



TEST REPORT

No.I23N01711-BLE

for

Realme Chongqing Mobile Telecommunications Corp., Ltd.

Mobile Phone

Model Name: RMX3840

with

Hardware Version: 11

Software Version: realme UI 5.0

FCC ID: 2AUYFRMX3840

Issued Date: 2023-12-06

Designation Number: CN1210

Note:

The test results in this test report relate only to the devices specified in this report. This report shall not be reproduced except in full without the written approval of SAICT.

Test Laboratory:

SAICT, Shenzhen Academy of Information and Communications Technology

Building G, Shenzhen International Innovation Center, No.1006 Shennan Road, Futian District, Shenzhen, Guangdong, P. R. China 518000.

Tel:+86(0)755-33322000, Fax:+86(0)755-33322001

Email: yewu@saict.ac.cn. www.saict.ac.cn



No.I23N01711-BLE

REPORT HISTORY

Report Number	Revision	Description	Issue Date
I23N01711-BLE	Rev.0	1st edition	2023-12-06

Note: the latest revision of the test report supersedes all previous versions.

CONTENTS

CONTENTS	3
1. SUMMARY OF TEST REPORT	4
1.1. TEST ITEMS	4
1.2. TEST STANDARDS	4
1.3. TEST RESULT	4
1.4. TESTING LOCATION	4
1.5. PROJECT DATA	4
1.6. SIGNATURE	4
2. CLIENT INFORMATION	5
2.1. APPLICANT INFORMATION	5
2.2. MANUFACTURER INFORMATION	5
3. EQUIPMENT UNDER TEST (EUT) AND ANCILLARY EQUIPMENT (AE)	6
3.1. ABOUT EUT	6
3.2. INTERNAL IDENTIFICATION OF EUT USED DURING THE TEST	6
3.3. INTERNAL IDENTIFICATION OF AE USED DURING THE TEST	6
3.4. GENERAL DESCRIPTION	7
4. REFERENCE DOCUMENTS	8
4.1. DOCUMENTS SUPPLIED BY APPLICANT	8
4.2. REFERENCE DOCUMENTS FOR TESTING	8
5. TEST RESULTS	9
5.1. TESTING ENVIRONMENT	9
5.2. TEST RESULTS	9
5.3. STATEMENTS	9
6. TEST EQUIPMENTS UTILIZED	10
7. LABORATORY ENVIRONMENT	11
8. MEASUREMENT UNCERTAINTY	12
ANNEX A: DETAILED TEST RESULTS	13
TEST CONFIGURATION	13
A.0 ANTENNA REQUIREMENT	16
A.1 MAXIMUM PEAK OUTPUT POWER	17
A.2 PEAK POWER SPECTRAL DENSITY	18
A.3 6DB BANDWIDTH	22
A.4 BAND EDGES COMPLIANCE	26
A.5 TRANSMITTER SPURIOUS EMISSION - CONDUCTED	29
A.6 TRANSMITTER SPURIOUS EMISSION - RADIATED	33
A.7 AC POWER LINE CONDUCTED EMISSION	43



1. Summary of Test Report

1.1. Test Items

Description	Mobile Phone
Model Name	RMX3840
Applicant's name	Realme Chongqing Mobile Telecommunications Corp., Ltd.
Manufacturer's Name	Realme Chongqing Mobile Telecommunications Corp., Ltd.

1.2. Test Standards

FCC Part15-2021; ANSI C63.10-2013.

1.3. Test Result

Pass

Please refer to "5.2. Test Results"

1.4. Testing Location

Address: Building G, Shenzhen International Innovation Center, No.1006 Shennan Road,
Futian District, Shenzhen, Guangdong, P. R. China 51800

1.5. Project data

Testing Start Date: 2023-10-25
Testing End Date: 2023-11-24

1.6. Signature

Lin Zechuang
(Prepared this test report)

An Ran
(Reviewed this test report)

Zhang Bojun
(Approved this test report)



2. Client Information

2.1. Applicant Information

Company Name: Realme Chongqing Mobile Telecommunications Corp., Ltd.
Address: No.178 Yulong Avenue,Yufengshan,Yubei District,Chongqing,China
Contact Person Yang LiangPing
E-Mail ylp@realme.net
Telephone: (86)13798864426
Fax: /

2.2. Manufacturer Information

Company Name: Realme Chongqing Mobile Telecommunications Corp., Ltd.
Address: No.178 Yulong Avenue,Yufengshan,Yubei District,Chongqing,China
Contact Person Yang LiangPing
E-Mail ylp@realme.net
Telephone: (86)13798864426
Fax: /

3. Equipment Under Test (EUT) and Ancillary Equipment (AE)

3.1. About EUT

Description	Mobile Phone
Model Name	RMX3840
Frequency Range	ISM 2400MHz~2483.5MHz
Equipment type	Bluetooth® Low Energy
Type of Modulation	GFSK
PHY	LE 1M/2M
Number of Channels	40
Antenna Type	Integrated antenna
Antenna Gain	Antenna 12:-1.7dBi; Antenna 2:-4.9dBi.
Power Supply	3.89V DC by Battery
FCC ID	2AUYFRMX3840
Condition of EUT as received	No abnormality in appearance

Note: Components list, please refer to documents of the manufacturer; it is also included in the original test record of Shenzhen Academy of Information and Communications Technology.

3.2. Internal Identification of EUT used during the test

EUT ID*	SN or IMEI	HW Version	SW Version	Date of Receipt
UT10aa	863994060028495	11	realme UI 5.0	2023-10-17
	863994060028487			
UT07aa	867815060019513	11	realme UI 5.0	2022-10-19
	867815060019505			
UT06aa	867815060019497	11	realme UI 5.0	2022-10-19
	867815060019489			

*EUT ID: is used to identify the test sample in the lab internally.

UT10aa is used for conduction test, UT07aa is used for radiation test, and UT06aa is used for AC Power line Conducted Emission test.

3.3. Internal Identification of AE used during the test

AE No.	Description	AE ID*
AE1	Battery	/
AE2	Charger	/
AE3	USB Cable	/

AE1

Model	BLPA35
Manufacturer	Sunwoda Electronic Co.,Ltd.
Capacity	4880mAh
Nominal Voltage	3.91 V



AE2

Model	VCB70AUH
Manufacturer	HUIZHOU GOLDEN LAKE INDUSTRIAL CO., LTD
Specification	American Standard Charger

AE3

Model	DL129
Manufacturer	/

*AE ID and AE Label: is used to identify the test sample in the lab internally.

3.4. General Description

The Equipment under Test (EUT) is a model of Mobile Phone with integrated antenna and battery.

It consists of normal options: Lithium Battery, Charger and USB Cable.

Manual and specifications of the EUT were provided to fulfil the test.

Samples undergoing test were selected by the client.



4. Reference Documents

4.1. Documents supplied by applicant

EUT feature information is supplied by the applicant or manufacturer, which is the basis of testing.

4.2. Reference Documents for testing

The following documents listed in this section are referred for testing.

Reference	Title	Version
FCC Part 15	FCC CFR 47, Part 15, Subpart C: 15.205 Restricted bands of operation; 15.209 Radiated emission limits, general requirements; 15.247 Operation within the bands 902–928MHz, 2400–2483.5 MHz, and 5725–5850 MHz	2021
ANSI C63.10	American National Standard of Procedures for Compliance Testing of Unlicensed Wireless Devices	2013

5. Test Results

5.1. Testing Environment

Normal Temperature: 15~35°C

Relative Humidity: 20~75%

5.2. Test Results

No	Test cases	Sub-clause of Part 15C	Verdict
0	Antenna Requirement	15.203	P
1	Maximum Peak Output Power	15.247 (b)	P
2	Peak Power Spectral Density	15.247 (e)	P
3	6dB Bandwidth	15.247 (a)	P
4	Band Edges Compliance	15.247 (d)	P
5	Transmitter Spurious Emission - Conducted	15.247 (d)	P
6	Transmitter Spurious Emission - Radiated	15.247, 15.205, 15.209	P
7	AC Power line Conducted Emission	15.107, 15.207	P

See **ANNEX A** for details.

5.3. Statements

SAICT has evaluated the test cases requested by the applicant/manufacture as listed in section 5.2 of this report, for the EUT specified in section 3, according to the standards or reference documents listed in section 4.2.

Disclaimer:

A. After confirmation with the customer, the sample information provided by the customer may affect the validity of the measurement results in this report, and the impact and consequences arising therefrom shall be borne by the customer.

B. The samples in this report are provided by the customer, and the test results are only applicable to the samples received.

6. Test Equipments Utilized

Conducted test system

No.	Equipment	Model	Serial Number	Manufacturer	Calibration Due date	Calibration Period
1	Vector Signal Analyzer	FSV40	100903	Rohde & Schwarz	2023-12-28	1 year
2	Power Sensor	U2021XA	MY55430013	Keysight	2023-12-28	1 year
3	Data Acquisition	U2531A	TW55443507	Keysight	/	/
4	RF Control Unit	JS0806-2	21C8060398	Tonscend	2024-05-07	1 year
5	Shielding Room	S81	CT000986-1344	ETS-Lindgren	2026-09-12	5 years

Radiated test system

No.	Equipment	Model	Serial Number	Manufacturer	Calibration Due date	Calibration Period
1	Test Receiver	ESR7	101676	Rohde & Schwarz	2024-11-22	1 year
2	BiLog Antenna	3142E	0224831	ETS-Lindgren	2024-05-27	3 years
3	Horn Antenna	3117	00066577	ETS-Lindgren	2025-04-17	3 years
4	Anechoic Chamber	FACT3-2.0	1285	ETS-Lindgren	2025-05-28	2 years
5	Spectrum Analyzer	FSV40	101192	Rohde & Schwarz	2024-01-11	1 year
6	Loop Antenna	HLA6120	35779	TESEQ	2025-05-12	3 years
7	Horn Antenna	QSH-SL-1 8-26-S-20	17013	Q-par	2026-02-01	3 years
8	Test Receiver	ESCI	100702	Rohde & Schwarz	2024-01-11	1 year
9	LISN	ENV216	102067	Rohde & Schwarz	2024-10-07	1 year

Test software

No.	Equipment	Manufacturer	Version
1	JS1120-3	Tonscend	3.3
2	EMC32	Rohde & Schwarz	10.50.40

EUT is engineering software provided by the customer to control the transmitting signal.
The EUT was programmed to be in continuously transmitting mode.

7. Laboratory Environment

Shielded room

Temperature	Min. = 15 °C, Max. = 35 °C
Relative humidity	Min. = 20 %, Max. = 75 %
Shielding effectiveness	0.014MHz-1MHz> 60 dB; 1MHz-18000MHz>90 dB
Electrical insulation	> 2M Ω
Ground system resistance	< 4 Ω

Anechoic chamber

Temperature	Min. = 15 °C, Max. = 35 °C
Relative humidity	Min. = 20 %, Max. = 75 %
Shielding effectiveness	0.014MHz-1MHz> 60 dB; 1MHz-18000MHz>90 dB
Electrical insulation	> 2M Ω
Ground system resistance	< 4 Ω
Normalised site attenuation (NSA)	< ± 4 dB, 3 m distance, from 30 to 1000 MHz
Voltage Standing Wave Ratio (VSWR)	≤ 6 dB, from 1 to 18 GHz, 3m distance
Uniformity of field strength	Between 0 and 6 dB, from 80 to 6000 MHz

8. Measurement Uncertainty

Test Name	Uncertainty ($k=2$)	
1. Maximum Peak Output Power	1.32dB	
2. Peak Power Spectral Density	1.32dB	
3. 6dB Bandwidth	4.56kHz	
4. Band Edges Compliance	1.92dB	
5. Transmitter Spurious Emission - Conducted	$30\text{MHz} \leq f < 1\text{GHz}$	1.41dB
	$1\text{GHz} \leq f < 7\text{GHz}$	1.92dB
	$7\text{GHz} \leq f < 13\text{GHz}$	2.31dB
	$13\text{GHz} \leq f \leq 26\text{GHz}$	2.61dB
6. Transmitter Spurious Emission - Radiated	$9\text{kHz} \leq f < 30\text{MHz}$	1.70dB
	$30\text{MHz} \leq f < 1\text{GHz}$	4.80dB
	$1\text{GHz} \leq f < 18\text{GHz}$	4.62dB
	$18\text{GHz} \leq f \leq 40\text{GHz}$	2.36dB
7. AC Power line Conducted Emission	$150\text{kHz} \leq f \leq 30\text{MHz}$	2.68dB

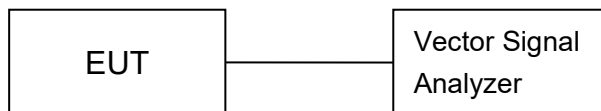
ANNEX A: Detailed Test Results

Test Configuration

The measurement is made according to ANSI C63.10.

1) Conducted Measurements

1. Connect the EUT to the test system correctly.
2. Set the EUT to the required work mode.
3. Set the EUT to the required channel.
4. Set the spectrum analyzer to start measurement.
5. Record the values.



