



Test Report

Report No.:RKEYS251010102

Date: Oct.24, 2025

Page 1 of 35

RF TEST REPORT

For

Product: Nova light

Model:TB2

FCC ID:2ARJH-TB2

IC:29830-TB2

Report No.: RKEYS251010102

Issued for

Shenzhen Champon Technology Co., Ltd.

**1A-1004, International Innovation Valley, Dashi 1st Road, Xili, Nanshan, Shenzhen,
518055, China**

Issued by

Guangdong KEYS Testing Technology Co., Ltd.

**Building 1, No.18, Shihuan Road, Dongcheng Subdistrict, Dongguan, Guangdong,
China**

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1. TEST CERTIFICATION

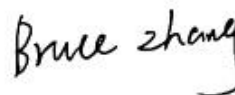
Product:	Nova light
Trade mark:	Onvis
Model:	TB2
Model list:	/
Applicant :	Shenzhen Champon Technology Co., Ltd.
Address:	1A-1004, International Innovation Valley, Dashi 1st Road, Xili, Nanshan, Shenzhen, 518055, China
Manufacturer:	Shenzhen Champon Technology Co., Ltd.
Address:	1A-1004, International Innovation Valley, Dashi 1st Road, Xili, Nanshan, Shenzhen, 518055, China
Sample Receive Date:	Oct.10, 2025
Test Date:	Oct.11, 2025~Oct.18, 2025
Applicable Standards:	FCC 47, CFR Part 15.247 RSS-Gen Issue 5 RSS-247 Issue 4
Application Purpose	Original Grant

The above equipment has been tested by Guangdong KEYS Testing Technology Co., Ltd. and found compliance with the requirements in the technical standards mentioned above. The test results presented in this report only relate to the product/system tested. The other similar equipment will not necessarily produce the same results due to production tolerance and measurement uncertainties.



Prepared by:

Evan Fang / Engineer



Approved by:

Bruce Zhang / Manager

2. TEST SUMMARY

FCC Rules	IC Rules	Description of Test	Result
15.247(b)(4)&15.203	RSS-GEN, 6.8	Antenna Requirement	Pass
15.247(b)(3)	RSS-247, 6.3.2	Maximum Conducted Output power	Pass
15.247(a)(2)	RSS-GEN, 6.7 RSS-247, 6.3.1(a)	6 dB Bandwidth	Pass
15.247(e)	RSS-247,6.3.1(b)	Power Spectral Density	Pass
15.247(d)	RSS-GEN, 6.13 RSS-247, 6.6	Out of Band Conducted Emission	Pass
15.247(d)&15.205&15.209	RSS-GEN, 8.9 RSS-GEN, 8.10 RSS-247, 6.6	Band edge	Pass
15.247(d)&15.205&15.209	RSS-GEN, 8.9 RSS-GEN, 8.10 RSS-247, 6.6	Spurious Radiated Emission	Pass
15.207	RSS-GEN, 8.8	Conducted Emission on AC Mains	Pass

3. TEST SITE

3.1. TEST FACILITY

Guangdong KEYS Testing Technology Co., Ltd.

Address: Building 1, No.18, Shihuan Road, Dongcheng Subdistrict, Dongguan, Guangdong, China

A2LA Certificate Number.:7547.01

FCC Designation Number:CN1419

FCC Test Firm Registration Number:361541

ISED Registration: 34332

CAB number: CN0189

3.2. MEASUREMENT UNCERTAINTY

Parameter	Uncertainty
Conducted Emission(150KHz-30MHz)	$\pm 3.2\text{dB}$
Radiated Emission(30MHz-1GHz)	$\pm 4.7\text{dB}$
Radiated Emission (1GHz-6GHz)	$\pm 5.1\text{dB}$
Radiated Emission (6GHz-18GHz)	$\pm 5.1\text{dB}$

Note 1: This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of $k=2$.

3.3. Test Environment Condition

Ambient Temperature:	24~25°C
Ambient Relative Humidity:	55~60 %

4. Test Equipment List

Equipment	Manufacturer	Model	Equipment No.	Cal. Date	Cal. Interval
EMI Test Receiver	Rohde&Schwarz	ESCI	KEYS-EL-203	Mar. 03, 2025	1 Year
Pulse limiter	Rohde&Schwarz	ESH3-Z2	KEYS-EL-201	Mar. 03, 2025	1 Year
LISN	Rohde&Schwarz	ENV216	KEYS-EL-202	Mar. 03, 2025	1 Year
Shielding Room	Taihe Mao Rui Electronic Equipment Co., Ltd.	8m*4m*4m	KEYS-EL-230	Oct. 12, 2025	5 Year
EMI Test Receiver	Rohde&Schwarz	ESCI7	KEYS-EL-205	Mar. 03, 2025	1 Year
Logarithmic Periodic Broadband Antenna	SCHWARZBECK	VULB9168	KEYS-EL-209	Mar. 06, 2025	3 Year
Preamplifier	HP	8447F	KEYS-EL-210	Mar. 03, 2025	1 Year
Horn Antenna	SCHWARZBECK	BBHA 9120D	KEYS-EL-239	Mar. 06, 2025	3 Year
Preamplifier	/	1-18-53G22	KEYS-EL-240	Mar. 03, 2025	1 Year
Anechoic Chamber	Taihe Mao Rui Electronic Equipment Co., Ltd.	9m*6m*6m	KEYS-EL-230	Oct. 12, 2025	5 Year
Signal Analyzer	Keysight	N9020A	KEYS-EL-238	Mar. 03, 2025	1 Year
Spectrum Analyzer	Rohde&Schwarz	FSV-40N	KEYS-EL-269	Mar. 03, 2025	1 Year

18-40GHz Antenna	COM-MW	ZLB7-18-40G-777	KEYS-EL-276	May 19, 2025	1 Year
18-40GHz Preamplifier	QUANJUDA	LNA-18004000-50G35	KEYS-EL-277	May 17, 2025	1 Year
Filter	WCS Technology	ZBSF6-C2400-2483.5-294	KEYS-EL-270	May 17, 2025	1 Year
RF Cable	Rosenberger	/	KEYS-EL-278	May 17, 2025	3 Year
RF Cable	COM-MW	DCA9-2.92M80002.92M3.6-1304	KEYS-EL-279	May 17, 2025	3 Year
DC Power	Agilent	E3632A	KEYS-EL-243	Mar. 03, 2025	1 Year
Power Switch	WCS Technology	SMU-3002	KEYS-EL-247	Apr. 16, 2025	1 Year
RF Test Software	WCS Technology	WCN-Regulatory	Version 25.03.2901		
EMI Test Software	Tonscend	JS32-CE	Version 5.0.0		
EMI Test Software	Tonscend	JS32-RE	Version 5.0.0		

Note: The attenuator is integrated into the Power Switch Box and taken into consideration during testing.

