



TEST REPORT

No. I21N02633-BLE

IDEMIA Identity and Security France

ID Screen US

Model Name: MPH-MB003C

with

Hardware Version: V01(M32N)

Software Version: IDEMIA_WM28_V01_210803

FCC ID: ZBW-MPHMB003C

Issued Date: 2021-09-22

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:

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@caict.ac.cn, website: www.cszit.com



CONTENTS

1. SUMMARY OF TEST REPORT.....	3
1.1. TEST ITEMS.....	3
1.2. TEST STANDARDS	3
1.3. TEST RESULT	3
1.4. TESTING LOCATION	3
1.5. PROJECT DATA	3
1.6. SIGNATURE	3
2. CLIENT INFORMATION.....	4
2.1. APPLICANT INFORMATION	4
2.2. MANUFACTURER INFORMATION	4
3. EQUIPMENT UNDER TEST (EUT) AND ANCILLARY EQUIPMENT (AE)	5
3.1. ABOUT EUT	5
3.2. INTERNAL IDENTIFICATION OF EUT USED DURING THE TEST	5
3.3. INTERNAL IDENTIFICATION OF AE USED DURING THE TEST	5
3.4. GENERAL DESCRIPTION.....	5
4. REFERENCE DOCUMENTS.....	7
4.1. DOCUMENTS SUPPLIED BY APPLICANT	7
4.2. REFERENCE DOCUMENTS FOR TESTING.....	7
5. TEST RESULTS	8
5.1. TESTING ENVIRONMENT.....	8
5.2. TEST RESULTS	8
5.3. STATEMENTS.....	8
6. TEST EQUIPMENTS UTILIZED.....	9
7. LABORATORY ENVIRONMENT.....	10
8. MEASUREMENT UNCERTAINTY	11
ANNEX A: DETAILED TEST RESULTS.....	12
A.0 ANTENNA REQUIREMENT	12
A.1 MAXIMUM PEAK OUTPUT POWER	13
A.2 PEAK POWER SPECTRAL DENSITY	14
A.3 6DB BANDWIDTH.....	16
A.4 BAND EDGES COMPLIANCE	18
A.5 TRANSMITTER SPURIOUS EMISSION - CONDUCTED	20
A.6 TRANSMITTER SPURIOUS EMISSION - RADIATED.....	26
A.7 AC POWER LINE CONDUCTED EMISSION	33
ANNEX B: SPOT CHECK OF OUTPUT POWER	36



1. Summary of Test Report

1.1. Test Items

Description	ID Screen US
Model Name	MPH-MB003C
Applicant's name	IDEMIA Identity and Security France
Manufacturer's Name	IDEMIA Identity and Security France

1.2. Test Standards

FCC Part15-2019; ANSI C63.10-2013

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:	2020-04-16
Testing End Date:	2020-05-27

1.6. Signature

Lin Kanfeng
(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: IDEMIA Identity and Security France
Address: IDEMIA Identity and Security France 2 place Samuel de Champlain
92400 Courbevoie FRANCE
Contact Person: Christophe SUEUR
E-Mail: christophe.sueur@idemia.com
Telephone: +33130201434
Fax: /

2.2. Manufacturer Information

Company Name: IDEMIA Identity and Security France
Address: IDEMIA Identity and Security France 2 place Samuel de Champlain
92400 Courbevoie FRANCE
Contact Person: Christophe SUEUR
E-Mail: christophe.sueur@idemia.com
Telephone: +33130201434
Fax: /



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

3.1. About EUT

Description	ID Screen US
Model Name	MPH-MB003C
Brand Name	IDEMIA
Frequency Range	2400MHz~2483.5MHz
Type of Modulation	GFSK
Number of Channels	40
Antenna Type	Integrated
Antenna Gain	-1.0dBi
Power Supply	3.85V DC by Battery
FCC ID	ZBW-MPHMB003C
Condition of EUT as received	No abnormality in appearance

3.2. Internal Identification of EUT used during the test

EUT ID*	IMEI	HW Version	SW Version	Receive Date
UT07aa	354520110003828	V01 (M16N)	V01	2020-04-21
UT01aa	354520110005740	V01 (M16N)	V01	2020-04-16

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

3.3. Internal Identification of AE used during the test

AE ID*	Description	AE ID*
AE1	Battery	/
AE2	Charger	Aa01a,Aa02a
AE3	Data Cable	Ca01a,Ca02a Cb01a,Cb02a

AE1

Model	MPH-MB003A(178177093)
Manufacturer	Zhongshan Tianmao Battery Co., Ltd.
Capacity	5000mAh19.25Wh
Nominal Voltage	3.85V

AE2

Model	S008ACM0500200
Manufacturer	Ten Pao Electronics (Huizhou) Co., Ltd.

AE3

Model	JWUB1454-M01
Manufacturer	HUIZHOU JUWEI 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 ID Screen US 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.



No. I21N02633-BLE

Samples undergoing test were selected by the client.

According to the customer's description, MPH-MB003C is a variant product of MPH-MB003A/MPH-MB003B. All results were from the initial model. The initial model report number is I20N00956-BLE.



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 Part15	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	Occupied 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/matrix 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.

6. Test Equipments Utilized

Conducted test system

No.	Equipment	Model	Serial Number	Manufacturer	Calibration Date	Calibration Period
1	Vector Signal Analyzer	FSV40	100903	Rohde & Schwarz	2021-12-30	1 year
2	Power Sensor	U2021XA	MY55430013	Agilent	2022-01-13	1 year
3	Data Acquisition	U2531A	TW55443507	Agilent	/	/

Radiated emission test system

No.	Equipment	Model	Serial Number	Manufacturer	Calibration Date	Calibration Period
1	LISN	ESH2-Z5	100196	R&S	2022-01-01	1 year
2	Test Receiver	ESCI	100701	R&S	2022-08-04	1 year
3	Loop Antenna	HLA6120	35779	TESEQ	2022-05-01	3 year
4	BiLog Antenna	VULB9163	9163 329	Schwarzbeck	2024-02-15	3 year
5	Horn Antenna	3117	00066585	ETS-Lindgren	2022-03-04	3 year
6	Test Receiver	ESR7	101675	R&S	2022-07-16	1 year
7	Spectrum Analyzer	FSP 40	100378	R&S	2021-12-11	1 year
8	Chamber	FACT5-2.0	4166	ETS-Lindgren	2024-05-11	3 year
9	Antenna	QSH-SL-1 8-26-S-20	17013	Q-par	2024-01-13	3 year
10	Antenna	QSH-SL-2 6-40-K-20	17014	Q-par	2024-01-09	3 year

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 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

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:

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 -1.0 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)
FCC 47 CRF Part 15.247(b)	< 30

Measurement Results:

Mode	Frequency (MHz)	RF output power (dBm)	Conclusion
GFSK	2402(CH0)	-5.00	P
	2440(CH19)	-2.41	P
	2480(CH39)	-3.15	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	
GFSK	2402(CH0)	Fig.1	-20.13	P
	2440(CH19)	Fig.2	-17.57	P
	2480(CH39)	Fig.3	-18.30	P

See below for test graphs.

Conclusion: PASS

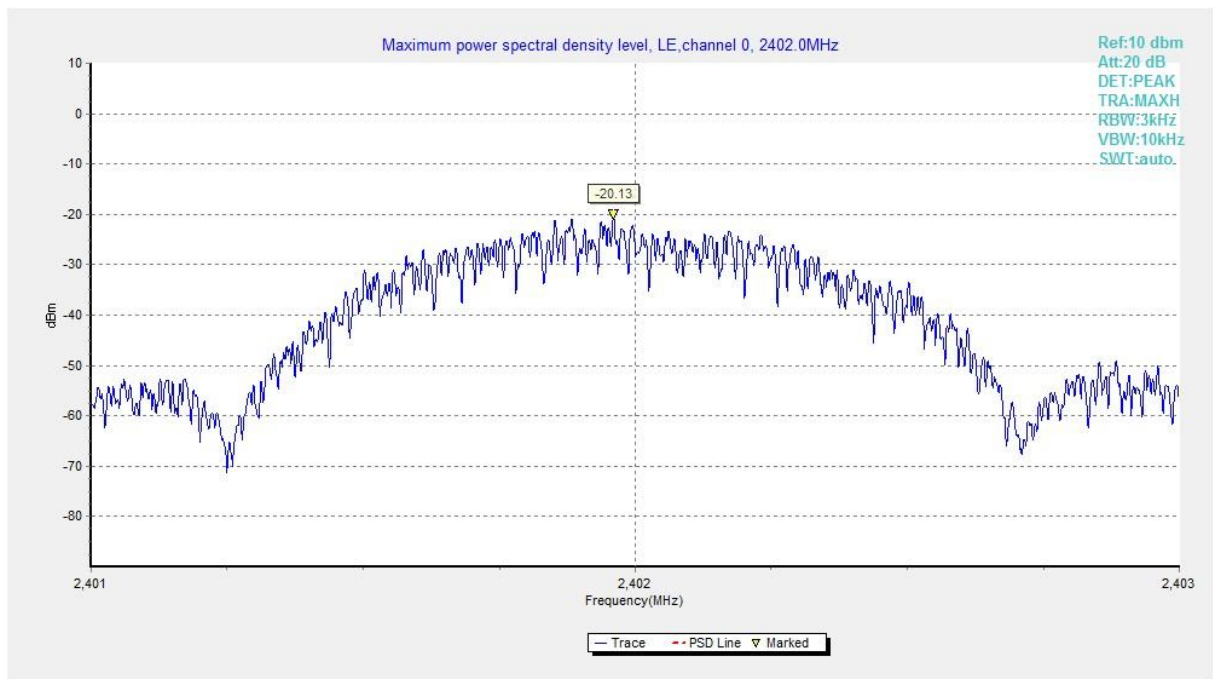


Fig.1 Power Spectral Density (Ch 0)

