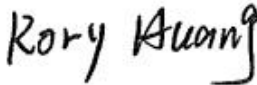


TEST REPORT

Report No.	CISRR25010905406
Project No.	CISR250109054
FCC ID	2A4K8-FUN60
Applicant	Shenzhen Yinchen Technology Co., Ltd
Address	STE101, 201, 301, 401, Building 1, 1st Industrial Zone, Bitou Community, Songgang Street, Bao'an District, Shenzhen, China
Manufacturer	Shenzhen Yinchen Technology Co., Ltd
Address	STE101, 201, 301, 401, Building 1, 1st Industrial Zone, Bitou Community, Songgang Street, Bao'an District, Shenzhen, China
Product Name	Mechanical Keyboard
Trade Mark	MONSGEEK
Model/Type reference	FUN60
Listed Model(s)	FUN60 PRO, FUN60 MAX, FUN60 Ultra
Standard	Part 15 Subpart C Section 15.249
Test date	January 13, 2025 to January 16, 2025
Issue date	January 17, 2025
Test result	Complied



Prepared by: Rory Huang



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.

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1. REPORT VERSION

Version No.	Issue date	Description
00	January 17, 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:	Mechanical Keyboard
Trade Mark:	MONSGEEK
Model No.:	FUN60
Listed Model(s):	FUN60 PRO, FUN60 MAX, FUN60 Ultra
Model difference:	The shell material and color of the main test model and the series model are different, and the internal principle of the motherboard is the same. FUN60 and FUN60 MAX are plastic shell, FUN60 Ultra is aluminum alloy shell, We added A difference test on the FUN60 Ultra
Power supply:	DC 5V
Hardware version:	V1.0
Software version:	V1.0
Battery information:	3.7V

3.2. Radio Specification Description

Technology:	2.4G
Modulation:	GFSK
Operation frequency:	2402MHz~2478MHz
Channel number:	39
Antenna type:	PCB Antenna
Antenna gain:	3.21dBi

Channel list:

Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
0	2402	10	2422	20	2442	30	2462
1	2404	11	2424	21	2444	31	2464
2	2406	12	2426	22	2446	32	2466
3	2408	13	2428	23	2448	33	2468
4	2410	14	2430	24	2450	34	2470
5	2412	15	2432	25	2452	35	2472
6	2414	16	2434	26	2454	36	2474
7	2416	17	2436	27	2456	37	2476

8	2418	18	2438	28	2458	38	2478
9	2420	19	2440	29	2460	--	--

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:

$$FS \text{ (dBuV/m)} = RA \text{ (dBuV)} + AF \text{ (dB/m)} + CL \text{ (dB)} - AG \text{ (dB)}$$

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:

$$CD \text{ (dBuV)} = RA \text{ (dBuV)} + PL \text{ (dB)} + CL \text{ (dB)}$$

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	2440
CH-H	2478

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
	Normal link	--
Radiated test item	TX CH-L	GFSK
	TX CH-M	GFSK
	TX CH-H	GFSK
	Normal link	--

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	CISR250109054--S01
Normal sample	CISR250109054--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

Conducted Emission at AC power line						
Item	Equipment name	Manufacturer	Model	Serial No.	Calibration date	Due date
1	EMI Test Receiver	Rohde&schwarz	ESCI7	100853	2025-01-08	2026-01-07
2	Artificial power network	Schwarzbeck	NSLK8127	8127-01096	2025-01-08	2026-01-07
3	8-wire Impedance Stabilization Network	Schwarzbeck	NTFM 8158	8158-00337	2025-01-08	2026-01-07
4	Artificial power network	Schwarzbeck	ENV216	/	2025-01-08	2026-01-07

Emissions in non-restricted frequency bands 6dB Bandwidth Maximum Conducted Output Power Power Spectral Density						
Item	Equipment name	Manufacturer	Model	Serial No.	Calibration date	Due date
1	MXG RF Signal Generator	Agilent	N5181A	MY50145362	2025-01-08	2026-01-07
2	Spectrum analyzer	R&S	FSV-40N	102130	2025-01-08	2026-01-07
3	Vector Signal Generator	Agilent	N5182A	MY50142364	2025-01-08	2026-01-07
4	Power Meter	WCS	WCS-PM	WCSPM230405A	2025-01-08	2026-01-07

Emissions in frequency bands (above 1GHz) Band edge emissions (Radiated) Emissions in frequency bands (below 1GHz)						
Item	Equipment name	Manufacturer	Model	Serial No.	Calibration date	Due date
1	EMI Test Receiver	Rohde&schwarz	ESCI7	100853	2025-01-08	2026-01-07
2	Amplifier	Tonscend	TAP9K3G40	AP23A8060270	2025-01-08	2026-01-07
3	Prime amplifier	Tonscend	TAP01018050	AP23A8060280	2025-01-08	2026-01-07
4	9*6*6 anechoic chamber	SKET	9.3*6.3*6	N/A	2024-09-02	2027-09-01
5	Spectrum analyzer	Agilent	N9020A	MY50530263	2025-01-08	2026-01-07
6	Spectrum analyzer	R&S	FSV-40N	102130	2025-01-08	2026-01-07
7	Bilog Antenna	Schwarzbeck	VULB 9163	1463	2023-01-09	2026-01-08
8	Horn Antenna	SCHWARZBECK	BBHA 9120 D	2487	2023-01-09	2026-01-08
9	Active Loop Antenna	SCHWARZBECK	FMZB 1519B	/	2023-01-09	2026-01-08
10	RF Cable	Tonscend	Cable 1	/	2025-01-08	2026-01-07
11	RF Cable	Tonscend	Cable 2	/	2025-01-08	2026-01-07
12	RF Cable	SKET	Cable 3	/	2025-01-08	2026-01-07

