

TEST REPORT

Report No.: SHATBL2211023W07

Applicant : Shenzhen Xianku Intelligent Co.,Ltd.

Product Name : 3D Smart Body Measurement Mirror

Brand Name : 

Model Name : XK-H003

FCC ID : 2A9EU-XKH003

Test Standard : FCC Part 15.247

Date of Test : 2022.12.6-2023.1.1

Report Prepared by :



(Chris Xu)

Report Approved by :



(Ghost Li)

Authorized Signatory :



(Terry Yang)



TEST RESULT CERTIFICATION

Applicant's Name.....: Shenzhen Xianku Intelligent Co.,Ltd.
Address.....: 2401, Block C, Mingzhi Shared Commercial Center North Station
Society,Minzhi Residential District, Longhua Shenzhen Guangdong
China
Manufacturer's Name.....: Shenzhen Xianku Intelligent Co.,Ltd.
Address.....: 2401, Block C, Mingzhi Shared Commercial Center North Station
Society,Minzhi Residential District, Longhua Shenzhen Guangdong
China
Product Description
Product Name.....: 3D Smart Body Measurement Mirror
Brand Name.....:  XIANKU
Model Name.....: XK-H003
Series Model.....: XK-H00**("*" =0-9 、 A-Z 、 a-z)
Test Standards.....: FCC Part15.247
Test Procedure.....: ANSI C63.10-2013

The device has been tested by ATBL, and the test results show that the equipment under test (EUT) is in compliance with the FCC Part15.247 requirements. And it is applicable only to the tested sample identified in the report.

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Date of Test

Date of receipt of test item.....: 2022.11.22
Date (s) of performance of tests.....: 2022.12.6-2023.1.1
Date of Issue.....: 2023.1.6
Test Result.....: Pass

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Revision History

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
SHATBL2211023W07	Rev. 01	Initial issue of report	Jan. 06, 2023

1. SUMMARY OF TEST RESULTS

Test procedures according to the technical standards:

KDB 558074 D01 15.247 Meas Guidance v05r02.

FCC Part 15.247			
Standard Section	Test Item	Judgment	Remark
15.207 RSS-GEN 8.8	Conducted Emission	PASS	--
15.247 (a)(2) RSS-247 Clause 5.2(a)	6dB&99% Bandwidth	PASS	--
15.247 (b)(3) RSS-247 Clause 5.4(d)	Output Power	PASS	--
15.247(d) & 15.209 & 15.205 RSS-247 Clause 5.5 & RSS-GEN 6.13 RSS-GEN 8.9 RSS-GEN 8.10	Radiated Spurious Emission	PASS	--
§15.247(d) & 15.205 RSS-247 Clause 5.5 RSS-GEN 8.10	Conducted Spurious & Band Edge Emission	PASS	--
15.247 (e) RSS-247 Clause 5.2(b)	Power Spectral Density	PASS	--
15.205 RSS-Gen 8.9/8.10	Restricted bands of operation	PASS	--
15.203 RSS-Gen 6.8	Antenna Requirement	PASS	--

NOTE:

(1) 'N/A' denotes test is not applicable in this Test Report.

(2) All tests are according to ANSI C63.10-2013.

2. GENERAL INFORMATION

2.1 GENERAL DESCRIPTION OF THE EUT

Product Name	3D Smart Body Measurement Mirror	
Trade Name		
Model Name	XK-H003	
Series Model	XK-H00**("*" =0-9 、 A-Z 、 a-z)	
Model Difference	The external color is different,and the internal structure is unchanged.	
Product Description	The EUT is a 3D Smart Body Measurement Mirror	
	Operation Frequency:	802.11b/g/n/ax(20MHz): 2412~2462MHz 802.11n/ax(40MHz):2422~2450 2MHz
	Modulation Type:	802.11b(DSSS):CCK,DQPSK,DBPSK 802.11g(OFDM):BPSK,QPSK,16-QAM,64-QAM 802.11n(OFDM):BPSK,QPSK,16-QAM,64-QAM 802.11ax(OFDM, OFDMA): BPSK,QPSK,16-QAM,64-QAM,256-QAM, 1024QAM
	Antenna Type:	PCB Antenna
	Antenna Gain (dBi):	Ant. 0: 1.45dBi Ant. 1: 1.45dBi
Based on the application, features, or specification exhibited in User Manual, the EUT is considered as an ITE/Computing Device. More details of EUT technical specification,please refer to the User Manual.		
Channel List	Please refer to the Note 2.	
Power Input	AC 100-240V	
Adapter	N/A	
Battery	N/A	
Hardware version number	HDF621013_P03	
Software version number	V1.1.8_V2.3.0.0	
Connecting I/O Port(s)	Please refer to the User's Manual	

Note:

1. For a more detailed features description, please refer to the manufacturer's specifications or the User Manual.

2.

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
01	2412	05	2432	09	2452
02	2417	06	2437	10	2457
03	2422	07	2442	11	2462
04	2427	08	2447	--	--

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
03	2422	06	2437	09	2452
04	2427	07	2442	--	--
05	2432	08	2447	--	--

Note:

In section 15.31(m), regards to the operating frequency range over 10 MHz, the Lowest frequency, the middle frequency, and the highest frequency of channel were selected to perform the test, and the selected channel see below:

Carrier Frequency Channel

3.

Ant.	Brand	Model Name	Antenna Type	Gain (dBi)	DG (dBi)	Note
0	N/A	N/A	PCB Antenna	1.45 dBi	1.45 dBi	WLAN ANT
1	N/A	N/A	PCB Antenna	1.45 dBi		WLAN ANT

2.2 DESCRIPTION OF THE TEST MODES

Each of these EUT operation mode(s) or test configuration mode(s) mentioned above was evaluated respectively.

Channel List for b/g/n/ax(20MHz)		
Test Channel	EUT Channel	Test Frequency (MHz)
lowest	CH01	2412
middle	CH07	2442
highest	CH13	2472

Channel List for 802.11 n/ax(40MHz)		
Test Channel	EUT Channel	Test Frequency (MHz)
lowest	CH03	2422
middle	CH07	2442
highest	CH11	2462

Note:

- (1) The measurements are performed at all Bit Rate of Transmitter, the worst data was reported.
- (2) We have be tested for all availiable U.S. voltage and frequencies(For 120V,50/60Hz and 240V, 50/60Hz) for which the device is capable of operation, and the worst case of 120V /60Hz is shown in the report.

Conducted Emission

Test Case	
Conducted Emission	Keeping WIFI TX

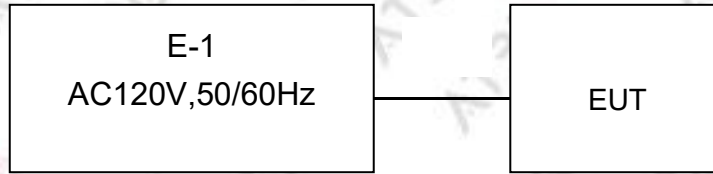
2.3 TEST SOFTWARE AND POWER LEVEL

During testing channel & power controlling software provided by the customer was used to control the operating channel as well as the output power level.

Ant.	RF Function	Mode Or Modulation type	Ant Gain(dBi)	DG(dBi)	Power Class	Software For Testing
0	WIFI(2.4G)	802.11b/g/n20/n40/ax20/ax40	1.45	1.45	default	QRCT
1	WIFI(2.4G)	802.11b/g/n20/n40/ax20/ax40	1.45			

2.4 BLOCK DIAGRAM SHOWING THE CONFIGURATION OF SYSTEM TESTED

Radiation Test Set



Conduction Test Set



2.5 DESCRIPTION OF NECESSARY ACCESSORIES AND SUPPORT UNITS

The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

Necessary accessories

Item	Equipment	Mfr/Brand	Model/Type No.	Length	Note
N/A	N/A	N/A	N/A	N/A	N/A

Support units

Item	Equipment	Manufacturer	Model No.	Serial No.	Note
1	External Power Source	N/A	N/A	N/A	N/A
2	Display	Philips	2064VL	ATBL-A00018	N/A

Note:

(1) For detachable type I/O cable should be specified the length in cm in 『Length』 column.

2.6 LABORATORY INFORMATION

Company Name:	Shanghai ATBL Technology Co., Ltd.
Address:	Building 8, No. 160, Basheng Road, Waigaoqiao Free Trade Zone, Pudong New Area, Shanghai
Telephone:	+86(0)21-51298625
The FCC Registration Number (FRN):	0031025281
A2LA Number:	6184.01
CNAS Number:	CNAS L14531

2.7 MEASUREMENT UNCERTAINTY

The reported uncertainty of measurement $y \pm U$, where expanded uncertainty U is based on a standard uncertainty multiplied by a coverage factor of $k=2$, providing a level of confidence of approximately 95 %.

No.	Item	Uncertainty
1	RF output power, conducted	$\pm 0.958\text{dB}$
2	Conducted spurious emissions	$\pm 2.988\text{dB}$
3	All emissions, radiated 30MHz-1GHz	$\pm 2.50\text{dB}$
4	All emissions, radiated 1GHz-18GHz	$\pm 3.51\text{dB}$
5	Occupied bandwidth	$\pm 2.320\text{Hz}$
6	Power spectral density	$\pm 0.886\text{dB}$

2.8 EQUIPMENTS LIST

2.8.1 Radiation Test equipment

Kind of Equipment	Manufacturer	Type No.	Serial No.	Management number	Calibrated until
Test Receiver	R&S	ESCI	100469	SHATBL-E003	2023.09.27
Spectrum Analyzer	Agilent	N9020A	MY50200811	SHATBL-E017	2023.09.27
Bilog Antenna	SCHWARZBECK	VLUB 9168	01174	SHATBL-E008	2023.09.27
Horn Antenna	SCHWARZBECK	BBHA 9120D	02014	SHATBL-E009	2023.09.27
Pre-Amplifier (0.1M-3GHz)	JPT	JPA-10M1G35	21010100035001	SHATBL-E005	2023.09.27
Pre-Amplifier (1G-18GHz)	JPT	JPA0118-55-303A	1910001800055000	SHATBL-E006	2023.09.27
Temperature & Humidity	DeLi	DeLi	N/A	SHATBL-E016	2023.09.27
Antenna/Turntable Controller	Brilliant	N/A	N/A	SHATBL-E007	N/A
Test SW	FALA	EMC-RI(Ver.4A2)		SHATBL-E046	N/A

2.8.2 RF Connected Test

Kind of Equipment	Manufacturer	Type No.	Serial No.	equipment number	Calibrated until
MIMO Power measurement test Set	DARE	RPR3006W	16I00054SN016	SHATBL-W006	2023.09.27
			RPR6W-20001005	SHATBL-W013	2023.09.27
Signal Analyzer	Agilent	N9020A	MY57300196	SHATBL-W004	2023.09.27
Signal Generator	Agilent	N5182B	MY46240556	SHATBL-W005	2023.09.27
Wireless Communications Test Set	R&S	CMW500	101331	SHATBL-W007	2023.09.27
Temperature & Humidity	Deli	deli	N/A	SHATBL-W011	2023.09.27
Attenuator	Agilent	8494B	DC-18G	SHATBL-W009	2023.09.27
Attenuator	Agilent	8496B	DC-18G	SHATBL-W010	2023.09.27
power splitter	MNK	MPD-DC/6-2S	62315 G51	SHATBL-W015	2023.09.27
			62315 G52	SHATBL-W016	2023.09.27
Filter	Chengdu kangmaiwei	ZBSF-C2400-2483.5-T3	N/A	SHATBL-W021	N/A
Constant temperature and humidity box	KSON	THS-B6C-150	6159K	SHATBL-W019	2024.01.16
Test SW	FALA	LZ-RF(Ver.LzRF-03A3.1)		SHATBL-W020	N/A

3. EMC EMISSION TEST

3.1 CONDUCTED EMISSION MEASUREMENT

3.1.1 POWER LINE CONDUCTED EMISSION LIMITS

The radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies, within the band 150 kHz to 30 MHz, shall not exceed the limits in the following table.

