



TEST REPORT

**Test report
On Behalf of
Smart View International Limited
For
GOFINDME
Model No.: GFM915A**

**IC ID: 25223-GFM915A
FCC ID:2ATWO-GFM915A**

Prepared for : Smart View International Limited
P.O.Box 613, Harbour Centre, George Town, Grand Cayman KY1-1107, Cayman Islands

Prepared By : Shenzhen HUAKE Testing Technology Co., Ltd.
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TEST REPORT

Applicant's name : Smart View International Limited
Address : P.O.Box 613, Harbour Centre, George Town, Grand Cayman KY1-1107,
Cayman Islands

Manufacture's Name : Smart View International Limited
Address : P.O.Box 613, Harbour Centre, George Town, Grand Cayman KY1-1107,
Cayman Islands

Product description

Trade Mark: AIBLUE

Product name..... : GOFINDME

Model and/or type reference : GFM915A

Standards : FCC Part 15.247
RSS 247 Issue 2, February 2017
RSS-GEN Issue 5
ANSI C63.10: 2013

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Date of Test..... :

Date (s) of performance of tests..... : Jun. 03,2019~ Jul.08,2019

Date of Issue..... : Jul.08,2019

Test Result..... : **Pass**

Testing Engineer :

(Gary Qian)

Technical Manager :

(Eden Hu)

Authorized Signatory :

(Jason Zhou)

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1. SUMMARY

1.1. TEST STANDARDS

The tests were performed according to following standards:

[RSS-247-Issue 2](#): Digital Transmission Systems (DTSs), Frequency Hopping Systems (FHSs) and Licence-Exempt Local Area Network (LE-LAN) Devices

[ANSI C63.10: 2013](#): American National Standard for Testing Unlicensed Wireless Devices

[ANSI C63.4: 2014](#): –American National Standard for Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the Range of 9 kHz to 40GHz
Range of 9 kHz to 40GHz

[RSS-GEN Issue 5](#): General Requirements for Compliance of Radio Apparatus

[FCC Rules Part 15.247](#): Frequency Hopping, Direct Spread Spectrum and Hybrid Systems that are in operation within the bands of 902-928 MHz, 2400-2483.5 MHz, and 5725-5850 MHz.

[KDB558074 D01 v05r02](#): Guidance for Compliance Measurements on Digital Transmission Systems (DTS) ,Frequency Hopping Spread Spectrum System(HFSS), and Hybrid System Devices Operating Under §15.247 of The FCC rules.

1.2. Test Description

IC Requirements		
RSS-Gen 8.8/§15.107(a)§15.207	AC Power Conducted Emission	PASS
RSS 247 5.2(a)/RSS GEN/§15.247(a)(2)	6dB Bandwidth & 99% Bandwidth	PASS
RSS 247 5.5/§15.247(d)	Spurious RF Conducted Emission	PASS
RSS 247 5.4 (d)/ §15.247(b)(1)	Maximum Conducted Output Power	PASS
RSS 247 5.2(b)/ §15.247(e)	Power Spectral Density	PASS
RSS-Gen 8.9/§15.247(d)	Radiated Emissions	PASS
RSS-Gen 8.10/§15.247(b)(1)	Band Edge	PASS
§15.247(b)(4)	Antenna gain	PASS



1.3. Test Facility

1.3.1 Address of the test laboratory

Shenzhen HUAKE Testing Technology Co., Ltd.

1F, B2 Building, Junfeng Zhongcheng Zhizao Innovation Park, Fuhai Street, Bao'an District, Shenzhen City, China

The 3m-Semi anechoic test site fulfils CISPR 16-1-4 according to ANSI C63.4:2014 and CISPR 16-1-4:2010 SVSWR requirement for radiated emission above 1GHz.

1.4. Statement of the measurement uncertainty

The data and results referenced in this document are true and accurate. The reader is cautioned that there may be errors within the calibration limits of the equipment and facilities. The measurement uncertainty was calculated for all measurements listed in this test report acc. to CISPR 16 - 4 "Specification for radio disturbance and immunity measuring apparatus and methods – Part 4: Uncertainty in EMC Measurements" and is documented in the Shenzhen HUAKE Testing Technology Co., Ltd. quality system acc. to DIN EN ISO/IEC 17025. Furthermore, component and process variability of devices similar to that tested may result in additional deviation. The manufacturer has the sole responsibility of continued compliance of the device.

Measurement Uncertainty

Conducted Emission Expanded Uncertainty	= 2.23dB, k=2
Radiated emission expanded uncertainty(9kHz-30MHz)	= 3.08dB, k=2
Radiated emission expanded uncertainty(30MHz-1000MHz)	= 4.42dB, k=2
Radiated emission expanded uncertainty(Above 1GHz)	= 4.06dB, k=2



2. GENERAL INFORMATION

2.1. Environmental conditions

During the measurement the environmental conditions were within the listed ranges:

Normal Temperature:	25°C
Relative Humidity:	55 %
Air Pressure:	101 kPa

2.2. General Description of EUT

Product Name:	GOFINDME
Model/Type reference:	GFM915A
Power supply:	DC 3.7V From Battery charged by USB DC 5V From PC
Auxiliary testAdapter information :	Mode:EP-TA20CBC Input:AC100-240V-50/60Hz · 0.5A Output:DC 5V,2A
Bluetooth BLE	
Modulation:	GFSK
Operation frequency:	2402MHz to 2480MHz
Channel separation:	2 MHz
Channel Number	40
Antenna type:	PCB antenna
Antenna gain:	0 dBi

Note: For more details, please refer to the user's manual of the EUT.

2.3. Description of Test Modes and Test Frequency

The Applicant provides script commands to control the EUT staying in continuous transmitting (Duty Cycle more than 98%) and receiving mode for testing.

There are 40 channels provided to the EUT. Channel 00/19/39 was selected to test.

Operation Frequency List :

Channel	Frequency (MHz)
00	2402
02	2404
03	2406
:	:
19	2440
:	:
37	2476
38	2478
39	2480

Note: The line display in grey were the channel selected for testing



2.4. Equipments Used during the Test

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	L.I.S.N. Artificial Mains Network	R&S	ENV216	HKE-002	Dec. 28, 2018	1 Year
2.	Receiver	R&S	ESCI 7	HKE-010	Dec. 28, 2018	1 Year
3.	RF automatic control unit	Tonscend	JS0806-2	HKE-060	Dec. 28, 2018	1 Year
4.	Spectrum analyzer	R&S	FSP40	HKE-025	Dec. 28, 2018	1 Year
5.	Spectrum analyzer	Agilent	N9020A	HKE-048	Dec. 28, 2018	1 Year
6.	Preamplifier	Schwarzbeck	BBV 9743	HKE-006	Dec. 28, 2018	1 Year
7.	EMI Test Receiver	Rohde & Schwarz	ESCI 7	HKE-010	Dec. 28, 2018	1 Year
8.	Bilog Broadband Antenna	Schwarzbeck	VULB9163	HKE-012	Dec. 28, 2018	1 Year
9.	Loop Antenna	Schwarzbeck	FMZB 1519 B	HKE-014	Dec. 28, 2018	1 Year
10.	Horn Antenna	Schwarzbeck	9120D	HKE-013	Dec. 28, 2018	1 Year
11.	Broadband Horn Antenna	SCHWARZBECK	BBHA 9170	HKE-017	Dec. 28, 2018	1 Year
12.	Pre-amplifier	EMCI	EMC051845SE	HKE-015	Dec. 28, 2018	1 Year
13.	Pre-amplifier	Agilent	83051A	HKE-016	Dec. 28, 2018	1 Year
14.	EMI Test Software EZ-EMC	Tonscend	JS1120-B Version	HKE-083	Dec. 28, 2018	N/A
15.	Power Sensor	Agilent	E9300A	HKE-086	Dec. 28, 2018	1 Year
16.	Spectrum analyzer	Agilent	N9020A	HKE-048	Dec. 28, 2018	1 Year
17.	Signal generator	Agilent	N5182A	HKE-029	Dec. 28, 2018	1 Year
18.	Signal Generator	Agilent	83630A	HKE-028	Dec. 28, 2018	1 Year
19.	Shielded room	Shiel Hong	4*3*3	HKE-039	Dec. 28, 2018	3 Year
20.	RF Cable(below 1GHz)	HUBER+SUHNER	RG214	HKE-055	Dec. 28, 2018	1 Year
21.	RF Cable(above 1GHz)	HUBER+SUHNER	RG214	HKE-056	Dec. 28, 2018	1 Year