13	L.I.S.N.#1	Schwarzbeck	NSLK812 7	/	2025-01-08	2026-01-07
14	L.I.S.N.#2	ROHDE&SCHWA RZ	ENV216	/	2025-01-08	2026-01-07
15	Horn Antenna	SCHWARZBECK	BBHA917 0	1130	2023-01-09	2026-01-08
16	Preamplifier	Tonscend	TAP1804 0048	AP21C806126	2025-01-08	2026-01-07
17	Variable-frequency power source	Pinhong	PH1110	/	2025-01-08	2026-01-07
18	6dB Attenuator	SKET	DC-6G	/	2025-01-08	2026-01-07
19	Antenna tower	SKT	Bk-4AT- BS	AT202104010 1-V1	2025-01-08	2026-01-07

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 responsible 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 (3.21dBi), 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

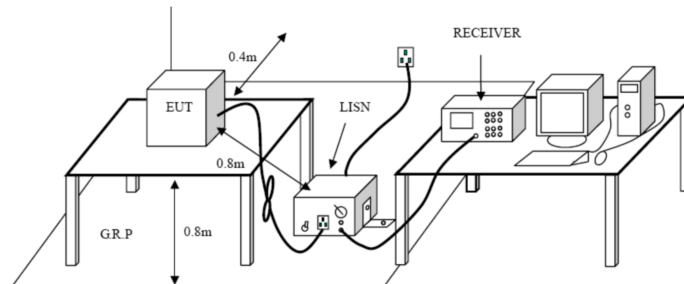
Limit:

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

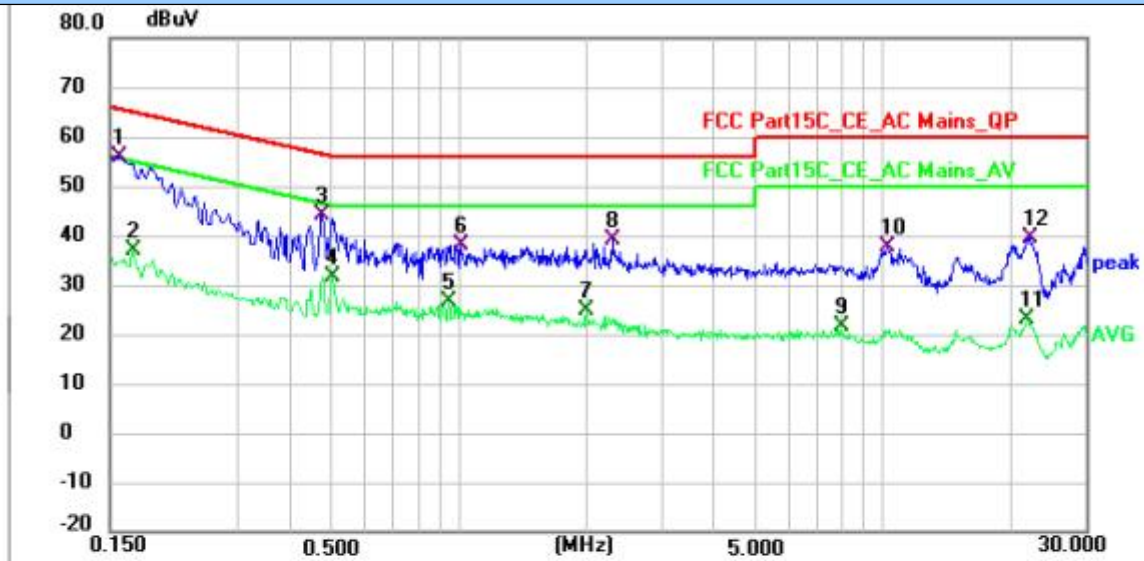
Result:

Passed

Note:

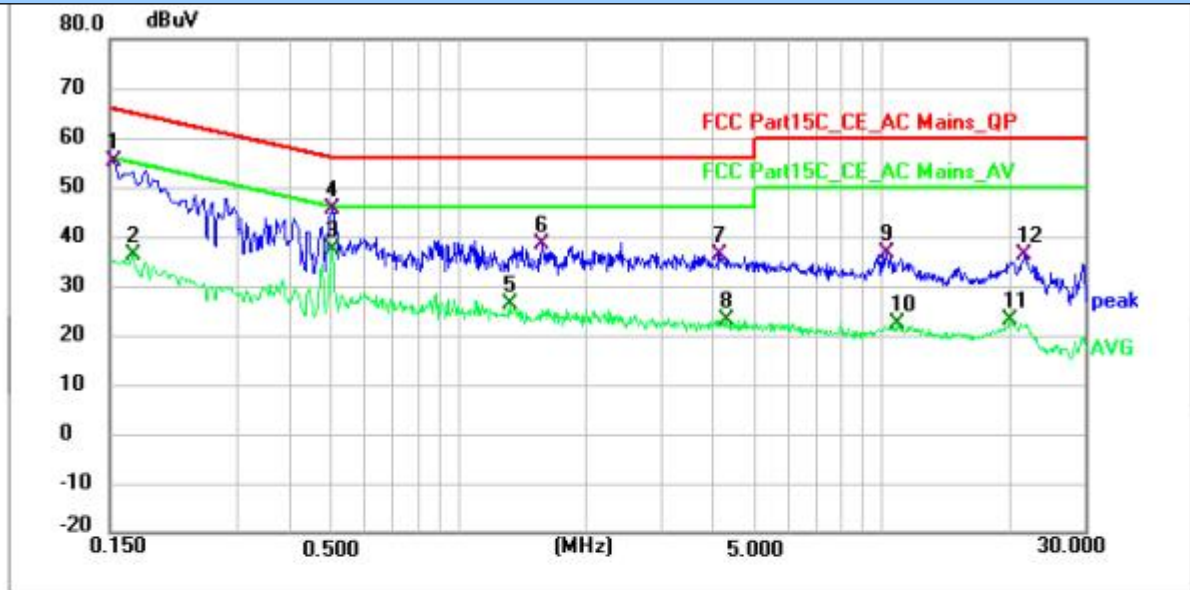
- 1). Result = Reading +Correct (Insertion Loss + Cable Loss + Attenuator Factor)
- 2). Margin = Result - Limit

