

Report No.: TMWK2109000561KR

4.3.4 Test Result

Temperature: 21.7 ~ 24.4°C

Humidity: 55 ~ 56% RH

Tested by: Lance Chen

Test date: September 29 ~ 30, 2021

FCC AVG Power :

802.11a_Ch0

CH	Frequency (MHz)	Data Rate	Power set	TOTAL POWER (dBm)	TOTAL POWER (mW)	REQUIRED LIMIT (dBm)	RESULT
36	5180	6	77	18.12	64.863	23.98	PASS
44	5220	6	75	18.09	64.417	23.98	PASS
48	5240	6	75	18.29	67.453	23.98	PASS
149	5745	6	85	18.28	67.298	30	PASS
157	5785	6	85	18.51	70.958	30	PASS
165	5825	6	90	18.73	74.645	30	PASS

802.11a_Ch1

CH	Frequency (MHz)	Data Rate	Power set	TOTAL POWER (dBm)	TOTAL POWER (mW)	REQUIRED LIMIT (dBm)	RESULT
36	5180	6	73	17.84	60.814	23.98	PASS
44	5220	6	70	17.71	59.020	23.98	PASS
48	5240	6	70	17.93	62.087	23.98	PASS
149	5745	6	90	17.93	62.087	30	PASS
157	5785	6	95	18.28	67.298	30	PASS
165	5825	6	95	18.47	70.307	30	PASS

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802.11n_HT20_MIMO

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	MCS0	55	10.1	11.62	13.94	24.774	23.55	PASS
44	5220	MCS0	53	10.11	11.53	13.89	24.491	23.55	PASS
48	5240	MCS0	52	10.39	11.55	14.02	25.235	23.55	PASS
149	5745	MCS0	90	16.3	15.2	18.80	75.858	28.55	PASS
157	5785	MCS0	90	15.98	15.1	18.57	71.945	28.55	PASS
165	5825	MCS0	92	15.73	14.96	18.37	68.707	28.55	PASS

802.11n_HT40_MIMO

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	MCS0	66	12.52	14.33	16.53	44.978	23.55	PASS
46	5230	MCS0	61	12.35	13.86	16.18	41.495	23.55	PASS
151	5755	MCS0	90	15.74	14.58	18.21	66.222	28.55	PASS
159	5795	MCS0	90	15.69	14.3	18.06	63.973	28.55	PASS

802.11ac_VHT80_MIMO

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	12.06	13.41	15.80	38.019	23.55	PASS
155	5775	MCS0	83	13.25	12.26	15.79	37.931	28.55	PASS

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IC AVG Power:
802.11a_Ch0

CH	Frequency (MHz)	TOTAL POWER (dBm)	TOTAL POWER (mW)	REQUIRED LIMIT (dBm)	RESULT
149	5745	18.28	67.298	30	PASS
157	5785	18.51	70.958	30	PASS
165	5825	18.73	74.645	30	PASS

802.11a_Ch1

CH	Frequency (MHz)	TOTAL POWER (dBm)	TOTAL POWER (mW)	REQUIRED LIMIT (dBm)	RESULT
149	5745	17.93	62.087	30	PASS
157	5785	18.28	67.298	30	PASS
165	5825	18.47	70.307	30	PASS

802.11n_HT20_MIMO

CH	Frequency (MHz)	AVERAGE POWER (dBm)		TOTAL POWER (dBm)	TOTAL POWER (mW)	REQUIRED LIMIT (dBm)	RESULT
		CH 0	CH 1				
149	5745	16.3	15.2	18.80	75.858	28.55	PASS
157	5785	15.98	15.1	18.57	71.945	28.55	PASS
165	5825	15.73	14.96	18.37	68.707	28.55	PASS

802.11n_HT40_MIMO

CH	Frequency (MHz)	AVERAGE POWER (dBm)		TOTAL POWER (dBm)	TOTAL POWER (mW)	REQUIRED LIMIT (dBm)	RESULT
		CH 0	CH 1				
151	5755	15.74	14.58	18.21	66.222	28.55	PASS
159	5795	15.69	14.3	18.06	63.973	28.55	PASS

802.11ac_VHT80_MIMO

CH	Frequency (MHz)	AVERAGE POWER (dBm)		TOTAL POWER (dBm)	TOTAL POWER (mW)	REQUIRED LIMIT (dBm)	RESULT
		CH 0	CH 1				
155	5775	13.25	12.26	15.79	37.931	28.55	PASS

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IC EIRP Power:
802.11a_Ch0

CH	Frequency (MHz)	TOTAL POWER (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP (mW)	REQUIRED LIMIT (dBm)	RESULT
36	5180	18.12	3.37	21.49	140.929	22.15	PASS
44	5220	18.09	3.37	21.46	139.959	22.16	PASS
48	5240	18.29	3.37	21.66	146.555	22.15	PASS

802.11a_Ch1

CH	Frequency (MHz)	TOTAL POWER (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP (mW)	REQUIRED LIMIT (dBm)	RESULT
36	5180	17.84	3.470	21.31	135.207	23.01	PASS
44	5220	17.71	3.470	21.18	131.220	23.01	PASS
48	5240	17.93	3.470	21.40	138.038	23.01	PASS

802.11n_HT20_MIMO

CH	Frequency (MHz)	TOTAL POWER (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP (mW)	REQUIRED LIMIT (dBm)	RESULT
36	5180	13.94	6.43	20.37	108.893	22.44	PASS
44	5220	13.89	6.43	20.32	107.647	22.44	PASS
48	5240	14.02	6.43	20.45	110.917	22.44	PASS

802.11n_HT40_MIMO

CH	Frequency (MHz)	TOTAL POWER (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP (mW)	REQUIRED LIMIT (dBm)	RESULT
38	5190	16.53	6.43	22.96	197.697	23.01	PASS
46	5230	16.18	6.43	22.61	182.390	23.01	PASS

802.11ac_VHT80_MIMO

CH	Frequency (MHz)	TOTAL POWER (dBm)	Antenna Gain (dBi)	EIRP (dBm)	EIRP (mW)	REQUIRED LIMIT (dBm)	RESULT
42	5210	15.80	6.43	22.23	167.109	23.01	PASS

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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)

According to RSS-247 section 6.2.1.1 and section 6.2.4.1

UNII-1:

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

IC: The e.i.r.p. spectral density shall not exceed 10 dBm in any 1.0 MHz 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	<input checked="" type="checkbox"/> Antenna not exceed 6 dBi : 11 dBm/MHz <input checked="" type="checkbox"/> Antenna not exceed 6 dBi : 10 dBm/MHz for IC <input type="checkbox"/> Antenna with DG greater than 6 dBi : [Limit = 11 – (DG – 6)]
UNII-3 Limit	<input type="checkbox"/> Antenna not exceed 6 dBi : 30 dBm/500kHz <input checked="" type="checkbox"/> Antenna with DG greater than 6 dBi : [Limit = 30 – (DG – 6)]

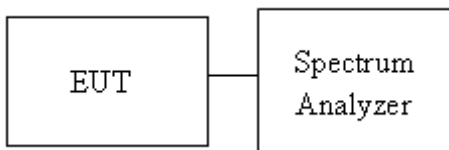
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4.4.2 Test Procedure

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 SA set RBW = 1MHz, VBW = 3MHz and Detector = RMS, to measurement Power Density.
4. UNII-3, SA set RBW = 300kHz, VBW = 1MHz 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: 21.7 ~ 24.4°C

Humidity: 55 ~ 56% RH

Tested by: Lance Chen

Test date: September 29 ~ 30, 2021

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UNII-1 5150-5250 MHz						
POWER DENSITY 802.11a MODE						
Frequency (MHz)	Chain 0 PSD (dBm/MHz)	Chain 1 PSD (dBm/MHz)	Duty Factor (dB)	Total Corr'd PSD(dBm/MHz)	FCC Limit	Margin (dB)
5180	6.12	-	0.00	6.12	11.00 dBm/MHz	-4.88
5220	6.04	-	0.00	6.04	11.00 dBm/MHz	-4.96
5240	6.47	-	0.00	6.47	11.00 dBm/MHz	-4.53

POWER DENSITY 802.11n HT20 MODE						
Frequency (MHz)	Chain 0 PSD (dBm/MHz)	Chain 1 PSD (dBm/MHz)	Duty Factor (dB)	Total Corr'd PSD(dBm/MHz)	FCC Limit	Margin (dB)
5180	-0.34	0.85	0.00	3.31	10.57 dBm/MHz	-7.26
5220	-0.54	0.79	0.00	3.18	10.57 dBm/MHz	-7.39
5240	-0.74	1.11	0.00	3.29	10.57 dBm/MHz	-7.28

POWER DENSITY 802.11n HT40 MODE						
Frequency (MHz)	Chain 0 PSD (dBm/MHz)	Chain 1 PSD (dBm/MHz)	Duty Factor (dB)	Total Corr'd PSD(dBm/MHz)	FCC Limit	Margin (dB)
5190	-1.22	0.03	0.00	2.46	10.57 dBm/MHz	-8.11
5230	-1.74	-0.51	0.00	1.93	10.57 dBm/MHz	-8.64

POWER DENSITY 802.11ac VHT80 MODE						
Frequency (MHz)	Chain 0 PSD (dBm/MHz)	Chain 1 PSD (dBm/MHz)	Duty Factor (dB)	Total Corr'd PSD(dBm/MHz)	FCC Limit	Margin (dB)
5210	-5.55	-4.57	0.00	-2.02	10.57 dBm/MHz	-12.59

UNII-1 5150-5250 MHz					
EIRP spectral density 802.11a MODE					
Freq. (MHz)	PSD (dBm/MHz)	Ant. Gain (dBi)	EIRP PSD (dBm/MHz)	IC Limit (dBm/MHz)	Margin (dB)
5180	6.12	3.47	9.59	10	-0.41
5220	6.04	3.47	9.51	10	-0.49
5240	6.47	3.47	9.94	10	-0.06

EIRP spectral density 802.11n HT20 MODE					
Freq. (MHz)	PSD (dBm/MHz)	Ant. Gain (dBi)	EIRP PSD (dBm/MHz)	IC Limit (dBm/MHz)	Margin (dB)
5180	3.31	6.43	9.74	10	-0.26
5220	3.18	6.43	9.61	10	-0.39
5240	3.29	6.43	9.72	10	-0.28

EIRP spectral density 802.11n HT40 MODE					
Freq. (MHz)	PSD (dBm/MHz)	Ant. Gain (dBi)	EIRP PSD (dBm/MHz)	IC Limit (dBm/MHz)	Margin (dB)
5190	2.46	3.47	5.93	10	-4.07
5230	1.93	3.47	5.40	10	-4.60

EIRP spectral density 802.11ac VHT80 MODE					
Freq. (MHz)	PSD (dBm/MHz)	Ant. Gain (dBi)	EIRP PSD (dBm/MHz)	IC Limit (dBm/MHz)	Margin (dB)
5210	-2.02	6.43	4.41	10	-5.59

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UNII-3 5725-5825 MHz							
POWER DENSITY 802.11a MODE							
Frequency (MHz)	Chain 0 PPSD (dBm/300kHz)	Chain 1 PPSD (dBm/300kHz)	Duty Factor (dB)	10log (500kHz/RBW) Factor(dB)	Total Corr'd PSD (dBm/500kHz)	Limit	Margin (dB)
5745	2.52	-	0.00	2.22	4.74	30.00 dBm/500kHz	-25.26
5785	1.78	-	0.00	2.22	4.00	30.00 dBm/500kHz	-26.00
5825	1.82	-	0.00	2.22	4.04	30.00 dBm/500kHz	-25.96

POWER DENSITY 802.11n HT20 MODE							
Frequency (MHz)	Chain 0 PPSD (dBm/300kHz)	Chain 1 PPSD (dBm/300kHz)	Duty Factor (dB)	10log (500kHz/RBW) Factor(dB)	Total Corr'd PSD (dBm/500kHz)	Limit	Margin (dB)
5745	1.24	-0.70	0.00	2.22	5.61	28.55 dBm/500kHz	-22.94
5785	-0.17	-1.67	0.00	2.22	4.37	28.55 dBm/500kHz	-24.18
5825	-0.75	-2.32	0.00	2.22	3.76	28.55 dBm/500kHz	-24.79

POWER DENSITY 802.11n HT40 MODE							
Frequency (MHz)	Chain 0 PPSD (dBm/300kHz)	Chain 1 PPSD (dBm/300kHz)	Duty Factor (dB)	10log (500kHz/RBW) Factor(dB)	Total Corr'd PSD (dBm/500kHz)	Limit	Margin (dB)
5755	-3.06	-4.43	0.00	2.22	1.54	28.55 dBm/500kHz	-27.01
5795	-3.87	-5.54	0.00	2.22	0.60	28.55 dBm/500kHz	-27.95

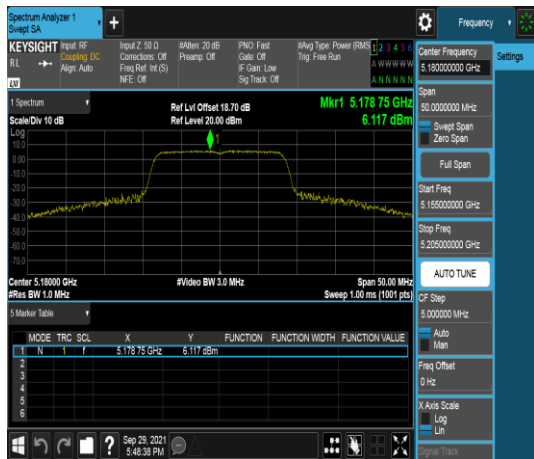
POWER DENSITY 802.11ac VHT80 MODE							
Frequency (MHz)	Chain 0 PPSD (dBm/300kHz)	Chain 1 PPSD (dBm/300kHz)	Duty Factor (dB)	10log (500kHz/RBW) Factor(dB)	Total Corr'd PSD (dBm/500kHz)	Limit	Margin (dB)
5775	-8.05	-9.06	0.00	2.22	-3.30	28.55 dBm/500kHz	-31.85

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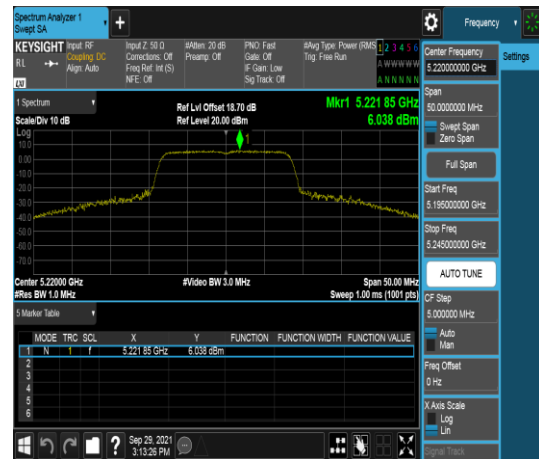
Test Data

UNII-1 IEEE 802.11a mode- chain 0

Low CH



Mid CH



High CH



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UNII-1 IEEE 802.11n HT20 mode- chain 0

Low CH



Mid CH



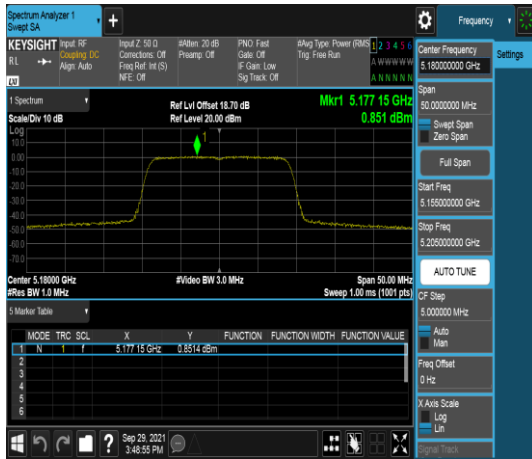
High CH



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UNII-1 IEEE 802.11n HT20 mode- chain 1

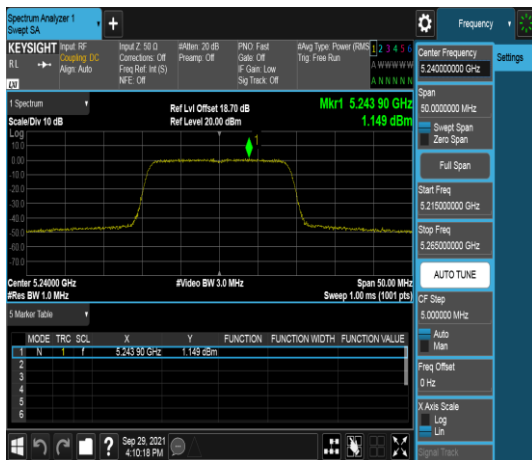
Low CH



Mid CH



High CH



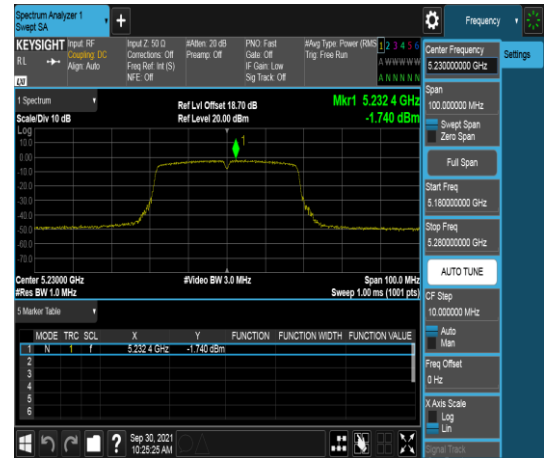
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UNII-1 IEEE 802.11n HT40 mode- chain 0

Low CH

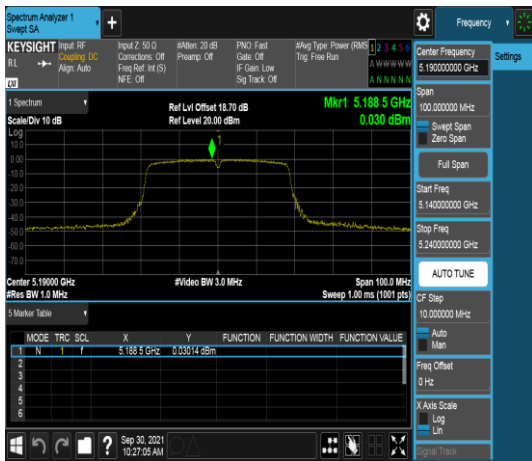


High CH



UNII-1 IEEE 802.11n HT40 mode- chain 1

Low CH



High CH



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UNII-1 IEEE 802.11ac VHT80 mode- chain 0

Low CH



UNII-1 IEEE 802.11ac VHT80 mode- chain 1

Low CH

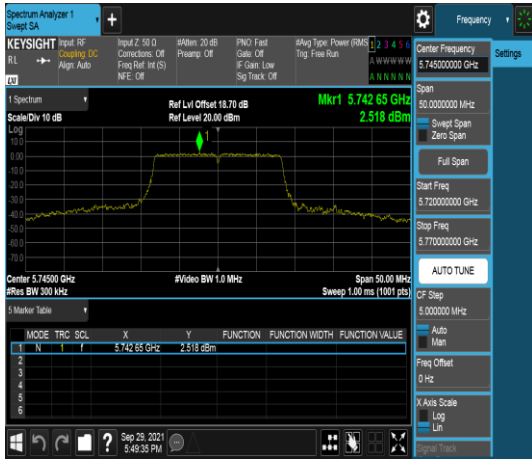


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Test Data

UNII-3 IEEE 802.11a mode- chain 0

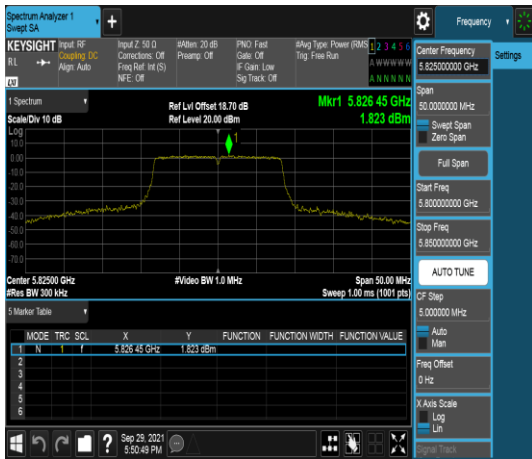
Low CH



Mid CH



High CH



Report No.: TMWK2109000561KR

UNII-3 IEEE 802.11n HT20 mode- chain 0

Low CH



Mid CH



High CH



Report No.: TMWK2109000561KR

UNII-3 IEEE 802.11n HT20 mode- chain 1

Low CH



Mid CH



High CH



Report No.: TMWK2109000561KR

UNII-3 IEEE 802.11n HT40 mode- chain 0

Low CH



High CH

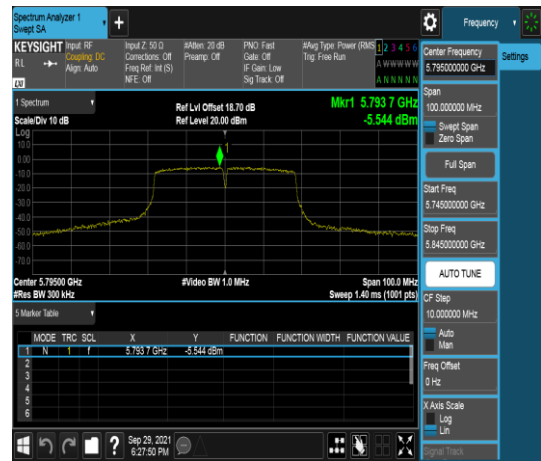


UNII-3 IEEE 802.11n HT40 mode- chain 1

Low CH



High CH



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UNII-3 IEEE 802.11ac VHT80 mode- chain 0	
<p>Low CH</p> 	
UNII-3 IEEE 802.11ac VHT80 mode- chain 1	
<p>Low CH</p> 	

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4.5 RADIATION BANDEGE AND SPURIOUS EMISSION

4.5.1 Test Limit

According to §15.407, §15.209 and §15.205,
According to RSS-247 section 6.2.1.2 and section 6.2.4.2

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)

RSS-Gen Table 3 and Table 5 – General Field Strength Limits for Transmitters and Receivers at Frequencies Above 30 MHz ^(Note)

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)

Note: Measurements for compliance with the limits in table 3 may be performed at distances other than 3 metres, in accordance with Section 6.6.

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RSS-Gen Table 6: General Field Strength Limits for Transmitters at Frequencies Below 30 MHz (Transmit)

Frequency	Magnetic field strength (H-Field) ($\mu\text{A/m}$)	Measurement Distance (m)
9-490 kHz ^{Note}	6.37/F (F in kHz)	300
490-1,705 kHz	63.7/F (F in kHz)	30
1.705-30 MHz	0.08	30

Note: The emission limits for the ranges 9-90 kHz and 110-490 kHz are based on measurements employing a linear average detector..

