

FCC PART 15C TEST REPORT No. I18N00243-BT

for

Doro AB

Doro 4GLTE Clamshell phone

DFC-0190

with

Hardware Version: 3011

Software Version: CALM01A-S01A_DFC0190_120_180321094522

FCC ID: WS5DFC0190

Issued Date: 2018-04-08

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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REPORT HISTORY

Report Number	Report Number Revision		Issue Date	
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1. Test Laboratory

1.1. Testing Location

Location:

Shenzhen Academy of Information and Communications Technology

Address:

Building G, Shenzhen International Innovation Center, No.1006

Shennan Road, Futian District, Shenzhen, Guangdong Province, China

Postal Code:

518026

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1.2. Testing Environment

Normal Temperature:

15-30℃

Relative Humidity:

35-60%

1.3. Project data

Testing Start Date:

2018-03-05

Testing End Date:

2018-03-22

1.4. Signature

An Ran

(Prepared this test report)

Tang Weisheng

(Reviewed this test report)

Zhang Bojun

(Approved this test report)



2. Client Information

2.1. Applicant Information

Company Name: Doro AB

Address: Magistratsvägen 10 SE-226 43 Lund Sweden

Contact Person Per Carlenhag

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2.2. Manufacturer Information

Company Name: CK TELECOM LTD.

Technology Road. High-Tech Development Zone.

Heyuan, Guangdong, P.R. China

Contact Person Xin Li

E-Mail xin.li@ck-telecom.com
Telephone: 0755-26739100 ext.8515

Fax: 0755-26739600



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

3.1. About EUT

Description Doro 4GLTE Clamshell phone

Model Name DFC-0190

Market Name /

Frequency Band 2400MHz~2483.5MHz

Type of Modulation GFSK/ π /4 DQPSK/8DPSK

Number of Channels 79

Antenna Type Integrated
Antenna Gain -1.5dBi

Power Supply 3.85V DC by Battery

FCC ID WS5DFC0190

Note: Components list, please refer to documents of the manufacturer.

3.2.Internal Identification of EUT

EUT ID*	IMEI	HW Version	SW Version	Receive Date
EUT1	1	3011	CALM01A-S01A_DFC01	2018-03-02
			90_120_180321094522	

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

3.3.Internal Identification of AE

AE ID*	Description	Mode	Manufacturer
AE1	Battery	DBS-1350A	Veke
AE2	EU Charge	A2-3762-501000	Dongguan Aohai Power Techonolgy Co.,LTD
AE3	UK Charge	A806A-050100U-	Dongguan Aohai Power Techonolgy Co.,LTD
		UK1	

^{*}AE ID: is used to identify the test sample in the lab internally.

3.4. General Description

The Equipment Under Test (EUT) are a model of Mobile Phone with integrated antenna.

It consists of normal options: travel charger, USB cable.

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

Samples undergoing test were selected by the client.



4. Reference Documents

4.1. Documents supplied by applicant

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

4.2. Reference Documents for testing

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

Reference	Title	Version			
FCC Part 15	FCC CFR 47, Part 15, Subpart C:	2016			
	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. Summary of Test Results

No	Test cases	Sub-clause of Part 15C	
0	Antenna Requirement	15.203	Р
1	Maximum Peak Output Power	15.247 (b)	Р
2	Band Edges Compliance	15.247 (d)	Р
3	Conducted Spurious Emission	15.247 (d)	Р
4	Radiated Spurious Emission	15.247,15.205,15.209	Р
5	Occupied 20dB bandwidth	15.247(a)	Р
6	Time of Occupancy (Dwell Time)	15.247(a)	Р
7	Number of Hopping Channel	15.247(a)	Р
8	Carrier Frequency Separation	15.247(a)	Р
9	AC Powerline Conducted Emission	15.107,15.207	Р

See ANNEX A and below for details.

5.2. Statements

SAICT has evaluated the test cases requested by the applicant/manufacturer as listed in section 5.1 of this report, for the EUT specified in section 3, according to the standards or reference documents listed in section 4.2.

5.3. Terms used in the result table

Terms used in Verdict column

Р	Pass
NA	Not Available
F	Fail

Abbreviations

AC	Alternating Current
AFH	Adaptive Frequency Hopping
BW	Band Width
E.I.R.P.	equivalent isotropic radiated power
ISM	Industrial, Scientific and Medical
R&TTE	Radio and Telecommunications Terminal Equipment
RF	Radio Frequency
Tx	Transmitter



5.4. Laboratory Environment

Semi-anechoic chamber did not exceed following limits along the EMC testing

	3
Temperature	Min. = 15 °C, Max. = 30 °C
Relative humidity	Min. = 35 %, Max. = 60 %
Shielding effectiveness	0.014MHz - 1MHz, >60dB;
	1MHz - 1000MHz, >90dB.
Electrical insulation	> 2 MΩ
Ground system resistance	< 4Ω
Normalised site attenuation (NSA)	$<\pm4$ dB, 3m/10m distance, from 30 to 1000 MHz
Uniformity of field strength	Between 0 and 6 dB, from 80 to 3000 MHz

Shielded room did not exceed following limits along the EMC testing

Temperature	Min. = 15 °C, Max. = 30 °C
Relative humidity	Min. = 35 %, Max. = 60 %
Shielding effectiveness	0.014MHz - 1MHz, >60dB;
	1MHz - 1000MHz, >90dB.
Electrical insulation	> 2 MΩ
Ground system resistance	< 4 Ω

Fully-anechoic chamber did not exceed following limits along the EMC testing

Temperature	Min. = 15 °C, Max. = 30 °C
Relative humidity	Min. = 35 %, Max. = 60 %
Shielding effectiveness	0.014MHz - 1MHz, >60dB;
	1MHz - 1000MHz, >90dB.
Electrical insulation	> 2 MΩ
Ground system resistance	< 4Ω
Voltage Standing Wave Ratio	≤6dB, from 1 to 18 GHz,3m distance
(VSWR)	



6. Test Facilities Utilized

Conducted test system

No.	Equipment	Model	Serial Number	Manufacturer	Calibration Due date	Calibration Period
4	Vector Signal	FSV40	100903	Rohde &	2019.01.17	1 year
ı	Analyzer	F3V40	100903	Schwarz	2019.01.17	1 year
2	Bluetooth Tester	CBT32	100584	Rohde &	2019.01.03	1 year
	Didelootii iestei	CD132	100564	Schwarz		
3	Test Receiver	ESCI	100702	Rohde &	2019 06 25	1 year
3	rest Receiver	ESCI	100702	Schwarz	2018.06.25	1 year
4	LISN	ENV216	102067	Rohde &	2018.07.19	1 year
4	LION	EINVZIO	102007	Schwarz	2016.07.19	1 year

Radiated emission test system

	hadiated emission test system					
No.	Equipment Model Serial Manufacturer		Calibration	Calibration		
140.	Equipment	Wiodei	Number	Wallaracture	Due date	Period
1	Chamber	FACT3-2.0	1285	ETS-Lindgren	2019.11.27	3 years
2	Test Receiver	ESR7	101676	Rohde & Schwarz	2018.11.29	1 year
3	Spectrum Analyser	FSV40	102192	Rohde & Schwarz	2018.05.22	1 year
4	BiLog Antenna	VULB9163	9163 329	Schwarzbeck	2020.02.27	3 years
5	Horn Antenna	3117	00066577	ETS-Lindgren	2019.04.05	3 years
6	Loop Antenna	HLA6120	35779	TESEQ	2019.05.02	3 years
7	Horn Antonna	QSH-SL-1	17012	Oper	2020 01 15	2 voore
′	Horn Antenna	8-26-S-20	17013	Q-par	2020.01.15	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. Measurement Uncertainty

