

TEST REPORT

Applicant: Fibocom Wireless Inc.
Address: 1101, Tower A, Building 6, Shenzhen International Innovation Valley, Dashi 1st Rd, Nanshan, Shenzhen, China
Equipment Type: LTE Module with Bluetooth and WiFi
Model Name: SC126-NA
Brand Name: Fibocom
FCC ID: ZMOSC126NA
ISED Number: 21374-SC126NA
Test Standard: 47 CFR Part 15 Subpart B
ICES-003 (Issue 7, October 15, 2020)
ANSI C63.4-2014
Sample Arrival Date: May 12, 2023
Test Date: May 16, 2023 – Jun. 13, 2023
Date of Issue: Jun. 14, 2023

ISSUED BY:

Shenzhen BALUN Technology Co., Ltd.

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(Technical Director)

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Revision History		
Version	Issue Date	Revisions Content
<u>Rev. 01</u>	<u>May 29, 2023</u>	<u>Initial Issue</u>
<u>Rev. 02</u>	<u>Jun. 14, 2023</u>	<u>Updated section 2.6 and added relevant testing</u>

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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. The laboratory has been listed by Industry Canada to perform electromagnetic emission measurements. The recognition numbers of test site are 11524A.

2 PRODUCT INFORMATION

2.1 Applicant Information

Applicant	Fibocom Wireless Inc.
Address	1101, Tower A, Building 6, Shenzhen International Innovation Valley, Dashi 1st Rd, Nanshan, Shenzhen, China

2.2 Manufacturer Information

Manufacturer	N/A
Address	N/A

2.3 Factory Information

Factory	N/A
Address	N/A

2.4 General Description for Equipment under Test (EUT)

EUT Name	LTE Module with Bluetooth and WiFi
Model Name Under Test	SC126-NA
Series Model Name	N/A
Description of Model name differentiation	N/A
Hardware Version	N/A
Software Version	N/A
Dimensions (Approx.)	N/A
Weight (Approx.)	N/A

2.5 Ancillary Equipment

Note: Not applicable.

2.6 Technical Information

Network and Wireless connectivity	4G Network FDD LTE Band 2/4/5/7/12/13/17/25/26/66/71 TDD LTE Band 41 Bluetooth (BR+EDR+BLE) 2.4G WIFI 802.11b, 802.11g, 802.11n(HT20/40) 5G WIFI 802.11a, 802.11n(HT20/40), 802.11ac(VHT20/40/80) U-NII-1/2A/2C/3, GPS, GLONASS, BeiDou
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The requirement for the following technical information of the EUT was tested in this report:

The Highest Speed of Processor	N/A
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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	ICES-003 (Issue 7, October 15, 2020)	Information Technology Equipment (Including Digital Apparatus)
3	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	ISED Rule	Test Verdict	Result
1	Radiated Emission	15.109	ICES-003, 3.2.2	Pass	Annex A .1
2	Conducted Emission, AC Ports	15.107	ICES-003, 3.2.1	Pass	Annex A .2

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	DC 3.8V	20.6°C	31%	101kPa	May 16, 2023	Gu Shuaizhen
		24.1°C	49%		May 17, 2023	
					Jun. 12, 2023	
Conducted Emission	DC 3.8V	24.3°C	52%		May 16, 2023	Ye Guangqi
		23.8°C	50%		Jun. 13, 2023	

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"/>
				2023.05.16	2024.05.15	<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"/>
				2023.04.23	2024.04.22	<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

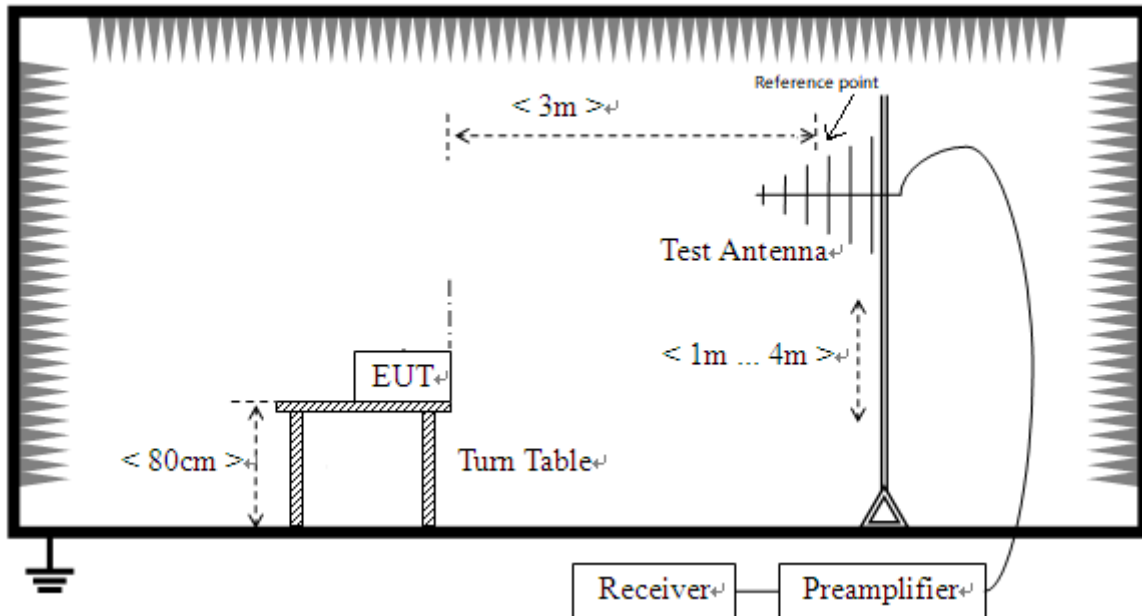
Description	Manufacturer	Model	Serial No.	Length	Description	Use
Wireless Communications Test Set	R&S	CMW500	127801	N/A	Cal. Due 2024.05.15	<input checked="" type="checkbox"/>
DC Power Supply	ITECH	IT6863A	600014010 687210000	N/A	N/A	<input checked="" type="checkbox"/>
Clamp wire	N/A	N/A	N/A	1m	N/A	<input checked="" type="checkbox"/>

4.4 Test Configurations

Test Configurations (TC) No.	Description
TC01	<u>The FDD LTE Band 5 RX Test Mode</u> LTE Band 5 RX + EUT +DC Power Supply+ Clamp wire
TC02	<u>The FDD LTE Band 12 RX Test Mode</u> LTE Band 12 RX + EUT +DC Power Supply+ Clamp wire
TC03	<u>The FDD LTE Band 13 RX Test Mode</u> LTE Band 13 RX + EUT +DC Power Supply+ Clamp wire
TC04	<u>The FDD LTE Band 17 RX Test Mode</u> LTE Band 17 RX + EUT +DC Power Supply+ Clamp wire
TC05	<u>The FDD LTE Band 26 RX Test Mode</u> LTE Band 26 RX + EUT +DC Power Supply+ Clamp wire
TC06	<u>The Charge Test Mode</u> EUT +DC Power Supply+ Clamp wire