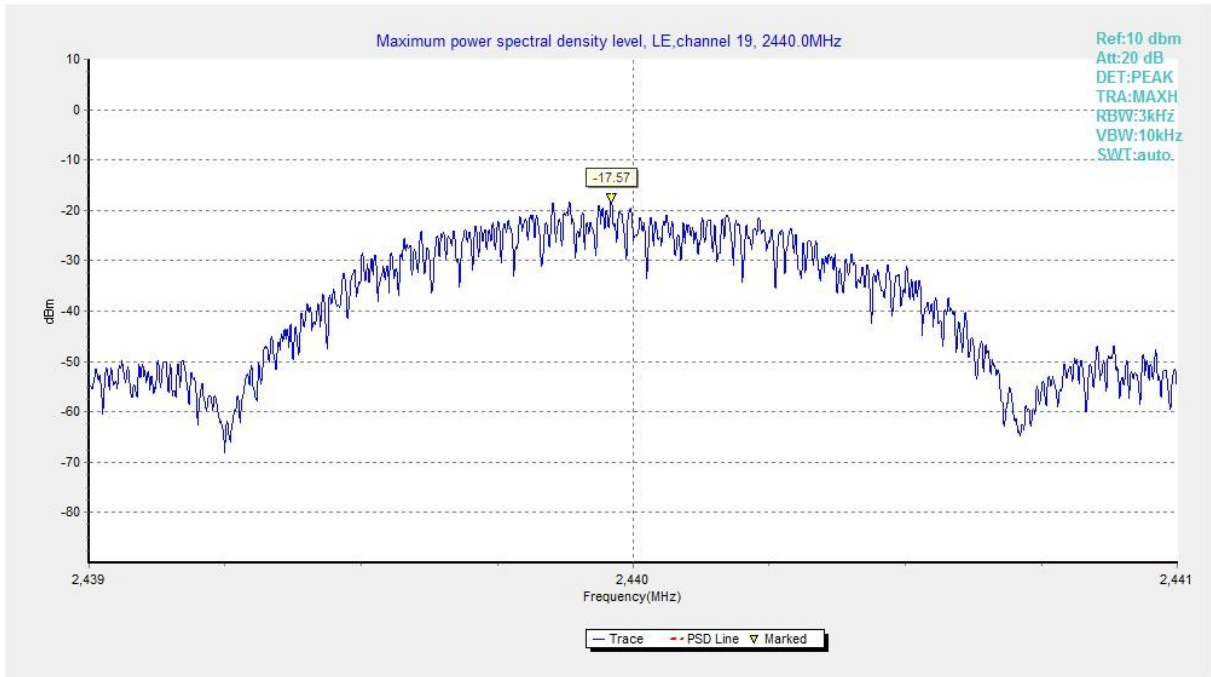


Fig.2 Power Spectral Density (Ch 19)

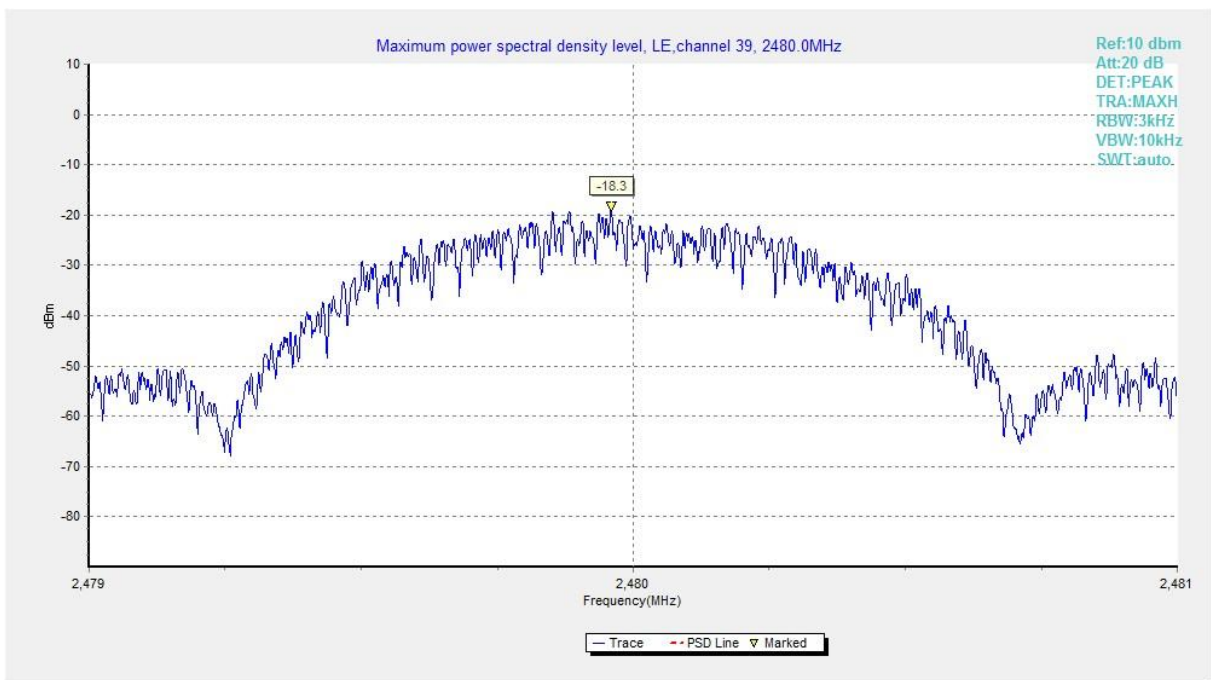


Fig.3 Power Spectral Density (Ch 39)



A.3 6dB Bandwidth

Measurement Limit:

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

Measurement Result:

Mode	Frequency (MHz)	Test Results (kHz)		Conclusion
GFSK	2402(CH0)	Fig.4	688.00	P
	2440(CH19)	Fig.5	692.00	P
	2480(CH39)	Fig.6	691.50	P

See below for test graphs.

Conclusion: PASS



Fig.4 6dB Bandwidth (Ch 0)

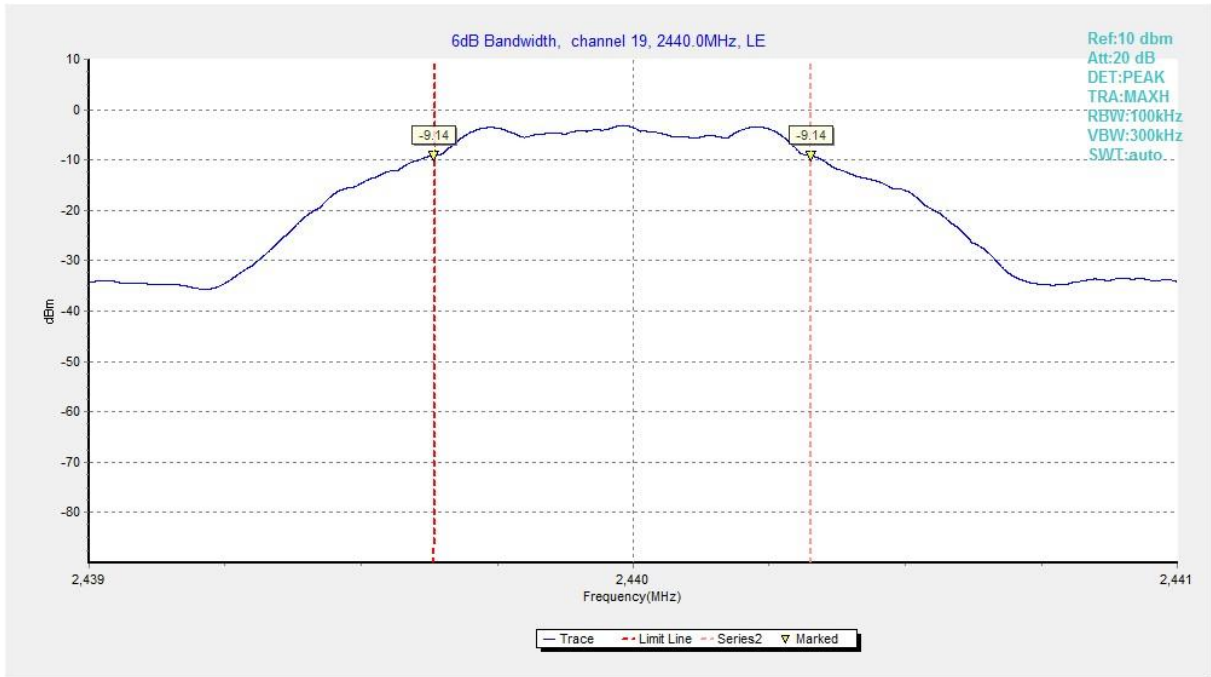


Fig.5 6dB Bandwidth (Ch 19)

