

RADIO TEST REPORT

FCC 47 CFR PART 15 SUBPART C

INDUSTRY CANADA RSS-247

(CLASS II PERMISSIVE CHANGE)

Test Standard	FCC Part 15.247 + IC RSS-247 issue 2 and IC RSS-GEN issue 5
Brand name	DURABOOK
Product name	module
Model No.	9260NGW
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. (Wugu Laboratory).

Approved by:

Tested by:



Kevin Tsai
Deputy Manager

Jerry Chuang
Engineer

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.
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Revision History

Rev.	Issue Date	Revisions	Effect Page	Revised By
00	January 29, 2019	Initial Issue	ALL	Allison Chen



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1. GENERAL INFORMATION

1.1 EUT INFORMATION

Applicant	TWINHEAD INTERNATIONAL CORP. 11F, No 550, Rueiguang Rd , Neihu, Taipei, Taiwan 11492, R.O.C.		
Manufacturer	TWINHEAD INTERNATIONAL CORP. 11F, No 550, Rueiguang Rd , Neihu, Taipei, Taiwan 11492, R.O.C.		
Equipment	module		
Model No.	9260NGW		
Model Discrepancy	N/A		
Received Date	September 18, 2018		
Date of Test	November 6 ~ 21, 2018		
Output Power(W)	Mode	Output Power (W)	EIRP Power (W)
	IEEE 802.11b Mode	0.1585	0.1094
	IEEE 802.11g Mode	0.2104	0.1452
	IEEE 802.11n HT20 Mode	0.3060	0.2112
	IEEE 802.11n HT40 Mode	0.3270	0.2257
Power Supply	1. Power from AC Adapter FSP / FSP090-DIEBN2 Input: 100-240Vac, 1.5A, 50-60Hz Output: 19Vdc, 4.74A 2. Power from Battery		
Class II Permissive Change	1. The subject approved module is being used in a specific host. [Product: Tablet PC, Brand name/ Model: DURABOOK / R11XXXXXX (X=0-9, A-Z, a-z, Blank)] 2. Power reduction per tune-up procedure is applied in order to comply with exposure requirements.		

1.2 EUT CHANNEL INFORMATION

Frequency Range	802.11b/g/n HT20: 2412MHz ~ 2462MHz 802.11n HT40: 2422MHz ~ 2452MHz
Modulation Type	1. IEEE 802.11b Mode: DSSS(DBPSK/DQPSK/CCK) 2. IEEE 802.11g Mode: OFDM (BPSK/QPSK/16QAM/64QAM) 3. IEEE 802.11n HT20 Mode : OFDM (BPSK/QPSK/16QAM/64QAM) 4. IEEE 802.11n HT40 Mode : OFDM (BPSK/QPSK/16QAM/64QAM)
Number of channels	1. IEEE 802.11b Mode: 11 Channels 2. IEEE 802.11g Mode: 11 Channels 3. IEEE 802.11n HT20 Mode : 11 Channels 4. IEEE 802.11n HT40 Mode : 7 Channels

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	Durabook Americas inc P/N: TWAH6WIPB01+A / -4.08 dBi TWAH6WIPB02+A / -0.05 dBi Power Directional Gain: -1.61 dBi
Antenna Connector	I-PEX MHF4L

Notes:

1. Power Directional Gain: $10\text{LOG}(((10^{(Ant1/10)}+10^{(Ant2/10)})/2))$

1.4 MEASUREMENT UNCERTAINTY

PARAMETER	UNCERTAINTY
AC Powerline Conducted Emission	+/- 1.2575
Emission bandwidth, 20dB bandwidth	+/- 0.0014
RF output power, conducted	+/- 1.14
Power density, conducted	+/- 1.40
3M Semi Anechoic Chamber / 30M~200M	+/- 4.12
3M Semi Anechoic Chamber / 200M~1000M	+/- 4.68
3M Semi Anechoic Chamber / 1G~8G	+/- 5.18
3M Semi Anechoic Chamber / 8G~18G	+/- 5.47
3M Semi Anechoic Chamber / 18G~26G	+/- 3.81
3M Semi Anechoic Chamber / 26G~40G	+/- 3.87

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.11, Wugong 6th Rd., Wugu Dist., New Taipei City 24891, Taiwan. (R.O.C.)

Test site	Test Engineer	Remark
AC Conduction Room	Dally Hong	-
Radiation	Jerry Chuang	-
RF Conducted	Dally Hong	-

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
Coaxial Cable	Woken	WC12	CC001	06/29/2018	06/28/2019
Power Meter	Anritsu	ML2495A	1149001	02/06/2018	02/05/2019
Power Seneor	Anritsu	MA2491A	030982	02/07/2018	02/06/2019
Signal Analyzer	R&S	FSV 40	101073	09/27/2018	09/26/2019

3M 966 Chamber Test Site					
Equipment	Manufacturer	Model	S/N	Cal Date	Cal Due
Band Reject Filters	MICRO TRONICS	BRM 50702	120	05/14/2018	05/13/2019
Bilog Antenna	Sunol Sciences	JB3	A030105	07/13/2018	07/12/2019
Cable	HUBER SUHNER	SUCOFLEX 104PEA	25157	06/29/2018	06/28/2019
Cable	HUBER SUHNER	SUCOFLEX 104PEA	20995	06/29/2018	06/28/2019
Digital Thermo-Hygro Meter	WISEWIND	1206	D07	02/08/2018	02/07/2019
double Ridged Guide Horn Antenna	ETC	MCTD 1209	DRH13M02003	08/20/2018	08/19/2019
Loop Ant	COM-POWER	AL-130	121051	03/21/2018	03/20/2019
Pre-Amplifier	EMEC	EM330	060609	06/29/2018	06/28/2019
Pre-Amplifier	HP	8449B	3008A00965	06/29/2018	06/28/2019
PSA Series Spectrum Analyzer	Agilent	E4446A	MY46180323	05/31/2018	05/30/2019
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



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AC Line Conducted Test Site					
Equipment	Manufacturer	Model	S/N	Cal Date	Cal Due
CABLE	EMCI	CFD300-NL	CERF	06/29/2018	06/28/2019
EMI Test Receiver	R&S	ESCI	100064	07/24/2018	07/23/2019
LISN	SCHWARZBECK	NSLK 8127	8127-541	02/09/2018	02/08/2019
LISN	SCHAFFNER	NNB41	03/10013	02/06/2018	02/05/2019

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
	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 15.247, KDB 662911 D01, KDB 558074 D01, RSS-247 Issue 2 and RSS-GEN Issue 5.



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2. TEST SUMMERY

FCC Standard Section	IC Standard Section	Report Section	Test Item	Result
15.203	-	1.3	Antenna Requirement	Pass
15.207(a)	RSS-GEN 8.8	5.1	AC Conducted Emission	Pass
15.247(b)(3)	RSS-247(5.4)(d)	5.2	Output Power Measurement	Pass
15.247(d)	RSS-GEN 8.9, 8.10	5.3	Radiation Band Edge	Pass
15.247(d)	RSS-GEN 8.9, 8.10	5.3	Radiation Spurious Emission	Pass

3. DESCRIPTION OF TEST MODES

3.1 THE WORST MODE OF OPERATING CONDITION

Operation mode	IEEE 802.11b Mode :1Mbps IEEE 802.11g Mode :6Mbps IEEE 802.11n HT20 Mode :MCS8 IEEE 802.11n HT40 Mode :MCS8
Test Channel Frequencies	IEEE 802.11b Mode : 1. Lowest Channel : 2412MHz 2. Middle Channel : 2437MHz 3. Highest Channel : 2462MHz IEEE 802.11g Mode : 1. Lowest Channel : 2412MHz 2. Middle Channel : 2437MHz 3. Highest Channel : 2462MHz IEEE 802.11n HT20 Mode : 1. Lowest Channel : 2412MHz 2. Middle Channel : 2437MHz 3. Highest Channel : 2462MHz IEEE 802.11n HT40 Mode : 1. Lowest Channel : 2422MHz 2. Middle Channel : 2437MHz 3. Highest Channel : 2452MHz
Operation Transmitter	IEEE 802.11b Mode :1T1R IEEE 802.11g Mode : 1T1R IEEE 802.11n HT20 Mode : 2T2R IEEE 802.11n HT40 Mode : 2T2R

Remark:

1. EUT pre-scanned data rate of output power for each mode, the worst data rate were recorded in this report.

3.2 THE WORST MODE OF MEASUREMENT

AC Power Line Conducted Emission	
Test Condition	AC Power line conducted emission for line and neutral
Power supply Mode	Mode 1: EUT power by Adapter. Mode 2: EUT power by Battery.
Worst Mode	☒ Mode 1 ☐ Mode 2 ☐ Mode 3 ☐ Mode 4

Radiated Emission Measurement Above 1G	
Test Condition	Band edge, Emission for Unwanted and Fundamental
Power supply Mode	Mode 1: EUT power by Adapter. Mode 2: EUT power by Battery.
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
Power supply Mode	Mode 1: EUT power by Adapter. Mode 2: EUT power by Battery.
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(X-Plane and Horizontal) were recorded in this report
3. AC power line conducted emission and for below 1G radiation emission were performed the EUT transmit at the highest output power channel as worse case.

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4. EUT DUTY CYCLE

Duty Cycle			
Configuration	TX ON (ms)	TX ALL (ms)	Duty Cycle (%)
802.11b	12.3600	12.7000	97.32%
802.11g	2.0800	2.4200	85.95%
802.11n HT20	0.9900	1.1500	86.09%
802.11n HT40	0.5200	0.6000	86.67%



5. TEST RESULT

5.1 AC POWER LINE CONDUCTED EMISSION

5.1.1 Test Limit

According to §15.207(a)(2) and RSS-GEN section 8.8,

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

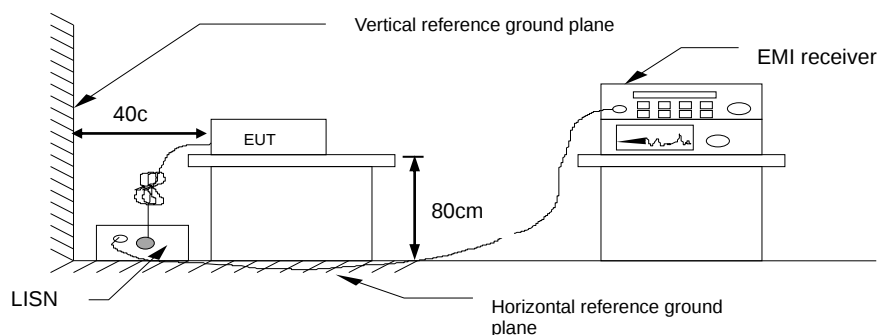
* Decreases with the logarithm of the frequency.

5.1.2 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.

5.1.3 Test Setup

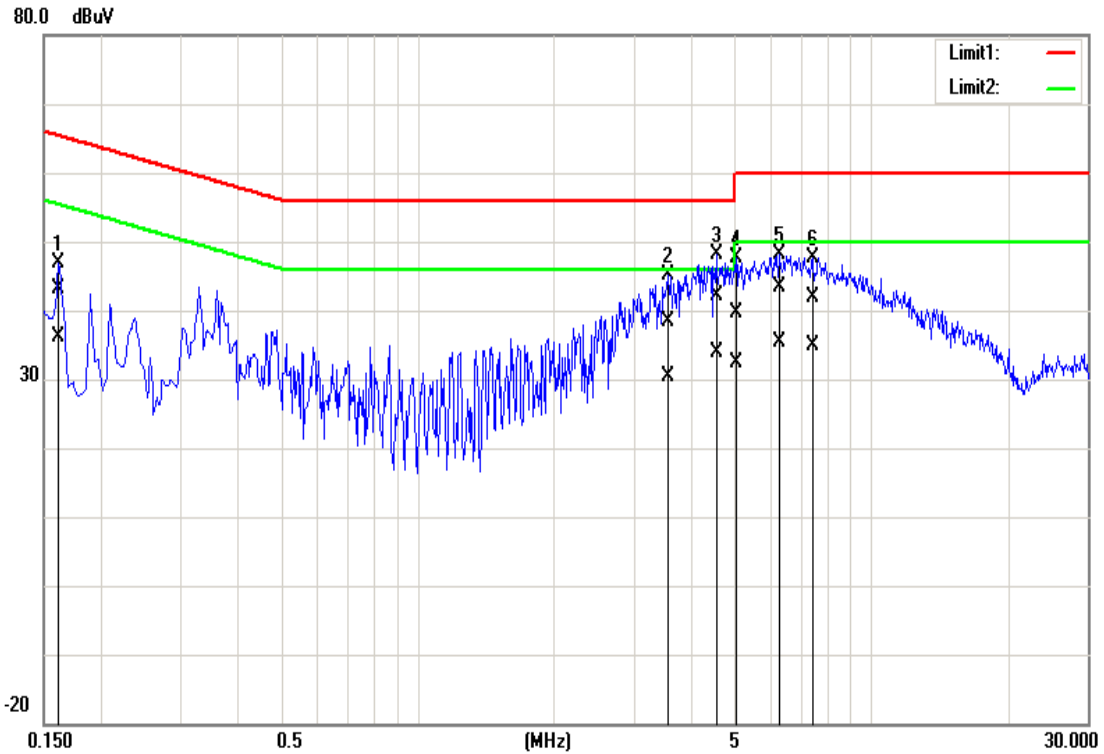


5.1.4 Test Result

Pass.

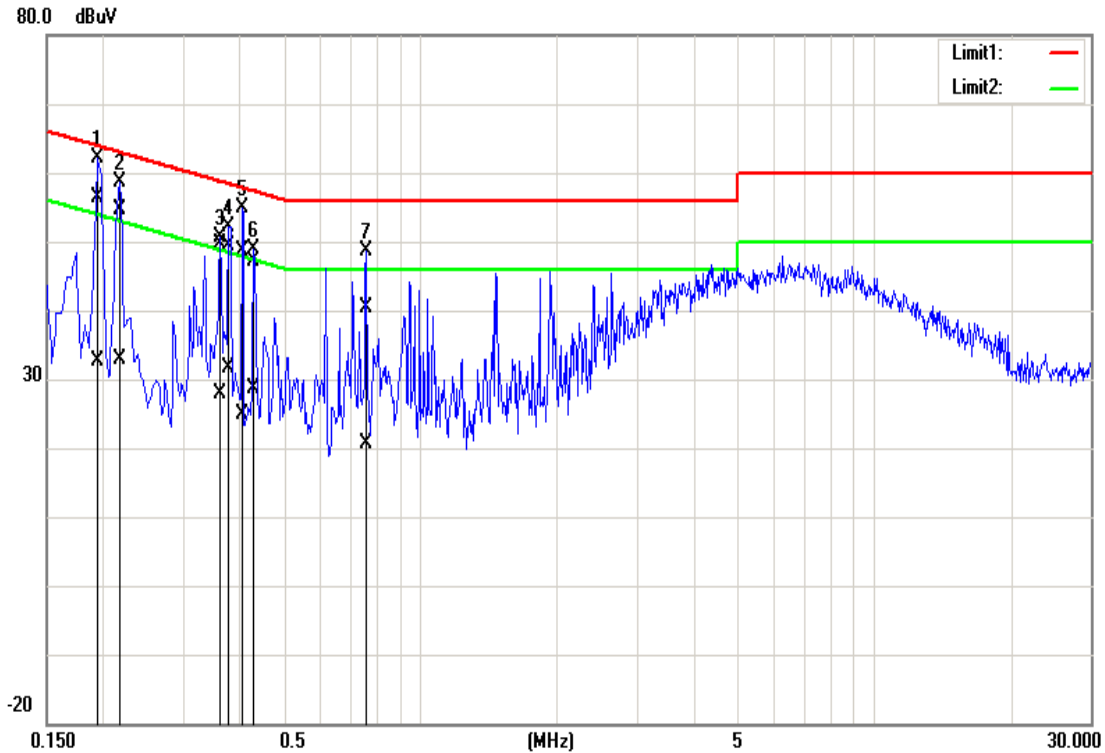
Test Data

Test Mode:	Mode 1	Temp/Hum	24(°C)/ 50%RH
Phase:	Line	Test Date	November 21, 2018
Test Voltage:	120V	Test Engineer	Dally Hong



Frequency (MHz)	Quasi Peak reading (dBuV)	Average reading (dBuV)	Correction factor (dB)	Quasi Peak result (dBuV)	Average result (dBuV)	Quasi Peak limit (dBuV)	Average limit (dBuV)	Quasi Peak margin (dB)	Average margin (dB)	Remark
0.1620	42.91	35.86	0.16	43.07	36.02	65.36	55.36	-22.29	-19.34	Pass
3.5700	38.16	30.19	0.28	38.44	30.47	56.00	46.00	-17.56	-15.53	Pass
4.5700	41.91	33.63	0.31	42.22	33.94	56.00	46.00	-13.78	-12.06	Pass
5.0460	39.43	32.15	0.32	39.75	32.47	60.00	50.00	-20.25	-17.53	Pass
6.2580	42.97	35.10	0.35	43.32	35.45	60.00	50.00	-16.68	-14.55	Pass
7.4180	41.59	34.47	0.38	41.97	34.85	60.00	50.00	-18.03	-15.15	Pass

Test Mode:	Mode 1	Temp/Hum	24(°C)/ 50%RH
Phase:	Neutral	Test Date	November 21, 2018
Test Voltage:	120V	Test Engineer	Dally Hong



Frequency (MHz)	Quasi Peak reading (dBuV)	Average reading (dBuV)	Correction factor (dB)	Quasi Peak result (dBuV)	Average result (dBuV)	Quasi Peak limit (dBuV)	Average limit (dBuV)	Quasi Peak margin (dB)	Average margin (dB)	Remark
0.1940	56.27	32.42	0.18	56.45	32.60	63.86	53.86	-7.41	-21.26	Pass
0.2180	54.45	32.73	0.18	54.63	32.91	62.89	52.89	-8.26	-19.98	Pass
0.3620	49.36	27.60	0.19	49.55	27.79	58.68	48.68	-9.13	-20.89	Pass
0.3780	49.12	31.45	0.19	49.31	31.64	58.32	48.32	-9.01	-16.68	Pass
0.4060	48.49	24.67	0.19	48.68	24.86	57.73	47.73	-9.05	-22.87	Pass
0.4300	46.94	28.41	0.19	47.13	28.60	57.25	47.25	-10.12	-18.65	Pass
0.7620	40.17	20.52	0.21	40.38	20.73	56.00	46.00	-15.62	-25.27	Pass

5.2 OUTPUT POWER MEASUREMENT

5.2.1 Test Limit

According to §15.247(b) and RSS-247 section 5.4(d),

Peak output power :

For systems using digital modulation in the 2400-2483.5 MHz: 1 Watt(30 dBm) and the e.i.r.p. shall not exceed 4Watt(36 dBm), base on the use of antennas with directional gain not exceed 6 dBi. If transmitting antennas of directional gain greater than 6dBi are used the peak output power the conducted output power from the intentional radiator shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi. In case of point-to-point operation, the limit has to be reduced by 1dB for every 3 dB that the directional gain of the antenna exceeds 6 dBi.

Limit	☒ Antenna not exceed 6 dBi : 30dBm ☐ Antenna with DG greater than 6 dBi : [Limit = 30 – (DG – 6)] ☐ Point-to-point operation :
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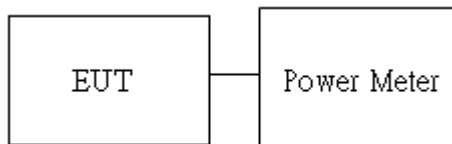
Average output power : For reporting purposes only.

5.2.2 Test Procedure

Test method Refer as KDB 558074 D01.

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 Peak output power and Average output power. in the test report.