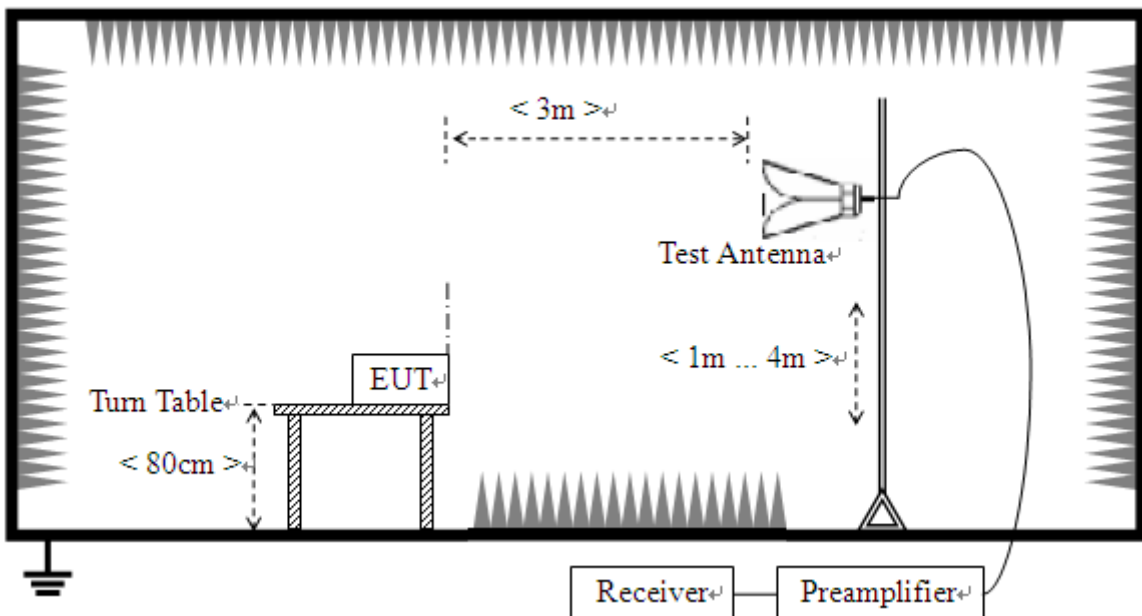
4.5 Test Setups

Test Setup 1



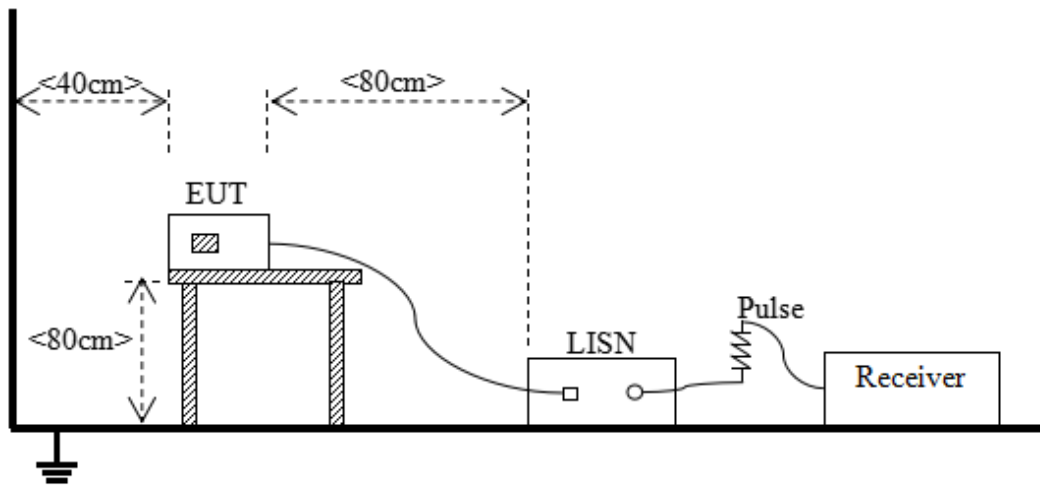
(For Radiated Emission Test (30 MHz-1 GHz))

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~TC06 ^{Note}
Conducted Emission, AC Ports	Test Setup	Test Setup 3
	Test Configuration	TC01~TC06 ^{Note}
<p>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.</p> <p>FCC 15B: The FDD LTE Band 5 RX Test Mode is the worst mode in this report.</p> <p>ICES-003: The Charge Test Mode is the worst mode in this report.</p>		

5 TEST ITEMS

5.1 Emission Tests

5.1.1 Radiated Emission

5.1.1.1 Limit

FCC:

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) In the emission tables above, the tighter limit applies at the band edges.
- 3) The limits using ANSI C63.4.

IC:

Frequency range (MHz)	Class A (3 m) Quasi-peak ($\text{dB}\mu\text{V/m}$)	Class A (10 m) Quasi-peak ($\text{dB}\mu\text{V/m}$)	Class B (3 m) Quasi-peak ($\text{dB}\mu\text{V/m}$)	Class B (10m) Quasi-peak ($\text{dB}\mu\text{V/m}$)
30 - 88	50.0	40.0	40	30.0
88 - 216	54.0	43.5	43.5	33.1
216 - 230	56.9	46.4	46.0	35.6
230 - 960	57.0	47.0	47.0	37.0
960 - 1000	60.0	49.5	54.0	43.5

Note: The more stringent limit applies at transition frequencies.

Frequency range (GHz)	Class A (3 m) Average ($\text{dB}\mu\text{V/m}$)	Class A (3 m) Peak ($\text{dB}\mu\text{V/m}$)	Class B (3 m) Average ($\text{dB}\mu\text{V/m}$)	Class B (3 m) Peak ($\text{dB}\mu\text{V/m}$)
1 - F_M	60	80	54	74

Note:

1. The highest measurement frequency, F_M , in GHz, shall be determined as next Table.
2. The measurement bandwidth shall be 1 MHz or greater.
3. These limit levels apply for a measurement distance of 3 m. If using a different measurement distance, the measured levels shall be extrapolated to the 3 m limit distance using a factor of 20 dB per decade of distance. The measurement distance shall place the measurement

Frequency range (GHz)	Class A (3 m) Average (dB μ V/m)	Class A (3 m) Peak (dB μ V/m)	Class B (3 m) Average (dB μ V/m)	Class B (3 m) Peak (dB μ V/m)
antenna in the far field of the ITE or digital apparatus under test.				
4. The test site shall have been validated at the distance used for radiated emission measurements on the ITE or digital apparatus under test				

Highest internal frequency (F_X)	Highest measurement frequency (F_M)
$F_X \leq 108$ MHz	1GHz
108 MHz $\leq F_X \leq 500$ MHz	2GHz
500 MHz $\leq F_X \leq 1$ GHz	5GHz
$F_X \geq 1$ GHz	$5 * F_X$ 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.	

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

The test employing the methods of measurement described in the publication referenced in Section 3(b) (ANSI C63.4);

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 band edges.
- 2) The limit decreases linearly with the logarithm of the frequency in the range 0.15 - 0.50 MHz.
- 3) The limit using ANSI C63.4.

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 test employing the methods of measurement described in the publication referenced in Section 3(b) (ANSI C63.4);

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.

