

APPLICATION CERTIFICATION FCC Part 15C
On Behalf of

Zylux Acoustic Corporation

Bluetooth Headphone
Model No.: BeActiv E300

FCC ID: XN6-BUE300

Prepared for : Zylux Acoustic Corporation
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Report No. : ATE20172055
Date of Test : October 17-October 21, 2017
Date of Report : October 23, 2017

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Test Report Certification

Applicant : Zylux Acoustic Corporation
Manufacturer : Zylux Acoustic Corporation
Factory : Zhao Yang Electronic (Shenzhen) Co., Ltd
EUT Description : Bluetooth Headphone
Model No. : BeActiv E300
Trade Name : 

Measurement Procedure Used:

**FCC Rules and Regulations Part 15 Subpart C Section 15.247: 2017
ANSI C63.10: 2013**

The EUT was tested according to DTS test procedure of Apr 05, 2017 KDB558074 D01 DTS Meas Guidance v04 for compliance to FCC 47CFR 15.247 requirements

The device described above is tested by Shenzhen Accurate Technology Co., Ltd. to determine the maximum emission levels emanating from the device. The maximum emission levels are compared to the FCC Part 15 Subpart C Section 15.247 limits. The measurement results are contained in this test report and Shenzhen Accurate Technology Co., Ltd. is assumed full responsibility for the accuracy and completeness of these measurements. Also, this report shows that the Equipment Under Test (EUT) is to be technically compliant with the FCC requirements.

This report applies to above tested sample only. This report shall not be reproduced in part without written approval of Shenzhen Accurate Technology Co., Ltd.

Date of Test :

October 17-October 21, 2017

Date of Report :

October 23, 2017

Prepared by :


(Steve Yang, Engineer)



Approved & Authorized Signer :

(Sean Liu, Manager)

1. GENERAL INFORMATION

1.1. Description of Device (EUT)

EUT : Bluetooth Headphone
Model Number : BeActiv E300
Bluetooth version : BT 4.1 LE
Frequency Range : 2402MHz-2480MHz
Number of Channels : 40
Antenna Gain : 0 dBi
Antenna type : Chip antenna
Power Supply : DC 3.7V (Powered by battery) or DC 5V (Powered by USB port)
Modulation mode : GFSK
Applicant : Zylux Acoustic Corporation
Address : 3F, 22, Lane 35, Jihu Road, Taipei Neihu Technology Park, Taipei 114, Taiwan
Manufacturer : Zylux Acoustic Corporation
Address : 3F, 22, Lane 35, Jihu Road, Taipei Neihu Technology Park, Taipei 114, Taiwan
Factory : Zhao Yang Electronic (Shenzhen) Co., Ltd
Address : Building 2, De Yong Jia Industrial Park, Guang Qiao Road, Yu Lv Community, Gong Ming Street, Guang Ming New District, Shenzhen, 518132, P.R. China

1.2. Carrier Frequency of Channels

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

1.3.Special Accessory and Auxiliary Equipment

AC/DC Power Adapter: (provided by laboratory)	:	Model:TEKA006-0501500UKU
		Input: 100-240V~50/60Hz 0.3A
		Output: DC 5V/1A
PC (provided by laboratory)	:	Manufacturer: LENOVO
		M/N: 4290-RT8
		S/N: R9-FW93G 11/08

1.4.Description of Test Facility

EMC Lab : Recognition of accreditation by Federal Communications Commission (FCC)
The Designation Number is CN1189
The Registration Number is 708358

Listed by Innovation, Science and Economic Development Canada (ISED)
The Registration Number is 5077A-2

Accredited by China National Accreditation Service for Conformity Assessment (CNAS)
The Registration Number is CNAS L3193

Accredited by American Association for Laboratory Accreditation (A2LA)
The Certificate Number is 4297.01

Name of Firm : Shenzhen Accurate Technology Co., Ltd.
Site Location : 1/F., Building A, Changyuan New Material Port, Science & Industry Park, Nanshan District, Shenzhen, Guangdong, P.R. China

1.5.Measurement Uncertainty

Conducted Emission Expanded Uncertainty = 2.23dB, k=2

Radiated emission expanded uncertainty = 3.08dB, k=2
(9kHz-30MHz)

Radiated emission expanded uncertainty = 4.42dB, k=2
(30MHz-1000MHz)

Radiated emission expanded uncertainty = 4.06dB, k=2
(Above 1GHz)

2. MEASURING DEVICE AND TEST EQUIPMENT

Table 1: List of Test and Measurement Equipment

Kind of equipment	Manufacturer	Type	S/N	Calibrated dates	Calibrated until
EMI Test Receiver	Rohde&Schwarz	ESCS30	100307	Jan. 07, 2017	1 Year
EMI Test Receiver	Rohde&Schwarz	ESPI3	101526/003	Jan. 07, 2017	1 Year
Spectrum Analyzer	Agilent	E7405A	MY45115511	Jan. 07, 2017	1 Year
Pre-Amplifier	Rohde&Schwarz	CBLU118354 0-01	3791	Jan. 07, 2017	1 Year
Loop Antenna	Schwarzbeck	FMZB1516	1516131	Jan. 13, 2017	1 Year
Bilog Antenna	Schwarzbeck	VULB9163	9163-323	Jan. 13, 2017	1 Year
Horn Antenna	Schwarzbeck	BBHA9120D	9120D-655	Jan. 13, 2017	1 Year
Horn Antenna	Schwarzbeck	BBHA9170	9170-359	Jan. 13, 2017	1 Year
LISN	Rohde&Schwarz	ESH3-Z5	100305	Jan. 07, 2017	1 Year
LISN	Schwarzbeck	NSLK8126	8126431	Jan. 07, 2017	1 Year
Highpass Filter	Wainwright Instruments	WHKX3.6/18 G-10SS	N/A	Jan. 07, 2017	1 Year
Band Reject Filter	Wainwright Instruments	WRCG2400/2 485-2375/2510 -60/11SS	N/A	Jan. 07, 2017	1 Year

3. OPERATION OF EUT DURING TESTING

3.1.Operating Mode

The mode is used: **BLE Transmitting mode**

Low Channel: 2402MHz

Middle Channel: 2440MHz

High Channel: 2480MHz

3.2.Configuration and peripherals

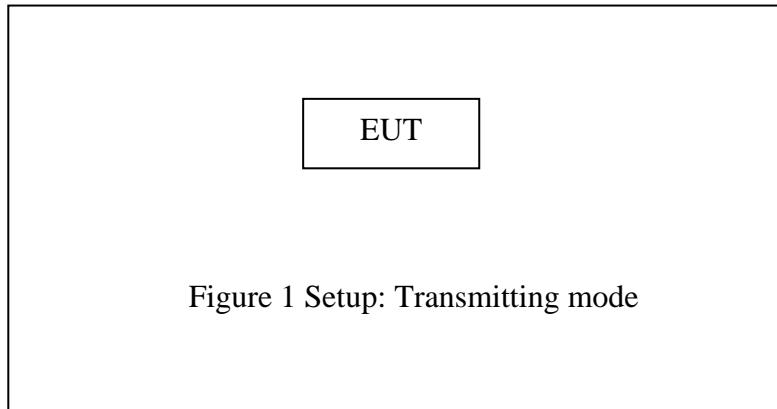


Figure 1 Setup: Transmitting mode

4. TEST PROCEDURES AND RESULTS

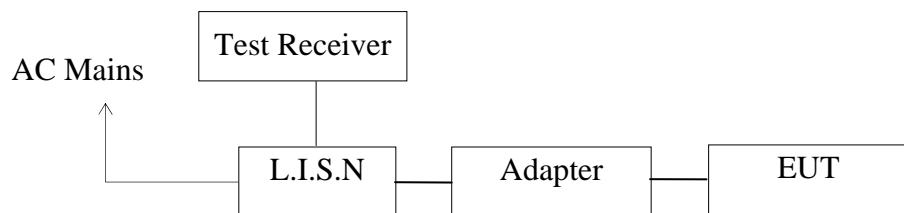
FCC Rules	Description of Test	Result
Section 15.247(a)(2)	6dB Bandwidth Test	Compliant
Section 15.247(e)	Power Spectral Density Test	Compliant
Section 15.247(b)(3)	Maximum Peak Output Power Test	Compliant
Section 15.247(d)	Band Edge Compliance Test	Compliant
Section 15.247(d) Section 15.209	Radiated Spurious Emission Test	Compliant
Section 15.207	AC Power Line Conducted Emission Test	Compliant
Section 15.203	Antenna Requirement	Compliant

Remark: “N/A” means “Not applicable”.

5. POWER LINE CONDUCTED MEASUREMENT

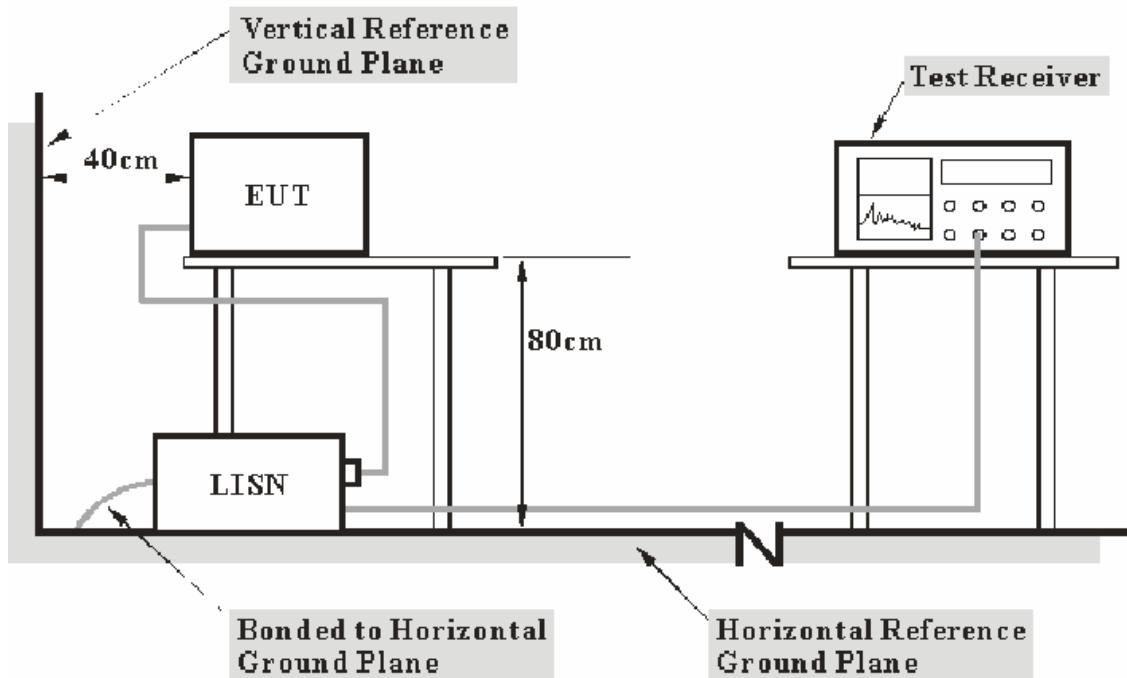
5.1. Block Diagram of Test Setup

5.1.1. Block diagram of connection between the EUT and simulators



(EUT: Bluetooth Headphone)

5.1.2. Test System Setup



Note:

1. Support units were connected to second LISN.
2. Both of LISNs (AMIN) 80 cm from EUT and at the least 80 cm from other units and other metal planes support units.

5.2. Power Line Conducted Emission Measurement Limits

Frequency (MHz)	Limit dB(μV)	
	Quasi-peak Level	Average Level
0.15 - 0.50	66.0 – 56.0 *	56.0 – 46.0 *
0.50 - 5.00	56.0	46.0
5.00 - 30.00	60.0	50.0

NOTE1: The lower limit shall apply at the transition frequencies.
NOTE2: The limit decreases linearly with the logarithm of the frequency in the range 0.15MHz to 0.50MHz.

5.3. Configuration of EUT on Measurement

The equipments are installed on Power Line Conducted Emission Measurement to meet the commission requirement and operating regulations in a manner, which tends to maximize its emission characteristics in a normal application.

5.4. Operating Condition of EUT

5.4.1. Setup the EUT and simulator as shown as Section 5.1.

5.4.2. Turn on the power of all equipment.

5.4.3. Let the EUT work in test mode and measure it.

5.5. Test Procedure

The EUT is put on the plane 0.8 m high above the ground by insulating support and is connected to the power mains through a line impedance stabilization network (L.I.S.N.). This provides a 50ohm coupling impedance for the EUT system. Please refer the block diagram of the test setup and photographs. Both sides of AC lines are checked to find out the maximum conducted emission. In order to find the maximum emission levels, the relative positions of equipment and all of the interface cables shall be changed according to ANSI C63.10: 2013 on Conducted Emission Measurement.

The bandwidth of test receiver (R & S ESCS30) is set at 9kHz.

The frequency range from 150kHz to 30MHz is checked.

5.6.Data Sample

Frequency (MHz)	Transducer value (dB)	QuasiPeak Level (dB μ V)	Average Level (dB μ V)	QuasiPeak Limit (dB μ V)	Average Limit (dB μ V)	QuasiPeak Margin (dB)	Average Margin (dB)	Remark (Pass/Fail)
X.XX	10.6	25.3	17.0	59.0	49.0	33.4	31.7	Pass

Frequency(MHz) = Emission frequency in MHz

Transducer value(dB) = Insertion loss of LISN + Cable Loss

Level(dB μ V) = Quasi-peak Reading/Average Reading + Transducer value

Limit (dB μ V) = Limit stated in standard

Margin = Limit (dB μ V) - Level (dB μ V)

Calculation Formula:

Margin = Limit (dB μ V) - Level (dB μ V)

5.7.Power Line Conducted Emission Measurement Results

PASS.

The frequency range from 150kHz to 30MHz is checked.

Maximizing procedure was performed on the six (6) highest emissions of the EUT. Emissions attenuated more than 20 dB below the permissible value are not reported.

All data was recorded in the Quasi-peak and average detection mode.

The spectral diagrams are attached as below.

