

## FCC/IC - TEST REPORT

Report Number : **68.950.14.245.01** Date of Issue: December 12, 2014

Model : 360526

Product Type : MP7QCFS Module

Applicant : ICON Health & Fitness Inc.

Address : 1500 South 1000 West, Logan UT 84321, USA

Production Facility : Wanlida Group Co., Ltd.

Address : Wanlida Industry Zone, 363601 Nanjing, Fujian,

PEOPLE'S REPUBLIC OF CHINA

Test Result :  Positive  Negative

Total pages including Appendices : 44

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## 2 Details about the Test Laboratory

### Details about the Test Laboratory

#### Test Site 1

Company name: TÜV SÜD Certification and Testing (China) Co., Ltd. Shenzhen Branch  
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Nantou Checkpoint Road 2, Nanshan District,  
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P. R. China

Telephone: 86 755 8828 6998

Fax: 86 755 8828 5299

#### Test Site 2

Company name: Audix Technology (shenzhen) Co.,Ltd  
No. 6, Ke Feng Rd, 52 Block Shenzhen Science and Industry Park,  
Nantou, Shenzhen,  
Guangdong,  
China

Telephone: 86 755 2663 9496

Fax: 86 755 2663 2877

### 3 Description of the Equipment Under Test

Product:	MP7QCFS Module
Model no.:	360526
FCC ID:	OMC360526
IC ID:	3673A-360526
Options and accessories:	NIL
Rating:	DC 12V Powered by external power supply: Adaptor Input: 100-240VAC, 50/60Hz Adaptor Output: 12VDC, 2.0A
RF Transmission Frequency:	2402-2480MHz
No. of Operated Channel:	79
Modulation:	GFSK, $\pi/4$ -DQPSK, 8DPSK
Duty Cycle:	33.8%
Antenna Type:	Embedded Type Antenna
Antenna Gain:	1dBi
Description of the EUT:	The Equipment Under Test (EUT) is a MP7QCFS Module operated at 2.4GHz

## 4 Summary of Test Standards

Test Standards	
FCC Part 15 Subpart C 10-1-2014 Edition	PART 15 - RADIO FREQUENCY DEVICES Subpart C - Intentional Radiators
RSS-Gen Issue 4 November 2014	General Requirements for the Certification of Radio Apparatus
RSS-210 Issue 8 December 2010	RSS-210 — Licence-exempt Radio Apparatus (All Frequency Bands): Category I Equipment

All the test methods were according to Public Notice DA 00-705 -Frequency Hopper Spread Spectrum Test Procedure released by FCC on March 30, 2000 and C63.10 (2013).

## 5 Summary of Test Results

Technical Requirements					
FCC Part 15 Subpart C, RSS-Gen, RSS-210					
Test Condition			Pages	Test Site	Test Result
§15.207	RSS-GEN A8.8	Conducted emission AC power port	10	Site 2	Pass
§15.247(b)(1)	RSS-210 A8.4	Conducted peak output power	13	Site 2	Pass
§15.247(a)(2)	RSS-210 A8.2(a)	6dB bandwidth	---	---	N/A
§15.247(a)(1)	RSS-210 A8.1(a) & RSSGEN 6.6	20dB bandwidth and 99% Occupied Bandwidth	15	Site 2	Pass
§15.247(a)(1)	RSS-210 A8.1(b)	Carrier frequency separation	25	Site 2	Pass
§15.247(a)(1)(iii)	RSS-210 A8.1(d)	Number of hopping frequencies	27	Site 2	Pass
§15.247(a)(1)(iii)	RSS-210 A8.1(c)	Dwell Time	29	Site 2	Pass
§15.247(e)	RSS-210 A8.2(b)	Power spectral density*	---	---	N/A
§15.247(d)	RSS-210 A8.5	Spurious RF conducted emissions	32	Site 2	Pass
§15.247(d)	RSS-210 A8.5	Band edge	36	Site 2	Pass
§15.247(d) & §15.209 & §15.203	RSS-210 2.5 & RSSGEN 6.13	Spurious radiated emissions for transmitter	41	Site 2	Pass
§15.203	RSSGEN 8.3	Antenna requirement	See note 2		Pass

Note 1: N/A=Not Applicable.

Note 2: The EUT uses a Embedded Type antenna, which gain is 1dBi. In accordance to §15.203 and RSSGEN 8.3, It is considered sufficiently to comply with the provisions of this section.

## 6 General Remarks

### Remarks

This submittal(s) (test report) is intended for FCC ID: OMC360526, IC ID: 3673A-360526 complies with Section 15.207, 15.209, 15.247 of the FCC Part 15, Subpart C Rules and RSS-210.

### SUMMARY:

All tests according to the regulations cited on page 5 were

■ - Performed

□ - **Not** Performed

The Equipment Under Test

■ - **Fulfills** the general approval requirements.

□ - **Does not** fulfill the general approval requirements.

Sample Received Date: November 5, 2014

Testing Start Date: November 6, 2014

Testing End Date: December 11, 2014

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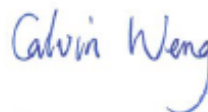
Reviewed by:

Prepared by:

Tested by:



\_\_\_\_\_  
Phoebe Hu  
EMC Project Manager



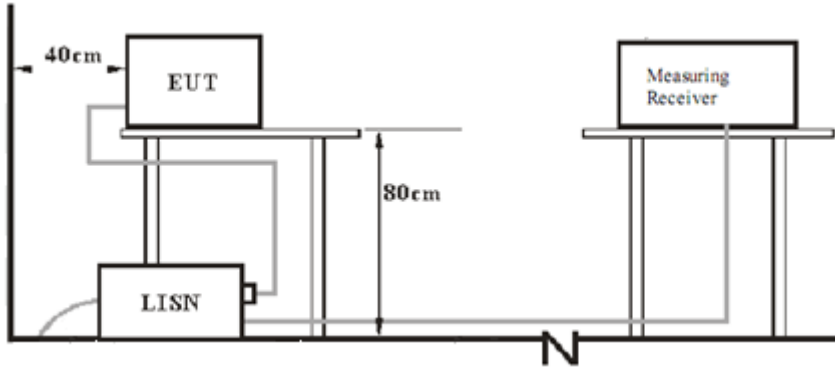
\_\_\_\_\_  
Calvin Weng  
EMC Project Engineer



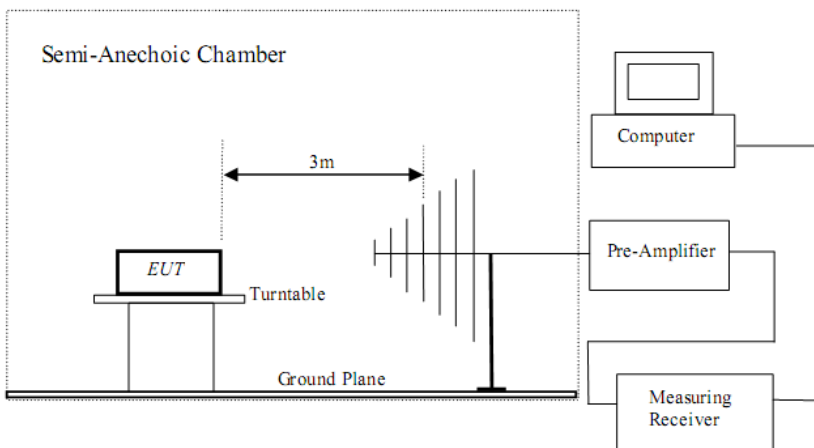
\_\_\_\_\_  
Leo Li  
EMC Test Engineer

## 7 Test Setups

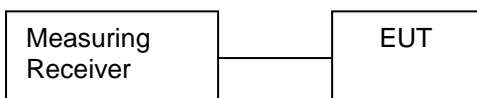
### 7.1 AC Power Line Conducted Emission test setups



### 7.2 Radiated test setups



### 7.3 Conducted RF test setups





## 8 Systems test configuration

Auxiliary Equipment Used during Test:

DESCRIPTION	MANUFACTURER	MODEL NO.(SHIELD)	S/N(LENGTH)
---	---	---	---

Test software: USI\_BCM\_Testing\_Tool, which used to control the EUT in continues transmitting mode

The system was configured to hopping mode and non-hopping mode.

Hopping mode: typical working mode (normal hopping status)

Non-hopping mode: The system was configured to operate at a signal channel transmitting. The test software allows the configuration and operation at the worst-case duty and the highest transmit power

## 9 Technical Requirement

### 9.1 Conducted Emission

#### Test Method

1. The EUT was placed on a table, which is 0.8m above ground plane
2. The power line of the EUT is connected to the AC mains through a Artificial Mains Network (A.M.N.).
3. Maximum procedure was performed to ensure EUT compliance
4. A EMI test receiver is used to test the emissions from both sides of AC line

#### Limit

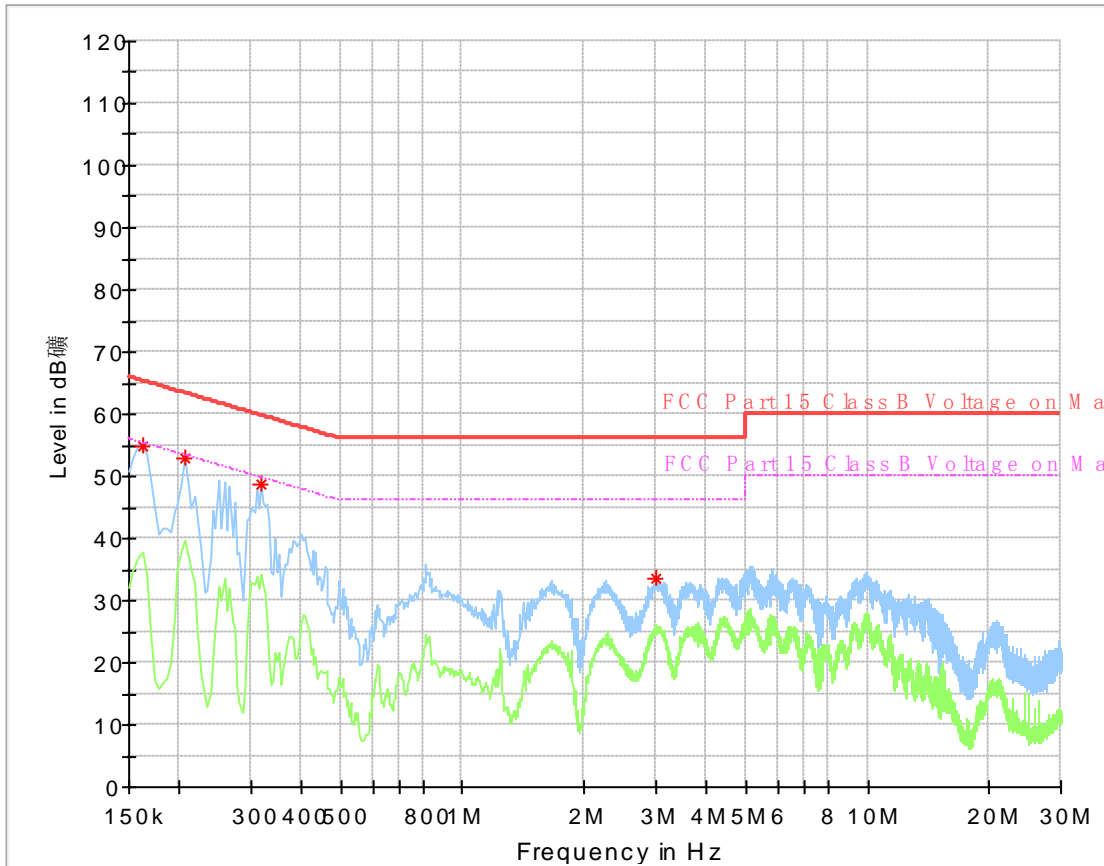
According to §15.207 & RSS-GEN A7.2.4, conducted emissions limit as below:

Frequency MHz	QP Limit dB $\mu$ V	AV Limit dB $\mu$ V
0.150-0.500	66-56*	56-46*
0.500-5	56	46
5-30	60	50