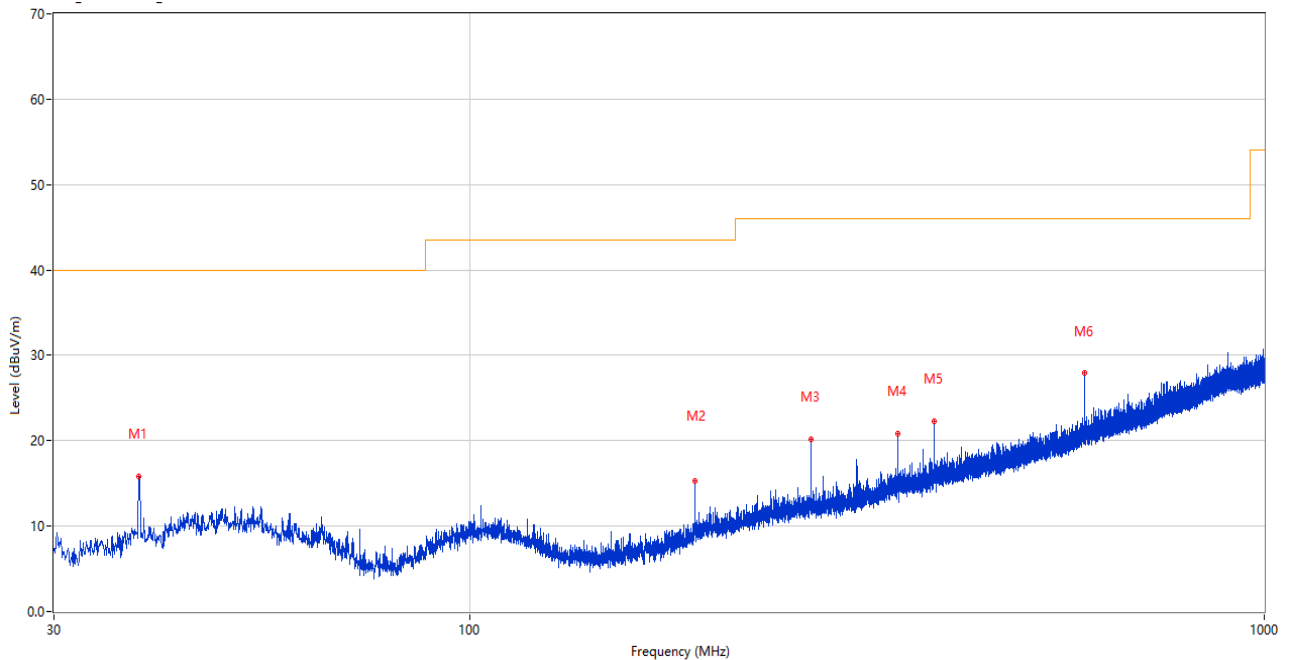
Note 2: For the test data above 1 GHz, according the ANSI C63.4-2014, where limits are specified for both average and peak (or quasi-peak) detector functions, if the peak (or quasi-peak) measured value complies with the average limit, it is unnecessary to perform an average measurement.

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

Test Data and Plots

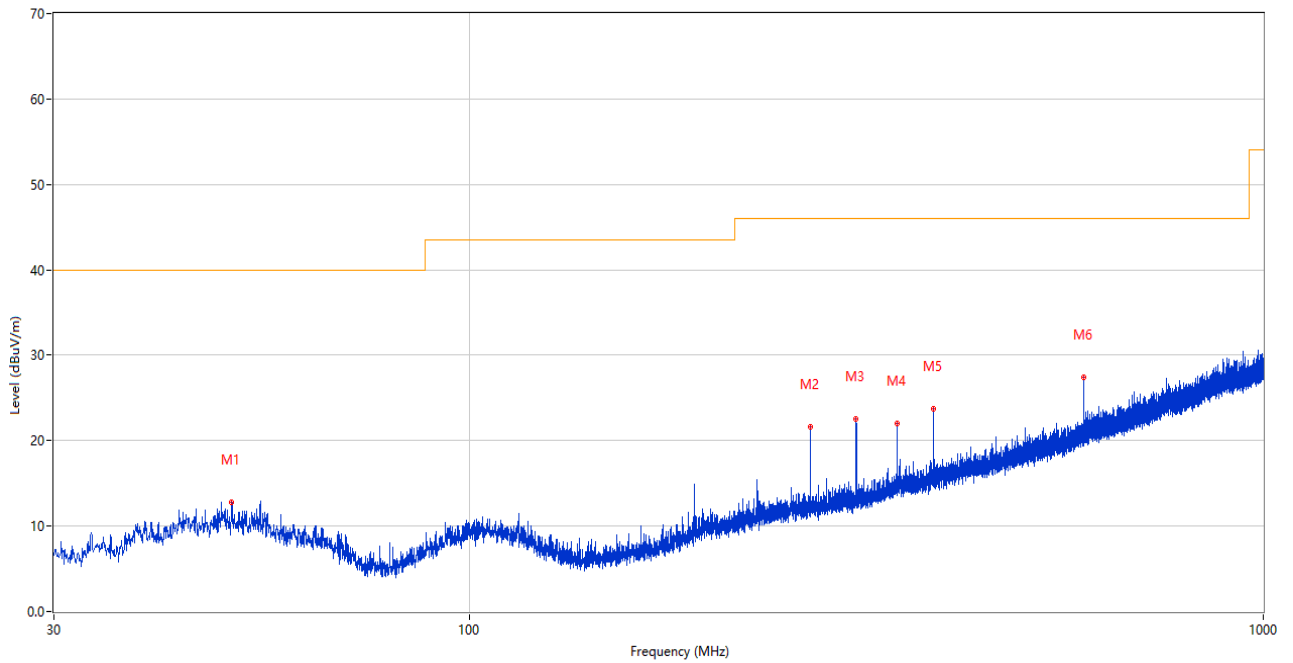
The FDD LTE Band 5 RX Test Mode

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



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	38.391	15.80	-27.11	40.0	24.20	Peak	205.00	100	Vertical	Pass
2	191.990	15.24	-27.16	43.5	28.26	Peak	3.00	100	Vertical	Pass
3	268.814	20.13	-24.45	46.0	25.87	Peak	91.00	100	Vertical	Pass
4	345.638	20.81	-22.06	46.0	25.19	Peak	342.00	100	Vertical	Pass
5	384.050	22.22	-21.41	46.0	23.78	Peak	342.00	100	Vertical	Pass
6	594.006	27.98	-16.07	46.0	18.02	Peak	354.00	100	Vertical	Pass

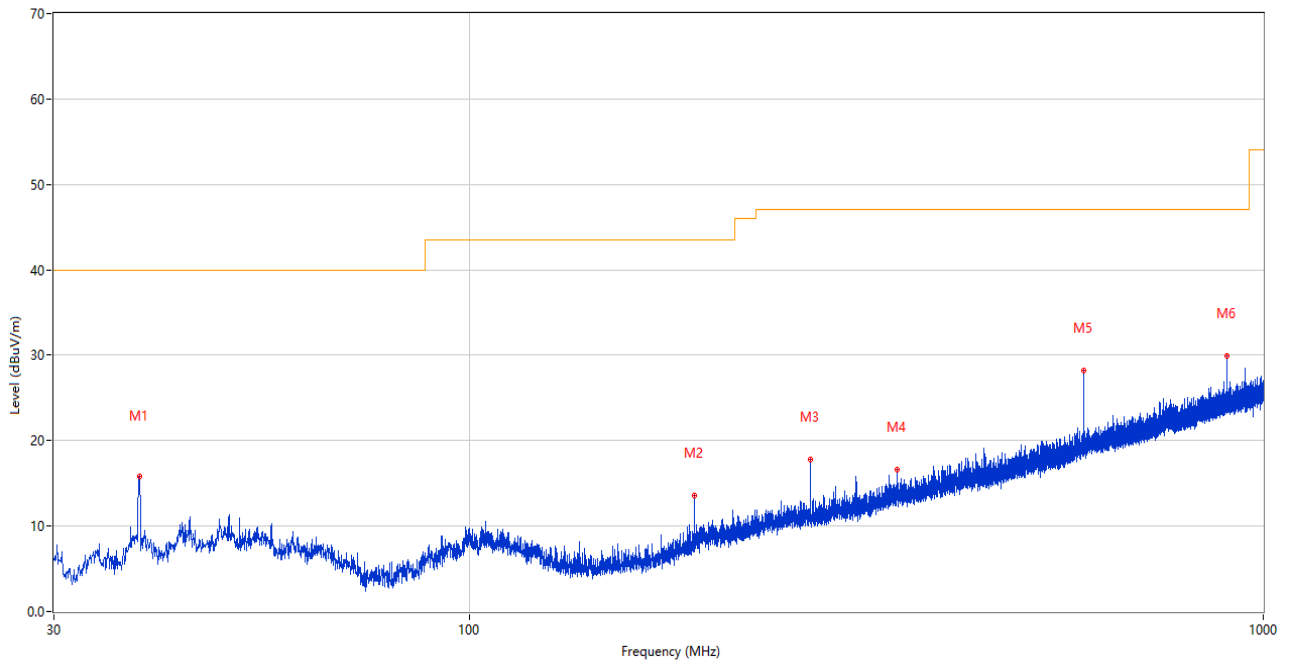
A.1.2 Test Antenna Horizontal, 30 MHz – 1 GHz (FCC)