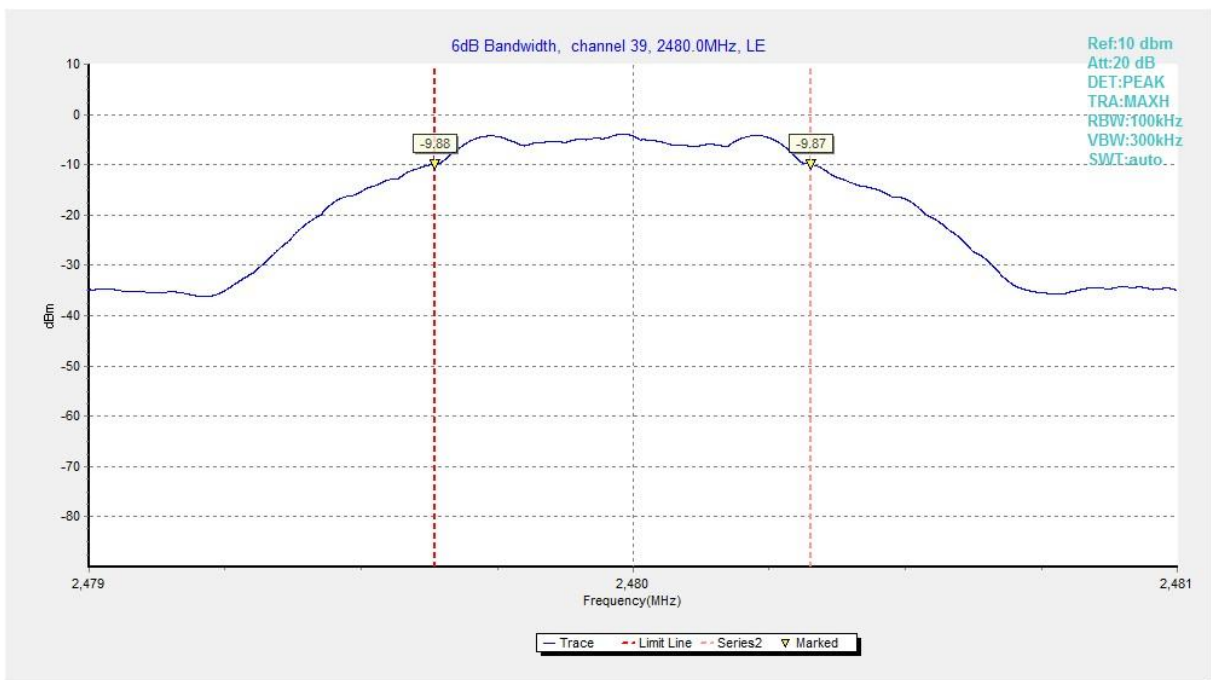


Fig.6 6dB Bandwidth (Ch 39)



A.4 Band Edges Compliance

Measurement Limit:

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

Measurement Result:

Mode	Frequency (MHz)	Test Results (dBc)		Conclusion
GFSK	2402(CH0)	Fig.7	54.62	P
	2480(CH39)	Fig.8	46.99	P

See below for test graphs.

Conclusion: PASS

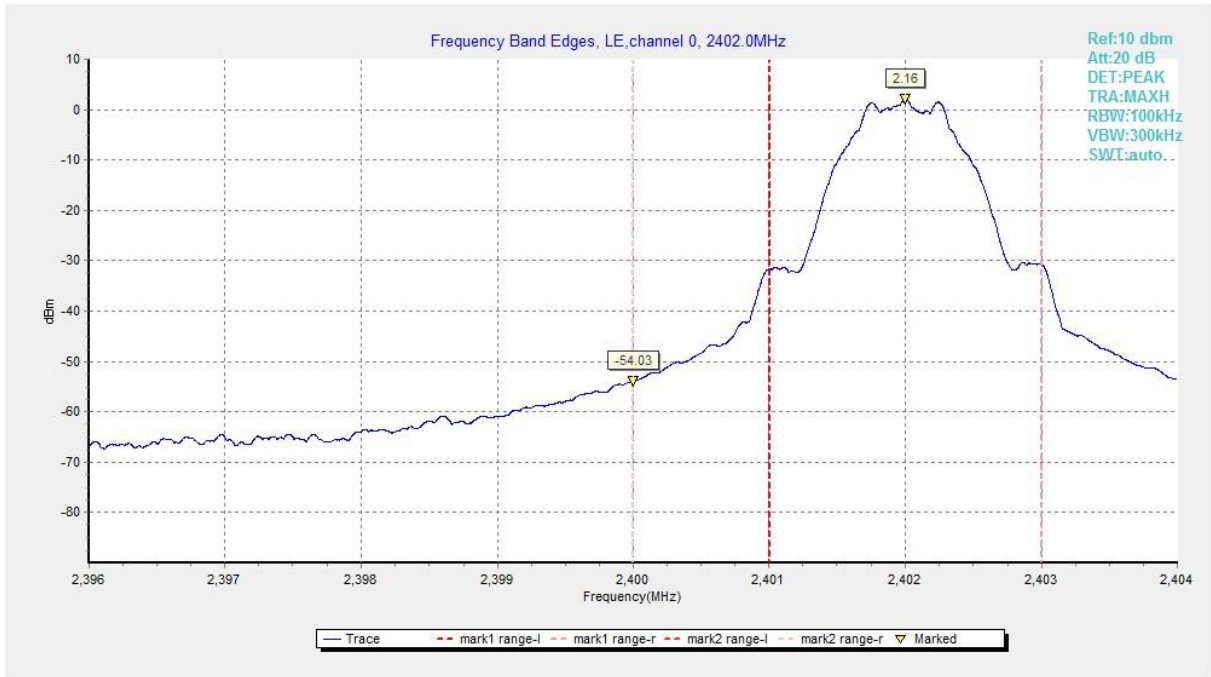


Fig.7 Band Edges (Ch 0)

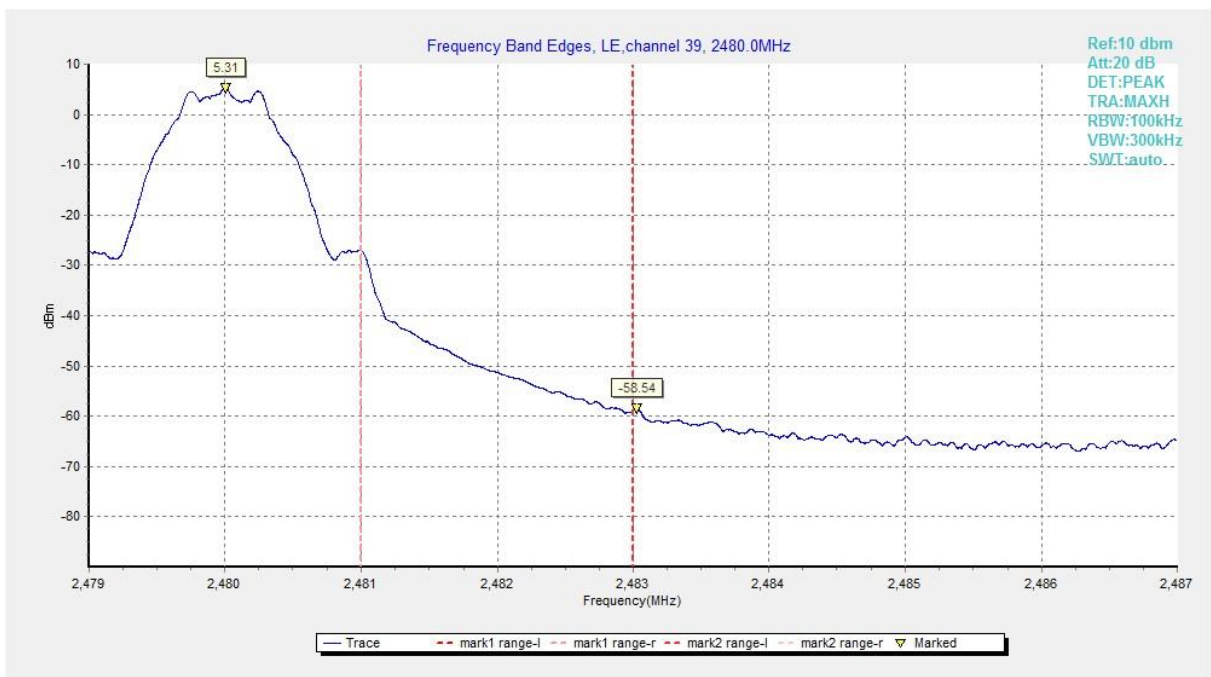


Fig.8 Band Edges (Ch 39)

A.5 Transmitter Spurious Emission - Conducted

Measurement Limit:

Standard	Limit
FCC 47 CFR Part 15.247 (d)	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

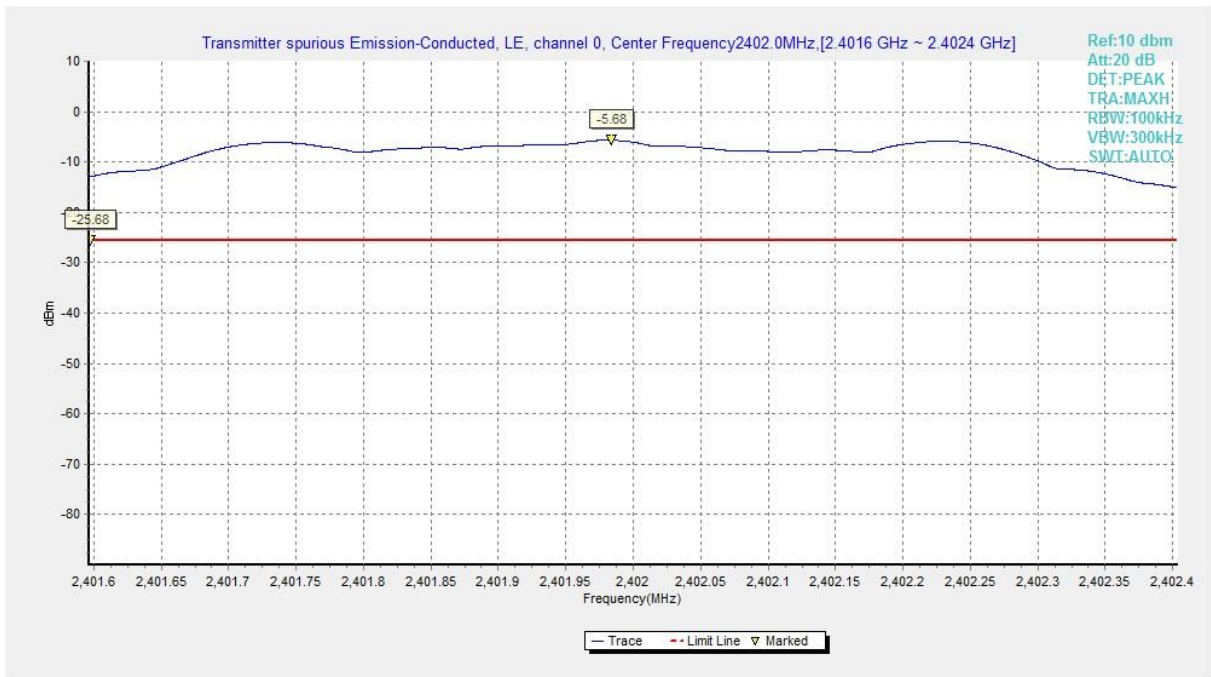


Fig.9 Conducted Spurious Emission (Ch0, Center Frequency)

