

FCC

RF

TEST REPORT

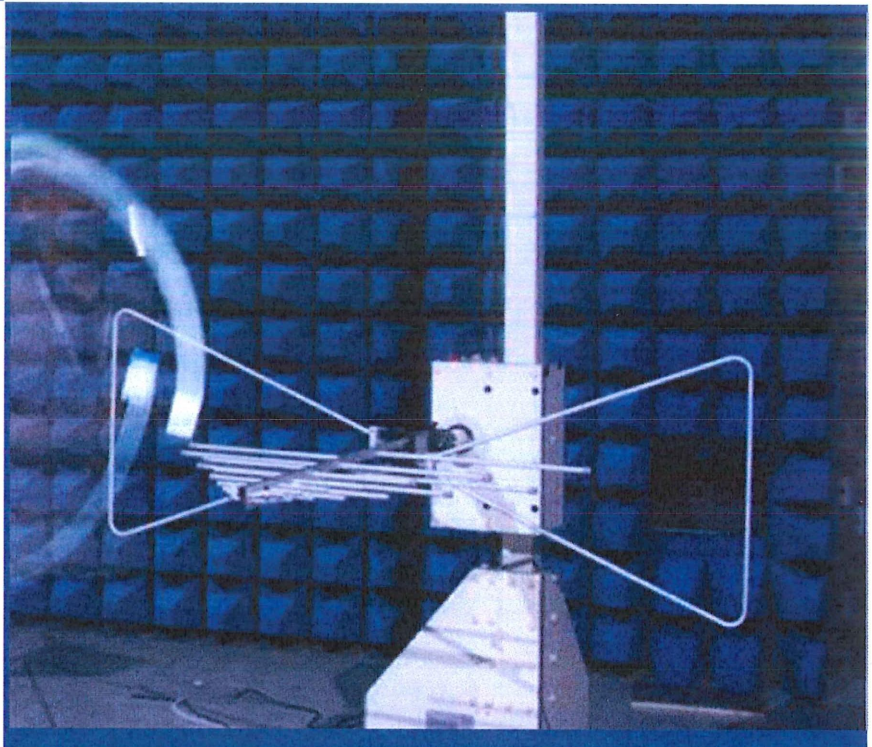
ISSUED BY  
Shenzhen BALUN Technology Co., Ltd.



FOR  
**Wireless Phone Charger**

ISSUED TO  
Tesla Motors, Inc.

3500 Deer Creek Rd, Palo Alto, CA 94304, USA



Tested by: Xia Long  
Xia Long  
Date: Aug. 06, 2020

Approved by: Liao Jianming  
**Liao Jianming**  
(Technical Director)  
Date: Aug. 06, 2020

Report No.: BL-EC2070405-402  
EUT Name: Wireless Phone Charger  
Model Name: WC3  
Brand Name: TESLA  
Test Standard: 47 CFR Part 15 Subpart C  
FCC ID: 2AEIM-WC3

Test Conclusion: Pass  
Test Date: Jul. 17, 2020 ~ Jul. 22, 2020  
Date of Issue: Aug. 06, 2020

*NOTE: This test report of test results only related to testing samples, which can be duplicated completely for the legal use with the approval of the applicant; it shall not be reproduced except in full, without the written approval of Shenzhen BALUN Technology Co., Ltd. Any objections should be raised within thirty days from the date of issue. To validate the report, please contact us.*

### Revision History

Version	Issue Date	Revisions
<u>Rev. 01</u>	<u>Aug. 04, 2020</u>	<u>Initial Issue</u>
<u>Rev. 02</u>	<u>Aug. 06, 2020</u>	<u>Updated the applicant name and manufacturer name</u>

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# 1 GENERAL INFORMATION

## 1.1 Identification of the Testing Laboratory

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

## 1.2 Identification of the Responsible Testing Location

Test Location	Shenzhen BALUN Technology Co., Ltd.
Address	Block B, 1st FL, Baisha Science and Technology Park, Shahe Xi Road, Nanshan District, Shenzhen, Guangdong Province, P. R. China
Accreditation Certificate	<p>The laboratory has been listed by Industry Canada to perform electromagnetic emission measurements. The recognition numbers of test site are 11524A-1.</p> <p>The laboratory is a testing organization accredited by FCC as a accredited testing laboratory. The designation number is CN1196.</p> <p>The laboratory is a testing organization accredited by American Association for Laboratory Accreditation(A2LA) according to ISO/IEC 17025. The accreditation certificate is 4344.01.</p> <p>The laboratory is a testing organization accredited by China National Accreditation Service for Conformity Assessment (CNAS) according to ISO/IEC 17025. The accreditation certificate number is L6791.</p>
Description	All measurement facilities used to collect the measurement data are located at Block B, FL 1, Baisha Science and Technology Park, Shahe Xi Road, Nanshan District, Shenzhen, Guangdong Province, P. R. China 518055

## 1.3 Laboratory Condition

Ambient Temperature	20°C to 25°C
Ambient Relative Humidity	45% to 55%
Ambient Pressure	100 kPa to 102 kPa

## 1.4 Announce

- (1) The test report reference to the report template version v2.7.
- (2) The test report is invalid if not marked with the signatures of the persons responsible for preparing and approving the test report.
- (3) The test report is invalid if there is any evidence and/or falsification.
- (4) The results documented in this report apply only to the tested sample, under the conditions and modes of operation as described herein.
- (5) This document may not be altered or revised in any way unless done so by BALUN and all revisions are duly noted in the revisions section.
- (6) Content of the test report, in part or in full, cannot be used for publicity and/or promotional purposes without prior written approval from the laboratory.
- (7) The laboratory is only responsible for the data released by the laboratory, except for the part provided by the applicant.

## 2 PRODUCT INFORMATION

### 2.1 Applicant Information

Applicant	Tesla Motors, Inc.
Address	3500 Deer Creek Rd, Palo Alto, CA 94304, USA

### 2.2 Manufacturer Information

Manufacturer	Tesla Motors, Inc.
Address	3500 Deer Creek Rd, Palo Alto, CA 94304, USA

### 2.3 Factory Information

Factory	N/A
Address	N/A

### 2.4 General Description for Equipment under Test (EUT)

EUT Name	Wireless Phone Charger
Model Name Under Test	WC3
Series Model Name	N/A
Description of Model name differentiation	N/A
Serial Number	WPCFBB22A09805015
Hardware Version	A1
Software Version	A1
Dimensions (Approx.)	N/A
Weight (Approx.)	<1Kg

## 2.5 Ancillary Equipment

N/A

## 2.6 Technical Information

Network and Wireless connectivity	Qi
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The requirement for the following technical information of the EUT was tested in this report:

Operating Frequency	127.72±5kHz
Product Type	<input type="checkbox"/> Mobile <input type="checkbox"/> Portable <input checked="" type="checkbox"/> Fix Location
Antenna Type	Coil Antenna

### 3 SUMMARY OF TEST RESULTS

#### 3.1 Test Standards

No.	Identity	Document Title
1	47 CFR Part 15, Subpart C (10-1-18 Edition)	Intentional Radiators
2	ANSI C63.10-2013	American National Standard for Testing Unlicensed Wireless Devices

#### 3.2 Verdict

No.	Description	FCC Rule	Test Verdict	Result
1	Radiated Emission	15.209,15.215(b)	Pass	Annex A.1
2	Conducted Emission, AC Ports	15.207	Pass	Annex A.2
3	20 dB Bandwidth	15.215(c)	Pass	Annex A.3
Note: This EUT has three modes. Mode1 is EUT + DC Power Supply, Mode2 is EUT + DC Power Supply + Artificial Load 1, Mode3 is EUT + DC Power Supply + Artificial Load 2 + Artificial Load 3.				

#### 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)	2.96 dB
Radiated emissions (30 MHz-1 GHz)	3.66 dB
Radiated emissions (1 GHz-18 GHz)	5.57 dB



## 4 GENERAL TEST CONFIGURATIONS

### 4.1 Test Environments

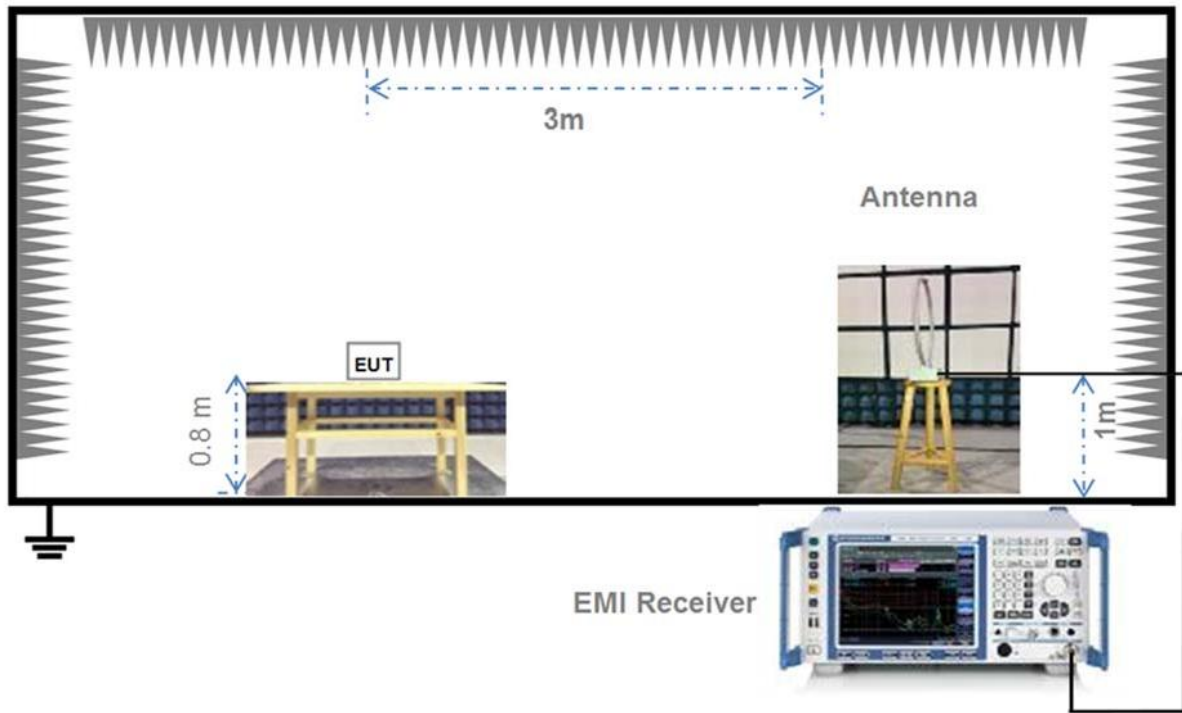
Relative Humidity	45% to 55%	
Atmospheric Pressure	100 kPa to 102 kPa	
Temperature	NT (Normal Temperature)	+22°C to +25°C
Working Voltage of the EUT	NV (Normal Voltage)	DC 13.5 V

