





FCC PART 15C TEST REPORT

No. I19Z61716-IOT03

for

HMD Global Oy

Multi-band GSM/WCDMA/LTE phone with Bluetooth, WLAN

Model Name: TA-1211

FCC ID: 2AJOTTA-1211

with

Hardware Version: 99621_1_11

Software Version: 000T 0 130

Issued Date: 2019-10-23

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 CTTL.

The report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the U.S.Government.

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REPORT HISTORY

Report Number	Revision	Description	Issue Date
I19Z61716-IOT03	Rev.0	1st edition	2019-10-23





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1. Test Laboratory

1.1. Introduction & Accreditation

Telecommunication Technology Labs, CAICT is an ISO/IEC 17025:2005accredited test laboratory under NATIONAL VOLUNTARY LABORATORY ACCREDITATION PROGRAM (NVLAP)with lab code600118-0, and is also an FCC accredited test laboratory (CN5017), and ISED accredited test laboratory (CN0066). The detail accreditation scope can be found on NVLAP website.

1.2. Testing Location

Conducted testing Location: CTTL(huayuan North Road)

Address: No. 52, Huayuan North Road, Haidian District, Beijing,

P. R. China100191

Radiated testing Location: CTTL(BDA)

Address: No.18A, Kangding Street, Beijing Economic-Technology

Development Area, Beijing, P. R. China 100176





1.3. Testing Environment

Normal Temperature: $15-35^{\circ}$ C Relative Humidity: 20-75%

1.4. Project data

Testing Start Date: 2019-9-16
Testing End Date: 2019-10-10

1.5. Signature

Wu Le

(Prepared this test report)

Sun Zhenyu

(Reviewed this test report)

Li Zhuofang

(Approved this test report)





2. Client Information

2.1. Applicant Information

Company Name: HMD Global Oy

Address /Post: Bertel Jungin aukio 9,02600 Espoo, Finland

City: Espoo

Postal Code: /

Country: Finland

Telephone: / Fax: /

2.2. Manufacturer Information

Company Name: HMD Global Oy

Address /Post: Bertel Jungin aukio 9,02600 Espoo, Finland

City: Espoo

Postal Code: /

Country: Finland

Telephone: // Fax: //





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

3.1. About EUT

Description Multi-band GSM/WCDMA/LTE phone with Bluetooth, WLAN

Model Name TA-1211

FCC ID 2AJOTTA-1211

Frequency Band ISM 2400MHz~2483.5MHz Type of Modulation GFSK/π/4 DQPSK/8DPSK

Number of Channels 79

Power Supply 3.85V DC by Battery

3.2. Internal Identification of EUT

EUT ID*	SN or IMEI	HW Version	SW Version
EUT1	1	99621_1_11	000T_0_130
EUT2	354218100001378	99621_1_11	000T_0_130

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

3.3. Internal Identification of AE

AE ID*	Description		
AE1	Battery	1	1
AE3	Charger	1	1
AE4	Charger	1	1
AE5	Charger	1	1
AE6	Charger	1	1
AE7	USB Cable	1	1
AE8	USB Cable	1	1

AE1

Model WT240

Manufacturer Jiade Energy Technology (Zhuhai) Co., Ltd

Capacitance 3920mAh Nominal voltage 3.85v

AE3

Model CH-35E

Manufacturer Shenzhen Tianyin Electronics Co., Ltd

Length of cable /

AE4

Model CH-35X





Manufacturer Shenzhen Tianyin Electronics Co., Ltd

Length of cable

AE5

Model CH-35U

Manufacturer Shenzhen Tianyin Electronics Co., Ltd

Length of cable

AE6

Model CH-35E

Manufacturer Yutong electronics(Huizhou) co.,ltd

Length of cable

AE7

Model CB-35A

Manufacturer Leagtech Electronics Co.,Ltd

Length of cable /

AE8

Model CB-35A

Manufacturer Shenzhen BRL Technology

Co.,Ltd.

Length of cable /

3.4. Normal Accessory setting

Fully charged battery should be used during the test.

3.5. General Description

The Equipment Under Test (EUT) is a model of Multi-band GSM/WCDMA/LTE phone with Bluetooth, WLAN with integrated antenna. It consists of normal options: lithium battery, charger. Manual and specifications of the EUT were provided to fulfill the test. Samples undergoing test were selected by the Client.

^{*}AE ID: 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 client 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 CFR 47, Part 15, Subpart C:	
	15.205 Restricted bands of operation;	
FCC Part15	15.209 Radiated emission limits, general requirements;	2018
	15.247 Operation within the bands 902–928MHz,	
	2400-2483.5 MHz, and 5725-5850 MHz.	
ANCI 062 10	American National Standard of Procedures for	luna 2012
ANSI C63.10	Compliance Testing of Unlicensed Wireless Devices	June,2013





5. Test Results

5.1. Summary of Test Results

Abbreviations used in this clause:

- **P** Pass, The EUT complies with the essential requirements in the standard.
- **F** Fail, The EUT does not comply with the essential requirements in the standard
- NA Not Applicable, The test was not applicable
- NP Not Performed, The test was not performed by CTTL
- **R** Re-use test data from basic model report.

SUMMARY OF MEASUREMENT RESULTS	Sub-clause	Verdict
Peak Output Power - Conducted	15.247 (b)(1)	Р
Frequency Band Edges	15.247 (d)	R
Transmitter Spurious Emission - Conducted	15.247 (d)	R
Transmitter Spurious Emission - Radiated	15.247, 15.205, 15.209	R
Time of Occupancy (Dwell Time)	15.247 (a) (1)(iii)	R
20dB Bandwidth	15.247 (a)(1)	R
Carrier Frequency Separation	15.247 (a)(1)	R
Number of hopping channels	15.247 (a)(b)(iii)	R
AC Powerline Conducted Emission	15.107, 15.207	R

Please refer to **ANNEX A** for detail.

The measurement is made according to ANSI C63.10.

5.2. Statements

CTTL 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. Explanation of re-use of test data

The Equipment Under Test (EUT) model TA-1211(FCC ID: 2AJOTTA-1211) is a variant product of TA-1206(FCC ID: 2AJOTTA-1206), according to the declaration of changes provided by the applicant and FCC KDB publication 484596 D01, spot check measurements(Peak Output Power-Conducted) were performed on this device, other test results are derived from test report No. I19Z61671-IOT03(I19Z61671-IOT03 is test report of TA-1214. TA-1206 is a variant product of TA-1214 and shares the TA-1214 results). Please refer Annex A for detail spot check verification data and reference data. the spot check test results are consistent with basic model. For detail differences between two models please refer the Declaration of Changes document.





6. <u>Test Facilities Utilized</u>

Conducted test system

No.	Equipment	Model	Serial Number	Manufacturer	Calibratio n Period	Calibration Due date
1	Vector Signal Analyzer	FSQ26	200136	Rohde & Schwarz	1 year	2019-11-21
2	Bluetooth Tester	CBT32	100649	Rohde & Schwarz	1 year	2019-10-28
3	LISN	ENV216	101459	R&S	1 year	2020-04-10
4	Test Receiver	ESCI	100766	R&S	1 year	2020-03-20
5	Base Station Simulator	CMW500	159408	R&S	1 year	2020-03-03
6	Shielding Room	S81	/	ETS-Lindgren	1	/

Radiated emission test system

	Tradition of the control of the cont					
No.	Equipment	Model	Serial	Manufacturer	Calibration	Calibration
140.	Equipment	Wiodei	Number	Manufacturer	Period	Due date
1	Test Receiver	ESU26	100376	Rohde & Schwarz	1 year	2019-11-27
2	BiLog Antenna	VULB9163	9163-514	Schwarzbeck	1 year	2020-02-03
	Dual-Ridge					
3	Waveguide Horn	3115	00167252	ETS-Lindgren	1 year	2019-11-25
	Antenna					
	Dual-Ridge					
4	Waveguide Horn	3116	2663	ETS-Lindgren	1 year	2020-05-31
	Antenna					
5	Vector Signal FOV40	101047	Dobdo & Cobyran	1 voor	2020-05-16	
	Analyzer	FSV40	101047	Rohde & Schwarz	1 year	2020-05-16
6	Base Station	CNAVAGOO	150400	Dec	1 voor	2020 02 02
6	Simulator	CMW500	159408	R&S	1 year	2020-03-03