5. EUT DESCRIPTION

Product	Nova light
Test Model	TB2
Additional Model	/
Rating	AC 120V/60Hz
FCC ID	2ARJH-TB2
IC	29830-TB2
Antenna Type	spring antenna
Antenna Gain	2.8dBi
Operation Frequency	2402-2480MHz
Number of Channels:	40
Modulation Type	GFSK
Note: 1) For a more detailed features description, please refer to the manufacturer's specifications or the User's Manual. 2) Antenna gain was provided by the applicant/ manufacturer, and the applicant/ manufacturer is responsible for its validity. 3) The test results in the report only apply to the tested sample. 4) The Antenna Gain is provided by the client and the client is responsible for the validity. Keys assumes no liability in this regard.	

5.1. DESCRIPTION OF TEST CONFIGURATION

Test channel list is as below:

Channel	Frequency (MHz)	Channel	Frequency (MHz)
0CH	2402 MHz	20CH	2442 MHz
1CH	2404 MHz	21CH	2444 MHz
2CH	2406 MHz	22CH	2446 MHz
3CH	2408 MHz	23CH	2448 MHz
4CH	2410 MHz	24CH	2450 MHz
5CH	2412 MHz	25CH	2452 MHz
6CH	2414 MHz	26CH	2454 MHz
7CH	2416 MHz	27CH	2456 MHz
8CH	2418 MHz	28CH	2458 MHz
9CH	2420 MHz	29CH	2460 MHz
10CH	2422 MHz	30CH	2462 MHz
11CH	2424 MHz	31CH	2464 MHz
12CH	2426 MHz	32CH	2466 MHz
13CH	2428 MHz	33CH	2468 MHz
14CH	2430 MHz	34CH	2470 MHz
15CH	2432 MHz	35CH	2472 MHz
16CH	2434 MHz	36CH	2474 MHz
17CH	2436 MHz	37CH	2476 MHz
18CH	2438 MHz	38CH	2478 MHz
19CH	2440 MHz	39CH	2480 MHz

Test Channel

- Low Channel:2402MHz
- Middle Channel: 2440MHz
- High Channel:2480MHz

5.2. EQUIPMENT MODIFICATIONS

Any modifications installed previous to testing by Shenzhen Champon Technology Co., Ltd. will be incorporated in each production model sold / leased in the United States.

No modifications were installed by KEYS Testing Technology Co., Ltd.

6. TEST METHODOLOGY

Both AC mains line-conducted and radiated emission measurements were performed according to the procedures in ANSI C63.10-2020 and KDB 558074 D01.

6.1. EUT SYSTEM OPERATION

For emissions testing, the equipment under test (EUT) setup to transmit continuously to simplify the measurement methodology. Care was taken to ensure proper power supply voltages during testing. During testing, all cables were manipulated to produce worst case emissions. The EUT was powered by AC 120V/60Hz during the test.

6.2. CONFIGURATION AND MODE

We have verified the construction and function in typical operation. All the test modes were carried out with the EUT in transmitting operation, which was shown in this test report and defined as follows.

Based on the baseline scan, the worst-case data rates were:

Mode	Data rate
GFSK	BLE 1M
GFSK	BLE 2M
GFSK	LE Coded (S=2)
GFSK	LE Coded (S=8)

7. SETUP OF EQUIPMENT UNDER TEST

7.1. DESCRIPTION OF SUPPORT UNITS

The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

Support Equipment

No.	Equipment	Model	Serial No.	Manufacturer
1	Notebook	Lenovo Rescuer 15ISK	PF0GS9S1	Lenovo
2	/	/	/	/

Support Cable

No.	Description	Shield	Length	Manufacturer
1	/	/	/	/
2	/	/	/	/

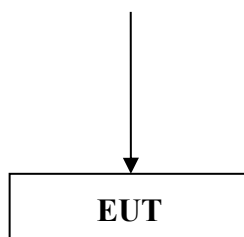
Note: 1) All the equipment/cables were placed in the worst-case configuration to maximize the emission during the test.

2) Grounding was established in accordance with the manufacturer's requirements and conditions for the intended use.

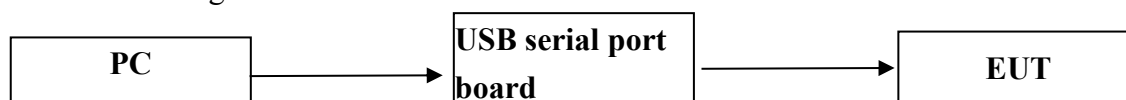
7.2. BLOCK DIAGRAM OF EUT CONFIGURATION

Conducted and radiated emission configuration

AC Mains



RF Conducted configuration



7.3. EUT EXERCISE SOFTWARE

Test software:EspRFTestTool_v3.5

Mode	Frequency	Power setting
GFSK	2402	0
GFSK	2440	0
GFSK	2480	0

8. TEST RESULTS AND MEASUREMENT DATA

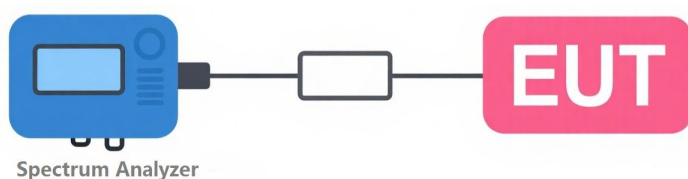
8.1. ANTENNA REQUIREMENT

Test Requirement:	FCC Part Part 15.203 An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section. FCC Part 15.247(b)(4) The conducted output power limit specified in paragraph (b) of this section is based on the use of antennas with directional gains that do not exceed 6 dBi.if transmitting antennas of directional gain greater than 6dBi are used, the power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6dBi. According to RSS GEN 6.8, The applicant for equipment certification shall provide a list of all antenna types that may be used with the transmitter, where applicable (i.e. for transmitters with detachable antenna), indicating the maximum permissible antenna gain (in dBi) and the required impedance for each antenna. The test report shall demonstrate the compliance of the transmitter with the limit for maximum equivalent isotropically radiated power (e.i.r.p.) specified in the applicable RSS, when the transmitter is equipped with any antenna type, selected from this list.
Test Result:	According to the manufacturer declared, the EUT has a spring antenna, the Maximum directional gain of antenna is 2.8dBi. Therefore the EUT is considered sufficient to comply with the provision. Refer to EUT Photo for further details.

