TEST REPORT

Report No.	CISRR24121614202
Project No.	CISR241216142
FCC ID	2AXLH-WMB100
Applicant	Shenzhen Xiantaistar Technology Co., Ltd
Address	201&401,No.528 Pinglong East Rd,Pinghu Street,Longgang District,Shenzhen,China
Manufacturer	Shenzhen Xiantaistar Technology Co., Ltd
Address	201&401,No.528 Pinglong East Rd,Pinghu Street,Longgang District,Shenzhen,China
Product Name	Dual-Mode Mouse
Trade Mark	N/A
Model/Type reference	WMB100
Listed Model(s)	AMWM400, CAWM500, FEWM900, VW700, WMB500, WMB200, WMB400, WMB300, WMB1000, WMB1100
Standard	Part 15 Subpart C Section 15.249
Test date	December 16, 2024 to January 10, 2025
Issue date	January 11, 2025
Test result	**Complied**

Rory Huang

Prepared by: Rory Huang

Genry Long

Approved by: Genry Long

The test results relate only to the tested samples.

The test report should not be reproduced except in full without the written approval of Shenzhen Bangce Testing Technology Co., Ltd.

Contents

1. REPORT VERSION 3

2. SUMMARY OF TEST RESULT 4

3. SUMMARY 5

3.1. Product Description 5
3.2. Radio Specification Description 5
3.3. Modification of EUT 6
3.4. Testing Site 6
3.5. Field Strength Calculation 6
3.6. DISTURBANCE Calculation 6

4. TEST CONFIGURATION 7

4.1. Test frequency list 7
4.2. Test mode 7
4.3. Support unit used in test configuration and system 7
4.4. Test sample information 7
4.5. Testing environmental condition 8
4.6. Statement of the measurement uncertainty 8
4.7. Equipment Used during the Test 9

5. TEST CONDITIONS AND RESULTS 10

5.1. Antenna Requirement 10
5.2. AC Conducted Emission 11
5.3. 20 dB Bandwidth 12
5.4. Radiated Band edge Emission 14
5.5. Radiated Spurious Emission 19

6. TEST SETUP PHOTOS 29

7. EXTERNAL AND INTERNAL PHOTOS 29

7.1 External photos 29
7.2 Internal photos 29

1. REPORT VERSION

Version No.	Issue date	Description
00	January 11, 2025	Original

2. SUMMARY OF TEST RESULT

Report clause	Test Item	Standard Requirement	Result
5.1	Antenna Requirement	15.203/15.247 (c)	PASS
5.2	AC Conducted Emission	15.207	PASS
5.3	20 dB Bandwidth	15.215 (c)	PASS
5.4	Radiated Band Edge Emission	15.205/15.209	PASS
5.5	Radiated Spurious Emission	15.249(a)(c)/15.205/15.209	PASS

Note:

– The measurement uncertainty is not included in the test result.

3. SUMMARY

3.1. Product Description

Main unit information:	
Product Name:	Dual-Mode Mouse
Trade Mark:	N/A
Model No.:	WMB100
Listed Model(s):	AMWM400, CAWM500, FEWM900, VW700, WMB500, WMB200, WMB400, WMB300, WMB1000, WMB1100
Model difference:	The difference between different models lies in the color and in this application,because of different sales channels and different model names
Power supply:	N/A
Hardware version:	V1.0
Software version:	V1.0

3.2. Radio Specification Description

Technology:	2.4G
Modulation:	GFSK
Operation frequency:	2402MHz~2479MHz
Channel number:	16
Antenna type:	PCB Antenna
Antenna gain:	2.34dBi

Channel list:
2402, 2421, 2446, 2468
2408, 2423, 2456, 2474
2417, 2428, 2460, 2478
2419, 2437, 2451, 2479

3.3. Modification of EUT

No modifications are made to the EUT during all test items.

3.4. Testing Site

Laboratory Name	Shenzhen Bangce Testing Technology Co., Ltd.
Laboratory Location	101, building 10, Yunli Intelligent Park, Shutianpu community, Matian Street, Guangming District, Shenzhen, Guangdong, China
FCC registration number	736346

3.5. 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 (dBuV/m) = RA (dBuV) + AF (dB/m) + CL (dB) – AG (dB)

Where FS = Field Strength	CL = Cable Attenuation Factor (Cable Loss)
RA = Reading Amplitude	AG = Amplifier Gain
AF = Antenna Factor	

3.6. DISTURBANCE Calculation

The AC mains conducted disturbance is calculated by adding the 10dB Pulse Limiter and Cable Factor and Duty Cycle Correction Factor (if any) from the measured reading. The basic equation with a sample calculation is as follows:

CD (dBuV) = RA (dBuV) + PL (dB) + CL (dB)

Where CD = Conducted Disturbance	CL = Cable Attenuation Factor (Cable Loss)
RA = Reading Amplitude	PL = 10 dB Pulse Limiter Factor

4. TEST CONFIGURATION

All measurements contained in this report were conducted with ANSI C63.10-2013, American National Standard of Procedures for Compliance Testing of Unlicensed Wireless Devices.

4.1. Test frequency list

Channel	Frequency (MHz)
CH-L	2402
CH-M	2446
CH-H	2479

4.2. Test mode

For RF test items:		
The engineering prototype is provided with key switching channel to realize EUT continuous transmission..Power setting Default.		
Test Item	Test Mode	Modulation
Conducted test item	TX CH-L	GFSK
	TX CH-M	GFSK
	TX CH-H	GFSK
	Working	--
Radiated test item	TX CH-L	GFSK
	TX CH-M	GFSK
	TX CH-H	GFSK
	Working	--
Remark: – The EUT in each of three orthogonal axis emissions had been tested, but only the worst case (X axis) data recorded in the report.All patterns have predictions, and the report only shows the worst pattern data.		

4.3. Support unit used in test configuration and system

The EUT has been associated with peripherals and configuration operated in a manner tended to maximize its emission characteristics in a typical application.

The following peripheral devices and interface cables were connected during the measurement:

Item	Equipment name	Trade Name	Model No.
1	PC	asus	LAPTOP-EF3AIDJL

4.4. Test sample information

Type	sample no.
Engineer sample	CISR241216142--S01
Normal sample	CISR241216142--S01

4.5. Testing environmental condition

Type	Requirement	Actual
Temperature:	15~35°C	25°C
Relative Humidity:	25~75%	50%
Air Pressure:	860~1060mbar	1000mbar

4.6. Statement of the measurement uncertainty

No.	Test Items	Measurement Uncertainty
1	AC Conducted Emission	1.63dB
2	Peak Output Power	1.34dB
3	Power Spectral Density	1.34dB
4	6dB Bandwidth	0.002%
5	99% Occupied Bandwidth	0.002%
6	Duty cycle	-
7	Conducted Band Edge and Spurious Emission	1.93dB
8	Radiated Band Edge Emission	3.76dB for 30MHz-1GHz 3.80dB for above 1GHz
9	Radiated Spurious Emission	3.76dB for 30MHz-1GHz 3.80dB for above 1GHz

This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=1.96.