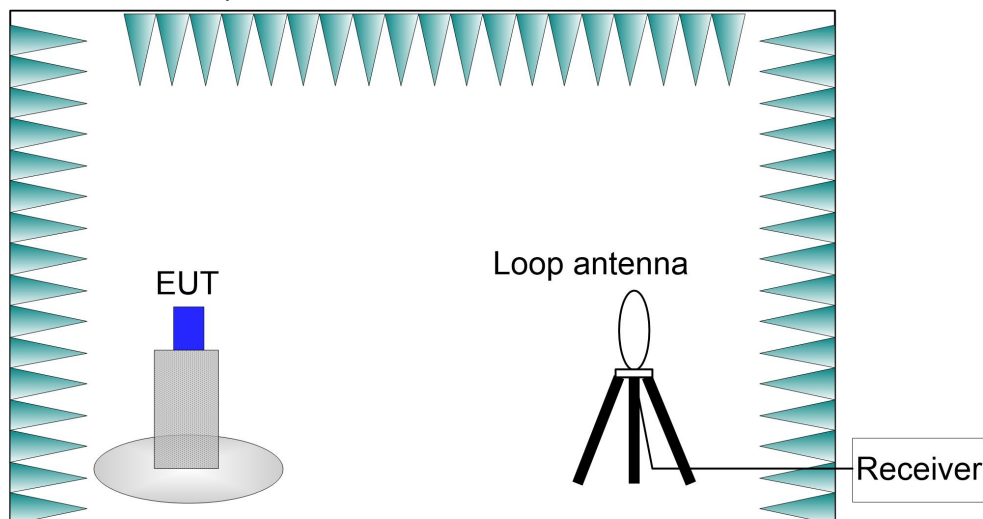
2) Radiated Measurements

Test setup:

9kHz-30MHz:

The EUT are measured in a anechoic chamber. The EUT is placed on a non-conductive stand of 80cm high, and at a measurement distance of 3m from the receiving antenna. The center of the receiving loop antenna is 1.0 meter above the ground. The test setup refers to figure below.

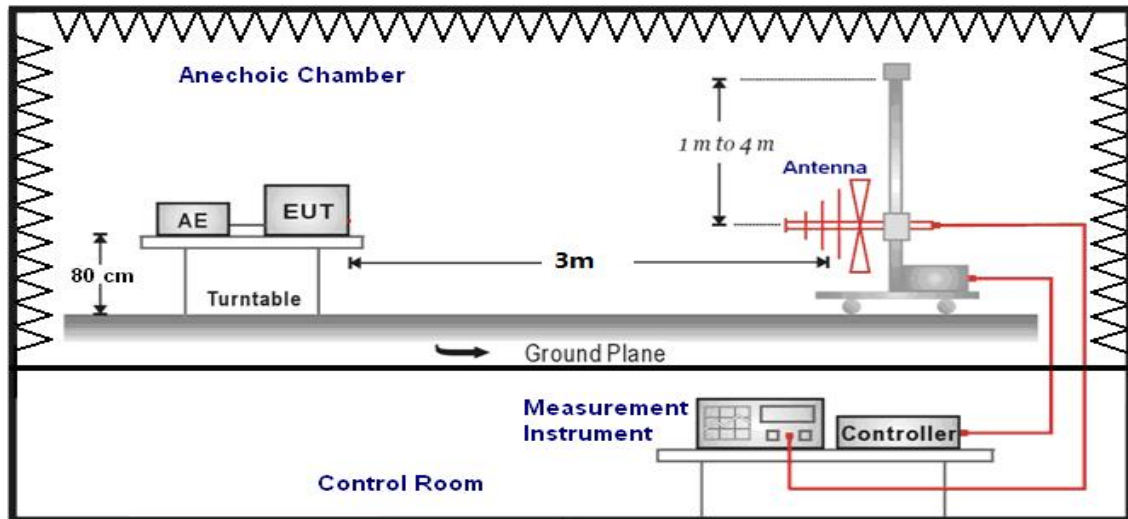
Detected emissions were maximized at each frequency by rotating the EUT and adjusting the receiver antenna polarization.



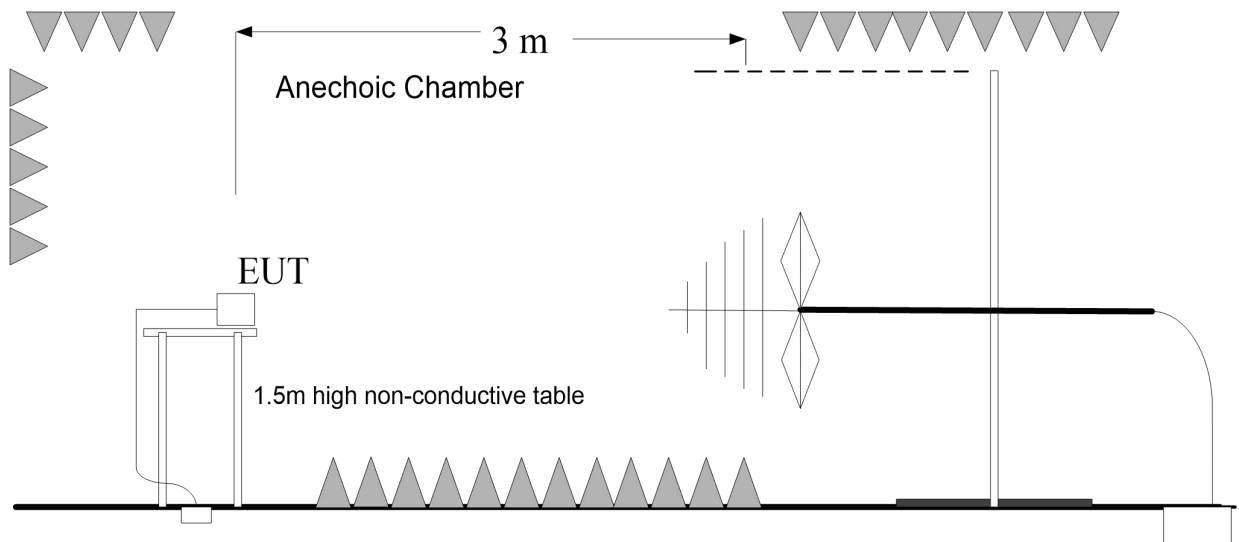
30MHz-26.5GHz:

The EUT are measured in a anechoic chamber. The EUT is placed on a non-conductive stand of 80cm high, and at a measurement distance of 3m from the receiving antenna. The center of the receiving antenna is 1.0 meter to 4.0 meter above the ground. The test setup refers to figure below. Detected emissions were maximized at each frequency by rotating the EUT and adjusting the receiver antenna polarization.

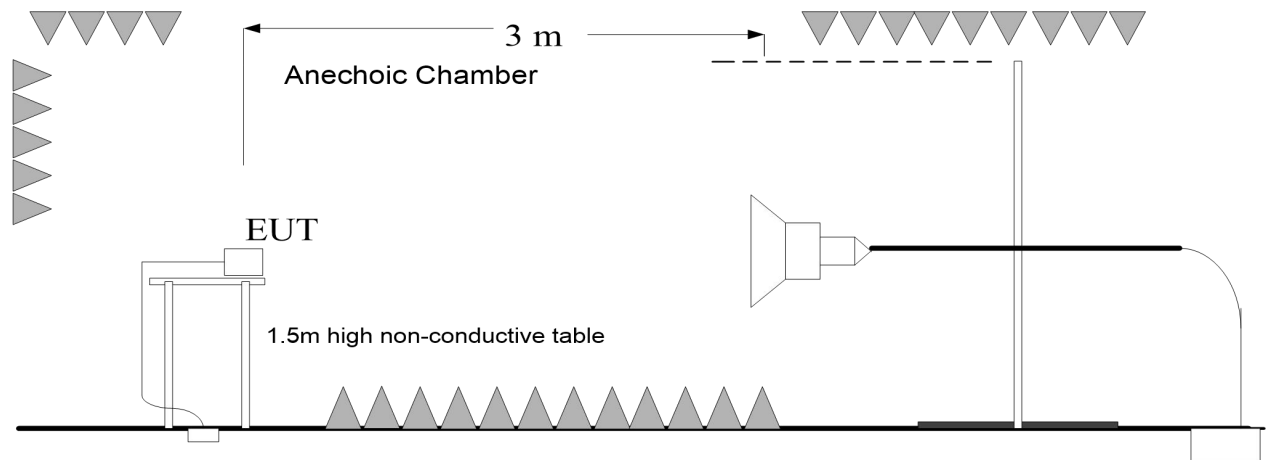
30MHz-1GHz:



1GHz-3GHz:

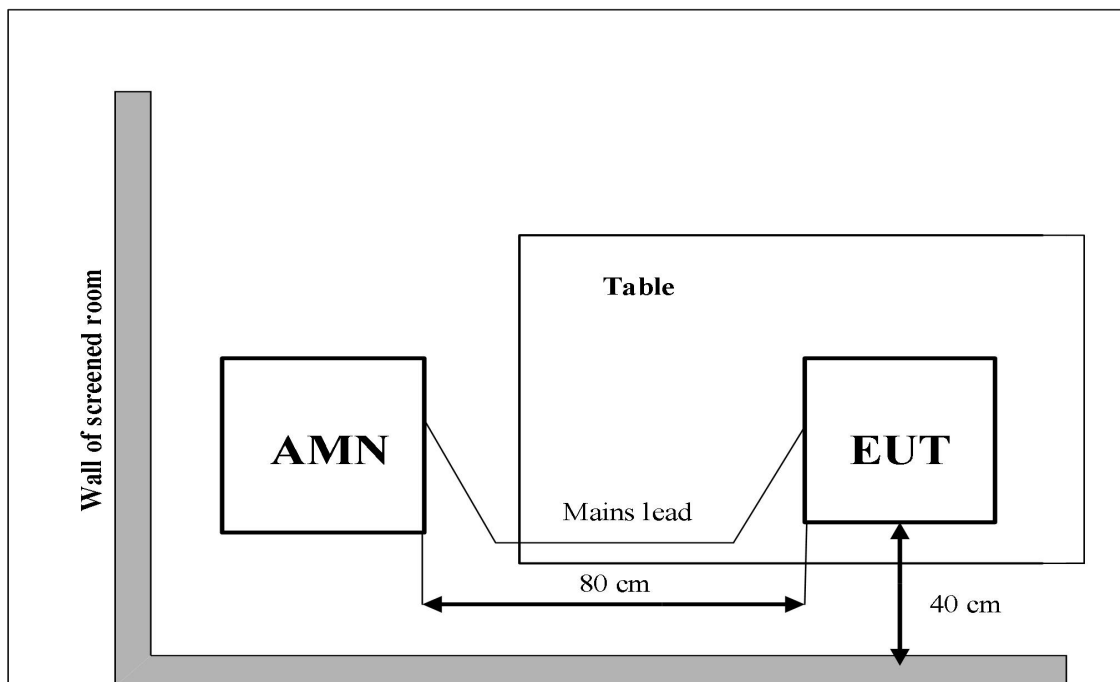


3GHz-26.5GHz:



3) AC Power line Conducted Emission Measurement

For Bluetooth LE, the EUT is working under test mode. The EUT is commanded to operate at maximum transmitting power.



**A.0 Antenna requirement****Measurement Limit:**

Standard	Requirement
FCC CRF Part 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.

**Conclusion: The Directional gains of antenna used for transmitting is: Antenna 12:-1.7dBi;
Antenna 2:-4.9dBi.**

The RF transmitter uses an integrate antenna without connector.

A.1 Maximum Peak Output Power

Method of Measurement: See ANSI C63.10-clause 11.9.1.3.

The maximum peak conducted output power may be measured using a broadband peak RF power meter.

Measurement Limit:

Standard	Limit (dBm)
FCC 47 CRF Part 15.247(b)	< 30

Measurement Results:

Antenna 12:

Mode	Frequency (MHz)	RF output power (dBm)	Conclusion
LE 1M	2402(CH0)	7.50	P
	2440(CH19)	7.86	P
	2480(CH39)	7.19	P
LE 2M	2402(CH0)	8.01	P
	2440(CH19)	8.12	P
	2480(CH39)	7.71	P

Antenna 2:

Mode	Frequency (MHz)	RF output power (dBm)	Conclusion
LE 1M	2402(CH0)	7.67	P
	2440(CH19)	7.94	P
	2480(CH39)	7.40	P
LE 2M	2402(CH0)	8.06	P
	2440(CH19)	8.23	P
	2480(CH39)	7.81	P

Note: According to the customer's description, BLE supports switching between the two antennas, but does not support MIMO. Antenna 2 is selected as the antenna with worst condition.

