FCC PART 15C
TEST REPORT
No. I16Z40645-SRD02

for

Reliance Communications, LLC

GSM/WCDMA/LTE Android phone

Model Name: RC500L

FCC ID: 2ABGH-RC500L

IC: 20994-RC500L

with

Hardware Version: RC500L

Software Version: Orbic-rc500L_v1.0.5

Issued Date: Jun 7th, 2016

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.

Test Laboratory:

CTTL, Telecommunication Technology Labs, Academy of Telecommunication Research, MIIT

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REPORT HISTORY

Report Number	Revision	Description	Issue Date
I16Z40645-SRD02	Rev.0	1st edition	2016-06-02
I16Z40645-SRD02	Rev.1	2nd edition	2016-06-07

CONTENTS

1. Test Laboratory

1.1. Testing Location

Location 1:CTTL(huayuan North Road)

Address: No. 52, Huayuan North Road, Haidian District, Beijing, P. R. China100191

Location 2:CTTL(Shouxiang)

Address: No. 51 Shouxiang Science Building, Xueyuan Road, Haidian District, Beijing, P. R. China100191

1.2. Testing Environment

Normal Temperature: 15-35℃

Extreme Temperature: -20/+55℃

Relative Humidity: 20-75%

1.3. Project data

Testing Start Date: 2016-03-25

Testing End Date: 2016-05-31

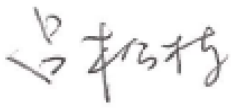
1.4. Signature

Sun Zhenyu

(Prepared this test report)

Li Zhuofang

(Reviewed this test report)



Lv Songdong

(Approved this test report)

2. Client Information

2.1. Applicant Information

Company Name:	Reliance Communications, LLC
Address /Post:	555 Wireless Blvd Hauppauge, NY
City:	Hauppauge, NY
Postal Code:	/
Country:	China
Telephone:	631-240-8396
Fax:	/

2.2. Manufacturer Information

Company Name:	Reliance Communications, LLC
Address /Post:	555 Wireless Blvd Hauppauge, NY
City:	Hauppauge, NY
Postal Code:	/
Country:	China
Telephone:	619-890-5729
Fax:	/

3. Equipment UnderTest (EUT) and Ancillary Equipment (AE)

3.1. About EUT

Description	GSM/WCDMA/LTE Android phone
Model Name	RC500L
FCC ID	2ABGH-RC500L
IC:	20994-RC500L
Frequency Band	ISM 2400MHz~2483.5MHz
Type of Modulation	GFSK/π/4 DQPSK/8DPSK
Number of Channels	79
Power Supply	3.8V DC by Battery

3.2. Internal Identification of EUT

EUT ID*	IMEI	HW Version	SW Version	Receive Date
EUT1	868536029000116	RC500L	Orbic-rc500L_v1.0.5	2016-03-25

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

3.3. Internal Identification of AE

AE ID*	Description		
AE1	Battery	Orbic-RC500L	Inbuilt
AE2	Charger	WTA0501000USA1	/

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

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 GSM/WCDMA/LTE Android phone with integrated antenna. It consists of normal options: lithium battery, charger. Manual and specifications of the EUT were provided to fulfil the test.

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.	2015
ANSI C63.10	American National Standard of Procedures for Compliance Testing of Unlicensed Wireless Devices	June,2013
RSS - Gen	Spectrum Management and Telecommunications Radio Standards Specification General Requirements for Compliance of Radio Apparatus	Issue4 Nov 2014
RSS-247	Digital Transmission Systems (DTSs), Frequency Hopping Systems (FHSs) and Licence-Exempt Local Area Network (LE-LAN) Devices	Issue 1 May, 2015

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

SUMMARY OF MEASUREMENT RESULTS	Sub-clause	Sub-clause of IC	Verdict
Peak Output Power - Conducted	15.247 (b)(1)	Chapter 5	**P**
Frequency Band Edges	15.247 (d)	Chapter 5	**P**
Conducted Emission	15.247 (d)	Chapter 5	**P**
Radiated Emission	15.247, 15.205, 15.209	Chapter 5	**P**
Time of Occupancy (Dwell Time)	15.247 (a) (1)(iii)	Chapter 5	**P**
20dB Bandwidth	15.247 (a)(1)	Chapter 5	**NA**
Carrier Frequency Separation	15.247 (a)(1)	Chapter 5	**P**
Number of hopping channels	15.247 (a)(b)(iii)	Chapter 5	**P**
Occupied Bandwidth	/	RSS-Gen	**NA**
AC Powerline Conducted Emission	15.107, 15.207	RSS-Gen	**P**

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

6. Test Facilities Utilized

Conducted test system

No.	Equipment	Model	Serial Number	Manufacturer	Calibration Period	Calibration Due date
1	Vector Signal Analyzer	FSV40	100903	Rohde & Schwarz	1 year	2017-03-21
2	Bluetooth Tester	CBT32	100584	Rohde & Schwarz	1 year	2017-01-09
3	LISN	ENV216	101200	Rohde & Schwarz	1 year	2016-07-07
4	Test Receiver	ESCI	100701	Rohde & Schwarz	1 year	2016-08-10

Radiated emission test system

No.	Equipment	Model	Serial Number	Manufacturer	Calibration Period	Calibration Due date
1	Test Receiver	ESCI 7	100948	Rohde & Schwarz	1 year	2016-07-16
2	Loop antenna	HFH2-Z2	829324/007	Rohde & Schwarz	3 year	2017-12-16
3	BiLog Antenna	VULB9163	234	Schwarzbeck	3 year	2016-09-15
4	Dual-Ridge Waveguide Horn Antenna	3115	6914	EMCO	3 year	2017-12-15
5	Dual-Ridge Waveguide Horn Antenna	3116	2661	ETS-Lindgren	3 year	2017-06-30
6	Vector Signal Analyzer	FSV	101047	Rohde & Schwarz	1 year	2016-07-03
7	Semi-anechoic chamber	/	CT000332-1074	Frankonia German	/	/
8	Bluetooth Tester	CBT	100153	Rohde & Schwarz	1 year	2016-09-18

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.

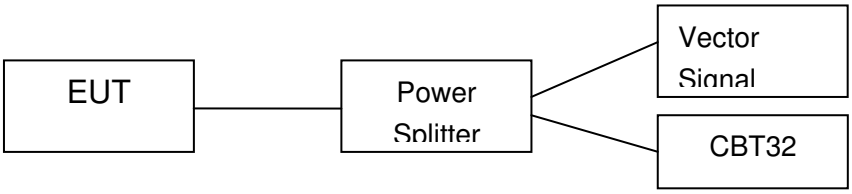
2). Set the EUT to the required work mode (Transmitter, receiver or transmitter & receiver).

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

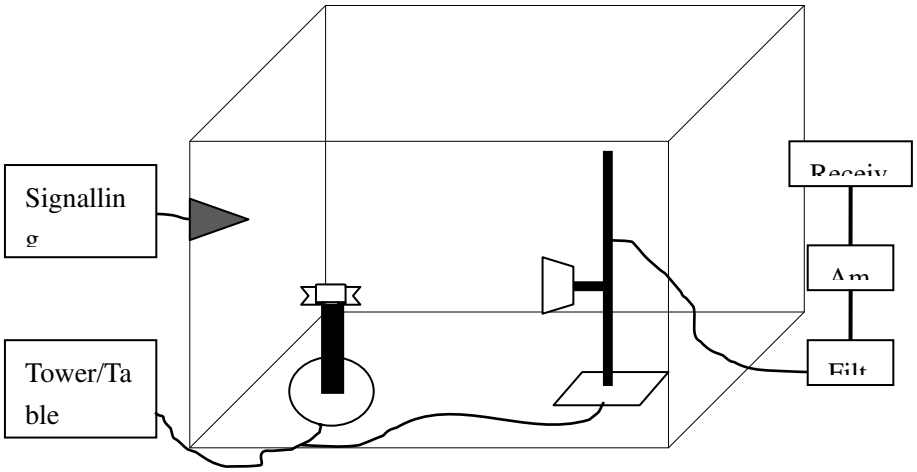
The measurement is made according to ANSI C63.10

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: 5MHz
- RBW: 3MHz
- VBW: 3MHz
- Sweep time: auto couple.
- Detector 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
FCC Part 15.247(b)(1) & RSS-247 section 5.4	0.125W

Measurement Results:

For GFSK

Channel	Ch 0 2402 MHz	Ch 39 2441 MHz	Ch 78 2480 MHz	Conclusion
Peak Conducted Output Power (dBm)	-0.22	-0.46	-0.55	P

Forπ/4 DQPSK

Channel	Ch 0 2402 MHz	Ch 39 2441 MHz	Ch 78 2480 MHz	Conclusion
Peak Conducted Output Power (dBm)	-0.92	-0.93	-0.97	P

For 8DPSK

Channel	Ch 0 2402 MHz	Ch 39 2441 MHz	Ch 78 2480 MHz	Conclusion
Peak Conducted Output Power (dBm)	-0.80	-0.93	-1.06	P

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 kHz
– Video Bandwidth: 300 kHz
– Sweep Time: Coupled
– Detector: Peak
– Trace: 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) & RSS-247 section 5.1	< -20

Measurement Result:

For GFSK

Channel	Hopping	Band Edge Power (dBc)		Conclusion
0	Hopping OFF	Fig.1	-41.09	P
	Hopping ON	Fig.2	-39.06	P
78	Hopping OFF	Fig.3	-36.90	P
	Hopping ON	Fig.4	-40.35	P

Forπ/4 DQPSK

Channel	Hopping	Band Edge Power (dBc)		Conclusion
0	Hopping OFF	Fig.5	-40.43	P
	Hopping ON	Fig.6	-40.31	P
78	Hopping OFF	Fig.7	-39.88	P
	Hopping ON	Fig.8	-39.23	P

For 8DPSK

Channel	Hopping	Band Edge Power (dBc)		Conclusion
0	Hopping OFF	Fig.9	-40.13	P
	Hopping ON	Fig.10	-38.81	P

78	Hopping OFF	Fig.11	-40.47	P
	Hopping ON	Fig.12	-39.33	P

Conclusion: PASS

Test graphs as below

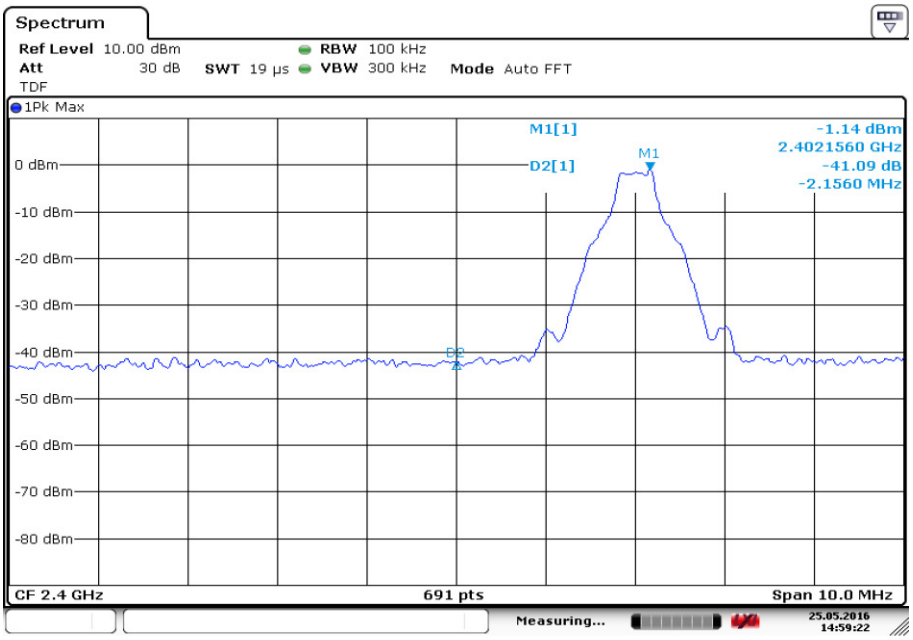


Fig.1. Frequency Band Edges: GFSK, Channel 0, Hopping Off

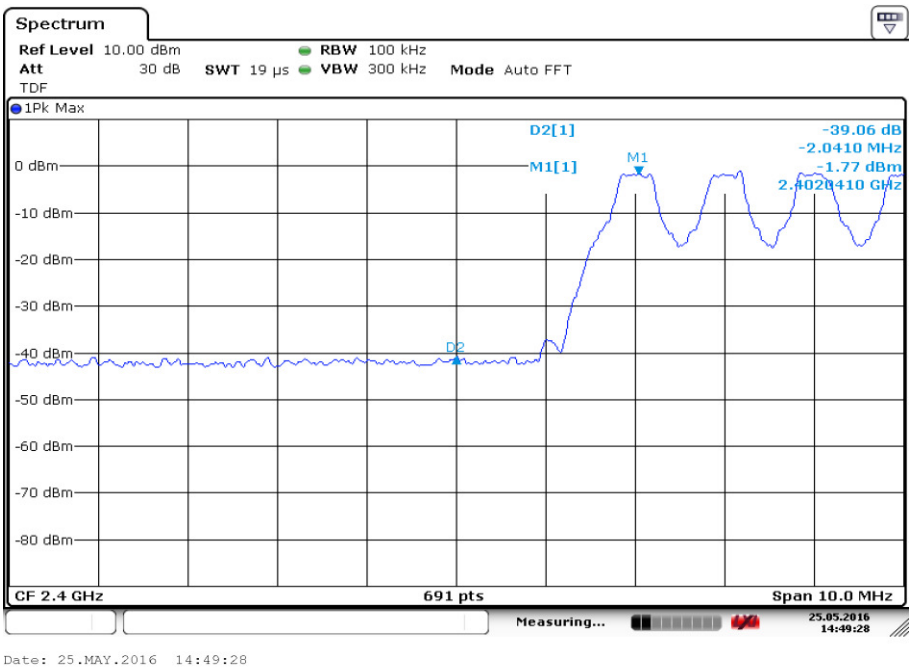


Fig.2. Frequency Band Edges: GFSK, Channel 0, Hopping On

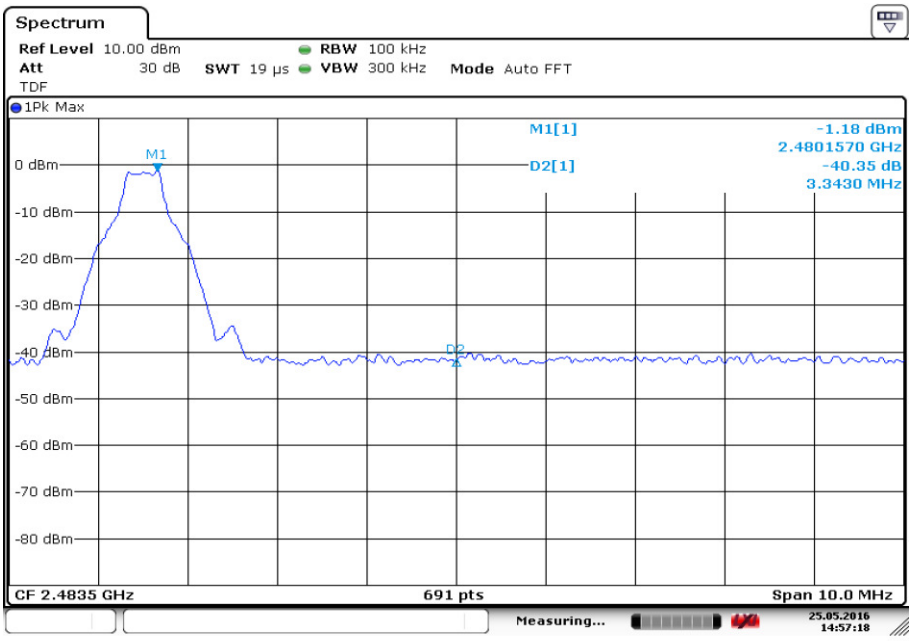


Fig.3. Frequency Band Edges: GFSK, Channel 78, Hopping Off

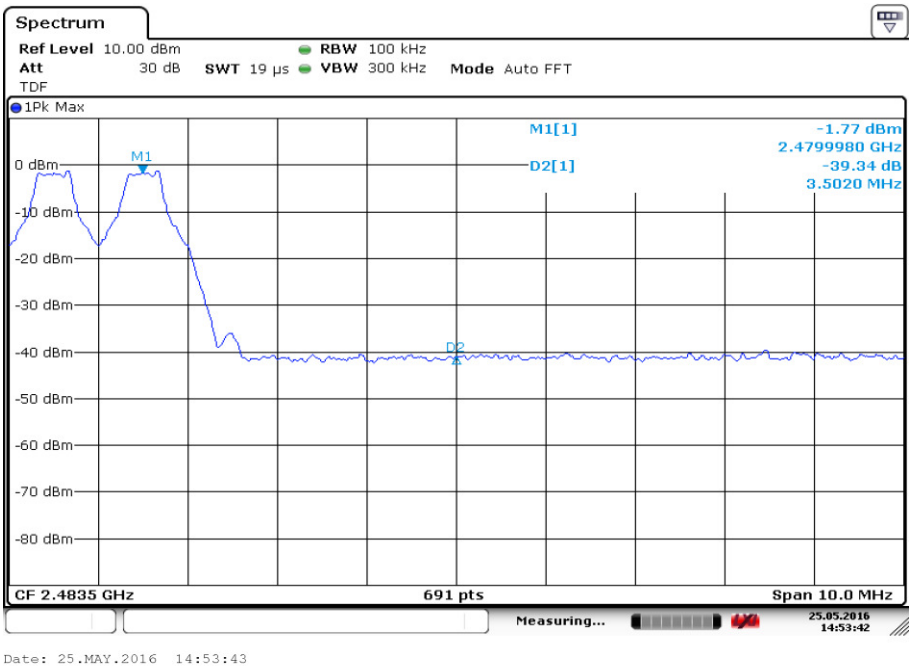


Fig.4. Frequency Band Edges: GFSK, Channel 78, Hopping On

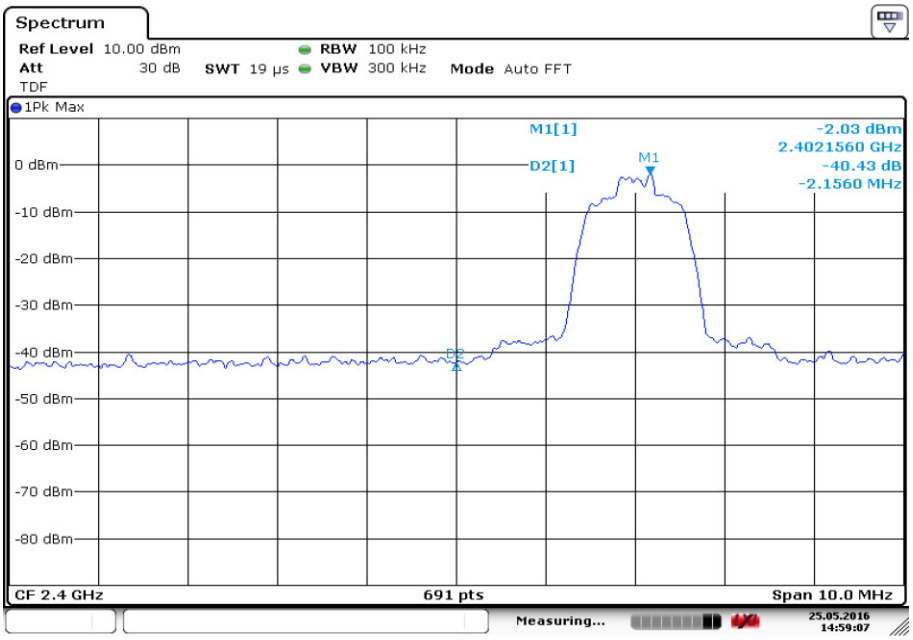


Fig.5. Frequency Band Edges: π/4 DQPSK, Channel 0, Hopping Off

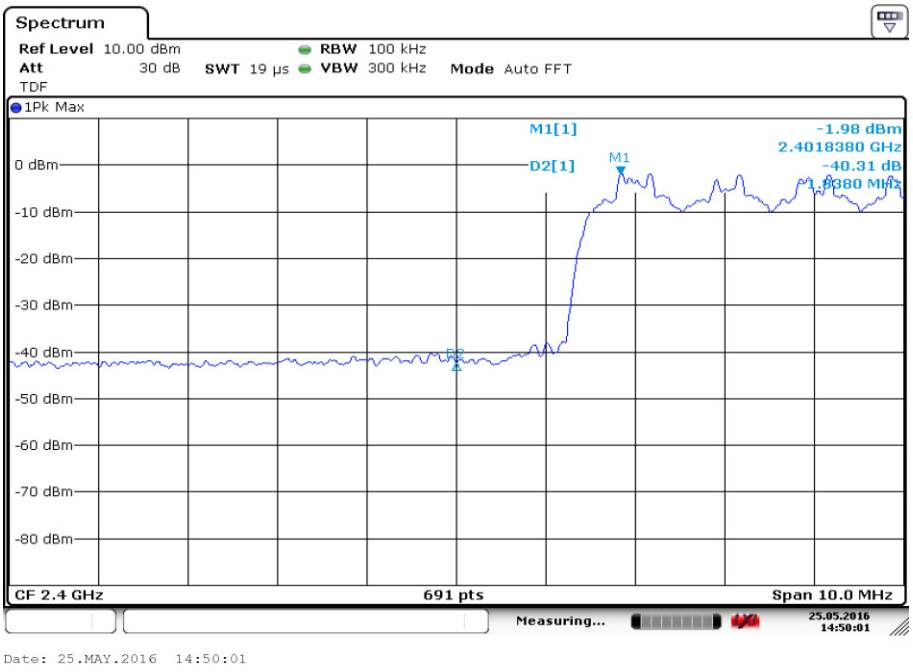


Fig.6. Frequency Band Edges: π/4 DQPSK, Channel 0, Hopping On

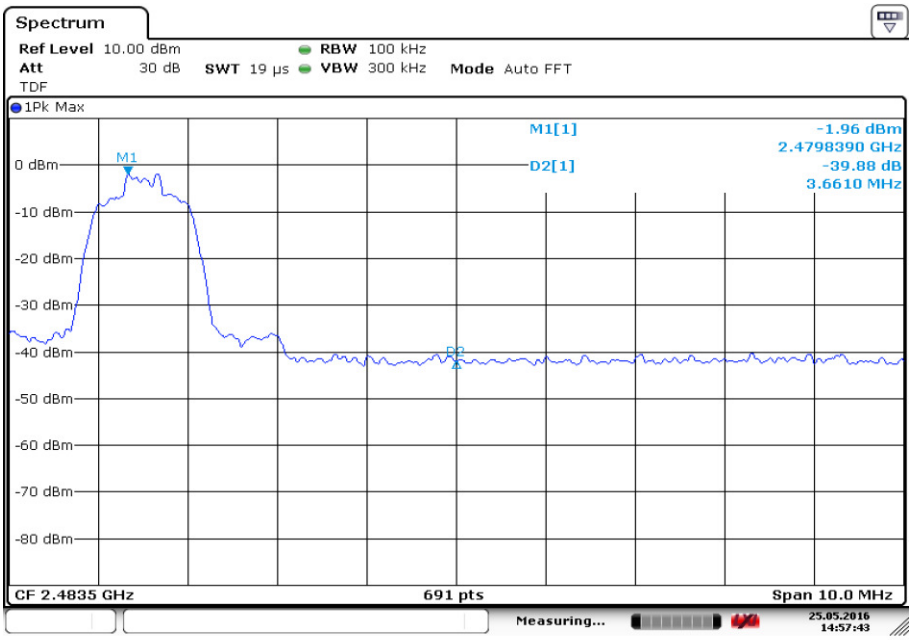


Fig.7. Frequency Band Edges: π/4 DQPSK, Channel 78, Hopping Off

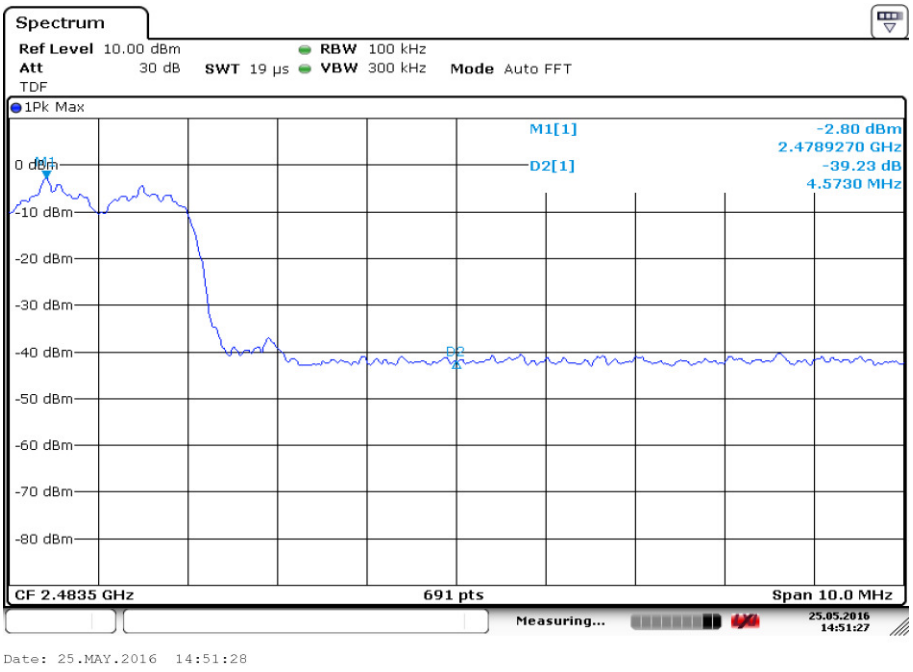


Fig.8. Frequency Band Edges: π/4 DQPSK, Channel 78, Hopping On

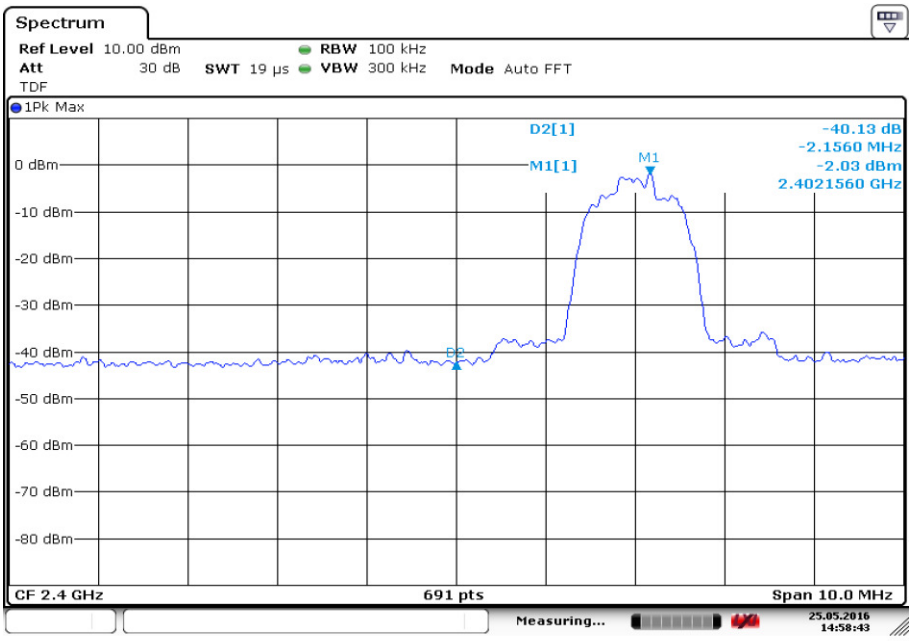


Fig.9. Frequency Band Edges: 8DPSK, Channel 0, Hopping Off

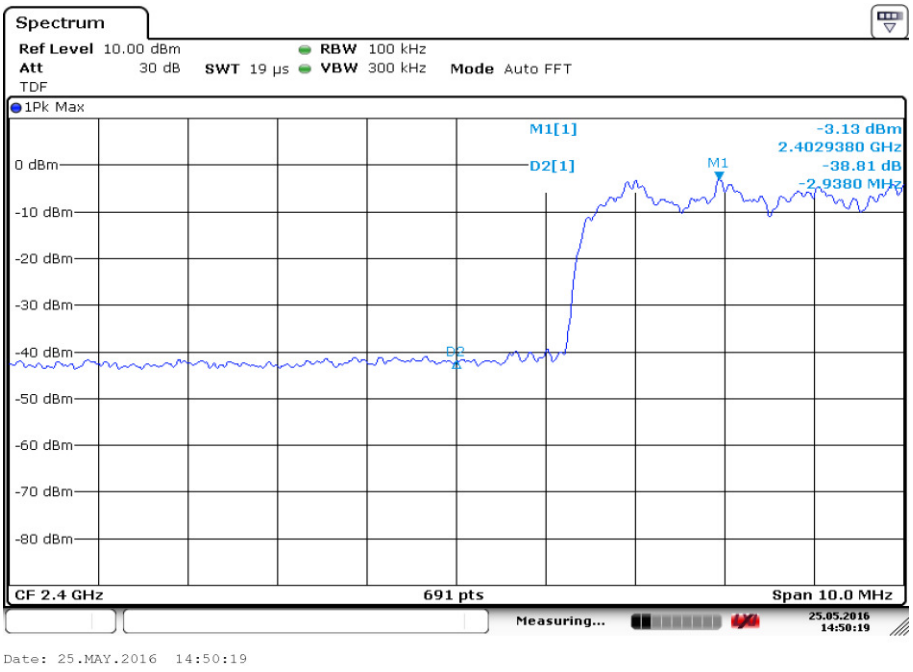


Fig.10. Frequency Band Edges: 8DPSK, Channel 0, Hopping On

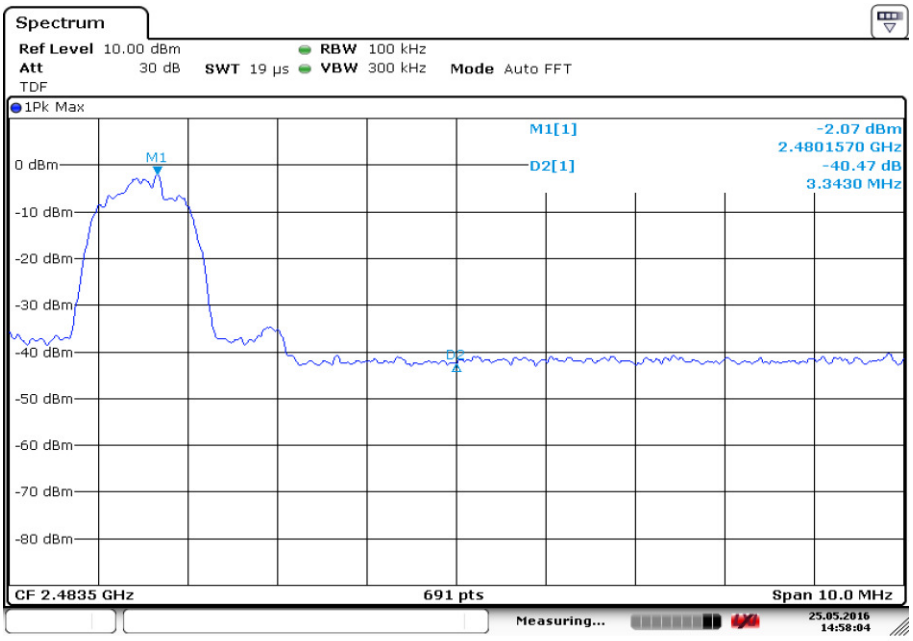


Fig.11. Frequency Band Edges: 8DPSK, Channel 78, Hopping Off

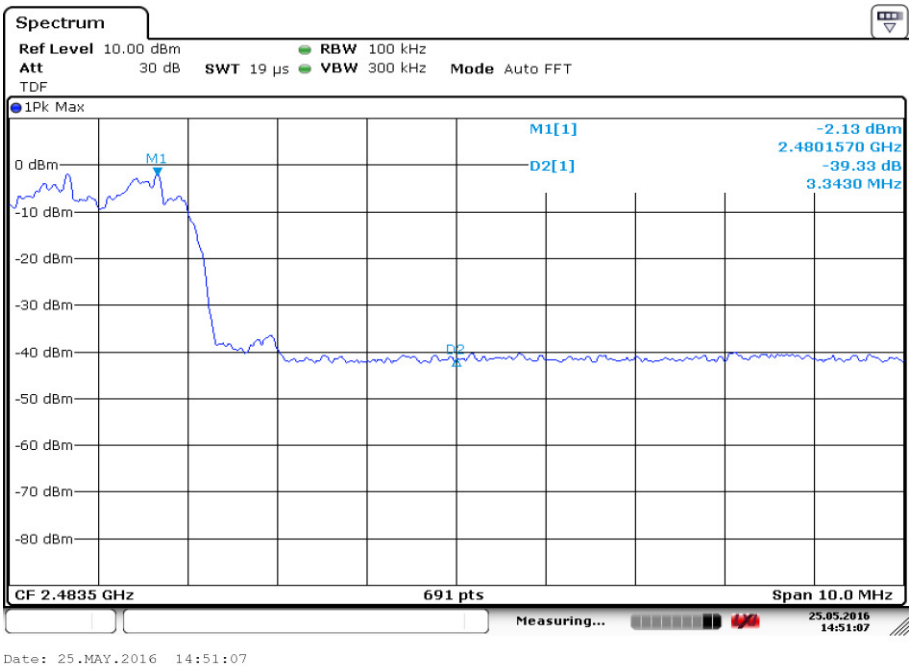


Fig.12. Frequency Band Edges: 8DPSK, Channel 78, Hopping On

A.4. Conducted Emission

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
FCC 47 CFR Part 15.247 (d) & RSS-247 section 5.1	20dB below peak output power in 100 kHz bandwidth

Measurement Results:

For GFSK

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

2402 MHz	30 MHz-3GHz	Fig.14	P
	3GHz-18GHz	Fig.15	P
Ch 39 2441 MHz	Center Frequency	Fig.16	P
	30 MHz-3GHz	Fig.17	P
	3GHz-18GHz	Fig.18	P
Ch 78 2480 MHz	Center Frequency	Fig.19	P
	30 MHz-3GHz	Fig.20	P
	3GHz-18GHz	Fig.21	P

For π/4 DQPSK

Channel	Frequency Range	Test Results	Conclusion
Ch 0 2402 MHz	Center Frequency	Fig.22	P
	30 MHz-3GHz	Fig.23	P
	3GHz-18GHz	Fig.24	P
Ch 39 2441 MHz	Center Frequency	Fig.25	P
	30 MHz-3GHz	Fig.26	P
	3GHz-18GHz	Fig.27	P
Ch 78 2480 MHz	Center Frequency	Fig.28	P
	30 MHz-3GHz	Fig.29	P
	3GHz-18GHz	Fig.30	P

For 8DPSK

Channel	Frequency Range	Test Results	Conclusion
Ch 0 2402 MHz	Center Frequency	Fig.31	P
	30 MHz-3GHz	Fig.32	P
	3GHz-18GHz	Fig.33	P
Ch 39 2441 MHz	Center Frequency	Fig.34	P
	30 MHz-3GHz	Fig.35	P
	3GHz-18GHz	Fig.36	P
Ch 78 2480 MHz	Center Frequency	Fig.37	P
	30 MHz-3GHz	Fig.38	P
	3GHz-18GHz	Fig.39	P
All Channel	18GHz-26GHz	Fig.40	P

Conclusion: PASS

Test graphs as below

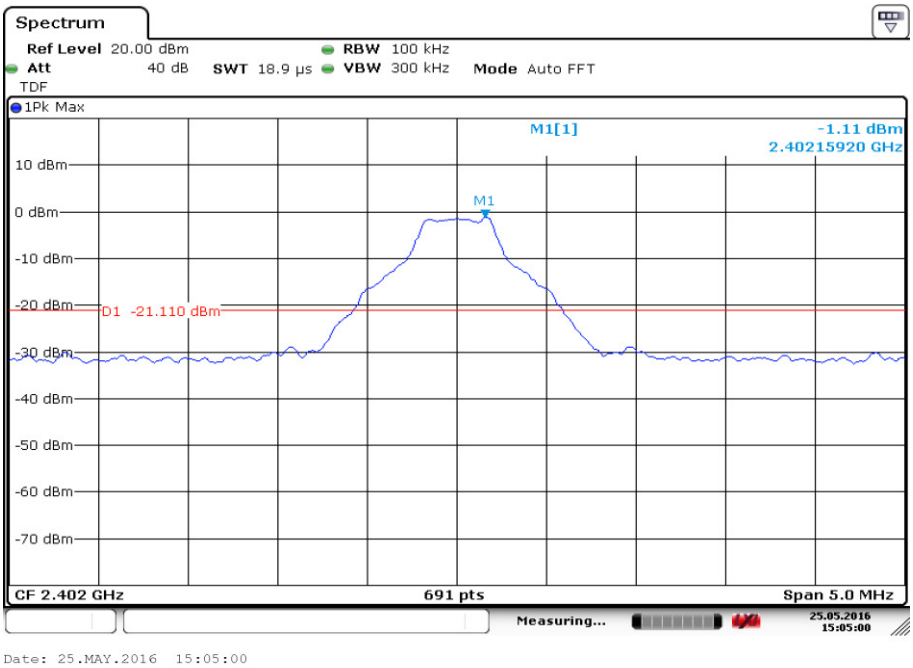


Fig.13. Conducted Spurious Emission (GFSK, Ch0, 2.402GHz)

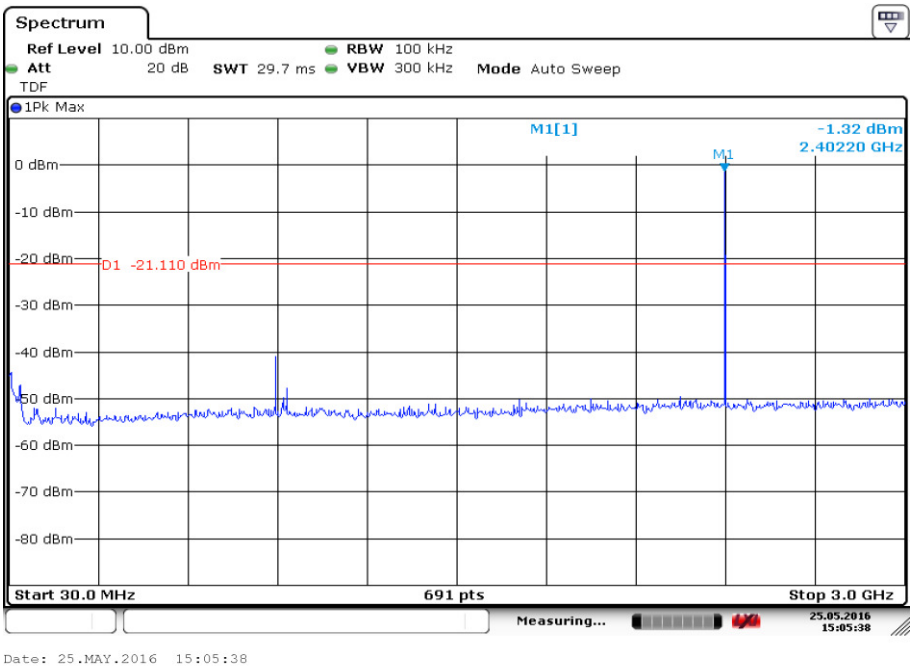


Fig.14. Conducted Spurious Emission (GFSK, Ch0, 30 MHz-3 GHz)

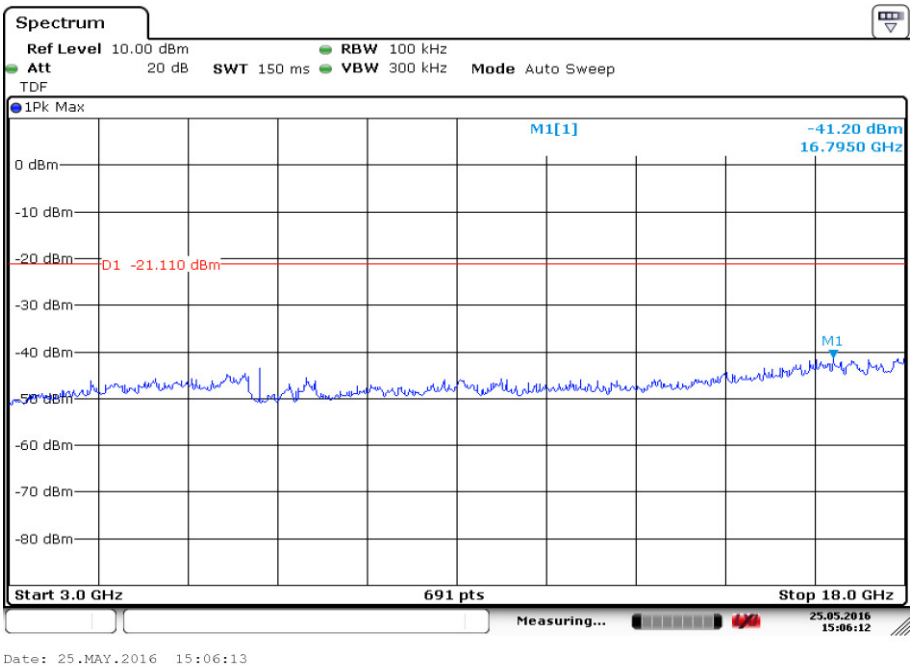


Fig.15. Conducted Spurious Emission (GFSK, Ch0, 3GHz-18 GHz)

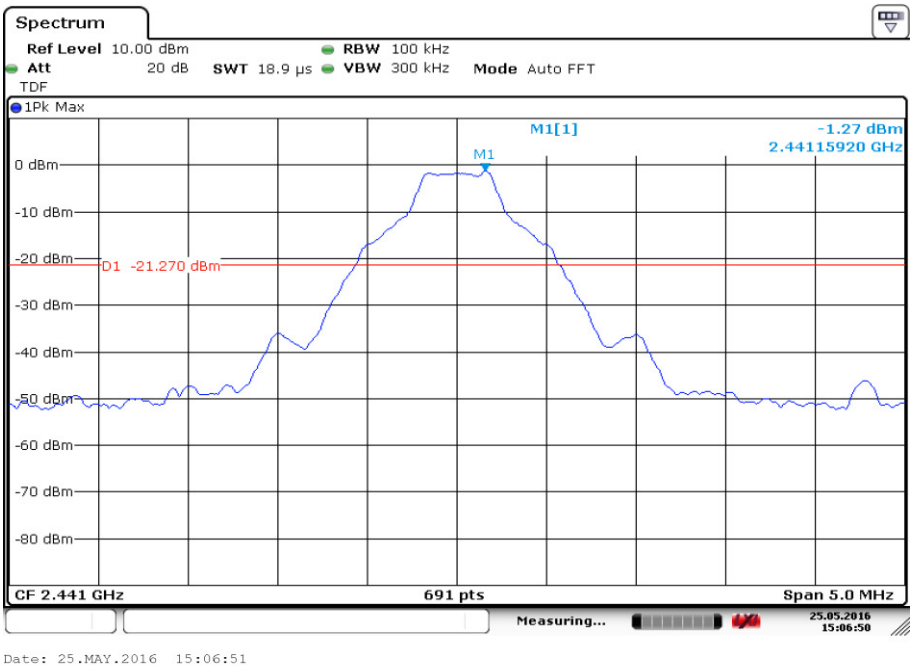


Fig.16. Conducted Spurious Emission (GFSK, Ch39, 2.441GHz)

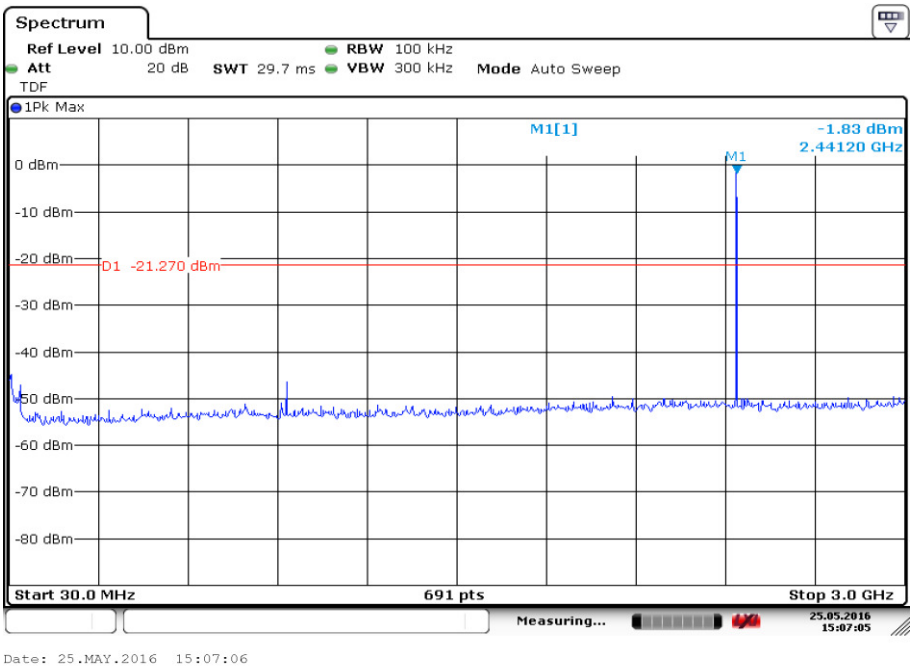


Fig.17. Conducted Spurious Emission (GFSK, Ch39, 30 MHz-3 GHz)

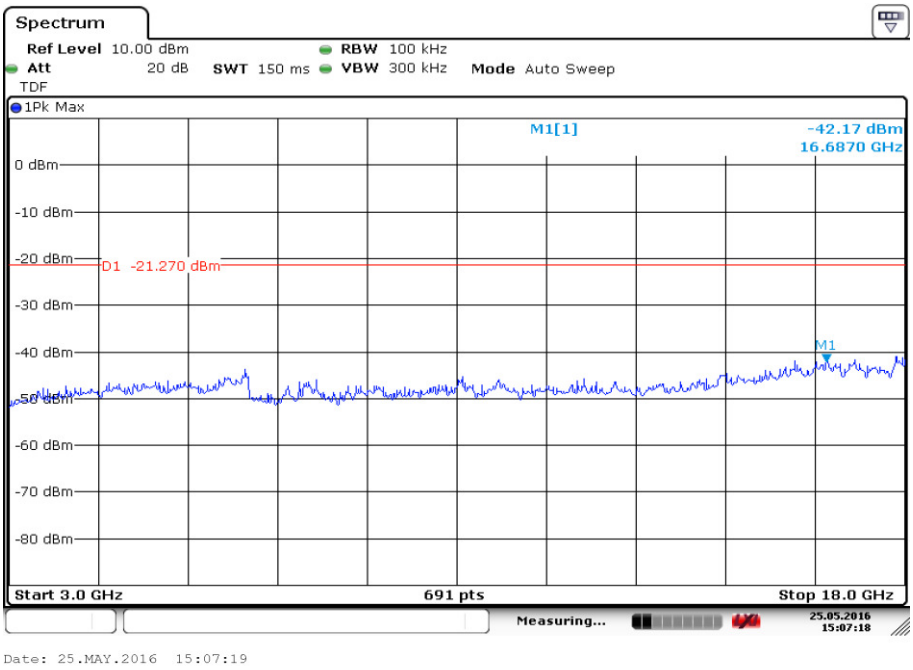


Fig.18. Conducted Spurious Emission (GFSK, Ch39, 3GHz-18 GHz)

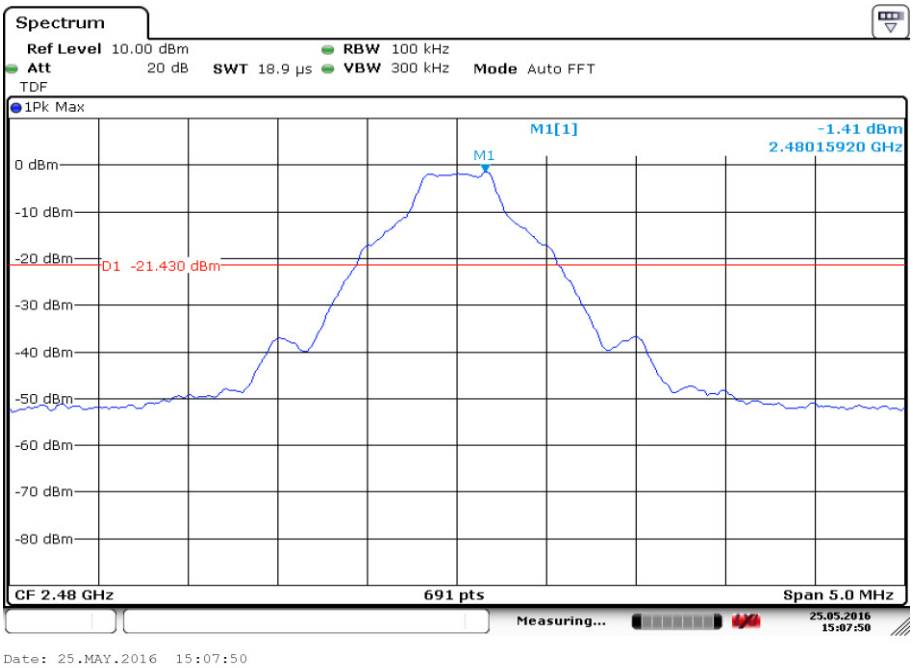


Fig.19. Conducted Spurious Emission (GFSK, Ch78, 2.480GHz)

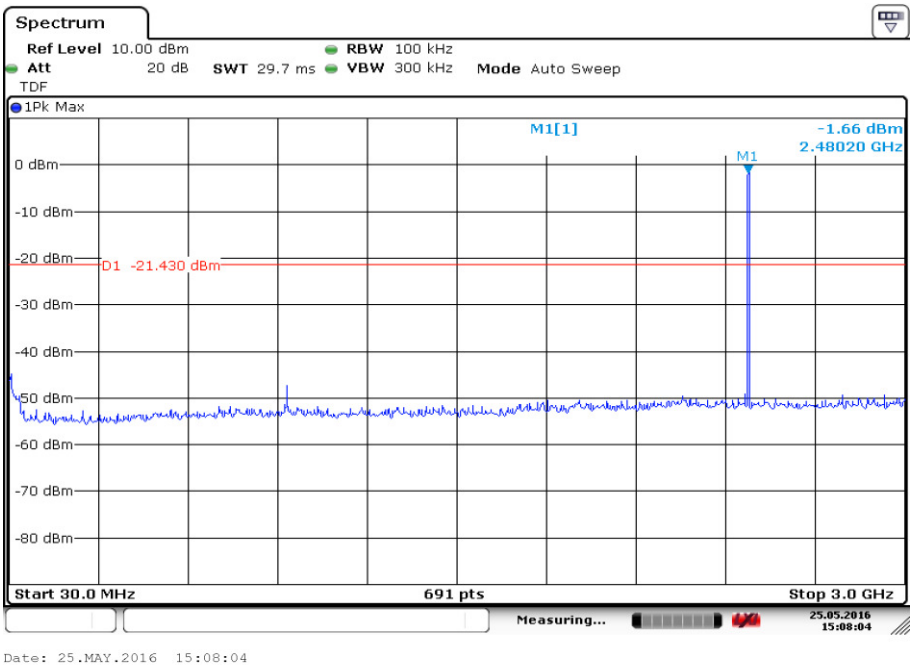


Fig.20. Conducted Spurious Emission (GFSK, Ch78, 30 MHz-3 GHz)

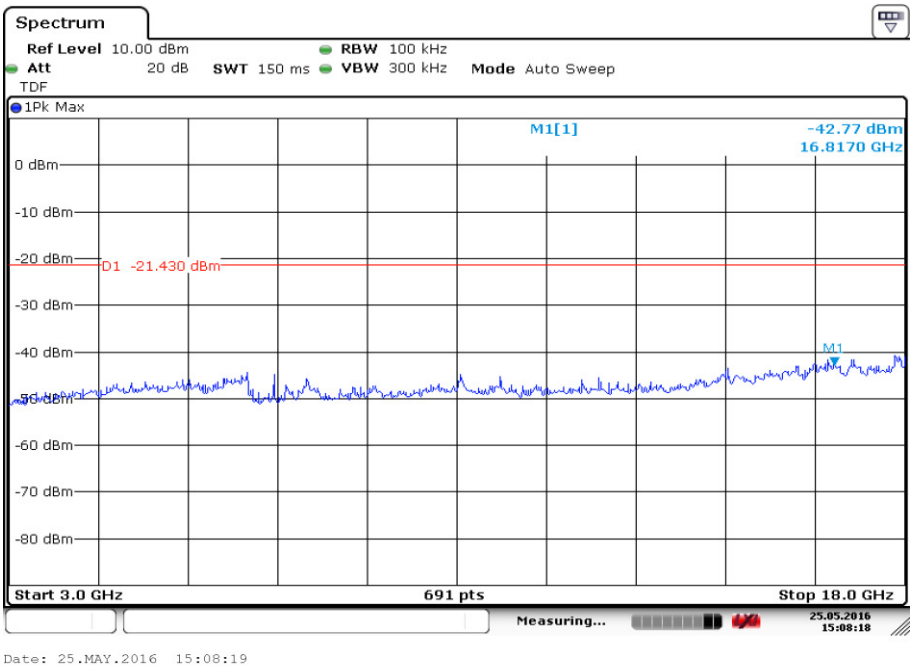


Fig.21. Conducted Spurious Emission (GFSK, Ch78, 3GHz-18 GHz)

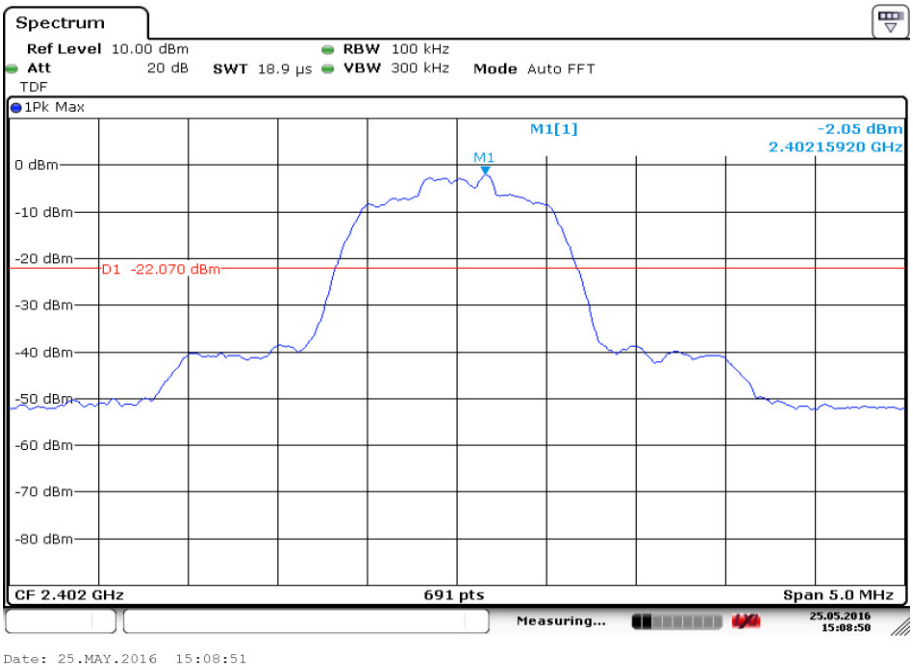


Fig.22. Conducted Spurious Emission (π /4 DQPSK, Ch0, 2.402GHz)

