



# TEST REPORT

No. I20N01960-BLE

for

**Spectralink Corporation**

**Mobile Phone**

**Model Name: VC9253**

with

**Hardware Version: DVT1**

**Software Version: V138**

**FCC ID: IYG9253**

**IC: 2128B-9253**

**Issued Date: 2020-08-28**

**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	Mobile Phone
Model Name	VC9253
Applicant's name	Spectralink Corporation
Manufacturer's Name	Spectralink Corporation

### 1.2. Test Standards

FCC Part15-2019; ANSI C63.10-2013; RSS-247 Issue 2; RSS-Gen Issue 5 A1

### 1.3. Test Result

**Pass**

### 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:	2020-07-22
Testing End Date:	2020-08-27

### 1.6. Signature

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**Lin Zechuang**  
**(Prepared this test report)**

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**Tang Weisheng**  
**(Reviewed this test report)**

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**Zhang Bojun**  
**(Approved this test report)**



## **2. Client Information**

### **2.1. Applicant Information**

Company Name: Spectralink Corporation  
Address: 2560 55th Street, Boulder CO 80301, USA  
Contact Person Paul Hampton  
E-Mail Paul.Hampton@spectralink.com  
Telephone: +1303-441-7593  
Fax: /

### **2.2. Manufacturer Information**

Company Name: Spectralink Corporation  
Address: 2560 55th Street, Boulder CO 80301, USA  
Contact Person Paul Hampton  
E-Mail Paul.Hampton@spectralink.com  
Telephone: +1303-441-7593  
Fax: /

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

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

Description	Mobile Phone
Model Name	VC9253
Brand Name	Spectralink
Frequency Range	2400MHz~2483.5MHz
Type of Modulation	GFSK
Number of Channels	40
Antenna Type	Integrated
Antenna Gain	1.6dBi
Power Supply	3.85V DC by Battery
FCC ID	IYG9253
IC	2128B-9253
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**

<b>EUT ID*</b>	<b>IMEI</b>	<b>HW Version</b>	<b>SW Version</b>	<b>Receive Date</b>
UT07aa	velc02bdcjd000t	DVT1	V138	2020-07-20
UT01aa	velc02bdcjd00aw	DVT1	V138	2020-07-22
UT02aa	velc02bdcjd005n	DVT1	V138	2020-07-22

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

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

<b>AE ID*</b>	<b>Description</b>	<b>AE ID*</b>
AE1	Battery	/
AE2	Charger	/
AE3	Data Cable	/

##### AE1

Model	BLI9200100
Manufacturer	Ningbo Veken Battery Co., Ltd.
Capacity	3040mAh
Nominal Voltage	3.85V

##### AE2

Model	IN-CA-310Q
Manufacturer	INNO VISION INTERNATIONAL HOLDINGS LTD.

##### AE3

Model	XG-US008
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Manufacturer

Xunguang Electronics Co.,Ltd.

**CAICT**

No. I20N01960-BLE

\*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 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.

<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
RSS-247	Spectrum Management and Telecommunications Radio Standards Specification Digital Transmission Systems (DTSs), Frequency Hopping Systems (FHSs) and License-Exempt Local Area Network (LE-LAN) Devices	Issue 2 February, 2017
RSS-Gen	Spectrum Management and Telecommunications Radio Standards Specification General Requirements for Compliance of Radio Apparatus	Issue 5 March, 2019 Amendment 1

## 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	Sub-clause of IC	Verdict
0	Antenna Requirement	15.203	/	<b>P</b>
1	Maximum Peak Output Power	15.247 (b)	RSS-247 section 5.4	<b>P</b>
2	Peak Power Spectral Density	15.247 (e)	RSS-247 section 5.2	<b>P</b>
3	6dB Bandwidth	15.247 (a)	RSS-247 section 5.2	<b>P</b>
4	Band Edges Compliance	15.247 (d)	RSS-247 section 5.5	<b>P</b>
5	Transmitter Spurious Emission - Conducted	15.247 (d)	RSS-247 section 5.5/ RSS-Gen section 6.13	<b>P</b>
6	Transmitter Spurious Emission - Radiated	15.247, 15.205, 15.209	RSS-247 section 5.5/ RSS-Gen section 6.13	<b>P</b>
7	AC Power line Conducted Emission	15.107, 15.207	RSS-Gen section 8.8	<b>P</b>
8	Occupied Bandwidth	/	RSS-Gen section 6.7	<b>P</b>

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.



## 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	2021-01-15	1 year
2	Test Receiver	ESCI	100701	Rohde & Schwarz	2021-08-09	1 year
3	LISN	ENV216	102067	Rohde & Schwarz	2021-07-16	1 year

### Radiated emission 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	2021-05-17	3 years
3	Horn Antenna	3117	00066577	ETS-Lindgren	2022-04-02	3 years
4	Test Receiver	ESR7	101676	Rohde & Schwarz	2020-11-27	1 year
5	Spectrum Analyser	FSV40	101192	Rohde & Schwarz	2021-01-14	1 year
6	Chamber	FACT3-2.0	1285	ETS-Lindgren	2021-07-19	2 years
7	Antenna	QSH-SL-18-26-S-20	17013	Q-par	2023-01-06	3 years

### Test software

No.	Equipment	Manufacturer	Version
1	TechMgr Software	CAICT	2.1.1
2	EMC32	Rohde & Schwarz	8.53.0
3	EMC32	Rohde & Schwarz	10.01.00

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 chambe

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

### 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	> 2MΩ
Ground system resistance	< 4 Ω

### 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	> 2MΩ
Ground system resistance	< 4 Ω
Voltage Standing Wave Ratio (VSWR)	≤ 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	$30\text{MHz} \leq f \leq 1\text{GHz}$	1.41dB
	$1\text{GHz} \leq f \leq 7\text{GHz}$	1.92dB
	$7\text{GHz} \leq f \leq 13\text{GHz}$	2.31dB
	$13\text{GHz} \leq f \leq 26\text{GHz}$	2.61dB
5. Transmitter Spurious Emission - Radiated	$9\text{kHz} \leq f \leq 30\text{MHz}$	1.70dB
	$30\text{MHz} \leq f \leq 1\text{GHz}$	4.90dB
	$1\text{GHz} \leq f \leq 18\text{GHz}$	4.60dB
	$18\text{GHz} \leq f \leq 40\text{GHz}$	4.10dB
6. AC Power line Conducted Emission	$150\text{kHz} \leq f \leq 30\text{MHz}$	3.00dB



## **ANNEX A: Detailed Test Results**

### **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 1.6 dBi.  
The RF transmitter uses an integrate antenna without connector.**



## A.1 Maximum Peak Output Power

### Method of Measurement: See ANSI C63.10-clause 11.9.1.1

Use the following spectrum analyzer settings:

- a) Set the RBW = 1 MHz.
- b) Set VBW = 3 MHz.
- c) Set span = 3 MHz.
- d) Sweep time = auto couple.
- e) Detector = peak.
- f) Trace mode = max hold.
- g) Allow trace to fully stabilize.
- h) Use peak marker function to determine the peak amplitude level.

### Measurement Limit:

Standard	Limit (dBm)	E.I.R.P Limit (dBm)
FCC 47 CRF Part 15.247(b) & RSS-247 section 5.4	< 30	< 36

### Measurement Results:

Mode	Frequency (MHz)	Peak Conducted Output Power(dBm)	E.I.R.P (dBm)	Conclusion
GFSK	2402(CH0)	-0.20	1.40	<b>P</b>
	2440(CH19)	1.03	2.63	<b>P</b>
	2480(CH39)	0.12	1.72	<b>P</b>

**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) & RSS-247 section 5.2	< 8 dBm/3 kHz

Measurement Results:

Mode	Frequency (MHz)	Peak Power Spectral Density (dBm)		Conclusion
		Fig.1	Fig.2	
GFSK	2402(CH0)	Fig.1	-15.04	P
	2440(CH19)	Fig.2	-13.61	P
	2480(CH39)	Fig.3	-14.77	P

See below for test graphs.

