

FCC Test Report

Product Name : OHR Smart band
Trade Name : HOLUX
Model No. : Impulse 8050
FCC ID. : RJI-IMPULSE8050

Applicant : HOLUX Technology, Inc.
Address : No. 1-1, Innovation Road I, Science-Based
Industrial Park, Hsinchu, Taiwan, 30076

Date of Receipt : Jun. 13, 2016
Issued Date : Sep. 22, 2016
Report No. : 1660266R-RFUSP23V00
Report Version : V1.0



The test results relate only to the samples tested.

The test report shall not be reproduced except in full without the written approval of Quietek Corporation.

Test Report Certification

Issued Date : Sep. 22, 2016

Report No. : 1660266R-RFUSP23V00



Product Name : OHR Smart band
Applicant : HOLUX Technology, Inc.
Address : No. 1-1, Innovation Road I, Science-Based Industrial Park,
Hsinchu, Taiwan, 30076
Manufacturer : HOLUX Technology, Inc.
Trade Name : HOLUX
Model No. : Impulse 8050
FCC ID. : RJI-IMPULSE8050
EUT Voltage : DC 5V (Power by PC)
DC 3.7V (Power by Battery)
Testing Voltage : DC 5V (Power by PC)
DC 3.7V (Power by Battery)
Applicable Standard : FCC CFR Title 47 Part 15 Subpart C Section 15.247:2015
ANSI C63.10: 2013
Test Lab : Hsin Chu Laboratory
Test Result : Complied

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Documented By : *Demi Chang*
(Demi Chang / Senior Engineering Adm. Specialist)

Tested By : *Elwin Lin*
(Elwin Lin / Assistant Engineer)

Approved By : *Roy Wang*
(Roy Wang / Director)

Revision History

Report No.	Version	Description	Issued Date
1660266R-RFUSP23V00	V1.0	Initial issue of report	Sep. 22, 2016

Laboratory Information

We, **Quietek Corporation**, are an independent RF consultancy that was established the whole facility in our laboratories. The test facility has been accredited/accepted (audited or listed) by the following related bodies in compliance with ISO 17025 specified testing scopes:

Taiwan R.O.C. : TAF, Accreditation Number: 3024
USA : FCC, Registration Number: 834100
Canada : IC, Submission No: 181665 / IC Registration Number: 4075C-4

The related certificate for our laboratories about the test site and management system can be downloaded from Quietek Corporation's Web Site:

<http://www.quietek.com/english/about/certificates.aspx?bval=5>

The address and introduction of Quietek Corporation's laboratories can be founded in our Web site :

http://www.quietek.com/index_en.aspx

If you have any comments, Please don't hesitate to contact us. Our contact information is as below:

HsinChu Testing Laboratory:

No. 75-2, 3rd Lin, WangYe Keng, Yonghxing Tsuen, Qionglin Shiang, Hsinchu County 307, Taiwan (R.O.C.)

TEL:+886-3-592-8858 / FAX:+886-3-592-8859

E-Mail : service@quietek.com

LinKou Testing Laboratory:

No. 5-22, Ruishukeng, Linkou Dist., New Taipei City 24451, Taiwan (R.O.C.)

TEL : +886-2-8601-3788 / FAX : +886-2-8601-3789

E-Mail : service@quietek.com

TABLE OF CONTENTS

Description	Page
1. General Information	7
1.1. EUT Description	7
1.2. Test Mode	9
1.3. Tested System Details	10
1.4. Configuration of tested System	10
1.5. EUT Exercise Software	11
1.6. Test Facility	12
2. Conducted Emission.....	13
2.1. Test Equipment.....	13
2.2. Test Setup	13
2.3. Limits	14
2.4. Test Procedure	14
2.5. Test Specification.....	14
2.6. Uncertainty	14
2.7. Test Result.....	15
3. Peak Power Output	17
3.1. Test Equipment.....	17
3.2. Test Setup	17
3.3. Test procedures	17
3.4. Limits	17
3.5. Test Specification.....	17
3.6. Uncertainty	17
3.7. Test Result.....	18
4. Radiated Emission	19
4.1. Test Equipment.....	19
4.2. Test Setup	19
4.3. Limits	20
4.4. Test Procedure	20
4.5. Test Specification.....	20
4.6. Uncertainty	20
4.7. Test Result.....	21
5. RF antenna conducted test	31
5.1. Test Equipment.....	31
5.2. Test Setup	31
5.3. Limits	32
5.4. Test Procedure	32
5.5. Test Specification.....	32
5.6. Uncertainty	32
5.7. Test Result.....	33
6. Radiated Emission Band Edge	36
6.1. Test Equipment.....	36
6.2. Test Setup	36

6.3.	Limits	37
6.4.	Test Procedure	37
6.5.	Test Specification.....	37
6.6.	Uncertainty	37
6.7.	Test Result.....	38
7.	Occupied Bandwidth.....	46
7.1.	Test Equipment.....	46
7.2.	Test Setup	46
7.3.	Test Procedures	46
7.4.	Limits	46
7.5.	Test Specification.....	46
7.6.	Uncertainty	46
7.7.	Test Result.....	47
8.	Power Density.....	49
8.1.	Test Equipment.....	49
8.2.	Test Setup	49
8.3.	Limits	49
8.4.	Test Procedures	49
8.5.	Test Specification.....	49
8.6.	Uncertainty	49
8.7.	Test Result.....	50
Attachment 1		52
	Test Setup Photograph.....	52
Attachment 2.....		56
	EUT External Photograph.....	56
Attachment 3.....		57
	EUT Internal Photograph.....	57

1. General Information

1.1. EUT Description

Product Name	OHR Smart band
Trade Name	HOLUX
Model Name	Impulse 8050
Frequency Range/Channel Number	2402~2480MHz / 40 Channels
Type of Modulation	BLE 4.0 (GFSK)

Antenna Information	
Antenna Type	Omni-directional
Antenna Gain	1dBi

Accessories Information	
USB Cable	Shielded, 0.15m

Working Frequency of Each Channel							
Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
Channel 00	2402 MHz	Channel 10	2422 MHz	Channel 20	2442 MHz	Channel 30	2462 MHz
Channel 01	2404 MHz	Channel 11	2424 MHz	Channel 21	2444 MHz	Channel 31	2464 MHz
Channel 02	2406 MHz	Channel 12	2426 MHz	Channel 22	2446 MHz	Channel 32	2466 MHz
Channel 03	2408 MHz	Channel 13	2428 MHz	Channel 23	2448 MHz	Channel 33	2468 MHz
Channel 04	2410 MHz	Channel 14	2430 MHz	Channel 24	2450 MHz	Channel 34	2470 MHz
Channel 05	2412 MHz	Channel 15	2432 MHz	Channel 25	2452 MHz	Channel 35	2472 MHz
Channel 06	2414 MHz	Channel 16	2434 MHz	Channel 26	2454 MHz	Channel 36	2474 MHz
Channel 07	2416MHz	Channel 17	2436 MHz	Channel 27	2456 MHz	Channel 37	2476 MHz
Channel 08	2418 MHz	Channel 18	2438 MHz	Channel 28	2458 MHz	Channel 38	2478 MHz
Channel 09	2420 MHz	Channel 19	2440 MHz	Channel 29	2460 MHz	Channel 39	2480 MHz

Note:

1. This device is an OHR Smart band including BT 4.0 transmitting and receiving function.
2. These test results on a sample of the device are for the purpose of demonstrating Compliance with Part 15 Subpart C Paragraph 15.247.
3. Regards to the frequency band operation; the lowest , middle and highest frequency of channel were selected to perform the test, and then shown on this report.
4. This device is a composite device in accordance with Part 15 regulations. The function of the receiving was tested and its test report number is 1660266R-RFUSP01V00.

1.2. Test Mode

QuieTek has verified the construction and function in typical operation. The preliminary tests were performed in different data rate, and to find the worst condition, which was shown in this test report. The following table is the final test mode.

TX	Mode 1: Transmit-Power by PC Mode 2: Transmit-Power by Battery
----	---

Test Items	Modulation	Channel	Antenna	Result
Conducted Emission	GFSK	00/19/39	0	Complies
Peak Power Output	GFSK	00/19/39	0	Complies
Radiated Emission	GFSK	00/19/39	0	Complies
RF antenna conducted test	GFSK	00/19/39	0	Complies
Radiated Emission Band Edge	GFSK	00/19/39	0	Complies
Occupied Bandwidth	GFSK	00/19/39	0	Complies
Power Density	GFSK	00/19/39	0	Complies

1.3. Tested System Details

The types for all equipments, plus descriptions of all cables used in the tested system (including inserted cards) are:

Test Mode		Mode 1: Transmit-Power by PC Mode 2: Transmit-Power by Battery				
Product		Manufacturer	Model No.	Serial No.	FCC ID	Power Cord
1	Notebook PC	DELL	Vostro3400	7F808N1	DoC	Non-Shielded, 1.8m

1.4. Configuration of tested System

Test Mode		Mode 1: Transmit-Power by PC				
Connection Diagram						
<p>The diagram shows a central box labeled 'EUT' (Equipment Under Test) and a box at the bottom right labeled 'Notebook PC (1)'. Two cables, labeled 'A' and 'B', connect them. Cable 'A' is a console cable, and cable 'B' is a USB cable. Both cables are shown as solid lines with their respective labels at the top. The EUT and PC are enclosed in a dashed-line box, indicating they are part of the tested system.</p>						
Signal Cable Type			Signal cable Description			
A	Console Cable		Non-Shielded, 3m			
B	USB Cable		Shielded, 3m			

Test Mode	Mode 2: Transmit-Power by Battery	
Connection Diagram		
<p>The diagram shows a rectangular box labeled 'EUT' in the center. A line labeled 'A' starts from the top of the EUT box, goes up, then right, then down, then left, then down again, ending at a box labeled 'Notebook PC (1)' in the bottom right corner.</p>		
	Signal Cable Type	Signal cable Description
A	Console Cable	Non-Shielded, 3m

1.5. EUT Exercise Software

1	Setup the EUT as shown in Section 1.4.
2	Turn on the power of all equipment.
3	The RF signal's status will continue transmit through EUT.
4	Configure the test mode, the test channel, and the data rate.
5	Press "Start TX" to start the continuous transmitting.

1.6. Test Facility

Ambient conditions in the laboratory:

Items	Test Item	Required (IEC 68-1)	Actual
Temperature (°C)	FCC PART 15 C 15.207 Conducted Emission	15 - 35	23 °C
Humidity (%RH)		25 - 75	50 %RH
Barometric pressure (mbar)		860 - 1060	950-1000
Temperature (°C)	FCC PART 15 C 15.247 Peak Power Output	15 - 35	23 °C
Humidity (%RH)		25 - 75	50 %RH
Barometric pressure (mbar)		860 - 1060	950-1000
Temperature (°C)	FCC PART 15 C 15.247 Radiated Emission	15 - 35	23 °C
Humidity (%RH)		25 - 75	50 %RH
Barometric pressure (mbar)		860 - 1060	950-1000
Temperature (°C)	FCC PART 15 C 15.247 RF antenna conducted test	15 - 35	23 °C
Humidity (%RH)		25 - 75	50 %RH
Barometric pressure (mbar)		860 - 1060	950-1000
Temperature (°C)	FCC PART 15 C 15.247 Band Edge	15 - 35	23 °C
Humidity (%RH)		25 - 75	50 %RH
Barometric pressure (mbar)		860 - 1060	950-1000
Temperature (°C)	FCC PART 15 C 15.247 Occupied Bandwidth	15 - 35	23 °C
Humidity (%RH)		25 - 75	50 %RH
Barometric pressure (mbar)		860 - 1060	950-1000
Temperature (°C)	FCC PART 15 C 15.247 Power Density	15 - 35	23 °C
Humidity (%RH)		25 - 75	50 %RH
Barometric pressure (mbar)		860 - 1060	950-1000

2. Conducted Emission

2.1. Test Equipment

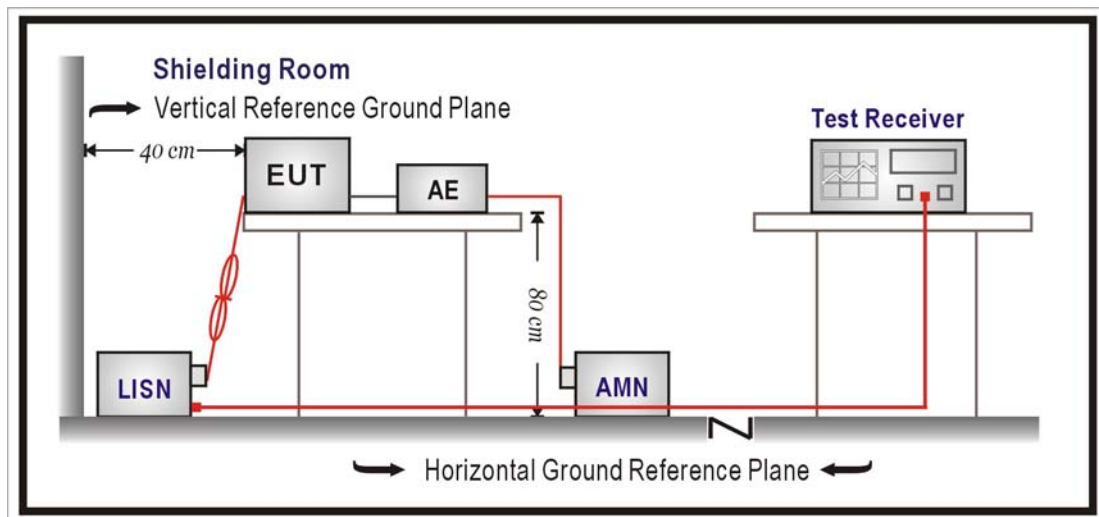
The following test equipments are used during the test:

Conducted Emission / SR3

Instrument	Manufacturer	Model No.	Serial No.	Next Cal. Date
LISN	R&S	ENV216	100096	2017/08/22
LISN	R&S	ESH3-Z5	836679/022	2016/11/30
Test Receiver	R&S	ESCS 30	825442/017	2017/01/04

Note: All equipments that need to calibrate are with calibration period of 1 year.

2.2. Test Setup



2.3. Limits

FCC Part 15 Subpart C Paragraph 15.207 Limits (dBuV)		
Frequency MHz	QP	AV
0.15 - 0.50	66-56	56-46
0.50 - 5.0	56	46
5.0 - 30	60	50

Remarks: In the above table, the tighter limit applies at the band edges.

2.4. Test Procedure

The EUT was setup according to ANSI C63.10: 2009 and tested according to DTS test procedure of KDB558074 for compliance to FCC 47CFR 15.247 requirements.

The EUT was placed on a platform of nominal size, 1 m by 1.5 m, raised 80 cm above the conducting ground plane. The vertical conducting plane was located 40 cm to the rear of the EUT. All other surfaces of EUT were at least 80 cm from any other grounded conducting surface. The EUT and simulators are connected to the main power through a line impedance stabilization network (LISN). The LISN provides a 50 ohm /50uH coupling impedance for the measuring equipment. The peripheral devices are also connected to the main power through a LISN. (Please refer to the block diagram of the test setup and photographs.)

Each current-carrying conductor of the EUT power cord, except the ground (safety) conductor, was individually connected through a LISN to the input power source.

