Certificate #6613.01

EMC TEST REPORT

Applicant:	KYOCERA Corporation
Address:	Yokohama Office 2-1-1 Kagahara,Tsuzuki-ku Yokohama-shi,Kanagawa,Japan

Manufacturer or Supplier:	KYOCERA Corporation
Address:	Yokohama Office 2-1-1 Kagahara,Tsuzuki-ku Yokohama-shi,Kanagawa,Japan
Product:	Mobile Phone
Brand Name:	KYOCERA
Model Name:	EB1217
FCC ID:	JOYEB1217
Date of tests:	Oct. 21, 2024~Dec. 05, 2024

The submitted sample of the above equipment has been tested for according to the requirements of the following standards:

☐ **FCC Part 15, Subpart B, Class A**
☒ **FCC Part 15, Subpart B, Class B**
☒ **ANSI C63.4:2014**

CONCLUSION: The submitted sample was found to COMPLY with the test requirement

Prepared by Hanwen Xu Engineer / Mobile Department	Approved by Peibo Sun Manager / Mobile Department
Date: Dec. 05, 2024	Date: Dec. 05, 2024

This report is governed by, and incorporates by reference, the Conditions of Testing as posted at the date of issuance of this report at http://www.bureauveritas.com/home/about-us/our-business/cps/about-us/terms-conditions/ and is intended for your exclusive use. Any copying or replication of this report to or for any other person or entity, or use of our name or trademark, is permitted only with our prior written permission. This report sets forth our findings solely with respect to the test samples identified herein. The results set forth in this report are not indicative or representative of the quality or characteristics of the lot from which a test sample was taken or any similar or identical product unless specifically and expressly noted. Our report includes all of the tests requested by you and the results thereof based upon the information that you provided to us. Measurement uncertainty is only provided upon request for accredited tests. Statements of conformity are based on simple acceptance criteria without taking measurement uncertainty into account, unless otherwise requested in writing. You have 60 days from date of issuance of this report to notify us of any material error or omission caused by our negligence or if you require measurement uncertainty; provided, however, that such notice shall be in writing and shall specifically address the issue you wish to raise. A failure to raise such issue within the prescribed time shall constitute your unqualified acceptance of the completeness of this report, the tests conducted and the correctness of the report contents.

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3 APPENDIX A – MODIFICATIONS RECORDERS FOR ENGINEERING CHANGES TO THE EUT BY THE LAB 26

RELEASE CONTROL RECORD

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
PSU-QBJ2409140110EM03	Original release	Dec. 05, 2024

1 GENERAL INFORMATION

1.1 GENERAL DESCRIPTION OF EUT

PRODUCT*	Mobile Phone	
BRAND NAME*	KYOCERA	
MODEL NAME*	EB1217	
NOMINAL VOLTAGE*	3.91Vdc (Battery)	
MODULATION TYPE*	**BT_LE**	GFSK
	Bluetooth	GFSK, π/4-DQPSK, 8DPSK
	FM	FM
	NFC	ASK
	WLAN	DSSS, OFDM
	GPS/GALILEO/ GLONASS/BDS	BPSK
	GSM/GPRS/EDGE	GMSK, 8PSK
	WCDMA	QPSK/16QAM
	LTE	QPSK/16QAM/64QAM
OPERATING FREQUENCY*	**Bluetooth/BT_LE**	2402MHz ~ 2480MHz
	FM	87.5MHz ~ 108MHz
	NFC	13.56 MHz
	WLAN	2412 ~ 2462MHz for 11b/g/n(HT20/40) 5180 ~ 5240MHz, 5260 ~ 5320 MHz, 5500 ~ 5720MHz for 11a/ n(HT20)/ n(HT40) / ac(VHT20)/ ac(VHT40) / ac(VHT80)
	GPS/GALILEO/ GLONASS/BDS	1559MHz ~ 1610MHz
	GSM	824.2MHz ~ 848.8MHz (FOR GSM 850) 1850.2MHz ~ 1909.8MHz (FOR GSM 1900)

OPERATING FREQUENCY	**WCDMA**	1852.4MHz ~ 1907.6MHz(FOR WCDMA Band 2) 1712.4MHz ~ 1752.6MHz(FOR WCDMA Band 4) 826.4MHz ~ 846.6MHz (FOR WCDMA Band 5)
	LTE	699.7MHz ~ 715.3MHz (FOR LTE Band12) 2498.5MHz ~2687.5MHz (FOR LTE Band41) 3452.5MHz ~3547.5MHz (FOR LTE Band42)(Part 27) CA_41C CA_42C
HW VERSION*	DVT2	
SW VERSION*	0.330SR	
I/O PORTS*	Refer to user's manual	
CABLE SUPPLIED*	N/A	
ACCESSORY DEVICES*	Refer to note as below	

NOTE:

1. ***Since the above data and/or information is provided by the client relevant results or conclusions of this report are only made for these data and/or information, Test Lab is not responsible for the authenticity, integrity and results of the data and information and/or the validity of the conclusion.

2. For a more detailed features description, please refer to the manufacturer's specifications or the user's manual.

3. For the test results, the EUT had been tested with all conditions. But only the worst case was shown in the test report.

4. The detail differences from the Main manufacturer and Secondary manufacturer are as listed below:

Description	Main manufacturer	Secondary manufacturer
LCM	ShenZhen LIDE Communications Ltd.	Wannian Lianchuang Display Technology Co. , Ltd.
Audio jack FPC	Shenzhen Xinyu Tengyue Electronics Co.,Ltd.	Jiangxi Zhiboxin Technology Limited Company
MIC	AAC	Gettop
Memory	Samsung	Biwin
Radio frequency switch_DFN-6_0.4-4.2	Innowave	Champhill

GHz_SPDT_GPIO_patch		

The above materials have only manufacturer differences, and the functions are the same.Other than these changes, other RF performance is the same and does not affect the RF results.

