

TEST REPORT

Applicant: Realme Chongqing Mobile Telecommunications Corp., Ltd.
Address: No.178 Yulong Avenue, Yufengshan, Yubei District, Chongqing, China
Equipment Type: Mobile Phone
Model Name: RMX3771
Brand Name: realme
FCC ID: 2AUYFRMX3771
Test Standard: 47 CFR Part 15 Subpart B
ANSI C63.4-2014
Sample Arrival Date: Mar. 06, 2023
Test Date: Mar. 28, 2023 - Mar. 30, 2023
Date of Issue: May 15, 2023

ISSUED BY:

Shenzhen BALUN Technology Co., Ltd.

Tested by: Zhang Guoxi

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Zhang Guoxi

Xia Long

Liao Jianming

Revision History		
<u>Version</u>	<u>Issue Date</u>	<u>Revisions</u>
<u>Rev. 01</u>	<u>May 15, 2023</u>	<u>Initial Issue</u>

TABLE OF CONTENTS

1	GENERAL INFORMATION.....	4
1.1	Test Laboratory	4
1.2	Test Location	4
2	PRODUCT INFORMATION	5
2.1	Applicant Information	5
2.2	Manufacturer Information.....	5
2.3	Factory Information.....	5
2.4	General Description for Equipment under Test (EUT).....	5
2.5	Ancillary Equipment.....	6
2.6	Technical Information	8
3	SUMMARY OF TEST RESULTS	9
3.1	Test Standards	9
3.2	Verdict	9
3.3	Test Uncertainty	9
4	GENERAL TEST CONFIGURATIONS	10
4.1	Test Environments, Test Date and Test Engineer.....	10
4.2	Test Equipment List.....	10
4.3	Test Enclosure list	12
4.4	Test Configurations	13
4.5	Test Setups	14
4.6	Test Conditions.....	16
5	TEST ITEMS	17
5.1	Emission Tests	17
ANNEX A TEST RESULTS.....		21

A.1	Radiated Emission.....	21
A.2	Conducted Emission.....	29
ANNEX B	TEST SETUP PHOTOS	33
ANNEX C	EUT EXTERNAL PHOTOS.....	33
ANNEX D	EUT INTERNAL PHOTOS.....	33

1 GENERAL INFORMATION

1.1 Test Laboratory

Name	Shenzhen BALUN Technology Co., Ltd.
Address	Block B, 1/F, Baisha Science and Technology Park, Shahe Xi Road, Nanshan District, Shenzhen, Guangdong Province, P. R. China
Phone Number	+86 755 6685 0100

1.2 Test Location

Name	Shenzhen BALUN Technology Co., Ltd.
Location	<input checked="" type="checkbox"/> Block B, 1/F, Baisha Science and Technology Park, Shahe Xi Road, Nanshan District, Shenzhen, Guangdong Province, P. R. China
	<input type="checkbox"/> 1/F, Building B, Ganghongji High-tech Intelligent Industrial Park, No. 1008, Songbai Road, Yangguang Community, Xili Sub-district, Nanshan District, Shenzhen, Guangdong Province, P. R. China
Accreditation Certificate	The laboratory is a testing organization accredited by FCC as a accredited testing laboratory. The designation number is CN1196.

2 PRODUCT INFORMATION

2.1 Applicant Information

Applicant	Realme Chongqing Mobile Telecommunications Corp., Ltd.
Address	No.178 Yulong Avenue, Yufengshan, Yubei District, Chongqing, China

2.2 Manufacturer Information

Manufacturer	Realme Chongqing Mobile Telecommunications Corp., Ltd.
Address	No.178 Yulong Avenue, Yufengshan, Yubei District, Chongqing, China

2.3 Factory Information

Factory	Realme Chongqing Mobile Telecommunications Corp., Ltd.
Address	No.178 Yulong Avenue, Yufengshan, Yubei District, Chongqing, China

2.4 General Description for Equipment under Test (EUT)

EUT Name	Mobile Phone
Model Name Under Test	RMX3771
Series Model Name	N/A
Description of Model name differentiation	N/A
Hardware Version	11
Software Version	realme UI 4.0
Dimensions (Approx.)	Plate Material: 161.6mm×73.9mm×8.2mm Leather: 161.6mm×73.9mm×8.7mm
Weight (Approx.)	Plate Material: 185g Leather: 191g
EUT ID	S17
IMEI Number	S17: IMEI1: 861250060020392, IMEI2: 861250060020384

2.5 Ancillary Equipment

Ancillary Equipment 1	Li-Polymer Battery 1	
	Brand Name	SUPERVOOC
	Model No.	BLPA15
	Serial No.	N/A
	Capacitance	Rated: 4870mAh/18.94Wh Typical: 5000mAh/19.45Wh
	Rated Voltage	3.89Vdc
	Limited Voltage	4.48Vdc
	Manufacturer	Dongguan NVT Technology Co., Ltd.
Ancillary Equipment 2	Power Supply Unit 1	
	Brand Name	SUPERVOOC
	Model No.	VCB7CAUH (US Plug)
	Serial No.	N/A
	Rated Input	Input1: 100-130V~ 50/60Hz 1.8A; Input2: 200-240V~ 50/60Hz 1.8A
	Rated Output	Output1: 5.0 Vdc, 2.0A, 5.0-11.0Vdc 5A Output2: 5.0 Vdc, 2.0A, 5.0-11.0Vdc 6.1A
	Manufacturer	Dongguan Yohoo Electronic Technology Co., Ltd.
Ancillary Equipment 3	Power Supply Unit(alternative) 2	
	Brand Name	SUPERVOOC
	Model No.	VCB8JAUH (US Plug)
	Serial No.	N/A
	Rated Input	Input1: 100-130V~ 50/60Hz 2.0A; Input2: 200-240V~ 50/60Hz 2.0A
	Rated Output	Output1: 5.0 Vdc, 2.0A, 5.0-11.0Vdc 6.1A Output2: 5.0 Vdc, 2.0A, 5.0-11.0Vdc 7.3A
	Manufacturer	HUIZHOU GOLDEN LAKE INDUSTRIAL CO., LTD.
Ancillary Equipment 4	Power Supply Unit(alternative) 3	
	Brand Name	SUPERVOOC
	Model No.	VCB7CAUH (US Plug)
	Serial No.	N/A
	Rated Input	Input1: 100-130V~ 50/60Hz 1.8A; Input2: 200-240V~ 50/60Hz 1.8A
	Rated Output	Output1: 5.0 Vdc, 2.0A, 5.0-11.0Vdc 5.0A Output2: 5.0 Vdc, 2.0A, 5.0-11.0Vdc 6.1A
	Manufacturer	Jiangsu ChenYang Electronics Co., Ltd.
Ancillary Equipment 5	USB Cable	
	Model No.	DL129
	Length (Approx.)	1.0 m
Ancillary Equipment 6	Headset	
	Model No.	MH147

	Length (Approx.)	1.18 m
Note1: All adapters are tested, only the worst data of VCB8JAUH (US Plug) shown in this report.		

2.6 Technical Information

<p>Network and Wireless connectivity</p>	<p>2G Network GSM/GPRS/EDGE 850/1900 MHz 3G Network WCDMA/HSDPA/HSUPA Band 2/4/5 4G Network LTE FDD Band 2/4/5/7/12/13/17/26/66 LTE TDD Band 38/41 LTE CA Uplink (UL): CA_7C, CA_38C, CA_41C 5G Network SA: NR n5/n7/n38/n41/n66 NSA: DC_2A_n66A, DC_5A_n7A, DC_5A_n66A, DC_7A_n5A, DC_7_n66A, DC_26A_n41A, DC_66A_n5A, DC_66A_n7A Bluetooth5.2 (BR+EDR+BLE) 2.4GWIFI 802.11b, 802.11g, 802.11n(HT20/40), VHT20/40 and 802.11ax(HE20/40) 5GWIFI 802.11a, 802.11n(HT20/40), 802.11ac(VHT20/40/80) and 802.11ax(HE20/40/80) U-NII-1/2A/2C/3, GPS, NFC, BeiDou, Galileo, GLONASS, SBAS</p>
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The requirement for the following technical information of the EUT was tested in this report:

<p>The Highest Speed of Processor</p>	<p>N/A</p>
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3 SUMMARY OF TEST RESULTS

3.1 Test Standards

No.	Identity	Document Title
1	47 CFR Part 15 Subpart B	Unintentional Radiators
2	ANSI C63.4-2014	American National Standard for Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the Range of 9 kHz to 40 GHz

3.2 Verdict

No.	Description	FCC Rule	Test Verdict	Result
1	Radiated Emission	15.109	Pass	Annex A .1
2	Conducted Emission, AC Ports	15.107	Pass	Annex A .2

Note1: Compared with the EUT of test report BL-SZ2320162-401, the changes of the EUT of this report as below:

- front camera, rear camera, battery, adapter, motor, charge management system and circuit.

Therefore, all the items are re-tested in this report.

