

Test Report

Verified code: 188976

Report No.: E202112276794-15

Customer: NunoErin, LLC

Address: 533 Commerce Street, Jackson MS 39201 USA

Sample Name: Wall mount tablet

Sample Model: UCTBWM-15.6

Receive Sample Date: Dec.29,2021

Test Date: Dec.31,2021 ~ Apr.21,2022

Reference Document: CFR 47, FCC Part 15 Subpart C
RADIO FREQUENCY DEVICES:Subpart C—Intentional Radiators

Test Result: Pass

Prepared by: *Wen. Wen*

Reviewed by: *Jiang Tao*

Approved by: *Xiao Liang*

GUANGZHOU GRG METROLOGY & TEST CO., LTD

Issued Date: 2022-05-27

GUANGZHOU GRG METROLOGY & TEST CO., LTD.

Address: No.163,Pingyun Road, West of Huangpu Avenue, Guangzhou, Guangdong, China
Tel: (+86) 400-602-0999 FAX: (+86) 020-38698685 Web: <http://www.grgtest.com>



Statement

1. The report is invalid without "special seal for inspection and testing"; some copies are invalid; The report is invalid if it is altered or missing; The report is invalid without the signature of the person who prepared, reviewed and approved it.
2. The sample information is provided by the client and responsible for its authenticity; The content of the report is only valid for the samples sent this time.
3. When there are reports in both Chinese and English, the Chinese version will prevail when the language problems are inconsistent.
4. If there is any objection concerning the report, please inform us within 15 days from the date of receiving the report.
5. Without the agreement of the laboratory, the client is not authorized to use the test results for unapproved propaganda.

----- The following blanks -----

Table of Contents

1.	TEST RESULT SUMMARY	6
2.	GENERAL DESCRIPTION OF EUT.....	7
2.1	APPLICANT	7
2.2	MANUFACTURER.....	7
2.3	FACTORY	7
2.4	BASIC DESCRIPTION OF EQUIPMENT UNDER TEST	7
2.5	CHANNEL LIST	7
2.6	TEST OPERATION MODE	8
2.7	LOCAL SUPPORTIVE	8
2.8	CONFIGURATION OF SYSTEM UNDER TEST	8
2.9	DUTY CYCLE.....	9
3.	LABORATORY AND ACCREDITATIONS	10
3.1	LABORATORY	10
3.2	ACCREDITATIONS	10
3.3	MEASUREMENT UNCERTAINTY	11
4.	LIST OF USED TEST EQUIPMENT AT GRGT	12
5.	CONDUCTED EMISSION MEASUREMENT	13
5.1	LIMITS.....	13
5.2	TEST PROCEDURES	13
5.3	TEST SETUP	14
5.4	DATA SAMPLE	14
5.5	TEST RESULTS	15
6.	RADIATED SPURIOUS EMISSIONS	17
6.1	LIMITS.....	17
6.2	TEST PROCEDURES	17
6.3	TEST SETUP	21
6.4	DATA SAMPLE	22
6.5	TEST RESULTS	23
7.	6DB BANDWIDTH.....	41
7.1	LIMITS.....	41
7.2	TEST PROCEDURES	41
7.3	TEST SETUP	41
7.4	TEST RESULTS	42
8.	MAXIMUM PEAK OUTPUT POWER	48
8.1	LIMITS.....	48
8.2	TEST PROCEDURES	48
8.3	TEST SETUP	48
8.4	TEST RESULT	49
9.	POWER SPECTRAL DENSITY	50
9.1	LIMITS.....	50
9.2	TEST PROCEDURES	50

9.3 TEST SETUP 50

9.4 TEST RESULTS 51

10. CONDUCTED BAND EDGES AND SPURIOUS EMISSIONS 57

10.1 LIMITS..... 57

10.2 TEST PROCEDURES 57

10.3 TEST SETUP 57

10.4 TEST RESULTS 58

11. RESTRICTED BANDS OF OPERATION..... 77

11.1 LIMITS..... 77

11.2 TEST PROCEDURES 78

11.3 TEST SETUP 78

11.4 TEST RESULTS 79

APPENDIX A. PHOTOGRAPH OF THE TEST CONNECTION DIAGRAM 92

APPENDIX B. PHOTOGRAPH OF THE EUT 92

----- The following blanks -----

REPORT ISSUED HISTORY

Report Version	Report No.	Description	Compile Date
1.0	E202112276794-15	Original Issue	2022-05-14

----- The following blanks -----

1. TEST RESULT SUMMARY

Standard	Item	Limit / Severity	Result
CFR 47, FCC Part 15 Subpart C (§15.247) ANSI C63.10-2013 KDB 558074 D01 15.247 measurement guidance v05r02	Antenna Requirement	§15.203	PASS
	Conducted Emissions	§15.207 (a)	PASS
	Radiated Spurious Emission	§15.247(d) §15.205 §15.209	PASS
	6 dB Bandwidth	§15.247 (a)(2)	PASS
	Maximum Peak Output Power	§15.247(b)(3)	PASS
	Power Spectral Density	§15.247(e)	PASS
	Conducted band edges and Spurious Emission	§15.247(d)	PASS
	Restricted bands of operation	§15.205 §15.209 §15.247(d)	PASS

The EUT have one antenna. The antenna is Internal antenna.

The max gain of Antenna is 3dBi ,which accordance 15.203 is considered sufficient to comply with the provisions of this section.

----- The following blanks -----

2. GENERAL DESCRIPTION OF EUT

2.1 APPLICANT

Name: NunoErin, LLC
Address: 533 Commerce Street, Jackson MS 39201 USA

2.2 MANUFACTURER

Name: Chengdu Vantron Technology Co., Ltd.
Address: No.5 GaoPeng Road, Hi-Tech Zone, Chengdu, SiChuan, P.R. China 610045

2.3 FACTORY

Name: Chengdu Vantron Technology Co., Ltd.
Address: No.5 GaoPeng Road, Hi-Tech Zone, Chengdu, SiChuan, P.R. China 610045

2.4 BASIC DESCRIPTION OF EQUIPMENT UNDER TEST

Product Name: Wall mount tablet
Product Model: UCTBWM-15.6
Adding Model: /
Trade Name: NunoErin
FCC ID: 2A5VA- UCTBWM156
Rating: Input: 100-240V~ 50/60Hz 1.0A
Frequency Band: 2412MHz-2462MHz for 802.11b/g/n HT20
Modulation Type: DSSS for 802.11b mode;
OFDM for 802.11g/n mode
Antenna Specification: Internal antenna with 3dBi gain (Max)
Temperature Range: 0°C~ 50°C
Hardware Version: V2.0
Software Version: Android 10
Sample submitting way: ☒ Provided by customer ☐ Sampling
Sample No: E202112276794-0001

2.5 CHANNEL LIST

CH01 - CH11 for IEEE 802.11b, IEEE 802.11g, IEEE 802.11n HT20							
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
01	2412	04	2427	07	2442	10	2457
02	2417	05	2432	08	2447	11	2462
03	2422	06	2437	09	2452		

2.6 TEST OPERATION MODE

Mode No.	Description of the modes
1	2.4G Wi-Fi TX mode

2.7 LOCAL SUPPORTIVE

Name of Equipment	Manufacturer	Model	Serial Number	Note
/	/	/	/	/
Cable				
1	AC cable	/	/	Unshield 0.38m

2.8 CONFIGURATION OF SYSTEM UNDER TEST**Test software:**

Software version	Test level
Ampak RF testTool	Default

Power Setting:

Mode	Date Rate	Frequency (MHz)	Power Setting
802.11b	1M	2412	Default
		2437	Default
		2462	Default
802.11g	6M	2412	Default
		2437	Default
		2462	Default
802.11n HT20	MCS0	2412	Default
		2437	Default
		2462	Default

----- The following blanks -----

2.9 DUTY CYCLE

EUT Name	Wall mount tablet	Model	UCTBWM-15.6
Environmental Conditions	23.1 °C/53%RH	Test Voltage	AC 120V/60Hz
Tested By	Qin Tingting	Tested Date	2022-01-13

TestMode	Antenna	Frequency (MHz)	Transmission Duration [ms]	Transmission Period [ms]	Duty Cycle [%]	T [s]
IEEE 802.11b	Ant1	2437	8.42	8.45	99.64	0.00842
IEEE 802.11g	Ant1	2437	1.39	1.44	96.53	0.00139
IEEE 802.11n HT20	Ant1	2437	1.31	1.35	97.04	0.00131

802.11b_Ant1_2437MHz



802.11g_Ant1_2437MHz



802.11n HT20_Ant1_2437MHz



3. LABORATORY AND ACCREDITATIONS

3.1 LABORATORY

The tests & measurements refer to this report were performed by Shenzhen EMC Laboratory of Guangzhou GRG Metrology & Test Co., Ltd.

Add : No.1301 Guanguang Road Xinlan Community, Guanlan Street, Longhua District
Shenzhen, 518110, People's Republic of China

P.C. : 518110

Tel : 0755-61180008

Fax : 0755-61180008

3.2 ACCREDITATIONS

Our laboratories are accredited and approved by the following approval agencies according to ISO/IEC 17025.

USA	A2LA(Certificate #2861.01)
------------	----------------------------

The measuring facility of laboratories has been authorized or registered by the following approval agencies.

Canada	ISED (Company Number: 24897, CAB identifier:CN0069)
USA	FCC (Registration Number: 759402, Designation Number:CN1198)

Copies of granted accreditation certificates are available for downloading from our web site,
<http://www.grgtest.com>

----- The following blanks -----

3.3 MEASUREMENT UNCERTAINTY

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the EUT as specified in CISPR 16-4-2:

Measurement		Frequency	Uncertainty
Radiated Emission	Horizontal	9kHz~30MHz	4.46dB
		30MHz~1000MHz	4.30dB
		1GHz~18GHz	5.60dB
		18GHz~26.5GHz	3.65dB
	Vertical	9kHz~30MHz	4.46dB
		30MHz~1000MHz	4.30dB
		1GHz~18GHz	5.60dB
		18GHz~26.5GHz	3.65dB
Conduction Emission		9 kHz~150kHz	2.80dB
		150kHz~10MHz	2.80dB
		10MHz~30MHz	2.20dB

Measurement	Uncertainty
RF frequency	6.0×10^{-6}
RF power conducted	0.78 dB
Occupied channel bandwidth	0.4 dB
Unwanted emission, conducted	0.68 dB
Humidity	6 %
Temperature	2 °C

This uncertainty represents an expanded uncertainty factor of $k=2$.

----- The following blanks -----

4. LIST OF USED TEST EQUIPMENT AT GRGT

Name of Equipment	Manufacturer	Model	Serial Number	Calibration Due
Conducted Emissions				
EZ-EMC	EZ	CCS-3A1-CE	/	/
EMI Receiver	R&S	ESCI	100783	2022-09-13
LISN(EUT)	R&S	ENV216	101543	2022-09-14
Radiated Spurious Emission&Restricted bands of operation				
Test S/W	EZ	CCS-03A1		
Loop Antenna	TESEQ	HLA6121	52599	2023-04-02
Test Receiver	R&S	ESR7	102444	2022-09-21
Preamplifier	EMEC	EM330	I00426	2023-03-05
Bi-log Antenna	Schwarzbeck	VULB9160	VULB9160-3401	2022-10-27
Spectrum Analyzer	Agilent	N9020B	MY57120179	2022-08-08
Horn Antenna	Schwarzbeck	BBHA9120D(1201)	02143	2022-10-22
Board-Band Horn Antenna	Schwarzbeck	BBHA 9170	BBHA 9170-497	2022-10-16
Amplifier	Tonscend	TAP01018048	AP20E8060075	2022-05-09
Amplifier	Tonscend	TAP184050	AP20E806071	2022-05-17
Test S/W	Tonscend	JS32-RE/2.5.1.5		
6 dB Bandwidth				
Spectrum Analyzer	Agilent	N9010A	MY55370330	2022-11-08
Output Power				
Pulse power sensor	Anristu	MA2411B	1126150	2023-03-01
Power meter	Anritsu	ML2495A	1204003	2023-02-28
Conducted band edges and Spurious Emission				
Spectrum Analyzer	Agilent	N9010A	MY55370330	2022-11-08
Power Spectral Density				
Spectrum Analyzer	R&S	FSV30	104381	2022-12-10

Note: The calibration interval of the above test instruments is 12 months.

5. CONDUCTED EMISSION MEASUREMENT

5.1 LIMITS

Frequency range	Limits (dB μ V)	
	Quasi-peak	Average
150kHz~0.5MHz	66~56	56~46
0.5MHz~5MHz	56	46
5MHz~30MHz	60	50

NOTE: (1) The lower limit shall apply at the transition frequencies.

(2) The limit decreases in line with the logarithm of the frequency in the range of 150 kHz to 0.5MHz.

5.2 TEST PROCEDURES

Procedure of Preliminary Test

Test procedures follow ANSI C63.10:2013.

For measurement of the disturbance voltage the equipment under test (EUT) is connected to the power supply mains and any other extended network via one or more artificial network(s). An EUT, whether intended to be grounded or not, and which is to be used on a table is configured as follows:

– Either the bottom or the rear of the EUT shall be at a controlled distance of 40 cm from a reference ground plane. This ground plane is normally the wall or floor of a shielded room. It may also be a grounded metal plane of at least 2 m by 2 m. This is physically accomplished as follows:

1) place the EUT on a table of non-conducting material which is at least 80 cm high. Place the EUT so that it is 40 cm from the wall of the shielded room, or

2) place the EUT on a table of non-conducting material which is 40 cm high so that the bottom of the EUT is 40 cm above the ground plane;

– All other conductive surfaces of the EUT shall be at least 80 cm from the reference ground plane;

– The EUT are placed on the floor that one side of the housings is 40 cm from the vertical reference ground plane and other metallic parts;

– Interconnecting cables that hang closer than 40 cm to the ground plane shall be folded back and forth forming a bundle 30 cm to 40 cm long, hanging approximately in the middle between the ground plane and the table.

– I/O cables that are connected to a peripheral shall be bundled in the centre. The end of the cable may be terminated if required using correct terminating impedance. The total length shall not exceed 1 m.

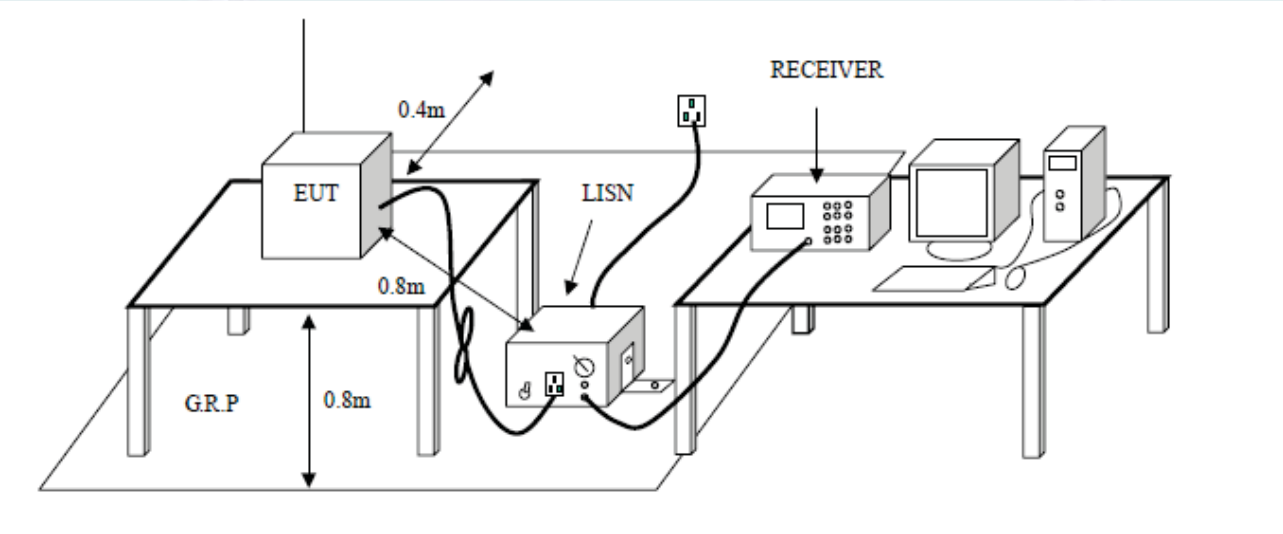
– Use serial board or connecting line to make EUT and notebook to communicate, according to the actual need to make EUT send constant frequency signal continuously.

The test mode(s) described in Item 2.6 were scanned during the preliminary test. After the preliminary scan, we found the test mode described in Item 2.6 producing the highest emission level. The EUT configuration and cable configuration of the above highest emission levels were recorded for reference of the final test.

Procedure of Final Test

EUT and support equipment were set up on the test bench as per the configuration with highest emission level in the preliminary test. A scan was taken on both power lines, recording at least the six highest emissions. Emission frequency and amplitude were recorded into a computer in which correction factors were used to calculate the emission level and compare reading to the applicable limit. The test data of the worst-case condition(s) was recorded.

5.3 TEST SETUP



5.4 DATA SAMPLE

Frequency (MHz)	QuasiPeak Reading (dBuV)	Average Reading (dBuV)	Correction Factor (dB)	QuasiPeak Result (dBuV)	Average Result (dBuV)	QuasiPeak Limit (dBuV)	Average Limit (dBuV)	QuasiPeak Margin (dB)	Average Margin (dB)	Remark (Pass/Fail)
X.XXXX	32.69	25.65	11.52	44.21	37.17	65.78	55.79	-21.57	-18.62	Pass

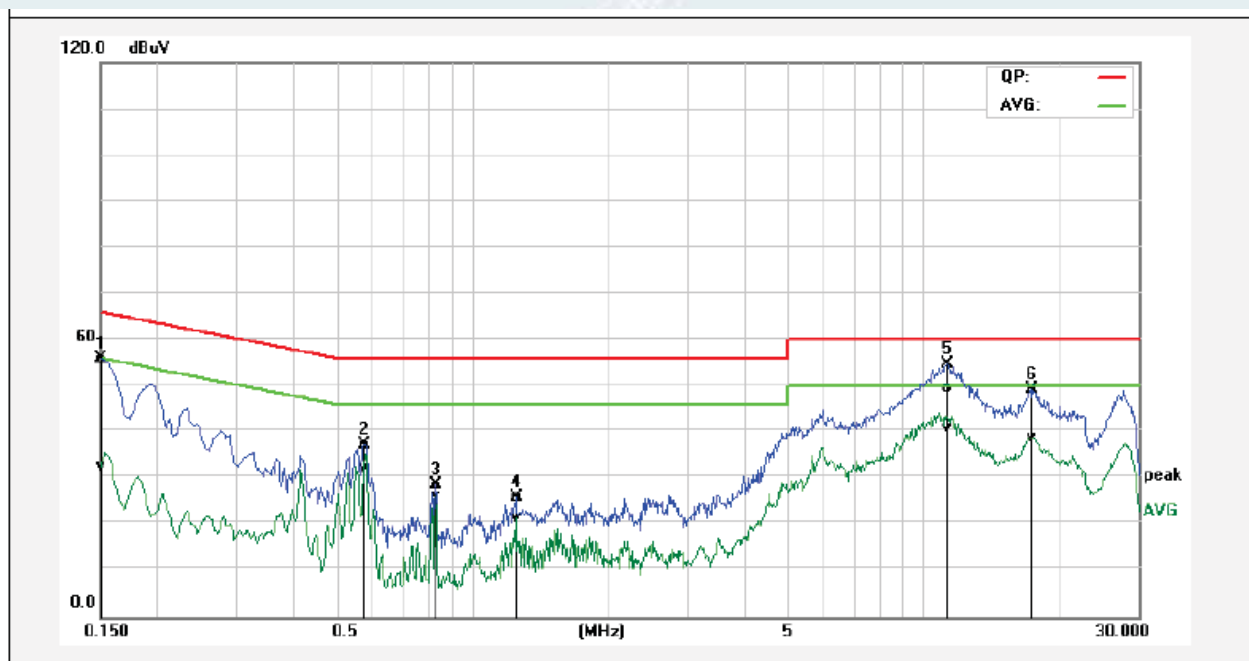
- Factor = Insertion loss of LISN + Cable Loss
- Result = Quasi-peak Reading/ Average Reading + Factor
- Limit = Limit stated in standard
- Margin = Result (dBuV) – Limit (dBuV)

----- The following blanks -----

5.5 TEST RESULTS

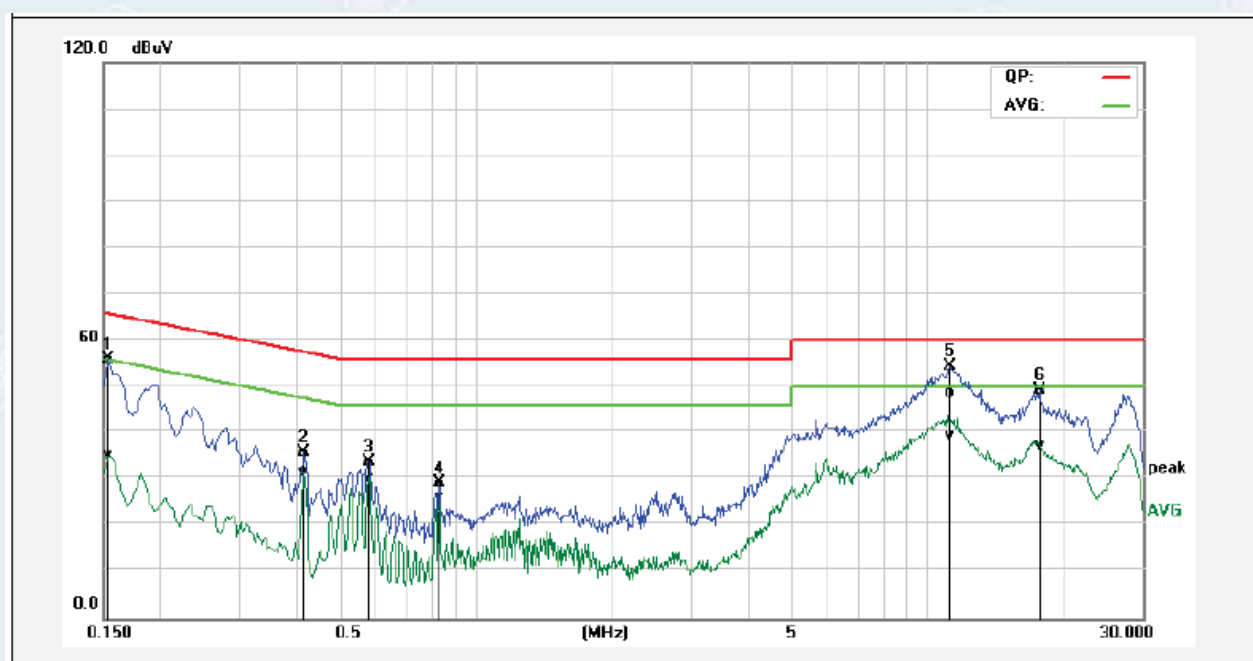
All models were pretested and only the worst case were recorded in this report. (IEEE 802.11b 2412MHz)