4.7. Equipment Used during the Test

Equipment	Manufacture	Model No.	Serial No.	Last cal.	Cal Interval
9*6*6 anechoic chamber	SKET	9.3*6.3*6	N/A	2024.09.01	3Year
Spectrum analyzer	Agilent	N9020A	MY50530263	2024.01.08	1Year
Receiver	ROHDE&SCHWARZ	ESCI	100853	2024.01.08	1Year
Spectrum analyzer	R&S	FSV-40N	/	2024.01.08	1Year
Bilog Antenna	Schwarzbeck	VULB 9163	1463	2023.01.09	2Year
Horn Antenna	SCHWARZBECK	BBHA 9120 D	2487	2023.01.09	2Year
Active Loop Antenna	SCHWARZBECK	FMZB 1519B	/	2023.01.09	2Year
RF Cable	Tonscend	Cable 1	/	2024.01.08	1Year
RF Cable	Tonscend	Cable 2	/	2024.01.08	1Year
RF Cable	SKET	Cable 3	/	2024.01.08	1Year
Pre-amplifier	Tonscend	TAP9K3G32	AP21G806153	2024.01.08	1Year
Pre-amplifier	Tonscend	TAP01018050	AP22E806229	2024.01.08	1Year
L.I.S.N.#1	Schwarzbeck	NSLK8127	/	2024.01.08	1Year
L.I.S.N.#2	ROHDE&SCHWARZ	ENV216	/	2024.01.08	1Year
Horn Antenna	SCHWARZBECK	BBHA9170	1130	2023.01.09	2 Year
Preamplifier	Tonscend	TAP18040048	AP21C806126	2024.01.08	1Year
variable-frequency power source	Pinhong	PH1110	/	2024.01.08	1Year
6dB Attenuator	SKET	DC-6G	/	N/A	N/A
Artificial power network	Schwarzbeck	NSLK8127	8127-01096	2024.01.08	1Year
EMI Test Receiver	Rohde&schwarz	ESCI7	100853	2024.01.08	1Year
8-wire Impedance Stabilization Network	Schwarzbeck	NTFM 8158	8158-00337	2024.01.08	1Year
Artificial power network	Schwarzbeck	ENV216	/	2024.01.08	1Year
Antenna tower	SKET	Bk-4AT-BS	AT2021040101-V1	N/A	N/A

5. TEST CONDITIONS AND RESULTS

5.1. Antenna Requirement

Standard Applicable	**FCC CFR Title 47 Part 15 Subpart C Section 15.203:** An intentional radiator shall be designed to ensure that no antenna other than that furnished by the response-ble party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator, the manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited. **FCC CFR Title 47 Part 15 Subpart C Section 15.247(c) (1) (I):** (i) Systems operating in the 2400-2483.5 MHz band that is used exclusively for fixed. Point-to-point operations may employ transmitting antennas with directional gain greater than 6dBi provided the maximum conducted output power of the intentional radiator is reduced by 1 dB for every 3 dB that the directional gain of the antenna exceeds 6dBi.
Description	The EUT antenna is PCB antenna (1.6dBi), the directional gain of the antenna less than 6dBi. It comply with the standard requirement. In case of replacement of broken antenna the same antenna type must be used.Antenna structure please refer to the EUT internal photographs antenna photo.

Remark: The antenna gain is provided by the customer , if the data provided by the customer is not accurate, Shenzhen Bangce Testing Technology Co., Ltd. does not assume any responsibility.

5.2. AC Conducted Emission

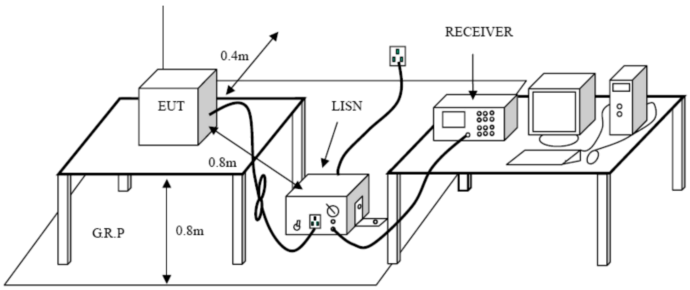
Limit:

FCC CFR Title 47 Part 15 Subpart C Section 15.207

Frequency range (MHz)	Limit (dBuV)	
	Quasi-peak	Average
0.15-0.5	66 to 56*	56 to 46*
0.5-5	56	46
5-30	60	50

* Decreases with the logarithm of the frequency.

Test configuration:



Test procedure:

1. The EUT was setup according to ANSI C63.10 requirements.
2. The EUT was placed on a platform of nominal size, 1 m by 1.5 m, raised 80 cm above the conducting ground plane. The vertical conducting plane was located 40 cm to the rear of the EUT. All other surfaces of EUT were at least 80 cm from any other grounded conducting surface.
3. The EUT and simulators are connected to the main power through a line impedances stabilization network (LISN). The LISN provides a 50 ohm /50uH coupling impedance for the measuring equipment.
4. The peripheral devices are also connected to the main power through a LISN. (Refer to the block diagram of the test setup and photographs)
5. Each current-carrying conductor of the EUT power cord, except the ground (safety) conductor, was individually connected through a LISN to the input power source.
6. The excess length of the power cord between the EUT and the LISN receptacle were folded back and forth at the center of the lead to form a bundle not exceeding 40 cm in length.
7. Conducted emissions were investigated over the frequency range from 0.15MHz to 30MHz using a receiver bandwidth of 9 kHz.
8. During the above scans, the emissions were maximized by cable manipulation.

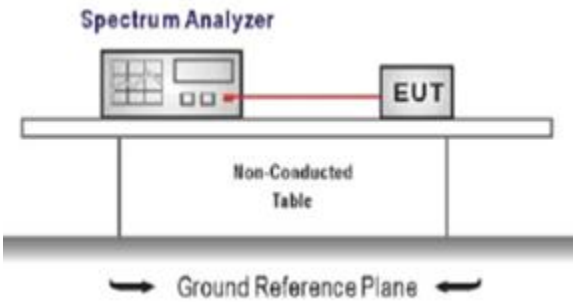
Test mode:

Refer to the clause 4.2

Result:

Not Applicable

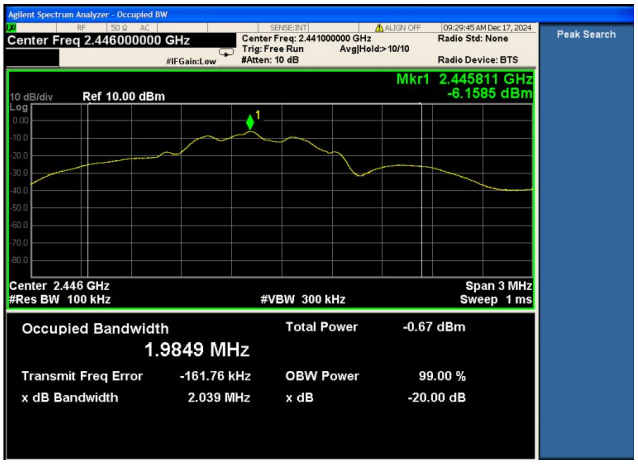
5.3. 20 dB Bandwidth

Limit:	--
Test configuration:	
Test procedure:	1. The transmitter output was connected to the spectrum analyzer through an attenuator, 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. Use the following spectrum analyzer settings: Span = approximately 2 to 3 times the 20 dB bandwidth, centered on a hopping channel RBW ≥ 1% of the 20 dB bandwidth, VBW ≥ RBW Sweep = auto, Detector function = peak, Trace = max hold 4. Measure and record the results in the test report.
Test mode:	Refer to the clause 4.2
Result:	**Passed**