The excess length of the power cord between the EUT and the LISN receptacle were folded back and forth at the center of the lead to form a bundle not exceeding 40 cm in length.

Conducted emissions were investigated over the frequency range from 0.15MHz to 30MHz using a receiver bandwidth of 9 kHz.

2.5. Test Specification

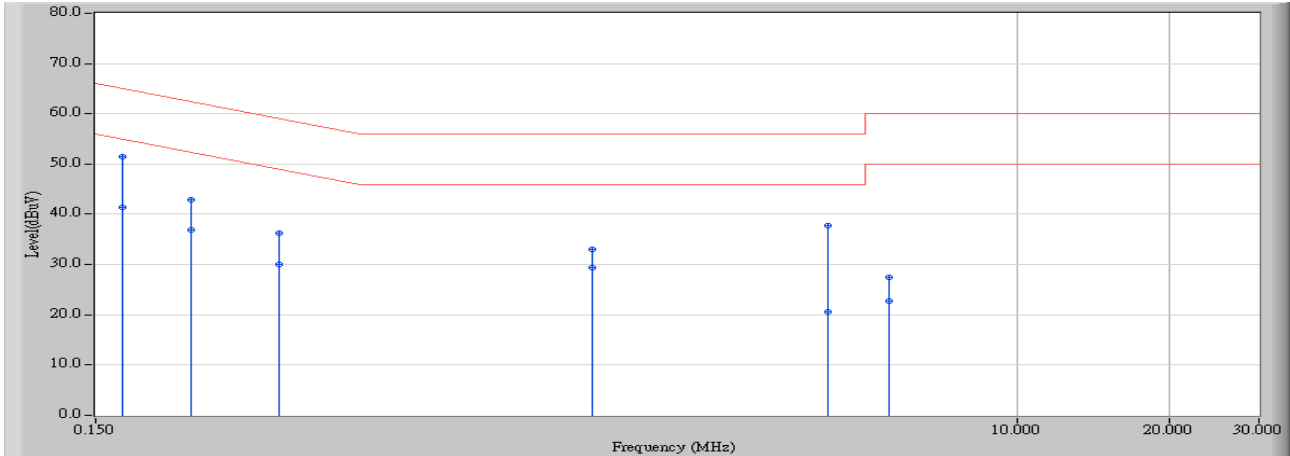
According to FCC Part 15 Subpart C Paragraph 15.207: 2015

2.6. Uncertainty

The measurement uncertainty is defined as ± 2.26 dB.

2.7. Test Result

Site : SR2	Time : 2016/04/06 - 19:05
Limit : CISPR_B_00M_QP	Margin : 10
Probe : SR2_LISN(16A)-5_0818 - Line1	Power : DC 5V
EUT : OHR Smart band	Note : Mode 1: Transmit-Power by PC_ GFSK_2440MHz

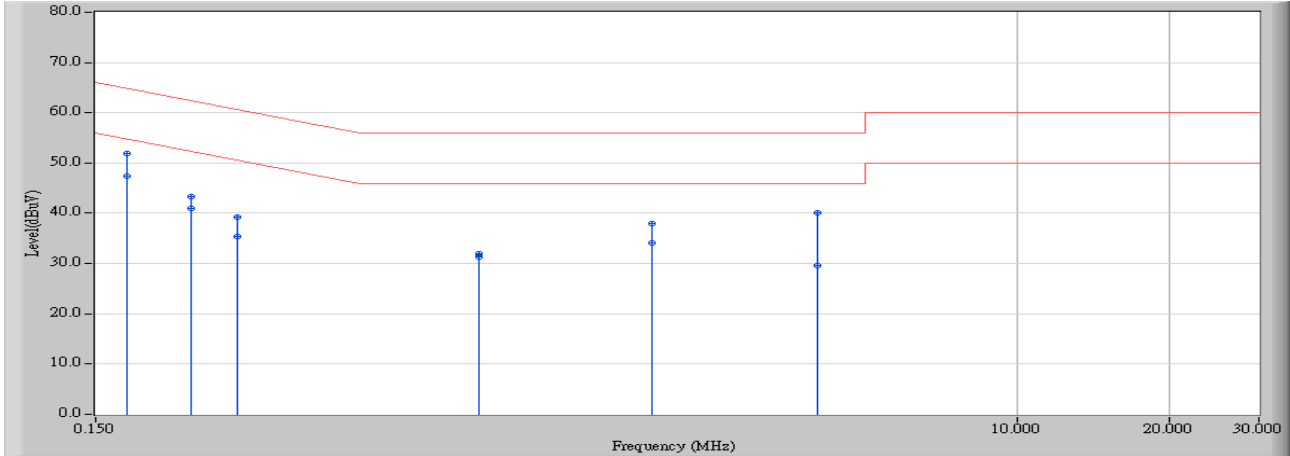


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV)	Margin (dB)	Limit (dBuV)	Detector Type
1	*	0.170	9.689	41.720	51.409	-13.574	64.983	QUASPEAK
2		0.170	9.689	31.670	41.359	-13.624	54.983	AVERAGE
3		0.232	9.690	33.170	42.860	-19.514	62.374	QUASPEAK
4		0.232	9.690	27.260	36.950	-15.424	52.374	AVERAGE
5		0.345	9.701	26.520	36.221	-22.854	59.074	QUASPEAK
6		0.345	9.701	20.310	30.011	-19.064	49.074	AVERAGE
7		1.439	9.746	23.310	33.056	-22.944	56.000	QUASPEAK
8		1.439	9.746	19.690	29.436	-16.564	46.000	AVERAGE
9		4.201	9.876	27.810	37.686	-18.314	56.000	QUASPEAK
10		4.201	9.876	10.670	20.546	-25.454	46.000	AVERAGE
11		5.580	9.936	17.450	27.386	-32.614	60.000	QUASPEAK
12		5.580	9.936	12.810	22.746	-27.254	50.000	AVERAGE

Note:

1. All Reading Levels are Quasi-Peak and average value.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

Site : SR2	Time : 2016/04/06 - 19:12
Limit : CISPR_B_00M_QP	Margin : 10
Probe : SR2_LISN(16A)-5_0818 - Line2	Power : DC 5V
EUT : OHR Smart band	Note : Mode 1: Transmit-Power by PC_GFSK_2440MHz



		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV)	Margin (dB)	Limit (dBuV)	Detector Type
1		0.173	9.763	42.240	52.003	-12.791	64.794	QUASPEAK
2	*	0.173	9.763	37.620	47.383	-7.411	54.794	AVERAGE
3		0.232	9.770	33.460	43.230	-19.147	62.377	QUASPEAK
4		0.232	9.770	31.140	40.910	-11.467	52.377	AVERAGE
5		0.287	9.775	29.530	39.305	-21.314	60.619	QUASPEAK
6		0.287	9.775	25.590	35.365	-15.254	50.619	AVERAGE
7		0.861	9.808	22.220	32.028	-23.972	56.000	QUASPEAK
8		0.861	9.808	21.410	31.218	-14.782	46.000	AVERAGE
9		1.896	9.864	28.190	38.054	-17.946	56.000	QUASPEAK
10		1.896	9.864	24.260	34.124	-11.876	46.000	AVERAGE
11		4.021	9.947	30.200	40.147	-15.853	56.000	QUASPEAK
12		4.021	9.947	19.660	29.607	-16.393	46.000	AVERAGE

Note:

1. All Reading Levels are Quasi-Peak and average value.
2. " * ", means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

3. Peak Power Output

3.1. Test Equipment

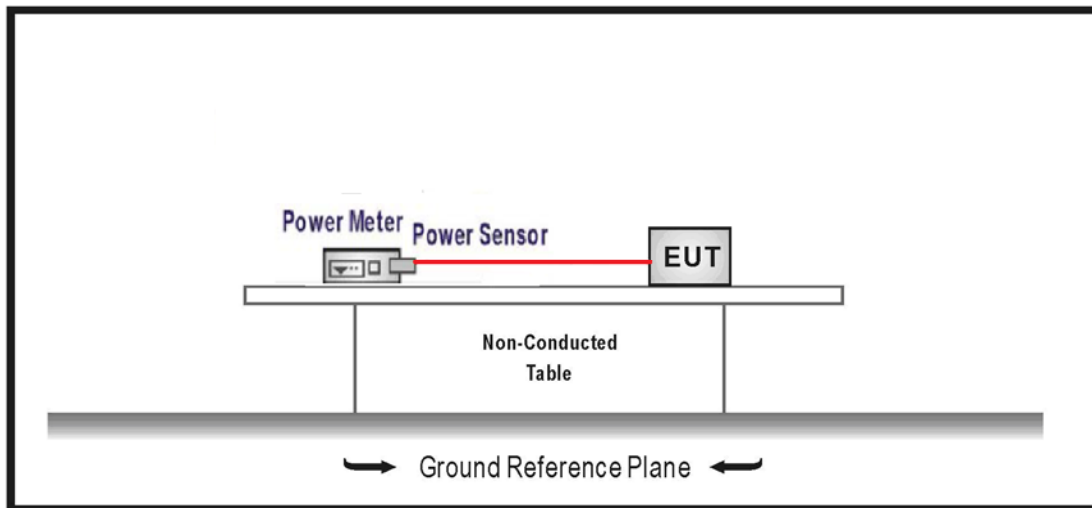
The following test equipments are used during the test:

Peak Power Output / SR7

Instrument	Manufacturer	Model No.	Serial No	Next Cal. Date
Spectrum Analyzer	Agilent	N9010A	US47140172	2017/08/08
Signal & Spectrum Analyzer	R&S	FSV40	101049	2017/01/05
Signal Analyzer	R&S	FSV7	101650	2016/11/30

Note: All equipments that need to calibrate are with calibration period of 1 year.

3.2. Test Setup



3.3. Test procedures

The EUT was tested according to DTS test procedure section 9.1.2 of KDB558074 v03r05 measurement to FCC 47CFR 15.247 requirements.

3.4. Limits

The maximum peak power shall be less 1 Watt.

3.5. Test Specification

According to FCC Part 15 Subpart C Paragraph 15.247: 2015

3.6. Uncertainty

The measurement uncertainty is defined as ± 1.27 dB.

3.7. Test Result

Product	OHR Smart band		
Test Item	Peak Power Output		
Test Mode	Mode 1: Transmit-Power by PC		
Date of Test	2016/03/30	Test Site	SR7

BLE 4.0 (GFSK)

Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
00	2402	-7.16	≤ 30	Pass
19	2440	-6.24	≤ 30	Pass
39	2480	-5.76	≤ 30	Pass

4. Radiated Emission

4.1. Test Equipment

The following test equipments are used during the test:

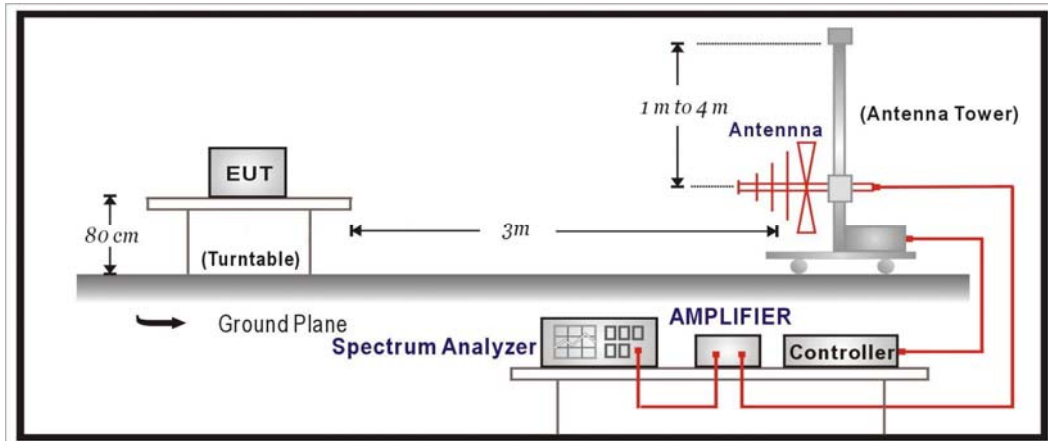
Radiated Emission / CB1

Instrument	Manufacturer	Model No.	Serial No	Next Cal. Date
Bilog Antenna	Schaffner	CBL6112B	2895	2017/08/14
Double Ridged Guide Horn Antenna	Schwarzbeck	BBHA 9120	D743	2017/01/14
Pre-Amplifier	EMCI	EMC0031835	980233	2017/01/26
Pre-Amplifier	QuieTek	AP-025C	CHM-0706049	2017/01/03
Spectrum Analyzer	Agilent	E4440A	MY46187335	2016/12/24
k Type Cable	Huber+Suhner	SF 102	25623/2	2017/01/11

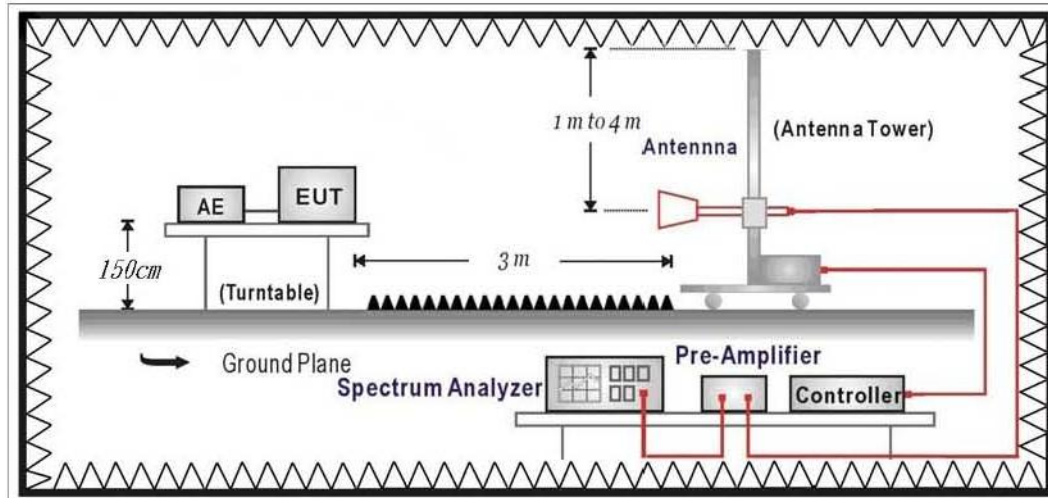
Note: All equipments that need to calibrate are with calibration period of 1 year.

4.2. Test Setup

Under 1GHz Test Setup:



Above 1GHz Test Setup:



4.3. Limits

Emissions radiated outside of the specified frequency bands, except for harmonics, shall be attenuated by at least 20dB below the level of the fundamental or to the general radiated emission limits in paragraph 15.209, whichever is the lesser attenuation.

FCC Part 15 Subpart C Paragraph 15.209 Limits		
Frequency MHz	dBuV/m	dBuV/m
30-88	100	40
88-216	150	43.5
216-960	200	46
Above 960	500	54

Remark: E field strength (dBuV/m) = 20 log E field strength (uV/m)

4.4. Test Procedure

The EUT was setup according to ANSI C63.10: 213 and tested according to DTS test procedure of KDB558074 v03r05 for compliance to FCC 47CFR 15.247 requirements.

