



# TEST REPORT

No. I22N00716-BLE

for

**HMD Global Oy**

**Smart Phone**

**Model Name: TA-1413**

with

**Hardware Version: V01**

**Software Version: 00WW\_0\_017**

**FCC ID: 2AJOTTA-1413**

**Issued Date: 2022-04-25**

**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:**

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## **1. Summary of Test Report**

### **1.1. Test Items**

Description	Smart Phone
Model Name	TA-1413
Applicant's name	HMD Global Oy
Manufacturer's Name	HMD Global Oy

### **1.2. Test Standards**

FCC Part15-2019; 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

### **1.5. Project data**

Testing Start Date:	2022-04-02
Testing End Date:	2022-04-21

### **1.6. Signature**

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Lin Kanfeng  
(Prepared this test report)

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An Ran  
(Reviewed this test report)

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Zhang Bojun  
(Approved this test report)



## **2. Client Information**

### **2.1. Applicant Information**

Company Name: HMD Global Oy  
Address/Post: Bertel Jungin aukio 9, 02600 Espoo, Finland  
Contact: Reza Serafat  
Email: reza.serafat@hmdglobal.com  
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Fax: /

### **2.2. Manufacturer Information**

Company Name: HMD Global Oy  
Address/Post: Bertel Jungin aukio 9, 02600 Espoo, Finland  
Contact: Reza Serafat  
Email: reza.serafat@hmdglobal.com  
Tel.: +393 31 6272922  
Fax: /



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

#### **3.1. About EUT**

Description	Smart Phone
Model Name	TA-1413
Frequency Range	2400MHz~2483.5MHz
Type of Modulation	GFSK
Number of Channels	40
Antenna Type	Dedicated antenna
Supply Voltage	DC 3.8V
Power source	Battery
FCC ID	2AJOTTA-1413
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*	IMEI	HW Version	SW Version	Receive Date
UT10aa	355400570002744	V01	00WW_0_017	2022-04-02
UT08aa	355400570003247	V01	00WW_0_017	2022-04-02

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

UT03aa is used for conduction test, UT04aa used for radiation test and AC Power line Conducted Emission test.

#### **3.3. Internal Identification of AE used during the test**

AE ID*	Description	Model	Manufacturer
AE1	Battery	GH6581	Shenzhen Aerospace Electronic CO.,Ltd.
AE2	Charger	AD-010U	Shenzhen Baijunda Electronics Co. LTD

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

#### **3.4. General Description**

The Equipment under Test (EUT) is a model of Smart Phone with dedicated antenna.

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.

<b>Reference</b>	<b>Title</b>	<b>Version</b>
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	2019
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	2022-12-29	1 year
2	Power Sensor	U2021XA	MY55430013	Keysight	2022-12-29	1 year
3	Data Acquisiton	U2531A	TW55443507	Keysight	/	/
4	Test Receiver	ESCI	100701	Rohde & Schwarz	2022-08-08	1 year
5	LISN	ENV216	102067	Rohde & Schwarz	2022-07-15	1 year

### Radiated test system

No.	Equipment	Model	Serial Number	Manufacturer	Calibration Due date	Calibration Period
1	Loop Antenna	HLA6120	35779	TESEQ	2022-04-25	3 years
2	BiLog Antenna	3142E	00224831	ETS-Lindgren	2024-05-27	3 years
3	Horn Antenna	3117	00066577	ETS-Lindgren	2025-03-15	3 years
4	Horn Antenna	QSH-SL-18-26-S-20	17013	Q-par	2023-01-06	3 years
5	Horn Antenna	QSH-SL-8-26-40-K-20	17014	Q-par	2023-01-06	3 years
6	Test Receiver	ESR7	101676	Rohde & Schwarz	2022-11-24	1 year
7	Spectrum Analyser	FSV40	101192	Rohde & Schwarz	2023-01-12	1 year
8	Chamber	FACT3-2.0	1285	ETS-Lindgren	2023-05-29	2 years

### Test software

No.	Equipment	Manufacturer	Version
1	TechMgr Software	CAICT	2.1.1
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.

### Anechoic chamber

Fully anechoic chamber by ETS-Lindgren



## 7. Laboratory Environment

### Semi-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 $\Omega$
Ground system resistance	< 4 $\Omega$
Normalised site attenuation (NSA)	< $\pm$ 4 dB, 3 m distance, from 30 to 1000 MHz

### Shielded room

Temperature	Min. = 15 °C, Max. = 35 °C
Relative humidity	Min. = 20 %, Max. = 75 %
Shielding effectiveness	0.014MHz-1MHz> 60 dB; 1MHz-1000MHz>90 dB
Electrical insulation	> 2M $\Omega$
Ground system resistance	< 4 $\Omega$

### Fully-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 $\Omega$
Ground system resistance	< 4 $\Omega$
Voltage Standing Wave Ratio (VSWR)	$\leq$ 6 dB, from 1 to 18 GHz, 3 m distance
Uniformity of field strength	Between 0 and 6 dB, from 80 to 6000 MHz



## 8. Measurement Uncertainty

Test Name	Uncertainty ( $k=2$ )	
1. RF Output Power - Conducted	1.32dB	
2. Power Spectral Density - Conducted	2.32dB	
3. Occupied channel bandwidth - Conducted	66Hz	
4. 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
5. Transmitter Spurious Emission - Radiated	$9\text{kHz} \leq f < 30\text{MHz}$	1.79dB
	$30\text{MHz} \leq f < 1\text{GHz}$	4.86dB
	$1\text{GHz} \leq f < 18\text{GHz}$	4.50dB
	$18\text{GHz} \leq f \leq 40\text{GHz}$	2.90dB
6. AC Power line Conducted Emission	$150\text{kHz} \leq f \leq 30\text{MHz}$	3.00dB

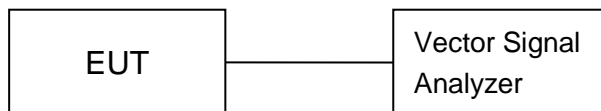
## ANNEX A: Detailed Test Results

### Test Configuration

The measurement is made according to ANSI C63.10.

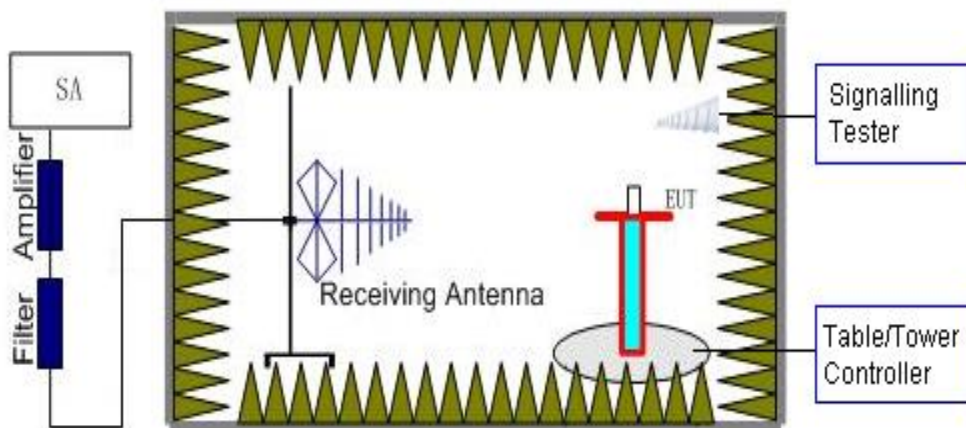
#### 1) Conducted Measurements

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.



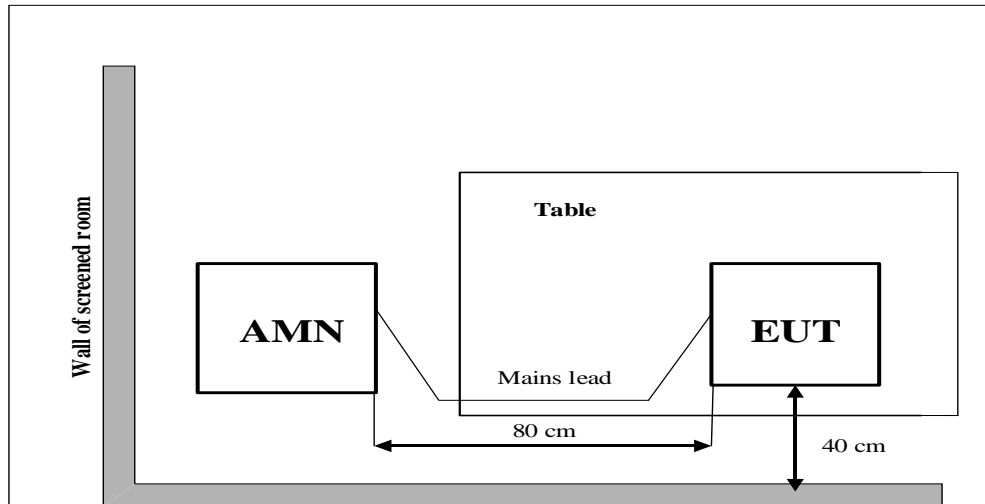
#### 2) Radiated Measurements

**Test setup:** EUT was placed on a 1.5 meter high non-conductive table at a 3 meter test distance from the receive antenna. The test setup refers to figure below. Detected emissions were maximized at each frequency by rotating the EUT and adjusting the receiving antenna polarization.



### 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:**

<b>Standard</b>	<b>Requirement</b>
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 1.2 dBi.  
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:**

Mode	Frequency (MHz)	RF output power (dBm)	Conclusion
LE 1M	2402(CH0)	6.86	P
	2440(CH19)	7.66	P
	2480(CH39)	7.08	P
LE 2M	2402(CH0)	6.59	P
	2440(CH19)	7.48	P
	2480(CH39)	6.83	P

**Conclusion: Pass**



### A.2 Peak Power Spectral Density

Method of Measurement: See ANSI C63.10-clause 11.10.2

Measurement Limit:

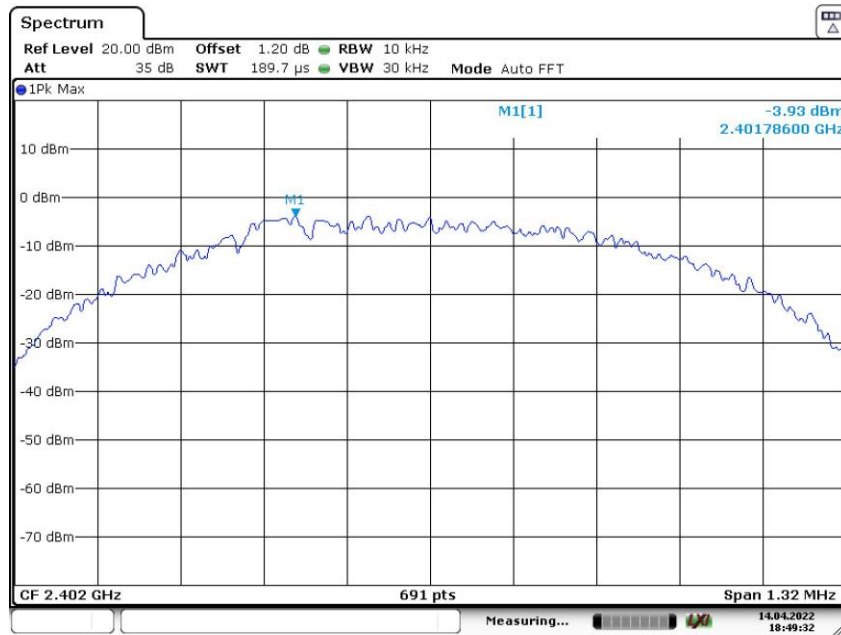
Standard	Limit
FCC 47 CRF Part 15.247(e)	< 8 dBm/3 kHz

