

TEST REPORT

Applicant: JACS Solutions, Inc.
Address: 809 Pinnacle Drive, Suite R, Linthicum Heights,
Maryland 21090, United States
Equipment Type: Wireless charger
Model Name: CP1001
Brand Name: JACS
FCC ID: 2AGCDJACSCP1001
Test Standard: 47 CFR Part 15 Subpart C
ANSI C63.10-2013
Sample Arrival Date: Dec. 29, 2022
Test Date: Dec. 31, 2022 - Feb. 07, 2023
Date of Issue: Feb. 24, 2023

ISSUED BY:

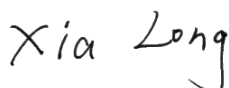
Shenzhen BALUN Technology Co., Ltd.

Tested by: Xiong Chong

Checked by: Xia Long

Approved by: Liao Jianming

(Technical Director)



Revision History		
Version	Issue Date	Revisions
<u>Rev. 01</u>	<u>Feb. 20, 2023</u>	<u>Initial Issue</u>
<u>Rev. 02</u>	<u>Feb. 24, 2023</u>	<u>Added the test item of Antenna Requirement in section 3.2</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.

2 PRODUCT INFORMATION

2.1 Applicant Information

Applicant	JACS Solutions, Inc.
Address	809 Pinnacle Drive, Suite R, Linthicum Heights, Maryland 21090, United States

2.2 Manufacturer Information

Manufacturer	JACS Solutions, Inc.
Address	809 Pinnacle Drive, Suite R, Linthicum Heights, Maryland 21090, United States

2.3 Factory Information

Factory	N/A
Address	N/A

2.4 General Description for Equipment under Test (EUT)

EUT Name	Wireless charger
Model Name Under Test	CP1001
Series Model Name	N/A
Description of Model name differentiation	N/A
Hardware Version	ZW-ZWY-TG801 -20201012-V1.2
Software Version	8A1E
Dimensions (Approx.)	N/A
Weight (Approx.)	N/A

2.5 Ancillary Equipment

Ancillary Equipment 1	Adapter	
	Brand Name	N/A
	Model No.	BCT050200-078EU
	Serial No.	N/A
	Rated Input	100-240V~50/60Hz, 0.3A
	Rated Output	5.0V-2000mA, 10.0W
Ancillary Equipment 2	USB Cable	
	Model No.	N/A
	Length (Approx.)	1.1m

2.6 Technical Information

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

Operating Frequency	120~175 kHz
Product Type	<input checked="" type="checkbox"/> Mobile <input type="checkbox"/> Portable <input type="checkbox"/> Fix Location
Antenna Type	Coil Antenna
About Product	The EUT only support the PWM technology.

3 SUMMARY OF TEST RESULTS

3.1 Test Standards

No.	Identity	Document Title
1	47 CFR Part 15, Subpart C	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	Antenna Requirement	15.203	Pass ^{Note}	--
2	Radiated Emission	15.209,15.215(b)	Pass	Annex A.1
3	Conducted Emission, AC Ports	15.207	Pass	Annex A.2
4	20 dB Bandwidth	15.215(c)	Pass	Annex A.3

Note: The EUT has a permanently and irreplaceable attached antenna, which complies with the requirement FCC 15.203

The EUT has two test modes as follow:

Mode1: EUT + USB Cable + Adapter + PWM Tx

Mode2: EUT + USB Cable + Adapter + Load Plate + PWM Link

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)	4.28 dB
Radiated emissions (9 kHz-30 MHz)	3.22 dB
Radiated emissions (30 MHz-1 GHz)-3m	4.76 dB

4 GENERAL TEST CONFIGURATIONS

4.1 Test Environments

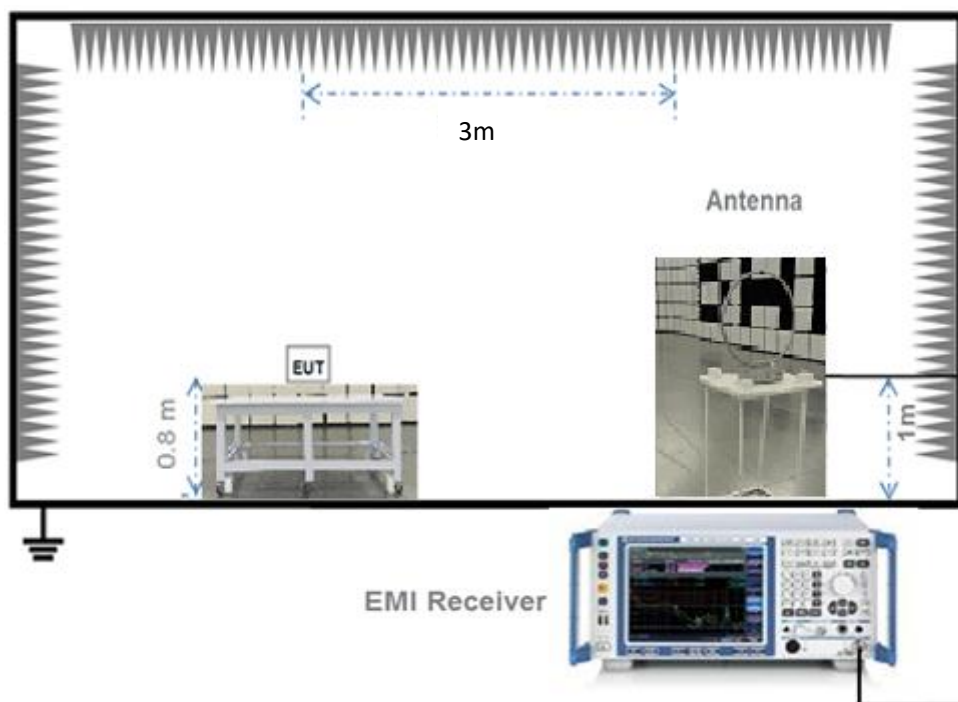
Relative Humidity	30% to 60%	
Atmospheric Pressure	100 kPa to 102 kPa	
Temperature	NT (Normal Temperature)	+22°C to +25°C
Working Voltage of the EUT	NV (Normal Voltage)	AC 120V/60Hz

4.2 Test Equipment List

Description	Manufacturer	Model	Serial No.	Cal. Date	Cal. Due
EMI Receiver	ROHDE&SCHWARZ	ESRP	101036	2022.09.09	2023.09.08
Test Antenna-Loop	SCHWARZBECK	FMZB 1519	1519-037	2021.04.16	2024.04.15
Anechoic Chamber	EMC Electronic Co., Ltd	20.10*11.60*7.35m	130	2021.08.15	2024.08.14
EMI Receiver	Keysight	N9038A	MY55330120	2022.09.09	2023.09.08
Amplifier (30-1GHz)	COM-MV	ZT30-1000M	B2017119081	2022.12.07	2023.12.06
Test Antenna-Bi-Log	SCHWARZBECK	VULB 9168	9168-00867	2022.04.12	2025.04.11
Anechoic Chamber	YiHeng	9m*6m*6m	142	2021.08.19	2024.08.18
EMI Receiver	KEYSIGHT	N9010B	MY57110309	2022.09.09	2023.09.08
LISN	SCHWARZBECK	NSLK 8127	8127-687	2022.06.01	2023.05.31
Shielded Room	YiHeng Electronic Co., Ltd	3.5m*3.1m*2.8m	112	2022.02.19	2025.02.18
Load Plate	JACS Solutions, Inc.	TR810	N/A	N/A	N/A
Description	Manufacturer	Name		Version	
Test Software	BALUN	BL410-E		V22.930	

