





# **TEST REPORT**

# No.24T04N000881-002-BLE

for

Realme Chongqing Mobile Telecommunications Corp., Ltd.

**Smart watch** 

Model Name: RMW2401

with

Hardware Version: V1.1

**Software Version: TBD** 

FCC ID: 2AUYFRMW2401

Issued Date: 2024-05-28

**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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# No.24T04N000881-002-BLE

# **REPORT HISTORY**

Report Number	Revision	Description	Issue Date
24T04N000881-002-BLE	Rev.0	1st edition	2024-05-28

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



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# 1. Summary of Test Report

### 1.1. Test Items

Description Smart watch Model Name RMW2401

Applicant's name Realme Chongqing Mobile Telecommunications Corp., Ltd.

Manufacturer's Name Realme Chongqing Mobile Telecommunications Corp., Ltd.

### 1.2. Test Standards

FCC Part15-2023; 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: 2024-04-30 Testing End Date: 2024-05-22

### 1.6. Signature

Lin Zechuang

(Prepared this test report)

An Ran

(Reviewed this test report)

(Approved this test report)



# 2. Client Information

### 2.1. Applicant Information

Company Name: Realme Chongqing Mobile Telecommunications Corp., Ltd.

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Contact Person Chunyu Feng

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## 2.2. Manufacturer Information

Company Name: Realme Chongqing Mobile Telecommunications Corp., Ltd.

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Contact Person Chunyu Feng

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Telephone: (86)13823232013

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

### 3.1. About EUT

Description Smart watch Model Name RMW2401

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 -0.19dBi.

Power Supply 5V DC by Battery FCC ID 2AUYFRMW2401

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	<b>HW Version</b>	SW Version	Date of Receipt
UT01aa	1	V1.1	TBD	2024-04-25
UT04aa	1	V1.1	TBD	2024-04-25

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

UT01aa is used for conduction test, UT04aa is used for radiation test and AC Power line Conducted Emission test.

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

AE No.	Description	AE ID*
AE1	Battery	1
Λ <b>.</b>		

AE1

Model 632225V

Manufacturer ZHONGSHAN ZHONGWANGDE NEW ENERGY TECHNOLOGY Co., LTD

Capacity 380mAh Nominal Voltage 3.8 V

### 3.4. General Description

The Equipment under Test (EUT) is a model of Smart watch with integrated antenna and battery. Manual and specifications of the EUT were provided to fulfil the test.

Samples undergoing test were selected by the client.

<sup>\*</sup>AE ID and AE Label: is used to identify the test sample in the lab internally.



# 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:	2023
	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	
ANSI C63.10	American National Standard of Procedures for Compliance	2013
	Testing of Unlicensed Wireless Devices	



## 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	Р
1	Maximum Peak Output Power	15.247 (b)	Р
2	Peak Power Spectral Density	15.247 (e)	Р
3	6dB Bandwidth	15.247 (a)	Р
4	Band Edges Compliance	15.247 (d)	Р
5	Transmitter Spurious Emission - Conducted	15.247 (d)	Р
6	Transmitter Spurious Emission - Radiated	15.247, 15.205, 15.209	Р
7	AC Power line Conducted Emission	15.107, 15.207	Р

See **ANNEX A** for details.

### 5.3. Statements

SAICT has evaluated the test cases requested by the applicant/manufacturer 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	2024-12-27	1 year
2	Power Sensor	U2021XA	MY55430013	Keysight	2024-12-27	1 year
3	Data Acquisition	U2531A	TW55443507	Keysight	1	1
4	RF Control Unit	JS0806-2	21C8060398	Tonscend	2025-05-06	1 year
5	Shielding Room	S81	CT000986-1344	ETS-Lindgren	2026-09-12	5 years

Radiated test system

	Naulateu 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	2025-01-10	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	2025-01-10	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	> 2MΩ
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	> 2MΩ
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	Uncertain	nty ( <i>k</i> =2)
1. Maximum Peak Output Power	1.32dB	
Peak Power Spectral Density	1.32	dB
3. 6dB Bandwidth	4.56	кНz
4. Band Edges Compliance	1.92	dB
	30MHz≤f<1GHz	1.41dB
5 Transmitter Spurious Emission Conducted	1GHz≤f<7GHz	1.92dB
5. Transmitter Spurious Emission - Conducted	7GHz≤f<13GHz	2.31dB
	13GHz≤f≤26GHz	2.61dB
	9kHz≤f<30MHz	1.70dB
6 Transmitter Churique Emission Dedicted	30MHz≤f<1GHz	4.80dB
6. Transmitter Spurious Emission - Radiated	1GHz≤f<18GHz	4.62dB
	18GHz≤f≤40GHz	2.36dB
7. AC Power line Conducted Emission	150kHz≤f≤30MHz	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.

