



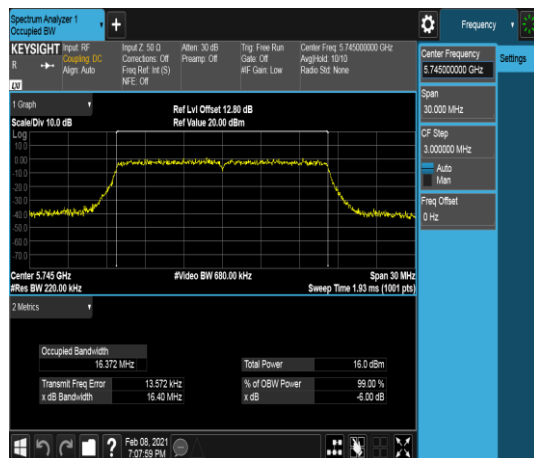
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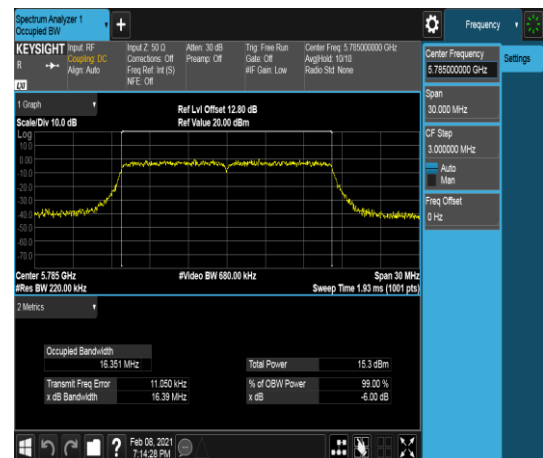
Rev.: 02

UNII-3 IEEE 802.11n a mode- chain 1

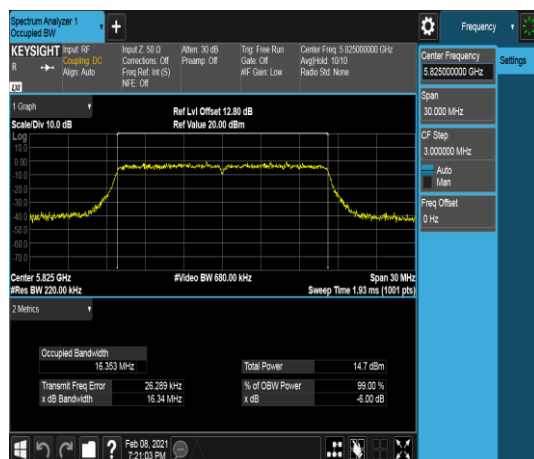
Low CH

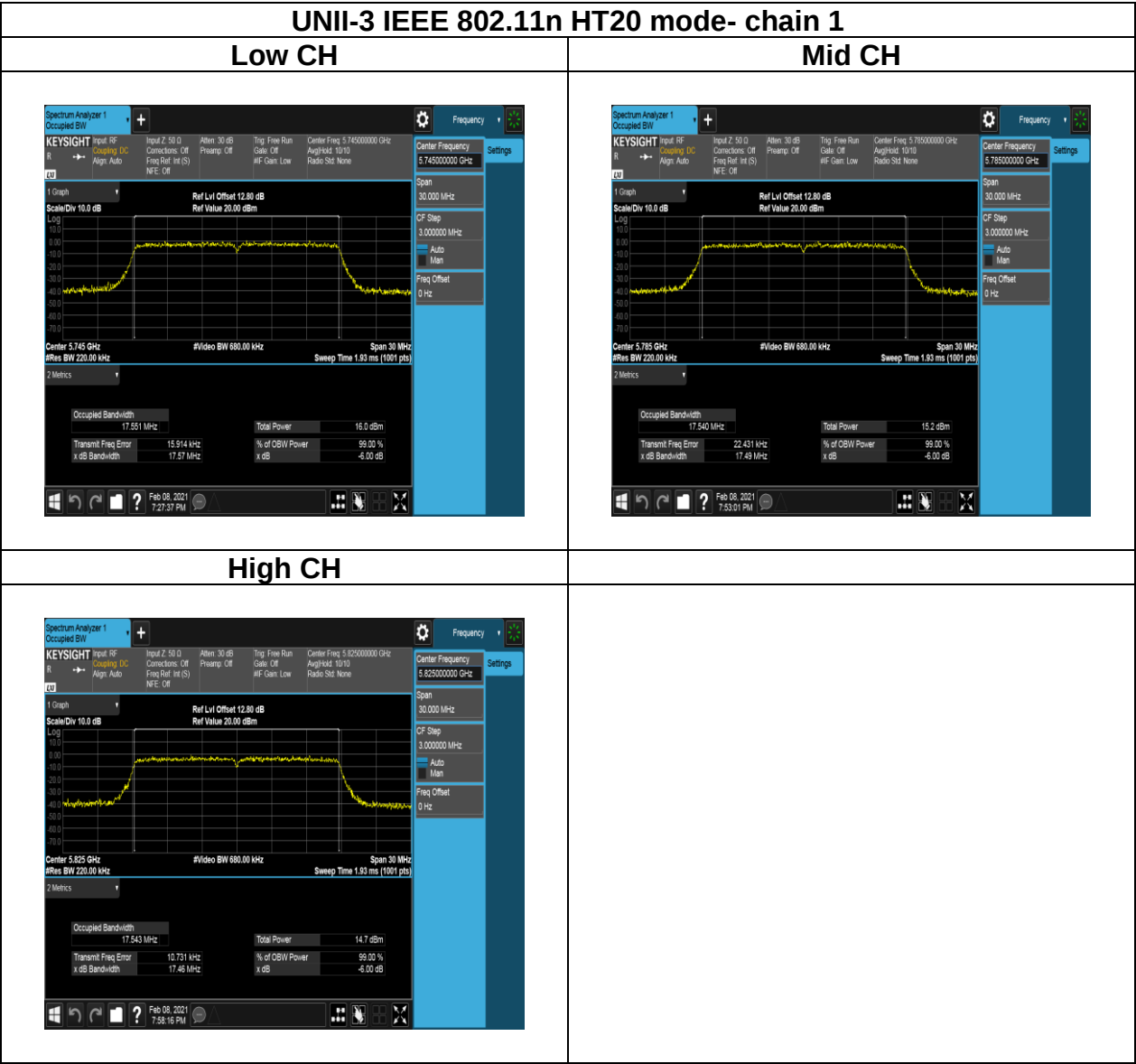


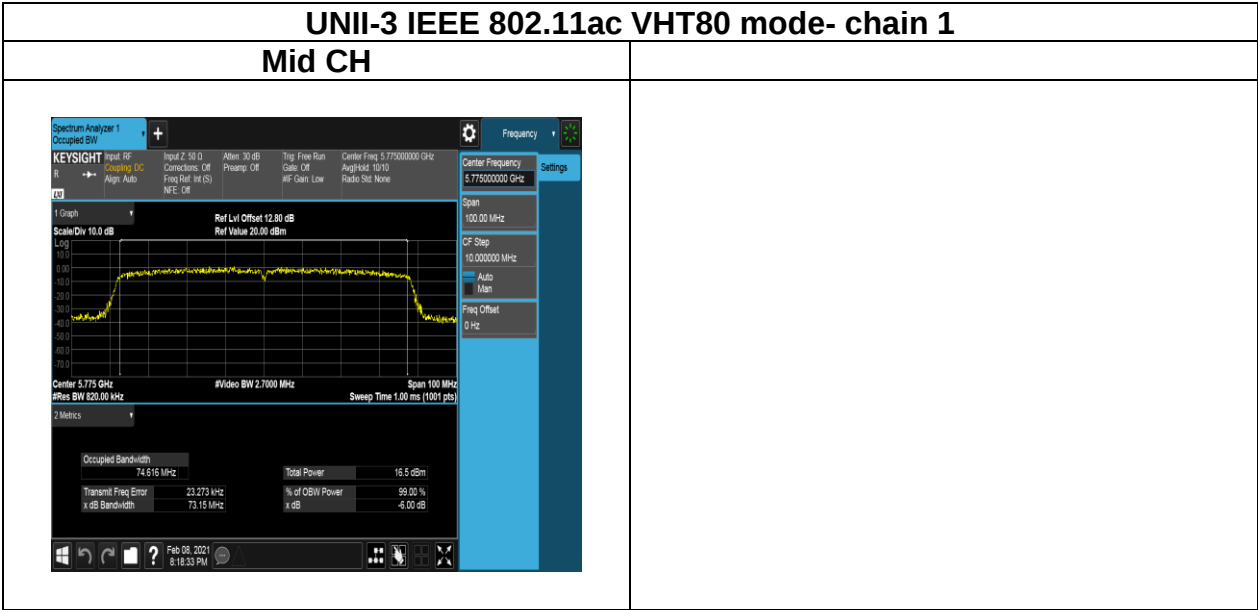
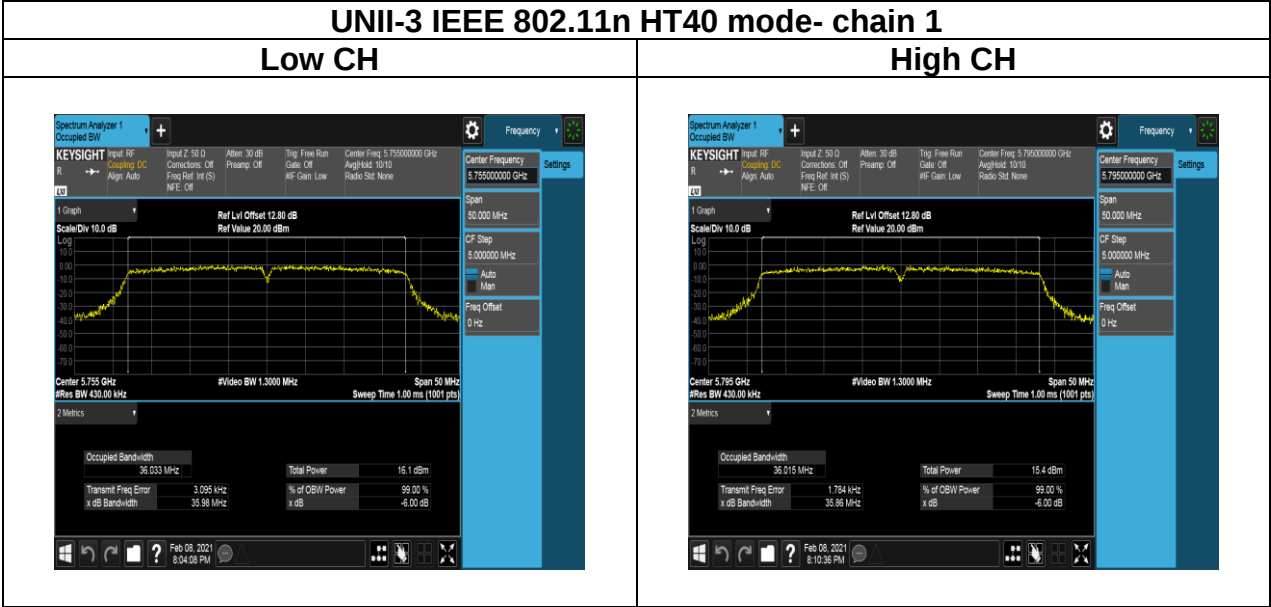
Mid CH



High CH







4.3 OUTPUT POWER MEASUREMENT

4.3.1 Test Limit

According to §15.407 (a)(1), 15.407(a)(2) and 15.407(a)(3),

UNII-1 :

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 (24 dBm), whichever power is less. B is the 99% emission bandwidth in megahertz, provided the maximum antenna gain does not exceed 6 dBi. In addition, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz 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.

UNII-2a and 2c:

the maximum conducted output power over the frequency bands of operation shall not exceed the lesser of 250 mW or $11 \text{ dBm} + 10 \log B$, where B is the 26 dB emission bandwidth in megahertz. In addition, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band. and The maximum e.i.r.p. shall not exceed 1.0 W or $17 + 10 \log B$, dBm, whichever power is less. B is the 99% emission bandwidth in MHz. 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.

UNII-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 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.

UNII-1 Limit	☐ Antenna not exceed 6 dBi : 24dBm ☒ Antenna with DG greater than 6 dBi : [Limit = 24 – (DG – 6)]
UNII-2a/2c Limit	☐ Antenna not exceed 6 dBi : 24dBm ☐ Antenna with DG greater than 6 dBi : [Limit = 24 – (DG – 6)]
UNII-3 Limit	☐ Antenna not exceed 6 dBi : 30dBm ☒ Antenna with DG greater than 6 dBi : [Limit = 30 – (DG – 6)]

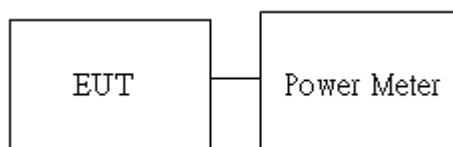
4.3.2 Test Procedure

Test method Refer as KDB 789033 D02, Section E.3.b for BW 20MHz and 40MHz, E.2.b for BW 80MHz.

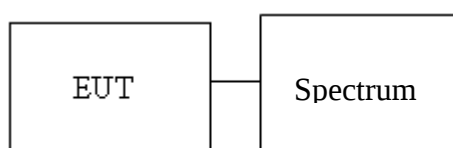
1. The EUT RF output connected to the power meter or spectrum by RF cable.
2. Setting maximum power transmit of EUT.
3. The path loss was compensated to the results for each measurement.
4. Measure and record the result of Average output power. in the test report.

4.3.3 Test Setup

For BW 20MHz and 40MHz



For BW 80MHz



4.3.4 Test Result

Conducted output power :

Temperature: 22.9°C

Humidity: 52.5% RH

Tested by: Lance Chen

Test date: February 8, 2021

Test mode: IEEE 802.11a mode

CH	Frequency (MHz)	Data Rate	Power set	Avg. POWER (dBm)		TOTAL POWER (dBm)	TOTAL POWER (mW)	REQUIRED LIMIT (dBm)	RESULT
				CH 0	CH 1				
36	5180	6	63	10.84	12.32	14.92	31.058	23.98	PASS
44	5220	6	63	10.35	12.44	14.80	30.189	23.98	PASS
48	5240	6	63	10.92	12.53	15.08	32.197	23.98	PASS
149	5745	6	63	7.73	10.34	12.51	17.812	30	PASS
157	5785	6	63	8.12	10.18	12.55	17.989	30	PASS
165	5825	6	63	6.71	8.78	11.15	13.020	30	PASS