EUT Name	Wall mount tablet	Model	UCTBWM-15.6
Environmental Conditions	22.5°C/45%RH	Test Mode	Mode 1
Tested By	Zeng Xianglong	Line	L
Tested Date	2022-02-14	Test Voltage	AC120V/60Hz



No.	Frequency (MHz)	QuasiPeak reading (dBuV)	Average reading (dBuV)	Correction factor (dB)	QuasiPeak result (dBuV)	Average result (dBuV)	QuasiPeak limit (dBuV)	Average limit (dBuV)	QuasiPeak margin (dB)	Average margin (dB)	Remark
1	0.1500	46.36	23.04	9.50	55.86	32.54	65.99	56.00	-10.13	-23.46	Pass
2	0.5780	27.80	22.61	9.68	37.48	32.29	56.00	46.00	-18.52	-13.71	Pass
3	0.8340	19.11	16.64	9.64	28.75	26.28	56.00	46.00	-27.25	-19.72	Pass
4	1.2500	16.20	11.71	9.62	25.82	21.33	56.00	46.00	-30.18	-24.67	Pass
5*	11.2580	39.88	31.08	9.82	49.70	40.90	60.00	50.00	-10.30	-9.10	Pass
6	17.3740	39.40	28.88	9.91	49.31	38.79	60.00	50.00	-10.69	-11.21	Pass

EUT Name	Wall mount tablet	Model	UCTBWM-15.6
Environmental Conditions	22.5°C/45%RH	Test Mode	Mode 1
Tested By	Zeng Xianglong	Line	N
Tested Date	2022-02-14	Test Voltage	AC120V/60Hz



No.	Frequency (MHz)	QuasiPeak reading (dBuV)	Average reading (dBuV)	Correction factor (dB)	QuasiPeak result (dBuV)	Average result (dBuV)	QuasiPeak limit (dBuV)	Average limit (dBuV)	QuasiPeak margin (dB)	Average margin (dB)	Remark
1*	0.1539	46.32	25.59	9.51	55.83	35.10	65.78	55.79	-9.95	-20.69	Pass
2	0.4180	26.28	21.94	9.66	35.94	31.60	57.49	47.49	-21.55	-15.89	Pass
3	0.5820	24.11	20.63	9.68	33.79	30.31	56.00	46.00	-22.21	-15.69	Pass
4	0.8340	19.62	16.70	9.64	29.26	26.34	56.00	46.00	-26.74	-19.66	Pass
5	11.1980	39.08	29.68	9.82	48.90	39.50	60.00	50.00	-11.10	-10.50	Pass
6	17.7500	39.40	27.55	9.92	49.32	37.47	60.00	50.00	-10.68	-12.53	Pass

6. RADIATED SPURIOUS EMISSIONS

6.1 LIMITS

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 20 dB 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, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30dB instead of 20dB. Attenuation below the general limits specified in §15.209(a) is not required.

Frequency (MHz)	Quasi-peak($\mu\text{V/m}$)	Measurement distance(m)	Quasi-peak(dB $\mu\text{V/m}$)@distance 3m
0.009-0.490	2400/F(kHz)	300	128.5~93.8
0.490-1.705	24000/F(kHz)	30	73.8~63
1.705-30.0	30	30	69.5
30~88	100	3	40
88~216	150	3	43.5
216~960	200	3	46
Above 960	500	3	54

NOTE:

- (1) The emission limits for the ranges 9-90kHz and 110-490kHz are based on measurements employing a linear average detector.
- (2) The lower limit shall apply at the transition frequencies.
- (3) Above 18GHz test distance is 1m, so the PeakLimit=74+20*log(3/1)=83.54 (dB $\mu\text{V/m}$).
The Avg Limit=54+20*log(3/1)=63.54 (dB $\mu\text{V/m}$).

6.2 TEST PROCEDURES

1) Sequence of testing 9kHz to 30MHz

Setup:

- The equipment was set up to simulate a typical usage like described in the user manual or described by manufacturer.
- If the EUT is a tabletop system, a rotatable table with 0.8 m height is used.
- If the EUT is a floor standing device, it is placed on the ground.
- Use serial board or connecting line to make EUT and notebook to communicate, according to the actual need to make EUT send constant frequency signal continuously.
- The EUT is placed on a desktop position in the center of the turntable.
- The measurement distance is 3 meter.
- The EUT was set into operation.

Pre measurement:

- The turntable rotates from 0° to 360°.
- The antenna height is 1.0 meter.
- At each turntable position the analyzer sweeps with peak detection to find the maximum of all emissions

Final measurement:

--- Identified emissions during the pre measurement the software maximizes by rotating the turntable position (0° to 360°) and by rotating the elevation axes (0° to 360°).

--- The final measurement will be done in the position (turntable and elevation) causing the highest emissions with QP detector.

--- The final levels, frequency, measuring time, bandwidth, turntable position, correction factor, margin to the limit and limit will be recorded. Also a plot with the graph of the pre measurement and the limit will be stored.

2) Sequence of testing 30MHz to 1GHz**Setup:**

--- The equipment was set up to simulate a typical usage like described in the user manual or described by manufacturer.

--- If the EUT is a tabletop system, a table with 0.8 m height is used, which is placed on the ground plane.

--- If the EUT is a floor standing device, it is placed on the ground plane with insulation between both.

--- Use serial board or connecting line to make EUT and notebook to communicate, according to the actual need to make EUT send constant frequency signal continuously.

--- The EUT is placed on a desktop position in the center of the turntable.

--- The measurement distance is 3 meter.

--- The EUT was set into operation.

Pre measurement:

--- The turntable rotates from 0° to 360° .

--- The antenna is polarized vertical and horizontal.

--- The antenna height changes from 1 to 4 meter.

--- At each turntable position, antenna polarization and height the analyzer sweeps three times in peak to find the maximum of all emissions.

Final measurement:

--- The final measurement will be performed with minimum the six highest peaks.

--- According to the maximum antenna and turntable positions of premeasurement the software maximize the peaks by changing turntable rotates from 0° to 360° and antenna movement between 1 and 4 meter.

--- The final measurement will be done with QP detector with an EMI receiver.

--- The final levels, frequency, measuring time, bandwidth, antenna height, antenna polarization, turntable angle, correction factor, margin to the limit and limit will be recorded. Also a plot with the graph of the premeasurement with marked maximum final measurements and the limit will be stored.

3) Sequence of testing 1GHz to 18GHz

Setup:

- The equipment was set up to simulate a typical usage like described in the user manual or described by manufacturer.
- If the EUT is a tabletop system, a rotatable table with 1.5 m height is used.
- If the EUT is a floor standing device, it is placed on the ground plane with insulation between both.
- Use serial board or connecting line to make EUT and notebook to communicate, according to the actual need to make EUT send constant frequency signal continuously.
- The EUT is placed on a desktop position in the center of the turntable.
- The measurement distance is 3 meter.
- The EUT was set into operation.

Pre measurement:

- The turntable rotates from 0° to 360°.
- The antenna is polarized vertical and horizontal.
- The antenna height scan range is 1 meter to 4 meter.
- At each turntable position and antenna polarization the analyzer sweeps with peak detection to find the maximum of all emissions.

Final measurement:

- The final measurement will be performed with minimum the six highest peaks.
- According to the maximum antenna and turntable positions of premeasurement the software maximize the peaks by changing turntable rotates from 0° to 360° and antenna movement between 1 and 4 meter. This procedure is repeated for both antenna polarizations.
- The final measurement will be done in the position (turntable, EUT-table and antenna polarization) causing the highest emissions with Peak and Average detector.
- The final levels, frequency, measuring time, bandwidth, turntable position, EUT-table position, antenna polarization, correction factor, margin to the limit and limit will be recorded. Also a plot with the graph of the pre measurement with marked maximum final measurements and the limit will be stored.

4) Sequence of testing above 18GHz

Setup:

- The equipment was set up to simulate a typical usage like described in the user manual or described by manufacturer.
- If the EUT is a tabletop system, a rotatable table with 1.5 m height is used.
- If the EUT is a floor standing device, it is placed on the ground plane with insulation between both.
- Use serial board or connecting line to make EUT and notebook to communicate, according to the actual need to make EUT send constant frequency signal continuously.
- The EUT is placed on a desktop position in the center of the turntable.
- The measurement distance is 1 meter.
- The EUT was set into operation.

Pre measurement:

--- The antenna is moved spherical over the EUT in different polarisations of the antenna.

Final measurement:

--- The final measurement will be performed at the position and antenna orientation for all detected emissions that were found during the premeasurements with Peak and Average detector.

--- The final levels, frequency, measuring time, bandwidth, correction factor, margin to the limit and limit will be recorded. Also a plot with the graph of the premeasurement and the limit will be stored.

NOTE:

(a).The frequency from 9kHz to 150kHz, Set RBW=300Hz(for Peak&AVG), RBW=300Hz(for Peak&AVG).
the frequency from 150kHz to 30MHz, Set RBW=9kHz, RBW=9kHz,(for QP Detector).

(b).The frequency from 30MHz to 1GHz, Set RBW=120kHz, RBW=300kHz,(for QP Detector).

(c).The frequency above 1GHz, for Peak detector: Set RBW=1MHz, RBW=3MHz.

(d). The frequency above 1GHz, for Avg detector: Set RBW=1MHz, if the EUT is configured to transmit with duty cycle $\geq 98\%$, set VBW $\leq$ RBW/100 (i.e.,10kHz) but not less than 10Hz. Where duty cycle is defined in section 2.9.

----- The following blanks -----

6.3 TEST SETUP

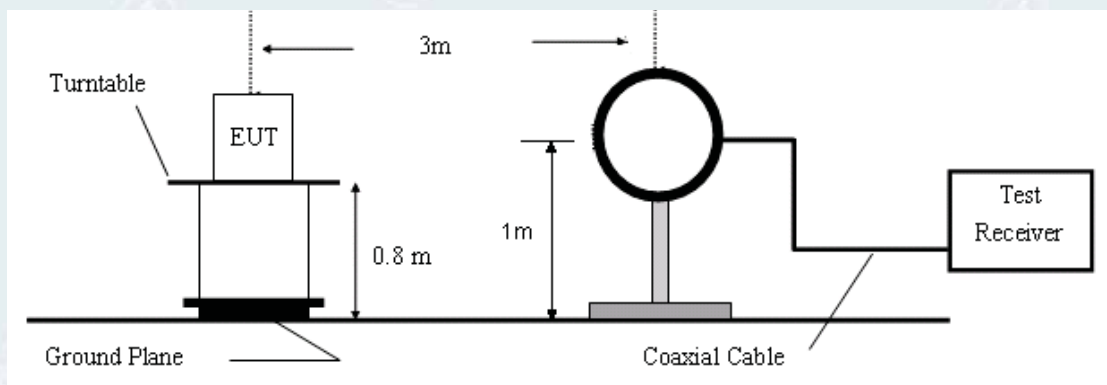


Figure 1. 9kHz to 30MHz radiated emissions test configuration

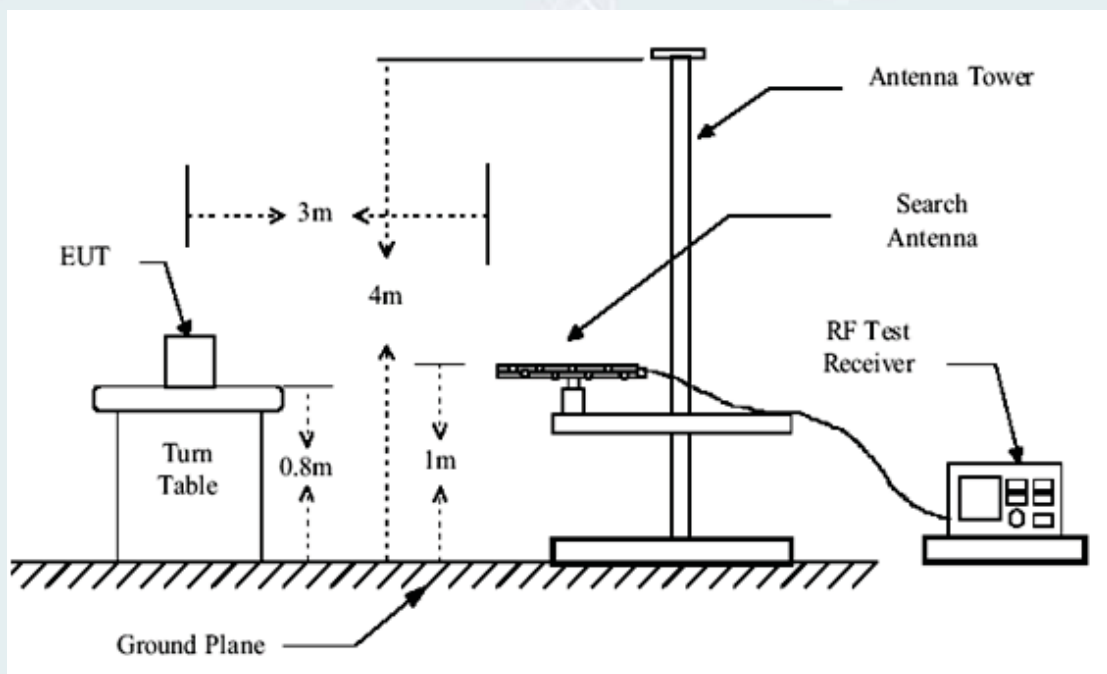


Figure 2. 30MHz to 1GHz radiated emissions test configuration

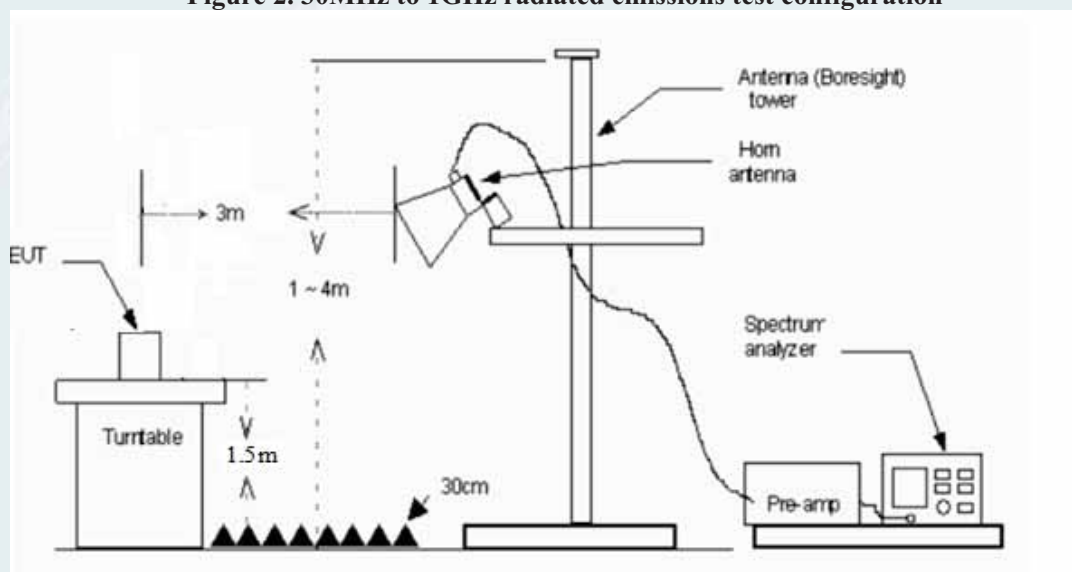


Figure 3. 1GHz to 18GHz radiated emissions test configuration

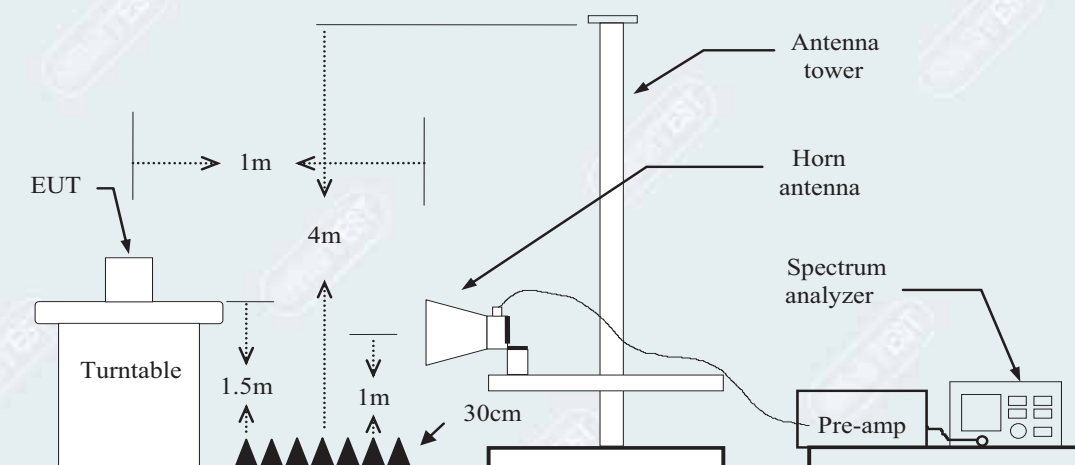


Figure 4.18GHz to 26.5GHz radiated emissions test configuration

6.4 DATA SAMPLE

30MHz to 1GHz

No.	Frequency (MHz)	Reading (dBuV/m)	Factor (dB)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark	Pole
xxx	xxx	37.06	-15.48	21.58	40.00	-18.42	QP	Vertical

1GHz-18GHz

No.	Frequency (MHz)	Reading (dBuV/m)	Factor (dB)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark	Pole
xxx	xxx	65.45	-11.12	54.33	74.00	-19.67	peak	Vertical
xxx	xxx	63.00	-11.12	51.88	54.00	-2.12	AVG	Vertical

Above 18GHz

No.	Frequency (MHz)	Reading (dBuV/m)	Factor (dB)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark	Pole
xxx	xxx	68.86	57.66	-11.20	83.54	25.88	peak	Vertical
xxx	xxx	68.89	-11.20	57.69	63.54	5.85	AVG	Vertical

Frequency (MHz)

= Emission frequency in MHz

Ant.Pol. (H/V)

= Antenna polarization

Reading (dBuV)

= Uncorrected Analyzer / Receiver reading

Correction Factor (dB/m)

= Antenna factor + Cable loss – Amplifier gain

Result (dBuV/m)

= Reading (dBuV) + Correction Factor (dB/m)

Limit (dBuV/m)

= Limit stated in standard

Margin (dB)

= Remark Result (dBuV/m) – Limit (dBuV/m)