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	50.224	12.75	-25.59	40.0	27.25	Peak	154.00	200	Horizontal	Pass
2	268.814	21.68	-24.45	46.0	24.32	Peak	52.00	100	Horizontal	Pass
3	307.226	22.60	-23.48	46.0	23.40	Peak	236.00	100	Horizontal	Pass
4	345.638	21.98	-22.06	46.0	24.02	Peak	360.00	100	Horizontal	Pass
5	384.002	23.77	-21.41	46.0	22.23	Peak	360.00	100	Horizontal	Pass
6	594.055	27.42	-16.07	46.0	18.58	Peak	142.00	200	Horizontal	Pass

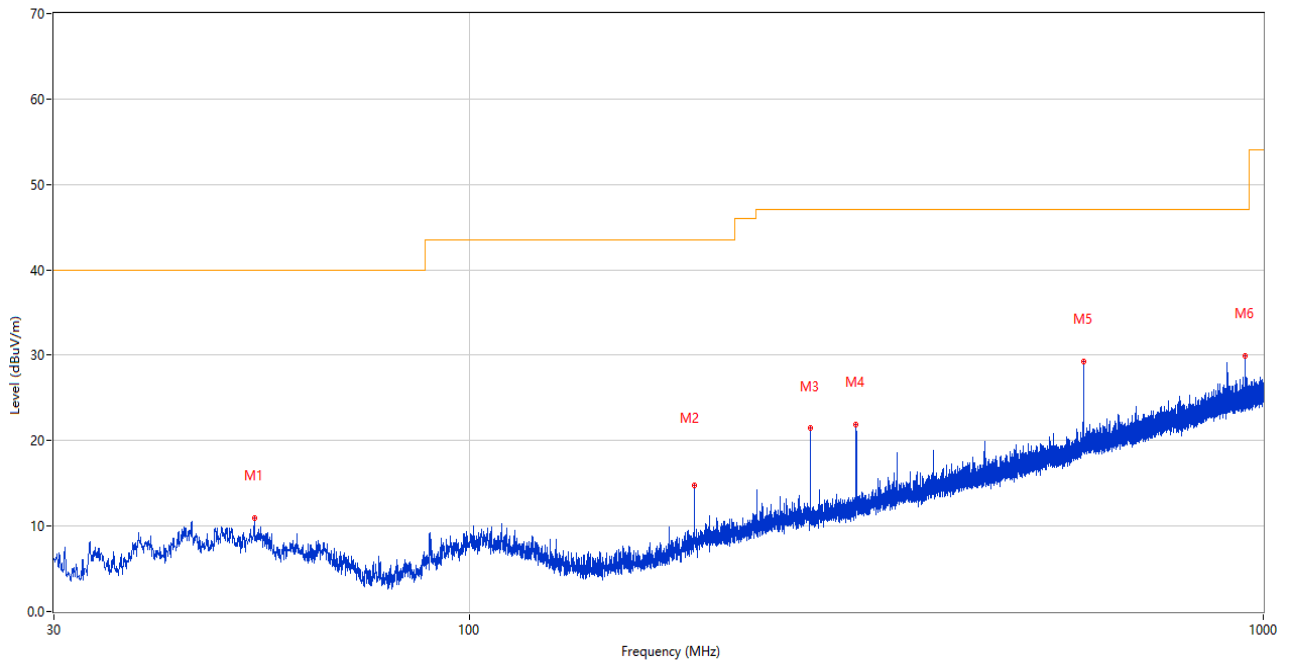
The Charge Test Mode

A.1.3 Test Antenna Vertical, 30 MHz – 1 GHz (IC)



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	38.439	15.88	-27.10	40.0	24.12	Peak	137.00	100	Vertical	Pass
2	191.990	13.57	-27.16	43.5	29.93	Peak	318.00	100	Vertical	Pass
3	268.814	17.81	-24.45	47.0	29.19	Peak	239.00	100	Vertical	Pass
4	345.590	16.62	-22.07	47.0	30.38	Peak	317.00	200	Vertical	Pass
5	594.006	28.16	-16.07	47.0	18.84	Peak	213.00	100	Vertical	Pass
6	900.041	29.88	-9.82	47.0	17.12	Peak	43.00	100	Vertical	Pass

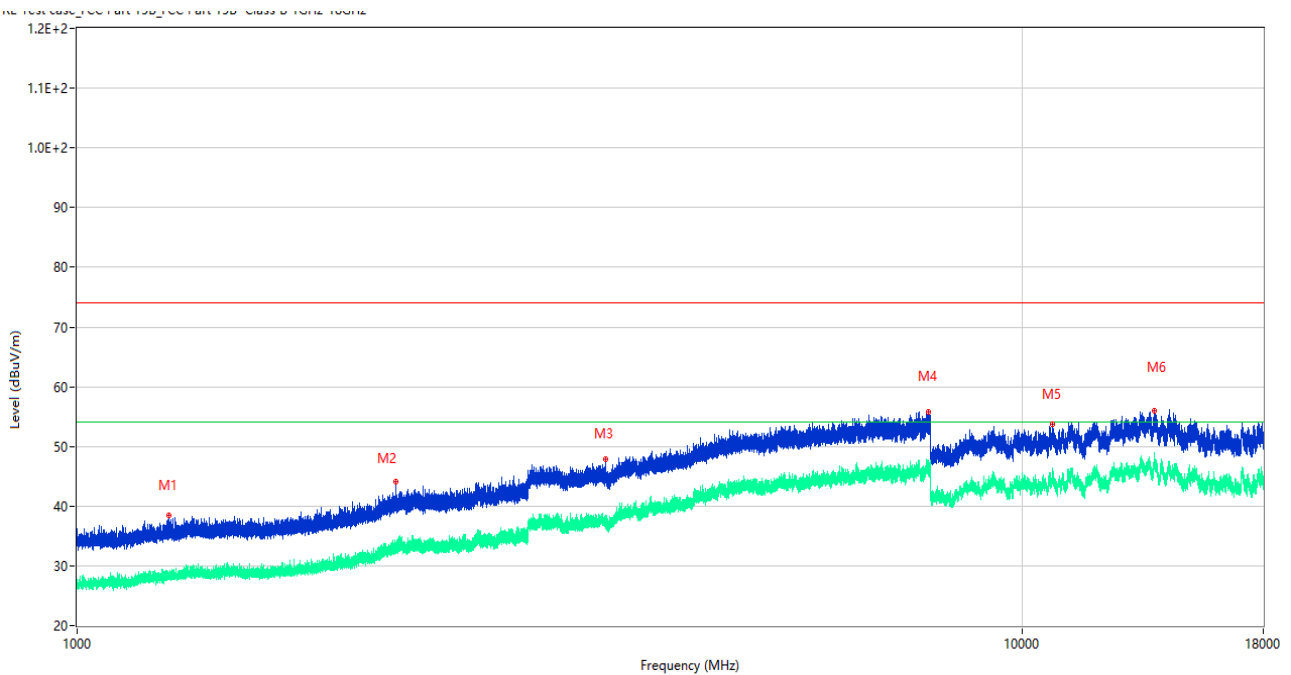
A.1.4 Test Antenna Horizontal, 30 MHz – 1 GHz (IC)