Mode3 / Line: Line



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1 *	0.158	45.49	10.32	55.81	65.57	-9.76	QP
2	0.170	26.67	10.32	36.99	54.96	-17.97	AVG
3	0.474	33.63	10.36	43.99	56.44	-12.45	QP
4	0.502	21.10	10.37	31.47	46.00	-14.53	AVG
5	0.950	16.32	10.42	26.74	46.00	-19.26	AVG
6	1.014	27.70	10.43	38.13	56.00	-17.87	QP
7	2.002	13.95	10.71	24.66	46.00	-21.34	AVG
8	2.302	28.27	10.79	39.06	56.00	-16.94	QP
9	8.002	8.40	13.04	21.44	50.00	-28.56	AVG
10	10.246	24.00	13.74	37.74	60.00	-22.26	QP
11	21.742	7.72	15.40	23.12	50.00	-26.88	AVG
12	22.310	24.20	15.36	39.56	60.00	-20.44	QP

Mode3 / Line: Neutral



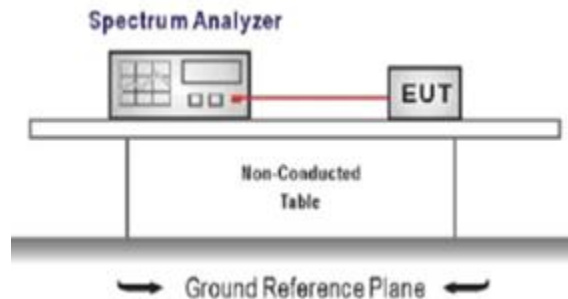
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	0.154	44.69	10.33	55.02	65.79	-10.77	QP
2	0.170	26.10	10.32	36.42	54.96	-18.54	AVG
3 *	0.502	27.10	10.38	37.48	46.00	-8.52	AVG
4	0.506	35.01	10.38	45.39	56.00	-10.61	QP
5	1.322	15.57	10.51	26.08	46.00	-19.92	AVG
6	1.574	27.76	10.59	38.35	56.00	-17.65	QP
7	4.154	24.82	11.45	36.27	56.00	-19.73	QP
8	4.282	11.70	11.50	23.20	46.00	-22.80	AVG
9	10.270	22.74	13.72	36.46	60.00	-23.54	QP
10	10.826	8.43	13.96	22.39	50.00	-27.61	AVG
11	19.990	6.94	15.96	22.90	50.00	-27.10	AVG
12	21.702	20.51	15.75	36.26	60.00	-23.74	QP

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 \geq 1% of the 20 dB bandwidth, VBW \geq 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

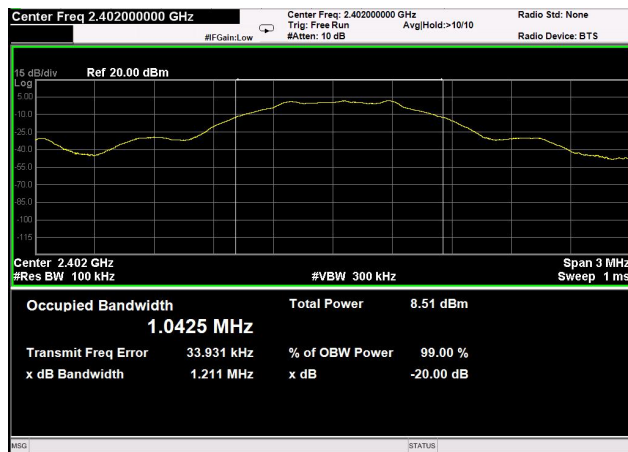
Result:

Passed

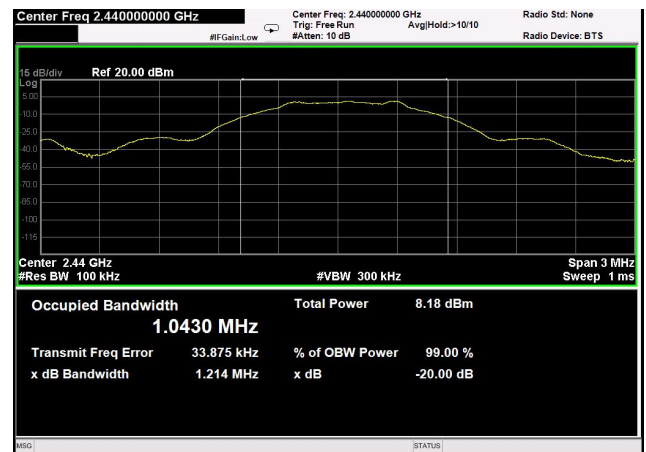
Test Result of 20dB Bandwidth Measurement

Test Frequency(MHz)	20dB Bandwidth(MHz)	Limit(MHz)
2402	1.110	Non-Specified
2440	1.132	Non-Specified
2478	1.073	Non-Specified