FREQUENCY (MHz)	Conducted Emission limit (dBuV)	
	Quasi-peak	Average
0.15 -0.5	66 - 56 *	56 - 46 *
0.50 -5.0	56.00	46.00
5.0 -30.0	60.00	50.00

Note:

- (1) The tighter limit applies at the band edges.
- (2) The limit of “ * ” marked band means the limitation decreases linearly with the logarithm of the frequency in the range.

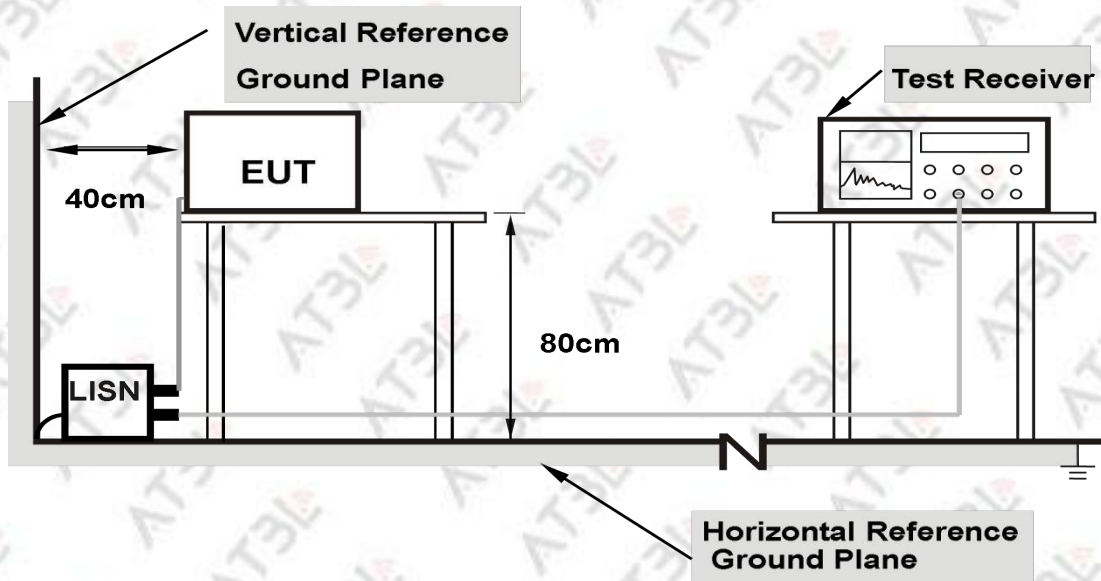
The following table is the setting of the receiver

Receiver Parameters	Setting
Attenuation	10 dB
Start Frequency	0.15 MHz
Stop Frequency	30 MHz
IF Bandwidth	9 kHz

3.1.2 TEST PROCEDURE

- The EUT is 0.8 m from the horizontal ground plane and 0.4 m from the vertical ground plane with EUT being connected to the power mains through a line impedance stabilization network (LISN). All other support equipments are powered from additional LISN(s). The LISN provides 50 Ohm/ 50uH of coupling impedance for the measuring instrument.
- Interconnecting cables that hang closer than 40 cm to the ground plane shall be folded back and forth in the center forming a bundle 30 to 40 cm long.
- I/O cables that are not connected to a peripheral shall be bundled in the center. The end of the cable may be terminated, if required, using the correct terminating impedance. The overall length shall not exceed 1 m.
- LISN is at least 80 cm from the nearest part of EUT chassis.
- For the actual test configuration, please refer to the related Item –EUT Test Photos.

3.1.3 TEST SETUP



Note: 1. Support units were connected to second LISN.

2. Both of LISNs (AMN) are 80 cm from EUT and at least 80 cm from other units and other metal planes support units.

3.1.4 EUT OPERATING CONDITIONS

The EUT was configured for testing in a typical fashion (as a customer would normally use it). The EUT has been programmed to continuously transmit during test. This operating condition was tested and used to collect the included data.

3.1.5 TEST RESULT

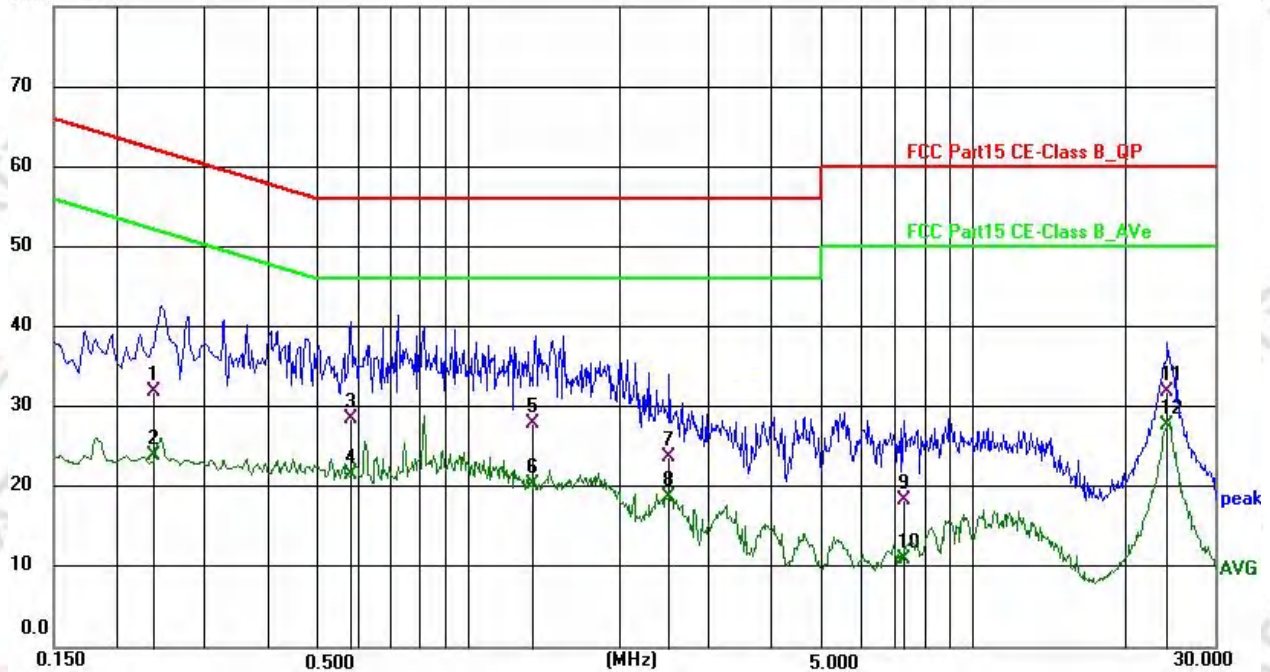
Temperature:	25°C	Relative Humidity:	50%RH
Test Voltage:	AC 120V/60Hz	Phase:	L
Test Mode:	TX Mode		

No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	0.2375	21.12	10.74	31.86	62.18	-30.32	QP
2	0.2375	13.25	10.74	23.99	52.18	-28.19	AVG
3	0.5842	17.91	10.67	28.58	56.00	-27.42	QP
4	0.5842	10.90	10.67	21.57	46.00	-24.43	AVG
5	1.3369	17.14	10.74	27.88	56.00	-28.12	QP
6	1.3369	9.60	10.74	20.34	46.00	-25.66	AVG
7	2.4859	12.99	10.79	23.78	56.00	-32.22	QP
8	2.4859	7.98	10.79	18.77	46.00	-27.23	AVG
9	7.2902	7.58	10.73	18.31	60.00	-41.69	QP
10	7.2902	0.32	10.73	11.05	50.00	-38.95	AVG
11	24.2150	20.75	11.15	31.90	60.00	-28.10	QP
12	24.2150	16.69	11.15	27.84	50.00	-22.16	AVG

Remark:

1. All readings are Quasi-Peak and Average values.
2. Margin = Result (Result = Reading + Factor) - Limit.
3. Factor = LISN factor + Cable loss + Limiter (10dB)

80.0 dBuV



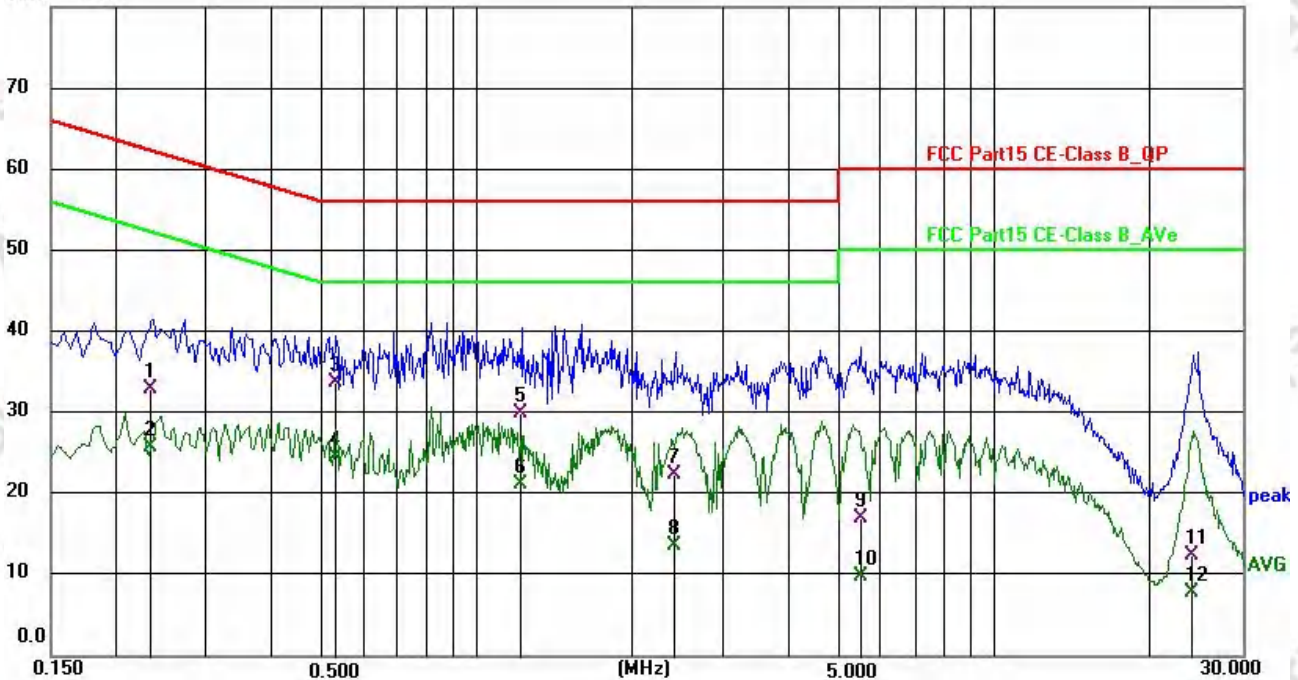
Temperature:	25°C	Relative Humidity:	50%RH
Test Voltage:	AC 120V/60Hz	Phase:	N
Test Mode:	TX Mode		

No.	Frequency (MHz)	Reading (dBuV)	Correct (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	0.2343	22.56	10.38	32.94	62.30	-29.36	QP
2	0.2343	15.41	10.38	25.79	52.30	-26.51	AVG
3	0.5325	23.45	10.32	33.77	56.00	-22.23	QP
4	0.5325	14.26	10.32	24.58	46.00	-21.42	AVG
5	1.2152	19.67	10.37	30.04	56.00	-25.96	QP
6	1.2152	10.86	10.37	21.23	46.00	-24.77	AVG
7	2.4116	12.04	10.42	22.46	56.00	-33.54	QP
8	2.4116	3.21	10.42	13.63	46.00	-32.37	AVG
9	5.4946	6.54	10.41	16.95	60.00	-43.05	QP
10	5.4946	-0.59	10.41	9.82	50.00	-40.18	AVG
11	24.0396	1.44	11.07	12.51	60.00	-47.49	QP
12	24.0396	-3.23	11.07	7.84	50.00	-42.16	AVG

Remark:

1. All readings are Quasi-Peak and Average values.
2. Margin = Result (Result = Reading + Factor) – Limit.
3. Factor = LISN factor + Cable loss + Limiter (10dB)

80.0 dBuV



3.2 RADIATED EMISSION MEASUREMENT

3.2.1 RADIATED EMISSION LIMITS

In any 100 kHz bandwidth outside the operating frequency band. In case the emission fall within the Restricted band specified on Part15.205(a)&209(a) limit in the table and according to ANSI C63.10-2013 below has to be followed.