Conclusion: Pass

**A.2 Peak Power Spectral Density****Method of Measurement: See ANSI C63.10-clause 11.10.2.****Measurement Limit:**

Standard	Limit (dBm/3 kHz)
FCC 47 CRF Part 15.247(e)	< 8

Measurement Results:

Mode	Frequency (MHz)	Peak Power Spectral Density (dBm/10 kHz)		Conclusion
LE 1M	2402(CH0)	Fig.1	-3.79	P
	2440(CH19)	Fig.2	-3.65	P
	2480(CH39)	Fig.3	-4.35	P
LE 2M	2402(CH0)	Fig.4	-5.66	P
	2440(CH19)	Fig.5	-6.39	P
	2480(CH39)	Fig.6	-6.18	P

See below for test graphs.**Conclusion: PASS**

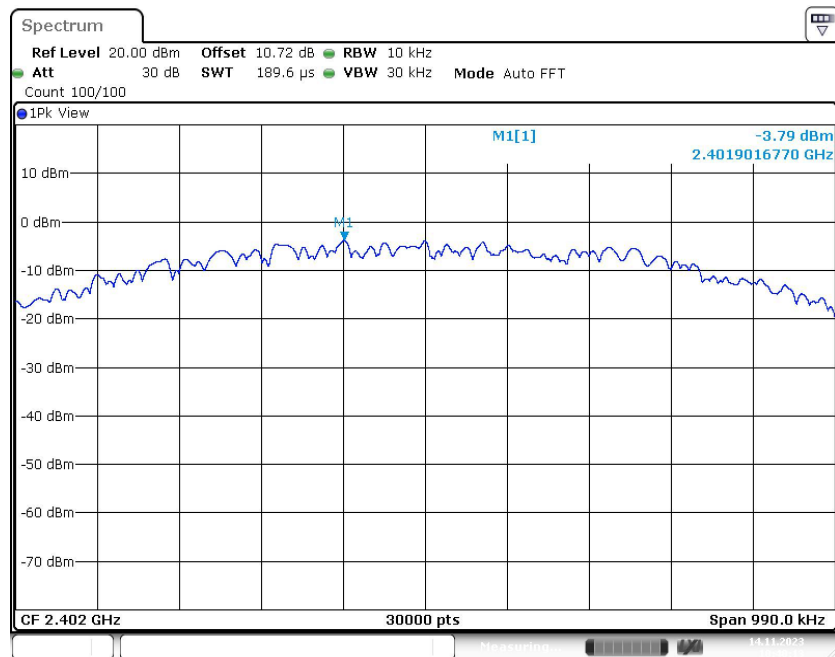


Fig.1 Power Spectral Density (CH0), LE 1M

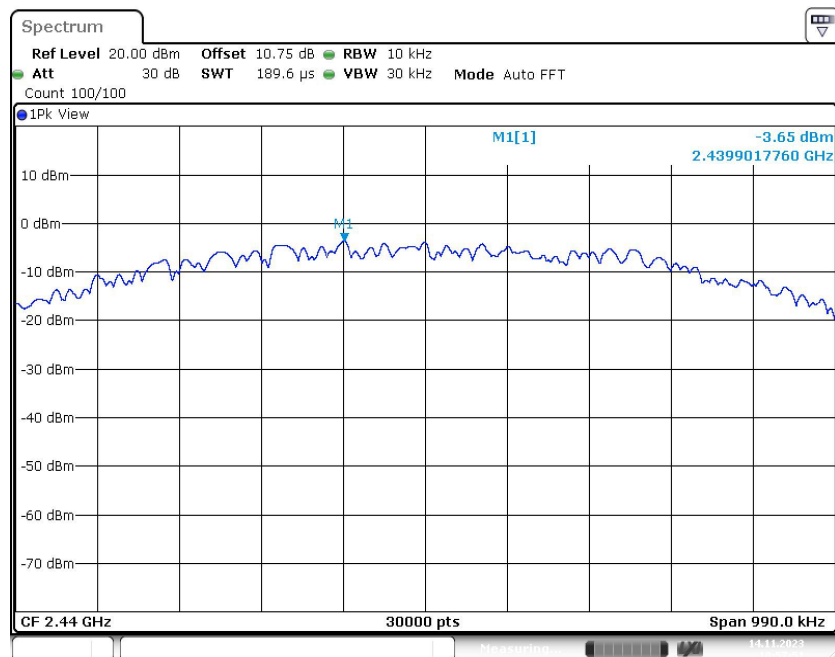


Fig.2 Power Spectral Density (CH19), LE 1M

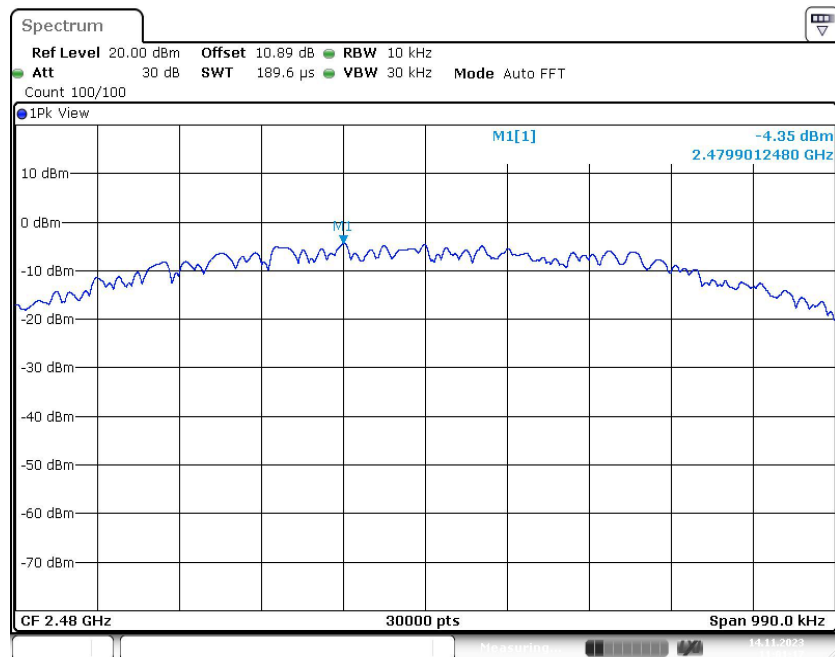


Fig.3 Power Spectral Density (CH39), LE 1M

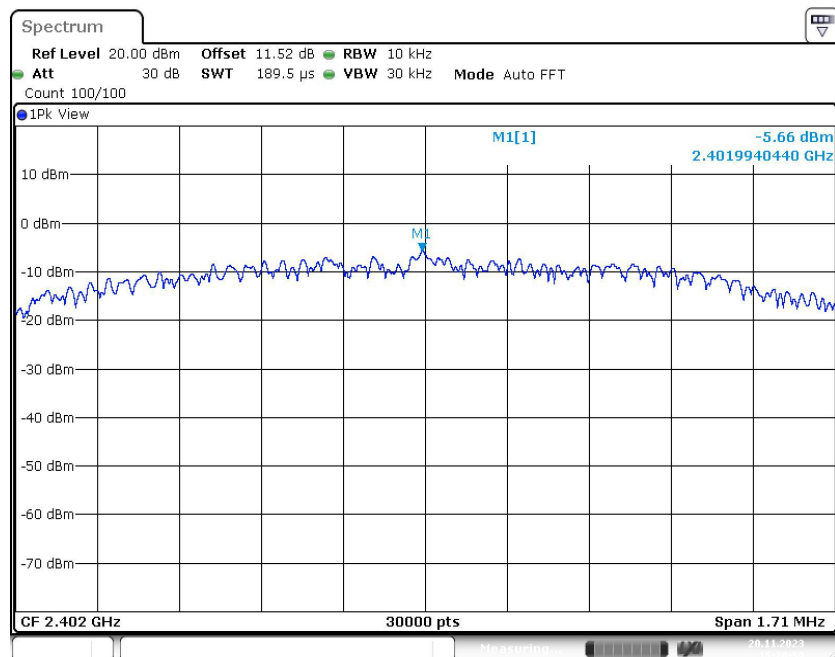


Fig.4 Power Spectral Density (CH0), LE 2M

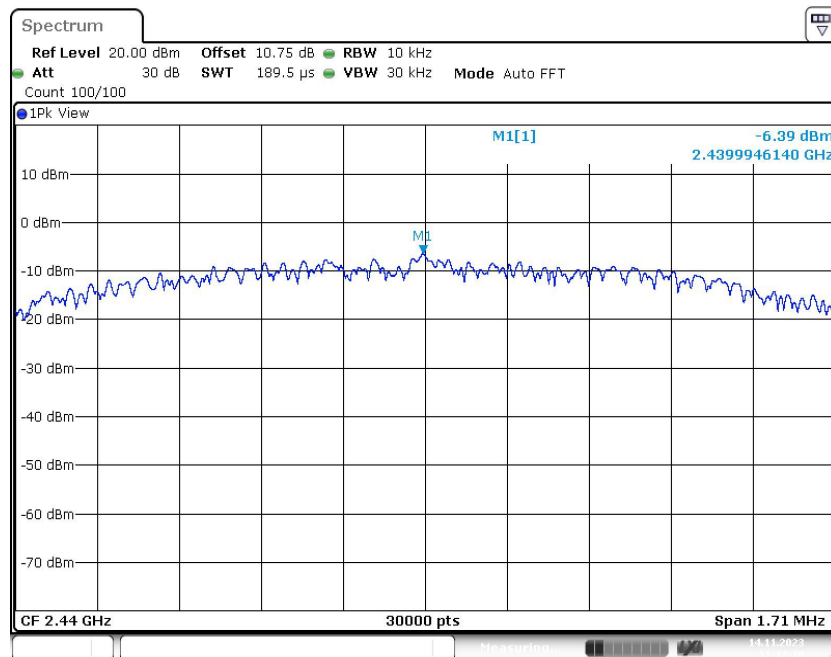


Fig.5 Power Spectral Density (CH19), LE 2M

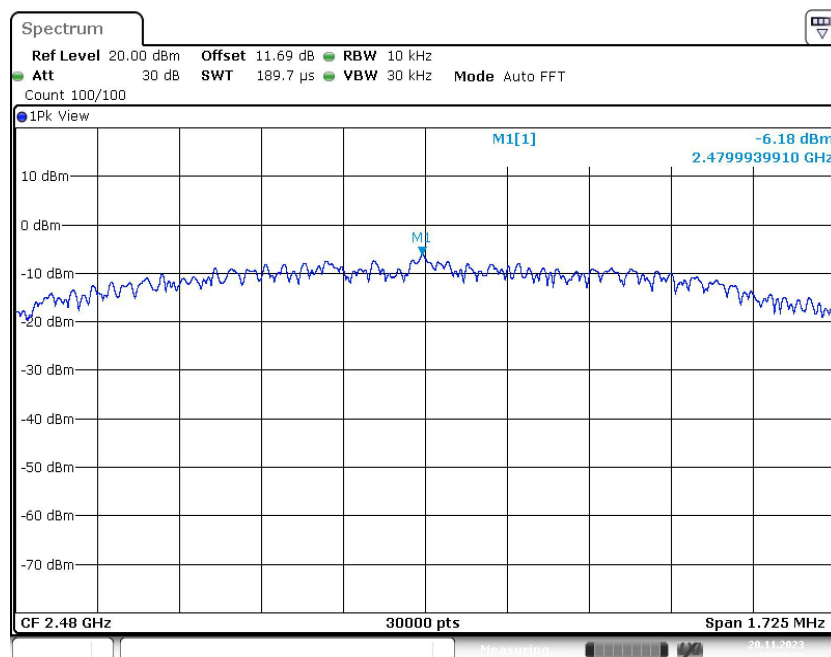


Fig.6 Power Spectral Density (CH39), LE 2M

**A.3 6dB Bandwidth****Method of Measurement: See ANSI C63.10-clause 11.8.****Measurement Limit:**

Standard	Limit (MHz)
FCC 47 CFR Part 15.247 (a)	≥ 0.5

Measurement Result:

Mode	Frequency (MHz)	Test Results (MHz)		Conclusion
LE 1M	2402(CH0)	Fig.7	0.66	P
	2440(CH19)	Fig.8	0.66	P
	2480(CH39)	Fig.9	0.66	P
LE 2M	2402(CH0)	Fig.10	1.14	P
	2440(CH19)	Fig.11	1.14	P
	2480(CH39)	Fig.12	1.15	P