Peak

= Peak Reading

QP

= Quasi-peak Reading

AVG

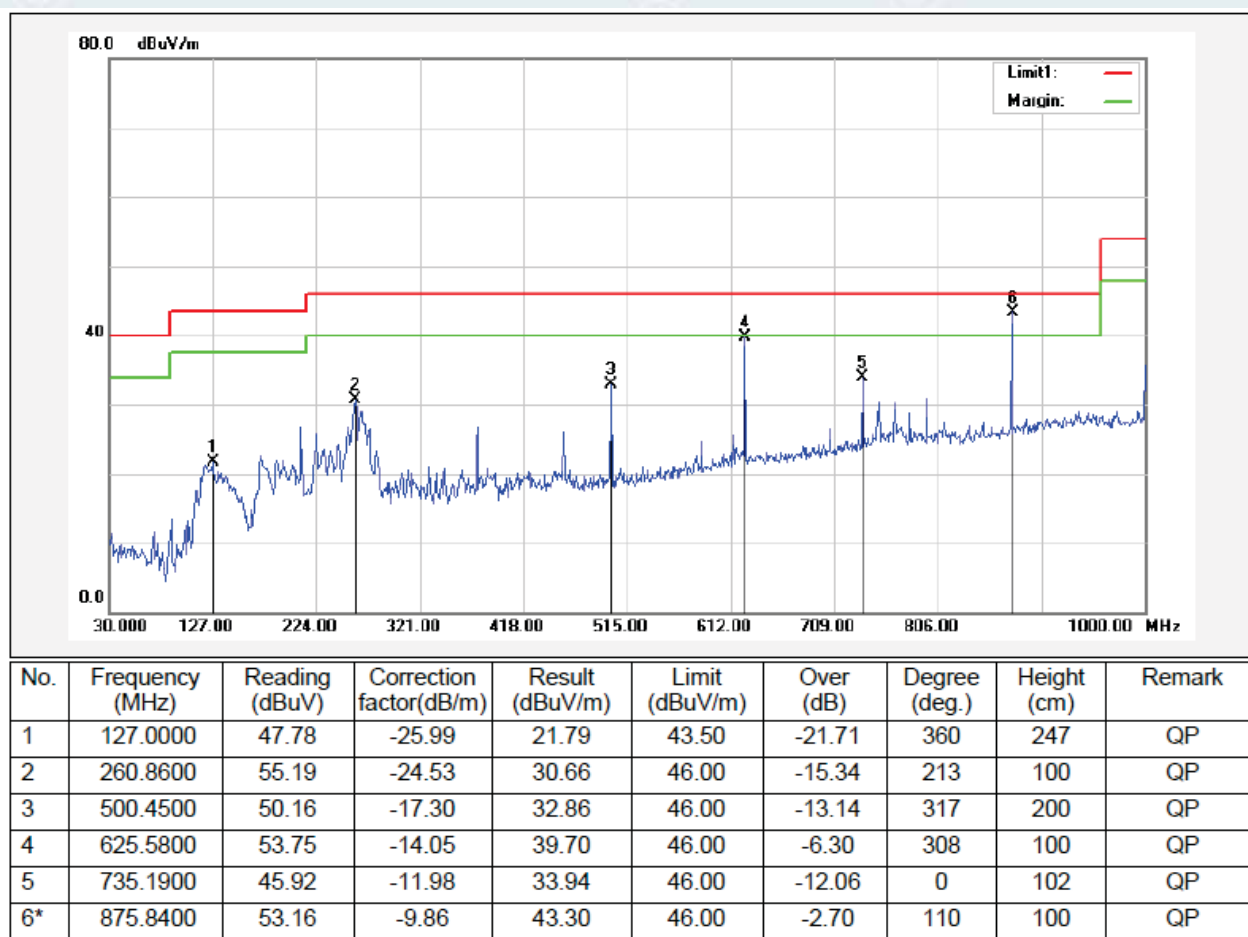
= Average Reading

6.5 TEST RESULTS

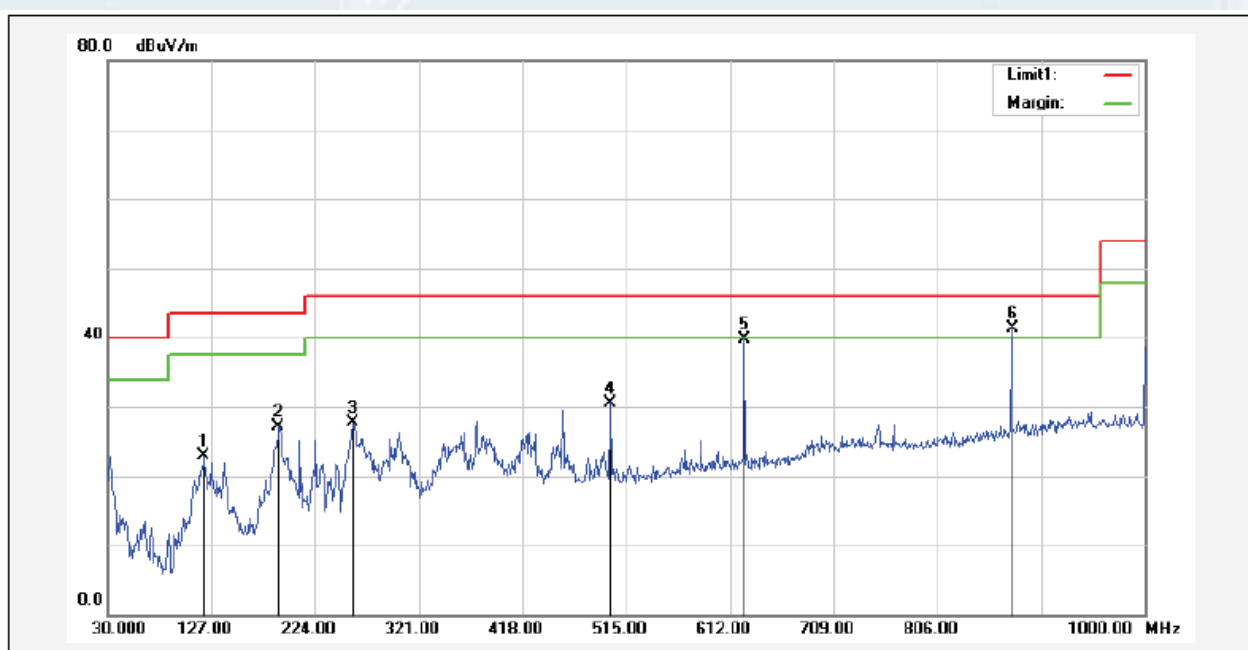
Below 1GHz

All models were pretested and only the worst modes and channels were recorded in this report. (IEEE 802.11b)

EUT Name	Wall mount tablet	Model	UCTBWM-15.6
Environmental Conditions	25.1°C / 55 %RH	Test Voltage	AC 120V/60Hz
Test Mode	IEEE 802.11b Frequency (2412MHz)	Polarity	Horizontal
Tested By	Tang Shenghui	Tested Date	2022-01-06

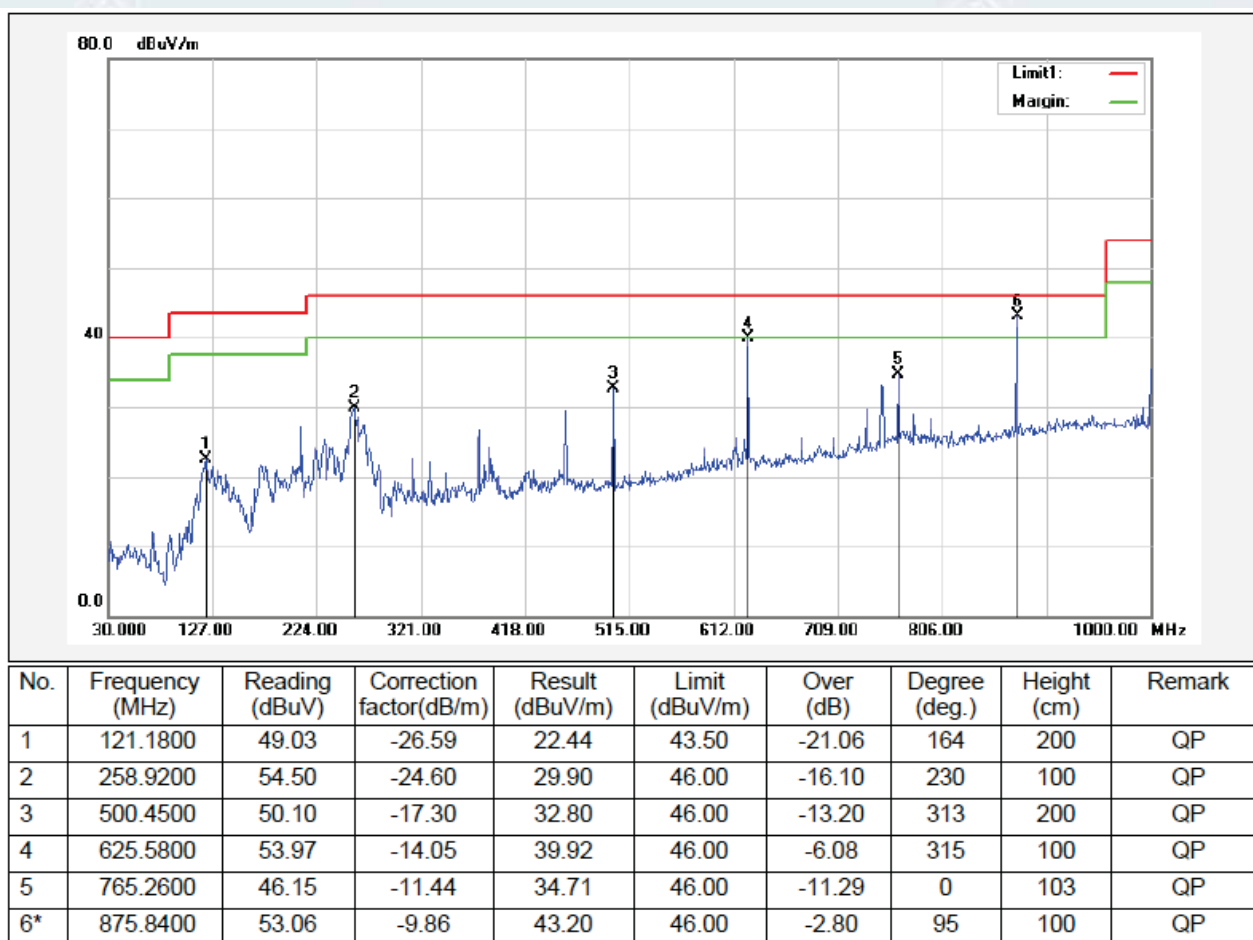


EUT Name	Wall mount tablet	Model	UCTBWM-15.6
Environmental Conditions	25.1℃ / 55 %RH	Test Voltage	AC 120V/60Hz
Test Mode	IEEE 802.11b Frequency (2412MHz)	Polarity	Vertical
Tested By	Tang Shenghui	Tested Date	2022-01-06

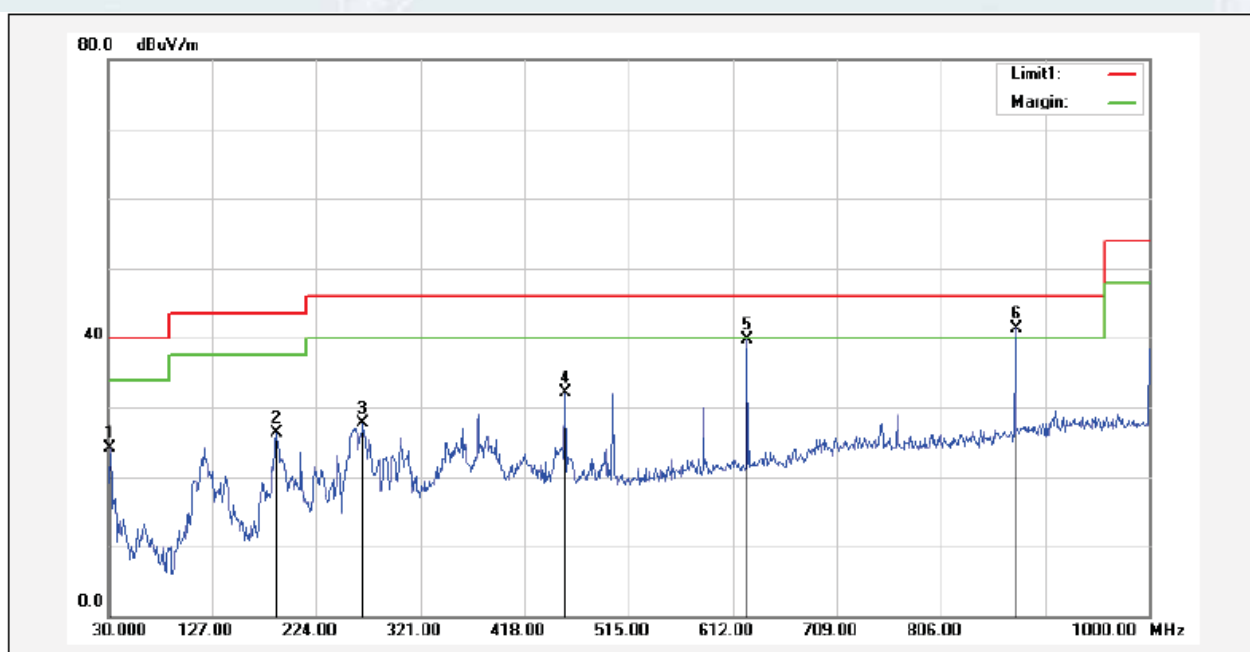


No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Over (dB)	Degree (deg.)	Height (cm)	Remark
1	120.2100	49.56	-26.69	22.87	43.50	-20.63	351	100	QP
2	190.0500	53.70	-26.52	27.18	43.50	-16.32	185	100	QP
3	259.8900	52.19	-24.56	27.63	46.00	-18.37	280	100	QP
4	500.4500	47.90	-17.30	30.60	46.00	-15.40	180	100	QP
5	625.5800	53.85	-14.05	39.80	46.00	-6.20	32	100	QP
6*	875.8400	51.26	-9.86	41.40	46.00	-4.60	98	100	QP

EUT Name	Wall mount tablet	Model	UCTBWM-15.6
Environmental Conditions	25.1℃ / 55 %RH	Test Voltage	AC 120V/60Hz
Test Mode	IEEE 802.11b Frequency (2437MHz)	Polarity	Horizontal
Tested By	Tang Shenghui	Tested Date	2022-01-06

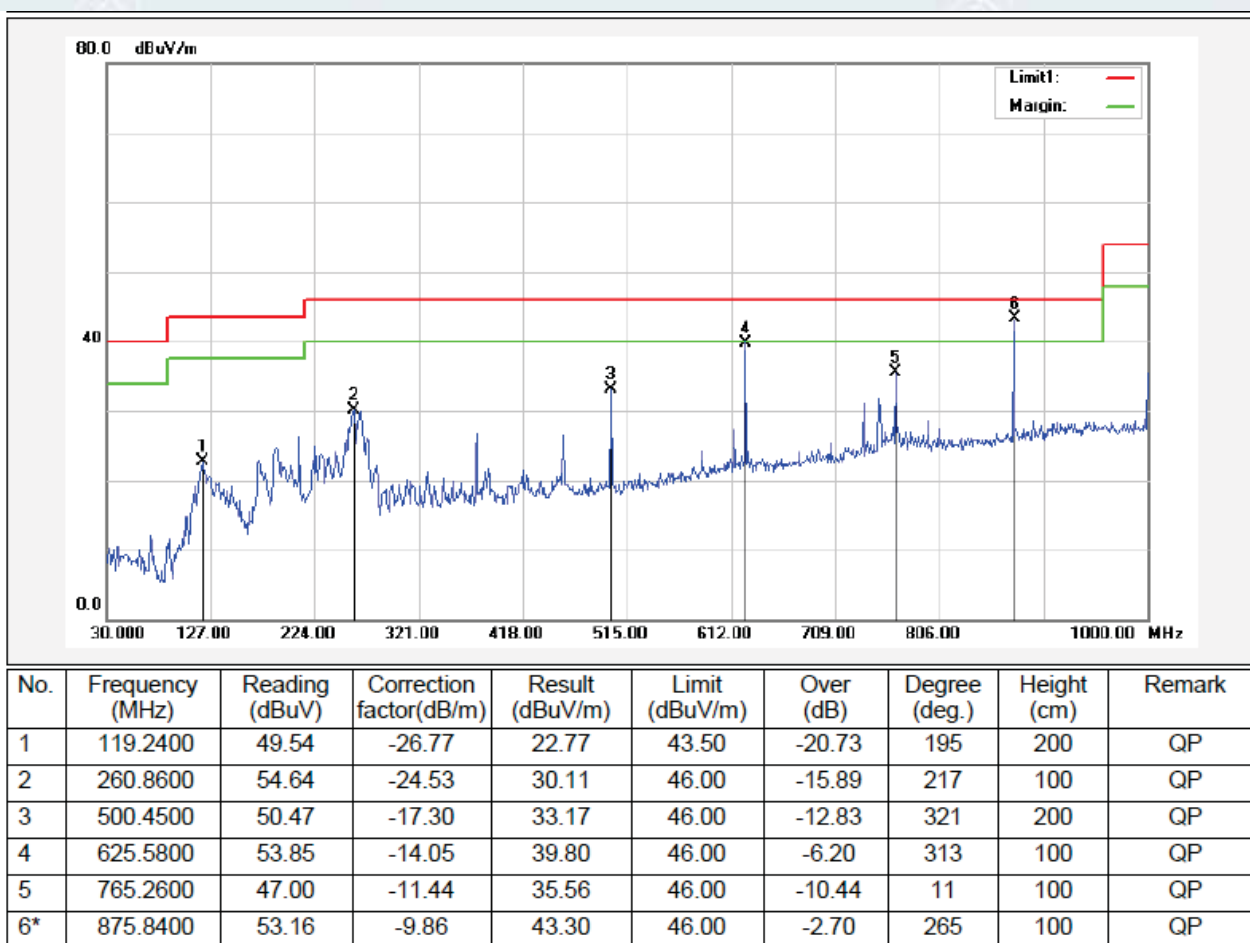


EUT Name	Wall mount tablet	Model	UCTBWM-15.6
Environmental Conditions	25.1°C / 55 %RH	Test Voltage	AC 120V/60Hz
Test Mode	IEEE 802.11b Frequency (2437MHz)	Polarity	Vertical
Tested By	Tang Shenghui	Tested Date	2022-01-06

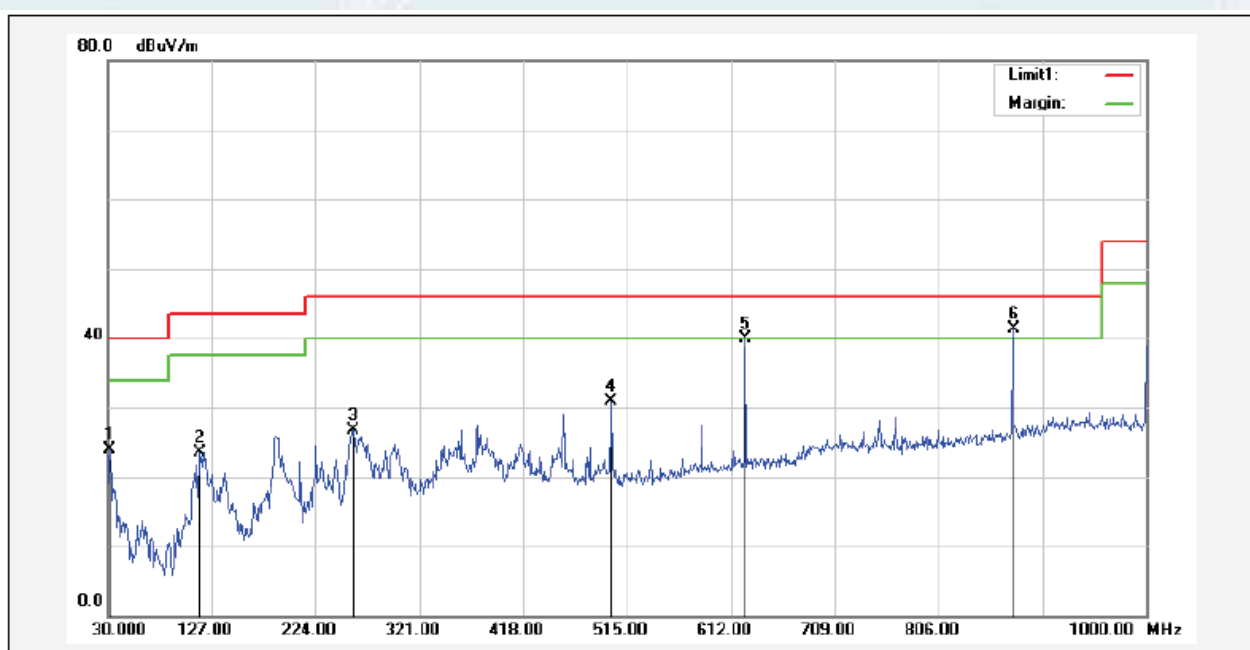


No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Over (dB)	Degree (deg.)	Height (cm)	Remark
1	31.9400	52.01	-27.83	24.18	40.00	-15.82	280	100	QP
2	187.1400	52.65	-26.26	26.39	43.50	-17.11	82	100	QP
3	267.6500	51.99	-24.29	27.70	46.00	-18.30	271	100	QP
4	455.8300	50.21	-18.08	32.13	46.00	-13.87	34	100	QP
5	625.5800	53.71	-14.05	39.66	46.00	-6.34	29	100	QP
6*	875.8400	51.26	-9.86	41.40	46.00	-4.60	98	100	QP

EUT Name	Wall mount tablet	Model	UCTBWM-15.6
Environmental Conditions	25.1℃ / 55 %RH	Test Voltage	AC 120V/60Hz
Test Mode	IEEE 802.11b Frequency (2462MHz)	Polarity	Horizontal
Tested By	Tang Shenghui	Tested Date	2022-01-06



EUT Name	Wall mount tablet	Model	UCTBWM-15.6
Environmental Conditions	25.1°C / 55 %RH	Test Voltage	AC 120V/60Hz
Test Mode	IEEE 802.11b Frequency (2462MHz)	Polarity	Vertical
Tested By	Tang Shenghui	Tested Date	2022-01-06



No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Over (dB)	Degree (deg.)	Height (cm)	Remark
1	31.9400	51.75	-27.83	23.92	40.00	-16.08	304	100	QP
2	116.3300	50.38	-26.97	23.41	43.50	-20.09	1	100	QP
3	258.9200	51.31	-24.60	26.71	46.00	-19.29	249	100	QP
4	500.4500	48.20	-17.30	30.90	46.00	-15.10	193	100	QP
5	625.5800	54.04	-14.05	39.99	46.00	-6.01	38	100	QP
6*	875.8400	51.26	-9.86	41.40	46.00	-4.60	102	100	QP

Remark:

- 1 No emission found between lowest internal used/generated frequency to 30MHz.
- 2 Radiated emissions measured in frequency range from 9 kHz to 1GHz were made with an instrument using Quasi-peak detector mode.
- 3 Data of measurement within this frequency range shown "---" in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
- 4 The IF bandwidth of Receiver between 30MHz to 1GHz was 120 kHz.