LIMITS OF RADIATED EMISSION MEASUREMENT (Frequency Range 9kHz-1000MHz)

Frequencies (MHz)	Field Strength (micorvolts/meter)	Measurement Distance (meters)
0.009~0.490	2400/F(kHz)	300
0.490~1.705	24000/F(kHz)	30
1.705~30.0	30	30
30~88	100	3
88~216	150	3
216~960	200	3
Above 960	500	3

LIMITS OF RADIATED EMISSION MEASUREMENT (Above 1000MHz)

FREQUENCY (MHz)	(dBuV/m) (at 3M)	
	PEAK	AVERAGE
Above 1000	74	54

Notes:

- (1) The limit for radiated test was performed according to FCC PART 15C.
- (2) The tighter limit applies at the band edges.
- (3) Emission level (dBuV/m)=20log Emission level (uV/m).

LIMITS OF RESTRICTED FREQUENCY BANDS

FCC:

FREQUENCY (MHz)	FREQUENCY (MHz)	FREQUENCY (MHz)	FREQUENCY (GHz)
0.090-0.110	16.42-16.423	399.9-410	4.5-5.15
0.495-0.505	16.69475-16.69525	608-614	5.35-5.46
2.1735-2.1905	16.80425-16.80475	960-1240	7.25-7.75
4.125-4.128	25.5-25.67	1300-1427	8.025-8.5
4.17725-4.17775	37.5-38.25	1435-1626.5	9.0-9.2
4.20725-4.20775	73-74.6	1645.5-1646.5	9.3-9.5
6.215-6.218	74.8-75.2	1660-1710	10.6-12.7
6.26775-6.26825	108-121.94	1718.8-1722.2	13.25-13.4
6.31175-6.31225	123-138	2200-2300	14.47-14.5
8.291-8.294	149.9-150.05	2310-2390	15.35-16.2
8.362-8.366	156.52475-156.52525	2483.5-2500	17.7-21.4
8.37625-8.38675	156.7-156.9	2690-2900	22.01-23.12
8.41425-8.41475	162.0125-167.17	3260-3267	23.6-24.0
12.29-12.293	167.72-173.2	3332-3339	31.2-31.8
12.51975-12.52025	240-285	3345.8-3358	36.43-36.5
12.57675-12.57725	322-335.4	3600-4400	Above 38.6
13.36-13.41			

For Radiated Emission

Spectrum Parameter	Setting
Attenuation	Auto
Detector	Peak/QP/AV
Start Frequency	9 kHz/150kHz(Peak/QP/AV)
Stop Frequency	150kHz/30MHz(Peak/QP/AV)
RB / VB (emission in restricted band)	200Hz (From 9kHz to 0.15MHz)/ 9kHz (From 0.15MHz to 30MHz); 200Hz (From 9kHz to 0.15MHz)/ 9kHz (From 0.15MHz to 30MHz)

Spectrum Parameter	Setting
Attenuation	Auto
Detector	Peak/QP
Start Frequency	30 MHz(Peak/QP)
Stop Frequency	1000 MHz (Peak/QP)
RB / VB (emission in restricted band)	120 kHz / 300 kHz

Spectrum Parameter	Setting
Attenuation	Auto
Detector	Peak/AV
Start Frequency	1000 MHz(Peak/AV)
Stop Frequency	10th carrier hamonic(Peak/AV)
RB / VB (emission in restricted band)	1 MHz / 3 MHz(Peak) 1 MHz/1/T MHz(AVG)

For Restricted band

Spectrum Parameter	Setting
Detector	Peak/AV
Start/Stop Frequency	2310MHz to 2500MHz
RB / VB	1 MHz / 3 MHz(Peak) 1 MHz/1/T MHz(AVG)

Receiver Parameter	Setting
Start ~ Stop Frequency	9kHz~90kHz / RB 200Hz for PK & AV
Start ~ Stop Frequency	90kHz~110kHz / RB 200Hz for QP
Start ~ Stop Frequency	110kHz~490kHz / RB 200Hz for PK & AV
Start ~ Stop Frequency	490kHz~30MHz / RB 9kHz for QP
Start ~ Stop Frequency	30MHz~1000MHz / RB 120kHz for QP

3.2.2 TEST PROCEDURE

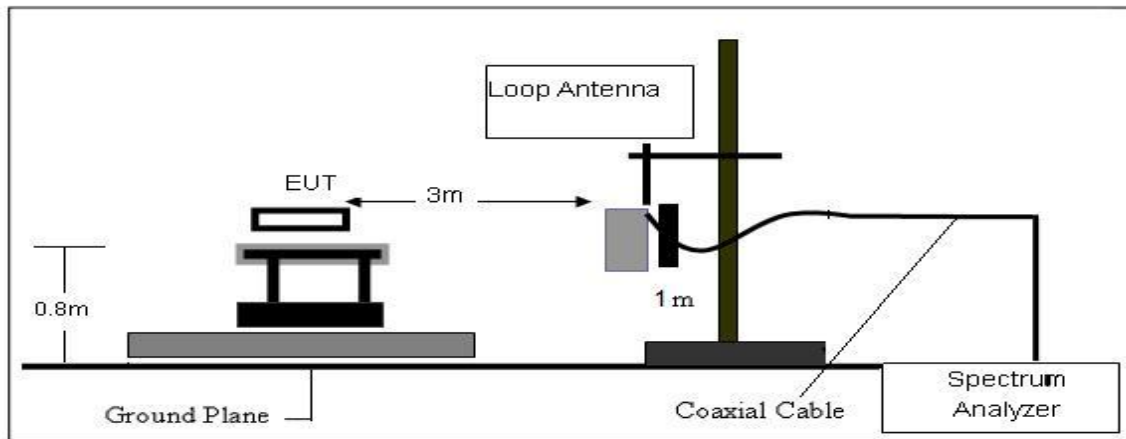
- The measuring distance at 3 m shall be used for measurements at frequency 0.009MHz up to 1GHz, and above 1GHz.
- The EUT was placed on the top of a rotating table 0.8 m (above 1GHz is 1.5 m) above the ground at a 3 m anechoic chamber test site. The table was rotated 360 degree to determine the position of the highest radiation.
- The height of the equipment shall be 0.8 m (above 1GHz is 1.5 m); the height of the test antenna shall vary between 1 m to 4 m. Horizontal and vertical polarization of the antenna are set to make the measurement.
- The initial step in collecting conducted emission data is a spectrum analyzer peak detector mode pre-scanning the measurement frequency range. Significant peaks are then marked and QuasiPeak detector mode will be re-measured.
- If the Peak Mode measured value is compliance with and lower than Quasi Peak Mode Limit, the EUT shall be deemed to meet QP Limits and no additional QP Mode measurement was performed.
- For the actual test configuration, please refer to the related Item –EUT Test Photos.

Note:

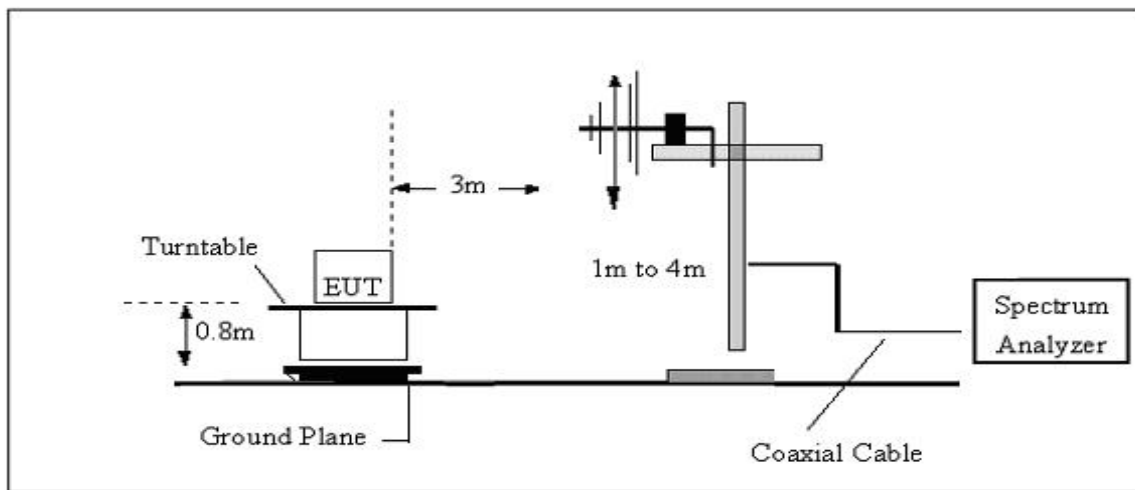
Both horizontal and vertical antenna polarities were tested and performed pretest to three orthogonal axis. The worst case emissions were reported.

3.2.3 TEST SETUP

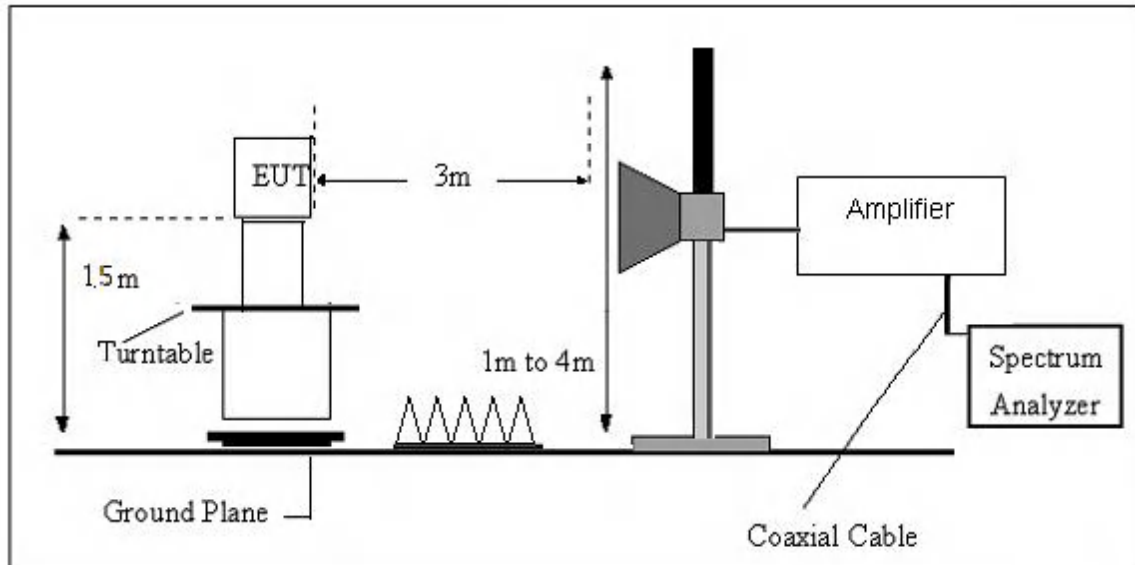
(A) Radiated Emission Test-Up Frequency Below 30MHz



(B) Radiated Emission Test-Up Frequency 30MHz~1GHz



(C) Radiated Emission Test-Up Frequency Above 1GHz



3.2.4 EUT OPERATING CONDITIONS

Please refer to section 3.1.4 of this report.