See below for test graphs.**Conclusion: PASS**

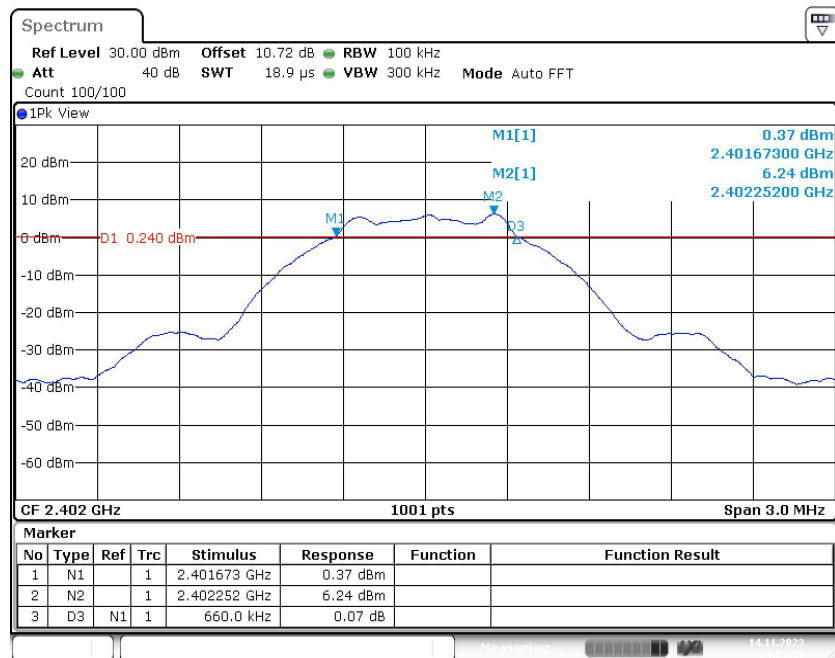


Fig.7 6dB Bandwidth (CH0), LE 1M

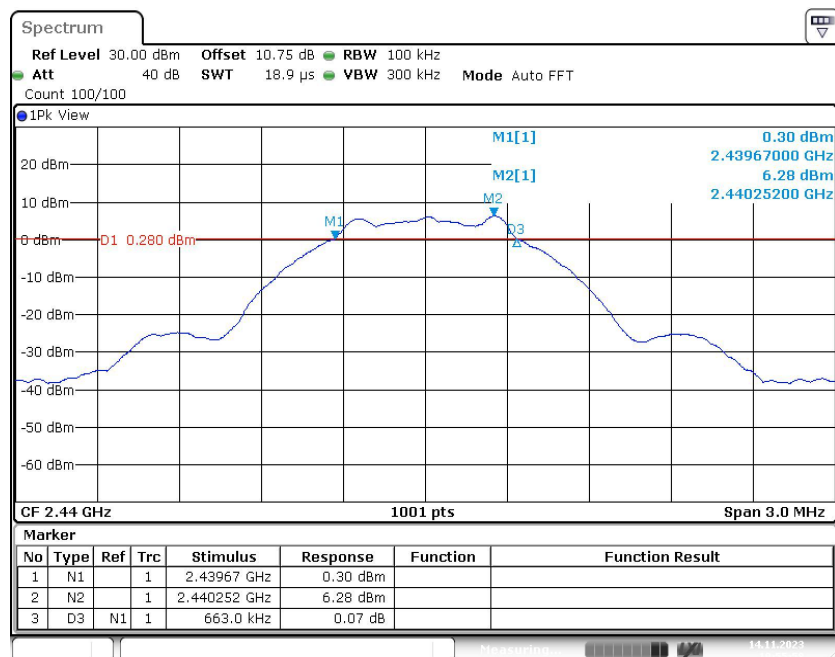


Fig.8 6dB Bandwidth (CH19), LE 1M

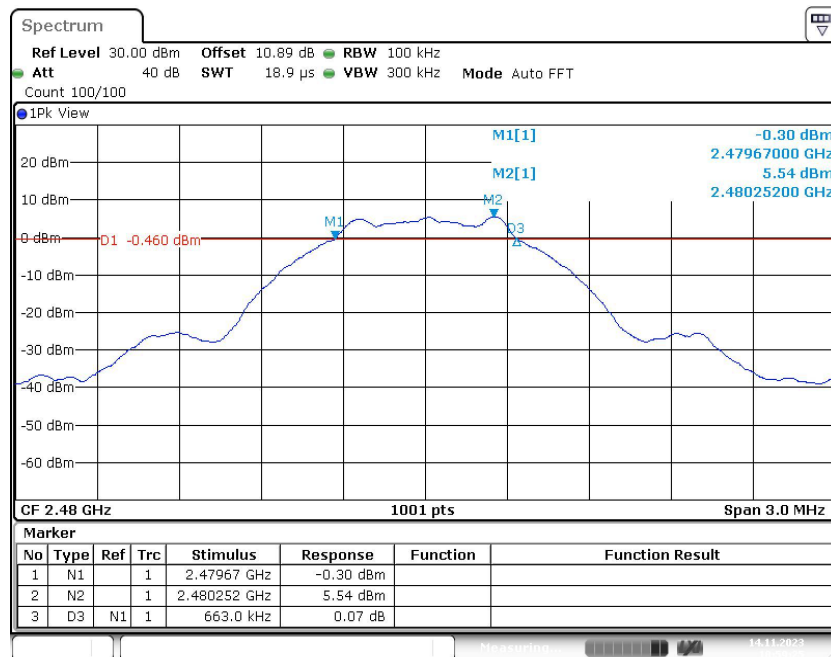


Fig.9 6dB Bandwidth (CH39), LE 1M

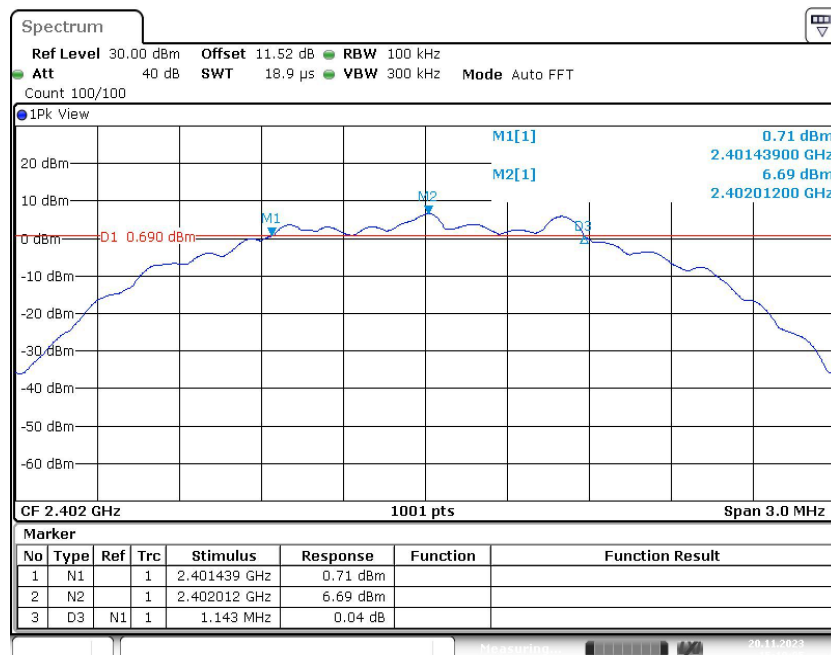


Fig.10 6dB Bandwidth (CH0), LE 2M

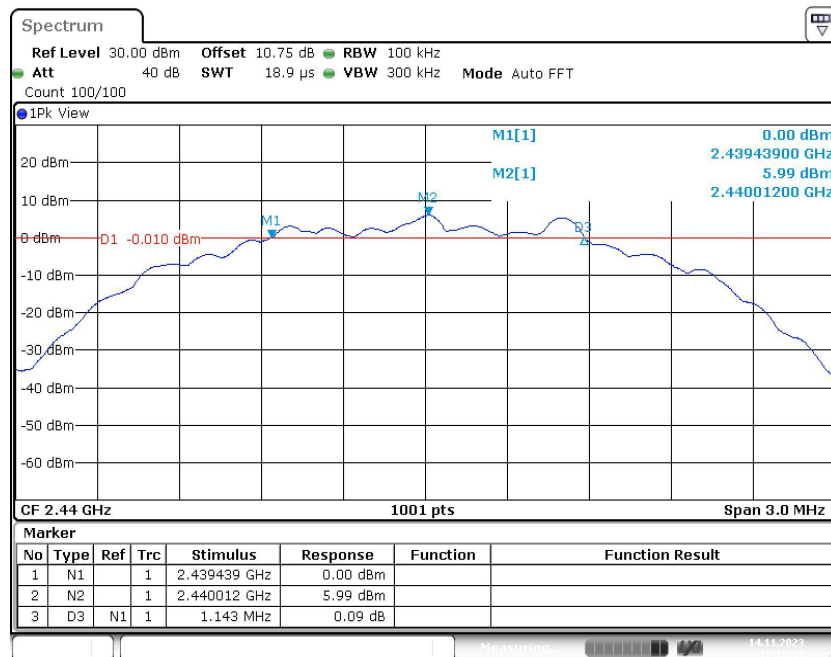


Fig.11 6dB Bandwidth (CH19), LE 2M

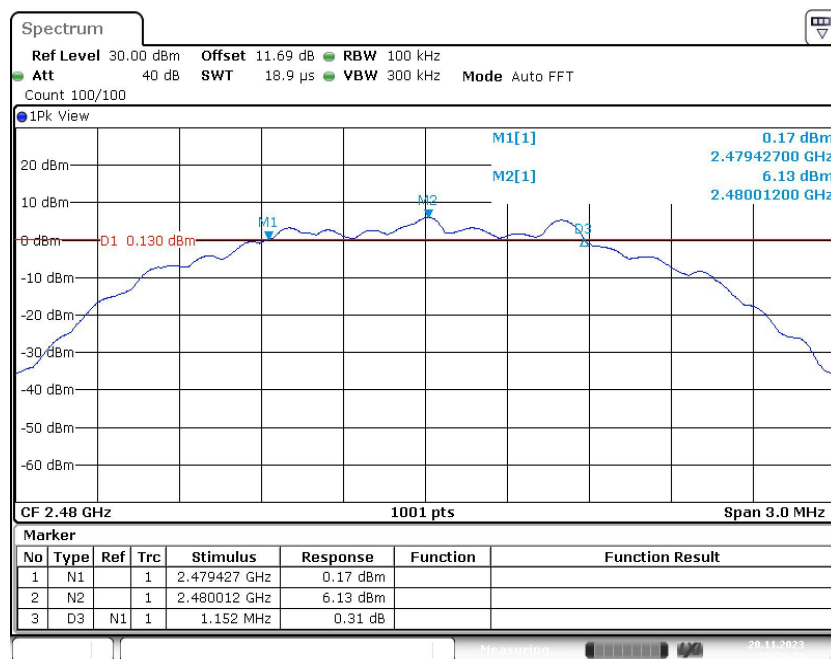


Fig.12 6dB Bandwidth (CH39), LE 2M



A.4 Band Edges Compliance

Method of Measurement: See ANSI C63.10-clause 11.13.3.

Measurement Limit:

Standard	Limit (dBc)
FCC 47 CFR Part 15.247 (d)	> 20

Measurement Result:

Mode	Frequency (MHz)	Test Results (dBc)		Conclusion
LE 1M	2402(CH0)	Fig.13	52.09	P
	2480(CH39)	Fig.14	51.30	P
LE 2M	2402(CH0)	Fig.15	47.57	P
	2480(CH39)	Fig.16	51.23	P

See below for test graphs.