1GHz-18GHz:

Mode: IEEE 802.11b

Lowest Frequency (2412MHz)

Date: 2022-01-05

Tested By:Lu Qiang

Environment: 25°C/60%RH

Voltage:AC 120V/60Hz

Suspected Data List									
NO.	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	1368.0460	69.74	46.09	-23.65	74.00	27.91	200	208	Horizontal
2	2275.6595	64.27	43.99	-20.28	74.00	30.01	100	217	Horizontal
3	3185.6482	56.33	40.18	-16.15	74.00	33.82	100	86	Horizontal
4	4110.1388	54.84	41.05	-13.79	74.00	32.95	200	127	Horizontal
5	7236.1545	49.82	46.29	-3.53	74.00	27.71	100	53	Horizontal
6	7779.9725	48.79	46.91	-1.88	74.00	27.09	100	86	Horizontal

Suspected Data List									
NO.	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	1140.5176	67.90	43.26	-24.64	74.00	30.74	200	14	Vertical
2	1368.5461	73.74	50.09	-23.65	74.00	23.91	100	356	Vertical
3	2282.1603	66.22	45.99	-20.23	74.00	28.01	100	14	Vertical
4	3195.0244	61.73	45.79	-15.94	74.00	28.21	200	13	Vertical
5	4824.6031	56.70	46.99	-9.71	74.00	27.01	200	36	Vertical
6	7234.2793	53.06	49.55	-3.51	74.00	24.45	200	28	Vertical

AV Final Data List									
NO.	Freq. [MHz]	Factor [dB]	AV Reading [dBμV/m]	AV Value [dBμV/m]	AV Limit [dBμV/m]	AV Margin [dB]	Height [cm]	Angle [°]	Polarity
1	4824.0241	-9.71	55.12	45.41	54.00	8.59	167	49	Vertical
2	7236.7390	-3.52	49.39	45.87	54.00	8.13	200	16	Vertical

Mode: IEEE 802.11b
 Middle Frequency (2437MHz)
 Date: 2022-01-05
 Tested By:Lu Qiang

Environment: 25°C/60%RH
 Voltage:AC 120V/60Hz

Suspected Data List									
NO.	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	1368.5461	69.81	46.16	-23.65	74.00	27.84	200	307	Horizontal
2	2284.4106	63.99	43.78	-20.21	74.00	30.22	200	201	Horizontal
3	3198.7748	54.40	38.54	-15.86	74.00	35.46	200	110	Horizontal
4	3832.6041	55.76	41.16	-14.60	74.00	32.84	200	94	Horizontal
5	4098.8874	55.19	41.30	-13.89	74.00	32.70	200	126	Horizontal
6	7307.4134	49.44	45.08	-4.36	74.00	28.92	100	356	Horizontal

Suspected Data List									
NO.	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	1140.0175	66.87	42.22	-24.65	74.00	31.78	200	22	Vertical
2	1368.2960	73.53	49.88	-23.65	74.00	24.12	100	317	Vertical
3	2280.6601	65.32	45.08	-20.24	74.00	28.92	100	9	Vertical
4	3187.5234	60.48	44.37	-16.11	74.00	29.63	200	15	Vertical
5	4873.3592	53.93	44.11	-9.82	74.00	29.89	200	39	Vertical
6	7309.2887	53.10	48.77	-4.33	74.00	25.23	200	22	Vertical

AV Final Data List									
NO.	Freq. [MHz]	Factor [dB]	AV Reading [dBμV/m]	AV Value [dBμV/m]	AV Limit [dBμV/m]	AV Margin [dB]	Height [cm]	Angle [°]	Polarity
1	7310.3120	-4.34	50.12	45.78	54.00	8.22	198	27	Vertical

----- The following blanks -----

Mode: IEEE 802.11b
 Highest Frequency (2462MHz)
 Date: 2022-01-05
 Tested By:Lu Qiang

Environment: 25°C/60%RH
 Voltage:AC 120V/60Hz

Suspected Data List									
NO.	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	1368.7961	70.93	47.28	-23.65	74.00	26.72	200	323	Horizontal
2	2276.9096	63.64	43.37	-20.27	74.00	30.63	200	168	Horizontal
3	3193.1491	55.86	39.88	-15.98	74.00	34.12	100	88	Horizontal
4	3832.6041	55.39	40.79	-14.60	74.00	33.21	100	359	Horizontal
5	4102.6378	55.57	41.71	-13.86	74.00	32.29	200	128	Horizontal
6	7974.9969	48.79	47.12	-1.67	74.00	26.88	200	24	Horizontal

Suspected Data List									
NO.	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	1367.7960	74.20	50.55	-23.65	74.00	23.45	100	4	Vertical
2	1617.8272	63.21	40.43	-22.78	74.00	33.57	200	351	Vertical
3	2276.4096	64.25	43.97	-20.28	74.00	30.03	100	20	Vertical
4	3195.0244	60.23	44.29	-15.94	74.00	29.71	200	14	Vertical
5	4104.5131	55.78	41.94	-13.84	74.00	32.06	200	14	Vertical
6	7386.1733	54.24	50.73	-3.51	74.00	23.27	200	1	Vertical

AV Final Data List									
NO.	Freq. [MHz]	Factor [dB]	AV Reading [dBμV/m]	AV Value [dBμV/m]	AV Limit [dBμV/m]	AV Margin [dB]	Height [cm]	Angle [°]	Polarity
1	7386.7642	-3.51	50.09	46.58	54.00	7.42	197	26	Vertical

----- The following blanks -----

Mode: IEEE 802.11g
 Lowest Frequency (2412MHz)
 Date: 2022-01-05
 Tested By:Lu Qiang

Environment: 25°C/60%RH
 Voltage:AC 120V/60Hz

Suspected Data List									
NO.	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	1368.5461	70.22	46.57	-23.65	74.00	27.43	200	139	Horizontal
2	2279.9100	63.46	43.21	-20.25	74.00	30.79	200	179	Horizontal
3	3189.3987	54.85	38.78	-16.07	74.00	35.22	100	79	Horizontal
4	4108.2635	55.63	41.82	-13.81	74.00	32.18	200	226	Horizontal
5	5882.2353	50.38	42.72	-7.66	74.00	31.28	100	359	Horizontal
6	7183.6480	49.01	45.85	-3.16	74.00	28.15	200	144	Horizontal

Suspected Data List									
NO.	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	1368.5461	73.58	49.93	-23.65	74.00	24.07	100	356	Vertical
2	1615.8270	63.16	40.36	-22.80	74.00	33.64	100	356	Vertical
3	2277.4097	64.55	44.28	-20.27	74.00	29.72	100	22	Vertical
4	3193.1491	61.42	45.44	-15.98	74.00	28.56	100	330	Vertical
5	4822.7278	52.63	42.92	-9.71	74.00	31.08	200	46	Vertical
6	7234.2793	53.19	49.68	-3.51	74.00	24.32	200	359	Vertical

AV Final Data List									
NO.	Freq. [MHz]	Factor [dB]	AV Reading [dBμV/m]	AV Value [dBμV/m]	AV Limit [dBμV/m]	AV Margin [dB]	Height [cm]	Angle [°]	Polarity
1	1363.7699	-23.65	59.33	35.68	54.00	18.32	157	335	Vertical
2	7237.5347	-3.52	42.43	38.91	54.00	15.09	197	24	Vertical

----- The following blanks -----

Mode: IEEE 802.11g
 Middle Frequency (2437MHz)
 Date: 2022-01-05
 Tested By:Lu Qiang

Environment: 25°C/60%RH
 Voltage:AC 120V/60Hz

Suspected Data List									
NO.	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	1368.2960	70.29	46.64	-23.65	74.00	27.36	200	209	Horizontal
2	1616.0770	60.61	37.82	-22.79	74.00	36.18	200	128	Horizontal
3	2284.1605	63.39	43.18	-20.21	74.00	30.82	100	192	Horizontal
4	3185.6482	55.57	39.42	-16.15	74.00	34.58	100	88	Horizontal
5	3832.6041	55.85	41.25	-14.60	74.00	32.75	100	0	Horizontal
6	7967.4959	48.16	46.42	-1.74	74.00	27.58	100	339	Horizontal

Suspected Data List									
NO.	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	1368.2960	73.39	49.74	-23.65	74.00	24.26	200	22	Vertical
2	1613.8267	63.34	40.53	-22.81	74.00	33.47	100	349	Vertical
3	2280.1600	64.09	43.84	-20.25	74.00	30.16	100	15	Vertical
4	3195.0244	60.70	44.76	-15.94	74.00	29.24	200	330	Vertical
5	4869.6087	50.96	41.17	-9.79	74.00	32.83	100	37	Vertical
6	7307.4134	53.13	48.77	-4.36	74.00	25.23	200	28	Vertical

AV Final Data List									
NO.	Freq. [MHz]	Factor [dB]	AV Reading [dBμV/m]	AV Value [dBμV/m]	AV Limit [dBμV/m]	AV Margin [dB]	Height [cm]	Angle [°]	Polarity
1	1373.8650	-23.65	50.01	26.36	54.00	27.64	142	4	Vertical
2	7311.8709	-4.36	42.67	38.31	54.00	15.69	193	27	Vertical

----- The following blanks -----

Mode: IEEE 802.11g
 Highest Frequency (2462MHz)
 Date: 2022-01-05
 Tested By:Lu Qiang

Environment: 25°C/60%RH
 Voltage:AC 120V/60Hz

Suspected Data List									
NO.	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	1368.5461	73.61	49.96	-23.65	74.00	24.04	100	216	Horizontal
2	1619.3274	61.32	38.55	-22.77	74.00	35.45	200	119	Horizontal
3	2280.4101	64.28	44.04	-20.24	74.00	29.96	100	192	Horizontal
4	3196.8996	55.03	39.13	-15.90	74.00	34.87	100	135	Horizontal
5	4106.3883	56.06	42.23	-13.83	74.00	31.77	200	143	Horizontal
6	7395.5494	49.14	45.68	-3.46	74.00	28.32	100	8	Horizontal

Suspected Data List									
NO.	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	1367.7960	75.19	51.54	-23.65	74.00	22.46	100	352	Vertical
2	1625.0781	62.63	39.91	-22.72	74.00	34.09	100	360	Vertical
3	2280.4101	65.02	44.78	-20.24	74.00	29.22	100	14	Vertical
4	3195.0244	60.20	44.26	-15.94	74.00	29.74	200	15	Vertical
5	4100.7626	56.20	42.33	-13.87	74.00	31.67	200	9	Vertical
6	7388.0485	52.85	49.35	-3.50	74.00	24.65	200	330	Vertical

AV Final Data List									
NO.	Freq. [MHz]	Factor [dB]	AV Reading [dBμV/m]	AV Value [dBμV/m]	AV Limit [dBμV/m]	AV Margin [dB]	Height [cm]	Angle [°]	Polarity
1	1374.6350	-23.65	59.99	36.34	54.00	17.66	160	21	Vertical
2	7388.9351	-3.50	42.60	39.10	54.00	14.90	197	27	Vertical

----- The following blanks -----

Mode: IEEE 802.11n HT20
 Lowest Frequency (2412MHz)
 Date: 2022-01-05
 Tested By:Lu Qiang

Environment: 25°C/60%RH
 Voltage:AC 120V/60Hz

Suspected Data List									
NO.	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	1368.2960	70.86	47.21	-23.65	74.00	26.79	200	206	Horizontal
2	1619.3274	60.95	38.18	-22.77	74.00	35.82	200	126	Horizontal
3	2275.4094	64.42	44.13	-20.29	74.00	29.87	200	198	Horizontal
4	3200.6501	56.52	40.68	-15.84	74.00	33.32	200	111	Horizontal
5	4110.1388	55.08	41.29	-13.79	74.00	32.71	200	95	Horizontal
6	7991.8740	47.65	46.14	-1.51	74.00	27.86	100	201	Horizontal

Suspected Data List									
NO.	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	1139.5174	66.43	41.78	-24.65	74.00	32.22	200	352	Vertical
2	1368.5461	75.86	52.21	-23.65	74.00	21.79	100	360	Vertical
3	1613.3267	63.43	40.61	-22.82	74.00	33.39	200	352	Vertical
4	3191.2739	60.75	44.73	-16.02	74.00	29.27	200	330	Vertical
5	4826.4783	51.82	42.12	-9.70	74.00	31.88	200	356	Vertical
6	7234.2793	53.68	50.17	-3.51	74.00	23.83	200	22	Vertical

AV Final Data List									
NO.	Freq. [MHz]	Factor [dB]	AV Reading [dBμV/m]	AV Value [dBμV/m]	AV Limit [dBμV/m]	AV Margin [dB]	Height [cm]	Angle [°]	Polarity
1	1372.9802	-23.65	51.48	27.83	54.00	26.17	193	21	Vertical
2	7235.2921	-3.52	43.38	39.86	54.00	14.14	179	16	Vertical

----- The following blanks -----

Mode: IEEE 802.11n HT20
 Middle Frequency (2437 MHz)
 Date: 2022-01-05
 Tested By:Lu Qiang

Environment: 25°C/60%RH
 Voltage:AC 120V/60Hz

Suspected Data List									
NO.	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	1368.2960	70.01	46.36	-23.65	74.00	27.64	200	305	Horizontal
2	1613.3267	60.54	37.72	-22.82	74.00	36.28	200	134	Horizontal
3	2276.1595	63.71	43.43	-20.28	74.00	30.57	200	200	Horizontal
4	3191.2739	55.29	39.27	-16.02	74.00	34.73	100	78	Horizontal
5	4102.6378	56.92	43.06	-13.86	74.00	30.94	200	143	Horizontal
6	7181.7727	48.85	45.69	-3.16	74.00	28.31	200	356	Horizontal

Suspected Data List									
NO.	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	1368.5461	73.17	49.52	-23.65	74.00	24.48	200	30	Vertical
2	1614.5768	63.39	40.58	-22.81	74.00	33.42	100	346	Vertical
3	2283.1604	64.18	43.96	-20.22	74.00	30.04	100	20	Vertical
4	3196.8996	59.72	43.82	-15.90	74.00	30.18	200	338	Vertical
5	4100.7626	55.14	41.27	-13.87	74.00	32.73	100	143	Vertical
6	7311.1639	53.88	49.58	-4.30	74.00	24.42	200	8	Vertical

AV Final Data List									
NO.	Freq. [MHz]	Factor [dB]	AV Reading [dBμV/m]	AV Value [dBμV/m]	AV Limit [dBμV/m]	AV Margin [dB]	Height [cm]	Angle [°]	Polarity
1	1375.0741	-23.65	57.21	33.56	54.00	20.44	157	2	Vertical
2	7309.1168	-4.30	43.55	39.25	54.00	14.75	193	26	Vertical

----- The following blanks -----

Mode: IEEE 802.11n HT20
 Highest Frequency (2462MHz)
 Date: 2022-01-05
 Tested By:Lu Qiang

Environment: 25°C/60%RH
 Voltage:AC 120V/60Hz

Suspected Data List									
NO.	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	1368.5461	70.11	46.46	-23.65	74.00	27.54	200	208	Horizontal
2	1614.0768	61.15	38.34	-22.81	74.00	35.66	200	127	Horizontal
3	2279.9100	64.19	43.94	-20.25	74.00	30.06	200	200	Horizontal
4	3191.2739	56.01	39.99	-16.02	74.00	34.01	200	110	Horizontal
5	4108.2635	56.86	43.05	-13.81	74.00	30.95	200	126	Horizontal
6	7384.2980	49.70	46.18	-3.52	74.00	27.82	100	359	Horizontal

Suspected Data List									
NO.	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	1142.2678	66.17	41.54	-24.63	74.00	32.46	200	14	Vertical
2	1368.2960	74.36	50.71	-23.65	74.00	23.29	200	30	Vertical
3	1596.5746	63.38	40.46	-22.92	74.00	33.54	200	359	Vertical
4	2280.4101	64.36	44.12	-20.24	74.00	29.88	100	14	Vertical
5	3191.2739	60.71	44.69	-16.02	74.00	29.31	200	339	Vertical
6	7388.0485	55.07	51.57	-3.50	74.00	22.43	200	359	Vertical

AV Final Data List									
NO.	Freq. [MHz]	Factor [dB]	AV Reading [dBμV/m]	AV Value [dBμV/m]	AV Limit [dBμV/m]	AV Margin [dB]	Height [cm]	Angle [°]	Polarity
1	1375.0280	-23.65	61.95	38.30	54.00	15.70	141	11	Vertical
2	7387.4575	-3.50	44.54	41.04	54.00	12.96	200	26	Vertical

----- The following blanks -----

18GHz-26.5GHz:

Pre-scan all modes and recorded the worst case results in this report (IEEE 802.11b)

The peak test results is less than the average limits, so the average test results had not reported.

Mode: IEEE 802.11b

Lowest Frequency (2412MHz)

Date: 2022-01-19

Tested By:Lu Qiang

Environment: 25°C/60%RH

Voltage:AC 120V/60Hz

Suspected Data List									
NO.	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	18415.2250	58.72	47.20	-11.52	83.54	36.34	150	154	Horizontal
2	19654.9500	57.19	46.32	-10.87	83.54	37.22	150	1	Horizontal
3	21101.6500	56.90	46.61	-10.29	83.54	36.93	150	104	Horizontal
4	23012.4500	55.46	46.53	-8.93	83.54	37.01	150	171	Horizontal
5	24164.6250	55.32	47.10	-8.22	83.54	36.44	150	30	Horizontal
6	26152.7750	55.82	47.79	-8.03	83.54	35.75	150	245	Horizontal

Suspected Data List									
NO.	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	18448.3750	58.35	46.85	-11.50	83.54	36.69	150	289	Vertical
2	19517.2500	57.70	46.79	-10.91	83.54	36.75	150	223	Vertical
3	21072.3250	57.07	46.77	-10.30	83.54	36.77	150	264	Vertical
4	22990.7750	55.81	46.87	-8.94	83.54	36.67	150	99	Vertical
5	25085.6000	54.75	46.97	-7.78	83.54	36.57	150	359	Vertical
6	26138.3250	55.59	47.53	-8.06	83.54	36.01	150	16	Vertical

Note:

Above 18G test distance is 1m, so the Peak Limit=74+20*log(3/1)=83.54 (dBμV/m).

----- The following blanks -----

Mode: IEEE 802.11b
 Middle Frequency (2437MHz)
 Date: 2022-01-19
 Tested By:Lu Qiang

Environment: 25°C/60%RH
 Voltage:AC 120V/60Hz

Suspected Data List									
NO.	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	18701.6750	59.04	47.69	-11.35	83.54	35.85	150	156	Horizontal
2	20552.5500	57.30	46.84	-10.46	83.54	36.70	150	280	Horizontal
3	21153.9250	56.57	46.28	-10.29	83.54	37.26	150	7	Horizontal
4	22611.6750	55.98	46.72	-9.26	83.54	36.82	150	338	Horizontal
5	24063.9000	55.08	46.84	-8.24	83.54	36.70	150	313	Horizontal
6	26261.1500	55.27	47.49	-7.78	83.54	36.05	150	313	Horizontal

Suspected Data List									
NO.	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	18306.4250	58.18	46.62	-11.56	83.54	36.92	150	6	Vertical
2	19544.8750	57.88	46.98	-10.90	83.54	36.56	150	212	Vertical
3	21149.2500	56.72	46.43	-10.29	83.54	37.11	150	1	Vertical
4	23230.4750	55.62	46.79	-8.83	83.54	36.75	150	163	Vertical
5	24716.2750	54.98	46.88	-8.10	83.54	36.66	150	336	Vertical
6	26477.4750	54.54	47.03	-7.51	83.54	36.51	150	146	Vertical

Note:

Above 18G test distance is 1m, so the Peak Limit= $74+20*\log(3/1)=83.54$ (dBμV/m).

----- The following blanks -----

Mode: IEEE 802.11b
 Highest Frequency (2462MHz)
 Date: 2022-01-19
 Tested By:Lu Qiang

Environment: 25°C/60%RH
 Voltage:AC 120V/60Hz

Suspected Data List									
NO.	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	18351.0500	58.50	46.95	-11.55	83.54	36.59	150	80	Horizontal
2	18910.3500	58.30	47.12	-11.18	83.54	36.42	150	38	Horizontal
3	20516.8500	57.18	46.70	-10.48	83.54	36.84	150	171	Horizontal
4	22284.4250	55.82	46.20	-9.62	83.54	37.34	150	1	Horizontal
5	24735.4000	55.59	47.50	-8.09	83.54	36.04	150	279	Horizontal
6	26460.0500	54.75	47.25	-7.50	83.54	36.29	150	97	Horizontal

Suspected Data List									
NO.	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	18362.5250	59.00	47.46	-11.54	83.54	36.08	150	313	Vertical
2	19409.3000	57.69	46.72	-10.97	83.54	36.82	150	247	Vertical
3	21099.9500	57.17	46.88	-10.29	83.54	36.66	150	264	Vertical
4	22987.3750	55.73	46.79	-8.94	83.54	36.75	150	280	Vertical
5	23826.3250	55.88	47.44	-8.44	83.54	36.10	150	264	Vertical
6	26181.2500	55.22	47.26	-7.96	83.54	36.28	150	280	Vertical

Note:

Above 18G test distance is 1m, so the Peak Limit=74+20*log(3/1)=83.54 (dBμV/m).

----- The following blanks -----

7. 6DB BANDWIDTH

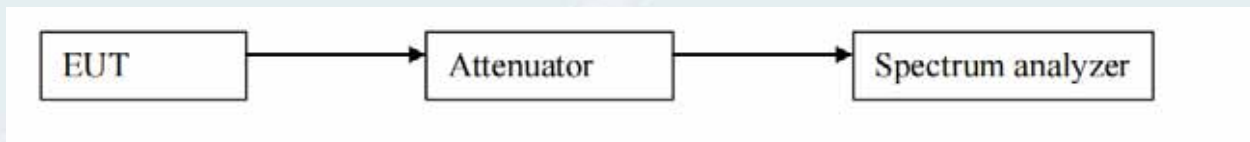
7.1 LIMITS

Systems using digital modulation techniques may operate in the 902–928 MHz, 2400–2483.5 MHz, and 5725–5850 MHz bands. The minimum 6 dB bandwidth shall be at least 500 kHz.

7.2 TEST PROCEDURES

- 1) Remove the antenna from the EUT, and then connect a low loss RF cable from antenna port to the spectrum analyzer.
- 2) Set resolution bandwidth (RBW) = 100kHz. Set the video bandwidth (VBW) $\geq 3 \times$ RBW. Detector = Peak. Trace mode = max hold. Sweep = auto couple. Allow the trace to stabilize, record 6dB bandwidth value.
- 3) Repeat above procedures until all frequencies measured were complete.

7.3 TEST SETUP



----- The following blanks -----

7.4 TEST RESULTS

Environment: 23.1℃/53%RH
Tested By: Qin Tingting

Voltage:AC 120V/60Hz
Date: 2022-01-13

Test Mode	Antenna	Frequency[MHz]	DTS BW [MHz]	Limit[MHz]	Verdict
802.11b	Ant1	2412	7.080	≥0.5	PASS
		2437	7.080	≥0.5	PASS
		2462	8.040	≥0.5	PASS
802.11g	Ant1	2412	16.320	≥0.5	PASS
		2437	16.320	≥0.5	PASS
		2462	16.040	≥0.5	PASS
802.11n HT20	Ant1	2412	16.680	≥0.5	PASS
		2437	17.280	≥0.5	PASS
		2462	16.280	≥0.5	PASS

----- The following blanks -----











----- The following blanks -----

8. MAXIMUM PEAK OUTPUT POWER

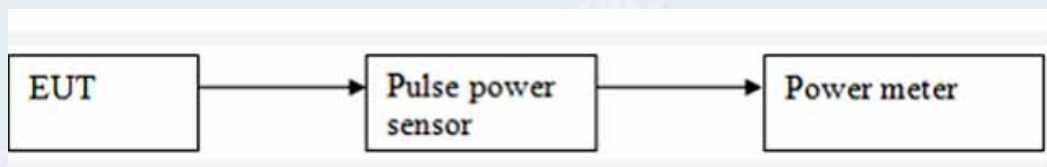
8.1 LIMITS

The maximum Peak output power measurement is 1W

8.2 TEST PROCEDURES

- 1) RF output of EUT was connected to the broadband peak RF power meter by RF cable. The path loss was compensated to the results for each measurement.
- 2) Set to the maximum power setting and enable the EUT transmit continuously.
- 3) Measure the conducted output power and record the results in the test report.