5.2.3 Test Setup



5.2.4 Test Result

Peak output power :

Wifi 2.4G													
Config	CH	Freq. (MHz)	power setting		PK Power(dBm)		PK Total Power (dBm)	PK Total Power (W)	EIRP PK Total Power (dBm)	EIRP PK Total Power (W)	DG (dBi)	Limit (dBm)	EIRP Limit (dBm)
			chain0	chain1	chain0	chain1							
IEEE 802.11b Data rate: 1Mbps	Low	2412	19.00	-	21.05	-	21.05	0.1274	19.44	0.0879	-1.61	30	36
	Mid	2437	20.25	-	21.77	-	21.77	0.1503	20.16	0.1038			
	High	2462	20.25	-	22.00	-	22.00	0.1585	20.39	0.1094			
IEEE 802.11g Data rate: 6Mbps	Low	2412	16.75	-	22.00	-	22.00	0.1585	20.39	0.1094			
	Mid	2437	20.25	-	23.23	-	23.23	0.2104	21.62	0.1452			
	High	2462	16.75	-	21.99	-	21.99	0.1581	20.38	0.1091			

Wifi 2.4G													
Config	CH	Freq. (MHz)	power set		PK Power(dBm)		PK Total Power (dBm)	PK Total Power (W)	EIRP PK Total Power (dBm)	EIRP PK Total Power (W)	DG (dBi)	Limit (dBm)	EIRP Limit (dBm)
			chain0	chain1	chain0	chain1							
IEEE 802.11n 20MHz Data rate: MCS8	Low	2412	15.88	15.38	21.50	20.14	23.88	0.2445	22.27	0.1688	-1.61	30	36
	Mid	2437	17.38	17.13	22.26	21.39	24.86	0.3060	23.25	0.2112			
	High	2462	15.63	15.50	21.21	20.02	23.67	0.2326	22.06	0.1605			
IEEE 802.11n 40MHz Data rate: MCS8	Low	2422	11.38	11.63	20.12	20.37	23.26	0.2117	21.65	0.1461			
	Mid	2437	12.38	12.50	22.14	22.13	25.15	0.3270	23.54	0.2257			
	High	2452	11.50	11.38	21.74	21.36	24.56	0.2861	22.95	0.1974			



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Average output power :

Wifi 2.4G					
Config	CH	Freq. (MHz)	AV Power(dBm)		AV Total Power (dBm)
			chain0	chain1	
IEEE 802.11b Data rate: 1Mbps	Low	2412	19.40	-	19.40
	Mid	2437	20.52	-	20.52
	High	2462	20.40	-	20.40
IEEE 802.11g Data rate: 6Mbps	Low	2412	16.68	-	16.68
	Mid	2437	19.72	-	19.72
	High	2462	16.53	-	16.53

Wifi 2.4G					
Config	CH	Freq. (MHz)	AV Power(dBm)		AV Total Power (dBm)
			chain0	chain1	
IEEE 802.11n 20MHz Data rate: MCS8	Low	2412	15.63	14.32	18.03
	Mid	2437	16.96	15.96	19.50
	High	2462	15.40	14.31	17.90
IEEE 802.11n 40MHz Data rate: MCS8	Low	2422	10.87	11.03	13.96
	Mid	2437	12.36	12.14	15.26
	High	2452	11.48	11.27	14.39

5.3 RADIATION BANDEDGE AND SPURIOUS EMISSION

5.3.1 Test Limit

FCC according to §15.247(d), §15.209 and §15.205,

IC according to RSS-247 section 5.5, RSS-Gen, Section 8.9 and 8.10

In any 100 kHz bandwidth outside the authorized frequency band, all harmonic and spurious must be least 20 dB below the highest emission level with the authorized frequency band. Radiation emission which fall in the restricted bands must also follow the FCC section 15.209 as below limit in table.

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	Field Strength (microvolts/m)	Measurement Distance (metres)
30-88	100	3
88-216	150	3
216-960	200	3
Above 960	500	3

5.3.2 Test Procedure

Test method Refer as KDB 662911 D01, KDB 558074 D01.

1. The EUT is placed on a turntable, Above 1 GHz is 1.5m and below 1 GHz is 0.8m above ground plane. The EUT Configured un accordance with ANSI C63.10, and the EUT set in a continuous mode.
2. The turntable shall be rotated for 360 degrees to determine the position of maximum emission level. And EUT is set 3m away from the receiving antenna, which is scanned from 1m to 4m above the ground plane to find out the highest emissions. Measurement are made polarized in both the vertical and the horizontal positions with antenna.
3. Span shall wide enough to full capture the emission measured. The SA from 9kHz to 26.5GHz set to the low, Mid and High channels with the EUT transmit.

Note: No emission found between lowest internal used/generated frequency to 30MHz (9KHz~30MHz)

Remark:

1. Although these tests were performed other than open area test site, adequate comparison measurements were confirmed against 30 m open are test site. Therefore sufficient tests were made to demonstrate that the alternative site produces results that correlate with the ones of tests made in an open field based on KDB 414788.
2. We selected the highest gain to performed testing on 802.11b and 802.11 g mode

4. The SA setting following :

(1) Below 1G : RBW = 100kHz, VBW $\geq$ 3 RBW, Sweep = Auto, Detector = Peak, Trace = Max hold.

(2) Above 1G :

(2.1) For Peak measurement : RBW = 1MHz, VBW $\geq$ 3 RBW, Sweep = Auto, Detector = Peak, Trace = Max hold.

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

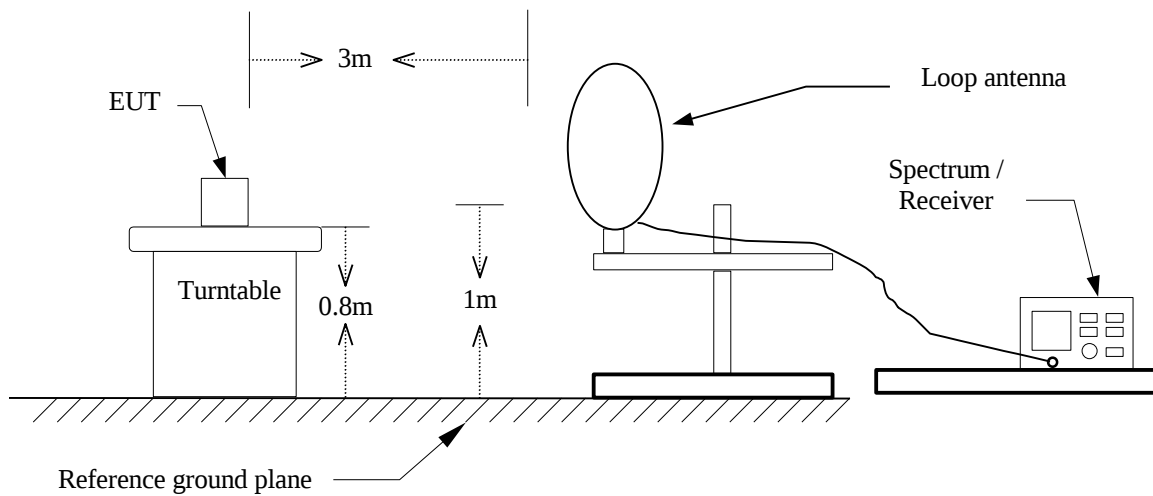
·If Duty Cycle $\geq$ 98%, VBW=10Hz.

·If Duty Cycle < 98%, VBW=1/T.

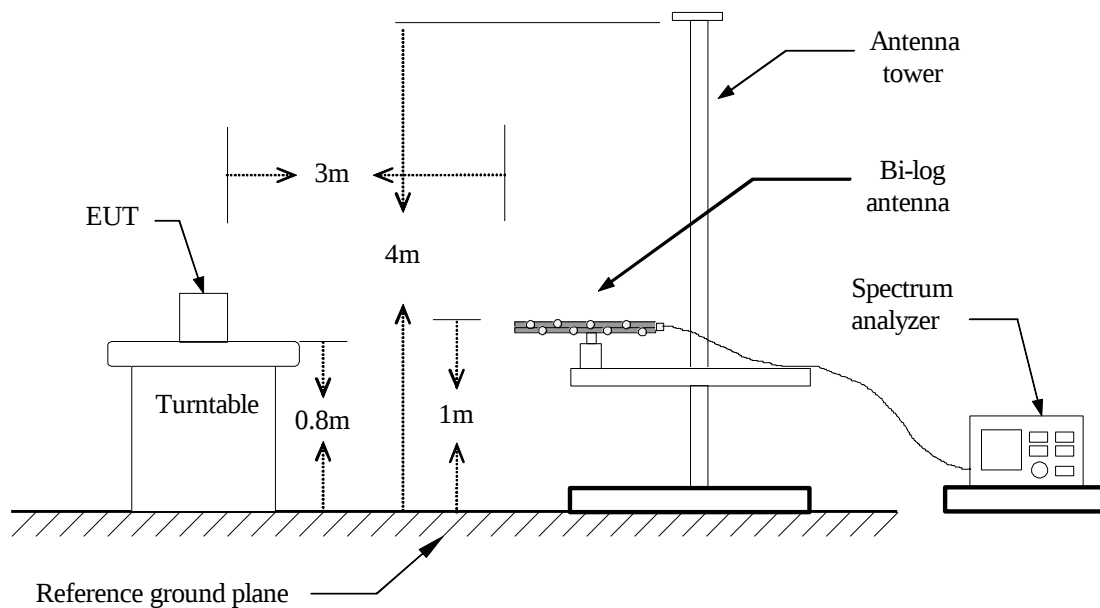
Configuration	Duty Cycle (%)	T(ms)	1/T (kHz)	VBW Setting
802.11b	97.32%	12.3600	0.081	300Hz
802.11g	85.95%	2.0800	0.481	510Hz
802.11n HT20	86.09%	0.9900	1.010	1.1KHz
802.11n HT40	86.67%	0.5200	1.923	2KHz

5.3.3 Test Setup

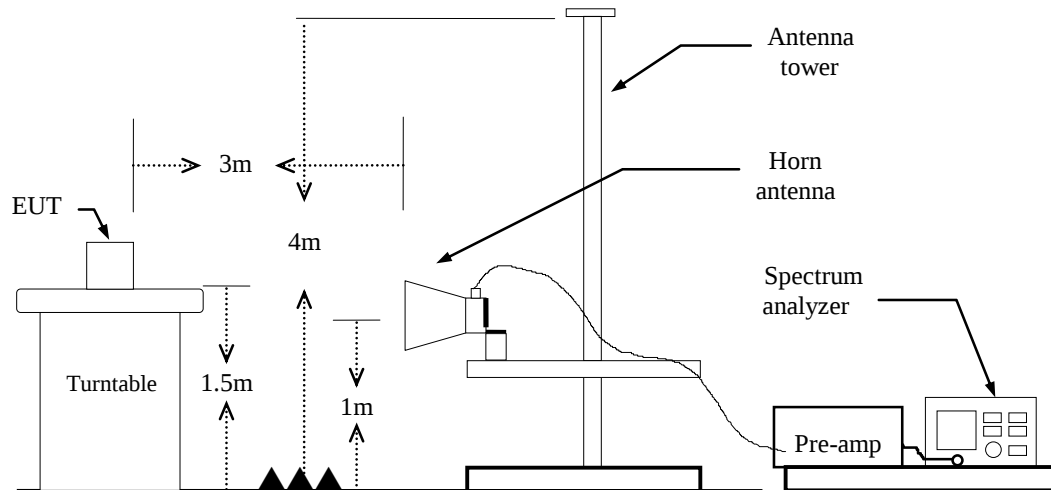
9kHz ~ 30MHz



30MHz ~ 1GHz



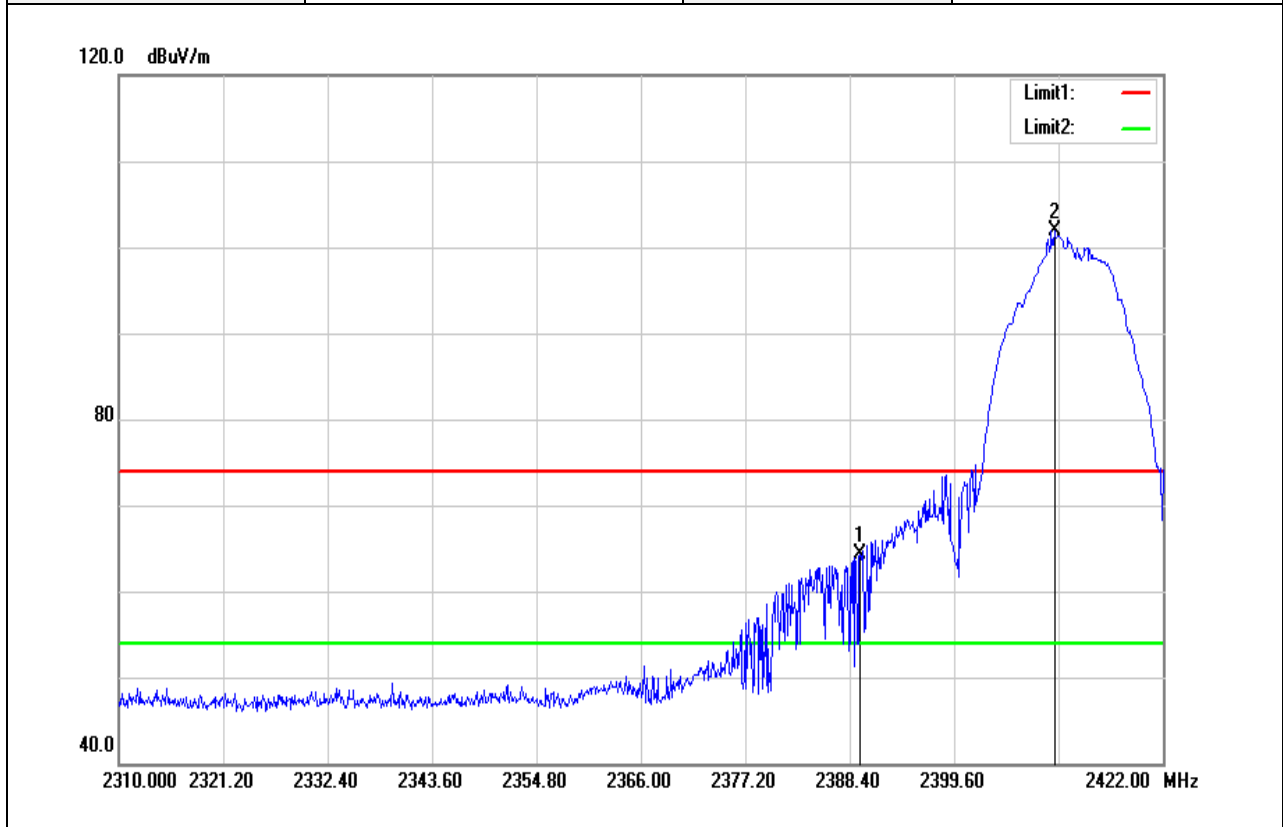
Above 1 GHz



5.3.4 Test Result

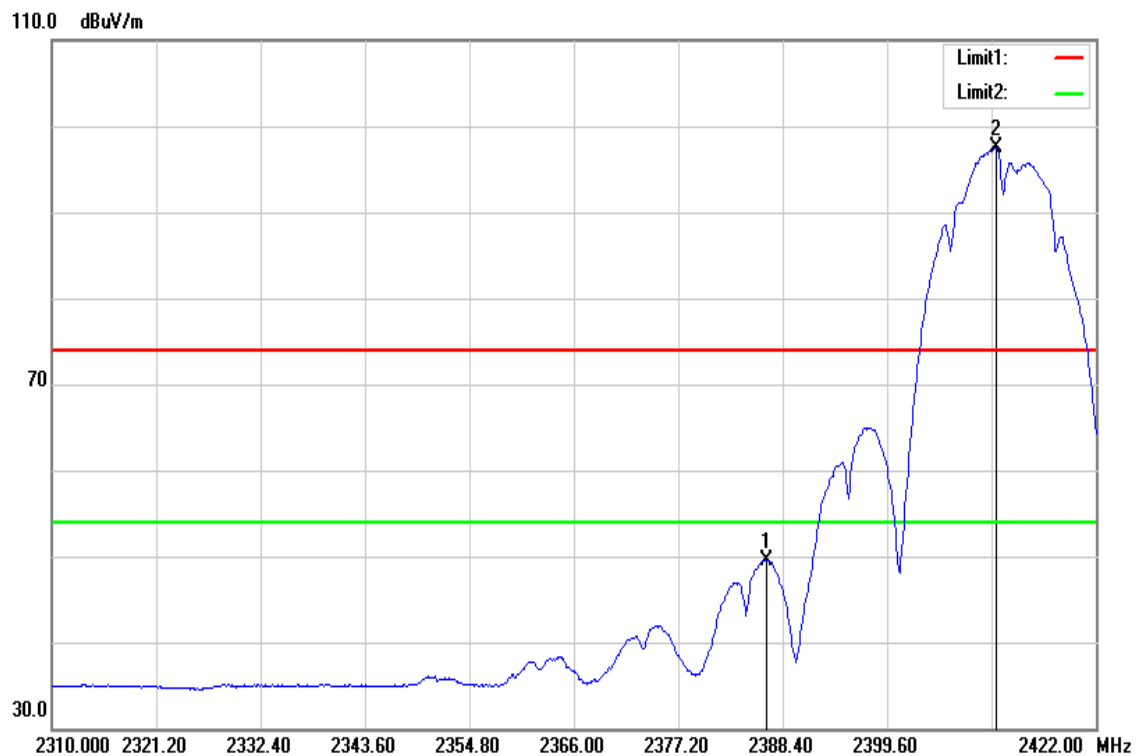
Band Edge Test Data

Test Mode	IEEE 802.11b Low CH	Temp/Hum	20.9(°C)/ 43%RH
Test Item	Band Edge	Test Date	November 6, 2018
Polarize	Horizontal	Test Engineer	Jerry Chuang
Detector	Peak		



Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
2389.520	67.41	-3.13	64.28	74.00	-9.72	peak
2410.352	104.92	-3.08	101.84	-	-	peak

Test Mode	IEEE 802.11b Low CH	Temp/Hum	20.9(°C)/ 43%RH
Test Item	Band Edge	Test Date	November 6, 2018
Polarize	Horizontal	Test Engineer	Jerry Chuang
Detector	Average	Test Voltage	



Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
2386.720	52.70	-3.12	49.58	54.00	-4.42	AVG
2411.248	100.61	-3.08	97.53	-	-	AVG

Test Mode	IEEE 802.11b High CH	Temp/Hum	20.9(°C)/ 43%RH
Test Item	Band Edge	Test Date	November 6, 2018
Polarize	Horizontal	Test Engineer	Jerry Chuang
Detector	Peak	Test Voltage	



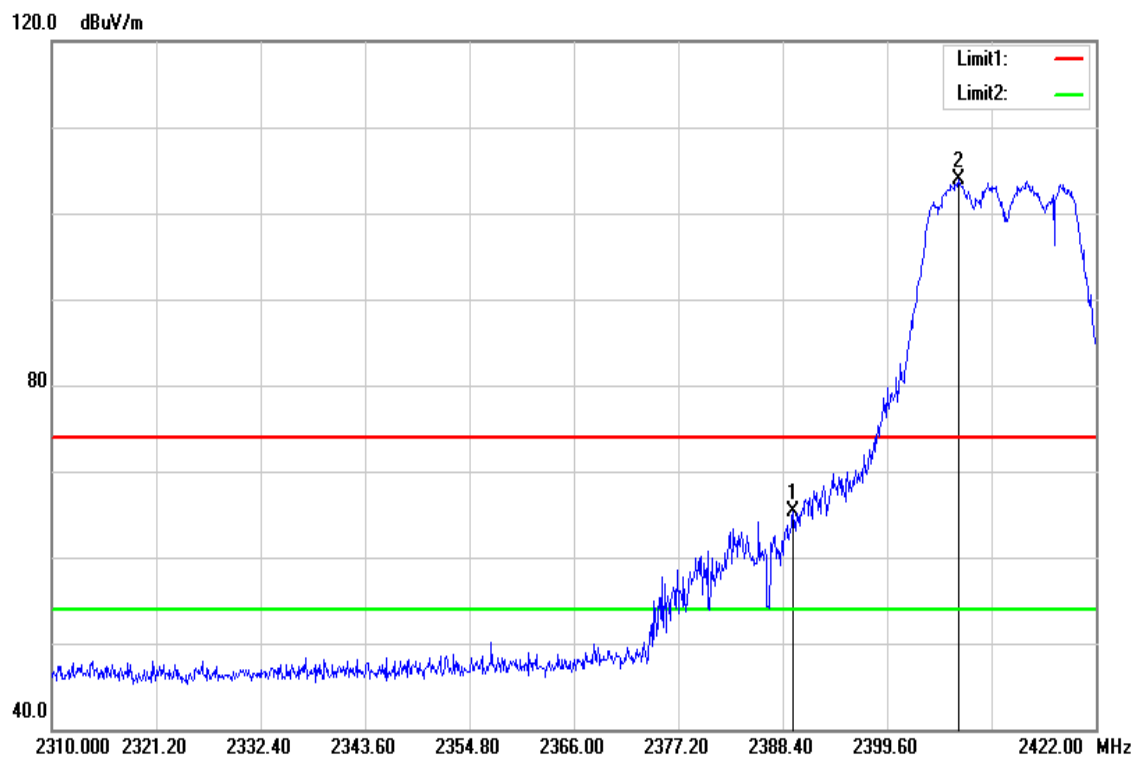
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
2462.800	102.84	-2.82	100.02	-	-	peak
2487.700	53.47	-2.69	50.78	54.00	-3.22	peak

