FCC RADIO TEST REPORT
FCC 47 CFR PART 15 SUBPART E

Test Standard	**FCC Part 15.407**
FCC ID	**M82-DMSSJ03**
Brand name	**ADVANTECH**
Product name	**Computer**
Model No.	**DMS-SJ03**
Test Result	**Pass**

The test Result was tested by Compliance Certification Services Inc. The test data, data evaluation, test procedures, and equipment configurations shown in this report were given in ANSI C63.10: 2013 and compliance standards.

The test results of this report relate only to the tested sample (EUT) identified in this report.
The test Report of full or partial shall not copy. Without written approval of Compliance Certification Services Inc. (Hsinchu Lab)

Approved by:

Davis Tseng
Sr. Engineer

Reviewed by:

Ed Chiang
Assistant Engineer

Revision History

Rev.	Issue Date	Revisions	Revised By
00	September 20, 2017	Initial Issue	Allison Chen
01	November 14, 2017	1. Revise section 1.1 in P.4. 2. Revise power table in P.33.	Angel Cheng

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1. GENERAL INFORMATION

1.1 EUT INFORMATION

Applicant	Advantech Co.Ltd. No.1, Alley 20, Lane 26, Rueiguang Road, Neihu District, Taipei 114, Taiwan, R.O.C.
Equipment	Computer
Model Name	DMS-SJ03
Model Discrepancy	N/A
Received Date	August 31, 2017
Date of Test	September 5 ~ 20, 2017
Power Supply	Powered from host device: DC 12V
Output Power(W)	

Band	Mode	Frequency Range (MHz)	Output Power (W)
U-NII-1	IEEE 802.11a	5180 ~ 5240	0.0470
	IEEE 802.11n HT 20 MHz	5180 ~ 5240	0.0470
	IEEE 802.11n HT 40 MHz	5190 ~ 5230	0.0847
U-NII-2a	IEEE 802.11a	5260 ~ 5320	0.0532
	IEEE 802.11n HT 20 MHz	5260 ~ 5320	0.0506
	IEEE 802.11n HT 40 MHz	5270 ~ 5310	0.0401
U-NII-2c	IEEE 802.11a	5500 ~ 5700	0.0537
	IEEE 802.11n HT 20 MHz	5500 ~ 5700	0.0380
	IEEE 802.11n HT 40 MHz	5510 ~ 5670	0.0916
U-NII-3	IEEE 802.11a	5745 ~ 5825	0.0065
	IEEE 802.11n HT 20 MHz	5745 ~ 5825	0.0273
	IEEE 802.11n HT 40 MHz	5755 ~ 5795	0.0356

1.2 EUT CHANNEL INFORMATION

Frequency Range	

UNII-1	
IEEE 802.11a	5180 ~ 5240 MHz
IEEE 802.11n HT 20 MHz	5180 ~ 5240 MHz
IEEE 802.11n HT 40 MHz	5190 ~ 5230 MHz
IEEE 802.11ac VHT 20 MHz	5180 ~ 5240 MHz
IEEE 802.11ac VHT 40 MHz	5190 ~ 5230 MHz
UNII-2a	
IEEE 802.11a	5260 ~ 5320 MHz
IEEE 802.11n HT 20 MHz	5260 ~ 5320 MHz
IEEE 802.11n HT 40 MHz	5270 ~ 5310 MHz
IEEE 802.11ac VHT 20 MHz	5260 ~ 5320 MHz
IEEE 802.11ac VHT 40 MHz	5270 ~ 5310 MHz
UNII-2c	
IEEE 802.11a	5500 ~ 5700 MHz
IEEE 802.11a	5720 MHz
IEEE 802.11n HT 20 MHz	5500 ~ 5700 MHz
IEEE 802.11n HT 20 MHz	5720 MHz
IEEE 802.11n HT 40 MHz	5510 ~ 5670 MHz
IEEE 802.11n HT 40 MHz	5710 MHz
IEEE 802.11ac VHT 20 MHz	5500 ~ 5700 MHz
IEEE 802.11ac VHT 20 MHz	5720 MHz
IEEE 802.11ac VHT 40 MHz	5510 ~ 5670 MHz
IEEE 802.11ac VHT 40 MHz	5710 MHz
UNII-3	
IEEE 802.11a	5745 ~ 5825 MHz
IEEE 802.11n HT 20 MHz	5745 ~ 5825 MHz
IEEE 802.11n HT 40 MHz	5755 ~ 5795 MHz
IEEE 802.11ac VHT 20 MHz	5745 ~ 5825 MHz
IEEE 802.11ac VHT 40 MHz	5755 ~ 5795 MHz

Modulation Type	1. IEEE 802.11a mode: OFDM 2. IEEE 802.11n HT 20 MHz mode: OFDM 3. IEEE 802.11n HT 40 MHz mode: OFDM 4. IEEE 802.11ac VHT 20 MHz mode: OFDM 5. IEEE 802.11ac VHT 40 MHz mode: OFDM

Remark:
Refer as ANSI 63.10:2013 clause 5.6.1 Table 4 for test channels

Number of frequencies to be tested

Frequency range in which device operates	Number of frequencies	Location in frequency range of operation
☐ 1 MHz or less	1	Middle
☐ 1 MHz to 10 MHz	2	1 near top and 1 near bottom
☒ More than 10 MHz	3	1 near top, 1 near middle, and 1 near bottom

1.3 ANTENNA INFORMATION

Antenna Type	☒ PIFA ☐ PCB ☐ Dipole ☐ Coils
Antenna Gain	Gain: 2.81dBi

1.4 MEASUREMENT UNCERTAINTY

PARAMETER	UNCERTAINTY
Semi Anechoic Chamber (966 Chamber_B) / Radiated Emission, 30 to 1000 MHz	+/- 3.97
Semi Anechoic Chamber (966 Chamber_B) / Radiated Emission, 1 to 18GHz	+/- 3.58
Semi Anechoic Chamber (966 Chamber_B) / Radiated Emission, 18 to 26 GHz	+/- 3.59
Semi Anechoic Chamber (966 Chamber_B) / Radiated Emission, 26 to 40 GHz	+/- 3.81
Conducted Emission (Mains Terminals), 9kHz to 30MHz	+/- 2.48

Remark:
1.This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2
2. ISO/IEC 17025 requires that an estimate of the measurement uncertainties associated with the emissions test results be included in the report.

1.5 FACILITIES AND TEST LOCATION

All measurement facilities used to collect the measurement data are located at No.989-1, Wenshan Rd., Shangshan Village,Qionglin Township, Hsinchu County 30741, Taiwan, R.O.C

Test site	Test Engineer	Remark
AC Conduction Room	-	Not applicable, because EUT not connect to AC Main Source direct.
Radiation	Ed Chiang	
RF Conducted	Eric Lee	

Remark: *The sites are constructed in conformance with the requirements of ANSI C63.7, ANSI C63.4 and CISPR Publication 22.*

1.6 INSTRUMENT CALIBRATION

RF Conducted Test Site					
Equipment	**Manufacturer**	**Model**	**S/N**	**Cal Date**	**Cal Due**
Power Meter	Anritsu	ML2495A	1149001	12/06/2016	12/05/2017
Power Sensor	Anritsu	MA2411B	1126148	12/06/2016	12/05/2017
Spectrum Analyzer	R&S	FSV 40	101073	10/05/2016	10/04/2017
Spectrum Analyzer	R&S	FSU 20Hz….26.5GHz	100258	07/27/2017	07/26/2018

3M 966 Chamber Test Site					
Equipment	**Manufacturer**	**Model**	**S/N**	**Cal Date**	**Cal Due**
Bi-Log Antenna	TESEQ	CBL 6112D	35404	08/07/2017	08/06/2018
Double Ridged BroadBand Horn Antenna	SCHWARZBECK	BBHA 9120 D	9120D-285	04/25/2017	04/24/2018
Horn Antenna	COM-POWER	AH-840	03077	12/02/2016	12/01/2017
Pre-Amplifier	EMCI	EMC001625	980243	04/11/2017	04/10/2018
Pre-Amplifier	COM-POWER	PAM-118A	551043	04/11/2017	04/10/2018
PSA Series Spectrum Analyzer	Agilent	E4446A	MY48250064	04/20/2017	04/19/2018
Antenna Tower	CCS	CC-A-1F	N/A	N.C.R	N.C.R
Controller	CCS	CC-C-1F	N/A	N.C.R	N.C.R
Turn Table	CCS	CC-T-1F	N/A	N.C.R	N.C.R

Adaptivity/DFS Room					
Equipment	**Manufacturer**	**Model**	**S/N**	**Cal Date**	**Cal Due**
SMA Power Divider	CCS	STI08-0015	008	07/27/2017	07/26/2018
Spectrum Analyzer	R&S	FSU 20Hz….26.5GHz	100258	06/27/2017	06/26/2018
SMA Power Divider	CCS	STI08-0015	008	07/27/2017	07/26/2018

Remark: *Each piece of equipment is scheduled for calibration once a year.*

1.7 SUPPORT AND EUT ACCESSORIES EQUIPMENT

EUT Accessories Equipment					
No.	**Equipment**	**Brand**	**Model**	**Series No.**	**FCC ID**
	N/A				

Support Equipment					
No.	**Equipment**	**Brand**	**Model**	**Series No.**	**FCC ID**
1	NB	ASUS	M5200AE	R31018	PD9WM3B2100
2	DC Power Source	Agilent	E3640A	N/A	N/A
3	NB(D)	ASUS	A8J	R31018	N/A

1.8 TEST METHODOLOGY AND APPLIED STANDARDS

The test methodology, setups and results comply with all requirements in accordance with ANSI C63.10:2013, FCC Part 2, FCC Part 15.407, KDB 662911 D01 v02r01, KDB 789033 D02 v01r03, KDB 644545 D03 v01.

2. TEST SUMMERY

FCC Standard Sec.	Chapter	Test Item	Result
15.203	1.2	Antenna Requirement	Pass
15.207	4.1	AC Conducted Emission	-
15.403(i)	4.2	26dB Bandwidth	Pass
15.403(i)	4.2	6dB Bandwidth	Pass
15.403(i)	4.2	Occupied Bandwidth (99%)	Pass
15.407(a)	4.3	Output Power Measurement	Pass
15.407(a)	4.4	Power Spectral Density	Pass
15.407(b)	4.5	Radiation Band Edge	Pass
15.407(b)	4.5	Radiation Spurious Emission	Pass
15.407(g)	4.6	Frequency Stability	Pass

3. DESCRIPTION OF TEST MODES

3.1 THE WORST MODE OF OPERATING CONDITION

Operation mode	1. IEEE 802.11a mode: 6Mbps 2. IEEE 802.11n HT 20 MHz mode: MCS 0 3. IEEE 802.11n HT 40 MHz mode: MCS 0 4. IEEE 802.11ac VHT 20 MHz mode: MCS 0 5. IEEE 802.11ac VHT 40 MHz mode: MCS 0

Operating Frequency Range & Number of Channels

	Mode	Frequency Range (MHz)	Number of Channels
U-NII-1	IEEE 802.11a	5180 ~ 5240	4 Channels
	IEEE 802.11n HT 20 MHz	5180 ~ 5240	4 Channels
	IEEE 802.11n HT 40 MHz	5190 ~ 5230	2 Channels
	IEEE 802.11ac VHT 20 MHz	5180 ~ 5240	4 Channels
	IEEE 802.11ac VHT 40 MHz	5190 ~ 5230	2 Channels
U-NII-2a	IEEE 802.11a	5260 ~ 5320	4 Channels
	IEEE 802.11n HT 20 MHz	5260 ~ 5320	4 Channels
	IEEE 802.11n HT 40 MHz	5270 ~ 5310	2 Channels
	IEEE 802.11ac VHT 20 MHz	5260 ~ 5320	4 Channels
	IEEE 802.11ac VHT 40 MHz	5270 ~ 5310	2 Channels
U-NII-2c	IEEE 802.11a	5500 ~ 5700	11 Channels
	IEEE 802.11n HT 20 MHz	5500 ~ 5700	11 Channels
	IEEE 802.11n HT 20 MHz	5720	1 Channels
	IEEE 802.11n HT 40 MHz	5510 ~ 5670	5 Channels
	IEEE 802.11n HT 40 MHz	5710	1 Channels
	IEEE 802.11ac VHT 20 MHz	5500 ~ 5700	11 Channels
	IEEE 802.11ac VHT 20 MHz	5720	1 Channels
	IEEE 802.11ac VHT 40 MHz	5510 ~ 5670	5 Channels
	IEEE 802.11ac VHT 40 MHz	5710	1 Channels
U-NII-3	IEEE 802.11a	5745 ~ 5825	5 Channels
	IEEE 802.11n HT 20 MHz	5745 ~ 5825	5 Channels
	IEEE 802.11n HT 40 MHz	5755 ~ 5795	2 Channels
	IEEE 802.11ac VHT 20 MHz	5745 ~ 5825	5 Channels
	IEEE 802.11ac VHT 40 MHz	5755 ~ 5795	2 Channels

Remark:
1. EUT pre-scanned data rate of output power for each mode, the worst data rate were recorded in this report.
2. Covered modes are test reduction modes. The output powers on the covered modes are equal to or less than the mode referenced and use the same module
3.The mode IEEE 802.11ac VHT20 and VHT40 are only different in control messages with IEEE 802.11n HT20 and HT40, and have same power setting. Therefore, the highest power(IEEE 802.11n HT20 and HT40) were test conducted and radiated measurement and recorded in this report.

3.2 THE WORST MODE OF MEASUREMENT

Radiated Emission Measurement Above 1G	
Test Condition	**Band edge, Emission for Unwanted and Fundamental**
Voltage/Hz	**DC 12V**
Test Mode	**Mode 1: EUT power by DC Source via cable.**
Worst Mode	**☒ Mode 1 ☐ Mode 2 ☐ Mode 3 ☐ Mode 4**
Worst Position	**☐ Placed in fixed position.** **☐ Placed in fixed position at X-Plane (E2-Plane)** **☒ Placed in fixed position at Y-Plane (E1-Plane)** **☐ Placed in fixed position at Z-Plane (H-Plane)**
Worst Polarity	**☒ Horizontal ☐ Vertical**

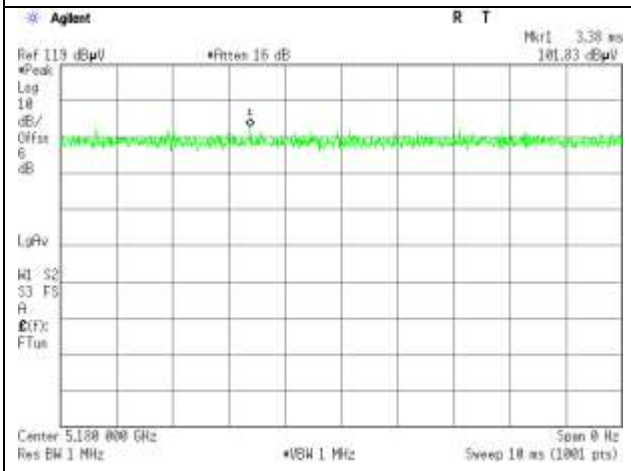
Radiated Emission Measurement Below 1G	
Test Condition	**Radiated Emission Below 1G**
Voltage/Hz	**DC 12V**
Test Mode	**Mode 1: EUT power by DC Source via cable.**
Worst Mode	**☒ Mode 1 ☐ Mode 2 ☐ Mode 3 ☐ Mode 4**

Remark:
1. The worst mode was record in this test report.
2. EUT pre-scanned in three axis ,X,Y, Z and two polarity, Horizontal and Vertical for radiated measurement. The worst case(Y-Plane and Vertical) were recorded in this report
3. For below 1G, Radiation emission is performed the EUT transmit at the highest output power channel as worse case.

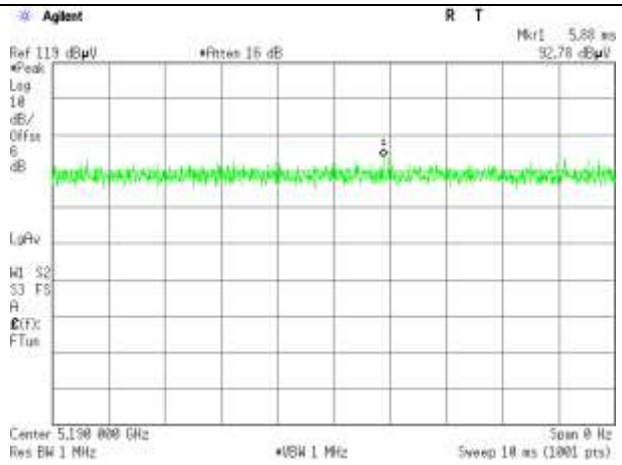
3.3 EUT DUTY CYCLE

Duty Cycle				
Configuration	TX ON (ms)	TX ALL (ms)	Duty Cycle (%)	Duty Factor(dB)
802.11a	100.0000	100.0000	100.00%	0.00
802.11n HT20	100.0000	100.0000	100.00%	0.00
802.11n HT40	100.0000	100.0000	100.00%	0.00
802.11ac VHT80	-	-	-	-

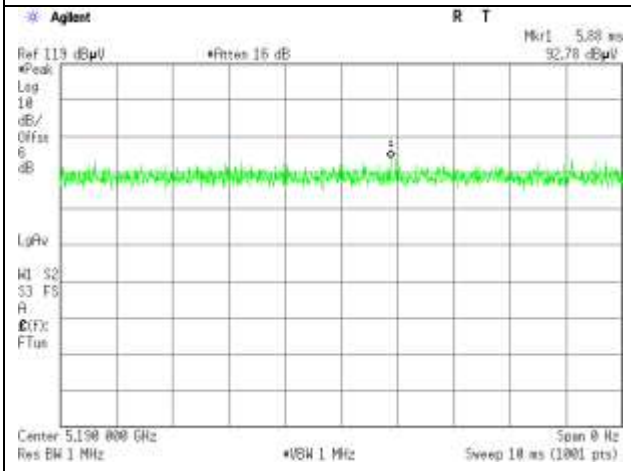
802.11a



802.11n HT20



802.11n HT40



4. TEST RESULT

4.1 AC POWER LINE CONDUCTED EMISSION

4.1.1 Test Limit

According to §15.207(a)

Frequency Range (MHz)	Limits(dBμV)	
	Quasi-peak	Average
0.15 to 0.50	66 to 56*	56 to 46*
0.50 to 5	56	46
5 to 30	60	50

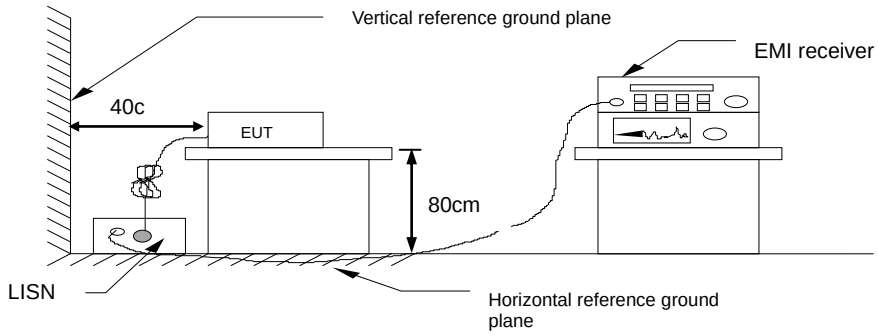
* Decreases with the logarithm of the frequency.

4.1.2 Test Procedure

Test method Refer as ANSI 63.10:2013 clause 6.2,

1. The EUT was placed on a non-conducted table, which is 0.8m above horizontal ground plane and 0.4m above vertical ground plane.
2. EUT connected to the line impedance stabilization network (LISN)
3. Receiver set RBW of 9kHz and Detector Peak, and note as quasi-peak and average.
4. Maximum procedure was performed on the six highest emissions to ensure EUT compliance.
5. Recorded Line for Neutral and Line.

4.1.3 Test Setup



4.1.4 Test Result

Not applicable, because EUT not connect to AC Main Source direct.

4.2 26DB BANDWIDTH, 6DB BANDWIDTH AND OCCUPIED BANDWIDTH(99%)

4.2.1 Test Limit

26 dB Bandwidth ：For reporting purposes only.

6 dB Bandwidth ：Least 500kHz.

Occupied Bandwidth(99%) ： For reporting purposes only.

4.2.2 Test Procedure

Test method Refer as KDB 789033 D02 v01r03 Section C, D, and ANSI 63.10:2013 clause 6.9.2,

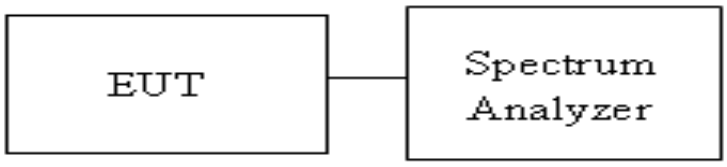
1. The EUT RF output connected to the spectrum analyzer by RF cable.
2. Setting maximum power transmit of EUT
3. UNII-1, UNII-2a and UNII-2c,

   (1) BW=20MHz : SA set RBW = 300kHz, VBW = 1MHz and Detector = Peak, to measurement 26 dB Bandwidth and 99% Bandwidth

   (2) BW=40MHz : SA set RBW = 1MHz, VBW = 3MHz and Detector = Peak, to measurement 26 dB Bandwidth and 99% Bandwidth

   (3) BW=80MHz : SA set RBW = 1MHz, VBW = 3MHz and Detector = Peak, to measurement 26 dB Bandwidth and 99% Bandwidth
4. UNII-3, SA set RBW = 100kHz, VBW = 300kHz and Detector = Peak, to measurement 6 dB Bandwidth and 99% Bandwidth
5. Measure and record the result of 6 dB Bandwidth and 99% Bandwidth. in the test report.

4.2.3 Test Setup



4.2.4 Test Result

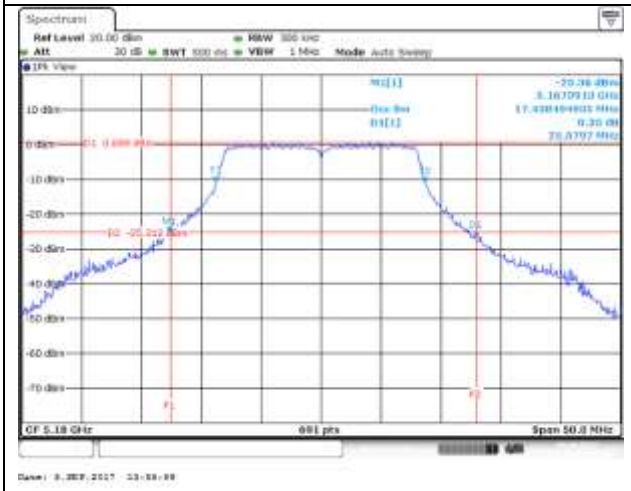
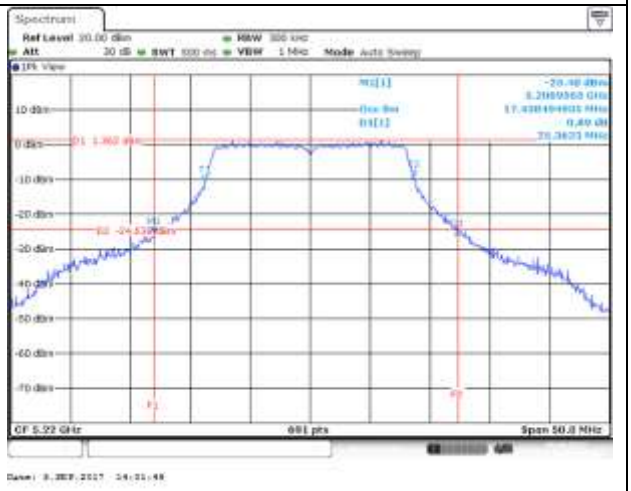
UNII-1 5150-5250 MHz					
Test mode: IEEE 802.11a mode					
Channel	**Frequency (MHz)**	**Chain 0 OBW(99%) (MHz)**	**Chain 1 OBW(99%) (MHz)**	**Chain 0 26dB BW (MHz)**	**Chain 1 26dB BW (MHz)**
Low	5180	17.4384	-	25.5797	-
Mid	5220	17.4384	-	25.3623	-
High	5240	17.5832	-	26.8841	-
Test mode: IEEE 802.11n HT20 mode					
Channel	**Frequency (MHz)**	**Chain 0 OBW(99%) (MHz)**	**Chain 1 OBW(99%) (MHz)**	**Chain 0 26dB BW (MHz)**	**Chain 1 26dB BW (MHz)**
Low	5180	18.4515	-	25.8696	-
Mid	5220	17.5962	-	27.8261	-
High	5240	18.5962	-	26.9565	-
Test mode: IEEE 802.11n HT40 mode					
Channel	**Frequency (MHz)**	**Chain 0 OBW(99%) (MHz)**	**Chain 1 OBW(99%) (MHz)**	**Chain 0 26dB BW (MHz)**	**Chain 1 26dB BW (MHz)**
Low	5190	36.8162	-	44.6380	-
High	5230	36.7004	-	46.1450	-

UNII-2a 5250-5350 MHz					
Test mode: IEEE 802.11a mode					
Channel	**Frequency (MHz)**	**Chain 0 OBW(99%) (MHz)**	**Chain 1 OBW(99%) (MHz)**	**Chain 0 26dB BW (MHz)**	**Chain 1 26dB BW (MHz)**
Low	5260	17.7279	-	26.5217	-
Mid	5280	17.7293	-	27.9710	-
High	5320	17.7293	-	27.3913	-
Test mode: IEEE 802.11n HT20 mode					
Channel	**Frequency (MHz)**	**Chain 0 OBW(99%) (MHz)**	**Chain 1 OBW(99%) (MHz)**	**Chain 0 26dB BW (MHz)**	**Chain 1 26dB BW (MHz)**
Low	5260	18.6685	-	27.5362	-
Mid	5280	18.6685	-	30.2174	-
High	5320	18.5996	-	28.5507	-
Test mode: IEEE 802.11n HT40 mode					
Channel	**Frequency (MHz)**	**Chain 0 OBW(99%) (MHz)**	**Chain 1 OBW(99%) (MHz)**	**Chain 0 26dB BW (MHz)**	**Chain 1 26dB BW (MHz)**
Low	5270	36.9319	-	46.0290	-
High	5310	36.9319	-	45.4490	-

UNII-2c 5475-5725 MHz					
Test mode: IEEE 802.11a mode					
Channel	**Frequency (MHz)**	**Chain 0 OBW(99%) (MHz)**	**Chain 1 OBW(99%) (MHz)**	**Chain 0 26dB BW (MHz)**	**Chain 1 26dB BW (MHz)**
Low	5500	17.6555	-	25.9420	-
Mid	5580	17.5108	-	25.0725	-
High	5700	17.4384	-	25.2174	-
Test mode: IEEE 802.11n HT20 mode					
Channel	**Frequency (MHz)**	**Chain 0 OBW(99%) (MHz)**	**Chain 1 OBW(99%) (MHz)**	**Chain 0 26dB BW (MHz)**	**Chain 1 26dB BW (MHz)**
Low	5500	18.6685	-	30.0000	-
Mid	5580	18.5962	-	26.4493	-
High	5700	18.5238	-	25.7971	-
Test mode: IEEE 802.11n HT40 mode					
Channel	**Frequency (MHz)**	**Chain 0 OBW(99%) (MHz)**	**Chain 1 OBW(99%) (MHz)**	**Chain 0 26dB BW (MHz)**	**Chain 1 26dB BW (MHz)**
Low	5510	36.8162	-	44.7540	-
Mid	5550	36.8162		46.1450	
High	5670	36.7004	-	44.7540	-

UNII-3 5725-5825MHz					
Test mode: IEEE 802.11a mode					
Channel	**Frequency (MHz)**	**Chain 0 OBW(99%) (MHz)**	**Chain 1 OBW(99%) (MHz)**	**Chain 0 6dB BW (MHz)**	**Chain 1 6dB BW (MHz)**
Low	5745	16.5701	-	16.5943	-
Mid	5785	16.6425	-	16.6667	-
High	5825	16.5701	-	16.5943	-
Test mode: IEEE 802.11n HT20 mode					
Channel	**Frequency (MHz)**	**Chain 0 OBW(99%) (MHz)**	**Chain 1 OBW(99%) (MHz)**	**Chain 0 6dB BW (MHz)**	**Chain 1 6dB BW (MHz)**
Low	5745	17.8726	-	17.8986	-
Mid	5785	17.8726	-	17.8261	-
High	5825	17.8726	-	17.9710	-
Test mode: IEEE 802.11n HT40 mode					
Channel	**Frequency (MHz)**	**Chain 0 OBW(99%) (MHz)**	**Chain 1 OBW(99%) (MHz)**	**Chain 0 6dB BW (MHz)**	**Chain 1 6dB BW (MHz)**
Low	5755	36.0057	-	36.4060	-
High	5795	36.0057	-	36.5220	-

Test Data

UNII-1 IEEE 802.11a mode- chain 0	
Low CH	**Mid CH**
	
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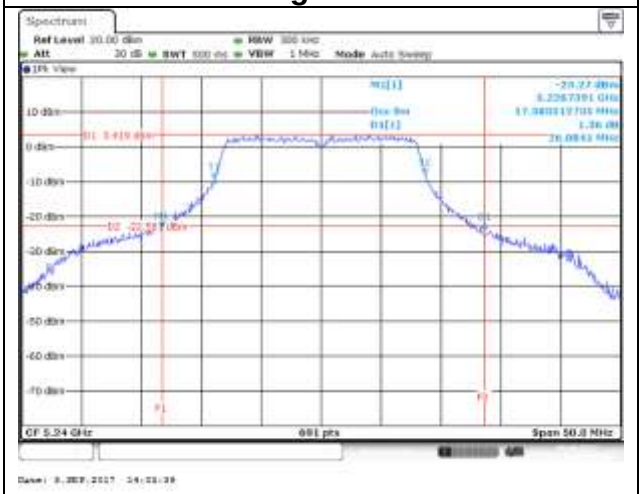
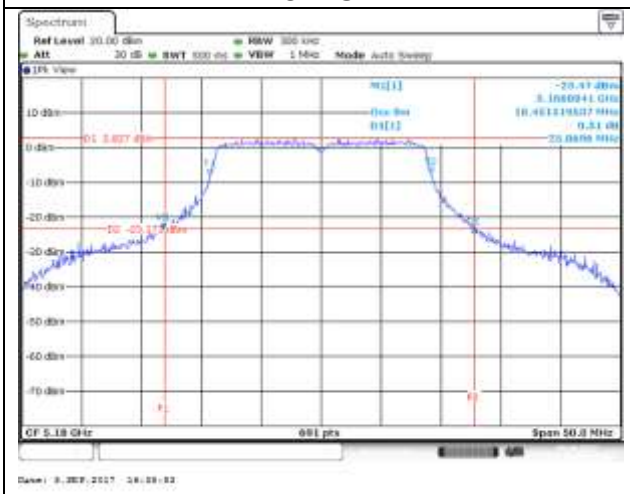
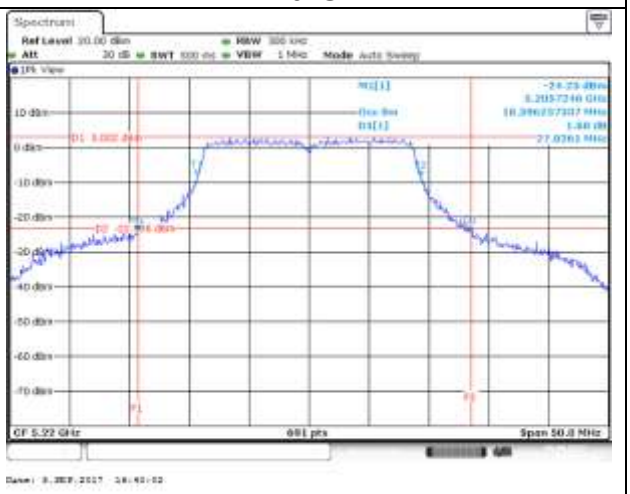
	

UNII-1 IEEE 802.11n HT20 mode- chain 0	
Low CH	**Mid CH**
	
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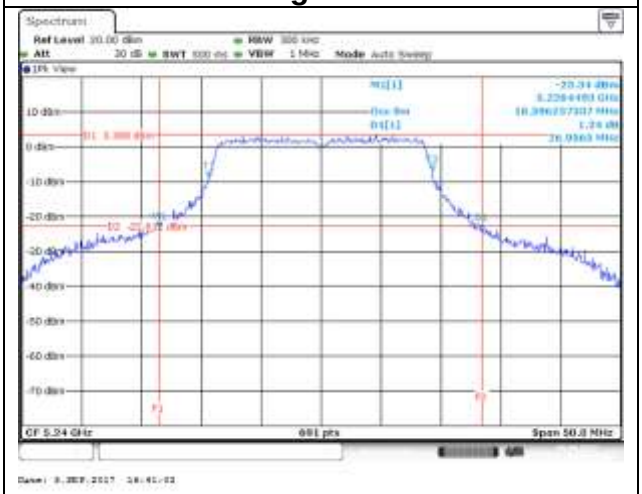	

UNII-1 IEEE 802.11n HT40 mode- chain 0	
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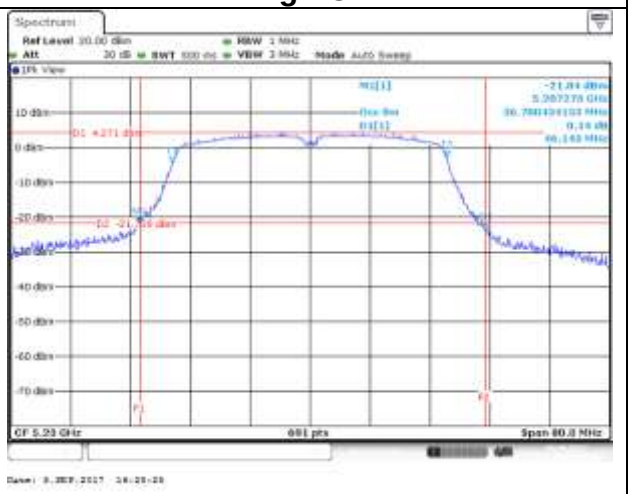
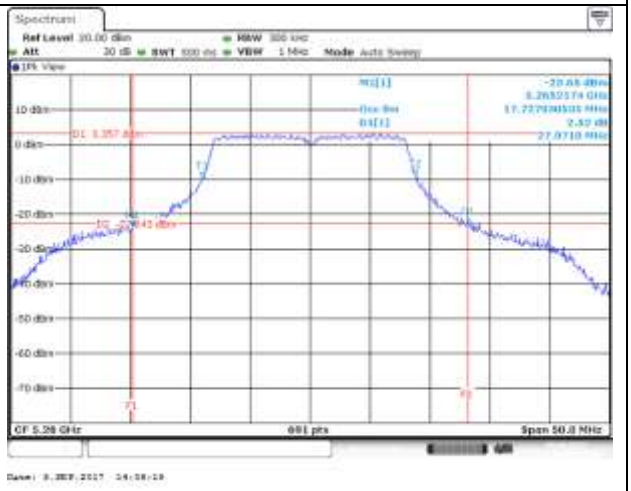
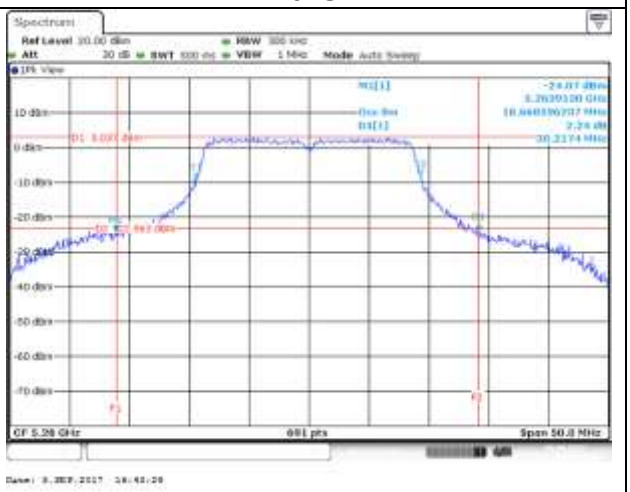
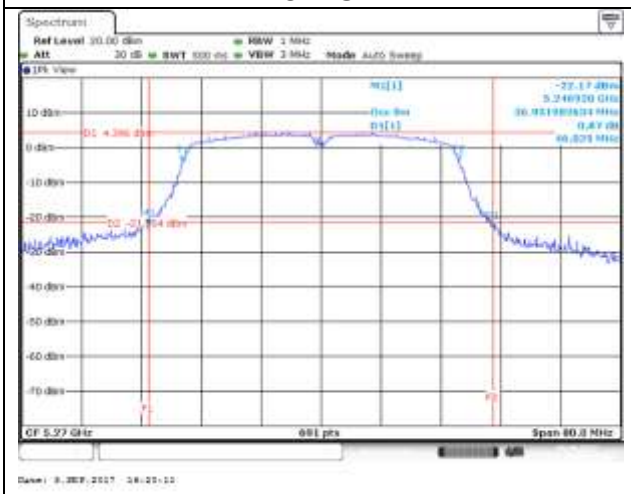
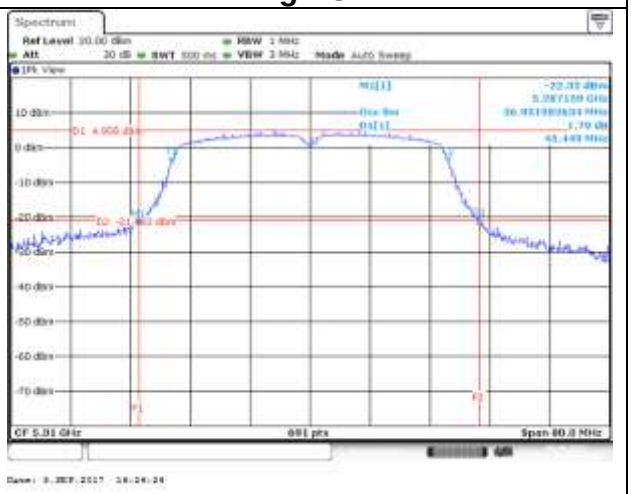
	

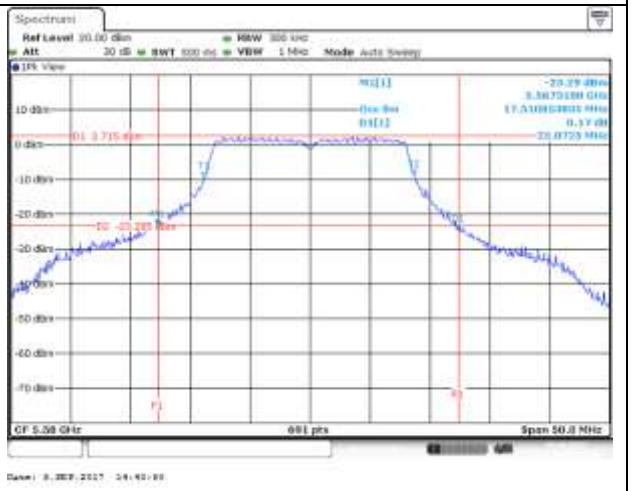
Test Data

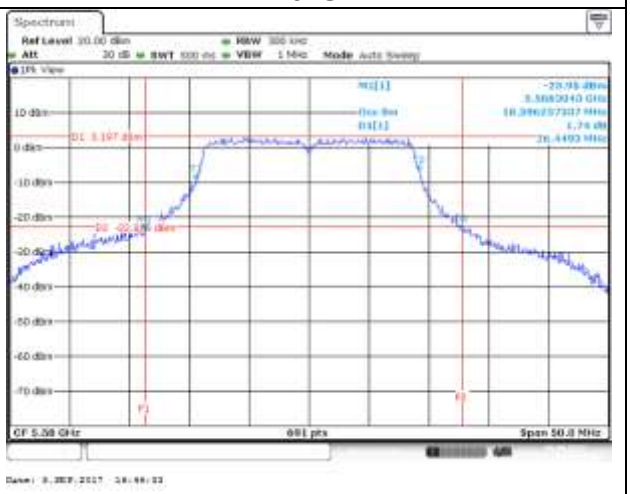
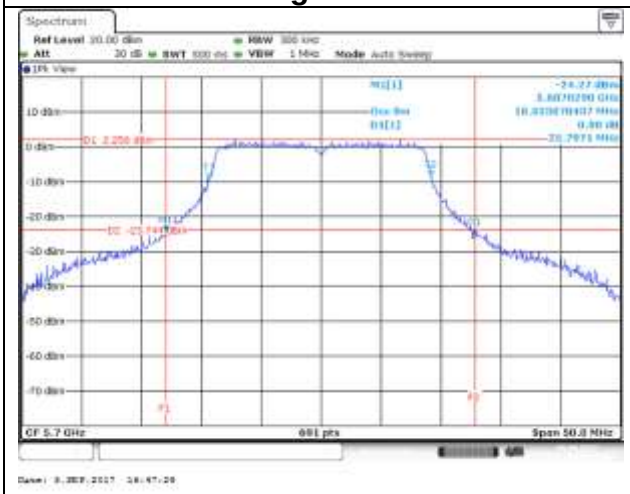
UNII-2a IEEE 802.11a mode- chain 0	
Low CH	**Mid CH**
	
High CH	
	

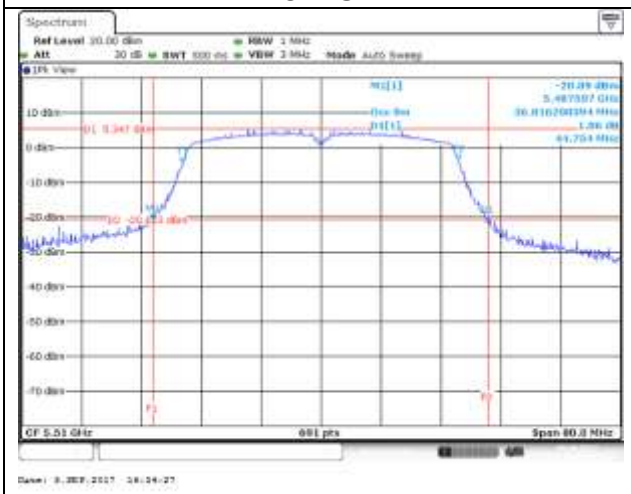
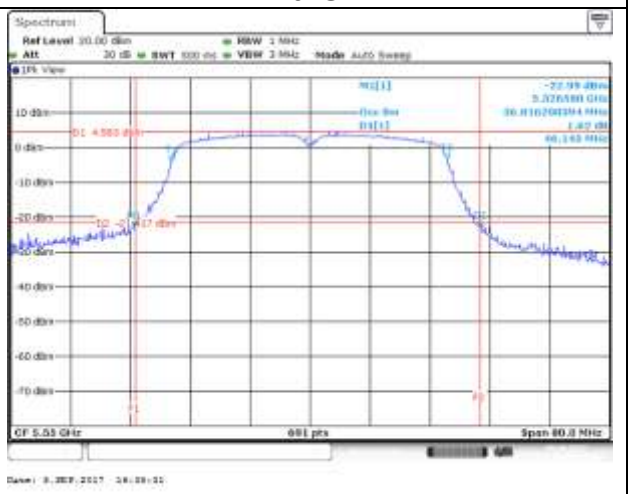
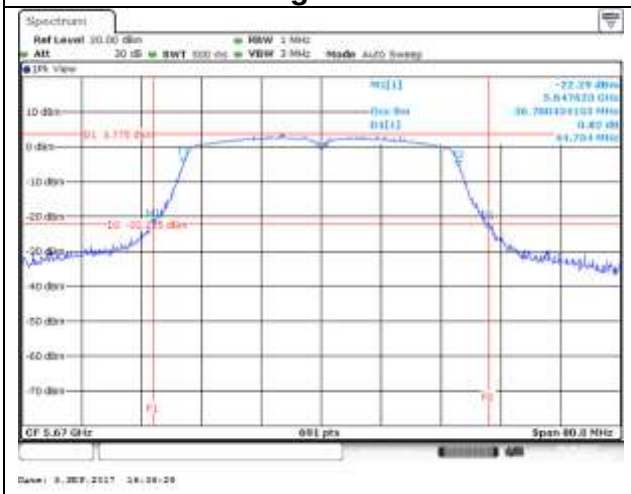
UNII-2a IEEE 802.11n HT20 mode- chain 0	
Low CH	**Mid CH**
	
High CH	
	

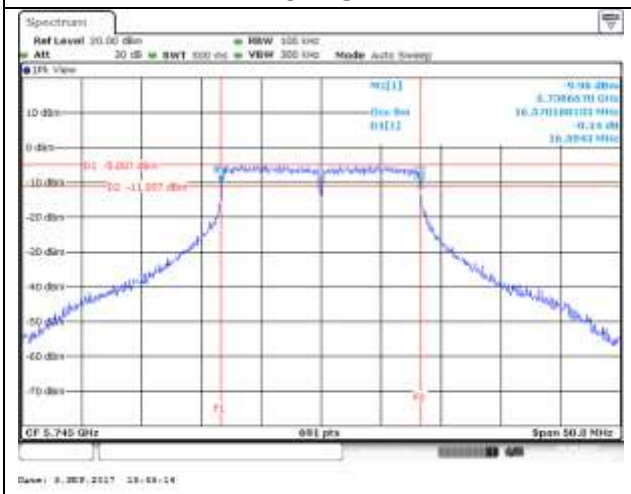
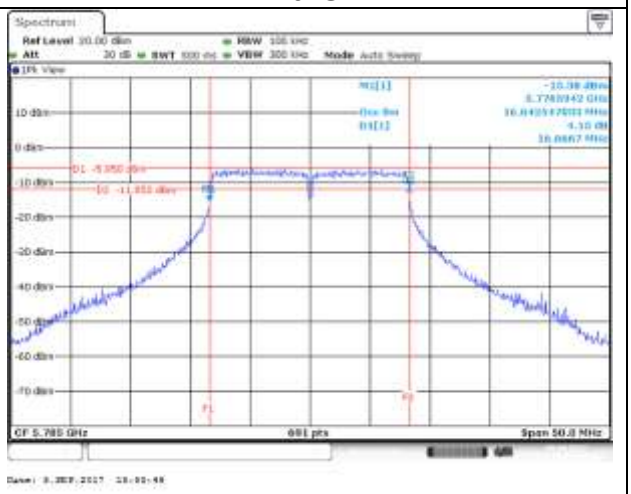
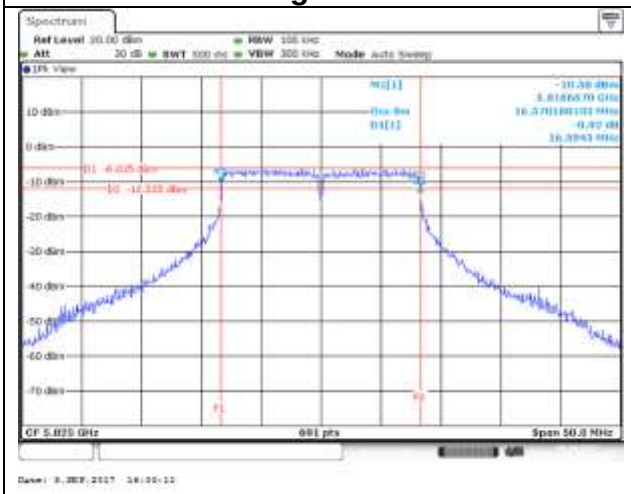
UNII-2a IEEE 802.11n HT40 mode- chain 0	
Low CH	**High CH**
	

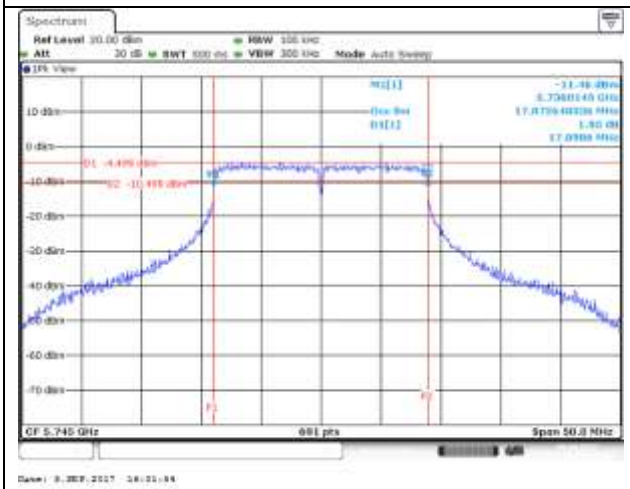
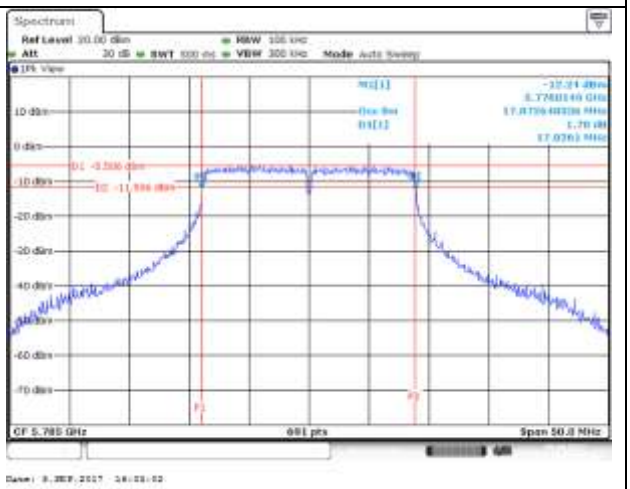
Test Data

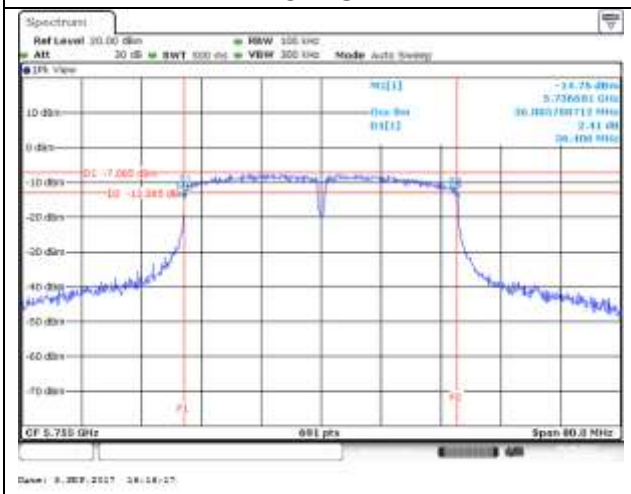
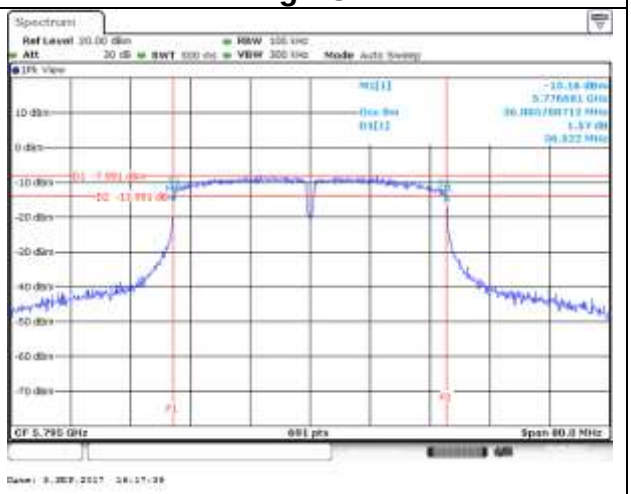
UNII-2c IEEE 802.11a mode- chain 0	
Low CH	**Mid CH**
	
High CH	
	

UNII-2c IEEE 802.11n HT20 mode- chain 0	
Low CH	**Mid CH**
	
High CH	
	

UNII-2c IEEE 802.11n HT40 mode- chain 0	
Low CH	**Mid CH**
	
High CH	
	

UNII-3 IEEE 802.11a mode- chain 0	
Low CH	**Mid CH**
	
High CH	
	

UNII-3 IEEE 802.11n HT20 mode- chain 0	
Low CH	**Mid CH**
	
High CH	
	

UNII-3 IEEE 802.11n HT40 mode- chain 0	
Low CH	**High CH**
	

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) a

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 log10B, 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 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 Log10 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.

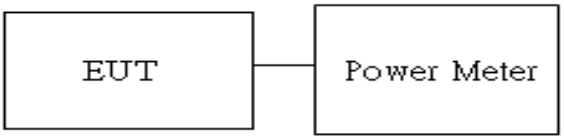
UNII-1 Limit	☒ Antenna not exceed 6 dBi：24dBm ☐ Antenna with DG greater than 6 dBi： [Limit = 30 – (DG – 6)]
UNII-2a/2c Limit	☒ Antenna not exceed 6 dBi：24dBm ☐ Antenna with DG greater than 6 dBi： [Limit = 30 – (DG – 6)]
UNII-3 Limit	☒ Antenna not exceed 6 dBi：30dBm ☐ Antenna with DG greater than 6 dBi：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

4.3.2 Test Procedure

Test method Refer as KDB 789033 D02 v01r03, 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：

UNII-1									
Config	CH	Freq. (MHz)	Power Set		AV Power(dBm)		AV Total Power (dBm)	AV Total Power (W)	Limit (dBm)
			chain0	chain1	chain0	chain1			
IEEE 802.11a Data rate: 6Mbps	36	5180	17.5	-	15.84	-	15.84	0.0384	24
	44	5220	20.0	-	16.02	-	16.02	0.0400	
	48	5240	21.0	-	16.72	-	16.72	0.0470	
IEEE 802.11n HT20 Data rate: MCS 0	36	5180	17.0	-	15.45	-	15.45	0.0351	
	44	5220	20.0	-	16.02	-	16.02	0.0400	
	48	5240	21.0	-	16.72	-	16.72	0.0470	
IEEE 802.11n HT40 Data rate: MCS 0	38	5190	#####	-	11.98	-	11.98	0.0158	
	46	5230	#####	-	19.28	-	19.28	0.0847	

UNII-2a									
Config	CH	Freq. (MHz)	Power Set		AV Power(dBm)		AV Total Power (dBm)	AV Total Power (dBm)	Limit (dBm)
			chain0	chain1	chain0	chain1			
IEEE 802.11a Data rate: 6Mbps	52	5260	21	-	17.26	-	17.26	0.0532	24
	56	5280	21	-	17.05	-	17.05	0.0507	
	64	5320	18.5	-	16.22	-	16.22	0.0419	
IEEE 802.11n HT20 Data rate: MCS 0	52	5260	21	-	16.48	-	16.48	0.0445	
	56	5280	21	-	17.04	-	17.04	0.0506	
	64	5320	18.5	-	16.16	-	16.16	0.0413	
IEEE 802.11n HT40 Data rate: MCS 0	54	5270	18	-	16.03	-	16.03	0.0401	
	62	5310	14.5	-	12.84	-	12.84	0.0192	

UNII-2c									
Config	CH	Freq. (MHz)	Power Set		AV Power(dBm)		AV Total Power (dBm)	AV Total Power (W)	Limit (dBm)
			chain0	chain1	chain0	chain1			
IEEE 802.11a Data rate: 6Mbps	100	5500	18.5	-	15.87	-	15.87	0.0386	24
	116	5580	20.5	-	17.30	-	17.30	0.0537	
	140	5700	18	-	15.73	-	15.73	0.0374	
IEEE 802.11n HT20 Data rate: MCS 0	100	5500	18	-	15.80	-	15.80	0.0380	
	116	5580	18	-	15.18	-	15.18	0.0330	
	140	5700	16	-	13.80	-	13.80	0.0240	
IEEE 802.11n HT40 Data rate: MCS 0	102	5510	13	-	11.48	-	11.48	0.0141	
	110	5550	23	-	19.62	-	19.62	0.0916	
	134	5670	19	-	16.45	-	16.45	0.0442	

UNII-3									
Config	CH	Freq. (MHz)	Power Set		AV Power(dBm)		AV Total Power (dBm)	AV Total Power (W)	Limit (dBm)
			chain0	chain1	chain0	chain1			
IEEE 802.11a Data rate: 6Mbps	149	5745	10	-	8.54	-	8.54	0.0071	30
	157	5785	10	-	8.13	-	8.13	0.0065	
	165	5825	10	-	7.80	-	7.80	0.0060	
IEEE 802.11n HT20 Data rate: MCS0	149	5745	14	-	12.14	-	12.14	0.0164	
	157	5785	16	-	14.36	-	14.36	0.0273	
	165	5825	16	-	14.03	-	14.03	0.0253	
IEEE 802.11n HT40 Data rate: MCS0	151	5755	17	-	15.51	-	15.51	0.0356	
	159	5795	17	-	13.15	-	13.15	0.0207	

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.

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-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.