The calibration interval was one year

2.5. Related Submittal(s) / Grant (s)

This submittal(s) (test report) is intended to comply with RSS Gen and RSS 247 Rules and Section 15.247 of the FCC Part 15, Subpart C Rules.

2.6. Modifications

No modifications were implemented to meet testing criteria.



3. TEST CONDITIONS AND RESULTS

3.1. Conducted Emissions Test

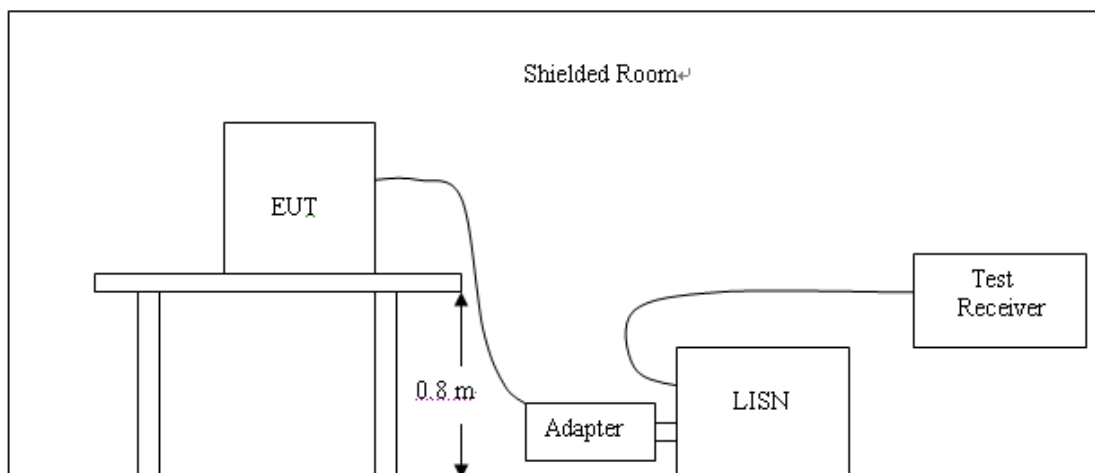
LIMIT

For unintentional device, according to RSS Gen 8.8 and § 15.207(a) Line Conducted Emission Limits is as following:

Frequency range (MHz)	Limit (dBuV)	
	Quasi-peak	Average
0.15-0.5	66 to 56*	56 to 46*
0.5-5	56	46
5-30	60	50

* Decreases with the logarithm of the frequency.

TEST CONFIGURATION



TEST PROCEDURE

1. The equipment was set up as per the test configuration to simulate typical actual usage per the user's manual. The EUT is a tabletop system; a wooden table with a height of 0.8 meters is used and is placed on the ground plane as per ANSI C63.10:2013.
2. Support equipment, if needed, was placed as per ANSI C63.10:2013.
3. All I/O cables were positioned to simulate typical actual usage as per ANSI C63.10:2013.
4. The adapter received AC power through a Line Impedance Stabilization Network (LISN) which supplied power source and was grounded to the ground plane.
5. All support equipments received AC power from a second LISN, if any.
6. The EUT test program was started. Emissions were measured on each current carrying line of the EUT using a spectrum Analyzer / Receiver connected to the LISN powering the EUT. The LISN has two monitoring points: Line 1 (Hot Side) and Line 2 (Neutral Side). Two scans were taken: one with Line 1 connected to Analyzer / Receiver and Line 2 connected to a 50 ohm load; the second scan had Line 1 connected to a 50 ohm load and Line 2 connected to the Analyzer / Receiver.
7. Analyzer / Receiver scanned from 150 KHz to 30MHz for emissions in each of the test modes.
8. During the above scans, the emissions were maximized by cable manipulation.

**TEST RESULTS**

Remark:

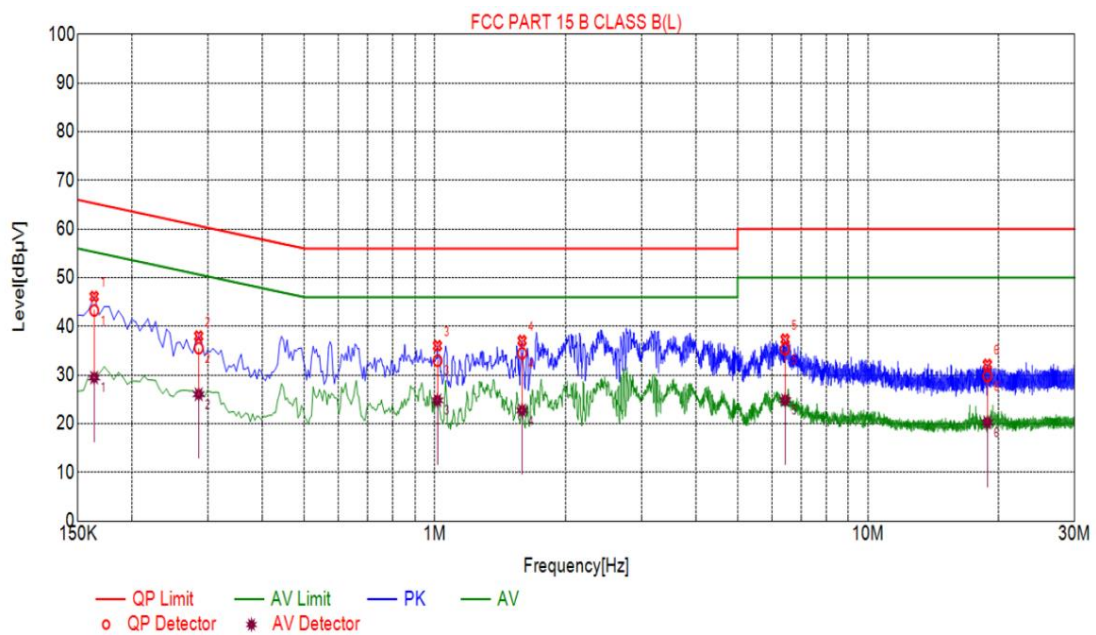
1. All Low, Middle, and High channel were tested; only the worst result of BLE middle was reported as below:
2. Both 120 VAC, 50/60 Hz and 240 VAC, 50/60 Hz power supply have been tested, only the worst result of 120 VAC, 60 Hz was reported as below:
3. Pre-test AC conducted emission at adapter power from AC mains mode and at charge from PC mode, recorded worst case.