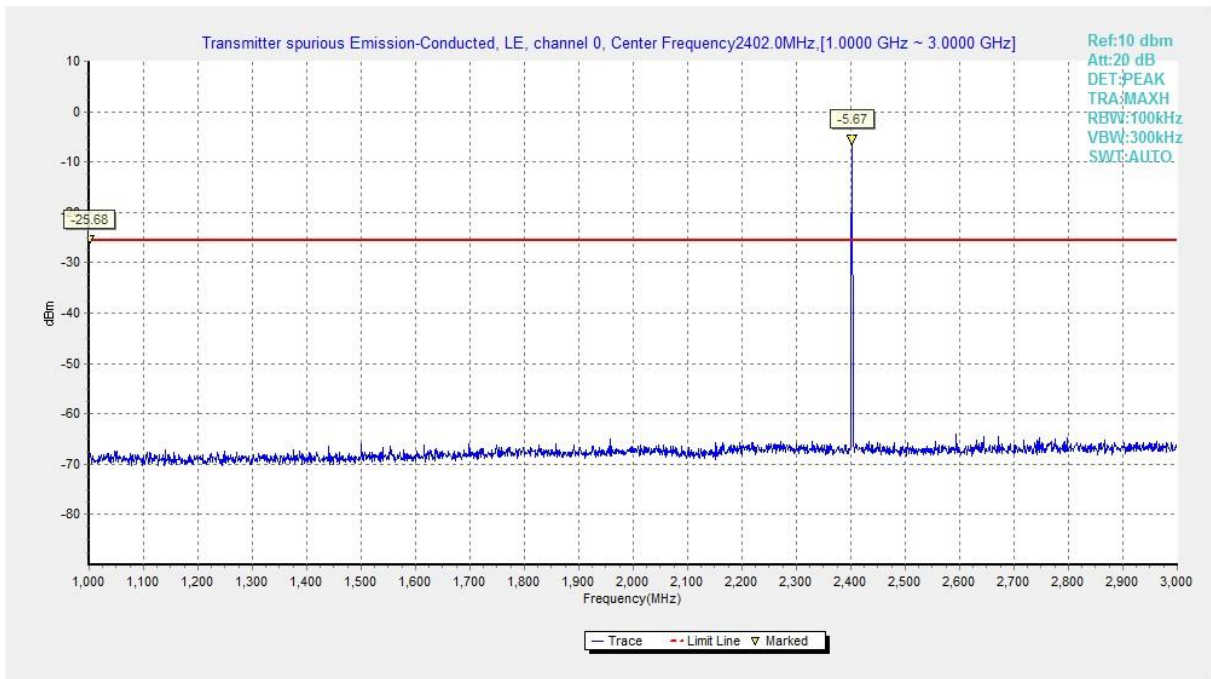


Fig.10 Conducted Spurious Emission (Ch0, 1 GHz-3 GHz)

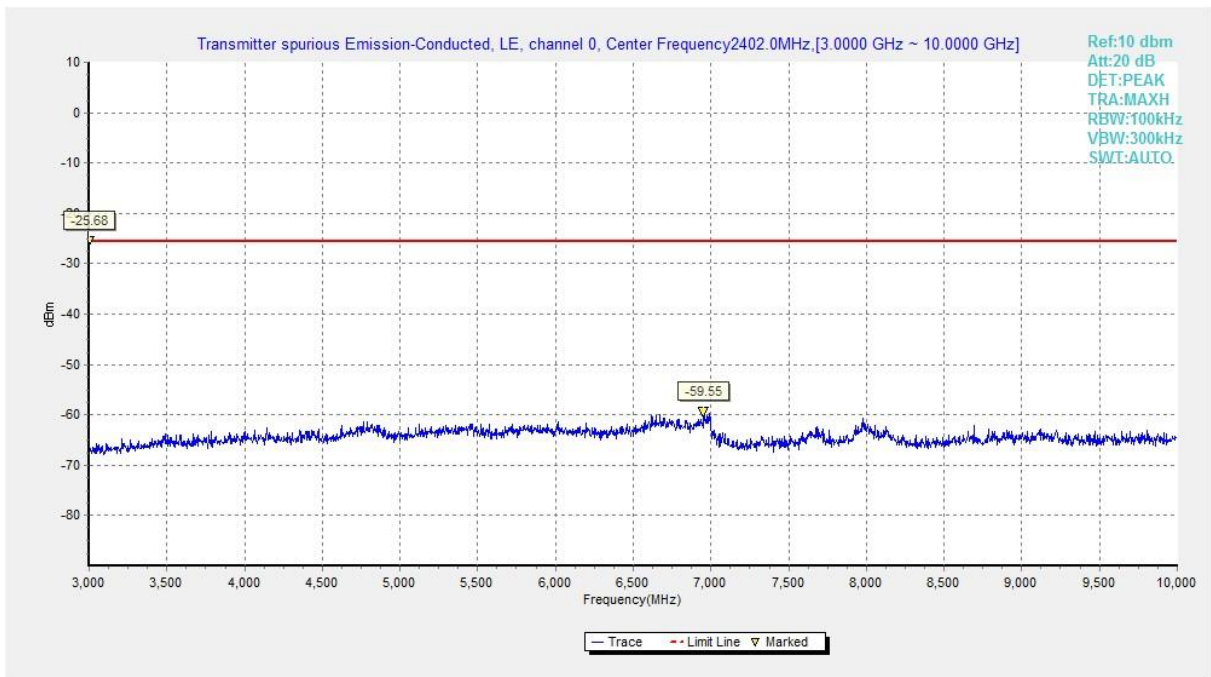


Fig.11 Conducted Spurious Emission (Ch0, 3 GHz-10 GHz)



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

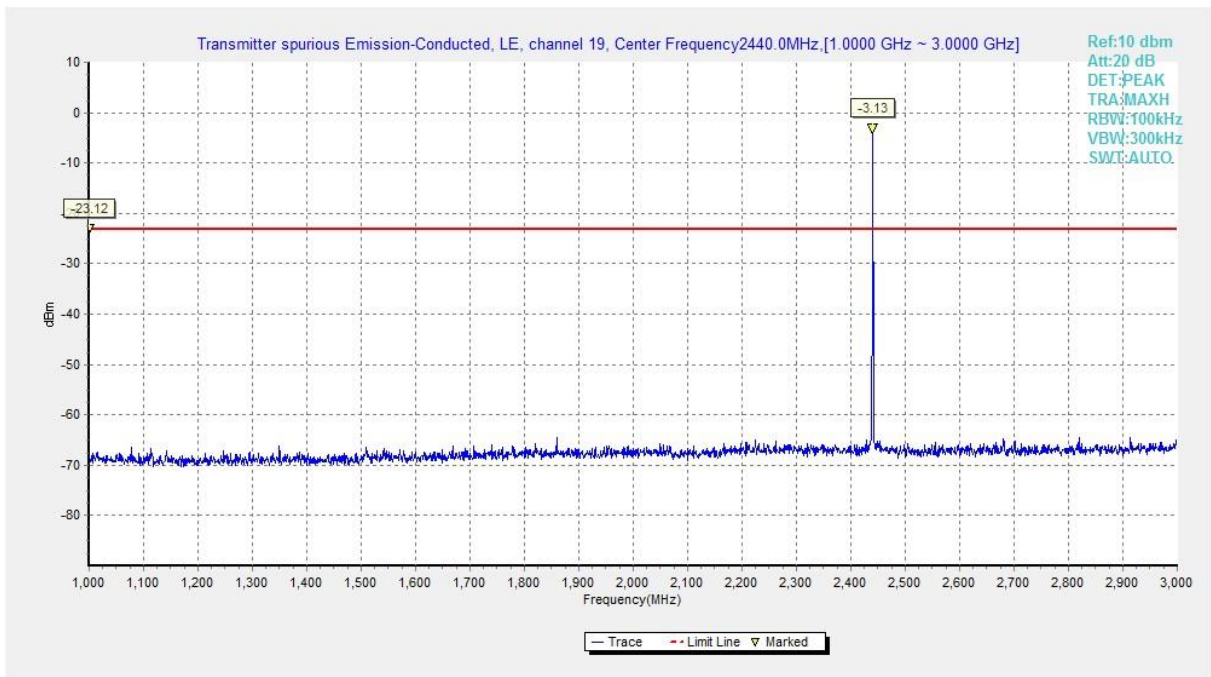


Fig.13 Conducted Spurious Emission (Ch19, 1 GHz-3 GHz)