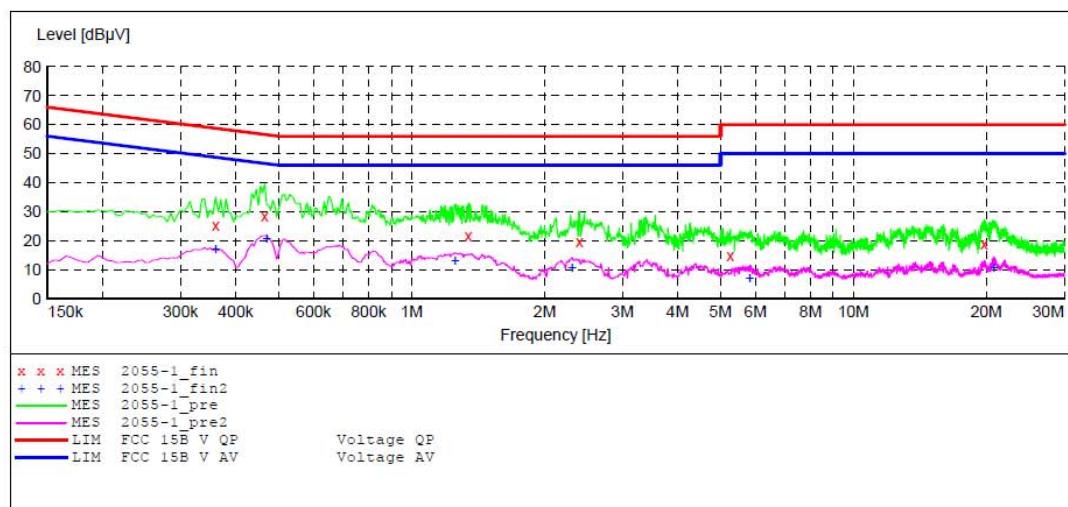
ACCURATE TECHNOLOGY CO., LTD

CONDUCTED EMISSION STANDARD FCC PART 15B

EUT: Bluetooth Headphone M/N:BeActiv E300
 Manufacturer: Zylux
 Operating Condition: Charging
 Test Site: 1#Shielding Room
 Operator: Frank
 Test Specification: N 120V/60Hz
 Comment: Report NO.:ATE20172055
 Start of Test: 10/17/2017 / 9:58:54AM

SCAN TABLE: "V 9K-30MHz fin"

Short Description: SUB_STD VTERM2 1.70
 Start Stop Step - Detector Meas. IF Transducer
 Frequency Frequency Width Time Bandw. NSLK8126 2008
 9.0 kHz 150.0 kHz 100.0 Hz QuasiPeak 1.0 s 200 Hz NSLK8126 2008
 Average
 150.0 kHz 30.0 MHz 5.0 kHz QuasiPeak 1.0 s 9 kHz NSLK8126 2008
 Average



MEASUREMENT RESULT: "2055-1_fin"

10/17/2017 10:02AM

Frequency MHz	Level dB μ V	Transd dB	Limit dB μ V	Margin dB	Detector	Line	PE
0.360000	25.30	10.6	59	33.4	QP	N	GND
0.465000	28.50	10.7	57	28.1	QP	N	GND
1.345000	21.50	10.9	56	34.5	QP	N	GND
2.400000	19.40	11.0	56	36.6	QP	N	GND
5.270000	14.70	11.2	60	45.3	QP	N	GND
19.750000	18.70	11.4	60	41.3	QP	N	GND

MEASUREMENT RESULT: "2055-1_fin2"

10/17/2017 10:02AM

Frequency MHz	Level dB μ V	Transd dB	Limit dB μ V	Margin dB	Detector	Line	PE
0.360000	17.00	10.6	49	31.7	AV	N	GND
0.470000	20.70	10.7	47	25.8	AV	N	GND
1.255000	13.30	10.9	46	32.7	AV	N	GND
2.310000	10.90	11.0	46	35.1	AV	N	GND
5.830000	7.10	11.2	50	42.9	AV	N	GND
20.800000	10.60	11.4	50	39.4	AV	N	GND

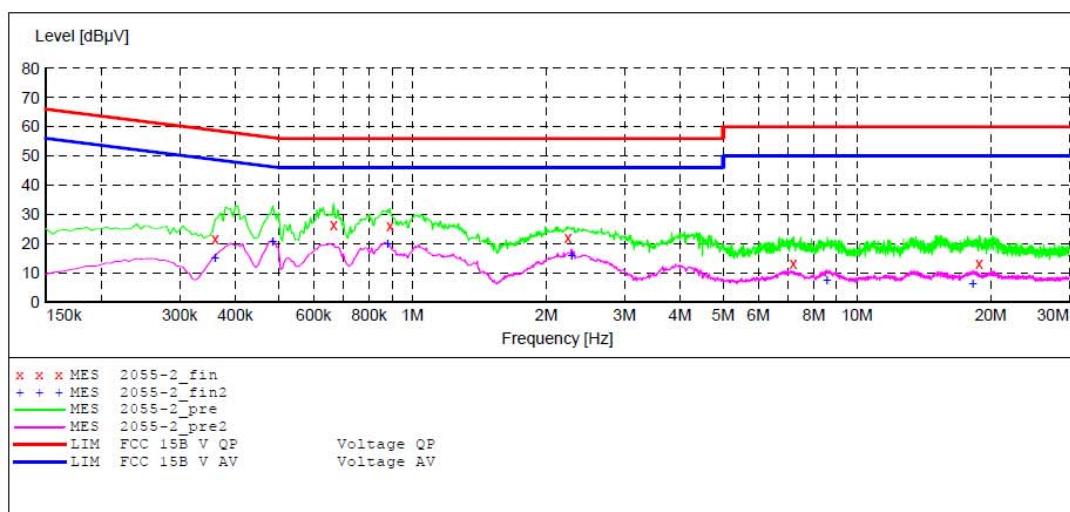
ACCURATE TECHNOLOGY CO., LTD

CONDUCTED EMISSION STANDARD FCC PART 15B

EUT: Bluetooth Headphone M/N:BeActiv E300
 Manufacturer: Zylux
 Operating Condition: Charging
 Test Site: 1#Shielding Room
 Operator: Frank
 Test Specification: L 120V/60Hz
 Comment: Report NO.:ATE20172055
 Start of Test: 10/17/2017 / 10:07:52AM

SCAN TABLE: "V 9K-30MHz fin"

Short Description: _SUB_STD_VTERM2 1.70
 Start Stop Step Detector Meas. IF Transducer
 Frequency Frequency Width Time Bandw.
 9.0 kHz 150.0 kHz 100.0 Hz QuasiPeak 1.0 s 200 Hz NSLK8126 2008
 Average
 150.0 kHz 30.0 MHz 5.0 kHz QuasiPeak 1.0 s 9 kHz NSLK8126 2008
 Average

**MEASUREMENT RESULT: "2055-2_fin"**

10/17/2017 10:09AM	Frequency	Level	Transd	Limit	Margin	Detector	Line	PE
	MHz	dB μ V	dB	dB μ V	dB			
	0.360000	21.60	10.6	59	37.1	QP	L1	GND
	0.665000	26.40	10.8	56	29.6	QP	L1	GND
	0.890000	25.80	10.8	56	30.2	QP	L1	GND
	2.240000	22.00	11.0	56	34.0	QP	L1	GND
	7.200000	13.30	11.2	60	46.7	QP	L1	GND
	18.835000	13.30	11.4	60	46.7	QP	L1	GND

MEASUREMENT RESULT: "2055-2_fin2"

10/17/2017 10:09AM	Frequency	Level	Transd	Limit	Margin	Detector	Line	PE
	MHz	dB μ V	dB	dB μ V	dB			
	0.360000	15.30	10.6	49	33.4	AV	L1	GND
	0.485000	20.60	10.7	46	25.7	AV	L1	GND
	0.880000	19.80	10.8	46	26.2	AV	L1	GND
	2.280000	15.90	11.0	46	30.1	AV	L1	GND
	8.570000	7.40	11.3	50	42.6	AV	L1	GND
	18.220000	6.20	11.4	50	43.8	AV	L1	GND

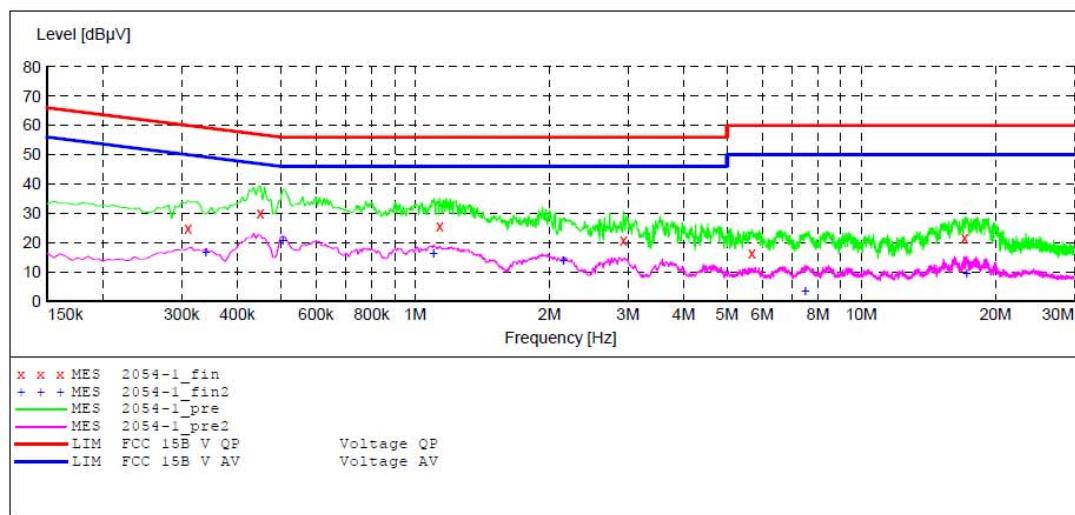
ACCURATE TECHNOLOGY CO., LTD

CONDUCTED EMISSION STANDARD FCC PART 15B

EUT: Bluetooth Headphone M/N:BeActiv E300
 Manufacturer: Zylux
 Operating Condition: Charging
 Test Site: 1#Shielding Room
 Operator: Frank
 Test Specification: L 240V/60Hz
 Comment: Report NO.:ATE20172055
 Start of Test: 10/17/2017 / 9:49:42AM

SCAN TABLE: "V 9K-30MHz fin"

Short Description: _SUB_STD_VTERM2 1.70
 Start Stop Step Detector Meas. IF Transducer
 Frequency Frequency Width Time Bandw.
 9.0 kHz 150.0 kHz 100.0 Hz QuasiPeak 1.0 s 200 Hz NSLK8126 2008
 Average
 150.0 kHz 30.0 MHz 5.0 kHz QuasiPeak 1.0 s 9 kHz NSLK8126 2008
 Average



MEASUREMENT RESULT: "2054-1_fin"

10/17/2017 9:53AM

Frequency MHz	Level dB μ V	Transd dB	Limit dB μ V	Margin dB	Detector	Line	PE
0.310000	24.60	10.6	60	35.4	QP	L1	GND
0.450000	29.90	10.7	57	27.0	QP	L1	GND
1.135000	25.60	10.9	56	30.4	QP	L1	GND
2.930000	20.80	11.1	56	35.2	QP	L1	GND
5.690000	16.50	11.2	60	43.5	QP	L1	GND
17.065000	21.70	11.4	60	38.3	QP	L1	GND

MEASUREMENT RESULT: "2054-1_fin2"

10/17/2017 9:53AM

Frequency MHz	Level dB μ V	Transd dB	Limit dB μ V	Margin dB	Detector	Line	PE
0.340000	16.90	10.6	49	32.3	AV	L1	GND
0.505000	20.60	10.7	46	25.4	AV	L1	GND
1.100000	16.50	10.9	46	29.5	AV	L1	GND
2.150000	13.90	11.0	46	32.1	AV	L1	GND
7.500000	3.40	11.2	50	46.6	AV	L1	GND
17.230000	9.50	11.4	50	40.5	AV	L1	GND

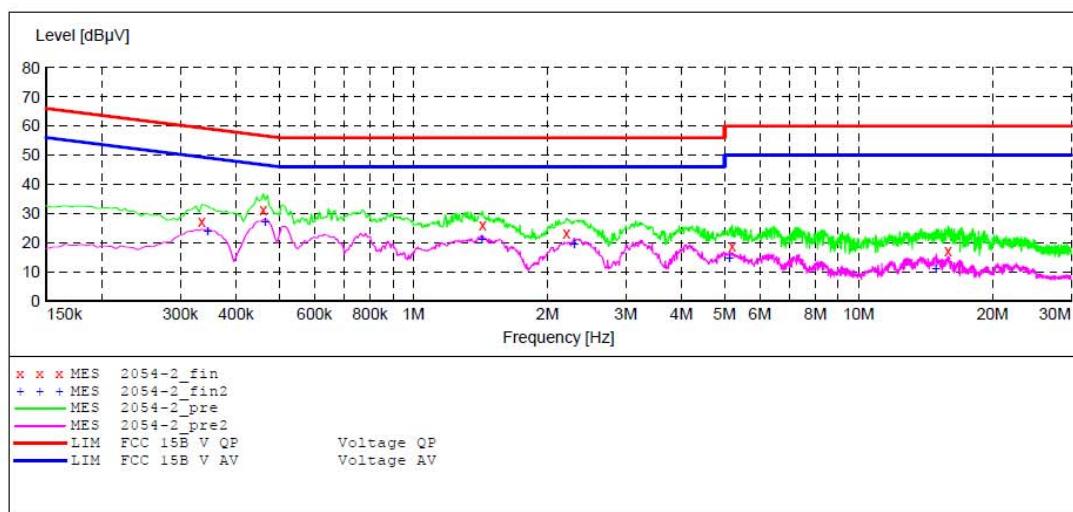
ACCURATE TECHNOLOGY CO., LTD

CONDUCTED EMISSION STANDARD FCC PART 15B

EUT: Bluetooth Headphone M/N:BeActiv E300
 Manufacturer: Zylux
 Operating Condition: Charging
 Test Site: 1#Shielding Room
 Operator: Frank
 Test Specification: N 240V/60Hz
 Comment: Report NO.:ATE20172055
 Start of Test: 10/17/2017 / 9:54:44AM

SCAN TABLE: "V 9K-30MHz fin"

Short Description: SUB STD VTERM2 1.70
 Start Stop Step - Detector Meas. IF Transducer
 Frequency Frequency Width Time Bandw.
 9.0 kHz 150.0 kHz 100.0 Hz QuasiPeak 1.0 s 200 Hz NSLK8126 2008
 Average
 150.0 kHz 30.0 MHz 5.0 kHz QuasiPeak 1.0 s 9 kHz NSLK8126 2008
 Average



MEASUREMENT RESULT: "2054-2_fin"

10/17/2017 9:58AM

Frequency MHz	Level dB μ V	Transd dB	Limit dB μ V	Margin dB	Detector	Line	PE
0.335000	27.30	10.6	59	32.0	QP	N	GND
0.460000	31.30	10.7	57	25.4	QP	N	GND
1.430000	25.90	10.9	56	30.1	QP	N	GND
2.210000	23.10	11.0	56	32.9	QP	N	GND
5.200000	18.80	11.2	60	41.2	QP	N	GND
15.880000	17.10	11.4	60	42.9	QP	N	GND

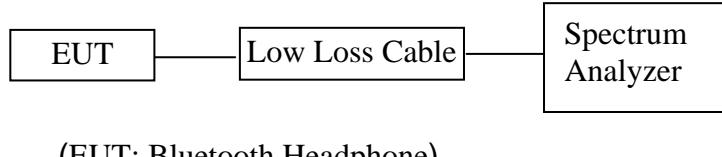
MEASUREMENT RESULT: "2054-2_fin2"

10/17/2017 9:58AM

Frequency MHz	Level dB μ V	Transd dB	Limit dB μ V	Margin dB	Detector	Line	PE
0.345000	24.00	10.6	49	25.1	AV	N	GND
0.465000	27.20	10.7	47	19.4	AV	N	GND
1.425000	21.10	10.9	46	24.9	AV	N	GND
2.300000	19.70	11.0	46	26.3	AV	N	GND
5.130000	14.50	11.2	50	35.5	AV	N	GND
14.935000	11.10	11.4	50	38.9	AV	N	GND

6. 6DB BANDWIDTH MEASUREMENT

6.1. Block Diagram of Test Setup



(EUT: Bluetooth Headphone)

6.2. The Requirement For Section 15.247(a)(2)

Section 15.247(a)(2): Systems using digital modulation techniques may operate in the 902-928MHz, 2400-2483.5MHz, and 5725-5850MHz bands. The minimum 6 dB bandwidth shall be at least 500 kHz.

6.3. EUT Configuration on Measurement

The equipment is installed on the emission measurement to meet the commission requirements and operating regulations in a manner which tends to maximize its emission characteristics in normal application.

6.4. Operating Condition of EUT

6.4.1. Setup the EUT and simulator as shown as Section 6.1.

6.4.2. Turn on the power of all equipment.

6.4.3. Let the EUT work in TX modes measure it. The transmit frequency are 2402-2480MHz. We select 2402MHz, 2440MHz, and 2480MHz TX frequency to transmit.