8.2. MAXIMUM CONDUCTED OUTPUT POWER

Test Mode:	Transmitting mode with modulation
Limit:	For DTS operating in the band 2400-2483.5 MHz, the maximum peak conducted output power shall not exceed 1W, and the e.i.r.p. shall not exceed 4 W, except as provided in section 6.5 a) and b). As an alternative to a peak power measurement, compliance can be based on a measurement of the maximum conducted output power.
Test Procedure:	Set spectrum analyzer as following: Set the RBW $\geq$ DTS bandwidth. Set VBW $\geq$ 3 x RBW. Set span $\geq$ 3 x RBW Sweep time = auto couple. Detector = peak. Trace mode = max hold. Allow trace to fully stabilize. Use peak marker function to determine the peak amplitude level.
Test Result:	PASS

8.2.1. Test Setup:



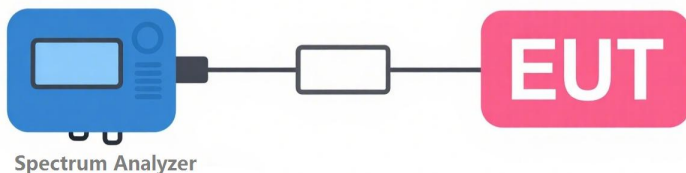
8.2.2. Test Result

Please refer to Appendix A: Test Results of Bluetooth BLE.

8.3. 6DB BANDWIDTH

Test Mode:	Transmitting mode with modulation
Limit:	The 6 dB Bandwidth is at least 500 kHz.
Test Procedure:	Set spectrum analyzer as following: Set RBW:100kHz. Set VBW:300kHz. Sweep time = auto couple. Detector = peak. Trace mode = max hold. Allow trace to fully stabilize. Use the spectrum analyzer “Channel Bandwidth” function to measurement the 6dB EBW and 99% OBW.
Test Result:	PASS

8.3.1.Test Setup:



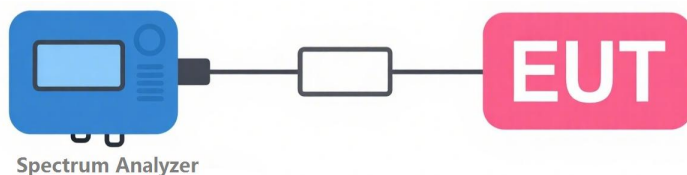
8.3.2.Test Result

Please refer to Appendix A:Test Results of Bluetooth BLE.

8.4. POWER SPECTRAL DENSITY

Test Mode:	Transmitting mode with modulation
Limit:	The Power Density does not exceed 8dBm/3 kHz.
Test Procedure:	Set spectrum analyzer as following: Set RBW ≥ 3 kHz. Set VBW $\geq 3 \times$ RBW. Set span to 1.5 times the DTS bandwidth Sweep time = auto couple. Detector = peak. Trace mode = max hold. Allow trace to fully stabilize. Use peak marker function to determine the peak amplitude level.
Test Result:	PASS

8.4.1. Test Setup:



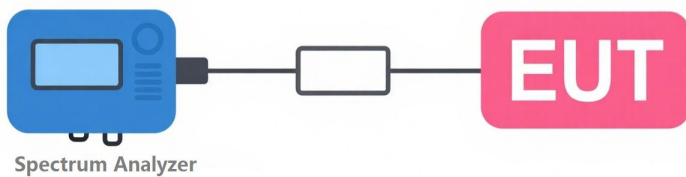
8.4.2. Test Result

Please refer to Appendix A: Test Results of Bluetooth BLE.

8.5. OUT OF BAND CONDUCTED EMISSIONS

Test Mode:	Transmitting mode with modulation		
Limit:	At least 20 dB below the highest level of the desired power in the pass band.		
	Frequency Range (MHz)	Field Strength (microvolts/meter)	Measurement Distance(meters)
	0.009~0.490	2400/F(kHz)	300
	0.490~1.705	24000/F(kHz)	30
	1.705~30.0	30	30
	30-88	100	3
	88-216	150	3
	216-960	200	3
	Above 960	500	3
Test Procedure:	Measurement Procedure -Reference Level Set the RBW = 100 kHz. Set the VBW $\geq$ 300 kHz. Detector = peak. Sweep time = auto couple Trace mode = max hold.。 Allow trace to fully stabilize. Use the peak marker function to determine the maximum power level in any 100 kHz band segment within the fundamental EBW. Measurement Procedure -Unwanted Emission Level Set RBW = 100 kHz. Set VBW $\geq$ 300 kHz. Set span to encompass the spectrum to be examined. Detector = peak. Trace Mode = max hold. Sweep = auto couple.		
Test Result:	PASS		

8.5.1.Test Setup:



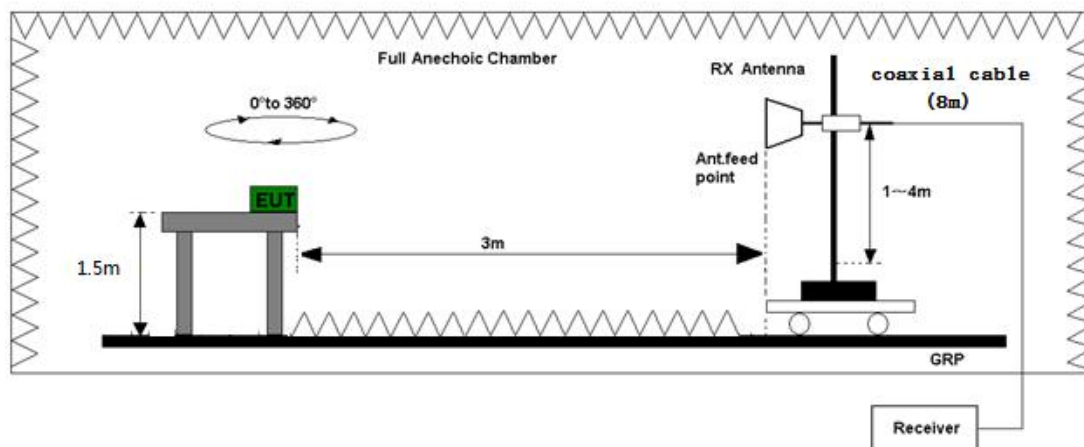
8.5.2.Test Result

Please refer to Appendix A:Test Results of Bluetooth BLE.