### 4.2 Test Equipment List

Description	Manufacturer	Model	Serial No.	Cal. Date	Cal. Due
EMI Receiver	ROHDE&SCHWARZ	ESRP	101036	2020.06.09	2021.06.08
Test Antenna-Loop(9 kHz-30 MHz)	SCHWARZBECK	FMZB 1519	1519-037	2019.10.29	2021.10.28
Test Antenna-Bi-Log(30 MHz-3 GHz)	SCHWARZBECK	VULB 9163	9163-624	2019.07.02	2021.07.01
Anechoic Chamber	EMC Electronic Co., Ltd	20.10*11.60*7.35m	N/A	2018.08.08	2021.08.07
EMI Receiver	KEYSIGHT	N9010B	MY57110309	2020.06.09	2021.06.08
LISN	SCHWARZBECK	NSLK 8127	8127-687	2020.06.09	2021.06.08
Shielded Enclosure	YiHeng Electronic Co., Ltd	3.4m*3.1m*2.8m	N/A	2018.08.16	2021.08.15
Test Software	BALUN	BL410_E	V19.918	--	--

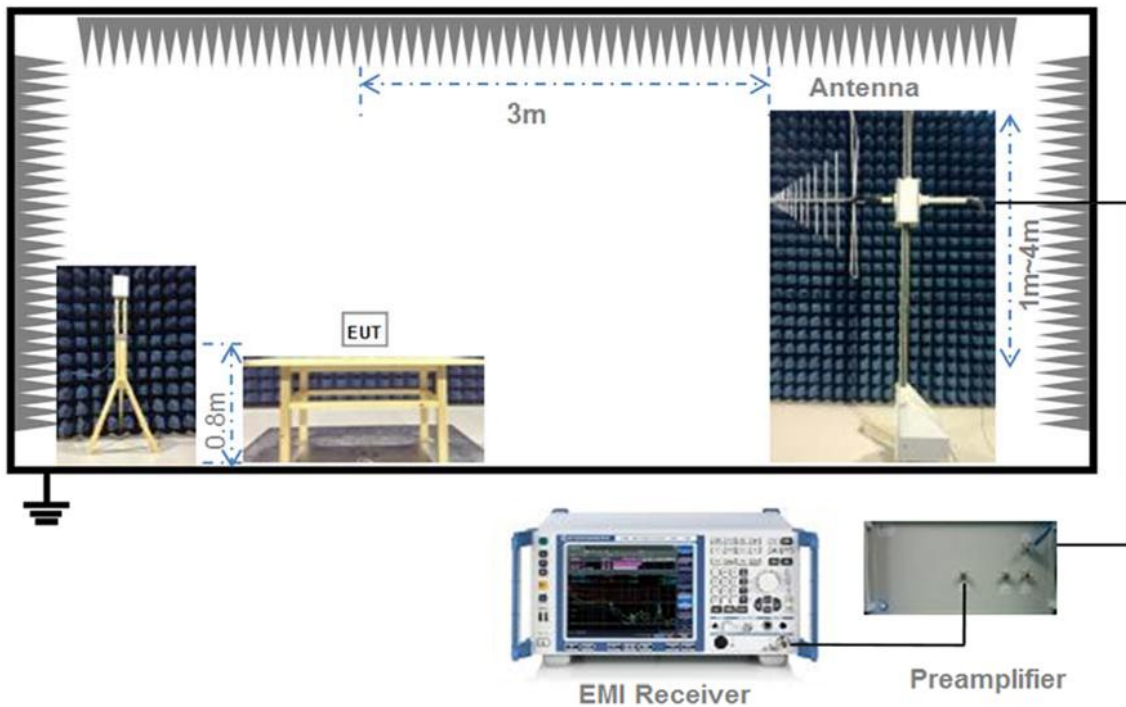
### 4.3 Test Setups

#### Test Setup 1



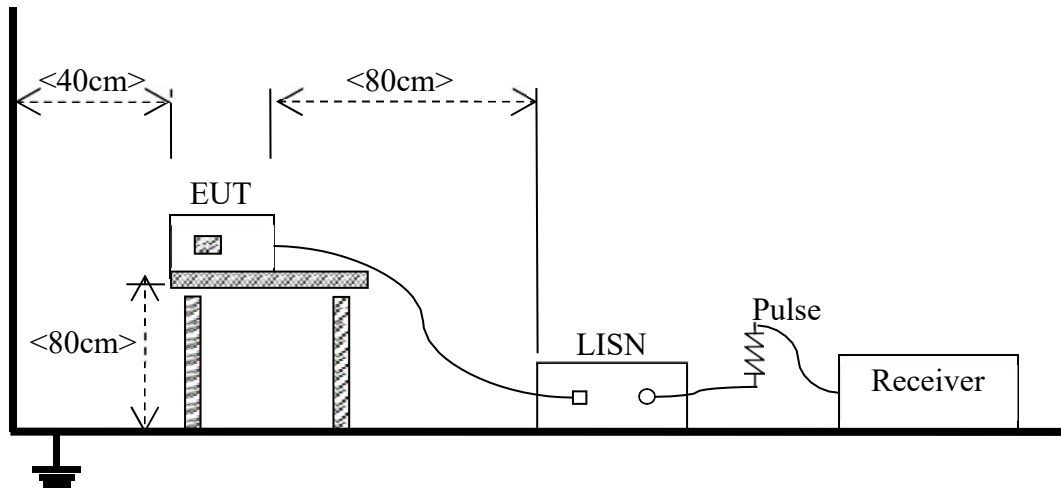
For Radiated Emission Test (Below 30 MHz)

#### Test Setup 2



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

Test Setup 3



(For Conducted Emission, AC Ports Test)

## 5 TEST ITEMS

### 5.1 Emission Tests

#### 5.1.1 Radiated Emission

##### 5.1.1.1 Limit

Frequency (MHz)	Field Strength ( $\mu\text{V}/\text{m}$ )	Measurement Distance (m)
0.009 - 0.490	$2400/F(\text{kHz})$	300
0.490 - 1.705	$24000/F(\text{kHz})$	30
1.705 - 30.0	30	30
30 - 88	100	3
88 - 216	150	3
216 - 960	200	3
Above 960	500	3

#### NOTE:

- 1) Field Strength ( $\text{dB}\mu\text{V}/\text{m}$ ) =  $20 \cdot \log$  [Field Strength ( $\mu\text{V}/\text{m}$ )].
- 2) In the emission tables above, the tighter limit applies at the band edges.
- 3) For above 1000 MHz, limit field strength of harmonics:  $54 \text{ dBuV}/\text{m}@3 \text{ m (AV)}$  and  $74 \text{ dBuV}/\text{m}@3 \text{ m (PK)}$
- 4) At frequencies below 30 MHz, measurements may be performed at a distance closer than that specified in the regulations, when performing measurements at a closer distance than specified, the results shall be extrapolated to the specified distance by either making measurements at a minimum of two distances on at least one radial to determine the proper extrapolation factor or by using the square of an inverse linear distance extrapolation factor (40 dB/decade). For example, at the frequency 9 kHz, limit @10m =  $20 \cdot \log (2400/f) + 40 \log (d_{\text{limit}}/d_{\text{measure}})$  where limit = 300m,  $d_{\text{measure}}=10\text{m}$ . limit @10m =  $20 \cdot \log (2400/9) + 40 \log (300/10) = 107.5 (\text{dB}\mu\text{V}/\text{m})$ .
- 5) At frequencies at or above 30 MHz, measurements may be performed at a distance other than what is specified provided, When performing measurements at a distance other than that specified, the results shall be extrapolated to the specified distance using an extrapolation factor of 20 dB/decade (inverse linear-distance for field strength measurements; inverse-linear-distance-squared for power density measurements). For example, at the frequency 30 MHz, limit @10m =  $20 \cdot \log (100) + 20 \log (d_{\text{limit}}/d_{\text{measure}})$  where limit = 3m,  $d_{\text{measure}}=10\text{m}$ . limit @10m =  $20 \cdot \log (100) + 20 \log (3/10) = 29.5 (\text{dB}\mu\text{V}/\text{m})$ .

##### 5.1.1.2 Test Setup

Refer to 4.3 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.

##### 5.1.1.4 Test Result

Please refer to ANNEX A.1.

## NOTE:

1. Results (dBuV/m) = Reading (dBuV) + 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)	Conducted Limit (dB $\mu$ V)	
	Quasi-peak	Average
0.15 - 0.50	66 to 56	56 to 46
0.50 - 5	56	46
5 - 30	60	50

NOTE:

- 1) The limit is applicable to Class B ITE.
- 2) The lower limit shall apply at the band edges.
- 3) 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 4.3 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  $\Omega$ /50  $\mu$ 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.

### 5.1.2.4 Test Result

Please refer to ANNEX A.2.

NOTE:

1. Results (dB $\mu$ V/m) = Reading (dB $\mu$ V) + Factor (dB/m)

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.

### 5.1.3 20 dB Bandwidth

#### 5.1.3.1 Limit

FCC §15.215(c)

The 20 dB bandwidth is known as the 99% emission bandwidth, or 20 dB bandwidth ( $10 \cdot \log 1\% = 20$  dB) taking the total RF output power.

#### 5.1.3.2 Test Setup

Refer to 4.3 section test (test setup 1) for test setup description for the antenna port. The photo of test setup please refer to ANNEX B.

#### 5.1.3.3 Test Procedure

Use the following spectrum analyzer settings:

Span = approximately 2 to 3 times the 20 dB bandwidth, centered on a hopping channel

RBW  $\geq$  1% of the 20 dB bandwidth

VBW  $\geq$  RBW

Sweep = auto

Detector function = peak

Trace = max hold

The EUT should be transmitting at its maximum data rate, Allow the trace to stabilize.

#### 5.1.3.4 Test Result

Please refer to ANNEX A.3.