6.5. Test Procedure

6.5.1. The transmitter output was connected to the spectrum analyzer through a low loss cable.

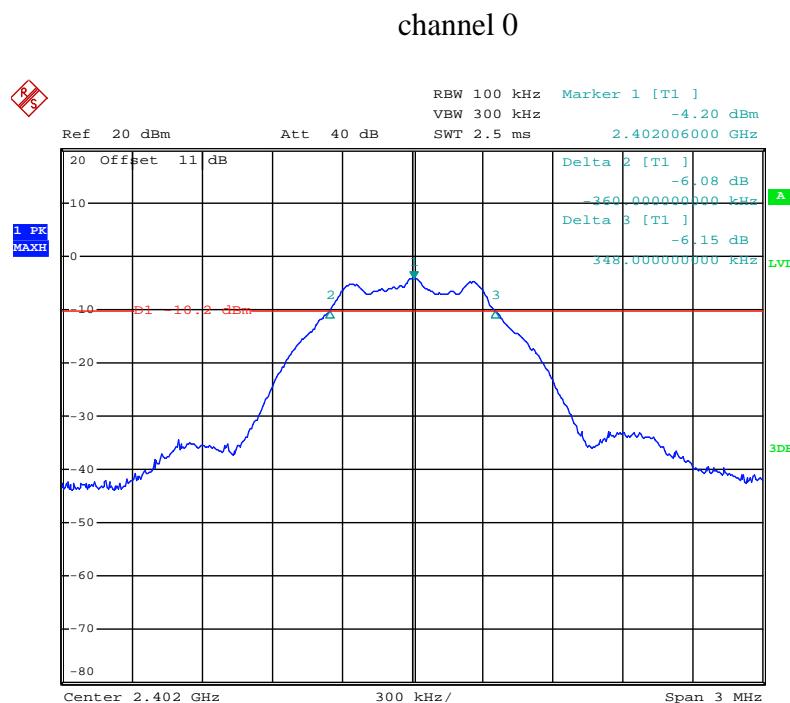
6.5.2. Set RBW of spectrum analyzer to 100 kHz and VBW to 300 kHz.

6.5.3. The 6dB bandwidth is defined as the total spectrum the power of which is higher than peak power minus 6dB.

6.6. Test Result

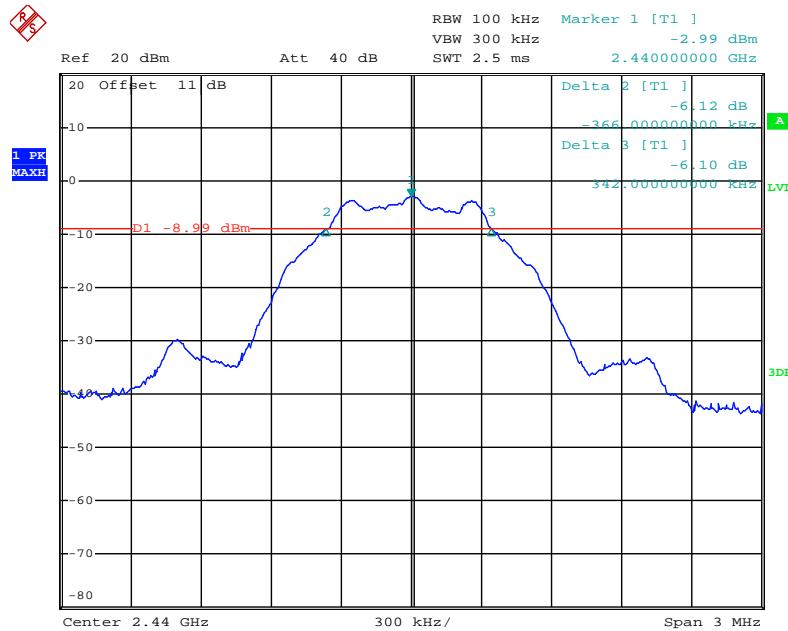
Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	Minimum Limit(MHz)	PASS/FAIL
0	2402	0.708	0.5	PASS
19	2440	0.702	0.5	PASS
39	2480	0.714	0.5	PASS

The spectrum analyzer plots are attached as below.



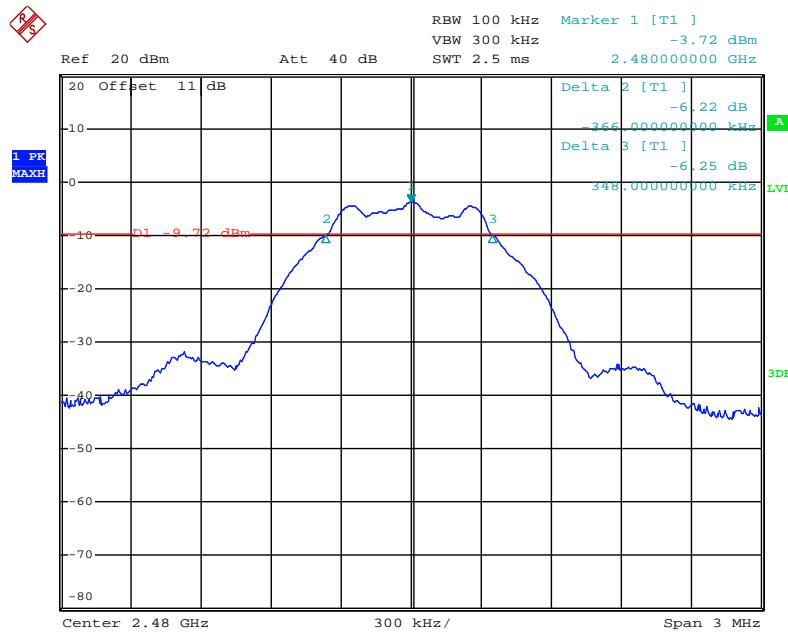
Date: 20.OCT.2017 10:30:26

channel 19



Date: 20.OCT.2017 10:35:48

channel 39



Date: 20.OCT.2017 10:38:18

7. MAXIMUM PEAK OUTPUT POWER

7.1. Block Diagram of Test Setup



(EUT: Bluetooth Headphone)

7.2. The Requirement For Section 15.247(b)(3)

Section 15.247(b)(3): For systems using digital modulation in the 902-928MHz, 2400-2483.5MHz, and 5725-5850MHz bands: 1 Watt.

7.3. EUT Configuration on Measurement

The equipment are installed on the emission Measurement to meet the commission requirements and operating regulations in a manner which tends to maximize its emission characteristics in normal application.

7.4. Operating Condition of EUT

7.4.1. Setup the EUT and simulator as shown as Section 7.1.

7.4.2. Turn on the power of all equipment.

7.4.3. Let the EUT work in TX modes measure it. The transmit frequency are 2402-2480MHz. We select 2402MHz, 2440MHz, and 2480MHz TX frequency to transmit.

7.5. Test Procedure

7.5.1. The transmitter output was connected to the spectrum analyzer through a low loss cable.

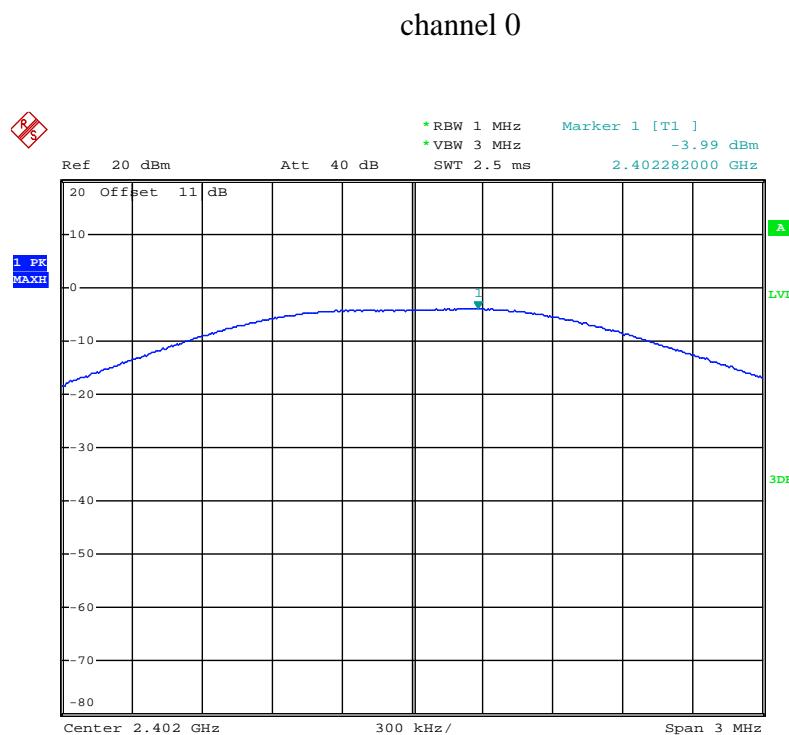
7.5.2. Set RBW of spectrum analyzer to 1 MHz and VBW to 3MHz.

7.5.3. Measurement the maximum peak output power.

7.6. Test Result

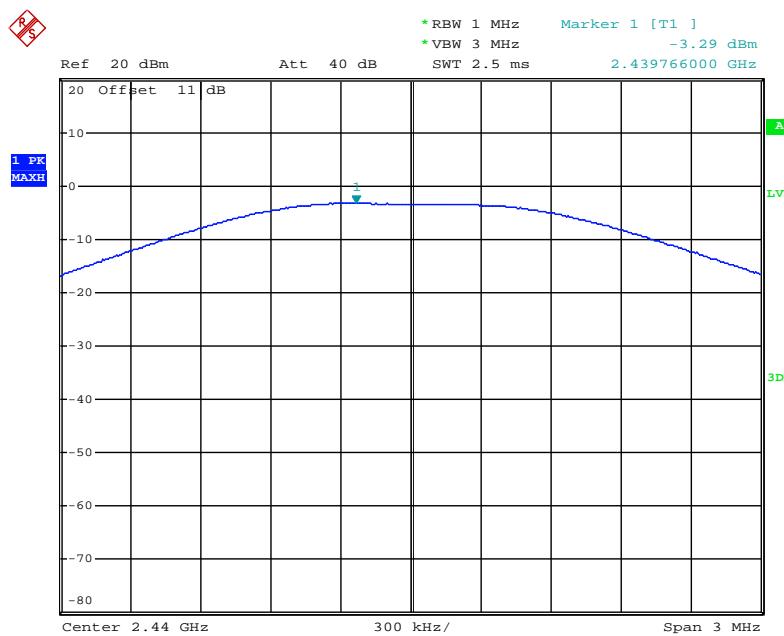
Channel	Frequency (MHz)	Peak Power Output (dBm)	Peak Power Limit (dBm)	Pass / Fail
0	2402	-3.99	30	PASS
19	2440	-3.29	30	PASS
39	2480	-3.86	30	PASS

The spectrum analyzer plots are attached as below.



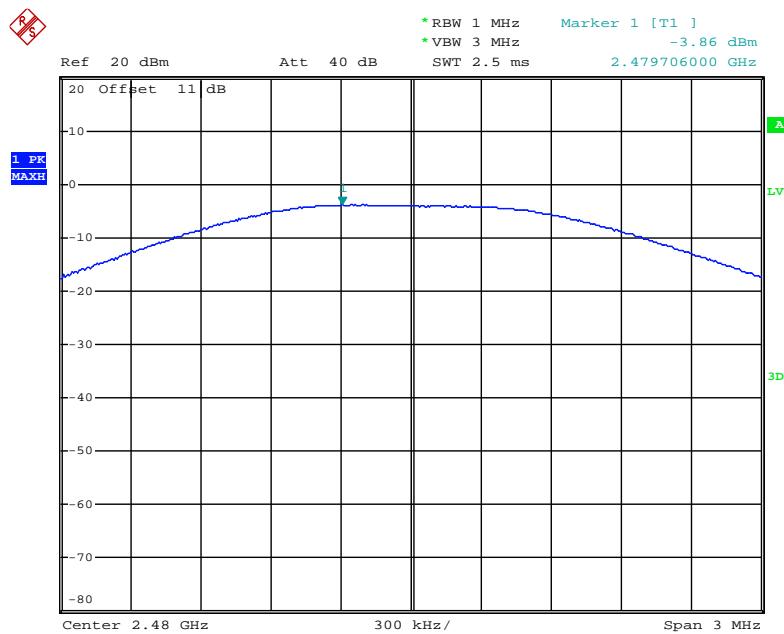
Date: 20.OCT.2017 11:08:32

channel 19



Date: 20.OCT.2017 11:09:54

channel 39



Date: 20.OCT.2017 11:11:37

8. POWER SPECTRAL DENSITY MEASUREMENT

8.1. Block Diagram of Test Setup



(EUT: Bluetooth Headphone)

8.2. The Requirement For Section 15.247(e)

Section 15.247(e): 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.

8.3. EUT Configuration on Measurement

The equipment are installed on the emission Measurement to meet the commission requirements and operating regulations in a manner which tends to maximize its emission characteristics in normal application.

8.4. Operating Condition of EUT

8.4.1. Setup the EUT and simulator as shown as Section 8.1.

8.4.2. Turn on the power of all equipment.

8.4.3. Let the EUT work in TX modes measure it. The transmit frequency are 2402-2480MHz. We select 2402MHz, 2440MHz, and 2480MHz TX frequency to transmit.

8.5. Test Procedure

8.5.1. The transmitter output was connected to the spectrum analyzer through a low loss cable.

8.5.2. Measurement Procedure PKPSD:

8.5.3. This procedure must be used if maximum peak conducted output power was used to demonstrate compliance to the fundamental output power limit, and is optional if the maximum (average) conducted output power was used to demonstrate compliance.

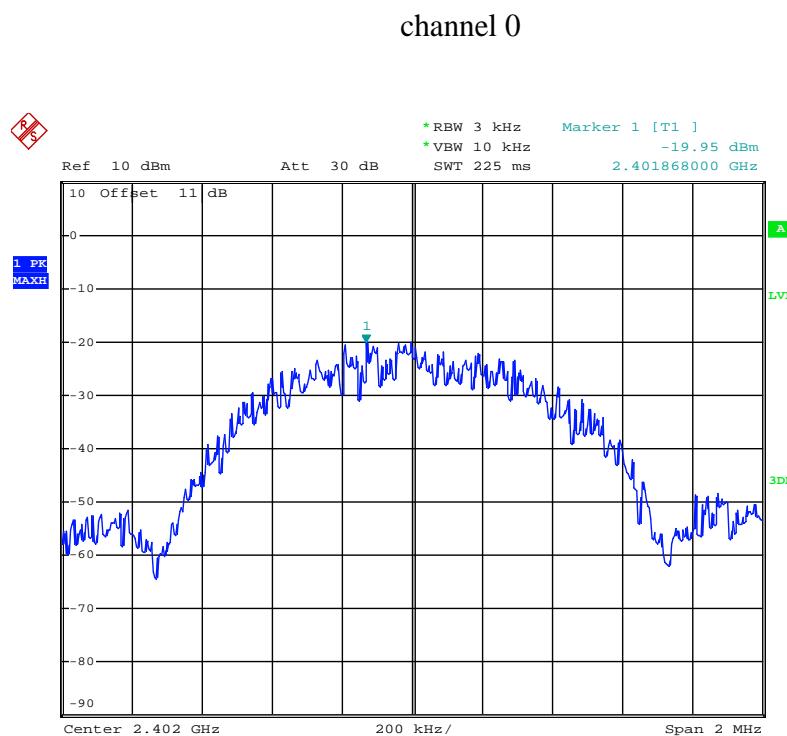
1. Set analyzer center frequency to DTS channel center frequency.
2. Set the span to 1.5 times the DTS channel bandwidth.
3. Set the RBW to: $3 \text{ kHz} \leq \text{RBW} \leq 100 \text{ kHz}$.
4. Set the VBW $\geq 3 \times \text{RBW}$.
5. Detector = peak.
6. Sweep time = auto couple.
7. Trace mode = max hold.
8. Allow trace to fully stabilize.
9. Use the peak marker function to determine the maximum amplitude level.
10. If measured value exceeds limit, reduce RBW (no less than 3kHz) and repeat.