5. **List of Accessory:**

ACCESSORIES	BRAND	MODEL	SPECIFICATION
CPU	MTK	MT6835T	N/A
eMMC 1 (=ROM 1)	samsung	KM5P9001DM-B424	N/A
eMMC 2 (=ROM 2)	biwin	BW2A2KZC02-64G	N/A
RAM 1	samsun	KM5P9001DM-B424	N/A
RAM 2	biwin	BW2A2KZC02-64G	N/A
Battery	KYOCERA	5AAXBT152	Capacity：3.91Vdc, 4400mAh/17.3Wh

1.2 SUMMARY OF TEST RESULTS

The EUT has been tested according to the following specifications:

APPLIED STANDARD: FCC Part 15, Subpart B			
Standard Section	**Test Item**	**Result**	**Test lab***
FCC Part 15, Subpart B, Class B ANSI C63.4:2014	Conducted Test	Compliance	A
	Radiated Emission Test (30MHz ~ 1GHz)	Compliance	A
	Radiated Emission Test (Above 1GHz)	Compliance	A

***Test Lab Information Reference**

Lab A:

Huarui 7Layers High Technology (Suzhou) Co., Ltd.

Lab Address:

Tower N, Innovation Center, 88 Zuyi Road, High-tech District, Suzhou City, Anhui Province

Accredited Test Lab Cert 6613.01

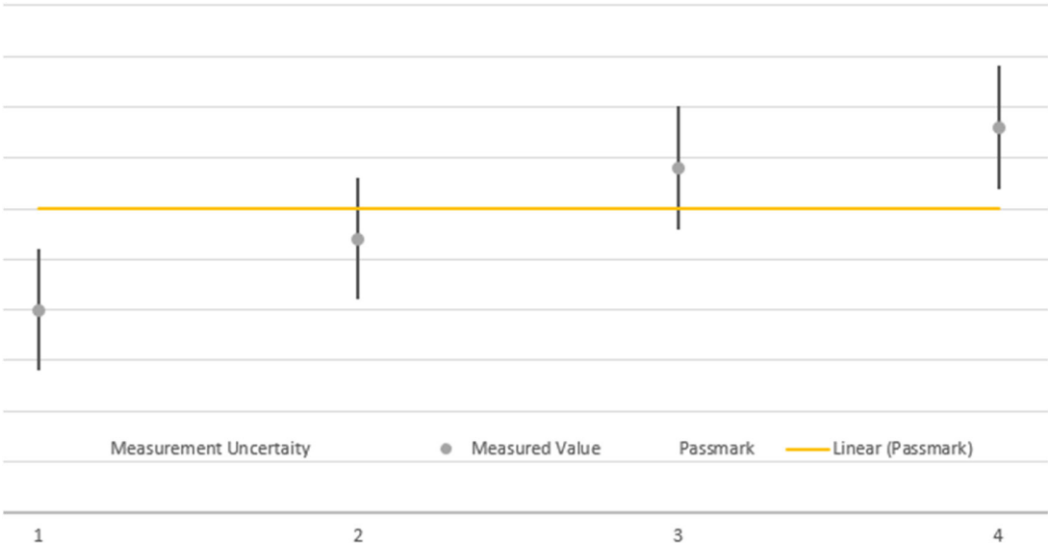
The FCC Site Registration No. is 434559; The Designation No. is CN1325.

1.3 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:

This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.

MEASUREMENT	FREQUENCY	UNCERTAINTY
Conducted emissions	150kHz ~ 30MHz	±2.70dB
Radiated emissions	30MHz~1GHz	±4.98dB
	1GHz ~6GHz	±4.70dB
	6GHz ~18GHz	±4.60dB
	18GHz ~40GHz	±4.12dB



The verdicts in this test report are given according the above diagram:

Case	Measured Value	Uncertainty Range	Verdict
1	below pass mark	below pass mark	Passed
2	below pass mark	within pass mark	Passed
3	above pass mark	within pass mark	Failed
4	above pass mark	above pass mark	Failed

That means, the laboratory applies, as decision rule (see ISO/IEC 17025:2017), the so-called shared risk principle.

1.4 DESCRIPTION OF TEST MODES

Test Mode	Test Condition
Radiated emission test	
1	GSM850 Idle + Adapter + USB cable + BT Idle + WIFI Idle (2.4G) + Front Camera On + SIM + sample1 + SD + earphone + GPS Rx
2	WCDMA B5 Idle + Adapter + USB cable + BT Idle + WIFI Idle (5G) + Back Camera On + SIM + sample1 + SD + earphone + Glonass Rx
3	LTE B12 Idle + Adapter + USB cable + BT Idle + WIFI Idle (2.4G) + flashlight on + SIM + sample1 + SD + earphone + BDS Rx
4	GSM850 Idle + Adapter + USB cable + BT Idle + WIFI Idle (5G) + MPG4 + SIM + sample1 + SD + earphone + Galileo Rx
5	WCDMA B5 Idle + Adapter + USB cable + BT Idle + WIFI Idle (2.4G) + NFC + SIM + sample1 + SD + earphone + GPS Rx
6	LTE B12 Idle + Adapter + USB cable + BT Idle + WIFI Idle (5G) + FM + SIM + sample1 + SD + earphone + Glonass Rx
7	GSM850 Idle + USB Link + Data Transmission + BT Idle + WIFI Idle (2.4G) + Notebook to EUT + SIM + sample1 + SD + earphone
8	WCDMA B5 Idle + USB Link + Data Transmission + BT Idle + WIFI Idle (5G) + SD to Notebook + SIM + sample1 + SD + earphone
9	Powered by battery + BT Idle + WIFI Idle (2.4G) + SIM + sample1 + SD
10	worse of 1~9 + sample2

Test Mode	Test Condition
Conducted emission test	
1	GSM850 Idle + Adapter + USB cable + BT Idle + WIFI Idle (2.4G) + Front Camera On + SIM + sample1 + SD + earphone + GPS
2	WCDMA B5 Idle + Adapter + USB cable + BT Idle + WIFI Idle (5G) + Back Camera On + SIM + sample1 + SD + earphone + Glonass Rx
3	LTE B12 Idle + Adapter + USB cable + BT Idle + WIFI Idle (2.4G) + flashlight on + SIM + sample1 + SD + earphone + BDS Rx
4	GSM850 Idle + Adapter + USB cable + BT Idle + WIFI Idle (5G) + MPG4 + SIM + sample1 + SD + earphone + Galileo Rx
5	WCDMA B5 Idle + Adapter + USB cable + BT Idle + WIFI Idle (2.4G) + NFC + SIM + sample1 + SD + earphone + GPS Rx
6	LTE B12 Idle + Adapter + USB cable + BT Idle + WIFI Idle (5G) + FM + SIM + sample1 + SD + earphone + Glonass Rx
7	GSM850 Idle + USB Link + Data Transmission + BT Idle + WIFI Idle (2.4G) + Notebook to EUT + SIM + sample1 + SD + earphone
8	WCDMA B5 Idle + USB Link + Data Transmission + BT Idle + WIFI Idle (5G) + SD to Notebook + SIM + sample1 + SD + earphone
9	worse of 1~8 + sample2