Decreasing linearly with logarithm of the frequency

## Conducted Emission

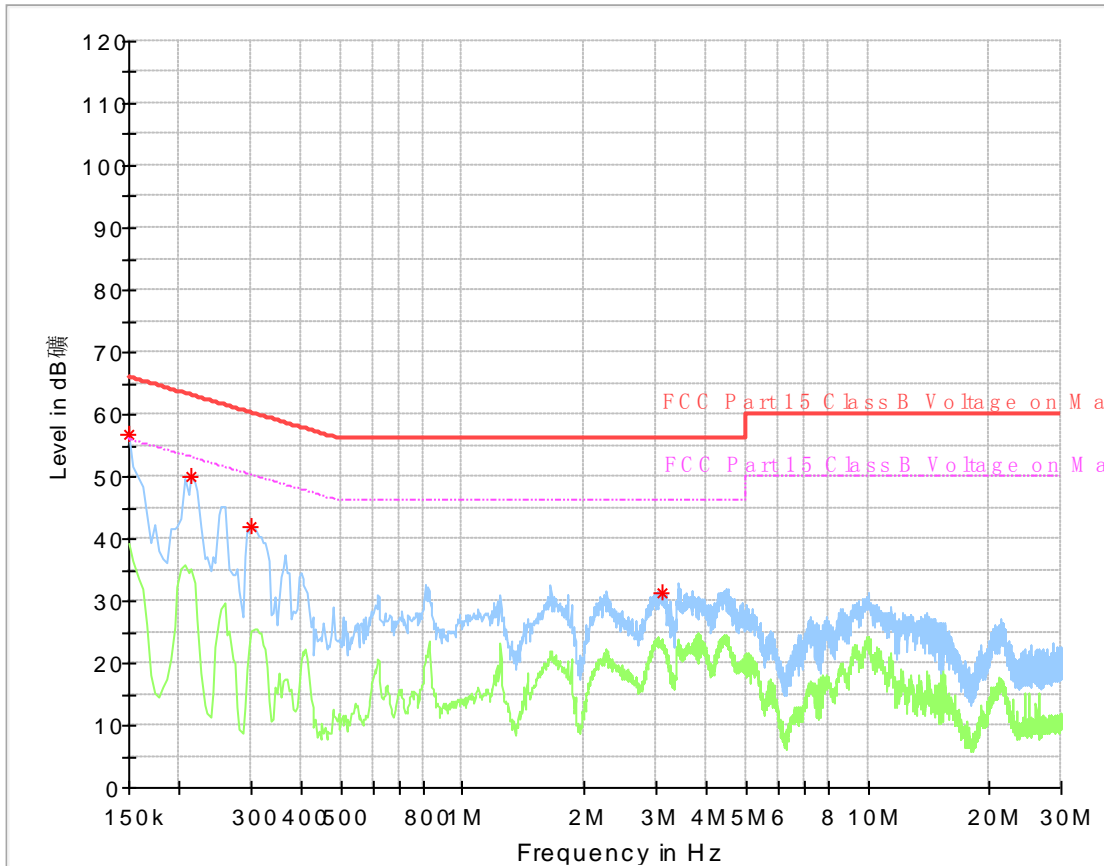
Product Type : MP7QCFS Module  
 M/N : 360526  
 Operating Condition : Transmitting  
 Test Specification : Line  
 Comment : AC 120V/60Hz



Frequency (MHz)	MaxPeak (dBμV)	Average (dBμV)	Limit (dBμV)	Margin (dB)	Line	Corr. (dB)
0.162000	54.99	---	65.36	10.37	L1	9.6
0.206000	53.01	---	63.37	10.35	L1	9.8
0.318000	48.78	---	59.76	10.98	L1	10.2
3.010000	33.49	---	56.00	22.51	L1	9.8

### Conducted Emission

Product Type : MP7QCFS Module  
 M/N : 360526  
 Operating Condition : Transmitting  
 Test Specification : Neutral  
 Comment : AC 120V/60Hz



Frequency (MHz)	MaxPeak (dBµV)	Average (dBµV)	Limit (dBµV)	Margin (dB)	Line	Corr. (dB)
0.150000	56.62	---	66.00	9.38	N	9.6
0.214000	49.91	---	63.05	13.14	N	9.8
0.302000	41.87	---	60.19	18.32	N	10.1
3.098000	31.34	---	56.00	24.66	N	9.8

## 9.2 Conducted peak output power

### Test Method

1. Use the following spectrum analyzer settings:  
Span = approximately 5 times the 20 dB bandwidth, centered on a hopping channel  
RBW > the 20 dB bandwidth of the emission being measured, VBW ≥ RBW,  
Sweep = auto, Detector function = peak, Trace = max hold
2. Add a correction factor to the display.
3. Allow the trace to stabilize. Use the marker-to-peak function to set the marker to the peak of the emission. The indicated level is the peak output power

### Limits

According to §15.247 (b) (1) and RSS-210 A8.4, conducted peak output power limit as below:

Frequency Range MHz	Limit W	Limit dBm
2400-2483.5	≤1	≤30

## Conducted peak output power

### Bluetooth Mode GFSK modulation Test Result

Frequency MHz	Conducted Peak Output Power dBm	Result
Low channel 2402MHz	-1.05	Pass
Middle channel 2441MHz	-3.26	Pass
High channel 2480MHz	-0.26	Pass

### Bluetooth Mode $\pi/4$ -DQPSK modulation Test Result

Frequency MHz	Conducted Peak Output Power dBm	Result
Low channel 2402MHz	-1.61	Pass
Middle channel 2441MHz	-3.71	Pass
High channel 2480MHz	-0.67	Pass

### Bluetooth Mode 8DPSK modulation Test Result

Frequency MHz	Conducted Peak Output Power dBm	Result
Low channel 2402MHz	-1.05	Pass
Middle channel 2441MHz	-3.34	Pass
High channel 2480MHz	-0.43	Pass

### 9.3 20 dB bandwidth and 99% Occupied Bandwidth

#### Test Method

1. Check the calibration of the measuring instrument using either an internal calibrator or a known signal from an external generator.
2. Position the EUT without connection to measurement instrument. Turn on the EUT and connect it to measurement instrument. Then set it to any one convenient frequency within its operating range. Set a reference level on the measuring instrument equal to the highest peak value.
3. Measure the frequency difference of two frequencies that were attenuated 20 dB from the reference level. Record the frequency difference as the emission bandwidth.
4. Repeat above procedures until all frequencies measured were complete.

#### Limit

Limit [kHz]

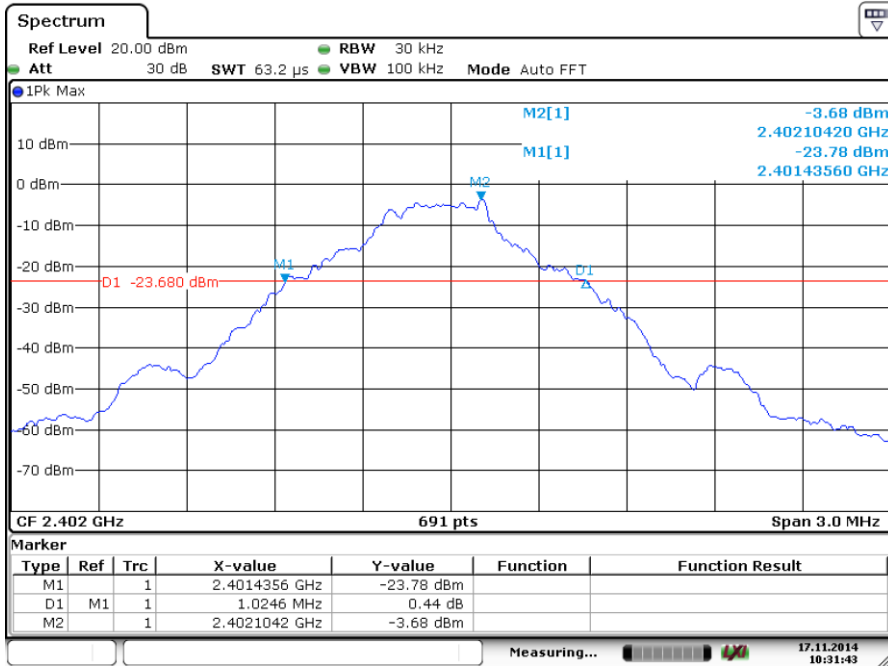
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N/A

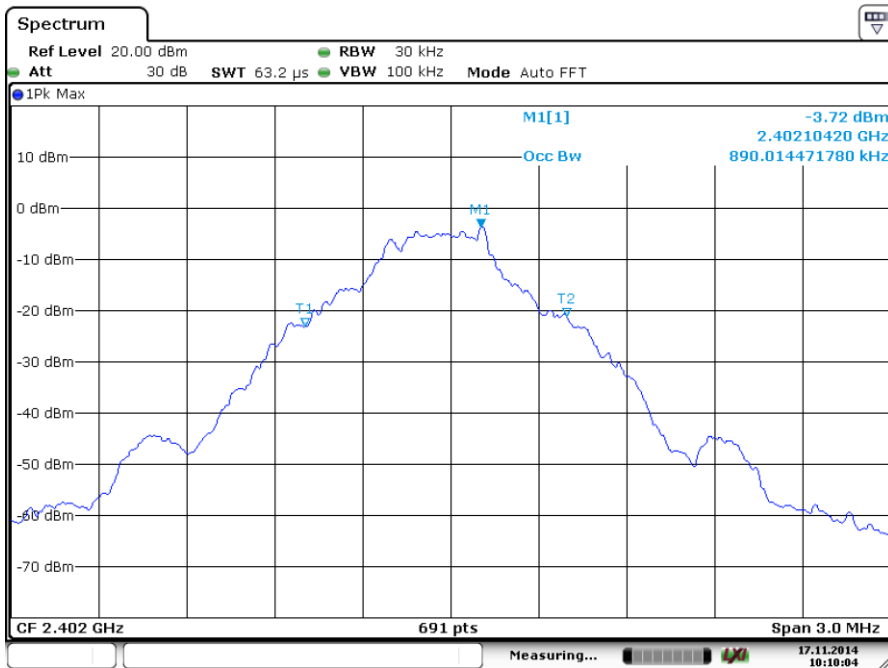
## 20 dB bandwidth and 99% Occupied Bandwidth

### Bluetooth Mode GFSK Modulation test result

Frequency MHz	20 dB Bandwidth kHz	99% Bandwidth kHz	Limit kHz	Result
2402	1024.6	890.0	--	Pass
2441	916.1	907.4	--	Pass
2480	1015.9	911.7	--	Pass



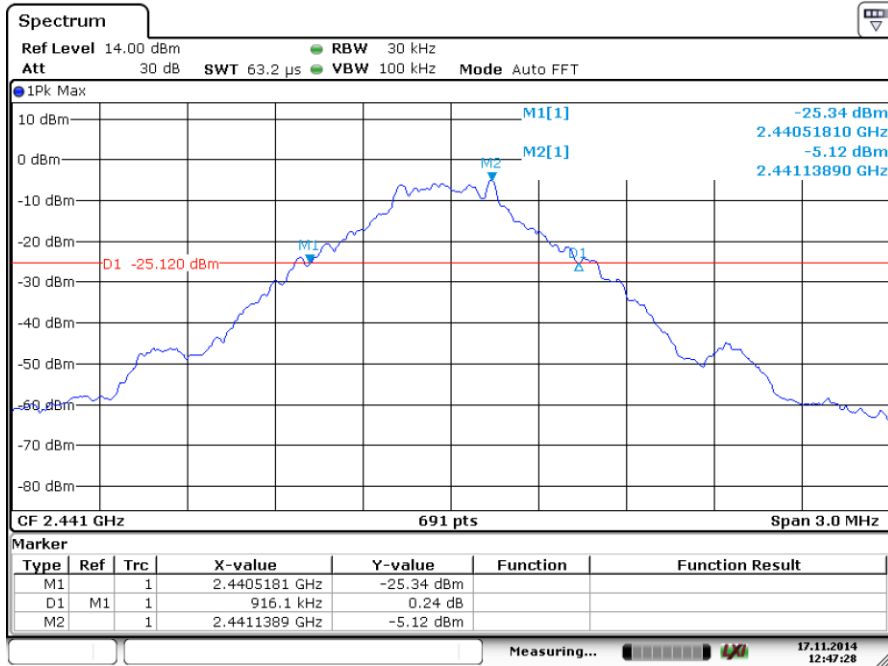
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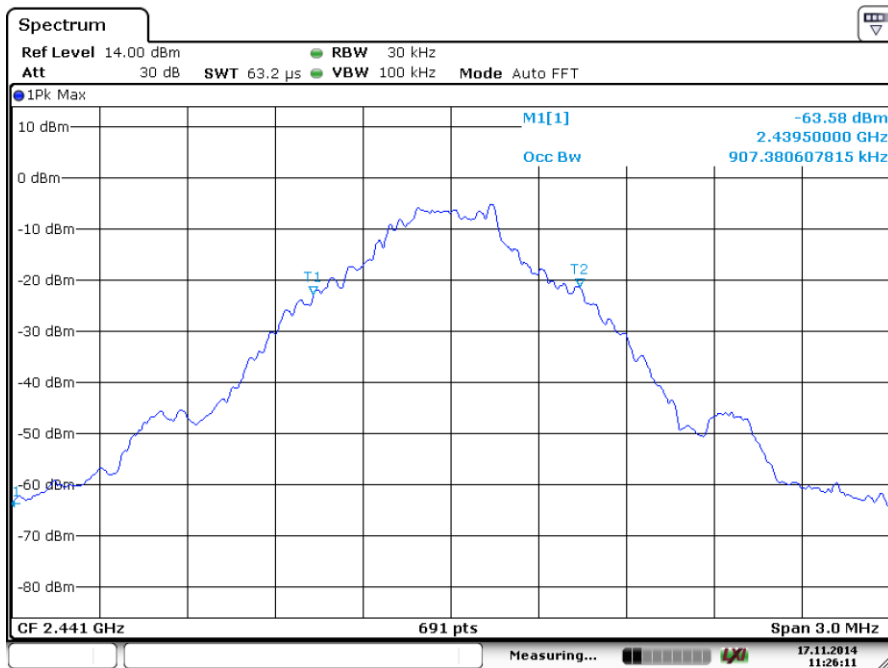
Date: 17.NOV.2014 10:10:04