8.5.4. Measurement the maximum power spectral density.

8.6. Test Result

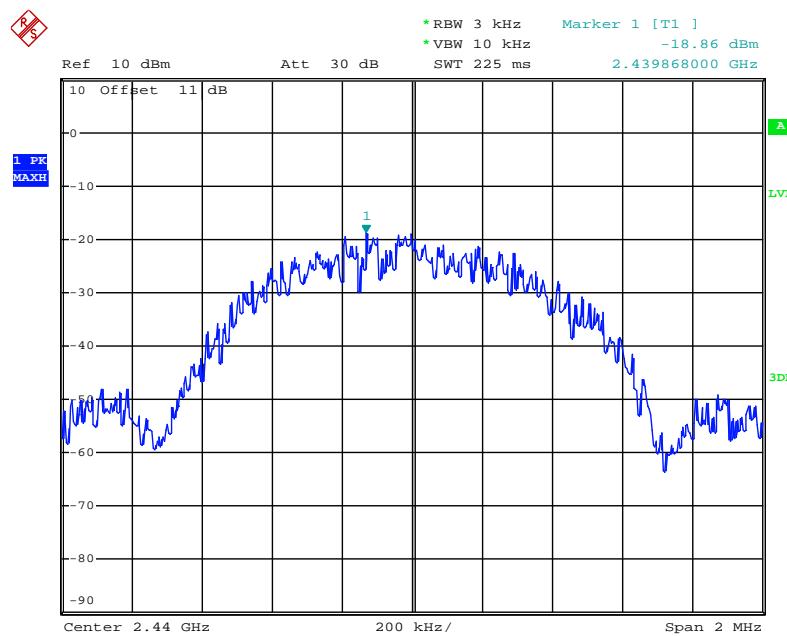
CHANNEL NUMBER	FREQUENCY (MHz)	PSD (dBm/3KHz)	LIMIT (dBm/3KHz)	PASS/FAIL
0	2402	-19.95	8	PASS
19	2440	-18.86	8	PASS
39	2480	-20.31	8	PASS

The spectrum analyzer plots are attached as below.



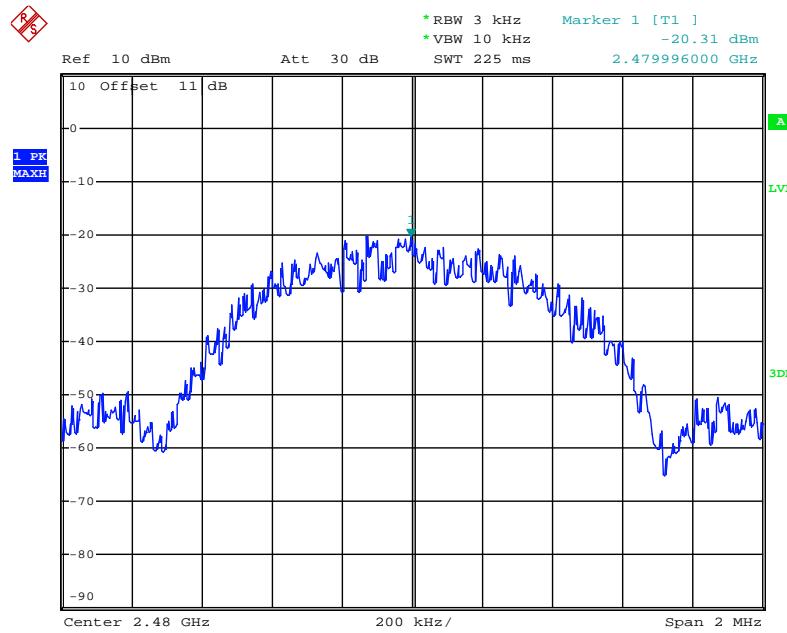
Date: 20.OCT.2017 11:14:40

channel 19



Date: 20.OCT.2017 11:14:03

channel 39



Date: 20.OCT.2017 11:13:07

9. BAND EDGE COMPLIANCE TEST

9.1. Block Diagram of Test Setup



(EUT: Bluetooth Headphone)

9.2. The Requirement For Section 15.247(d)

Section 15.247(d): 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 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).

9.3. EUT Configuration on Measurement

The equipment are installed on the emission Measurement to meet the commission requirements and operating regulations in a manner which tends to maximize its emission characteristics in normal application.

9.4. Operating Condition of EUT

9.4.1. Setup the EUT and simulator as shown as Section 9.1.

9.4.2. Turn on the power of all equipment.

9.4.3. Let the EUT work in TX modes measure it. The transmit frequency are 2402-2480MHz. We select 2402MHz, 2480MHz TX frequency to transmit.

9.5. Test Procedure

Conducted Band Edge:

9.5.1. The transmitter output was connected to the spectrum analyzer via a low loss cable.

9.5.2. Set RBW of spectrum analyzer to 100 kHz and VBW to 300 kHz.

9.5.3. Radiate Band Edge:

9.5.4. The EUT is placed on a turntable, which is 1.5m above the ground plane and worked at highest radiated power.

9.5.5. The turntable was rotated for 360 degrees to determine the position of maximum emission level.

9.5.6. EUT is set 3m away from the receiving antenna, which is varied from 1m to 4m to find out the highest emission.

9.5.7. Set the spectrum analyzer in the following setting in order to capture the lower and upper band-edges of the emission:

9.5.8. RBW=1MHz, VBW=1MHz

9.5.9. The band edges was measured and recorded.

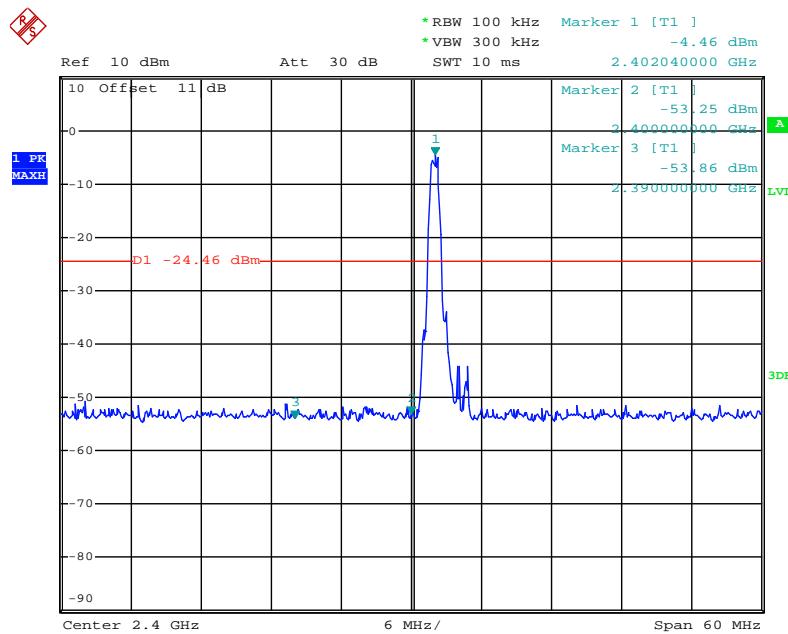
9.6. Test Result

Pass.

Conducted Band Edge Result

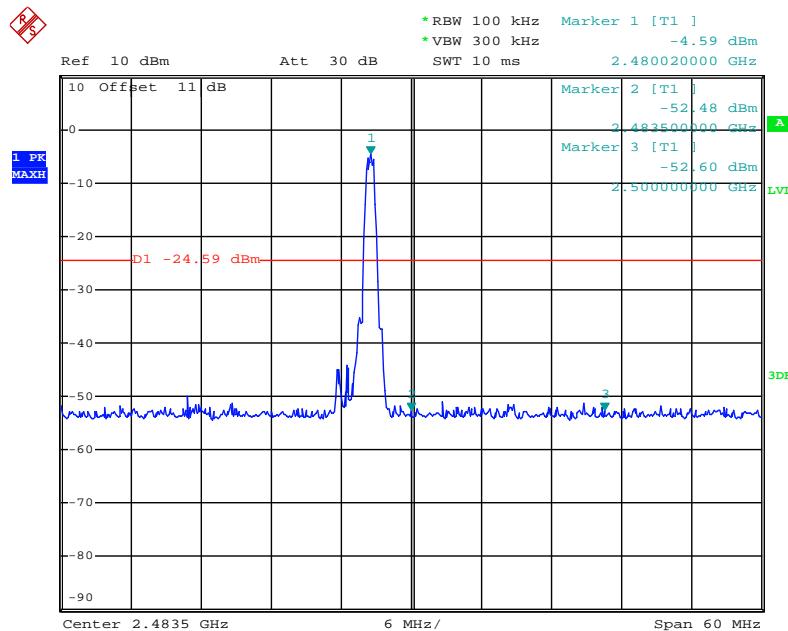
Channel	Frequency	Delta peak to band emission	Limit(dBc)
0	2.402GHz	48.79	20
39	2.480GHz	47.89	20

channel 0



Date: 20.OCT.2017 11:26:19

channel 39



Date: 20.OCT.2017 11:27:45

Radiated Band Edge Result



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Job No.: frank2017 #1257

Polarization: Horizontal

Standard: FCC PK

Power Source: DC 3.7V

Test item: Radiation Test

Date: 17/10/21

Temp.(C)/Hum.(%) 25 C / 55 %

Time: 14/58/48

EUT: Bluetooth Headphone

Engineer Signature: Frank

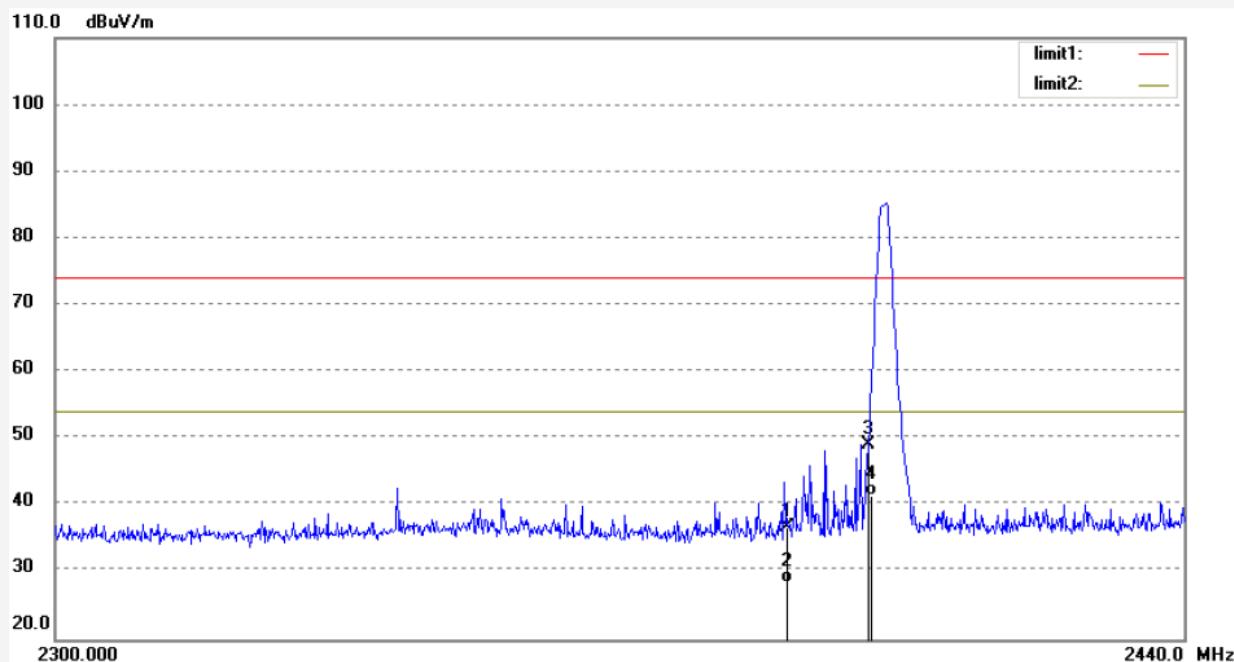
Mode: TX 2402MHz

Distance: 3m

Model: BeActiv E300

Manufacturer: Zylux

Note: Report NO.:ATE20172055



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2390.000	40.81	-3.96	36.85	74.00	-37.15	peak			
2	2390.000	32.45	-3.96	28.49	54.00	-25.51	AVG	250	156	
3	2400.000	53.01	-3.91	49.10	74.00	-24.90	peak			
4	2400.000	45.45	-3.91	41.54	54.00	-12.46	AVG	300	248	



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Job No.: frank2017 #1256

Polarization: Vertical

Standard: FCC PK

Power Source: DC 3.7V

Test item: Radiation Test

Date: 17/10/21/

Temp.(C)/Hum.(%) 25 C / 55 %

Time: 14/57/28

EUT: Bluetooth Headphone

Engineer Signature: Frank

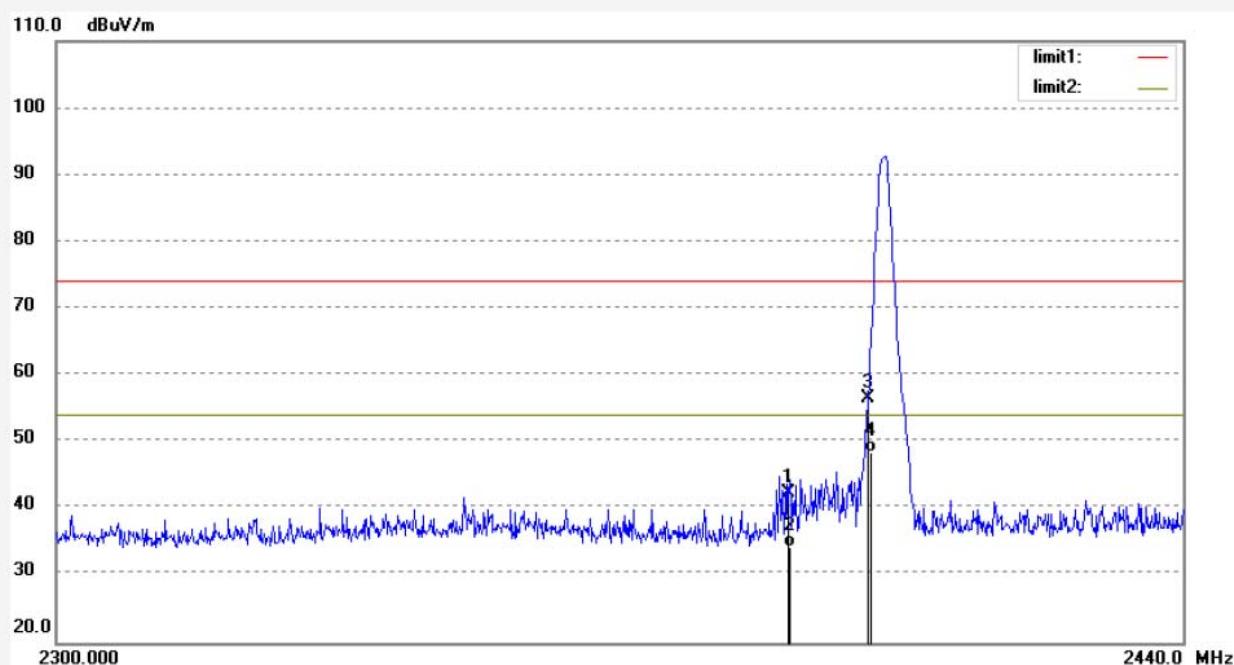
Mode: TX 2402MHz

Distance: 3m

Model: BeActiv E300

Manufacturer: Zylux

Note: Report NO.:ATE20172055



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2390.000	46.33	-3.96	42.37	74.00	-31.63	peak			
2	2390.000	38.15	-3.96	34.19	54.00	-19.81	AVG	250	153	
3	2400.000	60.43	-3.91	56.52	74.00	-17.48	peak			
4	2400.000	52.45	-3.91	48.54	54.00	-5.46	AVG	300	284	