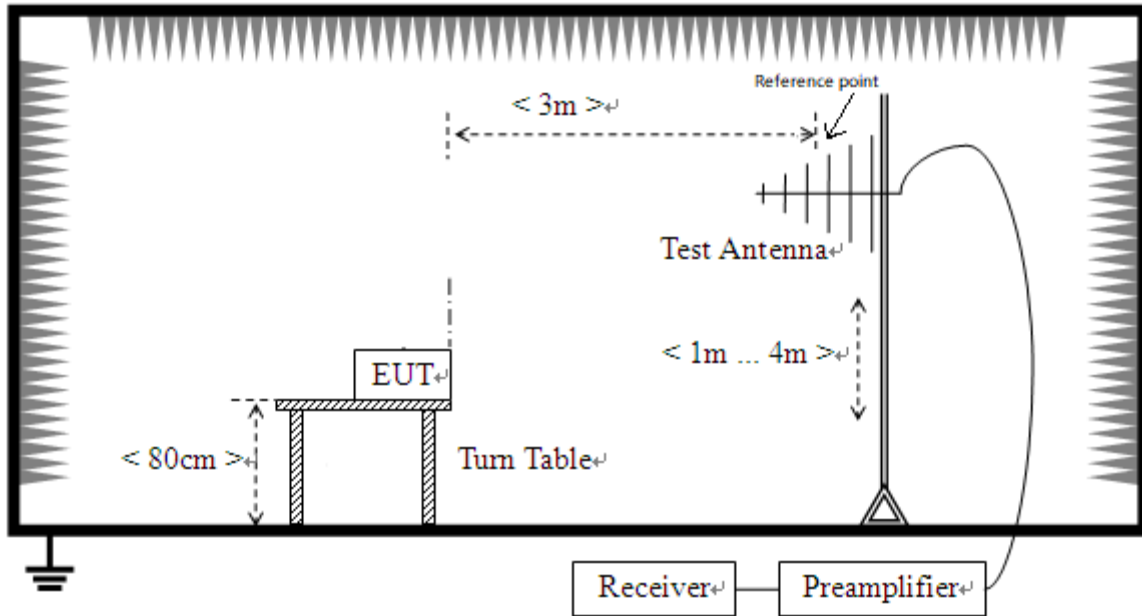
4.3 Test Setups

Test Setup 1



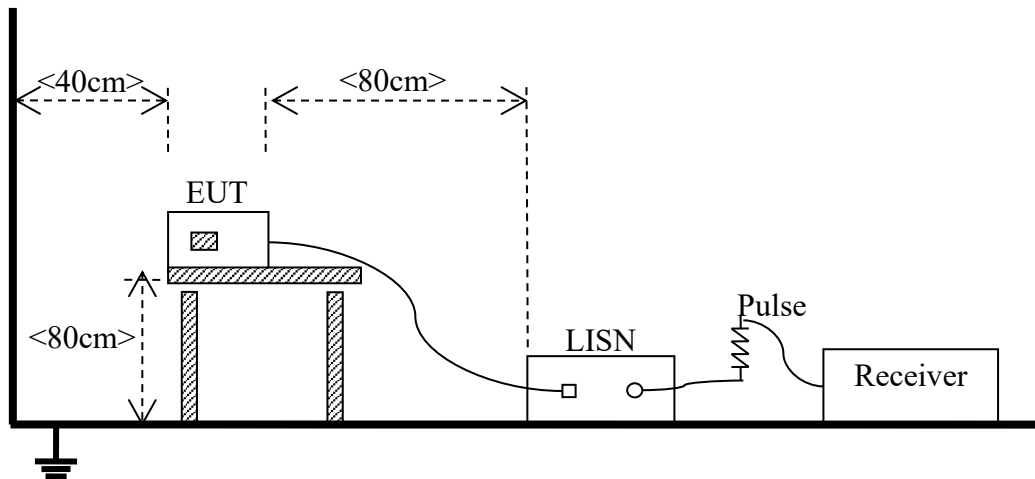
For Radiated Emission Test (Below 30 MHz)

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 Antenna Requirements

5.1.1 Relevant Standards

FCC §15.203

An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section. The manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited. This requirement does not apply to carrier current devices or to devices operated under the provisions of § 15.211, § 15.213, § 15.217, § 15.219, or § 15.221. Further, this requirement does not apply to intentional radiators that must be professionally installed, such as perimeter protection systems and some field disturbance sensors, or to other intentional radiators which, in accordance with § 15.31(d), must be measured at the installation site. However, the installer shall be responsible for ensuring that the proper antenna is employed so that the limits in this part are not exceeded.

For expediting the testing, measurements may be performed using only the antenna with highest gain of each combination of transmitter and antenna type, with the transmitter output power set at the maximum level. However, the transmitter shall comply with the applicable requirements under all operational conditions and when in combination with any type of antenna from the list provided in the test report (and in the notice to be included in the user manual, provided below).

When measurements at the antenna port are used to determine the RF output power, the effective gain of the device's antenna shall be stated, based on a measurement or on data from the antenna's manufacturer. The test report shall state the RF power, output power setting and spurious emission measurements with each antenna type that is used with the transmitter being tested.

For licence-exempt equipment with detachable antennas, the user manual shall also contain the following notice in a conspicuous location:

This radio transmitter [enter the device's ISED certification number] has been approved by Innovation, Science and Economic Development Canada to operate with the antenna types listed below, with the maximum permissible gain indicated. Antenna types not included in this list that have a gain greater than the maximum gain indicated for any type listed are strictly prohibited for use with this device.

Immediately following the above notice, the manufacturer shall provide a list of all antenna types which can be used with the transmitter, indicating the maximum permissible antenna gain (in dBi) and the required impedance for each antenna type.

5.1.2 Antenna Anti-Replacement Construction

The Antenna Anti-Replacement as following method:

Protected Method	Description
The antenna is embedded in the product.	An embedded-in antenna design is used.

Reference Documents	Item
Photo	Please refer EUT internal photos.

5.2 Emission Tests

5.2.1 Radiated Emission

5.2.1.1 Limit

Frequency (MHz)	Field Strength ($\mu\text{V}/\text{m}$)	Measurement Distance (m)
0.009 - 0.490	2400/F(kHz)	300
0.490 - 1.705	24000/F(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 $\text{dB}\mu\text{V}/\text{m}@3\text{ m}$ (AV) and 74 $\text{dB}\mu\text{V}/\text{m}@3\text{ m}$ (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 = $20 \cdot \log(100) + 20 \log(3/10) = 29.5$ ($\text{dB}\mu\text{V}/\text{m}$).

5.2.1.2 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.

5.2.1.3 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.

5.2.1.4 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.

5.2.2 Conducted Emission

5.2.2.1 Test Limit

Frequency range (MHz)	Conducted Limit (dB μ 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.

5.2.2.2 Test Setup

Refer to 4.3 section test (test setup 3) for conducted emission, the photo of test setup please refer to ANNEX B.

5.2.2.3 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.

5.2.2.4 Test Result

Please refer to ANNEX A.2.

NOTE:

1. Results (dB μ V) = Reading (dB μ 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.

5.2.3 20 dB Bandwidth

5.2.3.1 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.

5.2.3.2 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.

5.2.3.3 Test Procedure

Use the following spectrum analyzer settings:

Span = between 2 and 5 times the OBW

RBW = 1%~5% of the OBW

Sweep = auto

Detector function = peak

Trace = max hold

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

5.2.3.4 Test Result

Please refer to ANNEX A.3.