3.3 Test Uncertainty

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	Value
Conducted emissions (9 kHz-30 MHz)	3.22 dB
Radiated emissions (30 MHz-1 GHz)-10m	4.80 dB
Radiated emissions (30 MHz-1 GHz)-3m	4.76 dB
Radiated emissions (1 GHz-18 GHz)-3m	4.88 dB

4 GENERAL TEST CONFIGURATIONS

4.1 Test Environments, Test Date and Test Engineer

Test items	Voltage	Temperature	Relative Humidity	Ambient Pressure	Test Date	Test Engineer
Radiated Emission	AC 230V/50Hz AC 120V/60Hz DC 3.89V(battery)	22.8℃	50%	101kPa	Mar. 28, 2023	Gu Shuaizhen
		21.6℃	48%		Mar. 29, 2023	Tian Hengzhao
Conducted Emission	AC 230V/50Hz AC 120V/60Hz DC 3.89V(battery)	22.4℃	54%		Mar. 30, 2023	Yuan Zhishen

4.2 Test Equipment List

Radiated Emission Test For Frequency Below 1 GHz (3m)						
Description	Manufacturer	Model	Serial No.	Cal. Date	Cal. Due	Use
EMI Receiver	Keysight	N9038A	MY55330120	2022.09.09	2023.09.08	<input checked="" type="checkbox"/>
Amplifier (30-1GHz)	COM-MV	ZT30-1000M	B2017119081	2022.12.07	2023.12.06	<input checked="" type="checkbox"/>
Test Antenna-Bi-Log	SCHWARZBECK	VULB 9168	9168-00867	2022.04.12	2025.04.11	<input checked="" type="checkbox"/>
Anechoic Chamber	YiHeng	9m*6m*6m	142	2021.08.19	2024.08.18	<input checked="" type="checkbox"/>
Description	Manufacturer	Name		Version		Use
Test Software	BALUN	BL410-E		V22.930		<input checked="" type="checkbox"/>

Radiated Emission Test For Frequency Above 1 GHz (3m)						
Description	Manufacturer	Model	Serial No.	Cal. Date	Cal. Due	Use
EMI Receiver	Keysight	N9038A	MY55330120	2022.09.09	2023.09.08	<input checked="" type="checkbox"/>
Amplifier (1-12GHz)	Advanced Microwave	WLA652A	1740103	2022.12.07	2023.12.06	<input checked="" type="checkbox"/>
Amplifier (0.8-21GHz)	Mini-Circuits	ZVA-213-S+	225321316	2022.12.07	2023.12.06	<input checked="" type="checkbox"/>
Test Antenna- Horn	SCHWARZBECK	BBHA 9120D	01917	2022.06.09	2025.06.08	<input checked="" type="checkbox"/>
Anechoic Chamber	YiHeng	9m*6m*6m	142	2021.08.19	2024.08.18	<input checked="" type="checkbox"/>
Description	Manufacturer	Name		Version		Use
Test Software	BALUN	BL410-E		V22.930		<input checked="" type="checkbox"/>

Conducted disturbance Test						
Description	Manufacturer	Model	Serial No.	Cal. Date	Cal. Due	Use
EMI Receiver	KEYSIGHT	N9010B	MY57110309	2022.09.09	2023.09.08	<input checked="" type="checkbox"/>
LISN	SCHWARZBECK	NSLK 8127	8127-687	2022.06.01	2023.05.31	<input checked="" type="checkbox"/>
ISN	TESEQ	ISN T800	34449	2022.11.11	2023.11.10	<input type="checkbox"/>
ISN	TESEQ	ISN T8-Cat6	53561	2022.05.24	2023.05.23	<input type="checkbox"/>
Shielded Room	YiHeng Electronic Co., Ltd	3.5m*3.1m*2. 8m	112	2022.02.19	2025.02.18	<input checked="" type="checkbox"/>
Description	Manufacturer	Name		Version		Use
Test Software	BALUN	BL410-E		V22.930		<input checked="" type="checkbox"/>

4.3 Test Enclosure list

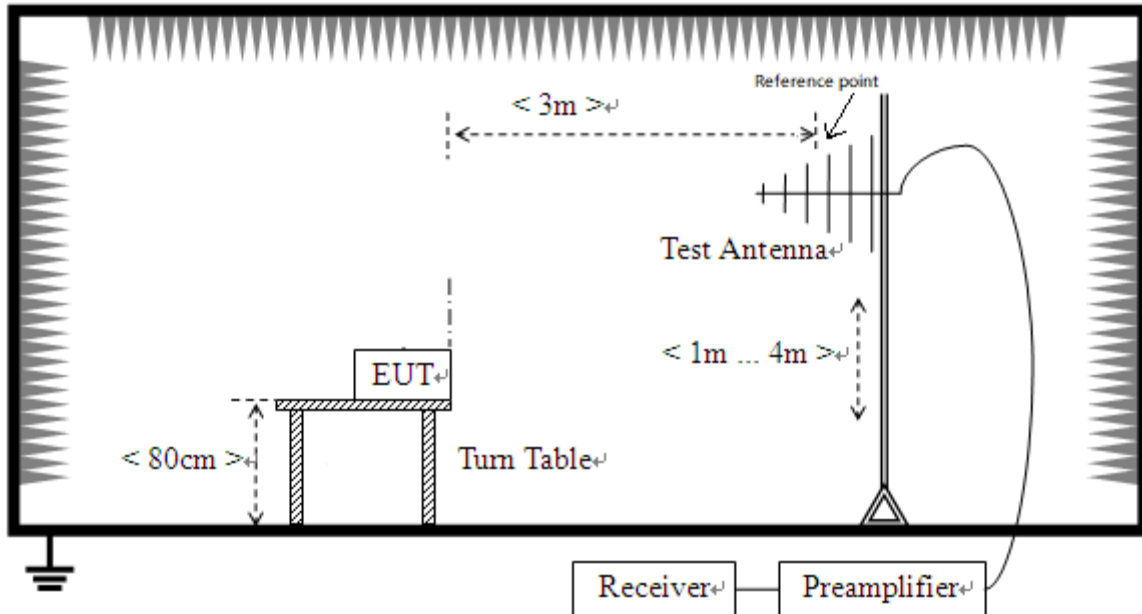
Description	Manufacturer	Model	Serial No.	Length	Description	Use
Wireless Communications Test Set	R&S	CMW500	127801	N/A	Cal. Due 2023.12.27	<input checked="" type="checkbox"/>
5G Wireless Test Platform	StarPoint	SP9500E	25103	N/A	Cal. Due 2024.02.15	<input checked="" type="checkbox"/>
PC	Dell	015K3N	N/A	N/A	Special Handled	<input checked="" type="checkbox"/>
Laptop	Lenovo	N/A	N/A	N/A	N/A	<input checked="" type="checkbox"/>
Data connector	N/A	N/A	N/A	N/A	N/A	<input checked="" type="checkbox"/>
USB disk	Sandisk	N/A	N/A	N/A	N/A	<input checked="" type="checkbox"/>

4.4 Test Configurations

Test Configurations (TC) No.	Description
TC01	<u>The GSM 850 MHz RX Test Mode</u> GSM 850 MHz RX + EUT +Adapter + USB Cable + Battery
TC02	<u>The EGPRS 850 MHz RX Test Mode</u> EGPRS 850 MHz RX + EUT +Adapter + USB Cable + Battery
TC03	<u>The WCDMA Band 5 RX Test Mode</u> WCDMA Band 5 RX + EUT +Adapter + USB Cable + Battery
TC04	<u>The FDD LTE Band 5 RX Test Mode</u> LTE Band 5 RX + EUT +Adapter + USB Cable + Battery
TC05	<u>The FDD LTE Band 12 RX Test Mode</u> LTE Band 12 RX + EUT +Adapter + USB Cable + Battery
TC06	<u>The FDD LTE Band 13 RX Test Mode</u> LTE Band 13 RX + EUT +Adapter + USB Cable + Battery
TC07	<u>The FDD LTE Band 17 RX Test Mode</u> LTE Band 17 RX + EUT +Adapter + USB Cable + Battery
TC08	<u>The FDD LTE Band 26 RX Test Mode</u> LTE Band 26 RX + EUT +Adapter + USB Cable + Battery
TC09	<u>The n5 Test Mode</u> n5 RX + EUT + Adapter + USB Cable + Battery
TC10	<u>The Camera Test Mode</u> EUT + Adapter + USB Cable + Battery
TC11	<u>The Video Play Test Mode</u> EUT + Adapter + USB Cable + Battery
TC12	<u>The USB Test Mode</u> EUT + USB Cable + Battery + Laptop
TC13	<u>The OTG Test Mode</u> EUT + Battery + Data connector + USB Disk
TC14	<u>The Type-C Headset Test Mode</u> EUT + Type-C Headset + Battery

