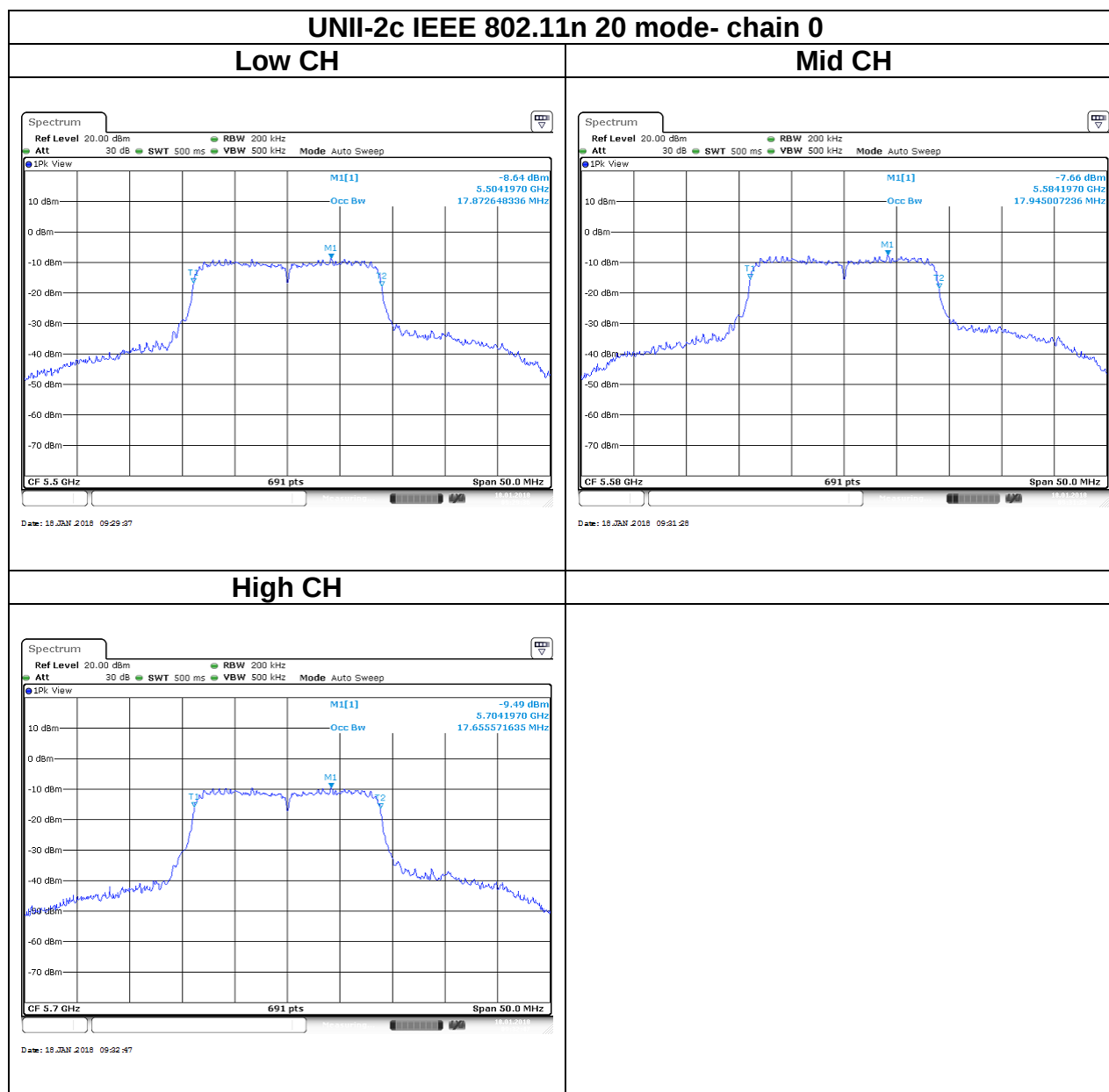
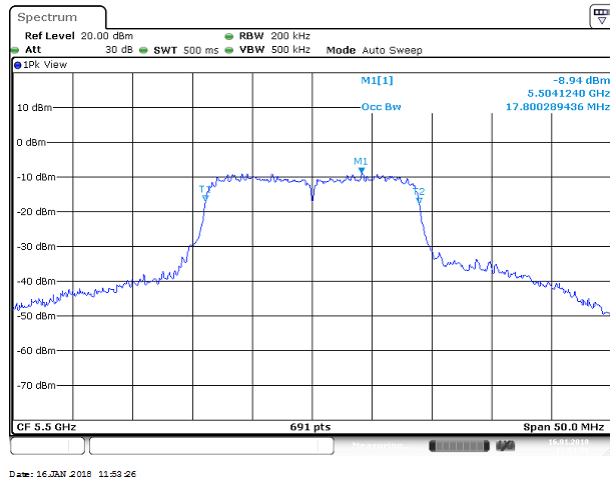


Test Data (99%OBW)

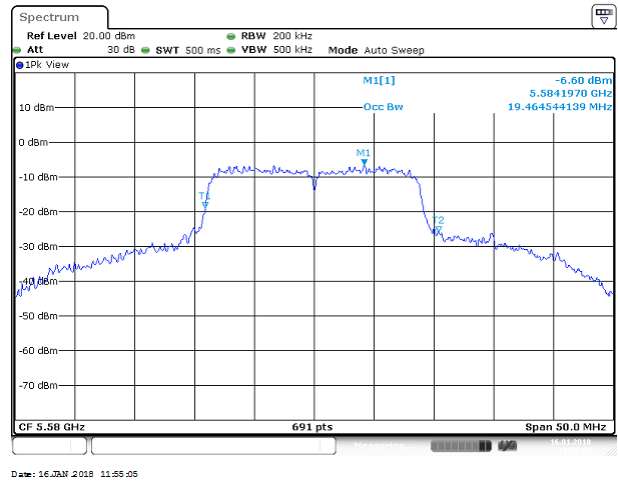


UNII-2c IEEE 802.11n 20 mode- chain 1

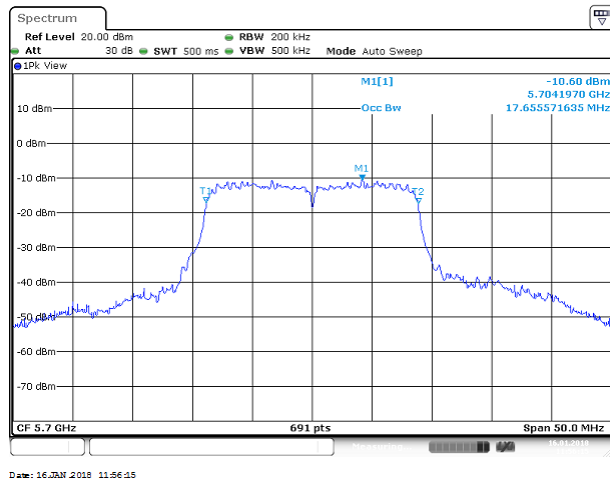
Low CH



Mid CH

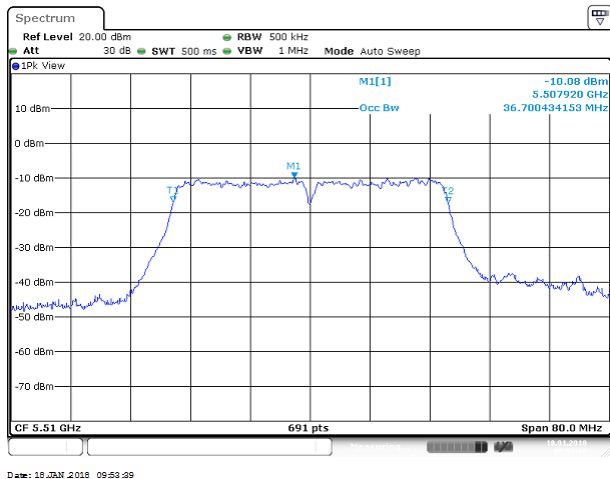


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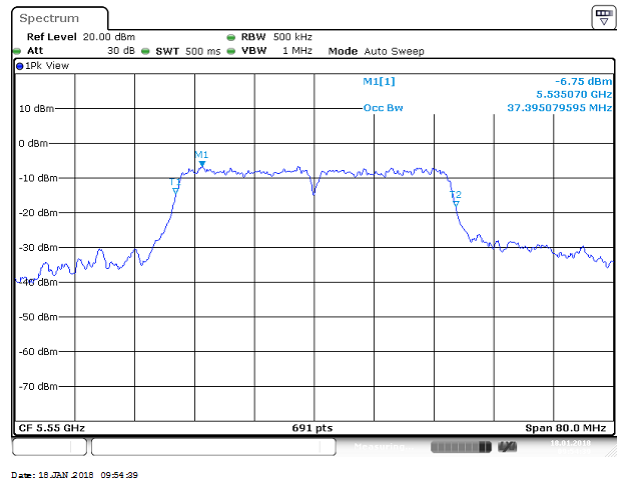
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Low CH



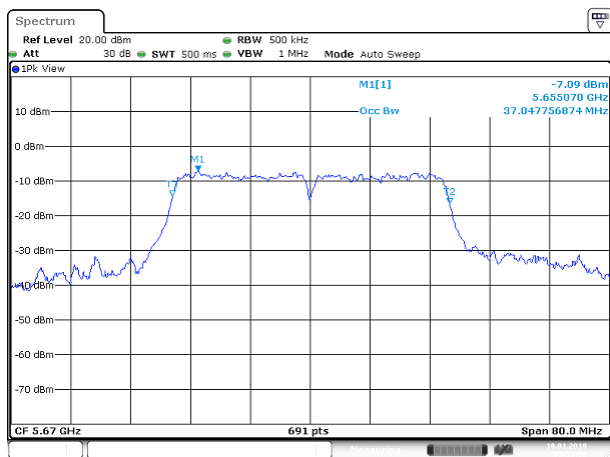
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Mid CH



Date: 18 JAN 2018 09:54:29

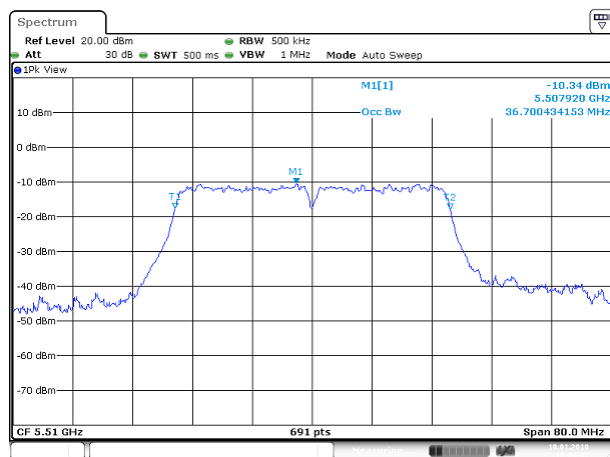
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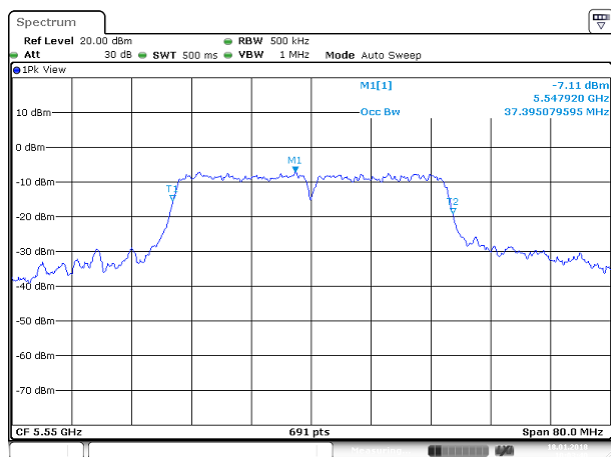
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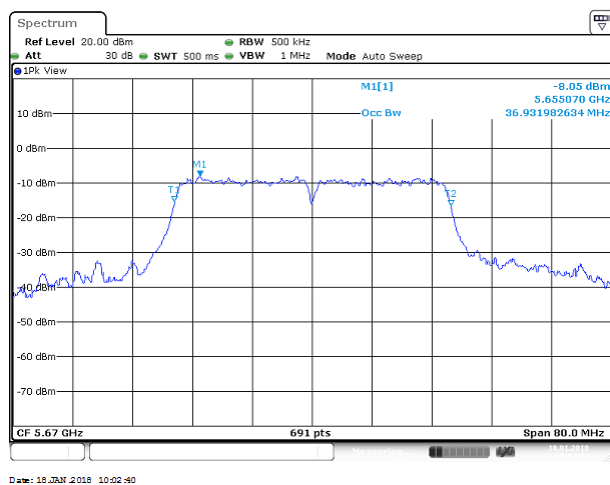
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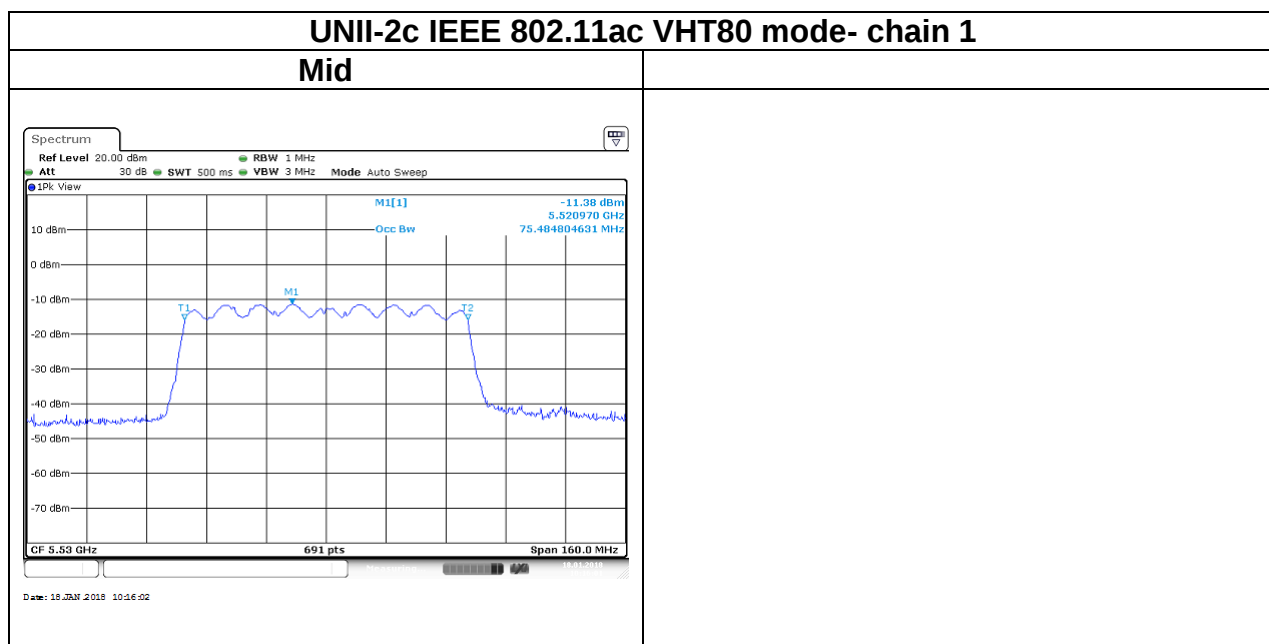
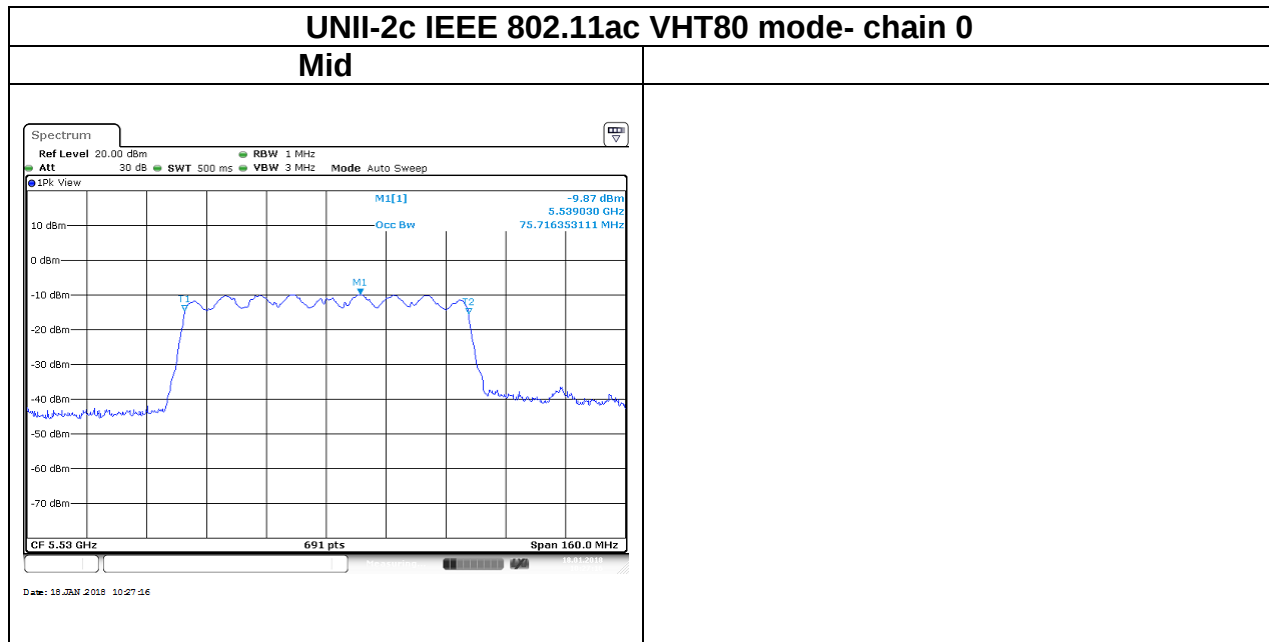


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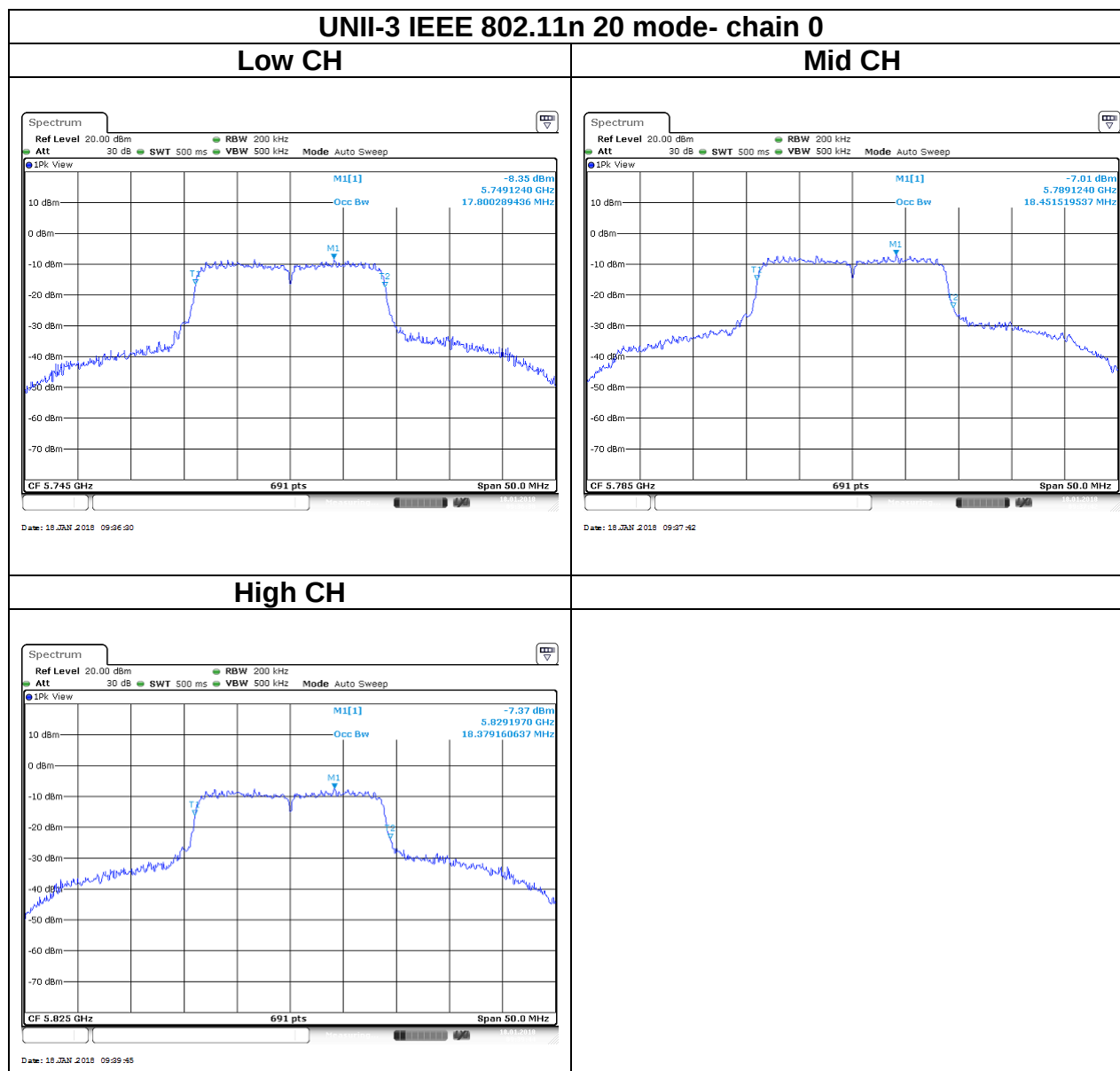


High CH



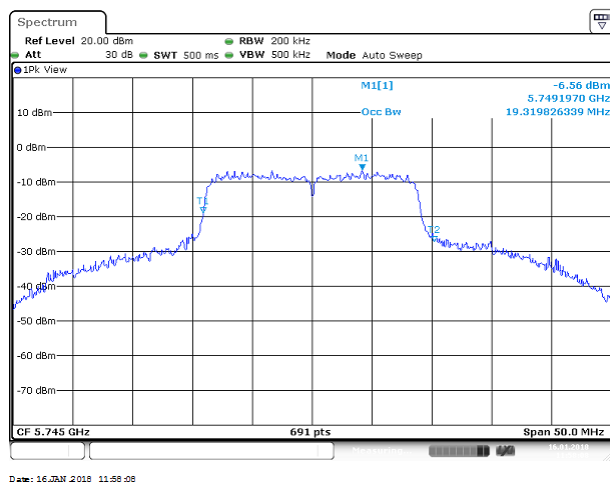


Test Data (99%OBW)

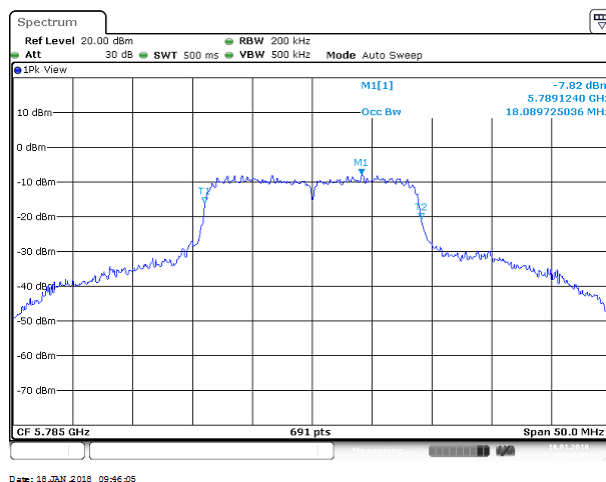


UNII-3 IEEE 802.11n 20 mode- chain 1

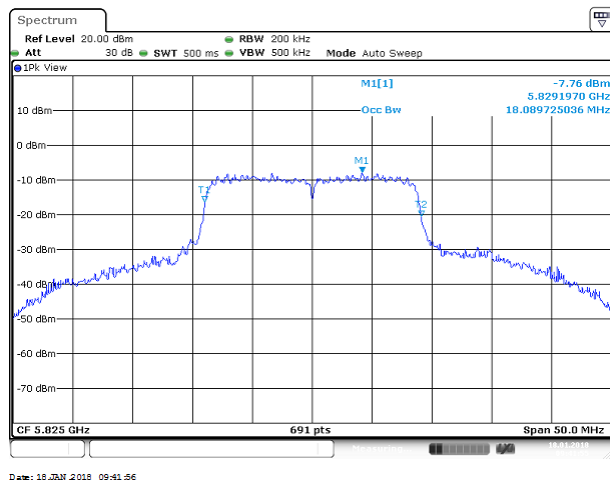
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Mid CH

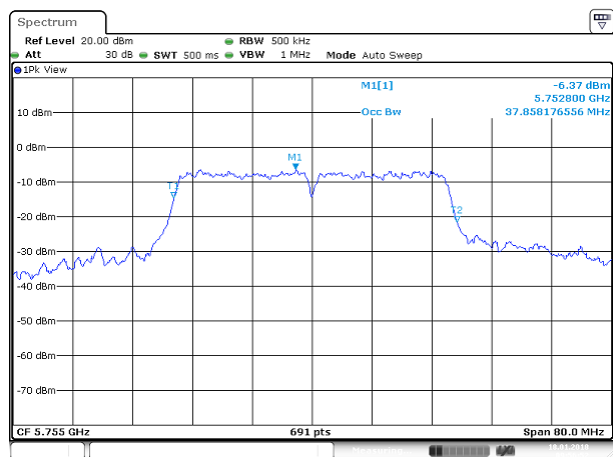


High CH

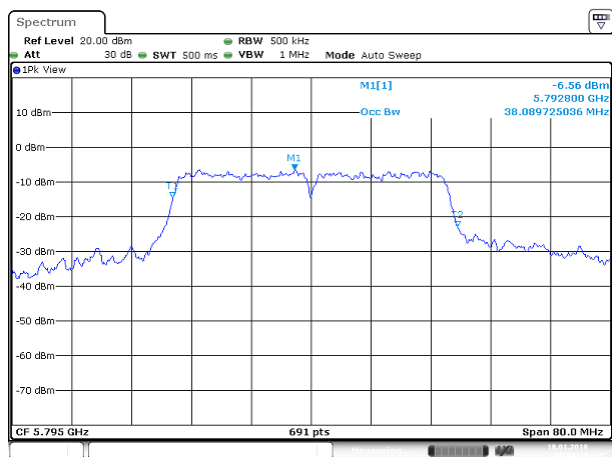


UNII-3 IEEE 802.11n 40 mode- chain 0

Low CH

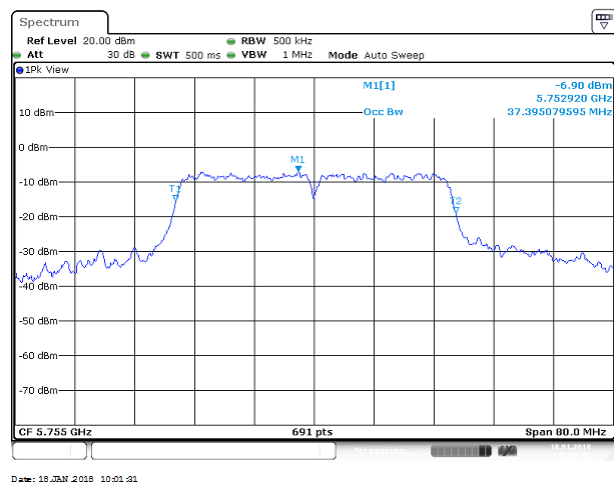


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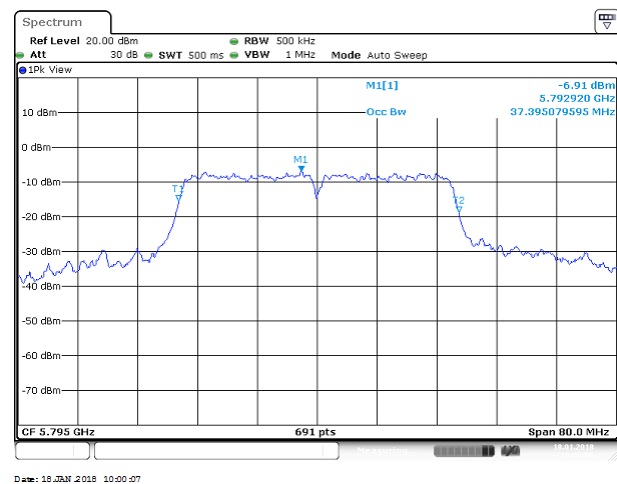


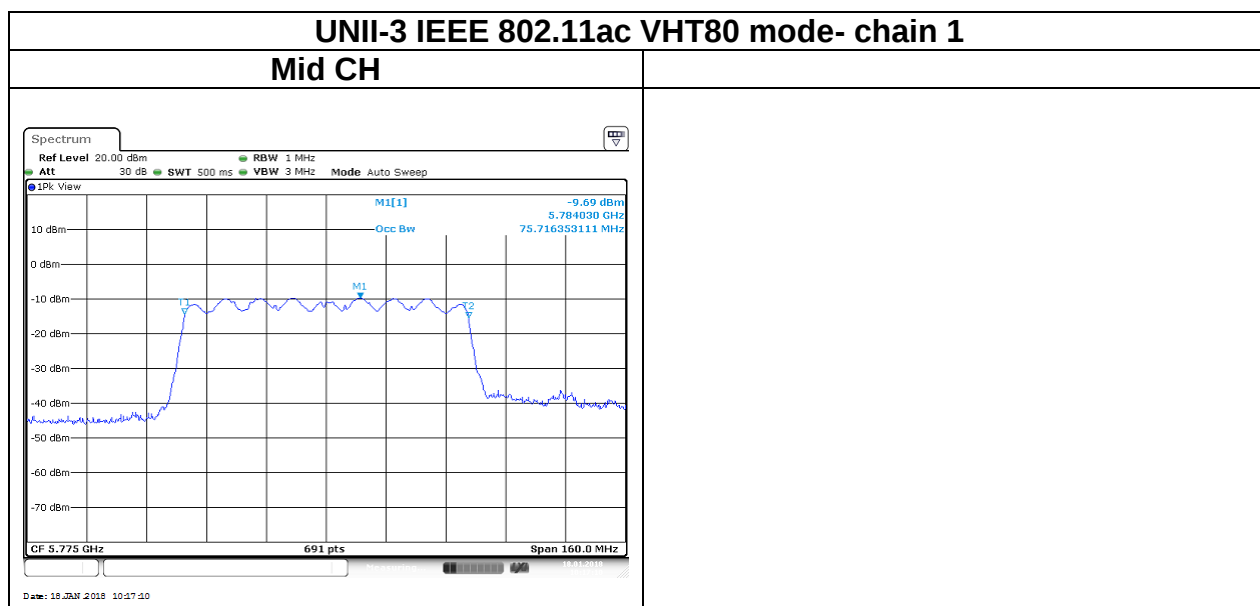
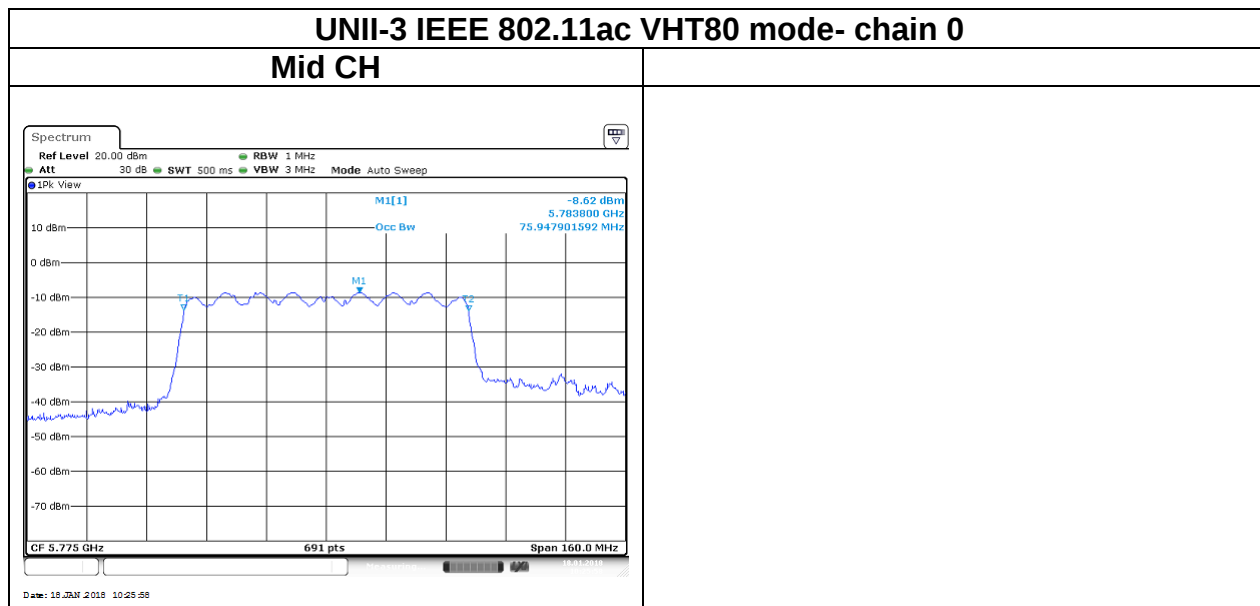
UNII-3 IEEE 802.11n 40 mode- chain 1

Low 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) and The maximum e.i.r.p. shall not exceed 200 mW or $10 + 10 \log_{10} B$, 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 $17 + 10 \log_{10} B$, 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.

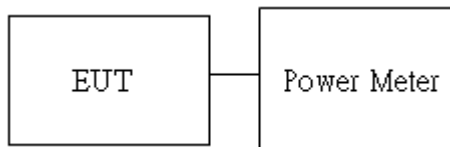
UNII-1 Limit	☒ Antenna not exceed 6 dBi : 24dBm ☐ Antenna with DG greater than 6 dBi : [Limit = $24 - (DG - 6)$]
UNII-2a/2c Limit	☒ Antenna not exceed 6 dBi : 24dBm ☐ Antenna with DG greater than 6 dBi : [Limit = $24 - (DG - 6)$]
UNII-3 Limit	☒ Antenna not exceed 6 dBi : 30dBm ☐ Antenna with DG greater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

4.3.2 Test Procedure

Test method Refer as KDB 789033 D02 v02r01, Section E.3.b.

1. The EUT RF output connected to the power meter 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



4.3.4 Test Result

Conducted output power :

For 1TX:

UNII-1								
Config	CH	Freq. (MHz)	Power Set	AV Power(dBm)	AV Total Power (dBm)	AV Total Power (W)	DG (dBi)	Limit (dBm)
			-	-				
IEEE 802.11a	36	5180	53	17.22	17.22	0.0527	5	24
	44	5220	52	16.85	16.85	0.0484		
	48	5240	51	16.56	16.56	0.0453		
IEEE 802.11n 20 MHz	36	5180	51	17.97	17.97	0.0627		
	44	5220	50	17.14	17.14	0.0518		
	48	5240	50	17.38	17.38	0.0547		
IEEE 802.11n 40 MHz	38	5190	49	17.64	17.64	0.0581		
	46	5230	51	17.67	17.67	0.0585		
IEEE 802.11ac 80MHz	42	5210	49	14.36	14.36	0.0273		

UNII-2a								
Config	CH	Freq. (MHz)	Power Set	AV Power(dBm)	AV Total Power (dBm)	AV Total Power (W)	DG (dBi)	Limit (dBm)
			-	-				
IEEE 802.11a	52	5260	55	17.57	17.57	0.0571	5	24
	56	5280	55	17.52	17.52	0.0565		
	64	5320	56	18.20	18.20	0.0661		
IEEE 802.11n 20 MHz	52	5260	54	18.77	18.77	0.0753		
	56	5280	53	18.21	18.21	0.0662		
	64	5320	55	18.89	18.89	0.0774		
IEEE 802.11n 40 MHz	54	5270	53	18.28	18.28	0.0673		
	62	5310	50	17.24	17.24	0.0530		
IEEE 802.11ac 80MHz	58	5290	47	13.52	13.52	0.0225		

UNII-2c								
Config	CH	Freq. (MHz)	Power Set	AV Power(dBm)	AV Total Power (dBm)	AV Total Power (W)	DG (dBi)	Limit (dBm)
			-	-				
IEEE 802.11a	100	5500	54	17.88	17.88	0.0614	5	24
	116	5580	53	17.72	17.72	0.0592		
	140	5700	54	17.78	17.78	0.0600		
IEEE 802.11n 20 MHz	100	5500	53	18.93	18.93	0.0782		
	116	5580	52	18.67	18.67	0.0736		
	140	5700	50	17.52	17.52	0.0565		
IEEE 802.11n 40 MHz	102	5510	46	16.88	16.88	0.0488		
	110	5550	52	18.22	18.22	0.0664		
	134	5670	56	18.85	18.85	0.0767		
IEEE 802.11ac 80MHz	106	5530	47	15.58	15.58	0.0361		

UNII-3								
Config	CH	Freq. (MHz)	Power Set	AV Power(dBm)	AV Total Power (dBm)	AV Total Power (W)	DG (dBi)	Limit (dBm)
			-	-				
IEEE 802.11a	149	5745	63	20.24	20.24	0.1057	5	30
	157	5785	63	20.33	20.33	0.1079		
	165	5825	63	20.17	20.17	0.1040		
IEEE 802.11n 20 MHz	149	5745	63	20.98	20.98	0.1253		
	157	5785	63	20.96	20.96	0.1247		
	165	5825	63	20.73	20.73	0.1183		
IEEE 802.11n 40 MHz	151	5755	63	21.22	21.22	0.1324		
	159	5795	63	21.24	21.24	0.1330		
IEEE 802.11ac 80MHz	155	5775	63	18.97	18.97	0.0789		

For 2TX:

UNII-1										
Config	CH	Freq. (MHz)	Power Set		AV Power(dBm)		AV Total Power (dBm)	AV Total Power (W)	DG (dBi)	Limit (dBm)
			chain0	chain1	chain0	chain1				
IEEE 802.11n 20 MHz	36	5180	51	51	14.75	14.84	17.81	0.0604	5	24
	44	5220	51	51	14.93	14.97	17.96	0.0625		
	48	5240	51	51	14.91	14.96	17.95	0.0623		
IEEE 802.11n 40 MHz	38	5190	43	43	10.73	11.74	14.27	0.0268		
	46	5230	50	50	14.76	14.81	17.80	0.0602		
IEEE 802.11ac VHT80	42	5210	43	43	11.36	11.12	14.25	0.0266		

UNII-2a										
Config	CH	Freq. (MHz)	Power Set		AV Power(dBm)		AV Total Power (dBm)	AV Total Power (W)	DG (dBi)	Limit (dBm)
			chain0	chain1	chain0	chain1				
IEEE 802.11n 20 MHz	52	5260	53	53	15.81	15.96	18.90	0.0776	5	24
	56	5280	53	53	15.86	15.93	18.91	0.0778		
	64	5320	55	55	14.67	14.85	17.77	0.0598		
IEEE 802.11n 40 MHz	54	5270	53	53	15.89	15.94	18.93	0.0782		
	62	5310	48	48	12.15	13.27	15.76	0.0377		
IEEE 802.11ac VHT80	58	5290	43	43	11.12	10.89	14.02	0.0252		

UNII-2c										
Config	CH	Freq. (MHz)	Power Set		AV Power(dBm)		AV Total Power (dBm)	AV Total Power (W)	DG (dBi)	Limit (dBm)
			chain0	chain1	chain0	chain1				
IEEE 802.11n 20 MHz	100	5500	51	51	15.08	14.47	17.80	0.0603	5	24
	116	5580	53	53	15.82	15.94	18.89	0.0774		
	140	5700	50	50	13.48	13.52	16.51	0.0448		
IEEE 802.11n 40 MHz	102	5510	44	44	12.62	12.30	15.47	0.0352		
	110	5550	52	52	15.79	15.87	18.84	0.0766		
	134	5670	52	52	15.08	14.78	17.94	0.0622		
IEEE 802.11ac VHT80	106	5530	43	43	11.26	11.19	14.24	0.0265		

UNII-3										
Config	CH	Freq. (MHz)	Power Set		AV Power(dBm)		AV Total Power (dBm)	AV Total Power (W)	DG (dBi)	Limit (dBm)
			chain0	chain1	chain0	chain1				
IEEE 802.11n 20 MHz	149	5745	63	63	18.25	17.92	21.10	0.1288	5	30
	157	5785	63	63	17.91	17.72	20.83	0.1211		
	165	5825	63	63	18.03	17.92	20.99	0.1256		
IEEE 802.11n 40 MHz	151	5755	63	63	18.05	18.11	21.09	0.1285		
	159	5795	63	63	17.54	17.98	20.78	0.1197		
IEEE 802.11ac VHT80	155	5775	63	63	18.35	18.62	21.50	0.1413		

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 :

FCC: 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.i.

