FCC RADIO TEST REPORT

FCC ID:2ANVTEXD-101T

Product:	Wireless Voice Transmission Device
Trade Name:	N/A
Model Name:	EXD-101T
Serial Model:	EXD-6824R, EXD-6688R, EXD-696R, EXD-101R, EXD-C64, EXD-C32, EXD-CG32, EXD-C16
Report No.:	UNIA19121818ER-01

Prepared for

Shenzhen Qi Xin Chuang Zhan Technology Co., LTD

Rm 928, Bldg A, Fengtian Industrial Park, No.308, Qinhu Xuegang Bei Rd., Longhua, Shenzhen, China

Prepared by

Shenzhen United Testing Technology Co., Ltd.

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TEST RESULTCERTIFICATION

Applicant's name..... :	Shenzhen Qi Xin Chuang Zhan Technology Co., LTD
Address..... :	Rm 928, Bldg A, Fengtian Industrial Park, No.308, Qinhu Xuegang Bei Rd., Longhua, Shenzhen, China
Manufacture's Name..... :	Shenzhen Qi Xin Chuang Zhan Technology Co., LTD
Address..... :	Rm 928, Bldg A, Fengtian Industrial Park, No.308, Qinhu Xuegang Bei Rd., Longhua, Shenzhen, China
Product description	
Product name..... :	Wireless Voice Transmission Device
Trade Mark..... :	N/A
Model and/or type reference . :	EXD-101T, EXD-6824R, EXD-6688R, EXD-696R, EXD-101R, EXD-C64, EXD-C32, EXD-CG32, EXD-C16
Standards..... :	FCC Rules and Regulations Part 15 Subpart C Section 15.249, ANSI C63.10: 2013

This device described above has been tested by Shenzhen United Testing Technology Co., Ltd., and the test results show that the equipment under test (EUT) is in compliance with the FCC requirements. And it is applicable only to the tested sample identified in the report.

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Date of Test..... :	
Date (s) of performance of tests..... :	Dec. 18, 2019 ~ Jan. 15, 2020
Date of Issue..... :	Jan. 15, 2020
Test Result..... :	Pass

Prepared by: Bob Liao

Bob liao/Editor

Reviewer: Kahn Yang

Kahn yang/Supervisor

Approved & Authorized Signer: liuze

Liuze/Manager

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1. TEST SUMMARY

TEST PROCEDURES AND RESULTS

DESCRIPTION OF TEST	RESULT	STANGARD
CONDUCTED EMISSIONS TEST	COMPLIANT	FCC Part 15.207
RADIATED EMISSION TEST	COMPLIANT	FCC Part 15.209/15.249
BAND EDGE	COMPLIANT	FCC Part 15.249(d)
OCCUPIED BANDWIDTH MEASUREMENT	COMPLIANT	FCC Part 15.215
ANTENNA REQUIREMENT	COMPLIANT	FCC Part 15.203

TEST FACILITY

Test Firm : Shenzhen United Testing Technology Co., Ltd.

Address : 2F, Annex Bldg, Jiahuangyuan Tech Park, #365 Baotian 1 Rd, Tiegang Community, Xixiang Str, Bao'an District, Shenzhen, China

The testing quality ability of our laboratory meet with "Quality Law of People's Republic of China" Clause 19.The testing quality system of our laboratory meets with ISO/IEC-17025 requirements. This approval result is accepted by MRA of APLAC.

Our test facility is recognized, certified, or accredited by the following organizations:

A2LA Certificate Number: 4747.01

The EMC Laboratory has been accredited by A2LA, and in compliance with ISO/IEC 17025:2017 General Requirements for testing Laboratories.

FCC Registration Number: 674885

The EMC Laboratory has been registered and fully described in a report filed with the (FCC) Federal Communications commission.

IC Registration Number: 21947

The EMC Laboratory has been registered and fully described in a report filed with the (IC) Industry Canada.

MEASUREMENT UNCERTAINTY

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

2.1GENERAL DESCRIPTION OF EUT

Equipment	Wireless Voice Transmission Device
Trade Mark	N/A
Model Name	EXD-101T
Serial No.	EXD-6824R,EXD-6688R,EXD-696R,EXD-101R, EXD-C64, EXD-C32, EXD-CG32, EXD-C16
Model Difference	Model Difference: All the models of the Serial No. are the components of EXD-101T. Test sample model: EXD-101T.
FCC ID	2ANVTEXD-101T
Antenna Type	Internet Antenna
Antenna Gain	1dBi
Frequency Range	2409~2475MHz
Number of Channels	34CH
Modulation Type	GFSK
Battery	3.7V 1350mAh
PowerSource	AC 100-240V~50/60Hz

2.2 Carrier Frequency of Channels

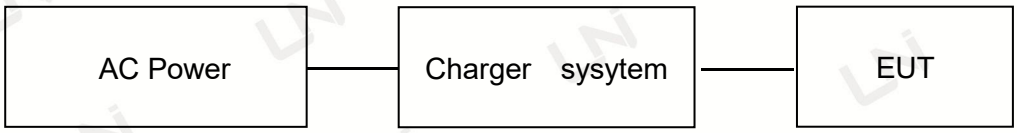
Channel List							
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
01	2409	10	2427	19	2445	27	2461
02	2411	11	2429	20	2447	28	2463
03	2413	12	2431	21	2449	29	2465
04	2415	13	2433	22	2451	30	2467
05	2417	14	2435	23	2453	31	2469
06	2419	15	2437	24	2455	32	2471
07	2421	16	2439	25	2457	33	2473
08	2423	17	2441	26	2459	34	2475
09	2425	18	2443				

2.3 Operation of EUT during testing

Operating Mode
The mode is used: Transmitting mode
Low Channel: 2409MHz
Middle Channel: 2443MHz
High Channel: 2475MHz