## 20 dB bandwidth and 99% Occupied Bandwidth

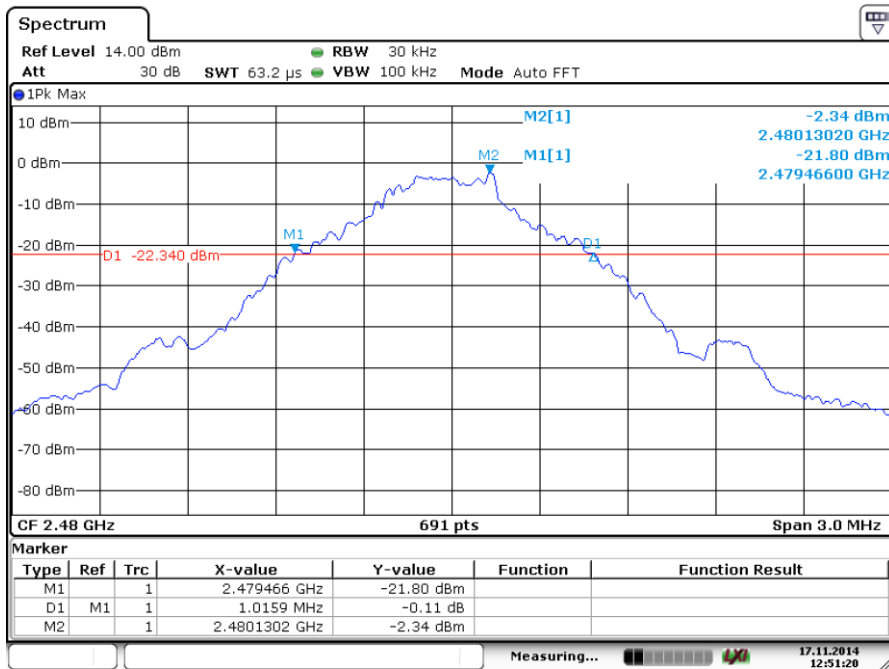


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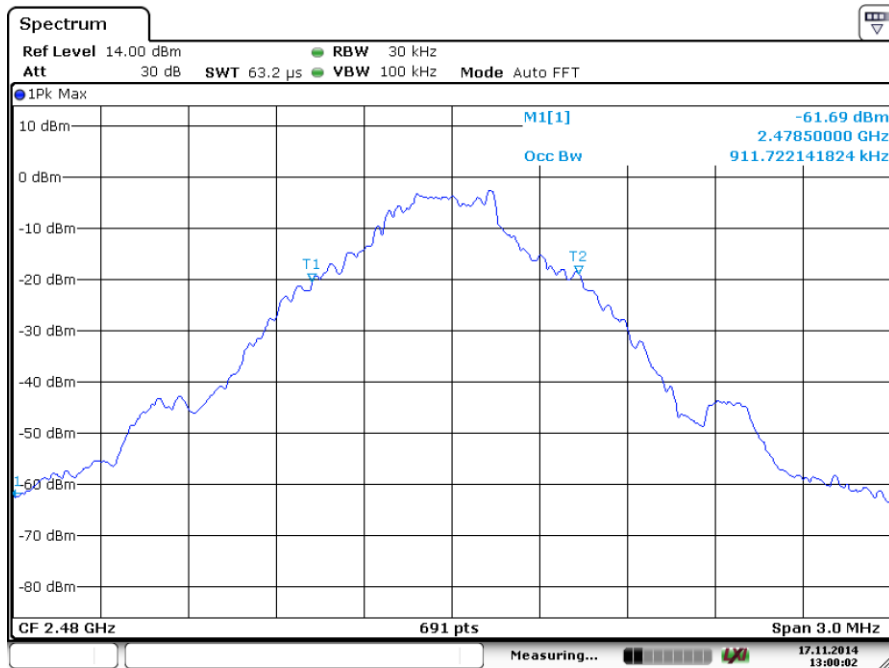


Date: 17.NOV.2014 11:26:11

**20 dB bandwidth and 99% Occupied Bandwidth**



Date: 17.NOV.2014 12:51:20

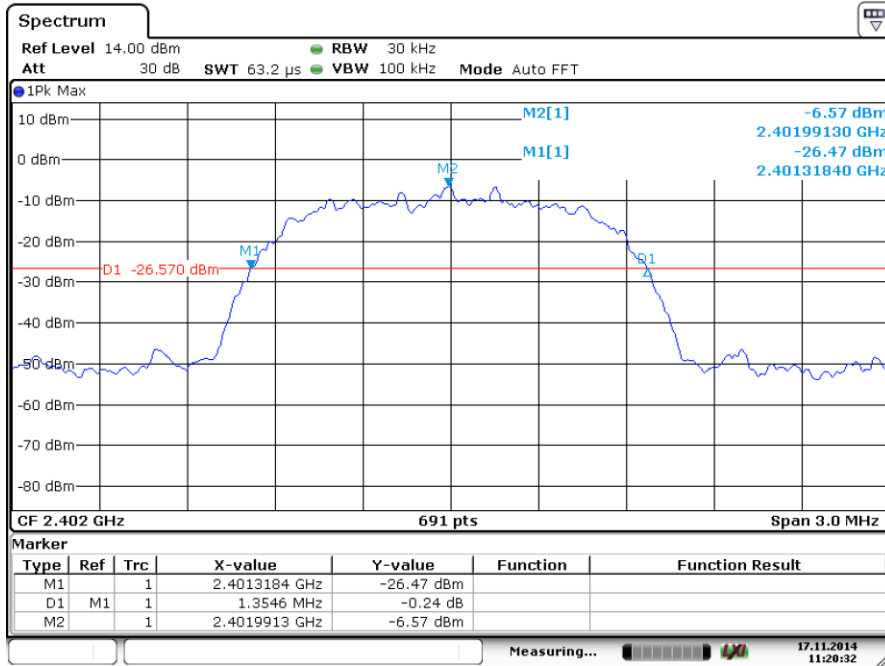


Date: 17.NOV.2014 13:00:02

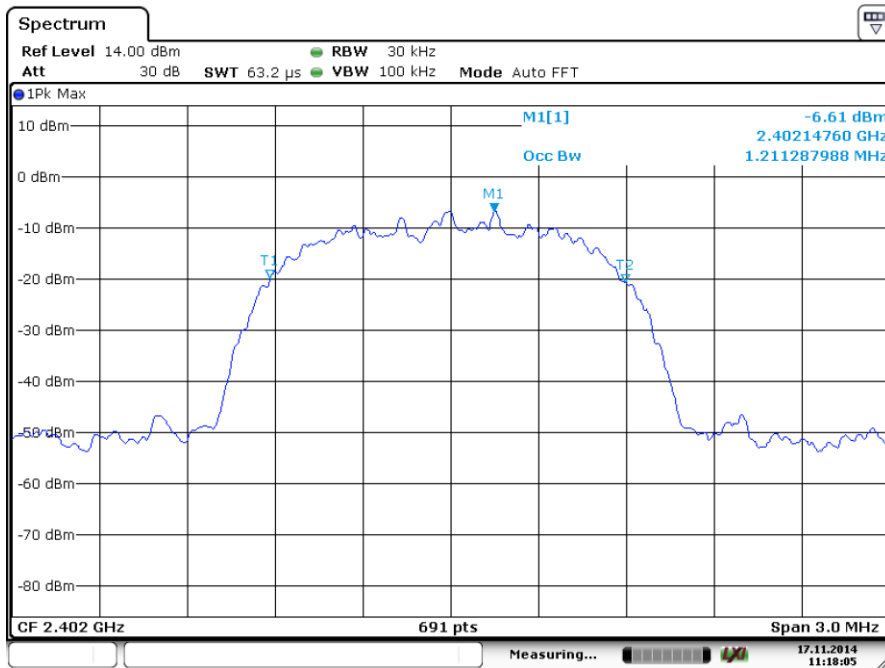
**20 dB bandwidth and 99% Occupied Bandwidth**

Bluetooth Mode  $\pi/4$ -DQPSK Modulation test result

Frequency MHz	20 dB Bandwidth kHz	99% Bandwidth kHz	Limit kHz	Result
2402	1354.6	1211.3	--	Pass
2441	1354.6	1202.6	--	Pass
2480	1354.6	1198.3	--	Pass

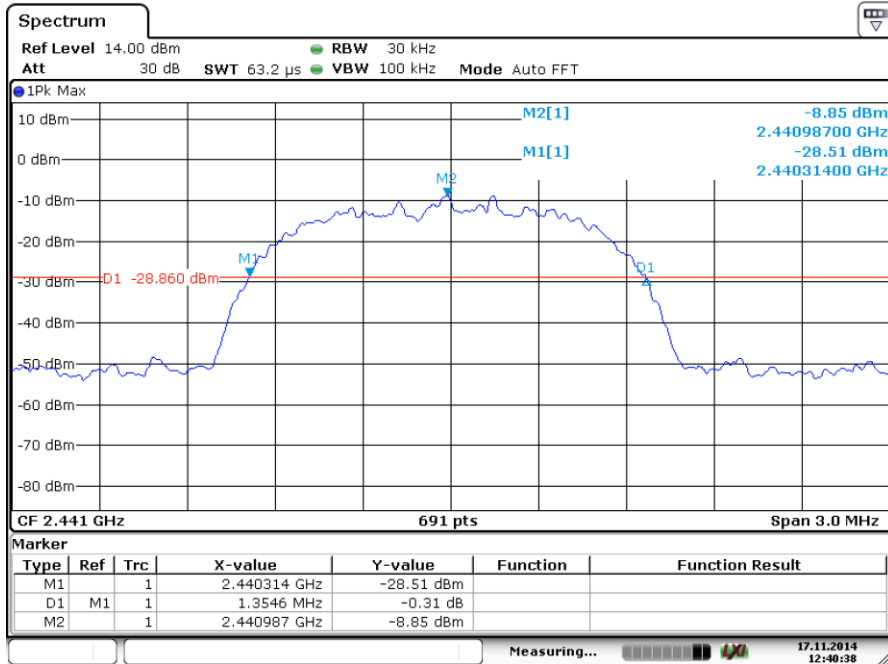


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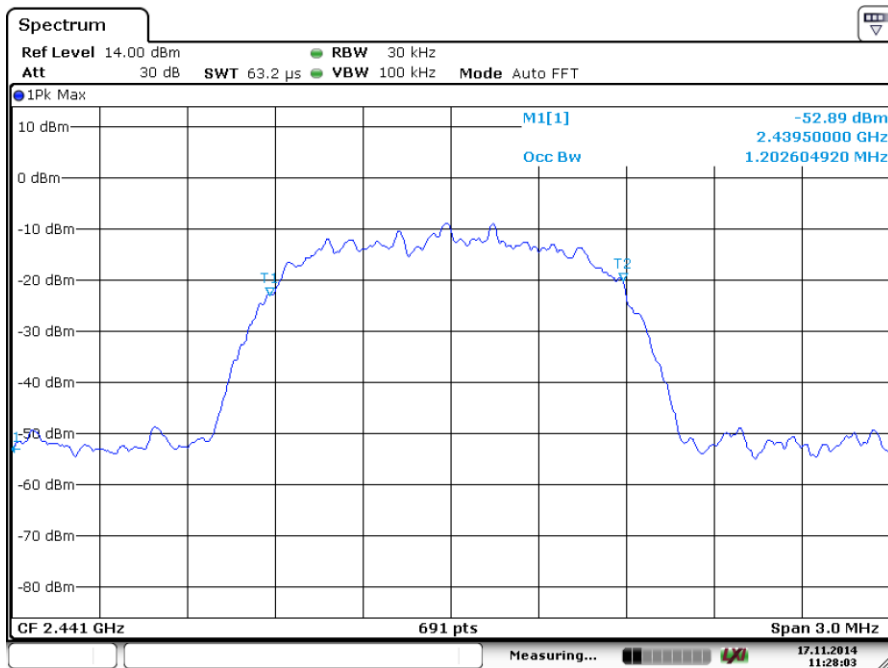