# ANNEX A TEST RESULTS

## A.1 Radiated Emission

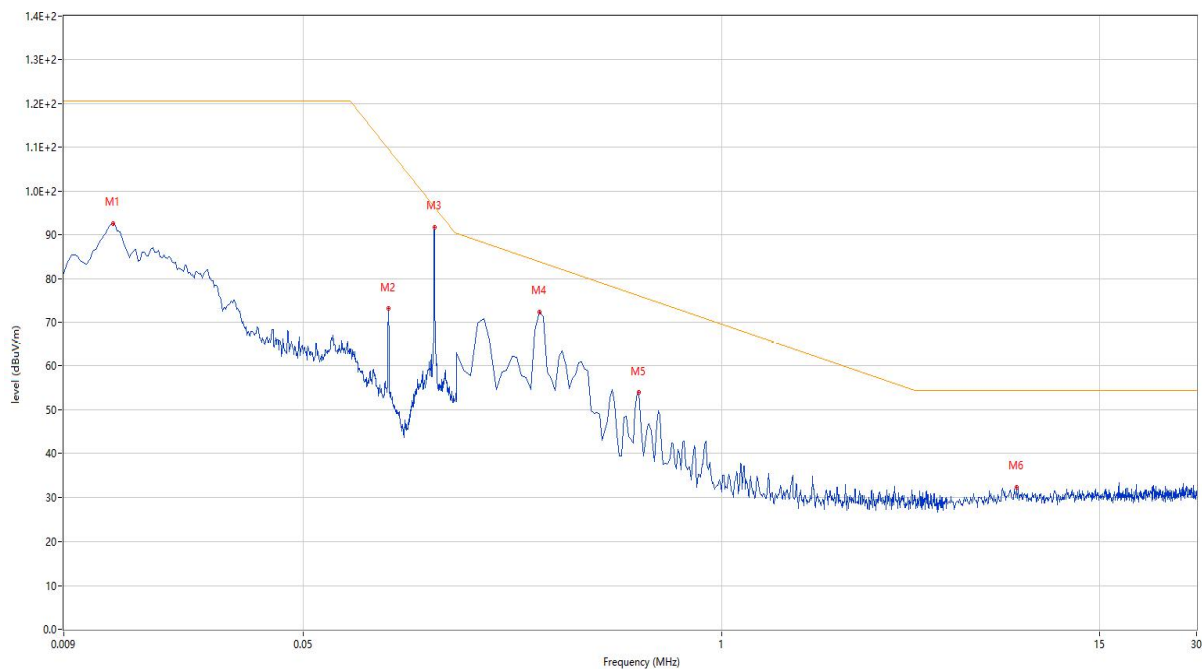
Note <sup>1</sup>: The symbol of "--" in the table which means not application.

Note <sup>2</sup>: 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 <sup>3</sup>: The marked spikes near 0.128 MHz with circle should be ignored because they are carrier frequency.

### QI Test Data and Plots (Mode1)

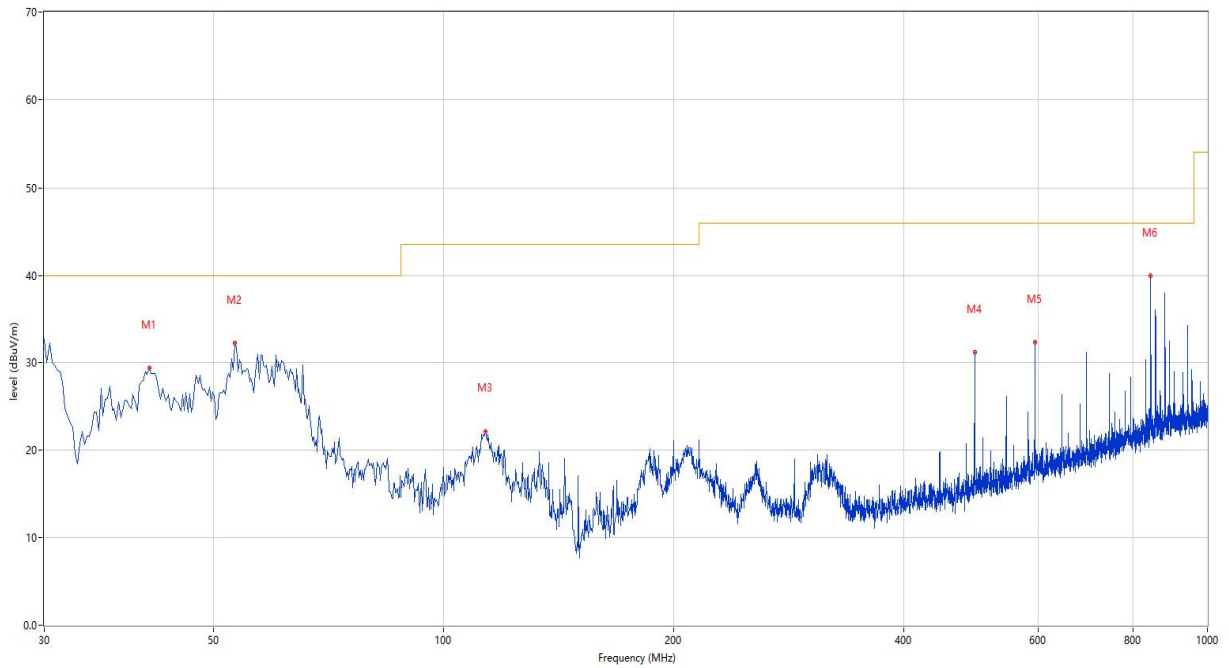
#### A.1.1 Test Antenna Vertical, 9 kHz –30 MHz



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Over Limit (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	0.013	92.50	19.74	120.5	-28.00	Peak	360.00	100	Vertical	Pass
2	0.092	73.18	20.60	109.6	-36.42	Peak	127.00	100	Vertical	Pass
3	0.128	91.78	20.60	96.5	-4.72	Peak	176.00	100	Vertical	N/A
4	0.271	72.40	20.57	83.9	-11.50	Peak	136.00	100	Vertical	Pass
5	0.554	53.92	20.59	76.1	-22.18	Peak	136.00	100	Vertical	Pass
6	8.292	32.34	20.85	54.5	-22.16	Peak	306.00	100	Vertical	Pass

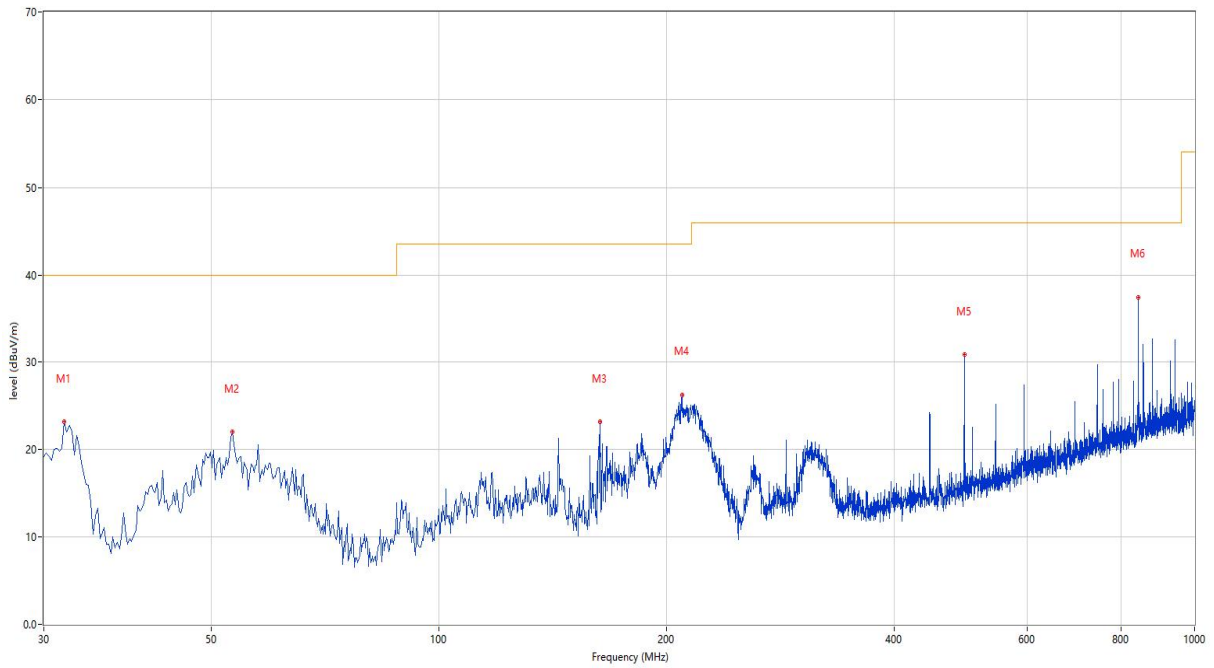


A.1.2 Test Antenna Vertical, 30 MHz –1 GHz



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Over Limit (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	41.155	29.44	-24.97	40.0	-10.56	Peak	42.00	100	Vertical	Pass
2	53.280	32.23	-24.36	40.0	-7.77	Peak	112.00	100	Vertical	Pass
3	113.420	22.18	-26.18	43.5	-21.32	Peak	126.00	100	Vertical	Pass
4	495.842	31.17	-19.28	46.0	-14.83	Peak	194.00	100	Vertical	Pass
5	595.025	32.36	-16.53	46.0	-13.64	Peak	5.00	200	Vertical	Pass
6	842.860	39.94	-12.30	46.0	-6.06	Peak	153.00	100	Vertical	Pass