Test Mode	IEEE 802.11b High CH	Temp/Hum	20.9(°C)/ 43%RH
Test Item	Band Edge	Test Date	November 6, 2018
Polarize	Horizontal	Test Engineer	Jerry Chuang
Detector	Average	Test Voltage	



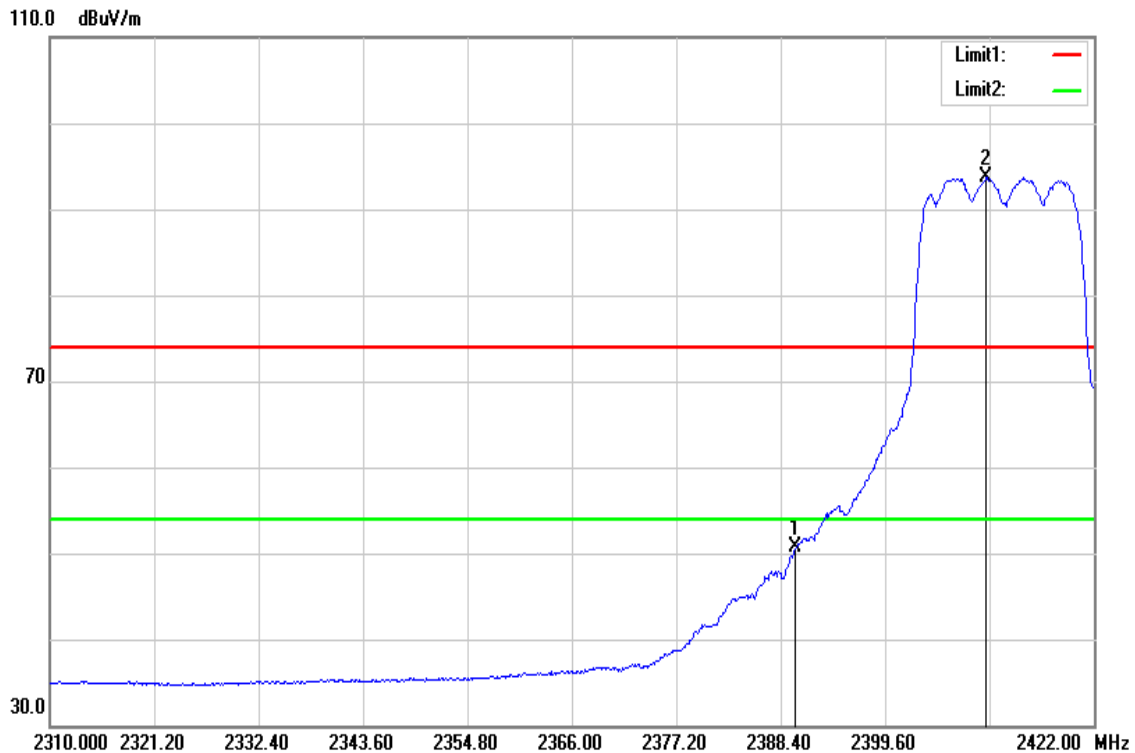
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
2462.800	102.84	-2.82	100.02	-	-	AVG
2487.700	53.47	-2.69	50.78	54.00	-3.22	AVG

Test Mode	IEEE 802.11g Low CH	Temp/Hum	20.9(°C)/ 43%RH
Test Item	Band Edge	Test Date	November 6, 2018
Polarize	Horizontal	Test Engineer	Jerry Chuang
Detector	Peak	Test Voltage	



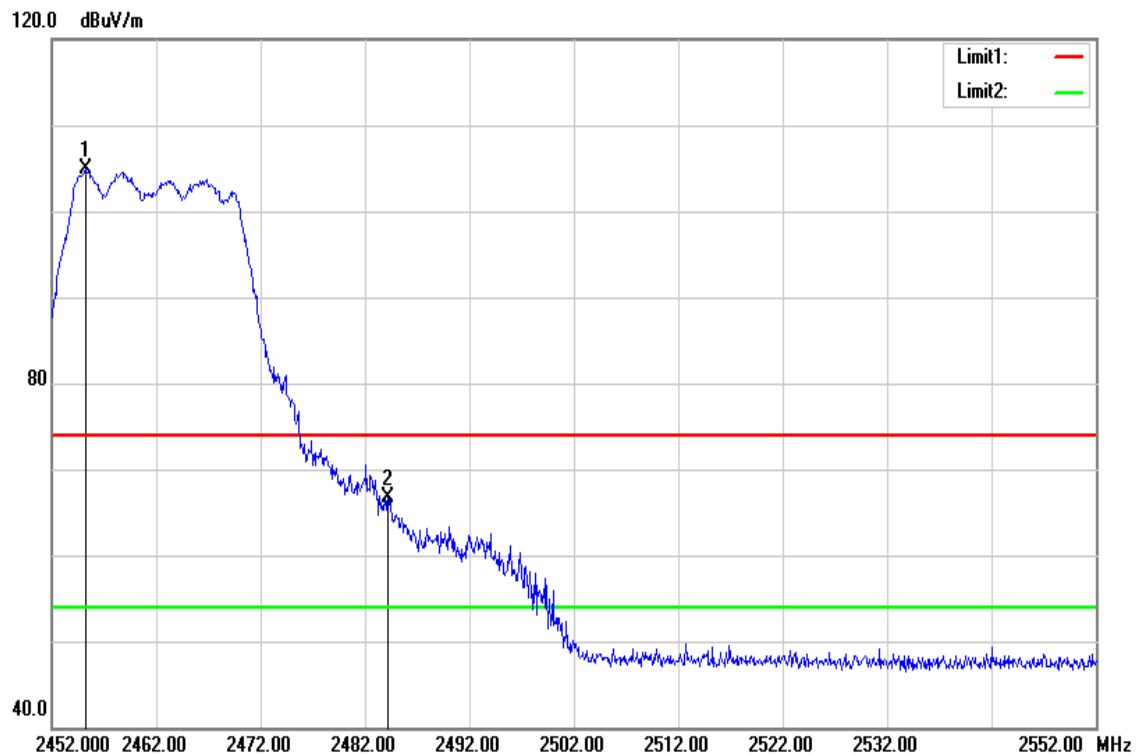
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
2389.520	68.35	-3.13	65.22	74.00	-8.78	peak
2407.216	106.94	-3.09	103.85	-	-	peak

Test Mode	IEEE 802.11g Low CH	Temp/Hum	20.9(°C)/ 43%RH
Test Item	Band Edge	Test Date	November 6, 2018
Polarize	Horizontal	Test Engineer	Jerry Chuang
Detector	Average	Test Voltage	



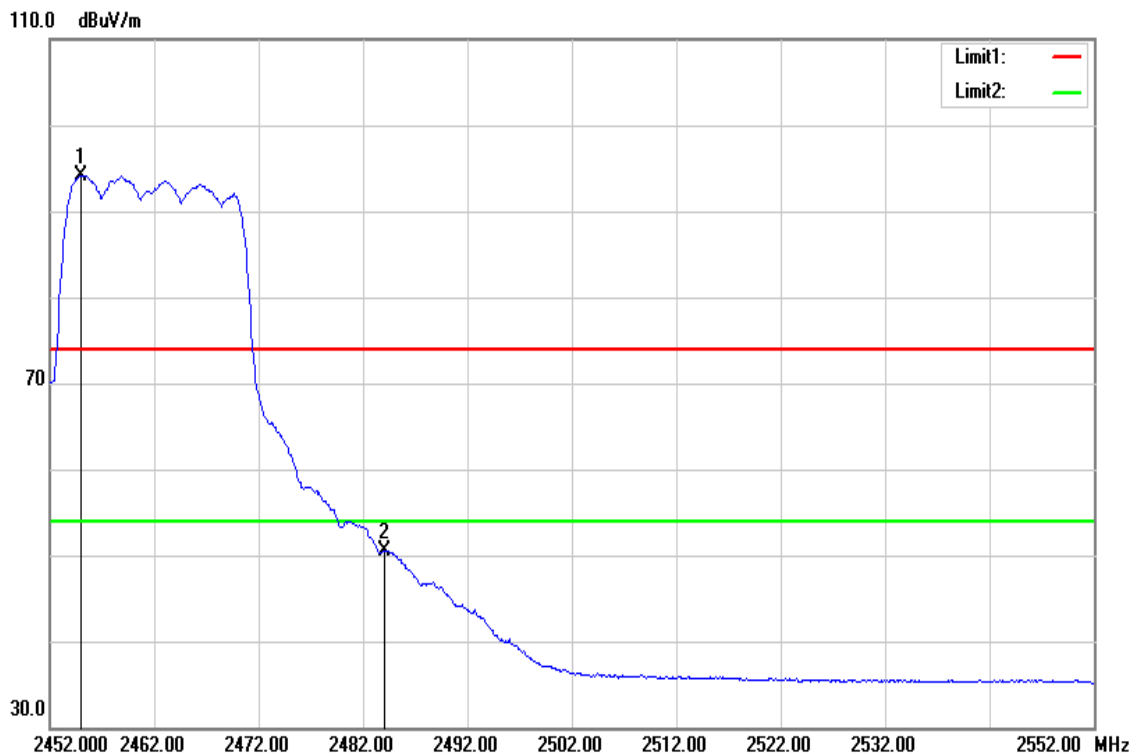
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
2390.000	53.93	-3.13	50.80	54.00	-3.20	AVG
2410.464	96.83	-3.08	93.75	-	-	AVG

Test Mode	IEEE 802.11g High CH	Temp/Hum	20.9(°C)/ 43%RH
Test Item	Band Edge	Test Date	November 6, 2018
Polarize	Horizontal	Test Engineer	Jerry Chuang
Detector	Peak	Test Voltage	



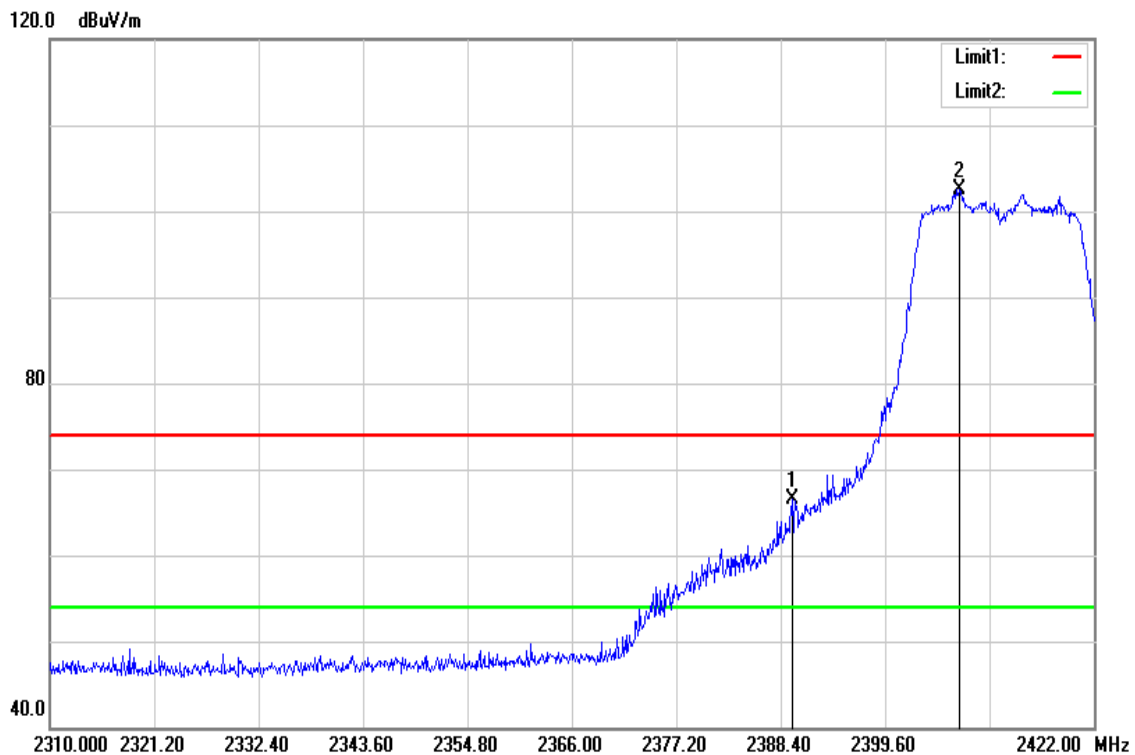
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
2455.200	107.75	-2.86	104.89	-	-	peak
2484.200	69.45	-2.71	66.74	74.00	-7.26	peak

Test Mode	IEEE 802.11g High CH	Temp/Hum	20.9(°C)/ 43%RH
Test Item	Band Edge	Test Date	November 6, 2018
Polarize	Horizontal	Test Engineer	Jerry Chuang
Detector	Average	Test Voltage	



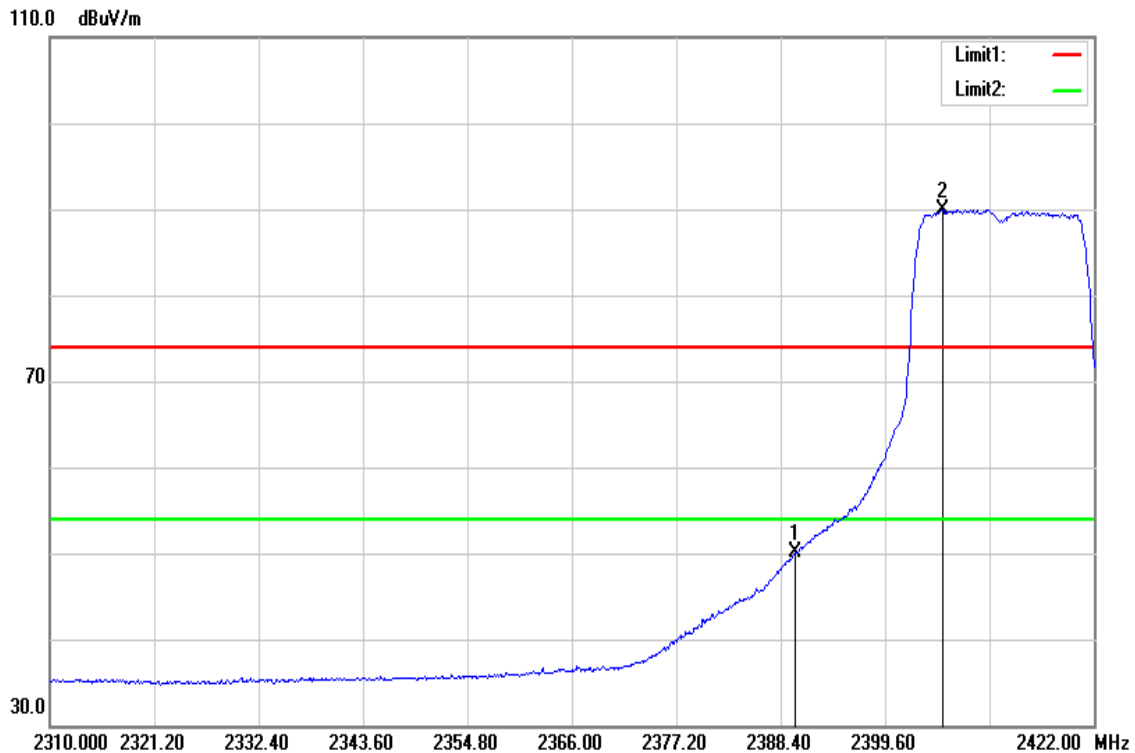
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
2455.000	97.02	-2.86	94.16	-	-	AVG
2484.100	53.24	-2.71	50.53	54.00	-3.47	AVG

Test Mode	IEEE 802.11n HT20 Low CH	Temp/Hum	20.9(°C)/ 43%RH
Test Item	Band Edge	Test Date	November 6, 2018
Polarize	Horizontal	Test Engineer	Jerry Chuang
Detector	Peak	Test Voltage	



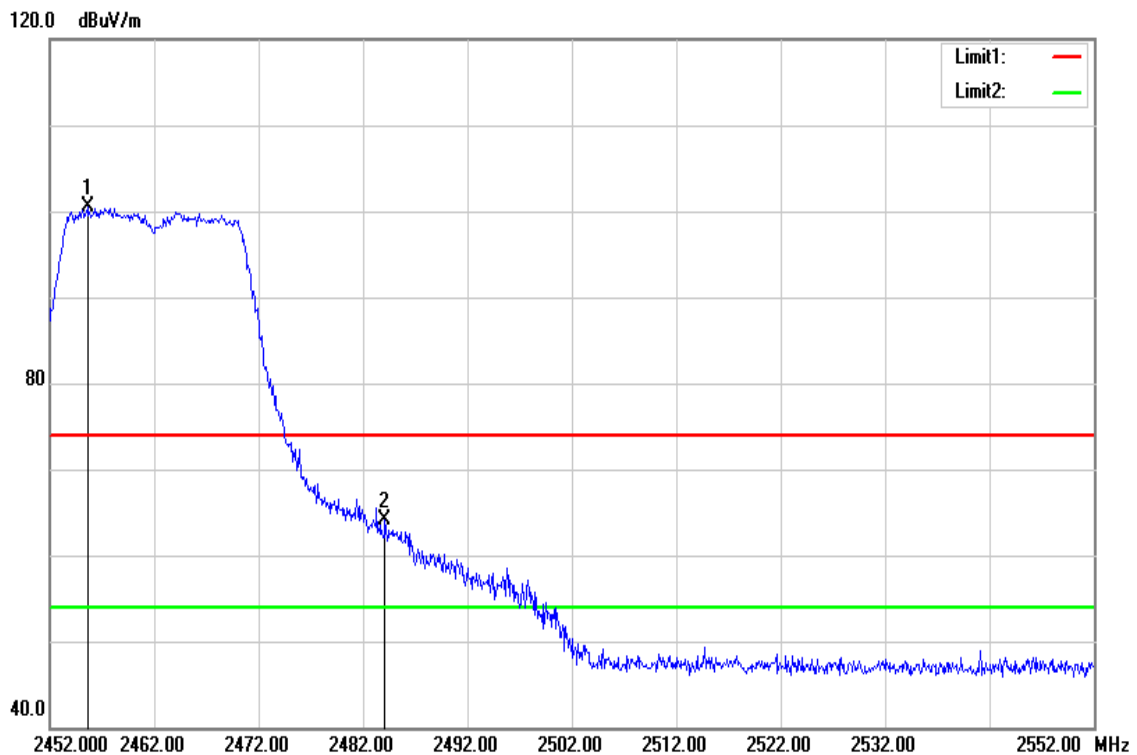
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
2389.632	69.61	-3.13	66.48	74.00	-7.52	peak
2407.552	105.59	-3.09	102.50	-	-	peak