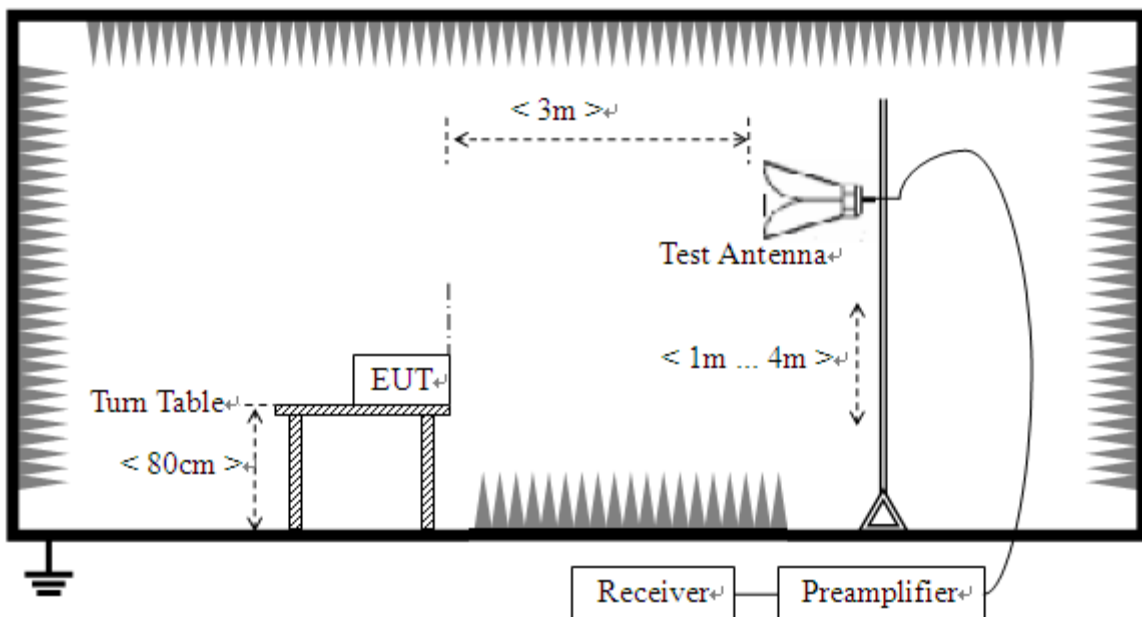
4.5 Test Setups

Test Setup 1



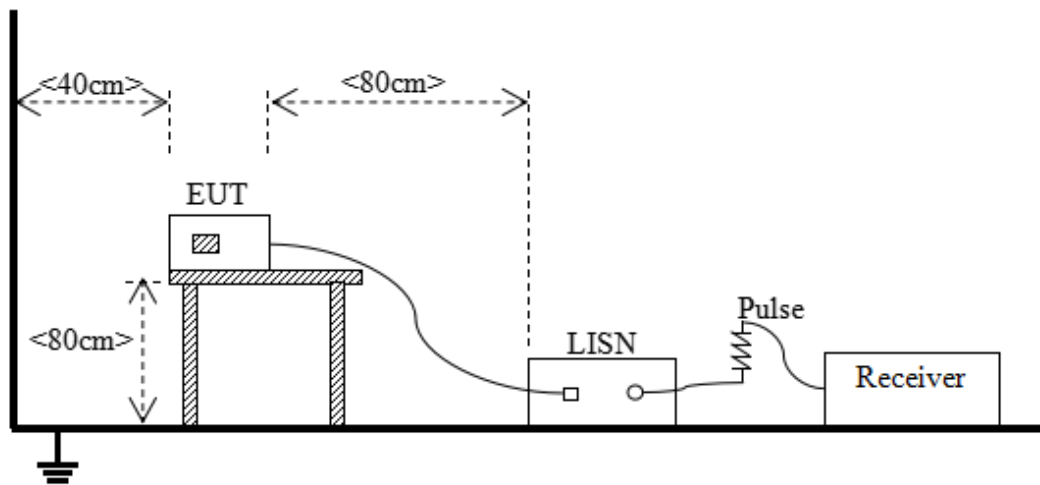
(For Radiated Emission Test (30 MHz-1 GHz))

Test Setup 2



(For Radiated Emission Test (above 1 GHz))

Test Setup 3



(For Conducted Emission, AC Ports Test)

4.6 Test Conditions

Test Case	Test Conditions	
Radiated Emission	Test Setup	Test Setup 1&2
	Test Configuration	TC01~TC14 ^{Note}
Conducted Emission, AC Ports	Test Setup	Test Setup 3
	Test Configuration	TC01~TC12 ^{Note}

Note: Based on client request, all normal using modes of the normal function were tested but only the worst test data of the worst mode is reported by this report. The GSM 850 MHz RX Test Mode is the worst mode in this report.

5 TEST ITEMS

5.1 Emission Tests

5.1.1 Radiated Emission

5.1.1.1 Limit

Frequency range (MHz)	Class B (at 3 m)		Class B (at 10 m)	Class A (at 10 m)	
	Field Strength ($\mu\text{V/m}$)	Field Strength ($\text{dB}\mu\text{V/m}$)	Field Strength ($\text{dB}\mu\text{V/m}$)	Field Strength ($\mu\text{V/m}$)	Field Strength ($\text{dB}\mu\text{V/m}$)
30 - 88	100	40	30	90	39
88 - 216	150	43.5	33.5	150	43.5
216 - 960	200	46	36	210	46.4
Above 960	500	54	44	300	49.5

NOTE:

- 1) Field Strength ($\text{dB}\mu\text{V/m}$) = $20 \cdot \log$ [Field Strength ($\mu\text{V/m}$)].
- 2) The lower limit shall apply at the transition frequency.

5.1.1.2 Test Setup

Refer to 4.5 section (test setup 1 to test setup 2) for radiated emission test, the photo of test setup please refer to ANNEX B.

5.1.1.3 Test Procedure

All Spurious Emission tests were performed in X, Y, Z axis direction. And only the worst axis test condition was recorded in this test report.

An initial pre-scan was performed in the chamber using the EMI Receiver in peak detection mode. Quasi-peak measurements were conducted based on the peak sweep graph. The EUT was measured by Bi-Log antenna with 2 orthogonal polarities.

The measurement frequency range is from 30 MHz to the 5th harmonic of the maximum frequency of the EUT internal source. The Turn Table is actuated to turn from 0° to 360° , and both horizontal and vertical polarizations of the Test Antenna are used to find the maximum radiated power. Mid channels on all channel bandwidth verified. Only the worst RB size/offset presented.

Use the following spectrum analyzer settings:

Span = wide enough to fully capture the emission being measured

RBW = 1 MHz for $f \geq 1$ GHz, 100 kHz for $f < 1$ GHz

VBW \geq RBW

Sweep = auto

Detector function = peak for $f < 1$ GHz, peak & RMS Average for $f \geq 1$ GHz

Trace = max hold

5.1.1.4 Test Result

Please refer to ANNEX A.1.

NOTE:

1. Results (dB μ V/m) = Reading (dB μ V/m) + Factor (dB/m)

The reading level is calculated by software which is not shown in the sheet

2. Factor (dB/m) = Antenna Factor (dB/m) + Cable Factor (dB) – Amplifier Gain (dB)

3. Over limit = Results – Limit.

5.1.2 Conducted Emission

5.1.2.1 Test Limit

Frequency range (MHz)	Class A	
	Quasi-peak (dB μ V)	Average (dB μ V)
0.15 - 0.50	79	66
0.50 - 30	73	60

Frequency range (MHz)	Class B	
	Quasi-peak (dB μ V)	Average (dB μ V)
0.15 - 0.50	66 to 56	56 to 46
0.50 - 5	56	46
5 - 30	60	50

NOTE:

- 1) The lower limit shall apply at the transition frequency..
- 2) The limit decreases linearly with the logarithm of the frequency in the range 0.15 - 0.50 MHz.

5.1.2.2 Test Setup

Refer to 4.5 section test (test setup 3) for conducted emission, the photo of test setup please refer to ANNEX B.

5.1.2.3 Test Procedure

The EUT is connected to the power mains through a LISN which provides 50 Ω /50 μ H of coupling impedance for the measuring instrument. The test frequency range is from 150 kHz to 30 MHz. The maximum conducted interference is searched using Peak (PK), Quasi-peak (QP) and Average (AV) detectors; the emission levels that are more than the AV and QP limits, and that have narrow margins from the AV and QP limits will be re-measured with AV and QP detectors. Tests for both L phase and N phase lines of the power mains connected to the EUT are performed.

Devices subject to Part 15 must be tested for all available U.S. voltages and frequencies (such as a nominal 120 VAC, 50/60 Hz and 240 VAC, 50/60 Hz) for which the device is capable of operation. A device rated for 50/60 Hz operation need not be tested at both frequencies provided the radiated and line conducted emissions are the same at both frequencies.

Use the following spectrum analyzer settings:

RBW = 9 kHz

VBW \geq RBW

Sweep = 10ms

Detector function = peak & Average

Trace = max hold

5.1.2.4 Test Result

Please refer to ANNEX A.2.

NOTE:

1. Results (dB μ V) = Reading (dB μ V) + Factor (dB)

The reading level is calculated by software which is not shown in the sheet

2. Factor = Insertion loss + Cable loss

3. Over limit = Results – Limit.

ANNEX A TEST RESULTS

A.1 Radiated Emission

Note 1: The symbol of "--" in the table which means not application.

Note 2: For the test data above 1 GHz, according the ANSI C63.4-2014, where limits are specified for both average and peak (or quasi-peak) detector functions, if the peak (or quasi-peak) measured value complies with the average limit, it is unnecessary to perform an average measurement.