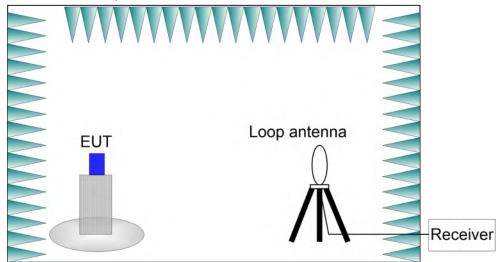


### 2) Radiated Measurements

#### 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.

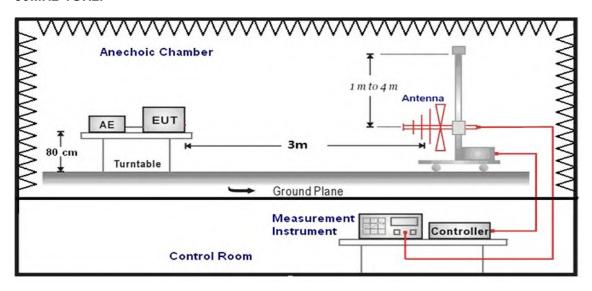




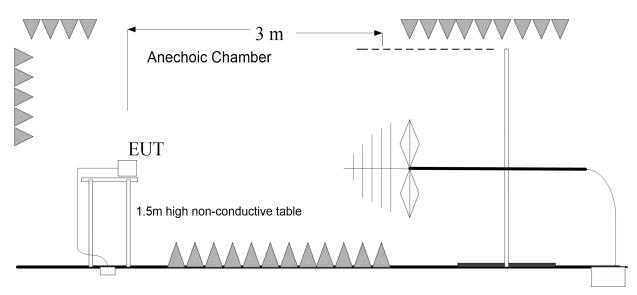
### 30MHz-26.5GHz:

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:

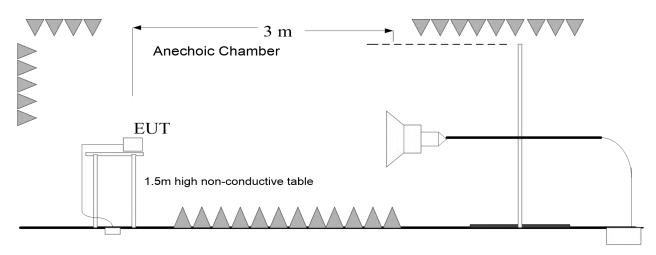


### 1GHz-3GHz:



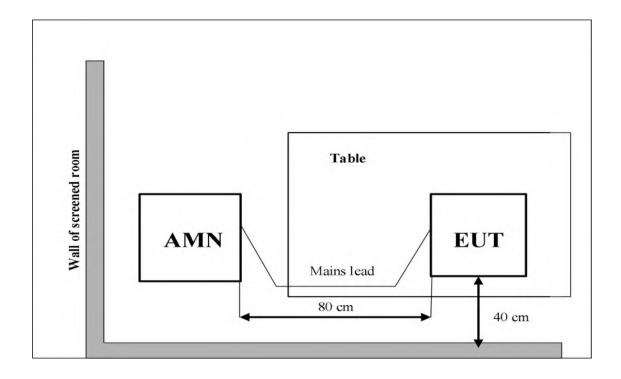


### 3GHz-26.5GHz:



### 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
	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
FCC CRF Part	connector is prohibited. This requirement does not apply to carrier current devices
15.203	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 -0.19dBi.

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
	2402(CH0)	4.98	Р
LE 1M	2440(CH19)	4.62	Р
	2480(CH39)	4.26	Р
	2402(CH0)	4.70	Р
LE 2M	2440(CH19)	4.32	Р
	2480(CH39)	4.01	Р

**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 Sp (dBm/1	•	Conclusion
	2402(CH0)	Fig.1	-6.42	Р
LE 1M	2440(CH19)	Fig.2	-6.79	Р
	2480(CH39)	Fig.3	-7.10	Р
	2402(CH0)	Fig.4	-9.52	Р
LE 2M	2440(CH19)	Fig.5	-10.00	Р
	2480(CH39)	Fig.6	-10.26	Р

See below for test graphs.

**Conclusion: PASS** 



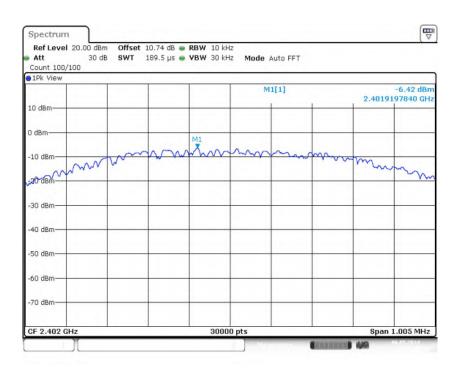


Fig.1 Power Spectral Density (CH0), LE 1M

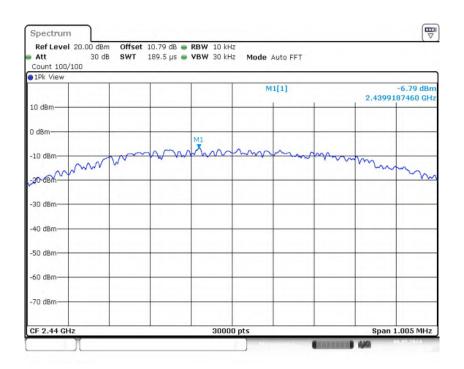


Fig.2 Power Spectral Density (CH19), LE 1M

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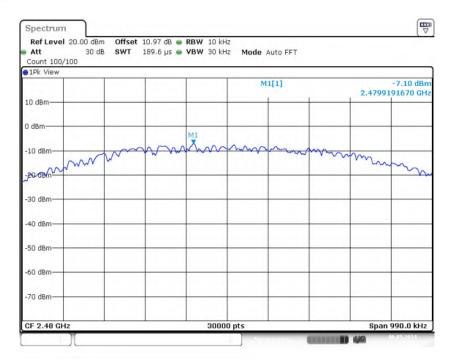