Power supply:

DC 5V from PC AC
120V/60Hz

Polarization

L

**Final Data List**

NO.	Freq. [MHz]	Factor [dB]	QP Value [dBμV]	QP Limit [dBμV]	QP Margin [dB]	AV Value [dBμV]	AV Limit [dBμV]	AV Margin [dB]
1	0.1635	9.98	43.29	65.28	21.99	29.49	55.28	25.79
2	0.2850	10.04	35.52	60.67	25.15	26.06	50.67	24.61
3	1.0140	10.06	32.96	56.00	23.04	24.81	46.00	21.19
4	1.5900	10.11	34.48	56.00	21.52	22.74	46.00	23.26
5	6.4365	10.22	35.36	60.00	24.64	24.86	50.00	25.14
6	18.8610	10.06	29.78	60.00	30.22	20.27	50.00	29.73

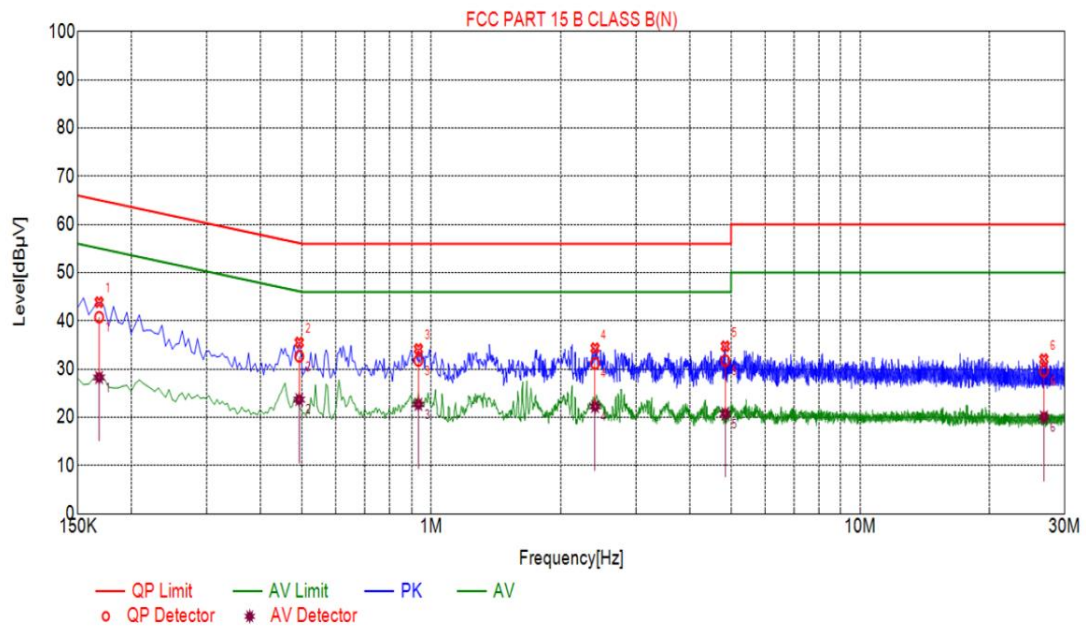


Power supply:

DC 5V from PC
AC 120V/60Hz

Polarization

N



Final Data List

NO.	Freq. [MHz]	Factor [dB]	QP Value [dBμV]	QP Limit [dBμV]	QP Margin [dB]	AV Value [dBμV]	AV Limit [dBμV]	AV Margin [dB]
1	0.1680	10.01	40.76	65.06	24.30	28.27	55.06	26.79
2	0.4920	10.04	32.66	56.13	23.47	23.70	46.13	22.43
3	0.9330	10.06	31.80	56.00	24.20	22.69	46.00	23.31
4	2.4090	10.18	31.20	56.00	24.80	22.25	46.00	23.75
5	4.8480	10.26	31.77	56.00	24.23	20.76	46.00	25.24
6	26.8125	10.26	29.61	60.00	30.39	20.07	50.00	29.93

3.2. Radiated Emissions and Band Edge

Limit

For intentional device, according to § 15.209(a), the general requirement of field strength of radiated emission out of authorized band shall not exceed the following table at a 3 meters measurement distance.

In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a)

Except when the requirements applicable to a given device state otherwise, emissions from licence-exempt transmitters shall comply with the field strength limits shown in table below. Additionally, the level of any transmitter emission shall not exceed the level of the transmitter's fundamental emission

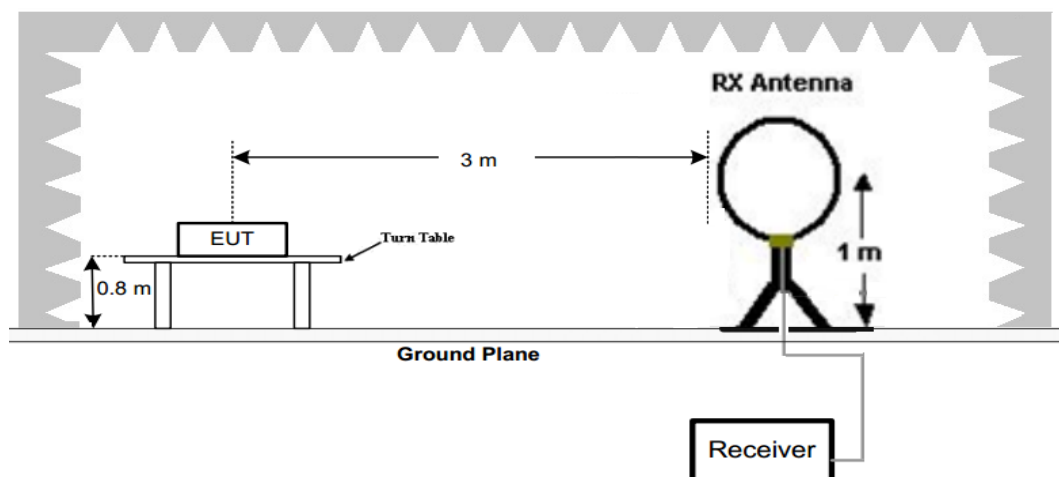
Unwanted emissions that fall into restricted bands shall comply with the limits specified in RSS-Gen; and Unwanted emissions that do not fall within the restricted frequency bands shall comply either with the limits specified in the applicable RSS or with those specified in this RSS-Gen.

Radiated emission limits

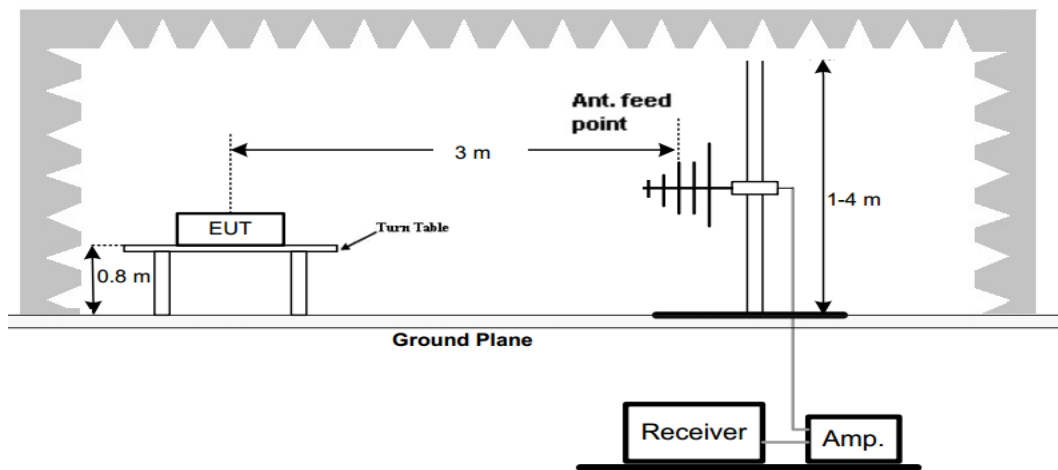
Frequency (MHz)	Distance (Meters)	Radiated (dBμV/m)	Radiated (μV/m)
0.009-0.49	3	$20\log(2400/F(\text{KHz}))+40\log(300/3)$	$2400/F(\text{KHz})$
0.49-1.705	3	$20\log(24000/F(\text{KHz}))+40\log(30/3)$	$24000/F(\text{KHz})$
1.705-30	3	$20\log(30)+40\log(30/3)$	30
30-88	3	40.0	100
88-216	3	43.5	150
216-960	3	46.0	200
Above 960	3	54.0	500

