

FCC RADIO TEST REPORT

FCC 47 CFR PART 15 SUBPART C

Test Standard	FCC Part 15.247
FCC ID	2ABBNLE5LIT
Trade name	VIEVU
Product name	BODY WORN CAMERA
Model No.	LE5 Lite
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 CCS. Inc.

The sample selected for test was production product and was provided by manufacturer.



Approved by:

Reviewed by:

A handwritten signature in black ink, reading "Sam Chuang". The signature is written in a cursive, flowing style.

A handwritten signature in black ink, reading "Zeus Chen". The signature is written in a cursive, flowing style.

Sam Chuang
Manager

Zeus Chen
Supervisor

Revision History

Rev.	Issue Date	Revisions	Revised By
00	December 09, 2016	Initial Issue	Doris Chu
01	March 09, 2016	1. Remove remark in page 4, 2. Revise antenna type and Gain in page5. 3. Remove remark in page 10. 4. Revise test mode and worst mode in section 3.2. 5. Add worst position item for below 1G in section 3.2. 6. Revise test data of AC power line conduction emission in page 14, 15. 7. Remove occupied bandwidth (99%) in section 4.2. 8. Remove duty factor in section 4.4.2. 9. Revise Low CH test plots in section 4.5.4. 10. Revise below 1G test data in page 34, 35. 11. Revise conduction setup photo in page 43.	Doris Chu
02	March 14, 2017	1. Revise Power Operation in page 4. 2. Revise Test Setup Photo in page 42.	Doris Chu
03	April 7, 2017	1. Revise output power in page 4.	Angel Cheng

Table of contents

1. GENERAL INFORMATION	4
1.1 EUT INFORMATION	4
1.2 EUT CHANNEL INFORMATION	5
1.3 ANTENNA INFORMATION	5
1.4 MEASUREMENT UNCERTAINTY.....	6
1.5 FACILITIES AND TEST LOCATION	7
1.6 INSTRUMENT CALIBRATION	7
1.7 SUPPORT AND EUT ACCESSORIES EQUIPMENT	8
1.8 TEST METHODOLOGY AND APPLIED STANDARDS	8
1.9 TABLE OF ACCREDITATIONS AND LISTINGS	8
2. TEST SUMMERY	9
3. DESCRIPTION OF TEST MODES	10
3.1 THE WORST MODE OF OPERATING CONDITION	10
3.2 THE WORST MODE OF MEASUREMENT	11
3.3 EUT DUTY CYCLE.....	12
4. TEST RESULT	13
4.1 AC POWER LINE CONDUCTED EMISSION	13
4.2 6DB BANDWIDTH AND OCCUPIED BANDWIDTH(99%)	16
4.3 OUTPUT POWER MEASUREMENT	18
4.4 POWER SPECTRAL DENSITY	20
4.5 CONDUCTED BANEDGE AND SPURIOUS EMISSION.....	22
4.6 RADIATION BANEDGE AND SPURIOUS EMISSION	26
APPENDIX 1 - PHOTOGRAPHS OF EUT	

1. GENERAL INFORMATION

1.1 EUT INFORMATION

Applicant	VIEVU LLC 645 Elliott Ave W, Suite 370, Seattle WA 98119
Equipment	BODY WORN CAMERA
Model Name	LE5 Lite
Model Discrepancy	N/A
EUT Functions	IEEE 802.11g
Received Date	Nov 15, 2016
Date of Test	Nov 11 ~ Dec 08, 2016
Output Power(W)	IEEE 802.11g mode: 0.244
Power Operation	☒ Host system ☒ DC Type : ☒ Battery 3.7V ☐ DC Power Supply ☐ External DC adapter

1.2 EUT CHANNEL INFORMATION

Frequency Range	2412MHz-2462MHz
Modulation Type	1 IEEE 802.11g mode: OFDM
Number of channel	1 IEEE 802.11g mode: 11 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 Category	☒ Integral: antenna permanently attached ☐ External dedicated antennas ☐ External Unique antenna connector
Antenna Type	☐ PIFA ☒ PCB ☐ Dipole ☐ Printed ☐ Coils
Antenna Gain	0.94 dBi

1.4 MEASUREMENT UNCERTAINTY

PARAMETER	UNCERTAINTY
AC Powerline Conducted Emission	+/- 1.2575
Emission bandwidth, 20dB bandwidth	+/- 1.4003
RF output power, conducted	+/- 1.1372
Power density, conducted	+/- 1.4003
3M Semi Anechoic Chamber / 30M~200M	+/- 4.0138
3M Semi Anechoic Chamber / 200M~1000M	+/- 3.9483
3M Semi Anechoic Chamber / 1G~8G	+/- 2.5975
3M Semi Anechoic Chamber / 8G~18G	+/- 2.6112
3M Semi Anechoic Chamber / 18G~26G	+/- 2.7389
3M Semi Anechoic Chamber / 26G~40G	+/- 2.9683
3M Semi Anechoic Chamber / 40G~60G	+/- 1.8509
3M Semi Anechoic Chamber / 60G~75G	+/- 1.9869
3M Semi Anechoic Chamber / 75G~110G	+/- 2.9651
3M Semi Anechoic Chamber / 110G~170G	+/- 2.7807
3M Semi Anechoic Chamber / 170G~220G	+/- 3.6437
3M Semi Anechoic Chamber / 220G~325G	+/- 4.2982

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	ED Chiang	
Radiation	ED Chiang	
RF Conducted	ED Chiang	

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
Spectrum Analyzer 10Hz-40GHz	R&S	FSV 40	101073	07/31/2017	07/31/2017
Power Meter	Anritsu	ML2495A	1012009	07/04/2016	07/03/2017
Power Meter	Anritsu	MA2411B	917072	07/04/2016	07/03/2017

3M 966 Chamber Test Site					
Equipment	Manufacturer	Model	S/N	Cal Date	Cal Due
Spectrum Analyzer	Agilent	E4446A	US42510252	12/05/2016	12/04/2017
Loop Ant	COM-POWER	AL-130	121051	02/25/2016	02/24/2017
Bilog Antenna	Sunol Sciences	JB3	A030105	07/03/2016	07/02/2017
Pre-Amplifier	EMEC	EM330	60609	06/08/2016	06/07/2017
Horn Antenna	ETC	MCTD 1209	DRH13M02003	08/31/2016	09/01/2017
Pre-Amplifier	MITEQ	AMF-6F-260400-40-8P	985646	01/14/2016	01/13/2017
Horn Antenna	EMCO	3116	26370	01/15/2016	01/14/2017
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

AC Conducted Emissions Test Site					
Equipment	Manufacturer	Model	S/N	Cal Date	Cal Due
LISN	R&S	ENV216	101054	10/05/2016	10/04/2017
Receiver	R&S	ESCI	101073	08/18/2016	08/19/2017

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

1.7 SUPPORT AND EUT ACCESSORIES EQUIPMENT

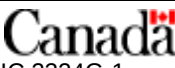
EUT Accessories Equipment					
No.	Equipment	Brand	Model	Series No.	FCC ID
	N/A				

Support Equipment					
No.	Equipment	Brand	Model	Series No.	FCC ID
1	Adapter	Power Adapter	PS30-AM501A-V	N/A	N/A
2	NB	IBM	1951-I3V(T60)	L3B2188	DoC

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 558074 D01 v03r05, RSS-247 Issue 1 and RSS-GEN Issue 4.

1.9 TABLE OF ACCREDITATIONS AND LISTINGS

Country	Agency	Scope of Accreditation	Logo
USA	FCC	3M Semi Anechoic Chamber (FCC MRA: TW1039) to perform FCC Part 15 measurements	 FCC MRA: TW1039
Canada	Industry Canada	3M Semi Anechoic Chamber (IC 2324G-1 / IC 2324G-2) to perform	 IC 2324G-1 IC 2324G-2

2. TEST SUMMERY

FCC Standard Section	Report Section	Test Item	Result
15.203	1.2	Antenna Requirement	Pass
15.207(a)	4.1	AC Conducted Emission	Pass
15.247(a)(2)	4.2	6 dB Bandwidth	Pass
-	4.2	Occupied Bandwidth (99%)	-
15.247(b)	4.3	Output Power Measurement	Pass
15.247(e)	4.4	Power Spectral Density	Pass
15.247(d)	4.5	Conducted Band Edge	Pass
15.247(d)	4.5	Conducted Emission	Pass
15.247(d)	4.6	Radiation Band Edge	Pass
15.247(d)	4.6	Radiation Spurious Emission	Pass

3. DESCRIPTION OF TEST MODES

3.1 THE WORST MODE OF OPERATING CONDITION

Operation mode	IEEE 802.11g mode :6Mbps
Test Channel Frequencies	IEEE 802.11g mode : 1. Lowest Channel : 2412MHz 2. Middle Channel : 2437MHz 3. Highest Channel : 2462MHz

3.2 THE WORST MODE OF MEASUREMENT

AC Power Line Conducted Emission	
Test Condition	AC Power line conducted emission for line and neutral
Voltage/Hz	120V/60Hz
Test Mode	Mode 1:EUT power by Host system via USB cable
Worst Mode	☒ Mode 1 ☐ Mode 2 ☐ Mode 3 ☐ Mode 4

Radiated Emission Measurement Above 1G	
Test Condition	Band edge, Emission for Unwanted and Fundamental
Voltage/Hz	120V/60Hz
Test Mode	Mode 1:EUT power by Host system via USB 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

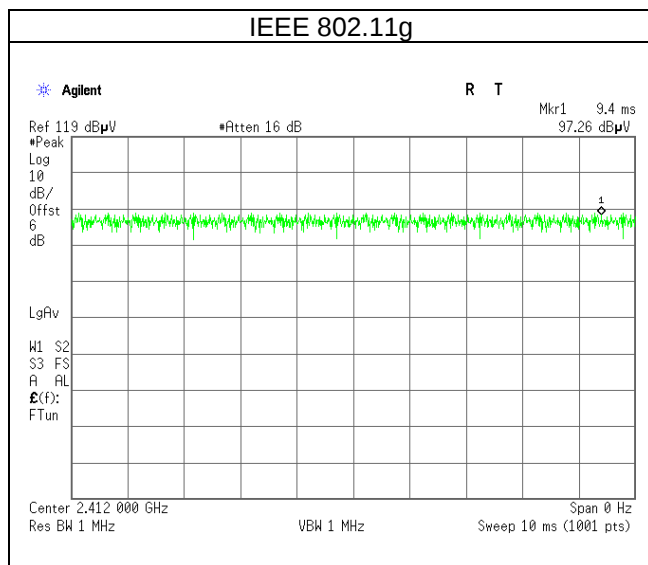
Radiated Emission Measurement Below 1G	
Test Condition	Radiated Emission Below 1G
Voltage/Hz	120V/60Hz
Test Mode	Mode 1:EUT power by Host system via USB cable
Worst Position	☐ Placed in fixed position. ☐ Placed in fixed position at X-Plane (E2-Plane) ☐ Placed in fixed position at Y-Plane (E1-Plane) ☒ Placed in fixed position at Z-Plane (H-Plane)
Worst 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(Z-plane and Horizontal) were recorded in this report.
3. For AC power line conducted emission and below 1G radiation emission were 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)
IEEE 802.11g	100	100	100%	0.00



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

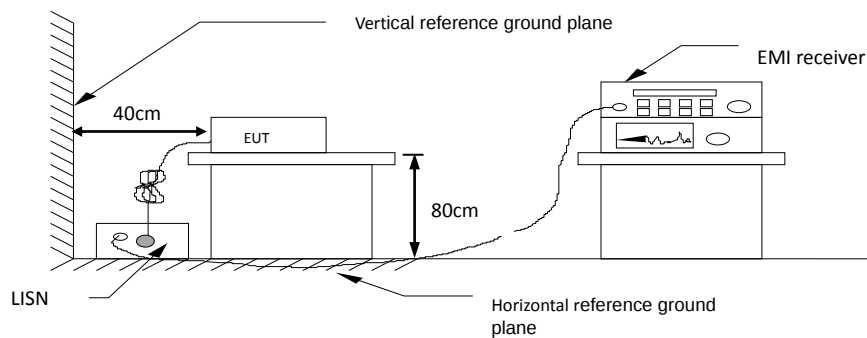
* Decreases with the logarithm of the frequency.