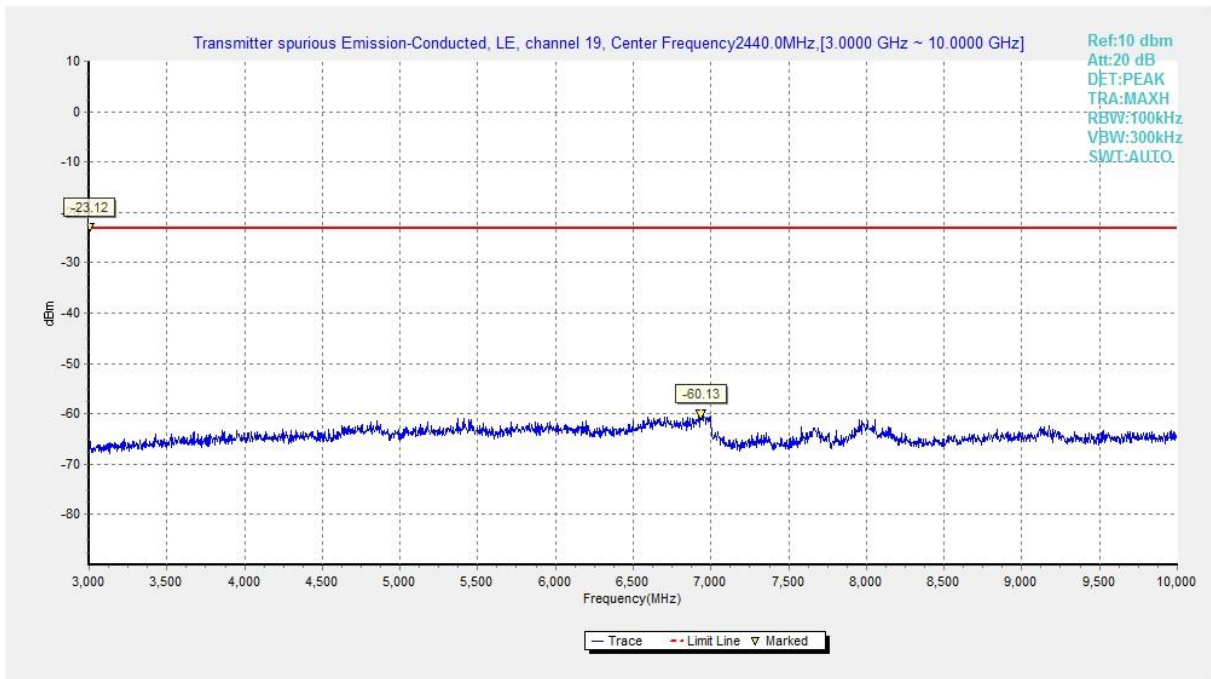


Fig.14 Conducted Spurious Emission (Ch19, 3 GHz-10 GHz)



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

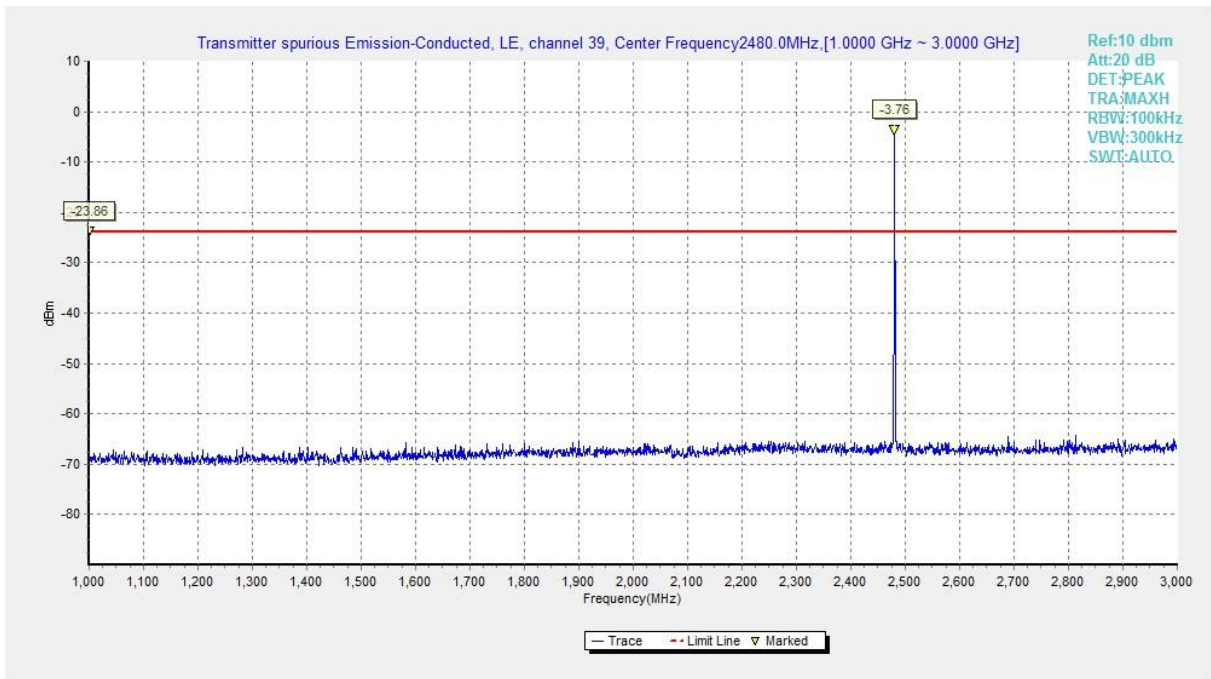


Fig.16 Conducted Spurious Emission (Ch39, 1 GHz-3 GHz)

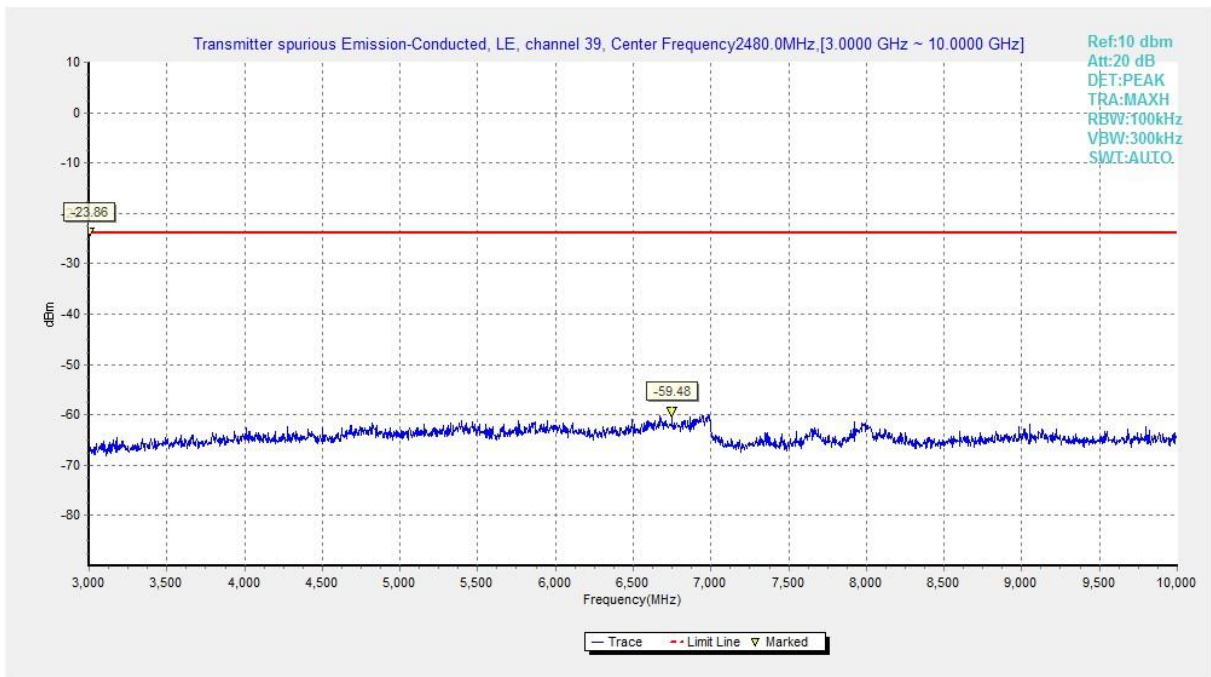


Fig.17 Conducted Spurious Emission (Ch39, 3 GHz-10 GHz)

