APPLICATION CERTIFICATION On Behalf of Zylux Acoustic Corporation

TV Ears TV Wireless Headset Model No.: 10500

FCC ID: XN610500

Prepared for : Zylux Acoustic Corporation

Address : 3F, 22, Lane 35, Jihu Road, Neihu Technology Park

Taipei 114, Taiwan

Prepared by : ACCURATE TECHNOLOGY CO. LTD

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Report Number : ATE20091910

Date of Test : September 23-27, 2009 Date of Report : September 28, 2009

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Test Report Certification

Applicant : Zylux Acoustic Corporation

Manufacturer : 1. Zhao Yang Electronics Co., Ltd.

2. Jie Hao Elec. (Su zhou) Co., Ltd.

EUT Description : TV Ears TV Wireless Headset

(A) MODEL NO.: 10500(B) SERIAL NO.: N/A

(C) POWER SUPPLY: DC 3.7V (Lithium battery 1×)

Measurement Procedure Used:

FCC Rules and Regulations Part 15 Subpart C Section 15.247 ANSI C63.4: 2003

The device described above is tested by 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 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 ACCURATE TECHNOLOGY CO. LTD.

Date of Test:	September 23-27, 2009	
Prepared by :	sky Lang	
	(Engineer)	
Approved & Authorized Signer :	Sean(=)	
	(Manager)	

1. GENERAL INFORMATION

1.1.Description of Device (EUT)

EUT : TV Ears TV Wireless Headset

Model Number : 10500

Frequency Band : 2402MHz-2480MHz

Number of Channels : 79

Antenna Gain : 2.5dBi (Maximum)

Power Supply : DC 3.7V (Lithium battery $1\times$)

Adapter : Model: KSUFB0500100D1US

Input: AC 100-240V, 50/60Hz, 0.15A

Output: DC 5.0V, 1.0A

Applicant : Zylux Acoustic Corporation

Address : 3F, 22, Lane 35, Jihu Road, Neihu Technology Park

Taipei 114, Taiwan

Manufacturer 1 : Zhao Yang Electronics Co., Ltd.

Address : Ma Bu Technology Park, Xixiang Town, Baoan District

Shenzhen, P.R.C.

Manufacturer 2 : Jie Hao Elec. (Su zhou) Co., Ltd.

Address : No.1 High-technical Industry Park, Linggang, Luzhi

Town, Wuzhong Area, Suzhou, P.R.C.

Date of sample received: September 20, 2009

Date of Test : September 23-27, 2009

1.2.Description of Test Facility

EMC Lab : Accredited by TUV Rheinland Shenzhen

Listed by FCC

The Registration Number is 752051

Listed by Industry Canada

The Registration Number is 5077A-2

Accredited by China National Accreditation Committee

for Laboratories

The Certificate Registration Number is L3193

Name of Firm : ACCURATE TECHNOLOGY CO. LTD

Site Location : F1, Bldg. A, Changyuan New Material Port, Keyuan Rd.

Science & Industry Park, Nanshan, Shenzhen, Guangdong

P.R. China

1.3. 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 until
EMI Test Receiver	Rohde&Schwarz	ESCS30	100307	03.28.2010
EMI Test Receiver	Rohde&Schwarz	ESPI3	101526/003	03.28.2010
Spectrum Analyzer	Agilent	E7405A	MY45115511	03.28.2010
Pre-Amplifier	Rohde&Schwarz	CBLU118354 0-01	3791	03.30.2010
Loop Antenna	Schwarzbeck	FMZB1516	1516131	03.28.2010
Bilog Antenna	Schwarzbeck	VULB9163	9163-323	03.28.2010
Horn Antenna	Schwarzbeck	BBHA9120D	9120D-655	12.19.2009
Horn Antenna	Schwarzbeck	BBHA9170	9170-359	10.09.2009
LISN	Rohde&Schwarz	ESH3-Z5	100305	03.28.2010
LISN	Schwarzbeck	NSLK8126	8126431	03.28.2010

3. OPERATION OF EUT DURING TESTING

3.1. Operating Mode

The mode is used: Transmitting mode:

Low Channel: 2402MHz Middle Channel: 2441MHz High Channel: 2480MHz

Hopping

Charging mode

3.2. Configuration and peripherals

EUT

Figure 1 Setup: Transmitting mode

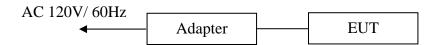


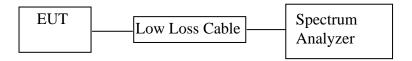
Figure 2 Setup: Charging mode

4. TEST PROCEDURES AND RESULTS

FCC Rules	Description of Test	Result
Section 15.247(a)(1)	20dB Bandwidth Test	Compliant
Section 15.247(a)(1)	Carrier Frequency Separation Test	Compliant
Section 15.247(a)(1)(iii)	Number Of Hopping Frequency Test	Compliant
Section 15.247(a)(1)(iii)	Dwell Time Test	Compliant
Section 15.247(b)(1)	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

5. 20DB BANDWIDTH TEST

5.1.Block Diagram of Test Setup



(EUT: TV Ears TV Wireless Headset)

5.2. The Requirement For Section 15.247(a)(1)

Section 15.247(a)(1): Frequency hopping systems shall have hopping channel carrier frequencies separated by a minimum of 25 kHz or the 20 dB bandwidth of the hopping channel, whichever is greater.