NOTE:

1. For radiated emission test, test mode 8 was the verification case and only this mode was presented in this report
2. For conducted emission test, test mode 8 was the verification case and only this mode was presented in this report

1.5 DESCRIPTION OF SUPPORT UNITS

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

FOR All TESTS

NO.	PRODUCT	BRAND	MODEL NO.	SERIAL NO.	FCC ID
1	Laptop	Lenovo	Thinkpad E14	SL10W47313	N/A
2	Micro SD	SAM SUNG	N/A	N/A	N/A
3	Universal radio communication tester	Rohde&Schwarz	CMW500	169399	N/A
4	WIFI Router	HUAWEI	N/A	N/A	N/A
5	Adapter	N/A	N/A	N/A	N/A
6	USB Cable	N/A	N/A	N/A	N/A
7	Earphone	N/A	N/A	N/A	N/A

NO.	SIGNAL CABLE DESCRIPTION OF THE ABOVE SUPPORT UNITS
1	USB Line: Shielded, Detachable 1m;

2 EMISSION TEST

2.1 CONDUCTED EMISSION MEASUREMENT

2.1.1 LIMITS OF CONDUCTED EMISSION MEASUREMENT

TEST STANDARD: FCC Part 15, Subpart B (Section: 15.107 a CLASS B)

FREQUENCY OF EMISSION (MHz)	CONDUCTED LIMIT (dBμV)	
	Quasi-peak	Average
0.15 ~ 0.5	66 to 56	56 to 46
0.5 ~ 5	56	46
5 ~ 30	60	50

TEST STANDARD: FCC Part 15, Subpart B (Section: 15.107 b CLASS A)

FREQUENCY OF EMISSION (MHz)	CONDUCTED LIMIT (dBμV)	
	Quasi-peak	Average
0.15 ~ 0.5	79	66
0.5 ~ 30	73	60

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 0.15 to 0.50MHz.

3. All emanations from a class A/B digital device or system, including any network of conductors and apparatus connected thereto, shall not exceed the level of field strengths specified above.

2.1.2 TEST INSTRUMENTS

Instrument	Manufacturer	Model No.	Serial No.	Calibration Date	Due Date
WIDEBANDRADIO COMMUNICATION TESTER	Rohde&Schwarz	CMW500	169399	Jun.19,24	Jun.18,26
EMI Test Receiver	Rohde&Schwarz	ESR3	102749	Mar.28,24	Mar.27,26
ELEKTRA test software	Rohde&Schwarz	ELEKTRA	NA	N/A	N/A
LISN network	Rohde&Schwarz	ENV216	102640	Mar.28,24	Mar.27,26
CABLE	Rohde&Schwarz	W61.01	N/A	Apr.27,24	Apr.26,25
CABLE	Rohde&Schwarz	W601	N/A	Apr.27,24	Apr.26,25

NOTE: 1. The test was performed in CE shielded room.

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2.1.3 TEST PROCEDURES

a. The EUT was placed 0.4 meters from the conducting wall of the shielded room with EUT being connected to the power mains through a line impedance stabilization network (LISN). Other support units were connected to the power mains through another LISN. The two LISNs provide 50 ohm/ 50uH of coupling impedance for the measuring instrument.

b. Both lines of the power mains connected to the EUT were checked for maximum conducted interference.

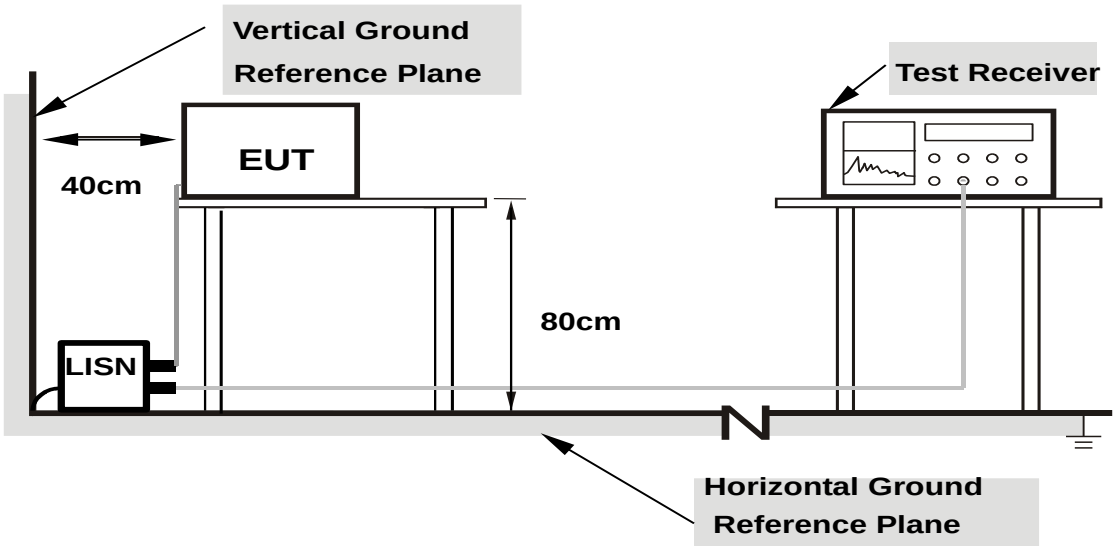
c. The frequency range from 150 kHz to 30MHz was searched. Emission levels under (Limit - 20dB) were not recorded.

NOTE: All modes of operation were investigated and the worst-case emissions are reported.

2.1.4 DEVIATION FROM TEST STANDARD

No deviation.

2.1.5 TEST SETUP



Note: 1.Support units were connected to second LISN.
2.Both of LISNs (AMN) are 80 cm from EUT and at least 80 from other units and other metal planes

For the actual test configuration, please refer to the attached file (Test Setup Photo).

2.1.6 EUT OPERATING CONDITIONS

a. Turned on the power and connected of all equipment.
b. EUT was operated according to the use type described in the manufacturer's specifications or the user's manual.