Test mode: IEEE 802.11n HT20 mode

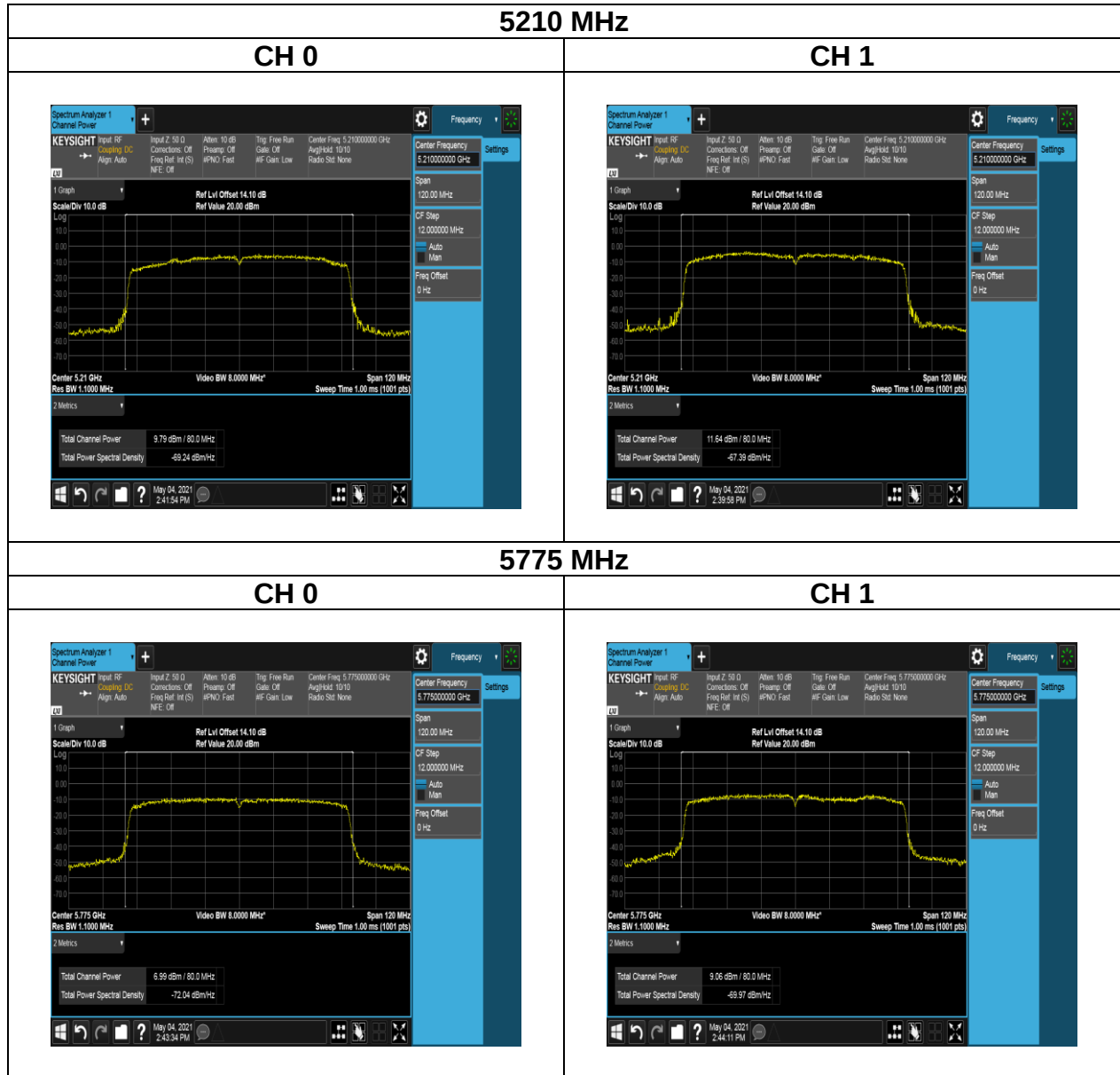
CH	Frequency (MHz)	Data Rate	Power set	Avg. POWER (dBm)		TOTAL POWER (dBm)	TOTAL POWER (mW)	REQUIRED LIMIT (dBm)	RESULT
				CH 0	CH 1				
36	5180	MCS8	63	9.02	12.34	14.36	27.304	23.98	PASS
44	5220	MCS8	63	10.69	12.28	14.93	31.116	23.98	PASS
48	5240	MCS8	63	10.8	11.74	14.67	29.294	23.98	PASS
149	5745	MCS8	63	8.32	10.15	12.70	18.634	30	PASS
157	5785	MCS8	63	8.12	9.41	12.19	16.539	30	PASS
165	5825	MCS8	63	6.79	9.33	11.62	14.506	30	PASS

Test mode: IEEE 802.11n HT40 mode

CH	Frequency (MHz)	Data Rate	Power set	Avg. POWER (dBm)		TOTAL POWER (dBm)	TOTAL POWER (mW)	REQUIRED LIMIT (dBm)	RESULT
				CH 0	CH 1				
38	5190	MCS8	63	9.17	11.43	13.87	24.352	23.98	PASS
46	5230	MCS8	63	8.41	11.8	13.85	24.253	23.98	PASS
151	5755	MCS8	63	6.85	9.39	11.72	14.870	30	PASS
159	5795	MCS8	63	6.7	8.36	11.03	12.673	30	PASS

Test mode: IEEE 802.11ac VHT80 mode

CH	Frequency (MHz)	Data Rate	Power set	Avg. POWER (dBm)		TOTAL POWER (dBm)	TOTAL POWER (mW)	REQUIRED LIMIT (dBm)	RESULT
				CH 0	CH 1				
42	5210	MCS0	63	8.5	10.74	14.58	28.693	23.98	PASS
155	5775	MCS0	63	8.57	9.27	13.75	23.708	30	PASS



4.4 POWER SPECTRAL DENSITY

4.4.1 Test Limit

According to §15.407 (a)(1), 15.407(a)(2) and 15.407(a)(3)

UNII-1 :

The maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band.

UNII-2a and 2c:

The maximum power spectral density shall not exceed 11 dBm in any 1 megahertz 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.

UNII-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 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.

UNII-1 Limit	☐ Antenna not exceed 6 dBi : 11 dBm ☒ Antenna with DG greater than 6 dBi : [Limit = 11 – (DG – 6)]
UNII-2a Limit	☐ Antenna not exceed 6 dBi : 11 dBm ☐ Antenna with DG greater than 6 dBi : [Limit = 11 – (DG – 6)]
UNII-2c Limit	☐ Antenna not exceed 6 dBi : 11 dBm ☐ Antenna with DG greater than 6 dBi : [Limit = 11 – (DG – 6)]
UNII-3 Limit	☐ Antenna not exceed 6 dBi : 30 dBm ☒ Antenna with DG greater than 6 dBi : [Limit = 30 – (DG – 6)]

4.4.2 Test Procedure

Test method Refer as KDB 789033 D02

1. The EUT RF output connected to the spectrum analyzer by RF cable.
2. Setting maximum power transmit of EUT
3. UNII-1, UNII-2a and UNII-2c, SA set RBW = 1MHz, VBW = 3MHz and Detector = RMS, to measurement Power Density.
4. UNII-3, SA set RBW = 500kHz, VBW = 2MHz and Detector = RMS, to measurement Power Density
5. The path loss and Duty Factor were compensated to the results for each measurement by SA.
6. Mark the maximum level.
7. Measure and record the result of power spectral density. in the test report.

4.4.3 Test Setup



4.4.4 Test Result

Temperature: 22.9°C **Humidity:** 52.5% RH
Tested by: Lance Chen **Test date:** February 8, 2021

Temperature: 23.5°C **Humidity:** 50.7% RH
Tested by: Lance Chen **Test date:** February 9, 2021

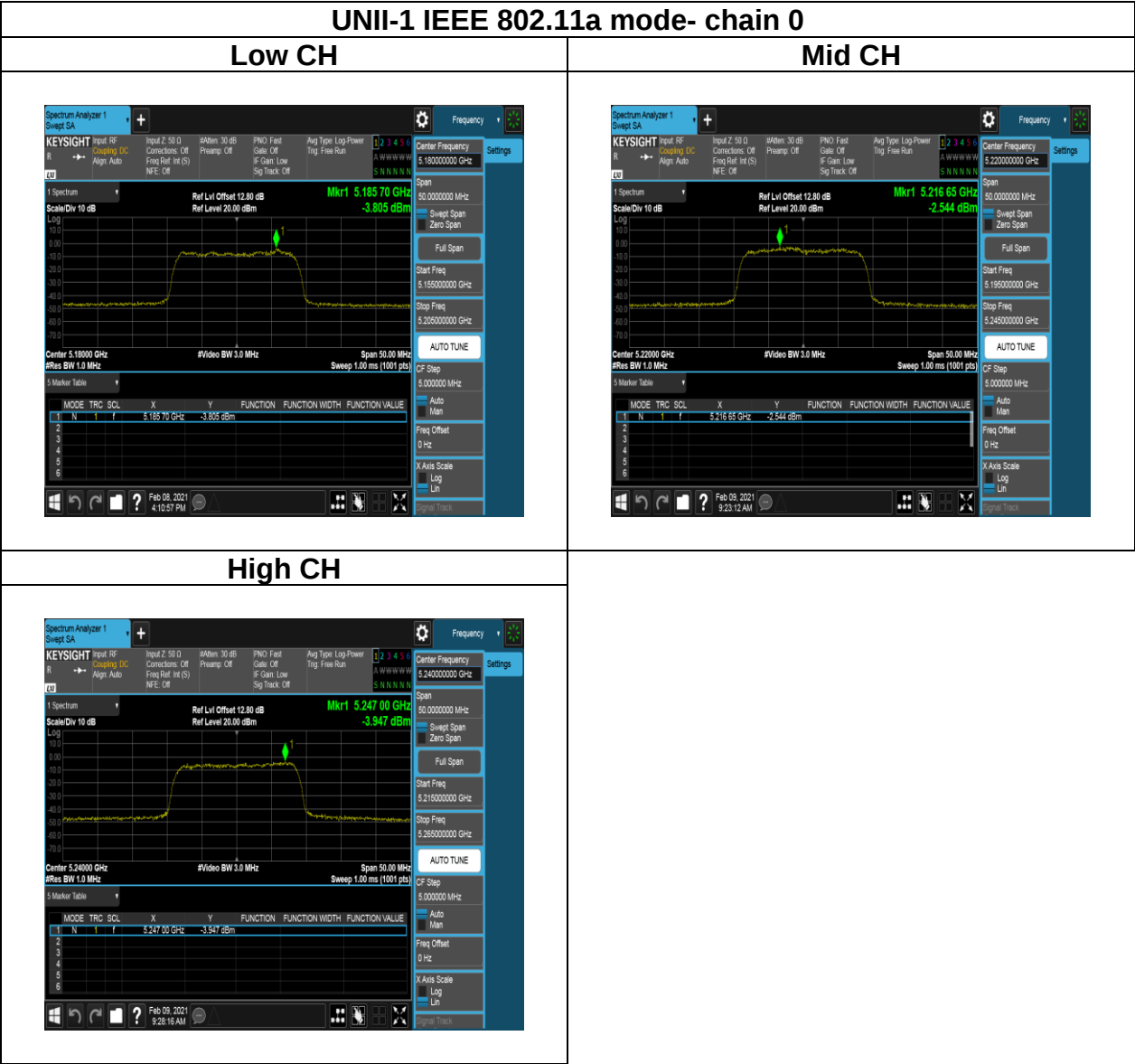
UNII-1 5150-5250 MHz						
Test mode: IEEE 802.11a mode						
Channel	Frequency (MHz)	Chain 0 PPSD (dBm)	Chain 1 PPSD (dBm)	Duty Factor (dB)	Total Corr'd PSD(dBm/MHz)	Limit (dBm)
Low	5180	-3.80	-0.20	0.27	1.64	11
Mid	5220	-2.54	-1.87	0.27	1.09	
High	5240	-3.95	0.17	0.27	1.86	
Test mode: IEEE 802.11n HT20 mode						
Channel	Frequency (MHz)	Chain 0 PPSD (dBm)	Chain 1 PPSD (dBm)	Duty Factor (dB)	Total Corr'd PSD(dBm/MHz)	Limit (dBm)
Low	5180	-1.80	-1.54	0.36	1.70	11
Mid	5220	-1.76	-2.73	0.36	1.15	
High	5240	-2.35	-2.87	0.36	0.77	
Test mode: IEEE 802.11n HT40 mode						
Channel	Frequency (MHz)	Chain 0 PPSD (dBm)	Chain 1 PPSD (dBm)	Duty Factor (dB)	Total Corr'd PSD(dBm/MHz)	Limit (dBm)
Low	5190	-8.60	-5.76	0.41	-3.53	11
High	5230	-8.91	-7.70	0.41	-4.84	
Test mode: IEEE 802.11ac VHT80 mode						
Channel	Frequency (MHz)	Chain 0 PPSD (dBm)	Chain 1 PPSD (dBm)	Duty Factor (dB)	Total Corr'd PSD(dBm/MHz)	Limit (dBm)
Low	5210	-15.02	-13.29	1.80	-9.26	11

UNII-3 5725-5825 MHz							
Test mode: IEEE 802.11a mode							
Channel	Frequency (MHz)	Chain 0 PPSPD (dBm)	Chain 1 PPSPD (dBm)	Duty Factor (dB)	10log (500kHz/RBW) Factor(dB)	Total Corr'd PSD (dBm/500kHz)	Limit (dBm)
Low	5745	-11.08	-6.72	0.27	2.22	-2.87	30
Mid	5785	-11.52	-8.26	0.27	2.22	-4.09	
High	5825	-11.77	-8.57	0.27	2.22	-4.38	
Test mode: IEEE 802.11n HT20 mode							
Channel	Frequency (MHz)	Chain 0 PPSPD (dBm)	Chain 1 PPSPD (dBm)	Duty Factor (dB)	10log (500kHz/RBW) Factor(dB)	Total Corr'd PSD (dBm/500kHz)	Limit (dBm)
Low	5745	-10.06	-8.39	0.36	2.22	-3.55	30
Mid	5785	-11.14	-7.82	0.36	2.22	-3.58	
High	5825	-10.69	-8.89	0.36	2.22	-4.11	
Test mode: IEEE 802.11n HT40 mode							
Channel	Frequency (MHz)	Chain 0 PPSPD (dBm)	Chain 1 PPSPD (dBm)	Duty Factor (dB)	10log (500kHz/RBW) Factor(dB)	Total Corr'd PSD (dBm/500kHz)	Limit (dBm)
Low	5755	-14.78	-13.22	0.41	2.22	-8.29	30
High	5795	-15.54	-13.27	0.41	2.22	-8.62	
Test mode: IEEE 802.11ac VHT80 mode							
Channel	Frequency (MHz)	Chain 0 PPSPD (dBm)	Chain 1 PPSPD (dBm)	Duty Factor (dB)	10log (500kHz/RBW) Factor(dB)	Total Corr'd PSD (dBm/500kHz)	Limit (dBm)
Mid	5775	-21.72	-18.48	1.80	2.22	-12.77	30