Fig.3 Power Spectral Density (CH39), LE 1M

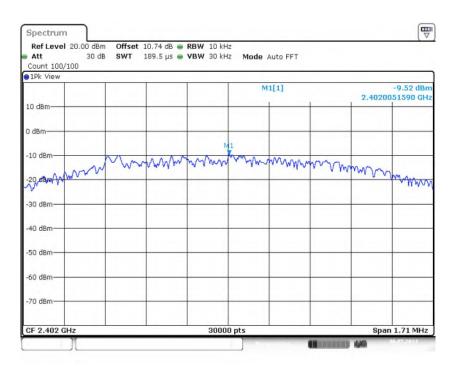


Fig.4 Power Spectral Density (CH0), LE 2M

### No.24T04N000881-002-BLE

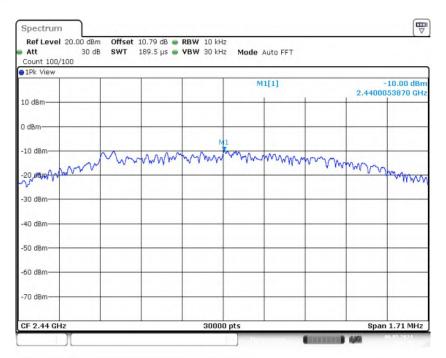


Fig.5 Power Spectral Density (CH19), LE 2M

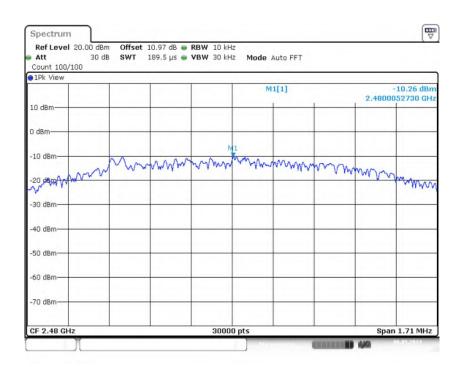


Fig.6 Power Spectral Density (CH39), LE 2M



### 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
	2402(CH0)	Fig.7	0.67	Р
LE 1M	2440(CH19)	Fig.8	0.67	Р
	2480(CH39)	Fig.9	0.66	Р
	2402(CH0)	Fig.10	1.14	Р
LE 2M	2440(CH19)	Fig.11	1.14	Р
	2480(CH39)	Fig.12	1.14	Р

See below for test graphs.

