

FCC EMC Test Report

Project No. : 2110C043A
Equipment : Mobile Phone
Brand Name : realme
Test Model : RMX3286
Series Model : N/A
Applicant : Realme Chongqing Mobile Telecommunications Corp., Ltd.
Address : No.178 Yulong Avenue, Yufengshan, Yubei District, Chongqing, China
Manufacturer : Realme Chongqing Mobile Telecommunications Corp., Ltd.
Address : No.178 Yulong Avenue, Yufengshan, Yubei District, Chongqing, China
Date of Receipt : Oct. 25, 2021
Date of Test : Nov. 03, 2021 ~ Nov. 11, 2021
Issued Date : Nov. 17, 2021
Report Version : R00
Test Sample : Engineering Sample No.: DG20211022146
Standard(s) : FCC CFR Title 47, Part 15, Subpart B

The above equipment has been tested and found compliance with the requirement of the relative standards by BTL Inc.

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TESTING CERT #5123.02

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Declaration

BTL represents to the client that testing is done in accordance with standard procedures as applicable and that test instruments used has been calibrated with standards traceable to international standard(s) and/or national standard(s).

BTL's reports apply only to the specific samples tested under conditions. It is manufacture's responsibility to ensure that additional production units of this model are manufactured with the identical electrical and mechanical components. **BTL** shall have no liability for any declarations, inferences or generalizations drawn by the client or others from **BTL** issued reports.

The report must not be used by the client to claim product certification, approval, or endorsement by NIST, A2LA, or any agency of the U.S. Government.

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BTL's laboratory quality assurance procedures are in compliance with the **ISO/IEC 17025** requirements, and accredited by the conformity assessment authorities listed in this test report.

BTL is not responsible for the sampling stage, so the results only apply to the sample as received.

The information, data and test plan are provided by manufacturer which may affect the validity of results, so it is manufacturer's responsibility to ensure that the apparatus meets the essential requirements of applied standards and in all the possible configurations as representative of its intended use.

Limitation

For the use of the authority's logo is limited unless the Test Standard(s)/Scope(s)/Item(s) mentioned in this test report is (are) included in the conformity assessment authorities acceptance respective.

Please note that the measurement uncertainty is provided for informational purpose only and are not use in determining the Pass/Fail results.

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REPORT ISSUED HISTORY

Report Version	Description	Issued Date
R00	Original Issue.	Nov. 17, 2021

1. SUMMARY OF TEST RESULTS

Emission		
Standard(s)	Test Item	Result
FCC CFR Title 47,Part 15,Subpart B ANSI C63.4-2014	AC Power Line Conducted Emissions	PASS
	Radiated Emissions 30 MHz to 1 GHz	PASS
	Radiated Emissions Above 1 GHz	PASS

1.1 TEST FACILITY

The test facilities used to collect the test data in this report at the location of No. 3 Jinshagang 1st Rd. Shixia, Dalang Town, Dongguan City, Guangdong, People's Republic of China.

BTL's Test Firm Registration Number for FCC: 357015

BTL's Designation Number for FCC: CN1240

1.2 MEASUREMENT UNCERTAINTY

ISO/IEC 17025 requires that an estimate of the measurement uncertainties associated with the emissions test results be included in the report. The measurement uncertainties given below are based on a 95% confidence level (based on a coverage factor (k=2))

The BTL measurement uncertainty as below table:

A. AC power line conducted emissions test:

Test Site	Method	Measurement Frequency Range	U,(dB)
DG-C02	CISPR	150kHz ~ 30MHz	2.60

B. Radiated emissions test:

Test Site	Method	Measurement Frequency Range	Ant. H / V	U,(dB)
DG-CB01 (3m)	CISPR	30MHz ~ 200MHz	V	4.62
		30MHz ~ 200MHz	H	3.58
		200MHz ~ 1,000MHz	V	4.44
		200MHz ~ 1,000MHz	H	4.36

Test Site	Method	Measurement Frequency Range	U,(dB)
DG-CB01 (3m)	CISPR	1GHz ~ 6GHz	3.72
		6GHz ~ 18GHz	4.62

Test Site	Method	Measurement Frequency Range	U,(dB)
DG-CB01 (1m)	CISPR	18 ~ 26.5 GHz	3.62
		26.5 ~ 40 GHz	4.00

Note: Unless specifically mentioned, the uncertainty of measurement has not been taken into account to declare the compliance or non-compliance to the specification.

1.3 TEST ENVIRONMENT CONDITIONS

Test Item	Temperature	Humidity	Tested By
AC Power Line Conducted Emissions	23°C	65%	Aries Tang
Radiated emissions 30 MHz to 1 GHz	25°C	60%	Sparrow Liu
Radiated emissions above 1 GHz	25°C	60%	Sparrow Liu

2. GENERAL INFORMATION

2.1 GENERAL DESCRIPTION OF EUT

Equipment	Mobile Phone
Brand Name	realme
Test Model	RMX3286
Series Model	N/A
Model Difference(s)	N/A
Power Source	1# DC voltage supplied from AC adapter. (1) Model: VCB3HDUH (2) Model: VCB3HAUH 2# Supplied from battery. Model: BLP875 3# Supplied from USB port.
Power Rating	1# I/P: 100-240V~ 50/60Hz 1.2A O/P: 5V $\overline{\text{---}}$ 2A or 5-11V $\overline{\text{---}}$ 3A MAX. 2# DC 3.87V, 4880mAh 3# DC 5V
Connecting I/O Port(s)	1* Micro USB port 1* <input type="checkbox"/> arphone port
Classification of EUT	Class B
Highest Internal Frequency(Fx)	5850MHz

Note:

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

2.2 DESCRIPTION OF TEST MODES

To investigate the maximum EMI emission characteristics generated from EUT, the test system was pre-scanning tested based on the consideration of following EUT operation mode or test configuration mode which possible have effect on EMI emission level. Each of these EUT operation mode(s) or test configuration mode(s) mentioned above was evaluated respectively.

Pretest Mode	Description
Mode 1	Adapter+Playing+Speaker
Mode 2	Adapter+Camera on(Front)
Mode 3	Adapter+Camera on(Rear)
Mode 4	Adapter+Idle+2.4G WIFI+BT+GNSSRX MODE+NFC
Mode 5	Adapter+Idle+5G WIFI+BT+ GNSS MODE+NFC
Mode 6	Adapter+Idle+5.8G WIFI+BT+ GNSS RX MODE+NFC
Mode 7	Adapter+Traffic(GSM850/1900)
Mode 8	Adapter+Traffic(WCDMA: Band2/4/5)
Mode 9	Adapter+Traffic(LTE:Band2/4/5/7/12/17/38/40/41/66)
Mode 10	Adapter+Idle+5.8G WIFI+BT+ GNSS RX MODE +NFC+ Traffic(LTE:Band1)
Mode 11	Battery+Idle+5.8G WIFI+BT+GNSS RX MODE+NFC+ Traffic(LTE:Band1)
Mode 12	USB Copy+Idle

AC Power Line Conducted Emissions test	
Final Test Mode	Description
Mode 1	Adapter+Playing+Speaker

Radiated Emissions 30 MHz to 1 GHz test	
Final Test Mode	Description
Mode 1	Adapter+Playing+Speaker

Radiated emissions above 1 GHz test	
Final Test Mode	Description
Mode 10	Adapter+Idle+5.8G WIFI+BT+ GNSS RX MODE +NFC+ Traffic(LTE:Band1)

Items	Model	config 1	config 2
Adapter	VCB3HDUH	V	
	VCB3HAUH		V
USB Cable	DL143	V	V
Battery	BLP875	V	V

Note:

Config 1 tested all the Mode, and the worst case tested the config 2, the worst case is config 1 (Mode 1) for the Conducted Emissions and Radiated Emissions 30 MHz to 1 GHz, config 1(Mode 10) for the Radiated emissions above 1 GHz. The worst case is recorded in the report.

1. The product support BT&2.4G&5G WIFI function.

The frequency exemption are 2400 MHz~2483.5 MHz, 5150 MHz~5250 MHz, 5250 MHz~5350 MHz, 5470 MHz~5725 MHz, 5725 MHz~5850 MHz.