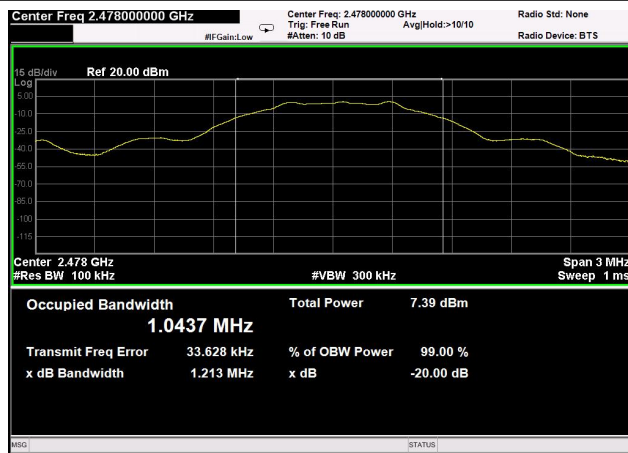
20dB Bandwidth



2402MHz



2440MHz



2478MHz

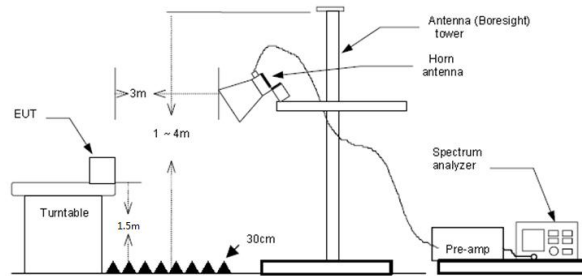
5.4. Radiated Band edge Emission

Limit:

FCC 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 was positioned 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. This is repeated for both horizontal and vertical polarization of the antenna. In order to find the maximum 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

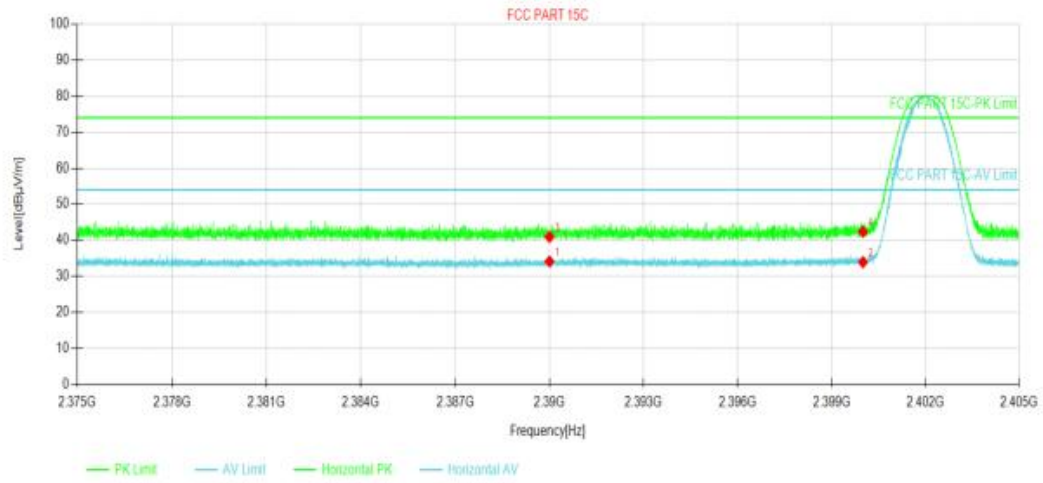
Result:

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.

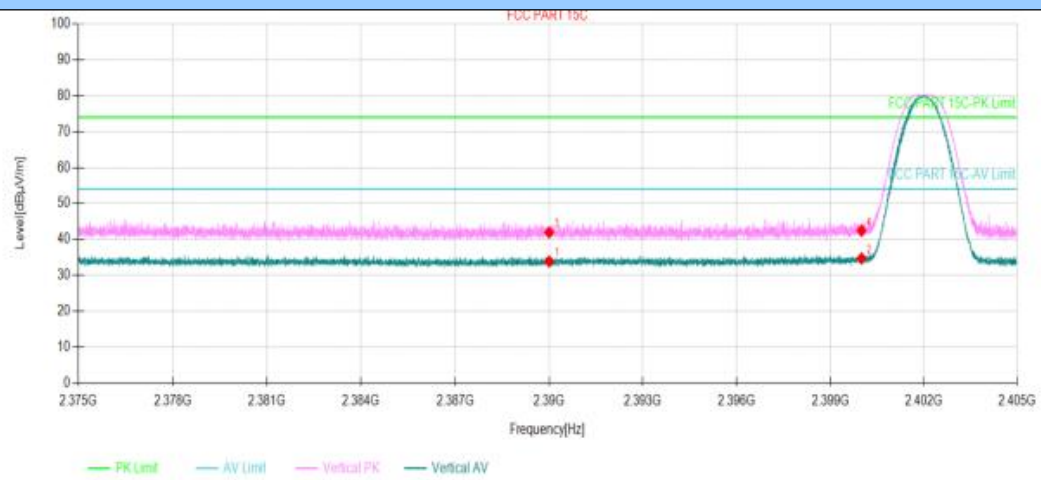
Mode1 / Polarization: Horizontal / CH: L



Suspected Data List

NO.	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Polarity	Verdict
1	2390	27.59	34.15	6.56	54.00	19.85	Horizontal	PASS
2	2400.00	27.32	33.93	6.61	54.00	20.07	Horizontal	PASS
3	2390	34.40	40.96	6.56	74.00	33.04	Horizontal	PASS
4	2400.00	35.79	42.40	6.61	74.00	31.60	Horizontal	PASS