Date: 17.NOV.2014 11:18:05

## 20 dB bandwidth and 99% Occupied Bandwidth

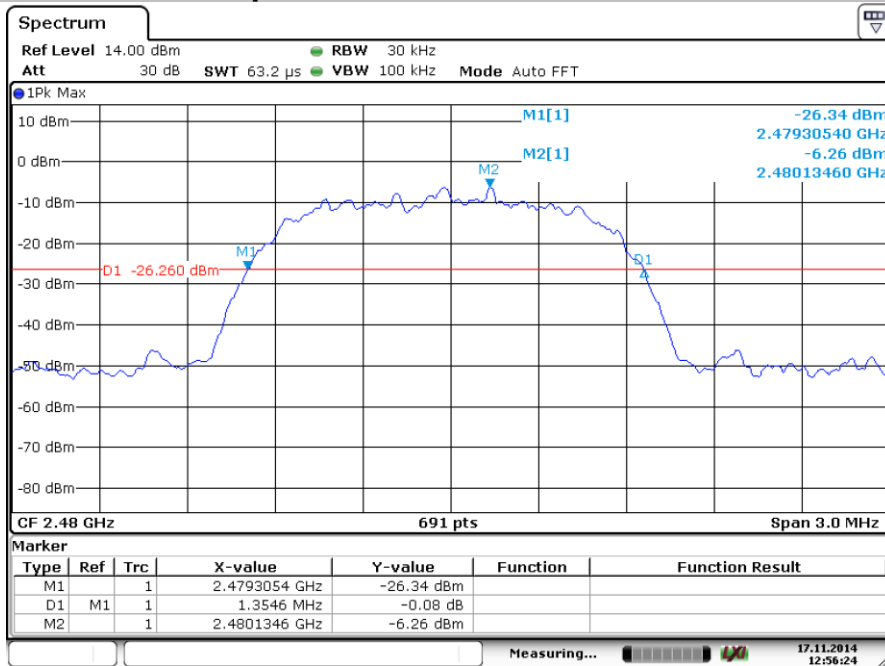


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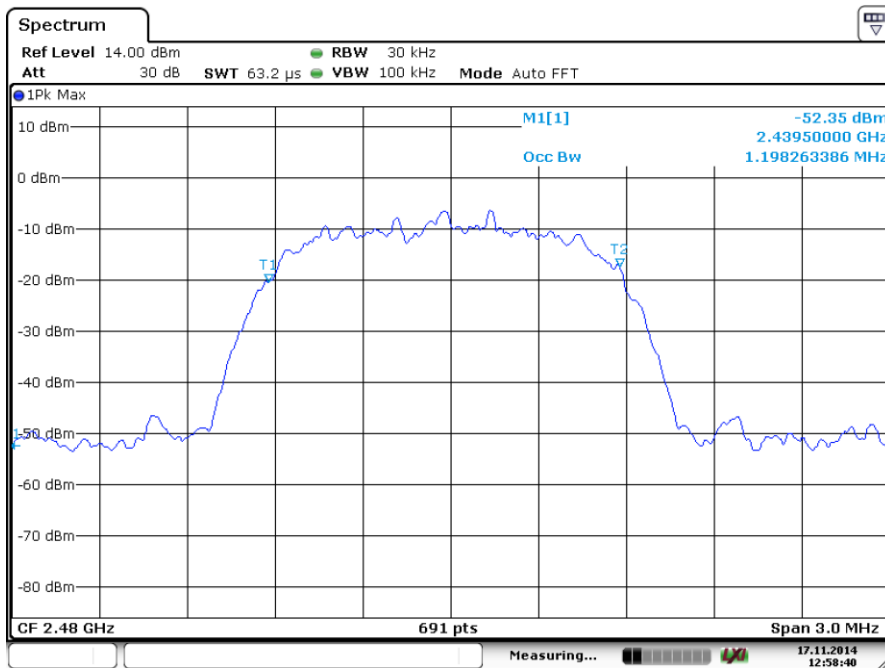


Date: 17.NOV.2014 11:28:03

## 20 dB bandwidth and 99% Occupied Bandwidth



Date: 17.NOV.2014 12:56:24

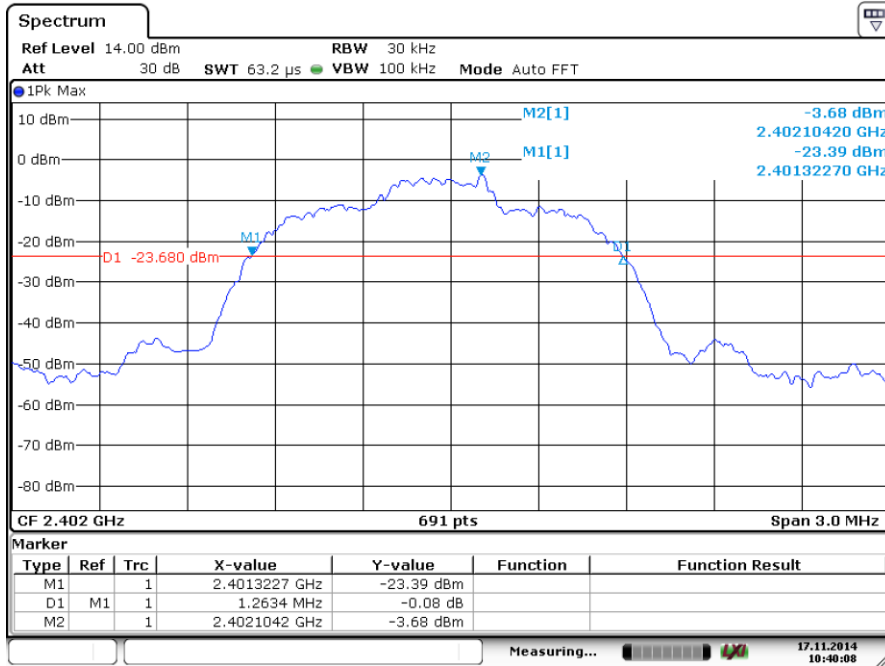


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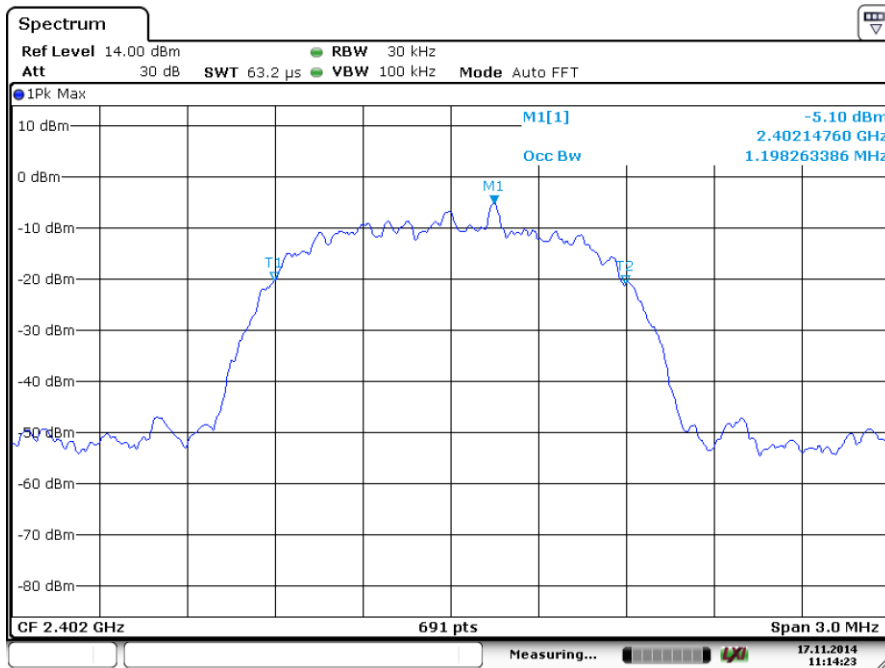
## 20 dB bandwidth and 99% Occupied Bandwidth

### Bluetooth Mode 8DPSK Modulation test result

Frequency MHz	20 dB Bandwidth kHz	99% Bandwidth kHz	Limit kHz	Result
2402	1263.4	1198.3	--	Pass
2441	1319.8	1202.6	--	Pass
2480	1328.5	1198.3	--	Pass

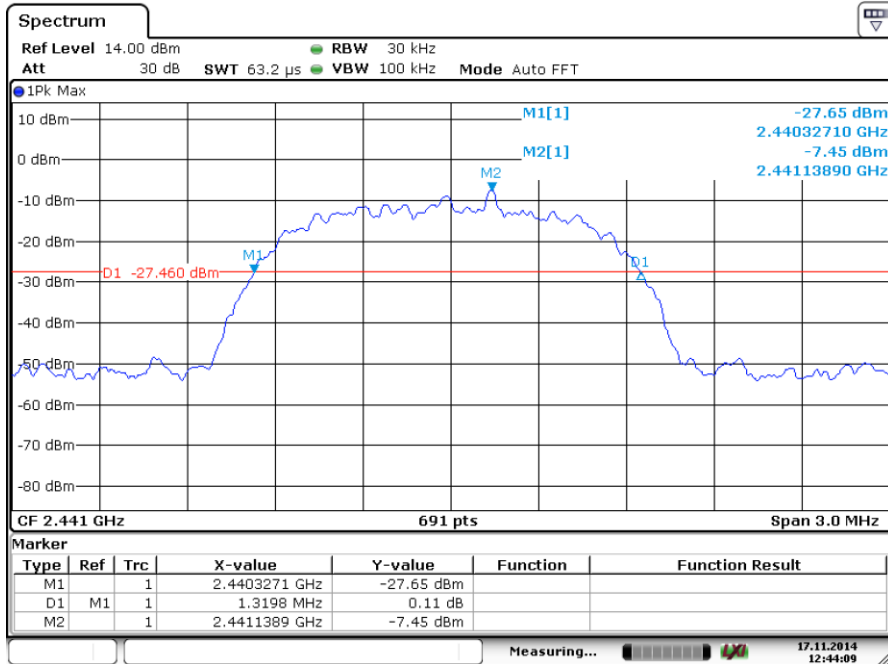


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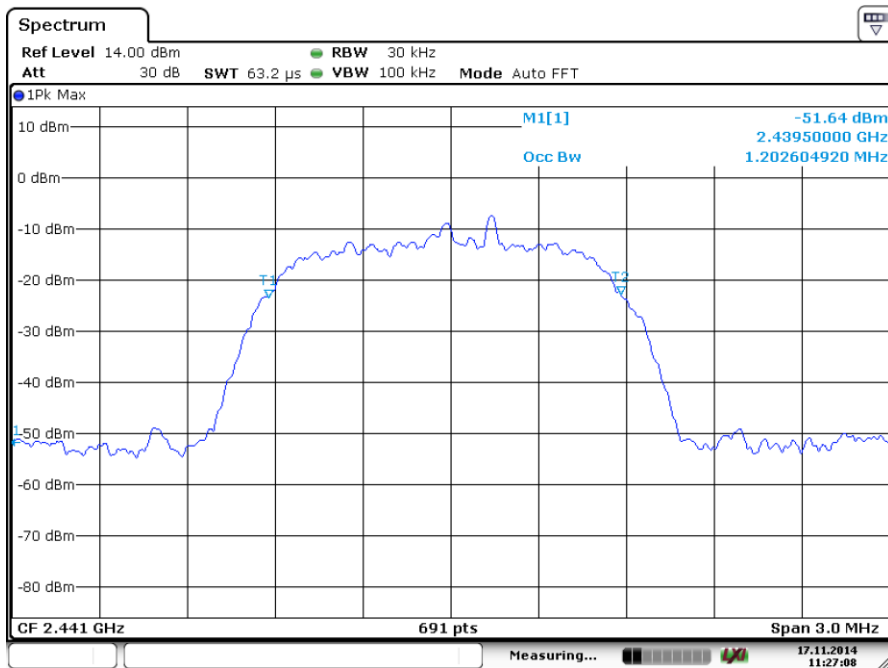