The EUT and its simulators are placed on a turn table which is 0.8 and 1.5 meter above ground. The turn table can rotate 360 degrees to determine the position of the maximum emission level.

The antenna can move up and down between 1 meter and 4 meters to find out the maximum emission level.

Both horizontal and vertical polarization of the antenna are set on measurement. In order to find the maximum emission, all of the interface cables must be manipulated according to ANSI C63.10: 213 on radiated measurement.

On any frequency or frequencies below or equal to 1000 MHz, the limits shown are based on measuring equipment employing a quasi-peak detector function and on any frequency or frequencies above 1000 MHz the radiated limits shown are based upon the use of measurement instrumentation employing an average detector function. When average radiated emission measurement are included emission measurement below 1000 MHz, there also is a limit on the radio frequency emissions, as measured using instrumentation with a peak detector function, corresponding to 20 dB above the maximum permitted average limit. The bandwidth below 1GHz setting on the field strength meter is 120 kHz and above 1GHz is 1MHz.

4.5. Test Specification

According to FCC Part 15 Subpart C Paragraph 15.247: 2015

4.6. Uncertainty

The measurement uncertainty

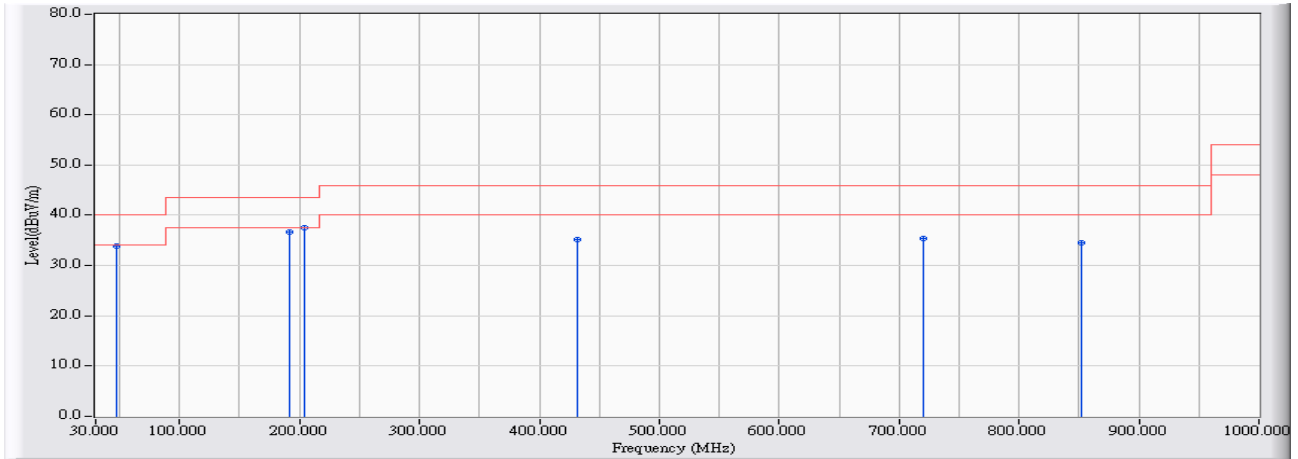
30MHz~1GHz as ±3.43dB

1GHz~26.5Ghz as ±3.65dB

4.7. Test Result

30MHz-1GHz Spurious

Site : CB1	Time : 2016/04/06 - 14:17
Limit : FCC_CLASS_B_03M_QP	Margin : 6
Probe : CB1_FCC_30M-1G-4_9161 - HORIZONTAL	Power : DC 5V (Power by PC)
EUT : OHR Smart band	Note : Mode 1: Transmit-Power by PC_GFSK_2440MHz

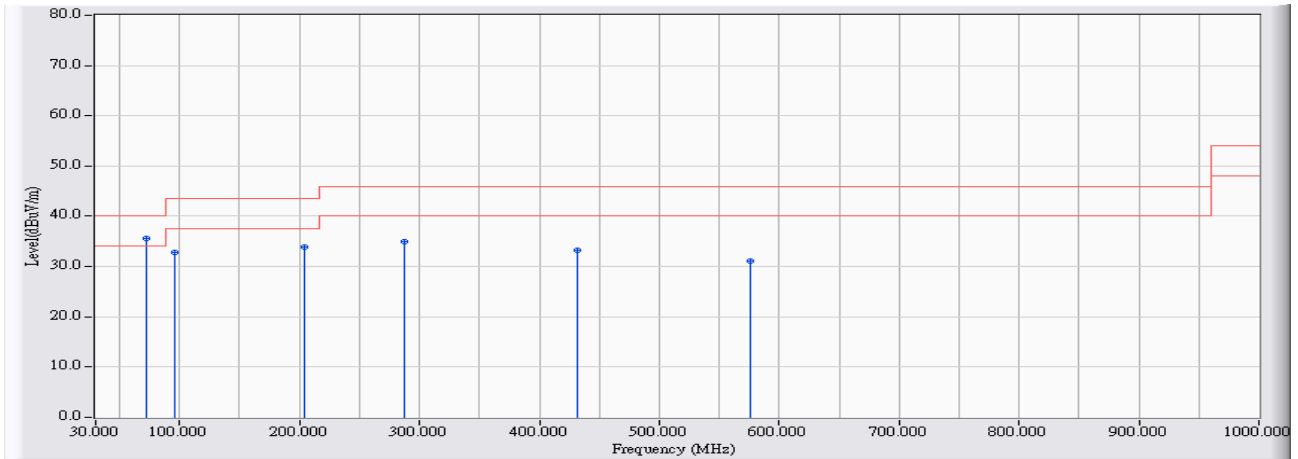


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	47.943	11.817	21.975	33.792	-6.208	40.000	QUASPEAK
2	191.974	12.758	23.873	36.631	-6.869	43.500	QUASPEAK
3	* 204.001	12.461	25.149	37.610	-5.890	43.500	QUASPEAK
4	431.928	16.724	18.512	35.236	-10.764	46.000	QUASPEAK
5	719.989	21.315	14.094	35.409	-10.591	46.000	QUASPEAK
6	852.090	22.912	11.629	34.541	-11.459	46.000	QUASPEAK

Note:

1. All Reading Levels are Quasi-Peak value.
2. “ * ”, means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

Site : CB1	Time : 2016/04/06 - 14:18
Limit : FCC_CLASS_B_03M_QP	Margin : 6
Probe : CB1_FCC_30M-1G-4_9161 - VERTICAL	Power : DC 5V (Power by PC)
EUT : OHR Smart band	Note : Mode 1: Transmit-Power by PC_GFSK_2440MHz

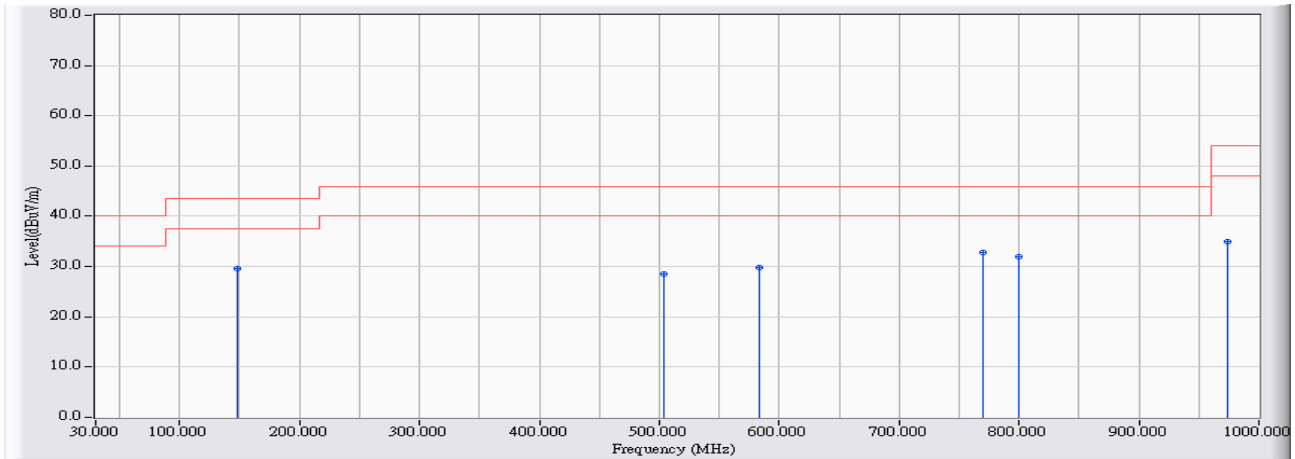


		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	71.997	8.329	27.218	35.547	-4.453	40.000	QUASPEAK
2		95.953	12.187	20.665	32.852	-10.648	43.500	QUASPEAK
3		204.001	12.461	21.483	33.944	-9.556	43.500	QUASPEAK
4		287.994	13.411	21.502	34.913	-11.087	46.000	QUASPEAK
5		431.928	16.724	16.461	33.185	-12.815	46.000	QUASPEAK
6		575.958	19.234	11.839	31.073	-14.927	46.000	QUASPEAK

Note:

1. All Reading Levels are Quasi-Peak value.
2. “ * ”, means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

Site : CB1	Time : 2016/04/06 - 15:31
Limit : FCC_CLASS_B_03M_QP	Margin : 6
Probe : CB1_FCC_30M-1G-4_9161 - HORIZONTAL	Power : DC 3.7V (Power by Battery)
EUT : OHR Smart band	Note : Mode 2: Transmit-Power by Battery _GFSK_ 2440MHz

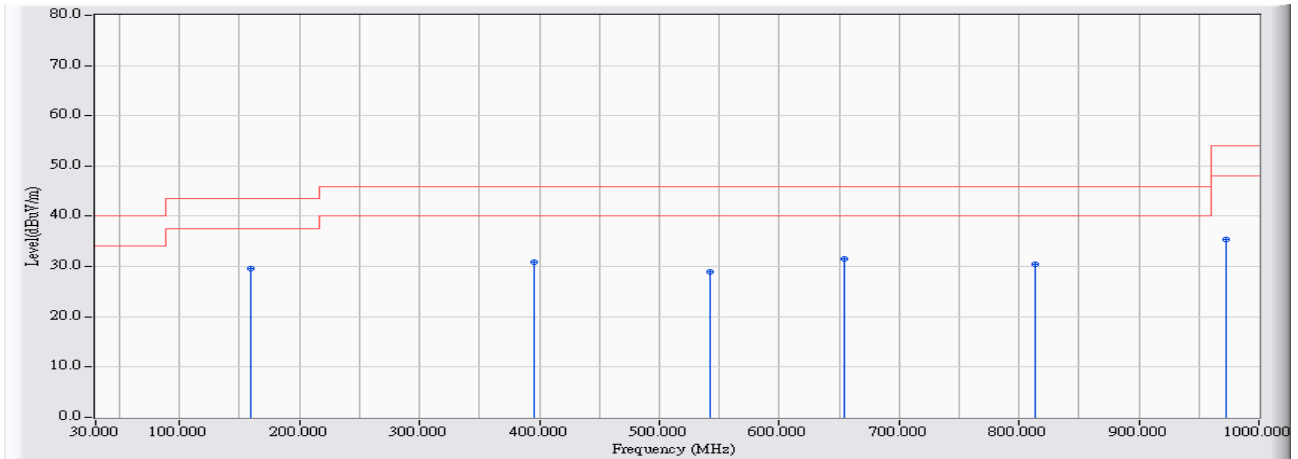


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	147.746	17.392	12.257	29.649	-13.851	43.500	QUASIPeAK
2	503.216	17.816	10.669	28.485	-17.515	46.000	QUASIPeAK
3	583.039	19.372	10.368	29.741	-16.259	46.000	QUASIPeAK
4	* 769.939	21.944	10.898	32.843	-13.157	46.000	QUASIPeAK
5	800.200	22.326	9.620	31.946	-14.054	46.000	QUASIPeAK
6	974.395	24.164	10.810	34.974	-19.026	54.000	QUASIPeAK

Note:

1. All Reading Levels are Quasi-Peak value.
2. “ * ”, means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

Site : CB1	Time : 2016/04/06 - 15:33
Limit : FCC_CLASS_B_03M_QP	Margin : 6
Probe : CB1_FCC_30M-1G-4_9161 - VERTICAL	Power : DC 3.7V (Power by Battery)
EUT : OHR Smart band	Note : Mode 2: Transmit-Power by Battery _GFSK_ 2440MHz



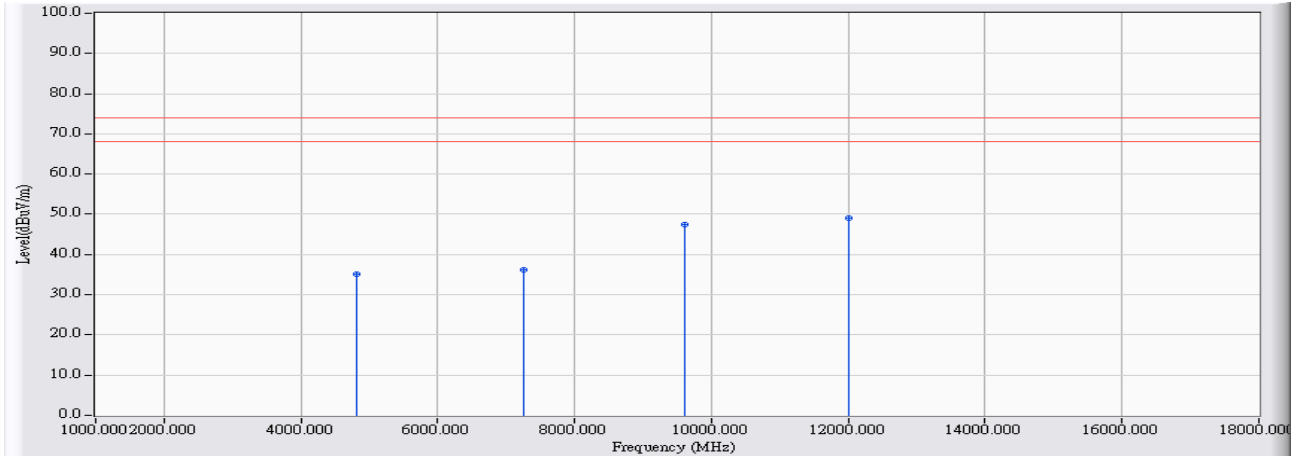
		Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	*	159.579	17.968	11.542	29.510	-13.990	43.500	QUASPEAK
2		395.168	15.854	15.119	30.973	-15.027	46.000	QUASPEAK
3		541.818	18.569	10.419	28.988	-17.012	46.000	QUASPEAK
4		653.842	20.436	11.082	31.517	-14.483	46.000	QUASPEAK
5		812.906	22.469	7.919	30.389	-15.611	46.000	QUASPEAK
6		972.649	24.147	11.146	35.293	-18.707	54.000	QUASPEAK

Note:

1. All Reading Levels are Quasi-Peak value.
2. “ * ”, means this data is the worst emission level.
3. Measurement Level = Reading Level + Correct Factor

Above 1GHz Spurious

Site : CB1	Time : 2016/04/06 - 11:45
Limit : FCC_SpartC_15.247_H_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G_H2 - HORIZONTAL	Power : DC 5V (Power by PC)
EUT : OHR Smart band	Note : Mode 1: Transmit-Power by PC_GFSK_2402MHz