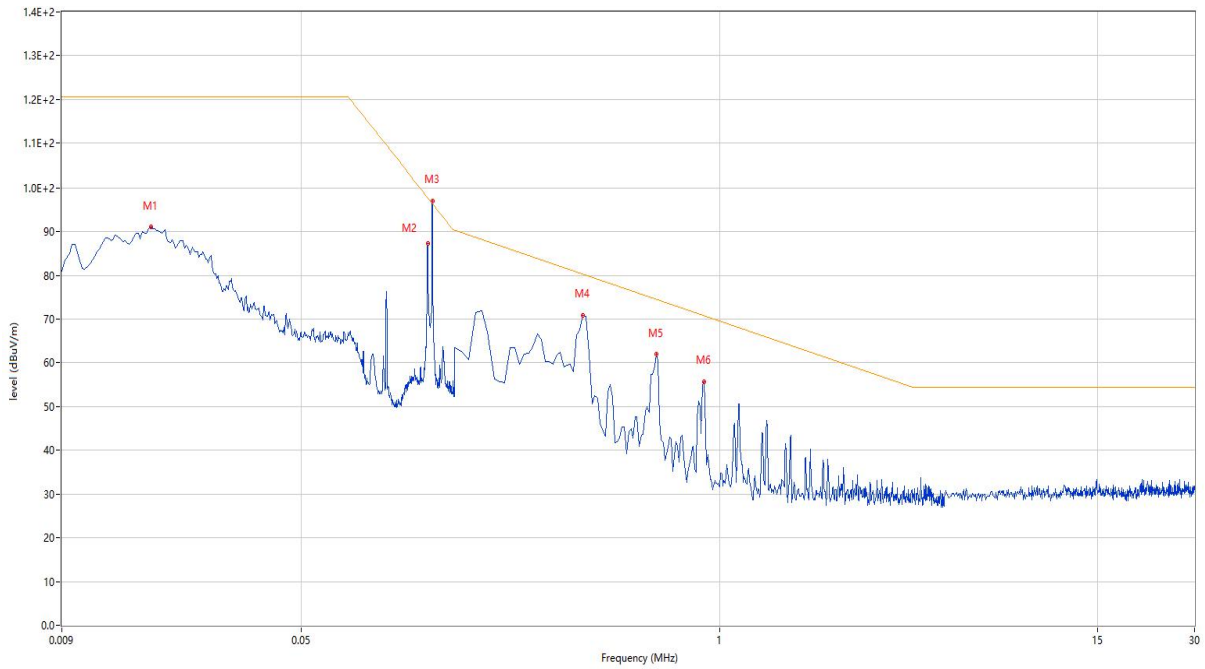
A.1.3 Test Antenna Horizontal, 30 MHz –1 GHz



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Over Limit (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	31.940	23.21	-28.13	40.0	-16.79	Peak	87.00	100	Horizontal	Pass
2	53.280	22.02	-24.36	40.0	-17.98	Peak	87.00	100	Horizontal	Pass
3	163.375	23.20	-28.51	43.5	-20.30	Peak	99.00	200	Horizontal	Pass
4	209.693	26.26	-25.97	43.5	-17.24	Peak	102.00	100	Horizontal	Pass
5	495.842	30.86	-19.28	46.0	-15.14	Peak	113.00	200	Horizontal	Pass
6	842.860	37.44	-12.30	46.0	-8.56	Peak	360.00	100	Horizontal	Pass

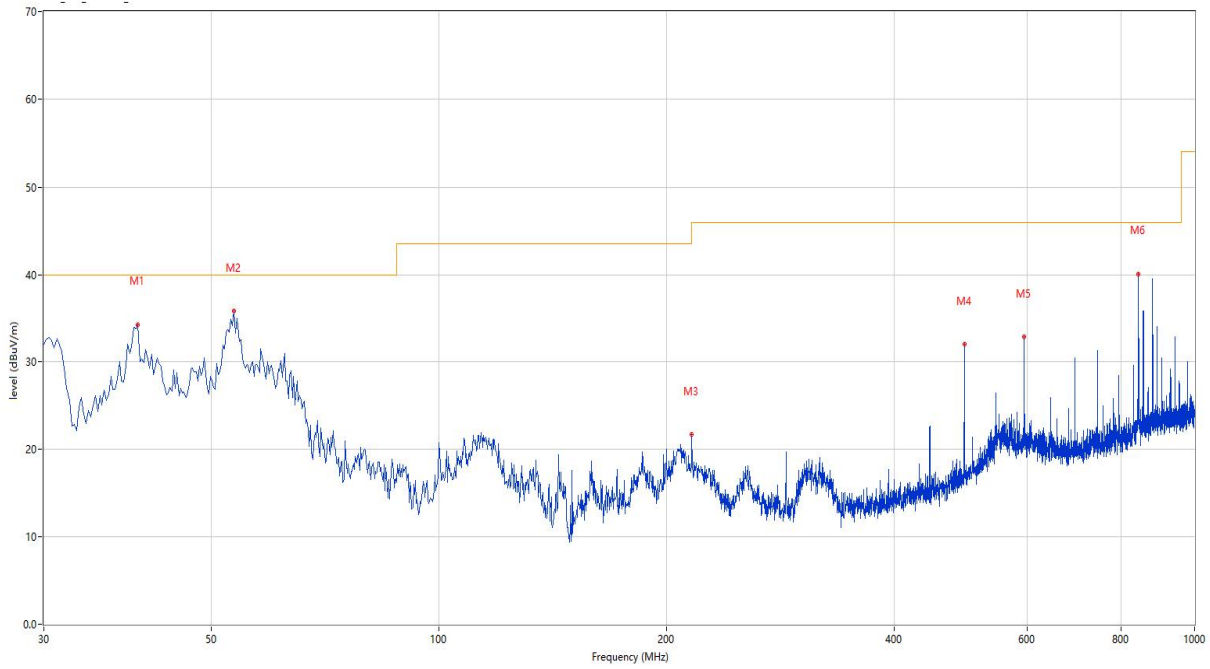
QI Test Data and Plots (Mode2)

A.1.4 Test Antenna Vertical, 9 kHz –30 MHz



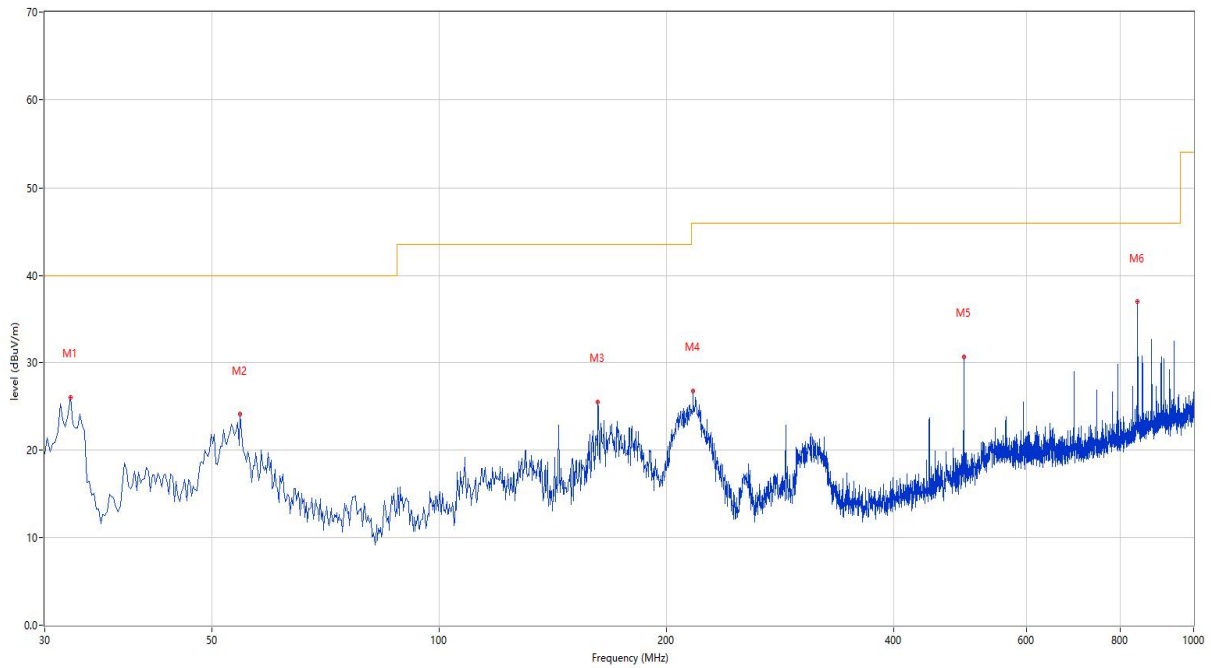
No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Over Limit (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	0.017	91.03	20.24	120.5	-29.47	Peak	331.00	100	Vertical	Pass
2	0.124	87.32	20.61	97.8	-10.48	Peak	196.00	100	Vertical	Pass
3	0.128	97.01	20.60	96.5	0.51	Peak	164.00	100	Vertical	N/A
4	0.376	70.86	20.56	80.3	-9.44	Peak	195.00	100	Vertical	Pass
5	0.635	61.88	20.60	74.6	-12.72	Peak	195.00	100	Vertical	Pass
6	0.894	55.64	20.65	70.9	-15.26	Peak	195.00	100	Vertical	Pass

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



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Over Limit (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	39.943	34.30	-25.53	40.0	-5.70	Peak	182.00	100	Vertical	Pass
2	53.523	35.84	-24.39	40.0	-4.16	Peak	360.00	100	Vertical	Pass
3	215.998	21.68	-26.01	43.5	-21.82	Peak	360.00	100	Vertical	Pass
4	495.842	32.01	-19.28	46.0	-13.99	Peak	196.00	100	Vertical	Pass
5	595.025	32.89	-16.53	46.0	-13.11	Peak	169.00	100	Vertical	Pass
6	842.860	40.10	-12.30	46.0	-5.90	Peak	154.00	100	Vertical	Pass

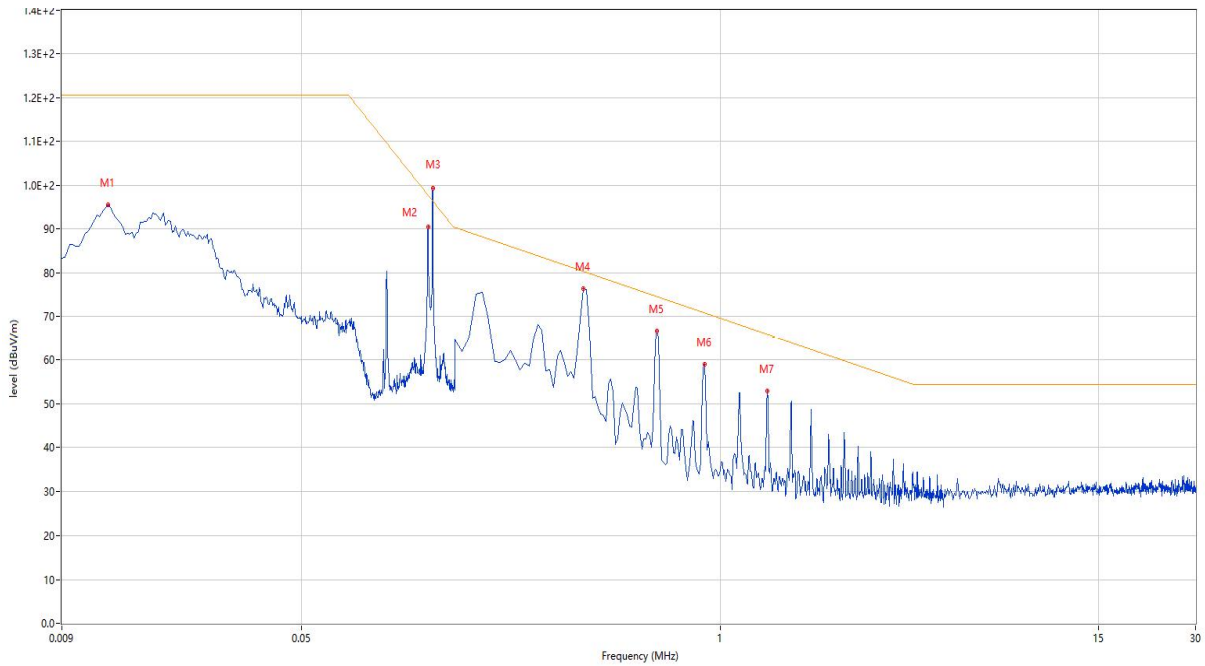
A.1.6 Test Antenna Horizontal, 30 MHz – 1 GHz