Test Name	Uncertainty		
RF Output Power - Conducted	±1.32dB		
2. Time of Occupancy - Conducted	±0.58ms		
3.Occupied channel bandwidth - Conducted	±66	Hz	
4 Transmitter Spurious Emission - Conducted	30MHz≶f≶1GHz	±1.41dB	
	1GHz≤f≤7GHz	±1.92dB	
	7GHz≤f≤13GHz	±2.31dB	
	13GHz≤f≤26GHz	±2.61dB	
	9kHz≤f≤30MHz	±1.84dB	
5 Transmitter Courieus Emission Dedicted	30MHz≤f≤1GHz	±4.90dB	
5. Transmitter Spurious Emission - Radiated	1GHz≤f≤18GHz	±5.32dB	
	18GHz≤f≤40GHz	±4.66dB	
6. AC Power line Conducted Emission	150kHz≤f≤30MHz	±2.72dB	



ANNEX A: Detailed Test Results

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 -1.5dBi.

The RF transmitter uses an integrate antenna without connector.



A.1 Maximum Peak Output Power

Method of Measurement: See ANSI C63.10-clause 7.8.5.

Use the following spectrum analyzer settings:

- a) Set Span = 6 MHz.
- b) Set RBW = 3 MHz.
- c) Set VBW = 3 MHz.
- d) Sweep time = auto.
- e) Detector = peak.
- f) Trace = max hold.
- g) Allow trace to stabilize.
- h) Use the marker-to-peak function to set the marker to the peak of the emission.
- I) The indicated level is the peak output power.

Measurement Limit:

Standard	Limit (dBm)
FCC CRF Part 15.247(b)(1) &	- 24
RSS-247 Section 5.4	< 21

Measurement Results:

	Peak Conducted Output Power(dBm)			
Mode	2402MHz	2441MHz	2480 MHz	
	(Ch0)	(Ch39)	(Ch78)	
GFSK	7.43	8.23	8.55	
π/4 DQPSK	7.99	8.55	9.16	
8DPSK	8.37	8.87	9.51	

See below for test graphs.



A.2 Band Edges Compliance

Measurement Limit:

Standard	Limit (dBc)
FCC 47 CFR Part 15.247 (d) &	. 20
RSS-247 Section 5.5	> 20

Measurement Result:

Mode	Channel	Hopping	Test Results	Conclusion
GFSK	0	ON	Fig.1	Р
GFSK	78	ON	Fig.2	Р
π/4 DQPSK	0	ON	Fig.3	Р
	78	ON	Fig.4	Р
8DPSK	0	ON	Fig.5	Р
	78	ON	Fig.6	Р

Mode	Channel	Hopping	Test Results	Conclusion
OFOK	0	OFF	Fig.7	Р
GFSK	78	OFF	Fig.8	Р
π/4 DQPSK	0	OFF	Fig.9	Р
	78	OFF	Fig.10	Р
8DPSK	0	OFF	Fig.11	Р
	78	OFF	Fig.12	Р

See below for test graphs.





Fig. 1 Band Edges (GFSK, Ch 0, Hopping ON)

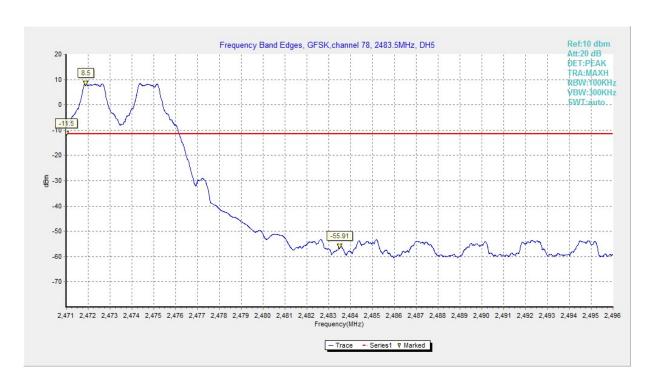


Fig. 2 Band Edges (GFSK, Ch 78, Hopping ON)



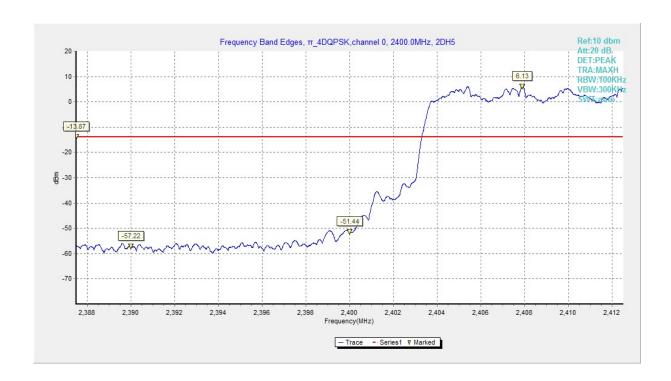


Fig. 3 Band Edges (π /4 DQPSK, Ch 0, Hopping ON)

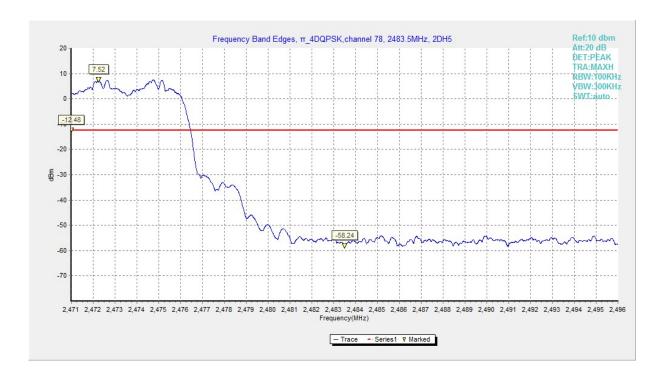


Fig. 4 Band Edges (π/4 DQPSK, Ch 78, Hopping ON)



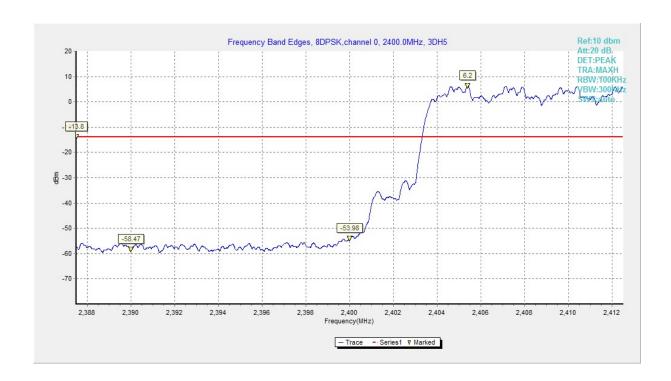


Fig. 5 Band Edges (8DPSK, Ch 0, Hopping ON)