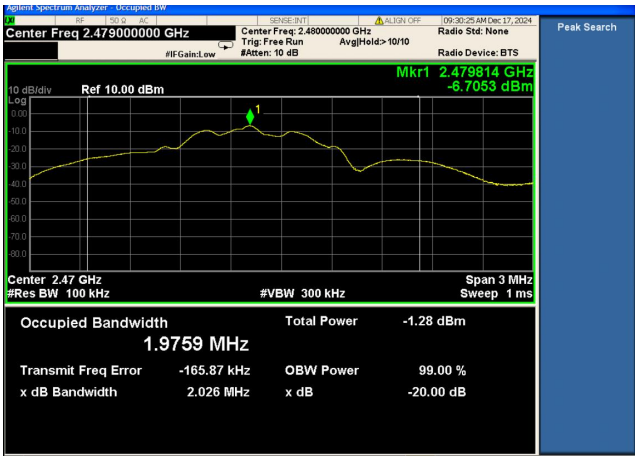
Test Result of 20dB Bandwidth Measurement		
Test Frequency(MHz)	20dB Bandwidth(MHz)	Limit(MHz)
2402	2.060	Non-Specified
2446	2.039	Non-Specified
2479	2.026	Non-Specified

20dB Bandwidth

2402MHz

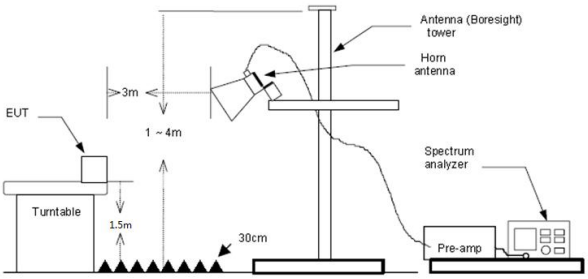


2446MHz



2479MHz

5.4. Radiated Band edge Emission

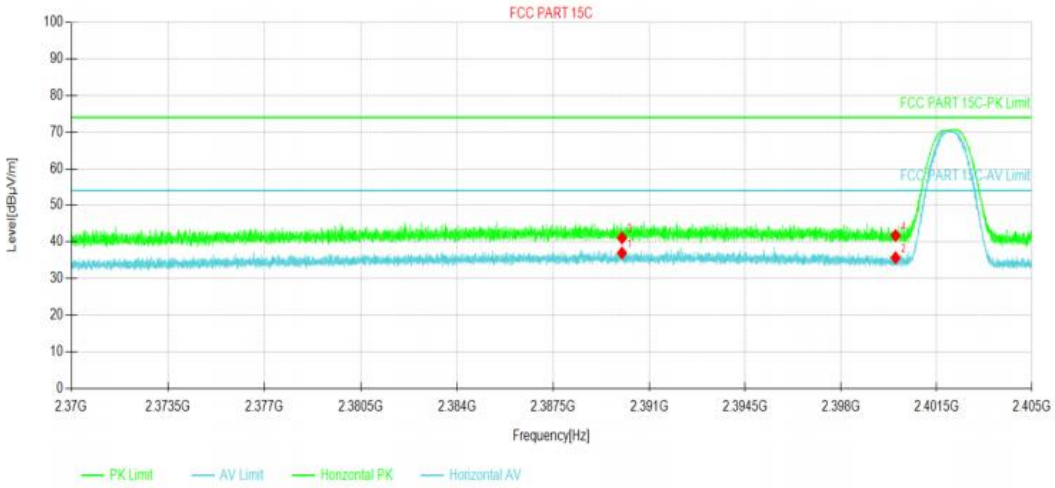
Limit:	**FFCC CFR Title 47 Part 15 Subpart C Section 15.249 (d):** Emissions radiated outside of the specified frequency bands, except for harmonics, shall be attenuated by at least 50 dB below the level of the fundamental or to the general radiated emission limits in § 15.209, whichever is the lesser attenuation.
Test configuration:	
Test procedure:	1. The EUT was setup and tested according to ANSI C63.10 . 2. The EUT is placed on a turn table which is 1.5 meter above ground. The turn table is rotated 360 degrees to determine the position of the maximum emission level. 3. The EUT waspositioned such that the distance from antenna to the EUT was 3 meters. 4. The antenna is scanned from 1 meter to 4 meters to find out the maximum emission level. Thisis repeated for both horizontal and vertical polarization of the antenna. In order to find themaximum emission, all of the interface cables were manipulated according to ANSI C63.10 on radiated measurement. 5. Use the following spectrum analyzer settings: a) Span shall wide enough to fully capture the emission being measured b) Set RBW=100kHz for <1GHz, VBW=3*RBW, Sweep time=auto, Detector=peak, Trace=max hold c) Set RBW=1MHz, VBW=3MHz for >1GHz, Sweep time=auto, Detector=peak, Trace=max hold for Peak measurement d) Set RBW=1MHz, VBW=3MHz for >1GHz, Sweep time=auto, Detector=Average, Trace=RMS for Average measurement
Test mode:	Refer to the clause 4.2
Result:	**Passed**

Note:

1) Level= Reading + Factor; Factor =Antenna Factor+ Cable Loss- Preamp Factor
2) Margin = Limit - Level
3) Average measurement was not performed if peak level is lower than average limit
4) The other emission levels were very low against the limit.

Polarization: Horizontal / CH: L

Test Graph

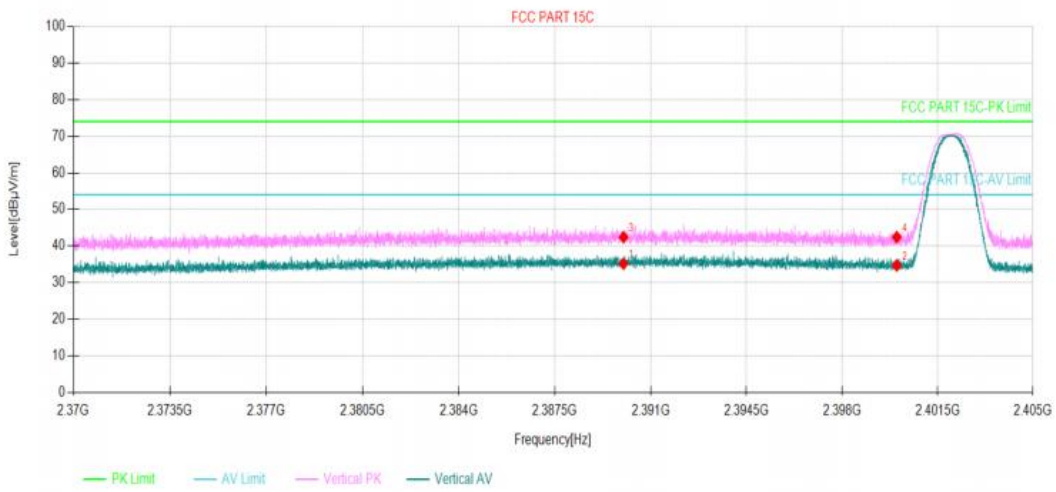


Suspected Data List

NO.	Freq. [MHz]	Reading [dBµV/m]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Polarity	Verdict
1	2390.00	30.42	36.98	6.56	54.00	17.02	Horizontal	PASS
2	2400.00	29.08	35.69	6.61	54.00	18.31	Horizontal	PASS
3	2390.00	34.53	41.09	6.56	74.00	32.91	Horizontal	PASS
4	2400.00	35.13	41.74	6.61	74.00	32.26	Horizontal	PASS