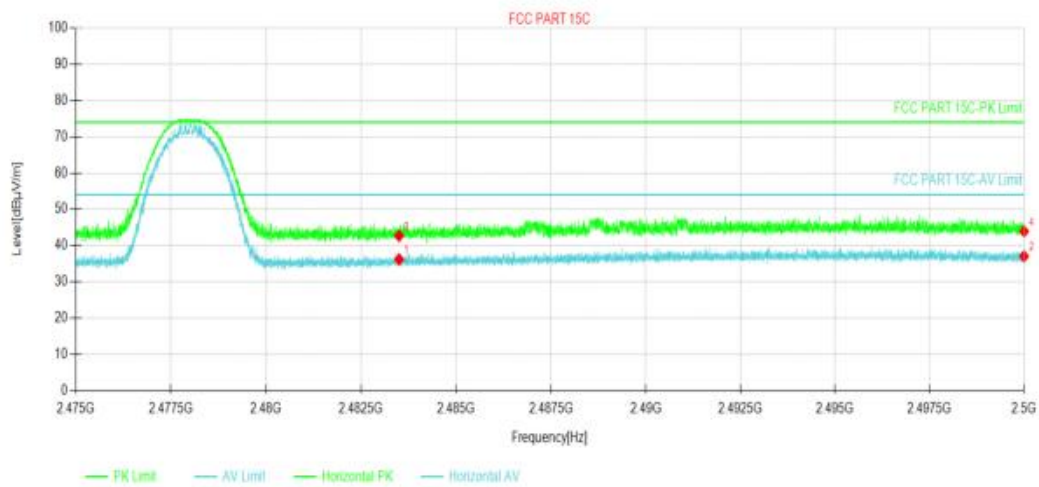
Mode1 / Polarization: Vertical / CH: L



Suspected Data List

NO.	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Polarity	Verdict
1	2390	27.30	33.86	6.56	54.00	20.14	Vertical	PASS
2	2400.00	28.12	34.73	6.61	54.00	19.27	Vertical	PASS
3	2390	35.38	41.94	6.56	74.00	32.06	Vertical	PASS
4	2400.00	35.85	42.46	6.61	74.00	31.54	Vertical	PASS

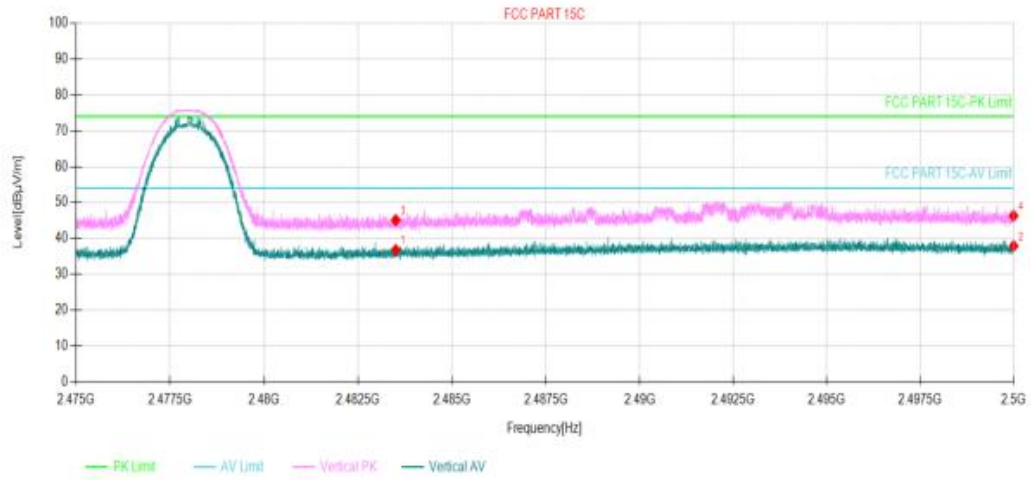
Mode1 / Polarization: Horizontal / CH: H



Suspected Data List

NO.	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Polarity	Verdict
1	2483.5	29.64	36.20	6.56	54.00	17.80	Horizontal	PASS
2	2500	30.50	37.05	6.55	54.00	16.95	Horizontal	PASS
3	2483.5	36.15	42.71	6.56	74.00	31.29	Horizontal	PASS
4	2500	37.41	43.96	6.55	74.00	30.04	Horizontal	PASS

Mode1 / Polarization: Vertical / CH: H



Suspected Data List

NO.	Freq. [MHz]	Reading [dBμV/m]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Polarity	Verdict
1	2483.5	30.21	36.77	6.56	54.00	17.23	Vertical	PASS
2	2500	31.36	37.91	6.55	54.00	16.09	Vertical	PASS
3	2483.5	38.55	45.11	6.56	74.00	28.89	Vertical	PASS
4	2500	39.76	46.31	6.55	74.00	27.69	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

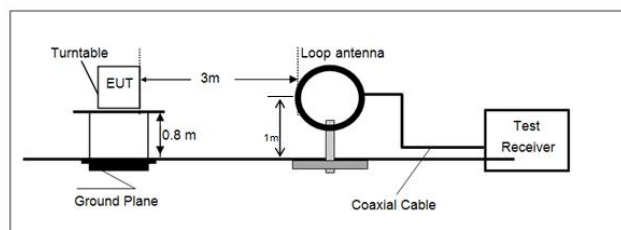
As shown in § 15.35(b), for frequencies above 1000 MHz, the field strength limits in paragraphs (a) and (b) of this section are based on average limits. However, the peak field strength of any emission shall not exceed the maximum permitted average limits specified above by more than 20 dB under any 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