5.3.EUT Configuration on Measurement

The following 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.

5.3.1.TV Ears TV Wireless Headset (EUT)

Model Number : 10500 Serial Number : N/A

Manufacturer : 1. Zylux Acoustic Corporation

2. Jie Hao Elec. (Su zhou) Co., Ltd.

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 TX(Hopping off) modes measure it. The transmit frequency are 2402-2480MHz. We select 2402MHz, 2441MHz, 2480MHz TX frequency to transmit.

5.5.Test Procedure

- 5.5.1.The transmitter output was connected to the spectrum analyzer through a low loss cable.
- 5.5.2.Set RBW of spectrum analyzer to 30kHz and VBW to 100kHz.
- 5.5.3.The 20dB bandwidth is defined as the total spectrum the power of which is higher than peak power minus 20dB.

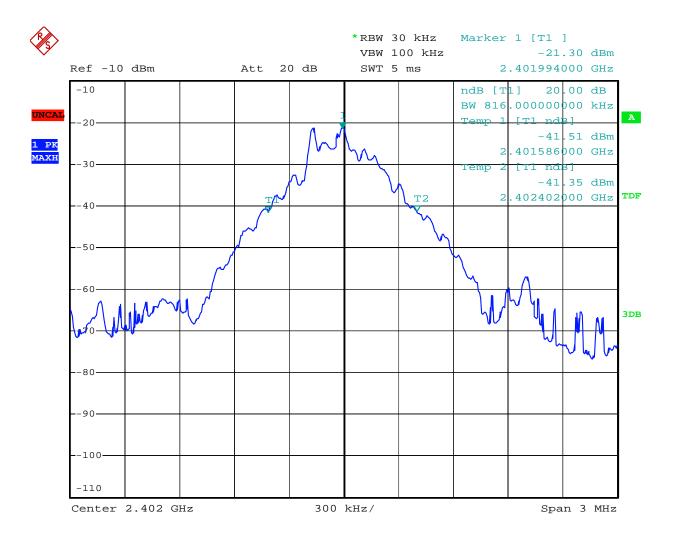
5.6.Test Result

PASS.

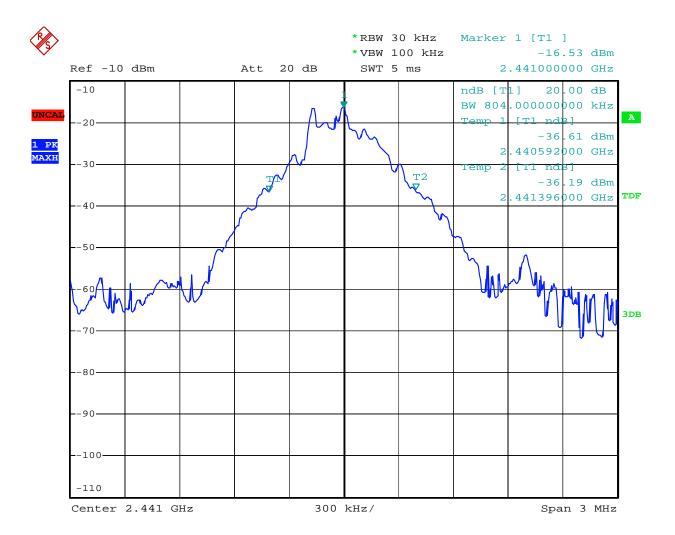
Date of Test:September 27, 2009Temperature:25°CEUT:TV Ears TV Wireless HeadsetHumidity:50%Model No.:10500Power Supply:DC 3.7VTest Mode:TXTest Engineer:Joe

Channel	Frequency (MHz)	20dB Bandwidth (MHz)	Limit (MHz)
Low	2402	0.816	
Middle	2441	0.804	
High	2480	0.810	