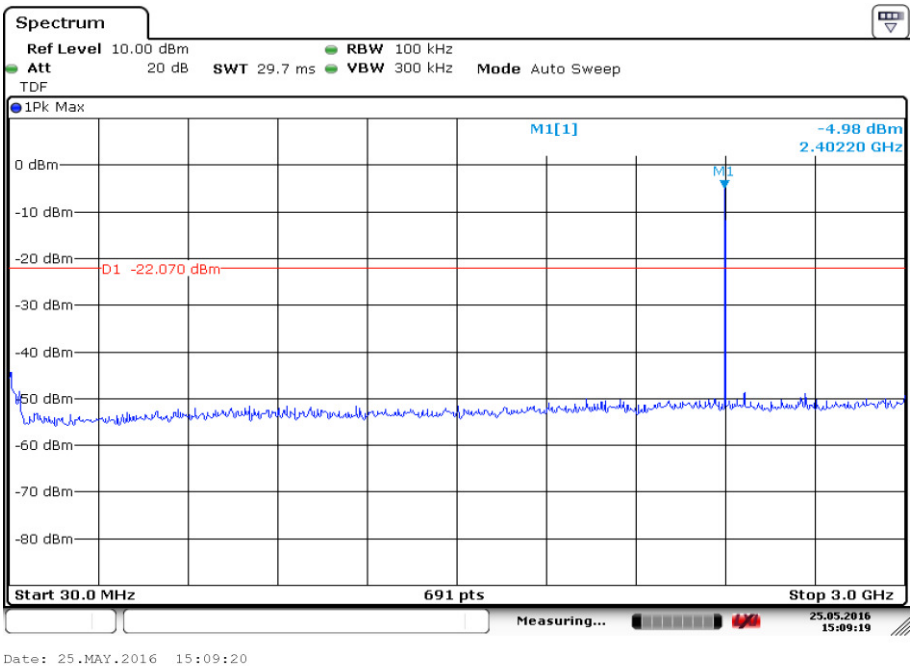


Fig.23. Conducted Spurious Emission (π /4 DQPSK, Ch0, 30 MHz-3 GHz)

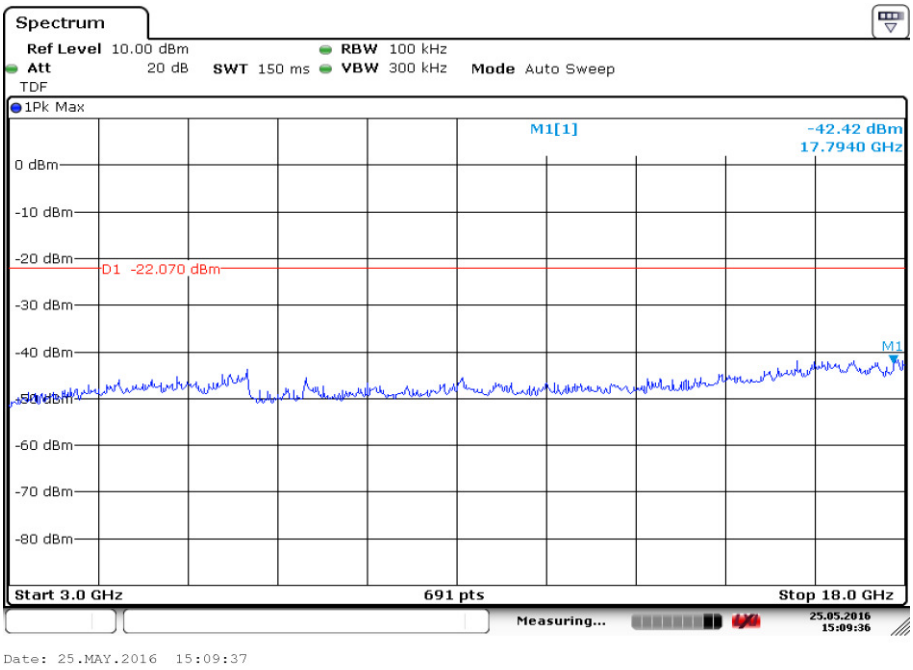


Fig.24. Conducted Spurious Emission (π /4 DQPSK, Ch0, 3GHz-18 GHz)

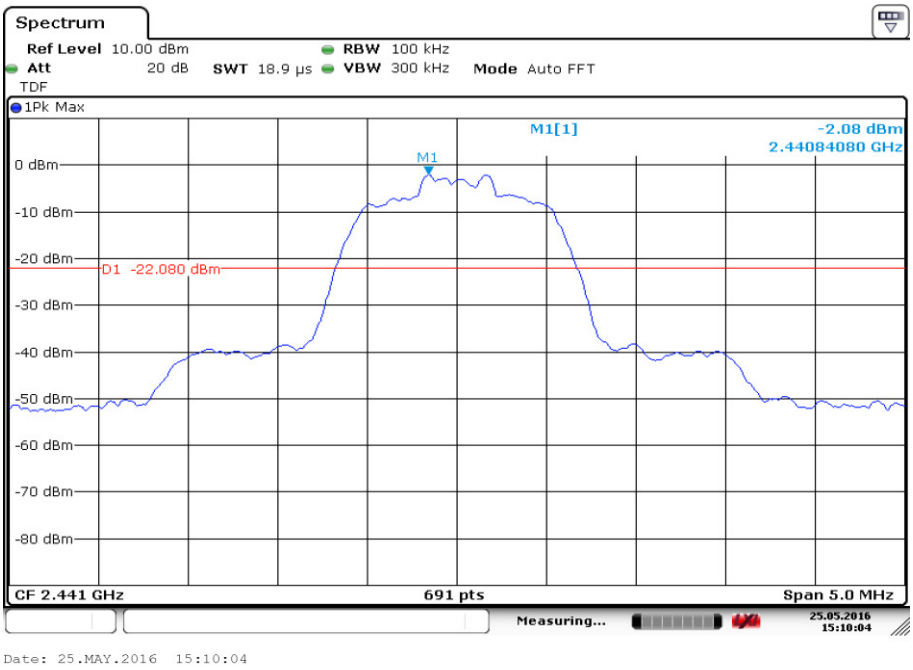


Fig.25. Conducted Spurious Emission (π /4 DQPSK, Ch39, 2.441GHz)

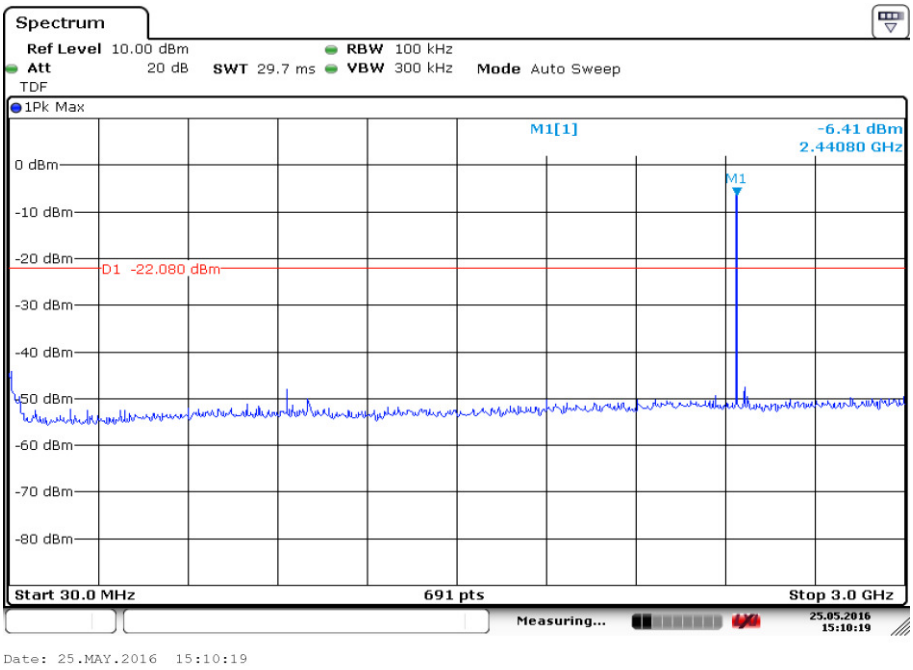


Fig.26. Conducted Spurious Emission (π /4 DQPSK, Ch39, 30 MHz-3 GHz)

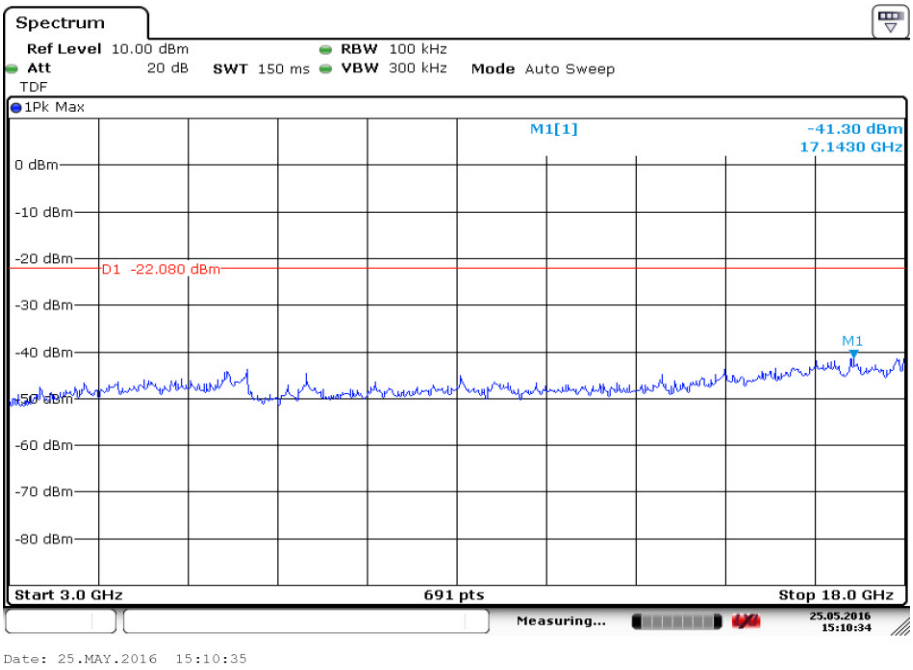


Fig.27. Conducted Spurious Emission (π /4 DQPSK, Ch39, 3GHz-18 GHz)

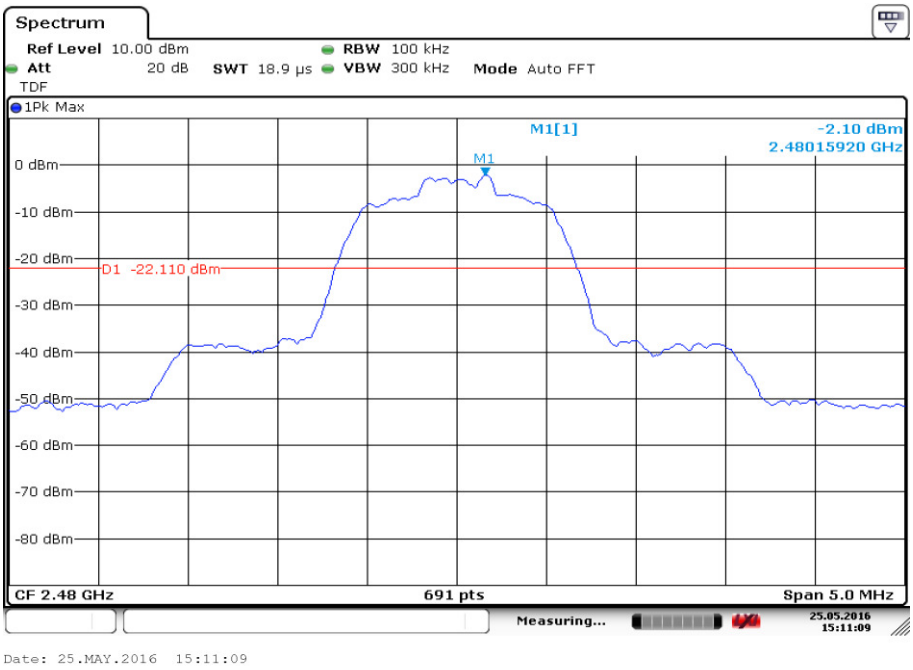


Fig.28. Conducted Spurious Emission (π/4 DQPSK, Ch78, 2.480GHz)

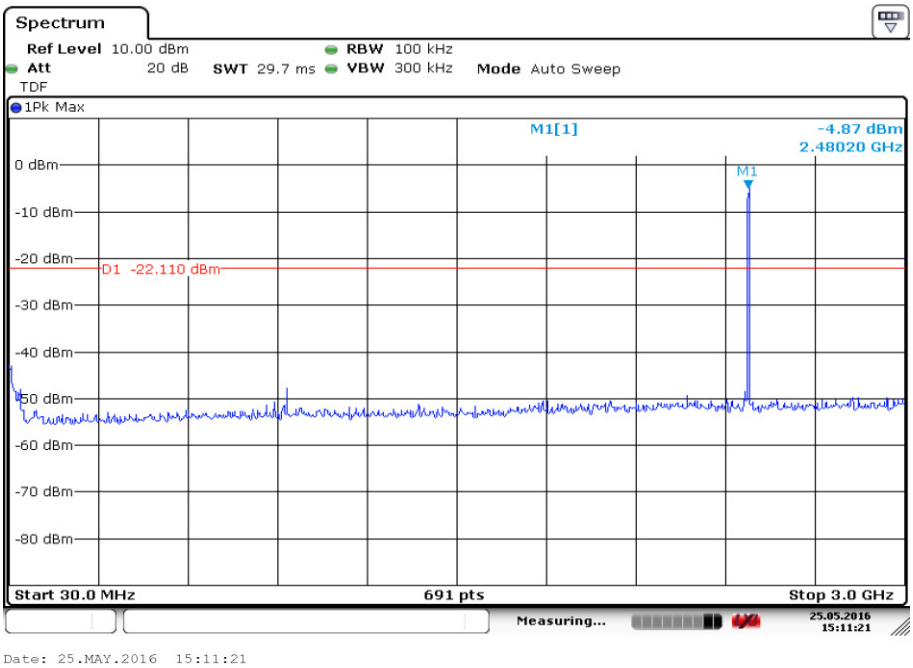


Fig.29. Conducted Spurious Emission (π /4 DQPSK, Ch78, 30 MHz-3 GHz)

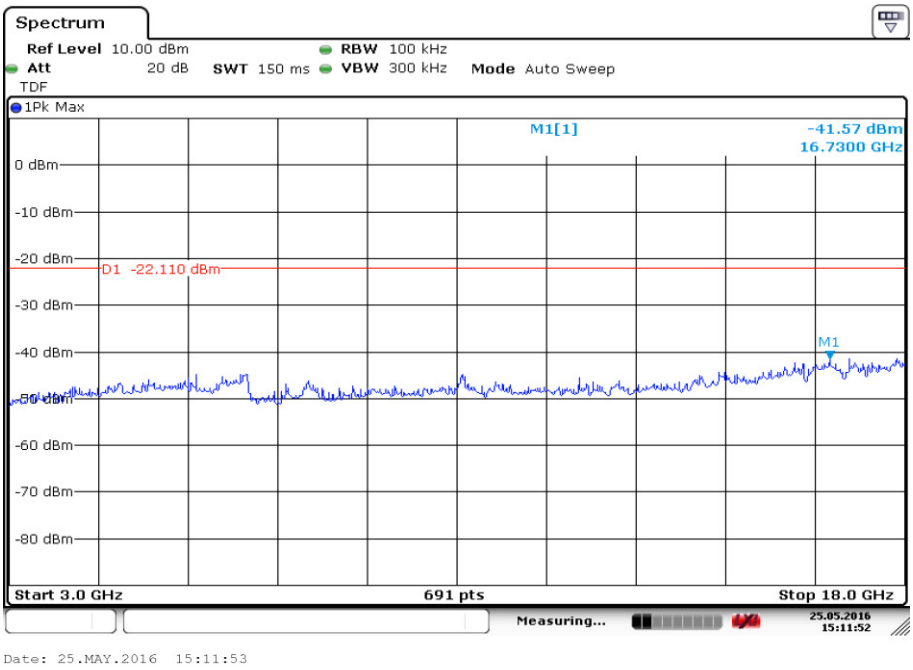


Fig.30. Conducted Spurious Emission (π /4 DQPSK, Ch78, 3GHz-18 GHz)

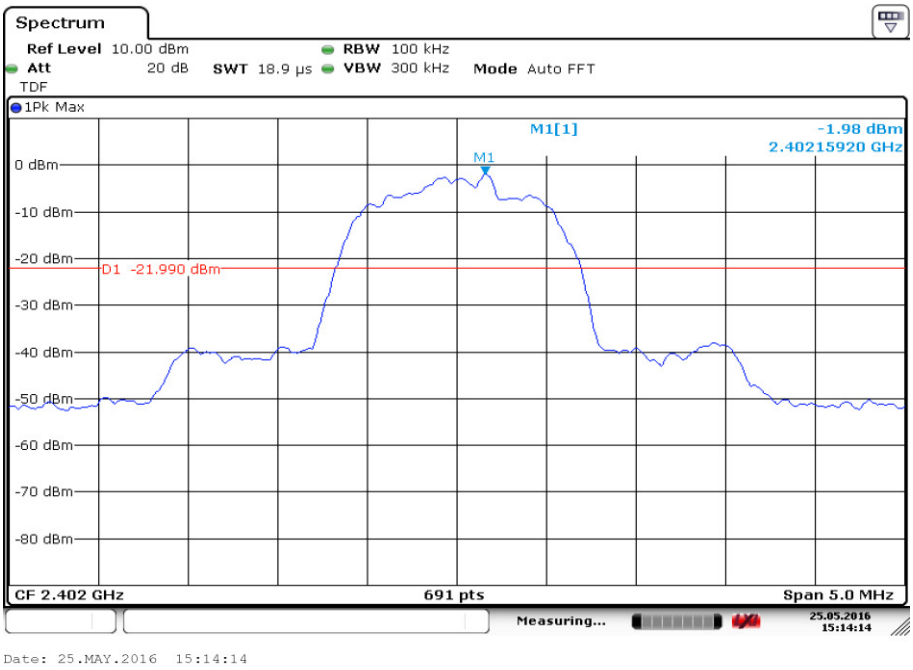


Fig.31. Conducted Spurious Emission (8DPSK, Ch0, 2.402GHz)

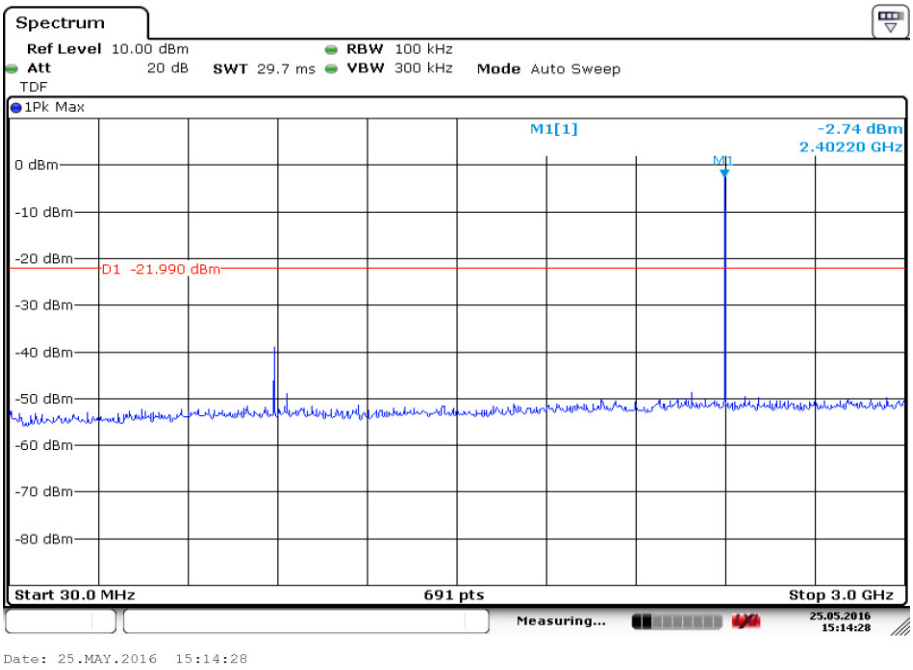


Fig.32. Conducted Spurious Emission (8DPSK, Ch0, 30 MHz-3 GHz)

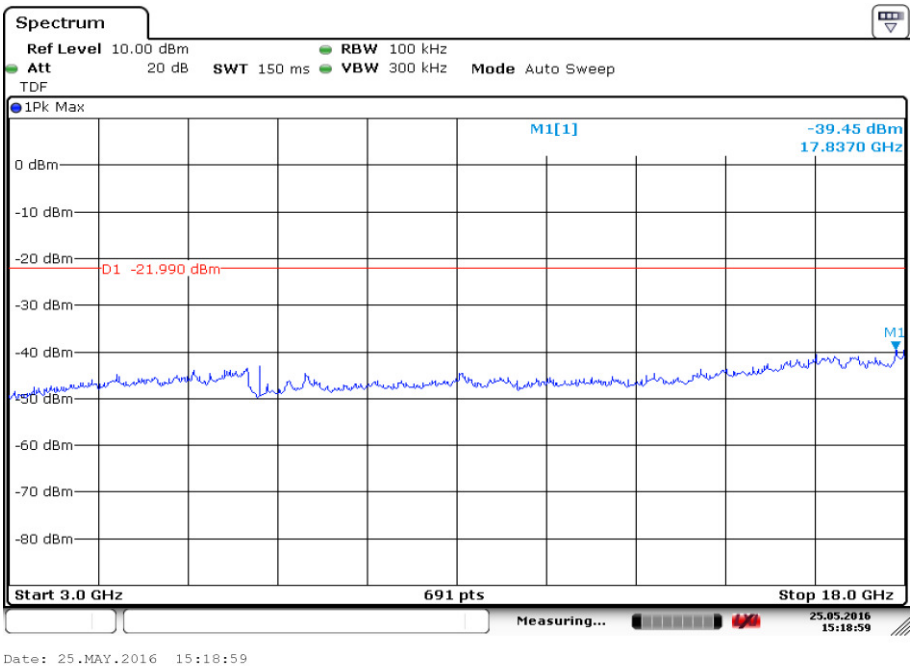


Fig.33. Conducted Spurious Emission (8DPSK, Ch0, 3GHz-18 GHz)

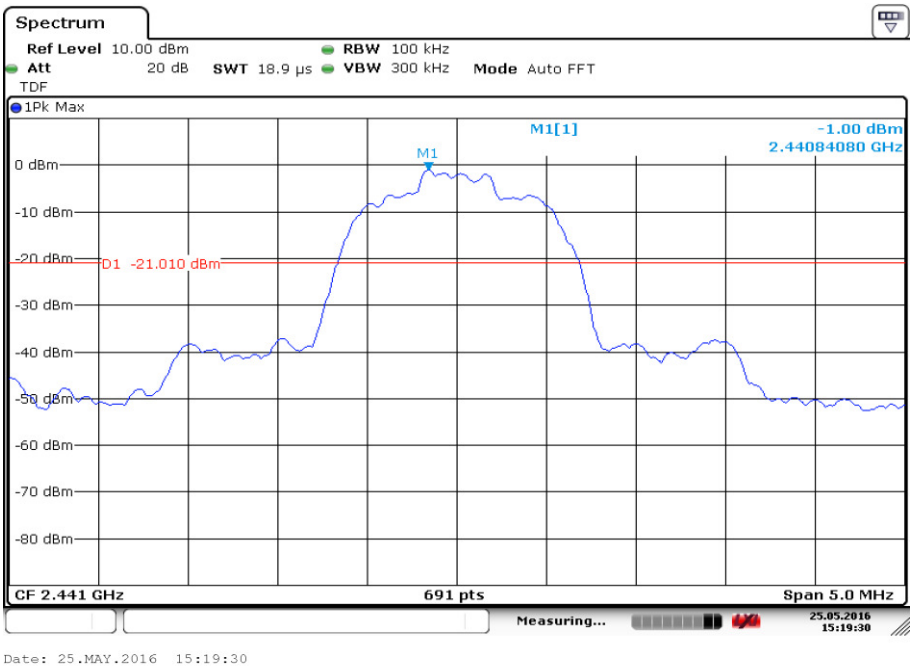


Fig.34. Conducted Spurious Emission (8DPSK, Ch39, 2.441GHz)

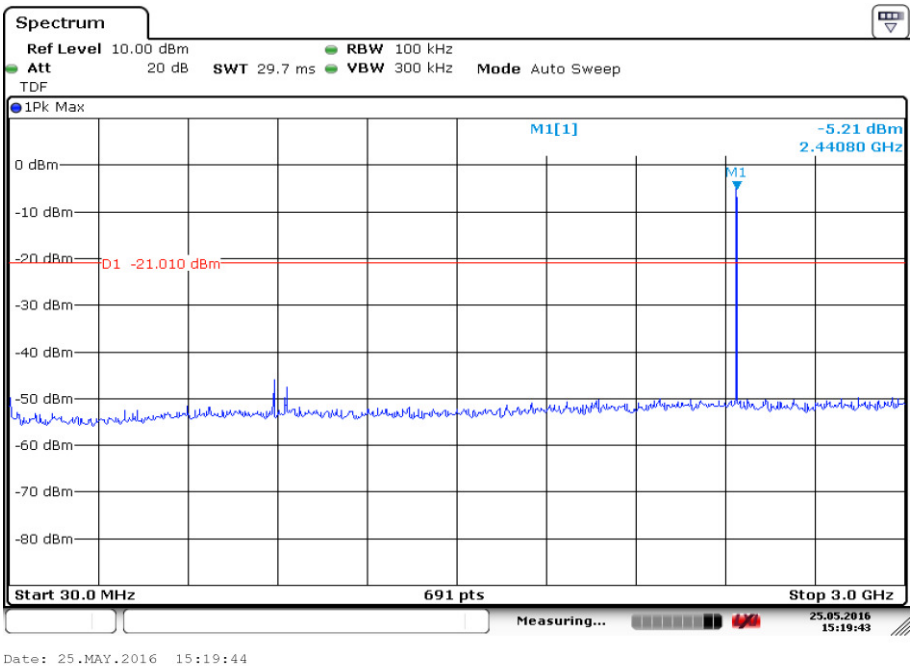


Fig.35. Conducted Spurious Emission (8DPSK, Ch39, 30 MHz-3 GHz)

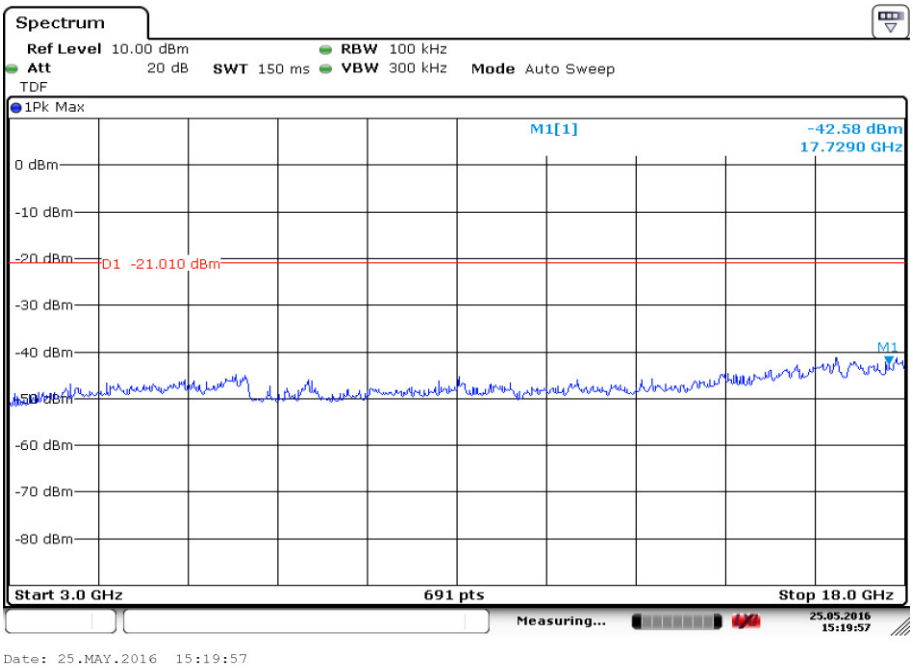


Fig.36. Conducted Spurious Emission (8DPSK, Ch39, 3GHz-18 GHz)

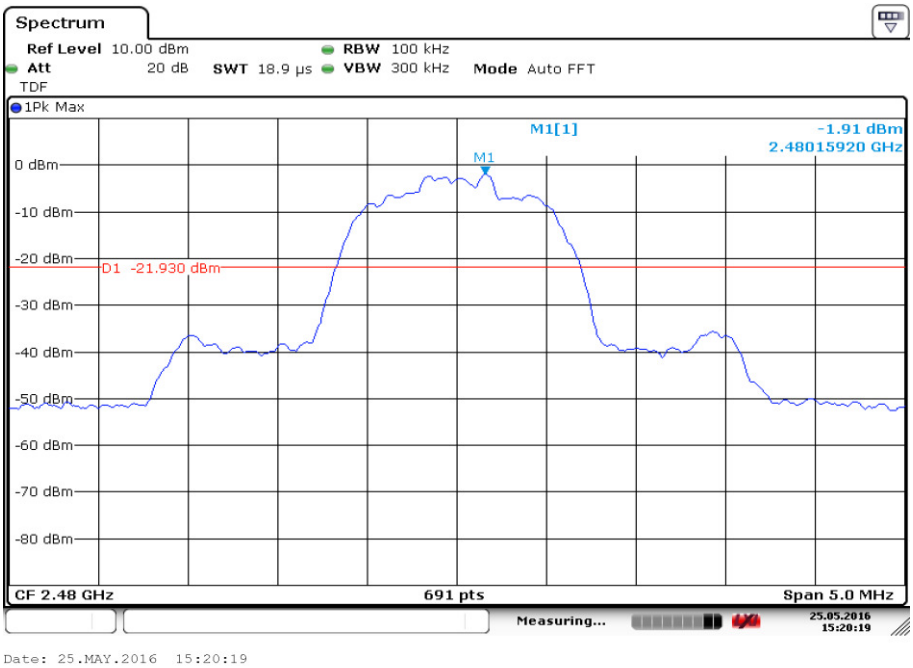


Fig.37. Conducted Spurious Emission (8DPSK, Ch78, 2.480GHz)

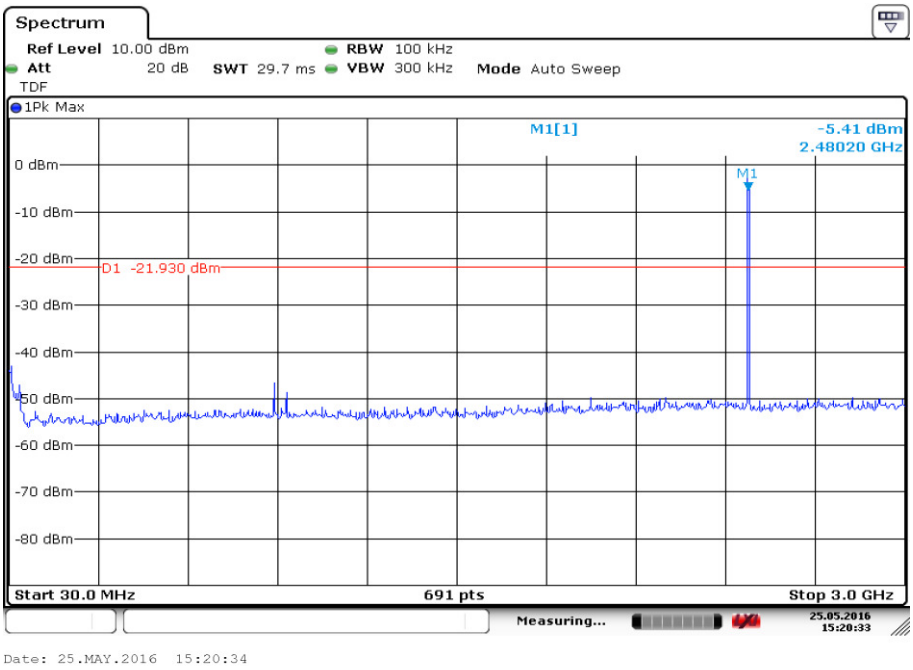


Fig.38. Conducted Spurious Emission (8DPSK, Ch78, 30 MHz-3 GHz)

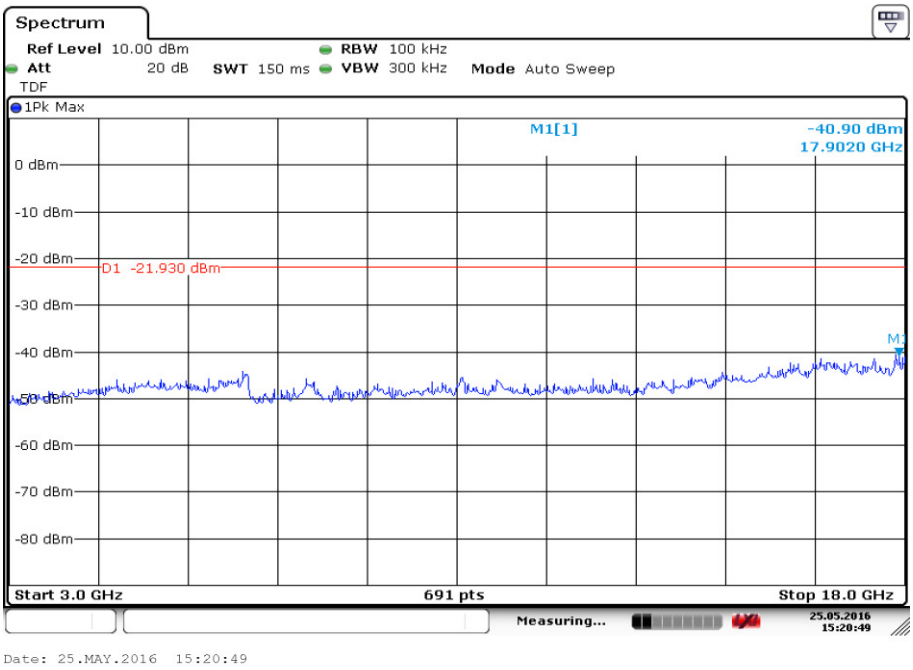


Fig.39. Conducted Spurious Emission (8DPSK, Ch78, 3GHz-18 GHz)

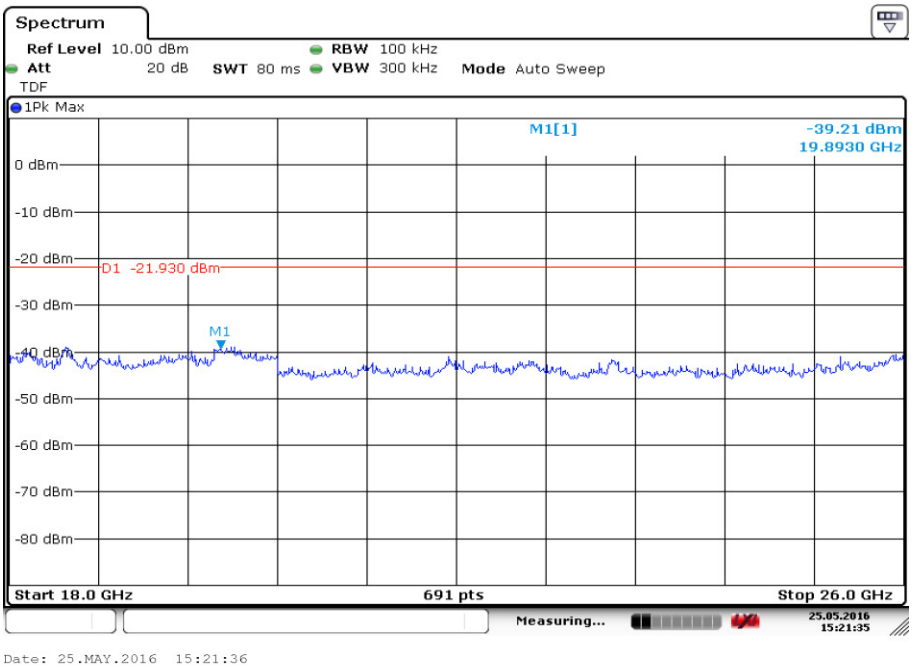


Fig.40. Conducted spurious emission: All Channel, 18GHz - 26GHz

A.5. Radiated Emission

Measurement Limit:

Standard	Limit
FCC 47 CFR Part 15.247, 15.205, 15.209 & RSS-247 section 5.1	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)).

The measurement is made according to ANSI C63.10

Limit in restricted band:

Frequency of emission (MHz)	Field strength(uV/m)	Field strength(dBuV/m)
30-88	100	40
88-216	150	43.5
216-960	200	46
Above 960	500	54

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	100KHz/300KHz	5
1000-4000	1MHz/1MHz	15
4000-18000	1MHz/1MHz	40
18000-26500	1MHz/1MHz	20

Measurement Results:

Mode	Channel	Frequency Range	Test Results	Conclusion
GFSK	0	1 GHz ~ 18 GHz	Fig.41	P
	39	9 kHz ~30 MHz	Fig.42	P
		30 MHz ~1 GHz	Fig.43	P
		1 GHz ~ 18 GHz	Fig.44	P
	78	1 GHz ~ 18 GHz	Fig.45	P
	Power(CH0)	2.38 GHz ~ 2.45 GHz	Fig.46	P
	Power(CH78)	2.45 GHz ~ 2.5 GHz	Fig.47	P
π /4 DQPSK	0	1 GHz ~ 18 GHz	Fig.48	P
	39	9 kHz ~30 MHz	Fig.49	P
		30 MHz ~1 GHz	Fig.50	P
		1 GHz ~ 18 GHz	Fig.51	P
	78	1 GHz ~ 18 GHz	Fig.52	P

	Power(CH0	2.38 GHz ~ 2.45 GHz	Fig.53	P
	Power(CH78)	2.45 GHz ~ 2.5 GHz	Fig.54	P
8DPSK	0	1 GHz ~ 18 GHz	Fig.55	P
	39	9 kHz ~30 MHz	Fig.56	P
		30 MHz ~1 GHz	Fig.57	P
		1 GHz ~ 18 GHz	Fig.58	P
	78	1 GHz ~ 18 GHz	Fig.59	P
	Power(CH0)	2.38 GHz ~ 2.45 GHz	Fig.60	P
	Power(CH78)	2.45 GHz ~ 2.5 GHz	Fig.61	P
/	All channels	18 GHz~ 26.5 GHz	Fig.62	P

GFSK CH0 (1-18GHz)

Frequency (MHz)	MaxPeak-ClearWrite (dBµV/m)	Polarization	Corr. (dB)	Margin (dB)	Limit (dBµV/m)
14531.500000	59.0	H	13.7	15.0	74.0
15161.000000	58.6	H	14.3	15.4	74.0
15683.500000	61.5	V	14.4	12.5	74.0
16282.000000	61.4	V	15.1	12.6	74.0
16863.500000	62.2	V	16.1	11.8	74.0
17411.500000	62.0	V	16.2	12.0	74.0

Frequency (MHz)	Average-ClearWrite (dBµV/m)	Polarization	Corr. (dB)	Margin (dB)	Limit (dBµV/m)
14172.500000	46.6	H	13.3	7.4	54.0
15179.500000	47.7	H	14.3	6.3	54.0
15676.000000	48.8	H	14.4	5.2	54.0
16212.500000	49.4	H	14.9	4.6	54.0
16785.000000	50.1	H	15.7	3.9	54.0
17404.500000	49.8	H	16.2	4.2	54.0

GFSK CH39 (1-18GHz)

Frequency (MHz)	MaxPeak-ClearWrite (dBµV/m)	Polarization	Corr. (dB)	Margin (dB)	Limit (dBµV/m)
14099.500000	58.4	H	13.1	15.6	74.0
14784.000000	58.9	V	13.9	15.1	74.0
15684.000000	60.8	H	14.4	13.2	74.0
16243.000000	61.0	H	14.9	13.0	74.0
16845.000000	62.3	V	16.0	11.7	74.0
17425.500000	62.4	H	16.2	11.6	74.0

Frequency (MHz)	Average-ClearWrite (dBµV/m)	Polarization	Corr. (dB)	Margin (dB)	Limit (dBµV/m)
7322.500000	48.5	V	8.5	5.5	54.0

15174.500000	47.4	H	14.3	6.6	54.0
15686.000000	48.8	H	14.4	5.2	54.0
16207.500000	49.6	H	14.9	4.4	54.0
16783.500000	50.1	V	15.6	3.9	54.0
17414.000000	49.7	V	16.2	4.3	54.0

GFSK CH78 (1-18GHz)

Frequency (MHz)	MaxPeak-ClearWrite (dBμV/m)	Polarization	Corr. (dB)	Margin (dB)	Limit (dBμV/m)
14083.000000	58.4	H	13.1	15.6	74.0
15175.000000	59.1	V	14.3	14.9	74.0
15744.500000	60.3	V	14.4	13.7	74.0
16187.000000	61.2	V	15.0	12.8	74.0
16826.000000	61.3	V	15.9	12.7	74.0
17411.000000	62.1	H	16.2	11.9	74.0

Frequency (MHz)	Average-ClearWrite (dBμV/m)	Polarization	Corr. (dB)	Margin (dB)	Limit (dBμV/m)
14537.500000	46.5	V	13.7	7.5	54.0
15174.000000	47.6	V	14.3	6.4	54.0
15676.000000	48.7	V	14.4	5.3	54.0
16198.000000	49.3	V	15.0	4.7	54.0
16810.500000	49.9	V	15.8	4.1	54.0
17404.000000	49.6	V	16.2	4.4	54.0

π /4 DQPSK CH0 (1-18GHz)

Frequency (MHz)	MaxPeak-ClearWrite (dBμV/m)	Polarization	Corr. (dB)	Margin (dB)	Limit (dBμV/m)
14150.000000	58.4	V	13.3	15.6	74.0
15155.500000	60.1	H	14.3	13.9	74.0
15695.000000	60.7	V	14.4	13.3	74.0
16175.500000	61.7	H	15.0	12.3	74.0
16780.000000	61.6	V	15.6	12.4	74.0
17443.500000	61.8	H	16.1	12.2	74.0

Frequency (MHz)	Average-ClearWrite (dBμV/m)	Polarization	Corr. (dB)	Margin (dB)	Limit (dBμV/m)
14153.500000	46.6	V	13.3	7.4	54.0
15170.500000	47.6	V	14.3	6.4	54.0
15679.000000	48.9	V	14.4	5.1	54.0
16185.500000	49.4	V	15.0	4.6	54.0
16838.000000	49.9	V	15.9	4.1	54.0
17371.500000	49.6	H	16.0	4.4	54.0

π /4 DQPSK CH39 (1-18GHz)

Frequency (MHz)	MaxPeak-ClearWrite (dBμV/m)	Polarization	Corr. (dB)	Margin (dB)	Limit (dBμV/m)
14526.500000	58.5	H	13.7	15.5	74.0
15161.000000	59.6	H	14.3	14.4	74.0
15650.000000	60.2	V	14.4	13.8	74.0
16334.000000	61.4	H	15.4	12.6	74.0
16777.500000	62.1	H	15.6	11.9	74.0
17348.500000	62.0	V	15.9	12.0	74.0

Frequency (MHz)	Average-ClearWrite (dBμV/m)	Polarization	Corr. (dB)	Margin (dB)	Limit (dBμV/m)
14157.500000	46.6	V	13.3	7.4	54.0
15168.500000	47.6	H	14.3	6.4	54.0
15666.000000	48.9	H	14.4	5.1	54.0
16189.000000	49.5	H	15.0	4.5	54.0
16840.000000	50.0	H	16.0	4.0	54.0
17413.500000	49.7	V	16.2	4.3	54.0

π /4 DQPSK CH78 (1-18GHz)

Frequency (MHz)	MaxPeak-ClearWrite (dBμV/m)	Polarization	Corr. (dB)	Margin (dB)	Limit (dBμV/m)
14326.500000	58.6	H	13.4	15.4	74.0
15153.500000	59.3	H	14.3	14.7	74.0
15775.500000	60.6	V	14.5	13.4	74.0
16191.500000	61.3	H	15.0	12.7	74.0
16799.000000	61.7	H	15.7	12.3	74.0
17473.500000	61.7	V	16.1	12.3	74.0

Frequency (MHz)	Average-ClearWrite (dBμV/m)	Polarization	Corr. (dB)	Margin (dB)	Limit (dBμV/m)
14174.000000	46.5	H	13.3	7.5	54.0
15179.500000	47.4	H	14.3	6.6	54.0
15678.000000	48.6	H	14.4	5.4	54.0
16211.500000	49.3	H	14.9	4.7	54.0
16780.500000	50.1	H	15.6	3.9	54.0
17390.000000	49.6	V	16.1	4.4	54.0

8DPSK CH0 (1-18GHz)

Frequency (MHz)	MaxPeak-ClearWrite (dBμV/m)	Polarization	Corr. (dB)	Margin (dB)	Limit (dBμV/m)
14173.500000	59.0	V	13.3	15.0	74.0
15150.500000	59.5	H	14.3	14.5	74.0

15730.500000	60.4	V	14.4	13.6	74.0
16202.000000	61.3	V	15.0	12.7	74.0
16835.500000	61.6	H	15.9	12.4	74.0
17296.500000	61.2	V	15.6	12.8	74.0

Frequency (MHz)	Average-ClearWrite (dBµV/m)	Polarization	Corr. (dB)	Margin (dB)	Limit (dBµV/m)
14545.500000	46.7	V	13.7	7.3	54.0
15167.500000	47.9	H	14.3	6.1	54.0
15672.500000	48.7	V	14.4	5.3	54.0
16192.500000	49.2	V	15.0	4.8	54.0
16867.000000	49.8	V	16.1	4.2	54.0
17358.500000	49.5	H	16.0	4.5	54.0

8DPSK CH39 (1-18GHz)

Frequency (MHz)	MaxPeak-ClearWrite (dBµV/m)	Polarization	Corr. (dB)	Margin (dB)	Limit (dBµV/m)
14091.500000	58.1	H	13.1	15.9	74.0
15151.000000	59.7	H	14.3	14.3	74.0
15694.000000	60.1	V	14.4	13.9	74.0
16208.500000	61.6	V	14.9	12.4	74.0
16849.500000	61.2	V	16.0	12.8	74.0
17423.500000	61.0	V	16.2	13.0	74.0

Frequency (MHz)	Average-ClearWrite (dBµV/m)	Polarization	Corr. (dB)	Margin (dB)	Limit (dBµV/m)
14552.000000	46.7	V	13.8	7.3	54.0
15143.000000	47.8	H	14.3	6.2	54.0
15662.000000	48.7	H	14.4	5.3	54.0
16205.500000	49.0	H	14.9	5.0	54.0
16794.500000	49.4	V	15.7	4.6	54.0
17353.000000	49.2	V	15.9	4.8	54.0

8DPSK CH78 (1-18GHz)

Frequency (MHz)	MaxPeak-ClearWrite (dBµV/m)	Polarization	Corr. (dB)	Margin (dB)	Limit (dBµV/m)
14047.500000	58.7	V	12.9	15.3	74.0
15112.500000	59.7	H	14.2	14.3	74.0
15670.000000	61.1	H	14.4	12.9	74.0
16277.000000	62.9	V	15.1	11.1	74.0
16877.500000	61.5	V	16.2	12.5	74.0
17433.000000	61.4	V	16.2	12.6	74.0

Frequency (MHz)	Average-ClearWrite (dBµV/m)	Polarization	Corr. (dB)	Margin (dB)	Limit (dBµV/m)
14552.000000	46.6	V	13.8	7.4	54.0
15166.500000	47.8	H	14.3	6.2	54.0
15645.000000	48.7	H	14.4	5.3	54.0
16208.500000	49.1	H	14.9	4.9	54.0
16843.500000	49.5	V	16.0	4.5	54.0
17397.000000	49.3	H	16.1	4.7	54.0

Conclusion: PASS

Test graphs as below:

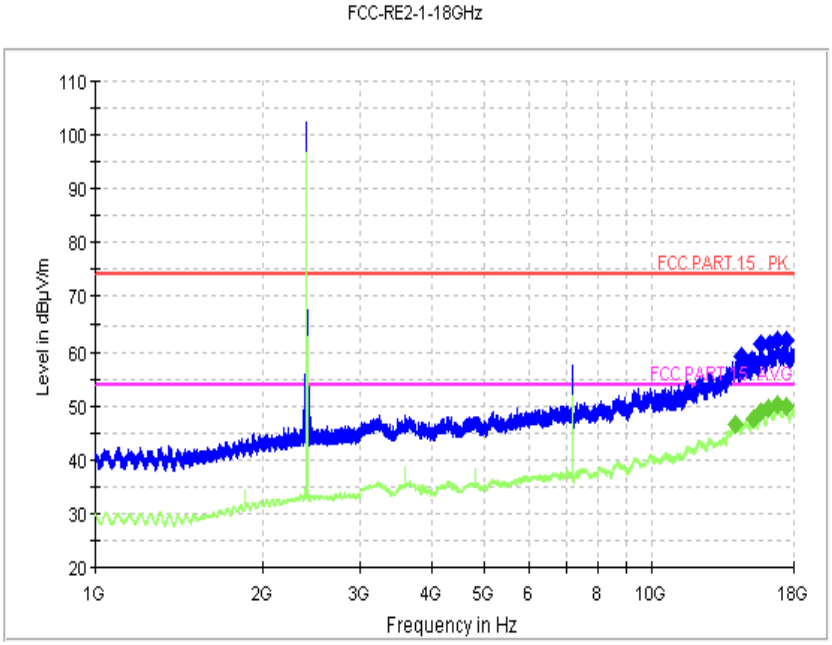


Fig.41. Radiated Spurious Emission (GFSK, Ch0, 1 GHz ~18 GHz)

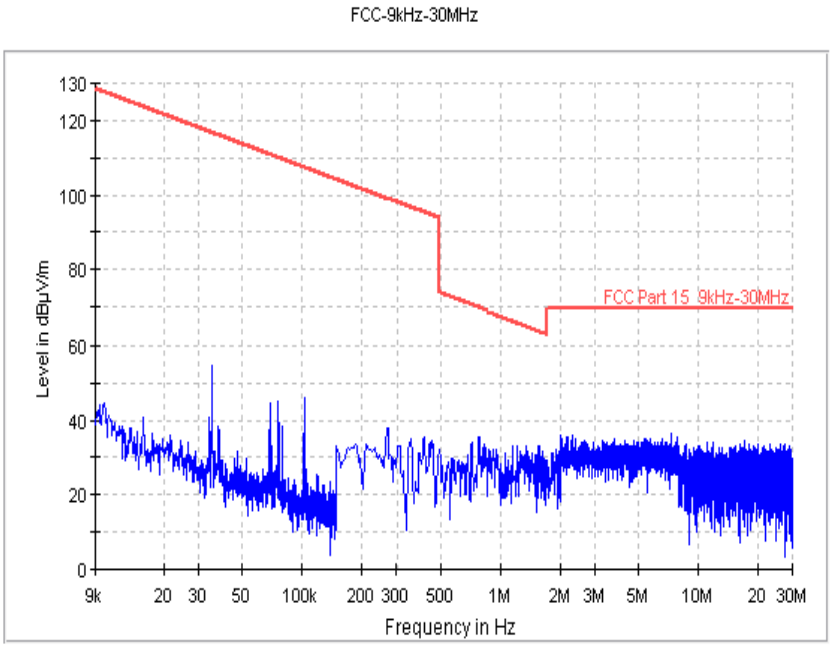


Fig.42. Radiated Spurious Emission (GFSK, Ch39, 9 kHz ~30 MHz)

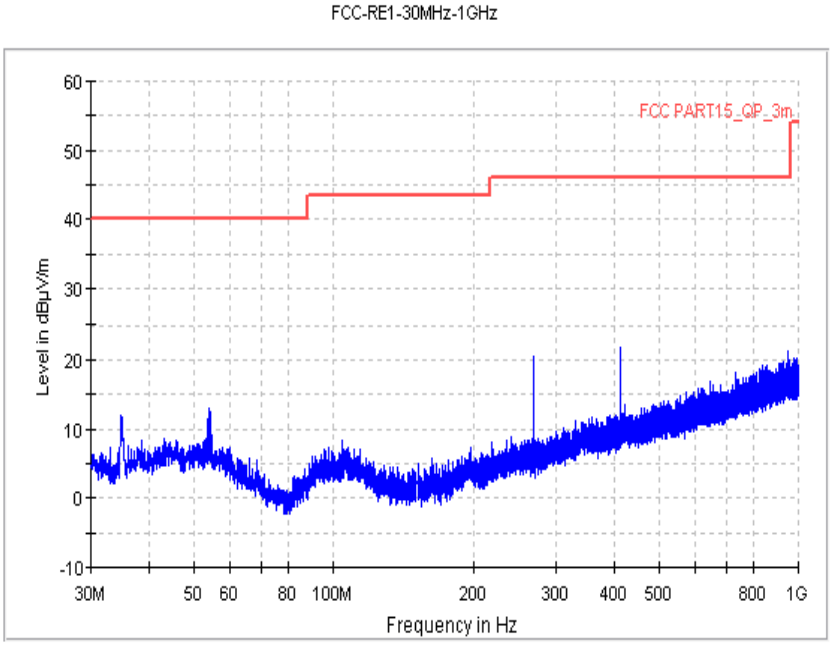


Fig.43. Radiated Spurious Emission (GFSK, Ch39, 30 MHz ~1 GHz)

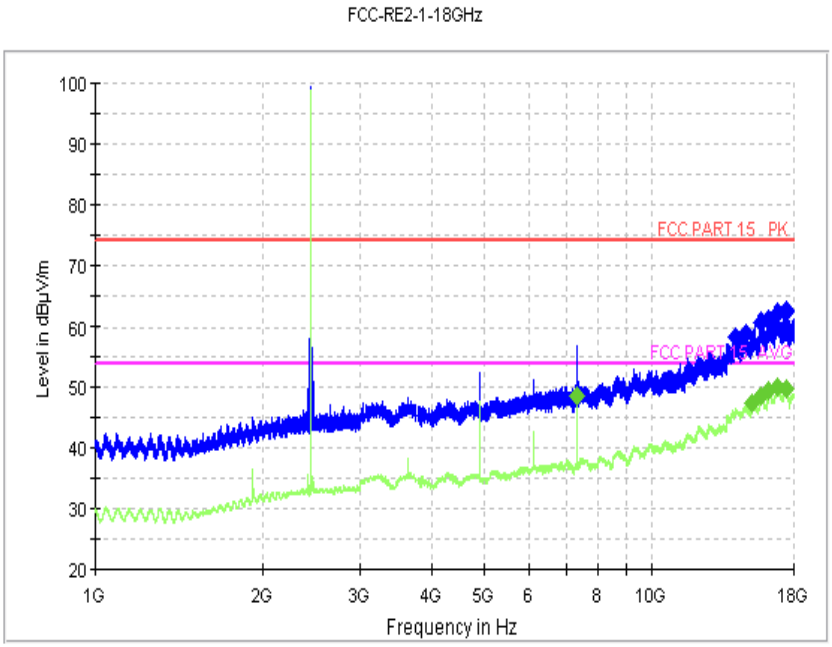


Fig.44. Radiated Spurious Emission (GFSK, Ch39, 1 GHz ~18 GHz)

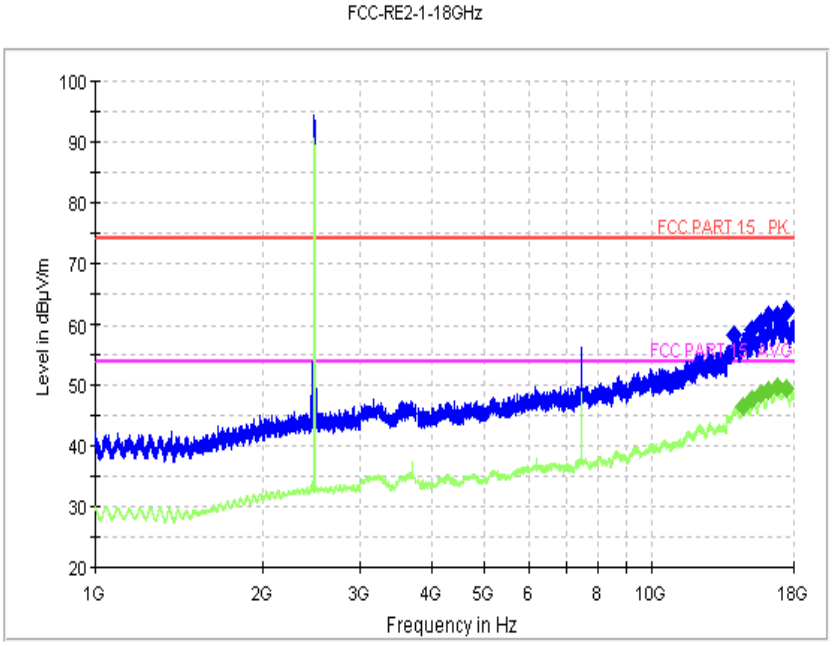


Fig.45. Radiated Spurious Emission (GFSK, Ch78, 1 GHz ~18 GHz)

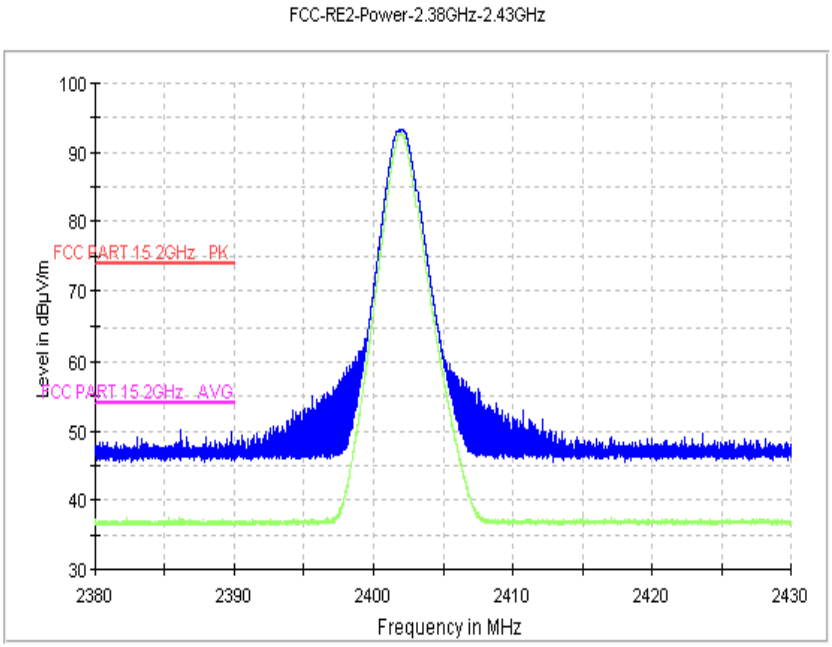


Fig.46. Radiated Emission Power (GFSK, Ch0, 2380GHz~2450GHz)

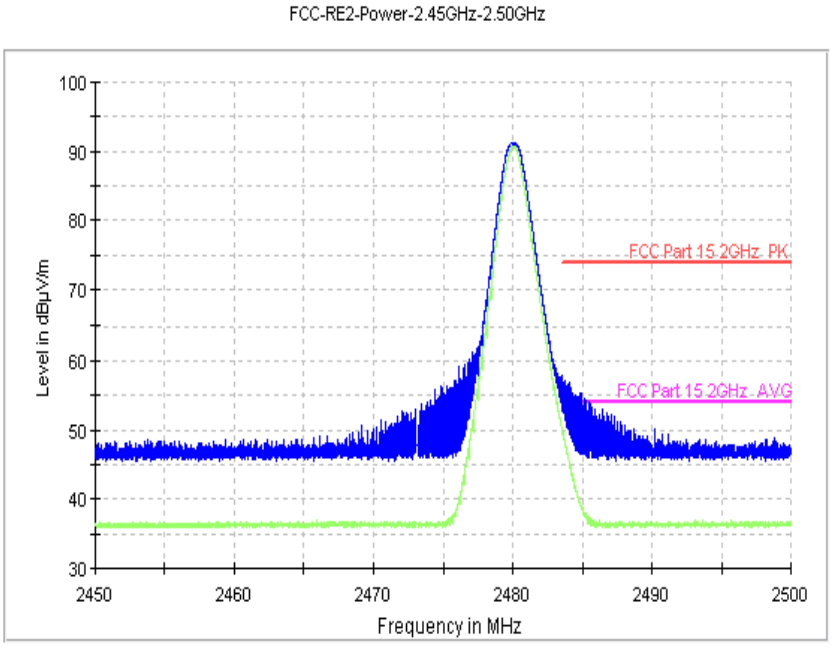


Fig.47. Radiated Emission Power (GFSK, Ch78, 2450GHz~2500GHz)

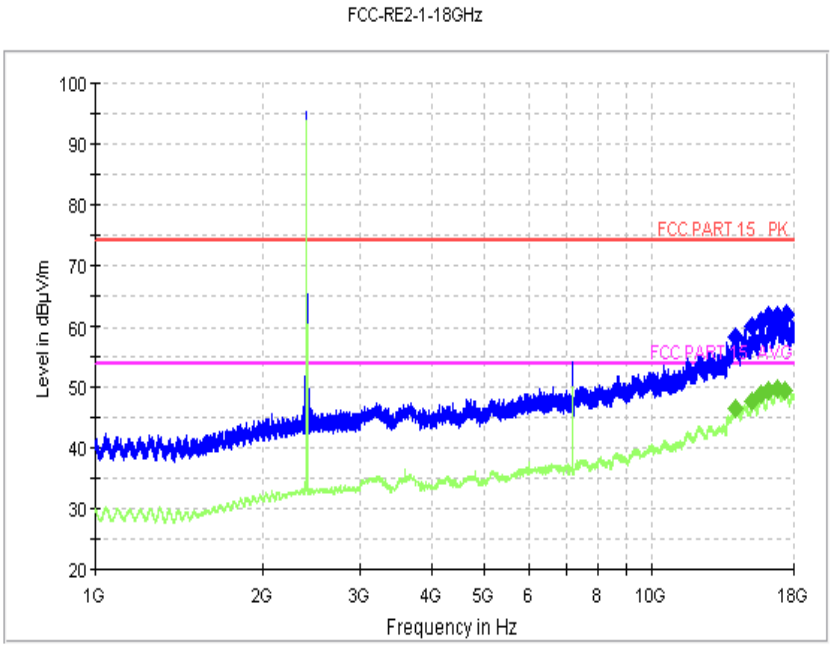


Fig.48. Radiated Spurious Emission (π /4 DQPSK, Ch0, 1 GHz ~18 GHz)

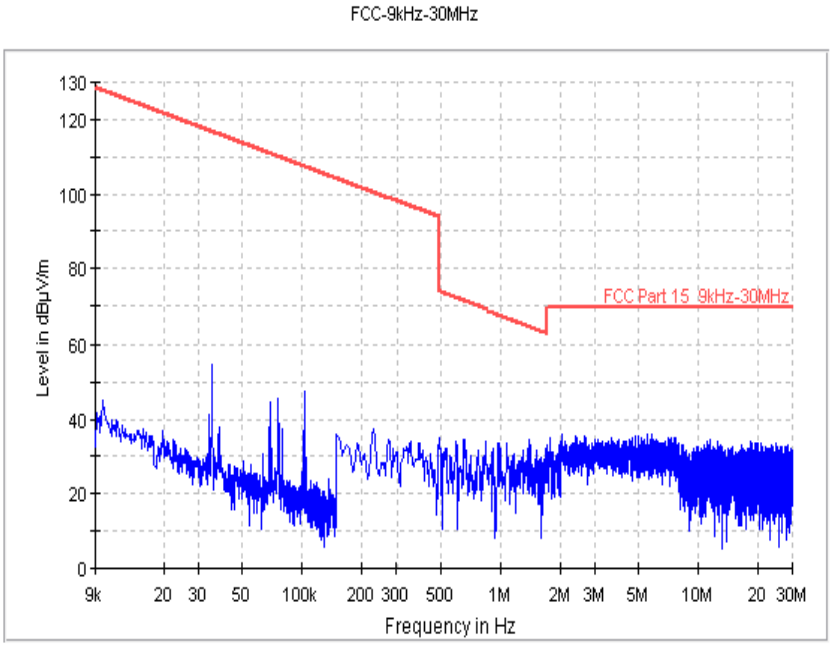


Fig.49. Radiated Spurious Emission (π /4 DQPSK, Ch39, 9 kHz ~30 MHz)

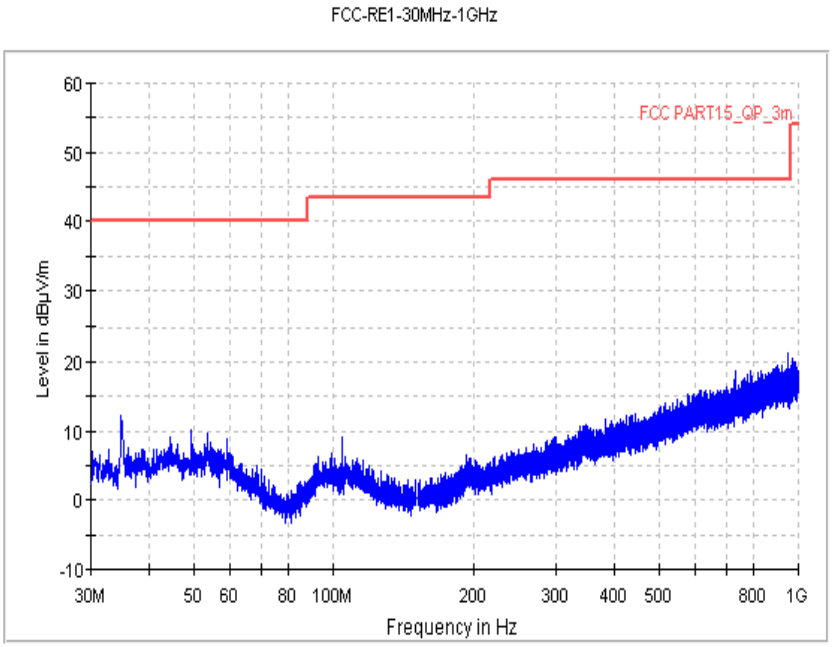


Fig.50. Radiated Spurious Emission (π /4 DQPSK, Ch39, 30 MHz ~1 GHz)

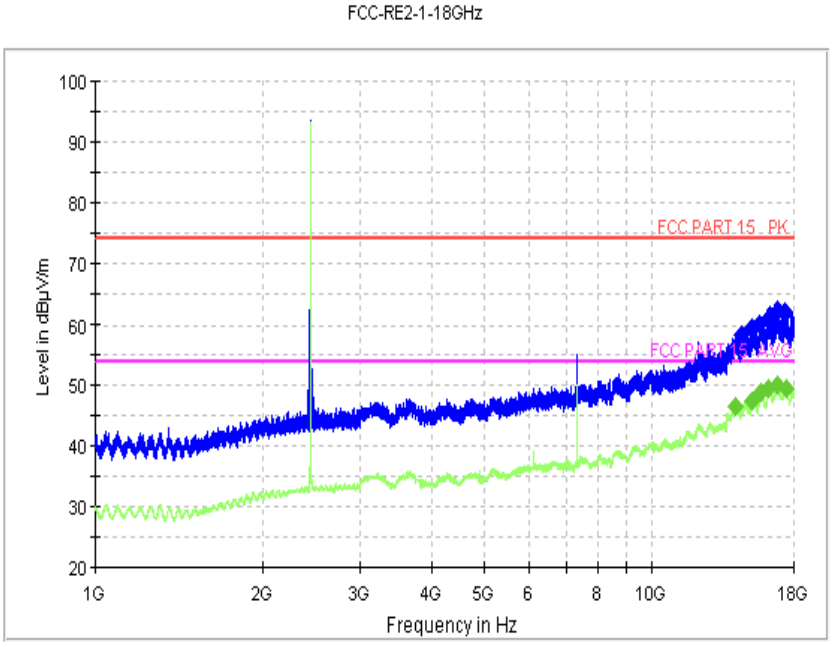


Fig.51. Radiated Spurious Emission (π /4 DQPSK, Ch39, 1 GHz ~18 GHz)

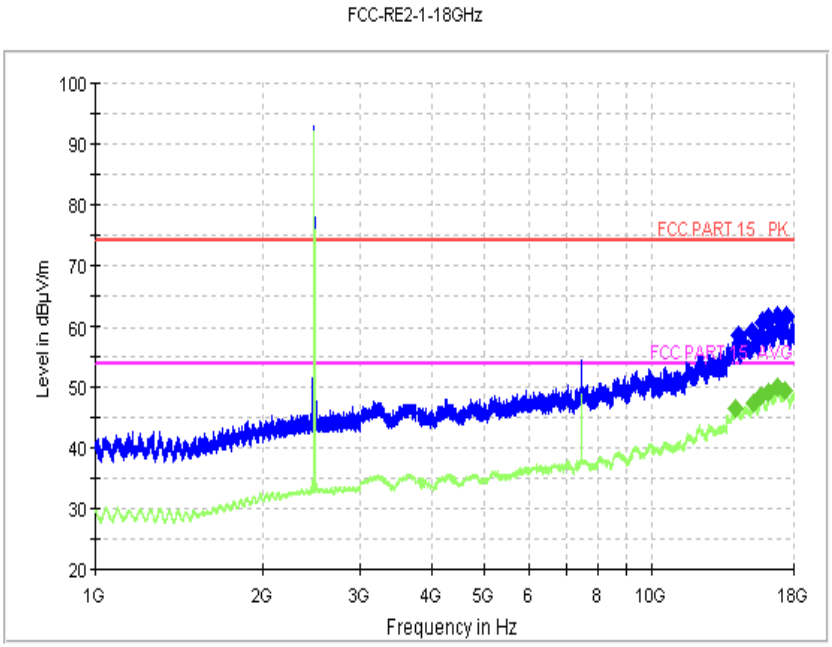


Fig.52. Radiated Spurious Emission (π /4 DQPSK, Ch78, 1 GHz ~18 GHz)

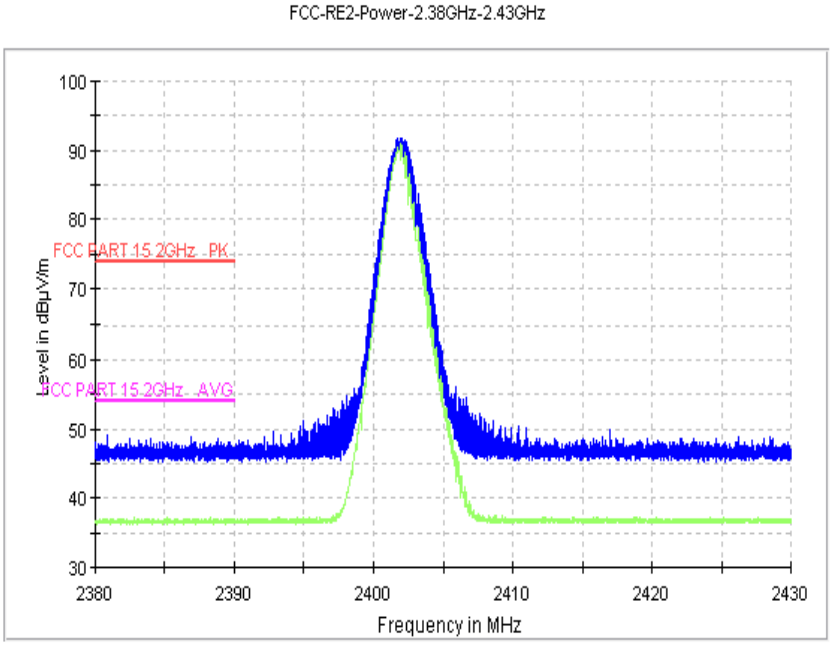


Fig.53. Radiated Emission Power (π /4 DQPSK, Ch0, 2380GHz~2450GHz)

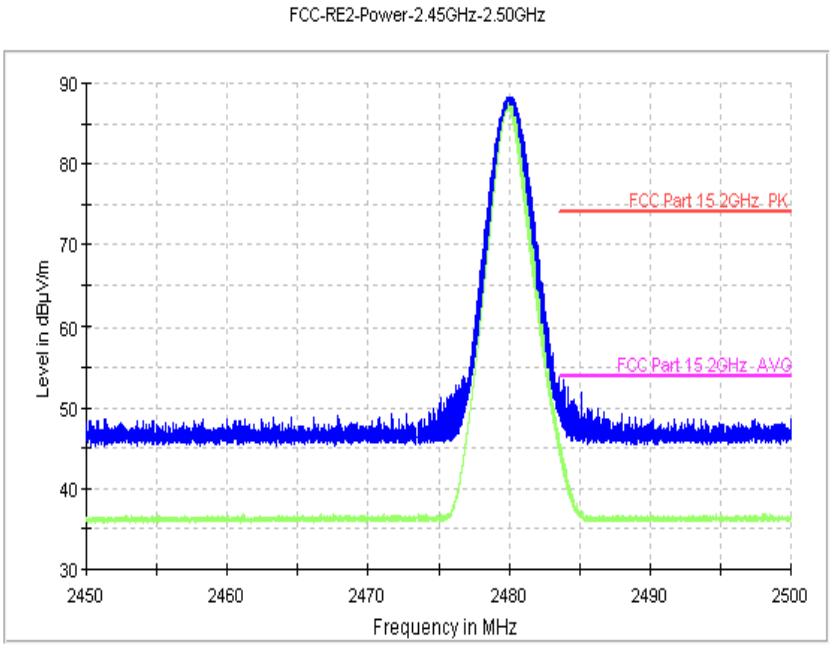


Fig.54. Radiated Emission Power (π /4 DQPSK, Ch78, 2450GHz~2500GHz)

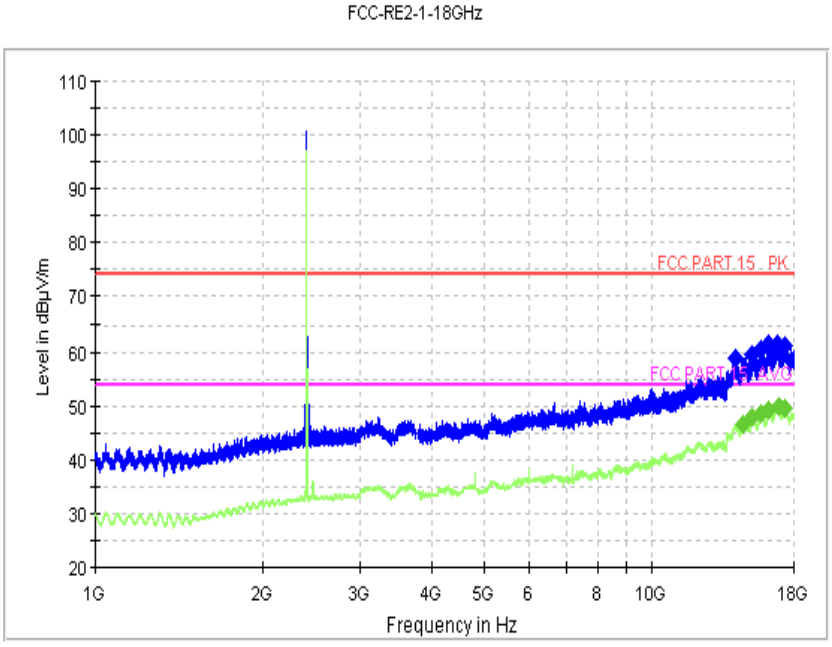


Fig.55. Radiated Spurious Emission (8DPSK, Ch0, 1 GHz ~18 GHz)

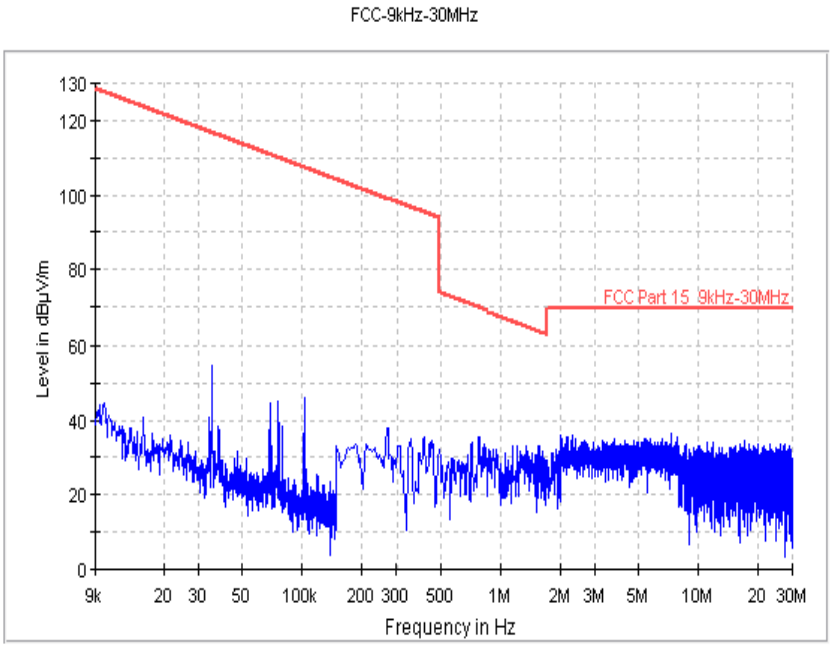


Fig.56. Radiated Spurious Emission (8DPSK, Ch39, 9 kHz ~30 MHz)

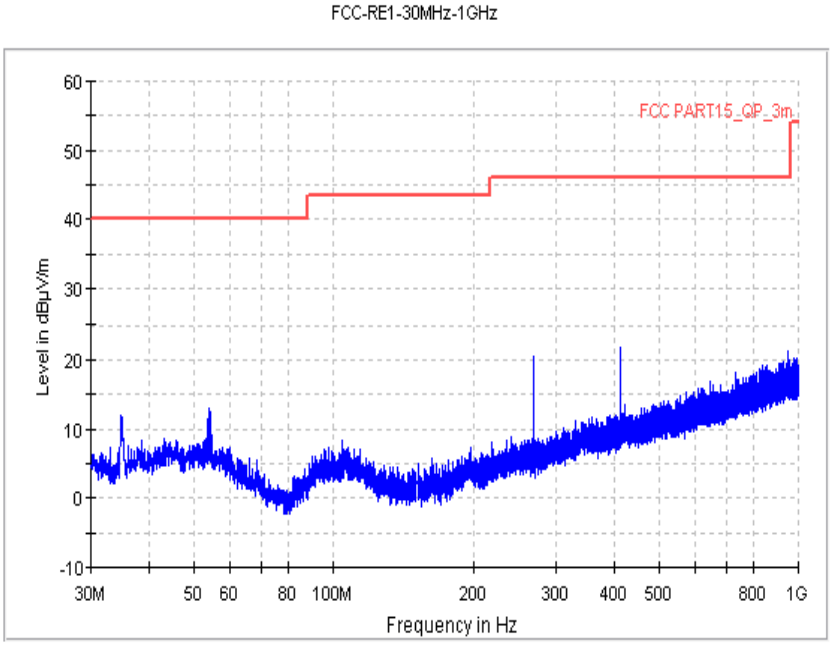


Fig.57. Radiated Spurious Emission (8DPSK, Ch39, 30 MHz ~1 GHz)

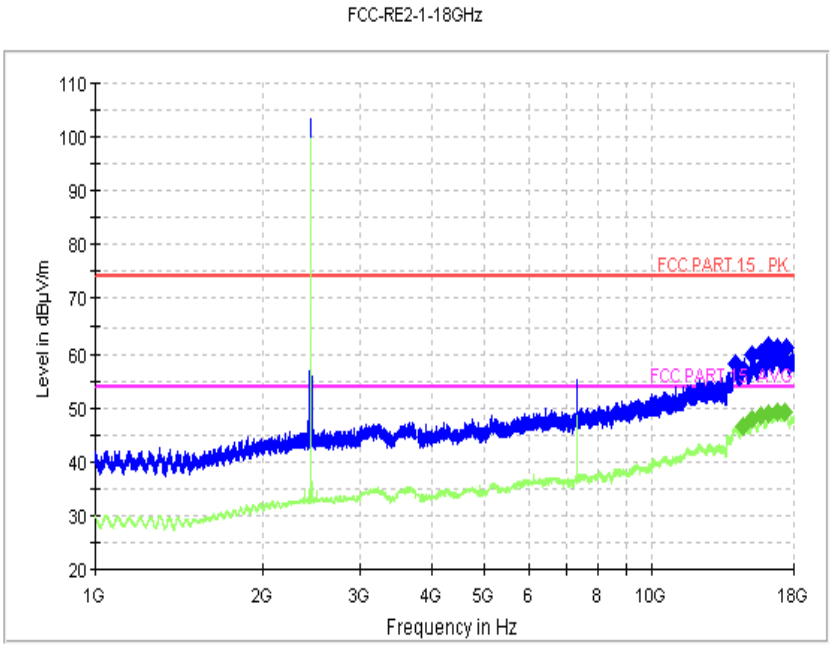


Fig.58. Radiated Spurious Emission (8DPSK, Ch39, 1 GHz ~18 GHz)

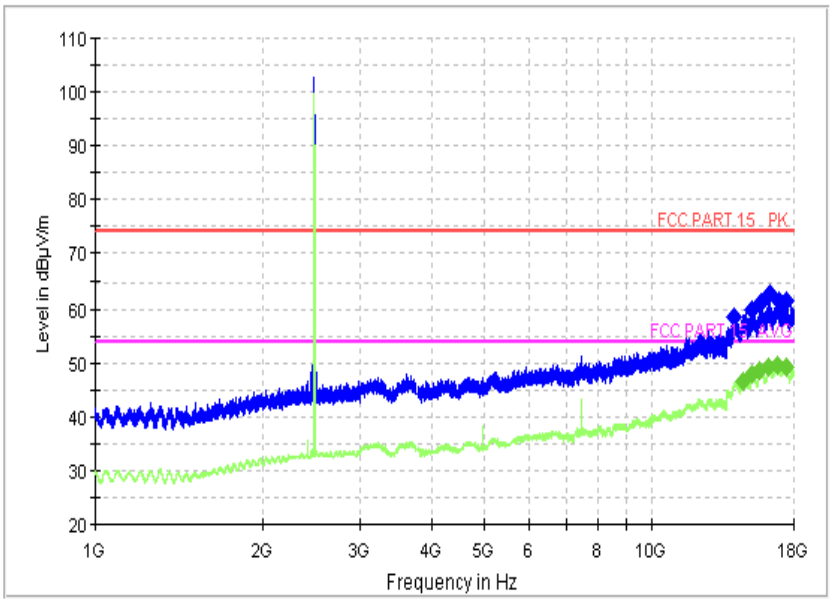


Fig.59. Radiated Spurious Emission (8DPSK, Ch78, 1 GHz ~18 GHz)

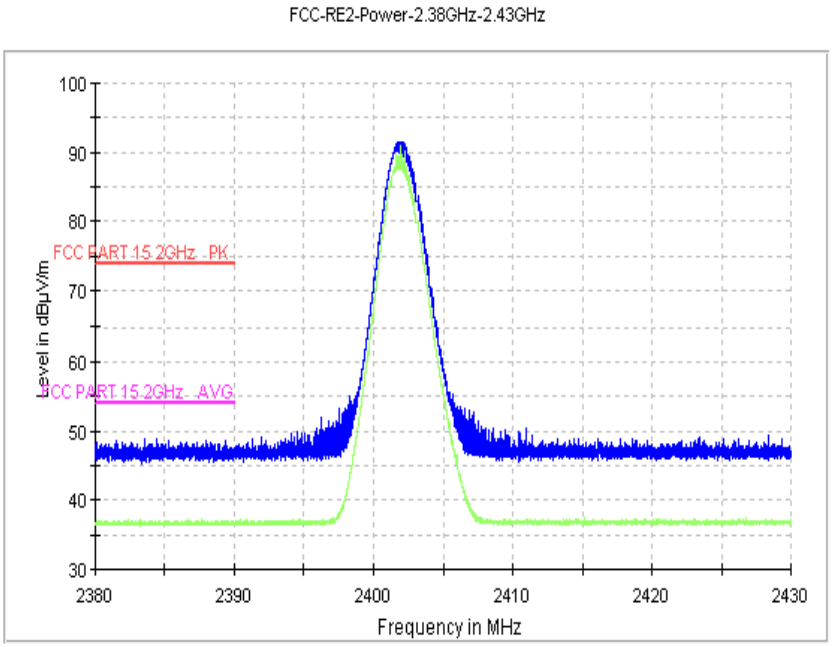


Fig.60. Radiated Emission Power (8DPSK, Ch0, 2380GHz~2450GHz)

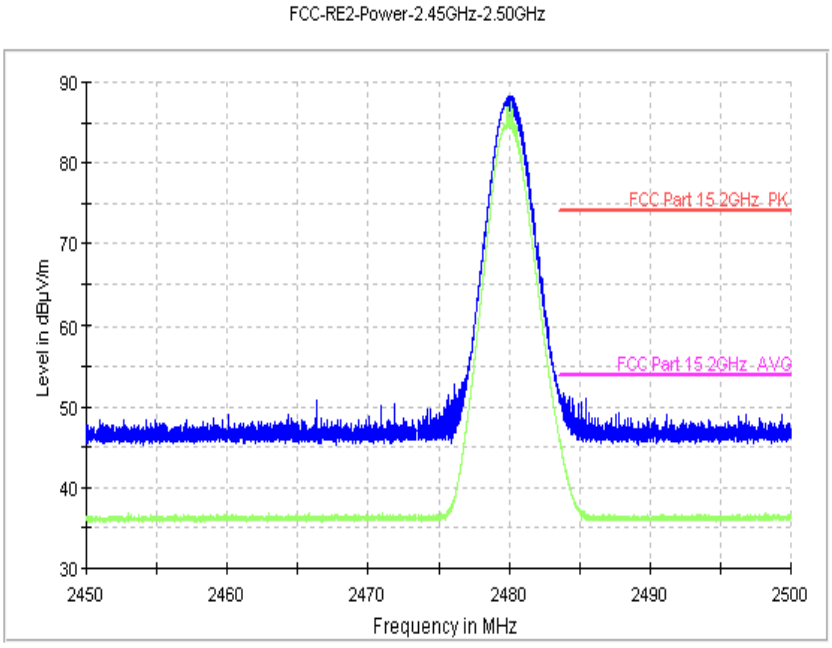


Fig.61. Radiated Emission Power (8DPSK, Ch78, 2450GHz~2500GHz)

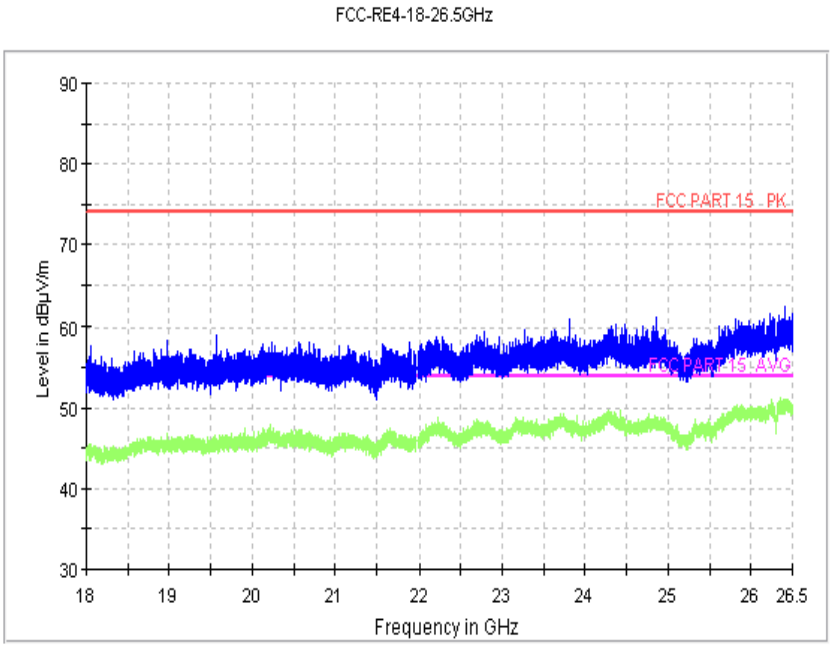


Fig.62. Radiated Spurious Emission (All channel, 18 GHz ~26.5 GHz)

A.6. Time of Occupancy (Dwell Time)

Method of Measurement: See ANSI C63.10-clause 7.8.4

The EUT must have its hopping function enabled. Use the following spectrum analyzer settings:

- Span = zero span, centered on a hopping channel
- RBW = 100kHz
- VBW ≥ RBW
- Sweep = as necessary to capture the entire dwell time per hopping channel
- Detector function = peak
- Trace = max hold

Measure a pulse time in time domain at middle frequency and then count the hopping number in 31.6s(which equals with 0.4 multiply 79) of middle frequency ,then multiply the pulse time and hopping number and record them.

Measurement Limit:

Standard	Limit (ms)
FCC 47 CFR Part 15.247(a) (1)(iii) & RSS-247 section 5.1	< 400

Measurement Result:

For GFSK

Channel	Packet	Dwell Time (ms)		Conclusion
39	DH5	Fig.63	168.6	P
		Fig.64		

For π/4 DQPSK

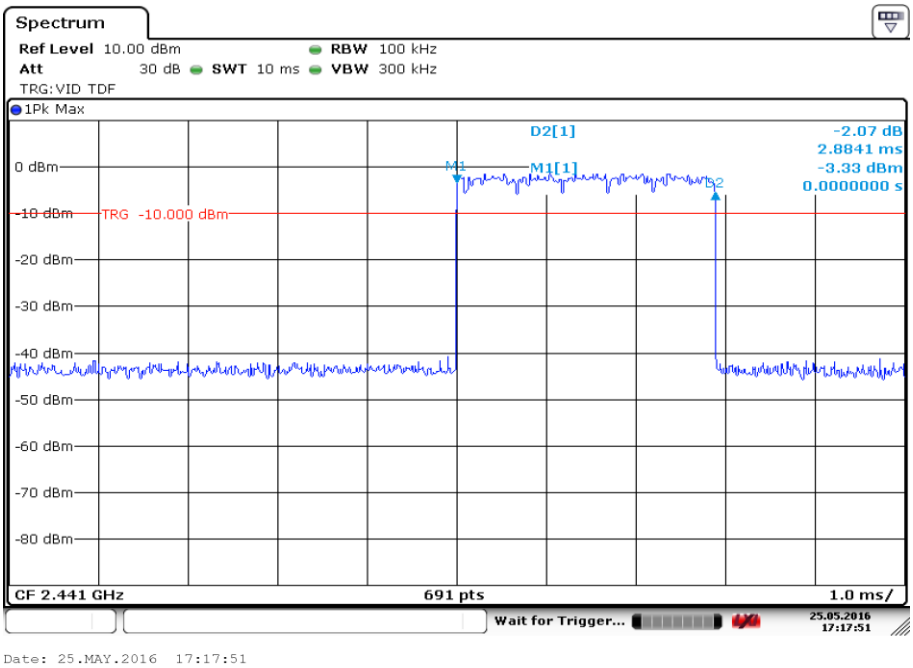
Channel	Packet	Dwell Time (ms)		Conclusion
39	DH5	Fig.65	175.2	P
		Fig.66		

For 8DPSK

Channel	Packet	Dwell Time (ms)		Conclusion
39	DH5	Fig.67	171.3	P
		Fig.68		

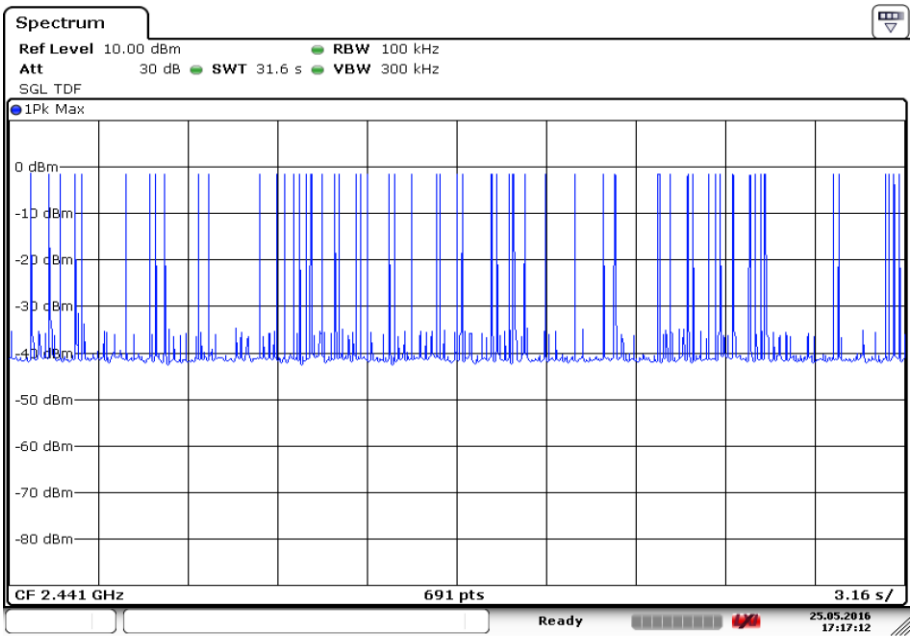
Conclusion: PASS

Test graphs as below:



Date: 25.MAY.2016 17:17:51

Fig.63. Time of occupancy (Dwell Time): Channel 39, Packet DH5



Date: 25.MAY.2016 17:17:12

Fig.64. Number of Transmissions Measurement:Channel 39,Packet DH5

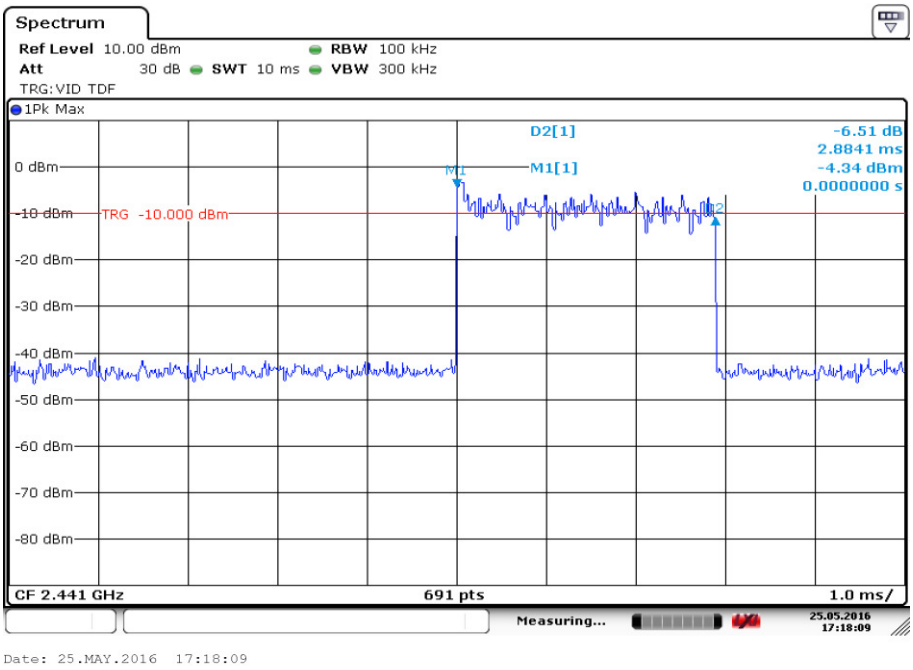


Fig.65. Time of occupancy (Dwell Time): Channel 39, Packet 2-DH5

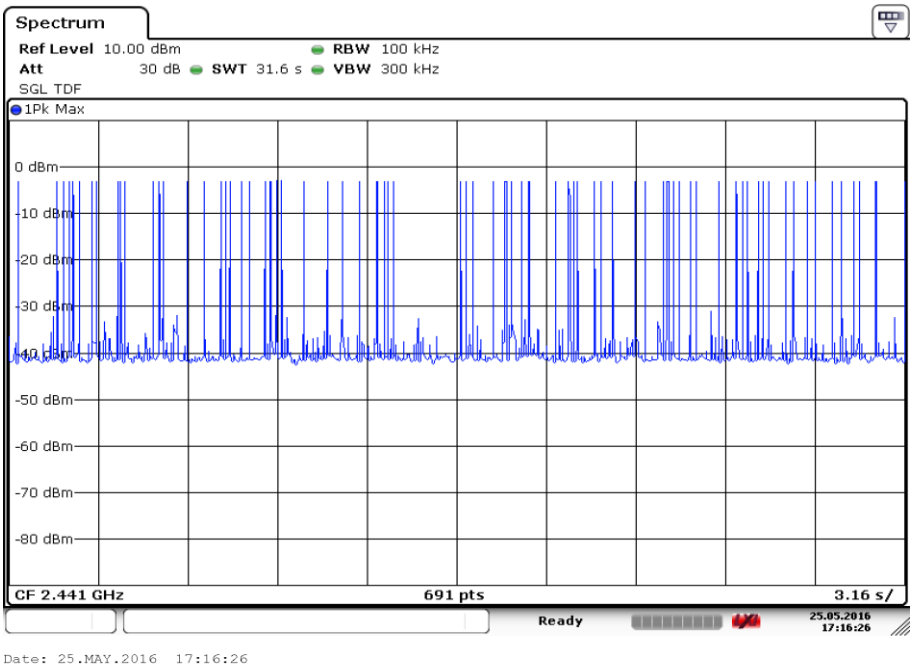


Fig.66. Number of Transmissions Measurement:Channel 39,Packet 2-DH5

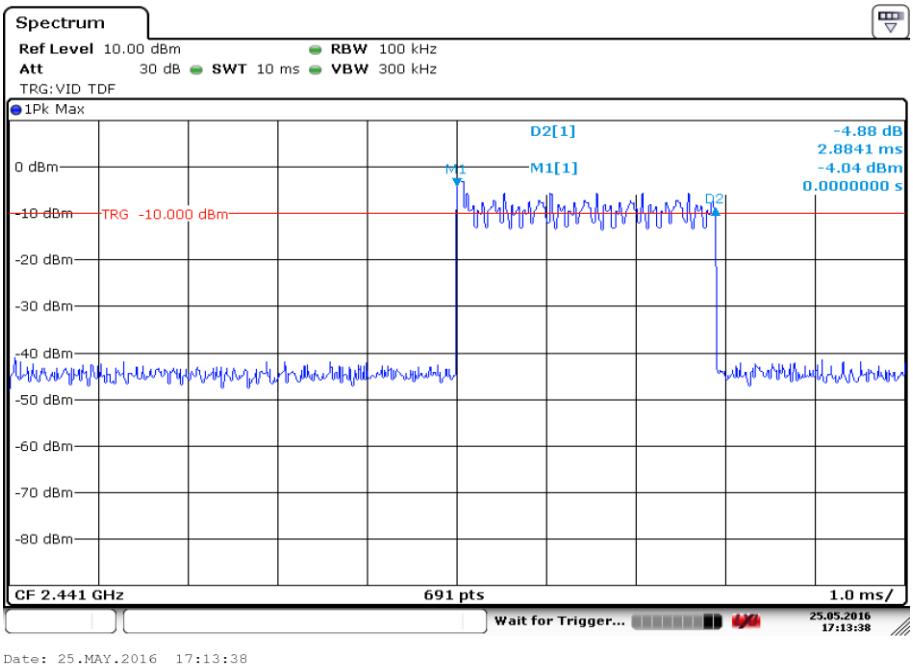


Fig.67. Time of occupancy (Dwell Time): Channel 39, Packet 3-DH5

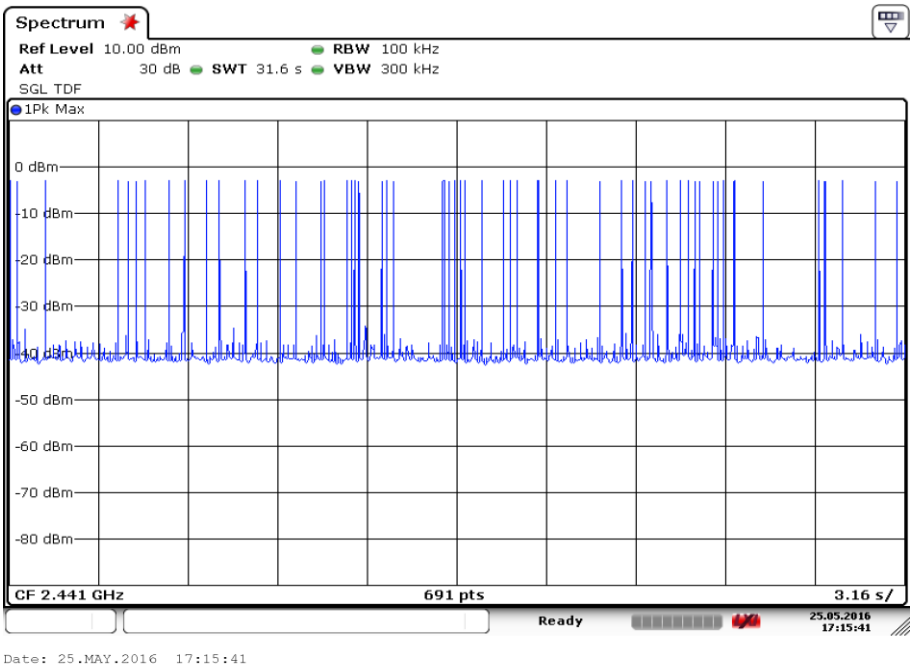


Fig.68. Number of Transmissions Measurement:Channel 39,Packet 3-DH5

A.7. 20dB Bandwidth

Method of Measurement: See ANSI C63.10-clause 6.9.2

Measurement Procedure - Unwanted Emissions

1. Set RBW = 100kHz.

2. Set VBW = 300 kHz.

3. Set span to 5MHz

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).

Measurement Limit:

Standard	Limit
FCC 47 CFR Part 15.247(a)(1) & RSS-247 section 5.1	NA *

Use NdB Down function of the SA to measure the 20dB Bandwidth

* Comment: This test case is not required according to the latest FCC 47 CFR Part 15.247. But the test results are necessary for “carrier frequency separation” test case, in Annex A.8.

Measurement Results:

For GFSK

Channel	20dB Bandwidth (kHz)		Conclusion
0	Fig.69	1136.0	NA
39	Fig.70	1128.8	NA
78	Fig.71	1136.0	NA

Forπ/4 DQPSK

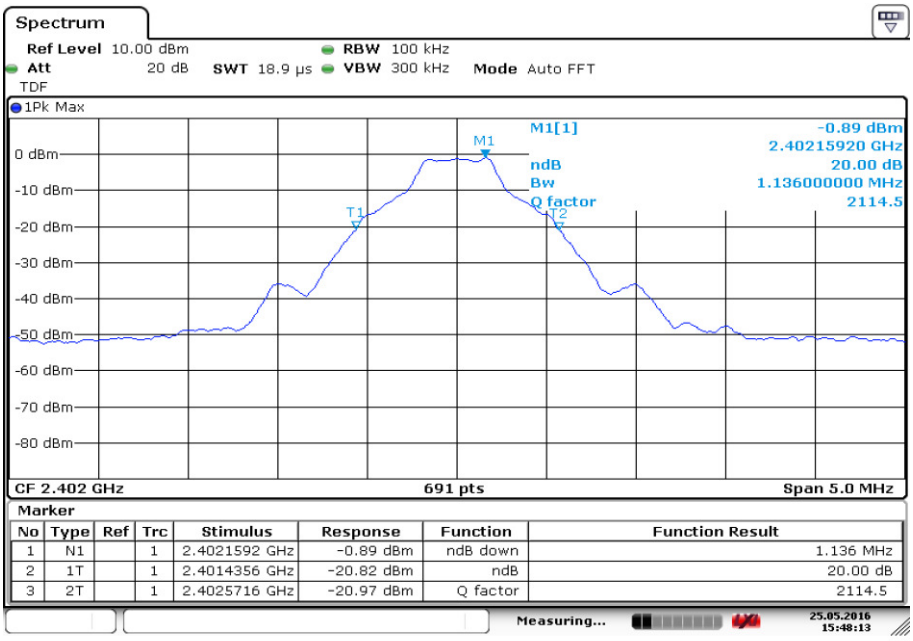
Channel	20dB Bandwidth (kHz)		Conclusion
0	Fig.72	1353.1	NA
39	Fig.73	1353.1	NA
78	Fig.74	1356.6	NA

For 8DPSK

Channel	20dB Bandwidth (kHz)		Conclusion
0	Fig.75	1363.8	NA
39	Fig.76	1363.8	NA
78	Fig.77	1371.0	NA

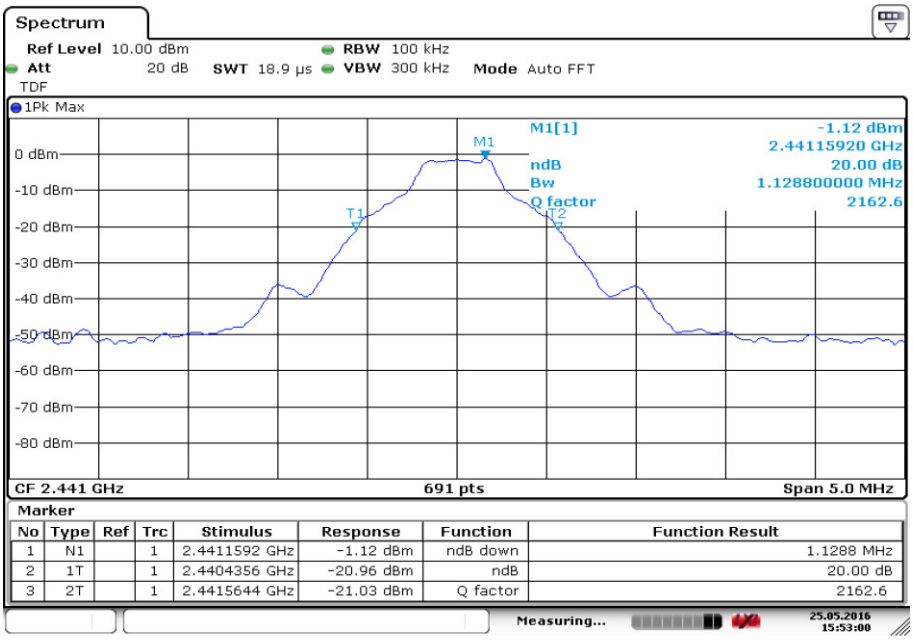
Conclusion: NA

Test graphs as below:



Date: 25.MAY.2016 15:48:13

Fig.69. 20dB Bandwidth: GFSK, Channel 0



Date: 25.MAY.2016 15:53:00

Fig.70. 20dB Bandwidth: GFSK, Channel 39

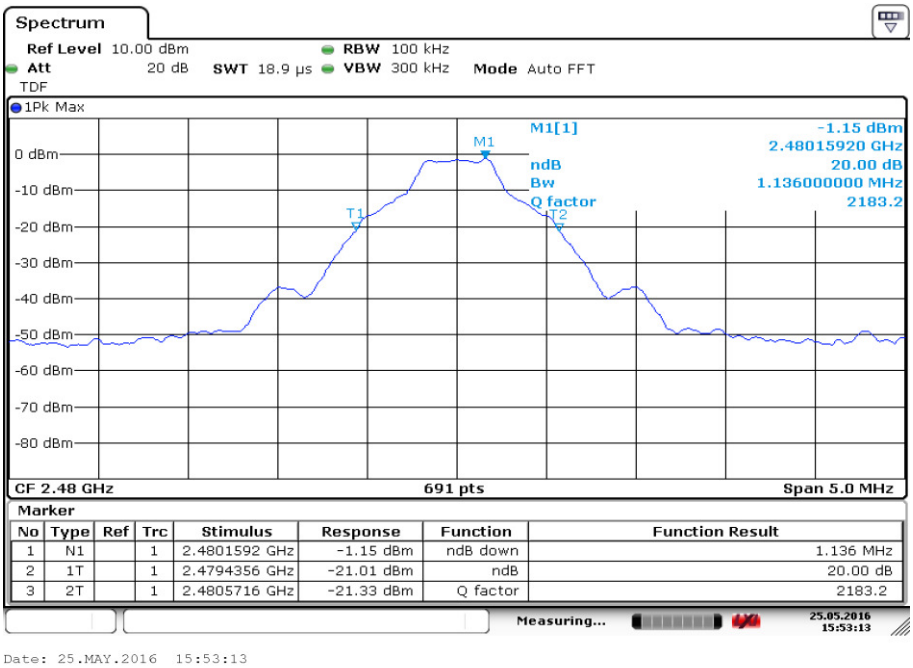


Fig.71. 20dB Bandwidth: GFSK, Channel 78

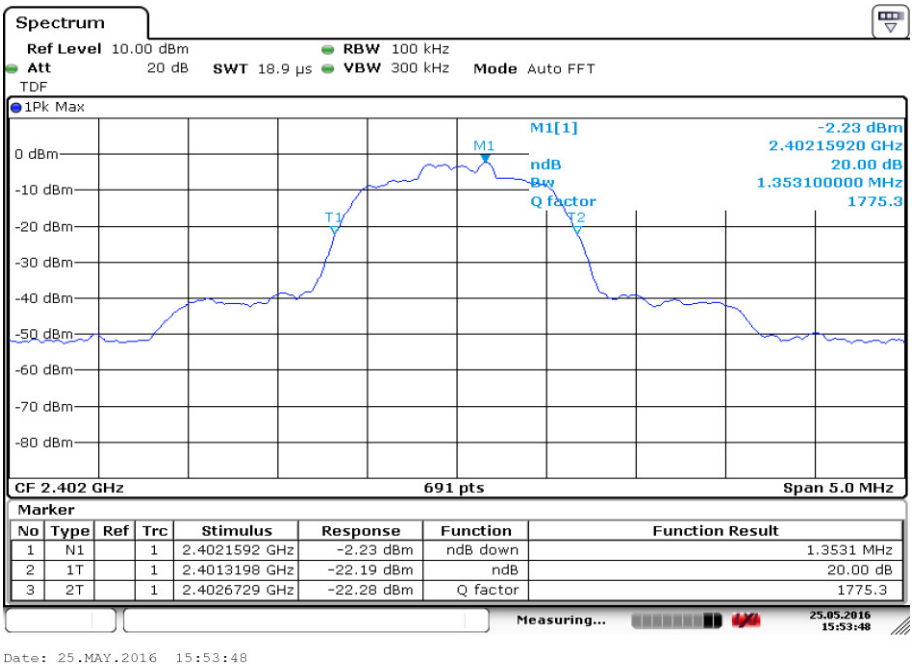


Fig.72. 20dB Bandwidth: π/4 DQPSK, Channel 0

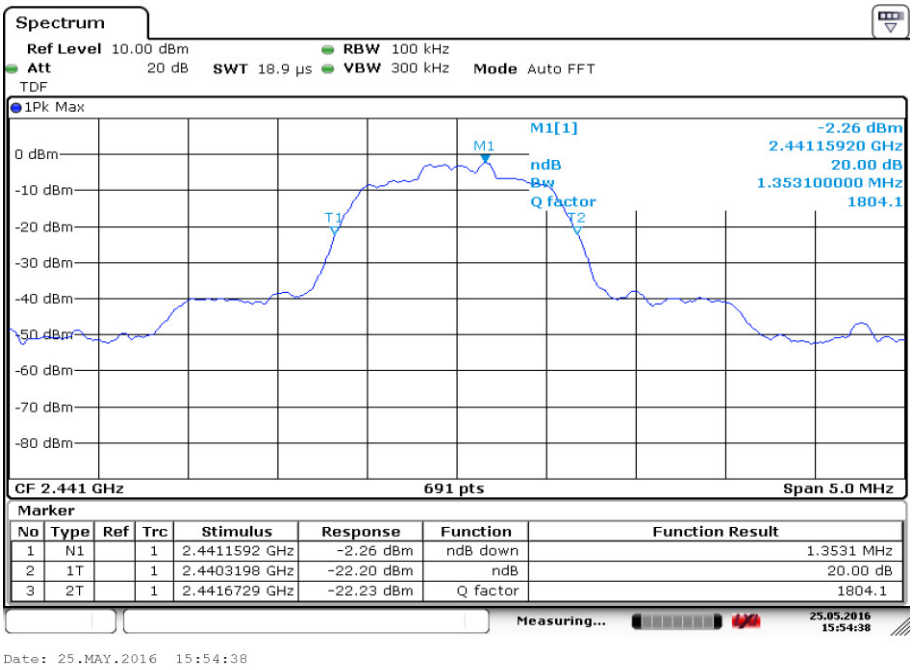


Fig.73. 20dB Bandwidth: π/4 DQPSK, Channel 39

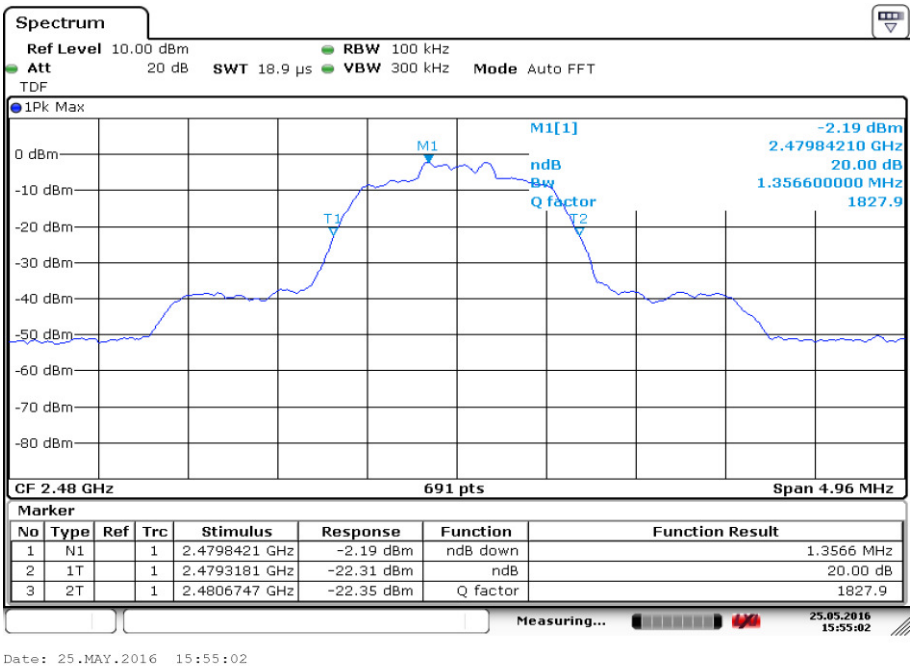


Fig.74. 20dB Bandwidth: π/4 DQPSK, Channel 78

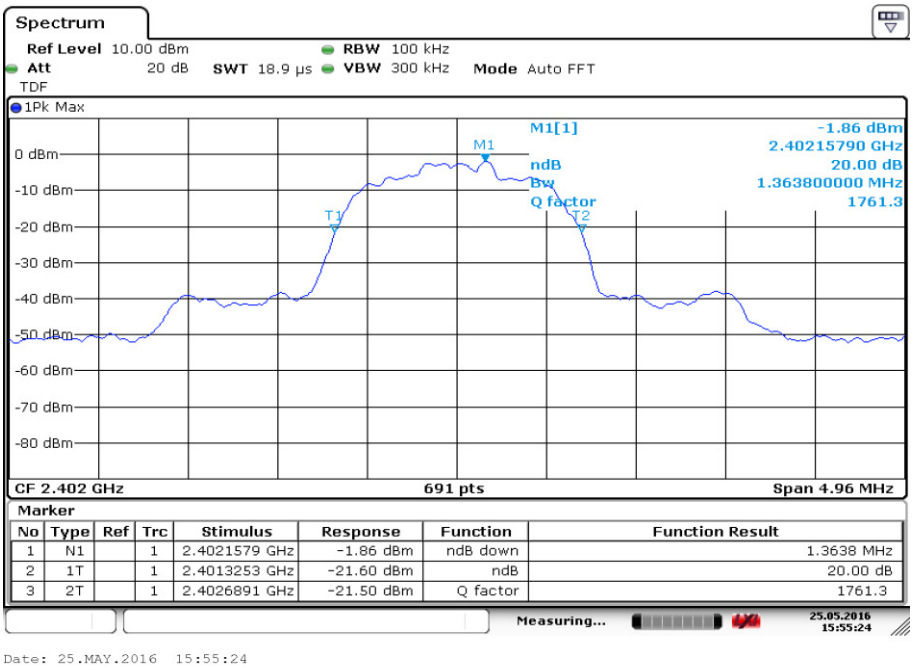


Fig.75. 20dB Bandwidth: 8DPSK, Channel 0

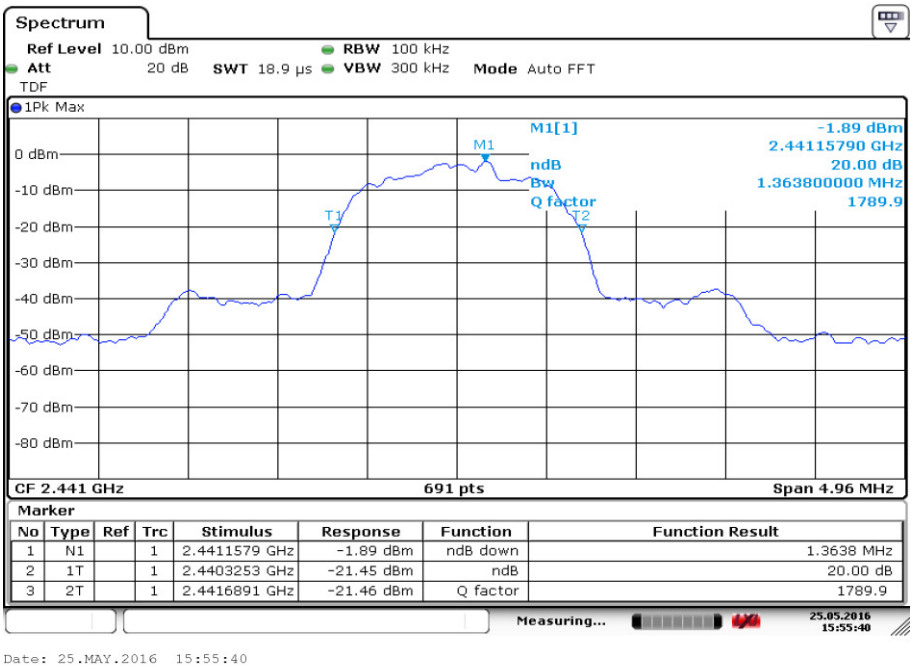


Fig.76. 20dB Bandwidth: 8DPSK, Channel 39

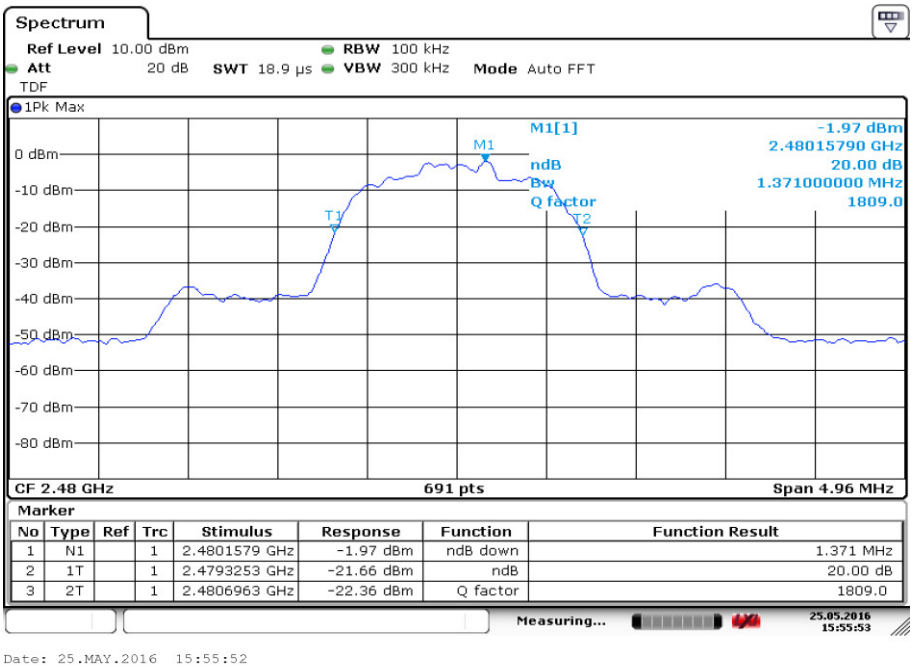


Fig.77. 20dB Bandwidth: 8DPSK, Channel 78

A.8. Carrier Frequency Separation

Method of Measurement: See ANSI C63.10-clause 7.8.2

The EUT must have its hopping function enabled. Use the following spectrum analyzer settings:

- Span = 5MHz
- RBW=300kHz
- VBW=300kHz
- Sweep = auto
- Detector function = peak
- Trace = max hold
- Allow the trace to stabilize

Search the peak marks of the middle frequency and adjacent channel, then record the separation between them.

* Comment: This limit should be over 25 kHz or (2/3) * 20dB bandwidth, whichever is greater.

Measurement Limit:

Standard	Limit(kHz)
FCC 47 CFR Part 15.247(a)(1) &RSS-247 section 5.1	over 25 kHz or (2/3) * 20dB bandwidth

Measurement Result:

For GFSK

Channel	Carrier frequency separation (kHz)		Conclusion
39	Fig.78	1005.8	P

For π/4 DQPSK

Channel	Carrier frequency separation (kHz)		Conclusion
39	Fig.79	1005.8	P

For 8DPSK

Channel	Carrier frequency separation (kHz)		Conclusion
39	Fig.80	1005.8	P

Conclusion: PASS

Test graphs as below:

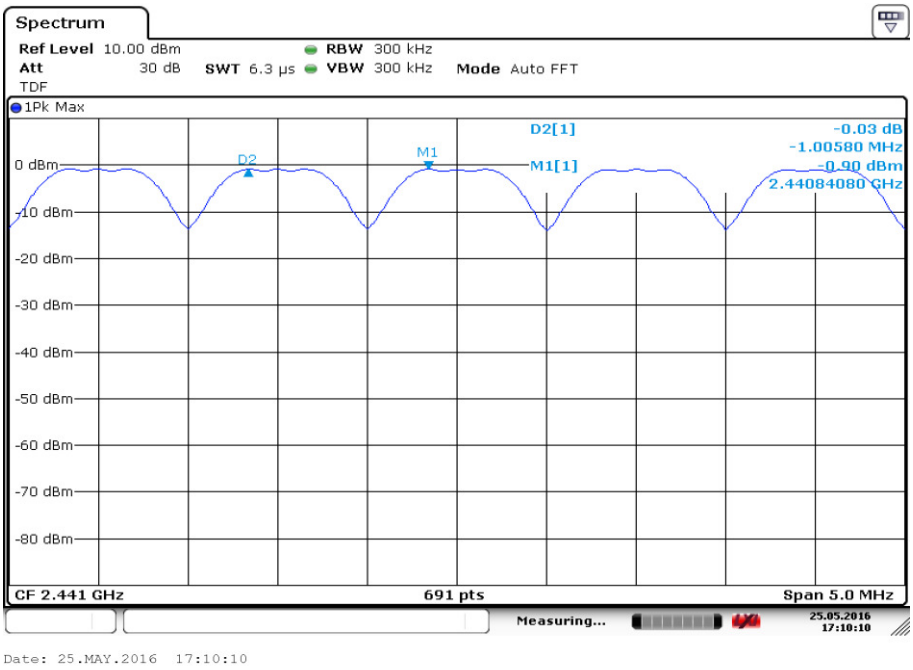


Fig.78. Carrier frequency separation measurement: GFSK, Channel 39

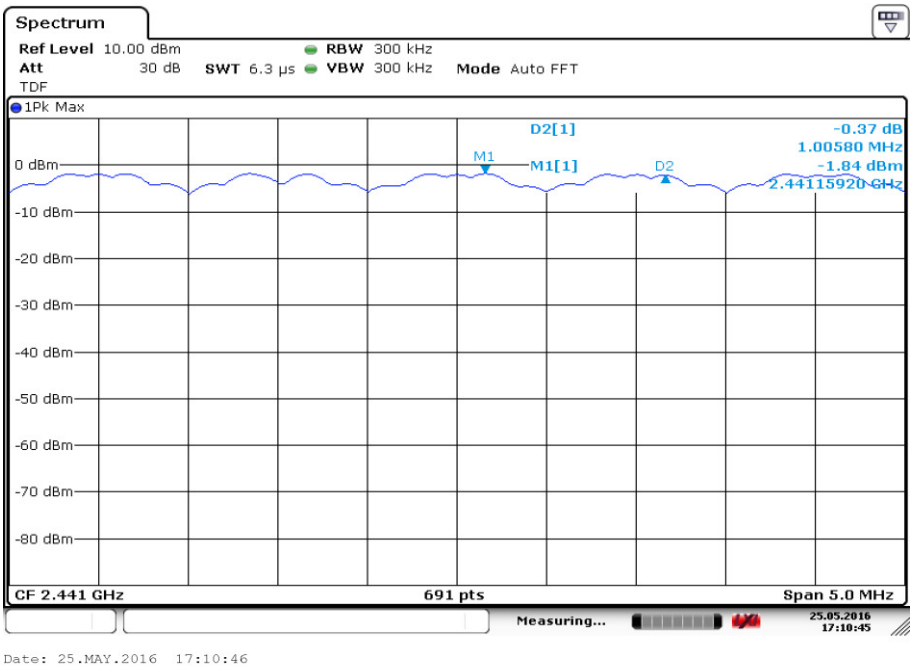


Fig.79. Carrier frequency separation measurement: π/4 DQPSK, Channel 39

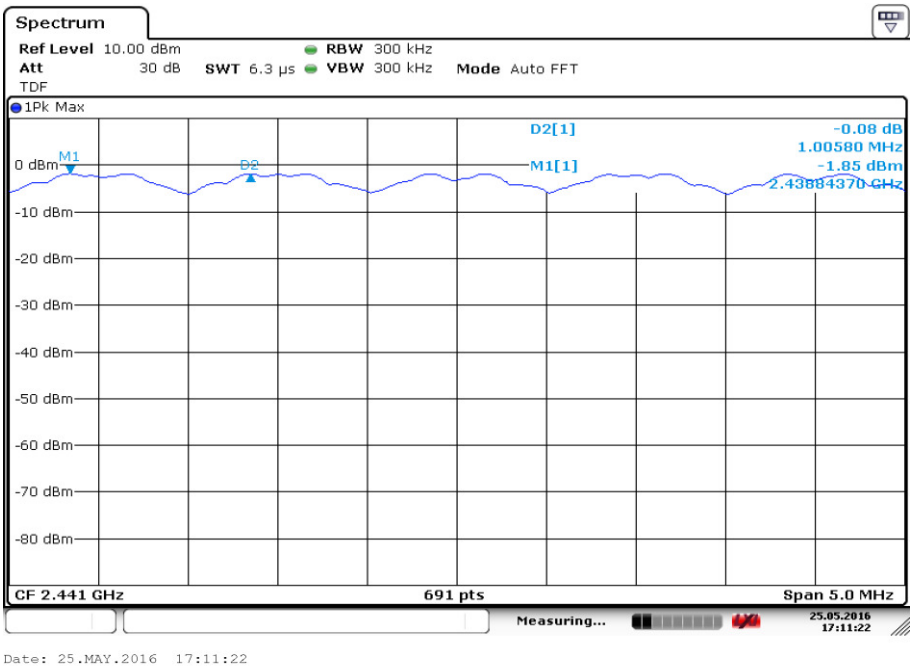


Fig.80. Carrier frequency separation measurement: 8DPSK, Channel 39

A.9. Number of Hopping Channels

Method of Measurement: See ANSI C63.10-clause 7.8.3

The EUT must have its hopping function enabled. Use the following spectrum analyzer settings:

- Span = the frequency band of operation
- RBW = 300kHz
- VBW = 300kHz
- Sweep = auto
- Detector function = peak
- Trace = max hold
- Allow the trace to stabilize

It might prove necessary to break the span up into subranges to show clearly all of the hopping frequencies. Compliance of an EUT with the appropriate regulatory limit shall be determined for the number of hopping channels. A plot of the data shall be included in the test report.

Measurement Limit:

Standard	Limit
FCC 47 CFR Part 15.247(a) (1)(iii) & RSS-247 section 5.1	At least 15 non-overlapping channels

Measurement Result:

For GFSK

Channel	Number of hopping channels		Conclusion
0~39	Fig.81	79	P
40~78	Fig.82		

Forπ/4 DQPSK

Channel	Number of hopping channels		Conclusion
0~39	Fig.83	79	P
40~78	Fig.84		

For 8DPSK

Channel	Number of hopping channels		Conclusion
0~39	Fig.85	79	P
40~78	Fig.86		

Conclusion: PASS

Test graphs as below:

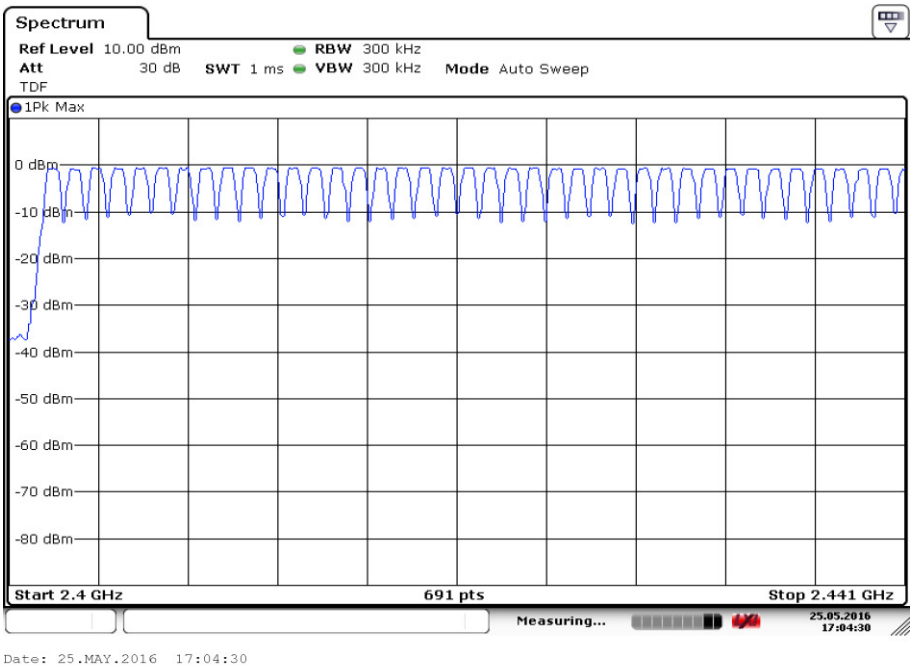


Fig.81. Number of hopping frequencies: GFSK, Channel 0 - 39

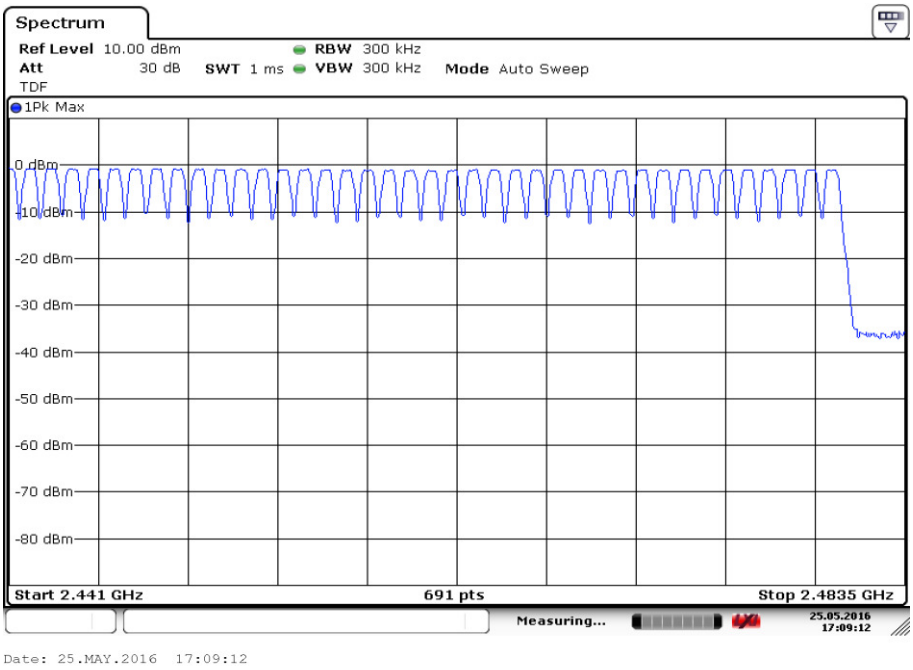


Fig.82. Number of hopping frequencies: GFSK, Channel 40 - 78

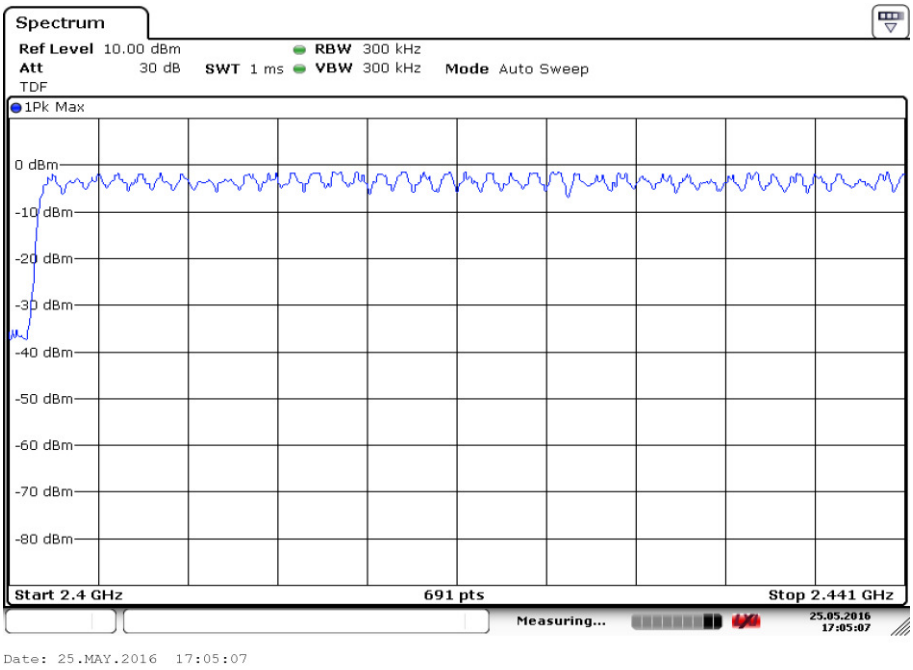


Fig.83. Number of hopping frequencies: π/4 DQPSK, Channel 0 - 39

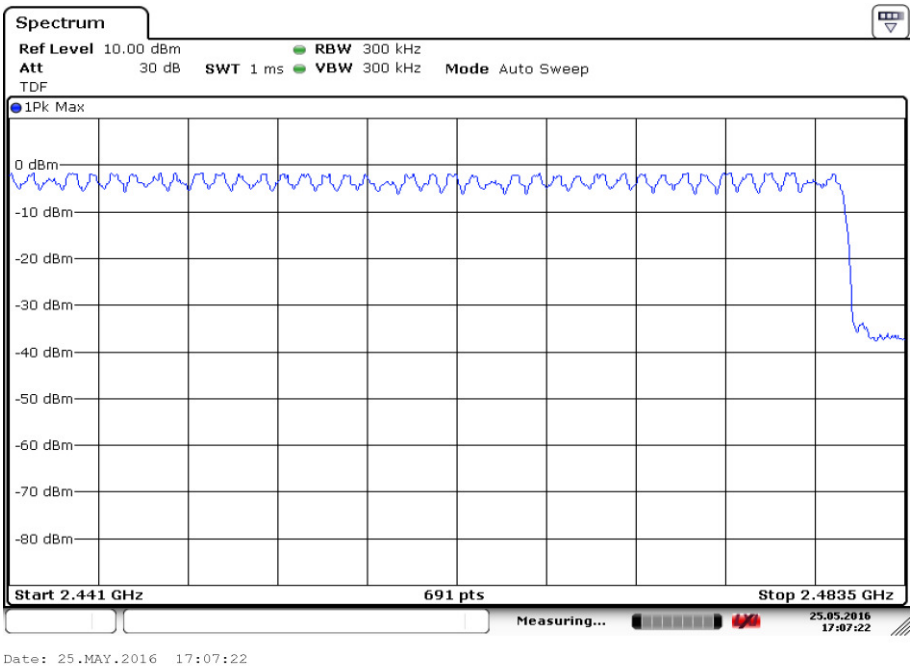


Fig.84. Number of hopping frequencies: π/4 DQPSK, Channel 40 - 78

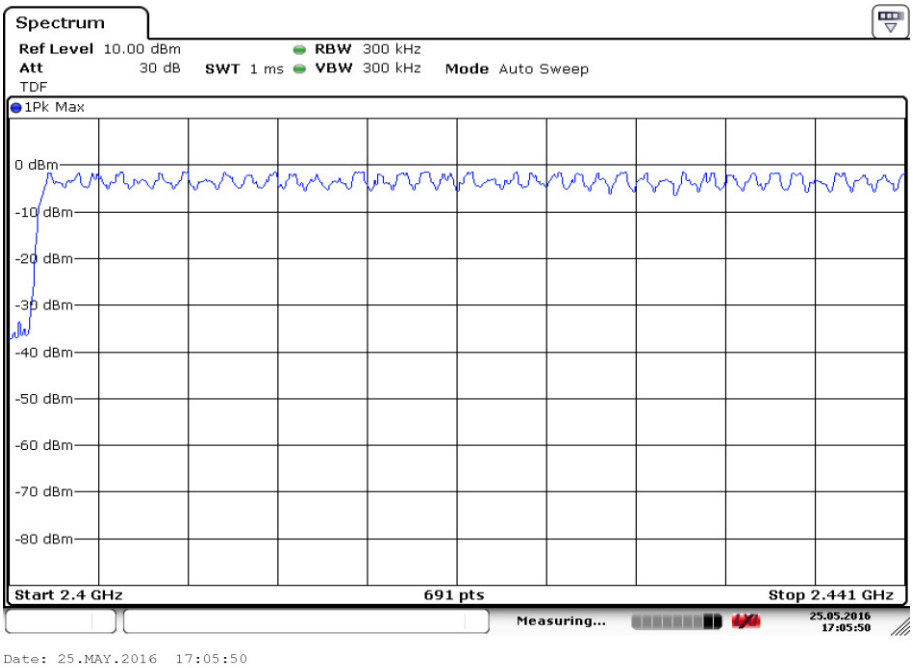


Fig.85. Number of hopping frequencies: 8DPSK, Channel 0 - 39

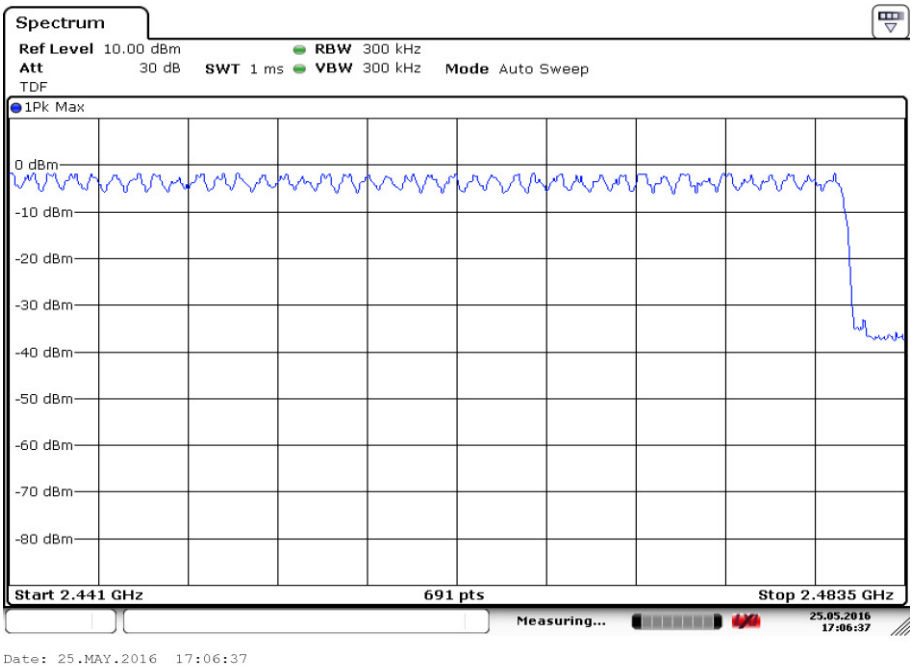


Fig.86. Number of hopping frequencies: 8DPSK, Channel 40 - 78

A.10. Occupied Bandwidth

Method of Measurement: See ANSI C63.10-clause 6.9.3

Measurement Procedure - Unwanted Emissions

1. Set RBW = 100kHz.

2. Set VBW = 300 kHz.

3. Set span to 5MHz

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).

Measurement Limit:

Standard	Limit
RSS-Gen Issue4 6.6	NA *

Measurement Results:

For GFSK

Channel	Occupied Bandwidth (kHz)		Conclusion
0	Fig.87	998.6	NA
39	Fig.88	998.6	NA
78	Fig.89	998.6	NA

Forπ/4 DQPSK

Channel	Occupied Bandwidth (kHz)		Conclusion
0	Fig.90	1193.9	NA
39	Fig.91	1193.9	NA
78	Fig.92	1201.2	NA

For 8DPSK

Channel	Occupied Bandwidth (kHz)		Conclusion
0	Fig.93	1215.6	NA
39	Fig.94	1208.4	NA
78	Fig.95	1215.6	NA

Conclusion: NA

Test graphs as below:

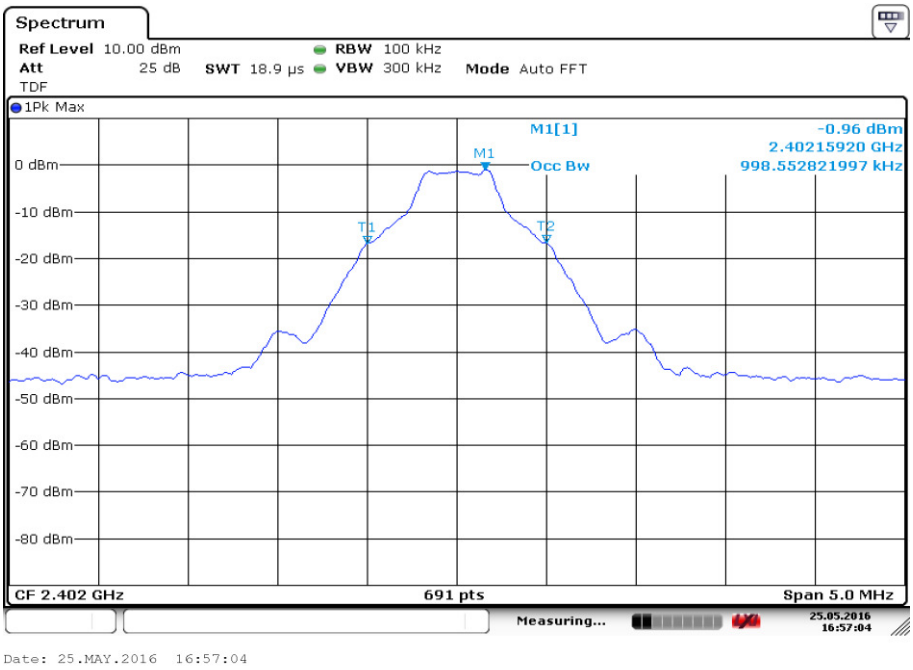


Fig.87. Occupied Bandwidth: GFSK, Channel 0

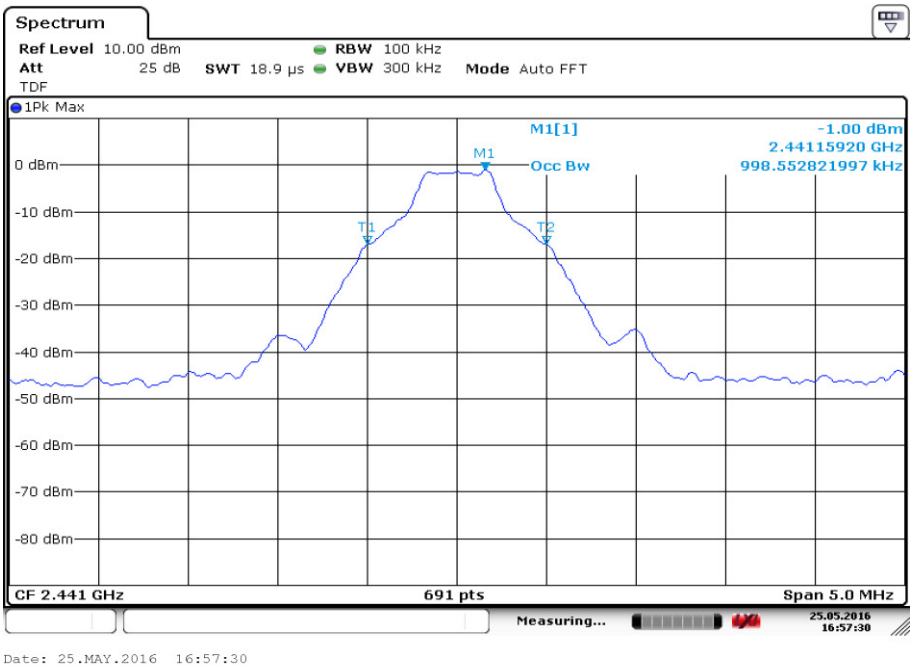


Fig.88. Occupied Bandwidth: GFSK, Channel 39

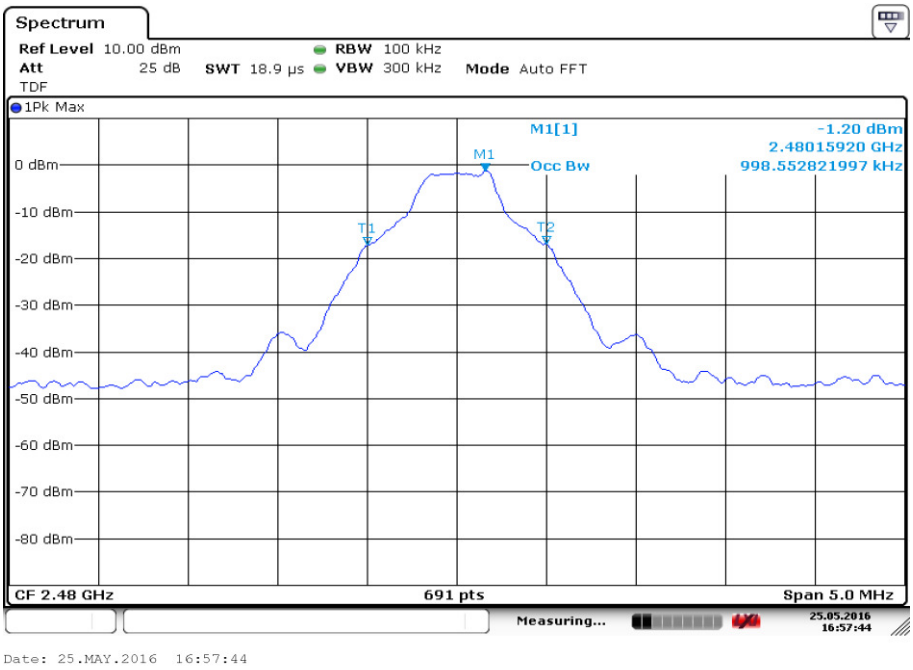


Fig.89. Occupied Bandwidth: GFSK, Channel 78

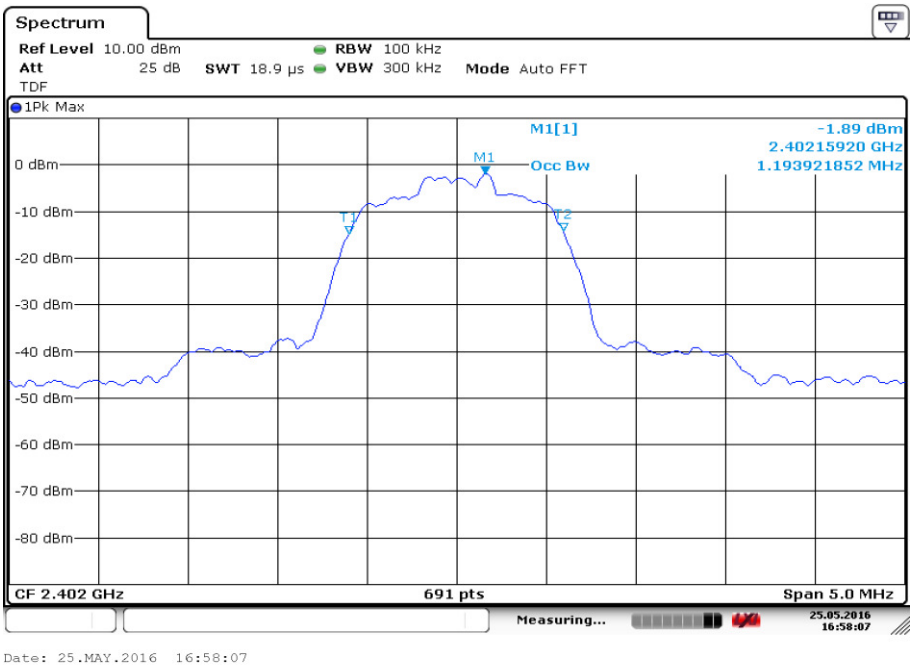


Fig.90. Occupied Bandwidth: π/4 DQPSK, Channel 0

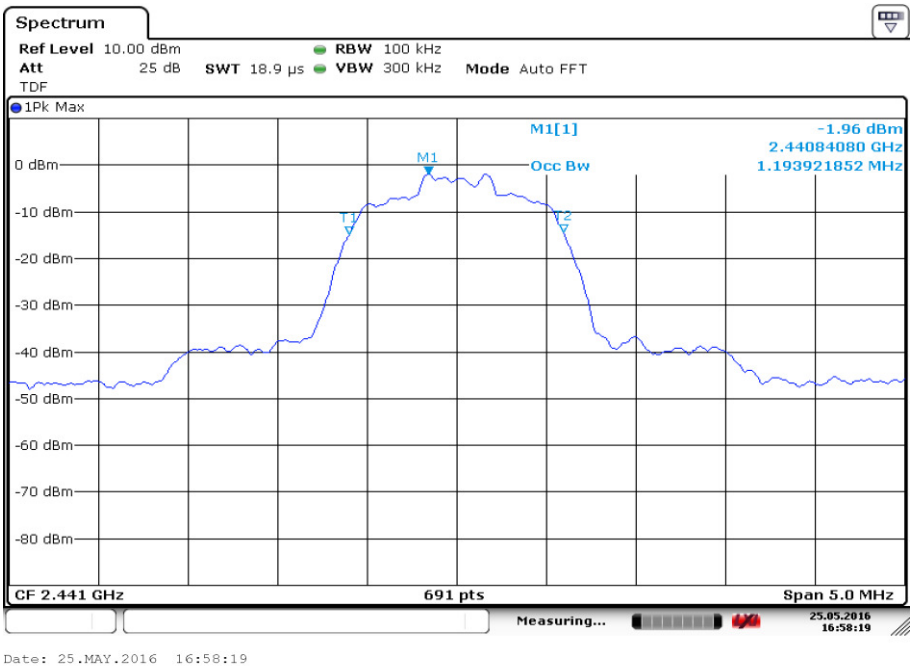


Fig.91. Occupied Bandwidth: π/4 DQPSK, Channel 39

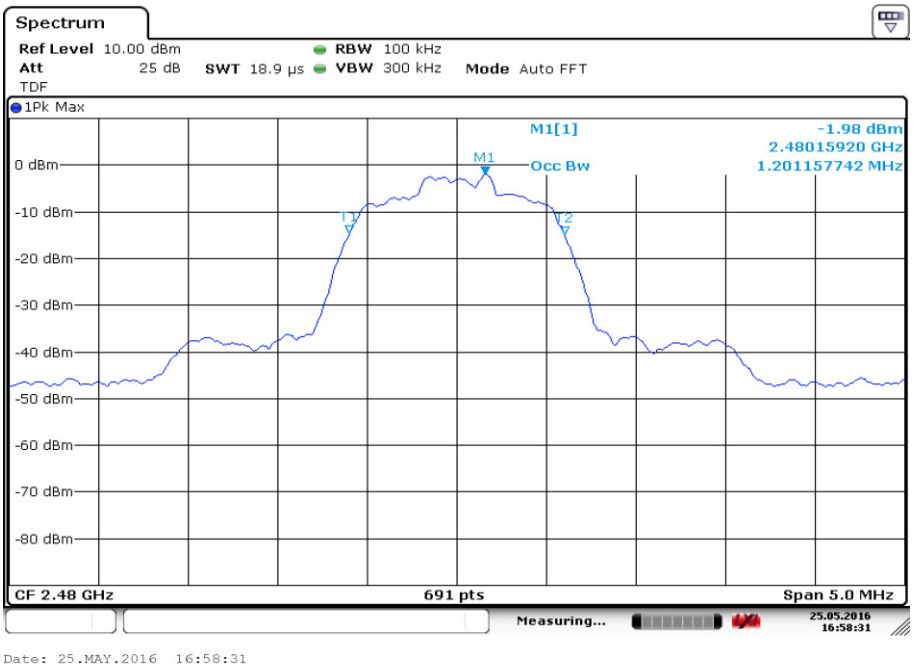


Fig.92. Occupied Bandwidth: π/4 DQPSK, Channel 78

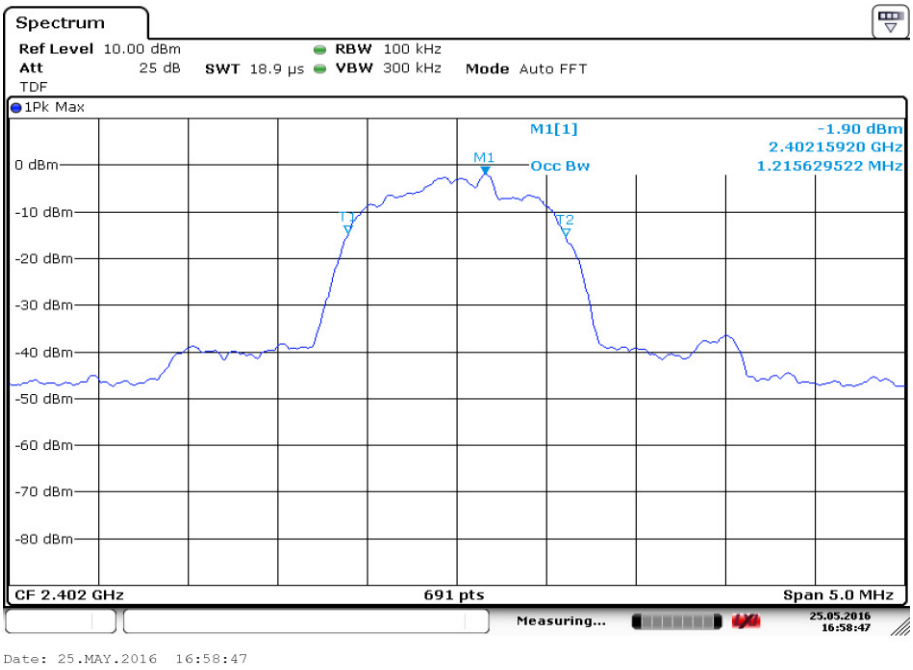


Fig.93. Occupied Bandwidth: 8DPSK, Channel 0

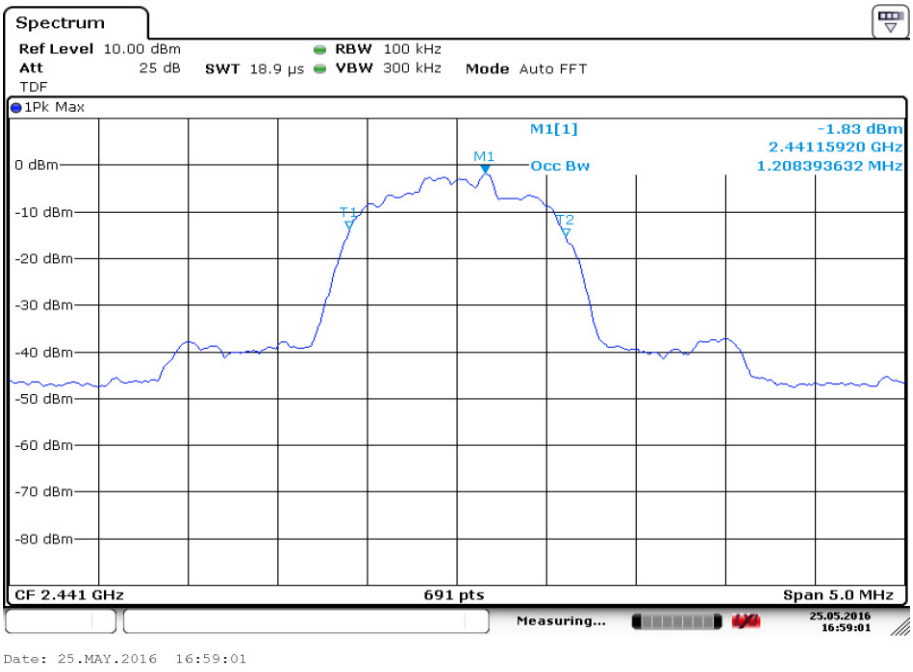


Fig.94. Occupied Bandwidth: 8DPSK, Channel 39

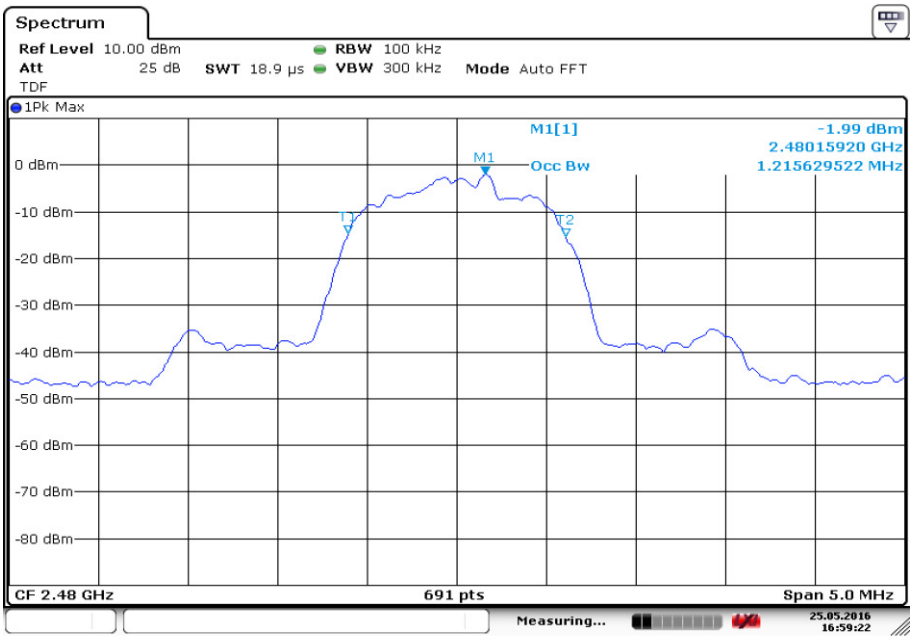


Fig.95. Occupied Bandwidth: 8DPSK, Channel 78

A.11. AC Powerline Conducted Emission

Test Condition

Voltage（V）	Frequency（Hz）
120	60

Measurement Result and limit:

Bluetooth (Quasi-peak Limit)

Frequency range (MHz)	Quasi-peak Limit (dBμV)	Conclusion
0.15 to 0.5	66 to 56	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.		

Bluetooth (Average Limit)

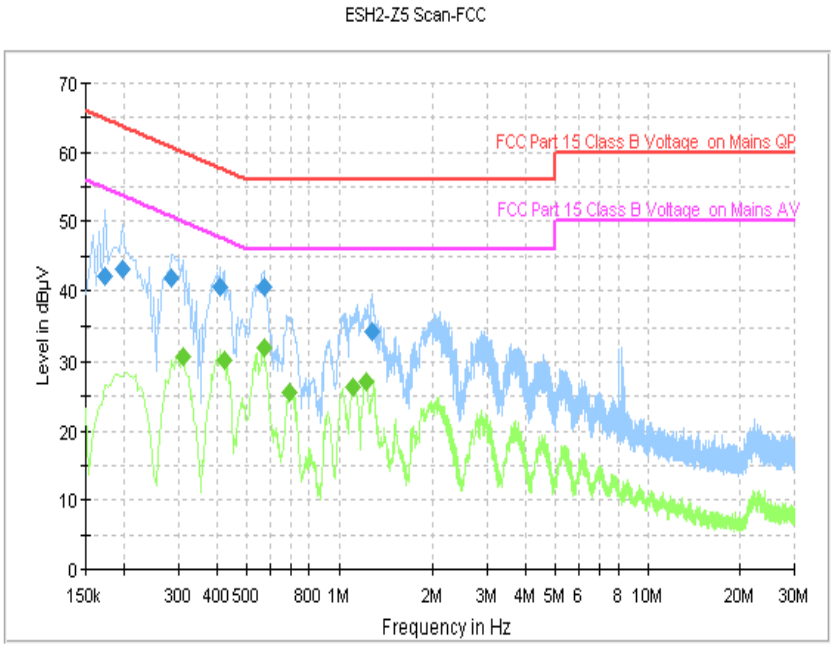
Frequency range (MHz)	Average Limit (dBμV)	Conclusion
0.15 to 0.5	56 to 46	P
0.5 to 5	46	
5 to 30	50	
NOTE: The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.5 MHz.		

The measurement is made according to ANSI C63.10

Conclusion: PASS

Test graphs as below:

Traffic:



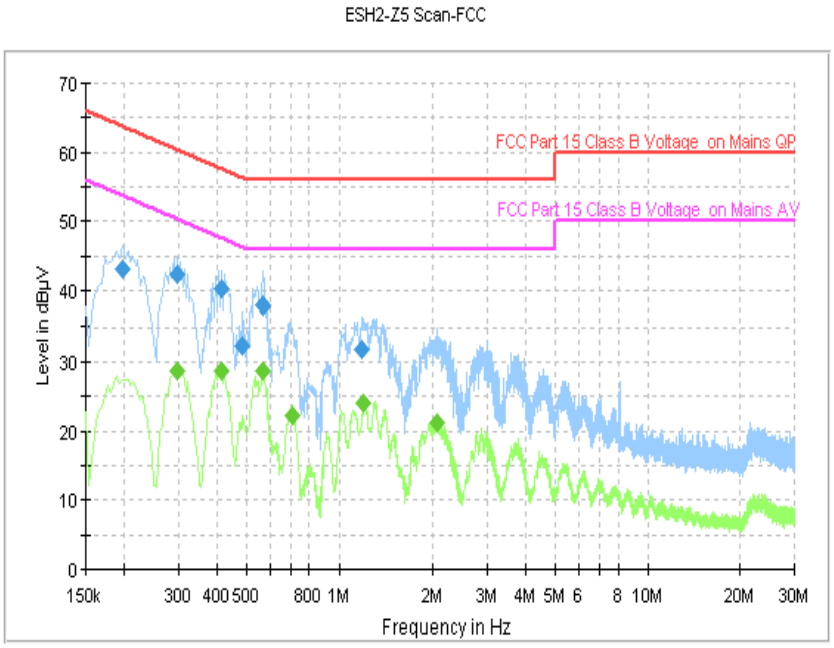
Final Result 1

Frequency (MHz)	QuasiPeak (dBuV)	PE	Line	Corr. (dB)	Margin (dB)	Limit (dBuV)
0.174000	42.0	GND	N	10.1	22.8	64.8
0.198000	43.1	GND	N	10.1	20.6	63.7
0.286000	41.8	GND	L1	10.0	18.9	60.6
0.410000	40.4	GND	L1	10.0	17.2	57.6
0.570000	40.6	GND	L1	10.1	15.4	56.0
1.286000	34.2	GND	L1	10.1	21.8	56.0

Final Result 2

Frequency (MHz)	Average (dBuV)	PE	Line	Corr. (dB)	Margin (dB)	Limit (dBuV)
0.310000	30.6	GND	L1	10.0	19.3	50.0
0.426000	30.3	GND	L1	10.0	17.0	47.3
0.570000	32.0	GND	L1	10.1	14.0	46.0
0.694000	25.7	GND	L1	10.0	20.3	46.0
1.110000	26.3	GND	L1	10.1	19.7	46.0
1.222000	27.2	GND	L1	10.1	18.8	46.0

Idle:



Final Result 1

Frequency (MHz)	QuasiPeak (dBuV)	PE	Line	Corr. (dB)	Margin (dB)	Limit (dBuV)
0.198000	43.2	GND	N	10.1	20.5	63.7
0.298000	42.2	GND	N	10.1	18.0	60.3
0.414000	40.2	GND	N	10.1	17.3	57.6
0.482000	32.4	GND	L1	10.0	23.9	56.3
0.566000	37.9	GND	N	10.1	18.1	56.0
1.186000	31.8	GND	L1	10.0	24.2	56.0

Final Result 2

Frequency (MHz)	Average (dBuV)	PE	Line	Corr. (dB)	Margin (dB)	Limit (dBuV)
0.298000	28.7	GND	L1	10.0	21.6	50.3
0.414000	28.6	GND	L1	10.0	19.0	47.6
0.566000	28.7	GND	L1	10.1	17.3	46.0
0.706000	22.2	GND	L1	10.0	23.8	46.0
1.206000	24.1	GND	L1	10.1	21.9	46.0
2.066000	21.1	GND	L1	10.1	24.9	46.0

ANNEX B: Accreditation Certificate

China National Accreditation Service for Conformity Assessment

LABORATORY ACCREDITATION CERTIFICATE

(No. CNAS L0570)

Telecommunication Technology Labs,

Academy of Telecommunication Research, MIIT

No.52, Huayuan North Road, Haidian District, Beijing, China

No.51, Xueyuan Road, Haidian District, Beijing, China

to ISO/IEC 17025:2005 General Requirements for the Competence of Testing and Calibration Laboratories(CNAS-CL01 Accreditation Criteria for the Competence of Testing and Calibration Laboratories) for the competence in the field of testing and calibration.

The scope of accreditation is detailed in the attached schedule bearing the same accreditation number as above. The schedule forms an integral part of this certificate.

Date of Issue: 2014-10-29

Date of Expiry: 2017-06-19

Date of Initial Accreditation: 1998-07-03

Signed on behalf of China National Accreditation Service for Conformity Assessment

China National Accreditation Service for Conformity Assessment (CNAS) is authorized by Certification and Accreditation Administration of the People's Republic of China (CNCA) to operate the national accreditation schemes for conformity assessment. CNAS is the signatory to International Laboratory Accreditation Cooperation Multilateral Recognition Arrangement (ILAC MRA) and Asia Pacific Laboratory Accreditation Cooperation Multilateral Recognition Arrangement (APLAC MRA).

No.CNAS AL 2

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