3.2.5 FIELD STRENGTH CALCULATION

The field strength is calculated by adding the Antenna Factor and Cable Factor and subtracting the Amplifier Gain and Duty Cycle Correction Factor (if any) from the measured reading. The basic equation with a sample calculation is as follows:

$$FS = RA + AF + CL - AG$$

Where

FS = Field Strength

CL = Cable Attenuation Factor (Cable Loss)

RA = Reading Amplitude

AG = Amplifier Gain

AF = Antenna Factor

For example

Frequency (MHz)	FS (dBμV/m)	RA (dBμV/m)	AF (dB)	CL (dB)	AG (dB)	Factor (dB)
300	40	58.1	12.2	1.6	31.9	-18.1

$$\text{Factor} = AF + CL - AG$$

3.2.6 TEST RESULTS(RADIATED SPURIOUS EMISSIONS) (9kHz-30MHz)

Temperature:	25.0°C	Relative Humidity:	50%RH
Test Voltage:	AC 120V/60Hz	Polarization:	--
Test Mode:	TX Mode		

Note:

The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported.

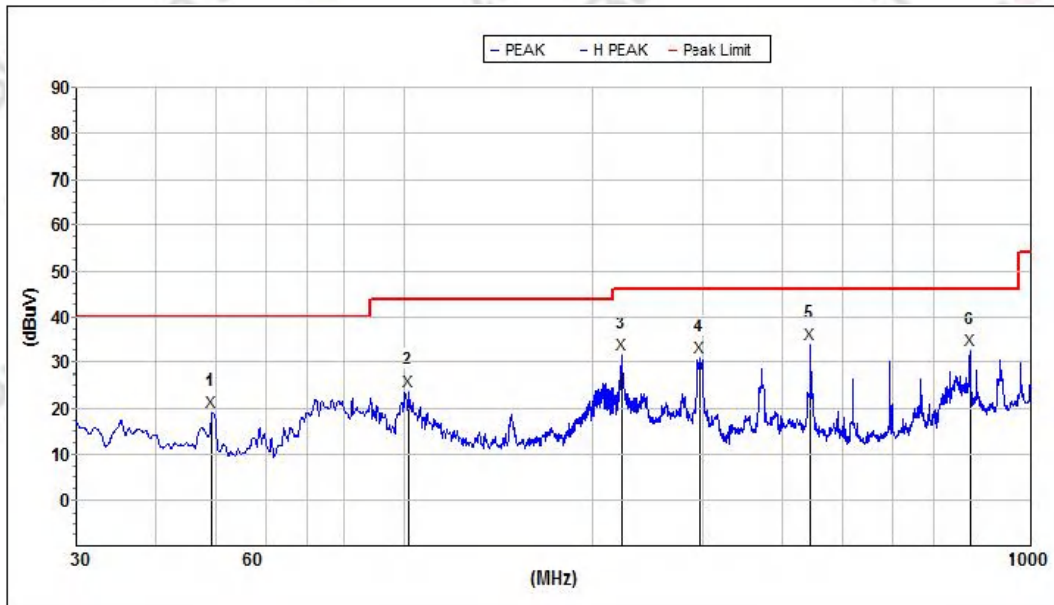
Distance extrapolation factor = $40 \log (\text{specific distance/test distance})(\text{dB})$;

Limit line = specific limits(dBuv) + distance extrapolation factor.

30MHz - 1000MHz

Temperature:	25.0°C	Relative Humidity:	50%RH
Test Voltage:	AC 120V/60Hz	Phase:	Horizontal
Test Mode:	802.11n40		

2422 Horizontal

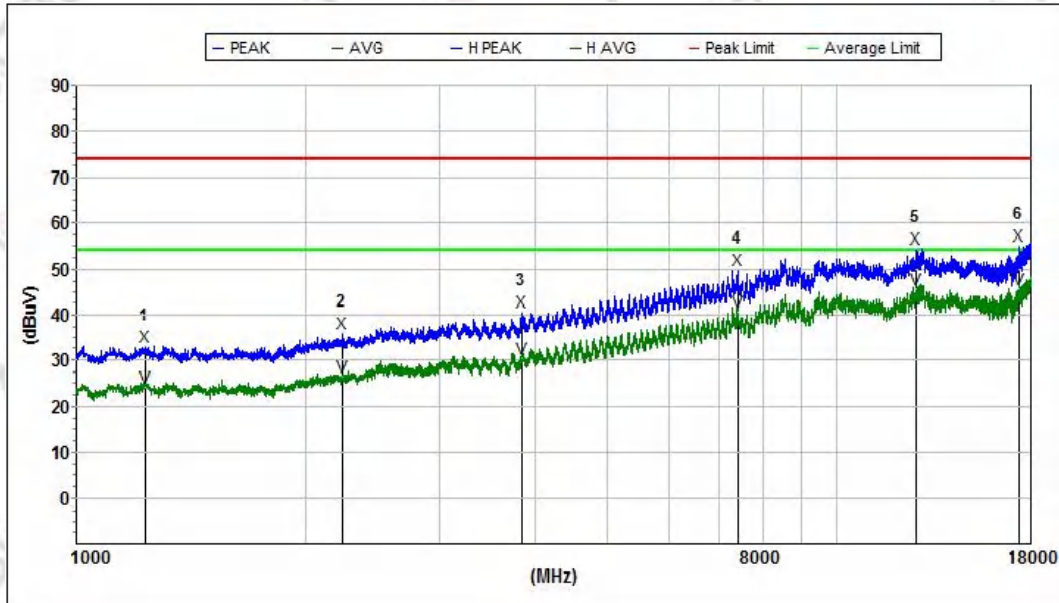


Mk.	Freq.(MHz)	Level(dBuV/m)	Limit(dBuV/m)	Margin(dB)	Ant.F/G.(dB/m)	Amp.G.(dB)	Cbl.L.(dB)	Pol.
Peak								
1	49.359419	19.2	40.0	20.8	13.6	32.6	0.8	H
2	101.644307	24.0	43.5	19.5	10.3	32.9	1.4	H
3	222.169797	31.7	46.0	14.3	10.7	32.8	2.4	H
4	296.703394	31.2	46.0	14.8	12.7	32.7	2.7	H
5	445.632082	34.1	46.0	11.9	14.3	32.4	2.7	H
6	797.580121	32.8	46.0	13.2	18.3	32.1	3.6	H

1GHz~18GHz

Temperature:	25.0℃	Relative Humidity:	50%RH
Test Voltage:	AC 120V/60Hz	Phase:	Horizontal
Test Mode:	802.11n40		

2422 Horizontal

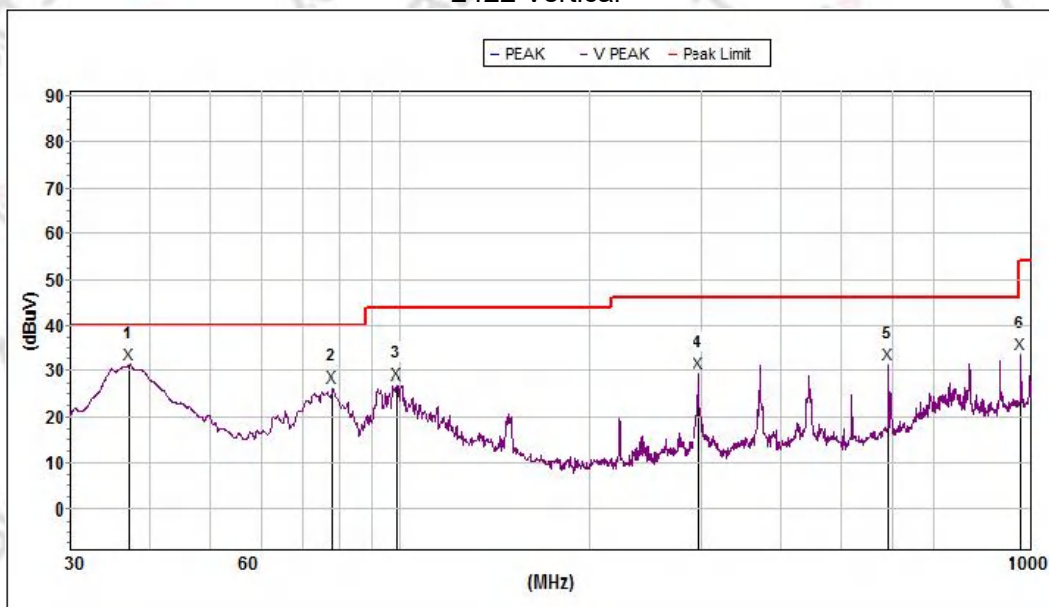


Mk.	Freq.(MHz)	Level (dBuV /m)	Limit (dBuV/m)	Margin (dB)	Ant.F/G. (dB/m)	Amp.G. (dB)	Cbl.L. (dB)	Pol.
Peak								
1	1230.350000	33.2	74.0	40.8	25.8	60.9	2.3	H
2	2231.650000	35.9	74.0	38.1	27.2	60.3	2.8	H
3	3848.350000	40.5	74.0	33.5	30.6	58.8	3.2	H
4	7400.500000	49.9	74.0	24.1	36.5	57.5	4.6	H
5	12711.300000	54.6	74.0	19.4	39.4	58.0	6.1	H
6	17378.650000	55.1	74.0	18.9	39.0	58.8	6.9	H
Avg								
1	1230.350000	24.3	54.0	29.7	25.8	60.9	2.3	H
2	2231.650000	26.5	54.0	27.5	27.2	60.3	2.8	H
3	3848.350000	30.4	54.0	23.6	30.6	58.8	3.2	H
4	7400.500000	40.8	54.0	13.2	36.5	57.5	4.6	H
5	12711.300000	45.6	54.0	8.4	39.4	58.0	6.1	H
6	17378.650000	45.6	54.0	8.4	39.0	58.8	6.9	H

30MHz~1GHz

Temperature:	25.0℃	Relative Humidity:	50%RH
Test Voltage:	AC120V	Phase:	Vertical
Test Mode:	802.11n40		

2422 Vertical

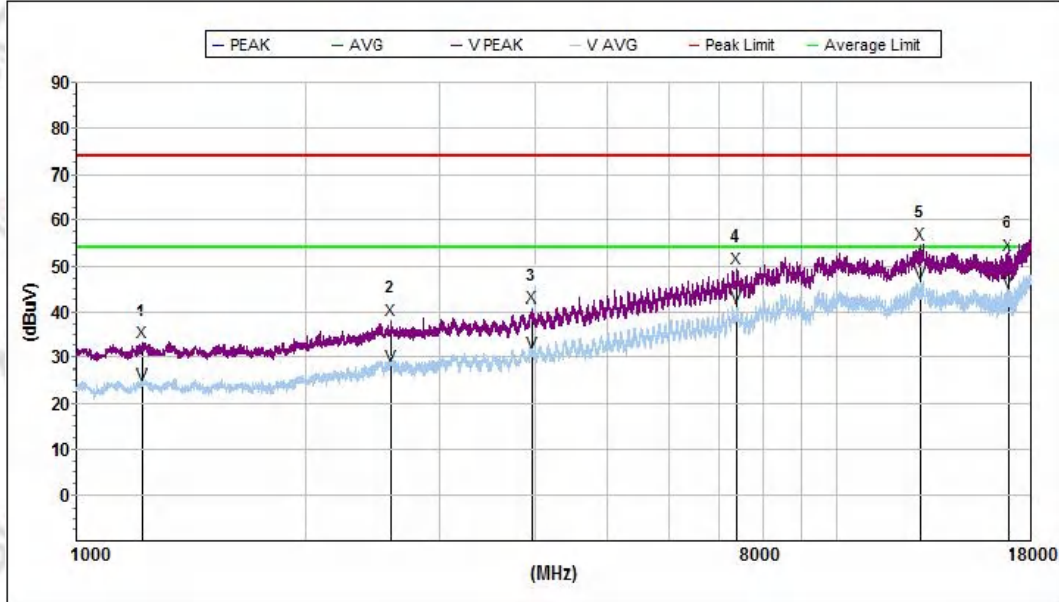


Mk.	Freq.(MHz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Ant.F/G. (dB/m)	Amp.G. (dB)	Cbl.L. (dB)	Pol.
Peak								
1	37.154965	31.3	40.0	8.7	13.7	32.3	0.8	V
2	78.001995	26.4	40.0	13.6	9.6	32.9	0.9	V
3	98.832556	27.3	43.5	16.2	10.1	32.9	1.4	V
4	297.224054	29.5	46.0	16.5	12.7	32.7	2.7	V
5	593.049668	31.5	46.0	14.5	18.2	32.4	3.3	V
6	963.850713	33.9	54.0	20.1	22.2	31.2	3.8	V