2.4 DESCRIPTION OF TEST SETUP

Operation of EUT during Conducted testing:



Operation of EUT duringRadiation testing:

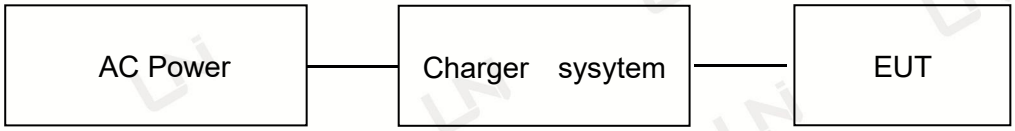


Table forauxiliary equipment:

Equipment Description	Manufacturer	Model	Calibration Due Date
Charger sysytem	Anders	ATG-C17	N/A
Receiver	Anders	680R	N/A
Receiver	Anders	681R	N/A
Receiver	Anders	688R	N/A
Receiver	Anders	101R	N/A

2.5 MEASUREMENT INSTRUMENTS LIST

Item	Equipment	Manufacturer	Model No.	Serial No.	Calibrated until
Conduction Emissions Measurement					
1	Conducted Emission Test Software	EZ-EMC	Ver.CCS-3A1-CE	N/A	N/A
2	AMN	Schwarzbeck	NNLK8121	8121370	2020.10.15
3	AMN	ETS	3810/2	00020199	2020.10.15
4	AAN	TESEQ	T8-Cat6	38888	2020.10.15
5	Pulse Limiter	CYBRTEK	EM5010	E115010056	2020.05.26
6	EMI Test Receiver	Rohde&Schwarz	ESCI	101210	2020.10.15
Radiated Emissions Measurement					
1	Radiated Emission Test Software	EZ-EMC	Ver.CCS-03A1	N/A	N/A
2	Horn Antenna	Sunol	DRH-118	A101415	2020.10.18
3	Broadband Hybrid Antenna	Sunol	JB1	A090215	2020.11.15
4	PREAMP	HP	8449B	3008A00160	2020.10.21
5	PREAMP	HP	8447D	2944A07999	2020.05.26
6	EMI Test Receiver	Rohde&Schwarz	ESR3	101891	2020.10.15
7	MXA Signal Analyzer	Keysight	N9020A	MY51110104	2020.10.15
8	Active Loop Antenna	Com-Power	AL-310R	10160009	2020.05.28
9	Horn Antenna	Schwarzbeck	BBHA9120D	9120D-1680	2020.05.28
10	Horn Antenna	A-INFOMW	LB-180400-KF	J211060660	2020.10.23
11	Loop Antenna	Beijing daze Technology	ZN30401	13015	2020.10.15
12	EM Clamp	Schwarzbeck	MDS21	03350	2020.10.20

3. CONDUCTED EMISSIONS TEST

3.1 Conducted Power Line Emission Limit

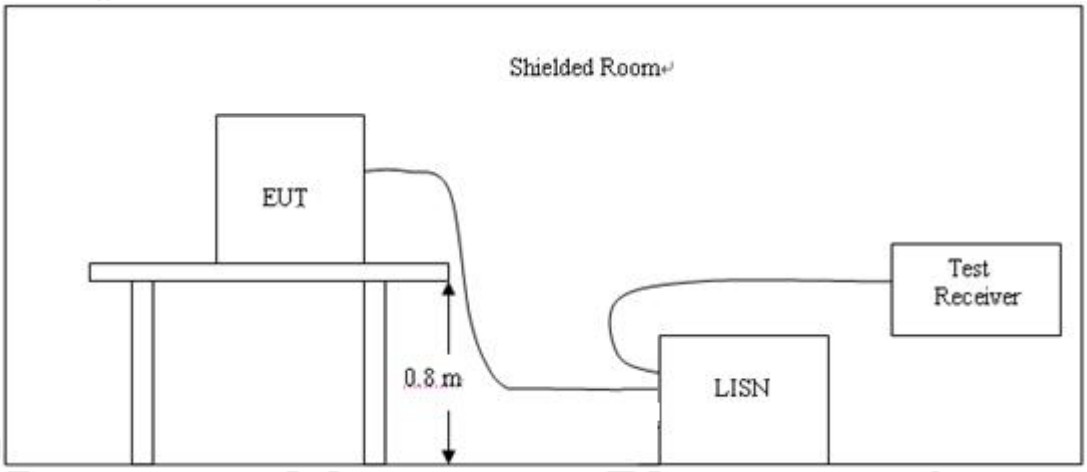
For unintentional device, according to § 15.107(a) Line Conducted Emission Limits is as following

Frequency (MHz)	Maximum RF Line Voltage(dBμV)			
	CLASS A		CLASS B	
	Q.P.	Ave.	Q.P.	Ave.
0.15~0.50	79	66	66~56*	56~46*
0.50~5.00	73	60	56	46
5.00~30.0	73	60	60	50

* Decreasing linearly with the logarithm of the frequency

For intentional device, according to §15.207(a) Line Conducted Emission Limit is same as above table.

3.2 Test Setup



3.3 Test Procedure

1,The equipment was set up as per the test configuration to simulate typical actual usage per the user'smanual. The EUT is a tabletop system, a wooden table with a height of 0.8 meters is used and is placed onthe ground plane as per ANSI C63.10.

2, Support equipment, if needed, was placed as per ANSI C63.10.

3, All I/O cables were positioned to simulate typical actual usage as per ANSI C63.10.