Test Mode	IEEE 802.11n HT20 Low CH	Temp/Hum	20.9(°C)/ 43%RH
Test Item	Band Edge	Test Date	November 6, 2018
Polarize	Horizontal	Test Engineer	Jerry Chuang
Detector	Average	Test Voltage	



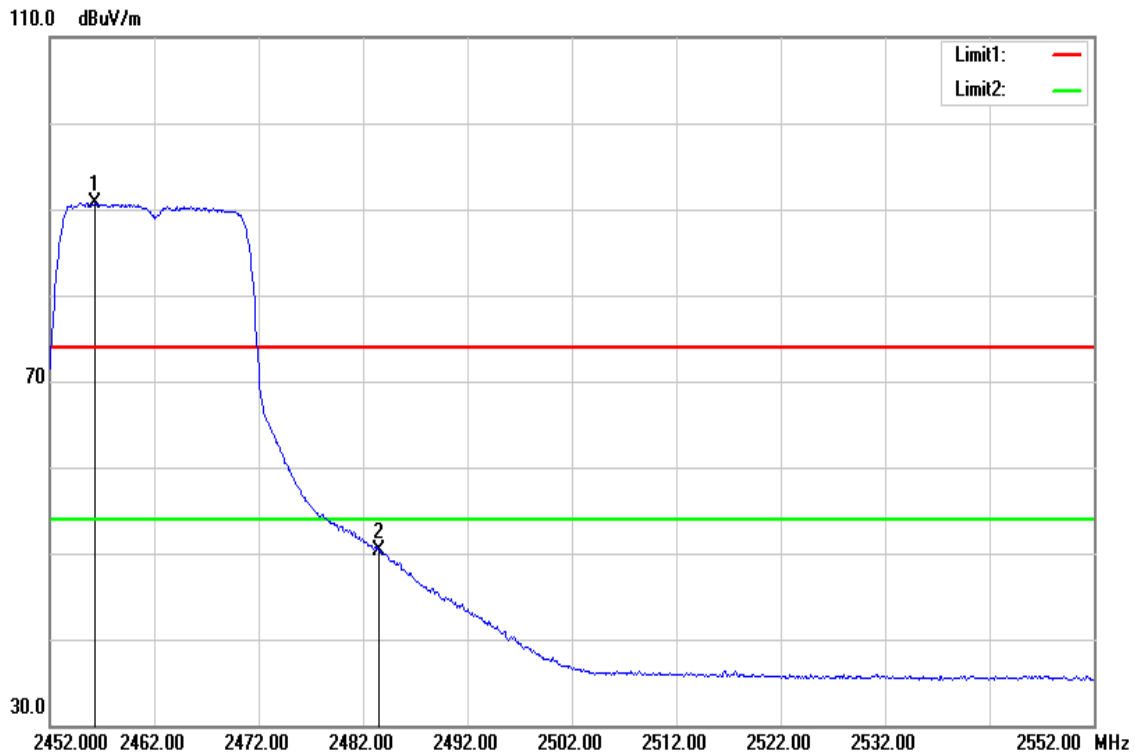
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
2390.000	53.25	-3.13	50.12	54.00	-3.88	AVG
2405.760	93.09	-3.12	89.97	-	-	AVG

Test Mode	IEEE 802.11n HT20 High CH	Temp/Hum	20.9(°C)/ 43%RH
Test Item	Band Edge	Test Date	November 6, 2018
Polarize	Horizontal	Test Engineer	Jerry Chuang
Detector	Peak	Test Voltage	



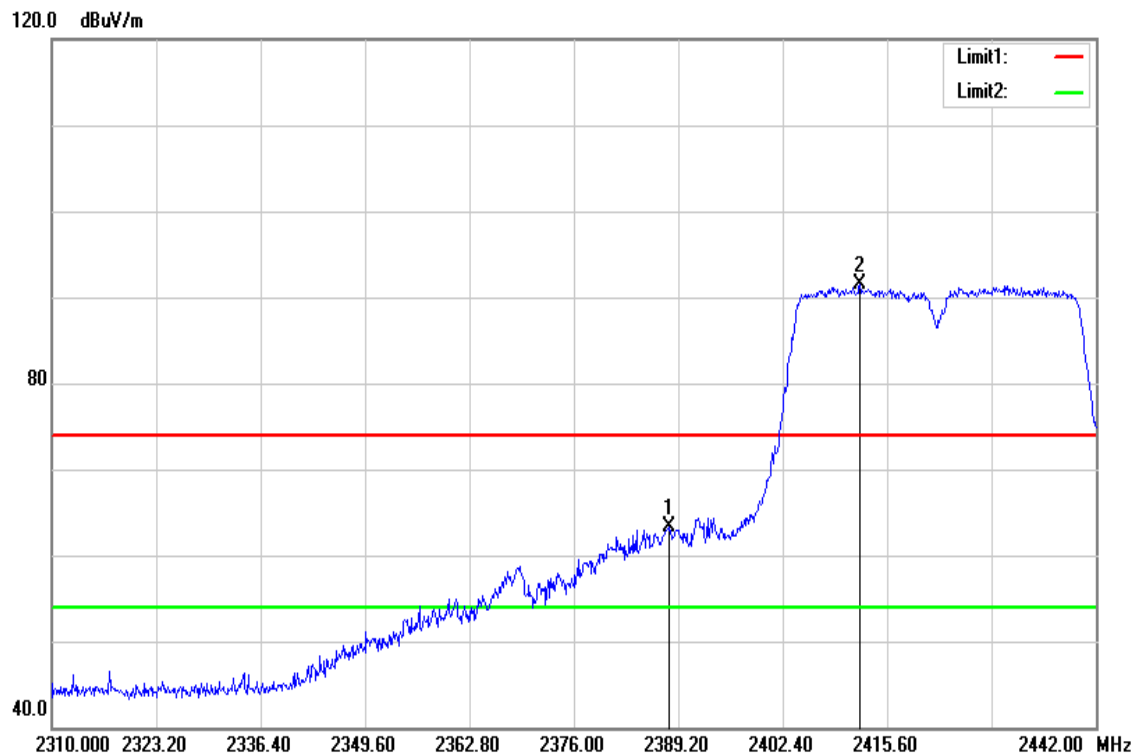
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
2455.600	103.31	-2.86	100.45	-	-	peak
2484.100	66.82	-2.71	64.11	74.00	-9.89	peak

Test Mode	IEEE 802.11n HT20 High CH	Temp/Hum	20.9(°C)/ 43%RH
Test Item	Band Edge	Test Date	November 6, 2018
Polarize	Horizontal	Test Engineer	Jerry Chuang
Detector	Average	Test Voltage	



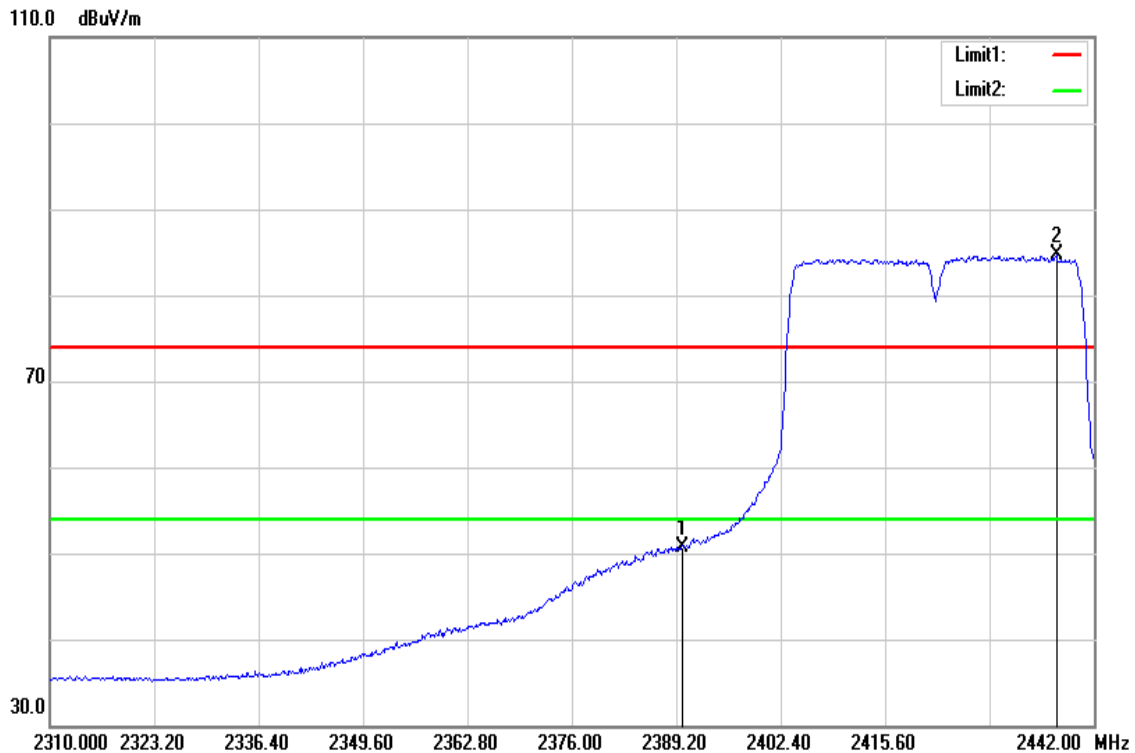
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
2456.300	93.60	-2.85	90.75	-	-	AVG
2483.500	53.01	-2.71	50.30	54.00	-3.70	AVG

Test Mode	IEEE 802.11n HT40 Low CH	Temp/Hum	20.9(°C)/ 43%RH
Test Item	Band Edge	Test Date	November 6, 2018
Polarize	Horizontal	Test Engineer	Jerry Chuang
Detector	Peak	Test Voltage	



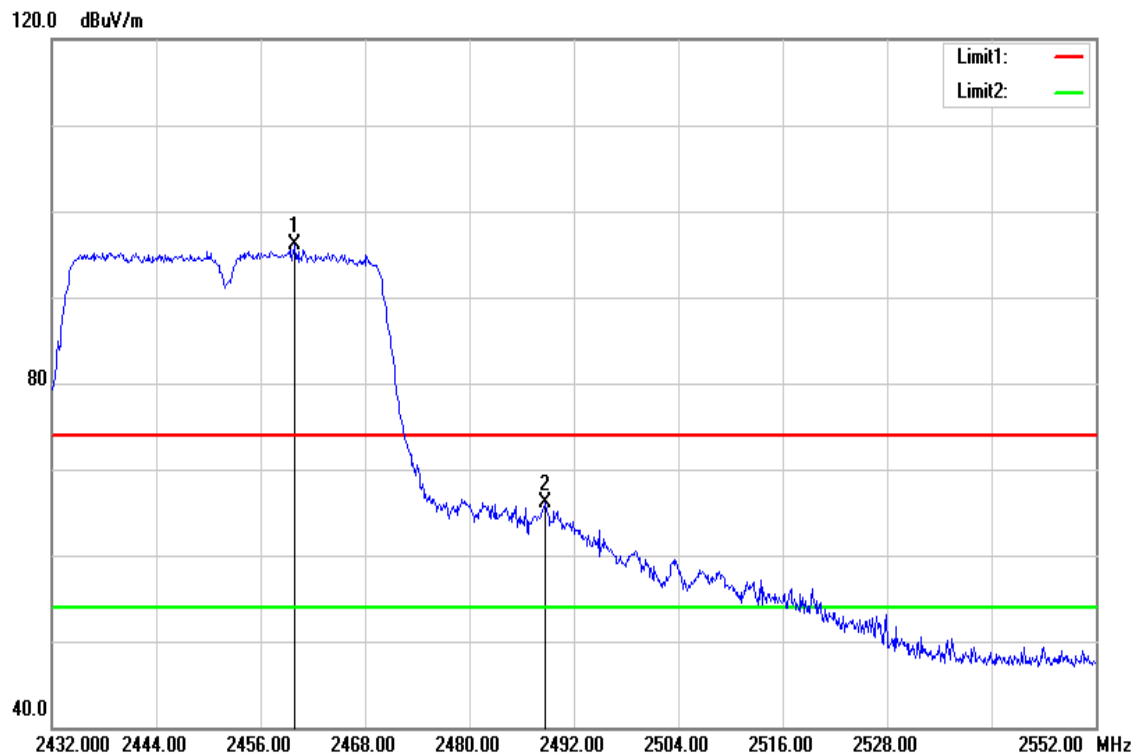
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
2388.012	66.40	-3.12	63.28	74.00	-10.72	peak
2412.168	94.50	-3.08	91.42	-	-	peak

Test Mode	IEEE 802.11n HT40 Low CH	Temp/Hum	20.9(°C)/ 43%RH
Test Item	Band Edge	Test Date	November 6, 2018
Polarize	Horizontal	Test Engineer	Jerry Chuang
Detector	Average	Test Voltage	



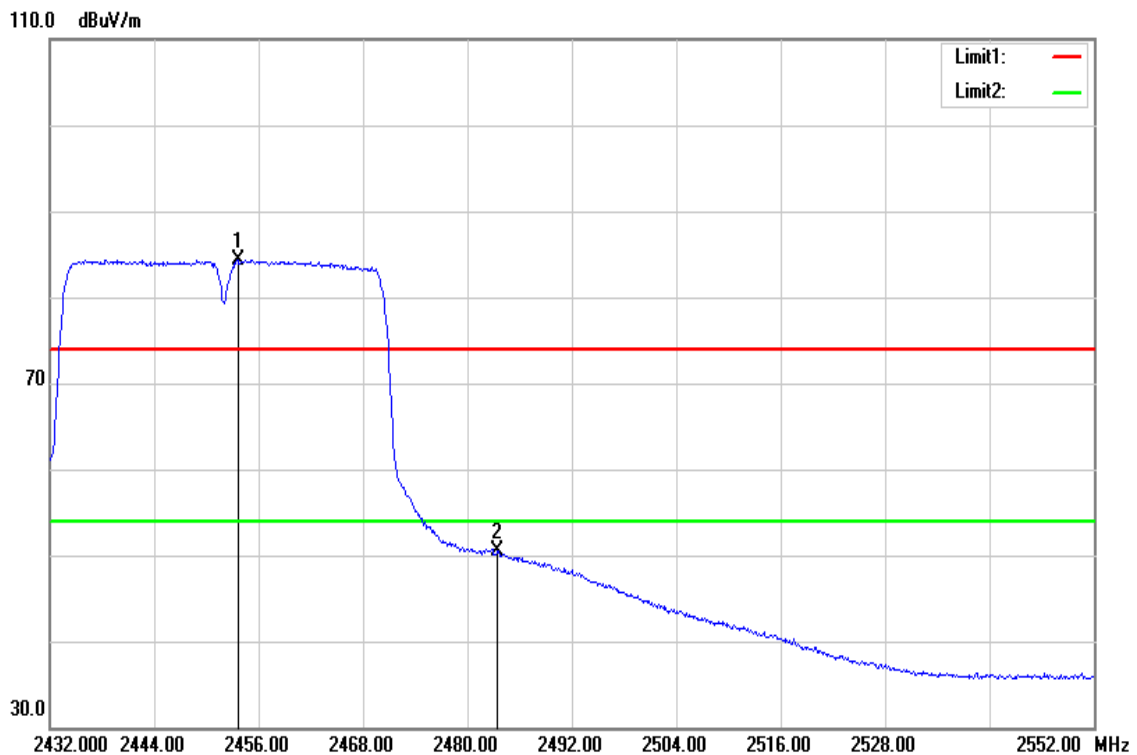
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
2390.000	53.87	-3.13	50.74	54.00	-3.26	AVG
2437.248	87.62	-2.95	84.67	-	-	AVG

Test Mode	IEEE 802.11n HT40 High CH	Temp/Hum	20.9(°C)/ 43%RH
Test Item	Band Edge	Test Date	November 6, 2018
Polarize	Horizontal	Test Engineer	Jerry Chuang
Detector	Peak	Test Voltage	



Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
2459.960	98.92	-2.84	96.08	-	-	peak
2488.760	68.80	-2.69	66.11	74.00	-7.89	peak

Test Mode	IEEE 802.11n HT40 High CH	Temp/Hum	20.9(°C)/ 43%RH
Test Item	Band Edge	Test Date	November 6, 2018
Polarize	Horizontal	Test Engineer	Jerry Chuang
Detector	Average	Test Voltage	

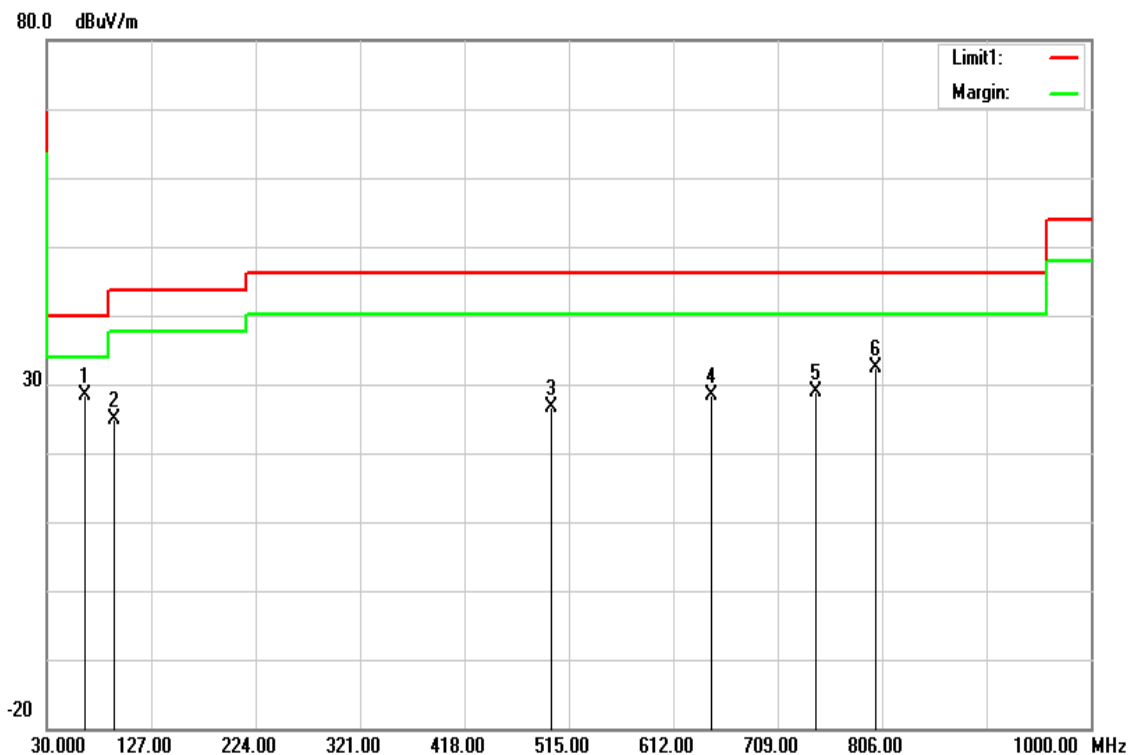


Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
2453.600	87.22	-2.87	84.35	-	-	AVG
2483.500	53.24	-2.71	50.53	54.00	-3.47	AVG