TEST CONFIGURATION

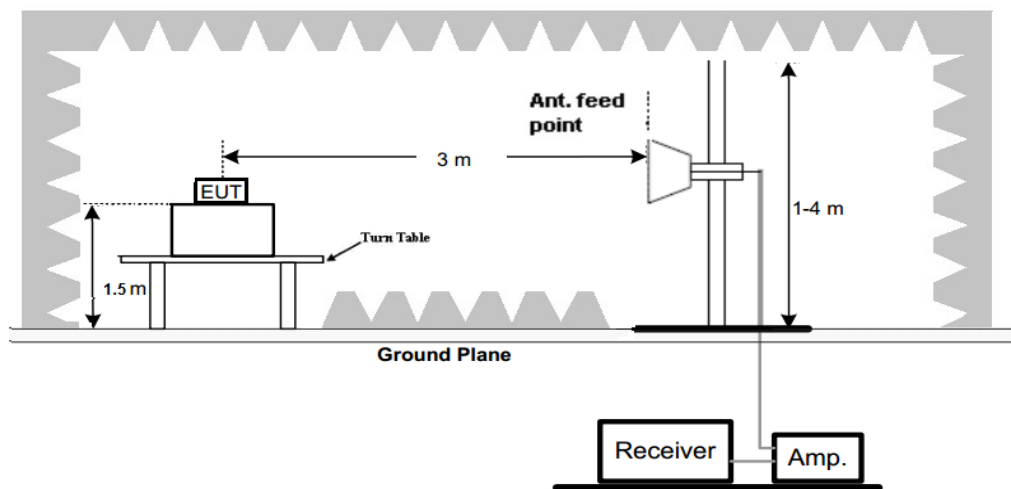
(A) Radiated Emission Test Set-Up, Frequency Below 30MHz



(B) Radiated Emission Test Set-Up, Frequency below 1000MHz



(C) Radiated Emission Test Set-Up, Frequency above 1000MHz



Test Procedure

- Below 1GHz measurement the EUT is placed on a turntable which is 0.8m above ground plane, and above 1GHz measurement EUT was placed on a low permittivity and low loss tangent turn table which is 1.5m above ground plane.
- Maximum procedure was performed by raising the receiving antenna from 1m to 4m and rotating the turn table from 0°C to 360°C to acquire the highest emissions from EUT
- And also, each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical.
- Repeat above procedures until all frequency measurements have been completed.
- Radiated emission test frequency band from 9KHz to 25GHz.
- The distance between test antenna and EUT as following table states:

Test Frequency range	Test Antenna Type	Test Distance
9KHz-30MHz	Active Loop Antenna	3
30MHz-1GHz	Bilog Antenna	3
1GHz-18GHz	Horn Antenna	3
18GHz-25GHz	Horn Antenna	1

- Setting test receiver/spectrum as following table states:

Test Frequency range	Test Receiver/Spectrum Setting	Detector
9KHz-150KHz	RBW=200Hz/VBW=3KHz, Sweep time=Auto	QP
150KHz-30MHz	RBW=9KHz/VBW=100KHz, Sweep time=Auto	QP



30MHz-1GHz	RBW=120KHz/VBW=1000KHz,Sweep time=Auto	QP
1GHz-40GHz	Peak Value: RBW=1MHz/VBW=3MHz, Sweep time=Auto Average Value: RBW=1MHz/VBW=10Hz, Sweep time=Auto	Peak

TEST RESULTS

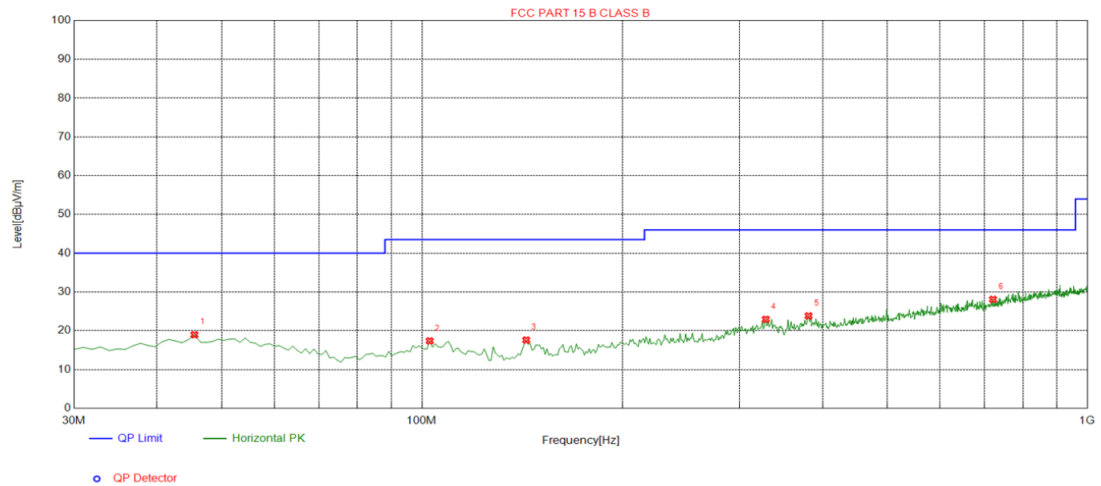
Remark:

1. This test was performed with EUT in X, Y, Z position and the worse case was found when EUT in X position.
2. All three channels (lowest/middle/highest) of BLE were measured below 1GHz and recorded worst case at low channel.
3. Radiated emission test from 9 KHz to 10th harmonic of fundamental was verified, and no emission found except system noise floor in 9 KHz to 30MHz and not recorded in this report.