Conclusion: PASS

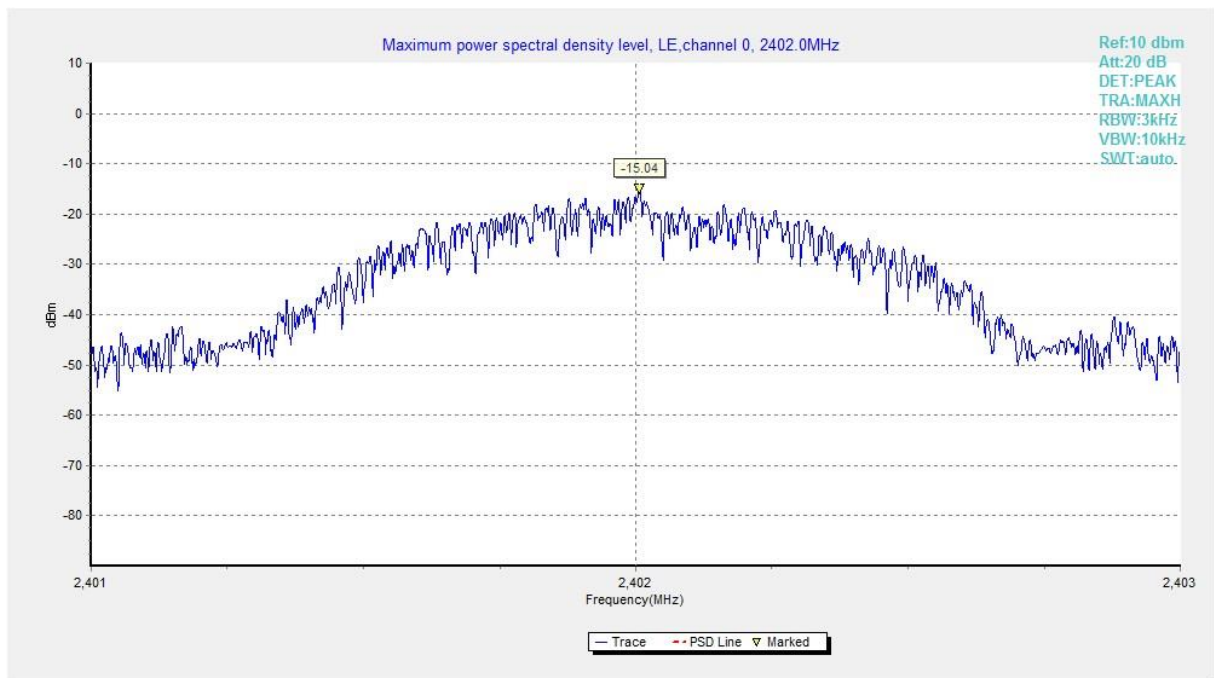
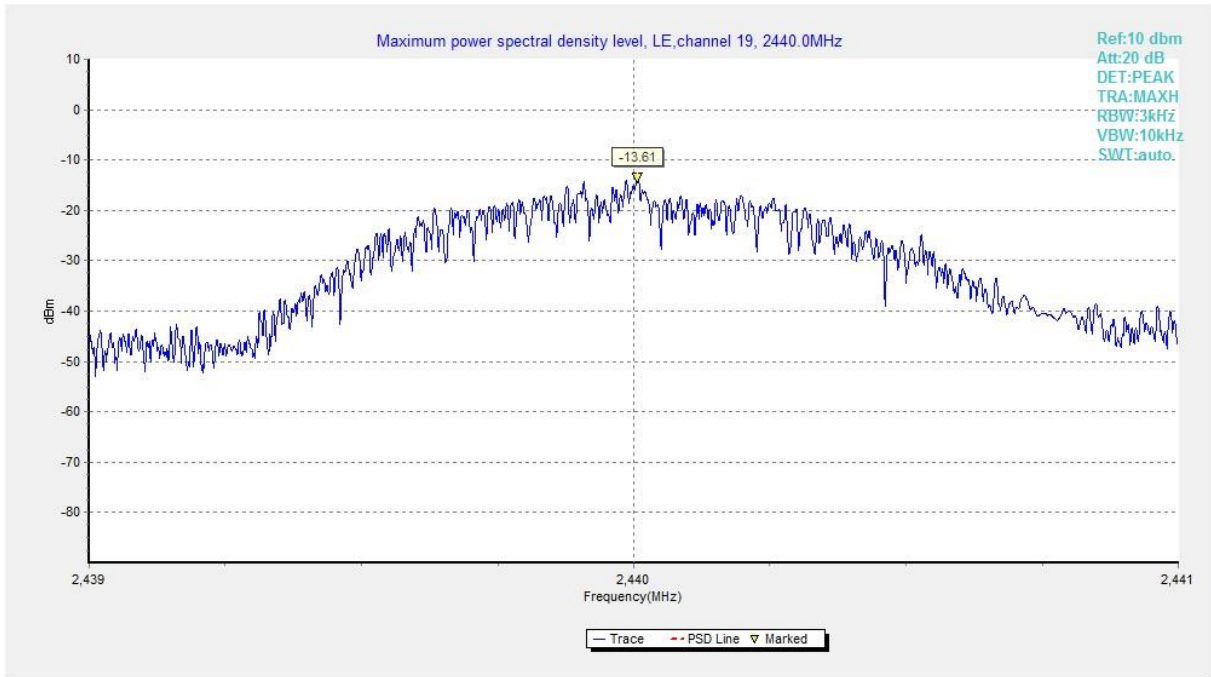
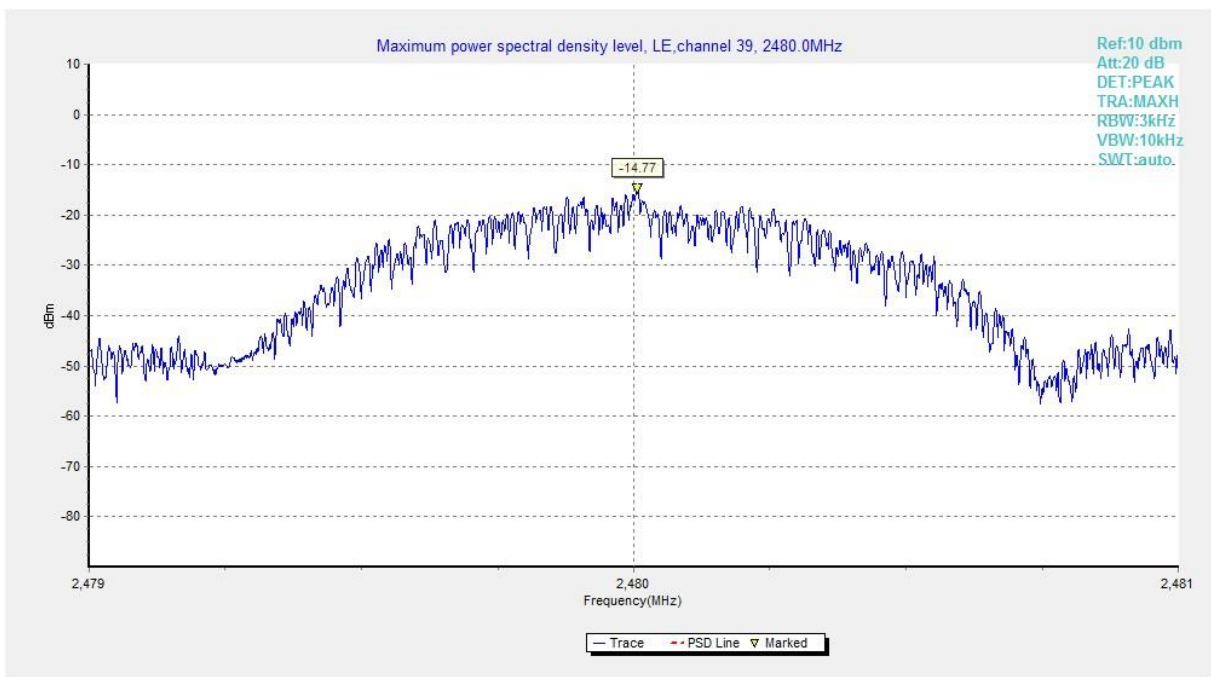


Fig.1 Power Spectral Density (Ch 0)



**Fig.2 Power Spectral Density (Ch 19)**



**Fig.3 Power Spectral Density (Ch 39)**

### A.3 6dB Bandwidth

#### Measurement Limit:

Standard	Limit (kHz)
FCC 47 CFR Part 15.247 (a) & RSS-247 section 5.2	≥ 500

#### Measurement Result:

Mode	Frequency (MHz)	Test Results ( kHz)		Conclusion
GFSK	2402(CH0)	Fig.4	685.00	P
	2440(CH19)	Fig.5	684.00	P
	2480(CH39)	Fig.6	685.50	P

See below for test graphs.

Conclusion: PASS



Fig.4 6dB Bandwidth (Ch 0)





**Fig.5 6dB Bandwidth (Ch 19)**



**Fig.6 6dB Bandwidth (Ch 39)**



#### A.4 Band Edges Compliance

**Measurement Limit:**

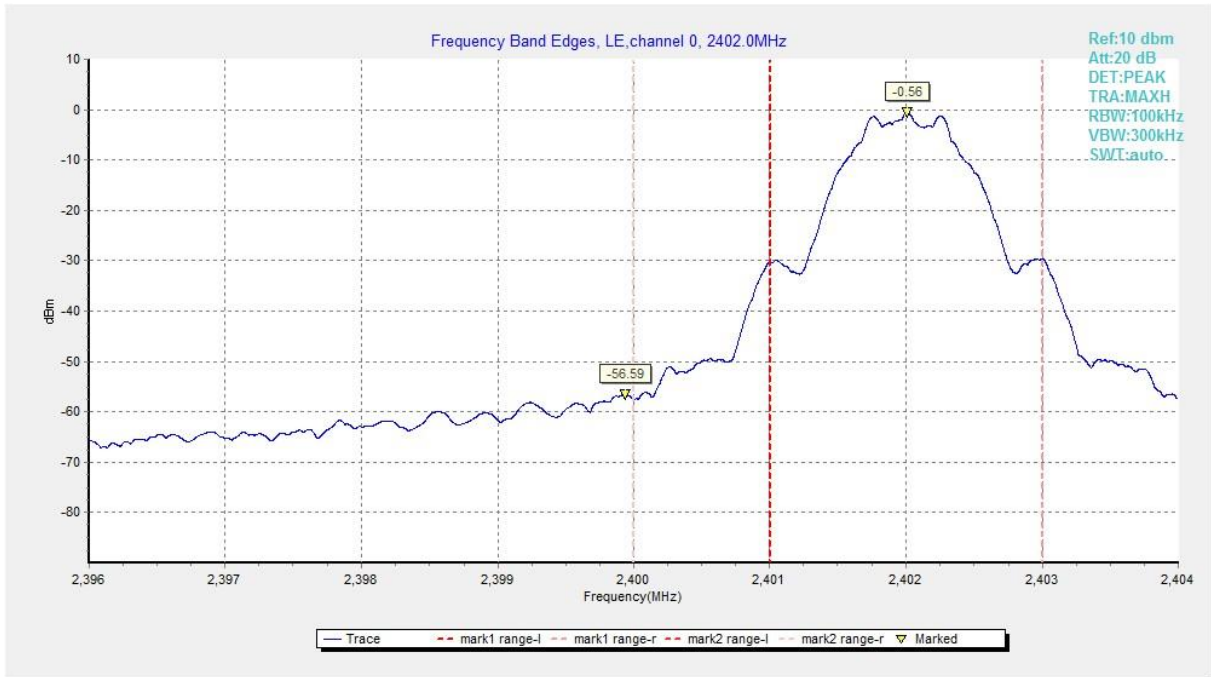
Standard	Limit (dB)
FCC 47 CFR Part 15.247 (d) & RSS-247 section 5.5	> 20