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 v02r01, Section F

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

For 1TX:

UNII-1 5150-5250 MHz			
Test mode: IEEE 802.11a mode			
Channel	Frequency (MHz)	Total PPSD (dBm)	Limit (dBm)
Low	5180	4.90	11
Mid	5220	4.89	
High	5240	4.79	
Test mode: IEEE 802.11n 20 mode			
Channel	Frequency (MHz)	Total PPSD (dBm)	Limit (dBm)
Low	5180	4.58	11
Mid	5220	4.95	
High	5240	4.78	
Test mode: IEEE 802.11n 40 mode			
Channel	Frequency (MHz)	Total PPSD (dBm)	Limit (dBm)
Low	5190	0.38	11
High	5230	4.87	
Test mode: IEEE 802.11ac VHT80 mode			
Channel	Frequency (MHz)	Total PPSD (dBm)	Limit (dBm)
Mid	5210	-5.67	11

UNII-2a 5250-5350 MHz			
Test mode: IEEE 802.11a mode			
Channel	Frequency (MHz)	Total PPSD (dBm)	Limit (dBm)
Low	5260	5.98	11
Mid	5280	5.90	
High	5320	5.44	
Test mode: IEEE 802.11n 20 mode			
Channel	Frequency (MHz)	Total PPSD (dBm)	Limit (dBm)
Low	5260	5.75	11
Mid	5280	5.64	
High	5320	5.81	
Test mode: IEEE 802.11n 40 mode			
Channel	Frequency (MHz)	Total PPSD (dBm)	Limit (dBm)
Low	5270	4.70	11
High	5310	-1.84	
Test mode: IEEE 802.11ac VHT80 mode			
Channel	Frequency (MHz)	Total PPSD (dBm)	Limit (dBm)
Mid	5290	-4.19	11

UNII-2c 5500-5700 MHz			
Test mode: IEEE 802.11a mode			
Channel	Frequency (MHz)	Total PPSD (dBm)	Limit (dBm)
Low	5500	5.80	11
Mid	5580	5.78	
High	5700	4.87	
Test mode: IEEE 802.11n 20 mode			
Channel	Frequency (MHz)	Total PPSD (dBm)	Limit (dBm)
Low	5500	5.80	11
Mid	5580	5.86	
High	5700	4.40	
Test mode: IEEE 802.11n 40 mode			
Channel	Frequency (MHz)	Total PPSD (dBm)	Limit (dBm)
Low	5510	-1.73	11
Mid	5500	5.45	
High	5670	2.45	
Test mode: IEEE 802.11ac VHT80 mode			
Channel	Frequency (MHz)	Total PPSD (dBm)	Limit (dBm)
Mid	5530	-4.77	11

UNII-3 5725-5825 MHz			
Test mode: IEEE 802.11a mode			
Channel	Frequency (MHz)	Total PPSD (dBm)	Limit (dBm)
Low	5745	13.24	30
Mid	5785	13.34	
High	5825	13.05	
Test mode: IEEE 802.11n 20 mode			
Channel	Frequency (MHz)	Total PPSD (dBm)	Limit (dBm)
Low	5745	13.80	30
Mid	5785	13.45	
High	5825	13.26	
Test mode: IEEE 802.11n 40 mode			
Channel	Frequency (MHz)	Total PPSD (dBm)	Limit (dBm)
Low	5755	10.53	30
High	5795	10.20	
Test mode: IEEE 802.11ac VHT80 mode			
Channel	Frequency (MHz)	Total PPSD (dBm)	Limit (dBm)
Mid	5775	8.03	30

For 2TX:

UNII-1 5150-5250 MHz					
Test mode: IEEE 802.11n 20 mode					
Channel	Frequency (MHz)	Chain 0 PPSD (dBm)	Chain 1 PPSD (dBm)	Total PPSD (dBm)	Limit (dBm)
Low	5180	-0.21	2.30	4.23	11
Mid	5220	0.28	-0.11	3.10	
High	5240	2.07	-0.29	4.06	
Test mode: IEEE 802.11n 40 mode					
Channel	Frequency (MHz)	Chain 0 PPSD (dBm)	Chain 1 PPSD (dBm)	Total PPSD (dBm)	Limit (dBm)
Low	5190	-3.79	-3.99	-0.88	11
High	5230	-0.71	-0.44	2.44	
Test mode: IEEE 802.11ac VHT80 mode					
Channel	Frequency (MHz)	Chain 0 PPSD (dBm)	Chain 1 PPSD (dBm)	Total PPSD (dBm)	Limit (dBm)
Mid	5210	-6.08	-6.84	-3.43	11

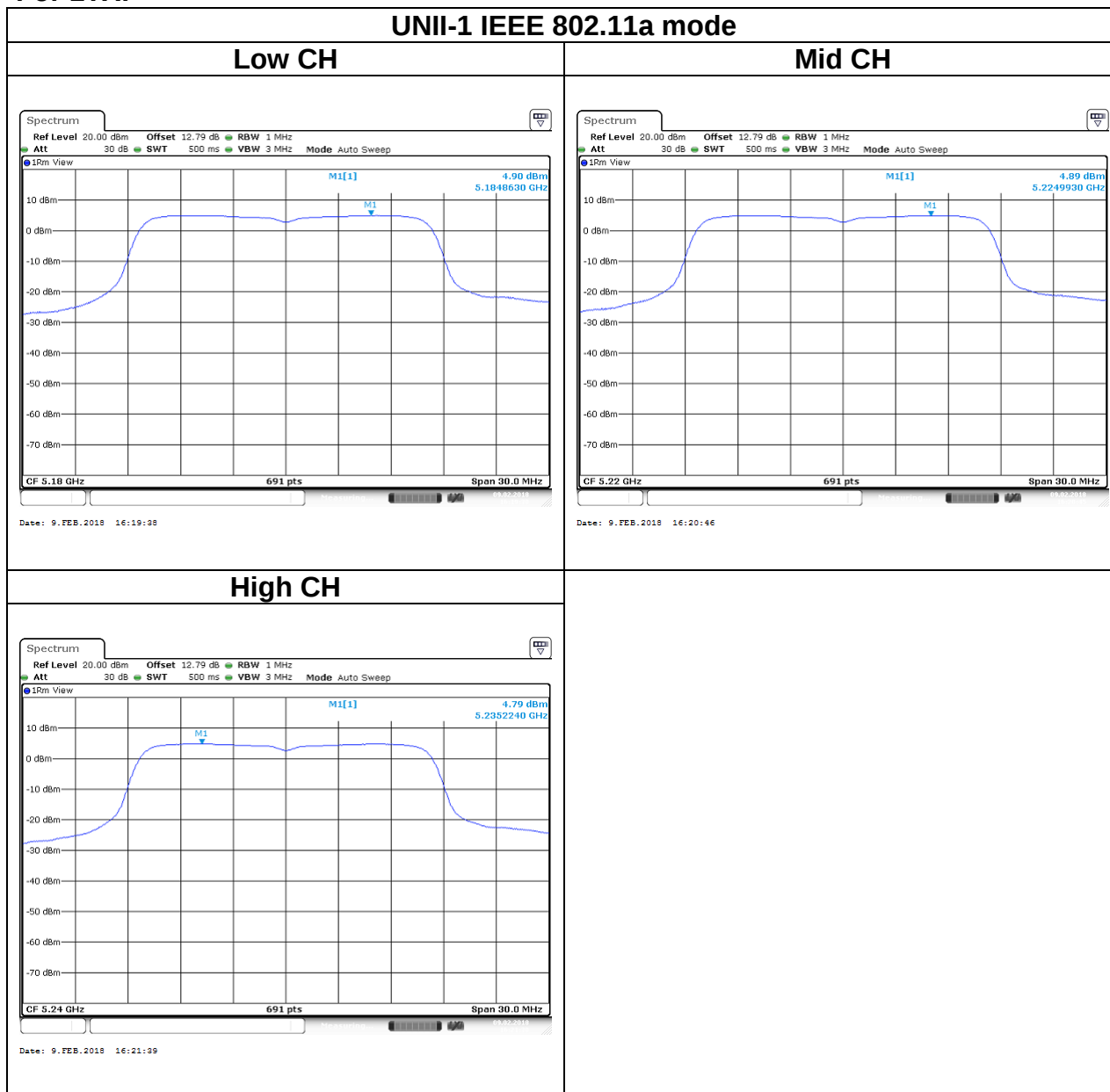
UNII-2a 5250-5350 MHz					
Test mode: IEEE 802.11n 20 mode					
Channel	Frequency (MHz)	Chain 0 PPSD (dBm)	Chain 1 PPSD (dBm)	Total PPSD (dBm)	Limit (dBm)
Low	5260	3.04	3.35	6.21	11
Mid	5280	2.77	3.19	6.00	
High	5320	3.25	3.64	6.46	
Test mode: IEEE 802.11n 40 mode					
Channel	Frequency (MHz)	Chain 0 PPSD (dBm)	Chain 1 PPSD (dBm)	Total PPSD (dBm)	Limit (dBm)
Low	5270	0.10	0.18	3.15	11
High	5310	-2.14	-1.85	1.02	
Test mode: IEEE 802.11ac VHT80 mode					
Channel	Frequency (MHz)	Chain 0 PPSD (dBm)	Chain 1 PPSD (dBm)	Total PPSD (dBm)	Limit (dBm)
Mid	5290	-7.50	-7.22	-4.35	11

UNII-2c 5470-5725 MHz					
Test mode: IEEE 802.11n 20 mode					
Channel	Frequency (MHz)	Chain 0 PPSD (dBm)	Chain 1 PPSD (dBm)	Total PPSD (dBm)	Limit (dBm)
Low	5500	3.31	2.99	6.16	11
Mid	5580	4.40	3.46	6.97	
High	5700	2.58	1.26	4.98	
Test mode: IEEE 802.11n 40 mode					
Channel	Frequency (MHz)	Chain 0 PPSD (dBm)	Chain 1 PPSD (dBm)	Total PPSD (dBm)	Limit (dBm)
Low	5510	-2.47	-2.90	0.33	11
Mid	5500	0.89	0.33	3.63	
High	5670	0.49	-0.41	3.07	
Test mode: IEEE 802.11ac VHT80 mode					
Channel	Frequency (MHz)	Chain 0 PPSD (dBm)	Chain 1 PPSD (dBm)	Total PPSD (dBm)	Limit (dBm)
Mid	5530	-5.75	-6.25	-2.98	11

UNII-3 5725-5825 MHz					
Test mode: IEEE 802.11n 20 mode					
Channel	Frequency (MHz)	Chain 0 PPSP (dBm)	Chain 1 PPSP (dBm)	Total PPSP (dBm)	Limit (dBm)
Low	5745	12.59	11.72	15.19	30
Mid	5785	12.11	11.92	15.03	
High	5825	12.19	11.65	14.94	
Test mode: IEEE 802.11n 40 mode					
Channel	Frequency (MHz)	Chain 0 PPSP (dBm)	Chain 1 PPSP (dBm)	Total PPSP (dBm)	Limit (dBm)
Low	5755	9.20	8.64	11.94	30
High	5795	9.31	8.65	12.00	
Test mode: IEEE 802.11ac VHT80 mode					
Channel	Frequency (MHz)	Chain 0 PPSP (dBm)	Chain 1 PPSP (dBm)	Total PPSP (dBm)	Limit (dBm)
Mid	5775	6.42	5.98	9.22	30

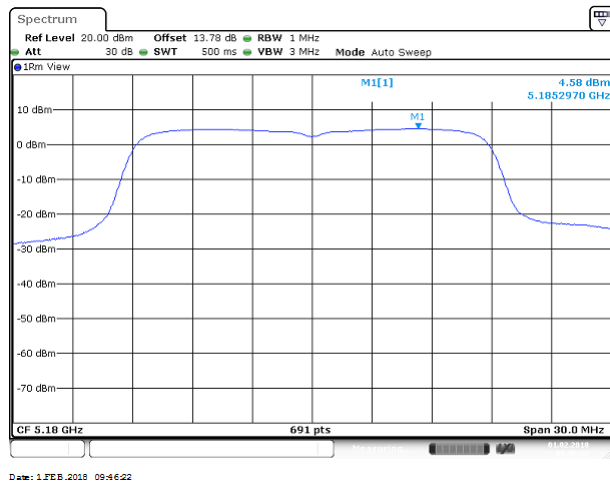
Test Data

For 1TX:

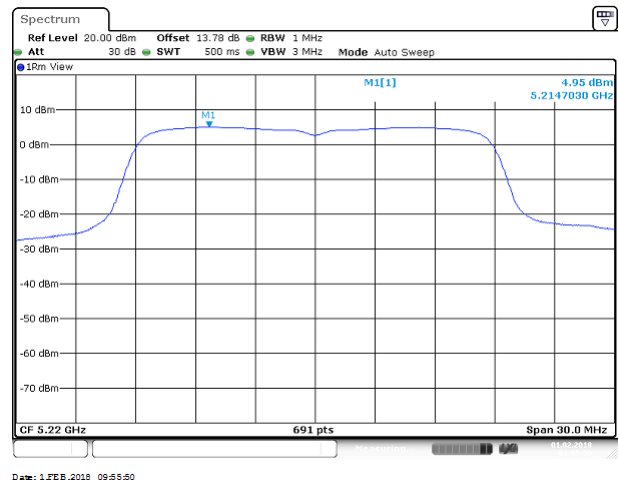


UNII-1 IEEE 802.11n 20 mode

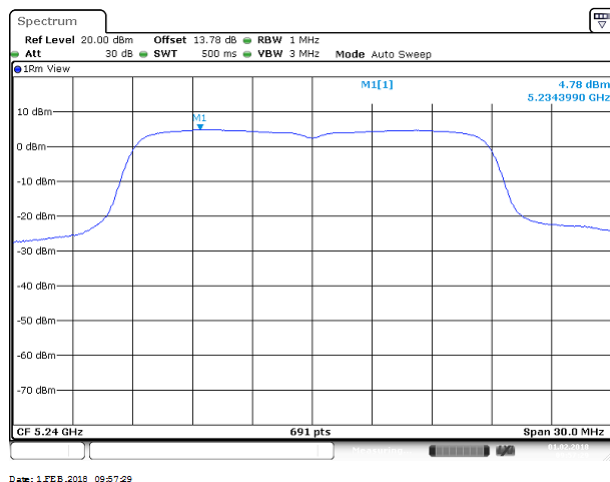
Low CH



Mid CH

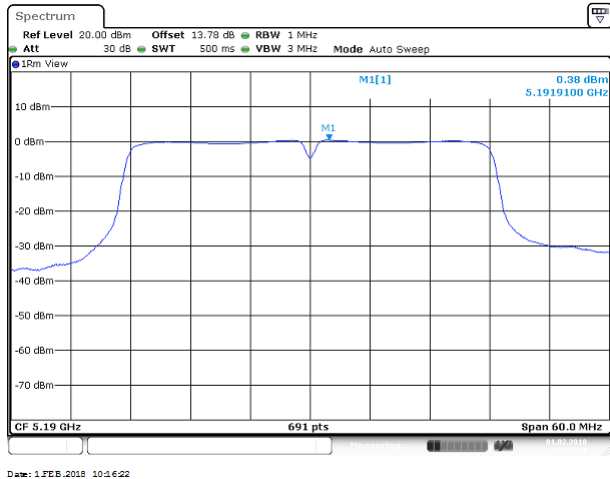


High CH

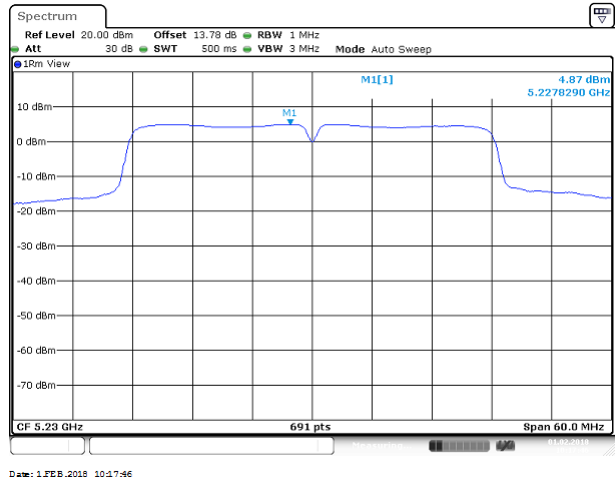


UNII-1 IEEE 802.11n 40 mode

Low CH

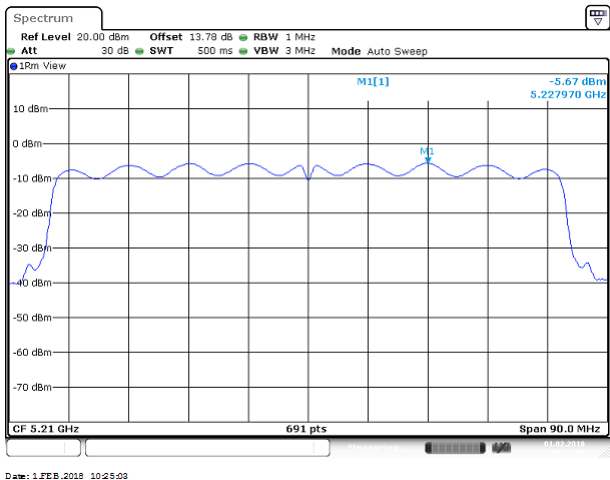


High CH

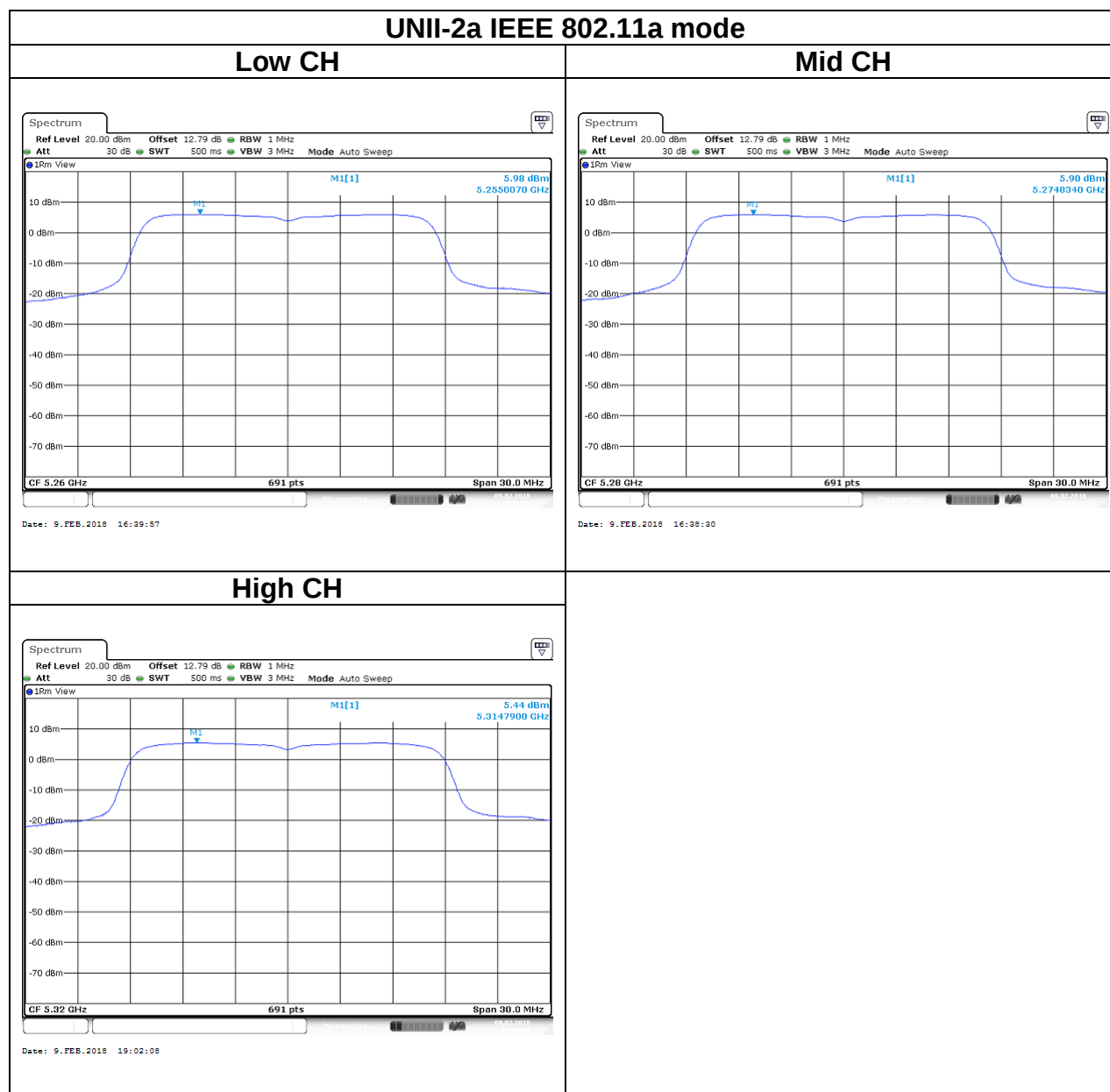


UNII-1 IEEE 802.11ac VHT80 mode

Mid CH

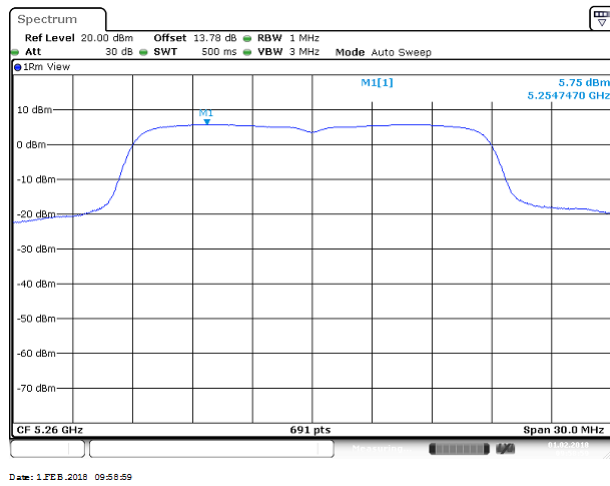


Test Data

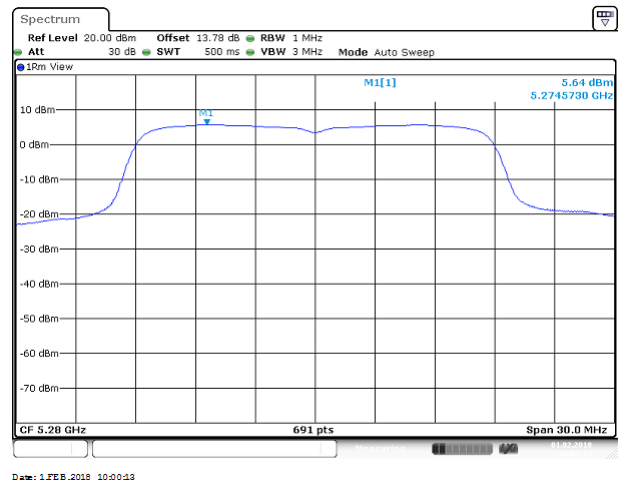


UNII-2a IEEE 802.11n 20 mode

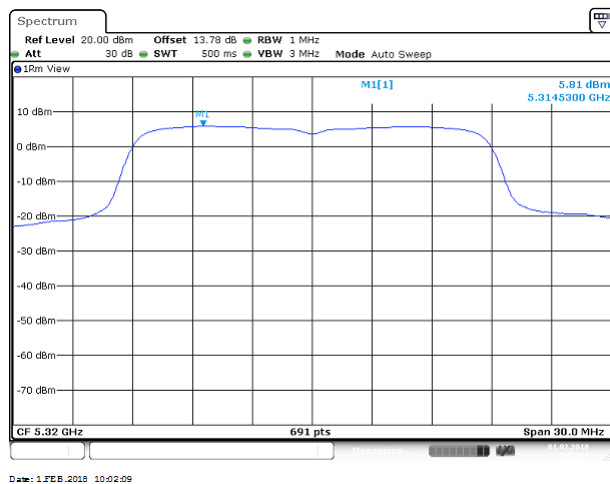
Low CH



Mid CH

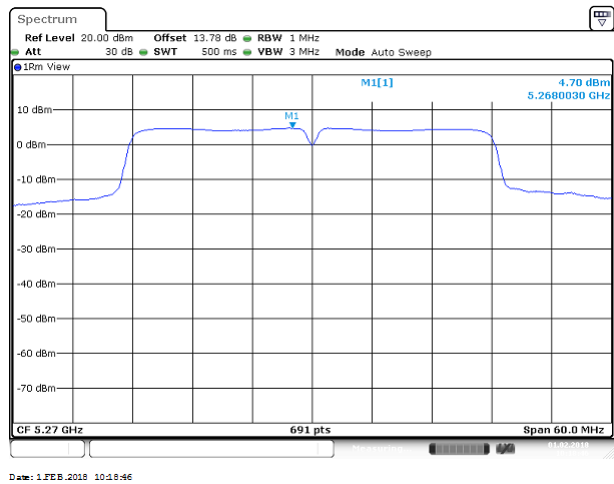


High CH

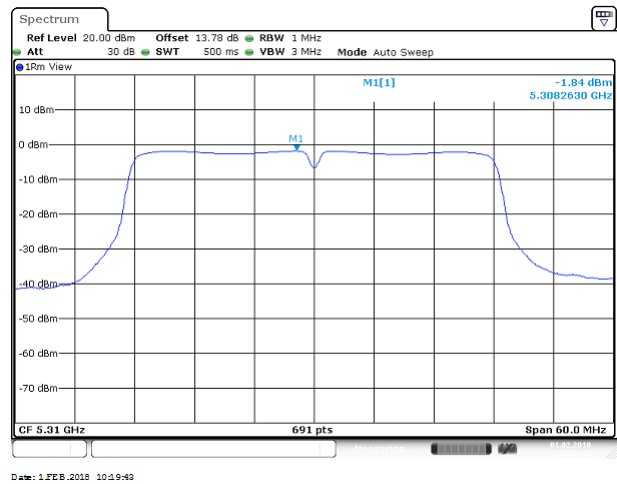


UNII-2a IEEE 802.11n 40 mode

Low CH

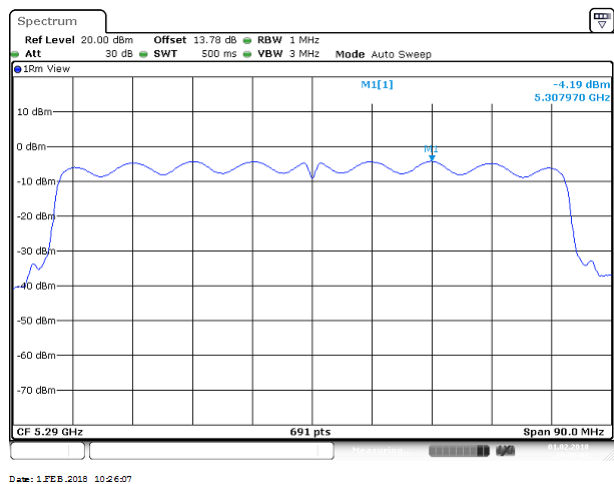


High CH

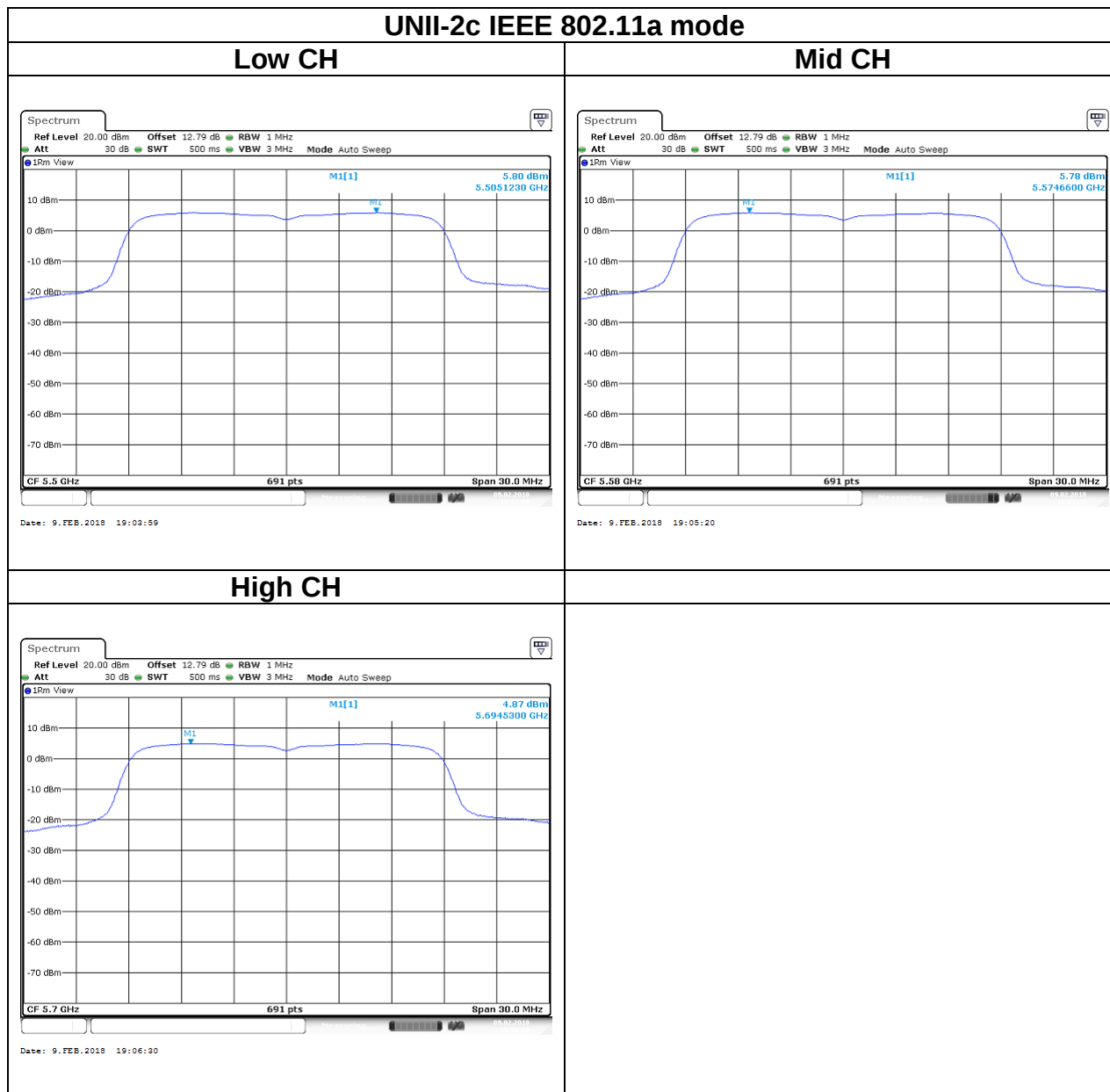


UNII-2a IEEE 802.11ac VHT80 mode

Mid CH

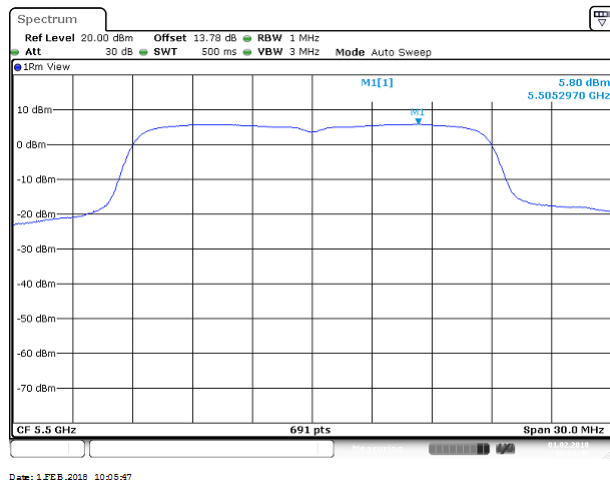


Test Data

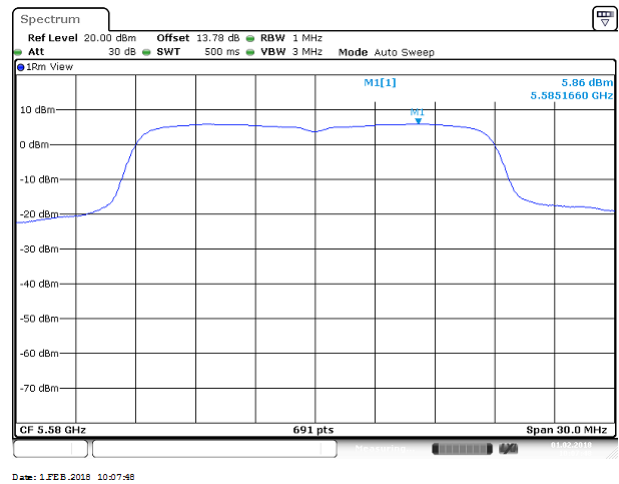


UNII-2c IEEE 802.11n 20 mode

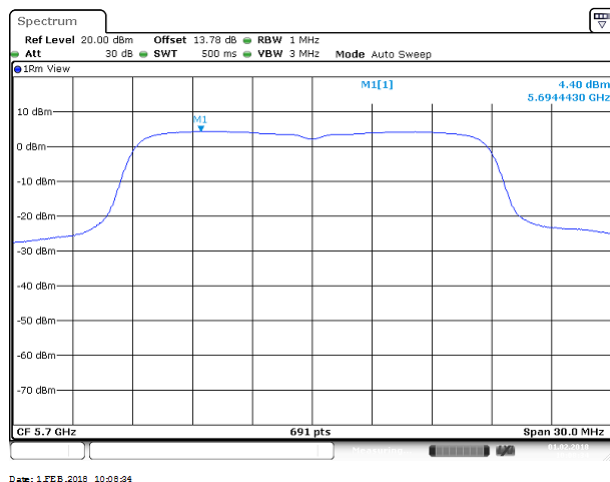
Low CH



Mid CH

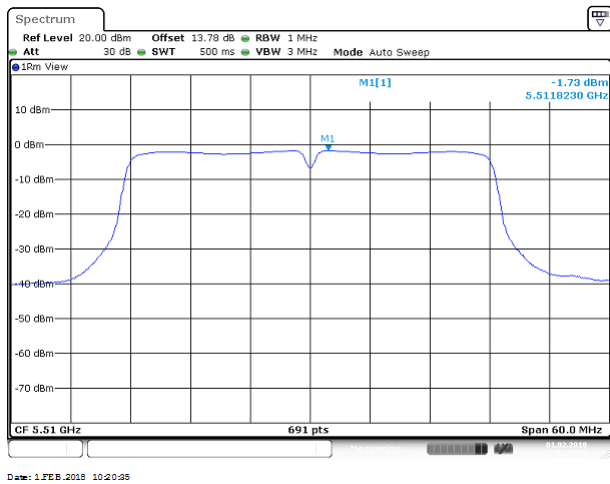


High CH

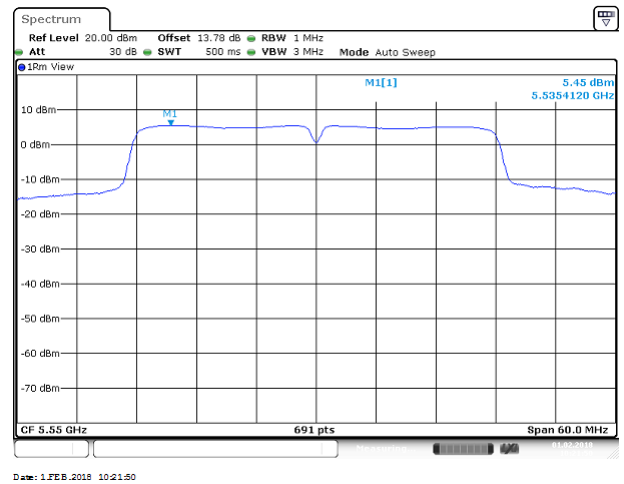


UNII-2c IEEE 802.11n 40 mode

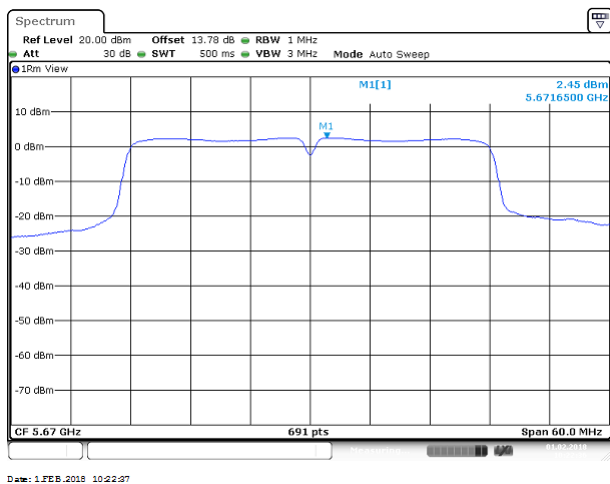
Low CH



Mid CH

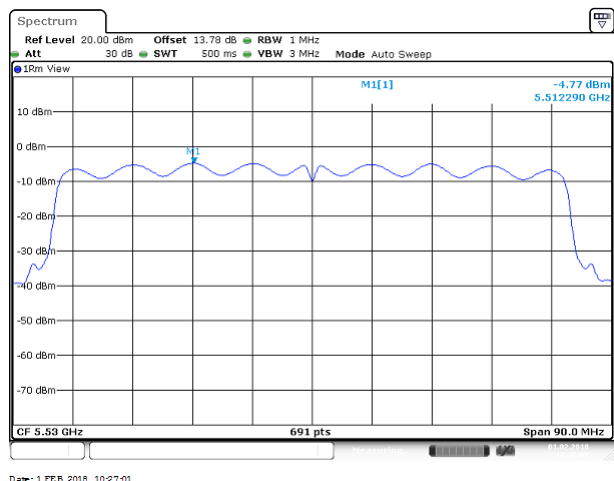


High CH

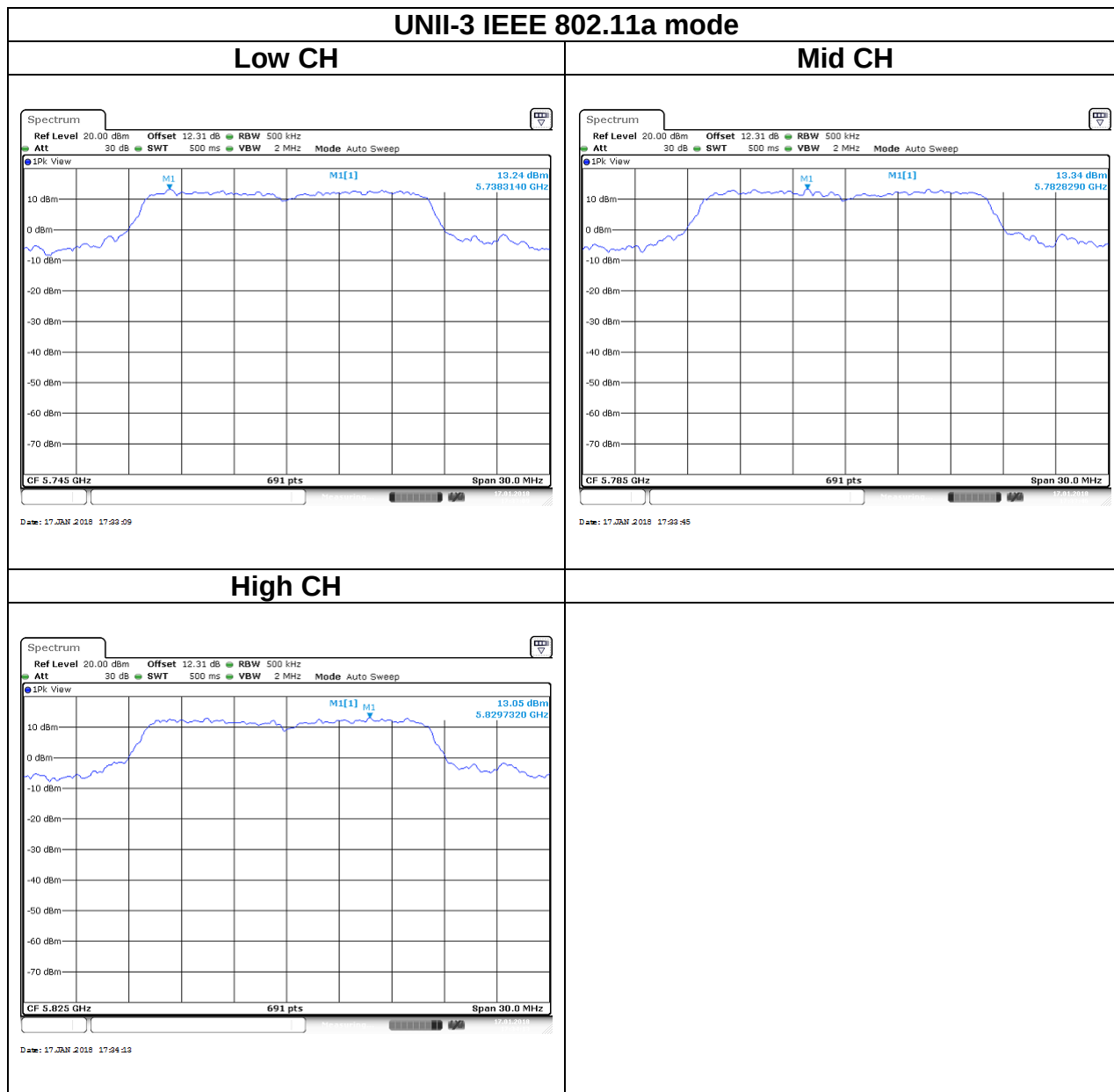


UNII-2c IEEE 802.11ac VHT80 mode

Low

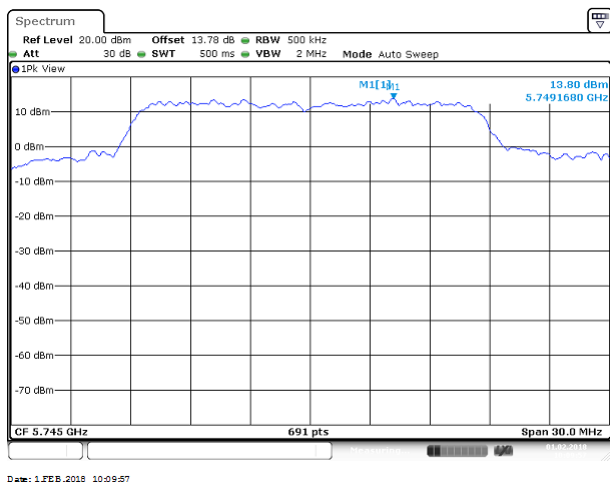


Test Data

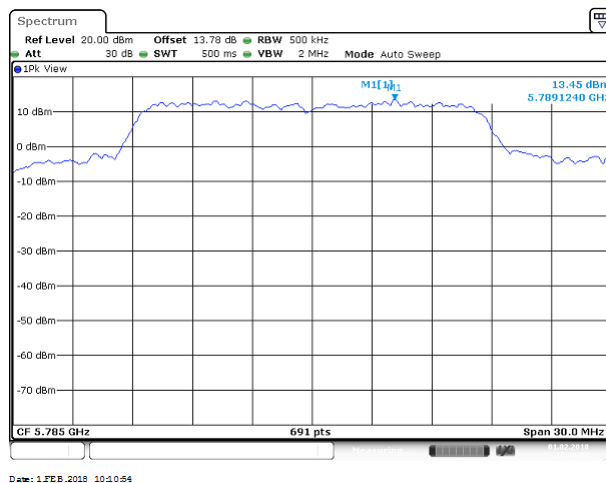


UNII-3 IEEE 802.11n 20 mode

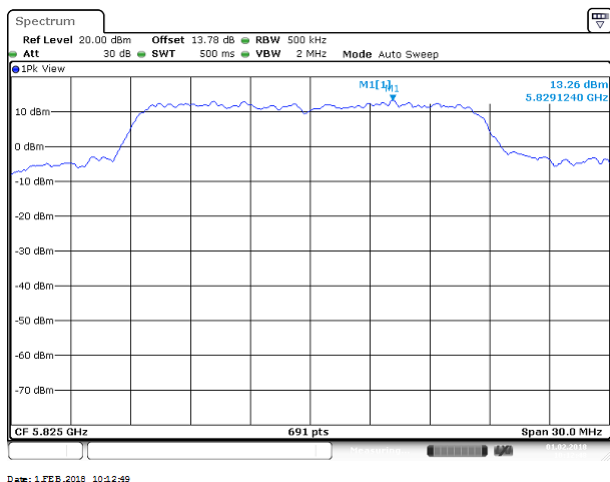
Low CH



Mid CH

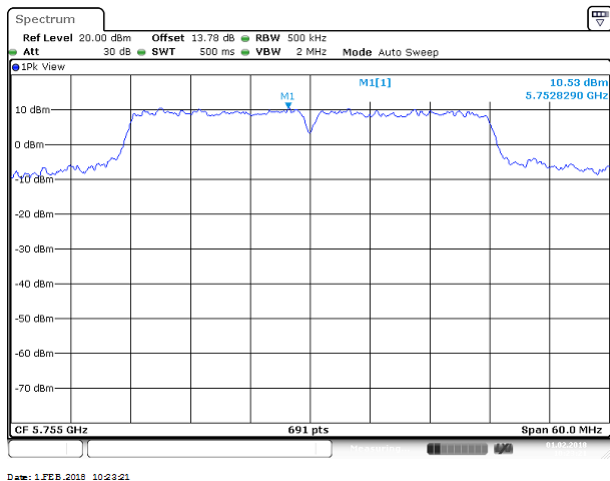


High CH

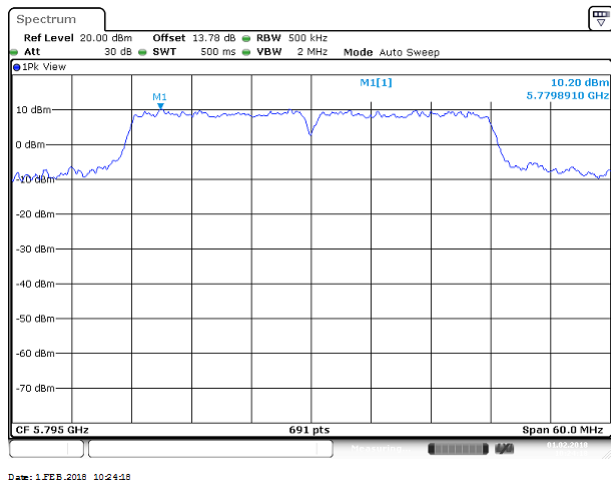


UNII-3 IEEE 802.11n 40 mode

Low CH

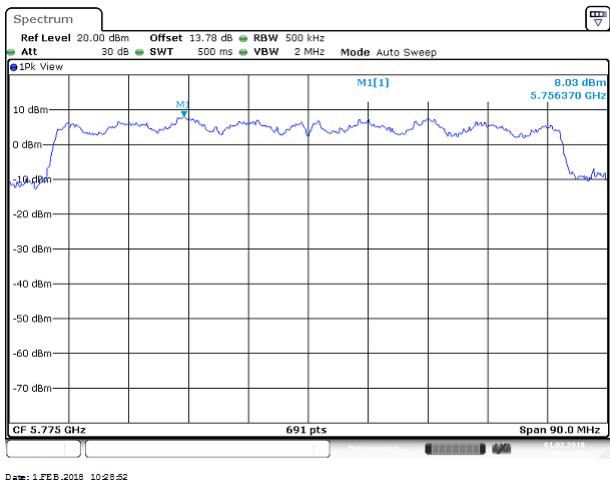


High CH



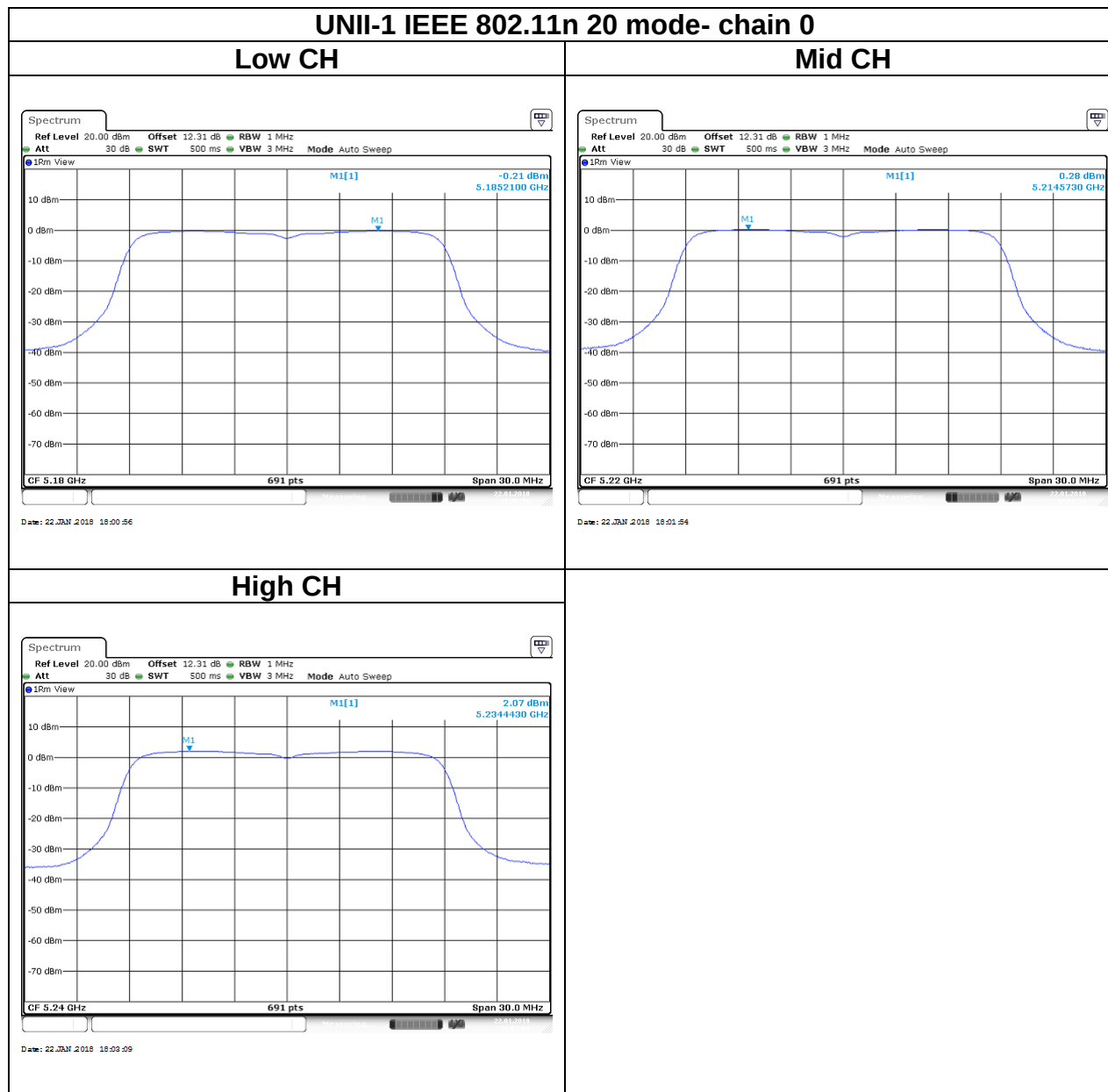
UNII-3 IEEE 802.11ac VHT80 mode

Mid CH



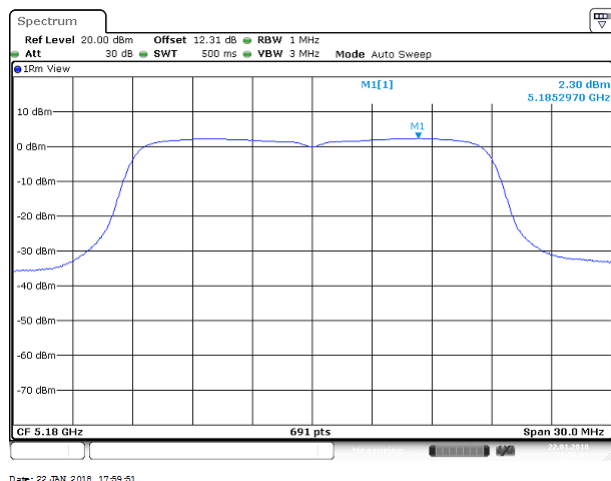
Test Data

For 2TX:

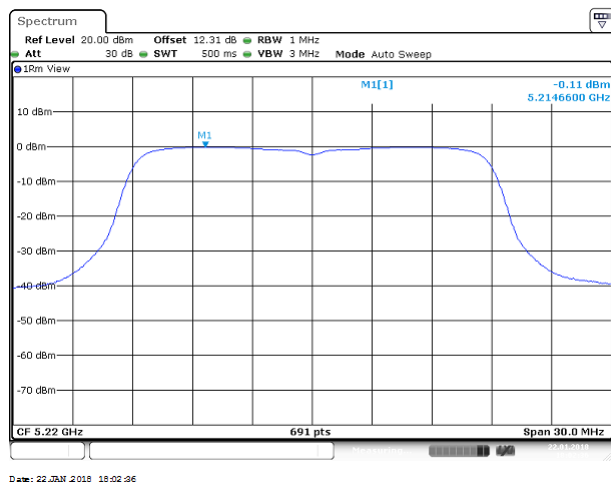


UNII-1 IEEE 802.11n 20 mode- chain 1

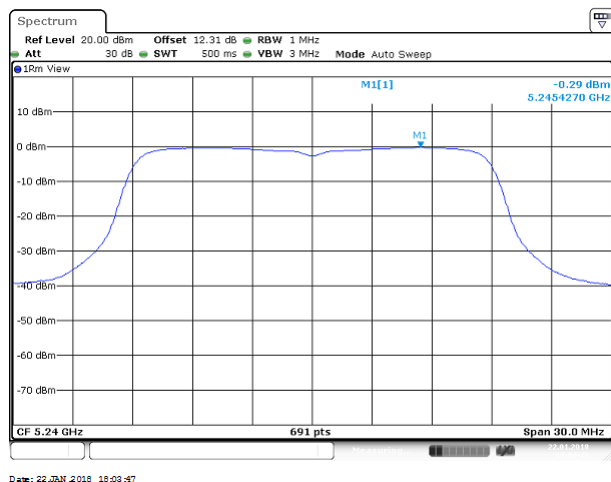
Low CH



Mid CH

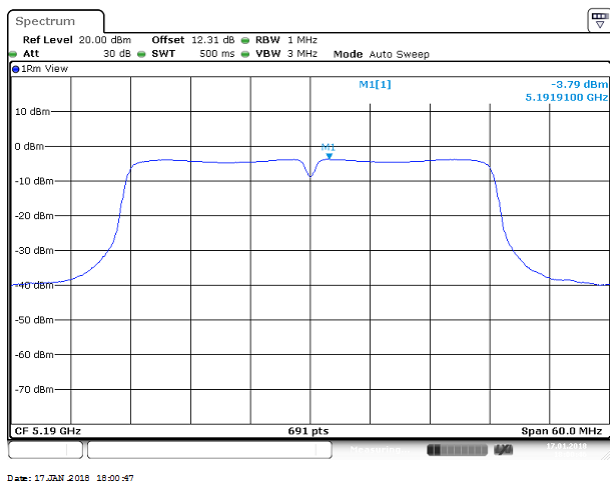


High CH

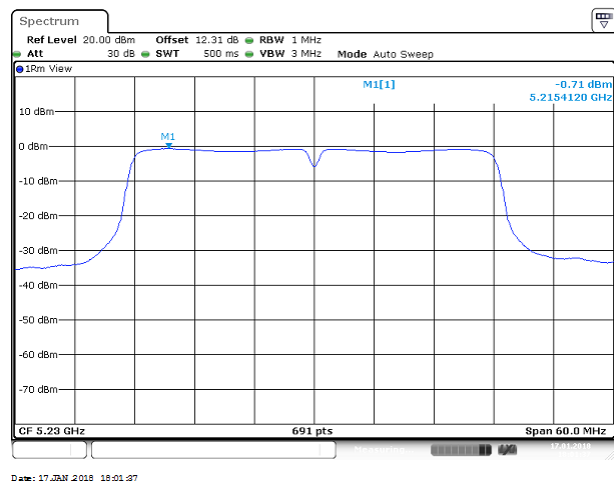


UNII-1 IEEE 802.11n 40 mode- chain 0

Low CH

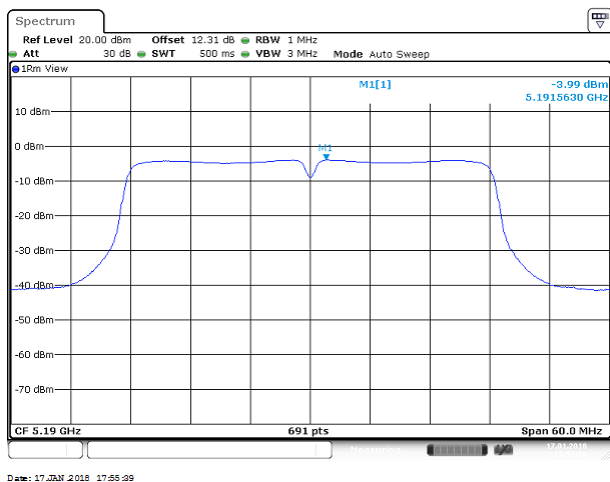


High CH

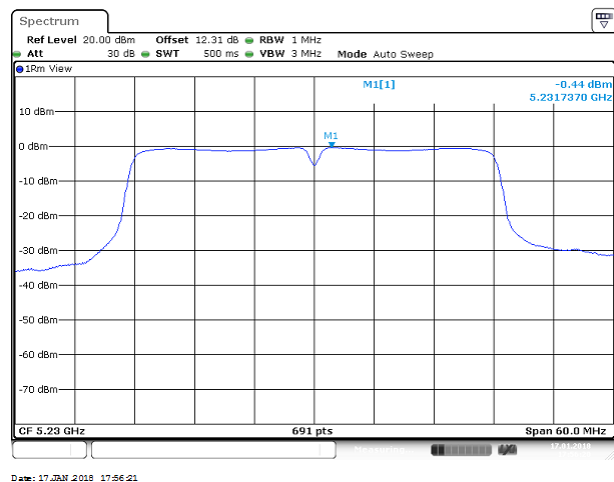


UNII-1 IEEE 802.11n 40 mode- chain 1

Low CH

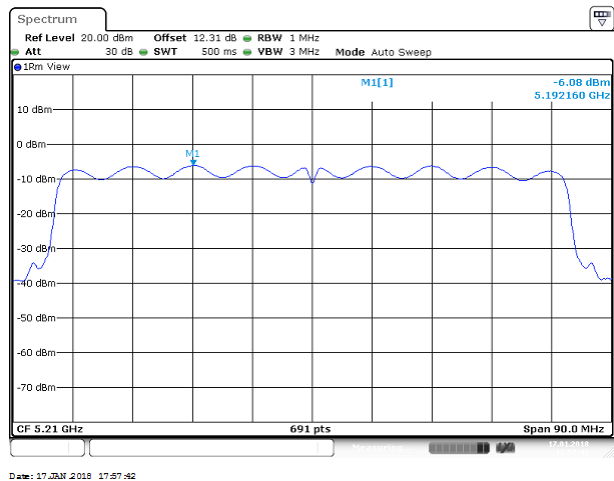


High CH



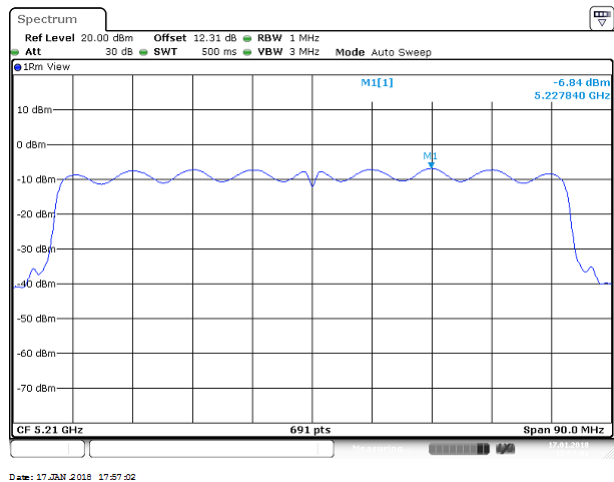
UNII-1 IEEE 802.11ac VHT80 mode- chain 0

Mid CH

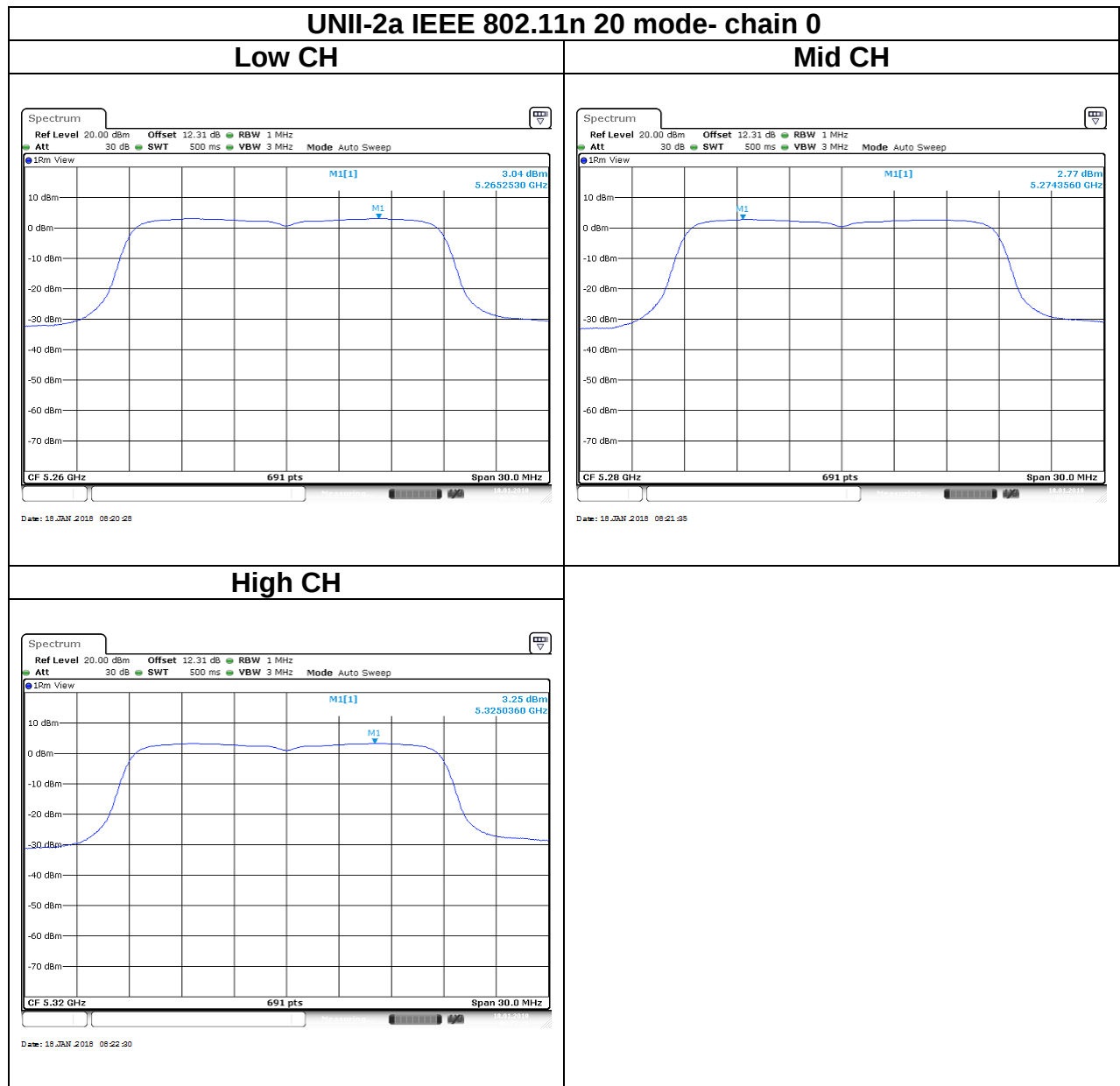


UNII-1 IEEE 802.11ac VHT80 mode- chain 1

Mid CH

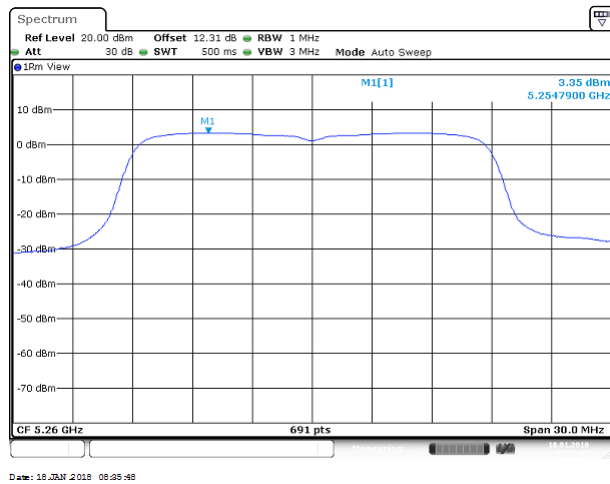


Test Data

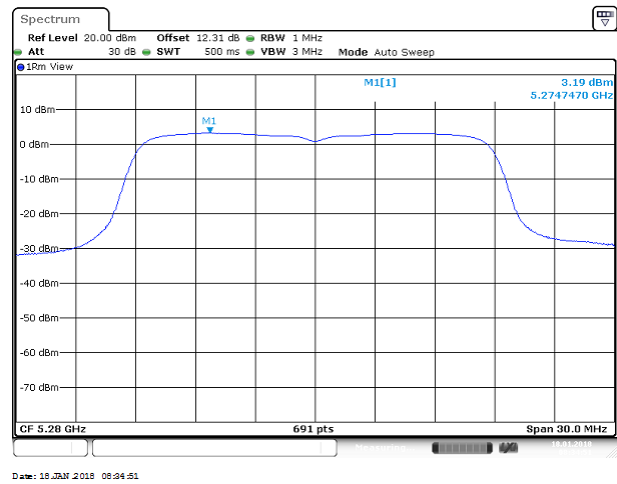


UNII-2a IEEE 802.11n 20 mode- chain 1

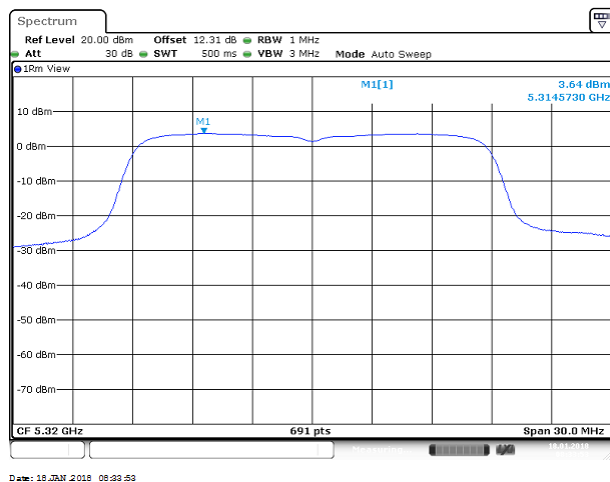
Low CH



Mid CH

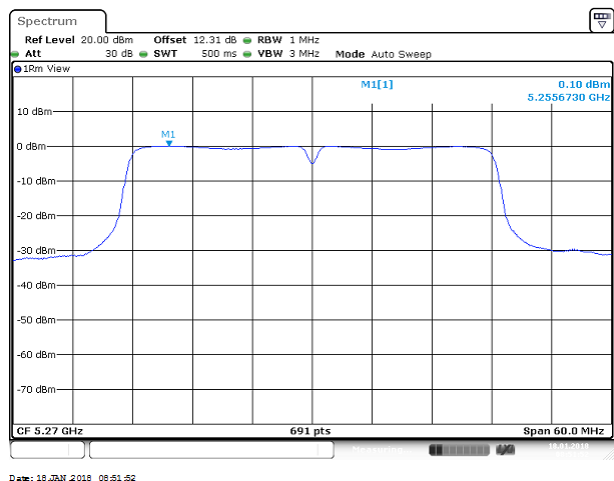


High CH

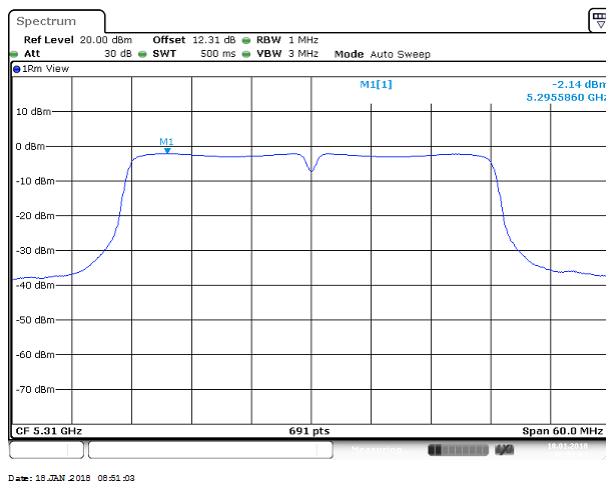


UNII-2a IEEE 802.11n 40 mode- chain 0

Low CH

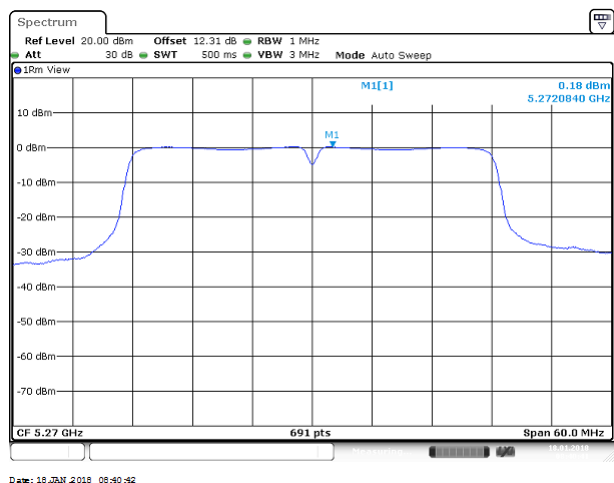


High CH

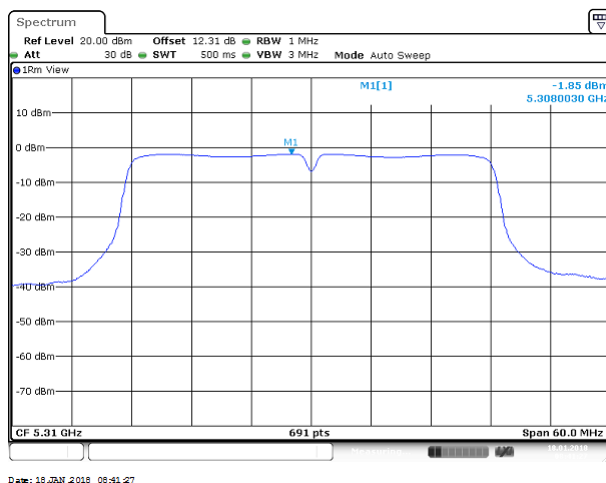


UNII-2a IEEE 802.11n 40 mode- chain 1

Low CH

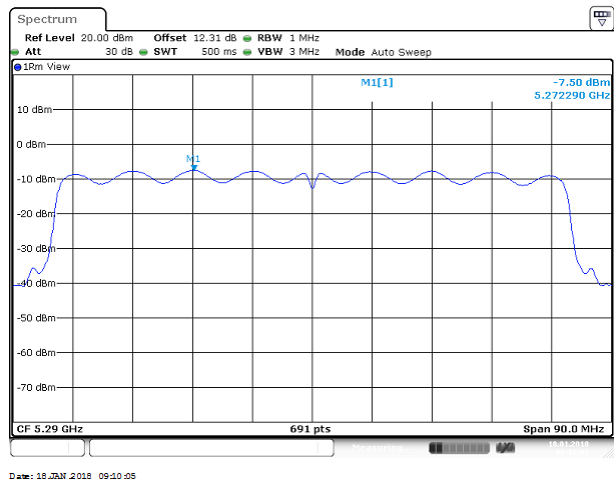


High CH



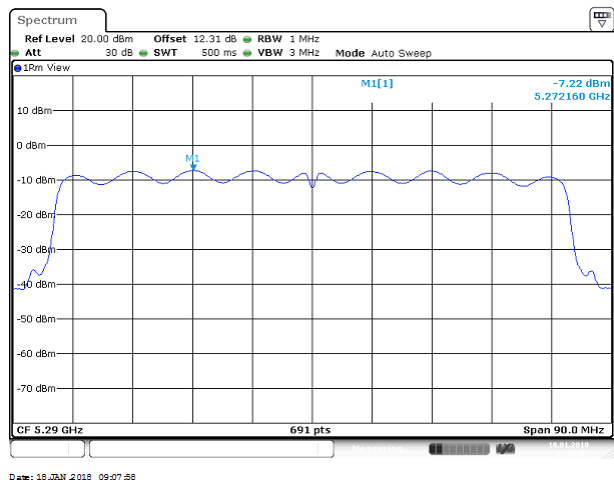
UNII-2a IEEE 802.11ac VHT80 mode- chain 0

Mid CH

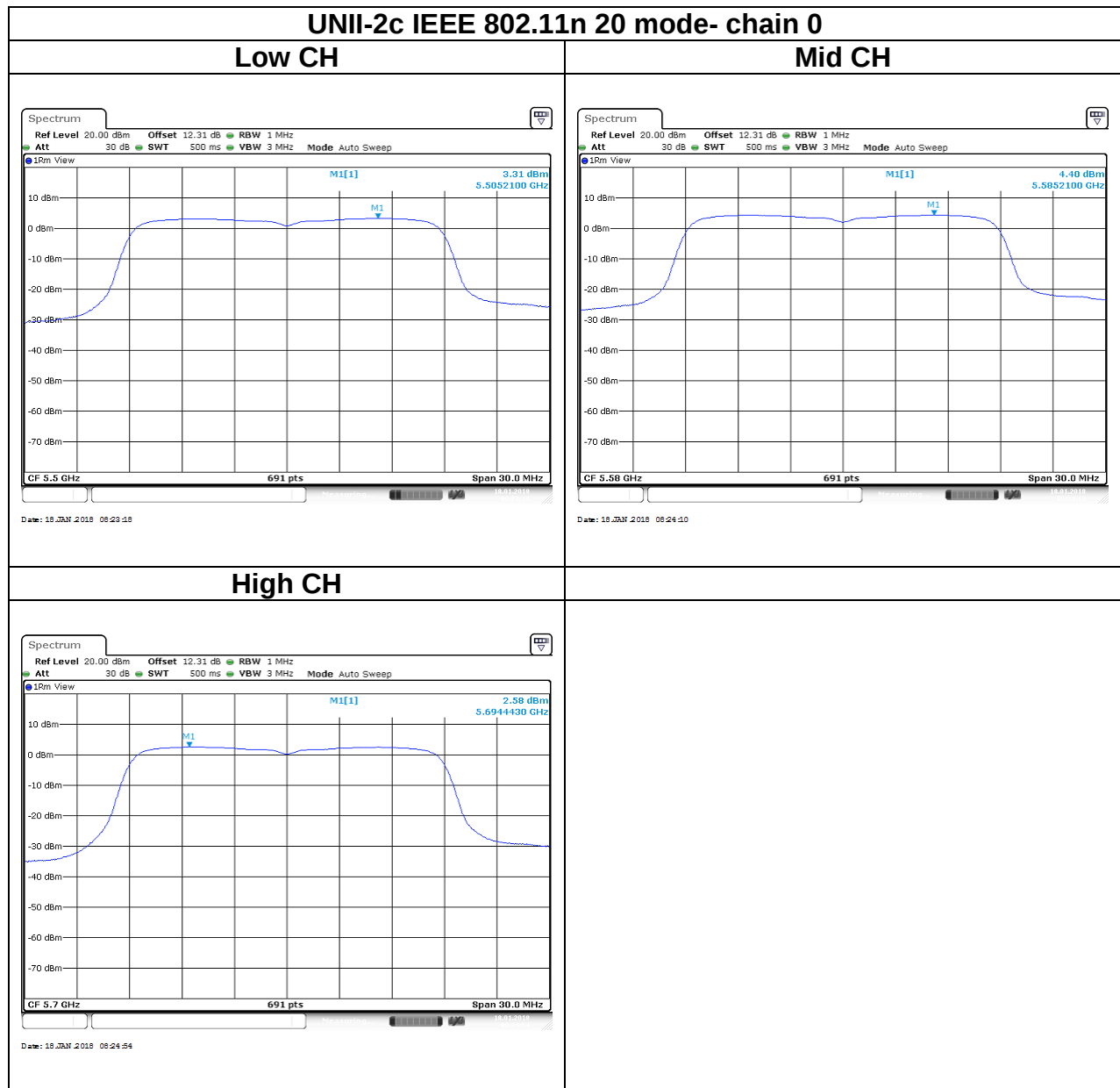


UNII-2a IEEE 802.11ac VHT80 mode- chain 1

Mid CH

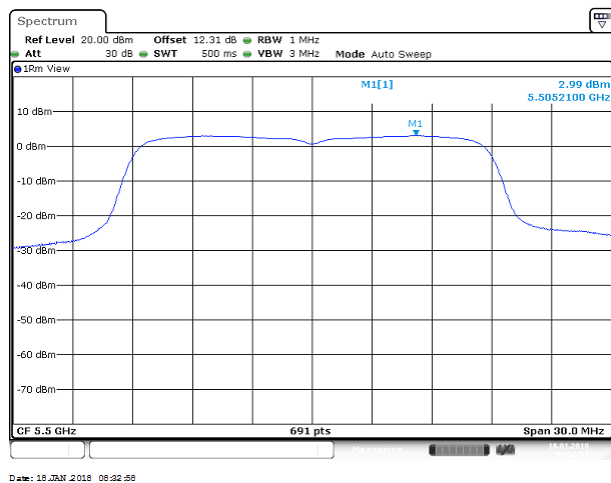


Test Data

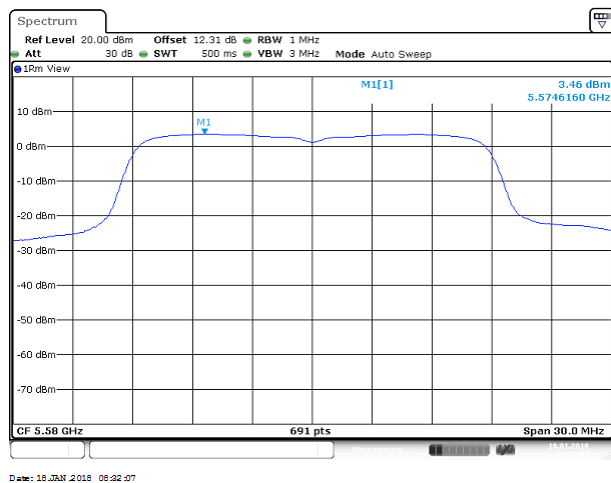


UNII-2c IEEE 802.11n 20 mode- chain 1

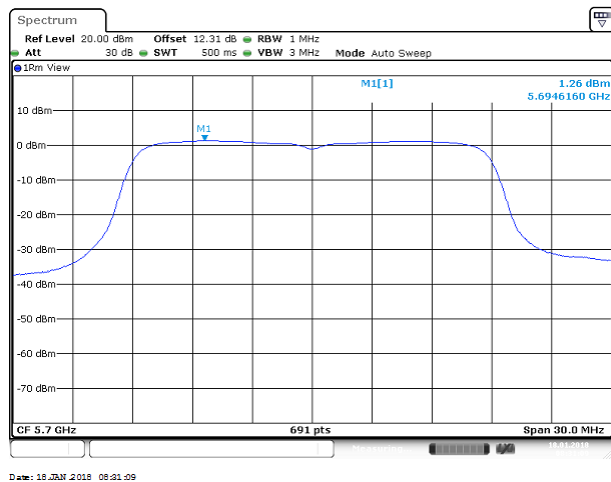
Low CH



Mid CH

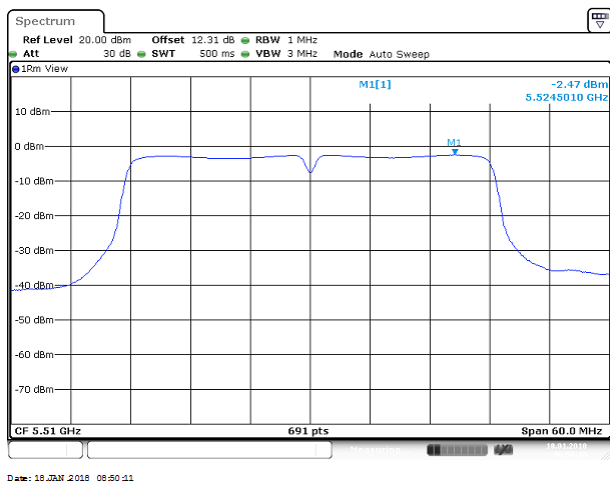


High CH

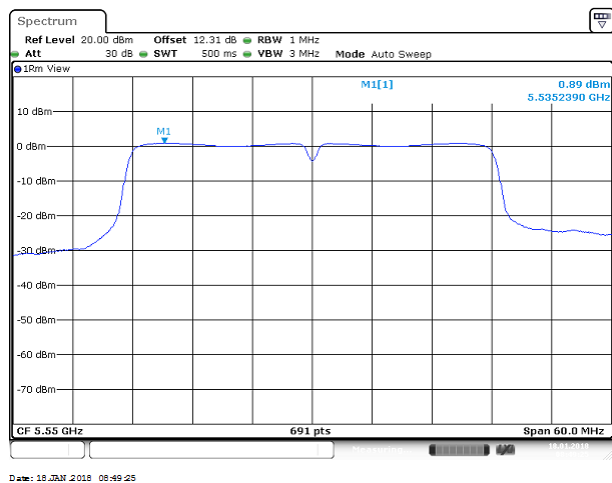


UNII-2c IEEE 802.11n 40 mode- chain 0

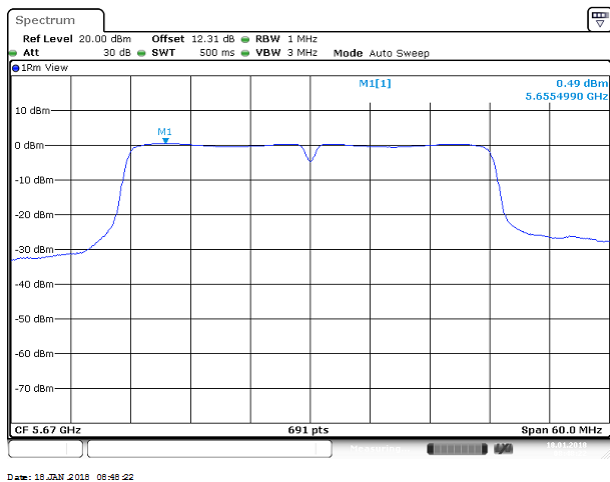
Low CH



Mid CH

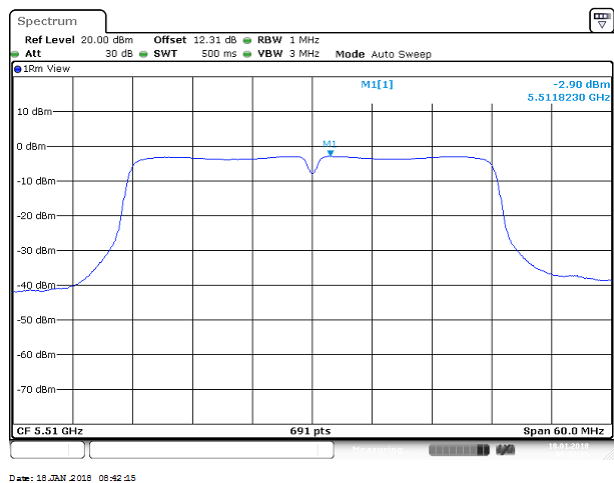


High CH

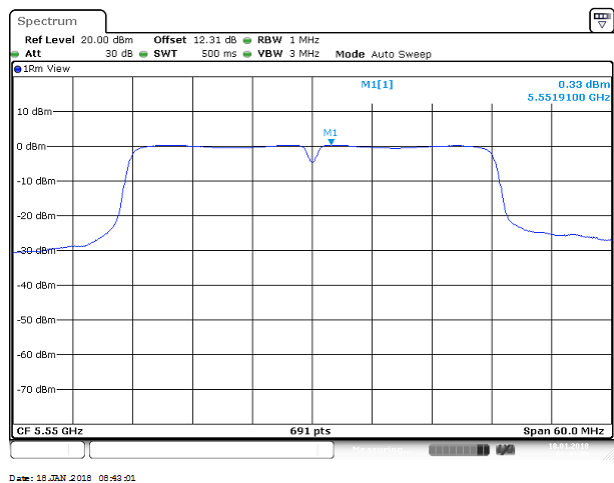


UNII-2c IEEE 802.11n 40 mode- chain 1

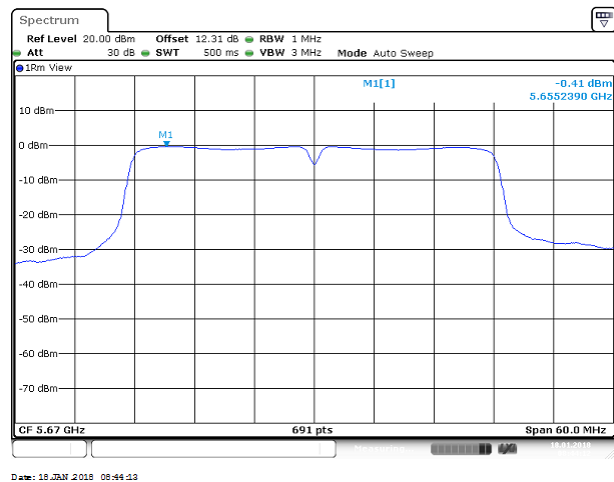
Low CH



Mid CH

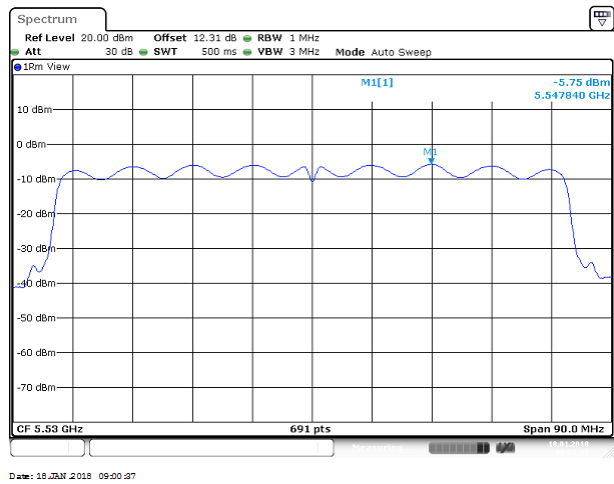


High CH



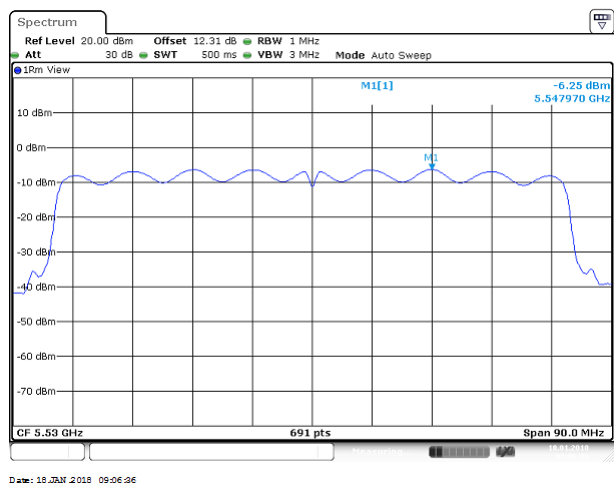
UNII-2c IEEE 802.11ac VHT80 mode- chain 0