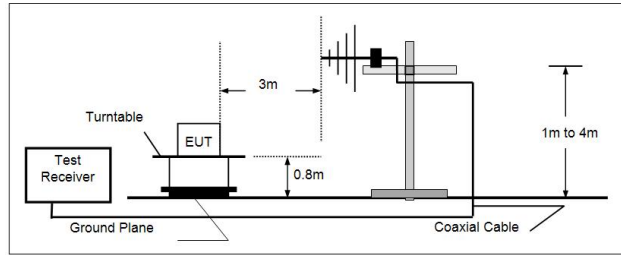
Frequency	Limit (dBuV/m @3m)	Value
30MHz~88MHz	40.00	Quasi-peak
88MHz~216MHz	43.50	Quasi-peak
216MHz~960MHz	46.00	Quasi-peak
960MHz~1GHz	54.00	Quasi-peak
Above 1GHz(Field strength of fundamental)	94.00	Average
	114.00	Peak
Above 1GHz(Field strength of harmonics)	54.00	Average
	74.00	Peak

Test configuration:

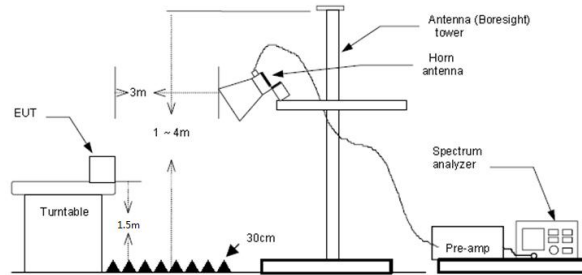
9kHz~30MHz



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.