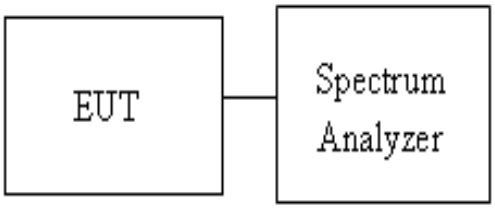
UNII-1 Limit	☒ Antenna not exceed 6 dBi：11 dBm ☐ Antenna with DG greater than 6 dBi： [Limit = 11 – (DG – 6)]
UNII-2a/2c Limit	☒ Antenna not exceed 6 dBi：11 dBm ☐ Antenna with DG greater than 6 dBi： [Limit = 11 – (DG – 6)]
UNII-3 Limit	☒ Antenna not exceed 6 dBi：30 dBm ☐ Antenna with DG greater than 6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

4.4.2 Test Procedure

Test method Refer as KDB 789033 D02 v01r03, 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

UNII-1 5150-5250 MHz			
Test mode: IEEE 802.11a mode			
Channel	**Frequency (MHz)**	**PPSD (dBm)**	**Limit (dBm)**
Low	5180	4.64	11
Mid	5220	6.43	
High	5240	7.31	
Test mode: IEEE 802.11n HT20 mode			
Channel	**Frequency (MHz)**	**PPSD (dBm)**	**Limit (dBm)**
Low	5180	4.39	11
Mid	5220	5.79	
High	5240	5.86	
Test mode: IEEE 802.11n HT40 mode			
Channel	**Frequency (MHz)**	**PPSD (dBm)**	**Limit (dBm)**
Low	5190	-2.25	11
High	5230	5.17	

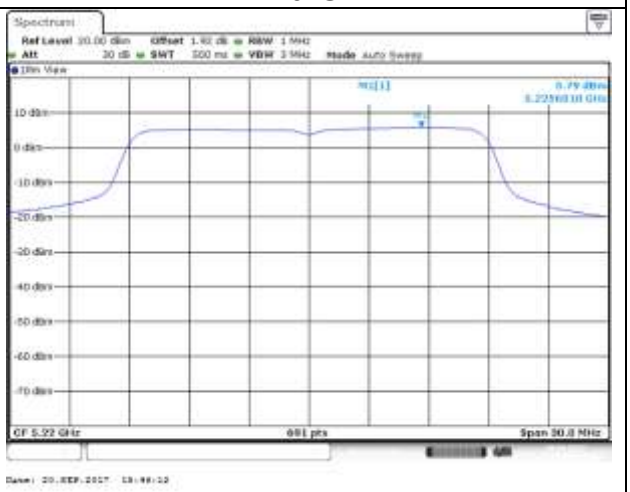
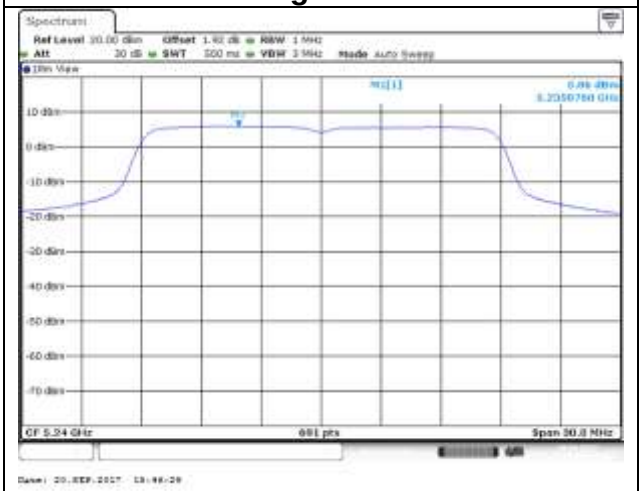
UNII-2a 5250-5350 MHz			
Test mode: IEEE 802.11a mode			
Channel	**Frequency (MHz)**	**PPSD (dBm)**	**Limit (dBm)**
Low	5260	6.28	11
Mid	5280	5.77	
High	5320	5.33	
Test mode: IEEE 802.11n HT20 mode			
Channel	**Frequency (MHz)**	**PPSD (dBm)**	**Limit (dBm)**
Low	5260	5.58	11
Mid	5280	5.97	
High	5320	4.73	
Test mode: IEEE 802.11n HT40 mode			
Channel	**Frequency (MHz)**	**PPSD (dBm)**	**Limit (dBm)**
Low	5270	1.77	11
High	5310	-1.05	

UNII-2c 5470-5725 MHz			
Test mode: IEEE 802.11a mode			
Channel	**Frequency (MHz)**	**PPSD (dBm)**	**Limit (dBm)**
Low	5500	4.65	11
Mid	5580	6.27	
High	5725	4.61	
Test mode: IEEE 802.11n HT20 mode			
Channel	**Frequency (MHz)**	**PPSD (dBm)**	**Limit (dBm)**
Low	5500	3.77	11
Mid	5580	3.68	
High	5725	2.49	
Test mode: IEEE 802.11n HT40 mode			
Channel	**Frequency (MHz)**	**PPSD (dBm)**	**Limit (dBm)**
Low	5510	-2.79	11
Mid	5550	5.42	
High	5670	2.84	

UNII-3 5725-5825 MHz			
Test mode: IEEE 802.11a mode			
Channel	**Frequency (MHz)**	**PPSD (dBm)**	**Limit (dBm)**
Low	5745	16.83	30
Mid	5785	16.18	
High	5825	15.30	
Test mode: IEEE 802.11n HT20 mode			
Channel	**Frequency (MHz)**	**PPSD (dBm)**	**Limit (dBm)**
Low	5745	8.43	30
Mid	5785	17.22	
High	5825	15.82	
Test mode: IEEE 802.11n HT40 mode			
Channel	**Frequency (MHz)**	**PPSD (dBm)**	**Limit (dBm)**
Low	5755	14.07	30
High	5795	13.96	

Test Data

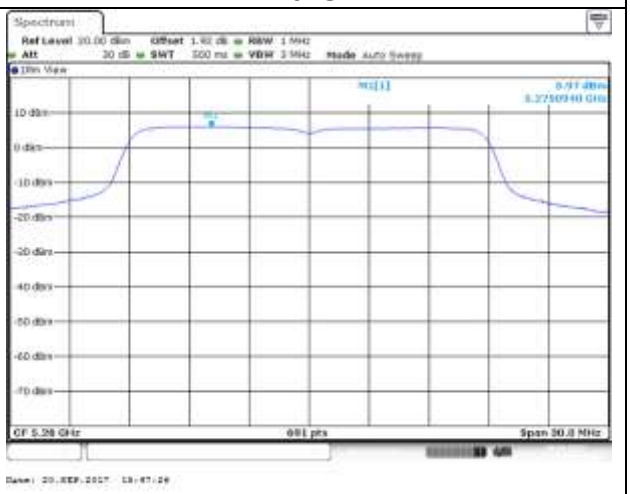
UNII-1 IEEE 802.11a mode- chain 0	
Low CH	**Mid CH**
	
High CH	
	

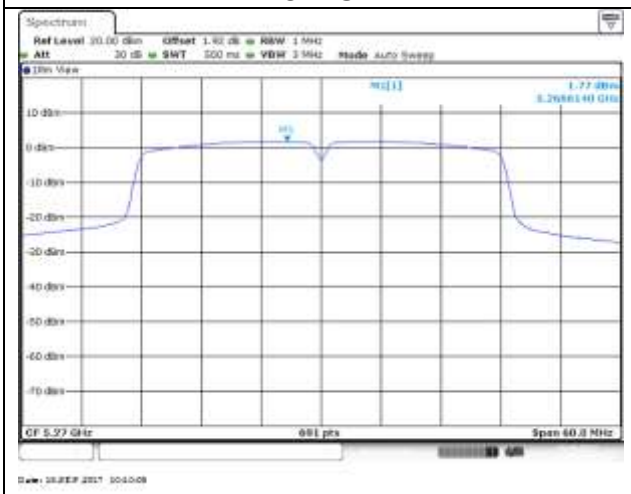
UNII-1 IEEE 802.11n HT20 mode- chain 0	
Low CH	**Mid CH**
	
High CH	
	

UNII-1 IEEE 802.11n HT40 mode- chain 0	
Low CH	**High CH**
	

Test Data

UNII-2a IEEE 802.11a mode- chain 0	
Low CH	**Mid CH**
	
High CH	
	

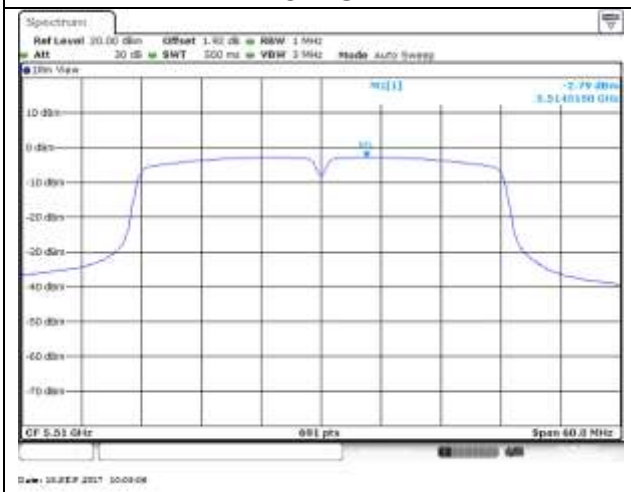
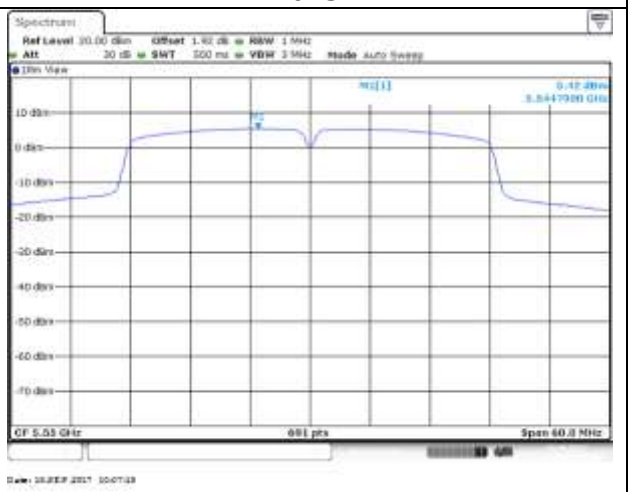
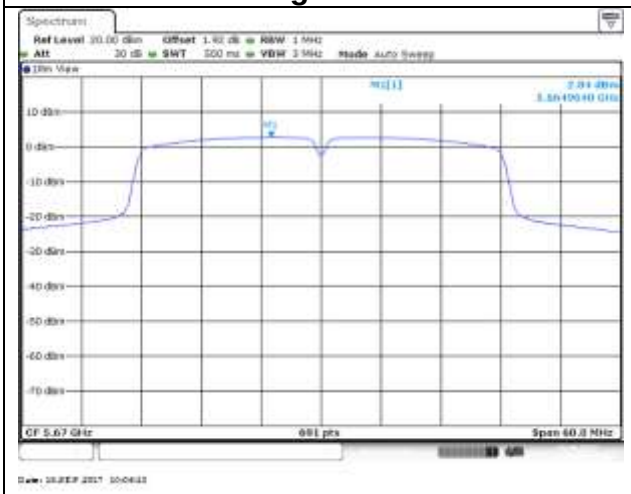
UNII-2a IEEE 802.11n HT20 mode- chain 0	
Low CH	**Mid CH**
	
High CH	
	

UNII-2a IEEE 802.11n HT40 mode- chain 0	
Low CH	**High CH**
	

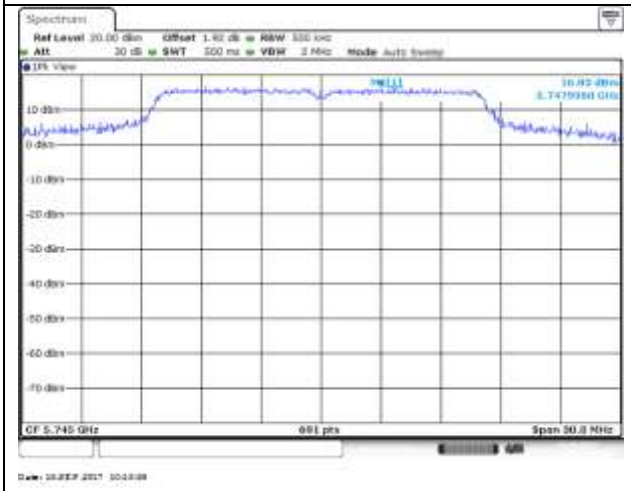
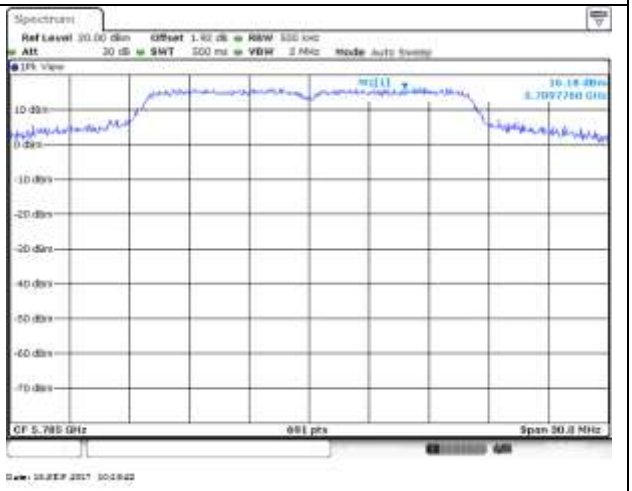
Test Data

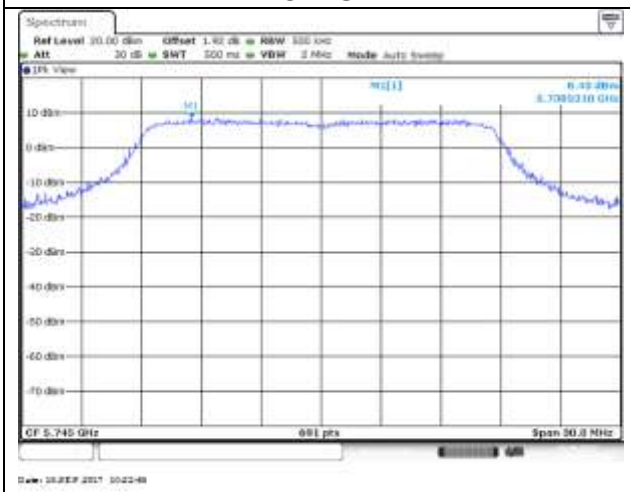
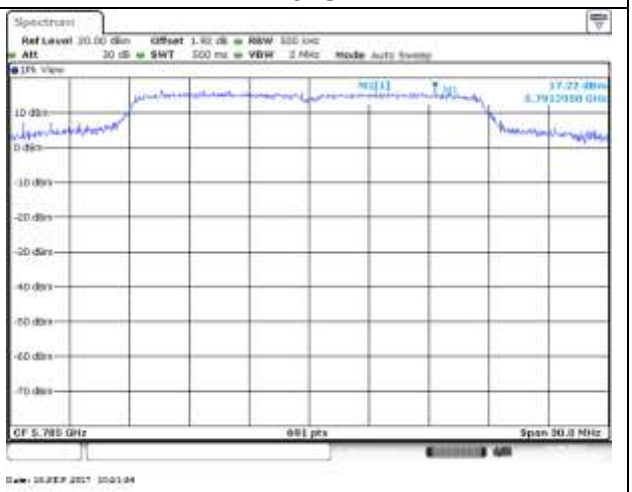
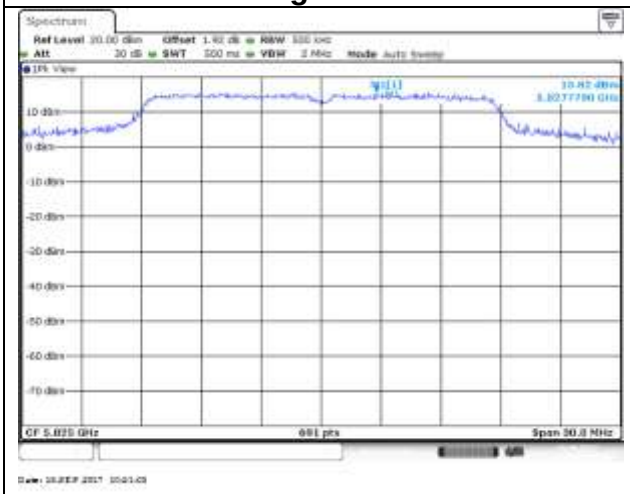
UNII-2c IEEE 802.11a mode- chain 0	
Low CH	**Mid CH**
	
High CH	
	

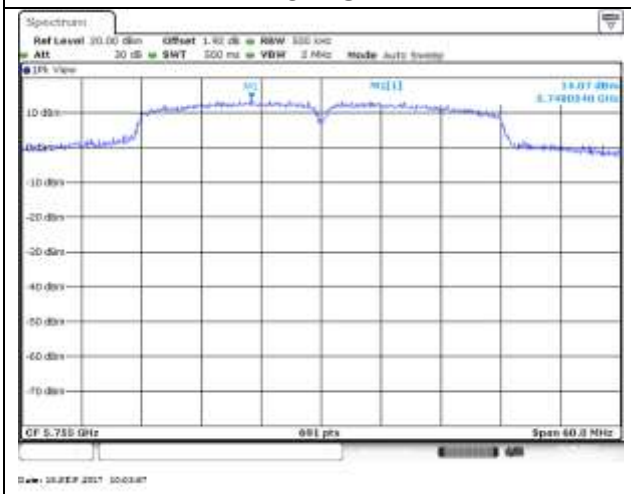
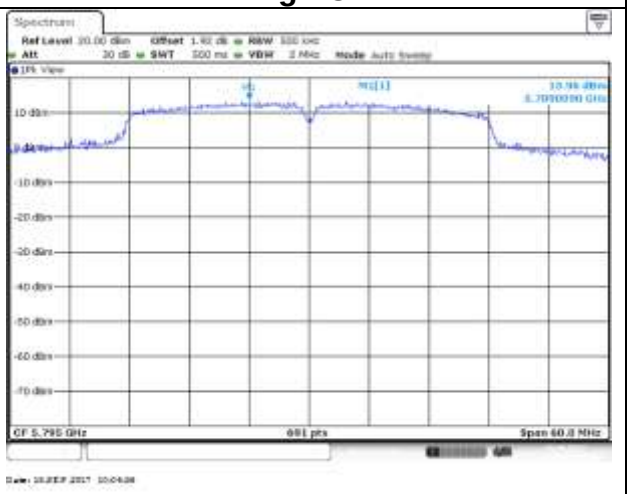
UNII-2c IEEE 802.11n HT20 mode- chain 0	
Low CH	**Mid CH**
	
High CH	
	

UNII-2c IEEE 802.11n HT40 mode- chain 0	
Low CH	**Mid CH**
	
High CH	
	

Test Data

UNII-3 IEEE 802.11a mode- chain 0	
Low CH	**Mid CH**
	
High CH	
	

UNII-3 IEEE 802.11n HT20 mode- chain 0	
Low CH	**Mid CH**
	
High CH	
	

UNII-3 IEEE 802.11n HT40 mode- chain 0	
Low CH	**High CH**
	

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:

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

4.5.2 Test Procedure

Test method Refer as KDB 789033 D02 v01r03, 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 30MHz to 26.5GHz set to the low, Mid and High channels with the EUT transmit.

5. The SA setting following：

(1) Below 1G：RBW = 100kHz, VBW ≥ 3*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.

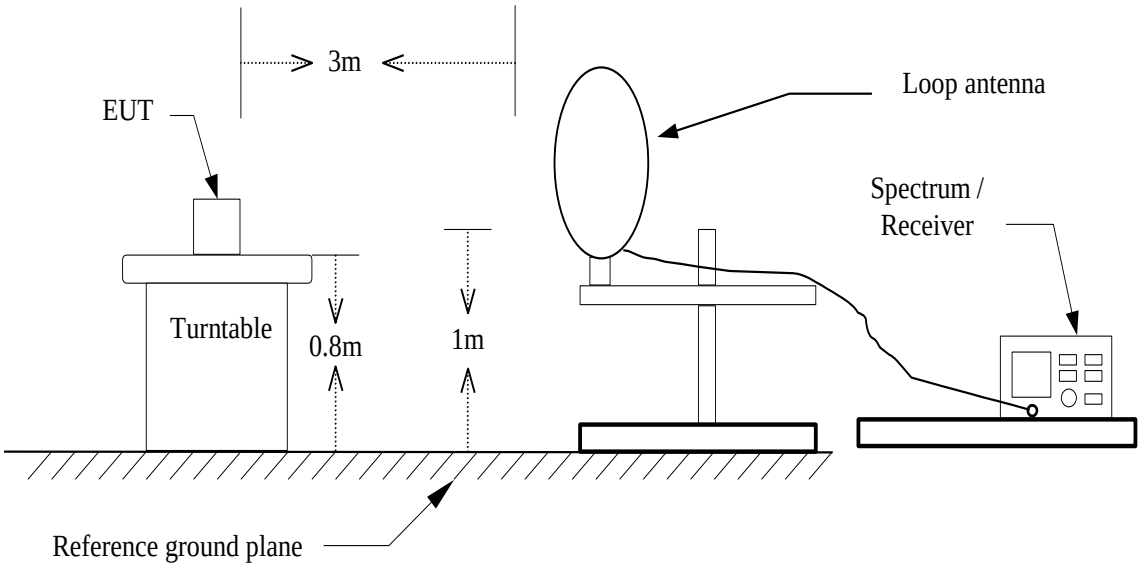
(2.2) For Average measurement：RBW = 1MHz, VBW

- If Duty Cycle ≥ 98%, VBW=10Hz.
- If Duty Cycle < 98%, VBW=1/T.

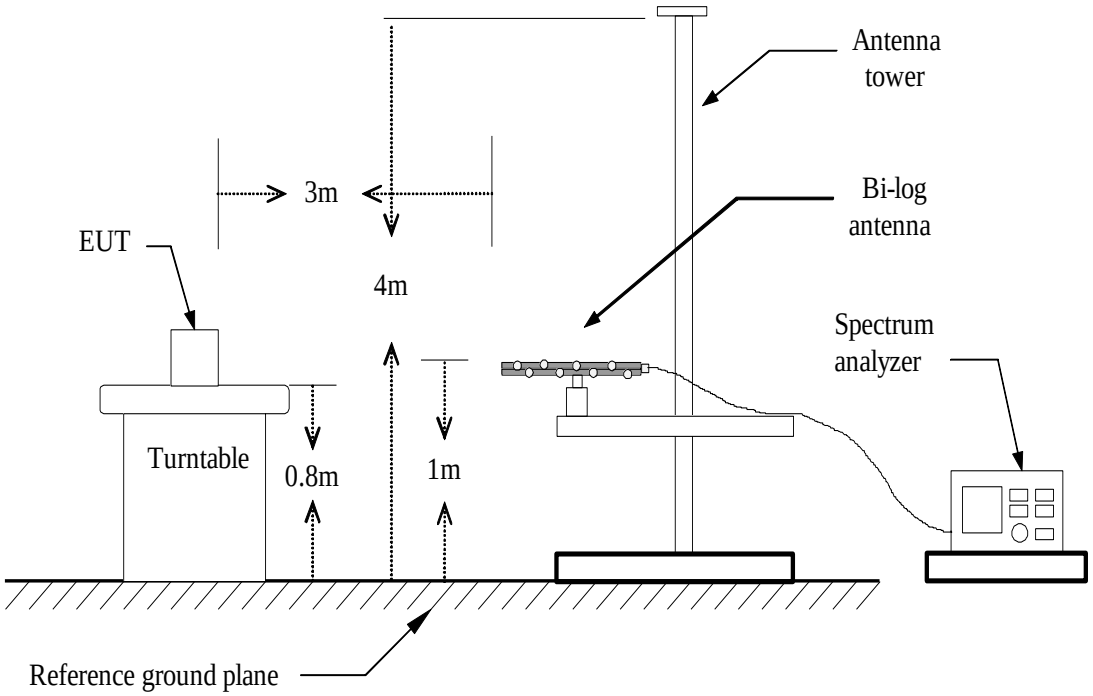
Configuration	Duty Cycle (%)	VBW
802.11a	100%	10Hz
802.11n HT20	100%	10Hz
802.11n HT40	100%	10Hz
802.11ac VHT80	100%	10Hz

4.5.3 Test Setup

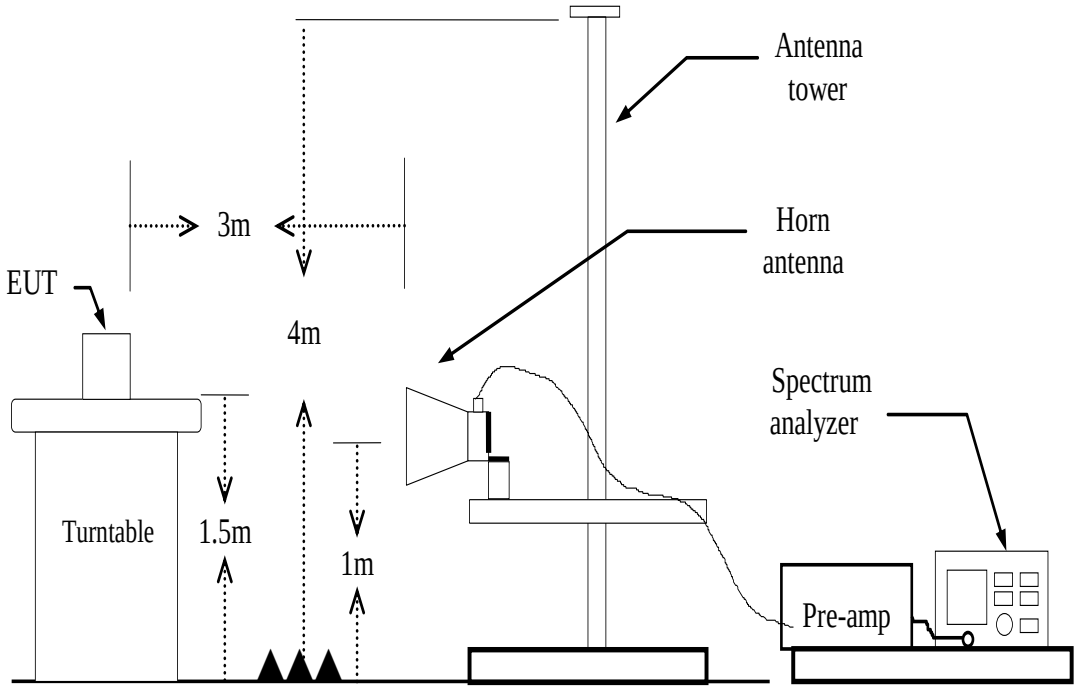
9kHz ~ 30MHz



30MHz ~ 1GHz



Above 1 GHz

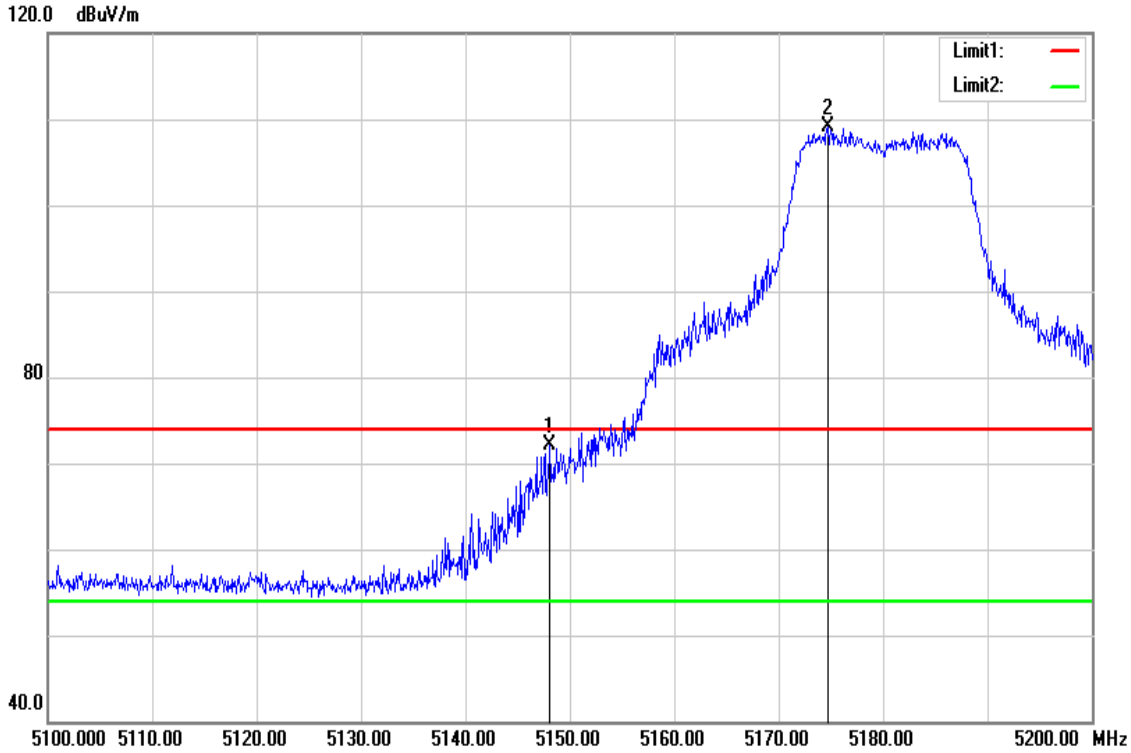


4.5.4 Test Result

Test Data

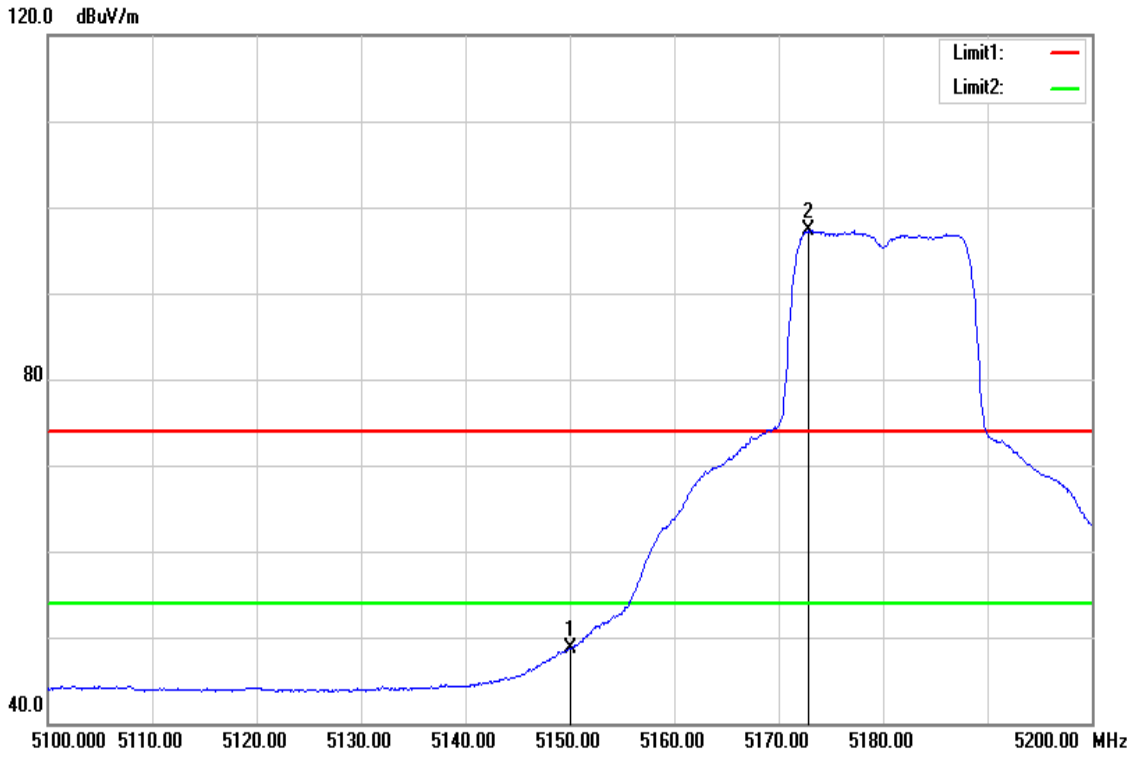
Band Edge Test Data for UNII-1

Test Mode	IEEE 802.11a Low CH	Temp/Hum	24(℃)/ 33%RH
Test Item	Band Edge	Test Date	September 13, 2017
Polarize	Vertical	Test Engineer	Ed Chiang
Detector	Peak	Test Voltage	DC 12V



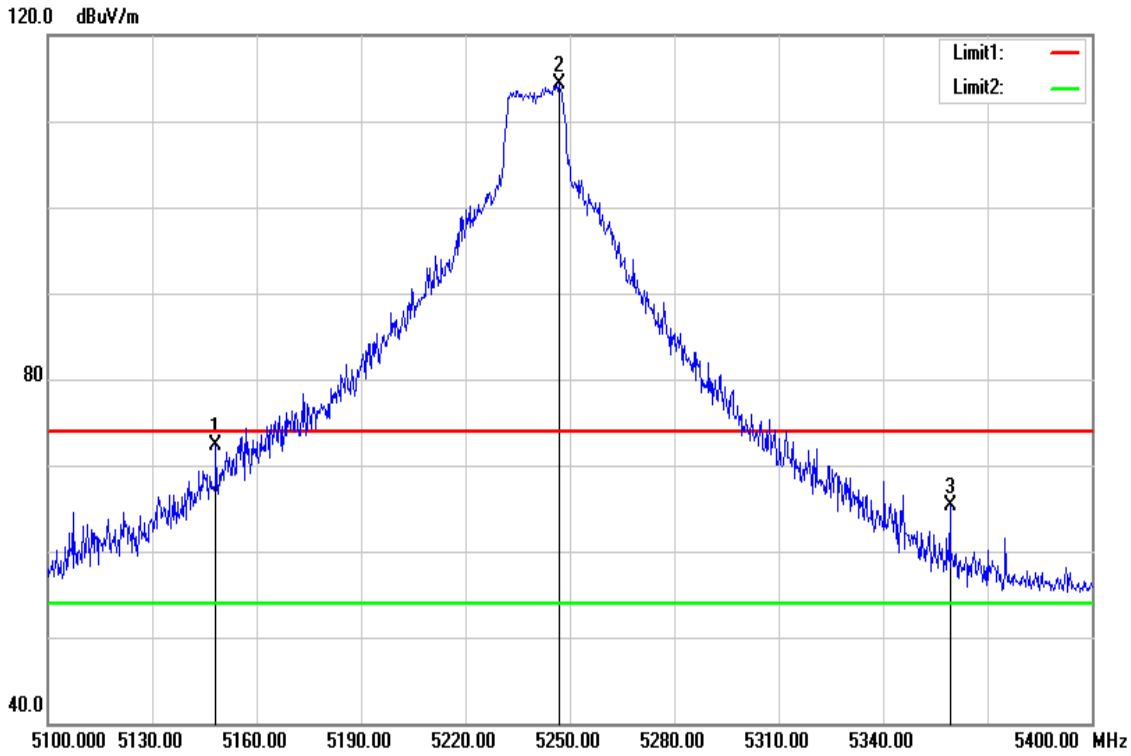
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
5148. 00	64.56	7.57	72.13	74.00	-1.87	peak
5174.700	101.49	7.60	109.09	-	-	peak

Test Mode	IEEE 802.11a Low CH	Temperature	24(℃)/ 33%RH
Test Item	Band Edge	Test Date	September 13, 2017
Polarize	Vertical	Test Engineer	Ed Chiang
Detector	Average	Test Voltage	DC 12V



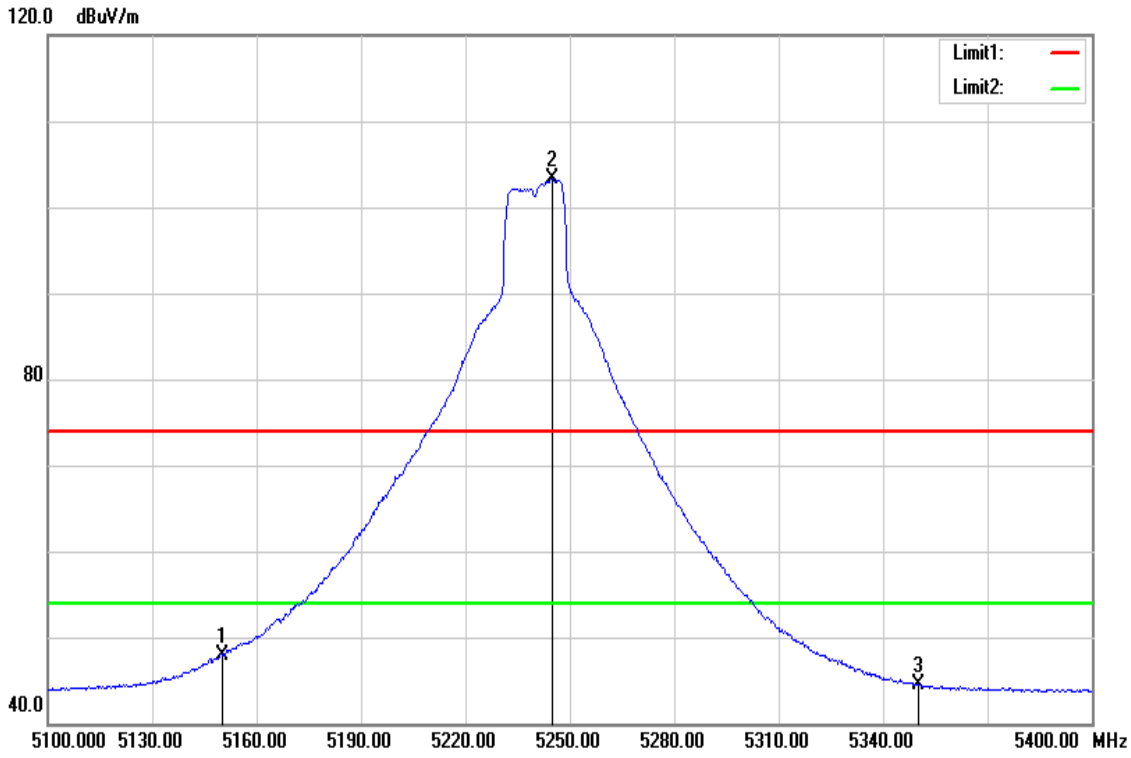
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
51 0.000	41.23	7.57	48.80	54.00	-5.20	AVG
5172.800	89.64	7.60	97.24	-	-	AVG

Test Mode	IEEE 802.11a High CH	Temp/Hum	24(℃)/ 33%RH
Test Item	Band Edge	Test Date	September 13, 2017
Polarize	Vertical	Test Engineer	Ed Chiang
Detector	Peak	Test Voltage	DC 12V



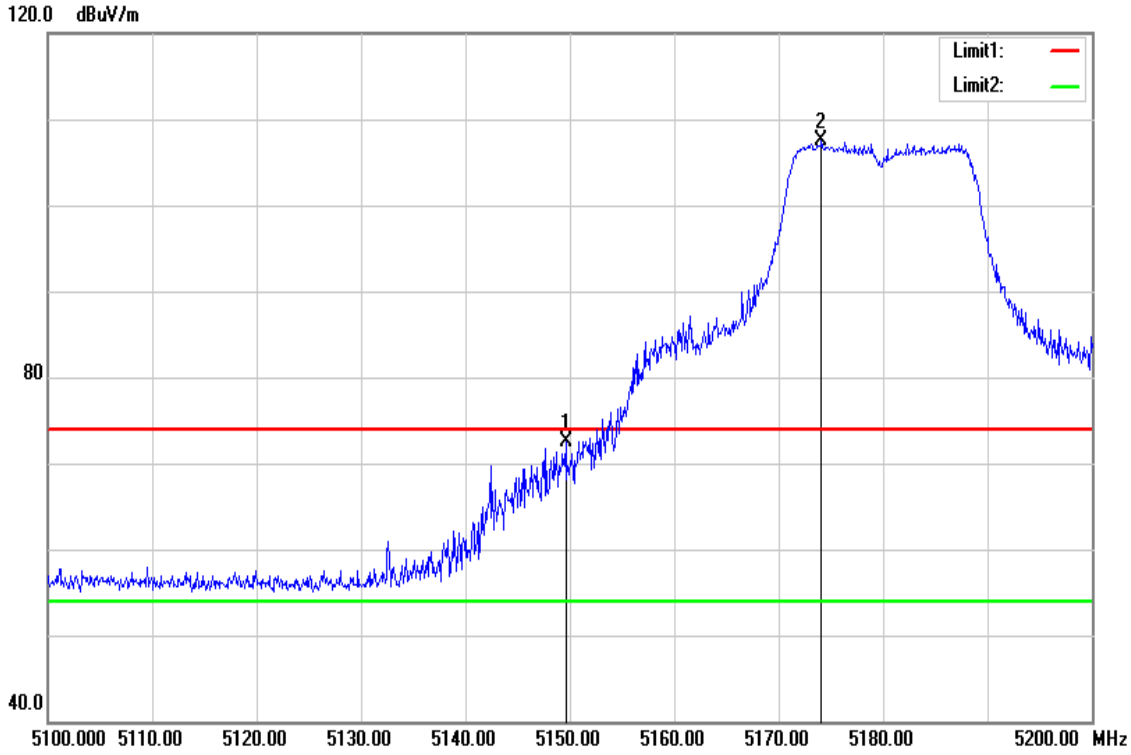
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
5148.300	64.72	7.57	72.29	74.00	-1.71	peak
5247.000	106.56	7.75	114.31	-	-	peak
5359.200	57.37	7.96	65.33	74.00	-8.67	peak

Test Mode	IEEE 802.11a High CH	Temperature	24(℃)/ 33%RH
Test Item	Band Edge	Test Date	September 13, 2017
Polarize	Vertical	Test Engineer	Ed Chiang
Detector	Average	Test Voltage	DC 12V



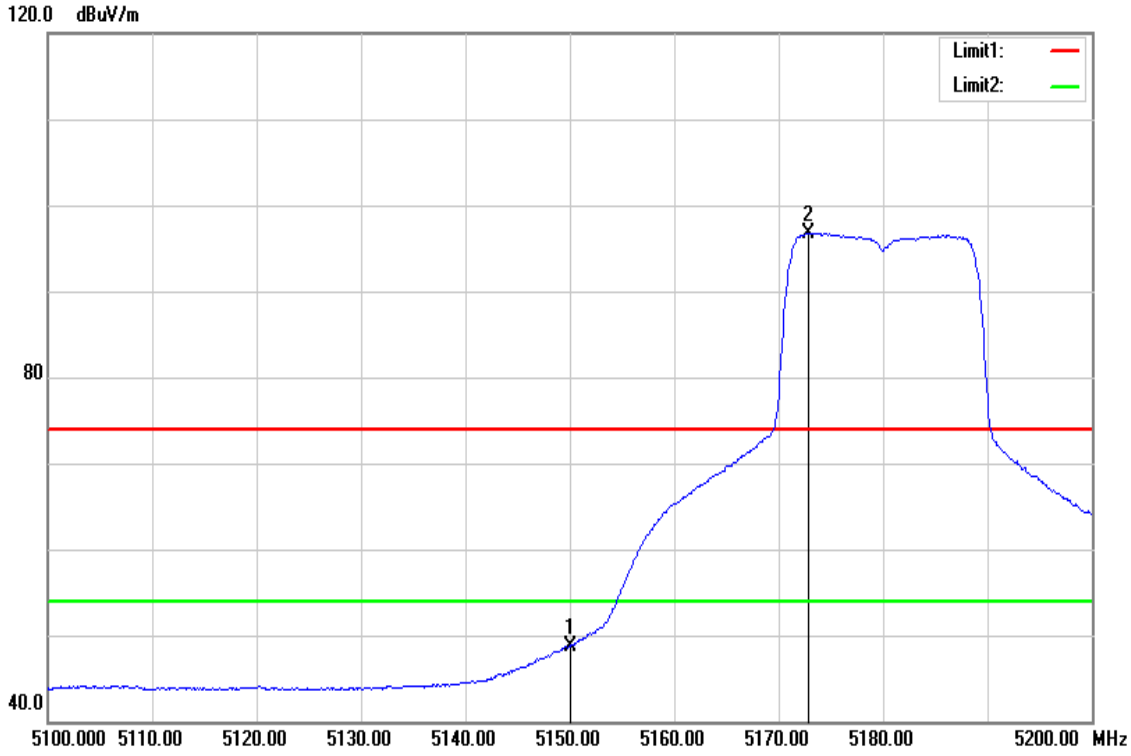
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
5150.000	40.42	7.57	47.99	54.00	-6.01	AVG
5244.900	95.50	7.74	103.24	-	-	AVG
5350.000	36.59	7.93	44.52	54.00	-9.48	AVG

Test Mode	IEEE 802.11n HT20 Low CH	Temp/Hum	24(℃)/ 33%RH
Test Item	Band Edge	Test Date	September 13, 2017
Polarize	Vertical	Test Engineer	Ed Chiang
Detector	Peak	Test Voltage	DC 12V



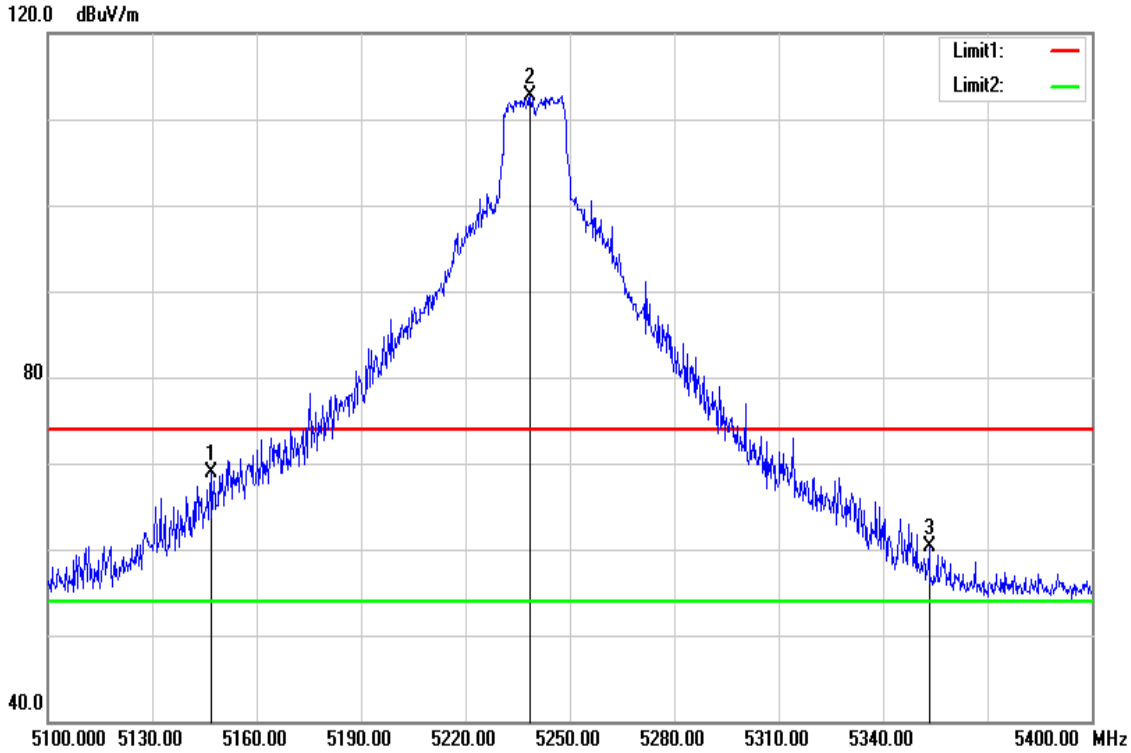
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
5149.600	64.91	7.57	72.48	74.00	-1.52	peak
5174.100	99.98	7.60	107.58	-	-	peak

Test Mode	IEEE 802.11n HT20 Low CH	Temperature	24(℃)/ 33%RH
Test Item	Band Edge	Test Date	September 13, 2017
Polarize	Vertical	Test Engineer	Ed Chiang
Detector	Average	Test Voltage	DC 12V



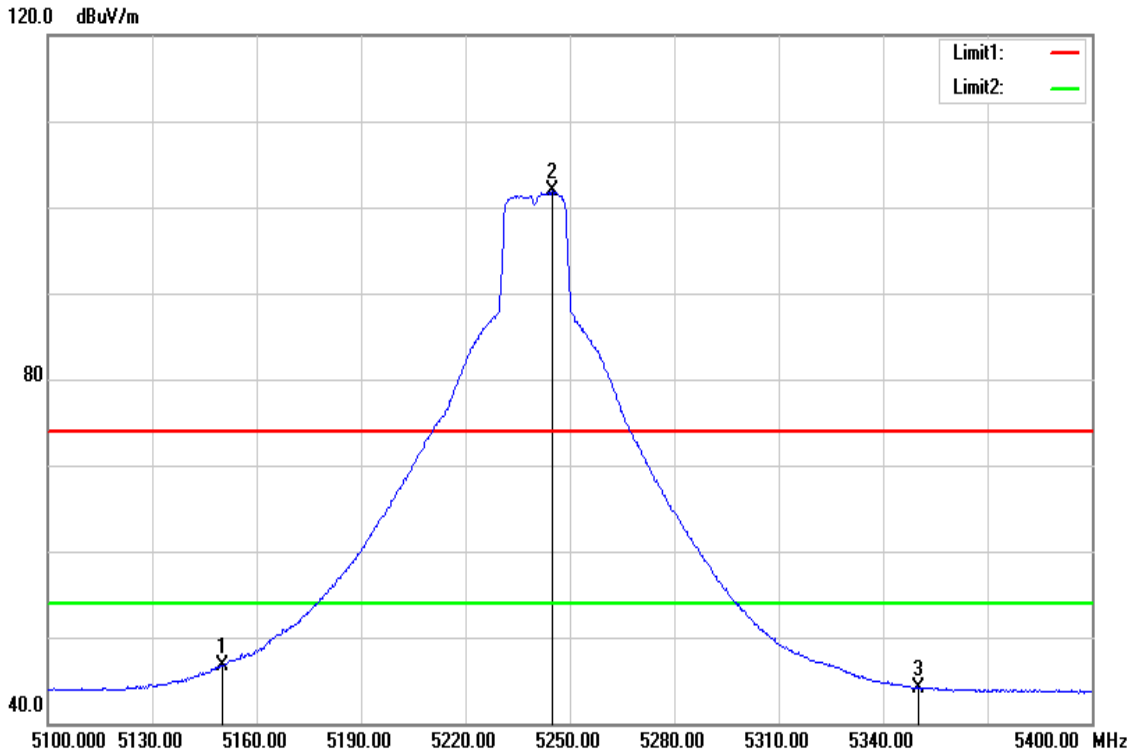
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
5150.000	41.16	7.57	48.73	54.00	-5.27	AVG
5172.900	89.13	7.60	96.73	-	-	AVG

Test Mode	IEEE 802.11n HT20 High CH	Temp/Hum	24(℃)/ 33%RH
Test Item	Band Edge	Test Date	September 13, 2017
Polarize	Vertical	Test Engineer	Ed Chiang
Detector	Peak	Test Voltage	DC 12V



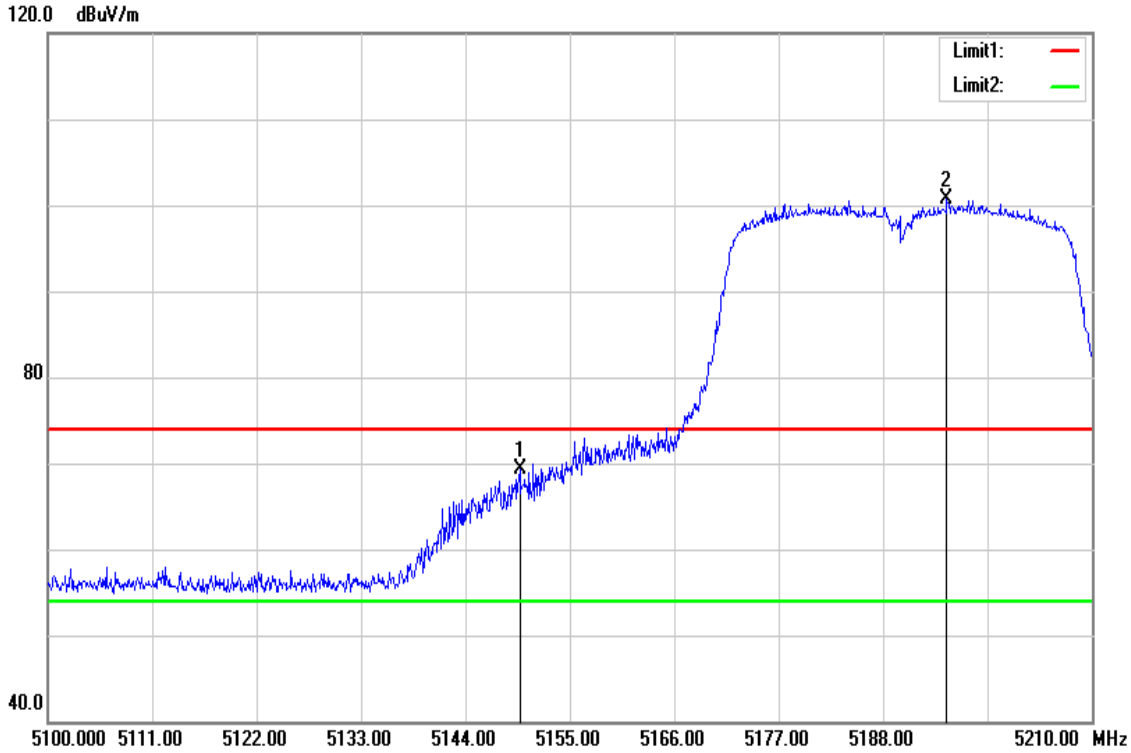
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
5147.100	61.25	7.57	68.82	74.00	-5.18	peak
5238.600	105.00	7.73	112.73	-	-	peak
5353.200	52.37	7.93	60.30	74.00	-13.70	peak

Test Mode	IEEE 802.11n HT20 High CH	Temperature	24(℃)/ 33%RH
Test Item	Band Edge	Test Date	September 13, 2017
Polarize	Vertical	Test Engineer	Ed Chiang
Detector	Average	Test Voltage	DC 12V



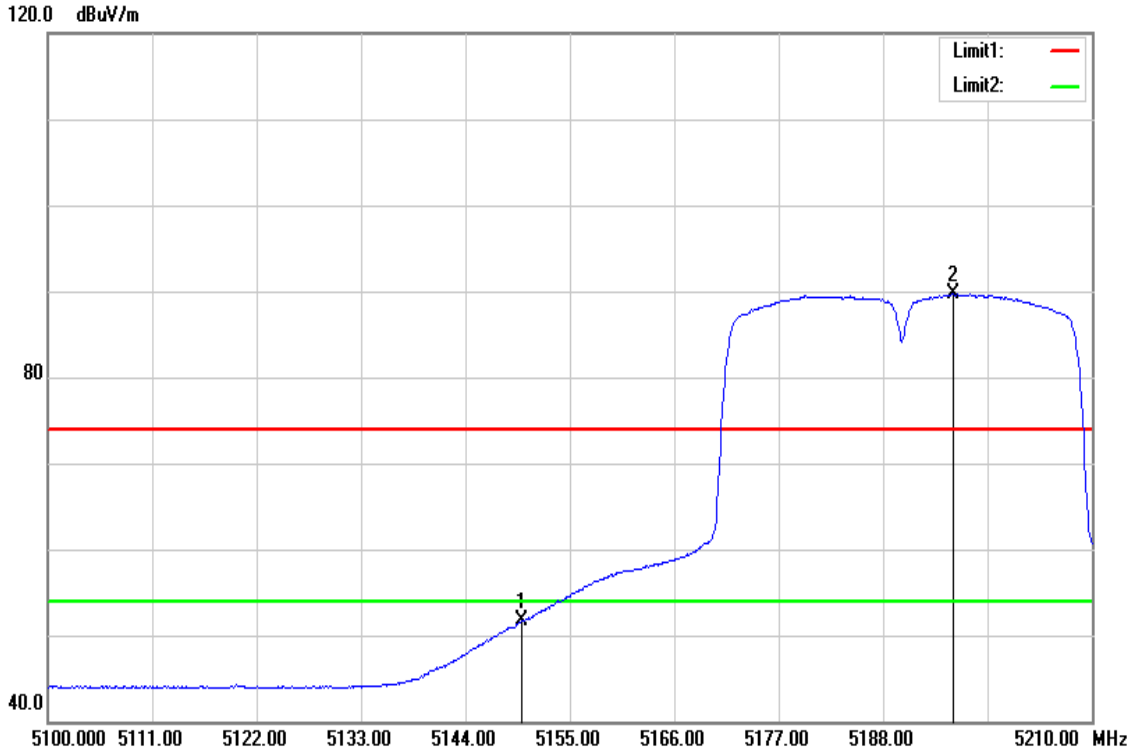
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
5150.000	39.06	7.57	46.63	54.00	-7.37	AVG
5244.900	94.12	7.74	101.86	-	-	AVG
5350.000	36.17	7.93	44.10	54.00	-9.90	AVG

Test Mode	IEEE 802.11n HT40 Low CH	Temp/Hum	24(℃)/ 33%RH
Test Item	Band Edge	Test Date	September 13, 2017
Polarize	Vertical	Test Engineer	Ed Chiang
Detector	Peak	Test Voltage	DC 12V



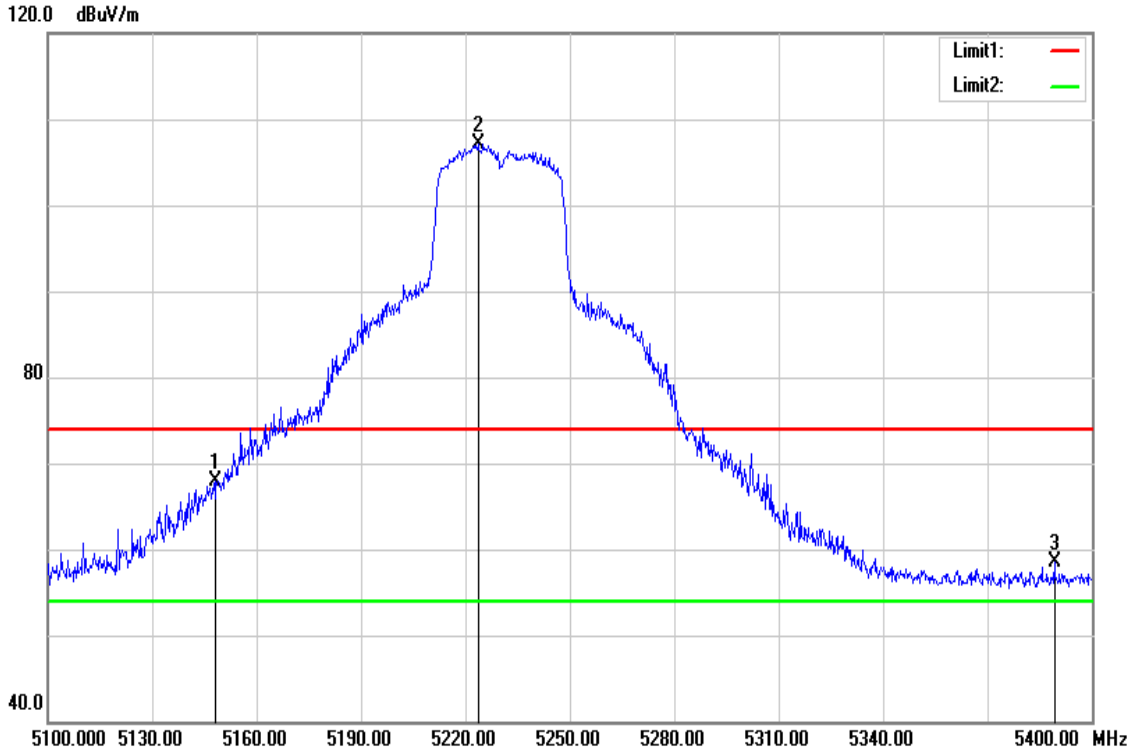
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
5149.720	61.75	7.57	69.32	74.00	-4.68	peak
5194.710	93.01	7.65	100.66	-	-	peak

Test Mode	IEEE 802.11n HT40 Low CH	Temperature	24(℃)/ 33%RH
Test Item	Band Edge	Test Date	September 13, 2017
Polarize	Vertical	Test Engineer	Ed Chiang
Detector	Average	Test Voltage	DC 12V



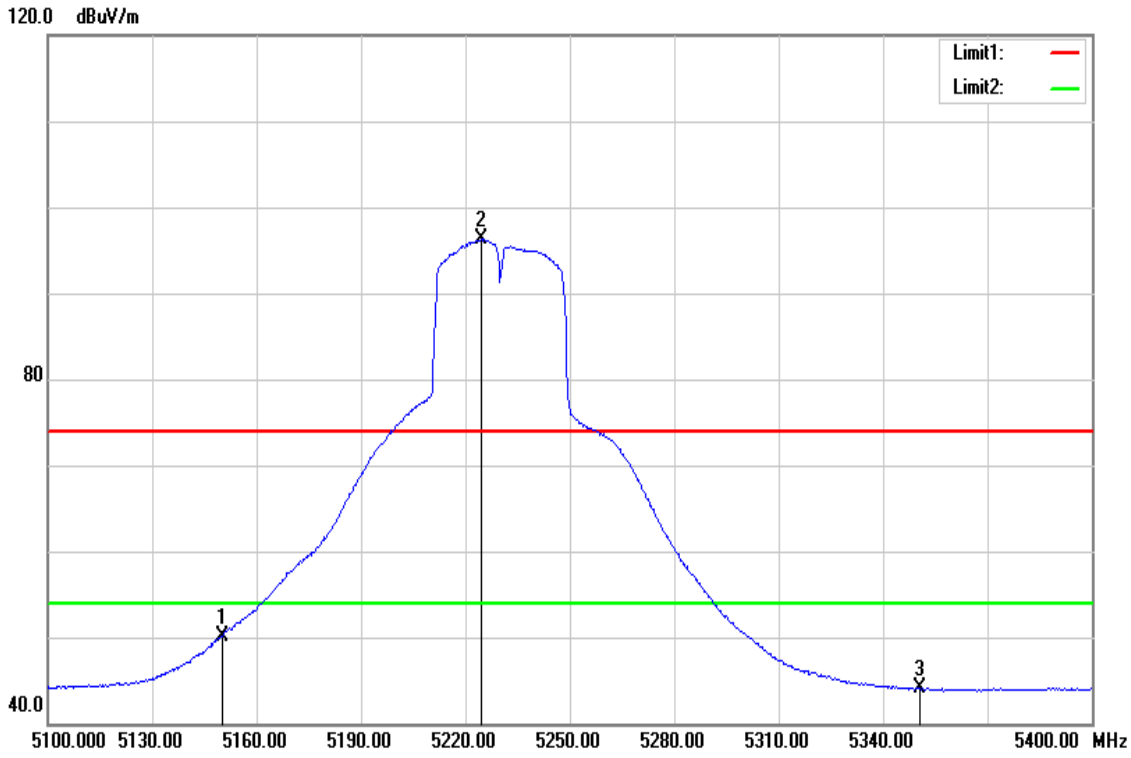
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
5149.940	44.12	7.57	51.69	54.00	-2.31	AVG
5195.370	81.99	7.66	89.65	-	-	AVG