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 to 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.

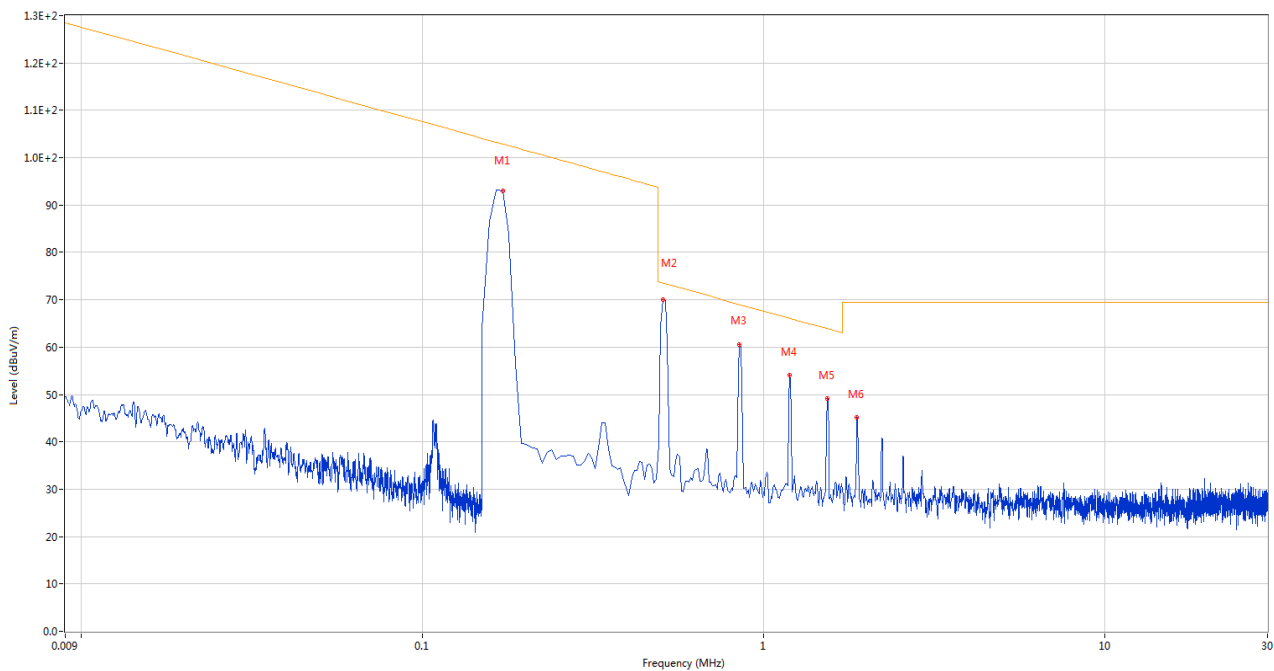
Note ³: All Radiated Emissions tests were performed in X, Y, Z axis direction of EUT. And only the worst axis test condition was recorded in this test report.

Note ⁴: These frequencies which near 0.123 MHz and 0.172 MHz with circle should be ignored because they are PWM carrier frequencies.

PWM Test Data and Plots

Mode1:

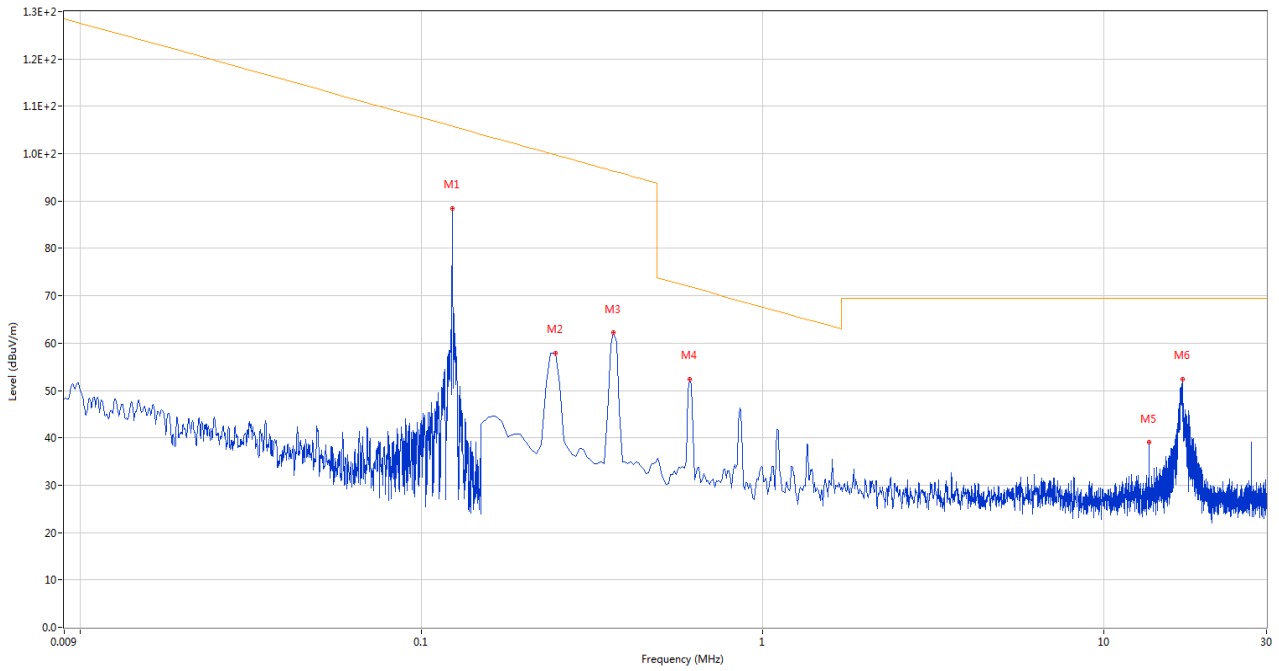
A.1.1 Test Antenna LOOP, EUT Y axis, 9 kHz –30 MHz



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	0.172	92.95	20.10	102.9	9.95	Peak	360.00	100	Vertical	N/A
2	0.508	69.98	20.27	73.5	3.52	Peak	360.00	100	Vertical	Pass
3	0.851	60.58	20.50	69.0	8.42	Peak	360.00	100	Vertical	Pass
4	1.195	53.99	20.53	66.1	12.11	Peak	360.00	100	Vertical	Pass
5	1.538	49.16	20.51	63.9	14.74	Peak	360.00	100	Vertical	Pass
6	1.881	45.13	20.50	69.5	24.37	Peak	360.00	100	Vertical	Pass

Mode2:

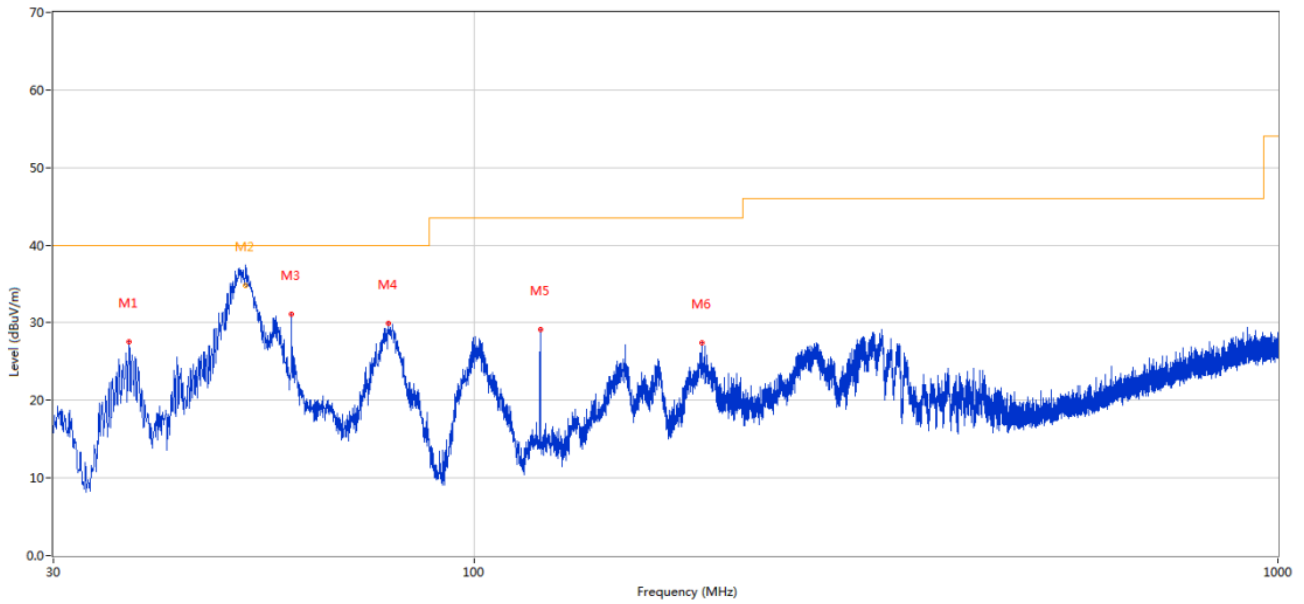
A.1.2 Test Antenna LOOP, EUT Y axis, 9 kHz –30 MHz



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	0.123	88.49	20.16	105.8	17.31	Peak	360.00	100	Vertical	N/A
2	0.247	57.92	20.13	99.7	41.78	Peak	360.00	100	Vertical	Pass
3	0.366	62.18	20.16	96.3	34.12	Peak	360.00	100	Vertical	Pass
4	0.613	52.33	20.34	71.9	19.57	Peak	360.00	100	Vertical	Pass
5	13.560	39.18	20.86	69.5	30.32	Peak	360.00	100	Vertical	Pass
6	17.038	52.37	20.94	69.5	17.13	Peak	360.00	100	Vertical	Pass

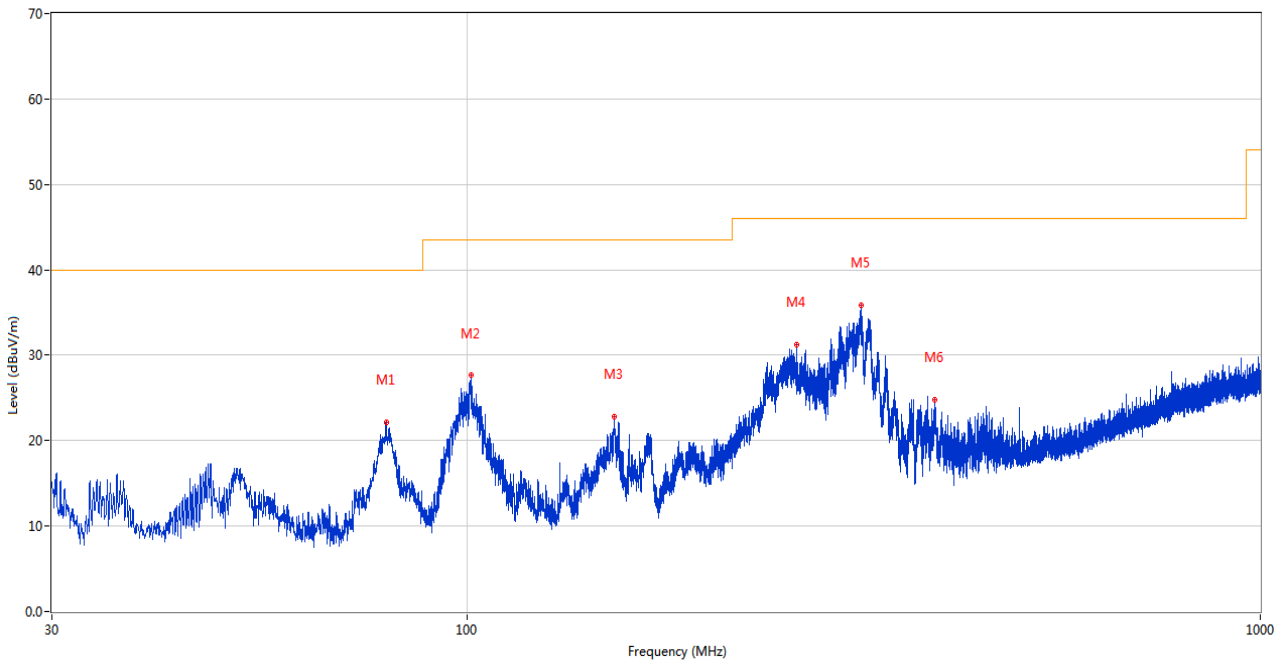
Mode1:

A.1.3 Test Antenna Vertical, EUT Y axis, 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	37.275	27.60	-26.34	40.0	12.40	Peak	154.00	100	Vertical	Pass
2	52.018	18.29	-26.81	40.0	21.71	Peak	74.00	117	Vertical	N/A
2*	52.018	34.80	-26.81	40.0	5.20	QP	74.00	117	Vertical	Pass
3	59.294	31.10	-27.43	40.0	8.90	Peak	256.00	100	Vertical	Pass
4	78.257	29.95	-30.18	40.0	10.05	Peak	74.00	100	Vertical	Pass
5	120.889	29.08	-27.12	43.5	14.42	Peak	290.00	100	Vertical	Pass
6	192.136	27.47	-28.30	43.5	16.03	Peak	17.00	100	Vertical	Pass

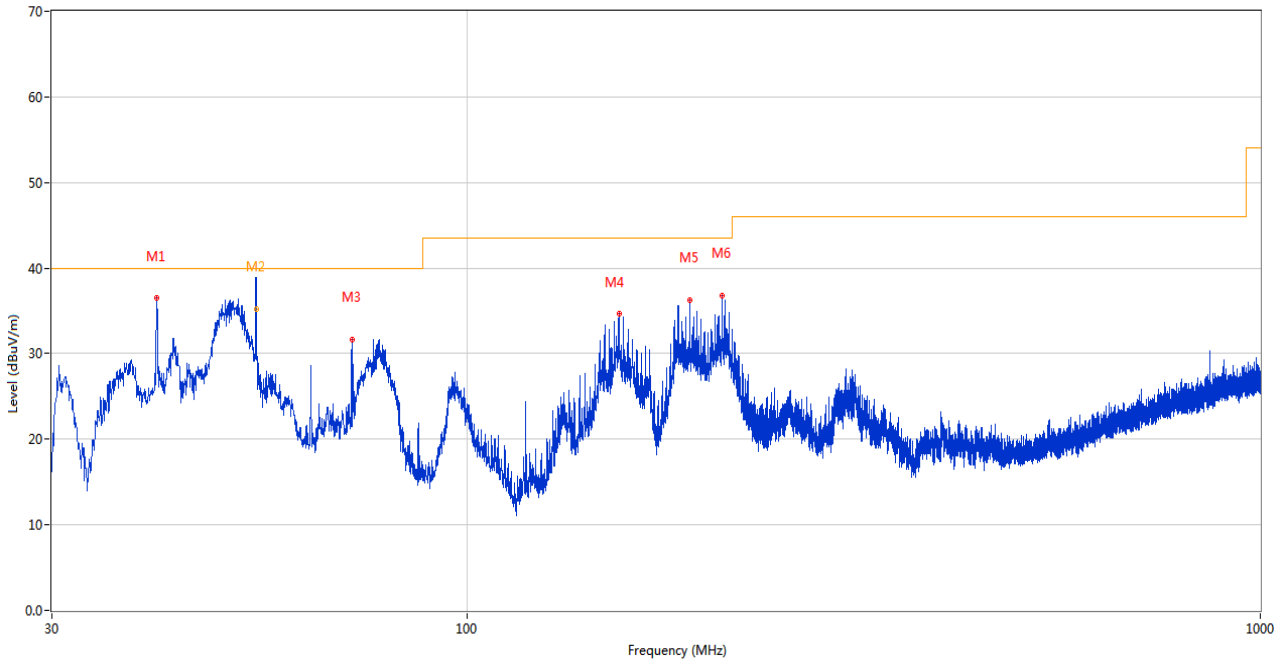
A.1.4 Test Antenna Horizontal, EUT Y axis, 30 MHz – 1 GHz