Conclusion: PASS

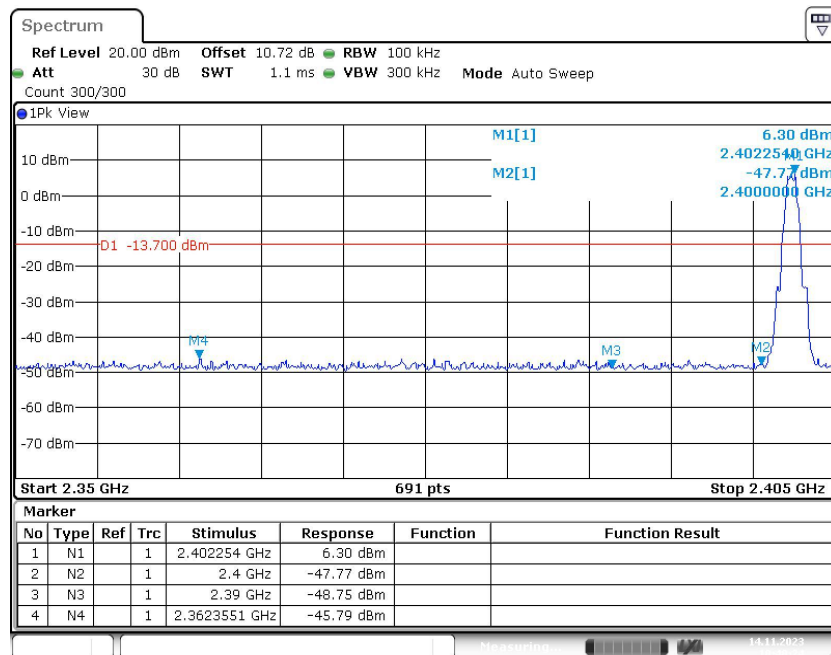


Fig.13 Band Edges (CH0), LE 1M

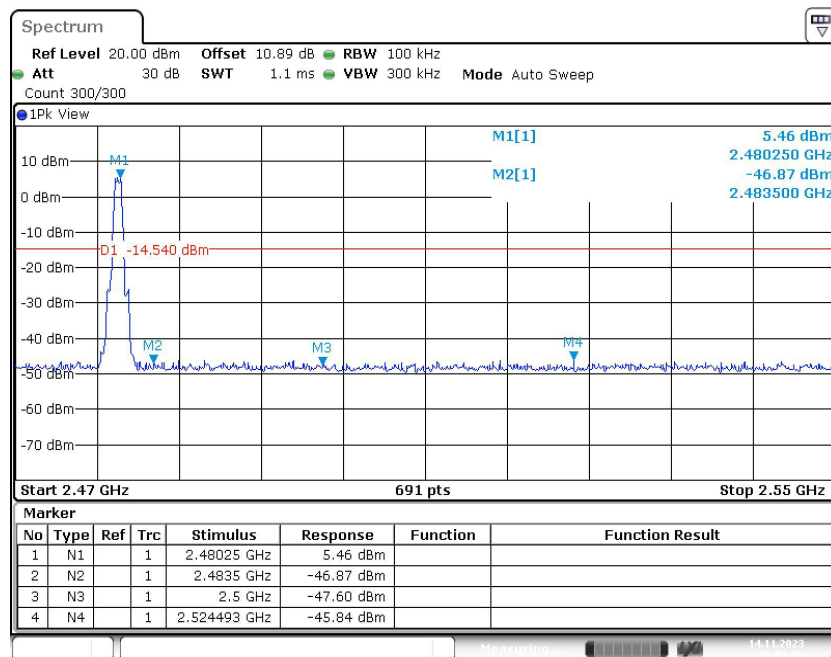


Fig.14 Band Edges (CH39), LE 1M

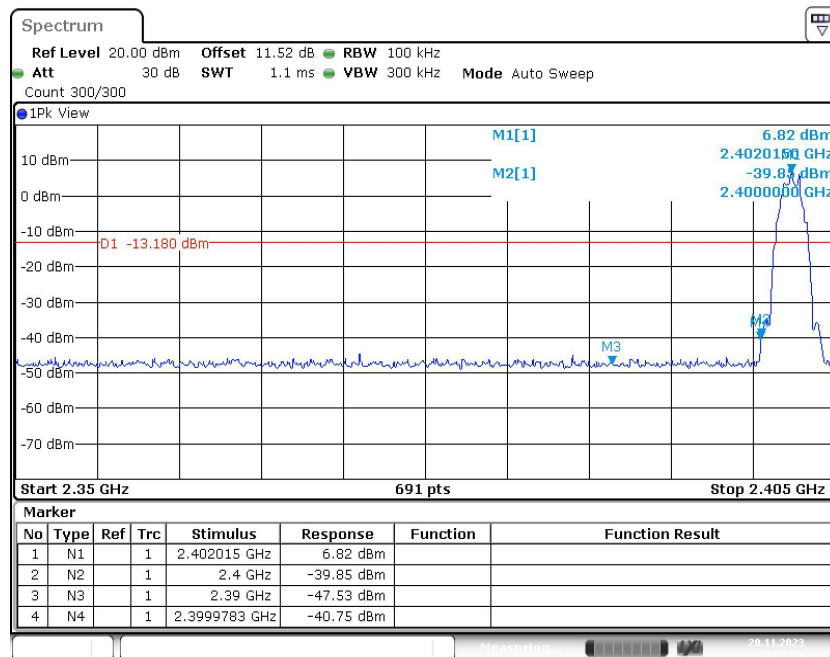


Fig.15 Band Edges (CH0), LE 2M

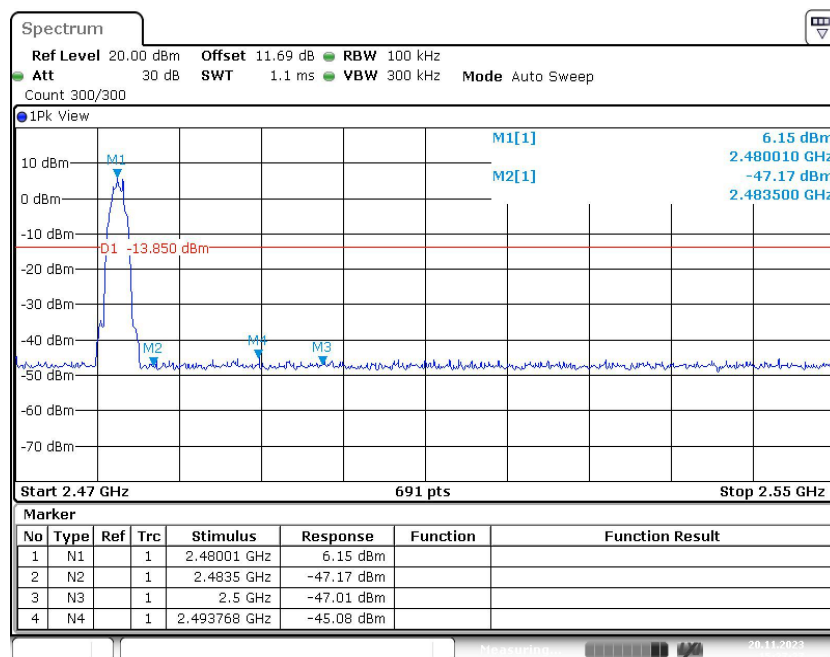


Fig.16 Band Edges (CH39), LE 2M

A.5 Transmitter Spurious Emission - Conducted

Method of Measurement: See ANSI C63.10-clause 11.11.

Measurement Limit:

Standard	Limit (dBm)
FCC 47 CFR Part 15.247 (d)	20dBm below peak output power in 100 kHz bandwidth

Measurement Results:

Mode	Frequency (MHz)	Frequency Range	Test Results	Conclusion
LE 1M	2402(CH0)	1GHz-26.5GHz	Fig.17	P
	2440(CH19)	1GHz-26.5GHz	Fig.18	P
	2480(CH39)	1GHz-26.5GHz	Fig.19	P
LE 2M	2402(CH0)	1GHz-26.5GHz	Fig.20	P
	2440(CH19)	1GHz-26.5GHz	Fig.21	P
	2480(CH39)	1GHz-26.5GHz	Fig.22	P
/	All channels	30MHz -1GHz	Fig.23	P

See below for test graphs.