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Test Data

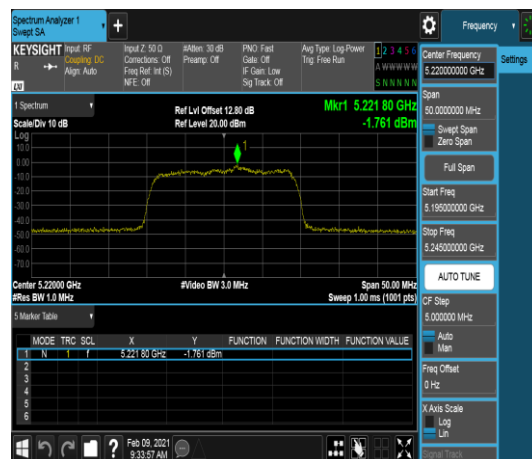


UNII-1 IEEE 802.11n HT20 mode- chain 0

Low CH



Mid CH



High CH



UNII-1 IEEE 802.11n HT40 mode- chain 0

Low CH



High CH



UNII-1 IEEE 802.11ac VHT80 mode- chain 0

Low CH



Report No.: T210106W01-RP2

UNII-1 IEEE 802.11a mode- chain 1

Low CH



Mid CH



High CH

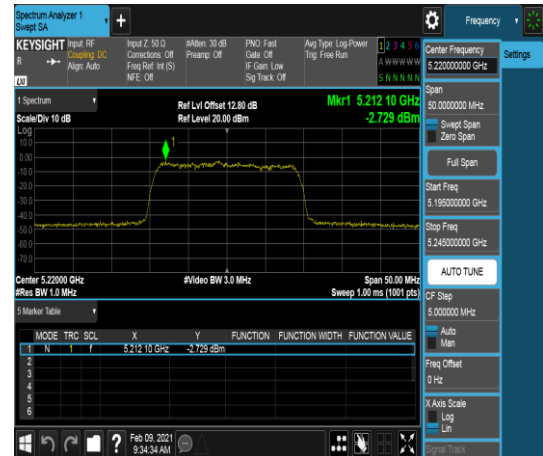


UNII-1 IEEE 802.11n HT20 mode- chain 1

Low CH



Mid CH



High CH



UNII-1 IEEE 802.11n HT40 mode- chain 1

Low CH



High CH



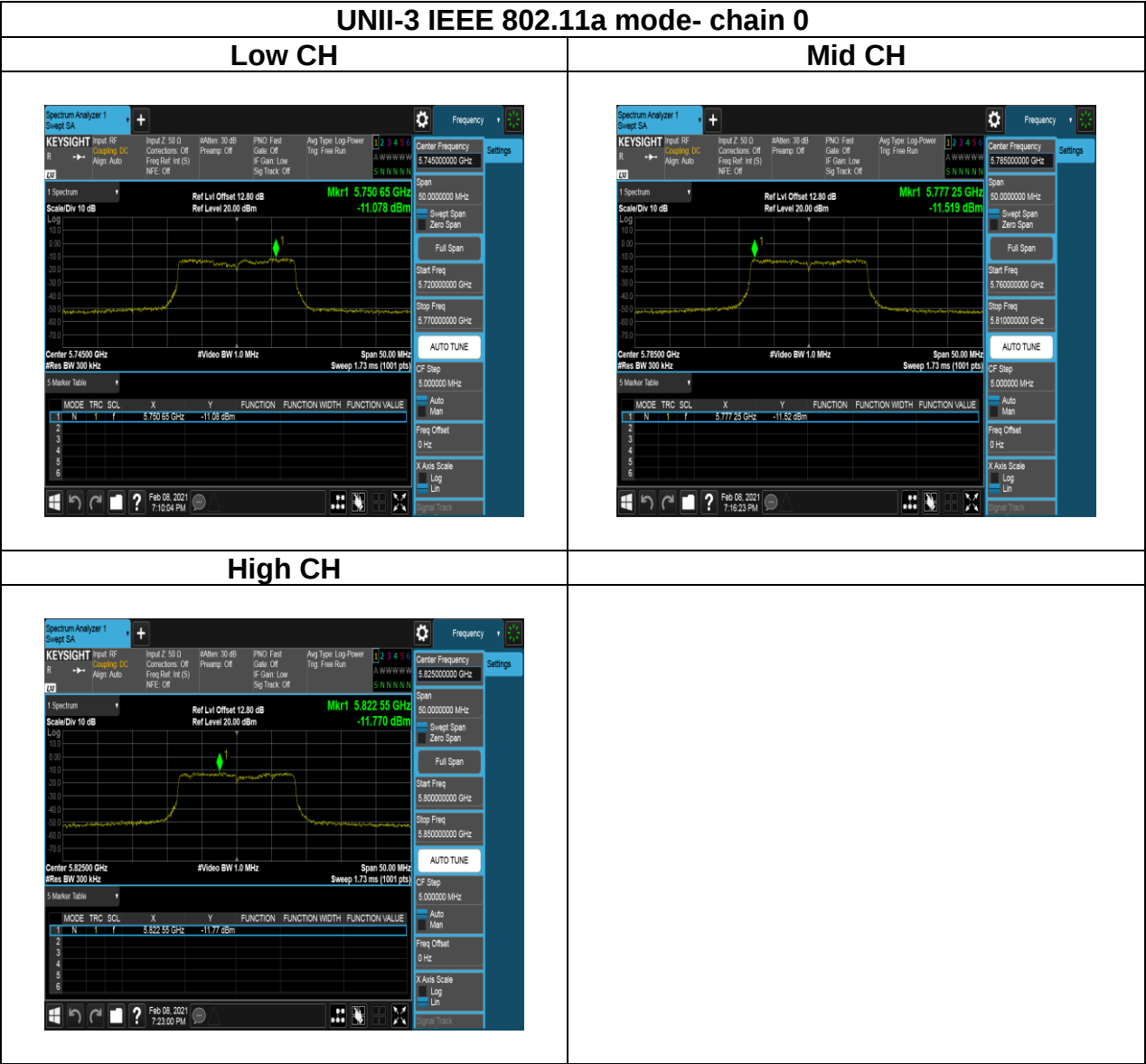
UNII-1 IEEE 802.11ac VHT80 mode- chain 1

Low CH





Test Data



UNII-3 IEEE 802.11n HT20 mode- chain 0

Low CH



Mid CH



High CH



UNII-3 IEEE 802.11n HT40 mode- chain 0

Low CH



High CH



UNII-3 IEEE 802.11ac VHT80 mode- chain 0

Low CH



UNII-3 IEEE 802.11a mode- chain 1

Low CH



Mid CH



High CH



UNII-3 IEEE 802.11n HT20 mode- chain 1

Low CH



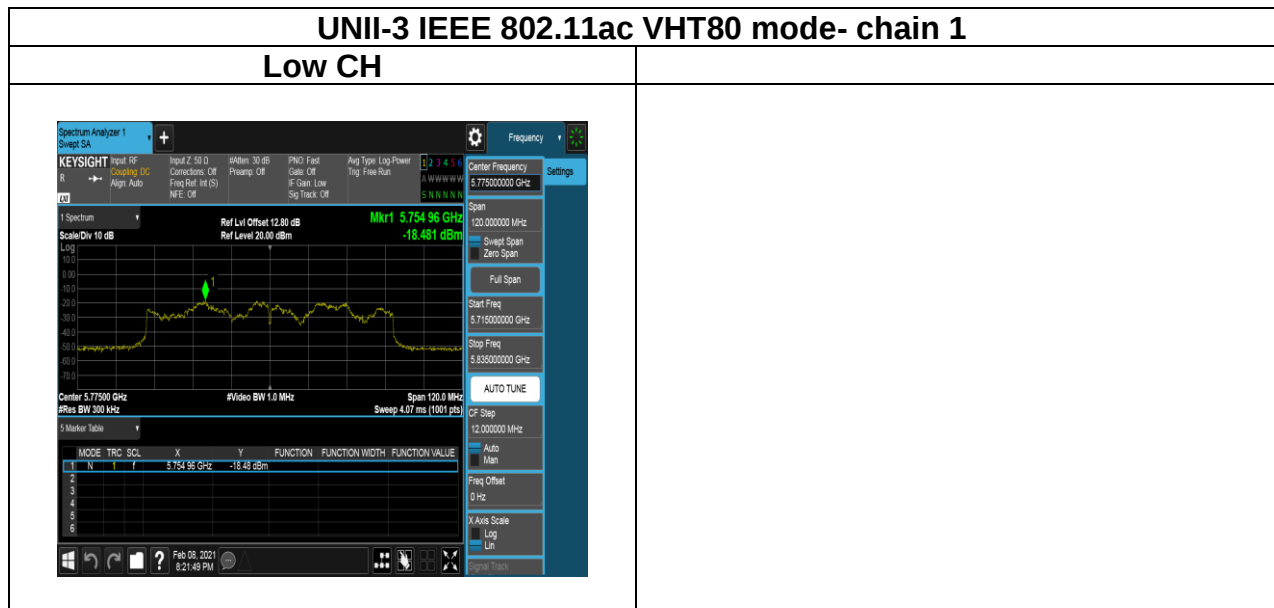
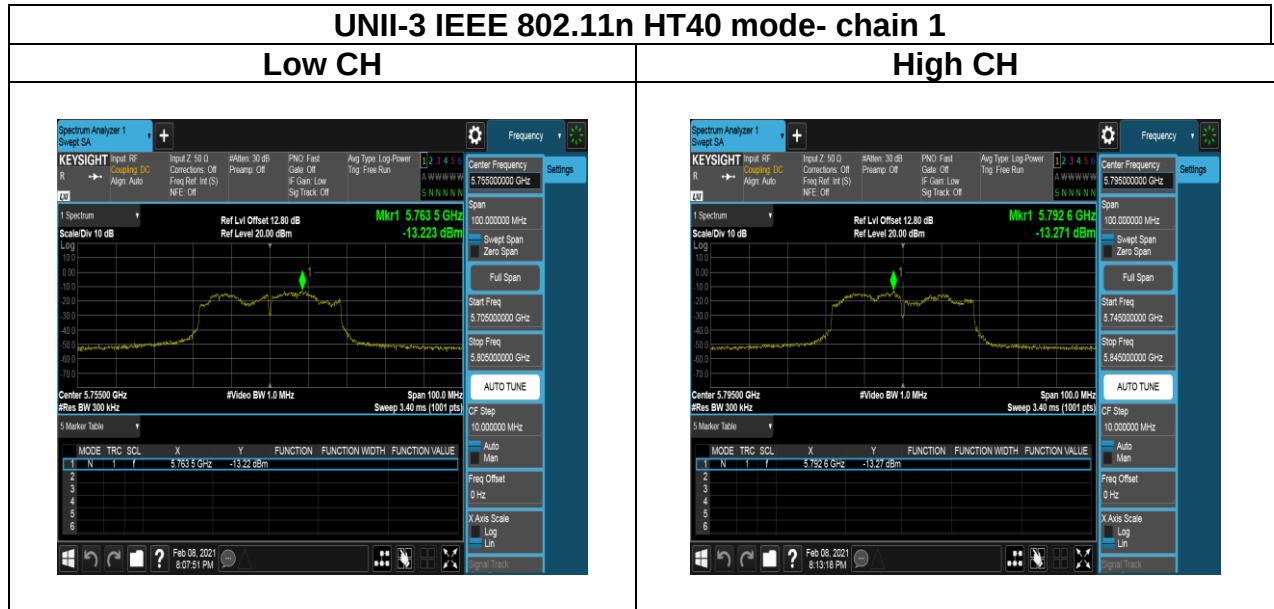
Mid CH



High CH



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4.5 RADIATION Bandedge and Spurious Emission

4.5.1 Test Limit

FCC according to §15.407, §15.209 and §15.205,

Below 30 MHz

Frequency	Field Strength (microvolts/m)	Magnetic H-Field (microamperes/m)	Measurement Distance (metres)
9-490 kHz	2,400/F (F in kHz)	2,400/F (F in kHz)	300
490-1,705 kHz	24,000/F (F in kHz)	24,000/F (F in kHz)	30
1.705-30 MHz	30	N/A	30

Above 30 MHz

Frequency (MHz)	Field Strength microvolts/m at 3 metres (watts, e.i.r.p.)	
	Transmitters	Receivers
30-88	100 (3 nW)	100 (3 nW)
88-216	150 (6.8 nW)	150 (6.8 nW)
216-960	200 (12 nW)	200 (12 nW)
Above 960	500 (75 nW)	500 (75 nW)

UNII-1 :

For transmitters operating in the band 5150-5250 MHz, all emissions outside the band 5150-5350 MHz shall not exceed -27 dBm/MHz e.i.r.p. However, any unwanted emissions that fall into the band 5250-5350 MHz must be 26 dBc, when measured using a resolution bandwidth between 1 and 5% of the occupied bandwidth, above 5.25 GHz. Otherwise, the transmission is considered as intentional and the devices shall implement dynamic frequency selection (DFS) and transmitter power control (TPC) as per the requirements for the band 5250-5350 MHz

UNII-2a and 2c :

For devices with operating frequencies in the band 5250-5350 MHz but having a channel bandwidth that overlaps the band 5150-5250 MHz, the devices' unwanted emission shall not exceed -27 dBm/MHz e.i.r.p. outside the band 5150-5350 MHz and its power shall comply with the spectral power density for operation within the band 5150-5250 MHz. The device shall be labelled "for indoor use only." Emissions outside the band 5470-5725 MHz shall not exceed -27 dBm/MHz e.i.r.p.

UNII-3:

All emissions shall be limited to a level of -27 dBm/MHz 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.

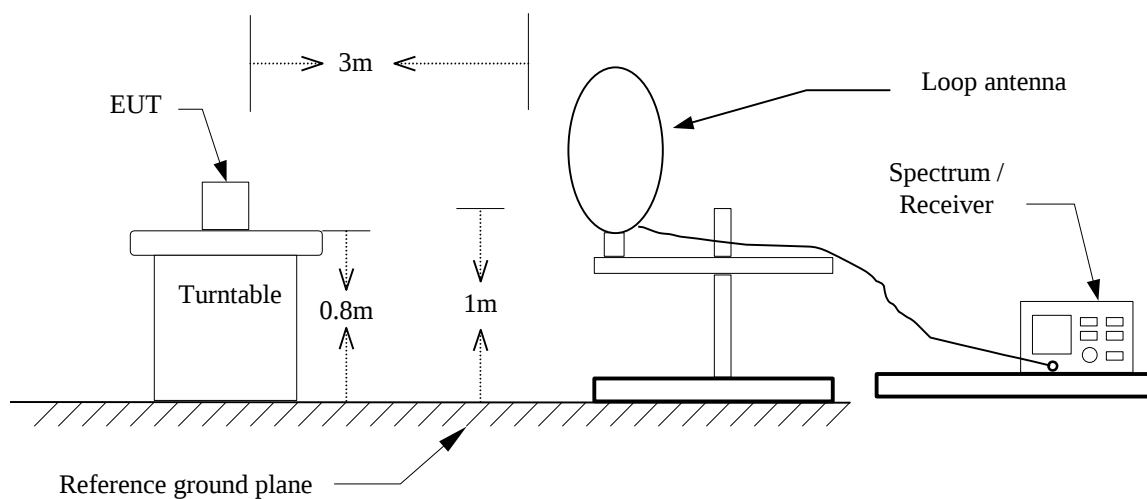
4.5.2 Test Procedure

Test method Refer as KDB 789033 D02.

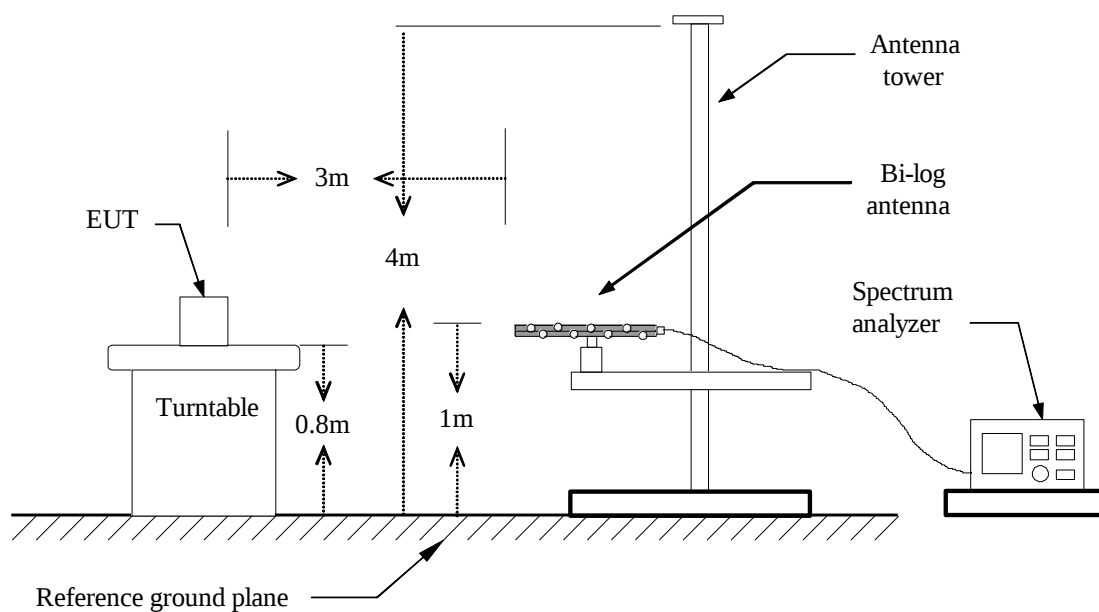
1. The EUT is placed on a turntable, Above 1 GHz is 1.5m and below 1 GHz is 0.8m above ground plane. The EUT Configured un accordance with ANSI C63.10: 2013, and the EUT set in a continuous mode.
2. The turntable shall be rotated for 360 degrees to determine the position of maximum emission level. And EUT is set 3m away from the receiving antenna, which is scanned from 1m to 4m above the ground plane to find out the highest emissions. Measurement are made polarized in both the vertical and the horizontal positions with antenna.
3. Span shall wide enough to full capture the emission measured. The SA from 9kHz to 26.5GHz set to the low, Mid and High channels with the EUT transmit.
4. No emission found between lowest internal used/generated frequency to 30MHz (9KHz~30MHz)
5. The SA setting following :
 - (1) Below 1G : RBW = 100kHz, VBW $\geq 3 \times$ RBW, Sweep = Auto, Detector = Peak, Trace = Max hold.
 - (2) Above 1G :
 - (2.1) For Peak measurement : RBW = 1MHz, VBW ≥ 3 RBW, Sweep = Auto, Detector = Peak, Trace = Max hold.
 - (2.2) For Average measurement : RBW = 1MHz, VBW
 - If Duty Cycle $\geq 98\%$, VBW=10Hz.
 - If Duty Cycle $< 98\%$, VBW=1/T.