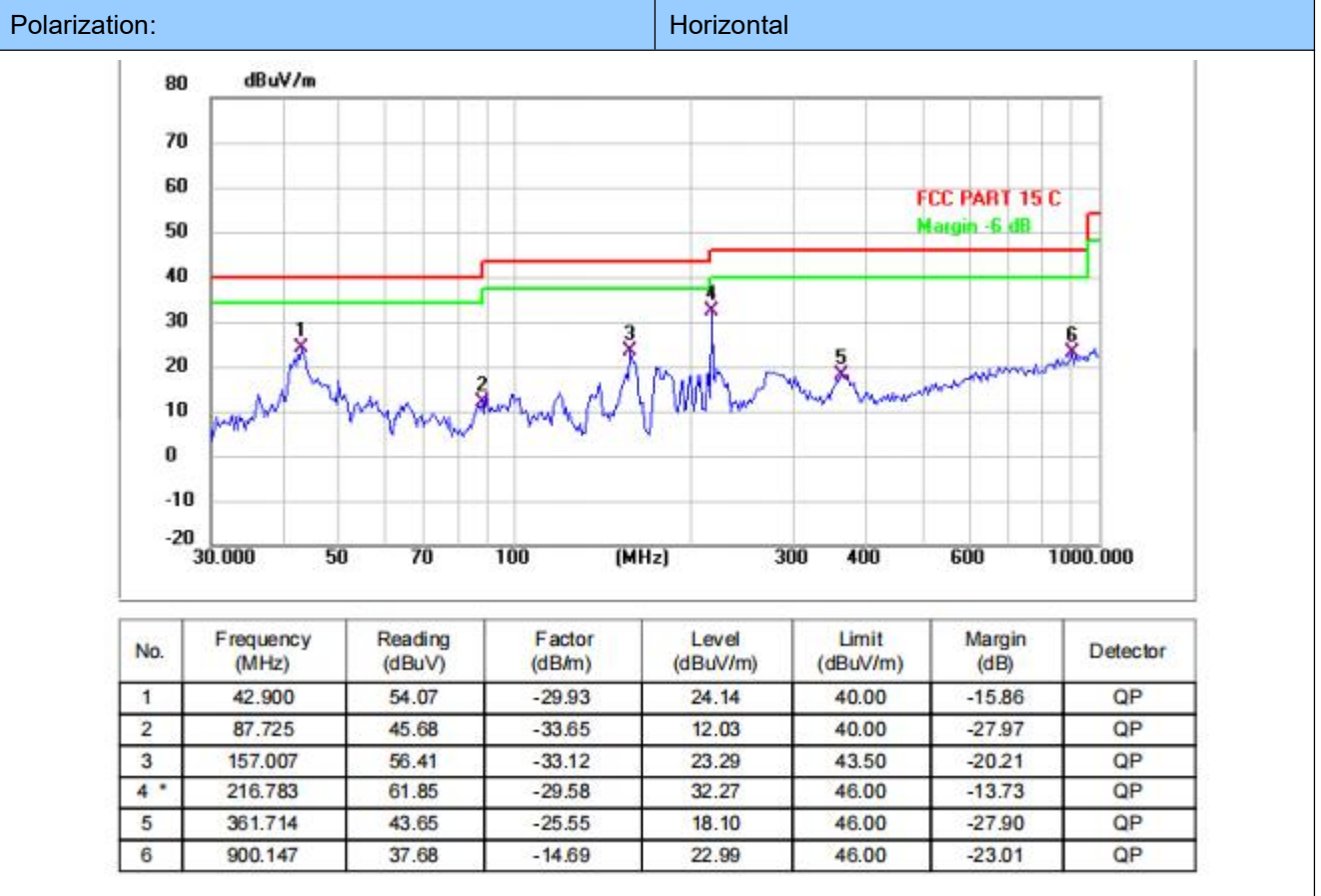
For 9 kHz ~ 30 MHz

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

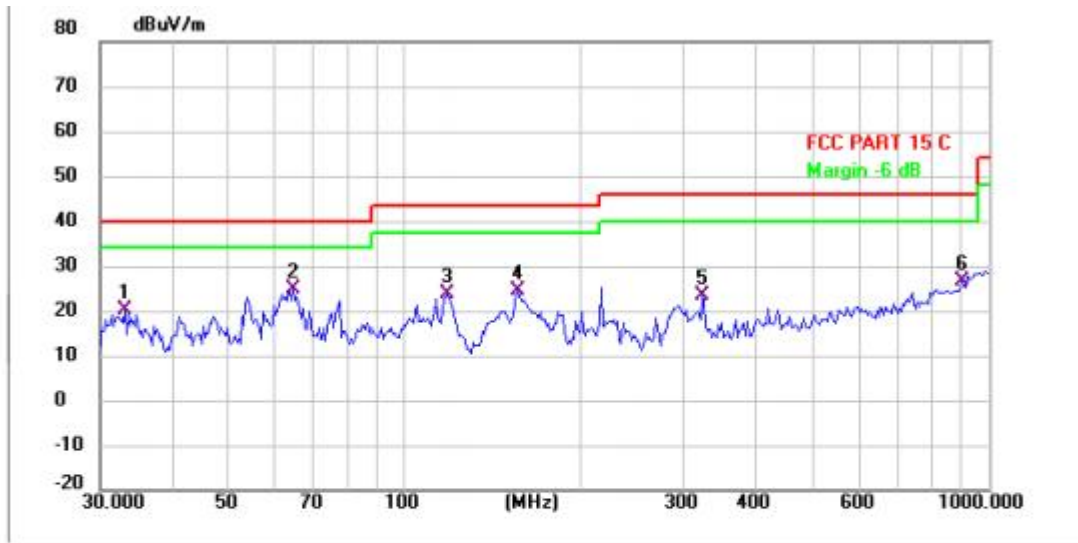
Have pre-scan all test channel, found CH1 which it was worst case, so only show the worst case's data on this report.

Model:FUN60



Polarization:

Vertical



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	33.095	51.92	-31.90	20.02	40.00	-19.98	QP
2 *	64.433	56.59	-31.60	24.99	40.00	-15.01	QP
3	117.773	55.43	-31.84	23.59	43.50	-19.91	QP
4	155.910	57.59	-33.17	24.42	43.50	-19.08	QP
5	323.320	49.86	-26.62	23.24	46.00	-22.76	QP
6	900.147	41.39	-14.69	26.70	46.00	-19.30	QP

Model:FUN60 Ultra

Polarization:

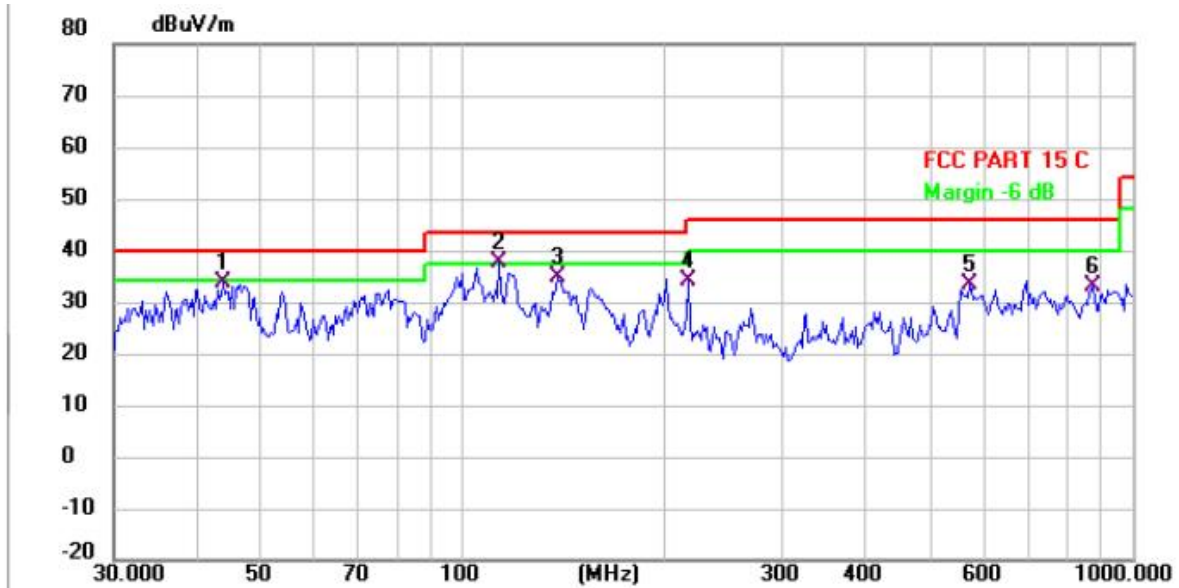
Horizontal



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	37.548	62.37	-31.31	31.06	40.00	-8.94	QP
2 *	116.949	67.19	-31.75	35.44	43.50	-8.06	QP
3	157.007	66.91	-33.12	33.79	43.50	-9.71	QP
4	232.532	59.89	-29.03	30.86	46.00	-15.14	QP
5	364.260	56.06	-25.59	30.47	46.00	-15.53	QP
6	869.130	48.33	-15.25	33.08	46.00	-12.92	QP

Polarization:

Vertical



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	43.812	63.29	-29.67	33.62	40.00	-6.38	QP
2 *	112.920	68.66	-31.08	37.58	43.50	-5.92	QP
3	138.387	68.82	-34.14	34.68	43.50	-8.82	QP
4	216.783	63.60	-29.58	34.02	46.00	-11.98	QP
5	570.610	53.34	-20.05	33.29	46.00	-12.71	QP
6	875.247	48.28	-15.19	33.09	46.00	-12.91	QP