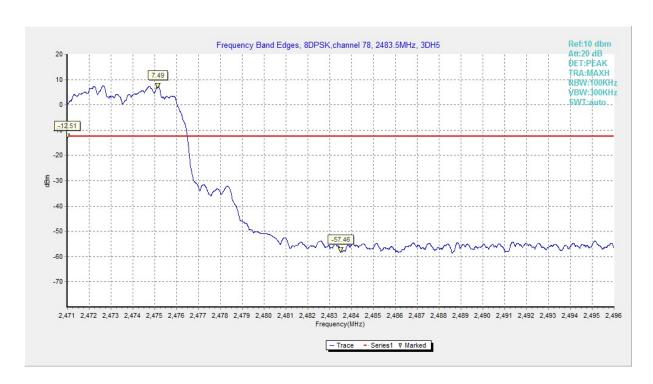


Fig. 6 Band Edges (8DPSK, Ch 78, Hopping ON)



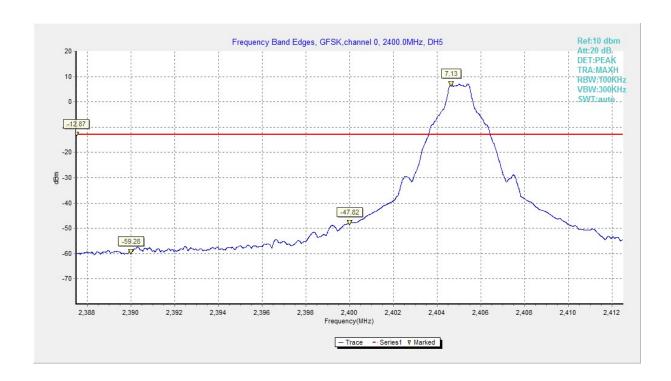


Fig. 7 Band Edges (GFSK, Ch 0, Hopping OFF)

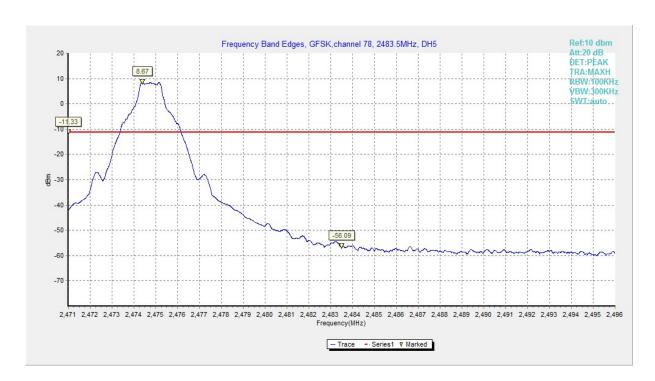


Fig. 8 Band Edges (GFSK, Ch 78, Hopping OFF)



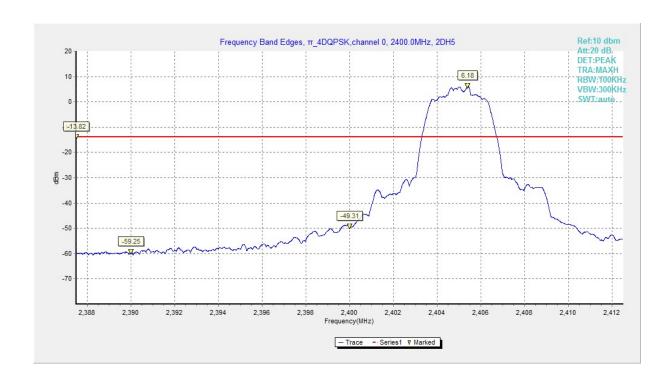


Fig. 9 Band Edges (π/4 DQPSK, Ch 0, Hopping OFF)

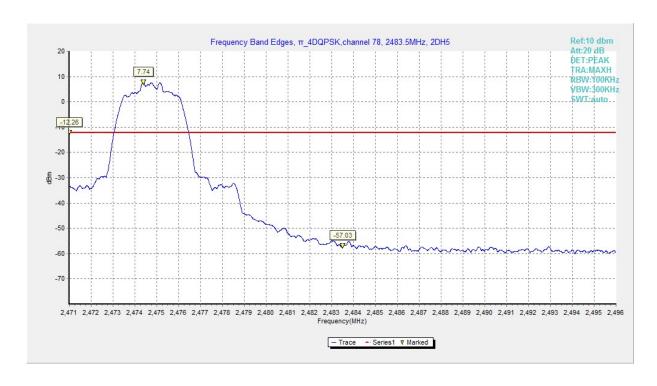


Fig. 10 Band Edges (π/4 DQPSK, Ch 78, Hopping OFF)



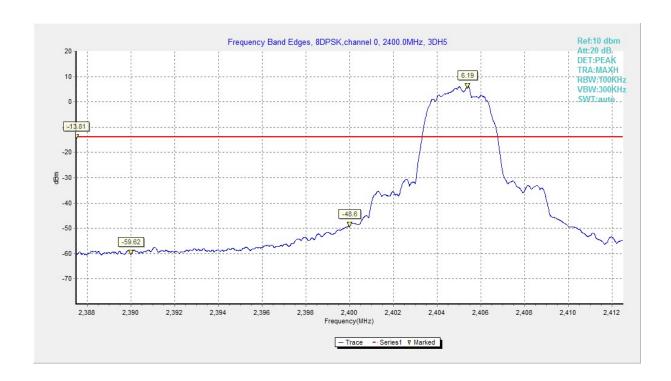


Fig. 11 Band Edges (8DPSK, Ch 0, Hopping OFF)

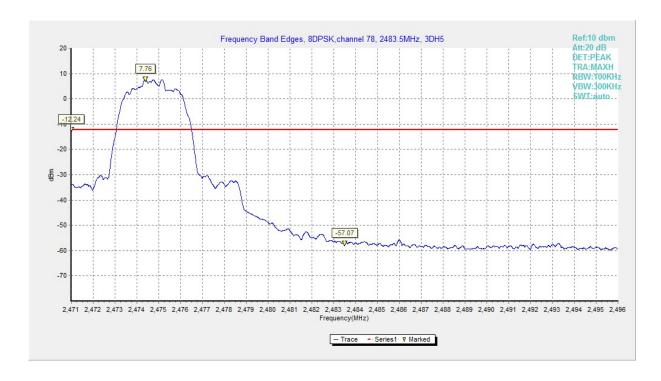


Fig. 12 Band Edges (8DPSK, Ch 78, Hopping OFF)



A.3 Conducted Emission

Measurement Limit:

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

Measurement Results:

MODE	Channel	Frequency Range	Test Results	Conclusion
	0	1GHz-3GHz	Fig.13	Р
	0	3GHz-10GHz	Fig.14	Р
GFSK	39	1GHz-3GHz	Fig.15	Р
GFSK	39	3GHz-10GHz	Fig.16	Р
	78	1GHz-3GHz	Fig.17	Р
	76	3GHz-10GHz	Fig.18	Р
	0	1GHz-3GHz	Fig.19	Р
	0	3GHz-10GHz	Fig.20	Р
π /4	39	1GHz-3Ghz	Fig.21	Р
DQPSK		3GHz-10GHz	Fig.22	Р
	78	1GHz-3Ghz	Fig.23	Р
		3GHz-10GHz	Fig.24	Р
	0	1GHz-3GHz	Fig.25	Р
	U	3GHz-10GHz	Fig.26	Р
8DPSK	39	1GHz-3GHz	Fig.27	Р
ODPSK		3GHz-10GHz	Fig.28	Р
	78	1GHz-3GHz	Fig.29	Р
	10	3GHz-10GHz	Fig.30	Р
/	All channels	30 MHz-1GHz	Fig.31	Р
/	All channels	10GHz-26GHz	Fig.32	Р

See below for test graphs.