No.	Frequency (MHz)	Results (dBuV/m)	Factor (dB)	Limit (dBuV/m)	Margin (dB)	Detector	Table (Degree)	Height (cm)	Antenna	Verdict
1	79.131	22.20	-30.30	40.0	17.80	Peak	0.00	200	Horizontal	Pass
2	101.149	27.62	-29.09	43.5	15.88	Peak	27.00	200	Horizontal	Pass
3	153.190	22.77	-24.51	43.5	20.73	Peak	80.00	200	Horizontal	Pass
4	260.521	31.21	-25.61	46.0	14.79	Peak	113.00	100	Horizontal	Pass
5	314.113	35.82	-23.91	46.0	10.18	Peak	106.00	100	Horizontal	Pass
6	389.046	24.81	-21.50	46.0	21.19	Peak	249.00	100	Horizontal	Pass

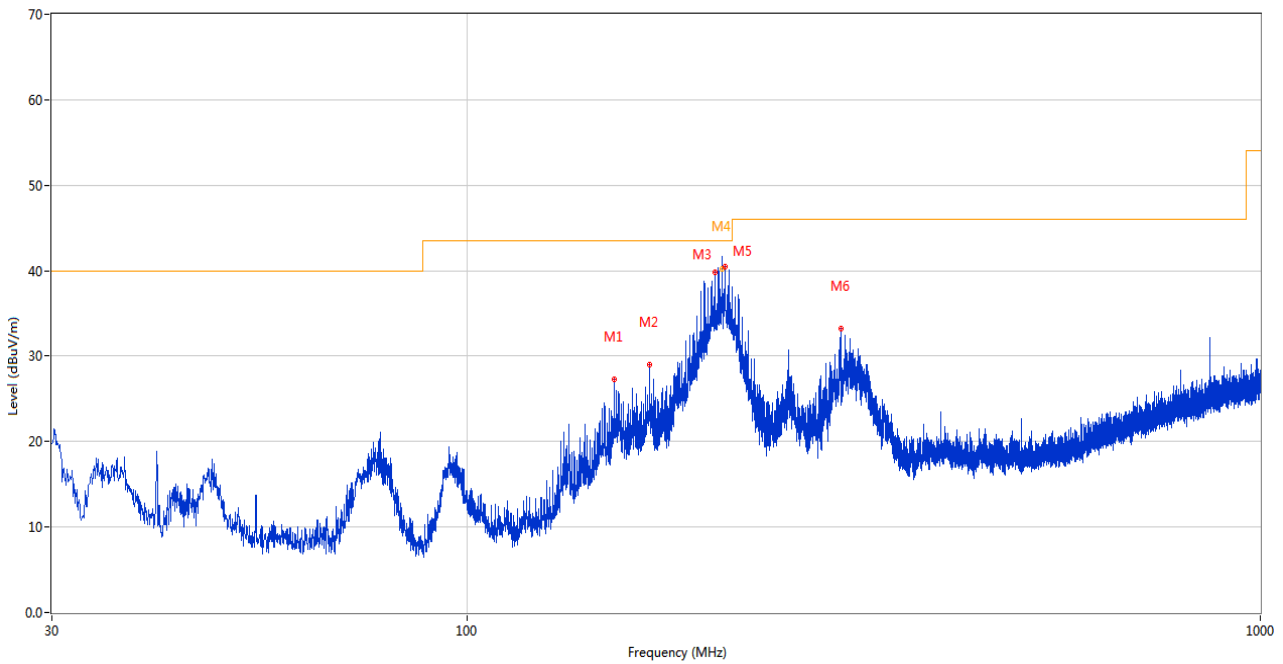
Mode2:

A.1.5 Test Antenna Vertical, EUT Y axis, 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	40.670	36.46	-26.25	40.0	3.54	Peak	33.00	100	Vertical	Pass
2	54.243	38.76	-26.88	40.0	1.24	Peak	360.00	101	Vertical	N/A
2*	54.243	35.14	-26.88	40.0	4.86	QP	360.00	101	Vertical	Pass
3	71.613	31.68	-29.36	40.0	8.32	Peak	320.00	200	Vertical	Pass
4	155.470	34.62	-24.93	43.5	8.88	Peak	360.00	100	Vertical	Pass
5	190.972	36.31	-28.19	43.5	7.19	Peak	353.00	100	Vertical	Pass
6	209.790	36.80	-28.31	43.5	6.70	Peak	54.00	100	Vertical	Pass

A.1.6 Test Antenna Horizontal, EUT Y axis, 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	153.384	27.25	-24.54	43.5	16.25	Peak	280.00	100	Horizontal	Pass
2	170.020	29.02	-25.29	43.5	14.48	Peak	0.00	100	Horizontal	Pass
3	205.522	39.82	-28.52	43.5	3.68	Peak	186.00	100	Horizontal	Pass
4	209.656	44.72	-28.31	43.5	-1.22	Peak	181.00	184	Horizontal	N/A
4*	209.656	40.16	-28.31	43.5	3.34	QP	181.00	184	Horizontal	Pass
5	211.730	40.44	-28.12	43.5	3.06	Peak	172.00	100	Horizontal	Pass
6	296.216	33.18	-24.14	46.0	12.82	Peak	92.00	100	Horizontal	Pass