**Measurement Result:**

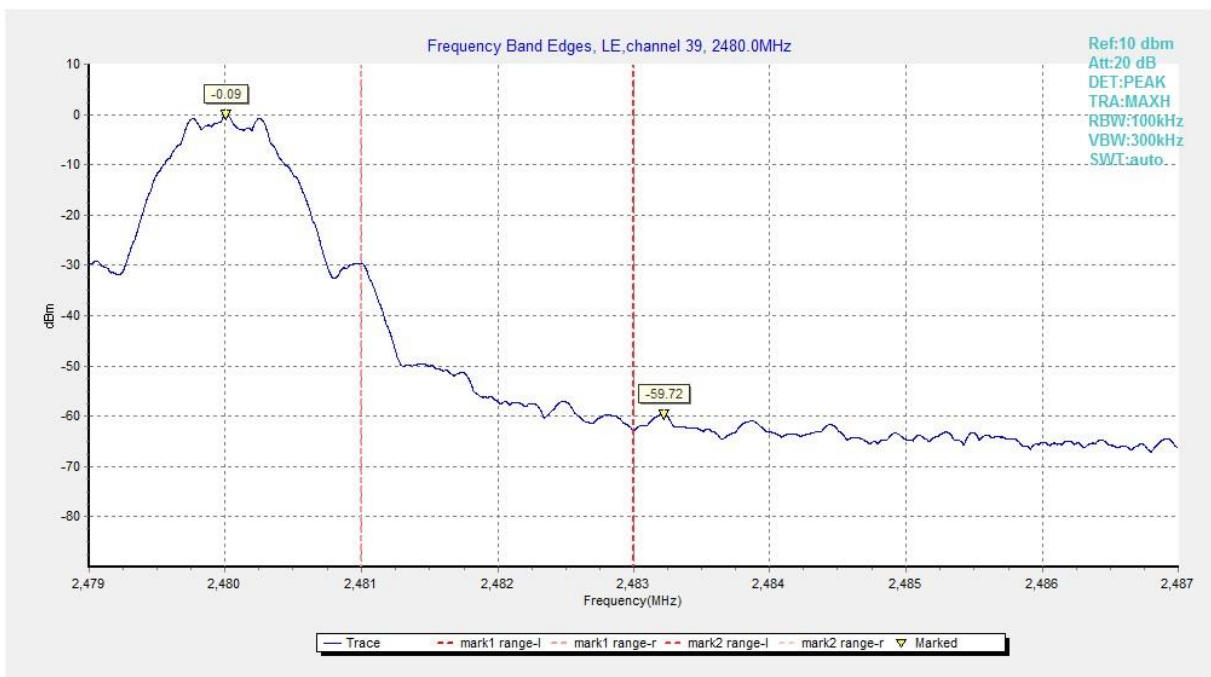
Mode	Frequency (MHz)	Test Results (dBc)		Conclusion
GFSK	2402(CH0)	Fig.7	56.03	<b>P</b>
	2480(CH39)	Fig.8	59.63	<b>P</b>

See below for test graphs.

**Conclusion: PASS**



**Fig.7 Band Edges (Ch 0)**



**Fig.8 Band Edges (Ch 39)**

### A.5 Transmitter Spurious Emission - Conducted

**Measurement Limit:**

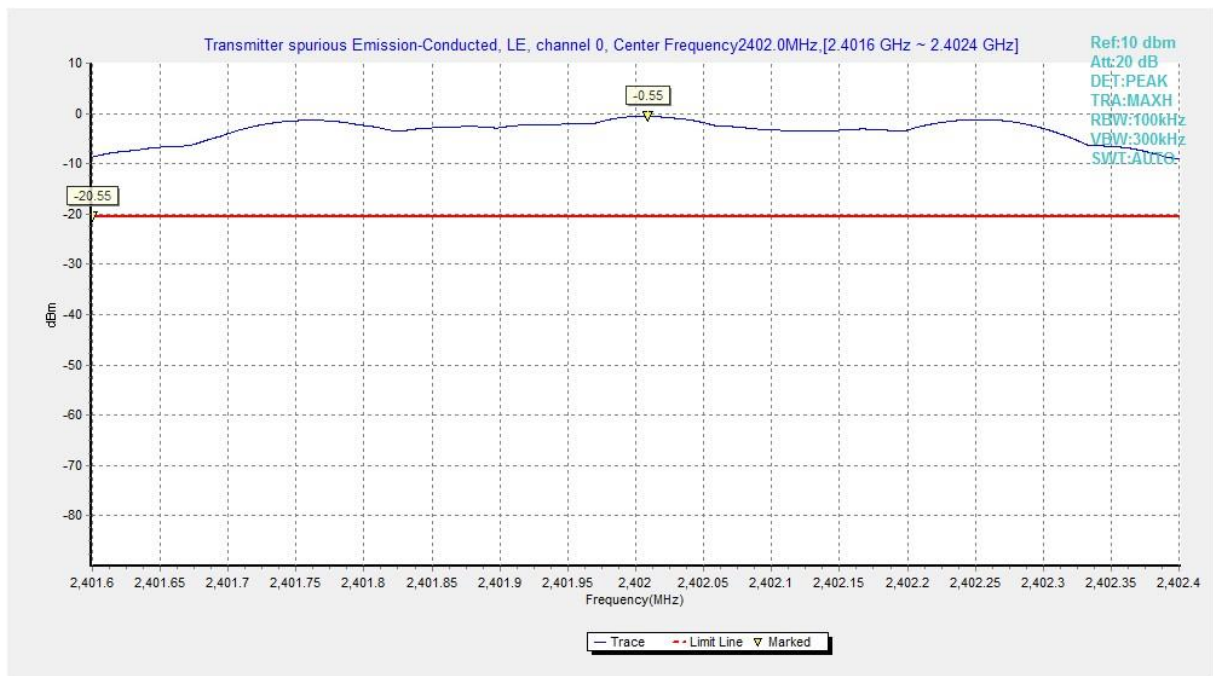
Standard	Limit
FCC 47 CFR Part 15.247 (d) & RSS-247 5.5/RSS-Gen section 6.13	20dB below peak output power in 100 kHz bandwidth

**Measurement Results:**

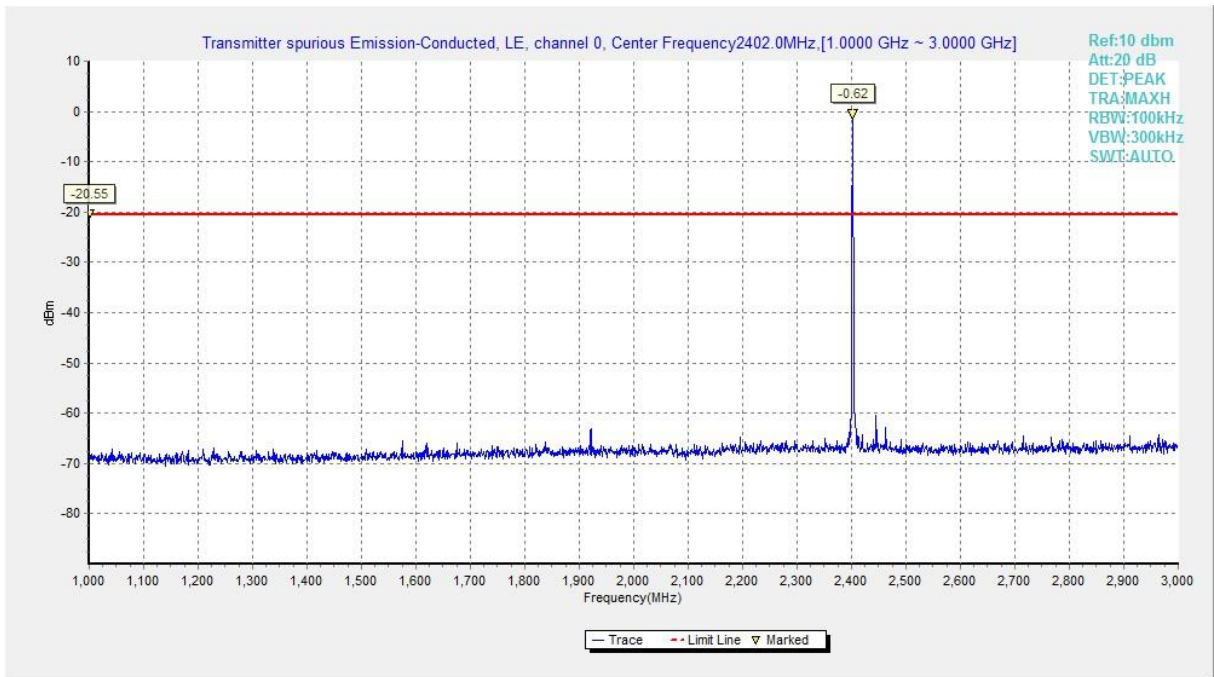
MODE	Channel	Frequency Range	Test Results	Conclusion
GFSK	0	2.402 GHz	Fig.9	P
		1GHz -3GHz	Fig.10	P
		3GHz-10GHz	Fig.11	P
	19	2.440 GHz	Fig.12	P
		1GHz -3GHz	Fig.13	P
		3GHz-10GHz	Fig.14	P
	39	2.480 GHz	Fig.15	P
		1GHz -3GHz	Fig.16	P
		3GHz-10GHz	Fig.17	P
	All channels	30MHz-1GHz	Fig.18	P
		10GHz-26GHz	Fig.19	P

See below for test graphs.