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

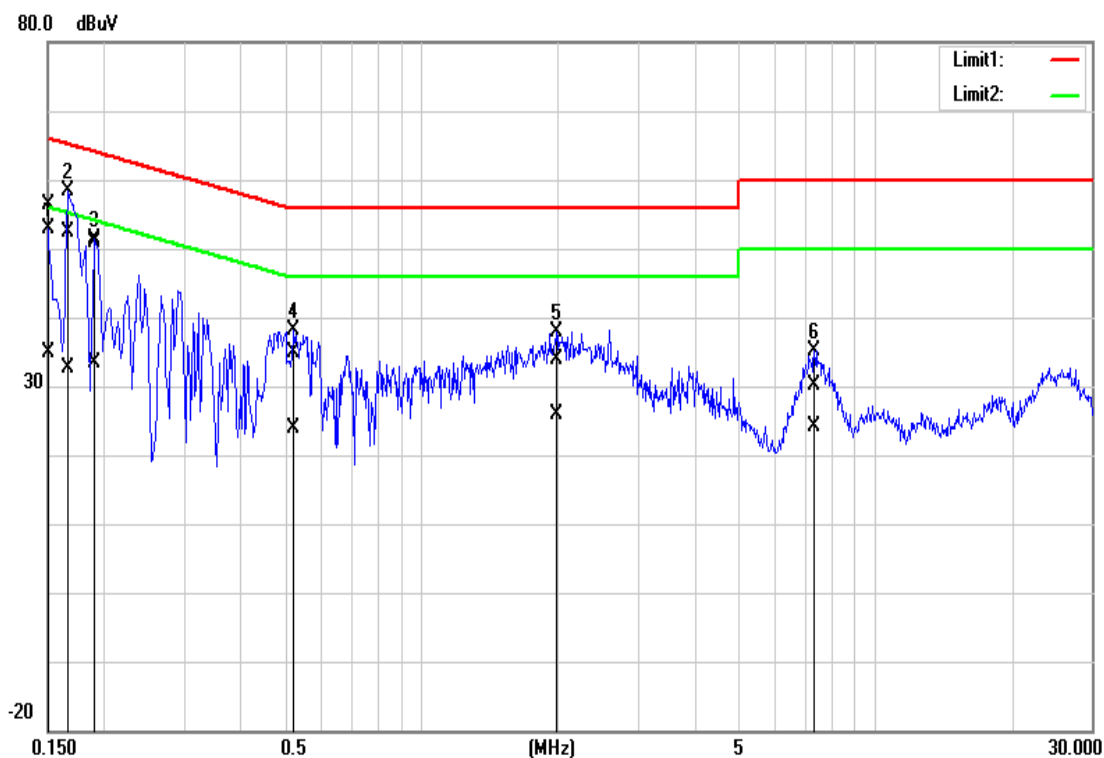


4.1.4 Test Result

Not applicable

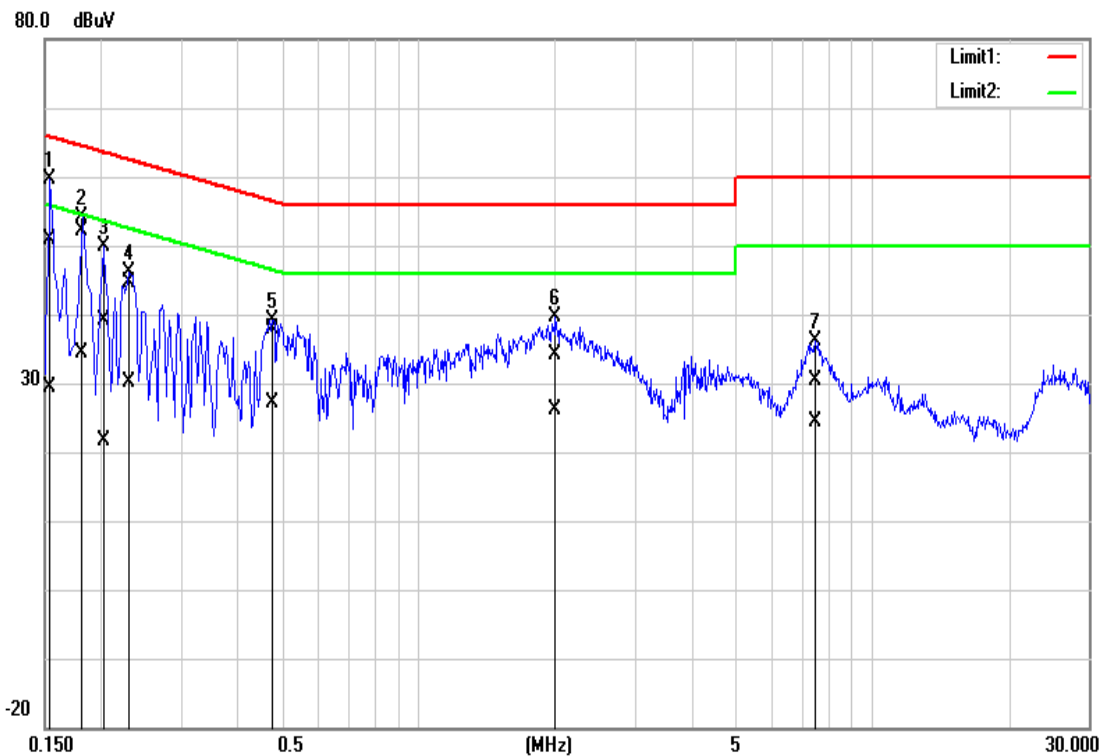
Test Data

Test Mode:	Mode 1	Temp/Hum	27(°C)/ 53%RH
Test Voltage:	120Vac / 60Hz	Test Date	Dec 07, 2016
Phase:	Line	Test Engineer	ED Chiang



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
0.1500	46.70	25.24	9.70	56.40	34.94	66.00	56.00	-9.60	-21.06	Pass
0.1660	42.63	22.83	9.70	52.33	32.53	65.16	55.16	-12.83	-22.63	Pass
0.1900	41.12	23.77	9.69	50.81	33.46	64.04	54.04	-13.23	-20.58	Pass
0.5220	25.12	14.15	9.68	34.80	23.83	56.00	46.00	-21.20	-22.17	Pass
1.9860	24.26	16.09	9.70	33.96	25.79	56.00	46.00	-22.04	-20.21	Pass
7.3660	20.33	14.45	9.74	30.07	24.19	60.00	50.00	-29.93	-25.81	Pass

Test Mode:	Mode 1	Temp/Hum	27(°C)/ 53%RH
Test Voltage:	120Vac / 60Hz	Test Date	Dec 07, 2016
Phase:	Neutral	Test Engineer	ED Chiang



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
0.1540	41.08	19.77	9.71	50.79	29.48	65.78	55.78	-14.99	-26.30	Pass
0.1820	42.55	24.62	9.70	52.25	34.32	64.39	54.39	-12.14	-20.07	Pass
0.2020	29.41	11.85	9.70	39.11	21.55	63.53	53.53	-24.42	-31.98	Pass
0.2300	34.89	20.52	9.70	44.59	30.22	62.45	52.45	-17.86	-22.23	Pass
0.4780	28.26	17.47	9.69	37.95	27.16	56.37	46.37	-18.42	-19.21	Pass
2.0020	24.36	16.38	9.70	34.06	26.08	56.00	46.00	-21.94	-19.92	Pass
7.4980	20.62	14.59	9.74	30.36	24.33	60.00	50.00	-29.64	-25.67	Pass

4.2 6DB BANDWIDTH

4.2.1 Test Limit

According to §15.247(a)(2),

6 dB Bandwidth :

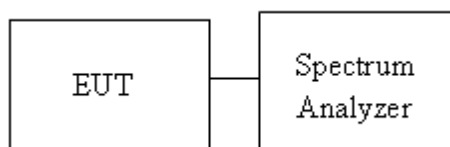
Limit	Shall be at least 500kHz
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4.2.2 Test Procedure

Test method Refer as KDB 558074 D01 v03r05, Section 8.1 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. SA set RBW = 100kHz, VBW = 300kHz and Detector = Peak, to measurement 6 dB Bandwidth.
4. Measure and record the result of 6 dB Bandwidth in the test report.

