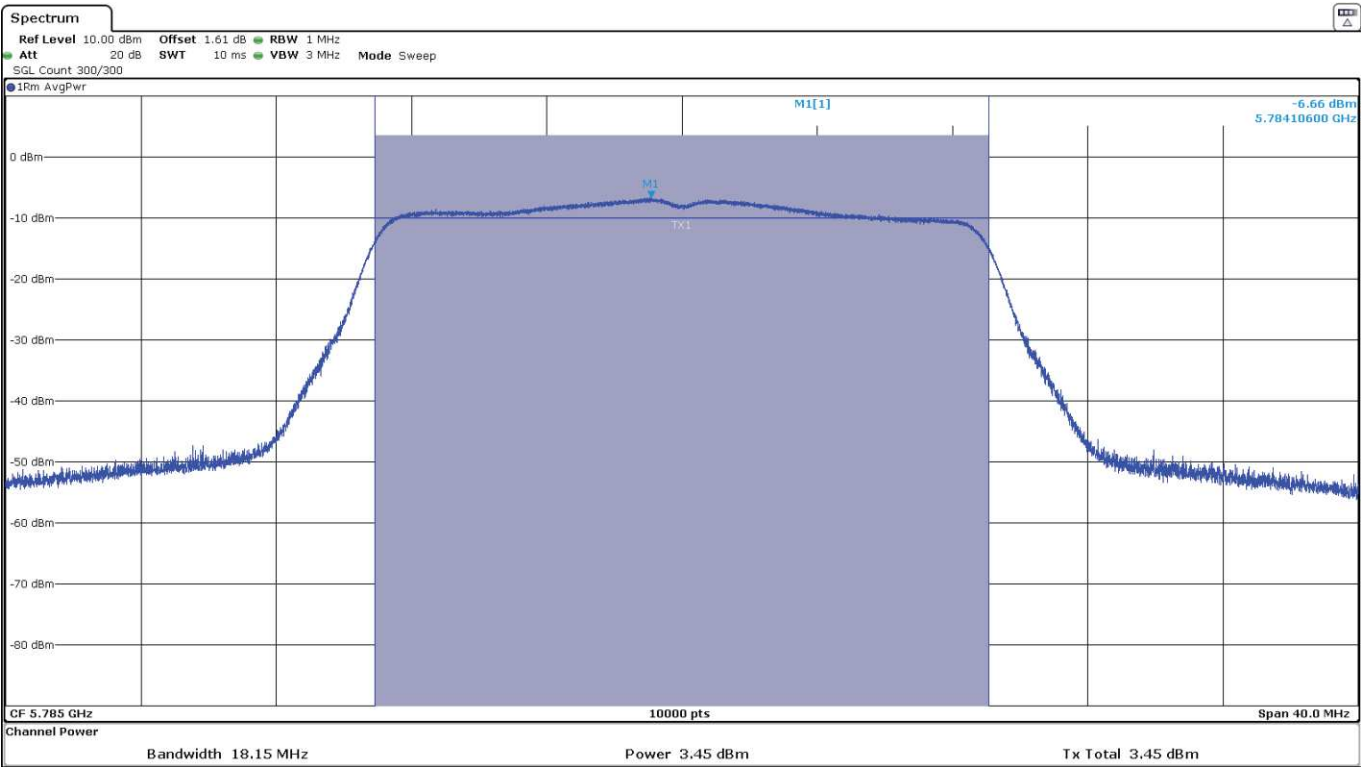


SISO 802.11 n20 (HT20):

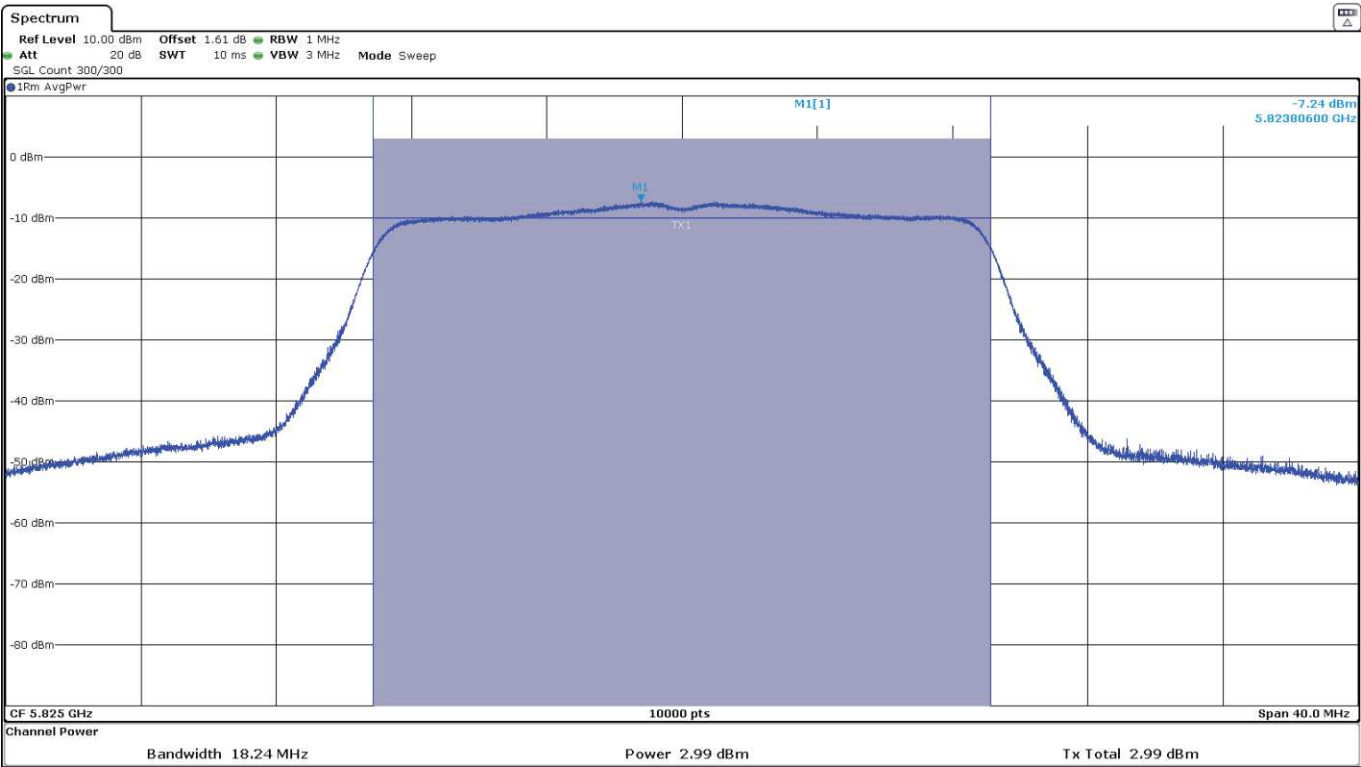
- Low Channel 149:



- Middle Channel 157:

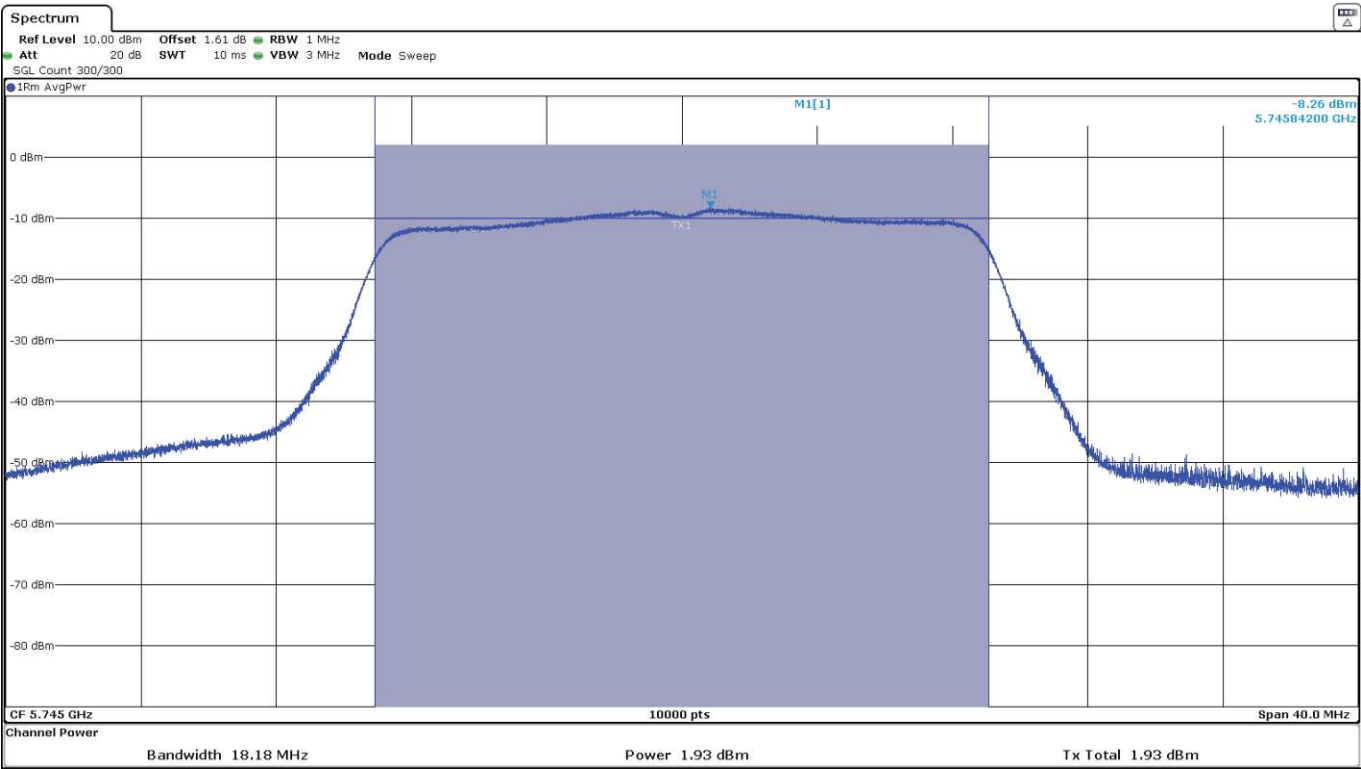


- High Channel 165:

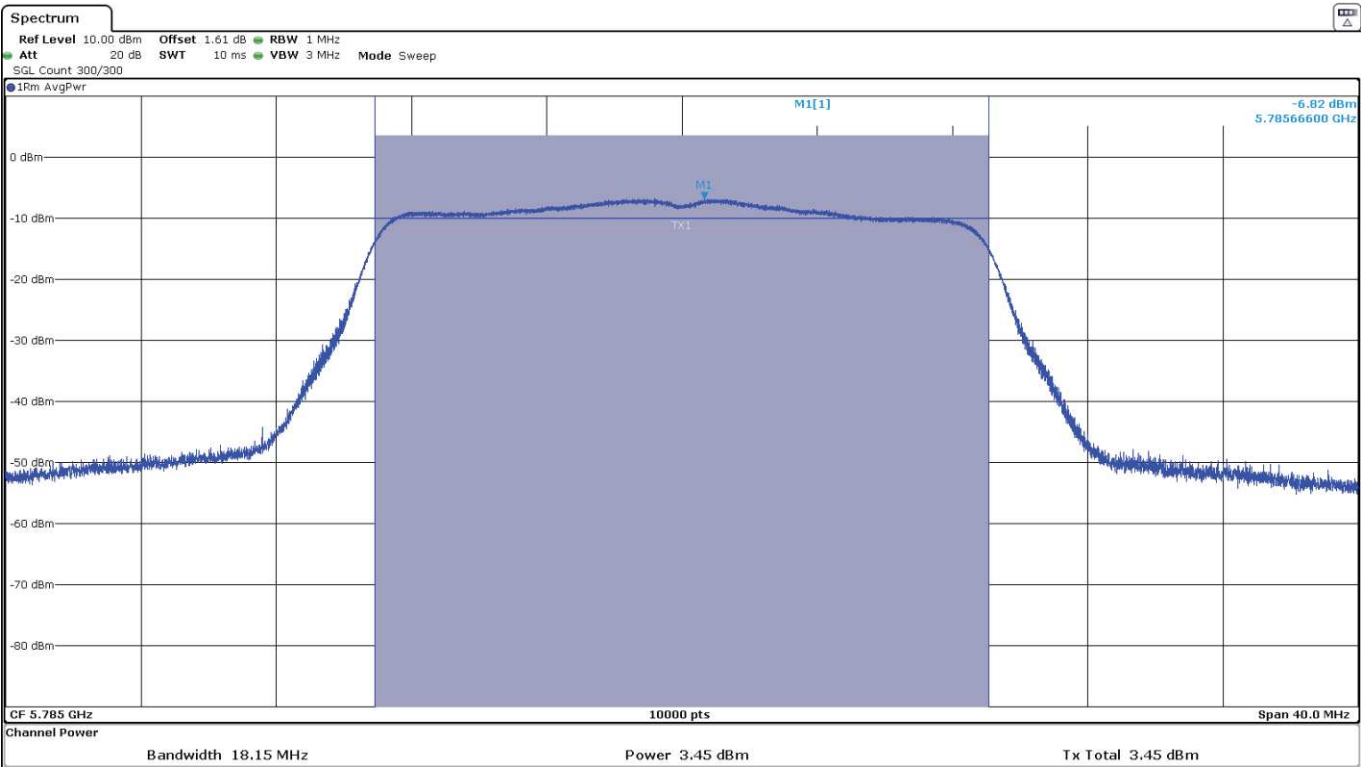


SISO 802.11 ac20 (VHT20):

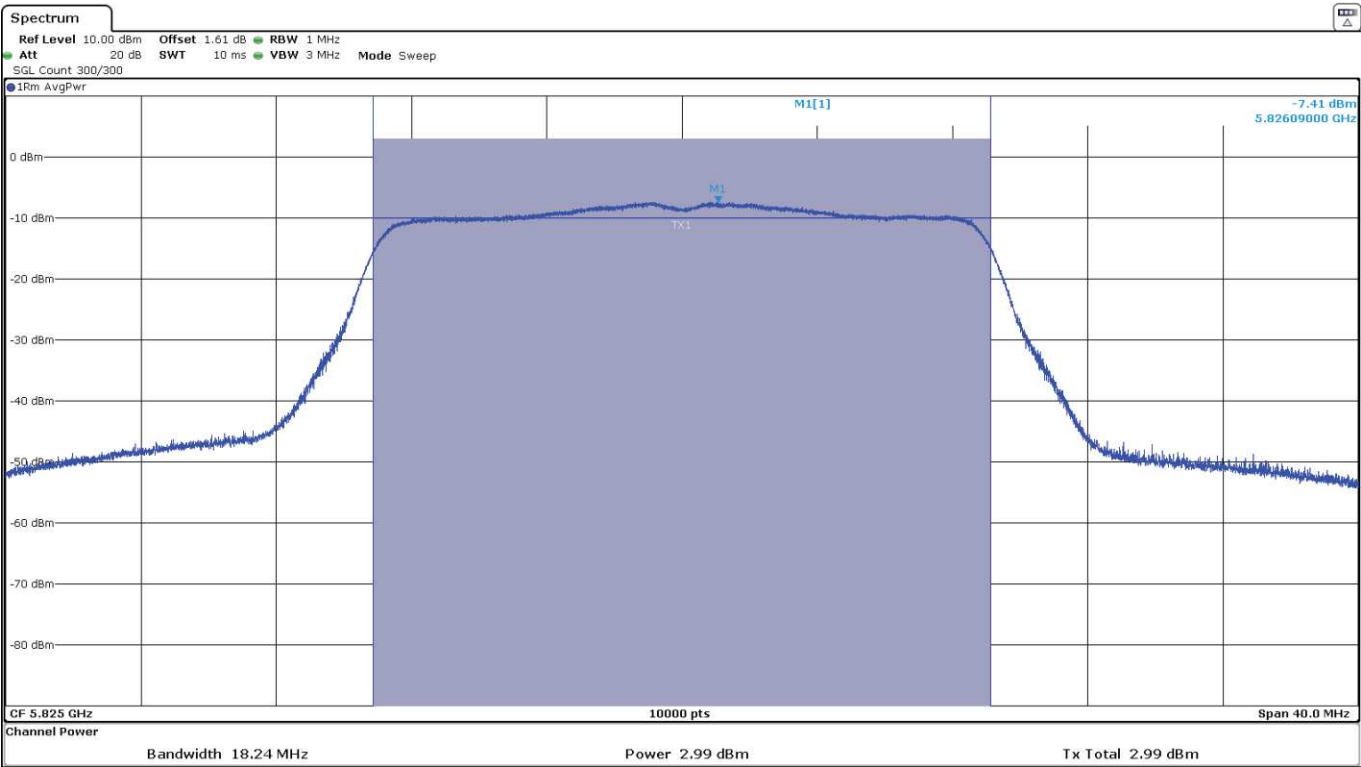
- Low Channel 149:



- Middle Channel 157:

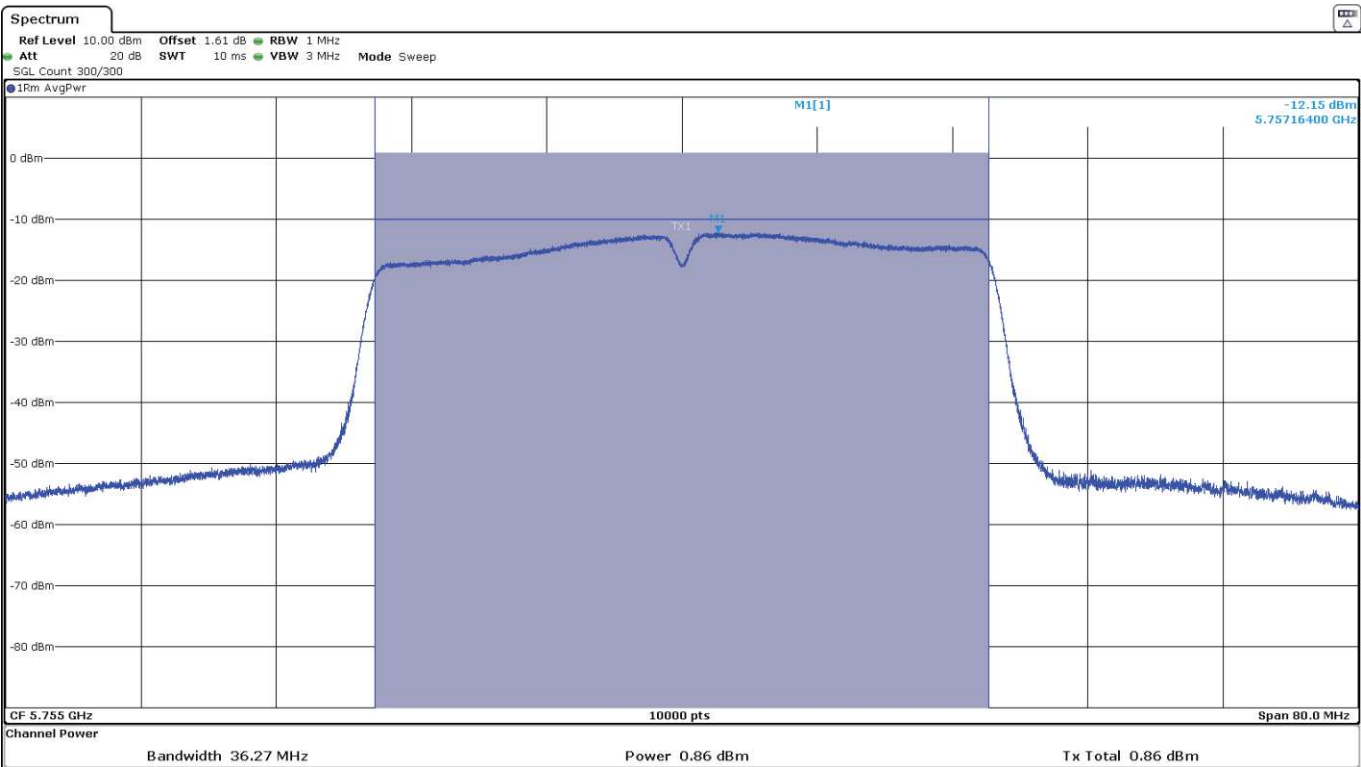


- High Channel 165:

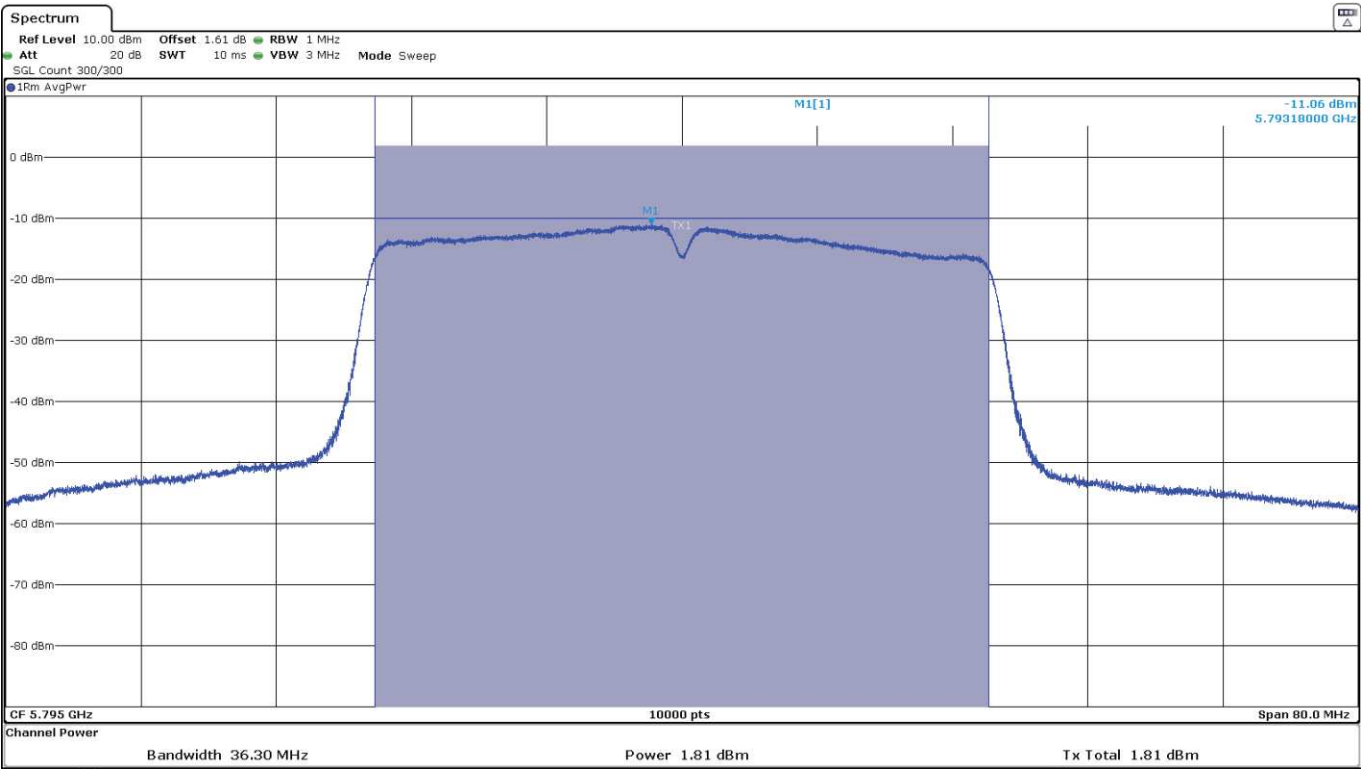


SISO 802.11 n40 (HT40):

- Low Channel 151:

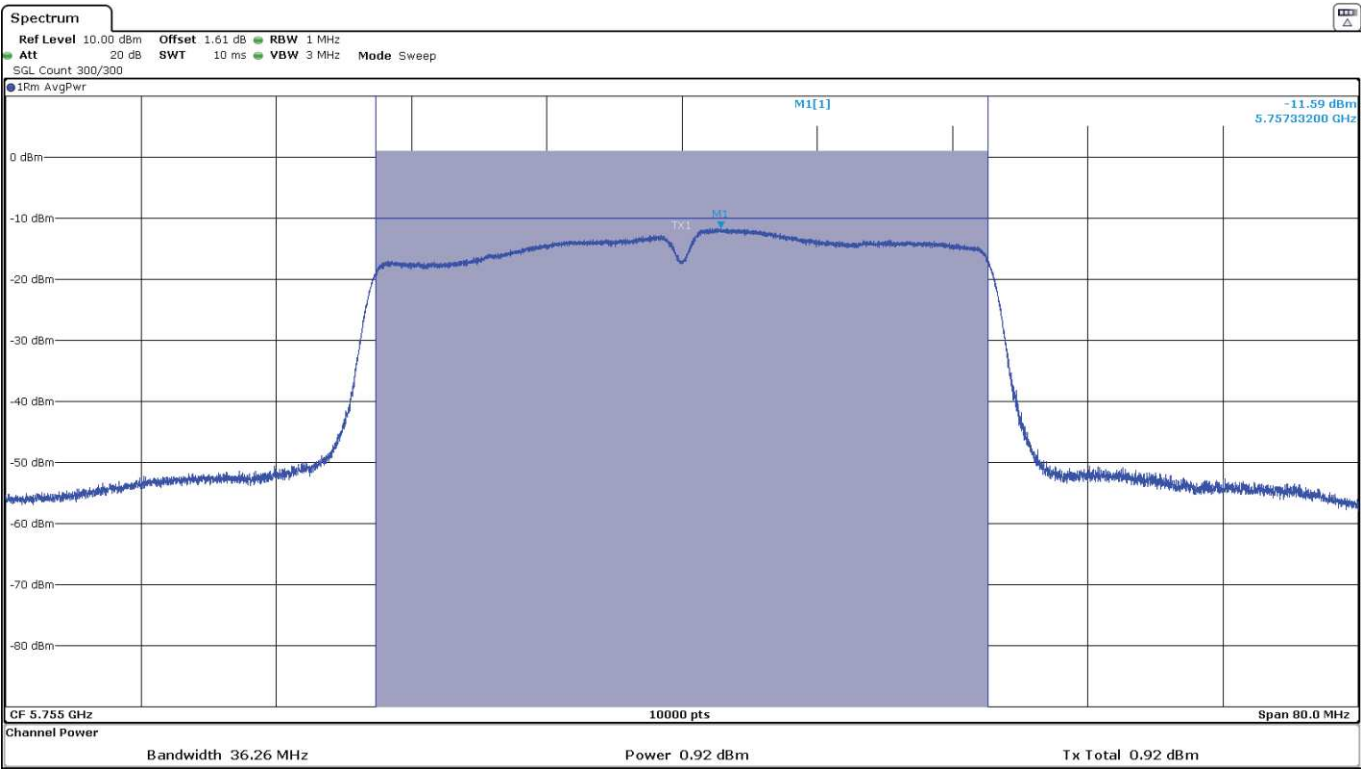


- High Channel 159:

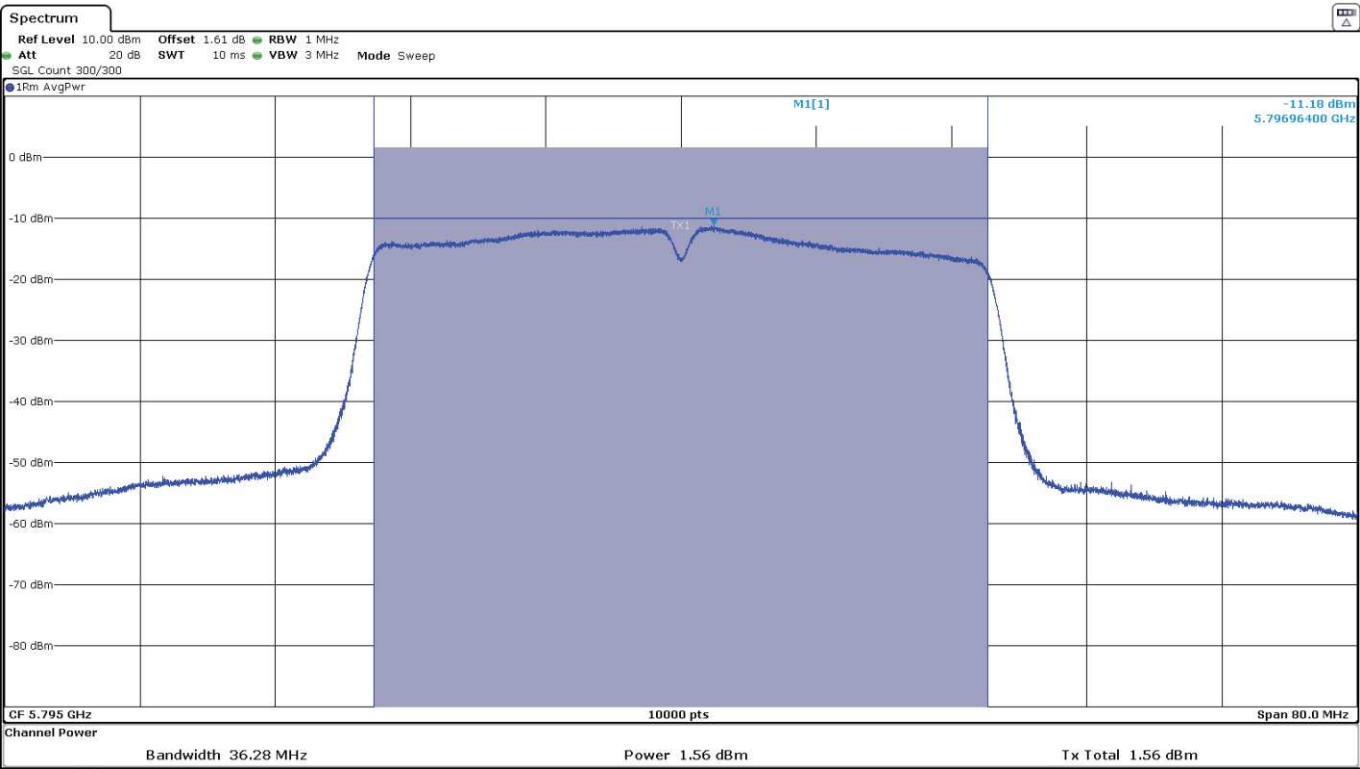


SISO 802.11 ac40 (VHT40):

- Low Channel 151:

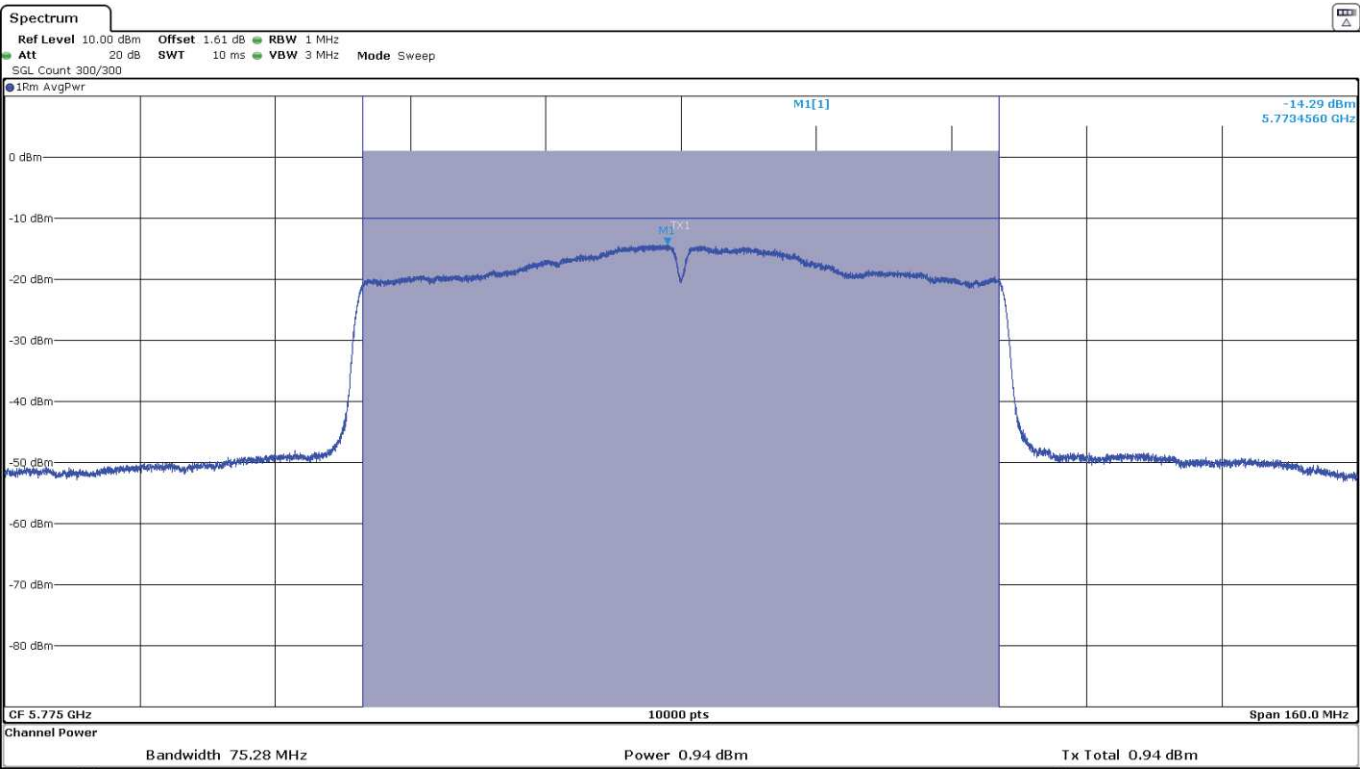


- High Channel 159:



SISO 802.11 ac80 (VHT80):

- Single Channel 155:



MIMO worst case:

MIMO 802.11 ac20 (VHT20):

	Low Channel MHz		Middle Channel MHz		High Channel MHz	
	WLAN0_CORE- MIMO_ Port1	WLAN0_CORE- MIMO_ Port4	WLAN0_CORE- MIMO_P ort1	WLAN0_CORE- MIMO_ Port4	WLAN0_CORE- MIMO_P ort1	WLAN0_CORE- MIMO_ Port4
Maximum Average Conducted Power (dBm)	-0.19	-3.53	1.87	-2.15	2.66	-0.34
Duty Cycle Correction Factor (dB)	1.0708 76514	1.0602 72296	1.0708 76514	1.0602 72296	1.0708 76514	1.0602 72296
Maximum Conducted Corrected Power (dBm)	0.8808 76514	- 2.4697 27704	2.9408 76514	- 1.0897 27704	3.7308 76514	0.7202 72296
	WLAN0_CORE- MIMO_Port1 + WLAN0_CORE- MIMO_Port4		WLAN0_CORE- MIMO_Port1 + WLAN0_CORE- MIMO_Port4		WLAN0_CORE- MIMO_Port1 + WLAN0_CORE- MIMO_Port4	
Maximum Combined Average Conducted Power (dBm)	1.463769749		3.319719059		4.424348624	
Maximum Combined Conducted Corrected Power (dBm)	2.531290901		4.387588618		5.491687686	
Maximum Combined EIRP Corrected Power (dBm)	5.466382591		7.350961027		8.411924287	
Measurement uncertainty (dB)	<±1.20					

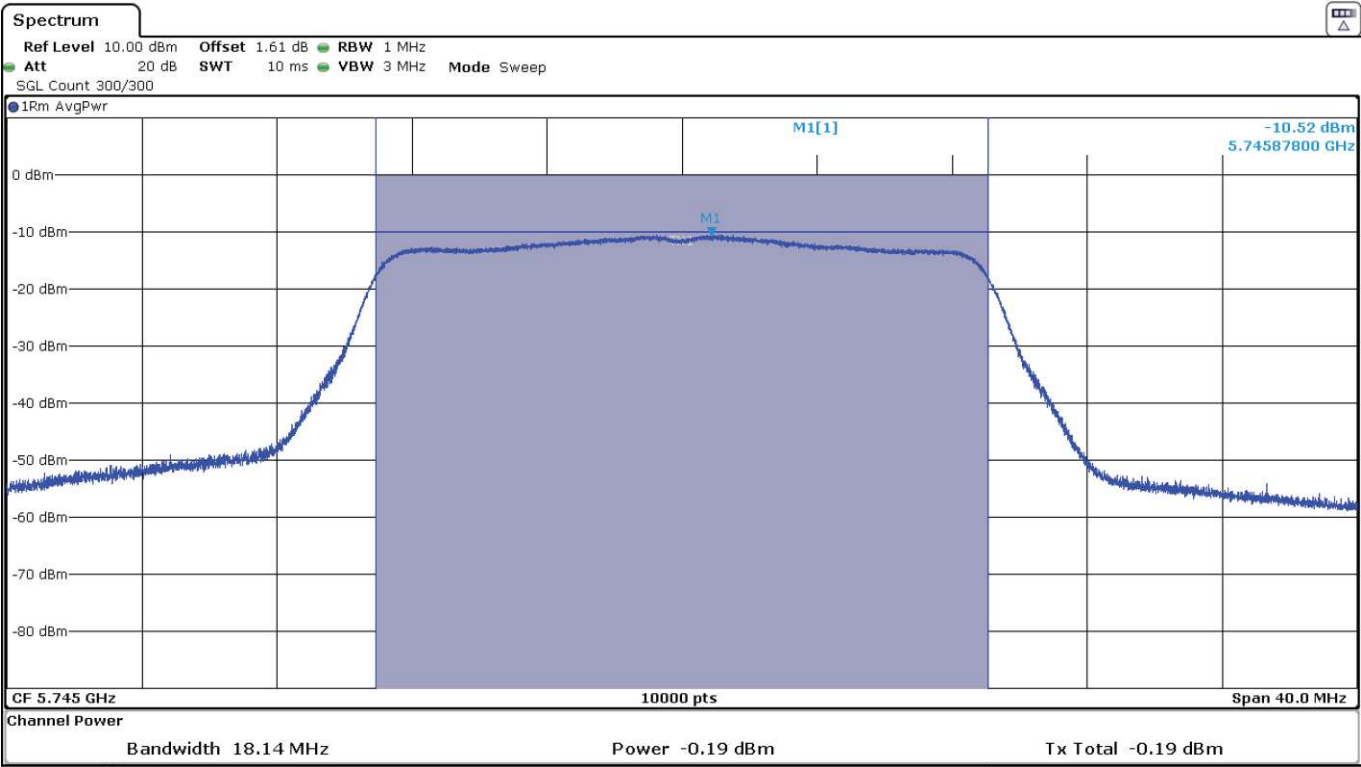
Verdict: PASS

MIMO worst case:

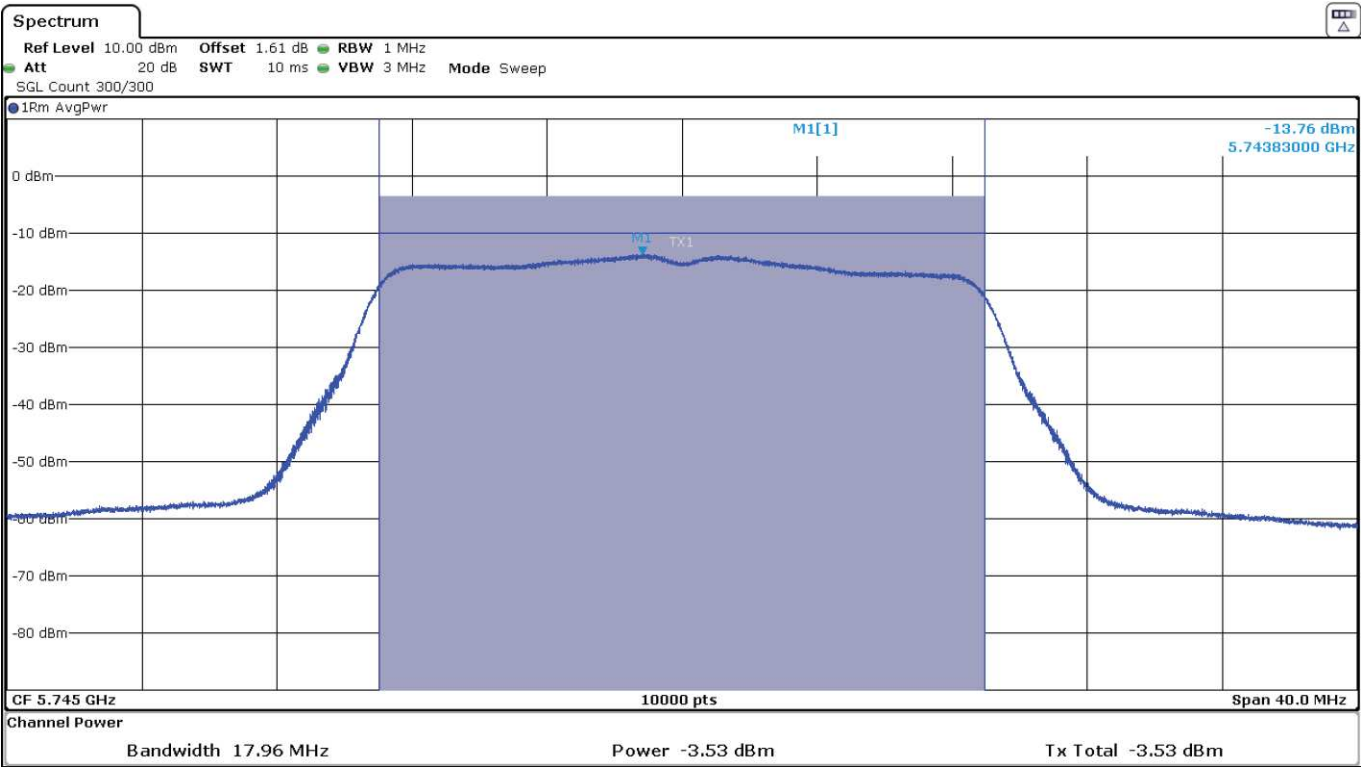
MIMO 802.11 ac20 (VHT20):

- Low Channel 36:

Port 1

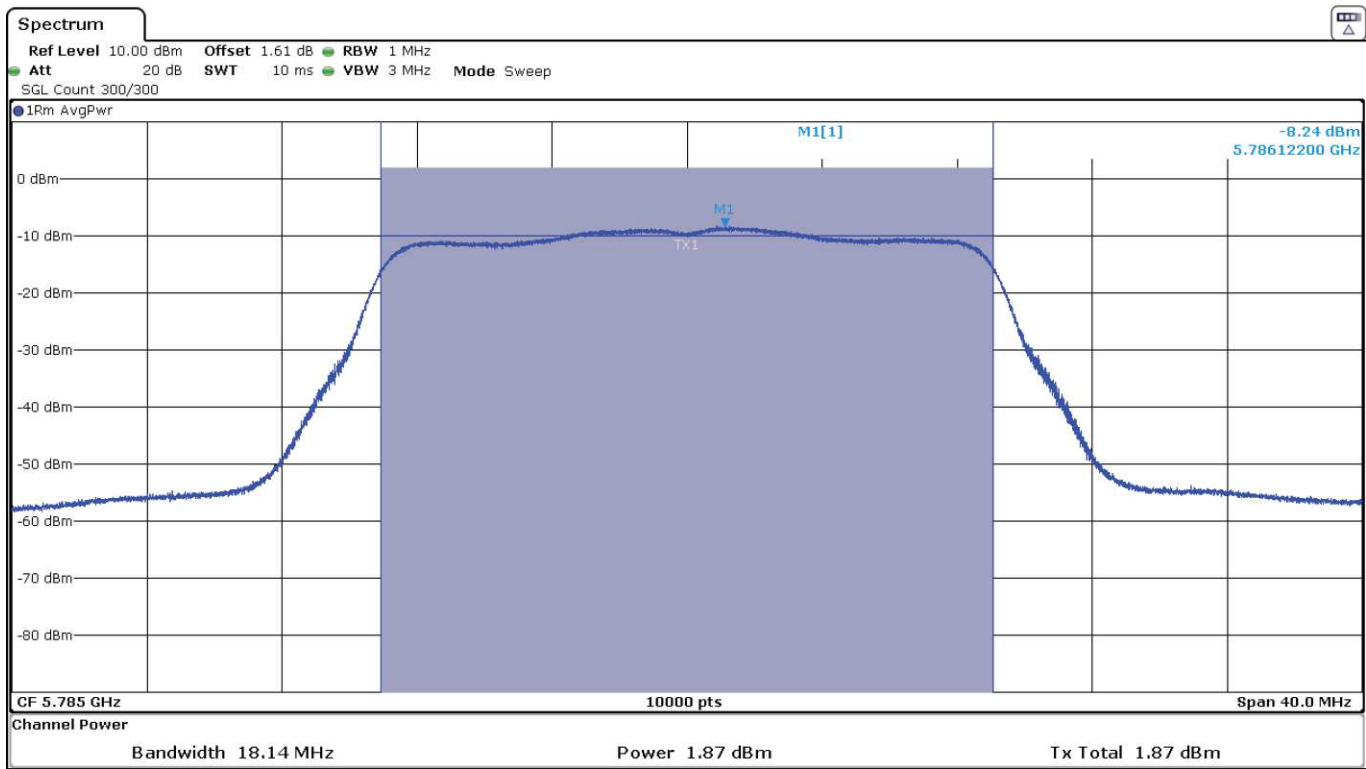


Port 4

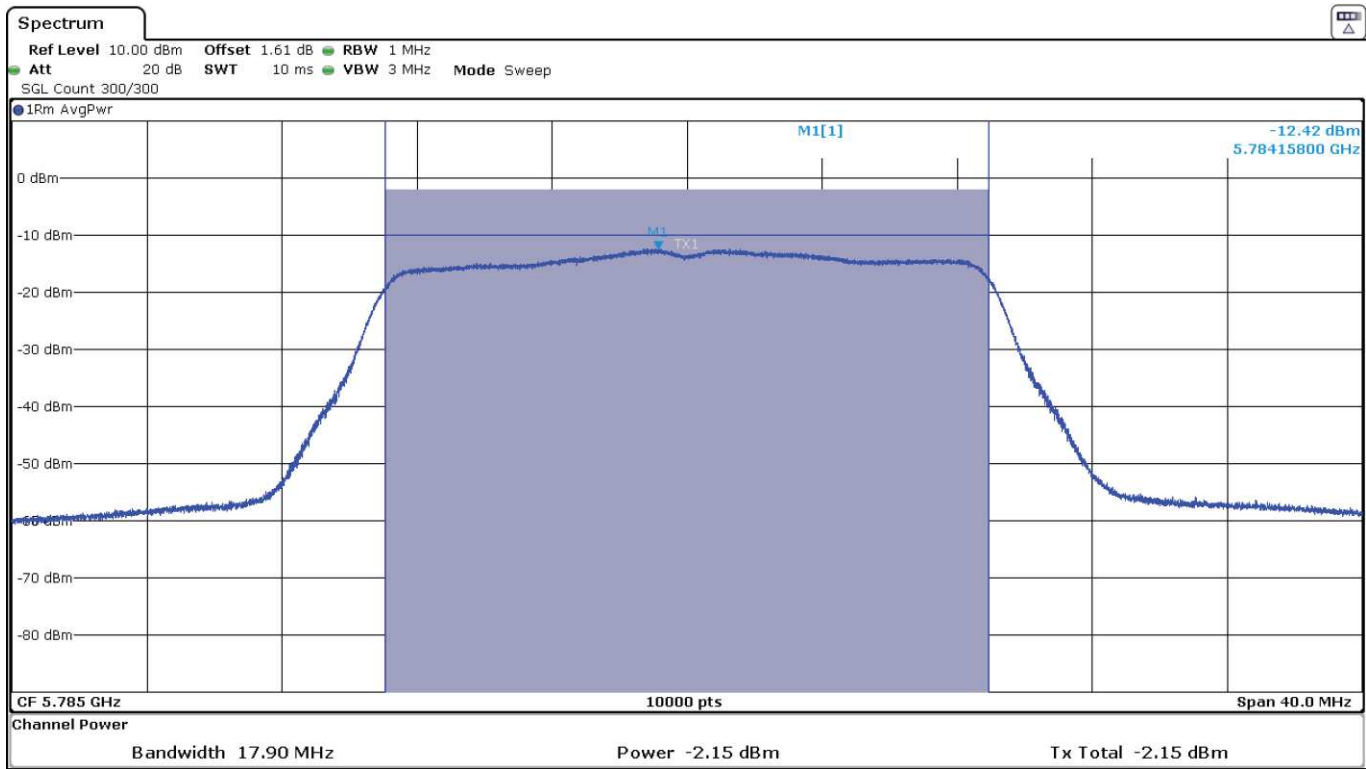


- Middle Channel 40:

Port 1

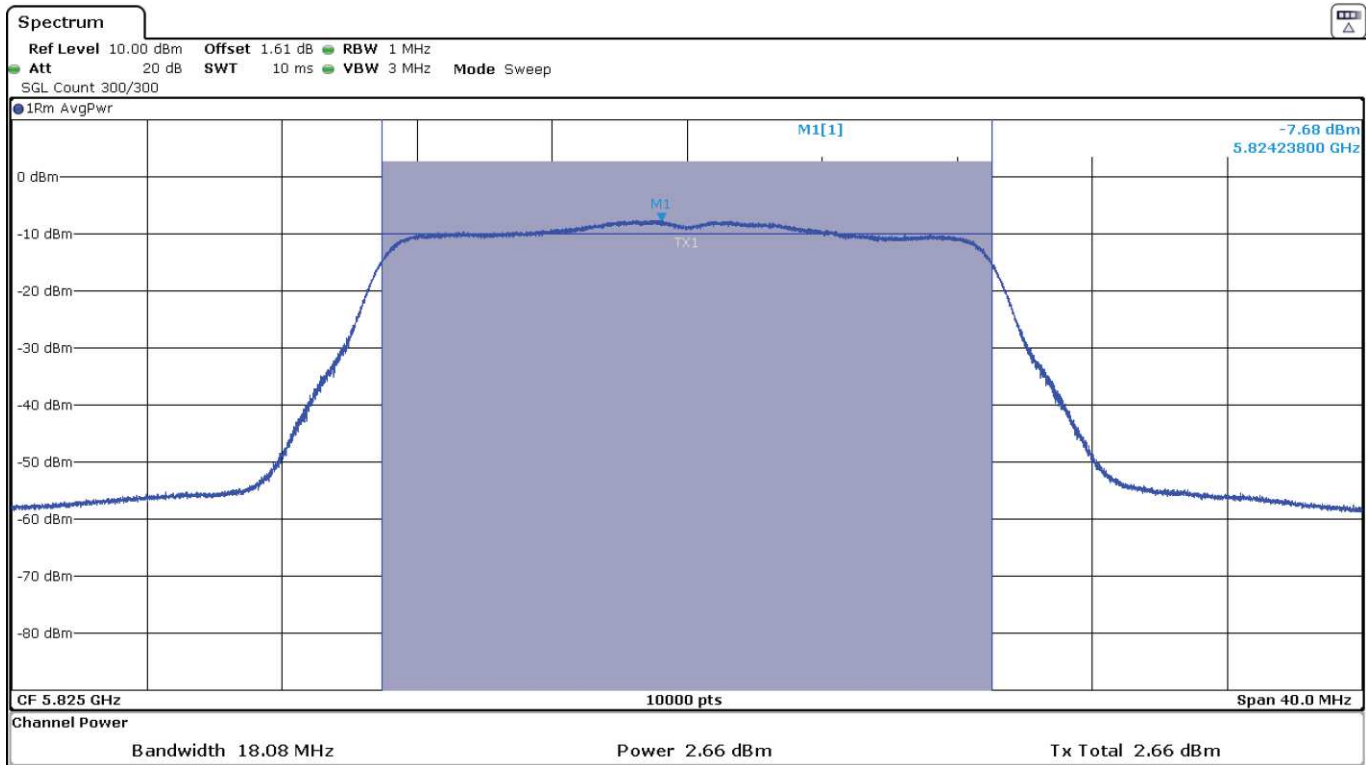


Port 4

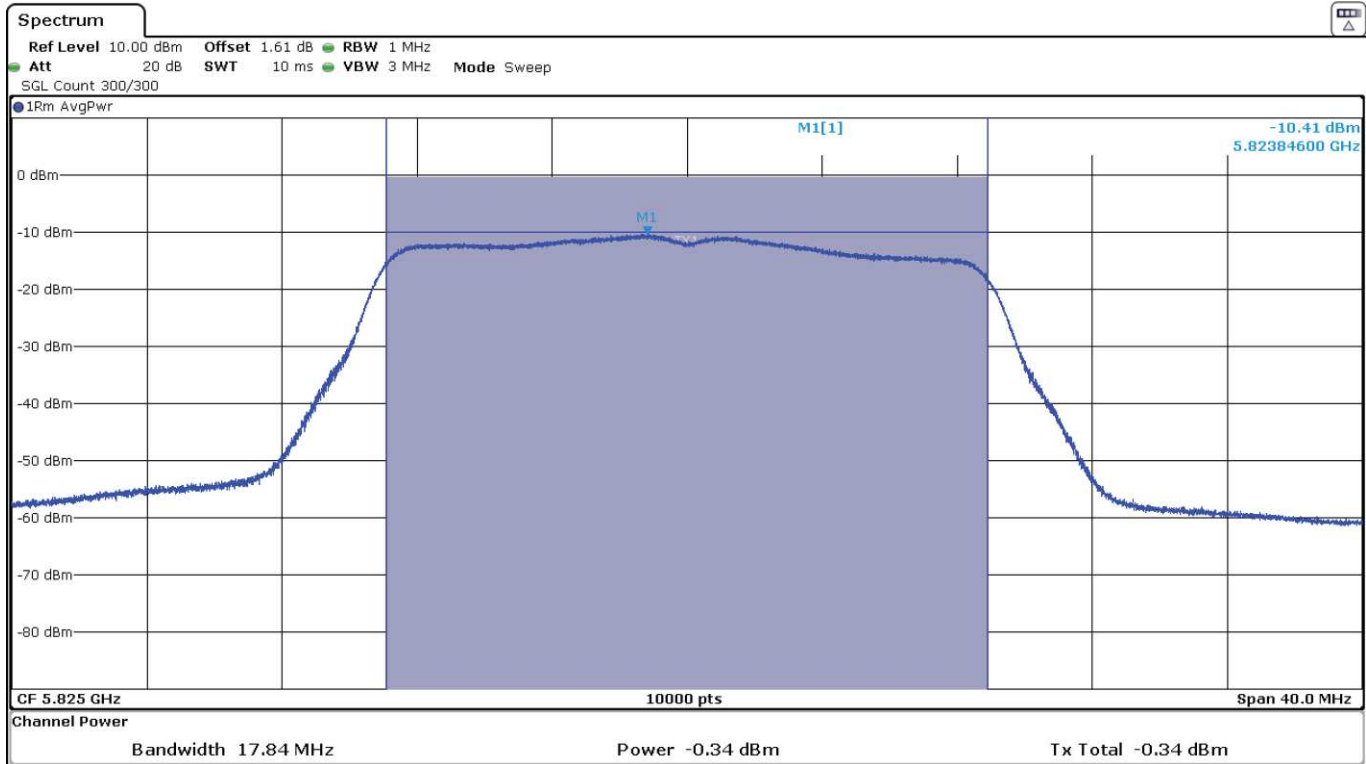


- High Channel 48:

Port 1



Port 4



FCC 15.407 (a)(3) / RSS-247 6.2.4.1. Maximum Power Spectral Density

SPECIFICATION:

FCC 15.407 / RSS-247: The maximum power spectral density shall not exceed 30 dBm in any 500-kHz band. If transmitting antennas of directional gain greater than 6 dBi 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 dBi.

RESULTS:

The maximum power spectral density (PSD) was measured using the method according to point F) referencing E.2.b) (Method SA-1) and E.2.b) (Method SA-2) of Guidance 789033 D02 General UNII Test Procedures New Rules v02r01.

In accordance with ANSI C63.10 Section 4.1.4.1, use of bandwidths greater than those specified can produce higher readings. Compliance against the applicable limits is shown using a 1 MHz resolution bandwidth. This was deemed worst case.

The PSD test uses the same setup as the transmitter maximum conducted output power test. The result of the Peak PSD was measured by collocation a meter on the peak of the signal and the results are in the tables below.

SISO worst case:

SISO 802.11 a20:

	Low Channel 149 (5745 MHz)	Middle Channel 157 (5785 MHz)	High Channel 165 (5825 MHz)
Maximum Average PSD (dBm/MHz)	-7.73	-6.53	-6.97
Duty Cycle Correction Factor (dB)	0.946668879		
Maximum Average PSD Corrected (dBm/MHz)	-6.783331121	-5.583331121	-6.023331121
Maximum EIRP PSD Corrected (dBm/MHz)	-5.883331121	-4.683331121	-5.123331121
Measurement uncertainty (dB)	<±1.20		

SISO 802.11 n20 (HT20):

	Low Channel 149 (5745 MHz)	Middle Channel 157 (5785 MHz)	High Channel 165 (5825 MHz)
Maximum Average PSD (dBm/MHz)	-8.32	-6.66	-7.24
Duty Cycle Correction Factor (dB)	1.007402155		
Maximum Average PSD Corrected (dBm/MHz)	-7.312597845	-5.652597845	-6.232597845
Maximum EIRP PSD Corrected (dBm/MHz)	-6.412597845	-4.752597845	-5.332597845
Measurement uncertainty (dB)	<±1.20		

SISO 802.11 ac20 (VHT20):

	Low Channel 149 (5745 MHz)	Middle Channel 157 (5785 MHz)	High Channel 165 (5825 MHz)
Maximum Average PSD (dBm/MHz)	-8.26	-6.82	-7.41
Duty Cycle Correction Factor (dB)	1.002990889		
Maximum Average PSD Corrected (dBm/MHz)	-7.257009111	-5.817009111	-6.407009111
Maximum EIRP PSD Corrected (dBm/MHz)	-6.357009111	-4.917009111	-5.507009111
Measurement uncertainty (dB)	<±1.20		

SISO 802.11 n40 (HT40):

	Low Channel 151 (5755 MHz)	High Channel 159 (5795 MHz)
Maximum Average PSD (dBm/MHz)	-12.15	-11.06
Duty Cycle Correction Factor (dB)	1.850026905	
Maximum Average PSD Corrected (dBm/MHz)	-10.2999731	-9.209973095
Maximum EIRP PSD Corrected (dBm/MHz)	-9.399973095	-8.309973095
Measurement uncertainty (dB)	<±1.20	

SISO 802.11 ac40 (VHT40):

	Low Channel 151 (5755 MHz)	High Channel 159 (5795 MHz)
Maximum Average PSD (dBm/MHz)	-11.59	-11.18
Duty Cycle Correction Factor (dB)	1.840509073	
Maximum Average PSD Corrected (dBm/MHz)	-9.749490927	-9.339490927
Maximum EIRP PSD Corrected (dBm/MHz)	-8.849490927	-8.439490927
Measurement uncertainty (dB)	<±1.20	

SISO 802.11 ac80 (VHT80):

	Low Channel 155 (5775 MHz)
Maximum Average PSD (dBm/MHz)	-14.29
Duty Cycle Correction Factor (dB)	3.202435478
Maximum Average PSD Corrected (dBm/MHz)	-11.08756452
Maximum EIRP PSD Corrected (dBm/MHz)	-10.18756452
Measurement uncertainty (dB)	<±1.20

Verdict: PASS

MIMO worst case:

MIMO 802.11 ac20 (VHT20):

	Low Channel MHz		Middle Channel MHz		High Channel MHz	
	WLAN0_C ORE- MIMO_Por t1	WLAN0_C ORE- MIMO_Por t4	WLAN0_C ORE- MIMO_Po rt1	WLAN0_C ORE- MIMO_Po rt4	WLAN0_C ORE- MIMO_Po rt1	WLAN0_C ORE- MIMO_Po rt4
Maximum Average Conducted PSD (dBm/MHz)	-10.52	-13.76	-8.24	-12.42	-7.68	-10.41
Duty Cycle Correction Factor (dB)	1.07087	1.06027	1.07087	1.06027	1.07087	1.06027
Maximum Corrected PSD (dBm/MHz)	-9.44912	-12.69972	-7.16912	-11.3597	-6.60912	-9.34972
Maximum EIRP Corrected PSD (dBm/MHz)	-6.24912	-10.39972	-3.96912	-9.05972	-3.40912	-7.04972
Measurement uncertainty (dB)	<±1.56					

NOTE: The quantity $10 \cdot \log 2$ (two antennas) is added to the spectrum peak value according to document 662911 D01.

Verdict: PASS

FCC Section 15.407(b)(4)(6) /RSS-247 6.2.4.2. Transmitter Out of Band Radiated Emissions and Transmitter Band Edge Radiated Emissions.

SPECIFICATION:

For transmitters operating in the 5.725–5.85 GHz band: All emissions shall be limited to a level of –27 dBm/MHz (68.23 dBμV/m at 3 m distance) at 75 MHz or more above or below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge, and from 25 MHz above or below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above or below the band edge, and from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.

Radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see §15.205(c)):

Frequency Range (MHz)	Field strength (μV/m)	Field strength (dBμV/m)	Measurement distance (m)
0.009-0.490	2400/F(kHz)	-	300
0.490-1.705	24000/F(kHz)	-	300
1.705 - 30.0	30	-	30
30 - 88	100	40	3
88 - 216	150	43.5	3
216 - 960	200	46	3
960 - 40000	500	54	3

The emission limits shown in the above table are based on measurements employing CISPR quasi-peak detector except for the frequency bands 9-90 kHz, 110-490 kHz and above 1000 MHz. Radiated emission limits in these three bands are based on measurements employing an average detector.

For average radiated emission measurements above 1000 MHz, there is also a limit corresponding to 20 dB above the indicated values in the table is specified when measuring with peak detector function.

RESULTS:

The situation and orientation was varied to find the maximum radiated emission. It was also rotated 360° and the antenna height was varied from 1 to 4 meters to find the maximum radiated emission.

Measurements were made in both horizontal and vertical planes of polarization.

All tests were performed in a semi-anechoic chamber at a distance of 1m for the frequency range 1 GHz-40 GHz and a distance of 3m for frequency range 30MHz-1GHz.

The field strength is calculated by adding correction factor to the measured level from the spectrum 139analyser. This correction factor includes antenna factor, cable loss and pre-amplifiers gain.

OUT OF BAND EMISSIONS: For spurious emissions outside of the U-NII-3 band edge mask of 5.65-5.925 GHz, the OFDM worst mode case was determined after preliminary measurements of the E.I.R.P. density (radiated). The Low, Middle and High Channels were tested.

The worst case was determined by measuring the eirp density (radiated). Test performed on the worst case:

SISO worst case:

- Preliminary tests determined the SISO worst case: WLAN1_CORE-0_Port3.
- Worst case:** 802.11 ac20 (index of MCS0).
- RF Output Power: 12.5 dBm

Frequency range 30 MHz - 1 GHz (SISO worst case):

The spurious emissions below 1 GHz do not depend on either the operating channel or the modulation mode selected in the EUT.

Spurious frequencies operating (radiated) detected at less than 20 dB below the limit:

Spurious frequency (MHz)	Emission Level (dBμV/m)	Polarization	Detector	Measurement Uncertainty (dB)
32.570500	35.12	V	Quasi-Peak	<± 4.99
58.663500	35.23	V	Quasi-Peak	<± 4.99
64.774500	38.64	V	Quasi-Peak	<± 4.99
66.278000	36.70	V	Quasi-Peak	<± 4.99
148.097500	29.08	V	Quasi-Peak	<± 4.99

Frequency range 1 - 40 GHz (SISO worst case):

The results in the next tables show the maximum measured levels in the 1-40 GHz range except the 5.65-5.725 GHz and 5.85-5.925GHz adjacent bands. The results in the adjacent bands was evaluated on the next section.

Spurious frequencies with peak levels above the average limit (54 dBμV/m at 3 m) are measured with an average detector for checking compliance with the average limit.

- LOW CHANNEL. Spurious frequencies at less than 20 dB below the limit:

Spurious frequency (GHz)	Emission Level (dBμV/m)	Polarization	Detector	Measurement Uncertainty (dB)
1.4368	43.76	V	Peak	<± 5.13
1.7856	43.79	H	Peak	<± 5.13
5.3742	50.46	V	Peak	<± 5.13
10.4875	49.89	H	Peak	<± 4.98
11.4925	49.04	H	Peak	<± 4.98
14.7115	51.87	V	Peak	<± 4.98
22.470166667	43.09	V	Peak	<± 5.08
34.227766667	47.23	V	Peak	<± 5.33

- MIDDLE CHANNEL. Spurious frequencies at less than 20 dB below the limit:

Spurious frequency (GHz)	Emission Level (dBμV/m)	Polarization	Detector	Measurement Uncertainty (dB)
1.543	43.01	H	Peak	<± 5.13
5.361	50.13	V	Peak	<± 5.13
8.4625	44.95	V	Peak	<± 4.98
10.3025	49.30	H	Peak	<± 4.98
11.5655	50.24	H	Peak	<± 4.98
17.355733333	51.97	H	Peak	<± 5.08
22.493166667	42.23	H	Peak	<± 5.08
34.194800000	48.07	H	Peak	<± 5.33

- HIGH CHANNEL. No spurious frequencies at less than 20 dB below the limit.

Spurious frequency (GHz)	Emission Level (dB μ V/m)	Polarization	Detector	Measurement Uncertainty (dB)
5.3744	52.61	V	Peak	< $\pm$ 5.13
10.5915	49.73	H	Peak	< $\pm$ 4.98
11.649	49.67	V	Peak	< $\pm$ 4.98
17.472266667	52.03	H	Peak	< $\pm$ 5.08
22.4694	42.36	V	Peak	< $\pm$ 5.08
34.2247	47.22	V	Peak	< $\pm$ 5.33

Verdict: PASS