8.6. BAND EDGE

Test Mode:	Transmitting mode with modulation		
Limit:	Frequency Range (MHz)	Field Strength (microvolts/meter)	Measurement Distance(meter s)
	0.009~0.490	2400/F(kHz)	300
	0.490~1.705	24000/F(kHz)	30
	1.705~30.0	30	30
	30-88	100	3
	88-216	150	3
	216-960	200	3
	Above 960	500	3
	Test Procedure:	1. The EUT was placed on a turntable with 1.5 meter for frequency above 1GHz respectively above ground. 2. The EUT was set 3 meters from the interference receiving antenna, which was mounted on the top of a variable height antenna tower. 3. For each suspected emission, the EUT was arranged to its worst case and then tune the Antenna tower (from 1 m to 4 m) and turntable (from 0 degree to 360 degrees) to find the maximum reading. A pre-amp and a high pass filter are used for the test in order to get better signal level to comply with the guidelines. Set to the maximum power setting and enable the EUT transmit continuously.	
Test Result:	Pass		

8.6.1.Test Setup:



Test set-up of radiated disturbance (Above 1GHz)

8.6.2.Test Result

Test Voltage	AC 120V/60Hz
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Only the worst mode BLE 2M was recorded in this report.

BLE 2M-2402MHz:

Polarization	Frequency (MHz)	Reading (dBμV)	Pre-Amp Gain (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Emission Level (dBμV/m)	Peak Limit at 3m (dBμV/m)	Margin (dB)	Detector Type
Horizontal	2390.00	79.1	55.6	28.2	4.6	56.3	74.0	-17.7	PK
Horizontal	2390.00	59.0	55.6	28.2	4.6	36.2	54.0	-17.8	AV

Polarization	Frequency (MHz)	Reading (dBμV)	Pre-Amp Gain (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Emission Level (dBμV/m)	Average Limit at 3m (dBμV/m)	Margin (dB)	Detector Type
Vertical	2390.00	78.9	55.6	28.2	4.6	56.1	74.0	-17.9	PK
Vertical	2390.00	58.9	55.6	28.2	4.6	36.1	54.0	-17.9	AV

BLE 2M-2480MHz:

Polarization	Frequency (MHz)	Reading (dBμV)	Pre-Amp Gain (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Emission Level (dBμV/m)	Peak Limit at 3m (dBμV/m)	Margin (dB)	Detector Type
Horizontal	2483.50	78.5	55.9	28.9	5.2	56.7	74.0	-17.3	PK
Horizontal	2483.50	57.6	55.9	28.9	5.2	35.8	54.0	-18.2	AV

Polarization	Frequency (MHz)	Reading (dBμV)	Pre-Amp Gain (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Emission Level (dBμV/m)	Average Limit at 3m (dBμV/m)	Margin (dB)	Detector Type
Vertical	2483.50	78.8	55.9	28.9	5.2	57.0	74.0	-17	PK
Vertical	2483.50	57.7	55.9	28.9	5.2	35.9	54.0	-18.1	AV

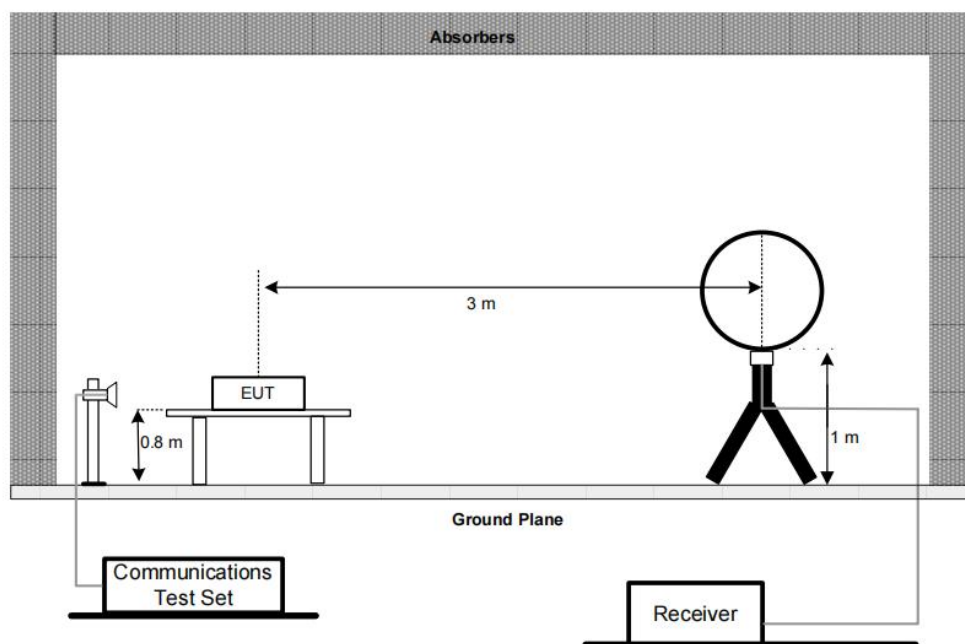
Note:(1)Emission Level=Reading-Pre-Amp.Gain+Antenna+Cable loss