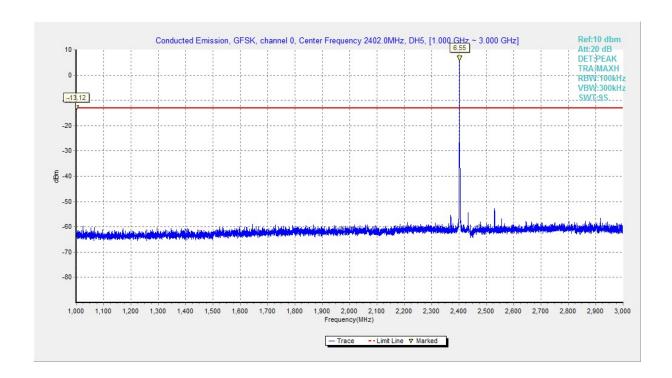


Fig. 13 Conducted Spurious Emission (GFSK, Ch0, 1 GHz-3 GHz)

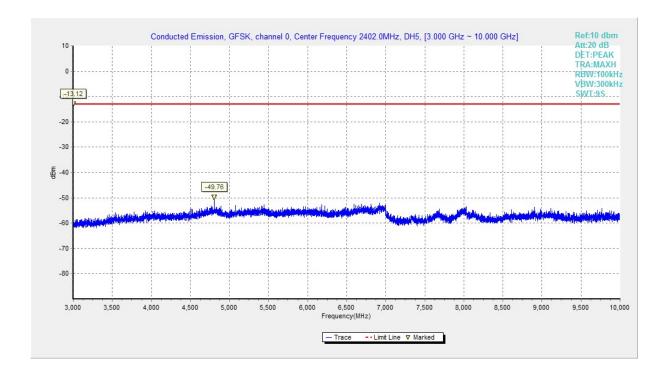


Fig. 14 Conducted Spurious Emission (GFSK, Ch0, 3GHz-10 GHz)



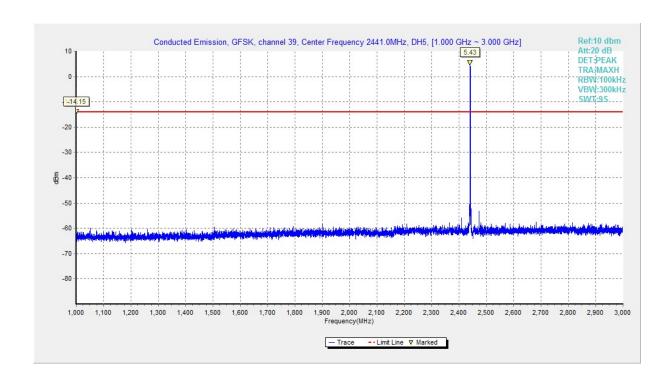


Fig. 15 Conducted Spurious Emission (GFSK, Ch39, 1GHz-3 GHz)

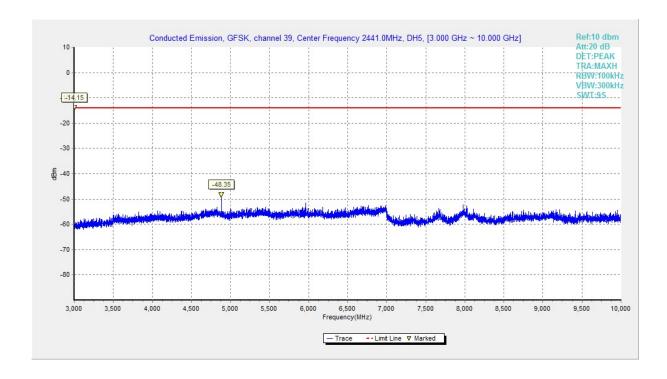


Fig. 16 Conducted Spurious Emission (GFSK, Ch39, 3GHz-10 GHz)



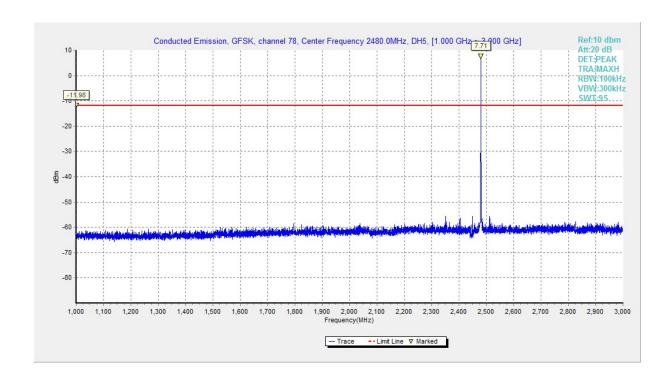


Fig. 17 Conducted Spurious Emission (GFSK, Ch78, 1GHz-3 GHz)

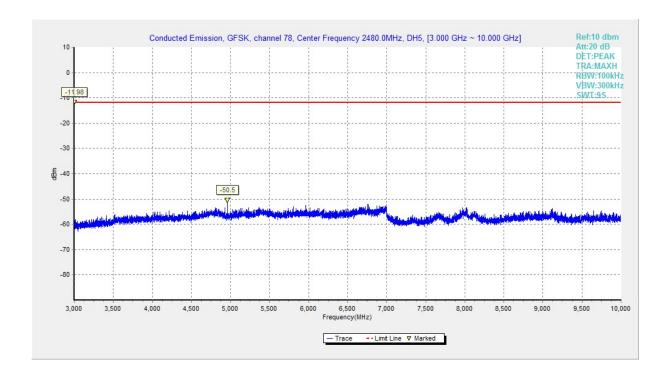


Fig. 18 Conducted Spurious Emission (GFSK, Ch78, 3GHz-10 GHz)



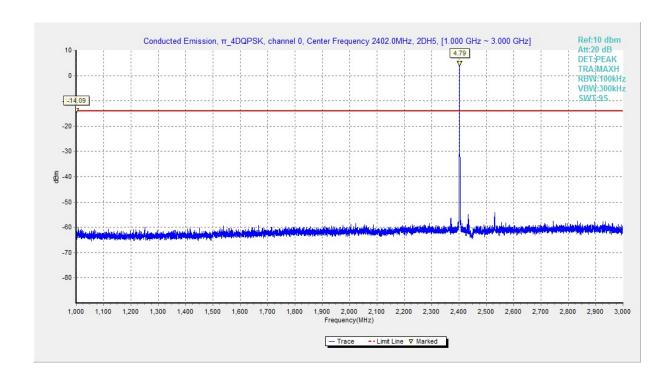


Fig. 19 Conducted Spurious Emission (π/4 DQPSK, Ch0, 1GHz-3 GHz)

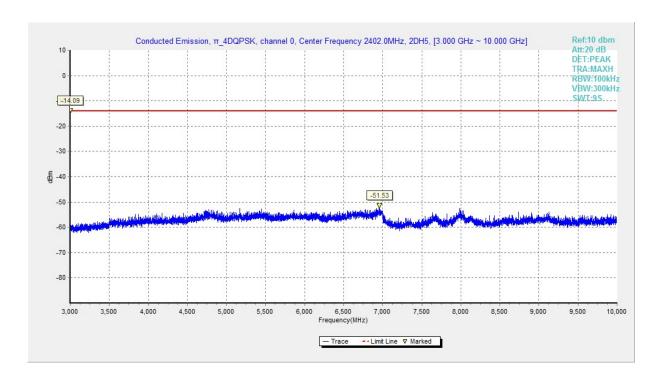


Fig. 20 Conducted Spurious Emission (π/4 DQPSK, Ch0, 3GHz-10 GHz)