1GHz~18GHz

Temperature:	25.0℃	Relative Humidity:	50%RH
Test Voltage:	AC120V	Phase:	Vertical
Test Mode:	802.11n40		

2422 Vertical

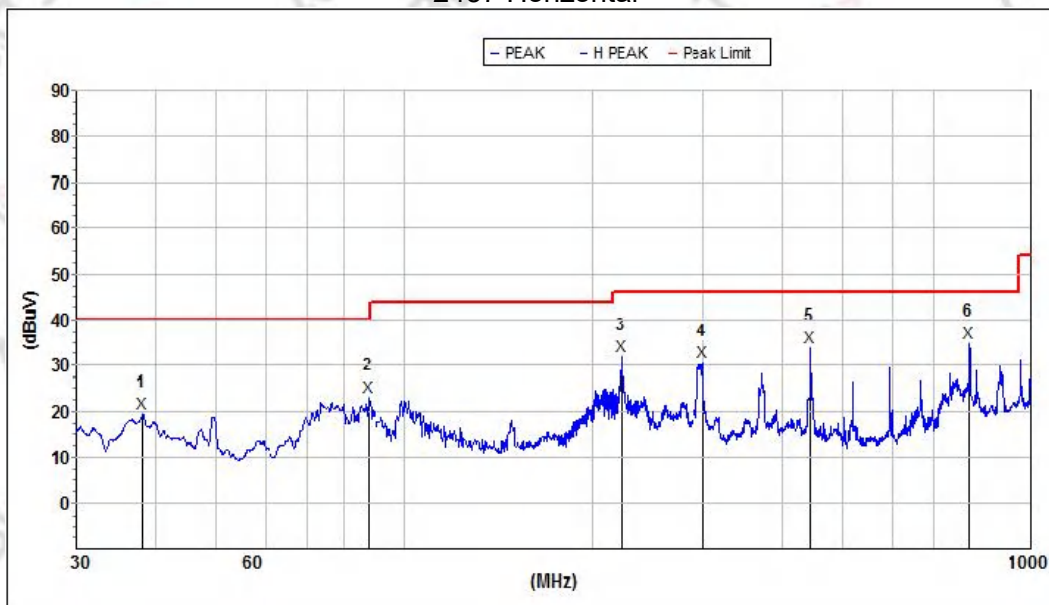


Mk.	Freq.(MHz)	Level (dBuV /m)	Limit (dBuV/m)	Margin (dB)	Ant.F/G. (dB/m)	Amp.G. (dB)	Cbl.L. (dB)	Pol.
Peak								
1	1218.450000	33.3	74.0	40.7	25.7	60.9	2.3	V
2	2592.900000	38.2	74.0	35.8	28.0	59.0	2.9	V
3	3979.250000	41.0	74.0	33.0	30.8	58.4	3.3	V
4	7392.000000	49.5	74.0	24.5	36.6	57.5	4.6	V
5	12916.150000	54.8	74.0	19.2	39.7	57.8	6.1	V
6	16743.700000	52.6	74.0	21.4	38.3	61.1	6.8	V
Avg								
1	1218.450000	24.2	54.0	29.8	25.7	60.9	2.3	V
2	2592.900000	28.3	54.0	25.7	28.0	59.0	2.9	V
3	3979.250000	31.2	54.0	22.8	30.8	58.4	3.3	V
4	7392.000000	40.9	54.0	13.1	36.6	57.5	4.6	V
5	12916.150000	46.1	54.0	7.9	39.7	57.8	6.1	V
6	16743.700000	44.2	54.0	9.8	38.3	61.1	6.8	V

30MHz~1GHz

Temperature:	25.0℃	Relative Humidity:	50%RH
Test Voltage:	AC 120V/60Hz	Phase:	Horizontal
Test Mode:	802.11n40		

2437 Horizontal

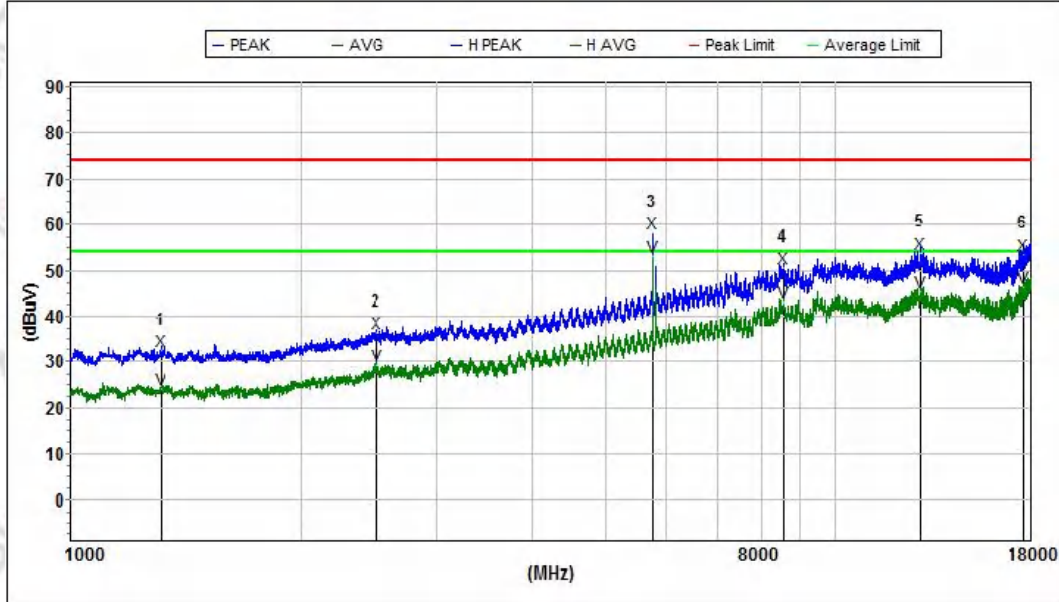


Mk.	Freq.(MHz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Ant.F/G. (dB/m)	Amp.G. (dB)	Cbl.L. (dB)	Pol.
Peak								
1	38.212010	19.6	40.0	20.4	13.8	32.3	0.8	H
2	87.571081	23.2	40.0	16.8	9.4	32.9	1.1	H
3	222.169797	32.1	46.0	13.9	10.7	32.8	2.4	H
4	299.315848	30.9	46.0	15.1	12.8	32.7	2.7	H
5	445.632082	34.1	46.0	11.9	14.3	32.4	2.7	H
6	796.182966	35.2	46.0	10.8	18.2	32.1	3.6	H

1GHz~18GHz

Temperature:	25.0℃	Relative Humidity:	50%RH
Test Voltage:	AC 120V/60Hz	Phase:	Horizontal
Test Mode:	802.11n40		

2437 Horizontal

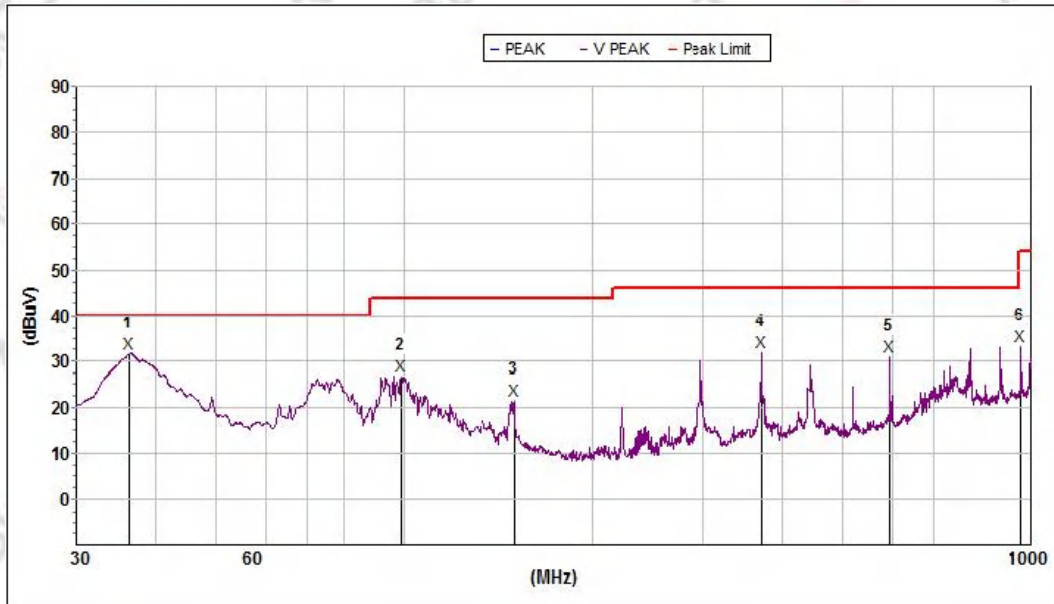


Mk.	Freq.(MHz)	Level (dBu V/m)	Limit (dBuV/m)	Margin (dB)	Ant.F/G. (dB/m)	Amp.G. (dB)	Cbl.L. (dB)	Pol.
Peak								
1	1310.481043	32.4	74.0	41.6	25.8	61.1	2.3	H
2	2510.754749	36.5	74.0	37.5	27.8	58.8	2.8	H
3	5769.350000	58.2	74.0	15.8	33.7	58.1	4.1	H
4	8542.050000	50.5	74.0	23.5	37.8	56.3	5.1	H
5	12908.500000	53.9	74.0	20.1	39.7	57.8	6.1	H
6	17594.550000	53.6	74.0	20.4	39.8	58.0	6.9	H
Avg								
1	1310.481043	24.1	54.0	29.9	25.8	61.1	2.3	H
2	2510.754749	29.1	54.0	24.9	27.8	58.8	2.8	H
3	5769.350000	53.2	54.0	0.8	33.7	58.1	4.1	H
4	8542.050000	43.0	54.0	11.0	37.8	56.3	5.1	H
5	12908.500000	45.2	54.0	8.8	39.7	57.8	6.1	H
6	17594.550000	46.4	54.0	7.6	39.8	58.0	6.9	H

30MHz~1GHz

Temperature:	25°C	Relative Humidity:	50%RH
Test Voltage:	AC120V	Phase:	Vertical
Test Mode:	802.11n40		

2437 Vertical

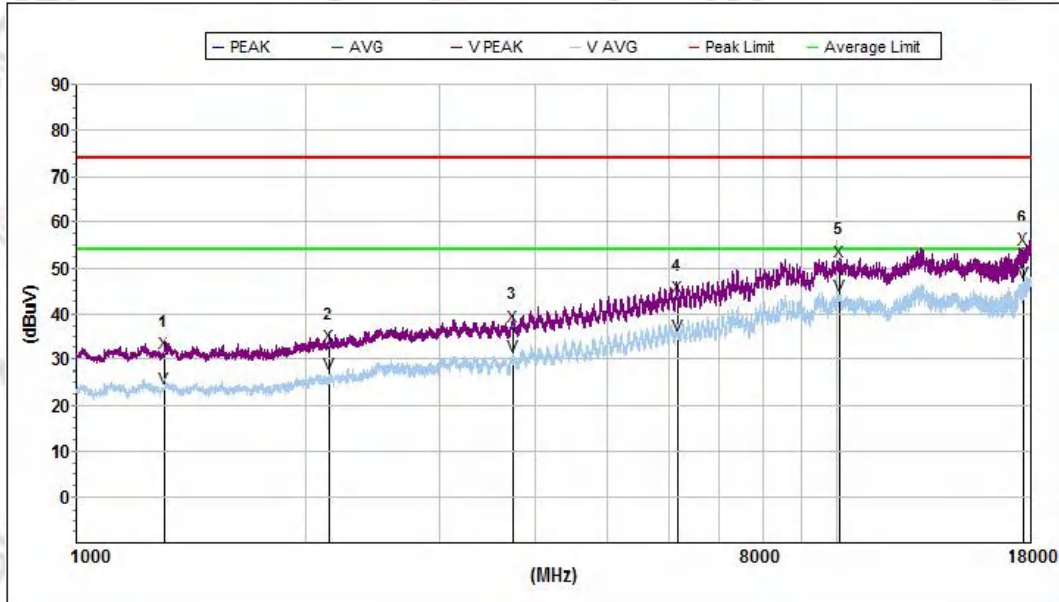


Mk.	Freq.(MHz)	Level (dBuV/ m)	Limit (dBuV/m)	Margin (dB)	Ant.F/G. (dB/m)	Amp.G. (dB)	Cbl.L. (dB)	Pol.
Peak								
1	36.254065	31.7	40.0	8.3	13.6	32.3	0.8	V
2	98.832556	27.0	43.5	16.5	10.1	32.9	1.4	V
3	149.748044	21.6	43.5	21.9	14.1	32.9	1.3	V
4	371.352844	32.1	46.0	13.9	14.2	32.4	2.7	V
5	593.049668	31.2	46.0	14.8	18.2	32.4	3.3	V
6	963.850713	33.5	54.0	20.5	22.2	31.2	3.8	V