Test Mode	IEEE 802.11n HT40 High CH	Temp/Hum	24(℃)/ 33%RH
Test Item	Band Edge	Test Date	September 13, 2017
Polarize	Vertical	Test Engineer	Ed Chiang
Detector	Peak	Test Voltage	DC 12V



Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
5148.300	60.42	7.57	67.99	74.00	-6.01	peak
5223.600	99.45	7.69	107.14	-	-	peak
5389.200	50.51	8.00	58.51	74.00	-15.49	peak

Test Mode	IEEE 802.11n HT40 High CH	Temperature	24(℃)/ 33%RH
Test Item	Band Edge	Test Date	September 13, 2017
Polarize	Vertical	Test Engineer	Ed Chiang
Detector	Average	Test Voltage	DC 12V

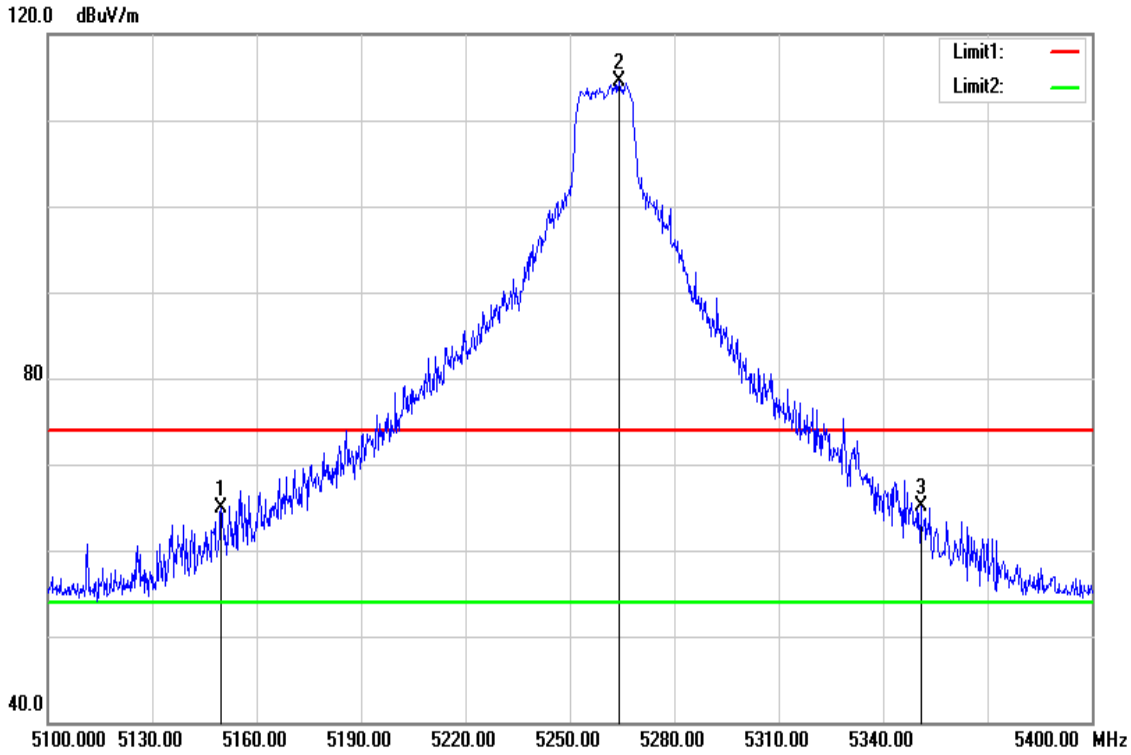


Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
5150.000	42.58	7.57	50.15	54.00	-3.85	AVG
5224.500	88.58	7.69	96.27	-	-	AVG
5350.500	36.13	7.93	44.06	54.00	-9.94	AVG

Test Data

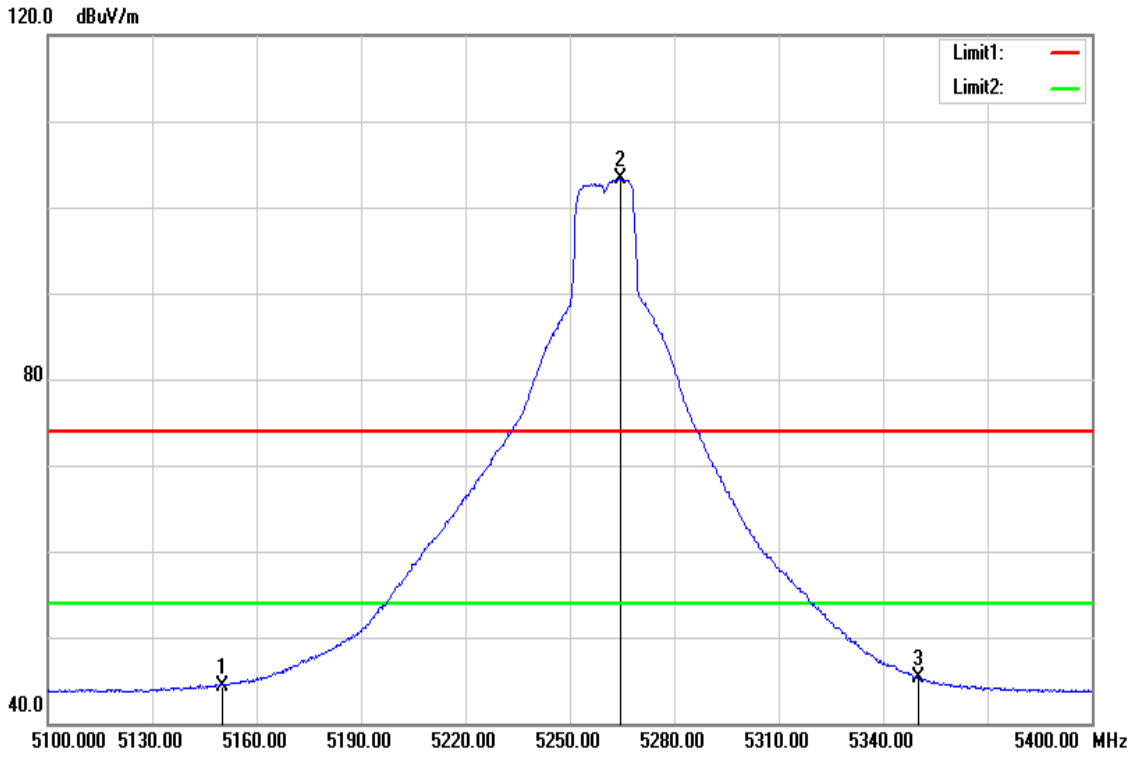
Band Edge Test Data for UNII-2a

Test Mode	IEEE 802.11a Low CH	Temp/Hum	24(℃)/ 33%RH
Test Item	Band Edge	Test Date	September 13, 2017
Polarize	Vertical	Test Engineer	Ed Chiang
Detector	Peak	Test Voltage	DC 12V



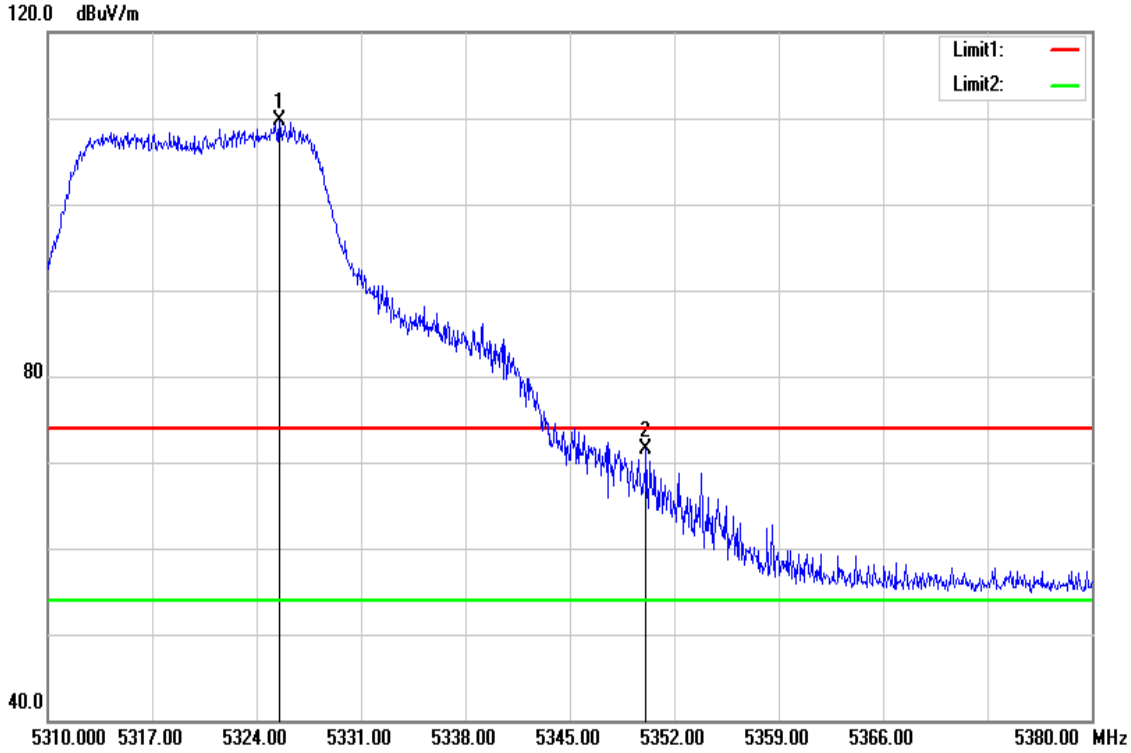
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
5149.800	57.41	7.57	64.98	74.00	-9.02	peak
5264.100	106.65	7.77	114.42	-	-	peak
5350.800	57.24	7.93	65.17	74.00	-8.83	peak

Test Mode	IEEE 802.11a Low CH	Temperature	24(℃)/ 33%RH
Test Item	Band Edge	Test Date	September 13, 2017
Polarize	Vertical	Test Engineer	Ed Chiang
Detector	Average	Test Voltage	DC 12V



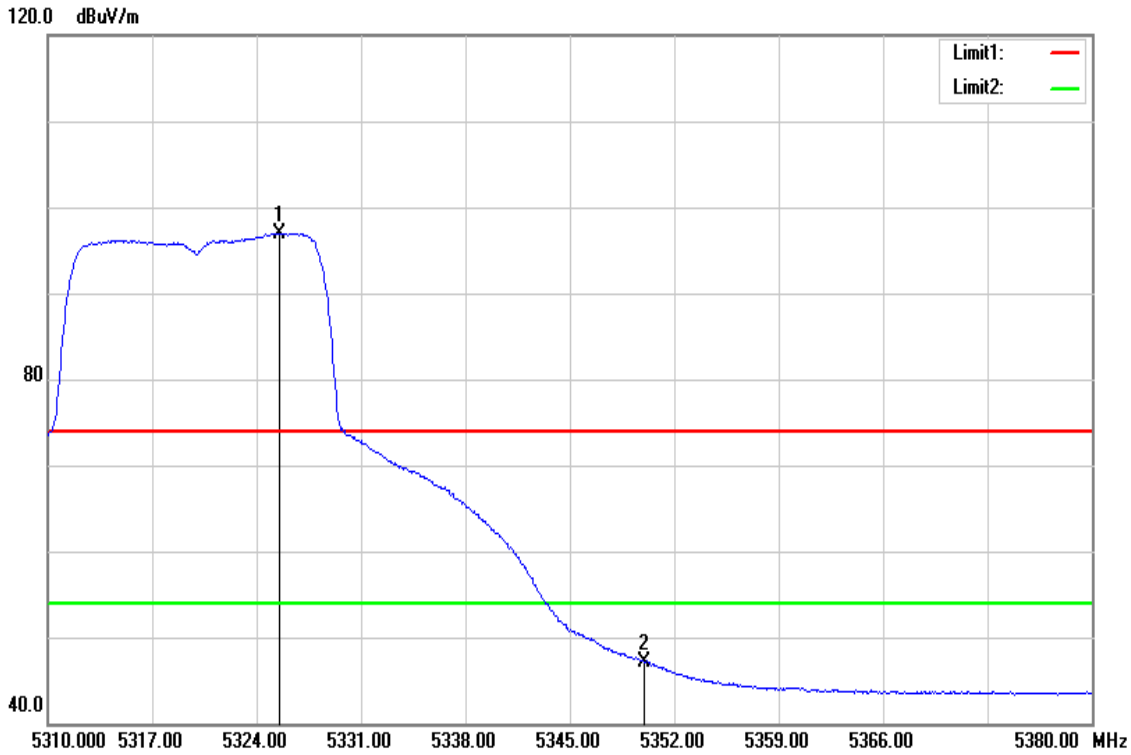
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
5150.000	36.83	7.57	44.40	54.00	-9.60	AVG
5264.400	95.49	7.77	103.26	-	-	AVG
5350.000	37.28	7.93	45.21	54.00	-8.79	AVG

Test Mode	IEEE 802.11a High CH	Temp/Hum	24(℃)/ 33%RH
Test Item	Band Edge	Test Date	September 13, 2017
Polarize	Vertical	Test Engineer	Ed Chiang
Detector	Peak	Test Voltage	DC 12V



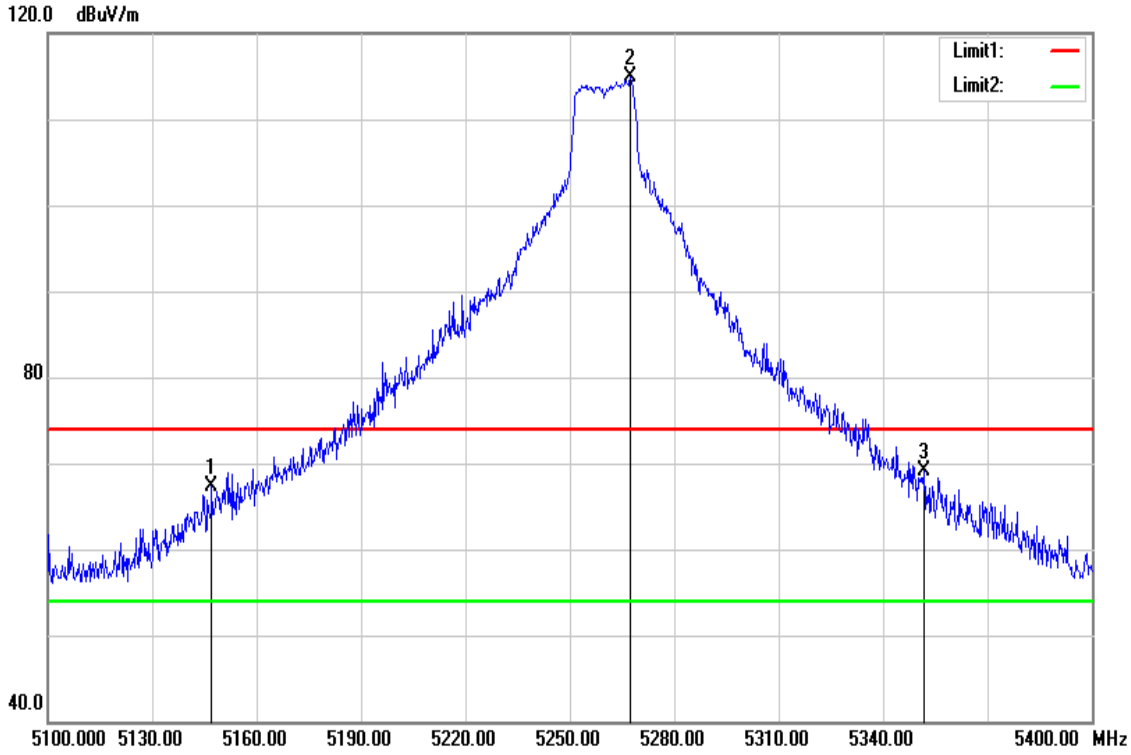
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
5325.540	101.71	7.90	109.61	-	-	peak
5350.110	63.51	7.93	71.44	74.00	-2.56	peak

Test Mode	IEEE 802.11a High CH	Temperature	24(℃)/ 33%RH
Test Item	Band Edge	Test Date	September 13, 2017
Polarize	Vertical	Test Engineer	Ed Chiang
Detector	Average	Test Voltage	DC 12V



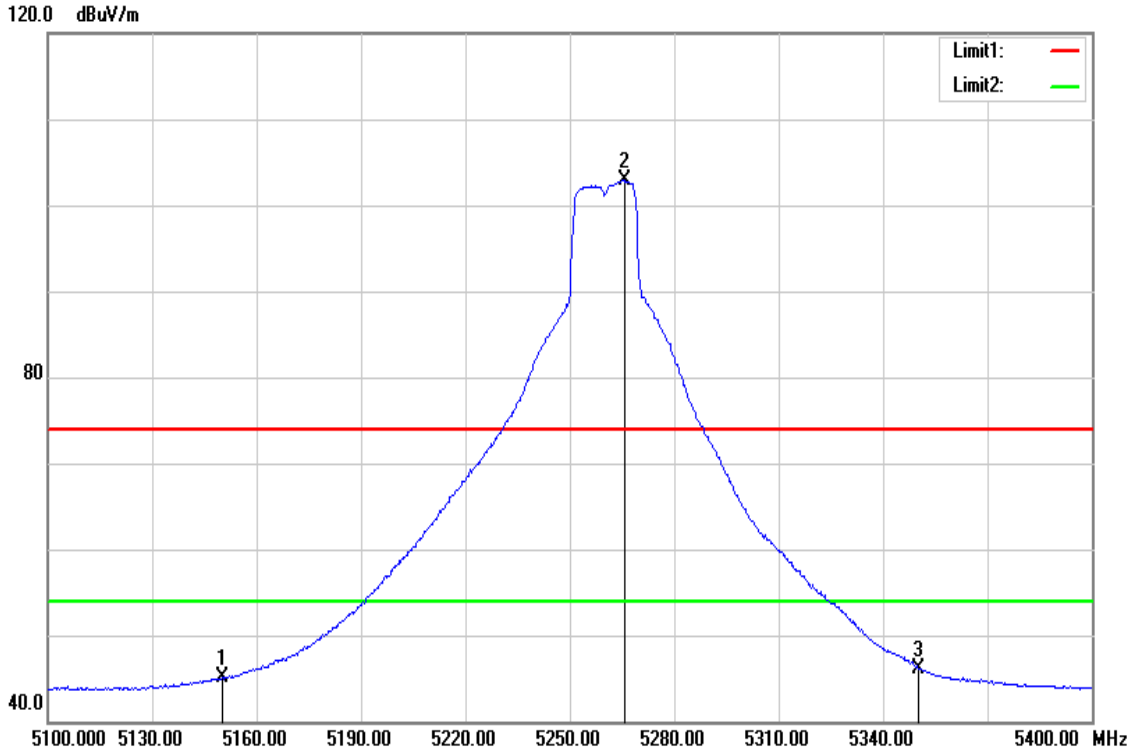
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
5325.540	89.09	7.90	96.99	-	-	AVG
5350.000	39.26	7.93	47.19	54.00	-6.81	AVG

Test Mode	IEEE 802.11n HT20 Low CH	Temp/Hum	24(℃)/ 33%RH
Test Item	Band Edge	Test Date	September 13, 2017
Polarize	Vertical	Test Engineer	Ed Chiang
Detector	Peak	Test Voltage	DC 12V



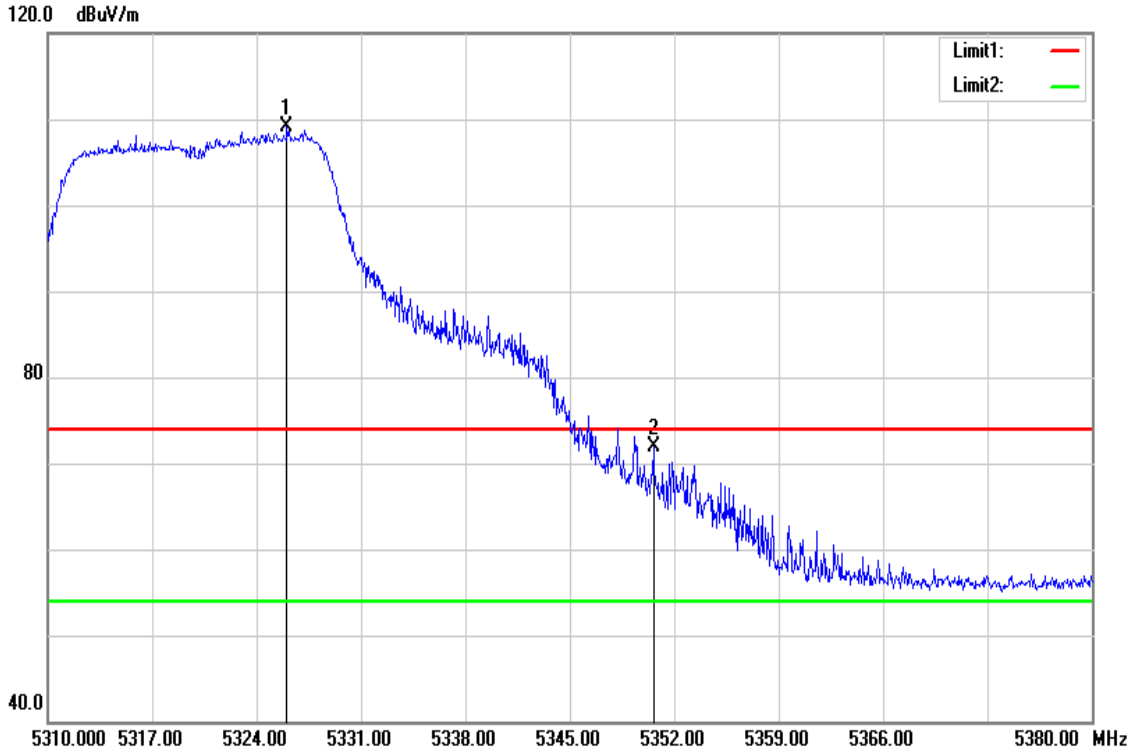
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
5147.100	59.67	7.57	67.24	74.00	-6.76	peak
5267.400	107.11	7.78	114.89	-	-	peak
5351.700	61.23	7.93	69.16	74.00	-4.84	peak

Test Mode	IEEE 802.11n HT20 Low CH	Temperature	24(℃)/ 33%RH
Test Item	Band Edge	Test Date	September 13, 2017
Polarize	Vertical	Test Engineer	Ed Chiang
Detector	Average	Test Voltage	DC 12V



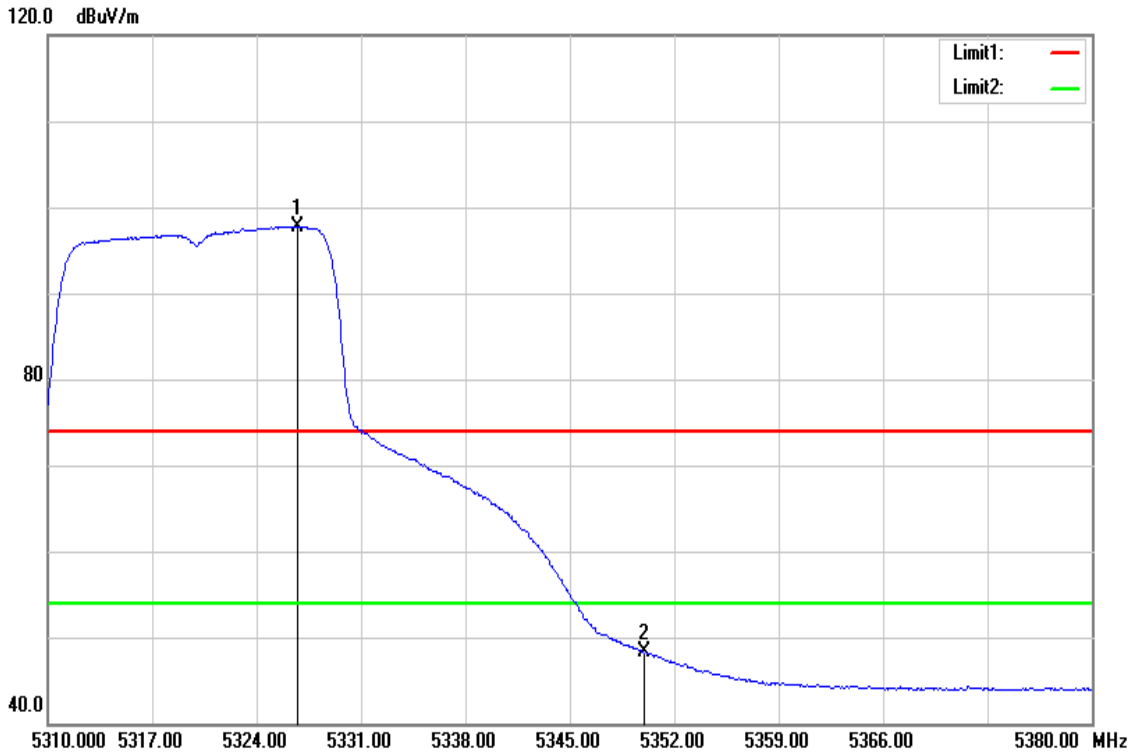
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
5150.000	37.47	7.57	45.04	54.00	-8.96	AVG
5265.600	95.08	7.78	102.86	-	-	AVG
5350.000	38.18	7.93	46.11	54.00	-7.89	AVG

Test Mode	IEEE 802.11n HT20 High CH	Temp/Hum	24(℃)/ 33%RH
Test Item	Band Edge	Test Date	September 13, 2017
Polarize	Vertical	Test Engineer	Ed Chiang
Detector	Peak	Test Voltage	DC 12V



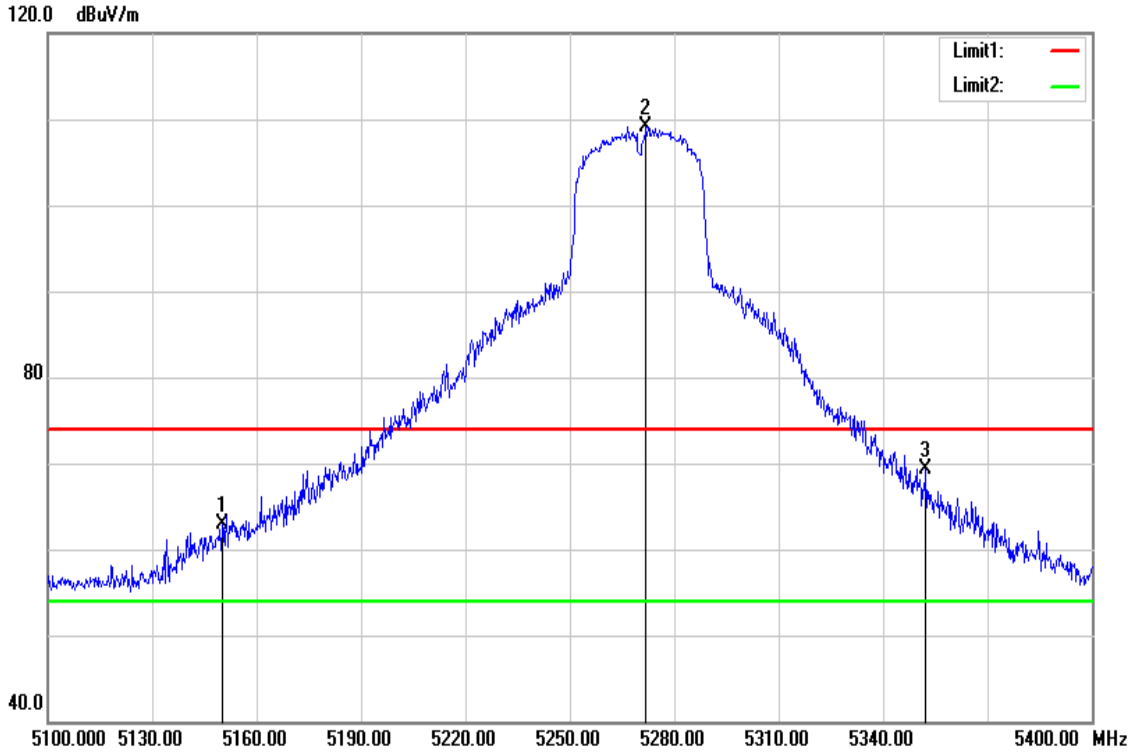
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
5326.030	101.25	7.90	109.15	-	-	peak
5350.600	63.88	7.93	71.81	74.00	-2.19	peak

Test Mode	IEEE 802.11n HT20 High CH	Temperature	24(℃)/ 33%RH
Test Item	Band Edge	Test Date	September 13, 2017
Polarize	Vertical	Test Engineer	Ed Chiang
Detector	Average	Test Voltage	DC 12V



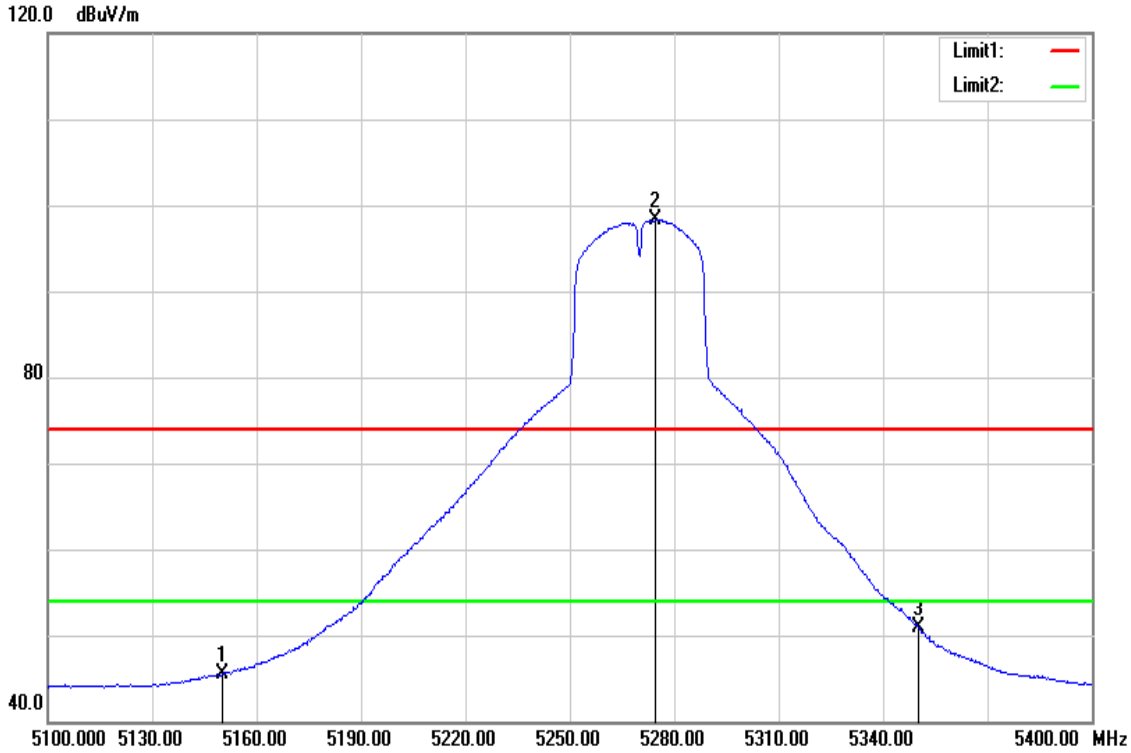
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
5326.730	89.90	7.90	97.80	-	-	AVG
5350.000	40.30	7.93	48.23	54.00	-5.77	AVG

Test Mode	IEEE 802.11n HT40 Low CH	Temp/Hum	24(℃)/ 33%RH
Test Item	Band Edge	Test Date	September 13, 2017
Polarize	Vertical	Test Engineer	Ed Chiang
Detector	Peak	Test Voltage	DC 12V



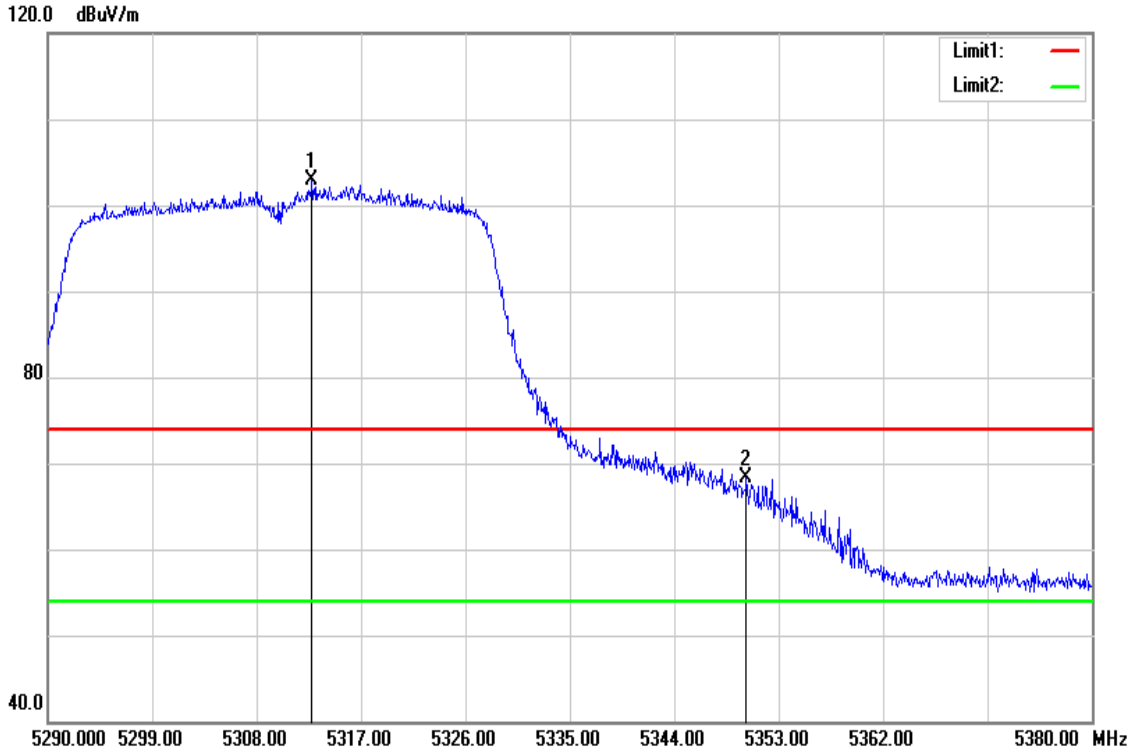
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
5150.100	55.31	7.57	62.88	74.00	-11.12	peak
5271.900	101.37	7.79	109.16	-	-	peak
5352.300	61.39	7.93	69.32	74.00	-4.68	peak

Test Mode	IEEE 802.11n HT40 Low CH	Temperature	24(℃)/ 33%RH
Test Item	Band Edge	Test Date	September 13, 2017
Polarize	Vertical	Test Engineer	Ed Chiang
Detector	Average	Test Voltage	DC 12V



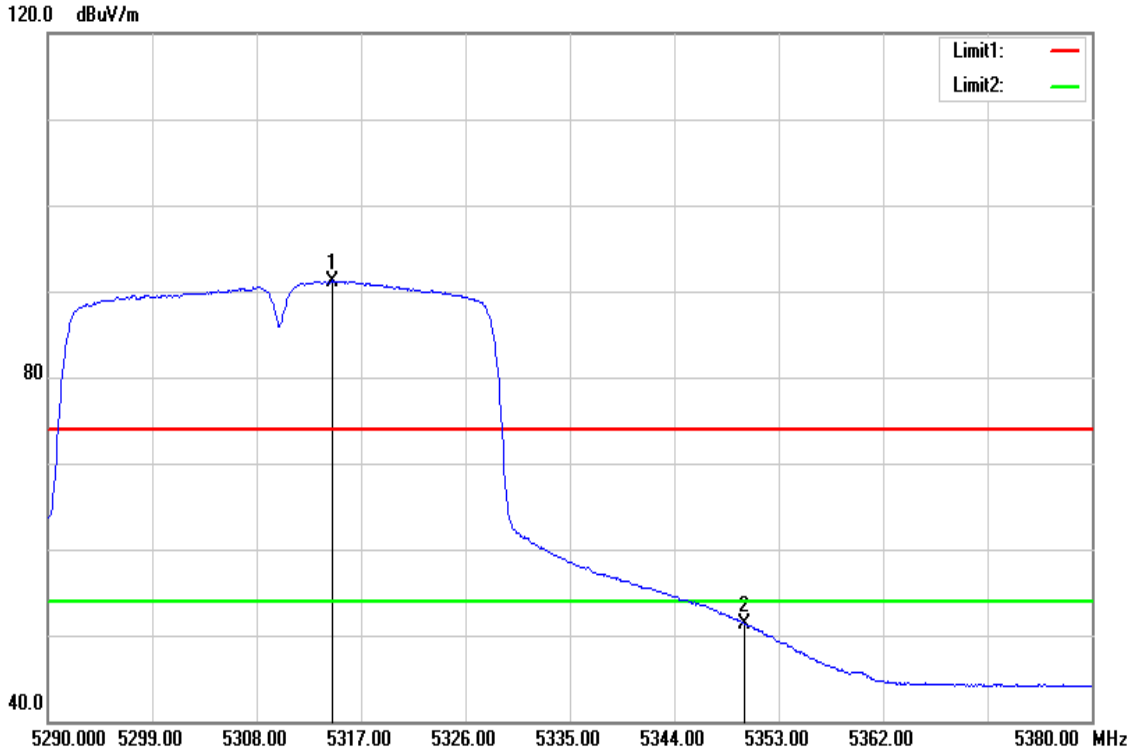
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
5150.000	37.86	7.57	45.43	54.00	-8.57	AVG
5274.600	90.49	7.79	98.28	-	-	AVG
5350.000	42.99	7.93	50.92	54.00	-3.08	AVG

Test Mode	IEEE 802.11n HT40 High CH	Temp/Hum	24(℃)/ 33%RH
Test Item	Band Edge	Test Date	September 13, 2017
Polarize	Vertical	Test Engineer	Ed Chiang
Detector	Peak	Test Voltage	DC 12V



Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
5312.770	95.02	7.87	102.89	-	-	peak
5350.210	60.41	7.93	68.34	74.00	-5.66	peak

Test Mode	IEEE 802.11n HT40 High CH	Temperature	24(℃)/ 33%RH
Test Item	Band Edge	Test Date	September 13, 2017
Polarize	Vertical	Test Engineer	Ed Chiang
Detector	Average	Test Voltage	DC 12V

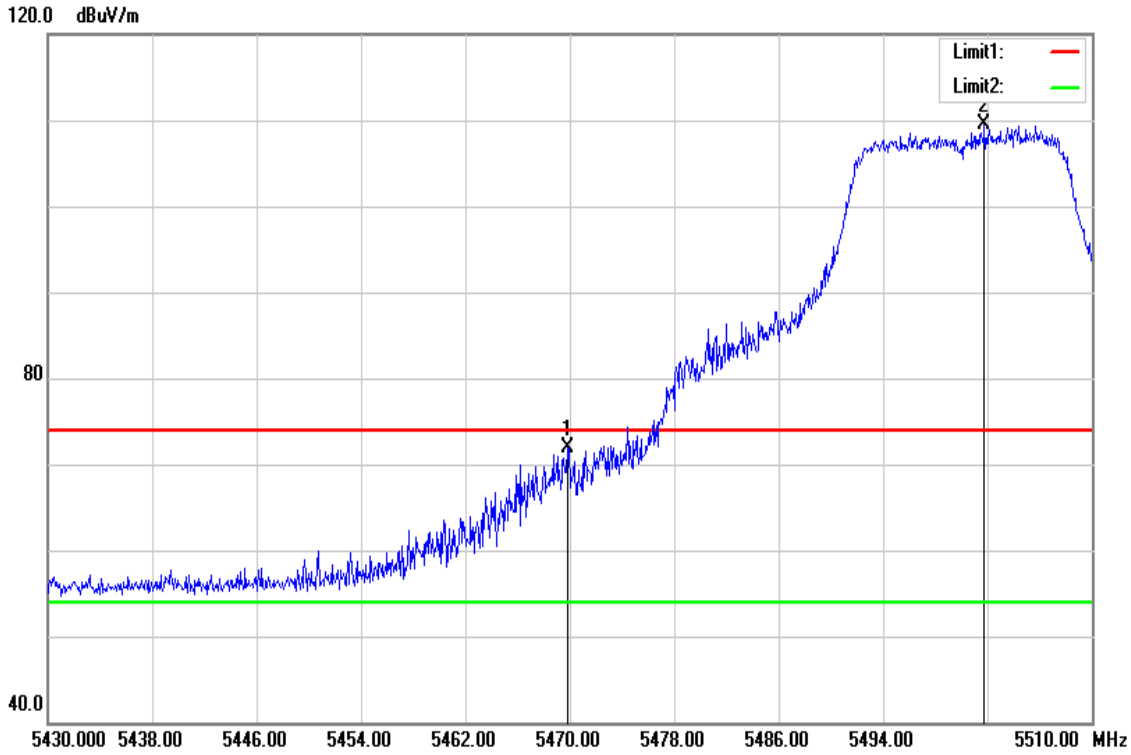


Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
5314.480	83.33	7.87	91.20	-	-	AVG
5350.000	43.47	7.93	51.40	54.00	-2.60	AVG

Test Data

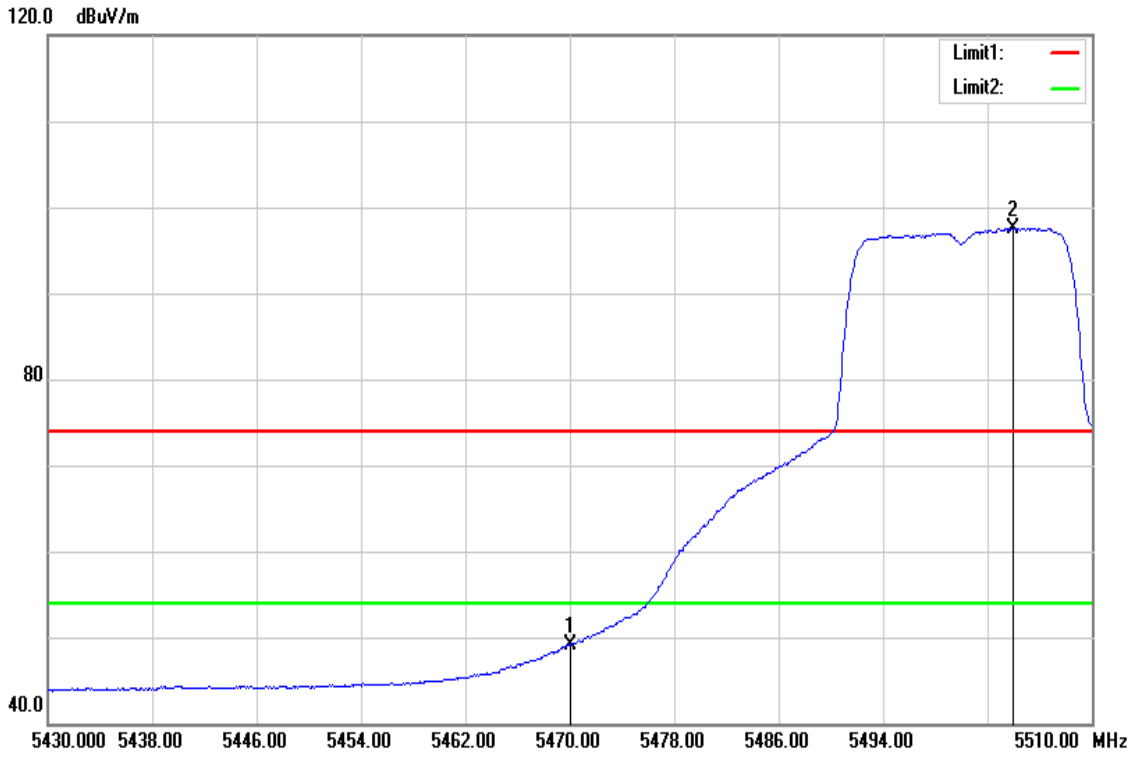
Band Edge Test Data for UNII-2c

Test Mode	IEEE 802.11a Low CH	Temp/Hum	24(℃)/ 33%RH
Test Item	Band Edge	Test Date	September 13, 2017
Polarize	Vertical	Test Engineer	Ed Chiang
Detector	Peak	Test Voltage	DC 12V



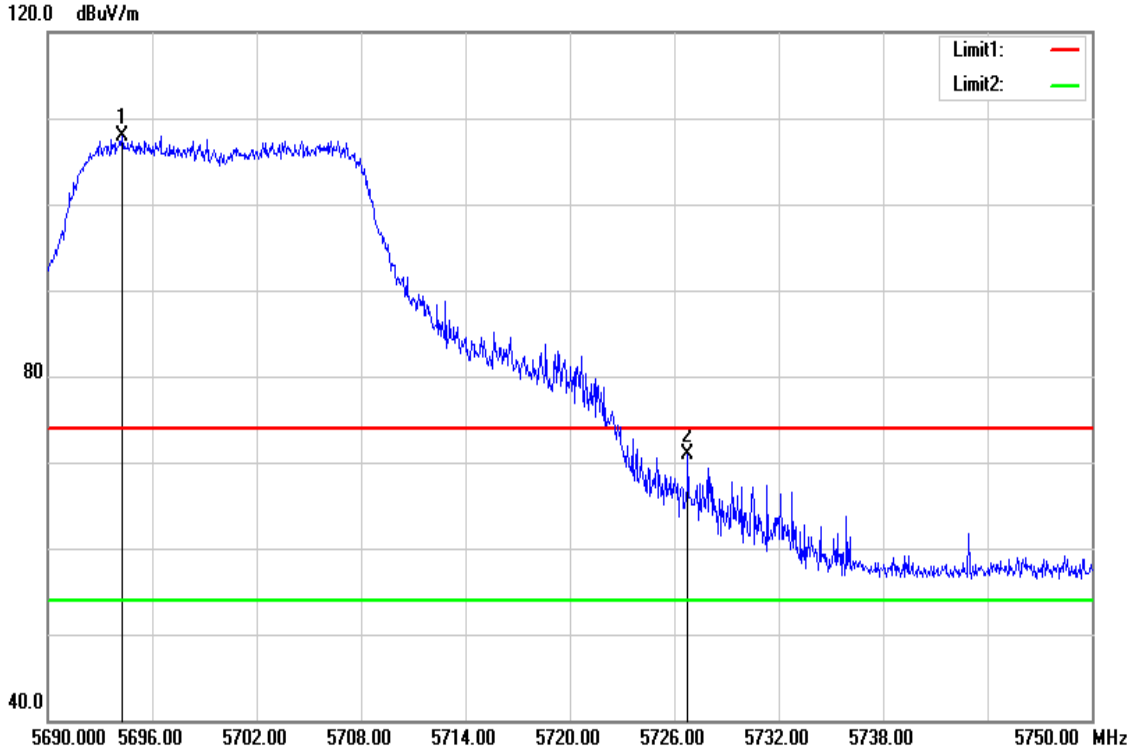
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
5469.840	63.75	8.15	71.90	74.00	-2.10	peak
5501.760	101.23	8.21	109.44	-	-	peak

Test Mode	IEEE 802.11a Low CH	Temperature	24(℃)/ 33%RH
Test Item	Band Edge	Test Date	September 13, 2017
Polarize	Vertical	Test Engineer	Ed Chiang
Detector	Average	Test Voltage	DC 12V



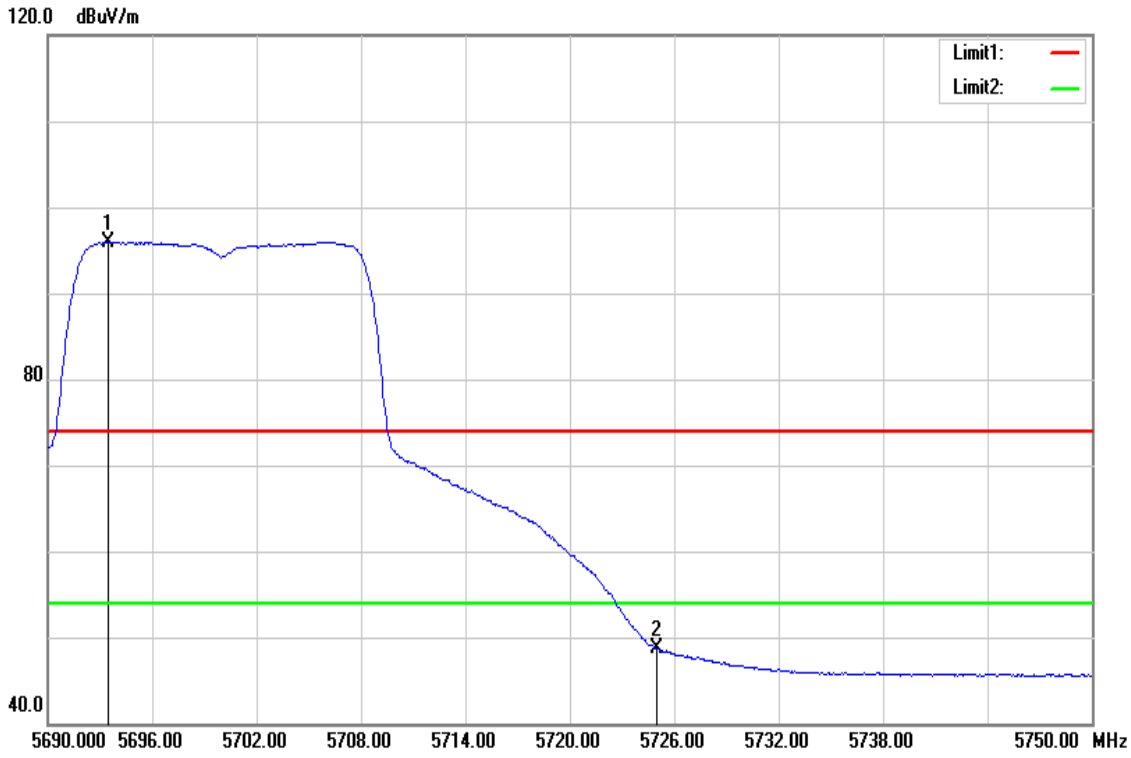
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
5470.000	40.88	8.15	49.03	54.00	-4.97	AVG
5504.000	89.35	8.22	97.57	-	-	AVG

Test Mode	IEEE 802.11a High CH	Temp/Hum	24(℃)/ 33%RH
Test Item	Band Edge	Test Date	September 13, 2017
Polarize	Vertical	Test Engineer	Ed Chiang
Detector	Peak	Test Voltage	DC 12V



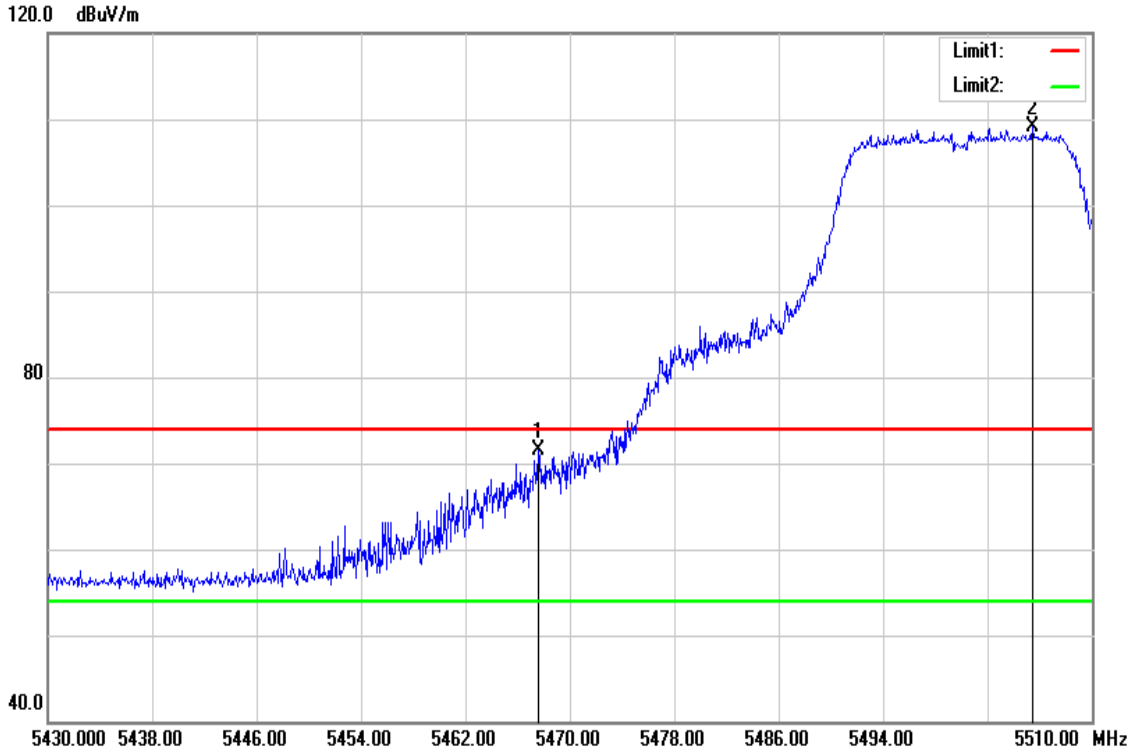
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
5694.260	99.11	8.87	107.98	-	-	peak
5726.780	61.93	8.98	70.91	74.00	-3.09	peak

Test Mode	IEEE 802.11a High CH	Temperature	24(℃)/ 33%RH
Test Item	Band Edge	Test Date	September 13, 2017
Polarize	Vertical	Test Engineer	Ed Chiang
Detector	Average	Test Voltage	DC 12V



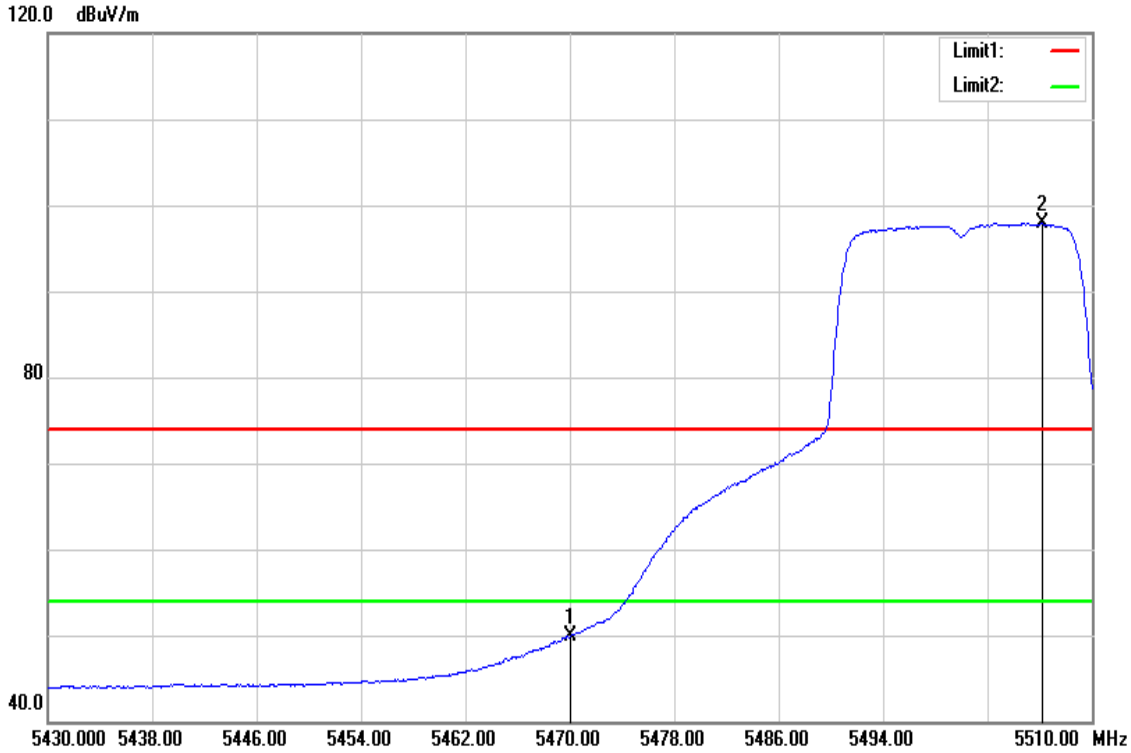
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
5693.480	87.10	8.87	95.97	-	-	AVG
5725.000	39.70	8.98	48.68	54.00	-5.32	AVG

Test Mode	IEEE 802.11n HT20 Low CH	Temp/Hum	24(℃)/ 33%RH
Test Item	Band Edge	Test Date	September 13, 2017
Polarize	Vertical	Test Engineer	Ed Chiang
Detector	Peak	Test Voltage	DC 12V



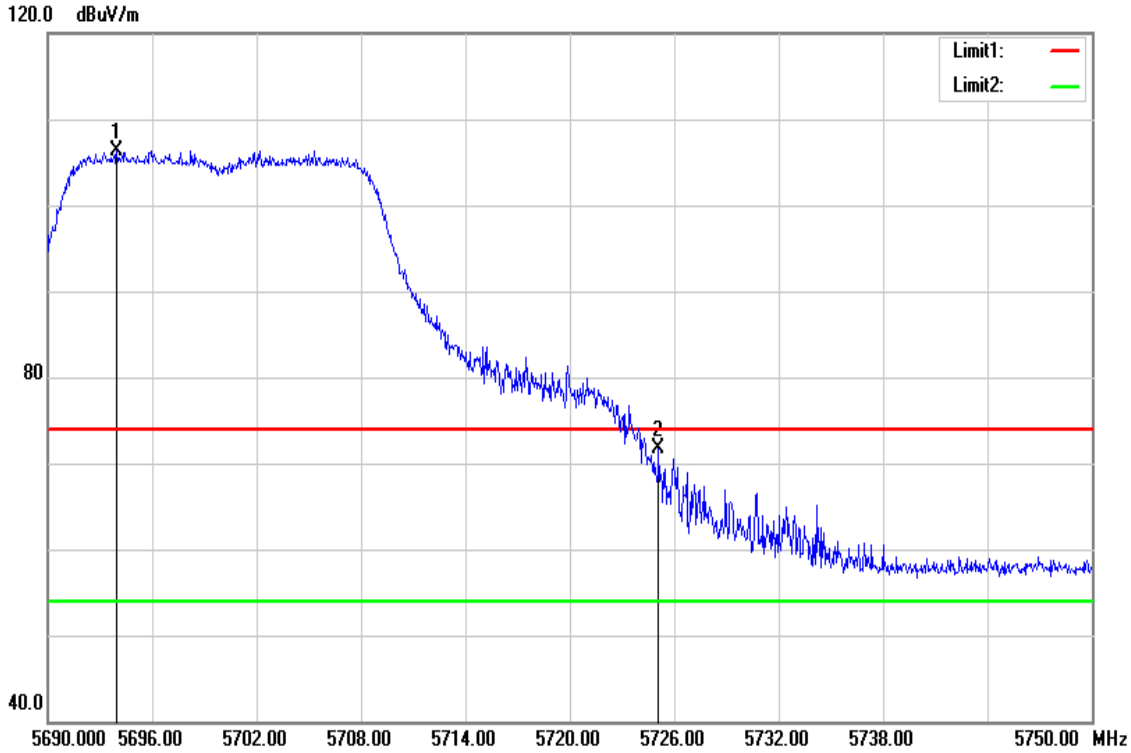
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
5467.600	63.37	8.15	71.52	74.00	-2.48	peak
5505.440	100.78	8.23	109.01	-	-	peak