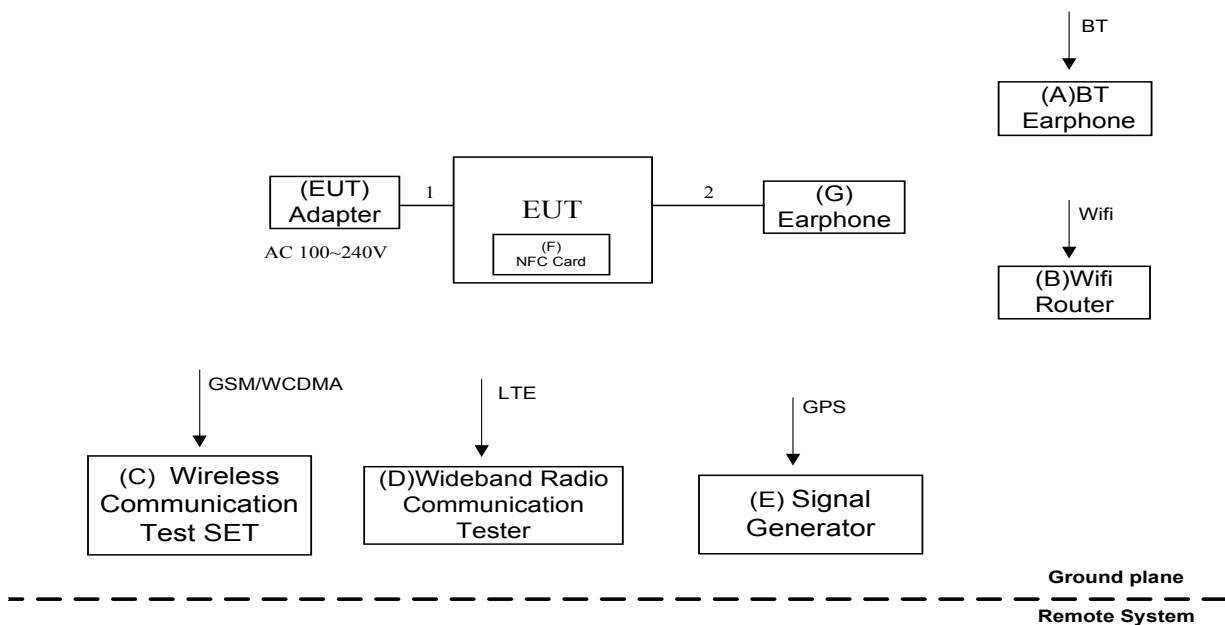
2. Radiated emission above 1GHz tested with 2.4G&5G filter.

2.3 EUT OPERATING CONDITIONS

The EUT exercise program used during radiated and/or conducted emission measurement was designed to exercise the various system components in a manner similar to a typical use. The standard test signals and output signal as following:

1. EUT connected to the Adapter via USB cable.
2. The NFC Card is plugged into the EUT.
3. EUT connected to Earphone via Earphone cable.
4. EUT connected to BT Earphone via BT function.
5. EUT connected to Wifi Router via Wifi function.
6. EUT connected to Wireless Communication Test SET via GSM/WCDMA function.
7. EUT connected to Wideband Radio Communication Tester via LTE function.
8. EUT connected to Signal Generator via GPS function.

2.4 BLOCK DIAGRAM SHOWING THE CONFIGURATION OF SYSTEM TESTED



2.5 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.

Item	Equipment	Mfr/Brand	Model/Type No.	Series No.
A	BT Earphone	MICROKIA	M9	N/A
B	Wifi Router	ASUS	RT-AC66U	E8ICGG000138
C	Wireless Communication Test SET	Agilent	(8960 Series) E5515C	MY48364183
D	Wideband Radio Communication Tester	RS	CMW500	122125
E	Signal Generator	Agilent	E4438C	MY49071316
F	NFC Card	Youyou	EASY	N/A
G	Earphone	APPLE	N/A	N/A

Item	Cable Type	Shielded Type	Ferrite Core	Length
1	USB Cable	YES	NO	1m
2	Earphone Cable	NO	NO	1.2m

3. EMC EMISSION TEST

3.1 AC POWER LINE CONDUCTED EMISSIONS TEST

3.1.1 LIMIT

Frequency of Emission (MHz)	Class B (dBuV)	
	Quasi-peak	Average
0.15 - 0.5	66 - 56 *	56 - 46 *
0.5 - 5	56	46
5 - 30	60	50

Note:

- (1) The tighter limit applies at the band edges.
- (2) The limit of " * " marked band means the limitation decreases linearly with the logarithm of the frequency in the range.
- (3) The test result calculated as following:
 Measurement Value = Reading Level + Correct Factor
 Correct Factor = Insertion Loss + Cable Loss + Attenuator Factor(if use)
 Margin Level = Measurement Value - Limit Value

3.1.2 MEASUREMENT INSTRUMENTS LIST

Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	EMI Test Receiver	R&S	ESCI	100382	Feb. 28, 2022
2	LISN	EMCO	3816/2	52765	Feb. 27, 2022
3	TWO-LINE V-NETWORK	R&S	ENV216	101447	Feb. 28, 2022
4	Measurement Software	Farad	EZ-EMC Ver.NB-03A1-01	N/A	N/A
5	Cable	N/A	RG223	12m	Mar. 09, 2022

Remark: "N/A" denotes no model name, serial no. or calibration specified.

All calibration period of equipment list is one year.

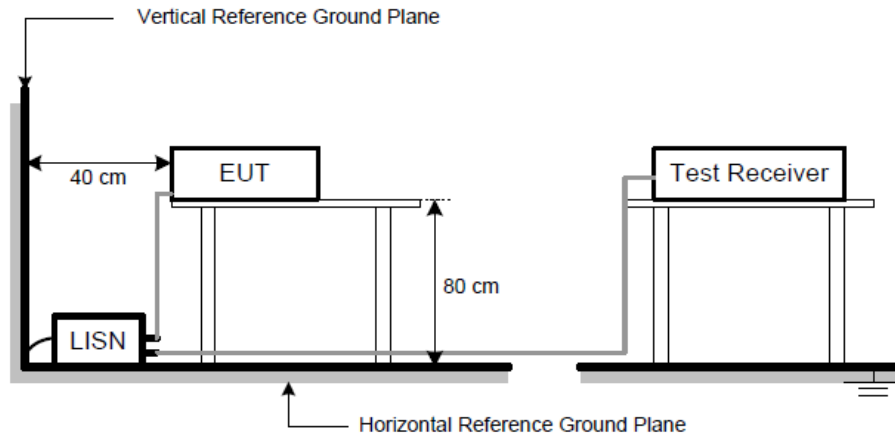
3.1.3 TEST PROCEDURE

- a. The EUT was placed 0.8 meters from the horizontal ground plane with EUT being connected to the power mains through a line impedance stabilization network (LISN). All other support equipment powered from additional LISN(s). The LISN provide 50 Ohm/ 50uH of coupling impedance for the measuring instrument.
- b. Interconnecting cables that hang closer than 40 cm to the ground plane shall be folded back and forth in the center forming a bundle 30 to 40 cm long.
- c. I/O cables that are not connected to a peripheral shall be bundled in the center. The end of the cable may be terminated, if required, using the correct terminating impedance. The overall length shall not exceed 1 m.
- d. LISN at least 80 cm from nearest part of EUT chassis.
- e. For the actual test configuration, please refer to the related Item –EUT Test Photos.
- f. Measuring frequency range from 150KHz to 30MHz.

3.1.4 DEVIATION FROM TEST STANDARD

No deviation

3.1.5 TEST SETUP

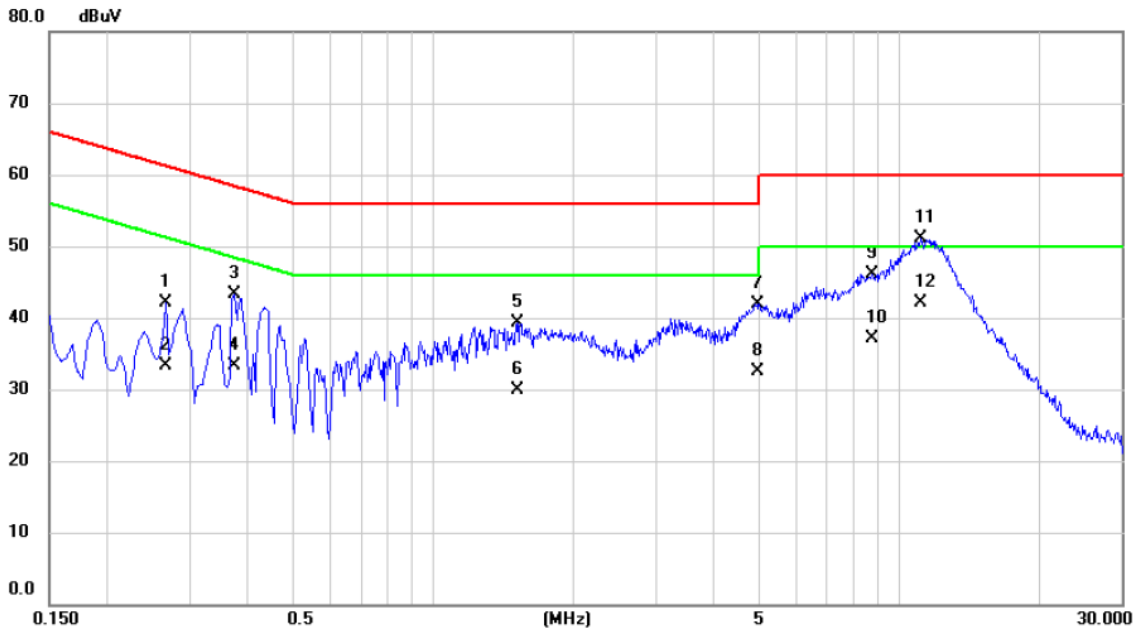


3.1.6 TEST RESULTS

Remark:

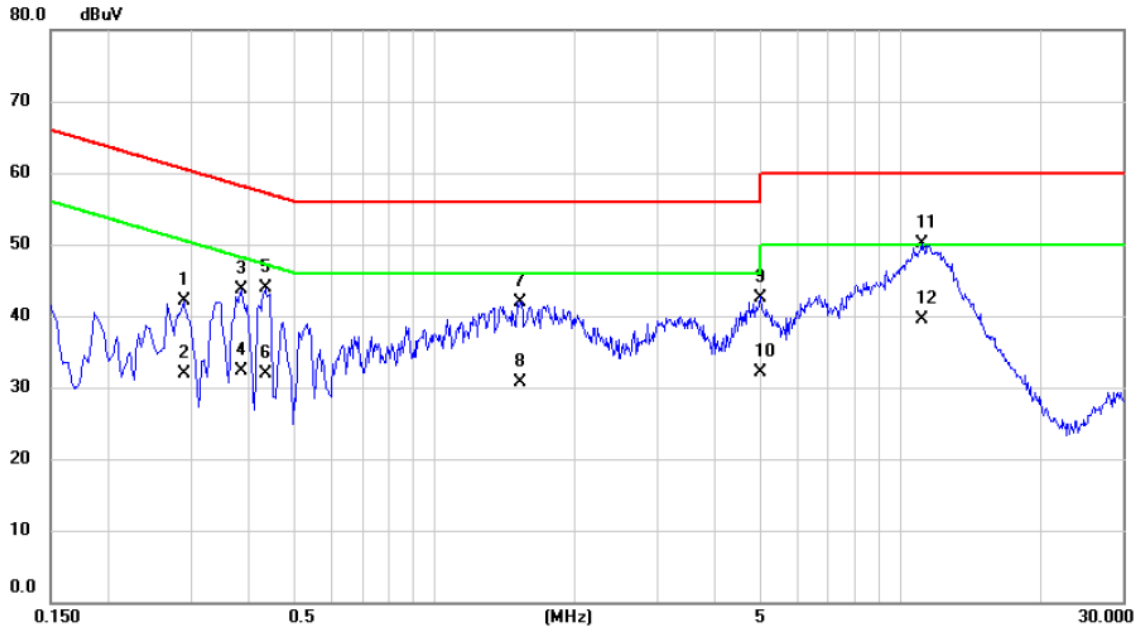
- (1) Reading in which marked as QP means measurements by using are Quasi-Peak Mode with Detector BW=9 kHz; SPA setting in RBW=10 kHz, VBW =10 kHz, Swp. Time = 0.3 sec./MHz. Reading in which marked as AV means measurements by using are Average Mode with instrument setting in RBW=10 kHz, VBW=10 kHz, Swp. Time =0.3 sec./MHz.
- (2) All readings are QP Mode value unless otherwise stated AVG in column of 『Note』 . If the QP Mode Measured value compliance with the QP Limits and lower than AVG Limits, the EUT shall be deemed to meet both QP & AVG Limits and then only QP Mode was measured, but AVG Mode didn't perform. In this case, a "*" marked in AVG Mode column of Interference Voltage Measured.

Test Voltage	AC 120V/60Hz	Phase	Line
Test Mode	Mode 1		



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Margin dB	Detector	Comment
1		0.2670	32.23	9.82	42.05	61.21	-19.16	QP	
2		0.2670	23.40	9.82	33.22	51.21	-17.99	AVG	
3		0.3750	33.52	9.84	43.36	58.39	-15.03	QP	
4		0.3750	23.50	9.84	33.34	48.39	-15.05	AVG	
5		1.5135	29.24	10.12	39.36	56.00	-16.64	QP	
6		1.5135	19.80	10.12	29.92	46.00	-16.08	AVG	
7		4.9740	31.58	10.30	41.88	56.00	-14.12	QP	
8		4.9740	22.30	10.30	32.60	46.00	-13.40	AVG	
9		8.7630	35.78	10.40	46.18	60.00	-13.82	QP	
10		8.7630	26.80	10.40	37.20	50.00	-12.80	AVG	
11		11.1075	40.72	10.42	51.14	60.00	-8.86	QP	
12	*	11.1075	31.70	10.42	42.12	50.00	-7.88	AVG	

Test Voltage	AC 120V/60Hz	Phase	Neutral
Test Mode	Mode 1		



No. Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measurement dBuV	Limit dBuV	Margin dB	Detector	Comment
1	0.2895	32.16	9.88	42.04	60.54	-18.50	QP	
2	0.2895	22.10	9.88	31.98	50.54	-18.56	AVG	
3	0.3840	33.71	9.92	43.63	58.19	-14.56	QP	
4	0.3840	22.30	9.92	32.22	48.19	-15.97	AVG	
5	0.4335	33.92	9.92	43.84	57.19	-13.35	QP	
6	0.4335	21.90	9.92	31.82	47.19	-15.37	AVG	
7	1.5315	31.76	10.22	41.98	56.00	-14.02	QP	
8	1.5315	20.50	10.22	30.72	46.00	-15.28	AVG	
9	4.9875	32.23	10.37	42.60	56.00	-13.40	QP	
10	4.9875	21.70	10.37	32.07	46.00	-13.93	AVG	
11 *	11.1120	39.57	10.49	50.06	60.00	-9.94	QP	
12	11.1120	29.00	10.49	39.49	50.00	-10.51	AVG	

3.2 RADIATED EMISSIONS 30 MHZ TO 1 GHZ

3.2.1 LIMIT

Frequency (MHz)	Class B (at 3m)	
	(uV/m) Quasi-peak	(dBuV/m) Quasi-peak
30 - 88	100	40
88 - 216	150	43.5
216 - 960	200	46
960 - 1000	500	54

NOTE:

- (1) The tighter limit applies at the band edges.
- (2) Emission level (dBuV/m) = 20log Emission level (uV/m).
3m Emission level = 10m Emission level + 20log(10m/3m).
- (3) The test result calculated as following:
Measurement Value = Reading Level + Correct Factor
Correct Factor = Antenna Factor + Cable Loss - Amplifier Gain(if use)
Margin Level = Measurement Value - Limit Value

3.2.2 MEASUREMENT INSTRUMENTS LIST

Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Antenna	ETS	3142B	26419	Apr. 14, 2022
2	Amplifier	SONOMA	310N	186128	Feb. 28, 2022
3	MXE EMI Receiver	Keysight	N9038A	MY56400091	Feb. 27, 2022
4	Cable	emci	LMR-400(30MHz-1GHz)(7m+7m)	N/A	Sep. 23, 2022
5	Controller	ETS-Lindgren	2090	N/A	N/A
6	Measurement Software	Farad	EZ-EMC Ver.NB-03A1-01	N/A	N/A

Remark: "N/A" denotes no model name, no serial no. or no calibration specified.

All calibration period of equipment list is one year.

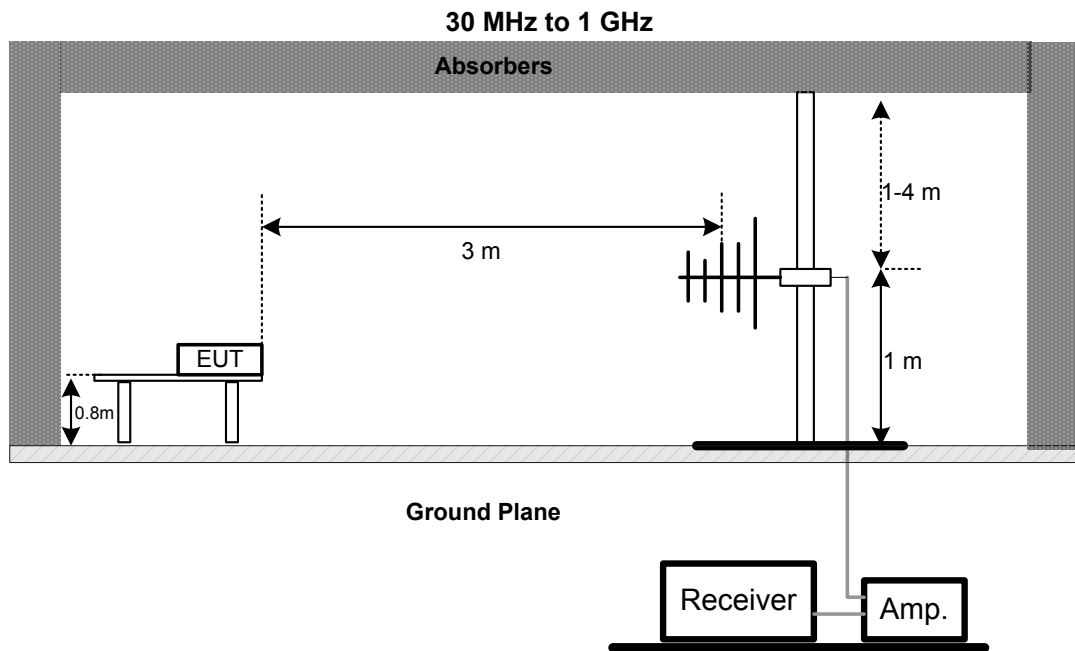
3.2.3 TEST PROCEDURE

- a. The measuring distance of 3 m shall be used for measurements. The EUT was placed on the top of a rotating table 0.8 meter above the ground at a 3 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. The height of the equipment or of the substitution antenna shall be 0.8 m, the height of the test antenna shall vary between 1 m to 4 m. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- c. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights find the maximum reading (used Bore sight function).
- d. The initial step in collecting radiated emission data is a receiver peak detector mode pre-scanning the measurement frequency range. Significant peaks are then marked and then Quasi Peak detector mode re-measured.
- e. All readings are Peak unless otherwise stated QP in column of Note. Peak denotes that the Peak reading compliance with the QP Limits and then QP Mode measurement didn't perform.
- f. For the actual test configuration, please refer to the related Item - EUT Test Photos.