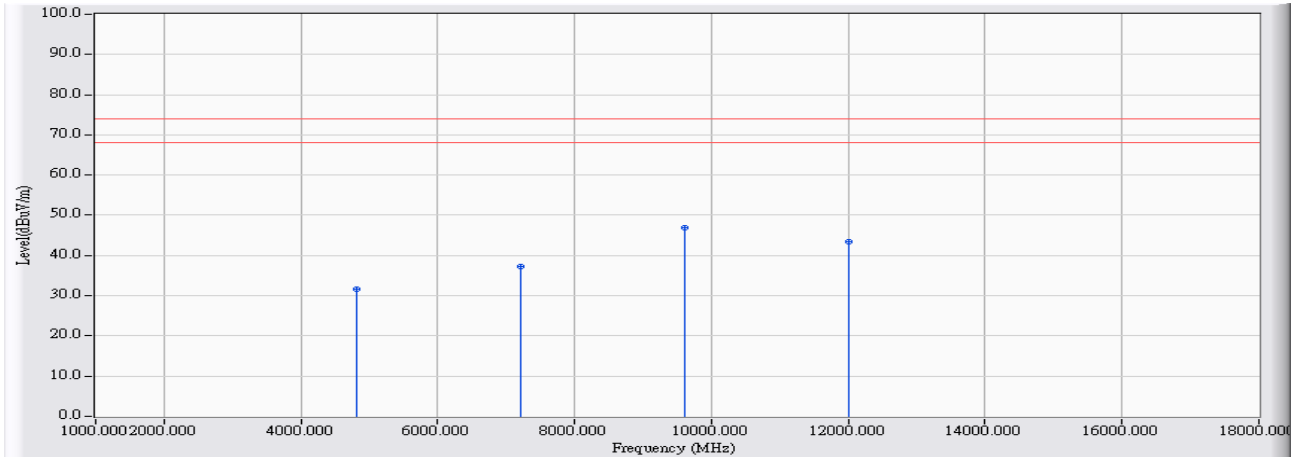


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	4804.000	-7.060	42.070	35.010	-38.990	74.000	PEAK
2	7249.000	-0.744	36.980	36.236	-37.764	74.000	PEAK
3	* 9606.000	4.853	42.670	47.523	-26.477	74.000	PEAK
4	* 12008.000	8.350	40.590	48.941	-25.059	74.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The Emission above 13GHz were not included is because their levels are too low.

Site : CB1	Time : 2016/04/06 - 11:47
Limit : FCC_SpartC_15.247_H_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G_H2 - VERTICAL	Power : DC 5V (Power by PC)
EUT : OHR Smart band	Note : Mode 1: Transmit-Power by PC_GFSK_2402MHz

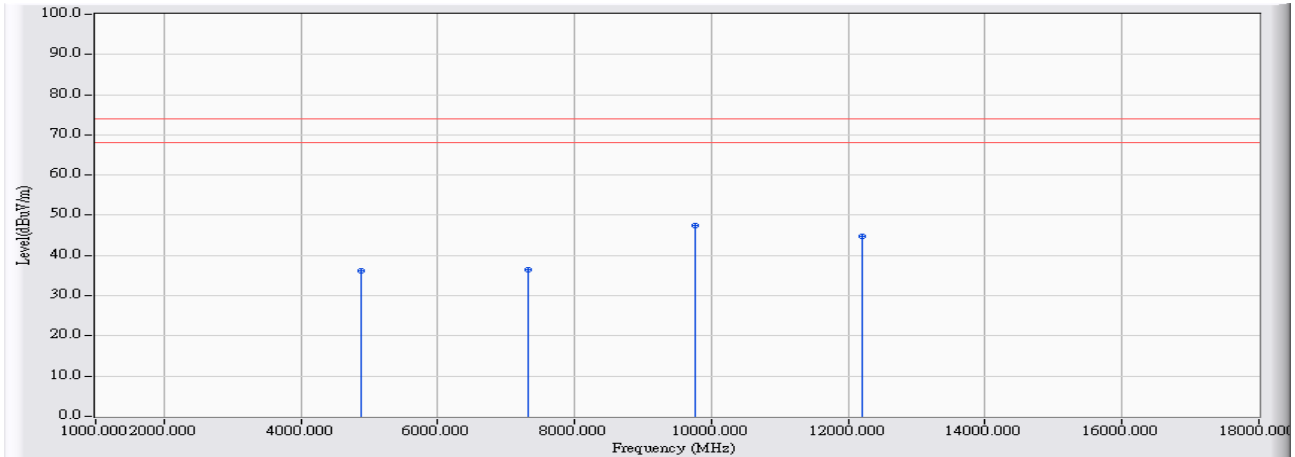


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	4804.000	-9.442	41.130	31.688	-42.312	74.000	PEAK
2	7205.000	0.096	37.140	37.236	-36.764	74.000	PEAK
3	* 9607.000	4.005	42.860	46.865	-27.135	74.000	PEAK
4	12011.000	8.132	35.410	43.541	-30.459	74.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ * ”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The Emission above 13GHz were not included is because their levels are too low.

Site : CB1	Time : 2016/04/06 - 11:59
Limit : FCC_SpartC_15.247_H_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G_H2 - HORIZONTAL	Power : DC 5V (Power by PC)
EUT : OHR Smart band	Note : Mode 1: Transmit-Power by PC_GFSK_2440MHz

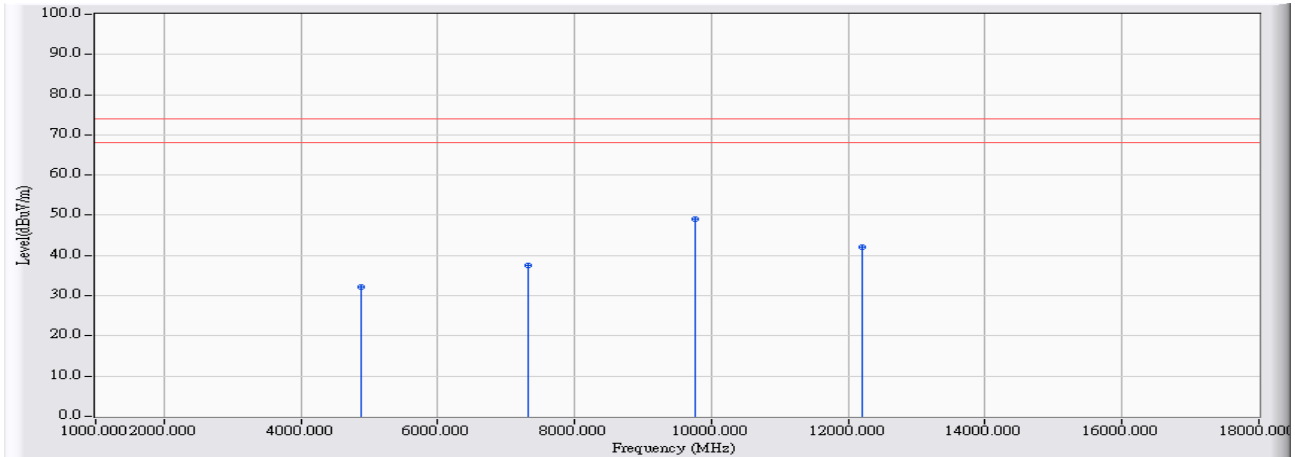


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	4879.000	-6.968	43.080	36.111	-37.889	74.000	PEAK
2	7319.000	-0.586	36.920	36.334	-37.666	74.000	PEAK
3	* 9760.000	5.487	41.870	47.357	-26.643	74.000	PEAK
4	12198.000	8.364	36.340	44.704	-29.296	74.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ * ”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The Emission above 13GHz were not included is because their levels are too low.

Site : CB1	Time : 2016/04/06 - 13:07
Limit : FCC_SpartC_15.247_H_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G_H2 - VERTICAL	Power : DC 5V (Power by PC)
EUT : OHR Smart band	Note : Mode 1: Transmit-Power by PC_GFSK_2440MHz

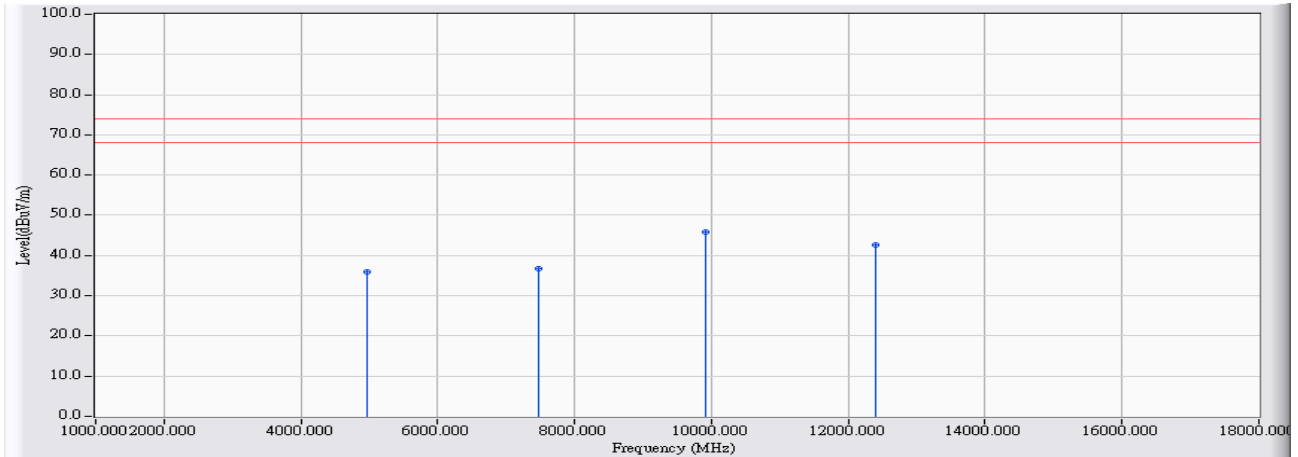


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	4880.000	-9.039	41.320	32.281	-41.719	74.000	PEAK
2	7319.000	0.394	37.220	37.614	-36.386	74.000	PEAK
3	* 9759.000	4.700	44.440	49.140	-24.860	74.000	PEAK
4	12201.000	8.007	34.120	42.126	-31.874	74.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ * ”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The Emission above 13GHz were not included is because their levels are too low.

Site : CB1	Time : 2016/04/06 - 13:16
Limit : FCC_SpartC_15.247_H_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G_H2 - HORIZONTAL	Power : DC 5V (Power by PC)
EUT : OHR Smart band	Note : Mode 1: Transmit-Power by PC_GFSK_2480MHz

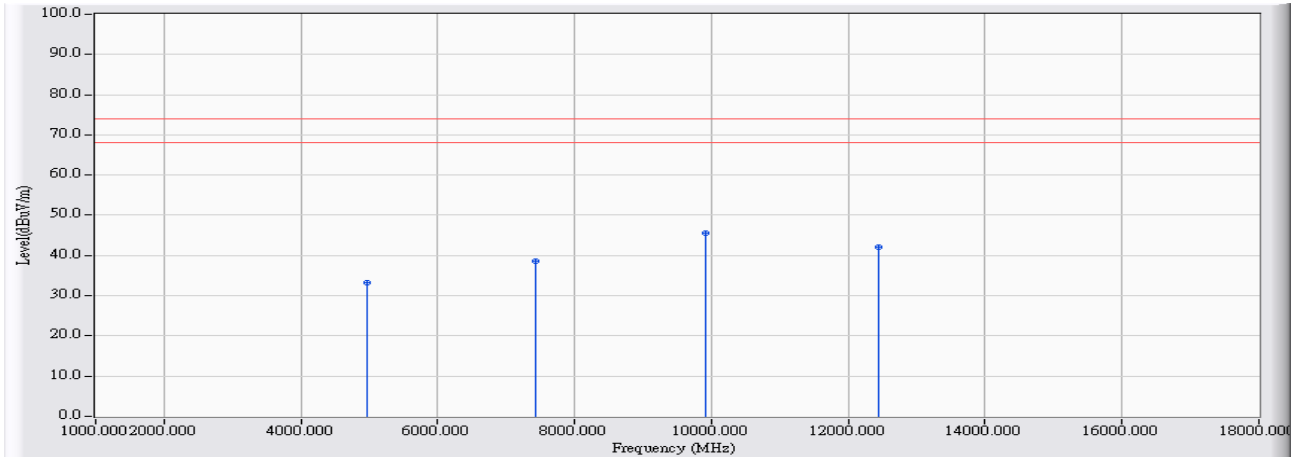


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	4959.000	-6.870	42.790	35.920	-38.080	74.000	PEAK
2	7478.000	-0.197	37.060	36.862	-37.138	74.000	PEAK
3	* 9920.000	6.118	39.780	45.898	-28.102	74.000	PEAK
4	12398.000	8.320	34.430	42.750	-31.250	74.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ * ”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The Emission above 13GHz were not included is because their levels are too low.

Site : CB1	Time : 2016/04/06 - 13:28
Limit : FCC_SpartC_15.247_H_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G_H2 - VERTICAL	Power : DC 5V (Power by PC)
EUT : OHR Smart band	Note : Mode 1: Transmit-Power by PC_GFSK_2480MHz



	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	4960.000	-8.614	41.940	33.326	-40.674	74.000	PEAK
2	7440.000	0.748	37.750	38.497	-35.503	74.000	PEAK
3	* 9918.000	5.399	40.120	45.519	-28.481	74.000	PEAK
4	12433.000	7.791	34.230	42.021	-31.979	74.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ * ”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection.
7. The Emission above 13GHz were not included is because their levels are too low.

5. RF antenna conducted test

5.1. Test Equipment

The following test equipments are used during the test:

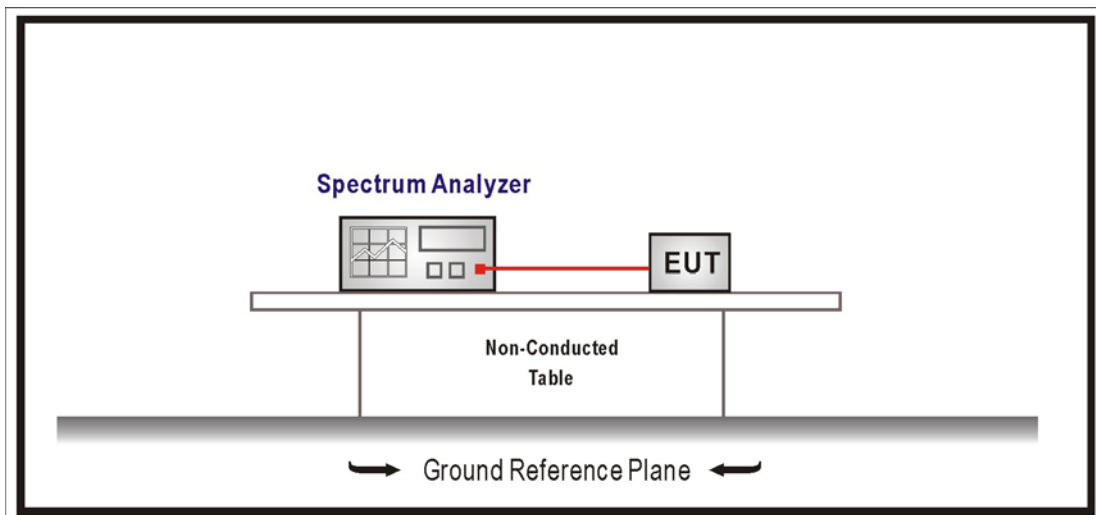
RF antenna conducted test / SR7

Instrument	Manufacturer	Model No.	Serial No	Next Cal. Date
Spectrum Analyzer	Agilent	N9010A-EXA	US47140172	2016/08/23
Signal & Spectrum Analyzer	R&S	FSV40	101049	2017/01/05

Note: All equipments that need to calibrate are with calibration period of 1 year.