Measurement Results:

Mode	Frequency (MHz)	Peak Power Spectral Density (dBm)		Conclusion
		Fig.	Value	
LE 1M	2402(CH0)	Fig.1	-3.93	P
	2440(CH19)	Fig.2	-2.93	P
	2480(CH39)	Fig.3	-3.52	P
LE 2M	2402(CH0)	Fig.4	-7.38	P
	2440(CH19)	Fig.5	-6.65	P
	2480(CH39)	Fig.6	-7.06	P

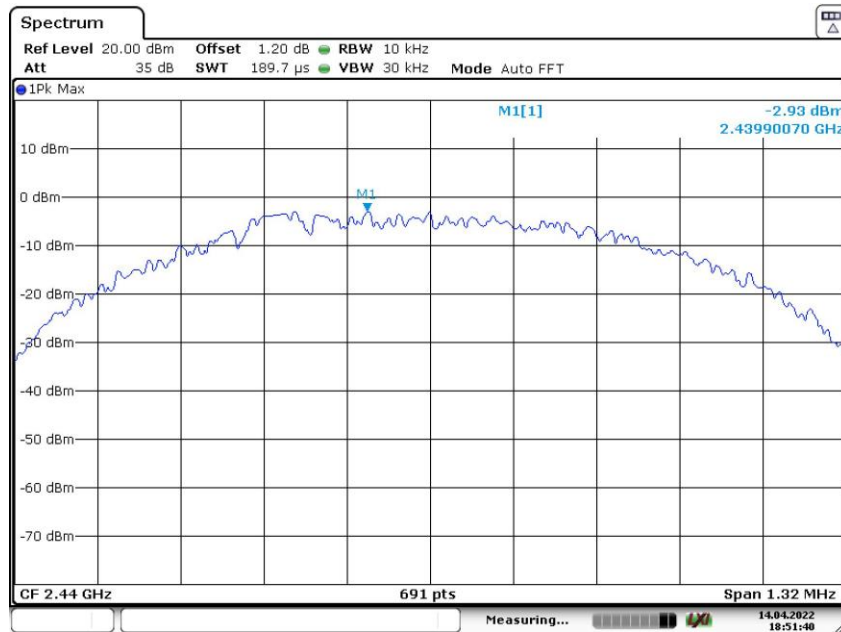
See below for test graphs.

Conclusion: PASS



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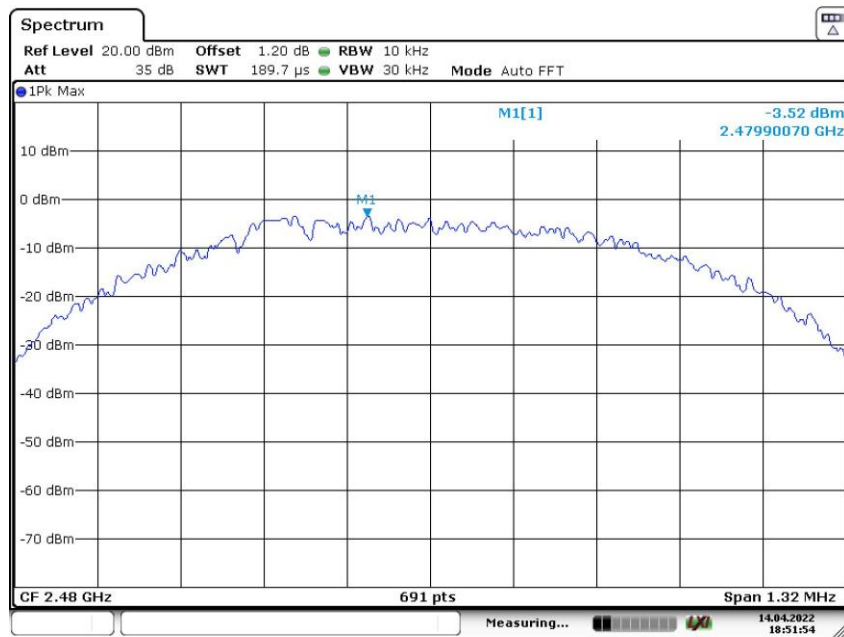
**Fig.1 Power Spectral Density (Ch 0), LE 1M**



Date: 14.APR.2022 18:51:40

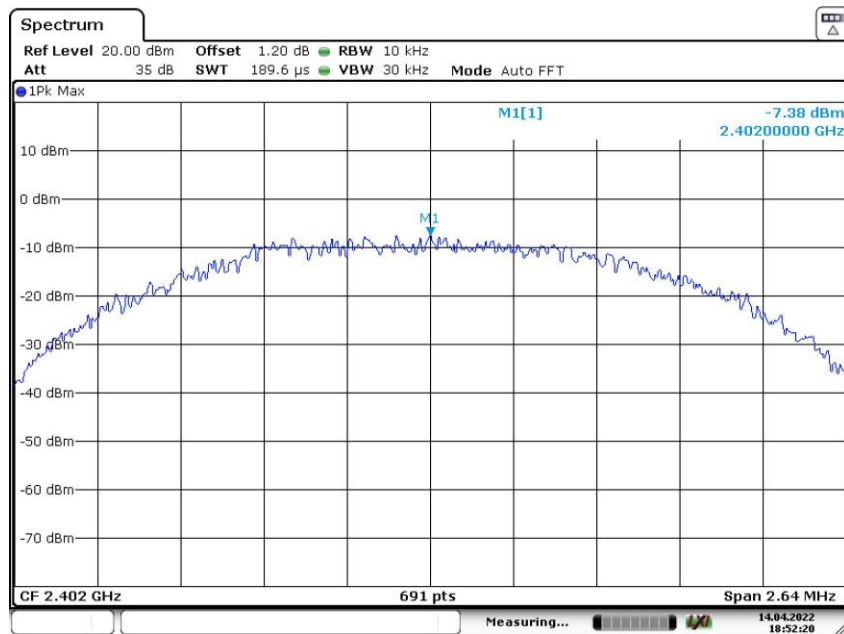
**Fig.2 Power Spectral Density (Ch 19), LE 1M**





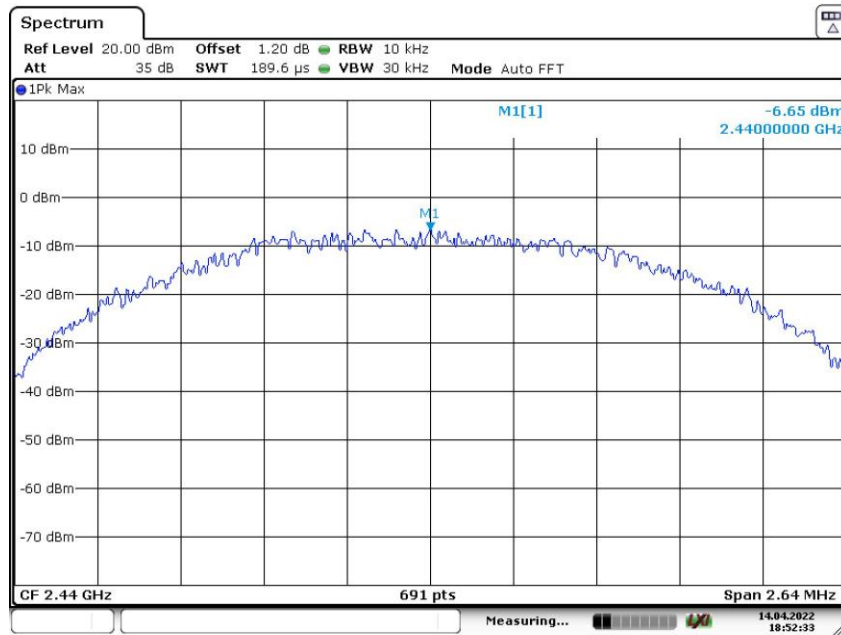
Date: 14.APR.2022 18:51:55

**Fig.3 Power Spectral Density (Ch 39), LE 1M**



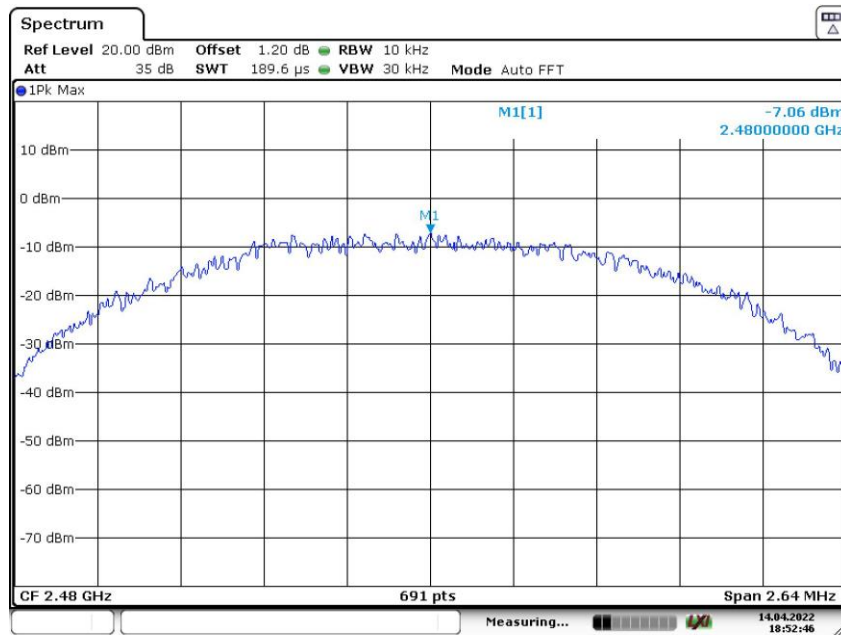
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**Fig.4 Power Spectral Density (Ch 0), LE 2M**



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**Fig.5 Power Spectral Density (Ch 19), LE 2M**



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**Fig.6 Power Spectral Density (Ch 39), LE 2M**