3.2.4 DEVIATION FROM TEST STANDARD

No deviation

3.2.5 TEST SETUP

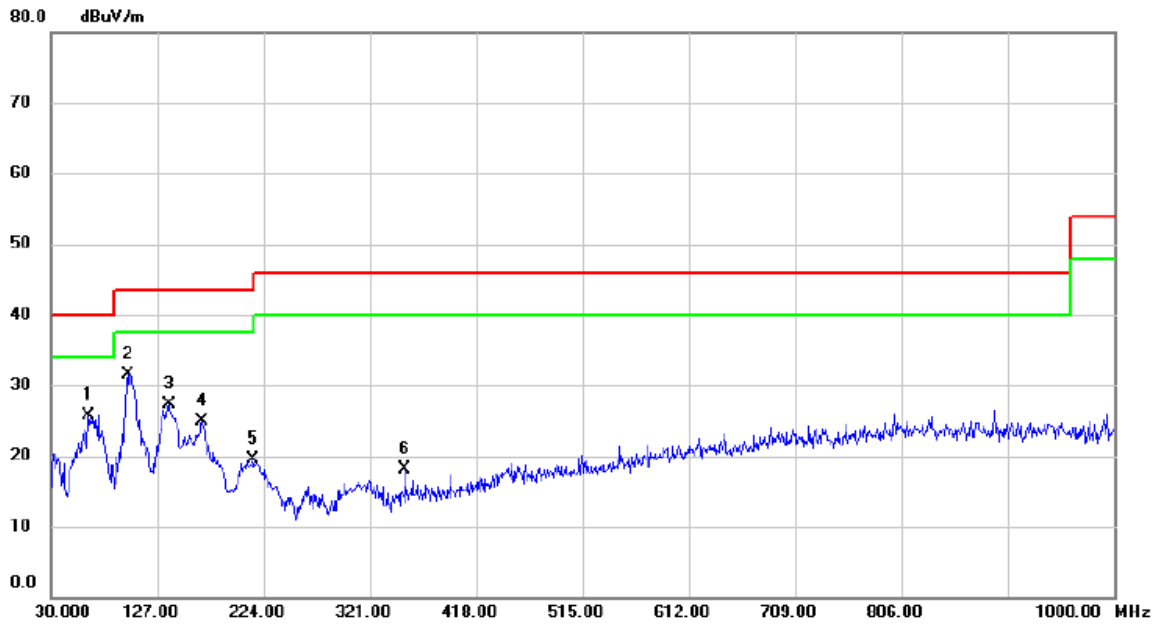


3.2.6 TEST RESULTS

Remark:

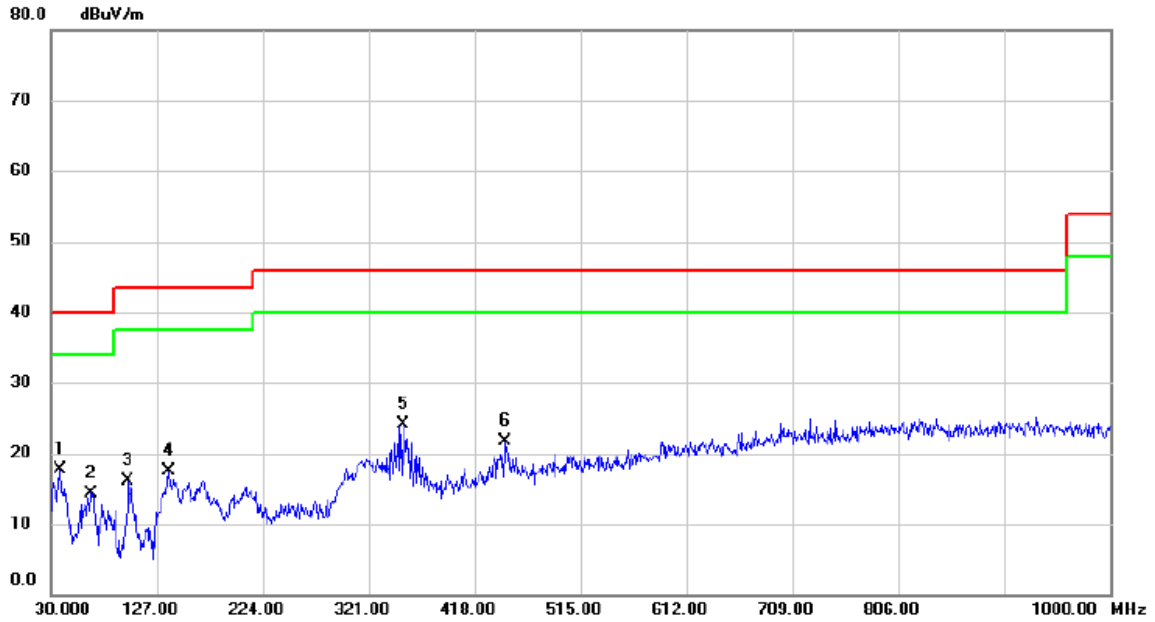
- (1) Measuring frequency range from 30 MHz to 1000 MHz
- (2) If the peak scan value lower limit more than 20 dB, then this signal data does not show in table.

Test Voltage	AC 120V/60Hz	Polarization	Vertical
Test Mode	Mode 1		



No. Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measurement dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	63.9500	49.02	-23.31	25.71	40.00	-14.29	QP	
2 *	99.8400	53.67	-22.13	31.54	43.50	-11.96	QP	
3	137.6700	50.06	-22.76	27.30	43.50	-16.20	QP	
4	167.7400	45.41	-20.54	24.87	43.50	-18.63	QP	
5	214.3000	37.53	-17.98	19.55	43.50	-23.95	QP	
6	353.0100	31.46	-13.44	18.02	46.00	-27.98	QP	

Test Voltage	AC 120V/60Hz	Polarization	Horizontal
Test Mode	Mode 1		



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		38.7300	35.58	-17.85	17.73	40.00	-22.27	QP	
2		66.8600	38.04	-23.64	14.40	40.00	-25.60	QP	
3		100.8100	38.20	-22.17	16.03	43.50	-27.47	QP	
4		137.6700	40.36	-22.76	17.60	43.50	-25.90	QP	
5	*	352.0400	37.61	-13.49	24.12	46.00	-21.88	QP	
6		446.1300	32.89	-11.28	21.61	46.00	-24.39	QP	

3.3 RADIATED EMISSIONS ABOVE 1 GHZ

3.3.1 LIMIT

Frequency (MHz)	Class B	
	(dBuV/m) (at 3m)	
	Peak	Average
Above 1000	74	54

FREQUENCY RANGE OF RADIATED MEASUREMENT (FOR UNINTENTIONAL RADIATORS)

Highest internal frequency (F _x)	Highest measurement frequency (F _M)
$F_x \leq 108 \text{ MHz}$	1 GHz
$108 \text{ MHz} < F_x \leq 500 \text{ MHz}$	2 GHz
$500 \text{ MHz} < F_x \leq 1 \text{ GHz}$	5 GHz
$F_x > 1 \text{ GHz}$	5 x F _x up to a maximum of 40 GHz

Note: F_x is the highest fundamental frequency generated and/or used in the ITE or digital apparatus under test.