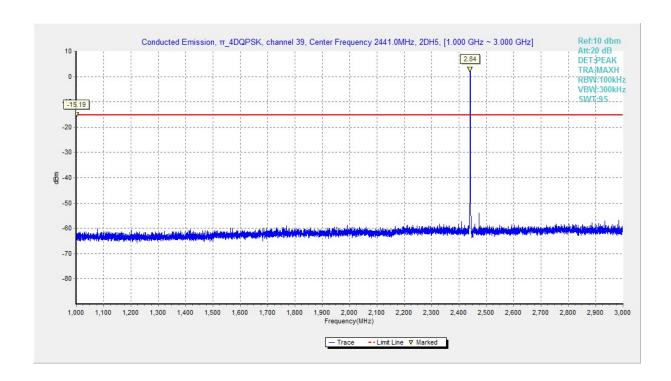


Fig. 21 Conducted Spurious Emission (π/4 DQPSK, Ch39, 1GHz-3 GHz)

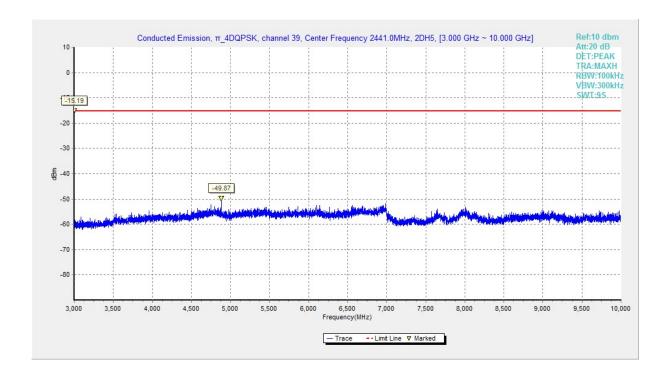


Fig. 22 Conducted Spurious Emission (π/4 DQPSK, Ch39, 3GHz-10 GHz)



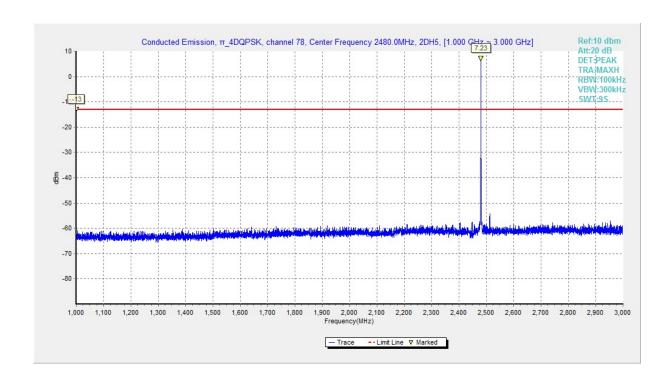


Fig. 23 Conducted Spurious Emission (π/4 DQPSK, Ch78, 1GHz-3 GHz)

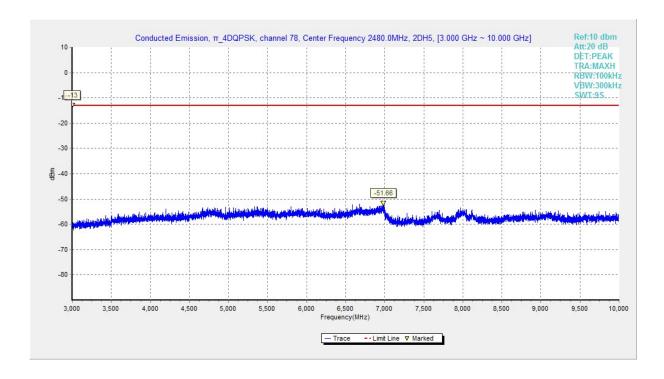


Fig. 24 Conducted Spurious Emission (π/4 DQPSK, Ch78, 3GHz-10 GHz)



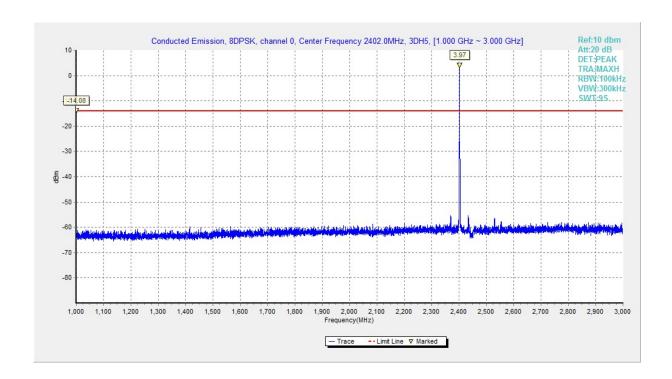


Fig. 25 Conducted Spurious Emission (8DPSK, Ch0, 1GHz-3 GHz)

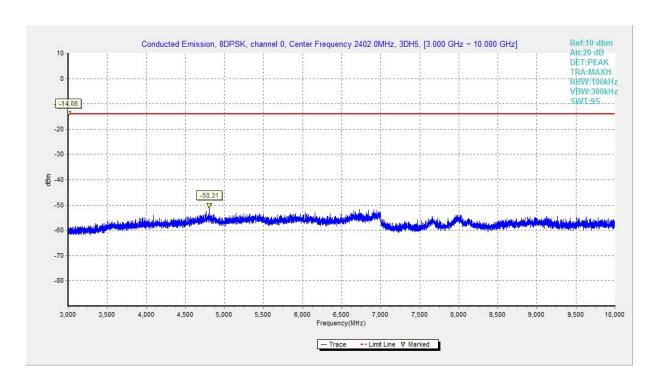


Fig. 26 Conducted Spurious Emission (8DPSK, Ch0, 3GHz-10 GHz)



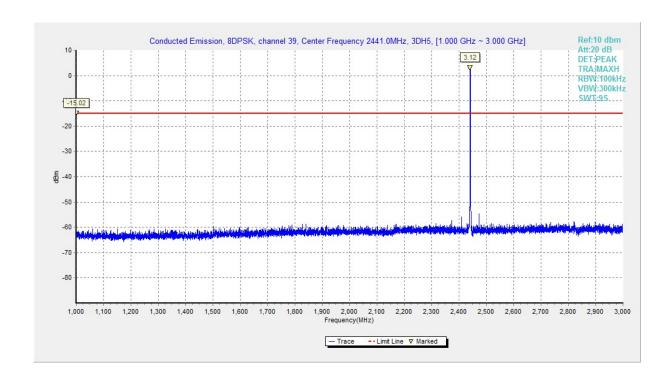


Fig. 27 Conducted Spurious Emission (8DPSK, Ch39, 1GHz-3 GHz)