7. Measurement Uncertainty

7.1. Peak Output Power - Conducted

Measurement Uncertainty:

	Measurement Uncertainty (k=2)	0.66dB
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7.2. Frequency Band Edges

Measurement Uncertainty:

Measurement Uncertainty (k=2)	0.66dB
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7.3. Transmitter Spurious Emission - Conducted

Measurement Uncertainty:

Frequency Range	Uncertainty (k=2)
30 MHz ~ 8 GHz	1.22dB
8 GHz ~ 12.75 GHz	1.51dB
12.7GHz ~ 26 GHz	1.51dB

7.4. Transmitter Spurious Emission - Radiated

Measurement Uncertainty:

Frequency Range	Uncertainty (k=2)
< 1 GHz	5.40dB
> 1 GHz	4.32dB

7.5. Time of Occupancy (Dwell Time)

Measurement Uncertainty:

Measurement Uncertainty (k=2)	0.88ms

7.6. 20dB Bandwidth

Measurement Uncertainty:

Measurement Uncertainty (k=2)	61.936Hz
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7.7. Carrier Frequency Separation

Measurement Uncertainty:

Measurement Uncertainty (k=2)

7.8. AC Powerline Conducted Emission

Measurement Uncertainty:

Measurement Uncertainty (k=2)	3.38dB
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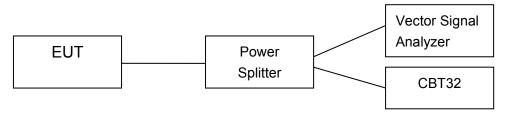
ANNEX A: Detailed Test Results

A.1. Measurement Method

A.1.1. Conducted Measurements

The measurement is made according to ANSI C63.10.

- 1). Connect the EUT to the test system correctly.
- 2). Set the EUT to the required work mode (Transmitter, receiver or transmitter & receiver).
- 3). Set the EUT to the required channel.
- 4). Set the EUT hopping mode (hopping or hopping off).
- 5). Set the spectrum analyzer to start measurement.
- 6). Record the values. Vector Signal Analyzer



A.1.2. Radiated Emission Measurements

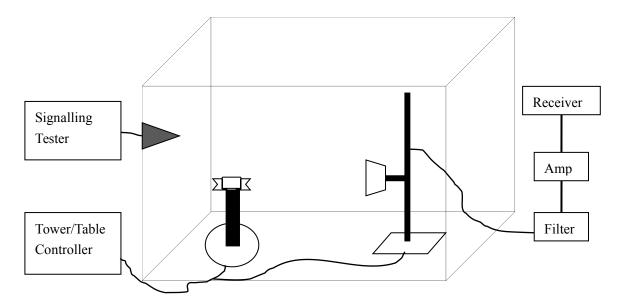
The measurement is made according to ANSI C63.10

The radiated emission test is performed in semi-anechoic chamber. The distance from the EUT to the reference point of measurement antenna is 3m. The test is carried out on both vertical and horizontal polarization and only maximization result of both polarizations is kept. During the test, the turntable is rotated 360° and the measurement antenna is moved from 1m to 4m to get the maximization result.

In the case of radiated emission, the used settings are as follows,

Sweep frequency from 30 MHz to 1GHz, RBW = 100 kHz, VBW = 300 kHz;

Sweep frequency from 1 GHz to 26GHz, RBW = 1MHz, VBW = 1MHz;







A.2. Peak Output Power - Conducted

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

a) Use the following spectrum analyzer settings:

Span: 6MHzRBW: 3MHzVBW: 3MHz

Sweep time: 2.5msDetector function: peak

Trace: max hold

b) Allow trace to stabilize.

c) Use the marker-to-peak function to set the marker to the peak of the emission.

d) The indicated level is the peak output power.

Measurement Limit:

Standard	Limit (dBm)
FCC Part 15.247(b)(1)	< 30

Spot check Measurement Results:

For GFSK

Channel	Ch 0 2402 MHz	Ch 39 2441 MHz	Ch 78 2480 MHz	Conclusion
Peak Conducted Output Power (dBm)	0.93	1.65	1.94	Р

For π/4 DQPSK

Channel	Ch 0 2402 MHz	Ch 39 2441 MHz	Ch 78 2480 MHz	Conclusion
Peak Conducted Output Power (dBm)	-0.13	0.96	1.00	Р

For 8DPSK

Channel	Ch 0 2402 MHz	Ch 39 2441 MHz	Ch 78 2480 MHz	Conclusion
Peak Conducted Output Power (dBm)	0.16	0.93	1.09	Р

Conclusion: PASS





Reference Measurement Results from basic model:

For GFSK

Channel	Ch 0 2402 MHz	Ch 39 2441 MHz	Ch 78 2480 MHz	Conclusion
Peak Conducted Output Power (dBm)	2.22	4.00	2.80	Р

For $\pi/4$ DQPSK

Channel	Ch 0 2402 MHz	Ch 39 2441 MHz	Ch 78 2480 MHz	Conclusion
Peak Conducted Output Power (dBm)	1.33	3.08	1.39	Р

For 8DPSK

Channel	Ch 0 2402 MHz	Ch 39 2441 MHz	Ch 78 2480 MHz	Conclusion
Peak Conducted Output Power (dBm)	1.32	3.00	1.80	Р

Conclusion: PASS





A.3. Frequency Band Edges – Conducted

Method of Measurement: See ANSI C63.10-clause 7.8.6

Connect the spectrum analyzer to the EUT using an appropriate RF cable connected to the EUT output. Configure the spectrum analyzer settings as described below (be sure to enter all losses between the unlicensed wireless device output and the spectrum analyzer).

- Span: 10 MHz

Resolution Bandwidth: 100 kHzVideo Bandwidth: 300 kHz

Sweep Time:AutoDetector: PeakTrace: max hold

Place a marker at the end of the restricted band closest to the transmit frequency to show compliance. Also measure any emissions in the restricted bands. Save the spectrum analyzer plot. Repeat for each power and modulation for lowest and highest channel.

Observe the stored trace and measure the amplitude delta between the peak of the fundamental and the peak of the band-edge emission. This is not an absolute field strength measurement; it is only a relative measurement to determine the amount by which the emission drops at the band edge relative to the highest fundamental emission level.

Measurement Limit:

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

Measurement Result:

For GFSK

Channel	Hopping	Band Edge Power (dBc)		Conclusion
Hopping OFF		Fig.1	-58.39	Р
U	Hopping ON	Fig.2	-62.39	Р
70	Hopping OFF	Fig.3	-60.46	Р
78	Hopping ON	Fig.4	-60.43	Р

For π/4 DQPSK

Channel	Hopping	Band Edge Power (dBc)		Conclusion
Hopping OFF		Fig.5	-58.95	Р
0	Hopping ON	Fig.6	-61.18	Р
70	Hopping OFF	Fig.7	-61.10	Р
78	Hopping ON	Fig.8	-62.28	Р

For 8DPSK

Channel	Hopping	Band Edge Power (dBc)		Conclusion
0	Hopping OFF	Fig.9	-58.01	Р
	Hopping ON	Fig.10	-60.43	Р