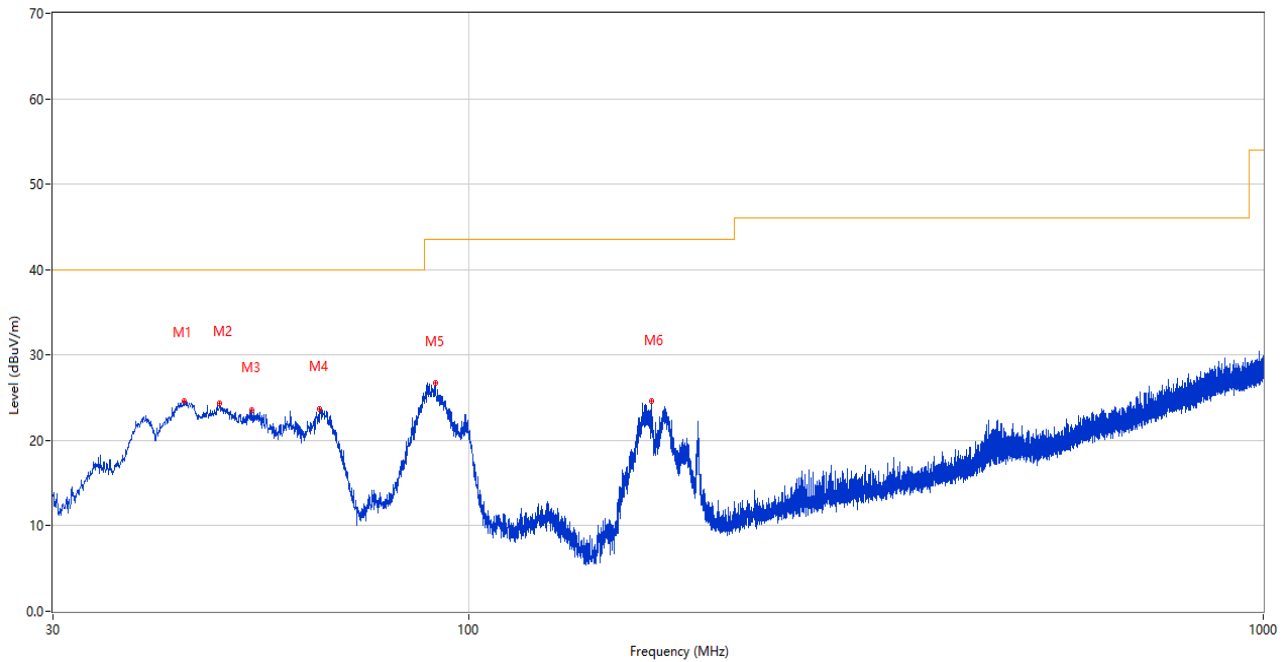
Note 3: The Radiated Emission from 18G-40G is noise only, do not show on the report.

Note 4: All the configurations were pre tested, only the worst configuration has been reported in this report.

Test Data and Plots

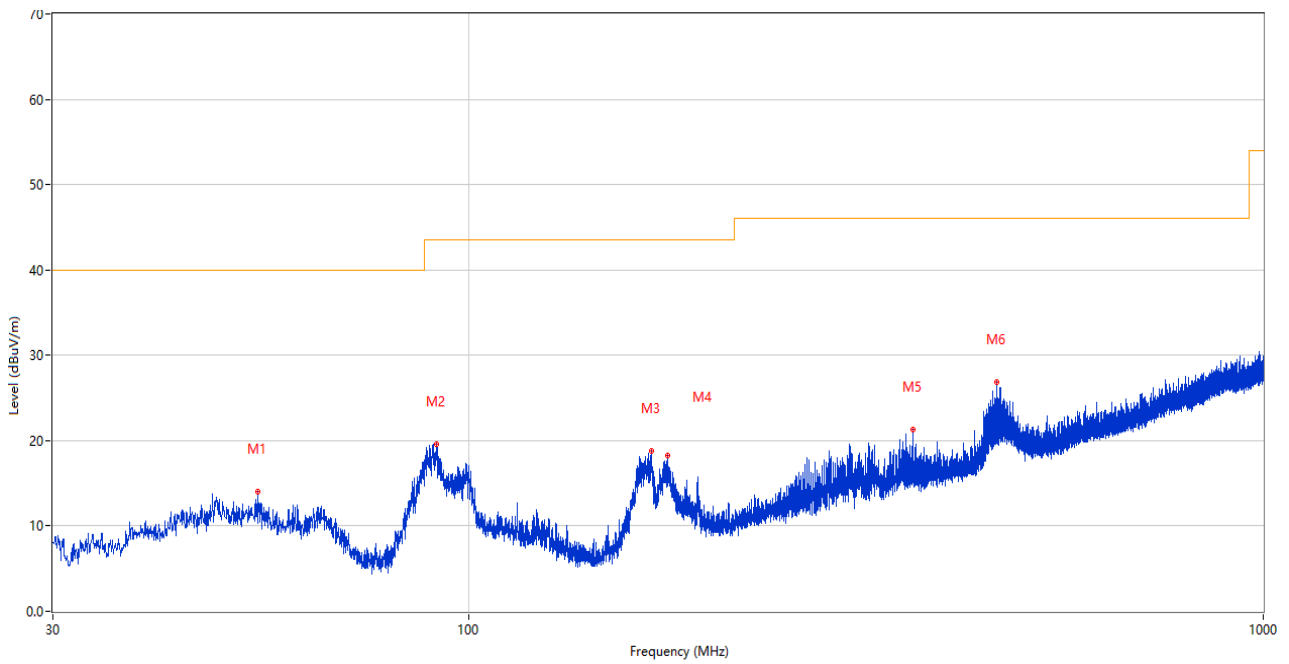
The GSM 850 MHz RX Test Mode

A.1.1 Test Antenna Vertical, 30 MHz – 1 GHz



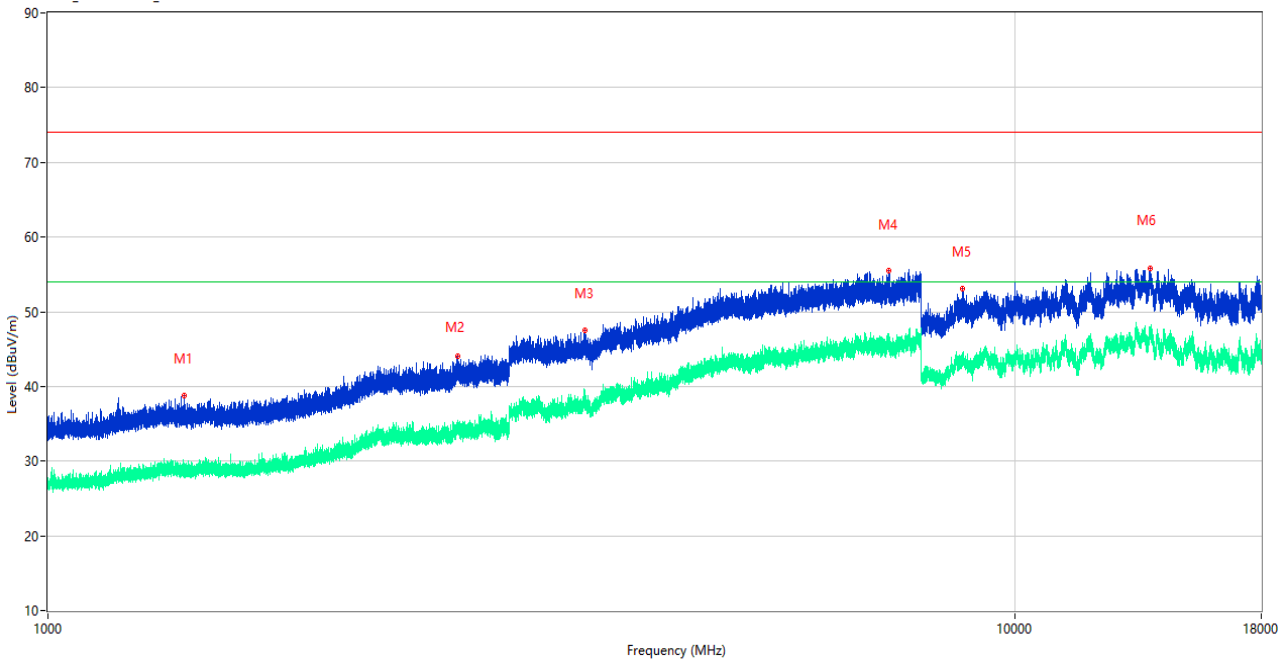
No.	Frequency (MHz)	Results (dBUV/m)	Factor (dB)	Limit (dBUV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	43.822	24.62	-25.74	40.0	15.38	Peak	41.00	100	Vertical	Pass
2	48.624	24.30	-25.35	40.0	15.70	Peak	219.00	100	Vertical	Pass
3	53.328	23.62	-25.55	40.0	16.38	Peak	0.00	100	Vertical	Pass
4	65.017	23.71	-27.54	40.0	16.29	Peak	311.00	100	Vertical	Pass
5	90.868	26.69	-28.33	43.5	16.81	Peak	125.00	100	Vertical	Pass
6	169.971	24.66	-29.18	43.5	18.84	Peak	303.00	100	Vertical	Pass