4,If a EUT received DC power from the USB Port of Notebook PC, the PC's adapter received AC120V/60Hzpower through a Line Impedance Stabilization Network (LISN) which supplied power source and wasgrounded 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 EUTusing a spectrum Analyzer / Receiver connected to the LISN powering the EUT. The LISN has twomonitoring points: Line 1 (Hot Side) and Line 2 (Neutral Side). Two scans were taken: one with Line 1connected to Analyzer / Receiver and Line 2 connected to a 50 ohm load; the second scan had Line 1connected 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.

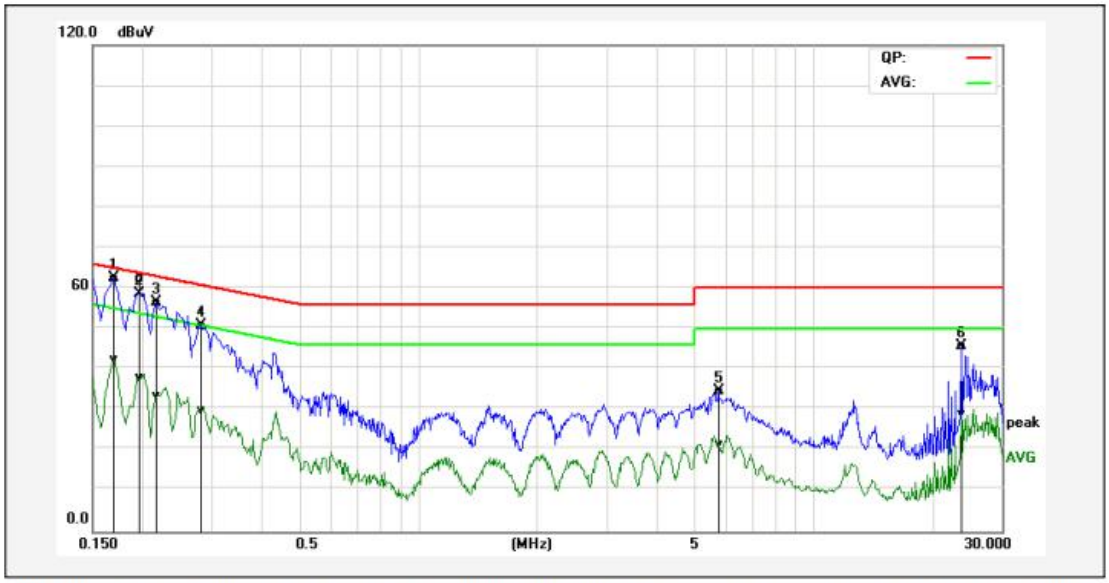
3.4 Test Result

Pass

Remark:

1. All modes were tested at AC 120V and 240V, only the worst result of AC 120V was reported.
2. The prototype has two power supply modes and tested all modes of the low, medium and high channels. The report only reflects a set of worst results as follows:

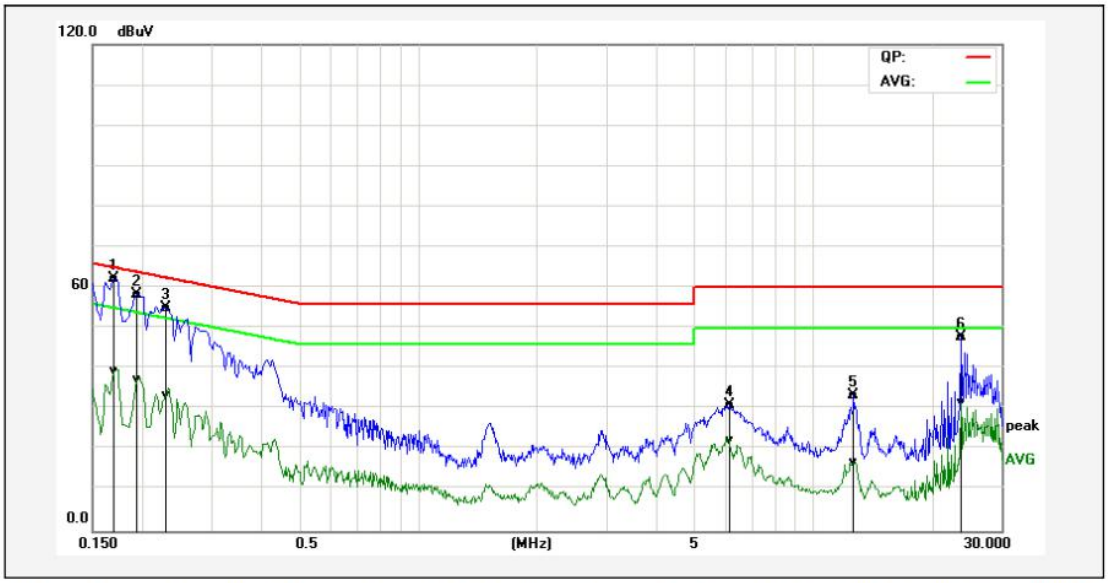
Temperature:	24℃	Relative Humidity:	45%
Test Date:	Dec. 28, 2019	Pressure:	1010hPa
Test Voltage:	AC 120V, 60Hz	Phase:	Line
Test Mode:	Transmitting mode of GFSK 2475MHz		



No.	Frequency (MHz)	QuasiPeak reading (dBuV)	Average reading (dBuV)	Correction factor (dB)	QuasiPeak result (dBuV)	Average result (dBuV)	QuasiPeak limit (dBuV)	Average limit (dBuV)	QuasiPeak margin (dB)	Average margin (dB)	Remark
1P	0.1700	53.05	32.88	9.57	62.62	42.45	64.96	54.96	-2.34	-12.51	Pass
2*	0.1986	52.72	28.28	9.62	62.34	37.90	63.66	53.67	-1.32	-15.77	Pass
3P	0.2180	46.90	23.76	9.65	56.55	33.41	62.89	52.89	-6.34	-19.48	Pass
4P	0.2819	41.18	20.04	9.67	50.85	29.71	60.76	50.76	-9.91	-21.05	Pass
5P	5.7700	24.85	11.49	9.87	34.72	21.36	60.00	50.00	-25.28	-28.64	Pass
6P	23.7420	45.29	28.40	0.60	45.89	29.00	60.00	50.00	-14.11	-21.00	Pass

Remark: Factor = Insertion Loss + Cable Loss, Result=Reading + Factor, Margin=Result – Limit.

