

**FCC - TEST REPORT**

Report Number : **68.910.16.028.01** Date of Issue: June 14, 2016

Model : **GB-331**

Product Type : FOUNTAIN DIFFUSER

Applicant : GINGO BILOBA SA/NV

Address : 16B RUE MAURICE LIETART, 1150 BRUSSELS, BELGIUM

Production Facility : GINGO BILOBA SA/NV

Address : 16B RUE MAURICE LIETART, 1150 BRUSSELS, BELGIUM

Test Result : ☒ **Positive** ☐ **Negative**

Total pages including Appendices : **46**

*TÜV SÜD Certification and Testing (China) Co., Ltd. Shenzhen Branch is a subcontractor to TÜV SÜD Product Service GmbH according to the principles outlined in ISO 17025.*

*TÜV SÜD Certification and Testing (China) Co., Ltd. Shenzhen Branch reports apply only to the specific samples tested under stated test conditions. Construction of the actual test samples has been documented. It is the manufacturer's responsibility to assure that additional production units of this model are manufactured with identical electrical and mechanical components. The manufacturer/importer is responsible to the Competent Authorities in Europe for any modifications made to the production units which result in non-compliance to the relevant regulations. TÜV SÜD Certification and Testing (China) Co., Ltd. Shenzhen Branch shall have no liability for any deductions, inferences or generalizations drawn by the client or others from TÜV SÜD Certification and Testing (China) Co., Ltd. Shenzhen Branch issued reports.*

*This report is the confidential property of the client. As a mutual protection to our clients, the public and ourselves, extracts from the test report shall not be reproduced except in full without our written approval*

## 1 Table of Contents

1	Table of Contents .....	2
2	Details about the Test Laboratory .....	3
3	Description of the Equipment Under Test .....	4
4	Summary of Test Standards .....	5
5	Summary of Test Results .....	6
6	General Remarks .....	7
7	Test Setups .....	8
8	Systems test configuration .....	9
9	Technical Requirement .....	10
9.1	Conducted Emission .....	10
9.2	Conducted peak output power .....	13
9.3	20 dB bandwidth and 99% Occupied Bandwidth .....	20
9.4	Carrier Frequency Separation .....	27
9.5	Number of hopping frequencies .....	30
9.6	Dwell Time .....	32
9.7	Spurious RF conducted emissions .....	35
9.8	Band edge testing .....	39
9.9	Spurious radiated emissions for transmitter .....	42
10	Test Equipment List .....	45
11	System Measurement Uncertainty .....	46

## 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  
Building 12&13, Zhiheng Wisdomland Business Park,  
Nantou Checkpoint Road 2, Nanshan District,  
Shenzhen City, 518052,  
P. R. China

FCC Registration  
Number: 502708

Telephone: 86 755 8828 6998  
Fax: 86 755 8828 5299

### 3 Description of the Equipment Under Test

Product:	FOUNTAIN DIFFUSER
Model no.:	GB-331
FCC ID:	2AGK7A13GB331
Options and accessories:	NIL
Rating:	24.0VDC, 0.75A (Supplied by External adapter) Model: K25V240075U Input: 100 – 240VAC, 50/60Hz, 0.6A Output: 24.0VDC, 0.75A
RF Transmission Frequency:	2402MHz-2480MHz
No. of Operated Channel:	79
Modulation:	GFSK, $\pi/4$ -DQPSK, 8-DPSK
Antenna Type:	PCB Antenna
Antenna Gain:	1.2dBi
Description of the EUT:	The Equipment Under Test (EUT) is a DIFFUSER operated at 2.4GHz

## 4 Summary of Test Standards

Test Standards	
FCC Part 15 Subpart C 10-1-2015 Edition	PART 15 - RADIO FREQUENCY DEVICES Subpart C - Intentional Radiators

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			
Test Condition		Pages	Test Result
§15.207	Conducted emission AC power port	10	N/A
§15.247(b)(1)	Conducted peak output power	13	Pass
§15.247(e)	Power spectral density	--	N/A
§15.247(a)(2)	6dB bandwidth	--	N/A
§15.247(a)(1)	20dB bandwidth and 99% Occupied Bandwidth	20	Pass
§15.247(a)(1)	Carrier frequency separation	27	Pass
§15.247(a)(1)(iii)	Number of hopping frequencies	30	Pass
§15.247(a)(1)(iii)	Dwell Time	32	Pass
§15.247(d)	Spurious RF conducted emissions	35	Pass
§15.247(d)	Band edge	39	Pass
§15.247(d) & §15.209 &	Spurious radiated emissions for transmitter and receiver	42	Pass
§15.203	Antenna requirement	See note 1	Pass

Note 1: N/A=Not Applicable.

Note 2: The EUT uses pcb Antenna, which gain is 1.2dBi. In accordance to §15.203, 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: 2AGK7A13GB331 complies with Section 15.207, 15.209, 15.247 of the FCC Part 15, Subpart C.

This report is for the Bluetooth 3.0 part.

### 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: May 10, 2016

Testing Start Date: May 10, 2016

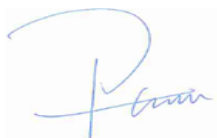
Testing End Date: May 16, 2016

TÜV SÜD Certification and Testing (China) Co., Ltd. Shenzhen Branch

Reviewed by:

Prepared by:

Tested by:



Phoebe Hu  
EMC Project Manager



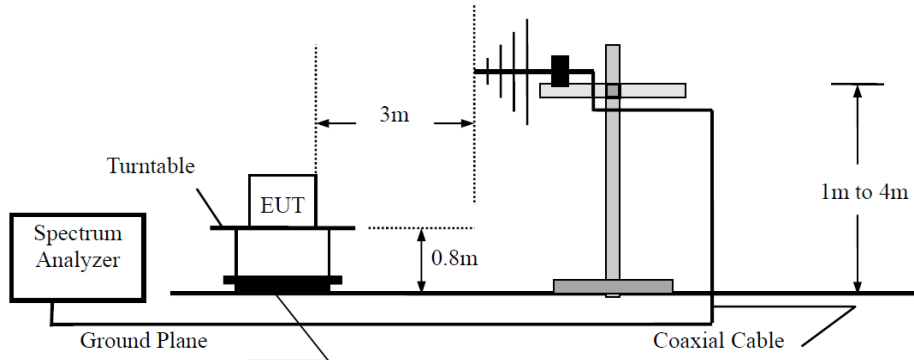
Aaron Lai  
EMC Project Engineer



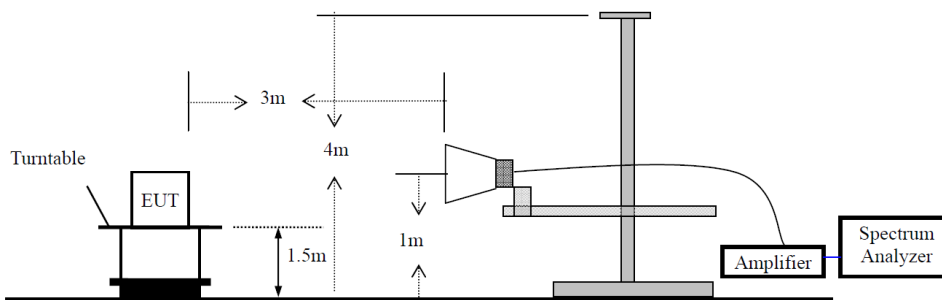
Leon Zhang  
EMC Test Engineer

## 7 Test Setups

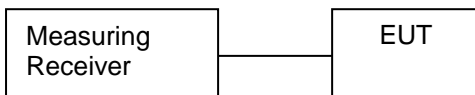
### Below 1GHz



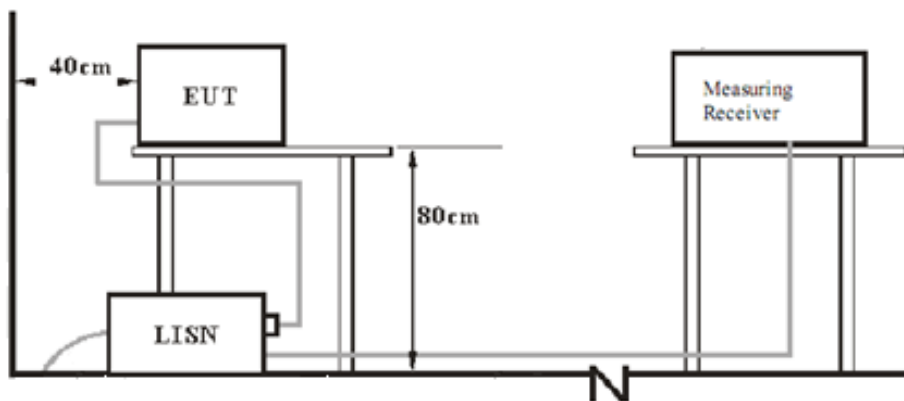
### Above 1GHz



### 7.2 Conducted RF test setups



### 7.3 AC Power Line Conducted Emission test setups





## 8 Systems test configuration

Auxiliary Equipment Used during Test:

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

Test software: RF control, 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

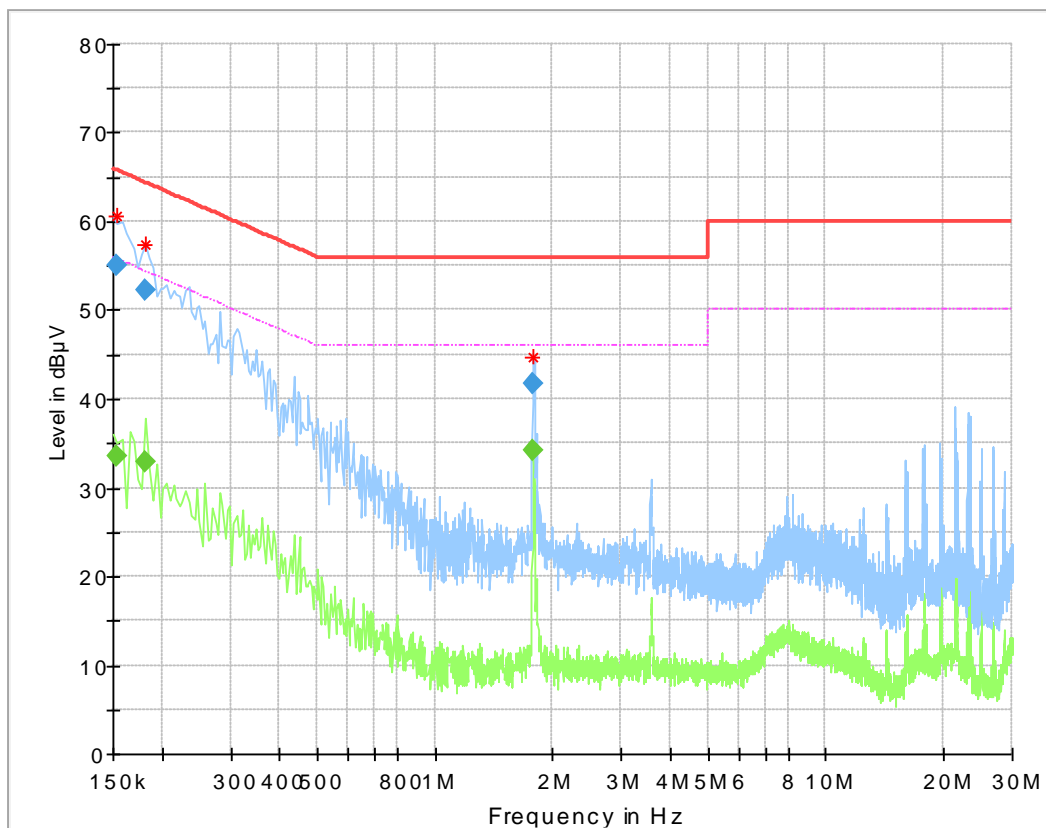
1. The EUT was placed on a table, which is 0.8m above ground plane
2. The power line of the EUT is connected to the AC mains through a Artificial Mains Network (A.M.N.).
3. Maximum procedure was performed to ensure EUT compliance
4. A EMI test receiver is used to test the emissions from both sides of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