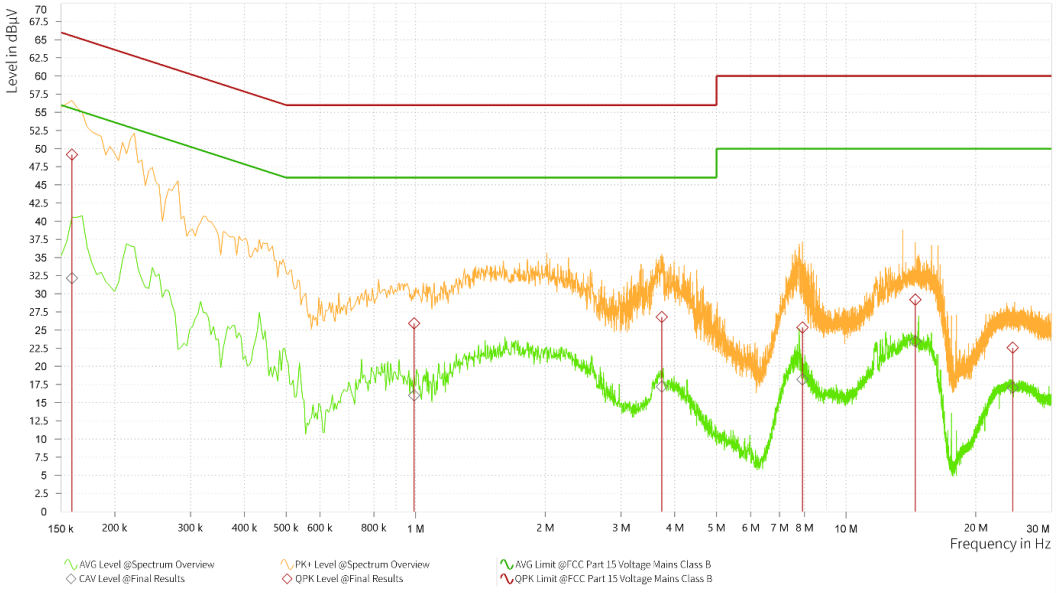
2.1.7 TEST RESULTS

Worst case data:

TEST VOLTAGE	Input 120 Vac, 60 Hz	**Detector Function & Resolution Bandwidth**	Quasi-Peak (QP) / Average (AV), 9 kHz
ENVIRONMENTAL CONDITIONS	26deg. C, 51%RH	**TESTED BY**	Hanwen Xu

Rg	Frequency [MHz]	QPK Level [dBµV]	QPK Limit [dBµV]	QPK Margin [dB]	CAV Level [dBµV]	CAV: AVG Limit [dBµV]	CAV Margin [dB]	Correction [dB]	Line	Meas. BW [kHz]
1	0.159	49.17	65.52	16.35	32.14	55.52	23.38	12.47	L1	9.000
1	0.992	25.92	56.00	30.08	16.00	46.00	30.00	11.74	L1	9.000
1	3.732	26.81	56.00	29.19	17.19	46.00	28.81	11.78	L1	9.000
1	7.917	25.36	60.00	34.64	18.19	50.00	31.81	11.81	L1	9.000
1	14.483	29.20	60.00	30.80	23.47	50.00	26.53	11.84	L1	9.000
1	24.401	22.59	60.00	37.41	17.07	50.00	32.93	11.89	L1	9.000

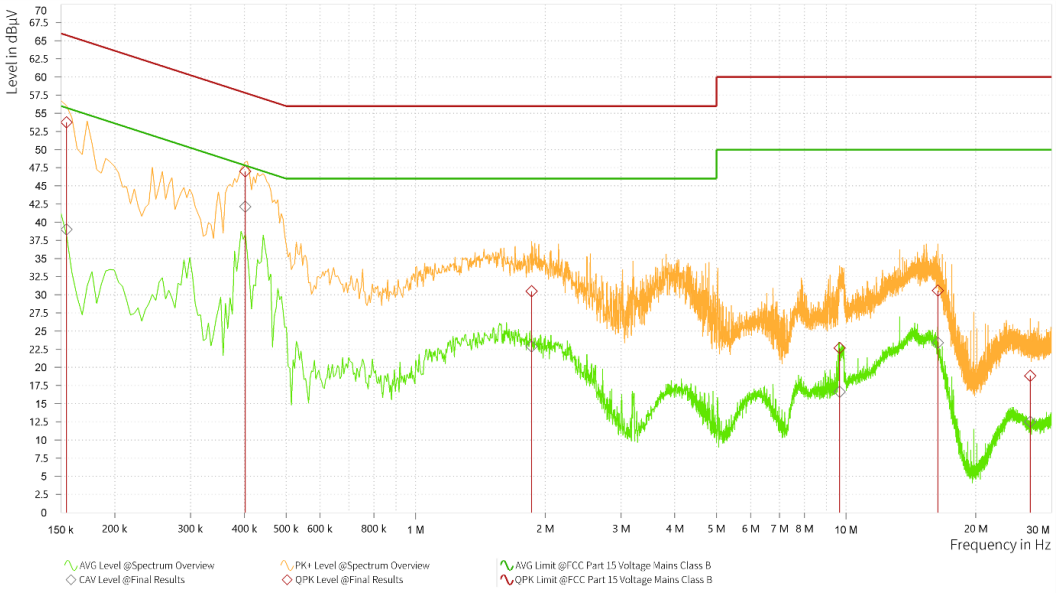
REMARKS: 1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. The emission levels of other frequencies were very low against the limit.
3. Margin value = Limit value- Emission level
4. Correction factor = Insertion loss + Cable loss + Attenuate
5. Emission Level = Correction Factor + Reading Value.