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	53.717	10.92	-25.57	40.0	29.08	Peak	48.00	100	Horizontal	Pass
2	192.038	14.73	-27.15	43.5	28.77	Peak	67.00	100	Horizontal	Pass
3	268.814	21.42	-24.45	47.0	25.58	Peak	75.00	100	Horizontal	Pass
4	307.226	21.84	-23.48	47.0	25.16	Peak	276.00	100	Horizontal	Pass
5	594.055	29.23	-16.07	47.0	17.77	Peak	262.00	200	Horizontal	Pass
6	948.638	29.88	-9.47	47.0	17.12	Peak	146.00	200	Horizontal	Pass

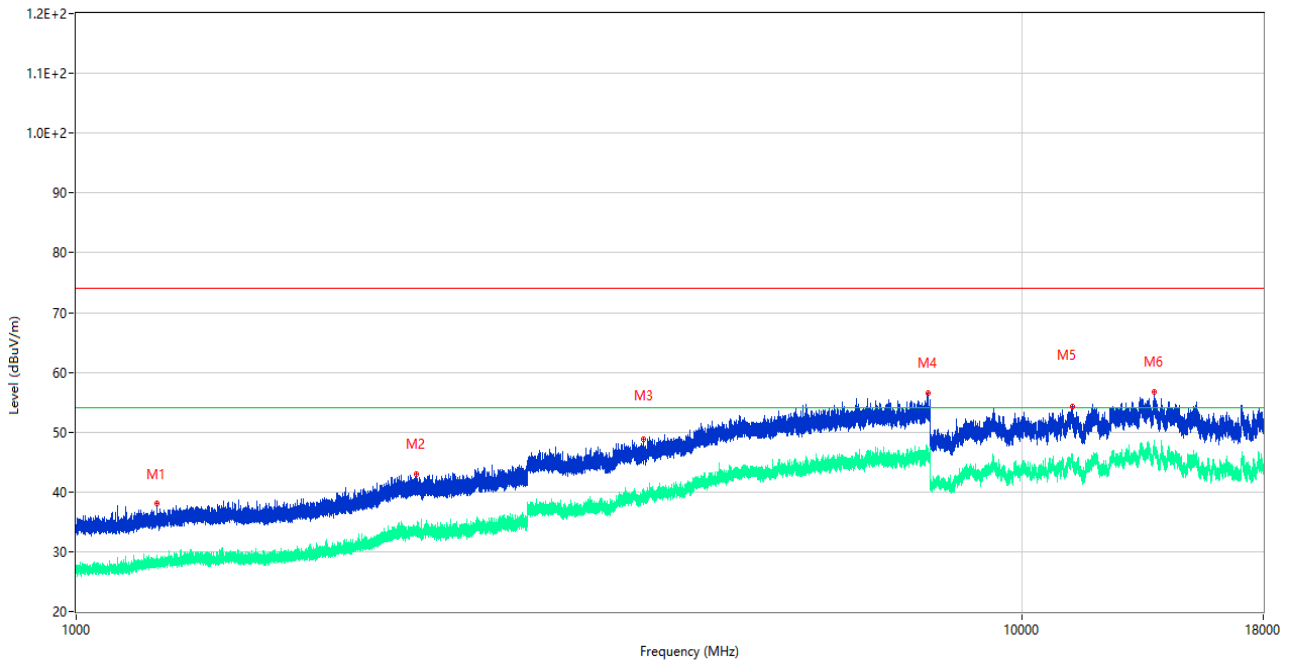
The FDD LTE Band 5 RX Test Mode
 Test Data and Plots (Above 1 GHz)

A.1.5 Test Antenna Vertical, 1 GHz – 18 GHz (FCC)



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1250.400	38.50	-16.90	74.0	35.50	Peak	0.00	100	Vertical	Pass
1**	1250.400	28.68	-16.90	54.0	25.32	AV	0.00	100	Vertical	Pass
2	2171.700	44.10	-12.29	74.0	29.90	Peak	266.00	100	Vertical	Pass
2**	2171.700	33.68	-12.29	54.0	20.32	AV	266.00	100	Vertical	Pass
3	3622.750	47.82	-4.63	74.0	26.18	Peak	136.00	100	Vertical	Pass
3**	3622.750	37.13	-4.63	54.0	16.87	AV	136.00	100	Vertical	Pass
4	7951.250	55.86	3.03	74.0	18.14	Peak	47.00	100	Vertical	Pass
4**	7951.250	46.51	3.03	54.0	7.49	AV	47.00	100	Vertical	Pass
5	10780.500	53.74	1.54	74.0	20.26	Peak	124.00	100	Vertical	Pass
5**	10780.500	44.34	1.54	54.0	9.66	AV	124.00	100	Vertical	Pass
6	13805.500	56.03	5.74	74.0	17.97	Peak	142.00	100	Vertical	Pass
6**	13805.500	46.95	5.74	54.0	7.05	AV	142.00	100	Vertical	Pass

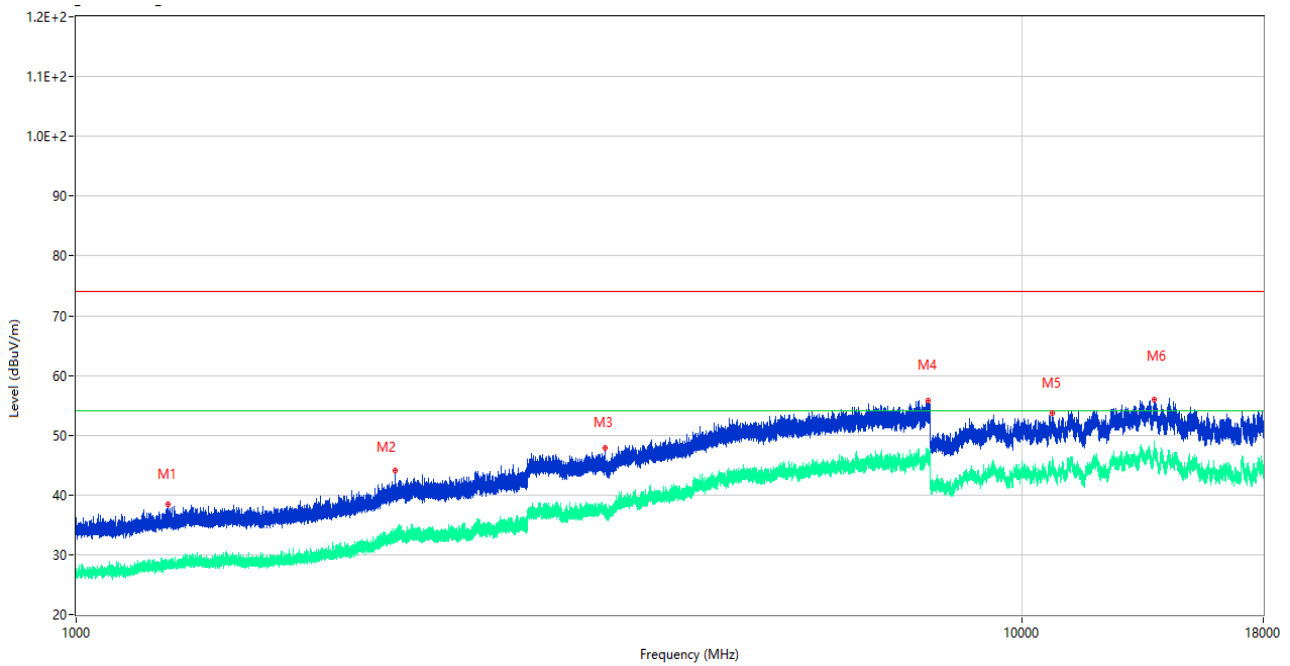
A.1.6 Test Antenna Horizontal, 1 GHz – 18 GHz (FCC)