A.1.2 Test Antenna Horizontal, 30 MHz – 1 GHz



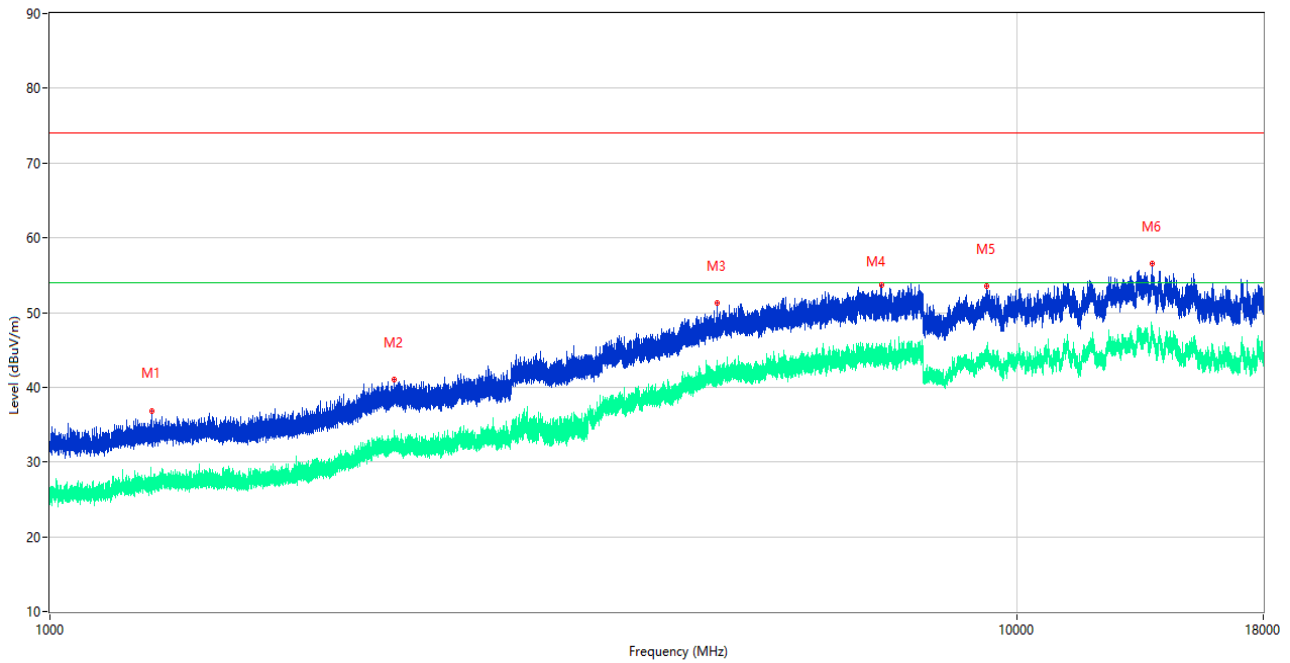
No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	54.347	14.07	-25.58	40.0	25.93	Peak	20.00	100	Horizontal	Pass
2	91.256	19.59	-28.25	43.5	23.91	Peak	151.00	200	Horizontal	Pass
3	169.874	18.83	-29.19	43.5	24.67	Peak	277.00	200	Horizontal	Pass
4	177.973	18.25	-28.67	43.5	25.25	Peak	272.00	200	Horizontal	Pass
5	362.565	21.33	-21.93	46.0	24.67	Peak	61.00	100	Horizontal	Pass
6	461.698	26.83	-19.71	46.0	19.17	Peak	232.00	100	Horizontal	Pass

A.1.3 Test Antenna Vertical, 1 GHz – 18 GHz



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1381.900	38.71	-16.85	74.0	35.29	Peak	31.00	100	Vertical	Pass
1**	1381.900	28.44	-16.85	54.0	25.56	AV	31.00	100	Vertical	Pass
2	2654.800	43.99	-9.56	74.0	30.01	Peak	220.00	100	Vertical	Pass
2**	2654.800	34.27	-9.56	54.0	19.73	AV	220.00	100	Vertical	Pass
3	3592.000	47.50	-4.80	74.0	26.50	Peak	171.00	100	Vertical	Pass
3**	3592.000	37.58	-4.80	54.0	16.42	AV	171.00	100	Vertical	Pass
4	7415.000	55.55	3.01	74.0	18.45	Peak	9.00	100	Vertical	Pass
4**	7415.000	45.44	3.01	54.0	8.56	AV	9.00	100	Vertical	Pass
5	8834.500	53.09	1.34	74.0	20.91	Peak	21.00	100	Vertical	Pass
5**	8834.500	43.09	1.34	54.0	10.91	AV	21.00	100	Vertical	Pass
6	13808.500	55.74	5.70	74.0	18.26	Peak	21.00	100	Vertical	Pass
6**	13808.500	47.60	5.70	54.0	6.40	AV	21.00	100	Vertical	Pass

A.1.4 Test Antenna Horizontal, 1 GHz – 18 GHz

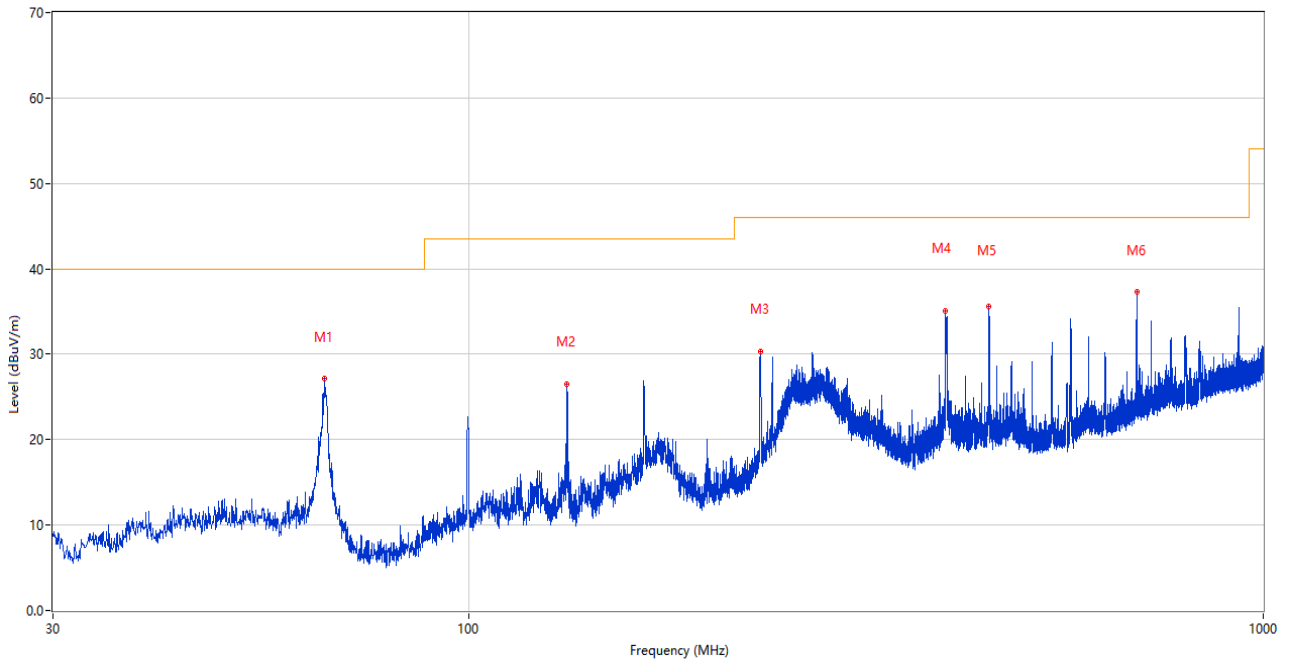


No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1274.800	36.88	-17.01	74.0	37.12	Peak	215.00	100	Horizontal	Pass
1**	1274.800	26.60	-17.01	54.0	27.40	AV	215.00	100	Horizontal	Pass
2	2272.800	41.03	-11.89	74.0	32.97	Peak	215.00	100	Horizontal	Pass
2**	2272.800	34.28	-11.89	54.0	19.72	AV	215.00	100	Horizontal	Pass
3	4903.250	51.32	0.32	74.0	22.68	Peak	177.00	100	Horizontal	Pass
3**	4903.250	41.63	0.32	54.0	12.37	AV	177.00	100	Horizontal	Pass
4	7253.250	53.64	2.53	74.0	20.36	Peak	87.00	100	Horizontal	Pass
4**	7253.250	45.10	2.53	54.0	8.90	AV	87.00	100	Horizontal	Pass
5	9315.500	53.54	2.18	74.0	20.46	Peak	69.00	100	Horizontal	Pass
5**	9315.500	45.07	2.18	54.0	8.93	AV	69.00	100	Horizontal	Pass
6	13809.500	56.53	5.69	74.0	17.47	Peak	161.00	100	Horizontal	Pass
6**	13809.500	47.04	5.69	54.0	6.96	AV	161.00	100	Horizontal	Pass