Test Mode	IEEE 802.11n HT20 Low CH	Temperature	24(℃)/ 33%RH
Test Item	Band Edge	Test Date	September 13, 2017
Polarize	Vertical	Test Engineer	Ed Chiang
Detector	Average	Test Voltage	DC 12V



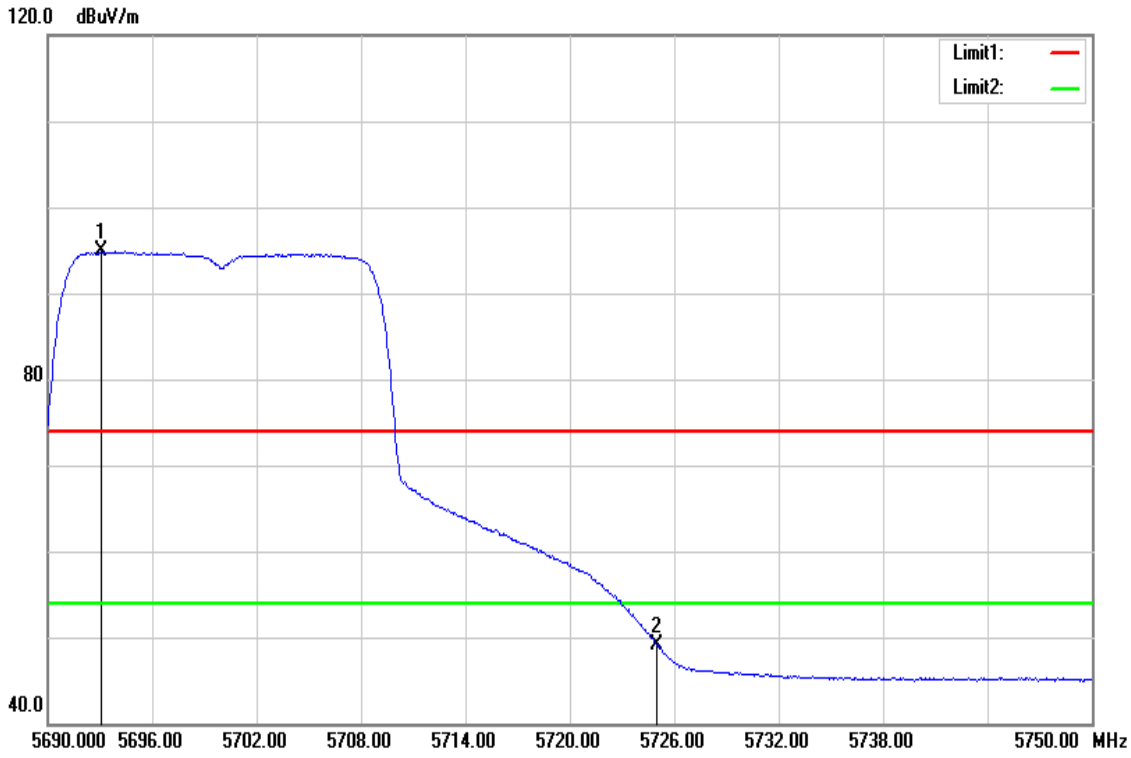
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
5470.000	41.82	8.15	49.97	54.00	-4.03	AVG
5506.160	89.71	8.23	97.94	-	-	AVG

Test Mode	IEEE 802.11n HT20 High CH	Temp/Hum	24(℃)/ 33%RH
Test Item	Band Edge	Test Date	September 13, 2017
Polarize	Vertical	Test Engineer	Ed Chiang
Detector	Peak	Test Voltage	DC 12V



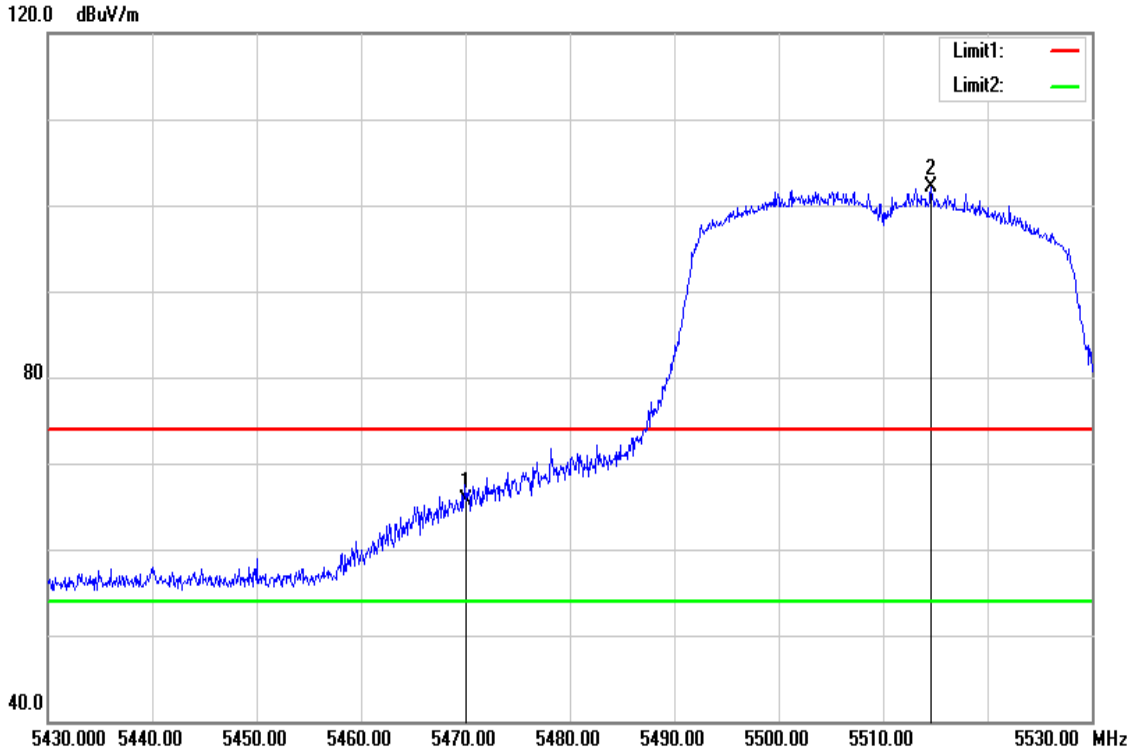
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
5693.960	97.36	8.87	106.23	-	-	peak
5725.100	62.81	8.98	71.79	74.00	-2.21	peak

Test Mode	IEEE 802.11n HT20 High CH	Temperature	24(℃)/ 33%RH
Test Item	Band Edge	Test Date	September 13, 2017
Polarize	Vertical	Test Engineer	Ed Chiang
Detector	Average	Test Voltage	DC 12V



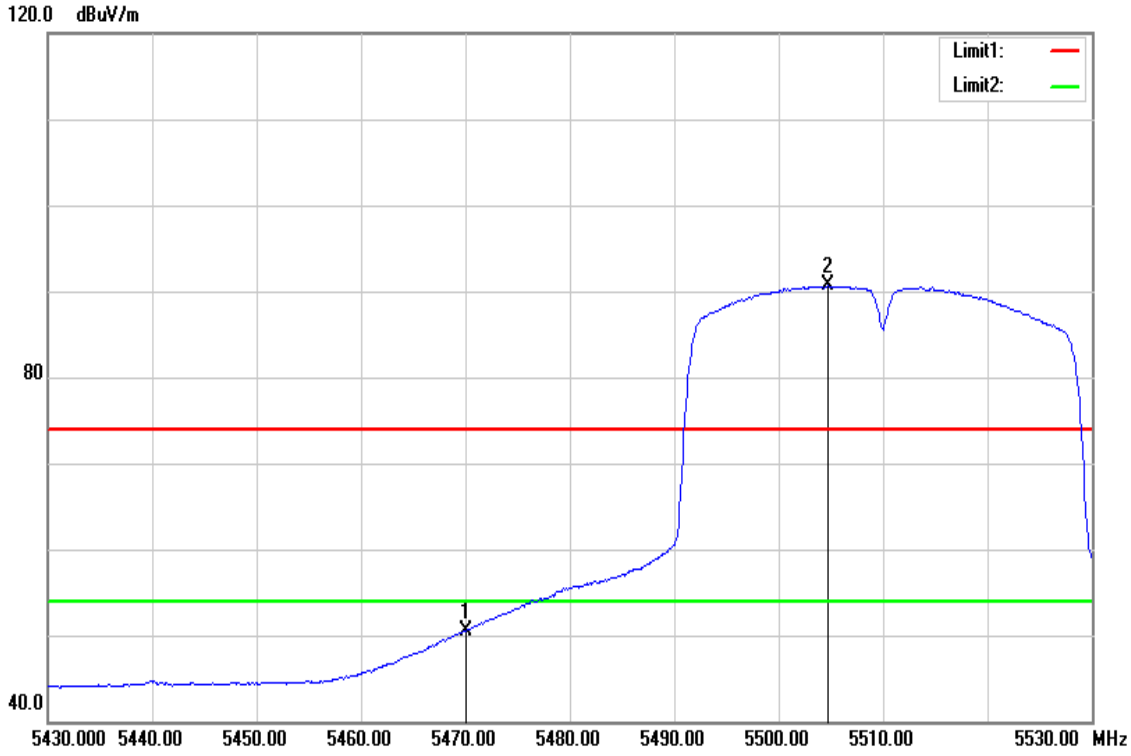
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
5693.060	86.02	8.87	94.89	-	-	AVG
5725.000	40.05	8.98	49.03	54.00	-4.97	AVG

Test Mode	IEEE 802.11n HT40 Low CH	Temp/Hum	24(℃)/ 33%RH
Test Item	Band Edge	Test Date	September 13, 2017
Polarize	Vertical	Test Engineer	Ed Chiang
Detector	Peak	Test Voltage	DC 12V



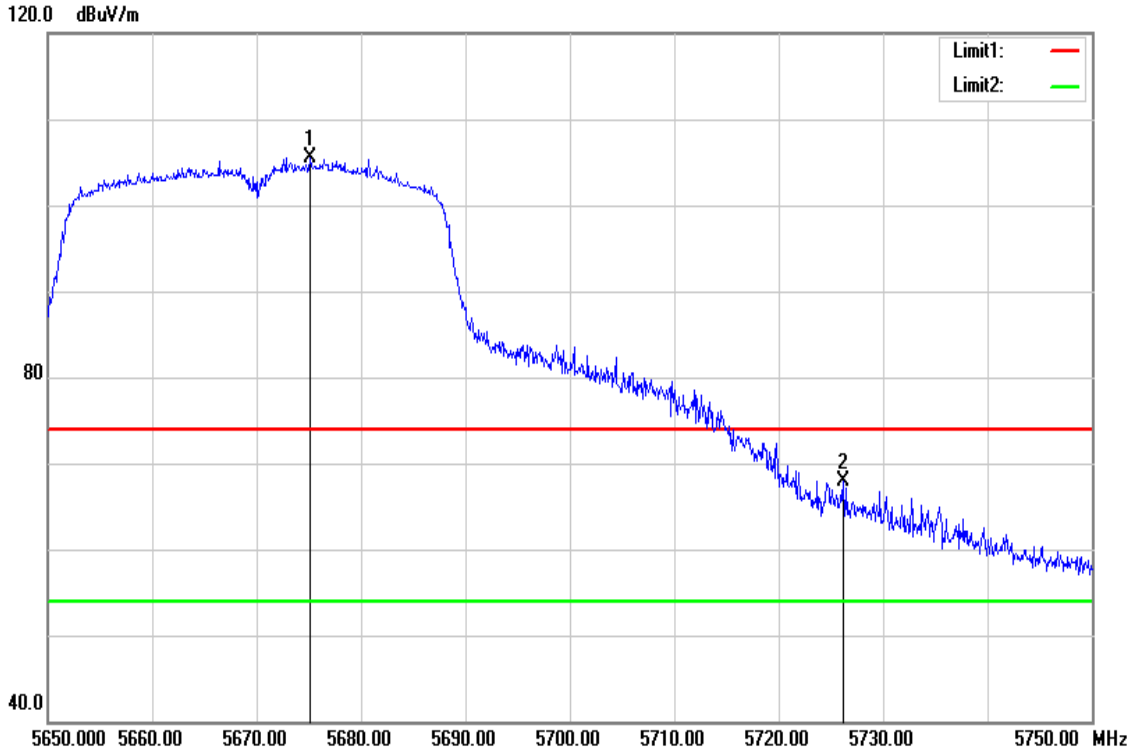
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
5470.000	57.60	8.15	65.75	74.00	-8.25	peak
5514.600	93.92	8.26	102.18	-	-	peak

Test Mode	IEEE 802.11n HT40 Low CH	Temperature	24(℃)/ 33%RH
Test Item	Band Edge	Test Date	September 13, 2017
Polarize	Vertical	Test Engineer	Ed Chiang
Detector	Average	Test Voltage	DC 12V



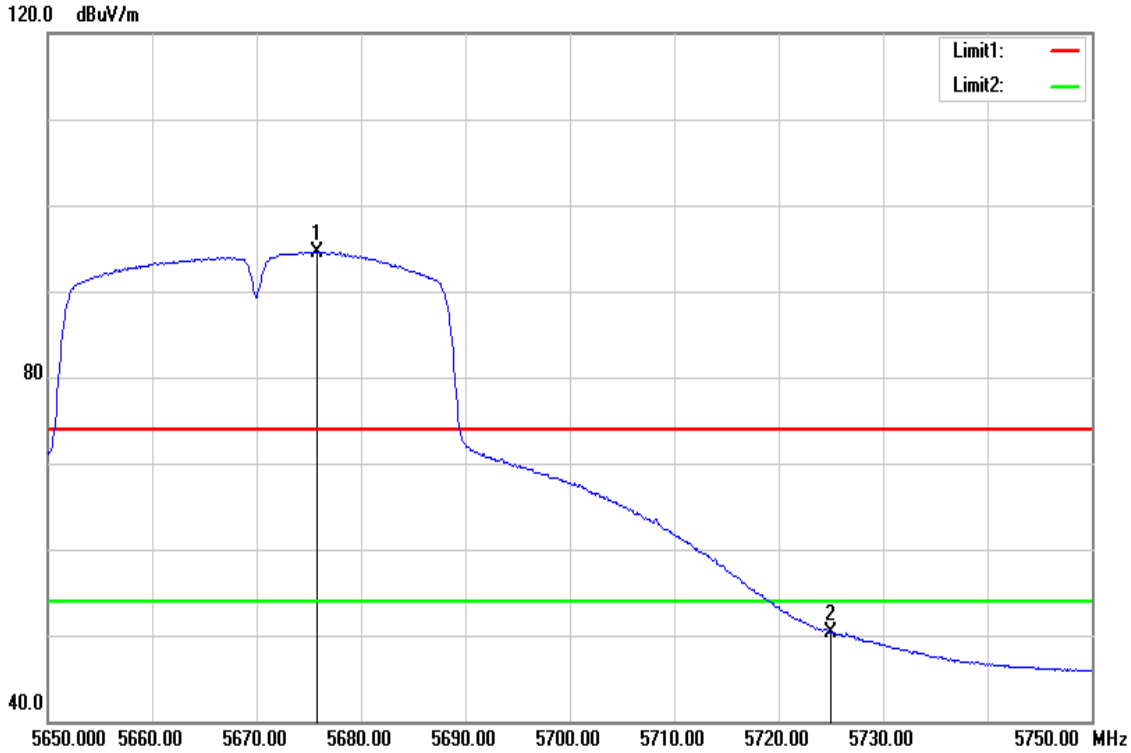
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
5470.000	42.43	8.15	50.58	54.00	-3.42	AVG
5504.700	82.38	8.23	90.61	-	-	AVG

Test Mode	IEEE 802.11n HT40 High CH	Temp/Hum	24(℃)/ 33%RH
Test Item	Band Edge	Test Date	September 13, 2017
Polarize	Vertical	Test Engineer	Ed Chiang
Detector	Peak	Test Voltage	DC 12V



Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
5675.100	96.69	8.81	105.50	-	-	peak
5726.200	58.85	8.98	67.83	74.00	-6.17	peak

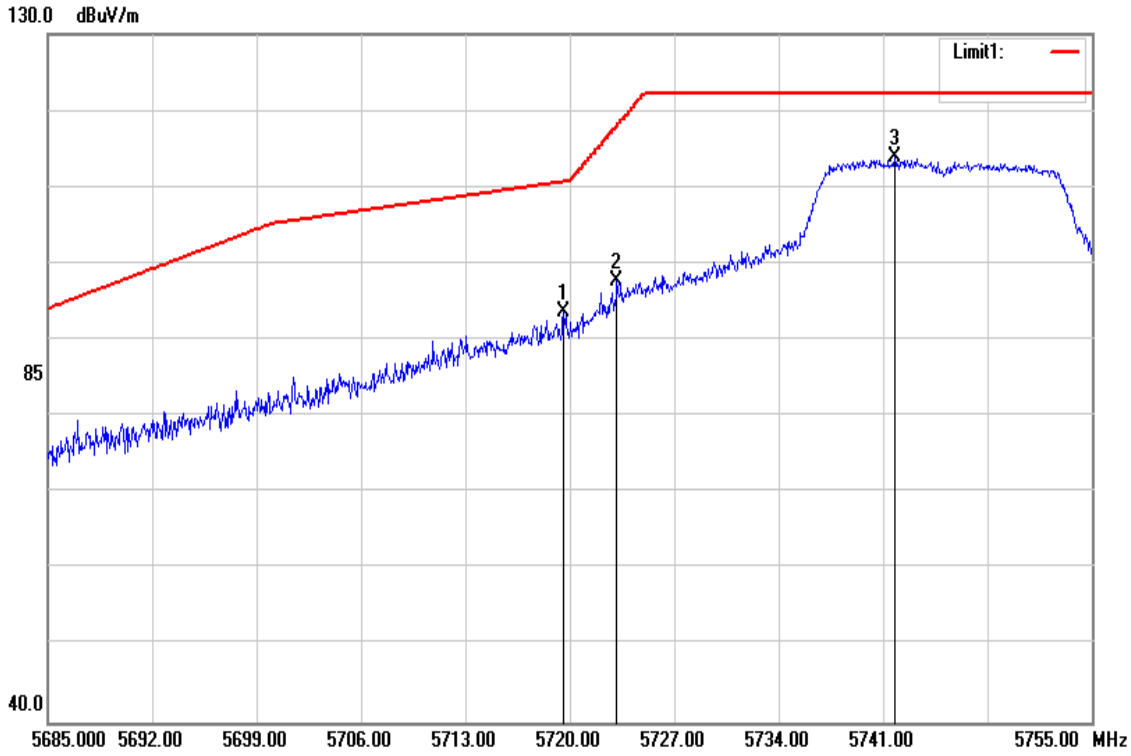
Test Mode	IEEE 802.11n HT40 High CH	Temperature	24(℃)/ 33%RH
Test Item	Band Edge	Test Date	September 13, 2017
Polarize	Vertical	Test Engineer	Ed Chiang
Detector	Average	Test Voltage	DC 12V



Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
5675.800	85.76	8.81	94.57	-	-	AVG
5725.000	41.30	8.98	50.28	54.00	-3.72	AVG

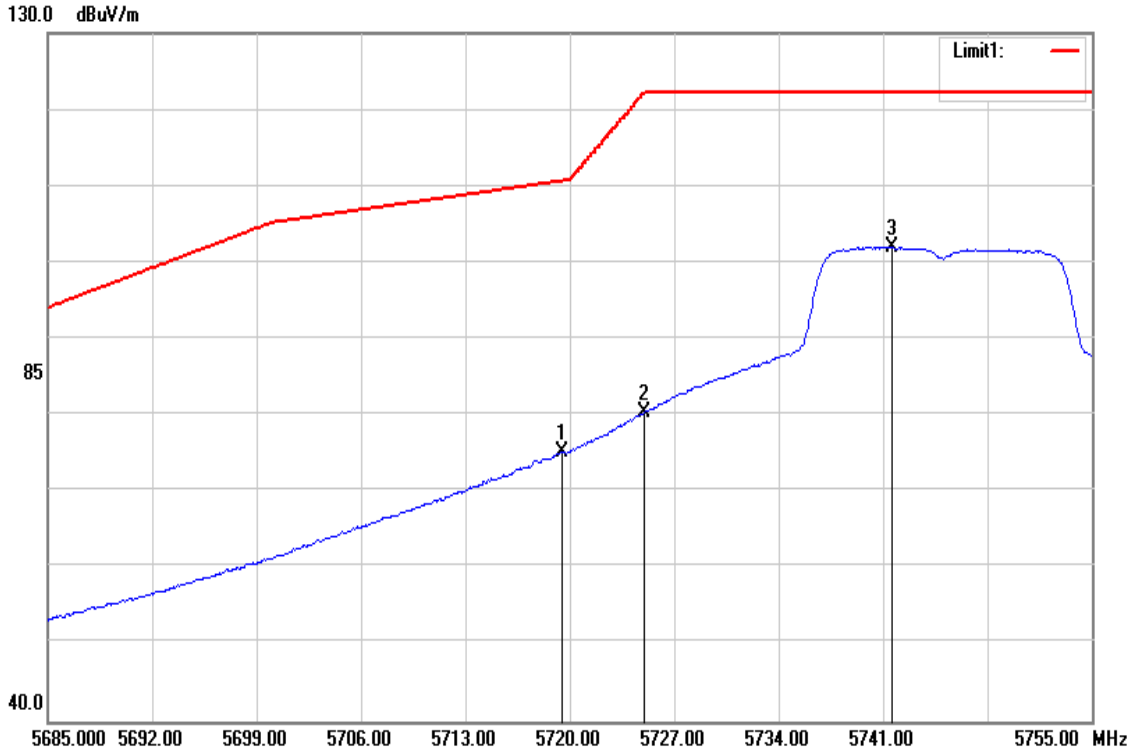
Band Edge Test Data for UNII-3

Test Mode	IEEE 802.11a Low CH	Temp/Hum	24(℃)/ 33%RH
Test Item	Band Edge	Test Date	September 13, 2017
Polarize	Vertical	Test Engineer	Ed Chiang
Detector	Peak	Test Voltage	DC 12V



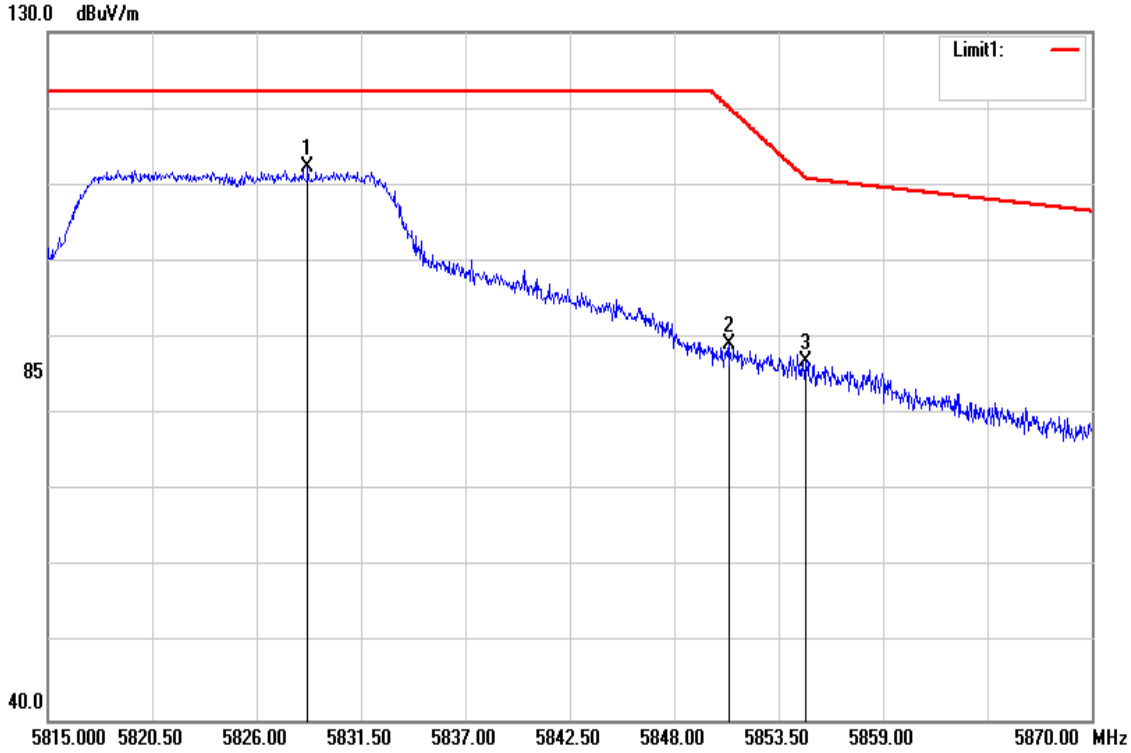
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
5719.580	84.68	8.96	93.64	110.68	-17.04	peak
5723.150	88.63	8.98	97.61	117.98	-20.37	peak
5741.770	104.84	9.03	113.87	-	-	peak

Test Mode	IEEE 802.11a Low CH	Temperature	24(℃)/ 33%RH
Test Item	Band Edge	Test Date	September 13, 2017
Polarize	Vertical	Test Engineer	Ed Chiang
Detector	Average	Test Voltage	DC 12V



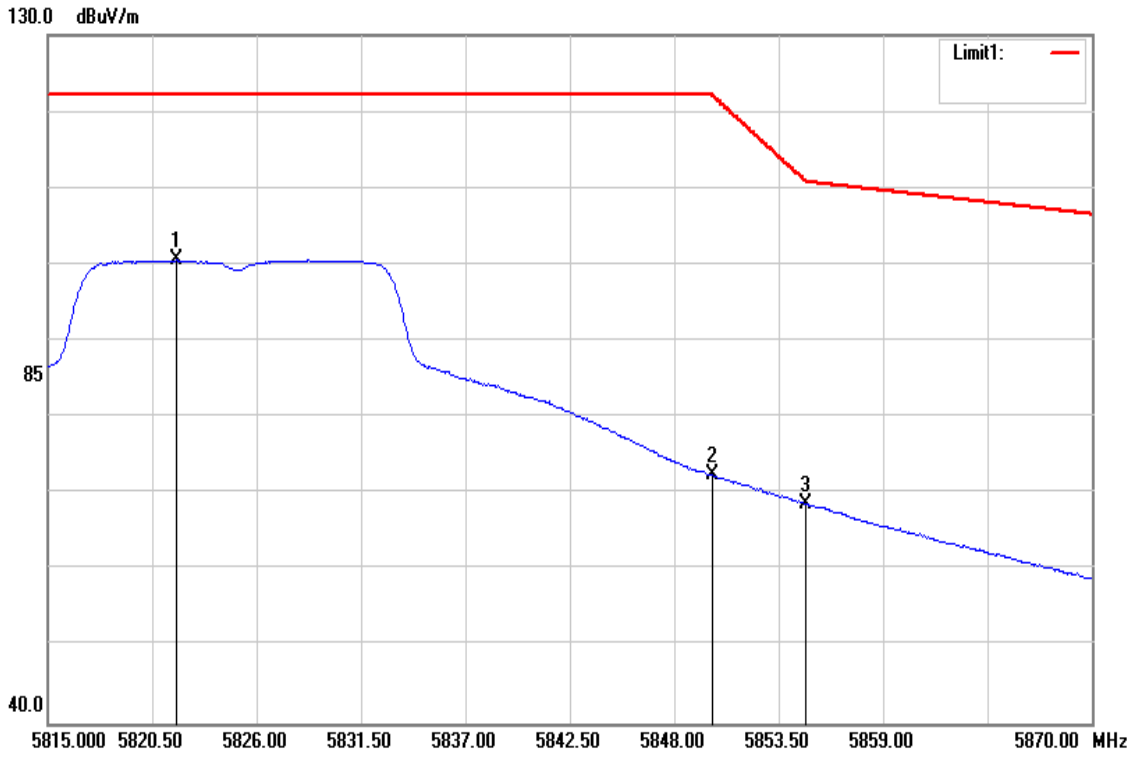
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
5719.510	66.36	8.96	75.32	110.66	-35.34	AVG
5724.970	71.35	8.98	80.33	122.13	-41.80	AVG
5741.560	93.06	9.03	102.09	-	-	AVG

Test Mode	IEEE 802.11a High CH	Temp/Hum	24(℃)/ 33%RH
Test Item	Band Edge	Test Date	September 13, 2017
Polarize	Vertical	Test Engineer	Ed Chiang
Detector	Peak	Test Voltage	DC 12V



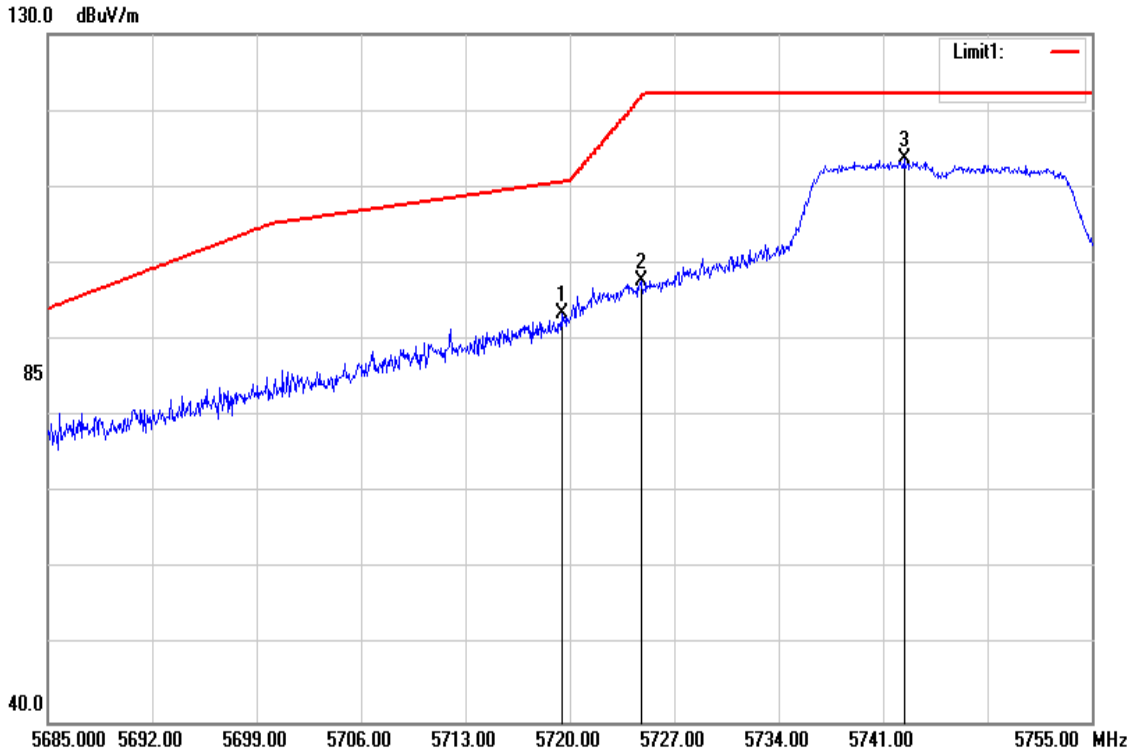
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
5828.695	102.92	9.33	112.25	-	-	peak
5850.915	79.67	9.41	89.08	120.11	-31.03	peak
5854.930	77.59	9.43	87.02	110.96	-23.94	peak

Test Mode	IEEE 802.11a High CH	Temperature	24(℃)/ 33%RH
Test Item	Band Edge	Test Date	September 13, 2017
Polarize	Vertical	Test Engineer	Ed Chiang
Detector	Average	Test Voltage	DC 12V



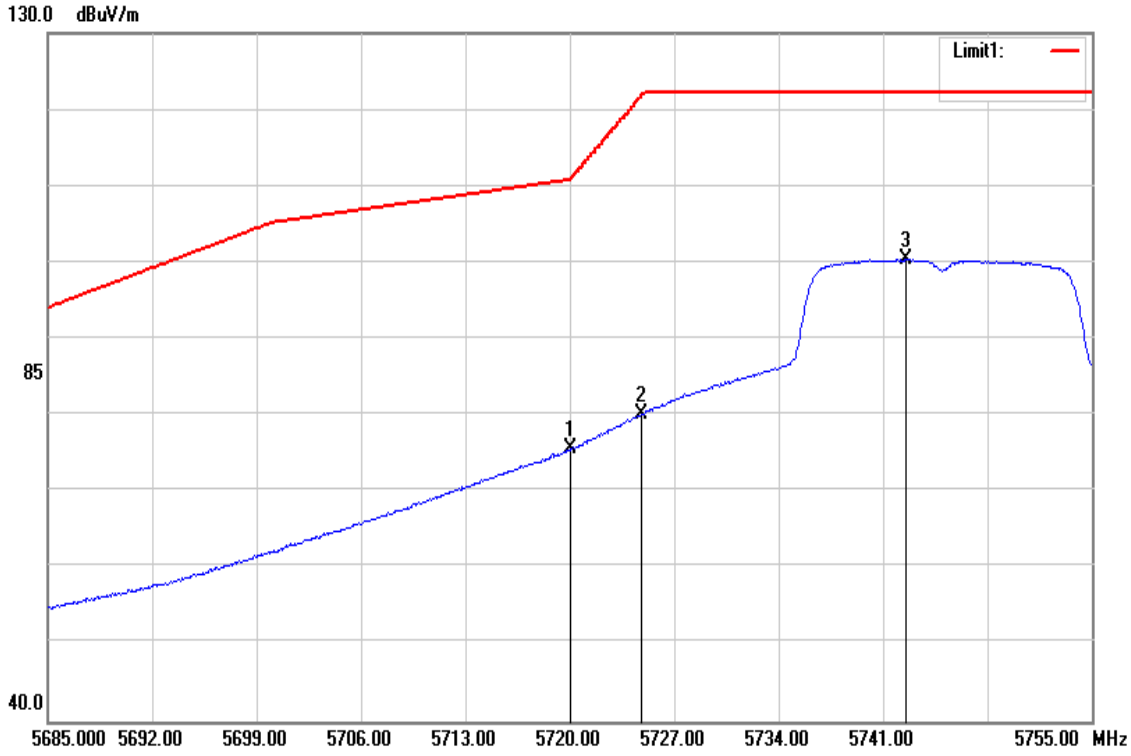
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
5821.765	91.25	9.31	100.56	-	-	AVG
5850.035	62.99	9.41	72.40	122.12	-49.72	AVG
5854.930	59.21	9.43	68.64	110.96	-42.32	AVG

Test Mode	IEEE 802.11n HT20 Low CH	Temp/Hum	24(℃)/ 33%RH
Test Item	Band Edge	Test Date	September 13, 2017
Polarize	Vertical	Test Engineer	Ed Chiang
Detector	Peak	Test Voltage	DC 12V



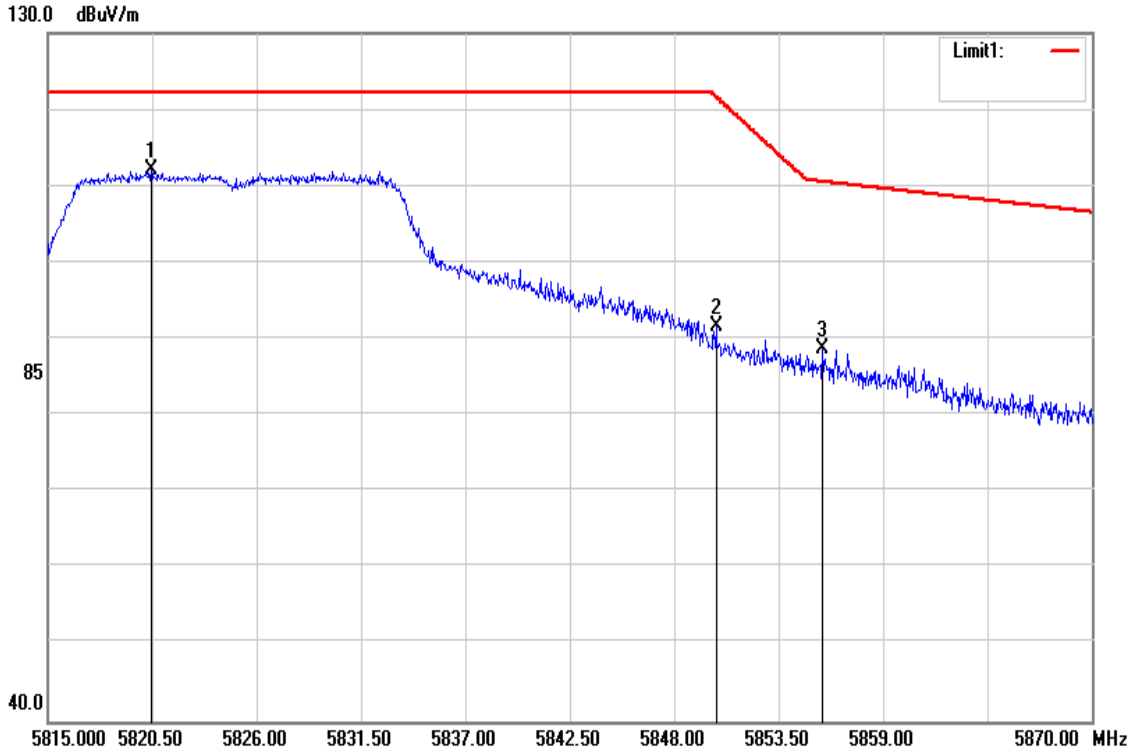
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
5719.440	84.49	8.96	93.45	110.64	-17.19	peak
5724.760	88.80	8.98	97.78	121.65	-23.87	peak
5742.400	104.55	9.03	113.58	-	-	peak

Test Mode	IEEE 802.11n HT20 Low CH	Temperature	24(℃)/ 33%RH
Test Item	Band Edge	Test Date	September 13, 2017
Polarize	Vertical	Test Engineer	Ed Chiang
Detector	Average	Test Voltage	DC 12V



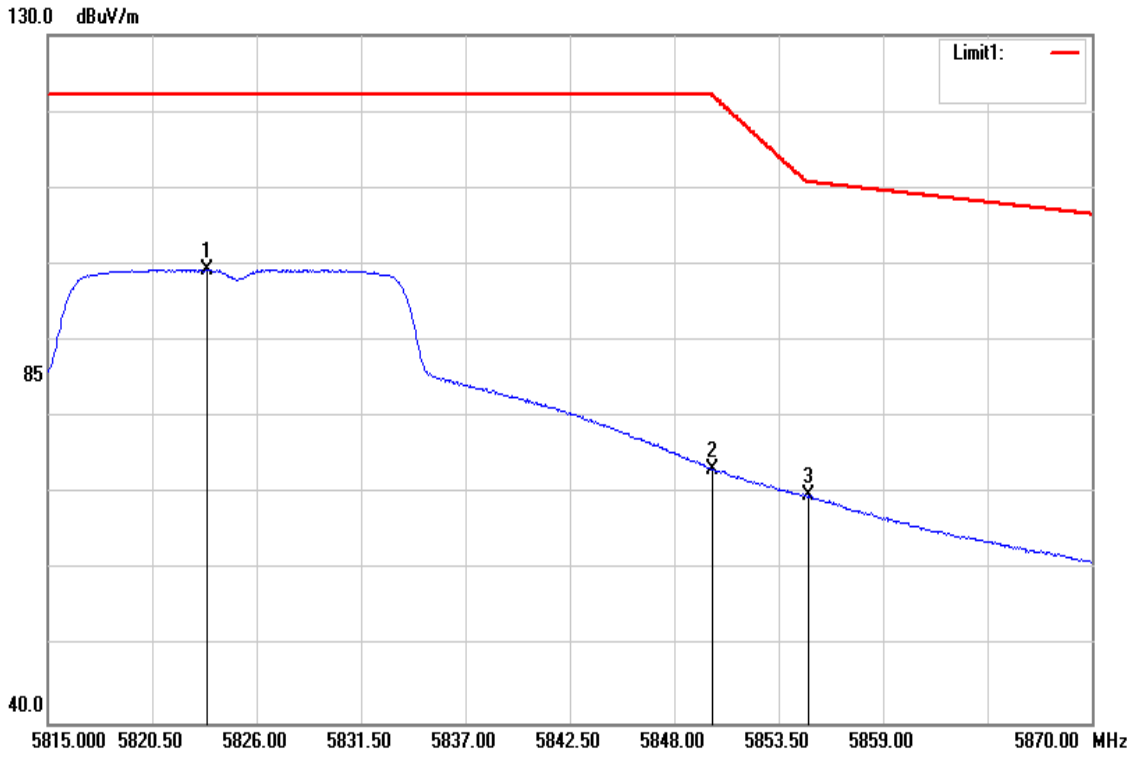
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
5720.070	66.61	8.96	75.57	110.96	-35.39	AVG
5724.830	71.27	8.98	80.25	121.81	-41.56	AVG
5742.540	91.39	9.04	100.43	-	-	AVG

Test Mode	IEEE 802.11n HT20 High CH	Temp/Hum	24(℃)/ 33%RH
Test Item	Band Edge	Test Date	September 13, 2017
Polarize	Vertical	Test Engineer	Ed Chiang
Detector	Peak	Test Voltage	DC 12V



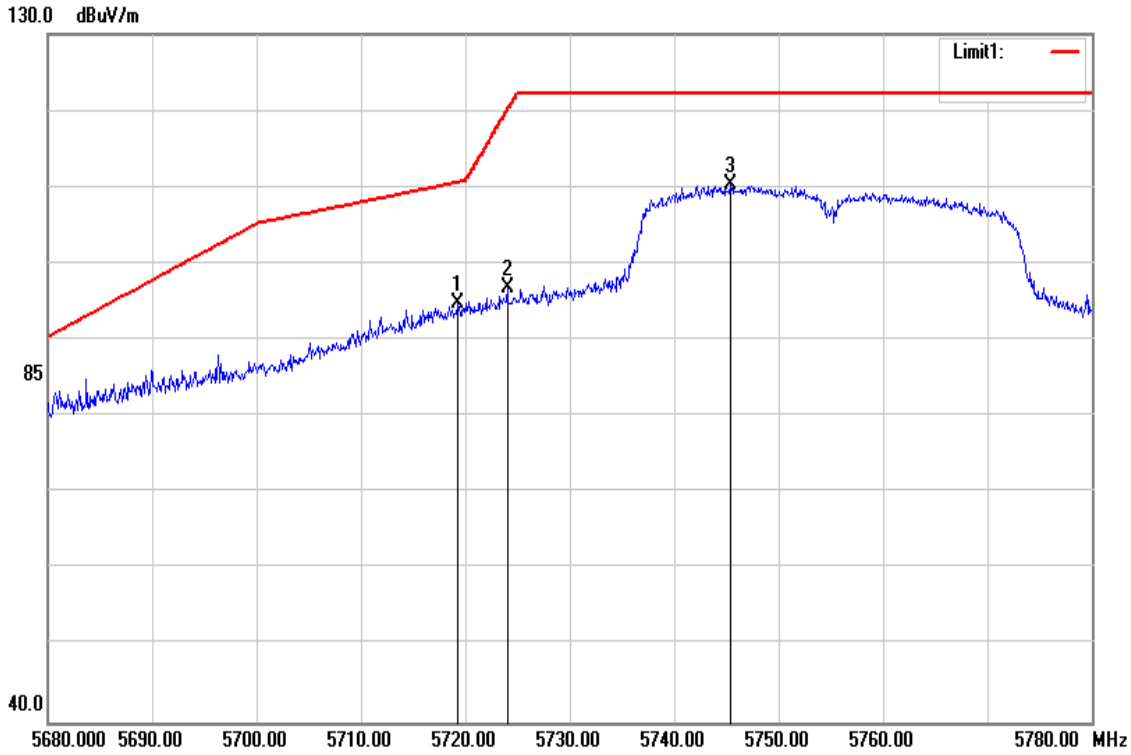
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
5820.445	102.81	9.30	112.11	-	-	peak
5850.200	82.31	9.41	91.72	121.74	-30.02	peak
5855.810	79.22	9.43	88.65	110.57	-21.92	peak

Test Mode	IEEE 802.11n HT20 High CH	Temperature	24(℃)/ 33%RH
Test Item	Band Edge	Test Date	September 13, 2017
Polarize	Vertical	Test Engineer	Ed Chiang
Detector	Average	Test Voltage	DC 12V



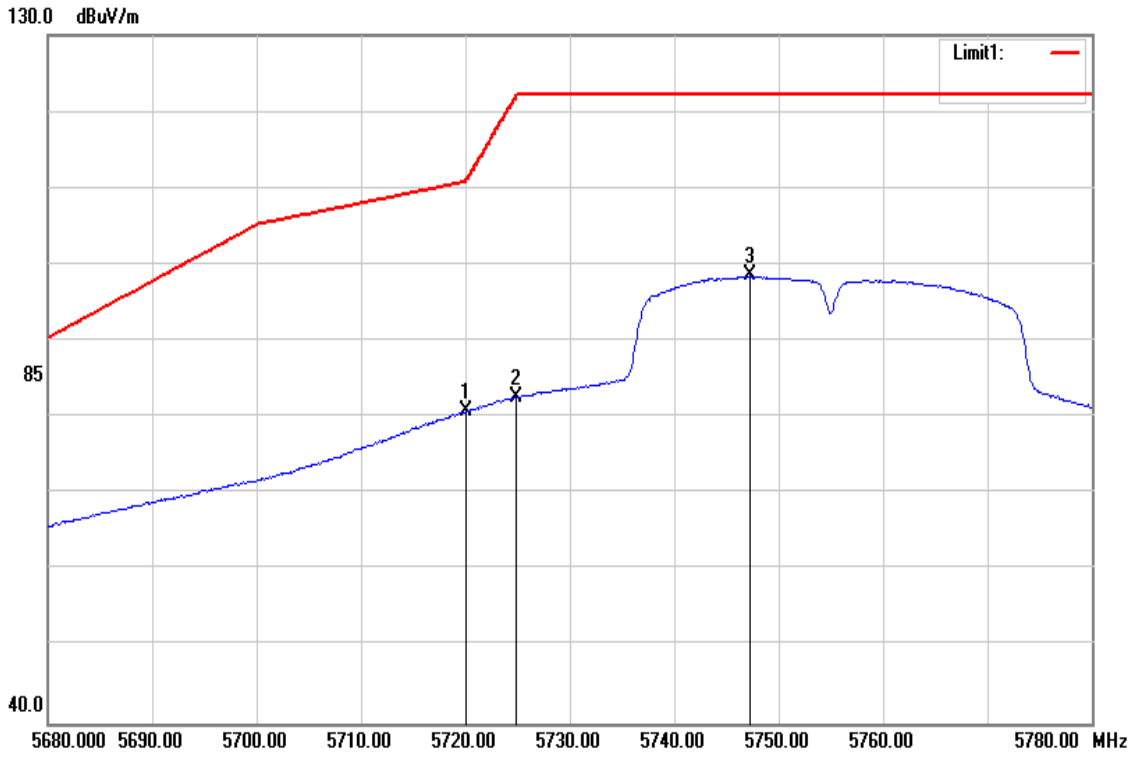
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
5823.360	90.05	9.32	99.37	-	-	AVG
5849.980	63.85	9.41	73.26	122.20	-48.94	AVG
5855.040	60.31	9.43	69.74	110.79	-41.05	AVG

Test Mode	IEEE 802.11n HT40 Low CH	Temp/Hum	24(℃)/ 33%RH
Test Item	Band Edge	Test Date	September 13, 2017
Polarize	Vertical	Test Engineer	Ed Chiang
Detector	Peak	Test Voltage	DC 12V



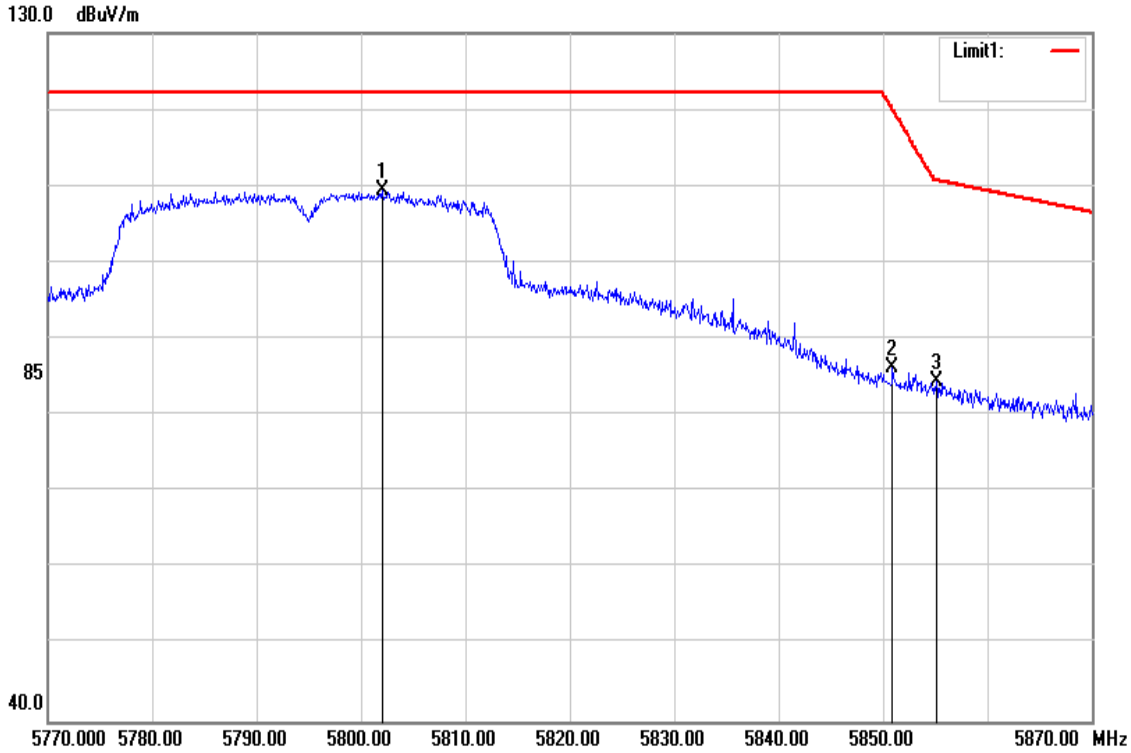
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
5719.300	85.81	8.96	94.77	110.60	-15.83	peak
5724.000	87.84	8.98	96.82	119.92	-23.10	peak
5745.400	101.34	9.04	110.38	-	-	peak

Test Mode	IEEE 802.11n HT40 Low CH	Temperature	24(℃)/ 33%RH
Test Item	Band Edge	Test Date	September 13, 2017
Polarize	Vertical	Test Engineer	Ed Chiang
Detector	Average	Test Voltage	DC 12V



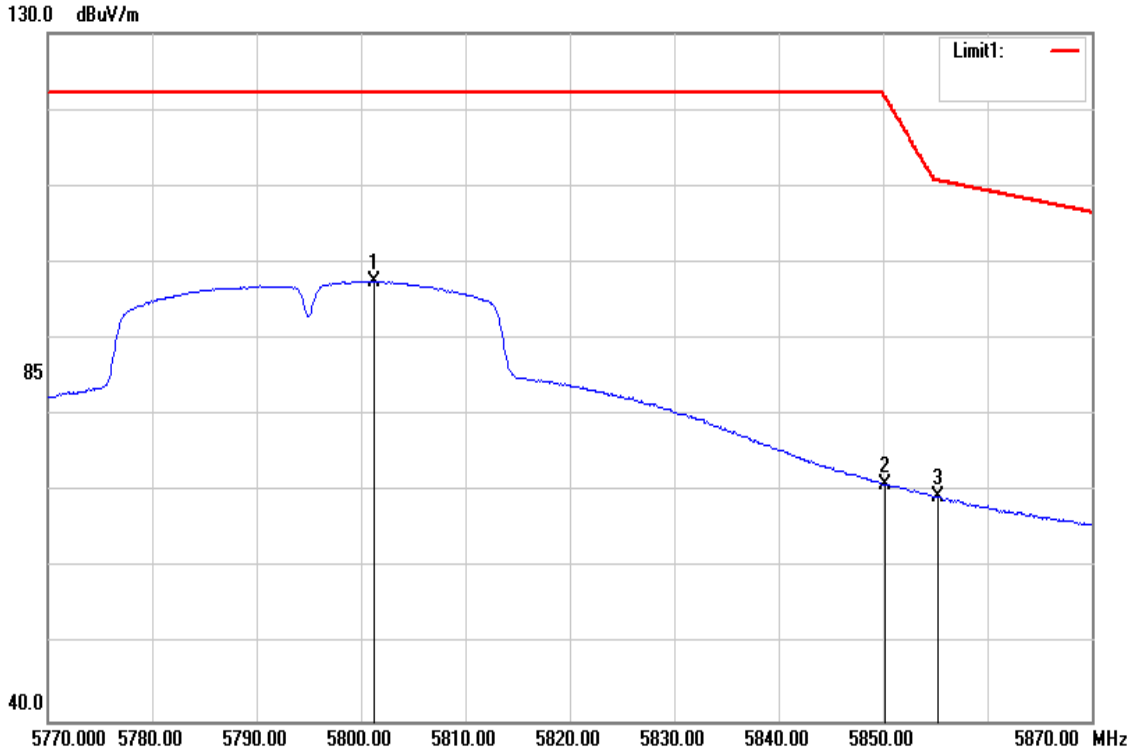
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
5720.100	71.80	8.96	80.76	111.03	-30.27	AVG
5724.900	73.69	8.98	82.67	121.97	-39.30	AVG
5747.300	89.51	9.05	98.56	-	-	AVG

Test Mode	IEEE 802.11n HT40 High CH	Temp/Hum	24(℃)/ 33%RH
Test Item	Band Edge	Test Date	September 13, 2017
Polarize	Vertical	Test Engineer	Ed Chiang
Detector	Peak	Test Voltage	DC 12V



Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
5802.000	100.16	9.24	109.40	-	-	peak
5850.900	76.77	9.41	86.18	120.15	-33.97	peak
5855.100	74.91	9.43	84.34	110.77	-26.43	peak

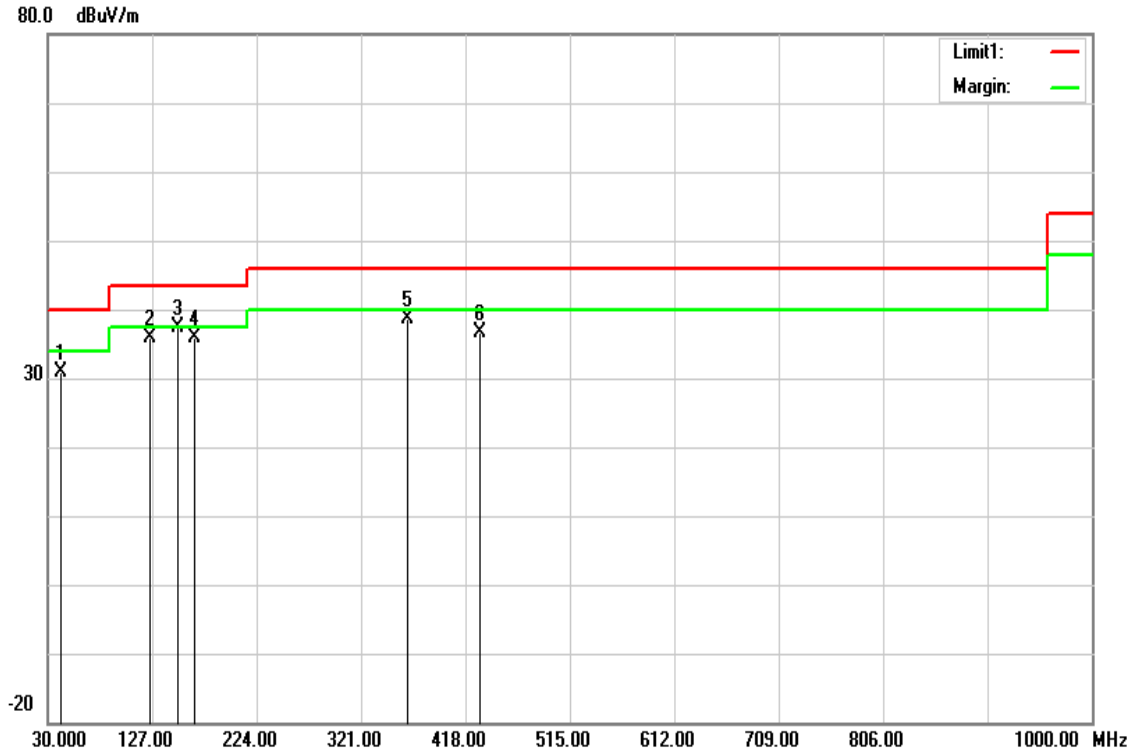
Test Mode	IEEE 802.11n HT40 High CH	Temperature	24(℃)/ 33%RH
Test Item	Band Edge	Test Date	September 13, 2017
Polarize	Vertical	Test Engineer	Ed Chiang
Detector	Average	Test Voltage	DC 12V



Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
5801.200	88.30	9.24	97.54	-	-	AVG
5850.200	61.62	9.41	71.03	121.74	-50.71	AVG
5855.300	60.00	9.43	69.43	110.72	-41.29	AVG

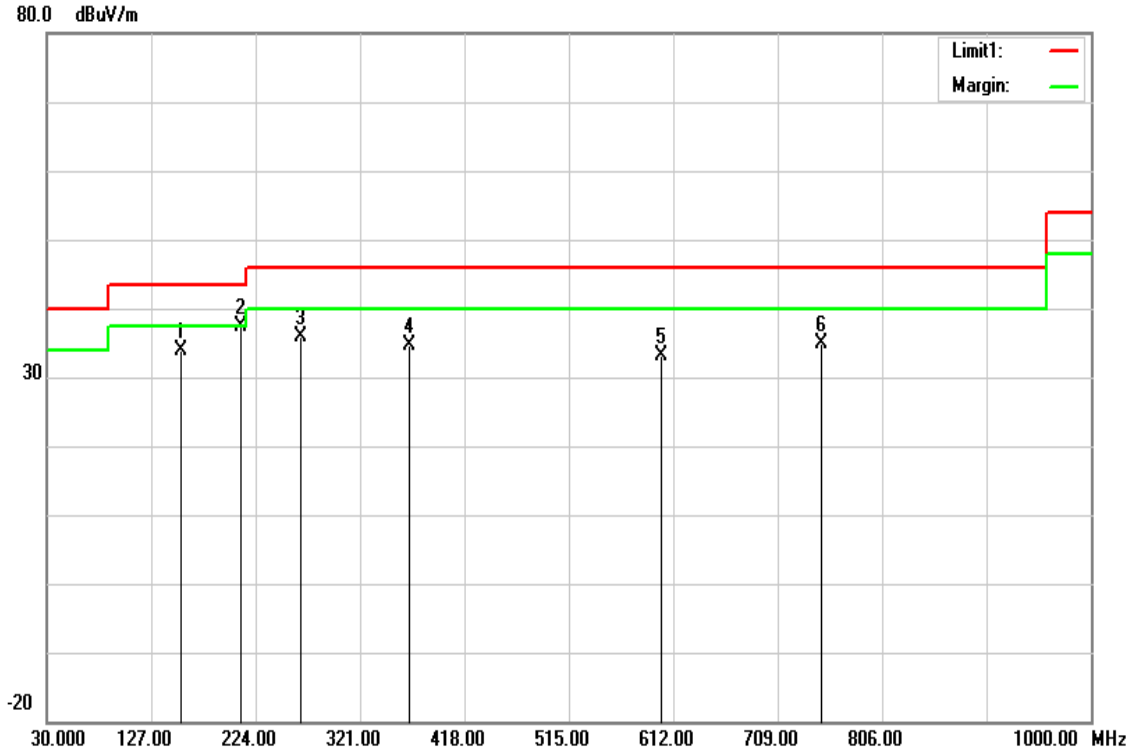
Below 1G Test Data

Test Mode	Mode 1	Temp/Hum	24(℃)/ 33%RH
Test Item	30MHz-1GHz	Test Date	September 13, 2017
Polarize	Vertical	Test Engineer	Ed Chiang
Detector	Peak and Qusi-peak	Test Voltage	DC 12V



Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB	emark
42.6100	48.34	-17.52	30.82	40.00	-9.18	QP
125.0600	50.90	-15.13	35.77	43.50	-7.73	peak
151.2500	53.12	-15.78	37.34	43.50	-6.16	peak
165.8000	52.29	-16.31	35.98	43.50	-7.52	QP
364.6500	51.26	-12.52	38.74	46.00	-7.26	QP
431.5800	46.88	-10.25	36.63	46.00	-9.37	peak

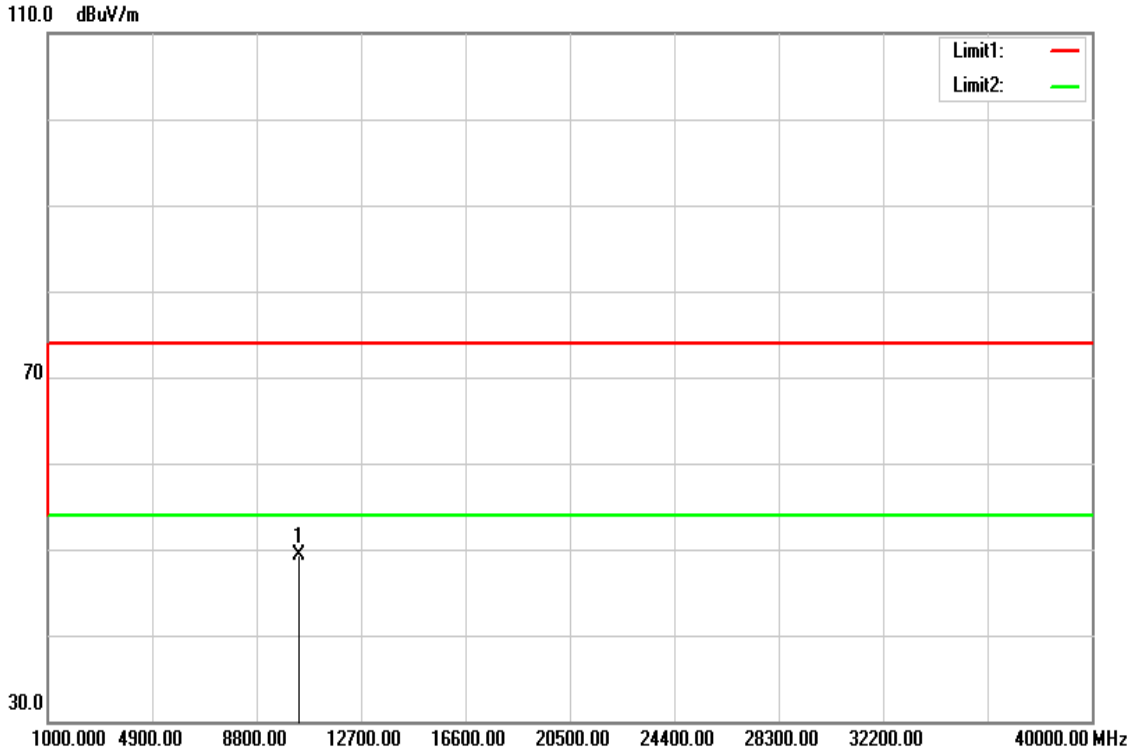
Test Mode	Mode 1	Temp/Hum	24(℃)/ 33%RH
Test Item	30MHz-1GHz	Test Date	September 13, 2017
Polarize	**Horizontal**	Test Engineer	Ed Chiang
Detector	Peak and Qusi-peak	Test Voltage	DC 12V



Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB	Remark
154.1600	49.76	-15.83	33.93	43.50	-9.57	QP
210.4200	53.74	-16.37	37.37	43.50	-6.13	peak
265.7100	51.04	-15.18	35.86	46.00	-10.14	peak
366.5900	47.18	-12.45	34.73	46.00	-11.27	peak
600.3600	40.12	-6.92	33.20	46.00	-12.80	peak
749.7400	39.24	-4.29	34.95	46.00	-11.05	peak

Above 1G Test Data for UNII-1

Test Mode	IEEE 802.11a Low CH	Temp/Hum	24(℃)/ 33%RH
Test Item	Harmonic	Test Date	September 14, 2017
Polarize	Vertical	Test Engineer	Ed Chiang
Detector	Peak and Average	Test Voltage	DC 12V

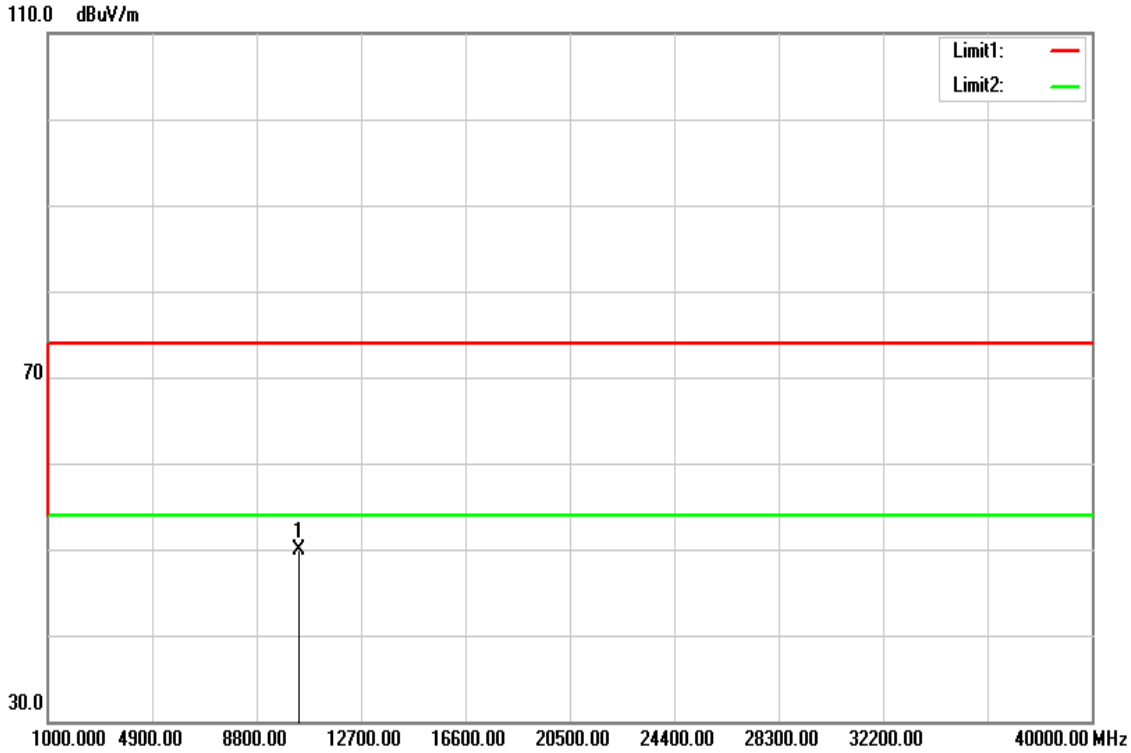


Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
10360.000	30.65	18.61	49.26	74.00	-24.74	peak
N/A						

Remark:

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

Test Mode	IEEE 802.11a Low CH	Temp/Hum	24(℃)/ 33%RH
Test Item	Harmonic	Test Date	September 14, 2017
Polarize	Horizontal	Test Engineer	Ed Chiang
Detector	Peak and Average	Test Voltage	DC 12V

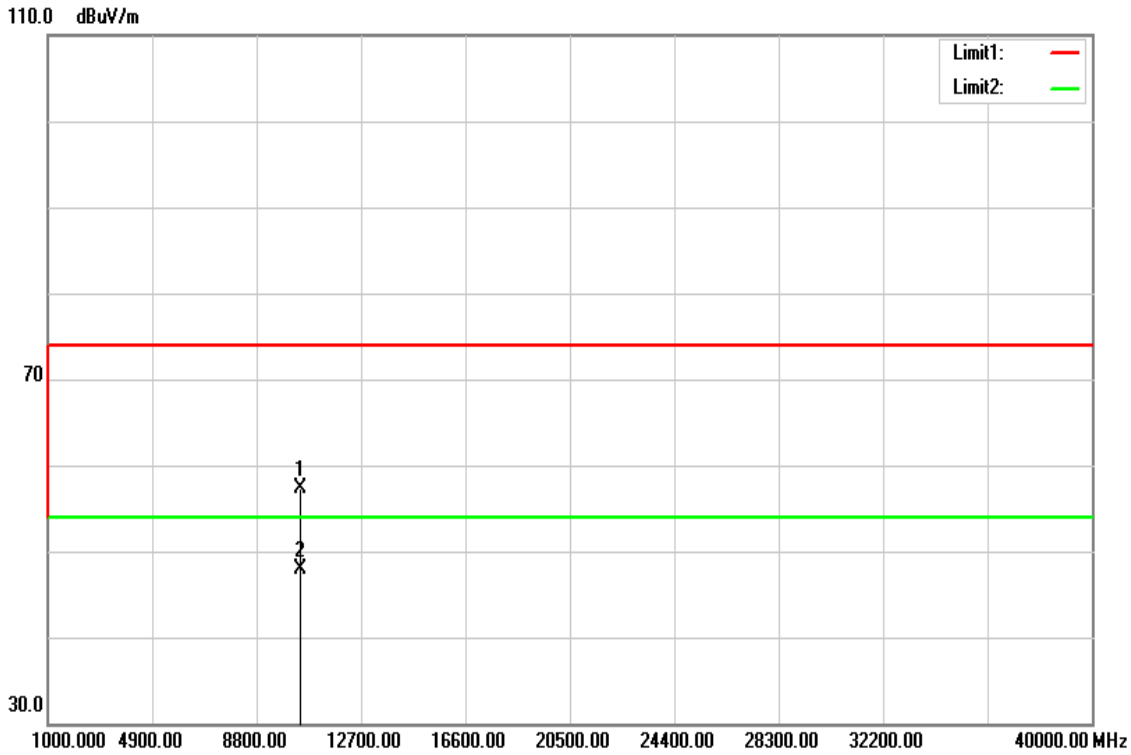


Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	R mark
10360.000	31.23	18.61	49.84	74.00	-24.16	peak
N/A						

Remark:

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

Test Mode	IEEE 802.11a Mid CH	Temp/Hum	24(℃)/ 33%RH
Test Item	Harmonic	Test Date	September 14, 2017
Polarize	Vertical	Test Engineer	Ed Chiang
Detector	Peak and Average	Test Voltage	DC 12V

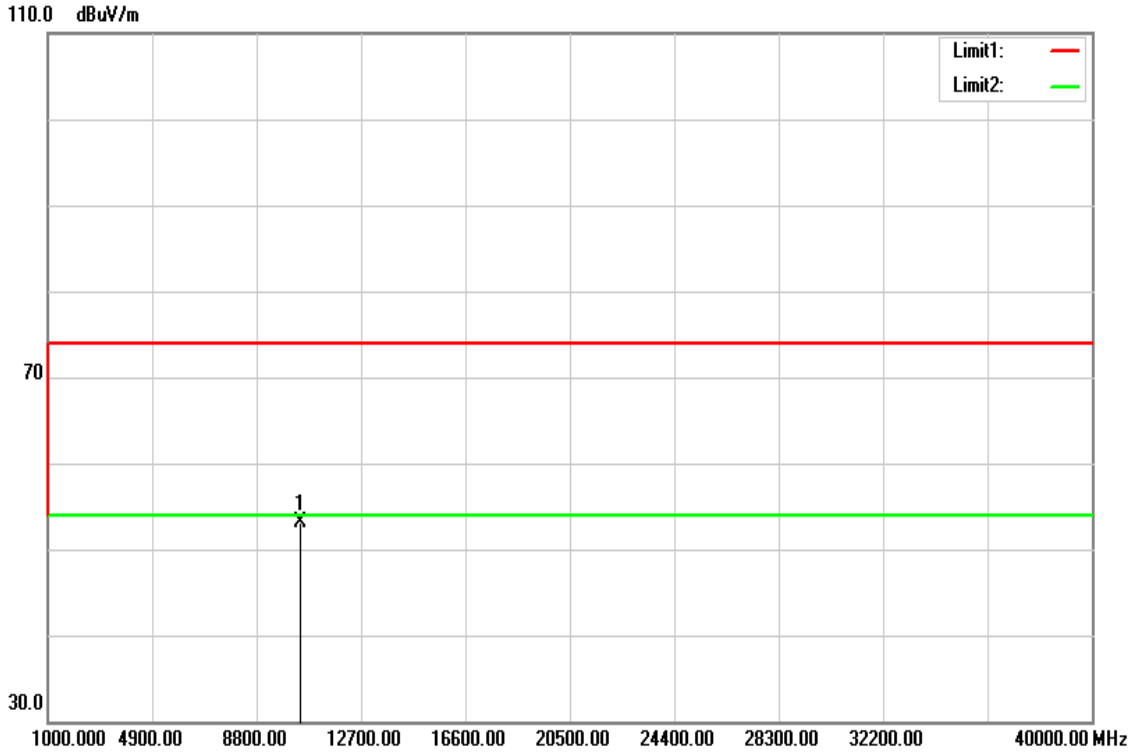


Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Rem rk
10440.000	38.55	18.80	57.35	74.00	-16.65	peak
10440.000	29.19	18.80	47.99	54.00	-6.01	AVG
N/A						

Remark:

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

Test Mode	IEEE 802.11a Mid CH	Temp/Hum	24(℃)/ 33%RH
Test Item	Harmonic	Test Date	September 14, 2017
Polarize	Horizontal	Test Engineer	Ed Chiang
Detector	Peak and Average	Test Voltage	DC 12V

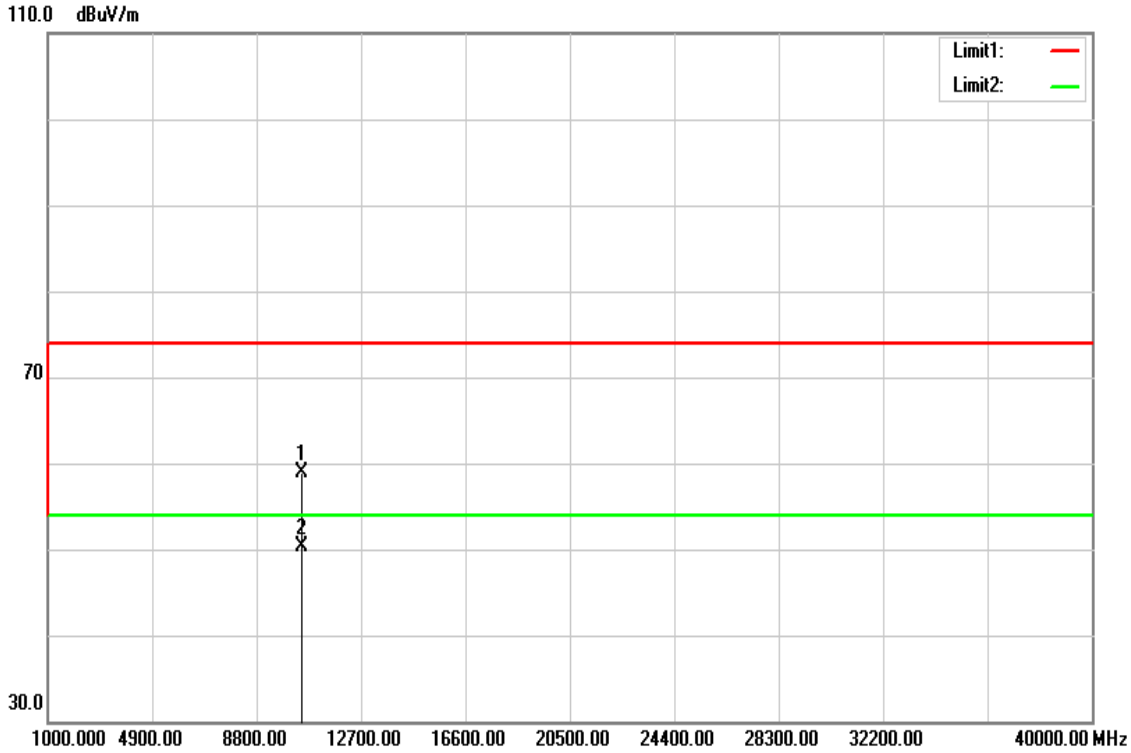


Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Re ark
10440.000	34.33	18.80	53.13	74.00	-20.87	peak
N/A						

Remark:

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

Test Mode	IEEE 802.11a High CH	Temp/Hum	24(℃)/ 33%RH
Test Item	Harmonic	Test Date	September 14, 2017
Polarize	Vertical	Test Engineer	Ed Chiang
Detector	Peak and Average	Test Voltage	DC 12V

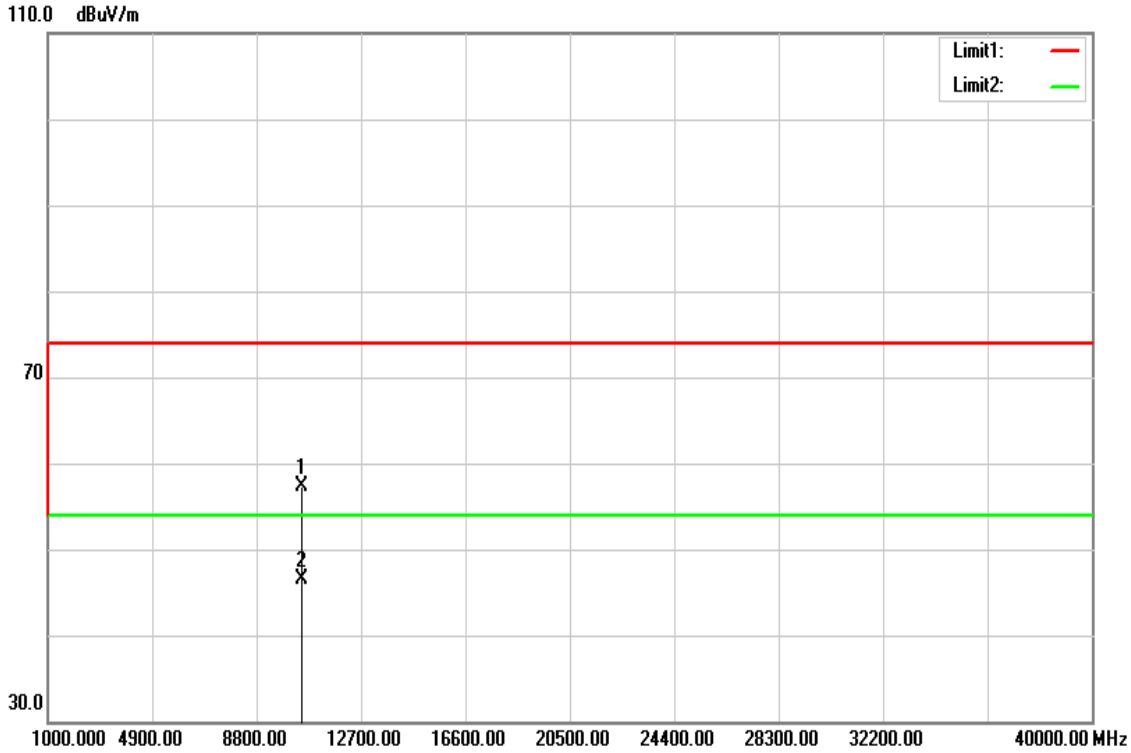


Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Rema k
10480.000	40.06	18.90	58.96	74.00	-15.04	peak
10480.000	31.32	18.90	50.22	54.00	-3.78	AVG
N/A						

Remark:

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

Test Mode	IEEE 802.11a High CH	Temp/Hum	24(℃)/ 33%RH
Test Item	Harmonic	Test Date	September 14, 2017
Polarize	Horizontal	Test Engineer	Ed Chiang
Detector	Peak and Average	Test Voltage	DC 12V

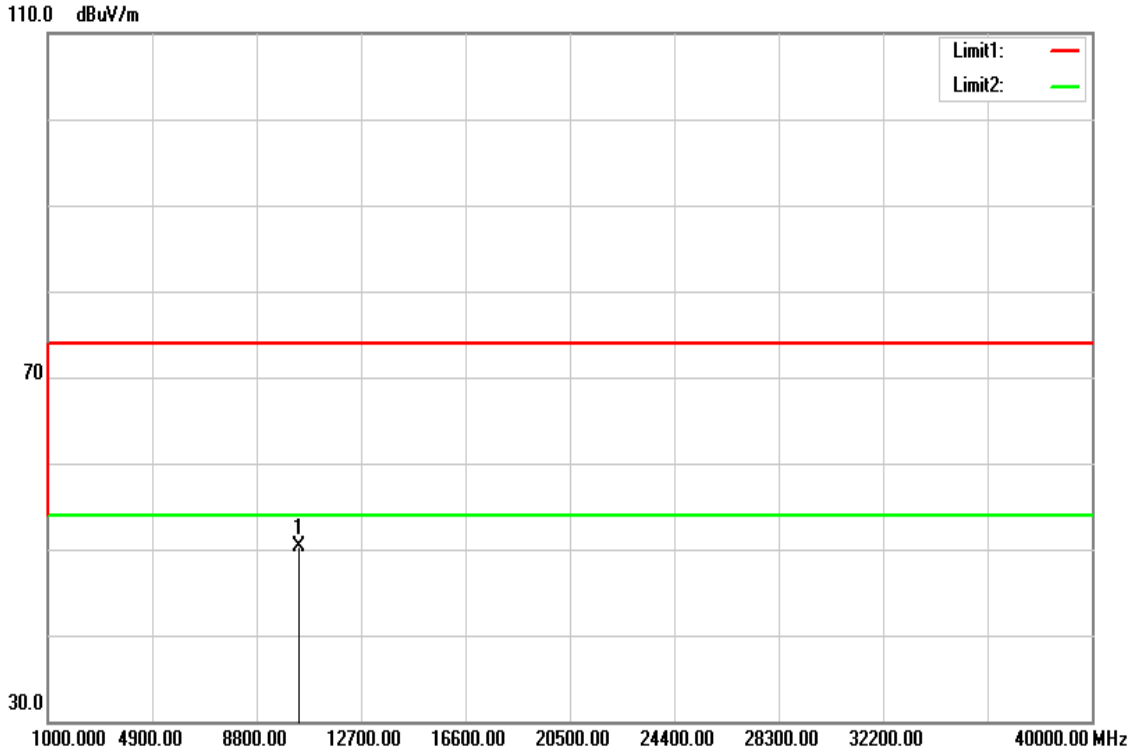


Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Re ark
10480.000	38.50	18.90	57.40	74.00	-16.60	peak
10480.000	27.58	18.90	46.48	54.00	-7.52	AVG
N/A						

Remark:

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

Test Mode	IEEE 802.11n HT20 Low CH	Temp/Hum	24(℃)/ 33%RH
Test Item	Harmonic	Test Date	September 14, 2017
Polarize	Vertical	Test Engineer	Ed Chiang
Detector	Peak and Average	Test Voltage	DC 12V

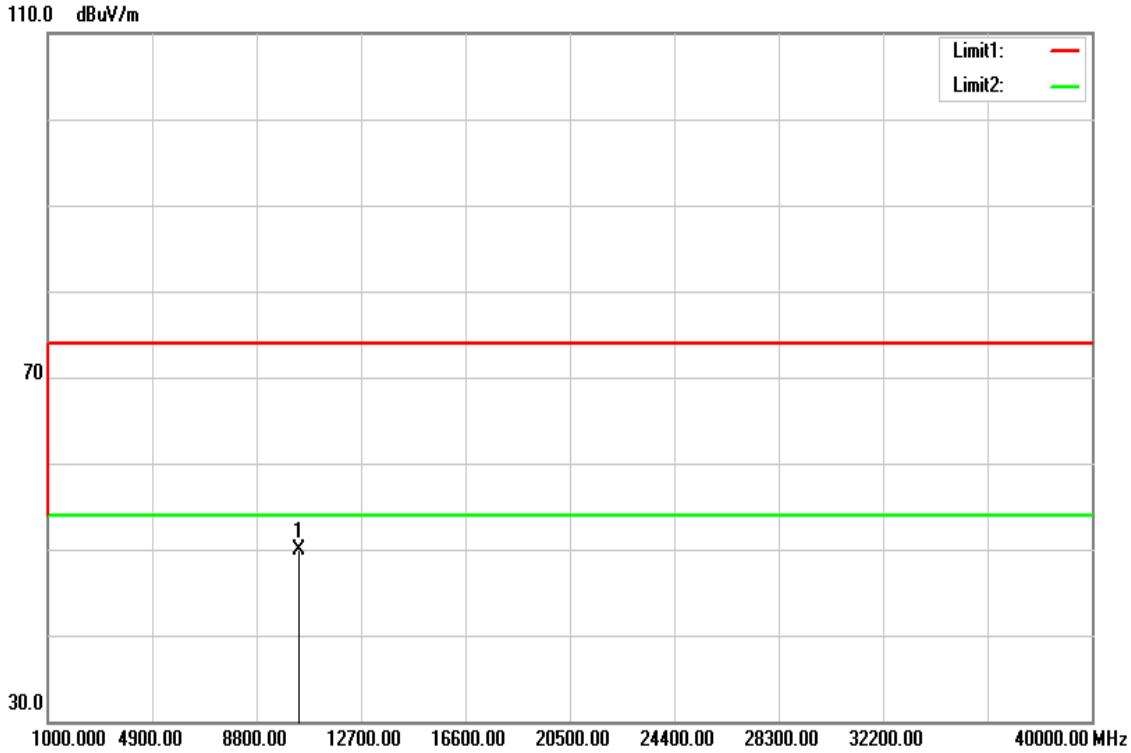


Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Rema k
10360.000	31.76	18.61	50.37	74.00	-23.63	peak
N/A						

Remark:

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

Test Mode	IEEE 802.11n HT20 Low CH	Temp/Hum	24(℃)/ 33%RH
Test Item	Harmonic	Test Date	September 14, 2017
Polarize	Horizontal	Test Engineer	Ed Chiang
Detector	Peak and Average	Test Voltage	DC 12V

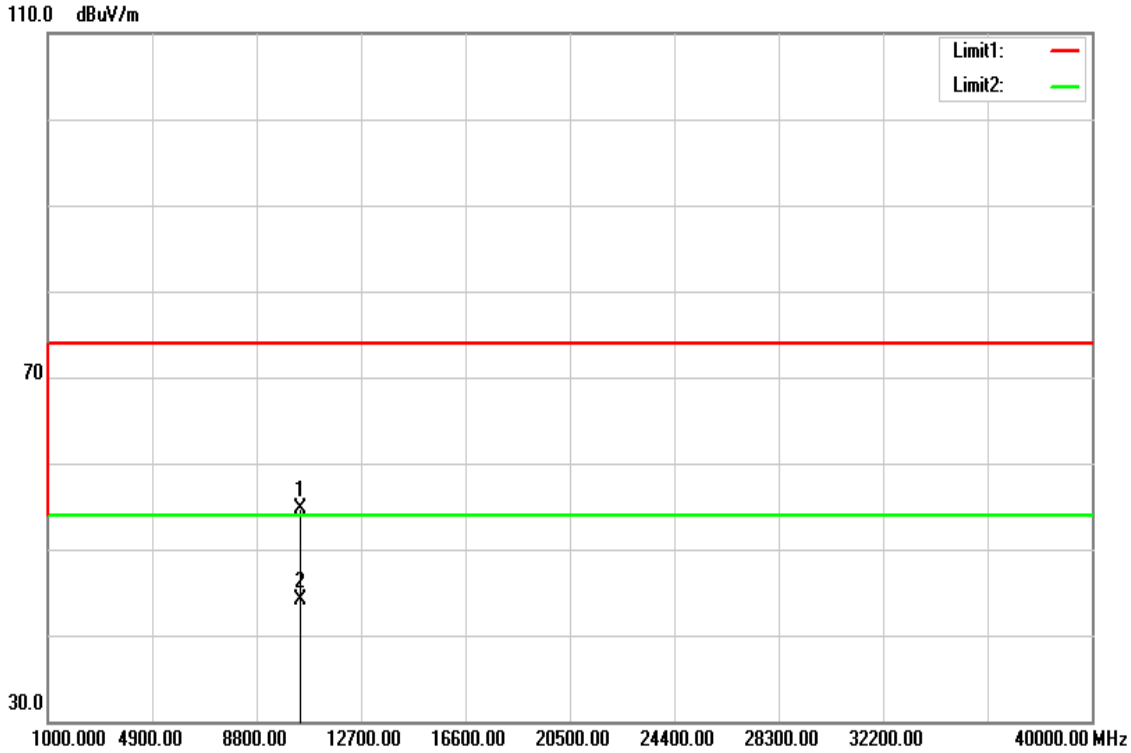


Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Re ark
10360.000	31.30	18.61	49.91	74.00	-24.09	peak
N/A						

Remark:

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

Test Mode	IEEE 802.11n HT20 Mid CH	Temp/Hum	24(℃)/ 33%RH
Test Item	Harmonic	Test Date	September 14, 2017
Polarize	Vertical	Test Engineer	Ed Chiang
Detector	Peak and Average	Test Voltage	DC 12V

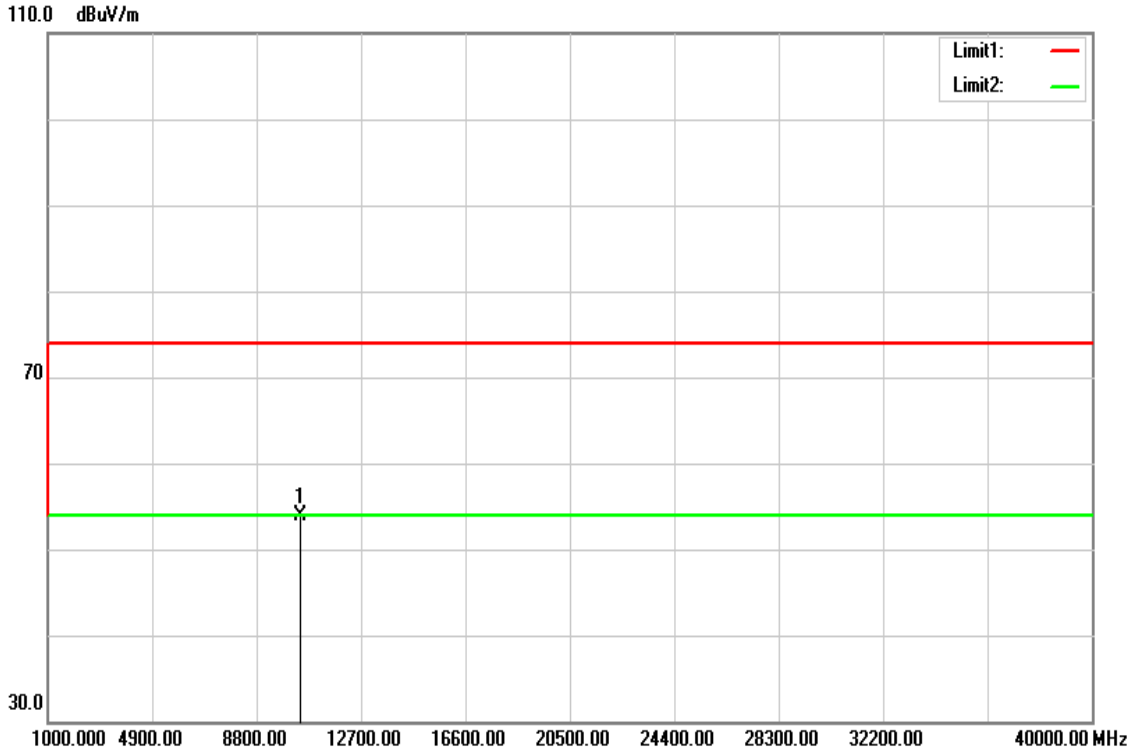


Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Rema k
10430.000	35.94	18.77	54.71	74.00	-19.29	peak
10430.000	25.36	18.77	44.13	54.00	-9.87	AVG
N/A						

Remark:

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

Test Mode	IEEE 802.11n HT20 Mid CH	Temp/Hum	24(℃)/ 33%RH
Test Item	Harmonic	Test Date	September 14, 2017
Polarize	Horizontal	Test Engineer	Ed Chiang
Detector	Peak and Average	Test Voltage	DC 12V

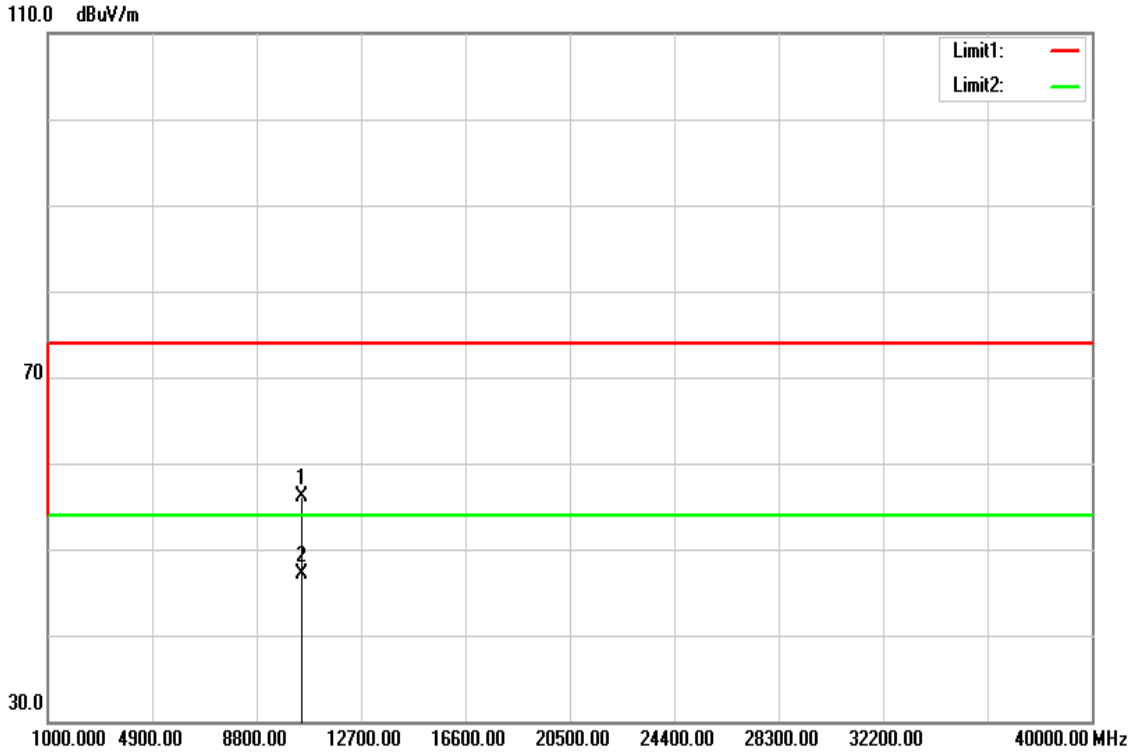


Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Re ark
10440.000	35.01	18.80	53.81	74.00	-20.19	peak
N/A						

Remark:

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

Test Mode	IEEE 802.11n HT20 High CH	Temp/Hum	24(℃)/ 33%RH
Test Item	Harmonic	Test Date	September 14, 2017
Polarize	Vertical	Test Engineer	Ed Chiang
Detector	Peak and Average	Test Voltage	DC 12V

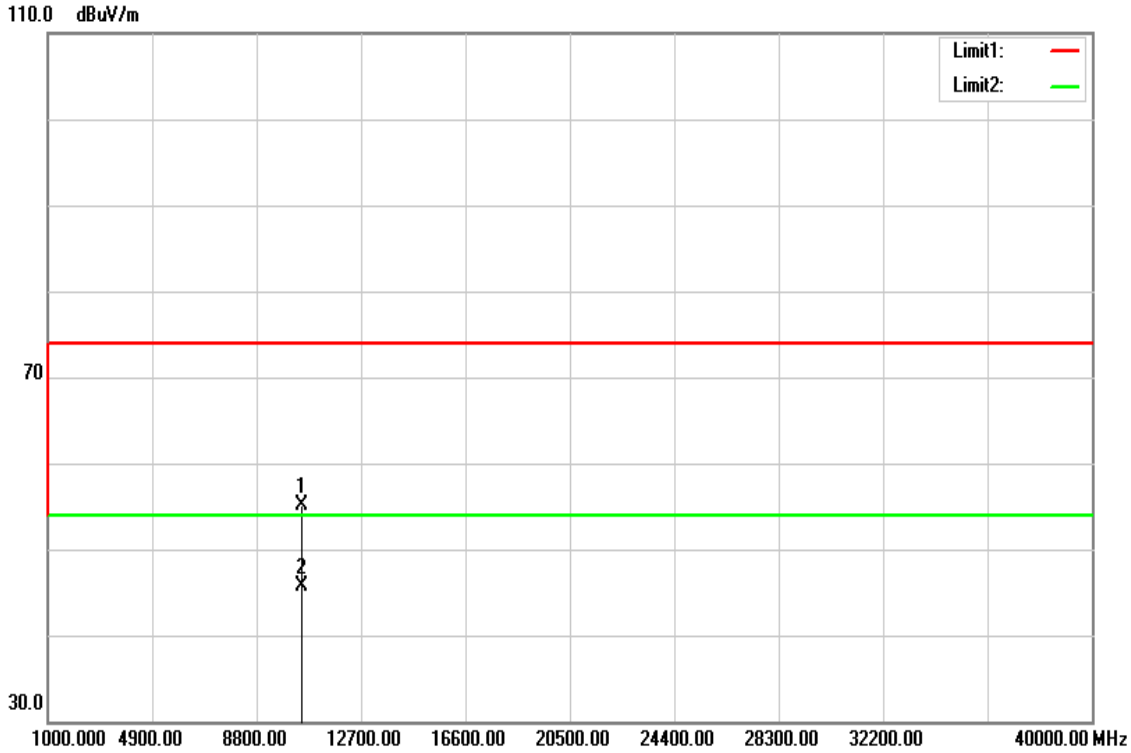


Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
10490.000	37.19	18.93	56.12	74.00	-17.88	peak
10490.000	28.09	18.93	47.02	54.00	-6.98	AVG
N/A						

Remark:

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

Test Mode	IEEE 802.11n HT20 High CH	Temp/Hum	24(℃)/ 33%RH
Test Item	Harmonic	Test Date	September 14, 2017
Polarize	Horizontal	Test Engineer	Ed Chiang
Detector	Peak and Average	Test Voltage	DC 12V

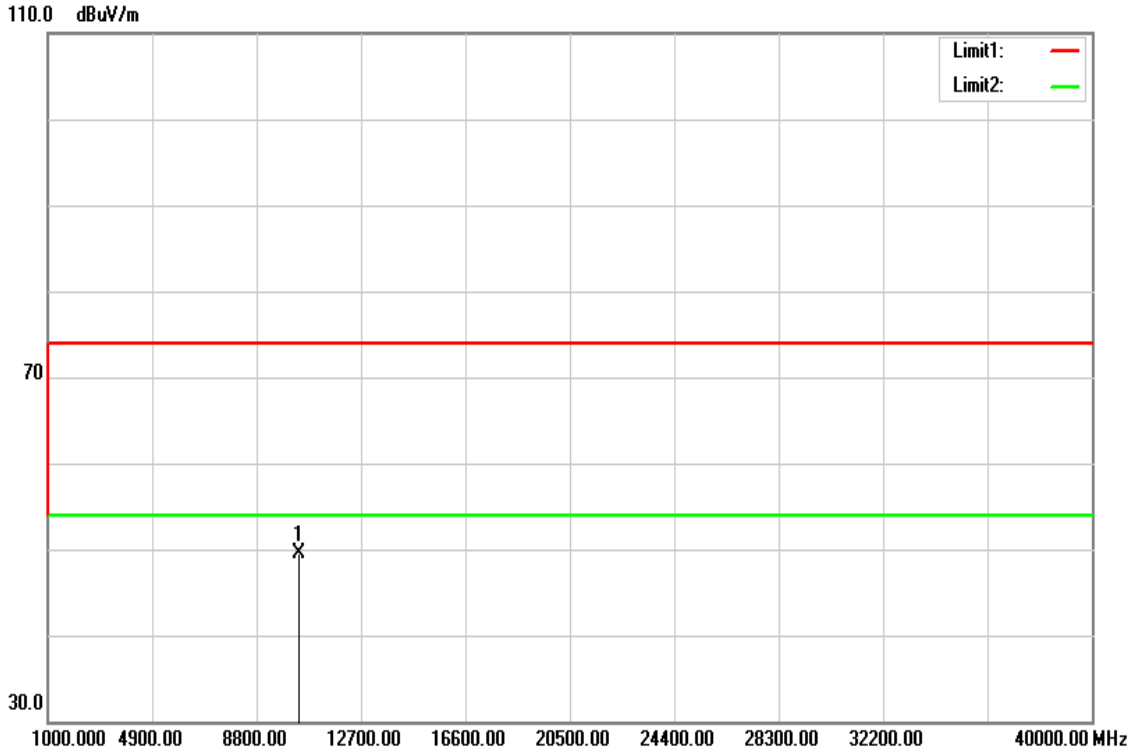


Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
10490.000	36.09	18.93	55.02	74.00	-18.98	peak
10490.000	26.80	18.93	45.73	54.00	-8.27	AVG
N/A						

Remark:

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

Test Mode	IEEE 802.11n HT40 Low CH	Temp/Hum	24(℃)/ 33%RH
Test Item	Harmonic	Test Date	September 14, 2017
Polarize	Vertical	Test Engineer	Ed Chiang
Detector	Peak and Average	Test Voltage	DC 12V

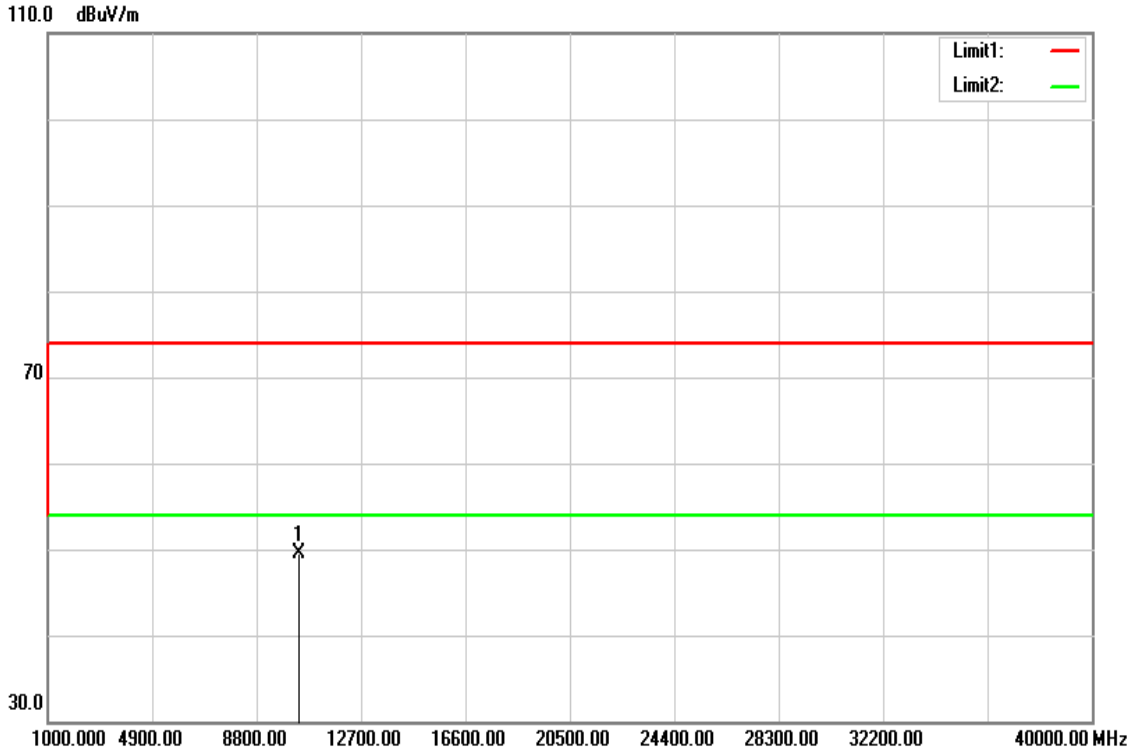


Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
10380.000	30.87	18.65	49.52	74.00	-24.48	peak
N/A						

Remark:

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

Test Mode	IEEE 802.11n HT40 Low CH	Temp/Hum	24(℃)/ 33%RH
Test Item	Harmonic	Test Date	September 14, 2017
Polarize	Horizontal	Test Engineer	Ed Chiang
Detector	Peak and Average	Test Voltage	DC 12V

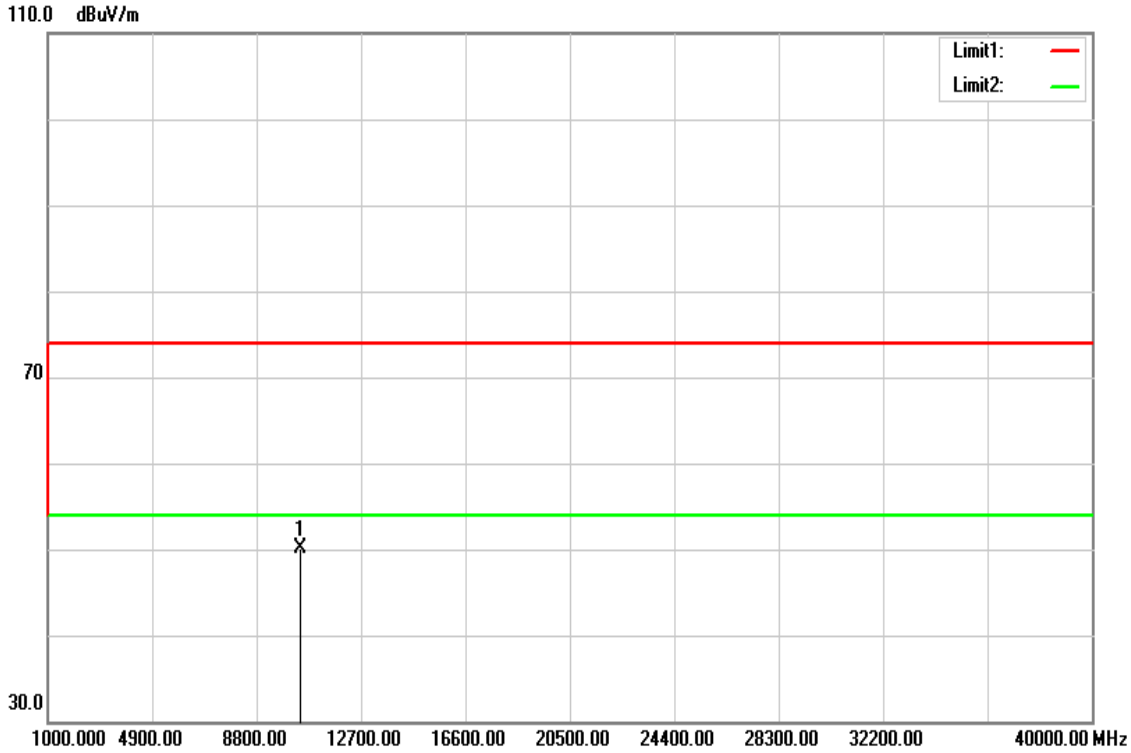


Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
10380.000	30.82	18.65	49.47	74.00	-24.53	peak
N/A						

Remark:

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

Test Mode	IEEE 802.11n HT40 High CH	Temp/Hum	24(℃)/ 33%RH
Test Item	Harmonic	Test Date	September 13, 2017
Polarize	Vertical	Test Engineer	Ed Chiang
Detector	Peak and Average	Test Voltage	DC 12V

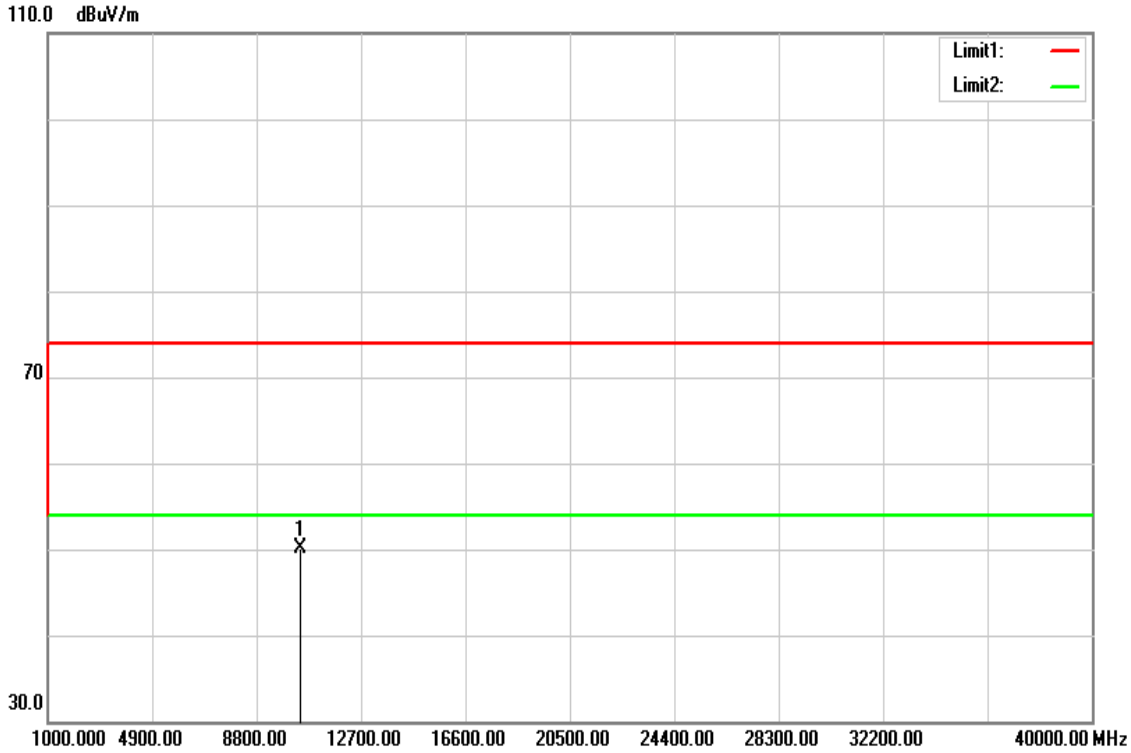


Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
10460.000	31.20	18.86	50.06	74.00	-23.94	peak
N/A						

Remark:

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

Test Mode	IEEE 802.11n HT40 High CH	Temp/Hum	24(℃)/ 33%RH
Test Item	Harmonic	Test Date	September 14, 2017
Polarize	Horizontal	Test Engineer	Ed Chiang
Detector	Peak and Average	Test Voltage	DC 12V



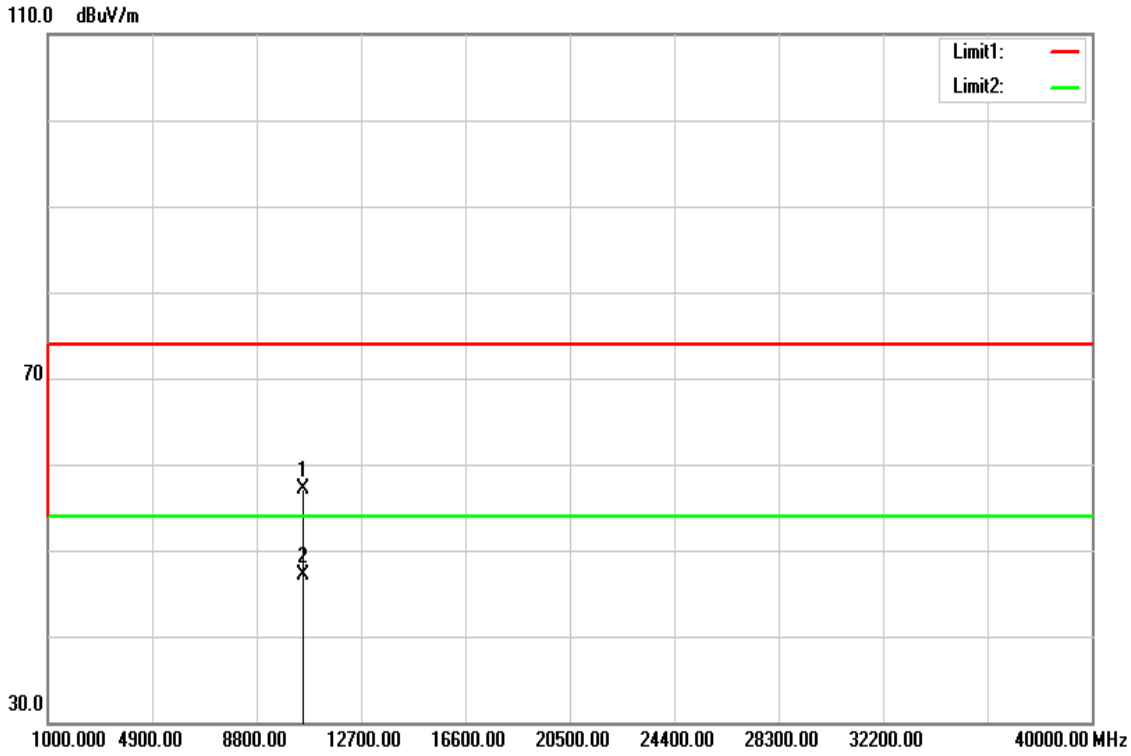
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
10460.000	31.19	18.86	50.05	74.00	-23.95	peak
N/A						

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*

Above 1G Test Data for UNII-2a

Test Mode	IEEE 802.11a Low CH	Temp/Hum	24(℃)/ 33%RH
Test Item	Harmonic	Test Date	September 14, 2017
Polarize	Vertical	Test Engineer	Ed Chiang
Detector	Peak and Average	Test Voltage	DC 12V

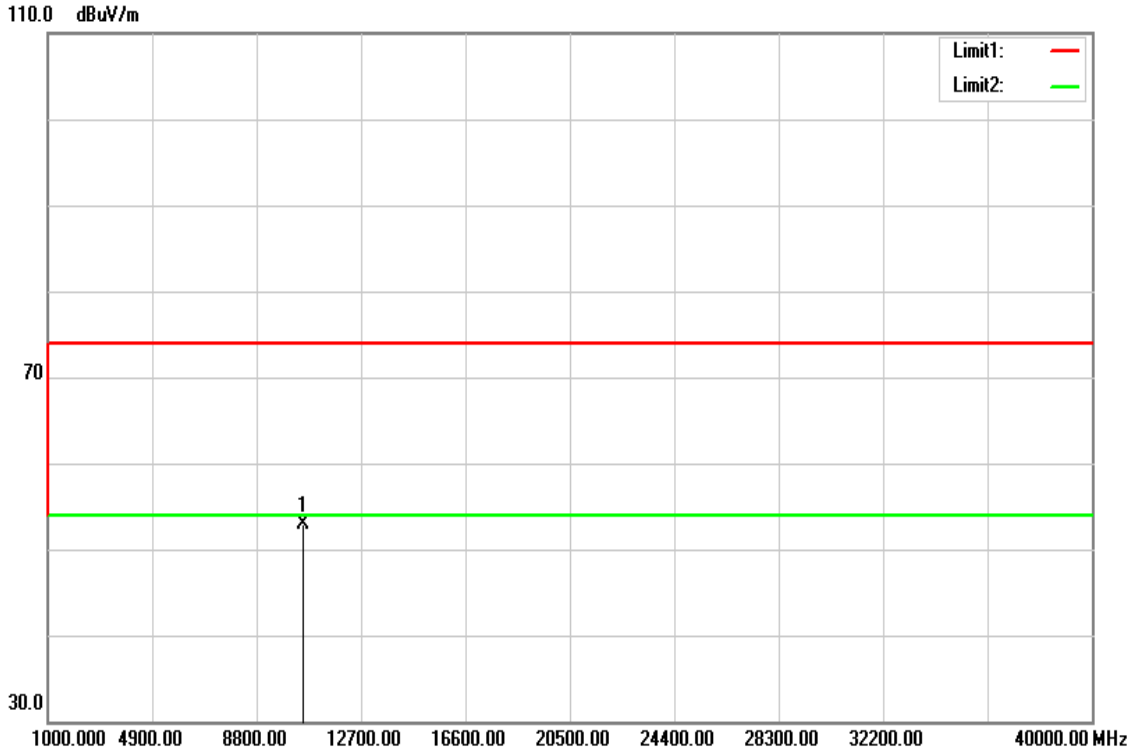


Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV m)	Margin (dB)	Remark
10520.000	38.10	18.99	57.09	74.00	-16.91	peak
10520.000	28.18	18.99	47.17	54.00	-6.83	AVG
N/A						

Remark:

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

Test Mode	IEEE 802.11a Low CH	Temp/Hum	24(℃)/ 33%RH
Test Item	Harmonic	Test Date	September 14, 2017
Polarize	Horizontal	Test Engineer	Ed Chiang
Detector	Peak and Average	Test Voltage	DC 12V

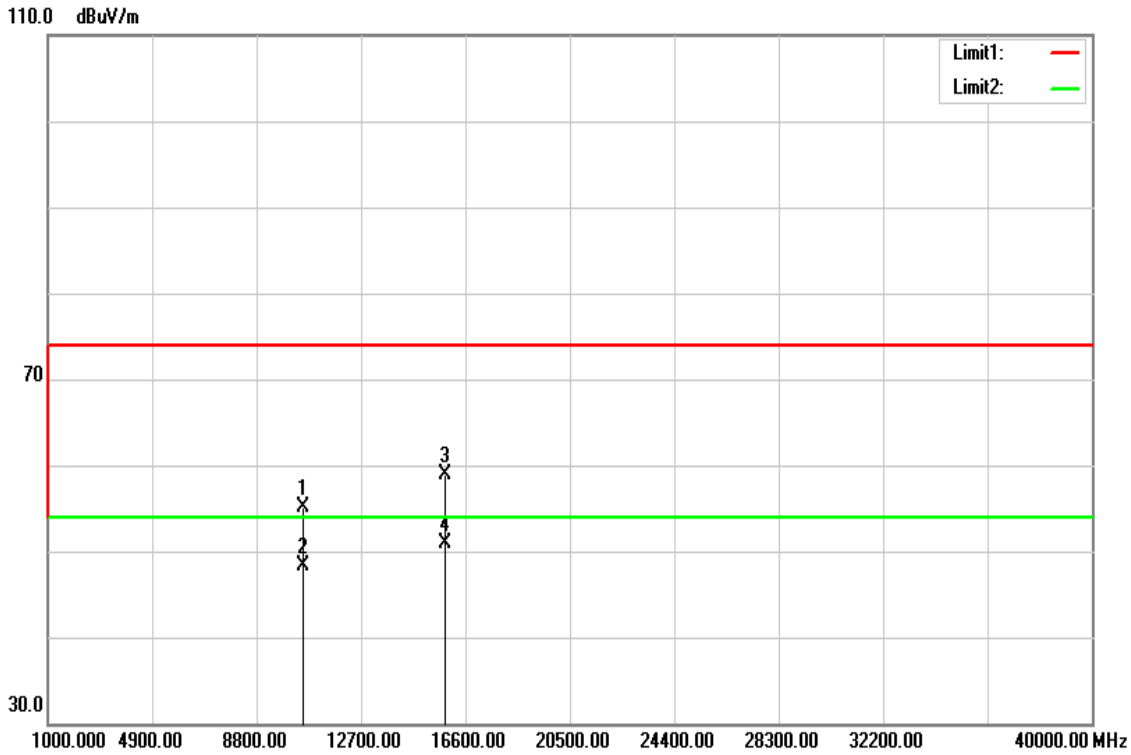


Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
10520.000	33.96	18.99	52.95	74.00	-21.05	peak
N/A						

Remark:

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

Test Mode	IEEE 802.11a Mid CH	Temp/Hum	24(℃)/ 33%RH
Test Item	Harmonic	Test Date	September 14, 2017
Polarize	Vertical	Test Engineer	Ed Chiang
Detector	Peak and Average	Test Voltage	DC 12V

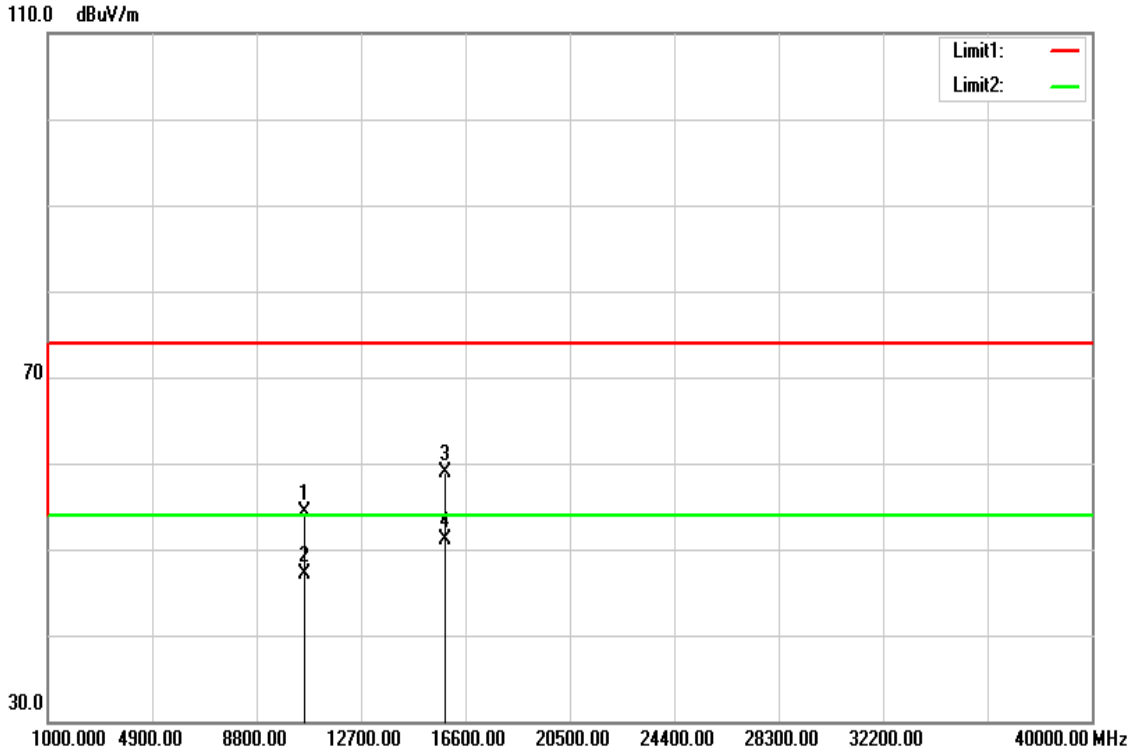


Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Rema k
10560.000	36.12	19.02	55.14	74.00	-18.86	peak
10560.000	29.31	19.02	48.33	54.00	-5.67	AVG
15850.000	36.20	22.77	58.97	74.00	-15.03	peak
15850.000	28.05	22.77	50.82	54.00	-3.18	AVG
N/A						

Remark:

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

Test Mode	IEEE 802.11a Mid CH	Temp/Hum	24(℃)/ 33%RH
Test Item	Harmonic	Test Date	September 14, 2017
Polarize	Horizontal	Test Engineer	Ed Chiang
Detector	Peak and Average	Test Voltage	DC 12V

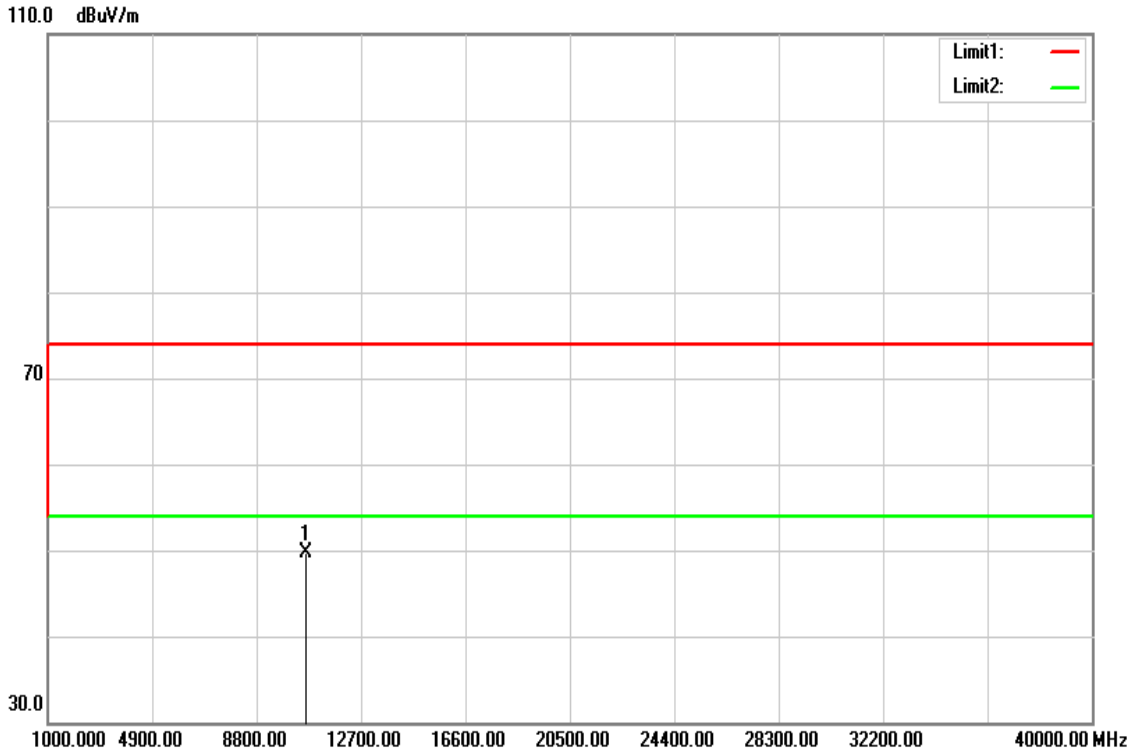


Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Re ark
10570.000	35.16	19.04	54.20	74.00	-19.80	peak
10570.000	28.10	19.04	47.14	54.00	-6.86	AVG
15840.000	36.26	22.73	58.99	74.00	-15.01	peak
15840.000	28.45	22.73	51.18	54.00	-2.82	AVG
N/A						

Remark:

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

Test Mode	IEEE 802.11a High CH	Temp/Hum	24(℃)/ 33%RH
Test Item	Harmonic	Test Date	September 13, 2017
Polarize	Vertical	Test Engineer	Ed Chiang
Detector	Peak and Average	Test Voltage	DC 12V

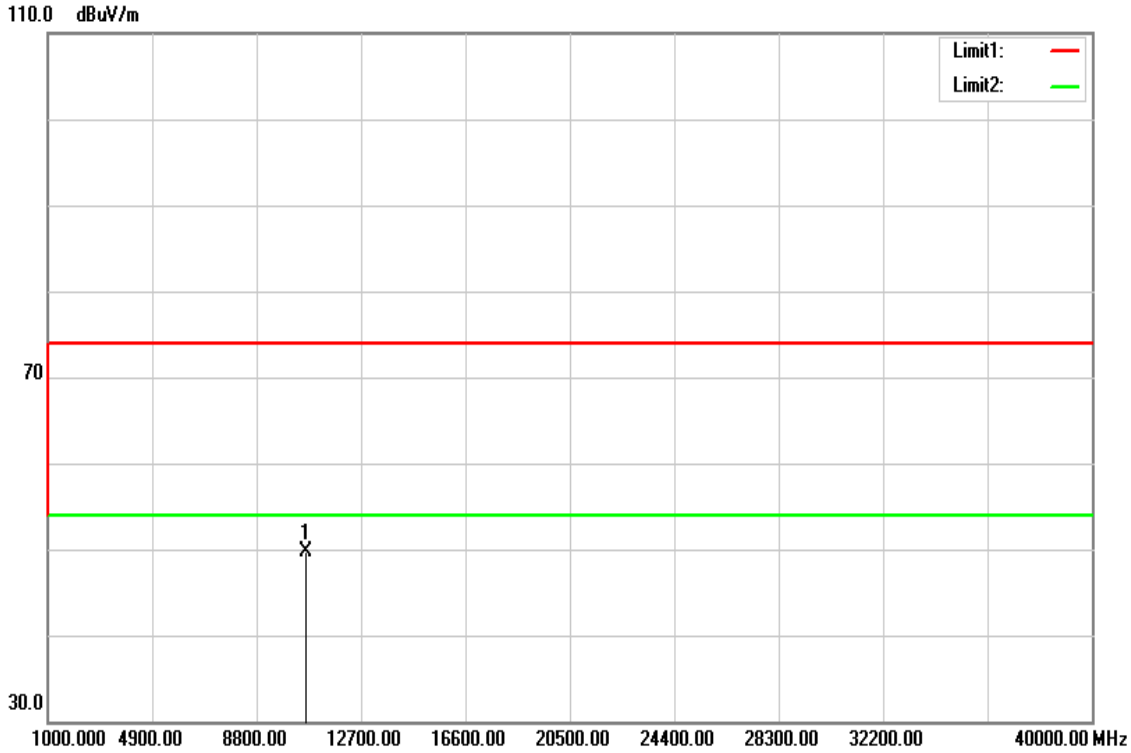


Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Rem rk
10640.000	30.60	19.11	49.71	74.00	-24.29	peak
N/A						

Remark:

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

Test Mode	IEEE 802.11a High CH	Temp/Hum	24(℃)/ 33%RH
Test Item	Harmonic	Test Date	September 13, 2017
Polarize	Horizontal	Test Engineer	Ed Chiang
Detector	Peak and Average	Test Voltage	DC 12V

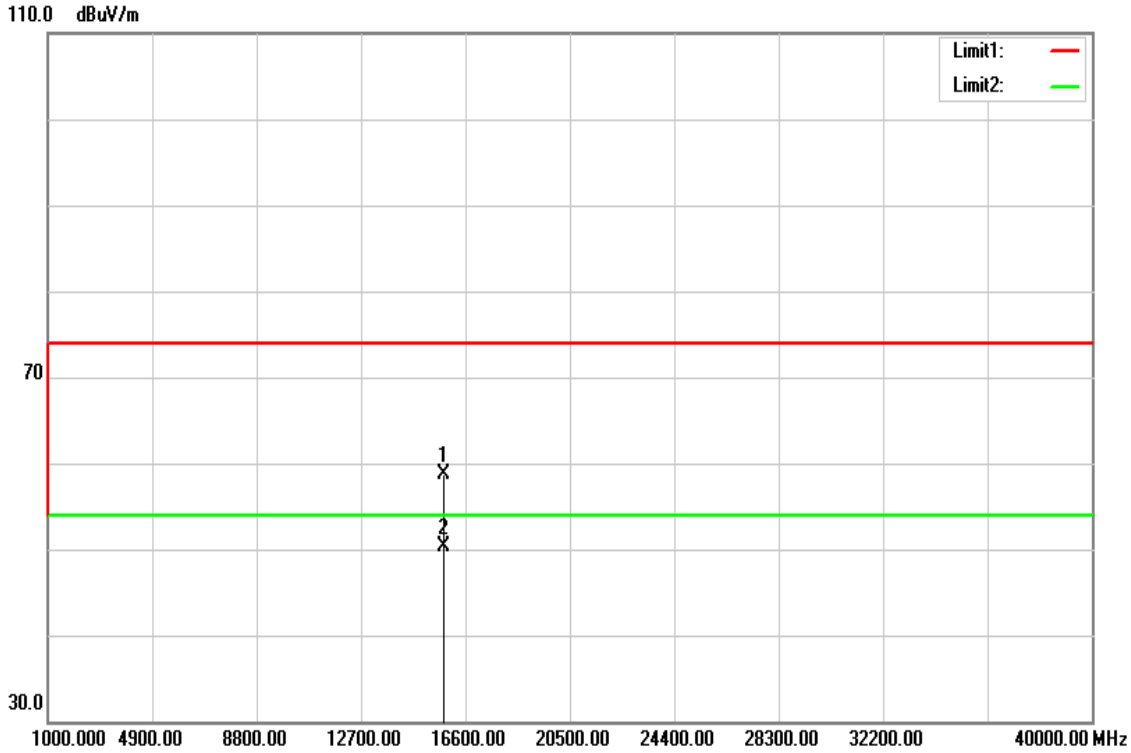


Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Re ark
10640.000	30.54	19.11	49.65	74.00	-24.35	peak
N/A						

Remark:

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

Test Mode	IEEE 802.11n HT20 Low CH	Temp/Hum	24(℃)/ 33%RH
Test Item	Harmonic	Test Date	September 14, 2017
Polarize	Vertical	Test Engineer	Ed Chiang
Detector	Peak and Average	Test Voltage	DC 12V

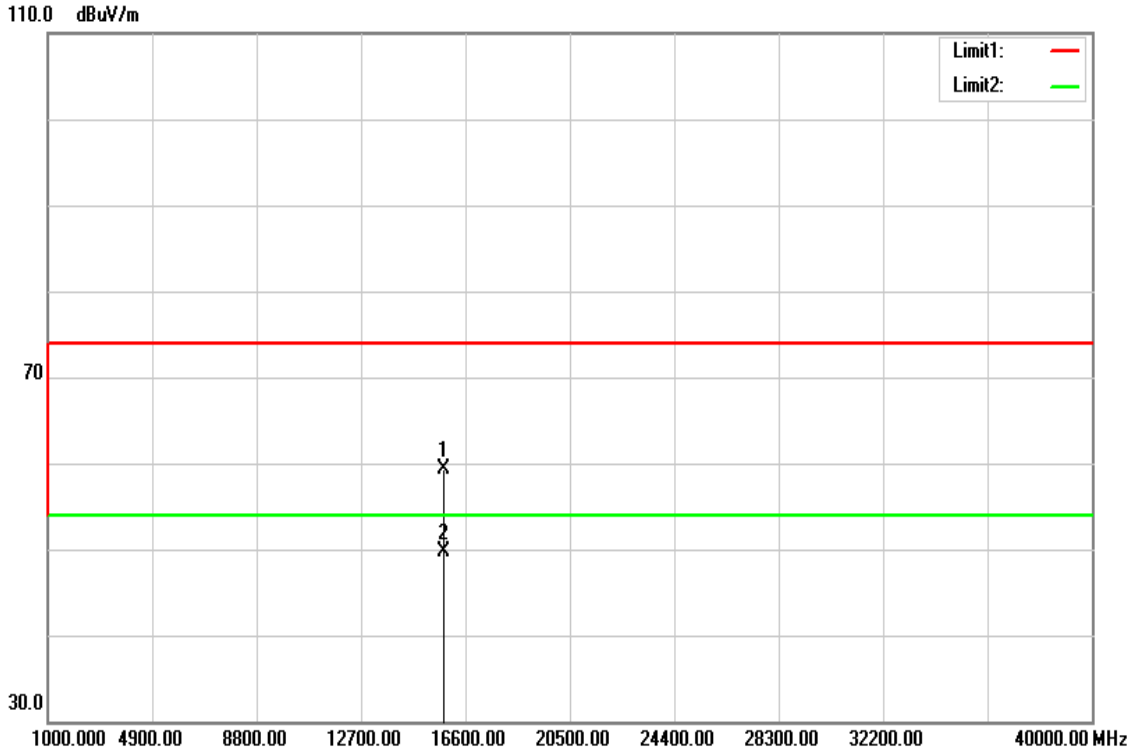


Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
15780.000	36.17	22.52	58.69	74.00	-15.31	peak
15780.000	27.72	22.52	50.24	54.00	-3.76	AVG
N/A						

Remark:

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

Test Mode	IEEE 802.11n HT20 Low CH	Temp/Hum	24(℃)/ 33%RH
Test Item	Harmonic	Test Date	September 14, 2017
Polarize	Horizontal	Test Engineer	Ed Chiang
Detector	Peak and Average	Test Voltage	DC 12V

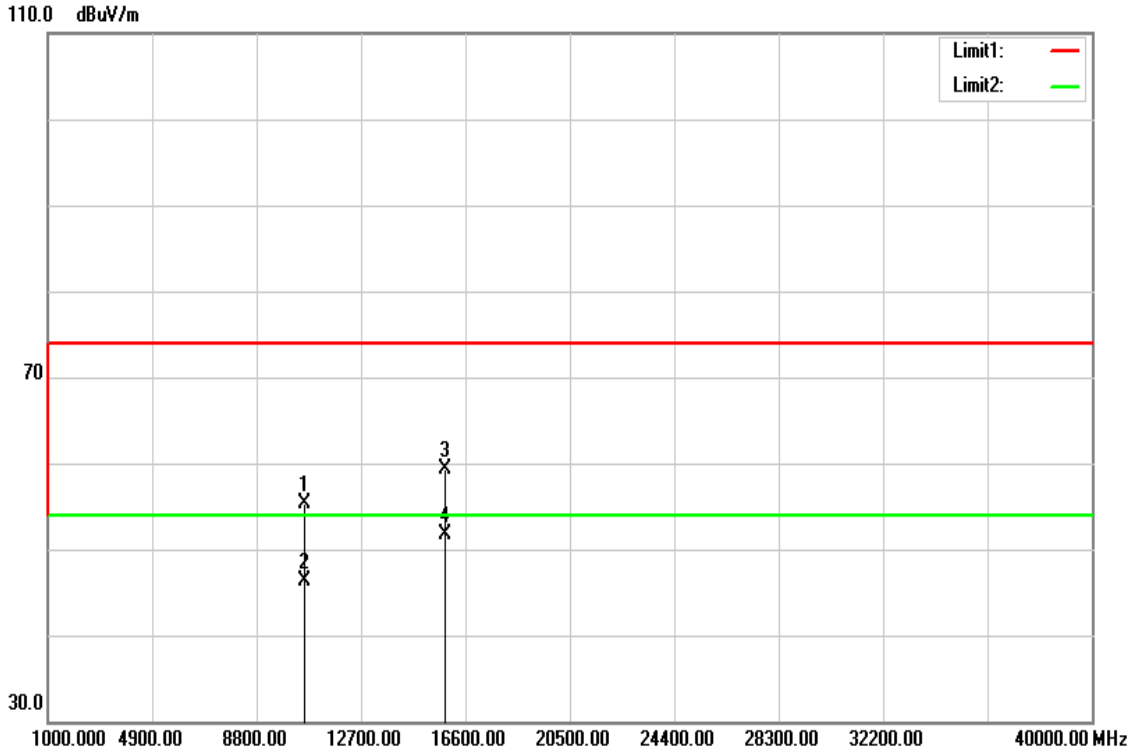


Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
15780.000	36.69	22.52	59.21	74.00	-14.79	peak
15780.000	27.22	22.52	49.74	54.00	-4.26	AVG
N/A						

Remark:

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

Test Mode	IEEE 802.11n HT20 Mid CH	Temp/Hum	24(℃)/ 33%RH
Test Item	Harmonic	Test Date	September 14, 2017
Polarize	Vertical	Test Engineer	Ed Chiang
Detector	Peak and Average	Test Voltage	DC 12V

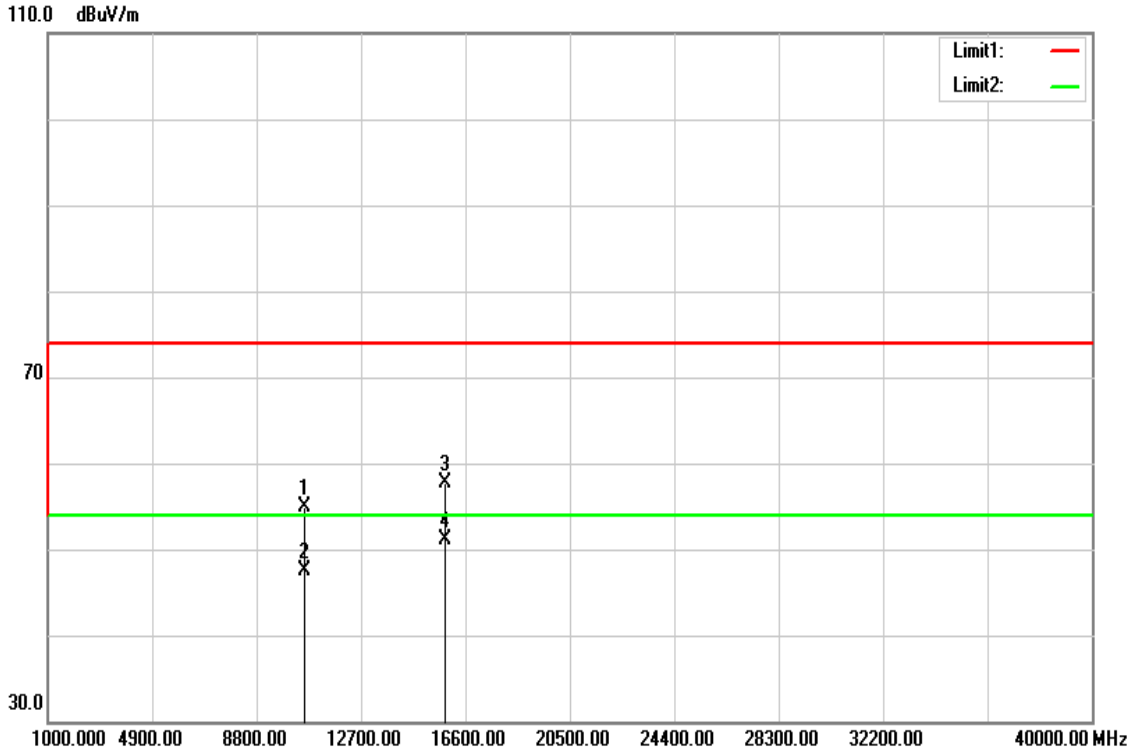


Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
10570.000	36.23	19.04	55.27	74.00	-18.73	peak
10570.000	27.31	19.04	46.35	54.00	-7.65	AVG
15840.000	36.58	22.73	59.31	74.00	-14.69	peak
15840.000	28.97	22.73	51.70	54.00	-2.30	AVG
N/A						

Remark:

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

Test Mode	IEEE 802.11n HT20 Mid CH	Temp/Hum	24(℃)/ 33%RH
Test Item	Harmonic	Test Date	September 14, 2017
Polarize	Horizontal	Test Engineer	Ed Chiang
Detector	Peak and Average	Test Voltage	DC 12V

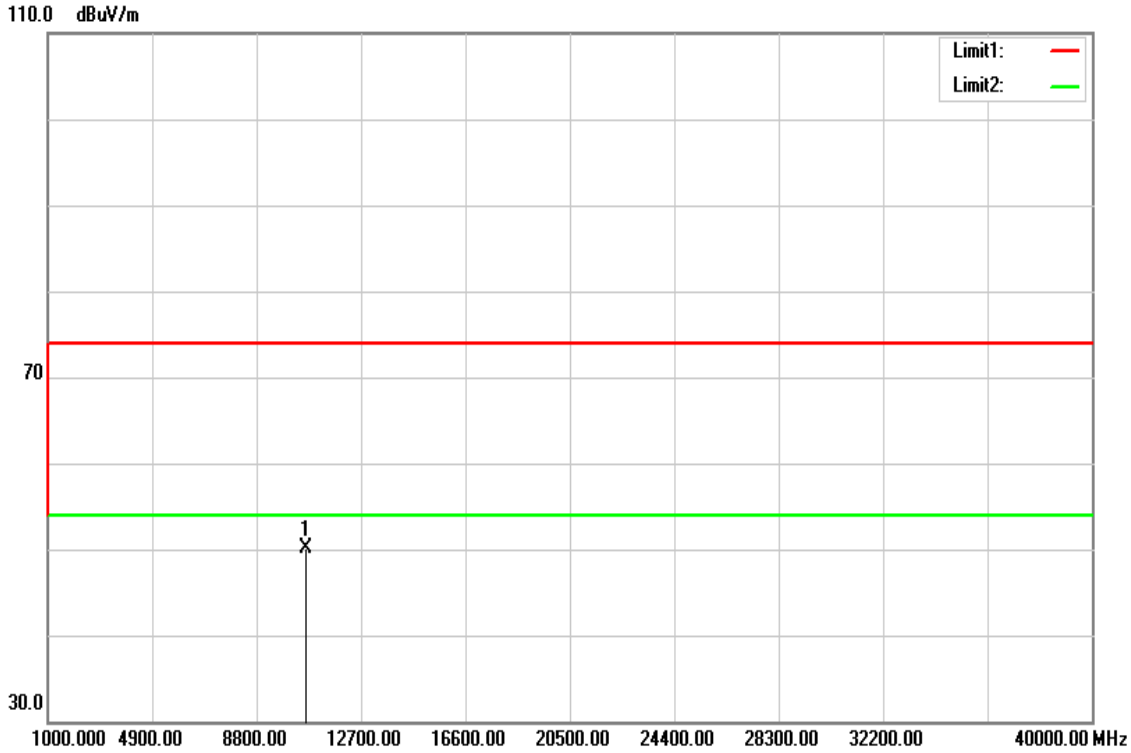


Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
10570.000	35.86	19.04	54.90	74.00	-19.10	peak
10570.000	28.50	19.04	47.54	54.00	-6.46	AVG
15840.000	35.07	22.73	57.80	74.00	-16.20	peak
15840.000	28.34	22.73	51.07	54.00	-2.93	AVG
N/A						

Remark:

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

Test Mode	IEEE 802.11n HT20 High CH	Temp/Hum	24(℃)/ 33%RH
Test Item	Harmonic	Test Date	September 14, 2017
Polarize	Vertical	Test Engineer	Ed Chiang
Detector	Peak and Average	Test Voltage	DC 12V

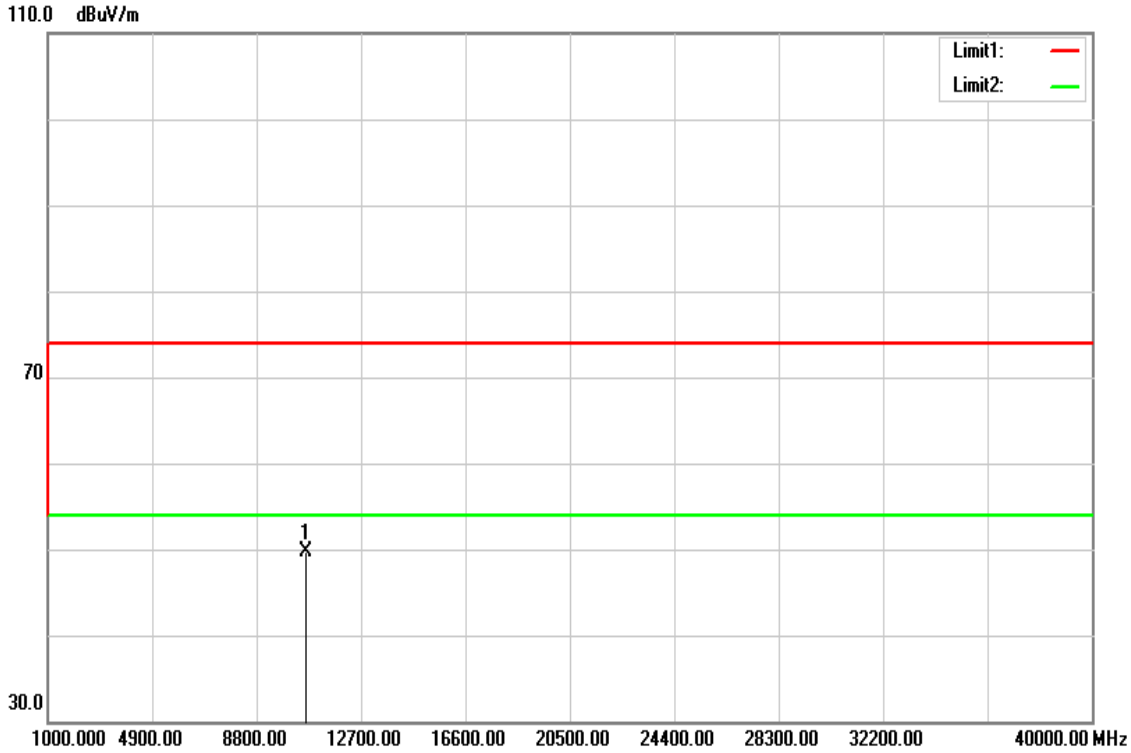


Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
10640.000	30.92	19.11	50.03	74.00	-23.97	peak
N/A						

Remark:

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

Test Mode	IEEE 802.11n HT20 High CH	Temp/Hum	24(℃)/ 33%RH
Test Item	Harmonic	Test Date	September 14, 2017
Polarize	Horizontal	Test Engineer	Ed Chiang
Detector	Peak and Average	Test Voltage	DC 12V

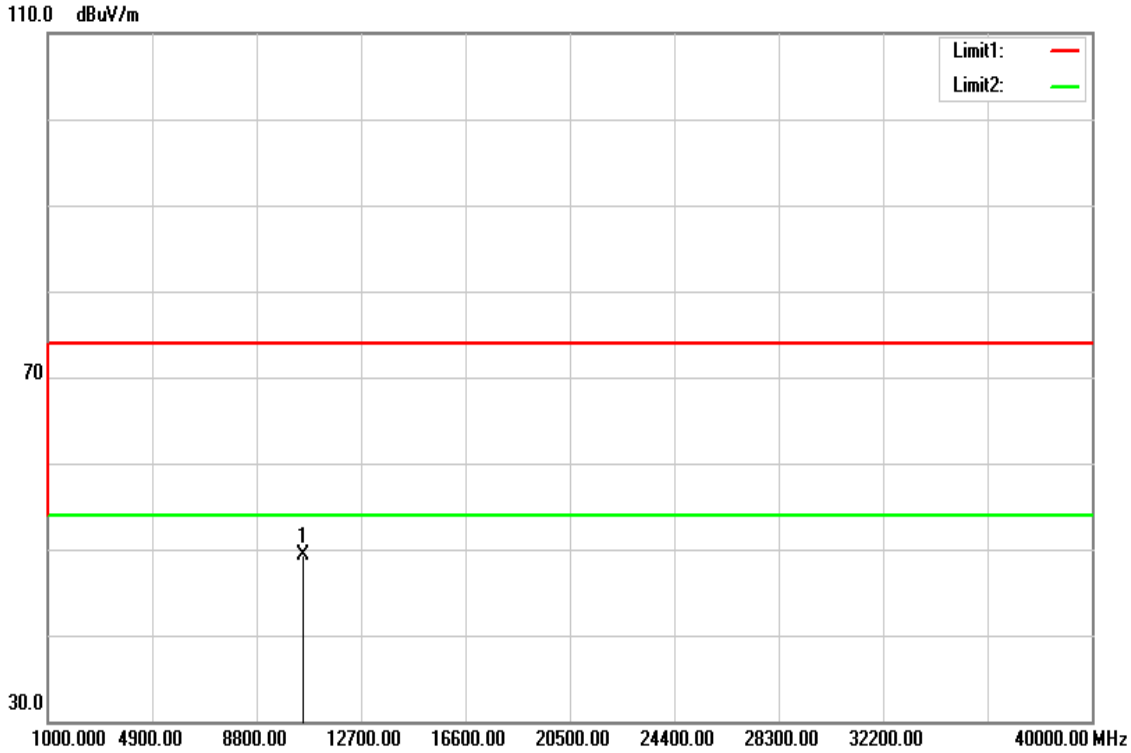


Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
10640.000	30.69	19.11	49.80	74.00	-24.20	peak
N/A						

Remark:

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

Test Mode	IEEE 802.11n HT40 Low CH	Temp/Hum	24(℃)/ 33%RH
Test Item	Harmonic	Test Date	September 14, 2017
Polarize	Vertical	Test Engineer	Ed Chiang
Detector	Peak and Average	Test Voltage	DC 12V

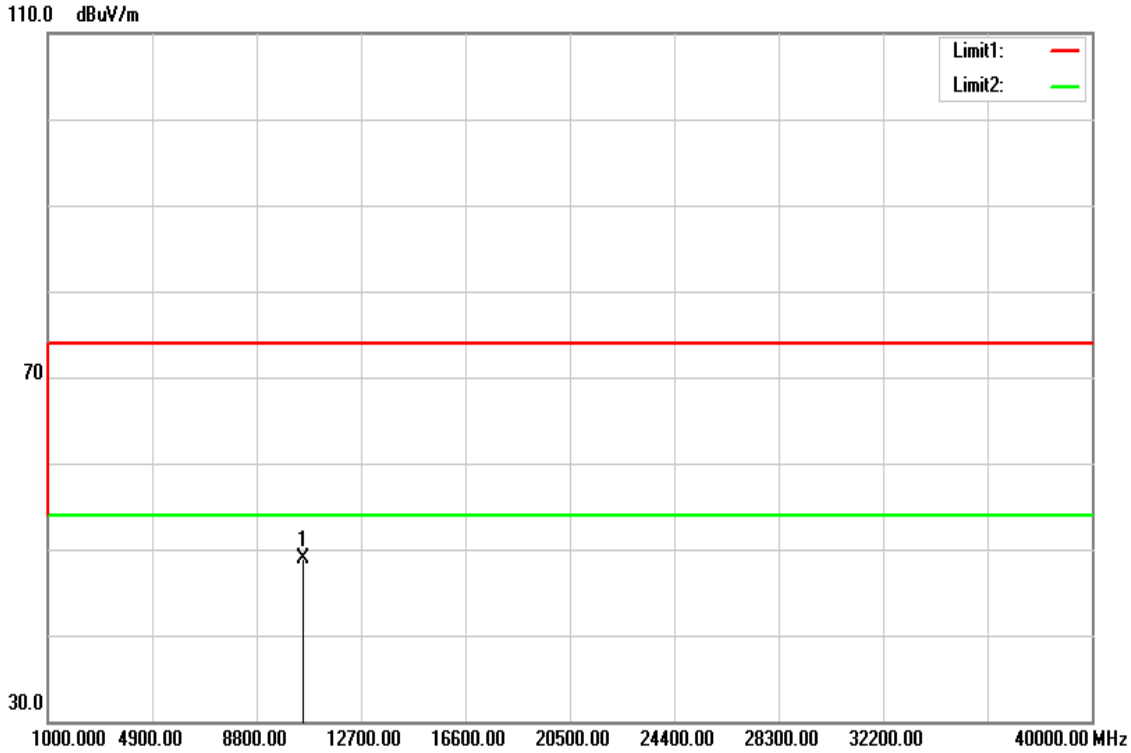


Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
10540.000	30.24	19.01	49.25	74.00	-24.75	peak
N/A						

Remark:

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

Test Mode	IEEE 802.11n HT40 Low CH	Temp/Hum	24(℃)/ 33%RH
Test Item	Harmonic	Test Date	September 14, 2017
Polarize	Horizontal	Test Engineer	Ed Chiang
Detector	Peak and Average	Test Voltage	DC 12V

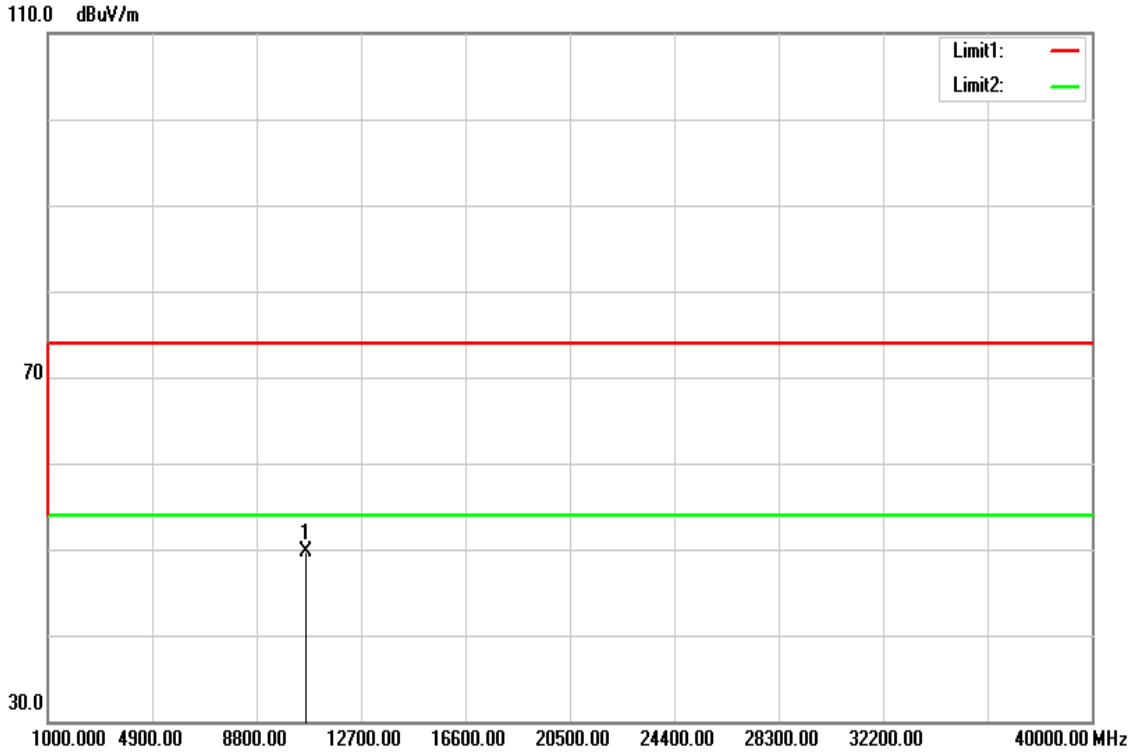


Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
10540.000	29.81	19.01	48.82	74.00	-25.18	peak
N/A						

Remark:

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

Test Mode	IEEE 802.11n HT40 High CH	Temp/Hum	24(℃)/ 33%RH
Test Item	Harmonic	Test Date	September 14, 2017
Polarize	Vertical	Test Engineer	Ed Chiang
Detector	Peak and Average	Test Voltage	DC 12V

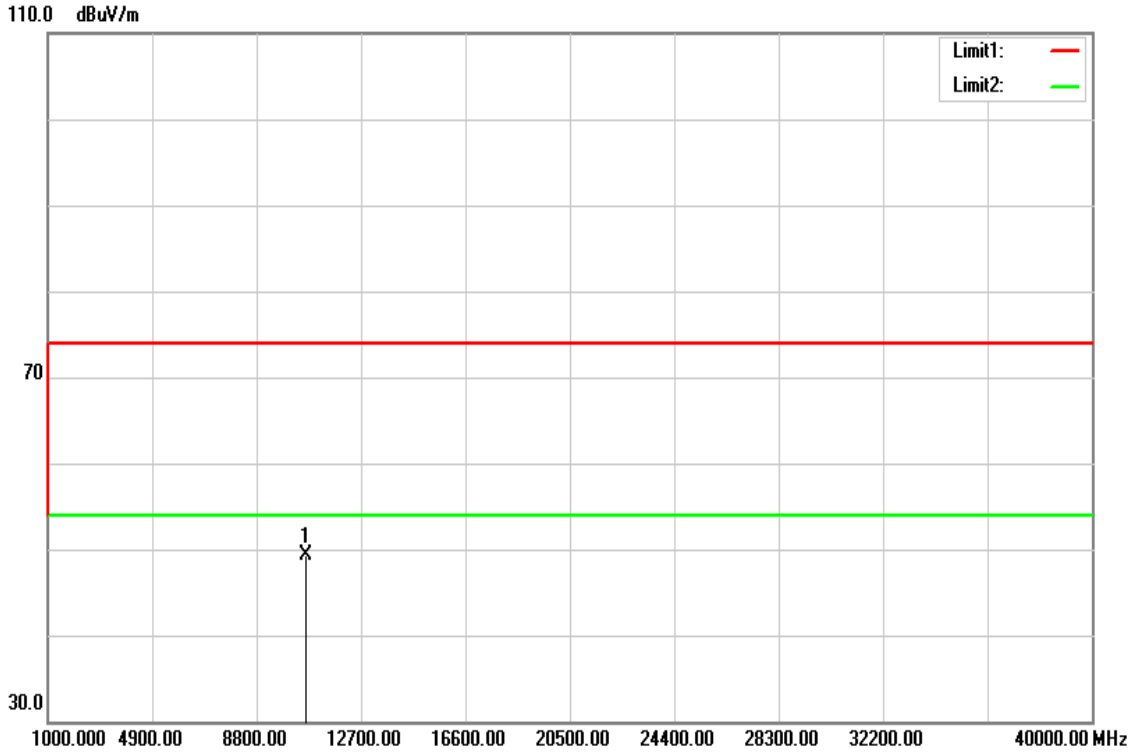


Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
10620.000	30.68	19.10	49.78	74.00	-24.22	peak
N/A						

Remark:

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

Test Mode	IEEE 802.11n HT40 High CH	Temp/Hum	24(℃)/ 33%RH
Test Item	Harmonic	Test Date	September 14, 2017
Polarize	Horizontal	Test Engineer	Ed Chiang
Detector	Peak and Average	Test Voltage	DC 12V



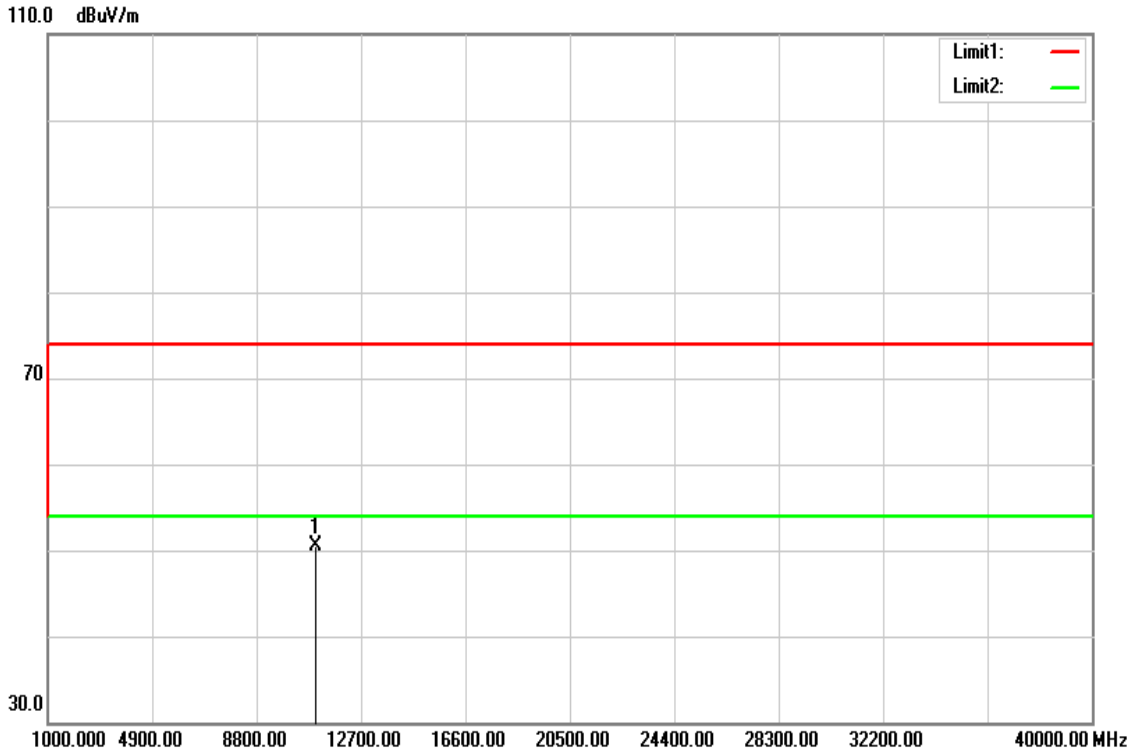
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
10620.000	30.11	19.10	49.21	74.00	-24.79	peak
N/A						

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*

Above 1G Test Data for UNII-2c

Test Mode	IEEE 802.11a Low CH	Temp/Hum	24(℃)/ 33%RH
Test Item	Harmonic	Test Date	September 14, 2017
Polarize	Vertical	Test Engineer	Ed Chiang
Detector	Peak and Average	Test Voltage	DC 12V

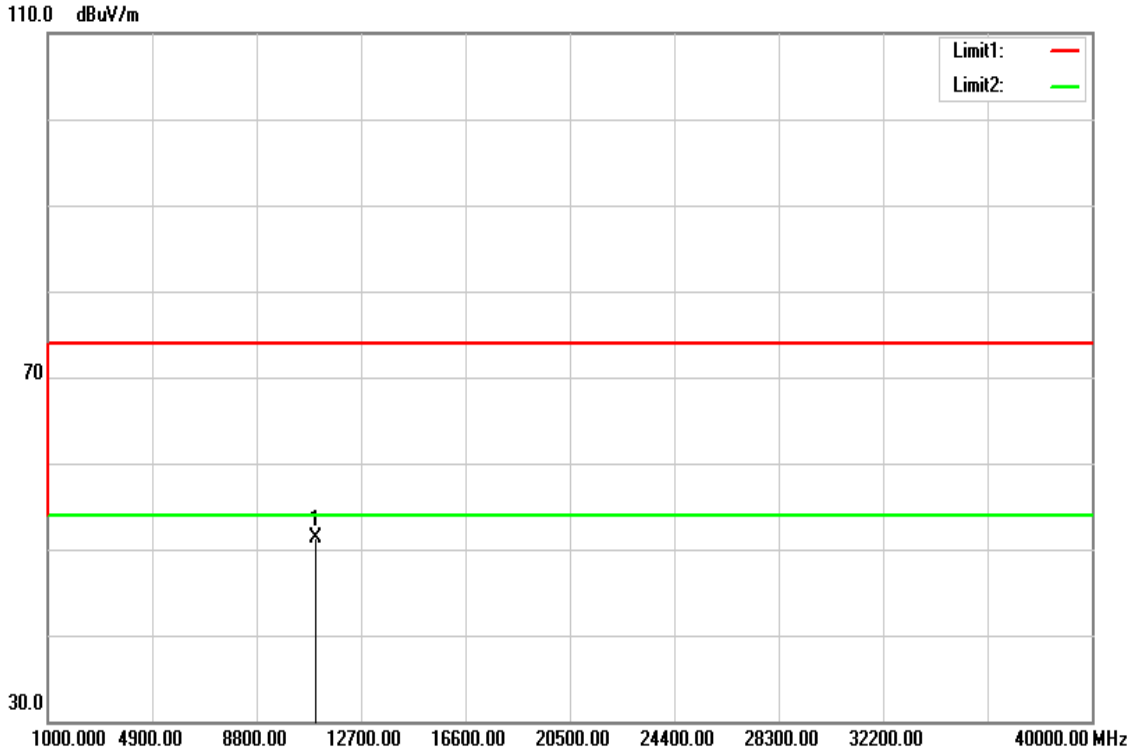


Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/)	Margin (dB)	Remark
11000.000	31.10	19.50	50.60	74.00	-23.40	peak
N/A						

Remark:

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

Test Mode	IEEE 802.11a Low CH	Temp/Hum	24(℃)/ 33%RH
Test Item	Harmonic	Test Date	September 14, 2017
Polarize	Horizontal	Test Engineer	Ed Chiang
Detector	Peak and Average	Test Voltage	DC 12V

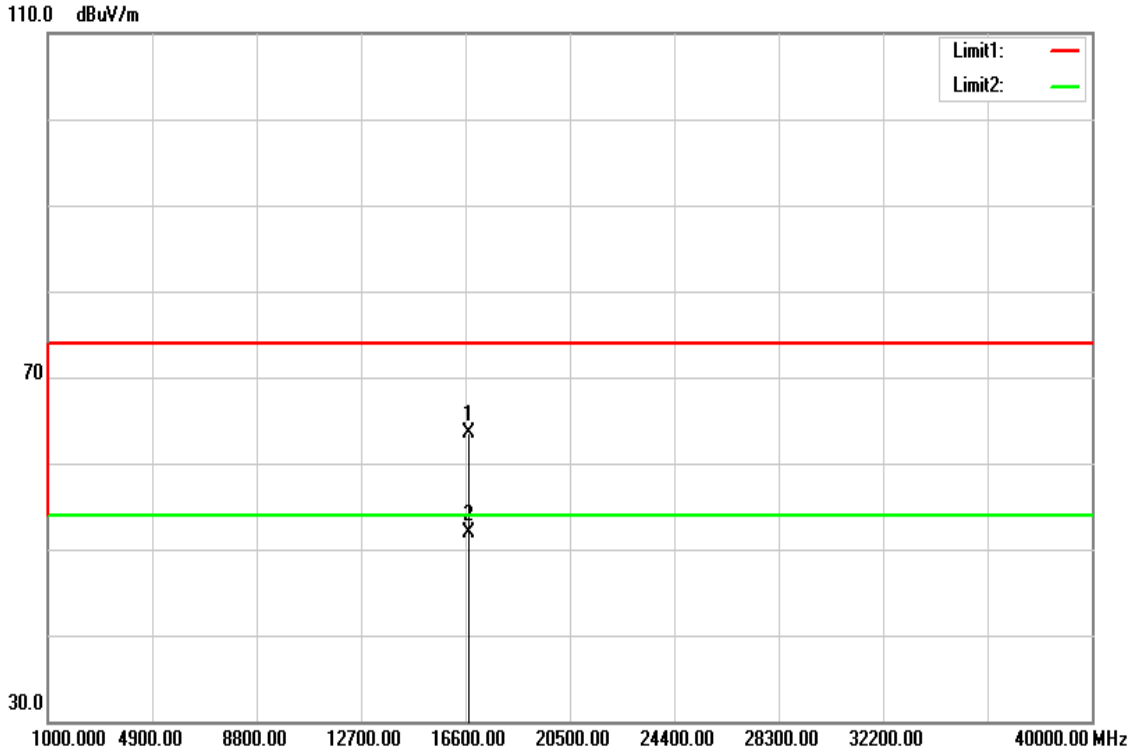


Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin dB)	Remark
11000.000	31.77	19.50	51.27	74.00	-22.73	peak
N/A						

Remark:

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

Test Mode	IEEE 802.11a Mid CH	Temp/Hum	24(℃)/ 33%RH
Test Item	Harmonic	Test Date	September 14, 2017
Polarize	Vertical	Test Engineer	Ed Chiang
Detector	Peak and Average	Test Voltage	DC 12V

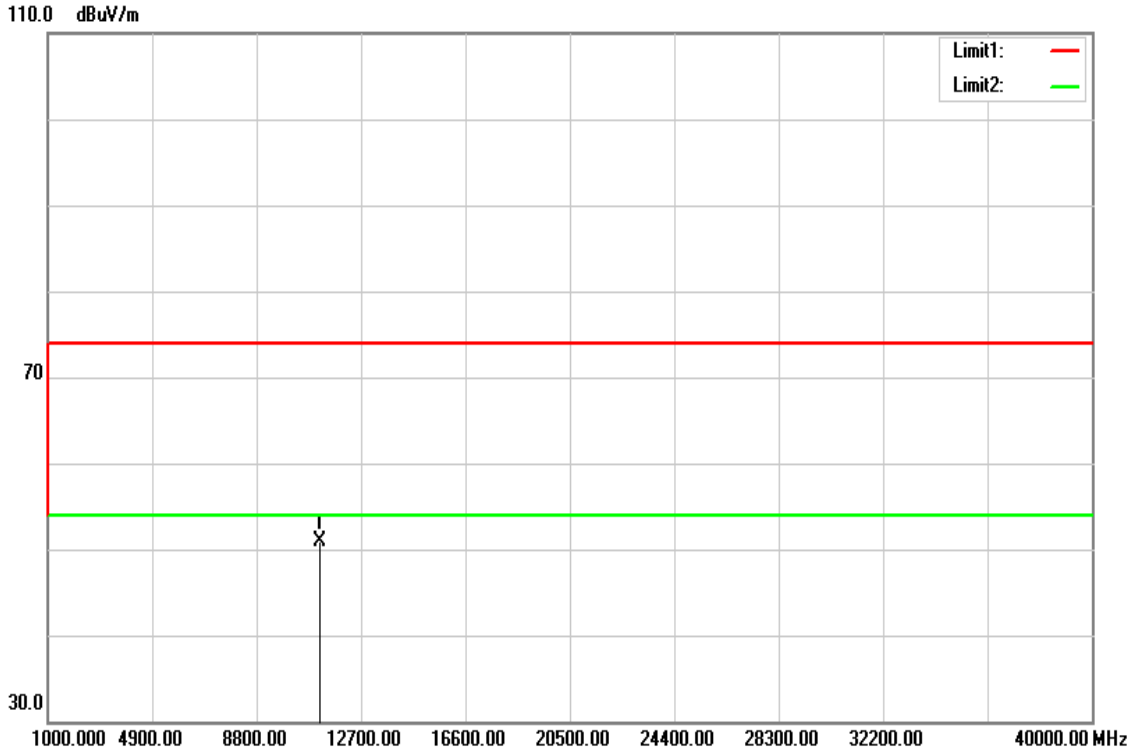


Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
16740.000	35.97	27.45	63.42	74.00	-10.58	peak
16740.000	24.39	27.45	51.84	54.00	-2.16	AVG
N/A						

Remark:

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

Test Mode	IEEE 802.11a Mid CH	Temp/Hum	24(℃)/ 33%RH
Test Item	Harmonic	Test Date	September 14, 2017
Polarize	Horizontal	Test Engineer	Ed Chiang
Detector	Peak and Average	Test Voltage	DC 12V

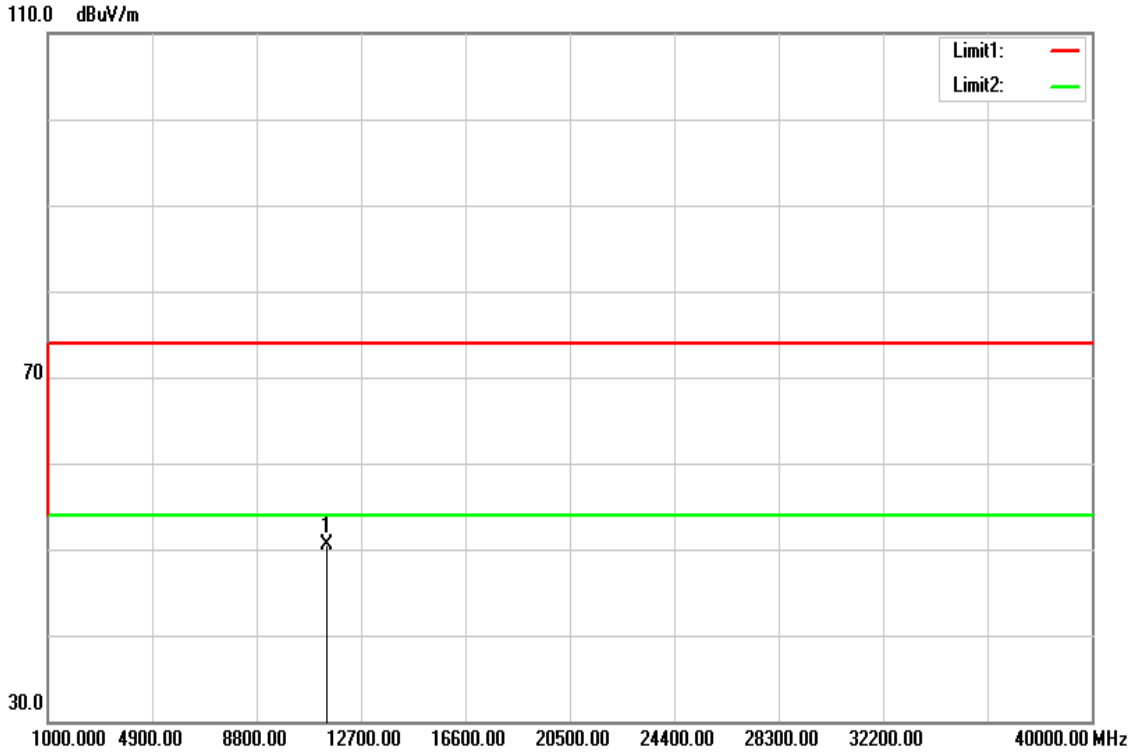


Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
11160.000	31.28	19.54	50.82	74.00	-23.18	peak
N/A						

Remark:

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

Test Mode	IEEE 802.11a High CH	Temp/Hum	24(℃)/ 33%RH
Test Item	Harmonic	Test Date	September 14, 2017
Polarize	Vertical	Test Engineer	Ed Chiang
Detector	Peak and Average	Test Voltage	DC 12V

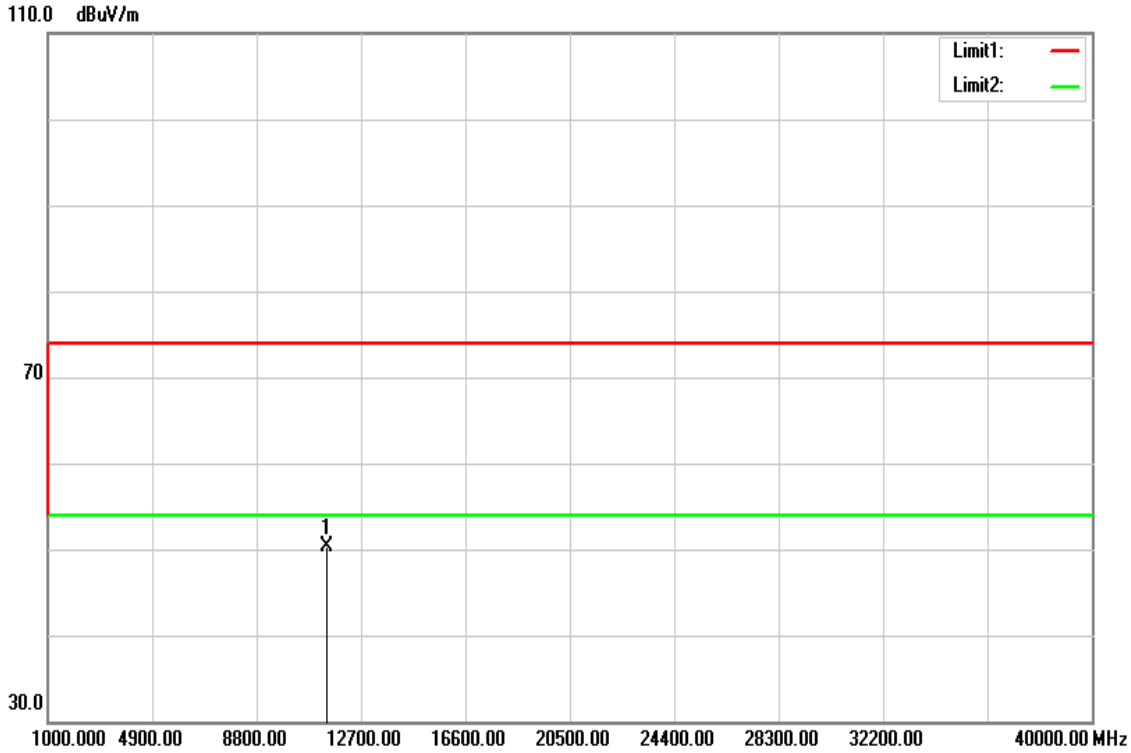


Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
11400.000	30.81	19.60	50.41	74.00	-23.59	peak
N/A						

Remark:

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

Test Mode	IEEE 802.11a High CH	Temp/Hum	24(℃)/ 33%RH
Test Item	Harmonic	Test Date	September 14, 2017
Polarize	Horizontal	Test Engineer	Ed Chiang
Detector	Peak and Average	Test Voltage	DC 12V