### A.3 6dB Bandwidth

**Measurement Limit:**

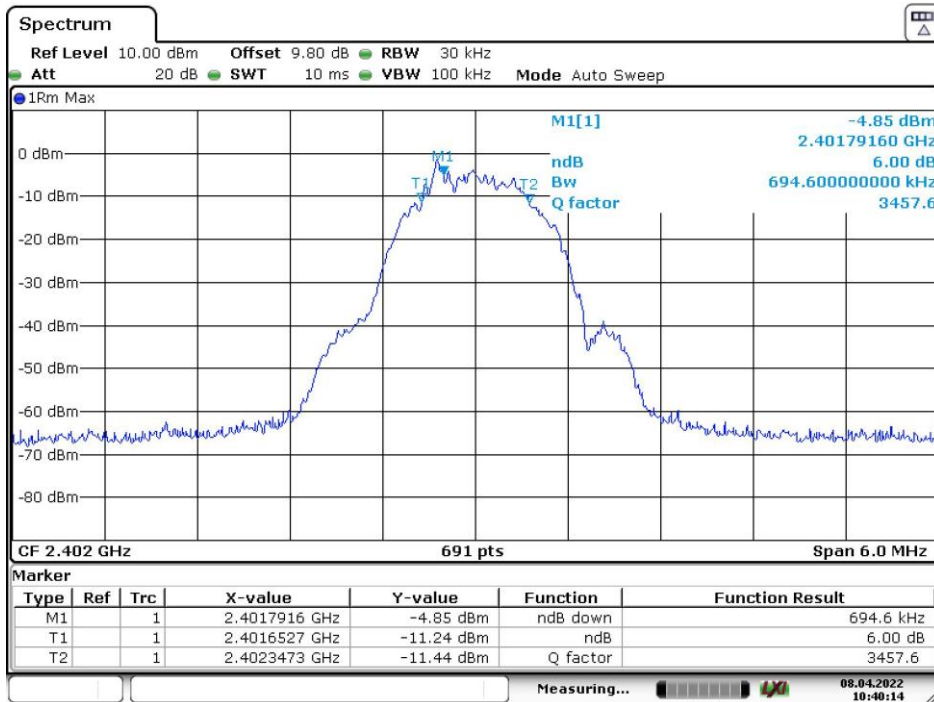
Standard	Limit (kHz)
FCC 47 CFR Part 15.247 (a)	≥ 500

**Measurement Result:**

Mode	Frequency (MHz)	Test Results ( KHz)		Conclusion
LE 1M	2402(CH0)	Fig.7	694.60	<b>P</b>
	2440(CH19)	Fig.8	720.70	<b>P</b>
	2480(CH39)	Fig.9	677.30	<b>P</b>
LE 2M	2402(CH0)	Fig.10	1059.30	<b>P</b>
	2440(CH19)	Fig.11	1059.30	<b>P</b>
	2480(CH39)	Fig.12	1059.30	<b>P</b>

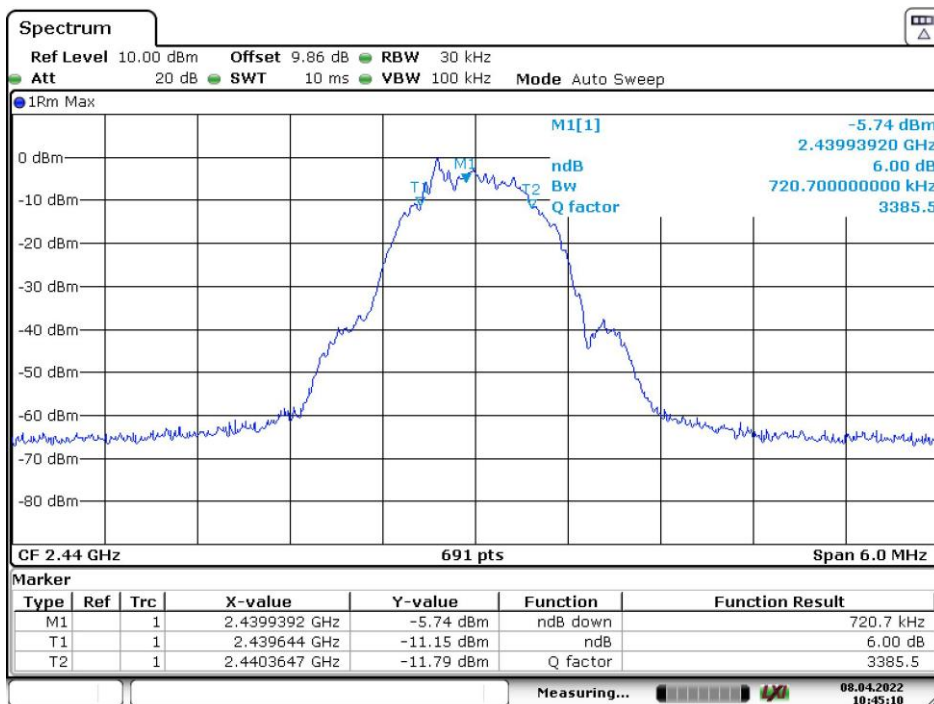
See below for test graphs.

**Conclusion: PASS**



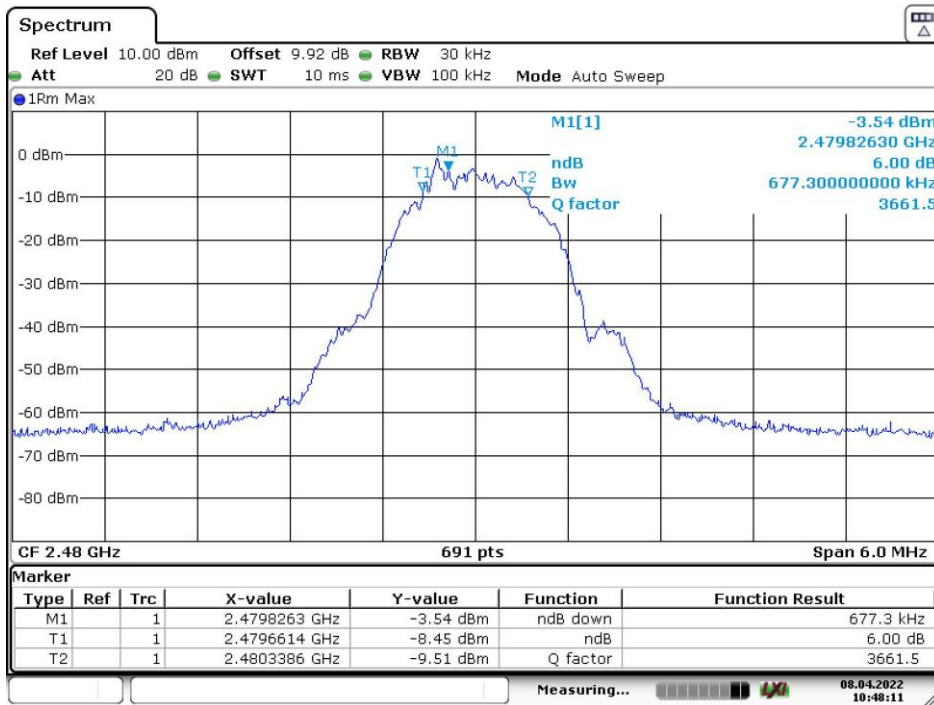
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Fig.7 6dB Bandwidth (Ch 0), LE 1M



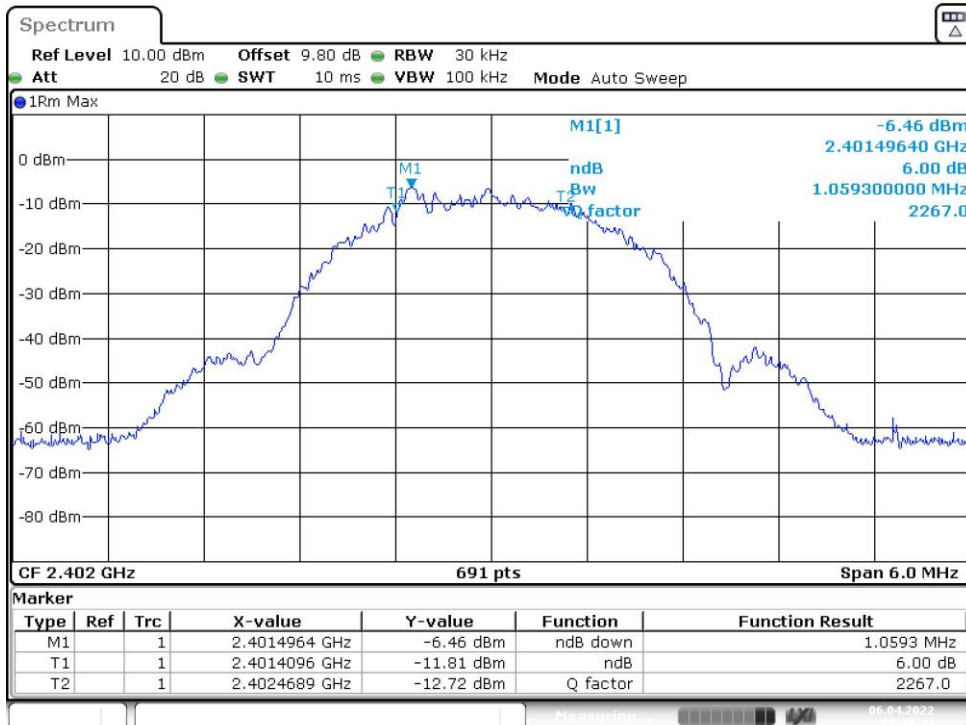
Date: 8.APR.2022 10:45:11

Fig.8 6dB Bandwidth (Ch 19), LE 1M



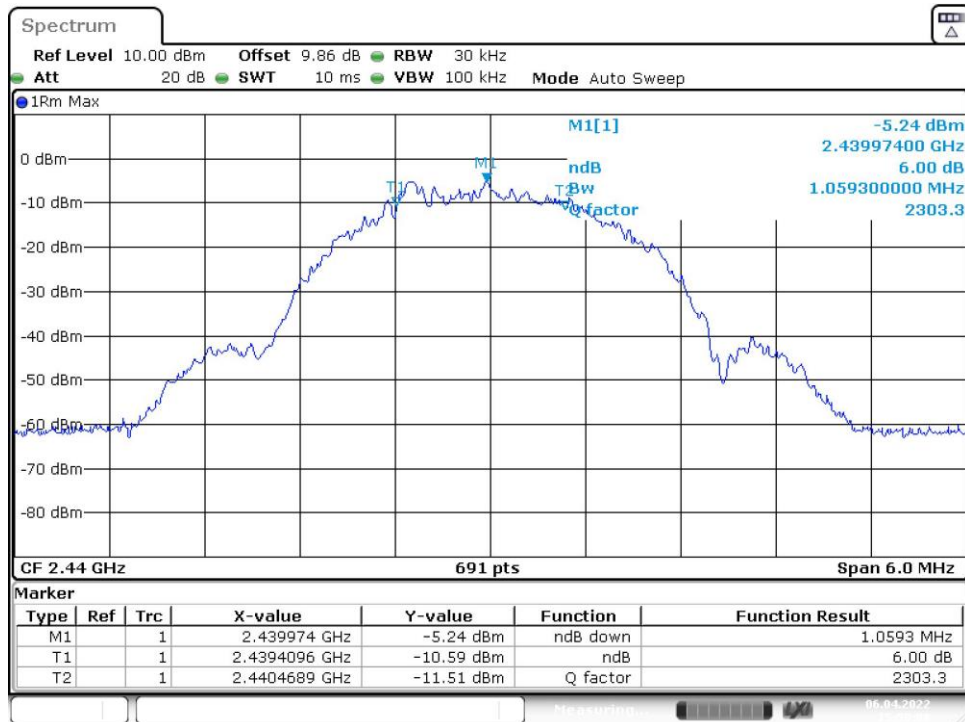
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Fig.9 6dB Bandwidth (Ch 39), LE 1M