5.2. Test Setup

RF Antenna Conducted Measurement:



5.3. Limits

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on an RF conducted or radiated measurement. Attenuation below the general limits specified in Section 15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), must also comply with the radiated emission limits specified in Section 15.209(a) (see Section 15.205(c)).

5.4. Test Procedure

The EUT was setup according to ANSI C63.10: 213 and tested according to DTS test procedure section 11.2 of KDB558074 v03r05 for compliance to FCC 47CFR 15.247 requirements. Set RBW = 100 kHz, Set VBW > RBW, scan up through 10th harmonic.

5.5. Test Specification

According to FCC Part 15 Subpart C Paragraph 15.247: 2015

5.6. Uncertainty

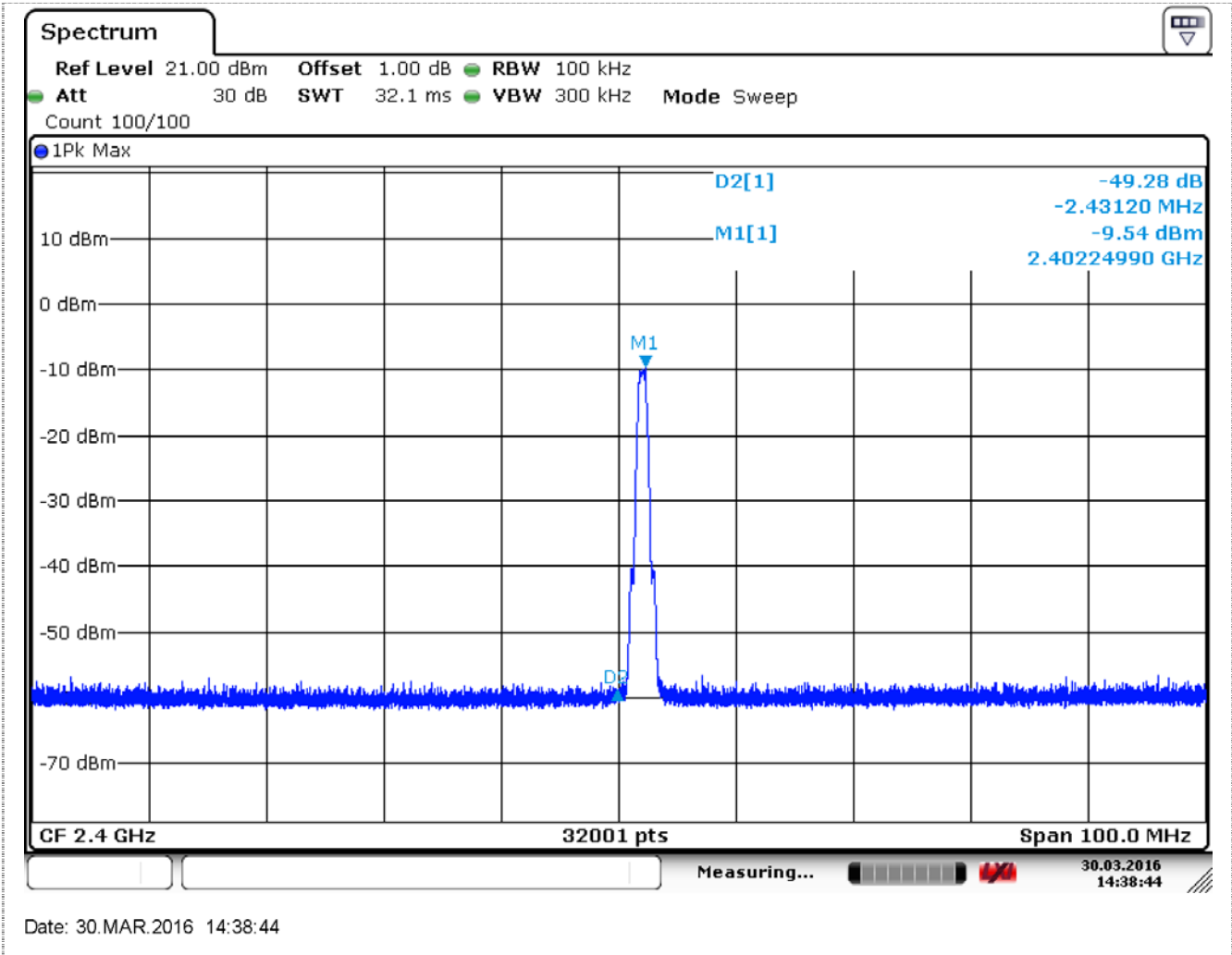
Conducted is defined as ± 1.27 dB

5.7. Test Result

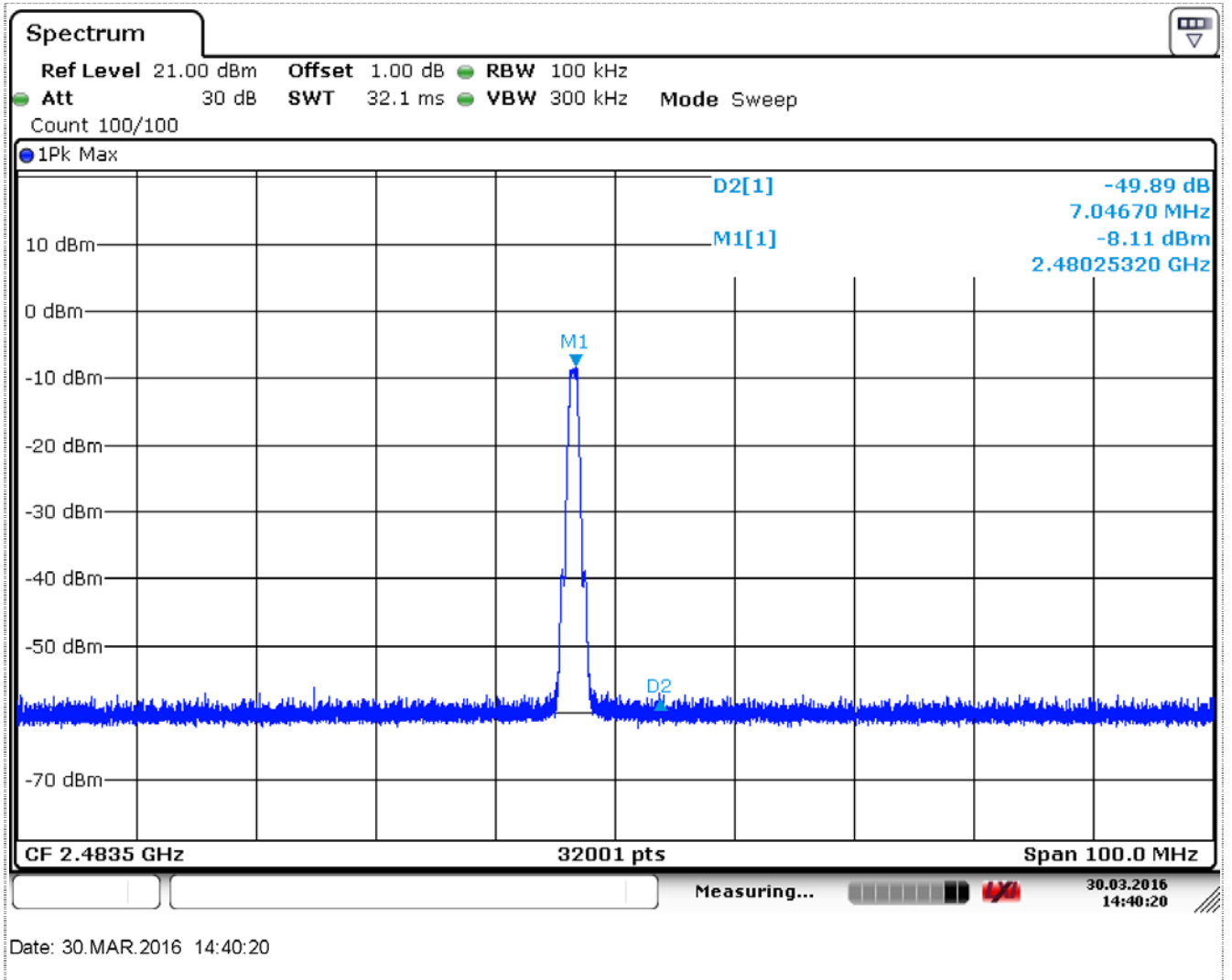
Product	OHR Smart band		
Test Item	RF antenna conducted test		
Test Mode	Mode 1: Transmit-Power by PC		
Date of Test	2016/03/30	Test Site	SR7

BLE 4.0 (GFSK)				
Channel	Frequency (MHz)	Measure Level (dBc)	Limit (dBc)	Result
00	2402	49.280	≥ 20	Pass
39	2480	49.890	≥ 20	Pass

Channel 00

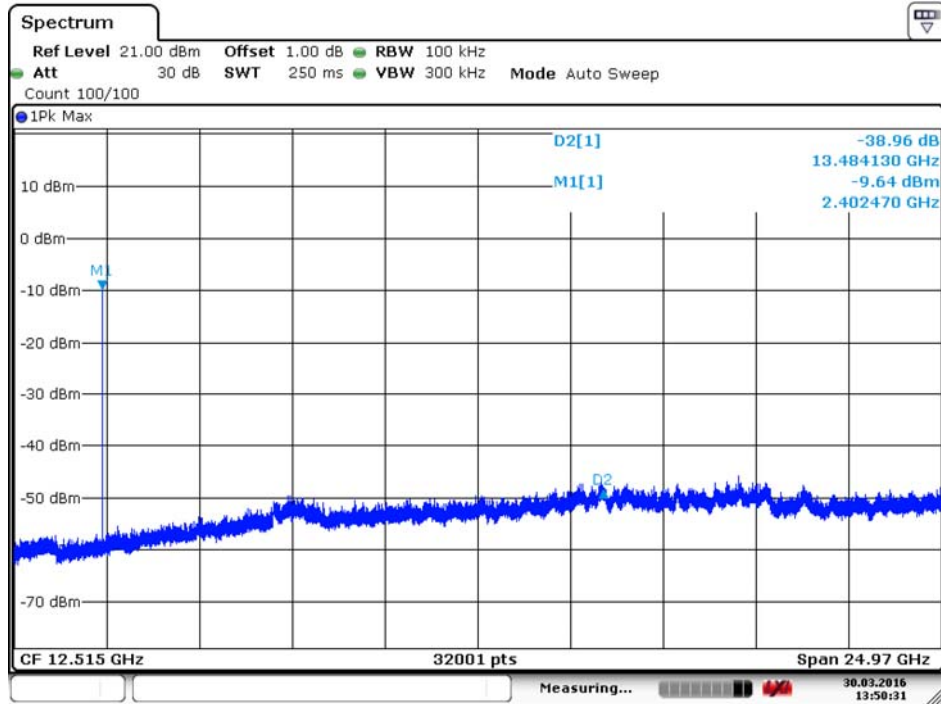


Channel 39



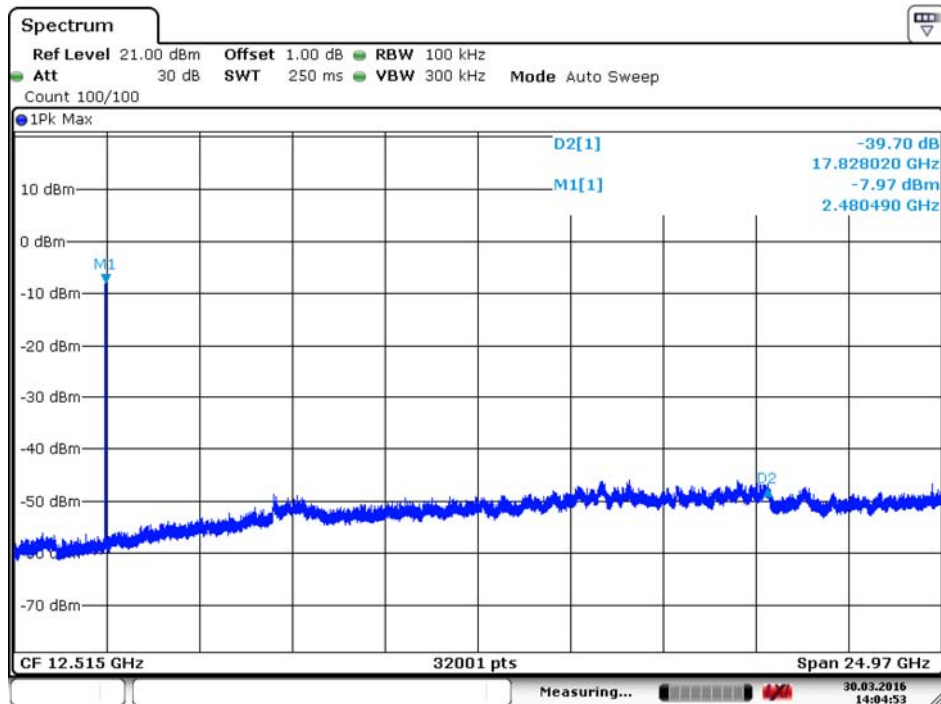
Product	OHR Smart band		
Test Item	RF antenna conducted test		
Test Mode	Mode 1: Transmit-Power by PC		
Date of Test	2016/03/30	Test Site	SR7

Channel 00 (30MHz-25GHz)- BLE 4.0 (GFSK)



Date: 30. MAR. 2016 13:50:31

Channel 39 (30MHz-25GHz)- BLE 4.0 (GFSK)



Date: 30. MAR. 2016 14:04:53

6. Radiated Emission Band Edge

6.1. Test Equipment

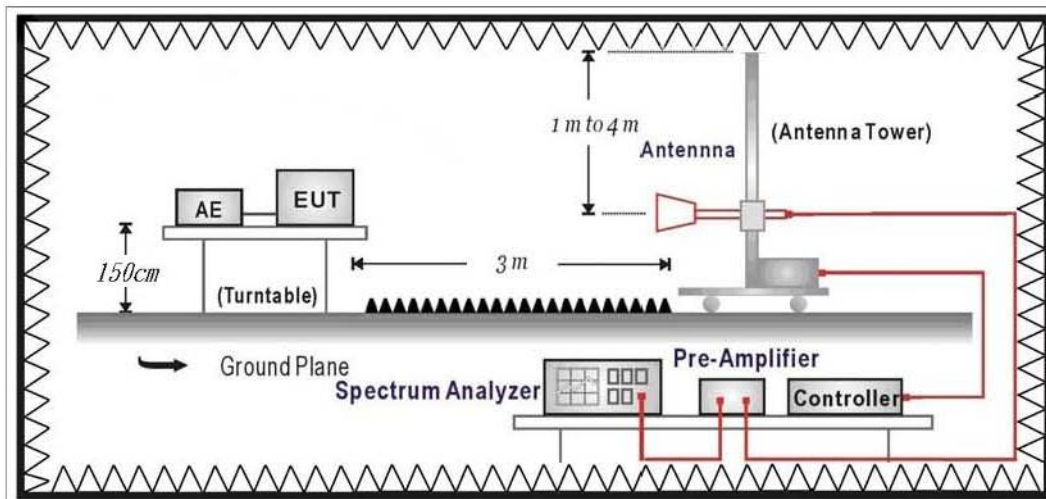
The following test equipments are used during the test:

Radiated Emission Band Edge / CB1

Instrument	Manufacturer	Model No.	Serial No	Next Cal. Date
Double Ridged Guide Horn Antenna	Schwarzbeck	BBHA 9120	D743	2017/01/14
Spectrum Analyzer	Agilent	E4440A	MY46187335	2016/12/24
k Type Cable	Huber+Suhner	SF 102	25623/2	2017/01/11
Signal & Spectrum Analyzer	R&S	FSV40	101049	2017/01/05

Note: All equipments that need to calibrate are with calibration period of 1 year.