8.3 TEST SETUP



----- The following blanks -----

8.4 TEST RESULT

Environment: 23.1℃/53%RH
 Tested By: Qin Tingting

Voltage:AC 120V/60Hz
 Date: 2022-02-21

802.11b Mode:

Channel No.	Frequency (MHz)	Measured Channel Power (dBm)	Peak / AVG	Limit	Result
1	2412	17.19	Peak	30dBm	Pass
6	2437	17.28			Pass
11	2462	17.13			Pass

802.11g Mode:

Channel No.	Frequency (MHz)	Measured Channel Power (dBm)	Peak / AVG	Limit	Result
1	2412	16.43	Peak	30dBm	Pass
6	2437	16.50			Pass
11	2462	16.50			Pass

802.11n HT20 Mode:

Channel No.	Frequency (MHz)	Measured Channel Power (dBm)	Peak/ AVG	Limit	Result
1	2412	16.63	Peak	30dBm	Pass
6	2437	16.71			Pass
11	2462	16.75			Pass

----- The following blanks -----

9. POWER SPECTRAL DENSITY

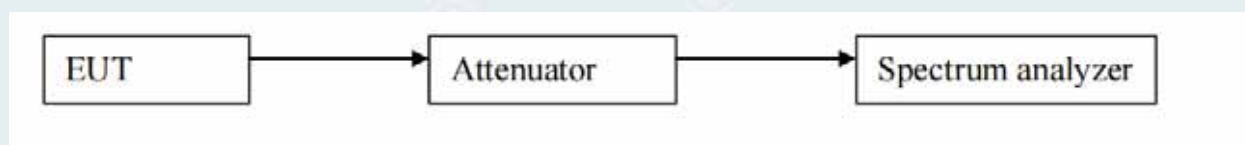
9.1 LIMITS

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. This power spectral density shall be determined in accordance with the provisions of paragraph (b) of this section. The same method of determining the conducted output power shall be used to determine the power spectral density.

9.2 TEST PROCEDURES

- 1) Remove the antenna from the EUT, and then connect a low loss RF cable from antenna port to the spectrum analyzer.
- 2) Position the EUT was set without connection to measurement instrument. Turn on the EUT and connect its antenna terminal to measurement instrument via a low loss cable. Then set it to any one measured frequency within its operating range, and make sure the instrument is operated in its linear range.
- 3) The following procedure shall be used if maximum peak conducted output power was used to determine compliance, and it is optional if the maximum conducted (average) output power was used to determine compliance:
 - a) Set analyzer center frequency to DTS channel center frequency.
 - b) Set the span to 1.5 times the DTS bandwidth.
 - c) Set the RBW to $3 \text{ kHz} \leq \text{RBW} \leq 100 \text{ kHz}$.
 - d) Set the VBW $\geq [3 \times \text{RBW}]$.
 - e) Detector = peak
 - f) Sweep time = auto couple.
 - g) Trace mode = max hold.
 - h) Allow trace to fully stabilize.
 - i) Use the peak marker function to determine the maximum amplitude level within the RBW.
 - j) If measured value exceeds requirement, then reduce RBW (but no less than 3 kHz) and repeat.
- 4) Repeat above procedures until all frequencies measured were complete.

9.3 TEST SETUP



----- The following blanks -----

9.4 TEST RESULTS

Environment: 23.1℃/53%RH

Tested By: Qin Tingting

Voltage:AC 120V/60Hz

Date: 2022-01-14

802.11b Mode:

Channel No.	Frequency (MHz)	PSD (dBm/3kHz)	Limit (dBm/3kHz)	Result
1	2412	-4.21	8.00	Pass
6	2437	-3.90	8.00	Pass
11	2462	-3.32	8.00	Pass

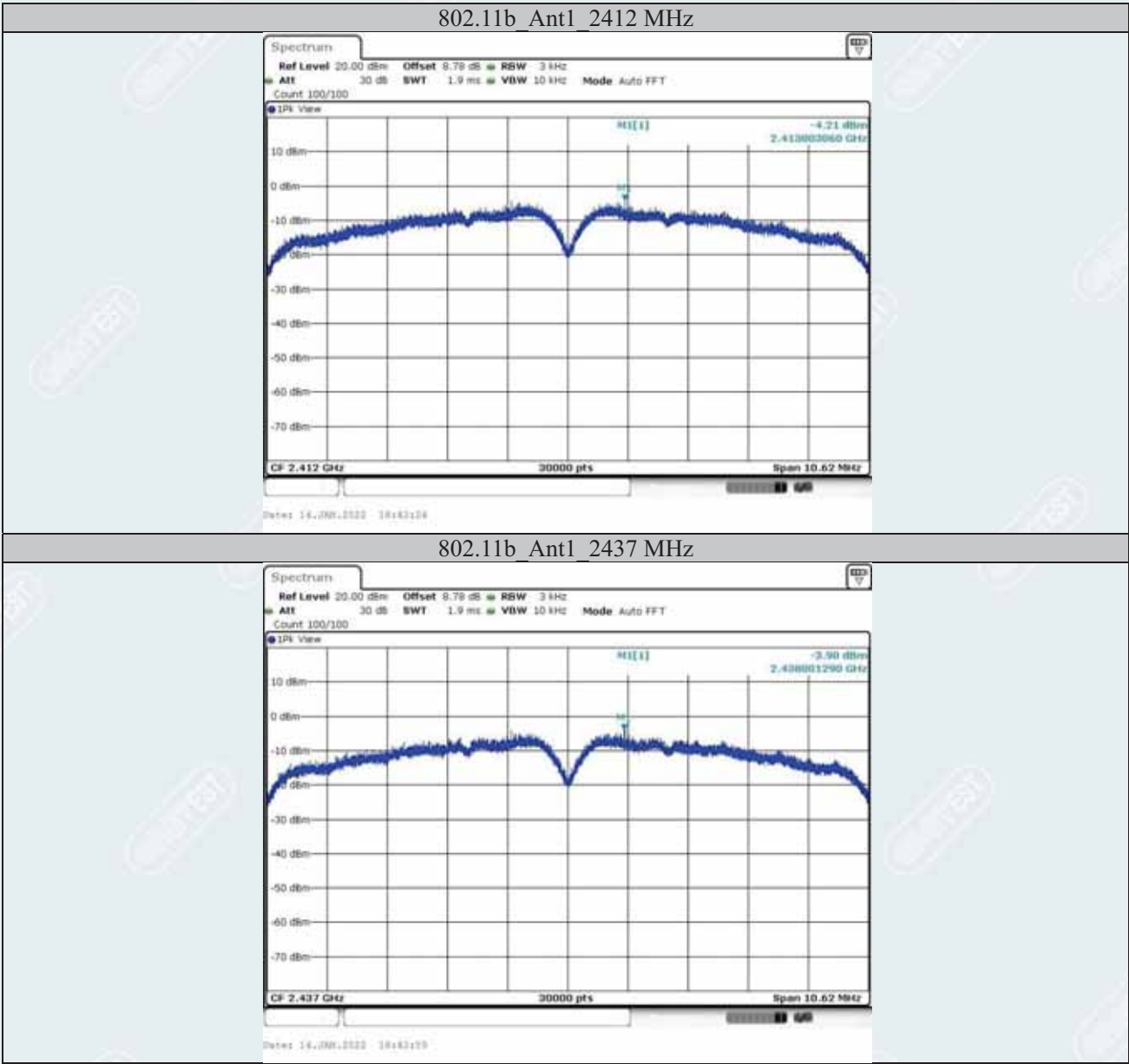
802.11g Mode:

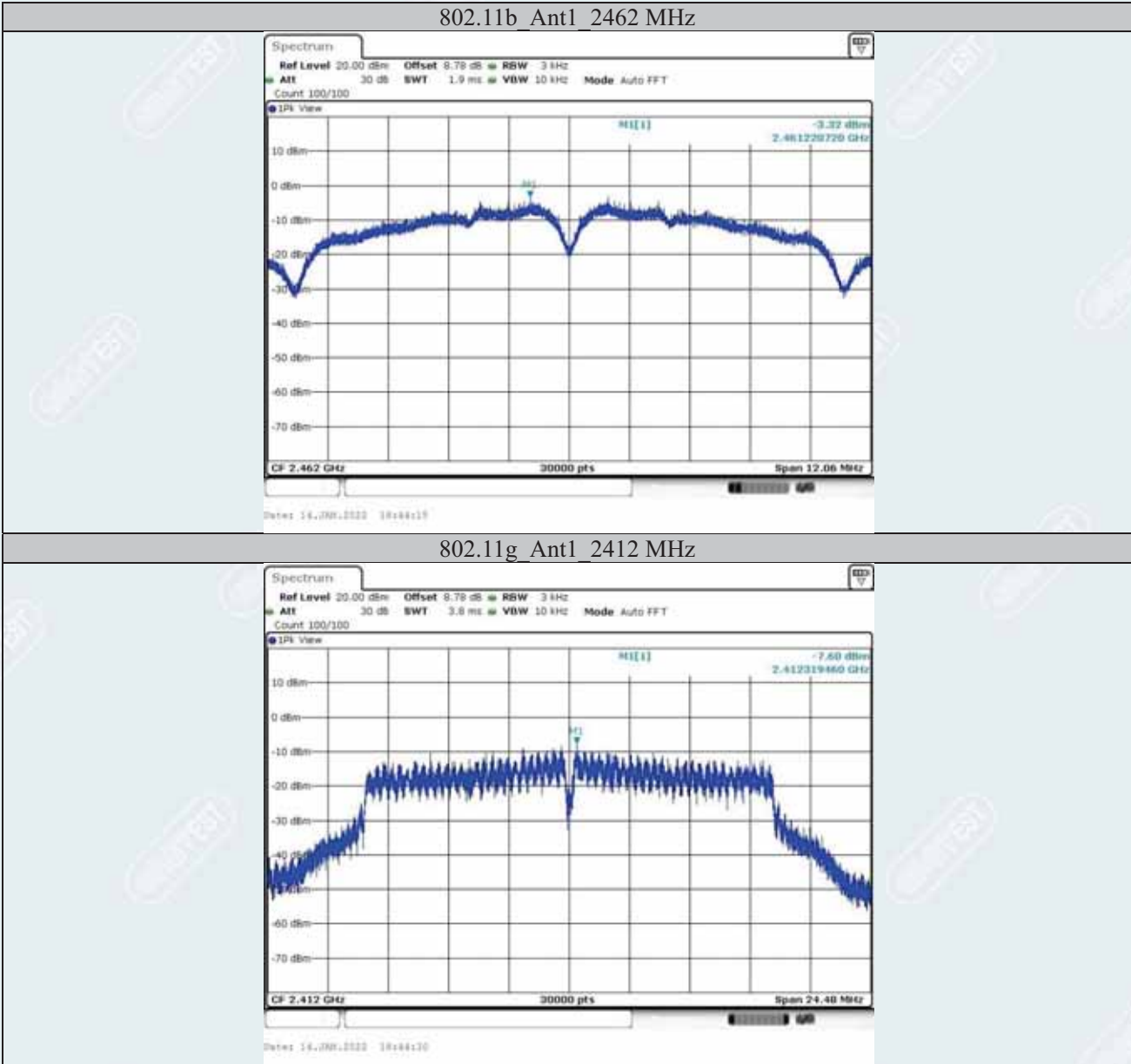
Channel No.	Frequency (MHz)	PSD (dBm/3kHz)	Limit (dBm/3kHz)	Result
1	2412	-7.60	8.00	Pass
6	2437	-7.30	8.00	Pass
11	2462	-6.97	8.00	Pass

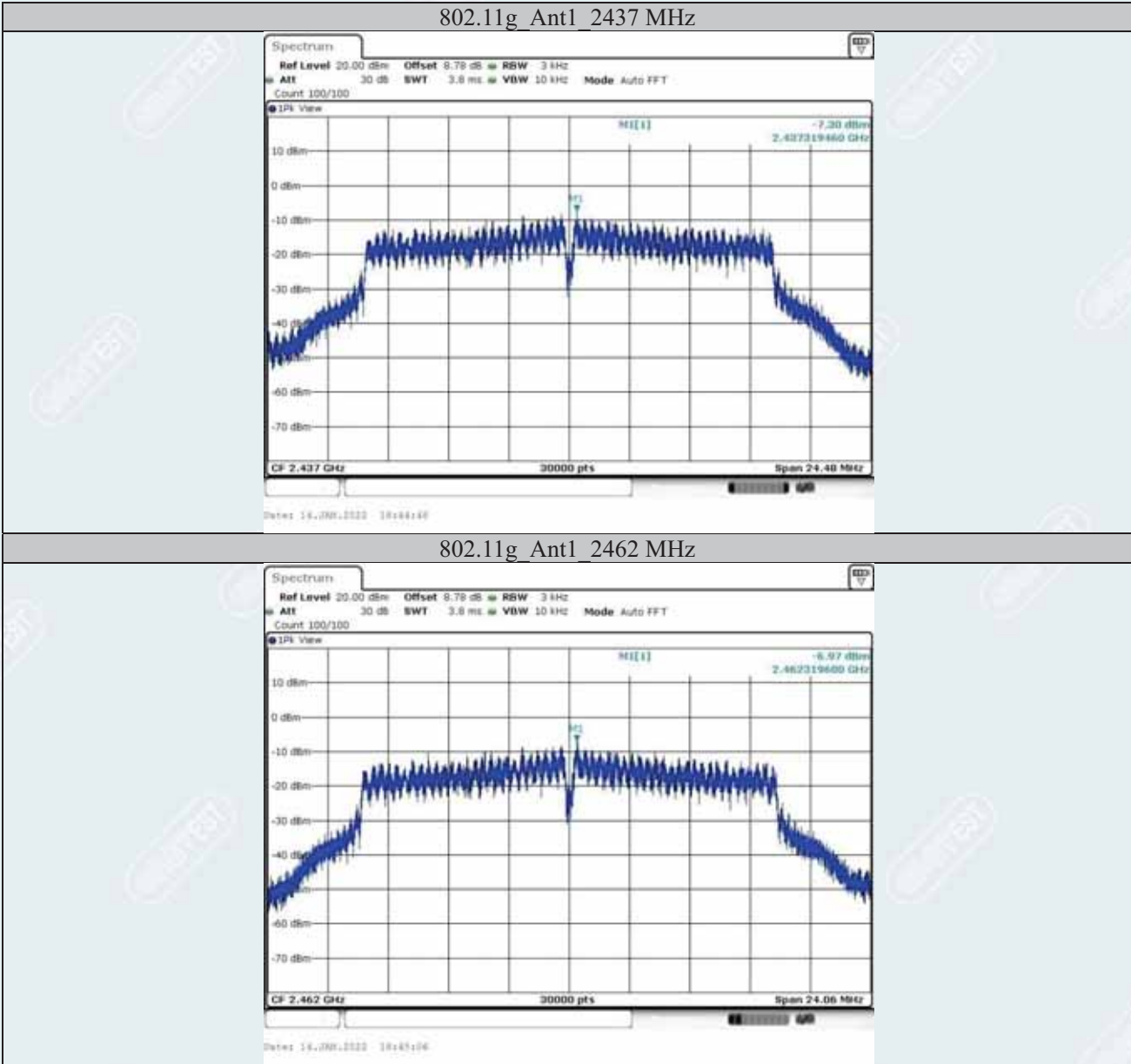
802.11n HT20 Mode:

Channel No.	Frequency (MHz)	PSD (dBm/3kHz)	Limit (dBm/3kHz)	Result
1	2412	-7.63	8.00	Pass
6	2437	-7.45	8.00	Pass
11	2462	-6.61	8.00	Pass

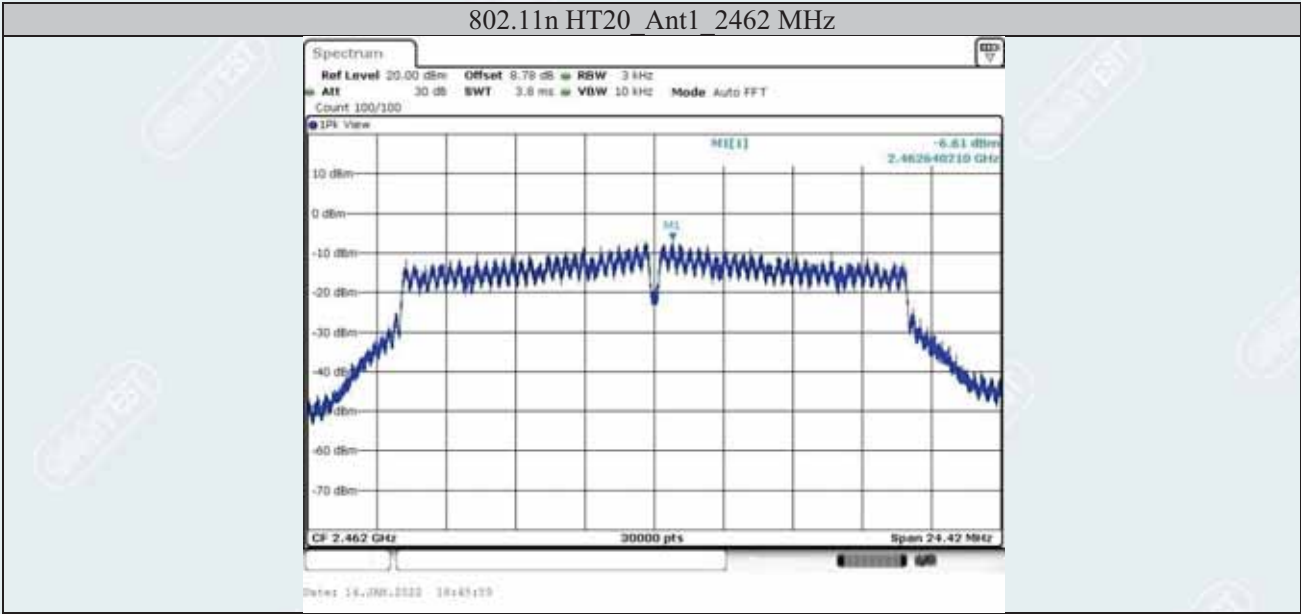
----- The following blanks -----











10. CONDUCTED BAND EDGES AND SPURIOUS EMISSIONS

10.1 LIMITS

In any 100 kHz 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 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB.

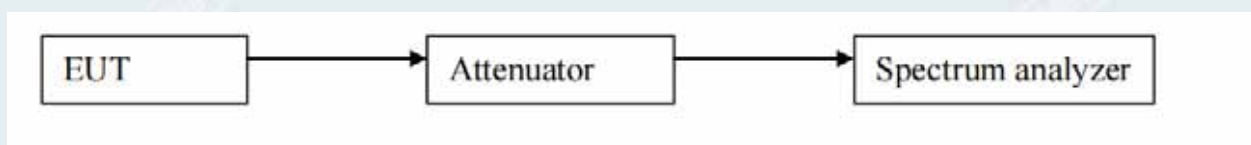
10.2 TEST PROCEDURES

Test procedures follow KDB 558074 D01 15.247 measurement guidance v05r02.

Remove the antenna from the EUT and then connect a low attenuation cable from the antenna port to the spectrum.

- 1) Remove the antenna from the EUT and then connect a low attenuation cable from the antenna port to the spectrum.
- 2) Set the spectrum analyzer: RBW =100kHz; VBW =300kHz, Frequency range = 30MHz to 26.5GHz; Sweep = auto; Detector Function = Peak; Trace = Max hold.
- 3) Measure and record the results in the test report.
- 4) The RF fundamental frequency should be excluded against the limit line in the operating frequency band.