70	Hopping OFF	Fig.11	-59.61	Р
76	Hopping ON	Fig.12	-61.42	Р

Conclusion: PASS
Test graphs as below

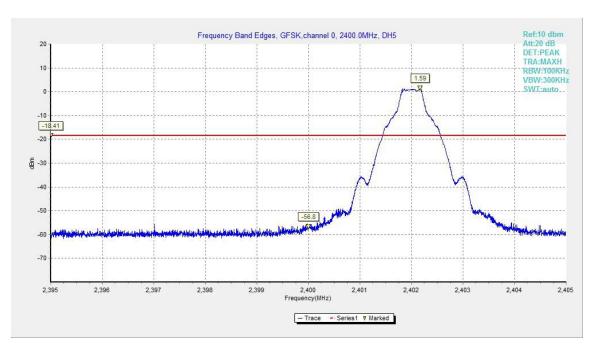


Fig.1. Frequency Band Edges: GFSK, Channel 0, Hopping Off

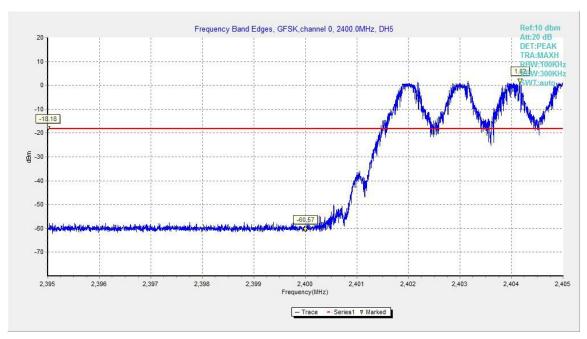


Fig.2. Frequency Band Edges: GFSK, Channel 0, Hopping On





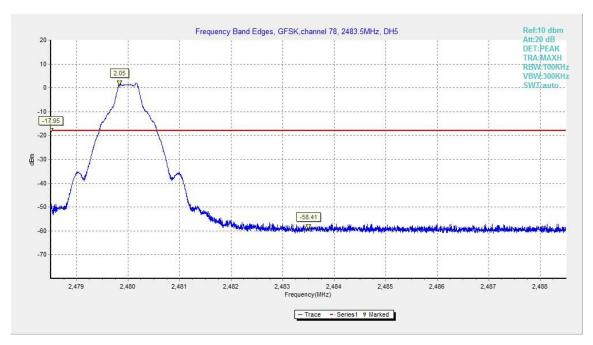


Fig.3. Frequency Band Edges: GFSK, Channel 78, Hopping Off

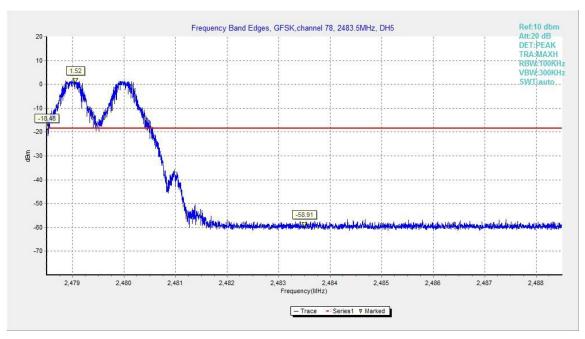


Fig.4. Frequency Band Edges: GFSK, Channel 78, Hopping On





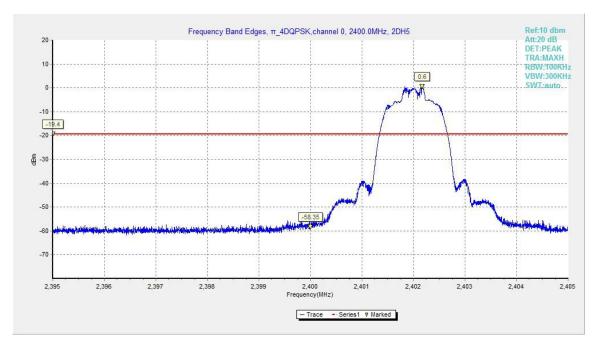


Fig.5. Frequency Band Edges: $\pi/4$ DQPSK, Channel 0, Hopping Off

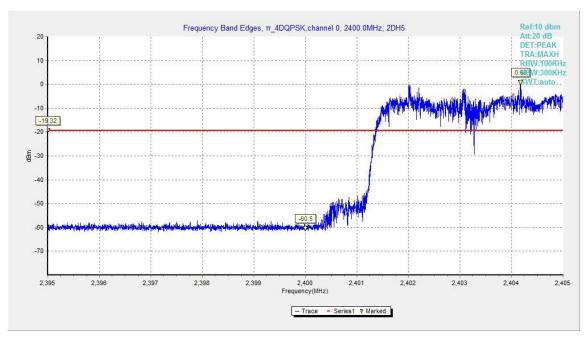


Fig.6. Frequency Band Edges: $\pi/4$ DQPSK, Channel 0, Hopping On





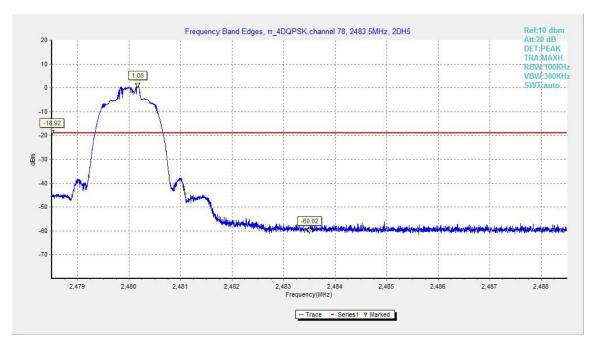


Fig.7. Frequency Band Edges: $\pi/4$ DQPSK, Channel 78, Hopping Off

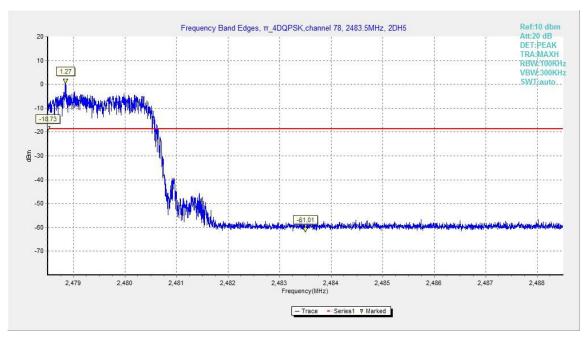


Fig.8. Frequency Band Edges: $\pi/4$ DQPSK, Channel 78, Hopping On





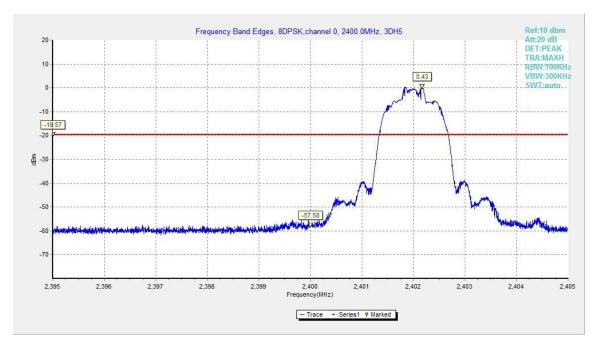


Fig.9. Frequency Band Edges: 8DPSK, Channel 0, Hopping Off

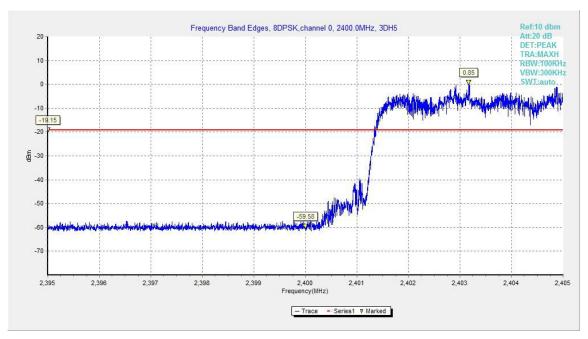


Fig.10. Frequency Band Edges: 8DPSK, Channel 0, Hopping On





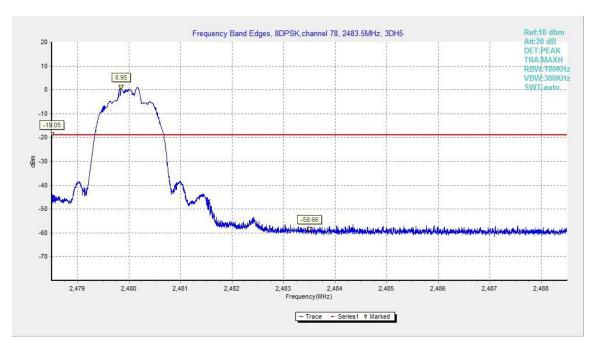


Fig.11. Frequency Band Edges: 8DPSK, Channel 78, Hopping Off

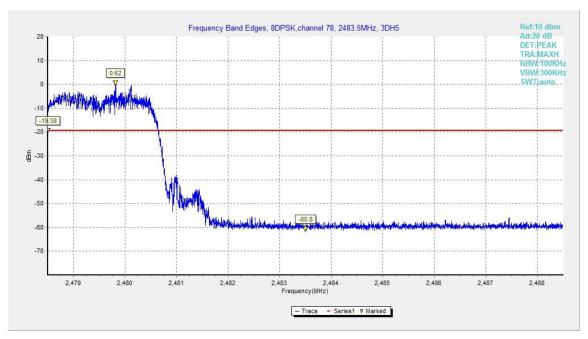


Fig.12. Frequency Band Edges: 8DPSK, Channel 78, Hopping On





A.4. Transmitter Spurious Emission - Conducted

Method of Measurement: See ANSI C63.10-clause 7.8.8

Measurement Procedure - Reference Level

- 1. Set the RBW = 100 kHz.
- 2. Set the VBW = 300 kHz.
- 3. Set the span to 5-30 % greater than the EBW.
- 4. Detector = peak.
- 5. Sweep time = auto couple.
- 6. Trace mode = max hold.
- 7. Allow trace to fully stabilize.
- 8. Use the peak marker function to determine the maximum power level in any 100 kHz band segment within the fundamental EBW. Next, determine the power in 100 kHz band segments outside of the authorized frequency band using the following measurement:

Measurement Procedure - Unwanted Emissions

- 1. Set RBW = 100 kHz.
- 2. Set VBW = 300 kHz.