TEST VOLTAGE	Input 120 Vac, 60 Hz	**Detector Function & Resolution Bandwidth**	Quasi-Peak (QP) / Average (AV), 9 kHz
ENVIRONMENTAL CONDITIONS	26deg. C, 51%RH	**TESTED BY**	Hanwen Xu

Rg	Frequency [MHz]	QPK Level [dBµV]	QPK Limit [dBµV]	QPK Margin [dB]	CAV Level [dBµV]	CAV: AVG Limit [dBµV]	CAV Margin [dB]	Correction [dB]	Line	Meas. BW [kHz]
1	0.155	53.76	65.75	11.99	38.99	55.75	16.76	12.15	N	9.000
1	0.402	46.99	57.81	10.82	42.15	47.81	5.66	12.82	N	9.000
1	1.860	30.48	56.00	25.52	22.88	46.00	23.12	12.74	N	9.000
1	9.663	22.67	60.00	37.33	16.62	50.00	33.38	12.79	N	9.000
1	16.341	30.58	60.00	29.42	23.38	50.00	26.62	12.83	N	9.000
1	26.772	18.84	60.00	41.16	12.49	50.00	37.51	12.88	N	9.000

REMARKS: 1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. The emission levels of other frequencies were very low against the limit.
3. Margin value = Limit value- Emission level
4. Correction factor = Insertion loss + Cable loss + Attenuate
5. Emission Level = Correction Factor + Reading Value.



2.2 RADIATED EMISSION MEASUREMENT

2.2.1 LIMITS OF RADIATED EMISSION MEASUREMENT

TEST STANDARD: FCC Part 15, Subpart B (Section: 15.109)

Emissions radiated outside of the specified bands, shall be according to the general radiated limits as following:

Radiated Emissions Limits at 3 meters (dBμV/m)		
Frequencies (MHz)	**FCC 15B Class A**	**FCC 15B Class B**
30-88	49	40
88-216	53.5	43.5
216-960	56	46
960-1000	59.5	54
Above 1000	Avg: 59.5 Peak: 79.5	Avg: 54 Peak: 74

Frequency Range (For unintentional radiators)

Highest frequency generated or used in the device or on which the device operates or tunes (MHz)	Upper frequency of measurement range (MHz)
Below 1.705	30
1.705-108	1000
108-500	2000
500-1000	5000
Above 1000	5^{th} harmonic of the highest frequency or 40GHz, whichever is lower

NOTE: 1. The lower limit shall apply at the transition frequencies.
2. Emission level (dBuV/m) = 20 log Emission level (uV/m).
3. As shown in 15.35(b), for frequencies above 1000MHz, the field strength limits are based on average detector, however, the peak field strength of any emission shall not exceed the maximum permitted average limits, specified above by more than 20dB under any condition of modulation.
4. QP detector shall be applied if not specified.

2.2.2 TEST INSTRUMENTS

Frequency range below 1GHz

Instrument	Manufacturer	Model No.	Serial No.	Calibration Date	Due Date
WIDEBANDRADIO COMMUNICATION TESTER	Rohde&Schwarz	CMW500	169399	Jun.19,24	Jun.18,26
3m Semi-anechoic Chamber	TDK	9m*6m*6m	HRSW-SZ-EMC-02Chamber	Nov.24,22	Nov.23,25
Bilog Antenna	SCHWARZBECK	VULB 9163	1264	Dec.26,23	Dec.25,25
EMI Test Receiver	R&S	ESW44	101973	Mar.28,24	Mar.27,26
Measurement Software	R&S	ELEKTRA	N/A	N/A	N/A
6DB attenuator	Tonscend Technology Co., Ltd	N/A	23062787	N/A	N/A
Pre-Amplifier	R&S	SCU08F1	101028	Jan.22,24	Jan.21,26
CABLE	R&S	W13.01	N/A	Apr.27,24	Apr.26,25
CABLE	R&S	W13.02	N/A	Apr.27,24	Apr.26,25
CABLE	R&S	W12.14	N/A	Apr.27,24	Apr.26,25

Frequency range above 1GHz

Instrument	Manufacturer	Model No.	Serial No.	Calibration Date	Due Date
WIDEBANDRADIO COMMUNICATION TESTER	Rohde&Schwarz	CMW500	169399	Jun.19,24	Jun.18,26
3m Fully-anechoic Chamber	TDK	9m*6m*6m	HRSW-SZ-EMC-01Chamber	Nov.24,22	Nov.23,25
Horn Antenna	ETS-LINDGREN	3117	227836	Aug.21,24	Aug.20,26
EMI Test Receiver	R&S	ESW44	101973	Mar.28,24	Mar.27,26
Pre-Amplifier	R&S	SCU08F1	101028	Jan.22,24	Jan.21,26
Measurement Software	R&S	ELEKTRA	N/A	N/A	N/A
CABLE	R&S	W13.01	N/A	Apr.27,24	Apr.26,25
CABLE	R&S	W13.02	N/A	Apr.27,24	Apr.26,25

NOTE: 1. The calibration interval of the above test instruments is 12 / 24 /36 months and the calibrations are traceable to CEPREI/CHINA, GRGT/CHINA and NIM/CHINA.

2. The test was performed in 3m Chamber.

2.2.3 TEST PROCEDURE

<Frequency Range below 1GHz>

The basic test procedure was in accordance with ANSI C63.4:2014 (section 12).

a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter semi-anechoic chamber room. The table was rotated 360 degrees to determine the position of the highest radiation.

b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.

c. The height of antenna is varied from 1 meter to 4 meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.

d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.

e. The test-receiver system was set to quasi-peak detect function and specified bandwidth with maximum hold mode when the test frequency is below 1GHz.

NOTE:

1. The resolution bandwidth of test receiver/spectrum analyzer is 120kHz for Quasi-peak detection (QP) at frequency below 1GHz.
2. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB/m)
3. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB) (if the raw value not contains the amplifier);
4. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB) – Amplifier Gain(dB) (if the raw value contains the amplifier).
5. Margin value = Limit value -Emission level.