**Conclusion: PASS** 



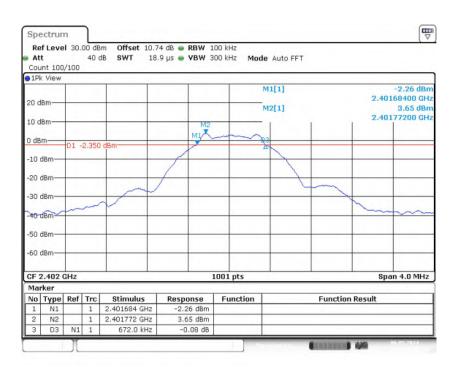


Fig.7 6dB Bandwidth (CH0), LE 1M

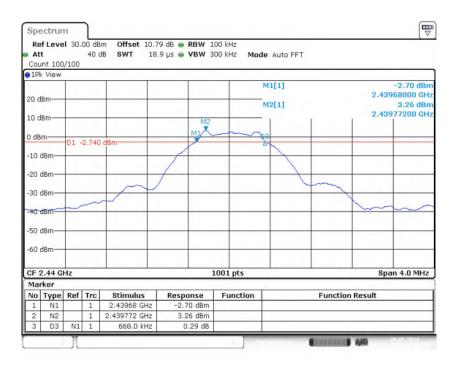


Fig.8 6dB Bandwidth (CH19), LE 1M

### No.24T04N000881-002-BLE

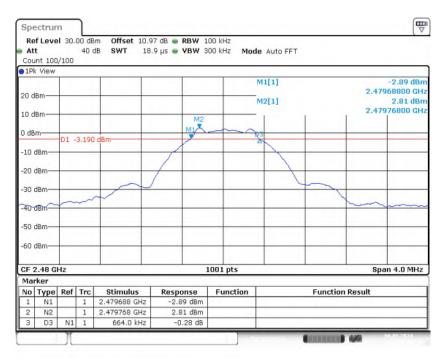


Fig.9 6dB Bandwidth (CH39), LE 1M

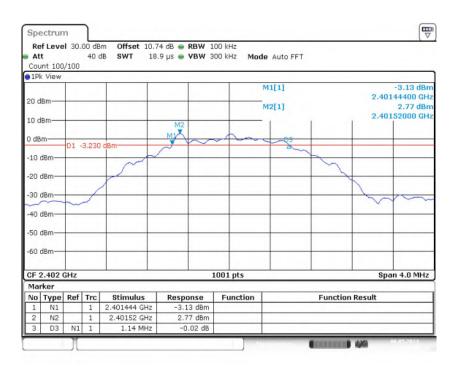


Fig.10 6dB Bandwidth (CH0), LE 2M

### No.24T04N000881-002-BLE

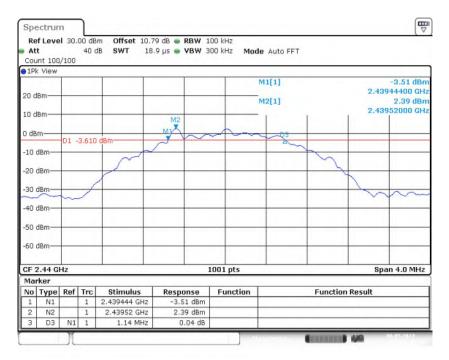


Fig.11 6dB Bandwidth (CH19), LE 2M

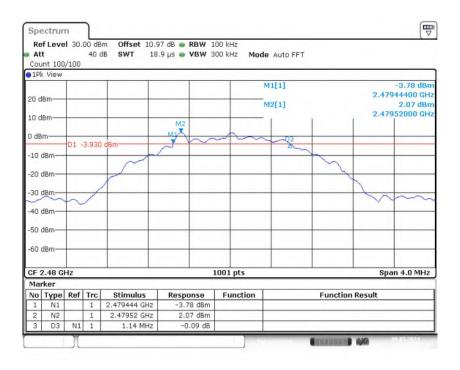


Fig.12 6dB Bandwidth (CH39), LE 2M



# 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 Resu	Its (dBc)	Conclusion
1 E 4M	2402(CH0)	Fig.13	48.92	Р
LE 1M	2480(CH39)	Fig.14	48.41	Р
LE OM	2402(CH0)	Fig.15	40.70	Р
LE 2M	2480(CH39)	Fig.16	47.00	Р

See below for test graphs.

**Conclusion: PASS** 



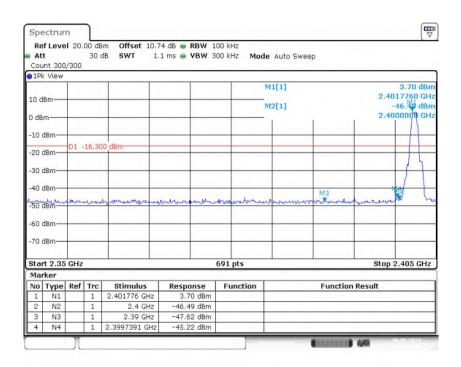


Fig.13 Band Edges (CH0), LE 1M

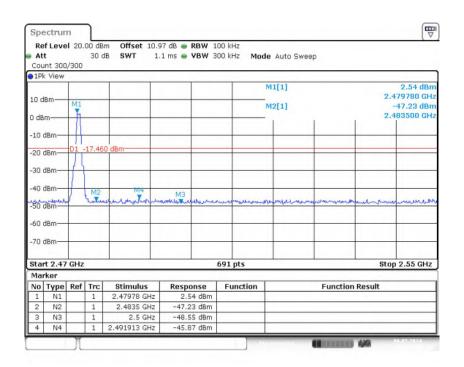


Fig.14 Band Edges (CH39), LE 1M

### No.24T04N000881-002-BLE

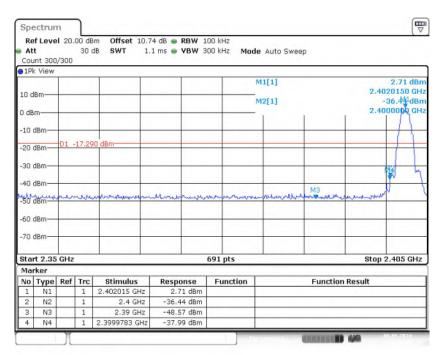


Fig.15 Band Edges (CH0), LE 2M

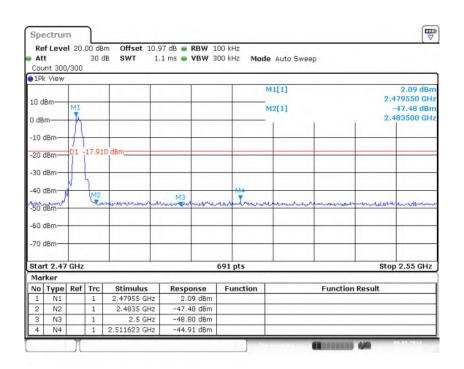


Fig.16 Band Edges (CH39), LE 2M



## A.5 Transmitter Spurious Emission - Conducted

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

### **Measurement Limit:**

Standard	Limit (dBm)	
ECC 47 CED Dort 15 247 (d)	20dBm below peak output power in 100 kHz	
FCC 47 CFR Part 15.247 (d)	bandwidth	

### **Measurement Results:**

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

See below for test graphs.