10.3 TEST SETUP



----- The following blanks -----

10.4 TEST RESULTS

Environment: 23.1℃/53%RH
Tested By: Qin Tingting

Voltage:AC 120V/60Hz
Date: 2022-01-13

Band edge

TestMode	Antenna	ChName	Frequency[MHz]	RefLevel[dBm]	Result[dBm]	Limit[dBm]	Verdict
802.11b	Ant1	Low	2412	9.41	-32.06	≤-20.59	PASS
		High	2462	9.34	-45.9	≤-20.67	PASS
802.11g	Ant1	Low	2412	4.83	-25.08	≤-26.17	PASS
		High	2462	5.02	-38.18	≤-24.98	PASS
802.11n HT20	Ant1	Low	2412	5.35	-26.18	≤-24.65	PASS
		High	2462	5.69	-37.11	≤-24.31	PASS

----- The following blanks -----

Keysight Spectrum Analyzer - Sweep 54

Center Freq 2.36500000 GHz

Ref Offset 0.20 dB

Ref 20.00 dBm

Mkr5 2.398 54 GHz

-32.06 dBm

Start 2.30000 GHz

Stop 2.43000 GHz

Res BW 100 kHz

VBW 300 kHz

Sweep 4.890 ms (1001 pts)

Marker	Mode	Freq	Power
1	N	2.411 54 GHz	-9.41 dBm
2	N	2.400 00 GHz	-37.59 dBm
3	N	2.395 00 GHz	-49.27 dBm
4	N	2.310 00 GHz	-50.94 dBm
5	N	2.398 54 GHz	-32.06 dBm

Keysight Spectrum Analyzer - Sweep 54

Center Freq 2.495000000 GHz

Ref Offset 9.28 dB

Ref 20.00 dBm

Mkr4 2.483 58 GHz

-45.90 dBm

Start 2.44000 GHz

Stop 2.55000 GHz

Sweep 4.067 ms (1001 pts)

Row	Mode	Freq	dBm	Function	Function Menu	Function Value
1	N	2.462 99 GHz	-9.34 dBm			
2	N	2.483 50 GHz	-46.85 dBm			
3	N	2.500 00 GHz	-49.37 dBm			
4	N	2.483 58 GHz	-45.90 dBm			

Keysight Spectrum Analyzer - Sample Data

Center Freq 2.35500000 GHz

Ref Offset 0.28 dB

Ref 20.00 dBm

Trig: Free Run

RBW: 30 dB

RBW Type: RMS

Trace 1 0.0

Time 0.000000

DP 0.000000

Mkr5 2.398 93 GHz

-25.08 dBm

Start 2.30000 GHz

#Res BW 100 kHz

#VBW 300 kHz

Sweep 4.800 ms (1001 pts)

Stop 2.43000 GHz

Marker	F	F	FUNCTION	FUNCTION(MEM)	FUNCTION VALUE
1	N	2.414 53 GHz	-4.83 dBm		
2	N	2.400 00 GHz	-25.88 dBm		
3	N	2.398 90 GHz	-26.31 dBm		
4	N	2.310 00 GHz	-51.32 dBm		
5	N	2.398 93 GHz	-25.08 dBm		





----- The following blanks -----

Conducted Spurious Emission:

Test Result

Environment: 23.1℃/53%RH

Tested By: Qin Tingting

Voltage:AC 120V/60Hz

Date: 2022-01-13

TestMode	Antenna	Frequency[MHz]	FreqRange [Mhz]	RefLevel [dBm]	Result [dBm]	Limit [dBm]	Verdict
802.11b	Ant1	2412	Reference	9.51	9.51	---	PASS
			30~1000	9.51	-59.18	≤-10.49	PASS
			1000~26500	9.51	-41.01	≤-10.49	PASS
		2437	Reference	9.67	9.67	---	PASS
			30~1000	9.67	-58.88	≤-10.33	PASS
			1000~26500	9.67	-41.17	≤-10.33	PASS
		2462	Reference	9.32	9.32	---	PASS
			30~1000	9.32	-59	≤-10.68	PASS
			1000~26500	9.32	-41.42	≤-10.68	PASS
802.11g	Ant1	2412	Reference	4.80	4.80	---	PASS
			30~1000	4.80	-59.25	≤-15.2	PASS
			1000~26500	4.80	-41.52	≤-15.2	PASS
		2437	Reference	4.80	4.80	---	PASS
			30~1000	4.80	-58.89	≤-15.2	PASS
			1000~26500	4.80	-41.55	≤-15.2	PASS
		2462	Reference	4.56	4.56	---	PASS
			30~1000	4.56	-58.96	≤-15.44	PASS
			1000~26500	4.56	-41.27	≤-15.44	PASS
802.11n HT20	Ant1	2412	Reference	5.30	5.30	---	PASS
			30~1000	5.30	-58.67	≤-14.7	PASS
			1000~26500	5.30	-41.7	≤-14.7	PASS
		2437	Reference	5.46	5.46	---	PASS
			30~1000	5.46	-58.32	≤-14.54	PASS
			1000~26500	5.46	-41.75	≤-14.54	PASS
		2462	Reference	5.37	5.37	---	PASS
			30~1000	5.37	-58.09	≤-14.63	PASS
			1000~26500	5.37	-41.77	≤-14.63	PASS





802.11b Ant1 2437 MHz 0~Reference







802.11g Ant1 2412 MHz 0~Reference



802.11g Ant1 2412 MHz 1000~26500 MHz

Frequency
Auto Tune
Center Freq 13.750000000 GHz
Start Freq 1.000000000 GHz
Stop Freq 26.500000000 GHz
CF Step 2.650000000 GHz
Man
Freq Offset 0 Hz
Scale Type Log



802.11g	Ant1	2437 MHz	1000~26500 MHz
---------	------	----------	----------------



802.11g_Ant1_2462 MHz_0~Reference















----- The following blanks -----

11. RESTRICTED BANDS OF OPERATION

11.1 LIMITS

Section 15.247(d) In addition, Radiated emissions 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) (see §15.205(c)).

MHz	MHz	MHz	GHz
0.090 - 0.110	16.42 - 16.423	399.9 - 410	4.5 - 5.15
¹ 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	2655 - 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	
13.36 - 13.41			

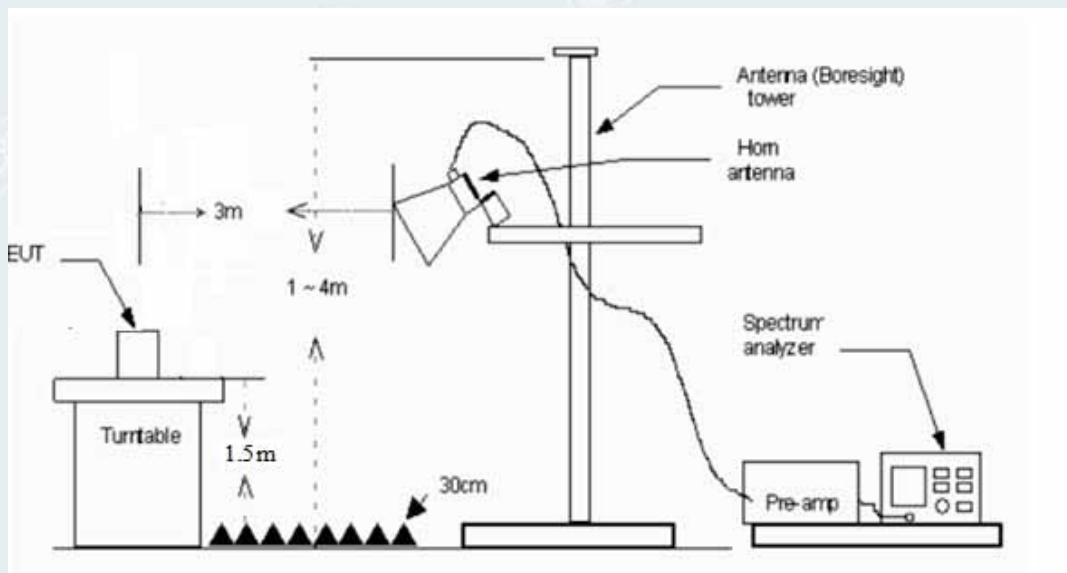
Frequency (MHz)	Quasi-peak($\mu\text{V}/\text{m}$)	Measurement distance(m)	Quasi-peak(dB $\mu\text{V}/\text{m}$)@distance 3m
0.009-0.490	2400/F(kHz)	300	128.5~93.8
0.490-1.705	24000/F(kHz)	30	73.8~63
1.705-30.0	30	30	69.5
30~88	100	3	40
88~216	150	3	43.5
216~960	200	3	46
Above 960	500	3	54

11.2 TEST PROCEDURES

Test procedures follow KDB 558074 D01 15.247 measurement guidance v05r02.

- 1) The EUT is placed on a turntable, which is 1.5m above the ground plane.
- 2) The turntable shall be rotated for 360 degrees to determine the position of maximum emission level.
- 3) EUT is set 3m away from the receiving antenna, which is varied from 1m to 4m to find out the highest emission.
- 4) Set the spectrum analyzer in the following setting in order to capture the lower and upper band-edges of the emission:
 - a) The frequency above 1GHz, for Peak detector: Set RBW=1MHz, RBW=3MHz.
 - b) The frequency above 1GHz, for Avg detector: Set RBW=1MHz, if the EUT is configured to transmit with duty cycle $\geq 98\%$, set VBW $\leq$ RBW/100 (i.e., 10kHz) but not less than 10 Hz, Where duty cycle is defined in section 2.9.
- 5) Repeat the procedures until all the PEAK and AVERAGE versus polarization are measured.

11.3 TEST SETUP



----- The following blanks -----

11.4 TEST RESULTS

802.11b mode

Lowest Channel

Frequency 2412MHz

Environment: 25°C/60%RH

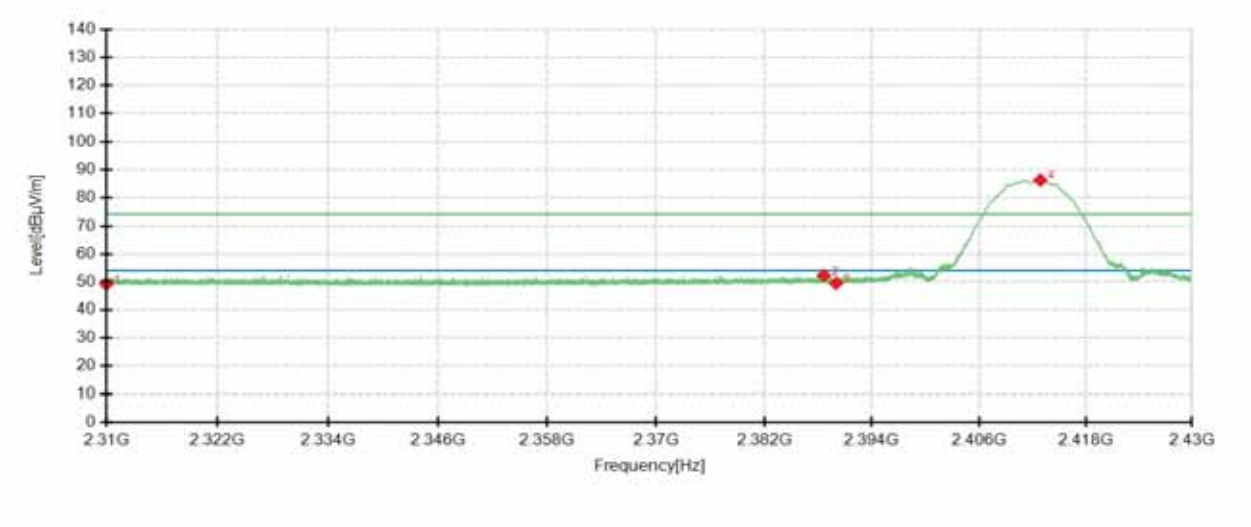
Tested By: Lu Qiang

Detector mode: Peak

Voltage: AC 120V/60Hz

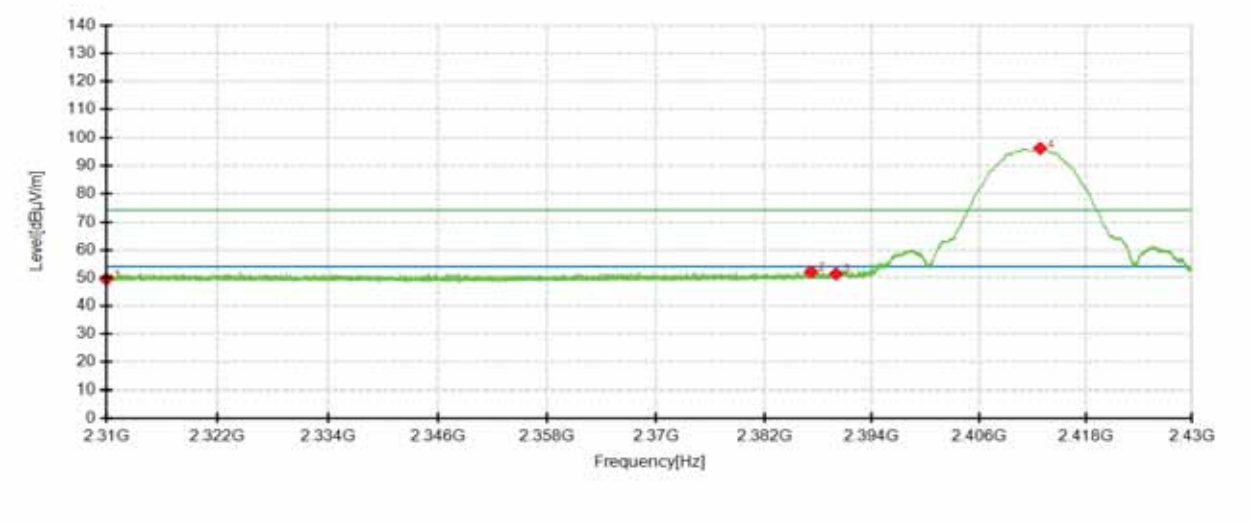
Date: 2022-01-05

Polarity: Horizontal



Detector mode: Peak

Polarity: Vertical



No .	Frequency MHz	Reading dB μ V/m	Level dB μ V/m	Factor dB	Limit dB μ V/m	Margin dB	Height cm	Angle °	Pole	Comment
1	2310.0000	45.65	49.13	3.48	74.00	24.87	200	129	Horizontal	/
2	2388.6360	48.46	52.25	3.79	74.00	21.75	100	142	Horizontal	/
3	2390.0000	45.63	49.44	3.81	74.00	24.56	200	184	Horizontal	/
4	2412.8880	82.24	86.28	4.04	74.00	-12.28	100	142	Horizontal	No limit
1	2310.0000	46.00	49.48	3.48	74.00	24.52	100	26	Vertical	/
2	2387.2080	48.34	52.10	3.76	74.00	21.90	100	156	Vertical	/
3	2390.0000	47.53	51.34	3.81	74.00	22.66	100	218	Vertical	/
4	2412.8640	92.21	96.25	4.04	74.00	-22.25	100	19	Vertical	No limit

----- The following blanks -----

802.11b mode**Lowest Channel**

Frequency 2412MHz

Environment: 25°C/60%RH

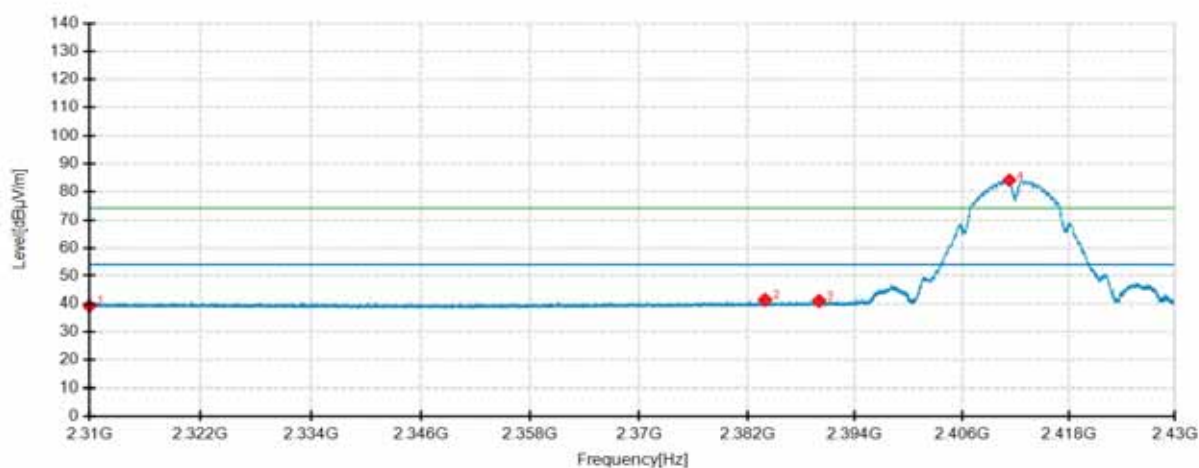
Tested By: Lu Qiang

Detector mode: Average

Voltage: AC 120V/60Hz

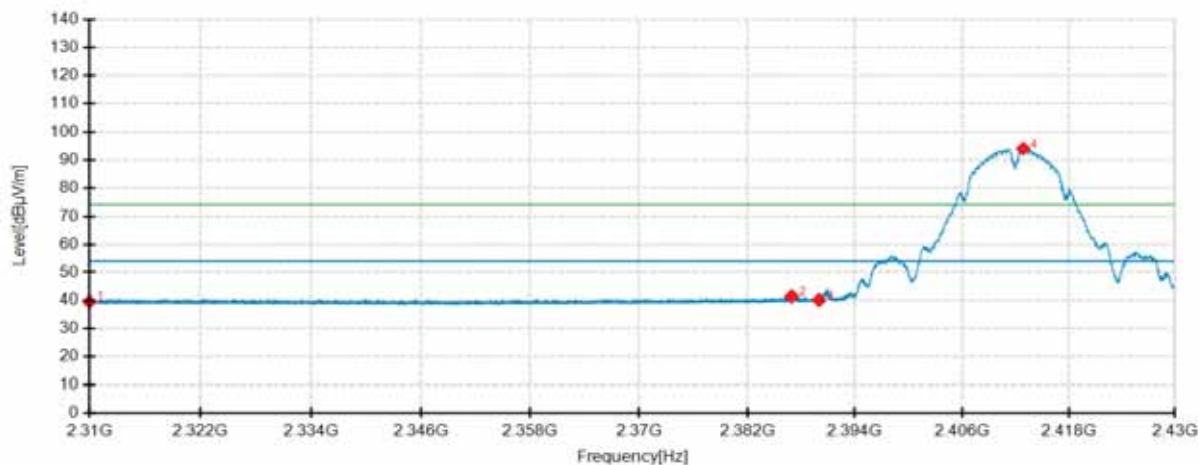
Date: 2022-01-05

Polarity: Horizontal



Detector mode: Average

Polarity: Vertical



No.	Frequency MHz	Reading dBμV/m	Level dBμV/m	Factor dB	Limit dBμV/m	Margin dB	Height cm	Angle °	Pole	Comment
1	2310.0000	35.88	39.36	3.48	54.00	14.64	100	348	Horizontal	/
2	2383.9920	37.76	41.47	3.71	54.00	12.53	100	142	Horizontal	/
3	2390.0000	37.22	41.03	3.81	54.00	12.97	200	170	Horizontal	/
4	2411.3160	80.03	84.07	4.04	54.00	-30.07	100	142	Horizontal	No limit
1	2310.0000	36.16	39.64	3.48	54.00	14.36	100	33	Vertical	/
2	2386.9440	37.70	41.46	3.76	54.00	12.54	100	218	Vertical	/
3	2390.0000	36.38	40.19	3.81	54.00	13.81	100	7	Vertical	/
4	2412.8760	90.10	94.14	4.04	54.00	-40.14	100	20	Vertical	No limit

802.11b mode**Highest Channel**

Frequency 2462MHz

Environment: 25°C/60%RH

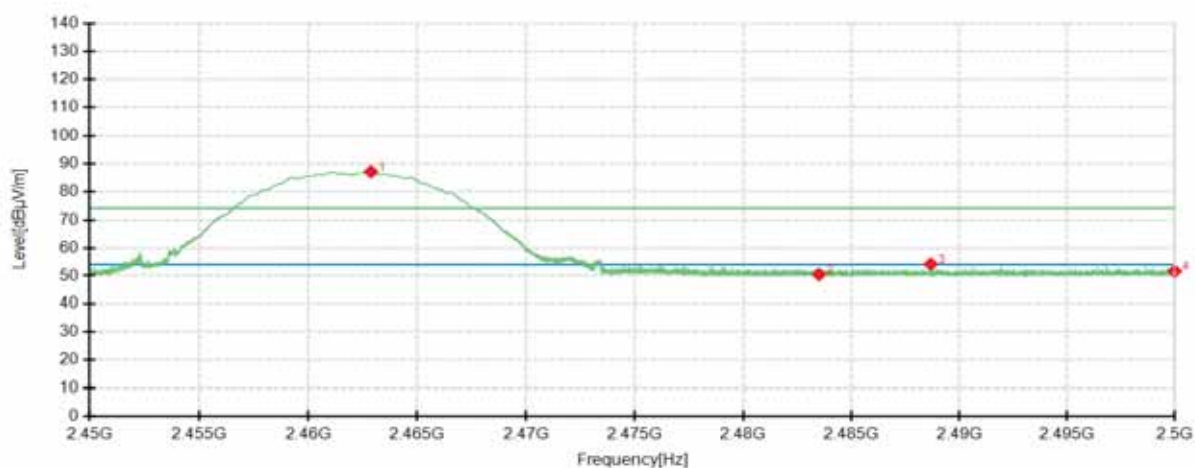
Tested By: Lu Qiang

Detector mode: Peak

Voltage: AC 120V/60Hz

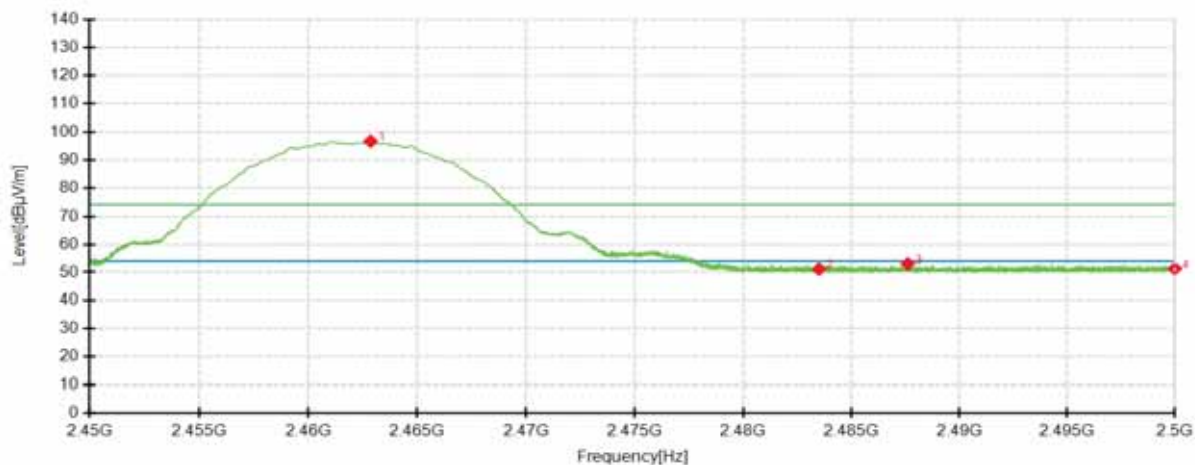
Date: 2022-01-05

Polarity: Horizontal



Detector mode: Peak

Polarity: Vertical



No.	Frequency MHz	Reading dBμV/m	Level dBμV/m	Factor dB	Limit dBμV/m	Margin dB	Height cm	Angle °	Pole	Comment
1	2462.8750	82.83	87.10	4.27	74.00	-13.10	100	142	Horizontal	No limit
2	2483.5000	46.12	50.45	4.33	74.00	23.55	100	238	Horizontal	/
3	2488.6700	49.81	54.16	4.35	74.00	19.84	200	197	Horizontal	/
4	2500.0000	47.29	51.67	4.38	74.00	22.33	100	341	Horizontal	/
1	2462.8600	92.49	96.76	4.27	74.00	-22.76	100	26	Vertical	No limit
2	2483.5000	46.77	51.10	4.33	74.00	22.90	100	218	Vertical	/
3	2487.6050	48.64	52.98	4.34	74.00	21.02	100	218	Vertical	/
4	2500.0000	46.91	51.29	4.38	74.00	22.71	200	359	Vertical	/