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1218.000	38.02	-17.11	74.0	35.98	Peak	275.00	100	Horizontal	Pass
1**	1218.000	27.92	-17.11	54.0	26.08	AV	275.00	100	Horizontal	Pass
2	2287.500	42.97	-11.75	74.0	31.03	Peak	52.00	100	Horizontal	Pass
2**	2287.500	33.06	-11.75	54.0	20.94	AV	52.00	100	Horizontal	Pass
3	3976.750	48.81	-3.17	74.0	25.19	Peak	140.00	100	Horizontal	Pass
3**	3976.750	39.28	-3.17	54.0	14.72	AV	140.00	100	Horizontal	Pass
4	7958.250	56.60	2.78	74.0	17.40	Peak	214.00	100	Horizontal	Pass
4**	7958.250	45.71	2.78	54.0	8.29	AV	214.00	100	Horizontal	Pass
5	11306.500	54.28	2.21	74.0	19.72	Peak	124.00	100	Horizontal	Pass
5**	11306.500	45.65	2.21	54.0	8.35	AV	124.00	100	Horizontal	Pass
6	13810.500	56.77	5.68	74.0	17.23	Peak	288.00	100	Horizontal	Pass
6**	13810.500	47.28	5.68	54.0	6.72	AV	288.00	100	Horizontal	Pass

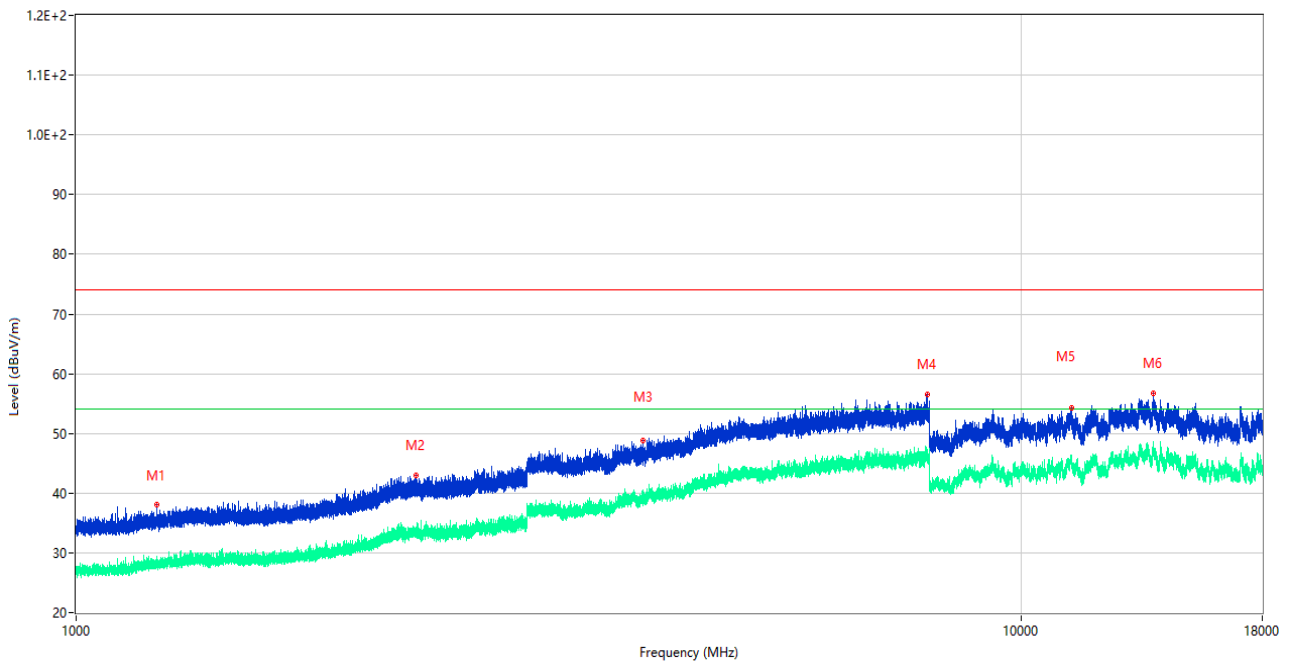
The Charge Test Mode

A.1.7 Test Antenna Vertical, 1 GHz – 18 GHz (IC)



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1250.400	38.50	-16.90	74.0	35.50	Peak	0.00	100	Vertical	Pass
1**	1250.400	28.68	-16.90	54.0	25.32	AV	0.00	100	Vertical	Pass
2	2171.700	44.10	-12.29	74.0	29.90	Peak	266.00	100	Vertical	Pass
2**	2171.700	33.68	-12.29	54.0	20.32	AV	266.00	100	Vertical	Pass
3	3622.750	47.82	-4.63	74.0	26.18	Peak	136.00	100	Vertical	Pass
3**	3622.750	37.13	-4.63	54.0	16.87	AV	136.00	100	Vertical	Pass
4	7951.250	55.86	3.03	74.0	18.14	Peak	47.00	100	Vertical	Pass
4**	7951.250	46.51	3.03	54.0	7.49	AV	47.00	100	Vertical	Pass
5	10780.500	53.74	1.54	74.0	20.26	Peak	124.00	100	Vertical	Pass
5**	10780.500	44.34	1.54	54.0	9.66	AV	124.00	100	Vertical	Pass
6	13805.500	56.03	5.74	74.0	17.97	Peak	142.00	100	Vertical	Pass
6**	13805.500	46.95	5.74	54.0	7.05	AV	142.00	100	Vertical	Pass

A.1.8 Test Antenna Horizontal, 1 GHz – 18 GHz (IC)



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	1218.000	38.02	-17.11	74.0	35.98	Peak	275.00	100	Horizontal	Pass
1**	1218.000	27.92	-17.11	54.0	26.08	AV	275.00	100	Horizontal	Pass
2	2287.500	42.97	-11.75	74.0	31.03	Peak	52.00	100	Horizontal	Pass
2**	2287.500	33.06	-11.75	54.0	20.94	AV	52.00	100	Horizontal	Pass
3	3976.750	48.81	-3.17	74.0	25.19	Peak	140.00	100	Horizontal	Pass
3**	3976.750	39.28	-3.17	54.0	14.72	AV	140.00	100	Horizontal	Pass
4	7958.250	56.60	2.78	74.0	17.40	Peak	214.00	100	Horizontal	Pass
4**	7958.250	45.71	2.78	54.0	8.29	AV	214.00	100	Horizontal	Pass
5	11306.500	54.28	2.21	74.0	19.72	Peak	124.00	100	Horizontal	Pass
5**	11306.500	45.65	2.21	54.0	8.35	AV	124.00	100	Horizontal	Pass
6	13810.500	56.77	5.68	74.0	17.23	Peak	288.00	100	Horizontal	Pass
6**	13810.500	47.28	5.68	54.0	6.72	AV	288.00	100	Horizontal	Pass