Temperature:	24℃	Relative Humidity:	45%
Test Date:	Dec. 28, 2019	Pressure:	1010hPa
Test Voltage:	AC 120V, 60Hz	Phase:	Neutral
Test Mode:	Transmitting mode of GFSK 2475MHz		



No.	Frequency (MHz)	QuasiPeak reading (dBuV)	Average reading (dBuV)	Correction factor (dB)	QuasiPeak result (dBuV)	Average result (dBuV)	QuasiPeak limit (dBuV)	Average limit (dBuV)	QuasiPeak margin (dB)	Average margin (dB)	Remark
1*	0.1700	52.64	29.90	9.57	62.21	39.47	64.96	54.96	-2.75	-15.49	Pass
2P	0.1940	48.80	27.86	9.61	58.41	37.47	63.86	53.86	-5.45	-16.39	Pass
3P	0.2300	45.54	23.88	9.65	55.19	33.53	62.45	52.45	-7.26	-18.92	Pass
4P	6.1260	21.28	12.47	9.83	31.11	22.30	60.00	50.00	-28.89	-27.70	Pass
5P	12.6780	33.14	16.65	0.23	33.37	16.88	60.00	50.00	-26.63	-33.12	Pass
6P	23.7380	47.12	30.96	0.60	47.72	31.56	60.00	50.00	-12.28	-18.44	Pass

Remark: Factor = Insertion Loss + Cable Loss, Result=Reading + Factor, Margin=Result – Limit.

4 RADIATED EMISSION TEST

4.1 Radiation Limit

For unintentional device, according to § 15.109(a), except for Class A digital devices, the field strength ofradiated emissions from unintentional radiators at a distance of 3 meters shall not exceed the followingvalues：

Limit calculation and transfer to 3m distance as showed in the following table:

Frequency (MHz)	Limit (dBuV/m)	Distance (m)
0.009-0.490	20log(2400/F(KHz))+40log(300/3)	3
0.490-1.705	20log(24000/F(KHz))+40log(30/3)	3
1.705-30.0	69.5	3
30-88	40.0	3
88-216	43.5	3
216-960	46.0	3
Above 960	54.0	3

For intentional device, according to § 15.209(a), the general requirement of field strength of radiatedemissions from intentional radiators at a distance of 3 meters shall not exceed the above table.

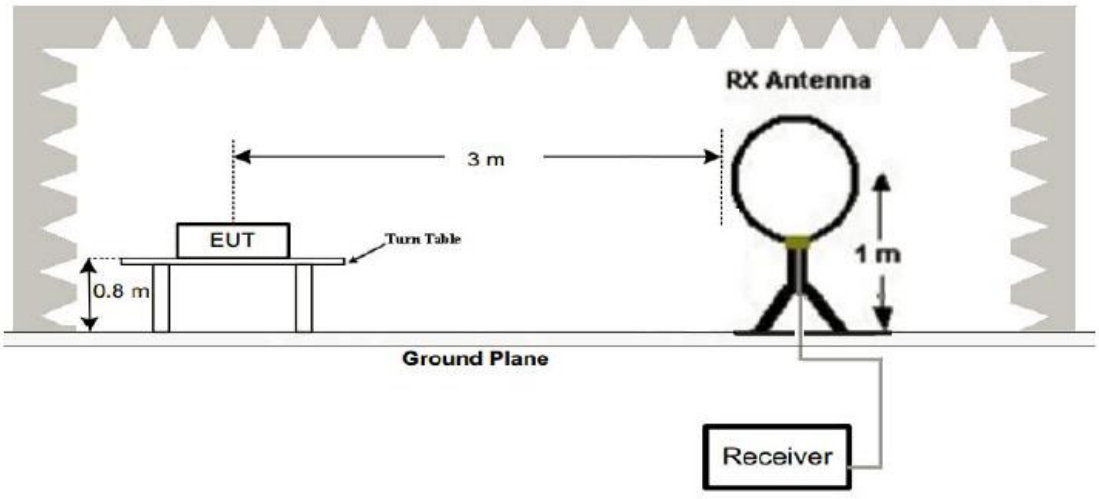
(a) Except as provided in paragraph (b) of this section, the field strength of emissions from intentional radiators operated within these frequency bands shall comply with the following:

Fundamental frequency	Field strength of fundamental (millivolts/meter)	Field strength of harmonics (microvolts/meter)
902-928 MHz	50	500
2400-2483.5 MHz	50	500
5725-5875 MHz	50	500
24.0-24.25 GHz	250	2500