- 3. Set span to encompass the spectrum to be examined.
- 4. Detector = peak.
- 5. Trace Mode = max hold.
- 6. Sweep = auto couple.
- 7. Allow the trace to stabilize (this may take some time, depending on the extent of the span).

Ensure that the amplitude of all unwanted emissions outside of the authorized frequency band (excluding restricted frequency bands) is attenuated by at least the minimum requirements specified above.

Measurement Limit:

Standard	Limit
FOO 47 OFD Dark 45 047 (4)	20dB below peak output power in 100 kHz
FCC 47 CFR Part 15.247 (d)	bandwidth

Measurement Results:

For GFSK

Channel	Frequency Range	Test Results	Conclusion
Ch 0	Center Frequency	Fig.13	Р





2402 MHz	30 MHz ~ 1 GHz	Fig.14	Р
	1 GHz ~ 3 GHz	Fig.15	Р
	3 GHz ~ 10 GHz	Fig.16	Р
	10 GHz ~ 26 GHz	Fig.17	Р
	Center Frequency	Fig.18	Р
Ch 20	30 MHz ~ 1 GHz	Fig.19	Р
Ch 39 2441 MHz	1 GHz ~ 3 GHz	Fig.20	Р
2441 101112	3 GHz ~ 10 GHz	Fig.21	Р
	10 GHz ~ 26 GHz	Fig.22	Р
	Center Frequency	Fig.23	Р
Ch 78 2480 MHz	30 MHz ~ 1 GHz	Fig.24	Р
	1 GHz ~ 3 GHz	Fig.25	Р
	3 GHz ~ 10 GHz	Fig.26	Р
	10 GHz ~ 26 GHz	Fig.27	Р

For $\pi/4$ DQPSK

Channel	Frequency Range	Test Results	Conclusion
	Center Frequency	Fig.28	Р
Ch O	30 MHz ~ 1 GHz	Fig.29	Р
Ch 0 2402 MHz	1 GHz ~ 3 GHz	Fig.30	Р
2 102 11112	3 GHz ~ 10 GHz	Fig.31	Р
	10 GHz ~ 26 GHz	Fig.32	Р
	Center Frequency	Fig.33	Р
Oh 20	30 MHz ~ 1 GHz	Fig.34	Р
Ch 39 2441 MHz	1 GHz ~ 3 GHz	Fig.35	Р
	3 GHz ~ 10 GHz	Fig.36	Р
	10 GHz ~ 26 GHz	Fig.37	Р
	Center Frequency	Fig.38	Р
Oh 70	30 MHz ~ 1 GHz	Fig.39	Р
Ch 78 2480 MHz	1 GHz ~ 3 GHz	Fig.40	Р
2.00 1/11/2	3 GHz ~ 10 GHz	Fig.41	Р
	10 GHz ~ 26 GHz	Fig.42	Р

For 8DPSK

Channel	Frequency Range	Test Results	Conclusion
	Center Frequency	Fig.43	Р
Ch O	30 MHz ~ 1 GHz	Fig.44	Р
Ch 0 2402 MHz	1 GHz ~ 3 GHz	Fig.45	Р
	3 GHz ~ 10 GHz	Fig.46	Р
	10 GHz ~ 26 GHz	Fig.47	Р





01.00	Center Frequency	Fig.48	Р
	30 MHz ~ 1 GHz	Fig.49	Р
Ch 39 2441 MHz	1 GHz ~ 3 GHz	Fig.50	Р
	3 GHz ~ 10 GHz	Fig.51	Р
	10 GHz ~ 26 GHz	Fig.52	Р
	Center Frequency	Fig.53	Р
Ch 78 2480 MHz	30 MHz ~ 1 GHz	Fig.54	Р
	1 GHz ~ 3 GHz	Fig.55	Р
	3 GHz ~ 10 GHz	Fig.56	Р
	10 GHz ~ 26 GHz	Fig.57	Р