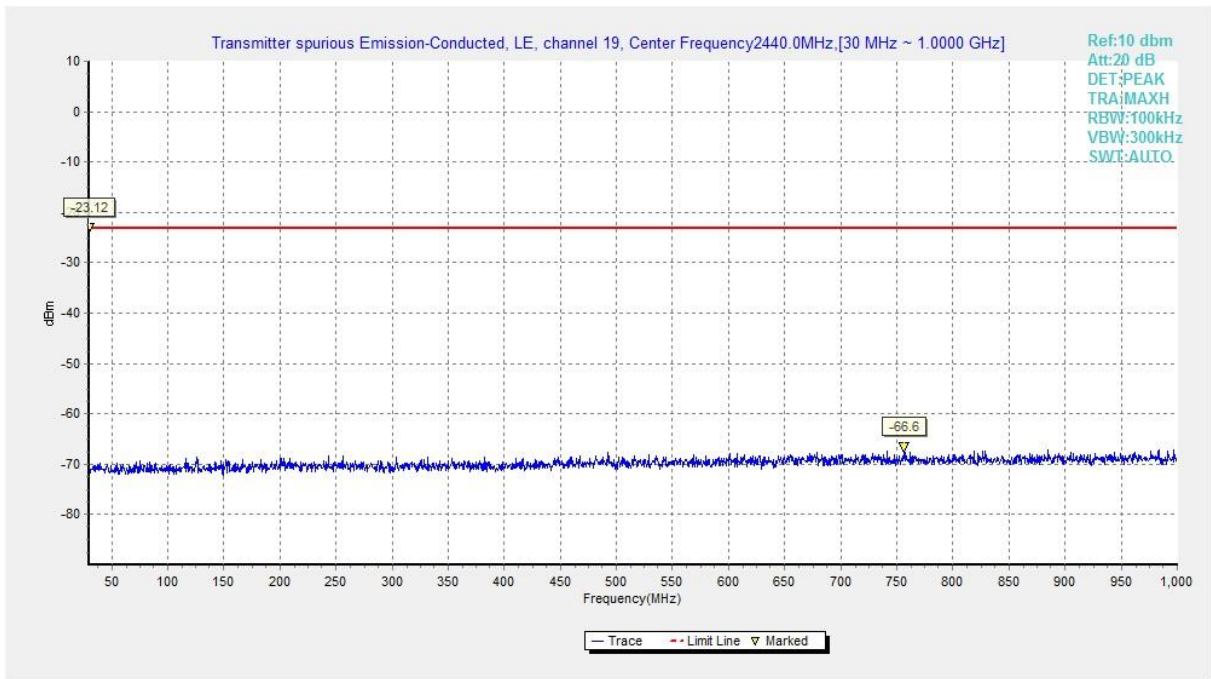


Fig.18 Conducted Spurious Emission (All channels, 30 MHz-1 GHz)

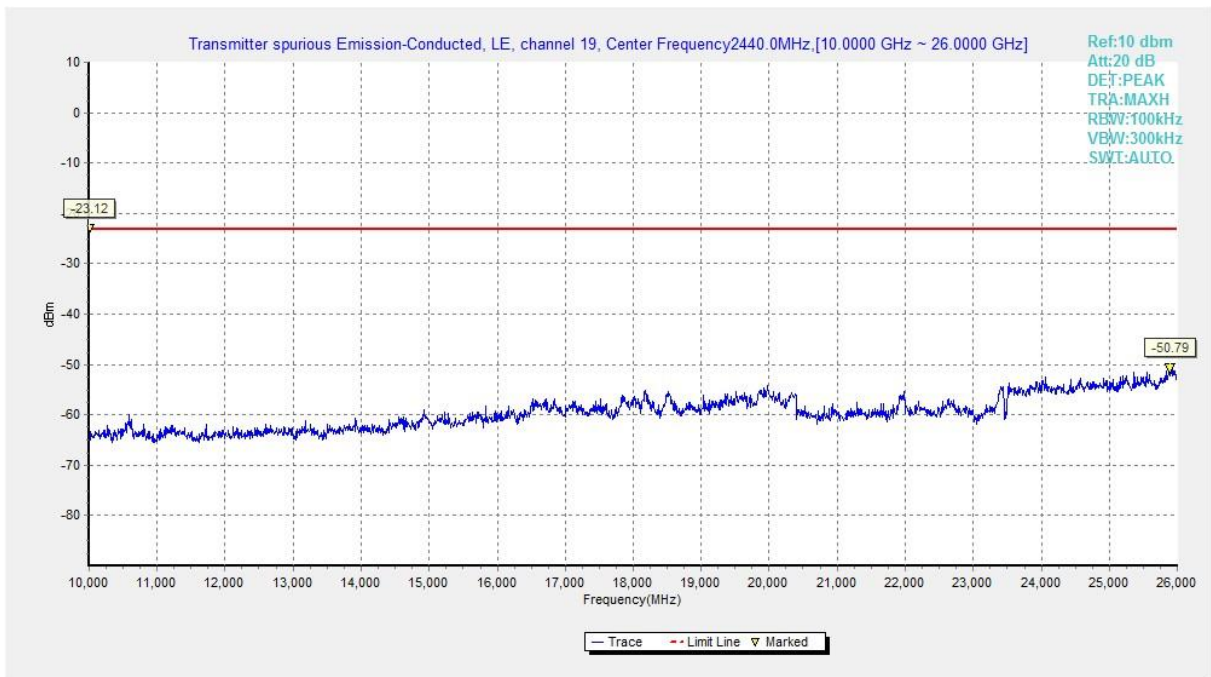


Fig.19 Conducted Spurious Emission (All channels, 10 GHz-26 GHz)

A.6 Transmitter Spurious Emission - Radiated

Measurement Limit:

Standard	Limit
FCC 47 CFR Part 15.247, 15.205, 15.209	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(μ 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)	Average (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Pol	Corr. (dB)
2975.20000	49.1	---	74.0	24.9	V	11.0
5014.40000	40.6	---	74.0	33.4	H	-7.1
7727.20000	45.5	---	74.0	28.5	V	-0.6
9915.20000	48.4	---	74.0	25.6	V	2.1
14336.0000	51.6	---	74.0	22.4	V	7.1
17931.6000	57.4	---	74.0	16.6	V	14.7
2990.00000	---	37.4	54.00	16.6	V	10.9
4982.40000	---	28.6	54.00	25.4	H	-6.9
7716.00000	---	33.5	54.00	20.5	H	-0.5
10026.4000	---	36.6	54.00	17.4	V	2.2
14146.0000	---	39.7	54.00	14.3	V	7.0
17958.0000	---	45.8	54.00	8.2	V	15.0



GFSK CH19 (1-18GHz)

Frequency (MHz)	MaxPeak (dBuV/m)	Average (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Pol	Corr. (dB)
2978.00000	48.7	---	74.00	25.3	H	11.0
4944.80000	40.0	---	74.00	34.0	V	-7.0
7745.60000	45.7	---	74.00	28.3	V	-0.7
9967.20000	48.1	---	74.00	25.9	H	2.3
14491.5000	51.7	---	74.00	22.3	H	7.0
17937.2000	57.6	---	74.00	16.4	V	14.8
2997.40000	---	37.3	54.00	16.7	H	11.0
5004.80000	---	28.5	54.00	25.5	H	-7.0
7713.60000	---	33.4	54.00	20.6	H	-0.5
10023.2000	---	36.0	54.00	18.0	V	2.2
14191.5000	---	39.2	54.00	14.8	V	7.1
17858.0000	---	45.0	54.00	9.0	V	13.9

GFSK CH39 (1-18GHz)

Frequency (MHz)	MaxPeak (dBuV/m)	Average (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Pol	Corr. (dB)
2993.60000	49.1	---	74.00	24.9	V	10.9
7721.60000	46.0	---	74.00	28.0	V	-0.5
10036.8000	47.7	---	74.00	26.3	H	2.2
11729.5000	49.4	---	74.00	24.6	V	2.8
14240.5000	51.7	---	74.00	22.3	V	7.2
17955.6000	57.3	---	74.00	16.7	V	15.0
2988.40000	---	37.4	54.00	16.6	V	10.9
7685.60000	---	33.8	54.00	20.2	V	-0.3
9956.00000	---	36.4	54.00	17.6	V	2.3
12133.0000	---	36.4	54.00	17.6	V	3.5
14190.5000	---	39.4	54.00	14.6	V	7.1
17956.4000	---	45.2	54.00	8.8	H	15.0

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

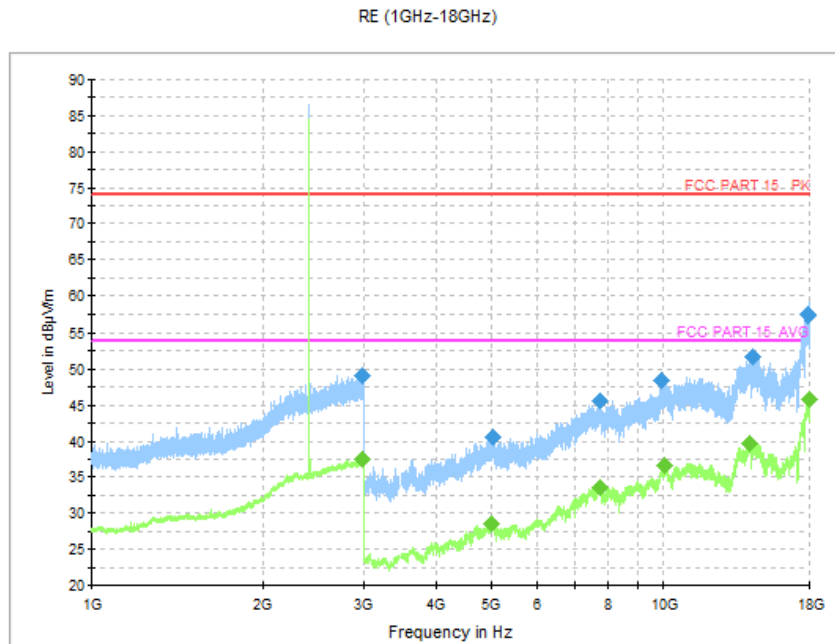


Fig.20 Radiated Spurious Emission (GFSK, Ch0, 1 GHz ~18 GHz)