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Fax:+86-0755-26503396

Job No.: frank2017 #1258

Polarization: Horizontal

Standard: FCC PK

Power Source: DC 3.7V

Test item: Radiation Test

Date: 17/10/21

Temp.(C)/Hum.(%) 25 C / 55 %

Time: 15/02/24

EUT: Bluetooth Headphone

Engineer Signature: Frank

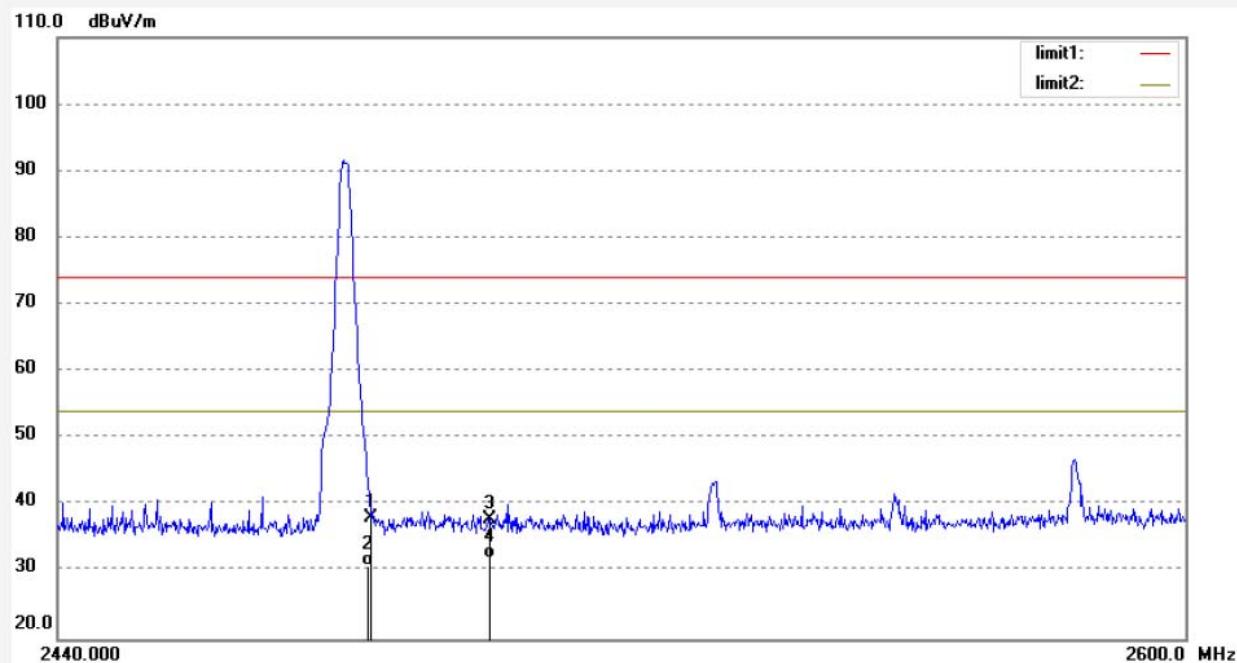
Mode: TX 2480MHz

Distance: 3m

Model: BeActiv E300

Manufacturer: Zylux

Note: Report NO.:ATE20172055

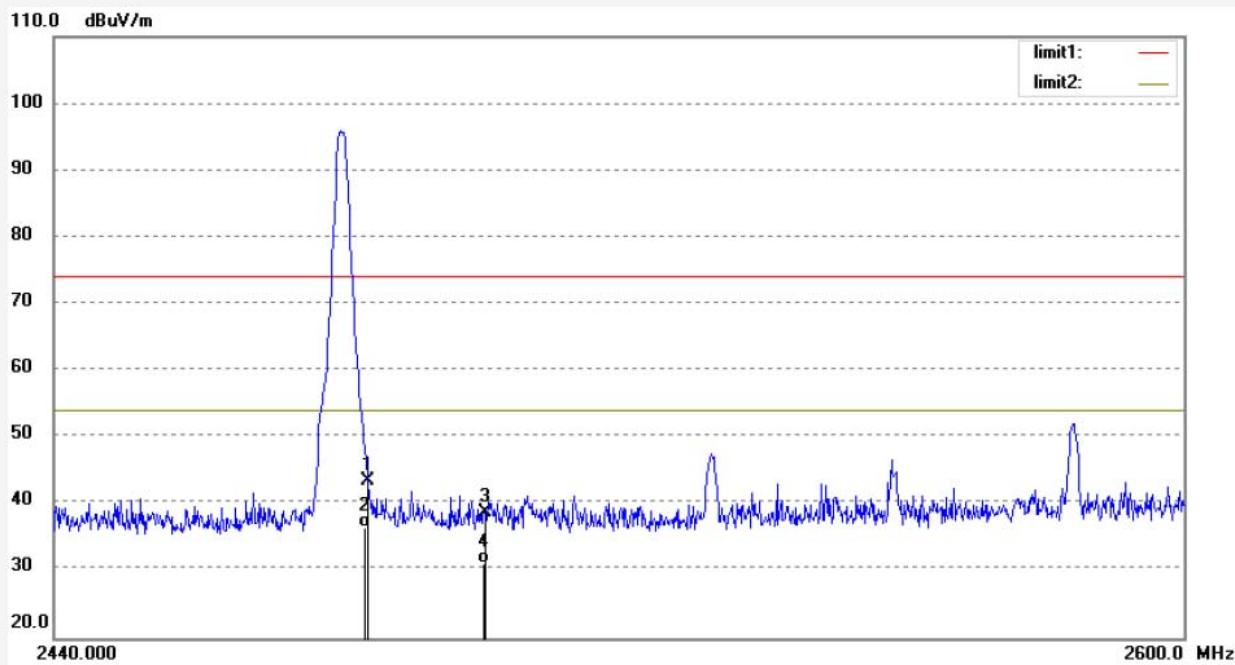


No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2483.500	41.62	-3.50	38.12	74.00	-35.88	peak			
2	2483.500	34.46	-3.50	30.96	54.00	-23.04	AVG	250	153	
3	2500.000	41.32	-3.42	37.90	74.00	-36.10	peak			
4	2500.000	35.55	-3.42	32.13	54.00	-21.87	AVG	250	341	

Job No.: frank2017 #1259
 Standard: FCC PK
 Test item: Radiation Test
 Temp.(C)/Hum.(%) 25 C / 55 %
 EUT: Bluetooth Headphone
 Mode: TX 2480MHz
 Model: BeActiv E300
 Manufacturer: Zylux

Polarization: Vertical
 Power Source: DC 3.7V
 Date: 17/10/21/
 Time: 15/03/31
 Engineer Signature: Frank
 Distance: 3m

Note: Report NO.:ATE20172055



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2483.500	47.12	-3.50	43.62	74.00	-30.38	peak			
2	2483.500	40.15	-3.50	36.65	54.00	-17.35	AVG	250	45	
3	2500.000	42.12	-3.42	38.70	74.00	-35.30	peak			
4	2500.000	34.45	-3.42	31.03	54.00	-22.97	AVG	150	349	

Note:

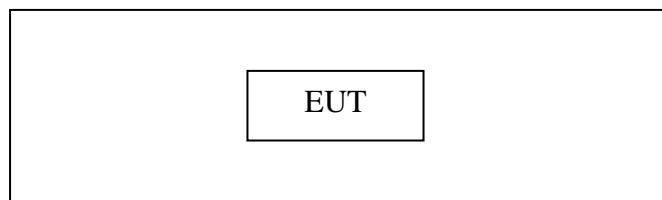
1. Emissions attenuated more than 20 dB below the permissible value are not reported.
2. The field strength is calculated by adding the antenna factor, high pass filter loss(if used) and cable loss, and subtracting the amplifier gain(if any)from the measured reading. The basic equation calculation is as follows:

$$\text{Result} = \text{Reading} + \text{Corrected Factor}$$

10. RADIATED SPURIOUS EMISSION TEST

10.1. Block Diagram of Test Setup

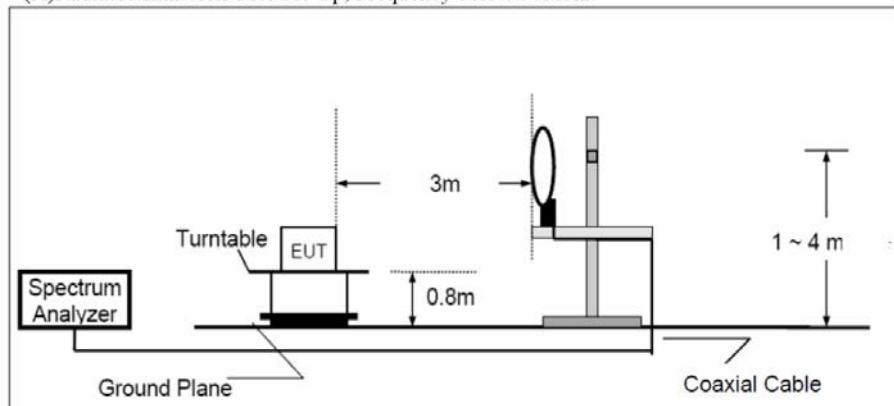
10.1.1. Block diagram of connection between the EUT and peripherals



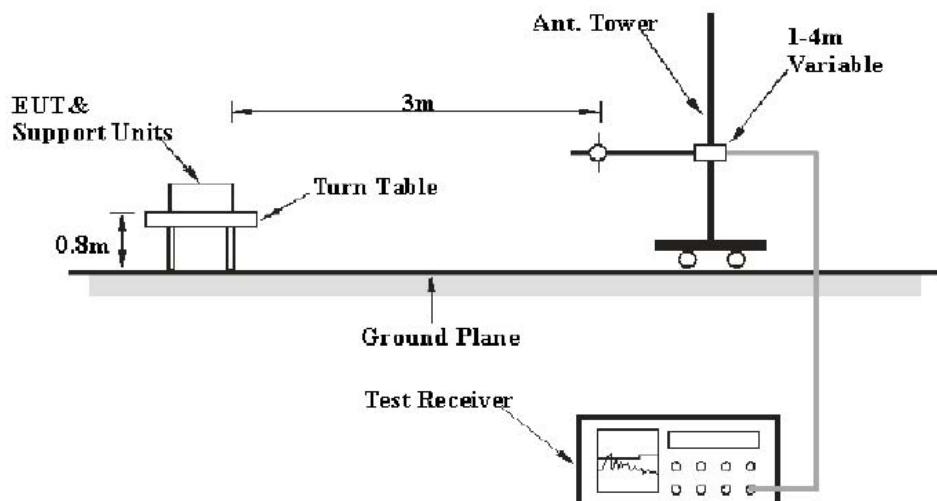
Setup: Transmitting mode

10.1.2. Semi-Anechoic Chamber Test Setup Diagram

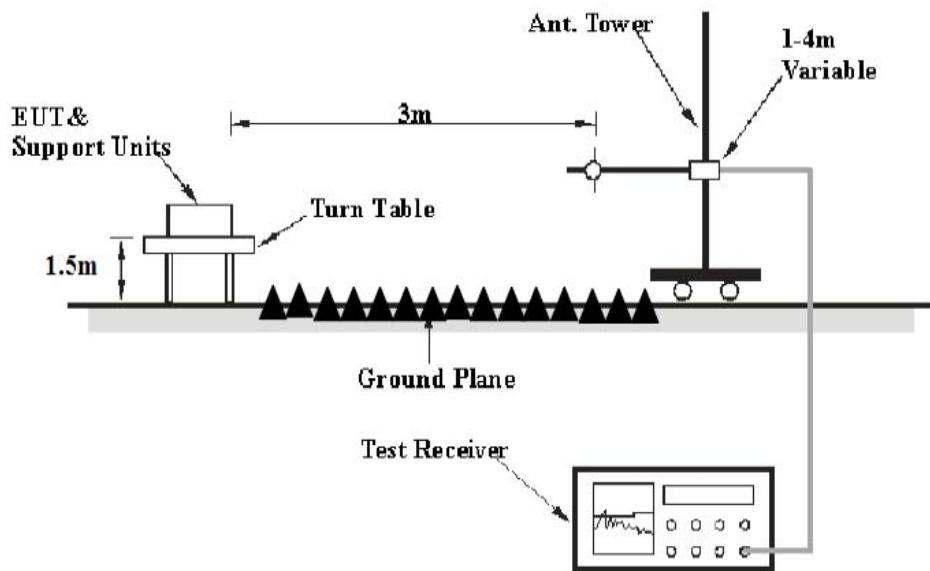
(A) Radiated Emission Test Set-Up, Frequency below 30MHz



(B) Radiated Emission Test Set-Up, Frequency 30MHz-1GHz



(C) Radiated Emission Test Set-Up. Frequency above 1GHz



10.2.The Limit For Section 15.247(d)

Section 15.247(d): 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 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).

10.3. Restricted bands of operation

10.3.1. FCC Part 15.205 Restricted bands of operation

(a) Except as shown in paragraph (d) of this section, Only spurious emissions are permitted in any of the frequency bands listed below:

MHz	MHz	MHz	GHz
0.090-0.110	16.42-16.423	399.9-410	4.5-5.15
¹ 0.495-0.505	16.69475-16.69525	608-614	5.35-5.46
2.1735-2.1905	16.80425-16.80475	960-1240	7.25-7.75
4.125-4.128	25.5-25.67	1300-1427	8.025-8.5
4.17725-4.17775	37.5-38.25	1435-1626.5	9.0-9.2
4.20725-4.20775	73-74.6	1645.5-1646.5	9.3-9.5
6.215-6.218	74.8-75.2	1660-1710	10.6-12.7
6.26775-6.26825	108-121.94	1718.8-1722.2	13.25-13.4
6.31175-6.31225	123-138	2200-2300	14.47-14.5
8.291-8.294	149.9-150.05	2310-2390	15.35-16.2
8.362-8.366	156.52475-156.52525	2483.5-2500	17.7-21.4
8.37625-8.38675	156.7-156.9	2690-2900	22.01-23.12
8.41425-8.41475	162.0125-167.17	3260-3267	23.6-24.0
12.29-12.293	167.72-173.2	3332-3339	31.2-31.8
12.51975-12.52025	240-285	3345.8-3358	36.43-36.5
12.57675-12.57725	322-335.4	3600-4400	(²)
13.36-13.41			

¹Until February 1, 1999, this restricted band shall be 0.490-0.510

²Above 38.6

(b) Except as provided in paragraphs (d) and (e), the field strength of emission appearing within these frequency bands shall not exceed the limits shown in Section 15.209. At frequencies equal to or less than 1000MHz, Compliance with the limits in Section 15.209 shall be demonstrated using measurement instrumentation employing a CISPR quasi-peak detector. Above 1000MHz, compliance with the emission limits in Section 15.209 shall be demonstrated based on the average value of the measured emissions. The provisions in Section 15.35 apply to these measurements.

10.4. Configuration of EUT on Measurement

The equipment are installed on Radiated Emission Measurement to meet the commission requirements and operating regulations in a manner which tends to maximize its emission characteristics in normal application.

10.5. Operating Condition of EUT

10.5.1. Setup the EUT and simulator as shown as Section 10.1.

10.5.2. Turn on the power of all equipment.

10.5.3. Let the EUT work in TX modes measure it. The transmit frequency are 2402-2480MHz. We select 2402MHz, 2440MHz, and 2480MHz TX frequency to transmit.