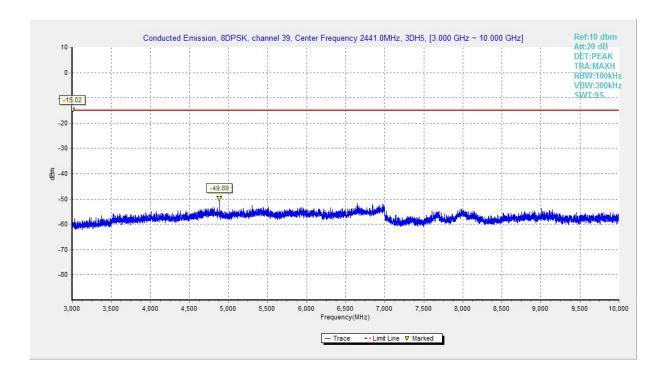


Fig. 28 Conducted Spurious Emission (8DPSK, Ch39, 3GHz-10 GHz)



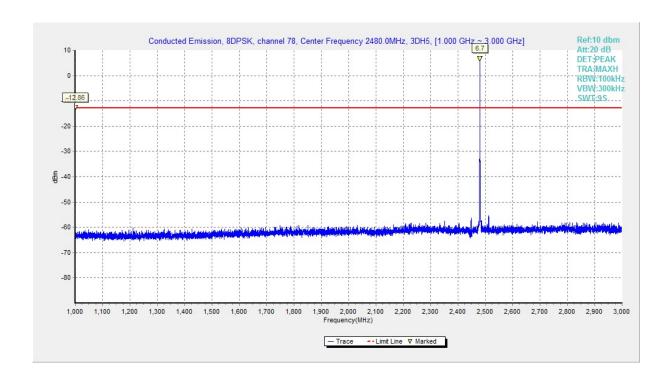


Fig. 29 Conducted Spurious Emission (8DPSK, Ch78, 1GHz-3 GHz)

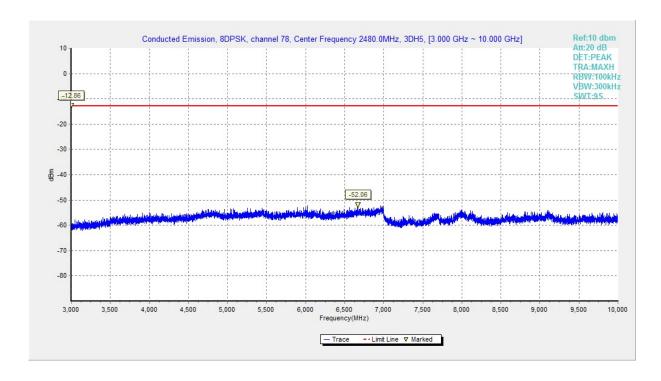


Fig. 30 Conducted Spurious Emission (8DPSK, Ch78, 3GHz-10 GHz)



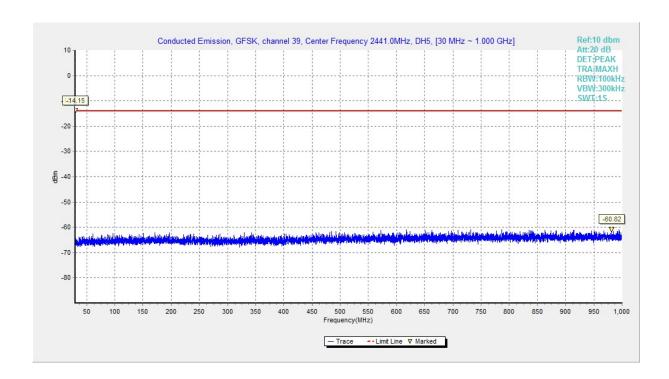


Fig. 31 Conducted Spurious Emission (All channel, 30 MHz-1 GHz)

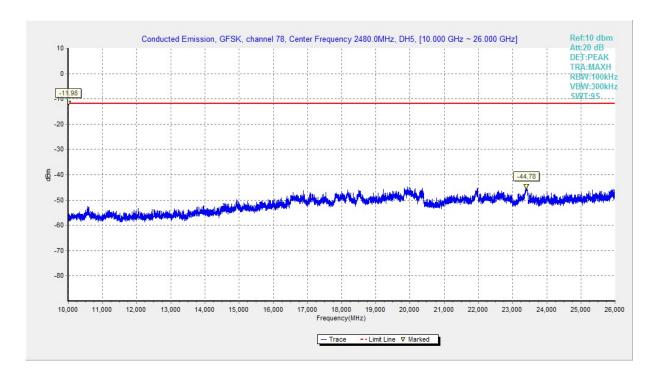


Fig. 32 Conducted Spurious Emission All channel, 10 GHz-26 GHz,)



A.4 Radiated Emission

Measurement Limit:

Standard	Limit	
FCC 47 CFR Part 15.247, 15.205, 15.209	20dD below peak autout power	
& RSS-247 Section 5.5	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	RBW/VBW	Sweep Time(s)
' '	INDVV/VBVV	Gweep Time(3)
(MHz)		
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
	0	1 GHz ~18 GHz	Fig.33	Р
	39	1 GHz ~18 GHz	Fig.34	Р
GFSK	78	1 GHz ~18 GHz	Fig.35	Р
	Restricted Band(CH0)	2.38 GHz ~ 2.45 GHz	Fig.36	Р
	Restricted Band (CH78)	2.45 GHz ~ 2.5 GHz	Fig.37	Р
	0	1 GHz ~18 GHz	Fig.38	Р
- /4	39	1 GHz ~18 GHz	Fig.39	Р
π/4 DQPSK	78	1 GHz ~18 GHz	Fig.40	Р
DQPSK	Restricted Band (CH0)	2.38 GHz ~ 2.45 GHz	Fig.41	Р
	Restricted Band (CH78)	2.45 GHz ~ 2.5 GHz	Fig.42	Р
	0	1 GHz ~18 GHz	Fig.43	Р
	39	1 GHz ~18 GHz	Fig.44	Р
8DPSK	78	1 GHz ~18 GHz	Fig.45	Р
	Restricted Band (CH0)	2.38 GHz ~ 2.45 GHz	Fig.46	Р
	Restricted Band (CH78)	2.45 GHz ~ 2.5 GHz	Fig.47	Р
/		9 kHz ~30 MHz	Fig.48	Р
	All channels	30 MHz ~1 GHz	Fig.49	Р
		18 GHz ~26.5 GHz	Fig.50	Р



Worst Case Result GFSK CH78 (1-18GHz)

Frequency (MHz)	MaxPeak (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Pol	Corr. (dB)
13910.500000	57.29	74.00	16.71	V	21.1
14607.500000	57.49	74.00	16.51	V	21.5
15461.000000	61.78	74.00	12.22	Н	22.8
15986.000000	63.62	74.00	10.38	Н	24.7
16596.000000	63.45	74.00	10.55	V	26.3
17697.500000	63.70	74.00	10.30	V	27.3

Frequency (MHz)	Average (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Pol	Corr. (dB)
13910.500000	46.18	54.00	7.82	Н	21.1
14600.000000	46.07	54.00	7.93	V	21.7
15575.000000	49.60	54.00	4.40	Н	23.7
15937.500000	50.97	54.00	3.03	V	24.9
16587.000000	51.59	54.00	2.41	V	26.3
17714.000000	51.83	54.00	2.17	V	27.7

π /4 DQPSK CH78 (1-18GHz)