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Over Limit (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	32.425	26.06	-28.00	40.0	-13.94	Peak	153.00	100	Horizontal	Pass
2	54.492	24.10	-24.62	40.0	-15.90	Peak	72.00	100	Horizontal	Pass
3	162.405	25.52	-28.49	43.5	-17.98	Peak	97.00	200	Horizontal	Pass
4	216.968	26.80	-25.96	46.0	-19.20	Peak	85.00	100	Horizontal	Pass
5	495.842	30.71	-19.28	46.0	-15.29	Peak	110.00	200	Horizontal	Pass
6	842.860	36.99	-12.30	46.0	-9.01	Peak	99.00	100	Horizontal	Pass

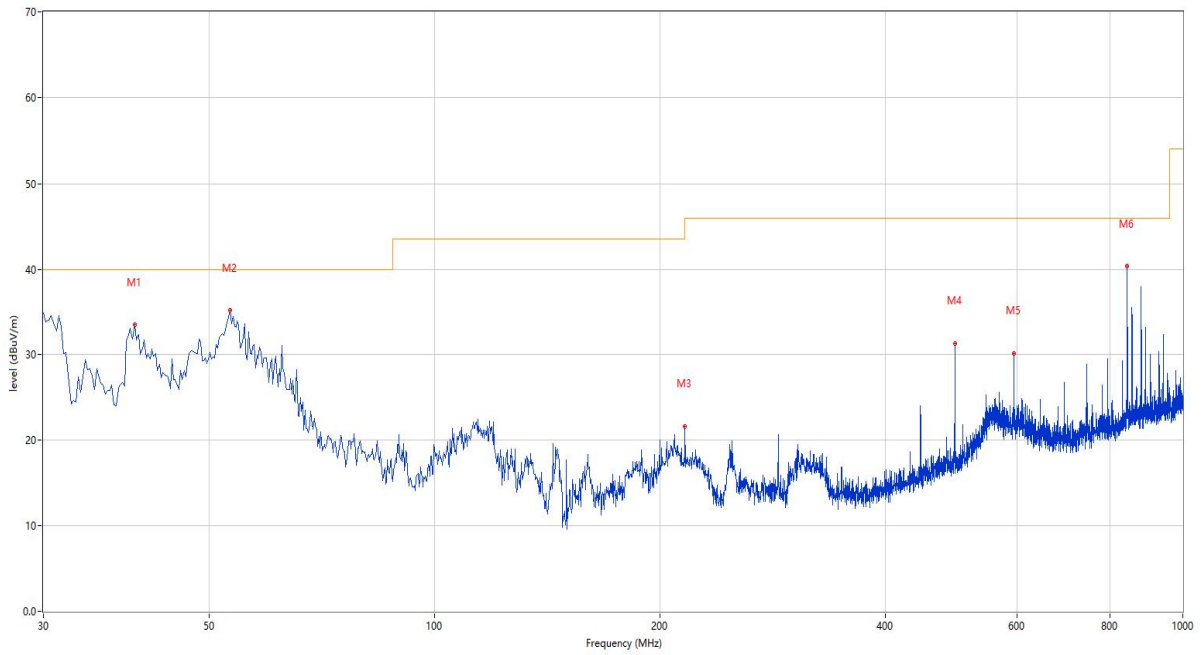
QI Test Data and Plots (Mode3)

A.1.7 Test Antenna Vertical, 9 kHz –30 MHz



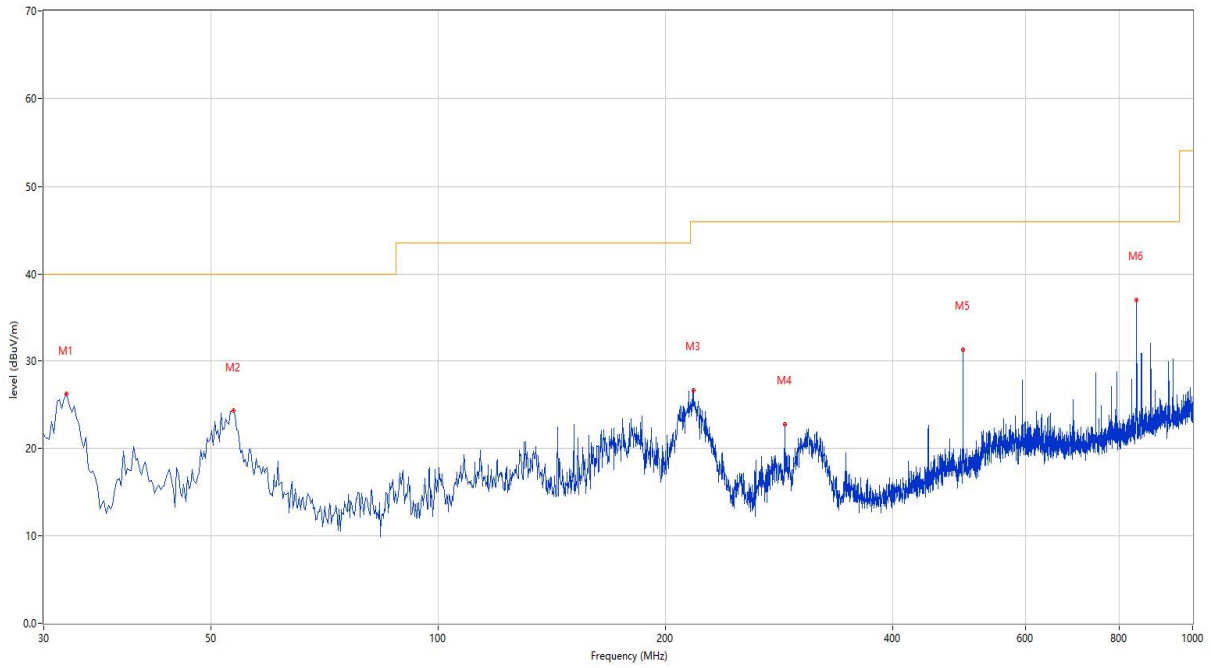
No.	Frequency (MHz)	Results (dBUV/m)	Factor (dB)	Limit (dBUV/m)	Over Limit (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	0.013	95.55	19.71	120.5	-24.95	Peak	227.00	100	Vertical	Pass
2	0.124	90.47	20.61	97.8	-7.33	Peak	189.00	100	Vertical	Pass
3	0.128	99.29	20.60	96.5	2.79	Peak	181.00	100	Vertical	N/A
4	0.376	76.29	20.56	80.3	-4.01	Peak	189.00	100	Vertical	Pass
5	0.635	66.63	20.60	74.6	-7.97	Peak	189.00	100	Vertical	Pass
6	0.894	59.10	20.65	70.9	-11.80	Peak	181.00	100	Vertical	Pass
7	1.403	52.97	20.77	66.0	-13.03	Peak	189.00	100	Vertical	Pass

A.1.8 Test Antenna Vertical, 30 MHz – 1 GHz



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Over Limit (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	39.700	33.48	-25.67	40.0	-6.52	Peak	301.00	100	Vertical	Pass
2	53.280	35.21	-24.36	40.0	-4.79	Peak	314.00	100	Vertical	Pass
3	215.998	21.65	-26.01	43.5	-21.85	Peak	262.00	100	Vertical	Pass
4	495.842	31.35	-19.28	46.0	-14.65	Peak	197.00	100	Vertical	Pass
5	595.025	30.18	-16.53	46.0	-15.82	Peak	176.00	200	Vertical	Pass
6	842.860	40.35	-12.30	46.0	-5.65	Peak	145.00	100	Vertical	Pass

A.1.9 Test Antenna Horizontal, 30 MHz – 1 GHz



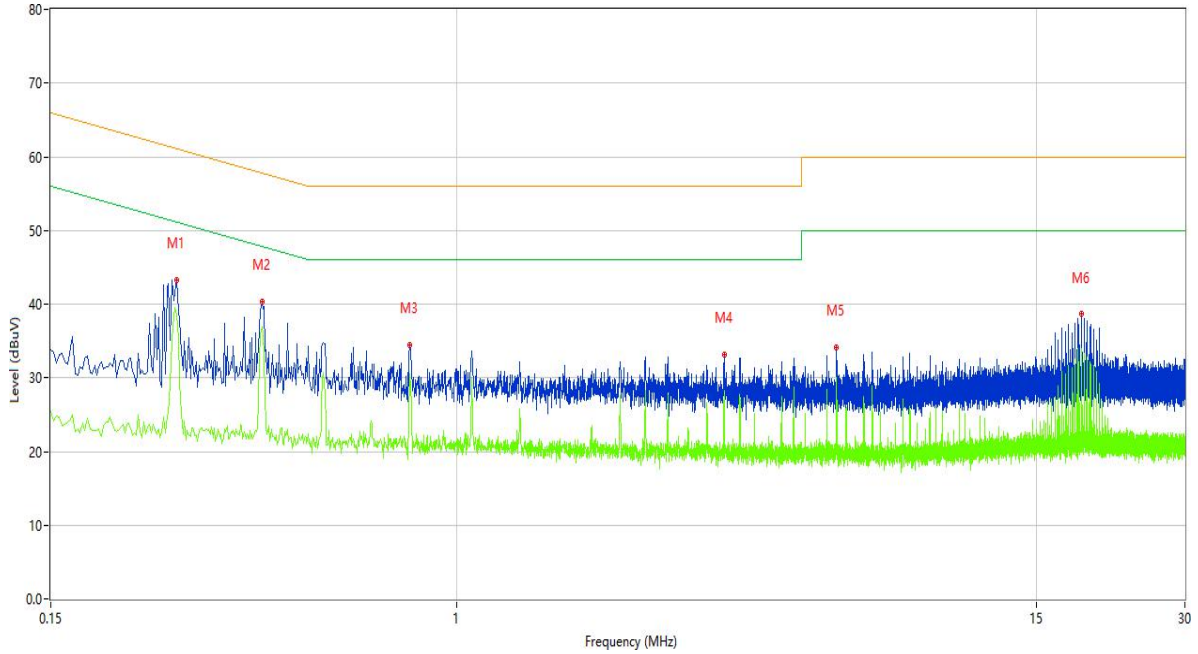
No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Over Limit (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	32.182	26.22	-28.00	40.0	-13.78	Peak	122.00	100	Horizontal	Pass
2	53.523	24.32	-24.39	40.0	-15.68	Peak	13.00	200	Horizontal	Pass
3	217.938	26.70	-25.91	46.0	-19.30	Peak	98.00	100	Horizontal	Pass
4	288.020	22.78	-23.93	46.0	-23.22	Peak	228.00	100	Horizontal	Pass
5	495.842	31.34	-19.28	46.0	-14.66	Peak	115.00	200	Horizontal	Pass
6	842.860	37.01	-12.30	46.0	-8.99	Peak	361.00	100	Horizontal	Pass