4.5.3 Test Setup

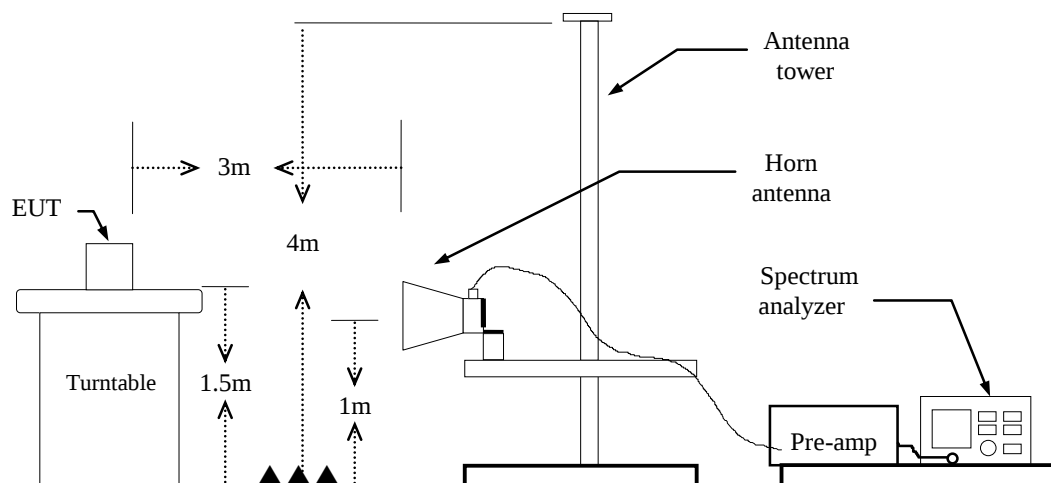
9kHz ~ 30MHz



30MHz ~ 1GHz



Above 1 GHz

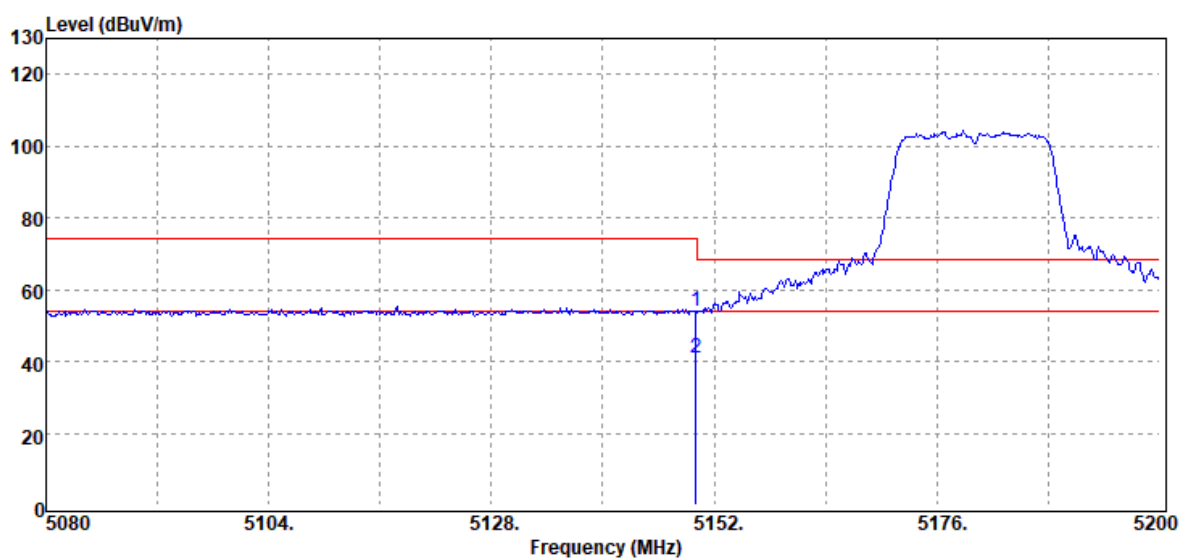


4.5.4 Test Result

Band Edge Test Data

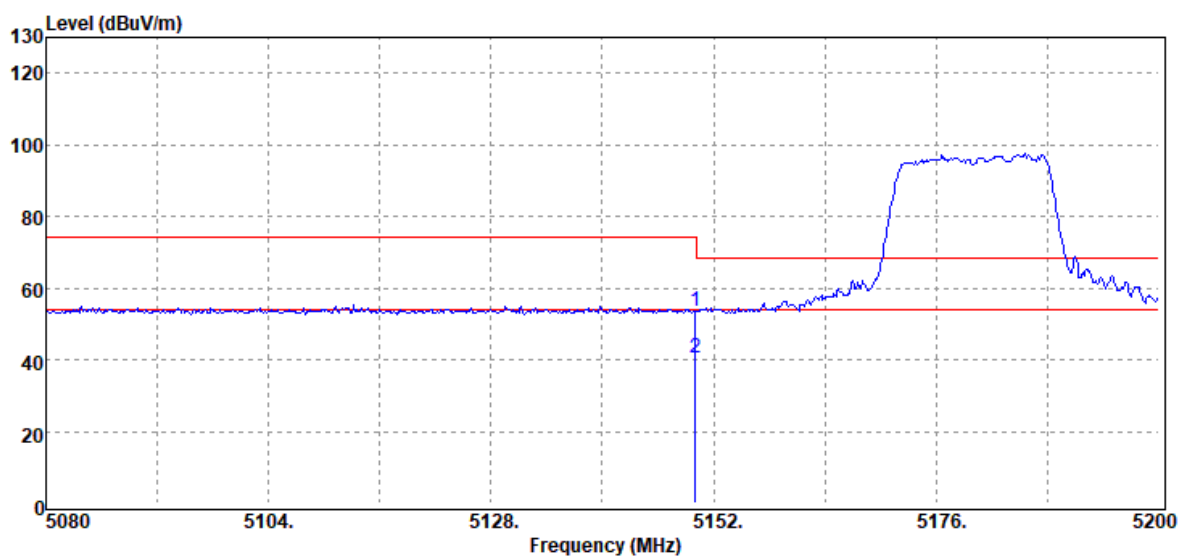
Test Data for UNII-1

Test Mode	IEEE 802.11a / 5180MHZ	Temp/Hum	20.1(°C)/ 50%RH
Test Item	Band Edge	Test Date	February 3, 2021
Polarize	Vertical	Test Engineer	Jerry Chang
Detector	Peak and Average		



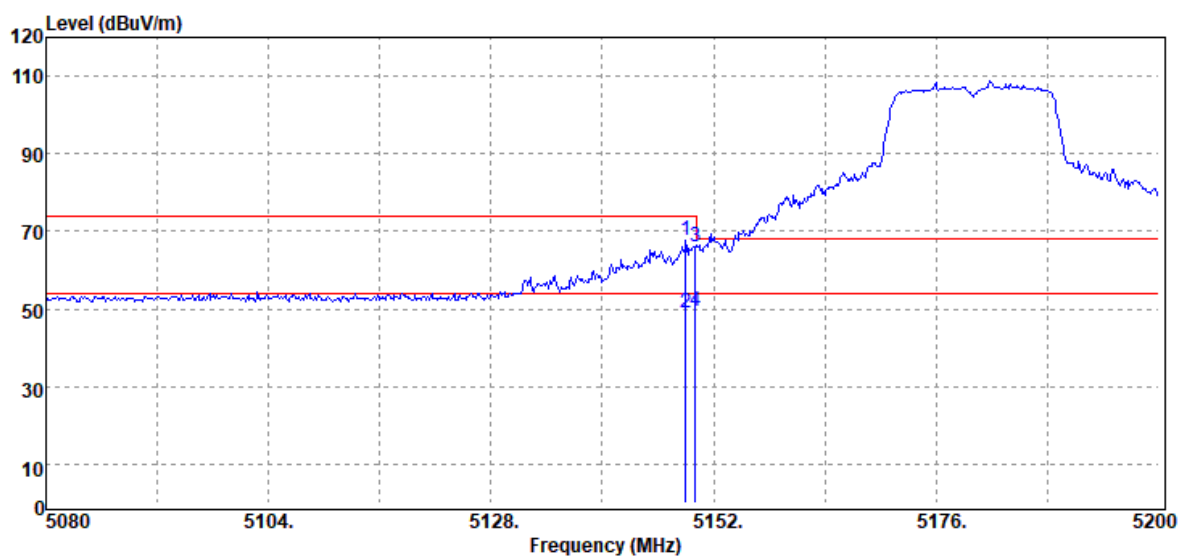
Frequency (MHz)	Detector Mode PK/QP/AV	Spectrum Reading Level dBμV	Factor dB	Actual FS dBμV/m	Limit @3m dBμV/m	Margin dB
5150.00	Peak	46.57	7.62	54.19	74.00	-19.81
5150.00	Average	33.26	7.62	40.88	54.00	-13.12

Test Mode	IEEE 802.11a / 5180MHZ	Temp/Hum	20.1(°C) / 50%RH
Test Item	Band Edge	Test Date	February 3, 2021
Polarize	Horizontal	Test Engineer	Jerry Chang
Detector	Peak / Average		



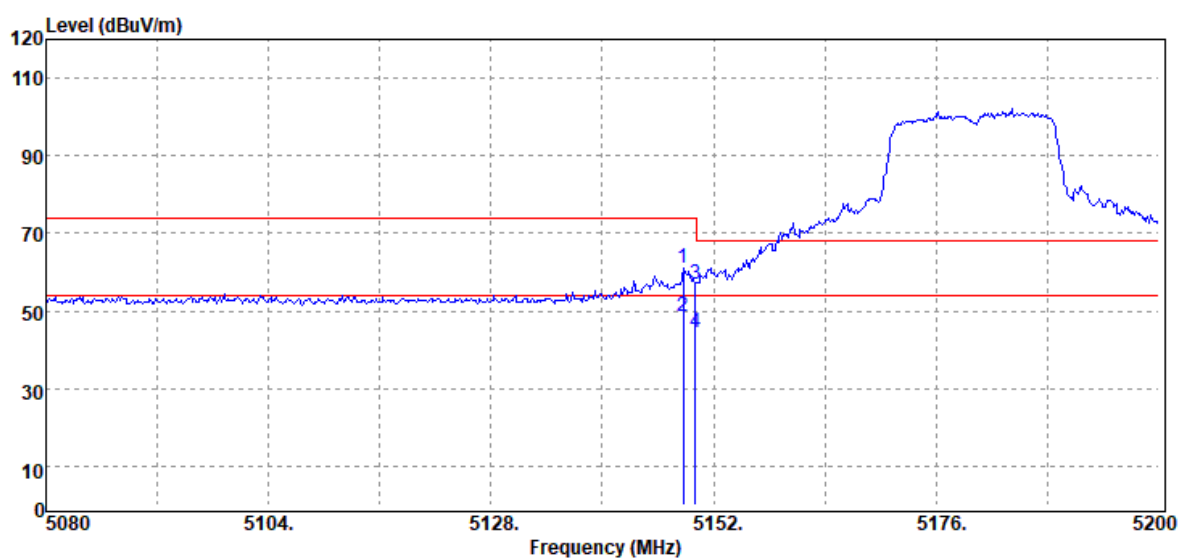
Frequency (MHz)	Detector Mode PK/QP/AV	Spectrum Reading Level dBμV	Factor dB	Actual FS dBμV/m	Limit @3m dBμV/m	Margin dB
5150.00	Peak	46.08	7.62	53.70	74.00	-20.30
5150.00	Average	32.96	7.62	40.58	54.00	-13.42

Test Mode	IEEE 802.11n 20 MHz / 5180MHZ	Temp/Hum	20.1(°C)/ 50%RH
Test Item	Band Edge	Test Date	February 3, 2021
Polarize	Vertical	Test Engineer	Jerry Chang
Detector	Peak and Average		



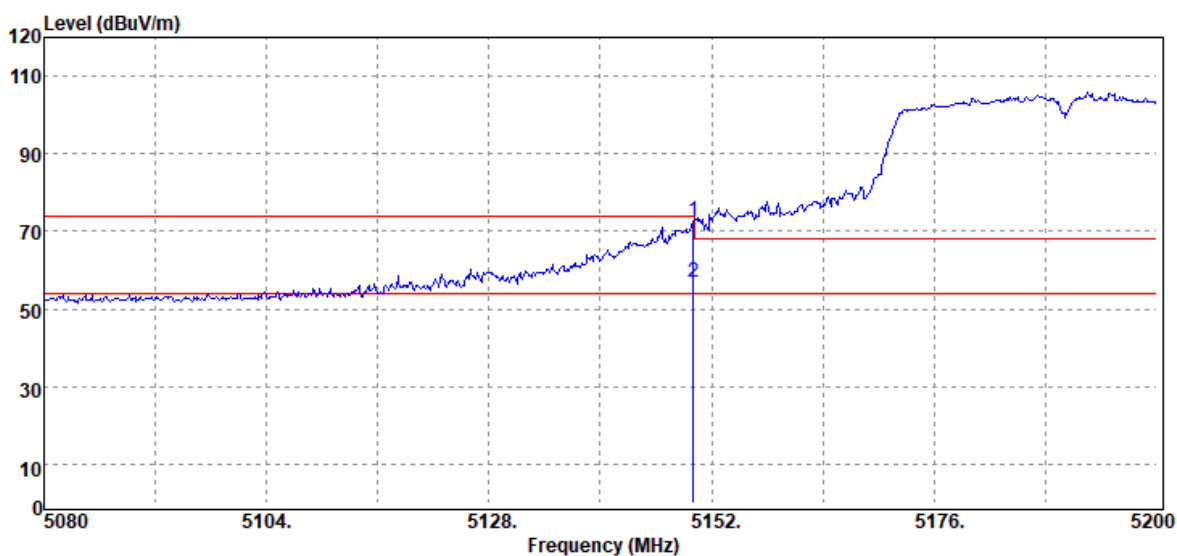
Frequency (MHz)	Detector Mode PK/QP/AV	Spectrum Reading Level dBμV	Factor dB	Actual FS dBμV/m	Limit @3m dBμV/m	Margin dB
5149.00	Peak	59.92	7.62	67.54	74.00	-6.46
5149.00	Average	41.23	7.62	48.85	54.00	-5.15
5150.00	Peak	58.36	7.62	65.98	74.00	-8.02
5150.00	Average	41.97	7.62	49.59	54.00	-4.41

Test Mode	IEEE 802.11n 20 MHz / 5180MHZ	Temp/Hum	20.1(°C)/ 50%RH
Test Item	Band Edge	Test Date	February 3, 2021
Polarize	Horizontal	Test Engineer	Jerry Chang
Detector	Peak and Average		



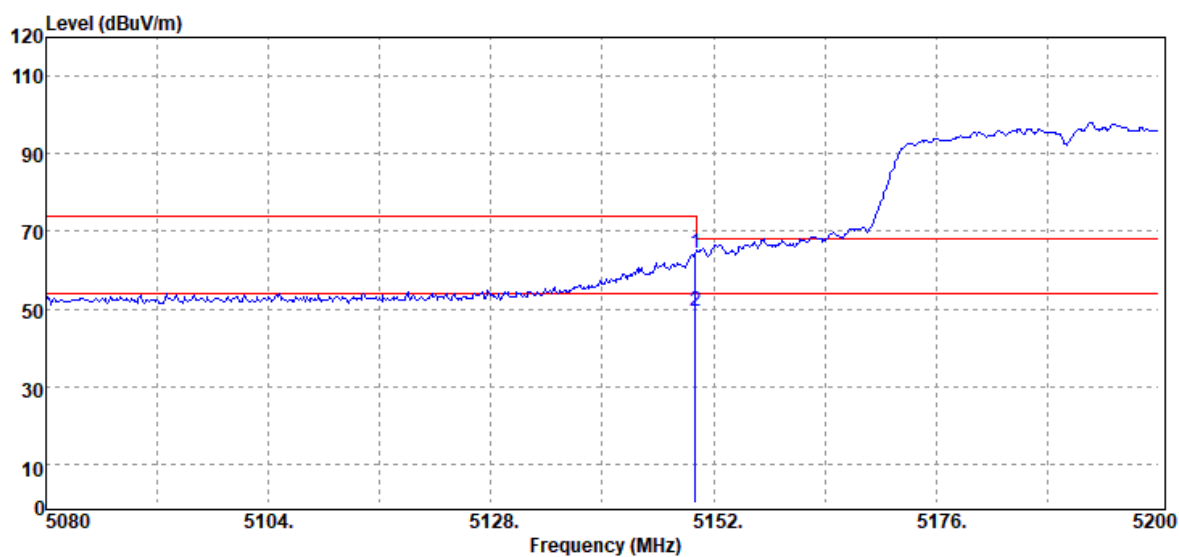
Frequency (MHz)	Detector Mode PK/QP/AV	Spectrum Reading Level dBμV	Factor dB	Actual FS dBμV/m	Limit @3m dBμV/m	Margin dB
5148.76	Peak	53.32	7.62	60.94	74.00	-13.06
5148.76	Average	40.84	7.62	48.46	54.00	-5.54
5150.00	Peak	49.42	7.62	57.04	74.00	-16.96
5150.00	Average	36.67	7.62	44.29	54.00	-9.71