#### Limit

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

## Conducted Emission

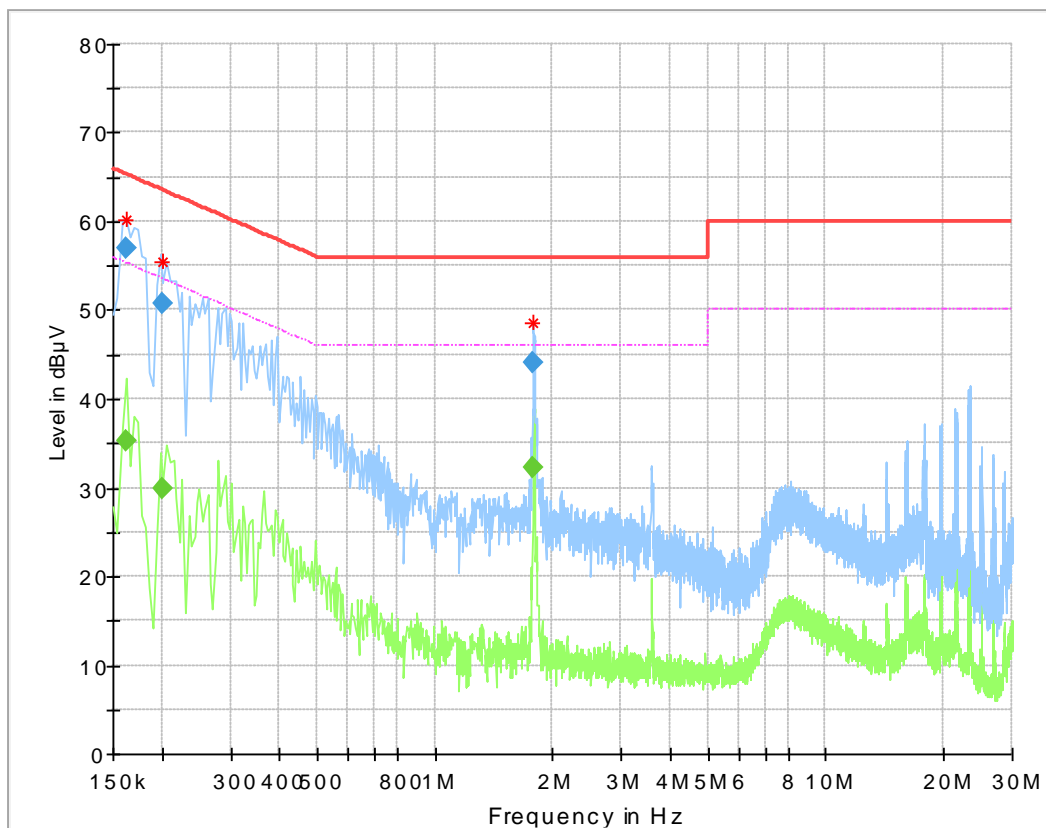
Product Type : FOUNTAIN DIFFUSER  
 M/N : GB-331  
 Operating Condition : TX  
 Test Specification : Live  
 Comment : AC 120V/60Hz



Frequency (MHz)	QuasiPeak (dBμV)	Average (dBμV)	Limit (dBμV)	Margin (dB)	Line
0.154000	---	33.48	55.78	22.30	L1
0.154000	55.13	---	65.78	10.65	L1
0.181500	---	32.96	54.42	21.46	L1
0.181500	52.24	---	64.42	12.18	L1
1.790500	---	34.13	46.00	11.87	L1
1.790500	41.72	---	56.00	14.28	L1

## Conducted Emission

Product Type : FOUNTAIN DIFFUSER  
 M/N : GB-331  
 Operating Condition : TX  
 Test Specification : Neutral  
 Comment : AC 120V/60Hz



Frequency (MHz)	QuasiPeak (dBμV)	Average (dBμV)	Limit (dBμV)	Margin (dB)	Line
0.161500	---	35.31	55.39	20.08	N
0.161500	56.94	---	65.39	8.45	N
0.201500	---	29.79	53.55	23.76	N
0.201500	50.86	---	63.55	12.69	N
1.781500	---	32.31	46.00	13.69	N
1.781500	44.12	---	56.00	11.88	N

## 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

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

## Conducted peak output power

### BT 3.0 Bluetooth Mode GFSK modulation Test Result

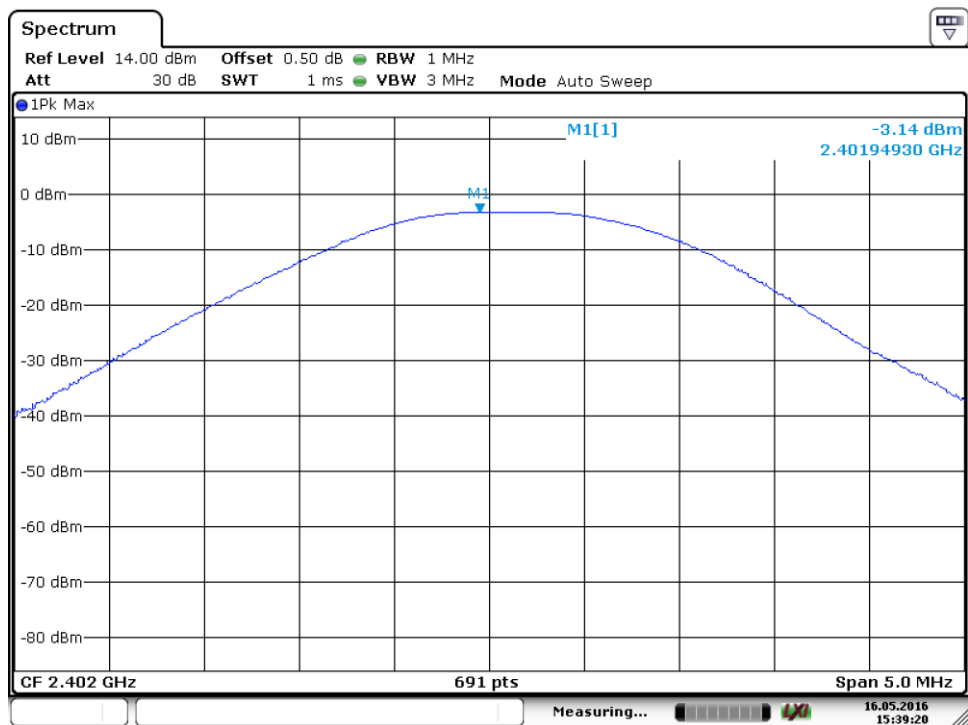
Frequency MHz	Conducted Peak Output Power dBm	Result
Low channel 2402MHz	-3.14	Pass
Middle channel 2441MHz	-3.69	Pass
High channel 2480MHz	-3.68	Pass

### BT3.0 Bluetooth Mode $\pi/4$ -DQPSK modulation Test Result

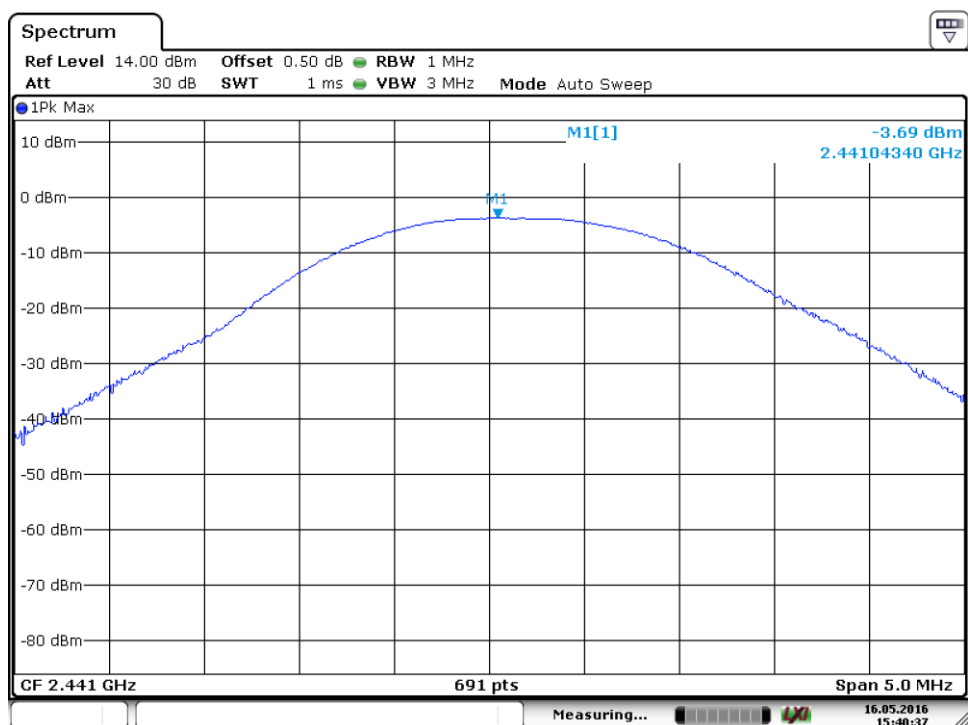
Frequency MHz	Conducted Peak Output Power dBm	Result
Low channel 2402MHz	-4.58	Pass
Middle channel 2441MHz	-5.20	Pass
High channel 2480MHz	-5.26	Pass

### BT3.0 Bluetooth Mode 8DPSK modulation Test Result

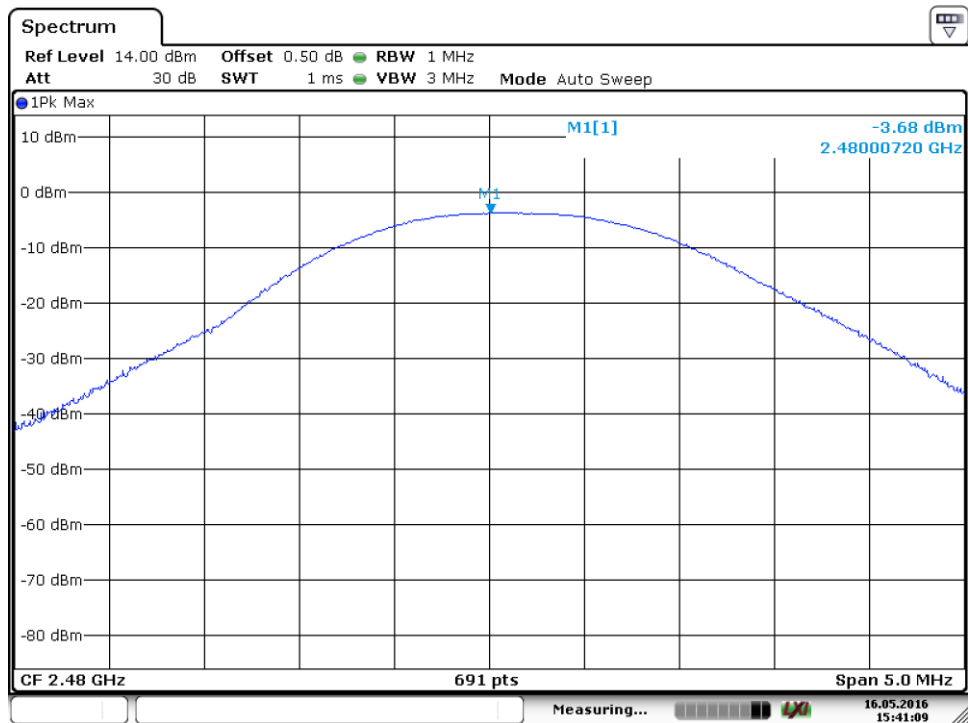
Frequency MHz	Conducted Peak Output Power dBm	Result
Low channel 2402MHz	-4.83	Pass
Middle channel 2441MHz	-5.60	Pass
High channel 2480MHz	-5.58	Pass

**Conducted peak output power**

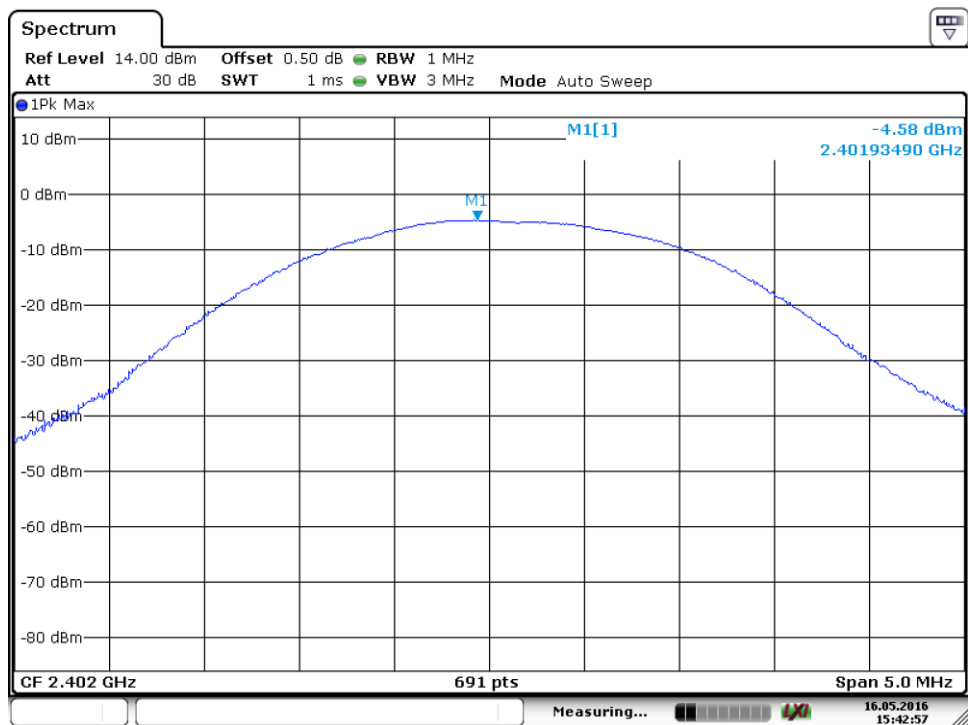
GFSK modulation Low channel 2402MHz



GFSK modulation Low channel 2441MHz

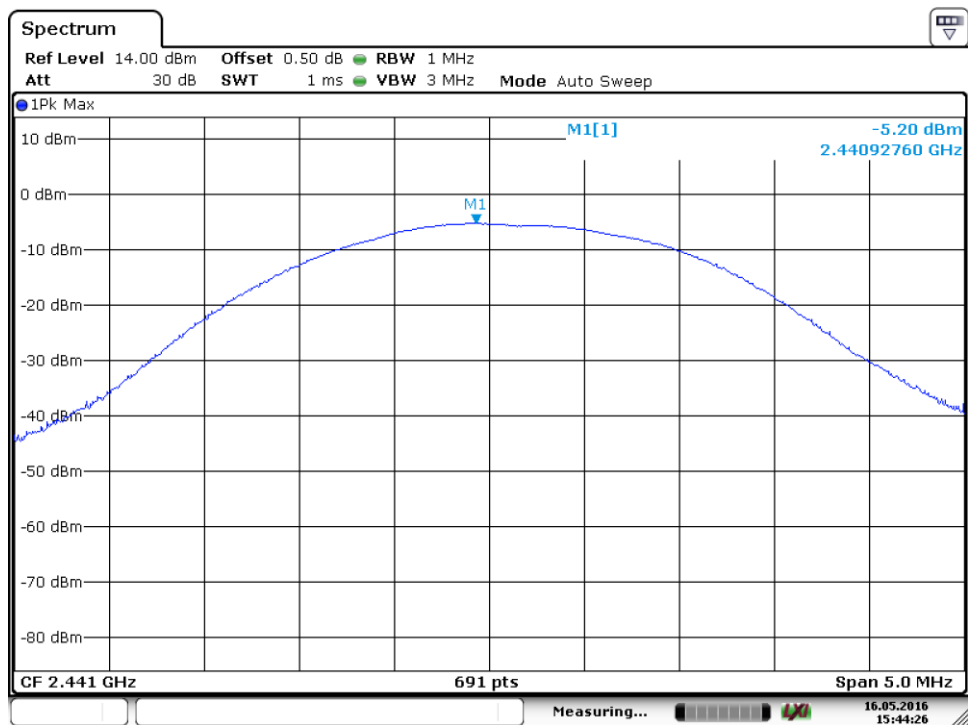
**Conducted peak output power**

GFSK modulation Low channel 2480MHz

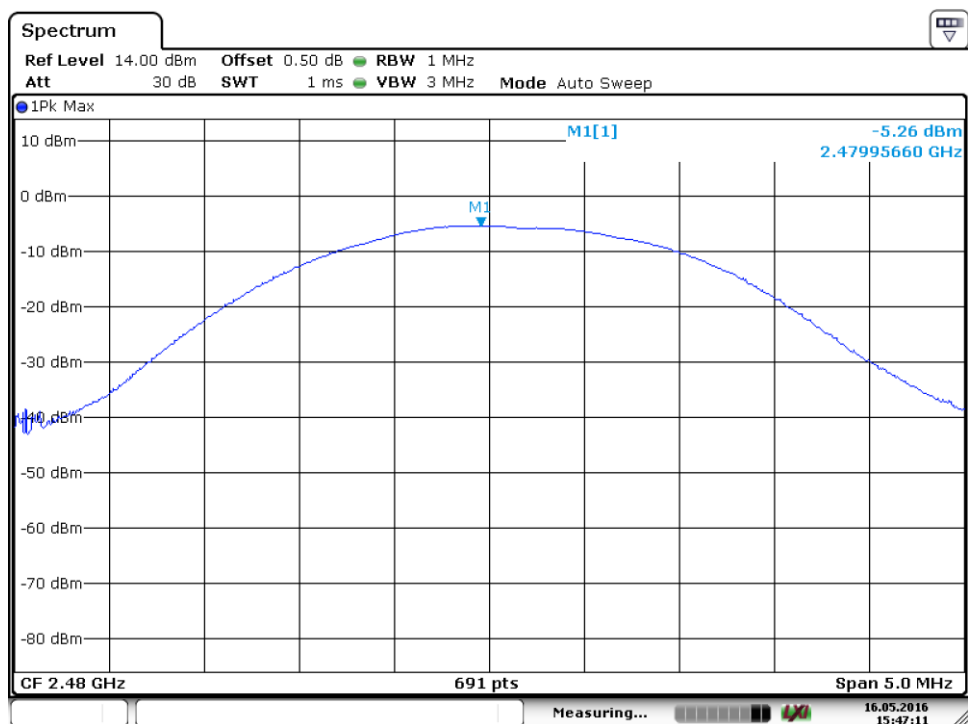
 $\pi/4$ -DQPSK modulation Low channel 2402MHz



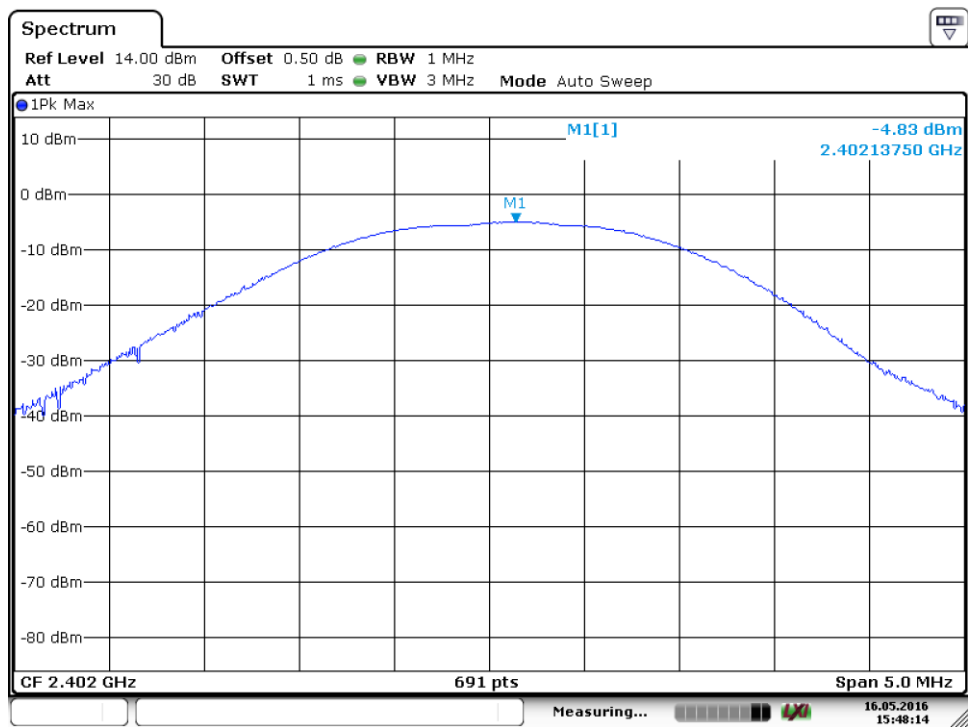
## Conducted peak output power



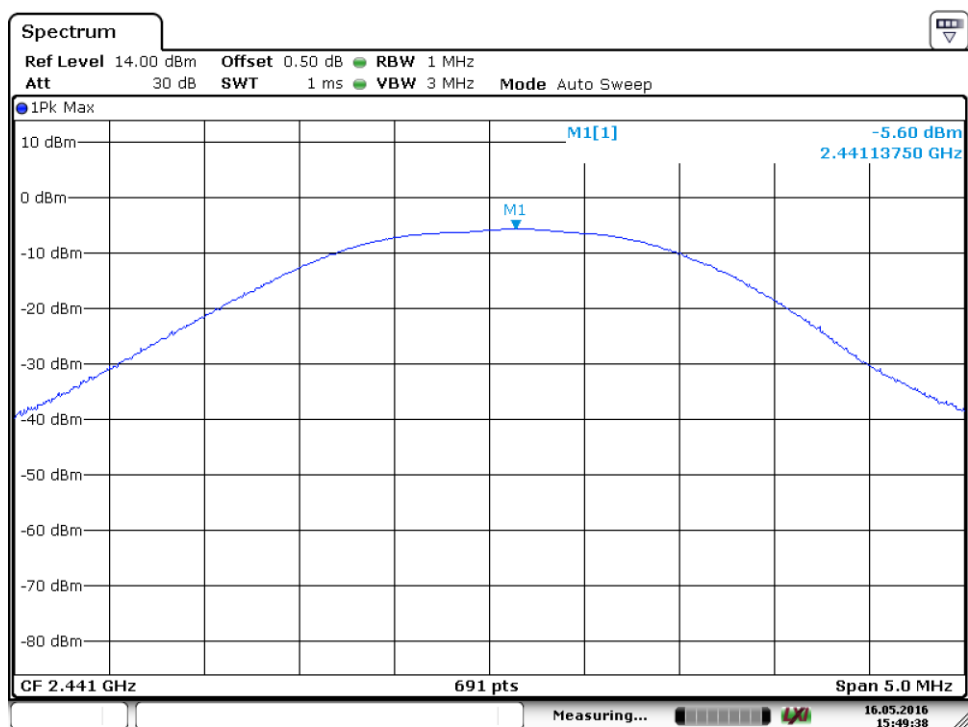
$\pi/4$ -DQPSK modulation Low channel 2441MHz



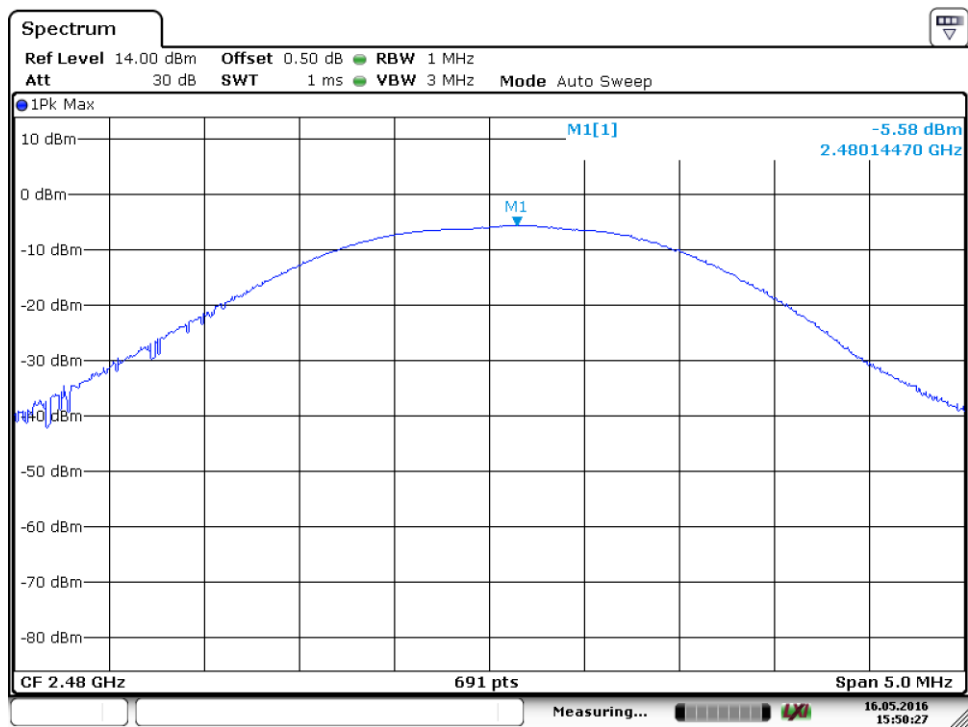
$\pi/4$ -DQPSK modulation Low channel 2480MHz

**Conducted peak output power**

8DPSK modulation Low channel 2402MHz



8DPSK modulation Low channel 2441MHz

**Conducted peak output power**

8DPSK modulation Low channel 2480MHz

### 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]

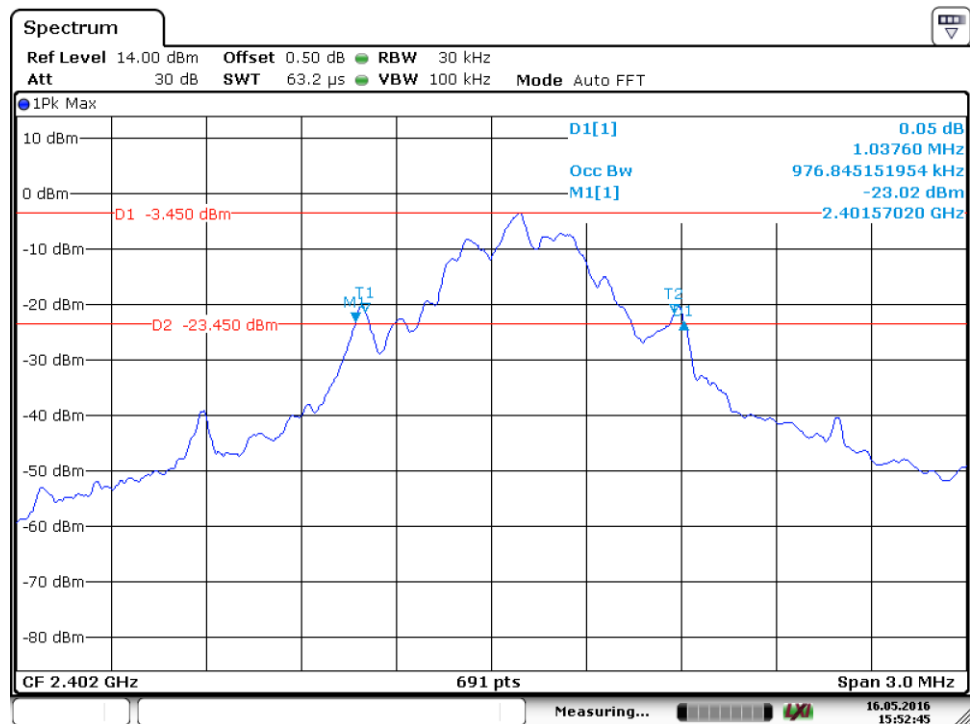
---

N/A

## 20 dB bandwidth and 99% Occupied Bandwidth

### Bluetooth Mode GFSK Modulation test result

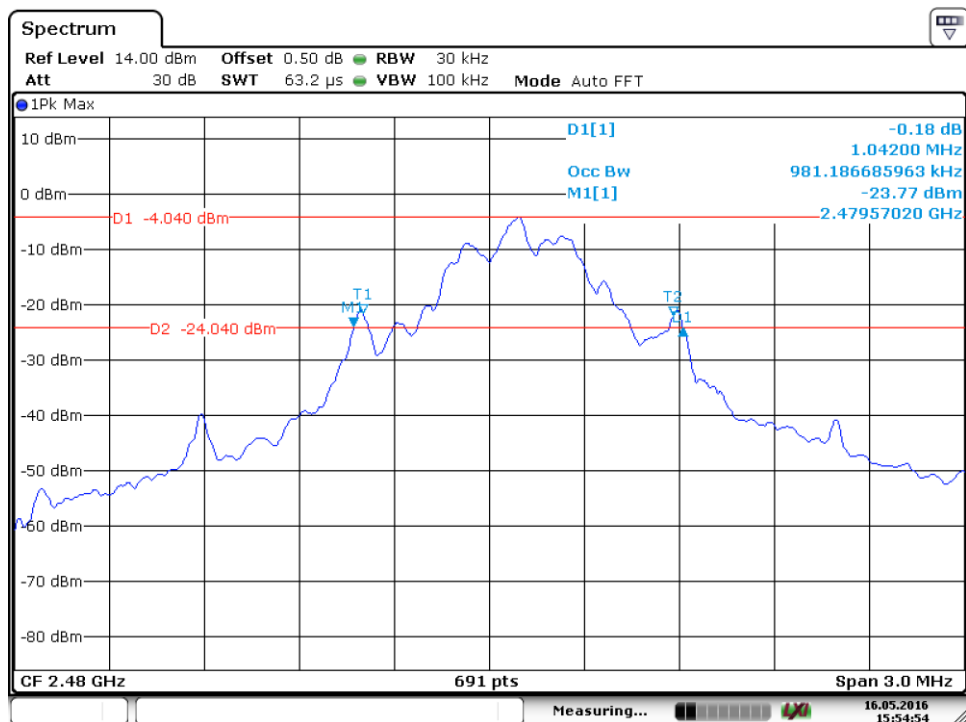
Frequency MHz	20 dB Bandwidth kHz	99% Bandwidth kHz	Limit kHz	Result
2402	1037.60	976.84	--	Pass
2441	1042.00	981.18	--	Pass
2480	1042.00	981.18	--	Pass



2402MHz



2441MHz

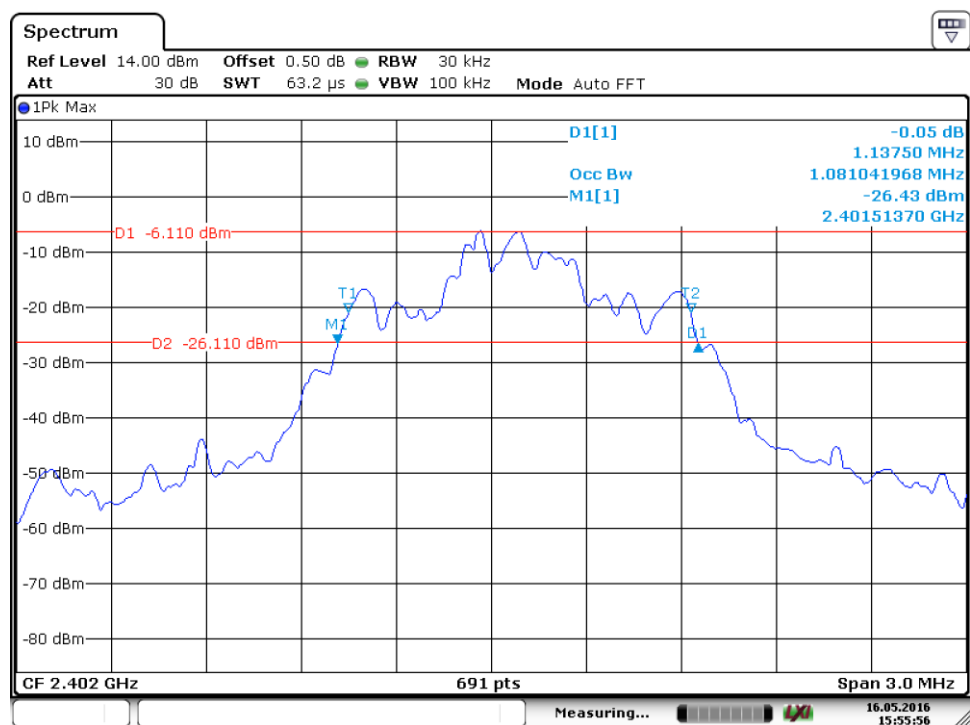


2480MHz

## 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	1137.50	1081.04	--	Pass
2441	1128.80	1076.70	--	Pass
2480	1137.50	1085.38	--	Pass



2402MHz



2441MHz



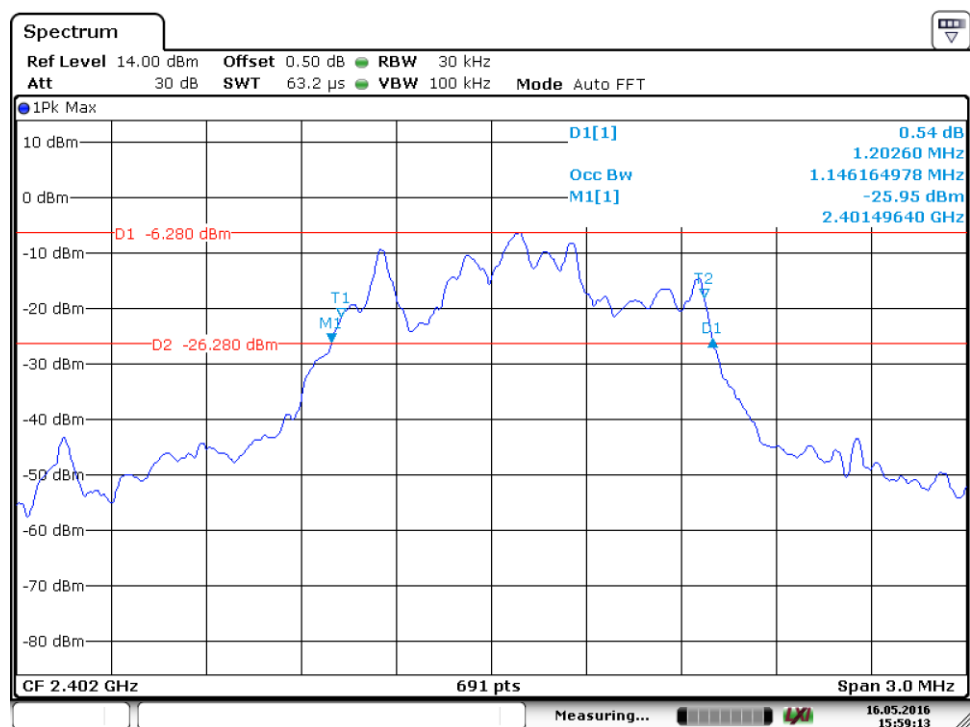
2480MHz



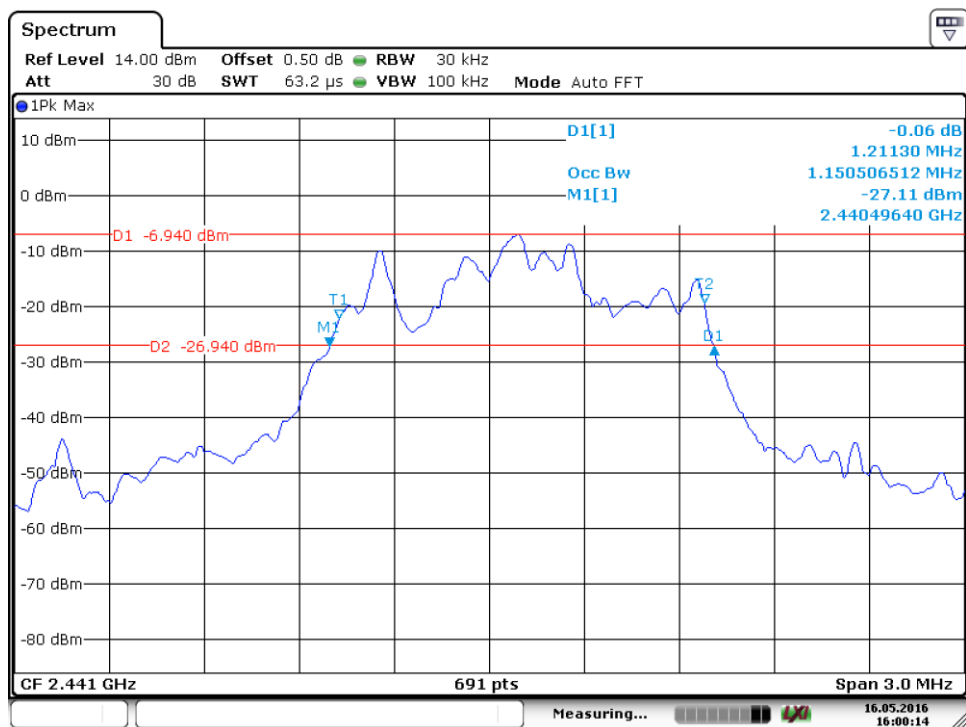
## 20 dB bandwidth and 99% Occupied Bandwidth

### Bluetooth Mode 8DPSK Modulation test result

Frequency MHz	20 dB Bandwidth kHz	99% Bandwidth kHz	Limit kHz	Result
2402	1202.60	1146.16	--	Pass
2441	1211.30	1150.50	--	Pass
2480	1206.90	1150.50	--	Pass



2402MHz



2441MHz



2480MHz

## 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

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

### GFSK Modulation Limit

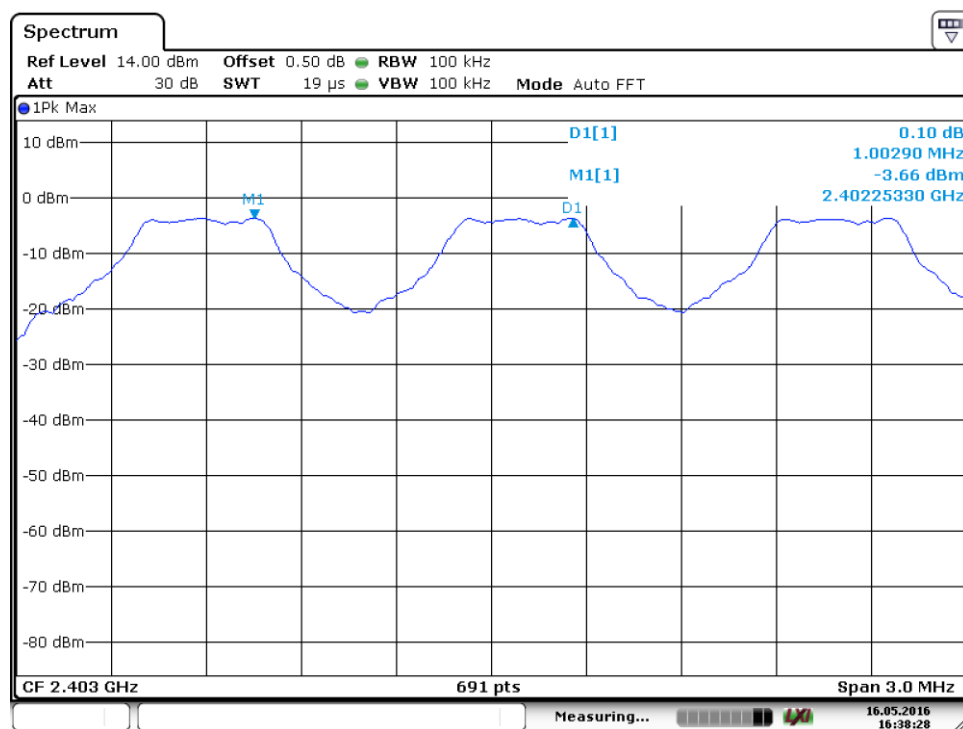
Frequency MHz	2/3 of 20 dB Bandwidth kHz
2402	691.73
2441	694.66
2480	694.66

## Carrier Frequency Separation

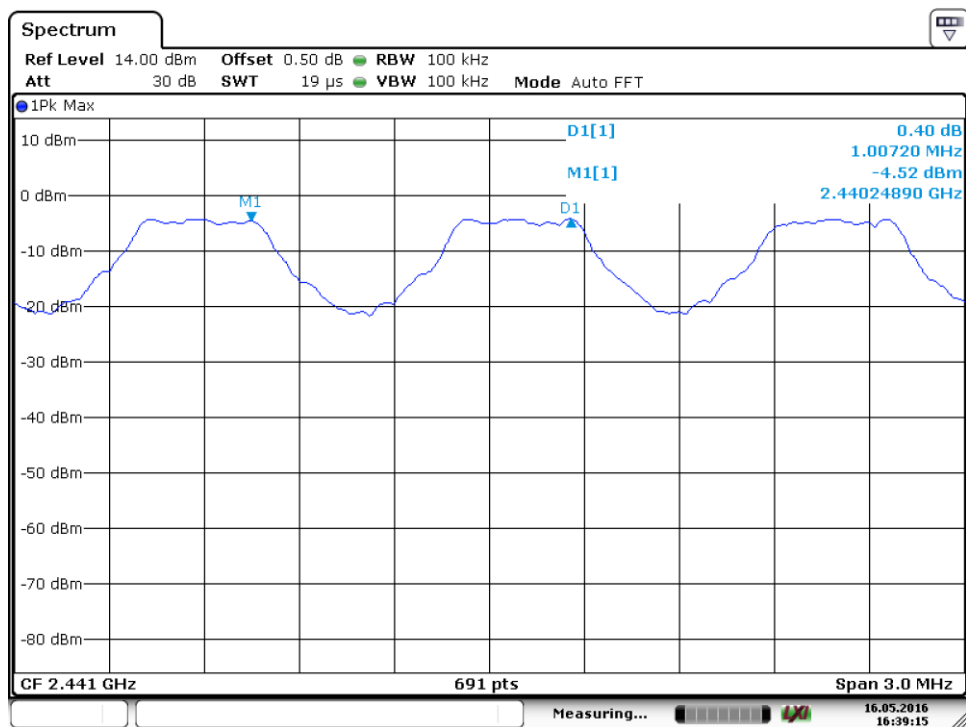
Test result: The measurement was performed with the typical configuration (normal hopping status), here GFSK modulation mode was used to show compliance.

### GFSK Modulation test result

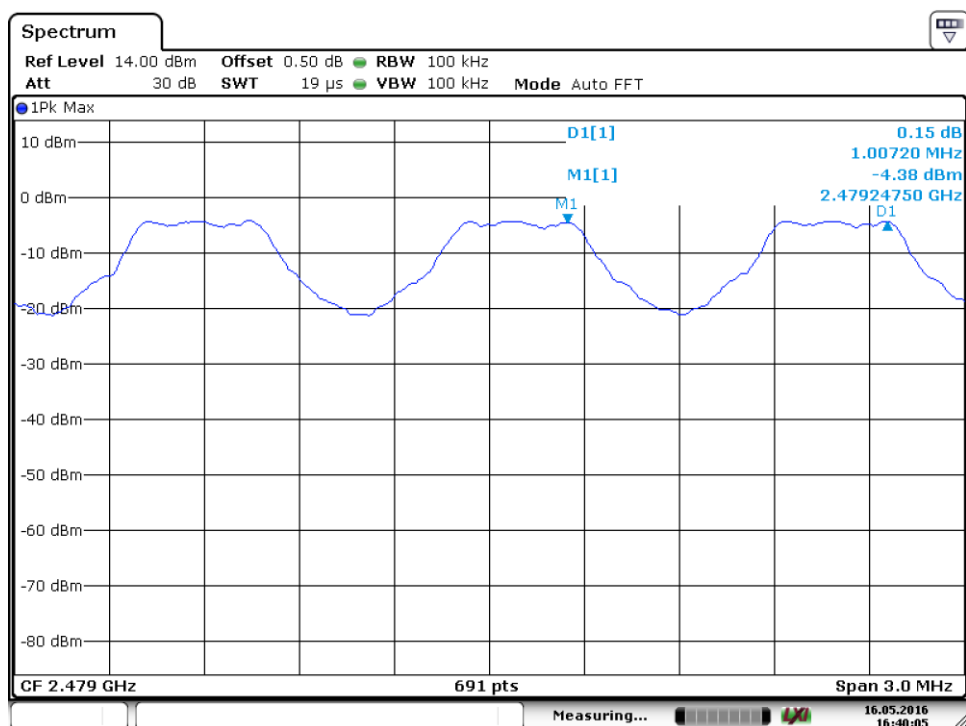
Frequency MHz	Carrier Frequency Separation kHz	Result
2402	1002.90	Pass
2441	1007.20	Pass
2480	1007.20	Pass



2402MHz



2441MHz



2480MHz

## 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**

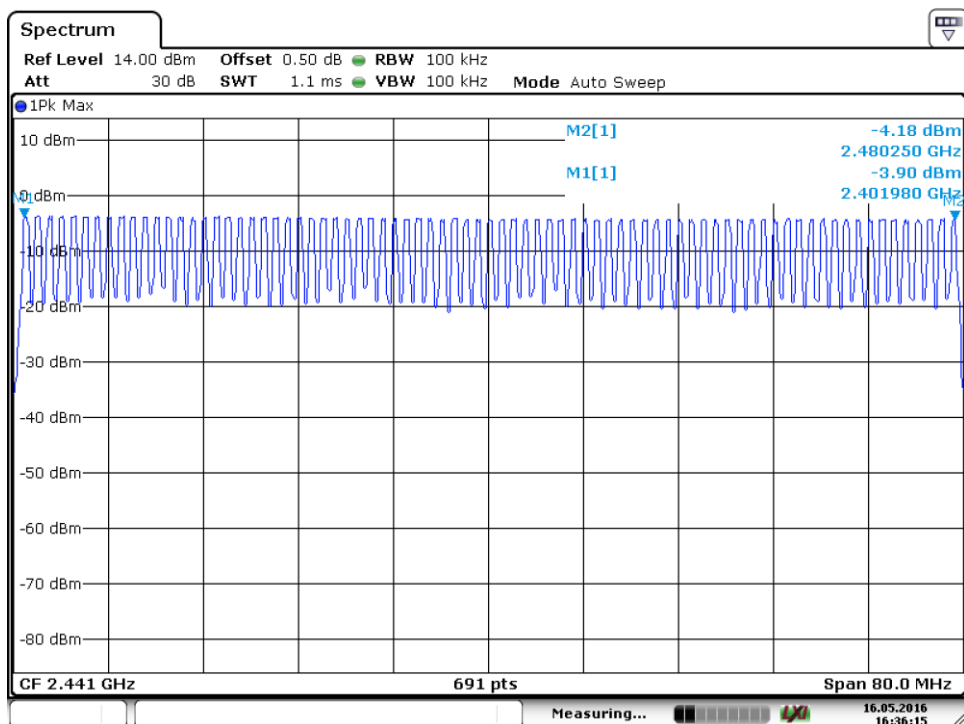
---

$\geq 15$

## 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



## 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

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];

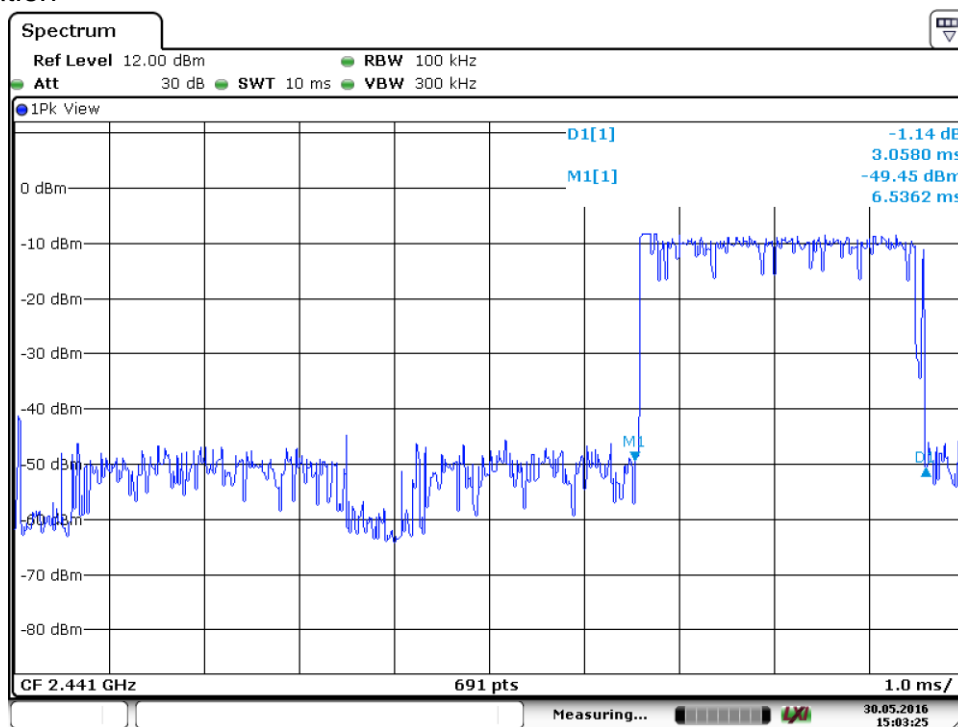
The burst width, which is directly measured, refers to the duration on one channel hop.

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

### Test Result

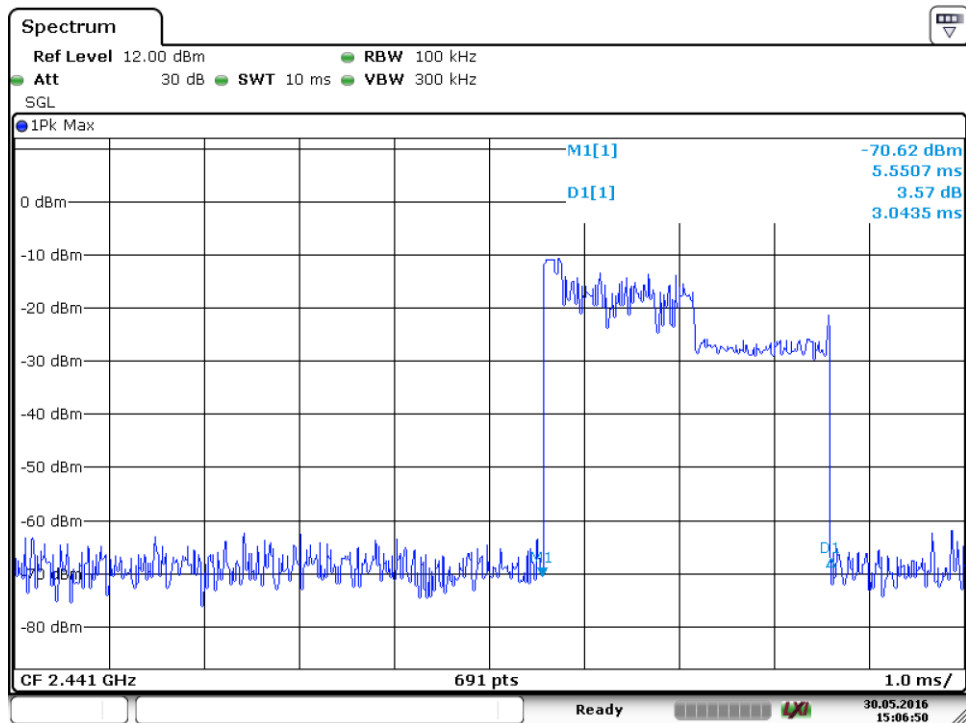
Modulation	Mode	Reading (ms)	Total Hops	Test Result (ms)	Limit (ms)	Result
GFSK	DH5	3.0580	106.67	326.19686	< 400	Pass
$\pi/4$ -DQPSK	2DH5	3.0435	106.67	324.65015	< 400	Pass
8-DPSK	3DH5	3.0725	106.67	327.74357	< 400	Pass

### GFSK Modulation



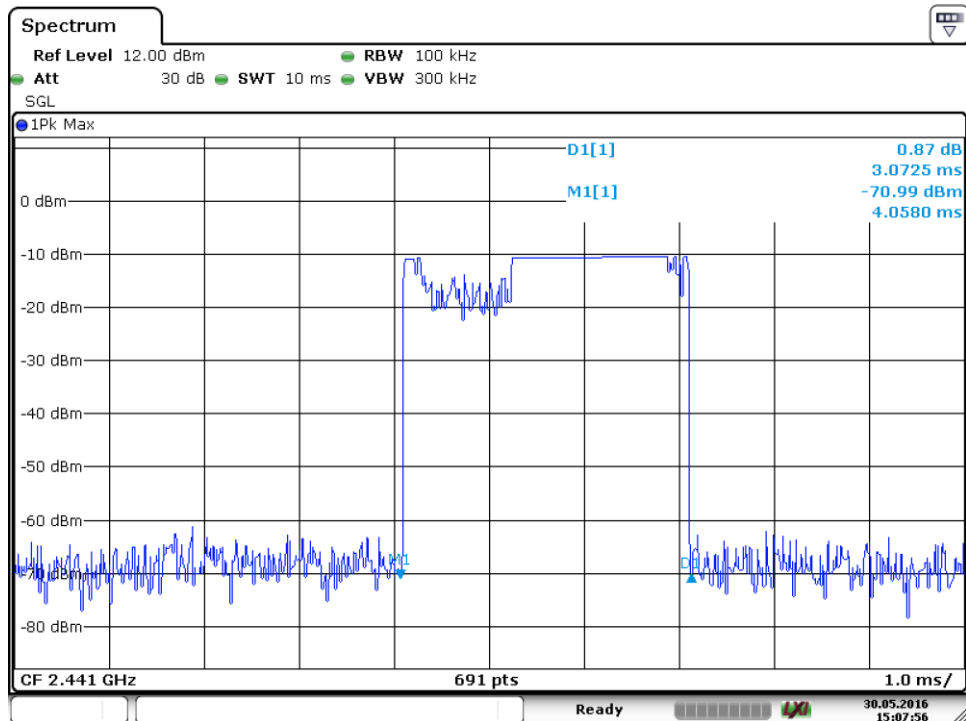
DH5

## $\pi/4$ -DQPSK Modulation



2DH5

## 8-DPSK Modulation



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.

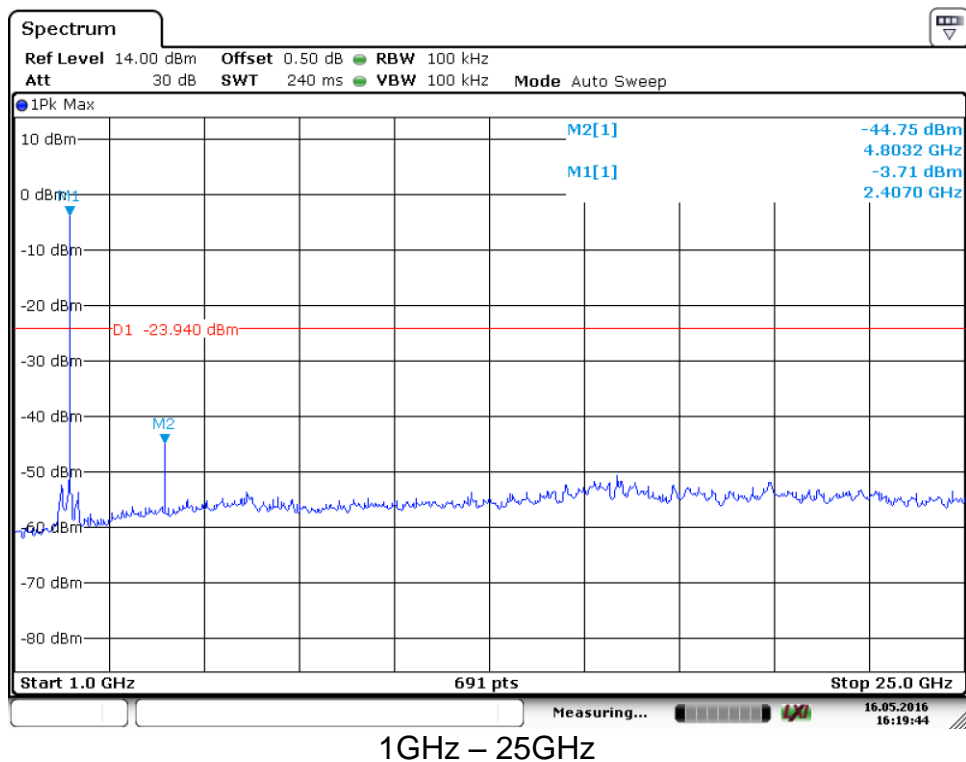
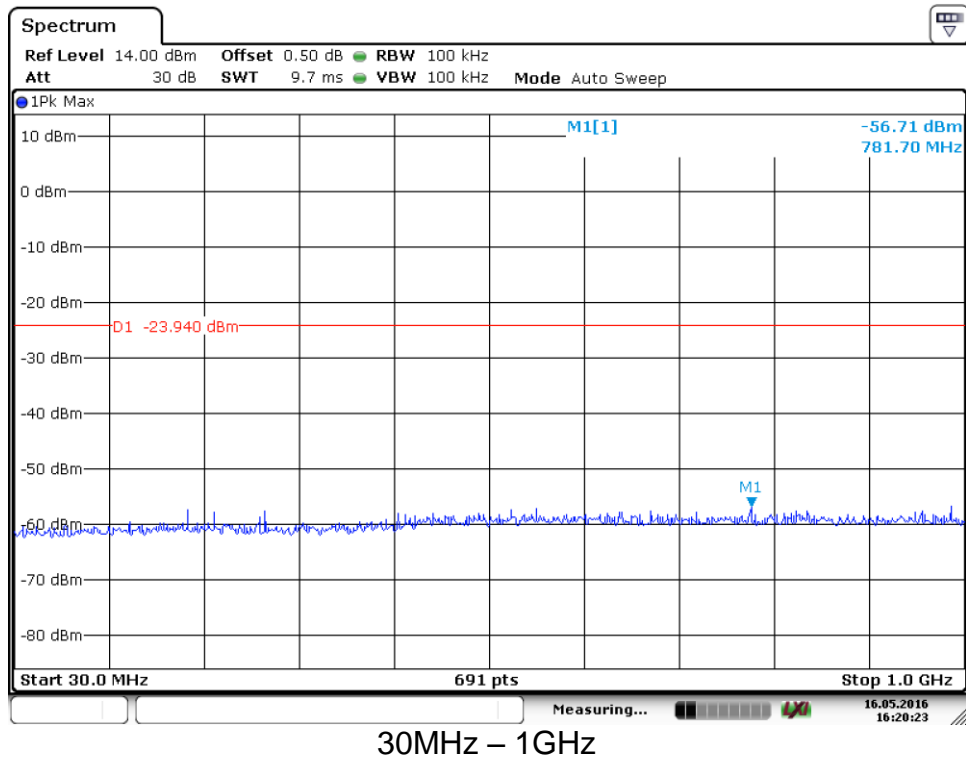
### Limit

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

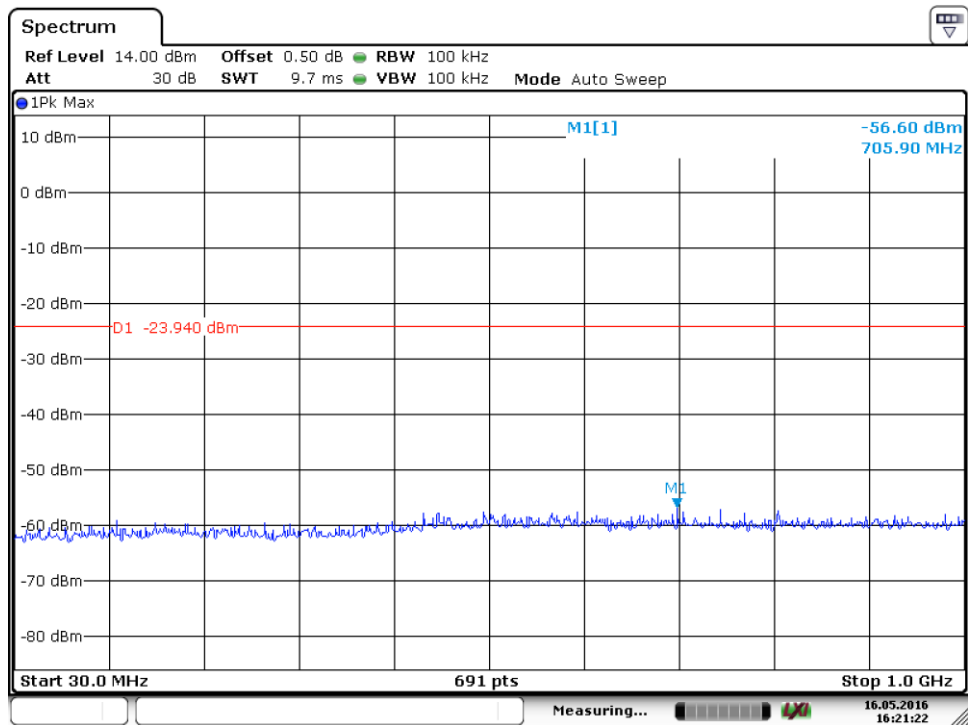
Remark: Only the worse case (which is subject to the maximum EIRP, GFSK mode) test result is listed in the report.

## Spurious RF conducted emissions

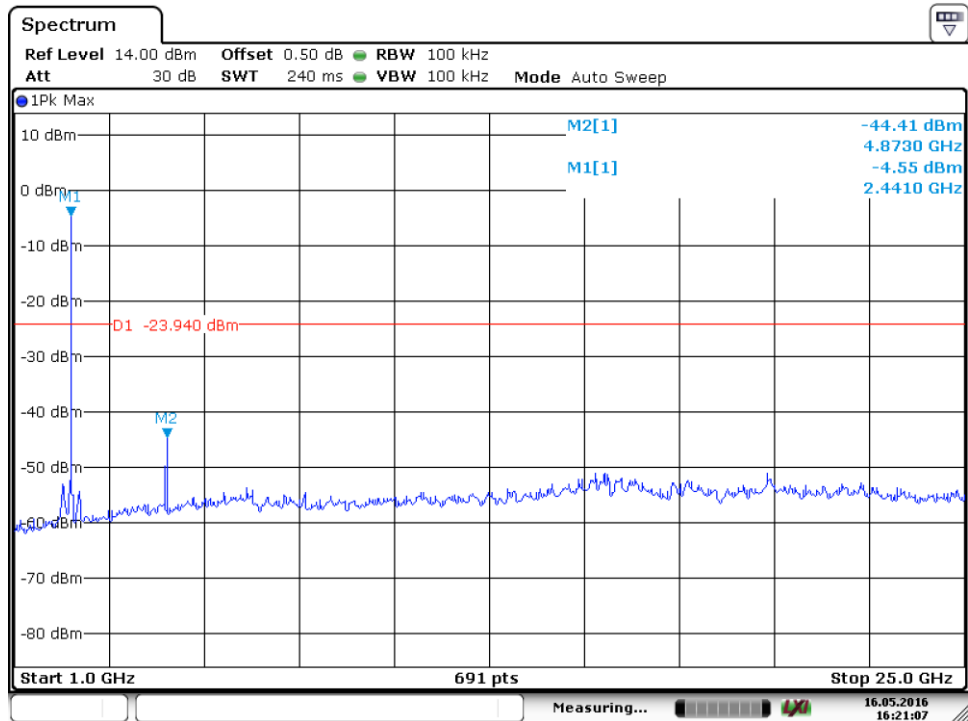
GFSK Modulation:  
2402MHz



2441MHz

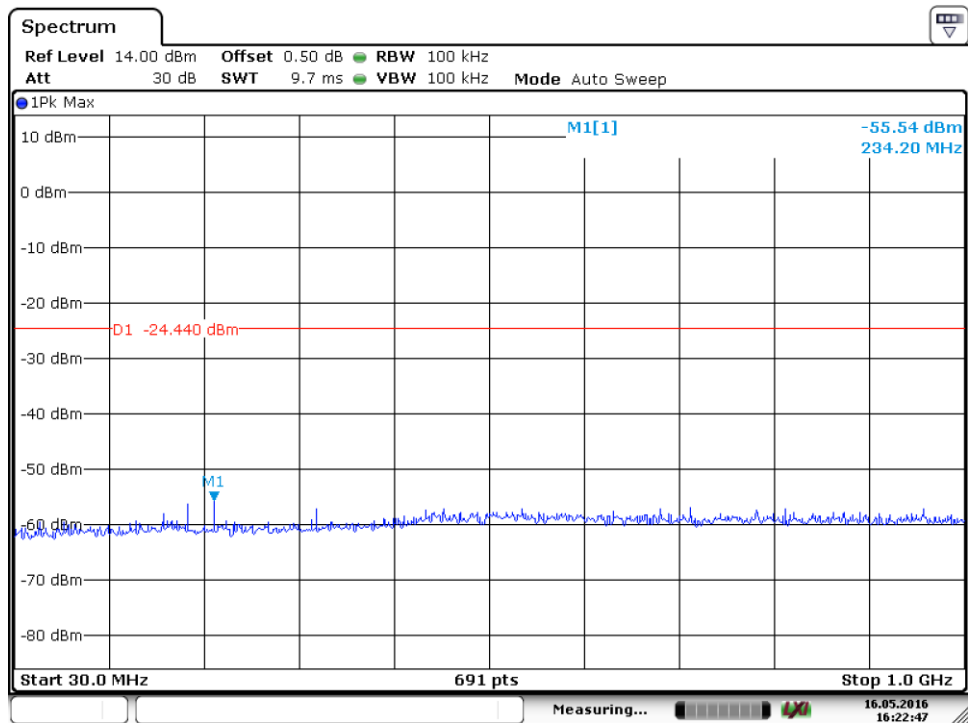


30MHz – 1GHz

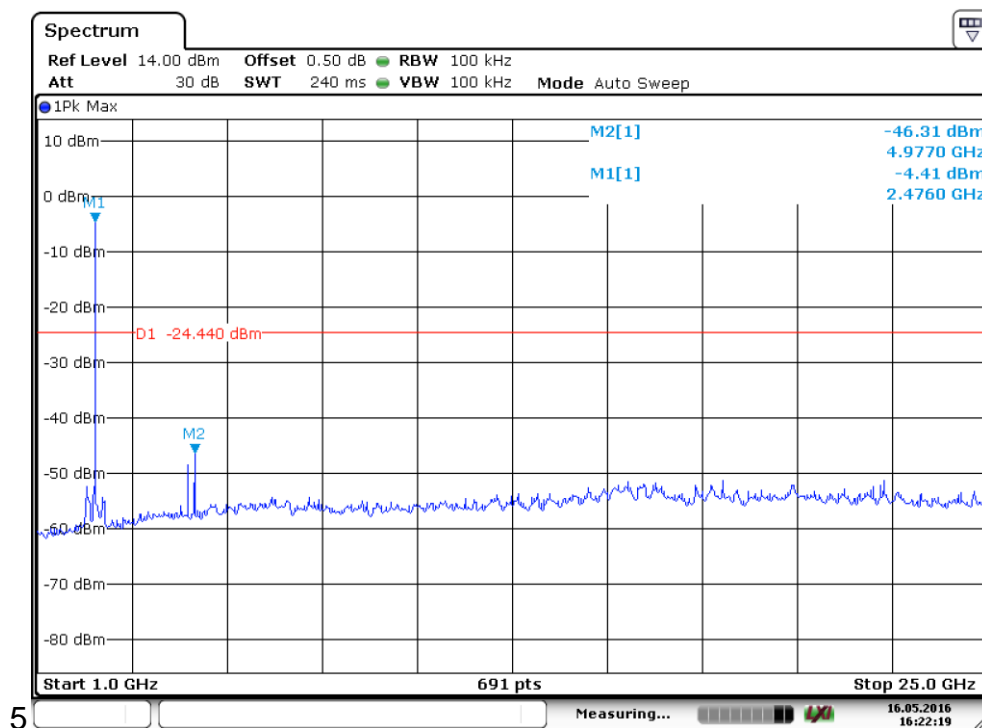


1GHz – 25GHz

2480MHz



30MHz – 1GHz



5

1GHz – 25GHz

## 9.8 Band edge testing

### Test Method

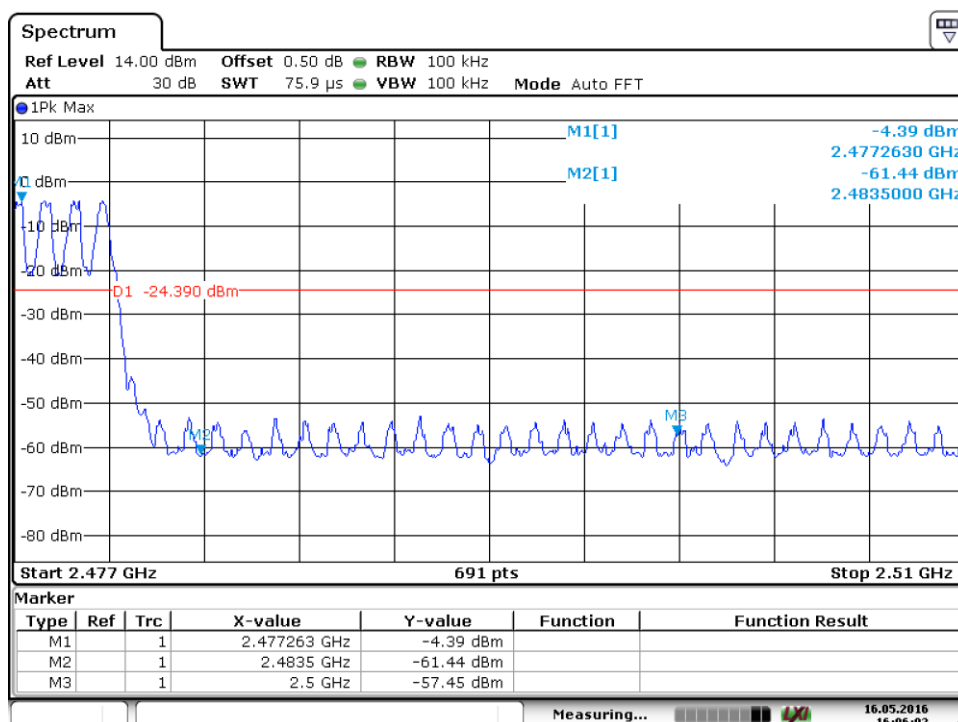
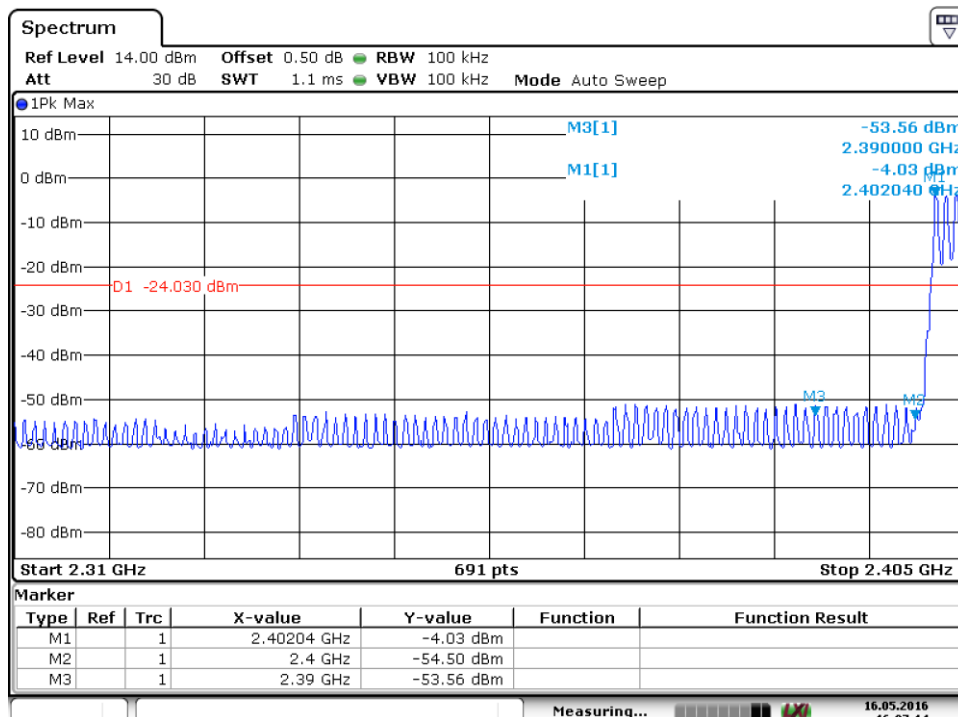
- 1 Use the following spectrum analyzer settings:  
Span = wide enough to capture the peak level of the in-band emission and all spurious  
RBW = 100 kHz, VBW  $\geq$  RBW, Sweep = auto, Detector function = peak, Trace = max hold
- 2 Allow the trace to stabilize, use the peak and delta measurement to 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:

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated device is operating, the RF power that is produced 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 that the transmitter demonstrates compliance with the peak conducted power limits.

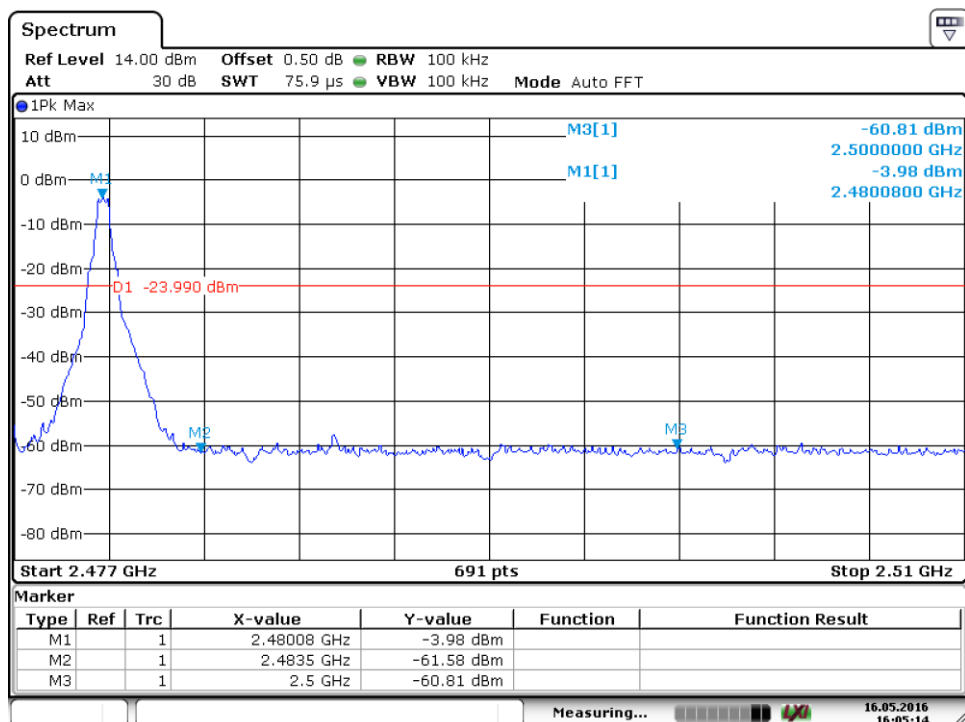
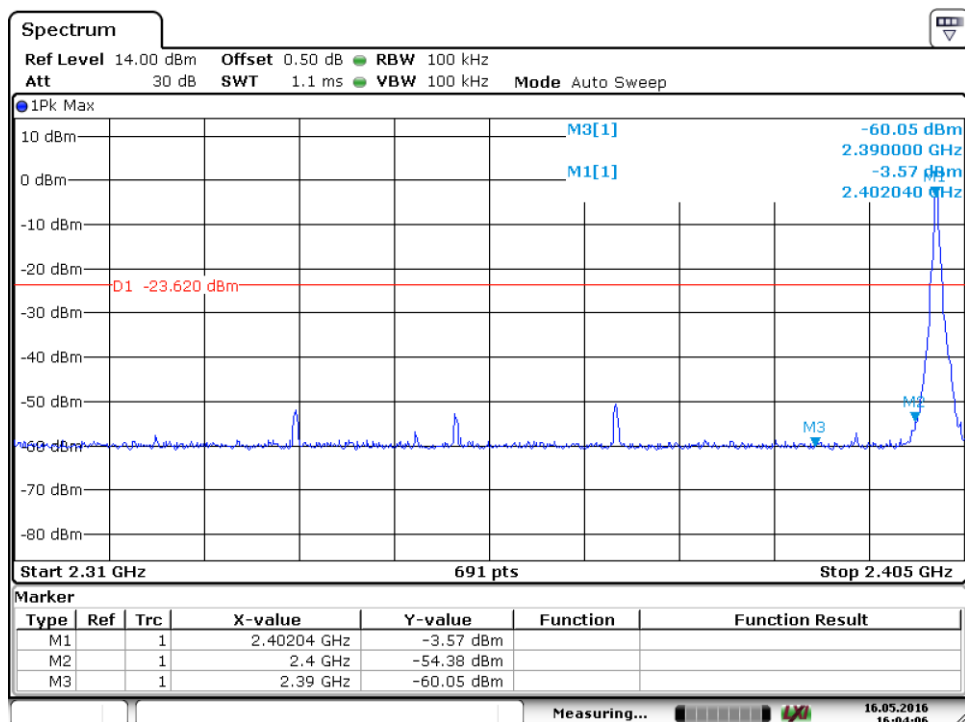
## Band edge testing

GFSK Modulation Test Result:  
Hopping on mode:





## Hopping off mode:



## 9.9 Spurious radiated emissions for transmitter

### Test Method

- 1: The EUT was placed on a turn table which is 1.5m above ground plane for above 1GHz and 0.8m above ground for below 1GHz at 3 meter chamber room for test. The table was rotated 360 degrees to determine the position of the highest radiation.
- 2: The EUT was set 3 meters away from the interference – receiving antenna, which was mounted on the top of a variable – height antenna tower.
- 3: The height of antenna is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- 4: For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- 5: Use the following spectrum analyzer settings According to C63.10:

#### For Above 1GHz

Span = wide enough to capture the peak level of the in-band emission and all spurious  
RBW = 1MHz, VBW  $\geq$  RBW for peak measurement and VBW = 10Hz for average measurement, Sweep = auto, Detector function = peak, Trace = max hold.

#### For Below 1GHz

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 for peak measurement, Sweep = auto, Detector function = peak, Trace = max hold.

### Note:

- 1: The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120 KHz for Quasi-peak detection (QP) at frequency below 1GHz.
- 2: The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and the video bandwidth is 3MHz for peak detection (PK) at frequency above 1GHz.
- 3: The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and the video bandwidth is 3MHz for RMS Average ((duty cycle < 98%) for Average detection (AV) at frequency above 1GHz, then the measurement results was added to a correction factor ( $20\log(1/\text{duty cycle})$ ).
- 4: The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and the video bandwidth is 10Hz (duty cycle > 98%) for Average detection (AV) at frequency above 1GHz.

## Limit

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 dBμV/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

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:

#### GFSK Modulation 2402MHz Test Result

Frequency Band	Frequency MHz	Emission Level dBuV/m	Polarization	Limit dBuV/m	Detector	Margin dBuV/m	Result
30-1000MHz	264.03 *	40.44	H	46	QP	5.56	Pass
	264.03 *	32.29	V	46	QP	13.71	Pass
1000-25000MHz	4804.00 *	45.16	H	74	PK	28.84	Pass
	4800.00 *	37.77	V	74	PK	36.23	Pass

#### GFSK Modulation 2441MHz Test Result

Frequency Band	Frequency MHz	Emission Level dBuV/m	Polarization	Limit dBuV/m	Detector	Margin dBuV/m	Result
30-1000MHz	264.03 *	40.50	H	46	QP	5.50	Pass
	264.03 *	35.30	V	46	QP	10.70	Pass
1000-25000MHz	4882.00 *	43.68	H	74	PK	30.32	Pass
	4800.00 *	37.91	V	74	PK	36.09	Pass

#### GFSK Modulation 2480MHz Test Result

Frequency Band	Frequency MHz	Emission Level dBuV/m	Polarization	Limit dBuV/m	Detector	Margin dBuV/m	Result
30-1000MHz	264.03 *	40.10	H	46	QP	5.90	Pass
	264.03 *	33.00	V	46	QP	13.00	Pass
1000-25000MHz	4800.00 *	42.88	H	74	PK	31.12	Pass
	4960.00 *	42.79	V	74	PK	31.21	Pass

#### Remark:

- (1) 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.
- (2) “\*” 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
C	Signal Generator	Rohde & Schwarz	SMB100A	108272	2016-7-24
	Signal Analyzer	Rohde & Schwarz	FSV40	101030	2016-7-24
	Vector Signal Generator	Rohde & Schwarz	SMU 200A	105324	2016-7-24
	RF Switch Module	Rohde & Schwarz	OSP120/OS P-B157	101226/100851	2016-7-24
RE	EMI Test Receiver	Rohde & Schwarz	ESR 26	101269	2016-7-24
	Trilog Super Broadband Test Antenna	Schwarzbeck	VULB 9163	707	2016-8-14
	Horn Antenna	Rohde & Schwarz	HF907	102294	2016-7-24
	Pre-amplifier	Rohde & Schwarz	SCU 18	102230	2016-7-24
	3m Semi-anechoic chamber	TDK	9X6X6	----	2019-5-29

### 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	
Test Items	Extended Uncertainty
Uncertainty for Radiated Emission in 3m chamber 30MHz-1000MHz	Horizontal: 4.83dB; Vertical: 4.91dB;
Uncertainty for Radiated Emission in 3m chamber 1000MHz-18000MHz	Horizontal: 4.89dB; Vertical: 4.88dB;
Uncertainty for Conducted Emission 150KHz-30MHz	U=3.5dB(k=2)