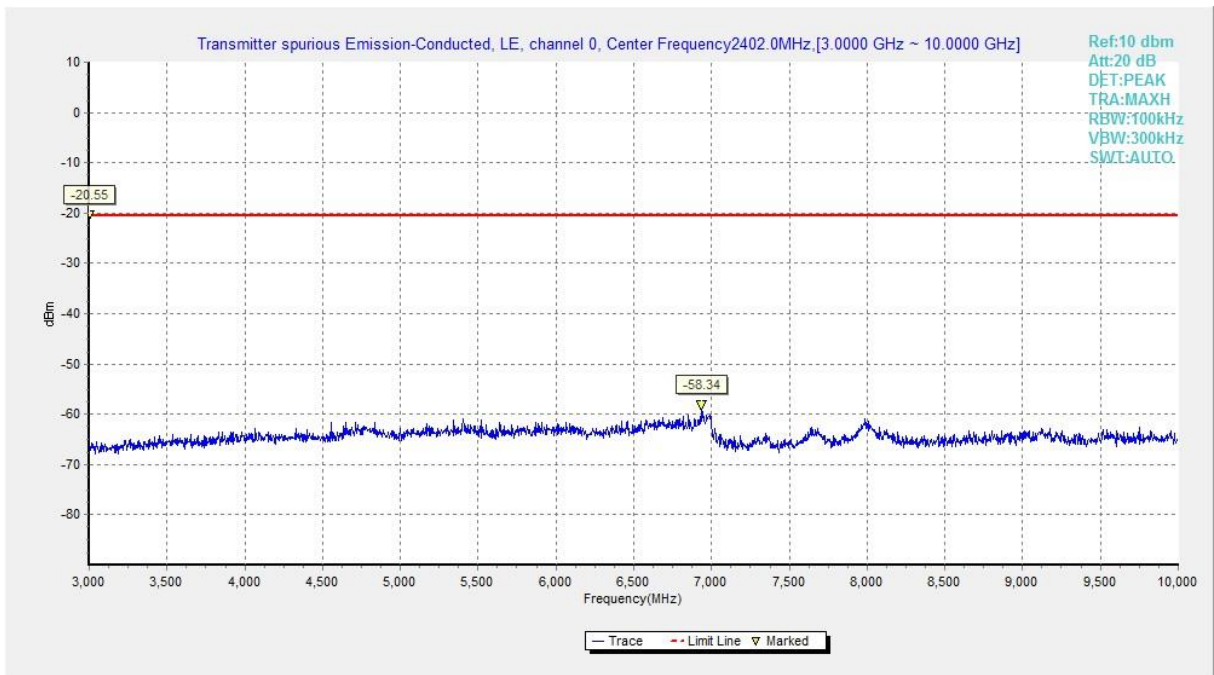
**Conclusion: Pass**



**Fig.9 Conducted Spurious Emission (Ch0, Center Frequency)**



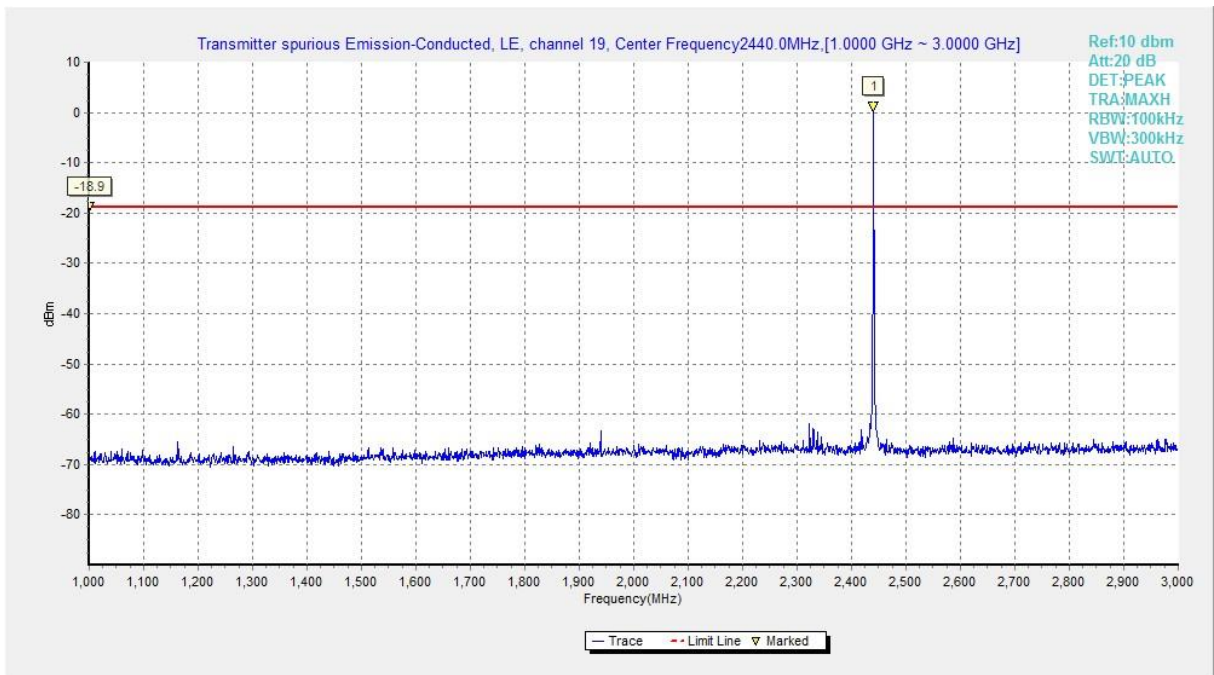
**Fig.10 Conducted Spurious Emission (Ch0, 1 GHz-3 GHz)**



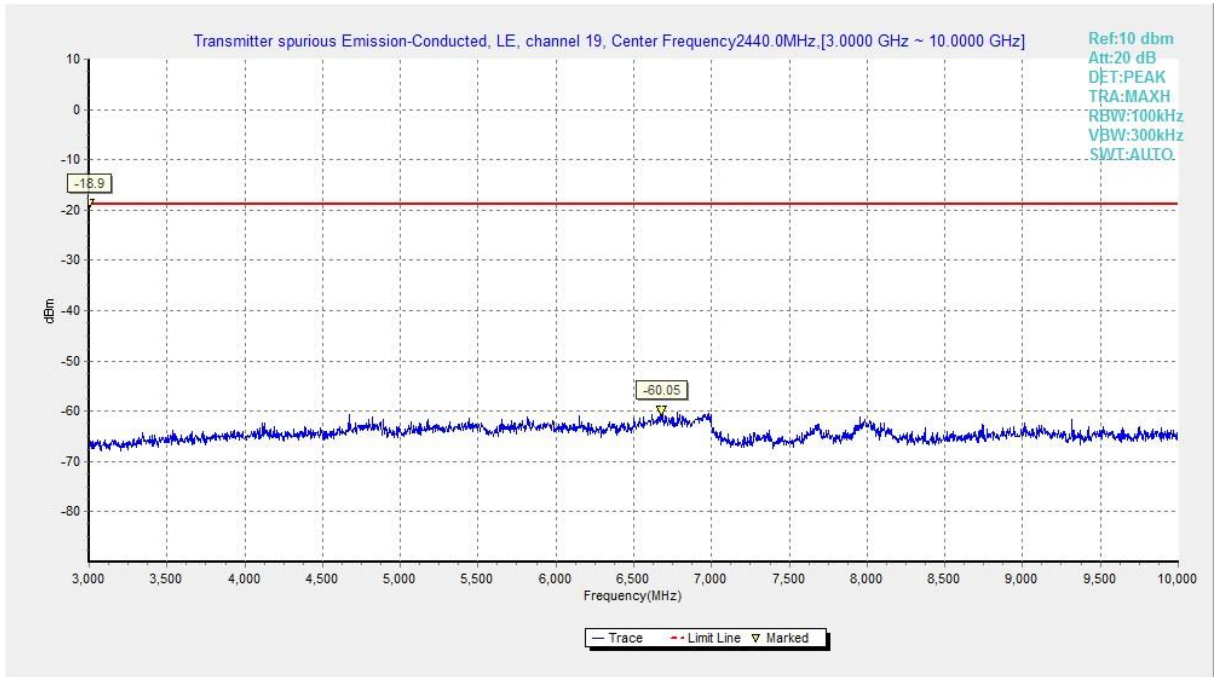
**Fig.11 Conducted Spurious Emission (Ch0, 3 GHz-10 GHz)**



**Fig.12 Conducted Spurious Emission (Ch19, Center Frequency)**



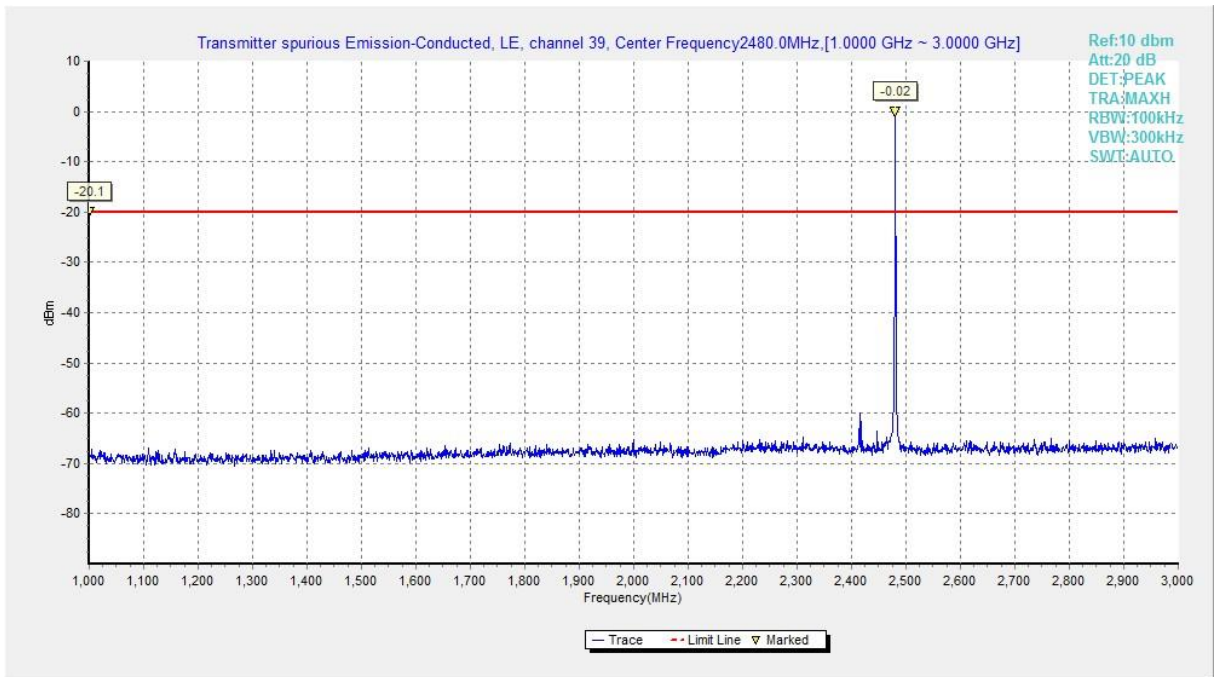
**Fig.13 Conducted Spurious Emission (Ch19, 1 GHz-3 GHz)**