Test Mode	IEEE 802.11n 40 MHz / 5190MHZ	Temp/Hum	20.1(°C)/ 50%RH
Test Item	Band Edge	Test Date	February 3, 2021
Polarize	Vertical	Test Engineer	Jerry Chang
Detector	Peak and Average		



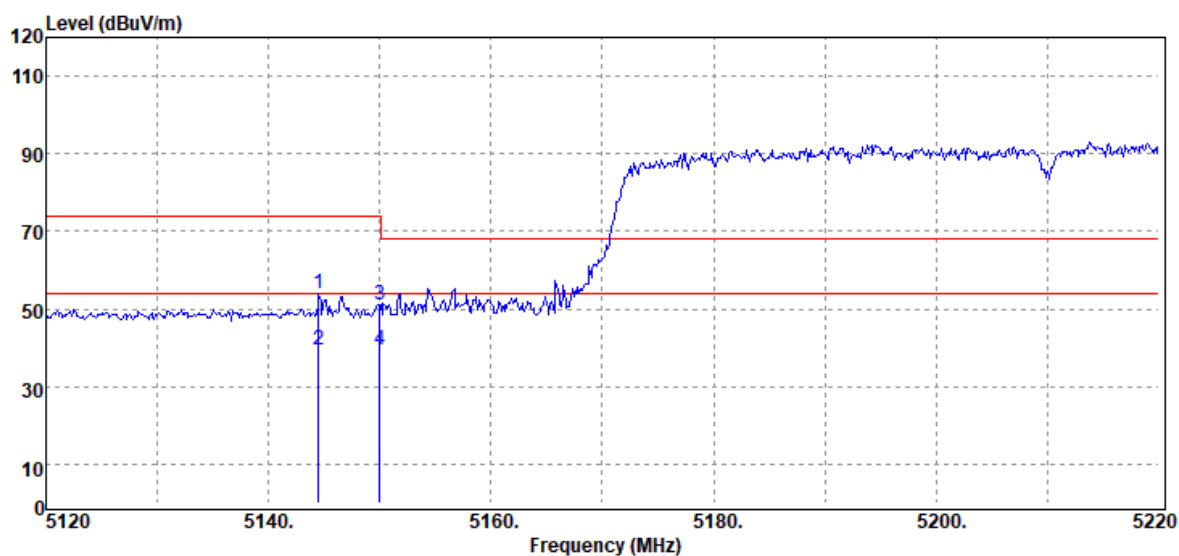
Frequency (MHz)	Detector Mode PK/QP/AV	Spectrum Reading Level dBμV	Factor dB	Actual FS dBμV/m	Limit @3m dBμV/m	Margin dB
5150.00	Peak	65.18	7.62	72.80	74.00	-1.20
5150.00	Average	49.10	7.62	56.72	54.00	2.72

Test Mode	IEEE 802.11n 40 MHz / 5230MHz	Temp/Hum	20.1(°C)/ 50%RH
Test Item	Band Edge	Test Date	February 3, 2021
Polarize	Horizontal	Test Engineer	Jerry Chang
Detector	Peak and Average		



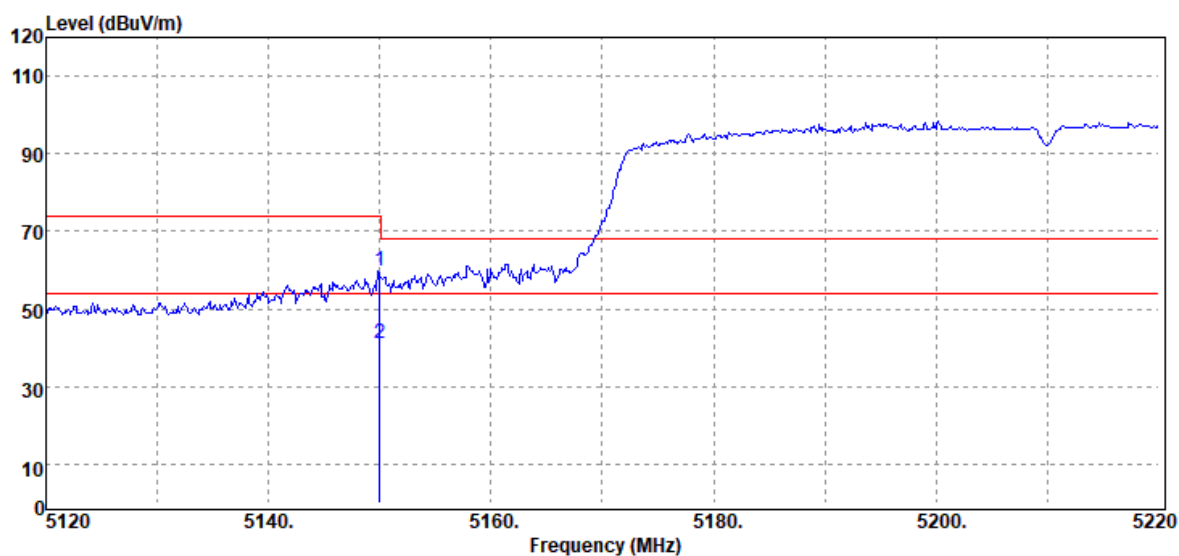
Frequency (MHz)	Detector Mode PK/QP/AV	Spectrum Reading Level dBμV	Factor dB	Actual FS dBμV/m	Limit @3m dBμV/m	Margin dB
5150.00	Peak	56.93	7.62	64.55	74.00	-9.45
5150.00	Average	41.72	7.62	49.34	54.00	-4.66

Test Mode	IEEE 802.11ac VHT80 / 5210MHZ	Temp/Hum	21.1(°C) / 53%RH
Test Item	Band Edge	Test Date	February 5, 2021
Polarize	Vertical	Test Engineer	Jerry Chang
Detector	Peak and Average		



Frequency (MHz)	Detector Mode PK/QP/AV	Spectrum Reading Level dBμV	Factor dB	Actual FS dBμV/m	Limit @3m dBμV/m	Margin dB
5144.50	Peak	46.48	7.61	54.09	74.00	-19.91
5144.50	Average	31.77	7.61	39.38	54.00	-14.62
5150.00	Peak	43.47	7.62	51.09	74.00	-22.91
5150.00	Average	31.91	7.62	39.53	54.00	-14.47

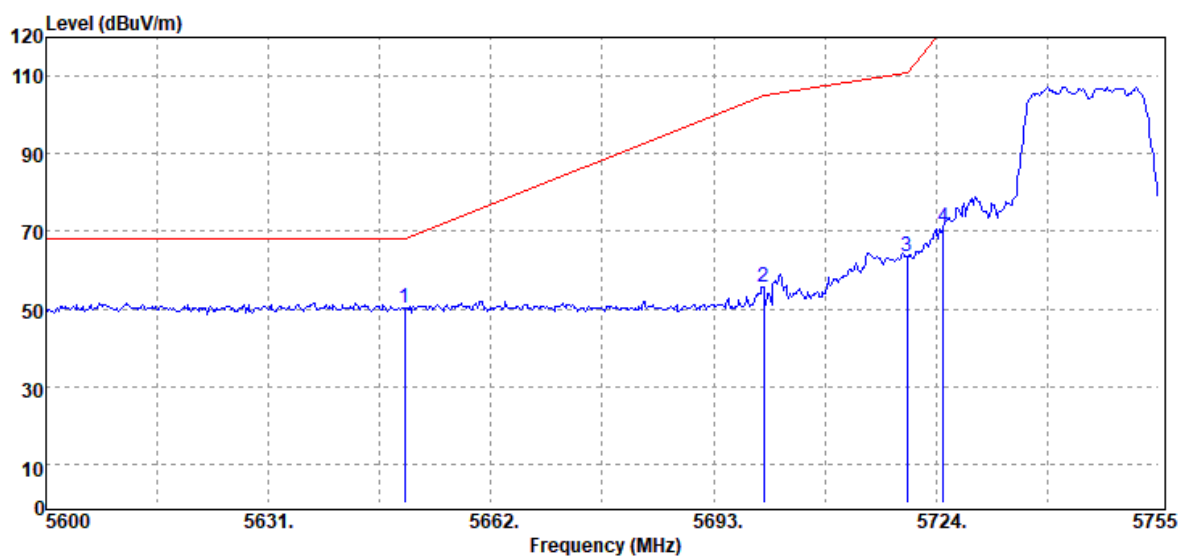
Test Mode	IEEE 802.11ac VHT80 / 5210MHZ	Temp/Hum	21.1(°C) / 53%RH
Test Item	Band Edge	Test Date	February 5, 2021
Polarize	Horizontal	Test Engineer	Jerry Chang
Detector	Peak and Average		



Frequency (MHz)	Detector Mode PK/QP/AV	Spectrum Reading Level dBμV	Factor dB	Actual FS dBμV/m	Limit @3m dBμV/m	Margin dB
5150.00	Peak	52.24	7.62	59.86	74.00	-14.14
5150.00	Average	33.51	7.62	41.13	54.00	-12.87

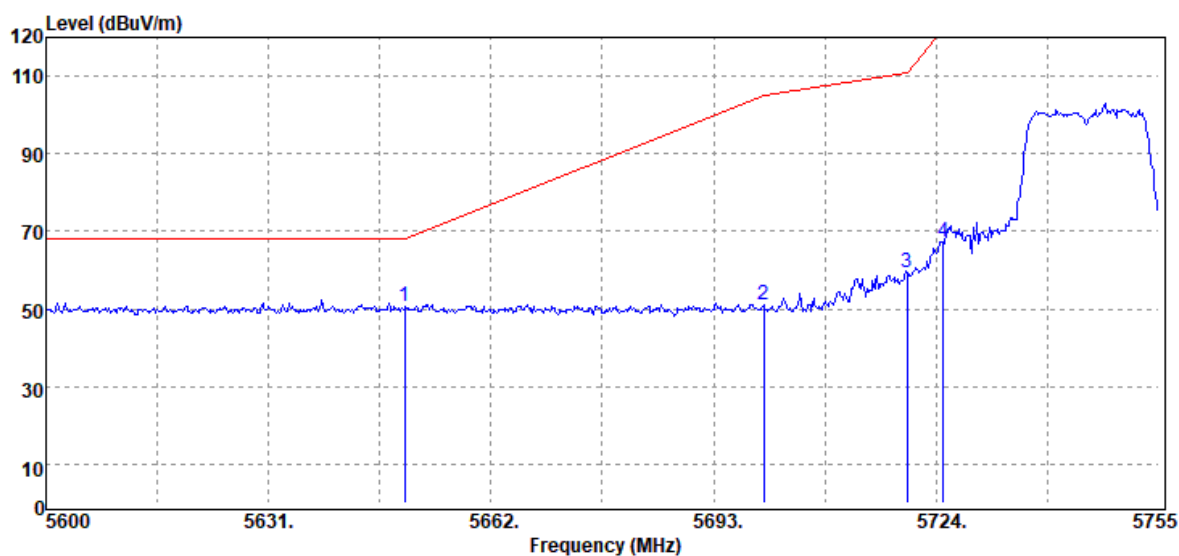
Test Data for UNII-3

Test Mode	IEEE 802.11a / 5745 MHz	Temp/Hum	20.1(°C)/ 50%RH
Test Item	Band Edge	Test Date	February 3, 2021
Polarize	Vertical	Test Engineer	Jerry Chang
Detector	Peak		



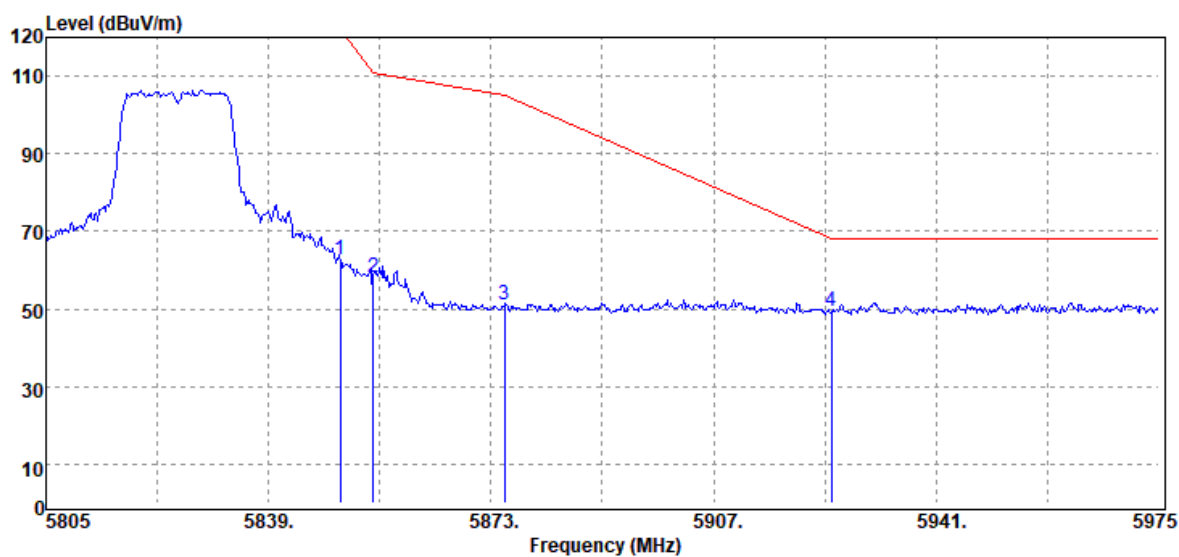
Frequency (MHz)	Detector Mode PK/QP/AV	Spectrum Reading Level dBμV	Factor dB	Actual FS dBμV/m	Limit @3m dBμV/m	Margin dB
5650.00	Peak	41.51	8.87	50.38	68.20	-17.82
5700.00	Peak	46.28	9.22	55.50	105.20	-49.70
5720.00	Peak	54.37	9.29	63.66	110.80	-47.14
5725.00	Peak	61.76	9.29	71.05	122.20	-51.15

Test Mode	IEEE 802.11a / 5745 MHz	Temp/Hum	20.1(°C) / 50%RH
Test Item	Band Edge	Test Date	February 3, 2021
Polarize	Horizontal	Test Engineer	Jerry Chang
Detector	Peak		