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-3:

For the band 5725-5850 MHz, emissions at frequencies from the band edges to 10 MHz above or below the band edges shall not exceed -17 dBm/MHz e.i.r.p.

For emissions at frequencies more than 10 MHz above or below the band edges, the emissions power shall not exceed -27 dBm/MHz

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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 $\geq 3 \cdot$ 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.

6. Data result

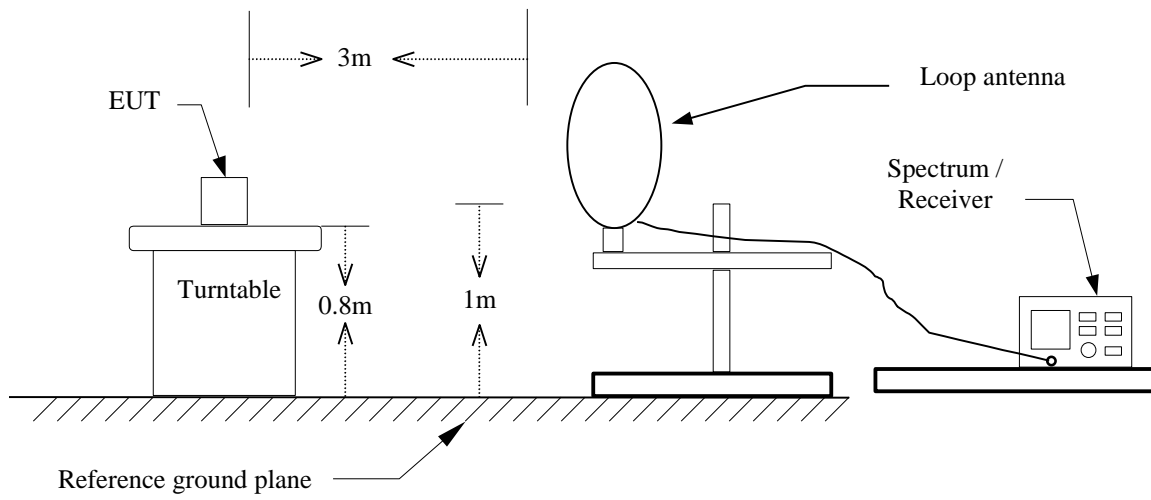
Actual FS=Spectrum Reading Level + Factor

Margin=Actual FS- Limit

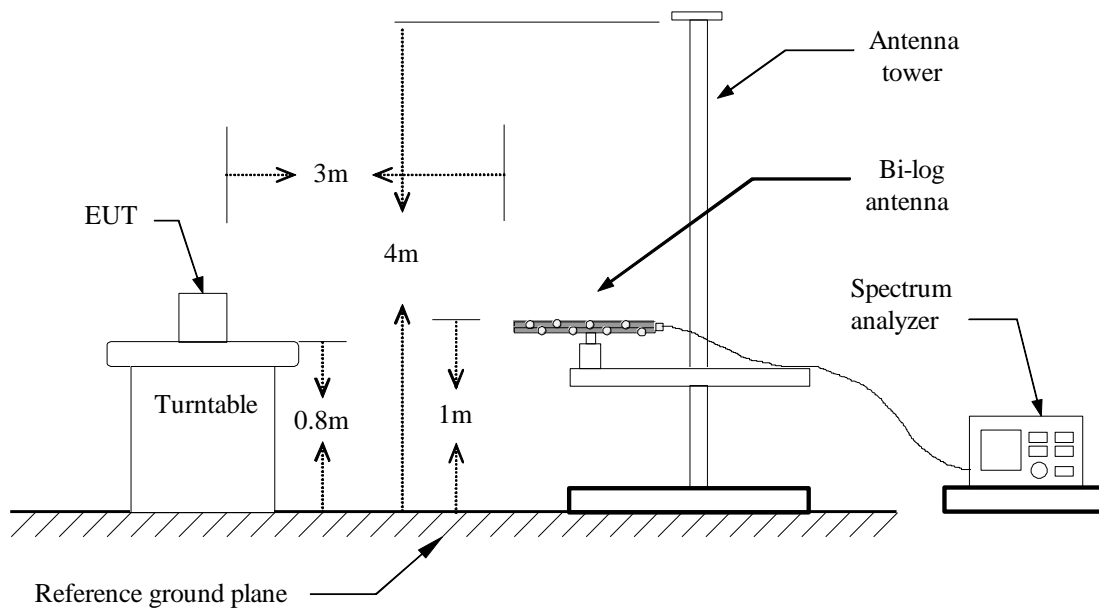
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4.5.3 Test Setup

9kHz ~ 30MHz

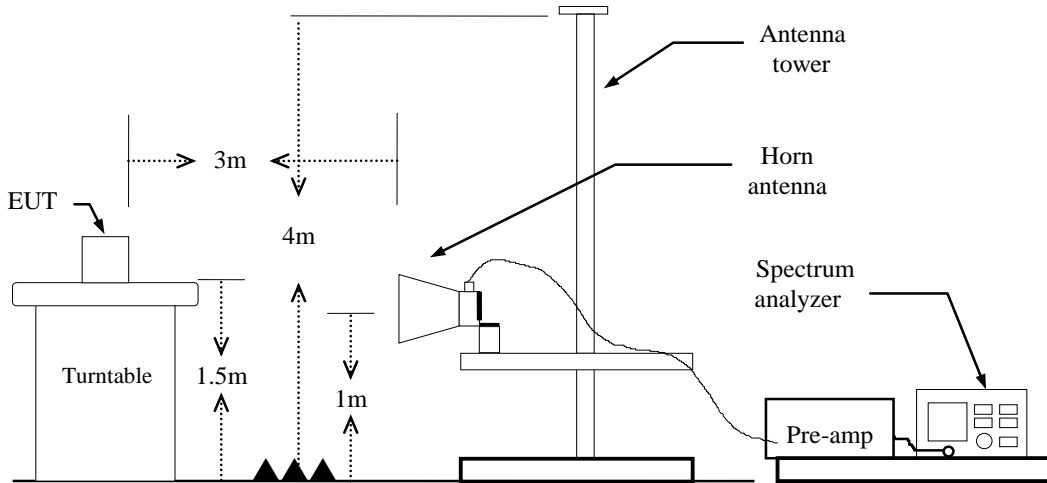


30MHz ~ 1GHz



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Above 1 GHz



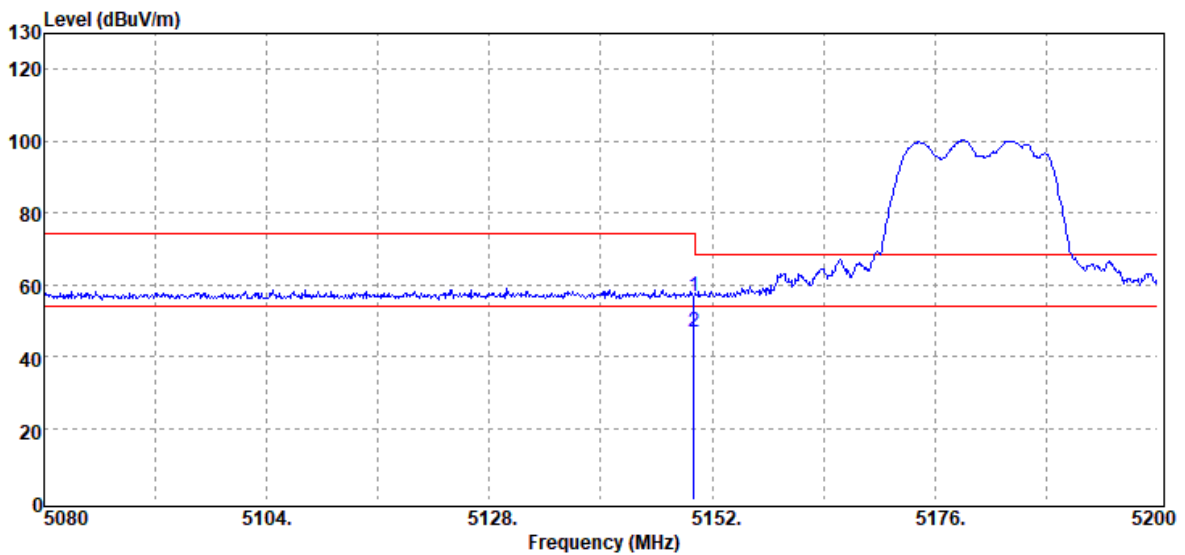
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4.5.4 Test Result

Band Edge Test Data

Test Data for UNII-1

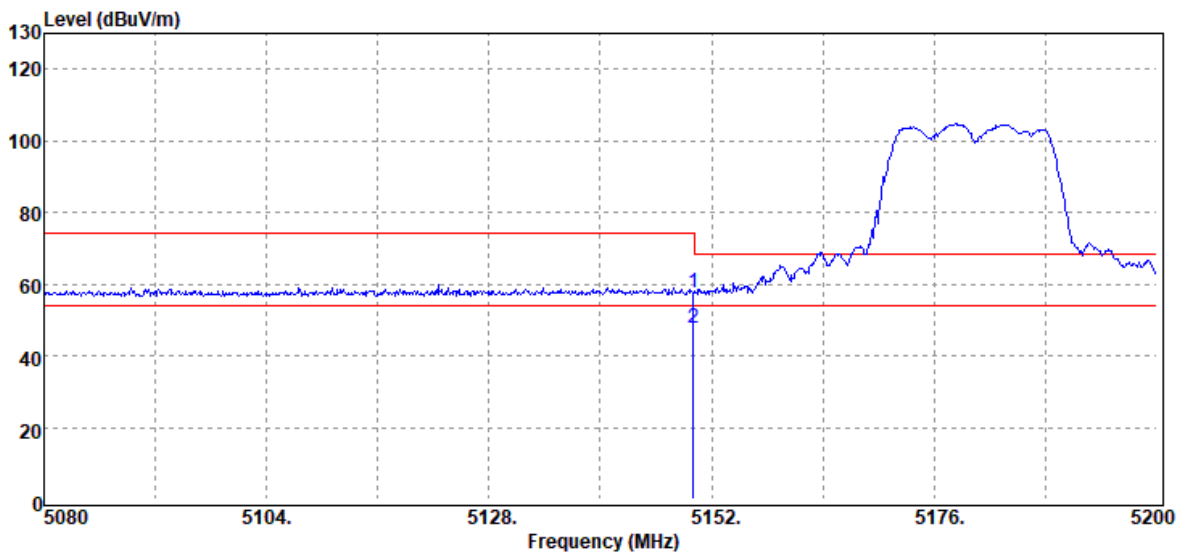
Test Mode	IEEE 802.11a / 5180MHZ	Temp/Hum	22(°C)/ 50%RH
Test Item	Band Edge	Test Date	October 4, 2021
Polarize	Vertical	Test Engineer	Ray Li
Detector	Peak / Average		



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	46.64	10.20	56.84	74.00	-17.16
5150.00	Average	36.62	10.20	46.82	54.00	-7.18

Report No.: TMWK2109000561KR

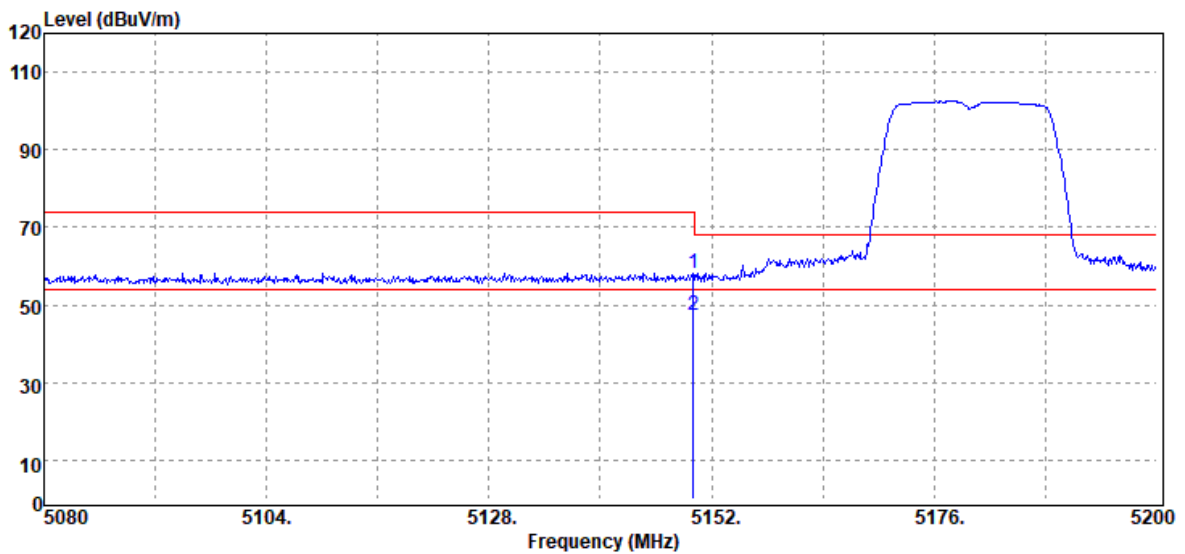
Test Mode	IEEE 802.11a / 5180MHZ	Temp/Hum	22(°C)/ 50%RH
Test Item	Band Edge	Test Date	October 4, 2021
Polarize	Horizontal	Test Engineer	Ray Li
Detector	Peak / Average		



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
5150.00	Peak	47.47	10.20	57.67	74.00	-16.33
5150.00	Average	37.33	10.20	47.53	54.00	-6.47

Report No.: TMWK2109000561KR

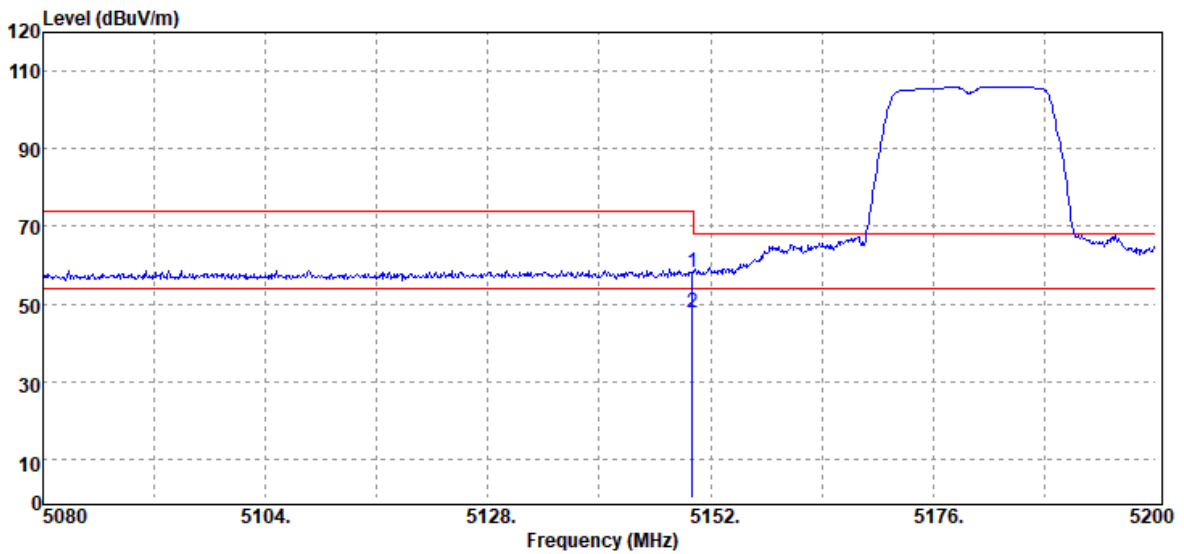
Test Mode	IEEE 802.11n 20 MHz / 5180MHz	Temp/Hum	22(°C)/ 50%RH
Test Item	Band Edge	Test Date	October 4, 2021
Polarize	Vertical	Test Engineer	Ray Li
Detector	Peak / Average		



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
5150.00	Peak	47.73	10.20	57.93	74.00	-16.07
5150.00	Average	37.11	10.20	47.31	54.00	-6.69

Report No.: TMWK2109000561KR

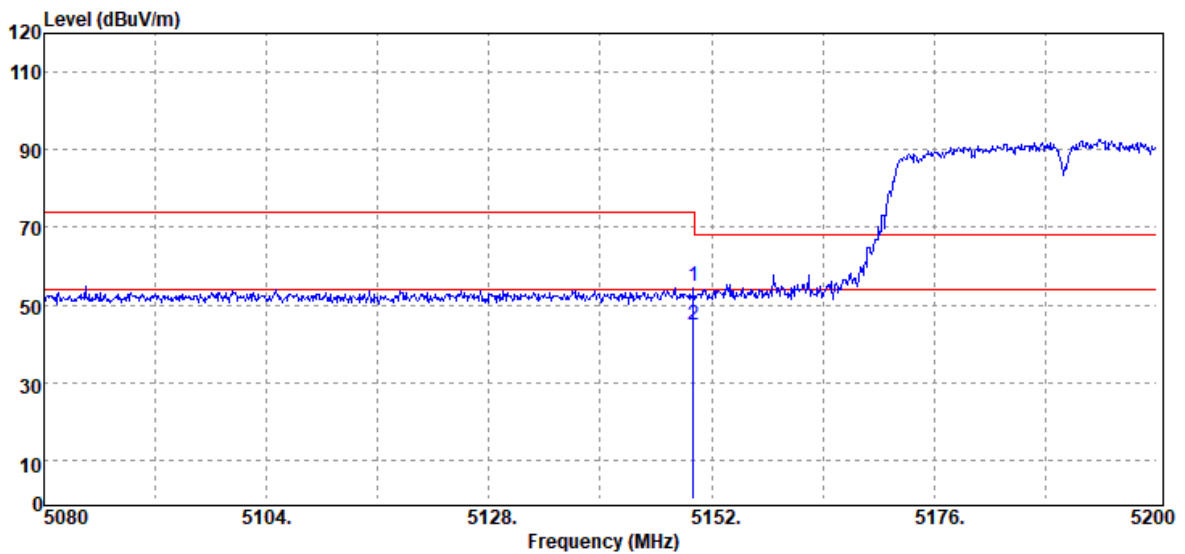
Test Mode	IEEE 802.11n 20 MHz / 5180MHz	Temp/Hum	22(°C)/ 50%RH
Test Item	Band Edge	Test Date	October 4, 2021
Polarize	Horizontal	Test Engineer	Ray Li
Detector	Peak / Average		



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	47.93	10.20	58.13	74.00	-15.87
5150.00	Average	37.41	10.20	47.61	54.00	-6.39

Report No.: TMWK2109000561KR

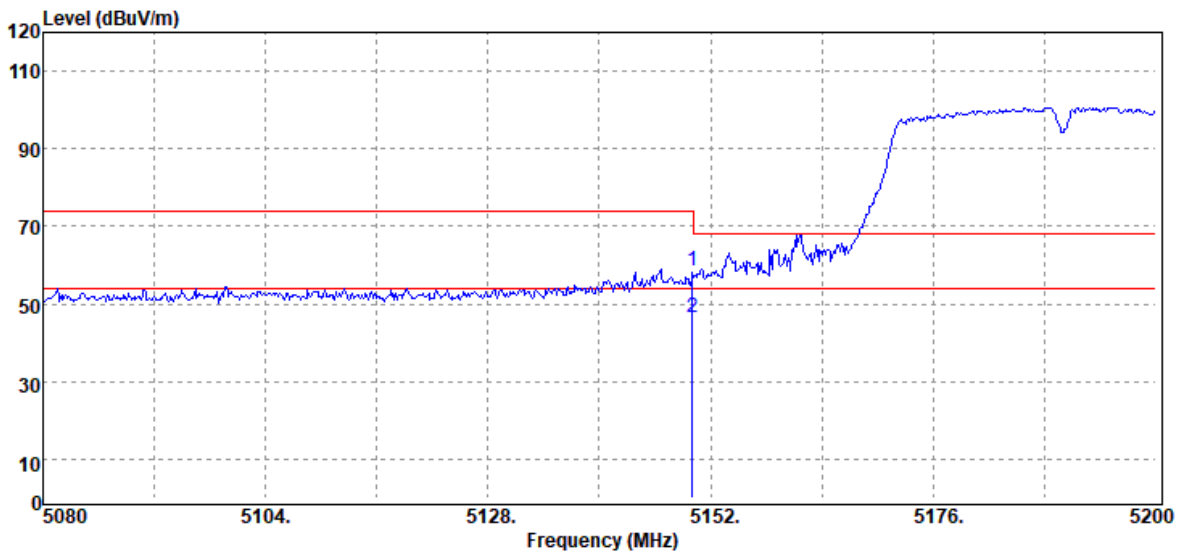
Test Mode	IEEE 802.11n 40 MHz / 5190MHz	Temp/Hum	22(°C) / 50%RH
Test Item	Band Edge	Test Date	October 4, 2021
Polarize	Vertical	Test Engineer	Ray Li
Detector	Peak / Average		



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	44.65	10.20	54.85	74.00	-19.15
5150.00	Average	34.58	10.20	44.78	54.00	-9.22

Report No.: TMWK2109000561KR

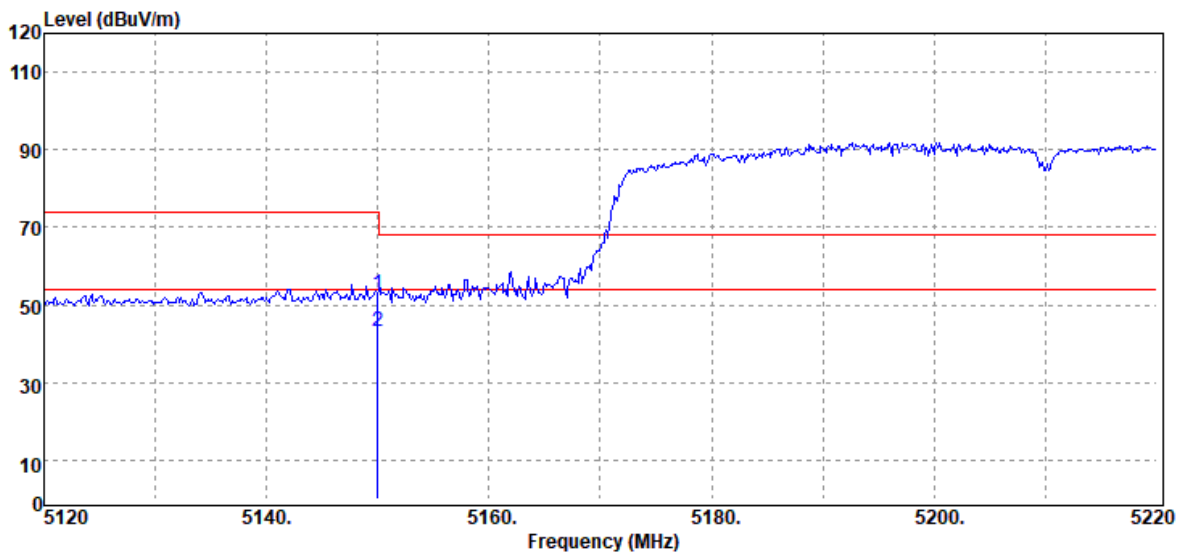
Test Mode	IEEE 802.11n 40 MHz / 5190MHz	Temp/Hum	22(°C)/ 50%RH
Test Item	Band Edge	Test Date	October 4, 2021
Polarize	Horizontal	Test Engineer	Ray Li
Detector	Peak / Average		