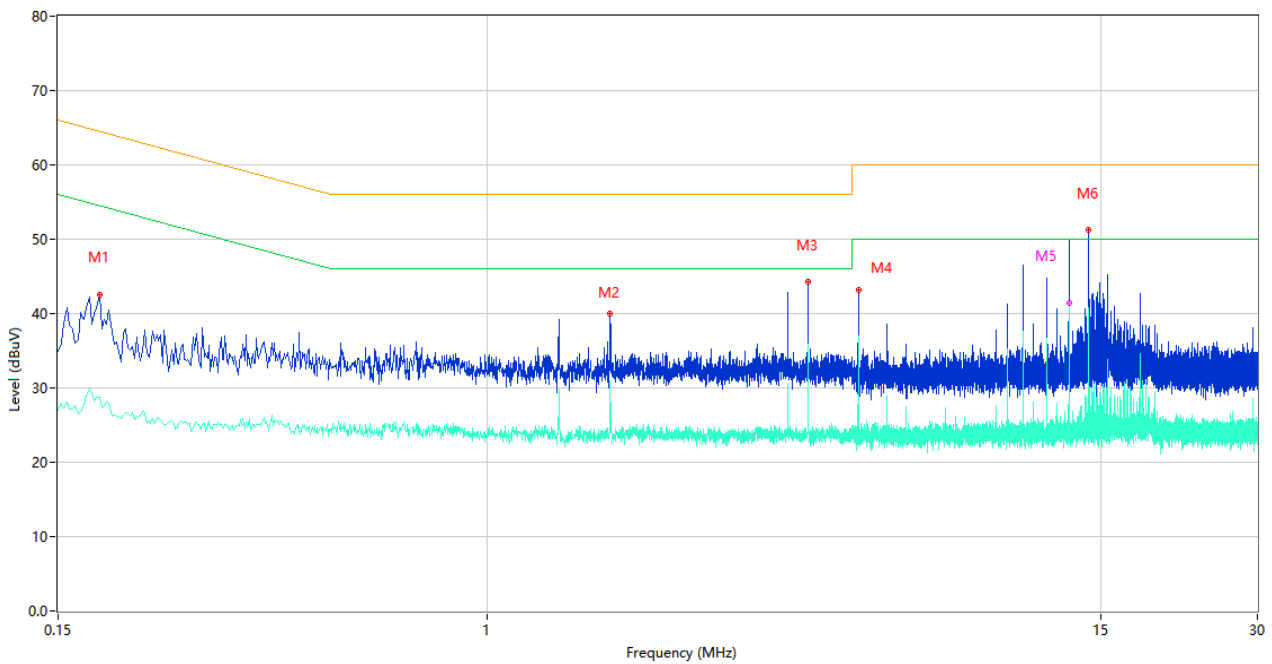
A.2 Conducted Emission

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 (240 VAC, 50 Hz) shown here.

PWM Test Data and Plots

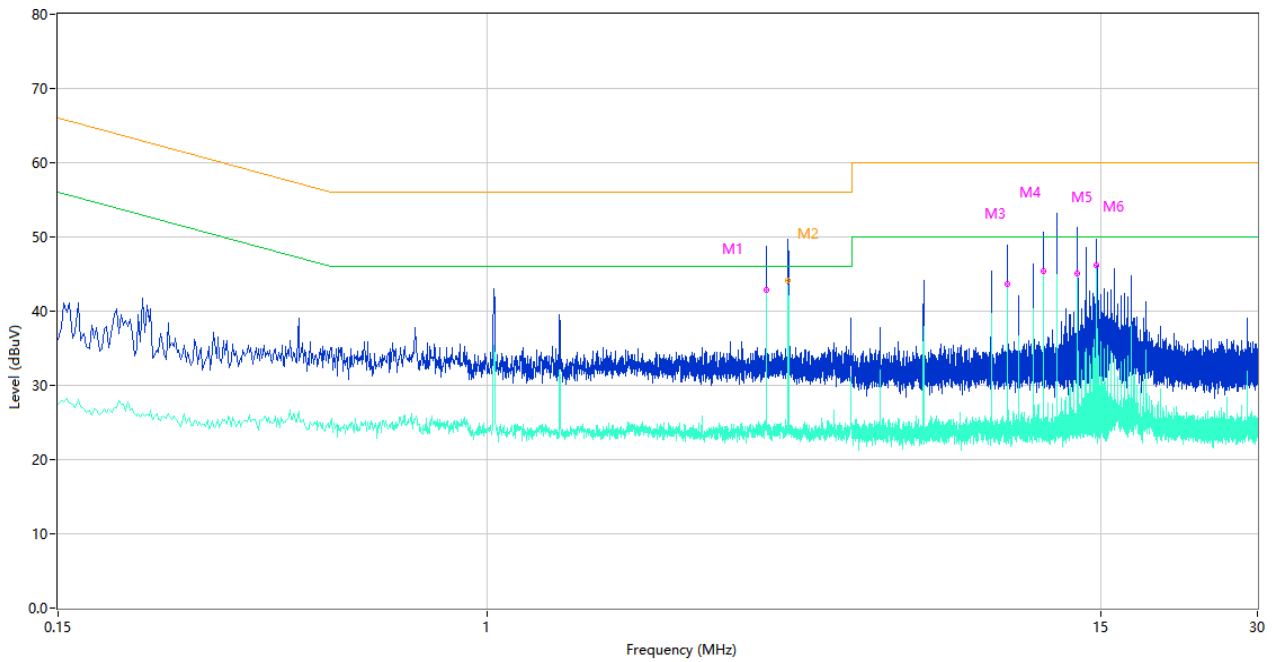
Mode1:

A.2.1 L Phase



No.	Frequency (MHz)	Results (dBuV)	Factor (dB)	Limit (dBuV)	Margin (dB)	Detector	Line	Verdict
1	0.180	42.54	10.07	64.49	21.95	Peak	L	Pass
1**	0.180	28.74	10.07	54.49	25.75	AV	L	Pass
2	1.718	39.96	10.27	56.00	16.04	Peak	L	Pass
2**	1.718	30.75	10.27	46.00	15.25	AV	L	Pass
3	4.118	44.28	10.23	56.00	11.72	Peak	L	Pass
3**	4.118	34.45	10.23	46.00	11.55	AV	L	Pass
4	5.146	43.17	10.21	60.00	16.83	Peak	L	Pass
4**	5.146	32.06	10.21	50.00	17.94	AV	L	Pass
5	13.046	43.98	10.11	60.00	16.02	Peak	L	Pass
5**	13.046	41.41	10.11	50.00	8.59	AV	L	Pass
6	14.248	51.23	10.26	60.00	8.77	Peak	L	Pass
6**	14.248	40.82	10.26	50.00	9.18	AV	L	Pass