Test Data and Plots

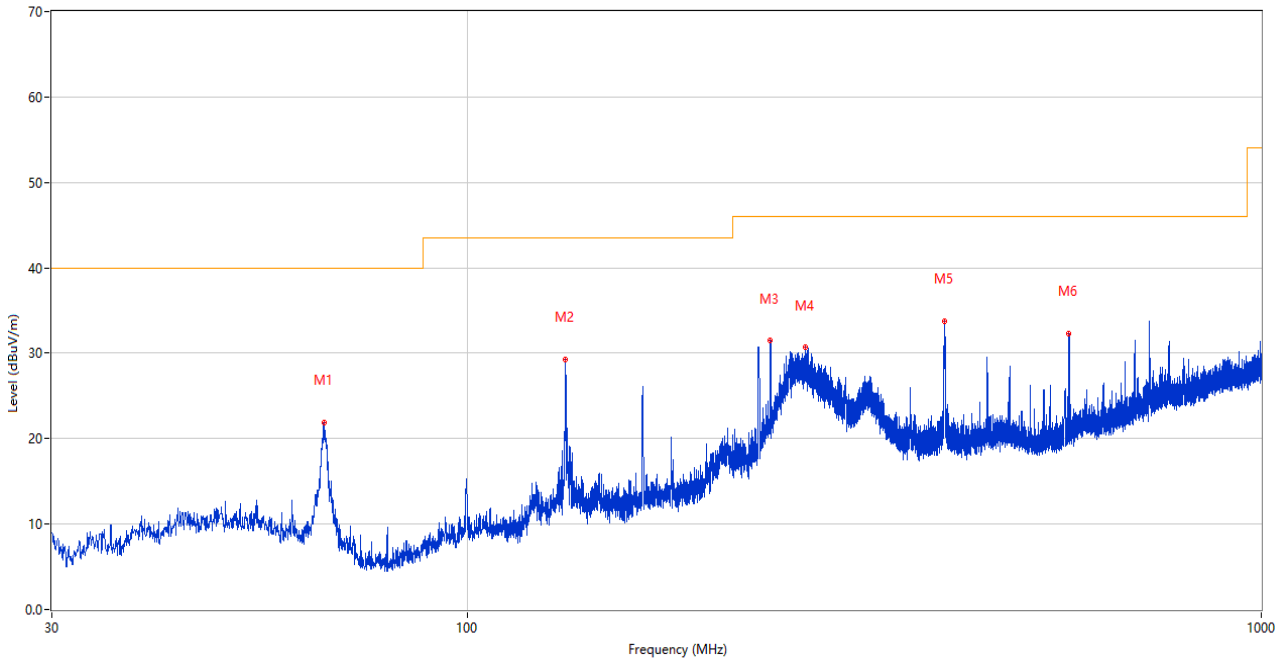
The USB Test Mode

A.1.5 Test Antenna Vertical, 30 MHz – 1 GHz



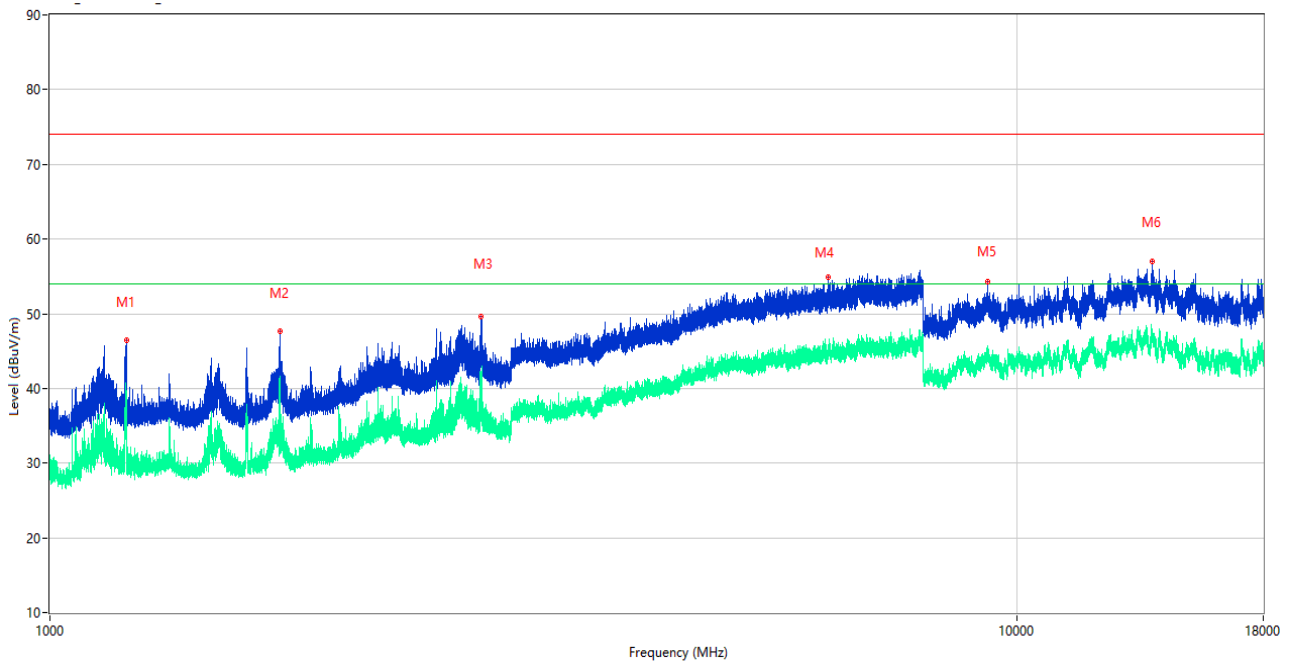
No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	65.841	27.10	-27.77	40.0	12.90	Peak	227.00	100	Vertical	Pass
2	132.965	26.48	-29.95	43.5	17.02	Peak	0.00	100	Vertical	Pass
3	233.215	30.38	-25.44	46.0	15.62	Peak	166.00	200	Vertical	Pass
4	398.600	35.01	-21.01	46.0	10.99	Peak	205.00	100	Vertical	Pass
5	451.950	35.55	-19.83	46.0	10.45	Peak	160.00	100	Vertical	Pass
6	692.995	37.25	-14.19	46.0	8.75	Peak	146.00	100	Vertical	Pass

A.1.6 Test Antenna Horizontal, 30 MHz – 1 GHz



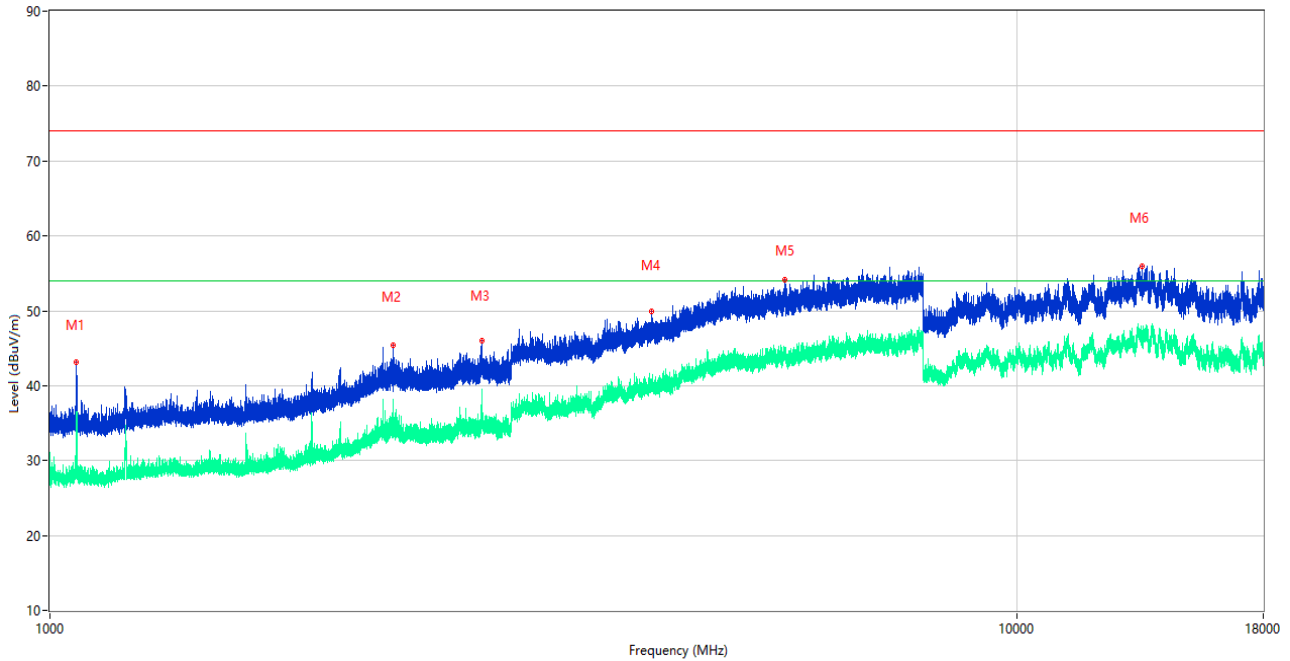
No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	65.987	21.85	-27.78	40.0	18.15	Peak	153.00	200	Horizontal	Pass
2	132.965	29.27	-29.95	43.5	14.23	Peak	209.00	200	Horizontal	Pass
3	240.878	31.45	-25.08	46.0	14.55	Peak	118.00	100	Horizontal	Pass
4	266.777	30.65	-24.50	46.0	15.35	Peak	255.00	100	Horizontal	Pass
5	399.716	33.81	-20.95	46.0	12.19	Peak	72.00	100	Horizontal	Pass
6	572.472	32.34	-16.98	46.0	13.66	Peak	211.00	200	Horizontal	Pass