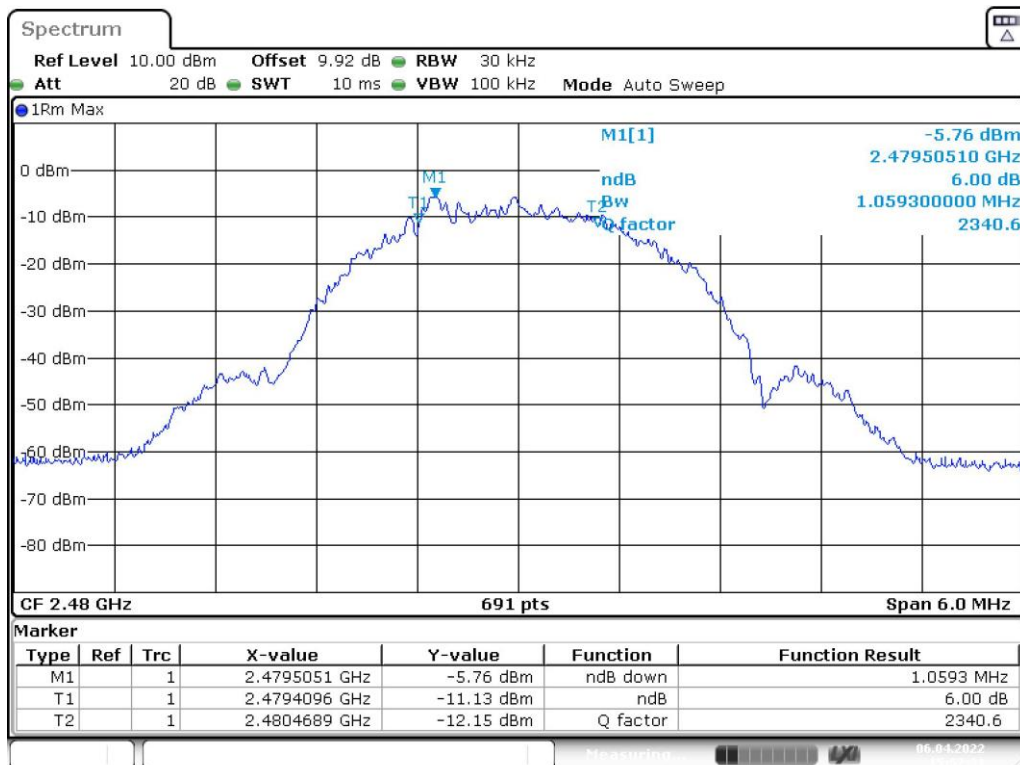
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Fig.10 6dB Bandwidth (Ch 0), LE 2M



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Fig.11 6dB Bandwidth (Ch 19), LE 2M



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Fig.12 6dB Bandwidth (Ch 39), LE 2M



### A.4 Band Edges Compliance

**Measurement Limit:**

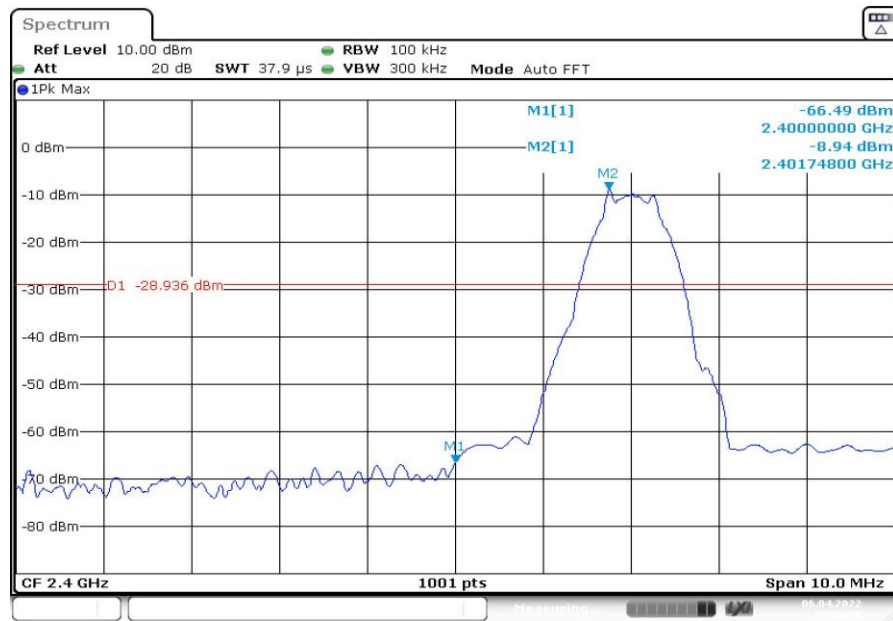
Standard	Limit (dB)
FCC 47 CFR Part 15.247 (d)	> 20

**Measurement Result:**

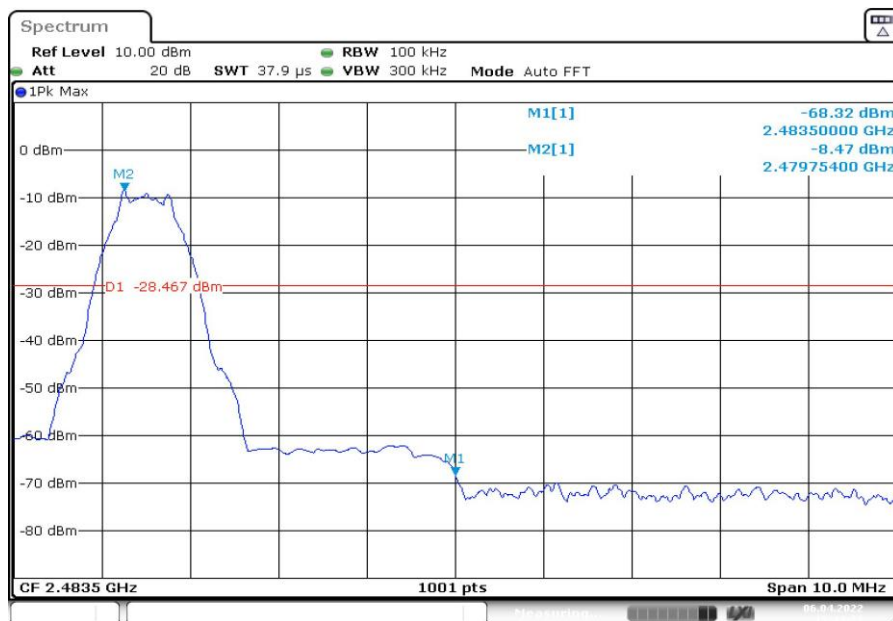
Mode	Frequency (MHz)	Test Results (dBc)		Conclusion
LE 1M	2402(CH0)	Fig.13	/	<b>P</b>
	2480(CH39)	Fig.14	/	<b>P</b>
LE 2M	2402(CH0)	Fig.15	/	<b>P</b>
	2480(CH39)	Fig.16	/	<b>P</b>

See below for test graphs.

**Conclusion: PASS**



**Fig.13 Band Edges (Ch 0), LE 1M**



**Fig.14 Band Edges (Ch 39), LE 1M**



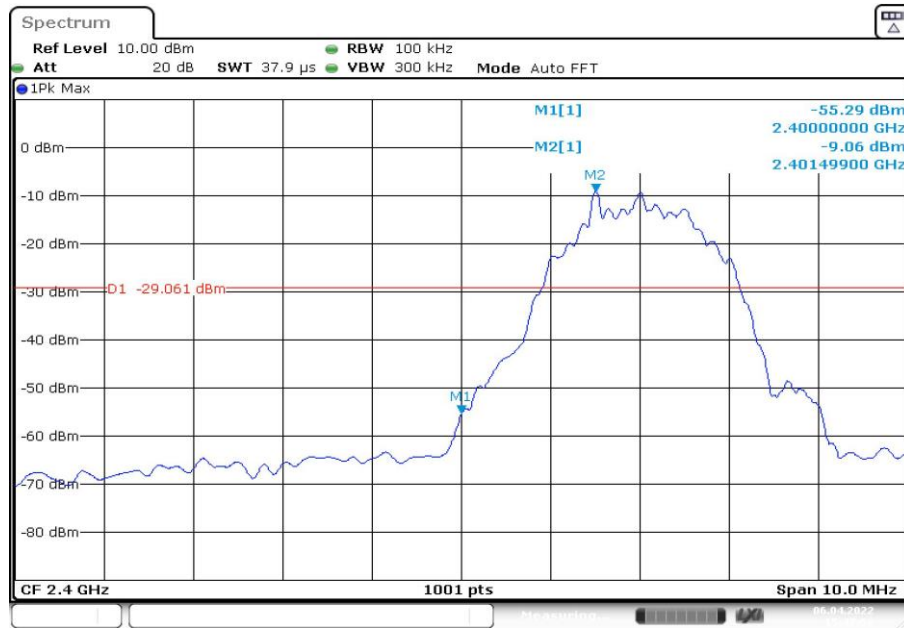


Fig.15 Band Edges (Ch 0), LE 2M



Fig.16 Band Edges (Ch 39), LE 2M



### A.5 Transmitter Spurious Emission - Conducted

**Measurement Limit:**

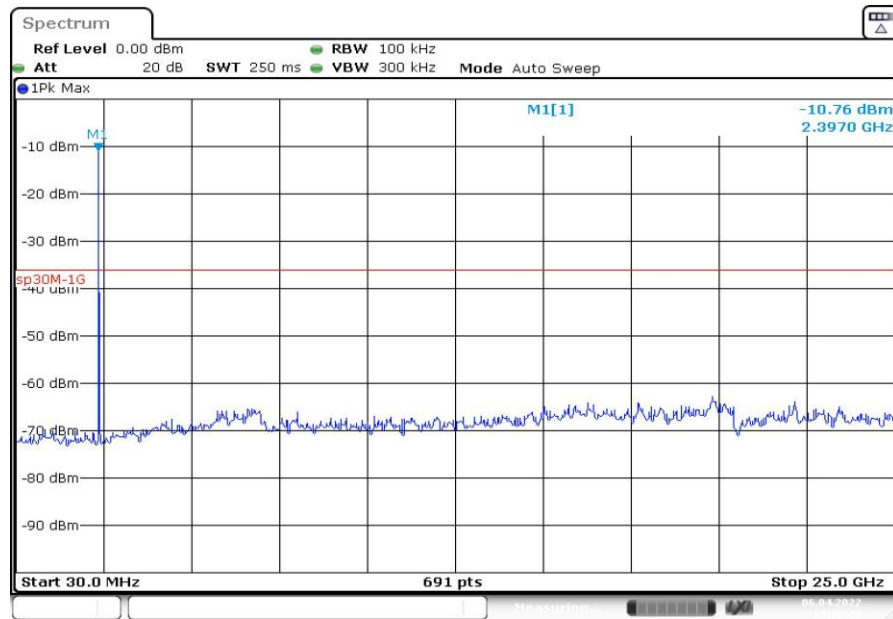
Standard	Limit
FCC 47 CFR Part 15.247 (d)	20dB below peak output power in 100 kHz bandwidth

**Measurement Results:**

MODE	Channel	Frequency Range	Test Results	Conclusion
LE 1M	0	30MHz-25GHz	Fig.17	<b>P</b>
	19	30MHz-25GHz	Fig.18	<b>P</b>
	39	30MHz-25GHz	Fig.19	<b>P</b>
LE 2M	0	30MHz-25GHz	Fig.20	<b>P</b>
	19	30MHz-25GHz	Fig.21	<b>P</b>
	39	30MHz-25GHz	Fig.22	<b>P</b>

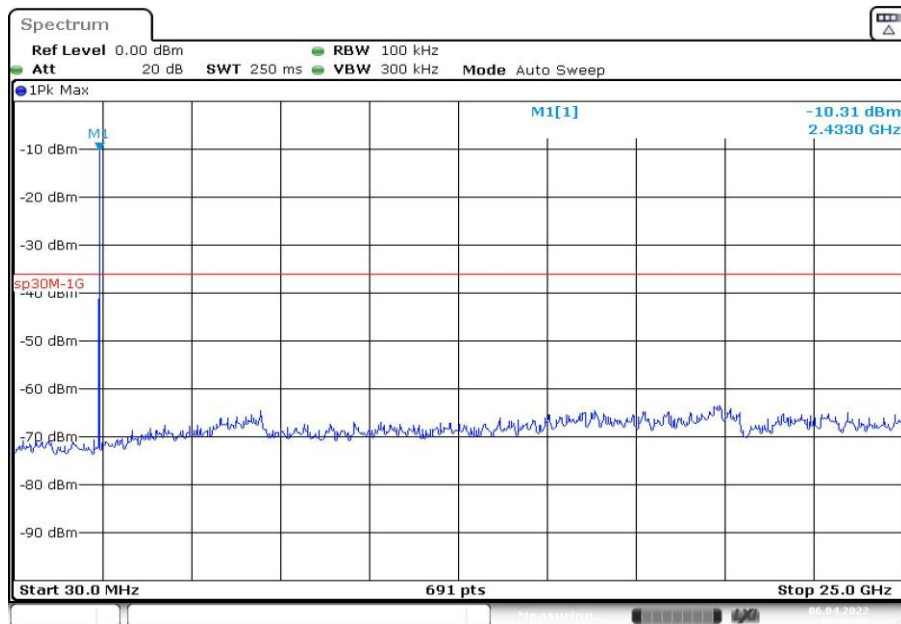
See below for test graphs.