<Frequency Range above 1GHz>

a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter fully-anechoic chamber room. The table was rotated 360 degrees to determine the position of the highest radiation.

b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.

c. The height of antenna is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement. The bore sight should be used during the test above 1GHz.

d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.

e. The test-receiver system was set to peak and average detect function and specified bandwidth with maximum hold mode when the test frequency is above 1 GHz

NOTE:

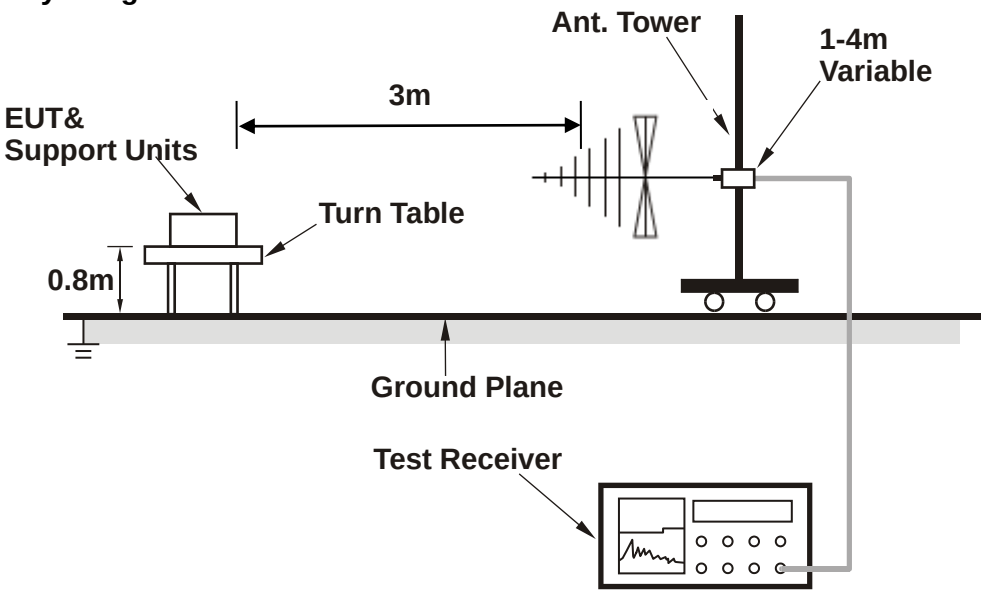
1. The resolution bandwidth of test receiver/spectrum analyzer is 120kHz for Quasi-peak detection (QP) at frequency below 1GHz.
2. The resolution bandwidth is 1MHz and video bandwidth of test receiver/spectrum analyzer is 3MHz for Peak detection at frequency above 1GHz. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and video bandwidth of test receiver/spectrum analyzer is 1Hz for Average detection (AV) at frequency above 1GHz.
3. For measurement of frequency above 1000 MHz, the EUT was set 3 meters away from the receiver antenna.
4. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB/m)
5. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB) (if the raw value not contains the amplifier);
6. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB) – Amplifier Gain(dB) (if the raw value contains the amplifier)
7. Margin value = Limit value- Emission level.

2.2.4 DEVIATION FROM TEST STANDARD

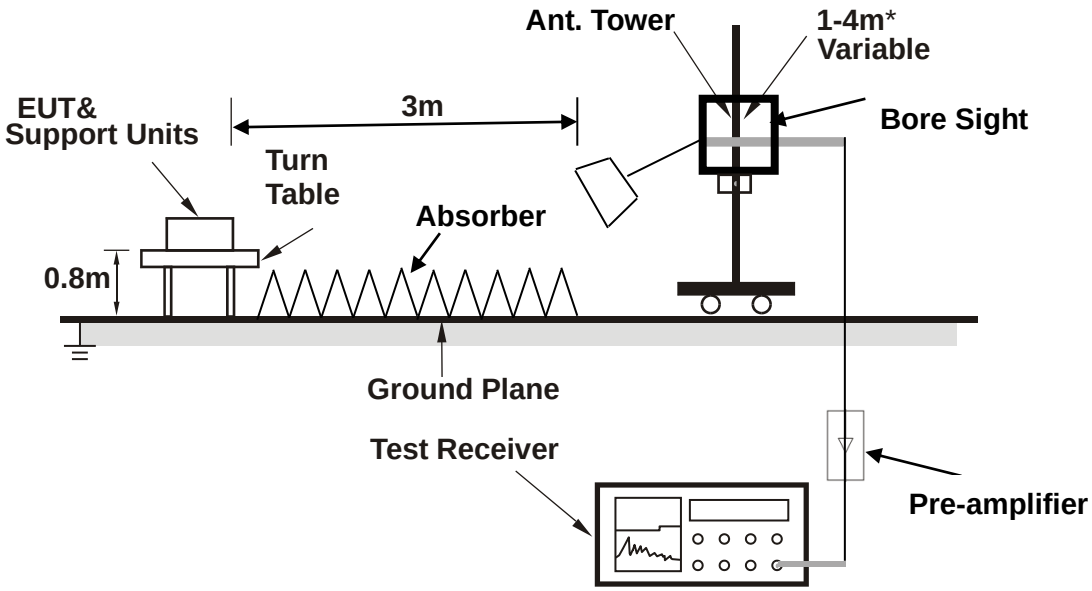
No deviation.

2.2.5 TEST SETUP

<Frequency Range below 1GHz>



<Frequency Range above 1GHz>



Note: Above 1G is a directional antenna

depends on the EUT height and the antenna 3dB bandwidth both, refer to section 7.3 of CISPR 16-2-3.

2.2.6 EUT OPERATING CONDITIONS

Same as item 2.1.6.

2.2.7 TEST RESULTS

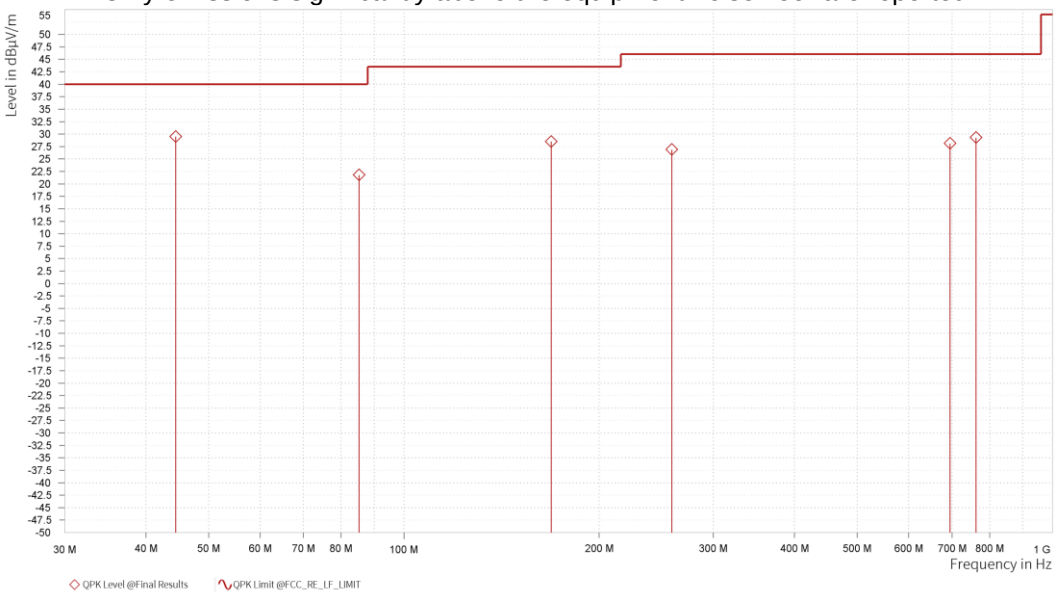
Worst case:

TEST VOLTAGE	Input 120 Vac, 60 Hz	**FREQUENCY RANGE**	30-1000 MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70%RH	**DETECTOR FUNCTION & RESOLUTION BANDWIDTH**	Quasi-Peak, 120 kHz
TESTED BY	Hanwen Xu		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

Rg	Frequency [MHz]	QPK Level [dBµV/m]	QPK Limit [dBµV/m]	QPK Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]	Meas. BW [kHz]
1	44.496	29.51	40.00	10.49	-3.81	H	1	1.00	120.000
1	85.290	21.77	40.00	18.23	-9.62	H	311.2	1.00	120.000
1	168.656	28.50	43.50	15.00	-8.21	H	311.2	1.00	120.000
1	258.758	26.89	46.00	19.11	-2.52	H	75.8	1.00	120.000
1	695.151	28.13	46.00	17.87	3.83	H	232.3	1.00	120.000
1	762.512	29.31	46.00	16.69	5.30	H	154.6	1.00	120.000

REMARKS:
1. Peak detector quick scan is shown on the graph and final quasi-peak detector data is measured corresponding to relevant limit and recorded in the data table.
2. Negative sign (-) in the margin column signify levels below the limit.
3. Frequency range scanned: 30MHz to 1000MHz.
4. Only emissions significantly above the equipment noise floor are reported.

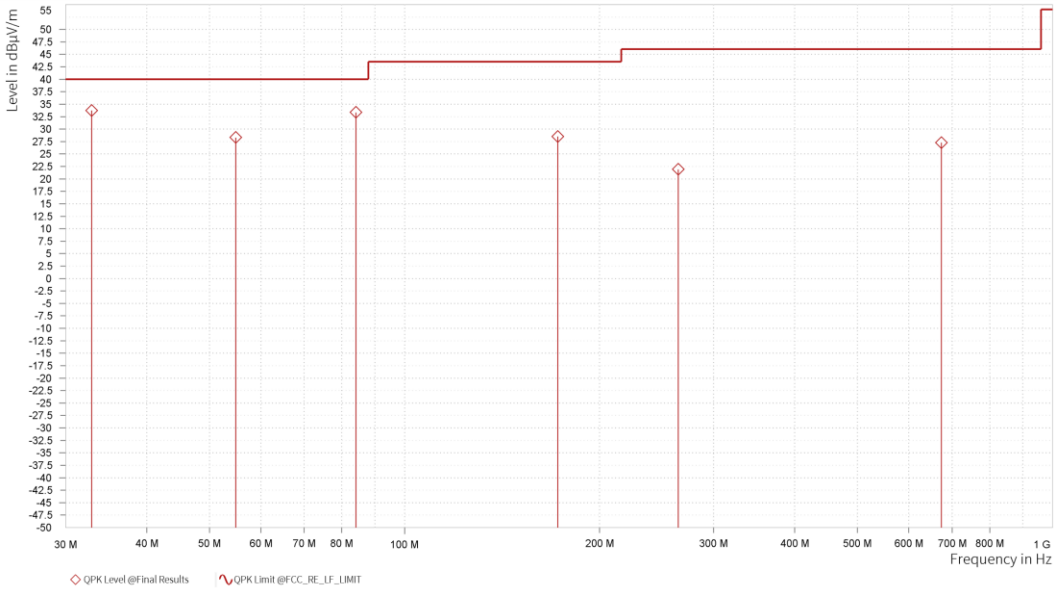


TEST VOLTAGE	Input 120 Vac, 60 Hz	**FREQUENCY RANGE**	30-1000 MHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70 %RH	**DETECTOR FUNCTION & RESOLUTION BANDWIDTH**	Quasi-Peak, 120 kHz
TESTED BY	Hanwen Xu		

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

Rg	Frequency [MHz]	QPK Level [dBµV/m]	QPK Limit [dBµV/m]	QPK Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]	Meas. BW [kHz]
1	32.910	33.72	40.00	6.28	-8.63	V	231.2	1.00	120.000
1	54.897	28.29	40.00	11.71	-5.77	V	231.2	1.00	120.000
1	84.158	33.33	40.00	6.67	-9.09	V	231.2	1.00	120.000
1	172.428	28.49	43.50	15.01	-7.63	V	231.2	1.00	120.000
1	264.471	21.90	46.00	24.10	-2.90	V	5	1.00	120.000
1	673.757	27.28	46.00	18.72	2.83	V	74.6	1.00	120.000

REMARKS:
1. Peak detector quick scan is shown on the graph and final quasi-peak detector data is measured corresponding to relevant limit and recorded in the data table.
2. Negative sign (-) in the margin column signify levels below the limit.
3. Frequency range scanned: 30MHz to 1000MHz.
4. Only emissions significantly above the equipment noise floor are reported.