## A.2 Conducted Emission

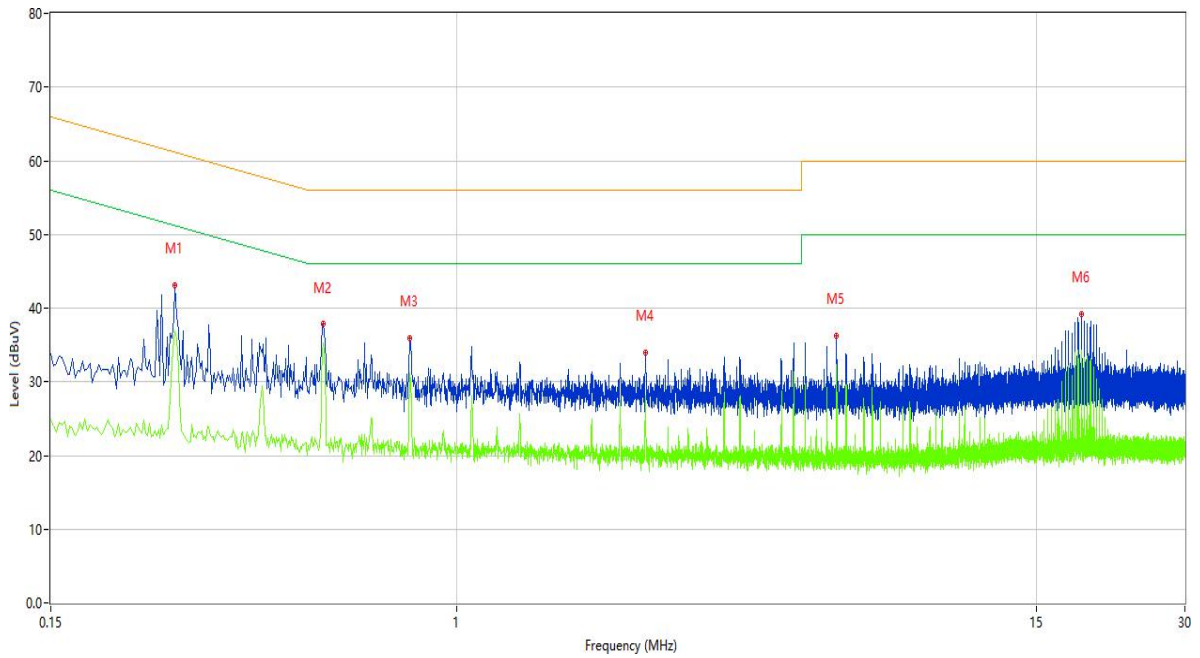
### QI Test Data and Plots (Mode1)

#### A.2.1 L Phase



No.	Frequency (MHz)	Results (dBuV)	Factor (dB)	Limit (dBuV)	Over Limit (dB)	Detector	Line	Verdict
1	0.270	43.33	11.34	61.12	-17.79	Peak	L	Pass
1**	0.270	38.60	11.34	51.12	-12.52	AV	L	Pass
2	0.402	40.39	11.43	57.81	-17.42	Peak	L	Pass
2**	0.402	36.97	11.43	47.81	-10.84	AV	L	Pass
3	0.804	34.44	11.05	56.00	-21.56	Peak	L	Pass
3**	0.804	30.52	11.05	46.00	-15.48	AV	L	Pass
4	3.488	33.17	11.30	56.00	-22.83	Peak	L	Pass
4**	3.488	26.23	11.30	46.00	-19.77	AV	L	Pass
5	5.894	34.14	11.21	60.00	-25.86	Peak	L	Pass
5**	5.894	29.79	11.21	50.00	-20.21	AV	L	Pass
6	18.496	38.65	11.41	60.00	-21.35	Peak	L	Pass
6**	18.496	32.75	11.41	50.00	-17.25	AV	L	Pass

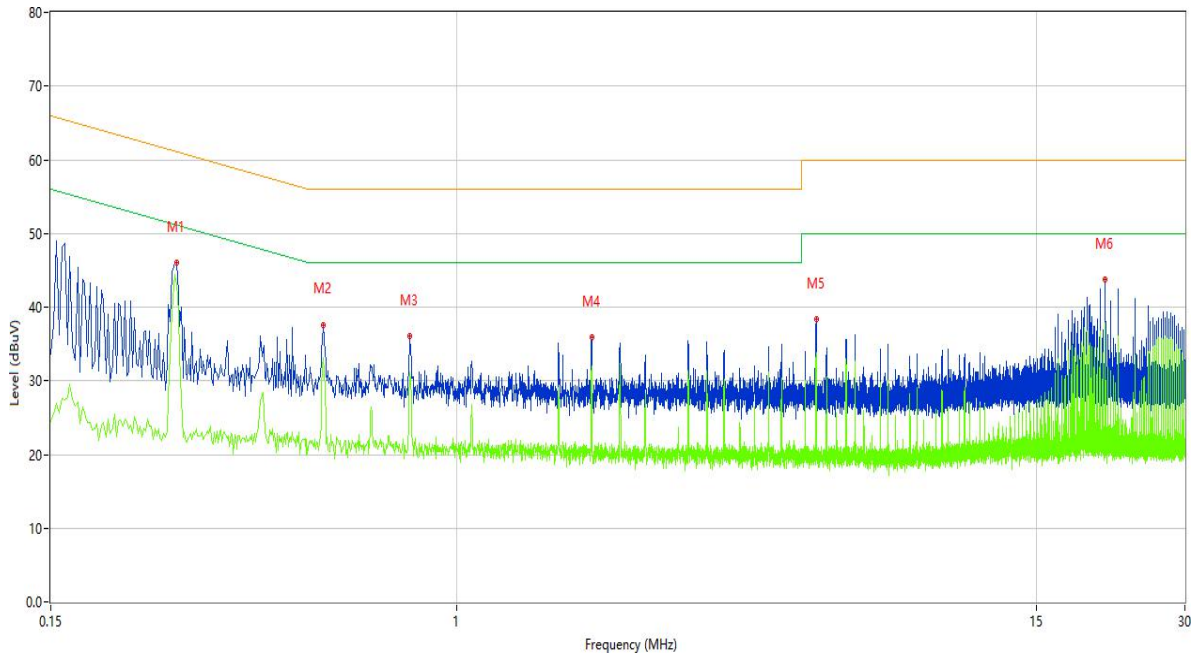
A.2.2 N Phase



No.	Frequency (MHz)	Results (dBuV)	Factor (dB)	Limit (dBuV)	Over Limit (dB)	Detector	Line	Verdict
1	0.268	43.10	11.33	61.18	-18.08	Peak	N	Pass
1**	0.268	36.92	11.33	51.18	-14.26	AV	N	Pass
2	0.536	37.81	11.07	56.00	-18.19	Peak	N	Pass
2**	0.536	35.26	11.07	46.00	-10.74	AV	N	Pass
3	0.804	35.95	11.05	56.00	-20.05	Peak	N	Pass
3**	0.804	31.18	11.05	46.00	-14.82	AV	N	Pass
4	2.412	33.98	11.33	56.00	-22.02	Peak	N	Pass
4**	2.412	28.06	11.33	46.00	-17.94	AV	N	Pass
5	5.896	36.31	11.21	60.00	-23.69	Peak	N	Pass
5**	5.896	32.40	11.21	50.00	-17.60	AV	N	Pass
6	18.492	39.22	11.41	60.00	-20.78	Peak	N	Pass
6**	18.492	33.60	11.41	50.00	-16.40	AV	N	Pass

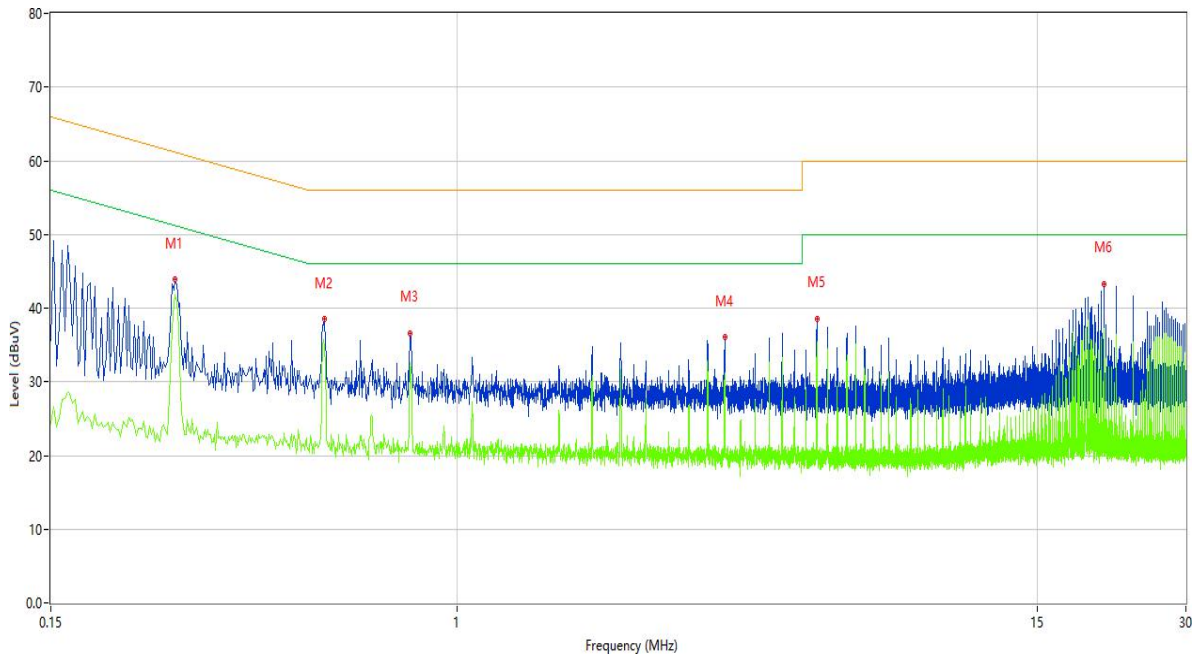
## QI Test Data and Plots (Mode2)