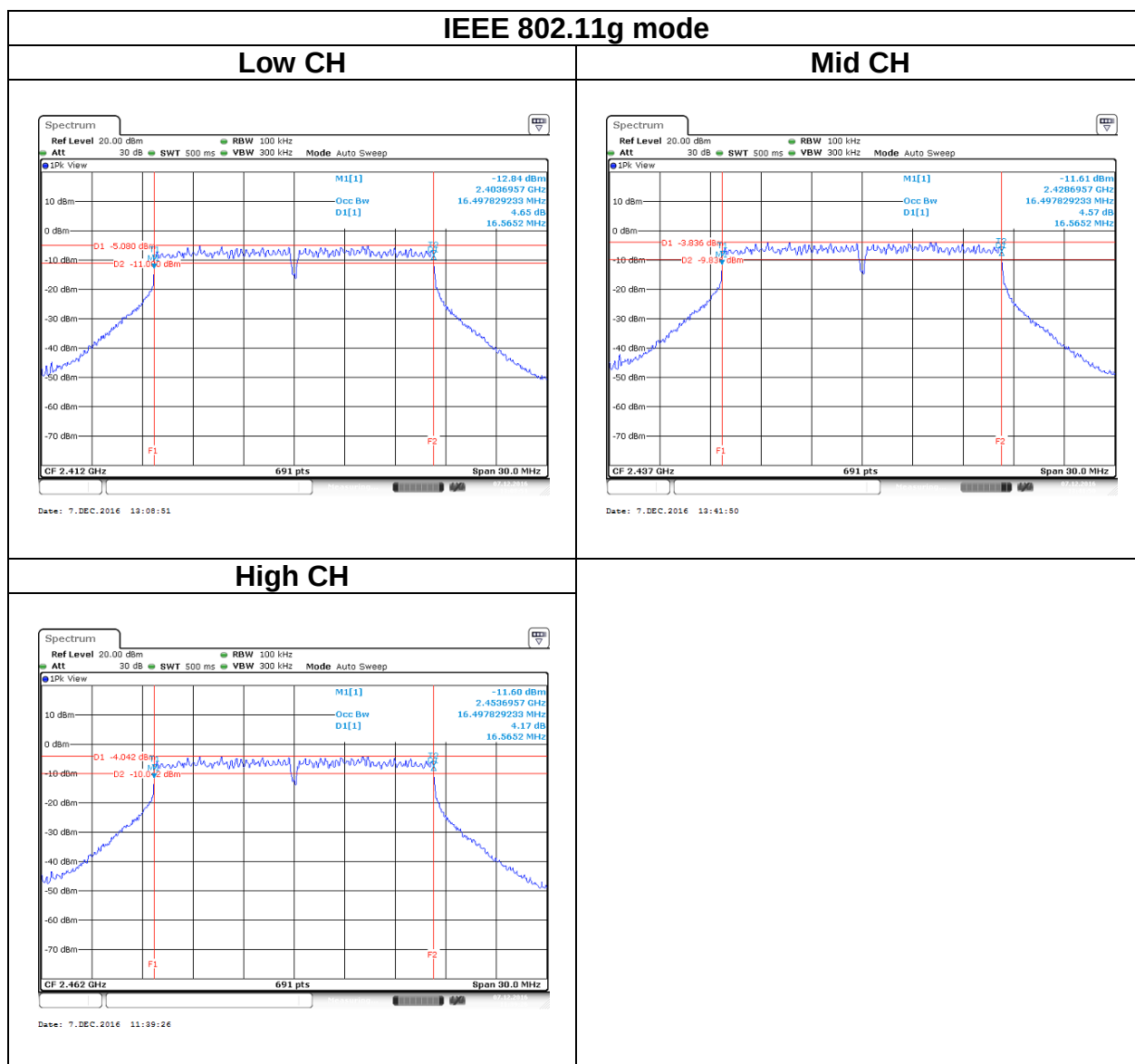
4.2.3 Test Setup



4.2.4 Test Result

Test mode: IEEE 802.11g mode / 2412-2462 MHz			
Channel	Frequency (MHz)	6dB BW (MHz)	6dB limit (kHz)
Low	2412	16.5652	≥500
Mid	2437	16.5652	
High	2462	16.5652	

Test Data



4.3 OUTPUT POWER MEASUREMENT

4.3.1 Test Limit

According to §15.247(b),

Peak output power :

For systems using digital modulation in the 2400-2483.5 MHz, and 5725-5850 MHz bands: 1 Watt(30 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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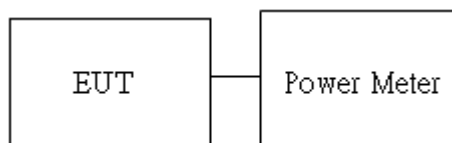
Average output power : For reporting purposes only.

4.3.2 Test Procedure

Test method Refer as KDB 558074 D01 v03r05, Section 9.1.2.

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.

4.3.3 Test Setup



4.3.4 Test Result

Peak output power :

Wifi 2.4G					
Config.	CH	Freq. (MHz)	PK Power (dBm)	PK Power (W)	Limit (dBm)
IEEE 802.11g Data rate: 6Mbps	1	2412	23.08	0.2032	30
	6	2437	21.85	0.1531	
	11	2462	23.87	0.2438	

Average output power :

Wifi 2.4G			
Config.	CH	Freq. (MHz)	AV Power (dBm)
IEEE 802.11g Data rate: 6Mbps	1	2412	12.74
	6	2437	11.60
	11	2462	13.10

4.4 POWER SPECTRAL DENSITY

4.4.1 Test Limit

According to §15.247(e),

For digitally modulated systems, the power spectral density conducted from the intentional radiator to the antenna shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission.

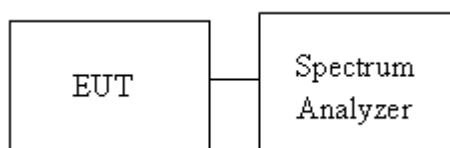
Limit	☒ Antenna not exceed 6 dBi : 8dBm ☐ Antenna with DG greater than 6 dBi : 8dBm [Limit = 8 – (DG – 6)] ☐ Point-to-point operation :
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4.4.2 Test Procedure

Test method Refer as KDB 558074 D01 v03r05, Section 10.2

1. The EUT RF output connected to the spectrum analyzer by RF cable.
2. Setting maximum power transmit of EUT
3. SA set RBW = 3kHz, VBW = 30kHz, Span = 1.5 times DTS Bandwidth (6 dB BW), Detector = Peak, Sweep Time = Auto and Trace = Max hold.
4. The path loss was compensated to the results for each measurement by SA.
5. Mark the maximum level.
6. Measure and record the result of power spectral density. in the test report.

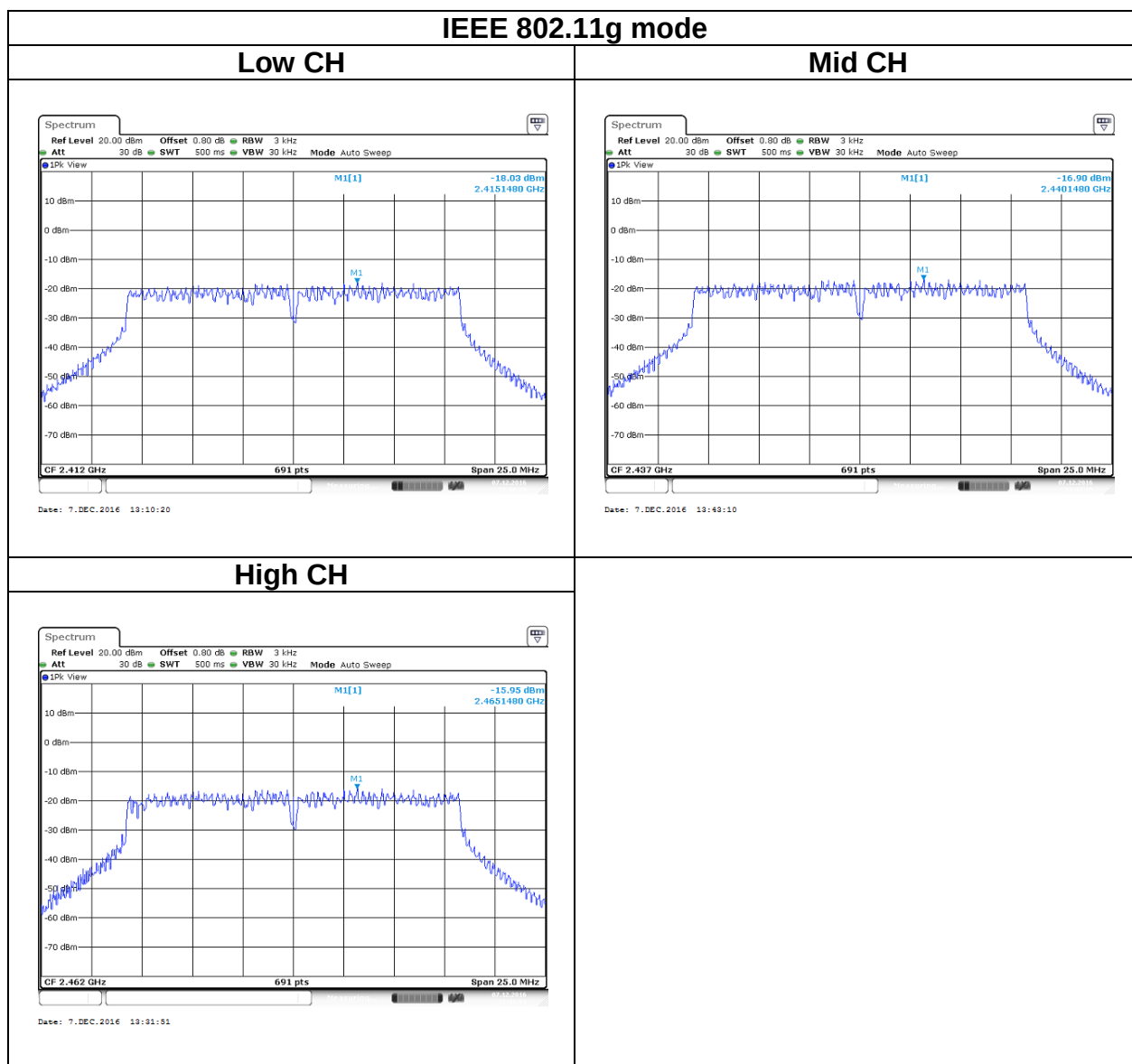
4.4.3 Test Setup



4.4.4 Test Result

Test mode: IEEE 802.11g mode / 2412-2462 MHz			
Channel	Frequency (MHz)	PSD (dBm)	IC/FCC Limit (dBm)
Low	2412	-18.03	8
Mid	2437	-16.90	
High	2462	-15.95	

Test Data



4.5 CONDUCTED BANDEDGE AND SPURIOUS EMISSION

4.5.1 Test Limit

According to §15.247(d),

In any 100 kHz bandwidth outside the authorized frequency band,

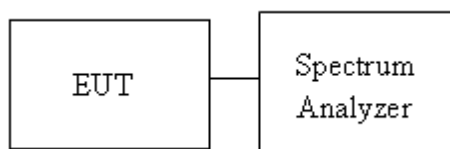
Non-restricted bands shall be attenuated at least 20 dB/30 dB relative to the maximum PSD level in 100 kHz by RF conducted or a radiated measurement which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a).

4.5.2 Test Procedure

Test method Refer as KDB 558074 D01 v03r05, Section 11.