(2)Margin=Level-limit

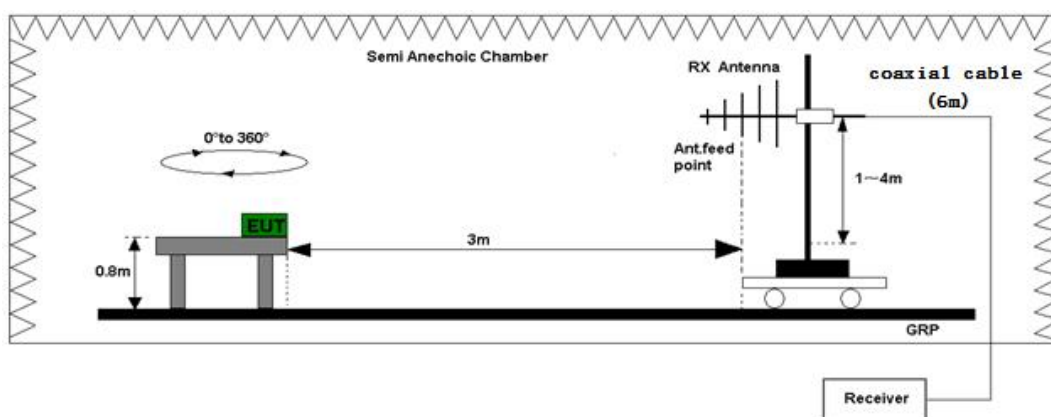
8.7. SPURIOUS RADIATED EMISSIONS

Test Mode:	Transmitting mode with modulation		
Limit:			
	Frequency Range (MHz)	Field Strength (microvolts/meter)	Measurement Distance(meters)
	0.009~0.490	2400/F(kHz)	300
	0.490~1.705	24000/F(kHz)	30
	1.705~30.0	30	30
	30-88	100	3
	88-216	150	3
	216-960	200	3
	Above 960	500	3
Test Procedure:	Radiated emission measurements were performed from 9kHz to tenth harmonic or 40GHz. The EUT for testing is arranged on a styrene turntable. If some peripherals apply to the EUT, the peripherals will be connected to EUT and the whole system. During the test, all cables were arranged to produce worst-case emissions. The signal is maximized through rotation. The height of antenna and polarization is changing constantly for exploring for maximum signal level. The height of antenna can be up to 4 meters and down to 1 meter.		
Test Result:	Pass		

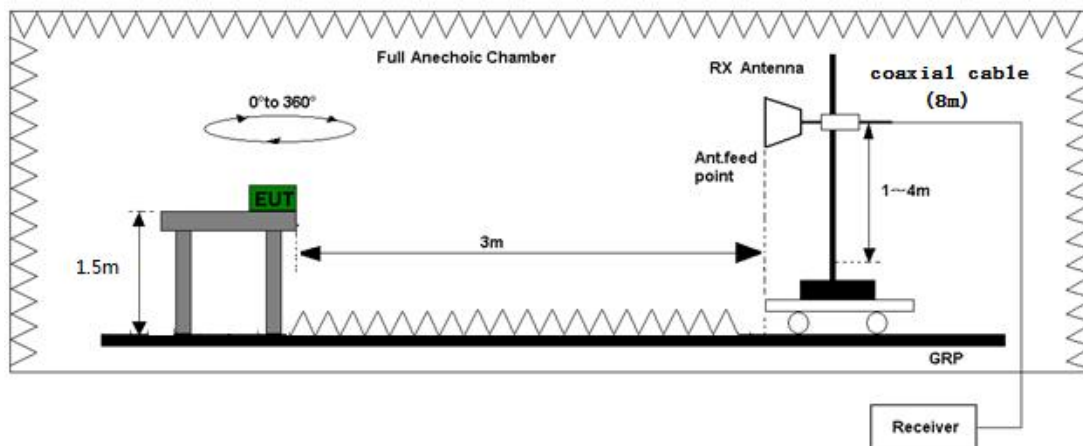
8.7.1.Test Setup:



Test set-up of radiated disturbance (Up to 30MHz)



Test set-up of radiated disturbance (30MHz to 1GHz)



Test set-up of radiated disturbance (Above 1GHz)

8.7.2. Test Result

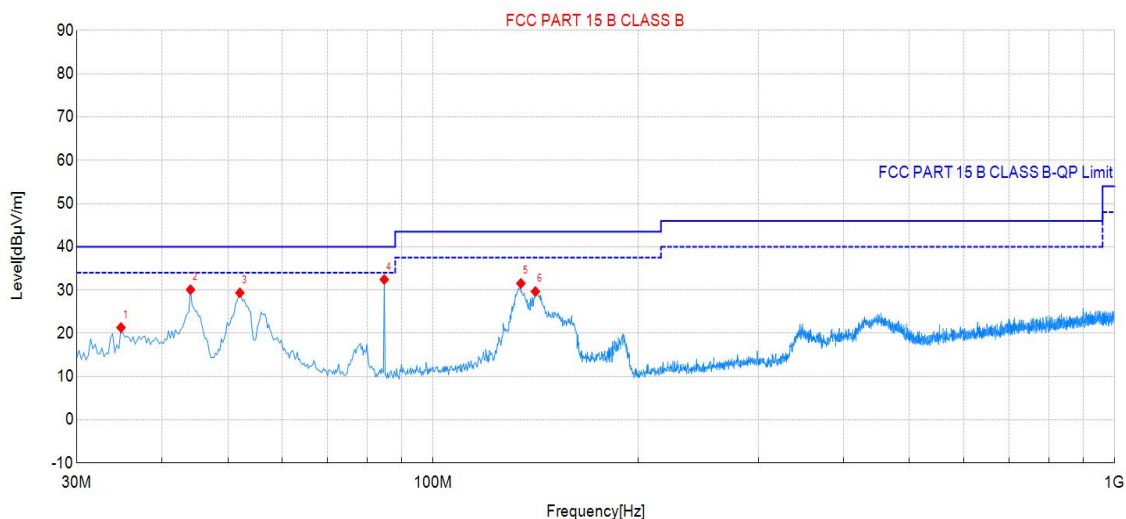
Test Voltage	AC 120V/60Hz
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Worst-case Spurious Emission below 1GHz

BLE 2M:2402MHz

Please refer to the following diagram:

Vertical:



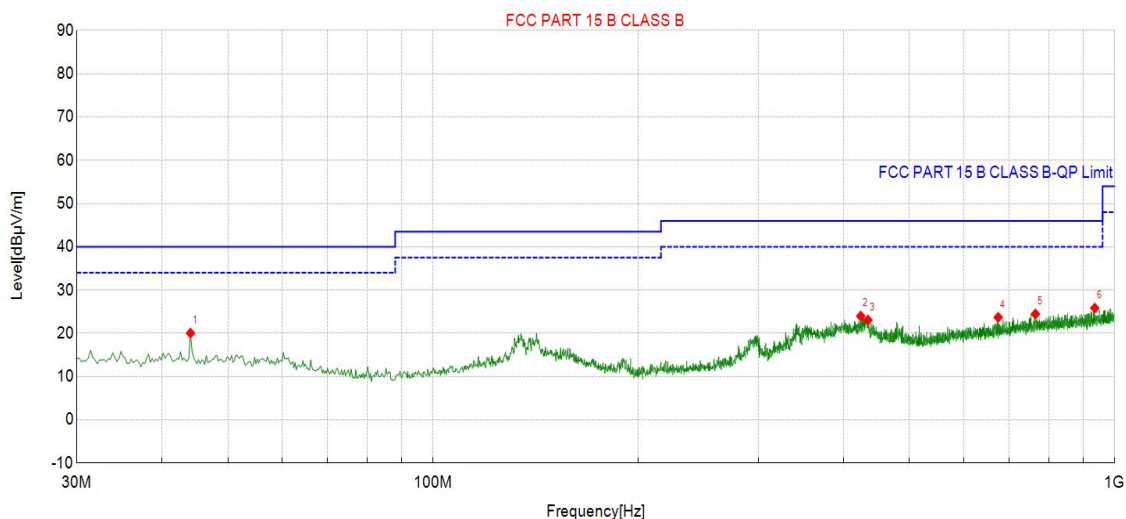
Suspected Data List											
NO.	Frequency [MHz]	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Det	Pol	Verdict
1	34.85	38.83	21.32	-17.51	40.00	18.68	100	269	QP	Vert	PASS
2	44.07	47.18	30.09	-17.09	40.00	9.91	100	212	QP	Vert	PASS
3	52.07	46.75	29.36	-17.39	40.00	10.64	100	222	QP	Vert	PASS
4	84.81	53.04	32.44	-20.60	40.00	7.56	100	166	QP	Vert	PASS
5	134.52	48.29	31.53	-16.76	43.50	11.97	100	203	QP	Vert	PASS
6	141.31	45.99	29.65	-16.34	43.50	13.85	100	288	QP	Vert	PASS

Note:(1)Level=Reading+Factor

(2)Margin=Limit-Level

(3)Factor=Antenna Factor+ Cable Loss - Amplifier Factor

Horizontal:



Suspected Data List											
NO.	Frequency [MHz]	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Height [cm]	Angle [°]	Det	Pol	Verdict
1	44.07	37.14	20.05	-17.09	40.00	19.95	100	252	QP	Hori	PASS
2	424.06	37.94	23.98	-13.96	46.00	22.02	100	167	QP	Hori	PASS
3	434.49	36.80	23.08	-13.72	46.00	22.92	100	149	QP	Hori	PASS
4	674.57	32.82	23.69	-9.13	46.00	22.31	100	149	QP	Hori	PASS
5	765.02	32.69	24.46	-8.23	46.00	21.54	100	1	QP	Hori	PASS
6	935.01	32.76	25.83	-6.93	46.00	20.17	100	223	QP	Hori	PASS

Note:(1)Level=Reading+Factor

(2)Margin=Limit-Level

(3)Factor=Antenna Factor+ Cable Loss - Amplifier Factor

Radiated Emissions (above 1GHz)

GFSK-2402MHz:

Polarization	Frequency (MHz)	Reading (dBμV)	Pre-Amp Gain (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Emission Level (dBμV/m)	Limit at 3m (dBμV/m)	Margin (dB)	Detector Type
Horizontal	4804.00	74.5	56.6	32.1	6.6	56.8	74.0	-17.4	PK
Horizontal	4804.00	54.4	56.6	32.1	6.6	36.7	54.0	-17.5	AV
Horizontal	7206.00	66.3	56.5	36.9	8.2	54.9	74.0	-19.1	PK
Horizontal	7206.00	46.2	56.5	36.9	8.2	34.8	54.0	-19.2	AV
Horizontal	9608.00	58.2	55.1	38.6	9.8	51.5	74.0	-22.5	PK
Horizontal	9608.00	38.5	55.1	38.6	9.8	31.8	54.0	-22.2	AV

Polarization	Frequency (MHz)	Reading (dBμV)	Pre-Amp Gain (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Emission Level (dBμV/m)	Limit at 3m (dBμV/m)	Margin (dB)	Detector Type
Vertical	4804.00	73.5	56.6	32.1	6.6	55.8	74.0	-18.4	PK
Vertical	4804.00	53.1	56.6	32.1	6.6	35.3	54.0	-18.8	AV
Vertical	7206.00	65.5	56.5	36.9	8.2	54.1	74.0	-19.9	PK
Vertical	7206.00	45.2	56.5	36.9	8.2	33.8	54.0	-20.2	AV
Vertical	9608.00	59.5	55.1	38.6	9.8	52.8	74.0	-21.2	PK
Vertical	9608.00	39.4	55.1	38.6	9.8	32.7	54.0	-21.3	AV

GFSK-2440MHz:

Polarization	Frequency (MHz)	Reading (dBμV)	Pre-Amp Gain (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Emission Level (dBμV/m)	Limit at 3m (dBμV/m)	Margin (dB)	Detector Type
Horizontal	4882.00	73.5	56.7	32.2	6.7	55.7	74.0	-18.3	PK
Horizontal	4882.00	53.6	56.7	32.2	6.7	35.8	54.0	-18.2	AV
Horizontal	7320.00	64.7	56.4	37.0	8.3	53.6	74.0	-20.4	PK



Horizontal	7320.00	44.8	56.4	37.0	8.3	33.7	54.0	-20.3	AV
Horizontal	9760.00	58.5	55.0	39.0	9.9	52.4	74.0	-21.6	PK
Horizontal	9760.00	38.3	55.0	39.0	9.9	32.2	54.0	-21.8	AV