Polarization: Vertical / CH: L

Test Graph

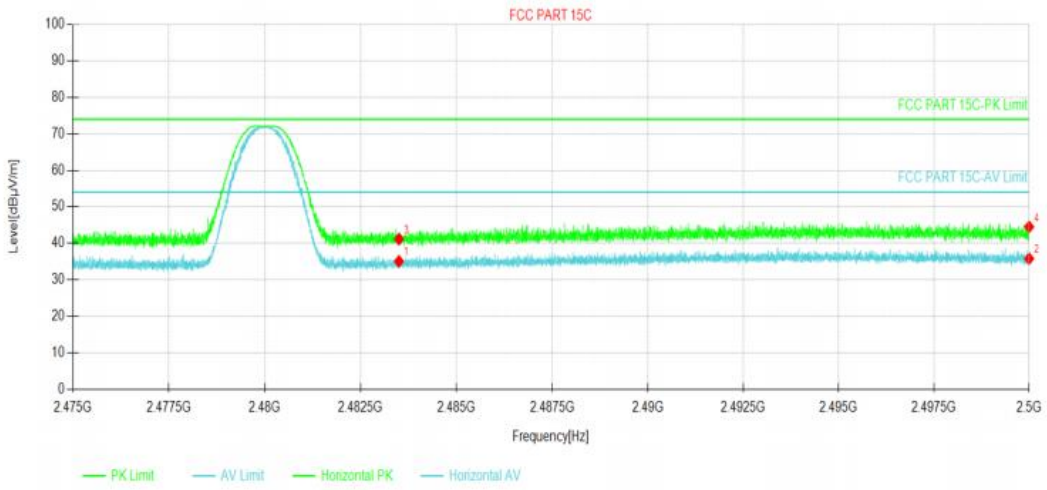


Suspected Data List

NO.	Freq. [MHz]	Reading [dBµV/m]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Polarity	Verdict
1	2390.00	28.62	35.18	6.56	54.00	18.82	Vertical	PASS
2	2400.00	28.11	34.72	6.61	54.00	19.28	Vertical	PASS
3	2390.00	35.87	42.43	6.56	74.00	31.57	Vertical	PASS
4	2400.00	35.83	42.44	6.61	74.00	31.56	Vertical	PASS

Polarization: Horizontal / CH: H

Test Graph

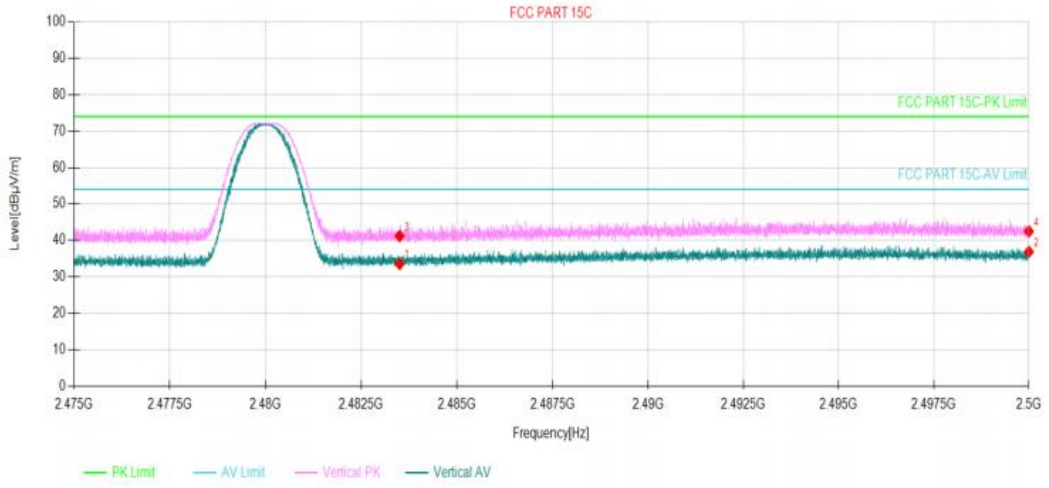


Suspected Data List

NO.	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Polarity	Verdict
1	2483.5	28.52	35.08	6.56	54.00	18.92	Horizontal	PASS
2	2500	29.26	35.81	6.55	54.00	18.19	Horizontal	PASS
3	2483.5	34.60	41.16	6.56	74.00	32.84	Horizontal	PASS
4	2500	37.97	44.52	6.55	74.00	29.48	Horizontal	PASS

Polarization: Vertical / CH: H

Test Graph



Suspected Data List

NO.	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Polarity	Verdict
1	2483.5	26.99	33.55	6.56	54.00	20.45	Vertical	PASS
2	2500	30.37	36.92	6.55	54.00	17.08	Vertical	PASS
3	2483.5	34.67	41.23	6.56	74.00	32.77	Vertical	PASS
4	2500	35.94	42.49	6.55	74.00	31.51	Vertical	PASS

5.5. Radiated Spurious Emission

Limit:

FCC CFR Title 47 Part 15 Subpart C Section 15.209

Frequency	Limit (dBuV/m)	Value
0.009 MHz ~0.49 MHz	2400/F(kHz) @300m	Quasi-peak
0.49 MHz ~ 1.705 MHz	24000/F(kHz) @30m	Quasi-peak
1.705 MHz ~30 MHz	30 @30m	Quasi-peak

Limit dBuV/m @3m = Limit dBuV/m @300m + 40*log(300/3

Limit dBuV/m @3m = Limit dBuV/m @30m +40*log(30/3)

FCC CFR Title 47 Part 15 Subpart C Section 15.249

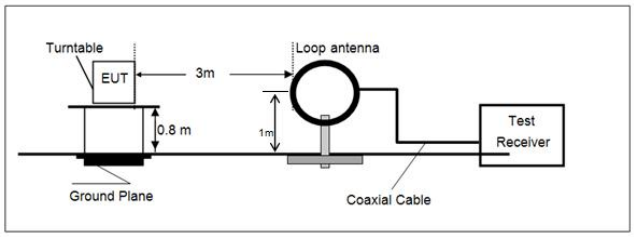
As shown in § 15.35(b), for frequencies above 1000 MHz, the field strength limits in paragraphs (a) and (b) of this section are based on average limits. However, the peak field strength of any emission shall not exceed the maximum permitted average limits specified above by more than 20 dB under any condition of modulation. For point-to-point operation under paragraph (b) of this section, the peak field strength shall not exceed 2500 millivolts/meter at 3 meters along the Antenna azimuth.