**Conclusion: Pass** 

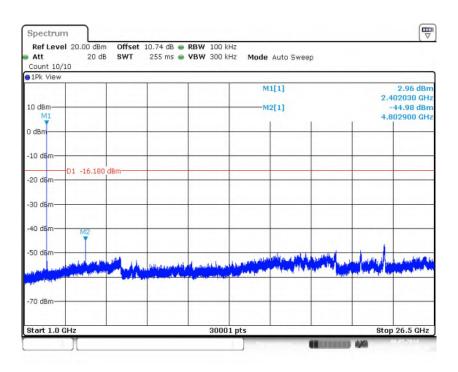


Fig.17 Conducted Spurious Emission (CH0, 1GHz-26.5GHz), LE 1M



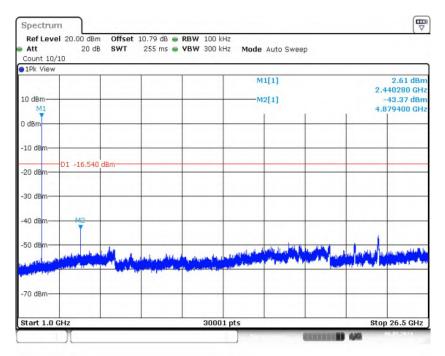


Fig.18 Conducted Spurious Emission (CH19, 1GHz-26.5GHz), LE 1M

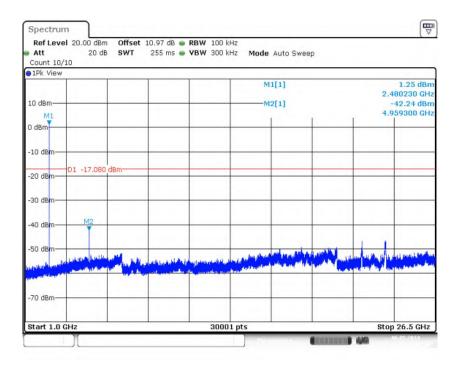


Fig.19 Conducted Spurious Emission (CH39, 1GHz-26.5GHz), LE 1M



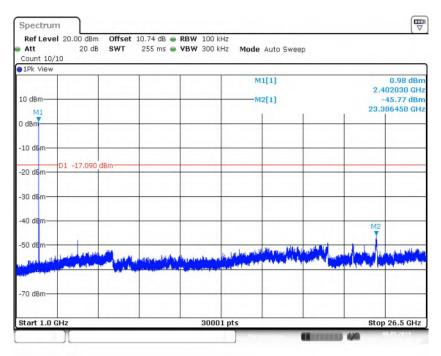


Fig.20 Conducted Spurious Emission (CH0, 1GHz-26.5GHz), LE 2M

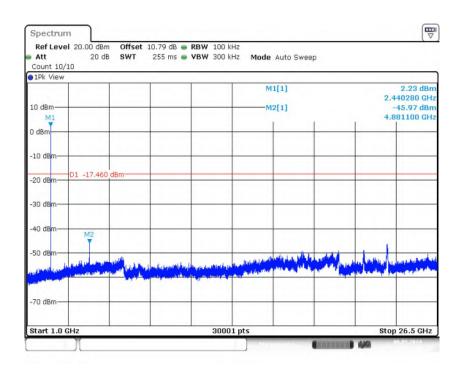


Fig.21 Conducted Spurious Emission (CH19, 1GHz-26.5GHz), LE 2M



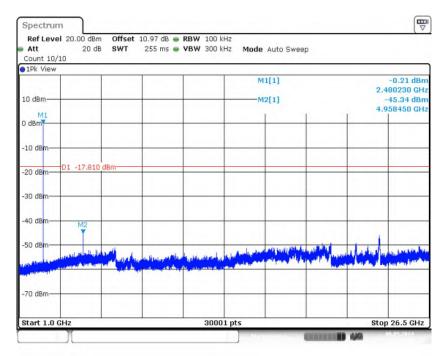


Fig.22 Conducted Spurious Emission (CH39, 1GHz-26.5GHz), LE 2M

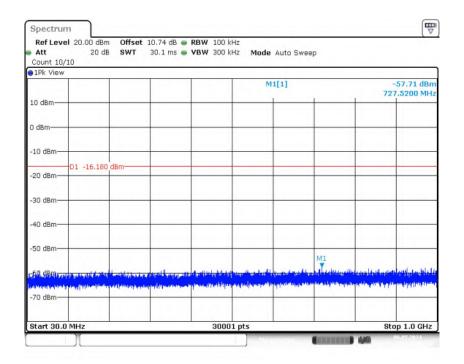


Fig.23 Conducted Spurious Emission (All Channels, 30MHz -1GHz)