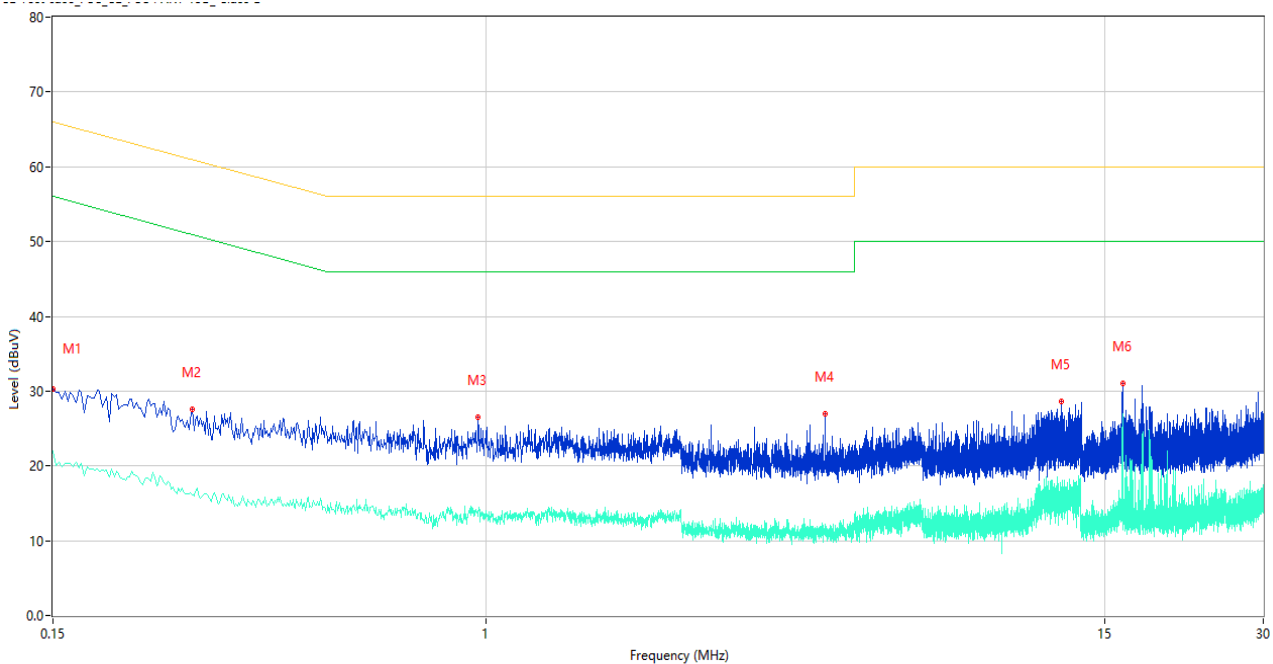
A.2 Conducted Emission

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

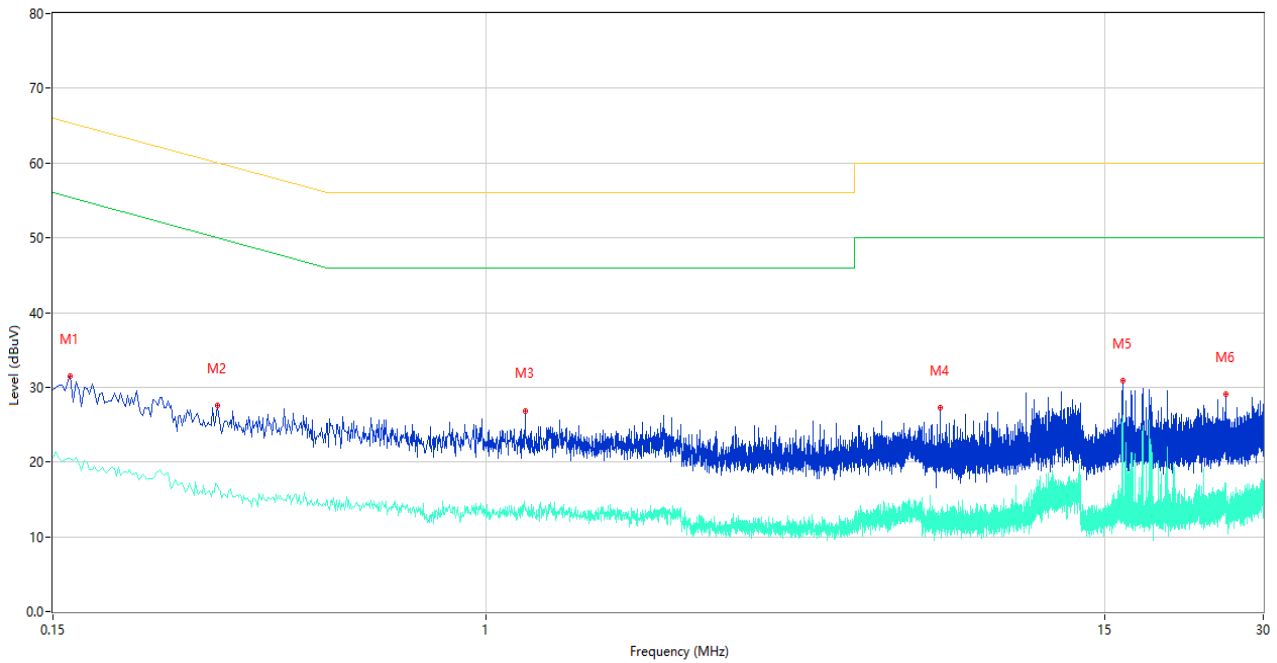
The FDD LTE Band 5 RX Test Mode

A.2.1 L Phase (FCC)



No.	Frequency (MHz)	Results (dBuV)	Factor (dB)	Limit (dBuV)	Margin (dB)	Detector	Line	Verdict
1	0.150	30.34	9.84	66.00	35.66	Peak	L	Pass
1**	0.150	22.00	9.84	56.00	34.00	AV	L	Pass
2	0.276	27.58	9.80	60.94	33.36	Peak	L	Pass
2**	0.276	16.14	9.80	50.94	34.80	AV	L	Pass
3	0.966	26.50	10.49	56.00	29.50	Peak	L	Pass
3**	0.966	13.20	10.49	46.00	32.80	AV	L	Pass
4	4.402	26.93	10.21	56.00	29.07	Peak	L	Pass
4**	4.402	12.19	10.21	46.00	33.81	AV	L	Pass
5	12.392	28.64	10.43	60.00	31.36	Peak	L	Pass
5**	12.392	16.73	10.43	50.00	33.27	AV	L	Pass
6	16.226	30.99	10.34	60.00	29.01	Peak	L	Pass
6**	16.226	25.88	10.34	50.00	24.12	AV	L	Pass

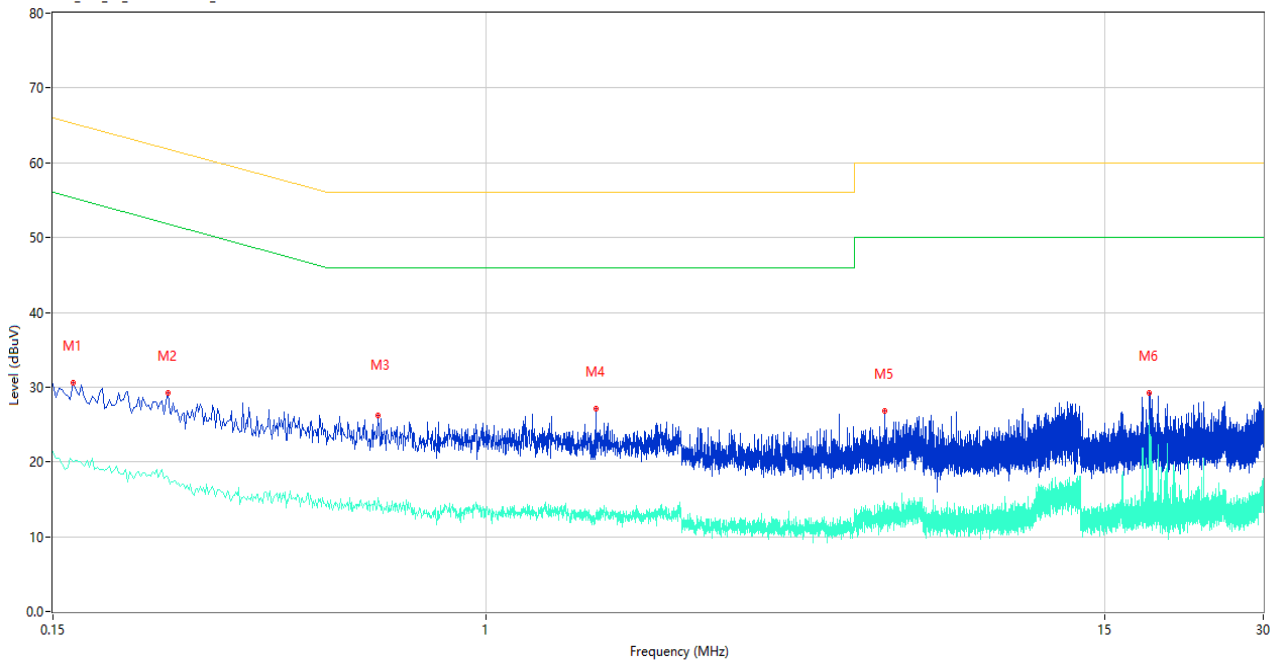
A.2.2 N Phase (FCC)