Fundamental frequency	Field strength of fundamental (millivolts/meter)	Field strength of harmonics (microvolts/meter)
902-928 MHz	50	500
2400-2483.5 MHz	50	500
5725-5875 MHz	50	500
24.0-24.25 GHz	250	2500

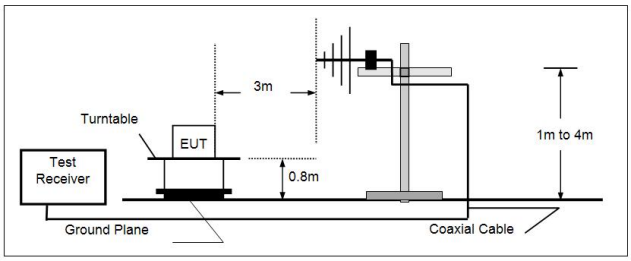
Frequency	Limit (dBuV/m @3m)	Value
30MHz~88MHz	40.00	Quasi-peak
88MHz~216MHz	43.50	Quasi-peak
216MHz~960MHz	46.00	Quasi-peak
960MHz~1GHz	54.00	Quasi-peak
Above 1GHz(Field strength of fundamental)	94.00	Average
	114.00	Peak
Above 1GHz(Field strength of harmonics)	54.00	Average
	74.00	Peak

Test configuration:

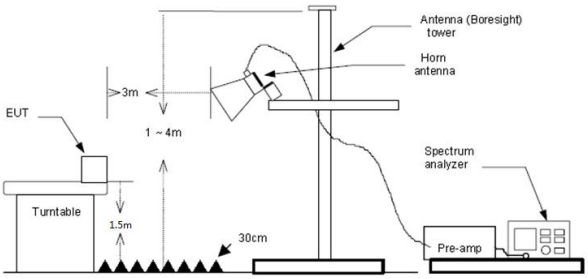
9kHz~30MHz



30 MHz ~ 1 GHz



Above 1 GHz



Test procedure:

1. The EUT was setup and tested according to ANSI C63.10.
2. The EUT is placed on a turn table which is 0.8 meter above ground for below 1 GHz, and 1.5 m for above 1 GHz. The turn table is rotated 360 degrees to determine the position of the maximum emission level.
3. The EUT was set 3 meters from the receiving antenna, which was mounted on the top of a variable height antenna tower.
4. For each suspected emission, the EUT was arranged to its worst case and then tune the Antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading. A pre-amp and a high pass filter are used for the test in order to get better signal level to comply with the guidelines.
5. Set to the maximum power setting and enable the EUT transmit continuously.
6. Use the following spectrum analyzer settings
   a) Span shall wide enough to fully capture the emission being measured;
   b) Below 1 GHz:

      RBW=120 kHz, VBW=300 kHz, Sweep=auto, Detector function=peak, Trace=max hold;

      If the emission level of the EUT measured by the peak detector is 3 dB lower than the applicable limit, the peak emission level will be reported. Otherwise, the emission measurement will be repeated using the quasi-peak detector and reported.
   c) Set RBW=1MHz, VBW=3MHz for >1GHz, Sweep time=auto, Detector=peak, Trace=max hold for Peak measurement
   d) Set RBW=1MHz, VBW=3MHz for >1GHz, Sweep time=auto, Detector=Average, Trace=RMS for Average measurement

Test mode: Refer to the clause 4.2

Result: **Passed**

Note:

1) Level= Reading + Factor/Transd; Factor/Transd =Antenna Factor+ Cable Loss- Preamp Factor
2) Margin = Limit – Level
3) Average measurement was not performed if peak level is lower than average limit(54 dBuV/m) for above 1GHz.
4) The other emission levels were very low against the limit.
5) This test was performed with EUT in X, Y, Z position and the worse case was found when EUT in X position.

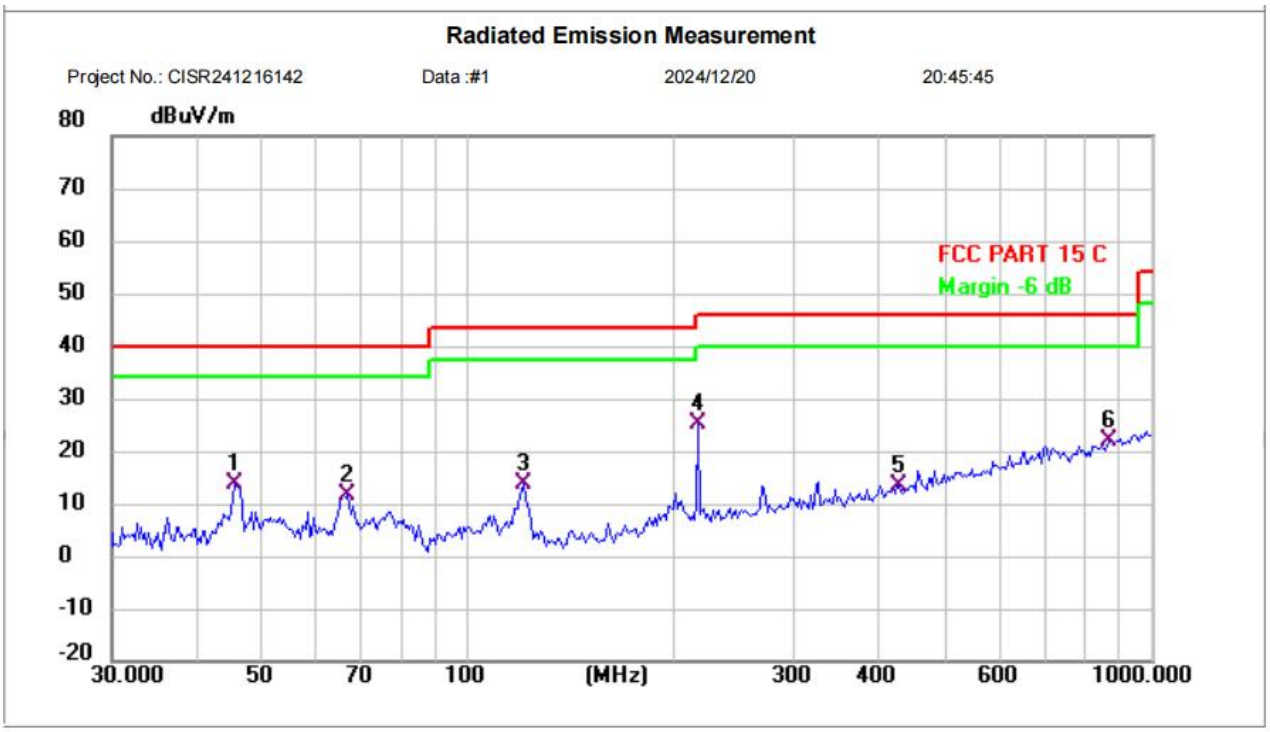
For 9 kHz ~ 30 MHz

The EUT was pre-scanned this frequency band, found the radiated level 20dB lower than the limit, so don't show data on this report.