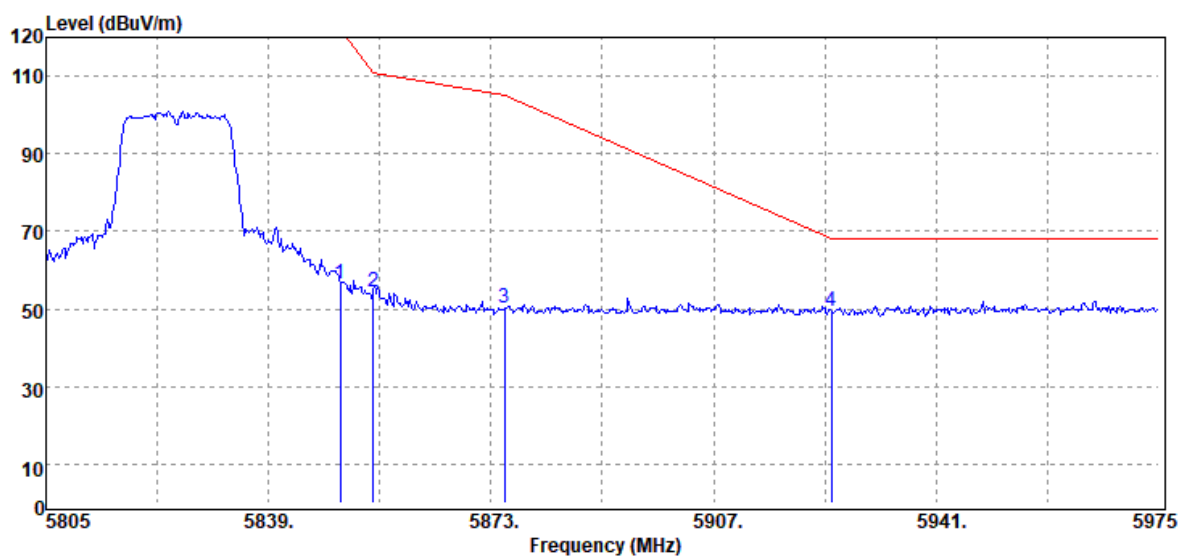
Frequency (MHz)	Detector Mode PK/QP/AV	Spectrum Reading Level dBμV	Factor dB	Actual FS dBμV/m	Limit @3m dBμV/m	Margin dB
5650.00	Peak	41.72	8.87	50.59	68.20	-17.61
5700.00	Peak	41.81	9.22	51.03	105.20	-54.17
5720.00	Peak	50.20	9.29	59.49	110.80	-51.31
5725.00	Peak	57.92	9.29	67.21	122.20	-54.99

Test Mode	IEEE 802.11a / 5825 MHz	Temp/Hum	20.1(°C)/ 50%RH
Test Item	Band Edge	Test Date	February 3, 2021
Polarize	Vertical	Test Engineer	Jerry Chang
Detector	Peak		



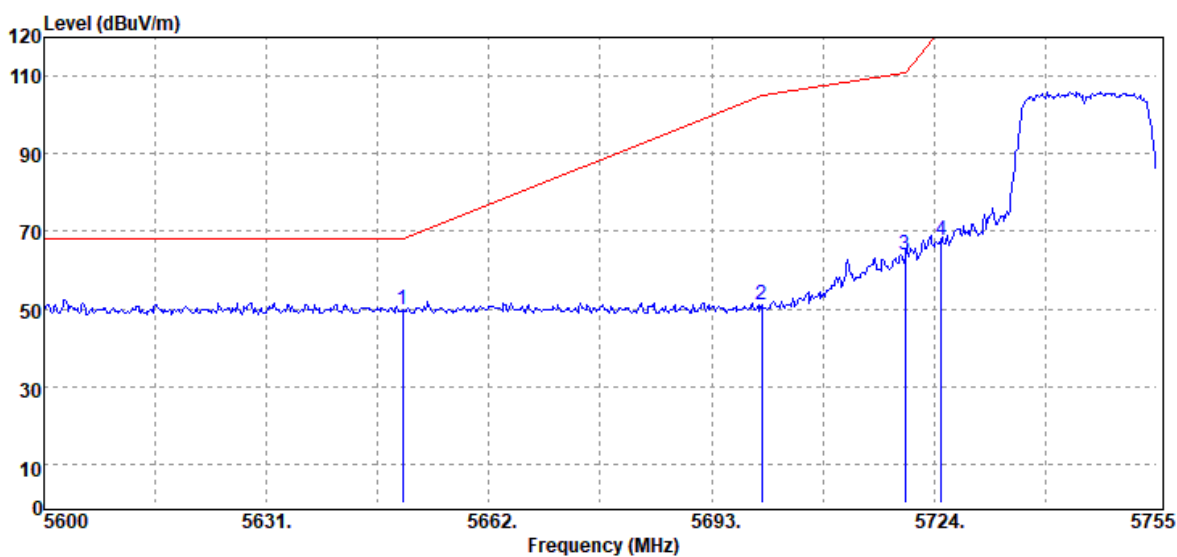
Frequency (MHz)	Detector Mode PK/QP/AV	Spectrum Reading Level dBμV	Factor dB	Actual FS dBμV/m	Limit @3m dBμV/m	Margin dB
5850.00	Peak	53.17	9.59	62.76	122.20	-59.44
5855.00	Peak	48.49	9.59	58.08	110.80	-52.72
5875.00	Peak	41.31	9.57	50.88	105.20	-54.32
5925.00	Peak	39.88	9.59	49.47	68.20	-18.73

Test Mode	IEEE 802.11a / 5825 MHz	Temp/Hum	20.1(°C) / 50%RH
Test Item	Band Edge	Test Date	February 3, 2021
Polarize	Horizontal	Test Engineer	Jerry Chang
Detector	Peak		



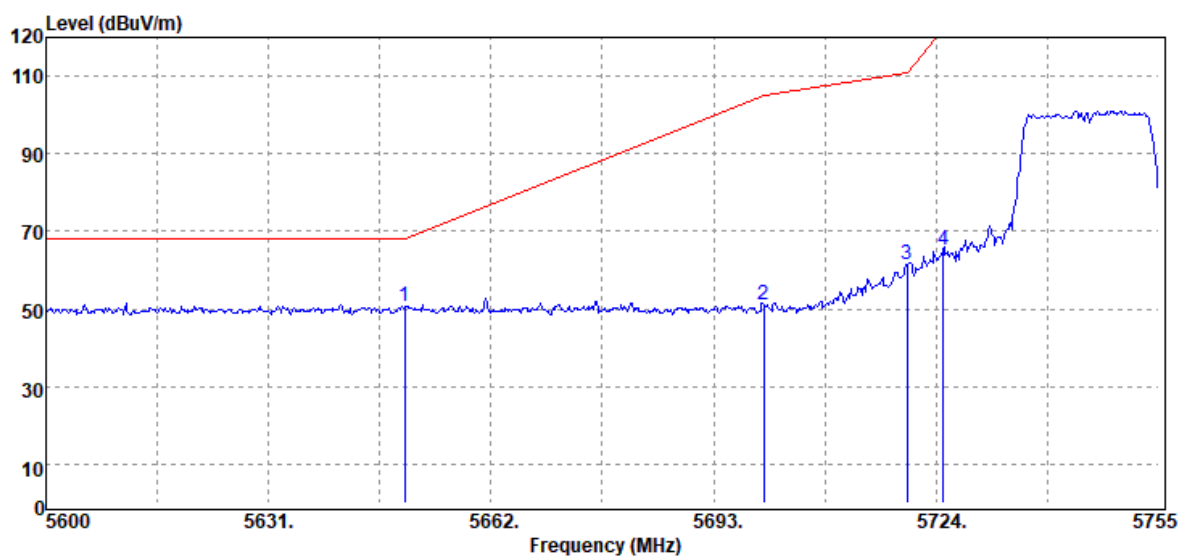
Frequency (MHz)	Detector Mode PK/QP/AV	Spectrum Reading Level dBμV	Factor dB	Actual FS dBμV/m	Limit @3m dBμV/m	Margin dB
5850.00	Peak	47.08	9.59	56.67	122.20	-65.53
5855.00	Peak	44.83	9.59	54.42	110.80	-56.38
5875.00	Peak	40.53	9.57	50.10	105.20	-55.10
5925.00	Peak	39.92	9.59	49.51	68.20	-18.69

Test Mode	IEEE 802.11n 20 MHz / 5745 MHz	Temp/Hum	20.1(°C)/ 50%RH
Test Item	Band Edge	Test Date	February 3, 2021
Polarize	Vertical	Test Engineer	Jerry Chang
Detector	Peak		



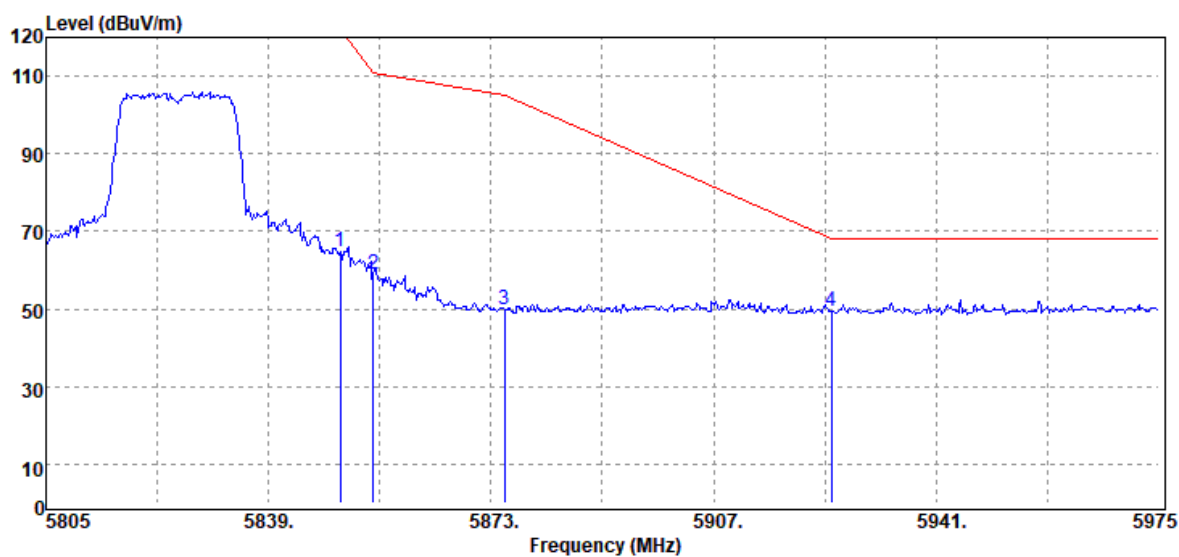
Frequency (MHz)	Detector Mode PK/QP/AV	Spectrum Reading Level dBμV	Factor dB	Actual FS dBμV/m	Limit @3m dBμV/m	Margin dB
5650.00	Peak	40.85	8.87	49.72	68.20	-18.48
5700.00	Peak	42.02	9.22	51.24	105.20	-53.96
5720.00	Peak	54.72	9.29	64.01	110.80	-46.79
5725.00	Peak	58.45	9.29	67.74	122.20	-54.46

Test Mode	IEEE 802.11n 20 MHz / 5745 MHz	Temp/Hum	20.1(°C) / 50%RH
Test Item	Band Edge	Test Date	February 3, 2021
Polarize	Horizontal	Test Engineer	Jerry Chang
Detector	Peak		



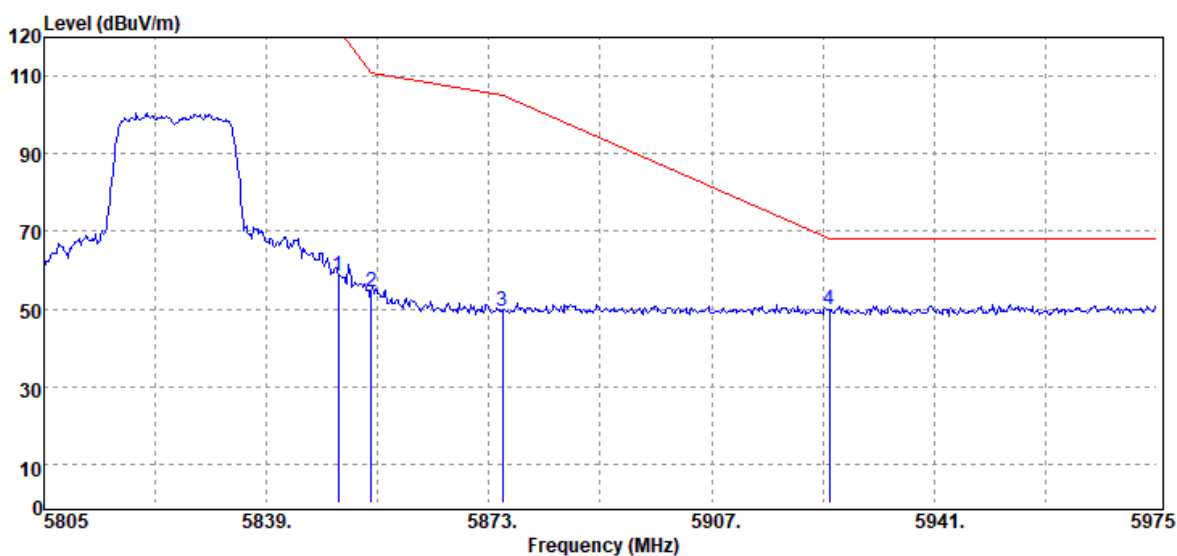
Frequency (MHz)	Detector Mode PK/QP/AV	Spectrum Reading Level dBμV	Factor dB	Actual FS dBμV/m	Limit @3m dBμV/m	Margin dB
5650.00	Peak	41.95	8.87	50.82	68.20	-17.38
5700.00	Peak	41.79	9.22	51.01	105.20	-54.19
5720.00	Peak	52.31	9.29	61.60	110.80	-49.20
5725.00	Peak	55.79	9.29	65.08	122.20	-57.12

Test Mode	IEEE 802.11n 20 MHz / 5825 MHz	Temp/Hum	20.1(°C)/ 50%RH
Test Item	Band Edge	Test Date	February 3, 2021
Polarize	Vertical	Test Engineer	Jerry Chang
Detector	Peak		



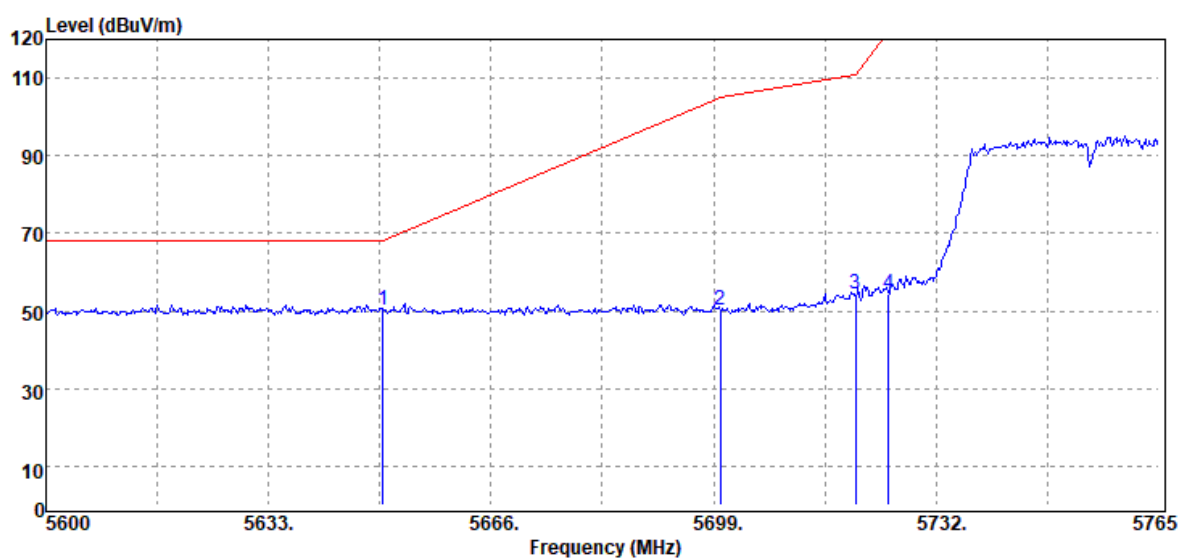
Frequency (MHz)	Detector Mode PK/QP/AV	Spectrum Reading Level dBμV	Factor dB	Actual FS dBμV/m	Limit @3m dBμV/m	Margin dB
5850.00	Peak	55.14	9.59	64.73	122.20	-57.47
5855.00	Peak	49.34	9.59	58.93	110.80	-51.87
5875.00	Peak	40.26	9.57	49.83	105.20	-55.37
5925.00	Peak	39.76	9.59	49.35	68.20	-18.85

Test Mode	IEEE 802.11n 20 MHz / 5825 MHz	Temp/Hum	20.1(°C)/ 50%RH
Test Item	Band Edge	Test Date	February 3, 2021
Polarize	Horizontal	Test Engineer	Jerry Chang
Detector	Peak		