### A.2.3 L Phase



No.	Frequency (MHz)	Results (dBuV)	Factor (dB)	Limit (dBuV)	Over Limit (dB)	Detector	Line	Verdict
1	0.270	46.00	11.34	61.12	-15.12	Peak	L	Pass
1**	0.270	43.04	11.34	51.12	-8.08	AV	L	Pass
2	0.536	37.60	11.07	56.00	-18.40	Peak	L	Pass
2**	0.536	33.07	11.07	46.00	-12.93	AV	L	Pass
3	0.804	36.01	11.05	56.00	-19.99	Peak	L	Pass
3**	0.804	31.12	11.05	46.00	-14.88	AV	L	Pass
4	1.876	35.87	11.19	56.00	-20.13	Peak	L	Pass
4**	1.876	31.95	11.19	46.00	-14.05	AV	L	Pass
5	5.358	38.32	11.20	60.00	-21.68	Peak	L	Pass
5**	5.358	33.73	11.20	50.00	-16.27	AV	L	Pass
6	20.698	43.70	11.41	60.00	-16.30	Peak	L	Pass
6**	20.698	37.82	11.41	50.00	-12.18	AV	L	Pass

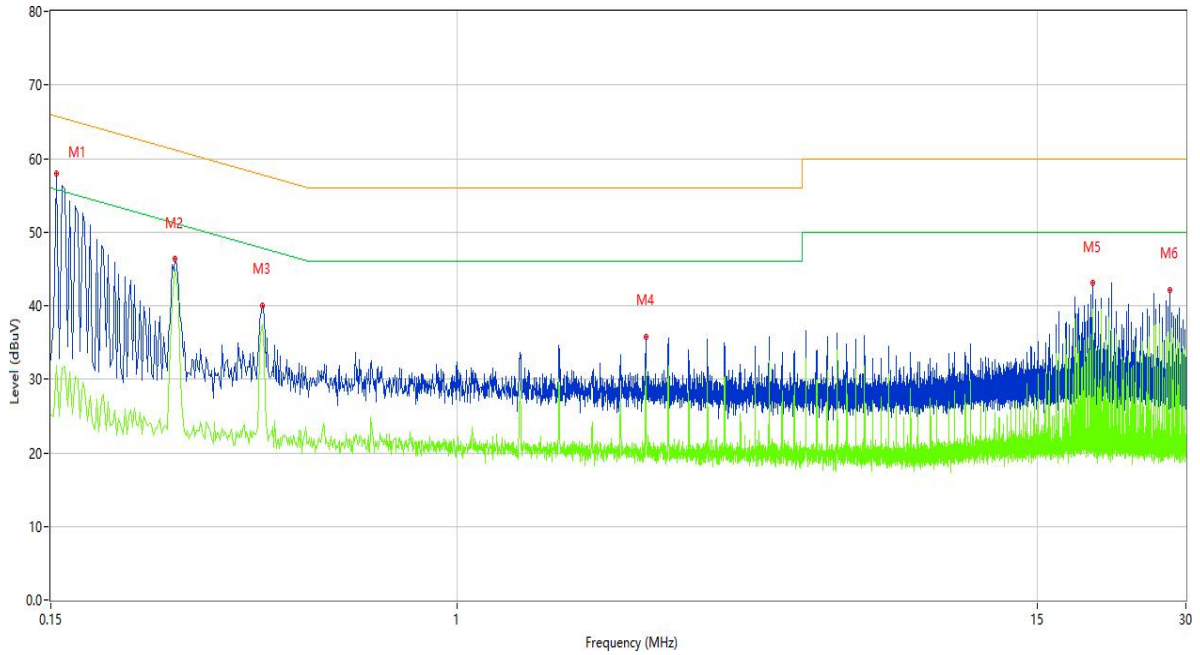
A.2.4 N Phase



No.	Frequency (MHz)	Results (dBuV)	Factor (dB)	Limit (dBuV)	Over Limit (dB)	Detector	Line	Verdict
1	0.268	43.89	11.33	61.18	-17.29	Peak	N	Pass
1**	0.268	41.86	11.33	51.18	-9.32	AV	N	Pass
2	0.538	38.45	11.07	56.00	-17.55	Peak	N	Pass
2**	0.538	34.79	11.07	46.00	-11.21	AV	N	Pass
3	0.804	36.59	11.05	56.00	-19.41	Peak	N	Pass
3**	0.804	32.58	11.05	46.00	-13.42	AV	N	Pass
4	3.486	36.14	11.30	56.00	-19.86	Peak	N	Pass
4**	3.486	31.14	11.30	46.00	-14.86	AV	N	Pass
5	5.358	38.53	11.20	60.00	-21.47	Peak	N	Pass
5**	5.358	34.93	11.20	50.00	-15.07	AV	N	Pass
6	20.444	43.20	11.43	60.00	-16.80	Peak	N	Pass
6**	20.444	37.19	11.43	50.00	-12.81	AV	N	Pass

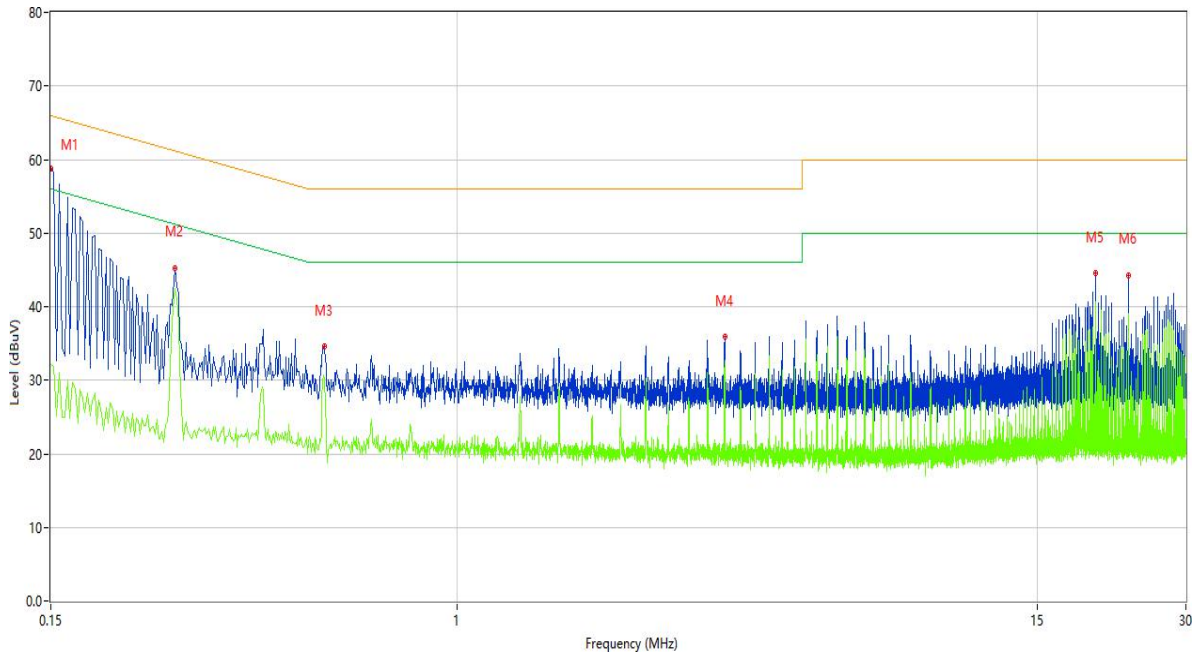
QI Test Data and Plots (Mode3)

A.2.5 L Phase



No.	Frequency (MHz)	Results (dBuV)	Factor (dB)	Limit (dBuV)	Over Limit (dB)	Detector	Line	Verdict
1	0.150	32.57	11.16	66.00	-33.43	Peak	L	Pass
1**	0.150	25.11	11.16	56.00	-30.89	AV	L	Pass
2	0.268	46.29	11.33	61.18	-14.89	Peak	L	Pass
2**	0.268	44.97	11.33	51.18	-6.21	AV	L	Pass
3	0.402	40.06	11.43	57.81	-17.75	Peak	L	Pass
3**	0.402	37.40	11.43	47.81	-10.41	AV	L	Pass
4	2.412	35.77	11.33	56.00	-20.23	Peak	L	Pass
4**	2.412	31.37	11.33	46.00	-14.63	AV	L	Pass
5	19.422	43.03	11.40	60.00	-16.97	Peak	L	Pass
5**	19.422	38.35	11.40	50.00	-11.65	AV	L	Pass
6	27.854	42.13	11.26	60.00	-17.87	Peak	L	Pass
6**	27.854	34.89	11.26	50.00	-15.11	AV	L	Pass

A.2.6 N Phase



No.	Frequency (MHz)	Results (dBuV)	Factor (dB)	Limit (dBuV)	Over Limit (dB)	Detector	Line	Verdict
1	0.150	58.72	11.16	66.00	-7.28	Peak	N	Pass
1**	0.150	32.11	11.16	56.00	-23.89	AV	N	Pass
2	0.268	45.27	11.33	61.18	-15.91	Peak	N	Pass
2**	0.268	42.52	11.33	51.18	-8.66	AV	N	Pass
3	0.538	34.54	11.07	56.00	-21.46	Peak	N	Pass
3**	0.538	30.40	11.07	46.00	-15.60	AV	N	Pass
4	3.484	35.87	11.30	56.00	-20.13	Peak	N	Pass
4**	3.484	32.63	11.30	46.00	-13.37	AV	N	Pass
5	19.674	44.50	11.43	60.00	-15.50	Peak	N	Pass
5**	19.674	40.71	11.43	50.00	-9.29	AV	N	Pass
6	22.996	44.24	11.28	60.00	-15.76	Peak	N	Pass
6**	22.996	39.02	11.28	50.00	-10.98	AV	N	Pass