For 30 MHz ~ 1000 MHz

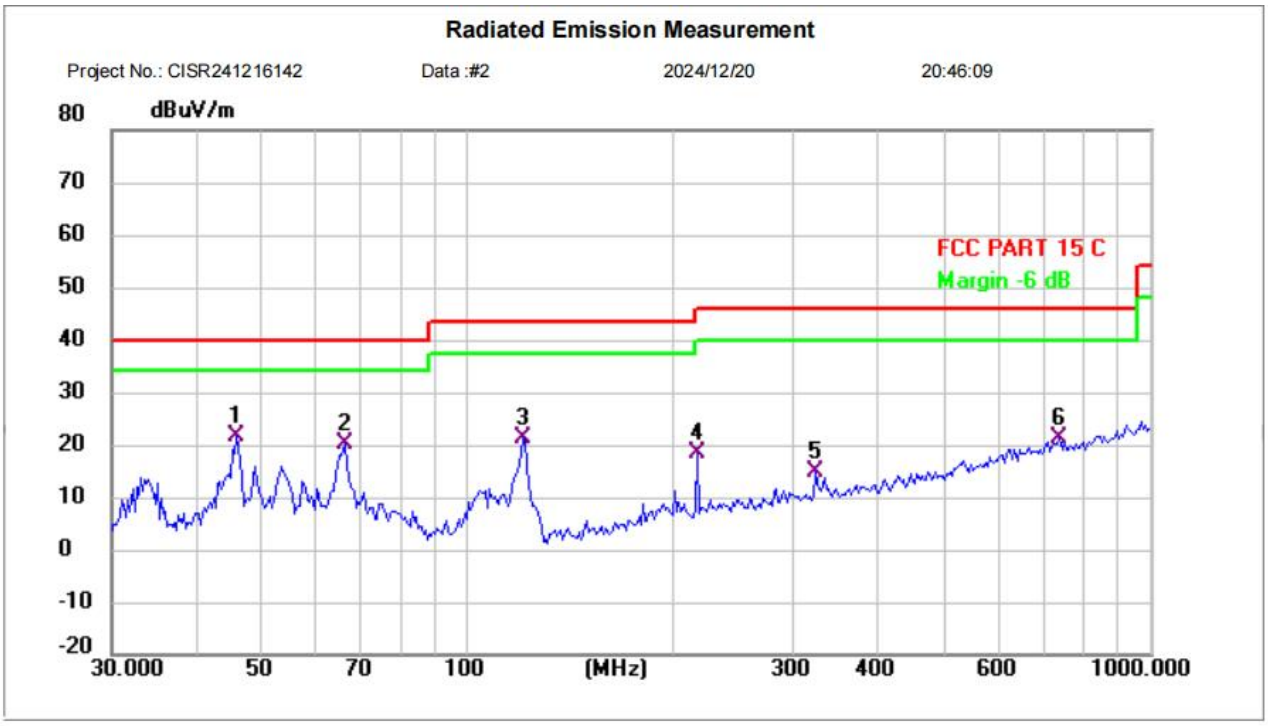
Have pre-scan all test channel, found CH1 which it was worst case, so only show the worst case's data on this report.

Polarization:	Horizontal



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	P/F	Remark
1	45.375	42.95	-29.33	13.62	40.00	-26.38	QP	P	
2	66.266	43.71	-32.05	11.66	40.00	-28.34	QP	P	
3	120.277	45.78	-32.13	13.65	43.50	-29.85	QP	P	
4 *	216.783	54.93	-29.58	25.35	46.00	-20.65	QP	P	
5	428.019	37.64	-24.08	13.56	46.00	-32.44	QP	P	
6	869.130	37.27	-15.25	22.02	46.00	-23.98	QP	P	

Polarization:	Vertical

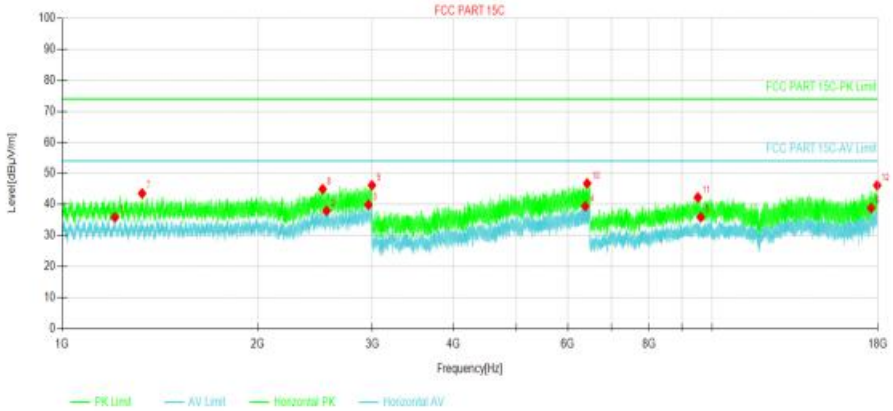


No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	P/F	Remark
1 *	45.695	50.87	-29.30	21.57	40.00	-18.43	QP	P	
2	65.803	52.06	-31.92	20.14	40.00	-19.86	QP	P	
3	120.277	53.51	-32.13	21.38	43.50	-22.12	QP	P	
4	216.783	48.06	-29.58	18.48	46.00	-27.52	QP	P	
5	323.320	41.40	-26.62	14.78	46.00	-31.22	QP	P	
6	734.491	38.05	-16.80	21.25	46.00	-24.75	QP	P	

For 1 GHz ~ 25 GHz

Mode1 / Polarization: Horizontal / CH: L

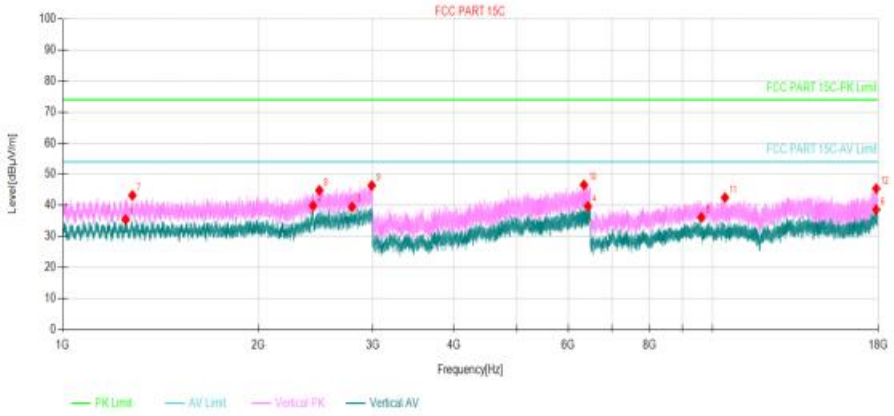
Test Graph



Suspected Data List								
NO.	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Polarity	Verdict
1	1205.6	34.07	35.88	1.81	54.00	18.12	Horizontal	PASS
2	2552	30.46	37.95	7.49	54.00	16.05	Horizontal	PASS
3	2960.8	30.26	39.90	9.64	54.00	14.10	Horizontal	PASS
4	6385.2	32.96	39.39	6.43	54.00	14.61	Horizontal	PASS
5	9609.6	32.81	35.95	3.14	54.00	18.05	Horizontal	PASS
6	17573.3	26.95	38.86	11.91	54.00	15.14	Horizontal	PASS
7	1327.6	41.01	43.56	2.55	74.00	30.44	Horizontal	PASS
8	2516.8	37.29	44.95	7.66	74.00	29.05	Horizontal	PASS
9	2997.2	36.23	46.18	9.95	74.00	27.82	Horizontal	PASS
10	6426.15	40.26	46.79	6.53	74.00	27.21	Horizontal	PASS
11	9511.85	39.11	42.28	3.17	74.00	31.72	Horizontal	PASS
12	17959.7	32.90	46.17	13.27	74.00	27.83	Horizontal	PASS