1GHz~18GHz

Temperature:	25°C	Relative Humidity:	50%RH
Test Voltage:	AC120V	Phase:	Vertical
Test Mode:	802.11n40		

2437 Vertical

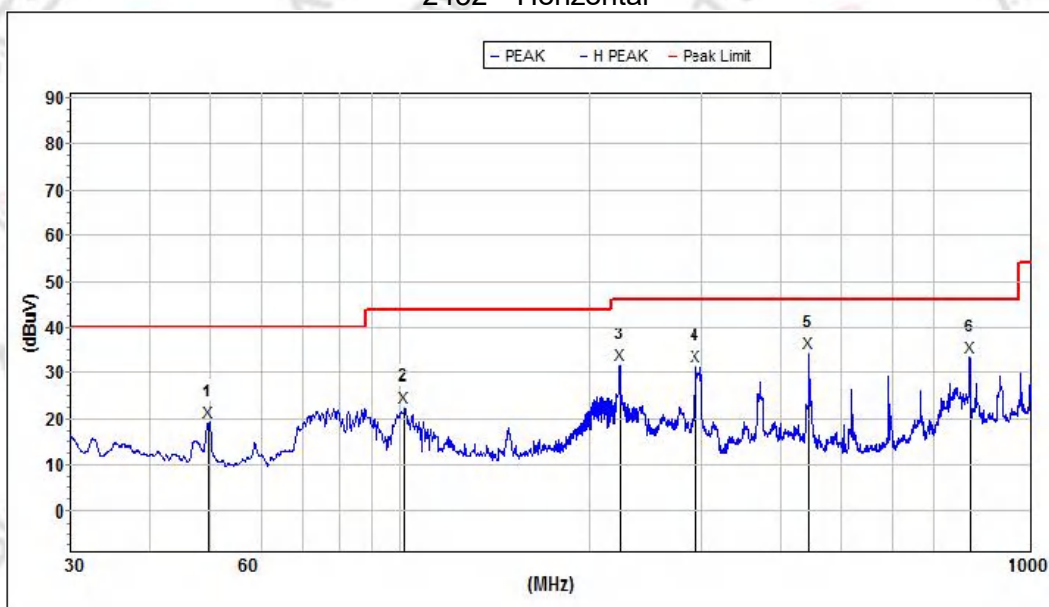


Mk.	Freq.(MHz)	Level (dBuV /m)	Limit (dBuV/m)	Margin (dB)	Ant.F/G. (dB/m)	Amp.G. (dB)	Cbl.L. (dB)	Pol.
Peak								
1	1299.730218	31.5	74.0	42.5	25.8	61.1	2.3	V
2	2150.900000	33.0	74.0	41.0	27.2	60.7	2.7	V
3	3748.050000	37.4	74.0	36.6	30.1	58.9	3.2	V
4	6164.600000	43.7	74.0	30.3	34.1	58.0	4.2	V
5	10096.700000	51.5	74.0	22.5	38.6	60.4	5.4	V
6	17594.550000	54.2	74.0	19.8	39.8	58.0	6.9	V
Avg								
1	1299.730218	23.9	54.0	30.1	25.8	61.1	2.3	V
2	2150.900000	26.8	54.0	27.2	27.2	60.7	2.7	V
3	3748.050000	30.8	54.0	23.2	30.1	58.9	3.2	V
4	6164.600000	35.5	54.0	18.5	34.1	58.0	4.2	V
5	10096.700000	43.8	54.0	10.2	38.6	60.4	5.4	V
6	17594.550000	46.9	54.0	7.1	39.8	58.0	6.9	V

30MHz~1GHz

Temperature:	25°C	Relative Humidity:	50%RH
Test Voltage:	AC 120V/60Hz	Phase:	Horizontal
Test Mode:	802.11n40		

2452 Horizontal

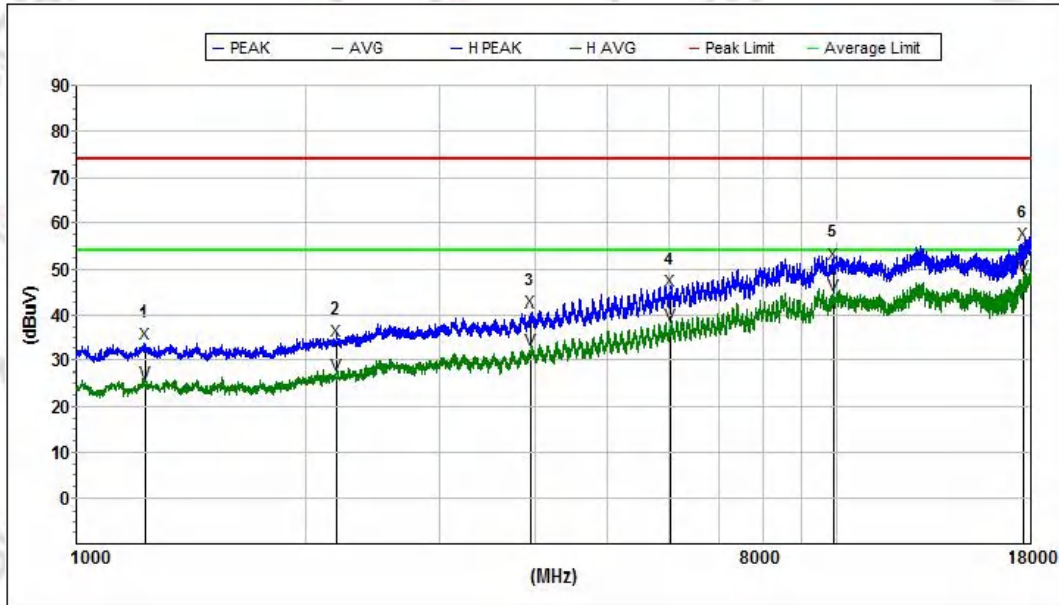


Mk.	Freq.(MHz)	Level (dBuV/ m)	Limit (dBuV/m)	Margin (dB)	Ant.F/G. (dB/m)	Amp.G. (dB)	Cbl.L. (dB)	Pol.
Peak								
1	49.619725	19.2	40.0	20.8	13.6	32.6	0.8	H
2	101.644307	22.6	43.5	20.9	10.3	32.9	1.4	H
3	222.950216	31.7	46.0	14.3	10.8	32.8	2.4	H
4	294.113743	31.3	46.0	14.7	12.7	32.7	2.7	H
5	445.632082	34.3	46.0	11.7	14.3	32.4	2.7	H
6	798.979728	33.5	46.0	12.5	18.3	32.1	3.6	H

1GHz~18GHz

Temperature:	25°C	Relative Humidity:	50%RH
Test Voltage:	AC 120V/60Hz	Phase:	Horizontal
Test Mode:	802.11n40		

2452 Horizontal

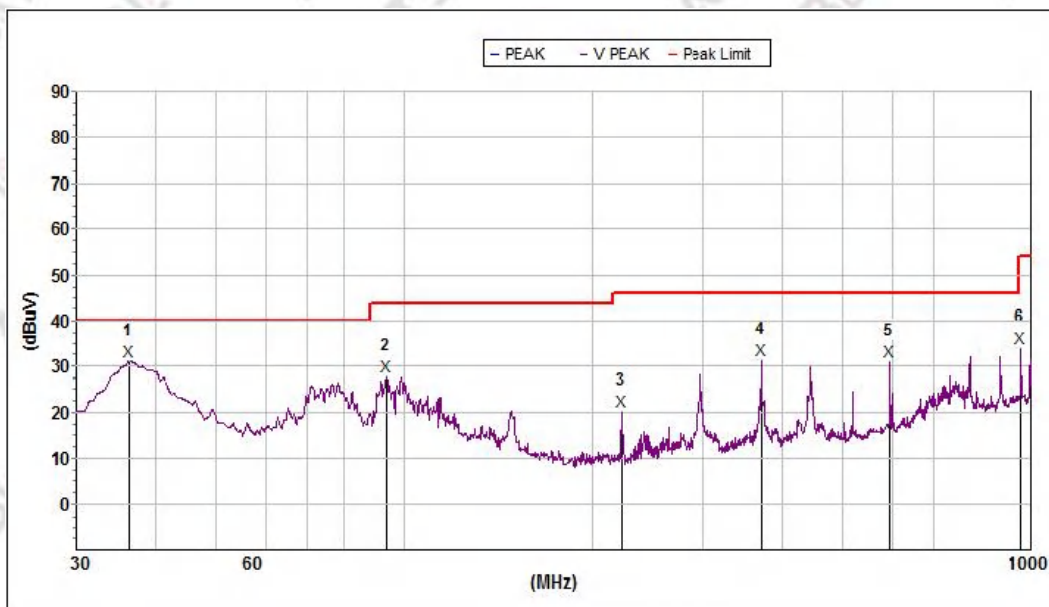


Mk.	Freq.(MHz)	Level (dBuV /m)	Limit (dBuV/ m)	Margin (dB)	Ant.F/G. (dB/m)	Amp.G. (dB)	Cbl.L. (dB)	Pol.
Peak								
1	1226.726554	33.8	74.0	40.2	25.8	60.9	2.3	H
2	2191.194645	34.4	74.0	39.6	27.2	60.5	2.7	H
3	3963.100000	40.8	74.0	33.2	30.8	58.5	3.3	H
4	6038.800000	45.1	74.0	28.9	34.0	58.0	4.1	H
5	9890.150000	51.2	74.0	22.8	38.4	59.7	5.4	H
6	17595.400000	55.5	74.0	18.5	39.8	58.0	6.9	H
Avg								
1	1226.726554	25.3	54.0	28.7	25.8	60.9	2.3	H
2	2191.194645	26.7	54.0	27.3	27.2	60.5	2.7	H
3	3963.100000	32.4	54.0	21.6	30.8	58.5	3.3	H
4	6038.800000	38.0	54.0	16.0	34.0	58.0	4.1	H
5	9890.150000	44.4	54.0	9.6	38.4	59.7	5.4	H
6	17595.400000	48.5	54.0	5.5	39.8	58.0	6.9	H

30MHz~1GHz

Temperature:	25°C	Relative Humidity:	50%RH
Test Voltage:	AC120V	Phase:	Vertical
Test Mode:	802.11n40		