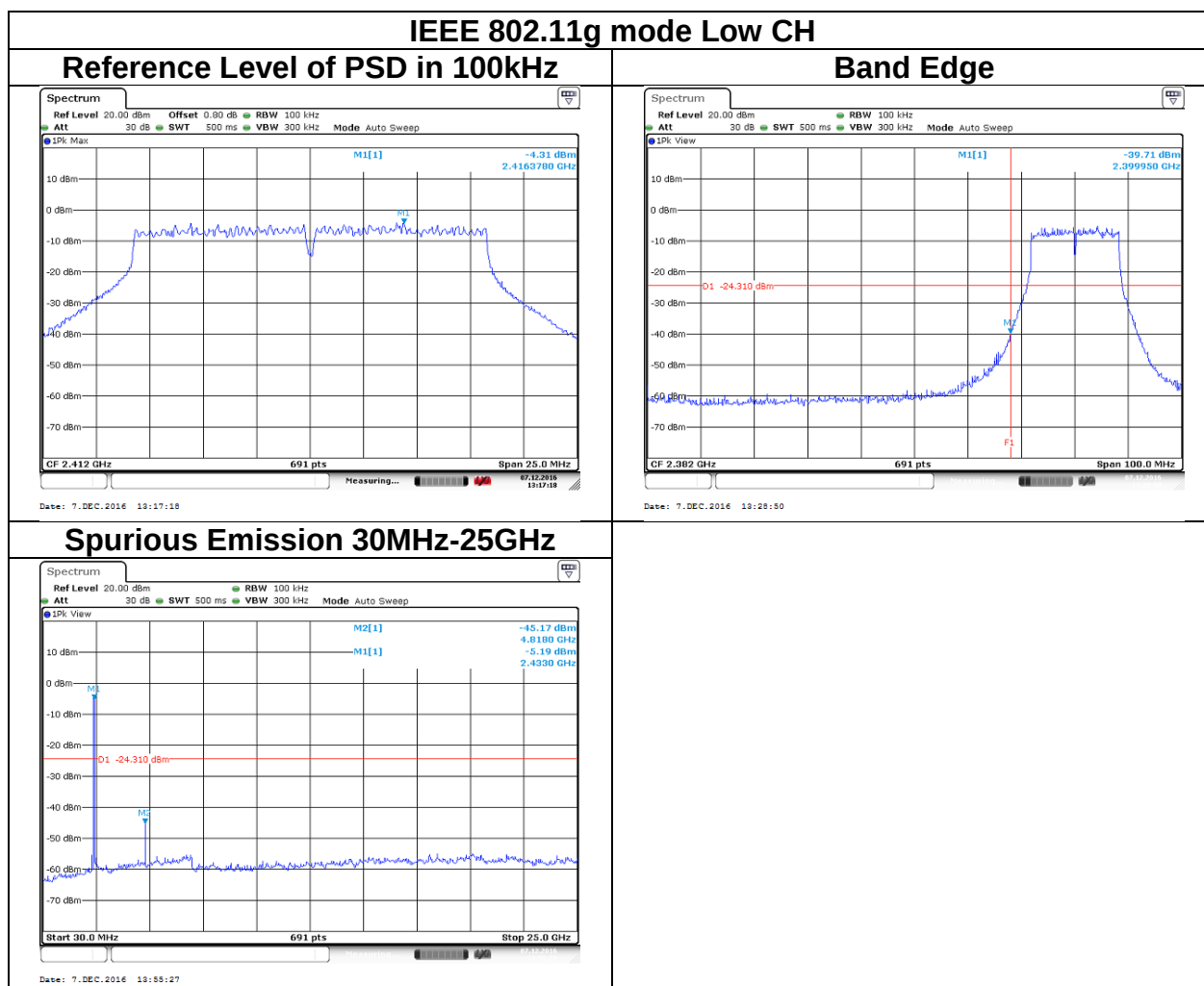
1. EUT RF output port connected to the SA by RF cable, and the path loss was compensated to result.
2. SA setting, RBW=100kHz, VBW=300kHz, Detector=Peak, Trace mode = max hold, SWT = Auto.
3. In any 100 kHz bandwidth outside the authorized frequency band, shall be attenuated at least 20 dB relative to the maximum in-band peak PSD level in 100 kHz when conducted power procedure is used. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, the attenuation required under this paragraph shall be 30 dB instead of 20 dB.

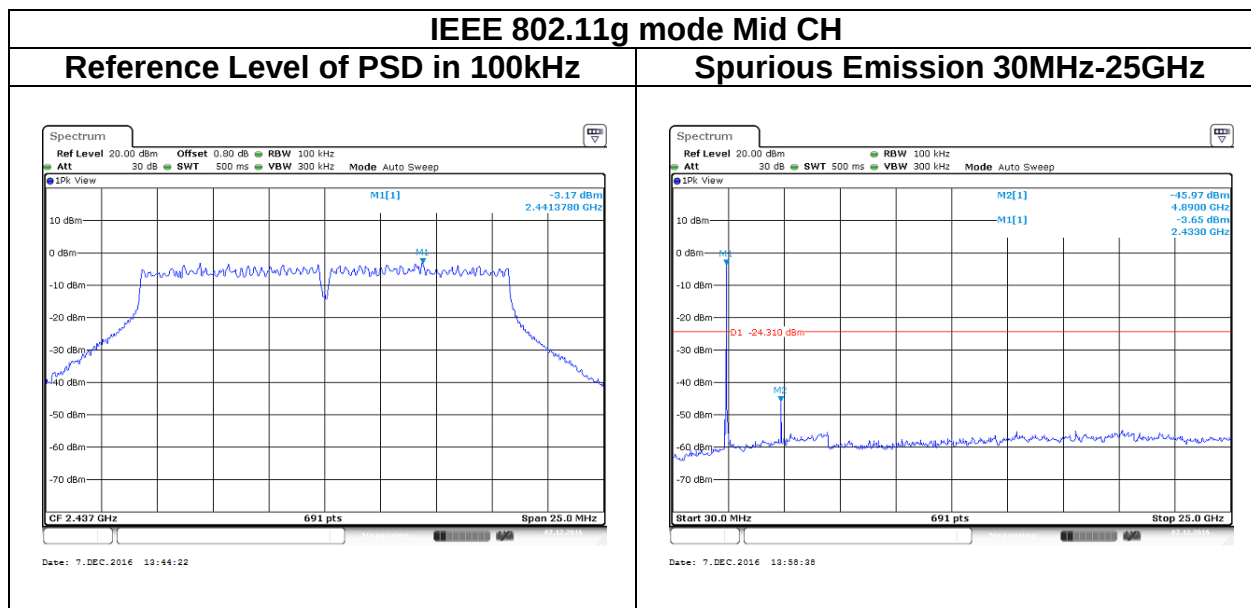
4.5.3 Test Setup



4.5.4 Test Result

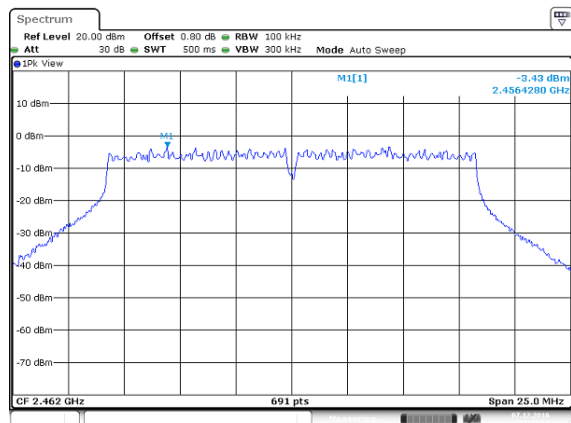
Test Data



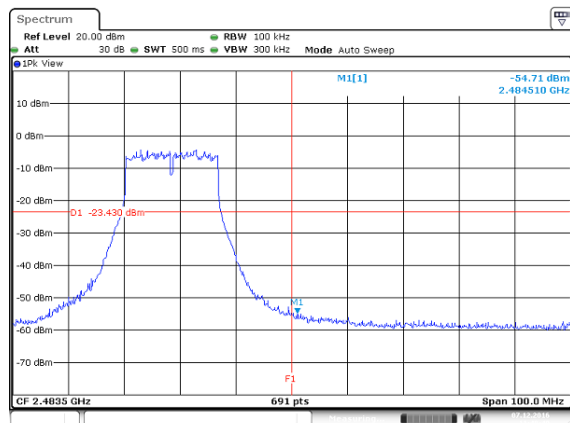


IEEE 802.11g mode High CH

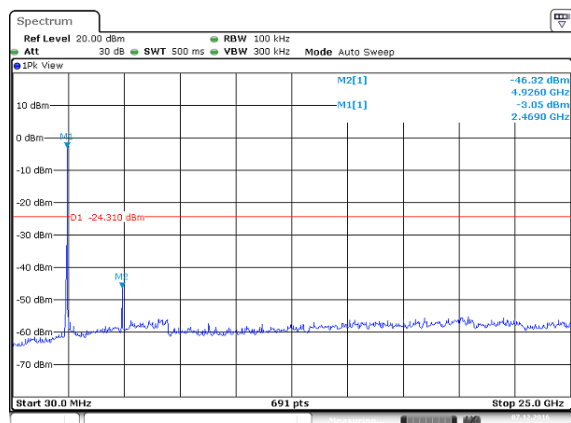
Reference Level of PSD in 100kHz



Band Edge



Spurious Emission 30MHz-25GHz



4.6 RADIATION BANDEGE AND SPURIOUS EMISSION

4.6.1 Test Limit

According to §15.247(d), §15.209 and §15.205,

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)	Measurement Distance (metres)
9-490 kHz	2,400/F (F in kHz)	300
490-1,705 kHz	24,000/F (F in kHz)	30
1.705-30 MHz	30	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

4.6.2 Test Procedure

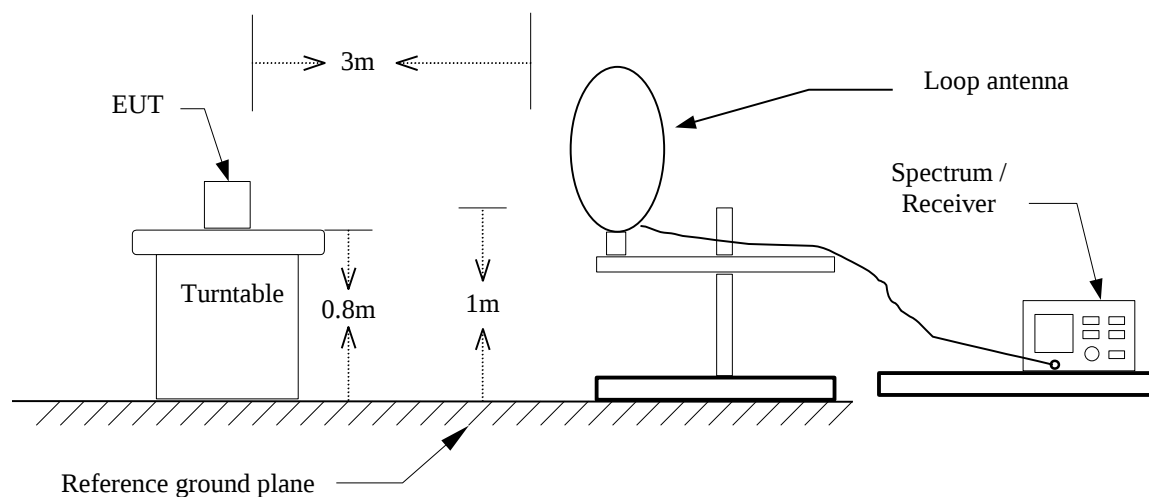
Test method Refer as KDB 558074 D01 v03r05, Section 12.1.

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 $\geq$ 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.