NOTE:

- (1) The tighter limit applies at the band edges.
- (2) Emission level (dBuV/m) = 20log Emission level (uV/m).
1m Emission level = 3m Emission level + 20log(3m/1m).
- (3) The test result calculated as following:
Measurement Value = Reading Level + Correct Factor
Correct Factor = Antenna Factor + Cable Loss - Amplifier Gain(if use)
Margin Level = Measurement Value - Limit Value

3.3.2 MEASUREMENT INSTRUMENTS LIST

Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Cable	Mlcable Inc.	B10-01-01-15M (10MHz~26.5GHz)	18047122	Jan. 06, 2022
2	Controller	ETS-Lindgren	2090	N/A	N/A
3	Measurement Software	Farad	EZ-EMC Ver.NB-03A1-01	N/A	N/A
4	Double-Ridged Waveguide Horn Antennas	ETS-LINDGREN	3117-PA	N/A	Apr. 21, 2022
5	MXA Signal Analyzer	Keysight	N9020B	MY57100162	Feb. 28, 2022
6	Cable	Mlcable Inc.	B10-01-01-2M	18072745	Jan. 06, 2022
7	Broad-Band Horn Antenna	Schwarzbeck	BBHA 9170	9170319	Jun. 30, 2022
8	Microwave Preamplifier With Adaptor	EMC INSTRUMENT	EMC2654045	980039 & HA01	Feb. 28, 2022
9	MXE EMI Receiver	Agilent	N9038A	MY53220133	Feb. 28, 2022
10	Cable	emci	SUCOFLEX 102_8m(0.01GHz – 40GHz)	N/A	Mar. 23, 2022
11	Band Reject Filter	Wairwright Instruments GmbH	WRCG 2400/2483-2375/2505-50/10SS	16	Feb. 28, 2022
12	Band Reject Filter	Micro-Tronics	BRC50704-01	8	Feb. 27, 2022
13	Band Reject Filter	Micro-Tronics	BRC50703-01	7	Feb. 27, 2022
14	Band Reject Filter	Micro-Tronics	BRC50705-01	10	Feb. 27, 2022

Remark: "N/A" denotes no model name, no serial no. or no calibration specified.

All calibration period of equipment list is one year.

3.3.3 TEST PROCEDURE

- a. The measuring distance of 3 m shall be used for measurements. The EUT was placed on the top of a rotating table 0.8 meter above the ground at a 3 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.

Note:

For measurement of frequency 1GHz -18GHz, the EUT was set 3 meters away from the receiver antenna. For 18G – 40GHz, the EUT was set 1 meter.

Emission level (dBuV/m)=20log Emission level (uV/m).

The limits above 18GHz shall be extrapolated to the specified distance using an extrapolation factor of 20dB/decade from 3m to 1m

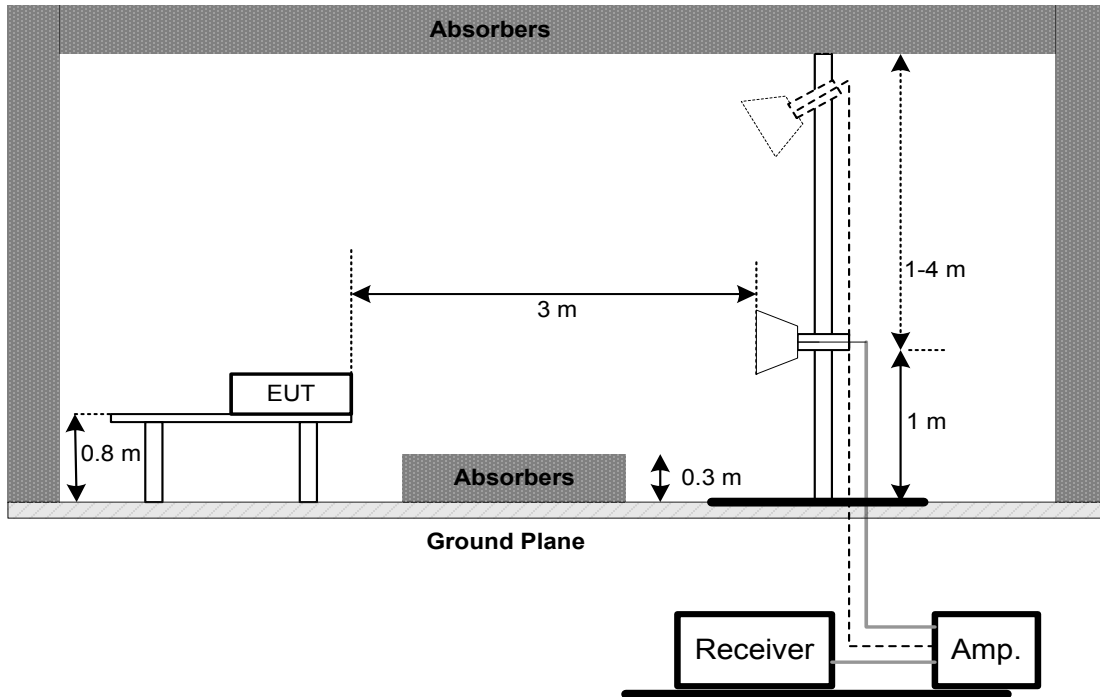
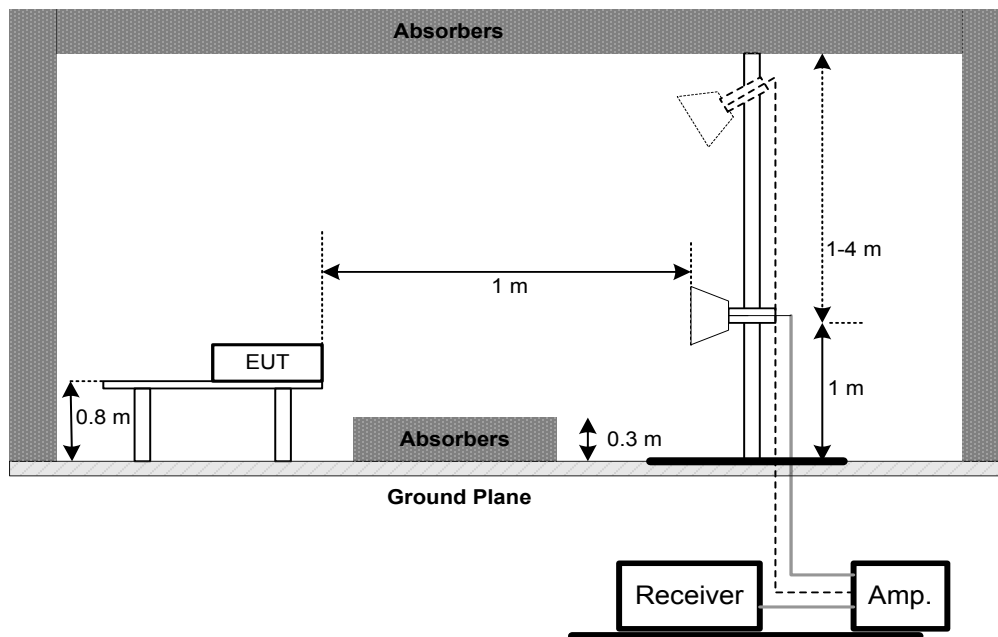
Distance extrapolation factor = 20 log (3m/1m) dB ;

Limit line = specific limits (dBuV) + 9.5 dB.

- b. The height of the equipment or of the substitution antenna shall be 0.8 m, the height of the test antenna shall vary between 1 m to 4 m. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- c. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights find the maximum reading (used Bore sight function).
- d. The initial step in collecting radiated emission data is a receiver peak detector mode pre-scanning the measurement frequency range. Significant peaks are then marked and then AVG detector mode re-measured.
- e. The 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.
- f. All readings are Peak Mode value unless otherwise stated AVG in column of Note. If the Peak Mode Measured value compliance with the Peak Limits and lower than AVG Limits, the EUT shall be deemed to meet both Peak & AVG Limits and then only Peak Mode was measured, but AVG Mode didn't perform.
- g. For the actual test configuration, please refer to the related Item - EUT Test Photos.

3.3.4 DEVIATION FROM TEST STANDARD

No deviation

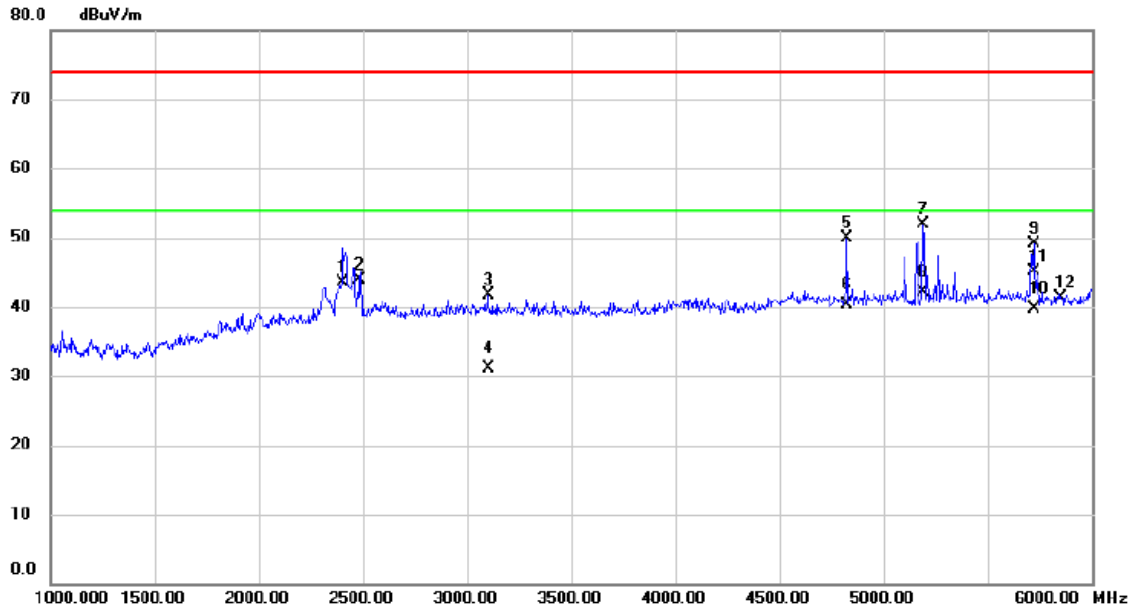
3.3.5 TEST SETUP**1 GHz-18 GHz****18 GHz-40 GHz**