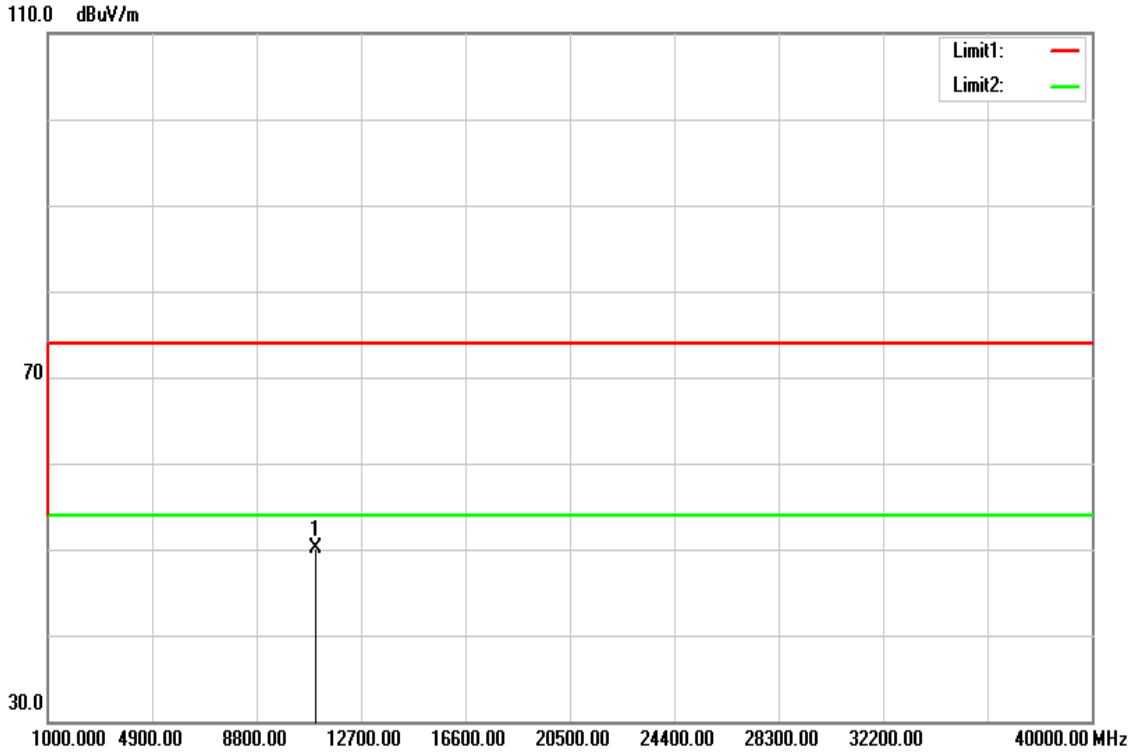


Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
11400.000	30.71	19.60	50.31	74.00	-23.69	peak
N/A						

Remark:

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

Test Mode	IEEE 802.11n HT20 Low CH	Temp/Hum	24(℃)/ 33%RH
Test Item	Harmonic	Test Date	September 14, 2017
Polarize	Vertical	Test Engineer	Ed Chiang
Detector	Peak and Average	Test Voltage	DC 12V

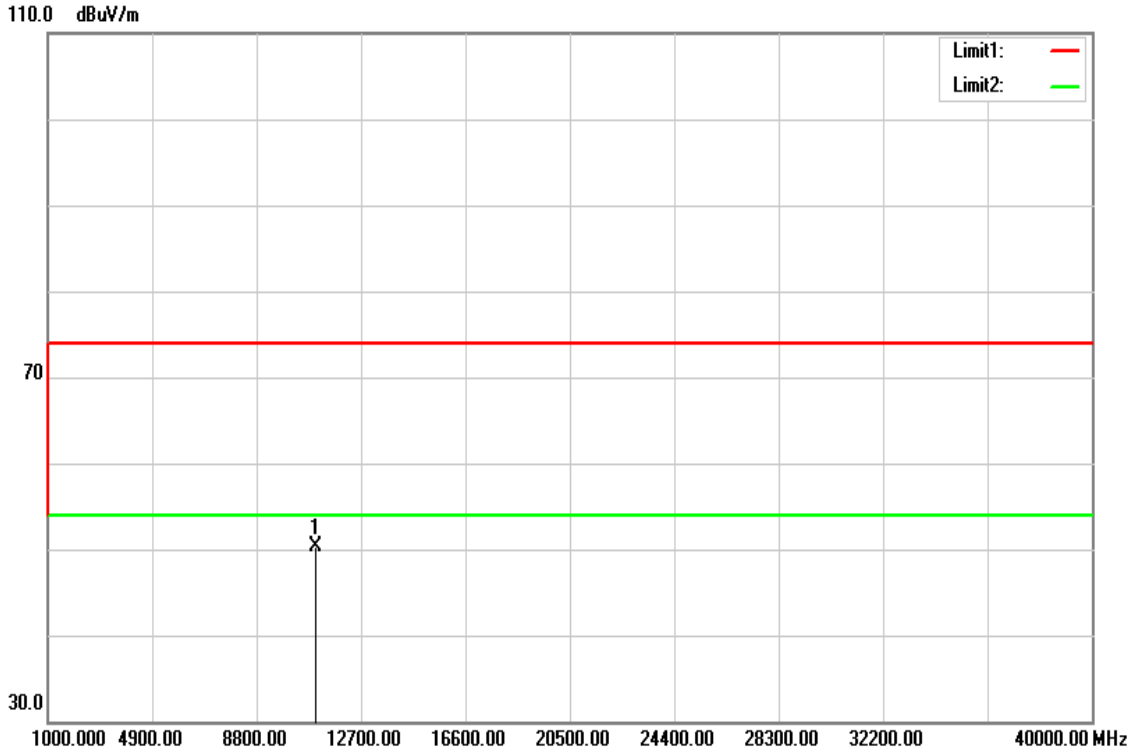


Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
11000.000	30.53	19.50	50.03	74.00	-23.97	peak
N/A						

Remark:

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

Test Mode	IEEE 802.11n HT20 Low CH	Temp/Hum	24(℃)/ 33%RH
Test Item	Harmonic	Test Date	September 14, 2017
Polarize	Horizontal	Test Engineer	Ed Chiang
Detector	Peak and Average	Test Voltage	DC 12V

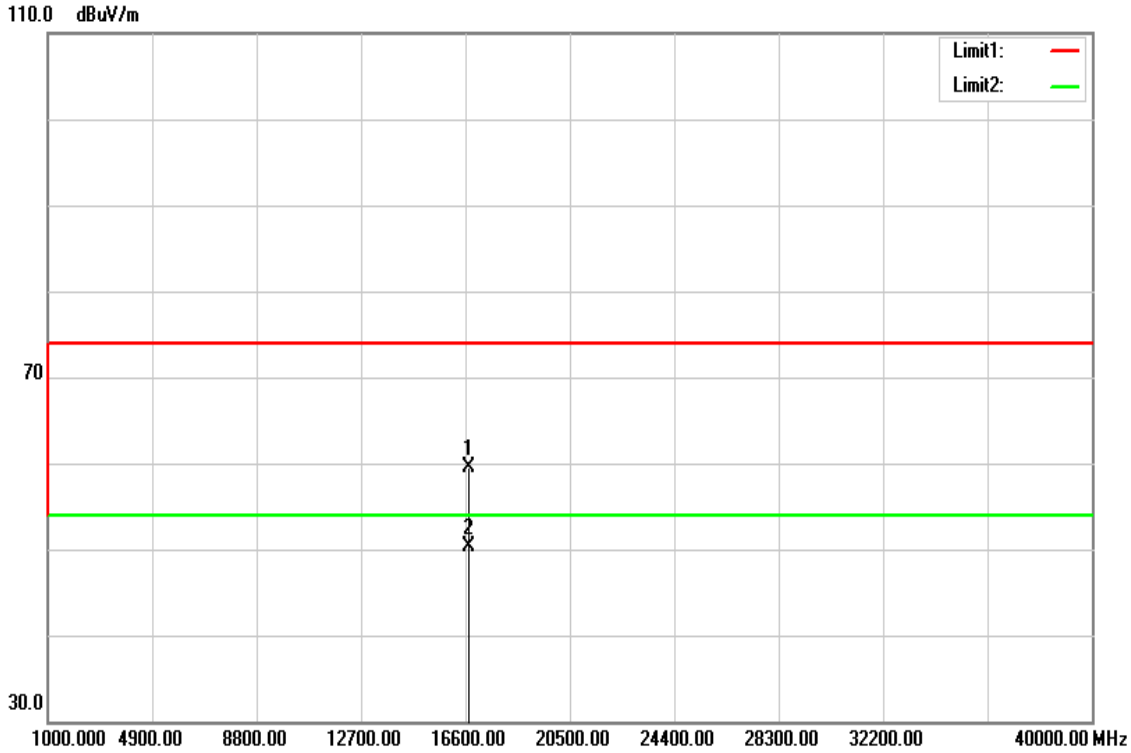


Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
11000.000	30.74	19.50	50.24	74.00	-23.76	peak
N/A						

Remark:

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

Test Mode	IEEE 802.11n HT20 Mid CH	Temp/Hum	24(℃)/ 33%RH
Test Item	Harmonic	Test Date	September 14, 2017
Polarize	Vertical	Test Engineer	Ed Chiang
Detector	Peak and Average	Test Voltage	DC 12V

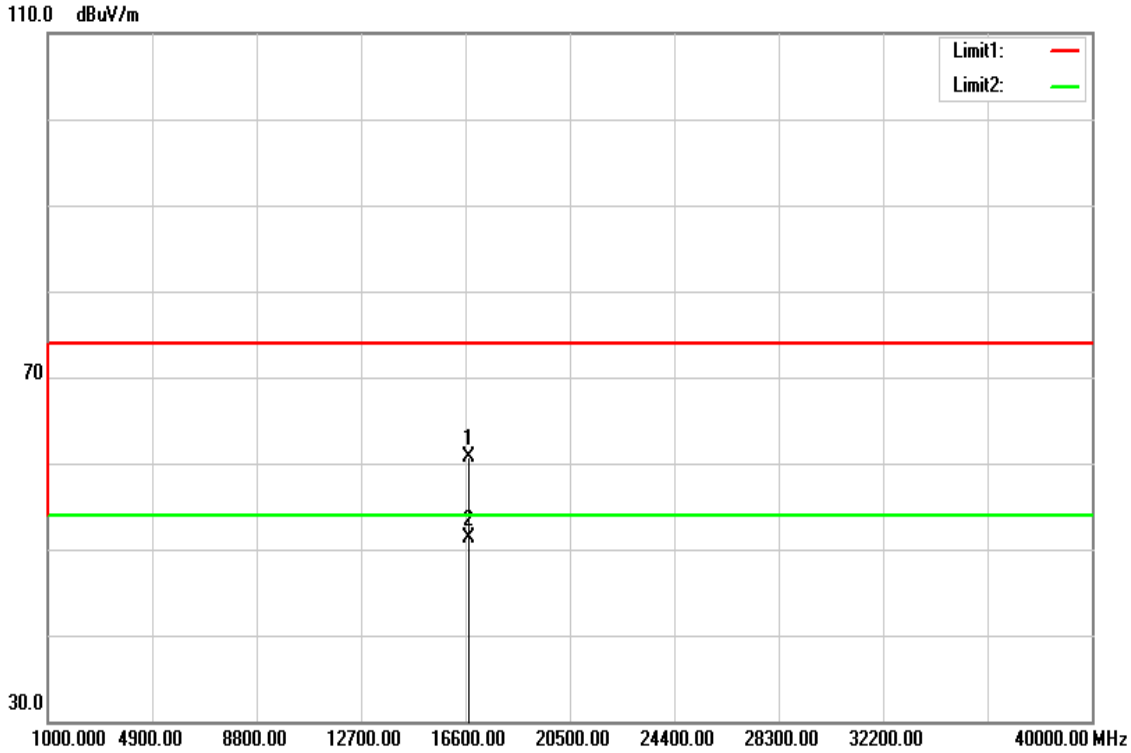


Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
16740.000	31.99	27.45	59.44	74.00	-14.56	peak
16740.000	22.83	27.45	50.28	54.00	-3.72	AVG
N/A						

Remark:

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

Test Mode	IEEE 802.11n HT20 Mid CH	Temp/Hum	24(℃)/ 33%RH
Test Item	Harmonic	Test Date	September 14, 2017
Polarize	Horizontal	Test Engineer	Ed Chiang
Detector	Peak and Average	Test Voltage	DC 12V

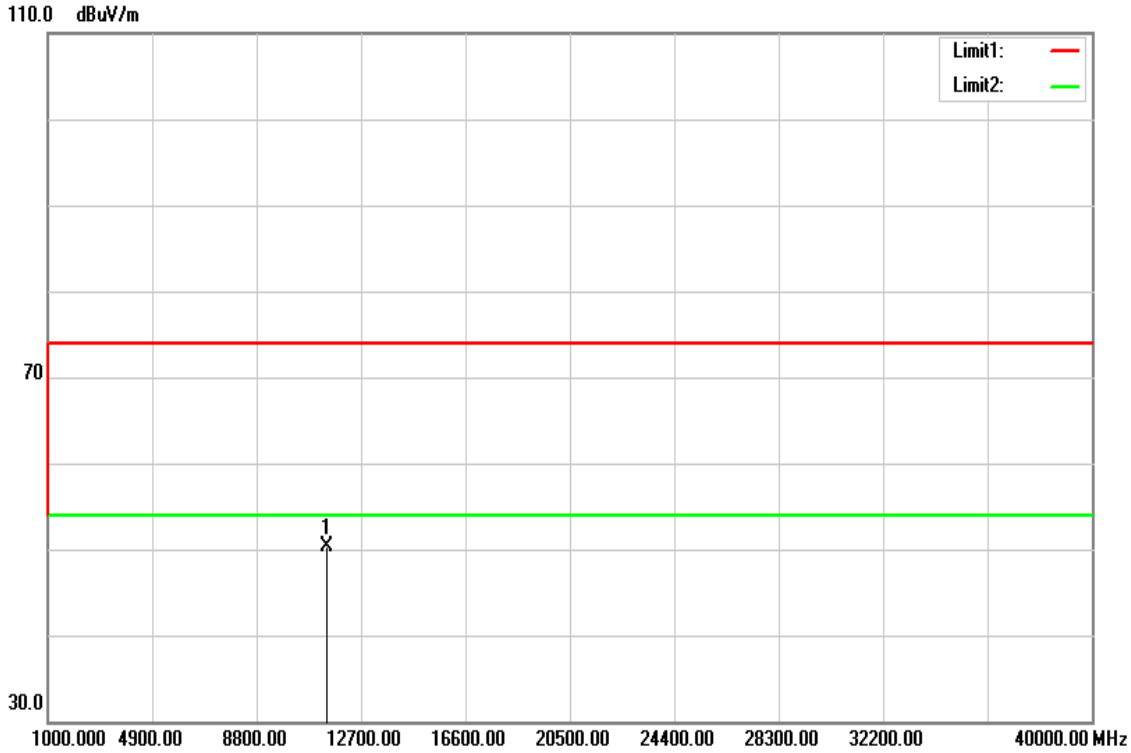


Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
16740.000	33.20	27.45	60.65	74.00	-13.35	peak
16740.000	23.79	27.45	51.24	54.00	-2.76	AVG
N/A						

Remark:

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

Test Mode	IEEE 802.11n HT20 High CH	Temp/Hum	24(℃)/ 33%RH
Test Item	Harmonic	Test Date	September 14, 2017
Polarize	Vertical	Test Engineer	Ed Chiang
Detector	Peak and Average	Test Voltage	DC 12V

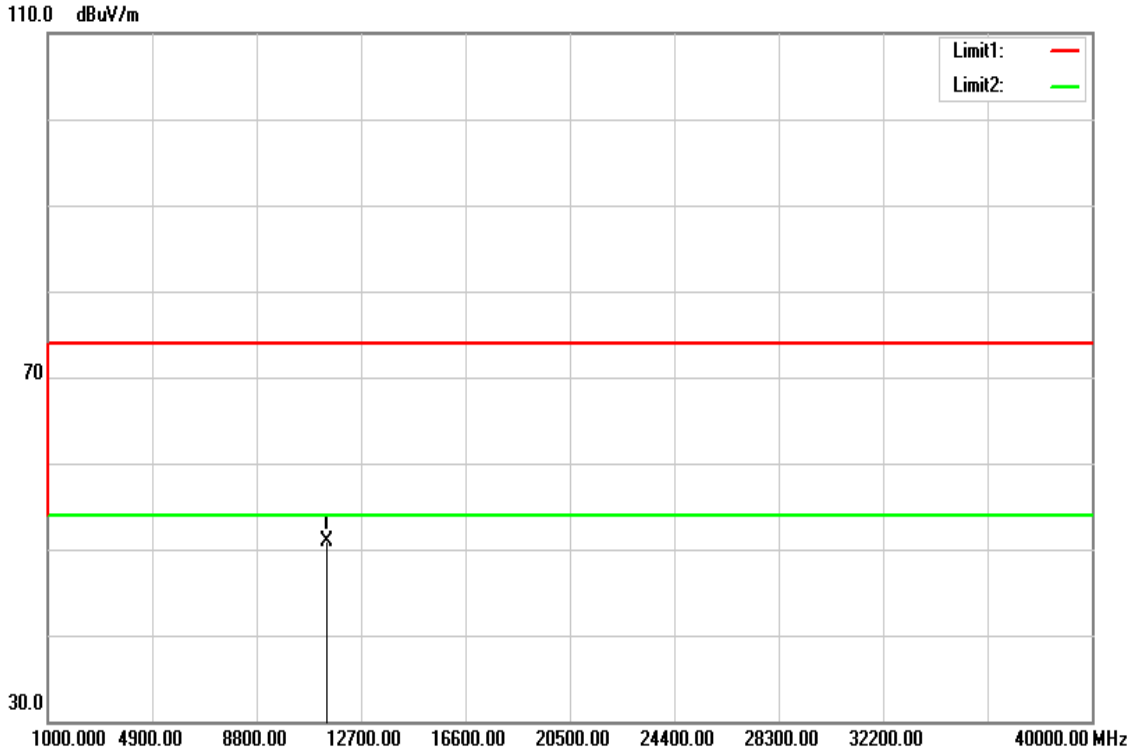


Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
11400.000	30.72	19.60	50.32	74.00	-23.68	peak
11400.000	30.72	19.60	50.32	74.00	-23.68	peak
N/A						

Remark:

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

Test Mode	IEEE 802.11n HT20 High CH	Temp/Hum	24(℃)/ 33%RH
Test Item	Harmonic	Test Date	September 14, 2017
Polarize	Horizontal	Test Engineer	Ed Chiang
Detector	Peak and Average	Test Voltage	DC 12V

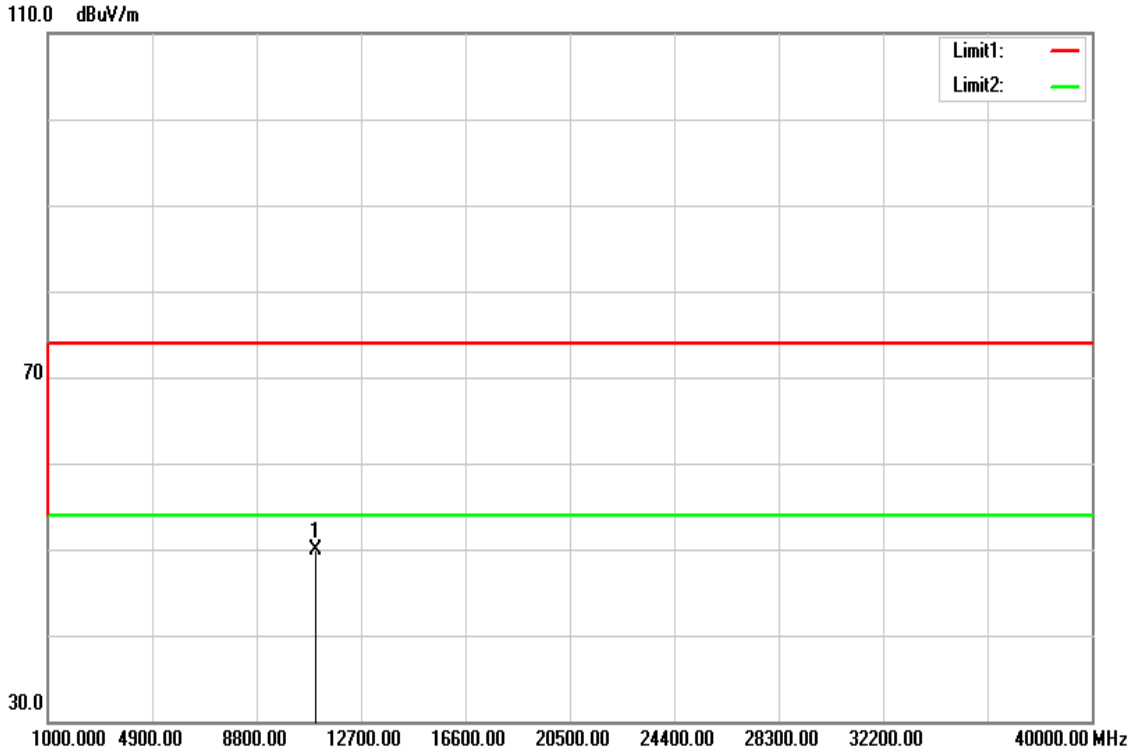


Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
11400.000	31.24	19.60	50.84	74.00	-23.16	peak
N/A						

Remark:

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

Test Mode	IEEE 802.11n HT40 Low CH	Temp/Hum	24(℃)/ 33%RH
Test Item	Harmonic	Test Date	September 14, 2017
Polarize	Vertical	Test Engineer	Ed Chiang
Detector	Peak and Average	Test Voltage	DC 12V

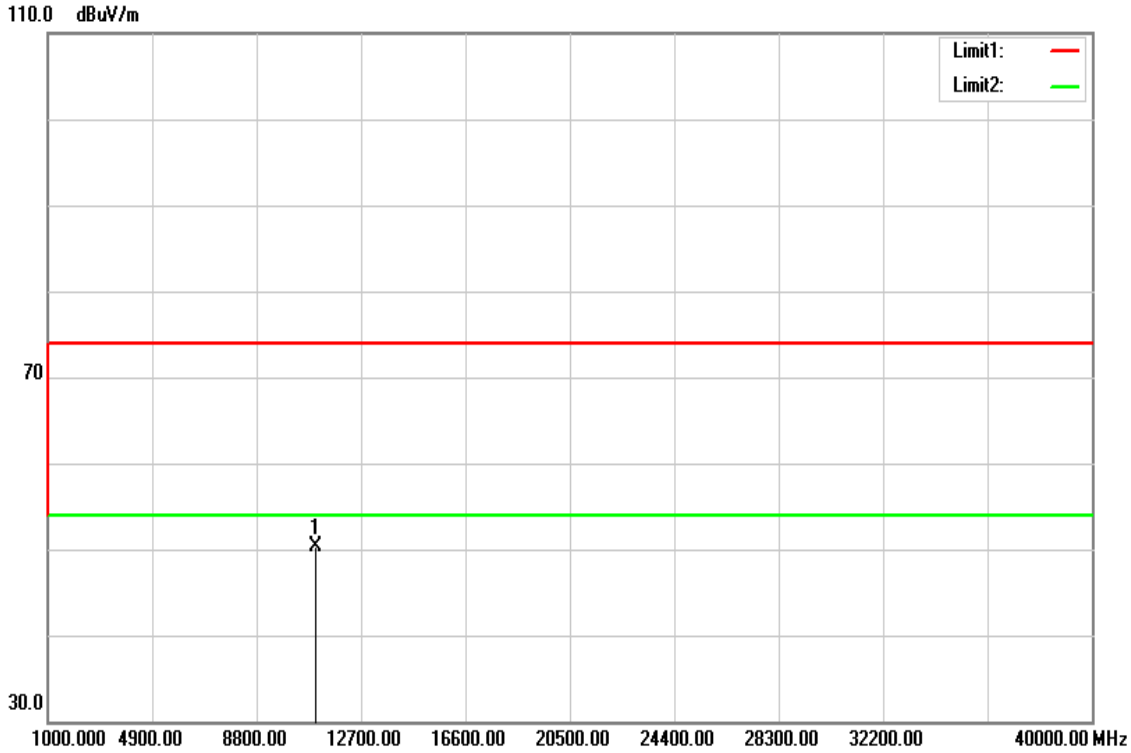


Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
11020.000	30.46	19.50	49.96	74.00	-24.04	peak
N/A						

Remark:

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

Test Mode	IEEE 802.11n HT40 Low CH	Temp/Hum	24(℃)/ 33%RH
Test Item	Harmonic	Test Date	September 14, 2017
Polarize	Horizontal	Test Engineer	Ed Chiang
Detector	Peak and Average	Test Voltage	DC 12V

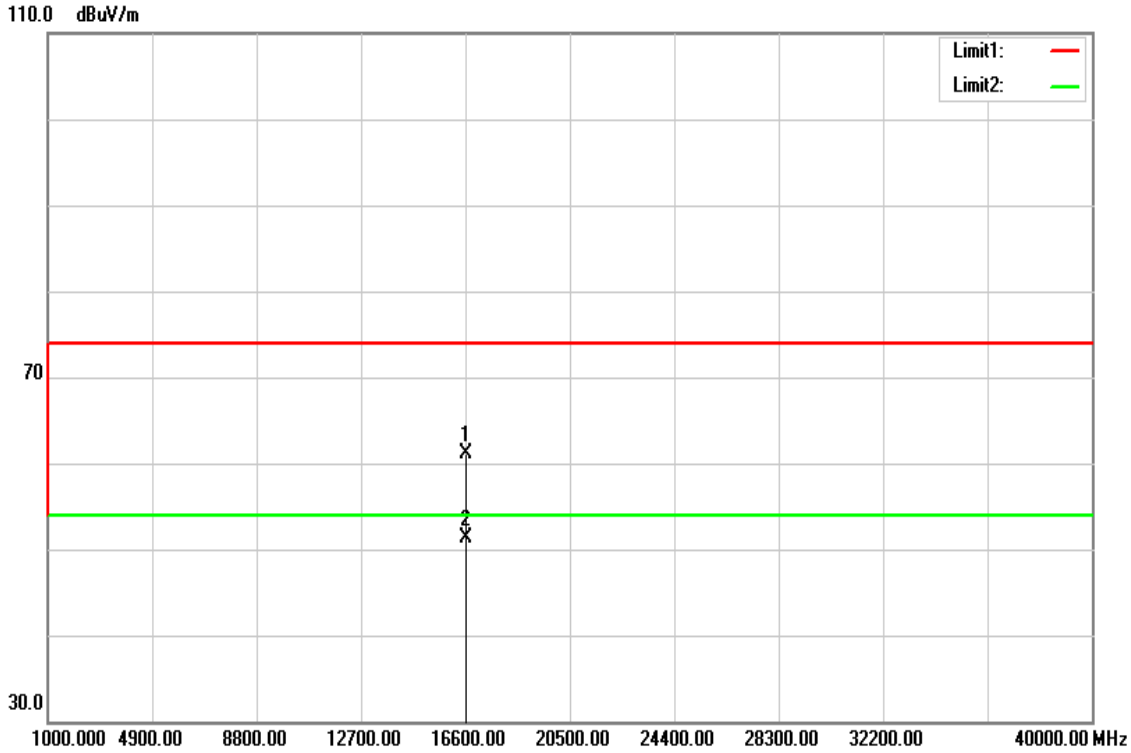


Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
11020.000	30.87	19.50	50.37	74.00	-23.63	peak
N/A						

Remark:

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

Test Mode	IEEE 802.11n HT40 Mid CH	Temp/Hum	24(℃)/ 33%RH
Test Item	Harmonic	Test Date	September 14, 2017
Polarize	Vertical	Test Engineer	Ed Chiang
Detector	Peak and Average	Test Voltage	DC 12V

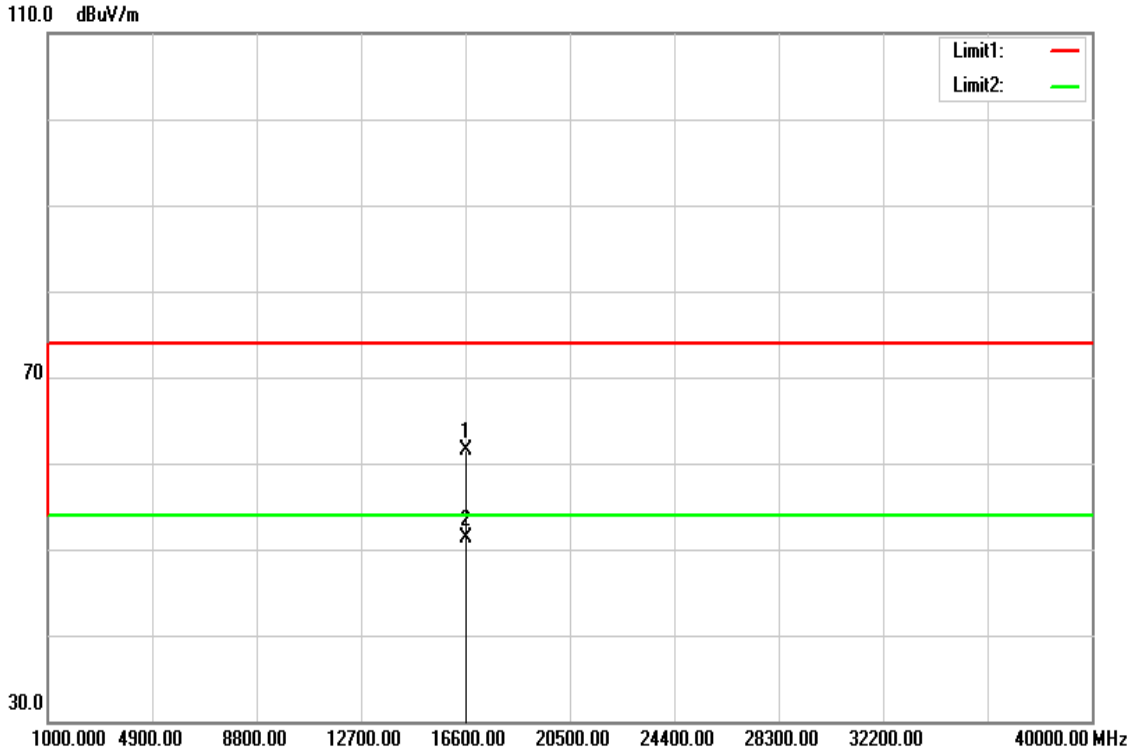


Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
16650.000	34.38	26.70	61.08	74.00	-12.92	peak
16650.000	24.54	26.70	51.24	54.00	-2.76	AVG
N/A						

Remark:

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

Test Mode	IEEE 802.11n HT40 Mid CH	Temp/Hum	24(℃)/ 33%RH
Test Item	Harmonic	Test Date	September 14, 2017
Polarize	Horizontal	Test Engineer	Ed Chiang
Detector	Peak and Average	Test Voltage	DC 12V

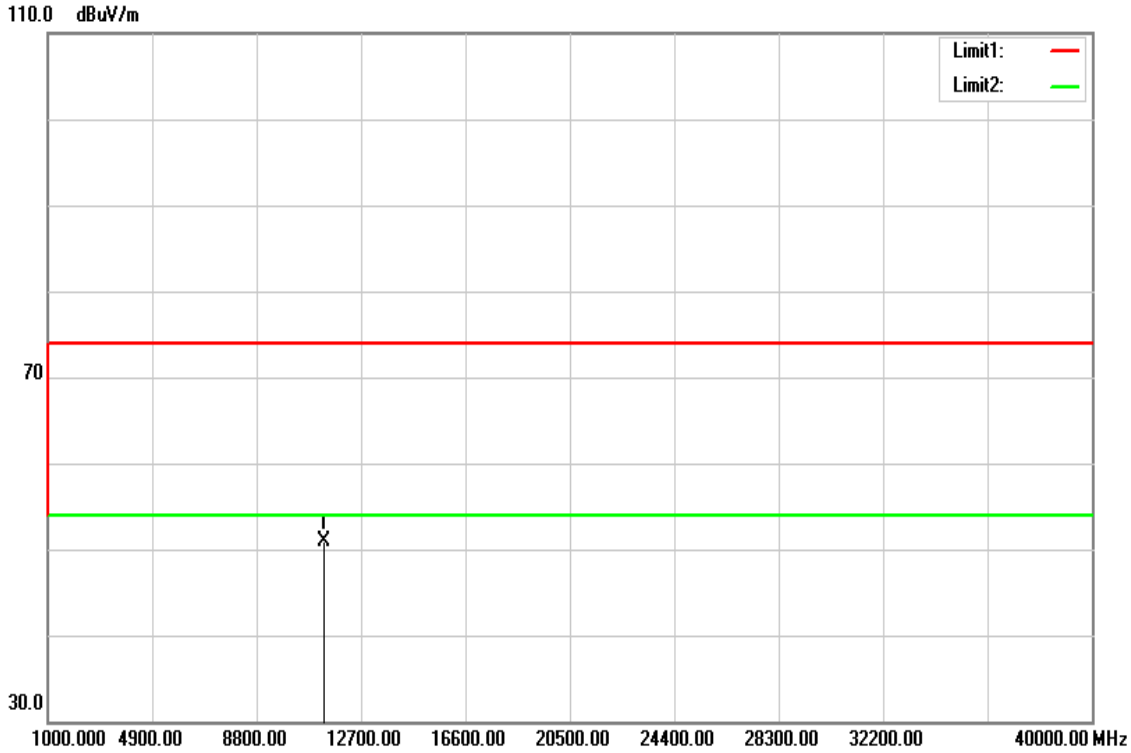


Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
16650.000	34.81	26.70	61.51	74.00	-12.49	peak
16650.000	24.53	26.70	51.23	54.00	-2.77	AVG
N/A						

Remark:

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

Test Mode	IEEE 802.11n HT40 High CH	Temp/Hum	24(℃)/ 33%RH
Test Item	Harmonic	Test Date	September 14, 2017
Polarize	Vertical	Test Engineer	Ed Chiang
Detector	Peak and Average	Test Voltage	DC 12V

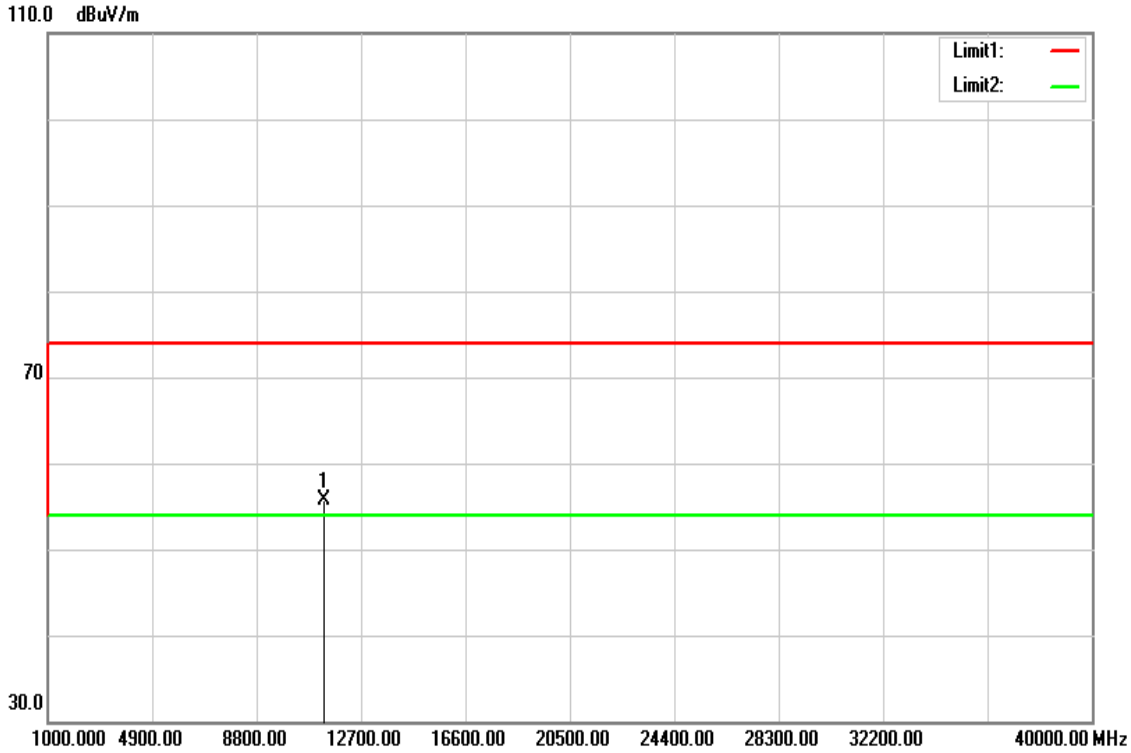


Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
11340.000	31.30	19.59	50.89	74.00	-23.11	peak
N/A						

Remark:

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

Test Mode	IEEE 802.11n HT40 High CH	Temp/Hum	24(℃)/ 33%RH
Test Item	Harmonic	Test Date	September 14, 2017
Polarize	Horizontal	Test Engineer	Ed Chiang
Detector	Peak and Average	Test Voltage	DC 12V



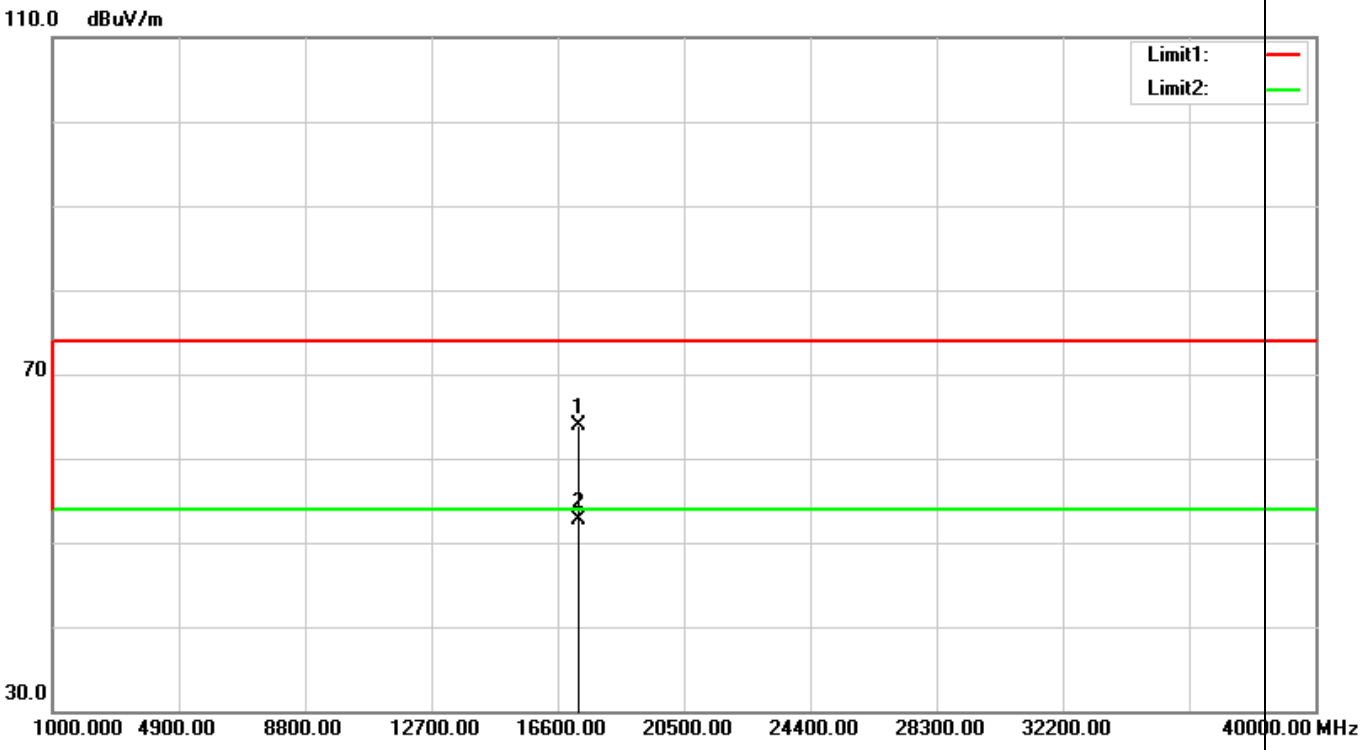
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
11340.000	36.07	19.59	55.66	74.00	-18.34	peak
N/A						

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*

Above 1G Test Data for UNII-3

Test Mode	IEEE 802.11a Low CH	Temp/Hum	24(℃)/ 33%RH
Test Item	Harmonic	Test Date	September 13, 2017
Polarize	Vertical	Test Engineer	Ed Chiang
Detector	Peak and Average	Test Voltage	DC 12V

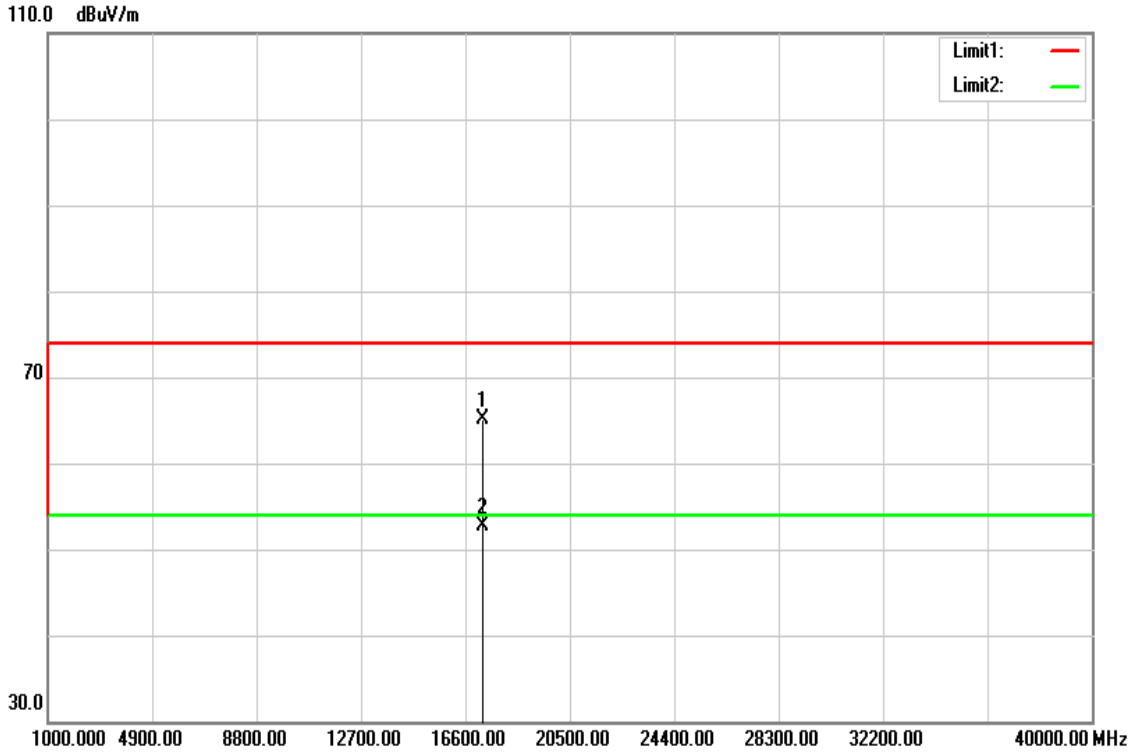


Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBu /)	Margin (dB)	Rem rk
17235.000	33.05	30.88	63.93	74.00	-10.07	peak
17235.000	21.78	30.88	52.66	54.00	-1.34	AVG
N/A						

Remark:

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

Test Mode	IEEE 802.11a Low CH	Temp/Hum	24(℃)/ 33%RH
Test Item	Harmonic	Test Date	September 14, 2017
Polarize	Horizontal	Test Engineer	Ed Chiang
Detector	Peak and Average	Test Voltage	DC 12V

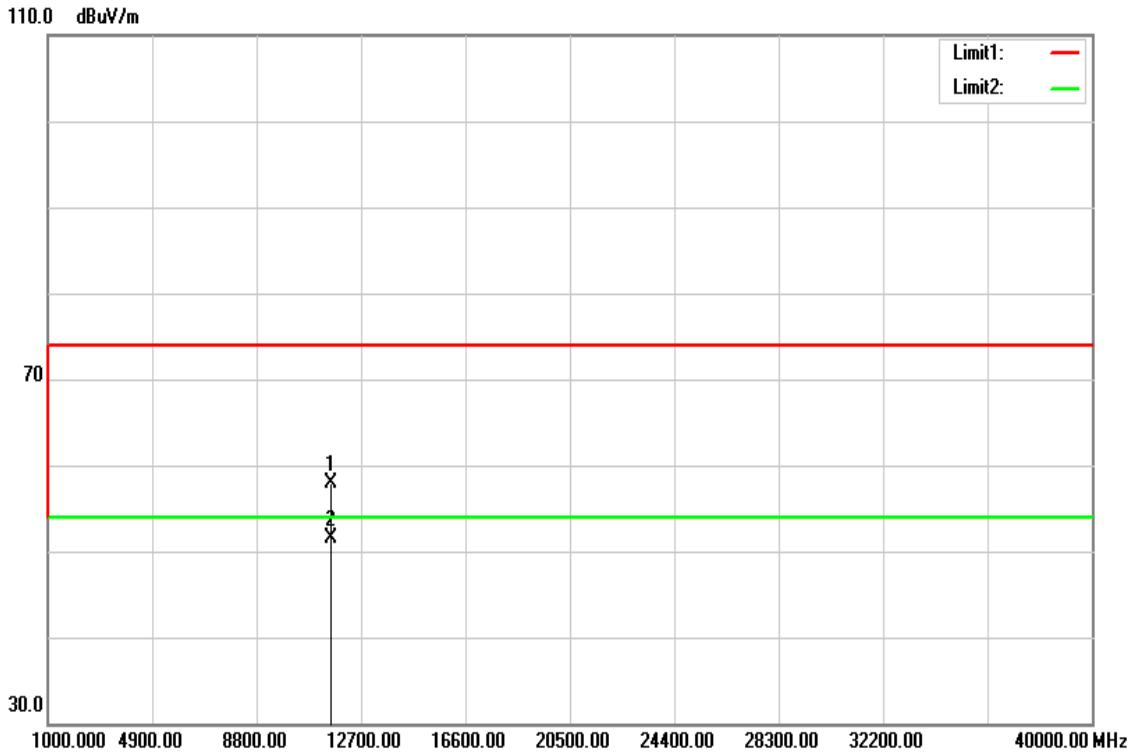


Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (B)	R mark
17235.000	34.15	30.88	65.03	74.00	-8.97	peak
17235.000	21.74	30.88	52.62	54.00	-1.38	AVG
N/A						

Remark:

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

Test Mode	IEEE 802.11a Mid CH	Temp/Hum	24(℃)/ 33%RH
Test Item	Harmonic	Test Date	September 14, 2017
Polarize	Vertical	Test Engineer	Ed Chiang
Detector	Peak and Average	Test Voltage	DC 12V

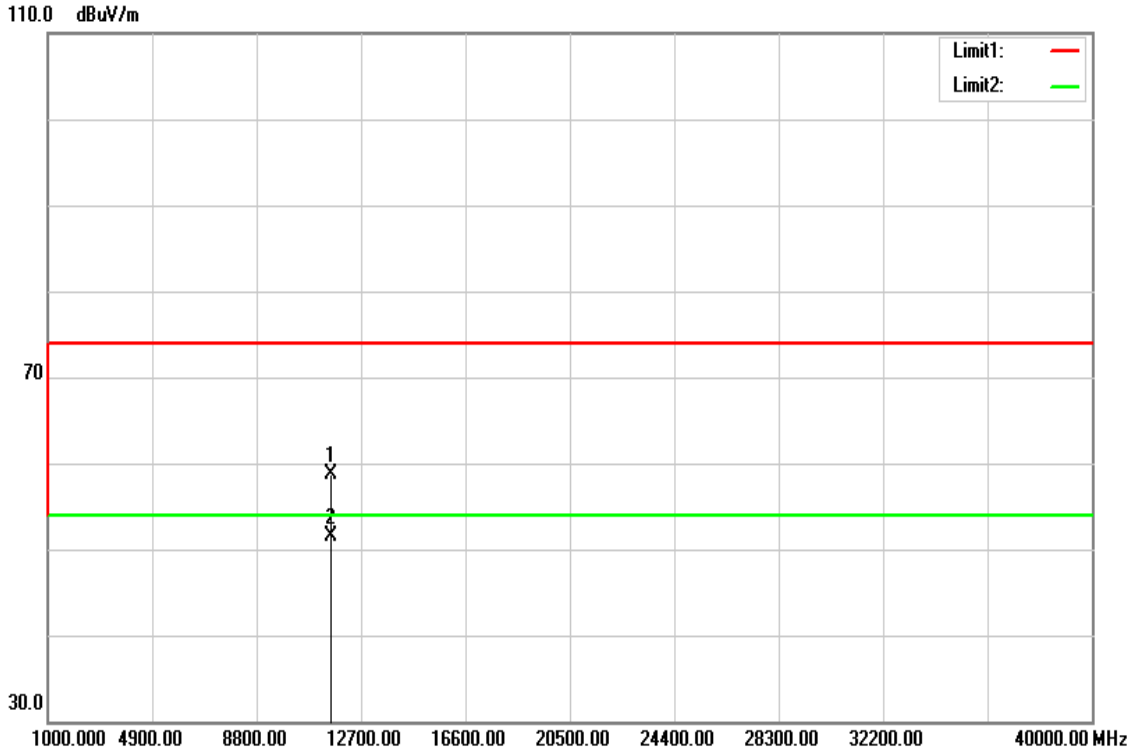


Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
11570.000	38.23	19.60	57.83	74.00	-16.17	peak
11570.000	31.93	19.60	51.53	54.00	-2.47	AVG
N/A						

Remark:

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

Test Mode	IEEE 802.11a Mid CH	Temp/Hum	24(℃)/ 33%RH
Test Item	Harmonic	Test Date	September 14, 2017
Polarize	Horizontal	Test Engineer	Ed Chiang
Detector	Peak and Average	Test Voltage	DC 12V

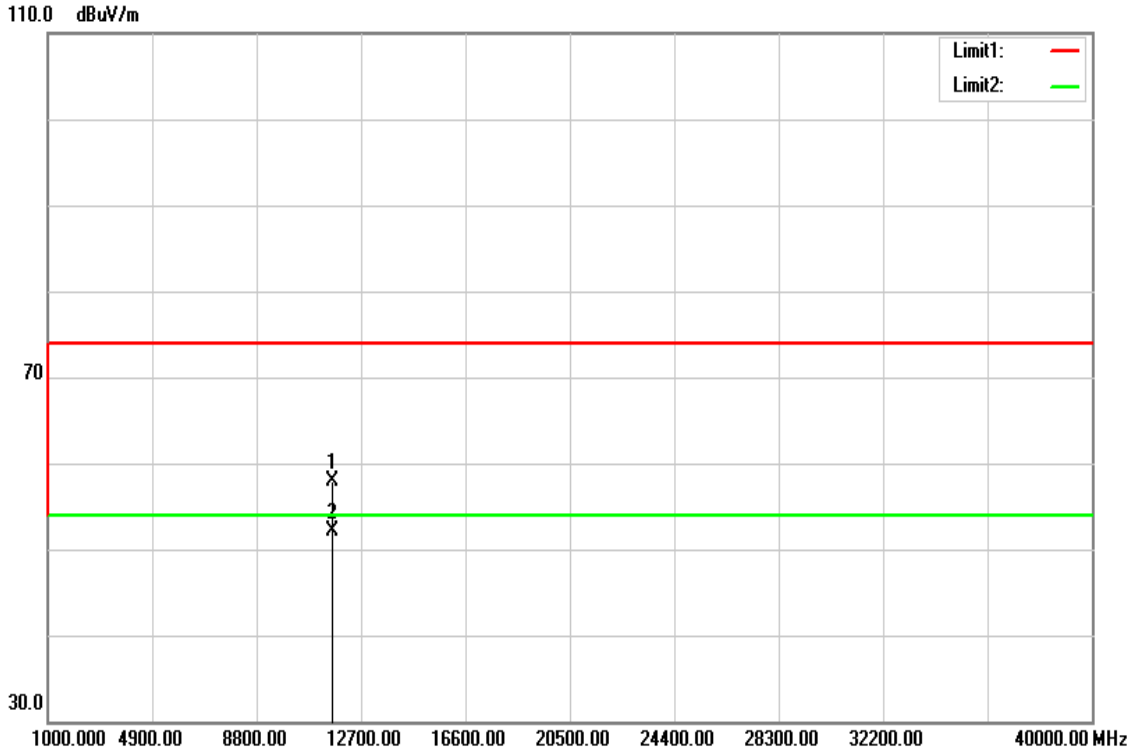


Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
11570.000	39.03	19.60	58.63	74.00	-15.37	peak
11570.000	31.91	19.60	51.51	54.00	-2.49	AVG
N/A						

Remark:

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

Test Mode	IEEE 802.11a High CH	Temp/Hum	24(℃)/ 33%RH
Test Item	Harmonic	Test Date	September 14, 2017
Polarize	Vertical	Test Engineer	Ed Chiang
Detector	Peak and Average	Test Voltage	DC 12V

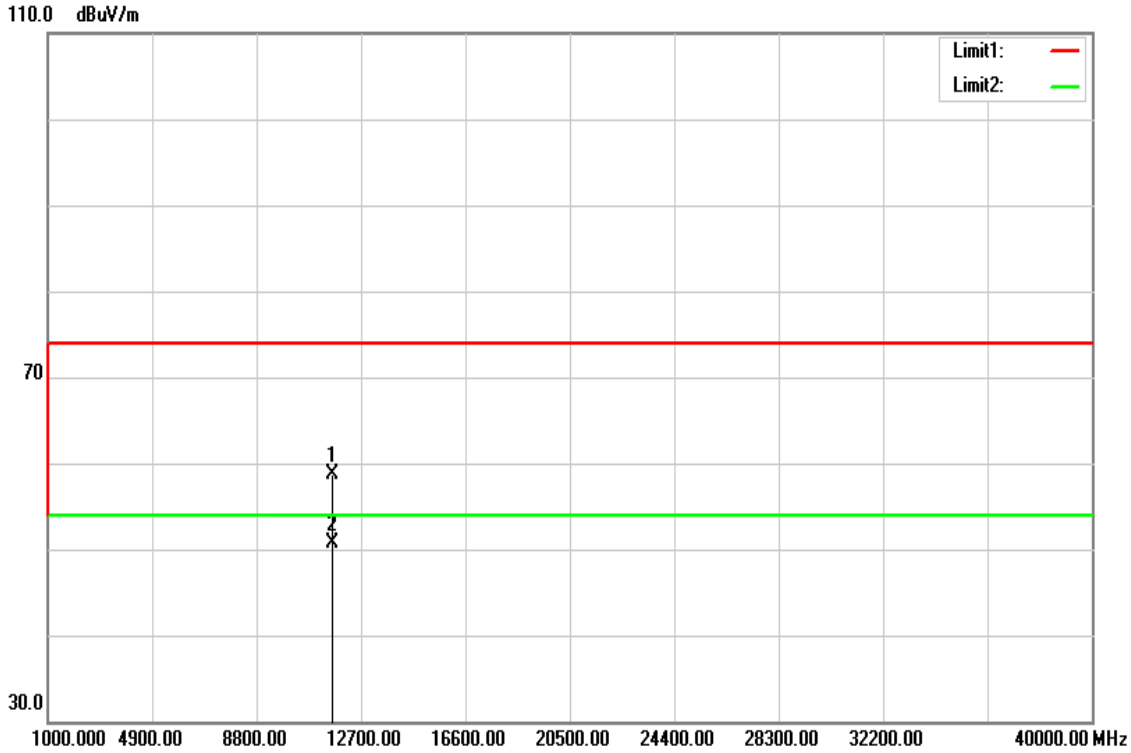


Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
11650.000	38.38	19.57	57.95	74.00	-16.05	peak
11650.000	32.44	19.57	52.01	54.00	-1.99	AVG
N/A						

Remark:

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

Test Mode	IEEE 802.11a High CH	Temp/Hum	24(℃)/ 33%RH
Test Item	Harmonic	Test Date	September 14 2017
Polarize	Horizontal	Test Engineer	Ed Chiang
Detector	Peak and Average	Test Voltage	DC 12V

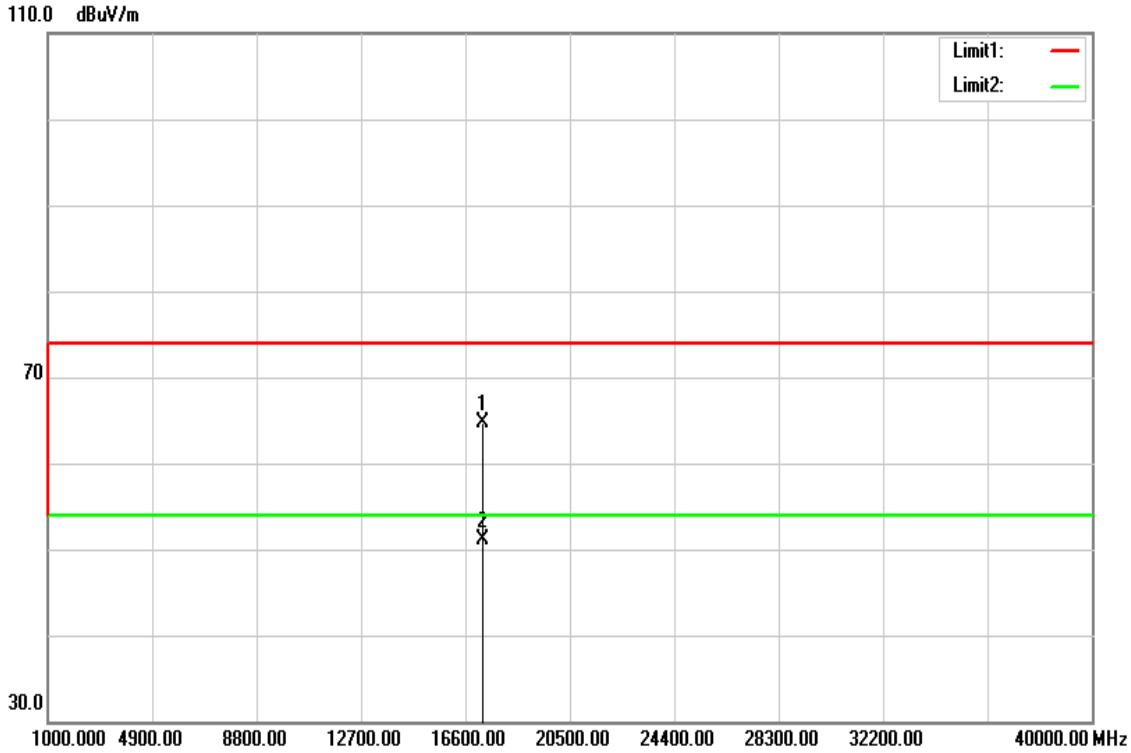


Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
11650.000	39.17	19.57	58.74	74.00	-15.26	peak
11650.000	31.14	19.57	50.71	54.00	-3.29	AVG
N/A						

Remark:

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

Test Mode	IEEE 802.11n HT20 Low CH	Temp/Hum	24(℃)/ 33%RH
Test Item	Harmonic	Test Date	September 14, 2017
Polarize	Vertical	Test Engineer	Ed Chiang
Detector	Peak and Average	Test Voltage	DC 12V