6.2. Test Setup



6.3. Limits

Emissions radiated outside of the specified frequency bands, except for harmonics, shall be attenuated by at least 20dB below the level of the fundamental or to the general radiated emission limits in paragraph 15.209, whichever is the lesser attenuation.

6.4. Test Procedure

The EUT was setup according to ANSI C63.10: 213 and tested according to DTS test procedure of KDB558074 v03r05 for compliance to FCC 47CFR 15.247 requirements. The EUT and its simulators are placed on a turn table which is 1.5 meter above ground. The turn table can rotate 360 degrees to determine the position of the maximum emission level. The EUT was positioned such that the distance from antenna to the EUT was 3 meters.

The antenna can move up and down between 1 meter and 4 meters to find out the maximum emission level.

Both horizontal and vertical polarization of the antenna are set on measurement. In order to find the maximum emission, all of the interface cables must be manipulated according to ANSI C63.10: 213 on radiated measurement.

6.5. Test Specification

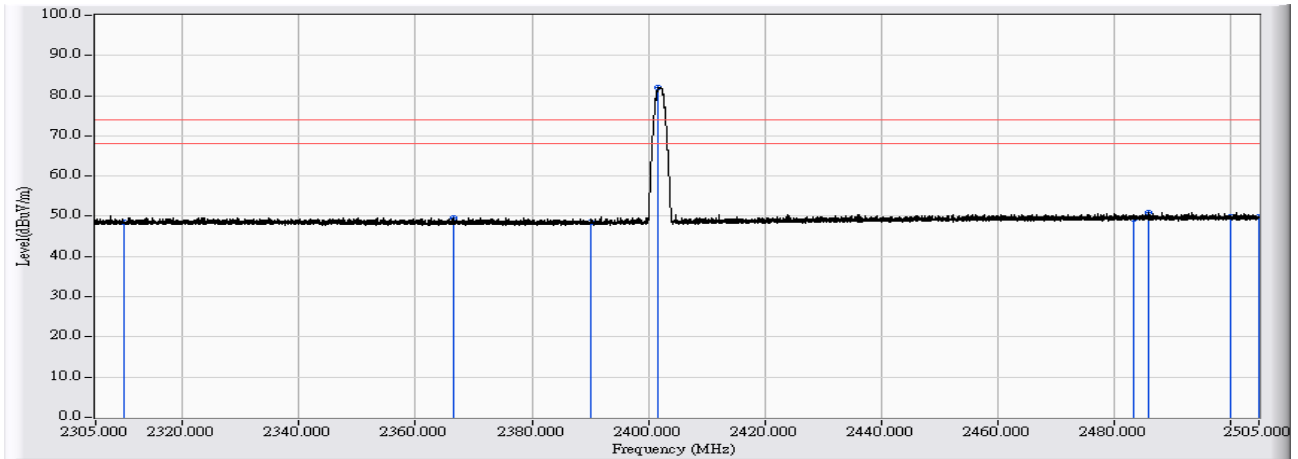
According to FCC Part 15 Subpart C Paragraph 15.247: 2015

6.6. Uncertainty

The measurement uncertainty
 ± 3.9 dB above 1GHz

6.7. Test Result

Site : CB1	Time : 2016/04/06 - 13:35
Limit : FCC_SpartC_15.247_H_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G_H2 - HORIZONTAL	Power : DC 5V (Power by PC)
EUT : OHR Smart band	Note : Mode 1: Transmit-Power by PC_GFSK_2402MHz

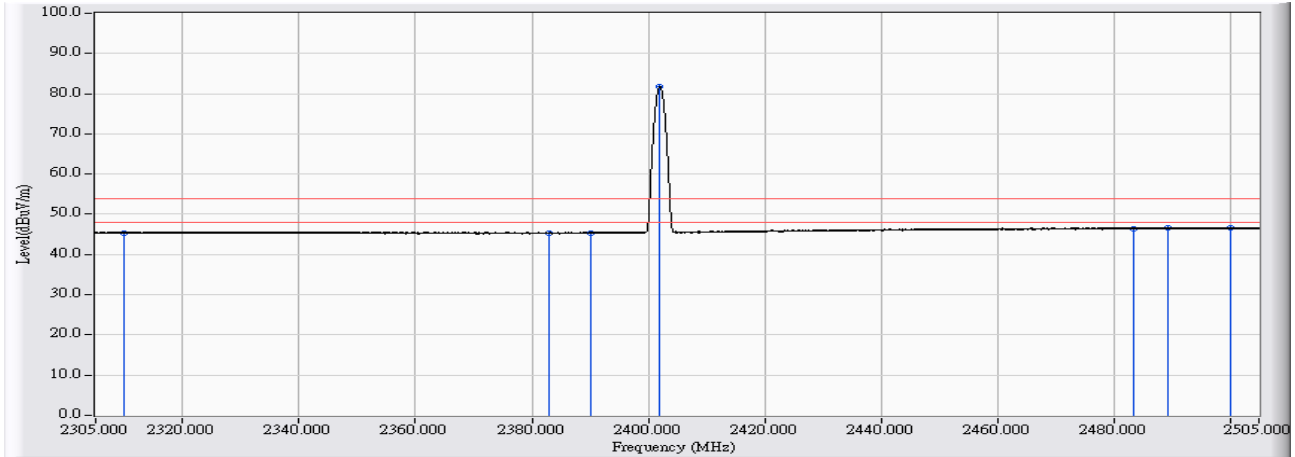


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	2310.000	28.366	20.176	48.542	-25.458	74.000	PEAK
2	2366.594	28.609	20.928	49.537	-24.463	74.000	PEAK
3	2390.000	28.709	19.877	48.586	-25.414	74.000	PEAK
4	* 2401.730	28.759	53.393	82.152	8.152	74.000	PEAK
5	2483.500	29.110	20.263	49.373	-24.627	74.000	PEAK
6	2486.142	29.122	21.739	50.860	-23.140	74.000	PEAK
7	2500.000	29.183	20.628	49.810	-24.190	74.000	PEAK
8	2505.000	29.206	20.579	49.785	-24.215	74.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. " * ", means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.

Site : CB1	Time : 2016/04/06 - 13:36
Limit : FCC_SpartC_15.247_H_03M_AV	Margin : 6
Probe : CB1_FCC_EFS_1-18G_H2 - HORIZONTAL	Power : DC 5V (Power by PC)
EUT : OHR Smart band	Note : Mode 1: Transmit-Power by PC_GFSK_2402MHz

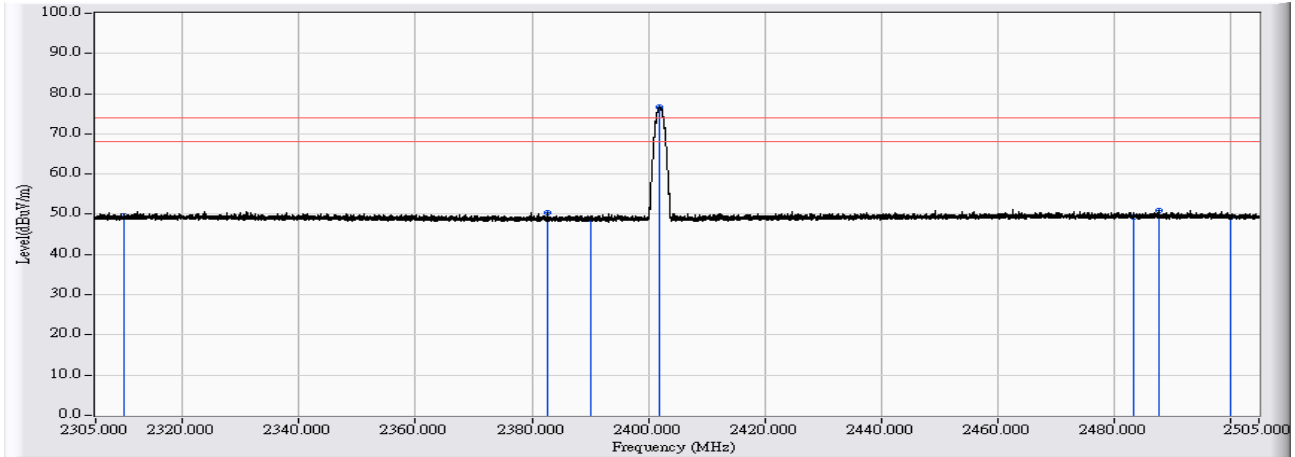


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	2310.000	28.366	17.023	45.389	-8.611	54.000	AVERAGE
2	2382.832	28.678	16.629	45.307	-8.693	54.000	AVERAGE
3	2390.000	28.709	16.656	45.365	-8.635	54.000	AVERAGE
4	* 2401.990	28.760	52.995	81.756	27.756	54.000	AVERAGE
5	2483.500	29.110	17.321	46.431	-7.569	54.000	AVERAGE
6	2489.242	29.135	17.424	46.559	-7.441	54.000	AVERAGE
7	2500.000	29.183	17.394	46.576	-7.424	54.000	AVERAGE

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ * ”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.

Site : CB1	Time : 2016/04/06 - 13:38
Limit : FCC_SpartC_15.247_H_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G_H2 - VERTICAL	Power : DC 5V (Power by PC)
EUT : OHR Smart band	Note : Mode 1: Transmit-Power by PC_GFSK_2402MHz

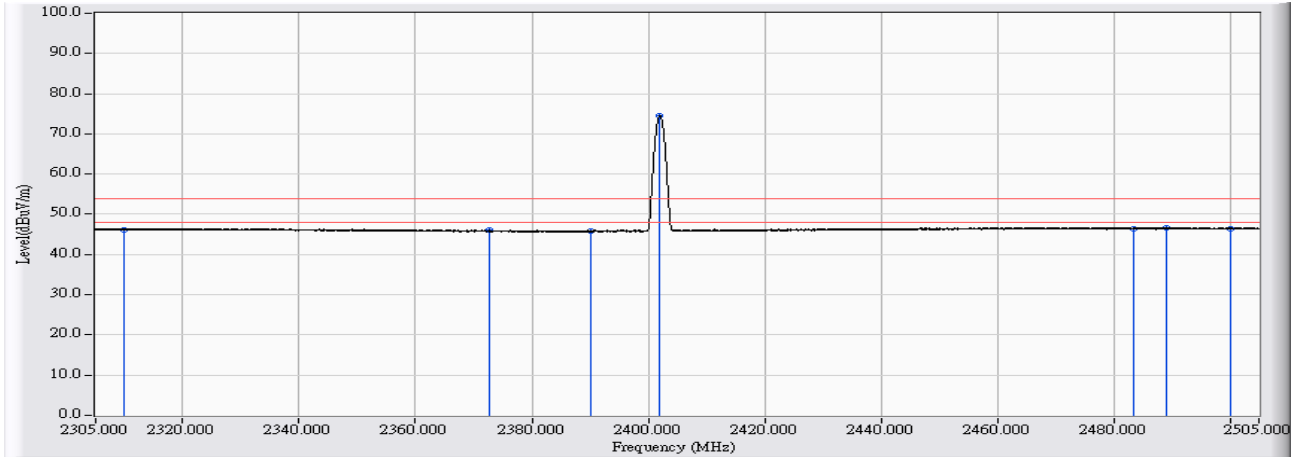


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	2310.000	29.201	20.513	49.715	-24.285	74.000	PEAK
2	2382.732	29.160	21.172	50.332	-23.668	74.000	PEAK
3	2390.000	29.155	19.692	48.848	-25.152	74.000	PEAK
4	* 2401.890	29.149	47.639	76.788	2.788	74.000	PEAK
5	2483.500	29.102	20.308	49.410	-24.590	74.000	PEAK
6	2487.822	29.099	21.807	50.906	-23.094	74.000	PEAK
7	2500.000	29.094	20.279	49.373	-24.627	74.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ * ”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.

Site : CB1	Time : 2016/04/06 - 13:40
Limit : FCC_SpartC_15.247_H_03M_AV	Margin : 6
Probe : CB1_FCC_EFS_1-18G_H2 - VERTICAL	Power : DC 5V (Power by PC)
EUT : OHR Smart band	Note : Mode 1: Transmit-Power by PC_GFSK_2402MHz

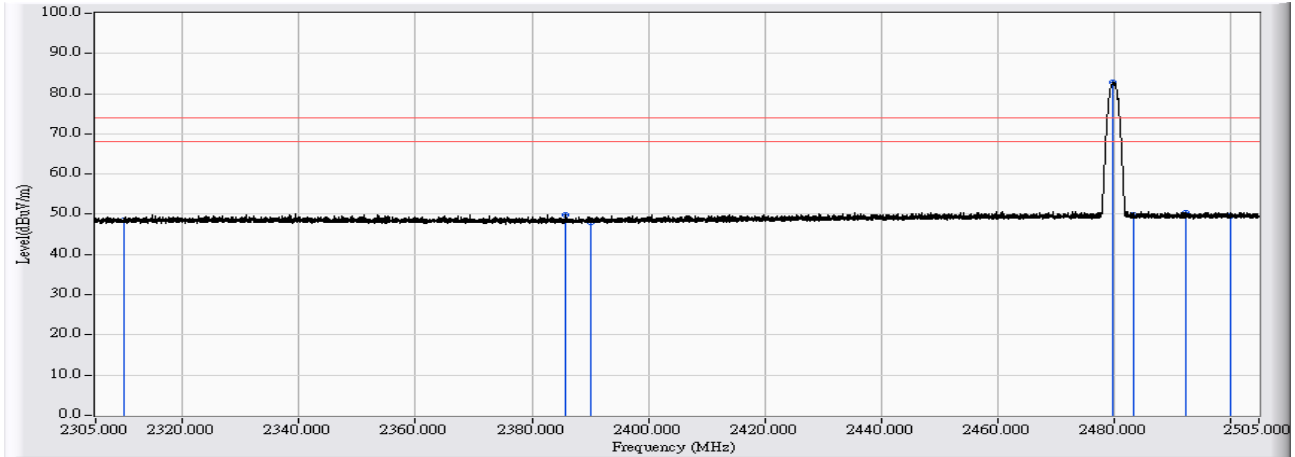


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	2310.000	29.201	17.019	46.221	-7.779	54.000	AVERAGE
2	2372.733	29.166	16.884	46.050	-7.950	54.000	AVERAGE
3	2390.000	29.155	16.653	45.809	-8.191	54.000	AVERAGE
4	* 2401.990	29.149	45.330	74.479	20.479	54.000	AVERAGE
5	2483.500	29.102	17.308	46.410	-7.590	54.000	AVERAGE
6	2488.982	29.099	17.433	46.531	-7.469	54.000	AVERAGE
7	2500.000	29.094	17.354	46.448	-7.552	54.000	AVERAGE

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ * ”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.