3.3.6 TEST RESULTS

Remark:

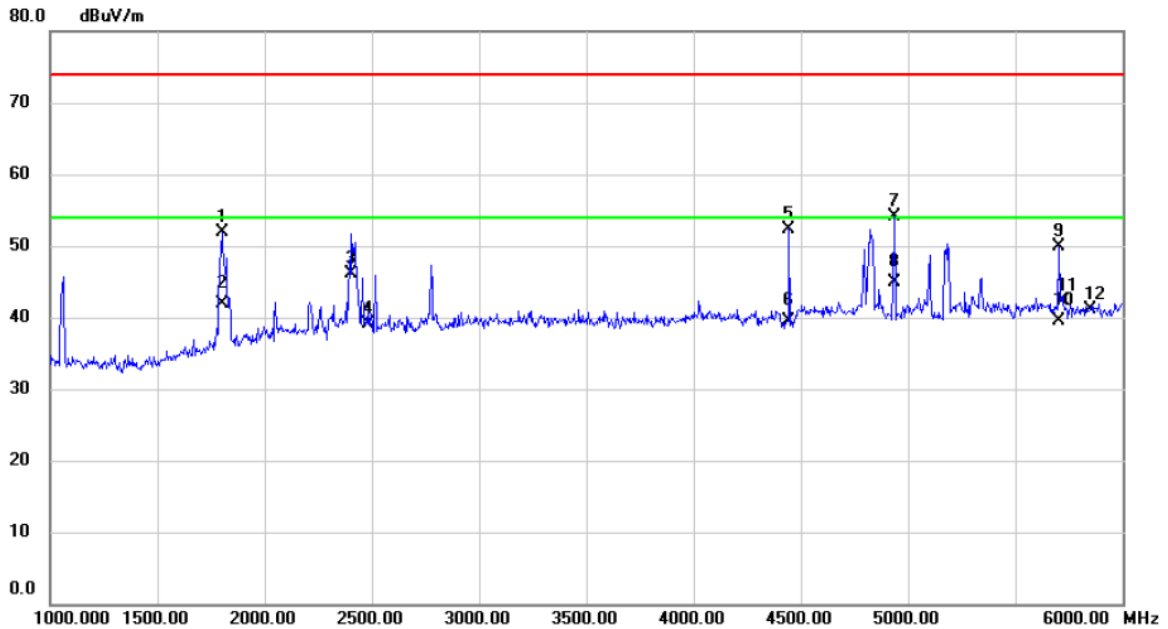
- (1) Radiated emissions measured in frequency range above 1000 MHz were made with an instrument using Peak detector mode and AV detector mode of the emission.
- (2) Data of measurement within this frequency range shown “*” in the table above means the reading of emissions are attenuated more than 20 dB below the permissible limits or the field strength is too small to be measured.
- (3) A preamp and high pass filter were used for this test in order to provide sufficient measurement sensitivity.

Test Voltage	AC 120V/60Hz	Polarization	Vertical
Test Mode	Mode 10		
Note:	BT(2400-2483.5MHz) and 5G WIFI(5725-5850MHz) are intentional transmissions, which are not applicable to the radiation emission requirements in this standard.		



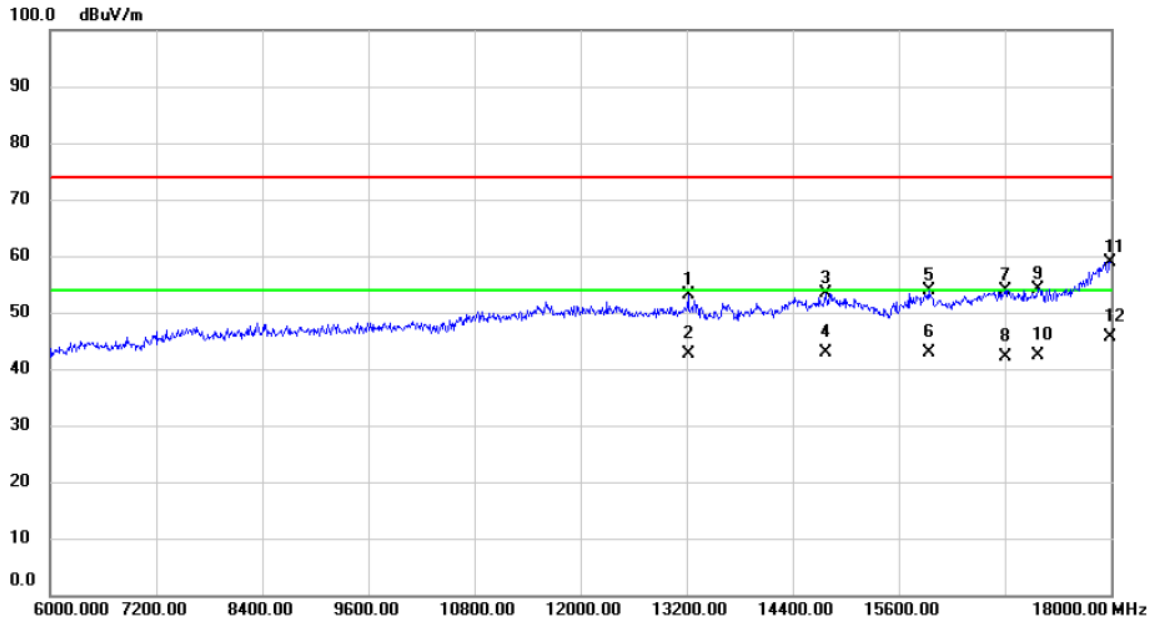
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		2400.000	53.14	-9.72	43.42	74.00	-30.58	peak	add filter
2		2483.500	53.31	-9.44	43.87	74.00	-30.13	peak	add filter
3		3100.000	49.09	-7.46	41.63	74.00	-32.37	peak	
4		3100.000	38.60	-7.46	31.14	54.00	-22.86	AVG	
5		4825.000	53.11	-3.26	49.85	74.00	-24.15	peak	
6		4825.000	43.65	-3.26	40.39	54.00	-13.61	AVG	
7		5190.000	54.75	-2.91	51.84	74.00	-22.16	peak	
8	*	5190.000	44.93	-2.91	42.02	54.00	-11.98	AVG	
9		5720.000	52.03	-2.87	49.16	74.00	-24.84	peak	
10		5720.000	42.57	-2.87	39.70	54.00	-14.30	AVG	
11		5725.000	47.90	-2.87	45.03	74.00	-28.97	peak	add filter
12		5850.000	44.00	-2.72	41.28	74.00	-32.72	peak	add filter

Test Voltage	AC 120V/60Hz	Polarization	Horizontal
Test Mode	Mode 10		
Note:	BT(2400-2483.5MHz) and 5G WIFI(5725-5850MHz) are intentional transmissions, which are not applicable to the radiation emission requirements in this standard.		