10.6. Test Procedure

The EUT and its simulators are placed on a turntable, which is 0.8 meter high above ground(Below 1GHz). The EUT and its simulators are placed on a turntable, which is 1.5 meter high above ground(Above 1GHz). The turntable can rotate 360 degrees to determine the position of the maximum emission level. EUT is set 3.0 meters away from the receiving antenna, which is mounted on an antenna tower. The antenna can be moved up and down between 1.0 meter and 4 meters to find out the maximum emission level. Broadband antenna (calibrated bi-log antenna) is used as receiving antenna. Both horizontal and vertical polarizations of the antenna are set on measurement. In order to find the maximum emission levels, all of the EUT location must be manipulated according to ANSI C63.10:2013 on radiated emission measurement. The EUT was tested in 3 orthogonal planes.

The bandwidth of test receiver is set at 9 kHz in below 30MHz. and set at 120 kHz in 30-1000MHz, and 1MHz in above 1000MHz.

The frequency range from 9 kHz to 26.5GHz is checked.

The final measurement in band 9-90 kHz, 110-490 kHz and above 1000MHz is performed with Average detector. Except those frequency bands mention above, the final measurement for frequencies below 1000MHz is performed with Quasi Peak detector.

The field strength is calculated by adding the antenna factor, and cable loss, and subtracting the amplifier gain from the measured reading.

10.7.Data Sample

Frequency (MHz)	Reading (dB μ V)	Factor (dB/m)	Result (dB μ V/m)	Limit (dB μ V/m)	Margin (dB)	Remark
X.XX	43.85	-22.22	21.63	43.5	-21.87	QP

Frequency(MHz) = Emission frequency in MHz

Reading(dB μ V) = Uncorrected Analyzer/Receiver reading

Factor (dB/m) = Antenna factor + Cable Loss – Amplifier gain

Result(dB μ V/m) = Reading(dB μ V) + Factor(dB/m)

Limit (dB μ V/m) = Limit stated in standard

Margin (dB) = Result(dB μ V/m) - Limit (dB μ V/m)

QP = Quasi-peak Reading

Calculation Formula:

Margin(dB) = Result (dB μ V/m)–Limit(dB μ V/m)

Result(dB μ V/m)= Reading(dB μ V)+ Factor(dB/m)

The “Margin” column of the following data tables indicates the degree of compliance with the applicable limit. For example, a margin of -7dB means the emission is 7dB below the limit.

10.8.The Field Strength of Radiation Emission Measurement Results

PASS.

Note: 1. Emissions attenuated more than 20 dB below the permissible value are not reported.

2. *: Denotes restricted band of operation.

3. The radiation emissions from 9kHz-30MHz and 18-26.5GHz are not reported, because the test values lower than the limits of 20dB.

Below 1GHz



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Job No.: frank2017 #1225

Polarization: Horizontal

Standard: FCC Class B 3M Radiated

Power Source: DC 3.7V

Test item: Radiation Test

Date: 17/10/21

Temp.(C)/Hum.(%) 25 C / 55 %

Time: 14/04/08

EUT: Bluetooth Headphone

Engineer Signature: Frank

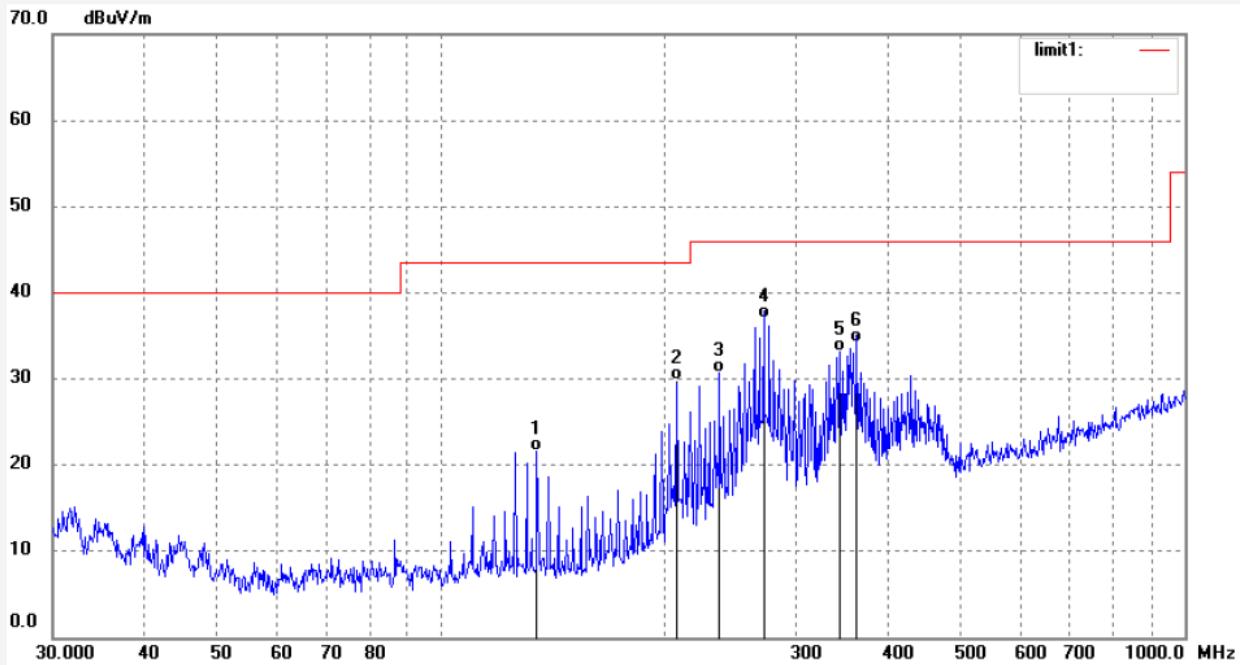
Mode: TX 2402MHz

Distance: 3m

Model: BeActiv E300

Manufacturer: Zylux

Note: Report NO.:ATE20172055



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	134.4910	43.85	-22.22	21.63	43.50	-21.87	QP	150	187	
2	207.1967	48.32	-18.47	29.85	43.50	-13.65	QP	200	129	
3	236.7926	48.98	-18.22	30.76	46.00	-15.24	QP	150	15	
4	271.5686	54.12	-17.02	37.10	46.00	-8.90	QP	150	79	
5	343.6505	47.28	-14.08	33.20	46.00	-12.80	QP	150	67	
6	362.2479	47.70	-13.42	34.28	46.00	-11.72	QP	150	32	



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Job No.: frank2017 #1226

Polarization: Vertical

Standard: FCC Class B 3M Radiated

Power Source: DC 3.7V

Test item: Radiation Test

Date: 17/10/21/

Temp.(C)/Hum.(%) 25 C / 55 %

Time: 14/04/32

EUT: Bluetooth Headphone

Engineer Signature: Frank

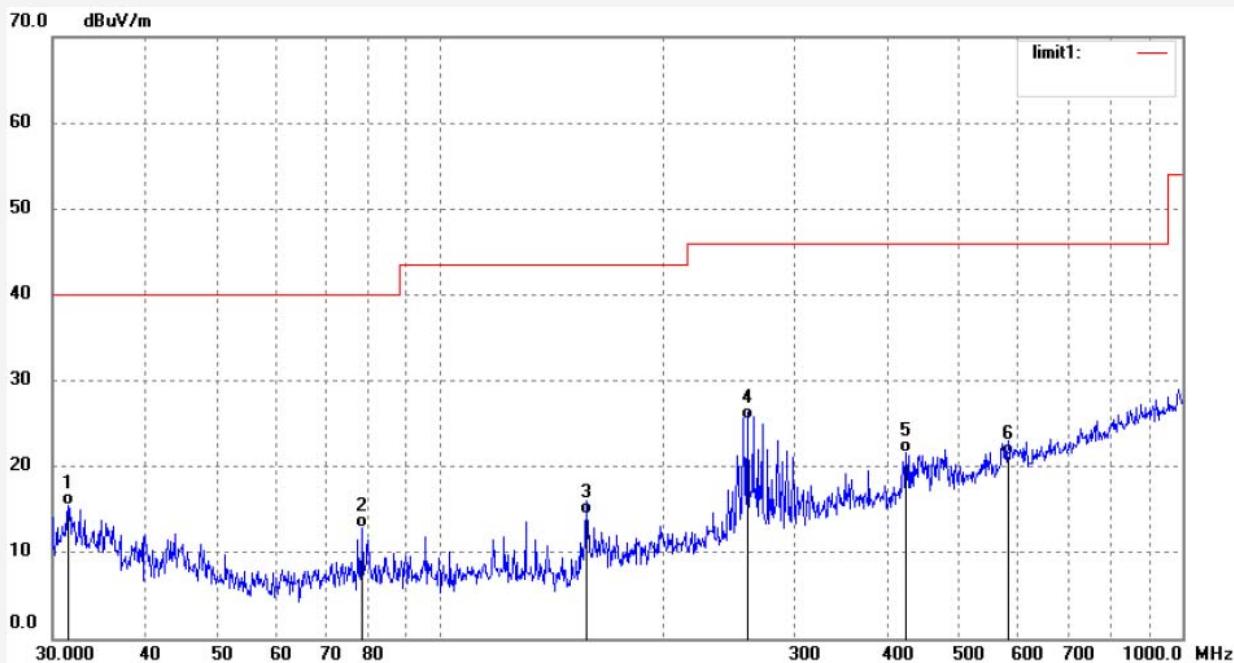
Mode: TX 2402MHz

Distance: 3m

Model: BeActiv E300

Manufacturer: Zylux

Note: Report NO.:ATE20172055



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	31.5124	30.53	-15.07	15.46	40.00	-24.54	QP	150	153	
2	78.5644	35.01	-22.09	12.92	40.00	-27.08	QP	150	154	
3	157.5289	36.12	-21.64	14.48	43.50	-29.02	QP	150	269	
4	259.4433	42.98	-17.57	25.41	46.00	-20.59	QP	150	328	
5	424.2998	34.13	-12.60	21.53	46.00	-24.47	QP	150	175	
6	582.1122	30.10	-8.86	21.24	46.00	-24.76	QP	150	21	



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Site: 2# Chamber
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Fax:+86-0755-26503396

Job No.: frank2017 #1228

Polarization: Horizontal

Standard: FCC Class B 3M Radiated

Power Source: DC 3.7V

Test item: Radiation Test

Date: 17/10/21/

Temp.(C)/Hum.(%) 25 C / 55 %

Time: 14/05/29

EUT: Bluetooth Headphone

Engineer Signature: Frank

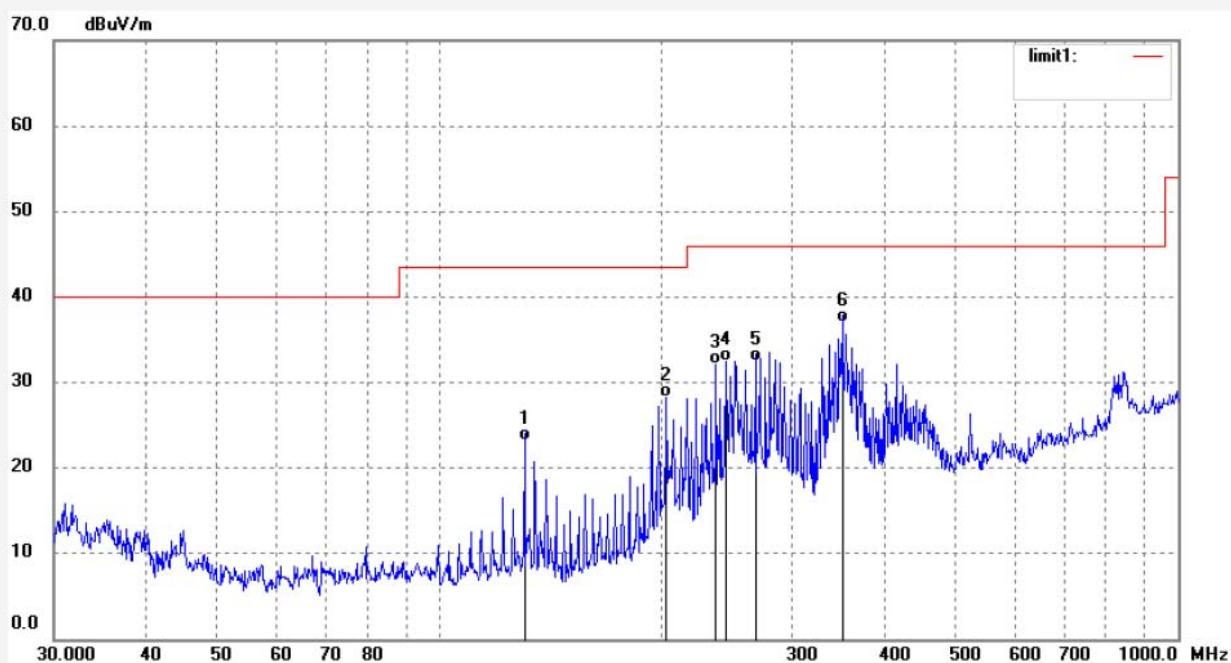
Mode: TX 2440MHz

Distance: 3m

Model: BeActiv E300

Manufacturer: Zylux

Note: Report NO.:ATE20172055



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	130.3048	45.28	-22.14	23.14	43.50	-20.36	QP	150	153	
2	202.8745	46.88	-18.56	28.32	43.50	-15.18	QP	150	185	
3	236.7926	50.39	-18.22	32.17	46.00	-13.83	QP	150	132	
4	244.4002	50.68	-18.15	32.53	46.00	-13.47	QP	150	153	
5	267.7787	49.65	-17.14	32.51	46.00	-13.49	QP	150	168	
6	350.9721	50.86	-13.78	37.08	46.00	-8.92	QP	150	179	

Job No.: frank2017 #1230

Polarization: Vertical

Standard: FCC Class B 3M Radiated

Power Source: DC 3.7V

Test item: Radiation Test

Date: 17/10/21/

Temp.(C)/Hum.(%) 25 C / 55 %

Time: 14/04/32

EUT: Bluetooth Headphone

Engineer Signature: Frank

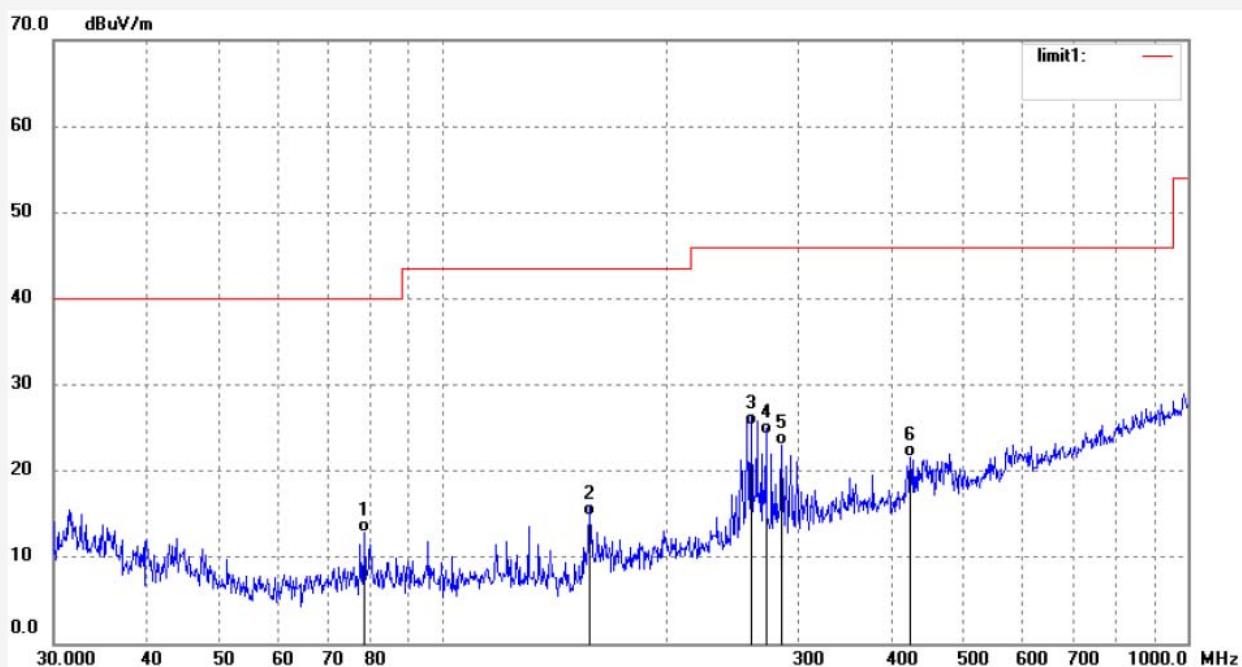
Mode: TX 2440MHz

Distance: 3m

Model: BeActiv E300

Manufacturer: Zylux

Note: Report NO.:ATE20172055



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	78.5644	35.01	-22.09	12.92	40.00	-27.08	QP	150	138	
2	157.5288	36.45	-21.64	14.81	43.50	-28.69	QP	150	134	
3	259.4433	42.93	-17.57	25.36	46.00	-20.64	QP	150	153	
4	271.5686	41.20	-17.02	24.18	46.00	-21.82	QP	150	182	
5	285.2610	39.39	-16.37	23.02	46.00	-22.98	QP	100	15	
6	424.2998	34.13	-12.60	21.53	46.00	-24.47	QP	100	317	