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
5150.00	Peak	48.42	10.20	58.62	74.00	-15.38
5150.00	Average	36.43	10.20	46.63	54.00	-7.37

Report No.: TMWK2109000561KR

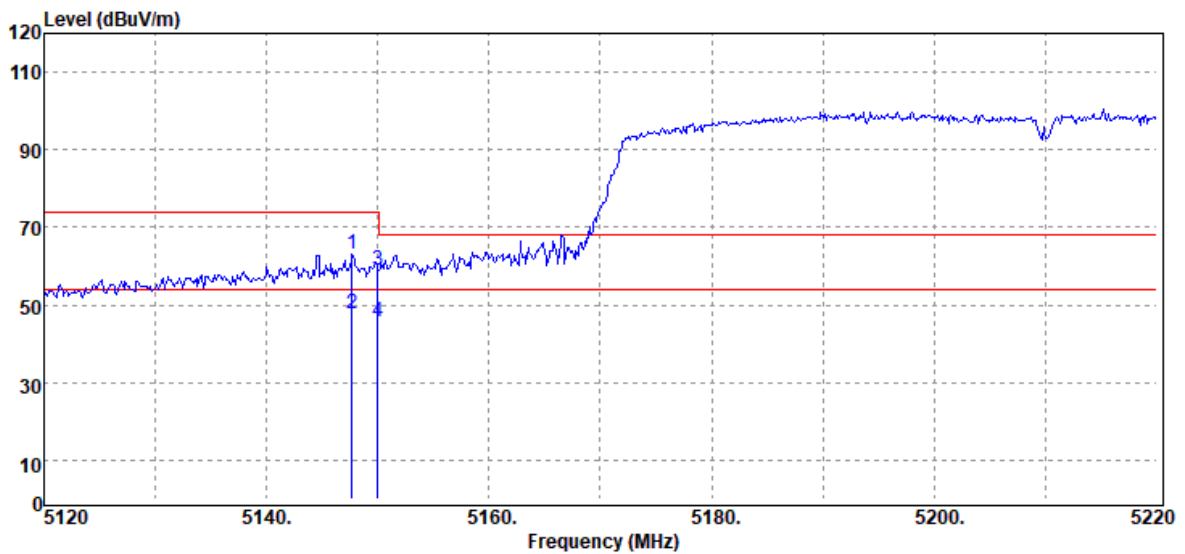
Test Mode	I EEE 802.11ac VHT80 / 5210MHZ	Temp/Hum	22(°C)/ 50%RH
Test Item	Band Edge	Test Date	October 4, 2021
Polarize	Vertical	Test Engineer	Ray Li
Detector	Peak / Average		



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
5150.00	Peak	42.74	10.20	52.94	74.00	-21.06
5150.00	Average	33.15	10.20	43.35	54.00	-10.65

Report No.: TMWK2109000561KR

Test Mode	I EEE 802.11ac VHT80 / 5210MHZ	Temp/Hum	22(°C)/ 50%RH
Test Item	Band Edge	Test Date	October 4, 2021
Polarize	Horizontal	Test Engineer	Ray Li
Detector	Peak / Average		

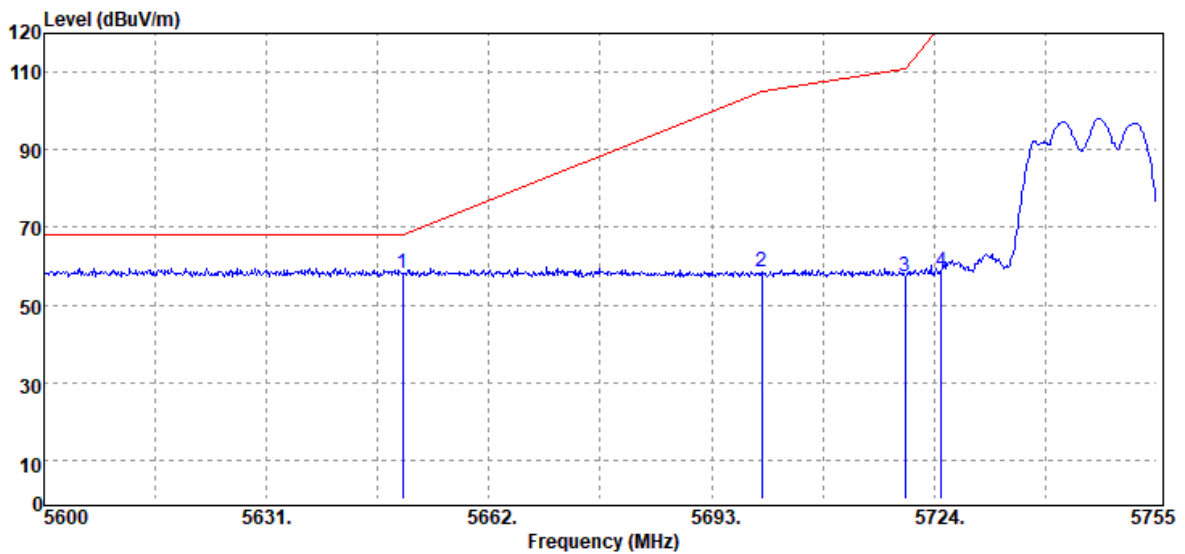


Frequency (MHz)	Detector Mode PK/QP/AV	Spectrum Reading Level dB μ V	Factor dB	Actual FS dB μ V/m	Limit @3m dB μ V/m	Margin dB
5147.70	Peak	53.14	10.00	63.14	74.00	-10.86
5147.70	Average	37.68	10.00	47.68	54.00	-6.32
5150.00	Peak	48.67	10.20	58.87	74.00	-15.13
5150.00	Average	35.38	10.20	45.58	54.00	-8.42

Report No.: TMWK2109000561KR

Test Data for UNII-3

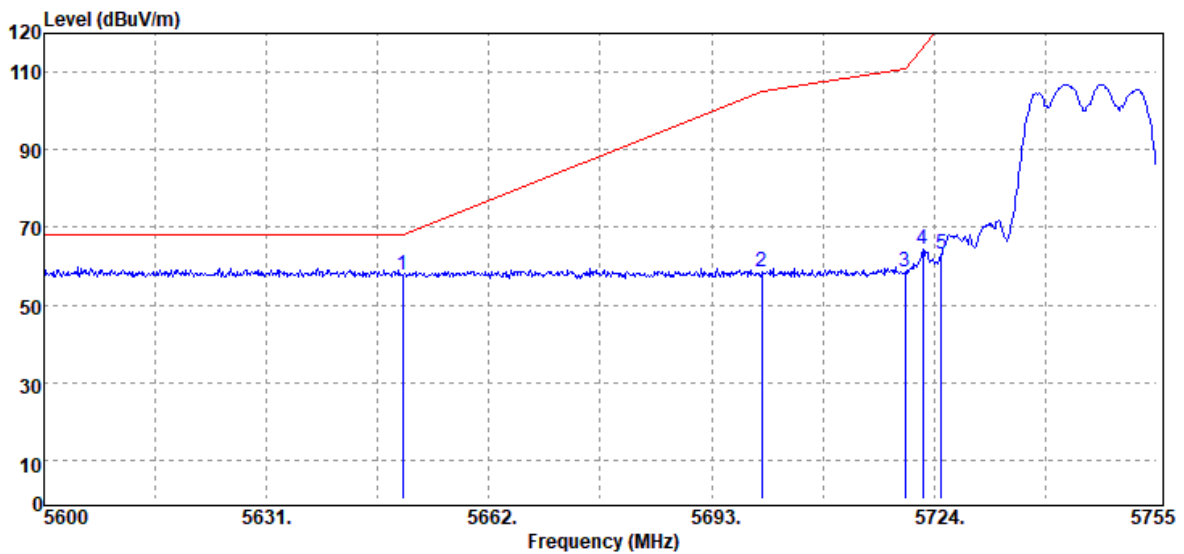
Test Mode	IEEE 802.11a / 5745 MHz	Temp/Hum	22(°C)/ 50%RH
Test Item	Band Edge	Test Date	October 4, 2021
Polarize	Vertical	Test Engineer	Ray Li
Detector	Peak		



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
5650.00	Peak	47.05	11.05	58.10	68.20	-10.10
5700.00	Peak	47.17	11.26	58.43	105.20	-46.77
5720.00	Peak	46.23	11.27	57.50	110.80	-53.30
5725.00	Peak	47.28	11.26	58.54	122.20	-63.66

Report No.: TMWK2109000561KR

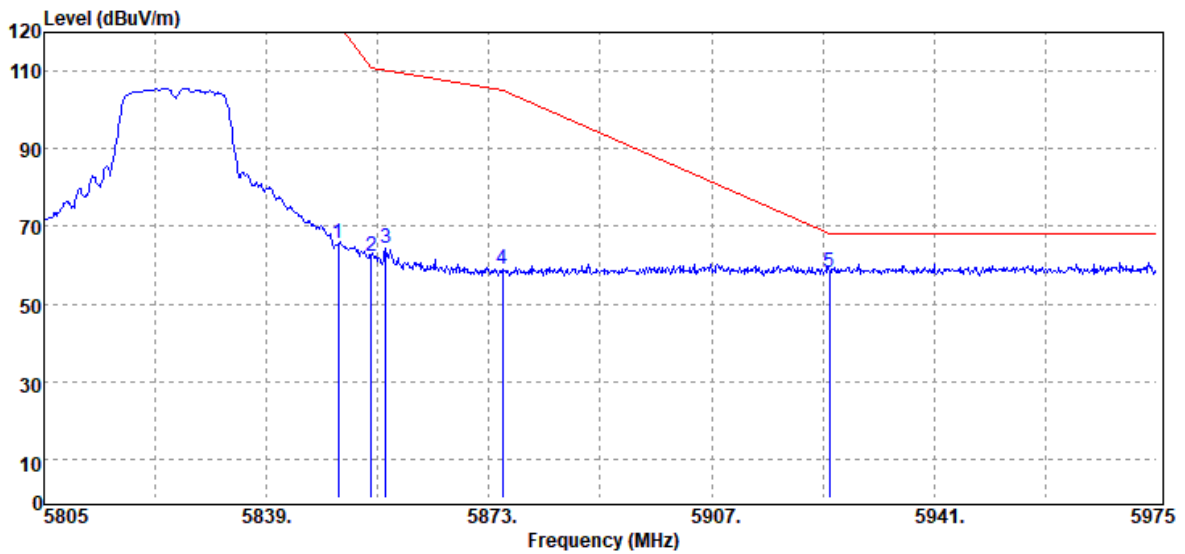
Test Mode	IEEE 802.11a / 5745 MHz	Temp/Hum	22(°C)/ 50%RH
Test Item	Band Edge	Test Date	October 4, 2021
Polarize	Horizontal	Test Engineer	Ray Li
Detector	Peak		



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
5650.00	Peak	46.85	11.05	57.90	68.20	-10.30
5700.00	Peak	47.13	11.26	58.39	105.20	-46.81
5720.00	Peak	47.17	11.27	58.44	110.80	-52.36
5722.45	Peak	53.07	11.27	64.34	116.39	-52.05
5725.00	Peak	51.66	11.26	62.92	122.20	-59.28

Report No.: TMWK2109000561KR

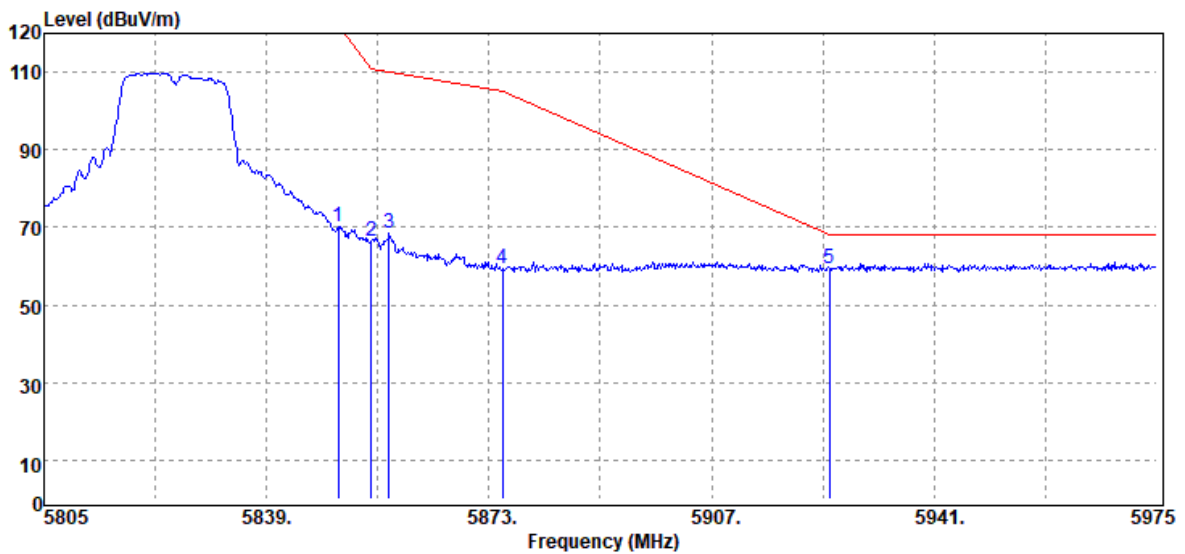
Test Mode	IEEE 802.11a / 5825 MHz	Temp/Hum	22(°C)/ 50%RH
Test Item	Band Edge	Test Date	October 4, 2021
Polarize	Vertical	Test Engineer	Ray Li
Detector	Peak		



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	53.95	11.73	65.68	122.20	-56.52
5855.00	Peak	50.36	11.76	62.12	110.80	-48.68
5857.19	Peak	52.53	11.76	64.29	110.19	-45.90
5875.00	Peak	46.99	11.84	58.83	105.20	-46.37
5925.00	Peak	46.19	12.01	58.20	68.20	-10.00

Report No.: TMWK2109000561KR

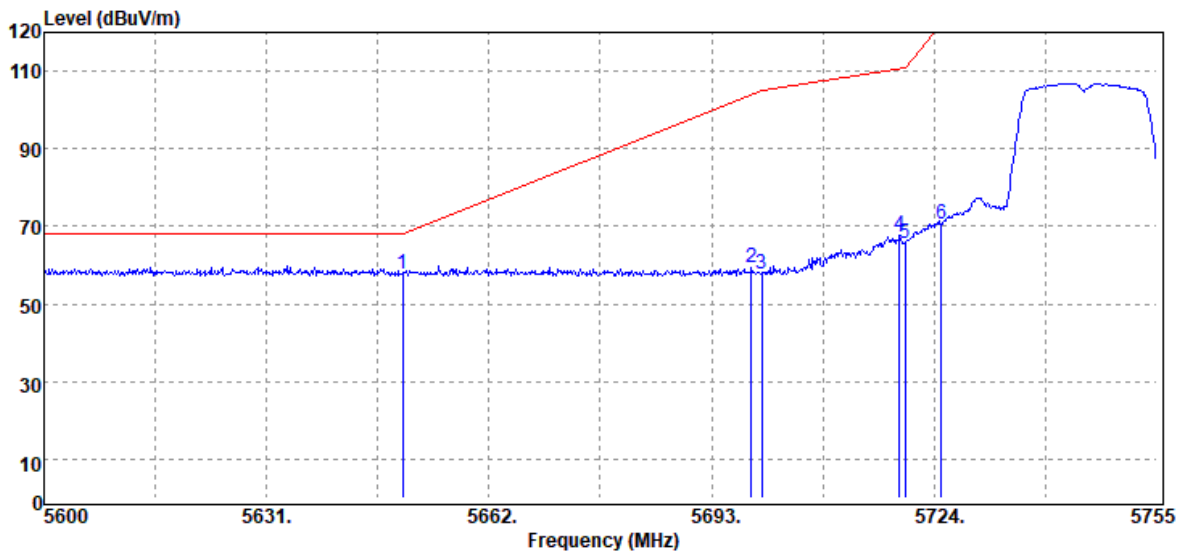
Test Mode	IEEE 802.11a / 5825 MHz	Temp/Hum	22(°C)/ 50%RH
Test Item	Band Edge	Test Date	October 4, 2021
Polarize	Horizontal	Test Engineer	Ray Li
Detector	Peak		



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	58.25	11.73	69.98	122.20	-52.22
5855.00	Peak	54.84	11.76	66.60	110.80	-44.20
5857.70	Peak	56.77	11.77	68.54	110.04	-41.50
5875.00	Peak	47.57	11.84	59.41	105.20	-45.79
5925.00	Peak	47.23	12.01	59.24	68.20	-8.96

Report No.: TMWK2109000561KR

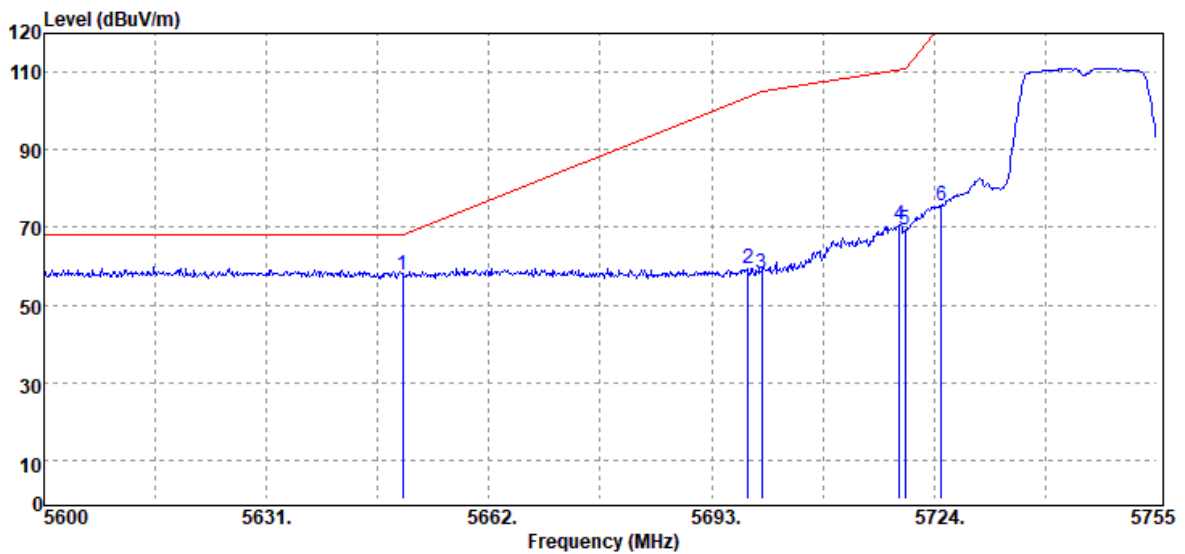
Test Mode	IEEE 802.11n 20 MHz / 5745 MHz	Temp/Hum	22(°C)/ 50%RH
Test Item	Band Edge	Test Date	October 4, 2021
Polarize	Vertical	Test Engineer	Ray Li
Detector	Peak		



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
5650.00	Peak	46.64	11.05	57.69	68.20	-10.51
5698.58	Peak	47.93	11.25	59.18	104.15	-44.97
5700.00	Peak	46.32	11.26	57.58	105.20	-47.62
5719.20	Peak	56.48	11.27	67.75	110.57	-42.82
5720.00	Peak	54.54	11.27	65.81	110.80	-44.99
5725.00	Peak	59.31	11.26	70.57	122.20	-51.63

Report No.: TMWK2109000561KR

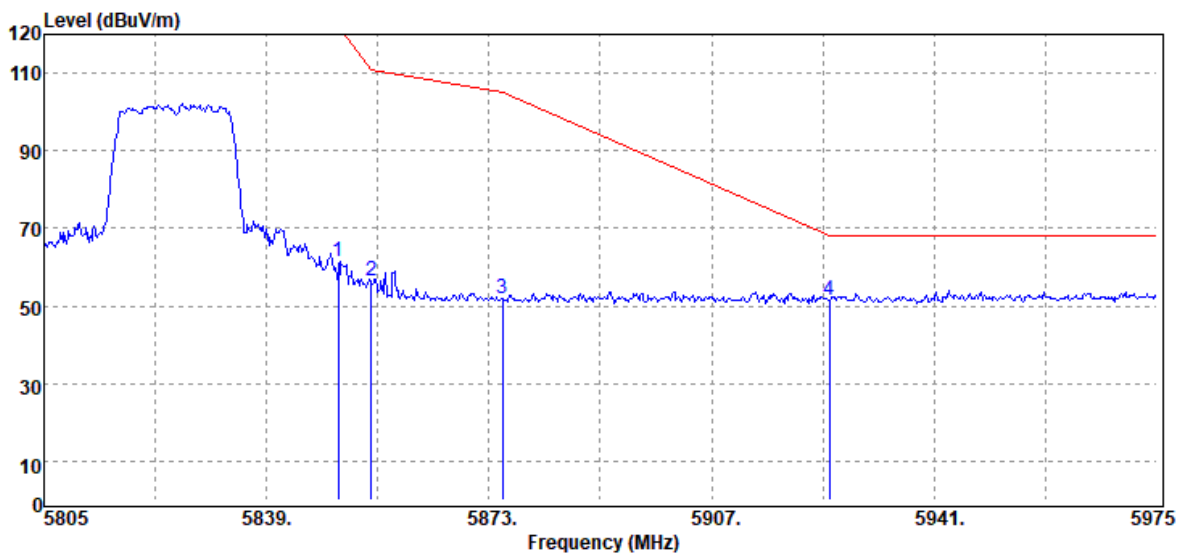
Test Mode	IEEE 802.11n 20 MHz / 5745 MHz	Temp/Hum	22(°C)/ 50%RH
Test Item	Band Edge	Test Date	October 4, 2021
Polarize	Horizontal	Test Engineer	Ray Li
Detector	Peak		



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
5650.00	Peak	46.81	11.05	57.86	68.20	-10.34
5698.12	Peak	48.23	11.25	59.48	103.81	-44.33
5700.00	Peak	46.83	11.26	58.09	105.20	-47.11
5719.20	Peak	59.50	11.27	70.77	110.57	-39.80
5720.00	Peak	57.99	11.27	69.26	110.80	-41.54
5725.00	Peak	64.27	11.26	75.53	122.20	-46.67