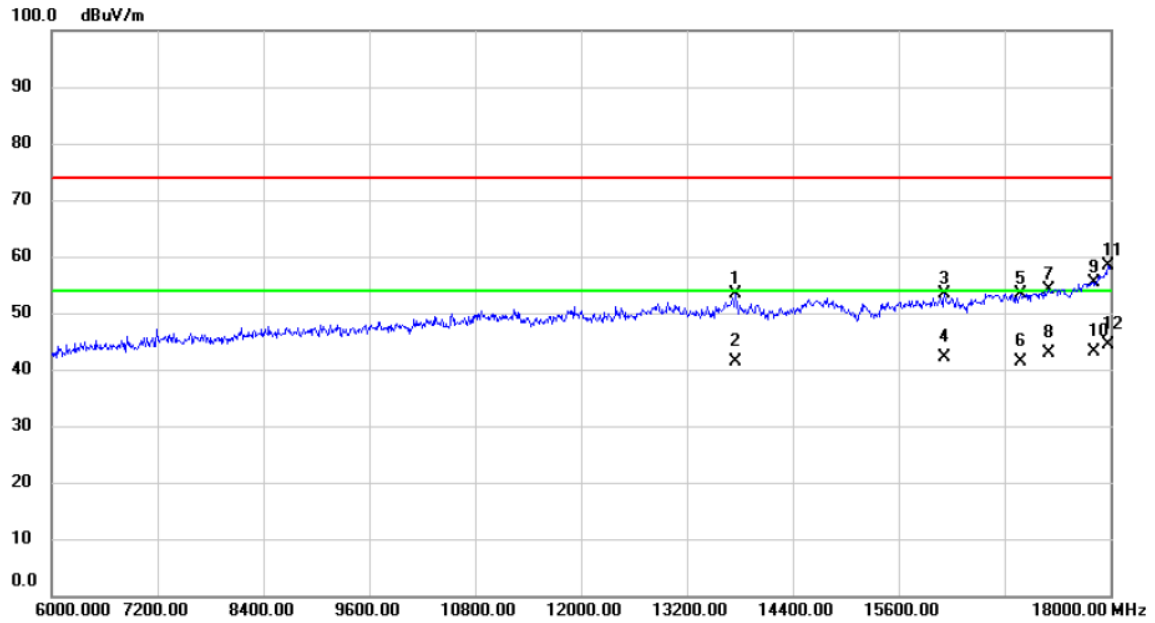
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		1800.000	64.86	-12.98	51.88	74.00	-22.12	peak	
2		1800.000	54.92	-12.98	41.94	54.00	-12.06	AVG	
3		2400.000	55.79	-9.72	46.07	74.00	-27.93	peak	add filter
4		2483.500	48.56	-9.44	39.12	74.00	-34.88	peak	add filter
5		4445.000	56.64	-4.24	52.40	74.00	-21.60	peak	
6		4445.000	43.65	-4.24	39.41	54.00	-14.59	AVG	
7		4935.000	57.06	-2.97	54.09	74.00	-19.91	peak	
8	*	4935.000	47.85	-2.97	44.88	54.00	-9.12	AVG	
9		5705.000	52.89	-2.89	50.00	74.00	-24.00	peak	
10		5705.000	42.36	-2.89	39.47	54.00	-14.53	AVG	
11		5725.000	45.10	-2.87	42.23	74.00	-31.77	peak	add filter
12		5850.000	43.91	-2.72	41.19	74.00	-32.81	peak	add filter

Test Voltage	AC 120V/60Hz	Polarization	Vertical
Test Mode	Mode 10		



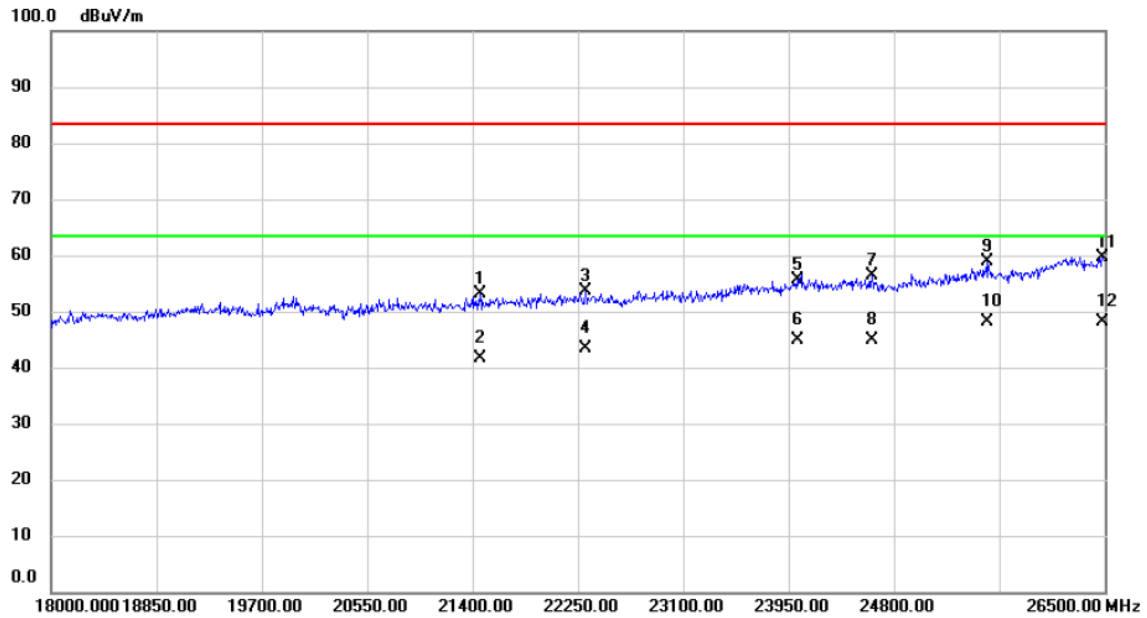
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		13218.00	29.02	24.03	53.05	74.00	-20.95	peak	
2		13218.00	18.50	24.03	42.53	54.00	-11.47	AVG	
3		14772.00	26.03	27.43	53.46	74.00	-20.54	peak	
4		14772.00	15.33	27.43	42.76	54.00	-11.24	AVG	
5		15942.00	31.14	22.70	53.84	74.00	-20.16	peak	
6		15942.00	20.20	22.70	42.90	54.00	-11.10	AVG	
7		16800.00	28.12	25.86	53.98	74.00	-20.02	peak	
8		16800.00	16.25	25.86	42.11	54.00	-11.89	AVG	
9		17178.00	26.26	27.95	54.21	74.00	-19.79	peak	
10		17178.00	14.33	27.95	42.28	54.00	-11.72	AVG	
11		17994.00	25.64	33.34	58.98	74.00	-15.02	peak	
12	*	17994.00	12.33	33.34	45.67	54.00	-8.33	AVG	

Test Voltage	AC 120V/60Hz	Polarization	Horizontal
Test Mode	Mode 10		



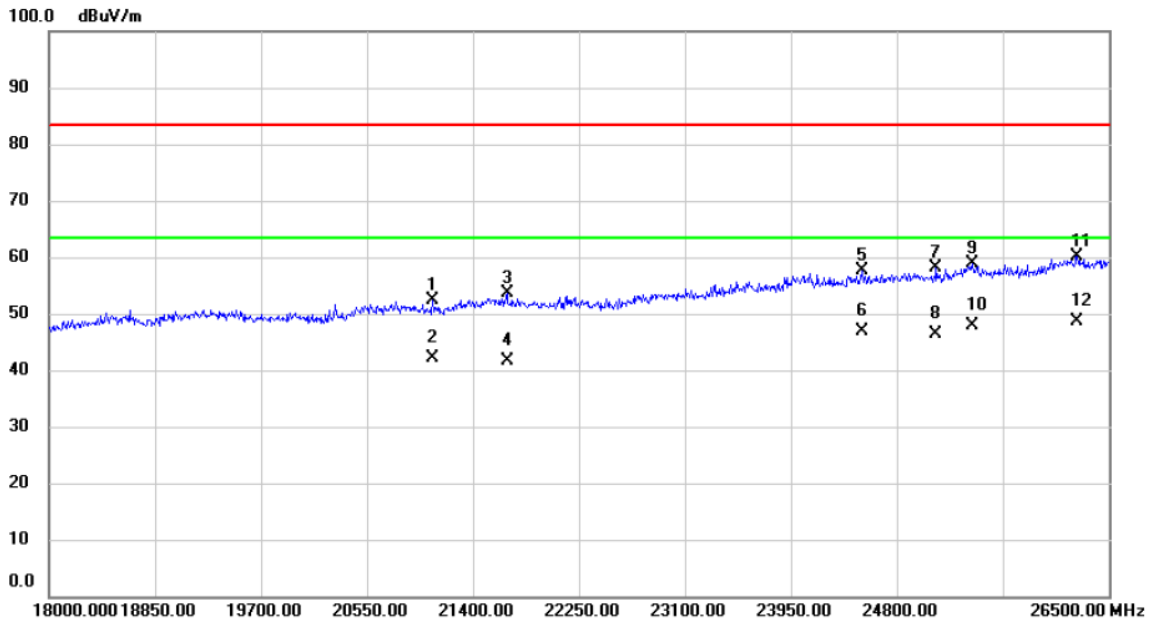
No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		13758.00	26.31	27.07	53.38	74.00	-20.62	peak	
2		13758.00	14.33	27.07	41.40	54.00	-12.60	AVG	
3		16116.00	30.35	22.97	53.32	74.00	-20.68	peak	
4		16116.00	19.25	22.97	42.22	54.00	-11.78	AVG	
5		16980.00	26.46	27.01	53.47	74.00	-20.53	peak	
6		16980.00	14.33	27.01	41.34	54.00	-12.66	AVG	
7		17298.00	25.73	28.48	54.21	74.00	-19.79	peak	
8		17298.00	14.33	28.48	42.81	54.00	-11.19	AVG	
9		17814.00	23.55	31.91	55.46	74.00	-18.54	peak	
10		17814.00	11.33	31.91	43.24	54.00	-10.76	AVG	
11		17970.00	25.32	33.15	58.47	74.00	-15.53	peak	
12	*	17970.00	11.32	33.15	44.47	54.00	-9.53	AVG	