Site : CB1	Time : 2016/04/06 - 13:44
Limit : FCC_SpartC_15.247_H_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G_H2 - HORIZONTAL	Power : DC 5V (Power by PC)
EUT : OHR Smart band	Note : Mode 1: Transmit-Power by PC_GFSK_2480MHz

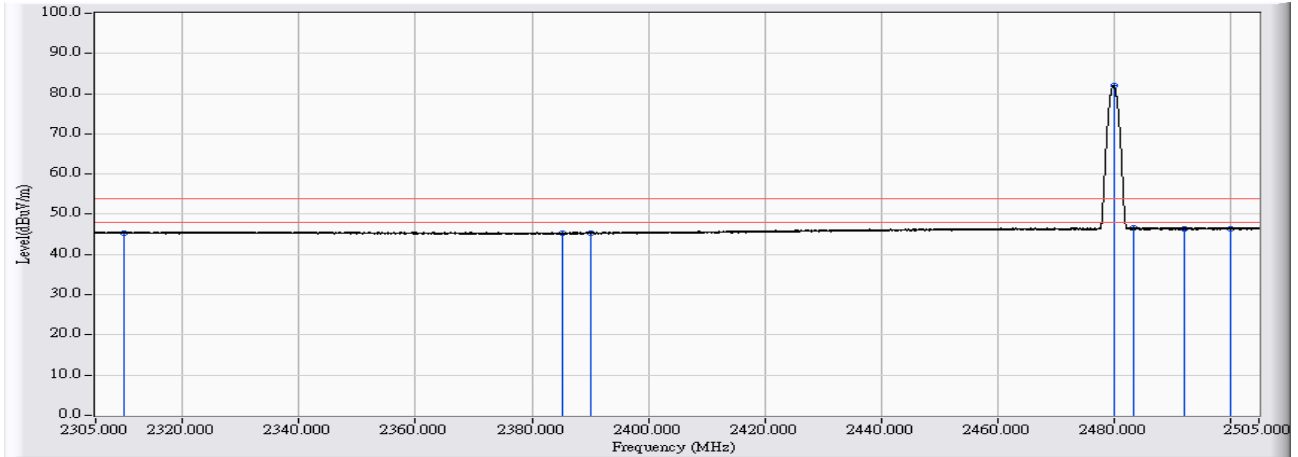


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	2310.000	28.366	20.098	48.464	-25.536	74.000	PEAK
2	2385.812	28.691	21.177	49.868	-24.132	74.000	PEAK
3	2390.000	28.709	19.358	48.067	-25.933	74.000	PEAK
4	* 2479.902	29.095	53.711	82.806	8.806	74.000	PEAK
5	2483.500	29.110	20.661	49.771	-24.229	74.000	PEAK
6	2492.341	29.148	21.352	50.500	-23.500	74.000	PEAK
7	2500.000	29.183	20.285	49.467	-24.533	74.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ * ”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.

Site : CB1	Time : 2016/04/06 - 13:45
Limit : FCC_SpartC_15.247_H_03M_AV	Margin : 6
Probe : CB1_FCC_EFS_1-18G_H2 - HORIZONTAL	Power : DC 5V (Power by PC)
EUT : OHR Smart band	Note : Mode 1: Transmit-Power by PC_GFSK_2480MHZ

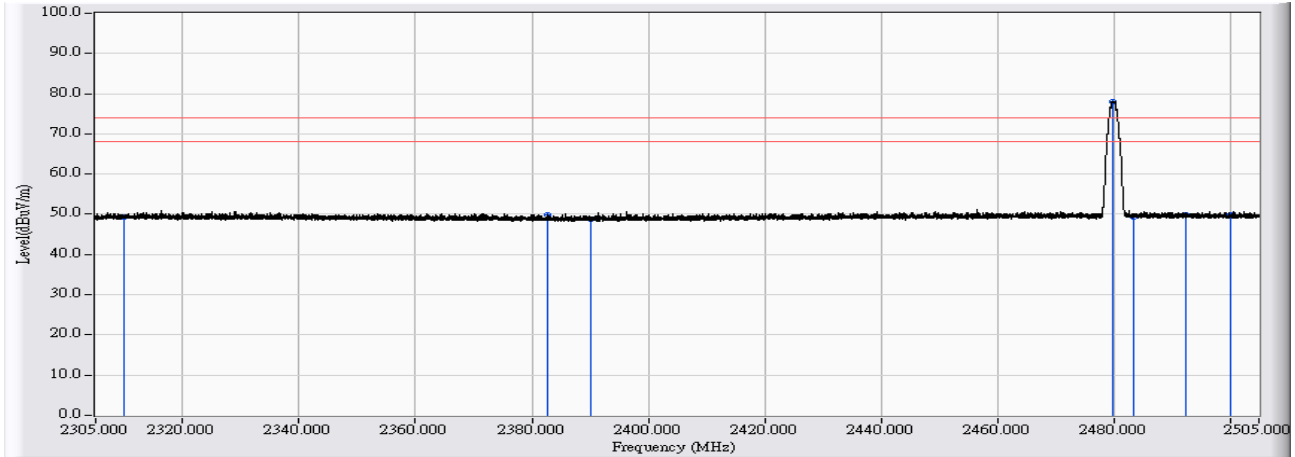


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	2310.000	28.366	16.975	45.341	-8.659	54.000	AVERAGE
2	2385.132	28.688	16.530	45.218	-8.782	54.000	AVERAGE
3	2390.000	28.709	16.546	45.255	-8.745	54.000	AVERAGE
4	* 2480.002	29.095	52.859	81.954	27.954	54.000	AVERAGE
5	2483.500	29.110	17.415	46.525	-7.475	54.000	AVERAGE
6	2492.061	29.147	17.320	46.467	-7.533	54.000	AVERAGE
7	2500.000	29.183	17.243	46.425	-7.575	54.000	AVERAGE

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ * ”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.

Site : CB1	Time : 2016/04/06 - 13:55
Limit : FCC_SpartC_15.247_H_03M_PK	Margin : 6
Probe : CB1_FCC_EFS_1-18G_H2 - VERTICAL	Power : DC 5V (Power by PC)
EUT : OHR Smart band	Note : Mode 1: Transmit-Power by PC_GFSK_2480MHz

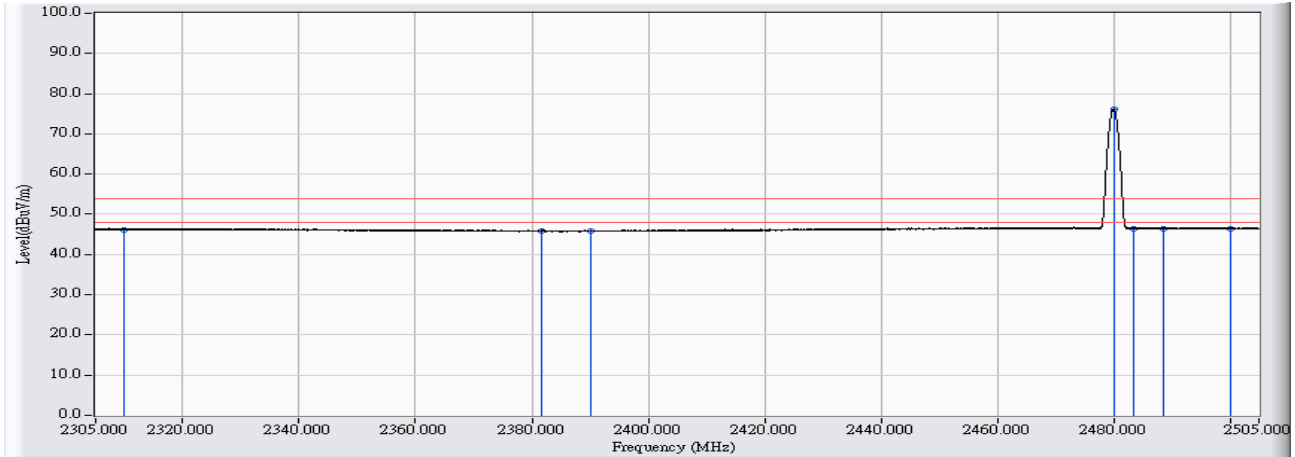


	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	2310.000	29.201	20.000	49.202	-24.798	74.000	PEAK
2	2382.772	29.160	20.648	49.808	-24.192	74.000	PEAK
3	2390.000	29.155	19.616	48.772	-25.228	74.000	PEAK
4	* 2479.782	29.104	49.012	78.116	4.116	74.000	PEAK
5	2483.500	29.102	20.283	49.385	-24.615	74.000	PEAK
6	2492.401	29.097	20.698	49.794	-24.206	74.000	PEAK
7	2500.000	29.094	20.689	49.783	-24.217	74.000	PEAK

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ * ”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.

Site : CB1	Time : 2016/04/06 - 13:59
Limit : FCC_SpartC_15.247_H_03M_AV	Margin : 6
Probe : CB1_FCC_EFS_1-18G_H2 - VERTICAL	Power : DC 5V (Power by PC)
EUT : OHR Smart band	Note : Mode 1: Transmit-Power by PC_GFSK_2480MHZ



	Frequency (MHz)	Correct Factor (dB)	Reading Level (dBuV)	Measure Level (dBuV/m)	Margin (dB)	Limit (dBuV/m)	Detector Type
1	2310.000	29.201	17.028	46.230	-7.770	54.000	AVERAGE
2	2381.552	29.161	16.619	45.779	-8.221	54.000	AVERAGE
3	2390.000	29.155	16.610	45.766	-8.234	54.000	AVERAGE
4	* 2480.022	29.104	47.128	76.232	22.232	54.000	AVERAGE
5	2483.500	29.102	17.306	46.408	-7.592	54.000	AVERAGE
6	2488.462	29.099	17.368	46.467	-7.533	54.000	AVERAGE
7	2500.000	29.094	17.379	46.473	-7.527	54.000	AVERAGE

Note:

1. All readings above 1GHz are performed with peak and/or average measurements as necessary.
2. Peak measurements: RBW = 1MHz, VBW = 3 MHz, Sweep: Auto.
3. Average measurements: RBW = 1MHz, VBW = 10 Hz, Sweep: Auto.
4. “ * ”, means this data is the worst emission level.
5. Measurement Level = Reading Level + Correct Factor.
6. The average measurement was not performed when the peak measured data under the limit of average detection. If the readings given are average, peak measurement should also be supplied.

7. Occupied Bandwidth

7.1. Test Equipment

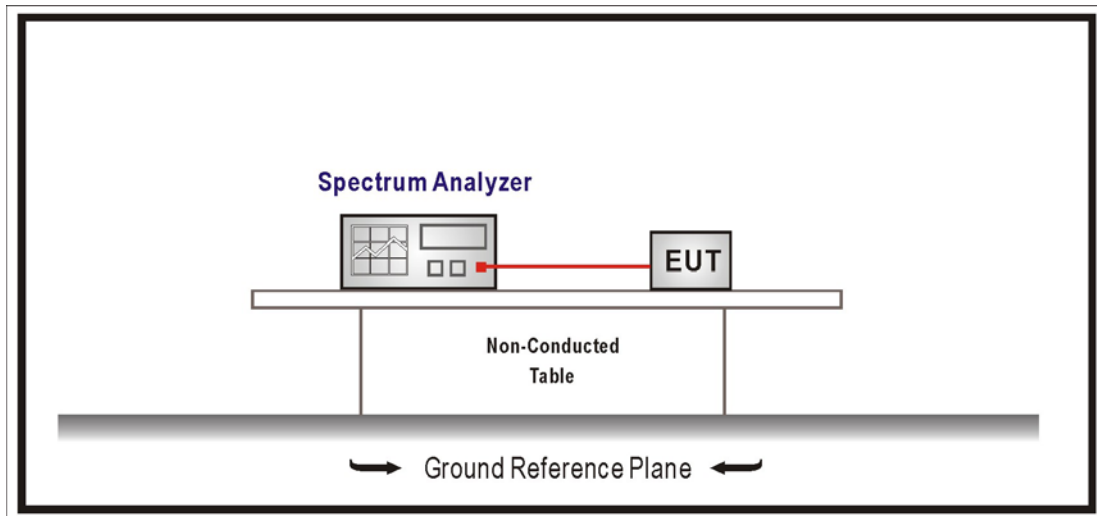
The following test equipments are used during the test:

Occupied Bandwidth / SR7

Instrument	Manufacturer	Model No.	Serial No	Next Cal. Date
Spectrum Analyzer	Agilent	N9010A-EXA	US47140172	2016/08/23

Note: All equipments that need to calibrate are with calibration period of 1 year.

7.2. Test Setup



7.3. Test Procedures

The EUT was setup according to ANSI C63.10; tested according to DTS test procedure of KDB558074 v03r05 for compliance to FCC 47CFR 15.247 requirements.

Set RBW = 1-5% of the OBW, Set the VBW \geq 3xRBW, Sweep Time=Auto.

7.4. Limits

The 6 dB bandwidth must be greater than 500 kHz.