Mode1 / Polarization: Vertical / CH: L

Test Graph



Suspected Data List

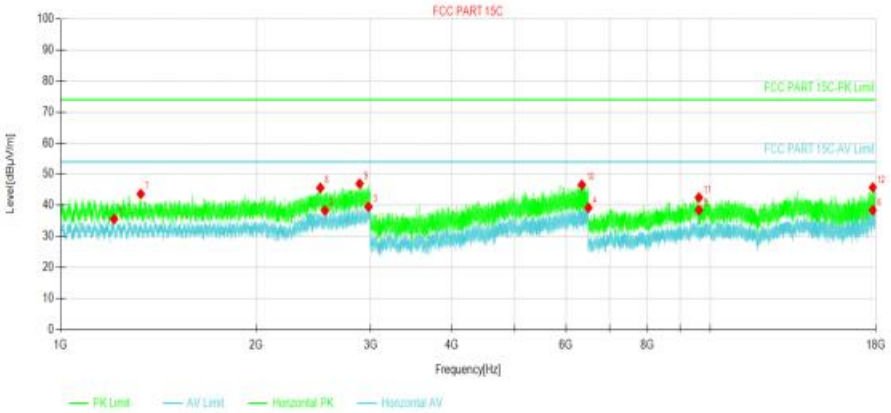
NO.	Freq. [MHz]	Reading [dBµV/m]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Polarity	Verdict
1	1249.6	33.32	35.40	2.08	54.00	18.60	Vertical	PASS
2	2427.6	32.68	39.88	7.20	54.00	14.12	Vertical	PASS
3	2788.4	31.18	39.54	8.36	54.00	14.46	Vertical	PASS
4	6429.3	33.14	39.67	6.53	54.00	14.33	Vertical	PASS
5	9609.6	33.01	36.15	3.14	54.00	17.85	Vertical	PASS
6	17873.5	25.68	38.64	12.96	54.00	15.36	Vertical	PASS
7	1280	40.92	43.20	2.28	74.00	30.80	Vertical	PASS
8	2483.4	37.22	44.84	7.62	74.00	29.16	Vertical	PASS
9	2989.6	36.49	46.37	9.88	74.00	27.63	Vertical	PASS
10	6343.2	40.41	46.57	6.16	74.00	27.43	Vertical	PASS
11	10453.7	38.44	42.49	4.05	74.00	31.51	Vertical	PASS
12	17872.3	32.42	45.38	12.96	74.00	28.62	Vertical	PASS

Test channel:2402MHz

Freq. (MHz)	Reading (dBuv)	Ant. Factor (dB/m)	Cable Factor (dB)	Pre-amplifier (dB)	Correction Factor (dB/m)	Level (dBuv)	Limit (dBuV/m)	Margin (dB)	Remark	Polarity
2402.00	92.54	29.18	4.02	38.35	-5.15	87.39	114	26.61	Peak	Horizontal
2402.00	80.65	29.18	4.02	38.35	-5.15	75.50	94	18.50	Average	Horizontal
2402.00	81.43	29.18	4.02	38.35	-5.15	76.28	114	37.72	Peak	Vertical
2402.00	67.51	29.18	4.02	38.35	-5.15	62.36	94	31.64	Average	Vertical
4806.00	69.22	31.33	4.23	38.62	-3.06	66.16	74	7.84	Peak	Horizontal
4806.00	50.39	31.33	4.23	38.62	-3.06	47.33	54	6.67	Average	Horizontal
4806.00	66.24	31.33	4.23	38.62	-3.06	63.18	74	10.82	Peak	Vertical
4806.00	50.90	31.33	4.23	38.62	-3.06	47.84	54	6.16	Average	Vertical

Mode1 / Polarization: Horizontal / CH: M

Test Graph

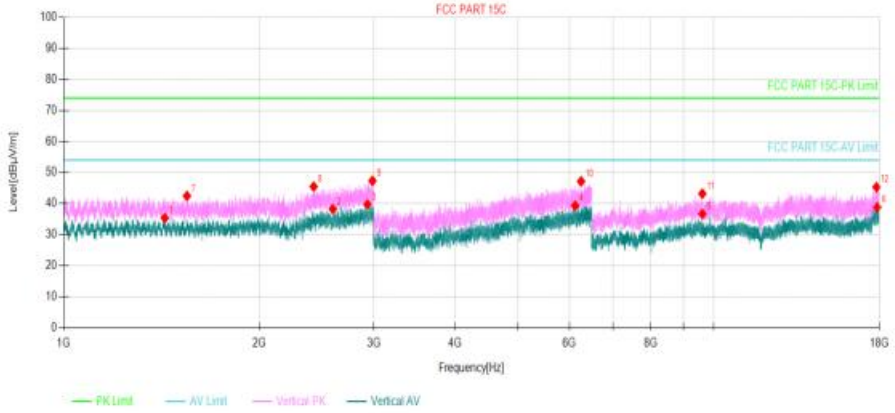


Suspected Data List

NO.	Freq. [MHz]	Reading [dBµV/m]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Polarity	Verdict
1	1208.4	33.76	35.58	1.82	54.00	18.42	Horizontal	PASS
2	2552.4	30.82	38.31	7.49	54.00	15.69	Horizontal	PASS
3	2977.8	29.77	39.55	9.78	54.00	14.45	Horizontal	PASS
4	6495.1	32.70	39.23	6.53	54.00	14.77	Horizontal	PASS
5	9609.6	35.37	38.51	3.14	54.00	15.49	Horizontal	PASS
6	17805.6	25.34	38.46	13.12	54.00	15.54	Horizontal	PASS
7	1328.2	41.11	43.66	2.55	74.00	30.34	Horizontal	PASS
8	2510.8	37.94	45.63	7.69	74.00	28.37	Horizontal	PASS
9	2885.8	37.95	46.97	9.02	74.00	27.03	Horizontal	PASS
10	6344.95	40.42	46.59	6.17	74.00	27.41	Horizontal	PASS
11	9608.45	39.36	42.50	3.14	74.00	31.50	Horizontal	PASS
12	17809.1	32.64	45.75	13.11	74.00	28.25	Horizontal	PASS

Mode1 / Polarization: Vertical / CH: M

Test Graph



Suspected Data List

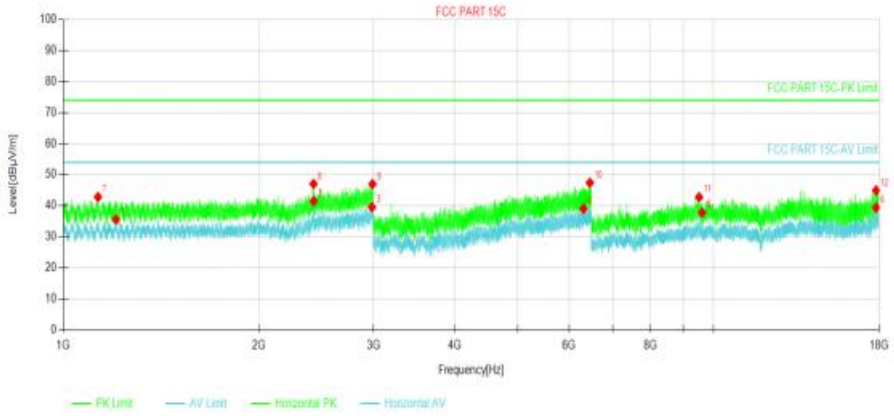
NO.	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Polarity	Verdict
1	1430.6	32.33	35.35	3.02	54.00	18.65	Vertical	PASS
2	2594.2	30.96	38.25	7.29	54.00	15.75	Vertical	PASS
3	2933.8	30.35	39.76	9.41	54.00	14.24	Vertical	PASS
4	6123.05	33.89	39.33	5.44	54.00	14.67	Vertical	PASS
5	9609.6	33.51	36.65	3.14	54.00	17.35	Vertical	PASS
6	17862	25.82	38.81	12.99	54.00	15.19	Vertical	PASS
7	1547.4	39.23	42.46	3.23	74.00	31.54	Vertical	PASS
8	2424.2	38.30	45.47	7.17	74.00	28.53	Vertical	PASS
9	2985.8	37.50	47.35	9.85	74.00	26.65	Vertical	PASS
10	6253.25	41.40	47.17	5.77	74.00	26.83	Vertical	PASS
11	9608.45	40.06	43.20	3.14	74.00	30.80	Vertical	PASS
12	17813.7	32.20	45.30	13.10	74.00	28.70	Vertical	PASS