Test Voltage	AC 120V/60Hz	Polarization	Vertical
Test Mode	Mode 10		



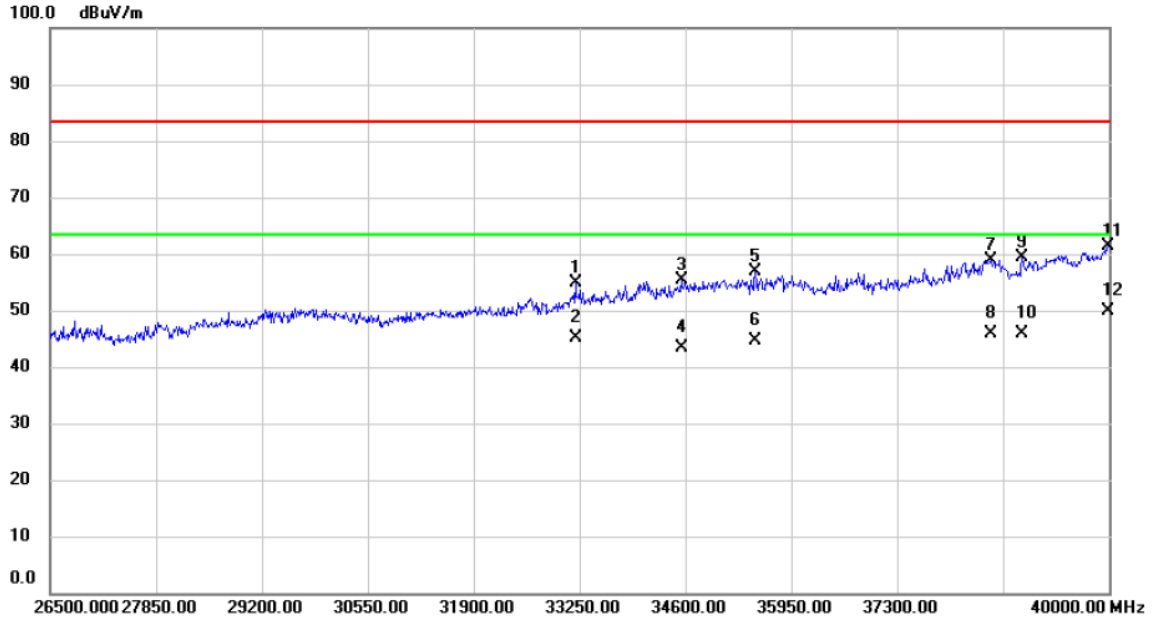
No. Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	21459.50	31.77	21.35	53.12	83.50	-30.38	peak	
2	21459.50	20.26	21.35	41.61	63.50	-21.89	AVG	
3	22309.50	31.64	22.07	53.71	83.50	-29.79	peak	
4	22309.50	21.33	22.07	43.40	63.50	-20.10	AVG	
5	24018.00	31.01	24.55	55.56	83.50	-27.94	peak	
6	24018.00	20.25	24.55	44.80	63.50	-18.70	AVG	
7	24621.50	30.74	25.54	56.28	83.50	-27.22	peak	
8	24621.50	19.25	25.54	44.79	63.50	-18.71	AVG	
9	25556.50	32.03	26.82	58.85	83.50	-24.65	peak	
10 *	25556.50	21.33	26.82	48.15	63.50	-15.35	AVG	
11	26483.00	31.89	27.81	59.70	83.50	-23.80	peak	
12	26483.00	20.32	27.81	48.13	63.50	-15.37	AVG	

Test Voltage	AC 120V/60Hz	Polarization	Horizontal
Test Mode	Mode 10		



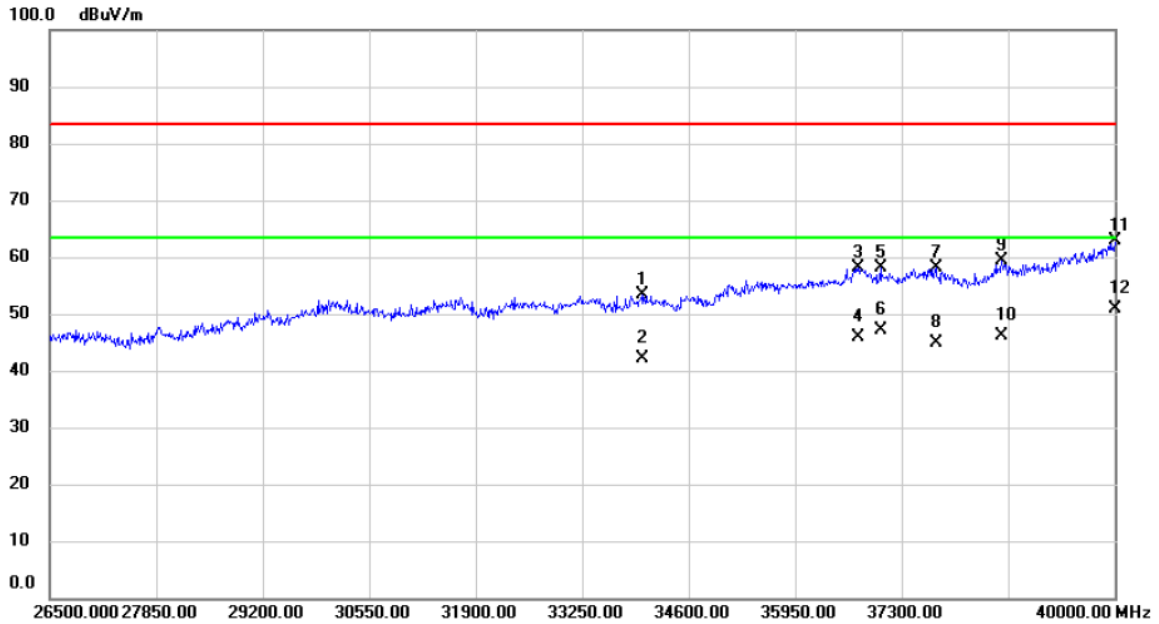
No. Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	21077.00	31.73	20.71	52.44	83.50	-31.06	peak	
2	21077.00	21.33	20.71	42.04	63.50	-21.46	AVG	
3	21672.00	32.10	21.49	53.59	83.50	-29.91	peak	
4	21672.00	20.26	21.49	41.75	63.50	-21.75	AVG	
5	24519.50	32.18	25.44	57.62	83.50	-25.88	peak	
6	24519.50	21.33	25.44	46.77	63.50	-16.73	AVG	
7	25114.50	32.01	26.14	58.15	83.50	-25.35	peak	
8	25114.50	20.26	26.14	46.40	63.50	-17.10	AVG	
9	25403.50	32.13	26.67	58.80	83.50	-24.70	peak	
10	25403.50	21.33	26.67	48.00	63.50	-15.50	AVG	
11	26245.00	32.93	27.24	60.17	83.50	-23.33	peak	
12 *	26245.00	21.32	27.24	48.56	63.50	-14.94	AVG	

Test Voltage	AC 120V/60Hz	Polarization	Vertical
Test Mode	Mode 10		



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1		33196.00	45.21	9.71	54.92	83.50	-28.58	peak	
2		33196.00	35.33	9.71	45.04	63.50	-18.46	AVG	
3		34546.00	44.31	11.02	55.33	83.50	-28.17	peak	
4		34546.00	32.33	11.02	43.35	63.50	-20.15	AVG	
5		35491.00	45.51	11.27	56.78	83.50	-26.72	peak	
6		35491.00	33.26	11.27	44.53	63.50	-18.97	AVG	
7		38488.00	45.37	13.59	58.96	83.50	-24.54	peak	
8		38488.00	32.33	13.59	45.92	63.50	-17.58	AVG	
9		38893.00	44.73	14.59	59.32	83.50	-24.18	peak	
10		38893.00	31.33	14.59	45.92	63.50	-17.58	AVG	
11		39986.50	43.81	17.56	61.37	83.50	-22.13	peak	
12	*	39986.50	32.33	17.56	49.89	63.50	-13.61	AVG	

Test Voltage	AC 120V/60Hz	Polarization	Horizontal
Test Mode	Mode 10		



No. Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Margin dB	Detector	Comment
1	34006.00	43.53	9.86	53.39	83.50	-30.11	peak	
2	34006.00	32.33	9.86	42.19	63.50	-21.31	AVG	
3	36746.50	47.28	10.73	58.01	83.50	-25.49	peak	
4	36746.50	35.26	10.73	45.99	63.50	-17.51	AVG	
5	37030.00	47.24	10.91	58.15	83.50	-25.35	peak	
6	37030.00	36.26	10.91	47.17	63.50	-16.33	AVG	
7	37732.00	46.63	11.48	58.11	83.50	-25.39	peak	
8	37732.00	33.33	11.48	44.81	63.50	-18.69	AVG	
9	38569.00	45.50	13.79	59.29	83.50	-24.21	peak	
10	38569.00	32.33	13.79	46.12	63.50	-17.38	AVG	
11	40000.00	45.20	17.60	62.80	83.50	-20.70	peak	
12 *	40000.00	33.33	17.60	50.93	63.50	-12.57	AVG	

End of Test Report