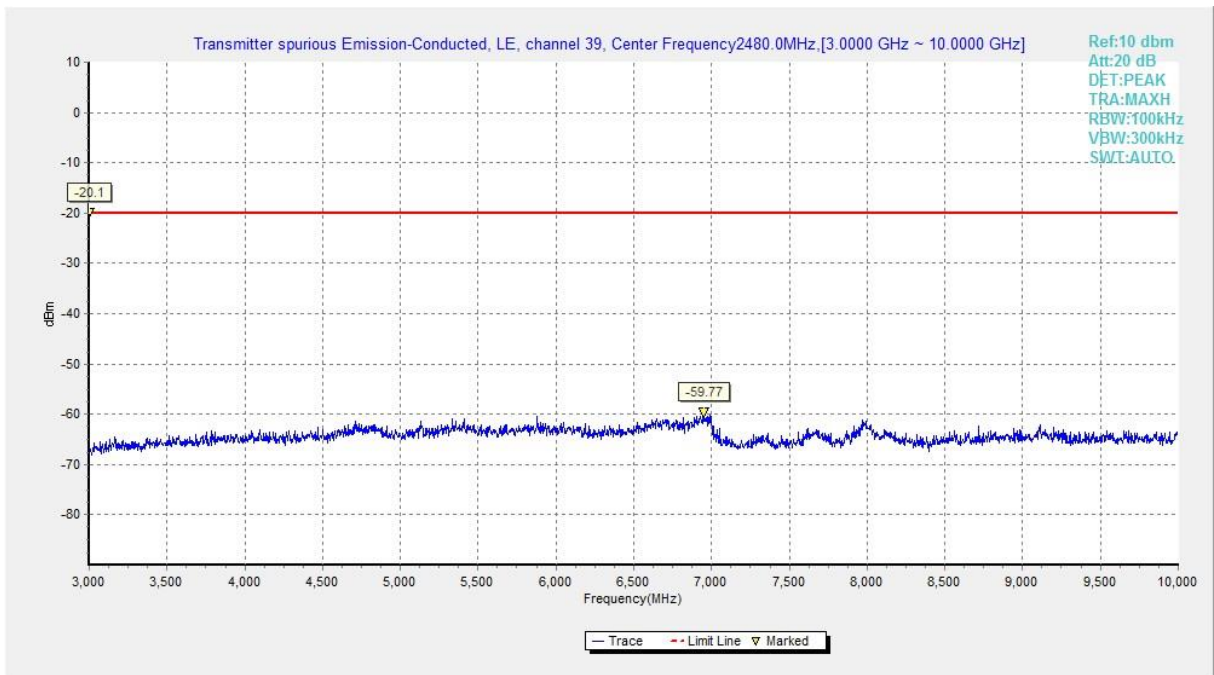
**Fig.14 Conducted Spurious Emission (Ch19, 3 GHz-10 GHz)**



**Fig.15 Conducted Spurious Emission (Ch39, Center Frequency)**

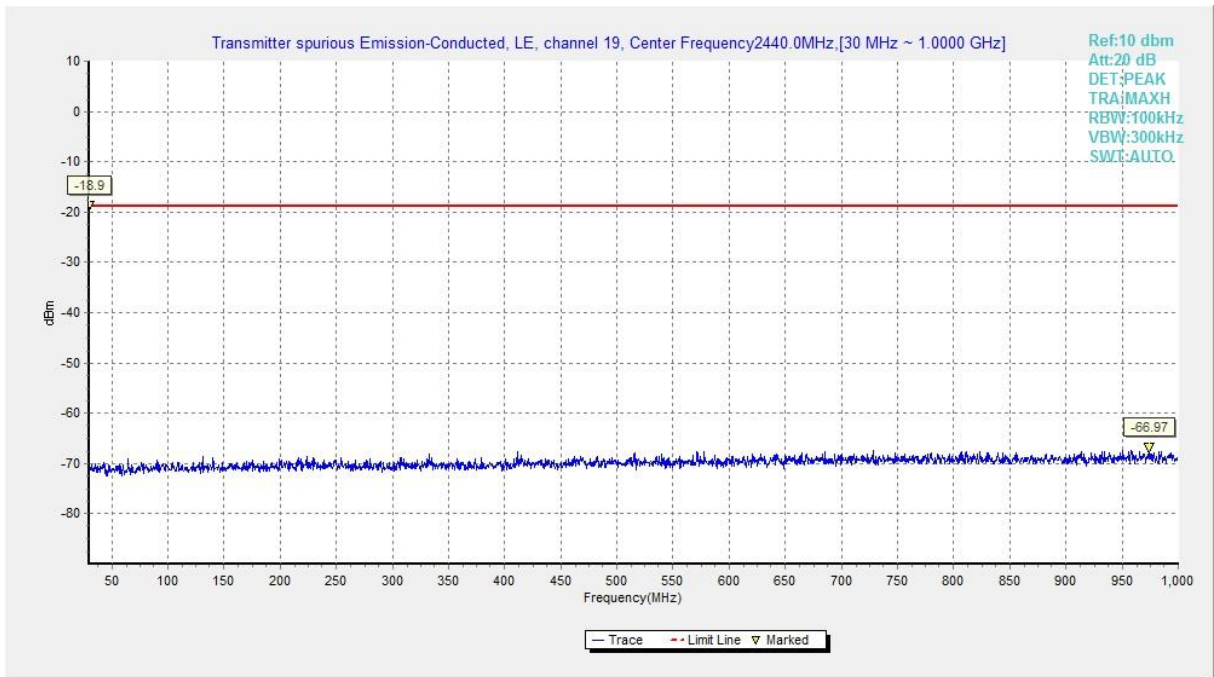


**Fig.16 Conducted Spurious Emission (Ch39, 1 GHz-3 GHz)**

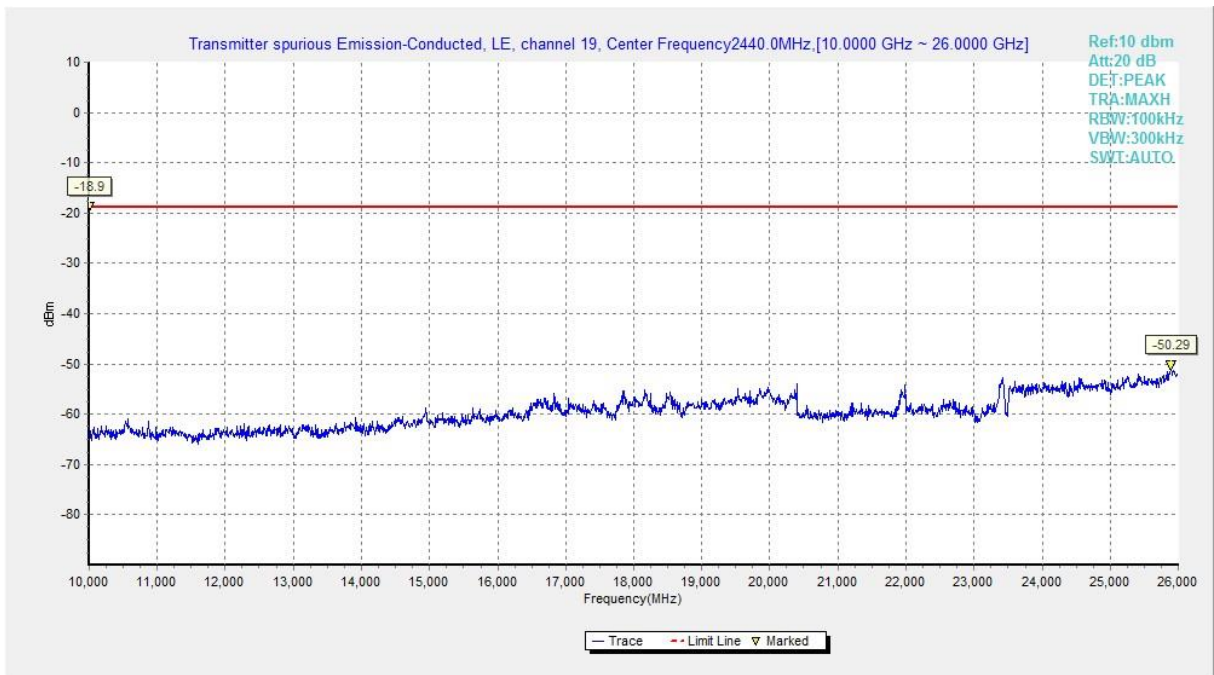


**Fig.17 Conducted Spurious Emission (Ch39, 3 GHz-10 GHz)**





**Fig.18 Conducted Spurious Emission (All channels, 30 MHz-1 GHz)**



**Fig.19 Conducted Spurious Emission (All channels, 10 GHz-26 GHz)**

## A.6 Transmitter Spurious Emission - Radiated

### Measurement Limit:

Standard	Limit
FCC 47 CFR Part 15.247, 15.205, 15.209 & RSS-247 section 5.5/RSS-Gen section 6.13	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( $\mu$ V/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
GFSK	0	1 GHz ~18 GHz	Fig.20	P
	19	1 GHz ~18 GHz	Fig.21	P
	39	1 GHz ~18 GHz	Fig.22	P
	Restricted Band(CH0)	2.38 GHz ~ 2.45 GHz	Fig.23	P
	Restricted Band(CH39)	2.45 GHz ~ 2.5 GHz	Fig.24	P
	All channels	9 kHz ~30 MHz	Fig.25	P
		30 MHz ~1 GHz	Fig.26	P
18 GHz ~ 26.5 GHz		Fig.27	P	

**Worst Case Result**
**GFSK CH0 (1-18GHz)**

Frequency (MHz)	MaxPeak (dBuV/m)	Limit (dBµV/m)	Margin (dB)	Pol	Corr. (dB/m)
6198.500000	40.21	54.00	13.79	V	17.8
14933.125000	41.48	54.00	12.52	H	17.2
15532.062500	41.27	54.00	12.73	H	17.3
16138.000000	42.10	54.00	11.90	V	18.5
17006.875000	42.66	54.00	11.34	V	19.7
17479.812500	42.72	54.00	11.28	V	20.0

Frequency (MHz)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Pol	Corr. (dB/m)
6198.500000	40.21	54.00	13.79	V	17.8
14933.125000	41.48	54.00	12.52	H	17.2
15532.062500	41.27	54.00	12.73	H	17.3
16138.000000	42.10	54.00	11.90	V	18.5
17006.875000	42.66	54.00	11.34	V	19.7
17479.812500	42.72	54.00	11.28	V	20.0

**GFSK CH19 (1-18GHz)**

Frequency (MHz)	MaxPeak (dBuV/m)	Limit (dBµV/m)	Margin (dB)	Pol	Corr. (dB/m)
6178.500000	51.70	74.00	22.30	V	17.8
14906.875000	53.37	74.00	20.63	H	17.3
15592.000000	52.78	74.00	21.22	V	17.2
16159.000000	53.32	74.00	20.68	H	18.5
16947.375000	54.39	74.00	19.61	H	19.7
17437.375000	54.66	74.00	19.34	V	20.0

Frequency (MHz)	Average (dB $\mu$ V/m)	Limit (dB $\mu$ V/m)	Margin (dB)	Pol	Corr. (dB/m)
6198.000000	40.42	54.00	13.58	H	17.8
14914.312500	41.61	54.00	12.39	V	17.3
15551.312500	41.62	54.00	12.38	H	17.3
16149.375000	42.40	54.00	11.60	H	18.5
16992.437500	43.06	54.00	10.94	H	19.7
17423.812500	43.09	54.00	10.91	H	20.0