Test channel:2446MHz

Freq. (MHz)	Reading (dBuv)	Ant. Factor (dB/m)	Cable Factor (dB)	Pre-amplifier (dB)	Correction Factor (dB/m)	Level (dBuv)	Limit (dBuV/m)	Margin (dB)	Remark	Polarity
2446.00	90.49	29.23	4.02	38.2	-4.95	85.54	114	28.46	Peak	Horizontal
2446.00	80.56	29.23	4.02	38.2	-4.95	75.61	94	18.39	Average	Horizontal
2446.00	82.15	29.23	4.02	38.2	-4.95	77.20	114	36.80	Peak	Vertical
2446.00	68.61	29.23	4.02	38.2	-4.95	63.66	94	30.34	Average	Vertical
4882.00	70.34	30.26	4.09	38.29	-3.94	66.40	74	7.60	Peak	Horizontal
4882.00	52.13	30.26	4.09	38.29	-3.94	48.19	54	5.81	Average	Horizontal
4882.00	66.85	30.26	4.09	38.29	-3.94	62.91	74	11.09	Peak	Vertical
4882.00	52.35	30.26	4.09	38.29	-3.94	48.41	54	5.59	Average	Vertical

Mode1 / Polarization: Horizontal / CH: H

Test Graph

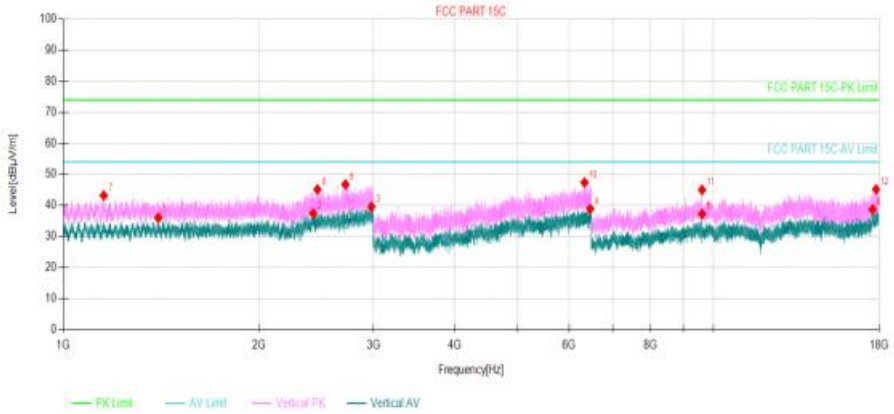


Suspected Data List

NO.	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Polarity	Verdict
1	1205	33.79	35.59	1.80	54.00	18.41	Horizontal	PASS
2	2427.6	34.31	41.51	7.20	54.00	12.49	Horizontal	PASS
3	2983.8	29.76	39.59	9.83	54.00	14.41	Horizontal	PASS
4	6312.4	33.11	39.07	5.96	54.00	14.93	Horizontal	PASS
5	9609.6	34.68	37.82	3.14	54.00	16.18	Horizontal	PASS
6	17802.2	26.29	39.42	13.13	54.00	14.58	Horizontal	PASS
7	1130.6	41.52	42.82	1.30	74.00	31.18	Horizontal	PASS
8	2426	39.85	47.04	7.19	74.00	26.96	Horizontal	PASS
9	2989.6	37.12	47.00	9.88	74.00	27.00	Horizontal	PASS
10	6458	40.87	47.40	6.53	74.00	26.60	Horizontal	PASS
11	9506.1	39.62	42.79	3.17	74.00	31.21	Horizontal	PASS
12	17802.2	31.81	44.94	13.13	74.00	29.06	Horizontal	PASS

Mode1 / Polarization: Vertical / CH: H

Test Graph



Suspected Data List

NO.	Freq. [MHz]	Reading [dBµV/m]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Polarity	Verdict
1	1400.6	33.12	36.05	2.93	54.00	17.95	Vertical	PASS
2	2423.2	30.32	37.48	7.16	54.00	16.52	Vertical	PASS
3	2978.6	29.82	39.61	9.79	54.00	14.39	Vertical	PASS
4	6463.95	32.40	38.93	6.53	54.00	15.07	Vertical	PASS
5	9609.6	34.16	37.30	3.14	54.00	16.70	Vertical	PASS
6	17580.2	26.67	38.76	12.09	54.00	15.24	Vertical	PASS
7	1153.8	41.76	43.22	1.46	74.00	30.78	Vertical	PASS
8	2459.8	37.72	45.16	7.44	74.00	28.84	Vertical	PASS
9	2716.4	38.87	46.77	7.90	74.00	27.23	Vertical	PASS
10	6337.25	41.29	47.41	6.12	74.00	26.59	Vertical	PASS
11	9608.45	41.90	45.04	3.14	74.00	28.96	Vertical	PASS
12	17806.8	32.05	45.17	13.12	74.00	28.83	Vertical	PASS

Test channel:2479MHz

Freq. (MHz)	Reading (dBuv)	Ant. Factor (dB/m)	Cable Factor (dB)	Pre-amplifier (dB)	Correction Factor (dB/m)	Level (dBuv)	Limit (dBuV/m)	Margin (dB)	Remark	Polarity
2479.00	94.49	29.2	4.02	38.3	-5.08	89.41	114	24.59	Peak	Horizontal
2479.00	81.15	29.2	4.02	38.3	-5.08	76.07	94	17.93	Average	Horizontal
2479.00	82.65	29.2	4.02	38.3	-5.08	77.57	114	36.43	Peak	Vertical
2479.00	67.82	29.2	4.02	38.3	-5.08	62.74	94	31.26	Average	Vertical
4960.00	63.79	31.97	4.11	38.47	-2.39	61.40	74	12.60	Peak	Horizontal
4960.00	51.92	31.97	4.11	38.47	-2.39	49.53	54	4.47	Average	Horizontal
4960.00	66.51	31.97	4.11	38.47	-2.39	64.12	74	9.88	Peak	Vertical
4960.00	49.49	31.97	4.11	38.47	-2.39	47.10	54	6.90	Average	Vertical

Note:
1) Level= Reading + Factor; Factor =Antenna Factor+ Cable Loss- Preamp Factor
2) Margin = Limit – Level
3) Average measurement was not performed if peak level is lower than average limit (54dBuV/m) for above 1GHz.

6. TEST SETUP PHOTOS

Please refer to report for Test CISRR24121614201 of the EUT.

7. EXTERNAL AND INTERNAL PHOTOS

7.1 External photos

Please refer to report for Test CISRR24121614201 of the EUT.

7.2 Internal photos

Please refer to report for Test CISRR24121614201 of the EUT.

------End of the report------