2452 Vertical

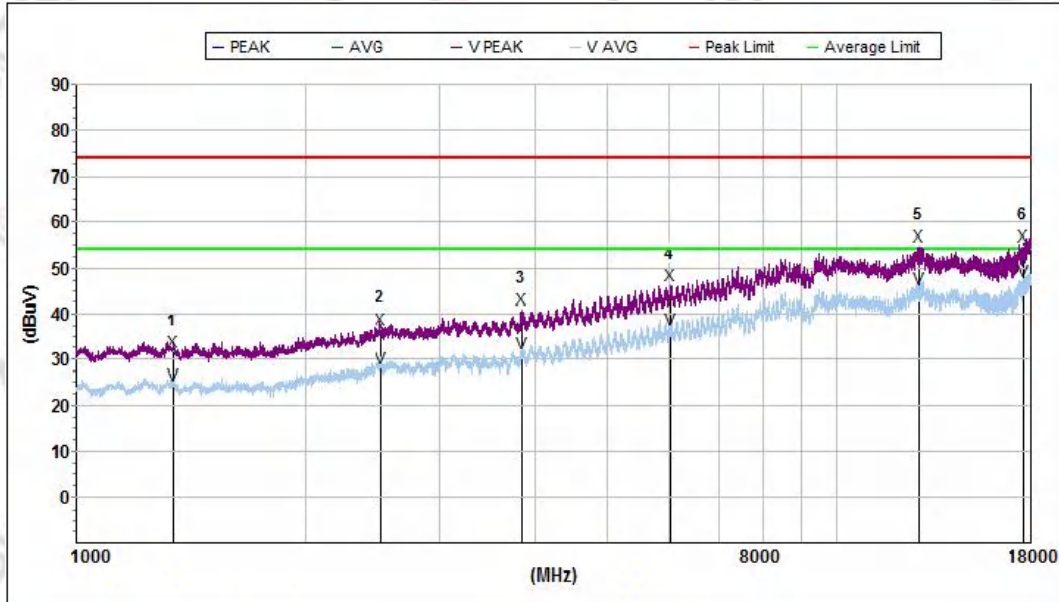


Mk.	Freq.(MHz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Ant.F/G. (dB/m)	Amp.G. (dB)	Cbl.L. (dB)	Pol.
Peak								
1	36.254065	31.1	40.0	8.9	13.6	32.3	0.8	V
2	93.933020	27.9	43.5	15.6	9.7	32.9	1.2	V
3	222.169797	20.4	46.0	25.6	10.7	32.8	2.4	V
4	371.352844	31.6	46.0	14.4	14.2	32.4	2.7	V
5	593.049668	31.2	46.0	14.8	18.2	32.4	3.3	V
6	963.850713	34.2	54.0	19.8	22.2	31.2	3.8	V

1GHz~18GHz

Temperature:	25°C	Relative Humidity:	50%RH
Test Voltage:	AC120V	Phase:	Vertical
Test Mode:	802.11n40		

2452 Vertical



Mk.	Freq.(MHz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Ant.F/G. (dB/m)	Amp.G. (dB)	Cbl.L. (dB)	Pol.
Peak								
1	1343.400000	31.8	74.0	42.2	25.7	61.2	2.3	V
2	2516.400000	36.7	74.0	37.3	27.8	58.8	2.8	V
3	3846.650000	40.9	74.0	33.1	30.6	58.8	3.2	V
4	6037.950000	46.1	74.0	27.9	34.0	58.0	4.1	V
5	12815.000000	54.9	74.0	19.1	39.6	57.9	6.1	V
6	17594.550000	54.7	74.0	19.3	39.8	58.0	6.9	V
Avg								
1	1343.400000	24.6	54.0	29.4	25.7	61.2	2.3	V
2	2516.400000	28.0	54.0	26.0	27.8	58.8	2.8	V
3	3846.650000	31.4	54.0	22.6	30.6	58.8	3.2	V
4	6037.950000	36.7	54.0	17.3	34.0	58.0	4.1	V
5	12815.000000	45.7	54.0	8.3	39.6	57.9	6.1	V
6	17594.550000	47.1	54.0	6.9	39.8	58.0	6.9	V

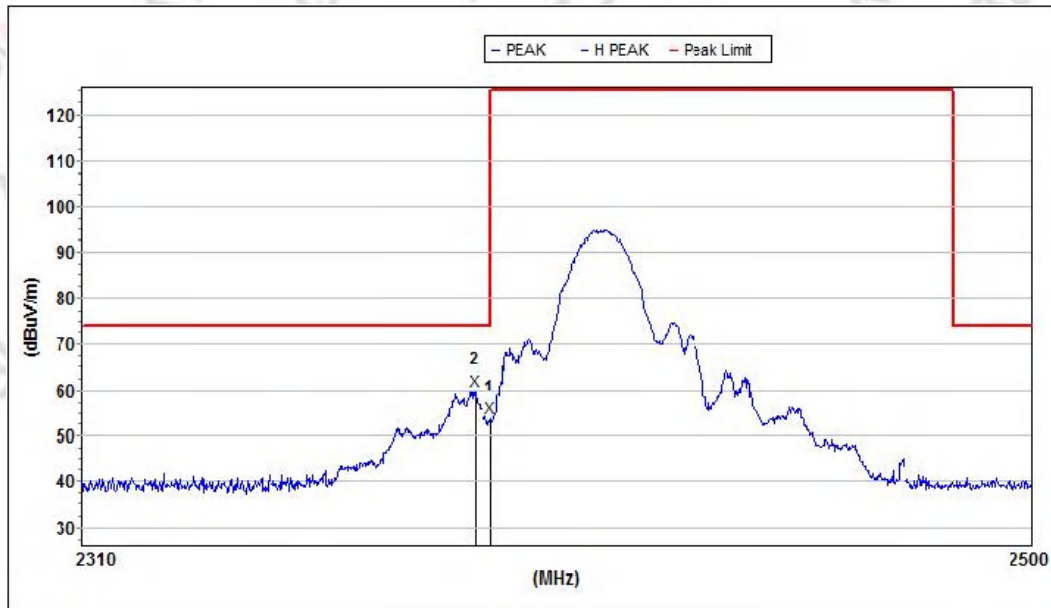
Note:

1. All TX Mode, the worst case is mode 802.11n40, only show the worst case.

3.2.6 TEST RESULTS (BAND EDGE REQUIREMENTS)

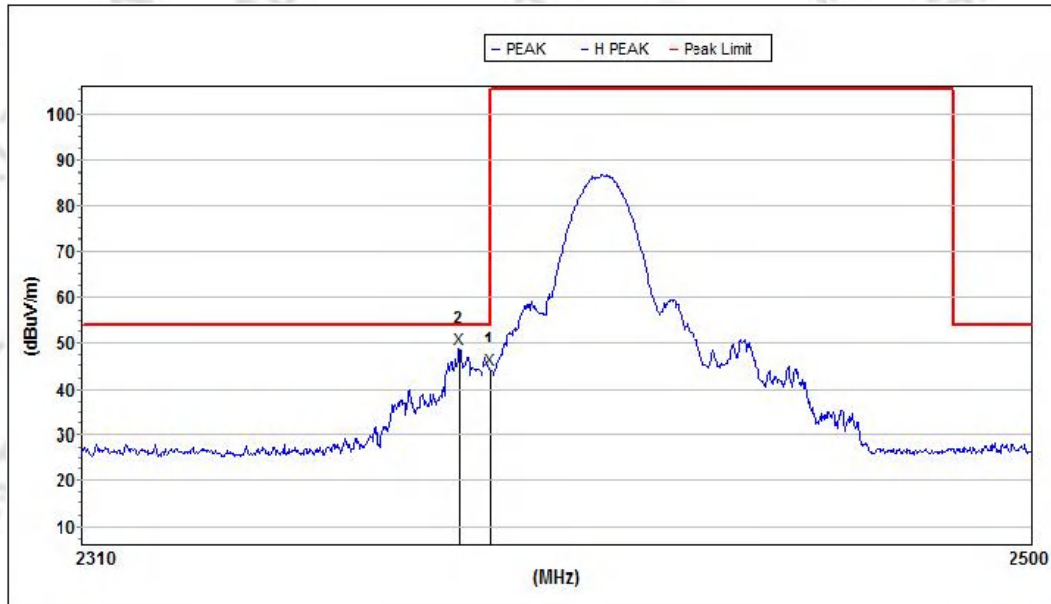
802.11b-Low

Horizontal



Mk.	Frequency (MHz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Ant.F/G. (dB/m)	Amp.G. (dB)	Cbl.L. (dB)	Pol.
Peak								
1	2390.000000	54.1	74.0	19.9	27.3	59.6	2.8	H
2	2386.842618	59.8	74.0	14.2	27.3	59.6	2.8	H

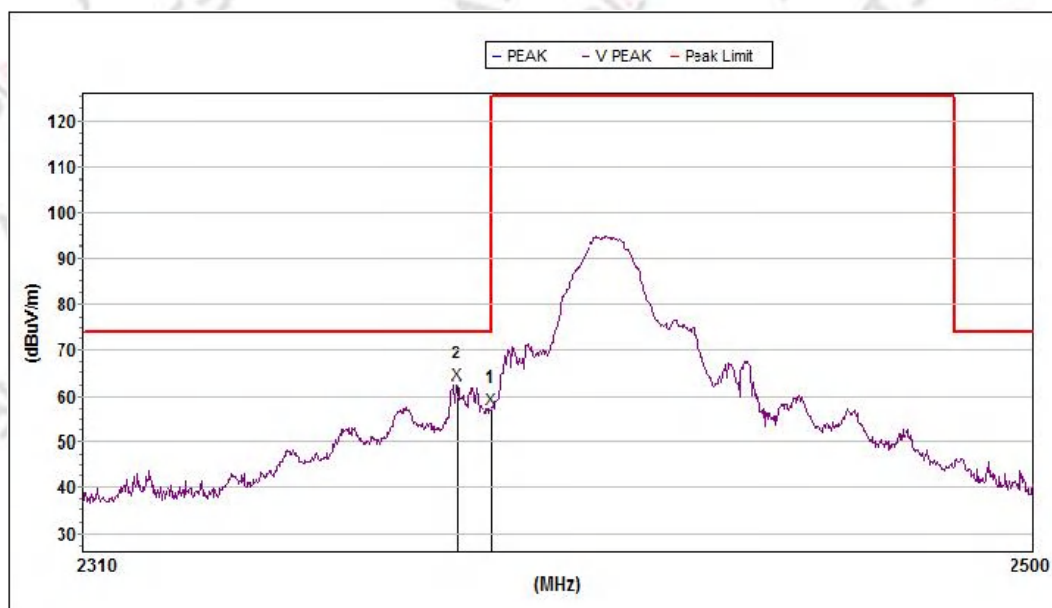
Horizontal



Mk.	Frequency (MHz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Ant.F/G. (dB/m)	Amp.G. (dB)	Cbl.L. (dB)	Pol.
AVG								
1	2390.000000	44.0	54.0	10.0	27.3	59.5	2.8	H
2	2383.637489	48.9	54.0	5.1	27.3	59.6	2.8	H

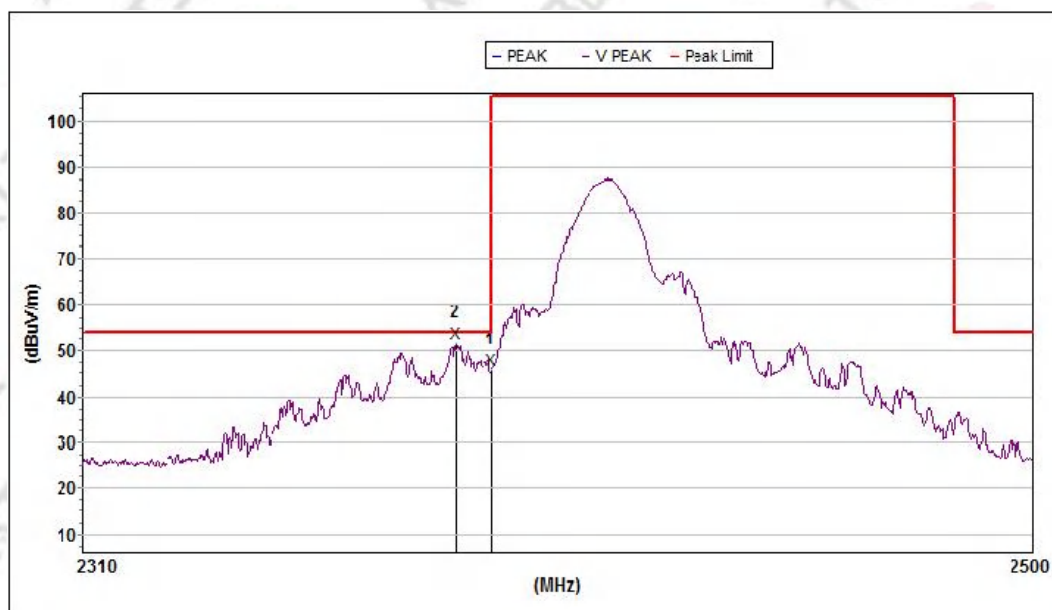
802.11b-Low

Vertical



Mk.	Frequency (MHz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Ant.F/G. (dB/m)	Amp.G. (dB)	Cbl.L. (dB)	Pol.
Peak								
1	2390.000000	57.3	74.0	16.7	27.3	59.6	2.8	V
2	2383.072325	62.5	74.0	11.5	27.3	59.6	2.8	V