No.	Frequency (MHz)	Results (dBuV)	Factor (dB)	Limit (dBuV)	Margin (dB)	Detector	Line	Verdict
1	0.162	31.46	9.83	65.36	33.90	Peak	N	Pass
1**	0.162	20.44	9.83	55.36	34.92	AV	N	Pass
2	0.308	27.60	9.78	60.02	32.42	Peak	N	Pass
2**	0.308	16.87	9.78	50.02	33.15	AV	N	Pass
3	1.184	26.88	10.32	56.00	29.12	Peak	N	Pass
3**	1.184	13.61	10.32	46.00	32.39	AV	N	Pass
4	7.280	27.20	10.05	60.00	32.80	Peak	N	Pass
4**	7.280	12.97	10.05	50.00	37.03	AV	N	Pass
5	16.226	30.85	10.34	60.00	29.15	Peak	N	Pass
5**	16.226	26.01	10.34	50.00	23.99	AV	N	Pass
6	25.450	29.12	10.57	60.00	30.88	Peak	N	Pass
6**	25.450	17.21	10.57	50.00	32.79	AV	N	Pass

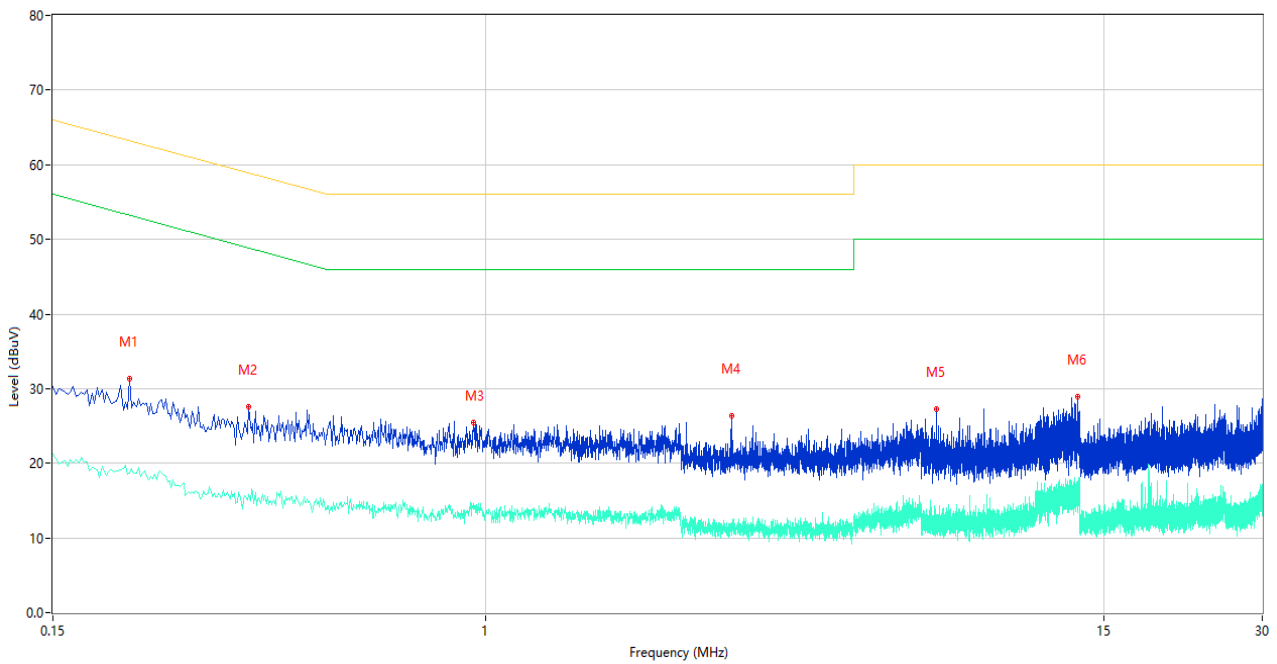
The Charge Test Mode

A.2.3 L Phase (IC)



No.	Frequency (MHz)	Results (dBuV)	Factor (dB)	Limit (dBuV)	Margin (dB)	Detector	Line	Verdict
1	0.164	30.56	9.82	65.26	34.70	Peak	L	Pass
1**	0.164	20.03	9.82	55.26	35.23	AV	L	Pass
2	0.248	29.15	9.79	61.82	32.67	Peak	L	Pass
2**	0.248	17.91	9.79	51.82	33.91	AV	L	Pass
3	0.622	26.17	10.24	56.00	29.83	Peak	L	Pass
3**	0.622	15.27	10.24	46.00	30.73	AV	L	Pass
4	1.614	27.16	9.93	56.00	28.84	Peak	L	Pass
4**	1.614	13.10	9.93	46.00	32.90	AV	L	Pass
5	5.728	26.82	10.38	60.00	33.18	Peak	L	Pass
5**	5.728	14.40	10.38	50.00	35.60	AV	L	Pass
6	18.242	29.26	10.46	60.00	30.74	Peak	L	Pass
6**	18.242	25.68	10.46	50.00	24.32	AV	L	Pass

A.2.4 N Phase (IC)



No.	Frequency (MHz)	Results (dBuV)	Factor (dB)	Limit (dBuV)	Margin (dB)	Detector	Line	Verdict
1	0.210	31.35	9.78	63.21	31.86	Peak	N	Pass
1**	0.210	18.64	9.78	53.21	34.57	AV	N	Pass
2	0.354	27.57	9.76	58.87	31.30	Peak	N	Pass
2**	0.354	15.87	9.76	48.87	33.00	AV	N	Pass
3	0.946	25.54	10.67	56.00	30.46	Peak	N	Pass
3**	0.946	13.86	10.67	46.00	32.14	AV	N	Pass
4	2.930	26.29	10.32	56.00	29.71	Peak	N	Pass
4**	2.930	11.48	10.32	46.00	34.52	AV	N	Pass
5	7.186	27.28	10.25	60.00	32.72	Peak	N	Pass
5**	7.186	13.15	10.25	50.00	36.85	AV	N	Pass
6	13.354	28.86	10.35	60.00	31.14	Peak	N	Pass
6**	13.354	15.12	10.35	50.00	34.88	AV	N	Pass

ANNEX B TEST SETUP PHOTOS

Please refer the document “BL-SZ2350435-AE.PDF”.

ANNEX C EUT EXTERNAL PHOTOS

Please refer the document “BL-SZ2350435-AW.PDF”.

ANNEX D EUT INTERNAL PHOTOS

Please refer the document “BL-SZ2350435-AI.PDF”.

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--END OF REPORT--