Frequency (MHz)	MaxPeak (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Pol	Corr. (dB)
13938.500000	57.92	74.00	16.08	V	20.1
14684.500000	57.62	74.00	16.38	Н	21.5
15562.500000	61.63	74.00	12.37	Н	23.3
16309.500000	62.75	74.00	11.25	V	25.5
16596.000000	64.13	74.00	9.87	V	26.3
17685.000000	64.34	74.00	9.66	Н	27.0

Frequency (MHz)	Average (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Pol	Corr. (dB)
13911.500000	45.86	54.00	8.14	Н	21.0
14681.000000	46.23	54.00	7.77	Н	21.5
15575.000000	49.57	54.00	4.43	Н	23.7
15942.500000	50.90	54.00	3.10	Н	24.9
16587.000000	51.75	54.00	2.25	Н	26.3
17710.500000	51.92	54.00	2.08	V	27.7



8DPSK CH78 (1-18GHz)

Frequency (MHz)	MaxPeak (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Pol	Corr. (dB)
13908.000000	57.53	74.00	16.47	V	21.0
14522.000000	58.31	74.00	15.69	V	20.9
15333.500000	60.76	74.00	13.24	V	22.6
16260.000000	62.14	74.00	11.86	Н	25.3
16594.000000	63.14	74.00	10.86	Н	26.3
17711.000000	63.81	74.00	10.19	Н	27.7

Frequency (MHz)	Average (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Pol	Corr. (dB)
13908.000000	45.84	54.00	8.16	V	21.0
14681.000000	46.16	54.00	7.84	V	21.5
15577.500000	49.63	54.00	4.37	V	23.8
15944.000000	50.87	54.00	3.13	V	24.9
16597.000000	51.73	54.00	2.27	V	26.3
17706.500000	52.13	54.00	1.87	V	27.6

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.



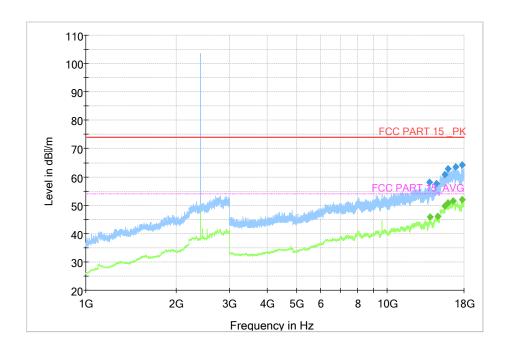


Fig. 33 Radiated Spurious Emission (GFSK, Ch0, 1 GHz ~18 GHz)

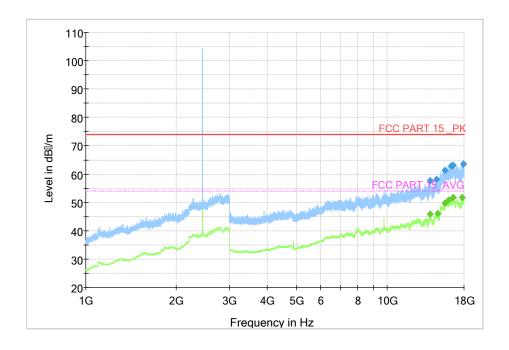


Fig. 34 Radiated Spurious Emission (GFSK, Ch39, 1 GHz ~18 GHz)



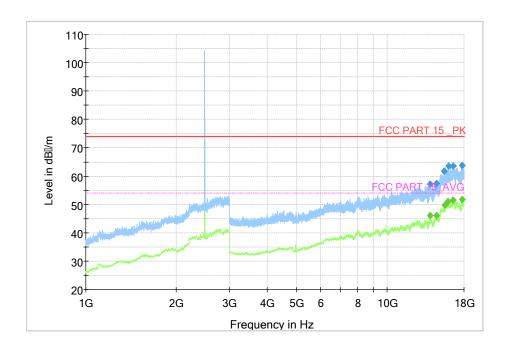


Fig. 35 Radiated Spurious Emission (GFSK, Ch78, 1 GHz ~18 GHz)

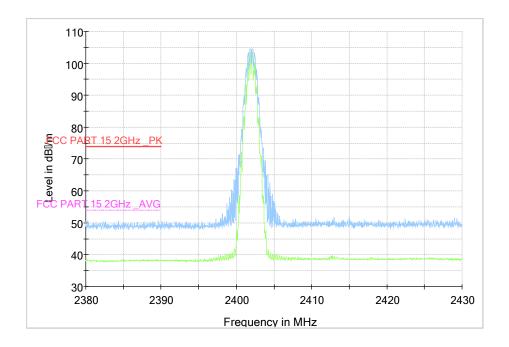


Fig. 36 Radiated Band Edges (GFSK, Ch0, 2380GHz~2450GHz)



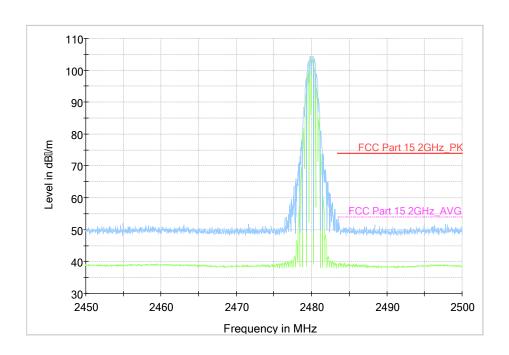


Fig. 37 Radiated Band Edges (GFSK, Ch78, 2450GHz~2500GHz)

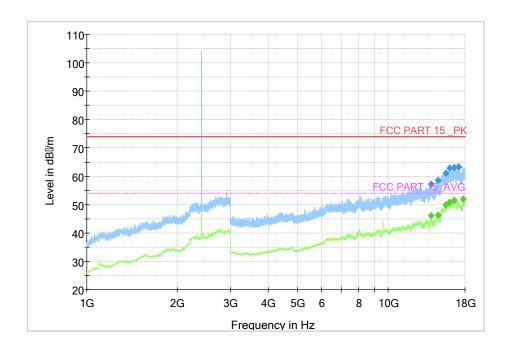


Fig. 38 Radiated Spurious Emission (π/4 DQPSK, Ch0, 1 GHz ~18 GHz)



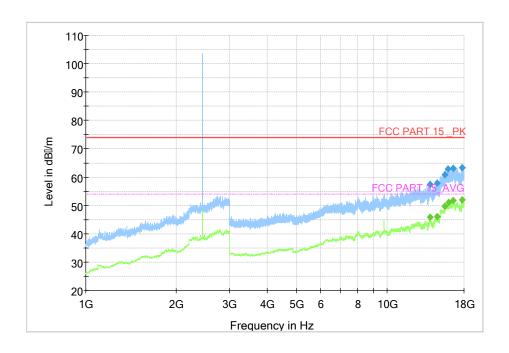


Fig. 39 Radiated Spurious Emission (π /4 DQPSK, Ch39, 1 GHz ~18 GHz)

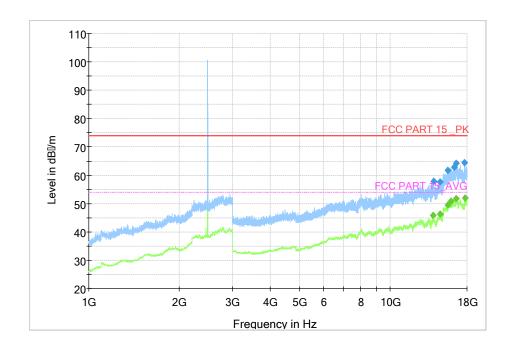


Fig. 40 Radiated Spurious Emission (π/4 DQPSK, Ch78, 1 GHz ~18 GHz)