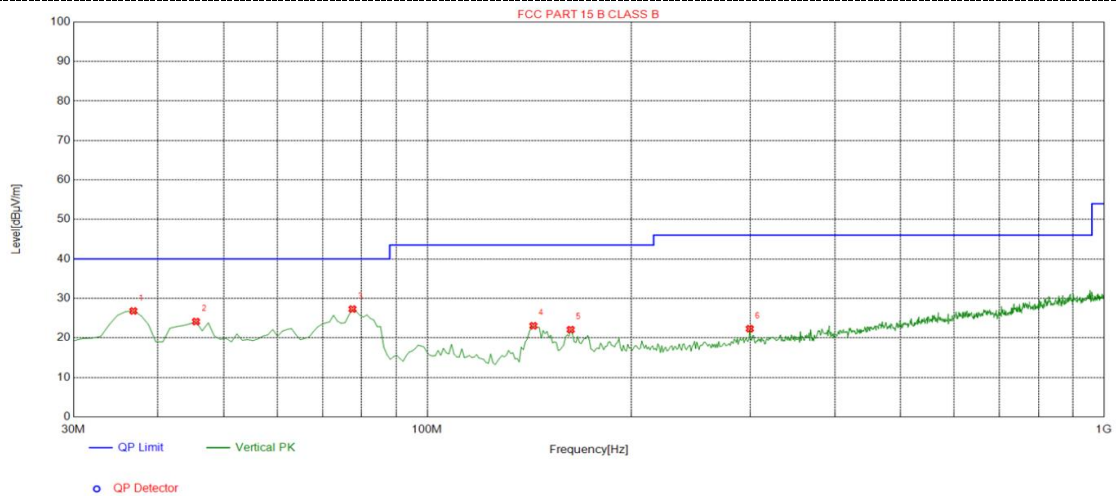
For 30MHz-1GHz

Horizontal



Suspected List								
NO.	Freq. [MHz]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	45.5200	18.96	-13.65	40.00	21.04	100	11	Horizontal
2	102.750	17.37	-15.41	43.50	26.13	100	332	Horizontal
3	143.490	17.58	-19.10	43.50	25.92	100	351	Horizontal
4	328.760	22.93	-11.65	46.00	23.07	100	69	Horizontal
5	381.140	23.83	-10.81	46.00	22.17	100	113	Horizontal
6	721.610	28.08	-4.68	46.00	17.92	100	357	Horizontal

Vertical



Suspected List								
NO.	Freq. [MHz]	Level [dBμV/m]	Factor [dB]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	36.7900	26.82	-15.57	40.00	13.18	100	178	Vertical
2	45.5200	24.13	-13.65	40.00	15.87	100	12	Vertical
3	77.5300	27.30	-19.03	40.00	12.70	100	128	Vertical
4	143.490	23.07	-19.10	43.50	20.43	100	157	Vertical
5	162.890	22.09	-17.95	43.50	21.41	100	198	Vertical
6	299.660	22.31	-12.74	46.00	23.69	100	131	Vertical

**For 1GHz to 25GHz**

Horizontal: LOW CH00)/2402MHz

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
4804	59.72	-3.64	56.08	74	-17.92	peak
4804	46.65	-3.64	43.01	54	-10.99	AVG
7206	55.93	-0.95	54.98	74	-19.02	peak
7206	42.81	-0.95	41.86	54	-12.14	AVG
---	---	---	---	---	---	---
---	---	---	---	---	---	---

Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.

Vertical: LOW CH00)/2402MHz

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
4804	60.59	-3.64	56.95	74	-17.05	peak
4804	47.12	-3.64	43.48	54	-10.52	AVG
7206	56.58	-0.95	55.63	74	-18.37	peak
7206	43.02	-0.95	42.07	54	-11.93	AVG
---	---	---	---	---	---	---
---	---	---	---	---	---	---

Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.

Horizontal: MID CH19/2440MHz

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
4880	57.53	-3.51	54.02	74	-19.98	peak
4880	45.81	-3.51	42.3	54	-11.7	AVG
7320	55.79	-0.82	54.97	74	-19.03	peak
7320	42.65	-0.82	41.83	54	-12.17	AVG
---	---	---	---	---	---	---
---	---	---	---	---	---	---

Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.

Vertical: MID CH19/2440MHz

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
4880	58.02	-3.51	54.51	74	-19.49	peak
4880	46.49	-3.51	42.98	54	-11.02	AVG
7320	54.73	-0.82	53.91	74	-20.09	peak
7320	41.35	-0.82	40.53	54	-13.47	AVG
---	---	---	---	---	---	---
---	---	---	---	---	---	---

Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.



Horizontal: HIGH CH39 2480MHz

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
4960	58.73	-3.43	55.3	74	-18.7	peak
4960	45.55	-3.43	42.12	54	-11.88	AVG
7440	52.59	-0.75	51.84	74	-22.16	peak
7440	40.85	-0.75	40.1	54	-13.9	AVG
---	---	---	---	---	---	---
---	---	---	---	---	---	---

Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.

Vertical: HIGH CH39 2480MHz

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
4960	57.85	-3.43	54.42	74	-19.58	peak
4960	48.12	-3.43	44.69	54	-9.31	AVG
7440	53.68	-0.75	52.93	74	-21.07	peak
7440	40.02	-0.75	39.27	54	-14.73	AVG
---	---	---	---	---	---	---
---	---	---	---	---	---	---

Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.

Remark :

- (1) Data of measurement within this frequency range shown “---” in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.
- (2) When the test results of Peak Detected below the limits of Average Detected, the Average Detected is not need completed.

Results of Band Edges Test (Radiated)

Horizontal: GFSK TX CH Low (2402MHz)

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
2390	55.85	-5.81	50.04	74	-23.96	peak
2390	46.97	-5.81	41.16	54	-12.84	AVG

Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.

Vertical: GFSK TX CH Low (2402MHz)

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
2390	57.59	-5.81	51.78	74	-22.22	peak
2390	48.05	-5.81	42.24	54	-11.76	AVG

Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.

Horizontal: GFSK TX CH High (2480MHz)

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
2483.5	55.97	-5.65	50.32	74	-23.68	peak
2483.5	45.82	-5.65	40.17	54	-13.83	AVG

Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.

Vertical: GFSK TX CH High (2480MHz)

Frequency	Meter Reading	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
2483.5	58.12	-5.65	52.47	74	-21.53	peak
2483.5	47.97	-5.65	42.32	54	-11.68	AVG
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.						
Remark: All the other emissions not reported were too low to read and deemed to comply with FCC limit.						



3.3. Maximum Conducted Output Power

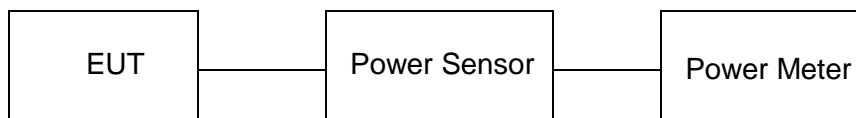
Limit

The Maximum Peak Output Power Measurement is 30dBm.

Test Procedure

Remove the antenna from the EUT and then connect a low loss RF cable from the antenna port to the power sensor.

Test Configuration



Test Results

BLE					
Type	Channel	Output Peak power (dBm)	Output AV Power (dBm)	Limit (dBm)	Result
GFSK	00	-13.075	-14.125	30.00	Pass
	19	-13.007	-14.082		
	39	-12.978	-14.005		

Note: Test results including cable loss;



3.4. Power Spectral Density

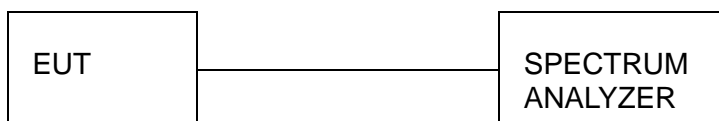
Limit

For digitally modulated systems, the power spectral density conducted from the intentional radiator to the antenna shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission.

Test Procedure

1. Use this procedure when the maximum peak conducted output power in the fundamental emission is used to demonstrate compliance.
2. Set the RBW ≥ 3 kHz.
3. Set the VBW $\geq 3 \times$ RBW.
4. Set the span to 1.5 times the DTS channel bandwidth.
5. Detector = peak.
6. Sweep time = auto couple.
7. Trace mode = max hold.
8. Allow trace to fully stabilize.
9. Use the peak marker function to determine the maximum power level.
10. If measured value exceeds limit, reduce RBW (no less than 3 kHz) and repeat.
11. The resulting peak PSD level must be 8dBm.