**Conclusion: Pass**



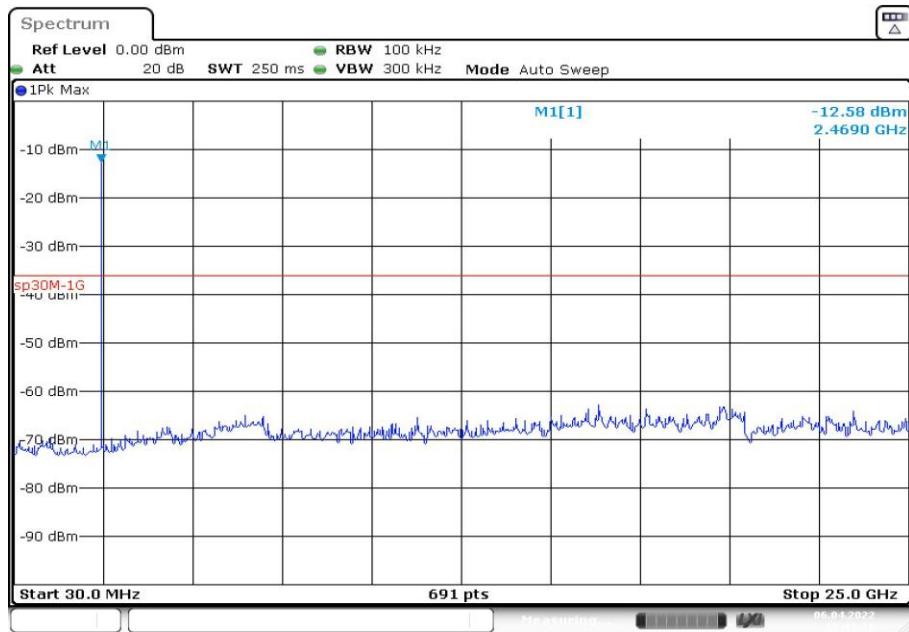
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**Fig.17 Conducted Spurious Emission (Ch0, 30 MHz-26.5 GHz), LE 1M**



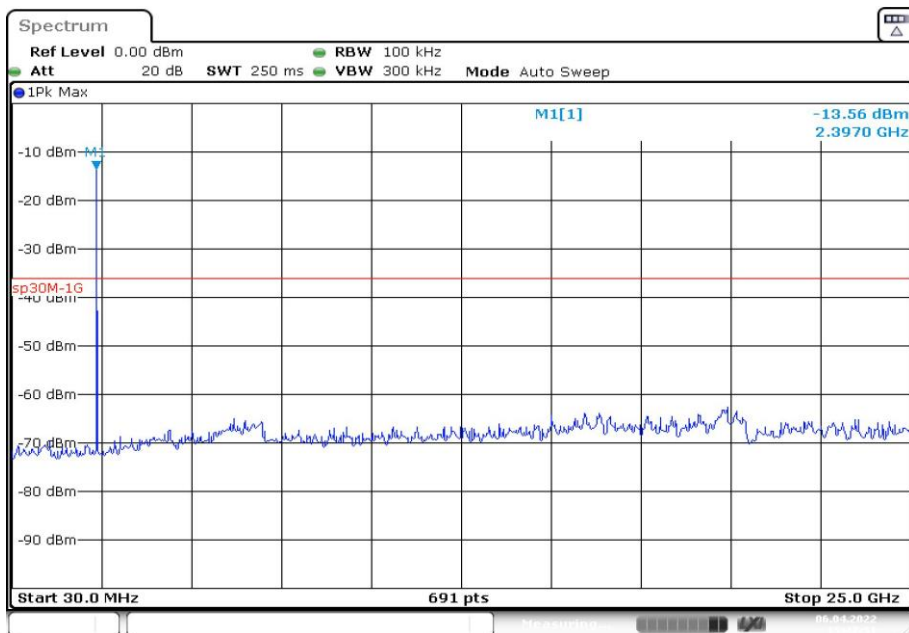
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**Fig.18 Conducted Spurious Emission (Ch19, 30 MHz-26.5 GHz), LE 1M**



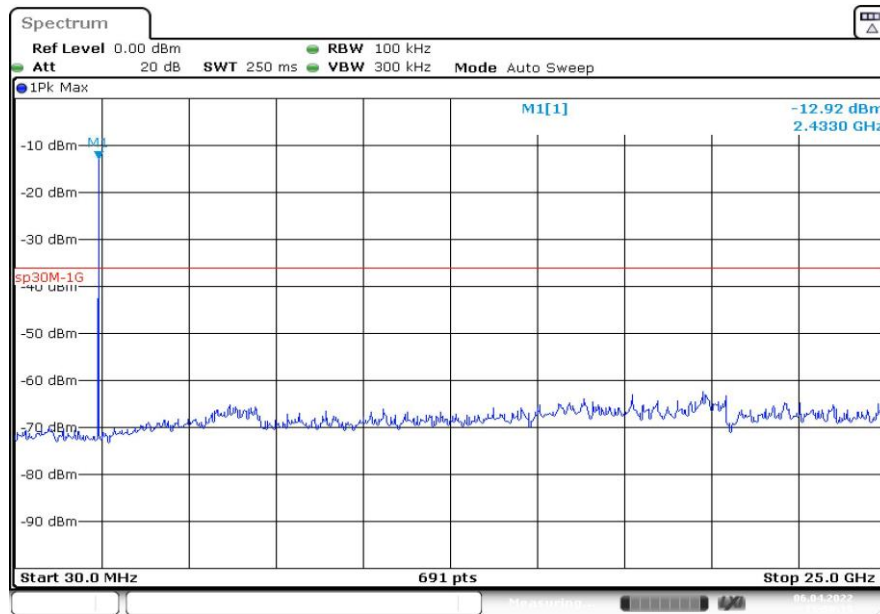
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**Fig.19 Conducted Spurious Emission (Ch39, 30 MHz-26.5 GHz), LE 1M**



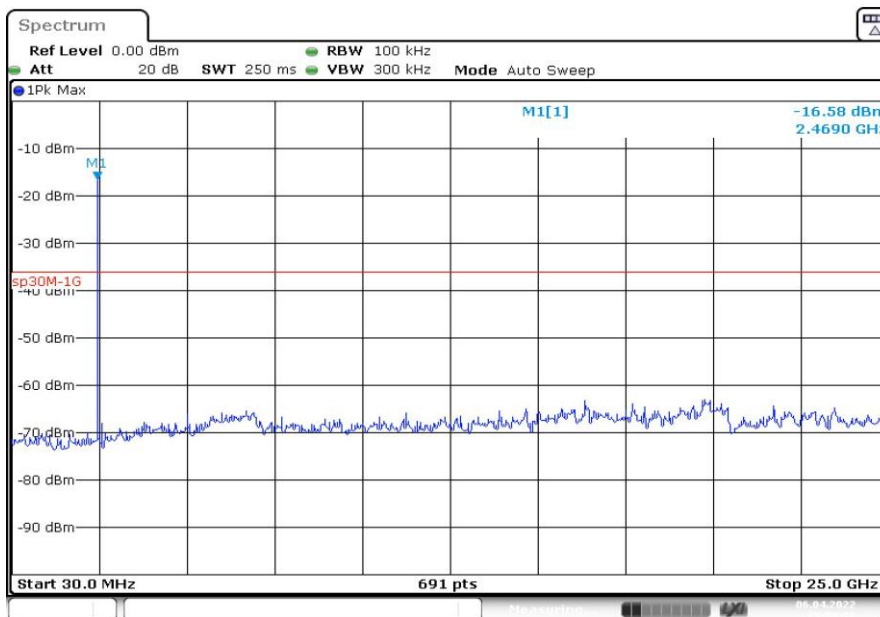
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**Fig.20 Conducted Spurious Emission (Ch0, 30 MHz-26.5 GHz), LE 2M**



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Fig.21 Conducted Spurious Emission (Ch19, 30 MHz-26.5 GHz), LE 2M



Date: 6.APR.2022 15:52:38

Fig.22 Conducted Spurious Emission (Ch39, 30 MHz-26.5 GHz), LE 2M



### A.6 Transmitter Spurious Emission - Radiated

**Measurement Limit:**

Standard	Limit
FCC 47 CFR Part 15.247, 15.205, 15.209	20dB 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.