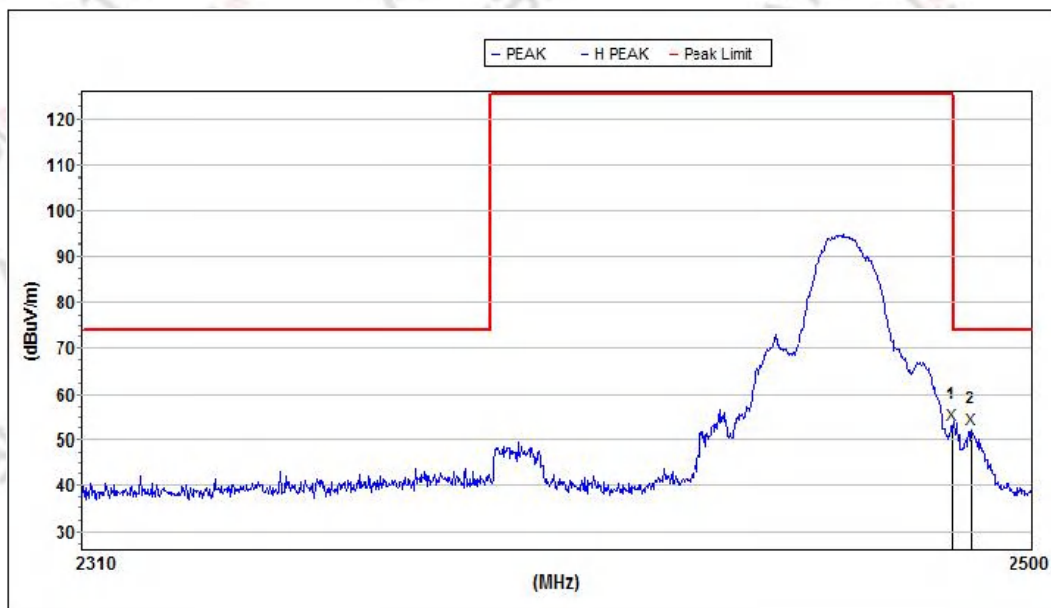
Vertical



Mk.	Frequency (MHz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Ant.F/G. (dB/m)	Amp.G. (dB)	Cbl.L. (dB)	Pol.
AVG								
1	2390.000000	45.7	54.0	8.3	27.3	59.6	2.8	V
2	2382.883967	51.6	54.0	2.4	27.3	59.6	2.8	V

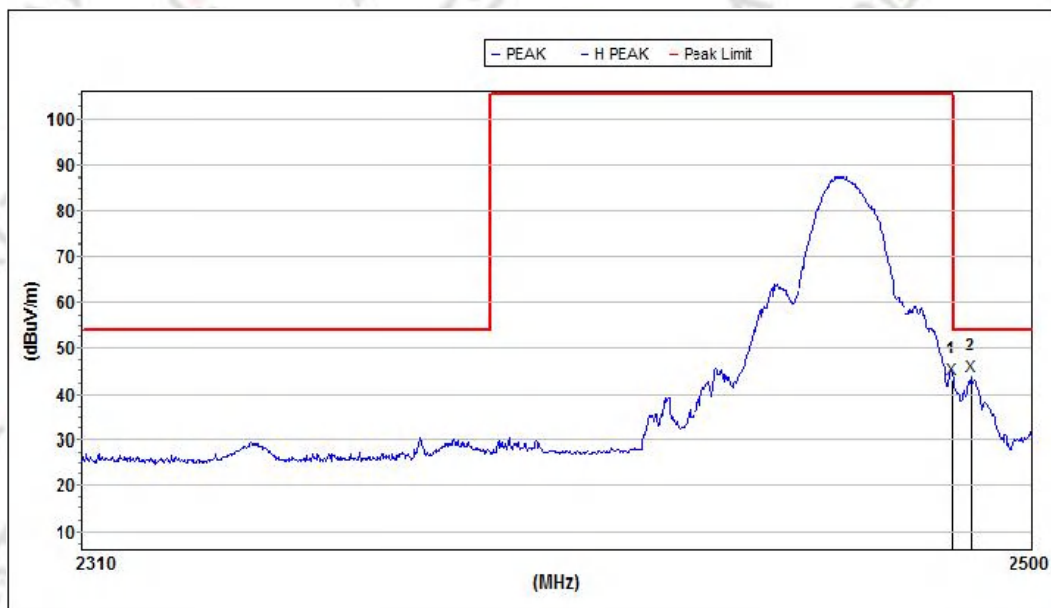
802.11b-High

Horizontal

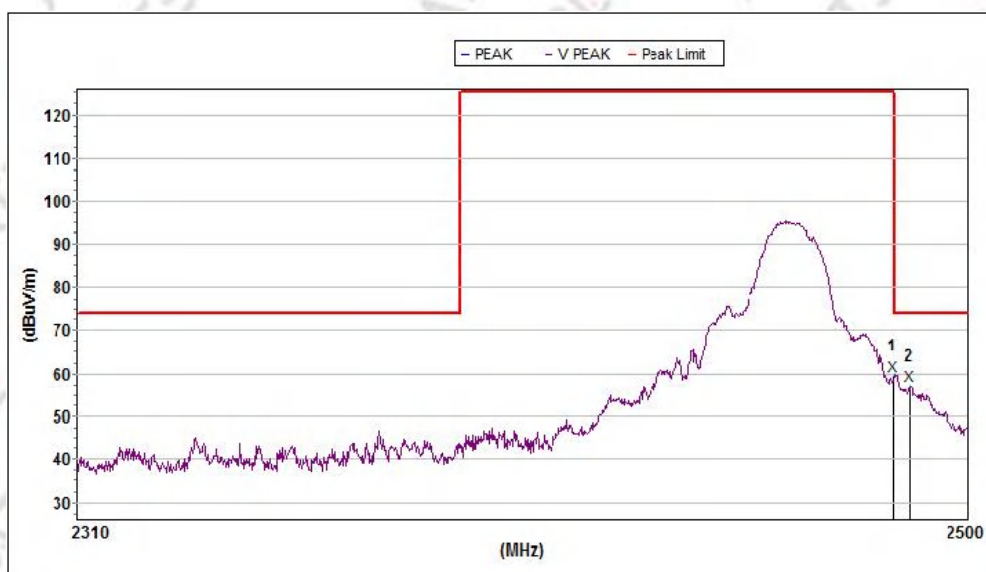


Mk.	Frequency (MHz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Ant.F/G. (dB/m)	Amp.G. (dB)	Cbl.L. (dB)	Pol.
Peak								
1	2483.501000	53.2	74.0	20.8	27.7	58.9	2.8	H
2	2487.385022	52.2	74.0	21.8	27.7	58.9	2.8	H

Horizontal

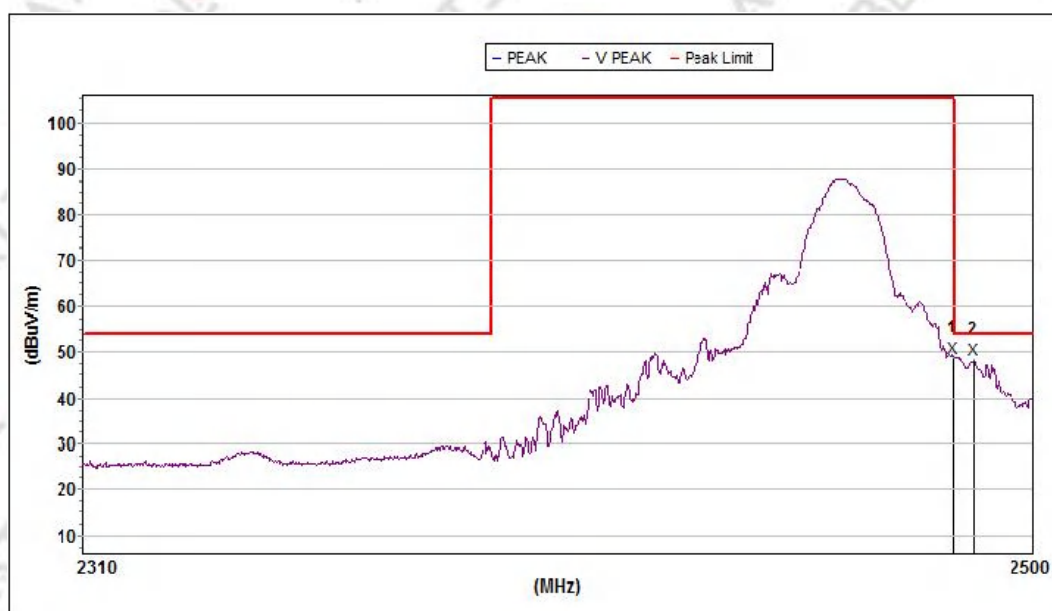


Mk.	Frequency (MHz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Ant.F/G. (dB/m)	Amp.G. (dB)	Cbl.L. (dB)	Pol.
AVG								
1	2483.501000	43.2	54.0	10.8	27.7	58.9	2.8	H
2	2487.385022	43.8	54.0	10.2	27.7	58.9	2.8	H

802.11b-High
Vertical


Mk.	Frequency (MHz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Ant.F/G. (dB/m)	Amp.G. (dB)	Cbl.L. (dB)	Pol.
Peak								
1	2483.501000	59.5	74.0	14.5	27.7	58.9	2.8	V
2	2486.991831	57.3	74.0	16.7	27.7	58.9	2.8	V

Vertical



Mk.	Frequency (MHz)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Ant.F/G. (dB/m)	Amp.G. (dB)	Cbl.L. (dB)	Pol.
AVG								
1	2483.501000	48.6	54.0	5.4	27.7	58.9	2.8	V
2	2487.778275	48.5	54.0	5.5	27.7	58.9	2.8	V

Note: All mode all have been tested, the worst case is B, only show the worst case.

4. CONDUCTED SPURIOUS & BAND EDGE EMISSION

4.1 LIMIT

According to FCC section 15.247(d), in any 100kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20dB below that in the 100kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement.

4.2 TEST PROCEDURE

Spectrum Parameter	Setting
Detector	Peak
Start/Stop Frequency	30 MHz to 10th carrier harmonic
RB / VB (emission in restricted band)	100 kHz/300 kHz
Trace-Mode:	Max hold

For Band edge

Spectrum Parameter	Setting
Detector	Peak
Start/Stop Frequency	Lower Band Edge: 2300 to 2432 MHz Upper Band Edge: 2442 to 2500 MHz
RB / VB (emission in restricted band)	100 kHz/300 kHz
Trace-Mode:	Max hold

4.3 DEVIATION FROM STANDARD

No deviation.

4.4 TEST SETUP



The EUT which is powered by the AC power, is connected to the Spectrum Analyzer; the RF load attached to the EUT antenna terminal is 50Ohm; the path loss as the factor is calibrated to correct the reading.

Make the measurement with the spectrum analyzer's resolution bandwidth (RBW) = 100 kHz. In order to make an accurate measurement, set the span greater than RBW.

4.5 EUT OPERATION CONDITIONS

Please refer to section 3.1.4 of this report.