Report No.: TMWK2109000561KR

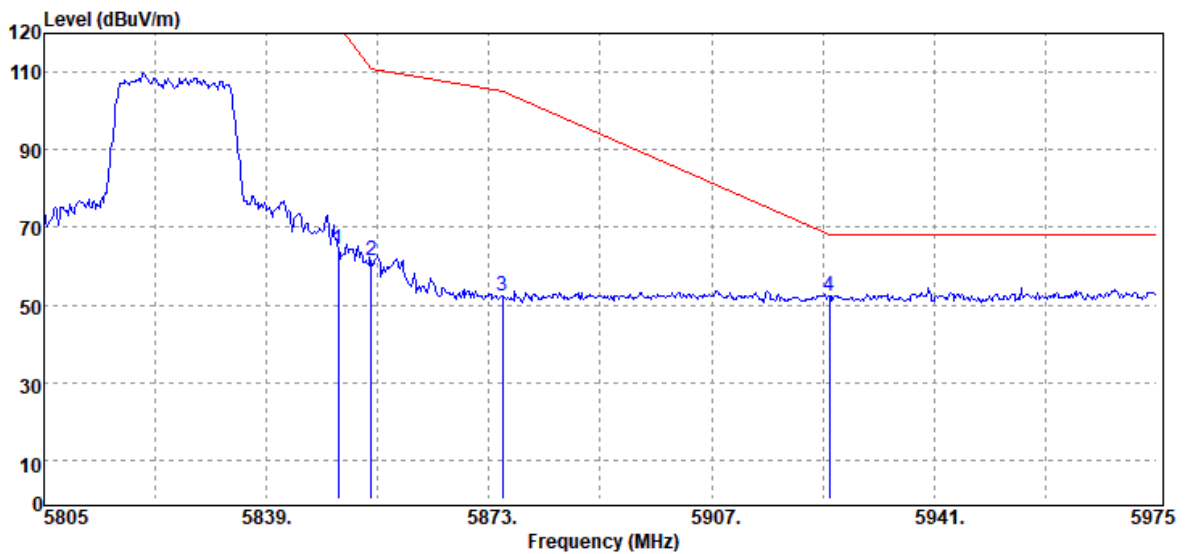
Test Mode	IEEE 802.11n 20 MHz / 5825 MHz	Temp/Hum	22(°C)/ 50%RH
Test Item	Band Edge	Test Date	October 4, 2021
Polarize	Vertical	Test Engineer	Ray Li
Detector	Peak		



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	49.56	11.73	61.29	122.20	-60.91
5855.00	Peak	44.52	11.76	56.28	110.80	-54.52
5875.00	Peak	40.22	11.84	52.06	105.20	-53.14
5925.00	Peak	39.62	12.01	51.63	68.20	-16.57

Report No.: TMWK2109000561KR

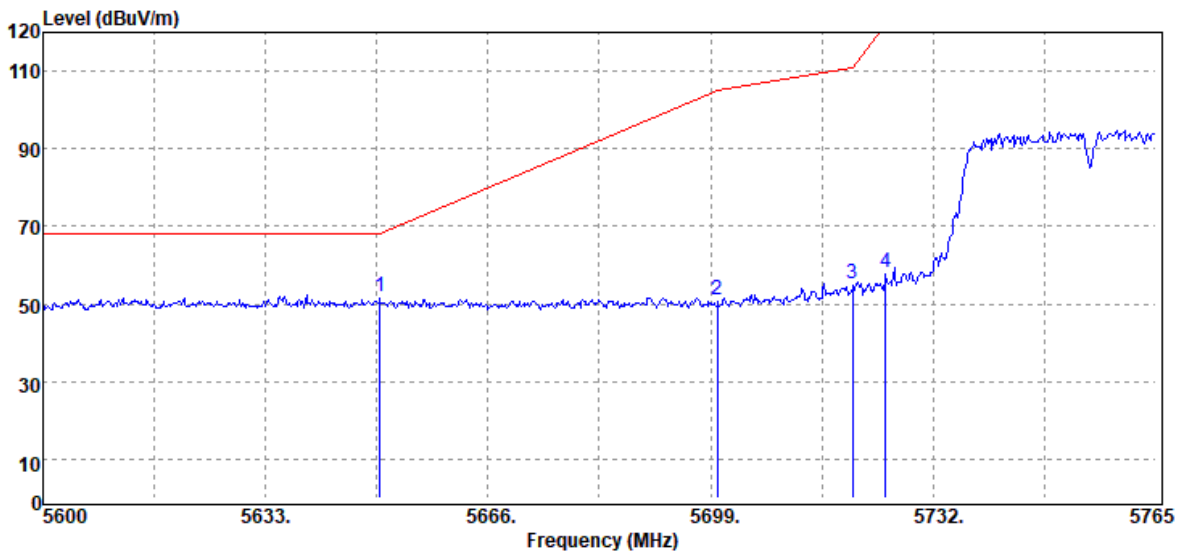
Test Mode	IEEE 802.11n 20 MHz / 5825 MHz	Temp/Hum	22(°C)/ 50%RH
Test Item	Band Edge	Test Date	October 4, 2021
Polarize	Horizontal	Test Engineer	Ray Li
Detector	Peak		



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	52.70	11.73	64.43	122.20	-57.77
5855.00	Peak	49.61	11.76	61.37	110.80	-49.43
5875.00	Peak	40.69	11.84	52.53	105.20	-52.67
5925.00	Peak	40.25	12.01	52.26	68.20	-15.94

Report No.: TMWK2109000561KR

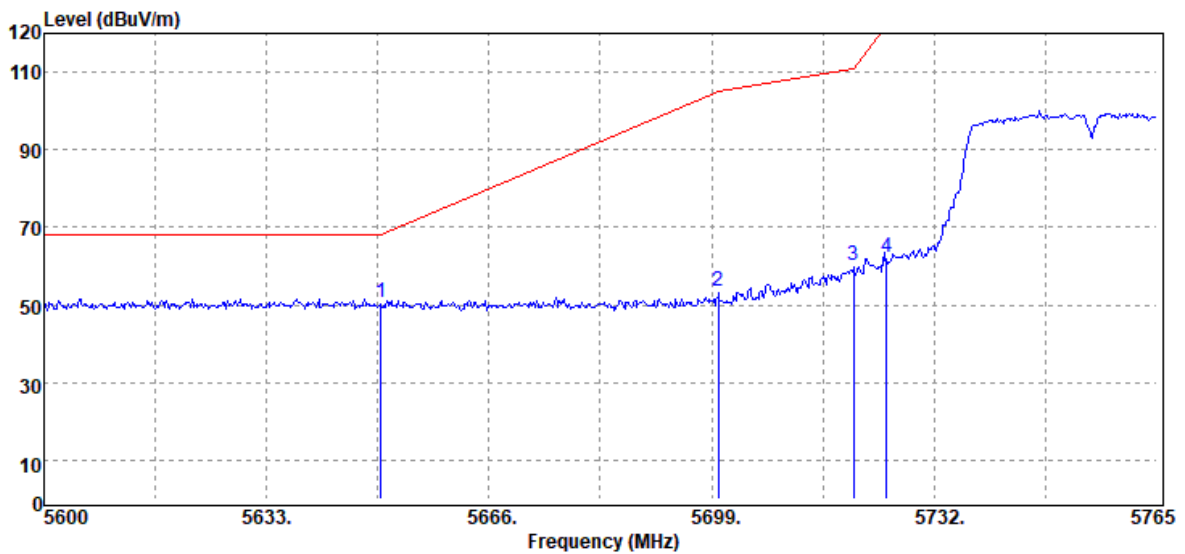
Test Mode	IEEE 802.11n 40 MHz/ 5755 MHz	Temp/Hum	22(°C)/ 50%RH
Test Item	Band Edge	Test Date	October 4, 2021
Polarize	Vertical	Test Engineer	Ray Li
Detector	Peak		



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	40.72	11.05	51.77	68.20	-16.43
5700.00	Peak	40.01	11.26	51.27	105.20	-53.93
5720.00	Peak	43.80	11.27	55.07	110.80	-55.73
5725.00	Peak	46.88	11.26	58.14	122.20	-64.06

Report No.: TMWK2109000561KR

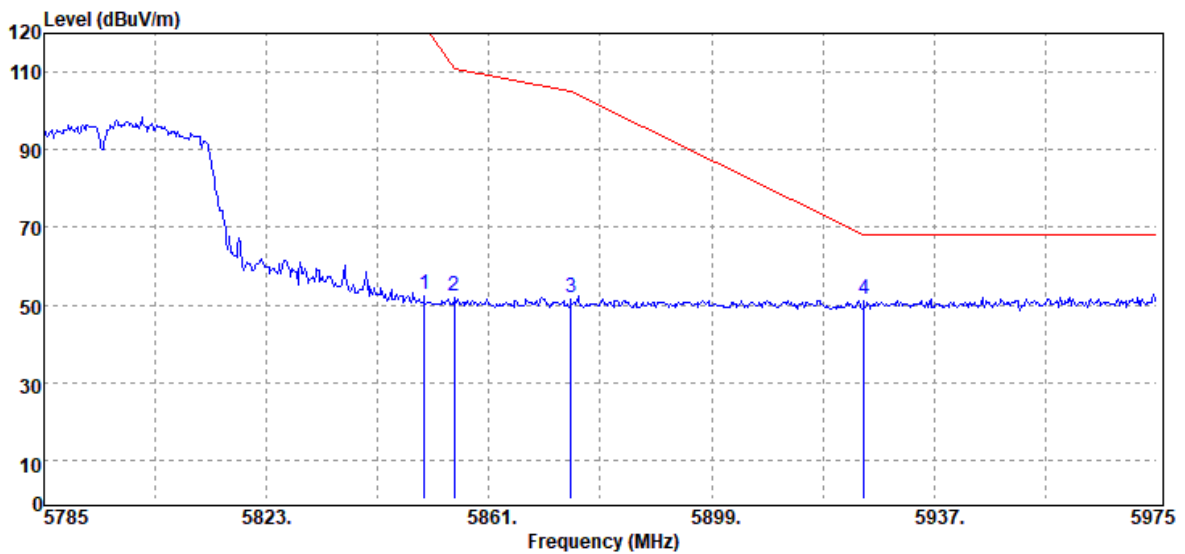
Test Mode	IEEE 802.11n 40 MHz/ 5755 MHz	Temp/Hum	22(°C)/ 50%RH
Test Item	Band Edge	Test Date	October 4, 2021
Polarize	Horizontal	Test Engineer	Ray Li
Detector	Peak		



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
5650.00	Peak	39.64	11.05	50.69	68.20	-17.51
5700.00	Peak	42.15	11.26	53.41	105.20	-51.79
5720.00	Peak	48.96	11.27	60.23	110.80	-50.57
5725.00	Peak	50.88	11.26	62.14	122.20	-60.06

Report No.: TMWK2109000561KR

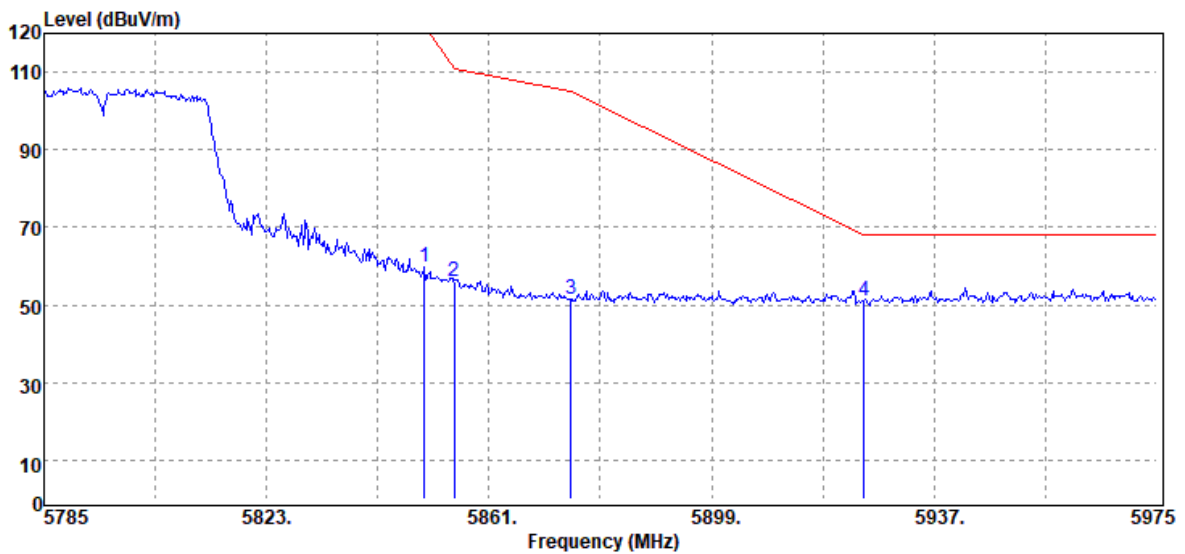
Test Mode	IEEE 802.11n 40 MHz/ 5795 MHz	Temp/Hum	22(°C)/ 50%RH
Test Item	Band Edge	Test Date	October 4, 2021
Polarize	Vertical	Test Engineer	Ray Li
Detector	Peak		



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	40.82	11.73	52.55	122.20	-69.65
5855.00	Peak	40.55	11.76	52.31	110.80	-58.49
5875.00	Peak	40.05	11.84	51.89	105.20	-53.31
5925.00	Peak	39.57	12.01	51.58	68.20	-16.62

Report No.: TMWK2109000561KR

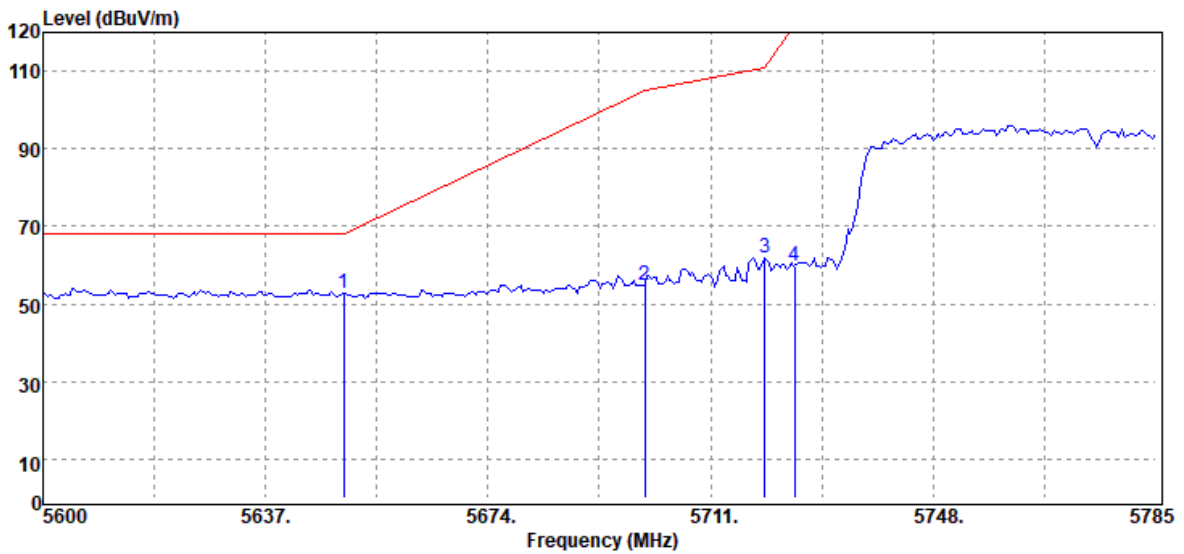
Test Mode	IEEE 802.11n 40 MHz/ 5795 MHz	Temp/Hum	22(°C)/ 50%RH
Test Item	Band Edge	Test Date	October 4, 2021
Polarize	Horizontal	Test Engineer	Ray Li
Detector	Peak		



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	48.01	11.73	59.74	122.20	-62.46
5855.00	Peak	44.42	11.76	56.18	110.80	-54.62
5875.00	Peak	39.49	11.84	51.33	105.20	-53.87
5925.00	Peak	38.98	12.01	50.99	68.20	-17.21

Report No.: TMWK2109000561KR

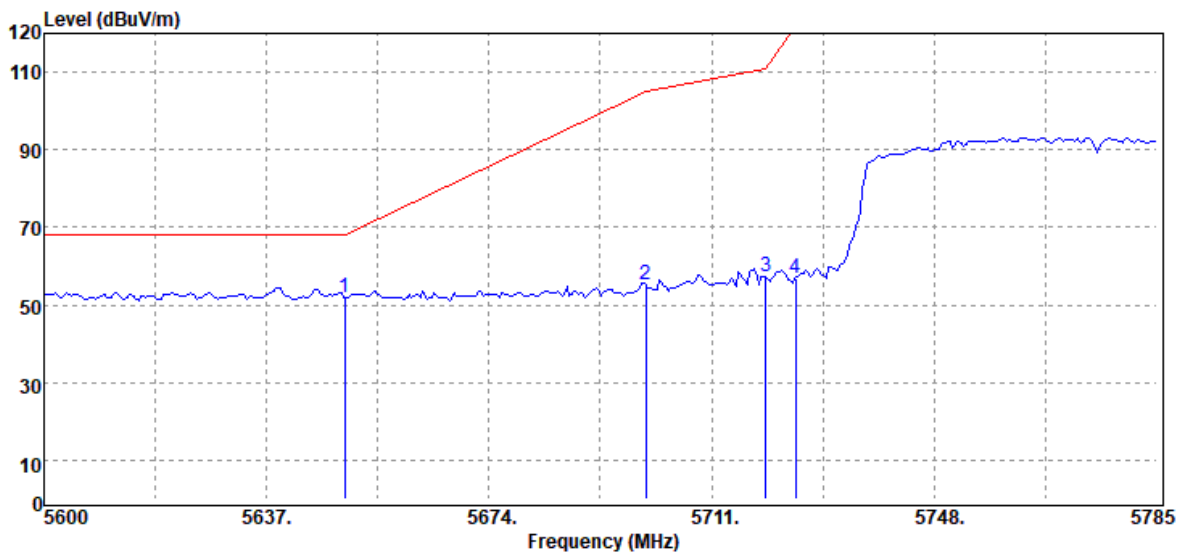
Test Mode	IEEE 802.11ac VHT80 / 5775 MHz	Temp/Hum	22(°C)/ 50%RH
Test Item	Band Edge	Test Date	October 4, 2021
Polarize	Vertical	Test Engineer	Ray Li
Detector	Peak		



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
5650.00	Peak	41.64	11.05	52.69	68.20	-15.51
5700.00	Peak	43.75	11.26	55.01	105.20	-50.19
5720.00	Peak	50.62	11.27	61.89	110.80	-48.91
5725.00	Peak	48.58	11.26	59.84	122.20	-62.36

Report No.: TMWK2109000561KR

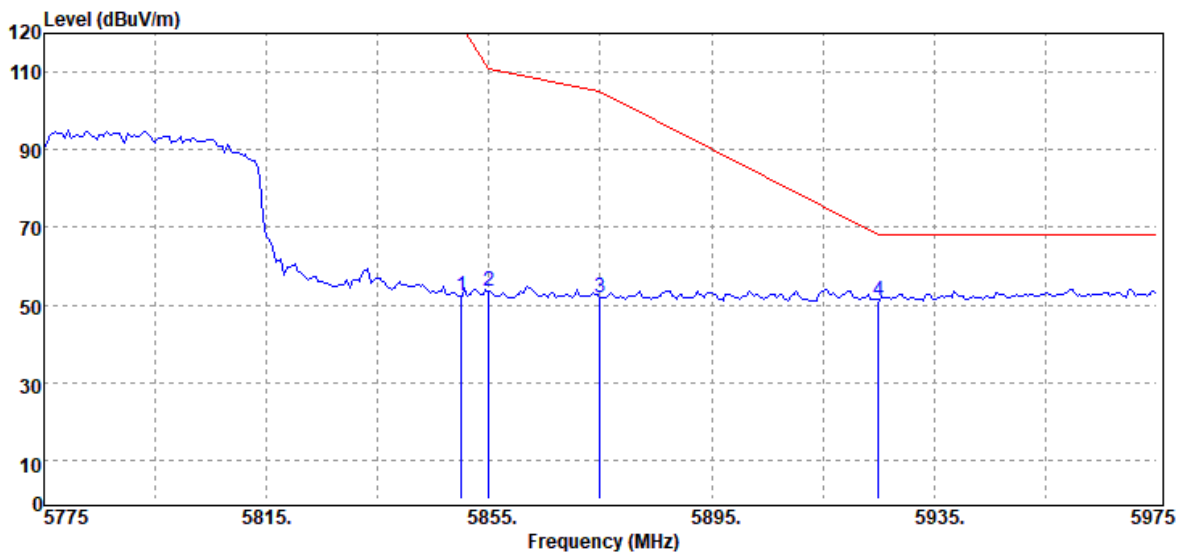
Test Mode	IEEE 802.11ac VHT80 / 5775 MHz	Temp/Hum	22(°C)/ 50%RH
Test Item	Band Edge	Test Date	October 4, 2021
Polarize	Horizontal	Test Engineer	Ray Li
Detector	Peak		



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	40.99	11.05	52.04	68.20	-16.16
5700.00	Peak	44.17	11.26	55.43	105.20	-49.77
5720.00	Peak	45.84	11.27	57.11	110.80	-53.69
5725.00	Peak	45.42	11.26	56.68	122.20	-65.52

Report No.: TMWK2109000561KR

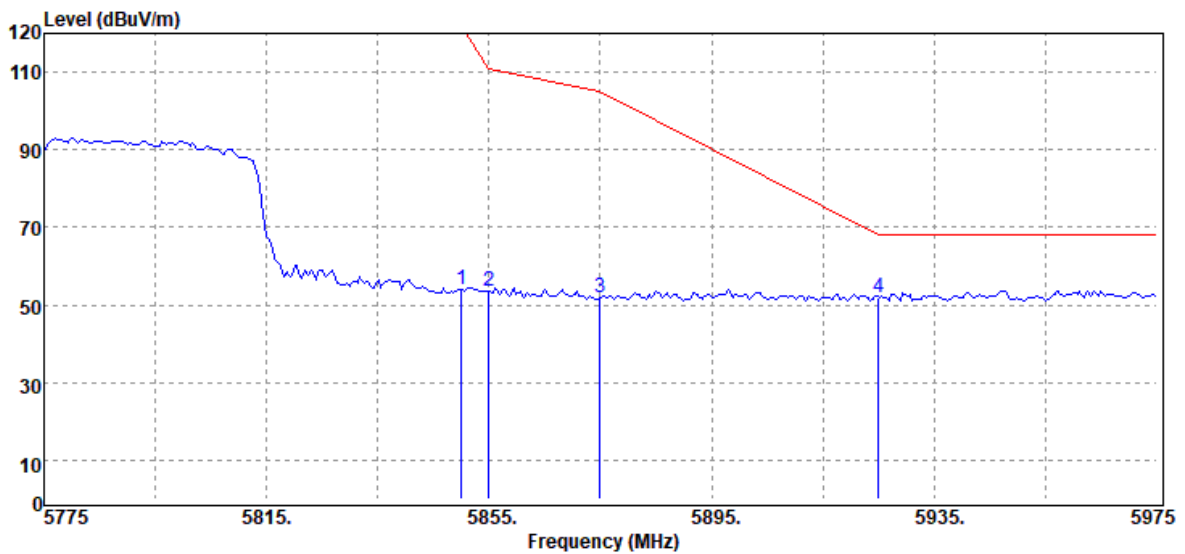
Test Mode	IEEE 802.11ac VHT80 / 5775 MHz	Temp/Hum	22(°C)/ 50%RH
Test Item	Band Edge	Test Date	October 4, 2021
Polarize	Vertical	Test Engineer	Ray Li
Detector	Peak		