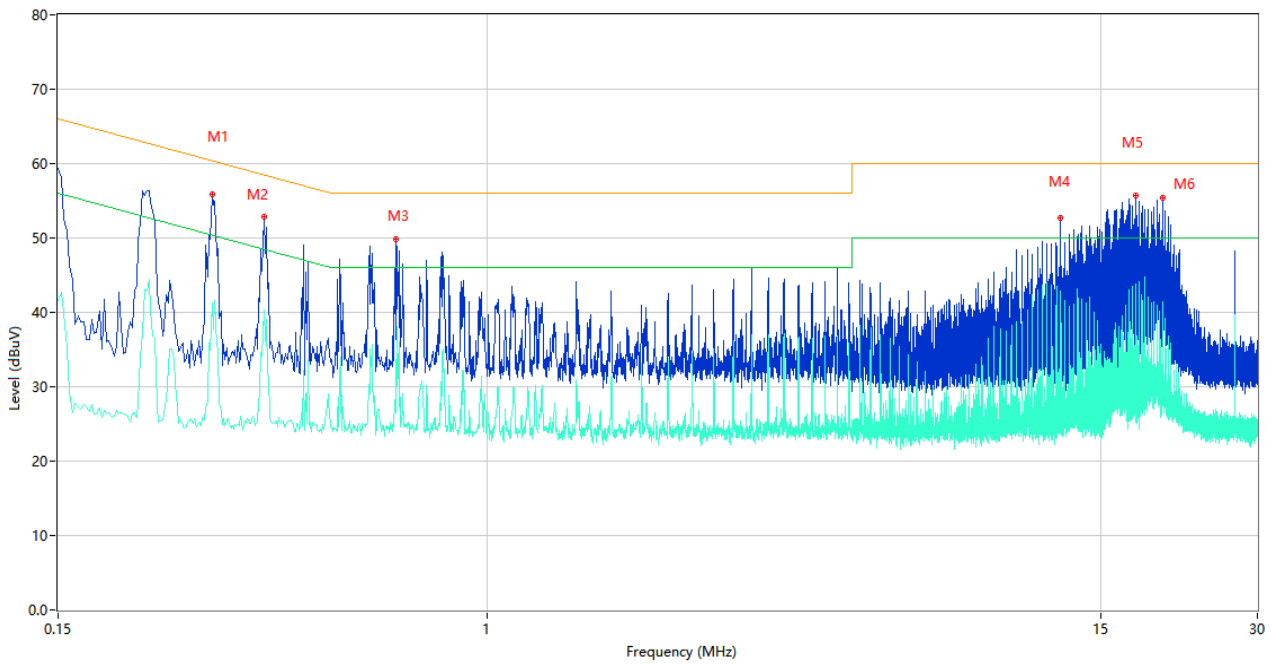
A.2.2 N Phase



No.	Frequency (MHz)	Results (dBuV)	Factor (dB)	Limit (dBuV)	Margin (dB)	Detector	Line	Verdict
1	3.432	48.79	10.35	56.00	7.21	Peak	N	Pass
1**	3.432	42.86	10.35	46.00	3.14	AV	N	Pass
2	3.776	49.19	10.44	56.00	6.81	Peak	N	N/A
2*	3.776	44.07	10.44	56.00	11.93	QP	N	Pass
2**	3.776	43.57	10.44	46.00	2.43	AV	N	Pass
3	9.956	47.57	10.44	60.00	12.43	Peak	N	Pass
3**	9.956	43.60	10.44	50.00	6.40	AV	N	Pass
4	11.668	48.81	10.16	60.00	11.19	Peak	N	Pass
4**	11.668	45.39	10.16	50.00	4.61	AV	N	Pass
5	13.562	51.24	10.08	60.00	8.76	Peak	N	Pass
5**	13.562	45.01	10.08	50.00	4.99	AV	N	Pass
6	14.762	49.02	10.22	60.00	10.98	Peak	N	Pass
6**	14.762	46.22	10.22	50.00	3.78	AV	N	Pass

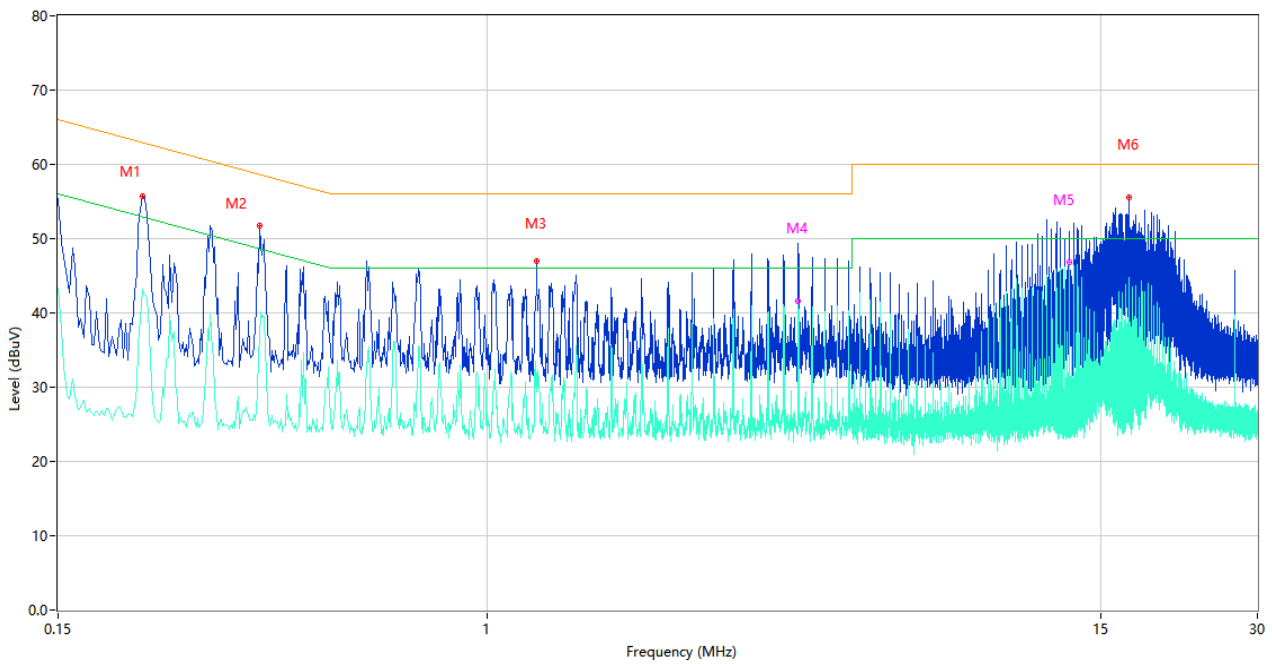
Mode2:

A.2.3 L Phase



No.	Frequency (MHz)	Results (dBuV)	Factor (dB)	Limit (dBuV)	Margin (dB)	Detector	Line	Verdict
1	0.296	55.91	9.98	60.35	4.44	Peak	L	Pass
1**	0.296	41.26	9.98	50.35	9.09	AV	L	Pass
2	0.372	52.92	10.88	58.46	5.54	Peak	L	Pass
2**	0.372	40.31	10.88	48.46	8.15	AV	L	Pass
3	0.668	49.90	10.54	56.00	6.10	Peak	L	Pass
3**	0.668	33.59	10.54	46.00	12.41	AV	L	Pass
4	12.592	52.68	10.39	60.00	7.32	Peak	L	Pass
4**	12.592	42.85	10.39	50.00	7.15	AV	L	Pass
5	17.528	55.73	10.42	60.00	4.27	Peak	L	Pass
5**	17.528	42.16	10.42	50.00	7.84	AV	L	Pass
6	19.748	55.38	10.35	60.00	4.62	Peak	L	Pass
6**	19.748	33.55	10.35	50.00	16.45	AV	L	Pass

A.2.4 N Phase



No.	Frequency (MHz)	Results (dBuV)	Factor (dB)	Limit (dBuV)	Margin (dB)	Detector	Line	Verdict
1	0.218	55.72	10.04	62.89	7.17	Peak	N	Pass
1**	0.218	43.18	10.04	52.89	9.71	AV	N	Pass
2	0.366	51.68	10.90	58.59	6.91	Peak	N	Pass
2**	0.366	36.58	10.90	48.59	12.01	AV	N	Pass
3	1.242	47.03	10.48	56.00	8.97	Peak	N	Pass
3**	1.242	31.91	10.48	46.00	14.09	AV	N	Pass
4	3.950	49.35	10.14	56.00	6.65	Peak	N	Pass
4**	3.950	41.56	10.14	46.00	4.44	AV	N	Pass
5	13.082	50.62	10.21	60.00	9.38	Peak	N	Pass
5**	13.082	46.77	10.21	50.00	3.23	AV	N	Pass
6	17.028	55.50	10.29	60.00	4.50	Peak	N	Pass
6**	17.028	40.60	10.29	50.00	9.40	AV	N	Pass