Mid

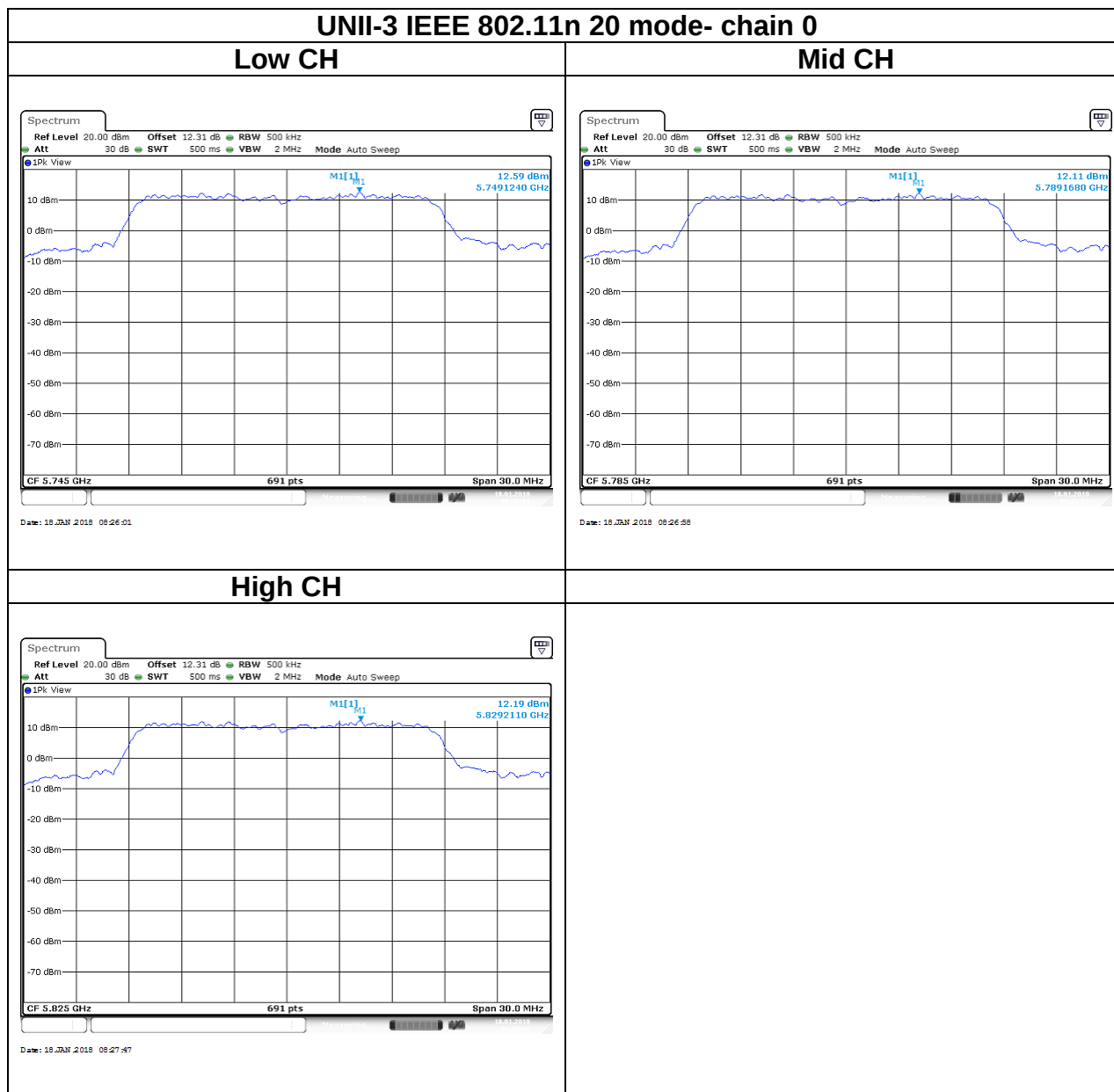


UNII-2c IEEE 802.11ac VHT80 mode- chain 1

Mid

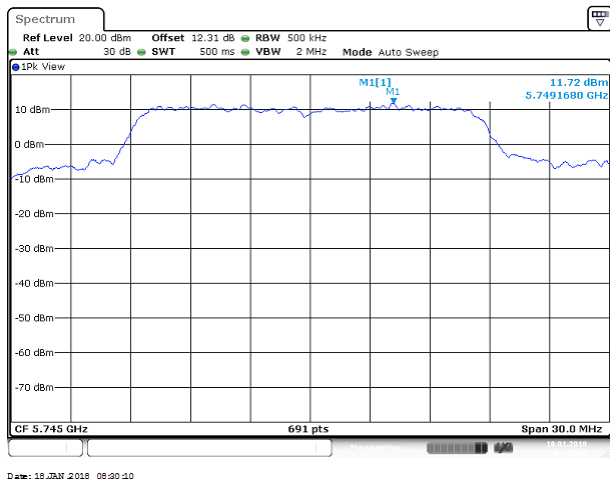


Test Data

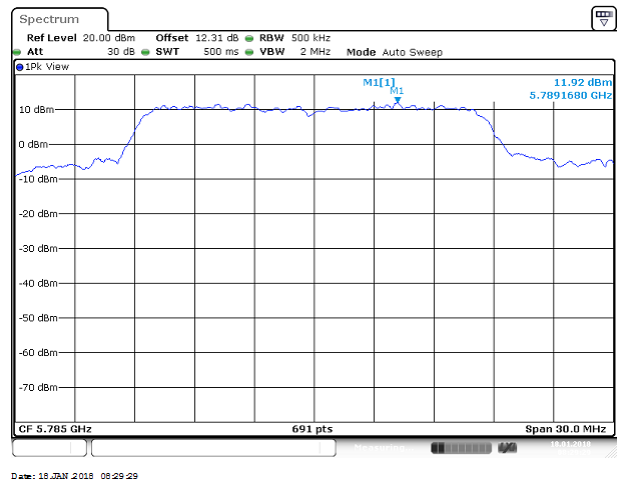


UNII-3 IEEE 802.11n 20 mode- chain 1

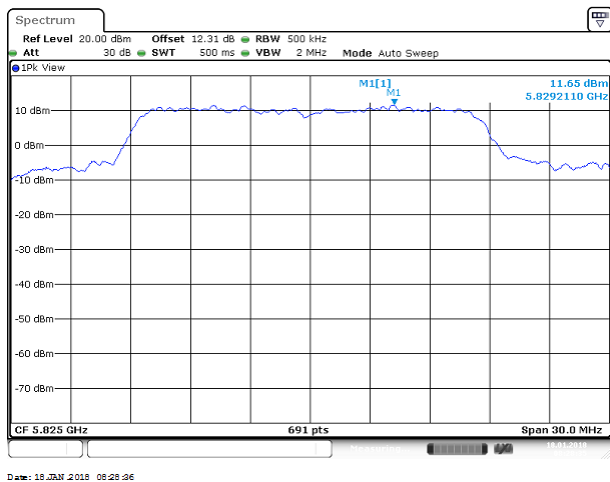
Low CH



Mid CH

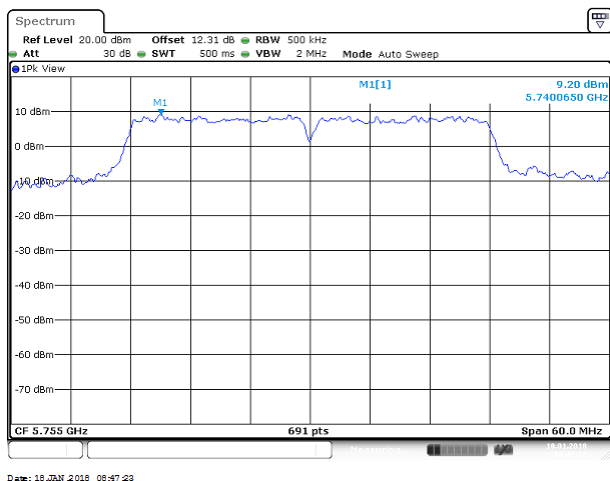


High CH

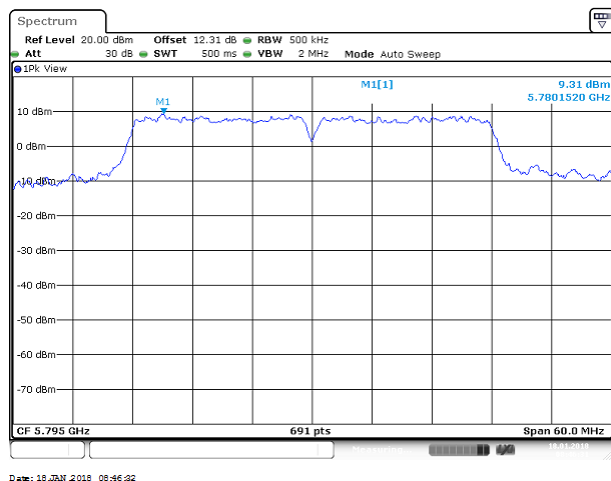


UNII-3 IEEE 802.11n 40 mode- chain 0

Low CH

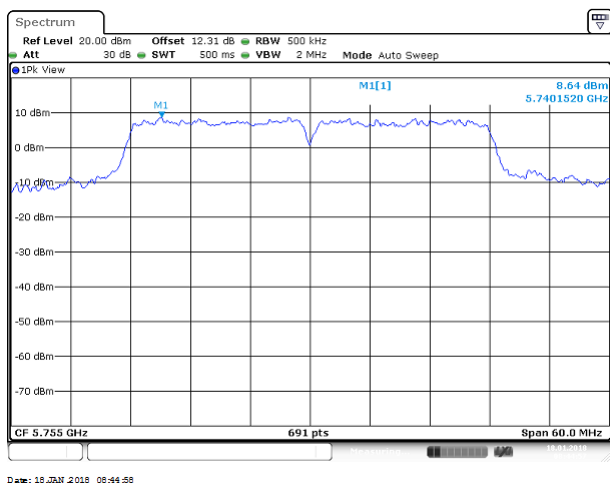


High CH

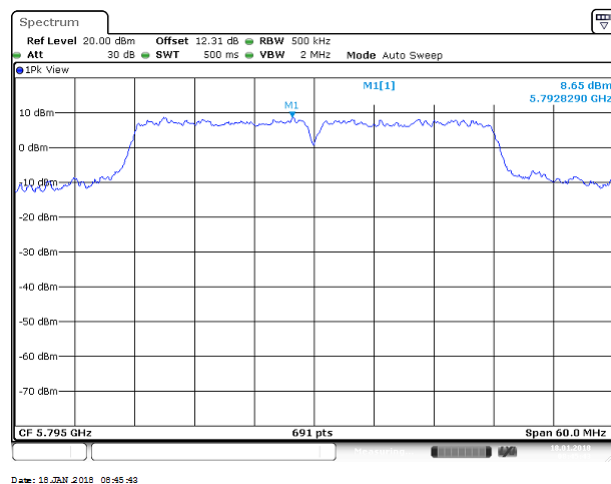


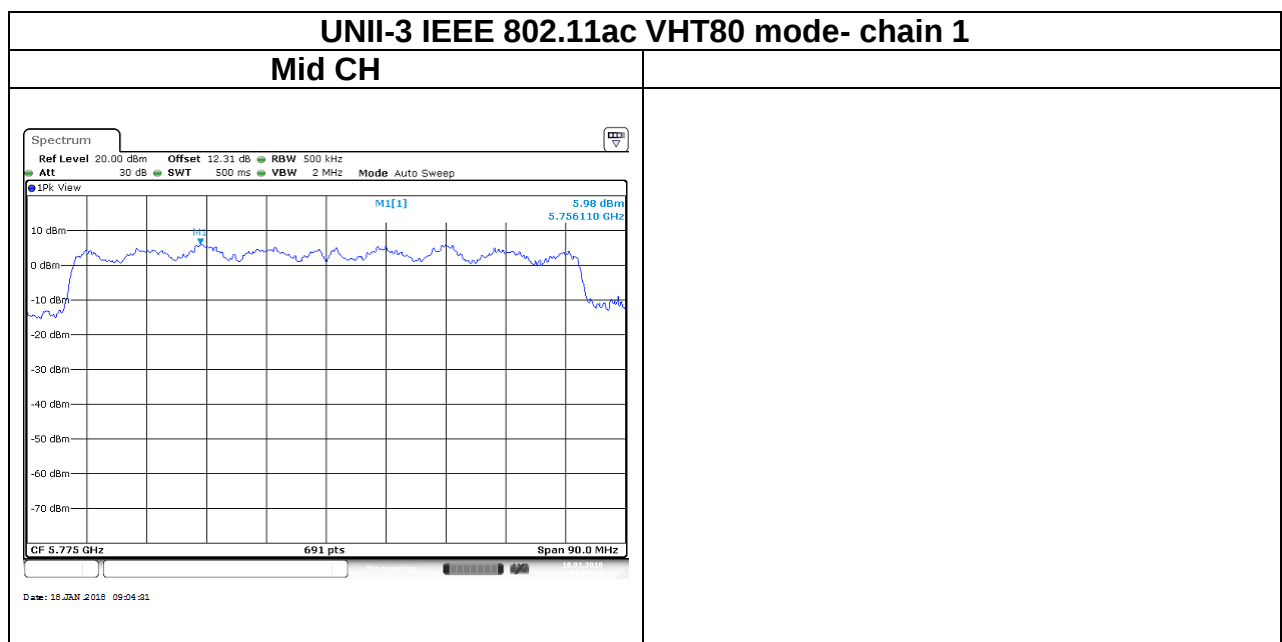
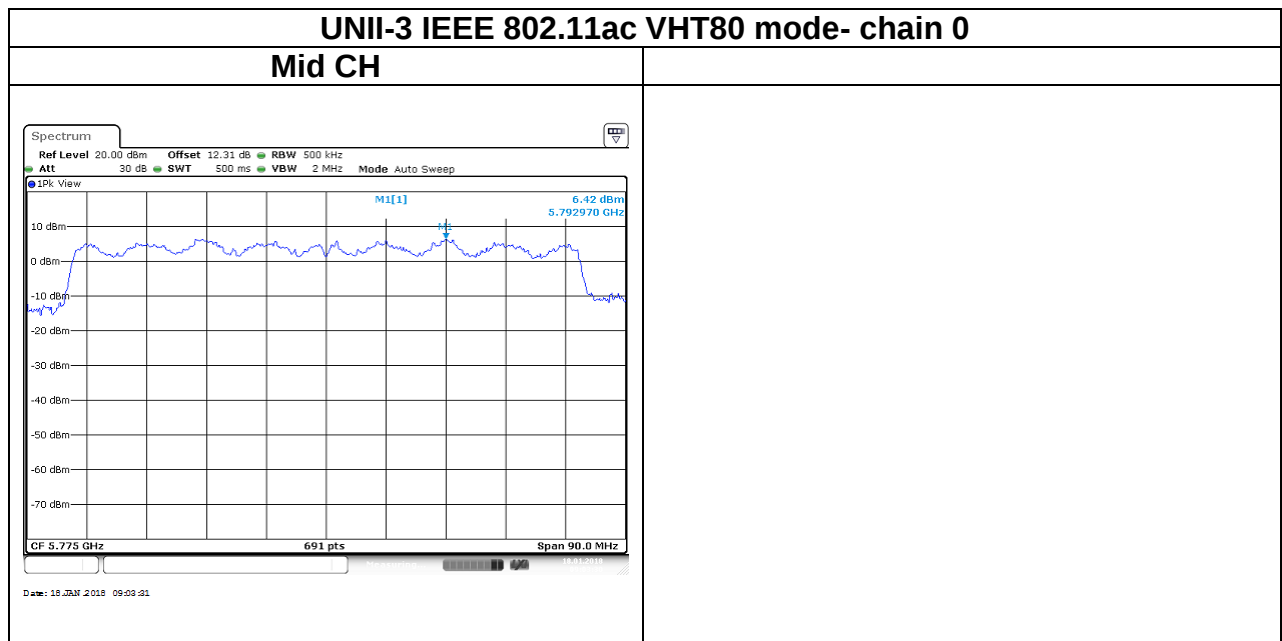
UNII-3 IEEE 802.11n 40 mode- chain 1

Low CH



High CH





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

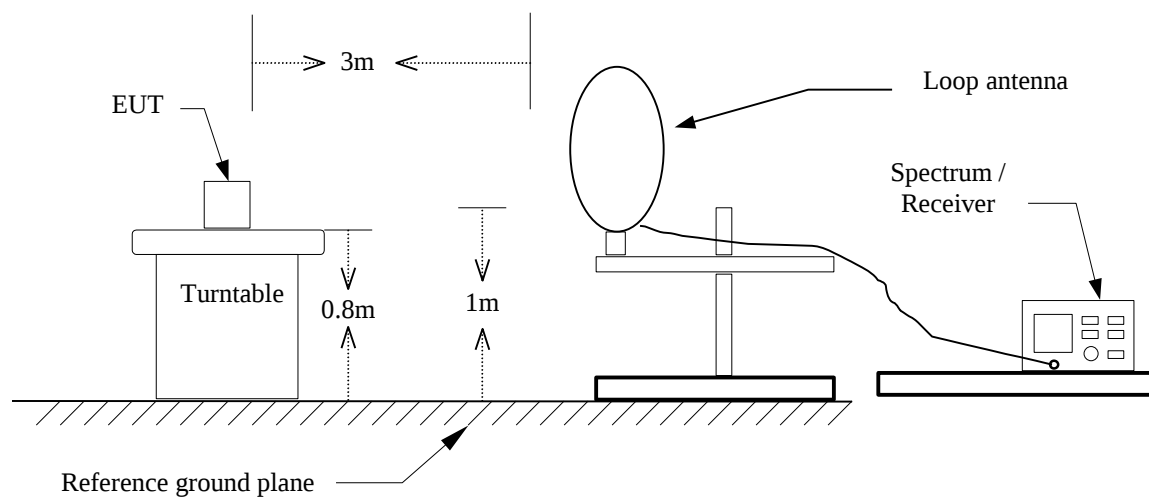
Test method Refer as KDB 789033 D02 v02r01, Section G.3, G.4, G.5, and G.6,.

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, 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.

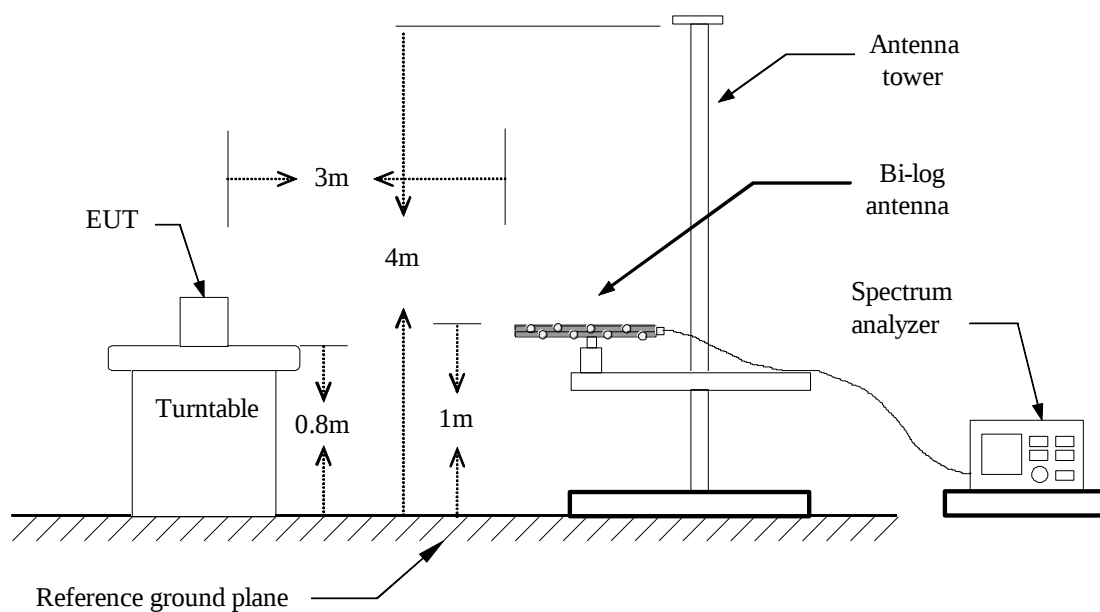
Configuration	Duty Cycle (%)	T(ms)	1/T (Hz)	VBW Setting
802.11a	100.00%	-	-	10Hz
802.11n 20	100.00%	-	-	10Hz
802.11n 40	100.00%	-	-	10Hz
802.11ac VHT80	100.00%	-	-	10Hz

4.5.3 Test Setup

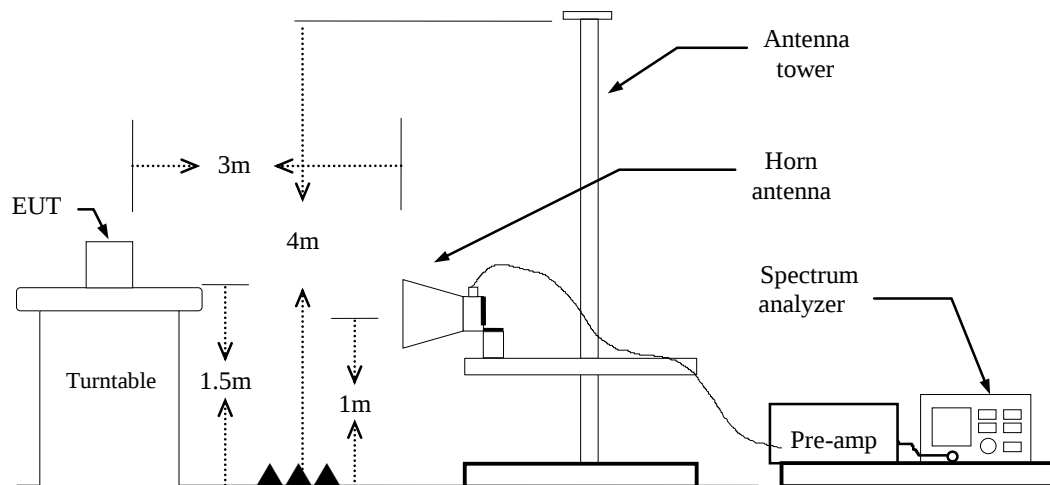
9kHz ~ 30MHz



30MHz ~ 1GHz



Above 1 GHz



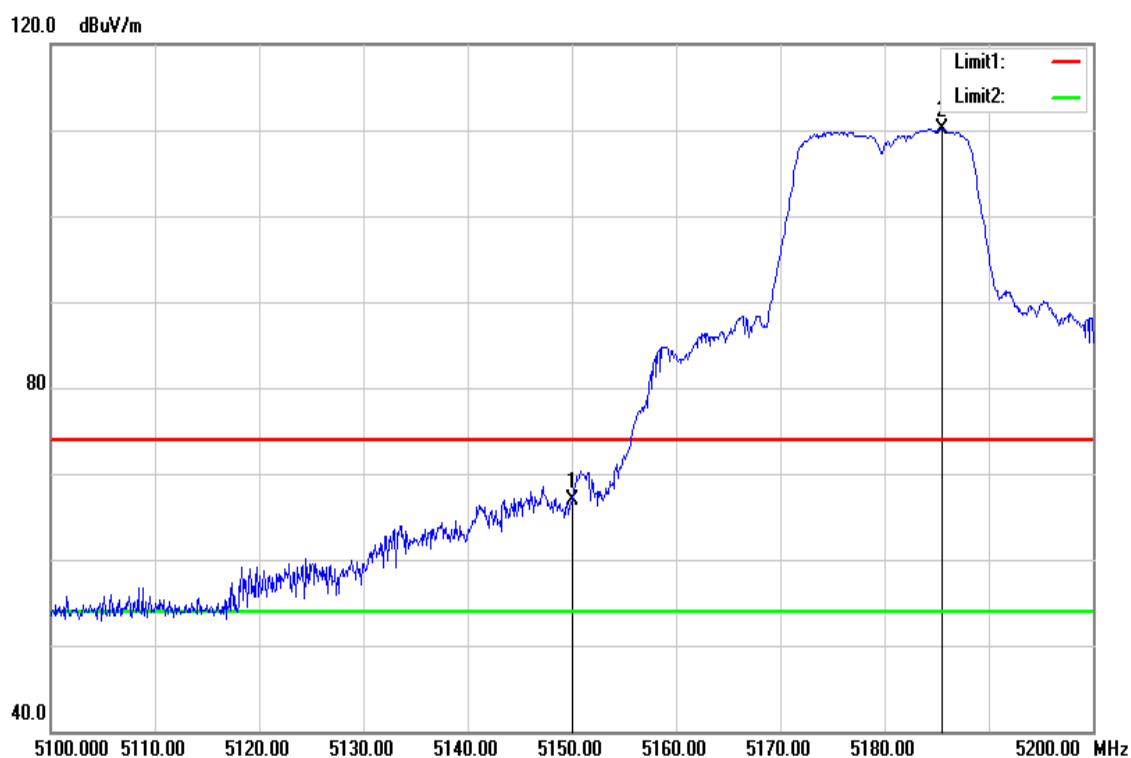
4.5.4 Test Result

Test Data

For 1TX:

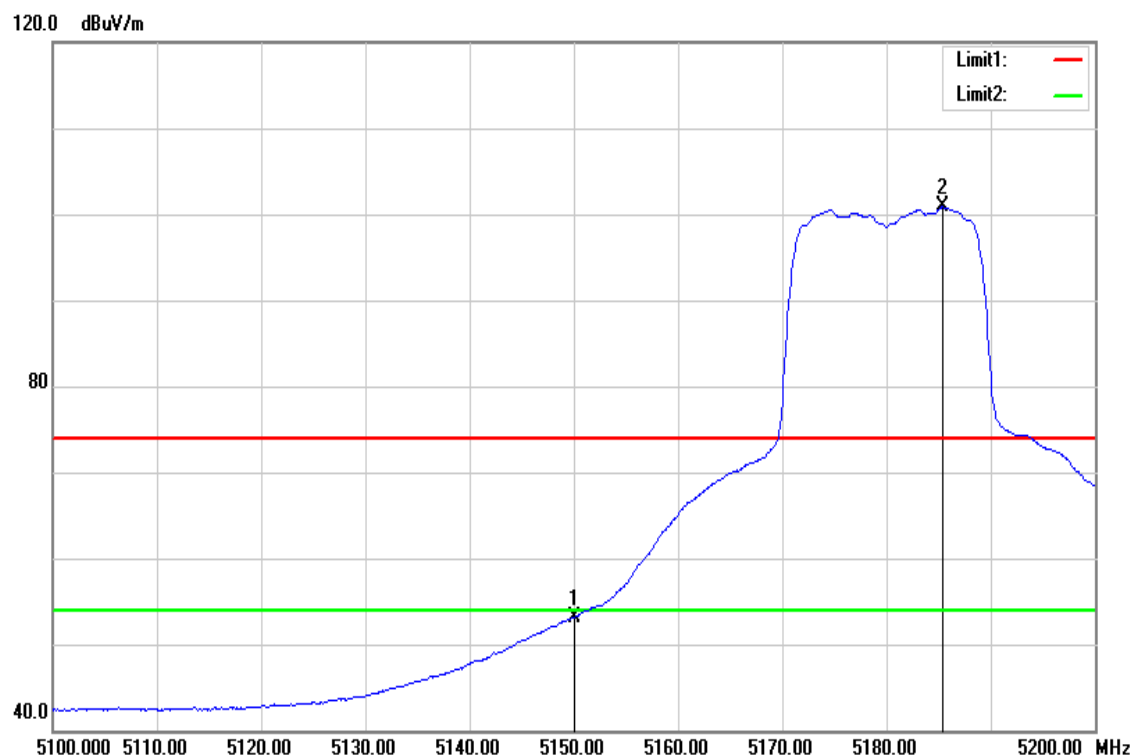
Band Edge Test Data for UNII-1

Test Mode	IEEE 802.11a / 5180MHZ	Temp/Hum	24(°C)/ 33%RH
Test Item	Band Edge	Test Date	February 8, 2018
Polarize	Horizontal	Test Engineer	Jerry Chuang
Detector	Peak	Test Voltage	-



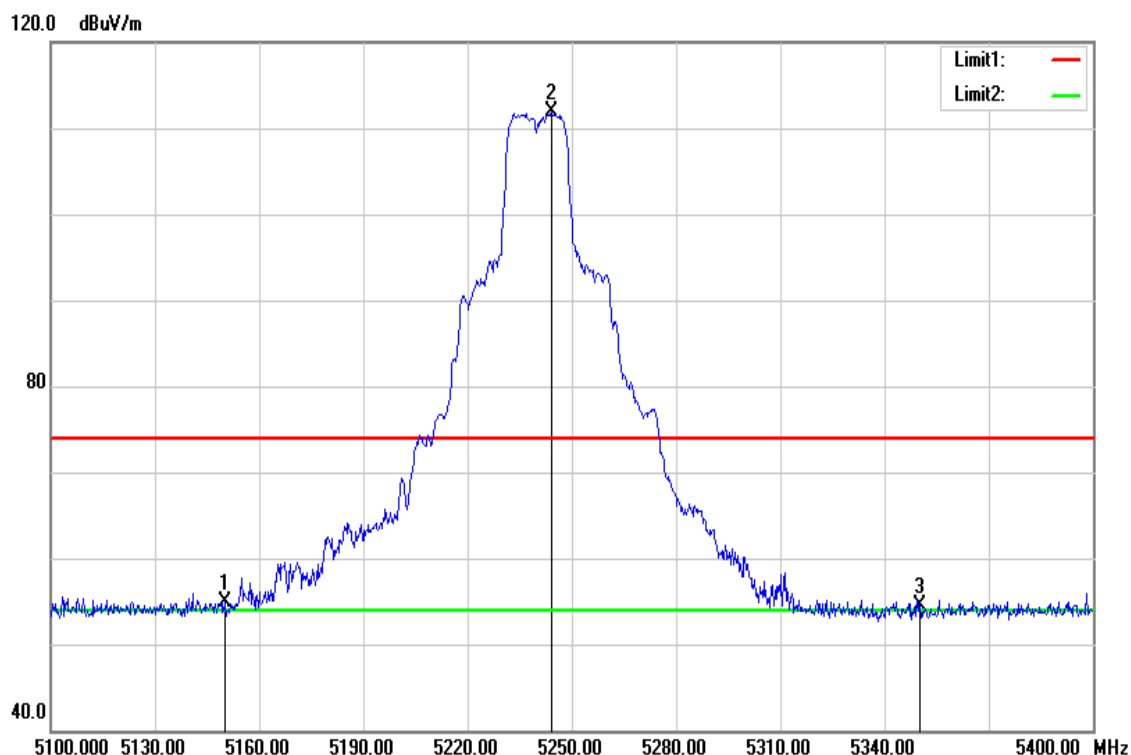
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
5150.000	61.93	5.06	66.99	74.00	-7.01	peak
5185.500	104.91	5.15	110.06	-	-	peak

Test Mode	IEEE 802.11a / 5180MHZ	Temperature	24(°C)/ 33%RH
Test Item	Band Edge	Test Date	February 8, 2018
Polarize	Horizontal	Test Engineer	Jerry Chuang
Detector	Average	Test Voltage	-



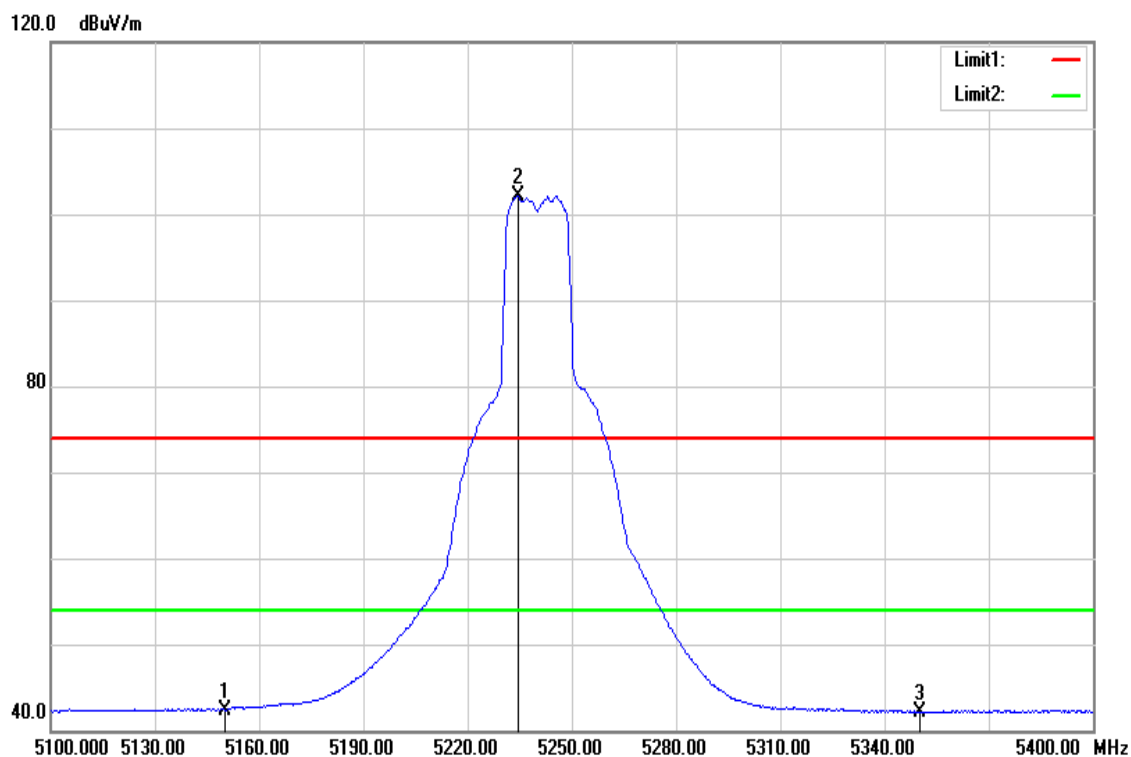
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
5150.000	48.03	5.06	53.09	54.00	-0.91	AVG
5185.400	95.68	5.15	100.83	-	-	AVG

Test Mode	IEEE 802.11a / 5240MHZ	Temp/Hum	24(°C)/ 33%RH
Test Item	Band Edge	Test Date	February 8, 2018
Polarize	Horizontal	Test Engineer	Jerry Chuang
Detector	Peak	Test Voltage	-



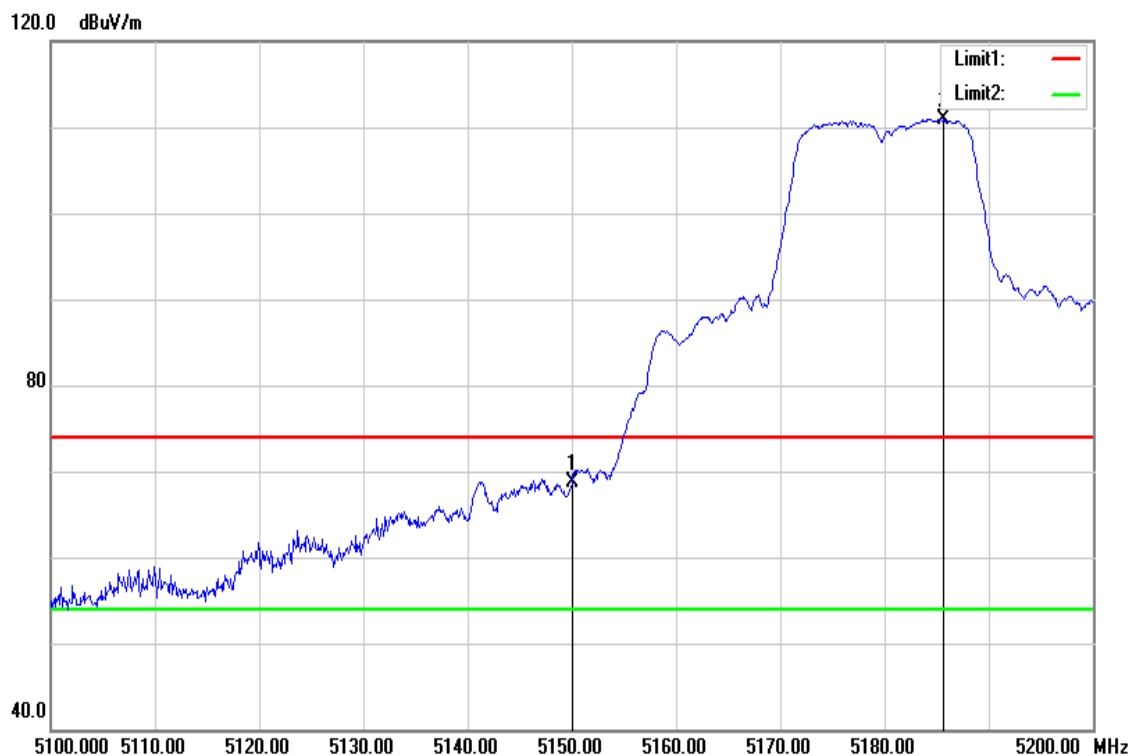
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
5150.000	49.92	5.06	54.98	74.00	-19.02	peak
5244.000	106.55	5.29	111.84	-	-	peak
5350.000	48.97	5.56	54.53	74.00	-19.47	peak

Test Mode	IEEE 802.11a / 5240MHZ	Temp/Hum	24(°C)/ 33%RH
Test Item	Band Edge	Test Date	February 8, 2018
Polarize	Horizontal	Test Engineer	Jerry Chuang
Detector	Average	Test Voltage	-



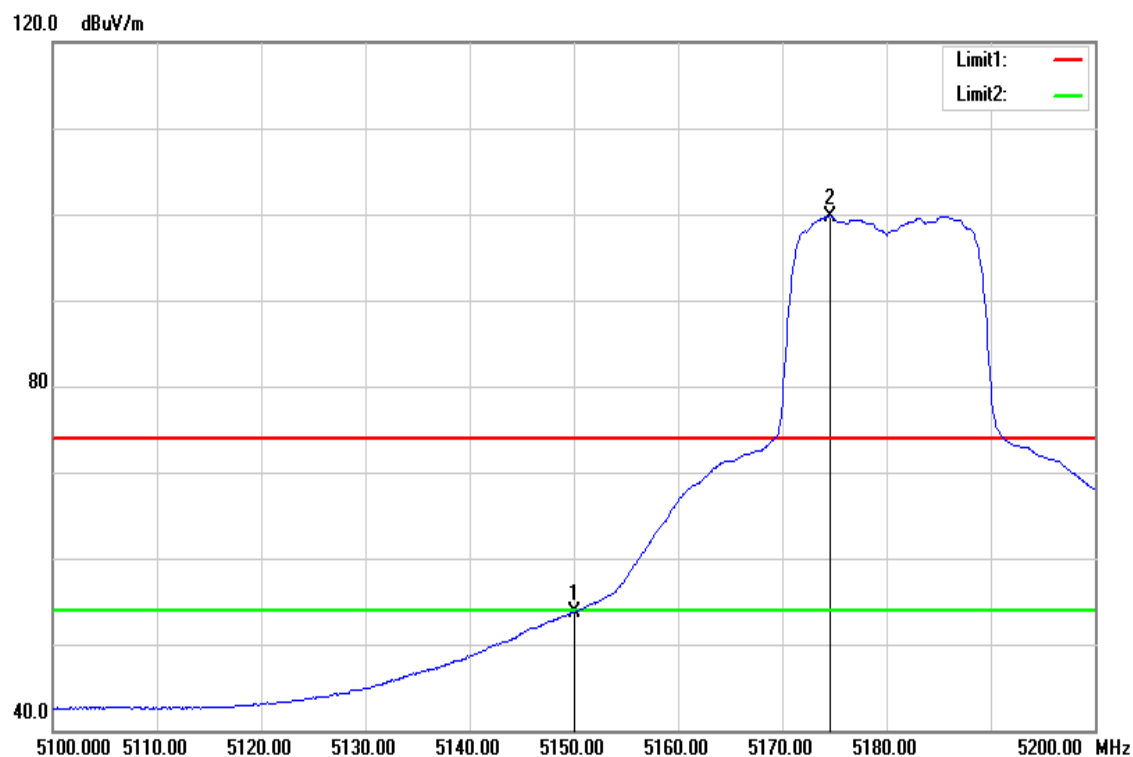
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
5150.000	37.32	5.06	42.38	54.00	-11.62	AVG
5234.400	96.93	5.27	102.20	-	-	AVG
5350.000	36.61	5.56	42.17	54.00	-11.83	AVG

Test Mode	IEEE 802.11n 20 / 5180MHZ	Temp/Hum	24(°C)/ 33%RH
Test Item	Band Edge	Test Date	February 8, 2018
Polarize	Horizontal	Test Engineer	Jerry Chuang
Detector	Peak	Test Voltage	-



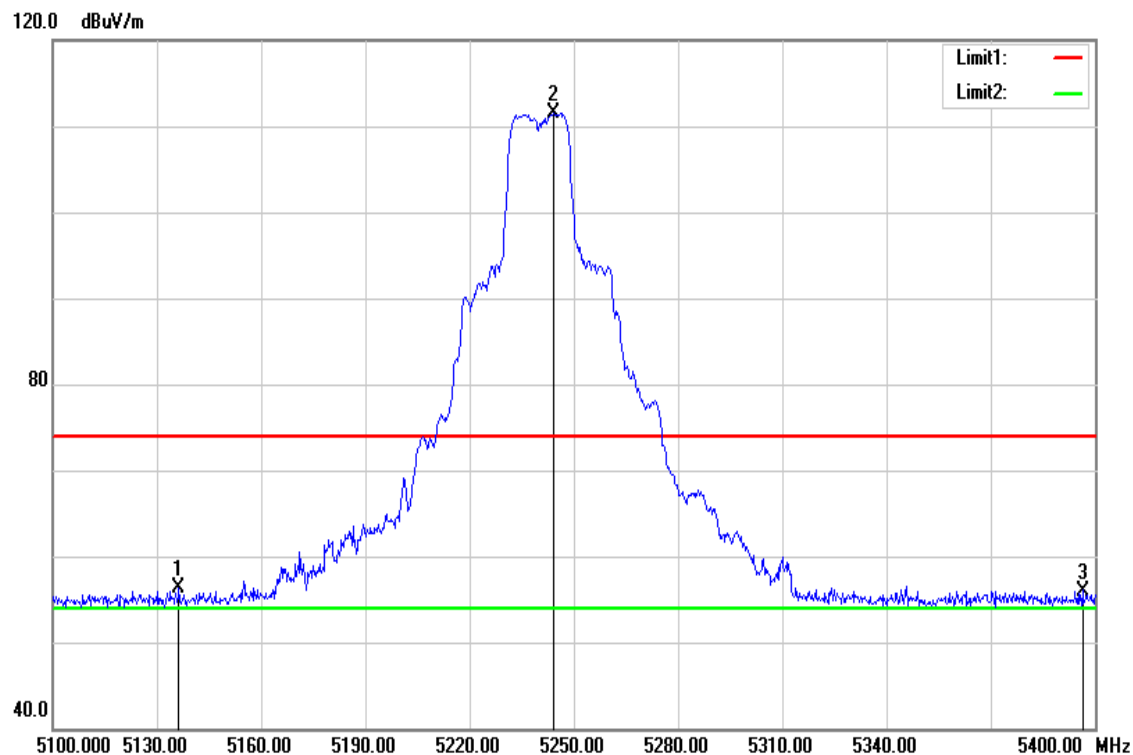
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
5150.000	63.64	5.06	68.70	74.00	-5.30	peak
5185.600	105.80	5.15	110.95	-	-	peak

Test Mode	IEEE 802.11n 20 / 5180MHZ	Temp/Hum	24(°C)/ 33%RH
Test Item	Band Edge	Test Date	February 8, 2018
Polarize	Horizontal	Test Engineer	Jerry Chuang
Detector	Average	Test Voltage	-



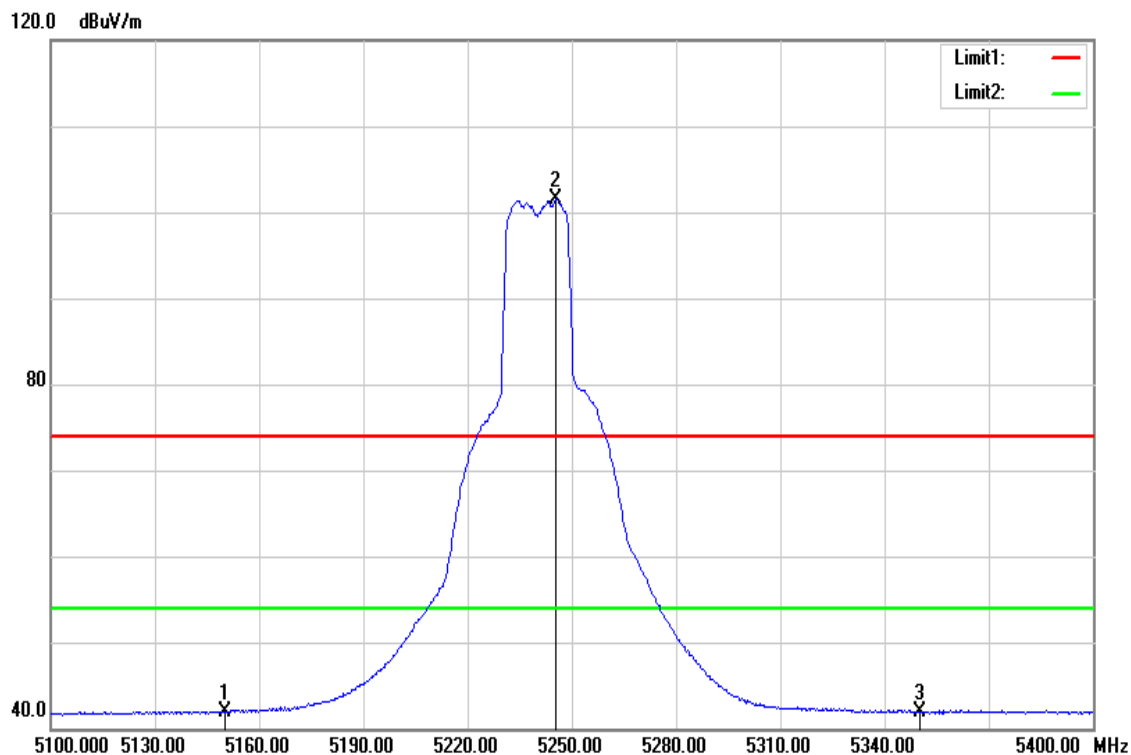
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
5150.000	48.38	5.06	53.44	54.00	-0.56	AVG
5185.300	95.93	5.15	101.08	-	-	AVG

Test Mode	IEEE 802.11n 20 / 5240MHZ	Temp/Hum	24(°C)/ 33%RH
Test Item	Band Edge	Test Date	February 8, 2018
Polarize	Horizontal	Test Engineer	Jerry Chuang
Detector	Peak	Test Voltage	-



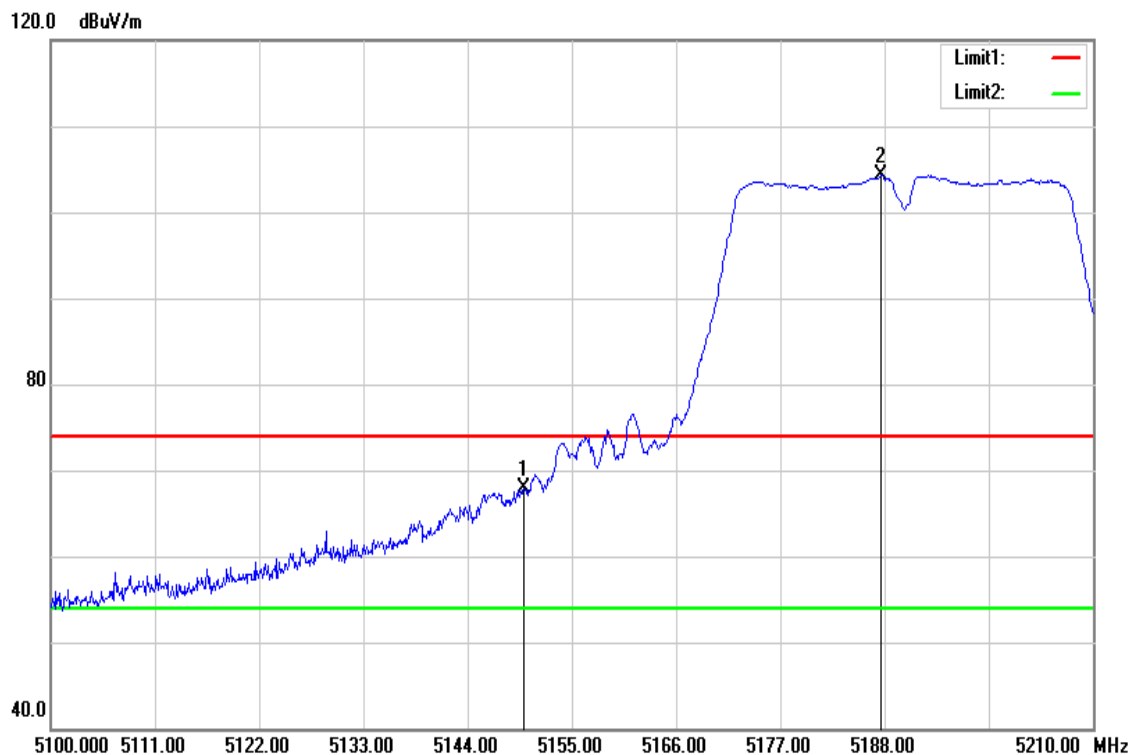
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
5136.300	51.26	5.03	56.29	74.00	-17.71	peak
5244.300	106.30	5.29	111.59	-	-	peak
5396.400	50.32	5.68	56.00	74.00	-18.00	peak

Test Mode	IEEE 802.11n 20 / 5240MHZ	Temperature	24(°C)/ 33%RH
Test Item	Band Edge	Test Date	February 8, 2018
Polarize	Horizontal	Test Engineer	Jerry Chuang
Detector	Average	Test Voltage	-