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	40.51	11.73	52.24	122.20	-69.96
5855.00	Peak	41.64	11.76	53.40	110.80	-57.40
5875.00	Peak	40.06	11.84	51.90	105.20	-53.30
5925.00	Peak	39.16	12.01	51.17	68.20	-17.03

Report No.: TMWK2109000561KR

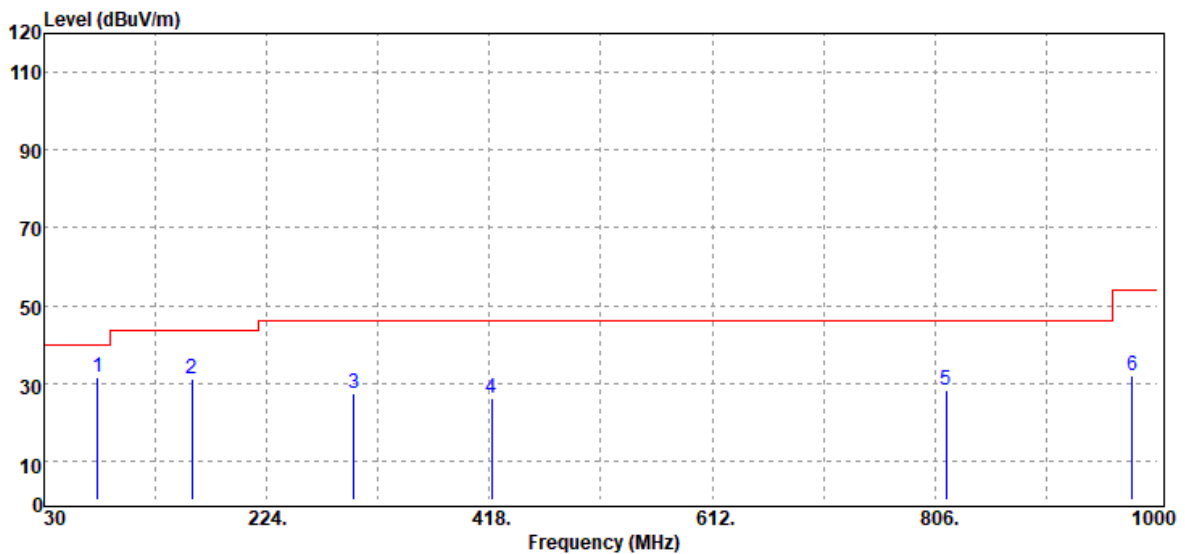
Test Mode	IEEE 802.11ac VHT80 / 5775 MHz	Temp/Hum	22(°C)/ 50%RH
Test Item	Band Edge	Test Date	October 4, 2021
Polarize	Horizontal	Test Engineer	Ray Li
Detector	Peak		



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	42.06	11.73	53.79	122.20	-68.41
5855.00	Peak	41.85	11.76	53.61	110.80	-57.19
5875.00	Peak	39.92	11.84	51.76	105.20	-53.44
5925.00	Peak	40.08	12.01	52.09	68.20	-16.11

Below 1G Test Data

Test Mode	Mode 1	Temp/Hum	22(°C)/ 50%RH
Test Item	30MHz-1GHz	Test Date	October 4, 2021
Polarize	Vertical	Test Engineer	Ray Li
Detector	Peak		

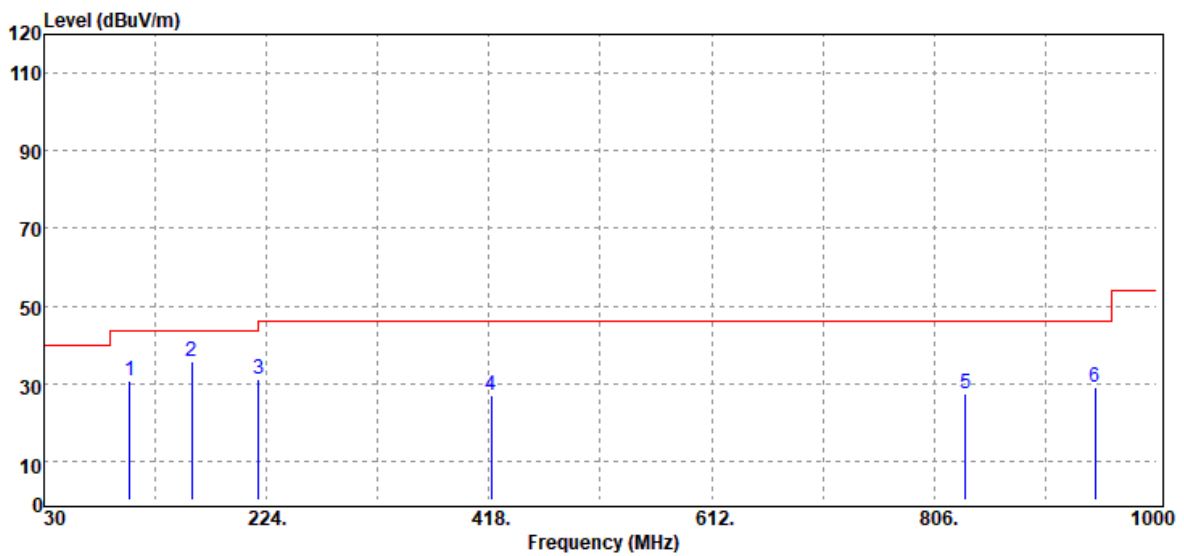


Freq. MHz	Detector Mode PK/QP/AV	Spectrum Reading Level dB μ V	Factor dB	Actual FS dB μ V/m	Limit @3m dB μ V/m	Margin dB
76.56	Peak	46.76	-15.35	31.41	40.00	-8.59
159.01	Peak	41.53	-10.51	31.02	43.50	-12.48
299.66	Peak	36.05	-8.80	27.25	46.00	-18.75
419.94	Peak	31.49	-5.26	26.23	46.00	-19.77
815.70	Peak	26.17	1.86	28.03	46.00	-17.97
977.69	Peak	28.05	4.07	32.12	54.00	-21.88

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.

Report No.: TMWK2109000561KR

Test Mode	Mode 1	Temp/Hum	22(°C)/ 50%RH
Test Item	30MHz-1GHz	Test Date	October 4, 2021
Polarize	Horizontal	Test Engineer	Ray Li
Detector	Peak		



Freq. 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
104.69	Peak	41.96	-11.31	30.65	43.50	-12.85
159.01	Peak	46.11	-10.51	35.60	43.50	-7.90
217.21	Peak	43.03	-11.89	31.14	46.00	-14.86
419.94	Peak	32.20	-5.26	26.94	46.00	-19.06
833.16	Peak	25.57	2.02	27.59	46.00	-18.41
946.65	Peak	25.59	3.66	29.25	46.00	-16.75

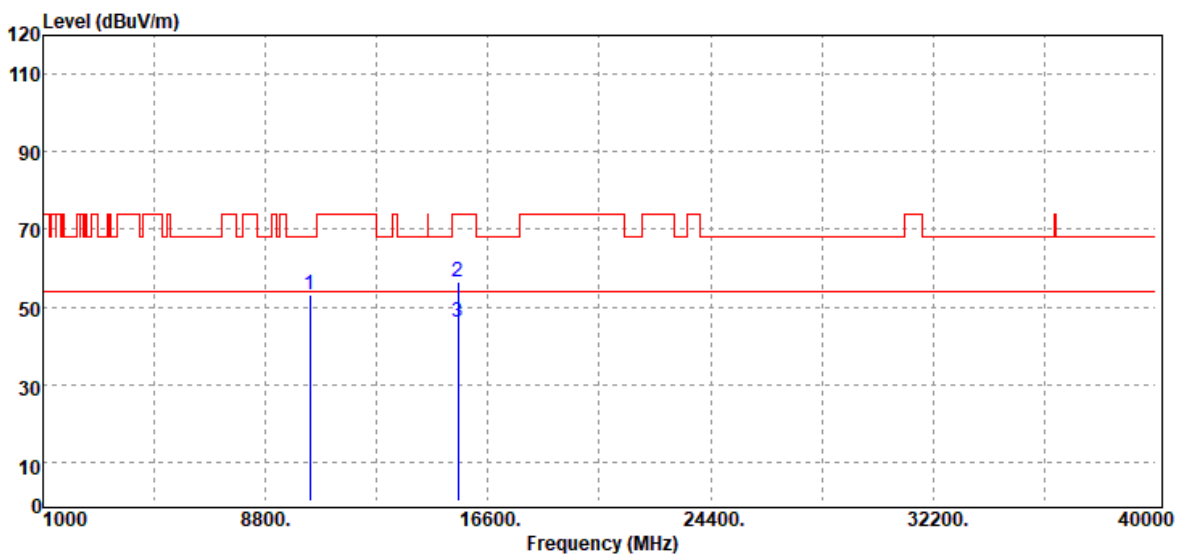
Note: 1. No emission found between lowest internal used/generated frequency to 30MHz(9KHz~30MHz)
 2. For below 1GHz, the EUT peak value was under average limit, therefore the Average value compliance with the average limit.

Report No.: TMWK2109000561KR

Above 1G

Test Data for UNII-1

Test Mode	IEEE 802.11a / 5180MHZ	Temp/Hum	22(°C)/ 50%RH
Test Item	Harmonic	Test Date	October 4, 2021
Polarize	Vertical	Test Engineer	Ray Li
Detector	Peak & Average		



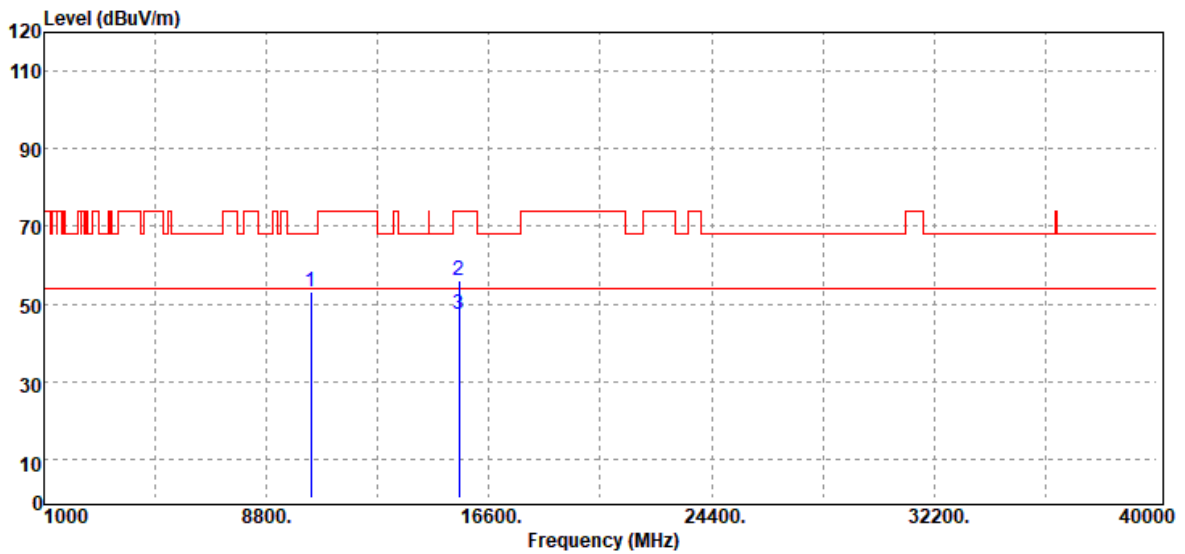
Freq. MHz	Detector Mode PK/QP/AV	Spectrum Reading Level dBµV	Factor dB	Actual FS dBµV/m	Limit @3m dBµV/m	Margin dB
10360.00	Peak	35.51	17.68	53.19	68.20	-15.01
15540.00	Peak	31.42	25.00	56.42	74.00	-17.58
15540.00	Average	21.25	25.00	46.25	54.00	-7.75
N/A						

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.

Report No.: TMWK2109000561KR

Test Mode	IEEE 802.11a / 5180MHZ	Temp/Hum	22(°C)/ 50%RH
Test Item	Harmonic	Test Date	October 4, 2021
Polarize	Horizontal	Test Engineer	Ray Li
Detector	Peak & Average		



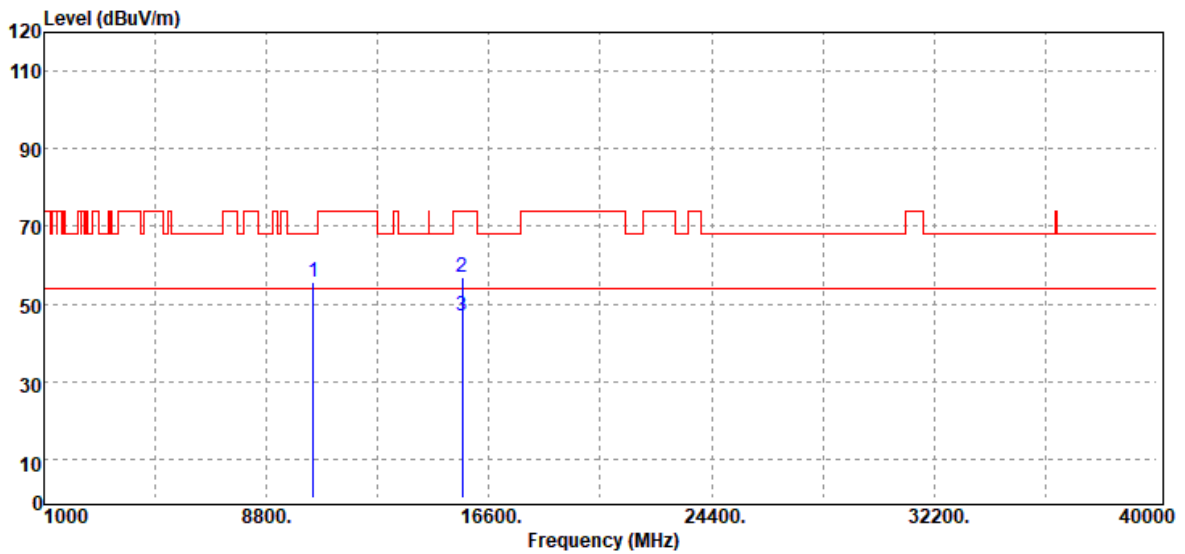
Freq. MHz	Detector Mode PK/QP/AV	Spectrum Reading Level dBµV	Factor dB	Actual FS dBµV/m	Limit @3m dBµV/m	Margin dB
10360.00	Peak	35.33	17.68	53.01	68.20	-15.19
15540.00	Peak	31.21	25.00	56.21	74.00	-17.79
15540.00	Average	22.31	25.00	47.31	54.00	-6.69
N/A						

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.

Report No.: TMWK2109000561KR

Test Mode	IEEE 802.11a / 5220 MHz	Temp/Hum	22(°C)/ 50%RH
Test Item	Harmonics	Test Date	October 4, 2021
Polarize	Vertical	Test Engineer	Ray Li
Detector	Peak & Average		



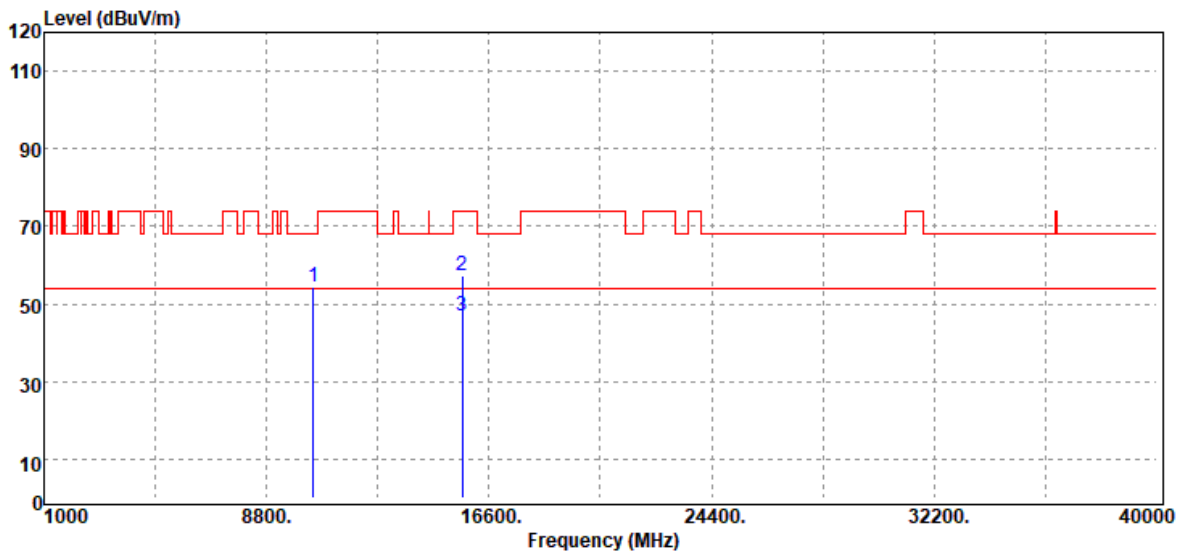
Freq. MHz	Detector Mode PK/QP/AV	Spectrum Reading Level dB μ V	Factor dB	Actual FS dB μ V/m	Limit @3m dB μ V/m	Margin dB
10440.00	Peak	37.63	17.94	55.57	68.20	-12.63
15660.00	Peak	31.50	25.25	56.75	74.00	-17.25
15660.00	Average	21.74	25.25	46.99	54.00	-7.01
N/A						

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.

Report No.: TMWK2109000561KR

Test Mode	IEEE 802.11a / 5220 MHz	Temp/Hum	22(°C)/ 50%RH
Test Item	Harmonic	Test Date	October 4, 2021
Polarize	Horizontal	Test Engineer	Ray Li
Detector	Peak & Average		



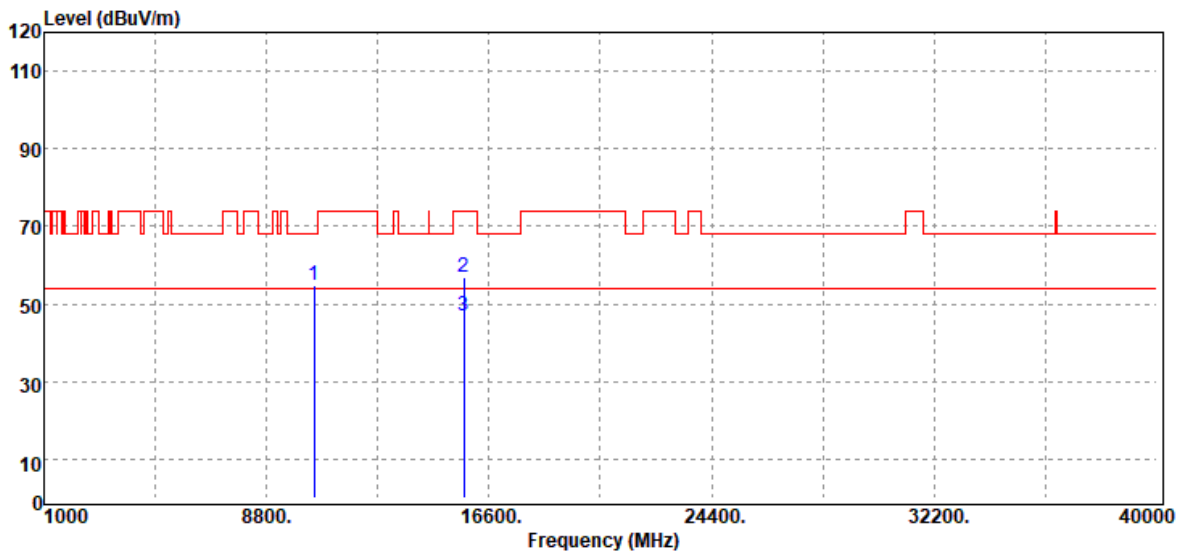
Freq. MHz	Detector Mode PK/QP/AV	Spectrum Reading Level dBµV	Factor dB	Actual FS dBµV/m	Limit @3m dBµV/m	Margin dB
10440.00	Peak	36.39	17.94	54.33	68.20	-13.87
15660.00	Peak	31.89	25.25	57.14	74.00	-16.86
15660.00	Average	21.52	25.25	46.77	54.00	-7.23
N/A						

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.

Report No.: TMWK2109000561KR

Test Mode	IEEE 802.11a / 5240MHZ	Temp/Hum	22(°C)/ 50%RH
Test Item	Harmonic	Test Date	October 4, 2021
Polarize	Vertical	Test Engineer	Ray Li
Detector	Peak & Average		



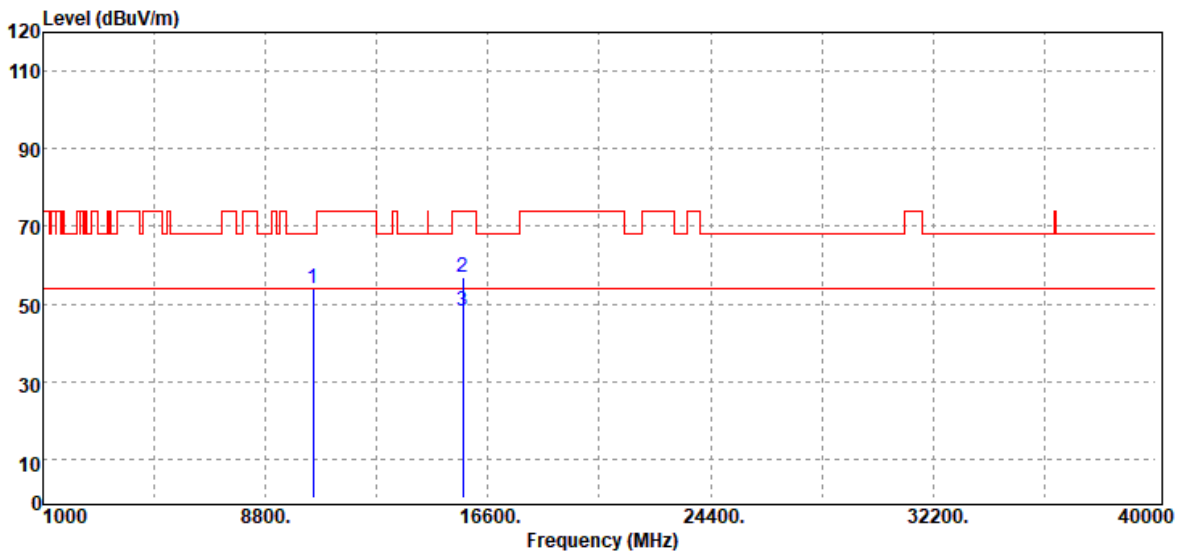
Freq. MHz	Detector Mode PK/QP/AV	Spectrum Reading Level dBµV	Factor dB	Actual FS dBµV/m	Limit @3m dBµV/m	Margin dB
10480.00	Peak	36.60	18.13	54.73	68.20	-13.47
15720.00	Peak	31.25	25.63	56.88	74.00	-17.12
15720.00	Average	21.33	25.63	46.96	54.00	-7.04
N/A						

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.