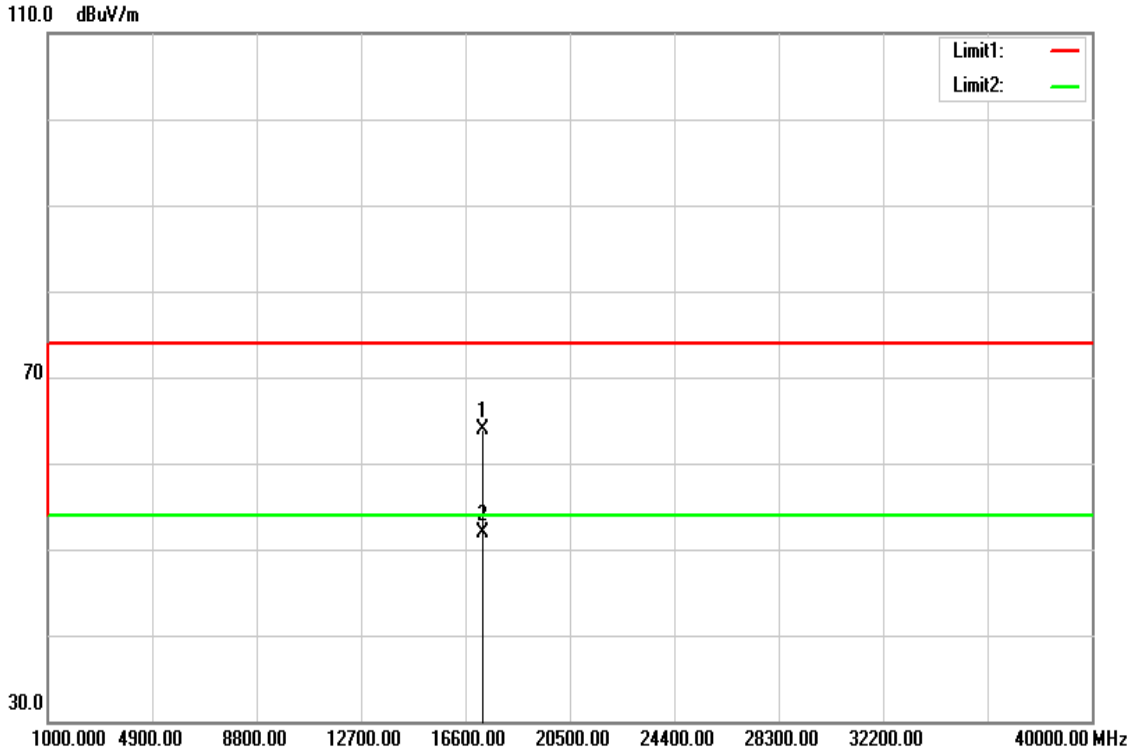


Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
17235.000	33.73	30.88	64.61	74.00	-9.39	peak
17235.000	20.15	30.88	51.03	54.00	-2.97	AVG
N/A						

Remark:

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

Test Mode	IEEE 802.11n HT20 Low CH	Temp/Hum	24(℃)/ 33%RH
Test Item	Harmonic	Test Date	September 14, 2017
Polarize	Horizontal	Test Engineer	Ed Chiang
Detector	Peak and Average	Test Voltage	DC 12V

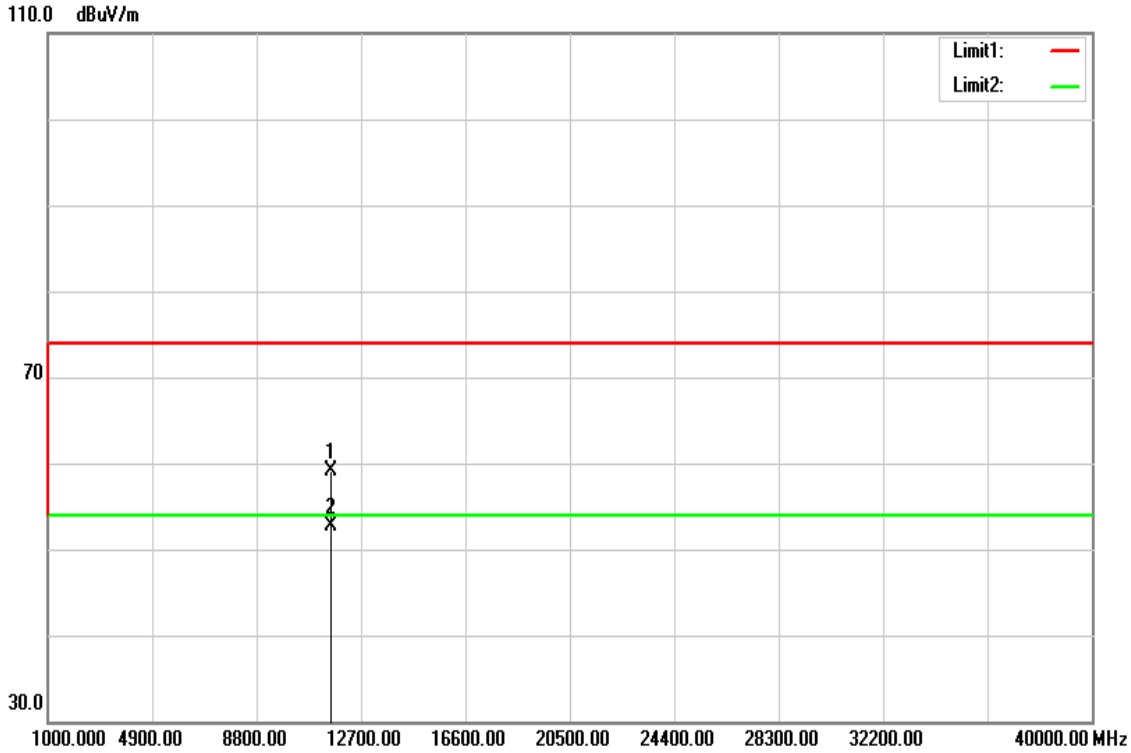


Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
17235.000	32.93	30.88	63.81	74.00	-10.19	peak
17235.000	20.94	30.88	51.82	54.00	-2.18	AVG
N/A						

Remark:

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

Test Mode	IEEE 802.11n HT20 Mid CH	Temp/Hum	24(℃)/ 33%RH
Test Item	Harmonic	Test Date	September 14, 2017
Polarize	Vertical	Test Engineer	Ed Chiang
Detector	Peak and Average	Test Voltage	DC 12V

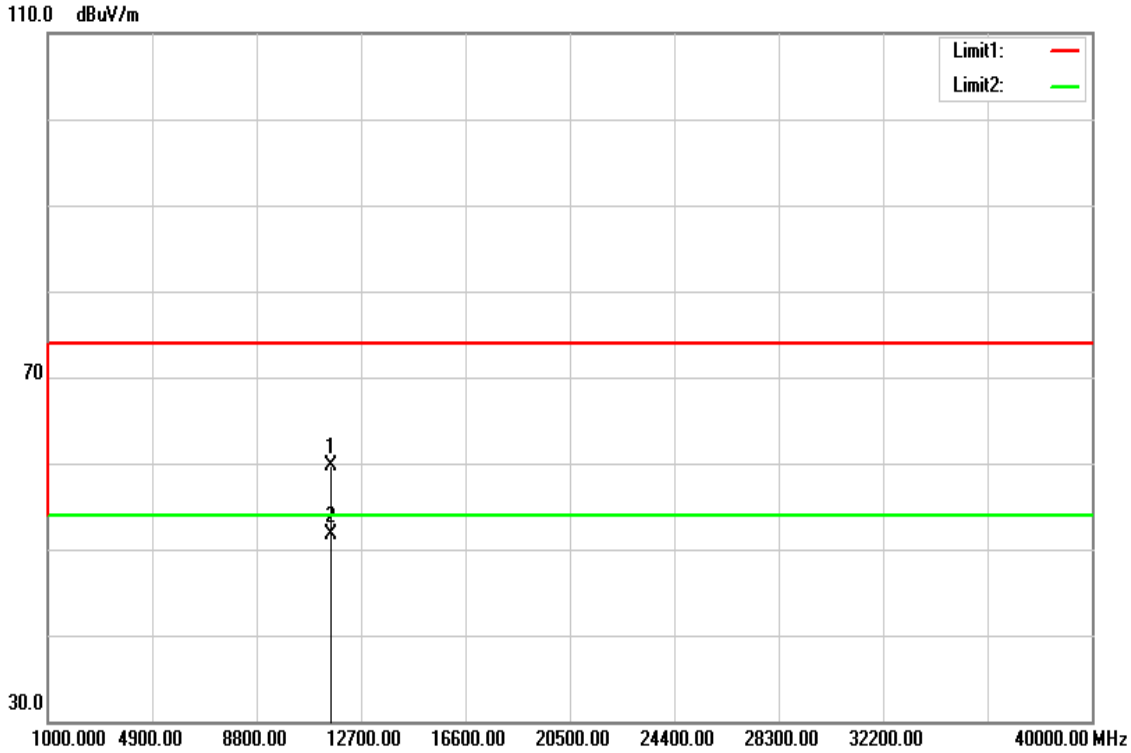


Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
11580.000	39.41	19.60	59.01	74.00	-14.99	peak
11580.000	33.05	19.60	52.65	54.00	-1.35	AVG
N/A						

Remark:

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

Test Mode	IEEE 802.11n HT20 Mid CH	Temp/Hum	24(℃)/ 33%RH
Test Item	Harmonic	Test Date	September 14, 2017
Polarize	Horizontal	Test Engineer	Ed Chiang
Detector	Peak and Average	Test Voltage	DC 12V

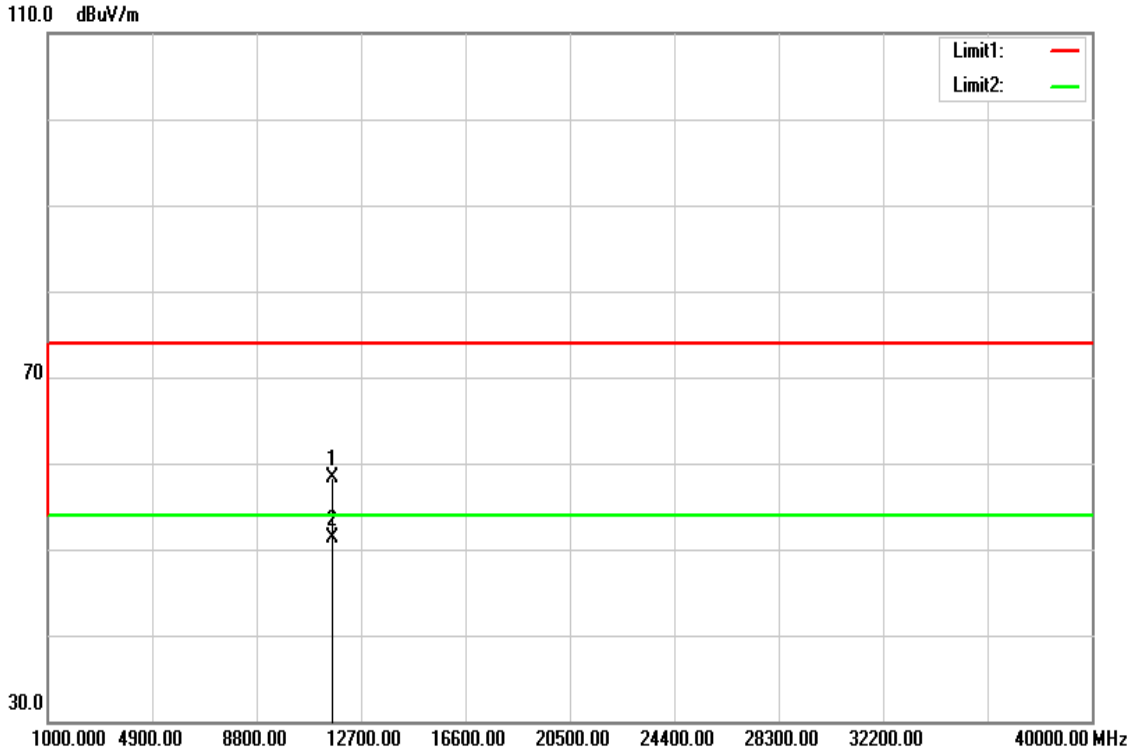


Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
11570.000	40.01	19.60	59.61	74.00	-14.39	peak
11570.000	32.15	19.60	51.75	54.00	-2.25	AVG
N/A						

Remark:

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

Test Mode	IEEE 802.11n HT20 High CH	Temp/Hum	24(℃)/ 33%RH
Test Item	Harmonic	Test Date	September 14, 2017
Polarize	Vertical	Test Engineer	Ed Chiang
Detector	Peak and Average	Test Voltage	DC 12V

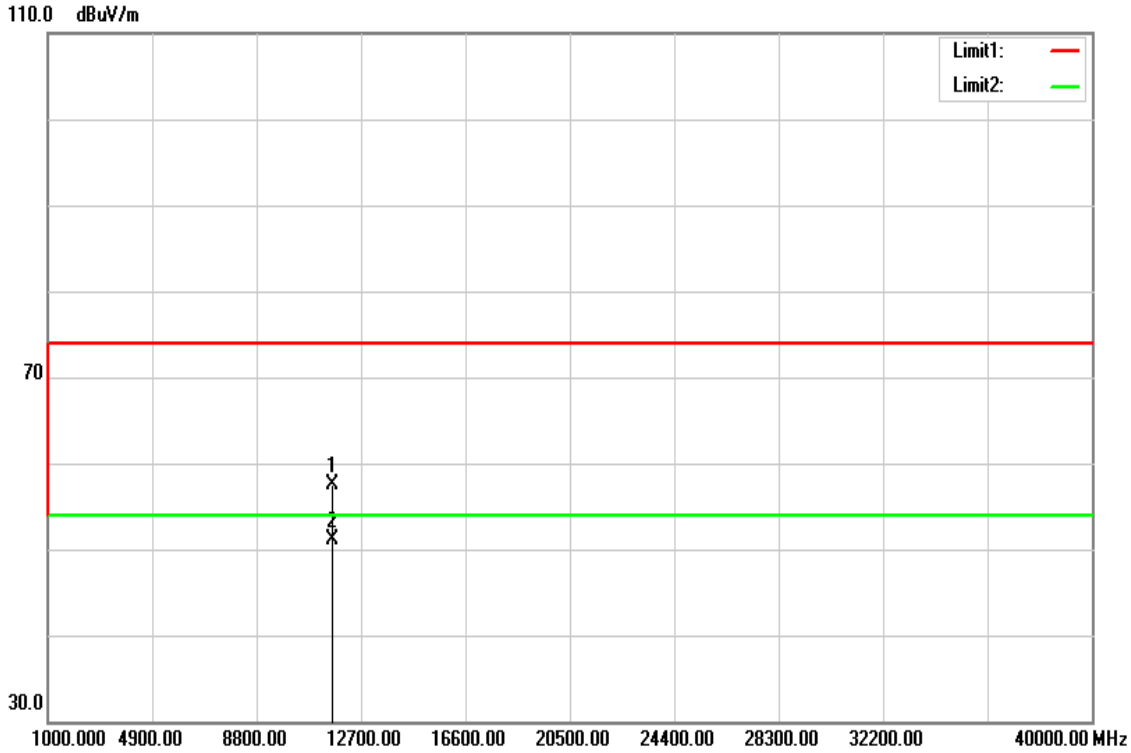


Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
11650.000	38.81	19.57	58.38	74.00	-15.62	peak
11650.000	31.65	19.57	51.22	54.00	-2.78	AVG
N/A						

Remark:

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

Test Mode	IEEE 802.11n HT20 High CH	Temp/Hum	24(℃)/ 33%RH
Test Item	Harmonic	Test Date	September 14, 2017
Polarize	Horizontal	Test Engineer	Ed Chiang
Detector	Peak and Average	Test Voltage	DC 12V

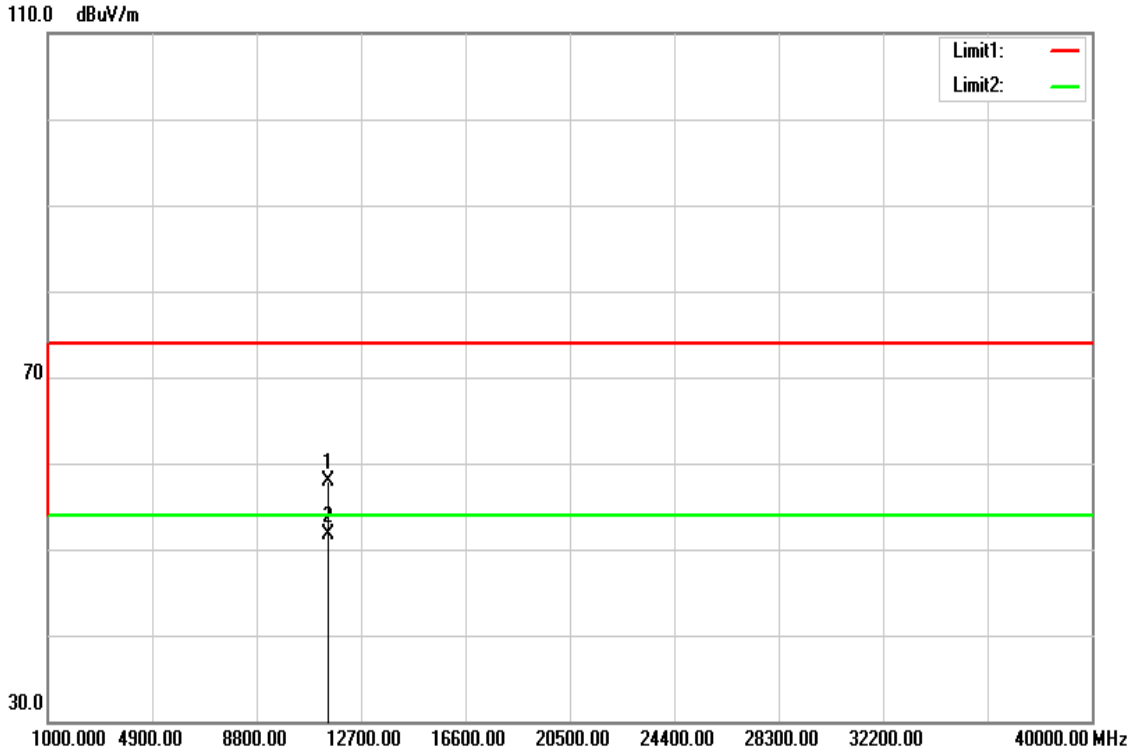


Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
11650.000	37.89	19.57	57.46	74.00	-16.54	peak
11650.000	31.56	19.57	51.13	54.00	-2.87	AVG
N/A						

Remark:

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

Test Mode	IEEE 802.11n HT40 Low CH	Temp/Hum	24(℃)/ 33%RH
Test Item	Harmonic	Test Date	September 14, 2017
Polarize	Vertical	Test Engineer	Ed Chiang
Detector	Peak and Average	Test Voltage	DC 12V

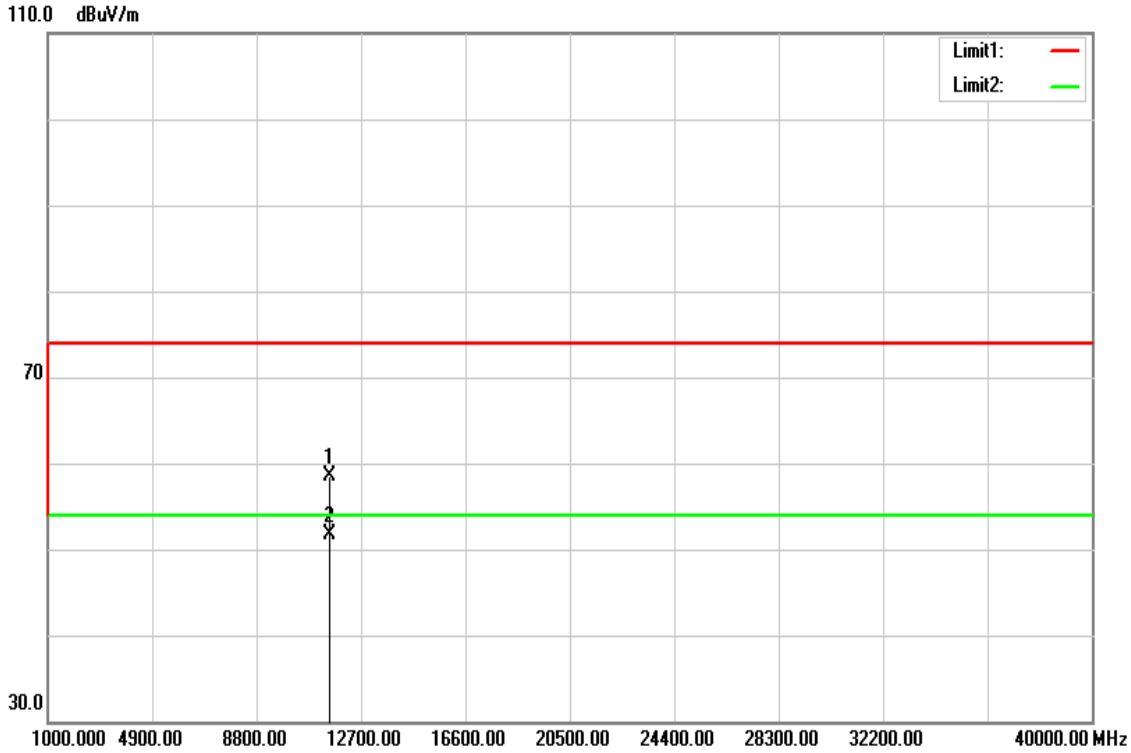


Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
11500.000	38.37	19.63	58.00	74.00	-16.00	peak
11500.000	32.02	19.63	51.65	54.00	-2.35	AVG
N/A						

Remark:

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

Test Mode	IEEE 802.11n HT40 Low CH	Temp/Hum	24(℃)/ 33%RH
Test Item	Harmonic	Test Date	September 14, 2017
Polarize	Horizontal	Test Engineer	Ed Chiang
Detector	Peak and Average	Test Voltage	DC 12V

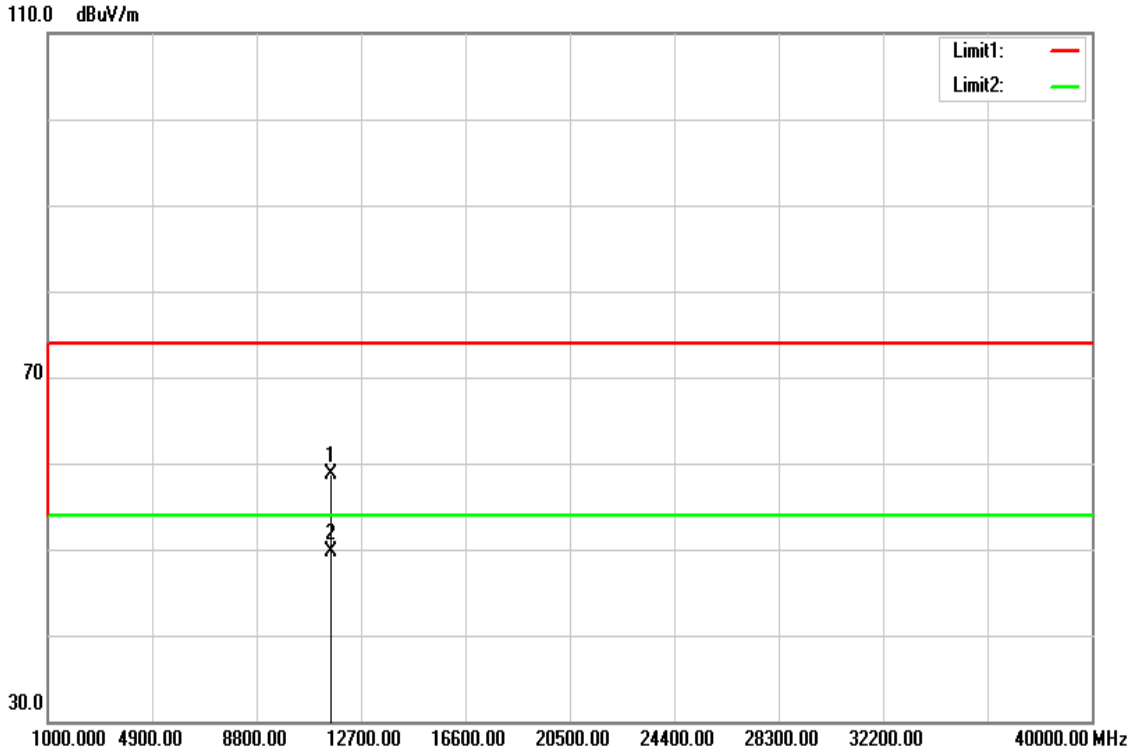


Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
11520.000	38.79	19.62	58.41	74.00	-15.59	peak
11520.000	32.00	19.62	51.62	54.00	-2.38	AVG
N/A						

Remark:

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

Test Mode	IEEE 802.11n HT40 High CH	Temp/Hum	24(℃)/ 33%RH
Test Item	Harmonic	Test Date	September 14, 2017
Polarize	Vertical	Test Engineer	Ed Chiang
Detector	Peak and Average	Test Voltage	DC 12V

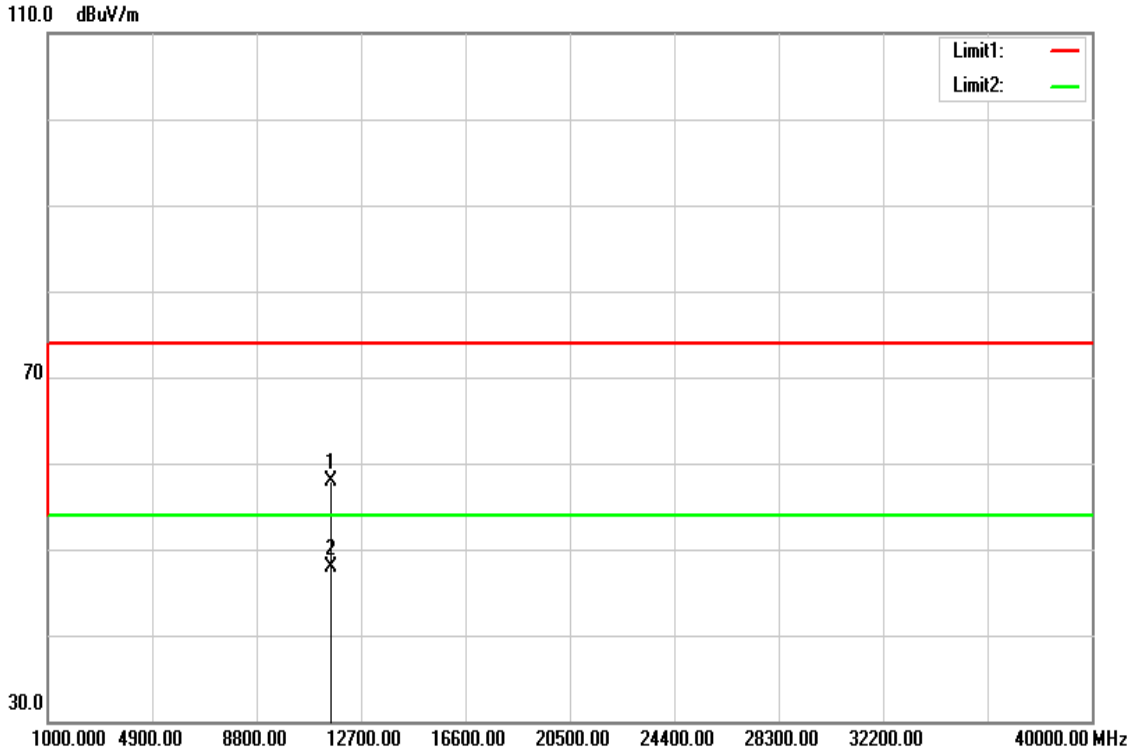


Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
11600.000	39.06	19.60	58.66	74.00	-15.34	peak
11600.000	30.04	19.60	49.64	54.00	-4.36	AVG
N/A						

Remark:

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

Test Mode	IEEE 802.11n HT40 High CH	Temp/Hum	24(℃)/ 33%RH
Test Item	Harmonic	Test Date	September 14, 2017
Polarize	Horizontal	Test Engineer	Ed Chiang
Detector	Peak and Average	Test Voltage	DC 12V



Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
11570.000	38.31	19.60	57.91	74.00	-16.09	peak
11570.000	28.34	19.60	47.94	54.00	-6.06	AVG
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*

4.6 FREQUENCY STABILITY

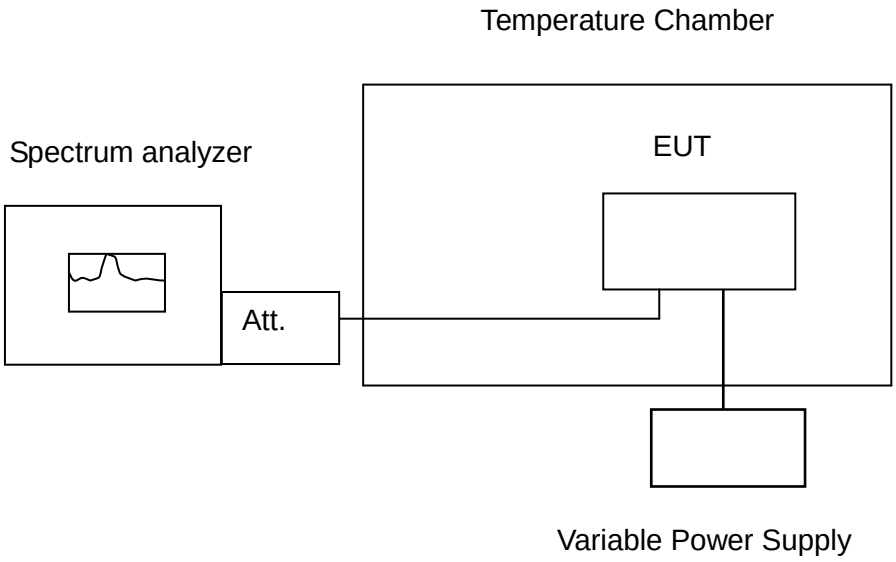
4.6.1 Test Limit

According to §15.407(g) manufacturers of U-NII devices are responsible for ensuring frequency stability such that an emission is maintained within the band of operation under all conditions of normal operation as specified in the operational description.

4.6.2 Test Procedure

The equipment under test was connected to an external AC or DC power supply and input rated voltage. RF output was connected to a frequency counter or spectrum analyzer via feed through attenuators. The EUT was placed inside the temperature chamber. Set the spectrum analyzer RBW low enough to obtain the desired frequency resolution and measure EUT 20^{o}C operating frequency as reference frequency. Turn EUT off and set the chamber temperature to –20^{o}C. After the temperature stabilized for approximately 30 minutes recorded the frequency. Repeat step measure with 10^{o}C increased per stage until the highest temperature of +50^{o}C reached.

4.6.3 Test Setup



4.6.4 Test Result

Temp. (°C)	Voltage (V)	Measured Frequency	5180		(MHz)	Limit				Result
		Time (min)				20ppm				
Operating Frequency:		0 min	2 min	5 min	10 min	0 min	2 min	5 min	10 min	
50	12	5180.09230	5180.08913	5180.08912	5180.08912	17.8185	17.2066	17.2046	17.2046	Pass
40	12	5180.05895	5180.05285	5180.05285	5180.05285	11.3803	10.2027	10.2027	10.2027	Pass
30	12	5180.04243	5180.04943	5180.04243	5180.04243	8.1911	9.5425	8.1911	8.1911	Pass
20	12	5180.03258	5180.03295	5180.03295	5180.02861	6.2896	6.3610	6.3610	5.5232	Pass
10	12	5180.02865	5180.02852	5180.02685	5180.02685	5.5309	5.5060	5.1834	5.1834	Pass
0	12	5180.02523	5180.02523	5180.02946	5180.02946	4.8707	4.8707	5.6873	5.6873	Pass
-10	12	5179.98264	5179.98436	5179.98436	5179.98936	-3.3514	-3.0193	-3.0193	-2.0541	Pass
-20	12	5179.98628	5179.98628	5179.98469	5179.98969	-2.6486	-2.6486	-2.9556	-1.9903	Pass
Temp. (°C)	Voltage (V)	Measured Frequency	5180		(MHz)	Limit				Result
		Time (min)				20ppm				
Operating Frequency:		0 min	2 min	5 min	10 min	0 min	2 min	5 min	10 min	
20	10.8	5180.02964	5180.03521	5180.03851	5180.03851	5.7220	6.7973	7.4344	7.4344	Pass
20	12	5180.03258	5180.03295	5180.03295	5180.02861	6.2896	6.3610	6.3610	5.5232	Pass
20	13.2	5180.03246	5180.03246	5180.03586	5180.03246	6.2664	6.2664	6.9228	6.2664	Pass

Temp. (°C)	Voltage (V)	Measured Frequency	5260		(MHz)	Limit				Result
		Time (min)				20ppm				
Operating Frequency:		0 min	2 min	5 min	10 min	0 min	2 min	5 min	10 min	
50	12	5260.09383	5260.09383	5260.09758	5260.09758	17.8384	17.8384	18.5513	18.5513	Pass
40	12	5260.08476	5260.08463	5260.08253	5260.08243	16.1141	16.0894	15.6901	15.6711	Pass
30	12	5260.07322	5260.07389	5260.07322	5260.07322	13.9202	14.0475	13.9202	13.9202	Pass
20	12	5260.06143	5260.06142	5260.06482	5260.06824	11.6787	11.6768	12.3232	12.9734	Pass
10	12	5260.05135	5260.04358	5260.05238	5260.05238	9.7624	8.2852	9.9582	9.9582	Pass
0	12	5260.04826	5260.03258	5260.03482	5260.02148	9.1749	6.1939	6.6198	4.0837	Pass
-10	12	5260.01581	5260.01368	5260.01887	5260.01246	3.0057	2.6008	3.5875	2.3688	Pass
-20	12	5259.99822	5259.99827	5259.99827	5259.99827	-0.3384	-0.3289	-0.3289	-0.3289	Pass
Temp. (°C)	Voltage (V)	Measured Frequency	5260		(MHz)	Limit				Result
		Time (min)				20ppm				
Operating Frequency:		0 min	2 min	5 min	10 min	0 min	2 min	5 min	10 min	
20	10.8	5260.05428	5260.05469	5260.05469	5260.05469	10.3194	10.3973	10.3973	10.3973	Pass
20	12	5260.06143	5260.06142	5260.06482	5260.06824	11.6787	11.6768	12.3232	12.9734	Pass
20	13.2	5260.06142	5260.06182	5260.06182	5260.06182	11.6768	11.7529	11.7529	11.7529	Pass

Temp. (°C)	Voltage (V)	Measured Frequency	5500		(MHz)	Limit				Result
		Time (min)				20ppm				
Operating Frequency:		0 min	2 min	5 min	10 min	0 min	2 min	5 min	10 min	
50	12	5500.09297	5500.09724	5500.09724	5500.09297	16.9036	17.6800	17.6800	16.9036	Pass
40	12	5500.08632	5500.08826	5500.08436	5500.08132	15.6945	16.0473	15.3382	14.7855	Pass
30	12	5500.06284	5500.06946	5500.06258	5500.06258	11.4255	12.6291	11.3782	11.3782	Pass
20	12	5500.04721	5500.04779	5500.04779	5500.04721	8.5836	8.6891	8.6891	8.5836	Pass
10	12	5500.02134	5500.02147	5500.02478	5500.02478	3.8800	3.9036	4.5055	4.5055	Pass
0	12	5500.01956	5500.01956	5500.01759	5500.01759	3.5564	3.5564	3.1982	3.1982	Pass
-10	12	5500.00956	5500.00956	5500.00996	5500.00996	1.7382	1.7382	1.8109	1.8109	Pass
-20	12	5499.98398	5499.98573	5499.98573	5499.98573	-2.9127	-2.5945	-2.5945	-2.5945	Pass
Temp. (°C)	Voltage (V)	Measured Frequency	5500		(MHz)	Limit				Result
		Time (min)				20ppm				
Operating Frequency:		0 min	2 min	5 min	10 min	0 min	2 min	5 min	10 min	
20	10.8	5500.04517	5500.04856	5500.04856	5500.04517	8.2127	8.8291	8.8291	8.2127	Pass
20	12	5500.04721	5500.04779	5500.04779	5500.04721	8.5836	8.6891	8.6891	8.5836	Pass
20	13.2	5500.04294	5500.04285	5500.04365	5500.04783	7.8073	7.7909	7.9364	8.6964	Pass

Temp. (°C)	Voltage (V)	Measured Frequency	5180		(MHz)	Limit				Result
		Time (min)				20ppm				
Operating Frequency:		0 min	2 min	5 min	10 min	0 min	2 min	5 min	10 min	
50	12	5745.06544	5745.06524	5745.06142	5745.06524	11.3908	11.3560	10.6910	11.3560	Pass
40	12	5745.05954	5745.05954	5745.05712	5745.05712	10.3638	10.3638	9.9426	9.9426	Pass
30	12	5745.03854	5745.03854	5745.03754	5745.03714	6.7084	6.7084	6.5344	6.4648	Pass
20	12	5745.02831	5745.03883	5745.02831	5745.02831	4.9278	6.7591	4.9278	4.9278	Pass
10	12	5745.01402	5745.01402	5745.01728	5745.01728	2.4404	2.4404	3.0078	3.0078	Pass
0	12	5745.01182	5745.01168	5745.01125	5745.01125	2.0574	2.0331	1.9582	1.9582	Pass
-10	12	5744.99824	5744.99891	5744.99824	5744.99891	-0.3064	-0.1897	-0.3064	-0.1897	Pass
-20	12	5744.98761	5744.98251	5744.98761	5744.98761	-2.1567	-3.0444	-2.1567	-2.1567	Pass
Temp. (°C)	Voltage (V)	Measured Frequency	5180		(MHz)	Limit				Result
		Time (min)				20ppm				
Operating Frequency:		0 min	2 min	5 min	10 min	0 min	2 min	5 min	10 min	
20	10.8	5745.02687	5745.02695	5745.02468	5745.02654	4.6771	4.6910	4.2959	4.6197	Pass
20	12	5745.02831	5745.02883	5745.02831	5745.02831	4.9278	5.0185	4.9278	4.9278	Pass
20	13.2	5745.02655	5745.02678	5745.02655	5745.02655	4.6214	4.6614	4.6214	4.6214	Pass

4.7 DYNAMIC FREQUENCY SELECTION

4.7.1 Test Limit

FCC according to §15.407 (h), KDB 905462 D02 "compliance measurement procedures for unlicensed-national information infrastructure devices operating in the 5250-5350 MHz and 5470-5725 MHz bands incorporating dynamic frequency selection". and KDB 905462 D03 " U-NII client devices without radar detection capability.

Table 1: Applicability of DFS requirements prior to use of a channel

Requirement	Operational Mode		
	Master	Client (without radar detection)	Client(with radar detection)
Non-Occupancy Period	Yes	Not required	Yes
DFS Detection Threshold	Yes	Not required	Yes
Channel Availability Check Time	Yes	Not required	Not required
U-NII Detection Bandwidth	Yes	Not required	Yes

Table 2: Applicability of DFS requirements during normal operation

Requirement	Operational Mode	
	Master Device or Client with Radar Detection	Client Without Radar Detection
DFS Detection Threshold	Yes	Not required
Channel Closing Transmission Time	Yes	Yes
Channel Move Time	Yes	Yes
U-NII Detection Bandwidth	Yes	Not required

Additional requirements for devices with multiple bandwidth mods	Master Device or Client with Radar Detection	Client Without Radar Detection
U-NII Detection Bandwidth and Statistical Performance Check	All BW modes must be tested	Not required
Channel Move Time and Channel Closing Transmission Time	Test using widest BW mode available	Test using the widest BW mode available for the link
All other tests	Any single BW mode	Not required
Note: Frequencies selected for statistical performance check (Section 7.8.4) should include several frequencies within the radar detection bandwidth and frequencies near the edge of the radar detection bandwidth. For 802.11 devices it is suggested to select frequencies in each of the bonded 20 MHz channels and the channel center frequency.		

Table 3: Interference Threshold values, Master or Client incorporating In-Service

Maximum Transmit Power	Value (See Notes 1, 2, and 3)
EIRP ≥ 200 milliwatt	-64 dBm
EIRP < 200 milliwatt and power spectral density < 10 dBm/MHz	-62 dBm
EIRP < 200 milliwatt that do not meet the power spectral density requirement	-64 dBm

Note 1: This is the level at the input of the receiver assuming a 0 dBi receive antenna.
Note 2: Throughout these test procedures an additional 1 dB has been added to the amplitude of the test transmission waveforms to account for variations in measurement equipment. This will ensure that the test signal is at or above the detection threshold level to trigger a DFS response.
Note3: EIRP is based on the highest antenna gain. For MIMO devices refer to KDB Publication 662911 D01.

Table 4: DFS Response requirement values

Parameter	Value
Non-occupancy period	Minimum 30 minutes
Channel Availability Check Time	60 seconds
Channel Move Time	10 seconds See Note 1.
Channel Closing Transmission Time	200 milliseconds + an aggregate of 60 milliseconds over remaining 10 second period. See Notes 1 and 2.
U-NII Detection Bandwidth	Minimum 100% of the U-NII 99% transmission power bandwidth. See Note 3.

Note 1: Channel Move Time and the Channel Closing Transmission Time should be performed with Radar Type 0. The measurement timing begins at the end of the Radar Type 0 burst.
Note 2: The Channel Closing Transmission Time is comprised of 200 milliseconds starting at the beginning of the Channel Move Time plus any additional intermittent control signals required to facilitate a Channel move (an aggregate of 60 milliseconds) during the remainder of the 10 second period. The aggregate duration of control signals will not count quiet periods in between transmissions.
Note 3: During the U-NII Detection Bandwidth detection test, radar type 0 should be used. For each frequency step the minimum percentage of detection is 90 percent. Measurements are performed with no data traffic.

Table 5 – Short Pulse Radar Test Waveforms

Radar Type	Pulse Width (μsec)	PRI (μsec)	Number of Pulses	Minimum Percentage of Successful Detection	Minimum Number of Trials
0	1	1428	18	See Note 1	
1	1	Test A: 15 unique PRI values randomly selected from the list of 23 PRI values in Table 5a	$\text{Roundup}\left\{\left(\frac{1}{360}\right)\cdot\left(\frac{19\cdot 10^6}{\text{PRI}_{\mu\text{sec}}}\right)\right\}$	60%	30
		Test B: 15 unique PRI values randomly selected within the range of 518-3066 μsec, with a minimum increment of 1 μsec, excluding PRI values selected in Test A			
2	1-5	150-230	23-29	60%	30
3	6-10	200-500	16-18	60%	30
4	11-20	200-500	12-16	60%	30
Aggregate (Radar Types 1-4)				80%	120

Note 1: Short Pulse Radar Type 0 should be used for the detection bandwidth test, channel move time, and channel closing time tests.

Table 6 – Long Pulse Radar Test Signal

Radar Type	Pulse Width (µsec)	Chirp Width (MHz)	PRI (µsec)	Number of Pulses per Burst	Number of Bursts	Minimum Percentage of Successful Detection	Minimum Number of Trials
5	50-100	5-20	1000-2000	1-3	8-20	80%	30

Table 7 – Frequency Hopping Radar Test Signal

Radar Type	Pulse Width (µsec)	PRI (µsec)	Pulses per Hop	Hopping Rate (kHz)	Hopping Sequence Length (msec)	Minimum Percentage of Successful Detection	Minimum Number of Trials
6	1	333	9	0.333	300	70%	30

4.7.2 Test Procedure

Overview Of EUT With Respect To §15.407 (H) Requirements

The firmware installed in the EUT during testing was:

Firmware Rev: 12.11.97.0
The EUT operates over the 5250-5350 MHz range as a Client Device that does not have radar detection capability.

The EUT uses one transmitter connected to two 50-ohm coaxial antenna ports via a diversity switch. Only one antenna port is connected to the test system since the EUT has one antenna only.

The Slave device associated with the EUT during these tests does not have radar detection capability.

WLAN traffic is generated by streaming the video file TestFile.mp2 “6 ½ Magic Hours” from the Master to the Slave in full motion video mode using the media player with the V2.61 Codec package.

The EUT utilizes the 802.11a architecture, with a nominal channel bandwidth of 20 MHz.

The rated output power of the Master unit is < 23dBm (EIRP). Therefore the required interference threshold level is -62 dBm. After correction for antenna gain and procedural adjustments, the required conducted threshold at the antenna port is –62 + 5 = -57dBm.

The calibrated conducted DFS Detection Threshold level is set to -57 dBm. The tested level is lower than the required level hence it provides margin to the limit.

Manufacturer’s Statement Regarding Uniform Channel Spreading

The end product implements an automatic channel selection feature at startup such that operation commences on channels distributed across the entire set of allowed 5GHz channels. This feature will ensure uniform spreading is achieved while avoiding non-allowed channels due to prior radar events.

TEST AND MEASUREMENT SYSTEM

System Overview

The measurement system is based on a conducted test method.

The short pulse and long pulse signal generating system utilizes the NTIA software. The Vector Signal Generator has been validated by the NTIA. The hopping signal generating system utilizes the CCS simulated hopping method and system, which has been validated by the DoD, FCC and NTIA. The software selects waveform parameters from within the bounds of the signal type on a random basis using uniform distribution.

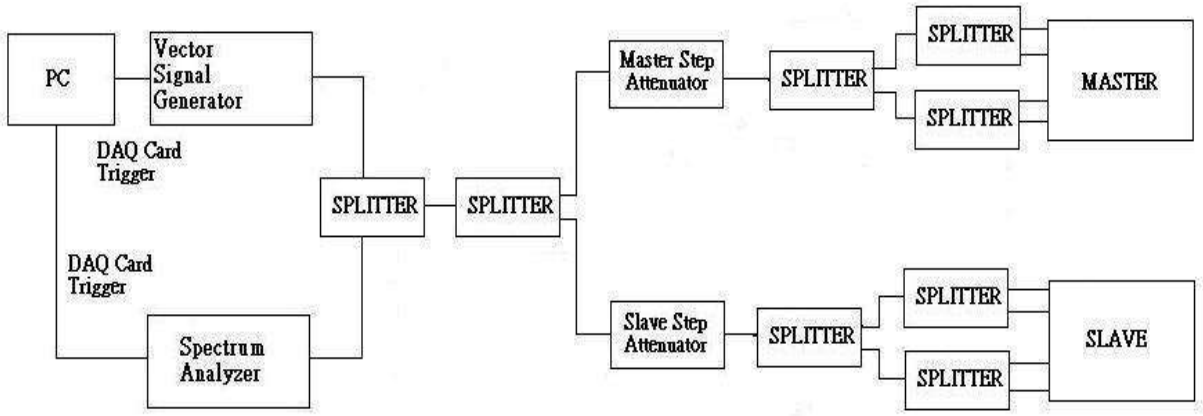
The short pulse types 2, 3 and 4, and the long pulse type 5 parameters are randomized at run-time.

The hopping type 6 pulse parameters are fixed while the hopping sequence is based on the August 2005 NTIA Hopping Frequency List. The initial starting point randomized at run-time and each subsequent starting point is incremented by 475. Each frequency in the 100-length segment is compared to the boundaries of the EUT Detection Bandwidth and the software creates a hopping burst pattern in accordance with Section 7.4.1.3 Method #2 Simulated Frequency Hopping Radar Waveform Generating Subsystem of FCC 06-96 APPENDIX. The frequency of the signal generator is incremented in 1 MHz steps from FL to FH for each successive trial. This incremental sequence is repeated as required to generate a minimum of 30 total trials and to maintain a uniform frequency distribution over the entire Detection Bandwidth.

The signal monitoring equipment consists of a spectrum analyzer set to display 8001 bins on the horizontal axis. The time-domain resolution is 2 msec / bin with a 16 second sweep time, meeting the 10 second short pulse reporting criteria. The aggregate ON time is calculated by multiplying the number of bins above a threshold during a particular observation period by the dwell time per bin, with the analyzer set to peak detection and max hold. The time-domain resolution is 3 msec / bin with a 24 second sweep time, meeting the 22 second long pulse reporting criteria and allowing a minimum of 10 seconds after the end of the long pulse waveform.

Should multiple RF ports be utilized for the Master and/or Slave devices (for example, for diversity or MIMO implementations), 50 ohm termination would be removed from the splitter so that connection can be established between splitter and the Master and/or Slave devices.

Conducted Method System Block Diagram



System Calibration

Connect the spectrum analyzer to the test system in place of the master device. Set the signal generator to CW mode. Adjust the amplitude of the signal generator to yield a measured level of –62 dBm on the spectrum analyzer.

Without changing any of the instrument settings, reconnect the spectrum analyzer to the Common port of the Spectrum Analyzer Combiner/Divider and connect a 50 ohm load to the Master Device port of the test system.

Measure the amplitude and calculate the difference from –62 dBm. Adjust the Reference Level Offset of the spectrum analyzer to this difference. Confirm that the signal is displayed at –62 dBm. Readjust the RBW and VBW to 3 MHz, set the span to 10 MHz, and confirm that the signal is still displayed at –62 dBm.

The spectrum analyzer displays the level of the signal generator as received at the antenna ports of the Master Device. The interference detection threshold may be varied from the calibrated value of –62 dBm and the spectrum analyzer will still indicate the level as received by the Master Device.

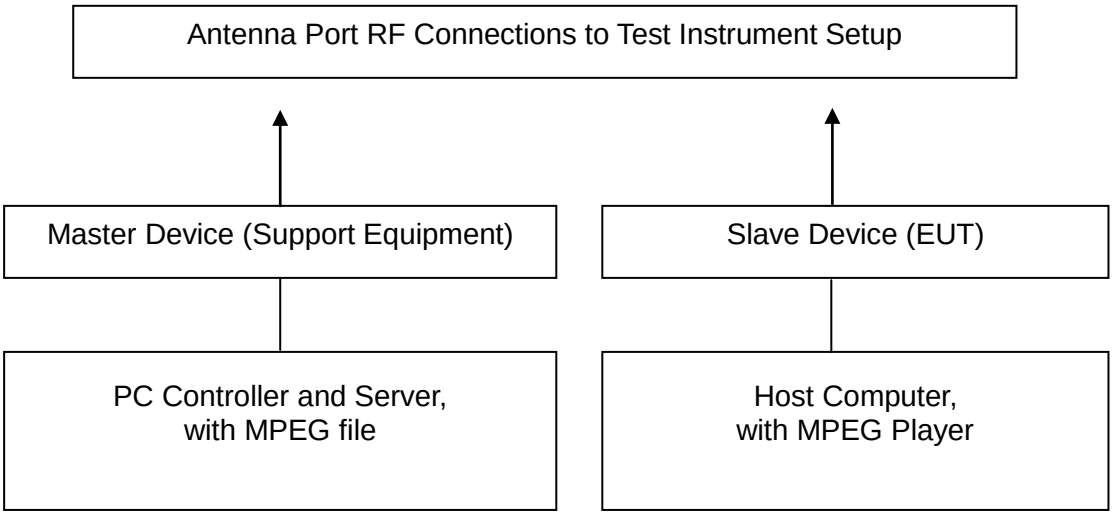
Set the signal generator to produce a radar waveform, trigger a burst manually and measure the level on the spectrum analyzer. Readjust the amplitude of the signal generator as required so that the peak level of the waveform is at a displayed level equal to the required or desired interference detection threshold. Separate signal generator amplitude settings are determined as required for each radar type.

Adjustment Of Displayed Traffic Level

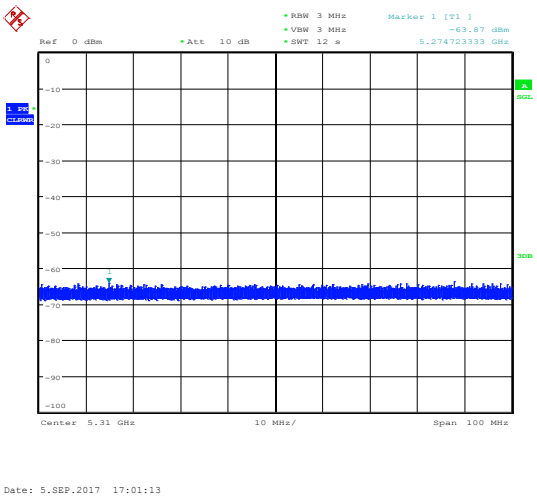
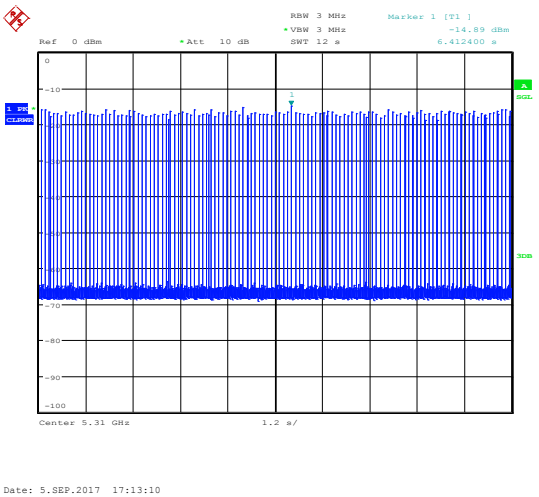
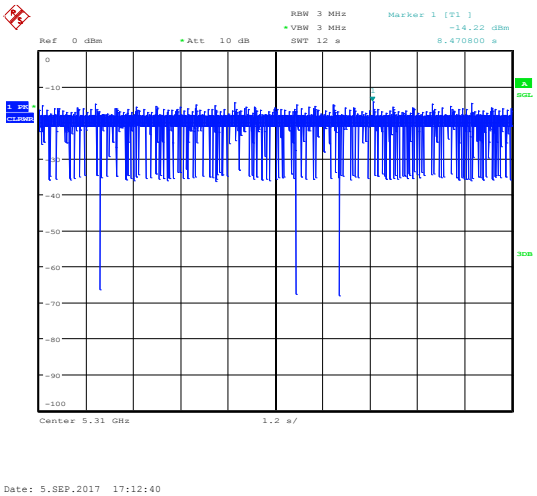
Establish a link between the Master and Slave, adjusting the Link Step Attenuator as needed to provide a suitable received level at the Master and Slave devices. Stream the video test file to generate WLAN traffic. Confirm that the WLAN traffic level, as displayed on the spectrum analyzer, is at lower amplitude than the radar detection threshold. Confirm that the displayed traffic is from the Master Device. For Master Device testing confirm that the displayed traffic does not include Slave Device traffic. For Slave Device testing confirm that the displayed traffic does not include Master Device traffic.

If a different setting of the Master Step Attenuator is required to meet the above conditions, perform a new System Calibration for the new Master Step Attenuator setting.

4.7.3 Test Setup

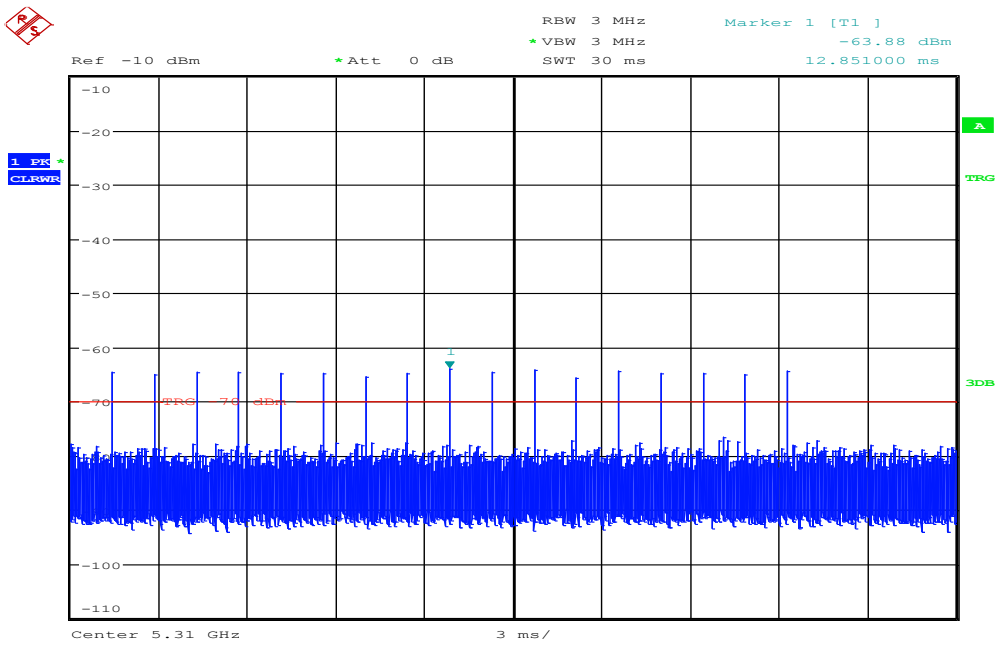


4.7.4 Test Result

IEEE 802.11 HT40 MHz at 5310MHz	
Noise Floor	Master Level
	
Slave Level	
	

Radar Waveforms

Sample of short Pluse Radar Type 0



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TEST CHANNEL AND METHOD

All tests were performed at a channel center frequency of 5310 MHz utilizing a conducted test method.

CHANNEL MOVE TIME AND CHANNEL CLOSING TRANSMISSION TIME

GENERAL REPORTING NOTES

The reference marker is set at the end of last radar pulse.

The delta marker is set at the end of the last WLAN transmission following the radar pulse. This delta is the channel move time.

The aggregate channel closing transmission time is calculated as follows:

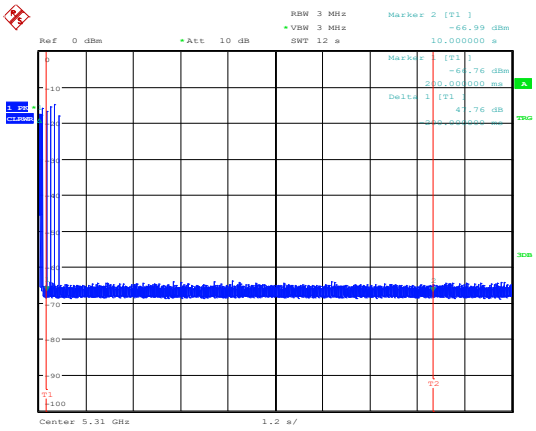
Aggregate Transmission Time =

(Number of analyzer bins showing transmission) * (dwell time per bin)

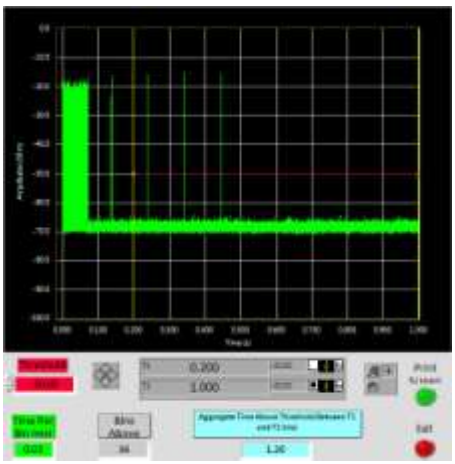
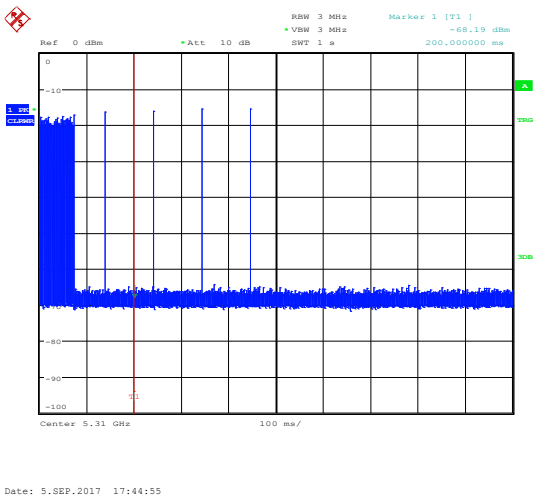
The observation period over which the aggregate time is calculated

Begins at (Reference Marker + 200 msec) and

Ends no earlier than (Reference Marker + 10 sec).

IEEE 802.11 HT40 MHz at 5310MHz	
Type 1_Channel Move Time	
	

Channel Move Time (ms)	Limit (s)
200	10

IEEE 802.11 HT40 MHz at 5310MHz	
Type 1_Channel closing transmisssion time	**Type 1_Channel closing transmisssion time-caculate**
	

Aggregate Transmission Time (ms)	Limit (ms)	Margin (ms)
1.20	60	-58.8