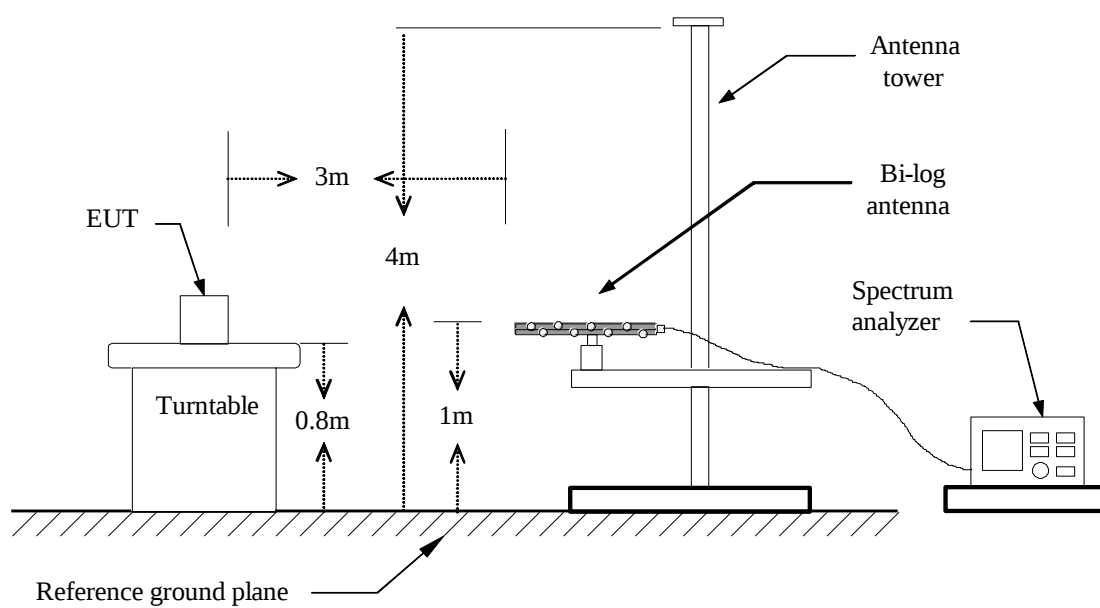
Configuration	Duty Cycle (%)	VBW
802.11g	100	10 Hz

4.6.3 Test Setup

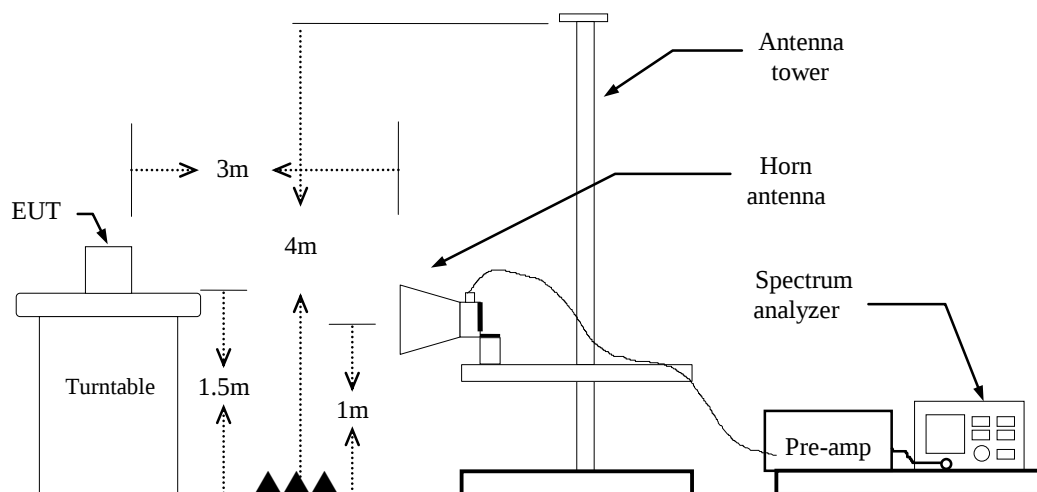
9kHz ~ 30MHz



30MHz ~ 1GHz



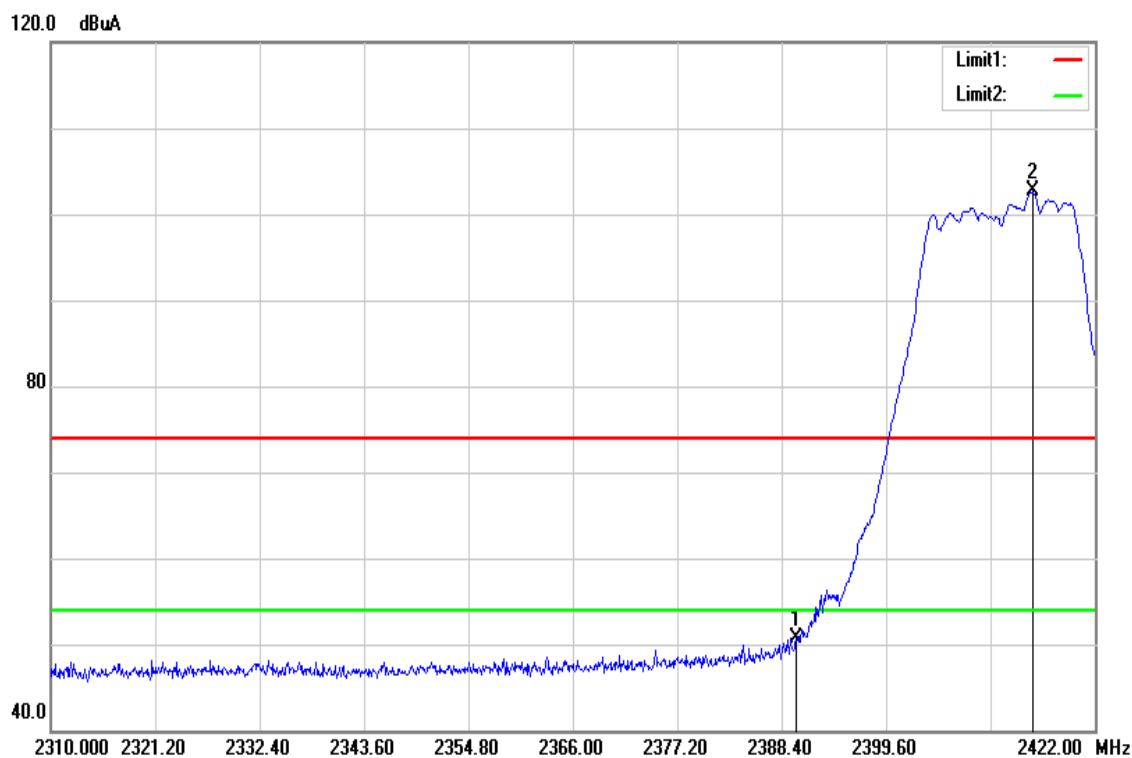
Above 1 GHz



4.6.4 Test Result

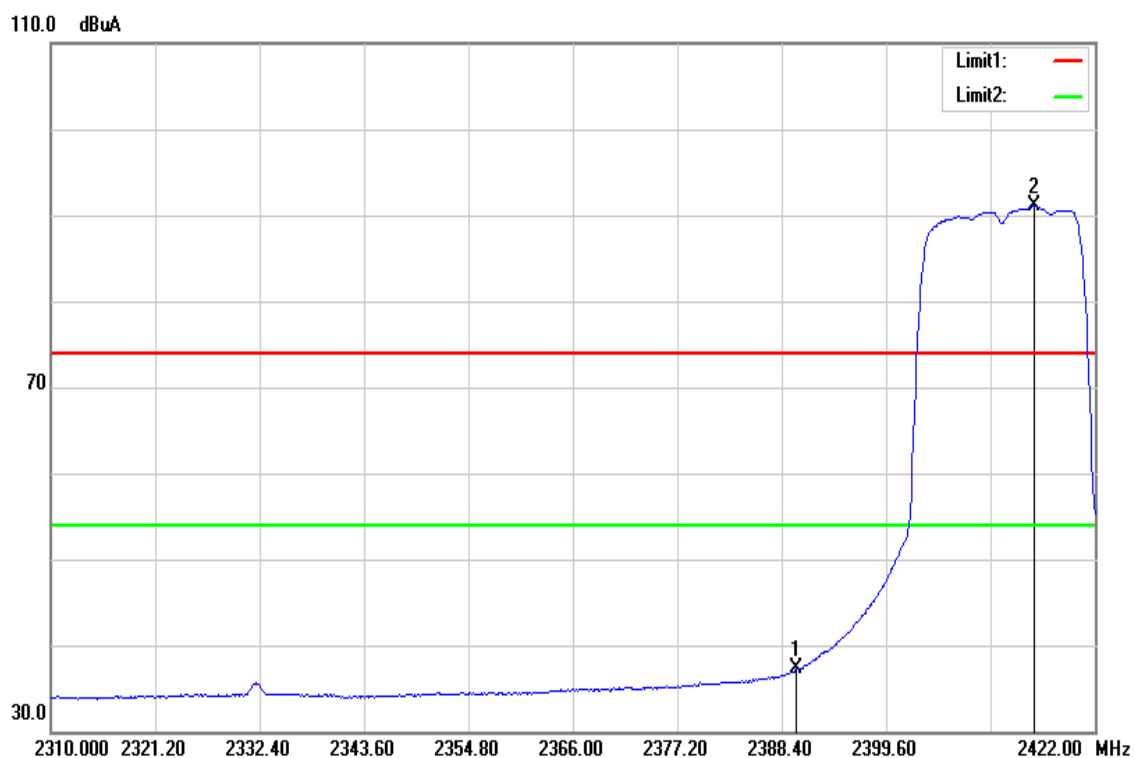
Band Edge Test Data

Test Mode:	IEEE 802.11g Low CH	Temp/Hum	27(°C)/ 53%RH
Test Item	Band Edge	Test Date	Dec 07, 2016
Polarize	Horizontal	Test Engineer	Ed Chiang
Detector	Peak	Test Voltage:	120Vac / 60Hz



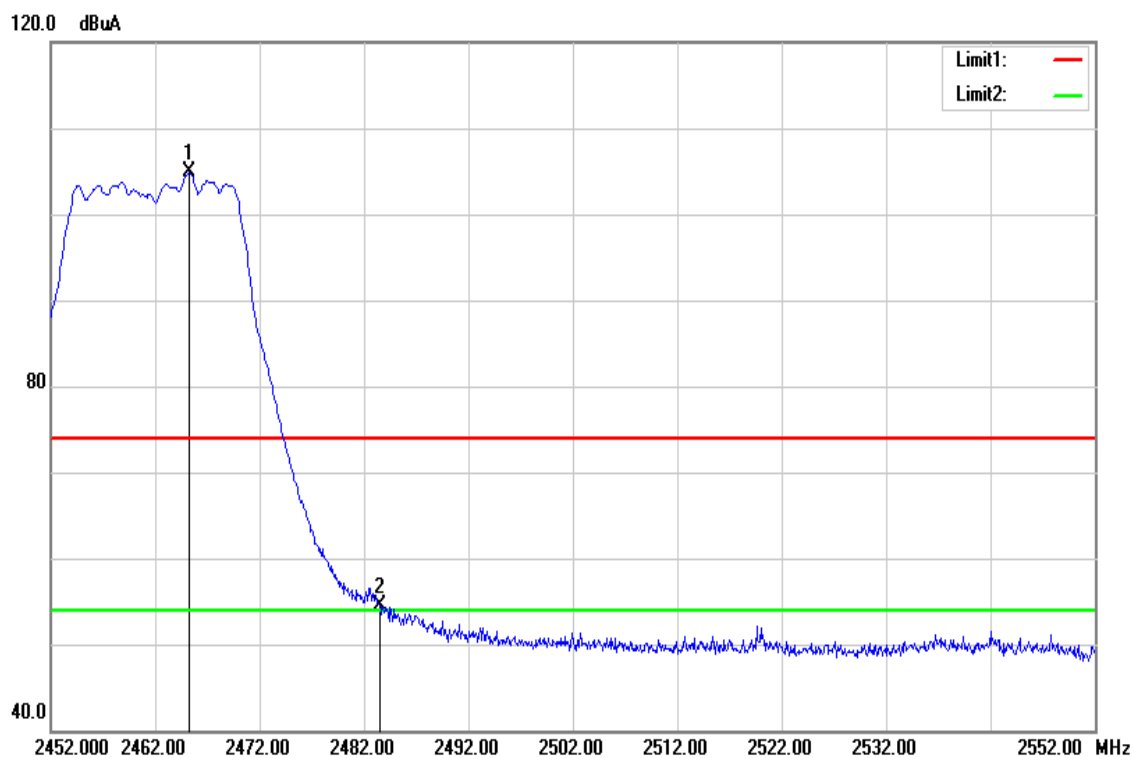
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
2389.968	54.01	-3.28	50.73	74.00	-23.27	PEAK
2415.280	105.84	-3.23	102.61	-	-	PEAK