Report No.: TMWK2109000561KR

Test Mode	IEEE 802.11a / 5240MHZ	Temp/Hum	22(°C)/ 50%RH
Test Item	Harmonic	Test Date	October 4, 2021
Polarize	Horizontal	Test Engineer	Ray Li
Detector	Peak & Average		



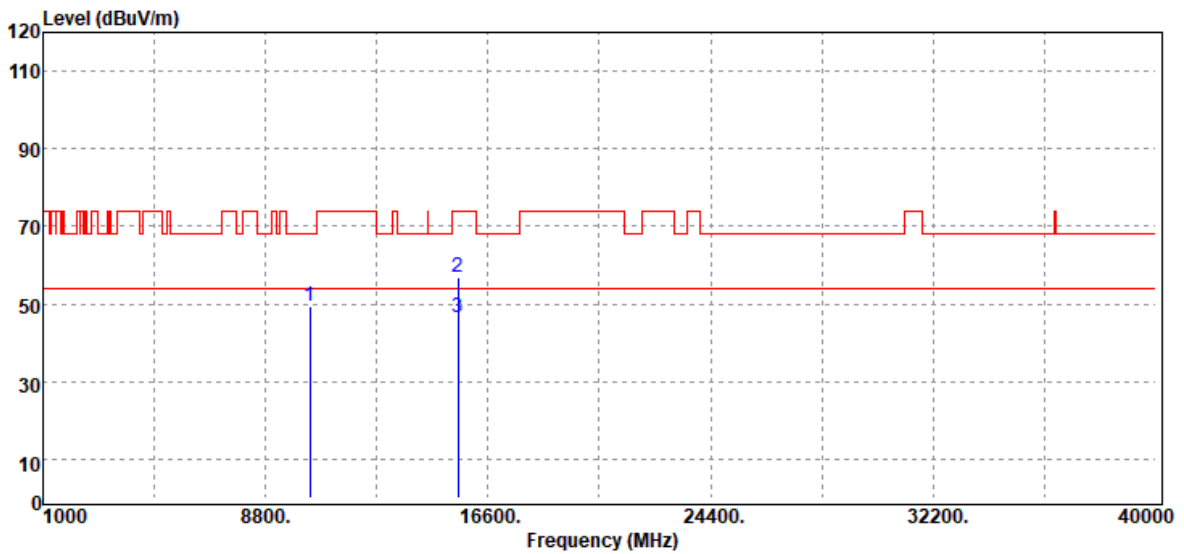
Freq. MHz	Detector Mode PK/QP/AV	Spectrum Reading Level dBμV	Factor dB	Actual FS dBμV/m	Limit @3m dBμV/m	Margin dB
10480.00	Peak	35.80	18.13	53.93	68.20	-14.27
15720.00	Peak	31.21	25.63	56.84	74.00	-17.16
15720.00	Average	22.41	25.63	48.04	54.00	-5.96
N/A						

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.

Report No.: TMWK2109000561KR

Test Mode	IEEE 802.11n 20 MHz / 5180MHz	Temp/Hum	22(°C)/ 50%RH
Test Item	Harmonic	Test Date	October 4, 2021
Polarize	Vertical	Test Engineer	Ray Li
Detector	Peak & Average		



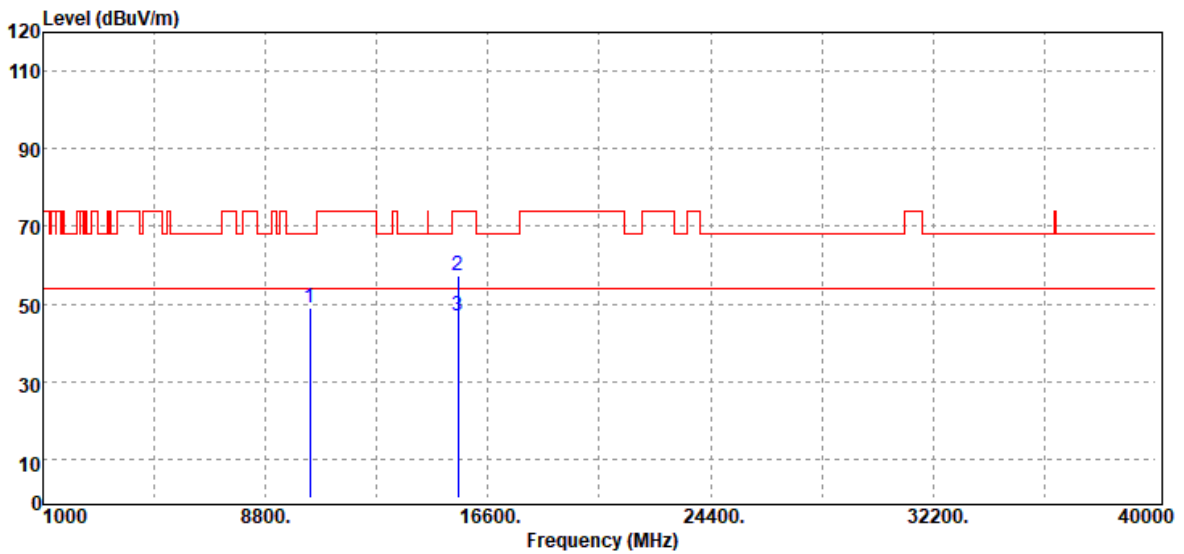
Freq. MHz	Detector Mode PK/QP/AV	Spectrum Reading Level dB μ V	Factor dB	Actual FS dB μ V/m	Limit @3m dB μ V/m	Margin dB
10360.00	Peak	31.72	17.68	49.40	68.20	-18.80
15540.00	Peak	31.78	25.00	56.78	74.00	-17.22
15540.00	Average	21.53	25.00	46.53	54.00	-7.47
N/A						

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.

Report No.: TMWK2109000561KR

Test Mode	IEEE 802.11n 20 MHz/ 5180MHz	Temp/Hum	22(°C)/ 50%RH
Test Item	Harmonic	Test Date	October 4, 2021
Polarize	Horizontal	Test Engineer	Ray Li
Detector	Peak & Average		



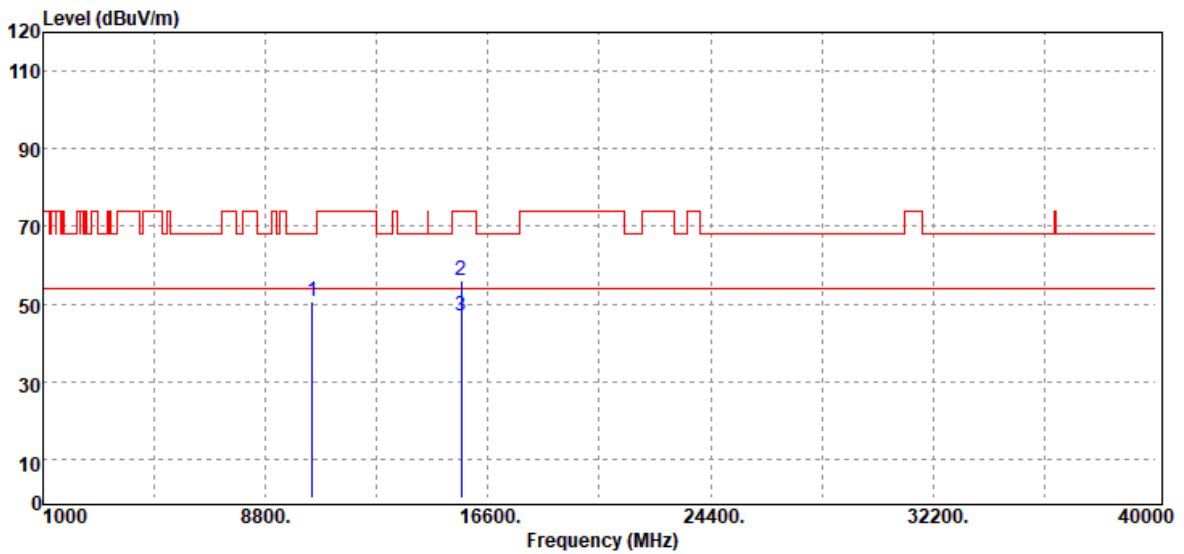
Freq. MHz	Detector Mode PK/QP/AV	Spectrum Reading Level dBμV	Factor dB	Actual FS dBμV/m	Limit @3m dBμV/m	Margin dB
10360.00	Peak	31.43	17.68	49.11	68.20	-19.09
15540.00	Peak	32.31	25.00	57.31	74.00	-16.69
15540.00	Average	21.84	25.00	46.84	54.00	-7.16
N/A						

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.

Report No.: TMWK2109000561KR

Test Mode	IEEE 802.11n 20 MHz / 5220MHz	Temp/Hum	22(°C)/ 50%RH
Test Item	Harmonic	Test Date	October 4, 2021
Polarize	Vertical	Test Engineer	Ray Li
Detector	Peak & Average		



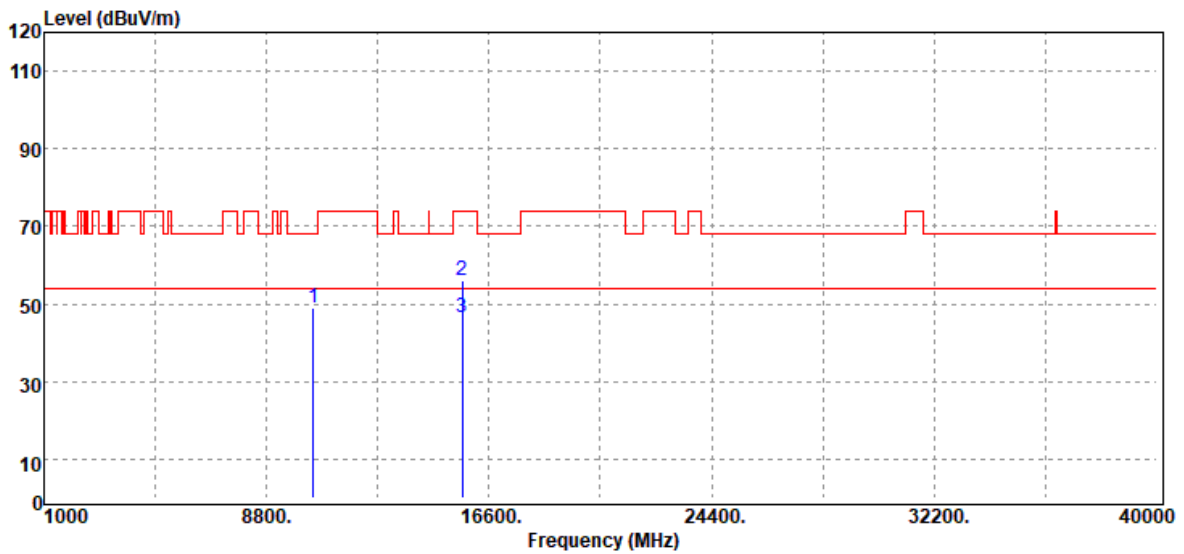
Freq. MHz	Detector Mode PK/QP/AV	Spectrum Reading Level dB μ V	Factor dB	Actual FS dB μ V/m	Limit @3m dB μ V/m	Margin dB
10440.00	Peak	32.85	17.94	50.79	68.20	-17.41
15660.00	Peak	30.74	25.25	55.99	74.00	-18.01
15660.00	Average	21.53	25.25	46.78	54.00	-7.22
N/A						

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.

Report No.: TMWK2109000561KR

Test Mode	IEEE 802.11n 20 MHz / 5220MHz	Temp/Hum	22(°C)/ 50%RH
Test Item	Harmonic	Test Date	October 4, 2021
Polarize	Horizontal	Test Engineer	Ray Li
Detector	Peak & Average		



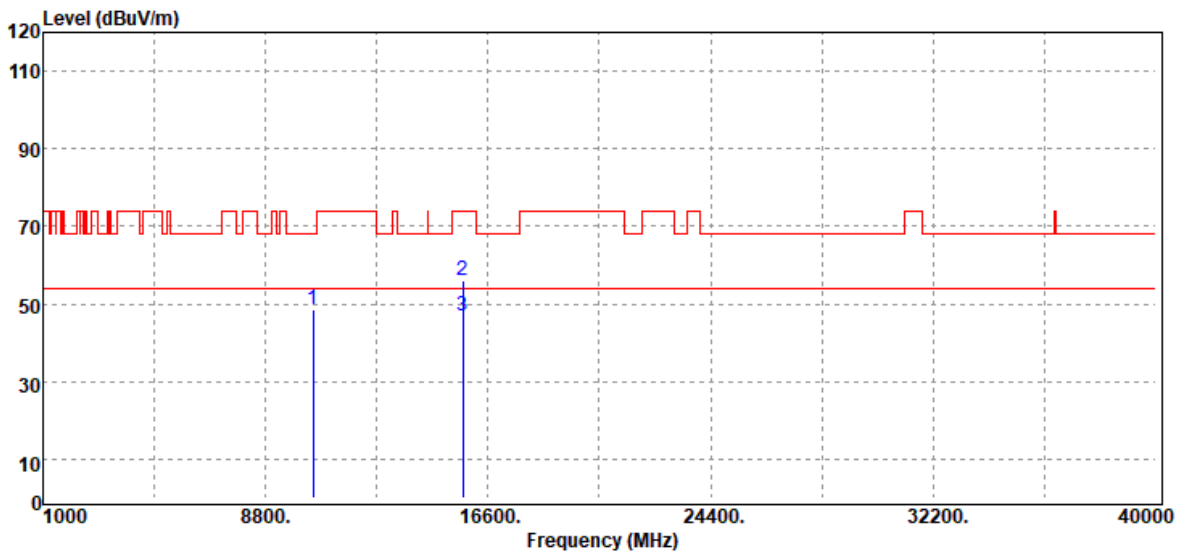
Freq. MHz	Detector Mode PK/QP/AV	Spectrum Reading Level dB μ V	Factor dB	Actual FS dB μ V/m	Limit @3m dB μ V/m	Margin dB
10440.00	Peak	31.24	17.94	49.18	68.20	-19.02
15660.00	Peak	30.94	25.25	56.19	74.00	-17.81
15660.00	Average	21.41	25.25	46.66	54.00	-7.34
N/A						

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.

Report No.: TMWK2109000561KR

Test Mode	IEEE 802.11n 20 MHz / 5240MHz	Temp/Hum	22(°C)/ 50%RH
Test Item	Harmonic	Test Date	October 4, 2021
Polarize	Vertical	Test Engineer	Ray Li
Detector	Peak & Average		



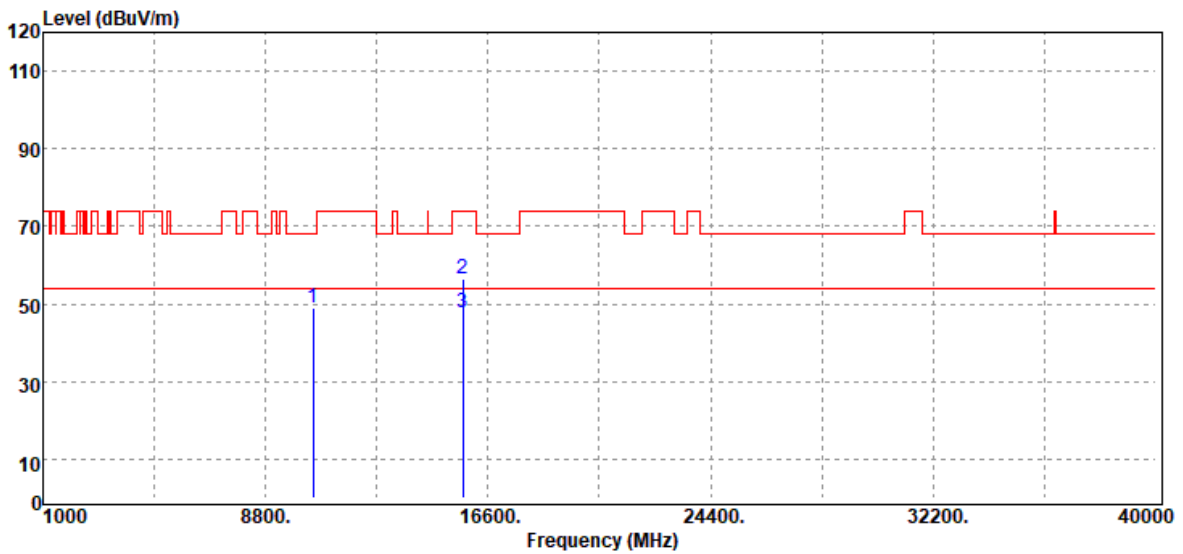
Freq. MHz	Detector Mode PK/QP/AV	Spectrum Reading Level dB μ V	Factor dB	Actual FS dB μ V/m	Limit @3m dB μ V/m	Margin dB
10480.00	Peak	30.36	18.13	48.49	68.20	-19.71
15720.00	Peak	30.56	25.63	56.19	74.00	-17.81
15720.00	Average	21.25	25.63	46.88	54.00	-7.12
N/A						

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.

Report No.: TMWK2109000561KR

Test Mode	IEEE 802.11n 20 MHz / 5240MHZ	Temp/Hum	22(°C)/ 50%RH
Test Item	Harmonic	Test Date	October 4, 2021
Polarize	Horizontal	Test Engineer	Ray Li
Detector	Peak & Average		



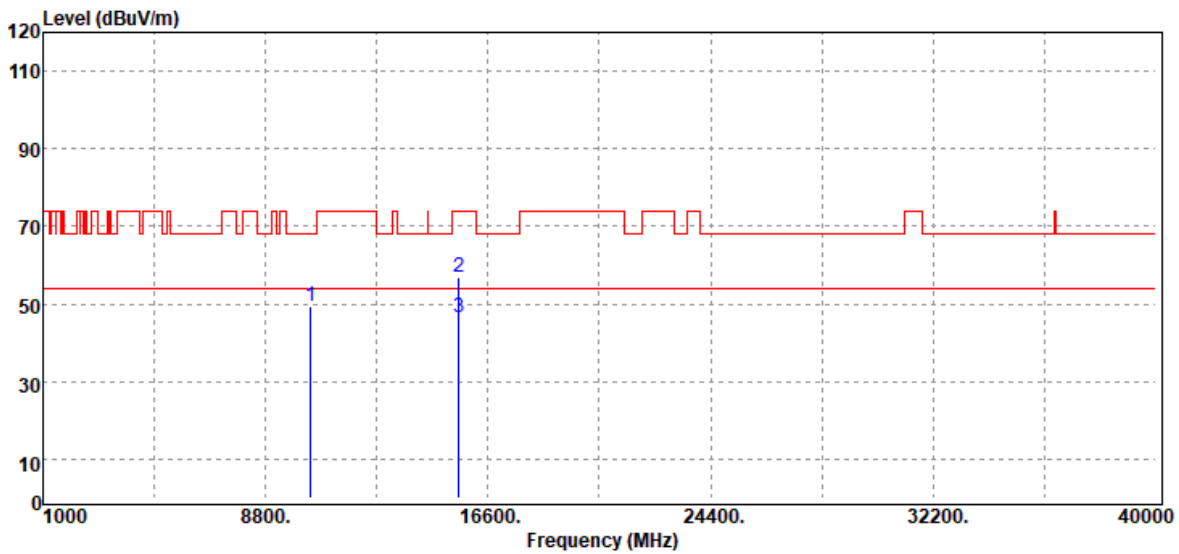
Freq. MHz	Detector Mode PK/QP/AV	Spectrum Reading Level dB μ V	Factor dB	Actual FS dB μ V/m	Limit @3m dB μ V/m	Margin dB
10480.00	Peak	31.06	18.13	49.19	68.20	-19.01
15720.00	Peak	30.98	25.63	56.61	74.00	-17.39
15720.00	Average	22.07	25.63	47.70	54.00	-6.30
N/A						

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.

Report No.: TMWK2109000561KR

Test Mode	IEEE 802.11n 40 MHz / 5190MHz	Temp/Hum	22(°C)/ 50%RH
Test Item	Harmonic	Test Date	October 4, 2021
Polarize	Vertical	Test Engineer	Ray Li
Detector	Peak & Average		



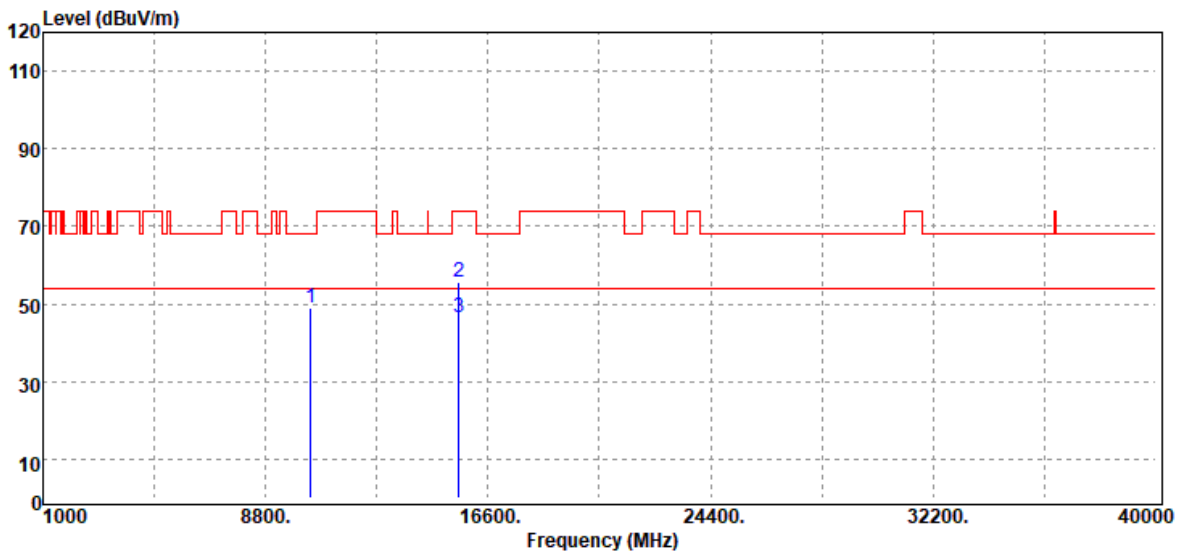
Freq. MHz	Detector Mode PK/QP/AV	Spectrum Reading Level dB μ V	Factor dB	Actual FS dB μ V/m	Limit @3m dB μ V/m	Margin dB
10380.00	Peak	31.73	17.74	49.47	68.20	-18.73
15570.00	Peak	31.72	24.99	56.71	74.00	-17.29
15570.00	Average	21.56	24.99	46.55	54.00	-7.45
N/A						

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.