Conclusion: Pass

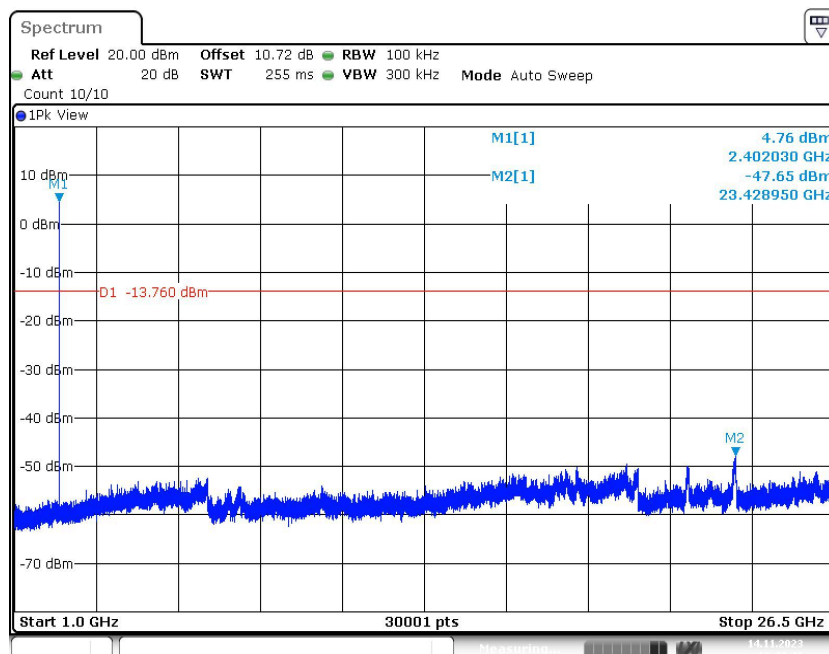


Fig.17 Conducted Spurious Emission (CH0, 1GHz-26.5GHz), LE 1M

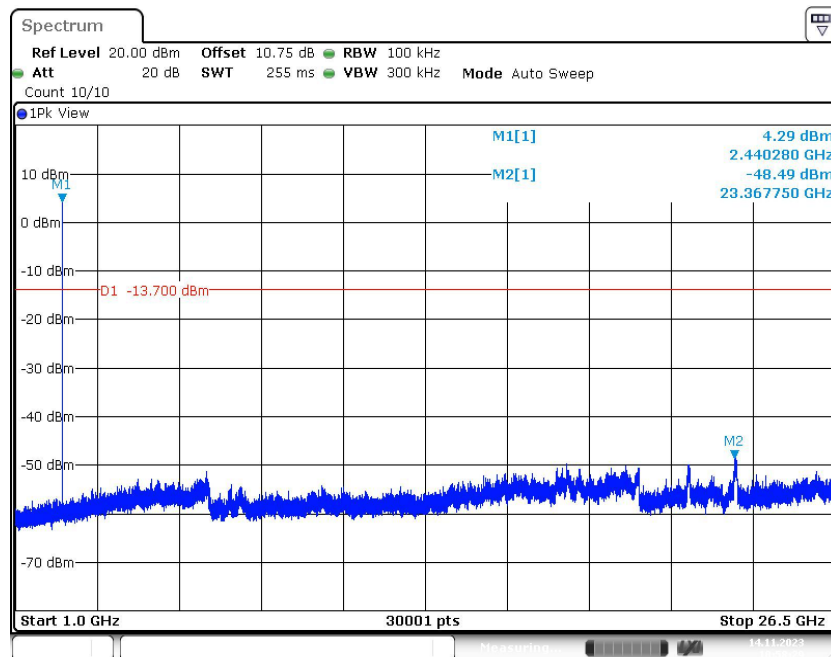


Fig.18 Conducted Spurious Emission (CH19, 1GHz-26.5GHz), LE 1M

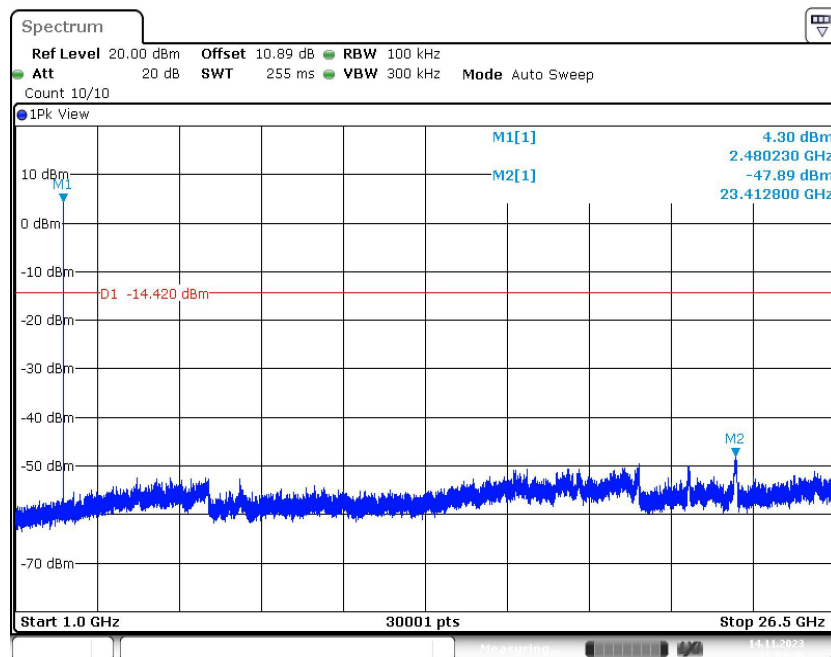


Fig.19 Conducted Spurious Emission (CH39, 1GHz-26.5GHz), LE 1M

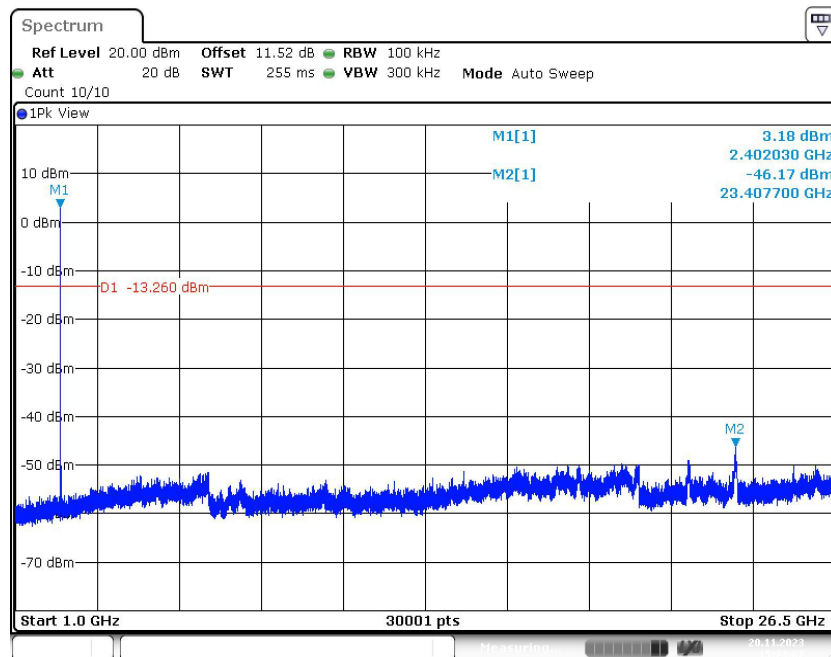


Fig.20 Conducted Spurious Emission (CH0, 1GHz-26.5GHz), LE 2M

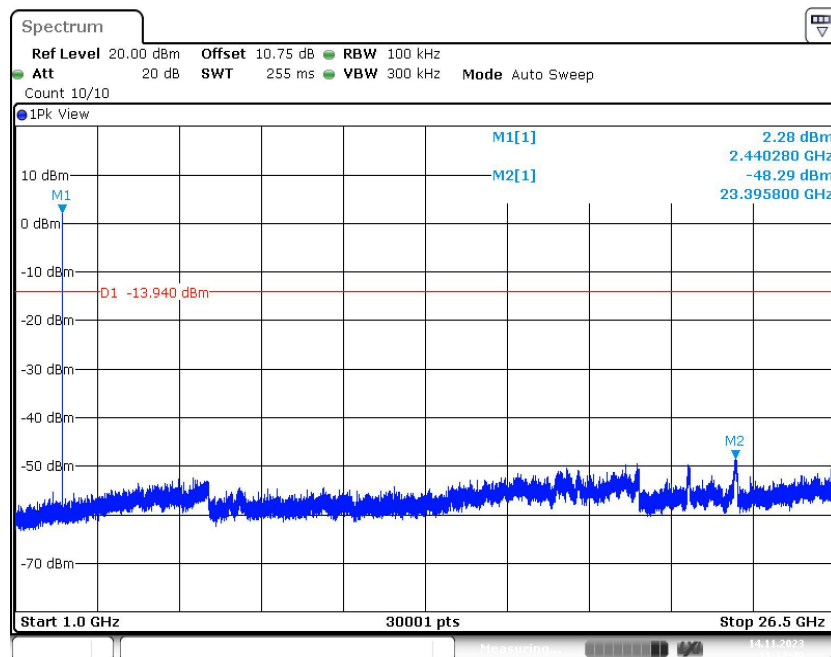


Fig.21 Conducted Spurious Emission (CH19, 1GHz-26.5GHz), LE 2M

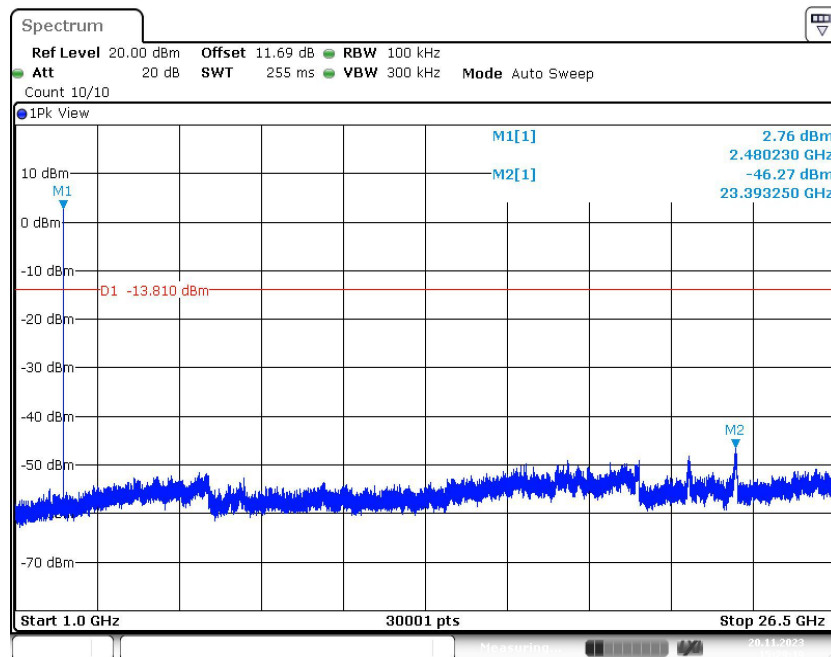


Fig.22 Conducted Spurious Emission (CH39, 1GHz-26.5GHz), LE 2M

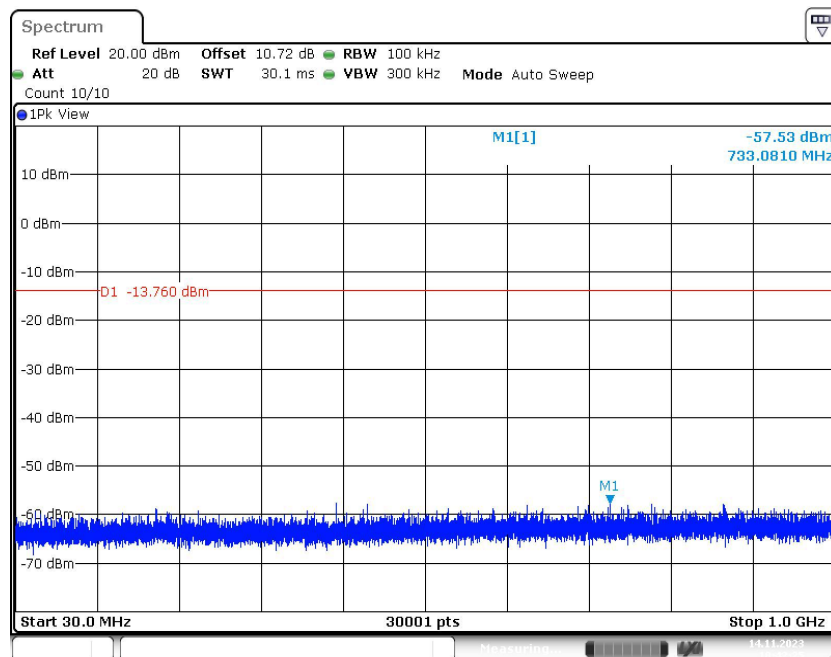


Fig.23 Conducted Spurious Emission (All Channels, 30MHz -1GHz)

A.6 Transmitter Spurious Emission - Radiated

Method of Measurement: See ANSI C63.10-clause 11.11&11.12.

Measurement Limit:

Standard	Limit (dBm)
FCC 47 CFR Part 15.247, 15.205, 15.209	20dBm below peak output power

In addition, radiated emissions which fall in the restricted bands, as defined in § 15.205(a), must also comply with the radiated emission limits specified in § 15.209(a) (see § 15.205(c)).

Limit in restricted band:

Frequency of emission (MHz)	Field strength(μV/m)	Measurement distance(meters)
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

Test Condition:

The EUT was placed on a non-conductive table. The measurement antenna was placed at a distance of 3 meters from the EUT. During the tests, the antenna height and the EUT azimuth were varied in order to identify the maximum level of emissions from the EUT. This maximization process was repeated with the EUT positioned in each of its three orthogonal orientations.

Frequency of emission (MHz)	RBW/VBW	Sweep Time(s)
30-1000	120kHz/300kHz	5
1000-4000	1MHz/3MHz	15
4000-18000	1MHz/3MHz	40
18000-26500	1MHz/3MHz	20

Note: According to the performance evaluation, the radiated emission margin of EUT is over 20dB in the band from 9kHz to 30MHz. Therefore, the measurement starts from 30MHz to tenth harmonic. The measurement results include the horizontal polarization and vertical polarization measurements. For radiated measurement, pre-scanned in three orthogonal panels, X, Y, Z. The worst cases were recorded in this report.

Measurement Results:

Mode	Frequency (MHz)	Frequency Range	Test Results	Conclusion
LE 1M	2402(CH0)	1 GHz ~18 GHz	Fig.24	P
	2440(CH19)	1 GHz ~18 GHz	Fig.25	P
	2480(CH39)	1 GHz ~18 GHz	Fig.26	P
	Restricted Band(CH0)	2.38 GHz ~ 2.45 GHz	Fig.27	P
	Restricted Band(CH39)	2.45 GHz ~ 2.5 GHz	Fig.28	P
LE 2M	2402(CH0)	1 GHz ~18 GHz	Fig.29	P
	2440(CH19)	1 GHz ~18 GHz	Fig.30	P
	2480(CH39)	1 GHz ~18 GHz	Fig.31	P
	Restricted Band(CH0)	2.38 GHz ~ 2.45 GHz	Fig.32	P
	Restricted Band(CH39)	2.45 GHz ~ 2.5 GHz	Fig.33	P
/	All channels	9 kHz ~30 MHz	Fig.34	P
		30 MHz ~1 GHz	Fig.35	P
		18 GHz ~ 26.5 GHz	Fig.36	P

Worst Case Result:

For LE 1M:

CH19 (1-18GHz)

Frequency (MHz)	MaxPeak (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Pol	Corr. (dB/m)
6906.428572	46.32	74.00	27.68	V	7.1
7826.142857	45.69	74.00	28.31	H	7.4
10407.857143	48.22	74.00	25.78	H	10.0
11881.714286	49.08	74.00	24.92	H	12.6
16641.857143	55.56	74.00	18.44	H	19.2
17913.857143	57.15	74.00	16.85	V	21.8

Frequency (MHz)	Average (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Pol	Corr. (dB/m)
6906.428572	40.04	54.00	13.96	V	7.1
7826.142857	33.18	54.00	20.82	H	7.4
10407.857143	35.76	54.00	18.24	H	10.0
11881.714286	36.67	54.00	17.33	H	12.6
16641.857143	42.93	54.00	11.07	H	19.2
17913.857143	45.37	54.00	8.63	V	21.8



For LE 2M:
CH19 (1-18GHz)

Frequency (MHz)	MaxPeak (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Pol	Corr. (dB/m)
6906.428572	46.41	74.00	27.59	V	7.1
8842.714286	46.12	74.00	27.88	H	7.2
10328.571429	47.68	74.00	26.32	V	10.5
12456.000000	49.21	74.00	24.79	V	12.8
14881.285714	51.06	74.00	22.94	V	15.3
17901.428571	57.09	74.00	16.91	H	21.8

Frequency (MHz)	Average (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Pol	Corr. (dB/m)
6906.428572	40.68	54.00	13.32	V	7.1
8842.714286	33.79	54.00	20.21	H	7.2
10328.571429	35.99	54.00	18.01	V	10.5
12456.000000	36.96	54.00	17.04	V	12.8
14881.285714	40.08	54.00	13.92	V	15.3
17901.428571	44.95	54.00	9.05	H	21.8

Note:

A "reference path loss" is established and the A_{Rpl} is the attenuation of "reference path loss", and Antenna Factor, the gain of the preamplifier, the cable loss. P_{Mea} is the field strength recorded from the instrument.

The measurement results are obtained as described below:

Result= P_{Mea} +Cable Loss +Antenna Factor-Gain of the preamplifier.

See below for test graphs.