802.11b mode**Highest Channel**

Frequency 2462MHz

Environment: 25°C/60%RH

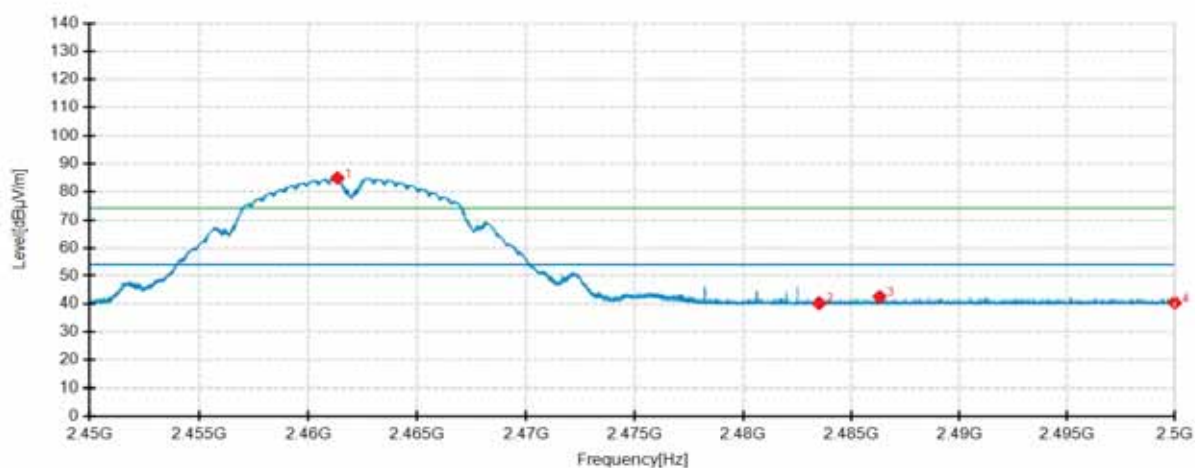
Tested By: Lu Qiang

Detector mode: Average

Voltage: AC 120V/60Hz

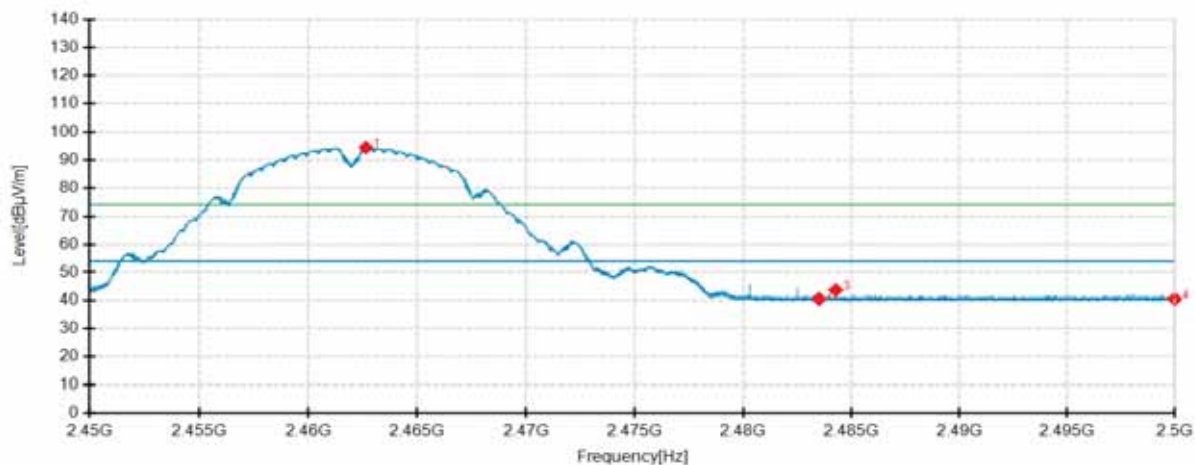
Date: 2022-01-05

Polarity: Horizontal



Detector mode: Average

Polarity: Vertical



No.	Frequency MHz	Reading dBμV/m	Level dBμV/m	Factor dB	Limit dBμV/m	Margin dB	Height cm	Angle °	Pole	Comment
1	2461.3400	80.62	84.88	4.26	54.00	-30.88	100	142	Horizontal	No limit
2	2483.5000	35.91	40.24	4.33	54.00	13.76	100	142	Horizontal	/
3	2486.3000	38.13	42.47	4.34	54.00	11.53	200	218	Horizontal	/
4	2500.0000	36.08	40.46	4.38	54.00	13.54	100	142	Horizontal	/
1	2462.6450	90.25	94.52	4.27	54.00	-40.52	100	26	Vertical	No limit
2	2483.5000	36.27	40.60	4.33	54.00	13.40	100	12	Vertical	/
3	2484.2750	39.29	43.62	4.33	54.00	10.38	100	190	Vertical	/
4	2500.0000	36.17	40.55	4.38	54.00	13.45	200	142	Vertical	/

802.11g mode**Lowest Channel**

Frequency 2412MHz

Environment: 25°C/60%RH

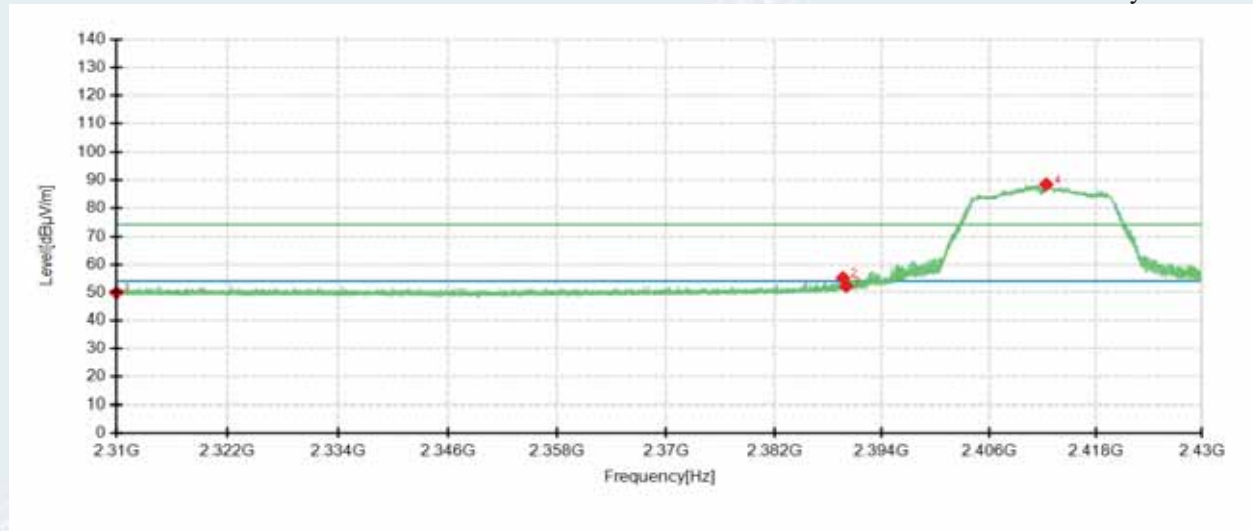
Tested By: Lu Qiang

Detector mode: Peak

Voltage: AC 120V/60Hz

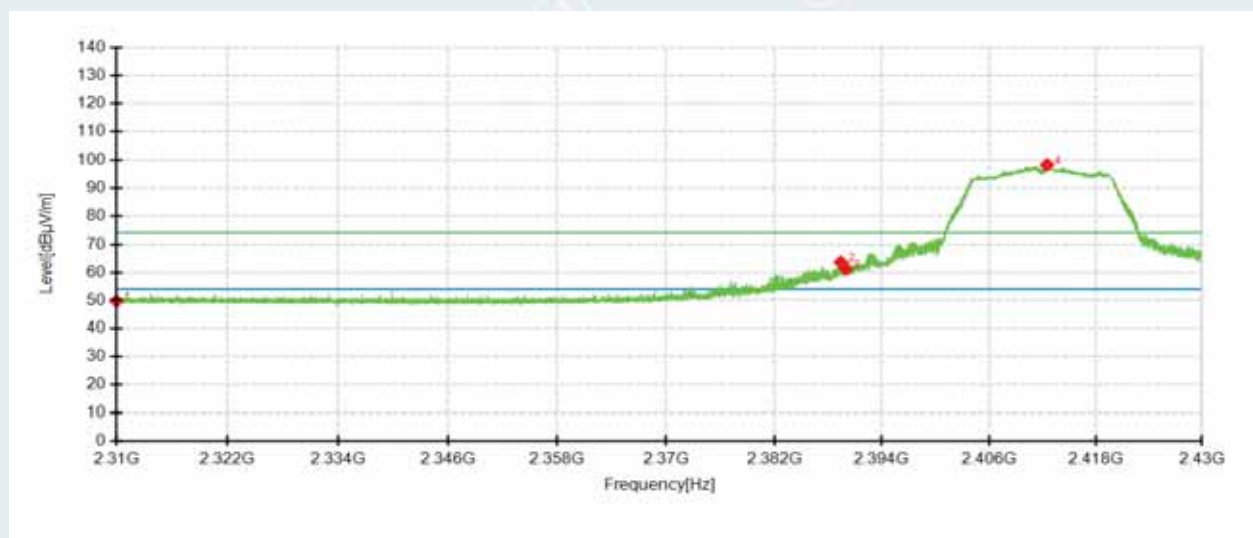
Date: 2022-01-05

Polarity: Horizontal



Detector mode: Peak

Polarity: Vertical



No.	Frequency MHz	Reading dBμV/m	Level dBμV/m	Factor dB	Limit dBμV/m	Margin dB	Height cm	Angle °	Pole	Comment
1	2310.0000	46.36	49.84	3.48	74.00	24.16	100	245	Horizontal	/
2	2389.6560	51.35	55.15	3.80	74.00	18.85	100	142	Horizontal	/
3	2390.0000	48.33	52.14	3.81	74.00	21.86	100	197	Horizontal	/
4	2412.4320	84.44	88.48	4.04	74.00	-14.48	100	142	Horizontal	No limit
1	2310.0000	46.20	49.68	3.48	74.00	24.32	100	94	Vertical	/
2	2389.4040	59.87	63.67	3.80	74.00	10.33	100	25	Vertical	/
3	2390.0000	57.35	61.16	3.81	74.00	12.84	100	1	Vertical	/
4	2412.5160	94.29	98.33	4.04	74.00	-24.33	100	25	Vertical	No limit

802.11g mode

Lowest Channel

Frequency 2412MHz

Environment: 25℃/60%RH

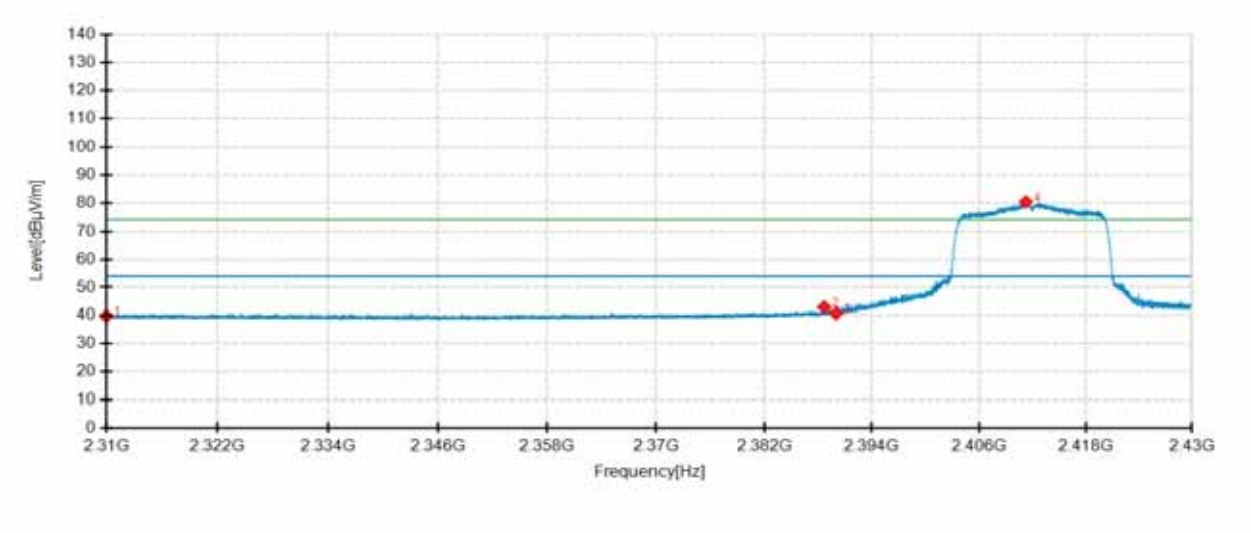
Tested By: Lu Qiang

Detector mode: Average

Voltage: AC 120V/60Hz

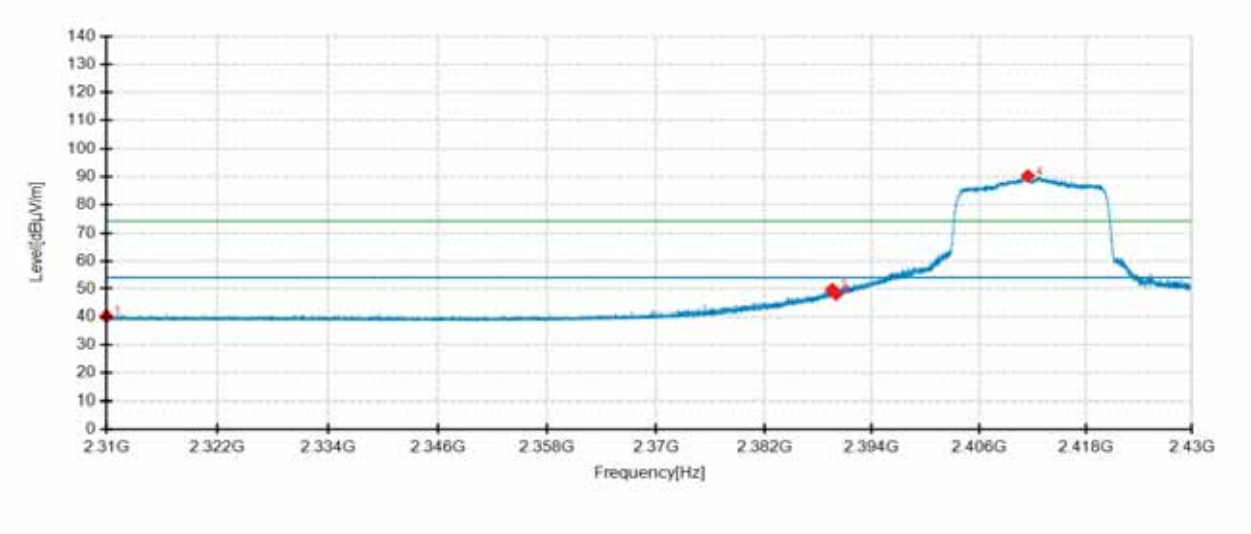
Date: 2022-01-05

Polarity: Horizontal



Detector mode: Average

Polarity: Vertical



No.	Frequency MHz	Reading dBμV/m	Level dBμV/m	Factor dB	Limit dBμV/m	Margin dB	Height cm	Angle °	Pole	Comment
1	2310.0000	36.32	39.80	3.48	54.00	14.20	200	218	Horizontal	/
2	2388.6720	39.20	42.99	3.79	54.00	11.01	100	142	Horizontal	/
3	2390.0000	36.97	40.78	3.81	54.00	13.22	100	142	Horizontal	/
4	2411.2560	76.26	80.30	4.04	54.00	-26.30	100	142	Horizontal	No limit
1	2310.0000	36.77	40.25	3.48	54.00	13.75	100	33	Vertical	/
2	2389.5720	45.89	49.69	3.80	54.00	4.31	100	26	Vertical	/
3	2390.0000	44.23	48.04	3.81	54.00	5.96	100	19	Vertical	/
4	2411.4840	86.20	90.24	4.04	54.00	-36.24	100	19	Vertical	No limit

802.11g mode**Highest Channel**

Frequency 2462MHz

Environment: 25°C/60%RH

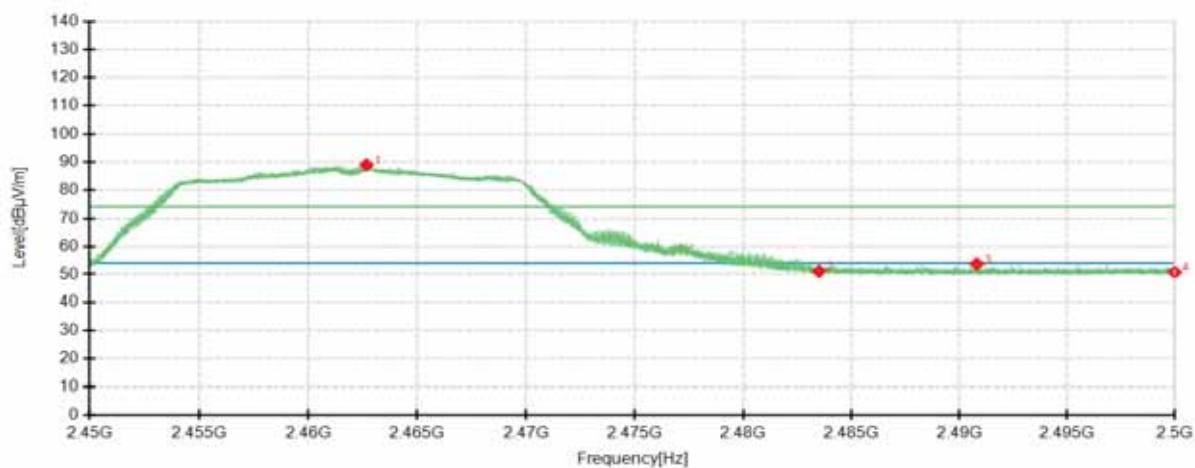
Tested By: Lu Qiang

Detector mode: Peak

Voltage: AC 120V/60Hz

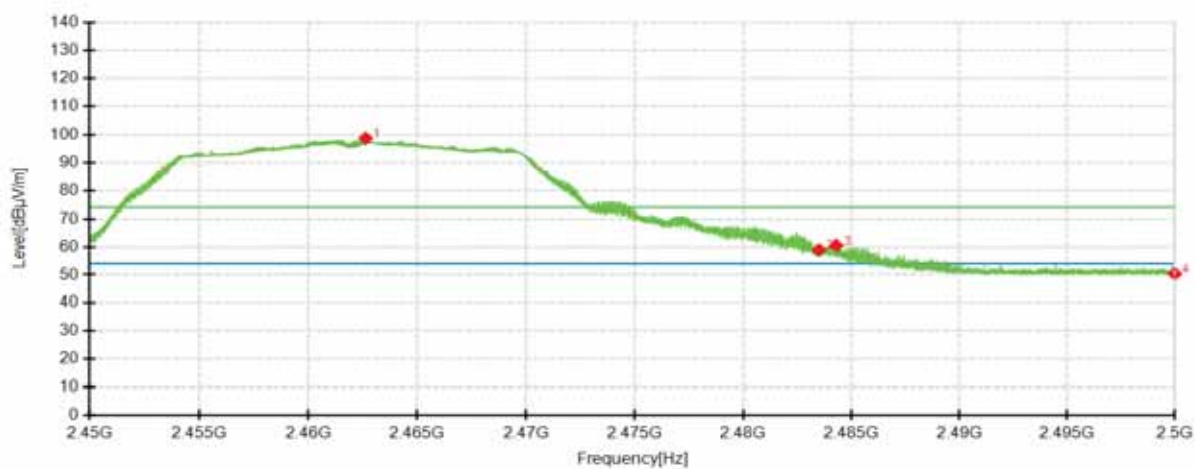
Date: 2022-01-05

Polarity: Horizontal



Detector mode: Peak

Polarity: Vertical



No.	Frequency MHz	Reading dBμV/m	Level dBμV/m	Factor dB	Limit dBμV/m	Margin dB	Height cm	Angle °	Pole	Comment
1	2462.6700	84.70	88.97	4.27	74.00	-14.97	100	142	Horizontal	No limit
2	2483.5000	46.71	51.04	4.33	74.00	22.96	100	142	Horizontal	/
3	2490.8050	49.31	53.66	4.35	74.00	20.34	100	258	Horizontal	/
4	2500.0000	46.33	50.71	4.38	74.00	23.29	100	142	Horizontal	/
1	2462.6300	94.53	98.80	4.27	74.00	-24.80	100	26	Vertical	No limit
2	2483.5000	54.59	58.92	4.33	74.00	15.08	100	19	Vertical	/
3	2484.3000	56.19	60.52	4.33	74.00	13.48	100	26	Vertical	/
4	2500.0000	45.91	50.29	4.38	74.00	23.71	200	142	Vertical	/