Polarization	Frequency (MHz)	Reading (dBμV)	Pre-Amp Gain (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Emission Level (dBμV/m)	Limit at 3m (dBμV/m)	Margin (dB)	Detector Type
Vertical	4882.00	73.9	56.7	32.2	6.7	56.1	74.0	-17.9	PK
Vertical	4882.00	54.4	56.7	32.2	6.7	36.6	54.0	-17.4	AV
Vertical	7320.00	64.9	56.4	37.0	8.3	53.8	74.0	-20.2	PK
Vertical	7320.00	45.1	56.4	37.0	8.3	34.0	54.0	-20	AV
Vertical	9760.00	58.1	55.0	39.0	9.9	52.0	74.0	-22	PK
Vertical	9760.00	38.2	55.0	39.0	9.9	32.1	54.0	-21.9	AV

GFSK-2480MHz:

Polarization	Frequency (MHz)	Reading (dBμV)	Pre-Amp Gain (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Emission Level (dBμV/m)	Limit at 3m (dBμV/m)	Margin (dB)	Detector Type
Horizontal	4960.00	73.3	56.8	33.3	6.8	56.6	74.0	-17.4	PK
Horizontal	4960.00	53.2	56.8	33.3	6.8	36.5	54.0	-17.5	AV
Horizontal	7440.00	64.3	56.3	37.2	8.4	53.6	74.0	-20.4	PK
Horizontal	7440.00	44.1	56.3	37.2	8.4	33.4	54.0	-20.6	AV
Horizontal	9920.00	58.1	54.8	39.2	10.0	52.5	74.0	-21.5	PK
Horizontal	9920.00	38.2	54.8	39.2	10.0	32.6	54.0	-21.4	AV

Polarization	Frequency (MHz)	Reading (dBμV)	Pre-Amp Gain (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Emission Level (dBμV/m)	Limit at 3m (dBμV/m)	Margin (dB)	Detector Type
Vertical	4960.00	72.8	56.8	33.3	6.8	56.1	74.0	-17.9	PK
Vertical	4960.00	52.7	56.8	33.3	6.8	36	54.0	-18.0	AV



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Vertical	7440.00	64.6	56.3	37.2	8.4	53.9	74.0	-20.1	PK
Vertical	7440.00	44.3	56.3	37.2	8.4	33.6	54.0	-20.4	AV
Vertical	9920.00	58.5	54.8	39.2	10.0	52.9	74.0	-21.1	PK
Vertical	9920.00	38.3	54.8	39.2	10.0	32.7	54.0	-21.3	AV

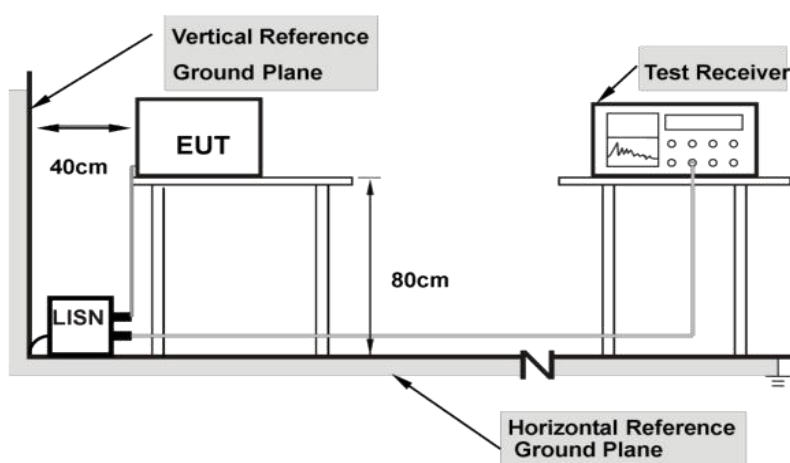
Note:(1)Emission Level=Reading-Pre-Amp.Gain+Antenna+Cable loss

(2)Margin=Level-limit

8.8. CONDUCTED EMISSION

Test Mode:	Transmitting mode with modulation		
Limit:			
	Frequency of Emission (MHz)	Conducted 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 Procedure:	For tabletop equipment, the EUT along with its peripherals were placed on a 1.0m(W)×1.5m(L) and 0.8m in height wooden table. The EUT was adjusted to maintain a 0.4 meter space from a vertical reference plane. The EUT was connected to power mains through a line impedance stabilization network (LISN), which provided 50 ohm coupling impedance for measuring instrument and the chassis ground was bounded to the horizontal ground plane of shielded room. The excess power cable between the EUT and the LISN was bundled.		
Test Result:	Pass		

8.8.1. Test Setup:



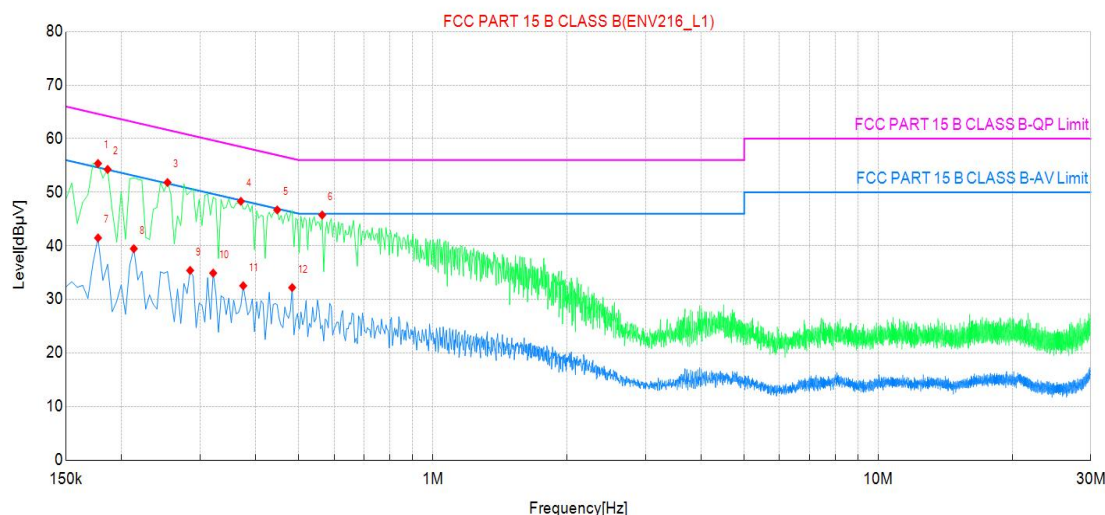
8.8.2. Test Result

Test Voltage	AC 120V/60Hz
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Worst-case: BLE 2M:2402MHz