Report No.: TMWK2109000561KR

Test Mode	IEEE 802.11n 40 MHz / 5190MHz	Temp/Hum	22(°C)/ 50%RH
Test Item	Harmonic	Test Date	October 4, 2021
Polarize	Horizontal	Test Engineer	Ray Li
Detector	Peak & Average		



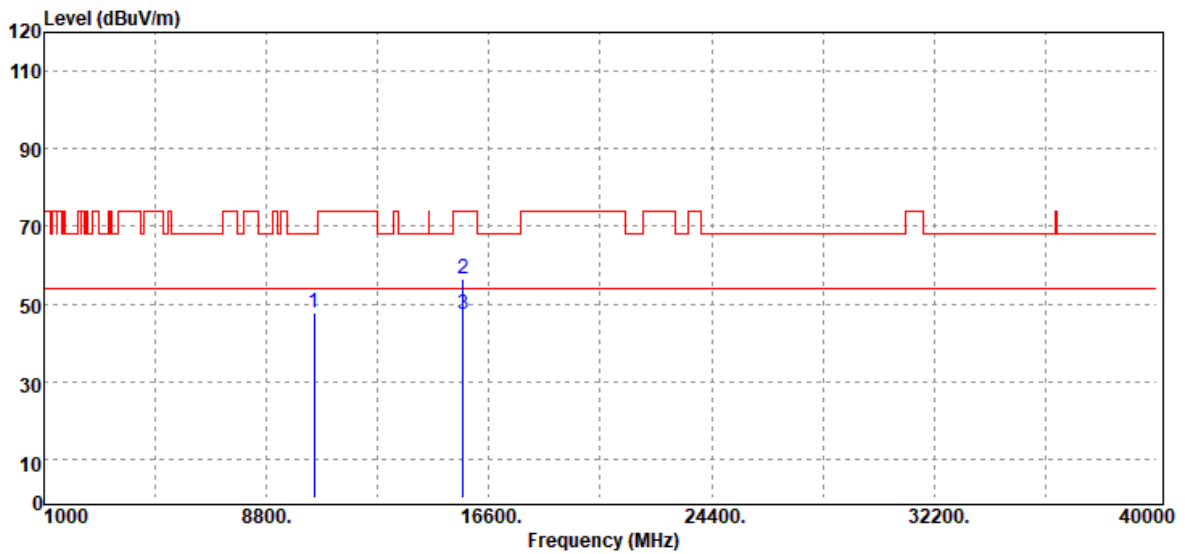
Freq. MHz	Detector Mode PK/QP/AV	Spectrum Reading Level dB μ V	Factor dB	Actual FS dB μ V/m	Limit @3m dB μ V/m	Margin dB
10380.00	Peak	31.06	17.74	48.80	68.20	-19.40
15570.00	Peak	30.77	24.99	55.76	74.00	-18.24
15570.00	Average	21.68	24.99	46.67	54.00	-7.33
N/A						

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.

Report No.: TMWK2109000561KR

Test Mode	IEEE 802.11n 40 MHz / 5230MHz	Temp/Hum	22(°C)/ 50%RH
Test Item	Harmonic	Test Date	October 4, 2021
Polarize	Vertical	Test Engineer	Ray Li
Detector	Peak & Average		



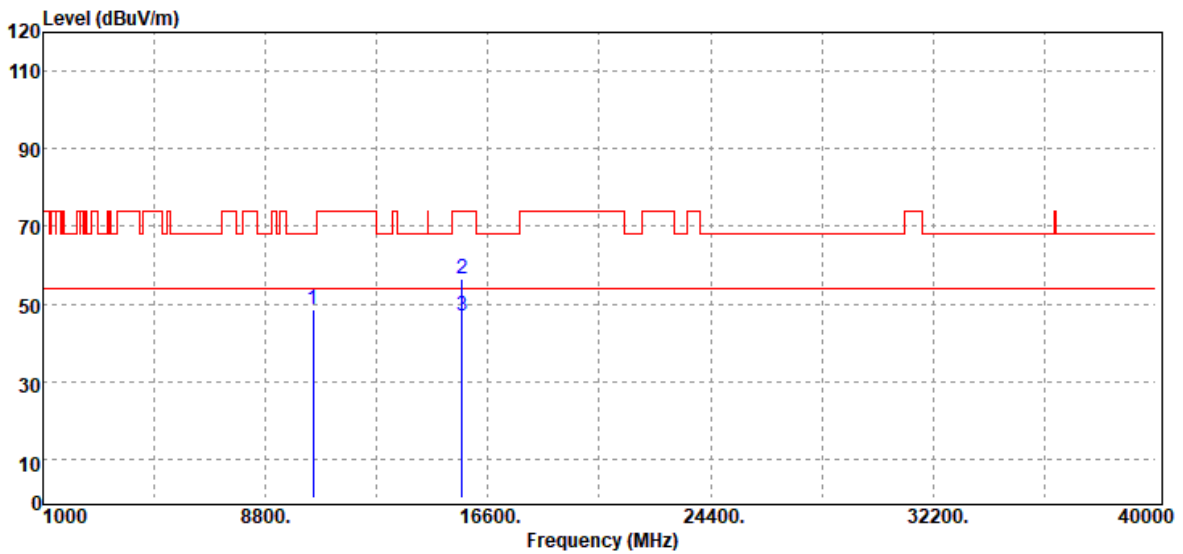
Freq. MHz	Detector Mode PK/QP/AV	Spectrum Reading Level dBµV	Factor dB	Actual FS dBµV/m	Limit @3m dBµV/m	Margin dB
10460.00	Peak	29.88	18.03	47.91	68.20	-20.29
15690.00	Peak	30.99	25.48	56.47	74.00	-17.53
15690.00	Average	21.93	25.48	47.41	54.00	-6.59
N/A						

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.

Report No.: TMWK2109000561KR

Test Mode	IEEE 802.11n 40 MHz / 5230MHz	Temp/Hum	22(°C)/ 50%RH
Test Item	Harmonic	Test Date	October 4, 2021
Polarize	Horizontal	Test Engineer	Ray Li
Detector	Peak & Average		



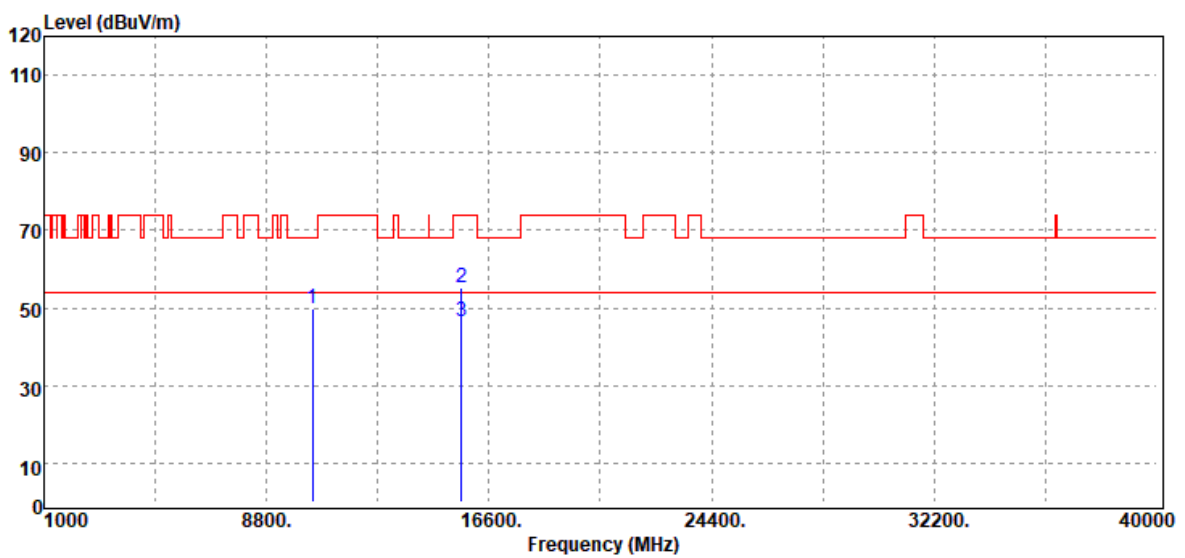
Freq. MHz	Detector Mode PK/QP/AV	Spectrum Reading Level dBµV	Factor dB	Actual FS dBµV/m	Limit @3m dBµV/m	Margin dB
10460.00	Peak	30.46	18.03	48.49	68.20	-19.71
15690.00	Peak	30.99	25.48	56.47	74.00	-17.53
15690.00	Average	21.47	25.48	46.95	54.00	-7.05
N/A						

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.

Report No.: TMWK2109000561KR

Test Mode	IEEE 802.11ac VHT80 / 5210MHZ	Temp/Hum	22(°C)/ 50%RH
Test Item	Harmonic	Test Date	October 4, 2021
Polarize	Vertical	Test Engineer	Ray Li
Detector	Peak & Average		



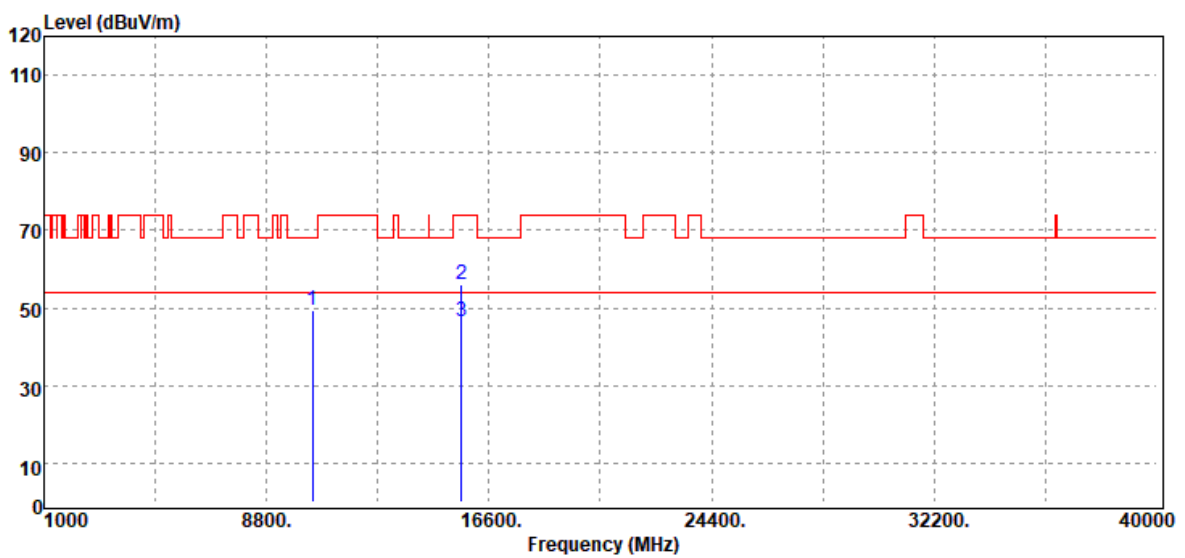
Freq. MHz	Detector Mode PK/QP/AV	Spectrum Reading Level dBµV	Factor dB	Actual FS dBµV/m	Limit @3m dBµV/m	Margin dB
10420.00	Peak	32.01	17.88	49.89	68.20	-18.31
15630.00	Peak	30.24	25.10	55.34	74.00	-18.66
15630.00	Average	21.42	25.10	46.52	54.00	-7.48
N/A						

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.

Report No.: TMWK2109000561KR

Test Mode	IEEE 802.11ac VHT80 / 5210MHZ	Temp/Hum	22(°C)/ 50%RH
Test Item	Harmonic	Test Date	October 4, 2021
Polarize	Horizontal	Test Engineer	Ray Li
Detector	Peak & Average		



Freq. MHz	Detector Mode PK/QP/AV	Spectrum Reading Level dBµV	Factor dB	Actual FS dBµV/m	Limit @3m dBµV/m	Margin dB
10420.00	Peak	31.41	17.88	49.29	68.20	-18.91
15630.00	Peak	30.80	25.10	55.90	74.00	-18.10
15630.00	Average	21.51	25.10	46.61	54.00	-7.39
N/A						

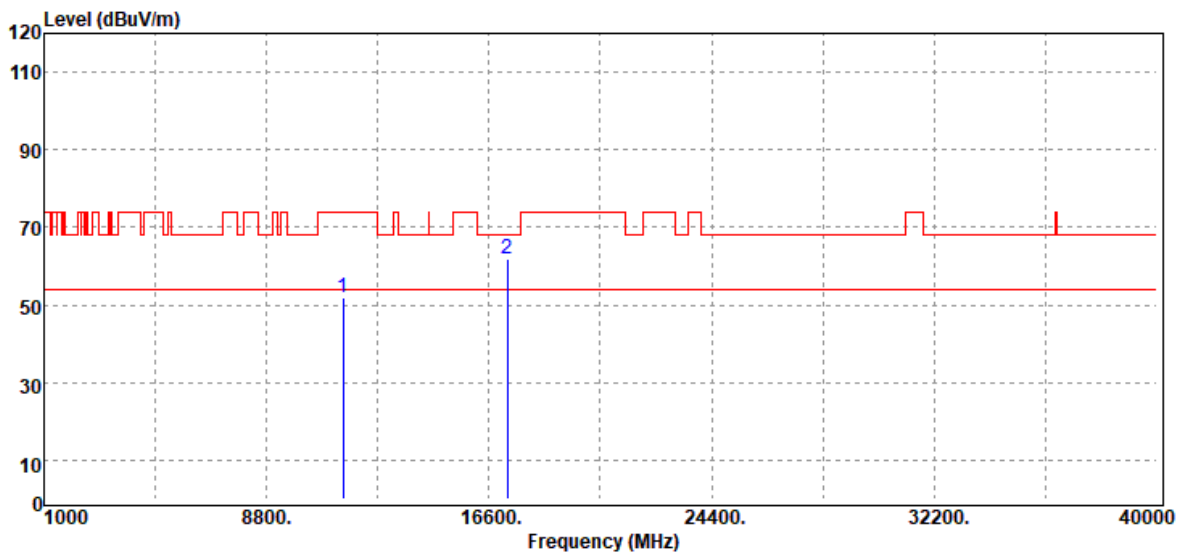
Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.

Report No.: TMWK2109000561KR

Test Data for UNII-3

Test Mode	IEEE 802.11a / 5745 MHz	Temp/Hum	22(°C)/ 50%RH
Test Item	Harmonic	Test Date	October 4, 2021
Polarize	Vertical	Test Engineer	Ray Li
Detector	Peak		



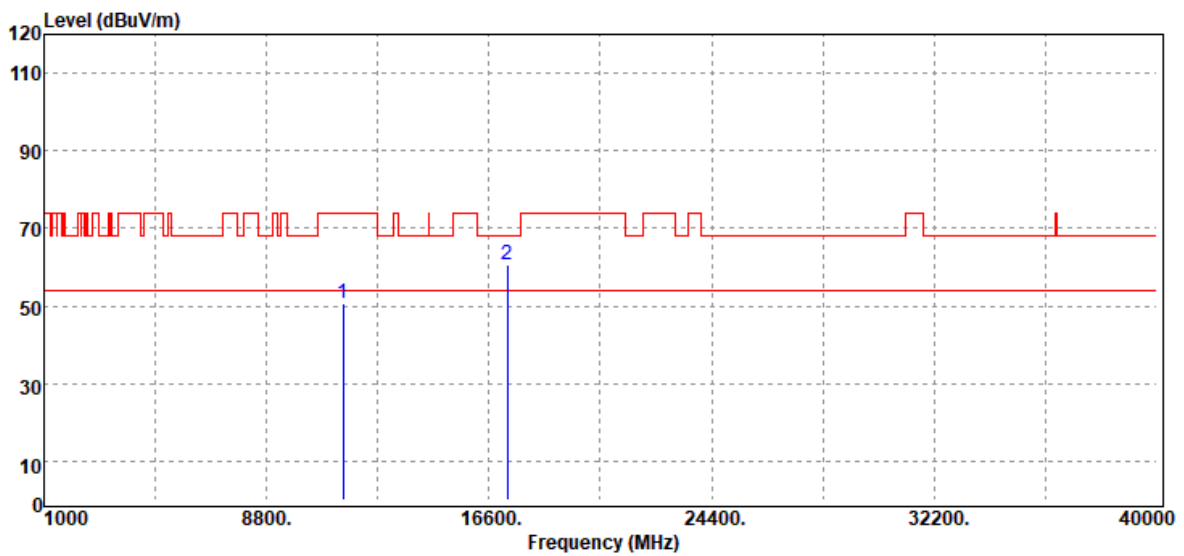
Freq. MHz	Detector Mode PK/QP/AV	Spectrum Reading Level dBμV	Factor dB	Actual FS dBμV/m	Limit @3m dBμV/m	Margin dB
11490.00	Peak	32.36	19.69	52.05	74.00	-21.95
17235.00	Peak	31.81	30.12	61.93	68.20	-6.27
N/A						

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.

Report No.: TMWK2109000561KR

Test Mode	IEEE 802.11a / 5745 MHz	Temp/Hum	22(°C)/ 50%RH
Test Item	Harmonic	Test Date	October 4, 2021
Polarize	Horizontal	Test Engineer	Ray Li
Detector	Peak		



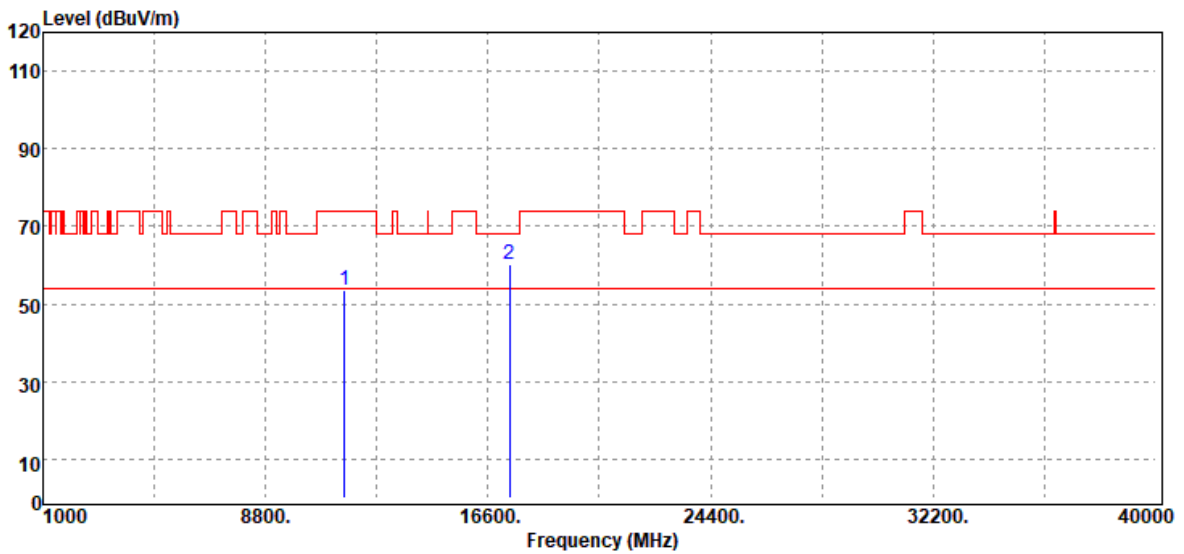
Freq. MHz	Detector Mode PK/QP/AV	Spectrum Reading Level dB μ V	Factor dB	Actual FS dB μ V/m	Limit @3m dB μ V/m	Margin dB
11490.00	Peak	31.02	19.69	50.71	74.00	-23.29
17235.00	Peak	30.51	30.12	60.63	68.20	-7.57
N/A						

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.

Report No.: TMWK2109000561KR

Test Mode	IEEE 802.11a / 5785 MHz	Temp/Hum	22(°C)/ 50%RH
Test Item	Harmonic	Test Date	October 4, 2021
Polarize	Vertical	Test Engineer	Ray Li
Detector	Peak		



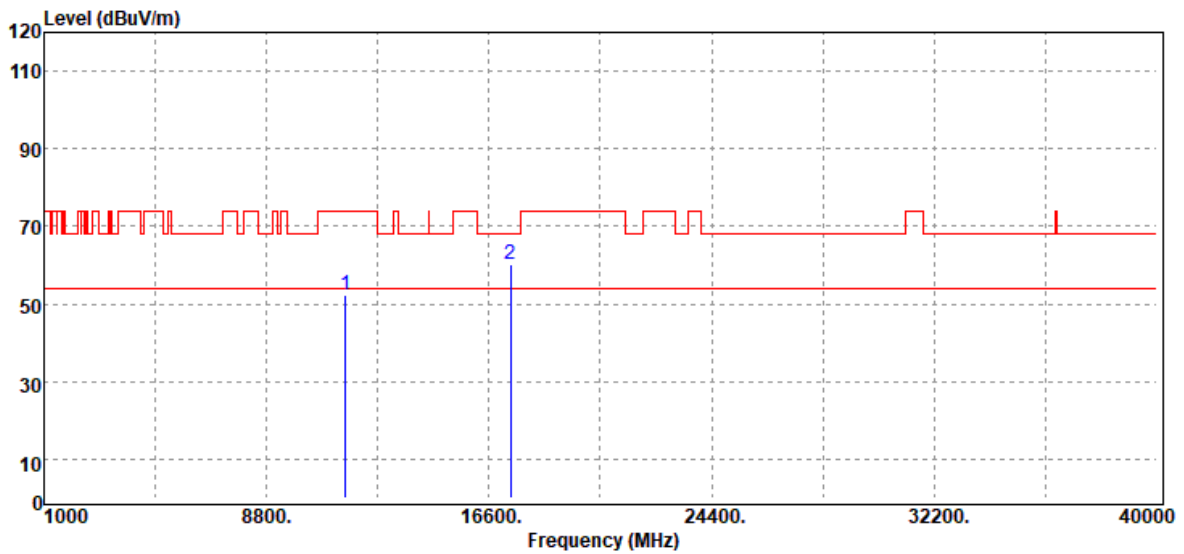
Freq. MHz	Detector Mode PK/QP/AV	Spectrum Reading Level dB μ V	Factor dB	Actual FS dB μ V/m	Limit @3m dB μ V/m	Margin dB
11570.00	Peak	33.70	19.83	53.53	74.00	-20.47
17355.00	Peak	30.66	29.44	60.10	68.20	-8.10
N/A						

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.