802.11g mode**Highest Channel**

Frequency 2462MHz

Environment: 25°C/60%RH

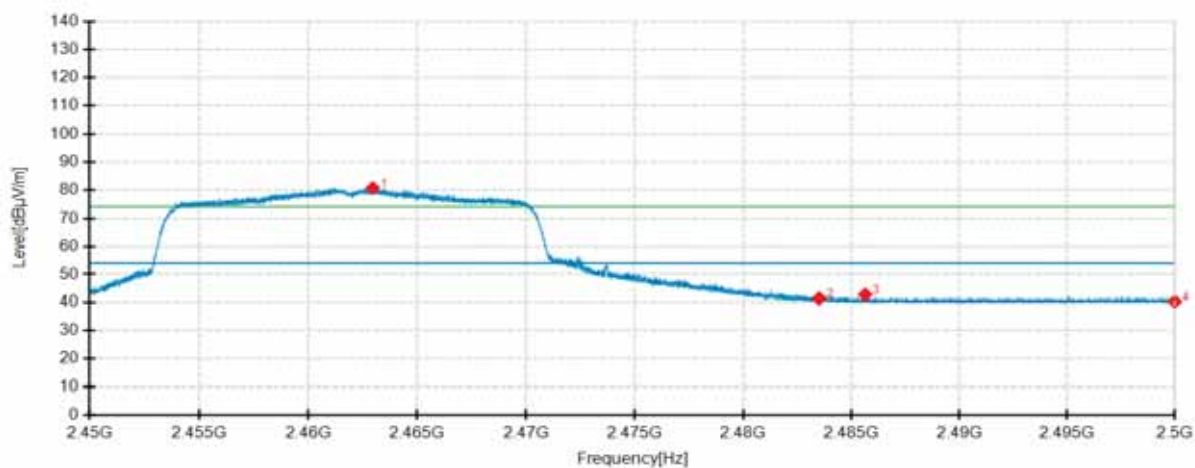
Tested By: Lu Qiang

Detector mode: Average

Voltage: AC 120V/60Hz

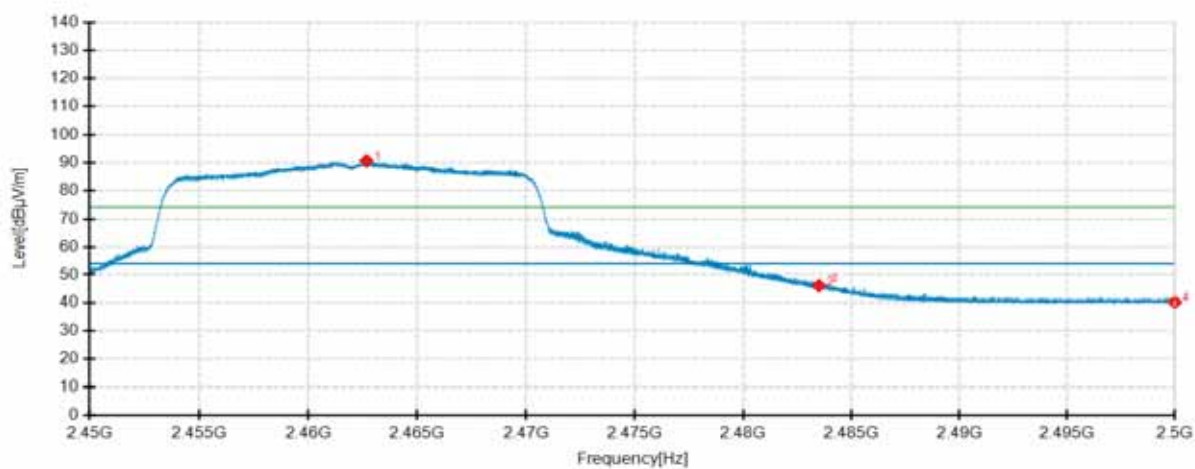
Date: 2022-01-05

Polarity: Horizontal



Detector mode: Average

Polarity: Vertical



No.	Frequency MHz	Reading dBμV/m	Level dBμV/m	Factor dB	Limit dBμV/m	Margin dB	Height cm	Angle °	Pole	Comment
1	2462.9600	76.41	80.68	4.27	54.00	-26.68	100	142	Horizontal	No limit
2	2483.5000	37.11	41.44	4.33	54.00	12.56	100	142	Horizontal	/
3	2485.6350	38.40	42.74	4.34	54.00	11.26	100	333	Horizontal	/
4	2500.0000	35.98	40.36	4.38	54.00	13.64	100	142	Horizontal	/
1	2462.6650	86.45	90.72	4.27	54.00	-36.72	100	27	Vertical	No limit
2	2483.5000	41.71	46.04	4.33	54.00	7.96	100	27	Vertical	/
3	2483.6900	42.63	46.96	4.33	54.00	7.04	100	13	Vertical	/
4	2500.0000	35.91	40.29	4.38	54.00	13.71	100	115	Vertical	/

802.11n HT20 mode**Lowest Channel**

Frequency 2412MHz

Environment: 25°C/60%RH

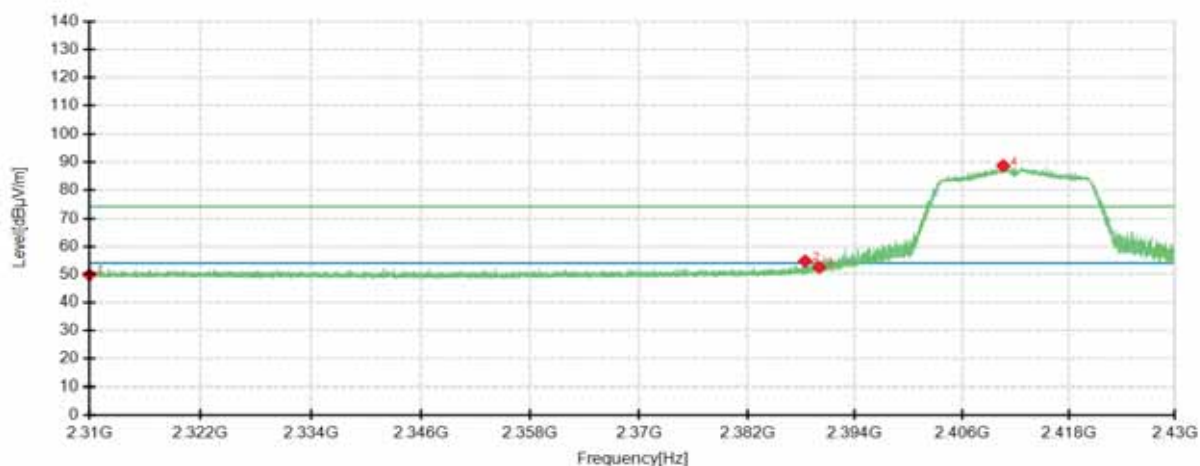
Tested By: Lu Qiang

Detector mode: Peak

Voltage: AC 120V/60Hz

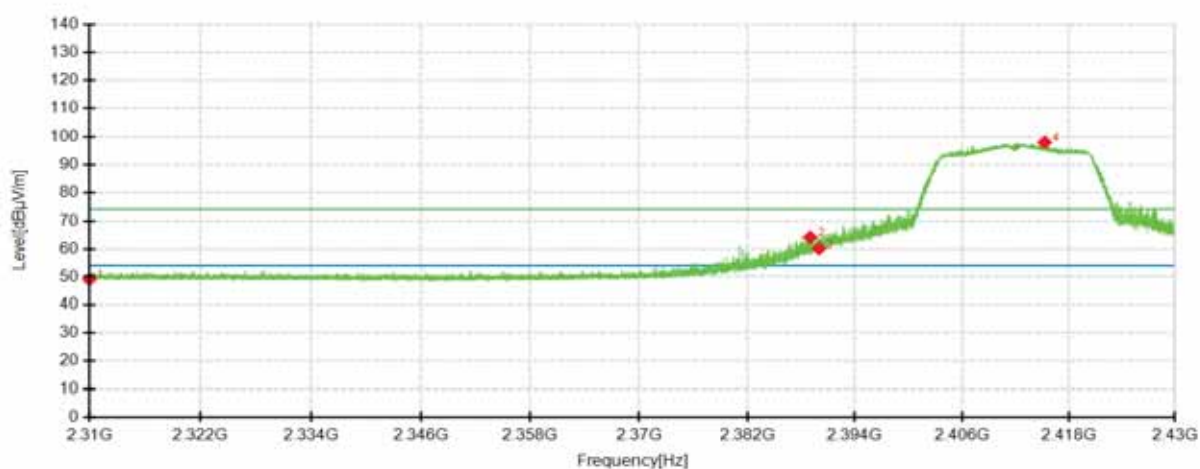
Date: 2022-01-05

Polarity: Horizontal



Detector mode: Peak

Polarity: Vertical



No.	Frequency MHz	Reading dBμV/m	Level dBμV/m	Factor dB	Limit dBμV/m	Margin dB	Height cm	Angle °	Pole	Comment
1	2310.0000	46.32	49.80	3.48	74.00	24.20	100	217	Horizontal	/
2	2388.4440	50.92	54.70	3.78	74.00	19.30	100	142	Horizontal	/
3	2390.0000	48.68	52.49	3.81	74.00	21.51	100	293	Horizontal	/
4	2410.6200	84.65	88.68	4.03	74.00	-14.68	100	142	Horizontal	No limit
1	2310.0000	45.59	49.07	3.48	74.00	24.93	100	41	Vertical	/
2	2389.0200	60.39	64.18	3.79	74.00	9.82	100	218	Vertical	/
3	2390.0000	56.35	60.16	3.81	74.00	13.84	100	41	Vertical	/
4	2415.3000	94.04	98.10	4.06	74.00	-24.10	100	26	Vertical	No limit

802.11n HT20 mode**Lowest Channel**

Frequency 2412MHz

Environment: 25°C/60%RH

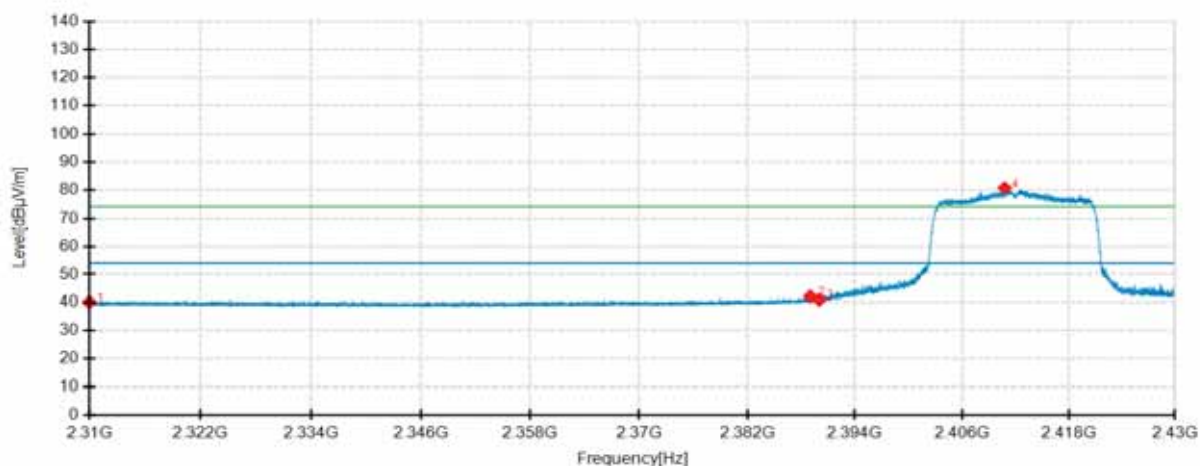
Tested By: Lu Qiang

Detector mode: Average

Voltage: AC 120V/60Hz

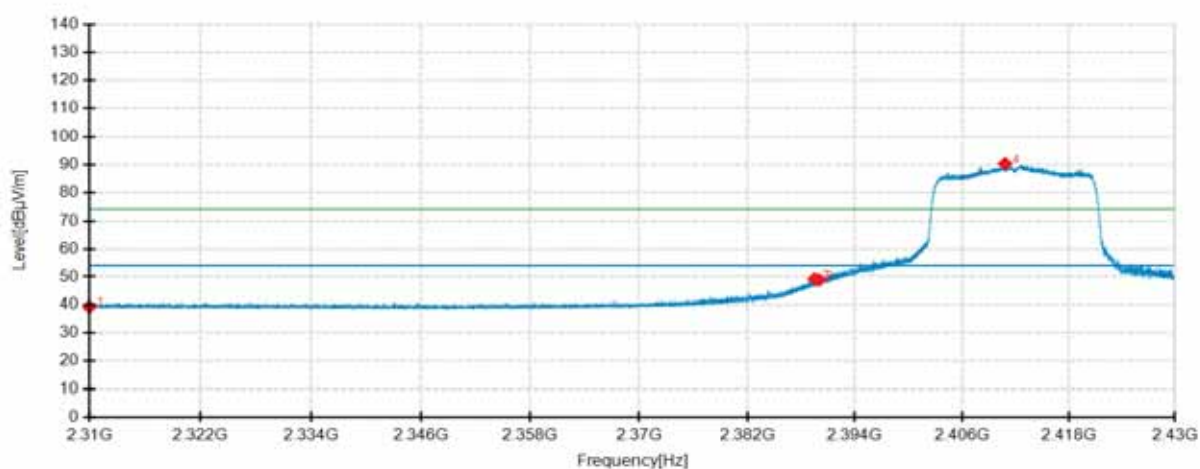
Date: 2022-01-05

Polarity: Horizontal



Detector mode: Average

Polarity: Vertical



No.	Frequency MHz	Reading dBμV/m	Level dBμV/ m	Factor dB	Limit dBμV/m	Margin dB	Height cm	Angle °	Pole	Comment
1	2310.0000	36.67	40.15	3.48	54.00	13.85	200	218	Horizontal	/
2	2389.0200	38.38	42.17	3.79	54.00	11.83	200	74	Horizontal	/
3	2390.0000	37.19	41.00	3.81	54.00	13.00	100	142	Horizontal	/
4	2410.7760	76.65	80.68	4.03	54.00	-26.68	100	142	Horizontal	No limit
1	2310.0000	35.89	39.37	3.48	54.00	14.63	200	142	Vertical	/
2	2389.5120	45.42	49.22	3.80	54.00	4.78	100	20	Vertical	/
3	2390.0000	44.98	48.79	3.81	54.00	5.21	100	218	Vertical	/
4	2410.8360	86.36	90.39	4.03	54.00	-36.39	100	13	Vertical	No limit

802.11n HT20 mode**Highest Channel**

Frequency 2462MHz

Environment: 25°C/60%RH

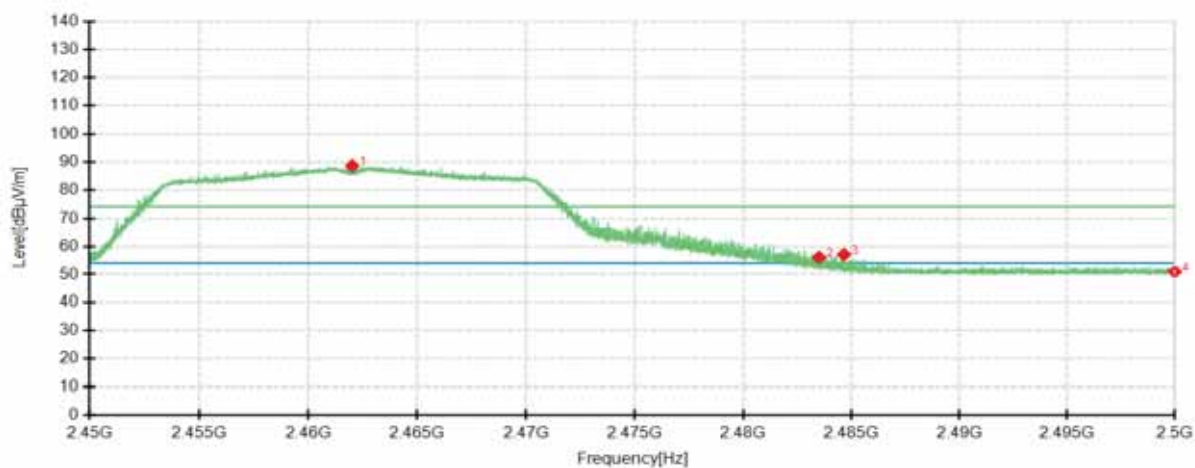
Tested By: Lu Qiang

Detector mode: Peak

Voltage: AC 120V/60Hz

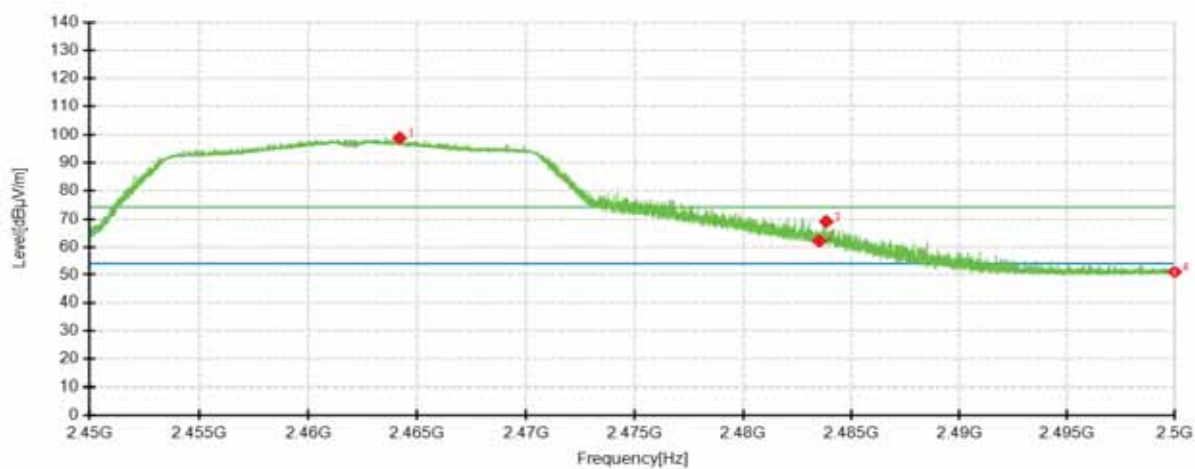
Date: 2022-01-05

Polarity: Horizontal



Detector mode: Peak

Polarity: Vertical



No.	Frequency MHz	Reading dBμV/m	Level dBμV/ m	Factor dB	Limit dBμV/m	Margin dB	Height cm	Angle °	Pole	Comment
1	2462.0150	84.41	88.68	4.27	74.00	-14.68	100	142	Horizontal	No limit
2	2483.5000	51.69	56.02	4.33	74.00	17.98	100	142	Horizontal	/
3	2484.6500	52.72	57.05	4.33	74.00	16.95	100	142	Horizontal	/
4	2500.0000	46.53	50.91	4.38	74.00	23.09	100	293	Horizontal	/
1	2464.1900	94.66	98.93	4.27	74.00	-24.93	100	33	Vertical	No limit
2	2483.5000	57.82	62.15	4.33	74.00	11.85	200	320	Vertical	/
3	2483.8350	64.79	69.12	4.33	74.00	4.88	100	19	Vertical	/
4	2500.0000	46.63	51.01	4.38	74.00	22.99	200	142	Vertical	/

802.11n HT20 mode**Highest Channel**

Frequency 2462MHz

Environment: 25°C/60%RH

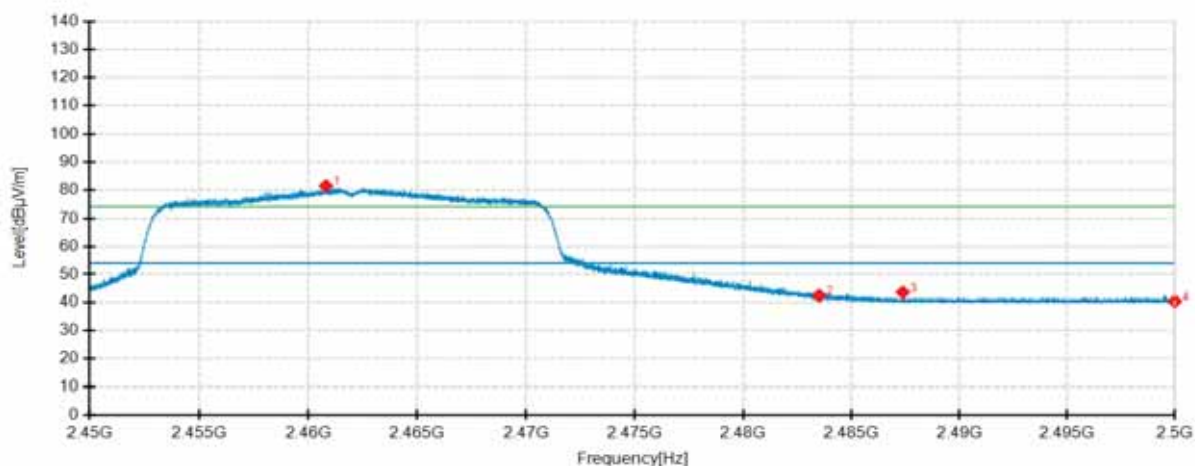
Tested By: Lu Qiang

Detector mode: Average

Voltage: AC 120V/60Hz

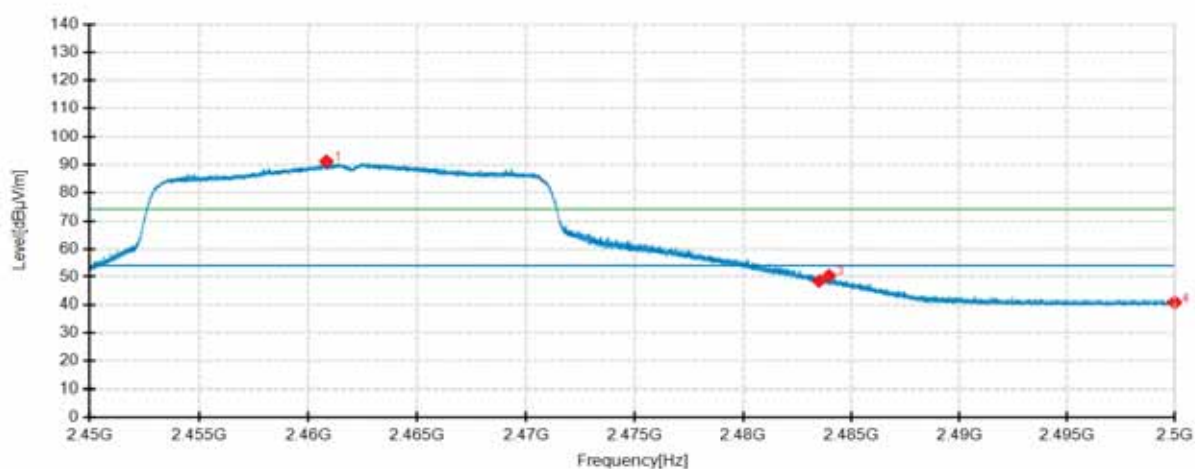
Date: 2022-01-05

Polarity: Horizontal



Detector mode: Average

Polarity: Vertical



No.	Frequency MHz	Reading dBμV/m	Level dBμV/ m	Factor dB	Limit dBμV/m	Margin dB	Height cm	Angle °	Pole	Comment
1	2460.8100	77.19	81.45	4.26	54.00	-27.45	100	142	Horizontal	No limit
2	2483.5000	38.13	42.46	4.33	54.00	11.54	100	142	Horizontal	/
3	2487.3750	39.19	43.53	4.34	54.00	10.47	200	218	Horizontal	/
4	2500.0000	36.07	40.45	4.38	54.00	13.55	200	81	Horizontal	/
1	2460.8300	86.98	91.24	4.26	54.00	-37.24	100	27	Vertical	No limit
2	2483.5000	44.08	48.41	4.33	54.00	5.59	100	20	Vertical	/
3	2483.9650	46.08	50.41	4.33	54.00	3.59	100	34	Vertical	/
4	2500.0000	36.52	40.90	4.38	54.00	13.10	200	360	Vertical	/

APPENDIX A. PHOTOGRAPH OF THE TEST CONNECTION DIAGRAM

Please refer to the attached document E202112276794-Test photo-15.6.

APPENDIX B. PHOTOGRAPH OF THE EUT

Please refer to the attached document E202112276794-EUT photo-15.6.

----- End of Report -----