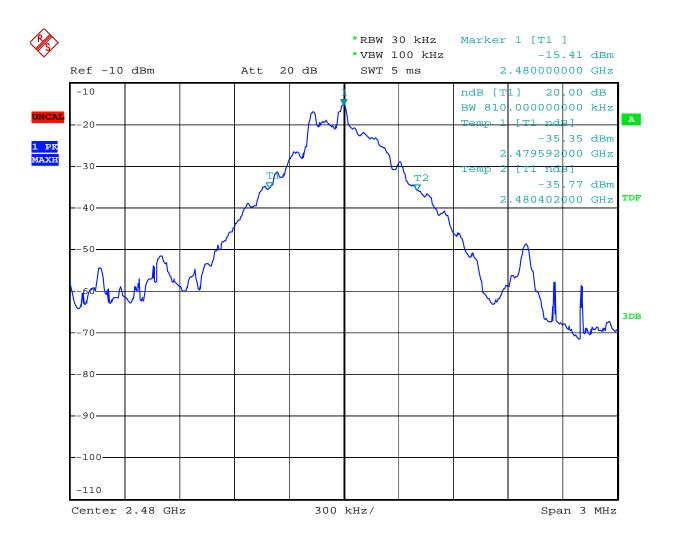
The spectrum analyzer plots are attached as below.



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Date: 27.SEP.2009 10:53:59



Date: 27.SEP.2009 10:56:57

6. CARRIER FREQUENCY SEPARATION TEST

6.1.Block Diagram of Test Setup



(EUT: TV Ears TV Wireless Headset)

6.2. The Requirement For Section 15.247(a)(1)

Section 15.247(a)(1): Frequency hopping systems shall have hopping channel carrier frequencies separated by a minimum of 25 kHz or the 20 dB bandwidth of the hopping channel, whichever is greater. Alternatively, frequency hopping systems operating in the 2400-2483.5 MHz band may have hopping channel carrier frequencies that are separated by 25 kHz or two-thirds of the 20 dB bandwidth of the hopping channel, whichever is greater, provided the systems operate with an output power no greater than 125 mW. The system shall hop to channel frequencies that are selected at the system hopping rate from a pseudorandomly ordered list of hopping frequencies. Each frequency must be used equally on the average by each transmitter. The system receivers shall have input bandwidths that match the hopping channel bandwidths of their corresponding transmitters and shall shift frequencies in synchronization with the transmitted signals.

6.3.EUT Configuration on Measurement

The following 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.

6.3.1.TV Ears TV Wireless Headset (EUT)

Model Number : 10500 Serial Number : N/A

Manufacturer : 1. Zylux Acoustic Corporation

2. Jie Hao Elec. (Su zhou) Co., Ltd.

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 (Hopping on) modes measure it. The transmit frequency are 2402-2480MHz. We select 2402MHz, 2441MHz, 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 100kHz and VBW to 300kHz. Adjust Span to 3 MHz.
- 6.5.3.Set the adjacent channel of the EUT maxhold another trace.
- 6.5.4. Measurement the channel separation

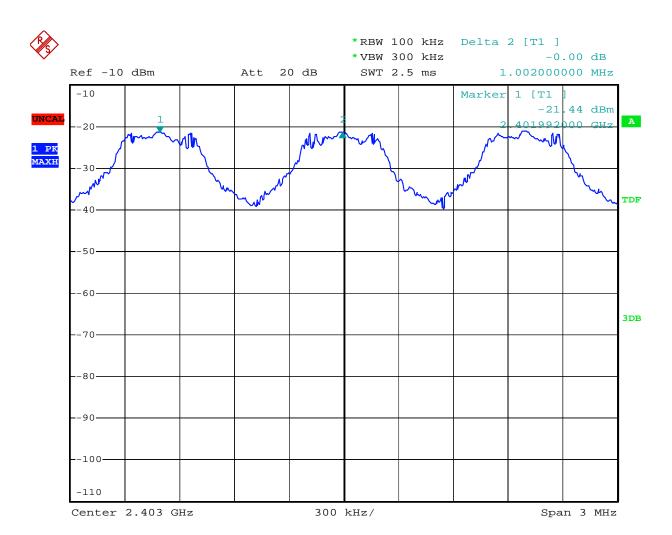
6.6.Test Result

PASS.

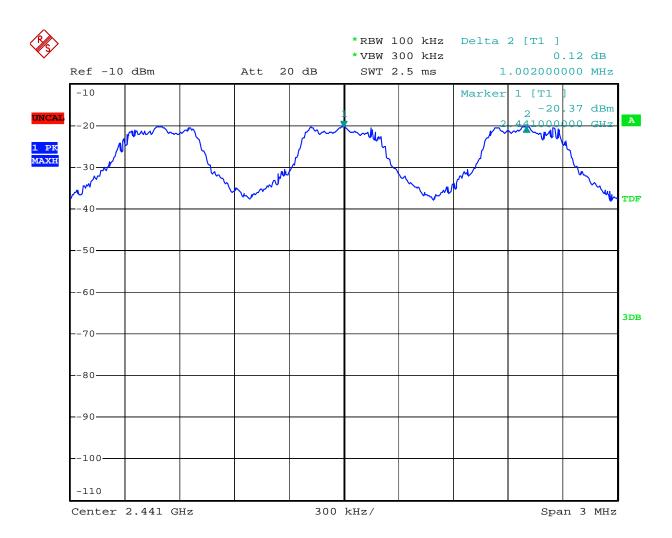
Date of Test:September 27, 2009Temperature:25°CEUT:TV Ears TV Wireless HeadsetHumidity:50%Model No.:10500Power Supply:DC 3.7VTest Mode:HoppingTest Engineer:Joe