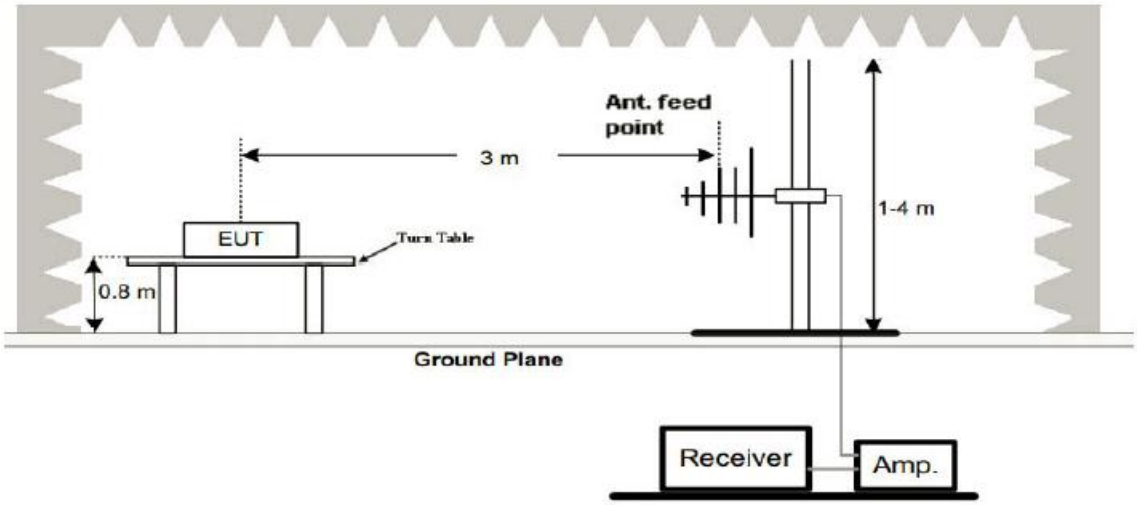
For intentionally used equipment, the general requirements for the magnetic field strength limits of the fundamental and harmonic radiation from the intentional radiator at a distance of 3 meters shall not exceed the above table, as specified in § 15.249(a).

4.2 Test Setup

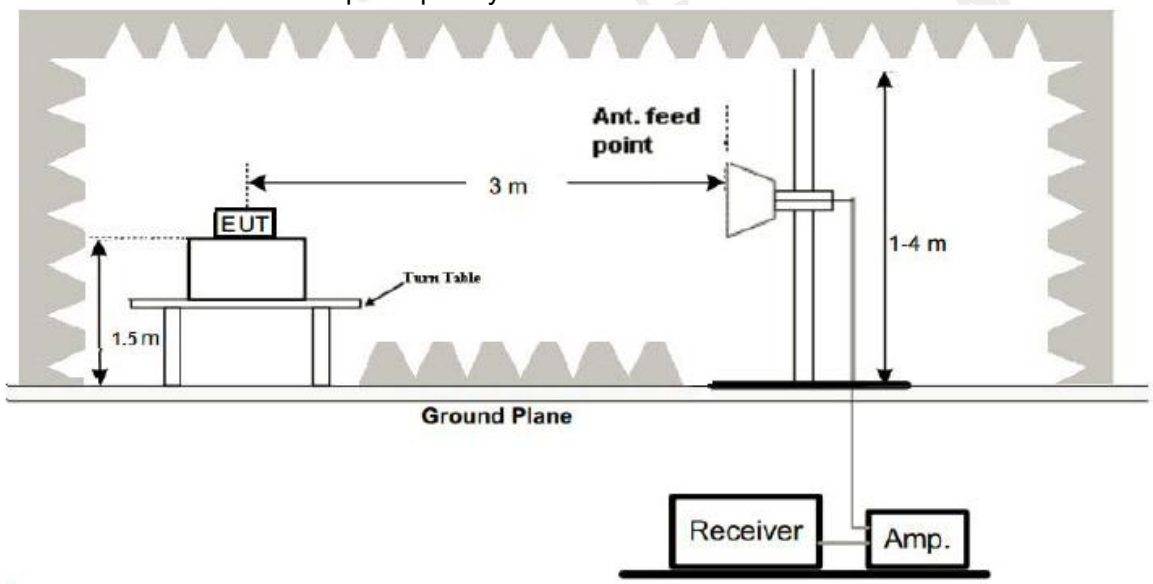
1. Radiated Emission Test-Up Frequency Below 30MHz



2. Radiated Emission Test-Up Frequency 30MHz~1GHz



3. Radiated Emission Test-Up Frequency Above 1GHz



4.3 Test Procedure

1. Below 1GHz measurement the EUT is placed on turntable which is 0.8m above ground plane. And above 1GHz measurement EUT was placed on low permittivity and low tangent turn table which is 1.5m above ground plane.
2. The turntable shall be rotated for 360 degrees to determine the position of maximum emission level.
3. EUT is set 3m away from the receiving antenna, which is varied from 1m to 4m to find out the highestemissions.
4. Maximum procedure was performed on the six highest emissions to ensure EUT compliance.
5. And also, each emission was to be maximized by changing the polarization of receiving antenna bothhorizontal and vertical.
6. Repeat above procedures until the measurements for all frequencies are complete.
7. The test frequency range from 9KHz to25GHz per FCC PART 15.33(a).

Note:
For battery operated equipment, the equipment tests shall be performed using a new battery.

4.4 Test Result

PASS

Remark:

1. All the test modes completed for test. The worst case of Radiated Emissionis High channel, the test data of this mode was reported.
2. By preliminary testing and verifying three axis (X, Y and Z) position of EUT transmitted status, it was found that “Z axis” position was the worst, and test data recorded in this report.
3. Radiated emission test from 9KHz to 10th harmonic of fundamental was verified, and no emission found except system noise floor in 9KHz to 30MHz and not recorded in this report.