Test Mode:	IEEE 802.11g Low CH	Temperature:	27(°C)/ 53%RH
Test Item	Band Edge	Test Date	Dec 07, 2016
Polarize	Horizontal	Test Engineer	Ed Chiang
Detector	Average	Test Voltage:	120Vac / 60Hz



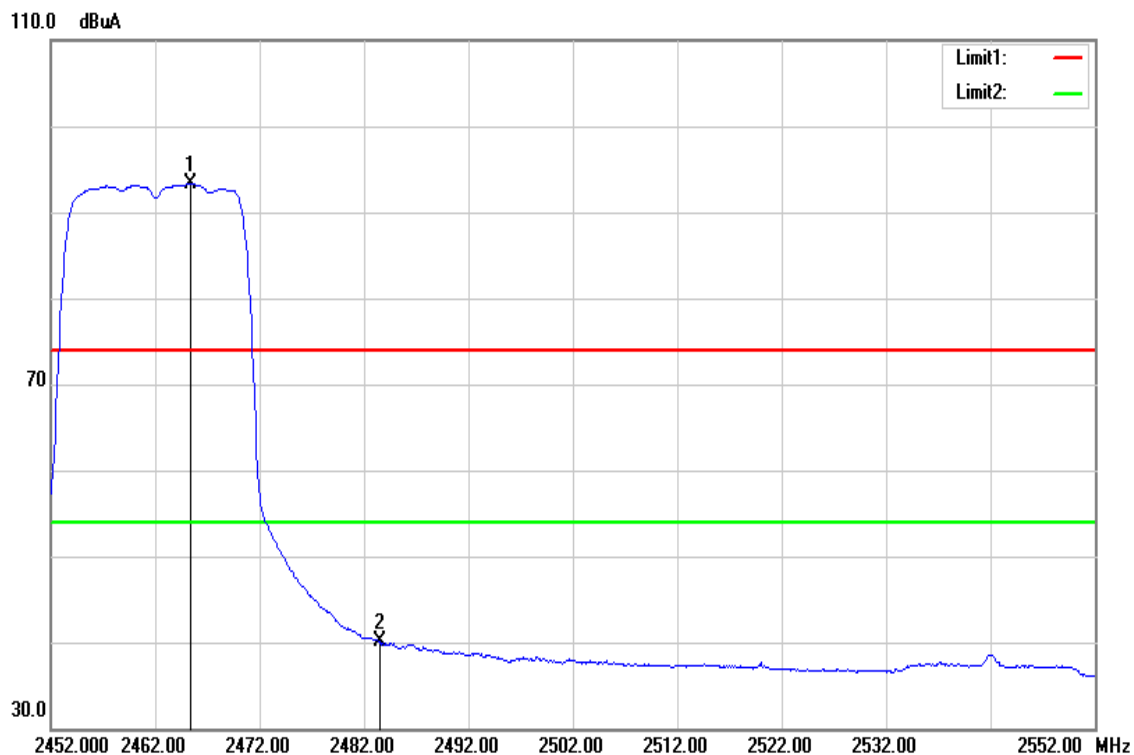
Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
2389.968	40.54	-3.28	37.26	54.00	-16.74	AVG
2415.504	94.28	-3.23	91.05	-	-	AVG

Test Mode:	IEEE 802.11g High CH	Temp/Hum	27(°C)/ 53%RH
Test Item	Band Edge	Test Date	Dec 07, 2016
Polarize	Horizontal	Test Engineer	Ed Chiang
Detector	Peak	Test Voltage:	120Vac / 60Hz



Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
2465.200	106.91	-2.08	104.83	-	-	PEAK
2483.500	56.52	-1.99	54.53	74.00	-19.47	PEAK

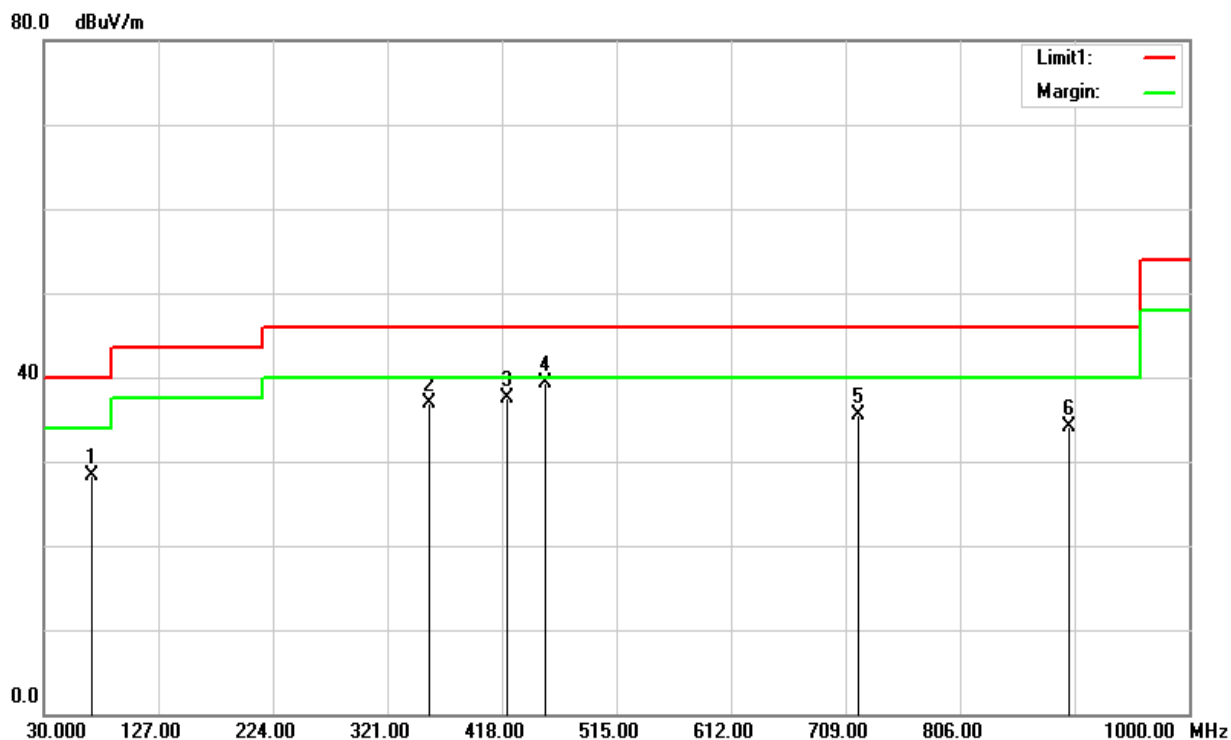
Test Mode:	IEEE 802.11g High CH	Temperature:	27(°C)/ 53%RH
Test Item	Band Edge	Test Date	Dec 07, 2016
Polarize	Horizontal	Test Engineer	Ed Chiang
Detector	Average	Test Voltage:	120Vac / 60Hz



Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
2465.400	95.45	-2.08	93.37	-	-	AVG
2483.500	42.00	-1.99	40.01	54.00	-13.99	AVG

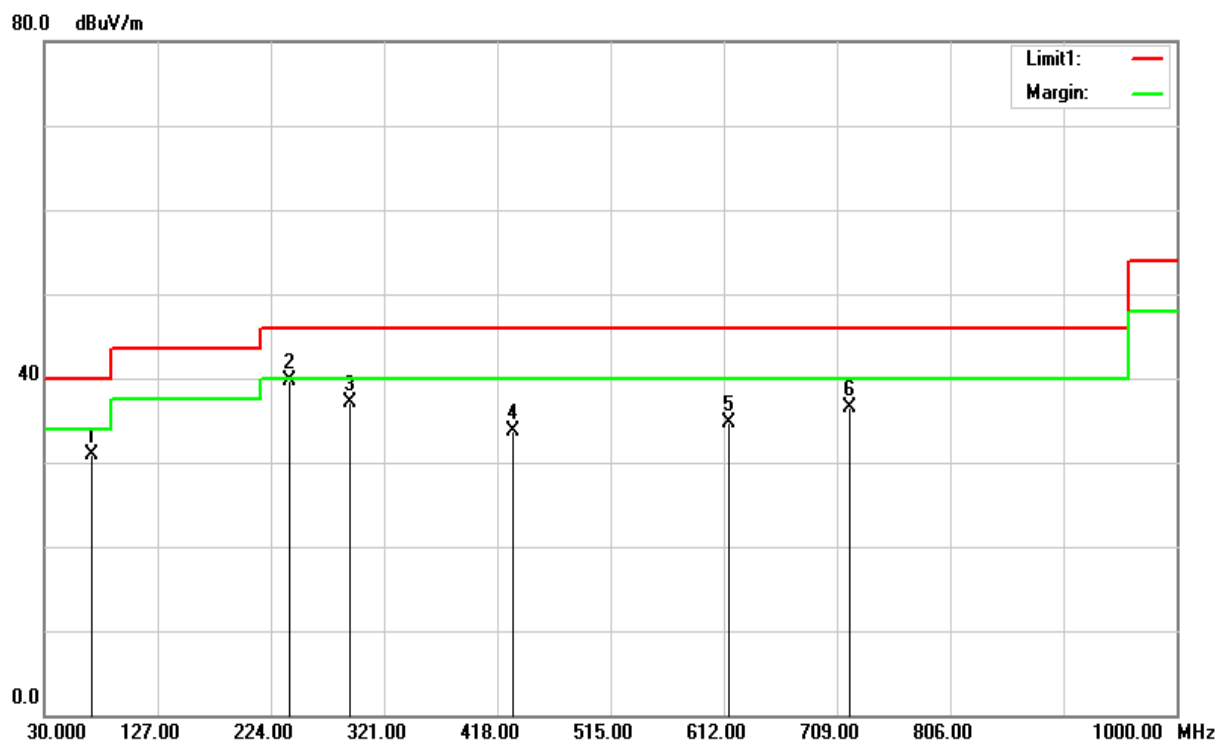
Below 1G Test Data

Test Mode:	Mode 1 with High CH	Temp/Hum	27(°C)/ 53%RH
Test Item	30MHz-1GHz	Test Date	Dec 08, 2016
Polarize	Vertical	Test Engineer	Ed Chiang
Detector	Peak and Qusi-peak	Test Voltage:	120Vac / 60Hz



Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
70.7400	48.99	-20.76	28.23	40.00	-11.77	QP
355.9200	49.64	-12.75	36.89	46.00	-9.11	peak
421.8800	48.48	-11.04	37.44	46.00	-8.56	peak
454.8600	49.41	-10.10	39.31	46.00	-6.69	QP
719.6700	41.16	-5.62	35.54	46.00	-10.46	peak
898.1500	37.26	-3.21	34.05	46.00	-11.95	peak

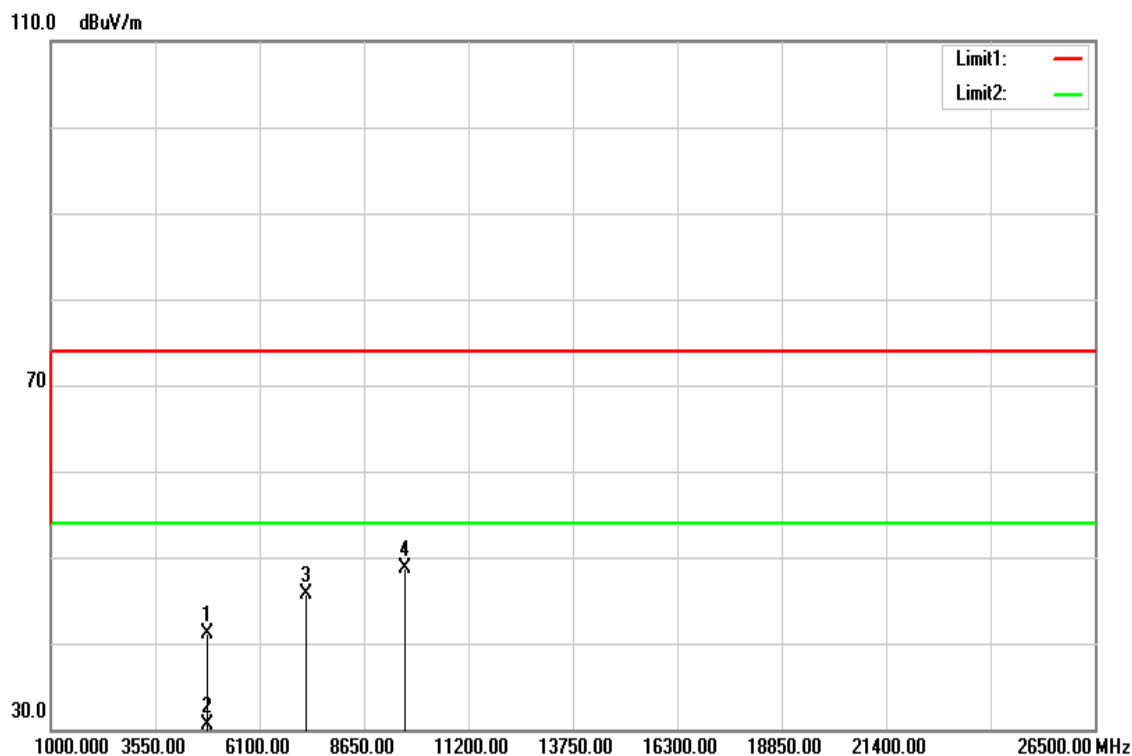
Test Mode:	Mode 1 with High CH	Temp/Hum	27(°C)/ 53%RH
Test Item	30MHz-1GHz	Test Date	Dec 08, 2016
Polarize	Horizontal	Test Engineer	Ed Chiang
Detector	Peak and Qusi-peak	Test Voltage:	120Vac / 60Hz



Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
70.7400	51.57	-20.76	30.81	40.00	-9.19	peak
239.5200	56.19	-16.52	39.67	46.00	-6.33	peak
291.9000	51.59	-14.39	37.20	46.00	-8.80	peak
431.5800	44.41	-10.75	33.66	46.00	-12.34	peak
616.8500	42.03	-7.36	34.67	46.00	-11.33	peak
719.6700	42.10	-5.62	36.48	46.00	-9.52	QP

Above 1G Test Data

Test Mode:	IEEE 802.11g Low CH	Temp/Hum	27(°C)/ 53%RH
Test Item	Harmonic	Test Date	Dec 08, 2016
Polarize	Vertical	Test Engineer	Ed Chiang
Detector	Peak and Average	Test Voltage:	120Vac / 60Hz

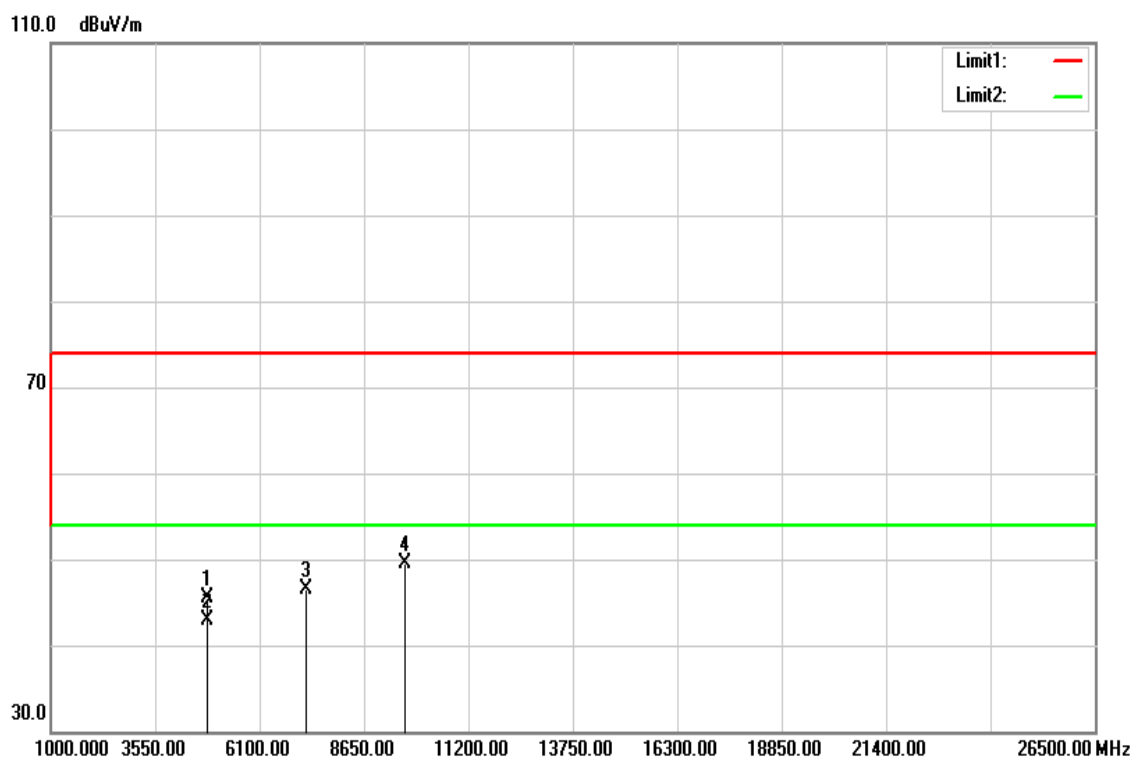


Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
4824.000	36.04	5.10	41.14	74.00	-32.86	PEAK
4824.000	25.38	5.10	30.48	54.00	-23.52	AVG
7236.000	33.03	12.71	45.74	74.00	-28.26	PEAK
9648.000	31.11	17.60	48.71	74.00	-25.29	PEAK

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 802.11g Low CH	Temp/Hum	27(°C)/ 53%RH
Test Item	Harmonic	Test Date	Dec 08, 2016
Polarize	Horizontal	Test Engineer	Ed Chiang
Detector	Peak and Average	Test Voltage:	120Vac / 60Hz

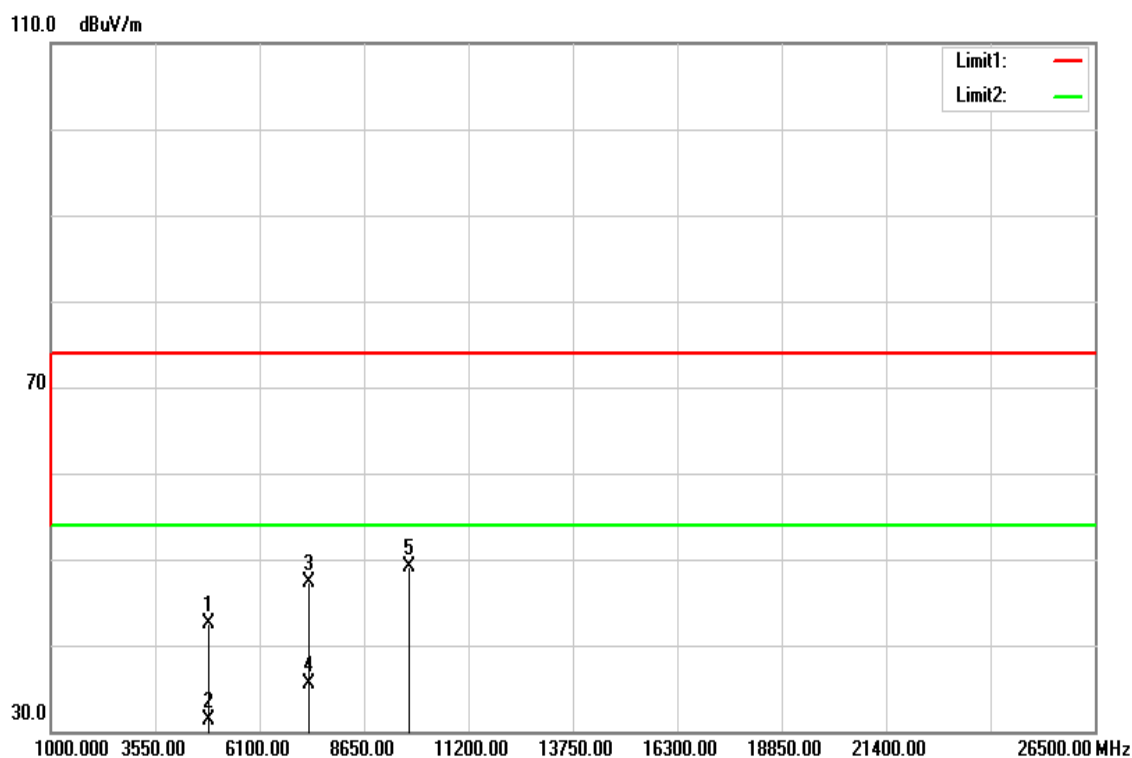


Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
4824.000	40.35	5.10	45.45	74.00	-28.55	PEAK
4824.000	37.71	5.10	42.81	54.00	-11.19	AVG
7236.000	33.88	12.71	46.59	74.00	-27.41	PEAK
9648.000	31.93	17.60	49.53	74.00	-24.47	PEAK