Conclusion: PASS
Test graphs as below

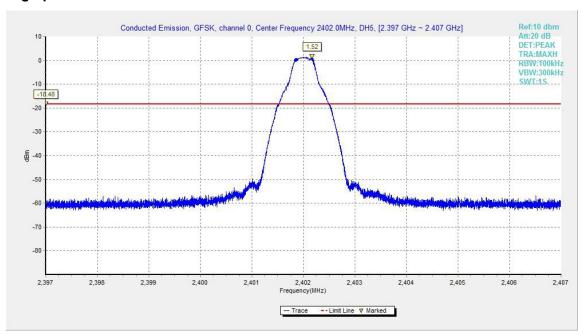


Fig.13. Conducted spurious emission: GFSK, Channel 0,2402MHz



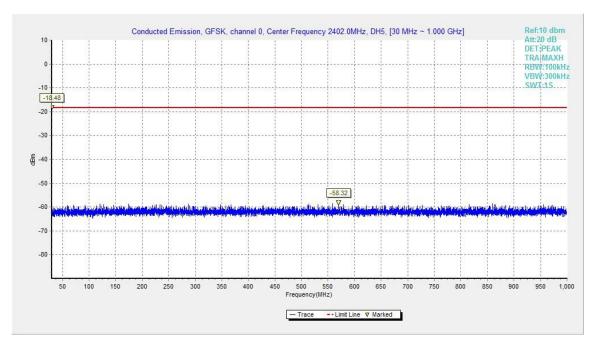


Fig.14. Conducted spurious emission: GFSK, Channel 0, 30MHz - 1GHz

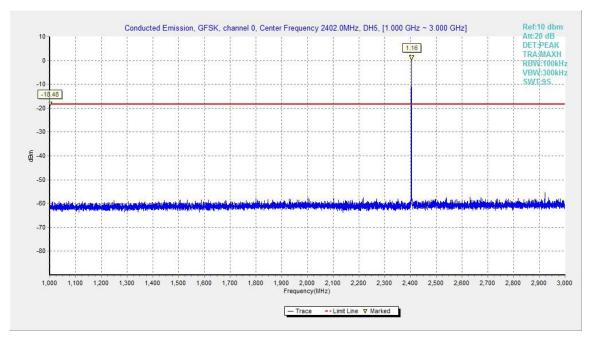


Fig.15. Conducted spurious emission: GFSK, Channel 0, 1GHz - 3GHz





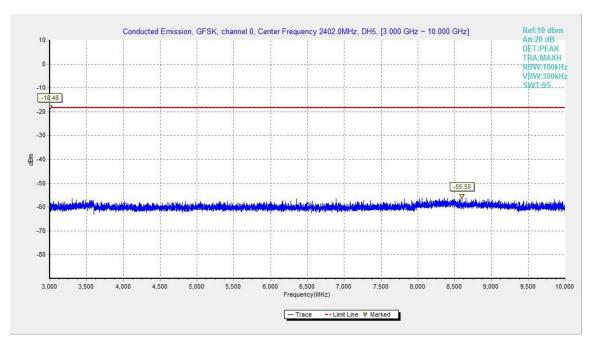


Fig.16. Conducted spurious emission: GFSK, Channel 0, 3GHz - 10GHz

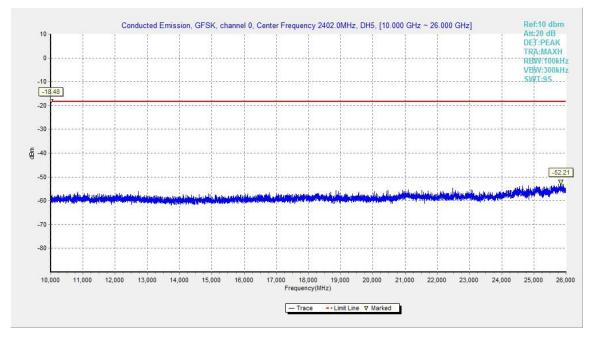


Fig.17. Conducted spurious emission: GFSK, Channel 0,10GHz - 26GHz





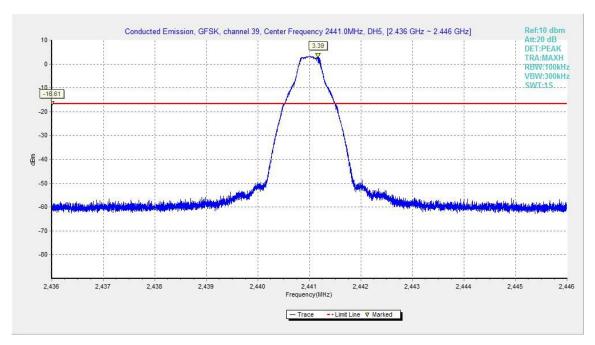


Fig.18. Conducted spurious emission: GFSK, Channel 39, 2441MHz

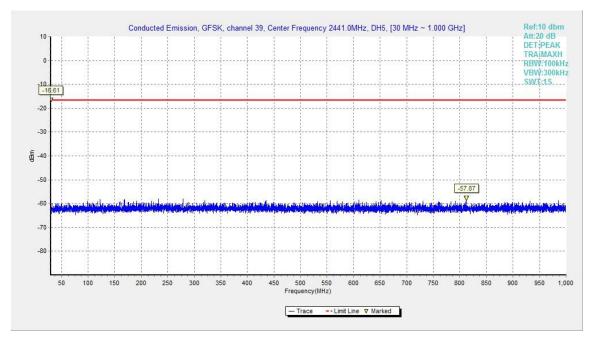


Fig.19. Conducted spurious emission: GFSK, Channel 39, 30MHz - 1GHz





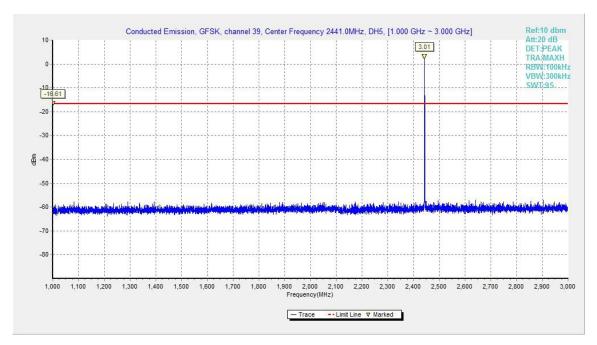


Fig.20. Conducted spurious emission: GFSK, Channel 39, 1GHz – 3GHz

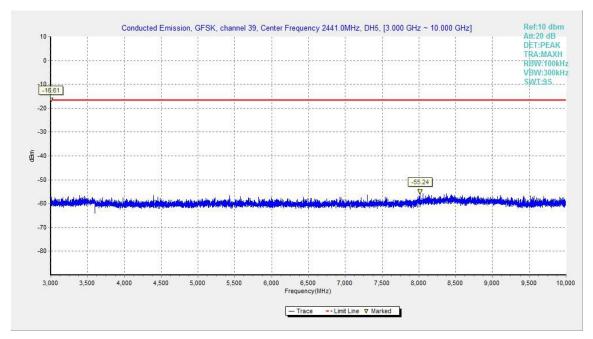


Fig.21. Conducted spurious emission: GFSK, Channel 39, 3GHz – 10GHz



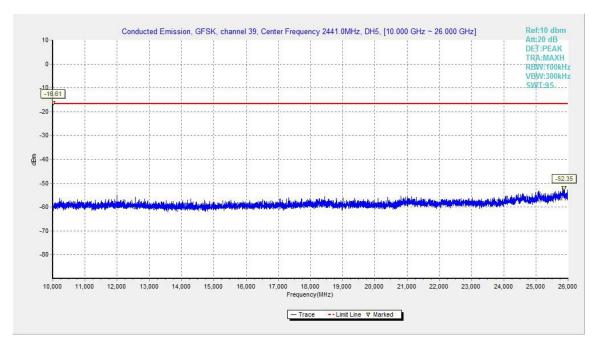


Fig.22. Conducted spurious emission: GFSK, Channel 39, 10GHz – 26GHz

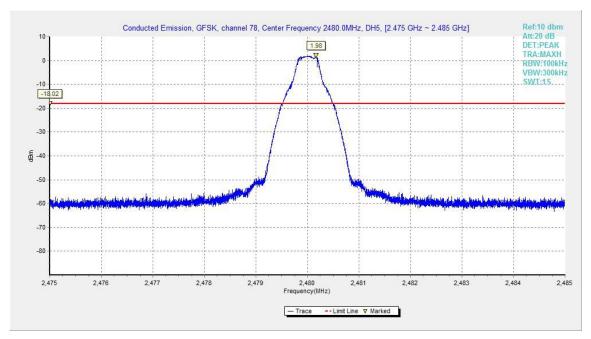


Fig.23. Conducted spurious emission: GFSK, Channel 78, 2480MHz