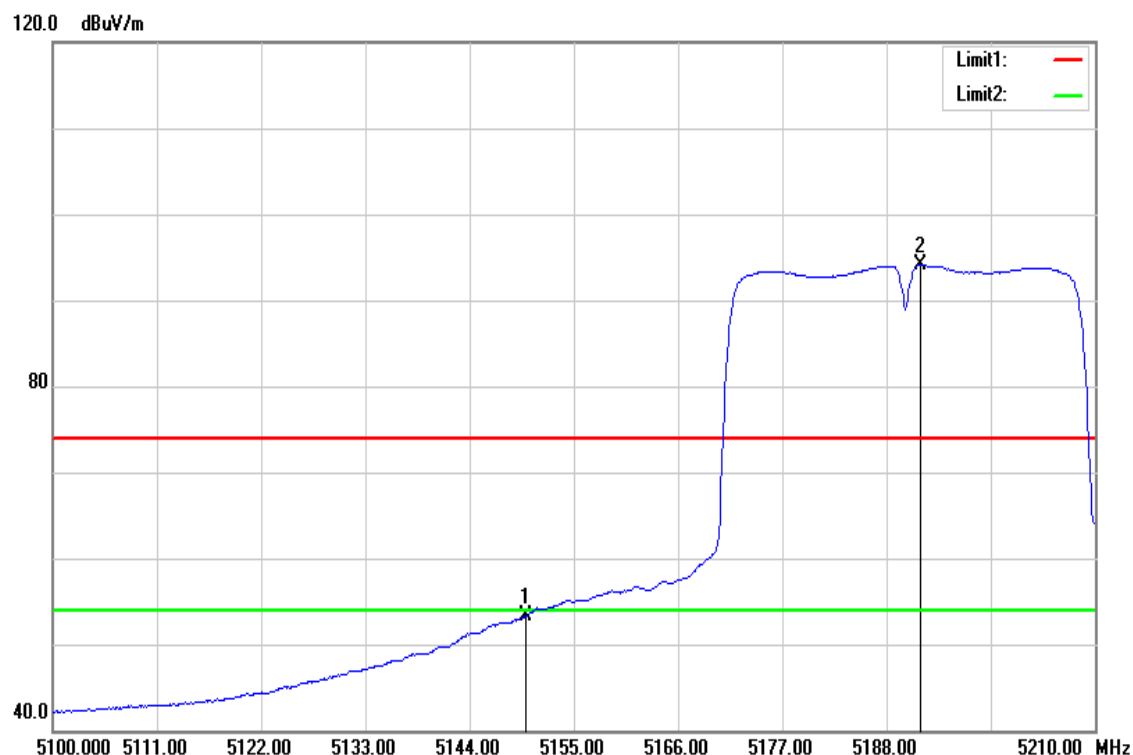
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
5150.000	36.76	5.06	41.82	54.00	-12.18	AVG
5245.200	96.29	5.31	101.60	-	-	AVG
5350.000	36.33	5.56	41.89	54.00	-12.11	AVG

Test Mode	IEEE 802.11n 40 / 5190MHZ	Temp/Hum	24(°C)/ 33%RH
Test Item	Band Edge	Test Date	February 8, 2018
Polarize	Horizontal	Test Engineer	Jerry Chuang
Detector	Peak	Test Voltage	-



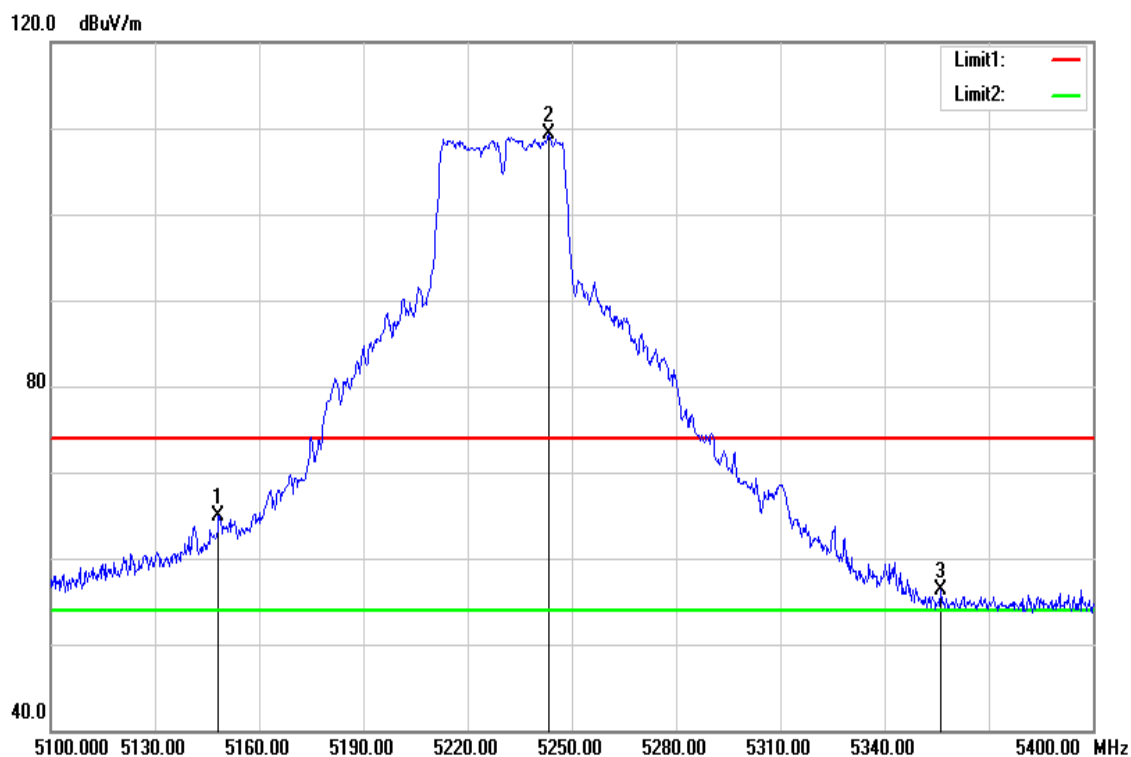
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
5149.940	62.93	5.06	67.99	74.00	-6.01	peak
5187.670	99.23	5.16	104.39	-	-	peak

Test Mode	IEEE 802.11n 40 / 5190MHZ	Temperature	24(°C)/ 33%RH
Test Item	Band Edge	Test Date	February 8, 2018
Polarize	Horizontal	Test Engineer	Jerry Chuang
Detector	Average	Test Voltage	-



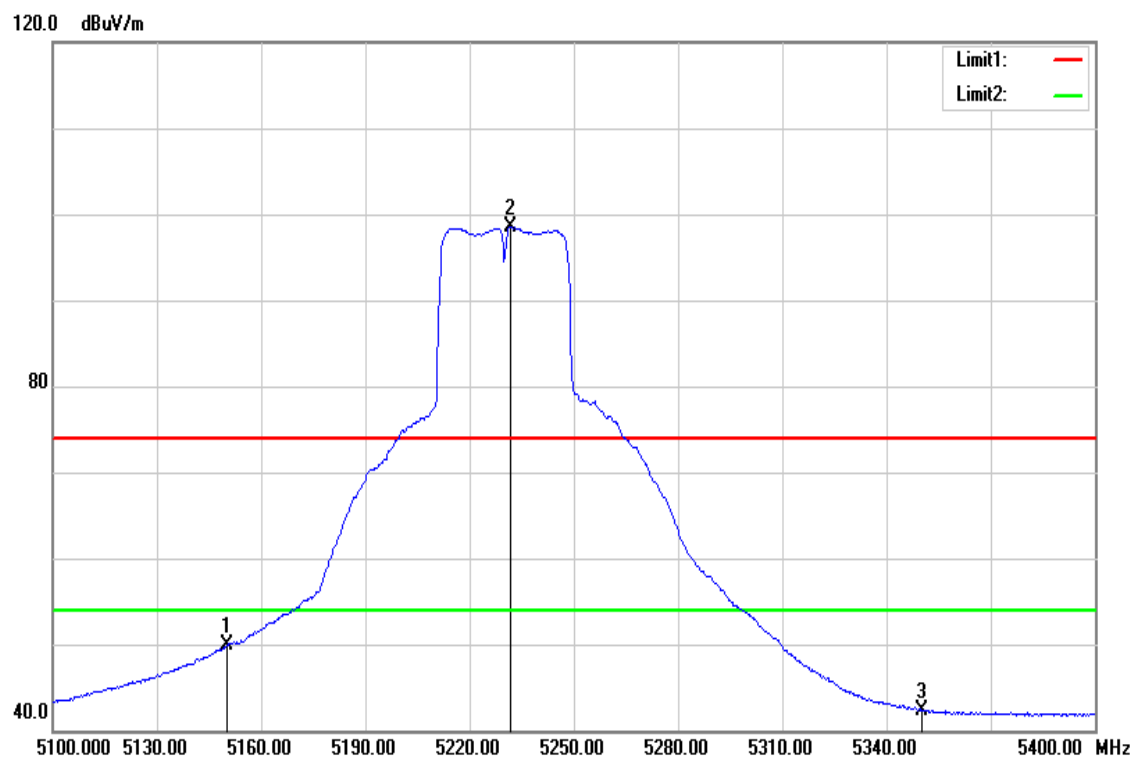
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
5150.000	48.29	5.06	53.35	54.00	-0.65	AVG
5191.630	88.95	5.16	94.11	-	-	AVG

Test Mode	IEEE 802.11n 40 / 5230MHZ	Temp/Hum	24(°C)/ 33%RH
Test Item	Band Edge	Test Date	February 8, 2018
Polarize	Horizontal	Test Engineer	Jerry Chuang
Detector	Peak	Test Voltage	-



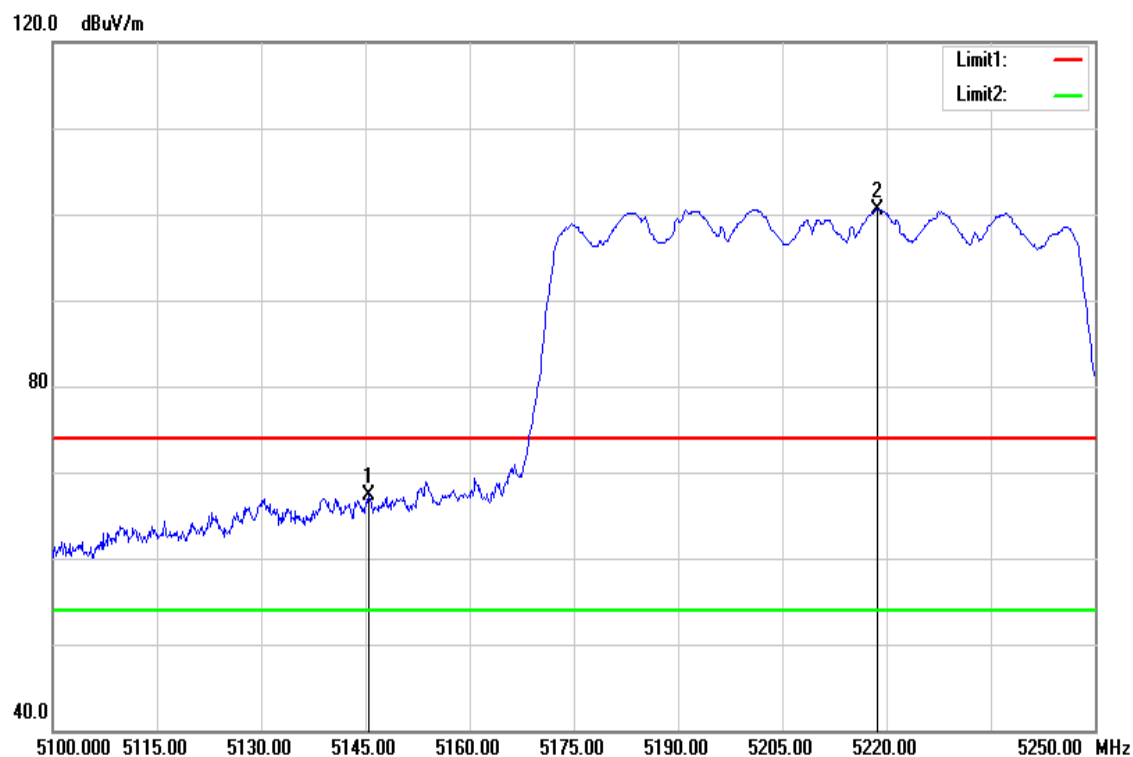
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
5148.300	59.92	5.06	64.98	74.00	-9.02	peak
5243.400	104.00	5.29	109.29	-	-	peak
5356.200	50.72	5.57	56.29	74.00	-17.71	peak

Test Mode	IEEE 802.11n 40 / 5230MHZ	Temp/Hum	24(°C)/ 33%RH
Test Item	Band Edge	Test Date	February 8, 2018
Polarize	Horizontal	Test Engineer	Jerry Chuang
Detector	Average	Test Voltage	-



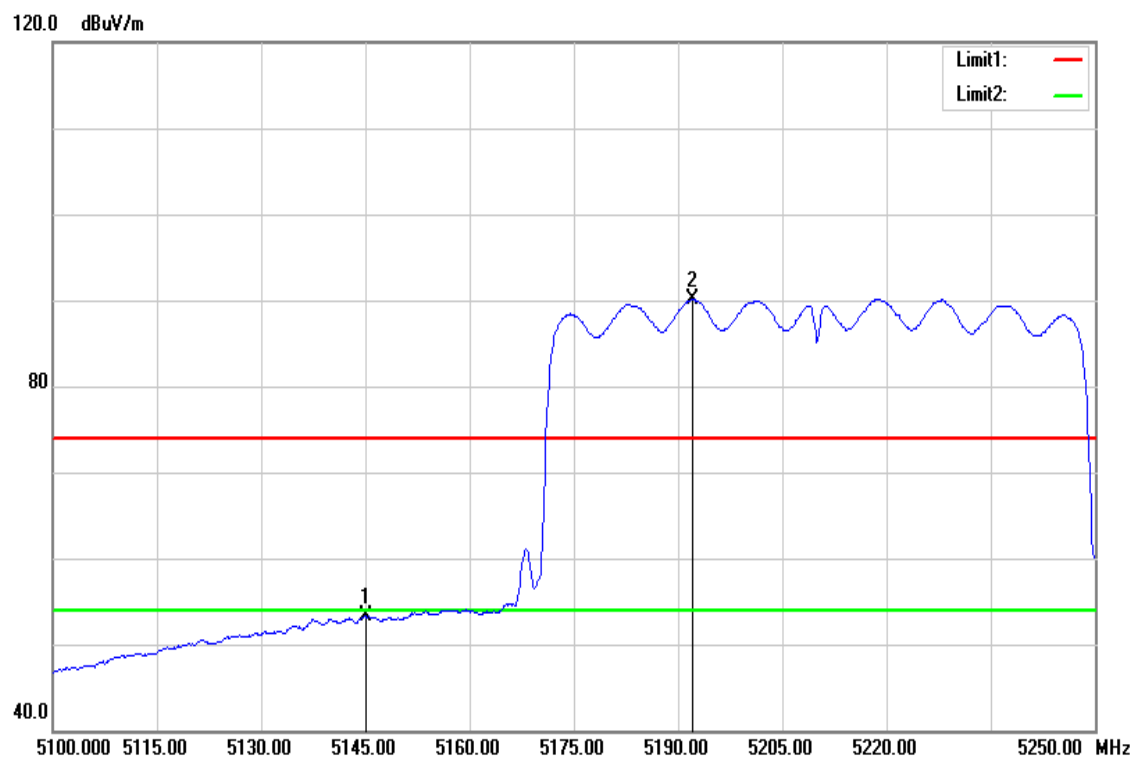
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
5150.000	44.78	5.06	49.84	54.00	-4.16	AVG
5231.700	93.26	5.26	98.52	-	-	AVG
5350.000	36.76	5.56	42.32	54.00	-11.68	AVG

Test Mode	IEEE 802.11ac VHT80 / 5210MHz	Temp/Hum	24(°C)/ 33%RH
Test Item	Band Edge	Test Date	February 8, 2018
Polarize	Horizontal	Test Engineer	Jerry Chuang
Detector	Peak	Test Voltage	-



Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
5145.450	62.16	5.06	67.22	74.00	-6.78	peak
5218.650	95.27	5.23	100.50	-	-	peak

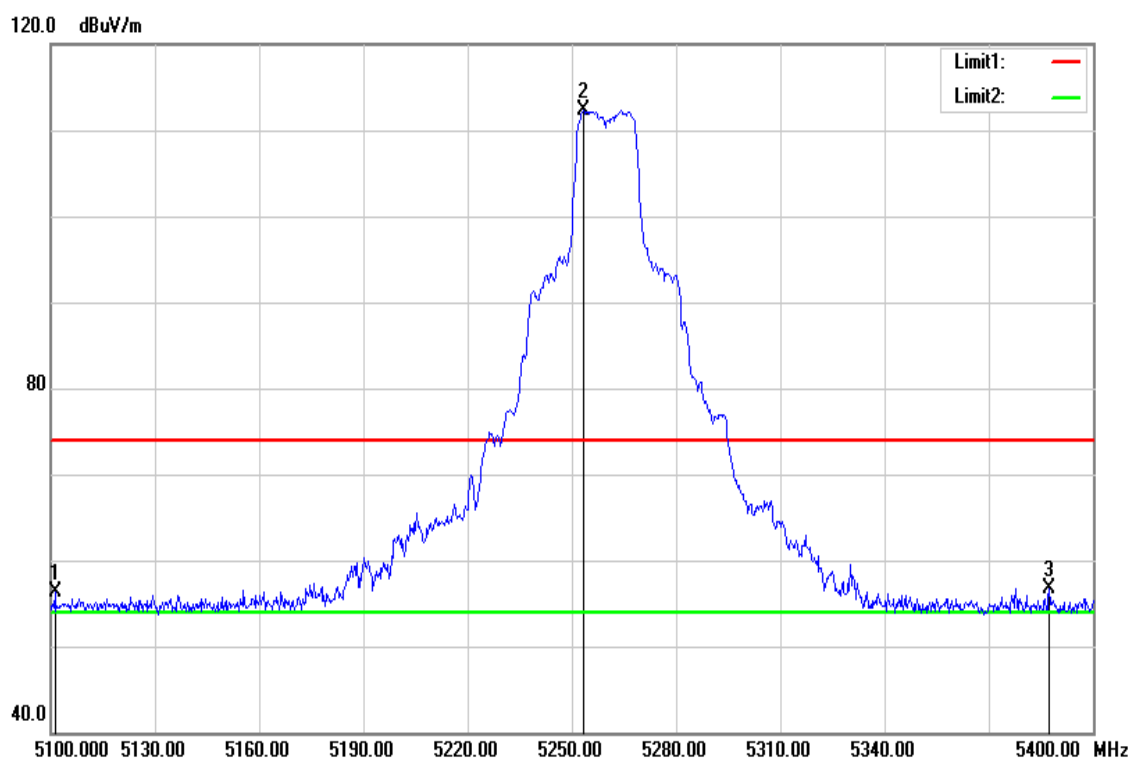
Test Mode	IEEE 802.11ac VHT80 / 5210MHz	Temp/Hum	24(°C)/ 33%RH
Test Item	Band Edge	Test Date	February 8, 2018
Polarize	Horizontal	Test Engineer	Jerry Chuang
Detector	Average	Test Voltage	-



Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
5145.000	48.20	5.06	53.26	54.00	-0.74	AVG
5192.100	85.00	5.17	90.17	-	-	AVG

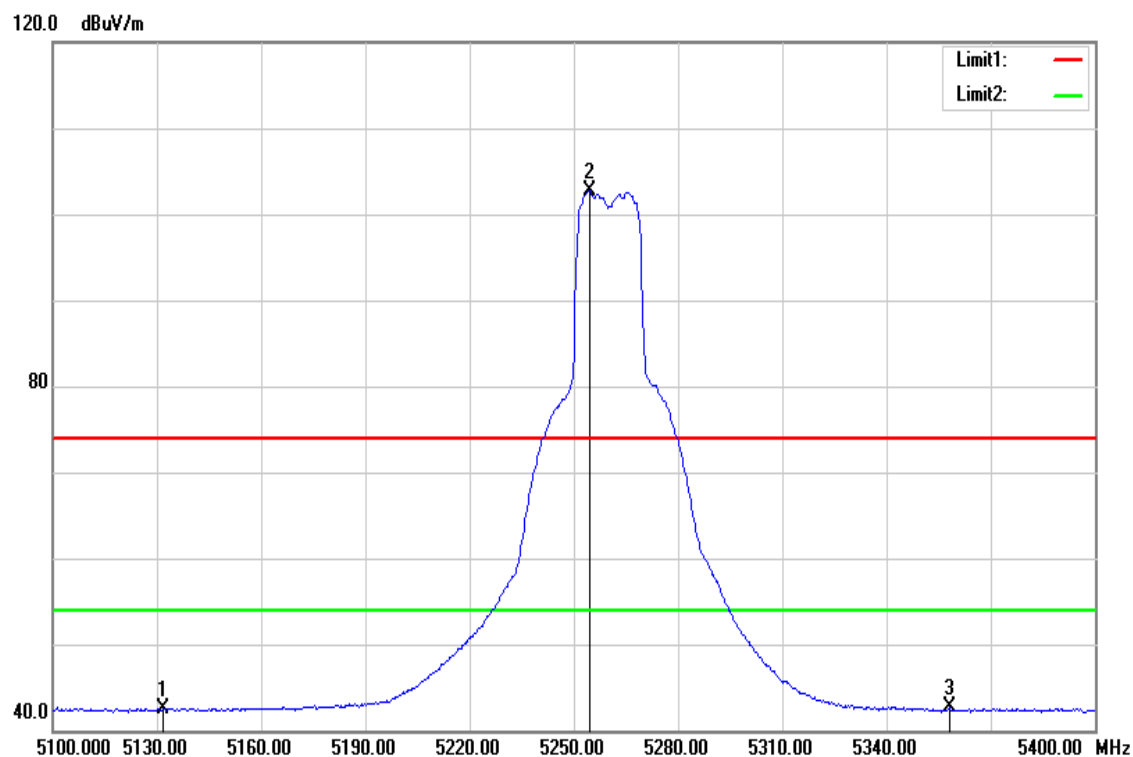
Band Edge Test Data for UNII-2a

Test Mode	IEEE 802.11a / 5260 MHz	Temp/Hum	24(°C)/ 33%RH
Test Item	Band Edge	Test Date	February 8, 2018
Polarize	Horizontal	Test Engineer	Jerry Chuang
Detector	Peak	Test Voltage	-



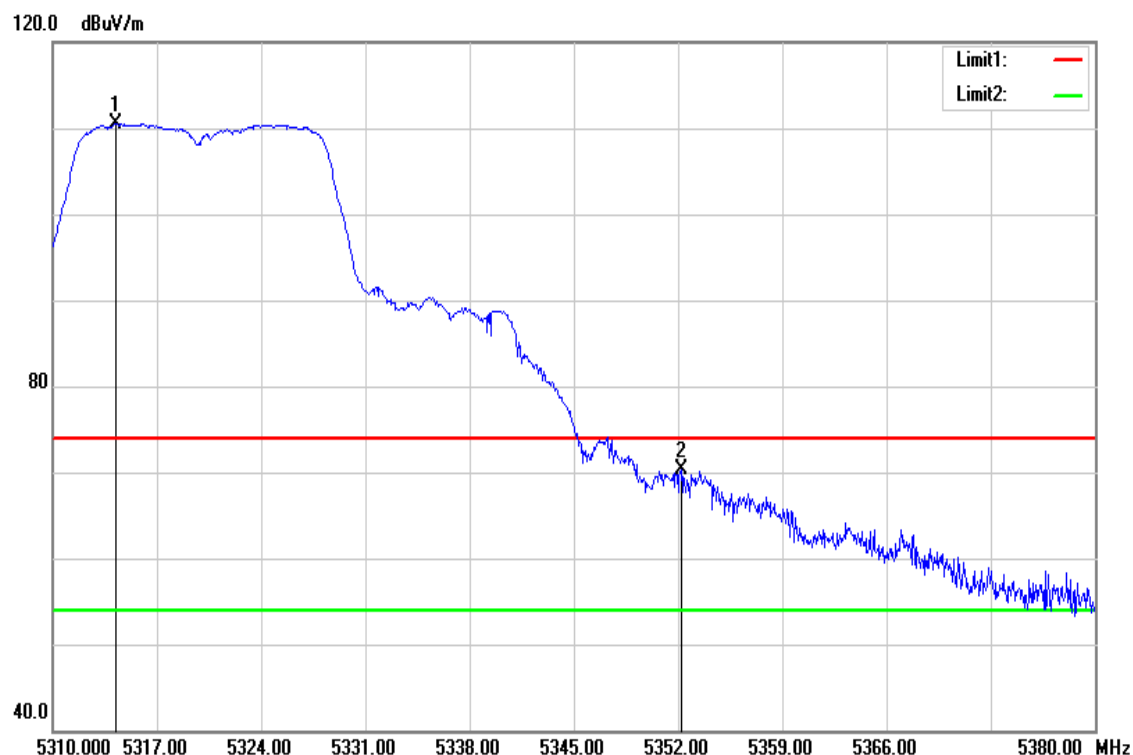
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
5101.200	51.32	4.94	56.26	74.00	-17.74	peak
5253.300	106.93	5.31	112.24	-	-	peak
5387.400	51.12	5.65	56.77	74.00	-17.23	peak

Test Mode	IEEE 802.11a / 5260MHz	Temp/Hum	24(°C)/ 33%RH
Test Item	Band Edge	Test Date	February 8, 2018
Polarize	Horizontal	Test Engineer	Jerry Chuang
Detector	Average	Test Voltage	-



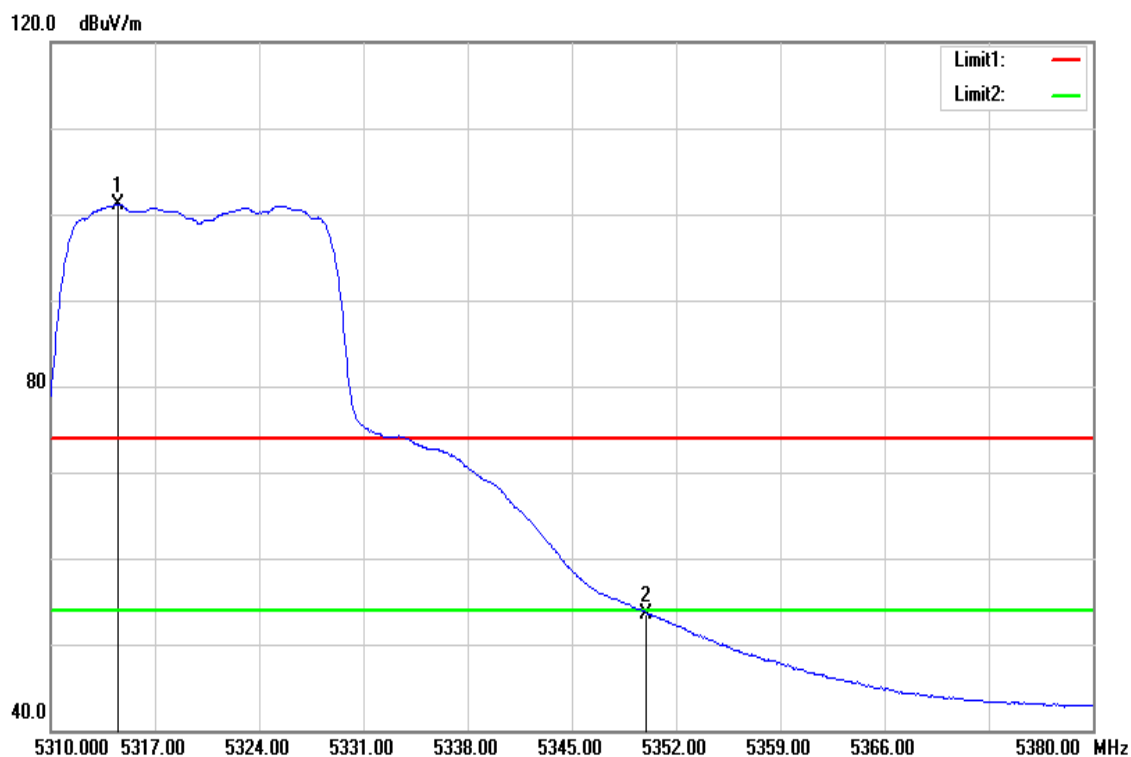
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
5131.800	37.55	5.02	42.57	54.00	-11.43	AVG
5254.500	97.45	5.31	102.76	-	-	AVG
5358.000	37.03	5.58	42.61	54.00	-11.39	AVG

Test Mode	IEEE 802.11a / 5320MHz	Temp/Hum	24(°C)/ 33%RH
Test Item	Band Edge	Test Date	February 8, 2018
Polarize	Horizontal	Test Engineer	Jerry Chuang
Detector	Peak	Test Voltage	-



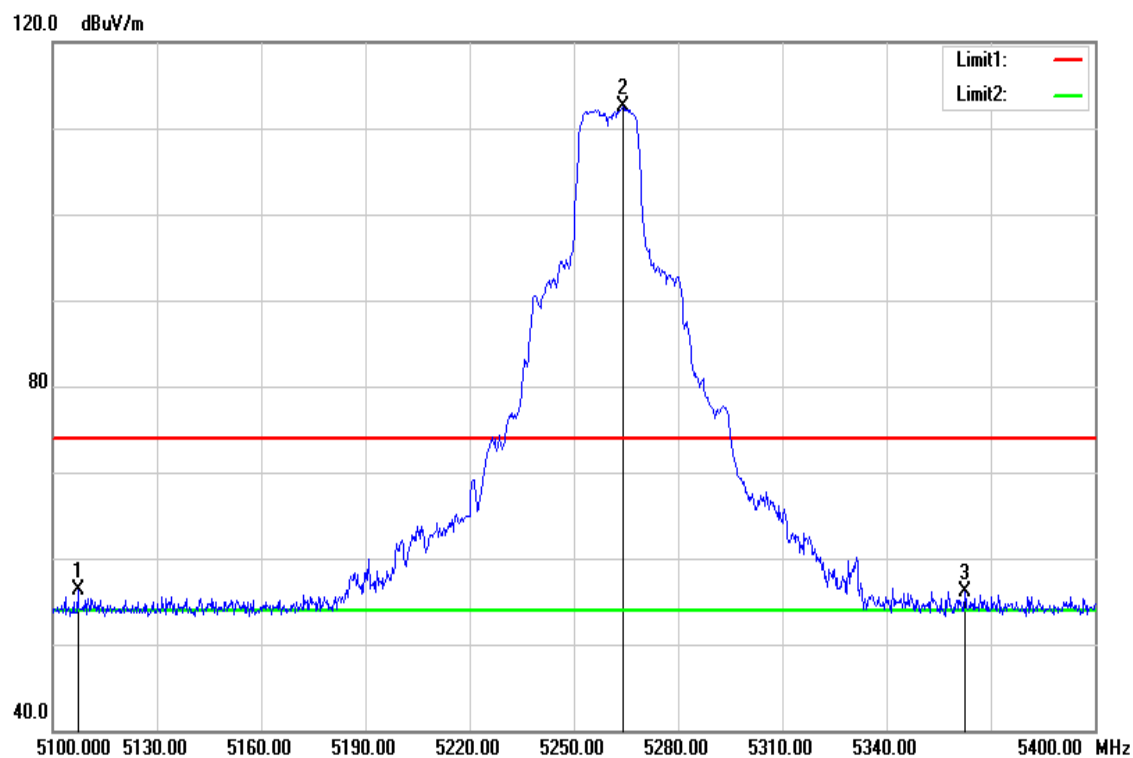
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
5314.270	105.02	5.47	110.49	-	-	peak
5352.210	64.66	5.56	70.22	74.00	-3.78	peak

Test Mode	IEEE 802.11a / 5320MHz	Temp/Hum	24(°C)/ 33%RH
Test Item	Band Edge	Test Date	February 8, 2018
Polarize	Horizontal	Test Engineer	Jerry Chuang
Detector	Average	Test Voltage	-



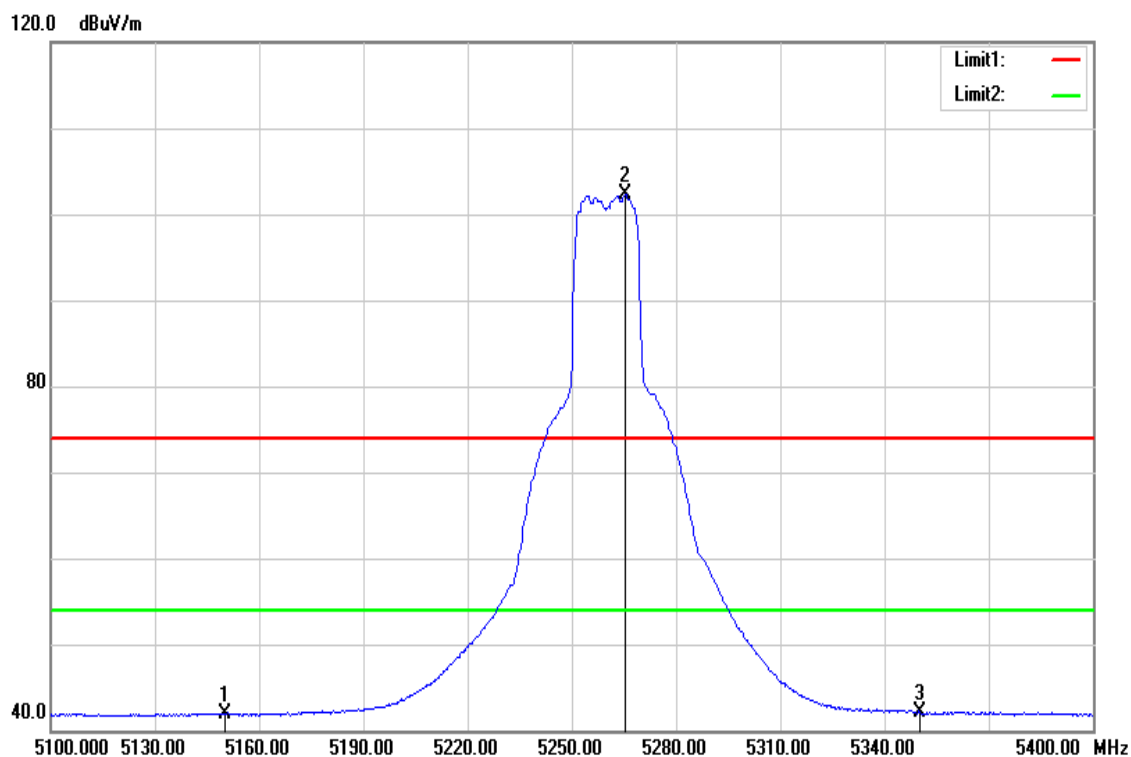
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
5314.550	95.64	5.47	101.11	-	-	AVG
5350.000	48.02	5.56	53.58	54.00	-0.42	AVG

Test Mode	IEEE 802.11n 20 / 5260MHz	Temp/Hum	24(°C)/ 33%RH
Test Item	Band Edge	Test Date	February 8, 2018
Polarize	Horizontal	Test Engineer	Jerry Chuang
Detector	Peak	Test Voltage	-



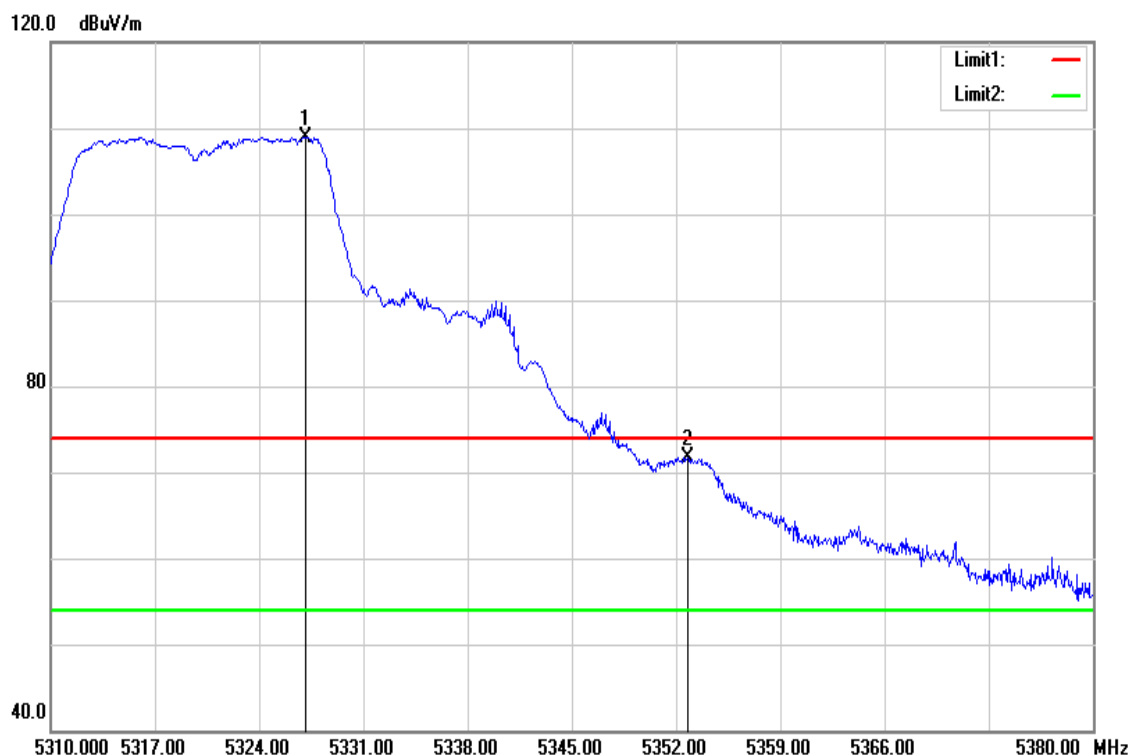
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
5107.200	51.29	4.95	56.24	74.00	-17.76	peak
5264.100	107.08	5.34	112.42	-	-	peak
5362.500	50.48	5.59	56.07	74.00	-17.93	peak

Test Mode	IEEE 802.11n 20 / 5260MHz	Temp/Hum	24(°C)/ 33%RH
Test Item	Band Edge	Test Date	February 8, 2018
Polarize	Horizontal	Test Engineer	Jerry Chuang
Detector	Average	Test Voltage	-



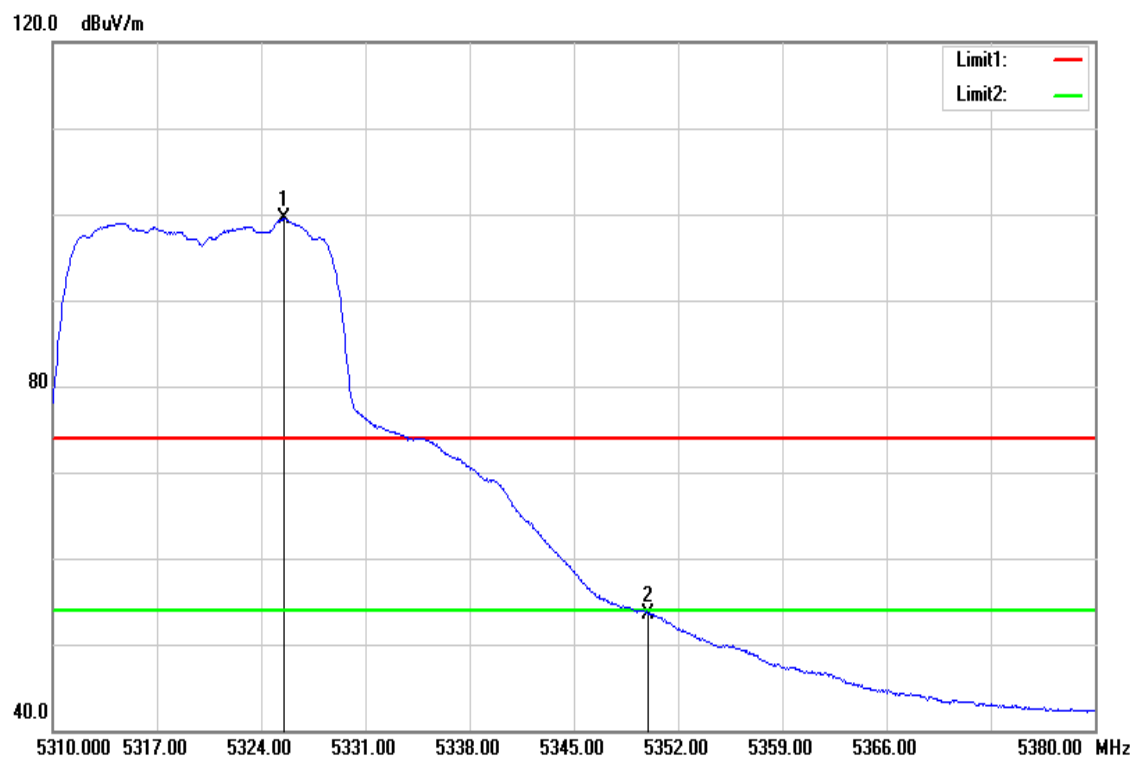
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
5150.000	36.80	5.06	41.86	54.00	-12.14	AVG
5265.300	96.93	5.35	102.28	-	-	AVG
5350.000	36.46	5.56	42.02	54.00	-11.98	AVG

Test Mode	IEEE 802.11n 20 / 5320MHz	Temp/Hum	24(°C)/ 33%RH
Test Item	Band Edge	Test Date	February 8, 2018
Polarize	Horizontal	Test Engineer	Jerry Chuang
Detector	Peak	Test Voltage	-



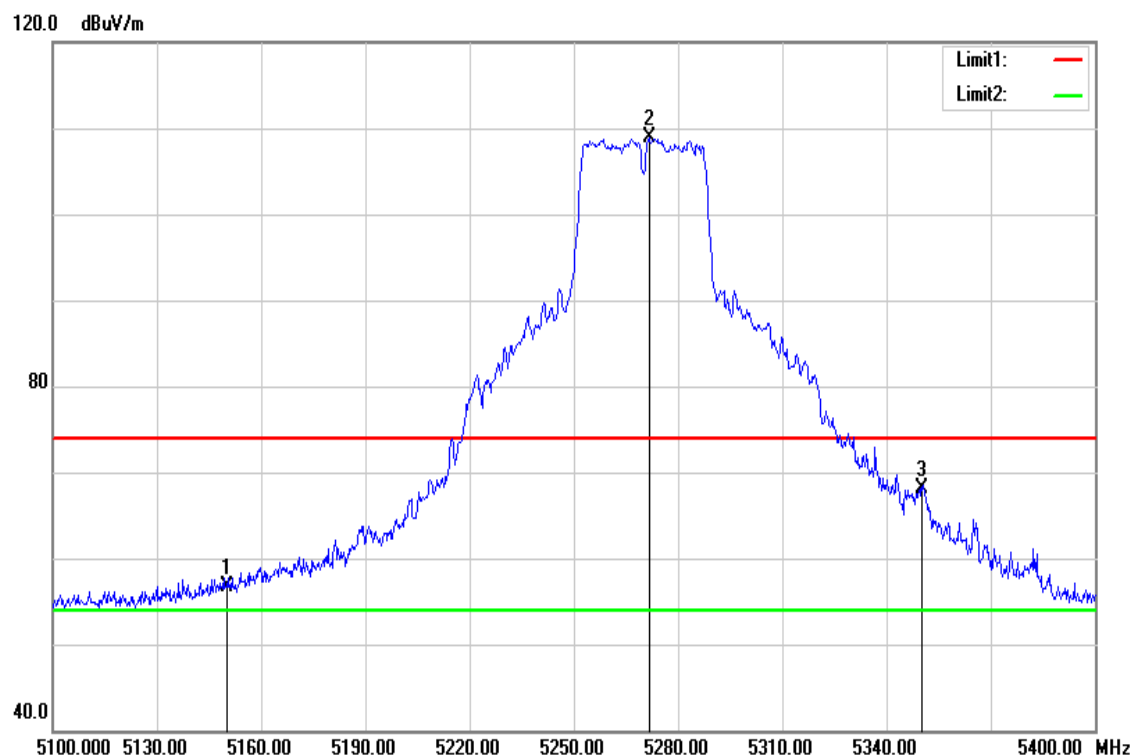
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
5327.150	103.49	5.51	109.00	-	-	peak
5352.770	66.16	5.56	71.72	74.00	-2.28	peak

Test Mode	IEEE 802.11n 20 / 5320MHz	Temperature	24(°C)/ 33%RH
Test Item	Band Edge	Test Date	February 8, 2018
Polarize	Horizontal	Test Engineer	Jerry Chuang
Detector	Average	Test Voltage	-



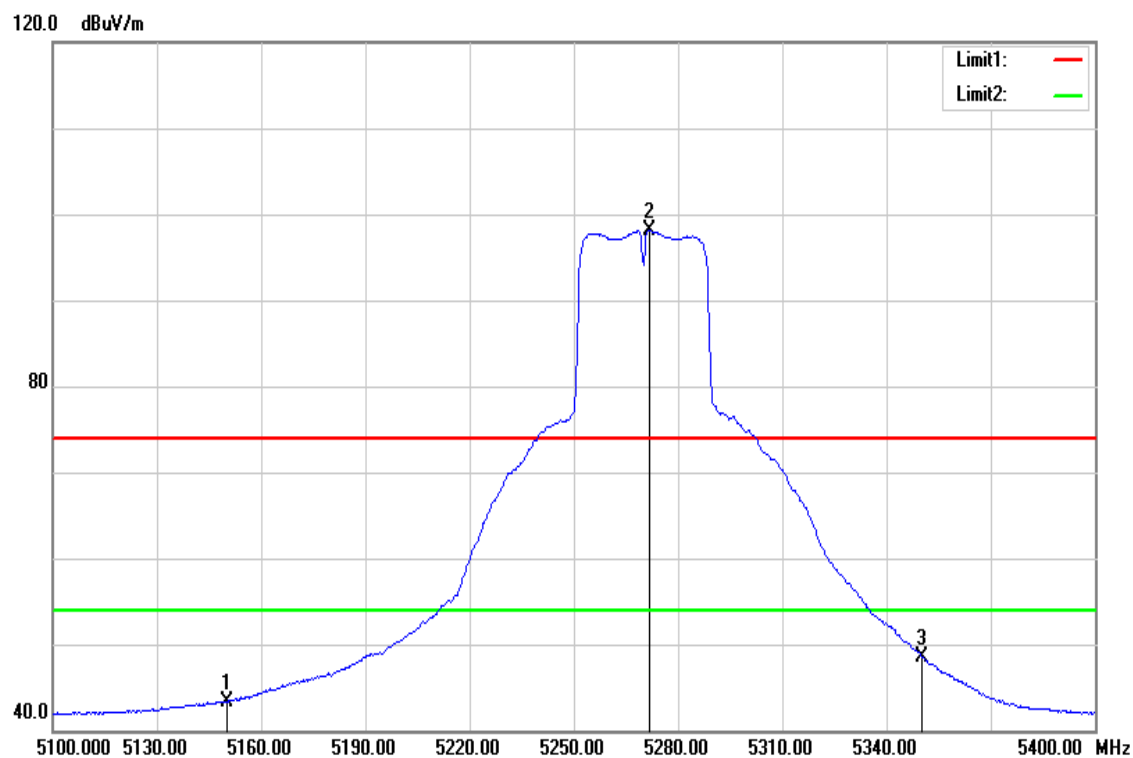
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
5325.540	93.91	5.51	99.42	-	-	AVG
5350.000	47.93	5.56	53.49	54.00	-0.51	AVG