Report No.: TMWK2109000561KR

Test Mode	IEEE 802.11a / 5785 MHz	Temp/Hum	22(°C)/ 50%RH
Test Item	Harmonic	Test Date	October 4, 2021
Polarize	Horizontal	Test Engineer	Ray Li
Detector	Peak		



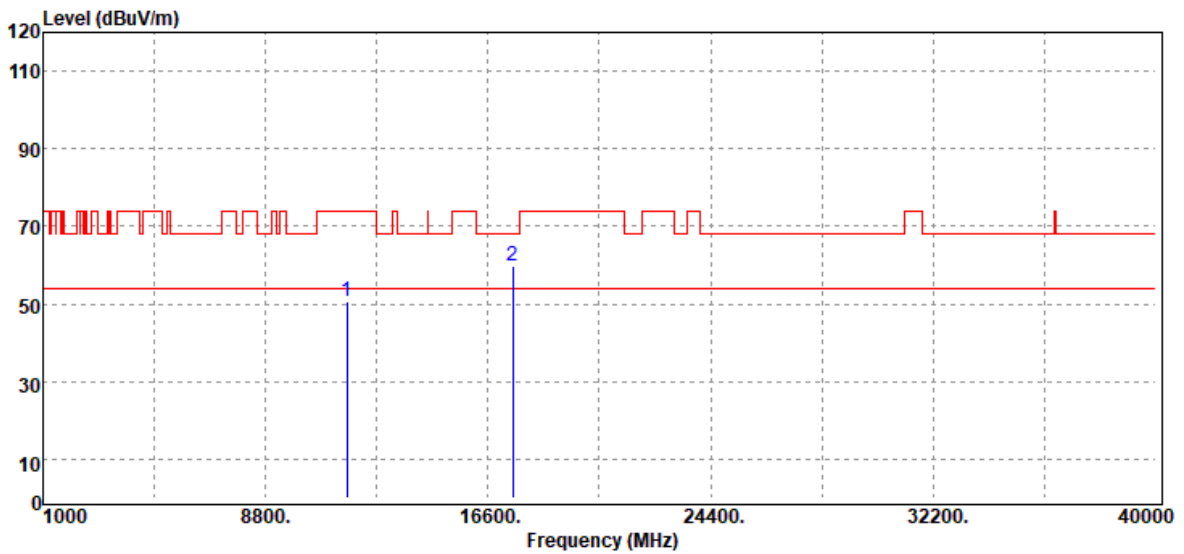
Freq. MHz	Detector Mode PK/QP/AV	Spectrum Reading Level dB μ V	Factor dB	Actual FS dB μ V/m	Limit @3m dB μ V/m	Margin dB
11570.00	Peak	32.34	19.83	52.17	74.00	-21.83
17355.00	Peak	30.84	29.44	60.28	68.20	-7.92
N/A						

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.

Report No.: TMWK2109000561KR

Test Mode	IEEE 802.11a / 5825 MHz	Temp/Hum	22(°C)/ 50%RH
Test Item	Harmonic	Test Date	October 4, 2021
Polarize	Vertical	Test Engineer	Ray Li
Detector	Peak		



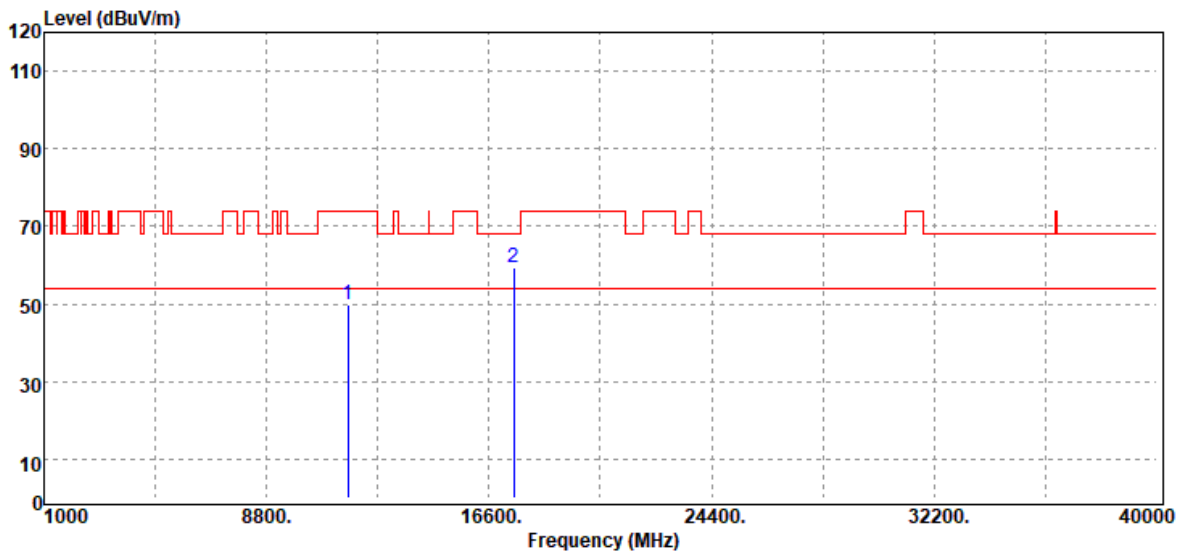
Freq. MHz	Detector Mode PK/QP/AV	Spectrum Reading Level dB μ V	Factor dB	Actual FS dB μ V/m	Limit @3m dB μ V/m	Margin dB
11650.00	Peak	30.89	19.90	50.79	74.00	-23.21
17475.00	Peak	30.69	29.22	59.91	68.20	-8.29
N/A						

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.

Report No.: TMWK2109000561KR

Test Mode	IEEE 802.11a / 5825 MHz	Temp/Hum	22(°C)/ 50%RH
Test Item	Harmonic	Test Date	October 4, 2021
Polarize	Horizontal	Test Engineer	Ray Li
Detector	Peak		



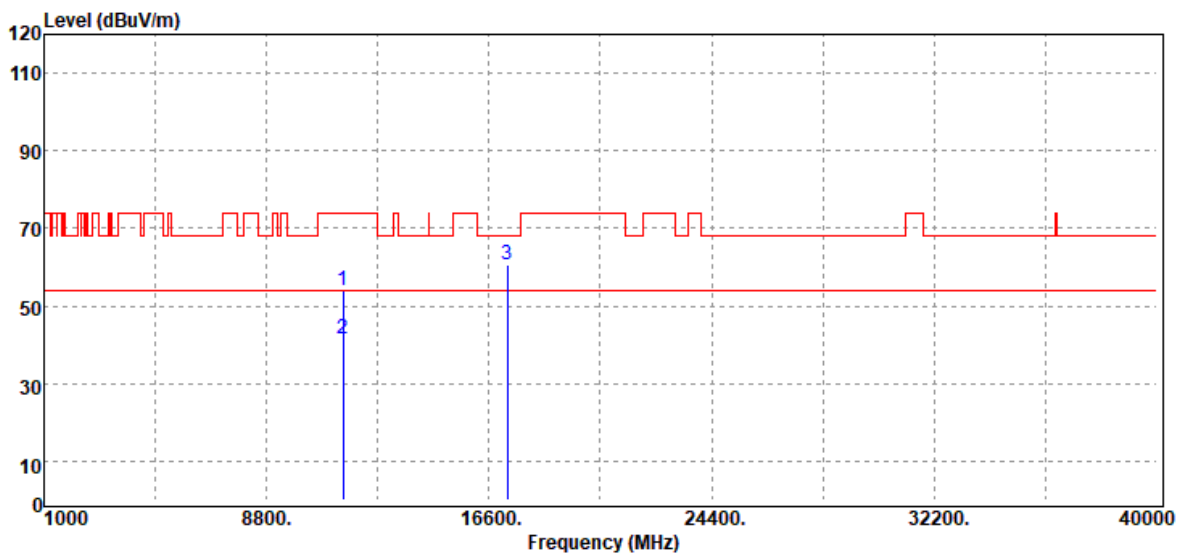
Freq. MHz	Detector Mode PK/QP/AV	Spectrum Reading Level dB μ V	Factor dB	Actual FS dB μ V/m	Limit @3m dB μ V/m	Margin dB
11650.00	Peak	30.06	19.90	49.96	74.00	-24.04
17475.00	Peak	30.02	29.22	59.24	68.20	-8.96
N/A						

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.

Report No.: TMWK2109000561KR

Test Mode	IEEE 802.11n 20 MHz / 5745 MHz	Temp/Hum	22(°C)/ 50%RH
Test Item	Harmonic	Test Date	October 4, 2021
Polarize	Vertical	Test Engineer	Ray Li
Detector	Peak & Average		



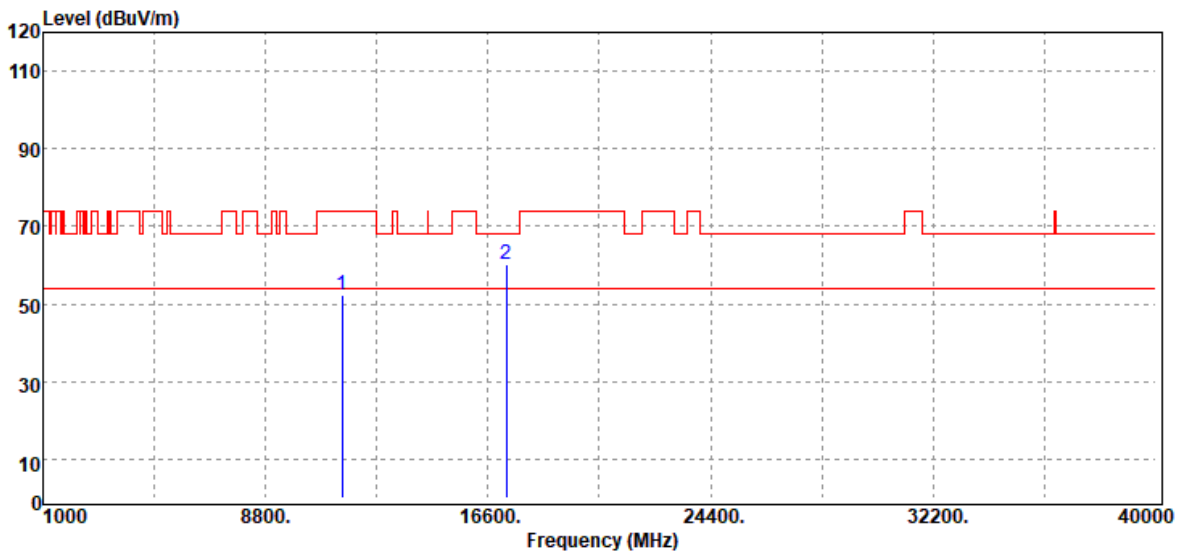
Freq. MHz	Detector Mode PK/QP/AV	Spectrum Reading Level dBμV	Factor dB	Actual FS dBμV/m	Limit @3m dBμV/m	Margin dB
11490.00	Peak	34.36	19.69	54.05	74.00	-19.95
11490.00	Average	21.86	19.69	41.55	54.00	-12.45
17235.00	Peak	30.31	30.12	60.43	68.20	-7.77
N/A						

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.

Report No.: TMWK2109000561KR

Test Mode	IEEE 802.11n 20 MHz / 5745 MHz	Temp/Hum	22(°C)/ 50%RH
Test Item	Harmonic	Test Date	October 4, 2021
Polarize	Horizontal	Test Engineer	Ray Li
Detector	Peak		



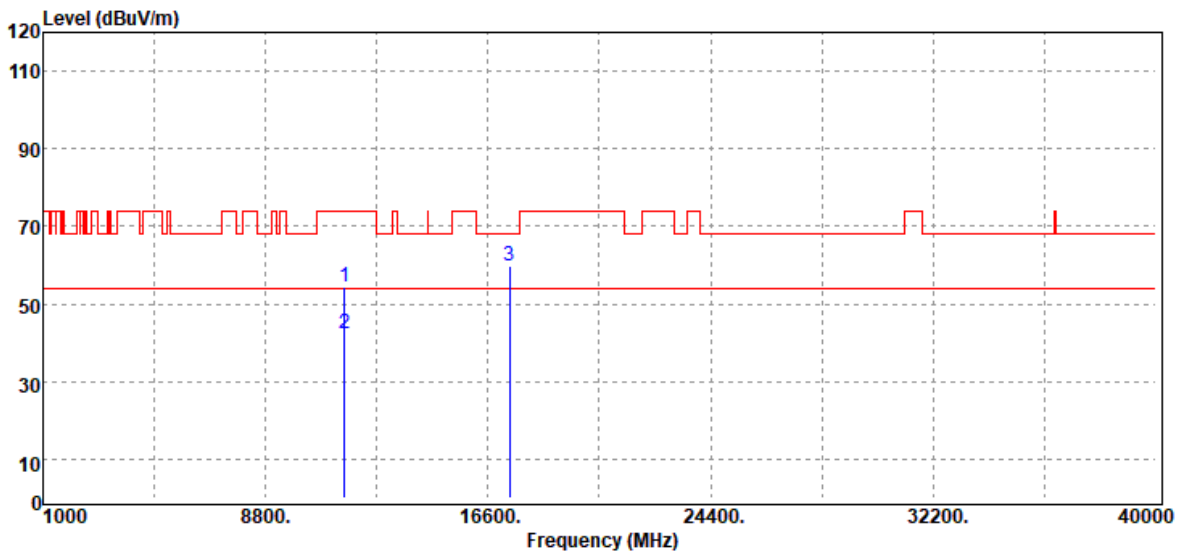
Freq. MHz	Detector Mode PK/QP/AV	Spectrum Reading Level dB μ V	Factor dB	Actual FS dB μ V/m	Limit @3m dB μ V/m	Margin dB
11490.00	Peak	32.54	19.69	52.23	74.00	-21.77
17235.00	Peak	30.17	30.12	60.29	68.20	-7.91
N/A						

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.

Report No.: TMWK2109000561KR

Test Mode	IEEE 802.11n 20 MHz/ 5785 MHz	Temp/Hum	22(°C)/ 50%RH
Test Item	Harmonic	Test Date	October 4, 2021
Polarize	Vertical	Test Engineer	Ray Li
Detector	Peak & Average		



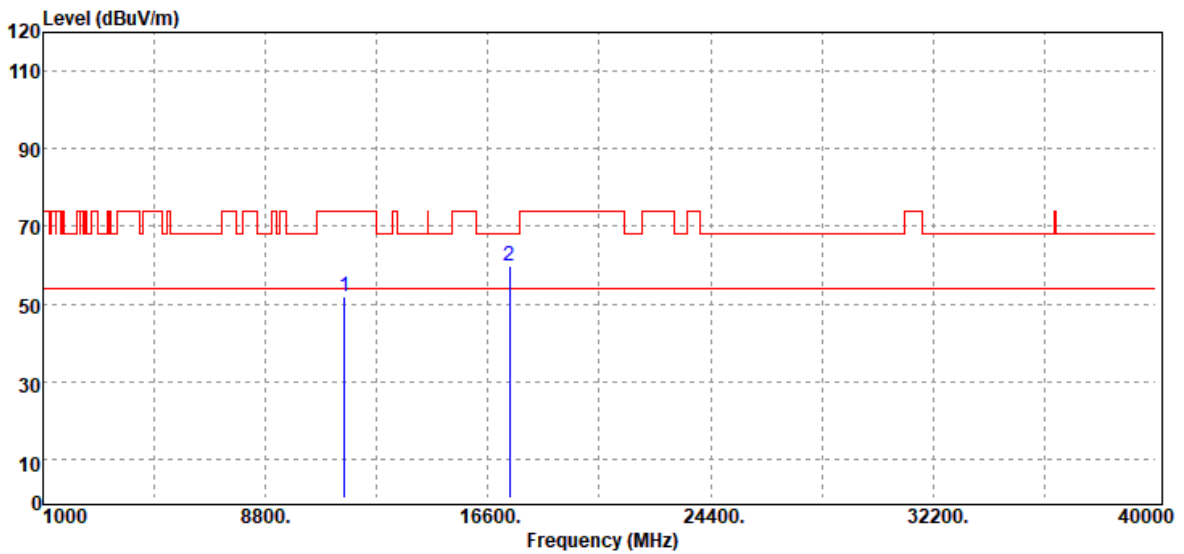
Freq. MHz	Detector Mode PK/QP/AV	Spectrum Reading Level dB μ V	Factor dB	Actual FS dB μ V/m	Limit @3m dB μ V/m	Margin dB
11570.00	Peak	34.57	19.83	54.40	74.00	-19.60
11570.00	Average	22.47	19.83	42.30	54.00	-11.70
17355.00	Peak	30.32	29.44	59.76	68.20	-8.44
N/A						

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.

Report No.: TMWK2109000561KR

Test Mode	IEEE 802.11n 20 MHz/ 5785 MHz	Temp/Hum	22(°C)/ 50%RH
Test Item	Harmonic	Test Date	October 4, 2021
Polarize	Horizontal	Test Engineer	Ray Li
Detector	Peak		



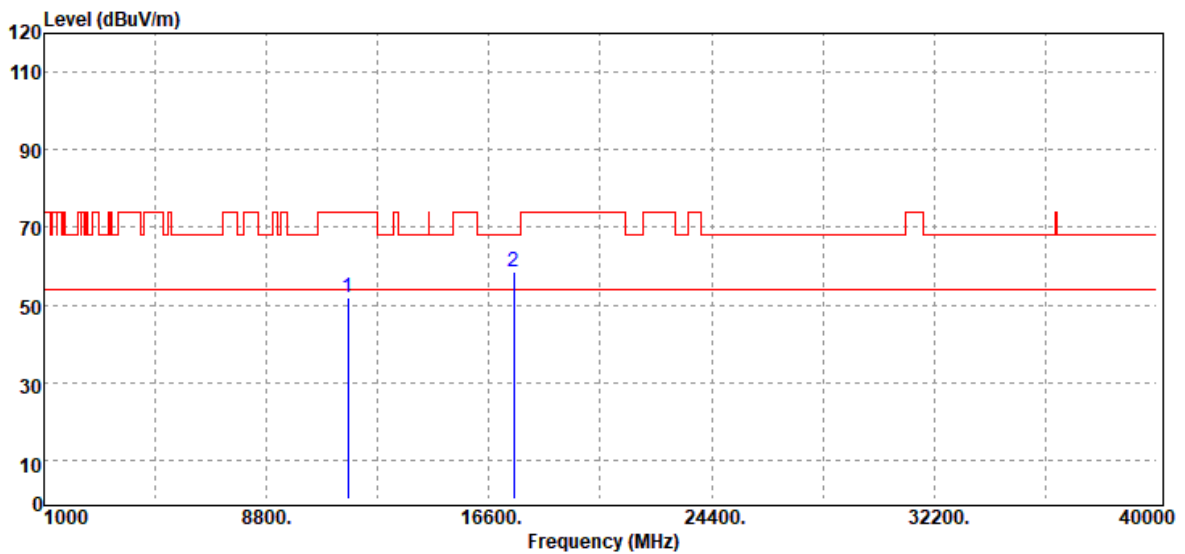
Freq. MHz	Detector Mode PK/QP/AV	Spectrum Reading Level dB μ V	Factor dB	Actual FS dB μ V/m	Limit @3m dB μ V/m	Margin dB
11570.00	Peak	32.20	19.83	52.03	74.00	-21.97
17355.00	Peak	30.19	29.44	59.63	68.20	-8.57
N/A						

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.

Report No.: TMWK2109000561KR

Test Mode	IEEE 802.11n 20 MHz/ 5825 MHz	Temp/Hum	22(°C)/ 50%RH
Test Item	Harmonic	Test Date	October 4, 2021
Polarize	Vertical	Test Engineer	Ray Li
Detector	Peak		



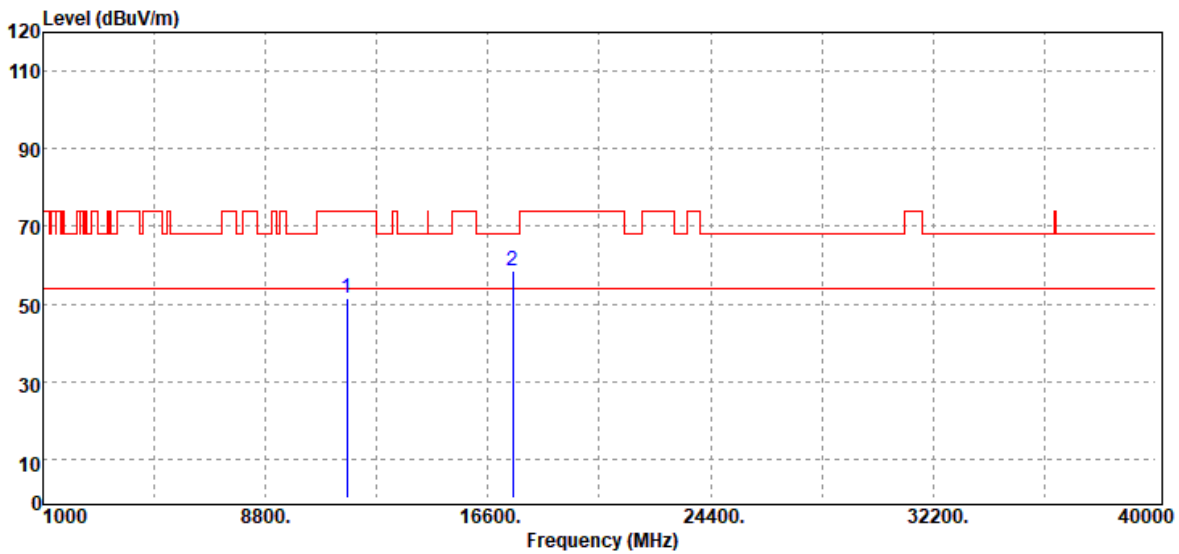
Freq. MHz	Detector Mode PK/QP/AV	Spectrum Reading Level dB μ V	Factor dB	Actual FS dB μ V/m	Limit @3m dB μ V/m	Margin dB
11650.00	Peak	31.96	19.90	51.86	74.00	-22.14
17475.00	Peak	29.24	29.22	58.46	68.20	-9.74
N/A						

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.

Report No.: TMWK2109000561KR

Test Mode	IEEE 802.11n 20 MHz/ 5825 MHz	Temp/Hum	22(°C)/ 50%RH
Test Item	Harmonic	Test Date	October 4, 2021
Polarize	Horizontal	Test Engineer	Ray Li
Detector	Peak		



Freq. 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
11650.00	Peak	31.44	19.90	51.34	74.00	-22.66
17475.00	Peak	29.29	29.22	58.51	68.20	-9.69
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.