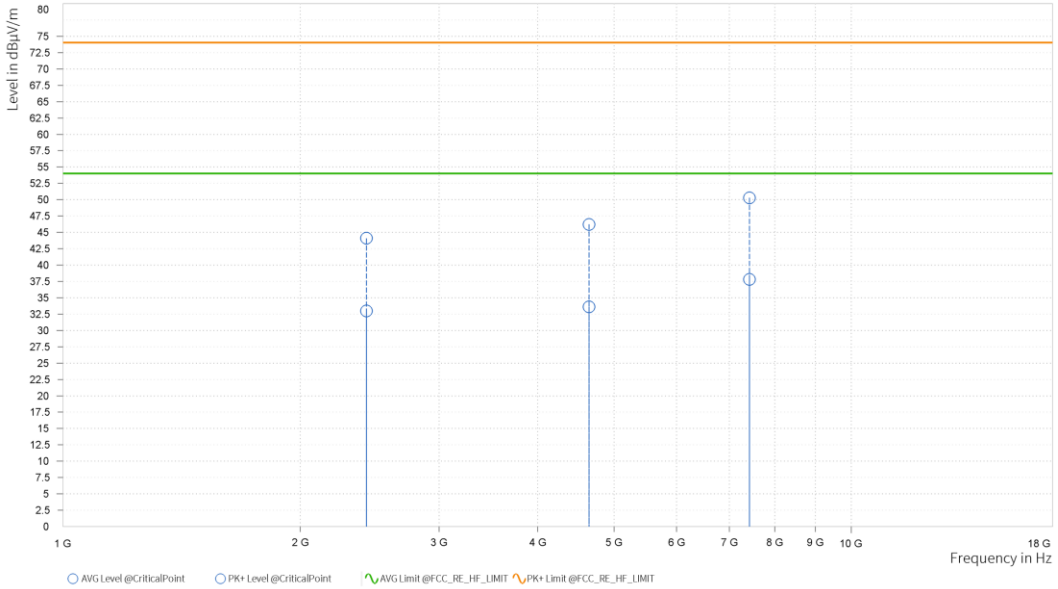


TEST VOLTAGE	Input 120 Vac, 60 Hz	**FREQUENCY RANGE**	1-18 GHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70 %RH	**DETECTOR FUNCTION & RESOLUTION BANDWIDTH**	Peak/Average, 1 MHz
TESTED BY	Hanwen Xu		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

Rg	Frequency [MHz]	PK+ Level [dBµV/m]	PK+ Limit [dBµV/m]	PK+ Margin [dB]	AVG Level [dBµV/m]	AVG Limit [dBµV/m]	AVG Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
1	2,426.000	44.09	74.00	29.91	33.00	54.00	21.00	5.94	H	1	1.00
1	4,648.000	46.23	74.00	27.77	33.60	54.00	20.40	9.86	H	54.7	2.00
1	7,424.000	50.29	74.00	23.71	37.80	54.00	16.20	14.22	H	355.8	2.00

REMARKS:
1. Peak detector quick scan is shown on the graph and final quasi-peak detector data is measured corresponding to relevant limit and recorded in the data table.
2. Negative sign (-) in the margin column signify levels below the limit.
3. Frequency range scanned: 1GHz to 5th harmonic of the highest frequency or 40GHz, whichever is lower. For frequency above 18GHz, the emission was tested 20db below the limit so the data not recorded in the sheet.
4. Only emissions significantly above the equipment noise floor are reported.

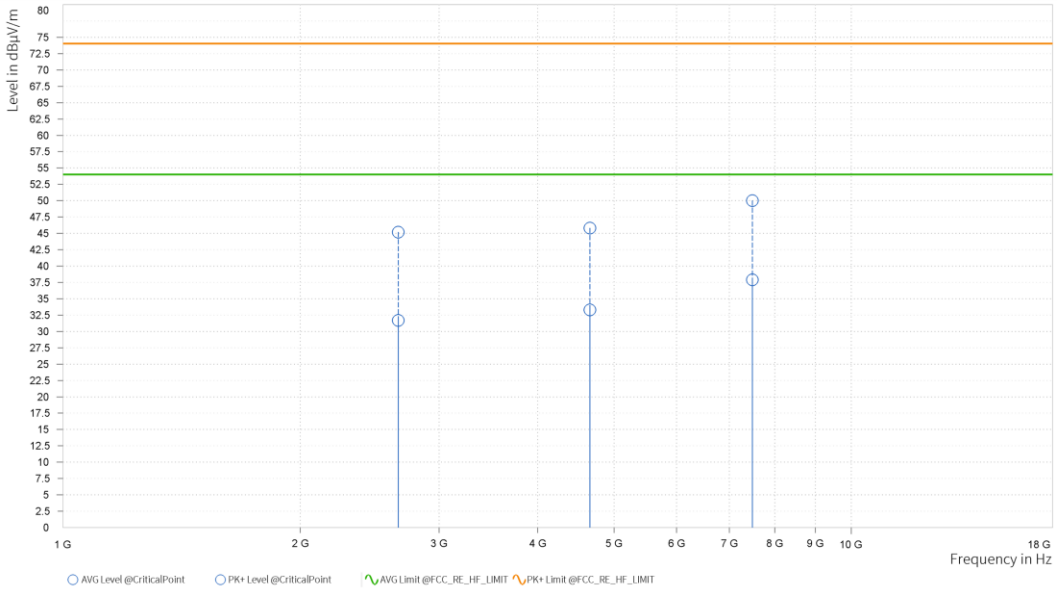


TEST VOLTAGE	Input 120 Vac, 60 Hz	**FREQUENCY RANGE**	1-18 GHz
ENVIRONMENTAL CONDITIONS	23deg. C, 70 %RH	**DETECTOR FUNCTION & RESOLUTION BANDWIDTH**	Peak/Average, 1 MHz
TESTED BY	Hanwen Xu		

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

Rg	Frequency [MHz]	PK+ Level [dBµV/m]	PK+ Limit [dBµV/m]	PK+ Margin [dB]	AVG Level [dBµV/m]	AVG Limit [dBµV/m]	AVG Margin [dB]	Correction [dB]	Polarization	Azimuth [deg]	Antenna Height [m]
1	2,662.000	45.20	74.00	28.80	31.71	54.00	22.29	6.11	V	308.9	1.00
1	4,659.500	45.81	74.00	28.19	33.31	54.00	20.69	9.86	V	359	1.00
1	7,490.000	50.02	74.00	23.98	37.89	54.00	16.11	14.20	V	359	2.00

REMARKS:
1. Peak detector quick scan is shown on the graph and final quasi-peak detector data is measured corresponding to relevant limit and recorded in the data table.
2. Negative sign (-) in the margin column signify levels below the limit.
3. Frequency range scanned: 1GHz to 5th harmonic of the highest frequency or 40GHz, whichever is lower. For frequency above 18GHz, the emission was tested 20db below the limit so the data not recorded in the sheet.
4. Only emissions significantly above the equipment noise floor are reported.



3 APPENDIX A – MODIFICATIONS RECORDERS FOR ENGINEERING CHANGES TO THE EUT BY THE LAB

No any modifications were made to the EUT by the lab during the test.

---END---