Date: 17.NOV.2014 11:14:23

## 20 dB bandwidth and 99% Occupied Bandwidth

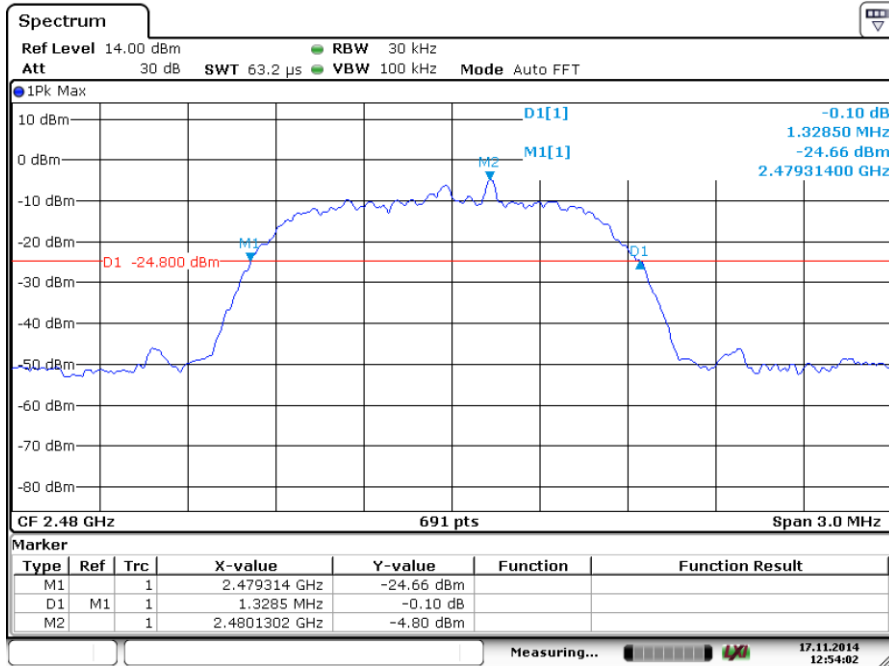


Date: 17.NOV.2014 12:44:09

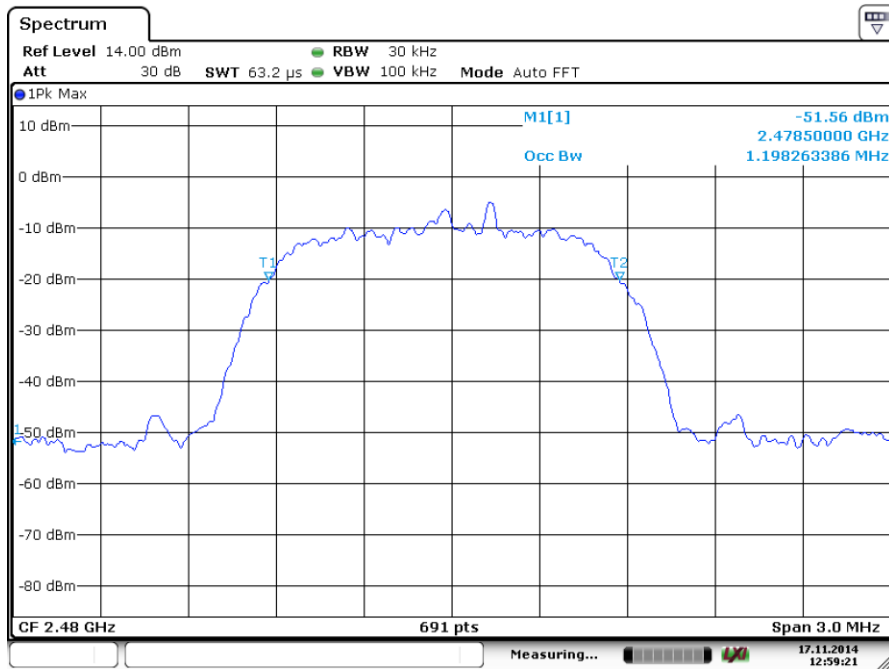


Date: 17.NOV.2014 11:27:09

## 20 dB bandwidth and 99% Occupied Bandwidth



Date: 17.NOV.2014 12:54:02



Date: 17.NOV.2014 12:59:22



## 9.4 Carrier Frequency Separation

### Test Method

1. Use the following spectrum analyzer settings:  
Span = wide enough to capture the peaks of two adjacent channels,  $RBW \geq 1\%$  of the span,  $VBW \geq RBW$ , Sweep = auto, Detector function = peak
2. By using the Max-Hold function record the separation of two adjacent channels.
3. Measure the frequency difference of these two adjacent channels by spectrum analyzer marker function.
4. Repeat above procedures until all frequencies measured were complete.

### Limit

$$\frac{\text{Limit}}{\text{kHz}} \geq 25\text{kHz or } 2/3 \text{ of the } 20 \text{ dB bandwidth which is greater}$$

### GFSK Modulation Limit

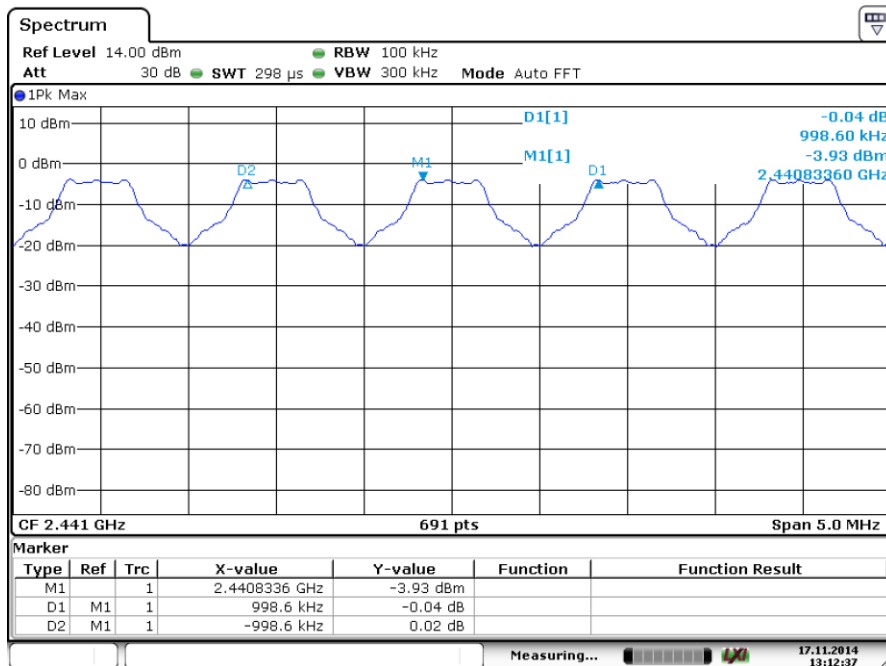
Frequency MHz	2/3 of 20 dB Bandwidth kHz
2402	683.1
2441	610.7
2480	677.3

## Carrier Frequency Separation

Test result: The measurement was performed with the typical configuration (normal hopping status), here GFSK modulation mode was used to show compliance.

### GFSK Modulation test result

Frequency MHz	Carrier Frequency Separation kHz	Result
2402	998.6	Pass
2441	998.6	Pass
2480	998.6	Pass



Date: 17.NOV.2014 13:12:37

## 9.5 Number of hopping frequencies

### Test Method

1. Use the following spectrum analyzer settings:  
Span = wide enough to capture the peaks of two adjacent channels,  $RBW \geq 1\%$  of the span,  $VBW \geq RBW$ , Sweep = auto, Detector function = peak
2. Set the spectrum analyzer on Max-Hold Mode, and then keep the EUT in hopping mode.
3. Record all the signals from each channel until each one has been recorded.
4. Repeat above procedures until all frequencies measured were complete.

### Limit

**Limit  
number**

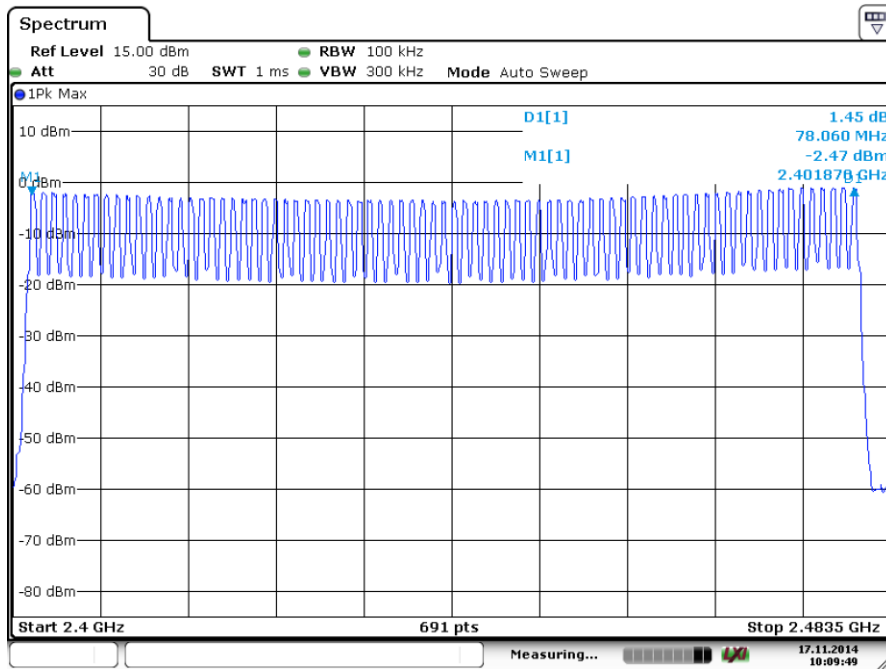
---

$\geq 15$

## Number of hopping frequencies

Test result: The measurement was performed with the typical configuration (normal hopping status), and the total hopping channels is constant for the all modulation mode according with the Bluetooth Core Specification. Here GFSK modulation mode was used to show compliance.

Number of hopping frequencies	Result
79	Pass



Date: 17.NOV.2014 10:09:49

## 9.6 Dwell Time

### Test Method

1. Connect EUT antenna terminal to the spectrum analyzer with a low loss cable.  
Equipment mode: Spectrum analyzer
2. RBW: 1MHz; VBW: 1MHz; SPAN: Zero Span
3. Adjust the center frequency of spectrum analyzer on any frequency be measured.
4. Measure the Dwell Time by spectrum analyzer Marker function.
5. Repeat above procedures until all frequencies measured were complete.

### Limit

According to §15.247(a)(1)(iii) & RSS-210 A8.1(c) The average time of occupancy on any frequency shall not be greater than 0.4 seconds within a period of 0.4 seconds multiplied by the number of hopping channels employed.

## Dwell Time

### Dwell time

The maximum dwell time shall be 0,4 s.

According to the Bluetooth Core Specification, the worse result (DH5 mode) was reported to show compliance.

The Dwell Time = Burst Width \* Total Hops. The detailed calculations are showed as follows:

The duration for dwell time calculation: 0.4 [s] \* hopping number = 0.4 [s] \* 79 [ch] = 31.6 [s\*ch];

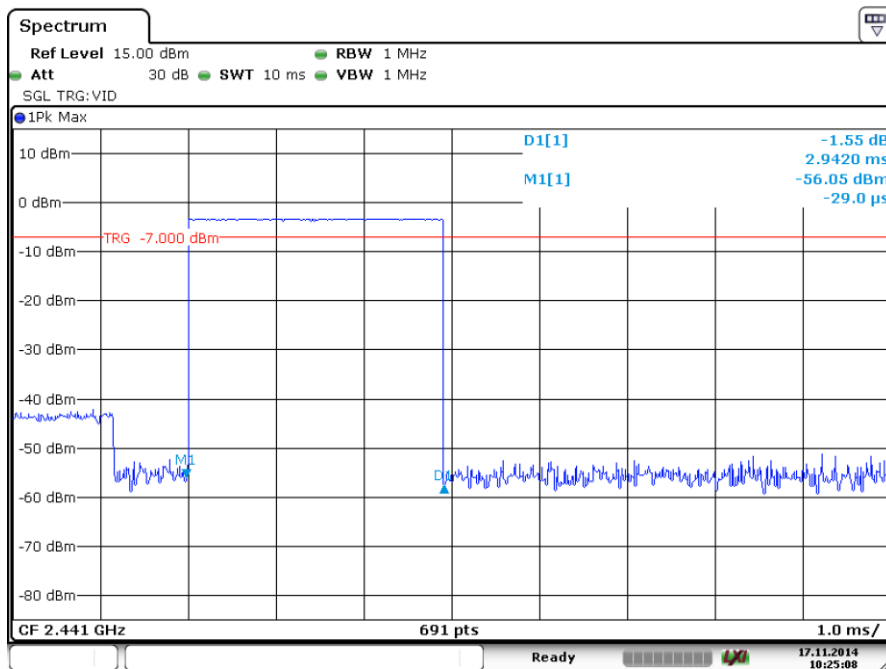
The burst width, which is directly measured, refers to the duration on one channel hop.

The maximum number of hopping channels in 31.6s for DH5=1600 / 6 / 79 \*31.6=106.67

### Test Result

Modulation	Mode	Reading (µs)	Total Hops	Test Result (ms)	Limit (ms)	Result
GFSK	DH5	2942	106.67	313.82	< 400	Pass
π/4-DQPSK	2DH5	2942	106.67	313.82	< 400	Pass
8-DPSK	3DH5	2957	106.67	315.42	< 400	Pass

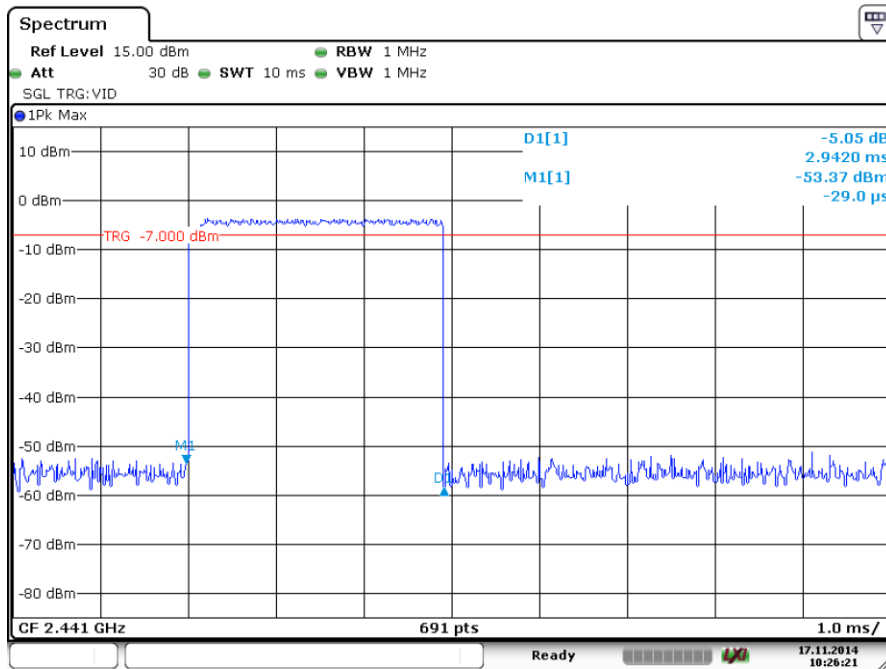
### GFSK Modulation



Date: 17.NOV.2014 10:25:08

DH5

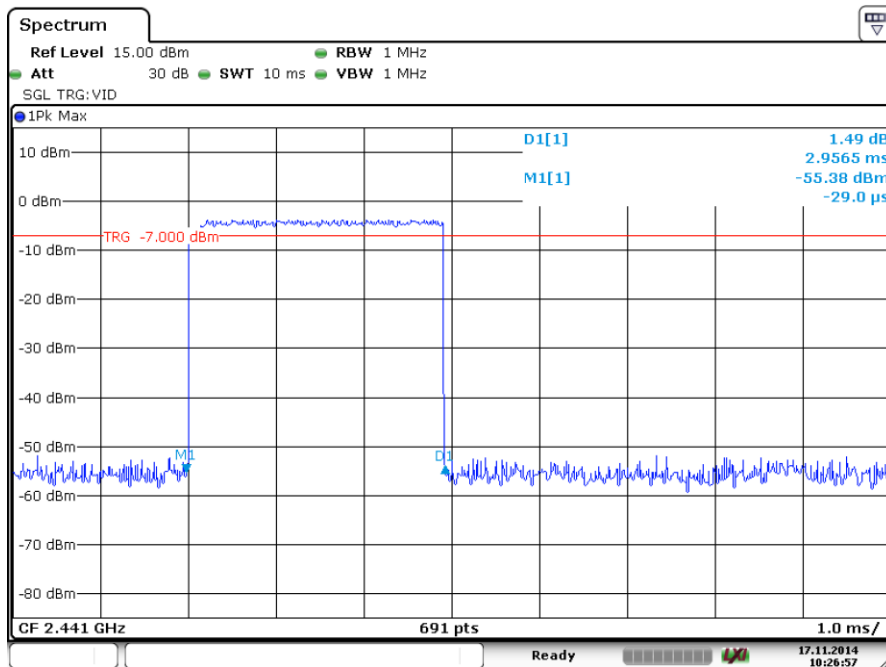
### $\pi/4$ -DQPSK Modulation



Date: 17.NOV.2014 10:26:21

2DH5

### 8-DPSK Modulation



Date: 17.NOV.2014 10:26:57

3DH5

## 9.7 Spurious RF conducted emissions

### Test Method

1. Use the following spectrum analyzer settings:  
Span = wide enough to capture the peak level of the in-band emission and all spurious emissions (e.g., harmonics) from the lowest frequency generated in the EUT up through the 10<sup>th</sup> harmonic. Typically, several plots are required to cover this entire span.  
RBW = 100 kHz, VBW ≥ RBW, Sweep = auto, Detector function = peak, Trace = max hold
2. Allow the trace to stabilize. Set the marker on the peak of any spurious emission recorded.
3. The level displayed must comply with the limit specified in this Section. Submit these plots.
4. Repeat above procedures until all frequencies measured were complete.

### Limit

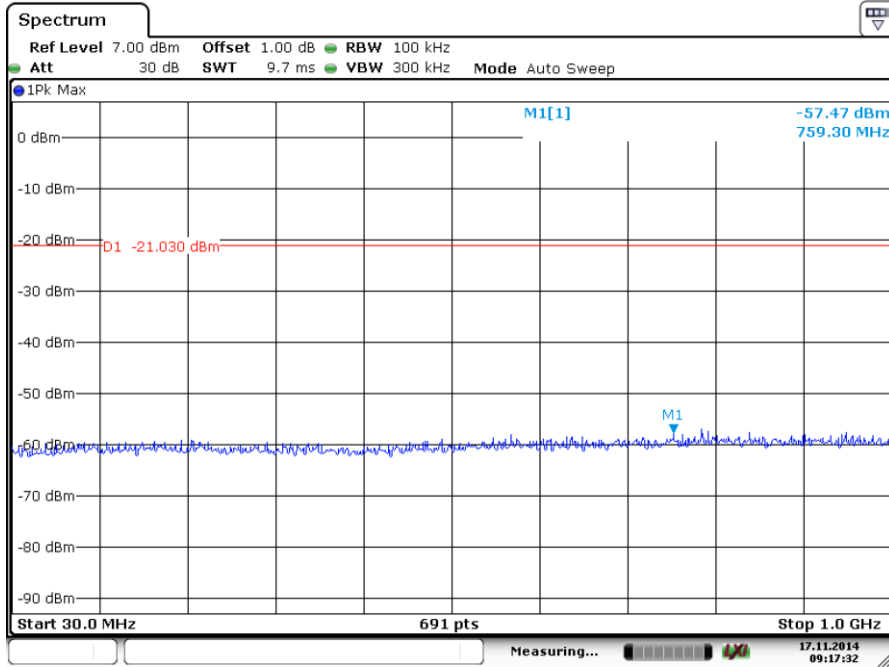
Frequency Range MHz	Limit (dBc)
30-25000	-20



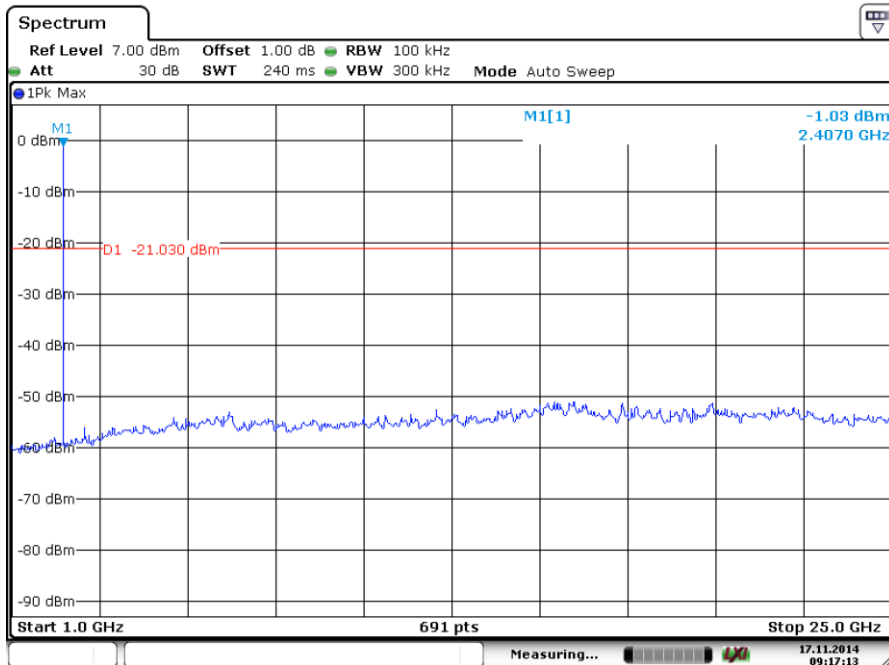
## Spurious RF conducted emissions

Only the worse case (which is subject to the maximum EIRP, GFSK mode) test result is listed in the report.

2402MHz



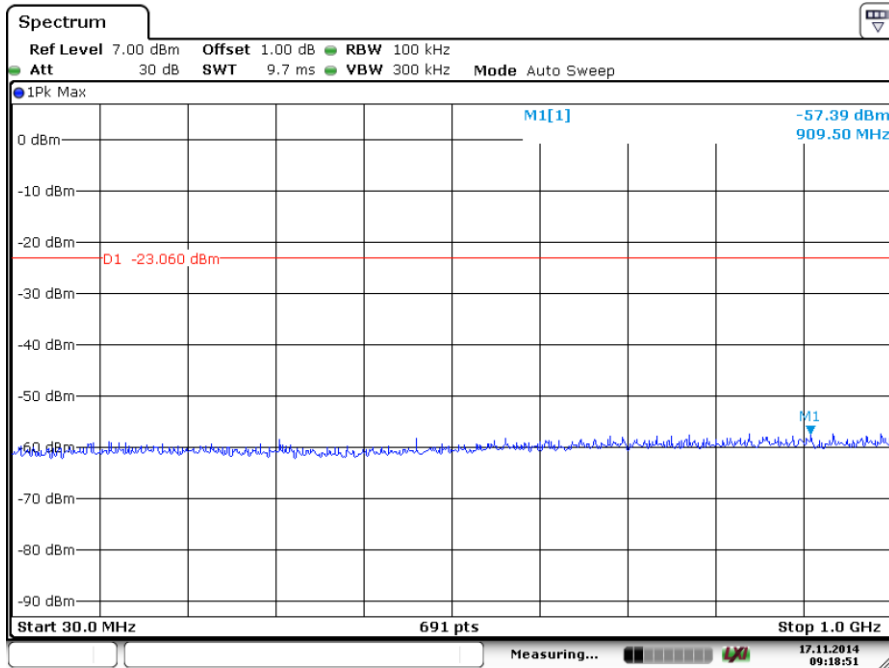
Date: 17.NOV.2014 09:17:32



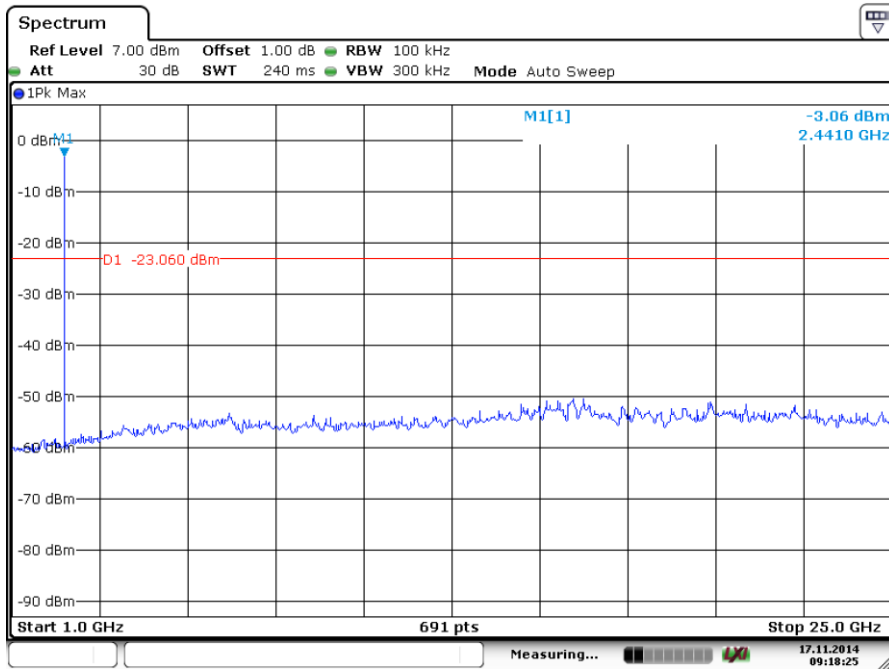
Date: 17.NOV.2014 09:17:13

### Spurious RF conducted emissions

2441MHz



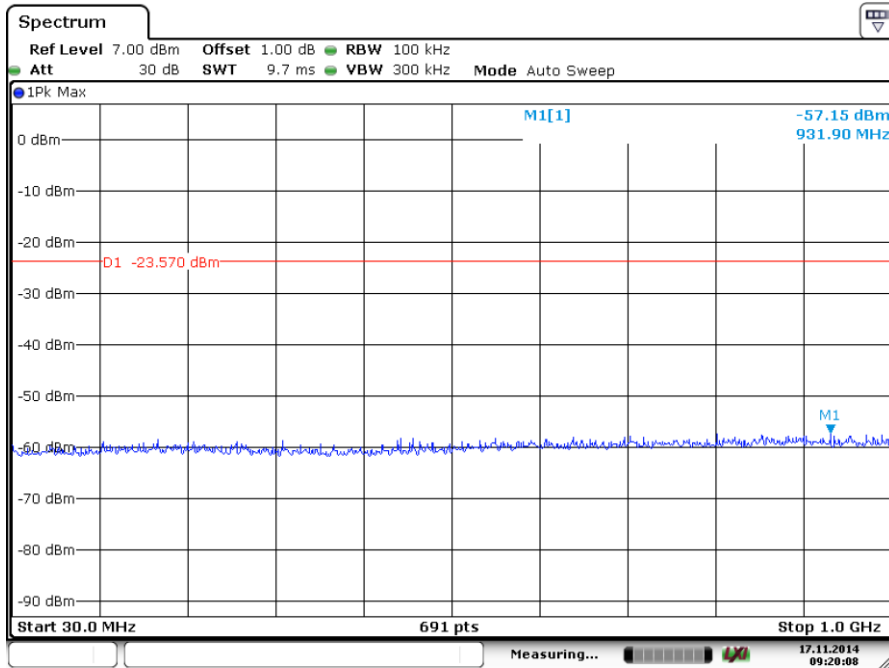
Date: 17.NOV.2014 09:18:51



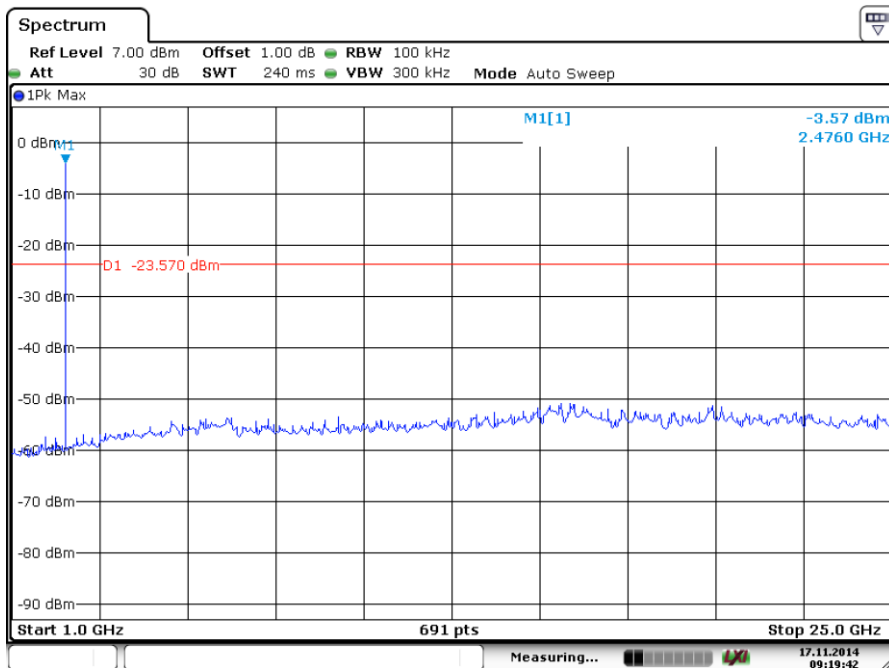
Date: 17.NOV.2014 09:18:24

### Spurious RF conducted emissions

2480MHz



Date: 17.NOV.2014 09:20:08



Date: 17.NOV.2014 09:19:42

## 9.8 Band edge testing

### Test Method

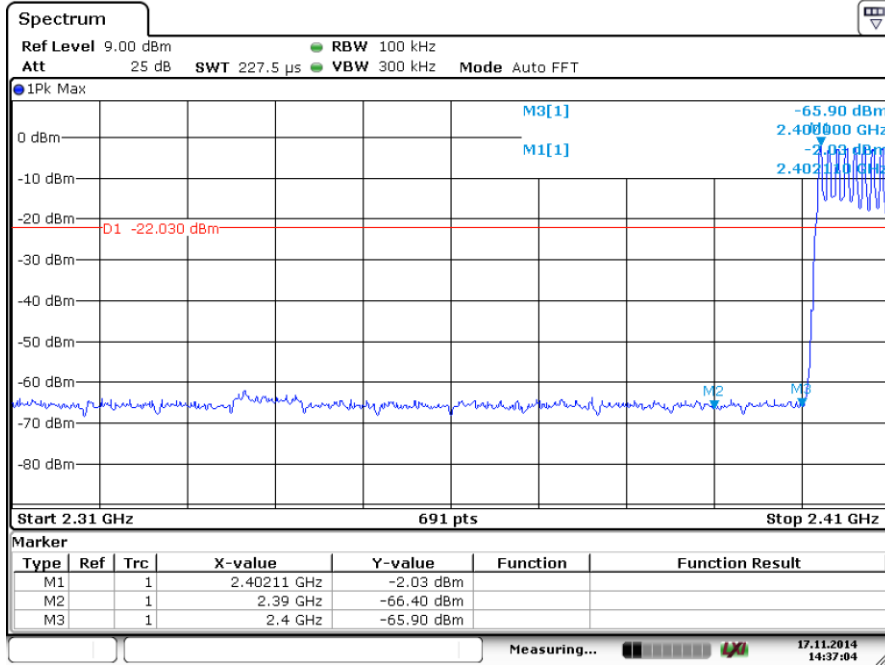
- 1 Use the following spectrum analyzer settings:  
Span = wide enough to capture the peak level of the in-band emission and all spurious  
RBW = 100 kHz, VBW  $\geq$  RBW, Sweep = auto, Detector function = peak, Trace = max hold
- 2 Allow the trace to stabilize, use the peak and delta measurement to record the result.
- 3 The level displayed must comply with the limit specified in this Section. .
- 4 Repeat the test at the hopping off and hopping on mode, submit all the plots.

### Limit:

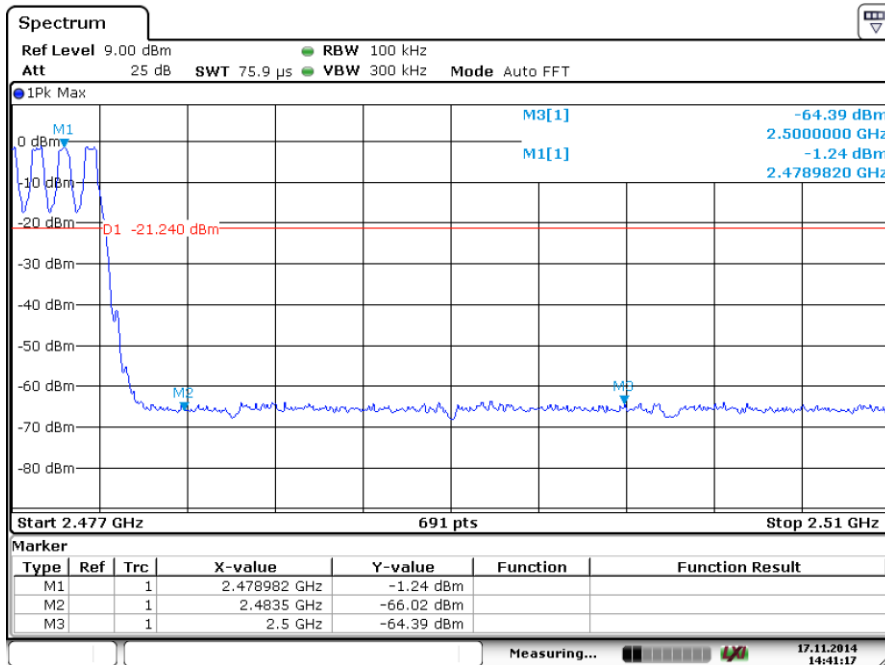
According to §15.247(d) and RSS-210 A8.5, in any 100 kHz bandwidth outside the frequency bands in which the spread spectrum intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a) and RSS-Gen7.2.2, must also comply with the radiated emission limits specified in 15.209(a) (see Section 15.205(c)) and RSS-Gen.

## Band edge testing

GFSK Modulation Test Result:  
Hopping on mode:



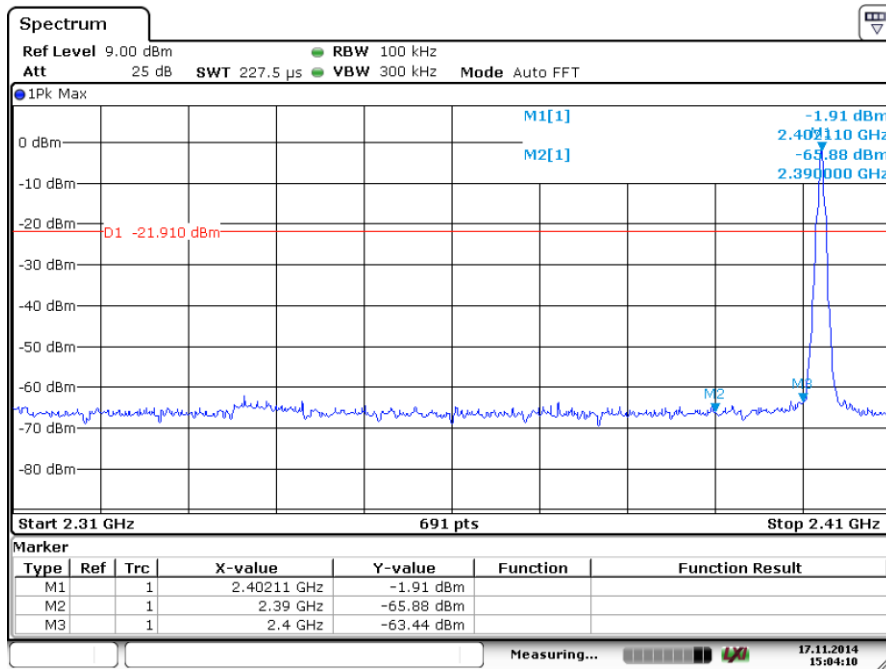
Date: 17.NOV.2014 14:37:03



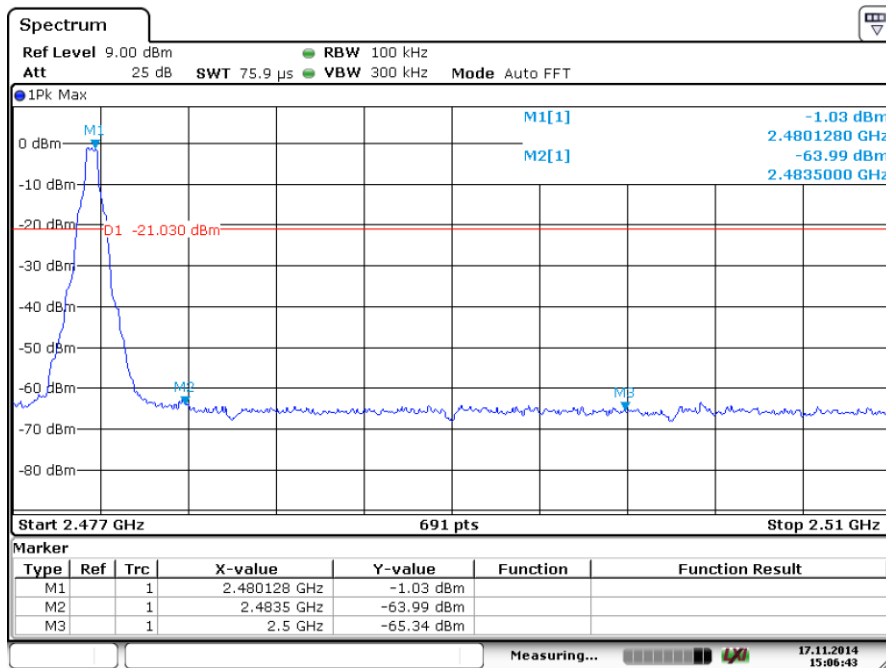
Date: 17.NOV.2014 14:41:17

## Band edge testing

Hopping off mode:



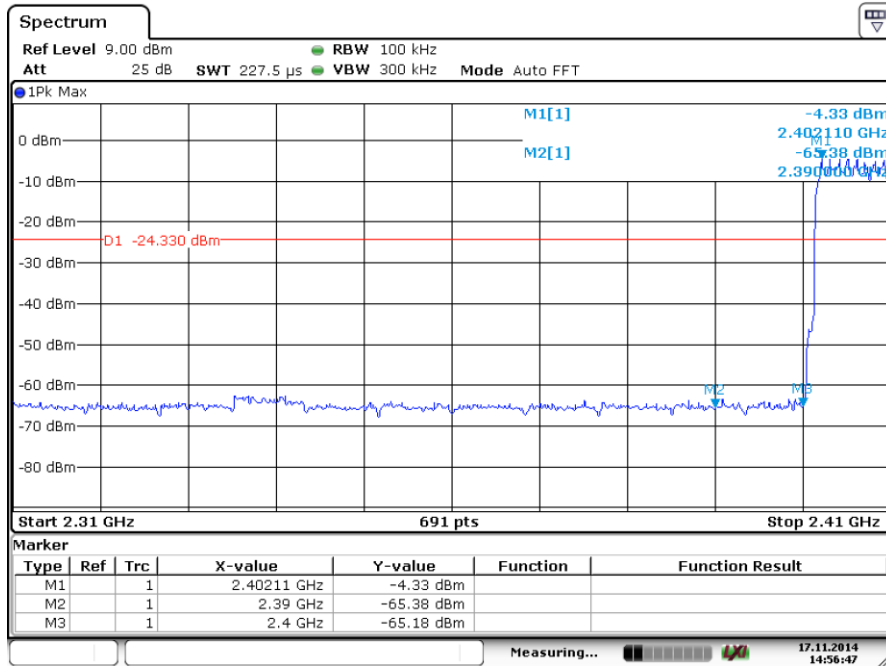
Date: 17.NOV.2014 15:04:10



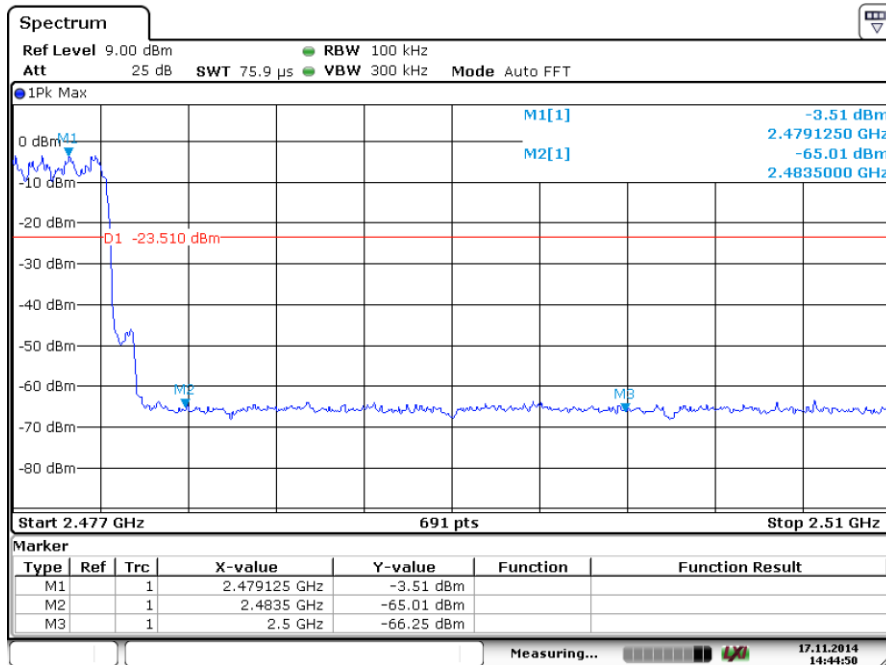
Date: 17.NOV.2014 15:06:43

## Band edge testing

8DPSK Modulation Test Result:  
Hopping on mode:



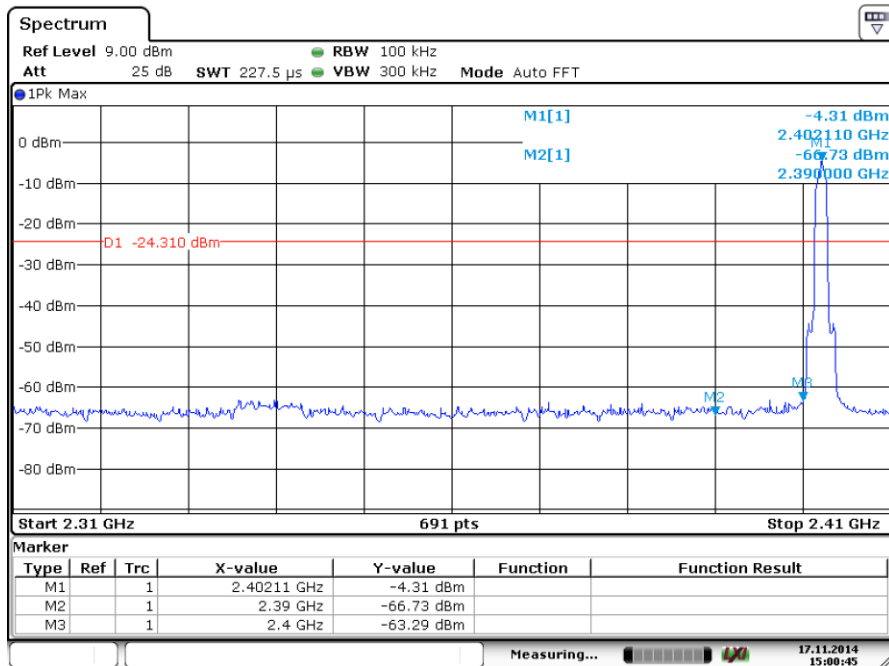
Date: 17.NOV.2014 14:56:47



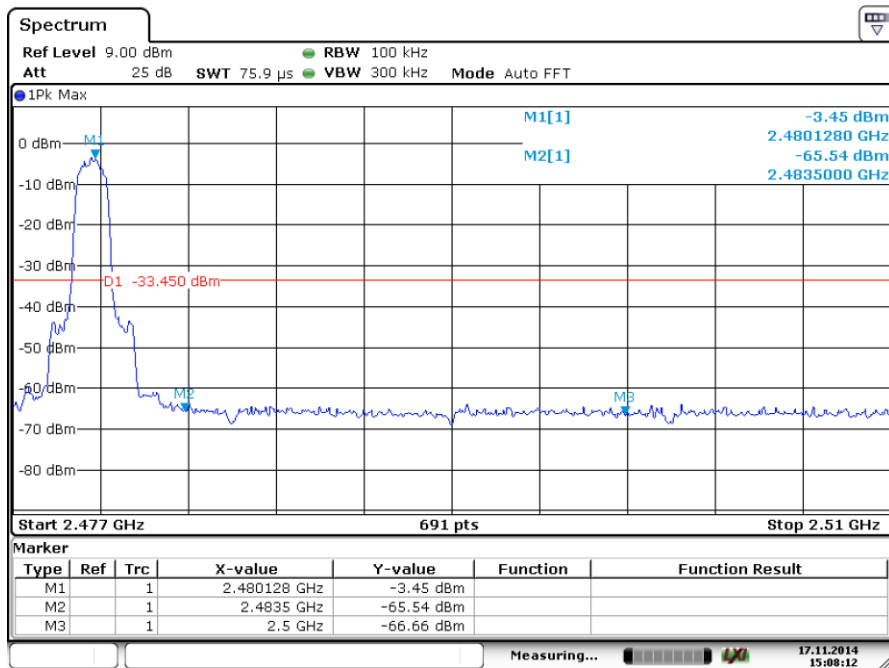
Date: 17.NOV.2014 14:44:50

## Band edge testing

Hopping off mode:



Date: 17.NOV.2014 15:00:45



Date: 17.NOV.2014 15:08:12



## 9.9 Spurious radiated emissions for transmitter and receiver

### Test Method

1. The EUT is placed on a turntable, which is 0.8m above ground plane.
2. EUT is set 3m away from the receiving antenna, which is varied from 1m to 4m to find out the highest emissions.
3. Use the following spectrum analyzer settings:  
Span = wide enough to fully capture the emission being measured, RBW = 1 MHz for  $f \geq 1\text{GHz}$ , 100 kHz for  $f < 1\text{GHz}$ , VBW  $\geq$  RBW, Sweep = auto, Detector function = peak, Trace = max hold
4. Follow the guidelines in ANSI C63.4-2009 with respect to maximizing the emission by rotating the EUT, adjusting the measurement antenna height and polarization, etc. The peak reading of the emission, after being corrected by the antenna factor, cable loss, pre-amp gain, etc., is the peak field strength, submit this data. Each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical.
5. Set the VBW to 10 Hz, while maintaining all of the other instrument settings. This peak level, once corrected, must comply with the limit specified in Section 15.209. If the duty cycle per channel of the hopping signal is less than 100 ms, then the reading obtained with the 10 Hz VBW may be further adjusted by a "duty cycle correction factor", derived from  $20\log(\text{duty cycle}/100\text{ ms})$ , in an effort to demonstrate compliance with the 15.209 limit. Submit this data.

### Limit

According to part 15.247(d), the radio emission outside the operating frequency band shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power. Radiated emissions which fall in the restricted bands, as defined in section 15.205, must comply with the radiated emission limits specified in section 15.209.

Frequency MHz	Field Strength uV/m	Field Strength dB $\mu$ V/m	Detector
30-88	100	40	QP
88-216	150	43.5	QP
216-960	200	46	QP
960-1000	500	54	QP
Above 1000	500	54	AV
Above 1000	5000	74	PK

## Spurious radiated emissions for transmitter and receiver

According to C63.10, if the peak (or quasi-peak) measured value complies with the average limit, it is unnecessary to perform an average measurement, so AV emission value did not show in below table if the peak value complies with average limit.

The only worse case (which is subject to the maximum EIRP, GFSK mode) test result is listed in the report.

### Transmitting spurious emission test result as below:

#### Bluetooth Mode GFSK Modulation 2402MHz Test Result

Frequency	Emission Level	Polarization	Limit	Detector	Margin	Result
MHz	dBuV/m		dB $\mu$ V/m		dBuV/m	
800.1	41.92	Horizontal	46	QP	4.08	Pass
872.5	41.42	Horizontal	46	QP	5.58	Pass
225.1	42.25	Vertical	46	QP	3.75	Pass
300.1	40.29	Vertical	46	QP	5.71	Pass
*4804	41.03	Horizontal	74	PK	32.97	Pass
*4804	40.25	Vertical	74	PK	33.75	Pass

#### Bluetooth Mode GFSK Modulation 2441MHz Test Result

Frequency	Emission Level	Polarization	Limit	Detector	Margin	Result
MHz	dBuV/m		dB $\mu$ V/m		dBuV/m	
*4882	40.43	Horizontal	74	PK	33.57	Pass
*4882	41.79	Vertical	74	PK	32.21	Pass

#### Bluetooth Mode GFSK Modulation 2480MHz Test Result

Frequency	Emission Level	Polarization	Limit	Detector	Margin	Result
MHz	dBuV/m		dB $\mu$ V/m		dBuV/m	
*4960	41.07	Horizontal	74	PK	32.93	Pass
*4960	40.68	Vertical	74	PK	33.32	Pass

#### Remark:

- (1) AV Emission Level= PK Emission Level+20log(dutycycle)
- (2) Data of measurement within this frequency range shown “-” in the table above means the reading of emissions are attenuated more than 20db below the permissible limits or the field strength is too small to be measured.
- (3) “\*” means the emission(s) appear within the restrict bands shall follow the requirement of section 15.205.

## 10 Test Equipment List

### List of Test Instruments

	DESCRIPTION	MANUFACTURER	MODEL NO.	SERIAL NO.	CAL. DUE DATE	
CE	Test Receiver	Rohde & Schwarz	ESHS10	838693/001	Nov.04, 15	<input checked="" type="checkbox"/>
	L.I.S.N.#1	Rohde & Schwarz	ESH2-Z5	834066/011	Nov.04, 15	<input checked="" type="checkbox"/>
	L.I.S.N.#3	Kyoritsu	KNW-242C	8-1920-1	May.07, 15	<input type="checkbox"/>
	RF Cable	3D-2W	Fujikura	LISN Cable 1#	May.07, 15	<input checked="" type="checkbox"/>
	Coaxial Switch	MP59B	Anritsu	M55367	May.07, 15	<input checked="" type="checkbox"/>
	Passive Probe	ESH2-Z3	Rohde & Schwarz	299.7810.52	May.07, 15	<input type="checkbox"/>
	Pulse Limiter	ESH3-Z2	Rohde & Schwarz	100341	May.07, 15	<input type="checkbox"/>
C	Spectrum	Rohde & Schwarz	FSV40	101030	May.08, 15	<input checked="" type="checkbox"/>
RE < 1 GHz	Test Receiver <1GHz	Rohde & Schwarz	ESVS10	834468/011	May.07, 15	<input checked="" type="checkbox"/>
	Amplifier < 1 GHz	HP	8447D	2648A04738	May.07, 15	<input checked="" type="checkbox"/>
	HF Cable	Hubersuhne	Sucoflex104	Room 2	May.08, 15	<input checked="" type="checkbox"/>
	Bilog Antenna	Schaffner	CBL6111C	2598	Oct.25, 15	<input checked="" type="checkbox"/>
RE > 1 GHz	Spectrum > 1GHz	Agilent	E4446A	US44300459	May.08, 15	<input checked="" type="checkbox"/>
	Horn Antenna	EMCO	3115	9607-4877	Jun. 24, 15	<input checked="" type="checkbox"/>
	Amp > 1 Ghz	HP	8449B	3008A08495	May.08, 15	<input checked="" type="checkbox"/>
	HF Cable	Hubersuhne	Sucoflex104	Room1	May.08, 15	<input checked="" type="checkbox"/>

#### C - Conducted RF tests

- Conducted peak output power
- 6dB bandwidth
- 20dB bandwidth and 99% Occupied Bandwidth
- Carrier frequency separation
- Number of hopping frequencies
- Dwell Time
- Power spectral density\*
- Spurious RF conducted emissions
- Band edge

## 11 System Measurement Uncertainty

For a 95% confidence level, the measurement expanded uncertainties for defined systems, in accordance with the recommendations of ISO 17025 were:

### System Measurement Uncertainty

Items	Extended Uncertainty
Radiated spurious emission	4.32dB (30MHz-1GHz) 2.27dB (1GHz -25GHz)
Conducted spurious emission	2.10dB(30MHz-25GHz)
Bandwidth test	$1 \times 10^{-9}$
Conducted emission	2.4dB