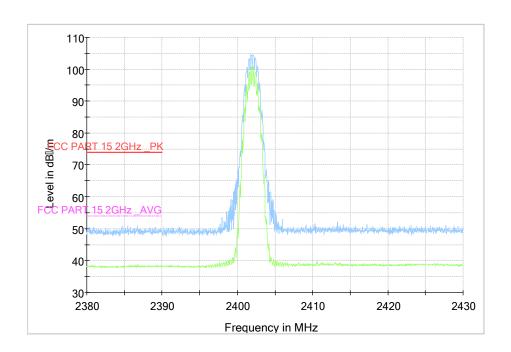


Fig. 41 Radiated Band Edges (π /4 DQPSK, Ch0, 2380GHz~2450GHz)

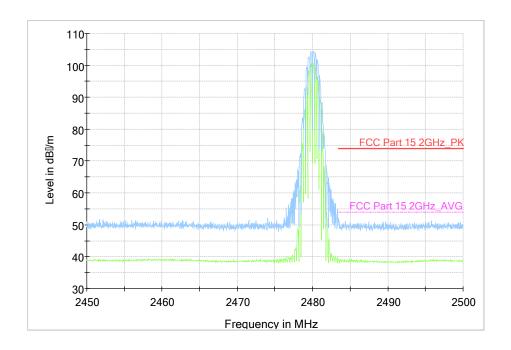


Fig. 42 Radiated Band Edges (π /4 DQPSK, Ch78, 2450GHz~2500GHz)



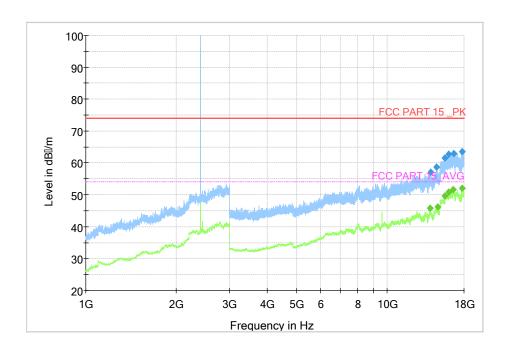


Fig. 43 Radiated Spurious Emission (8DPSK, Ch0, 1 GHz ~18 GHz)

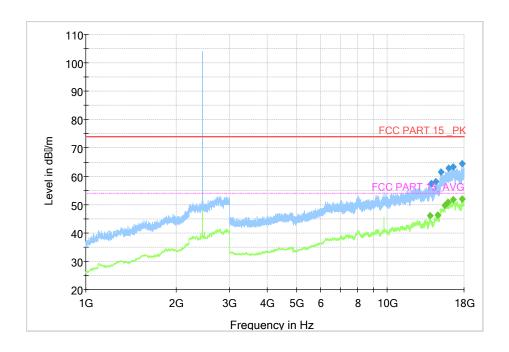


Fig. 44 Radiated Spurious Emission (8DPSK, Ch39, 1 GHz ~18 GHz)



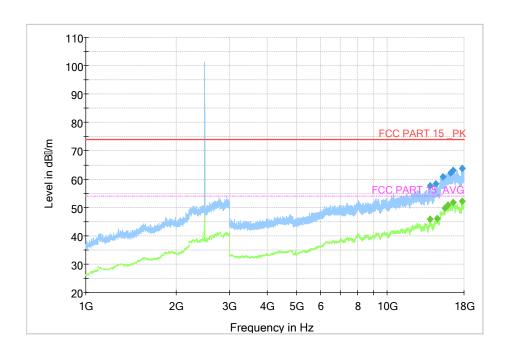


Fig. 45 Radiated Spurious Emission (8DPSK, Ch78, 1 GHz ~18 GHz)

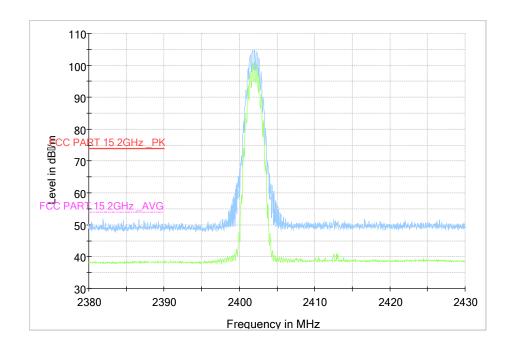


Fig. 46 Radiated Band Edges (8DPSK, Ch0, 2380GHz~2450GHz)



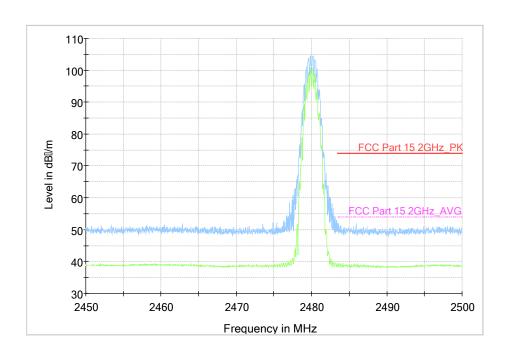


Fig. 47 Radiated Band Edges (8DPSK, Ch78, 2450GHz~2500GHz)

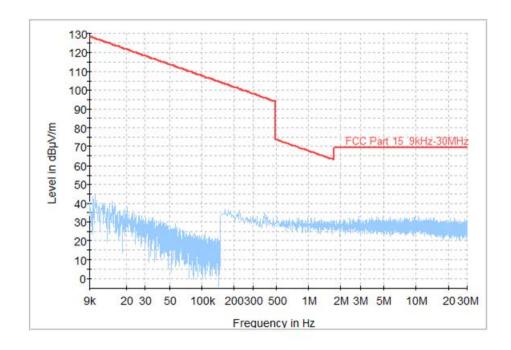


Fig. 48 Radiated Spurious Emission (All Channels, 9 kHz ~30 MHz)



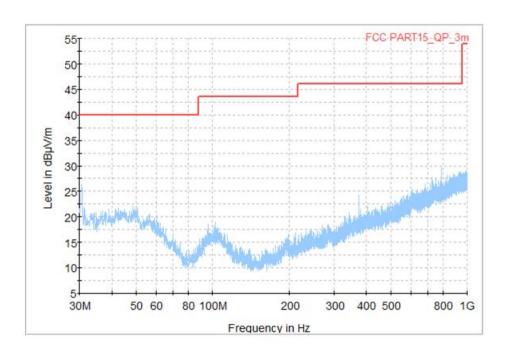


Fig. 49 Radiated Spurious Emission (All Channels, 30 MHz ~1 GHz)

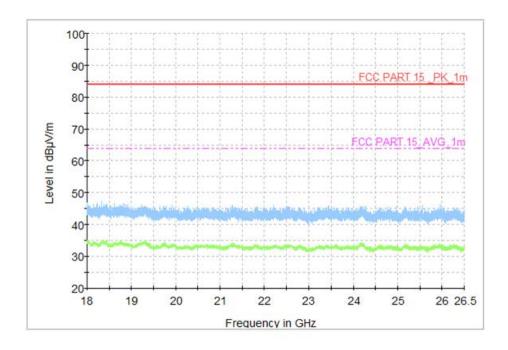


Fig. 50 Radiated Spurious Emission (All Channels, 18 GHz ~26.5 GHz)