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Job No.: frank2017 #1229

Polarization: Horizontal

Standard: FCC Class B 3M Radiated

Power Source: DC 3.7V

Test item: Radiation Test

Date: 17/10/21/

Temp.(C)/Hum.(%) 25 C / 55 %

Time: 14/05/41

EUT: Bluetooth Headphone

Engineer Signature: Frank

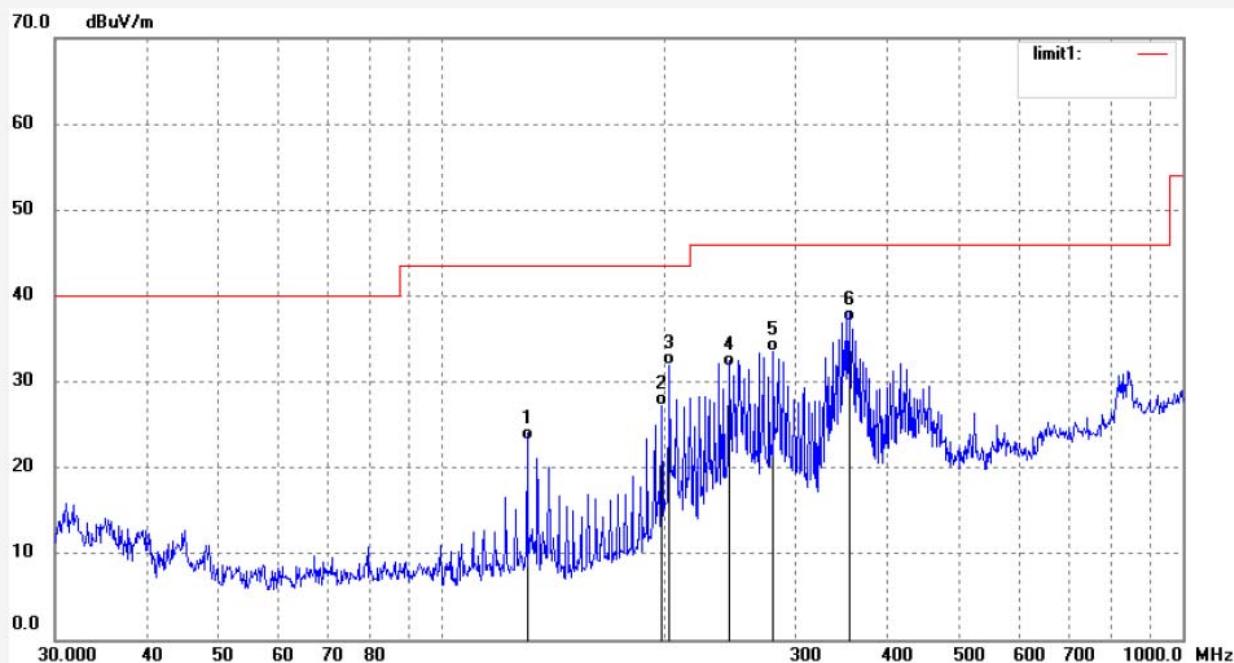
Mode: TX 2480MHz

Distance: 3m

Model: BeActiv E300

Manufacturer: Zylux

Note: Report NO.:ATE20172055



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	130.3048	45.28	-22.14	23.14	43.50	-20.36	QP	150	162	
2	197.9456	46.06	-18.78	27.28	43.50	-16.22	QP	100	123	
3	202.8745	50.52	-18.56	31.96	43.50	-11.54	QP	150	45	
4	244.4003	49.98	-18.15	31.83	46.00	-14.17	QP	150	291	
5	280.2936	50.06	-16.59	33.47	46.00	-12.53	QP	100	156	
6	354.6911	50.65	-13.64	37.01	46.00	-8.99	QP	150	346	



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Job No.: frank2017 #1231

Polarization: Vertical

Standard: FCC Class B 3M Radiated

Power Source: DC 3.7V

Test item: Radiation Test

Date: 17/10/21/

Temp.(C)/Hum.(%) 25 C / 55 %

Time: 14/07/19

EUT: Bluetooth Headphone

Engineer Signature: Frank

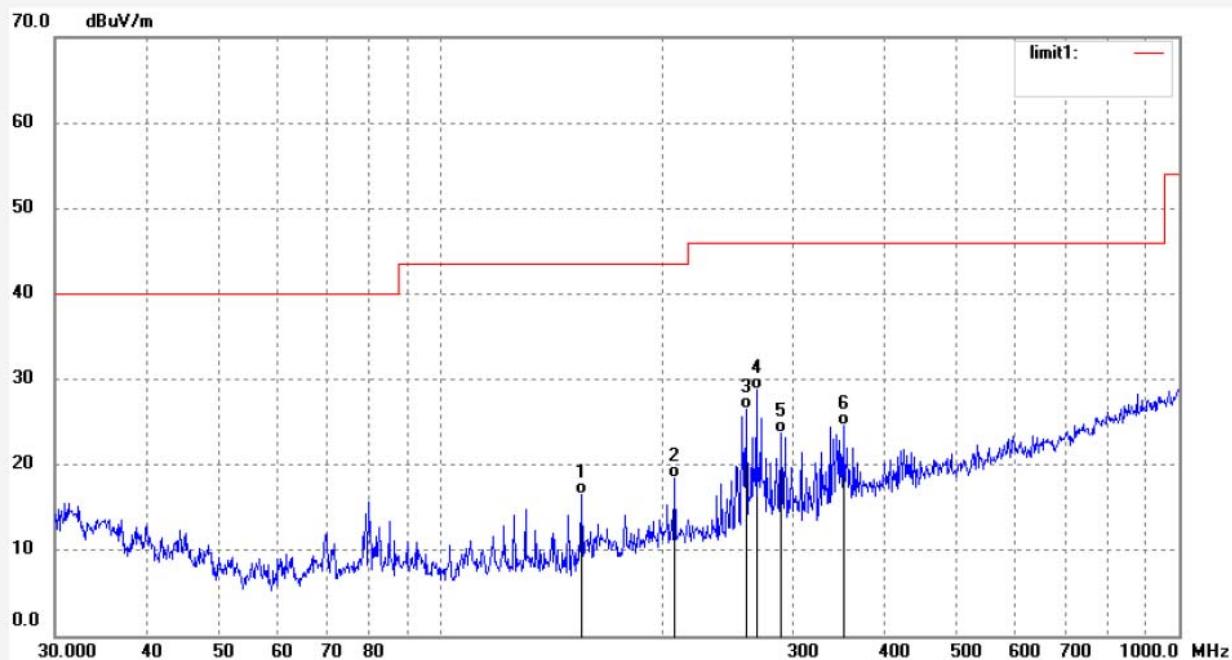
Mode: TX 2480MHz

Distance: 3m

Model: BeActiv E300

Manufacturer: Zylux

Note: Report NO.:ATE20172055



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	155.3305	38.39	-21.88	16.51	43.50	-26.99	QP	150	132	
2	207.1966	36.95	-18.47	18.48	43.50	-25.02	QP	150	153	
3	259.4433	44.09	-17.57	26.52	46.00	-19.48	QP	150	136	
4	267.7787	45.94	-17.14	28.80	46.00	-17.20	QP	150	297	
5	289.2986	39.97	-16.20	23.77	46.00	-22.23	QP	150	153	
6	350.9721	38.31	-13.78	24.53	46.00	-21.47	QP	200	168	

Above 1GHz



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Job No.: frank2017 #1250

Polarization: Horizontal

Standard: FCC PK

Power Source: DC 3.7V

Test item: Radiation Test

Date: 17/10/21/

Temp.(C)/Hum.(%) 25 C / 55 %

Time: 14/43/05

EUT: Bluetooth Headphone

Engineer Signature: Frank

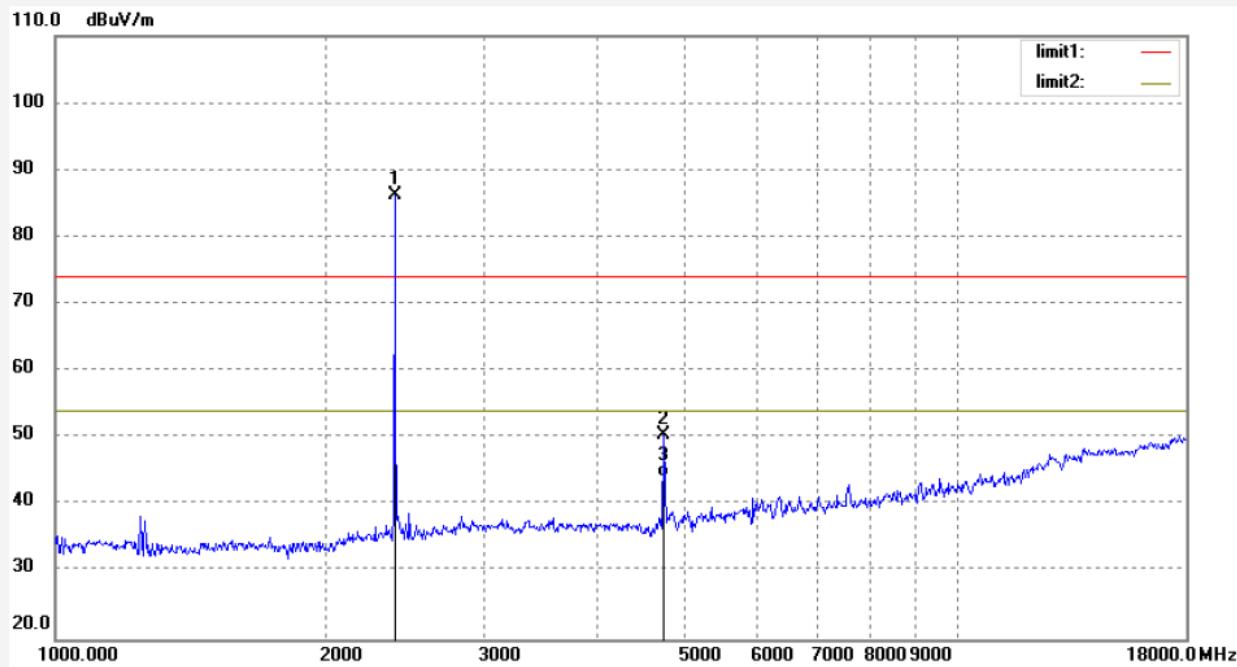
Mode: TX 2402MHz

Distance: 3m

Model: BeActiv E300

Manufacturer: Zylux

Note: Report NO.:ATE20172055



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2402.019	90.36	-4.01	86.35			peak			
2	4804.057	46.98	3.46	50.44	74.00	-23.56	peak			
3	4804.057	40.65	3.46	44.11	54.00	-9.89	AVG	250	158	



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Job No.: frank2017 #1251

Polarization: Vertical

Standard: FCC PK

Power Source: DC 3.7V

Test item: Radiation Test

Date: 17/10/21/

Temp.(C)/Hum.(%) 25 C / 55 %

Time: 14/47/35

EUT: Bluetooth Headphone

Engineer Signature: Frank

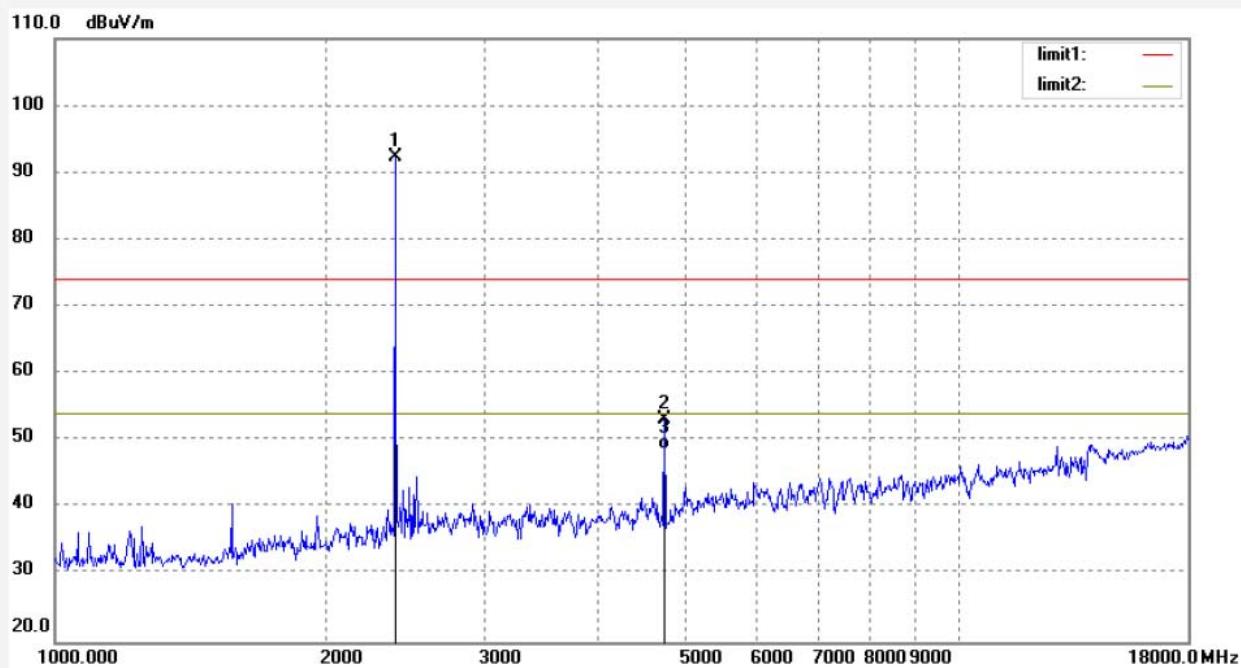
Mode: TX 2402MHz

Distance: 3m

Model: BeActiv E300

Manufacturer: Zylux

Note: Report NO.:ATE20172055



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2402.019	96.35	-4.01	92.34			peak			
2	4804.057	49.71	3.46	53.17	74.00	-20.83	peak			
3	4804.057	45.15	3.46	48.61	54.00	-5.39	AVG	250	48	



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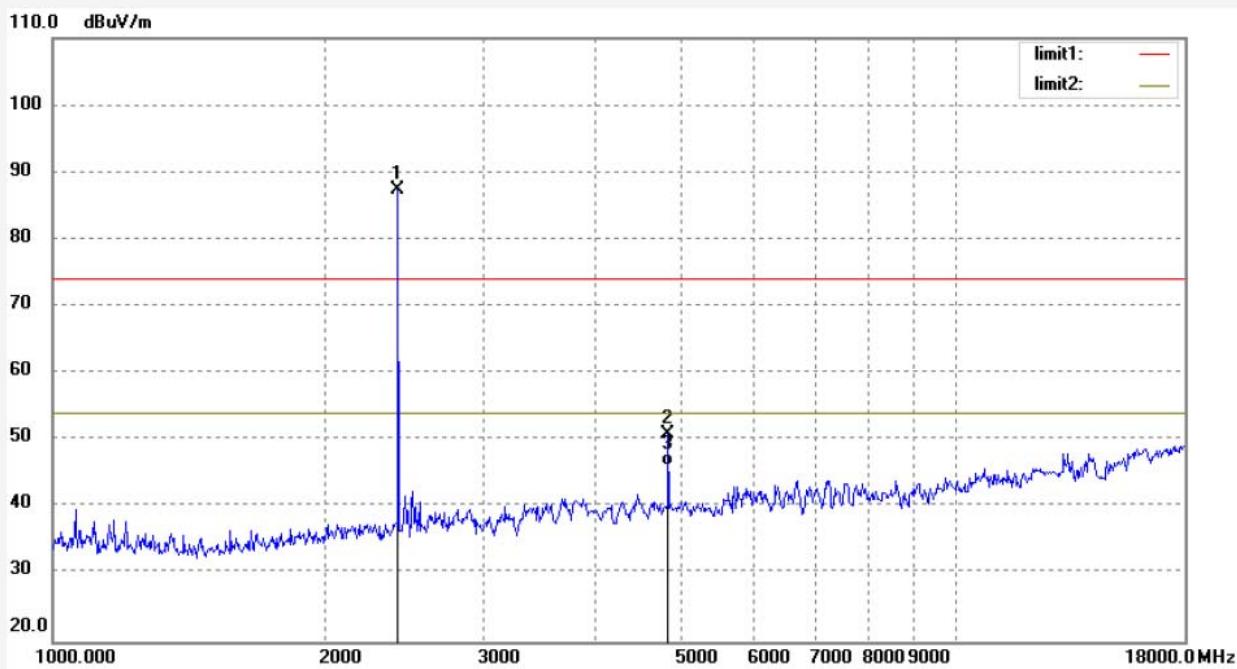
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Science & Industry Park,Nanshan Shenzhen,P.R.China

Site: 1# Chamber
Tel:+86-0755-26503290
Fax:+86-0755-26503396

Job No.: frank2017 #1253
Standard: FCC PK
Test item: Radiation Test
Temp.(C)/Hum.(%) 25 C / 55 %
EUT: Bluetooth Headphone
Mode: TX 2440MHz
Model: BeActiv E300
Manufacturer: Zylux

Polarization: Horizontal
Power Source: DC 3.7V
Date: 17/10/21/
Time: 14:50:38
Engineer Signature: Frank
Distance: 3m

Note: Report NO.:ATE20172055



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2440.021	91.22	-3.83	87.39			peak			
2	4880.324	47.17	3.82	50.99	74.00	-23.01	peak			
3	4880.324	42.45	3.82	46.27	54.00	-7.73	AVG	300	158	



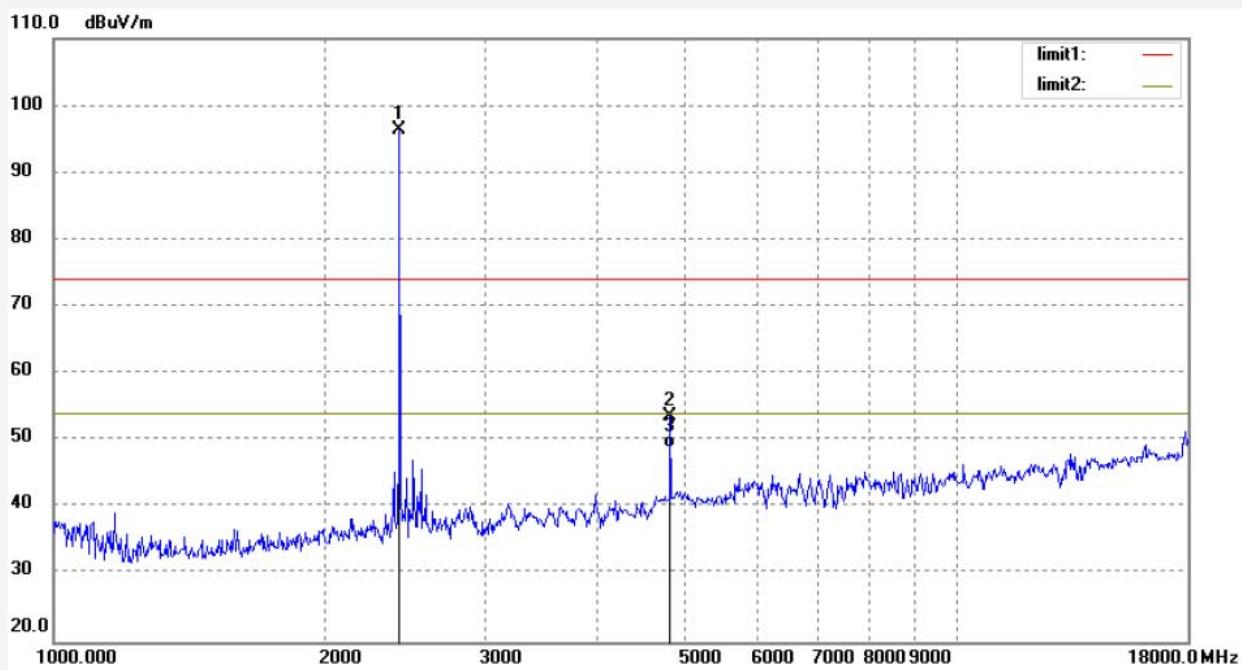
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Job No.: frank2017 #1252
 Standard: FCC PK
 Test item: Radiation Test
 Temp.(C)/Hum.(%) 25 C / 55 %
 EUT: Bluetooth Headphone
 Mode: TX 2440MHz
 Model: BeActiv E300
 Manufacturer: Zylux

Polarization: Vertical
 Power Source: DC 3.7V
 Date: 17/10/21/
 Time: 14:48:52
 Engineer Signature: Frank
 Distance: 3m

Note: Report NO.:ATE20172055



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2440.021	100.15	-3.83	96.32			peak			
2	4880.324	49.86	3.82	53.68	74.00	-20.32	peak			
3	4880.324	45.15	3.82	48.97	54.00	-5.03	AVG	250	186	



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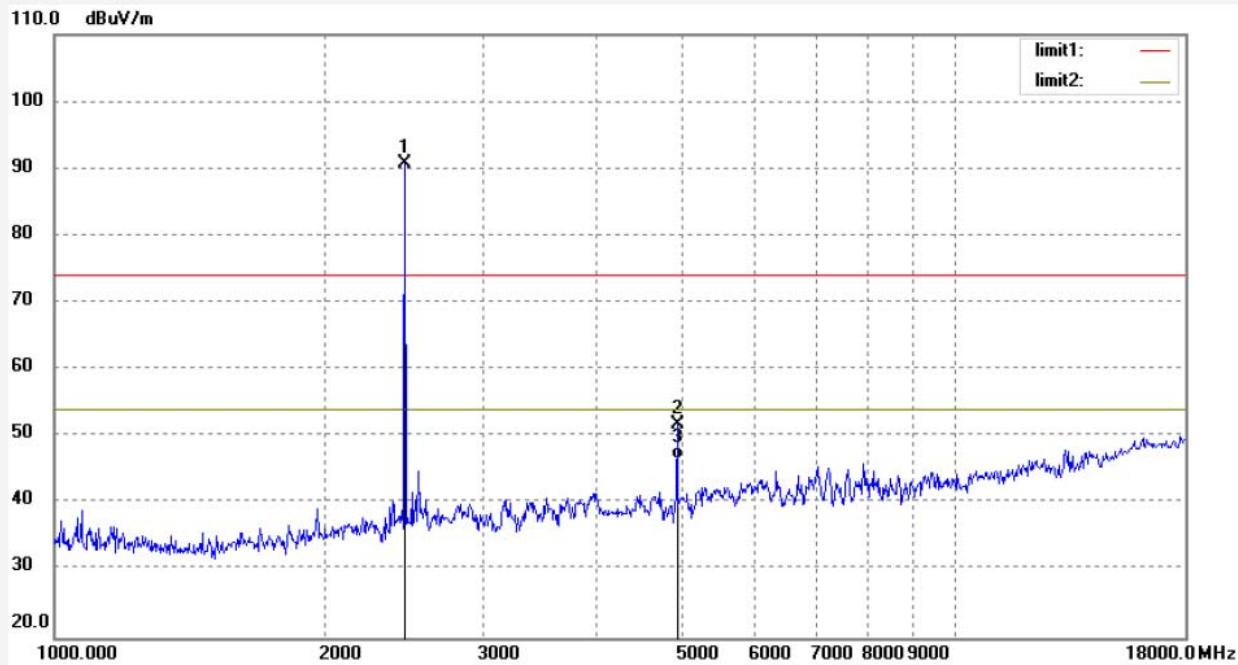
F1,Bldg.A,Changyuan New Material Port Keyuan Rd,
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Site: 1# Chamber
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Fax:+86-0755-26503396

Job No.: frank2017 #1254
Standard: FCC PK
Test item: Radiation Test
Temp.(C)/Hum.(%) 25 C / 55 %
EUT: Bluetooth Headphone
Mode: TX 2480MHz
Model: BeActiv E300
Manufacturer: Zylux

Polarization: Horizontal
Power Source: DC 3.7V
Date: 17/10/21/
Time: 14/52/08
Engineer Signature: Frank
Distance: 3m

Note: Report NO.:ATE20172055

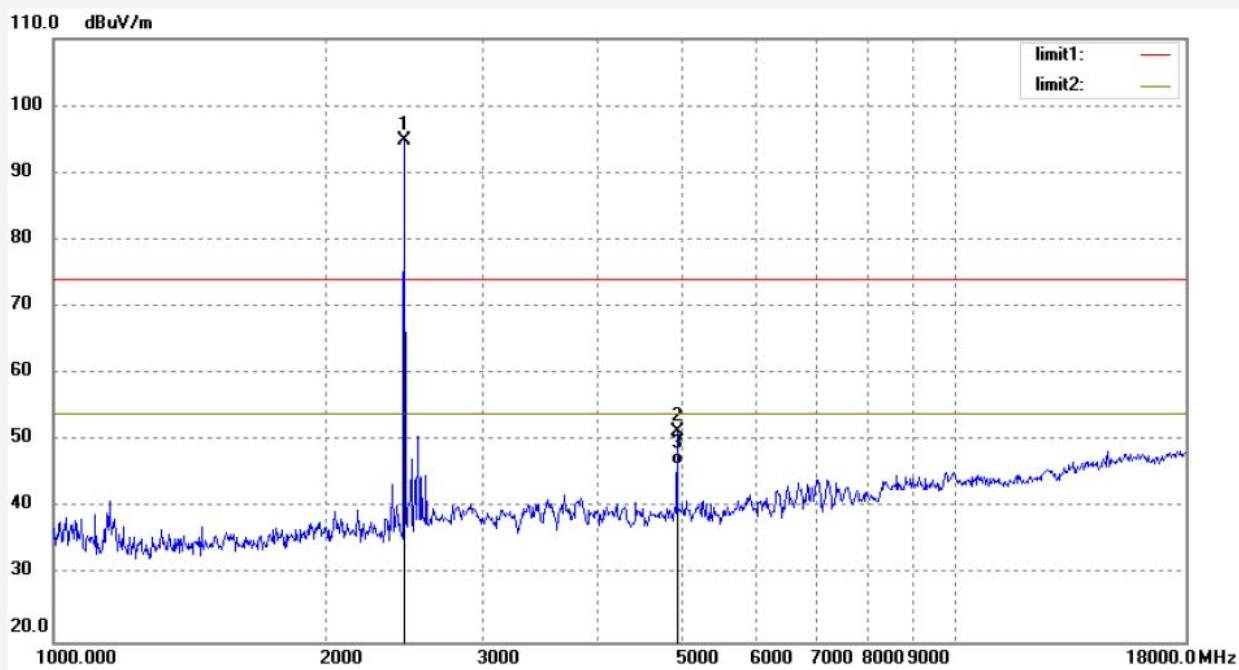


No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2480.034	94.36	-3.67	90.69			peak			
2	4960.444	47.60	4.25	51.85	74.00	-22.15	peak			
3	4960.444	42.45	4.25	46.70	54.00	-7.30	AVG	250	185	

Job No.: frank2017 #1255
 Standard: FCC PK
 Test item: Radiation Test
 Temp.(C)/Hum.(%) 25 C / 55 %
 EUT: Bluetooth Headphone
 Mode: TX 2480MHz
 Model: BeActiv E300
 Manufacturer: Zylux

Polarization: Vertical
 Power Source: DC 3.7V
 Date: 17/10/21/
 Time: 14:53:24
 Engineer Signature: Frank
 Distance: 3m

Note: Report NO.:ATE20172055



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2480.034	98.58	-3.67	94.91			peak			
2	4960.444	47.06	4.25	51.31	74.00	-22.69	peak			
3	4960.444	42.15	4.25	46.40	54.00	-7.60	AVG	250	174	

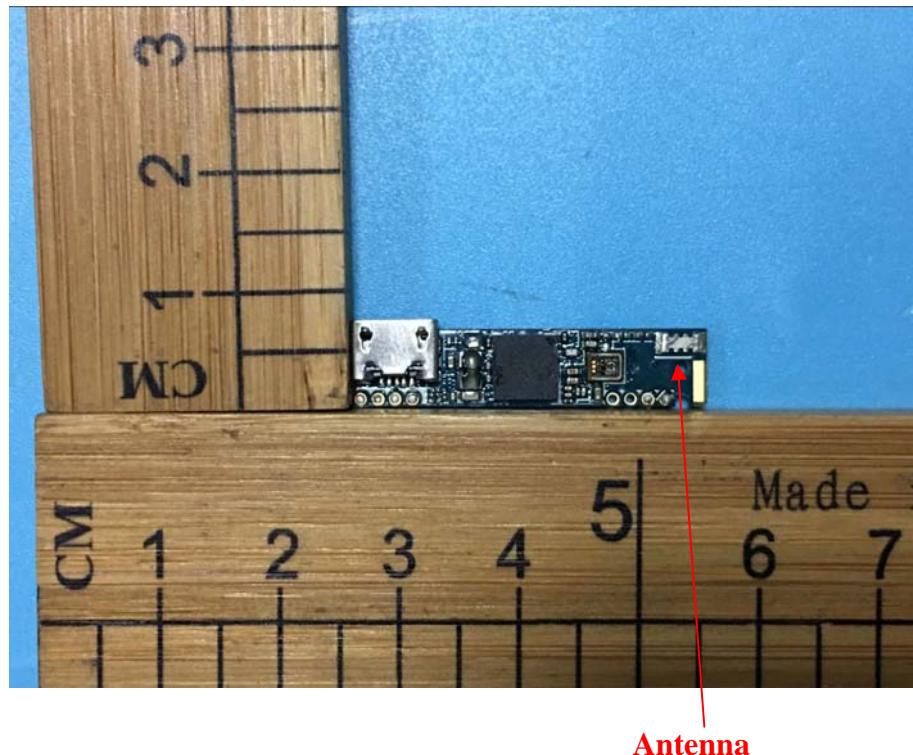
11. ANTENNA REQUIREMENT

11.1. The Requirement

According to Section 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.

11.2. Antenna Construction

Device is equipped with permanent attached antenna, which isn't displaced by other antenna. The Antenna gain of EUT is 0 dBi. Therefore, the equipment complies with the antenna requirement of Section 15.203.



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