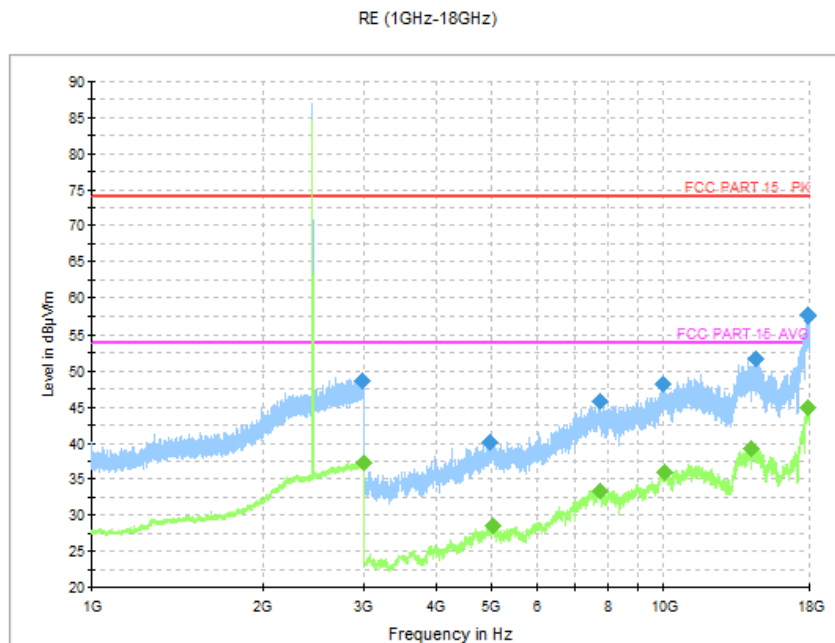


Fig.21 Radiated Spurious Emission (GFSK, Ch19, 1 GHz ~18 GHz)

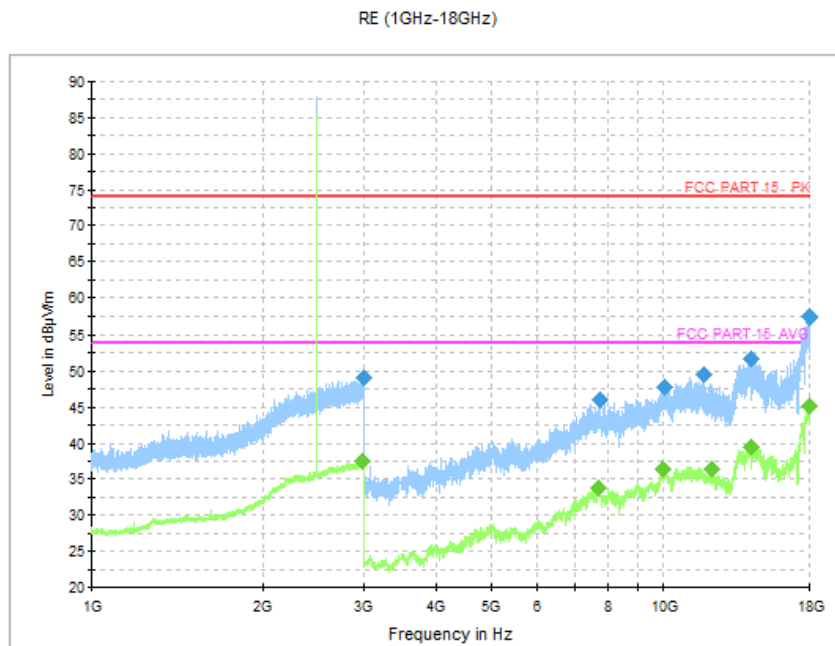


Fig.22 Radiated Spurious Emission (GFSK, Ch39, 1 GHz ~18 GHz)

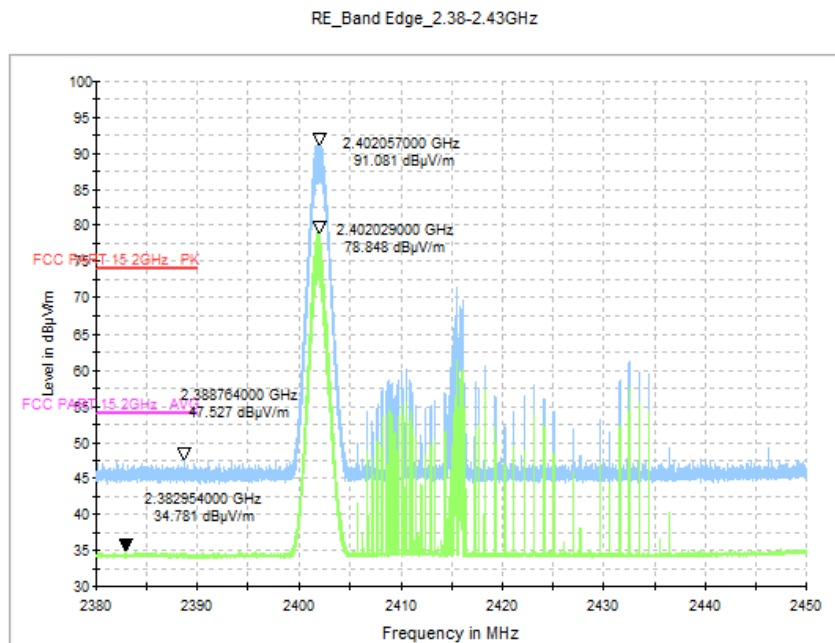


Fig.23 Radiated Band Edges (GFSK, Ch0, 2380GHz~2450GHz)

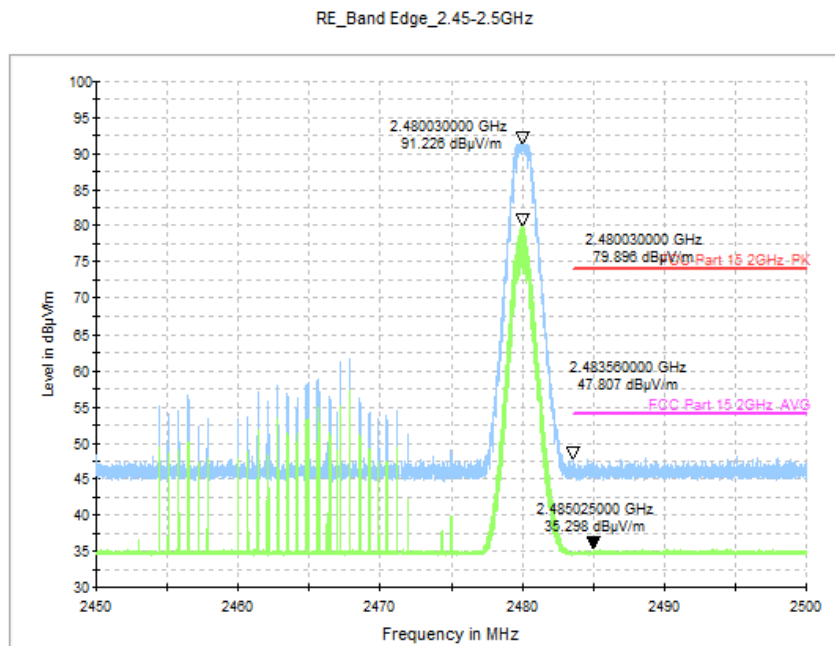


Fig.24 Radiated Band Edges (GFSK, Ch39, 2450GHz~2500GHz)

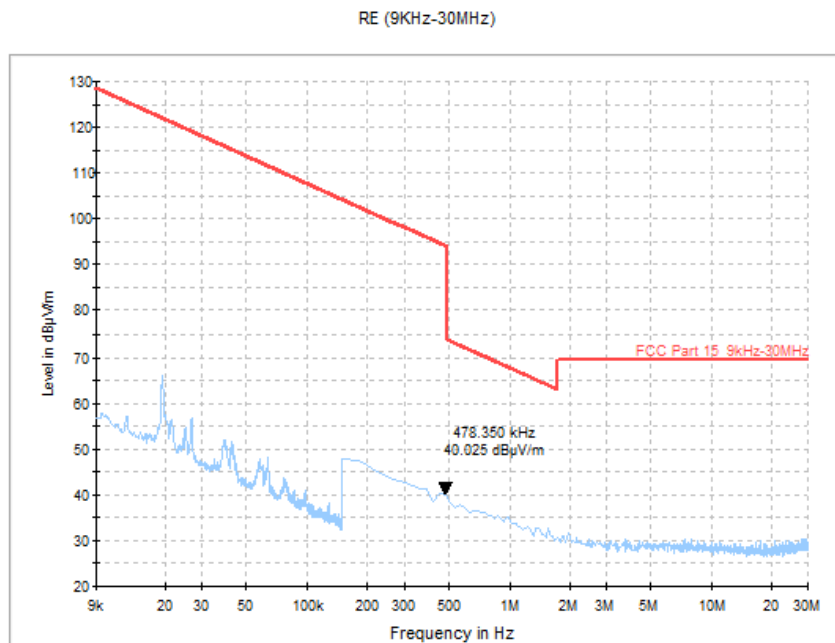


Fig.25 Radiated Spurious Emission (All Channels, 9 kHz-30 MHz)

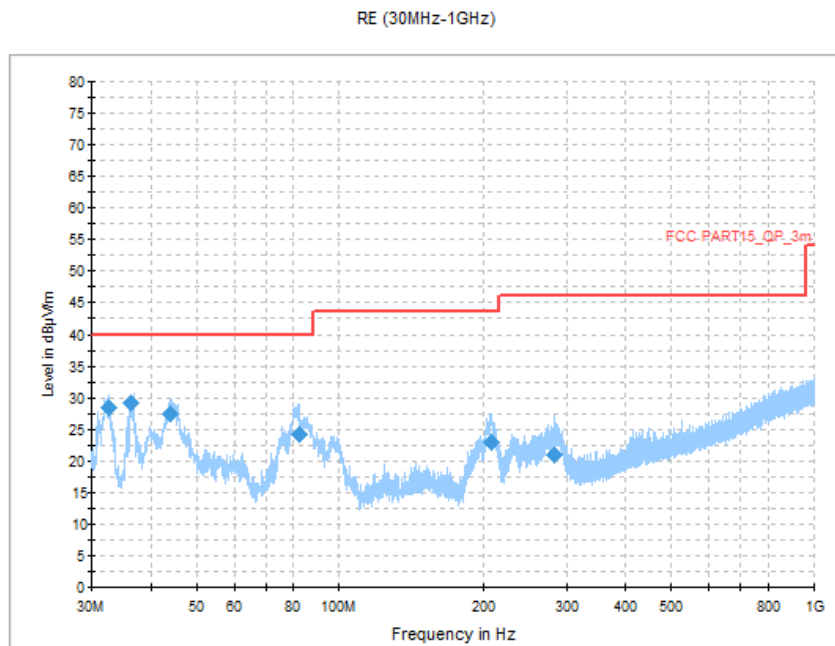


Fig.26 Radiated Spurious Emission (All Channels, 30 MHz-1 GHz)