7.5. Test Specification

According to FCC Part 15 Subpart C Paragraph 15.247: 2015

7.6. Uncertainty

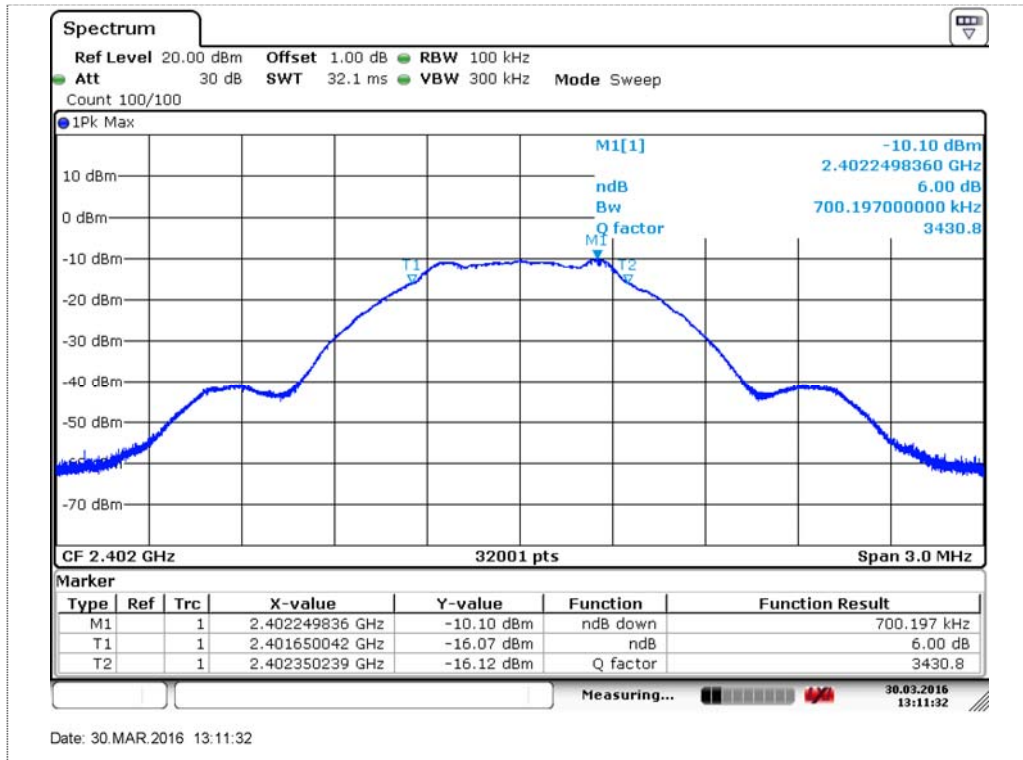
The measurement uncertainty is defined as $\pm 150\text{Hz}$

7.7. Test Result

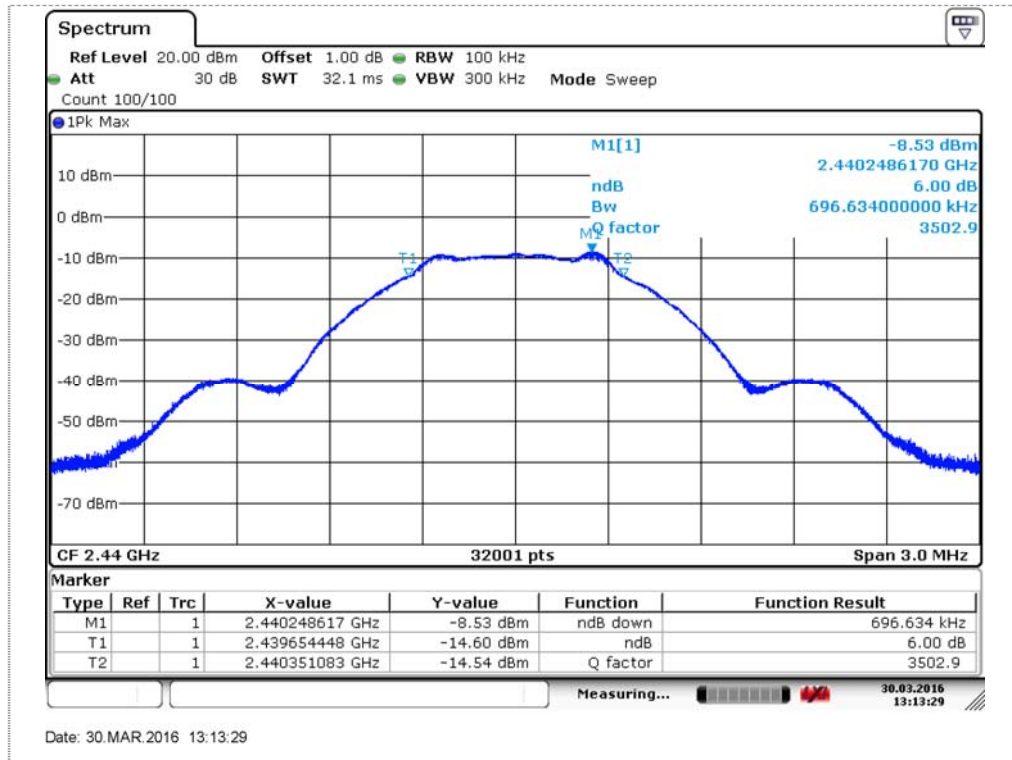
Product	OHR Smart band		
Test Item	Occupied Bandwidth		
Test Mode	Mode 1: Transmit-Power by PC		
Date of Test	2016/03/30	Test Site	SR7

BLE 4.0 (GFSK)				
Channel No.	Frequency (MHz)	Measure Level(MHz)	Limit (MHz)	Result
00	2402	0.700	≥ 0.5	Pass
19	2440	0.696	≥ 0.5	Pass
39	2480	0.688	≥ 0.5	Pass

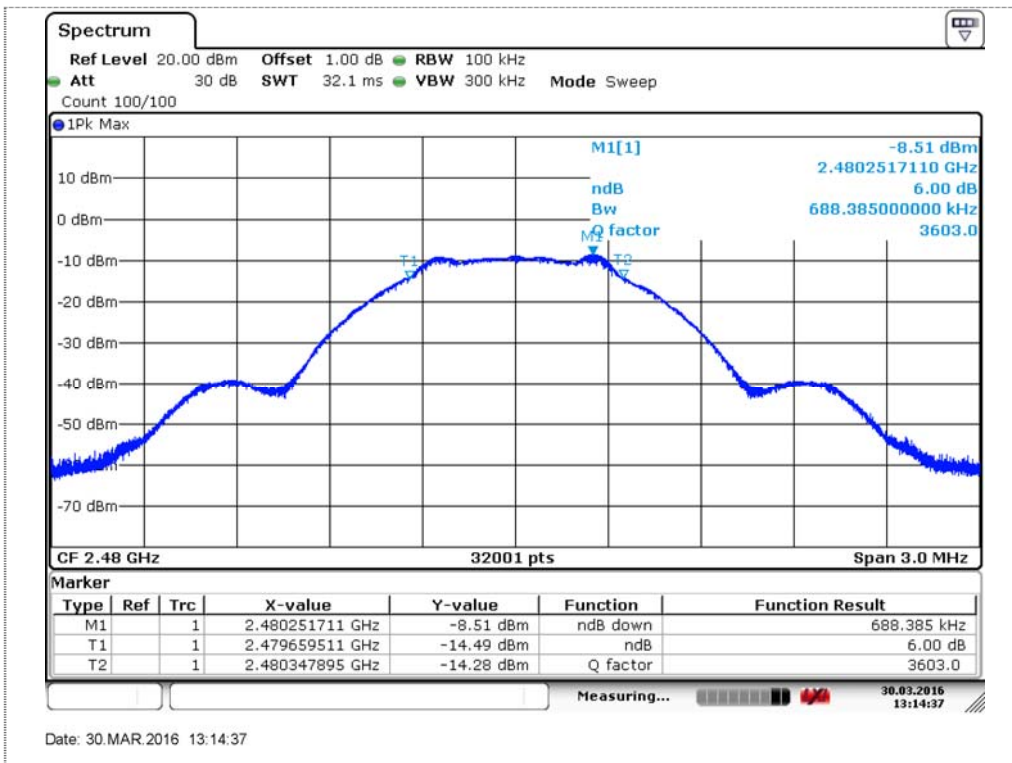
Channel 00



Channel 19



Channel 39



8. Power Density

8.1. Test Equipment

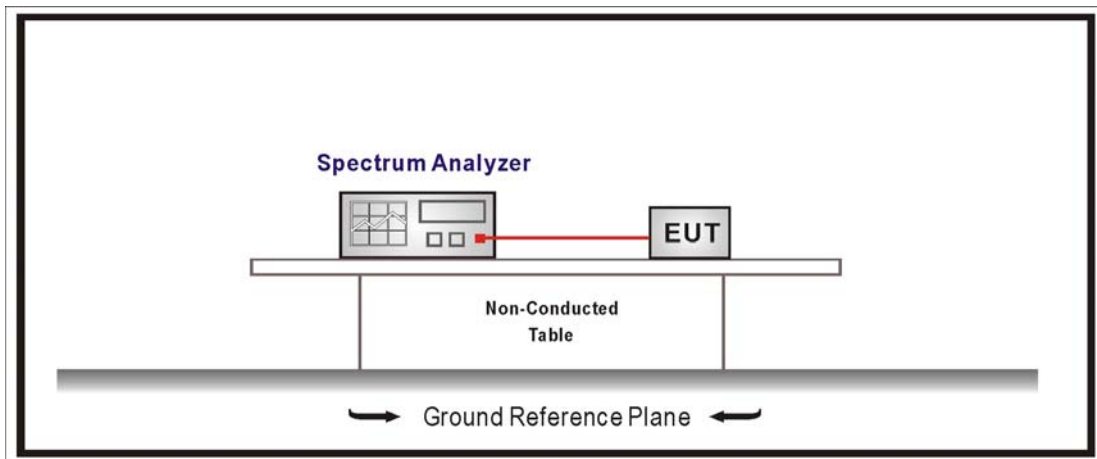
The following test equipment is used during the test:

Power Density / SR7

Instrument	Manufacturer	Model No.	Serial No	Next Cal. Date
Spectrum Analyzer	Agilent	N9010A-EXA	US47140172	2016/08/23
Signal & Spectrum Analyzer	R&S	FSV40	101049	2017/01/05
Signal Analyzer	R&S	FSV7	101650	2016/11/30

Note: All equipments that need to calibrate are with calibration period of 1 year.

8.2. Test Setup



8.3. Limits

The peak power spectral density conducted from the intentional radiated to the antenna shall not be greater than +8dBm in any 3kHz band during any time interval of continuous transmission.

8.4. Test Procedures

The EUT was setup according to ANSI C63.10: 213; tested according to DTS test procedure section 10.2 of KDB558074 v03r05 for compliance to FCC 47CFR 15.247 requirements. Set $3\text{kHz} \leq \text{RBW} \leq 100 \text{ kHz}$, Set $\text{VBW} \geq 3 \times \text{RBW}$, Sweep time=Auto, Set Peak detector; The tested according to section E)c) of KDB662911 v02v01.

8.5. Test Specification

According to FCC Part 15 Subpart C Paragraph 15.247: 2015

8.6. Uncertainty

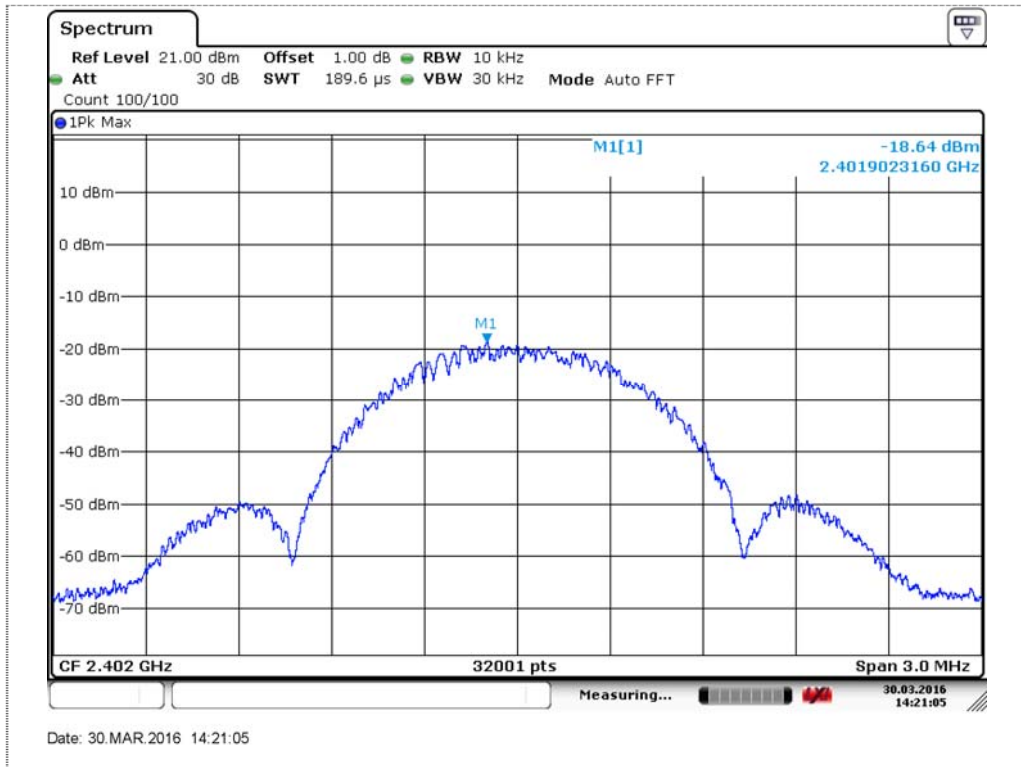
The measurement uncertainty is defined as $\pm 1.27\text{dB}$.

8.7. Test Result

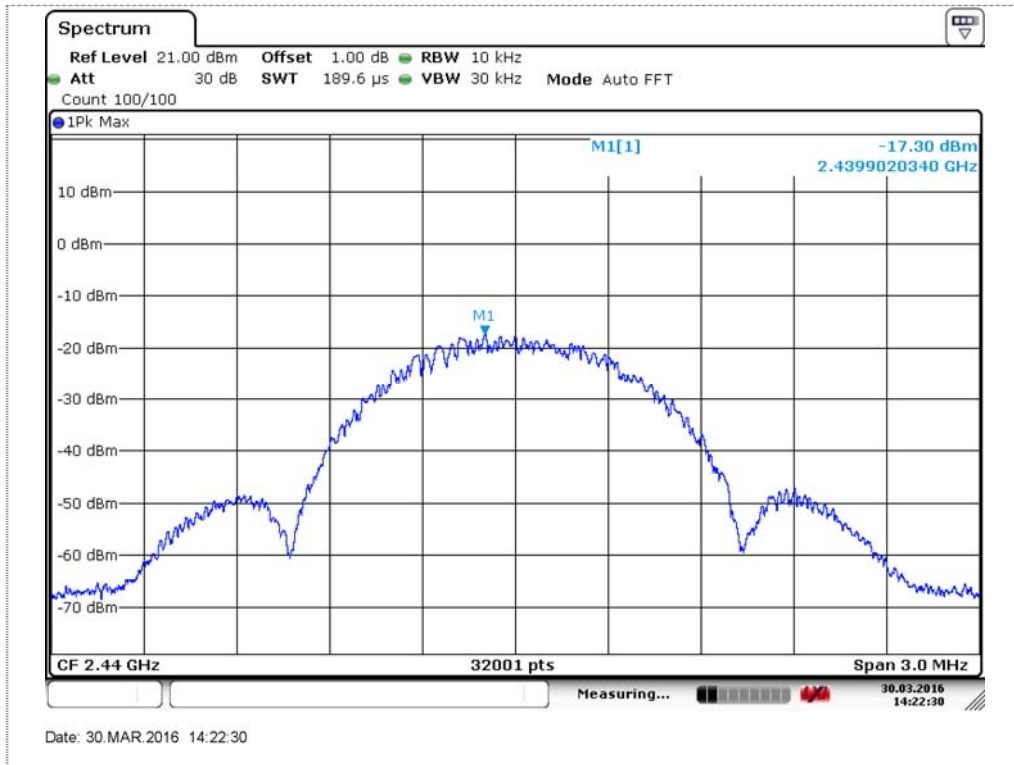
Product	OHR Smart band		
Test Item	Power Density		
Test Mode	Mode 1: Transmit-Power by PC		
Date of Test	2016/03/30	Test Site	SR7

BLE 4.0 (GFSK)				
Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
00	2402	-18.64	≤ 8	Pass
19	2440	-17.30	≤ 8	Pass
39	2480	-17.12	≤ 8	Pass

Channel 00



Channel 19



Channel 39