**Measurement Results:**

Mode	Channel	Frequency Range	Test Results	Conclusion
LE 1M	0	1 GHz ~18 GHz	Fig.23	P
	19	1 GHz ~18 GHz	Fig.24	P
	39	1 GHz ~18 GHz	Fig.25	P
	Restricted Band(CH0)	2.38 GHz ~ 2.45 GHz	Fig.26	P
	Restricted Band(CH39)	2.45 GHz ~ 2.5 GHz	Fig.27	P
LE 2M	0	1 GHz ~18 GHz	Fig.28	P
	19	1 GHz ~18 GHz	Fig.29	P
	39	1 GHz ~18 GHz	Fig.30	P
	Restricted Band(CH0)	2.38 GHz ~ 2.45 GHz	Fig.31	P
	Restricted Band(CH39)	2.45 GHz ~ 2.5 GHz	Fig.32	P
All channels		9 kHz ~30 MHz	Fig.33	P
		30 MHz ~ 1 GHz	Fig.34	P
		18 GHz ~ 26.5 GHz	Fig.35	P

**Worst Case Result**

For LE 1M:

**CH19 (1-18GHz)**

Frequency (MHz)	MaxPeak (dB $\mu$ V/m)	Limit (dB $\mu$ V/m)	Margin (dB)	Pol	Corr. (dB/m)
2938.928571	51.73	74.00	22.27	V	6.6
5854.500000	48.26	74.00	25.74	V	4.7
12253.285714	48.36	74.00	25.64	H	10.9
14816.571429	49.94	74.00	24.06	H	12.9
17028.857143	54.72	74.00	19.28	V	18.4
17925.000000	54.63	74.00	19.37	H	18.9

Frequency (MHz)	Average (dB $\mu$ V/m)	Limit (dB $\mu$ V/m)	Margin (dB)	Pol	Corr. (dB/m)
2938.928571	39.39	54.00	14.61	V	6.6
5854.500000	35.54	54.00	18.46	V	4.7
12253.285714	36.35	54.00	17.65	H	10.9
14816.571429	38.16	54.00	15.84	H	12.9
17028.857143	42.03	54.00	11.97	V	18.4
17925.000000	42.23	54.00	11.77	H	18.9



**Note:**

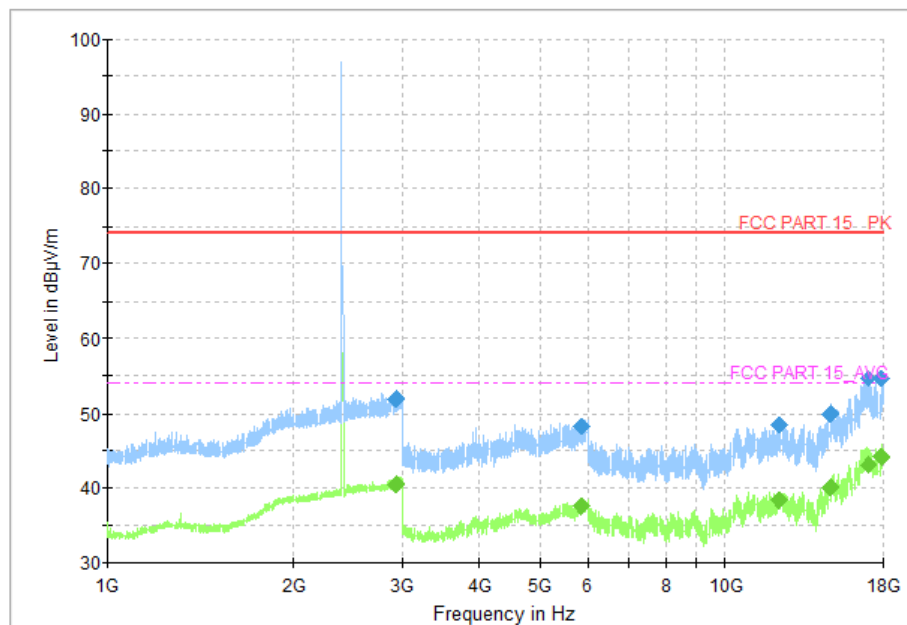
A "reference path loss" is established and the  $A_{Rpl}$  is the attenuation of "reference path loss", and Antenna Factor, the gain of the preamplifier, the cable loss.  $P_{Mea}$  is the field strength recorded from the instrument.

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.23 Radiated Spurious Emission (Ch0, 1 GHz ~18 GHz), LE 1M**