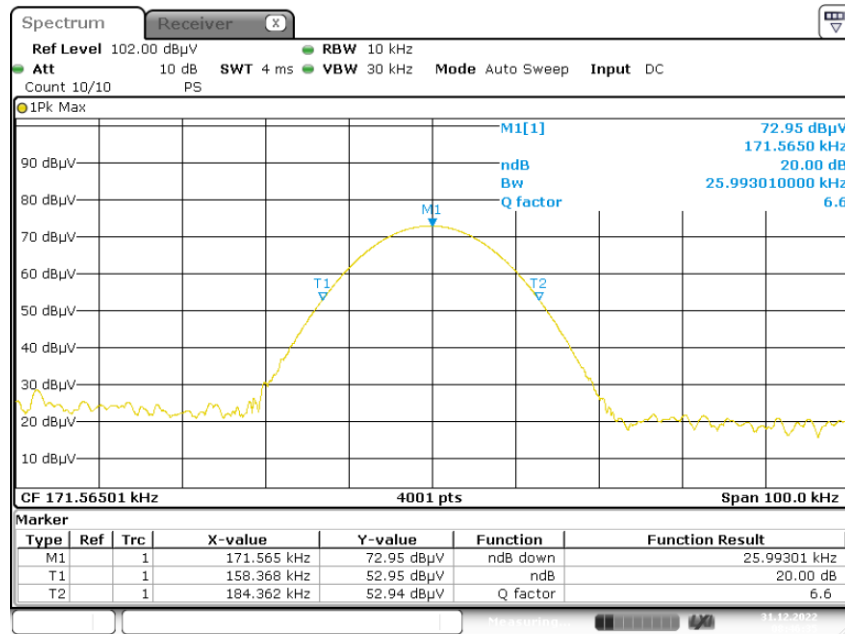
A.3 20 dB Bandwidth

Note: Because the measured signal is CW adjusting the RBW per C63.10 would not be practical since measured bandwidth will always follow the RBW and the result will be approximately twice the RBW.

PWM Test Data and Plots

Emission Bandwidth

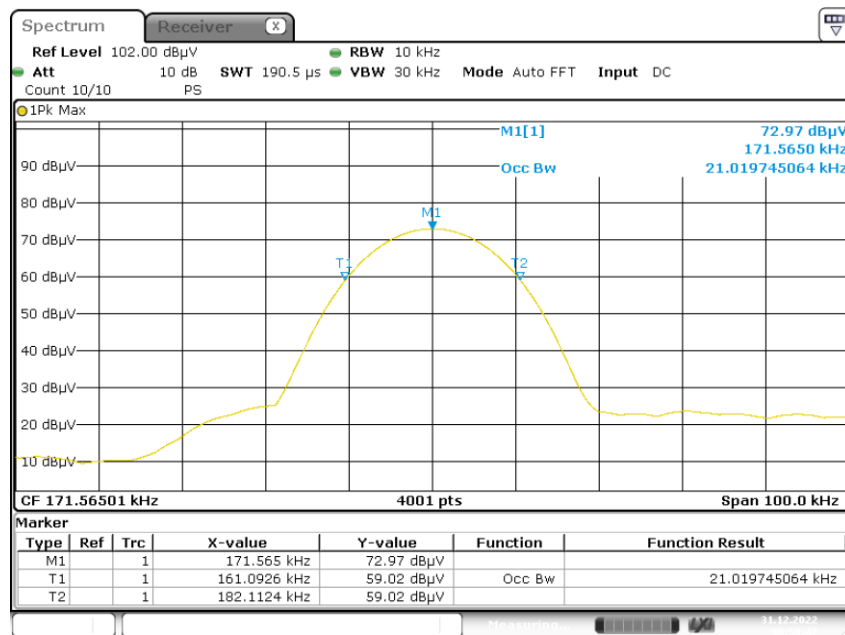
Mode1:



Date: 31.DEC.2022 08:46:35

99% Occupied Bandwidth

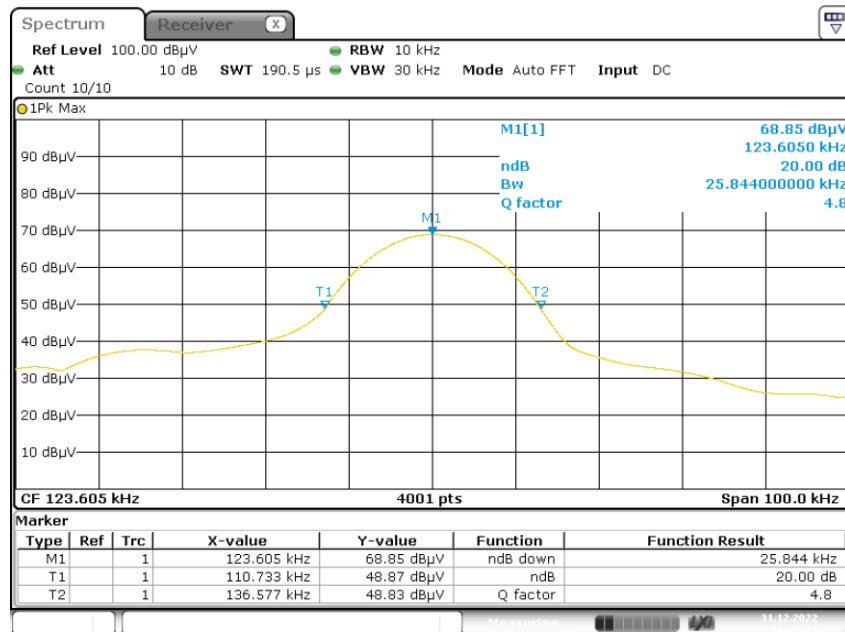
Mode1:



Date: 31.DEC.2022 08:50:46

Emission Bandwidth

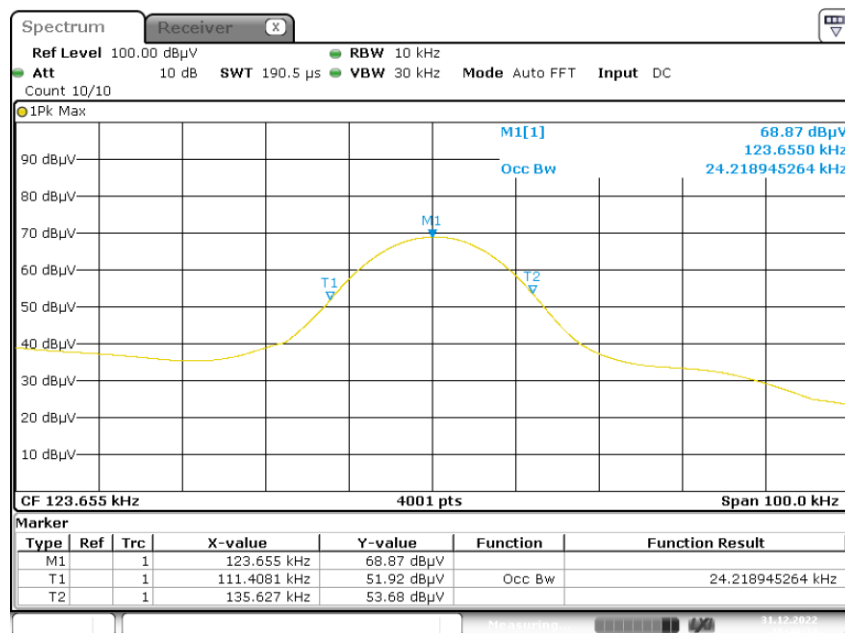
Mode2:



Date: 31.DEC.2022 16:42:21

99% Occupied Bandwidth

Mode2:



Date: 31.DEC.2022 16:40:24

ANNEX B TEST SETUP PHOTOS

Please refer the document “BL-SZ22C1291-AR.PDF”.

ANNEX C EUT EXTERNAL PHOTOS

Please refer the document “BL-SZ22C1291-AW.PDF”.

ANNEX D EUT INTERNAL PHOTOS

Please refer the document “BL-SZ22C1291-AI.PDF”.

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--END OF REPORT--