### 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(uV/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

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

### **Worst Case Result:**

### For LE 1M:

# CH0 (1-18GHz)

Frequency	MaxPeak	Limit	Margin	Pol	Corr.
(MHz)	(dBµV/m)	(dBµV/m)	(dB)	Poi	(dB/m)
4803.900000	50.38	74.00	23.62	Н	5.2
9607.714286	47.51	74.00	26.49	V	8.6
12361.714286	50.20	74.00	23.80	Н	12.8
14950.285714	51.75	74.00	22.25	Н	14.9
16699.714286	54.71	74.00	19.29	V	19.0
17667.000000	55.68	74.00	18.32	V	20.6

Frequency (MHz)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Pol	Corr. (dB/m)
4803.900000	42.14	54.00	11.86	Н	5.2
9607.714286	41.88	54.00	12.12	V	8.6
12361.714286	39.69	54.00	14.31	Н	12.8
14950.285714	41.26	54.00	12.75	Н	14.9
16699.714286	44.78	54.00	9.22	V	19.0
17667.000000	44.16	54.00	9.84	V	20.6



For LE 2M: CH0 (1-18GHz)

Frequency	MaxPeak	Limit	Margin	Pol	Corr.
(MHz)	(dBµV/m)	(dBµV/m)	(dB)		(dB/m)
4803.900000	50.87	74.00	23.13	Н	5.2
9608.142857	47.26	74.00	26.74	Н	8.7
12352.285714	50.63	74.00	23.37	Н	12.8
14887.714286	51.15	74.00	22.85	V	14.8
16741.285714	55.33	74.00	18.67	V	18.8
17671.285714	56.30	74.00	17.70	Н	20.6

Frequency (MHz)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Pol	Corr. (dB/m)
4803.900000	42.03	54.00	11.97	Н	5.2
9608.142857	43.53	54.00	10.47	Н	8.7
12352.285714	39.95	54.00	14.05	Н	12.8
14887.714286	41.04	54.00	12.96	V	14.8
16741.285714	44.95	54.00	9.05	V	18.8
17671.285714	44.08	54.00	9.92	Н	20.6