Conclusion: Pass

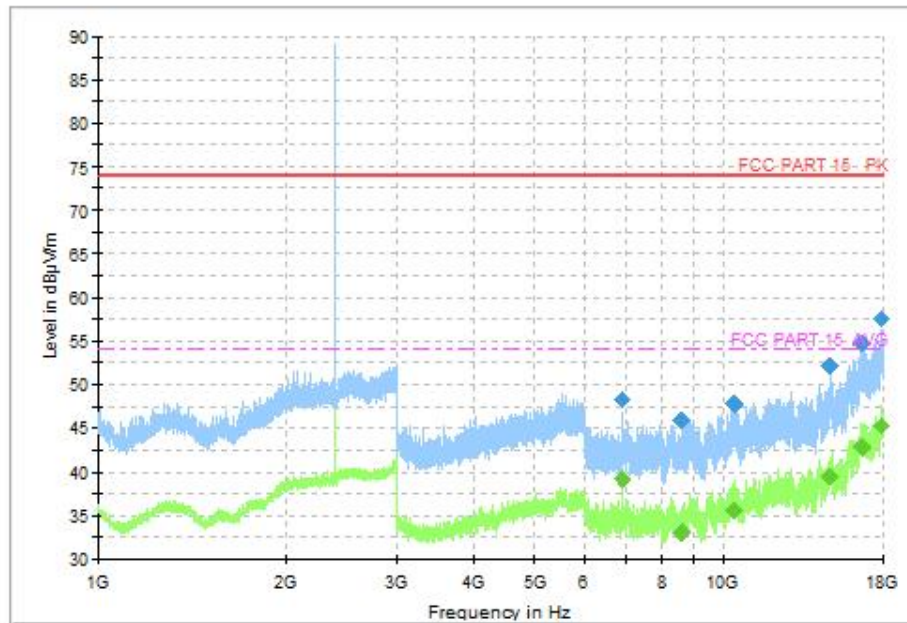


Fig.24 Radiated Spurious Emission (CH0, 1GHz ~18GHz), LE 1M

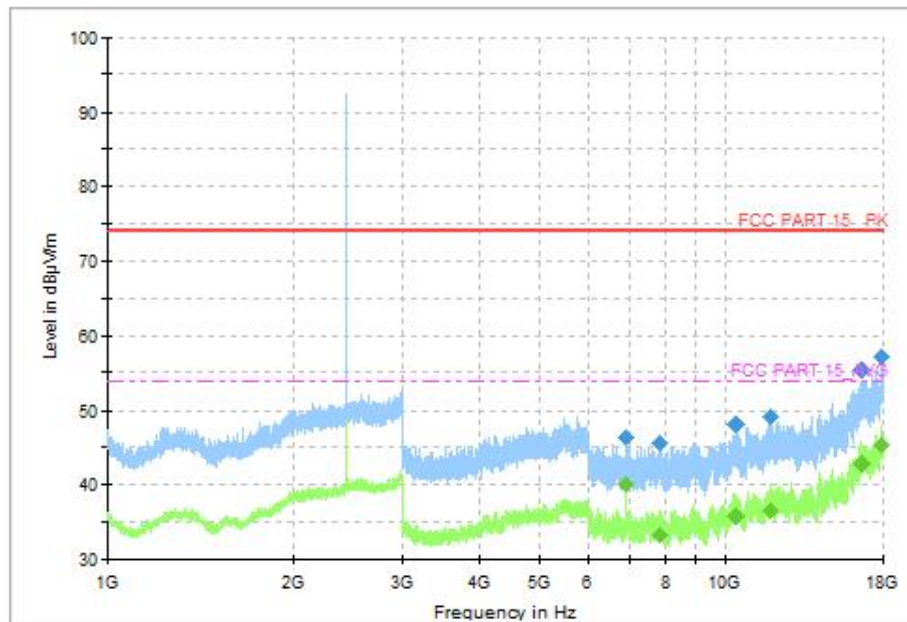


Fig.25 Radiated Spurious Emission (CH19, 1GHz ~18GHz), LE 1M

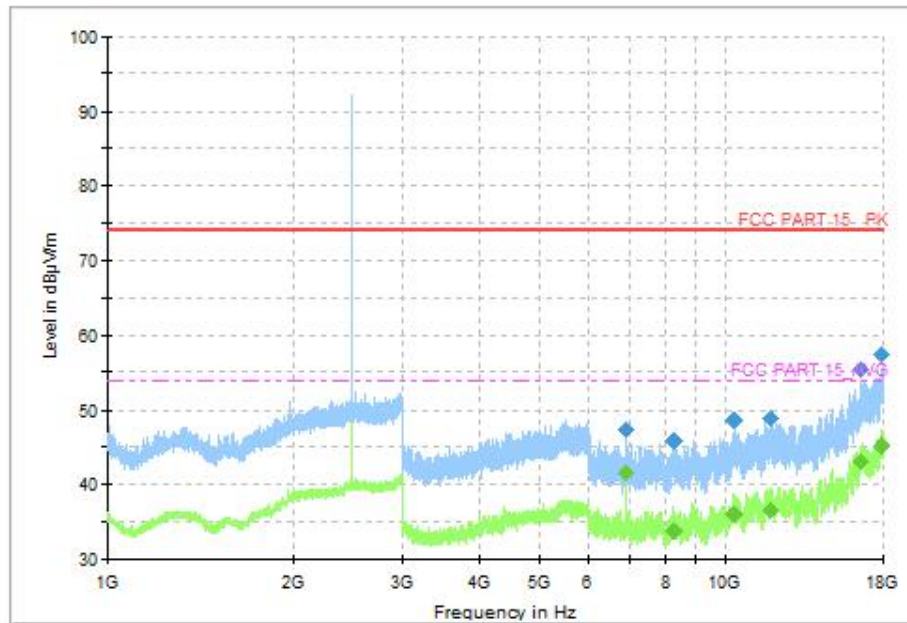


Fig.26 Radiated Spurious Emission (CH39, 1GHz ~18GHz), LE 1M

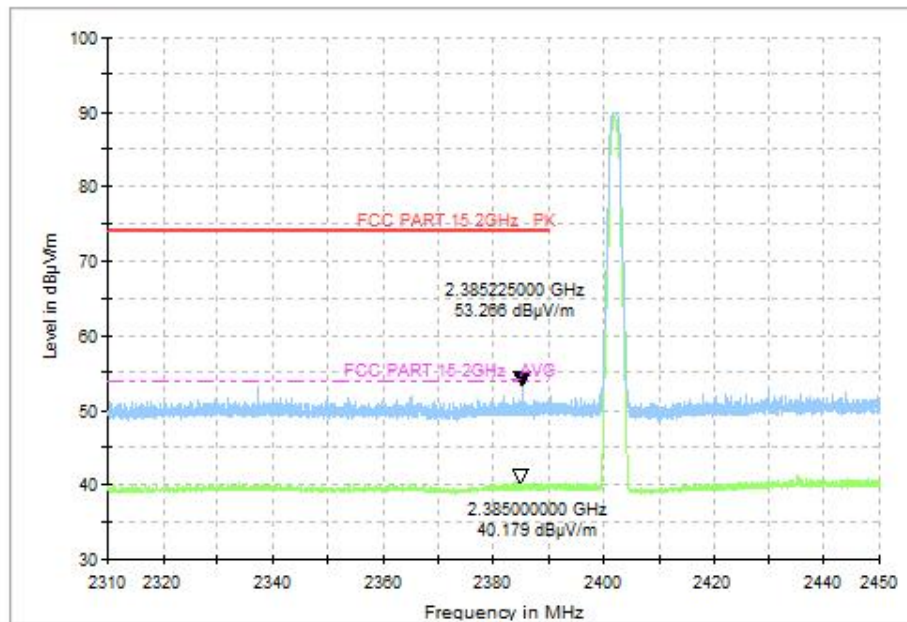


Fig.27 Radiated Band Edges (CH0, 2.38GHz~2.45GHz), LE 1M

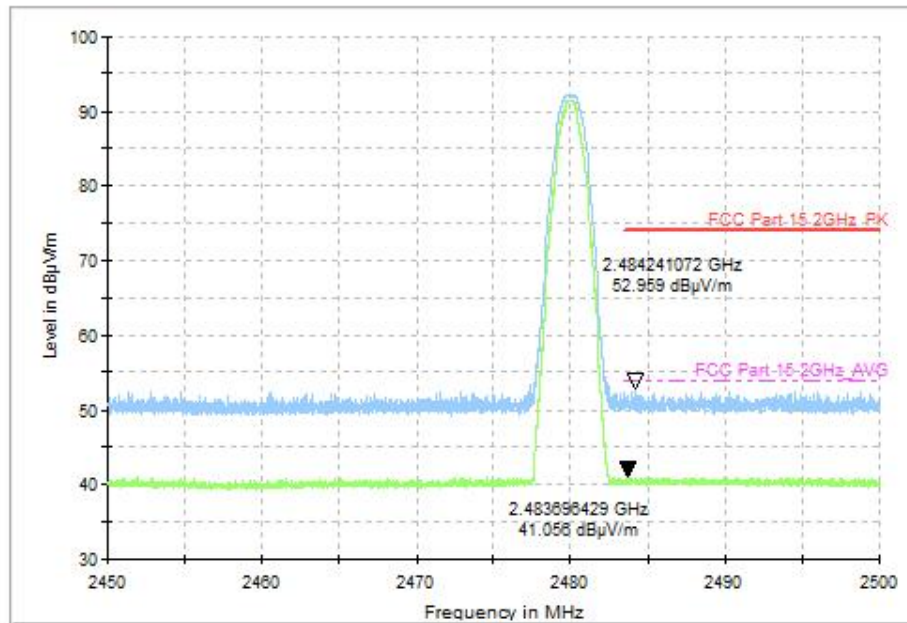


Fig.28 Radiated Band Edges (CH39, 2.45GHz~2.50GHz), LE 1M

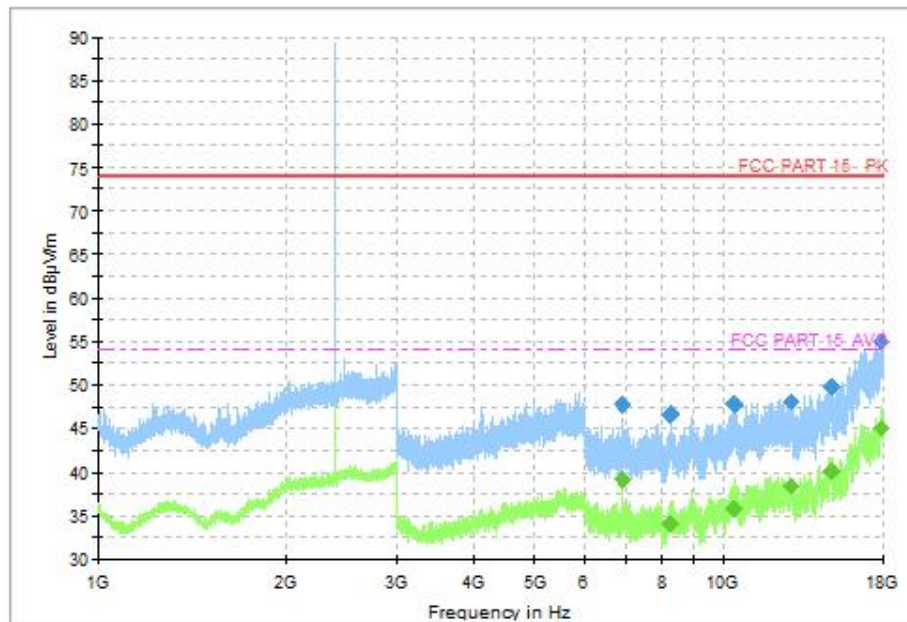


Fig.29 Radiated Spurious Emission (CH0, 1GHz ~18GHz), LE 2M

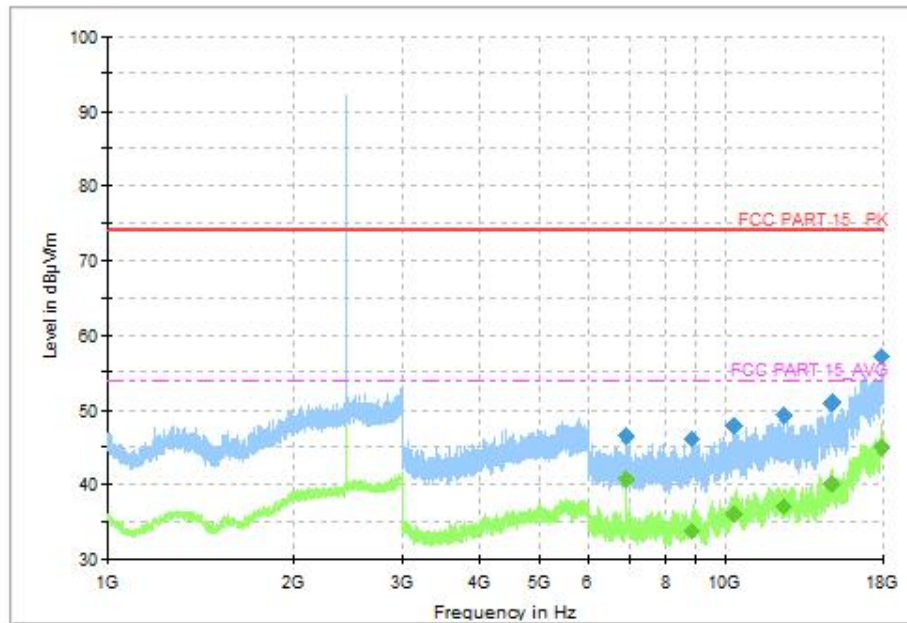


Fig.30 Radiated Spurious Emission (CH19, 1GHz ~18GHz), LE 2M

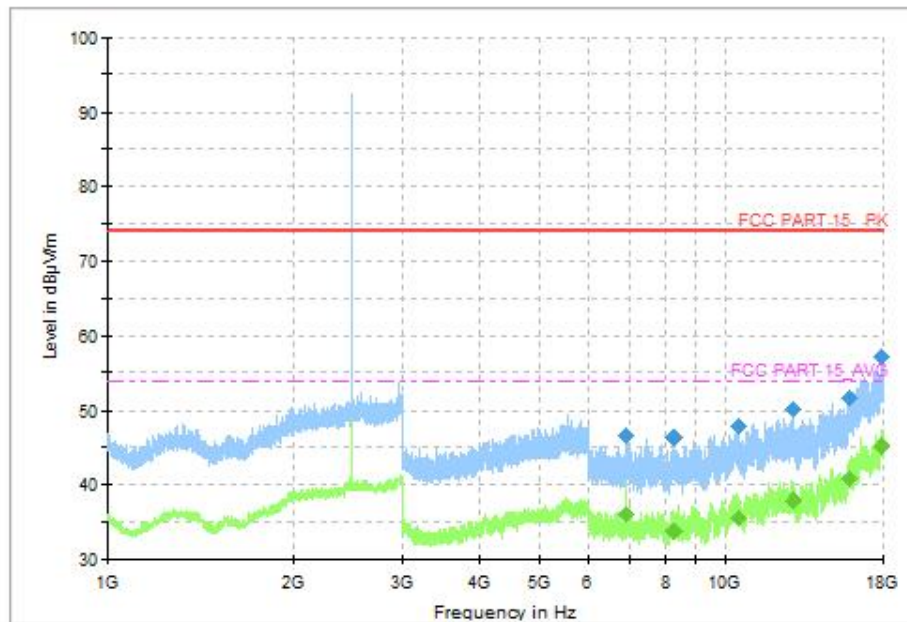


Fig.31 Radiated Spurious Emission (CH39, 1GHz ~18GHz), LE 2M

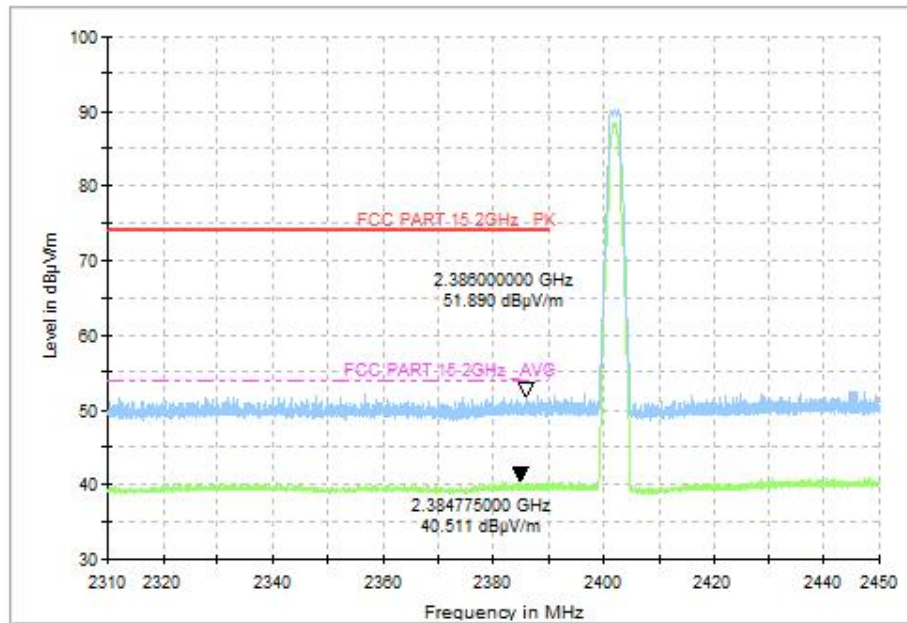


Fig.32 Radiated Band Edges (CH0, 2.38GHz~2.45GHz), LE 2M

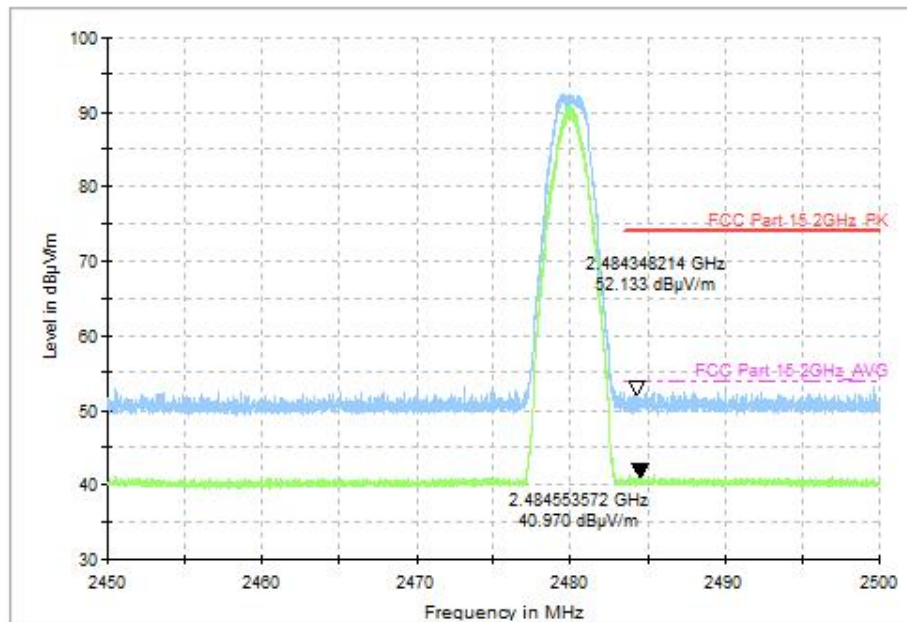


Fig.33 Radiated Band Edges (CH39, 2.45GHz~2.50GHz), LE 2M

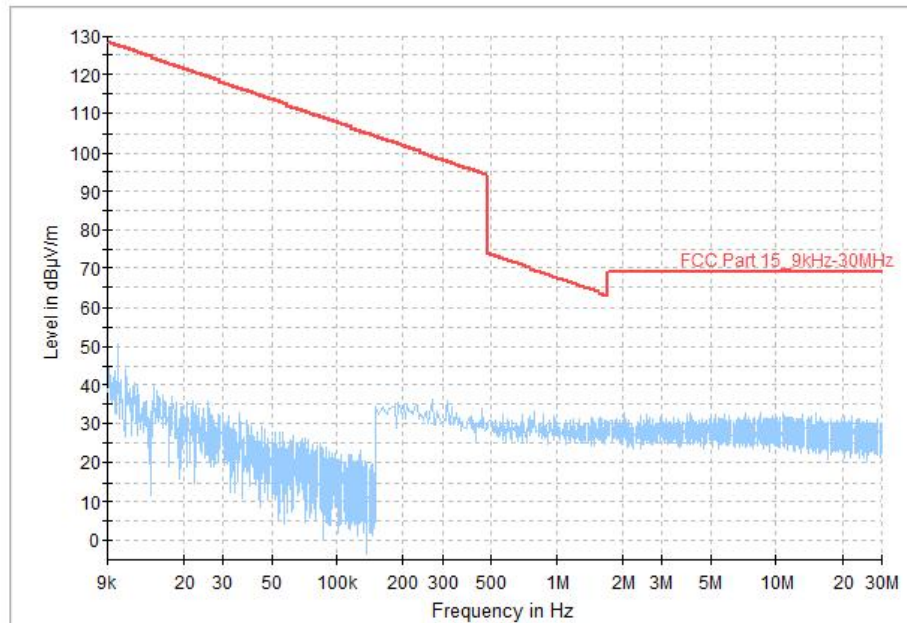


Fig.34 Radiated Spurious Emission (All Channels, 9kHz-30MHz), LE 2M

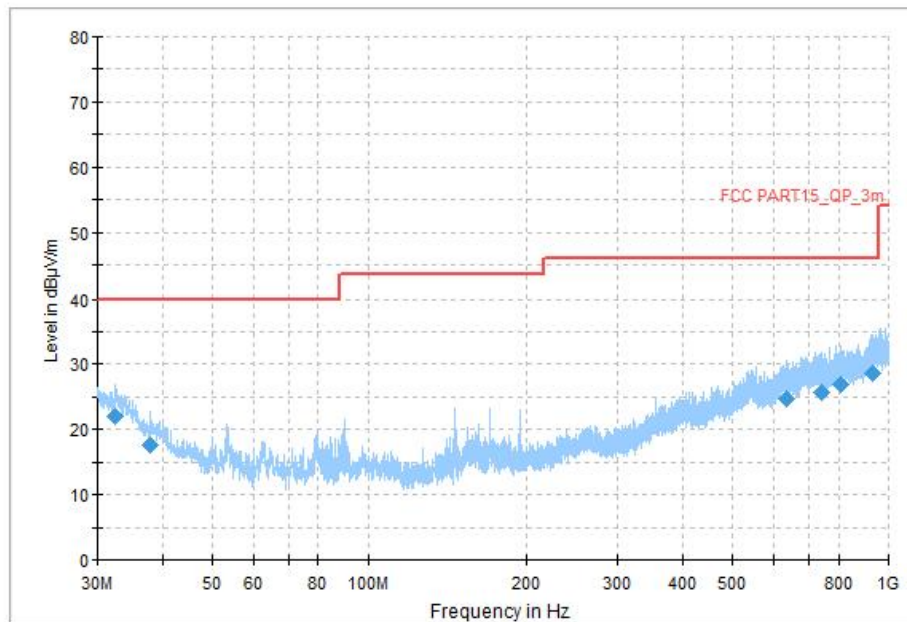


Fig.35 Radiated Spurious Emission (All Channels, 30MHz-1GHz), LE 2M

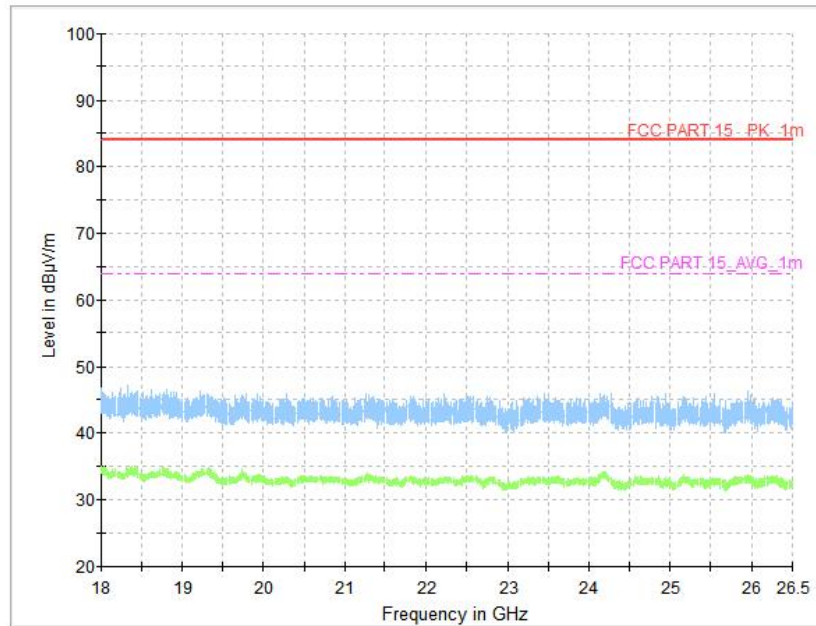


Fig.36 Radiated Spurious Emission (All Channels, 18GHz-26.5 GHz), LE 2M

A.7 AC Power line Conducted Emission

Method of Measurement: See ANSI C63.10-clause 6.2.

Test Condition:

Voltage (V)	Frequency (Hz)
120	60

Measurement Result and limit:

Frequency range (MHz)	Quasi-peak Limit (dBμV)	Average-peak Limit (dBμV)	Result (dBμV)		Conclusion
			Traffic	Idle	
0.15 to 0.5	66 to 56	56 to 46	Fig.37	Fig.38	P