**GFSK CH39 (1-18GHz)**

Frequency (MHz)	MaxPeak (dBuV/m)	Limit (dB $\mu$ V/m)	Margin (dB)	Pol	Corr. (dB/m)
6150.500000	51.46	74.00	22.54	V	17.4
13749.687500	52.20	74.00	21.80	H	16.3
14919.125000	53.31	74.00	20.69	H	17.3
16145.437500	53.88	74.00	20.12	H	18.5
16951.750000	54.31	74.00	19.69	H	19.7
17425.125000	53.94	74.00	20.06	H	20.0

Frequency (MHz)	Average (dB $\mu$ V/m)	Limit (dB $\mu$ V/m)	Margin (dB)	Pol	Corr. (dB/m)
6240.500000	40.21	54.00	13.79	H	17.5
13718.625000	40.54	54.00	13.46	V	16.4
14941.000000	41.31	54.00	12.69	H	17.2
16135.812500	42.19	54.00	11.81	H	18.5
17004.687500	42.82	54.00	11.18	V	19.7
17482.437500	42.68	54.00	11.32	H	20.0

**Note:**

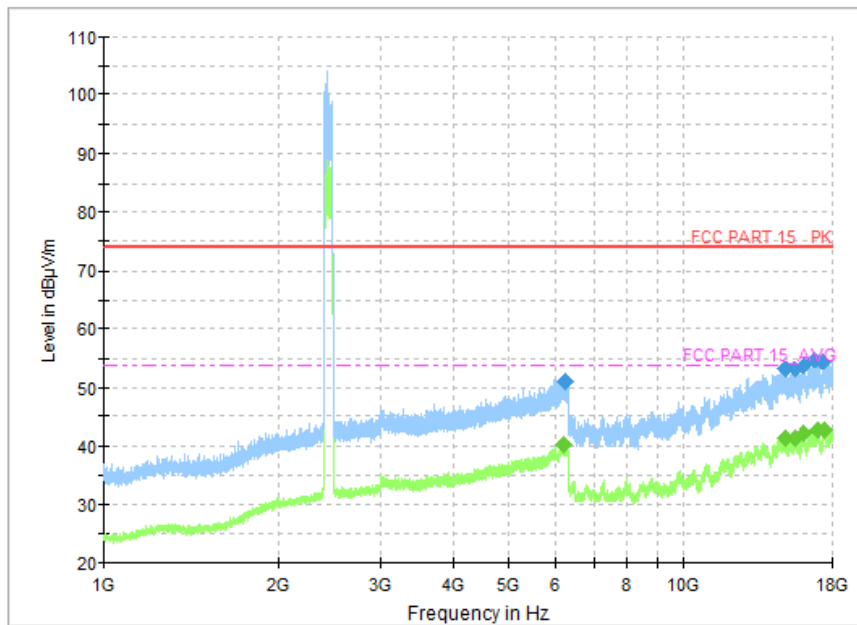
A "reference path loss" is established and the  $A_{Rpl}$  is the attenuation of "reference path loss", and Antenna Factor, the gain of the preamplifier, the cable loss.  $P_{Mea}$  is the field strength recorded from the instrument.

The measurement results are obtained as described below:

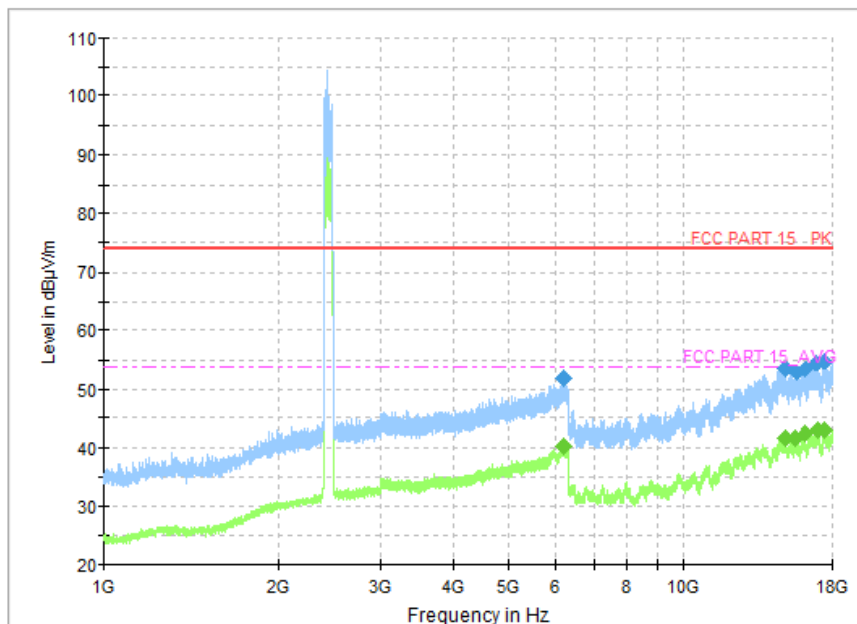
Result=  $P_{Mea}$  +Cable Loss +Antenna Factor-Gain of the preamplifier.

**See below for test graphs.**

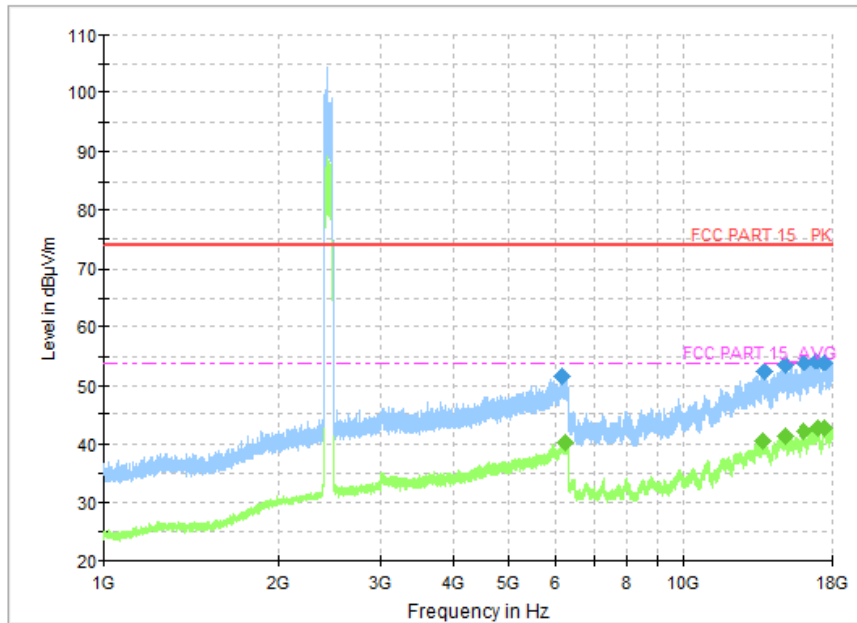
**Conclusion: Pass**



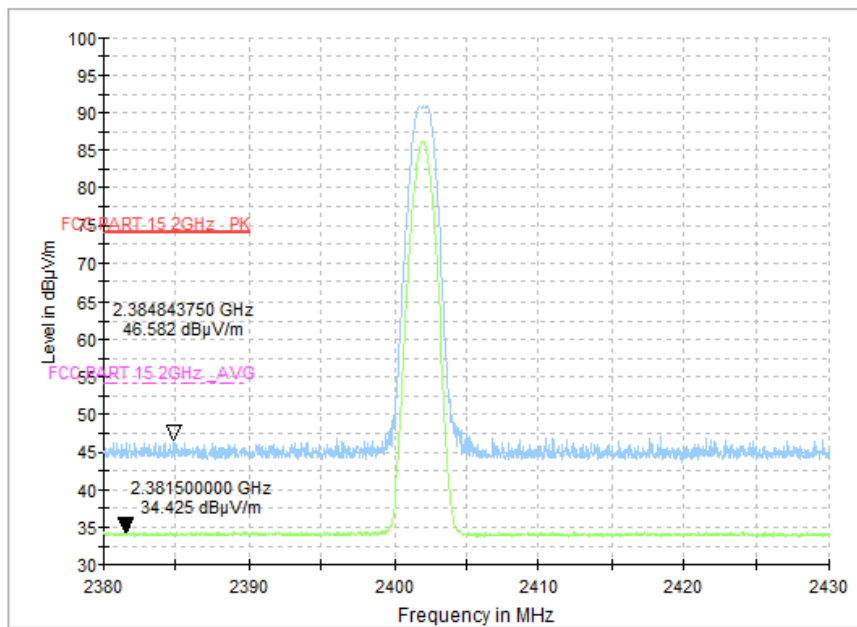
**Fig.20 Radiated Spurious Emission (GFSK, Ch0, 1 GHz ~18 GHz)**



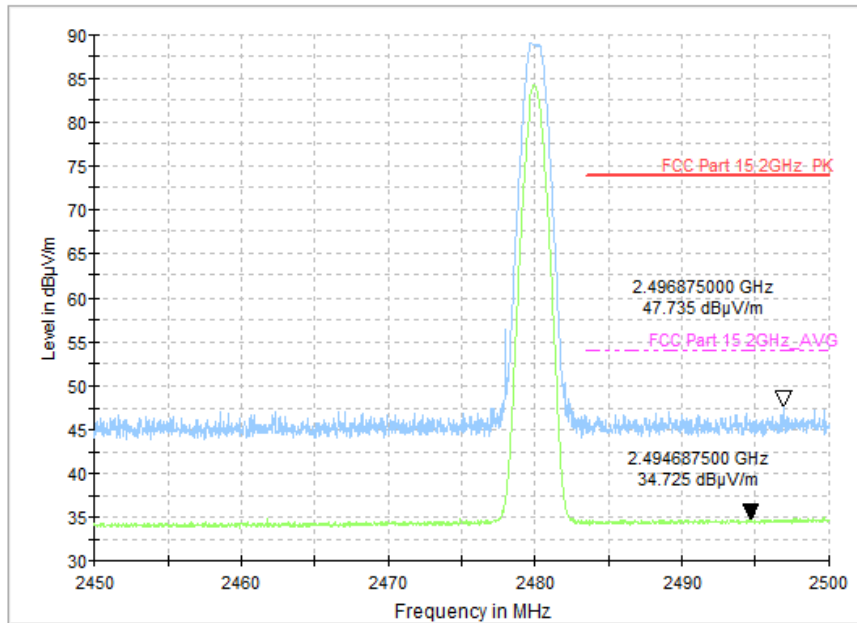
**Fig.21 Radiated Spurious Emission (GFSK, Ch19, 1 GHz ~18 GHz)**