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 802.11g Mid CH	Temp/Hum	27(°C)/ 53%RH
Test Item	Harmonic	Test Date	Dec 08, 2016
Polarize	Vertical	Test Engineer	Ed Chiang
Detector	Peak and Average	Test Voltage:	120Vac / 60Hz

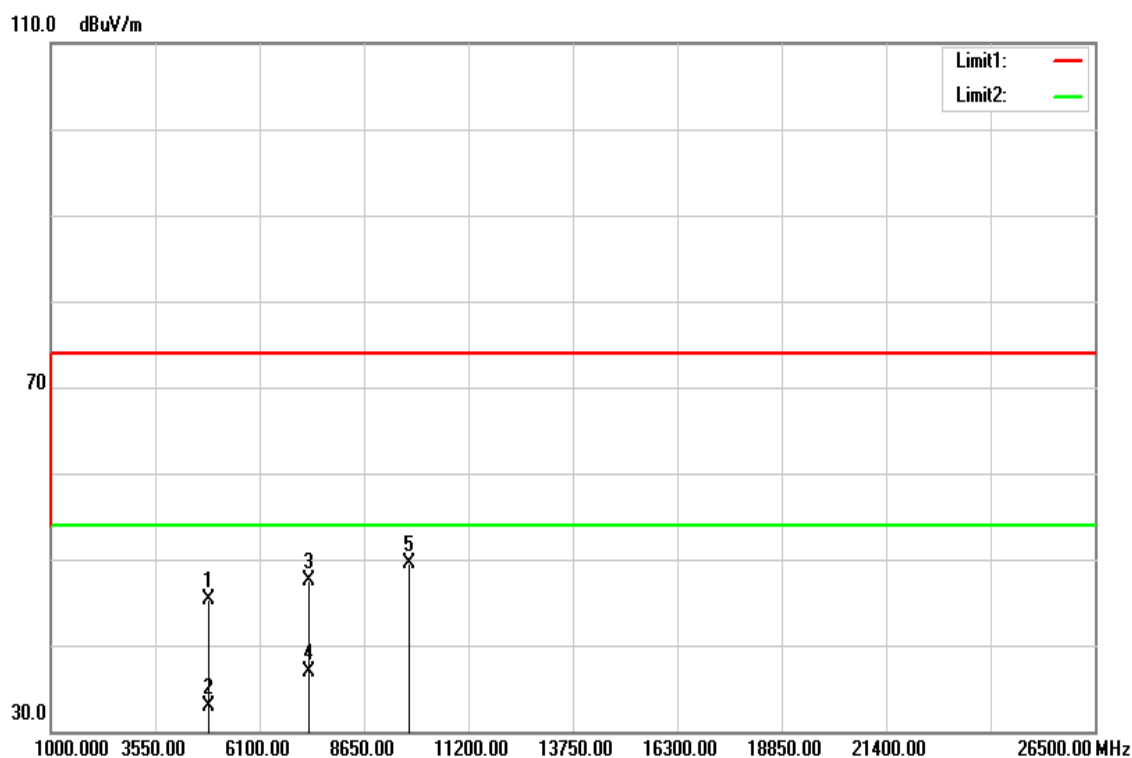


Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
4874.000	37.19	5.23	42.42	74.00	-31.58	PEAK
4874.000	26.13	5.23	31.36	54.00	-22.64	AVG
7311.000	34.31	12.94	47.25	74.00	-26.75	PEAK
7311.000	22.55	12.94	35.49	54.00	-18.51	AVG
9748.000	31.41	17.60	49.01	74.00	-24.99	PEAK

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	27(°C)/ 53%RH
Test Item	Harmonic	Test Date	Dec 08, 2016
Polarize	Horizontal	Test Engineer	Ed Chiang
Detector	Peak and Average	Test Voltage:	120Vac / 60Hz

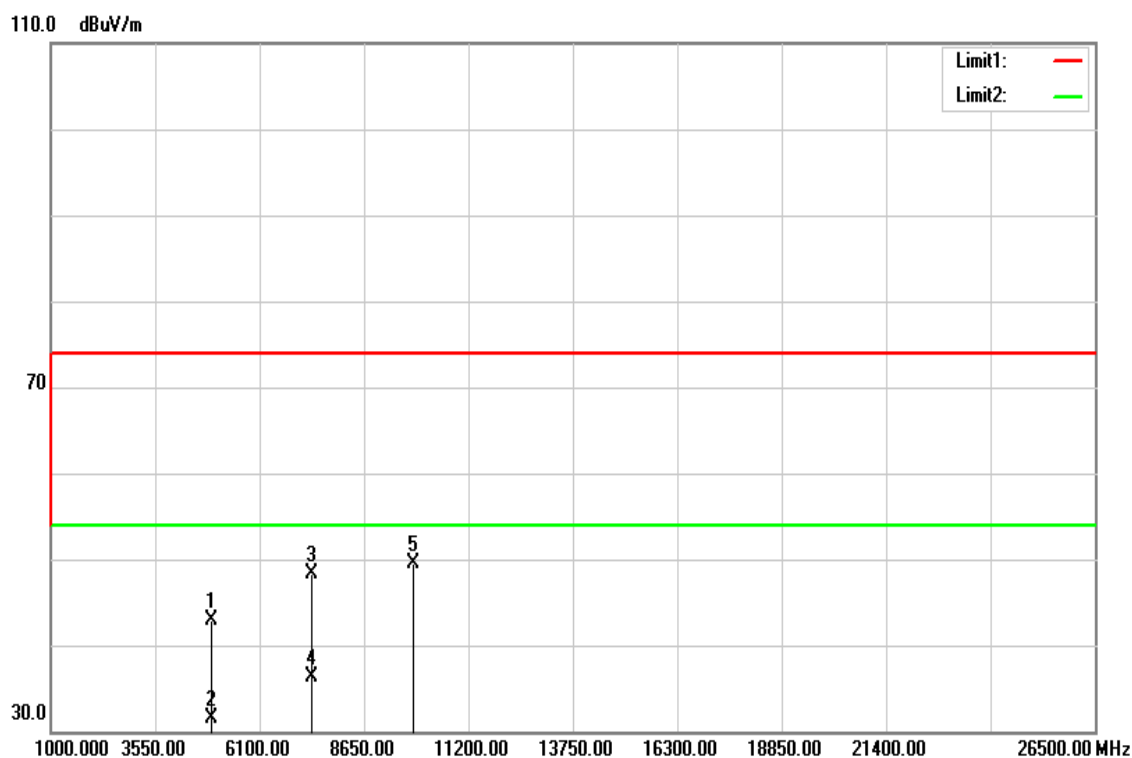


Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
4874.000	40.12	5.23	45.35	74.00	-28.65	PEAK
4874.000	27.62	5.23	32.85	54.00	-21.15	AVG
7311.000	34.64	12.94	47.58	74.00	-26.42	PEAK
7311.000	24.03	12.94	36.97	54.00	-17.03	AVG
9748.000	31.92	17.60	49.52	74.00	-24.48	PEAK

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 802.11g High CH	Temp/Hum	27(°C)/ 53%RH
Test Item	Harmonic	Test Date	Dec 08, 2016
Polarize	Vertical	Test Engineer	Ed Chiang
Detector	Peak and Average	Test Voltage:	120Vac / 60Hz

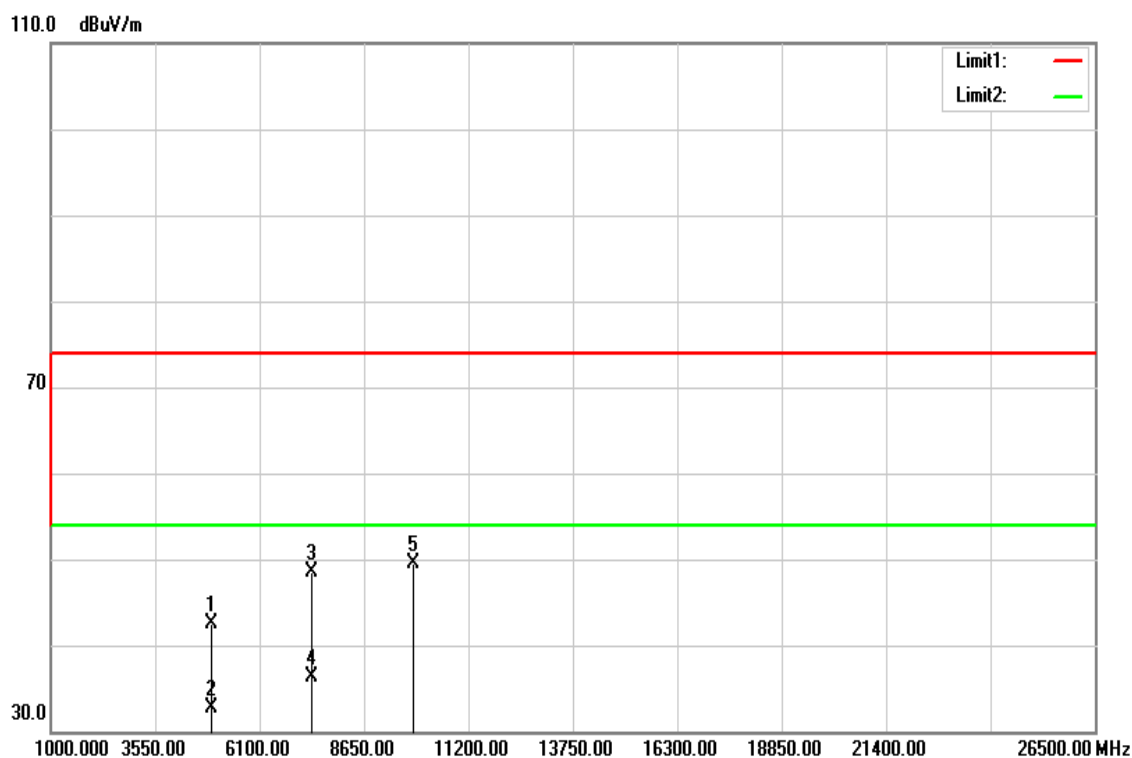


Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
4924.000	35.76	5.37	41.13	74.00	-32.87	PEAK
4924.000	26.10	5.37	31.47	54.00	-22.53	AVG
7386.000	33.58	13.17	46.75	74.00	-27.25	PEAK
7386.000	23.01	13.17	36.18	54.00	-17.82	AVG
9848.000	32.48	17.60	50.08	74.00	-23.92	PEAK

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 802.11g High CH	Temp/Hum	27(°C)/ 53%RH
Test Item	Harmonic	Test Date	Dec 08, 2016
Polarize	Horizontal	Test Engineer	Ed Chiang
Detector	Peak and Average	Test Voltage:	120Vac / 60Hz



Frequency (MHz)	Reading (dBuV)	Correct Factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
4924.000	39.02	5.37	44.39	74.00	-29.61	PEAK
4924.000	27.11	5.37	32.48	54.00	-21.52	AVG
7386.000	35.49	13.17	48.66	74.00	-25.34	PEAK
7386.000	23.02	13.17	36.19	54.00	-17.81	AVG
9848.000	31.18	17.60	48.78	74.00	-25.22	PEAK

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