Report No.: T180918D06-RP1

Below 1G Test Data

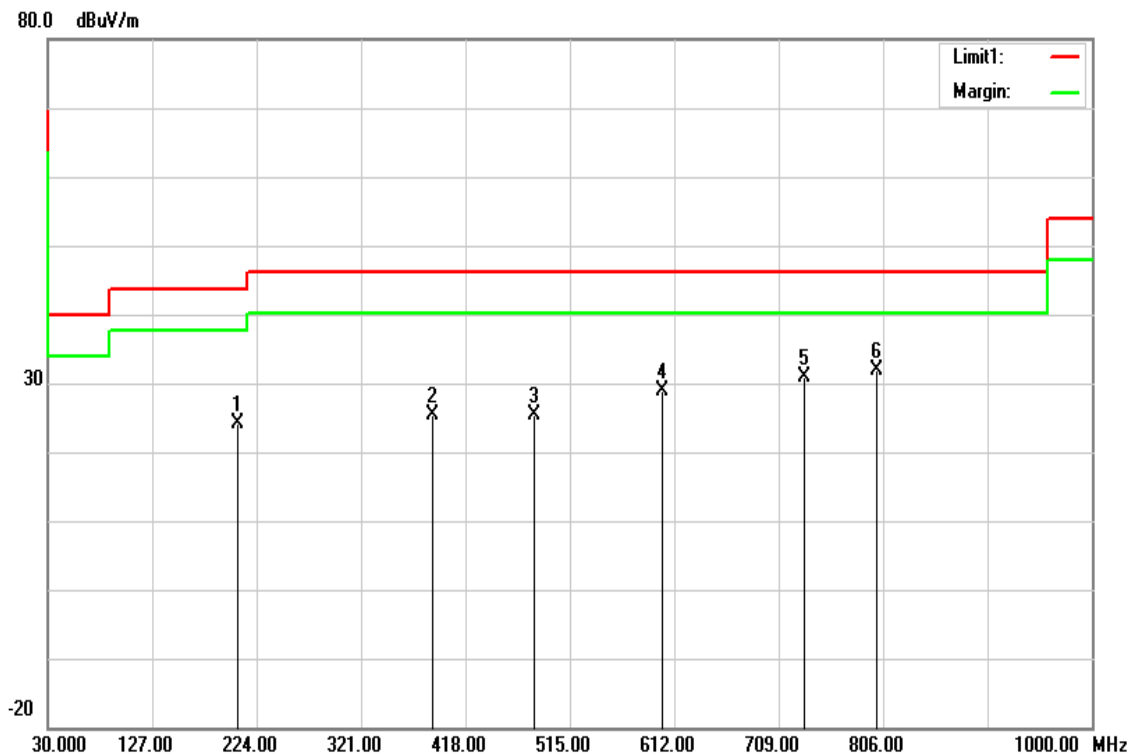
Test Mode	Mode 1	Temp/Hum	20.9(°C)/ 43%RH
Test Item	30MHz-1GHz	Test Date	November 6, 2018
Polarize	Vertical	Test Engineer	Jerry Chuang
Detector	Peak	Test Voltage	



Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
64.9200	43.15	-14.78	28.37	40.00	-11.63	peak
92.0800	39.05	-14.11	24.94	43.52	-18.58	peak
498.5100	28.83	-2.28	26.55	46.02	-19.47	peak
647.8900	27.79	0.60	28.39	46.02	-17.63	peak
743.9200	26.90	1.97	28.87	46.02	-17.15	peak
800.1800	29.41	3.04	32.45	46.02	-13.57	peak

Note: No emission found between lowest internal used/generated frequency to 30MHz(9KHz~30MHz)

Test Mode	Mode 1	Temp/Hum	20.9(°C)/ 43%RH
Test Item	30MHz-1GHz	Test Date	November 6, 2018
Polarize	Horizontal	Test Engineer	Jerry Chuang
Detector	Peak	Test Voltage	



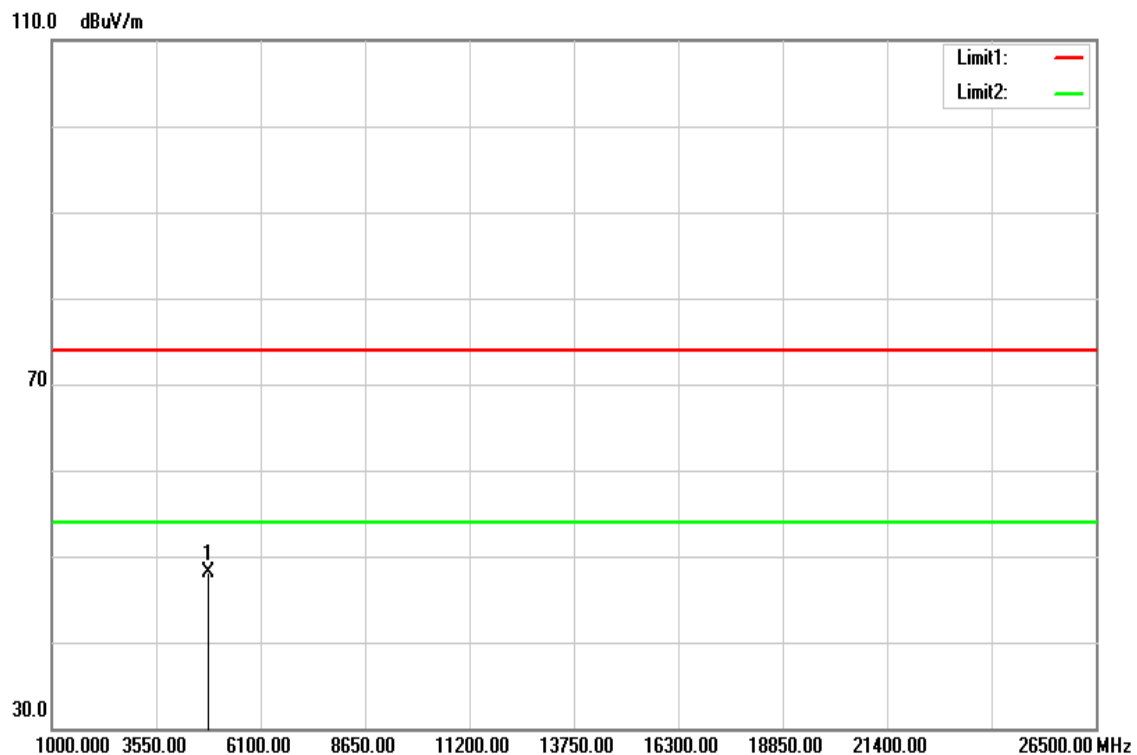
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
206.5400	33.58	-9.39	24.19	43.52	-19.33	peak
386.9600	30.73	-5.27	25.46	46.02	-20.56	peak
482.0200	27.68	-2.25	25.43	46.02	-20.59	peak
600.3600	29.62	-0.79	28.83	46.02	-17.19	peak
732.2800	29.03	1.85	30.88	46.02	-15.14	peak
800.1800	28.86	3.04	31.90	46.02	-14.12	peak

Note: No emission found between lowest internal used/generated frequency to 30MHz(9KHz~30MHz)

Report No.: T180918D06-RP1

Above 1G Test Data

Test Mode	IEEE 802.11b Low CH	Temp/Hum	22.3(°C)/ 46%RH
Test Item	Harmonic	Test Date	November 9, 2018
Polarize	Vertical	Test Engineer	Jerry Chuang
Detector	Peak	Test Voltage	



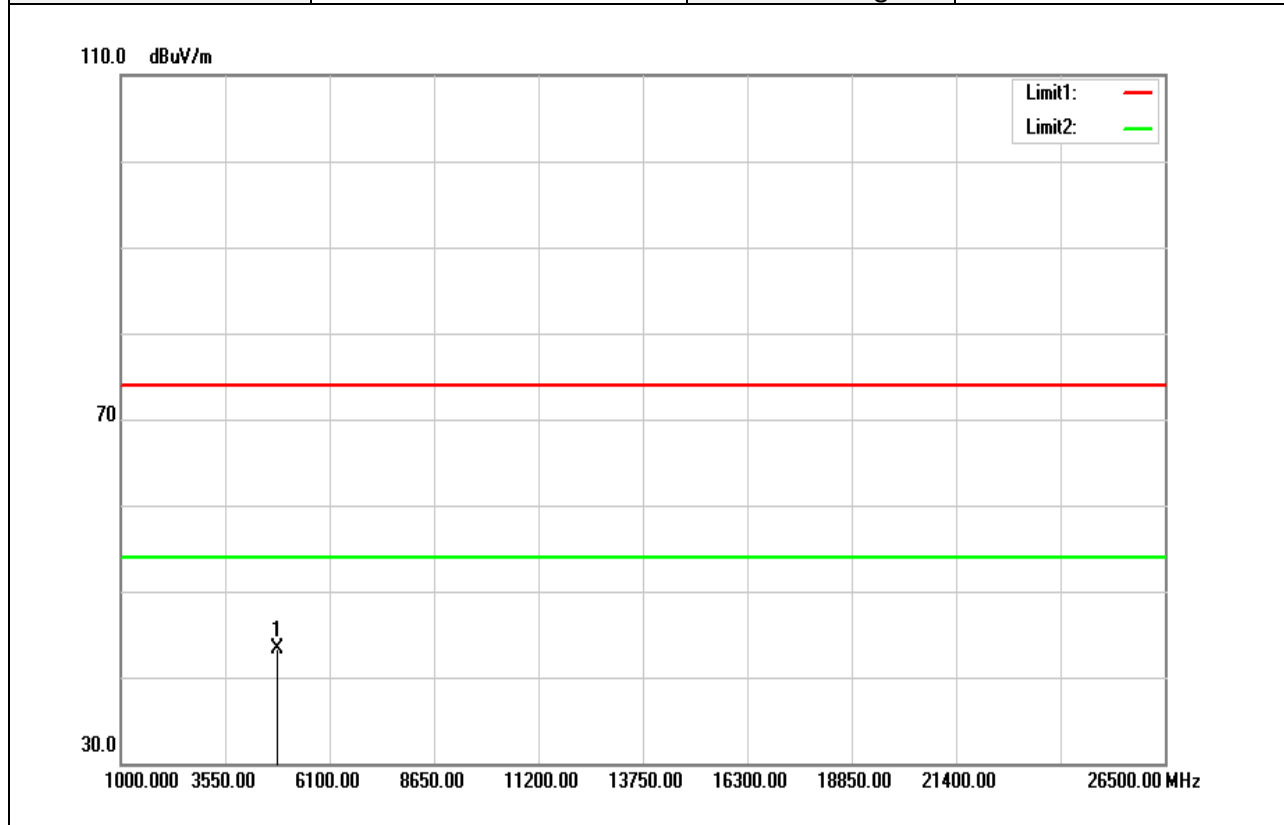
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
4824.000	44.85	3.23	48.08	74.00	-25.92	peak
N/A						

Remark:

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

Report No.: T180918D06-RP1

Test Mode	IEEE 802.11b Low CH	Temp/Hum	22.3(°C)/ 46%RH
Test Item	Harmonic	Test Date	November 9, 2018
Polarize	Horizontal	Test Engineer	Jerry Chuang
Detector	Peak	Test Voltage	



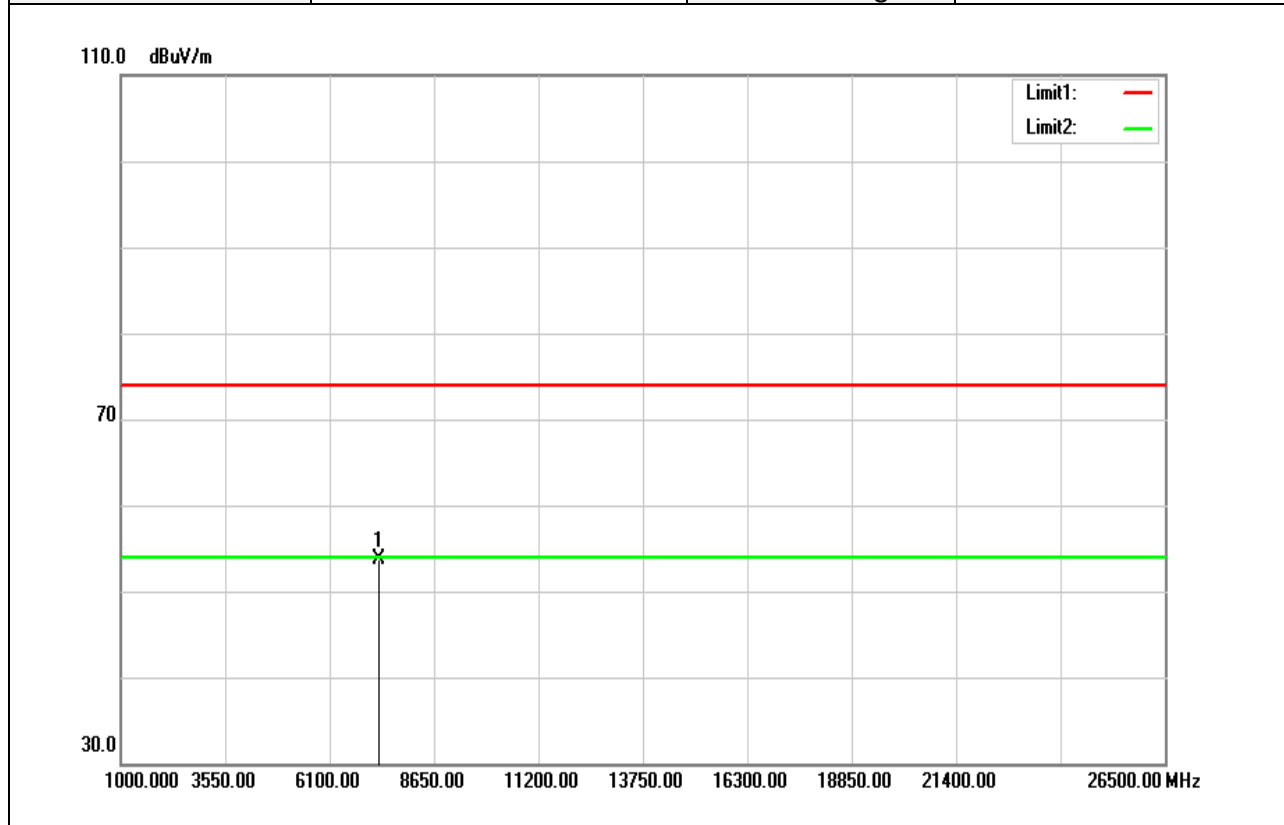
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
4827.000	40.10	3.25	43.35	74.00	-30.65	peak
N/A						

Remark:

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

Report No.: T180918D06-RP1

Test Mode	IEEE 802.11b Mid CH	Temp/Hum	22.3(°C)/ 46%RH
Test Item	Harmonic	Test Date	November 9, 2018
Polarize	Vertical	Test Engineer	Jerry Chuang
Detector	Peak	Test Voltage	

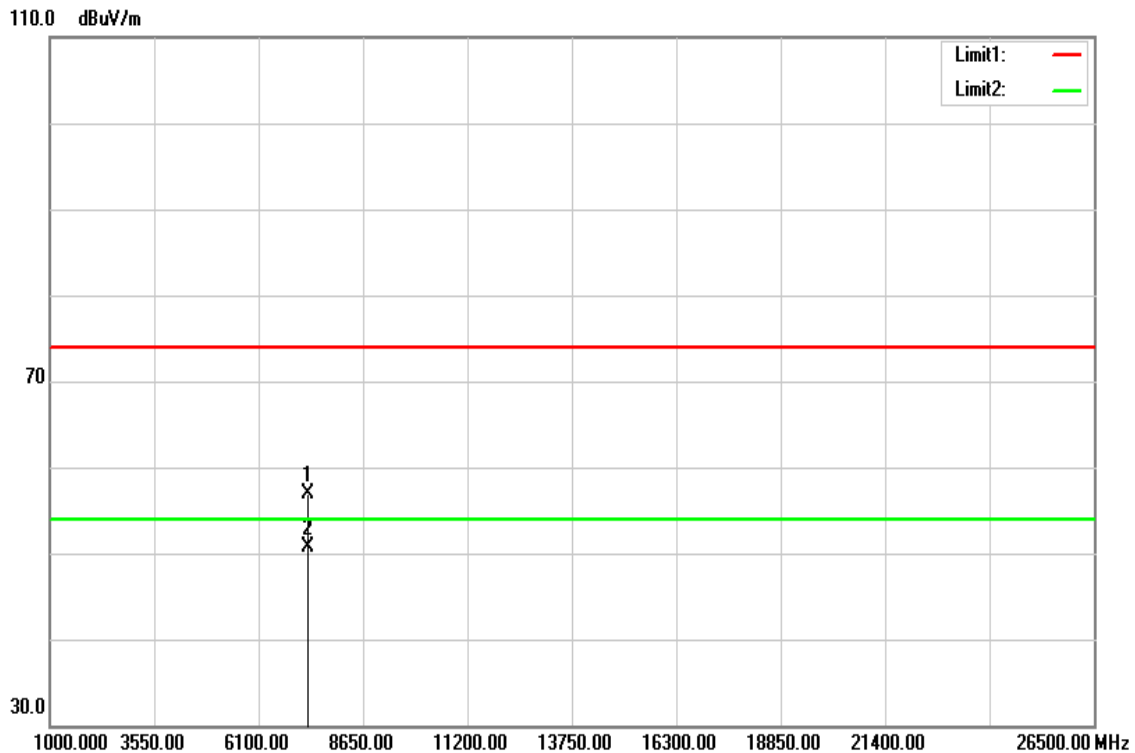


Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
7312.000	43.25	10.48	53.73	74.00	-20.27	peak
N/A						

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 802.11b Mid CH	Temp/Hum	22.3(°C)/ 46%RH
Test Item	Harmonic	Test Date	November 9, 2018
Polarize	Horizontal	Test Engineer	Jerry Chuang
Detector	Peak and Average	Test Voltage	

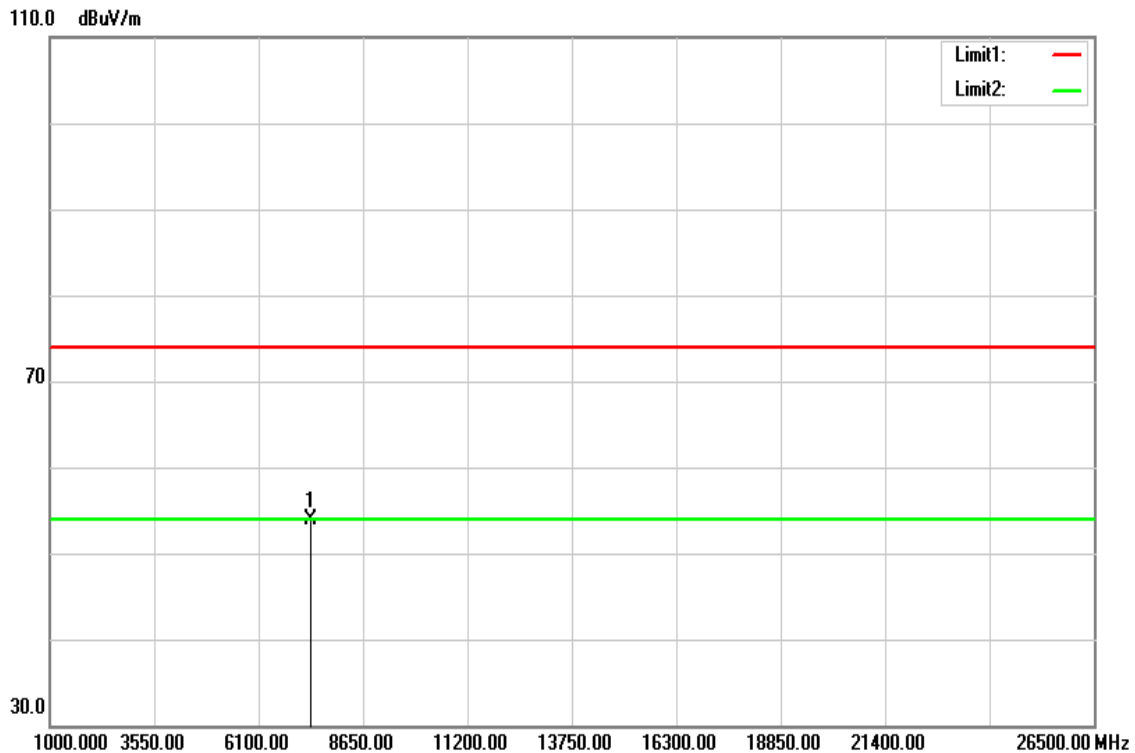


Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
7312.000	46.36	10.48	56.84	74.00	-17.16	peak
7312.000	40.17	10.48	50.65	54.00	-3.35	AVG
N/A						

Remark:

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

Test Mode	IEEE 802.11b High CH	Temp/Hum	22.3(°C)/ 46%RH
Test Item	Harmonic	Test Date	November 9, 2018
Polarize	Vertical	Test Engineer	Jerry Chuang
Detector	Peak	Test Voltage	

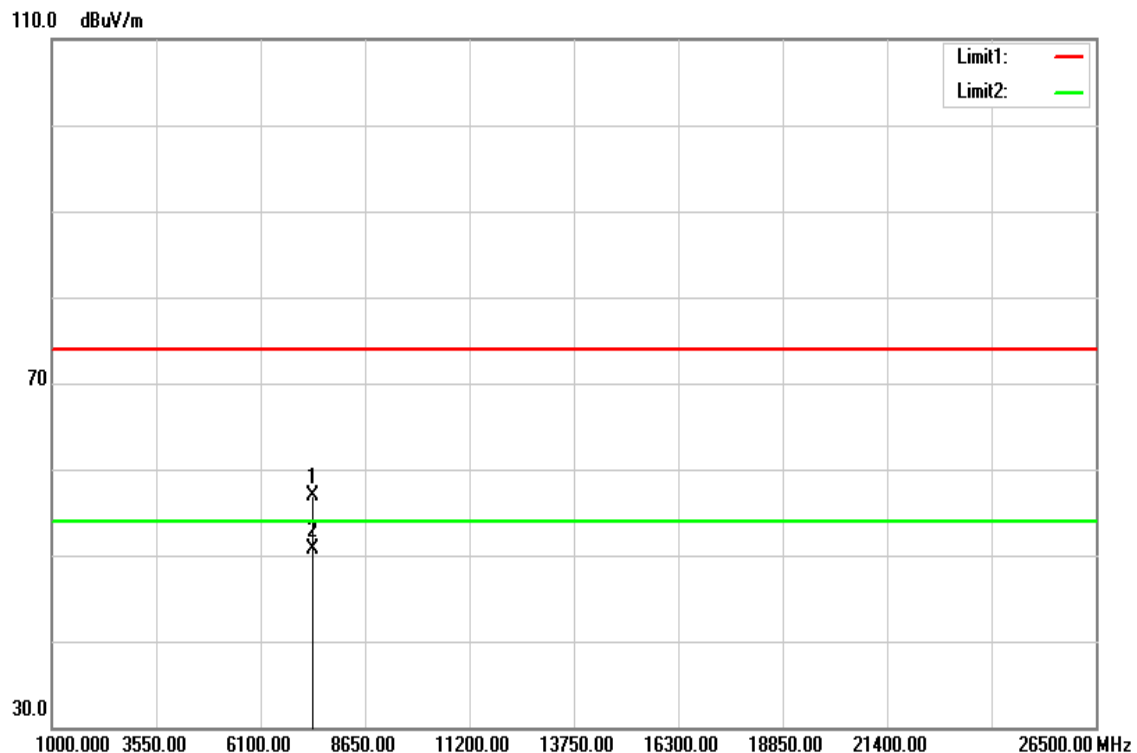


Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
7389.000	43.41	10.46	53.87	74.00	-20.13	peak
N/A						

Remark:

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

Test Mode	IEEE 802.11b High CH	Temp/Hum	22.3(°C)/ 46%RH
Test Item	Harmonic	Test Date	November 9, 2018
Polarize	Horizontal	Test Engineer	Jerry Chuang
Detector	Peak and Average	Test Voltage	

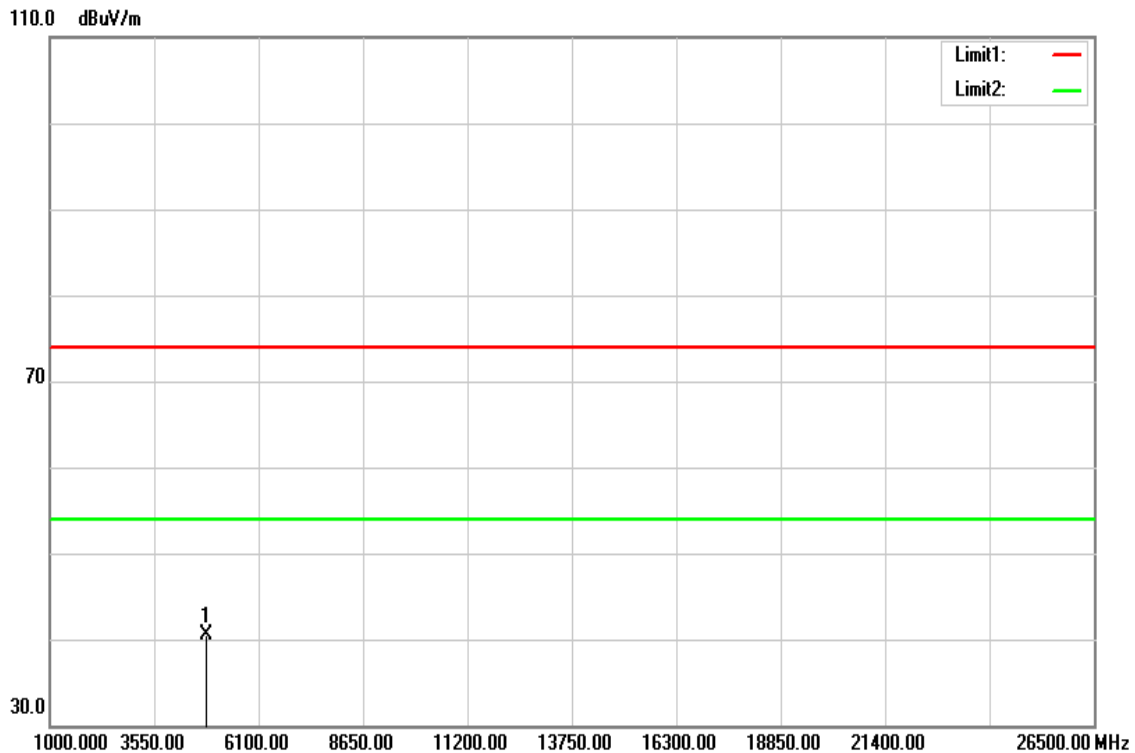


Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
7389.000	46.42	10.46	56.88	74.00	-17.12	peak
7389.000	40.33	10.46	50.79	54.00	-3.21	AVG
N/A						

Remark:

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

Test Mode	IEEE 802.11g Low CH	Temp/Hum	22.3(°C)/ 46%RH
Test Item	Harmonic	Test Date	November 9, 2018
Polarize	Vertical	Test Engineer	Jerry Chuang
Detector	Peak	Test Voltage	

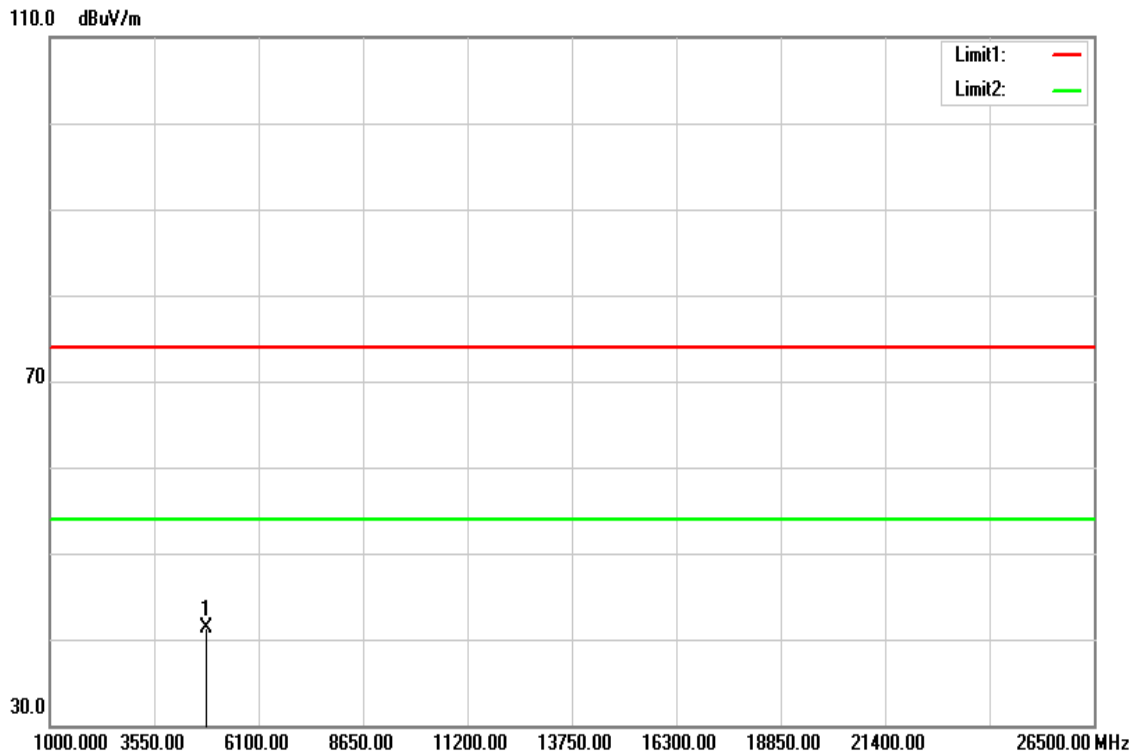


Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
4824.000	37.25	3.23	40.48	74.00	-33.52	peak
N/A						

Remark:

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

Test Mode	IEEE 802.11g Low CH	Temp/Hum	22.3(°C)/ 46%RH
Test Item	Harmonic	Test Date	November 9, 2018
Polarize	Horizontal	Test Engineer	Jerry Chuang
Detector	Peak	Test Voltage	

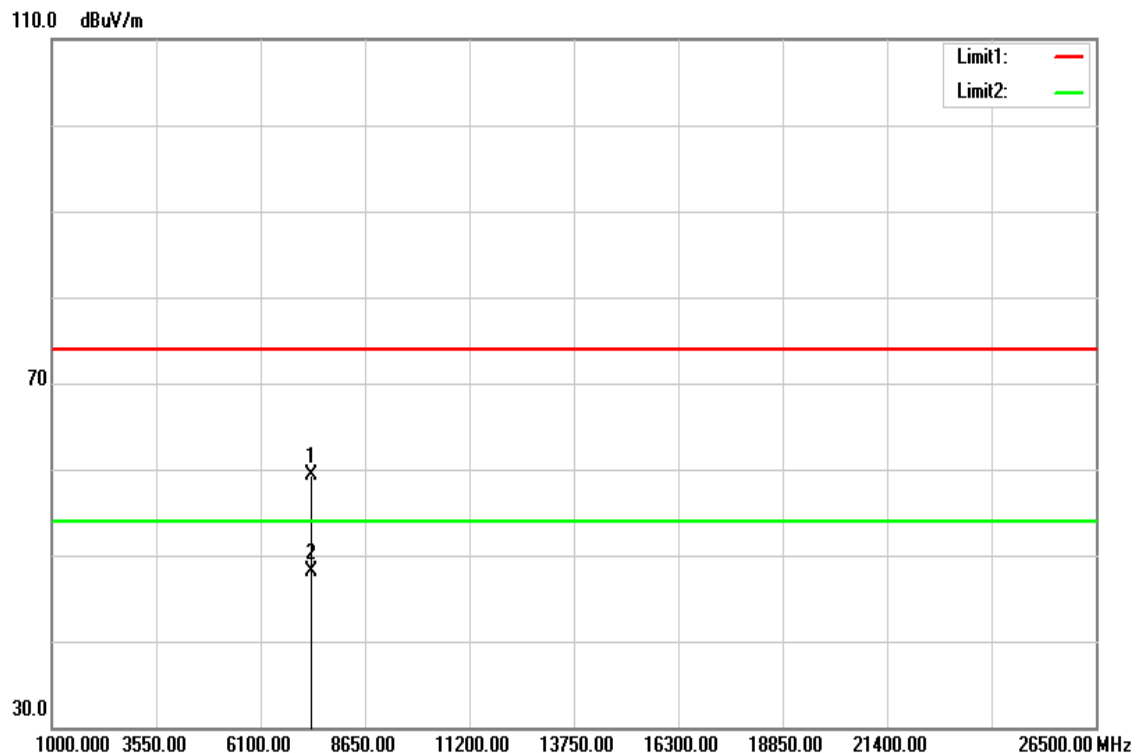


Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
4824.000	38.09	3.23	41.32	74.00	-32.68	peak
N/A						

Remark:

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

Test Mode	IEEE 802.11g Mid CH	Temp/Hum	22.3(°C)/ 46%RH
Test Item	Harmonic	Test Date	November 9, 2018
Polarize	Vertical	Test Engineer	Jerry Chuang
Detector	Peak and Average	Test Voltage	

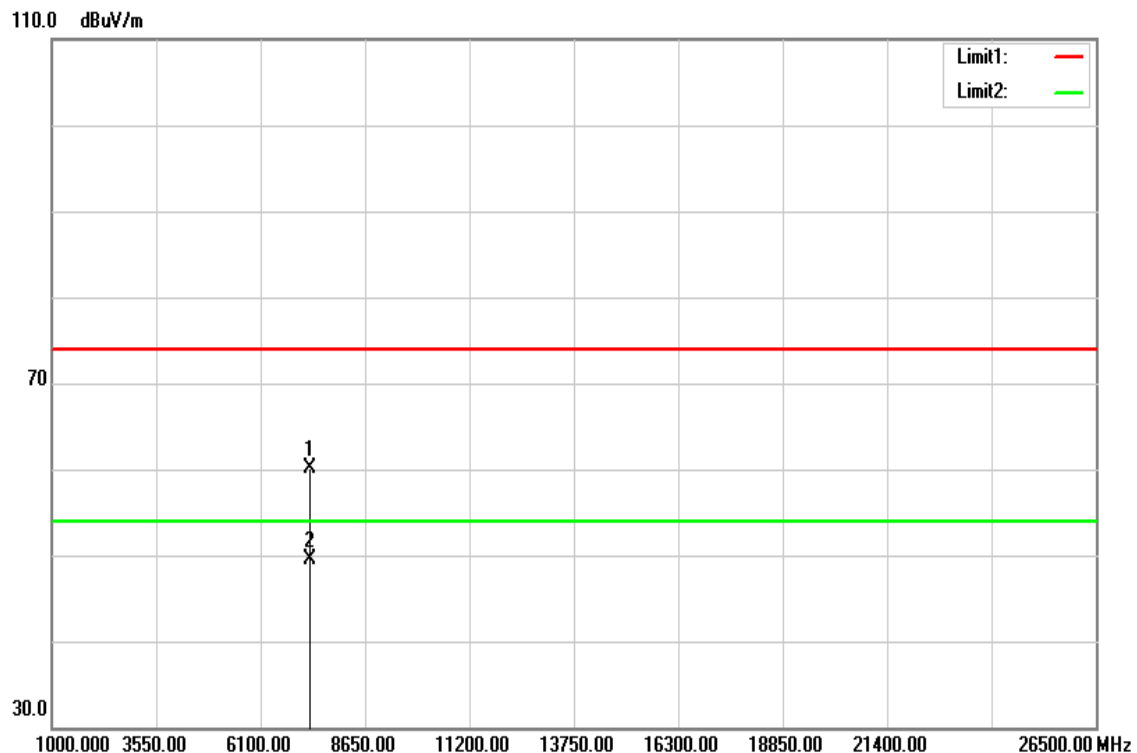


Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
7326.000	48.90	10.48	59.38	74.00	-14.62	peak
7326.000	37.71	10.48	48.19	54.00	-5.81	AVG
N/A						

Remark:

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

Test Mode	IEEE 802.11g Mid CH	Temp/Hum	22.3(°C)/ 46%RH
Test Item	Harmonic	Test Date	November 9, 2018
Polarize	Horizontal	Test Engineer	Jerry Chuang
Detector	Peak and Average	Test Voltage	

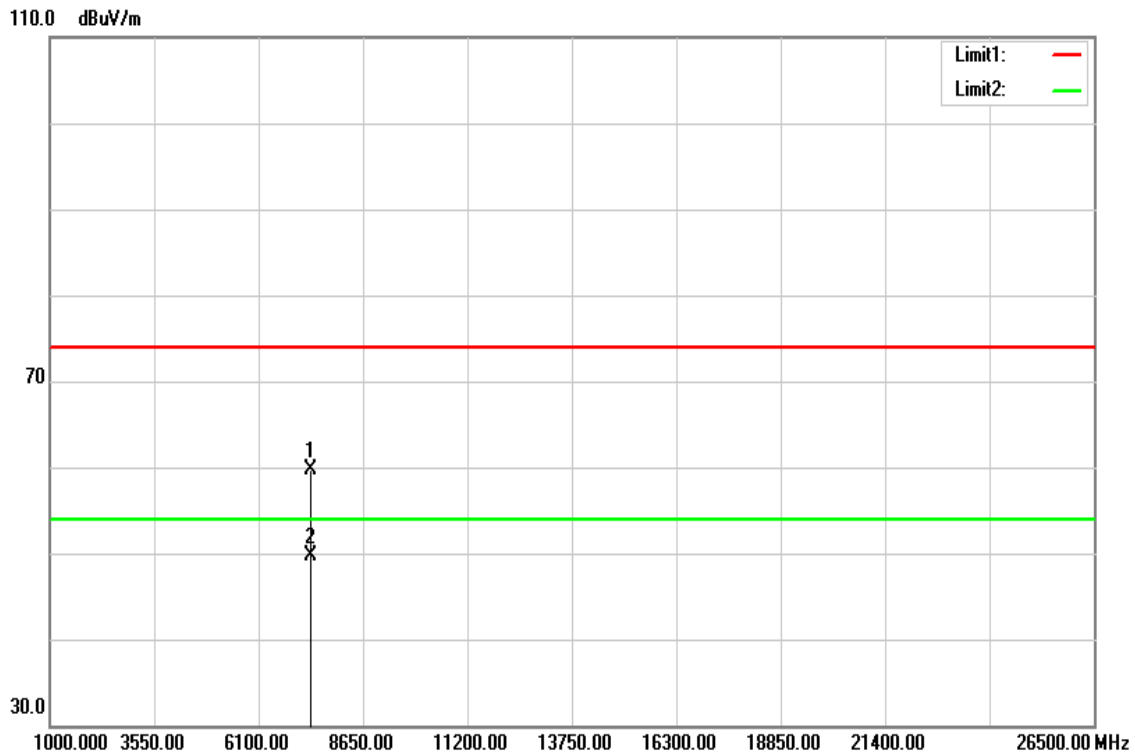


Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
7312.000	49.70	10.48	60.18	74.00	-13.82	peak
7312.000	39.12	10.48	49.60	54.00	-4.40	AVG
N/A						

Remark:

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

Test Mode	IEEE 802.11g High CH	Temp/Hum	22.3(°C)/ 46%RH
Test Item	Harmonic	Test Date	November 9, 2018
Polarize	Vertical	Test Engineer	Jerry Chuang
Detector	Peak and Average	Test Voltage	



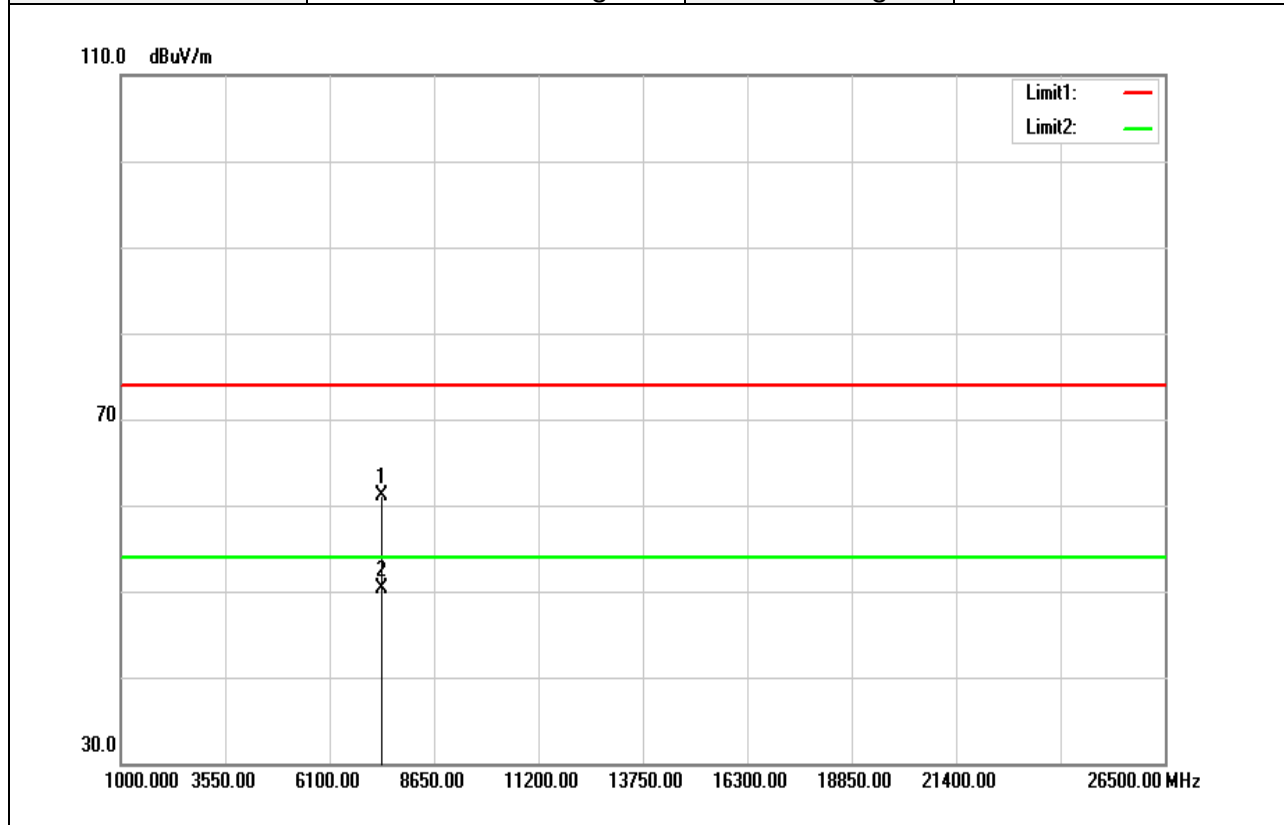
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
7389.000	49.34	10.46	59.80	74.00	-14.20	peak
7389.000	39.17	10.46	49.63	54.00	-4.37	AVG
N/A						

Remark:

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

Report No.: T180918D06-RP1

Test Mode	IEEE 802.11g High CH	Temp/Hum	22.3(°C)/ 46%RH
Test Item	Harmonic	Test Date	November 9, 2018
Polarize	Horizontal	Test Engineer	Jerry Chuang
Detector	Peak and Average	Test Voltage	

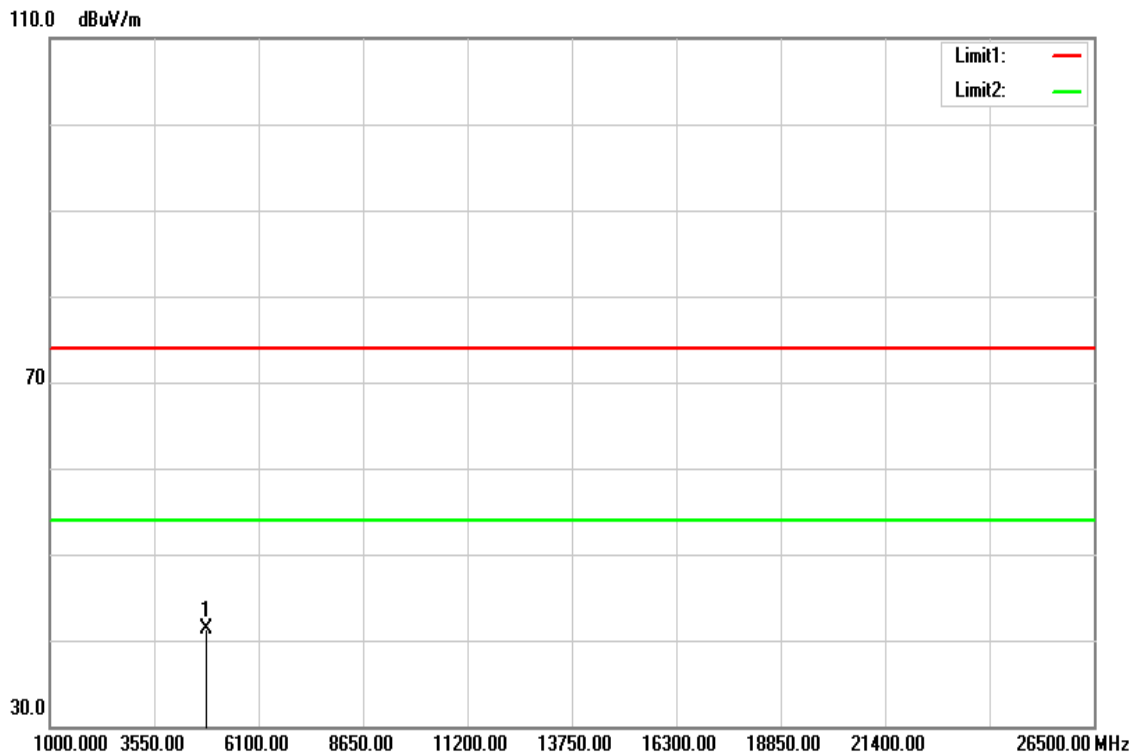


Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
7375.000	50.66	10.46	61.12	74.00	-12.88	peak
7375.000	39.90	10.46	50.36	54.00	-3.64	AVG
N/A						

Remark:

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

Test Mode	IEEE 802.11n HT20 Low CH	Temp/Hum	22.3(°C)/ 46%RH
Test Item	Harmonic	Test Date	November 9, 2018
Polarize	Vertical	Test Engineer	Jerry Chuang
Detector	Peak	Test Voltage	

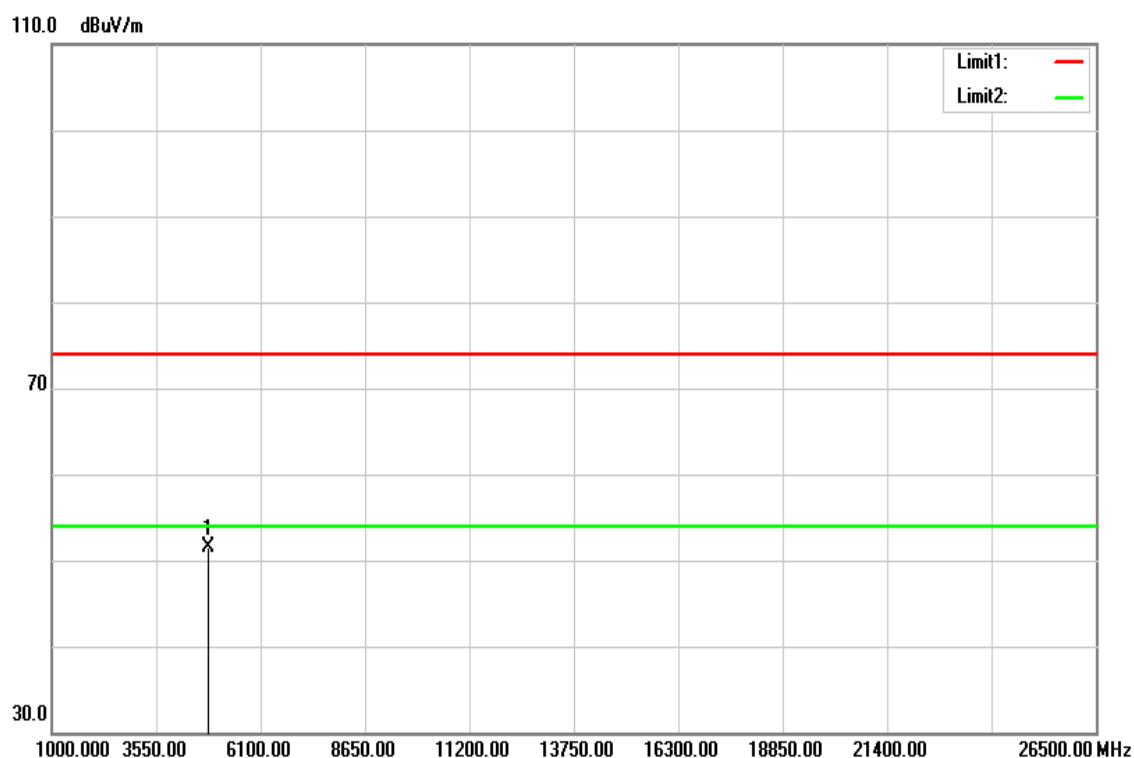


Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
4824.000	38.09	3.23	41.32	74.00	-32.68	peak
N/A						

Remark:

- Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
- 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	22.3(°C)/ 46%RH
Test Item	Harmonic	Test Date	November 9, 2018
Polarize	Horizontal	Test Engineer	Jerry Chuang
Detector	Peak	Test Voltage	

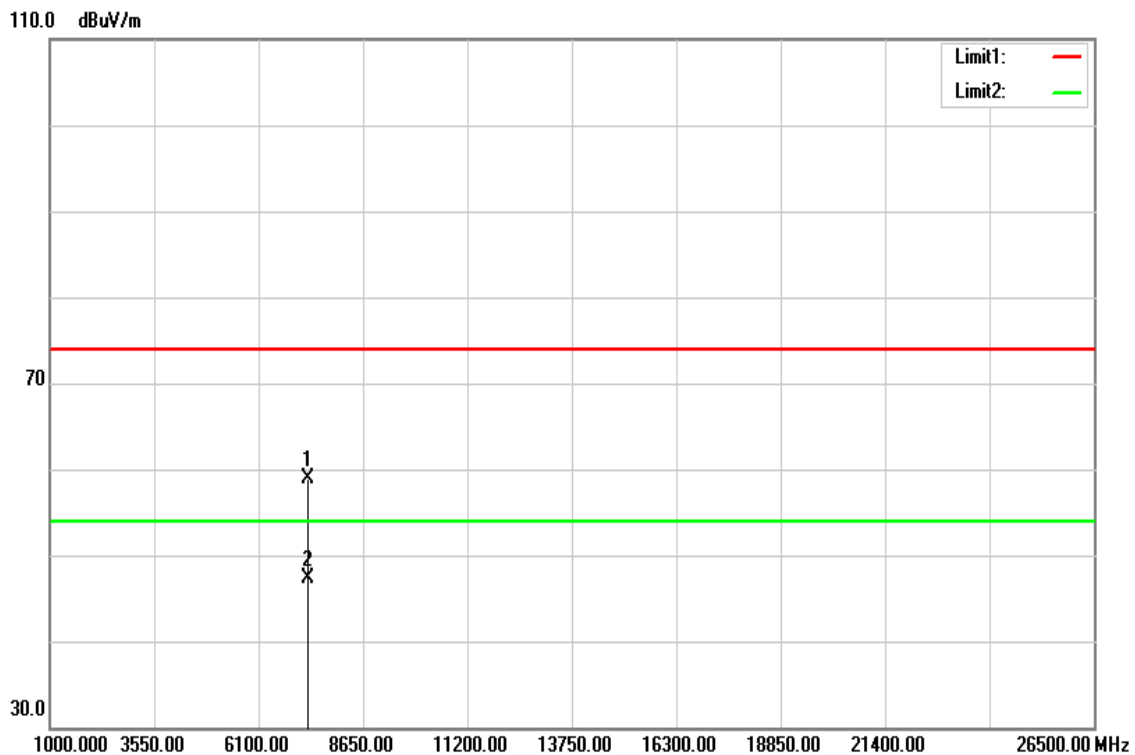


Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
4813.000	48.43	3.15	51.58	74.00	-22.42	peak
N/A						

Remark:

- Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
- 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	22.3(°C)/ 46%RH
Test Item	Harmonic	Test Date	November 9, 2018
Polarize	Vertical	Test Engineer	Jerry Chuang
Detector	Peak and Average	Test Voltage	

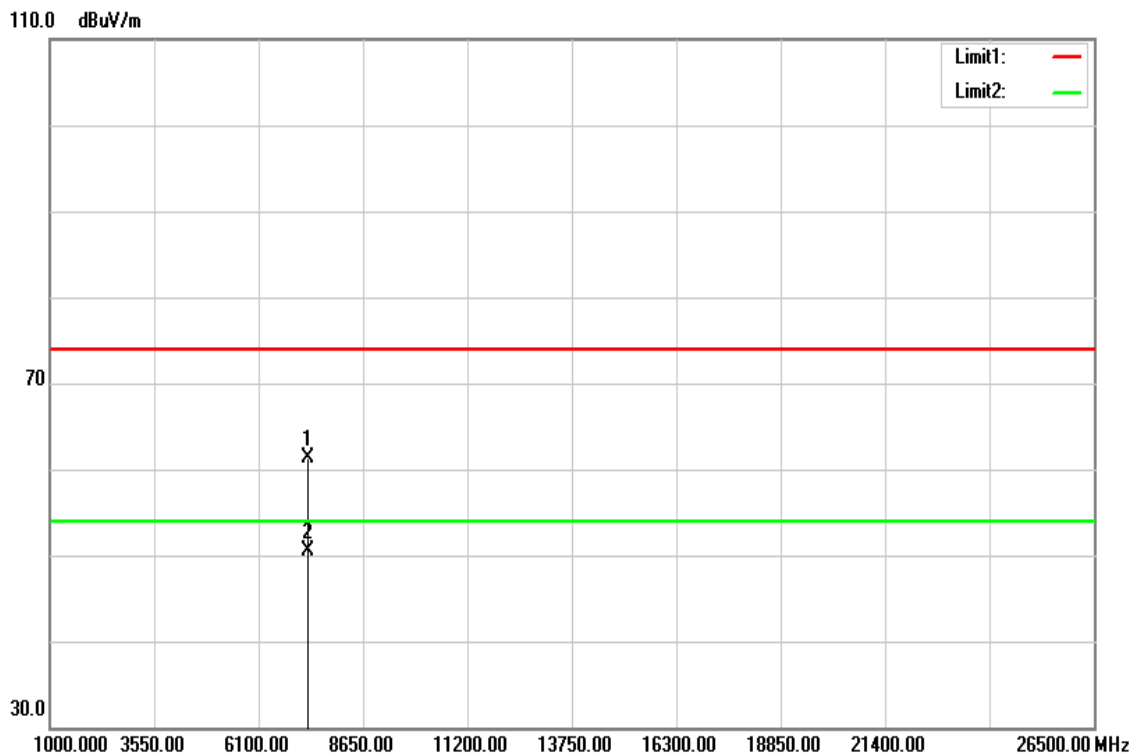


Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
7305.000	48.45	10.49	58.94	74.00	-15.06	peak
7305.000	36.76	10.49	47.25	54.00	-6.75	AVG
N/A						

Remark:

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

Test Mode	IEEE 802.11n HT20 Mid CH	Temp/Hum	22.3(°C)/ 46%RH
Test Item	Harmonic	Test Date	November 9, 2018
Polarize	Horizontal	Test Engineer	Jerry Chuang
Detector	Peak and Average	Test Voltage	

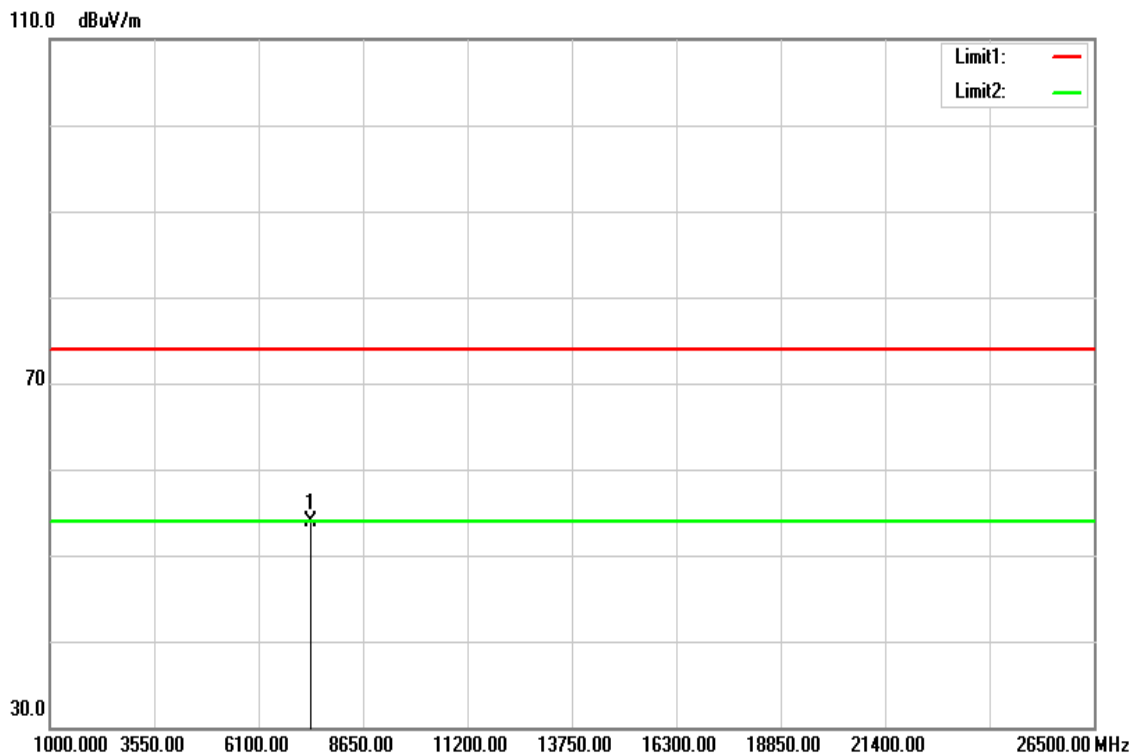


Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
7312.000	50.82	10.48	61.30	74.00	-12.70	peak
7312.000	39.98	10.48	50.46	54.00	-3.54	AVG
N/A						

Remark:

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

Test Mode	IEEE 802.11n HT20 High CH	Temp/Hum	22.3(°C)/ 46%RH
Test Item	Harmonic	Test Date	November 9, 2018
Polarize	Vertical	Test Engineer	Jerry Chuang
Detector	Peak	Test Voltage	

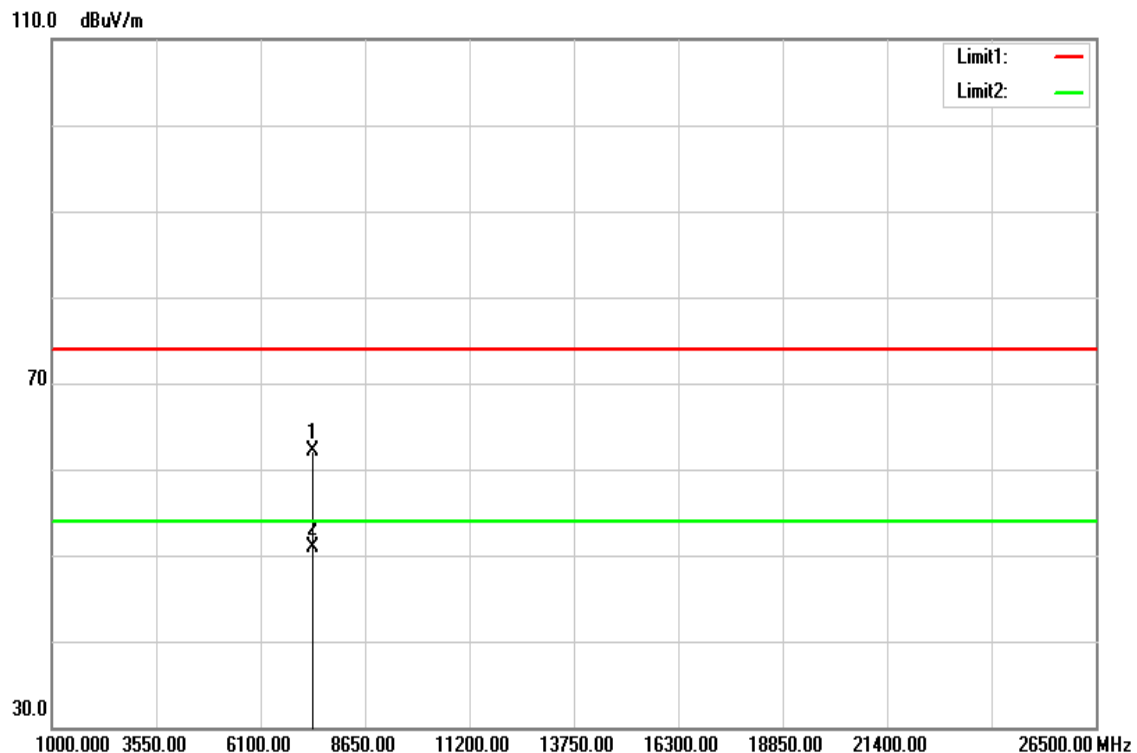


Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
7389.000	43.42	10.46	53.88	74.00	-20.12	peak
N/A						