0.5 to 5	56	46			
5 to 30	60	50			

NOTE: The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.5 MHz.

Note: The measurement results include the L1 and N measurements.

See below for test graphs.

Conclusion: Pass

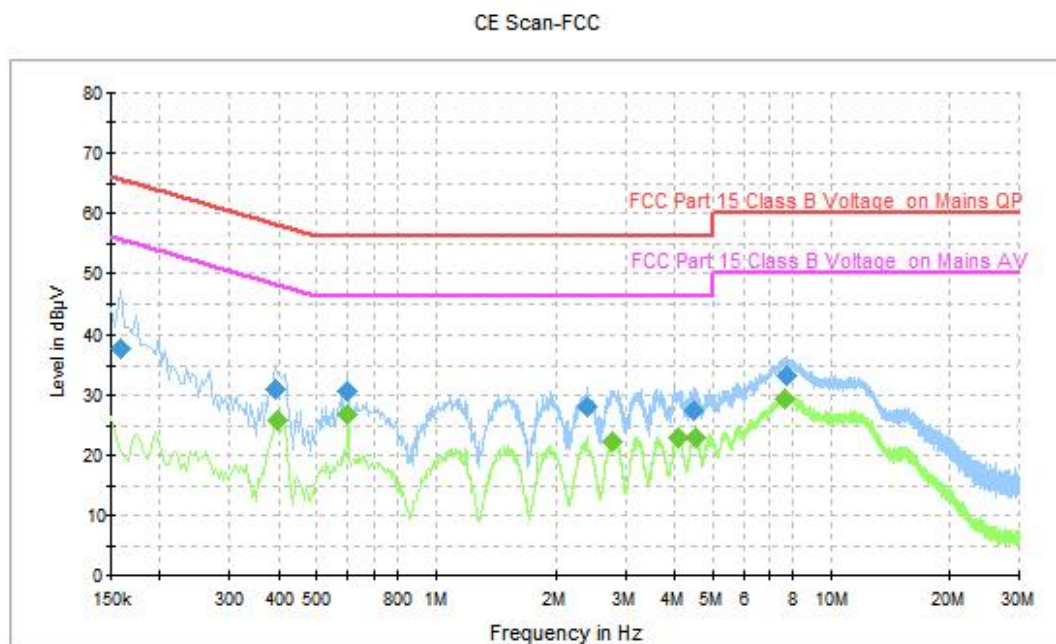


Fig.37 AC Power line Conducted Emission (Traffic)

Measurement Results: Quasi Peak

Frequency (MHz)	Quasi Peak (dBμV)	PE	Line	Corr. (dB)	Limit (dBμV)	Margin (dB)
0.158000	37.6	GND	N	9.8	28.0	65.6
0.394000	31.1	GND	L1	9.8	26.9	58.0
0.598000	30.8	GND	L1	9.8	25.2	56.0
2.390000	28.1	GND	N	9.8	27.9	56.0
4.502000	27.5	GND	L1	9.8	28.5	56.0
7.706000	33.3	GND	N	9.8	26.7	60.0

Measurement Results: Average

Frequency (MHz)	Average (dBμV)	PE	Line	Corr. (dB)	Limit (dBμV)	Margin (dB)
0.398000	25.7	GND	L1	9.8	22.2	47.9
0.598000	26.8	GND	L1	9.8	19.2	46.0
2.790000	22.4	GND	L1	9.8	23.6	46.0
4.090000	22.9	GND	L1	9.8	23.1	46.0
4.506000	22.9	GND	L1	9.8	23.1	46.0
7.634000	29.2	GND	N	9.8	20.8	50.0

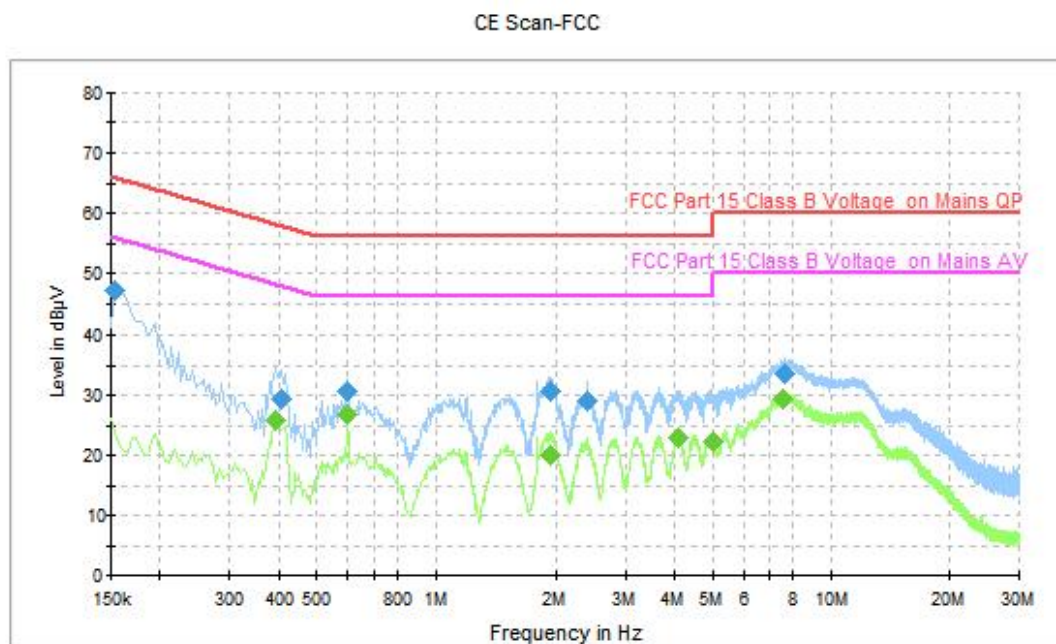


Fig.38 AC Power line Conducted Emission (Idle)

Measurement Results: Quasi Peak

Frequency (MHz)	Quasi Peak (dBµV)	PE	Line	Corr. (dB)	Limit (dBµV)	Margin (dB)
0.154000	47.2	GND	L1	9.8	18.6	65.8
0.406000	29.4	GND	L1	9.8	28.4	57.7
0.598000	30.8	GND	L1	9.8	25.2	56.0
1.934000	30.5	GND	N	9.8	25.5	56.0
2.390000	29.0	GND	L1	9.8	27.0	56.0
7.590000	33.4	GND	L1	9.8	26.6	60.0

Measurement Results: Average

Frequency (MHz)	Average (dBµV)	PE	Line	Corr. (dB)	Limit (dBµV)	Margin (dB)
0.394000	25.8	GND	L1	9.8	22.2	48.0
0.598000	26.7	GND	L1	9.8	19.3	46.0
1.946000	20.1	GND	N	9.8	25.9	46.0
4.086000	22.9	GND	L1	9.8	23.1	46.0
4.998000	22.3	GND	L1	9.8	23.7	46.0
7.558000	29.4	GND	L1	9.8	20.6	50.0

*****END OF REPORT*****