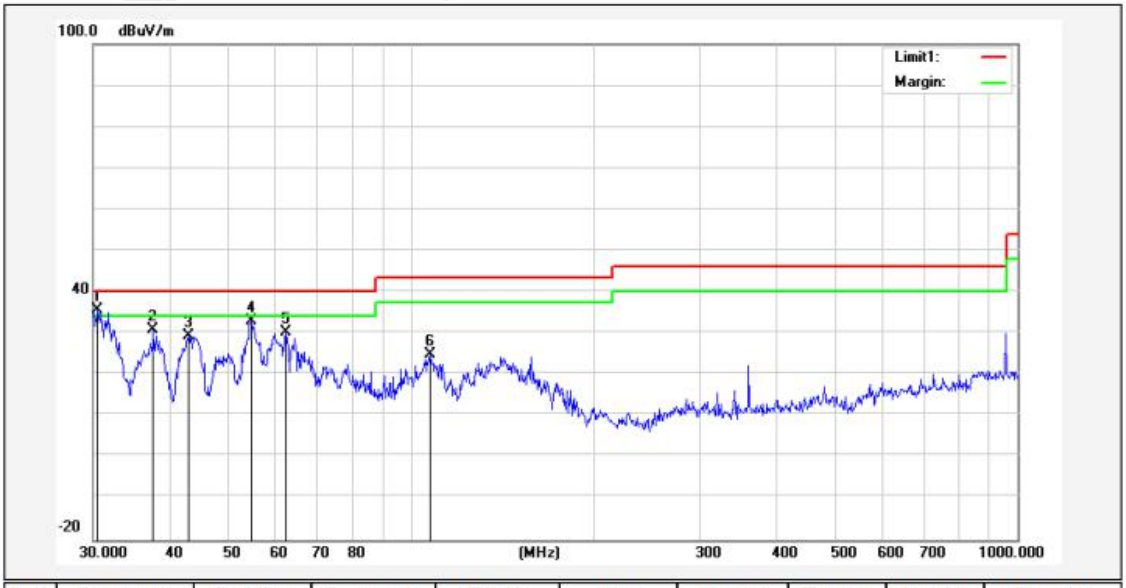
Below 1GHz Test Results:

Temperature:	24℃	Relative Humidity:	45%
Test Date:	Dec. 28, 2019	Pressure:	1010hPa
Test Voltage:	AC 120V, 60Hz	Polarization:	Horizontal
Test Mode:	Transmitting mode of GFSK 2475MHz		

No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (deg.)	Height (cm)	Remark
1	30.8535	37.00	-7.82	29.18	40.00	-10.82	150	100	peak
2	54.4516	46.09	-21.12	24.97	40.00	-15.03	30	100	peak
3	71.8320	45.49	-21.30	24.19	40.00	-15.81	330	100	peak
4	119.8556	43.98	-16.71	27.27	43.50	-16.23	170	100	peak
5*	139.8508	50.01	-16.50	33.51	43.50	-9.99	360	100	peak
6	204.2377	45.88	-17.32	28.56	43.50	-14.94	300	100	peak

Remark: Absolute Level= Reading Level+ Factor, Margin= Absolute Level – Limit
Factor=Ant. Factor + Cable Loss – Pre-amplifier

Temperature:	24℃	Relative Humidity:	45%
Test Date:	Dec. 28, 2019	Pressure:	1010hPa
Test Voltage:	AC 120V, 60Hz	Polarization:	Vertical
Test Mode:	Transmitting mode of GFSK 2475MHz		



No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (deg.)	Height (cm)	Remark
1*	30.5306	43.33	-7.56	35.77	40.00	-4.23	60	100	peak
2	37.6798	43.88	-13.05	30.83	40.00	-9.17	150	100	peak
3	43.0505	46.25	-16.98	29.27	40.00	-10.73	120	100	peak
4	54.6429	54.12	-21.14	32.98	40.00	-7.02	300	100	peak
5	62.2128	51.79	-21.65	30.14	40.00	-9.86	270	100	peak
6	107.5101	42.44	-17.60	24.84	43.50	-18.66	150	100	peak

Remark: Absolute Level= Reading Level+ Factor, Margin= Absolute Level – Limit
Factor=Ant. Factor + Cable Loss – Pre-amplifier

Remark：
(1) Measuring frequencies from 9 KHz to the 1 GHz, Radiated emission test from 9KHz to 30MHzwas verified, and no any emission was found except system noise floor.
(2) * denotes emission frequency which appearing within the Restricted Bands specified in provision of 15.205, then the general radiated emission limits in 15.209 apply.
(3) The IF bandwidth of EMI Test Receiver between 30MHz to 1GHz was 120KHz, 1 MHz for measuring above 1 GHz, below 30MHz was 10KHz.

Above 1 GHz Test Results:
CH Low (2409MHz)

Horizontal:

Frequency (MHz)	Reading Result (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
2409	107.34	-5.84	101.50	114	-12.50	PK
2409	79.65	-5.84	73.81	94	-20.19	AV
4818	60.59	-3.64	56.95	74	-17.05	PK
4818	50.43	-3.64	46.79	54	-7.21	AV
7227	57.21	-0.95	56.26	74	-17.74	PK
7227	46.37	-0.95	45.42	54	-8.58	AV
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier. Margin= Absolute Level – Limit						

Vertical:

Frequency (MHz)	Reading Result (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
2409	108.42	-5.84	102.58	114	-11.42	PK
2409	80.61	-5.84	74.77	94	-19.23	AV
4818	61.34	-3.64	57.70	74	-16.30	PK
4818	50.72	-3.64	47.08	54	-6.92	AV
7227	57.61	-0.95	56.66	74	-17.34	PK
7227	47.59	-0.95	46.64	54	-7.36	AV
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier. Margin= Absolute Level – Limit						

Note:For fundamental frequency，RBW and VBW set to be 1.5MHz，PK detector for PK value， RMS detector for AV value

CH Middle (2443MHz)

Horizontal:

Frequency (MHz)	Reading Result (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
2443	108.03	-5.71	102.32	114	-11.68	PK
2443	80.34	-5.71	74.63	94	-19.37	AV
4886	61.28	-3.51	57.77	74	-16.23	PK
4886	48.67	-3.51	45.16	54	-8.84	AV
7329	56.39	-0.82	55.57	74	-18.43	PK
7329	47.06	-0.82	46.24	54	-7.76	AV
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier. Margin = Absolute Level – Limit						