#### 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** 



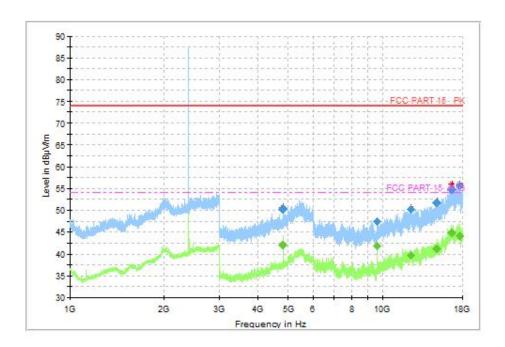


Fig.24 Radiated Spurious Emission (CH0, 1GHz ~18GHz), LE 1M

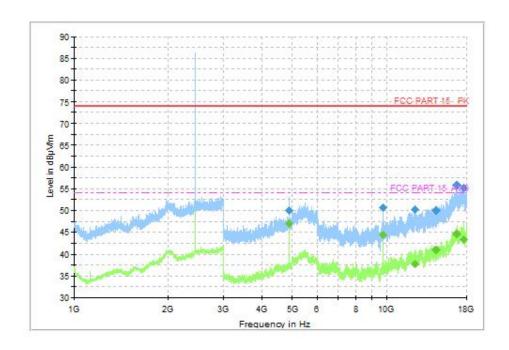


Fig.25 Radiated Spurious Emission (CH19, 1GHz ~18GHz), LE 1M



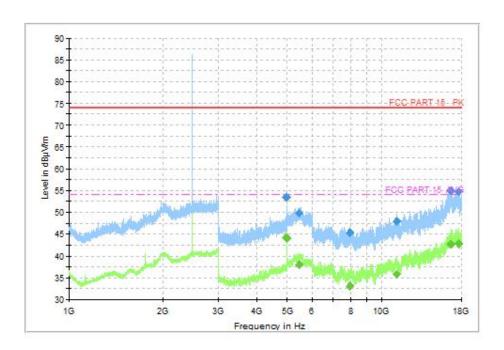


Fig.26 Radiated Spurious Emission (CH39, 1GHz ~18GHz), LE 1M

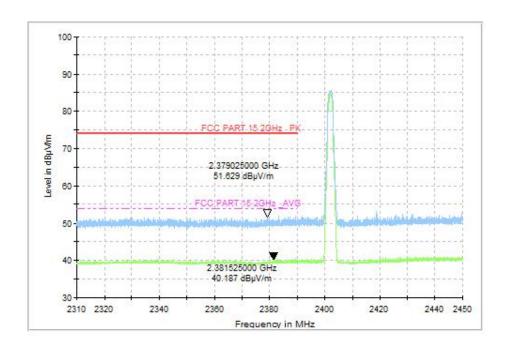


Fig.27 Radiated Band Edges (CH0, 2.38GHz~2.45GHz), LE 1M



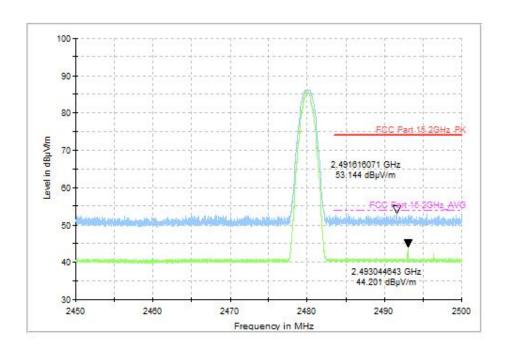


Fig.28 Radiated Band Edges (CH39, 2.45GHz~2.50GHz), LE 1M

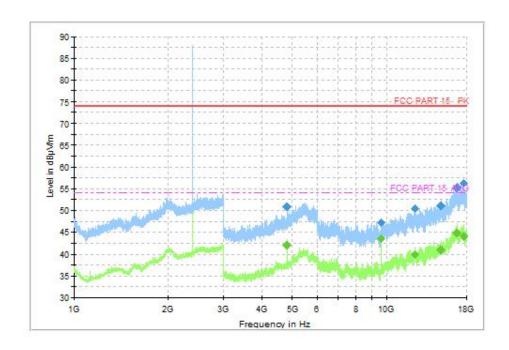


Fig.29 Radiated Spurious Emission (CH0, 1GHz ~18GHz), LE 2M



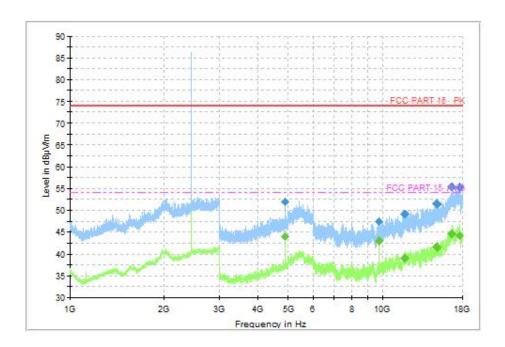


Fig.30 Radiated Spurious Emission (CH19, 1GHz ~18GHz), LE 2M

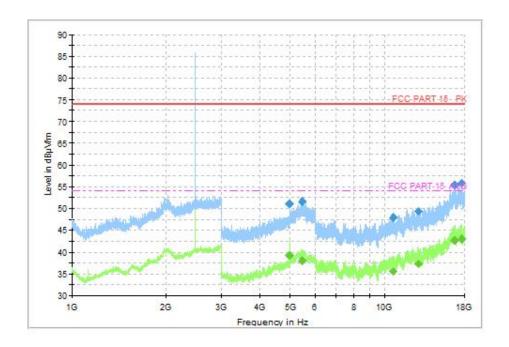


Fig.31 Radiated Spurious Emission (CH39, 1GHz ~18GHz), LE 2M



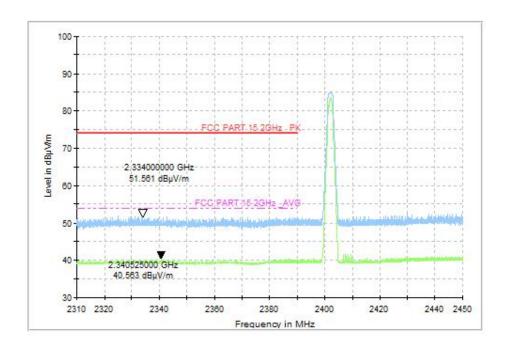


Fig.32 Radiated Band Edges (CH0, 2.38GHz~2.45GHz), LE 2M

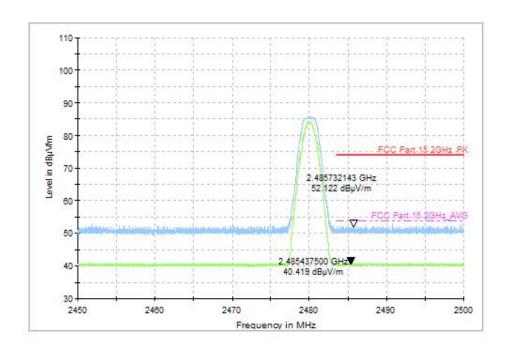


Fig.33 Radiated Band Edges (CH39, 2.45GHz~2.50GHz), LE 2M



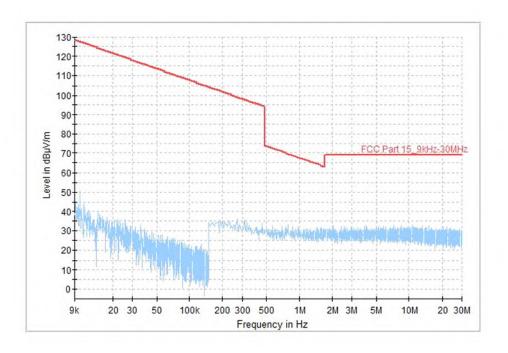


Fig.34 Radiated Spurious Emission (All Channels, 9kHz-30MHz)