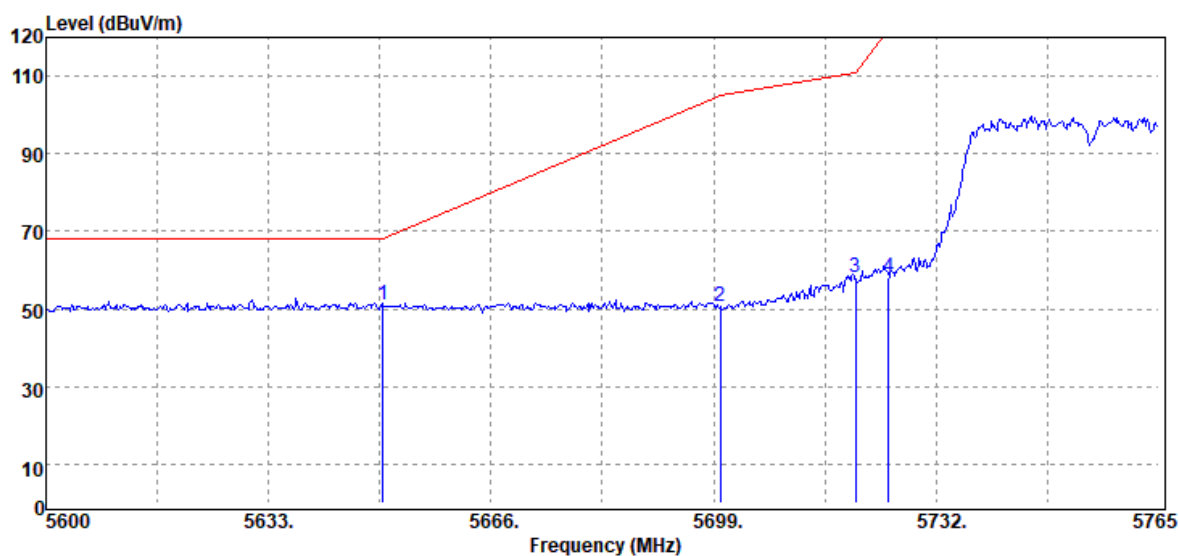
Frequency (MHz)	Detector Mode PK/QP/AV	Spectrum Reading Level dBμV	Factor dB	Actual FS dBμV/m	Limit @3m dBμV/m	Margin dB
5850.00	Peak	49.04	9.59	58.63	122.20	-63.57
5855.00	Peak	44.83	9.59	54.42	110.80	-56.38
5875.00	Peak	39.92	9.57	49.49	105.20	-55.71
5925.00	Peak	40.21	9.59	49.80	68.20	-18.40

Test Mode	IEEE 802.11n 40 MHz/ 5755 MHz	Temp/Hum	21.1(°C)/ 53%RH
Test Item	Band Edge	Test Date	February 5, 2021
Polarize	Vertical	Test Engineer	Jerry Chang
Detector	Peak		



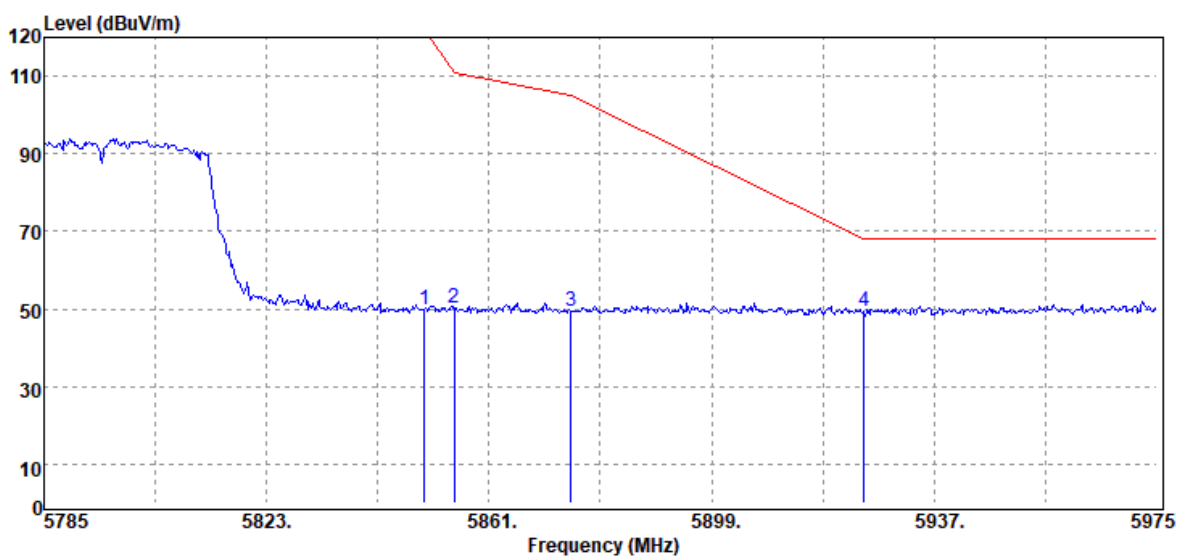
Frequency (MHz)	Detector Mode PK/QP/AV	Spectrum Reading Level dBμV	Factor dB	Actual FS dBμV/m	Limit @3m dBμV/m	Margin dB
5650.00	Peak	41.31	8.87	50.18	68.20	-18.02
5700.00	Peak	40.93	9.22	50.15	105.20	-55.05
5720.00	Peak	45.22	9.29	54.51	110.80	-56.29
5725.00	Peak	45.28	9.29	54.57	122.20	-67.63

Test Mode	IEEE 802.11n 40 MHz/ 5755 MHz	Temp/Hum	21.1(°C)/ 53%RH
Test Item	Band Edge	Test Date	February 5, 2021
Polarize	Horizontal	Test Engineer	Jerry Chang
Detector	Peak		



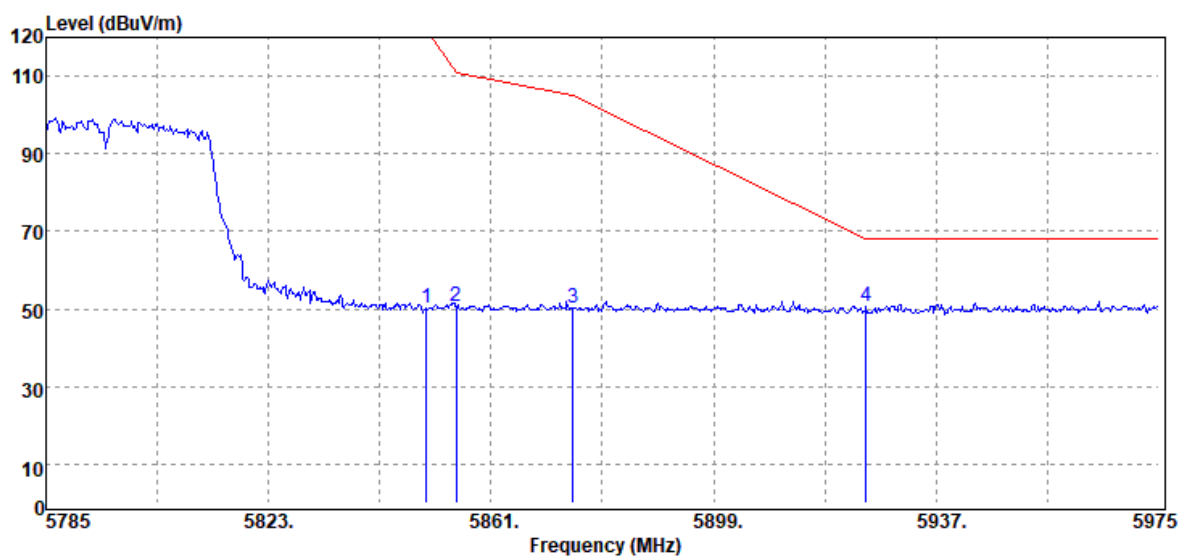
Frequency (MHz)	Detector Mode PK/QP/AV	Spectrum Reading Level dBμV	Factor dB	Actual FS dBμV/m	Limit @3m dBμV/m	Margin dB
5650.00	Peak	42.12	8.87	50.99	68.20	-17.21
5700.00	Peak	41.28	9.22	50.50	105.20	-54.70
5720.00	Peak	48.78	9.29	58.07	110.80	-52.73
5725.00	Peak	48.97	9.29	58.26	122.20	-63.94

Test Mode	IEEE 802.11n 40 MHz/ 5795 MHz	Temp/Hum	21.1(°C)/ 53%RH
Test Item	Band Edge	Test Date	February 5, 2021
Polarize	Vertical	Test Engineer	Jerry Chang
Detector	Peak		



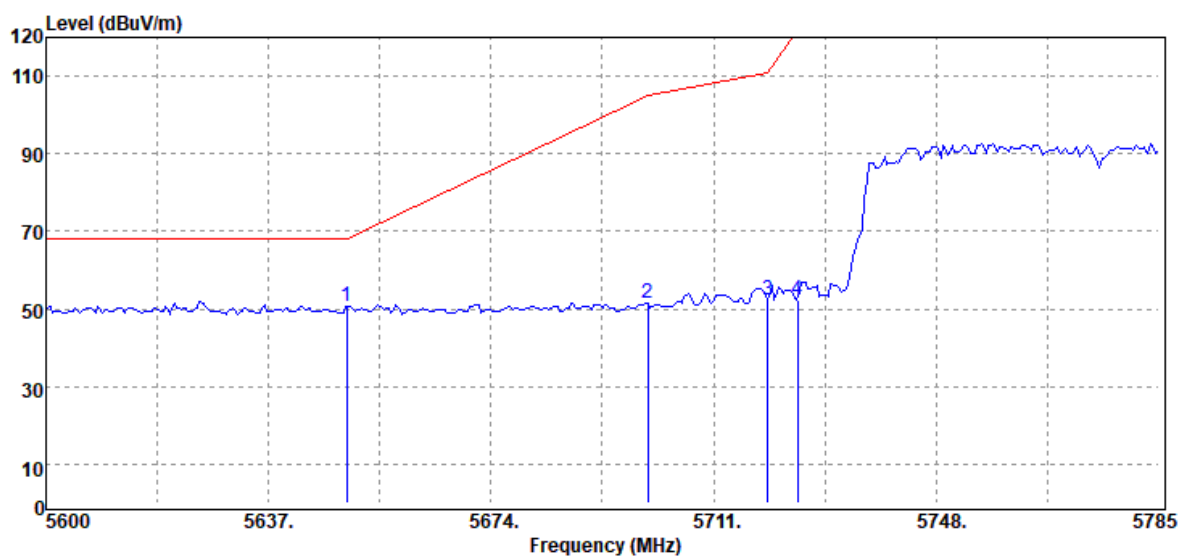
Frequency (MHz)	Detector Mode PK/QP/AV	Spectrum Reading Level dBμV	Factor dB	Actual FS dBμV/m	Limit @3m dBμV/m	Margin dB
5850.00	Peak	40.37	9.59	49.96	122.20	-72.24
5855.00	Peak	40.62	9.59	50.21	110.80	-60.59
5875.00	Peak	39.80	9.57	49.37	105.20	-55.83
5925.00	Peak	39.74	9.59	49.33	68.20	-18.87

Test Mode	IEEE 802.11n 40 MHz/ 5795 MHz	Temp/Hum	21.1(°C)/ 53%RH
Test Item	Band Edge	Test Date	February 5, 2021
Polarize	Horizontal	Test Engineer	Jerry Chang
Detector	Peak		



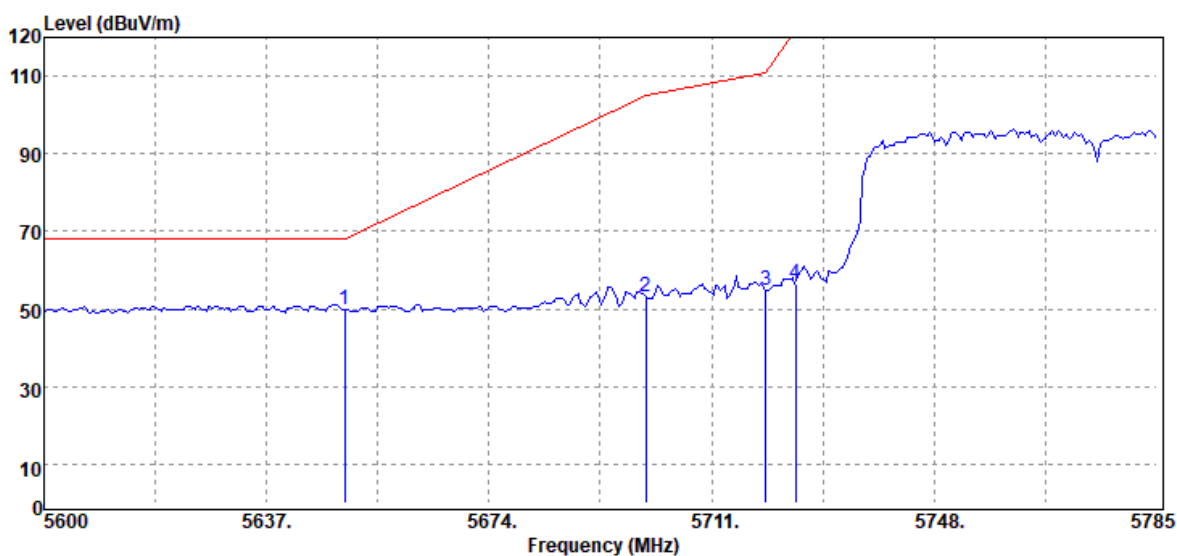
Frequency (MHz)	Detector Mode PK/QP/AV	Spectrum Reading Level dBμV	Factor dB	Actual FS dBμV/m	Limit @3m dBμV/m	Margin dB
5850.00	Peak	40.79	9.59	50.38	122.20	-71.82
5855.00	Peak	41.08	9.59	50.67	110.80	-60.13
5875.00	Peak	40.83	9.57	50.40	105.20	-54.80
5925.00	Peak	40.90	9.59	50.49	68.20	-17.71

Test Mode	IEEE 802.11ac VHT80 / 5775 MHz	Temp/Hum	21.1(°C)/ 53%RH
Test Item	Band Edge	Test Date	February 5, 2021
Polarize	Vertical	Test Engineer	Jerry Chang
Detector	Peak		



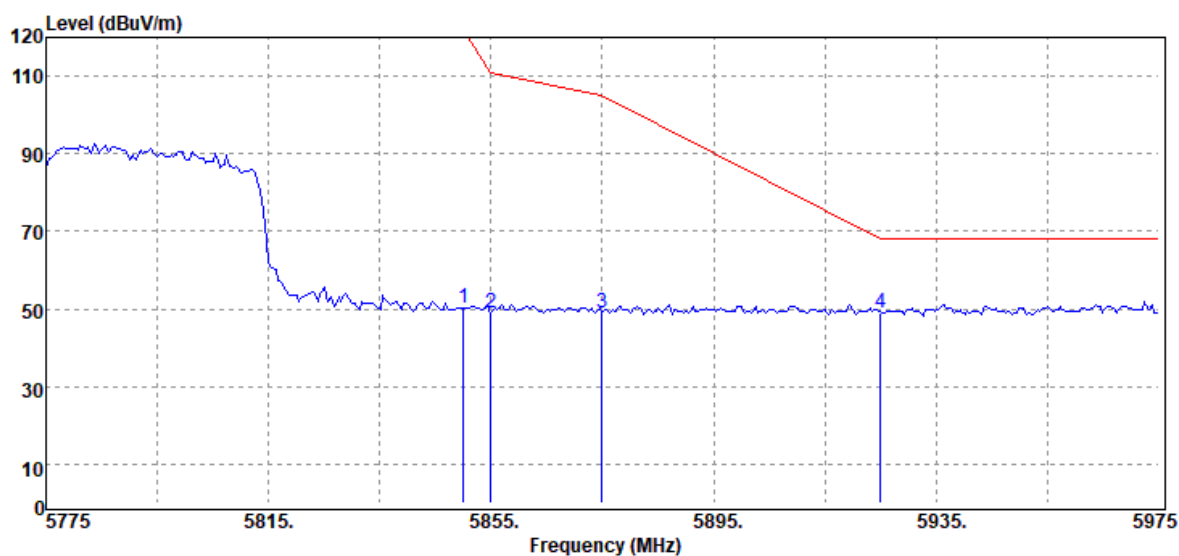
Frequency (MHz)	Detector Mode PK/QP/AV	Spectrum Reading Level dBμV	Factor dB	Actual FS dBμV/m	Limit @3m dBμV/m	Margin dB
5650.00	Peak	41.88	8.87	50.75	68.20	-17.45
5700.00	Peak	42.28	9.22	51.50	105.20	-53.70
5720.00	Peak	43.07	9.29	52.36	110.80	-58.44
5725.00	Peak	43.08	9.29	52.37	122.20	-69.83

