

## FCC/IC - TEST REPORT

Report Number : **60.870.15.007.01F** Date of Issue: June 1, 2015

Model : MBP662CONNECTBU

Product Type : Digital Video Baby Monitor (Baby Unit)

Applicant : Binatone Electronics International Limited

Address : Floor 23A, 9 Des Voeux Road West, Sheung Wan

Production Facility : Alford Industrial Ltd.

Address : Unit 02, 6<sup>th</sup> Floor, Yen Sheng Centre, 64 Hoi Yuen Road, Kwun Tong, Kowloon, Hong Kong

Test Result :  **Positive**  **Negative**

Total pages including Appendices : 40

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

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

### 3 Description of the Equipment Under Test

Product:	Digital Video Baby Monitor (Baby Unit)
Model no.:	MBP662CONNECTBU
FCC ID:	VLJ-MBP662BU
IC:	4522A-MBP662BU
Options and accessories:	Adapter
Rating:	DC5V, 1000mA powered by AC/DC power adaptor
RF Transmission Frequency:	2402MHz – 2479MHz
No. of Operated Channel:	23
Modulation:	GFSK
Antenna Type:	Integral
Antenna Gain:	0 dBi
Description of the EUT:	The Equipment Under Test (EUT) is a Camera of Wireless Monitoring System, which include of a FHSS Module and a 802.11b/g/n module.

Channel list (MHz)				
CH 1 = 2402	CH 2 = 2404	CH 3 = 2406	CH 4 = 2408	CH 5 = 2410
CH 6 = 2415	CH 7 = 2420	CH 8 = 2425	CH 9 = 2430	CH 10 = 2435
CH 11 = 2440	CH 12 = 2445	CH 13 = 2450	CH 14 = 2455	CH 15 = 2460
CH 16 = 2465	CH 17 = 2467	CH 18 = 2469	CH 19 = 2471	CH 20 = 2473
CH 21 = 2475	CH 22 = 2477	CH 23 = 2479	---	---

## 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-247 Issue 1 May 2015	RSS-247 – Digital Transmission Systems (DTSs), Frequency Hopping systems (FHSs) and License-exempt Local Area Network (LE-LAN) Devices
RSS-102 Issue 5 March 2015	Radio Frequency (RF) Exposure Compliance of Radio communication Apparatus (All Frequency Bands)

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-247, RSS-102			Test Condition	Pages	Test Site	Test Result
§15.207	RSS-Gen Section 8.8	Conducted emission AC power port	10	Site 1	Pass	
§15.247(b)(1)	RSS-247 Section 5.4(2)	Conducted peak output power	13	Site 1	Pass	
§15.247(a)(2)	RSS-247 Section 5.2(1)	6dB bandwidth	---	---	N/A	
§15.247(a)(1)	RSS-247 Section 5.1(1)	20dB bandwidth	16	Site 1	Pass	
§15.247(a)(1)	RSS-247 Section 5.1(2)	Carrier frequency separation	19	Site 1	Pass	
§15.247(a)(1)(iii)	RSS-247 Section 5.1(4)	Number of hopping frequencies	22	Site 1	Pass	
§15.247(a)(1)(iii)	RSS-247 Section 5.1(4)	Dwell Time	24	Site 1	Pass	
§15.247(e)	RSS-247 Section 5.2(2)	Power spectral density*	---	---	N/A	
§15.247(d)	RSS-247 Section 5.5	Spurious RF conducted emissions	27	Site 1	Pass	
§15.247(d)	RSS-247 Section 5	Band edge	30	Site 1	Pass	
§15.247(d) & §15.209 &	RSS-247 Section 5.5 & RSS-Gen 6.13	Spurious radiated emissions for transmitter	32	Site 1	Pass	
---	RSS-102 Section 2.5.2	RF Exposure Evaluation	38	---	Pass	
§15.203	RSS-Gen 8.3	Antenna requirement	See note 1		Pass	

Note 1: N/A=Not Applicable.

Note 2: The EUT uses a patch antenna, which gain is 0 dBi. In accordance to §15.203 and RSS-Gen 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: VLJ-MBP662BU, IC: 4522A-MBP662BU complies with Section 15.207, 15.209, 15.247 of the FCC Part 15, Subpart C Rules and RSS-247.

### 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: April 28, 2015

Testing Start Date: April 29, 2015

Testing End Date: May 29, 2015

TÜV SÜD HONG KONG LTD.

Prepared by:

  
Ray Cheung  
Project Engineer

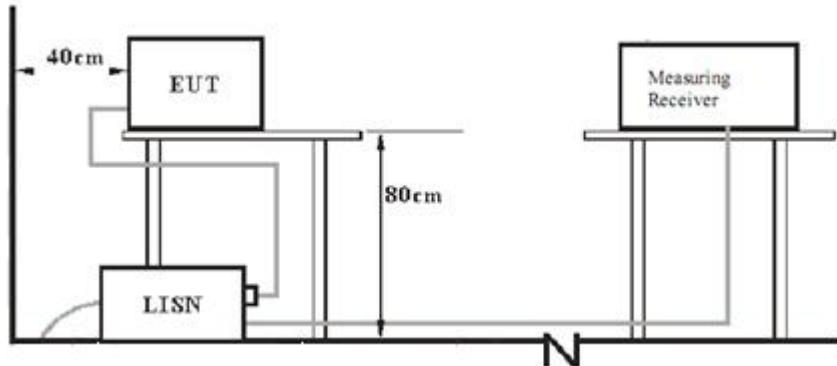
Reviewed by:

  
Nicolas Cheng  
Project Manager

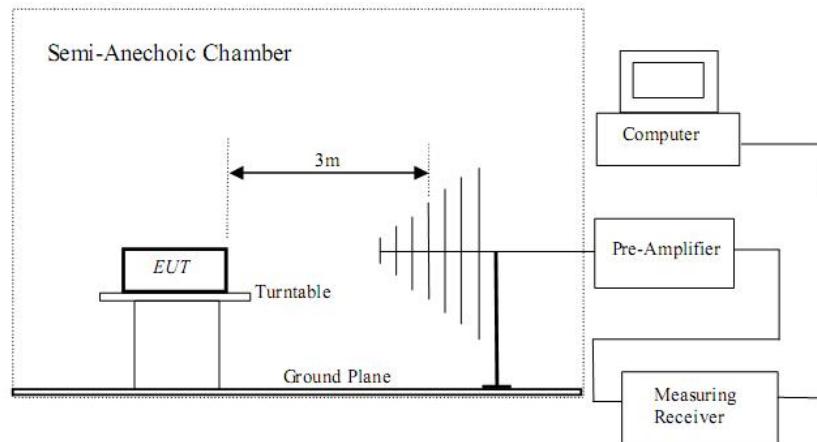


## 7 Test Setups

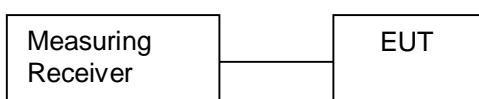
### 7.1 AC Power Line Conducted Emission test setups



### 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)
Digital Video Baby Monitor	Alford Industrial Ltd.	MBP662CONNECTBU	---

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

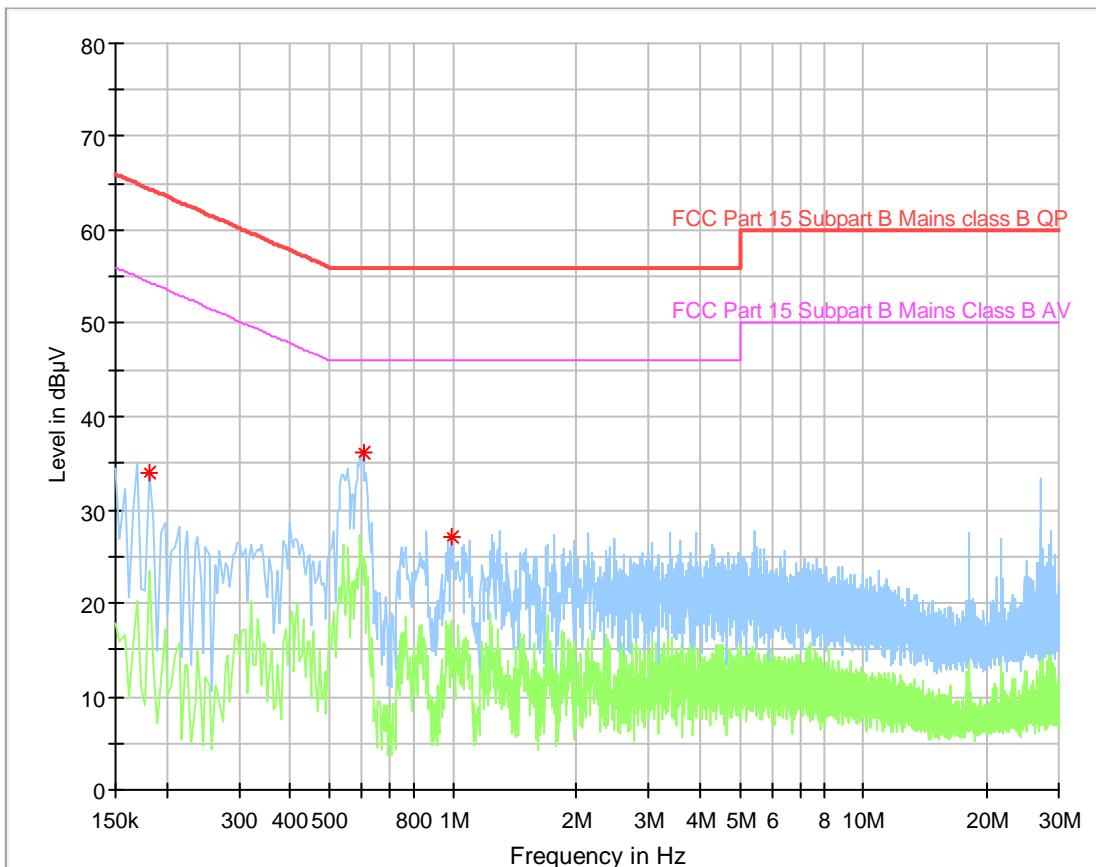
Frequency MHz	QP Limit dB $\mu$ V	AV Limit dB $\mu$ V
0.150-0.500	66-56*	56-46*
0.500-5	56	46
5-30	60	50

Decreasing linearly with logarithm of the frequency

## Conducted Emission

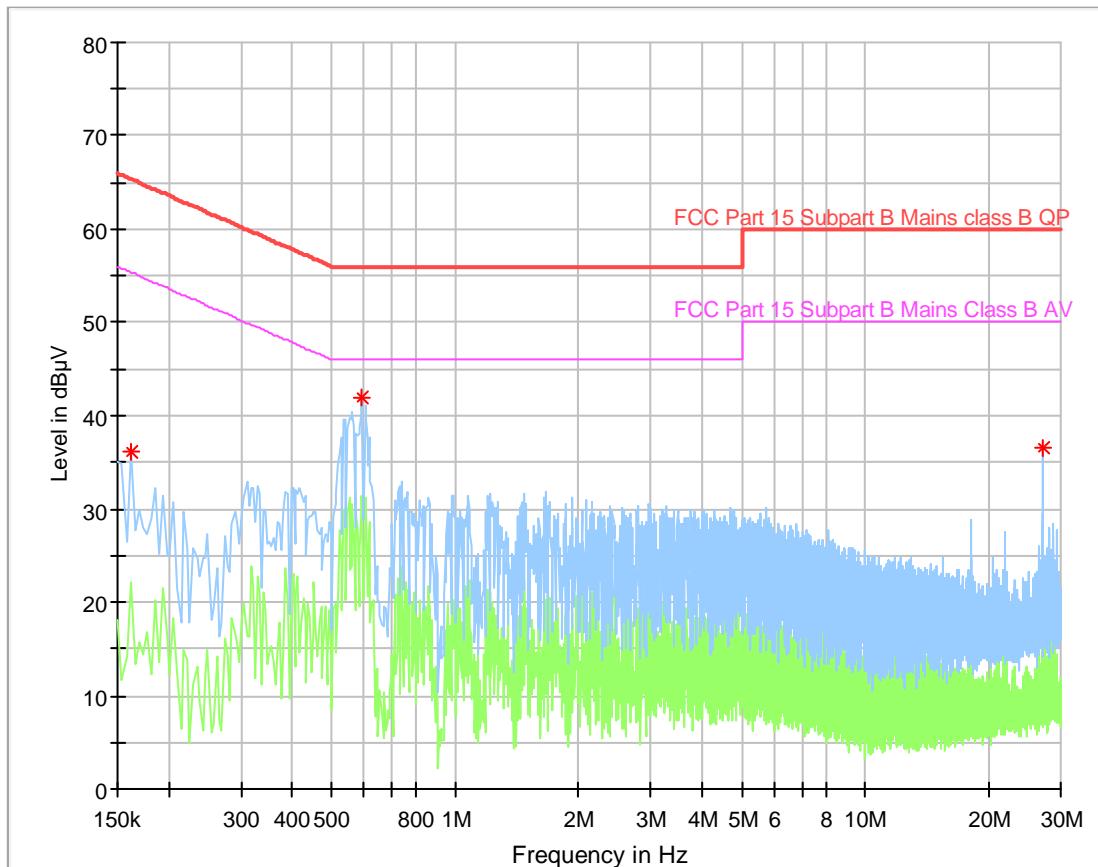
Product Type : Digital Video Baby Monitor  
 M/N : MBP662CONNECT  
 Operating Condition : Transmitting mode  
 Test Specification : FCC part 15 Section 15.207 Class B  
 RSS-GEN Issue 4 section 8.8  
 Comment : ---

Phase L



Frequency (MHz)	QuasiPeak (dB $\mu$ V)	Limit (dB $\mu$ V)	Margin (dB)	Line	Corr. (dB)
0.182000	33.93	64.39	30.47	L1	9.7
0.602000	36.21	56.00	19.79	L1	10.0
0.998000	27.15	56.00	28.85	L1	9.8

## Phase N



Frequency (MHz)	QuasiPeak (dB $\mu$ V)	Limit (dB $\mu$ V)	Margin (dB)	Line	Corr. (dB)
0.162000	36.24	65.36	29.12	N	9.7
0.594000	41.83	56.00	14.17	N	10.0
27.002000	36.63	60.00	23.37	N	10.2

## 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,  $VBW \geq RBW$ ,  
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

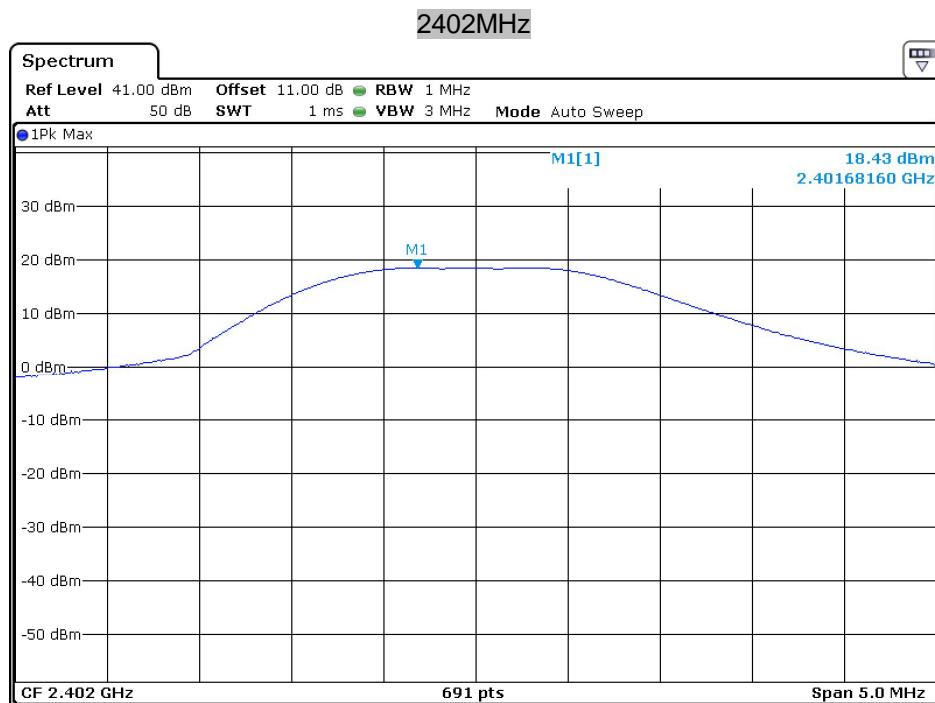
### Limits

Frequency Range MHz	Limit W	Limit dBm
2400-2483.5	$\leq 0.125$	$\leq 21$

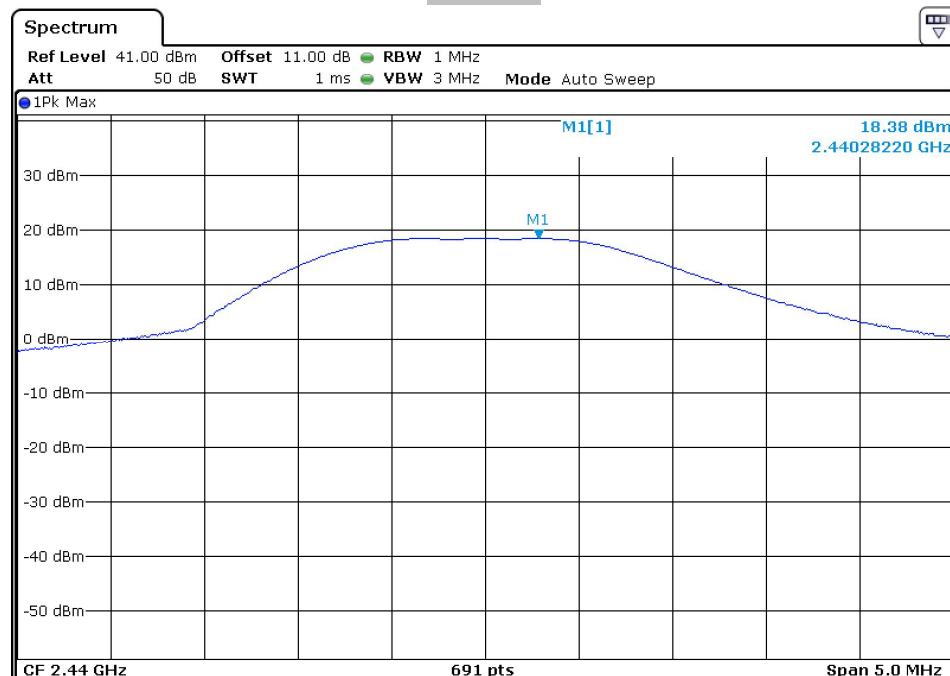
## Conducted peak output power

### Test Result Conducted Peak

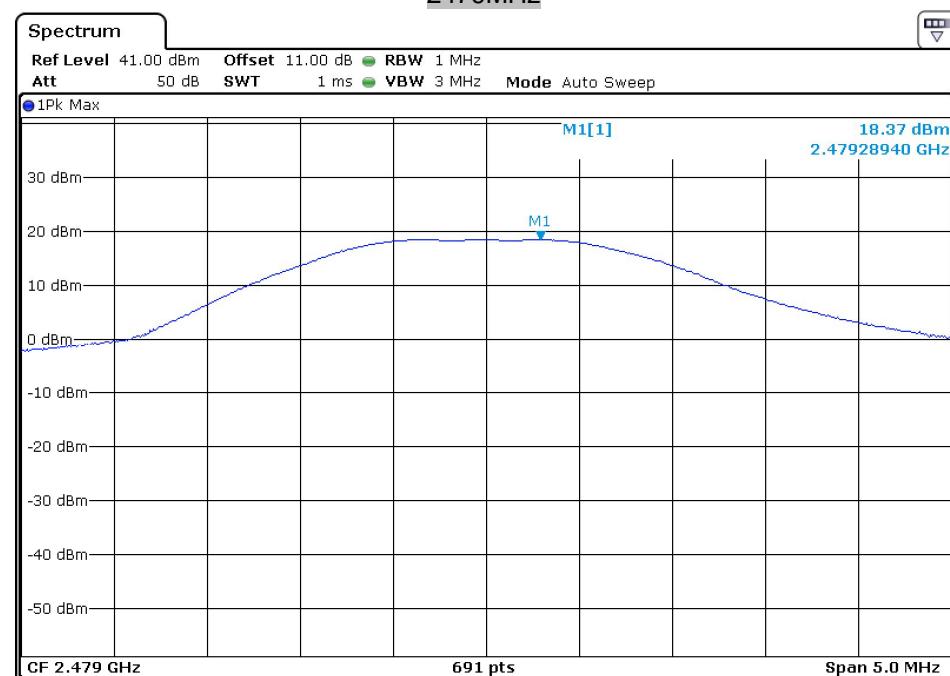
Frequency MHz	Output Power dBm	Result
Low channel 2402 MHz	18.43	Pass
Middle channel 2440 MHz	18.38	Pass
High channel 2479 MHz	18.37	Pass



2440MHz



2479MHz



### 9.3 20 dB 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]

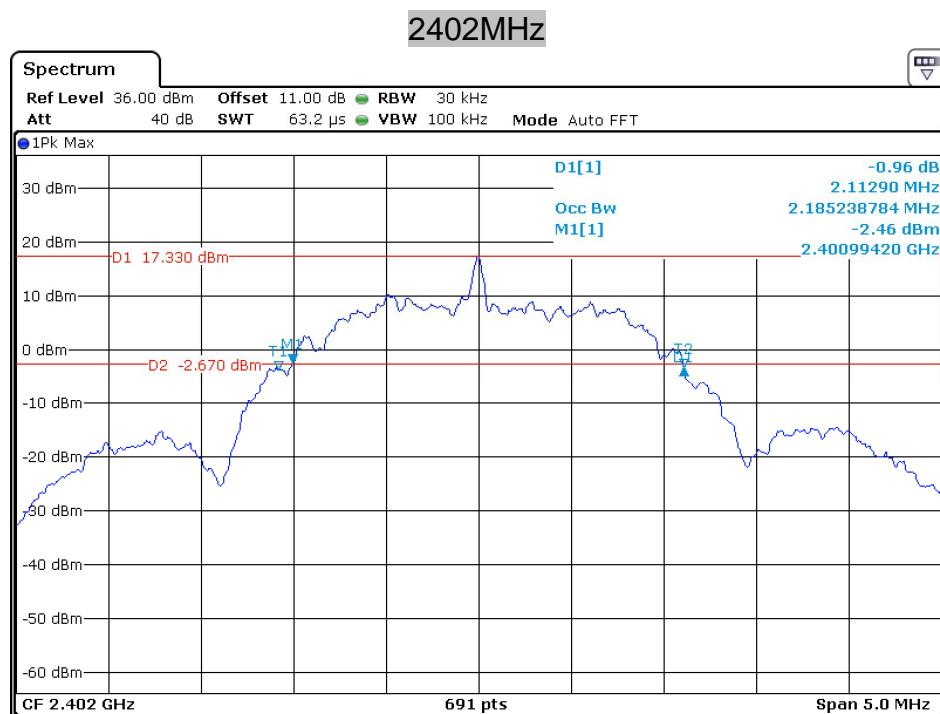
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N/A

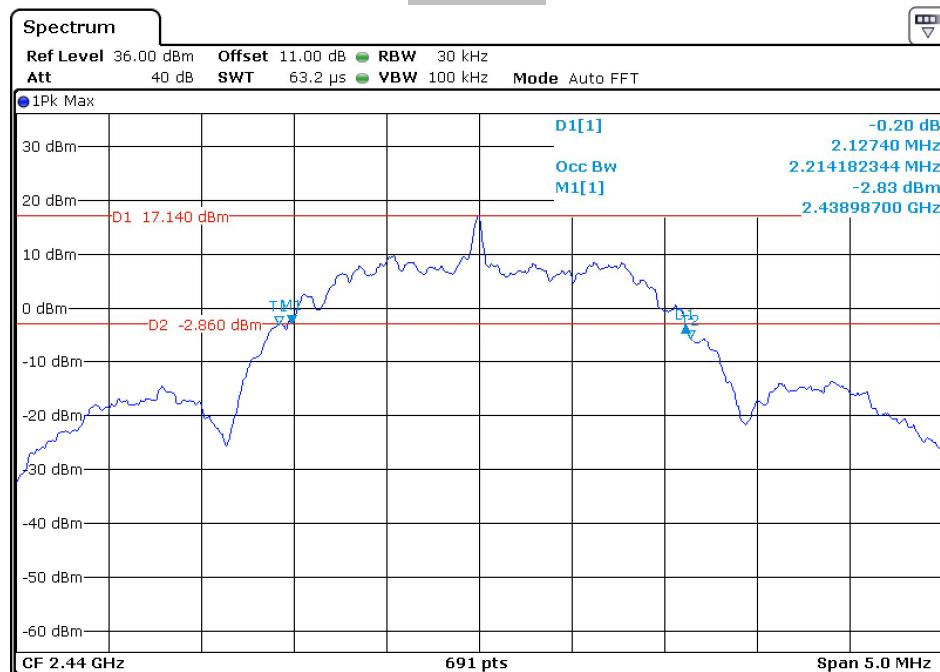
## 20 dB bandwidth

### Bluetooth Mode GFSK Modulation test result

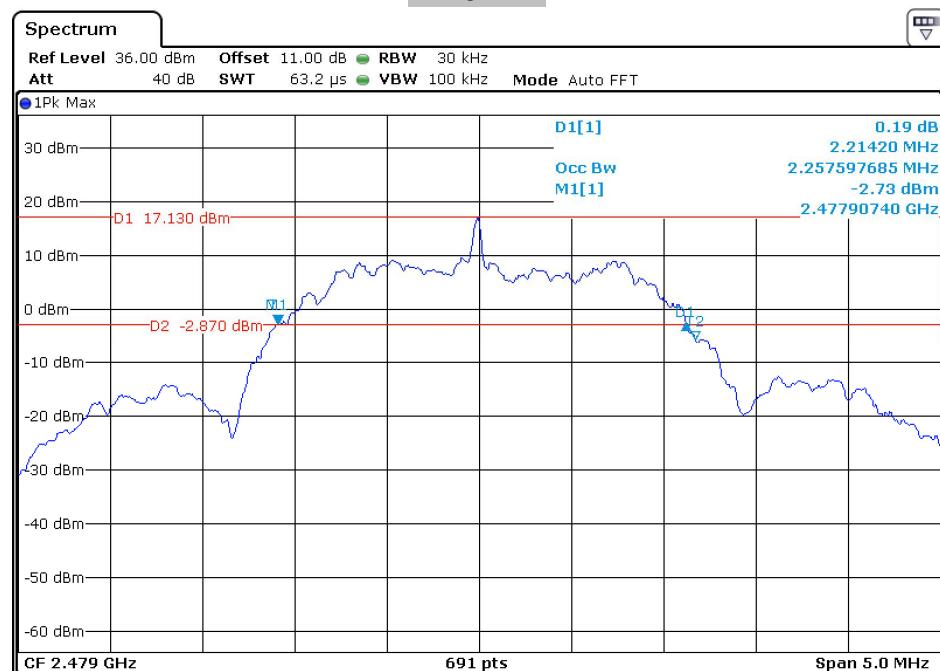
Frequency MHz	20 dB Bandwidth MHz	Result
2402	2.185	Pass
2440	2.214	Pass
2479	2.258	Pass



## 2440MHz



## 2479MHz



## 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

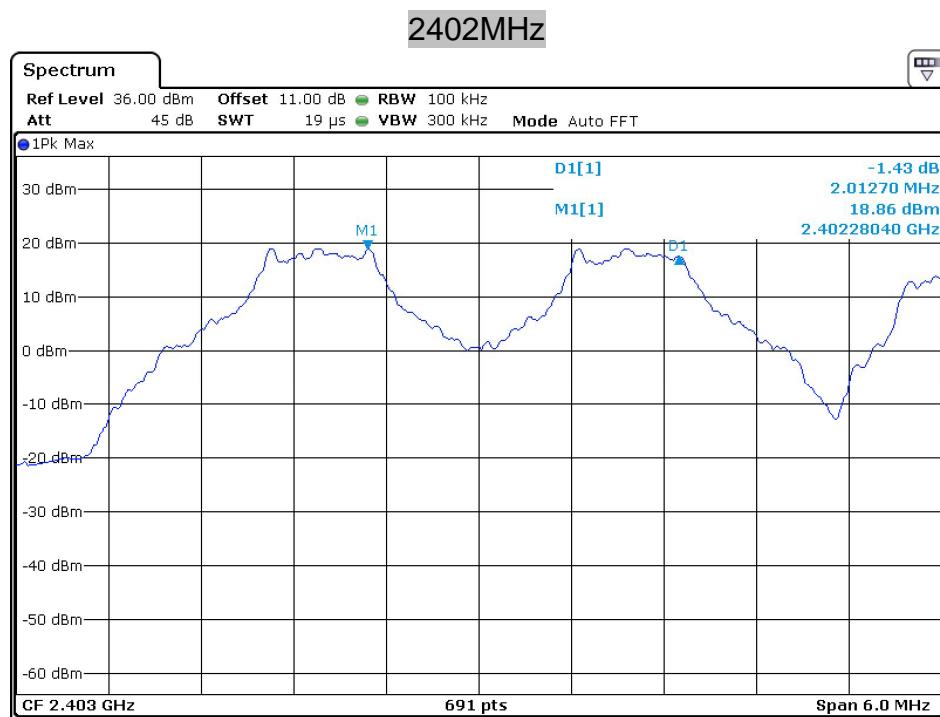
$\geq 25\text{KHz}$  or  $2/3$  of the  $20\text{ dB}$  bandwidth which is greater

## Carrier Frequency Separation

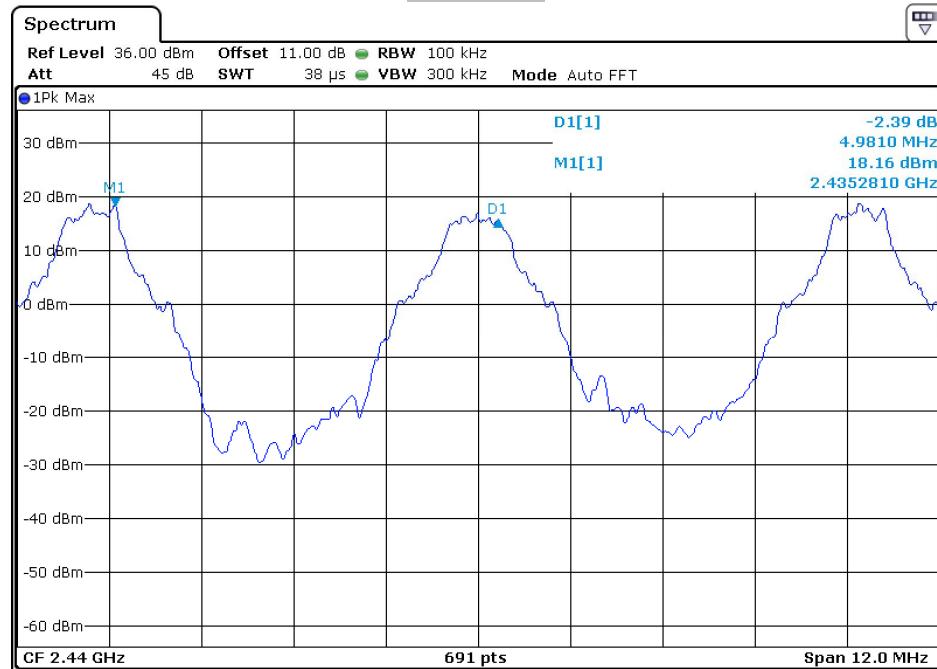
Test result: The measurement was performed with the typical configuration (normal hopping status), here GFSK modulation mode was used to show compliance.

GFSK Modulation test result

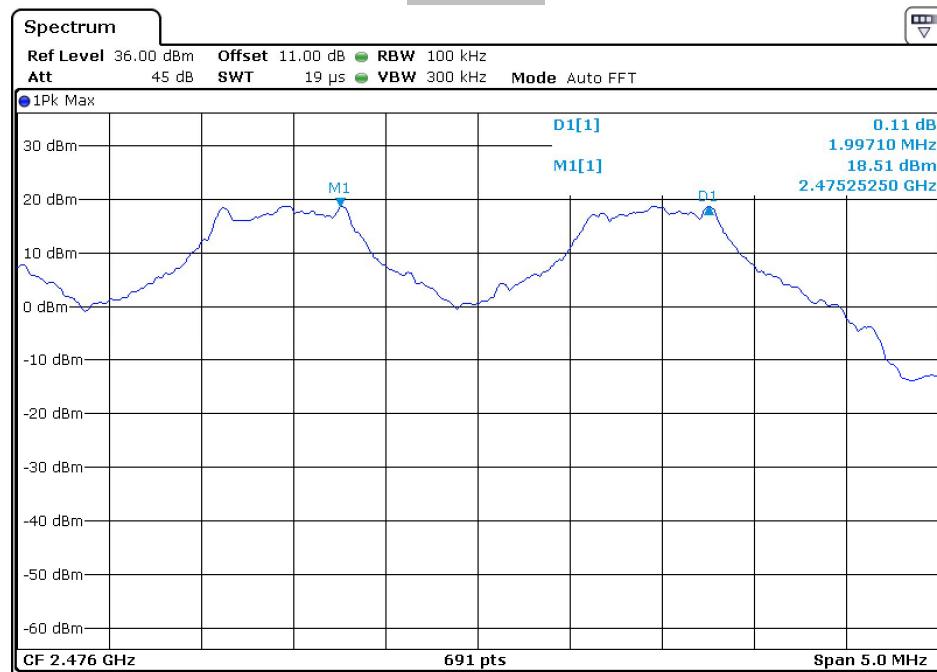
Frequency MHz	Carrier Frequency Separation MHz	Result
2402	2.01	Pass
2440	4.98	Pass
2479	2.00	Pass



## 2440MHz



## 2479MHz



## 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.

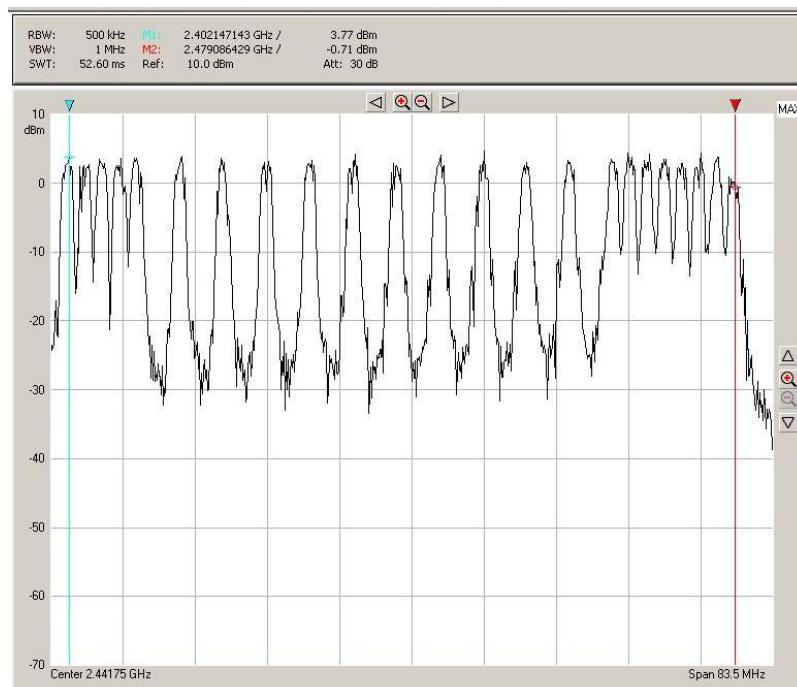
### Limit

Limit number
$\geq 15$

## Number of hopping frequencies

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

Number of hopping frequencies	Result
23	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

Each transmission only 23 channels will be used.

Observe time = 23 channels  $\times$  0.4s = 9.2s

There are 3 pulses within 311.2ms

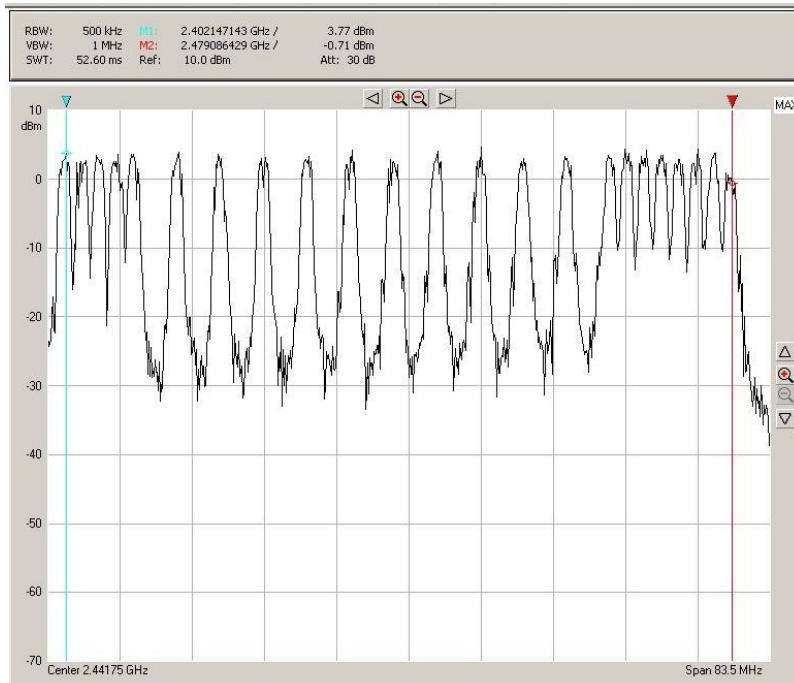
And one set of pulses = 150.4us

Therefore, the average channel occupancy times (ms)

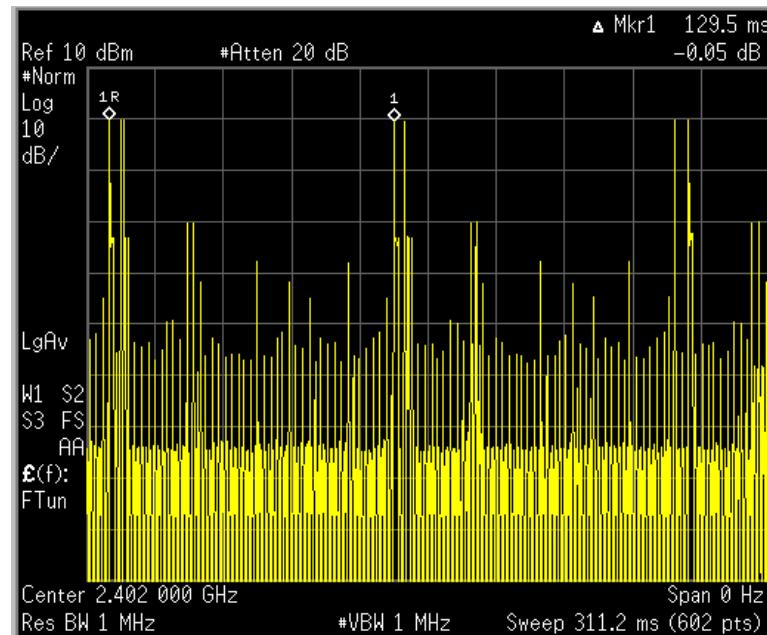
= 150.4us  $\times$  3  $\times$  (9.2s/311.2ms)

So, total transmitting time is 0.013s. (<0.4s).

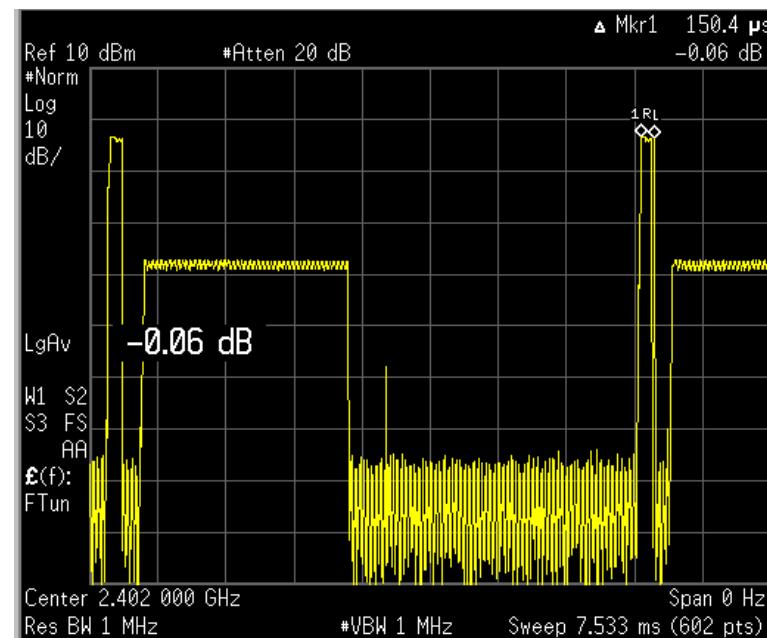
**Result data graph shows total 23 channels are used.**



**Result data graph shows total 3 pulses with 311.2ms.**



**Result data graph zooms into detail, one pulse period is 150.4us.**



## 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.

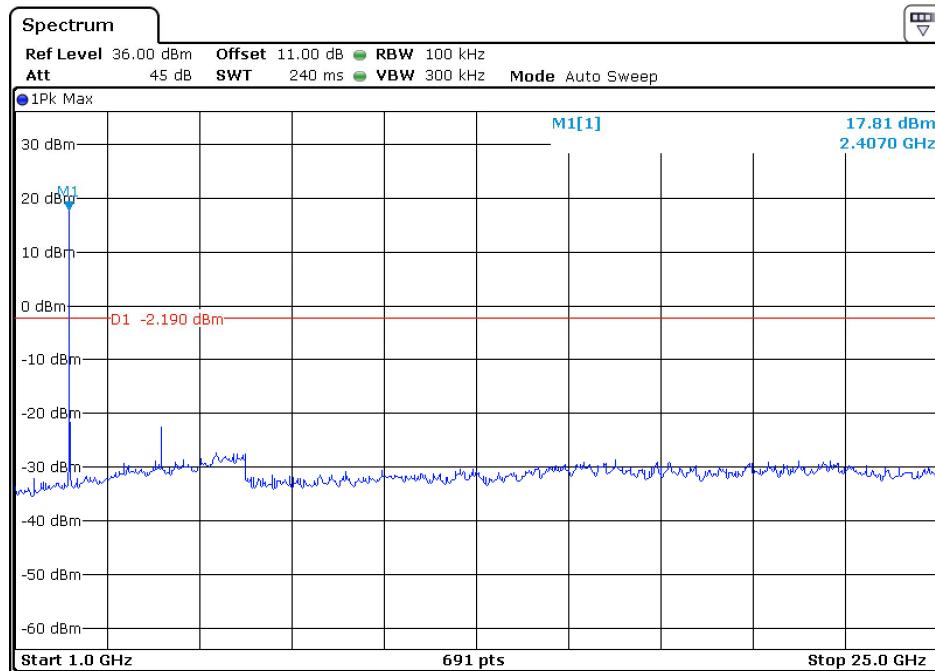
### Limit

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

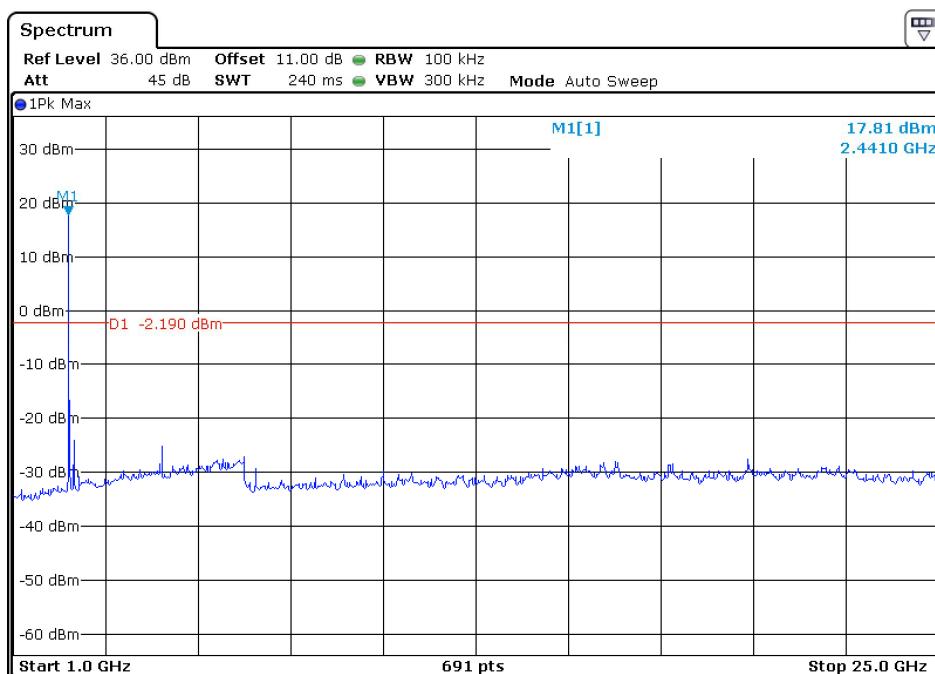
## Spurious RF conducted emissions

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

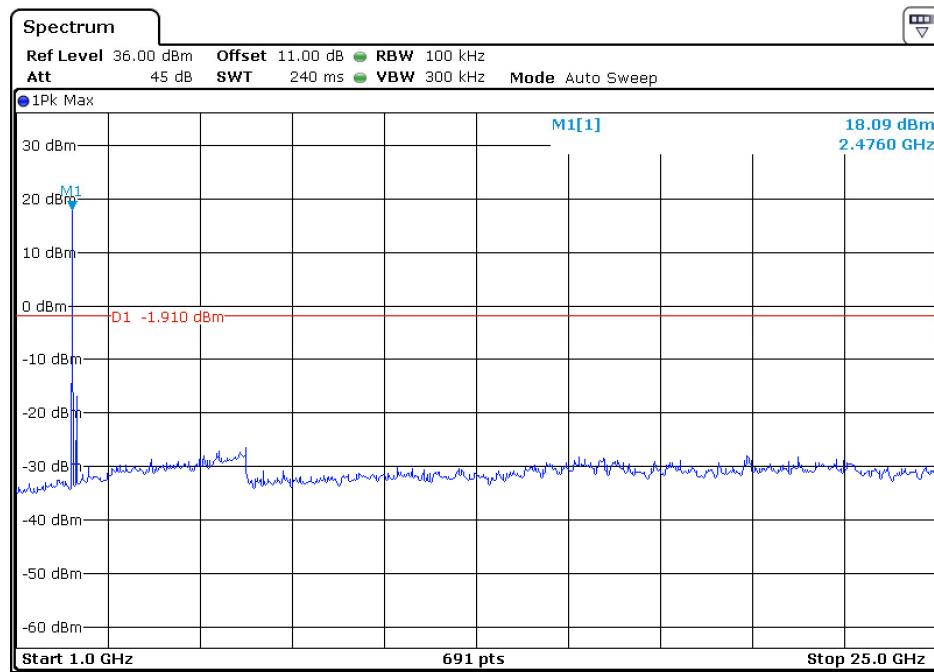
2402MHz



2440MHz



2479MHz



## 9.8 Band edge testing

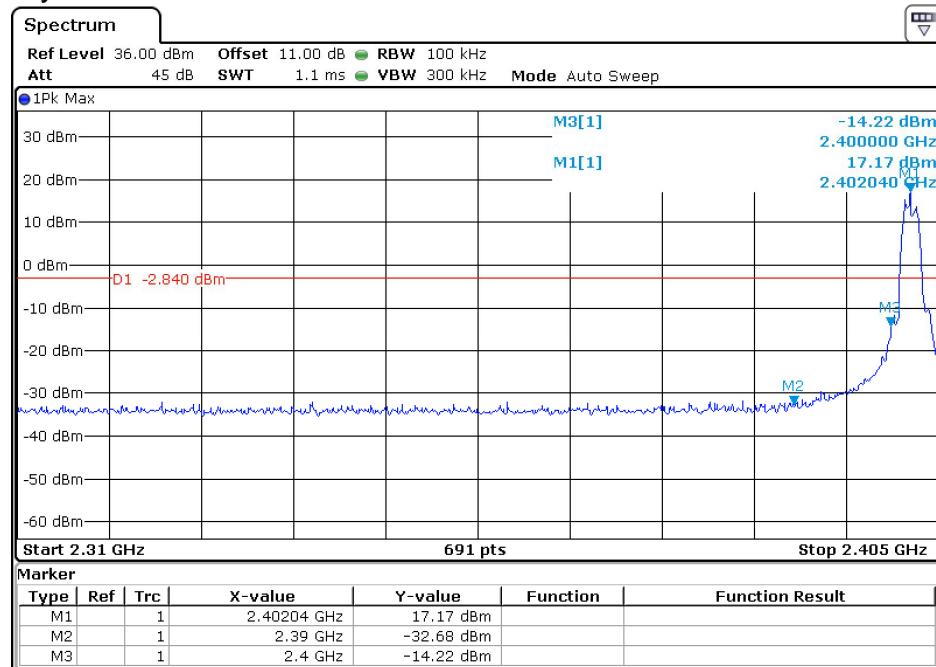
### Test Method

- 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.

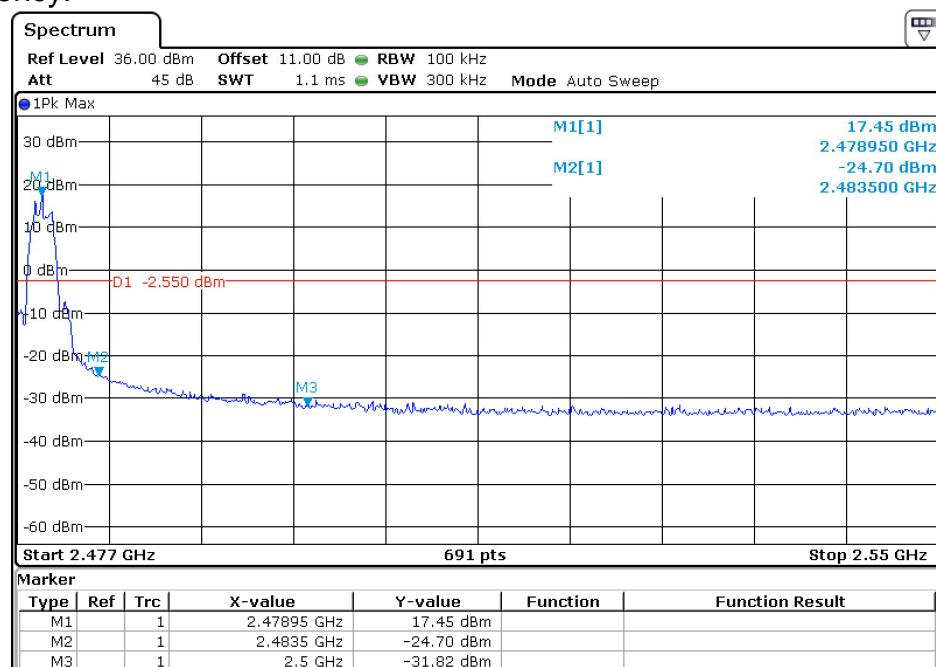
## Band edge testing

### Test Result:

#### Lowest Frequency:



#### Highest Frequency:



## 9.9 Spurious radiated emissions for transmitter

### 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

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

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:

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.

#### Frequency (Vertical – 30MHz to 3GHz)

Frequency (MHz)	MaxPeak (dB $\mu$ V/m)	Limit (dB $\mu$ V/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
43.337500	34.13	40.00	5.87	100.0	V	0.0	15.2
59.948750	25.31	40.00	14.69	100.0	V	94.0	13.9
134.941875	32.34	43.50	11.16	100.0	V	344.0	10.4
161.980625	33.76	43.50	9.74	100.0	V	0.0	10.3

Frequency (MHz)	MaxPeak (dB $\mu$ V/m)	Average (dB $\mu$ V/m)	Limit (dB $\mu$ V/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
1200.500000	49.84	---	74.00	24.16	100.0	V	3.0	-14.3
2299.500000	55.42	---	74.00	18.58	100.0	V	0.0	-8.8
2402.000000	105.19	---	74.00	-31.19	100.0	V	338.0	-8.5

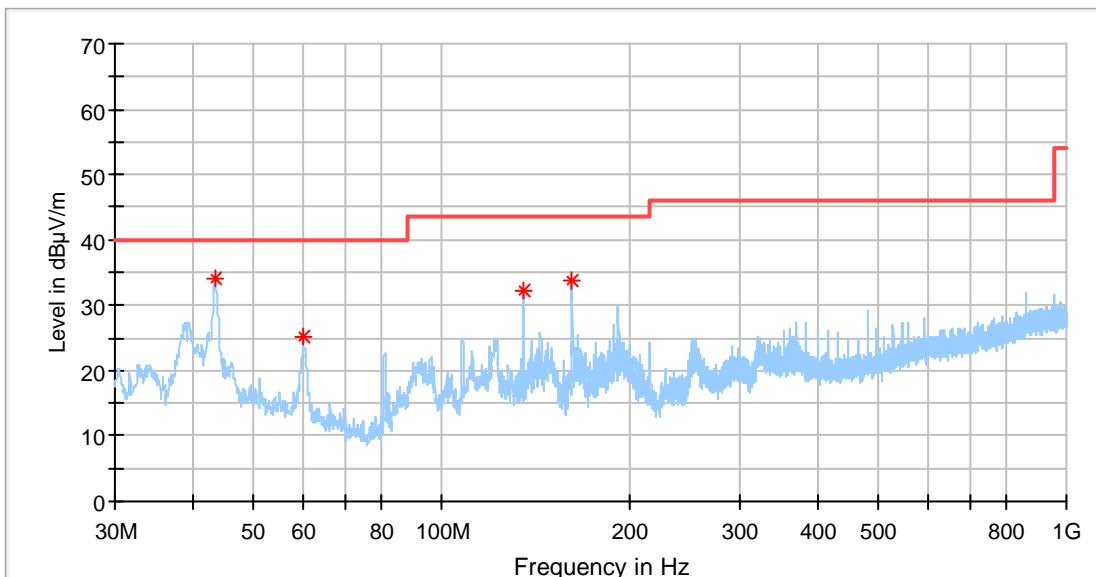
#### Frequency (Horizontal – 30MHz to 3GHz)

Frequency (MHz)	MaxPeak (dB $\mu$ V/m)	Limit (dB $\mu$ V/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
43.216250	22.96	40.00	17.04	100.0	H	0.0	15.1
161.980625	28.45	43.50	15.05	200.0	H	77.0	10.3
480.019375	32.11	46.00	13.89	200.0	H	3.0	19.1

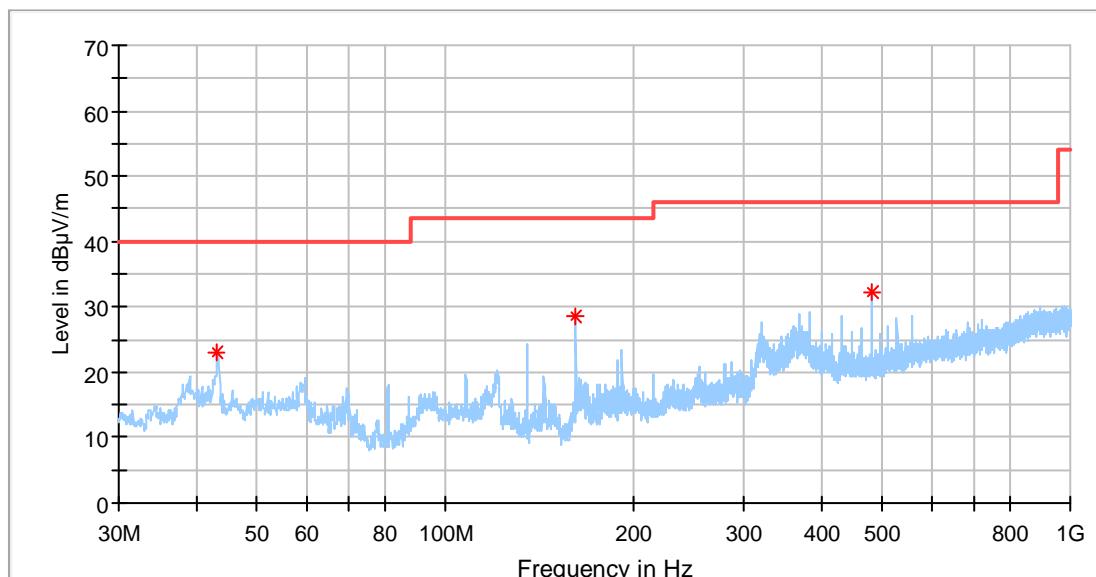
Frequency (MHz)	MaxPeak (dB $\mu$ V/m)	Average (dB $\mu$ V/m)	Limit (dB $\mu$ V/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
1740.000000	34.99	---	74.00	39.01	100.0	H	209.0	-10.6
2298.000000	43.52	---	74.00	30.48	100.0	H	0.0	-8.8
2402.500000	96.92	---	74.00	-22.92	100.0	H	52.0	-8.5

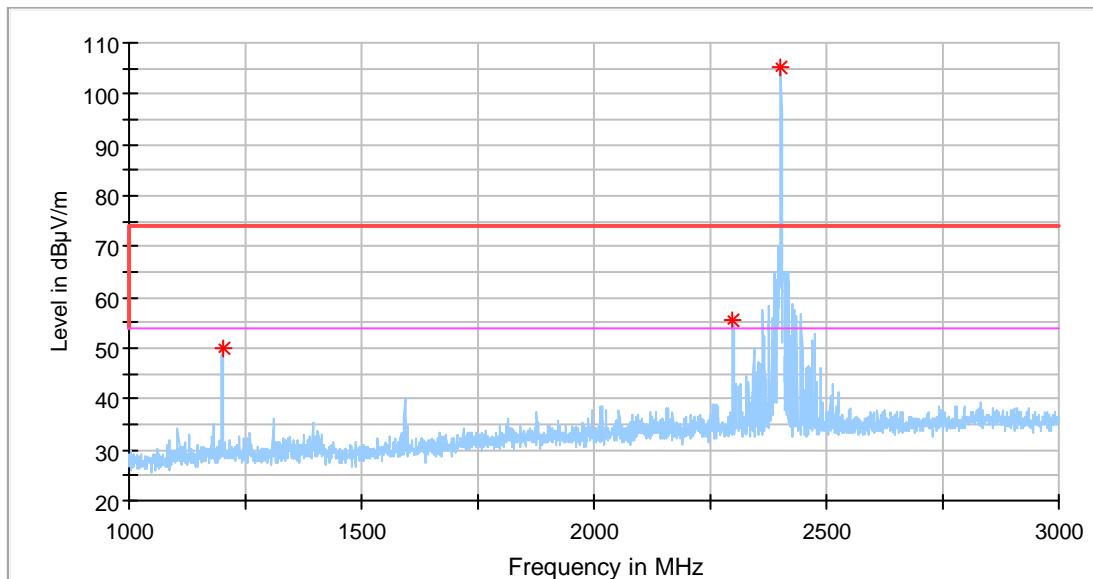
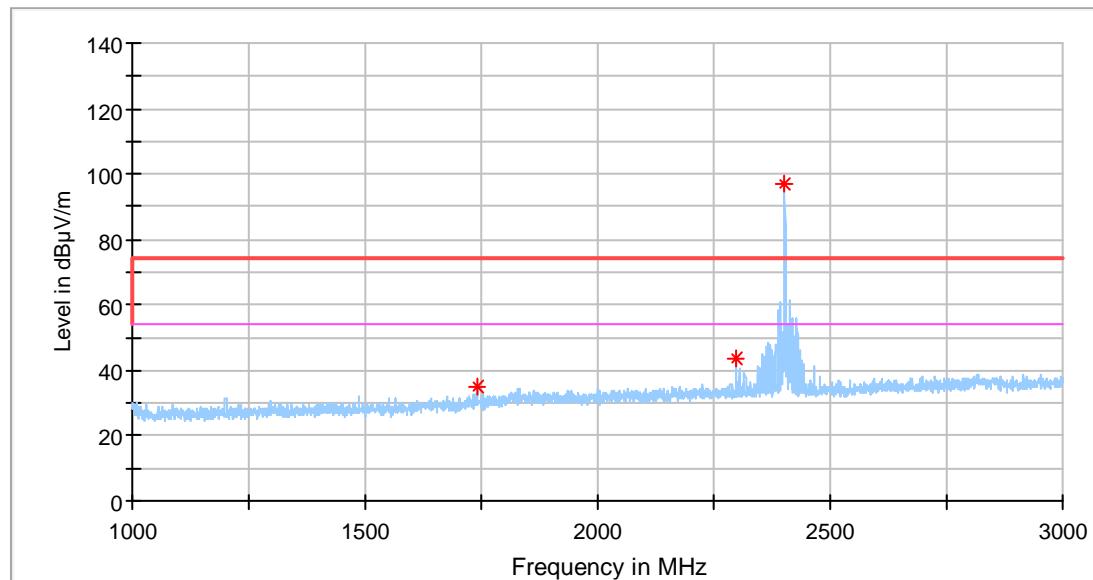
## Spurious radiated emissions for transmitter

Radiated emission data graph (Vertical polarization, 30MHz-1GHz)

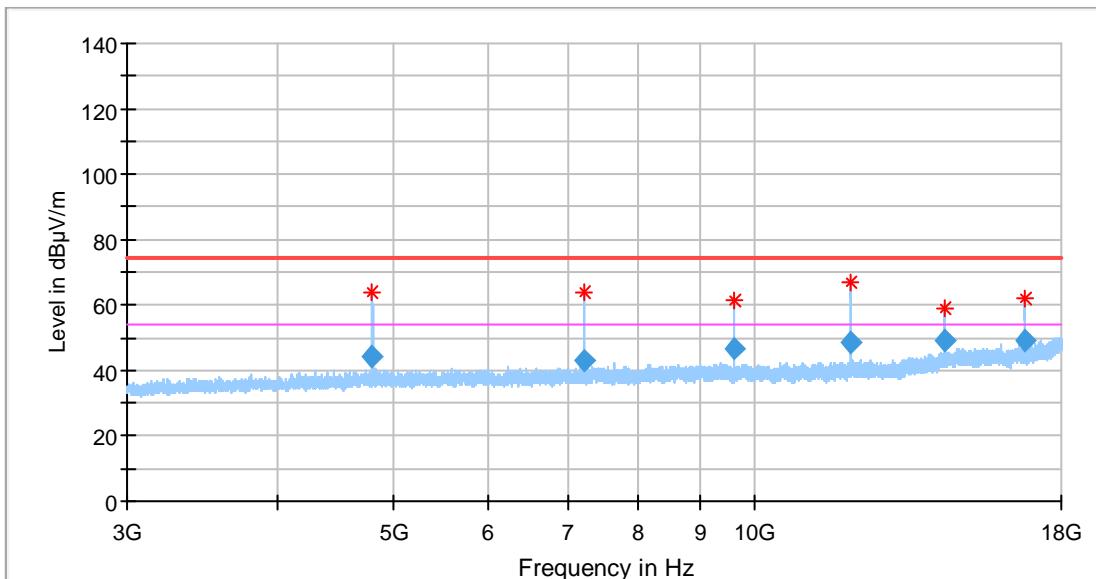


Radiated emission data graph (Horizontal polarization, 30MHz-1GHz)



**Radiated emission data graph (Vertical polarization, 1GHz-3GHz)****Radiated emission data graph (Horizontal polarization, 1GHz-3GHz)**

## Radiated emission data graph (Vertical polarization, 3GHz-18GHz)

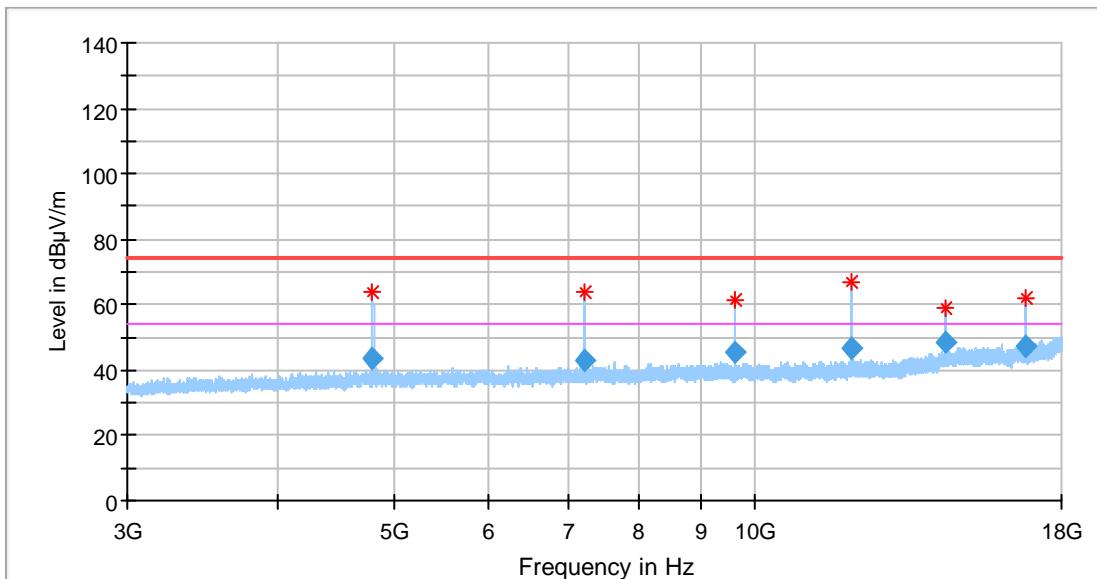


Remark: Only background noise was measured from 18GHz-26GHz.

Frequency (MHz)	MaxPeak (dBµV/m)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
4803.750000	63.15	---	74.00	10.85	100.0	V	356.0	-0.3
7205.000000	65.57	---	74.00	8.43	100.0	V	342.0	2.5
9608.125000	60.75	---	74.00	13.25	100.0	V	341.0	5.5
12008.750000	67.31	---	74.00	6.69	100.0	V	0.0	8.2
14411.875000	57.02	---	74.00	16.98	100.0	V	3.0	13.3
16811.875000	62.91	---	74.00	11.09	100.0	V	15.0	15.7

Frequency (MHz)	Average (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
4803.750000	44.35	54.00	9.65	100.0	V	356.0	-0.3
7205.000000	43.17	54.00	10.83	100.0	V	342.0	2.5
9608.125000	46.53	54.00	8.47	100.0	V	341.0	5.5
12008.750000	48.32	54.00	5.68	100.0	V	0.0	8.2
14411.875000	48.91	54.00	5.09	100.0	V	3.0	13.3
16811.875000	49.15	54.00	4.85	100.0	V	15.0	15.7

## Radiated emission data graph (Horizontal polarization, 3GHz-18GHz)



Remark: Only background noise was measured from 18GHz-26GHz.

Frequency (MHz)	MaxPeak (dB $\mu$ V/m)	Average (dB $\mu$ V/m)	Limit (dB $\mu$ V/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
4803.750000	63.83	---	74.00	10.17	100.0	H	323.0	-0.3
7205.000000	64.08	---	74.00	9.92	100.0	H	334.0	2.5
9608.125000	61.45	---	74.00	12.55	100.0	H	343.0	5.5
12008.750000	66.77	---	74.00	7.23	100.0	H	5.0	8.2
14411.875000	58.72	---	74.00	15.28	100.0	H	5.0	13.3
16811.875000	61.90	---	74.00	12.10	100.0	H	61.0	15.7

Frequency (MHz)	Average (dB $\mu$ V/m)	Limit (dB $\mu$ V/m)	Margin (dB)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB)
4803.750000	43.87	54.00	10.23	100.0	H	323.0	-0.3
7205.000000	42.70	54.00	11.30	100.0	H	334.0	2.5
9608.125000	45.32	54.00	8.68	100.0	H	343.0	5.5
12008.750000	46.52	54.00	7.48	100.0	H	5.0	8.2
14411.875000	48.21	54.00	5.79	100.0	H	5.0	13.3
16811.875000	47.35	54.00	6.65	100.0	H	61.0	15.7

## 10 RF Exposure Evaluation

For the purpose of the exemption clause of RSS-102 section 2.5.2, the TP is calculated according to the following equation given in RSS-Gen section 6.12 :

$$TP = \frac{(FS \times D)^2}{30 \times G}$$

where

FS : Field Strength in volts/metre  
 D : Distance between two antennas in metres  
 G : Antenna gain, 0 dBi

According to clause 9.2, the Max. Output Power is 18.43 dBm @2402MHz.

EIRP = the maximum output power+ antenna gain

$$= 18.43 \text{ dBm} + 0 \text{ dBi}$$

$$= 18.43 \text{ dBm}$$

$$= 70 \text{ mW}$$

The power density at 20cm from the antenna : = EIRP /  $4\pi R^2$

$$= 0.0139 \text{ mW / cm}^2$$

Therefore, for the device operating at or above 300 MHz and below 6 GHz and the source-based, time-averaged maximum e.i.r.p. of the device is equal to or less than  $1.31 \times 10^{-2} f^{0.6834} W$  (adjusted for tune-up tolerance), where  $f$  is in MHz.

## 11 Test Equipment List

### List of Test Instruments

	DESCRIPTION	MANUFACTURER	MODEL NO.	SERIAL NO.	CAL. DUE DATE
CE	EMI Test Receiver	Rohde & Schwarz	ESR 3	101782	2015-8-17
	LISN	Rohde & Schwarz	ENV4200	100249	2015-8-17
	LISN	Rohde & Schwarz	ENV216	100326	2015-8-17
	ISN	Rohde & Schwarz	ENY81	100177	2015-8-17
	ISN	Rohde & Schwarz	ENY81-CAT6	101664	2015-8-17
	High Voltage Probe	Rohde & Schwarz	TK9420(VT9 420)	9420-58	2015-8-17
	RF Current probe	Rohde & Schwarz	EZ-17	100816	2015-8-17
C	Signal Generator	Rohde & Schwarz	SMB100A	108272	2015-8-17
	Signal Analyzer	Rohde & Schwarz	FSV40	101030	2015-8-17
	Vector Signal Generator	Rohde & Schwarz	SMU 200A	105324	2015-8-17
	RF Switch Module	Rohde & Schwarz	OSP120/OS P-B157	101226/10085 1	2015-8-17
RE	EMI Test Receiver	Rohde & Schwarz	ESR 26	101269	2015-8-17
	Trilog Super Broadband Test Antenna	Schwarzbeck	VULB 9163	707	2017-8-17
	Horn Antenna	Rohde & Schwarz	HF907	102294	2017-8-17
	Pre-amplifier	Rohde & Schwarz	SCU 18	102230	2015-8-17
	3m Semi-anechoic chamber	TDK	9X6X6	----	2019-5-29

#### C - Conducted RF tests

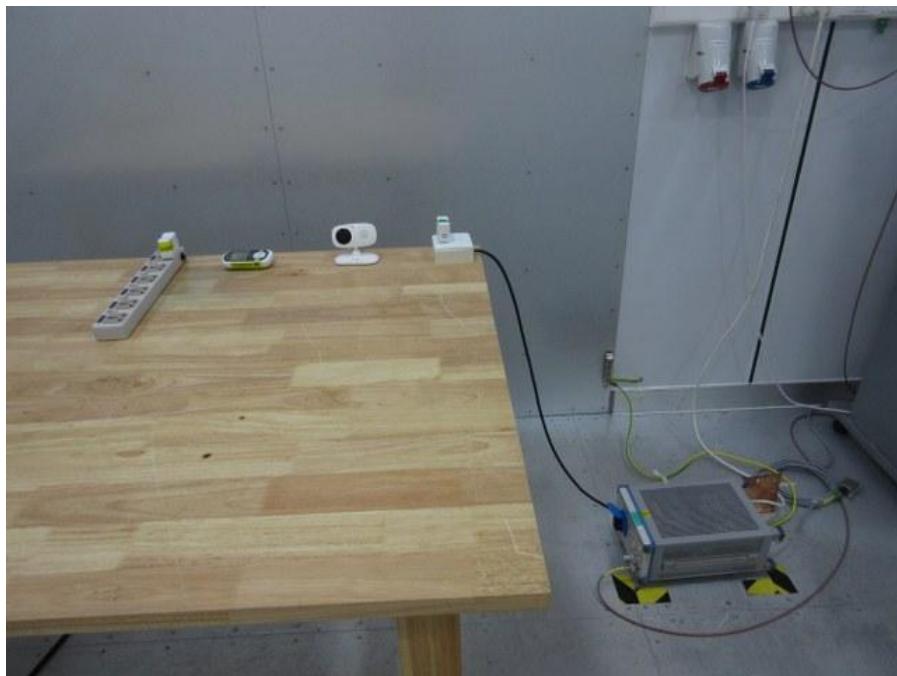
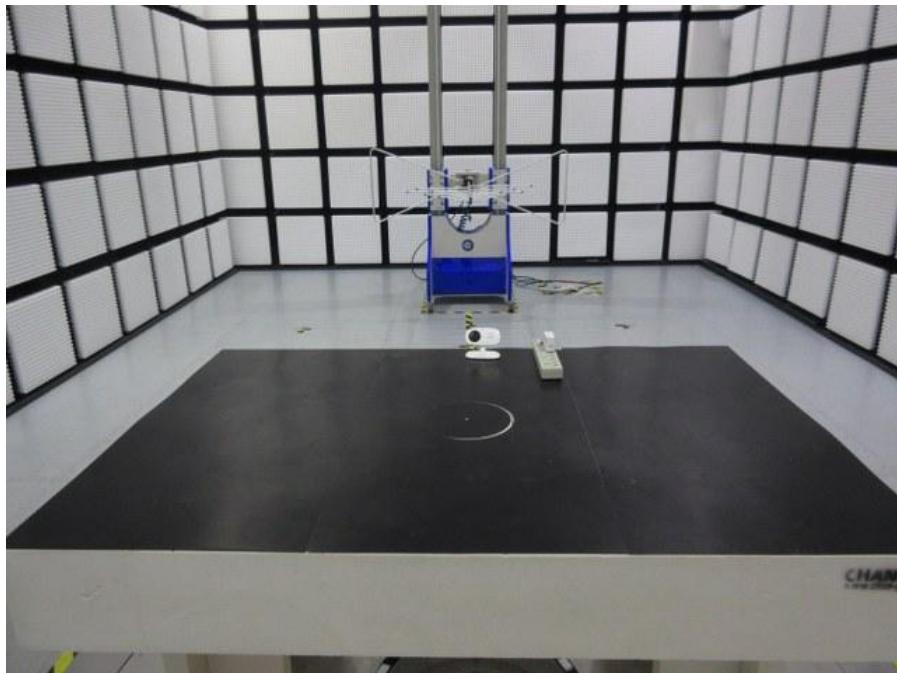
- Conducted peak output power
- 6dB bandwidth
- 20dB bandwidth and 99% Occupied Bandwidth
- Carrier frequency separation
- Number of hopping frequencies
- Dwell Time
- Power spectral density\*
- Spurious RF conducted emissions
- Band edge

## 12 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 9kHz-150KHz	3.88dB

## Test Setup Photos



## External Photos







## Internal Photos