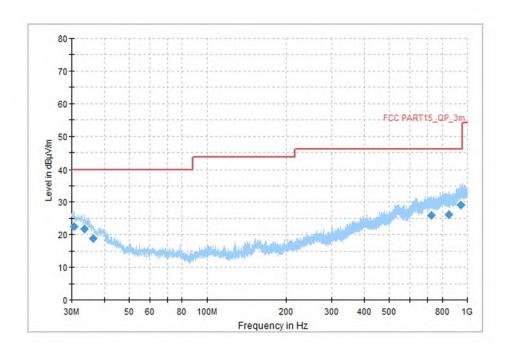


Fig.35 Radiated Spurious Emission (All Channels, 30MHz-1GHz)



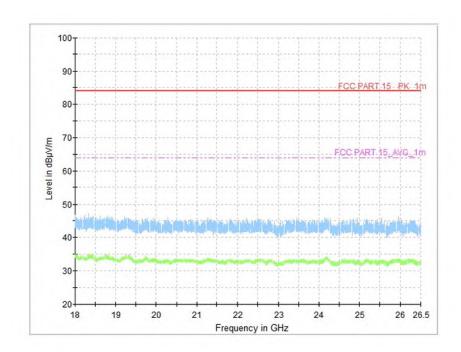


Fig.36 Radiated Spurious Emission (All Channels, 18GHz-26.5 GHz)



### 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	Quasi-peak	Average-peak	Result (dBµV)		Conclusion
(MHz)	Limit (dBµV)	Limit (dBµV)	Traffic	ldle	Conclusion
0.15 to 0.5	66 to 56	56 to 46			
0.5 to 5	56	46	Fig.37	Fig.38	Р
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** 



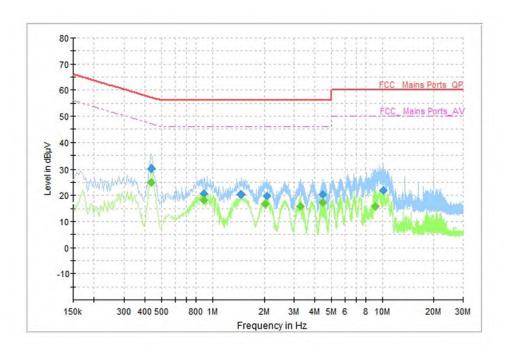


Fig.37 AC Power line Conducted Emission (Traffic)

## Measurement Results: Quasi Peak

Frequency	Quasi Peak	Limit	Margin	Line	Filter	Corr (dP)
(MHz)	(dBµV)	(dBµV)	(dB)	Lille	riitei	Corr. (dB)
0.434000	30.00	57.18	27.17	L1	ON	10
0.894000	20.69	56.00	35.31	L1	ON	10
1.462000	20.38	56.00	35.62	L1	ON	10
2.074000	19.81	56.00	36.19	L1	ON	10
4.430000	20.43	56.00	35.57	L1	ON	10
10.150000	22.01	60.00	37.99	L1	ON	10

# Measurement Results: Average

Frequency	Average	Limit	Margin	Line	Filter	Corr. (dB)
(MHz)	(dBµV)	(dBµV)	(dB)	Lille	Filler	Con. (db)
0.434000	24.81	47.18	22.37	L1	ON	10
0.894000	18.08	46.00	27.92	L1	ON	10
2.038000	16.81	46.00	29.19	L1	ON	10
3.262000	15.82	46.00	30.18	L1	ON	10
4.430000	17.33	46.00	28.67	L1	ON	10
9.066000	15.87	50.00	34.13	L1	ON	10



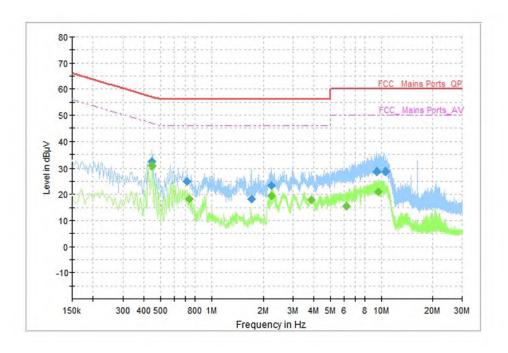


Fig.38 AC Power line Conducted Emission (Idle)

### Measurement Results: Quasi Peak

Frequency	Quasi Peak	Limit	Margin	Line	Filter	Corr. (dB)
(MHz)	(dBµV)	(dBµV)	(dB)	Lille	Filter	Con. (db)
0.442000	32.40	57.02	24.62	L1	ON	10
0.718000	24.82	56.00	31.18	L1	ON	10
1.706000	18.10	56.00	37.90	N	ON	10
2.230000	23.49	56.00	32.51	L1	ON	10
9.390000	28.54	60.00	31.46	L1	ON	10
10.606000	28.47	60.00	31.53	L1	ON	10

# Measurement Results: Average

Frequency (MHz)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Line	Filter	Corr. (dB)
0.446000	30.81	46.95	16.14	L1	ON	10
0.738000	18.17	46.00	27.83	L1	ON	10
2.230000	19.48	46.00	26.52	L1	ON	10
3.870000	17.79	46.00	28.21	L1	ON	10
6.202000	15.57	50.00	34.43	L1	ON	10
9.618000	20.96	50.00	29.04	L1	ON	10

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