Test Mode	IEEE 802.11ac VHT80 / 5775 MHz	Temp/Hum	21.1(°C) / 53%RH
Test Item	Band Edge	Test Date	February 5, 2021
Polarize	Horizontal	Test Engineer	Jerry Chang
Detector	Peak		



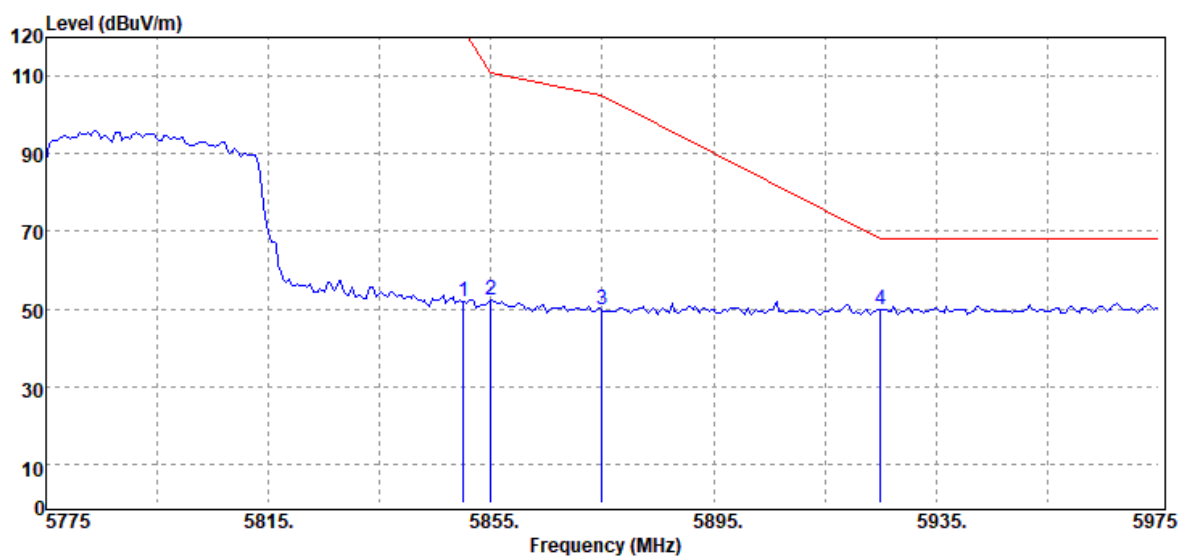
Frequency (MHz)	Detector Mode PK/QP/AV	Spectrum Reading Level dBμV	Factor dB	Actual FS dBμV/m	Limit @3m dBμV/m	Margin dB
5650.00	Peak	41.04	8.87	49.91	68.20	-18.29
5700.00	Peak	43.88	9.22	53.10	105.20	-52.10
5720.00	Peak	45.38	9.29	54.67	110.80	-56.13
5725.00	Peak	47.15	9.29	56.44	122.20	-65.76

Test Mode	IEEE 802.11ac VHT80 / 5775 MHz	Temp/Hum	21.1(°C) / 53%RH
Test Item	Band Edge	Test Date	February 5, 2021
Polarize	Vertical	Test Engineer	Jerry Chang
Detector	Peak		



Frequency (MHz)	Detector Mode PK/QP/AV	Spectrum Reading Level dB μ V	Factor dB	Actual FS dB μ V/m	Limit @3m dB μ V/m	Margin dB
5850.00	Peak	40.81	9.59	50.40	122.20	-71.80
5855.00	Peak	39.55	9.59	49.14	110.80	-61.66
5875.00	Peak	39.29	9.57	48.86	105.20	-56.34
5925.00	Peak	39.35	9.59	48.94	68.20	-19.26

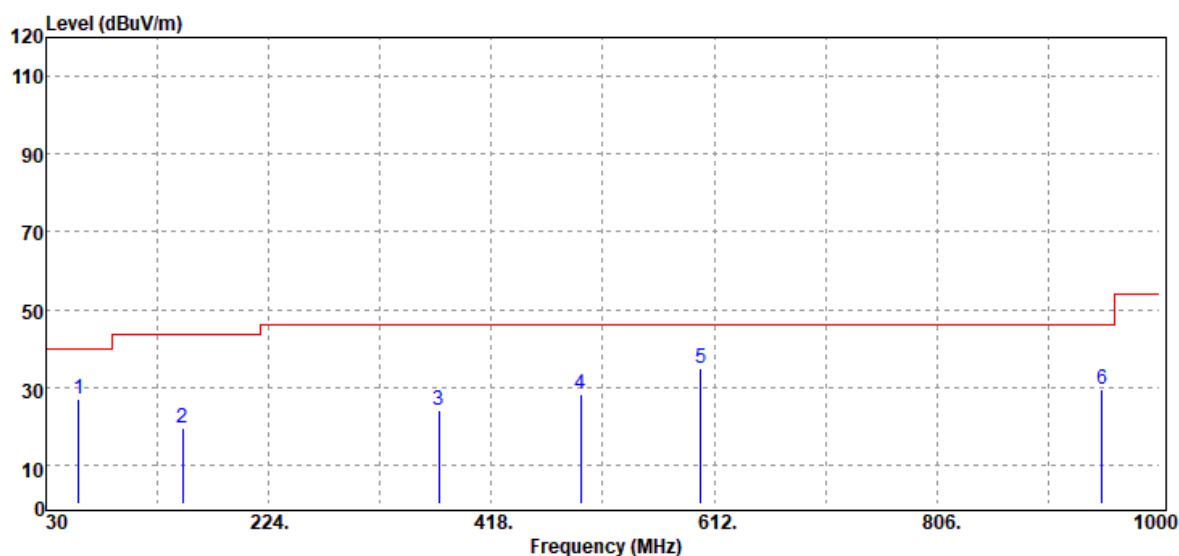
Test Mode	IEEE 802.11ac VHT80 / 5775 MHz	Temp/Hum	21.1(°C)/ 53%RH
Test Item	Band Edge	Test Date	February 5, 2021
Polarize	Horizontal	Test Engineer	Jerry Chang
Detector	Peak		



Frequency (MHz)	Detector Mode PK/QP/AV	Spectrum Reading Level dBμV	Factor dB	Actual FS dBμV/m	Limit @3m dBμV/m	Margin dB
5850.00	Peak	42.42	9.59	52.01	122.20	-70.19
5855.00	Peak	42.71	9.59	52.30	110.80	-58.50
5875.00	Peak	40.13	9.57	49.70	105.20	-55.50
5925.00	Peak	40.22	9.59	49.81	68.20	-18.39

Below 1G Test Data

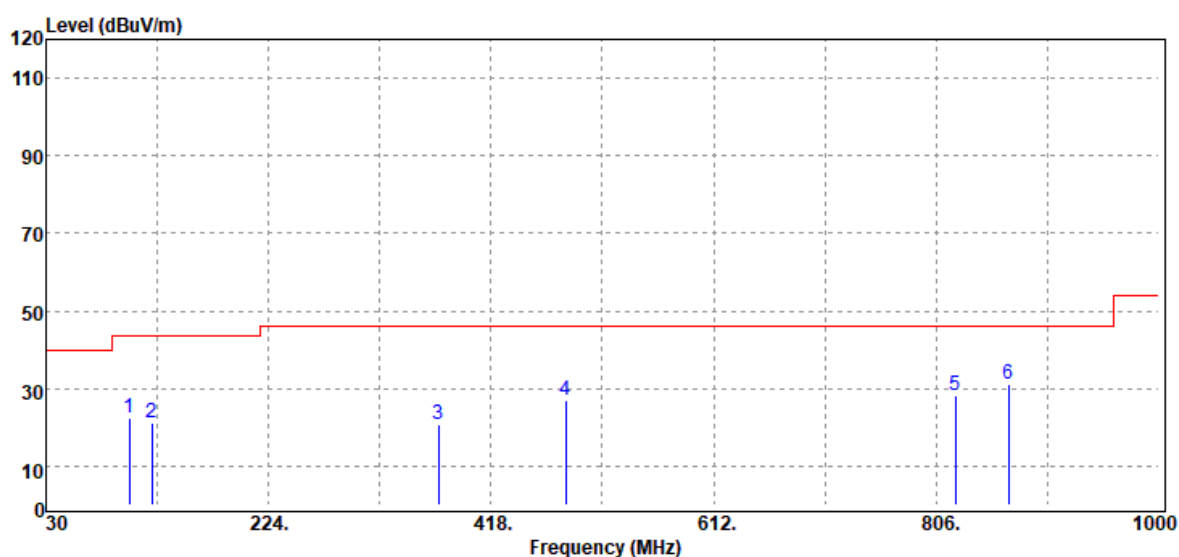
Test Mode	Mode 1	Temp/Hum	20.0(°C)/ 58%RH
Test Item	30MHz-1GHz	Test Date	March 3, 2021
Polarize	Vertical	Test Engineer	Ray Li
Detector	Peak		



Freq. MHz	Detector Mode PK/QP/AV	Spectrum Reading Level dBμV	Factor dB	Actual FS dBμV/m	Limit @3m dBμV/m	Margin dB
58.13	Peak	43.06	-16.11	26.95	40.00	-13.05
149.31	Peak	29.98	-10.40	19.58	43.50	-23.92
372.41	Peak	30.50	-6.60	23.90	46.00	-22.10
495.60	Peak	31.48	-3.29	28.19	46.00	-17.81
600.36	Peak	36.61	-1.85	34.76	46.00	-11.24
949.56	Peak	25.20	4.44	29.64	46.00	-16.36

Note: 1. No emission found between lowest internal used/generated frequency to 30MHz(9KHz~30MHz)
2. For below 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit.

Test Mode	Mode 1	Temp/Hum	20.0(°C)/ 58%RH
Test Item	30MHz-1GHz	Test Date	March 3, 2021
Polarize	Horizontal	Test Engineer	Ray Li
Detector	Peak		



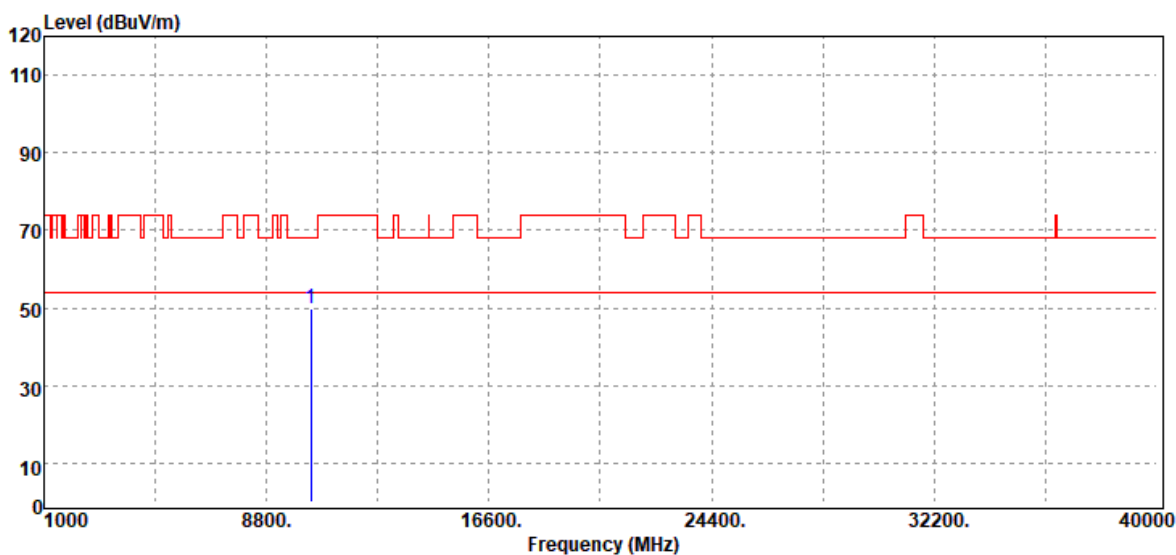
Freq. MHz	Detector Mode PK/QP/AV	Spectrum Reading Level dBμV	Factor dB	Actual FS dBμV/m	Limit @3m dBμV/m	Margin dB
102.75	Peak	34.52	-12.09	22.43	43.50	-21.07
122.15	Peak	30.17	-8.97	21.20	43.50	-22.30
372.41	Peak	27.52	-6.60	20.92	46.00	-25.08
482.99	Peak	30.56	-3.38	27.18	46.00	-18.82
822.49	Peak	26.04	2.04	28.08	46.00	-17.92
869.05	Peak	28.82	2.48	31.30	46.00	-14.70

Note: 1. No emission found between lowest internal used/generated frequency to 30MHz(9KHz~30MHz)
 2. For below 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit.

Above 1G

Test Data for UNII-1

Test Mode	IEEE 802.11a / 5180MHZ	Temp/Hum	21.1(°C)/ 53%RH
Test Item	Harmonic	Test Date	February 5, 2021
Polarize	Vertical	Test Engineer	Ray Li
Detector	Peak		

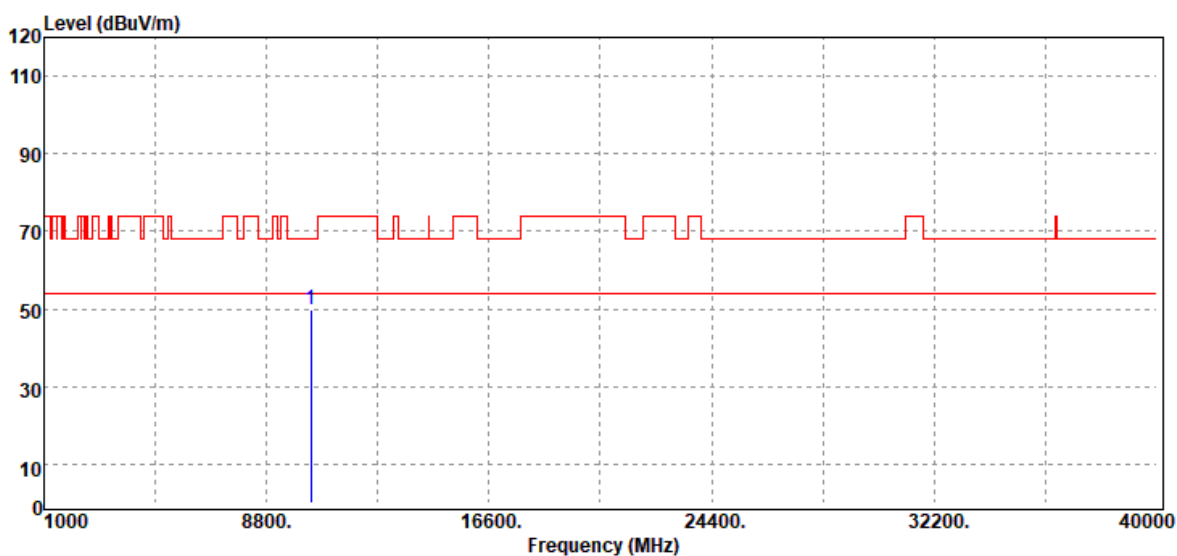


Freq. MHz	Detector Mode PK/QP/AV	Spectrum Reading Level dBμV	Factor dB	Actual FS dBμV/m	Limit @3m dBμV/m	Margin dB
10360.00	Peak	31.84	18.16	50.00	68.20	-18.20
N/A						

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. For above 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit

Test Mode	IEEE 802.11a / 5180MHZ	Temp/Hum	21.1(°C)/ 53%RH
Test Item	Harmonic	Test Date	February 5, 2021
Polarize	Horizontal	Test Engineer	Ray Li
Detector	Peak		



Freq. MHz	Detector Mode PK/QP/AV	Spectrum Reading Level dBμV	Factor dB	Actual FS dBμV/m	Limit @3m dBμV/m	Margin dB
10360.00	Peak	31.84	18.16	50.00	68.20	-18.20
N/A						

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. For above 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit