Prüfbericht-Nr.: *Test Report No.*:	**15076665 001**	**Auftrags-Nr.:** *Order No.*:	154068107	Seite 1 von 59 *Page 1 of 59*
Kunden-Referenz-Nr.: *Client Reference No.*:	614156	**Auftragsdatum:** *Order date*:	30.09.2014	

Auftraggeber: *Client*:	Sky Innovation Technology (Shanghai) Limited Room 913, No.2016-2018(even numbers) Yishan Rd. Minhang District, Shanghai, China
Prüfgegenstand: *Test item*:	Automatic Electronic Blood Pressure Monitor
Bezeichnung / Typ-Nr.: *Identification / Type No.*:	XM-01 FCC ID: 2ADZAXM01A01
Auftrags-Inhalt: *Order content*:	Complete test
Prüfgrundlage: *Test specification*:	FCC CFR47 Part 15, Subpart C ANSI C63.4-2009 KDB 558074 D01 DTS Meas Guidance v03r02 Public Notice DA 00-705: Filing and Measurement Guidelines for Frequency Hopping Spread Spectrum Systems (March 30, 2000)
Wareneingangsdatum: *Date of receipt*:	30.09.2014
Prüfmuster-Nr.: *Test sample No.*:	A00123343-001
Prüfzeitraum: *Testing period*:	20.10.2014 – 31.10.2014
Ort der Prüfung: *Place of testing*:	MRT Technology (Suzhou) Co., Ltd.
Prüflaboratorium: *Testing laboratory*:	TÜV Rheinland (Shanghai) Co., Ltd.
Prüfergebnis*: *Test result**:	Pass

geprüft von / *tested by*:

Adrian Shi

03.11.2014	Adrian Shi / PE	
Datum *Date*	**Name / Stellung** *Name / Position*	**Unterschrift** *Signature*

kontrolliert von / *reviewed by*:

shi li

03.11.2014	Shi Li / Reviewer	
Datum *Date*	**Name / Stellung** *Name / Position*	**Unterschrift** *Signature*

Sonstiges / *Other*:

Zustand des Prüfgegenstandes bei Anlieferung: *Condition of the test item at delivery*: Prüfmuster vollständig und unbeschädigt *Test item complete and undamaged*

* Legende:	1 = sehr gut	2 = gut	3 = befriedigend	4 = ausreichend	5 = mangelhaft
	P(ass) = entspricht o.g. Prüfgrundlage(n)		F(ail) = entspricht nicht o.g. Prüfgrundlage(n)	N/A = nicht anwendbar	N/T = nicht getestet
Legend:	*1 = very good*	*2 = good*	*3 = satisfactory*	*4 = sufficient*	*5 = poor*
	P(ass) = passed a.m. test specification(s)		*F(ail) = failed a.m. test specification(s)*	*N/A = not applicable*	*N/T = not tested*

TÜV Rheinland (Shanghai) Co., Ltd · West Guangzhong Road, Zhabei District, Shanghai ·
Tel.: +86 21 6108 1188 · Fax: +86 21 6108 1199
Mail: service@de.tuv.com · Web: www.tuv.com

TEST SUMMARY

5.1.1 ANTENNA REQUIREMENT
RESULT: *Pass*

5.1.2 PEAK OUTPUT POWER
RESULT: *Pass*

5.1.3 20DB BANDWIDTH AND 99% BANDWIDTH
RESULT: *Pass*

5.1.4 6DB BANDWIDTH AND 99% BANDWIDTH
RESULT: *Pass*

5.1.5 CONDUCTED SPURIOUS EMISSIONS MEASURED IN 100KHZ BANDWIDTH
RESULT: *Pass*

5.1.6 POWER SPECTRAL DENSITY
RESULT: *Pass*

5.1.7 SPURIOUS EMISSION
RESULT: *Pass*

5.1.8 FREQUENCY SEPARATION
RESULT: *Pass*

5.1.9 NUMBER OF HOPPING FREQUENCY
RESULT: *Pass*

5.1.10 TIME OF OCCUPANCY
RESULT: *Pass*

5.1.11 CONDUCTED EMISSIONS
RESULT: *Pass*

Contents

1. General Remarks

1.1 Complementary Materials

None

2. Test Sites

2.1 Test Facilities

MRT Technology (Suzhou) Co., Ltd.

D8 Building, Youxin Industrial Park, No.2 Tian'edang Rd., Wuzhong Economic Development Zone, Suzhou, China

The used test equipment is in accordance with CISPR 16 for measurement of radio interference.

The Federal Communications Commission has reviewed the technical characteristics of the radiated and conducted emission facility, and has found these test facilities to be in compliance with the requirements of section 2.948 of the FCC rules. The description of the test facility is listed under FCC registration number 809388.

2.2 List of Test and Measurement Instruments

Table 1: List of Test and Measurement Equipment

Conducted Emissions

Instrument	Manufacturer	Type No.	Cali. Interval	Cali. Due Date
EMI Test Receiver	R&S	ESR7	1 year	2014/11/08
Two-Line V-Network	R&S	ENV216	1 year	2014/11/08
Two-Line V-Network	R&S	ENV216	1 year	2014/11/08
Temperature/ Meter Humidity	Anymetre	TH101B	1 year	2014/11/15

Radiated Emission

Instrument	Manufacturer	Type No.	Cali. Interval	Cali. Due Date
Spectrum Analyzer	Agilent	E4447A	1 year	2014/11/18
EMI Test Receiver	R&S	ESR7	1 year	2014/11/08
Preamplifier	MRT	AP18G40	1 year	2015/10/06
Preamplifier	MRT	AP01G18	1 year	2015/10/06
Loop Antenna	Schwarzbeck	FMZB1519	1 year	2014/11/24
TRILOG Antenna	Schwarzbeck	VULB9162	1 year	2014/11/24
Broad-Band Horn Antenna	Schwarzbeck	BBHA9120D	1 year	2014/11/24
Broadband Horn Antenna	Schwarzbeck	BBHA9170	1 year	2014/12/11
Temperature/Humidity Meter	Anymetre	TH101B	1 year	2014/11/15

Conducted Test Equipment

Instrument	Manufacturer	Type No.	Cali. Interval	Cali. Due Date
Spectrum Analyzer	Agilent	N9010A	1 year	2015/01/04
Wideband Peak Power Meter	Anritsu	ML2495A	1 year	2015/01/12
Power Sensor	Anritsu	MA2411B	1 year	2015/01/12
Temperature/Humidity Meter	Anymetre	TH101B	1 year	2014/11/15

2.3 Traceability

All measurement equipment calibrations are traceable to NIST or where calibration is performed outside the United States, to equivalent nationally recognized standards organizations.

2.4 Calibration

Equipment requiring calibration is calibrated periodically by the manufacturer or according to manufacturer's specifications. Additionally all equipment is verified for proper performance on a regular basics using in house standards or comparisons.

2.5 Measurement Uncertainty

Table 2: Measurement Uncertainty

Where relevant, the following test uncertainty levels have been estimated for tests performed on the EUT as specified in CISPR 16-4-2. This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k = 2.

AC Conducted Emission Measurement
Measuring Uncertainty for a Level of Confidence of 95% (U=2Uc(y)): 150kHz~30MHz: ± 3.46dB
Radiated Emission Measurement
Measuring Uncertainty for a Level of Confidence of 95% (U=2Uc(y)): 9kHz ~ 1GHz: ± 4.18dB 1GHz ~ 40GHz: ± 4.76dB

3. General Product Information

3.1 Product Function and Intended Use

The EUT (Equipment Under Test) is Automatic Electronic Blood Pressure Monitor. It‘s used to measure adults' systolic pressure, diastolic pressure and pulse rate with the oscillometric method, and the data it produces are only an aid to diagnosis.

For the further information, refer to the user’s manual.

3.2 Ratings and System Details

Table 3: Technical Specification of Bluetooth (BDR & EDR mode)

Technical Specification	Value
Kind of Equipment	Automatic Electronic Blood Pressure Monitor
Type Designation	XM-01
Extreme Temperature Range	+10℃ ~ +40℃
Operation Voltage	DC 3.7V
Operating Frequency band	2402 – 2480MHz
Bluetooth version	4.0 dual mode
Number of channels	BDR/EDR: 79CH BLE: 40CH
Channel separation	BDR/EDR:1MHz BLE: 2MHz
Modulation	BDR/EDR: GFSK(1Mbps), π/4-DQPSK(2Mbps), 8DPSK(3Mbps) BLE: GFSK(1Mbps)
Antenna Gain	2dBi
Antenna type	Chip antenna

Table 4: RF channel and frequency of Bluetooth (BDR & EDR mode)

RF Channel	Frequency (MHz)	RF Channel	Frequency (MHz)	RF Channel	Frequency (MHz)	RF Channel	Frequency (MHz)
0	2402.00	21	2423.00	42	2444.00	63	2465.00
1	2403.00	22	2424.00	43	2445.00	64	2466.00
2	2404.00	23	2425.00	44	2446.00	65	2467.00
3	2405.00	24	2426.00	45	2447.00	66	2468.00
4	2406.00	25	2427.00	46	2448.00	67	2469.00
5	2407.00	26	2428.00	47	2449.00	68	2470.00
6	2408.00	27	2429.00	48	2450.00	69	2471.00

7	2409.00	28	2430.00	49	2451.00	70	2472.00
8	2410.00	29	2431.00	50	2452.00	71	2473.00
9	2411.00	30	2432.00	51	2453.00	72	2474.00
10	2412.00	31	2433.00	52	2454.00	73	2475.00
11	2413.00	32	2434.00	53	2455.00	74	2476.00
12	2414.00	33	2435.00	54	2456.00	75	2477.00
13	2415.00	34	2436.00	55	2457.00	76	2478.00
14	2416.00	35	2437.00	56	2458.00	77	2479.00
15	2417.00	36	2438.00	57	2459.00	78	2480.00
16	2418.00	37	2439.00	58	2460.00		
17	2419.00	38	2440.00	59	2461.00		
18	2420.00	39	2441.00	60	2462.00		
19	2421.00	40	2442.00	61	2463.00		
20	2422.00	41	2443.00	62	2464.00		

Table 5: RF channel and frequency of Bluetooth (BLE mode)

RF Channel	Frequency (MHz)	RF Channel	Frequency (MHz)	RF Channel	Frequency (MHz)	RF Channel	Frequency (MHz)
0	2402.00	10	2422.00	20	2442.00	30	2462.00
1	2404.00	11	2424.00	21	2444.00	31	2464.00
2	2406.00	12	2426.00	22	2446.00	32	2466.00
3	2408.00	13	2428.00	23	2448.00	33	2468.00
4	2410.00	14	2430.00	24	2450.00	34	2470.00
5	2412.00	15	2432.00	25	2452.00	35	2472.00
6	2414.00	16	2434.00	26	2454.00	36	2474.00
7	2416.00	17	2436.00	27	2456.00	37	2476.00
8	2418.00	18	243800	28	2458.00	38	2478.00
9	2420.00	19	2440.00	29	2460.00	39	2480.00

3.3 Independent Operation Modes

The basic operation modes are:

A. On
   1. Bluetooth mode (BDR & EDR mode)
      a. Tansmitting
         i. Low Channel
         ii. Middle Channel
         iii. High Channel
      b. Receiving
   2. Bluetooth mode (BLE mode)
      a. Tansmitting
         i. Low Channel
         ii. Middle Channel
         iii. High Channel
      b. Receiving
B. Standby
C. Off

3.4 Noise Generating and Noise Suppressing Parts

Refer to the Circuit Diagram.

3.5 Submitted Documents

- Bill of Material
- Circuit Diagram
- PCB Layout
- Instruction Manual
- Photo Document
- Rating Label

4. Test Set-up and Operation Modes

4.1 Principle of Configuration Selection

The equipment under test (EUT) was configured to measure its maximum power level. The test modes were adapted accordingly in reference to the instructions for use.

4.2 Test Operation and Test Software

Test operation refers to test setup in chapter 5. All testing were performed according to the procedures in ANSI C63.4:2009.

4.3 Special Accessories and Auxiliary Equipment

The EUT was tested together with the following accessories:

Description	Manufacturer	Part No.	S/N
Adapter	Supply by MRT	N/A	HSU50600F

4.4 Countermeasures to achieve EMC Compliance

The test sample which has been tested contained the noise suppression parts as described in the Constructional Data Form or the Technical Construction File. No additional measures were employed to achieve compliance.

4.5 Test Setup Diagram

Diagram of Measurement Configuration for Radiation Test

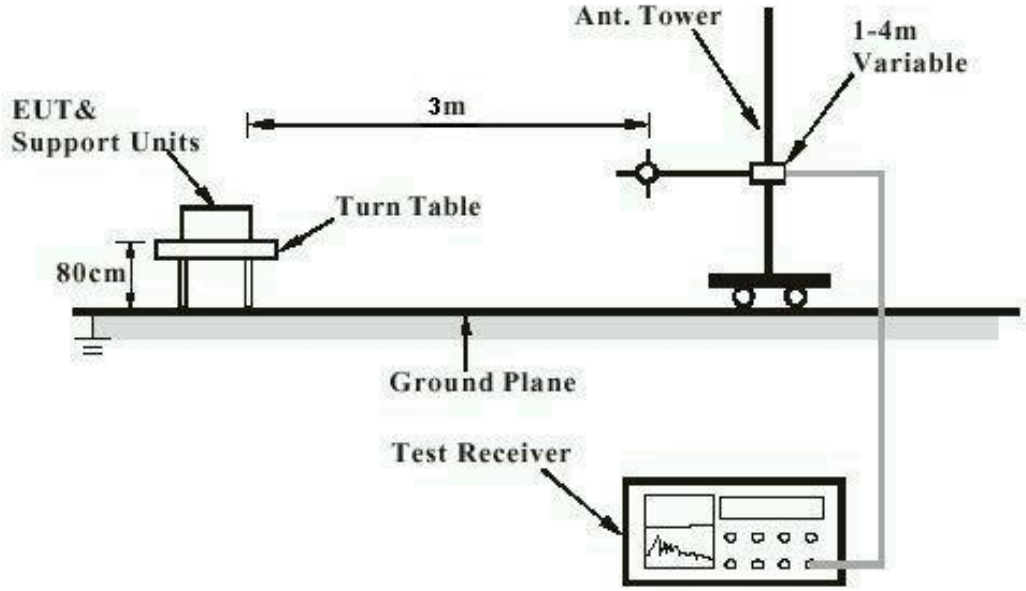


Diagram of Measurement Equipment Configuration for Conduction Measurement

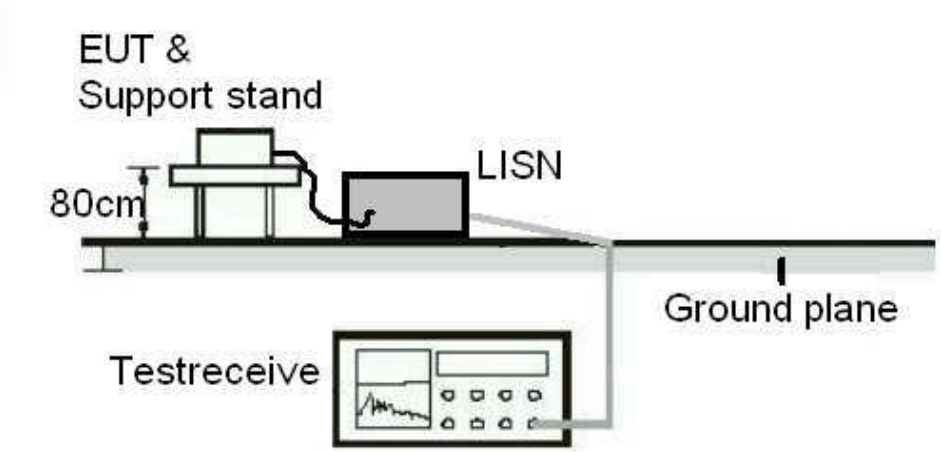
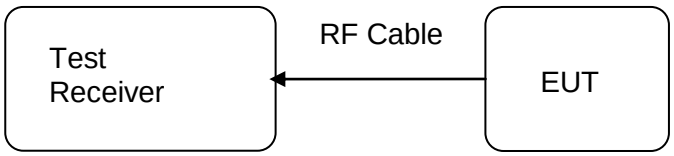


Diagram of Measurement Equipment Configuration for Transmitter Measurement



5. Test Results

5.1 Transmitter Requirement & Test Suites

5.1.1 Antenna Requirement

RESULT: **Pass**

Test standard	:	FCC Part 15.247(b)(4) and Part 15.203
Limit		The use of antennas with directional gains that do not exceed 6dBi

According to the manufacturer declared, the EUT has a chip antenna, the directional gain of antennas is 2dBi for Bluetoooth, and the antenna connectors are designed with permanent attachment and no consideration of replacement. Therefore the EUT is considered sufficient to comply with the provision.

5.1.2 Peak Output Power

RESULT: **Pass**

Test date	:	2014-10-26 ~ 2014-10-29
Test standard	:	FCC Part 15.247(b)(1) FCC Part 15.247(b)(3)
Basic standard	:	ANSI C63.4: 2009 Public Notice DA 00-705 Clause 9.1 of KDB 558074 v03r02
Limit	:	125mW, 1W
Kind of test site	:	Shielded room

Test setup

Test Channel	:	Low/ Middle/ High
Operation Mode	:	A.1.a, A.2.a
Ambient temperature	:	25℃
Relative humidity	:	52%
Atmospheric pressure	:	101kPa

Table 6: Test result of Peak Output Power of Bluetooth (BDR mode)

Channel	Channel Frequency (MHz)	Peak Output Power (dBm)	Limit (dBm)
Low Channel	2402	-9.735	30
Middle Channel	2441	-9.305	30
High Channel	2480	-9.332	30

Table 7: Test result of Peak Output Power of Bluetooth (EDR mode)

Channel	Channel Frequency (MHz)	Peak Output Power (dBm)	Limit (dBm)
Low Channel	2402	-8.341	21
Middle Channel	2441	-7.691	21
High Channel	2480	-8.789	21

Table 8: Test result of Peak Output Power of Bluetooth (BLE mode)

Channel	Channel Frequency (MHz)	Peak Output Power (dBm)	Limit (dBm)
Low Channel	2402	-4.02	21
Middle Channel	2442	-3.94	21
High Channel	2480	-4.55	21

5.1.3 20dB Bandwidth and 99% Bandwidth

RESULT: **Pass**

Date of testing	:	2014-10-26
Test standard	:	FCC Part 15.247(a)(1)
Basic standard	:	ANSI C63.4: 2009 Public Notice DA 00-705
Kind of test site	:	Shielded room

Test setup

Test Channel	:	Low/ Middle/ High
Operation Mode	:	A.1.a
Ambient temperature	:	25℃
Relative humidity	:	52%
Atmospheric pressure	:	101kPa

Table 9: Test result of 20dB & 99% Bandwidth of BDR mode

Channel	Channel Frequency (MHz)	20dB Bandwidth (MHz)	99% Bandwidth (MHz)
Low Channel	2402	0.958	0.894
Mid Channel	2441	0.955	0.889
High Channel	2480	0.918	0.866

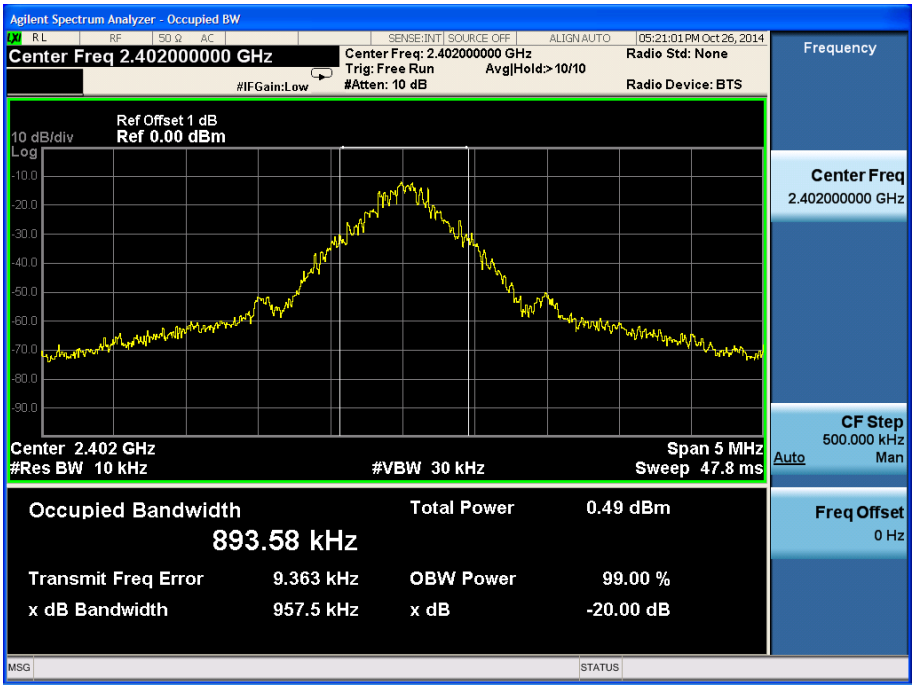
Table 10: Test result of 20dB & 99% Bandwidth of EDR mode

Channel	Channel Frequency (MHz)	20dB Bandwidth (MHz)	99% Bandwidth (MHz)
Low Channel	2402	1.255	1.170
Mid Channel	2441	1.257	1.167
High Channel	2480	1.259	1.174

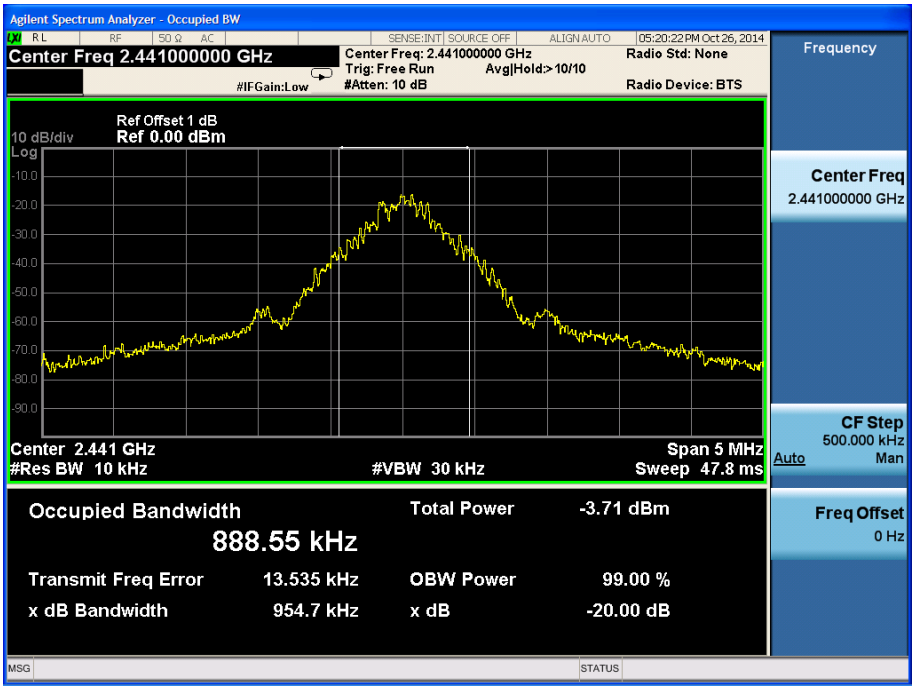
For details refer to following test plot.

Test Plot of 20dB & 99% Bandwidth measured in 10kHz Bandwidth of BDR mode

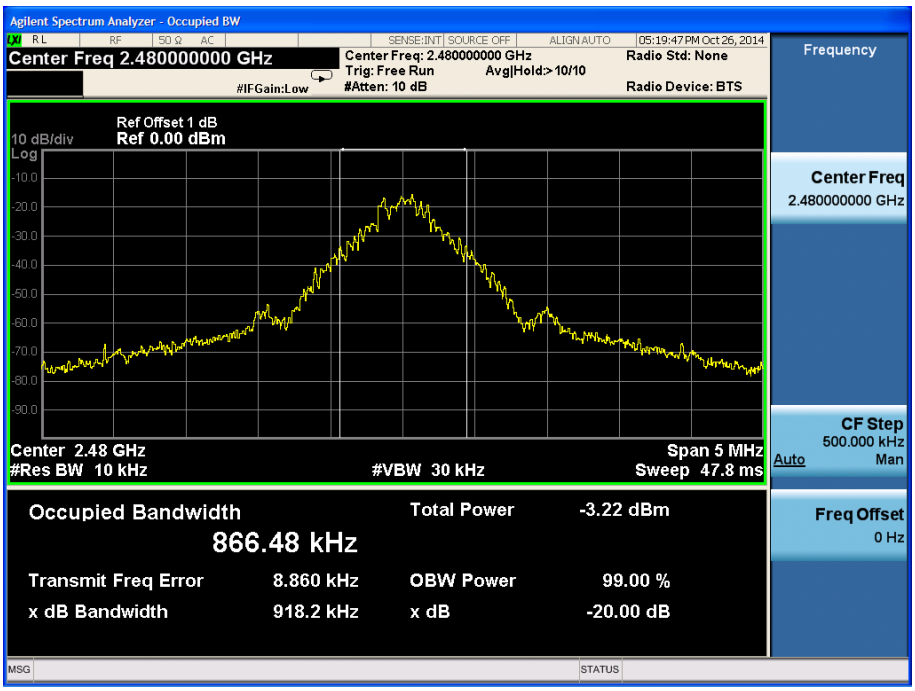
Low Channel



Middle Channel

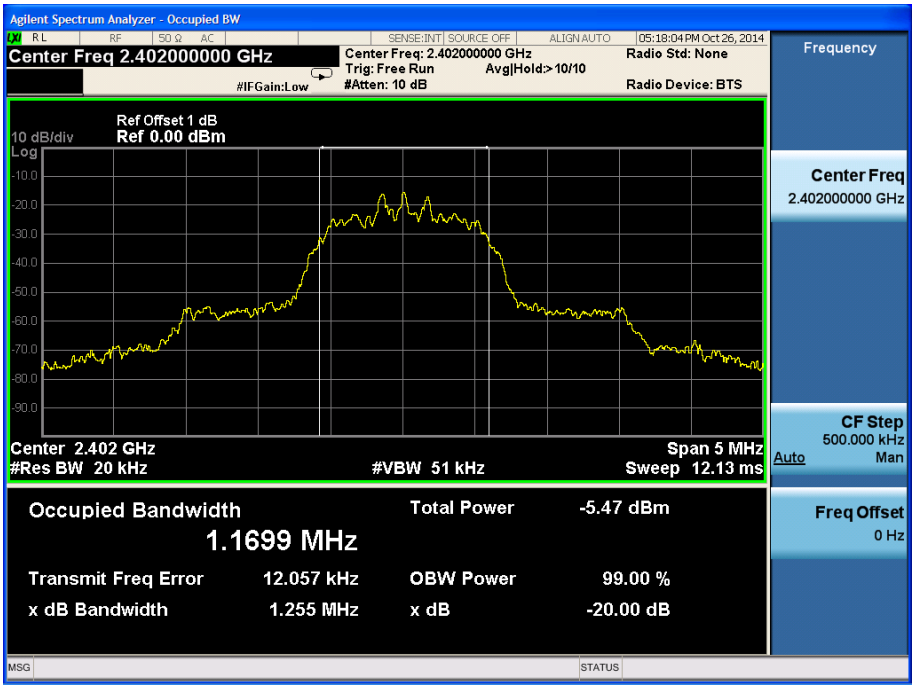


High Channel

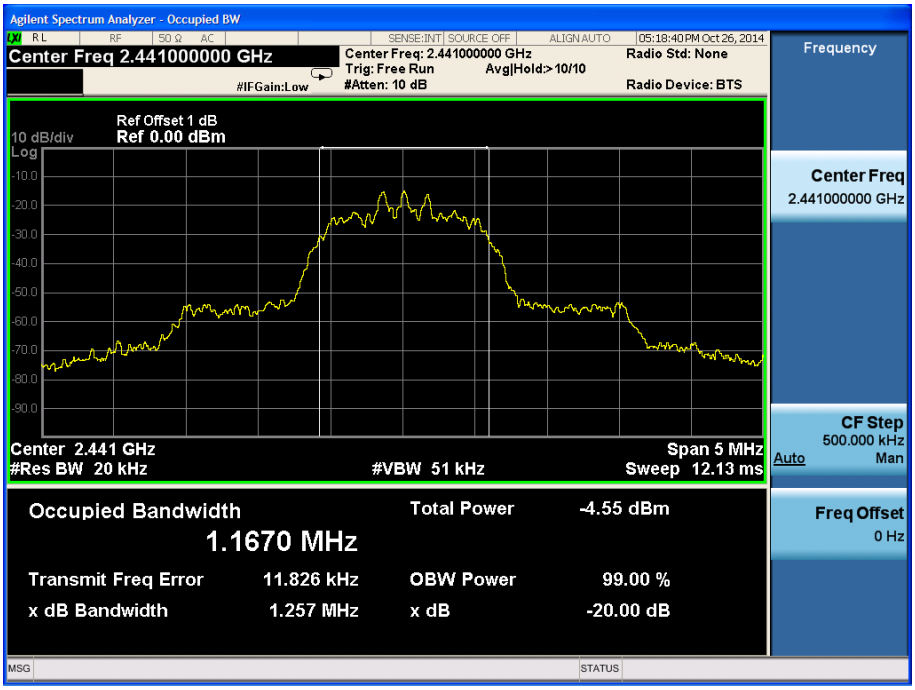


Test Plot of 20dB & 99% Bandwidth measured in 20kHz Bandwidth of EDR mode

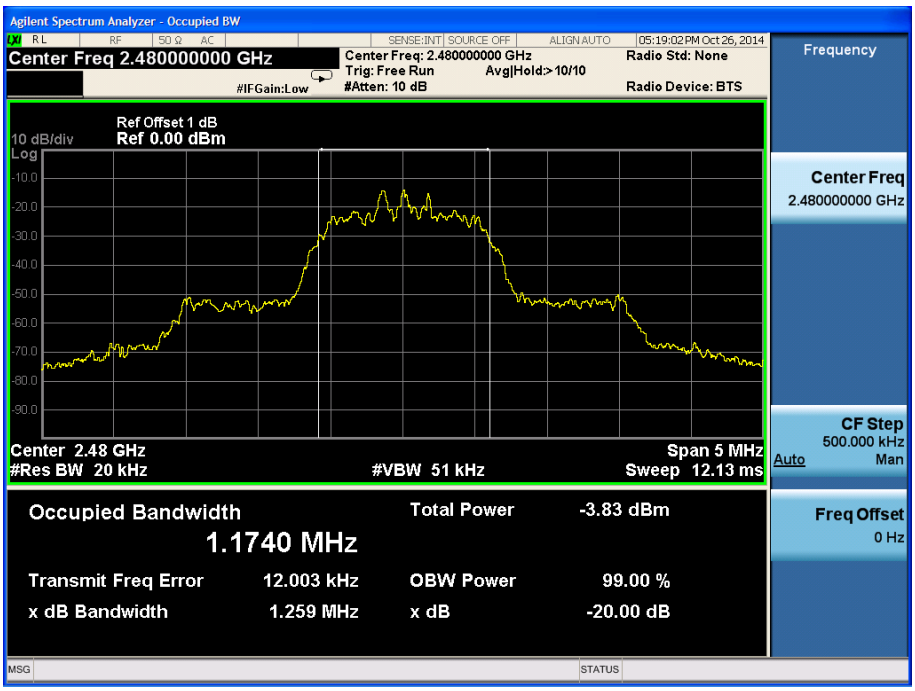
Low Channel



Middle Channel



High Channel



5.1.4 6dB Bandwidth and 99% Bandwidth

RESULT: **Pass**

Date of testing	:	2014-10-22
Test standard	:	FCC Part 15.247(a)(2)
Basic standard	:	ANSI C63.4: 2009 Clause 8 of KDB 558074 v03r02
Kind of test site	:	Shielded room

Test setup

Test Channel	:	Low/ Middle/ High
Operation Mode	:	A.2.a
Ambient temperature	:	25℃
Relative humidity	:	52%
Atmospheric pressure	:	101kPa

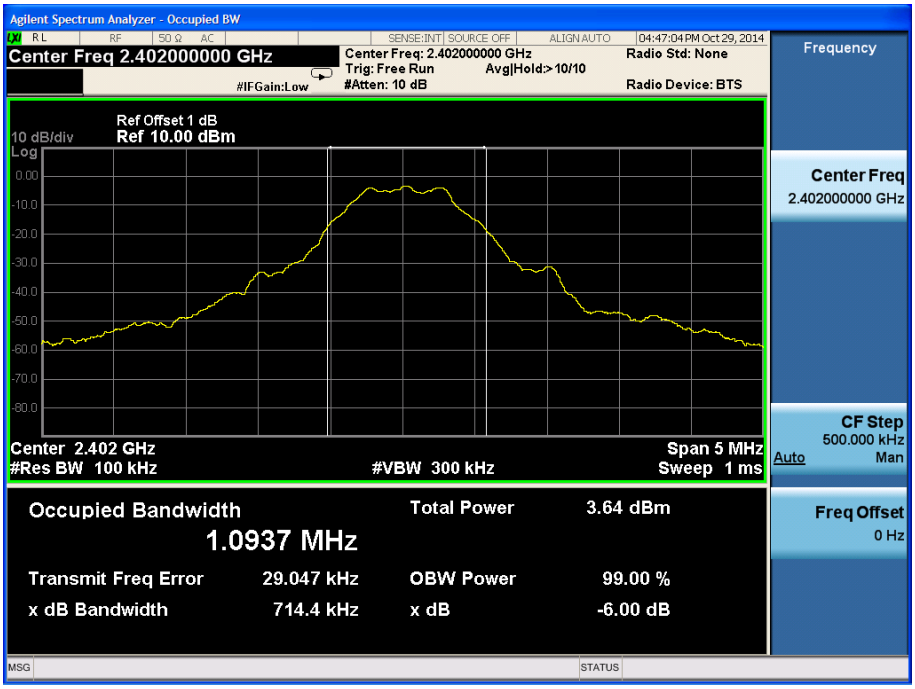
Table 11: Test result of 6dB & 99% Bandwidth of BLE mode

Channel	Channel Frequency (MHz)	6dB Bandwidth (MHz)	99% Bandwidth (MHz)
Low Channel	2402	0.714	1.094
Mid Channel	2442	0.715	1.088
High Channel	2480	0.700	1.085

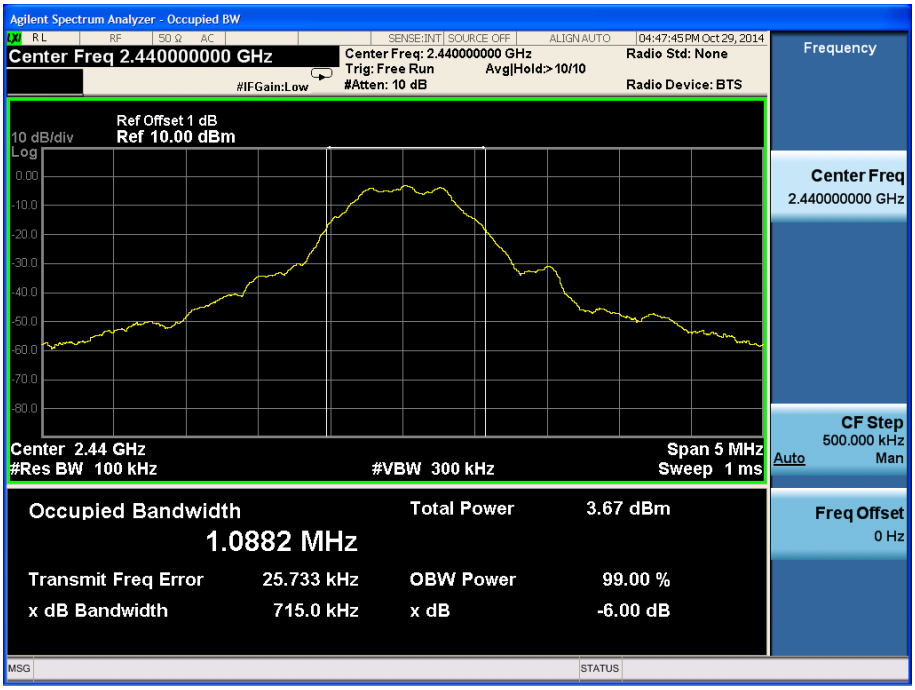
For details refer to following test plot.

Test Plot of 6dB & 99% Bandwidth measured in 100kHz Bandwidth of BLE mode

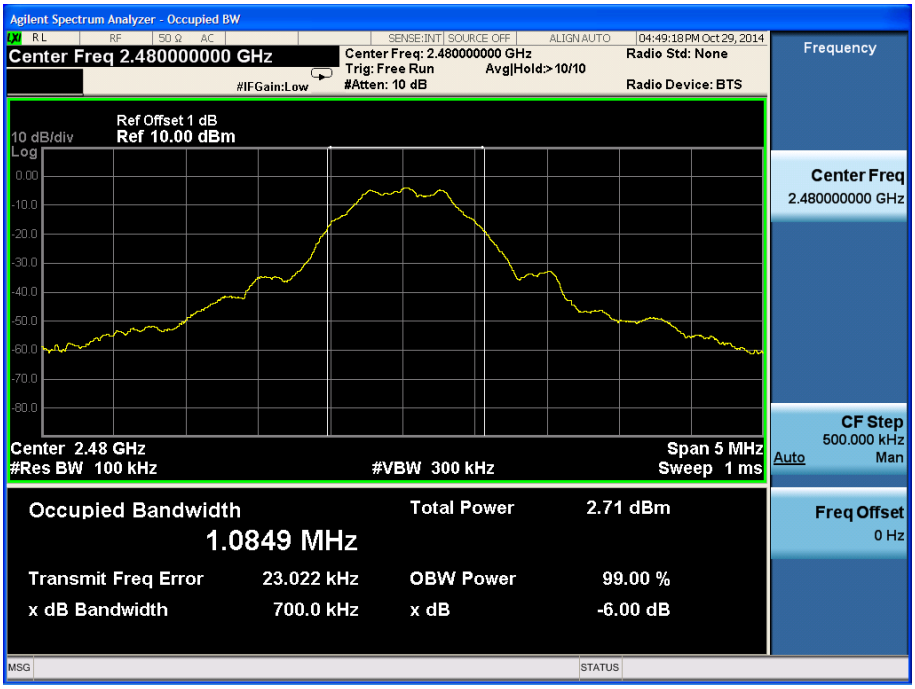
Low Channel



Middle Channel



High Channel



5.1.5 Conducted Spurious Emissions measured in 100kHz Bandwidth

RESULT: **Pass**

Date of testing	:	2014-10-27 & 2014-10-29
Test standard	:	FCC part 15.247(d)
Basic standard	:	ANSI C63.4: 2009
Limit	:	20dB (below that in the 100kHz bandwidth within the band that contains the highest level of the desired power);
Kind of test site	:	Shield room

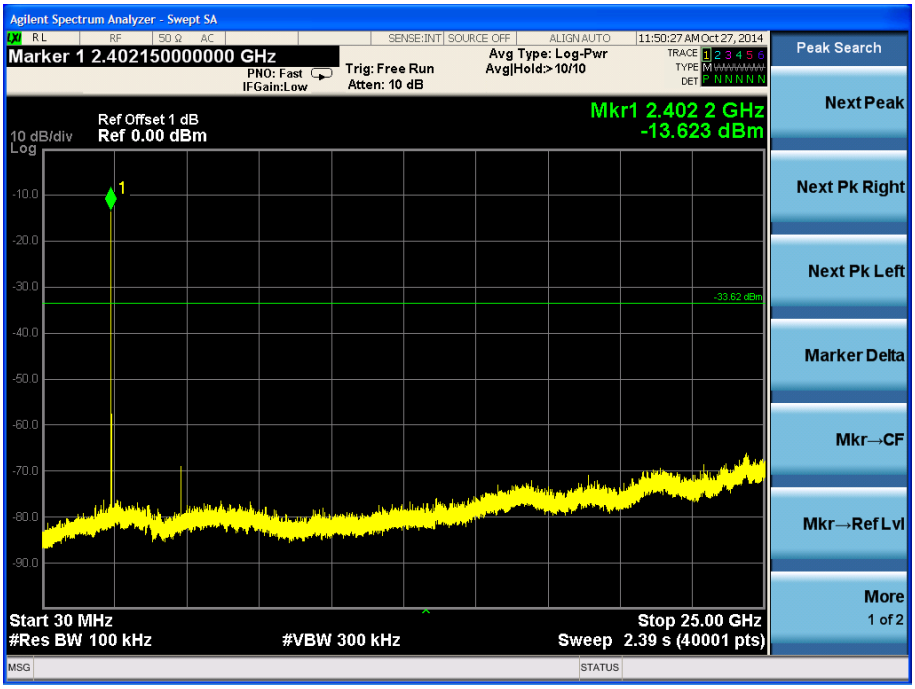
Test setup

Test Channel	:	Low/ Middle/ High
Operation mode	:	A.1.a, A.2.a
Ambient temperature	:	25℃
Relative humidity	:	52%
Atmospheric pressure	:	101kPa

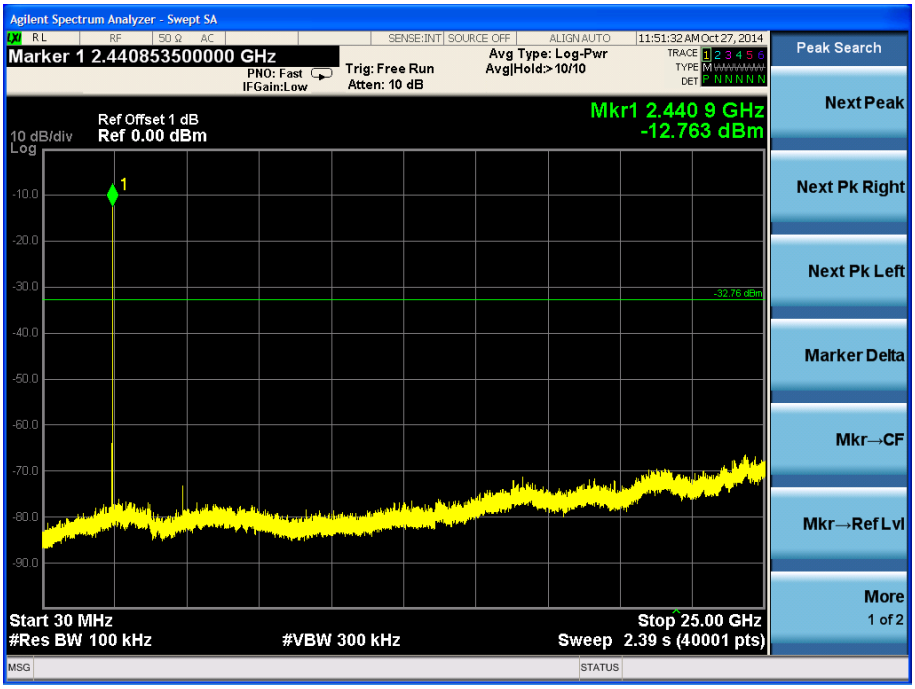
For details refer to following test plot.

Test Plot of Conducted spurious emissions measured in 100kHz Bandwidth of BDR mode

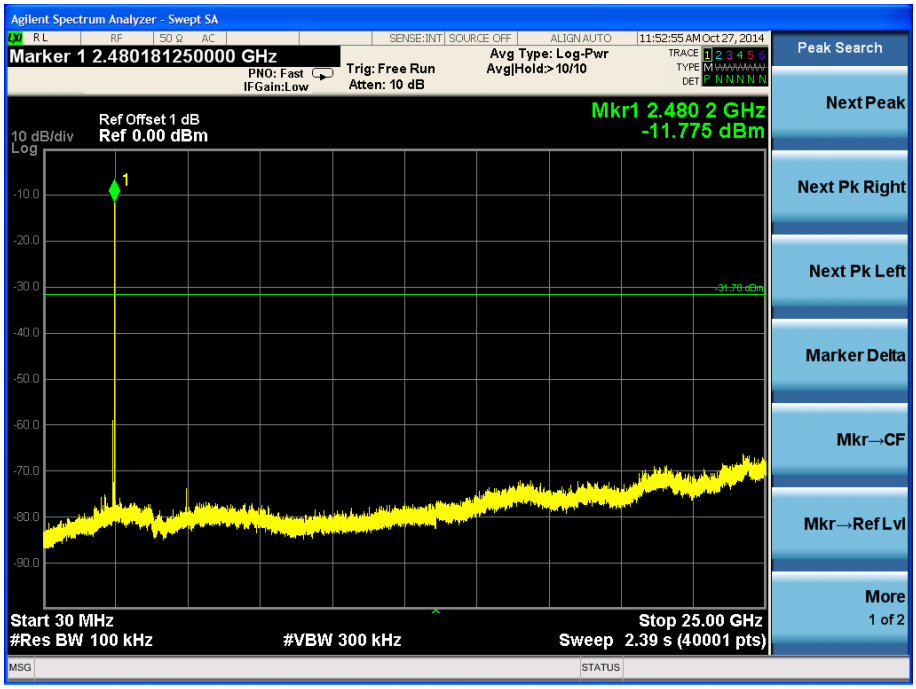
Low Channel



Middle Channel

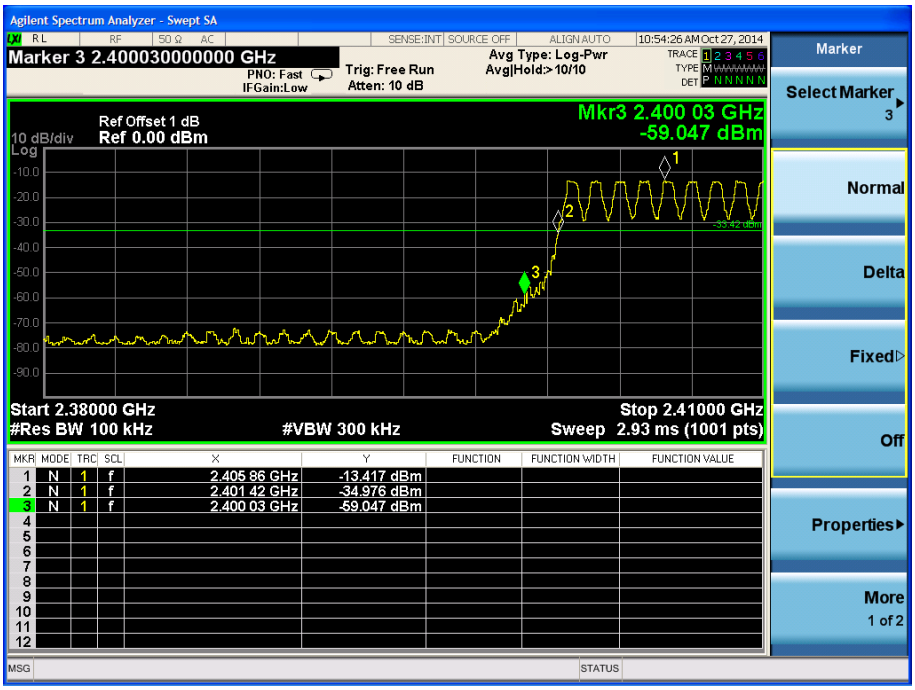


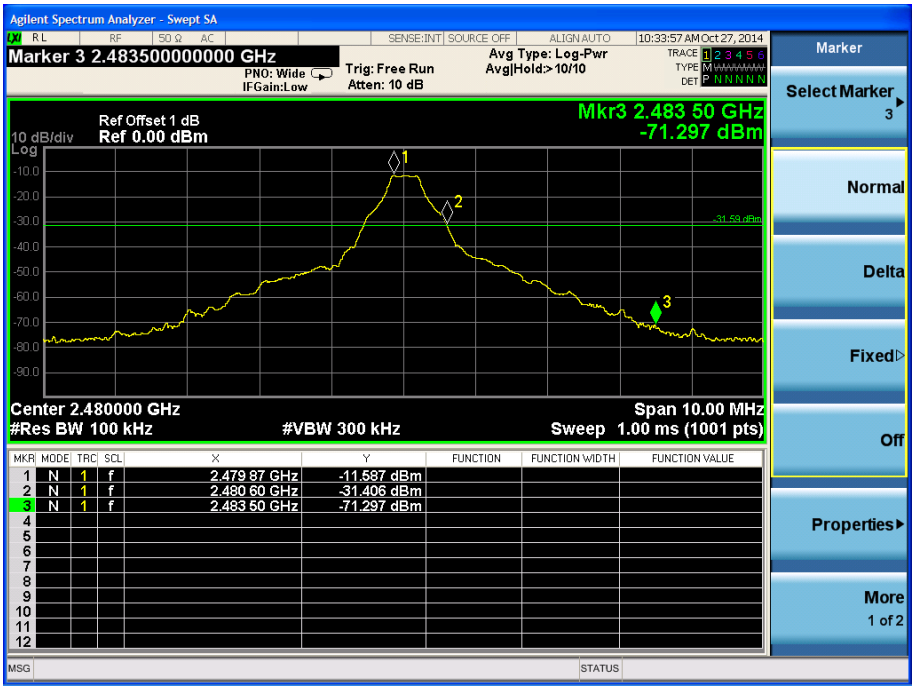
High Channel

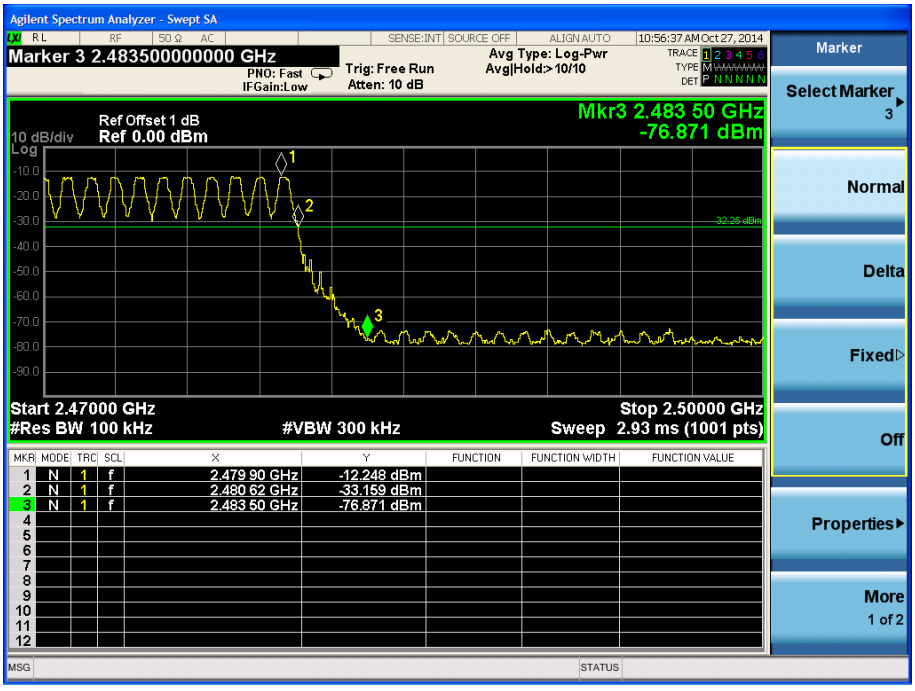


Band Edge


Agilent Spectrum Analyzer - Swept SA
Marker 3 2.400000000000 GHz
PNO: Wide
IFGain:Low
Trig: Free Run
Atten: 10 dB
Avg Type: Log-Pwr
Avg|Hold:>10/10
10:32:07 AM Oct 27, 2014
Ref Offset 1 dB
10 dB/div
Ref 0.00 dBm
Mkr3 2.400 000 GHz
-58.348 dBm
-32.93 dBm
Center 2.402000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Span 5.000 MHz
Sweep 1.00 ms (1001 pts)
1 N 1 f 2.401 860 GHz -12.934 dBm
2 N 1 f 2.401 450 GHz -32.795 dBm
3 N 1 f 2.400 000 GHz -58.348 dBm
Marker
Select Marker 3
Normal
Delta
Fixed
Off
Properties
More 1 of 2

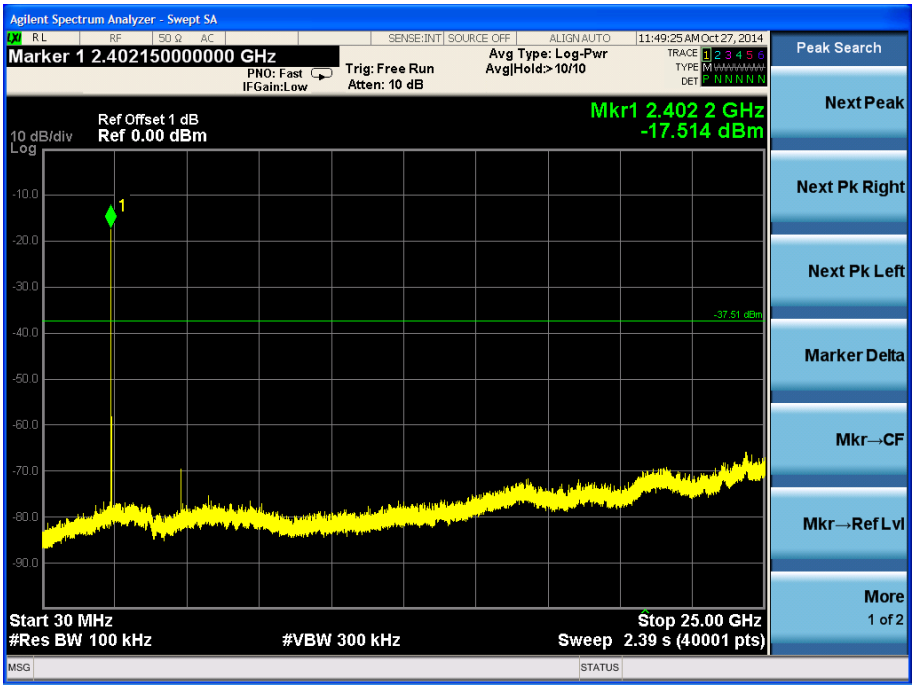

Agilent Spectrum Analyzer - Swept SA
Marker 3 2.400030000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
Atten: 10 dB
Avg Type: Log-Pwr
Avg|Hold:>10/10
10:54:26 AM Oct 27, 2014
Ref Offset 1 dB
10 dB/div
Ref 0.00 dBm
Mkr3 2.400 03 GHz
-59.047 dBm
-33.42 dBm
Start 2.38000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 2.41000 GHz
Sweep 2.93 ms (1001 pts)
1 N 1 f 2.405 86 GHz -13.417 dBm
2 N 1 f 2.401 42 GHz -34.976 dBm
3 N 1 f 2.400 03 GHz -59.047 dBm
Marker
Select Marker 3
Normal
Delta
Fixed
Off
Properties
More 1 of 2


Agilent Spectrum Analyzer - Swept SA
Marker 3 2.483500000000 GHz
PNO: Wide
IFGain:Low
Trig: Free Run
Atten: 10 dB
Avg Type: Log-Pwr
Avg|Hold:>10/10
10:33:57 AM Oct 27, 2014
Ref Offset 1 dB
10 dB/div
Ref 0.00 dBm
Log
Mkr3 2.483 50 GHz
-71.297 dBm
-31.59 dBm
Center 2.480000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Span 10.00 MHz
Sweep 1.00 ms (1001 pts)
1 N 1 f 2.479 87 GHz -11.587 dBm
2 N 1 f 2.480 60 GHz -31.406 dBm
3 N 1 f 2.483 50 GHz -71.297 dBm
Marker
Select Marker
3
Normal
Delta
Fixed
Off
Properties
More
1 of 2
MSG
STATUS

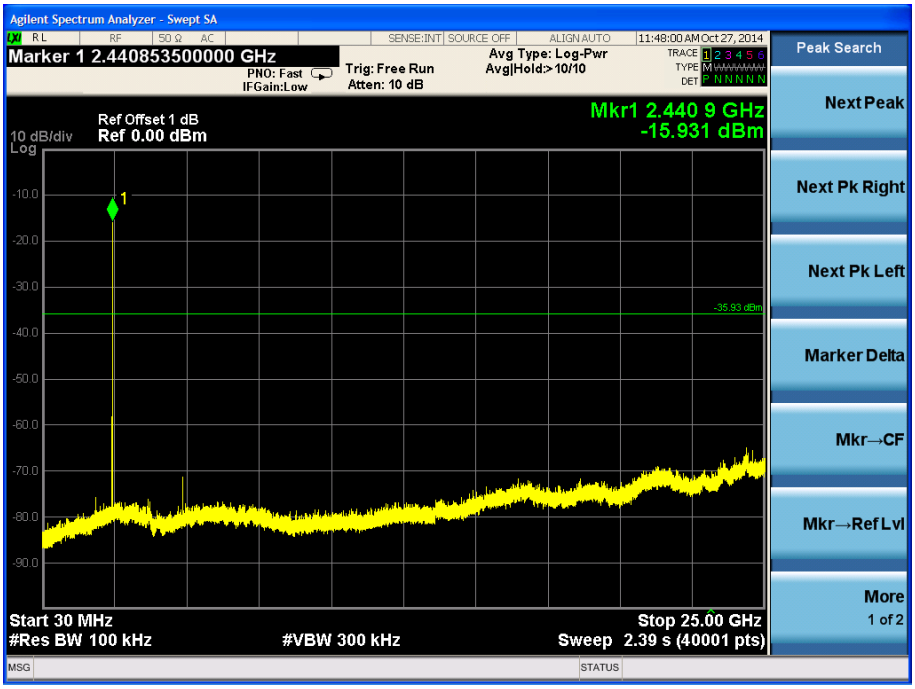

Agilent Spectrum Analyzer - Swept SA
Marker 3 2.483500000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
Atten: 10 dB
Avg Type: Log-Pwr
Avg|Hold:>10/10
10:56:37 AM Oct 27, 2014
Ref Offset 1 dB
10 dB/div
Ref 0.00 dBm
Log
Mkr3 2.483 50 GHz
-76.871 dBm
-32.26 dBm
Start 2.47000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 2.50000 GHz
Sweep 2.93 ms (1001 pts)
1 N 1 f 2.479 90 GHz -12.248 dBm
2 N 1 f 2.480 62 GHz -33.159 dBm
3 N 1 f 2.483 50 GHz -76.871 dBm
Marker
Select Marker
3
Normal
Delta
Fixed
Off
Properties
More
1 of 2
MSG
STATUS

Test Plot of Conducted spurious emissions measured in 100kHz Bandwidth of EDR mode

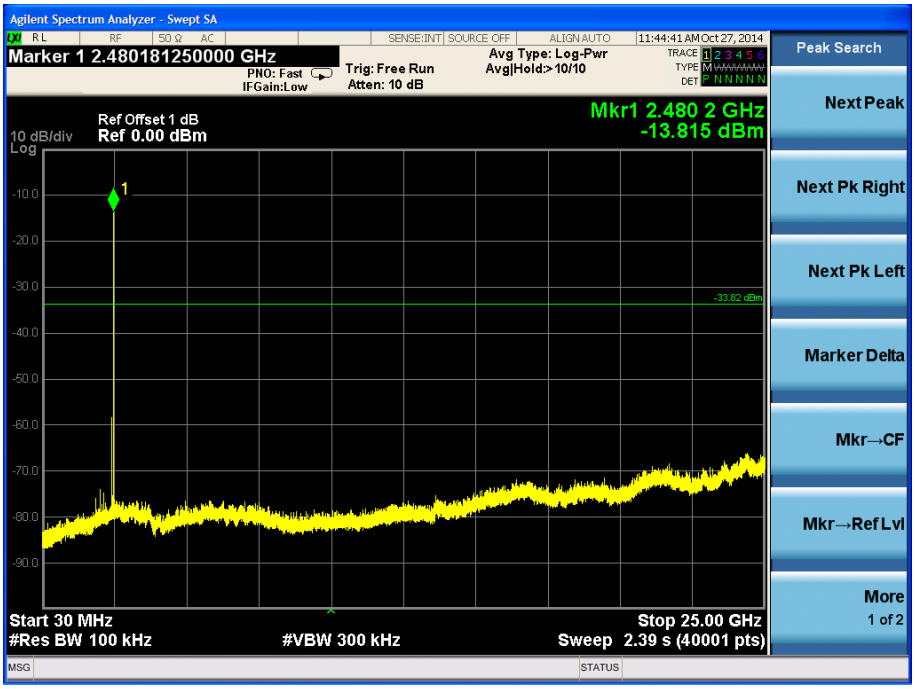
Low Channel



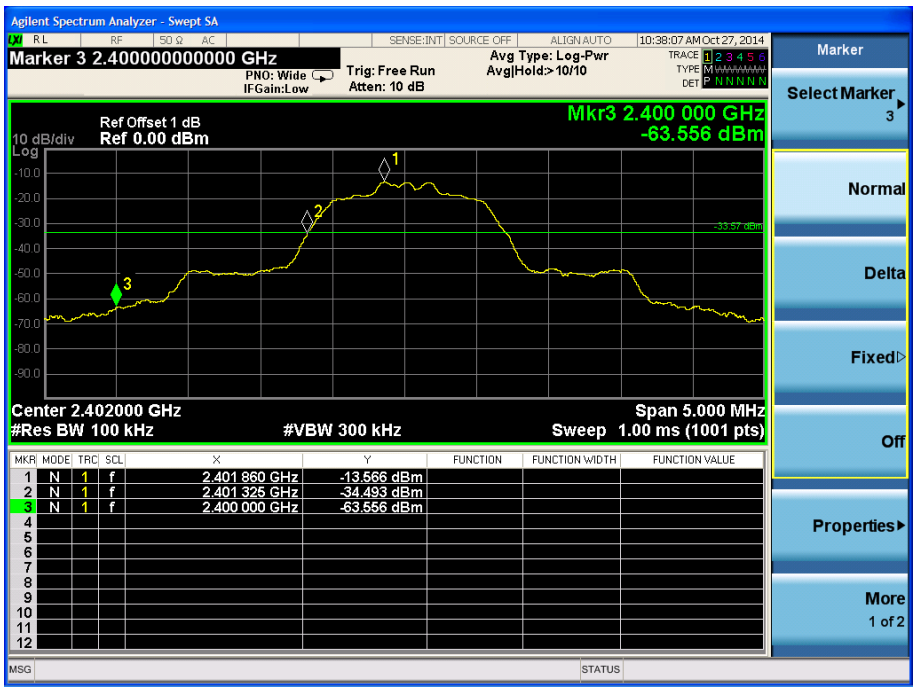
Middle Channel

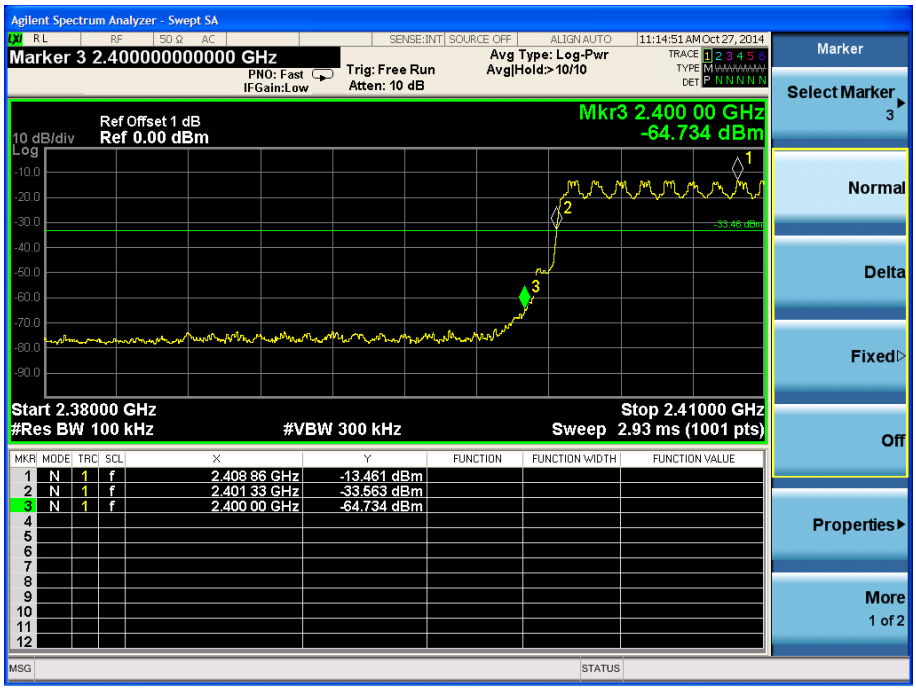


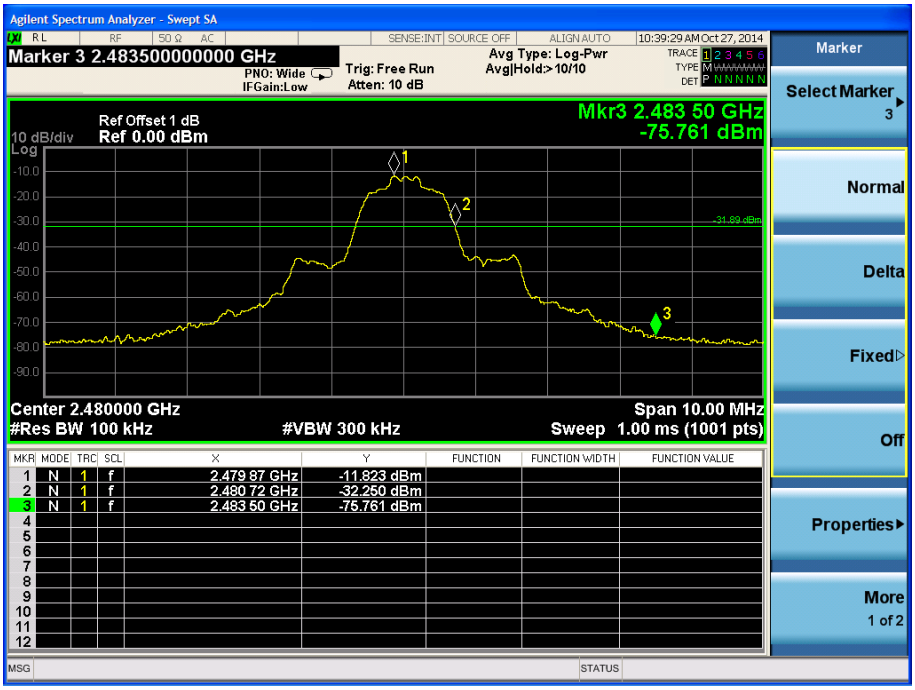
High Channel

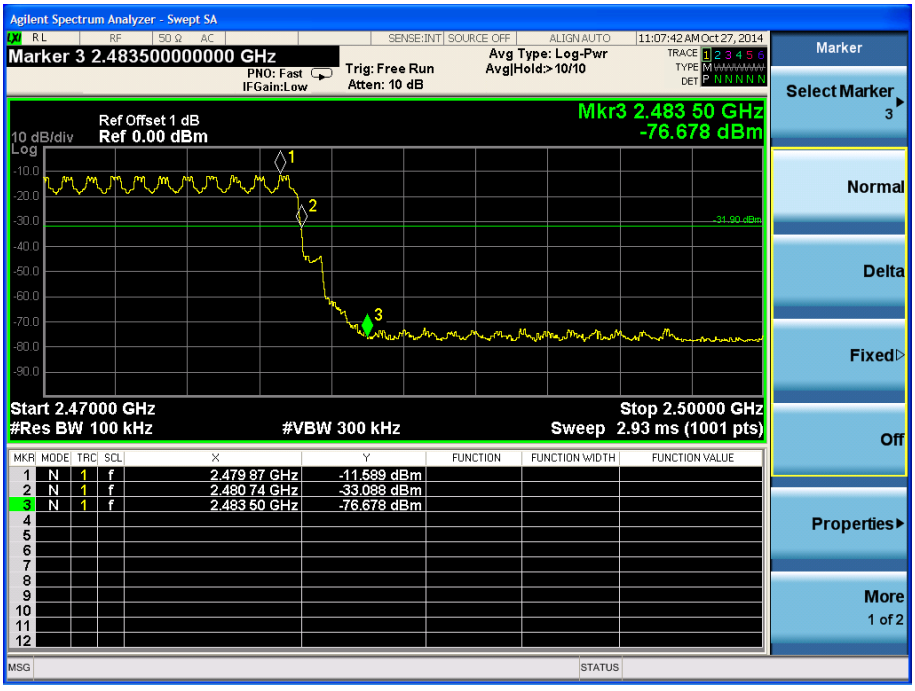


Band Edge


Agilent Spectrum Analyzer - Swept SA
Marker 3 2.400000000000 GHz
PNO: Wide
IFGain:Low
Trig: Free Run
Atten: 10 dB
Avg Type: Log-Pwr
Avg|Hold:>10/10
10:38:07 AM Oct 27, 2014
Ref Offset 1 dB
10 dB/div
Ref 0.00 dBm
Log
Mkr3 2.400 000 GHz
-63.556 dBm
-33.57 dBm
Center 2.402000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Span 5.000 MHz
Sweep 1.00 ms (1001 pts)
1 N 1 f 2.401 860 GHz -13.566 dBm
2 N 1 f 2.401 325 GHz -34.493 dBm
3 N 1 f 2.400 000 GHz -63.556 dBm
Marker
Select Marker 3
Normal
Delta
Fixed
Off
Properties
More 1 of 2
MSG
STATUS

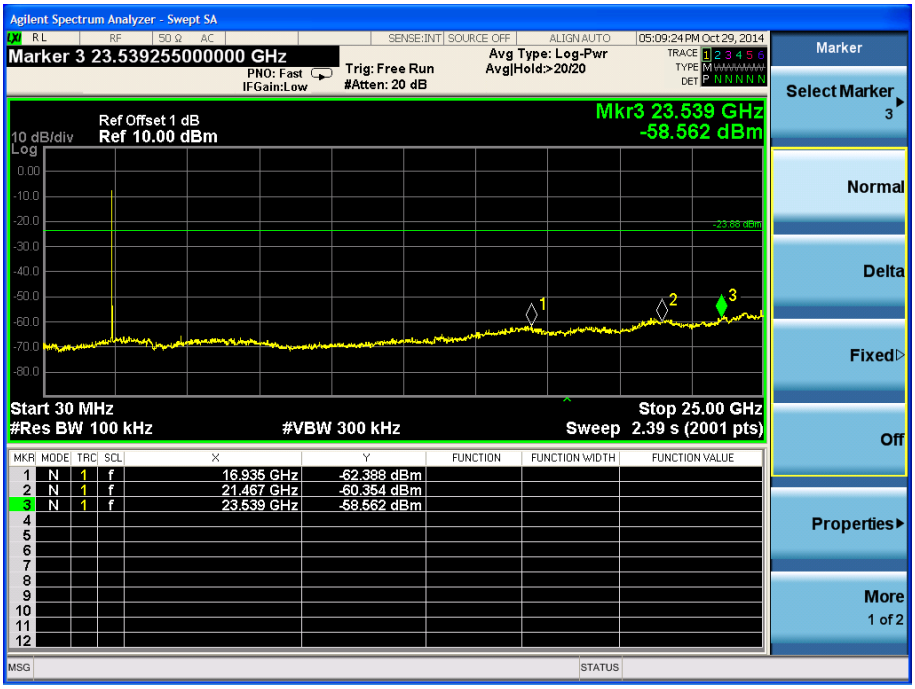

Agilent Spectrum Analyzer - Swept SA
Marker 3 2.400000000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
Atten: 10 dB
Avg Type: Log-Pwr
Avg|Hold:>10/10
11:14:51 AM Oct 27, 2014
Ref Offset 1 dB
10 dB/div
Ref 0.00 dBm
Log
Mkr3 2.400 00 GHz
-64.734 dBm
-33.46 dBm
Start 2.38000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 2.41000 GHz
Sweep 2.93 ms (1001 pts)
1 N 1 f 2.408 86 GHz -13.461 dBm
2 N 1 f 2.401 33 GHz -33.563 dBm
3 N 1 f 2.400 00 GHz -64.734 dBm
Marker
Select Marker 3
Normal
Delta
Fixed
Off
Properties
More 1 of 2
MSG
STATUS


Agilent Spectrum Analyzer - Swept SA
Marker 3 2.483500000000 GHz
PNO: Wide
IFGain:Low
Trig: Free Run
Atten: 10 dB
Avg Type: Log-Pwr
Avg|Hold:>10/10
10:39:29 AM Oct 27, 2014
Ref Offset 1 dB
10 dB/div
Ref 0.00 dBm
Log
Mkr3 2.483 50 GHz
-75.761 dBm
-31.89 dBm
Center 2.480000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Span 10.00 MHz
Sweep 1.00 ms (1001 pts)
1 N 1 f 2.479 87 GHz -11.823 dBm
2 N 1 f 2.480 72 GHz -32.250 dBm
3 N 1 f 2.483 50 GHz -75.761 dBm
Marker
Select Marker
3
Normal
Delta
Fixed
Off
Properties
More
1 of 2
MSG
STATUS

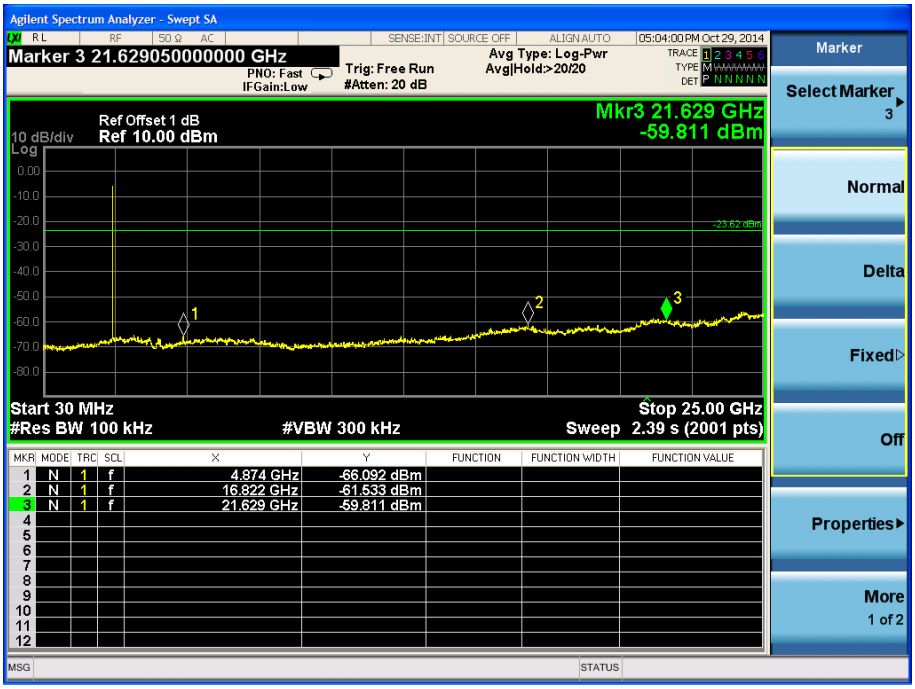

Agilent Spectrum Analyzer - Swept SA
Marker 3 2.483500000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
Atten: 10 dB
Avg Type: Log-Pwr
Avg|Hold:>10/10
11:07:42 AM Oct 27, 2014
Ref Offset 1 dB
10 dB/div
Ref 0.00 dBm
Log
Mkr3 2.483 50 GHz
-76.678 dBm
-31.90 dBm
Start 2.47000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Stop 2.50000 GHz
Sweep 2.93 ms (1001 pts)
1 N 1 f 2.479 87 GHz -11.589 dBm
2 N 1 f 2.480 74 GHz -33.088 dBm
3 N 1 f 2.483 50 GHz -76.678 dBm
Marker
Select Marker
3
Normal
Delta
Fixed
Off
Properties
More
1 of 2
MSG
STATUS

Test Plot of Conducted spurious emissions measured in 100kHz Bandwidth of BLE mode

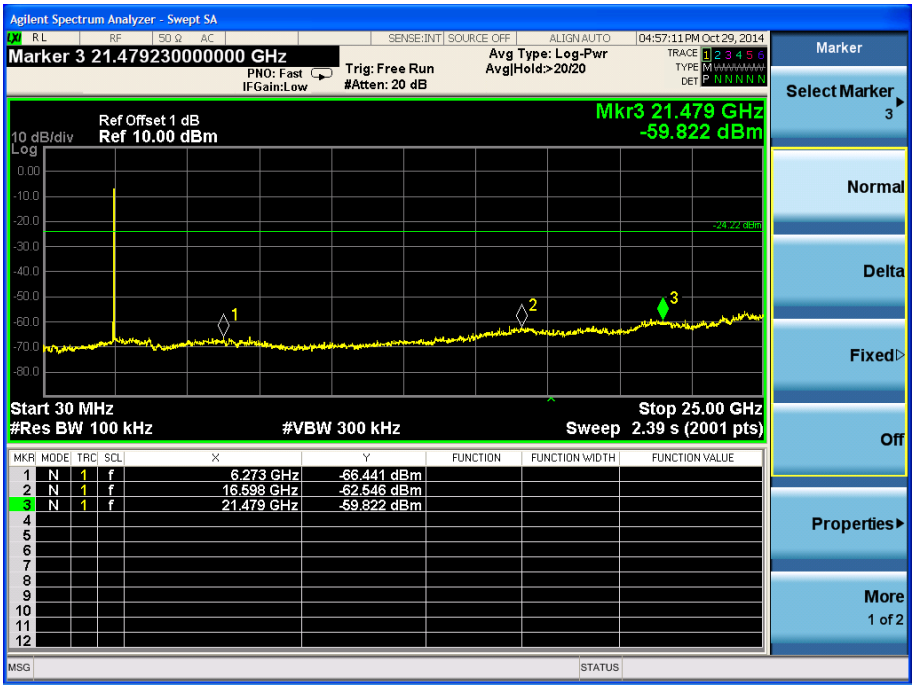
Low Channel



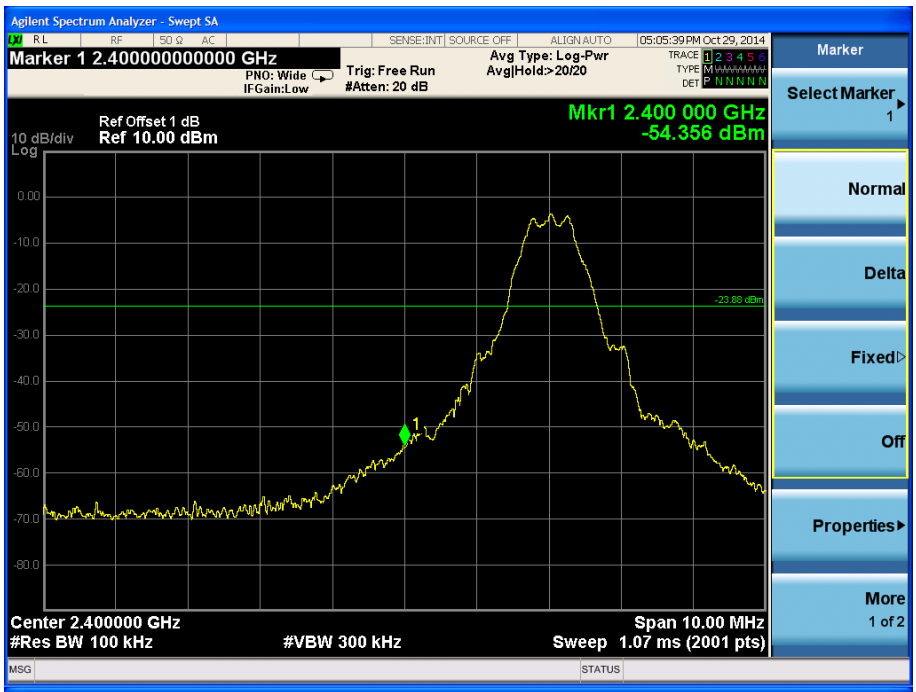
Middle Channel

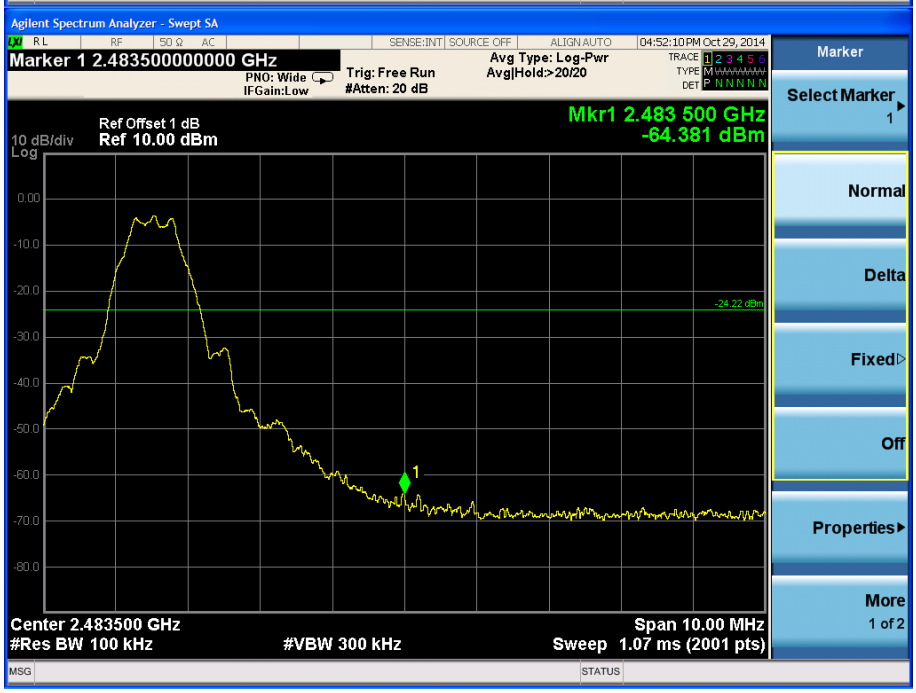


High Channel



Band Edge


Agilent Spectrum Analyzer - Swept SA
Marker 1 2.400000000000 GHz
PNO: Wide
IFGain:Low
Trig: Free Run
#Atten: 20 dB
Avg Type: Log-Pwr
Avg|Hold:>20/20
05:05:39 PM Oct 29, 2014
Ref Offset 1 dB
10 dB/div
Log
Ref 10.00 dBm
Mkr1 2.400 000 GHz
-54.356 dBm
-23.88 dBm
Center 2.400000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Span 10.00 MHz
Sweep 1.07 ms (2001 pts)
Marker
Select Marker
1
Normal
Delta
Fixed
Off
Properties
More
1 of 2
MSG
STATUS


Agilent Spectrum Analyzer - Swept SA
Marker 1 2.483500000000 GHz
PNO: Wide
IFGain:Low
Trig: Free Run
#Atten: 20 dB
Avg Type: Log-Pwr
Avg|Hold:>20/20
04:52:10 PM Oct 29, 2014
Ref Offset 1 dB
10 dB/div
Log
Ref 10.00 dBm
Mkr1 2.483 500 GHz
-64.381 dBm
-24.22 dBm
Center 2.483500 GHz
#Res BW 100 kHz
#VBW 300 kHz
Span 10.00 MHz
Sweep 1.07 ms (2001 pts)
Marker
Select Marker
1
Normal
Delta
Fixed
Off
Properties
More
1 of 2
MSG
STATUS

5.1.6 Power spectral density

RESULT: **Pass**

Date of testing	:	2014-10-29
Test standard	:	FCC part 15.247(e)
Basic standard	:	ANSI C63.4: 2009 Clause 10 of KDB 558074 v03r02
Limit	:	8dBm/3kHz
Kind of test site	:	Shield room

Test setup

Test Channel	:	Low/ Middle/ High
Operation mode	:	A.2.a
Ambient temperature	:	25℃
Relative humidity	:	52%
Atmospheric pressure	:	101kPa

Table 12: Test result of power spectral density:

Mode	Channel (MHz)	Result (dBm/3kHz)	Limit (dBm/3kHz)	Conclusion
BLE	2402	-19.953	8	Pass
	2442	-17.839	8	Pass
	2480	-18.447	8	Pass

5.1.7 Spurious Emission

RESULT: **Pass**

Date of testing	:	2014-10-25 & 2014-10-29
Test standard	:	FCC part 15.247(d)
Basic standard	:	ANSI C63.4: 2009 Public Notice DA 00-705 Clause 11 of KDB 558074 v03r02
Limits	:	FCC part 15.209(a)
Kind of test site	:	3m Semi-Anechoic Chamber

Test setup

Test Channel	:	Low/ Middle/ High
Operation mode	:	A.1, A.2
Ambient temperature	:	25℃
Relative humidity	:	52%
Atmospheric pressure	:	101kPa

Table 13: Test result of Spurious Emission of Bluetooth (BDR mode)

Channel	Freq. [MHz]	Measure Level [dBm]	Reading Level [dBm]	Margin [dB]	Limit [dBm]	Correct Factor [dB]	Detector	Polar
Low	304.025	42.264	28.035	-3.736	46.000	14.228	PEAK	H
	320.030	42.215	27.593	-3.785	46.000	14.622	PEAK	
	4157.000	42.286	37.655	-31.714	74.000	4.631	PEAK	
	4326.000	43.666	38.330	-30.334	74.000	5.336	PEAK	
	4808.000	49.001	42.632	-24.999	74.000	6.369	PEAK	
	7356.000	49.296	35.266	-24.704	74.000	14.030	PEAK	
	304.025	33.244	19.015	-12.756	46.000	14.228	PEAK	V
	320.030	32.412	17.790	-13.588	46.000	14.622	PEAK	
	4056.000	41.911	37.361	-32.089	74.000	4.550	PEAK	
	4326.000	43.181	37.845	-30.819	74.000	5.336	PEAK	
	4414.000	43.707	38.199	-30.293	74.000	5.508	PEAK	
	4808.000	47.541	41.172	-26.459	74.000	6.369	PEAK	
Mid	304.025	41.063	26.834	-4.937	46.000	14.228	PEAK	H
	320.030	42.380	27.758	-3.620	46.000	14.622	PEAK	
	4219.000	42.687	37.811	-31.313	74.000	4.877	PEAK	
	4327.000	41.999	36.662	-32.001	74.000	5.336	PEAK	
	4884.500	48.902	42.252	-25.098	74.000	6.651	PEAK	
	7323.000	49.478	35.464	-24.522	74.000	14.014	PEAK	
	320.030	32.330	17.708	-13.670	46.000	14.622	PEAK	V
	912.700	41.778	18.355	-4.222	46.000	23.423	PEAK	
	4258.000	42.026	36.997	-31.974	74.000	5.029	PEAK	
	4419.000	42.804	37.296	-31.196	74.000	5.508	PEAK	
	4884.500	47.881	41.231	-26.119	74.000	6.651	PEAK	
	7323.000	48.761	34.747	-25.239	74.000	14.014	PEAK	
High	304.025	43.152	28.923	-2.848	46.000	14.228	PEAK	H
	320.030	38.673	24.051	-7.327	46.000	14.622	PEAK	
	4216.000	42.025	37.160	-31.975	74.000	4.865	PEAK	
	4319.000	43.490	38.161	-30.510	74.000	5.328	PEAK	
	4961.000	48.654	41.864	-25.346	74.000	6.790	PEAK	
	7440.000	49.383	35.215	-24.617	74.000	14.168	PEAK	
	320.030	32.170	17.548	-13.830	46.000	14.622	PEAK	V
	910.275	37.615	14.225	-8.385	46.000	23.390	PEAK	
	4219.000	41.631	36.755	-32.369	74.000	4.877	PEAK	
	4419.000	42.872	37.364	-31.128	74.000	5.508	PEAK	
	4961.000	46.790	40.000	-27.210	74.000	6.790	PEAK	
	7440.000	49.576	35.408	-24.424	74.000	14.168	PEAK	

Notes:
1. For 9 kHz ~ 30 MHz, the amplitude of spurious emissions that are attenuated by more than 20dB below the permissible. The value has no need to be reported.
2. Due to the peak measure values also meet the average limit (54dBm), the average measurement is not tested based on technical judgment.

Table 14: Test result of Spurious Emission of Bluetooth (EDR mode)

Channel	Freq. [MHz]	Measure Level [dBm]	Reading Level [dBm]	Margin [dB]	Limit [dBm]	Correct Factor [dB]	Detector	Polar
Low	304.025	42.898	28.669	-3.102	46.000	14.228	PEAK	H
	320.030	37.921	23.299	-8.079	46.000	14.622	PEAK	
	4189.000	42.159	37.416	-31.841	74.000	4.742	PEAK	
	4326.000	42.564	37.228	-31.436	74.000	5.336	PEAK	
	4808.000	48.135	41.766	-25.865	74.000	6.369	PEAK	
	7569.000	50.306	35.625	-23.694	74.000	14.682	PEAK	
	320.030	33.795	19.173	-12.205	46.000	14.622	PEAK	V
	859.350	36.897	13.924	-9.103	46.000	22.973	PEAK	
	4213.000	42.676	37.822	-31.324	74.000	4.854	PEAK	
	4319.000	42.533	37.204	-31.467	74.000	5.328	PEAK	
	4808.000	46.654	40.285	-27.346	74.000	6.369	PEAK	
	7495.000	49.357	34.934	-24.643	74.000	14.422	PEAK	
Mid	304.025	41.622	27.393	-4.378	46.000	14.228	PEAK	H
	320.030	42.083	27.461	-3.917	46.000	14.622	PEAK	
	4078.000	42.329	37.764	-31.671	74.000	4.565	PEAK	
	4169.000	41.008	36.350	-32.992	74.000	4.658	PEAK	
	4884.500	47.421	40.771	-26.579	74.000	6.651	PEAK	
	7323.000	50.380	36.366	-23.620	74.000	14.014	PEAK	
	320.030	33.071	18.449	-12.929	46.000	14.622	PEAK	V
	912.700	37.098	13.675	-8.902	46.000	23.423	PEAK	
	4159.000	42.469	37.837	-31.531	74.000	4.632	PEAK	
	4219.000	42.265	37.389	-31.735	74.000	4.877	PEAK	
	4884.500	47.280	40.630	-26.720	74.000	6.651	PEAK	
	7323.000	48.977	34.963	-25.023	74.000	14.014	PEAK	
High	304.025	42.932	28.703	-3.068	46.000	14.228	PEAK	H
	320.030	40.162	25.540	-5.838	46.000	14.622	PEAK	
	4198.000	42.817	38.031	-31.183	74.000	4.786	PEAK	
	4297.000	42.654	37.410	-31.346	74.000	5.244	PEAK	
	4961.000	47.461	40.671	-26.539	74.000	6.790	PEAK	
	7323.000	49.994	35.980	-24.006	74.000	14.014	PEAK	
	320.030	33.160	18.538	-12.840	46.000	14.622	PEAK	V
	909.305	37.617	14.237	-8.383	46.000	23.380	PEAK	
	4074.000	42.054	37.491	-31.946	74.000	4.563	PEAK	
	4119.000	42.096	37.481	-31.904	74.000	4.614	PEAK	
	4960.000	44.741	37.954	-29.259	74.000	6.787	PEAK	
	7440.000	49.612	35.444	-24.388	74.000	14.168	PEAK	

Notes:
1. For 9 kHz ~ 30 MHz, the amplitude of spurious emissions that are attenuated by more than 20dB below the permissible. The value has no need to be reported.
2. Due to the peak measure values also meet the average limit (54dBm), the average measurement is not tested based on technical judgment.

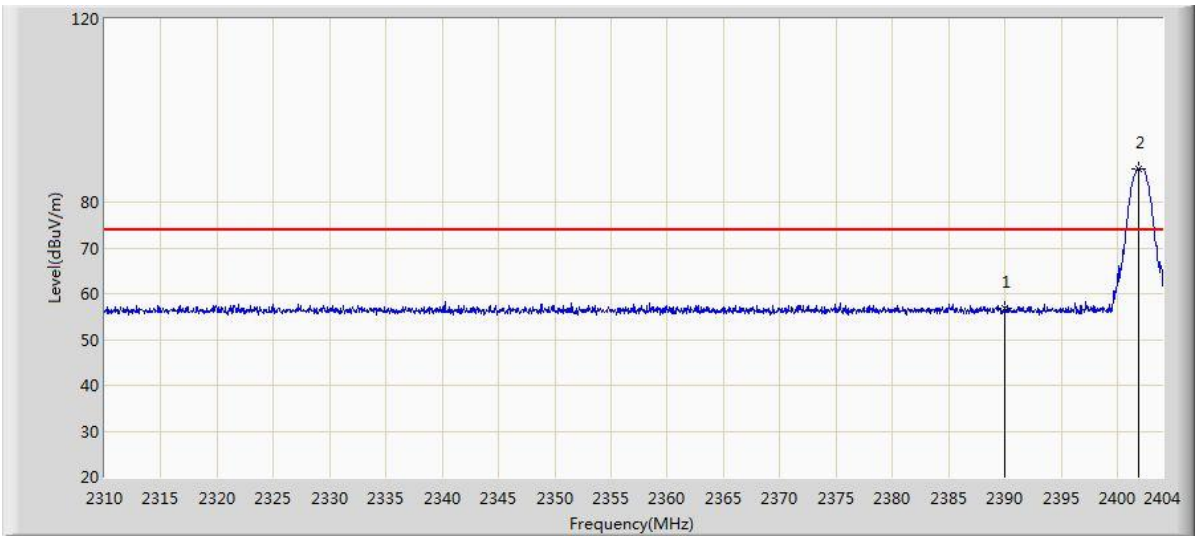
Table 15: Test result of Spurious Emission of Bluetooth (BLE mode)

Channel	Freq. [MHz]	Measure Level [dBm]	Reading Level [dBm]	Margin [dB]	Limit [dBm]	Correct Factor [dB]	Detector	Polar
Low	250.190	38.276	24.992	-7.724	46.000	13.284	PEAK	H
	390.840	30.101	14.061	-15.899	46.000	16.040	PEAK	
	4048.000	42.478	37.939	-31.522	74.000	4.539	PEAK	
	4326.000	43.128	37.792	-30.872	74.000	5.336	PEAK	
	4808.000	49.901	43.532	-24.099	74.000	6.369	PEAK	
	7356.000	50.353	36.323	-23.647	74.000	14.030	PEAK	
	128.455	24.142	14.216	-19.358	43.500	9.926	PEAK	V
	799.210	29.932	7.834	-16.068	46.000	22.098	PEAK	
	4169.000	41.859	37.201	-32.141	74.000	4.658	PEAK	
	4358.000	43.106	37.702	-30.894	74.000	5.404	PEAK	
	4799.500	45.739	39.397	-28.261	74.000	6.342	PEAK	
	7357.000	49.600	35.570	-24.400	74.000	14.029	PEAK	
Mid	250.190	36.140	22.856	-9.860	46.000	13.284	PEAK	H
	798.240	31.166	9.085	-14.834	46.000	22.081	PEAK	
	4169.000	41.545	36.887	-32.455	74.000	4.658	PEAK	
	4297.000	43.273	38.029	-30.727	74.000	5.244	PEAK	
	4876.000	47.607	40.987	-26.393	74.000	6.620	PEAK	
	7458.000	49.745	35.583	-24.255	74.000	14.163	PEAK	
	127.970	24.090	14.121	-19.410	43.500	9.969	PEAK	V
	796.785	31.710	9.654	-14.290	46.000	22.055	PEAK	
	4016.000	42.884	38.388	-31.116	74.000	4.496	PEAK	
	4323.000	42.725	37.392	-31.275	74.000	5.333	PEAK	
	4876.000	45.998	39.378	-28.002	74.000	6.620	PEAK	
	7569.000	49.693	35.012	-24.307	74.000	14.682	PEAK	
High	250.190	38.723	25.439	-7.277	46.000	13.284	PEAK	H
	798.240	31.311	9.230	-14.689	46.000	22.081	PEAK	
	4087.000	42.428	37.857	-31.572	74.000	4.572	PEAK	
	4313.000	43.033	37.717	-30.967	74.000	5.316	PEAK	
	4961.000	47.477	40.687	-26.523	74.000	6.790	PEAK	
	7569.000	49.336	34.655	-24.664	74.000	14.682	PEAK	
	251.160	26.228	12.918	-19.772	46.000	13.310	PEAK	V
	799.695	29.514	7.409	-16.486	46.000	22.105	PEAK	
	4018.000	42.407	37.908	-31.593	74.000	4.500	PEAK	
	4185.000	42.250	37.527	-31.750	74.000	4.723	PEAK	
	4868.000	44.263	37.687	-29.737	74.000	6.575	PEAK	
	7569.000	50.201	35.520	-23.799	74.000	14.682	PEAK	

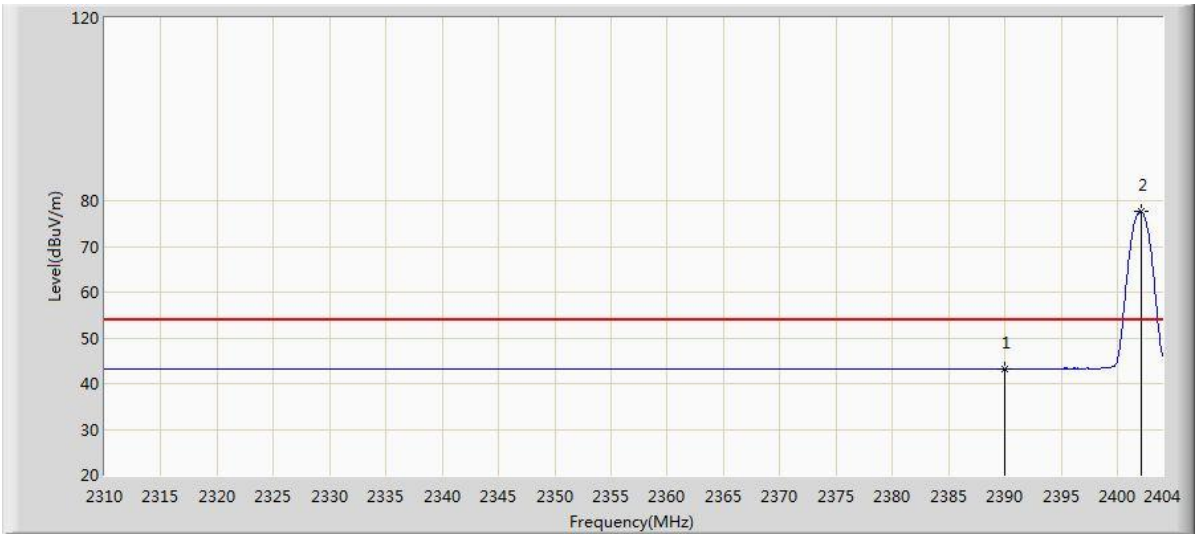
Notes:
1. For 9 kHz ~ 30 MHz, the amplitude of spurious emissions that are attenuated by more than 20dB below the permissible. The value has no need to be reported.
2. Due to the peak measure values also meet the average limit (54dBm), the average measurement is not tested based on technical judgment.

Test Plot of Frequency Band Edge of Bluetooth BDR mode

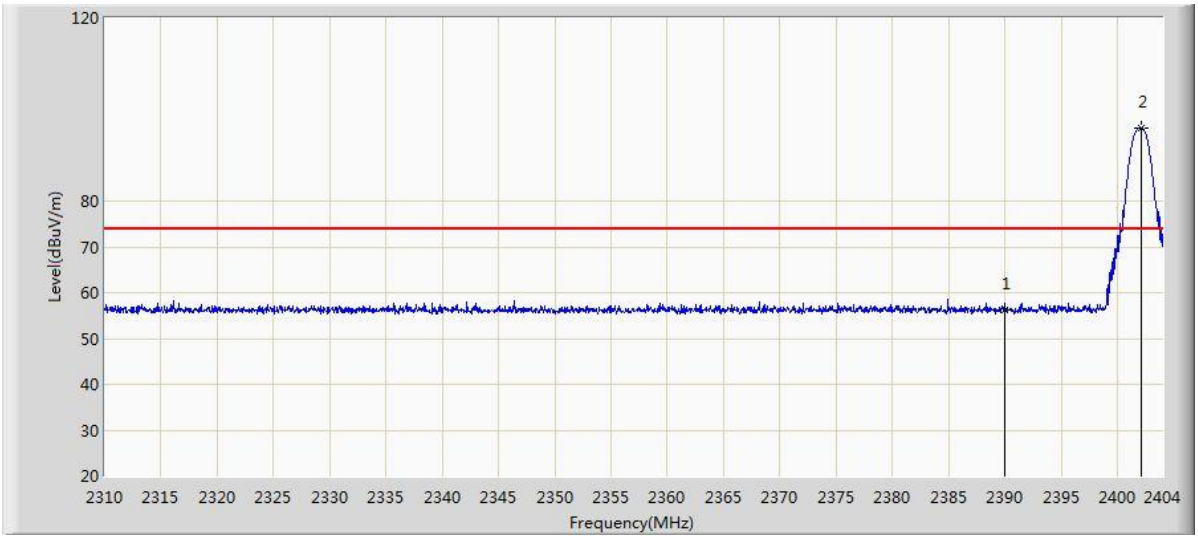
Low Channel



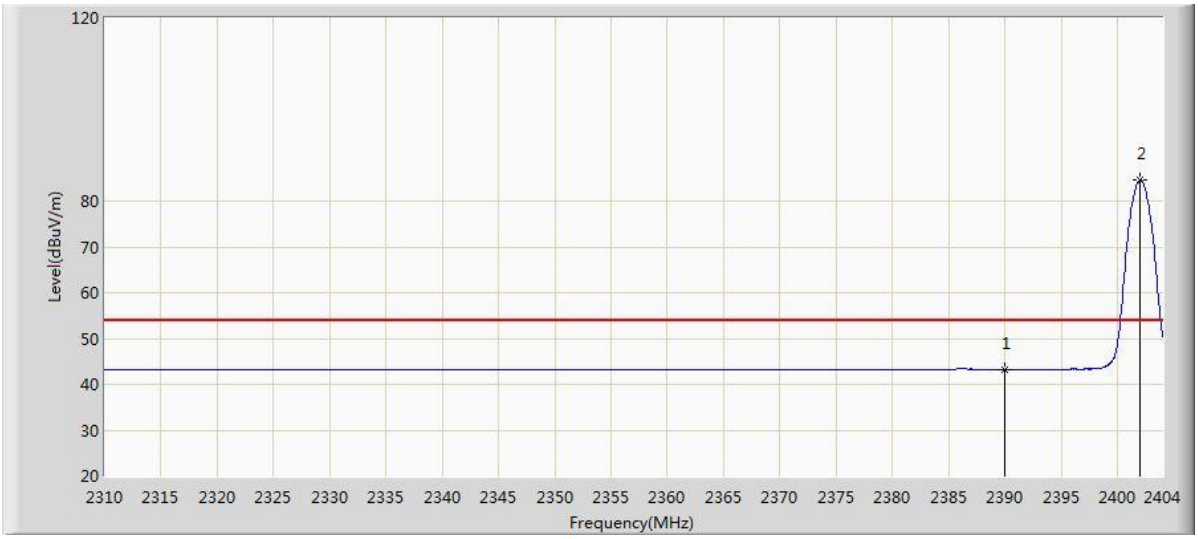
Freq. (MHz)	Measure Level (dB μ V/m)	Reading (dB μ V)	Margin (dB)	Limit (dB μ V/m)	Correct Factor (dB)	Detector	Polar
2390.000	56.835	26.151	-17.165	74.000	30.684	PK	H
2401.885	87.245	56.584	N/A	N/A	30.661	PK	



Freq. (MHz)	Measure Level (dB μ V/m)	Reading (dB μ V)	Margin (dB)	Limit (dB μ V/m)	Correct Factor (dB)	Detector	Polar
2390.000	43.288	12.604	-10.712	54.000	30.684	AV	H
2402.073	77.658	46.997	N/A	N/A	30.661	AV	

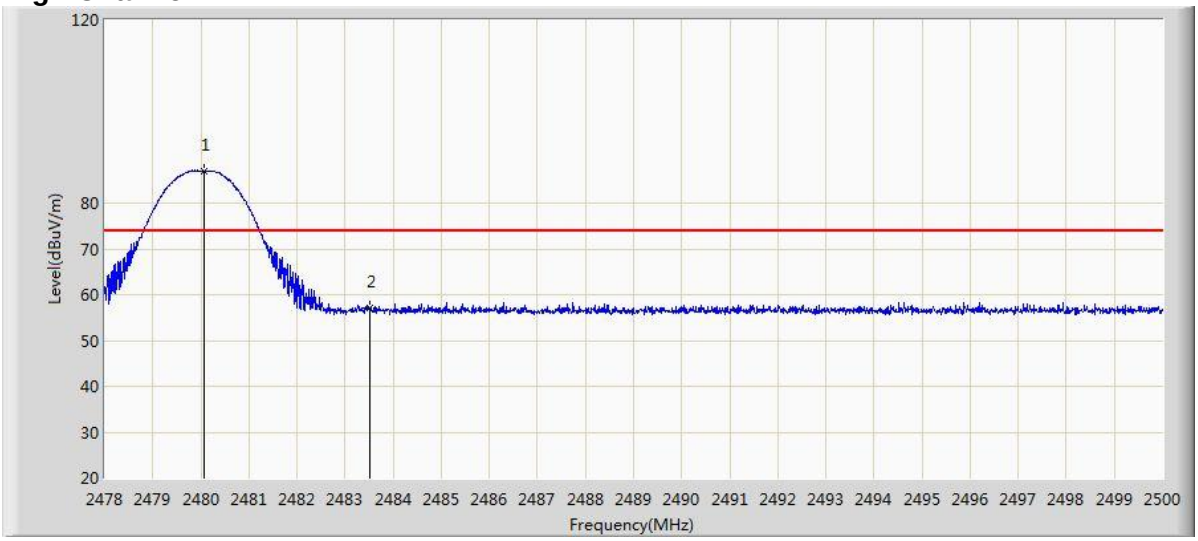


Freq. (MHz)	Measure Level (dB μ V/m)	Reading (dB μ V)	Margin (dB)	Limit (dB μ V/m)	Correct Factor (dB)	Detector	Polar
2390.000	56.172	25.488	-17.828	74.000	30.684	PK	V
2402.073	95.959	65.298	N/A	N/A	30.661	PK	

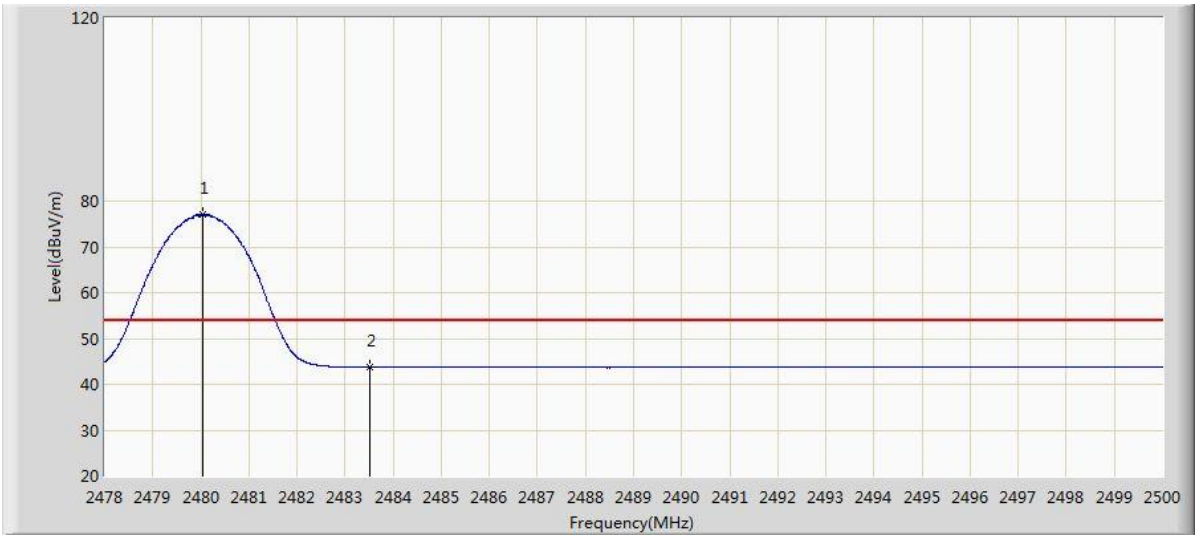


Freq. (MHz)	Measure Level (dB μ V/m)	Reading (dB μ V)	Margin (dB)	Limit (dB μ V/m)	Correct Factor (dB)	Detector	Polar
2390.000	43.272	12.588	-10.728	54.000	30.684	AV	V
2401.979	84.522	53.861	N/A	N/A	30.662	AV	

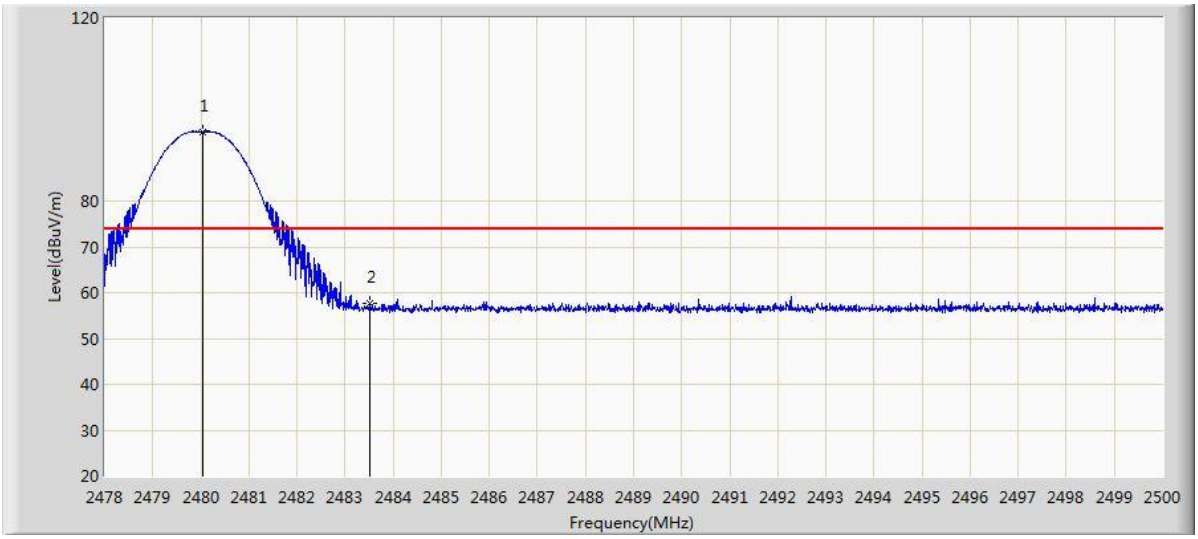
High Channel



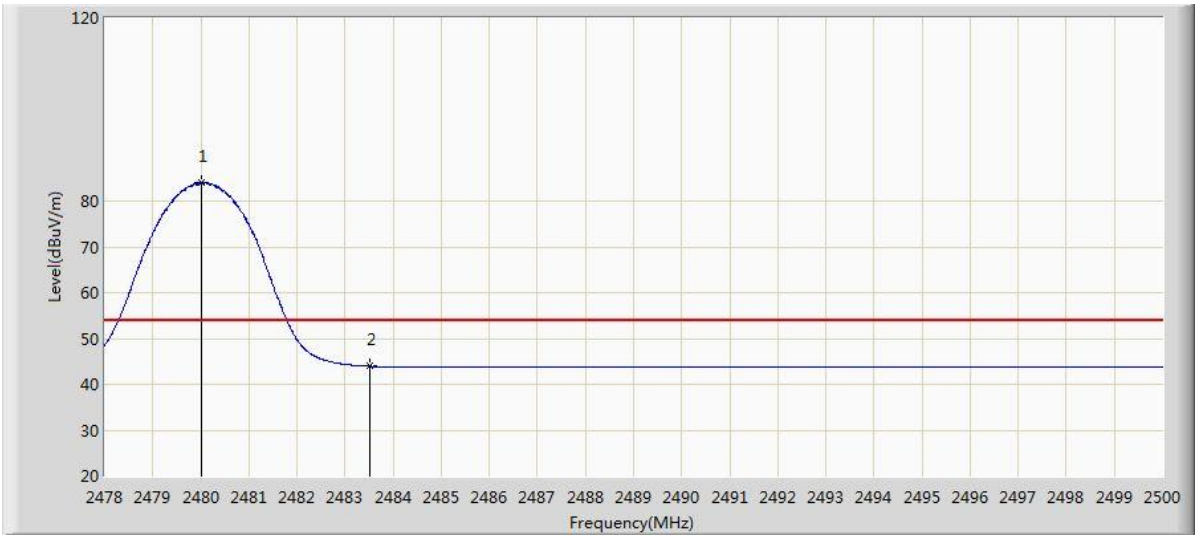
Freq. (MHz)	Measure Level (dB μ V/m)	Reading (dB μ V)	Margin (dB)	Limit (dB μ V/m)	Correct Factor (dB)	Detector	Polar
2480.079	86.980	56.317	N/A	N/A	30.662	PK	H
2483.500	57.097	26.424	-16.903	74.000	30.673	PK	



Freq. (MHz)	Measure Level (dB μ V/m)	Reading (dB μ V)	Margin (dB)	Limit (dB μ V/m)	Correct Factor (dB)	Detector	Polar
2480.046	76.999	46.336	N/A	N/A	30.662	AV	H
2483.500	43.724	13.051	-10.276	54.000	30.673	AV	



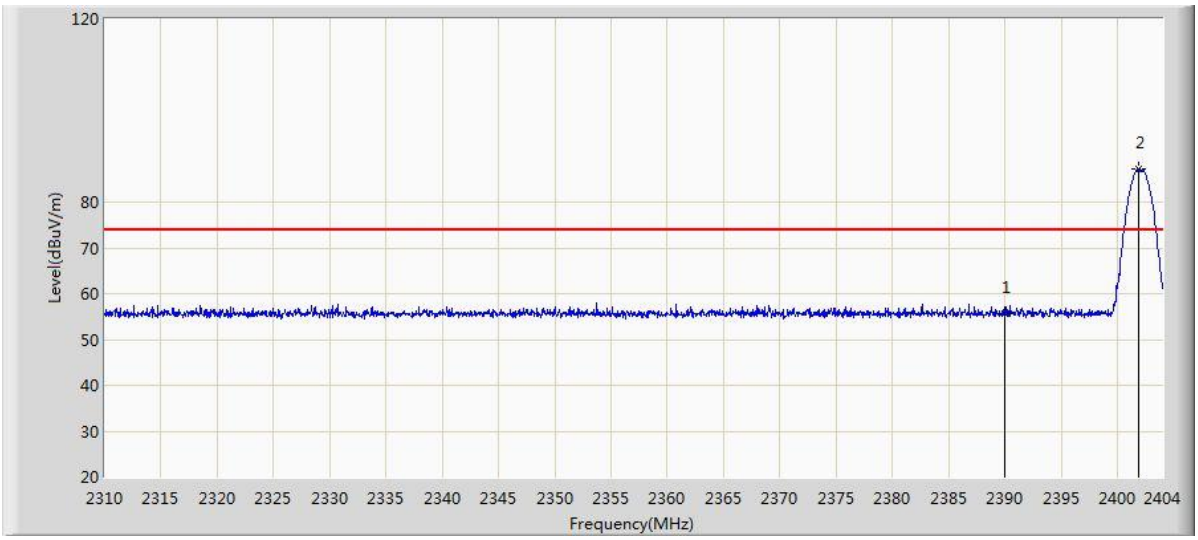
Freq. (MHz)	Measure Level (dB μ V/m)	Reading (dB μ V)	Margin (dB)	Limit (dB μ V/m)	Correct Factor (dB)	Detector	Polar
2480.046	95.143	64.480	N/A	N/A	30.662	PK	V
2483.500	57.820	27.147	-16.180	74.000	30.673	PK	



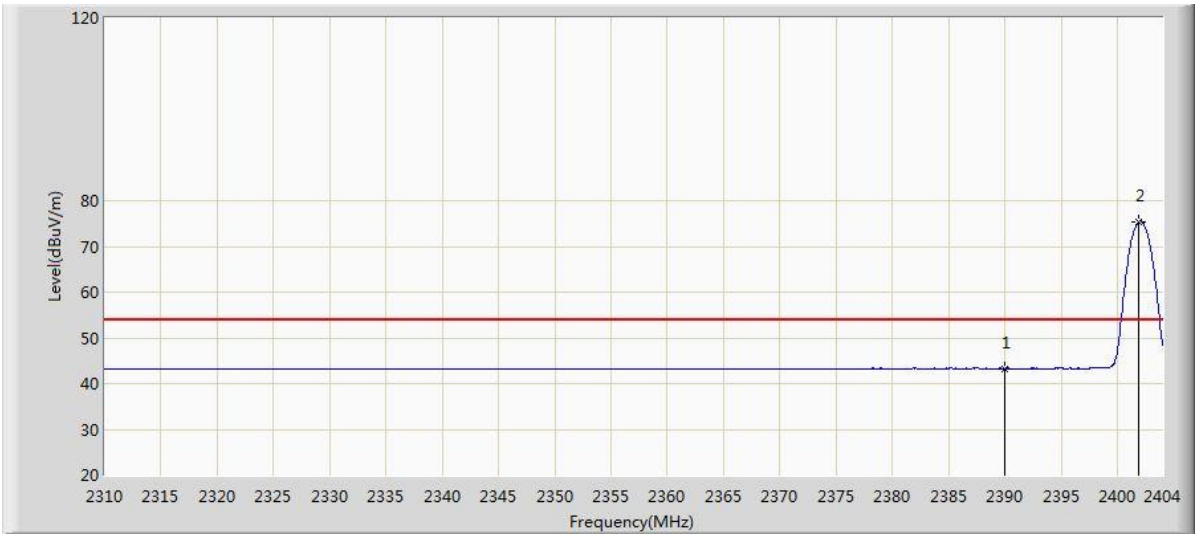
Freq. (MHz)	Measure Level (dB μ V/m)	Reading (dB μ V)	Margin (dB)	Limit (dB μ V/m)	Correct Factor (dB)	Detector	Polar
2480.002	84.027	53.365	N/A	N/A	30.662	AV	V
2483.500	43.929	13.256	-10.071	54.000	30.673	AV	

Test Plot of Frequency Band Edge of Bluetooth EDR mode

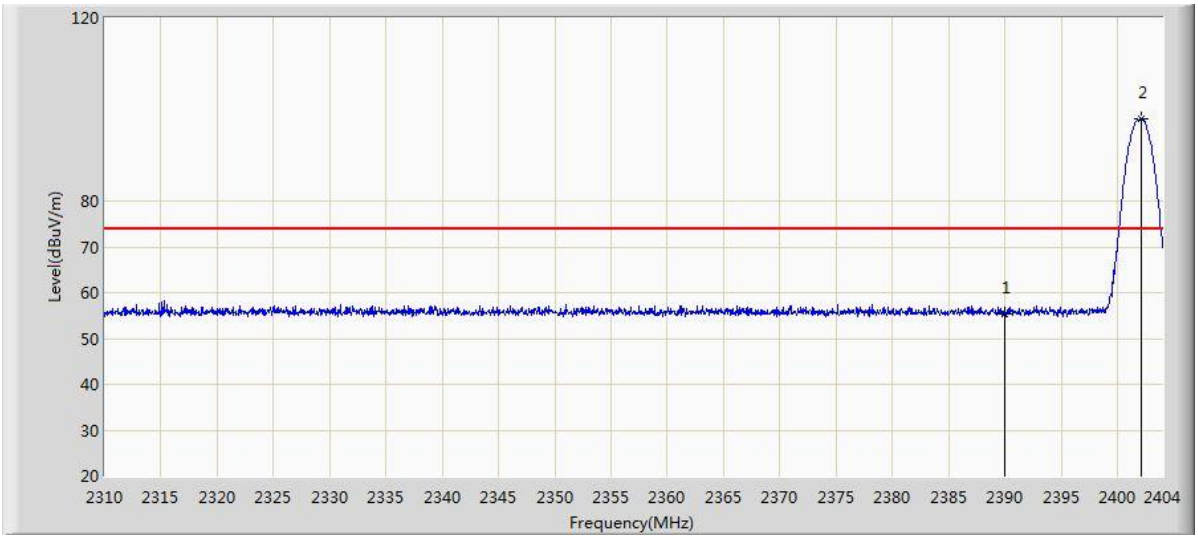
Low Channel



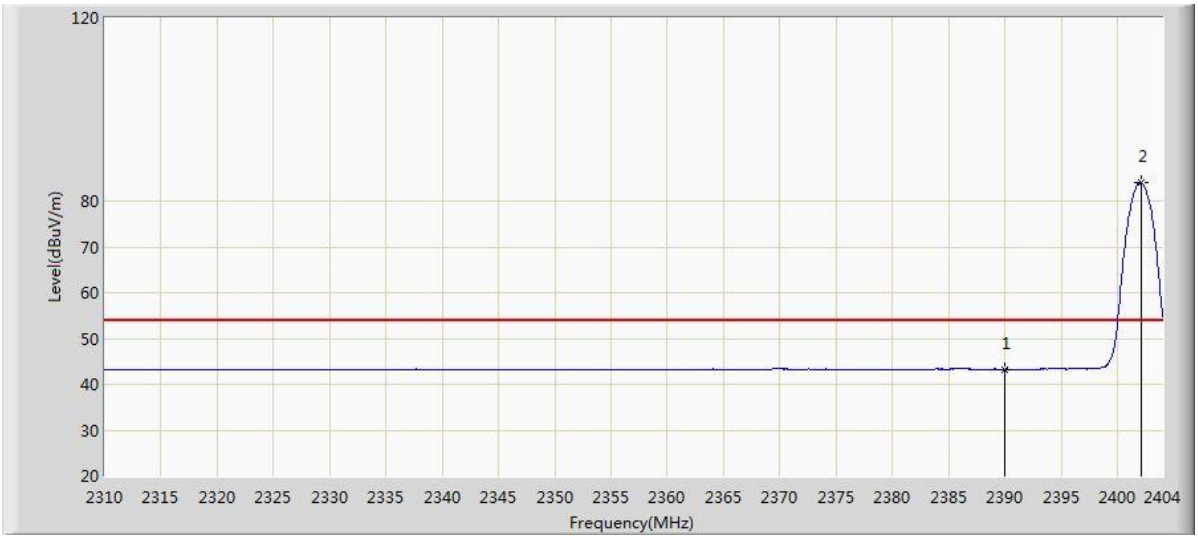
Freq. (MHz)	Measure Level (dB μ V/m)	Reading (dB μ V)	Margin (dB)	Limit (dB μ V/m)	Correct Factor (dB)	Detector	Polar
2390.000	55.591	24.907	-18.409	74.000	30.684	PK	H
2401.885	87.342	56.681	N/A	N/A	30.661	PK	



Freq. (MHz)	Measure Level (dB μ V/m)	Reading (dB μ V)	Margin (dB)	Limit (dB μ V/m)	Correct Factor (dB)	Detector	Polar
2390.000	43.312	12.628	-10.688	54.000	30.684	AV	H
2401.838	75.238	44.577	N/A	N/A	30.661	AV	

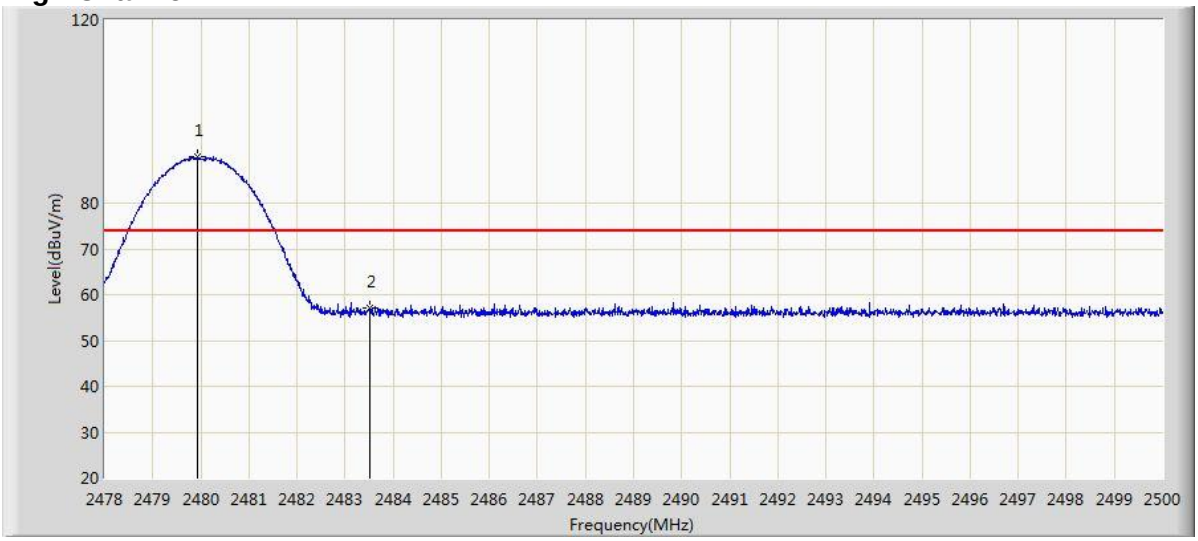


Freq. (MHz)	Measure Level (dB μ V/m)	Reading (dB μ V)	Margin (dB)	Limit (dB μ V/m)	Correct Factor (dB)	Detector	Polar
2390.000	55.429	24.745	-18.571	74.000	30.684	PK	V
2402.073	98.049	67.388	N/A	N/A	30.661	PK	

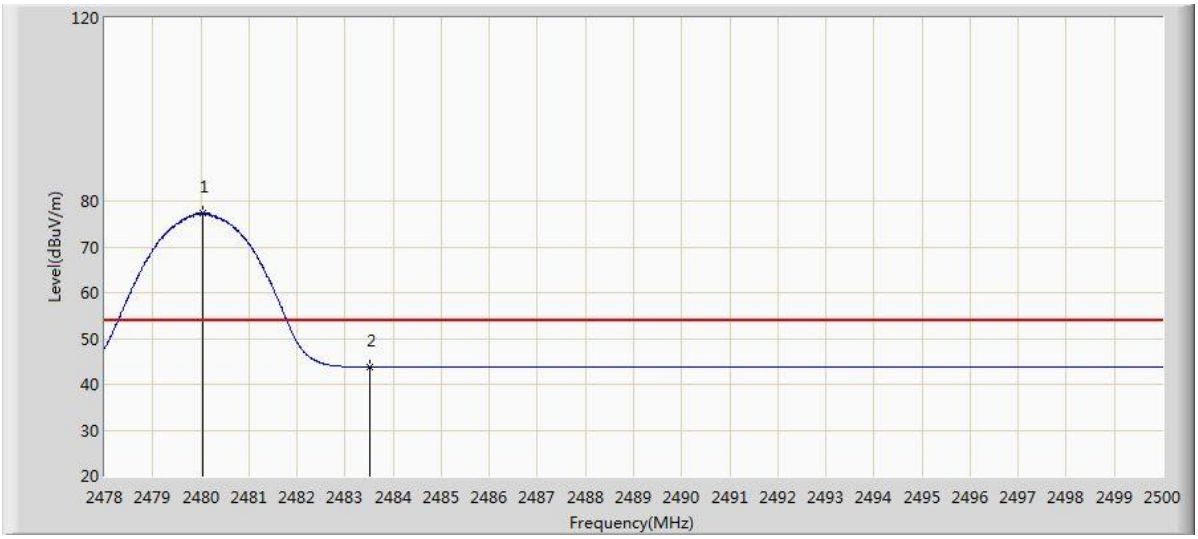


Freq. (MHz)	Measure Level (dB μ V/m)	Reading (dB μ V)	Margin (dB)	Limit (dB μ V/m)	Correct Factor (dB)	Detector	Polar
2390.000	43.290	12.606	-10.710	54.000	30.684	AV	V
2402.073	84.200	53.539	N/A	N/A	30.661	AV	

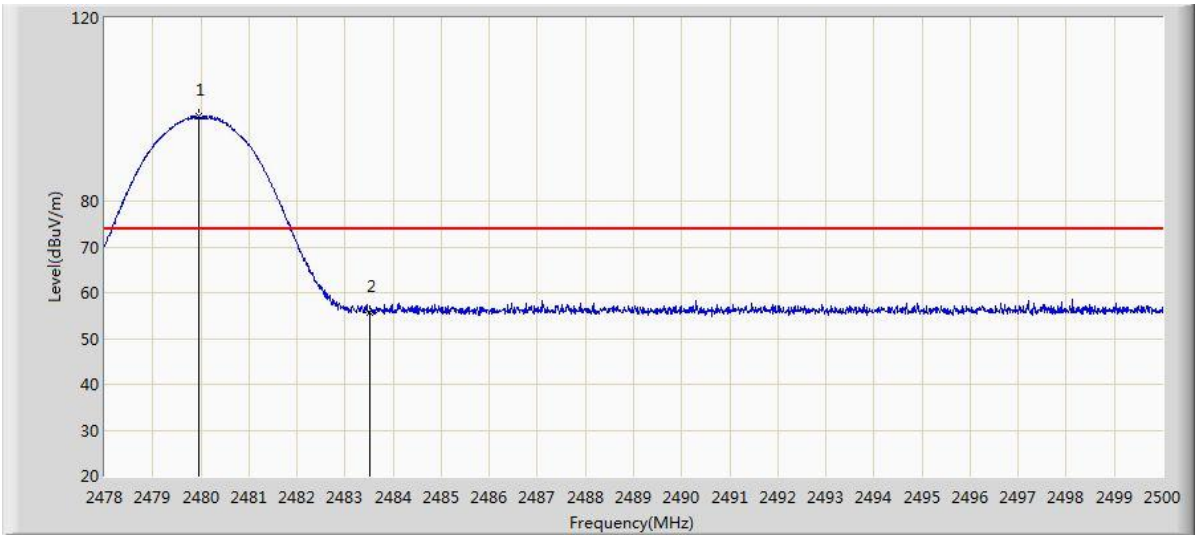
High Channel



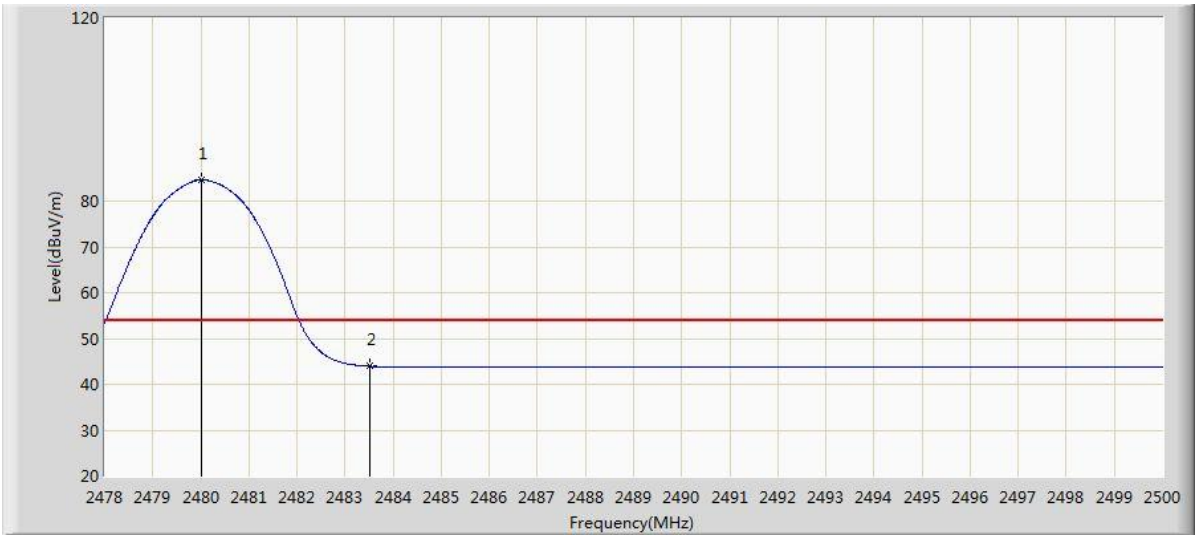
Freq. (MHz)	Measure Level (dB μ V/m)	Reading (dB μ V)	Margin (dB)	Limit (dB μ V/m)	Correct Factor (dB)	Detector	Polar
2479.936	90.241	59.579	N/A	N/A	30.662	PK	H
2483.500	57.192	26.519	-16.808	74.000	30.673	PK	



Freq. (MHz)	Measure Level (dB μ V/m)	Reading (dB μ V)	Margin (dB)	Limit (dB μ V/m)	Correct Factor (dB)	Detector	Polar
2480.046	77.304	46.641	N/A	N/A	30.662	AV	H
2483.500	43.695	13.022	-10.305	54.000	30.673	AV	



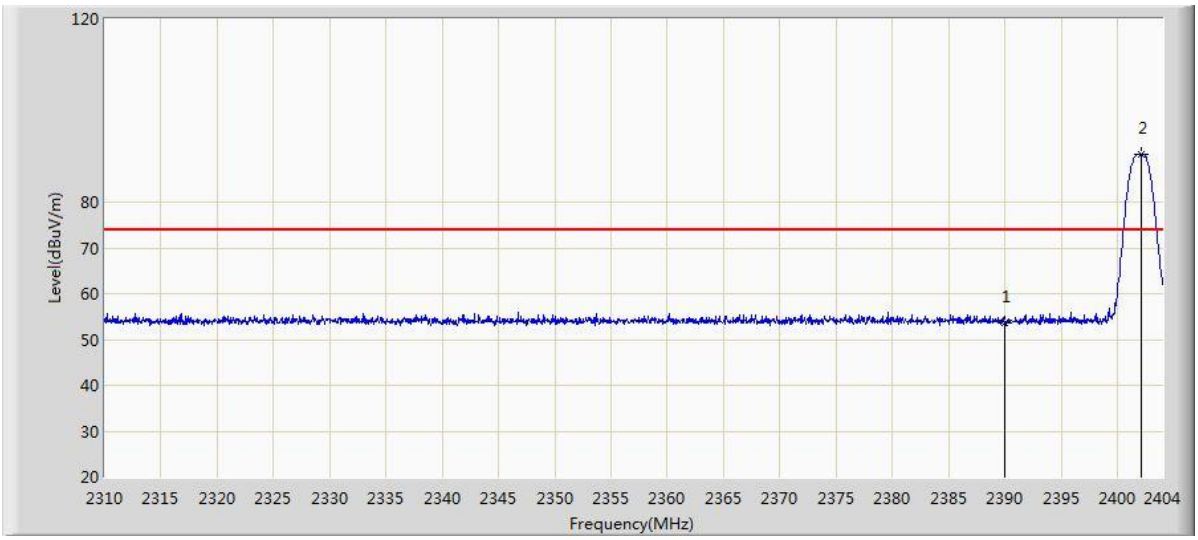
Freq. (MHz)	Measure Level (dB μ V/m)	Reading (dB μ V)	Margin (dB)	Limit (dB μ V/m)	Correct Factor (dB)	Detector	Polar
2479.969	98.439	67.777	N/A	N/A	30.662	PK	V
2483.500	55.543	24.870	-18.457	74.000	30.673	PK	



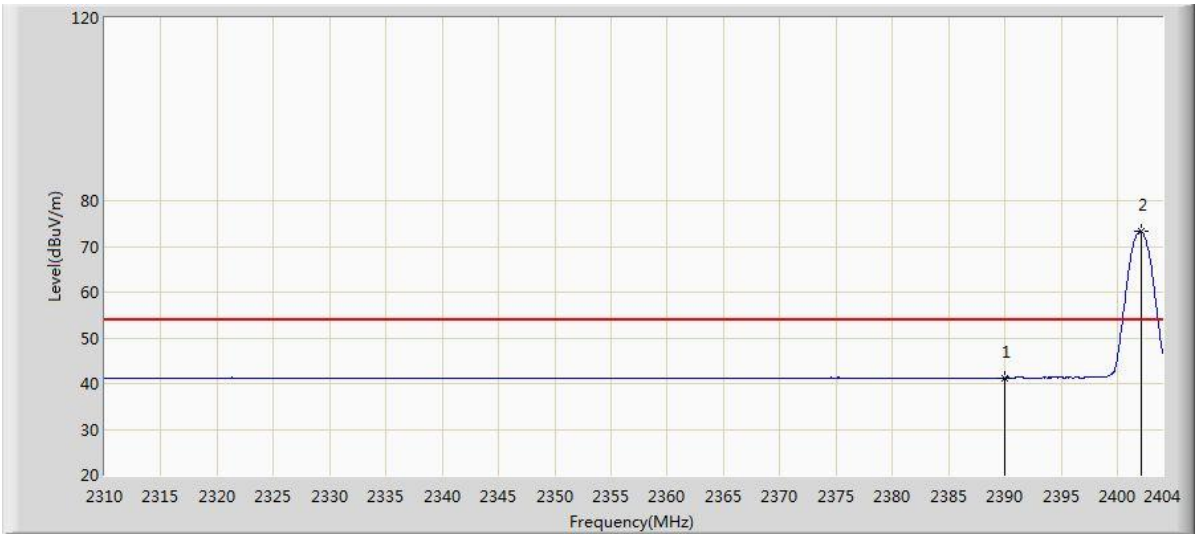
Freq. (MHz)	Measure Level (dB μ V/m)	Reading (dB μ V)	Margin (dB)	Limit (dB μ V/m)	Correct Factor (dB)	Detector	Polar
2480.002	84.603	53.941	N/A	N/A	30.662	AV	V
2483.500	43.948	13.275	-10.052	54.000	30.673	AV	

Test Plot of Frequency Band Edge of Bluetooth BLE mode

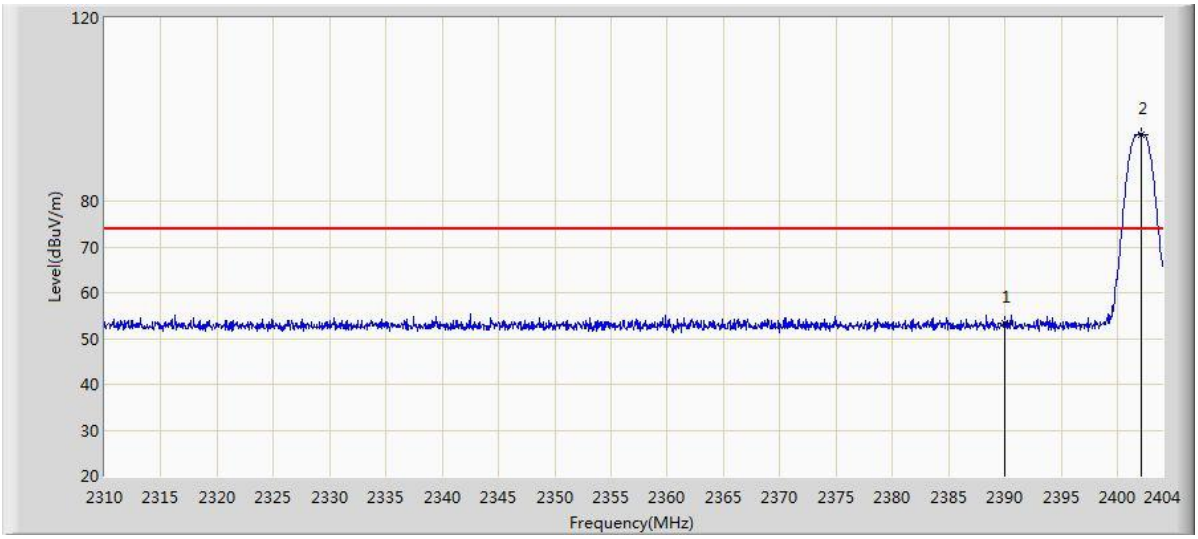
Low Channel



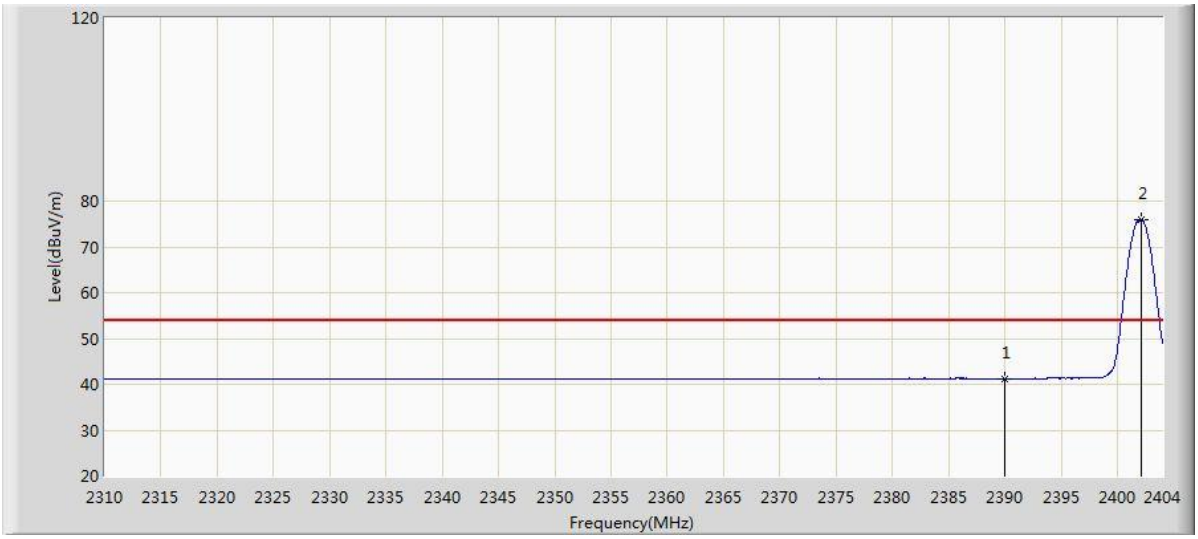
Freq. (MHz)	Measure Level (dB μ V/m)	Reading (dB μ V)	Margin (dB)	Limit (dB μ V/m)	Correct Factor (dB)	Detector	Polar
2390.000	53.743	23.059	-20.257	74.000	30.684	PK	H
2402.073	90.491	59.830	N/A	N/A	30.661	PK	



Freq. (MHz)	Measure Level (dB μ V/m)	Reading (dB μ V)	Margin (dB)	Limit (dB μ V/m)	Correct Factor (dB)	Detector	Polar
2390.000	41.262	10.578	-12.738	54.000	30.684	AV	H
2402.073	73.268	42.607	N/A	N/A	30.661	AV	

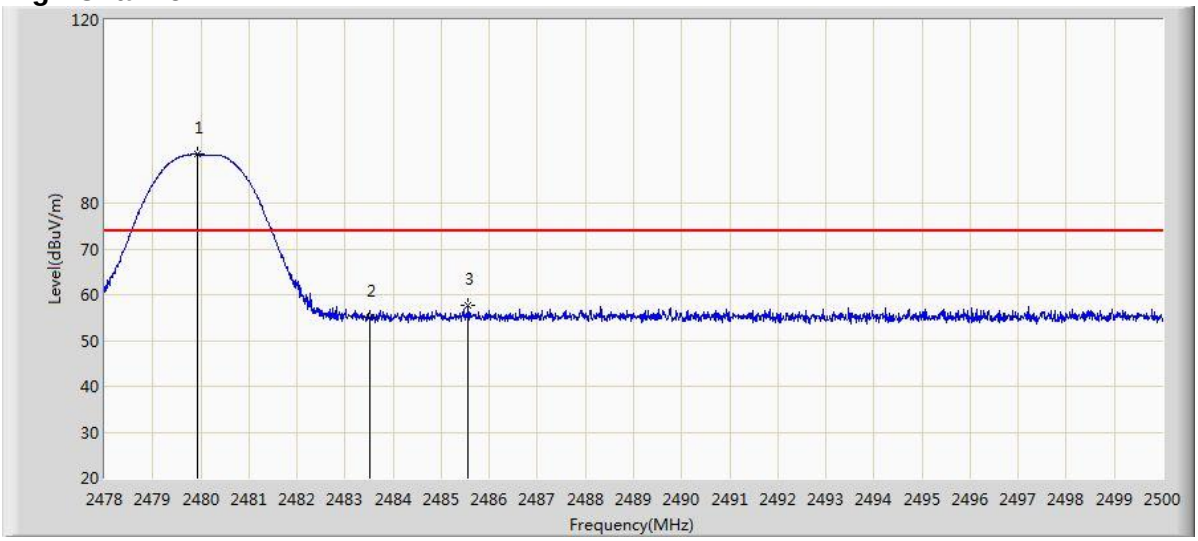


Freq. (MHz)	Measure Level (dB μ V/m)	Reading (dB μ V)	Margin (dB)	Limit (dB μ V/m)	Correct Factor (dB)	Detector	Polar
2390.000	53.426	22.742	-20.574	74.000	30.684	PK	V
2402.073	94.607	63.946	N/A	N/A	30.661	PK	

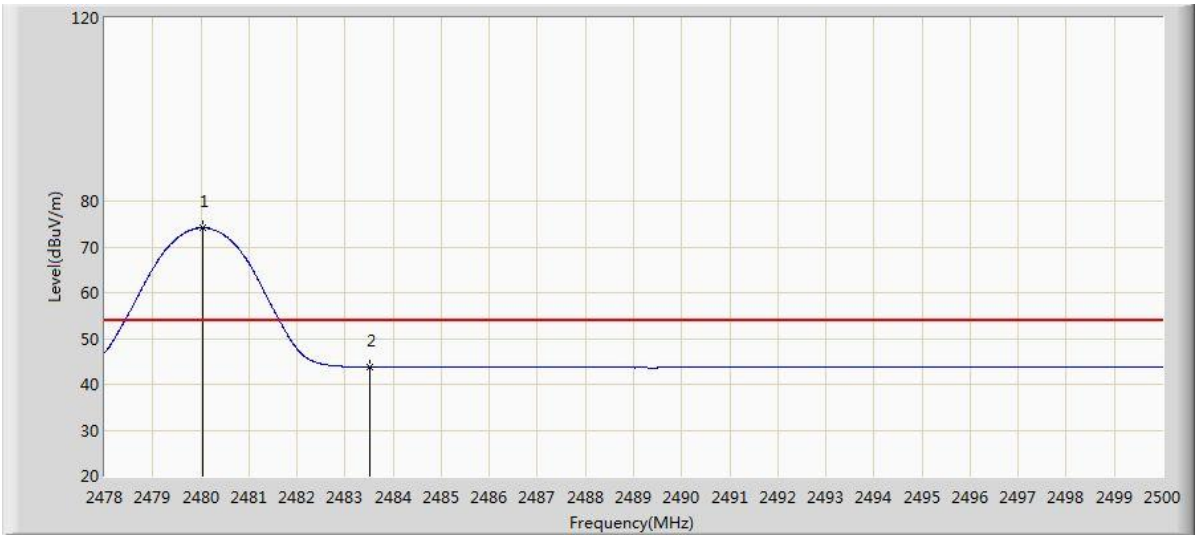


Freq. (MHz)	Measure Level (dB μ V/m)	Reading (dB μ V)	Margin (dB)	Limit (dB μ V/m)	Correct Factor (dB)	Detector	Polar
2390.000	41.280	10.596	-12.720	54.000	30.684	AV	V
2402.073	76.040	45.379	N/A	N/A	30.661	AV	

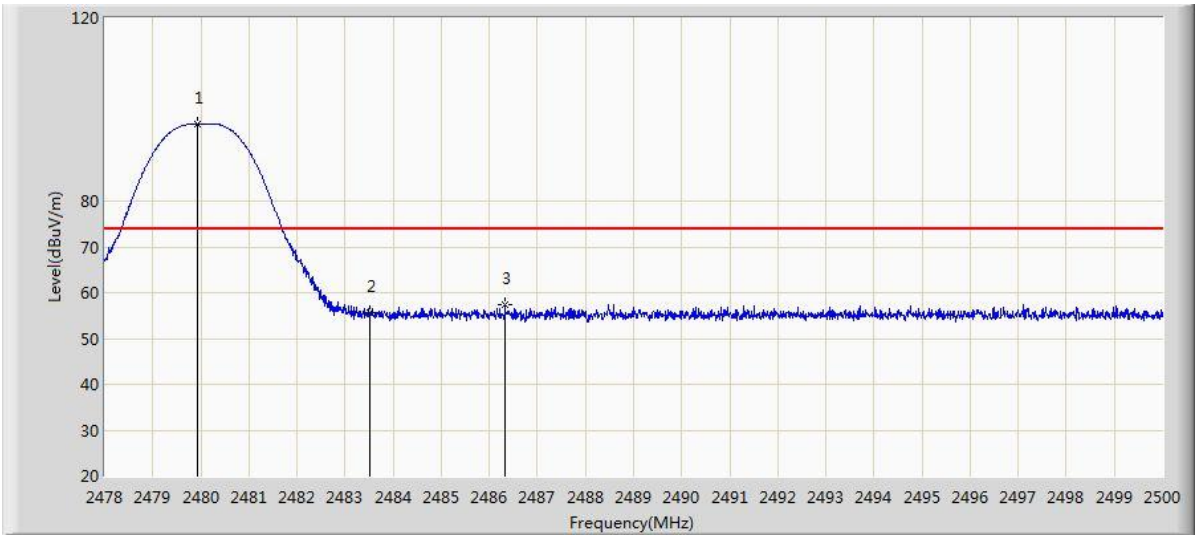
High Channel



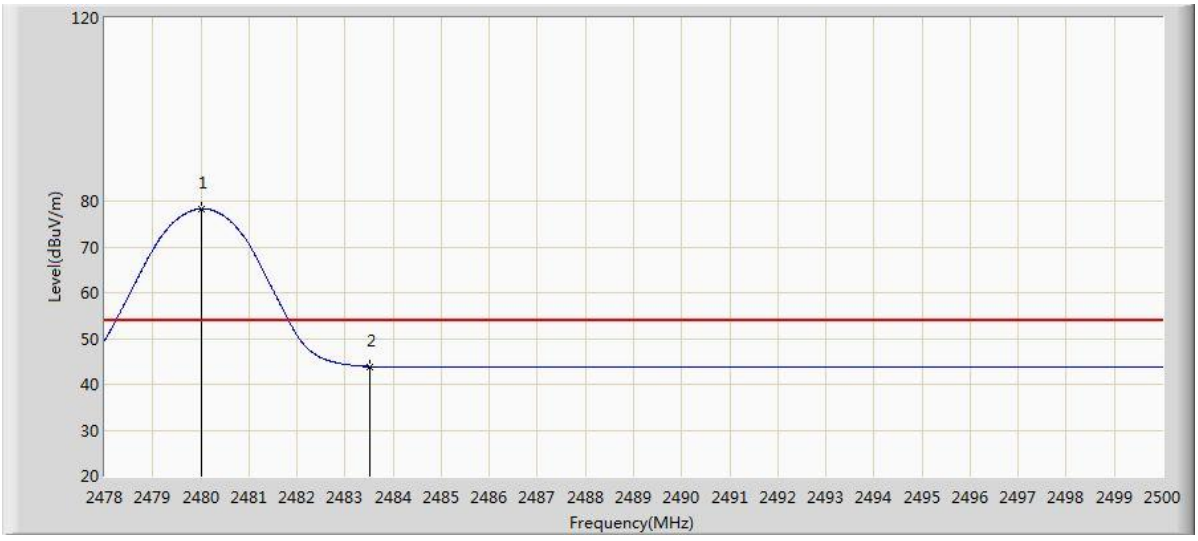
Freq. (MHz)	Measure Level (dB μ V/m)	Reading (dB μ V)	Margin (dB)	Limit (dB μ V/m)	Correct Factor (dB)	Detector	Polar
2479.936	90.654	59.992	N/A	N/A	30.662	PK	H
2483.500	55.112	24.439	-18.888	74.000	30.673	PK	
2485.557	57.729	27.050	-16.271	74.000	30.678	PK	



Freq. (MHz)	Measure Level (dB μ V/m)	Reading (dB μ V)	Margin (dB)	Limit (dB μ V/m)	Correct Factor (dB)	Detector	Polar
2480.046	74.140	43.477	N/A	N/A	30.662	AV	H
2483.500	43.749	13.076	-10.251	54.000	30.673	AV	



Freq. (MHz)	Measure Level (dB µ V/m)	Reading (dB µ V)	Margin (dB)	Limit (dB µ V/m)	Correct Factor (dB)	Detector	Polar
2479.936	96.881	66.219	N/A	N/A	30.662	PK	V
2483.500	55.543	24.870	-18.457	74.000	30.673	PK	
2486.327	57.293	26.612	-16.707	74.000	30.681	PK	



Freq. (MHz)	Measure Level (dB µ V/m)	Reading (dB µ V)	Margin (dB)	Limit (dB µ V/m)	Correct Factor (dB)	Detector	Polar
2480.002	78.315	47.653	N/A	N/A	30.662	AV	V
2483.500	43.909	13.236	-10.091	54.000	30.673	AV	

5.1.8 Frequency Separation

RESULT: **Pass**

Date of testing	:	2014-10-26
Test standard	:	FCC part 15.247(a)(1)
Basic standard	:	ANSI C63.4: 2009
Limit	:	≥ 25kHz or two-thirds of 20dB bandwidth, whichever is greater
Kind of test site	:	Shield room

Test setup

Test Channel	:	Low/ Middle/ High
Operation Mode	:	A.1.a
Ambient temperature	:	25℃
Relative humidity	:	52%
Atmospheric pressure	:	101kPa

Table 16: Test result of Frequency Separation

Channel	Channel Frequency (MHz)	Measured Channel Separation (MHz)	Limit (kHz)	Result
Low Channel	2402	1	≥ 25kHz or two-thirds of 20dB bandwidth	Pass
Adjacency Channel	2403			
Mid Channel	2441	1	≥ 25kHz or two-thirds of 20dB bandwidth	Pass
Adjacency Channel	2442			
High Channel	2479	1	≥ 25kHz or two-thirds of 20dB bandwidth	Pass
Adjacency Channel	2480			

Test Plot of Frequency Separation


Agilent Spectrum Analyzer - Swept SA
Marker 1 Δ -1.000000000 MHz
PNO: Wide
IFGain:Low
Trig: Free Run
Atten: 10 dB
Avg Type: Log-Pwr
Avg|Hold:>10/10
05:31:39 PM Oct 26, 2014
Ref Offset 1 dB
10 dB/div
Log
Ref 0.00 dBm
ΔMkr1 -1.00 MHz
-0.077 dB
1Δ2
Center 2.480000 GHz
#Res BW 100 kHz
#VBW 300 kHz
Span 10.00 MHz
Sweep 1.00 ms (1001 pts)
Peak Search
Next Peak
Next Pk Right
Next Pk Left
Marker Delta
Mkr→CF
Mkr→Ref Lvl
More
1 of 2
MSG
STATUS

5.1.9 Number of hopping frequency

RESULT: **Pass**

Date of testing	:	2014-10-27
Test standard	:	FCC part 15.247(a)(1)(iii)
Basic standard	:	ANSI C63.4: 2009
Limits	:	≥ 15 non-overlapping channels
Kind of test site	:	Shield room

Test setup

Test Channel	:	Low/ Middle/ High
Operation Mode	:	A.1.a
Ambient temperature	:	25℃
Relative humidity	:	52%
Atmospheric pressure	:	101kPa

Table 17: Test result of Number of hopping frequency

Frequency Range	Measured Quantity of Hopping Channel	Limit	Result
2402 to 2480MHz	79	≥15	Pass

5.1.10 Time of Occupancy

RESULT: **Pass**

Date of testing	:	2014-10-26
Test standard	:	FCC part 15.247(a)(1)(iii)
Basic standard	:	ANSI C63.4: 2009
Limits	:	0.4s
Kind of test site	:	Shield room

Test setup

Test Channel	:	Low/ Middle/ High
Operation Mode	:	A.1.a
Ambient temperature	:	25℃
Relative humidity	:	52%
Atmospheric pressure	:	101kPa

Table 18: Test result of Time of Occupancy

Mode	Packet Type	Channel Frequency (MHz)	Packet Duration [ms]	Number of Hops per Channel	Dwell Time (ms)	Limit [ms]
BDR	DH1	2441	0.410	320	131.20	400
	DH3	2441	1.660	160	265.60	400
	DH5	2441	2.910	104	302.64	400
EDR	DH1	2441	0.410	320	131.20	400
	DH3	2441	1.660	160	265.60	400
	DH5	2441	2.910	104	302.64	400

5.1.11 Conducted emissions

RESULT: **Pass**

Date of testing	:	2014-10-26
Test standard	:	FCC Part 15.207
Basic standard	:	ANSI C63.4: 2009
Frequency range	:	0.15 – 30MHz
Limits	:	FCC Part 15.207
Kind of test site	:	Shield room

Test setup

Input Voltage	:	AC 120V, 60Hz
Operation Mode	:	A.1
Earthing	:	Not Connected
Ambient temperature	:	25℃
Relative humidity	:	52%
Atmospheric pressure	:	101kPa

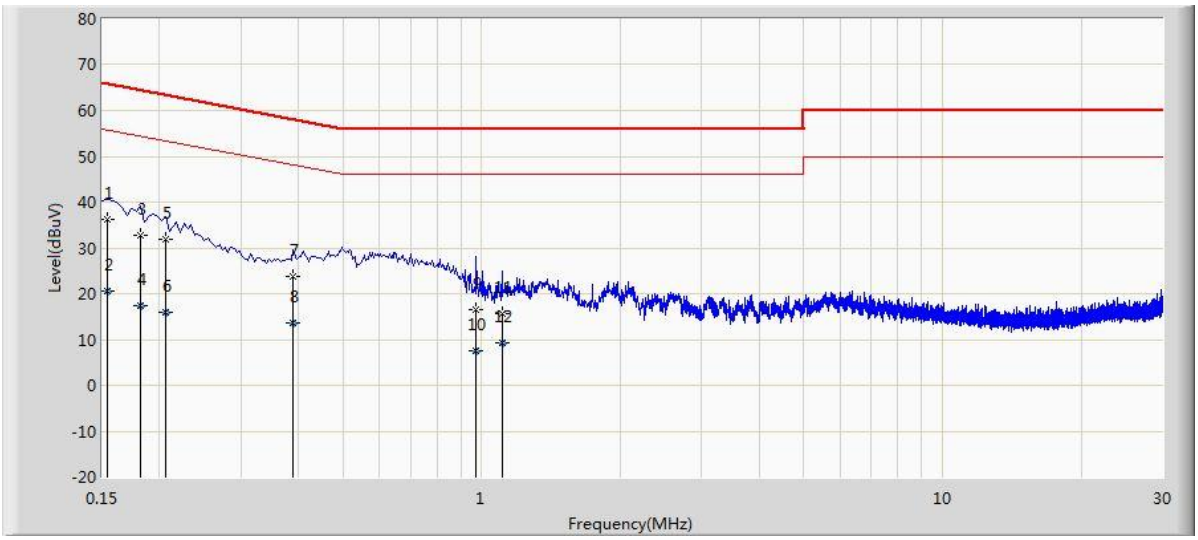
Table 19: Test result of Conducted Emission

Frequency (MHz)	Measure Level (dBuV)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV)	Factor	Type	Line
0.154	36.286	25.547	-29.495	65.781	10.740	QP	L
0.154	20.459	9.719	-35.322	55.781	10.740	AV	L
0.182	32.752	22.704	-31.642	64.394	10.048	QP	L
0.182	17.347	7.299	-37.046	54.394	10.048	AV	L
0.206	31.761	21.780	-31.604	63.365	9.981	QP	L
0.206	15.865	5.885	-37.500	53.365	9.981	AV	L
0.390	23.764	13.687	-34.300	58.064	10.077	QP	L
0.390	13.491	3.414	-34.572	48.064	10.077	AV	L
0.974	16.580	6.658	-39.420	56.000	9.922	QP	L
0.974	7.602	-2.320	-38.398	46.000	9.922	AV	L
1.106	15.648	5.744	-40.352	56.000	9.904	QP	L
1.106	9.234	-0.671	-36.766	46.000	9.904	AV	L

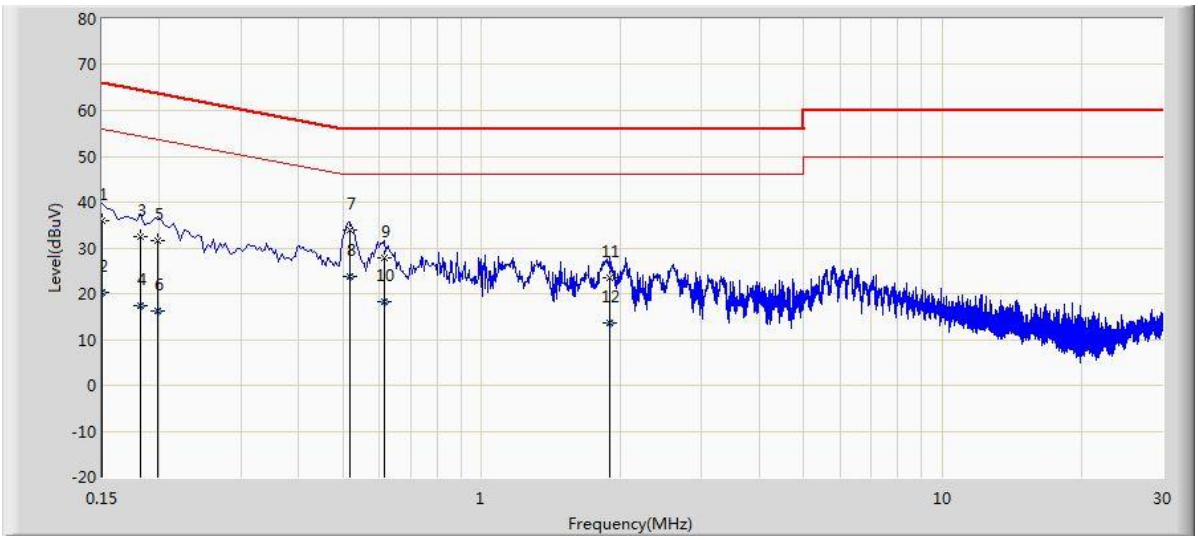
Frequency (MHz)	Measure Level (dBuV)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV)	Factor	Type	Line
0.150	36.009	24.867	-29.991	66.000	11.142	QP	N
0.150	20.432	9.290	-35.568	56.000	11.142	AV	N
0.182	32.395	22.352	-31.999	64.394	10.042	QP	N
0.182	17.407	7.365	-36.987	54.394	10.042	AV	N
0.198	31.651	21.637	-32.043	63.694	10.015	QP	N
0.198	16.204	6.189	-37.491	53.694	10.015	AV	N
0.518	33.813	23.638	-22.187	56.000	10.175	QP	N
0.518	23.863	13.688	-22.137	46.000	10.175	AV	N
0.614	27.780	17.657	-28.220	56.000	10.124	QP	N
0.614	18.403	8.279	-27.597	46.000	10.124	AV	N
1.898	23.506	13.629	-32.494	56.000	9.877	QP	N
1.898	13.582	3.705	-32.418	46.000	9.877	AV	N

Test Plot of Conducted Emission

L Phase



N Phase



6. List of Tables