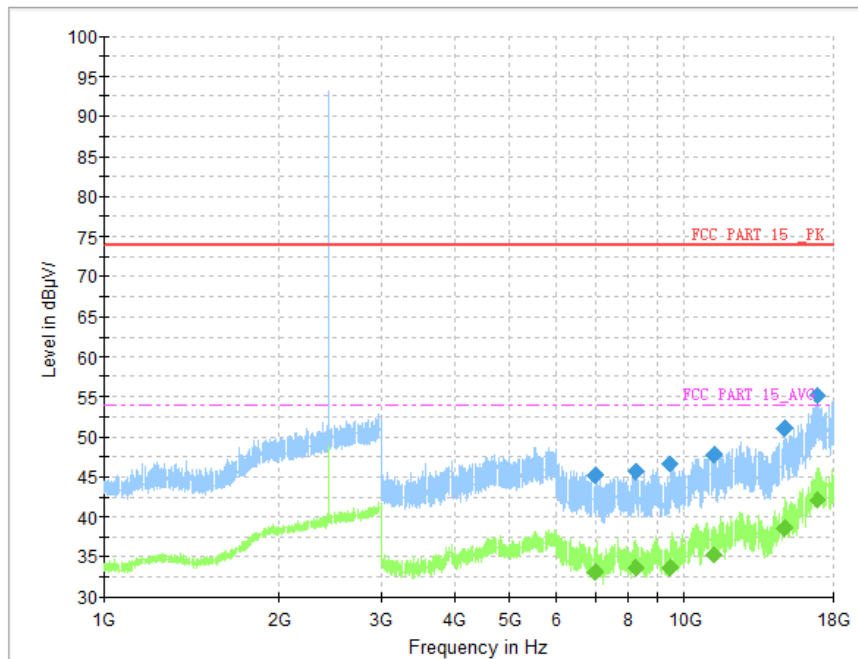


Fig.24 Radiated Spurious Emission (Ch19, 1 GHz ~18 GHz), LE 1M

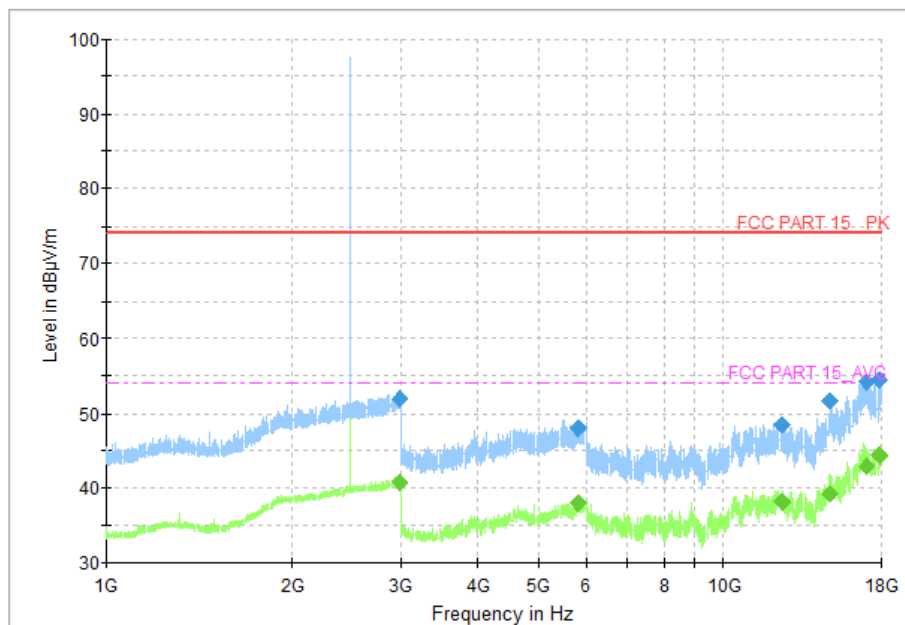


Fig.25 Radiated Spurious Emission (Ch39, 1 GHz ~18 GHz), LE 1M

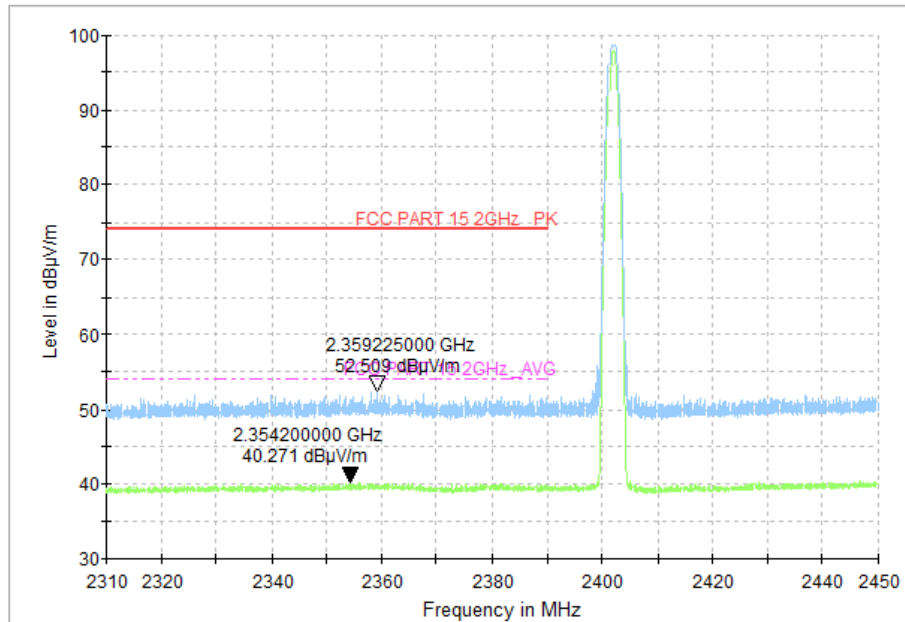


Fig.26 Radiated Band Edges (Ch0, 2380GHz~2450GHz), LE 1M

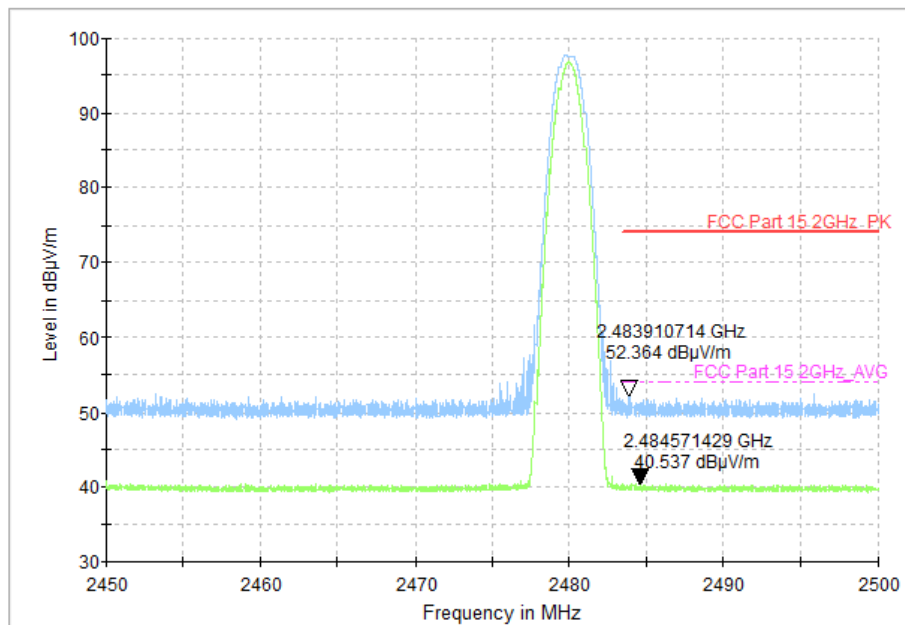


Fig.27 Radiated Band Edges (Ch39, 2450GHz~2500GHz), LE 1M

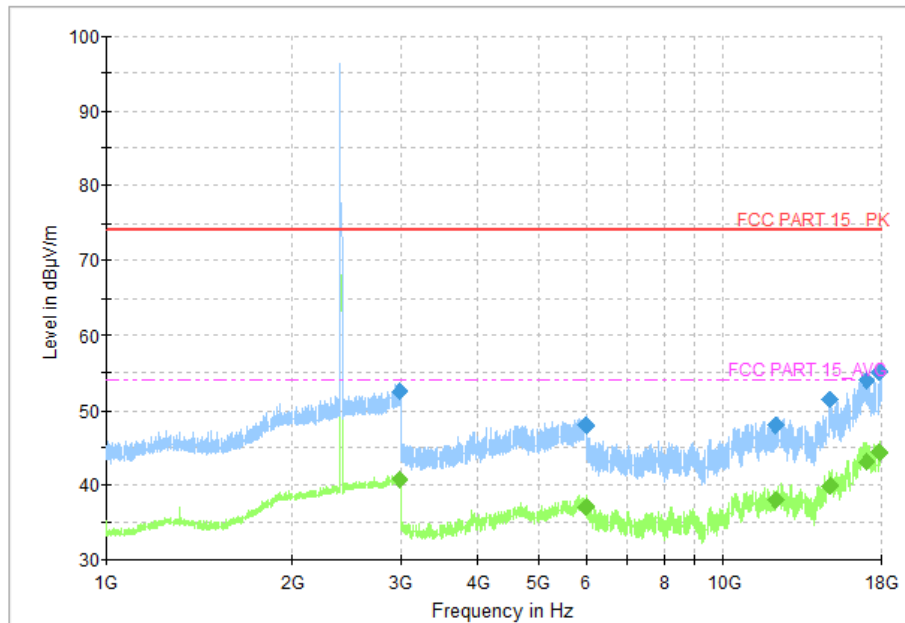


Fig.28 Radiated Spurious Emission (Ch0, 1 GHz ~18 GHz), LE 2M

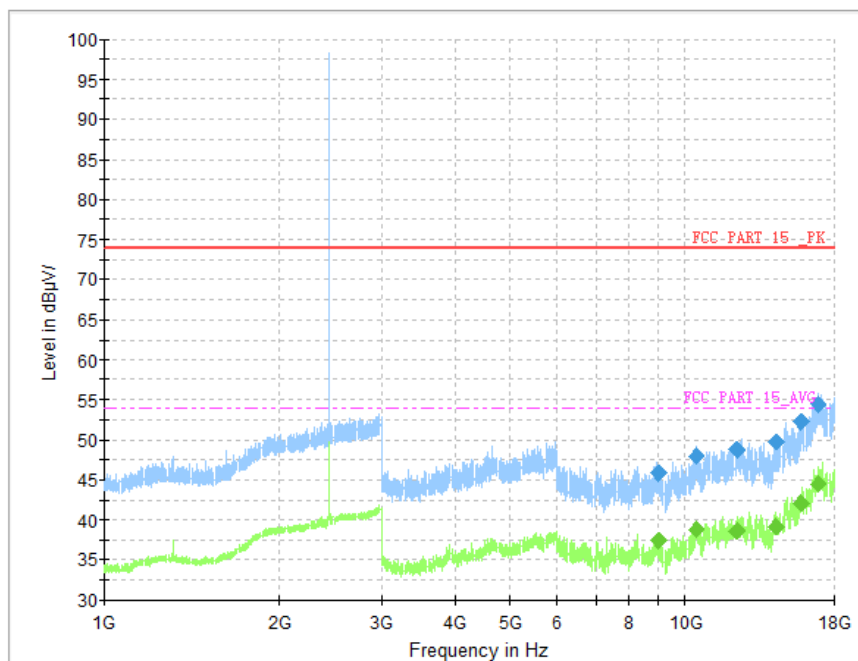


Fig.29 Radiated Spurious Emission (Ch19, 1 GHz ~18 GHz), LE 2M

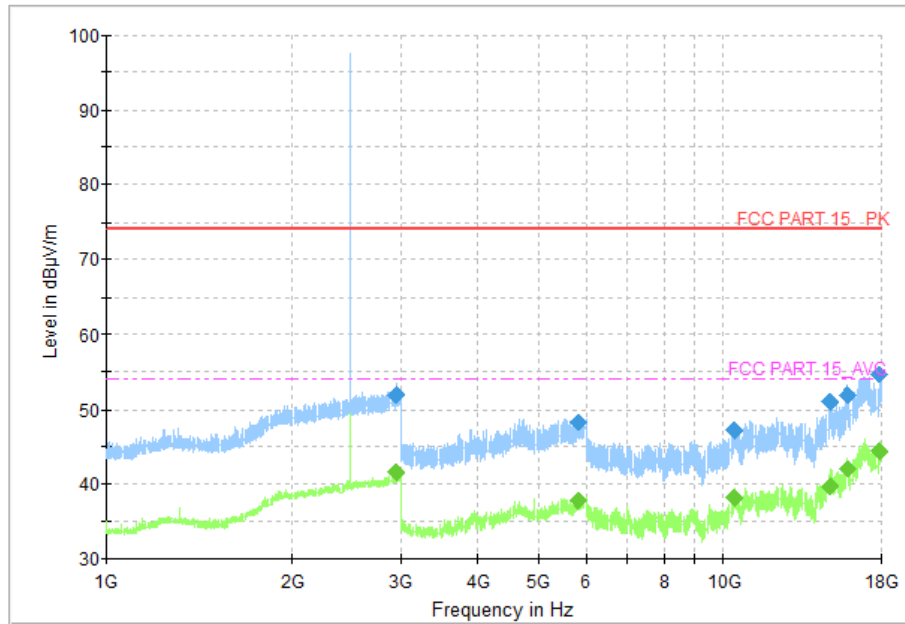


Fig.30 Radiated Spurious Emission (Ch39, 1 GHz ~18 GHz), LE 2M

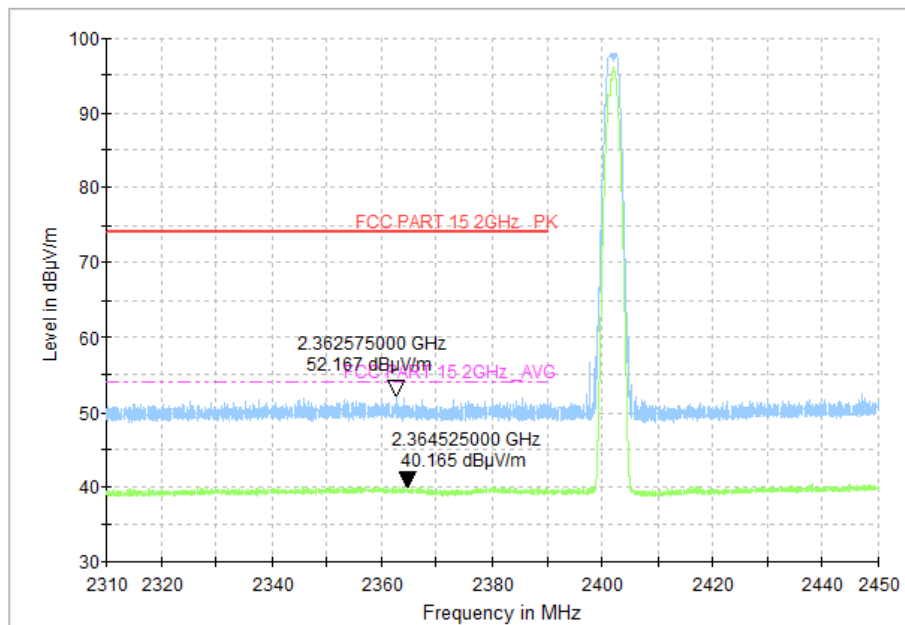


Fig.31 Radiated Band Edges (Ch0, 2380GHz~2450GHz), LE 2M

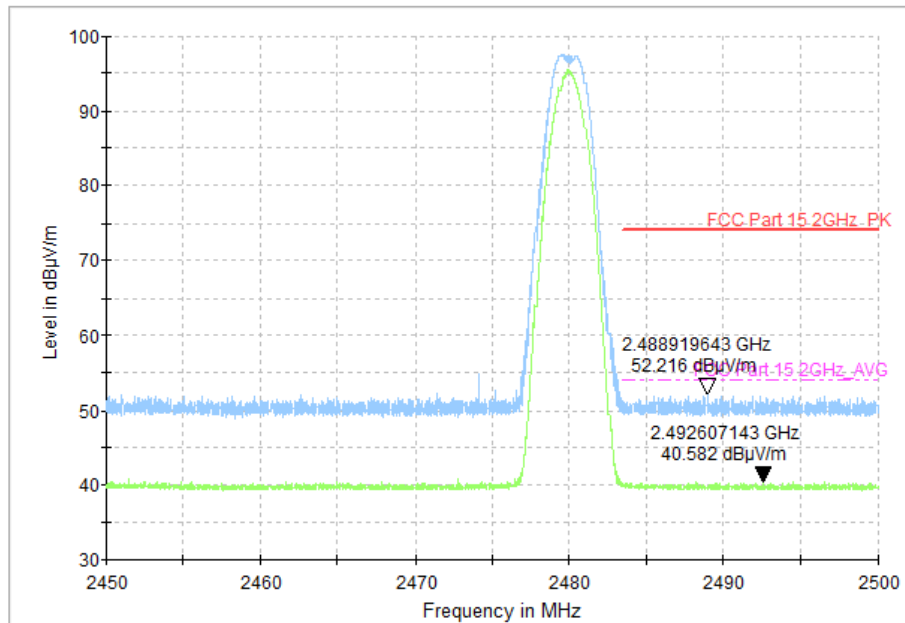


Fig.32 Radiated Band Edges (Ch39, 2450GHz~2500GHz), LE 2M

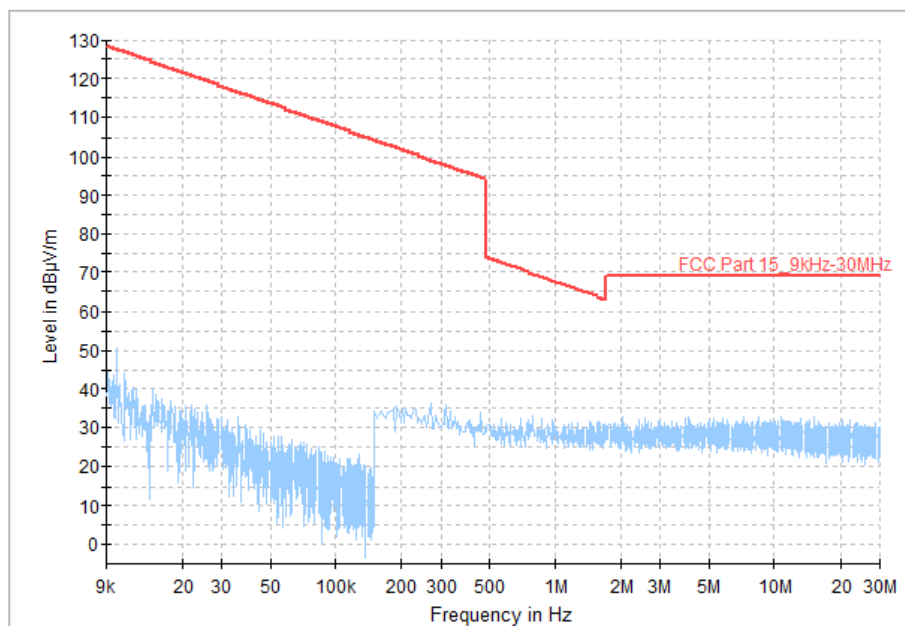


Fig.33 Radiated Spurious Emission (All Channels, 9 kHz-30 MHz), LE

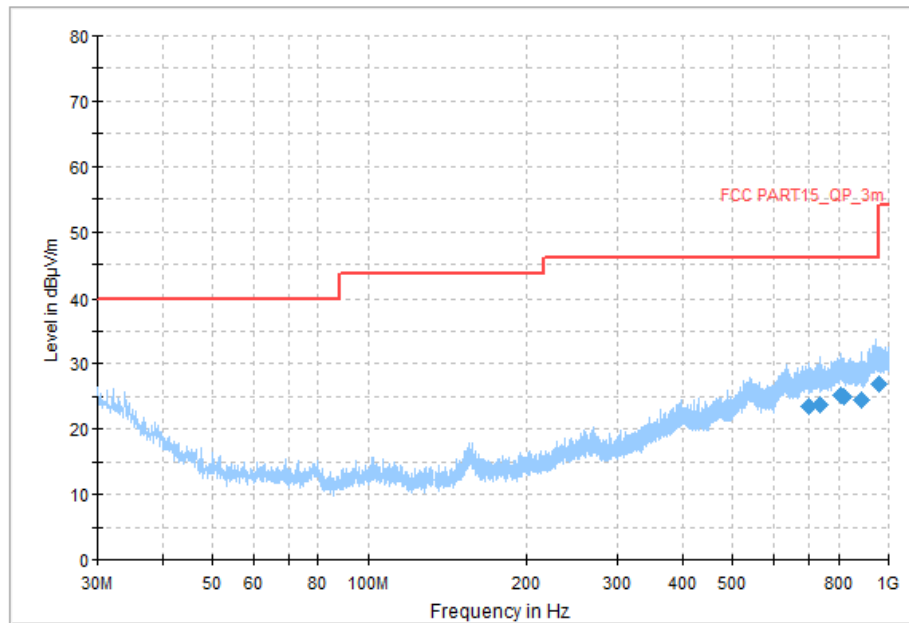


Fig.34 Radiated Spurious Emission (All Channels, 30 MHz-1 GHz), LE

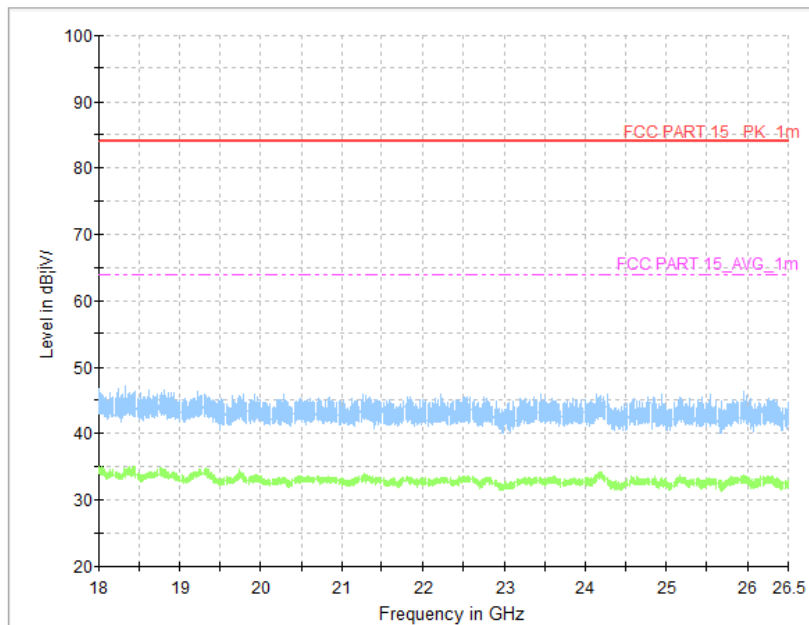


Fig.35 Radiated Spurious Emission (All Channels, 18 GHz-26.5 GHz), LE



### A.7 AC Power line Conducted Emission

Test Condition:

Voltage (V)	Frequency (Hz)
120	60

Measurement Result and limit:

LE -AE1,AE2

Frequency range (MHz)	Quasi-peak Limit (dB $\mu$ V)	Average-peak Limit (dB $\mu$ V)	Result (dB $\mu$ V)		Conclusion
			Traffic	Idle	
0.15 to 0.5	66 to 56	56 to 46	Fig.36	Fig.37	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.