A.1.7 Test Antenna Vertical, 1 GHz – 18 GHz



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1199.100	46.52	-17.32	74.0	27.48	Peak	213.00	100	Vertical	Pass
1**	1199.100	39.67	-17.32	54.0	14.33	AV	213.00	100	Vertical	Pass
2	1731.100	47.73	-16.50	74.0	26.27	Peak	33.00	100	Vertical	Pass
2**	1731.100	37.54	-16.50	54.0	16.46	AV	33.00	100	Vertical	Pass
3	2789.400	49.57	-9.06	74.0	24.43	Peak	166.00	100	Vertical	Pass
3**	2789.400	36.93	-9.06	54.0	17.07	AV	166.00	100	Vertical	Pass
4	6377.500	54.94	1.79	74.0	19.06	Peak	42.00	100	Vertical	Pass
4**	6377.500	44.76	1.79	54.0	9.24	AV	42.00	100	Vertical	Pass
5	9328.000	54.34	2.17	74.0	19.66	Peak	360.00	100	Vertical	Pass
5**	9328.000	44.93	2.17	54.0	9.07	AV	360.00	100	Vertical	Pass
6	13807.500	56.94	5.72	74.0	17.06	Peak	0.00	100	Vertical	Pass
6**	13807.500	47.43	5.72	54.0	6.57	AV	0.00	100	Vertical	Pass

A.1.8 Test Antenna Horizontal, 1 GHz – 18 GHz



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1065.400	43.13	-17.95	74.0	30.87	Peak	133.00	100	Horizontal	Pass
1**	1065.400	33.47	-17.95	54.0	20.53	AV	133.00	100	Horizontal	Pass
2	2262.800	45.37	-12.33	74.0	28.63	Peak	143.00	100	Horizontal	Pass
2**	2262.800	35.03	-12.33	54.0	18.97	AV	143.00	100	Horizontal	Pass
3	2796.700	45.98	-8.87	74.0	28.02	Peak	250.00	100	Horizontal	Pass
3**	2796.700	36.04	-8.87	54.0	17.96	AV	250.00	100	Horizontal	Pass
4	4196.000	49.85	-1.89	74.0	24.15	Peak	74.00	100	Horizontal	Pass
4**	4196.000	39.29	-1.89	54.0	14.71	AV	74.00	100	Horizontal	Pass
5	5761.750	54.21	1.25	74.0	19.79	Peak	286.00	100	Horizontal	Pass
5**	5761.750	45.08	1.25	54.0	8.92	AV	286.00	100	Horizontal	Pass
6	13479.999	55.88	3.91	74.0	18.12	Peak	164.00	100	Horizontal	Pass
6**	13479.999	46.67	3.91	54.0	7.33	AV	164.00	100	Horizontal	Pass

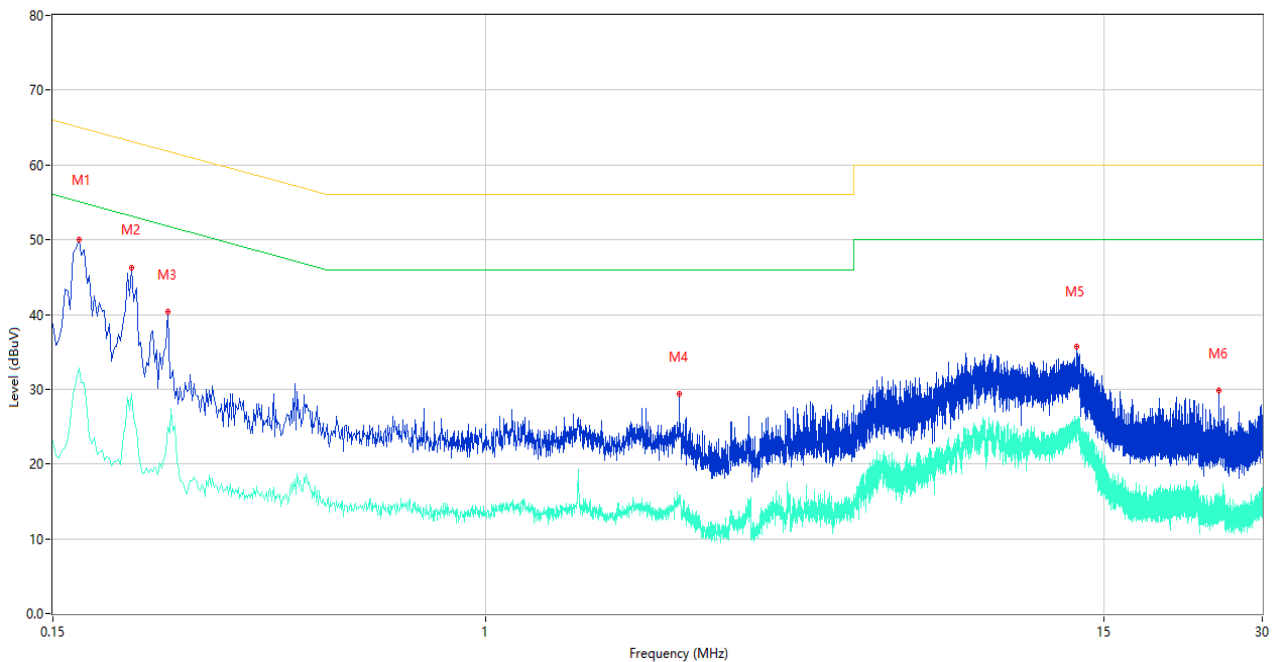
A.2 Conducted Emission

Note: Devices subject to Part 15 must be tested for all available U.S. voltages and frequencies (such as a nominal 120 VAC, 50/60 Hz and 240 VAC, 50/60 Hz) for which the device is capable of operation. So, The configuration 120 VAC, 60 Hz and 240 VAC, 50 Hz were tested respectively, but only the worst configuration (120 VAC, 60 Hz) shown here.

Test Data and Plots

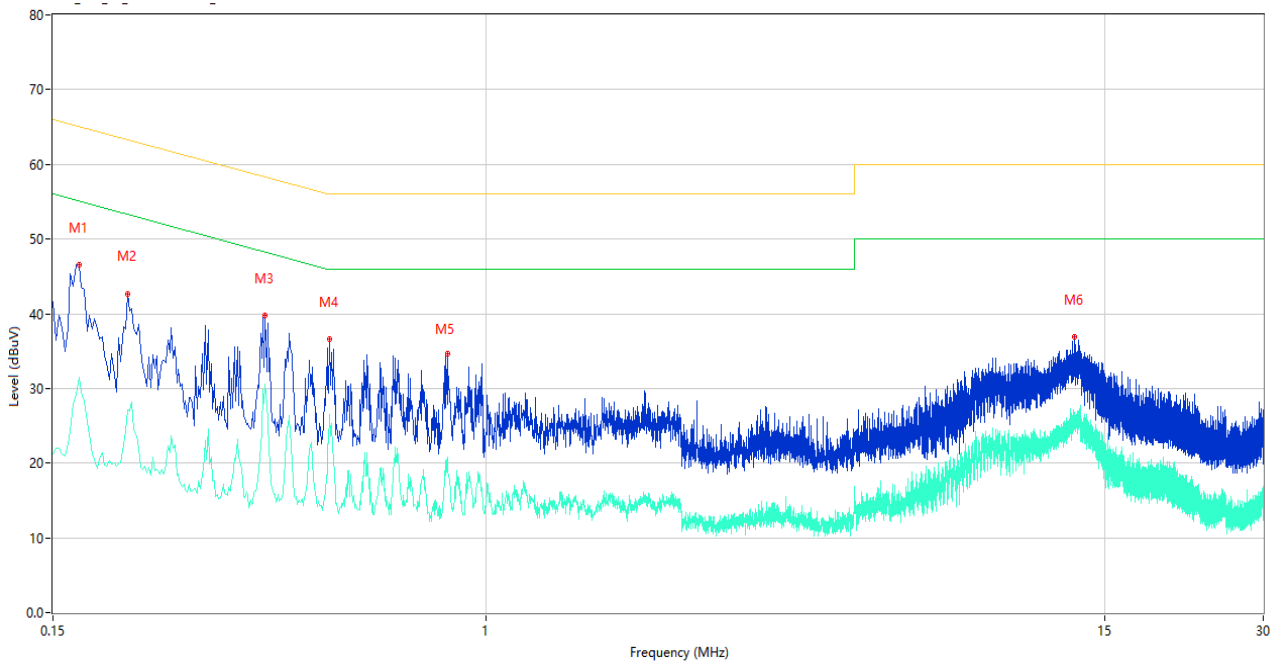
The GSM 850 MHz RX Test Mode

A.2.1 L Phase



No.	Frequency (MHz)	Results (dBUV)	Factor (dB)	Limit (dBUV)	Margin (dB)	Detector	Line	Verdict
1	0.168	49.97	9.82	65.06	15.09	Peak	L	Pass
1**	0.168	32.80	9.82	55.06	22.26	AV	L	Pass
2	0.212	46.31	9.78	63.13	16.82	Peak	L	Pass
2**	0.212	29.36	9.78	53.13	23.77	AV	L	Pass
3	0.248	40.30	9.79	61.82	21.52	Peak	L	Pass
3**	0.248	25.04	9.79	51.82	26.78	AV	L	Pass
4	2.332	29.36	10.23	56.00	26.64	Peak	L	Pass
4**	2.332	14.76	10.23	46.00	31.24	AV	L	Pass
5	13.278	35.70	10.14	60.00	24.30	Peak	L	Pass
5**	13.278	25.14	10.14	50.00	24.86	AV	L	Pass
6	24.852	29.80	10.64	60.00	30.20	Peak	L	Pass
6**	24.852	15.10	10.64	50.00	34.90	AV	L	Pass