Test Mode	IEEE 802.11n 40 / 5270MHz	Temp/Hum	24(°C)/ 33%RH
Test Item	Band Edge	Test Date	February 8, 2018
Polarize	Horizontal	Test Engineer	Jerry Chuang
Detector	Peak	Test Voltage	-



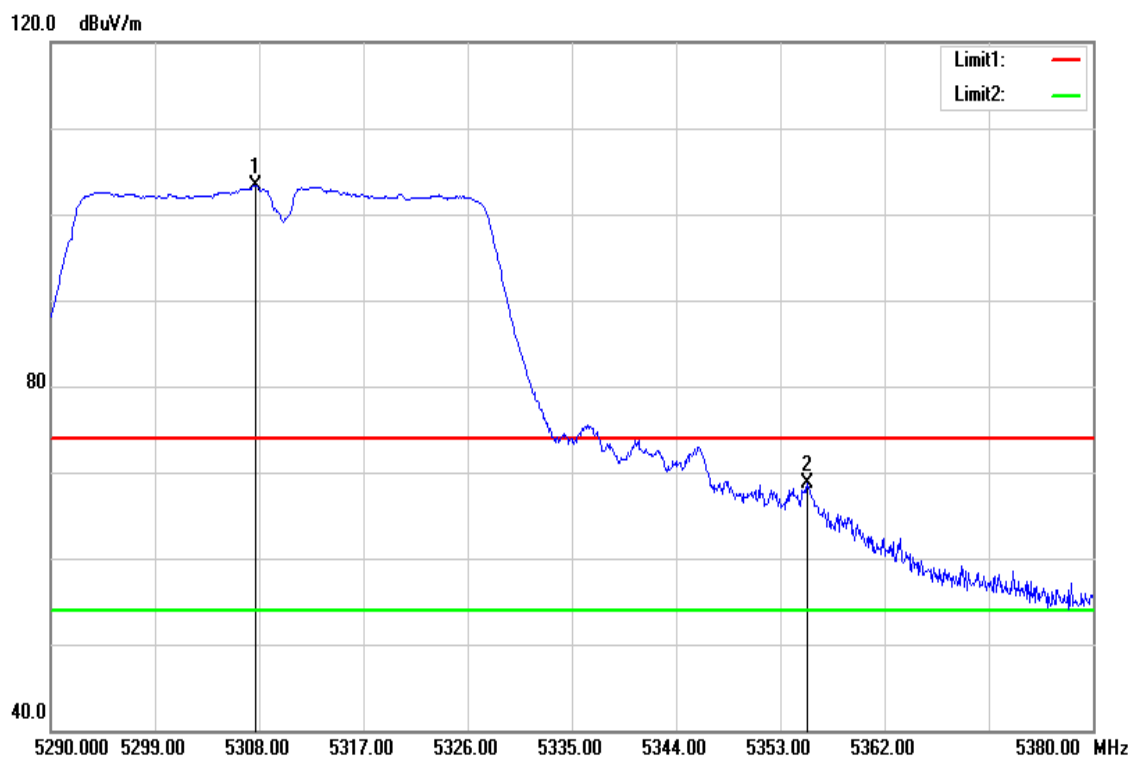
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
5150.000	51.71	5.06	56.77	74.00	-17.23	peak
5271.600	103.50	5.36	108.86	-	-	peak
5350.000	62.48	5.56	68.04	74.00	-5.96	peak

Test Mode	IEEE 802.11n 40 / 5270MHz	Temperature	24(°C)/ 33%RH
Test Item	Band Edge	Test Date	February 8, 2018
Polarize	Horizontal	Test Engineer	Jerry Chuang
Detector	Average	Test Voltage	-



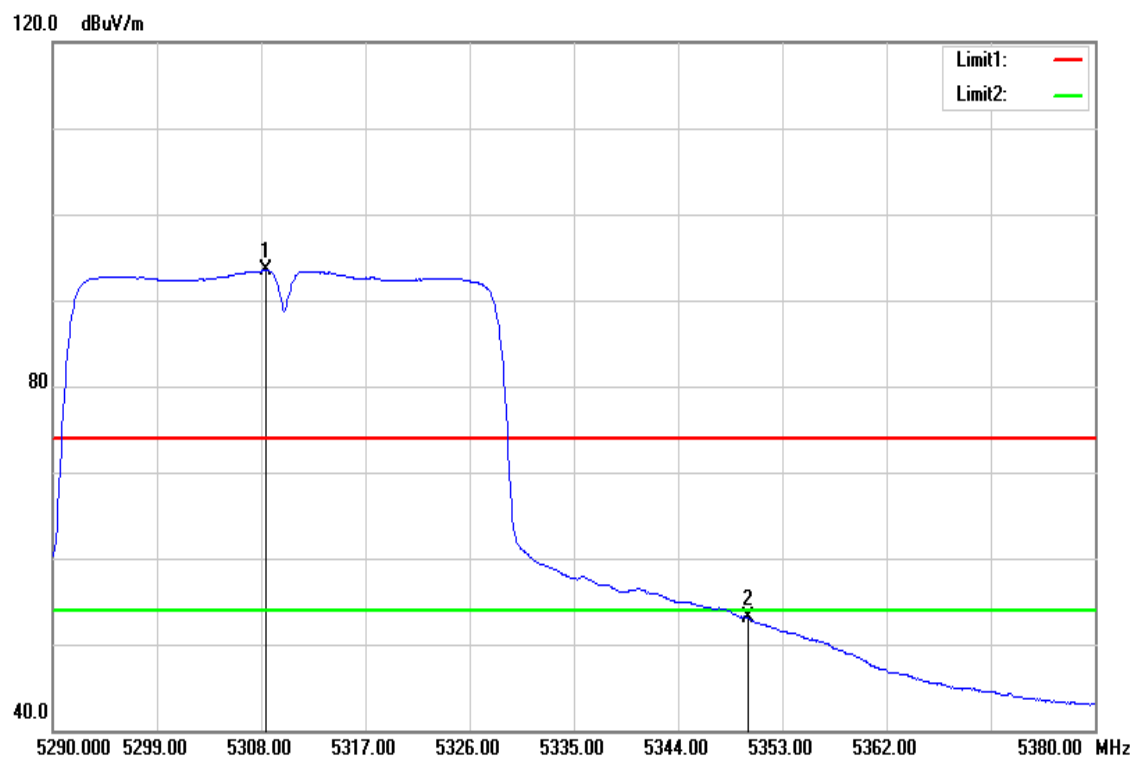
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
5150.000	38.22	5.06	43.28	54.00	-10.72	AVG
5271.600	92.75	5.36	98.11	-	-	AVG
5350.000	42.94	5.56	48.50	54.00	-5.50	AVG

Test Mode	IEEE 802.11n 40 / 5310MHz	Temp/Hum	24(°C)/ 33%RH
Test Item	Band Edge	Test Date	February 8, 2018
Polarize	Horizontal	Test Engineer	Jerry Chuang
Detector	Peak	Test Voltage	-



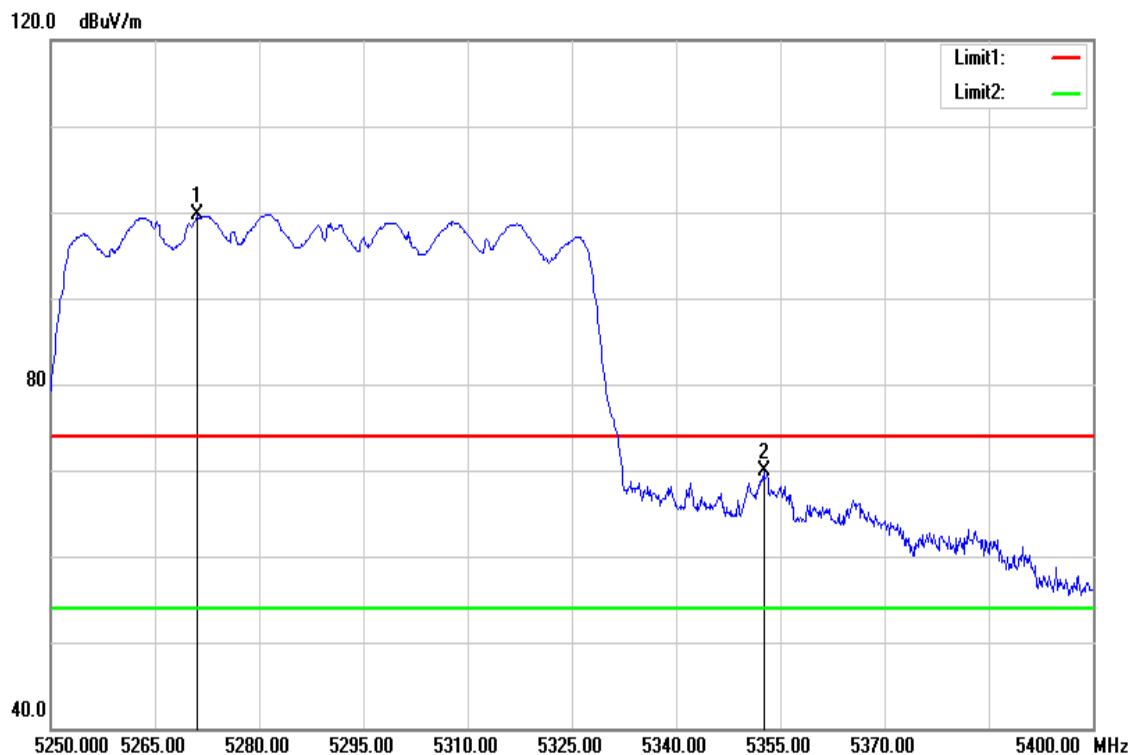
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
5307.640	97.94	5.45	103.39	-	-	peak
5355.340	63.15	5.57	68.72	74.00	-5.28	peak

Test Mode	IEEE 802.11n 40 / 5310MHz	Temperature	24(°C)/ 33%RH
Test Item	Band Edge	Test Date	February 8, 2018
Polarize	Horizontal	Test Engineer	Jerry Chuang
Detector	Average	Test Voltage	-



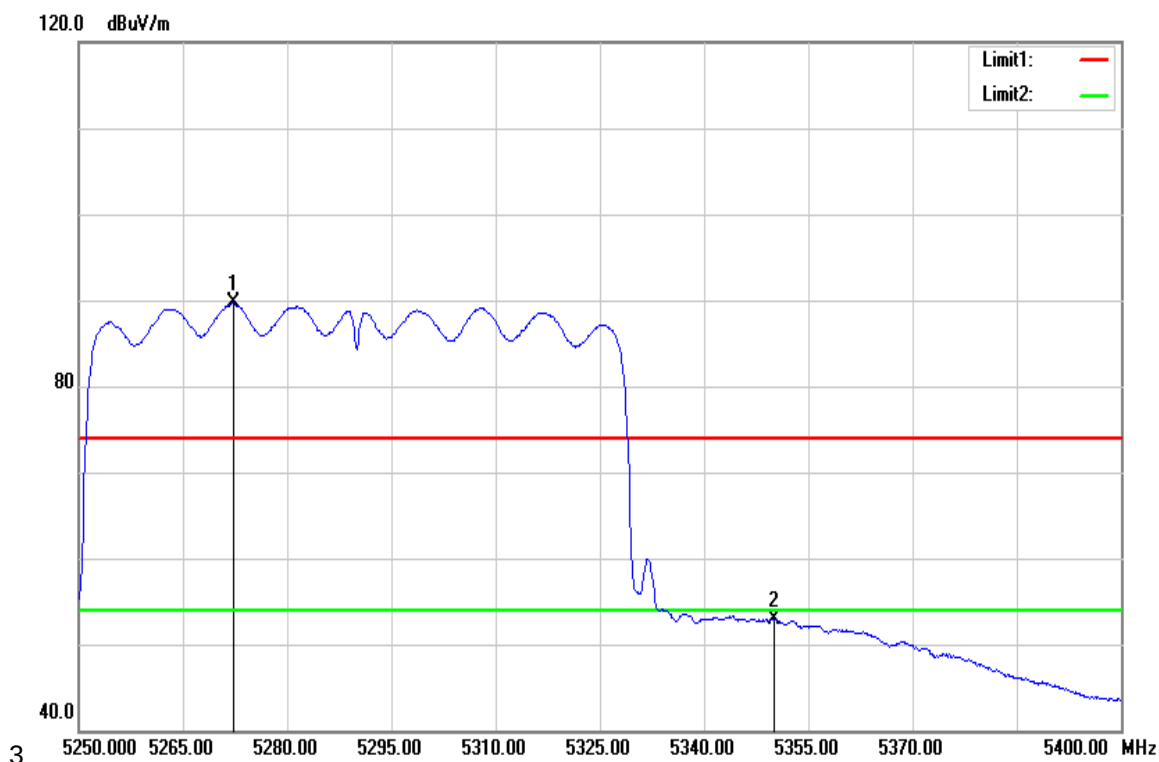
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
5308.450	87.99	5.46	93.45	-	-	AVG
5350.000	47.46	5.56	53.02	54.00	-0.98	AVG

Test Mode	IEEE 802.11ac VHT80 / 5290MHz	Temp/Hum	24(°C)/ 33%RH
Test Item	Band Edge	Test Date	February 8, 2018
Polarize	Horizontal	Test Engineer	Jerry Chuang
Detector	Peak	Test Voltage	-



Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
5271.150	94.31	5.36	99.67	-	-	peak
5352.600	64.38	5.56	69.94	74.00	-4.06	peak

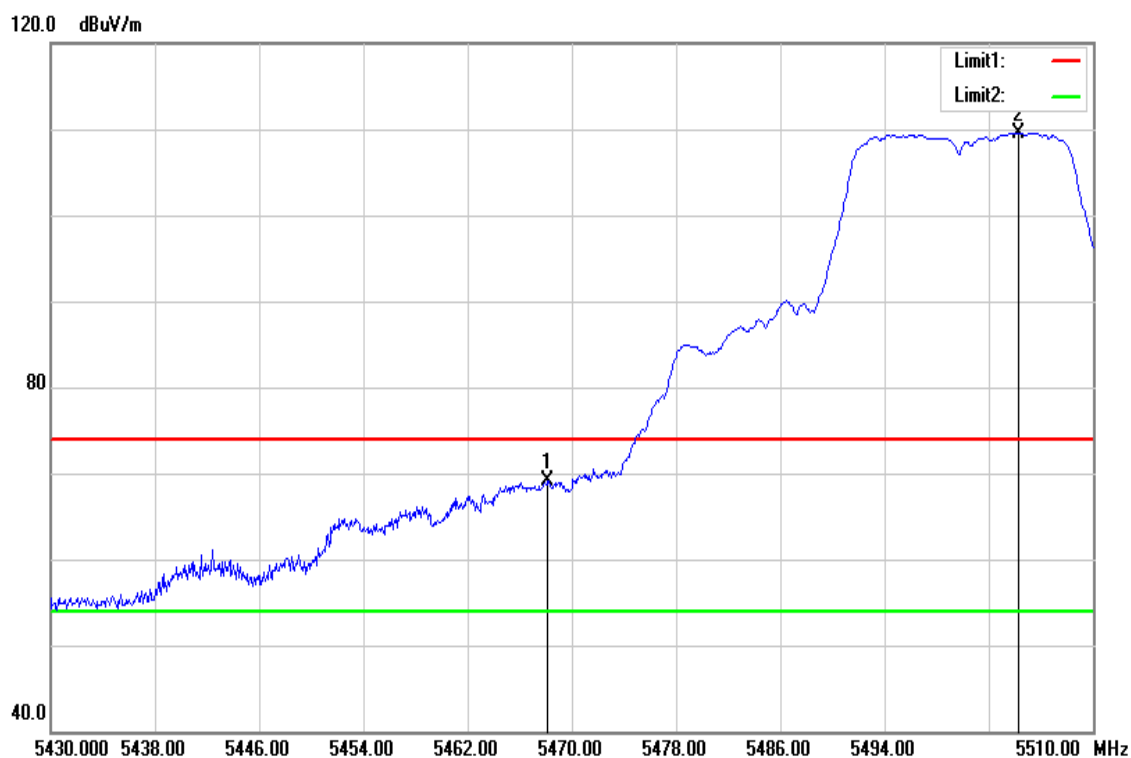
Test Mode	IEEE 802.11ac VHT80 / 5290MHz	Temperature	24(°C)/ 33%RH
Test Item	Band Edge	Test Date	February 8, 2018
Polarize	Horizontal	Test Engineer	Jerry Chuang
Detector	Average	Test Voltage	-



Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
5272.200	84.30	5.36	89.66	-	-	AVG
5350.000	47.41	5.56	52.97	54.00	-1.03	AVG

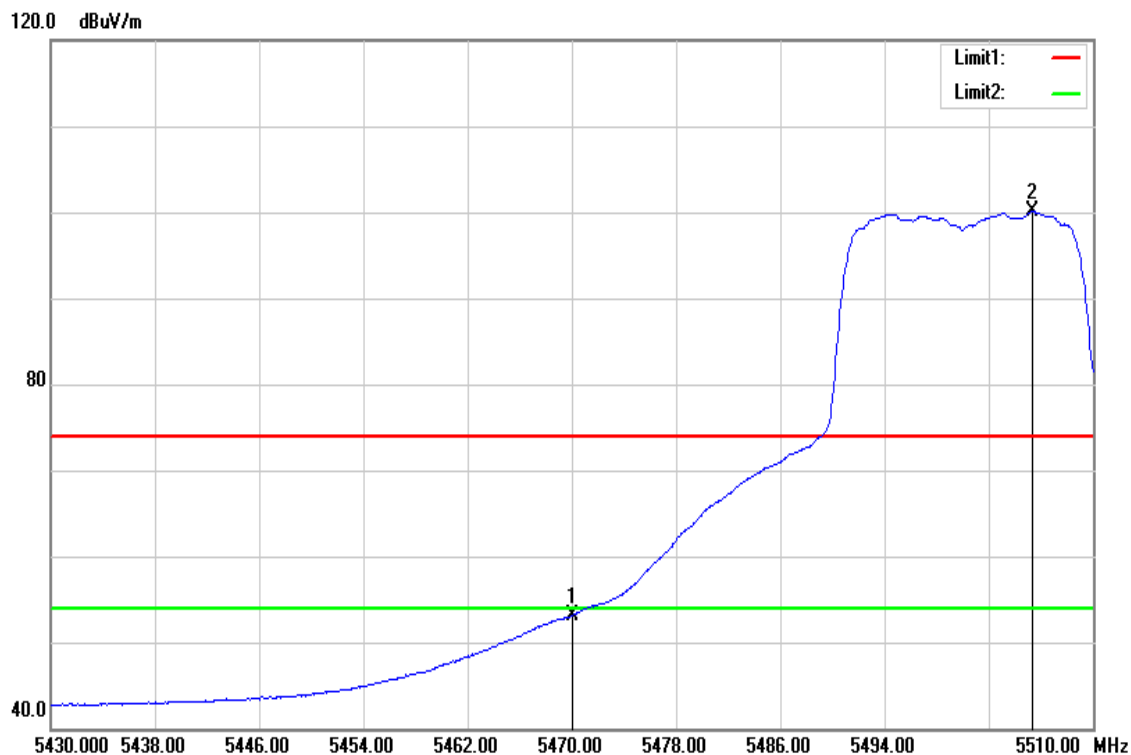
Band Edge Test Data for UNII-2c

Test Mode	IEEE 802.11a / 5500MHz	Temp/Hum	24(°C)/ 33%RH
Test Item	Band Edge	Test Date	February 8, 2018
Polarize	Horizontal	Test Engineer	Jerry Chuang
Detector	Peak	Test Voltage	-



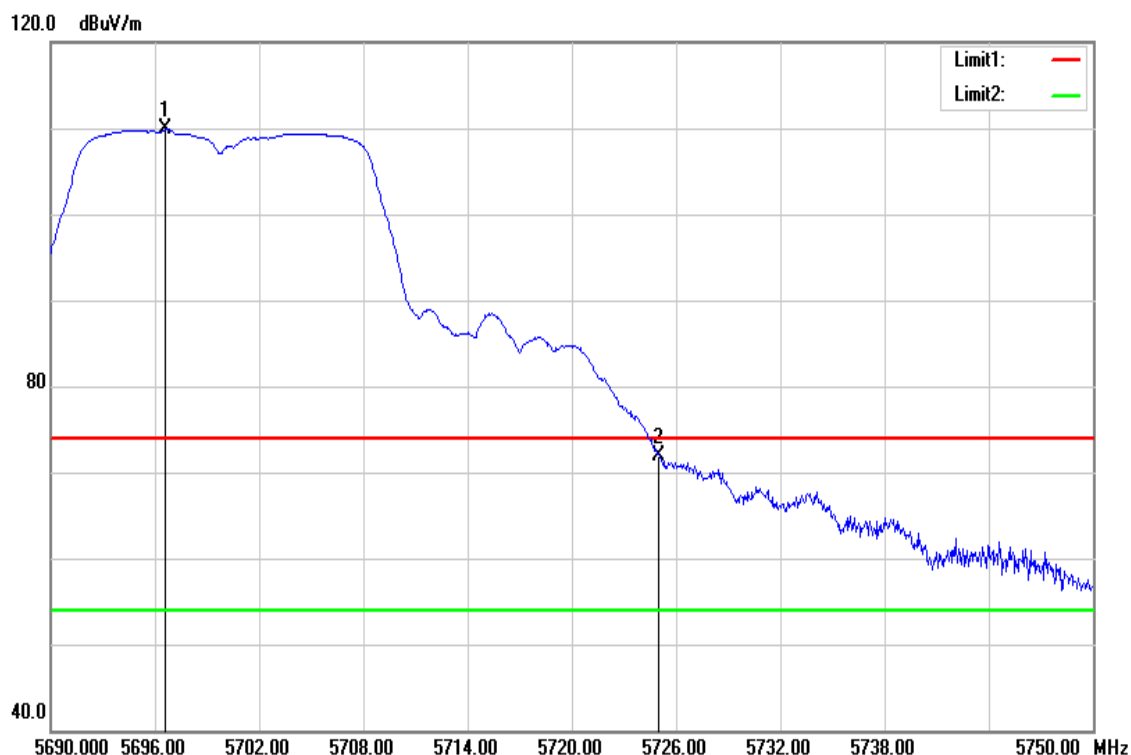
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
5468.160	63.26	5.85	69.11	74.00	-4.89	peak
5504.240	103.62	5.95	109.57	-	-	peak

Test Mode	IEEE 802.11a / 5500MHz	Temperature	24(°C)/ 33%RH
Test Item	Band Edge	Test Date	February 8, 2018
Polarize	Horizontal	Test Engineer	Jerry Chuang
Detector	Average	Test Voltage	-



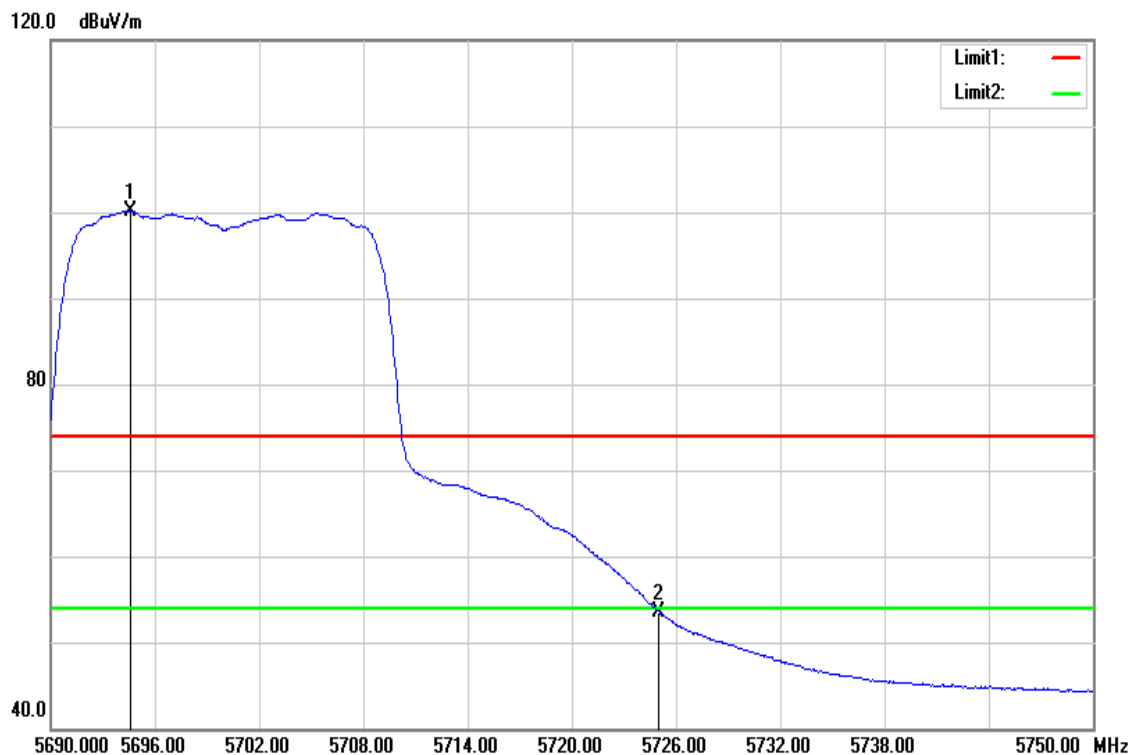
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
5470.000	47.27	5.85	53.12	54.00	-0.88	AVG
5505.360	94.09	5.95	100.04	-	-	AVG

Test Mode	IEEE 802.11a / 5700 MHz	Temp/Hum	24(°C)/ 33%RH
Test Item	Band Edge	Test Date	February 8, 2018
Polarize	Horizontal	Test Engineer	Jerry Chuang
Detector	Peak	Test Voltage	-



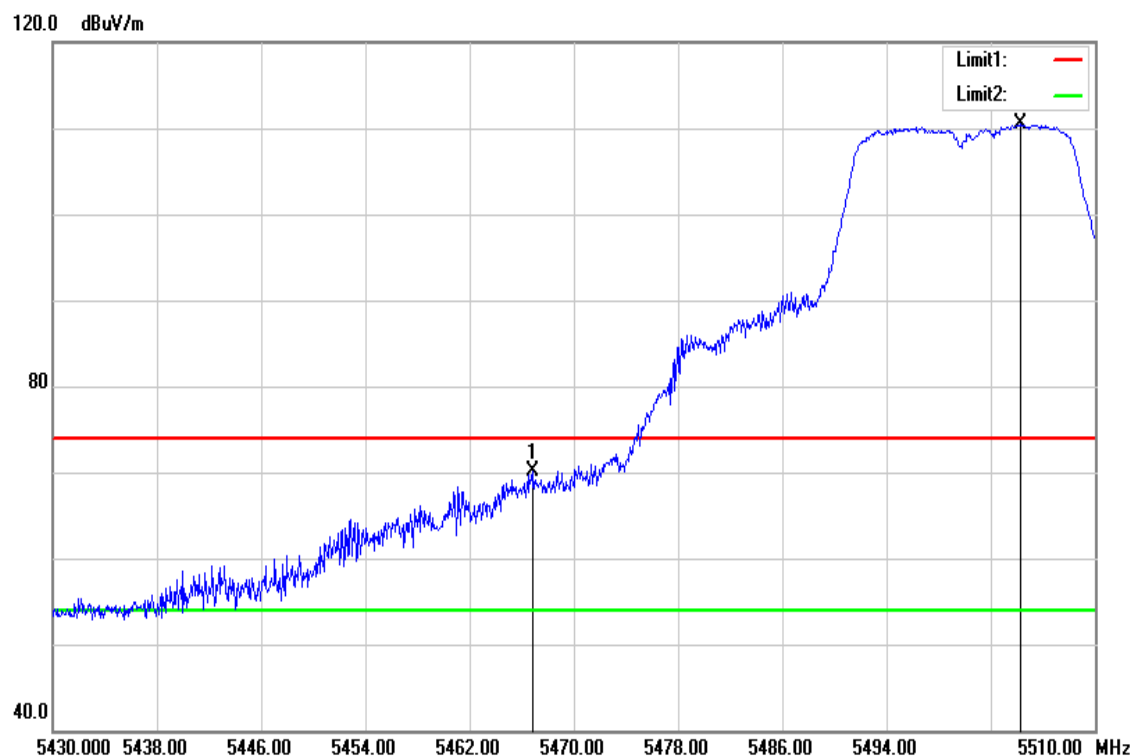
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
5696.600	103.38	6.45	109.83	-	-	peak
5725.000	65.39	6.52	71.91	74.00	-2.09	peak

Test Mode	IEEE 802.11a / 5700 MHz	Temperature	24(°C)/ 33%RH
Test Item	Band Edge	Test Date	February 8, 2018
Polarize	Horizontal	Test Engineer	Jerry Chuang
Detector	Average	Test Voltage	-



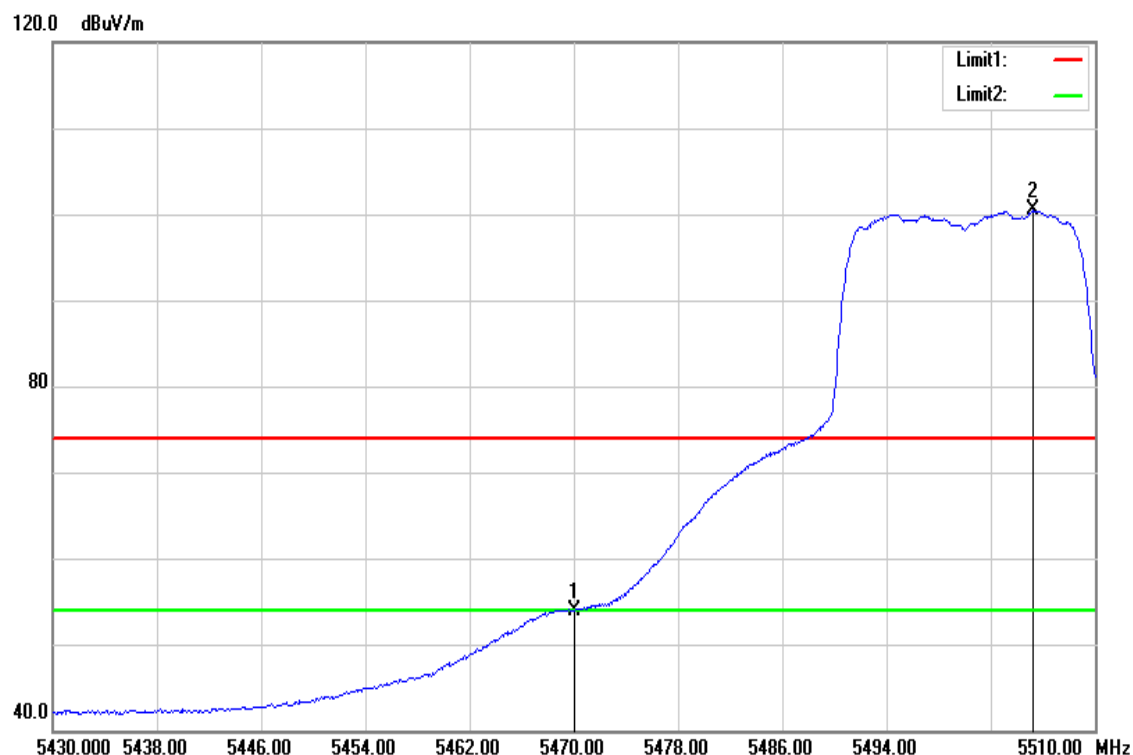
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
5694.560	93.72	6.44	100.16	-	-	AVG
5725.000	46.91	6.52	53.43	54.00	-0.57	AVG

Test Mode	IEEE 802.11n 20 / 5500MHz	Temp/Hum	24(°C)/ 33%RH
Test Item	Band Edge	Test Date	February 8, 2018
Polarize	Horizontal	Test Engineer	Jerry Chuang
Detector	Peak	Test Voltage	-



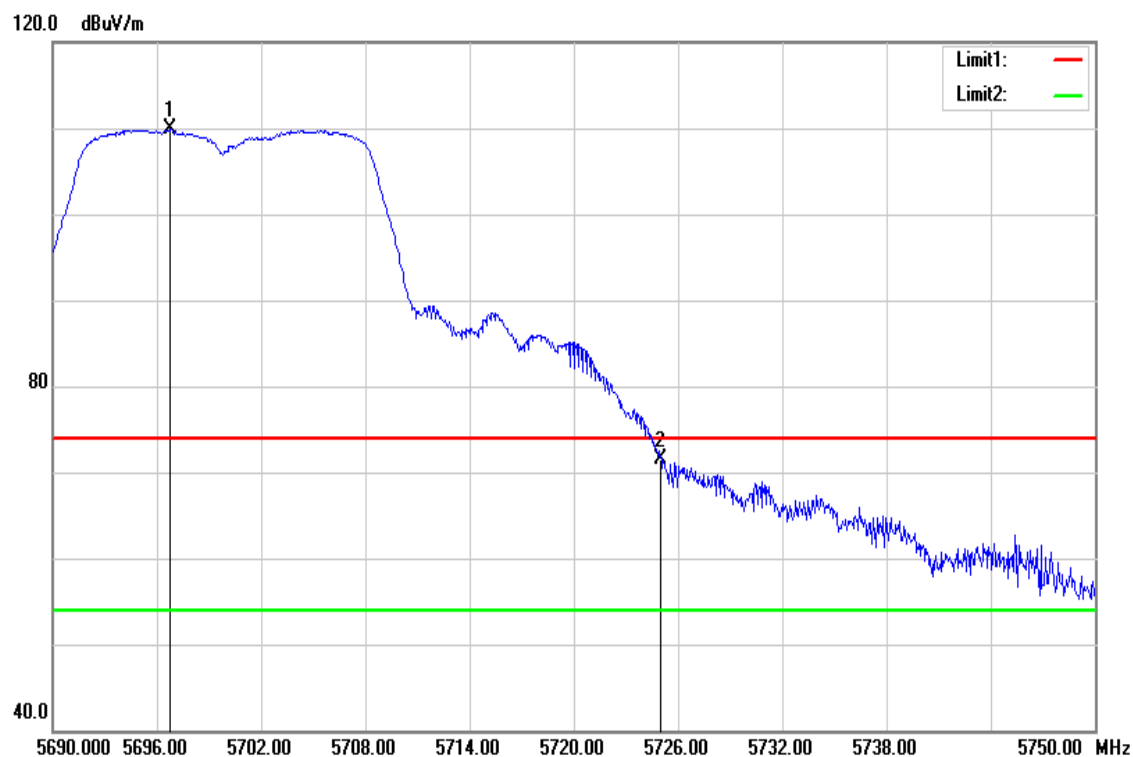
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
5466.880	64.34	5.85	70.19	74.00	-3.81	peak
5504.240	104.50	5.95	110.45	-	-	peak

Test Mode	IEEE 802.11n 20 / 5500MHz	Temperature	24(°C)/ 33%RH
Test Item	Band Edge	Test Date	February 8, 2018
Polarize	Horizontal	Test Engineer	Jerry Chuang
Detector	Average	Test Voltage	-



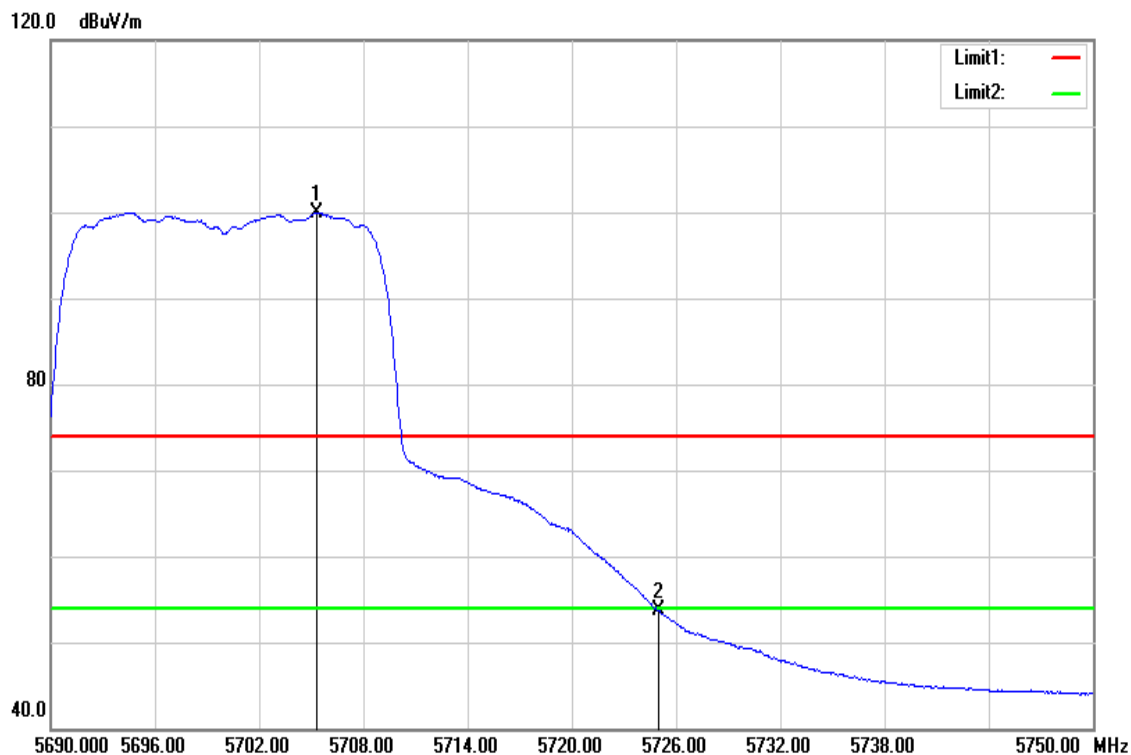
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
5470.000	48.01	5.85	53.86	54.00	-0.14	AVG
5505.280	94.46	5.95	100.41	-	-	AVG

Test Mode	IEEE 802.11n 20 / 5700 MHz	Temp/Hum	24(°C)/ 33%RH
Test Item	Band Edge	Test Date	February 8, 2018
Polarize	Horizontal	Test Engineer	Jerry Chuang
Detector	Peak	Test Voltage	-



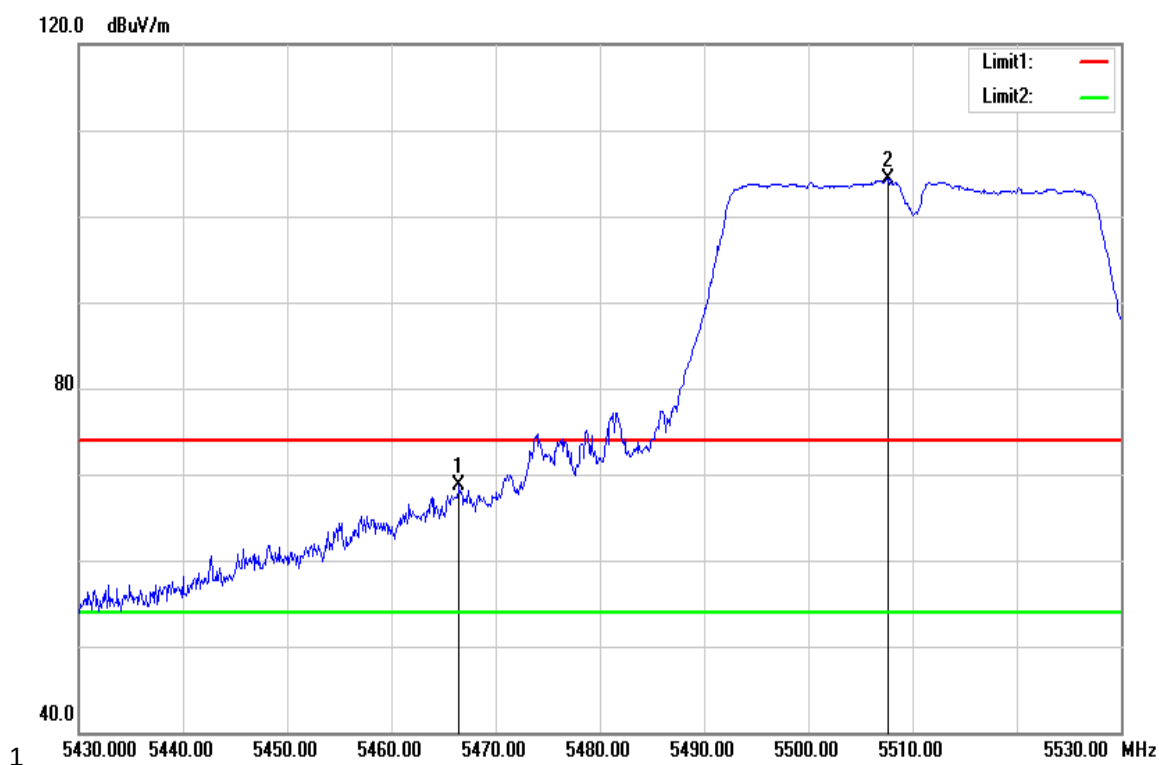
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
5696.720	103.41	6.45	109.86	-	-	peak
5725.000	64.98	6.52	71.50	74.00	-2.50	peak

Test Mode	IEEE 802.11n 20 / 5700 MHz	Temperature	24(°C)/ 33%RH
Test Item	Band Edge	Test Date	February 8, 2018
Polarize	Horizontal	Test Engineer	Jerry Chuang
Detector	Average	Test Voltage	-



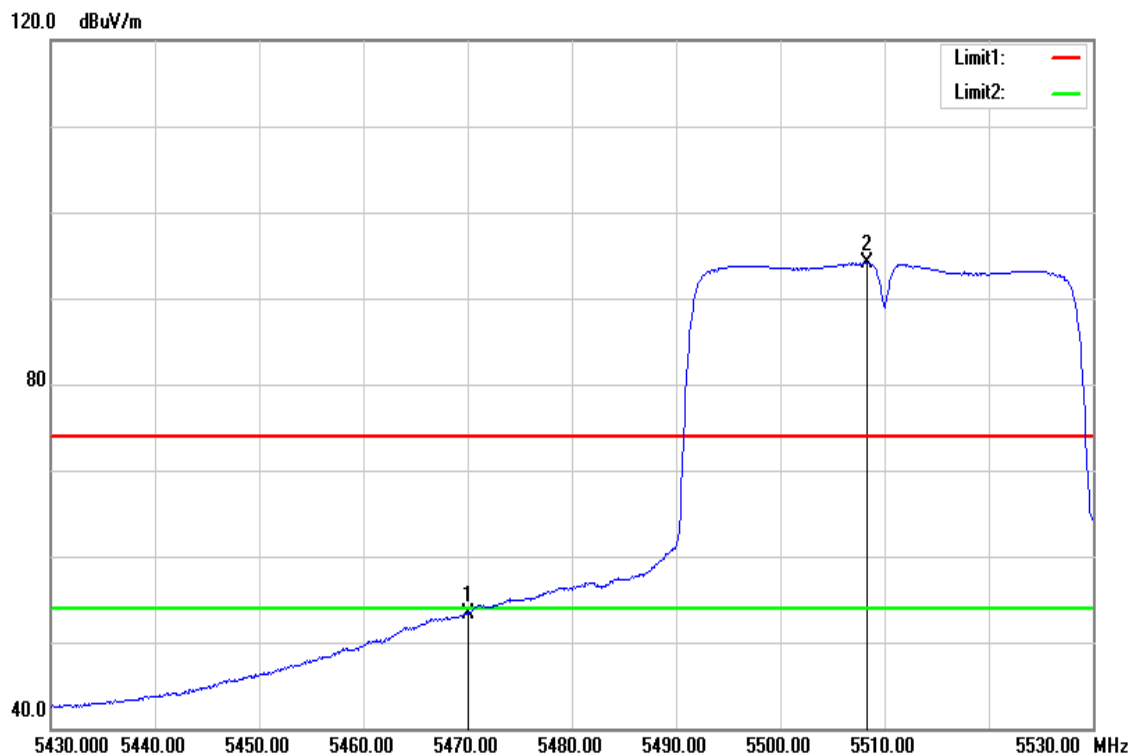
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
5705.300	93.49	6.47	99.96	-	-	AVG
5725.000	47.13	6.52	53.65	54.00	-0.35	AVG