Vertical:

Frequency (MHz)	Reading Result (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
2443	108.24	-5.71	102.53	114	-11.47	PK
2443	80.31	-5.71	74.60	94	-19.40	AV
4886	61.57	-3.51	58.06	74	-15.94	PK
4886	50.39	-3.51	46.88	54	-7.12	AV
7329	55.94	-0.82	55.12	74	-18.88	PK
7329	46.81	-0.82	45.99	54	-8.01	AV
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier. Margin= Absolute Level – Limit						

Note:For fundamental frequency，RBW and VBW set to be 1.5MHz，PK detector for PK value， RMS detector for AV value

CH High (2475MHz)

Horizontal:

Frequency (MHz)	Reading Result (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
2475	107.69	-5.65	102.04	114	-11.96	PK
2475	79.52	-5.65	73.87	94	-20.13	AV
4950	61.38	-3.43	57.95	74	-16.05	PK
4950	47.82	-3.43	44.39	54	-9.61	AV
7425	56.83	-0.75	56.08	74	-17.92	PK
7425	46.51	-0.75	45.76	54	-8.24	AV
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier. Margin= Absolute Level – Limit						

Vertical:

Frequency (MHz)	Reading Result (dBμV)	Factor (dB)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector Type
2475	107.59	-5.65	101.94	114	-12.06	PK
2475	79.22	-5.65	73.57	94	-20.43	AV
4950	62.54	-3.43	59.11	74	-14.89	PK
4950	47.95	-3.43	44.52	54	-9.48	AV
7425	55.81	-0.75	55.06	74	-18.94	PK
7425	46.37	-0.75	45.62	54	-8.38	AV
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier. Margin= Absolute Level – Limit						

Note:For fundamental frequency，RBW and VBW set to be 1.5MHz，PK detector for PK value， RMS detector for AV value

Remark：
(1) Measuring frequencies from 1 GHz to the 25 GHz.
(2) “F” denotes fundamental frequency; “H” denotes spurious frequency. “E” denotes band edge frequency.
(3) * denotes emission frequency which appearing within the Restricted Bands specified in provision of 15.205, then the general radiated emission limits in 15.209 apply.
(4) Data of measurement within this frequency range ,that the value more than 20dB below limit is not record in the form.
(5) The IF bandwidth of EMI Test Receiver between 30MHz to 1GHz was 120KHz, 1 MHz for measuring above 1 GHz, below 30MHz was 10KHz.The resolution bandwidth of test receiver/spectrum analyzer is 1MHzand video bandwidth is 3MHz for peak measurement with peak detectorat frequency above 1GHz.The resolution bandwidth of test receiver/spectrum analyzer is 1MHzand video bandwidth is 10Hz for Average measurement with peak detection at frequency above 1GHz.
(6) When the test results of Peak Detected below the limits of Average Detected, the Average Detected is not need completed. For example: Top Channel at Fundamental 73.16dBuV/m(PK Value) <93.98(AV Limit), at harmonic 53.20 dBuV/m(PK Value) <54 dBuV/m(AV Limit), the Average Detected not need to completed.
(7)All modes of operation were investigated and the worst-case emissionsare reported.

5 BAND EDGE

5.1 Limits

FCC PART 15.249(d) Emissions radiated outside of the specified frequency bands, except for harmonics,shall be attenuated by at least 50 dB below the level of the fundamental or to the general radiated emissionlimits in §15.209, whichever is the lesser attenuation.

5.2 Test Procedure

The band edge compliance of RF radiated emission should be measured by following the guidance in ANSIC63.10 with respect to maximizing the emission by rotating the EUT, measuring the emission while the EUT issituated in three orthogonal planes (if appropriate), adjusting the measurement antenna height andpolarization etc. Set RBW to 100KHz and VBM to 300KHz to measure the peak field strength and setRBW to 1MHz and VBW to 10Hz to measure the average radiated field strength.The conducted RF band edge was measured by using a spectrum analyzer. Set span wide enough to capture the highest in-band emission and the emission at the band edge. Set RBW to 100 KHz and VBW to 300 KHz,to measure the conducted peak band edge.

5.3 Test Result

PASS

Radiated Band Edge Test:

Operation Mode: TX CH Low (2402MHz)

Horizontal:

Frequency	Reading Result	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
2310	53.47	-5.81	47.66	74	-26.34	PK
2310	/	-5.81	/	54	/	AV
2390	55.69	-5.84	49.85	74	-24.15	PK
2390	/	-5.84	/	54	/	AV
2400	57.81	-5.84	51.97	74	-22.03	PK
2400	/	-5.84	/	54	/	AV
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

Vertical:

Frequency	Reading Result	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
2310	53.67	-5.81	47.86	74	-26.14	PK
2310	/	-5.81	/	54	/	AV
2390	56.24	-5.84	50.40	74	-23.60	PK
2390	/	-5.84	/	54	/	AV
2400	57.69	-5.84	51.85	74	-22.15	PK
2400	/	-5.84	/	54	/	AV
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

Operation Mode: TX CH High (2480MHz)

Horizontal:

Frequency	Reading Result	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
2483.5	57.61	-5.65	51.96	74	-22.04	PK
2483.5	/	-5.65	/	54	/	AV
2500	55.39	-5.72	49.67	74	-24.33	PK
2500	/	-5.72	/	54	/	AV
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

Vertical:

Frequency	Reading Result	Factor	Emission Level	Limits	Margin	Detector Type
(MHz)	(dBμV)	(dB)	(dBμV/m)	(dBμV/m)	(dB)	
2483.5	57.49	-5.65	51.84	74	-22.16	PK
2483.5	/	-5.65	/	54	/	AV
2500	55.21	-5.72	49.49	74	-24.51	PK
2500	/	-5.72	/	54	/	AV
Remark: Factor = Antenna Factor + Cable Loss – Pre-amplifier.						