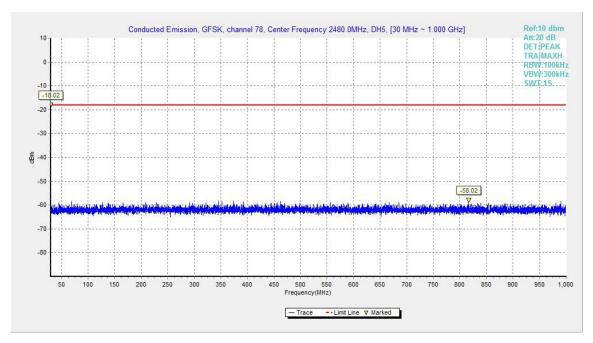


Fig.24. Conducted spurious emission: GFSK, Channel 78, 30MHz - 1GHz

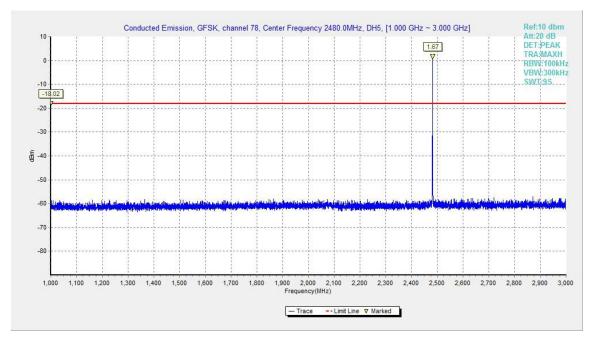


Fig.25. Conducted spurious emission: GFSK, Channel 78, 1GHz - 3GHz





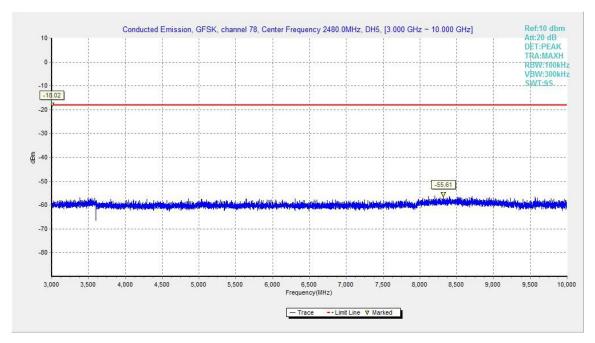


Fig.26. Conducted spurious emission: GFSK, Channel 78, 3GHz - 10GHz

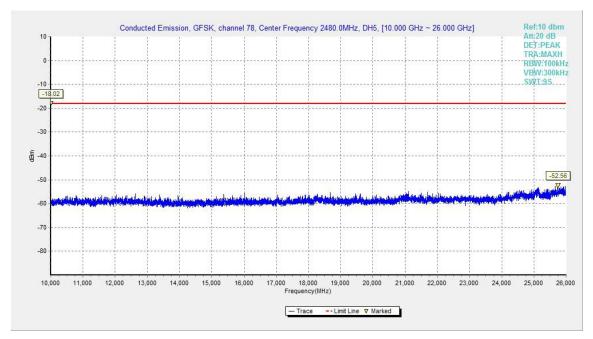


Fig.27. Conducted spurious emission: GFSK, Channel 78, 10GHz - 26GHz



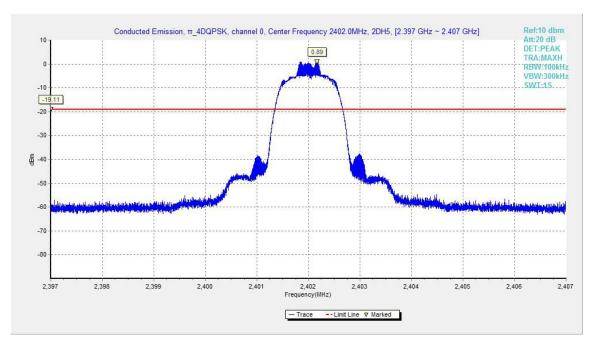


Fig.28. Conducted spurious emission: $\pi/4$ DQPSK, Channel 0,2402MHz

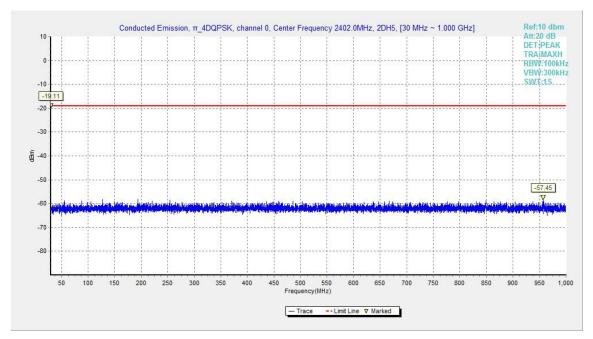


Fig.29. Conducted spurious emission: $\pi/4$ DQPSK, Channel 0, 30MHz - 1GHz



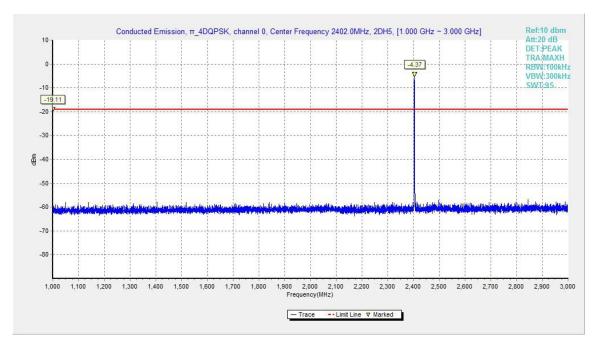


Fig.30. Conducted spurious emission: $\pi/4$ DQPSK, Channel 0, 1GHz - 3GHz

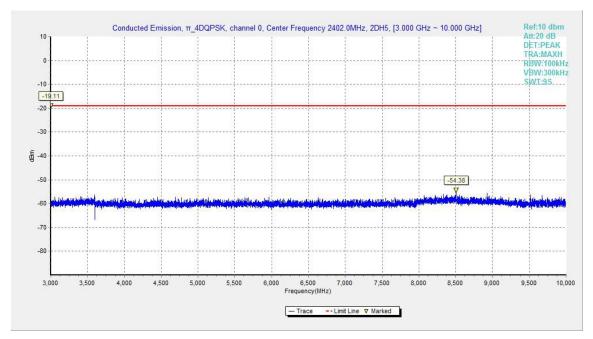


Fig.31. Conducted spurious emission: $\pi/4$ DQPSK, Channel 0, 3GHz - 10GHz





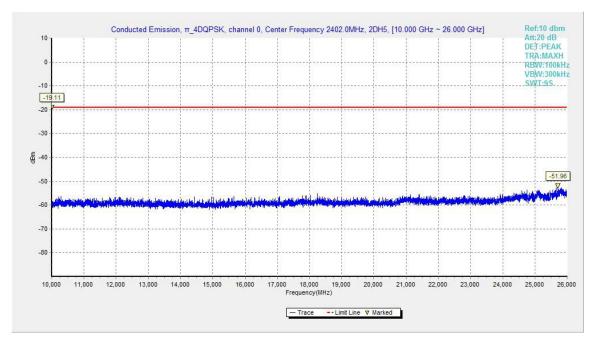


Fig.32. Conducted spurious emission: $\pi/4$ DQPSK, Channel 0,10GHz - 26GHz

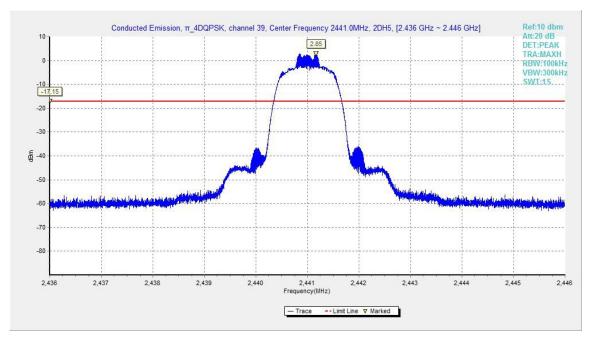


Fig.33. Conducted spurious emission: $\pi/4$ DQPSK, Channel 39, 2441MHz



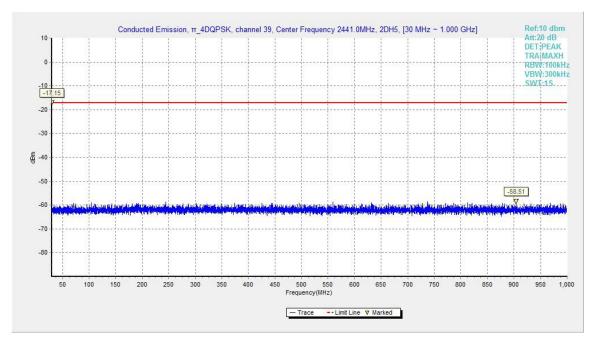


Fig.34. Conducted spurious emission: $\pi/4$ DQPSK, Channel 39, 30MHz - 1GHz

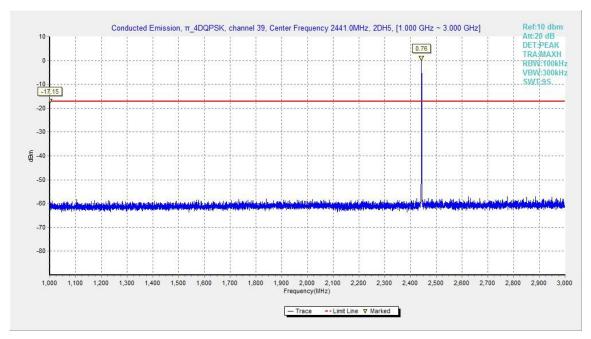


Fig.35. Conducted spurious emission: $\pi/4$ DQPSK, Channel 39, 1GHz - 3GHz





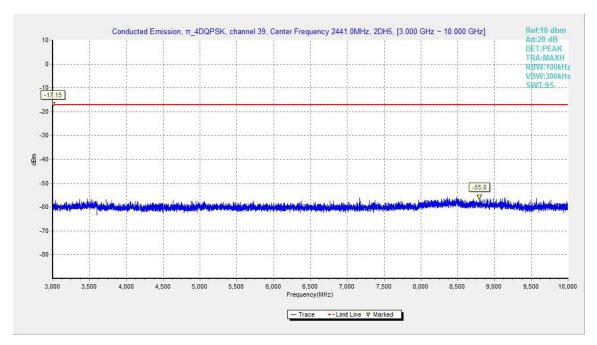


Fig.36. Conducted spurious emission: $\pi/4$ DQPSK, Channel 39, 3GHz - 10GHz

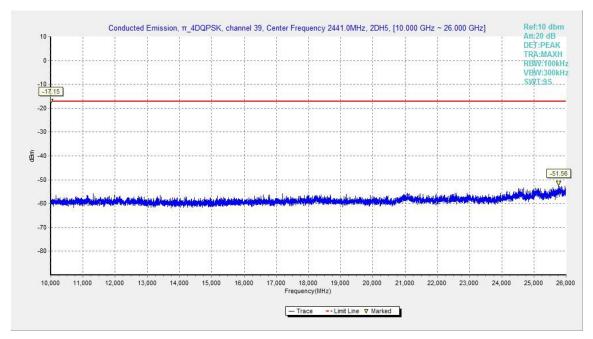


Fig.37. Conducted spurious emission: $\pi/4$ DQPSK, Channel 39, 10GHz - 26GHz





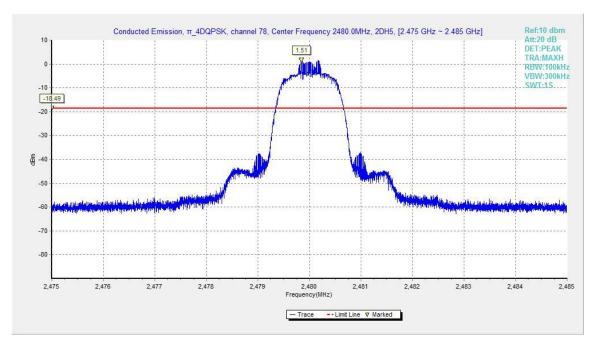


Fig.38. Conducted spurious emission: $\pi/4$ DQPSK, Channel 78, 2480MHz

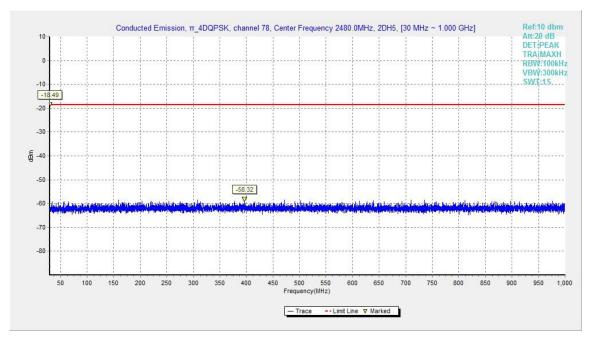


Fig.39. Conducted spurious emission: $\pi/4$ DQPSK, Channel 78, 30MHz - 1GHz





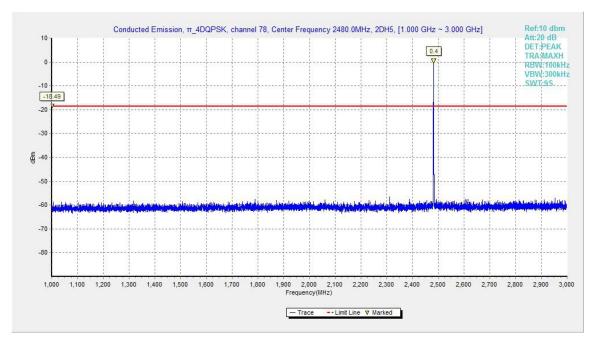


Fig.40. Conducted spurious emission: $\pi/4$ DQPSK, Channel 78, 1GHz - 3GHz

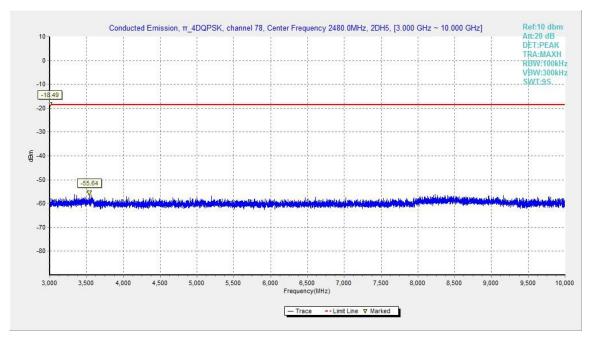


Fig.41. Conducted spurious emission: π/4 DQPSK, Channel 78, 3GHz - 10GHz





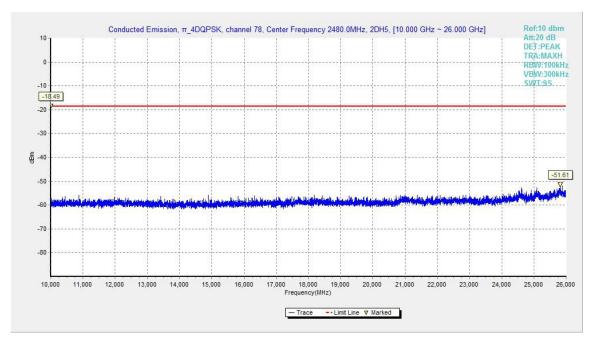


Fig.42. Conducted spurious emission: π/4 DQPSK, Channel 78, 10GHz - 26GHz

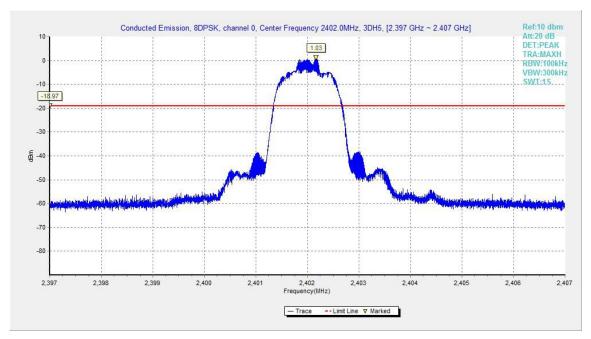


Fig.43. Conducted spurious emission: 8DPSK, Channel 0,2402MHz





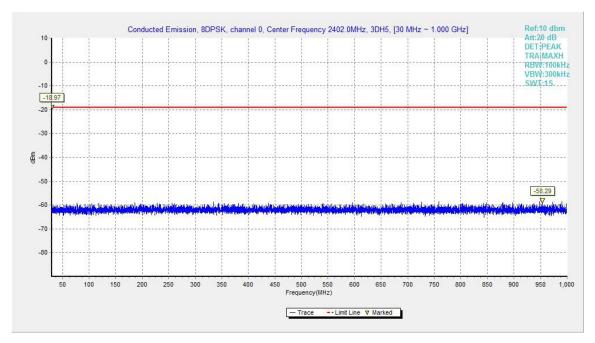


Fig.44. Conducted spurious emission: 8DPSK, Channel 0, 30MHz - 1GHz

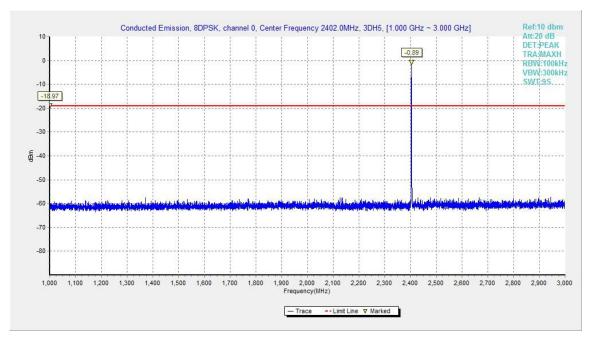


Fig.45. Conducted spurious emission: 8DPSK, Channel 0, 1GHz - 3GHz





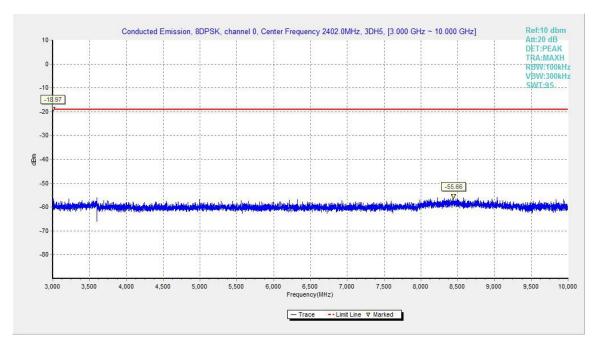


Fig.46. Conducted spurious emission: 8DPSK, Channel 0, 3GHz - 10GHz

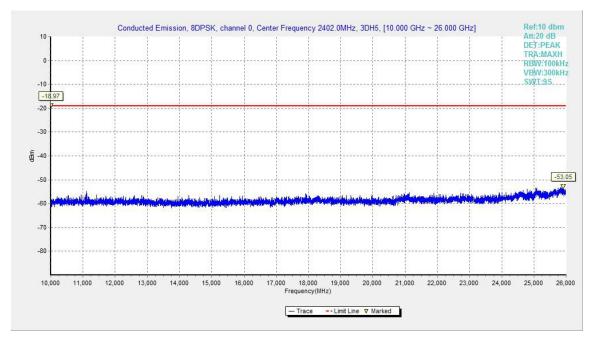


Fig.47. Conducted spurious emission: 8DPSK, Channel 0,10GHz - 26GHz





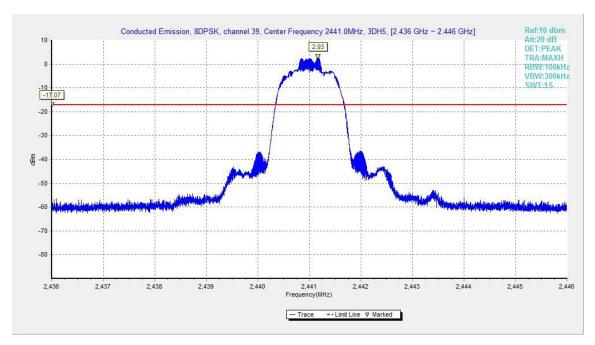


Fig.48. Conducted spurious emission: 8DPSK, Channel 39, 2441MHz

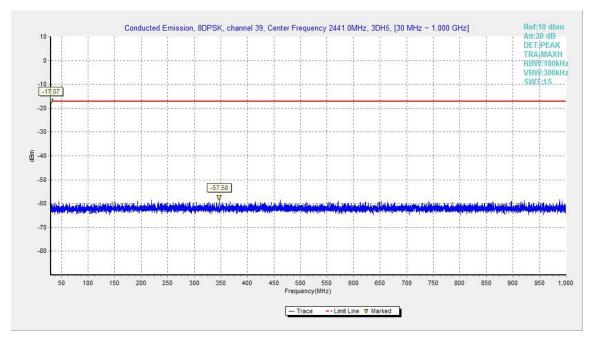


Fig.49. Conducted spurious emission: 8DPSK, Channel 39, 30MHz - 1GHz



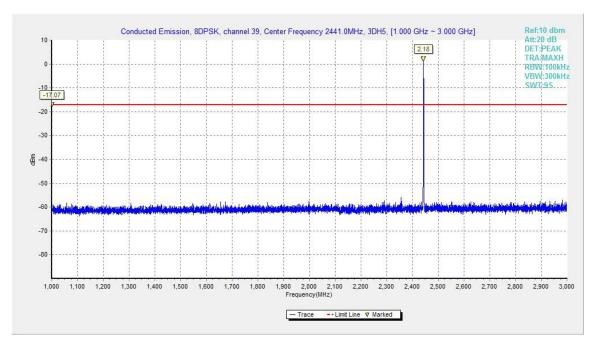


Fig.50. Conducted spurious emission: 8DPSK, Channel 39, 1GHz - 3GHz

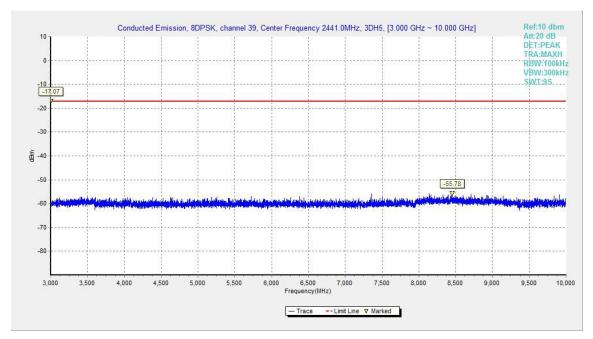


Fig.51. Conducted spurious emission: 8DPSK, Channel 39, 3GHz - 10GHz





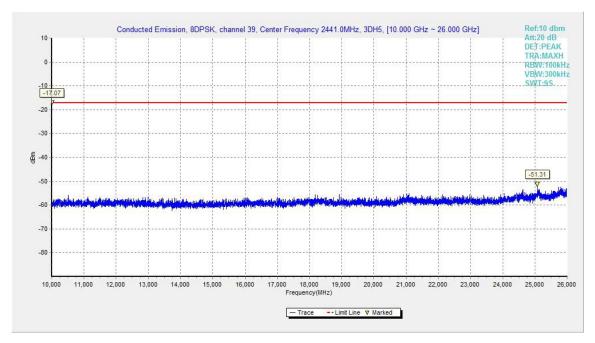


Fig.52. Conducted spurious emission: 8DPSK, Channel 39, 10GHz – 26GHz

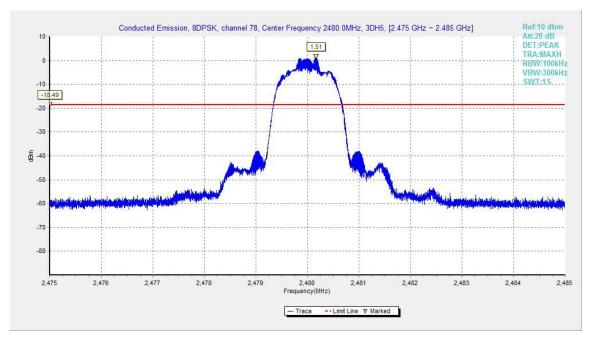


Fig.53. Conducted spurious emission: 8DPSK, Channel 78, 2480MHz



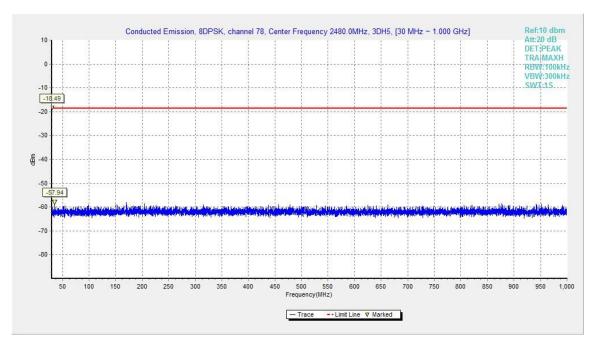


Fig.54. Conducted spurious emission: 8DPSK, Channel 78, 30MHz - 1GHz

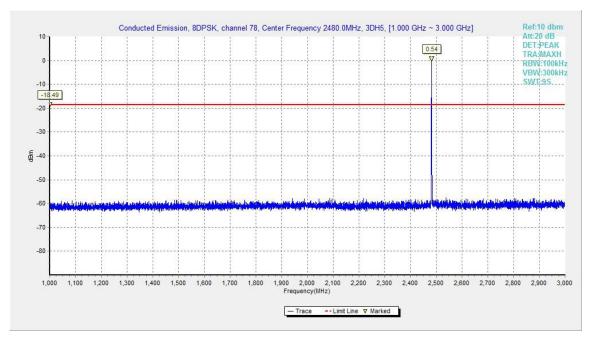


Fig.55. Conducted spurious emission: 8DPSK, Channel 78, 1GHz - 3GHz