Test Configuration



Test Results

BLE				
Type	Channel	Power Spectral Density (dBm/3KHz)	Limit (dBm/3KHz)	Result
GFSK	00	-27.49	8.00	Pass
	19	-27.67		
	39	-27.38		

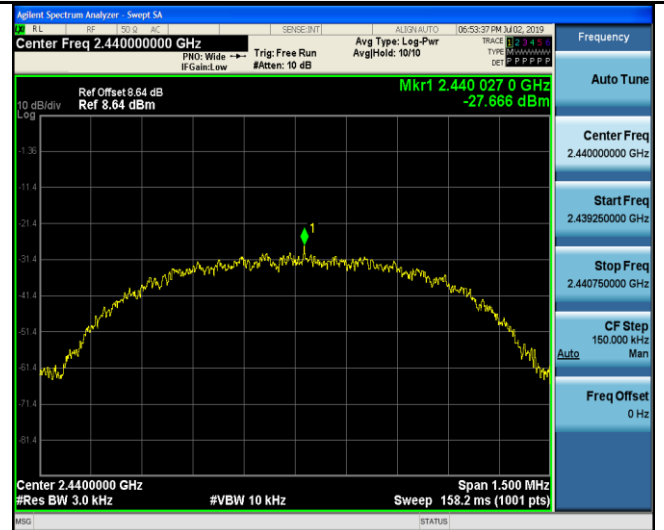
Test plot as follows:



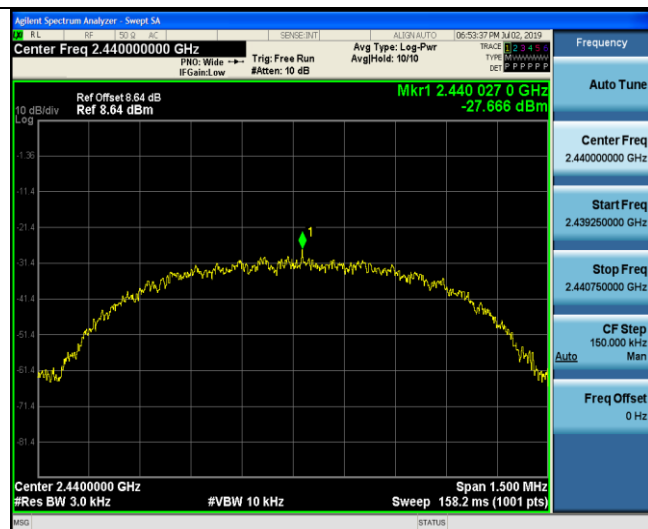
GFSK



CH00



CH19



CH39



3.5. 6dB Bandwidth and Occupied Bandwidth

Limit

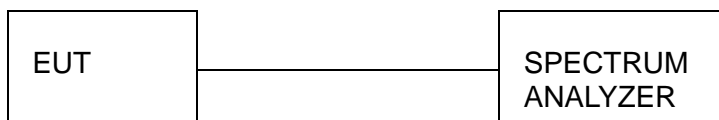
For digital modulation systems, the minimum 6 dB bandwidth shall be at least 500 kHz;
Occupied Bandwidth: N/A

Test Procedure

The transmitter output was connected to the spectrum analyzer through an attenuator. The bandwidth of the fundamental frequency was measured by spectrum analyzer with 100 KHz RBW and 300 KHz VBW. The 6dB bandwidth is defined as the total spectrum the power of which is higher than peak power minus 6dB.

The occupied bandwidth is the frequency bandwidth such that, below its lower and above its upper frequency limits, the mean powers are each equal to 0.5% of the total mean power of the given emission.

Test Configuration



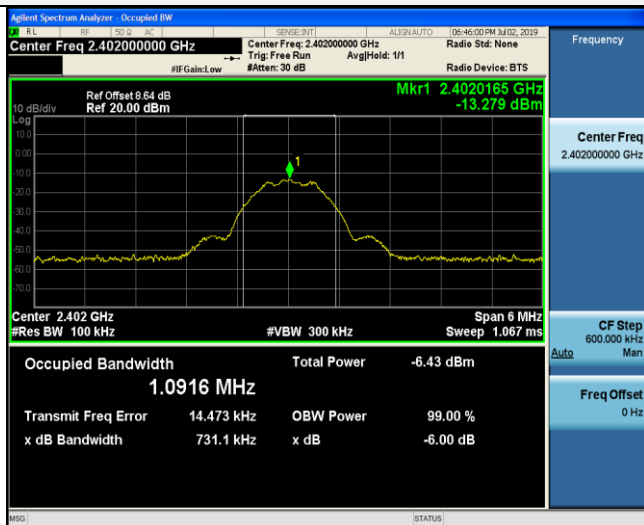
Test Results

BLE					
Type	Channel	-6dB Bandwidth (MHz)	99% Bandwidth (MHz)	Limit (KHz)	Result
GFSK	00	0.7311	1.0916	≥500	Pass
	19	0.7866	1.1083		
	39	0.7871	1.1213		

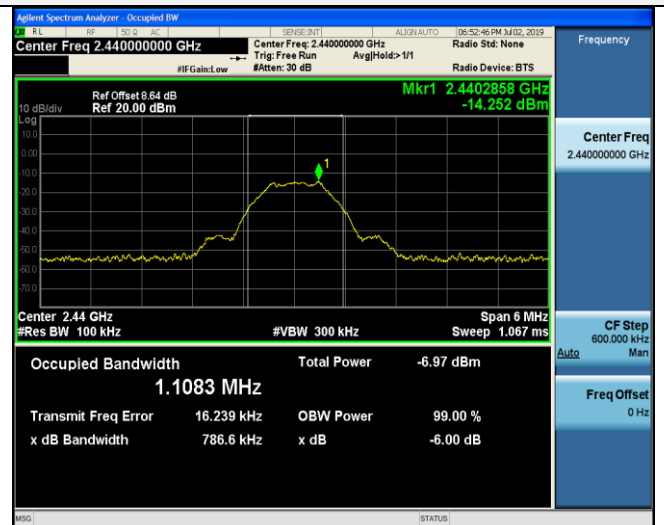
Test plot as follows:



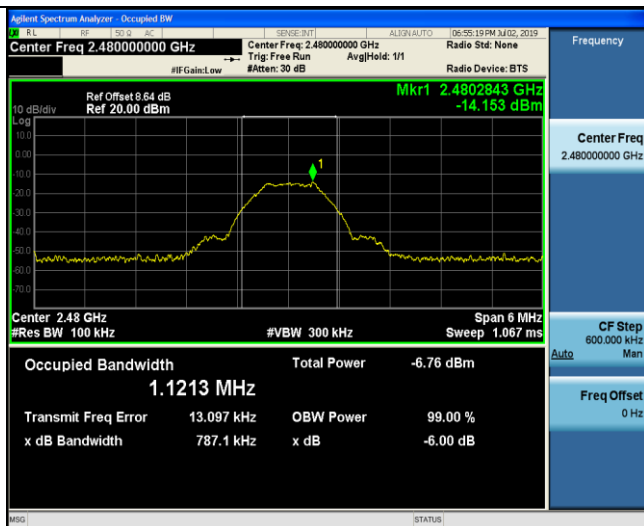
GFSK



CH00



CH19



CH39



3.6. Out-of-band Emissions

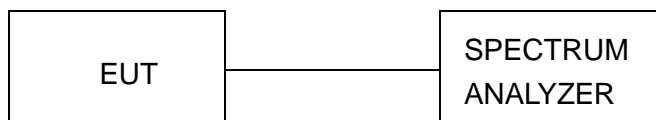
Limit

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in §15.209(a) is not required.