6 OCCUPIED BANDWIDTH MEASUREMENT

6.1 Test Setup

Same asRadiated Emission Measurement

6.2 Test Procedure

1. The EUT was placed on a turn table which is 0.8m above ground plane.
2. Set EUT as normal operation.
3. Based on ANSI C63.10 section 6.9.2: RBW=30KHz. VBW=100KHz, Span=5MHz.
4. The useful radiated emission from the EUT was detected by the spectrum analyzer with peak detector.

6.3 Measurement Equipment Used

Same asRadiated Emission Measurement

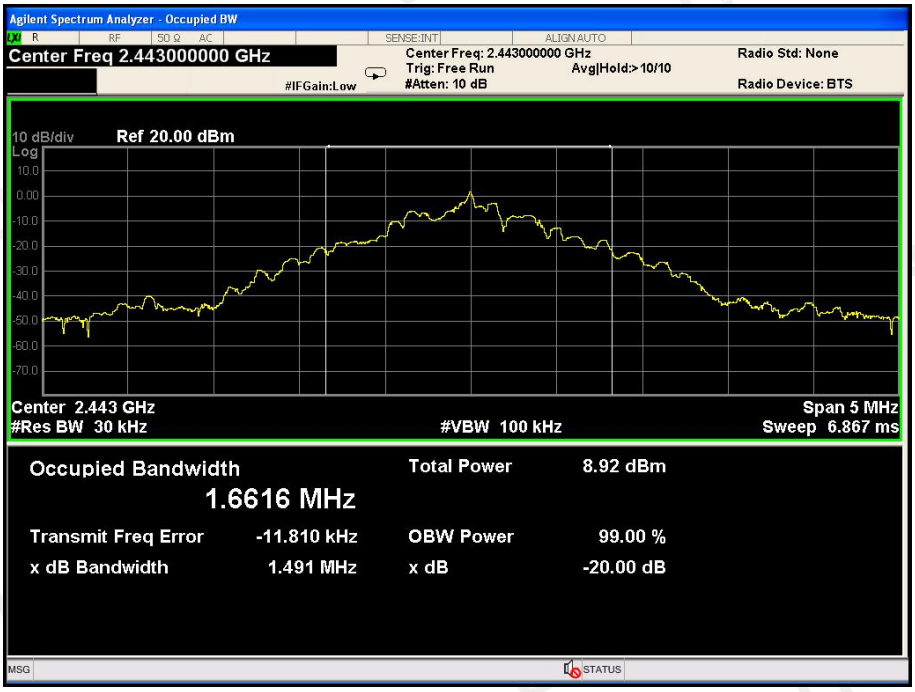
6.4 Test Result

PASS

Frequency (MHz)	20dB Bandwidth (MHz)	Result
2409	1.557	PASS
2443	1.491	PASS
2475	1.589	PASS

CH:2409MHz

CH:2443MHz



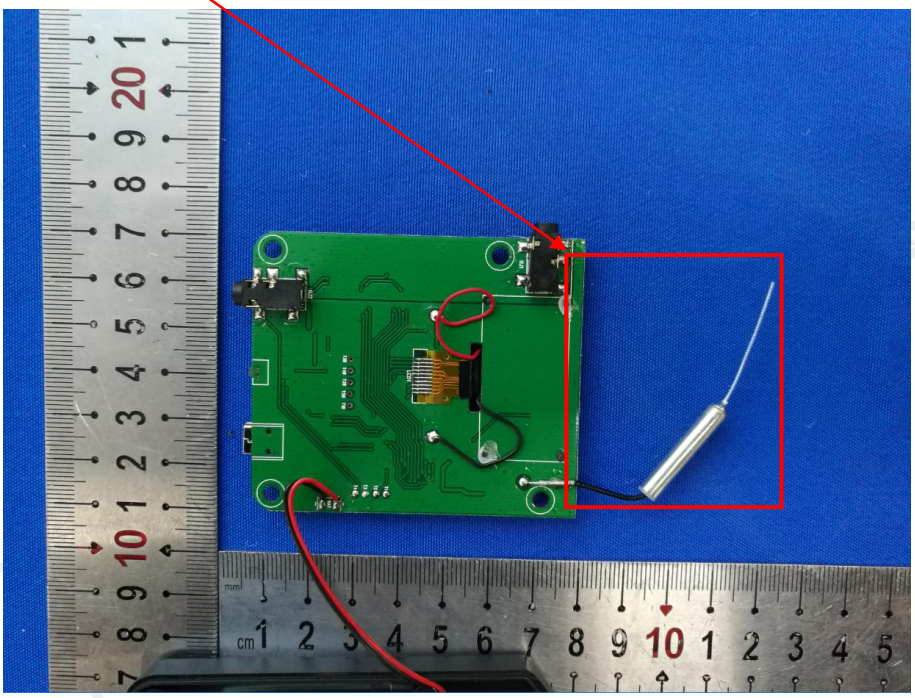
CH:2475MHz

7 ANTENNA REQUIREMENT

Standard Applicable:
For intentional device, according to FCC 47 CFR Section 15.203, an intentional radiator shall be designed toensure that no antenna other than that furnished by the responsible party shall be used with the device.

Antenna Connected Construction
The antenna used in this product is a Internet Antenna, The directional gains of antenna used for transmitting is 1dBi.

ANTENNA:



8 PHOTOGRAPH OF TEST

8.1Radiated Emission

8.2Conducted Emission

End of Report