Test Mode	IEEE 802.11n 40 / 5510 MHz	Temp/Hum	24(°C)/ 33%RH
Test Item	Band Edge	Test Date	February 8, 2018
Polarize	Horizontal	Test Engineer	Jerry Chuang
Detector	Peak	Test Voltage	-



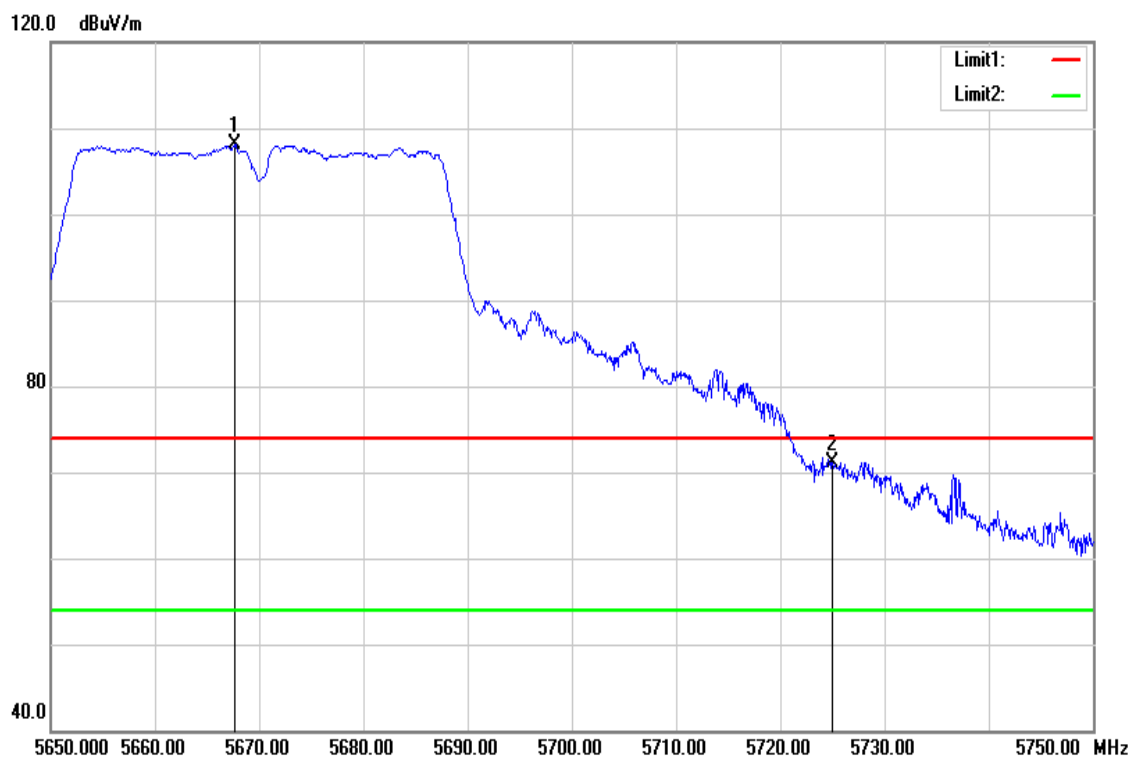
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
5466.500	62.84	5.85	68.69	74.00	-5.31	peak
5507.600	98.42	5.96	104.38	-	-	peak

Test Mode	IEEE 802.11n 40 / 5510 MHz	Temperature	24(°C)/ 33%RH
Test Item	Band Edge	Test Date	February 8, 2018
Polarize	Horizontal	Test Engineer	Jerry Chuang
Detector	Average	Test Voltage	-



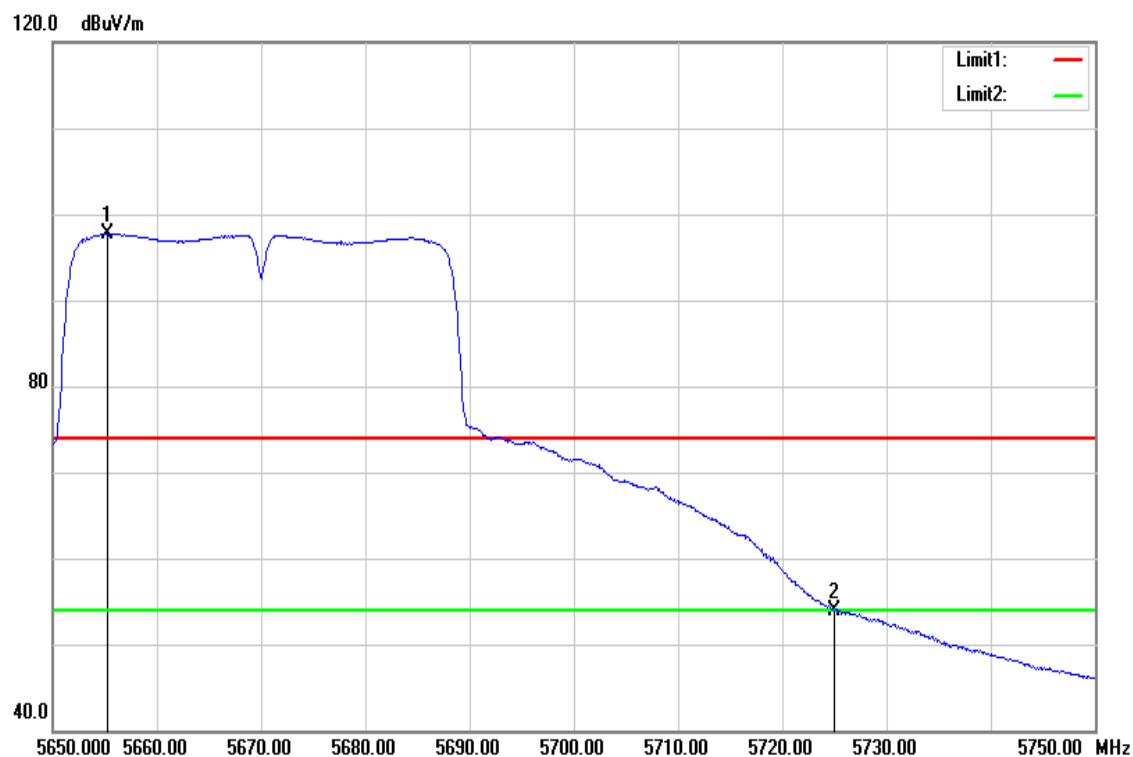
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
5470.000	47.46	5.85	53.31	54.00	-0.69	AVG
5508.300	88.11	5.96	94.07	-	-	AVG

Test Mode	IEEE 802.11n 40 / 5670 MHz	Temp/Hum	24(°C)/ 33%RH
Test Item	Band Edge	Test Date	February 8, 2018
Polarize	Horizontal	Test Engineer	Jerry Chuang
Detector	Peak	Test Voltage	-



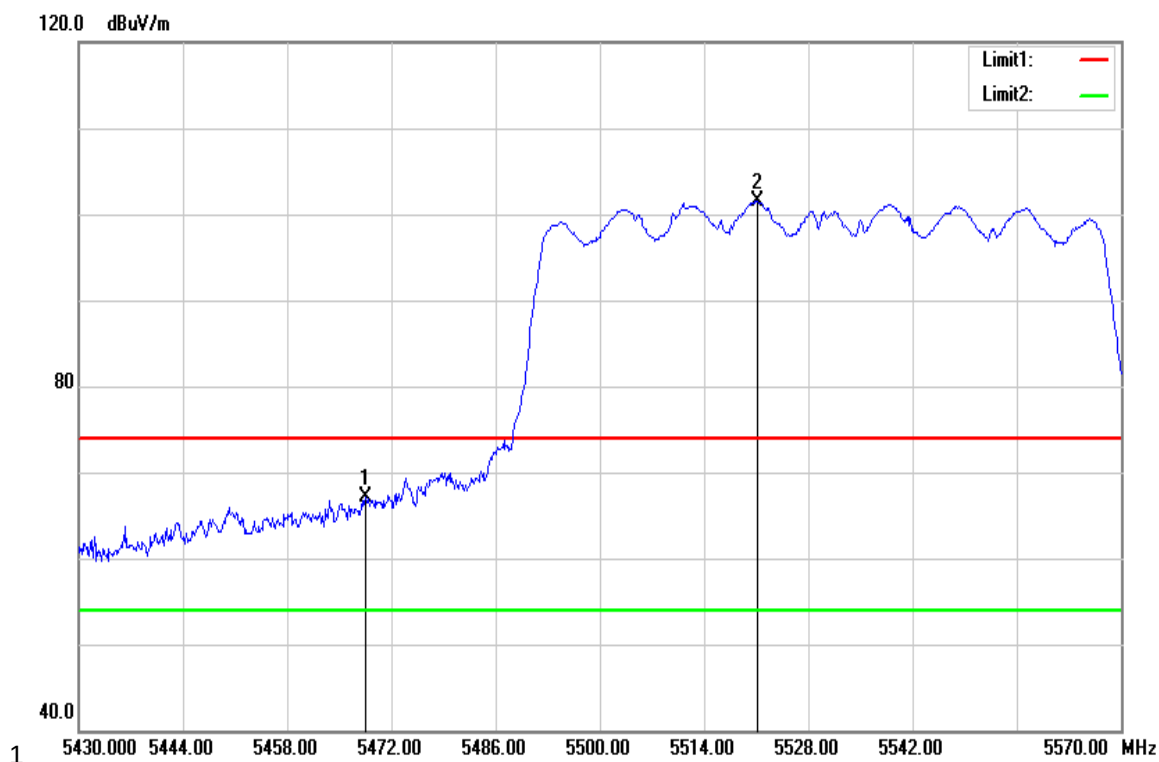
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
5667.600	101.73	6.37	108.10	-	-	peak
5725.000	64.51	6.52	71.03	74.00	-2.97	peak

Test Mode	IEEE 802.11n 40 / 5670 MHz	Temperature	24(°C)/ 33%RH
Test Item	Band Edge	Test Date	February 8, 2018
Polarize	Horizontal	Test Engineer	Jerry Chuang
Detector	Average	Test Voltage	-



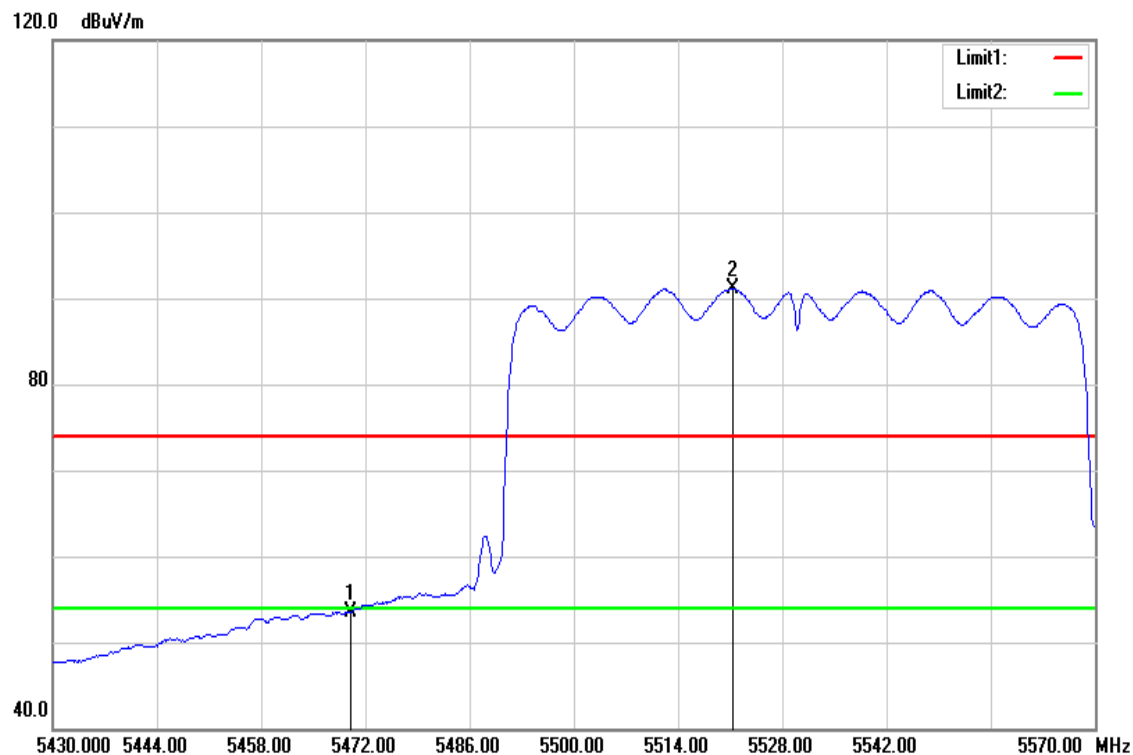
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
5655.200	91.33	6.34	97.67	-	-	AVG
5725.000	47.38	6.52	53.90	54.00	-0.10	AVG

Test Mode	IEEE 802.11ac VHT80 / 5530 MHz	Temp/Hum	24(°C)/ 33%RH
Test Item	Band Edge	Test Date	February 8, 2018
Polarize	Horizontal	Test Engineer	Jerry Chuang
Detector	Peak	Test Voltage	-



Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
5468.500	61.26	5.85	67.11	74.00	-6.89	peak
5521.140	95.46	5.99	101.45	-	-	peak

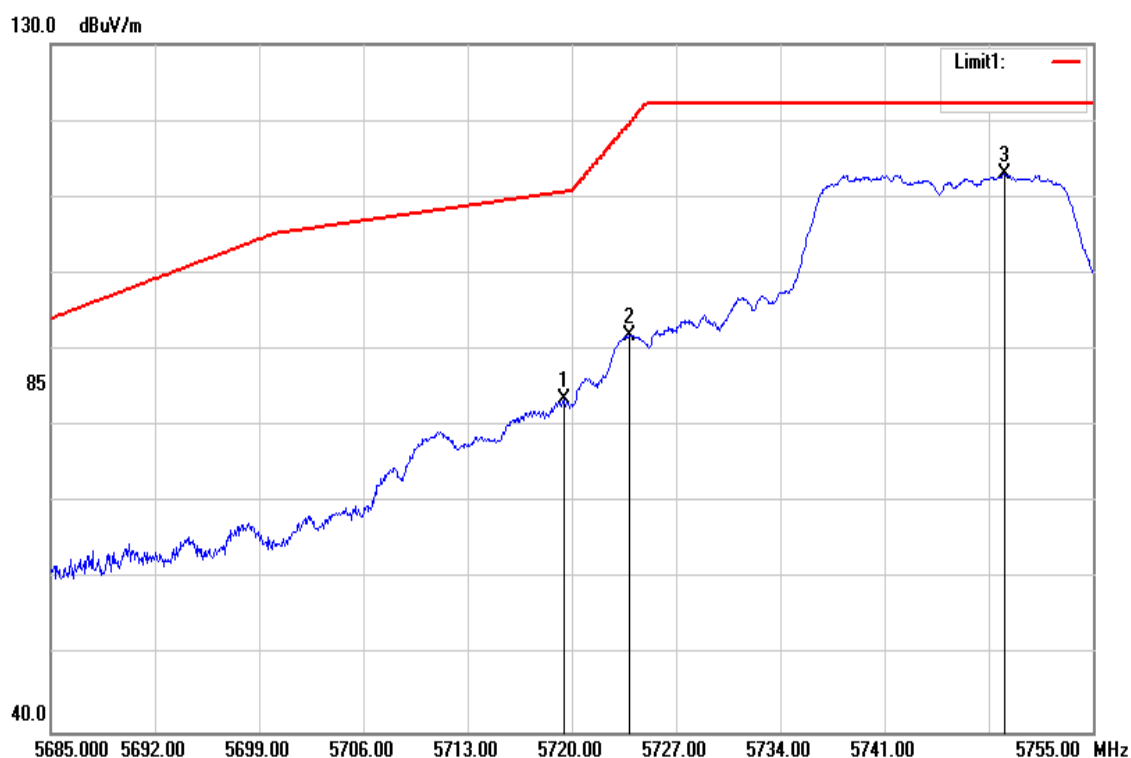
Test Mode	IEEE 802.11ac VHT80 / 5530 MHz	Temperature	24(°C)/ 33%RH
Test Item	Band Edge	Test Date	February 8, 2018
Polarize	Horizontal	Test Engineer	Jerry Chuang
Detector	Average	Test Voltage	-



Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
5470.000	47.73	5.85	53.58	54.00	-0.42	AVG
5521.420	85.10	5.99	91.09	-	-	AVG

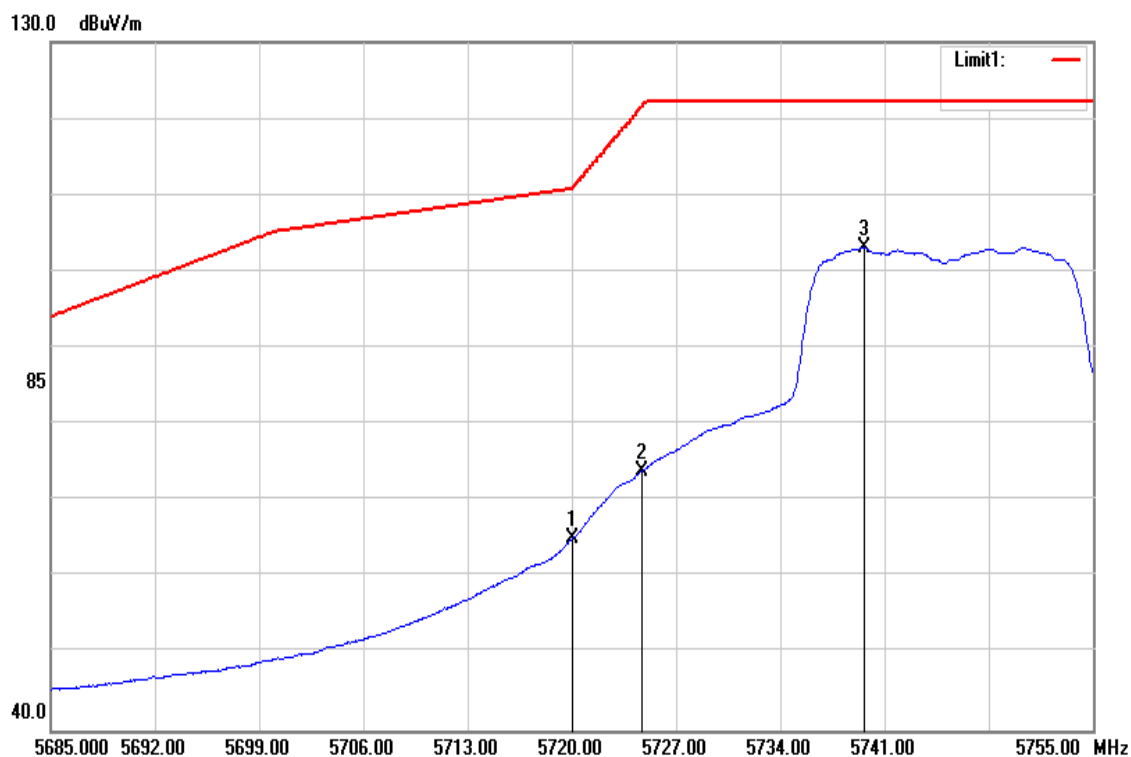
Band Edge Test Data for UNII-3

Test Mode	IEEE 802.11a / 5745 MHz	Temp/Hum	24(°C)/ 33%RH
Test Item	Band Edge	Test Date	February 8, 2018
Polarize	Horizontal	Test Engineer	Jerry Chuang
Detector	Peak	Test Voltage	-



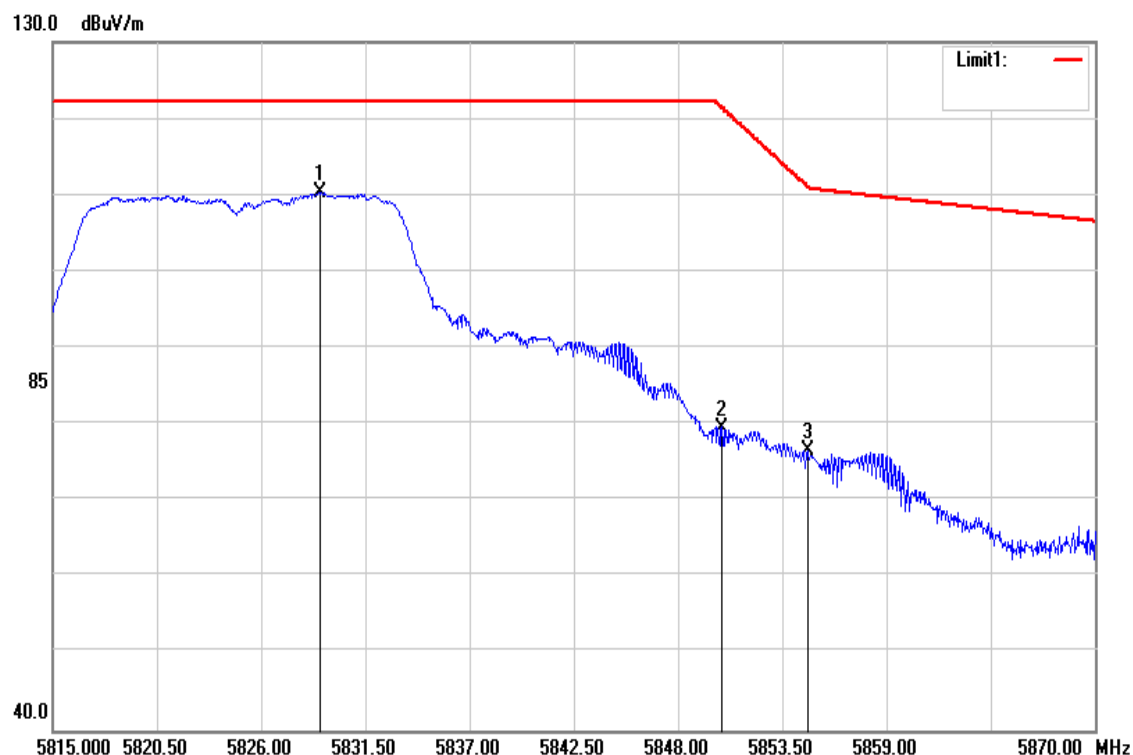
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
5719.440	76.94	6.50	83.44	110.64	-27.20	peak
5723.850	85.30	6.52	91.82	119.58	-27.76	peak
5749.050	106.37	6.59	112.96	-	-	peak

Test Mode	IEEE 802.11a / 5745 MHz	Temp/Hum	24(°C)/ 33%RH
Test Item	Band Edge	Test Date	February 8, 2018
Polarize	Horizontal	Test Engineer	Jerry Chuang
Detector	Average	Test Voltage	-



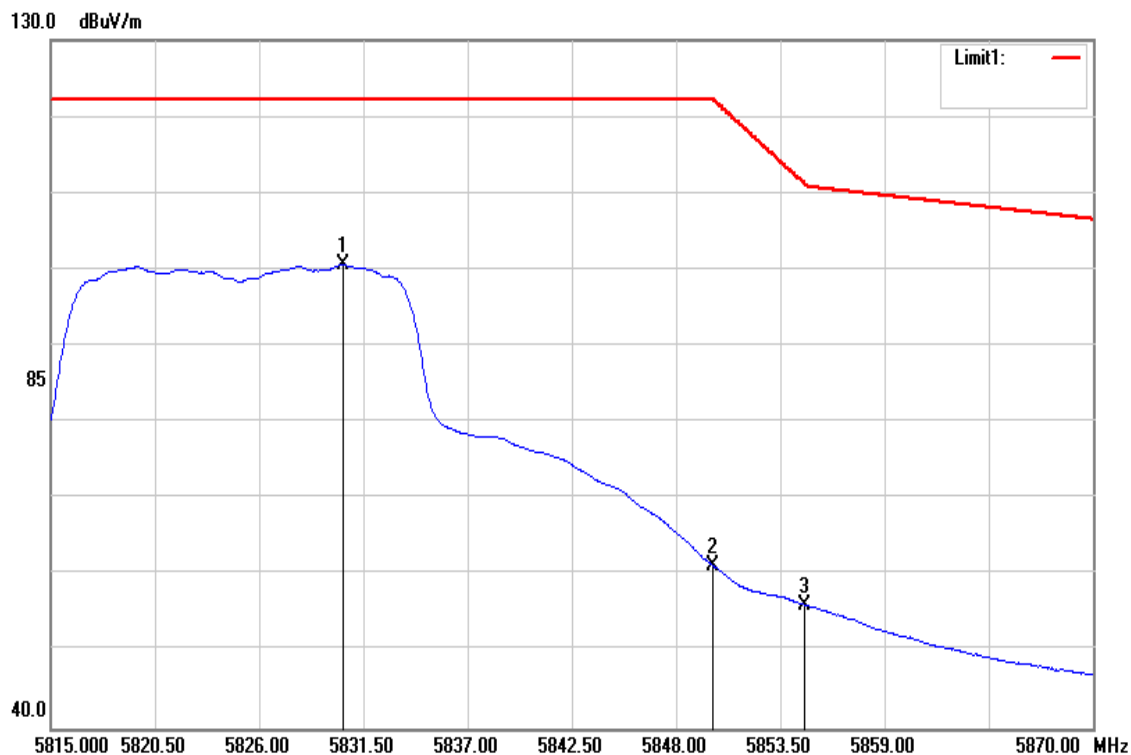
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
5720.070	58.63	6.50	65.13	110.96	-45.83	AVG
5724.690	67.37	6.52	73.89	121.49	-47.60	AVG
5739.670	96.52	6.56	103.08	-	-	AVG

Test Mode	IEEE 802.11a / 5825 MHz	Temp/Hum	24(°C)/ 33%RH
Test Item	Band Edge	Test Date	February 8, 2018
Polarize	Horizontal	Test Engineer	Jerry Chuang
Detector	Peak	Test Voltage	-



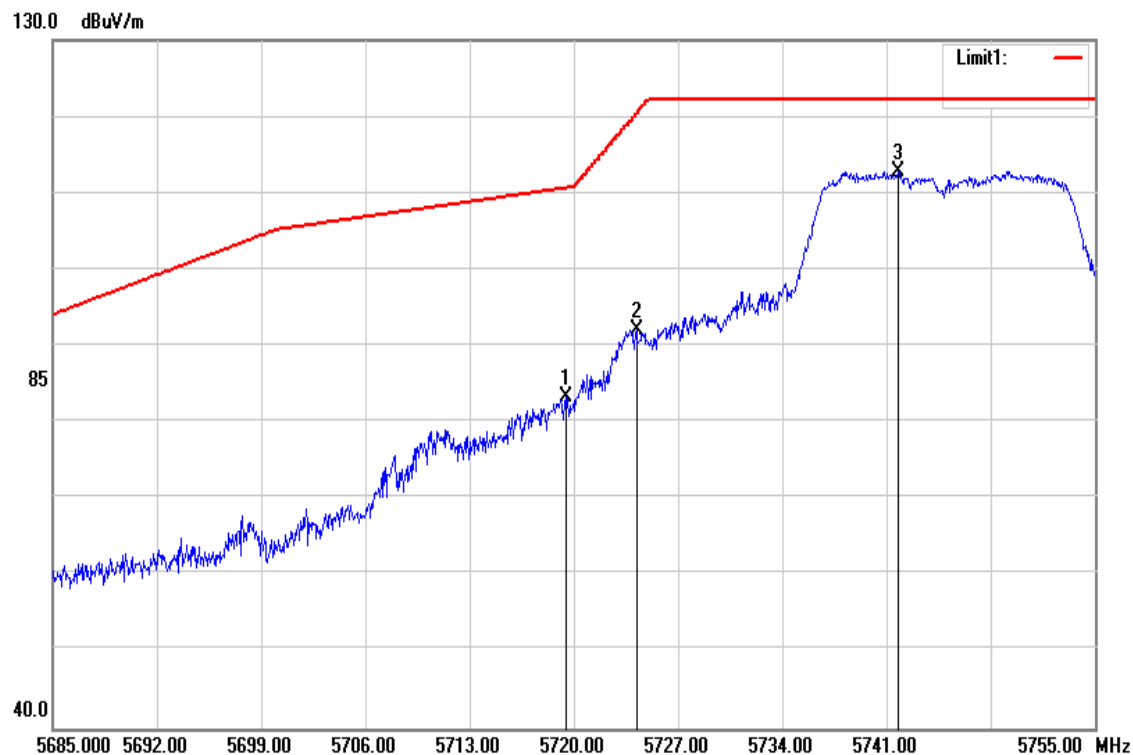
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
5829.135	103.47	6.79	110.26	-	-	peak
5850.310	72.75	6.85	79.60	121.49	-41.89	peak
5854.820	69.78	6.86	76.64	111.21	-34.57	peak

Test Mode	IEEE 802.11a / 5825 MHz	Temp/Hum	24(°C)/ 33%RH
Test Item	Band Edge	Test Date	February 8, 2018
Polarize	Horizontal	Test Engineer	Jerry Chuang
Detector	Average	Test Voltage	-



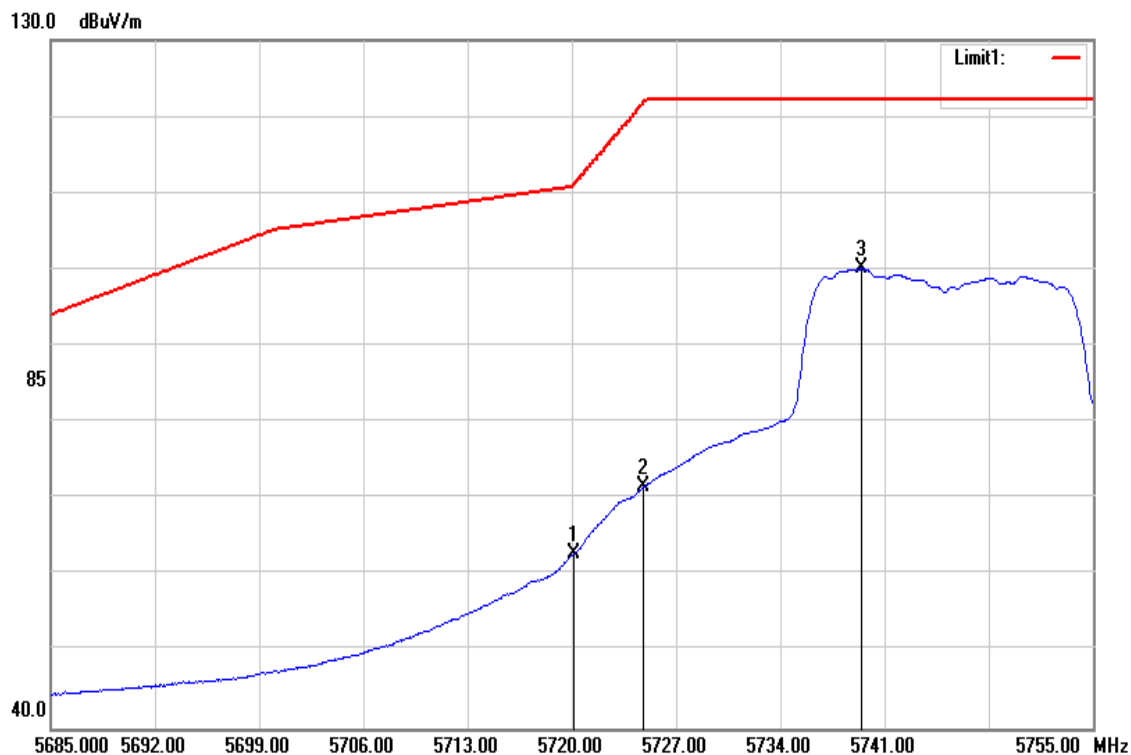
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
5830.400	93.83	6.80	100.63	-	-	AVG
5849.925	54.49	6.85	61.34	122.20	-60.86	AVG
5854.765	49.28	6.86	56.14	111.34	-55.20	AVG

Test Mode	IEEE 802.11n 20 / 5745 MHz	Temp/Hum	24(°C)/ 33%RH
Test Item	Band Edge	Test Date	February 8, 2018
Polarize	Horizontal	Test Engineer	Jerry Chuang
Detector	Peak	Test Voltage	-



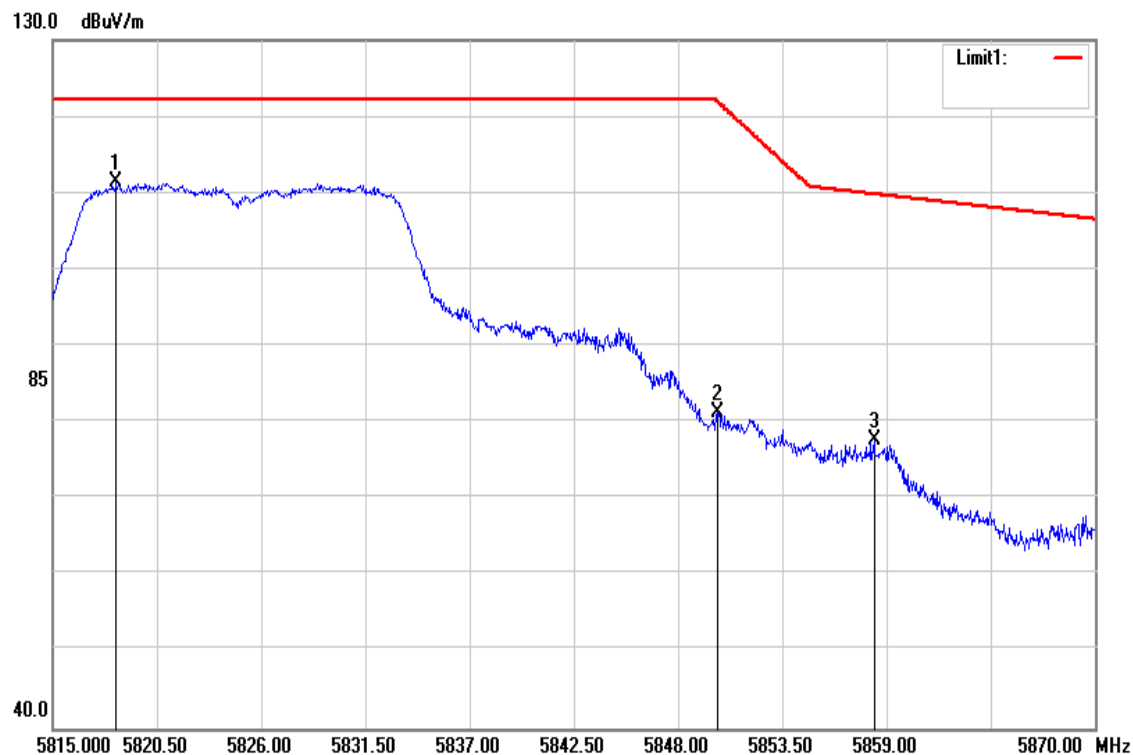
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
5719.510	76.85	6.50	83.35	110.66	-27.31	peak
5724.200	85.50	6.52	92.02	120.38	-28.36	peak
5741.770	106.33	6.56	112.89	-	-	peak

Test Mode	IEEE 802.11n 20 / 5745 MHz	Temp/Hum	24(°C)/ 33%RH
Test Item	Band Edge	Test Date	February 8, 2018
Polarize	Horizontal	Test Engineer	Jerry Chuang
Detector	Average	Test Voltage	-



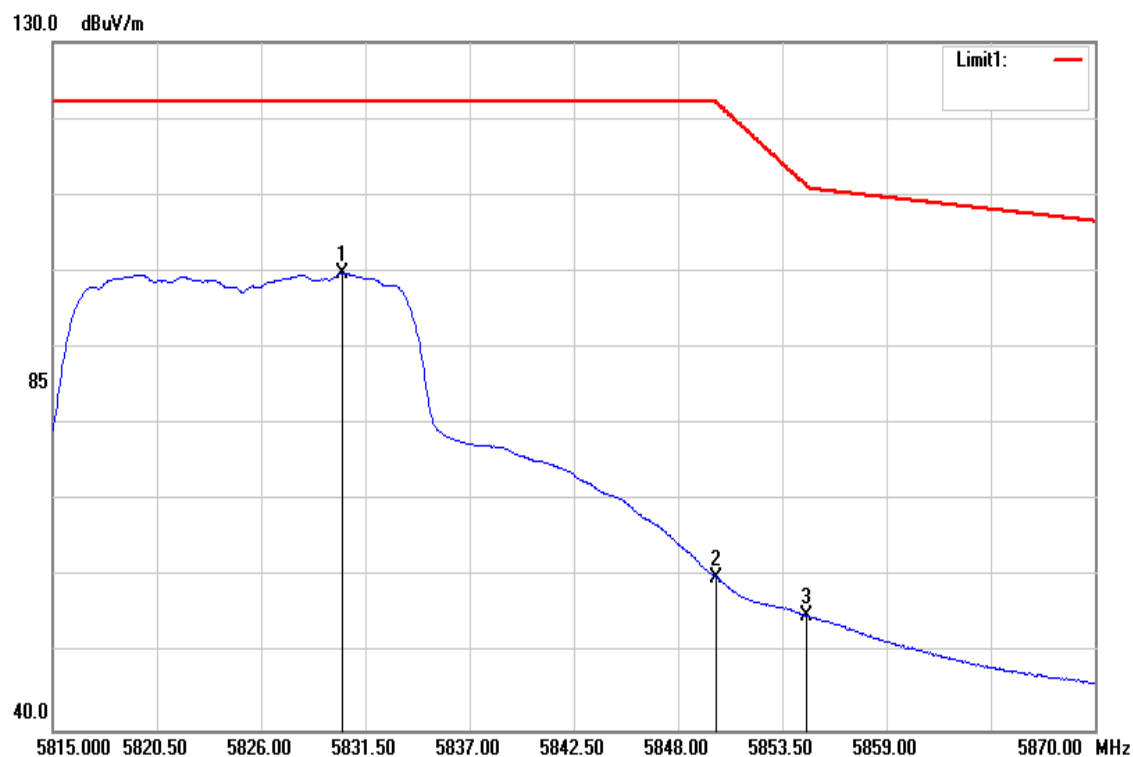
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
5720.140	56.33	6.50	62.83	111.12	-48.29	AVG
5724.830	65.07	6.52	71.59	121.81	-50.22	AVG
5739.460	93.53	6.56	100.09	-	-	AVG

Test Mode	IEEE 802.11n 20 / 5825 MHz	Temp/Hum	24(°C)/ 33%RH
Test Item	Band Edge	Test Date	February 8, 2018
Polarize	Horizontal	Test Engineer	Jerry Chuang
Detector	Peak	Test Voltage	-



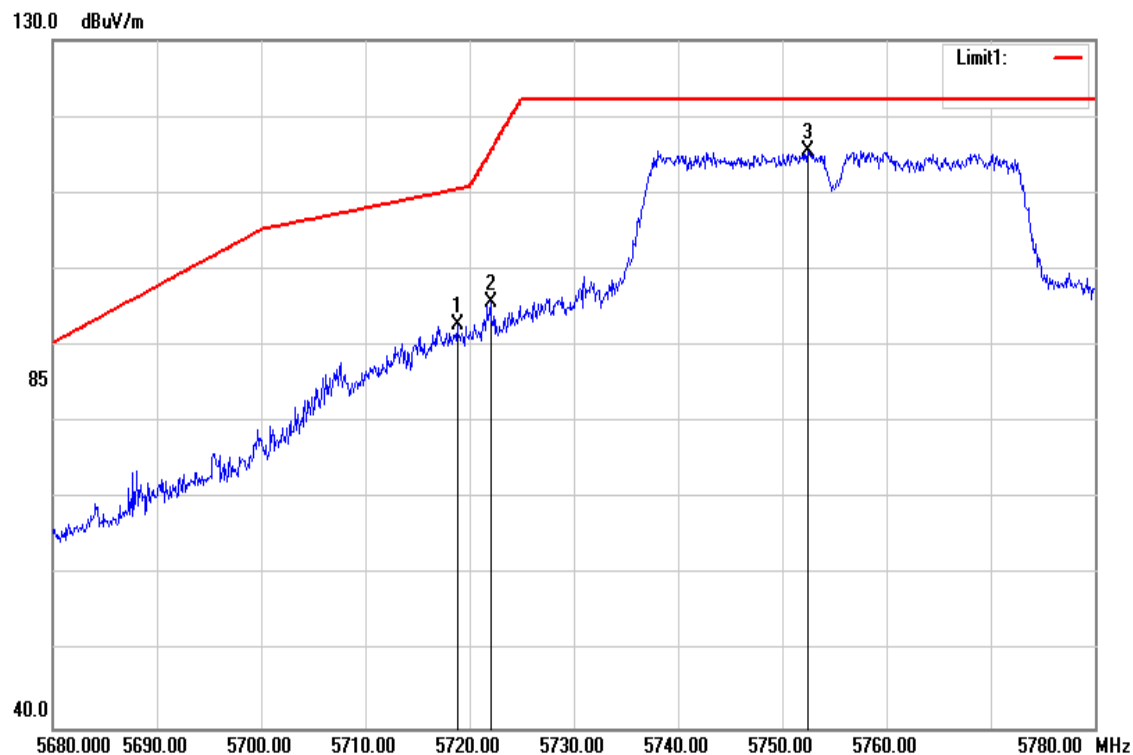
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
5818.355	104.61	6.77	111.38	-	-	peak
5850.090	74.34	6.85	81.19	121.99	-40.80	peak
5858.340	70.77	6.87	77.64	109.86	-32.22	peak

Test Mode	IEEE 802.11n 20 / 5825 MHz	Temp/Hum	24(°C)/ 33%RH
Test Item	Band Edge	Test Date	February 8, 2018
Polarize	Horizontal	Test Engineer	Jerry Chuang
Detector	Average	Test Voltage	-



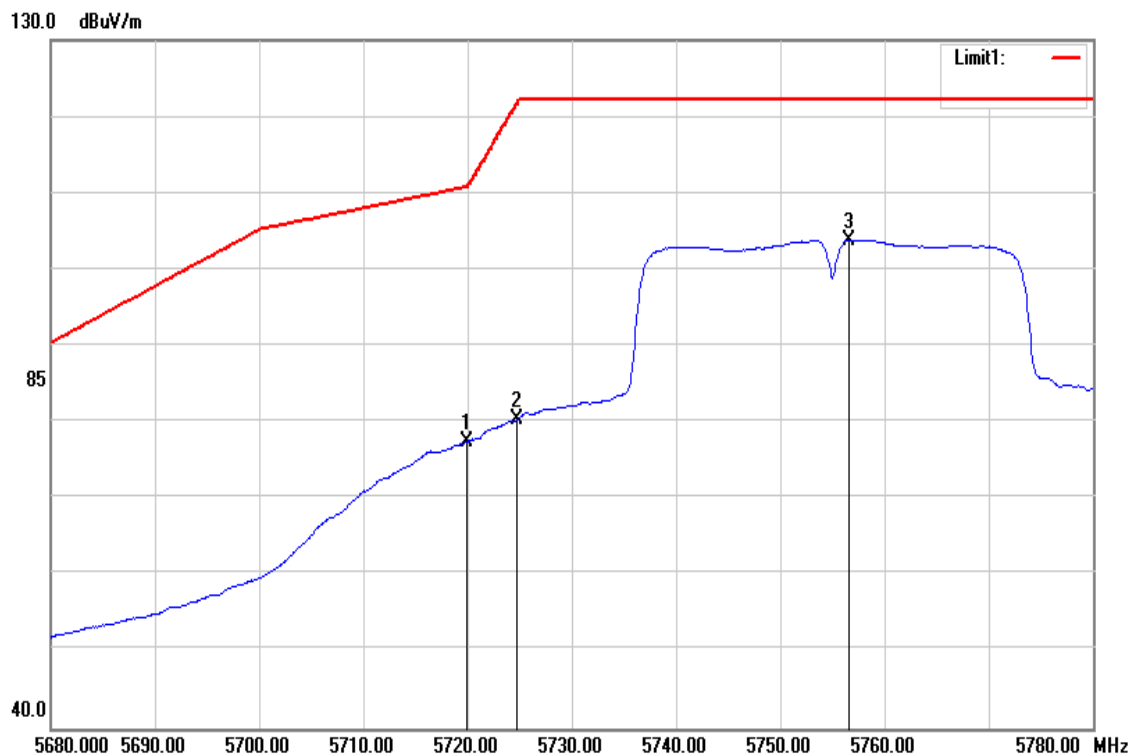
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
5830.290	92.99	6.80	99.79	-	-	AVG
5850.035	53.15	6.85	60.00	122.12	-62.12	AVG
5854.765	48.21	6.86	55.07	111.34	-56.27	AVG

Test Mode	IEEE 802.11n 40/ 5755 MHz	Temp/Hum	24(°C)/ 33%RH
Test Item	Band Edge	Test Date	February 8, 2018
Polarize	Horizontal	Test Engineer	Jerry Chuang
Detector	Peak	Test Voltage	-