Remark:

- Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
- 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	22.3(°C)/ 46%RH
Test Item	Harmonic	Test Date	November 9, 2018
Polarize	Horizontal	Test Engineer	Jerry Chuang
Detector	Peak and Average	Test Voltage	

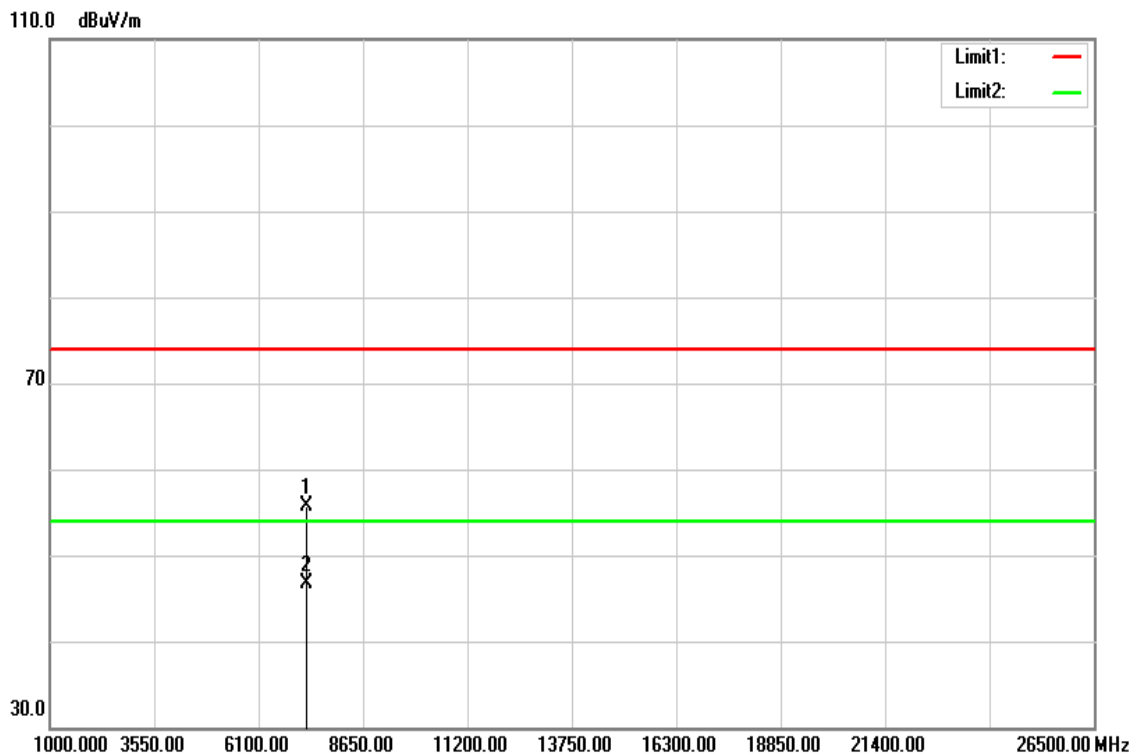


Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
7389.000	51.59	10.46	62.05	74.00	-11.95	peak
7389.000	40.38	10.46	50.84	54.00	-3.16	AVG
N/A						

Remark:

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

Test Mode	IEEE 802.11n HT40 Low CH	Temp/Hum	22.3(°C)/ 46%RH
Test Item	Harmonic	Test Date	November 9, 2018
Polarize	Vertical	Test Engineer	Jerry Chuang
Detector	Peak and Average	Test Voltage	

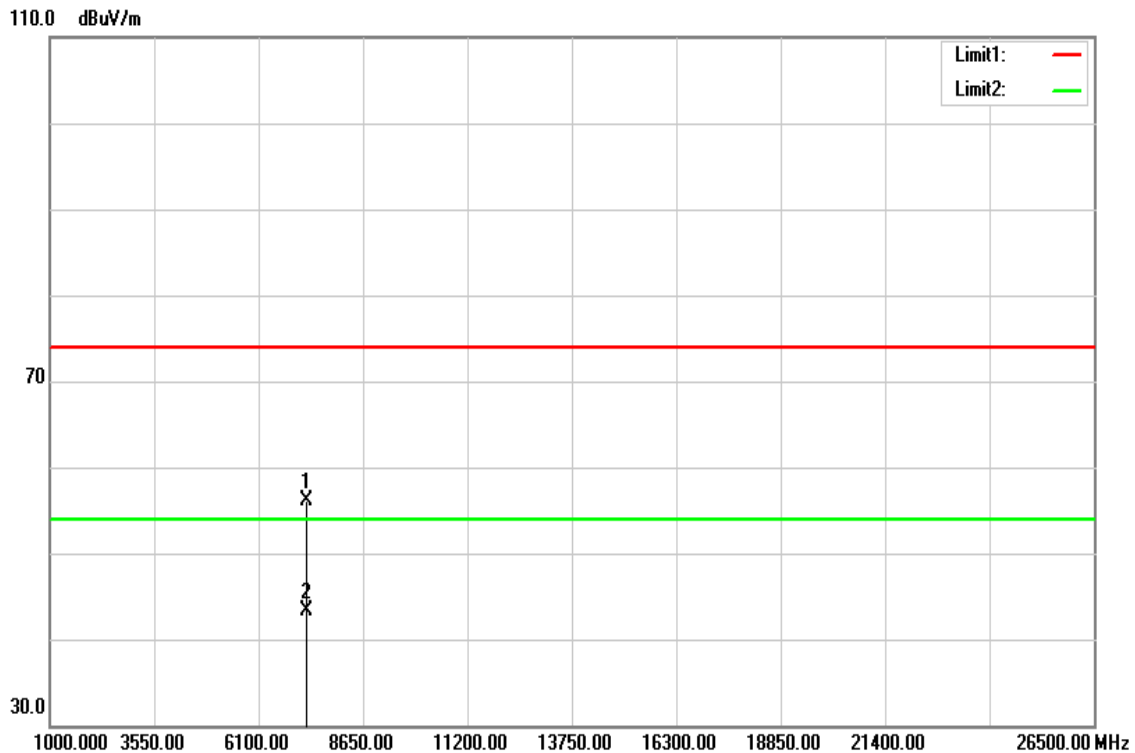


Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
7277.000	45.29	10.49	55.78	74.00	-18.22	peak
7277.000	36.17	10.49	46.66	54.00	-7.34	AVG
N/A						

Remark:

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

Test Mode	IEEE 802.11n HT40 Low CH	Temp/Hum	22.3(°C)/ 46%RH
Test Item	Harmonic	Test Date	November 9, 2018
Polarize	Horizontal	Test Engineer	Jerry Chuang
Detector	Peak and Average	Test Voltage	

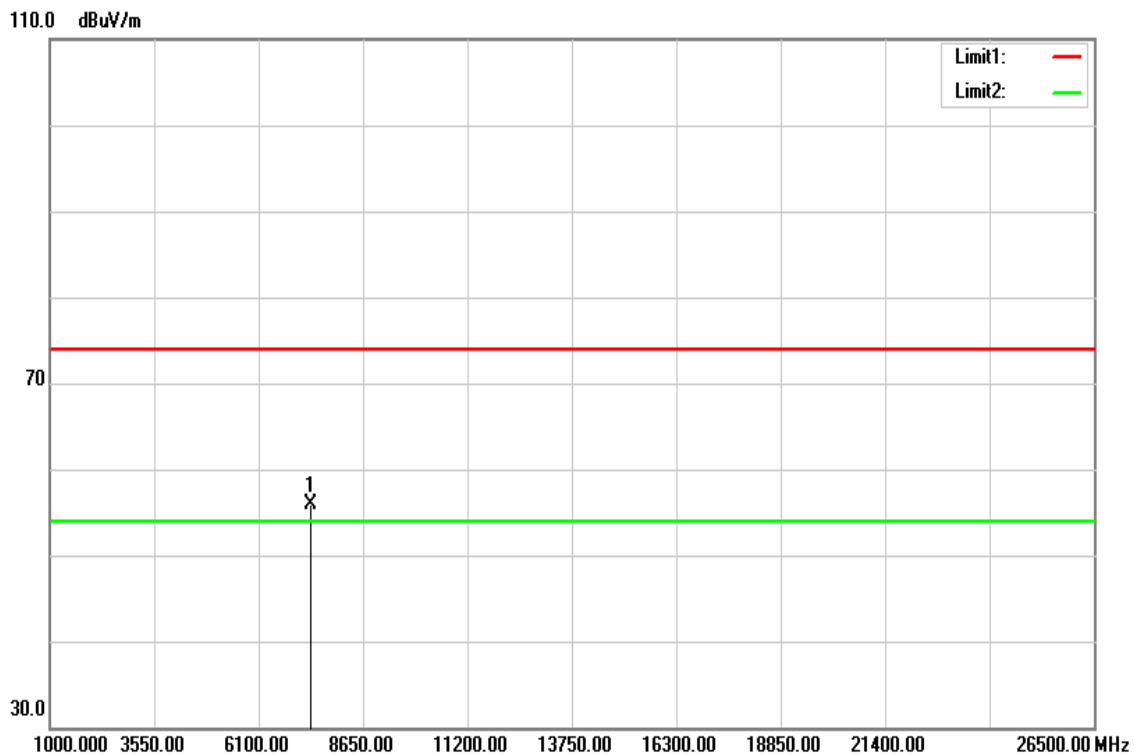


Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
7270.000	45.57	10.49	56.06	74.00	-17.94	peak
7270.000	32.80	10.49	43.29	54.00	-10.71	AVG
N/A						

Remark:

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

Test Mode	IEEE 802.11n HT40 Mid CH	Temp/Hum	22.3(°C)/ 46%RH
Test Item	Harmonic	Test Date	November 9, 2018
Polarize	Vertical	Test Engineer	Jerry Chuang
Detector	Peak	Test Voltage	

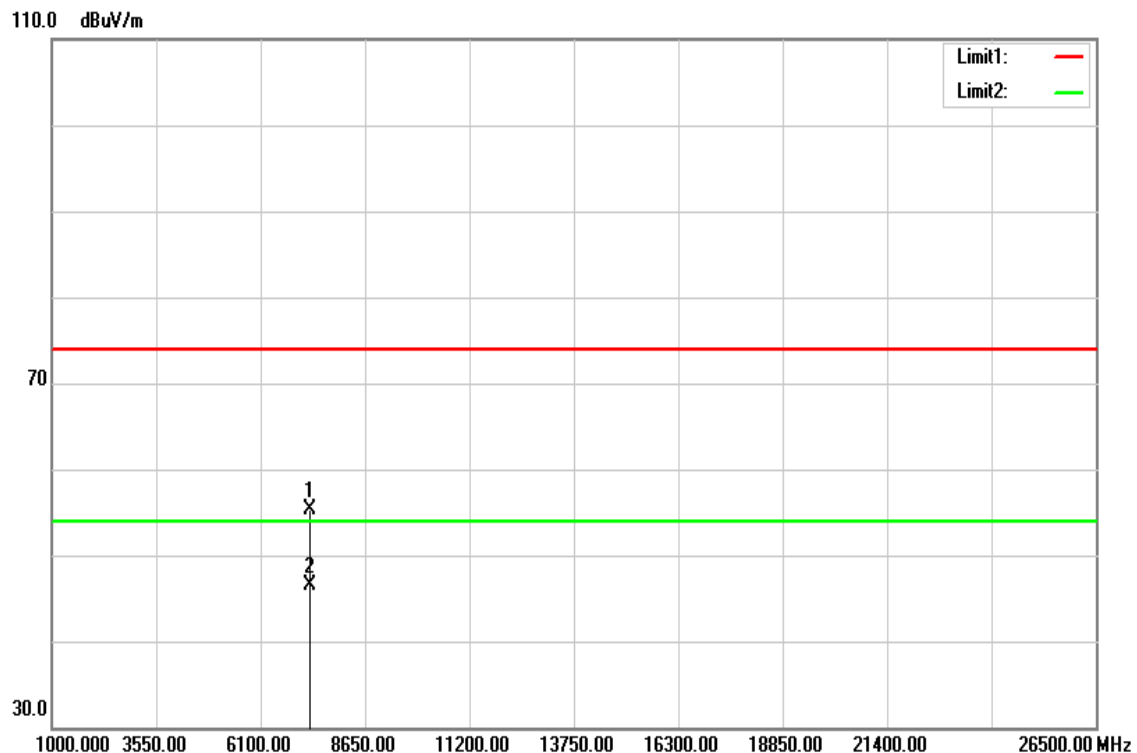


Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
7319.000	41.36	10.47	51.83	74.00	-22.17	peak
N/A						

Remark:

- Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
- 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	22.3(°C)/ 46%RH
Test Item	Harmonic	Test Date	November 9, 2018
Polarize	Horizontal	Test Engineer	Jerry Chuang
Detector	Peak and Average	Test Voltage	

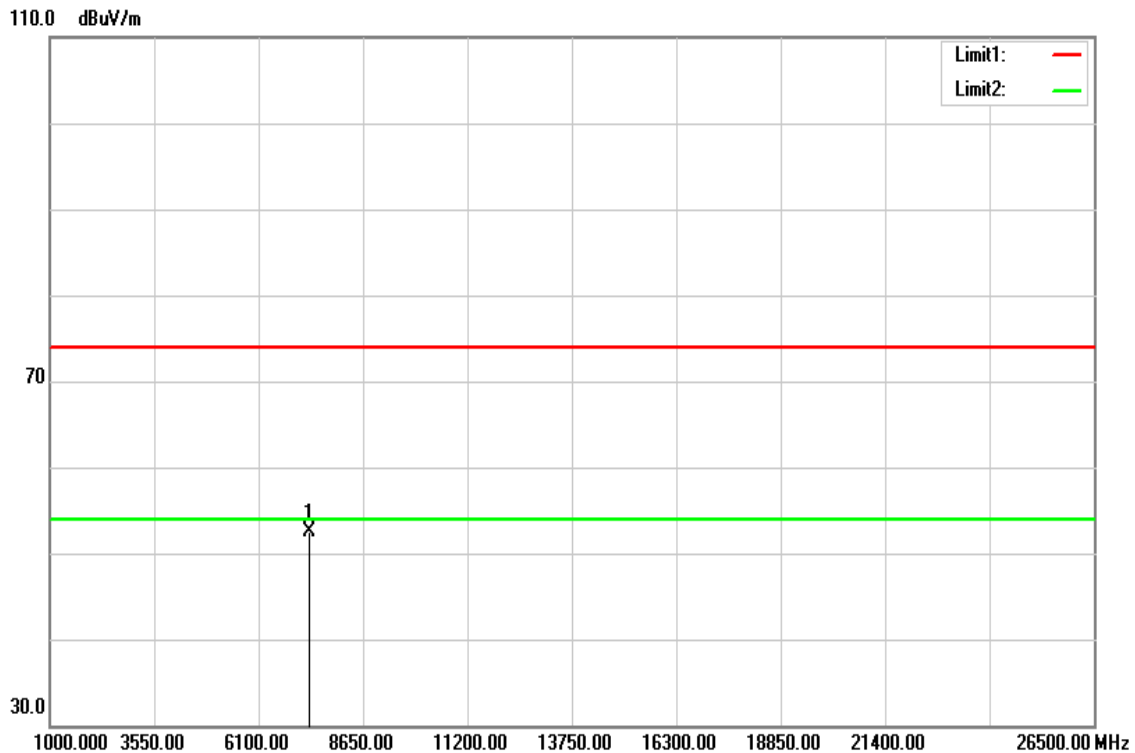


Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
7305.000	44.85	10.49	55.34	74.00	-18.66	peak
7305.000	36.08	10.49	46.57	54.00	-7.43	AVG
N/A						

Remark:

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

Test Mode	IEEE 802.11n HT40 High CH	Temp/Hum	22.3(°C)/ 46%RH
Test Item	Harmonic	Test Date	November 9, 2018
Polarize	Vertical	Test Engineer	Jerry Chuang
Detector	Peak	Test Voltage	

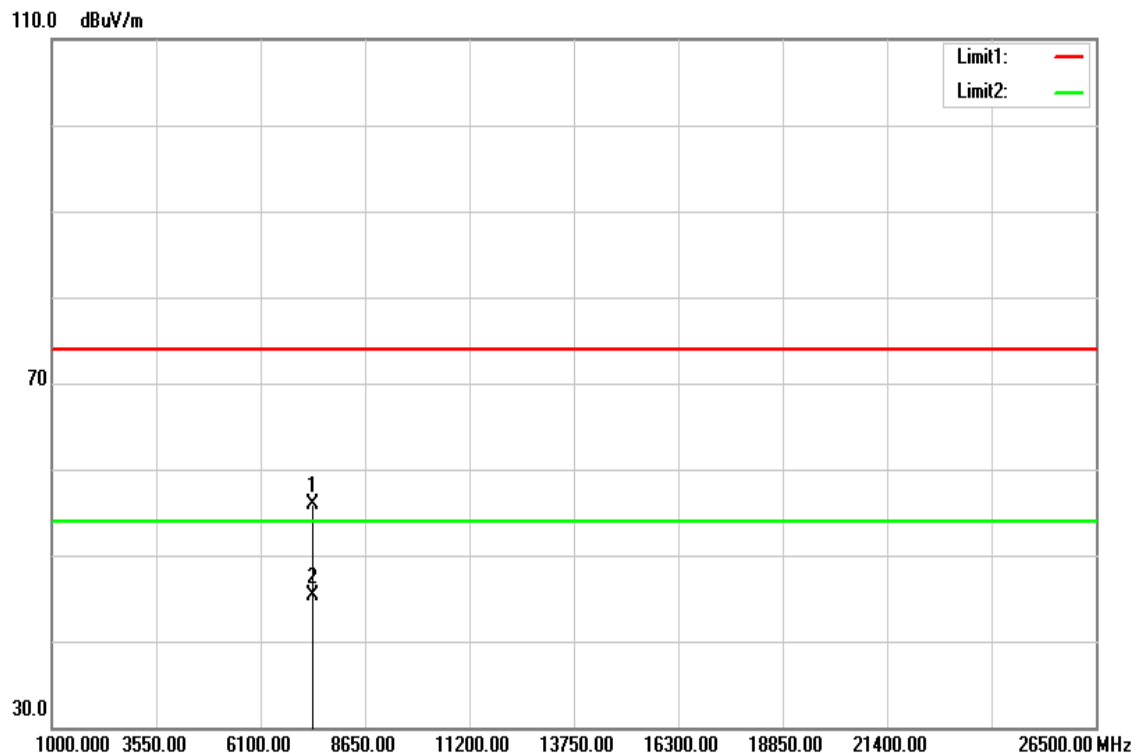


Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
7354.000	42.10	10.47	52.57	74.00	-21.43	peak
N/A						

Remark:

- Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
- 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	22.3(°C)/ 46%RH
Test Item	Harmonic	Test Date	November 9, 2018
Polarize	Horizontal	Test Engineer	Jerry Chuang
Detector	Peak and Average	Test Voltage	



Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
7375.000	45.40	10.46	55.86	74.00	-18.14	peak
7375.000	34.74	10.46	45.20	54.00	-8.80	AVG
N/A						

Remark:

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

- End of Test Report -