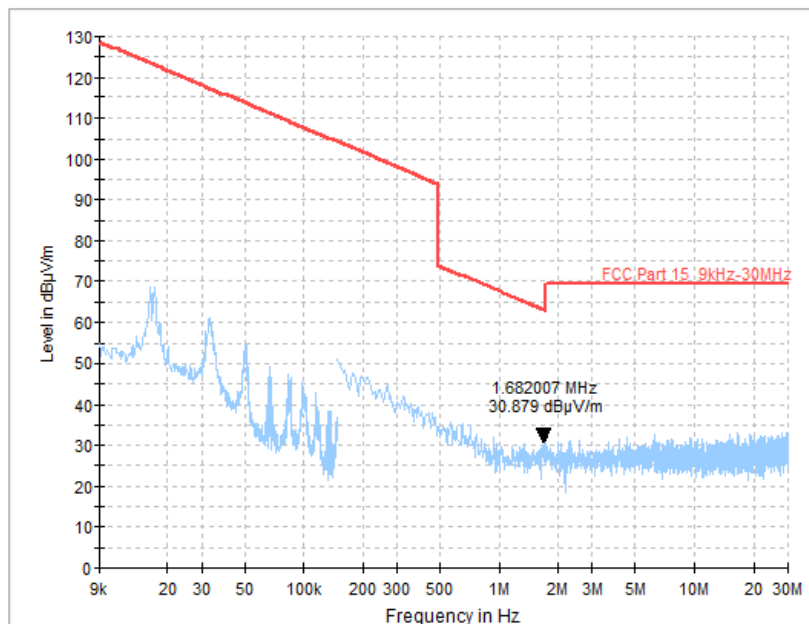
**Fig.22 Radiated Spurious Emission (GFSK, Ch39, 1 GHz ~18 GHz)**



**Fig.23 Radiated Band Edges (GFSK, Ch0, 2380GHz~2450GHz)**



**Fig.24 Radiated Band Edges (GFSK, Ch39, 2450GHz~2500GHz)**



**Fig.25 Radiated Spurious Emission (All Channels, 9 kHz-30 MHz)**

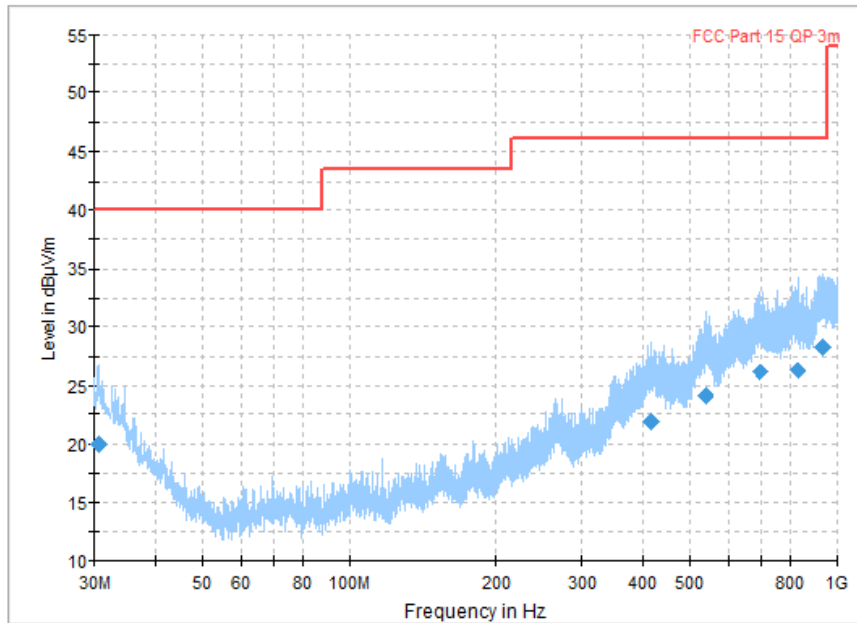


Fig.26 Radiated Spurious Emission (All Channels, 30 MHz-1 GHz)

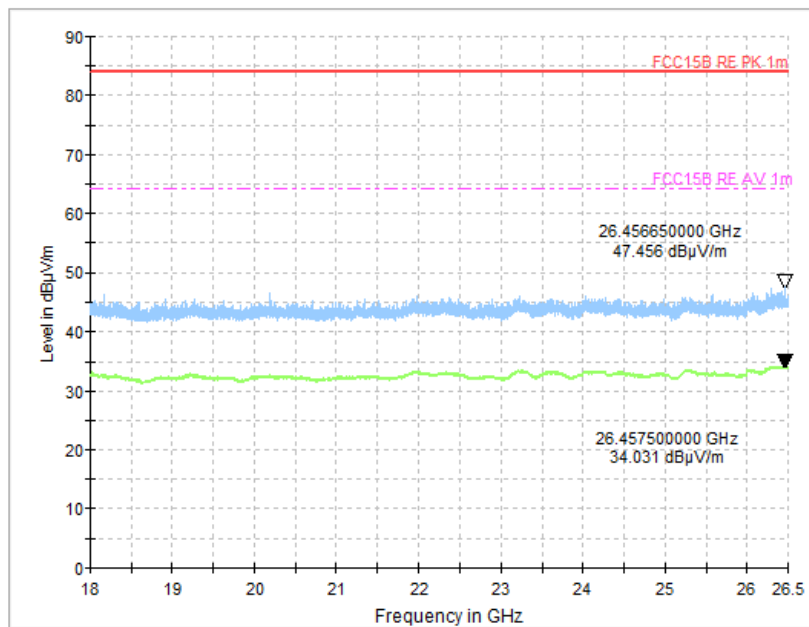


Fig.27 Radiated Spurious Emission (All Channels, 18 GHz-26.5 GHz)



## A.7 AC Power line Conducted Emission

### Test Condition:

Voltage (V)	Frequency (Hz)
120	60

### Measurement Result and limit:

BLE (Quasi-peak Limit)

Frequency range (MHz)	Quasi-peak Limit (dB $\mu$ V)	Result (dB $\mu$ V)		Conclusion
		Traffic	Idle	
0.15 to 0.5	66 to 56	Fig.28	Fig.29	P
0.5 to 5	56			
5 to 30	60			

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

BLE (Average Limit)

Frequency range (MHz)	Average-peak Limit (dB $\mu$ V)	Result (dB $\mu$ V)		Conclusion
		Traffic	Idle	
0.15 to 0.5	56 to 46	Fig.28	Fig.29	P
0.5 to 5	46			
5 to 30	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**

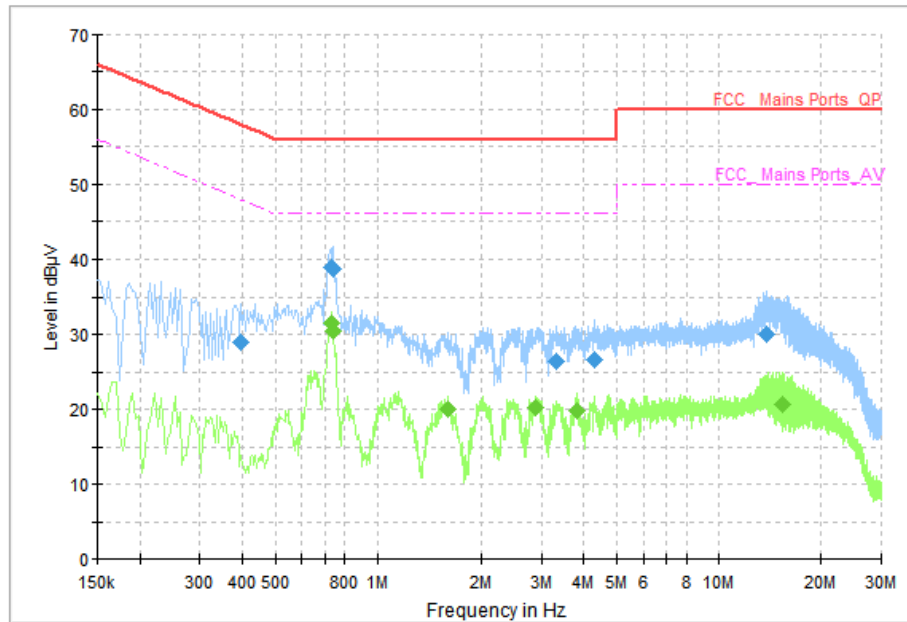


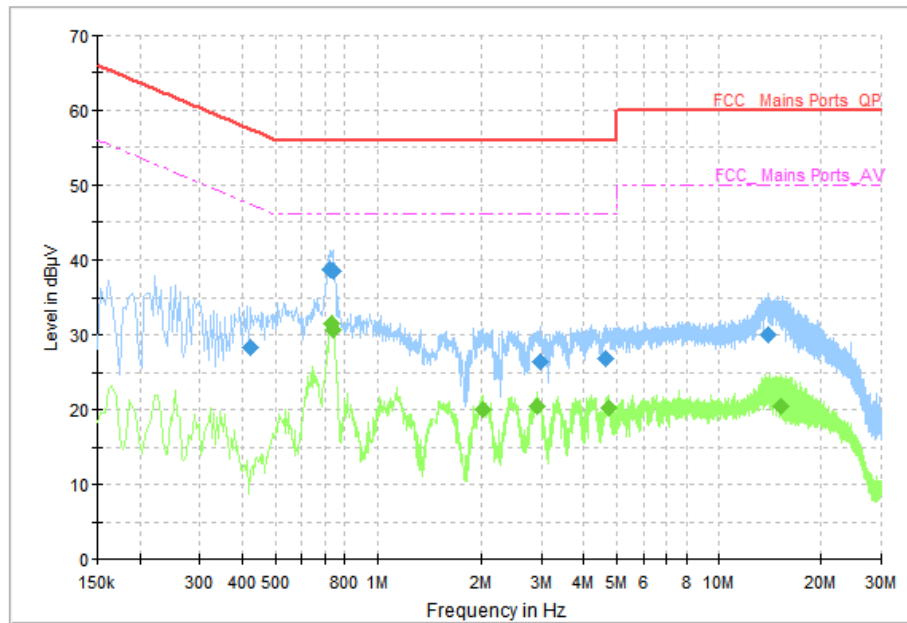
Fig.28 AC Power line Conducted Emission (Traffic)

Measurement Results: Quasi Peak

Frequency (MHz)	Quasi Peak (dBµV)	Limit (dBµV)	Margin (dB)	Line	Filter	Corr. (dB)
0.398000	29.05	57.90	28.85	L1	ON	10
0.730000	38.79	56.00	17.21	N	ON	10
0.738000	38.57	56.00	17.43	L1	ON	10
3.322000	26.48	56.00	29.52	L1	ON	10
4.286000	26.61	56.00	29.39	L1	ON	10
13.802000	30.17	60.00	29.83	L1	ON	10