### A.3 20 dB Bandwidth

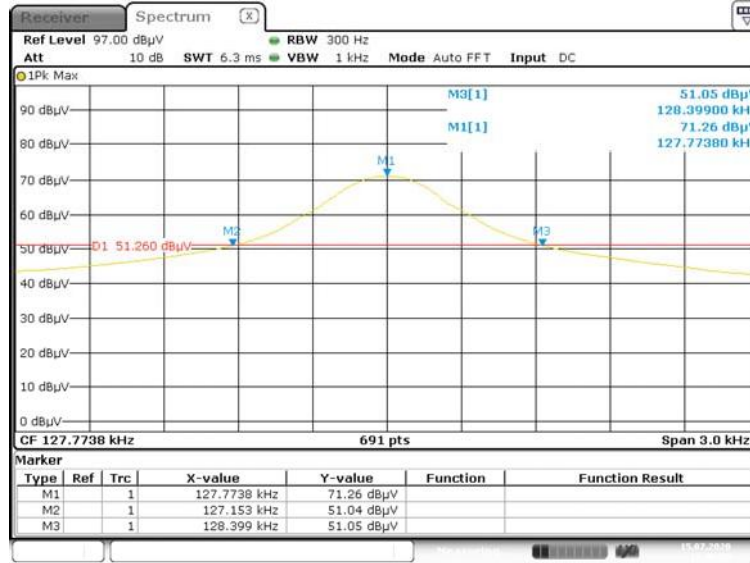
#### QI Test Data and Plots (Mode1)

##### Test Data

Frequency (MHz)	Emission Bandwidth(20dB down) (kHz)	Occupied Bandwidth(99%) (kHz)
127.7738	1.246	1.632

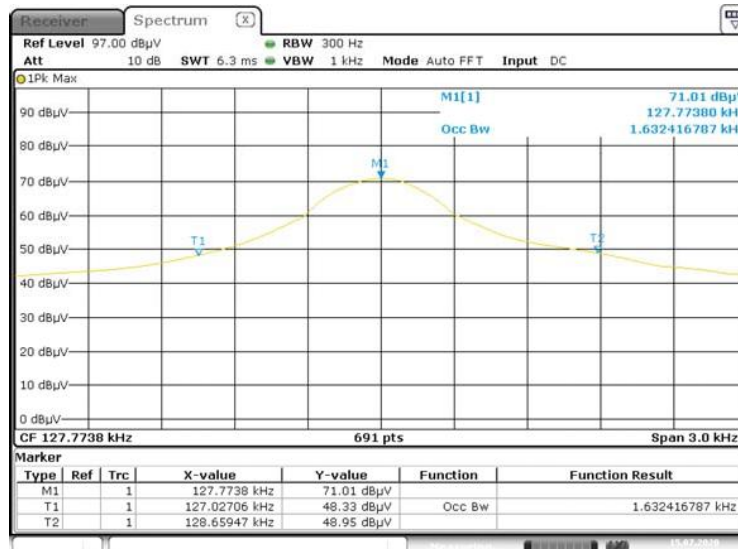
##### Test plots

#### Emission Bandwidth



Date: 15.JUL.2020 12:48:59

#### 99% Occupied Bandwidth



Date: 15.JUL.2020 12:46:38

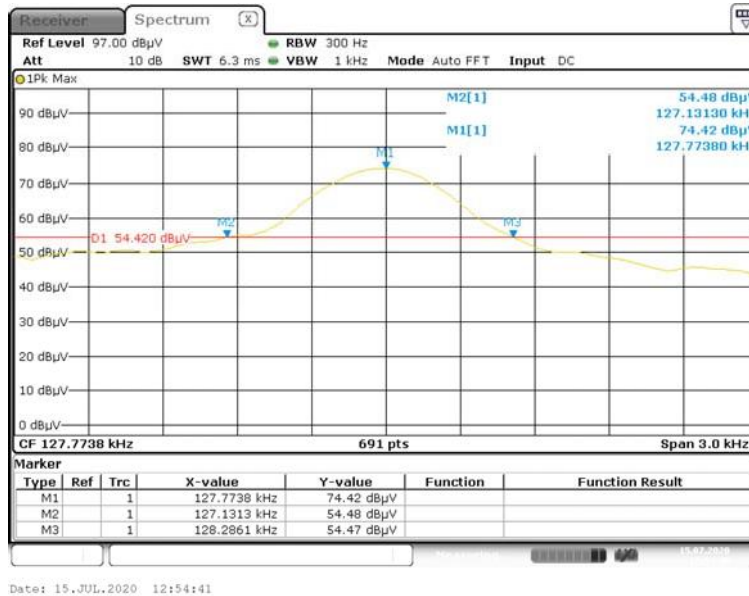
QI Test Data and Plots (Mode2)

Test Data

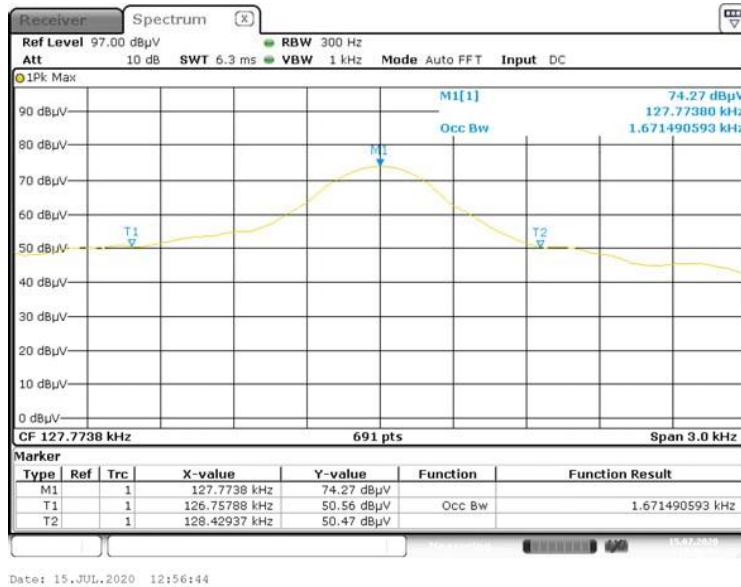
Frequency (MHz)	Emission Bandwidth(20dB down) (kHz)	Occupied Bandwidth(99%) (kHz)
127.7738	1.155	1.671

Test plots

Emission Bandwidth



99% Occupied Bandwidth





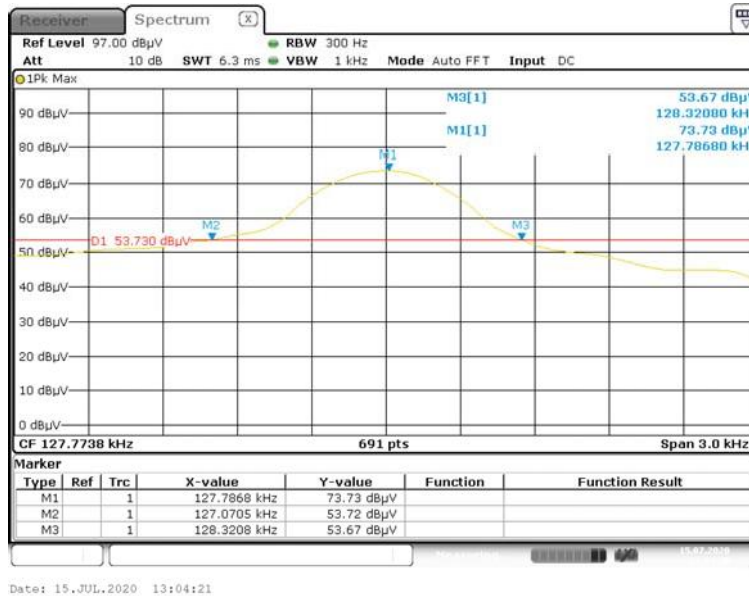
QI Test Data and Plots (Mode3)

Test Data

Frequency (MHz)	Emission Bandwidth(20dB down) (kHz)	Occupied Bandwidth(99%) (kHz)
127.7738	1.250	1.763

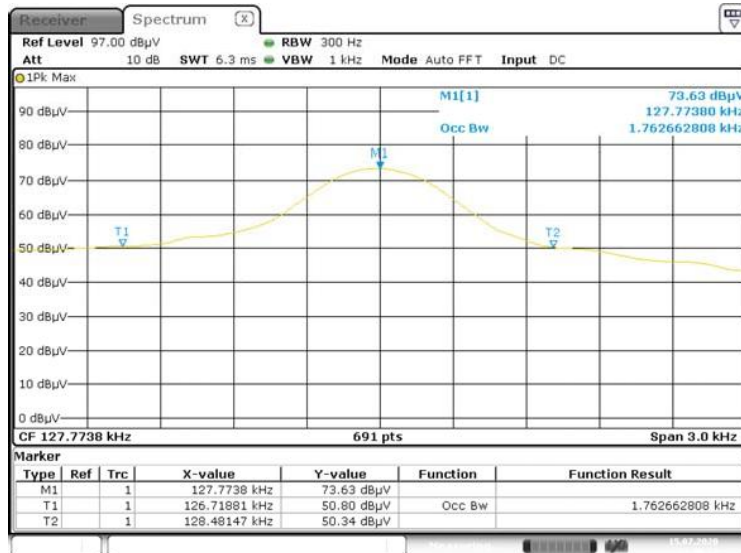
Test plots

Emission Bandwidth



Date: 15.JUL.2020 13:04:21

99% Occupied Bandwidth



Date: 15.JUL.2020 13:00:22

## **ANNEX B TEST SETUP PHOTOS**

Please refer the document "BL-BL-EC2070405-AR.PDF".

## **ANNEX C EUT EXTERNAL PHOTOS**

Please refer the document "BL-EC2070405-AW.PDF".

## **ANNEX D EUT INTERNAL PHOTOS**

Please refer the document "BL-EC2070405-AI.PDF".

--END OF REPORT--