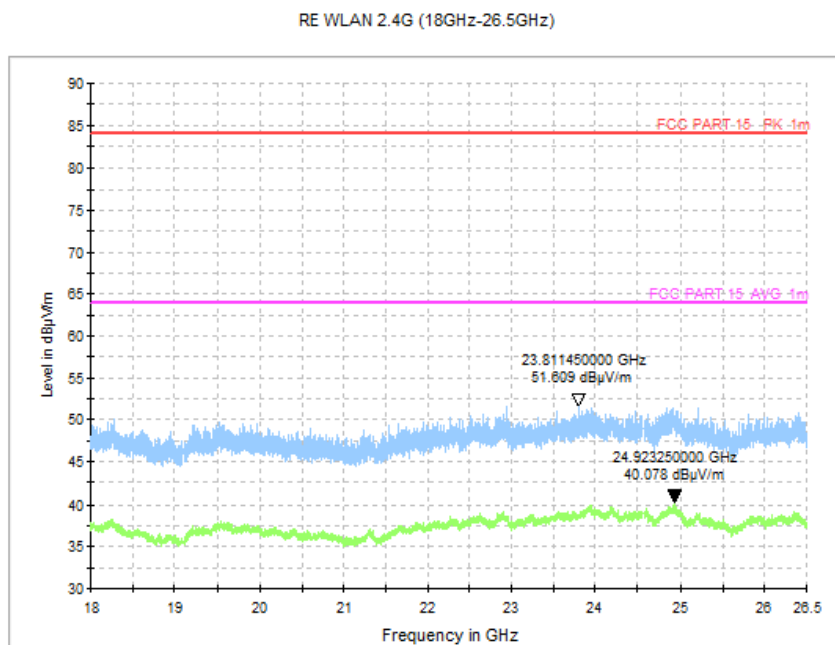


Fig.27 Radiated Spurious Emission (All Channels, 18 GHz-26.5 GHz)

**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 μ V)	Result (dB μ 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 μ V)	Result (dB μ 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

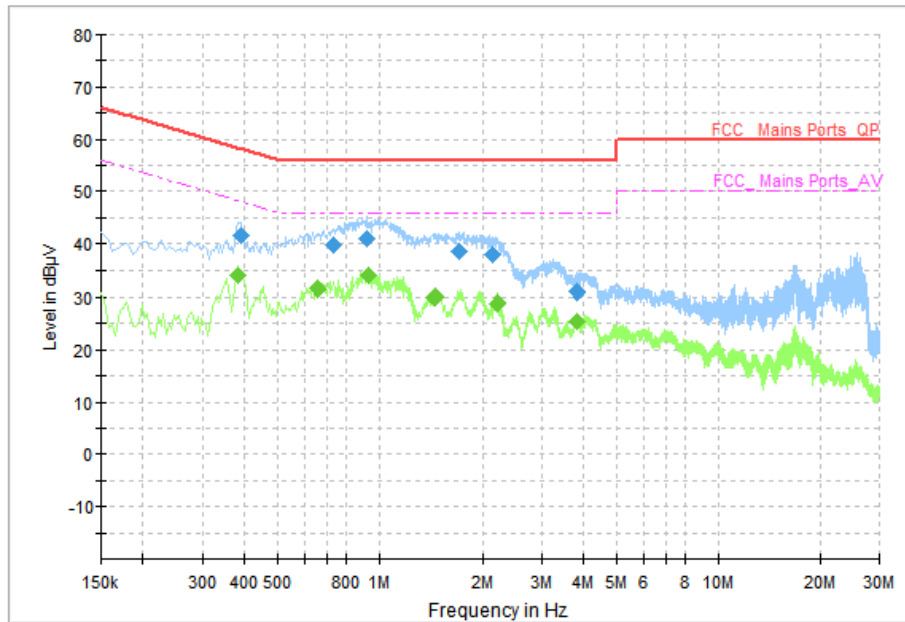


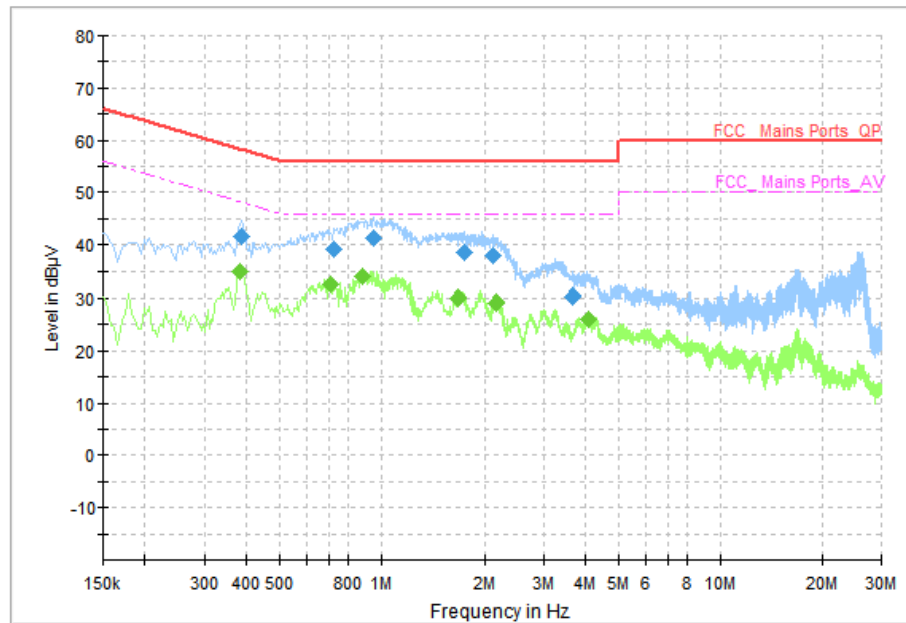
Fig.28 AC Power line Conducted Emission (Traffic)

Measurement Results: Quasi Peak

Frequency (MHz)	Quasi Peak (dBµV)	Limit (dBµV)	Margin (dB)	Line	Filter	Corr. (dB)
0.390000	41.51	58.06	16.55	N	ON	9.6
0.730000	39.68	56.00	16.32	N	ON	9.7
0.918000	40.91	56.00	15.09	N	ON	9.7
1.702000	38.42	56.00	17.58	L1	ON	9.7
2.138000	37.81	56.00	18.19	L1	ON	9.7
3.818000	30.93	56.00	25.07	N	ON	9.7

Measurement Results: Average

Frequency (MHz)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Line	Filter	Corr. (dB)
0.382000	33.89	48.24	14.34	N	ON	9.6
0.658000	31.44	46.00	14.56	N	ON	9.7
0.926000	33.92	46.00	12.08	N	ON	9.7
1.454000	29.96	46.00	16.04	N	ON	9.7
2.226000	28.77	46.00	17.23	N	ON	9.7
3.826000	25.35	46.00	20.65	N	ON	9.7


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)
0.386000	41.61	58.15	16.54	N	ON	9.6
0.726000	39.24	56.00	16.76	N	ON	9.7
0.946000	41.27	56.00	14.73	N	ON	9.7
1.738000	38.59	56.00	17.41	L1	ON	9.7
2.126000	37.97	56.00	18.03	L1	ON	9.7
3.666000	30.22	56.00	25.78	N	ON	9.7

Measurement Results: Average

Frequency (MHz)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Line	Filter	Corr. (dB)
0.382000	34.73	48.24	13.50	N	ON	9.6
0.706000	32.39	46.00	13.61	N	ON	9.7
0.882000	33.83	46.00	12.17	N	ON	9.7
1.666000	29.90	46.00	16.10	N	ON	9.7
2.174000	29.09	46.00	16.91	N	ON	9.7
4.054000	26.08	46.00	19.92	N	ON	9.7

**ANNEX B: Spot Check of Output Power****Company Name:** IDEMIA Identity and Security France**Product Name:** ID Screen US**Model Name:** MPH-MB003A/MPH-MB003B (FCC ID: ZBW-MPHMB003), MPH-MB003C (FCC ID: ZBW-MPHMB003C)**Spot Check of Different Mode**

Model	Mode	Frequency (MHz)	Conducted Power (dBm)
MPH-MB003A/MPH-MB003B	LE 1M	2440 (CH19)	-2.41
	BR (GFSK)	2441 (CH39)	9.71
	802.11b	2437 (CH6)	16.89
	802.11a	5180 (Ch36)	12.67
		5745 (CH149)	11.63
MPH-MB003C	LE 1M	2440 (CH19)	-2.46
	BR (GFSK)	2441 (CH39)	9.65
	802.11b	2437 (CH6)	16.72
	802.11a	5180 (Ch36)	12.47
		5745 (CH149)	11.51

Note: Spot check test data included for the variants based on worst-case results reported in the original FCC ID filing. From the above data, it can be concluded that the conducted output power of the variant is less than or near to the original. And the variant test data can refer to the original report. This condition applies to the reports I20N00956.

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