Measurement Results: Average

Frequency (MHz)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Line	Filter	Corr. (dB)
0.730000	31.55	46.00	14.45	L1	ON	10
0.738000	30.48	46.00	15.52	L1	ON	10
1.586000	20.00	46.00	26.00	L1	ON	10
2.886000	20.34	46.00	25.66	L1	ON	10
3.814000	19.92	46.00	26.08	L1	ON	10
15.370000	20.61	50.00	29.39	N	ON	10



**Fig.29 AC Power line Conducted Emission (Idle)**

**Measurement Results: Quasi Peak**

Frequency (MHz)	Quasi Peak (dBµV)	Limit (dBµV)	Margin (dB)	Line	Filter	Corr. (dB)
0.422000	28.33	57.41	29.07	L1	ON	10
0.722000	38.65	56.00	17.35	L1	ON	10
0.738000	38.43	56.00	17.57	L1	ON	10
2.978000	26.57	56.00	29.43	L1	ON	10
4.642000	26.81	56.00	29.19	L1	ON	10
14.002000	30.13	60.00	29.87	N	ON	10

**Measurement Results: Average**

Frequency (MHz)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Line	Filter	Corr. (dB)
0.730000	31.60	46.00	14.40	L1	ON	10
0.738000	30.74	46.00	15.26	L1	ON	10
2.014000	20.13	46.00	25.87	L1	ON	10
2.902000	20.59	46.00	25.41	L1	ON	10
4.738000	20.23	46.00	25.77	N	ON	10
15.242000	20.56	50.00	29.44	N	ON	10

### A.8 Occupied Bandwidth

#### Measurement Limit:

Standard	Limit (kHz)
RSS-Gen section 6.7	/

#### Measurement Result:

Mode	Frequency (MHz)	Test Results ( kHz)		Conclusion
GFSK	2402(CH0)	Fig.30	1084.00	/
	2440(CH19)	Fig.31	1082.00	/
	2480(CH39)	Fig.32	1083.00	/

See below for test graphs.

Conclusion: PASS

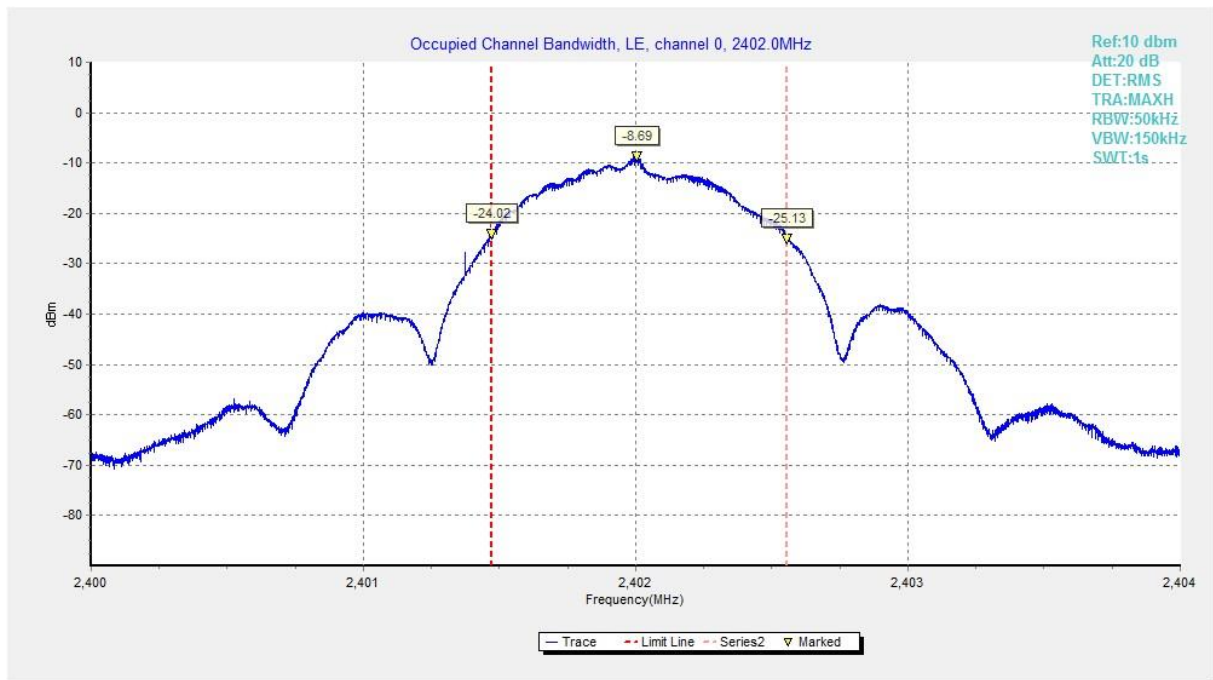


Fig.30 Occupied Bandwidth: GFSK, Channel 0

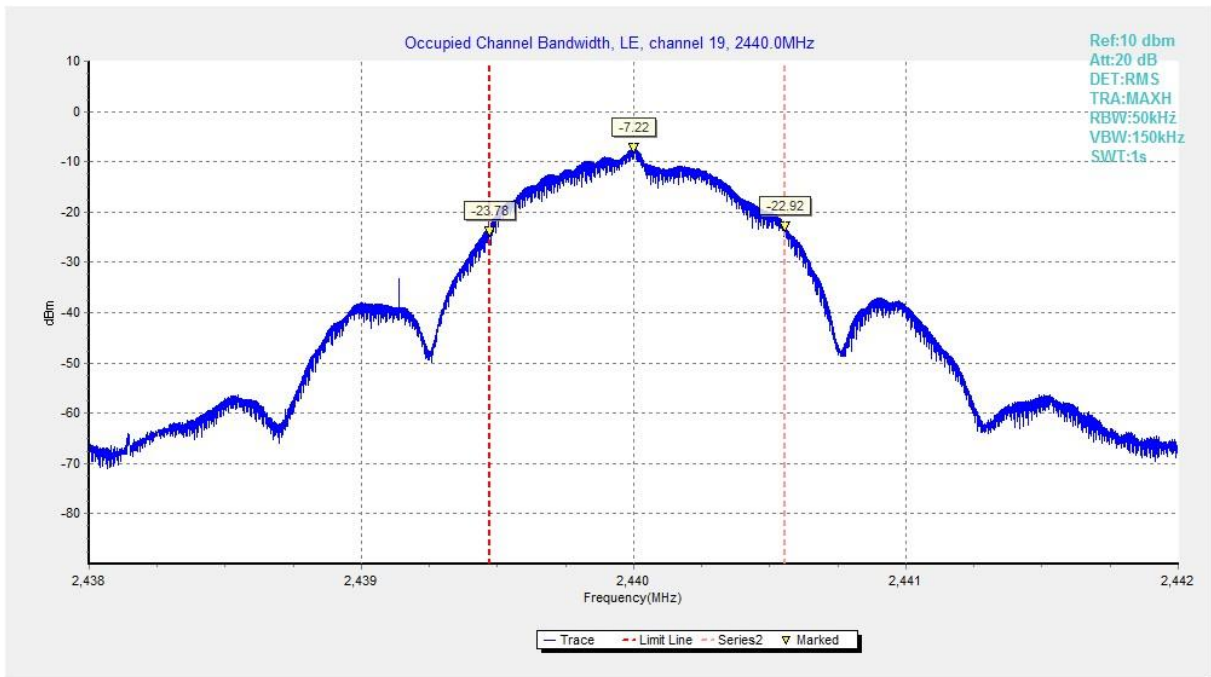


Fig.31 Occupied Bandwidth: GFSK, Channel 19

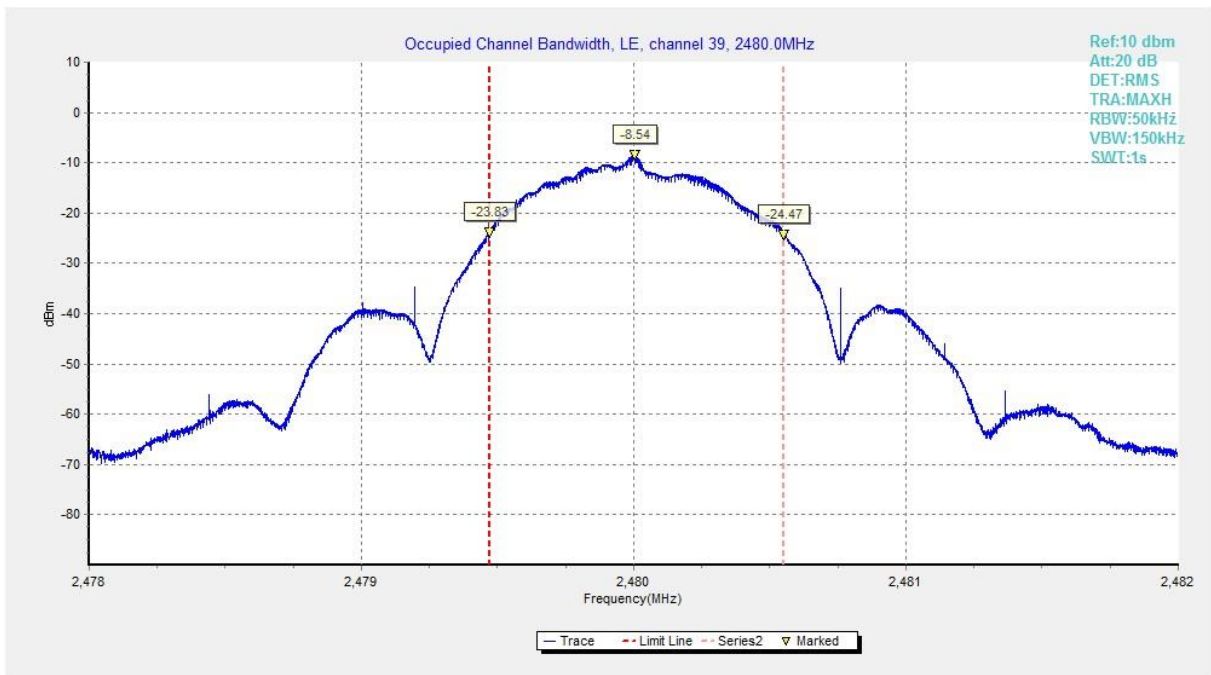


Fig.32 Occupied Bandwidth: GFSK, Channel 39

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