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

See below for test graphs.

Conclusion: Pass

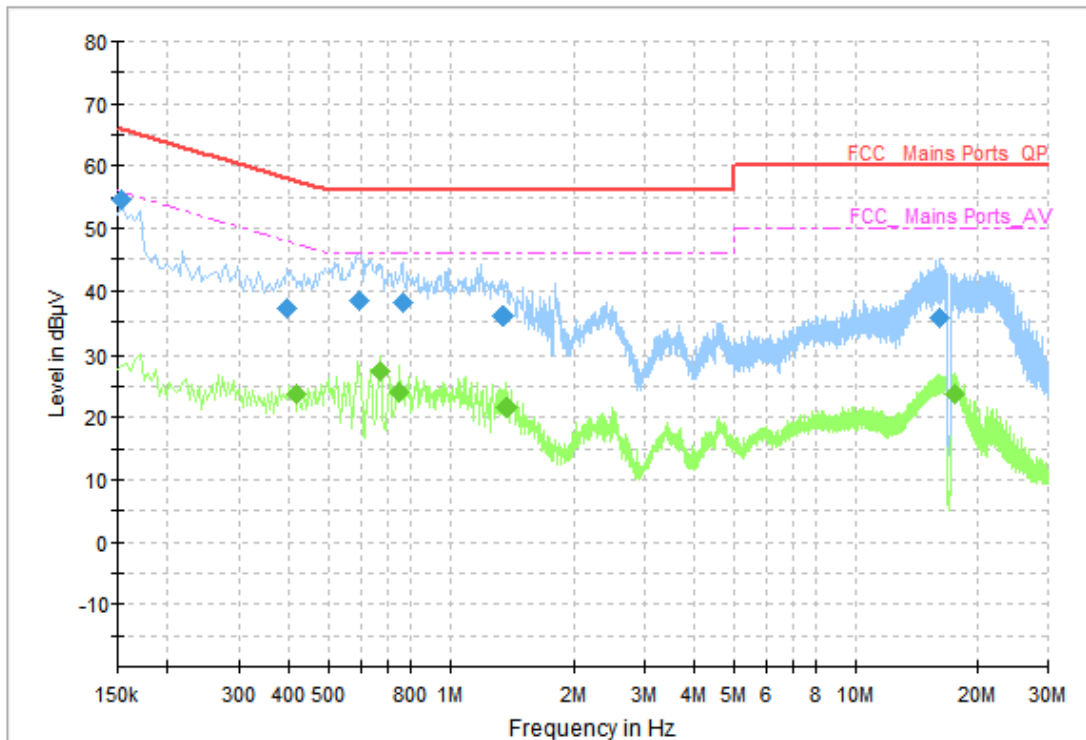


Fig.36 AC Power line Conducted Emission (Traffic), LE

**Measurement Results: Quasi Peak**

Frequency (MHz)	Quasi Peak (dBµV)	Limit (dBµV)	Margin (dB)	Line	Filter	Corr. (dB)
0.154000	54.69	65.78	11.09	N	ON	10
0.394000	37.05	57.98	20.93	L1	ON	10
0.598000	38.45	56.00	17.55	L1	ON	10
0.762000	38.21	56.00	17.79	N	ON	10
1.338000	36.06	56.00	19.94	N	ON	10
16.082000	35.54	60.00	24.46	N	ON	11

**Measurement Results: Average**

Frequency (MHz)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Line	Filter	Corr. (dB)
0.414000	23.67	47.57	23.90	L1	ON	10
0.670000	27.52	46.00	18.48	L1	ON	10
0.750000	23.94	46.00	22.06	N	ON	10
1.378000	21.70	46.00	24.31	N	ON	10
17.654000	23.77	50.00	26.23	L1	ON	10
17.662000	23.64	50.00	26.36	L1	ON	10



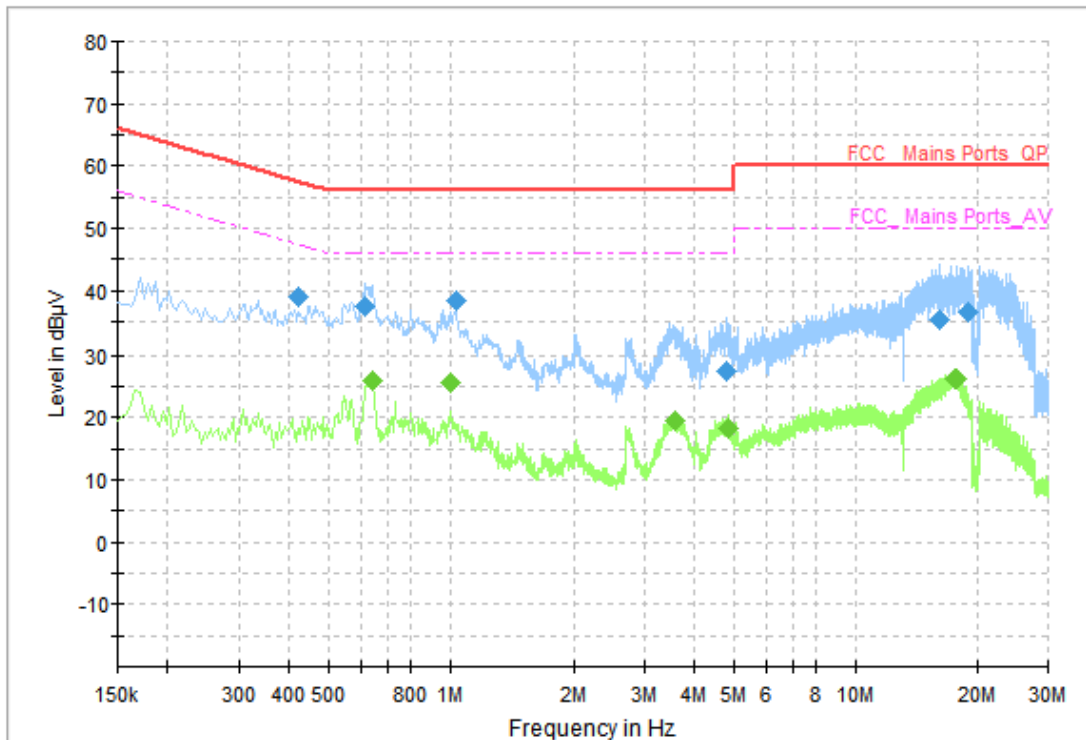


Fig.37 AC Power line Conducted Emission (Idle), LE

**Measurement Results: Quasi Peak**

Frequency (MHz)	Quasi Peak (dBµV)	Limit (dBµV)	Margin (dB)	Line	Filter	Corr. (dB)
0.422000	38.91	57.41	18.50	N	ON	10
0.618000	37.39	56.00	18.61	L1	ON	10
1.034000	38.41	56.00	17.59	N	ON	10
4.770000	27.40	56.00	28.60	L1	ON	10
16.094000	35.45	60.00	24.55	L1	ON	10
19.090000	36.44	60.00	23.56	L1	ON	10

**Measurement Results: Average**

Frequency (MHz)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Line	Filter	Corr. (dB)
0.642000	25.97	46.00	20.03	L1	ON	10
1.002000	25.49	46.00	20.51	L1	ON	10
3.574000	19.32	46.00	26.68	L1	ON	10
4.846000	18.23	46.00	27.77	L1	ON	10
17.650000	26.24	50.00	23.76	L1	ON	10
17.870000	26.16	50.00	23.84	L1	ON	10

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