A.2.2 N Phase

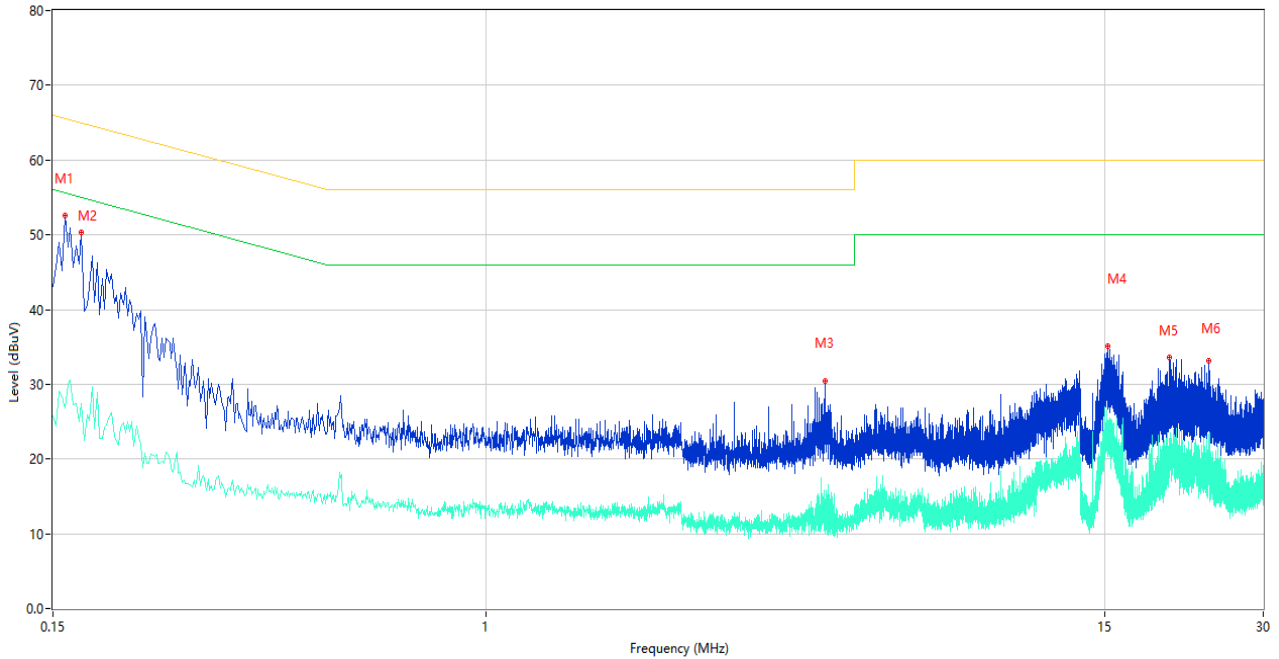


No.	Frequency (MHz)	Results (dBuV)	Factor (dB)	Limit (dBuV)	Margin (dB)	Detector	Line	Verdict
1	0.168	46.54	9.82	65.06	18.52	Peak	N	Pass
1**	0.168	31.48	9.82	55.06	23.58	AV	N	Pass
2	0.208	42.71	9.78	63.28	20.57	Peak	N	Pass
2**	0.208	27.08	9.78	53.28	26.20	AV	N	Pass
3	0.380	39.77	10.11	58.28	18.51	Peak	N	Pass
3**	0.380	30.58	10.11	48.28	17.70	AV	N	Pass
4	0.504	36.65	10.07	56.00	19.35	Peak	N	Pass
4**	0.504	26.56	10.07	46.00	19.44	AV	N	Pass
5	0.844	34.66	10.28	56.00	21.34	Peak	N	Pass
5**	0.844	20.72	10.28	46.00	25.28	AV	N	Pass
6	13.116	36.87	10.42	60.00	23.13	Peak	N	Pass
6**	13.116	26.23	10.42	50.00	23.77	AV	N	Pass

Test Data and Plots

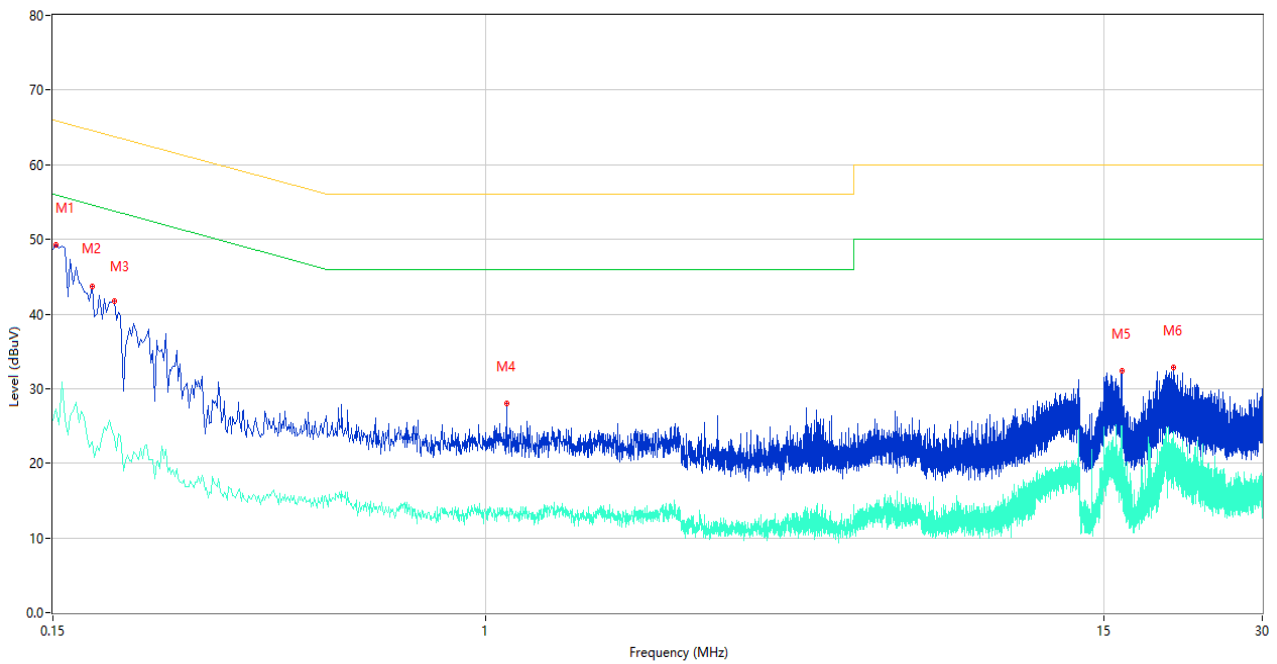
The USB Test Mode

A.2.3 L Phase



No.	Frequency (MHz)	Results (dBuV)	Factor (dB)	Limit (dBuV)	Margin (dB)	Detector	Line	Verdict
1	0.158	52.55	9.83	65.57	13.02	Peak	L	Pass
1**	0.158	26.75	9.83	55.57	28.82	AV	L	Pass
2	0.170	50.25	9.82	64.96	14.71	Peak	L	Pass
2**	0.170	27.37	9.82	54.96	27.59	AV	L	Pass
3	4.404	30.49	10.19	56.00	25.51	Peak	L	Pass
3**	4.404	14.48	10.19	46.00	31.52	AV	L	Pass
4	15.184	35.04	10.46	60.00	24.96	Peak	L	Pass
4**	15.184	25.09	10.46	50.00	24.91	AV	L	Pass
5	19.922	33.55	10.76	60.00	26.45	Peak	L	Pass
5**	19.922	20.60	10.76	50.00	29.40	AV	L	Pass
6	23.682	33.19	10.71	60.00	26.81	Peak	L	Pass
6**	23.682	19.54	10.71	50.00	30.46	AV	L	Pass

A.2.4 N Phase



No.	Frequency (MHz)	Results (dBuV)	Factor (dB)	Limit (dBuV)	Margin (dB)	Detector	Line	Verdict
1	0.152	49.31	9.84	65.89	16.58	Peak	N	Pass
1**	0.152	27.34	9.84	55.89	28.55	AV	N	Pass
2	0.178	43.69	9.81	64.58	20.89	Peak	N	Pass
2**	0.178	22.86	9.81	54.58	31.72	AV	N	Pass
3	0.196	41.66	9.78	63.78	22.12	Peak	N	Pass
3**	0.196	23.43	9.78	53.78	30.35	AV	N	Pass
4	1.094	28.07	10.18	56.00	27.93	Peak	N	Pass
4**	1.094	13.99	10.18	46.00	32.01	AV	N	Pass
5	16.226	32.41	10.34	60.00	27.59	Peak	N	Pass
5**	16.226	25.01	10.34	50.00	24.99	AV	N	Pass
6	20.336	32.84	10.68	60.00	27.16	Peak	N	Pass
6**	20.336	22.94	10.68	50.00	27.06	AV	N	Pass

ANNEX B TEST SETUP PHOTOS

Please refer the document “BL-SZ2320168-AE-1.PDF”.

ANNEX C EUT EXTERNAL PHOTOS

Please refer the document “BL-SZ2320168-AW.PDF”.

ANNEX D EUT INTERNAL PHOTOS

Please refer the document “BL-SZ2320168-AI.PDF”.

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--END OF REPORT--