For 1 GHz ~ 25 GHz

Test channel:2404MHz

Freq. (MHz)	Reading (dBuv)	Ant. Factor (dB/m)	Cable Factor (dB)	Pre-amplifier (dB)	Correc tion Factor (dB/m)	Level (dBuv)	Limit (dBu V/m)	Margin (dB)	Remark	Polarity
2402.00	91.68	29.18	4.02	38.35	-5.15	86.53	114	27.47	Peak	Horizontal
2402.00	80.71	29.18	4.02	38.35	-5.15	75.56	94	18.44	Average	Horizontal
2402.00	81.51	29.18	4.02	38.35	-5.15	76.36	114	37.64	Peak	Vertical
2402.00	67.41	29.18	4.02	38.35	-5.15	62.26	94	31.74	Average	Vertical
4804.00	69.17	31.33	4.23	38.62	-3.06	66.11	74	7.89	Peak	Horizontal
4804.00	51.02	31.33	4.23	38.62	-3.06	47.96	54	6.04	Average	Horizontal
4804.00	65.42	31.33	4.23	38.62	-3.06	62.36	74	11.64	Peak	Vertical
4804.00	50.48	31.33	4.23	38.62	-3.06	47.42	54	6.58	Average	Vertical

Test channel:2440MHz

Freq. (MHz)	Reading (dBuv)	Ant. Factor (dB/m)	Cable Factor (dB)	Pre-amplifier (dB)	Correc tion Factor (dB/m)	Level (dBuv)	Limit (dBu V/m)	Margin (dB)	Remark	Polarity
2440.00	92.81	29.23	4.02	38.2	-4.95	87.86	114	26.14	Peak	Horizontal
2440.00	81.37	29.23	4.02	38.2	-4.95	76.42	94	17.58	Average	Horizontal
2440.00	83.00	29.23	4.02	38.2	-4.95	78.05	114	35.95	Peak	Vertical
2440.00	68.65	29.23	4.02	38.2	-4.95	63.70	94	30.30	Average	Vertical
4880.00	70.84	30.26	4.09	38.29	-3.94	66.90	74	7.10	Peak	Horizontal
4880.00	51.98	30.26	4.09	38.29	-3.94	48.04	54	5.96	Average	Horizontal
4880.00	67.14	30.26	4.09	38.29	-3.94	63.20	74	10.80	Peak	Vertical
4880.00	51.87	30.26	4.09	38.29	-3.94	47.93	54	6.07	Average	Vertical

Test channel:2478MHz

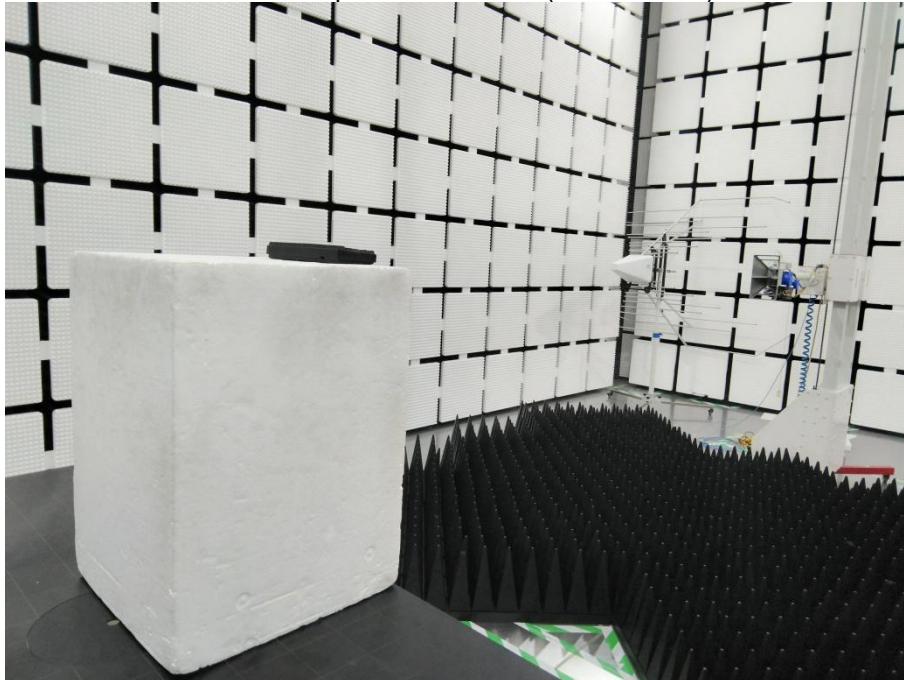
Freq. (MHz)	Reading (dBuv)	Ant. Factor (dB/m)	Cable Factor (dB)	Pre-amplifier (dB)	Correc tion Factor (dB/m)	Level (dBuv)	Limit (dBu V/m)	Margin (dB)	Remark	Polarity
2478.00	93.84	29.2	4.02	38.3	-5.08	88.76	114	25.24	Peak	Horizontal
2478.00	80.92	29.2	4.02	38.3	-5.08	75.84	94	18.16	Average	Horizontal
2478.00	82.68	29.2	4.02	38.3	-5.08	77.60	114	36.40	Peak	Vertical
2478.00	67.48	29.2	4.02	38.3	-5.08	62.40	94	31.60	Average	Vertical
4956.00	63.41	31.97	4.11	38.47	-2.39	61.02	74	12.98	Peak	Horizontal
4956.00	52.15	31.97	4.11	38.47	-2.39	49.76	54	4.24	Average	Horizontal
4956.00	66.28	31.97	4.11	38.47	-2.39	63.89	74	10.11	Peak	Vertical
4956.00	49.80	31.97	4.11	38.47	-2.39	47.41	54	6.59	Average	Vertical

6. TEST SETUP PHOTOS

Conducted Emission at AC power line



Radiated band edge emission
Radiated Spurious Emission (Above 1GHz)



Radiated Spurious Emission (below 1GHz)



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