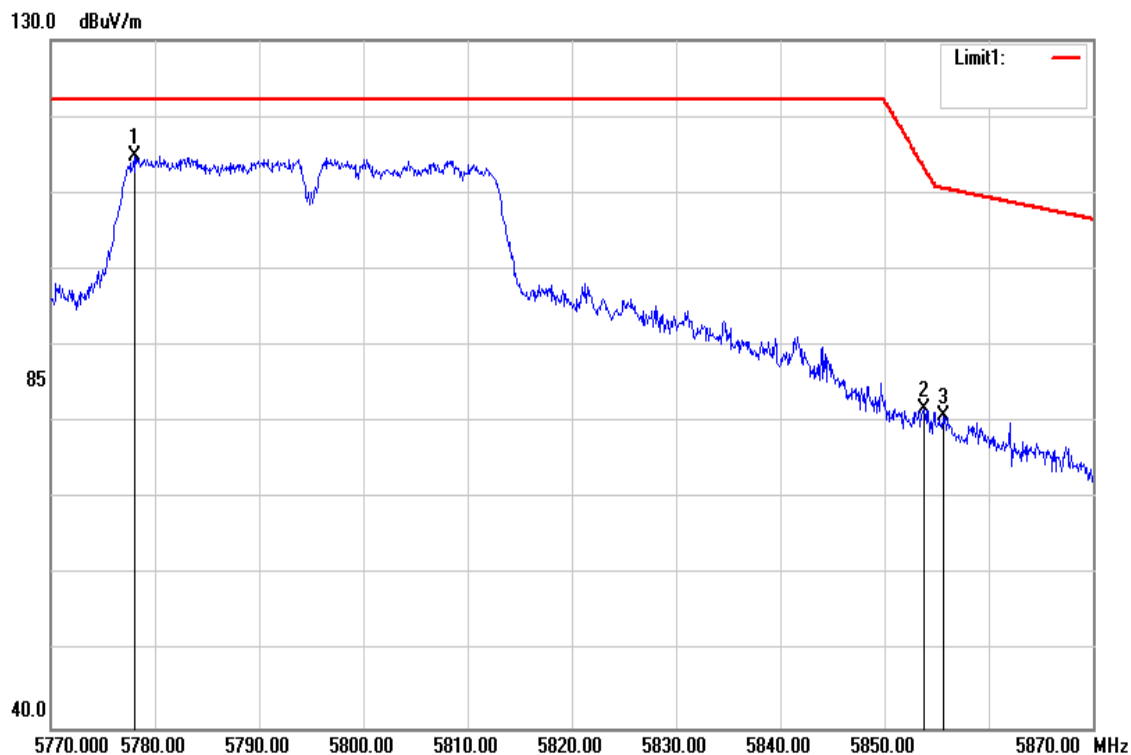
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
5718.800	86.18	6.50	92.68	-	-	peak
5722.000	89.21	6.51	95.72	115.36	-19.64	peak
5752.400	108.95	6.58	115.53	122.20	-6.67	peak

Test Mode	IEEE 802.11n 40/ 5755 MHz	Temp/Hum	24(°C)/ 33%RH
Test Item	Band Edge	Test Date	February 8, 2018
Polarize	Horizontal	Test Engineer	Jerry Chuang
Detector	Average	Test Voltage	-



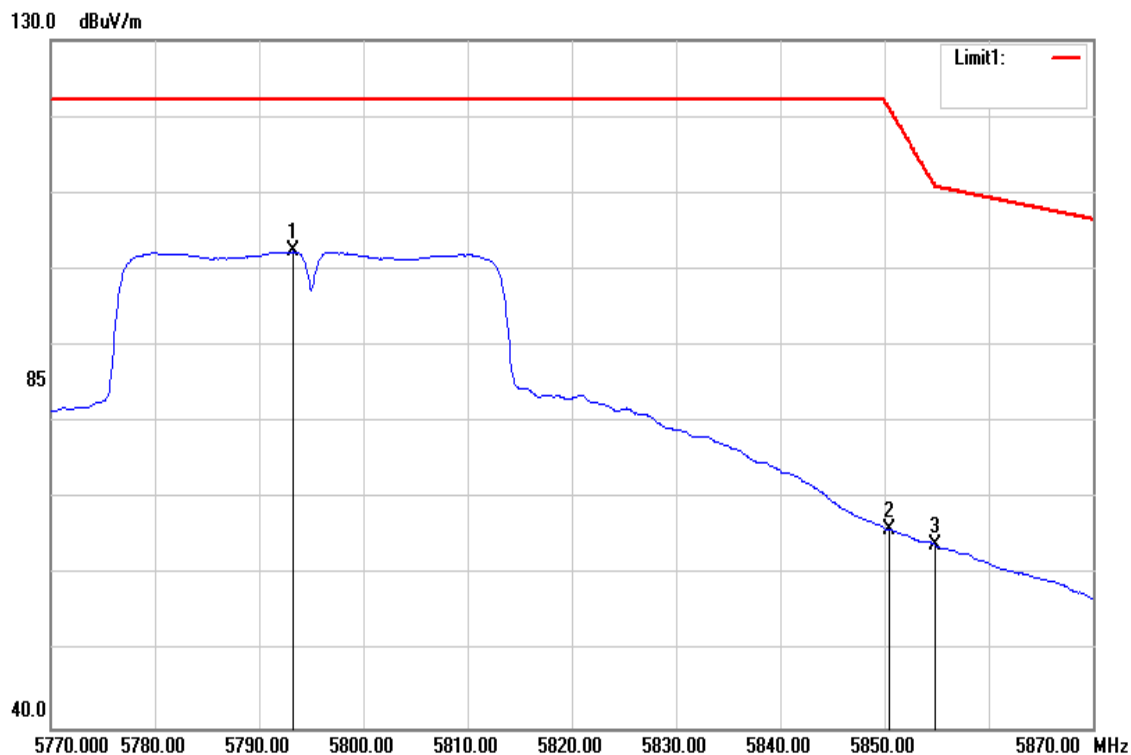
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
5719.900	70.97	6.50	77.47	110.77	-33.30	AVG
5724.700	73.80	6.52	80.32	121.52	-41.20	AVG
5756.600	97.29	6.60	103.89	-	-	AVG

Test Mode	IEEE 802.11n 40/ 5795 MHz	Temp/Hum	24(°C)/ 33%RH
Test Item	Band Edge	Test Date	February 8, 2018
Polarize	Horizontal	Test Engineer	Jerry Chuang
Detector	Peak	Test Voltage	-



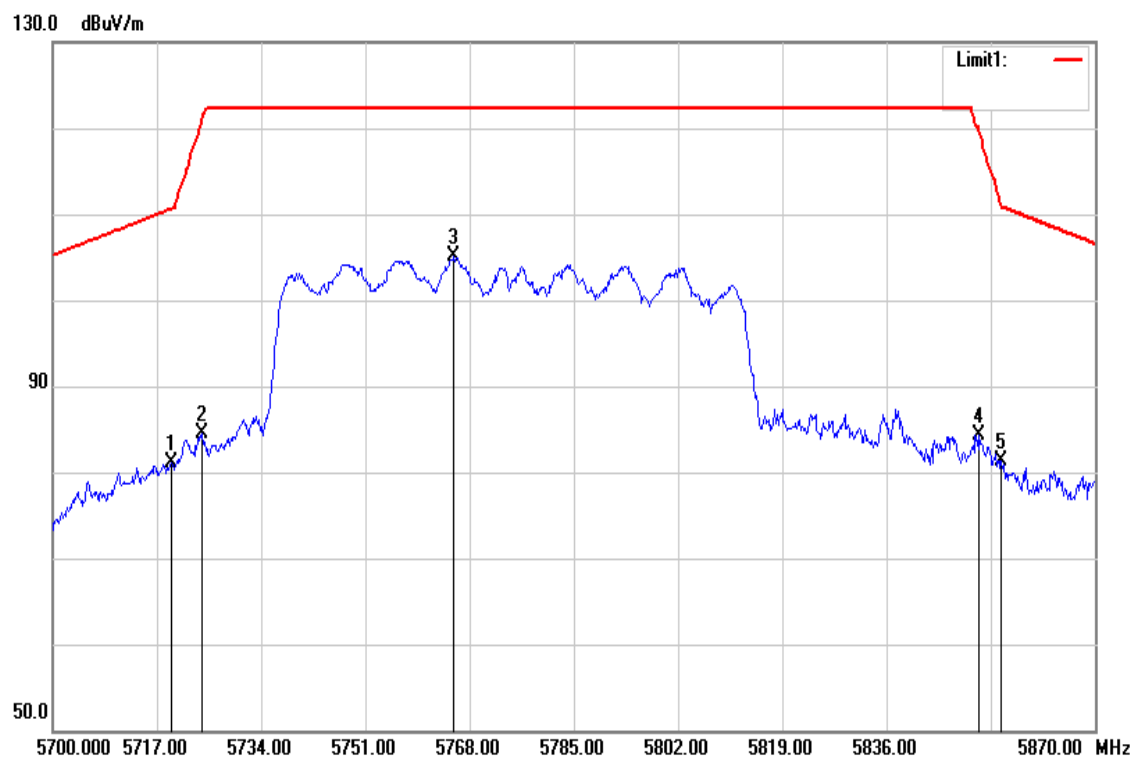
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
5778.000	108.23	6.66	114.89	-	-	peak
5853.800	75.00	6.85	81.85	113.54	-31.69	peak
5855.600	74.01	6.86	80.87	110.63	-29.76	peak

Test Mode	IEEE 802.11n 40/ 5795 MHz	Temp/Hum	24(°C)/ 33%RH
Test Item	Band Edge	Test Date	February 8, 2018
Polarize	Horizontal	Test Engineer	Jerry Chuang
Detector	Average	Test Voltage	-



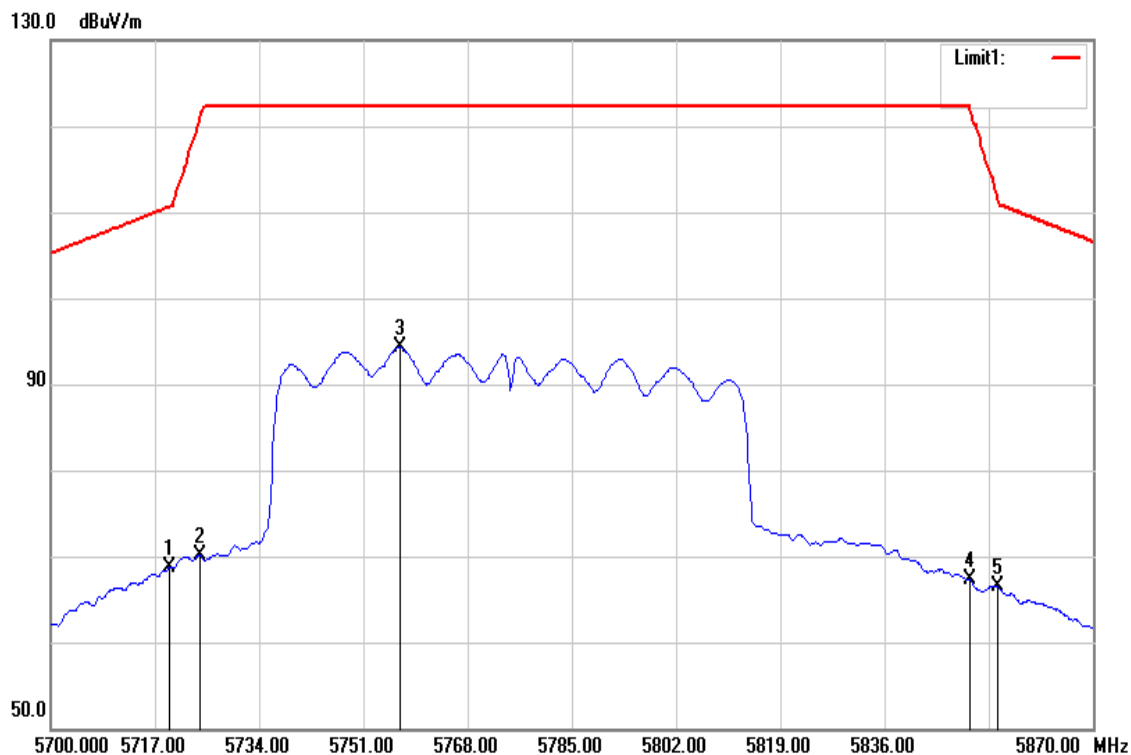
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
5793.300	95.63	6.70	102.33	-	-	AVG
5850.400	59.10	6.85	65.95	121.29	-55.34	AVG
5854.900	57.11	6.86	63.97	111.03	-47.06	AVG

Test Mode	IEEE 802.11ac VHT80 / 5775 MHz	Temp/Hum	24(°C)/ 33%RH
Test Item	Band Edge	Test Date	February 8, 2018
Polarize	Horizontal	Test Engineer	Jerry Chuang
Detector	Peak	Test Voltage	-



Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
5719.380	74.55	6.50	81.05	110.63	-29.58	peak
5724.310	77.97	6.52	84.49	120.63	-36.14	peak
5765.450	98.43	6.63	105.06	-	-	peak
5850.960	77.43	6.85	84.28	120.01	-35.73	peak
5854.700	74.42	6.86	81.28	111.48	-30.20	peak

Test Mode	IEEE 802.11ac VHT80 / 5775 MHz	Temp/Hum	24(°C)/ 33%RH
Test Item	Band Edge	Test Date	February 8, 2018
Polarize	Horizontal	Test Engineer	Jerry Chuang
Detector	Average	Test Voltage	-

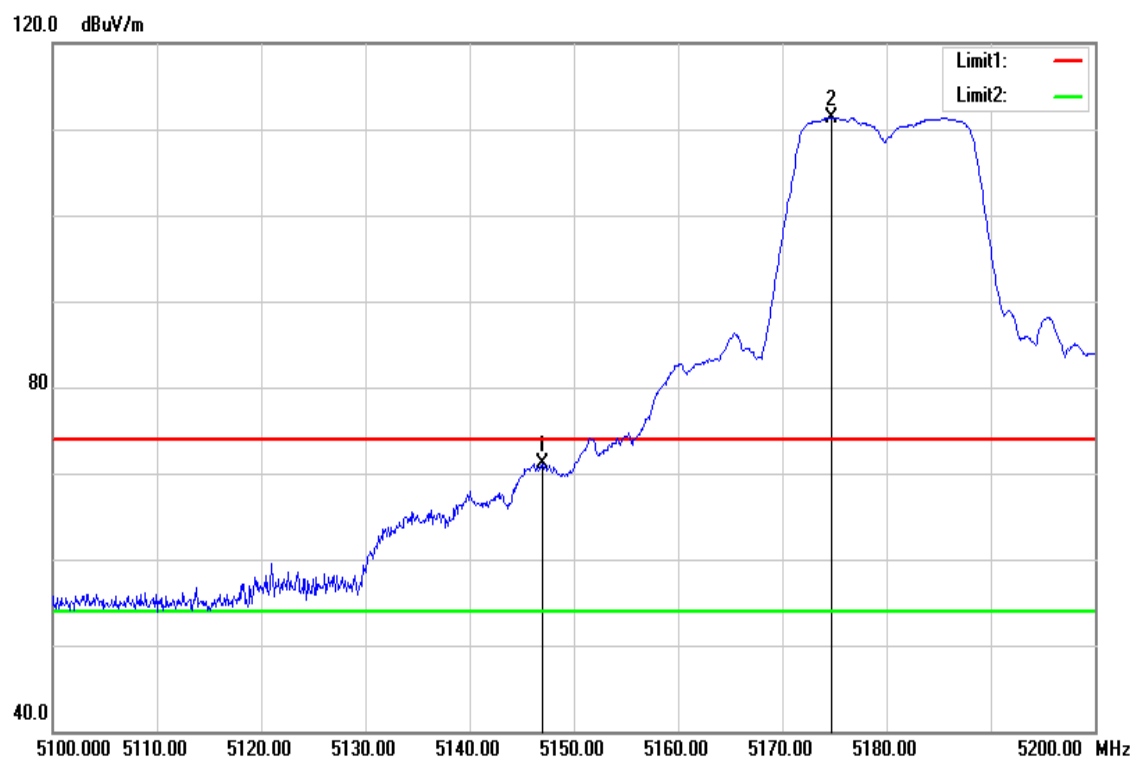


Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
5719.380	62.22	6.50	68.72	110.63	-41.91	AVG
5724.310	63.67	6.52	70.19	120.63	-50.44	AVG
5756.950	87.70	6.60	94.30	-	-	AVG
5849.940	60.35	6.85	67.20	122.20	-55.00	AVG
5854.530	59.57	6.86	66.43	111.87	-45.44	AVG

For 2TX:

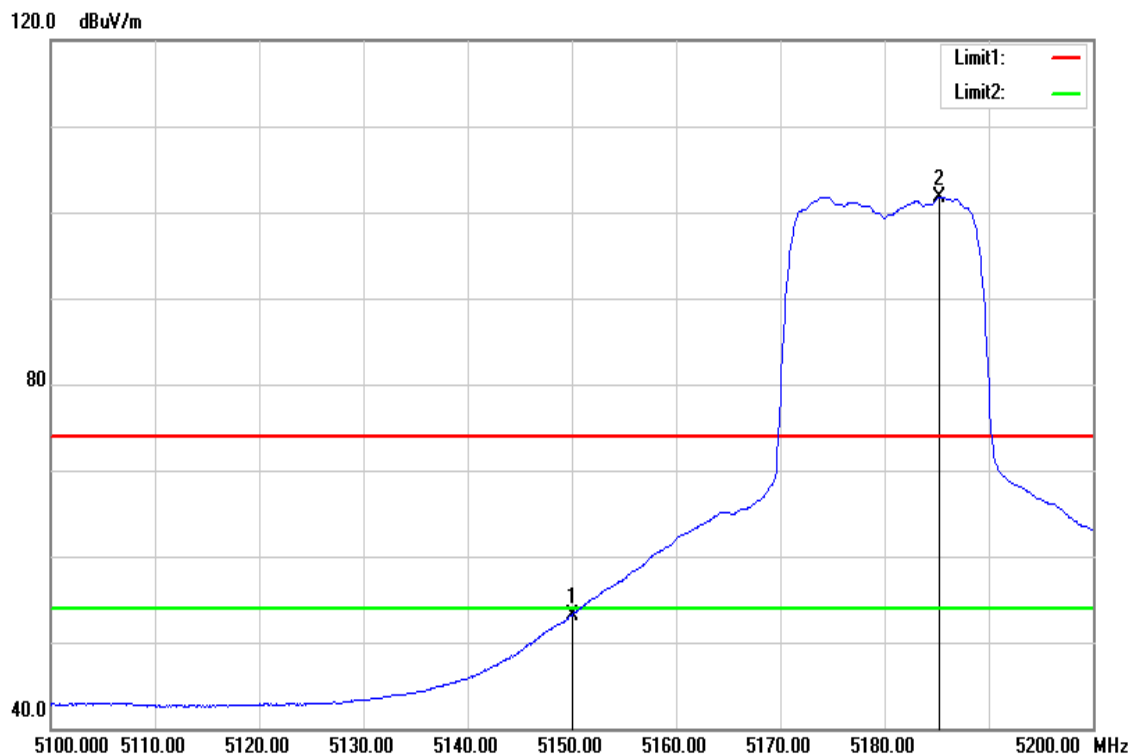
Band Edge Test Data for UNII-1

Test Mode	IEEE 802.11n 20 / 5180MHZ	Temp/Hum	24(°C)/ 33%RH
Test Item	Band Edge	Test Date	January 16, 2018
Polarize	Horizontal	Test Engineer	Jerry Chuang
Detector	Peak	Test Voltage	---



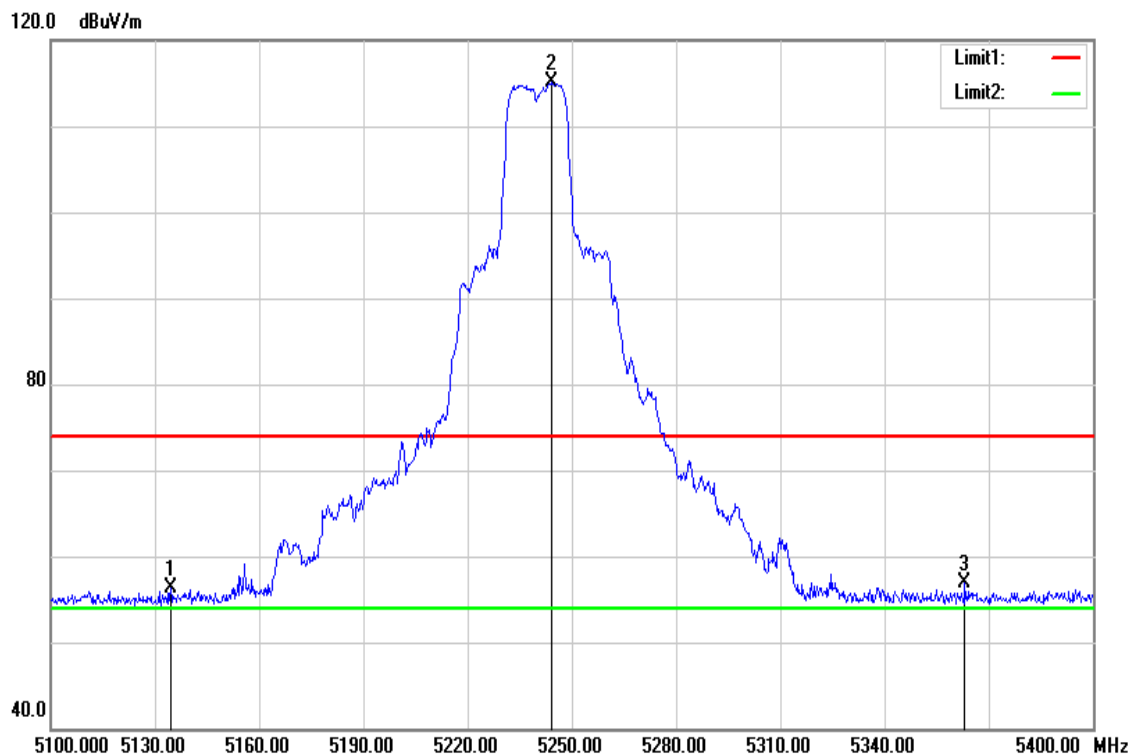
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
5147.050	66.06	5.06	71.12	74.00	-2.88	peak
5174.700	106.21	5.11	111.32	-	-	peak

Test Mode	IEEE 802.11n 20 / 5180MHZ	Temp/Hum	24(°C)/ 33%RH
Test Item	Band Edge	Test Date	January 16, 2018
Polarize	Horizontal	Test Engineer	Jerry Chuang
Detector	Average	Test Voltage	---



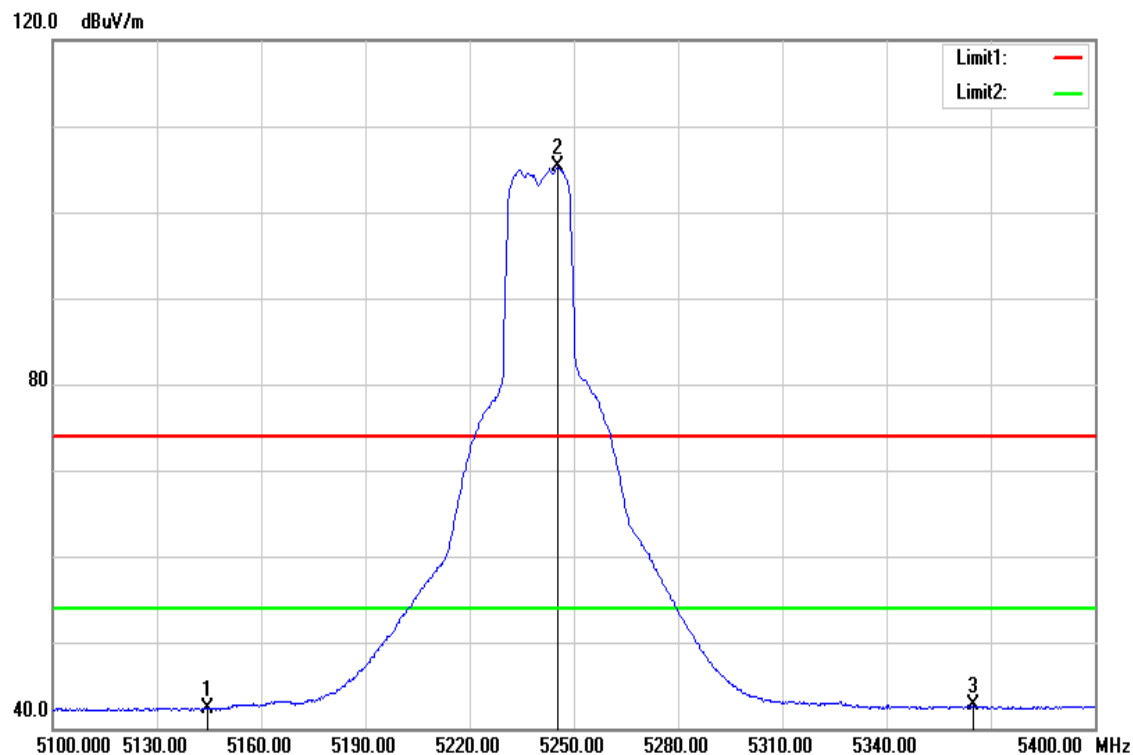
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
5150.000	48.12	5.06	53.18	54.00	-0.82	AVG
5185.350	96.60	5.15	101.75	-	-	AVG

Test Mode	IEEE 802.11n 20 / 5240MHZ	Temp/Hum	24(°C)/ 33%RH
Test Item	Band Edge	Test Date	January 16, 2018
Polarize	Horizontal	Test Engineer	Jerry Chuang
Detector	Peak	Test Voltage	---



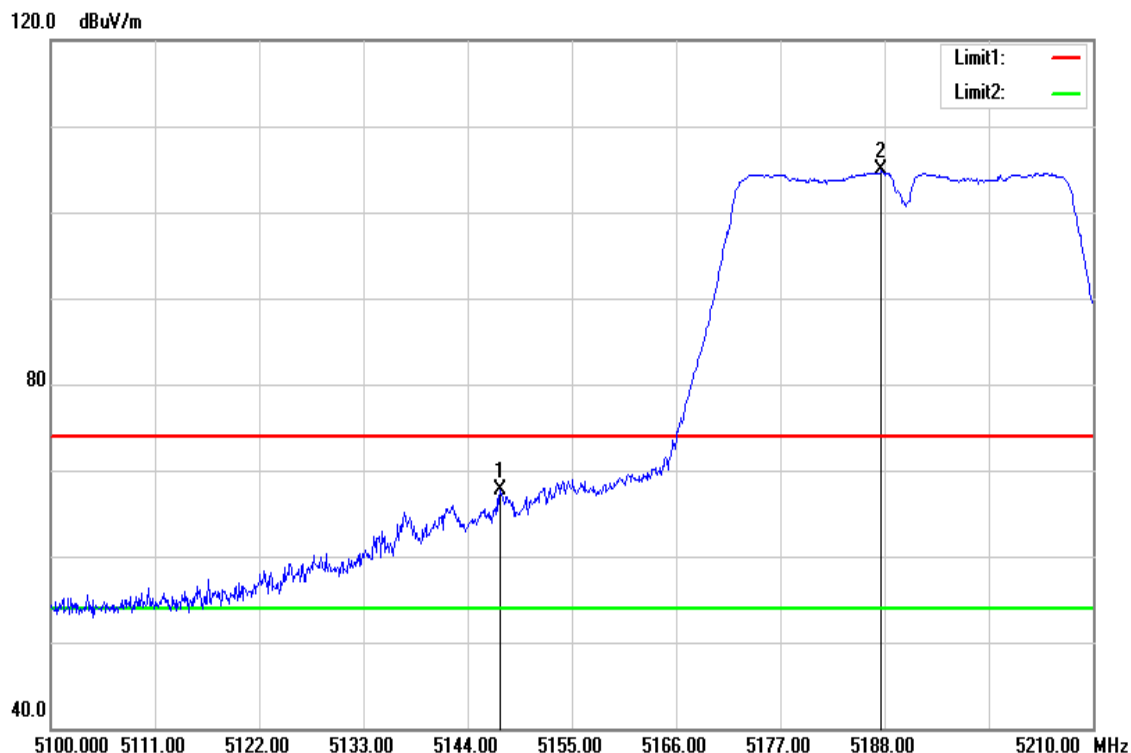
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
5134.650	51.28	5.02	56.30	74.00	-17.70	peak
5244.150	109.80	5.29	115.09	-	-	peak
5363.100	51.35	5.59	56.94	74.00	-17.06	peak

Test Mode	IEEE 802.11n 20 / 5240MHZ	Temperature	24(°C)/ 33%RH
Test Item	Band Edge	Test Date	January 16, 2018
Polarize	Horizontal	Test Engineer	Jerry Chuang
Detector	Average	Test Voltage	---



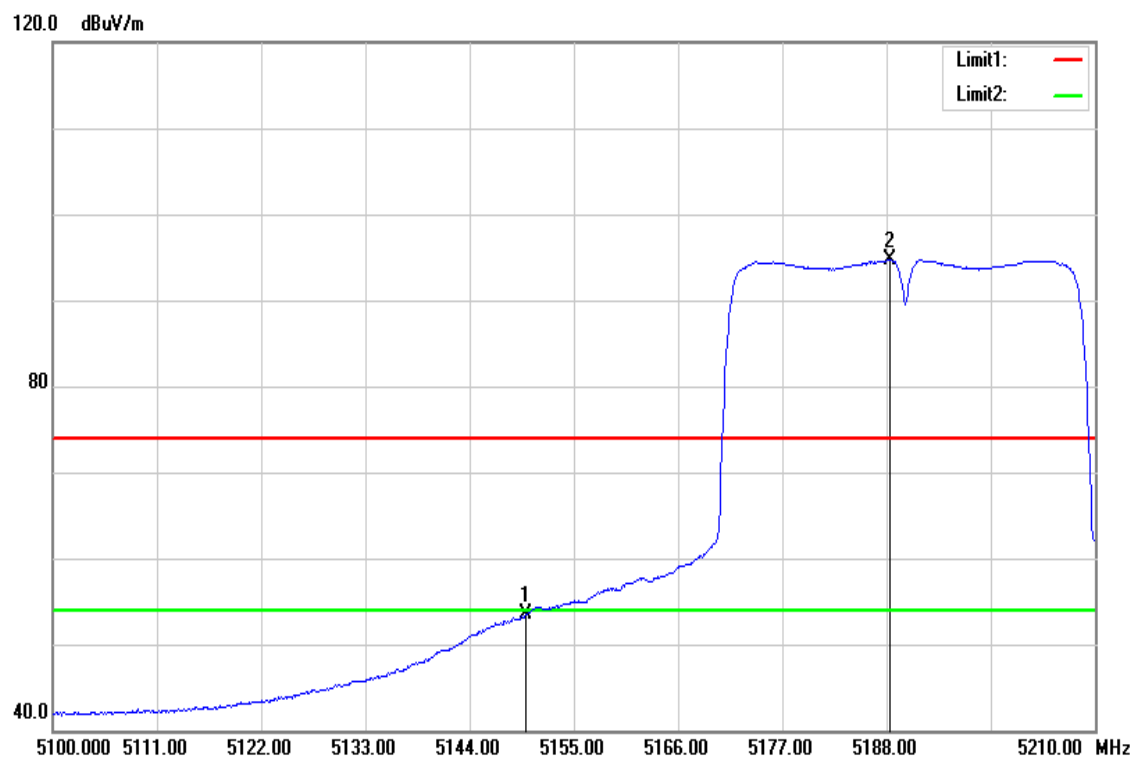
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
5144.850	37.33	5.05	42.38	54.00	-11.62	AVG
5245.350	99.98	5.31	105.29	-	-	AVG
5365.050	37.08	5.60	42.68	54.00	-11.32	AVG

Test Mode	IEEE 802.11n 40 / 5190MHZ	Temp/Hum	24(°C)/ 33%RH
Test Item	Band Edge	Test Date	January 16, 2018
Polarize	Horizontal	Test Engineer	Jerry Chuang
Detector	Peak	Test Voltage	---



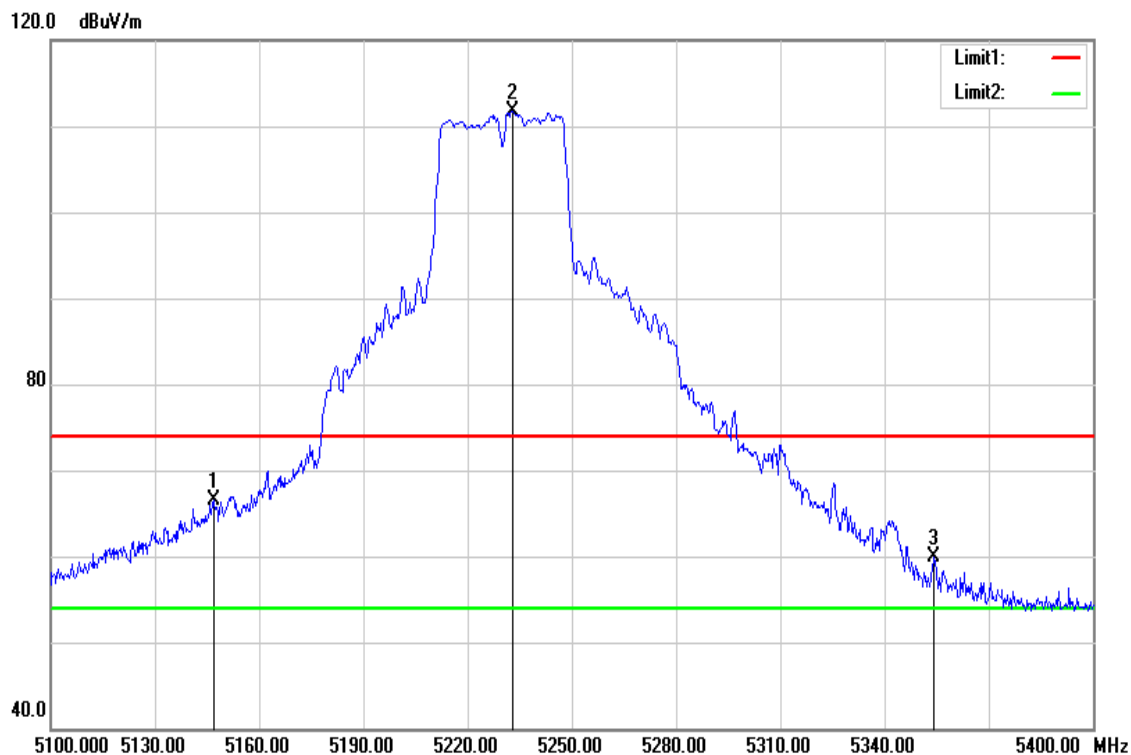
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
5147.465	62.61	5.06	67.67	74.00	-6.33	peak
5187.670	99.67	5.16	104.83	-	-	peak

Test Mode	IEEE 802.11n 40 / 5190MHZ	Temperature	24(°C)/ 33%RH
Test Item	Band Edge	Test Date	January 16, 2018
Polarize	Horizontal	Test Engineer	Jerry Chuang
Detector	Average	Test Voltage	---



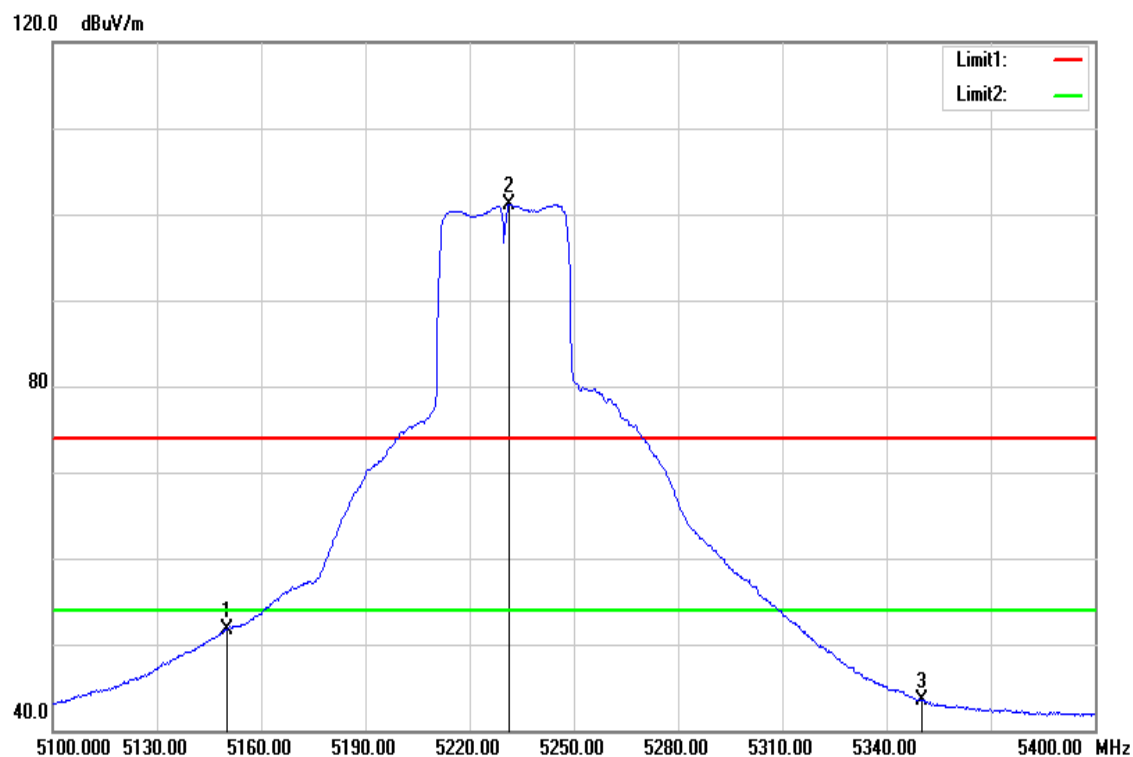
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
5150.000	48.42	5.06	53.48	54.00	-0.52	AVG
5188.385	89.50	5.16	94.66	-	-	AVG

Test Mode	IEEE 802.11n 40 / 5230MHZ	Temp/Hum	24(°C)/ 33%RH
Test Item	Band Edge	Test Date	January 16, 2018
Polarize	Horizontal	Test Engineer	Jerry Chuang
Detector	Peak	Test Voltage	---



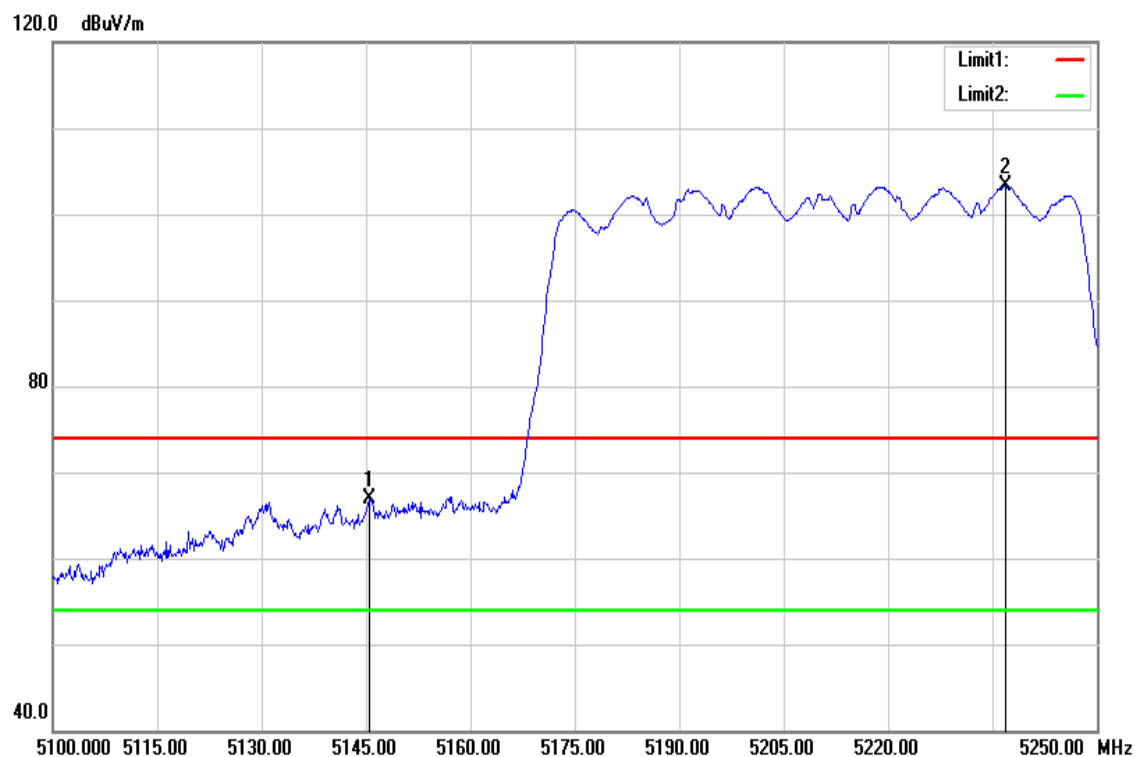
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
5146.950	61.51	5.06	66.57	74.00	-7.43	peak
5233.050	106.37	5.27	111.64	-	-	peak
5354.100	54.37	5.56	59.93	74.00	-14.07	peak

Test Mode	IEEE 802.11n 40 / 5230MHZ	Temp/Hum	24(°C)/ 33%RH
Test Item	Band Edge	Test Date	January 16, 2018
Polarize	Horizontal	Test Engineer	Jerry Chuang
Detector	Average	Test Voltage	---



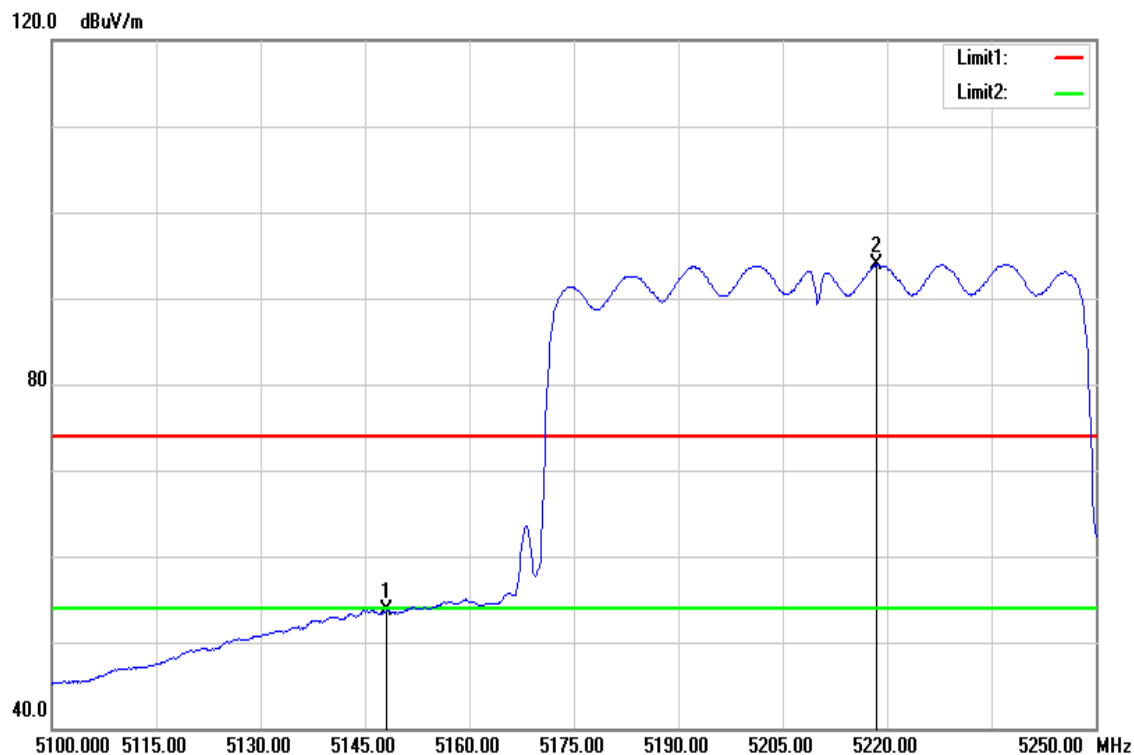
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
5150.000	46.71	5.06	51.77	54.00	-2.23	AVG
5231.550	95.89	5.26	101.15	-	-	AVG
5350.000	37.90	5.56	43.46	54.00	-10.54	AVG

Test Mode	IEEE 802.11ac VHT80 / 5210MHz	Temp/Hum	24(°C)/ 33%RH
Test Item	Band Edge	Test Date	February 12, 2018
Polarize	Horizontal	Test Engineer	Jerry Chuang
Detector	Peak	Test Voltage	---



Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
5145.450	61.89	5.06	66.95	74.00	-7.05	peak
5236.800	97.96	5.28	103.24	-	-	peak

Test Mode	IEEE 802.11ac VHT80 / 5210MHz	Temp/Hum	24(°C)/ 33%RH
Test Item	Band Edge	Test Date	February 12, 2018
Polarize	Horizontal	Test Engineer	Jerry Chuang
Detector	Average	Test Voltage	---



Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
5148.000	48.74	5.06	53.80	54.00	-0.20	AVG
5218.500	88.68	5.23	93.91	-	-	AVG