Test Procedure

Connect the transmitter output to spectrum analyzer using a low loss RF cable, and set the spectrum analyzer to RBW=100 kHz, VBW= 300 kHz, peak detector, and max hold. Measurements utilizing these settings are made of the in-band reference level, band edge and out-of-band emissions.

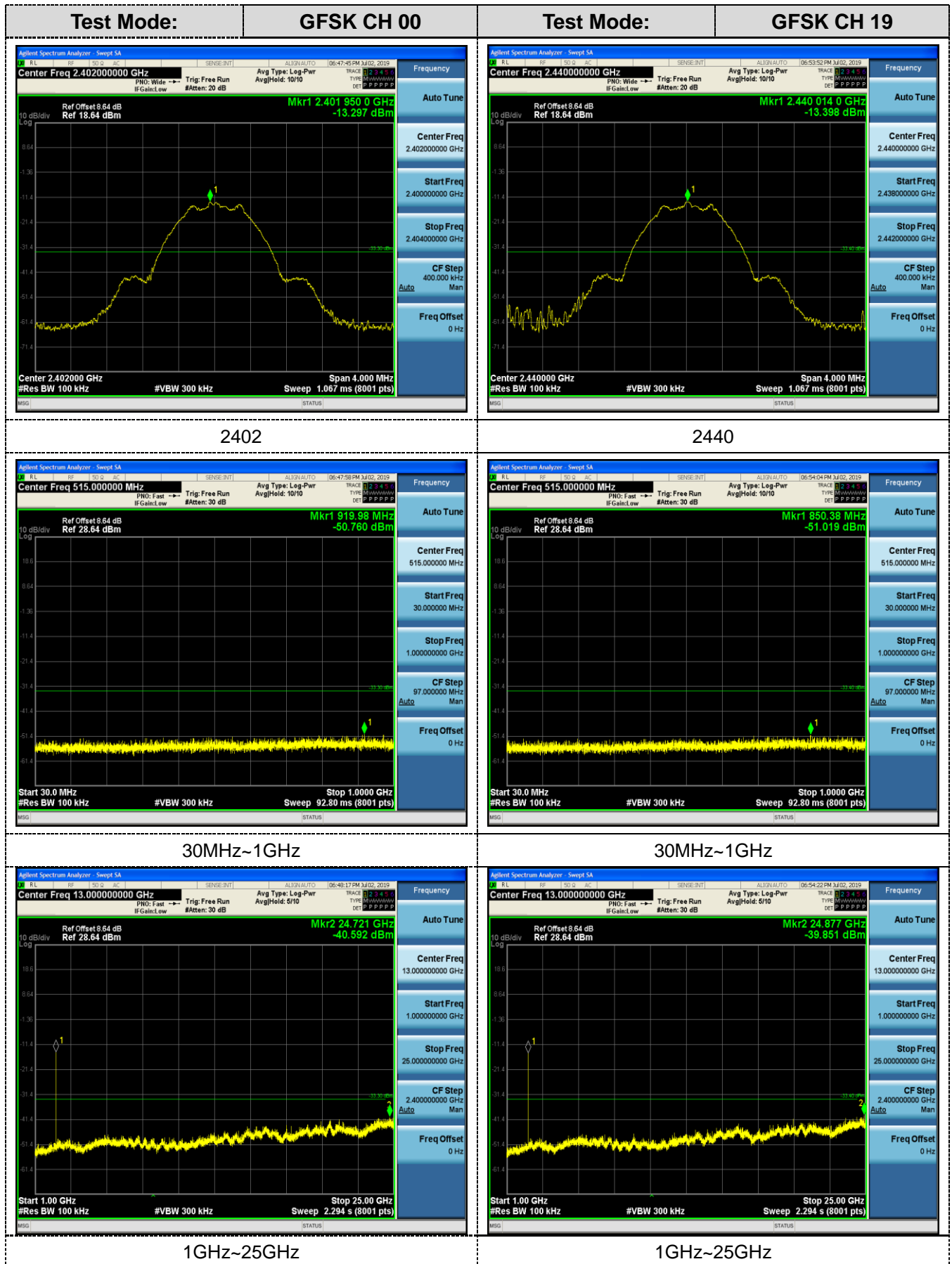
Test Configuration



Test Results

Remark: The measurement frequency range is from 30MHz to the 10th harmonic of the fundamental frequency. The lowest, middle and highest channels are tested to verify the spurious emissions and band edge measurement data. And record the worst data in the report.

Test plot as follows:



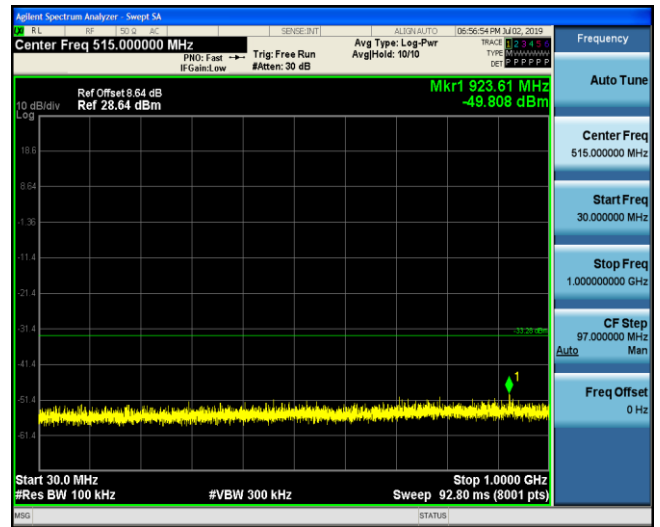


Test Mode:



2480

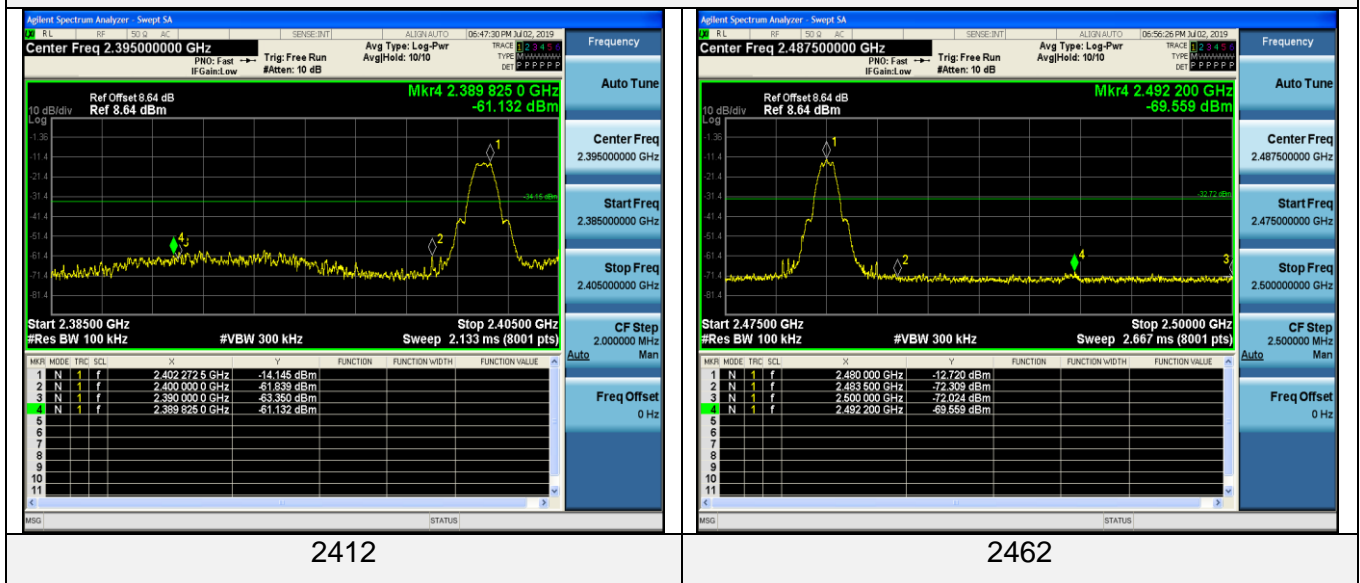
GFSK CH 39



30MHz~1GHz



1GHz~25GHz

**Band-edge Measurements for RF Conducted Emissions:****GFSK**



3.7. Antenna Requirement

of the antenna exceeds 6dBi.

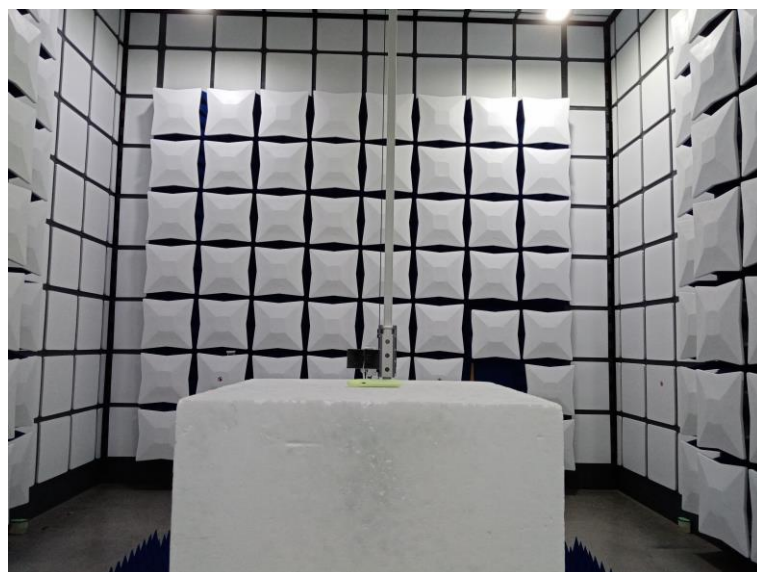
Refer to statement below for compliance

The manufacturer may design the unit so that the user can replace a broken antenna, but the use of a standard antenna jack or electrical connector is prohibited. Further, this requirement does not apply to intentional radiators that must be professionally installed.

Antenna Connected Construction

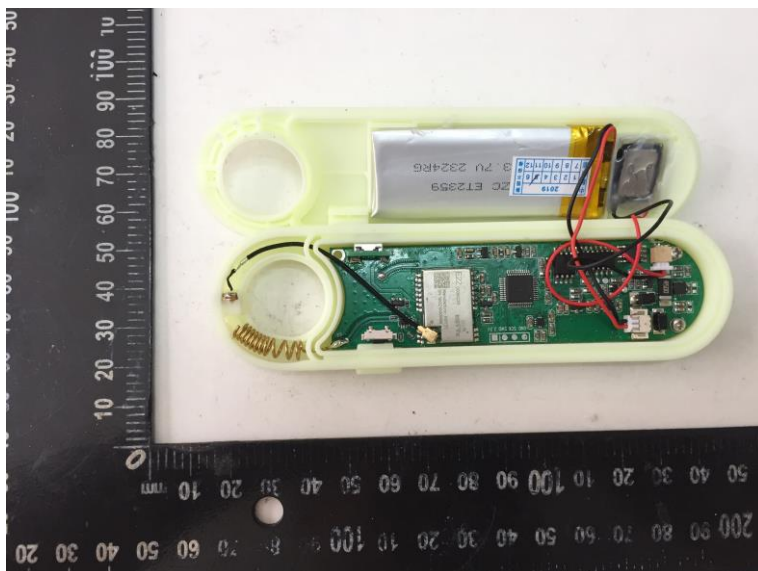
The maximum gain of antenna was 0.00dBi

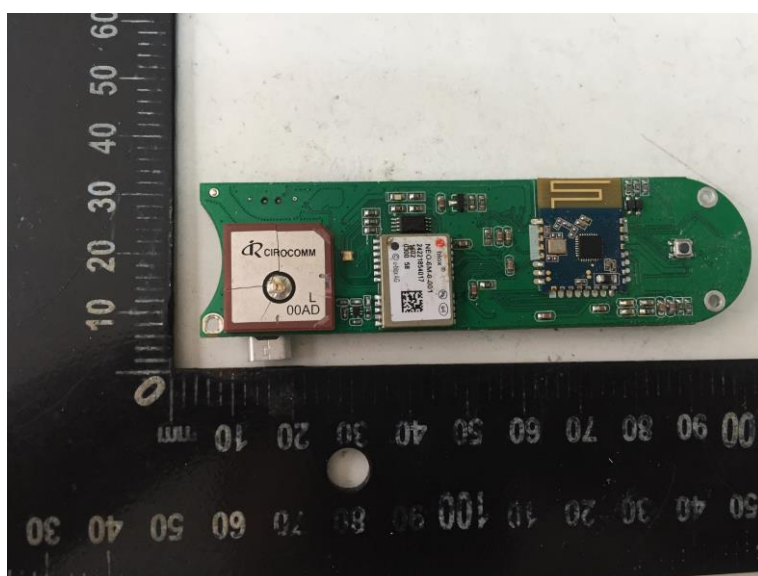
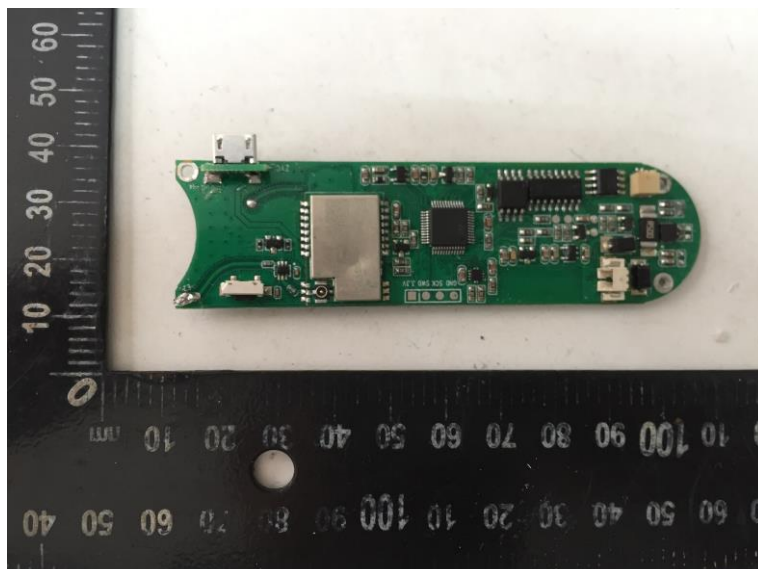
4. Test Setup Photos of the EUT



5. Test Photos of the EUT







***** End of Report *****