Please refer to the following diagram:

Line:



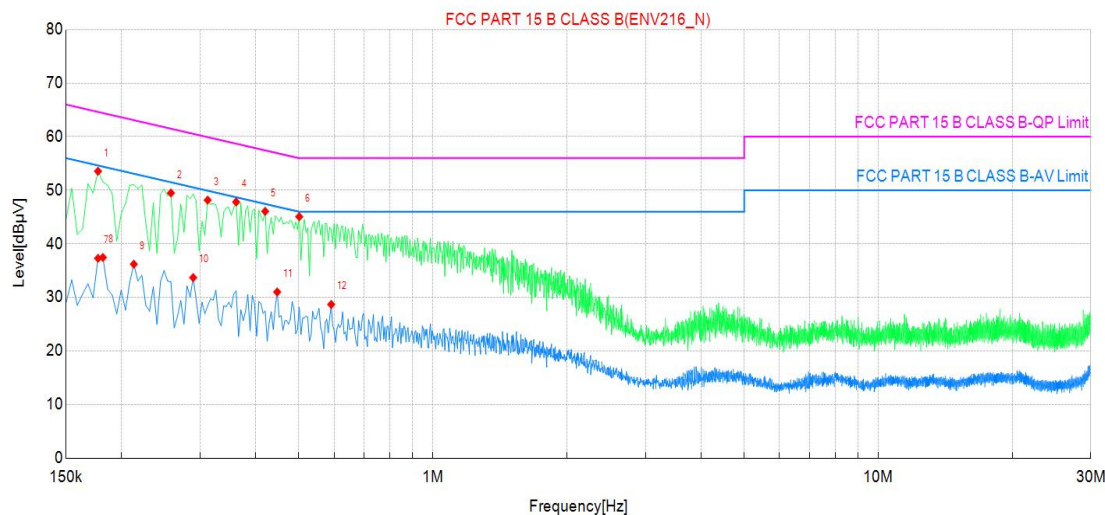
Suspected Data List

NO.	Frequency [MHz]	Reading [dBμV]	Level [dBμV]	Factor [dB]	Limit [dBμV]	Margin [dB]	Phase	Detector	Verdict
1	0.177000	36.13	55.37	19.24	64.63	9.26	L1	QP	PASS
2	0.186000	35.05	54.27	19.22	64.21	9.94	L1	QP	PASS
3	0.253500	32.66	51.83	19.17	61.64	9.81	L1	QP	PASS
4	0.370500	29.19	48.32	19.13	58.49	10.17	L1	QP	PASS
5	0.447000	27.59	46.70	19.11	56.93	10.23	L1	QP	PASS
6	0.564000	26.60	45.75	19.15	56.00	10.25	L1	QP	PASS
7	0.177000	22.24	41.48	19.24	54.63	13.15	L1	AV	PASS
8	0.213000	20.28	39.47	19.19	53.09	13.62	L1	AV	PASS
9	0.285000	16.24	35.40	19.16	50.67	15.27	L1	AV	PASS
10	0.321000	15.76	34.91	19.15	49.68	14.77	L1	AV	PASS
11	0.375000	13.42	32.55	19.13	48.39	15.84	L1	AV	PASS
12	0.483000	13.11	32.21	19.10	46.29	14.08	L1	AV	PASS

Note:(1)Level=Reading+Factor

(2)Margin=Limit-Level

Neutral:



Suspected Data List

NO.	Frequency [MHz]	Reading [dBμV]	Level [dBμV]	Factor [dB]	Limit [dBμV]	Margin [dB]	Phase	Detector	Verdict
1	0.177000	34.36	53.55	19.19	64.63	11.08	N	QP	PASS
2	0.258000	30.30	49.49	19.19	61.50	12.01	N	QP	PASS
3	0.312000	28.97	48.16	19.19	59.92	11.76	N	QP	PASS
4	0.361500	28.62	47.81	19.19	58.69	10.88	N	QP	PASS
5	0.420000	26.88	46.07	19.19	57.45	11.38	N	QP	PASS
6	0.501000	25.87	45.06	19.19	56.00	10.94	N	QP	PASS
7	0.177000	18.10	37.29	19.19	54.63	17.34	N	AV	PASS
8	0.181500	18.27	37.46	19.19	54.42	16.96	N	AV	PASS
9	0.213000	17.01	36.20	19.19	53.09	16.89	N	AV	PASS
10	0.289500	14.51	33.70	19.19	50.54	16.84	N	AV	PASS
11	0.447000	11.82	31.01	19.19	46.93	15.92	N	AV	PASS
12	0.591000	9.45	28.69	19.24	46.00	17.31	N	AV	PASS

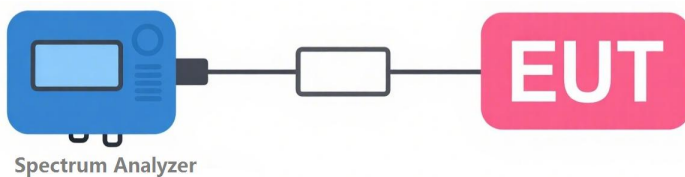
Note:(1)Level=Reading+Factor

(3)Margin=Limit-Level

8.9. DUTY CYCLE

Test Procedure:	The EUT shall have its hopping function enabled. Use the following spectrum analyzer settings: Span=0Hz Set the RBW =8MHz Set the VBW $\geq$ RBW Detector = Average. Sweep time = auto couple Trace mode = Clear write Use the marker-delta function to determine the Tx On and Tx off..
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8.9.1.Test Setup:



8.9.2.Test Result

Please refer to Appendix A:Test Results of Bluetooth BLE.

9. PHOTOGRAPHS OF EUT SET-UP

For photographs of the test set-up, refer to the appendix file.(Test Setup Photo)

10. PHOTOGRAPHS OF EUT

For photographs of the EUT, refer to the appendix file(EUT External Photos and EUT Internal Photos).

**** End of Report ****