	Channel Frequency	Channel separation	
Channel			Limit
	(MHz)	(MHz)	
Low	2402	1 002	> the 20dB Bandwidth or 25kHz
Low	2402	Limit (MHz) 1.002 > the 20dB Bandwidth or 25kHz (whichever is greater) > the 20dB Bandwidth or 25kHz (whichever is greater) > the 20dB Bandwidth or 25kHz (whichever is greater) > the 20dB Bandwidth or 25kHz	
Middle	2441	1.002	> the 20dB Bandwidth or 25kHz
Middle	2 44 1	1.002	(whichever is greater)
High	2490	1 002	> the 20dB Bandwidth or 25kHz
High	2480	1.002	(whichever is greater)

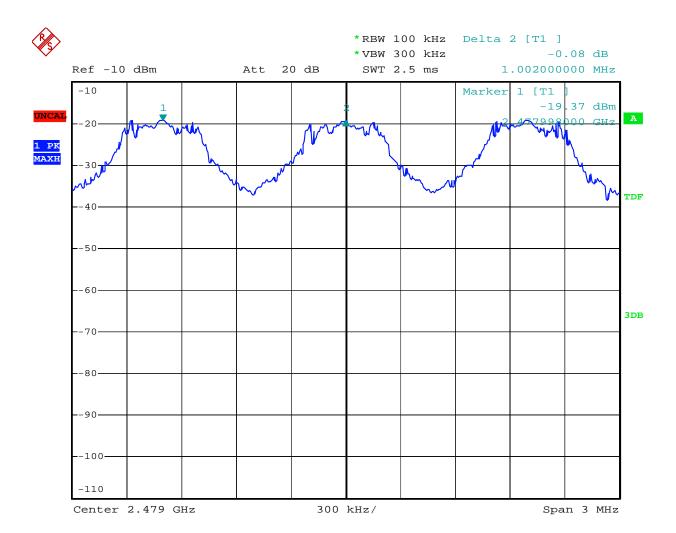
The spectrum analyzer plots are attached as below.



Date: 27.SEP.2009 09:39:11



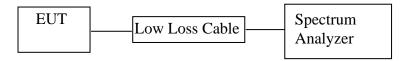
Date: 27.SEP.2009 09:41:46



Date: 27.SEP.2009 09:43:39

7. NUMBER OF HOPPING FREQUENCY TEST

7.1.Block Diagram of Test Setup



(EUT: TV Ears TV Wireless Headset)

7.2. The Requirement For Section 15.247(a)(1)(iii)

Section 15.247(a)(1)(iii): Frequency hopping systems in the 2400-2483.5 MHz band shall use at least 15 channels.

7.3.EUT Configuration on Measurement

The following 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.

7.3.1.TV Ears TV Wireless Headset (EUT)

Model Number : 10500 Serial Number : N/A

Manufacturer : 1. Zylux Acoustic Corporation

2. Jie Hao Elec. (Su zhou) Co., Ltd.

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 (Hopping on) modes measure it.

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 the spectrum analyzer as Span=30MHz, RBW=300kHz, VBW=300kHz.
- 7.5.3.Max hold, view and count how many channel in the band.

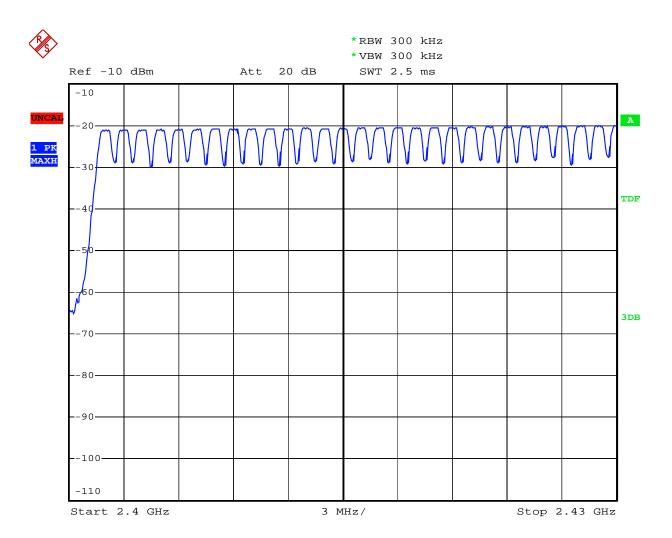
7.6.Test Result

PASS.

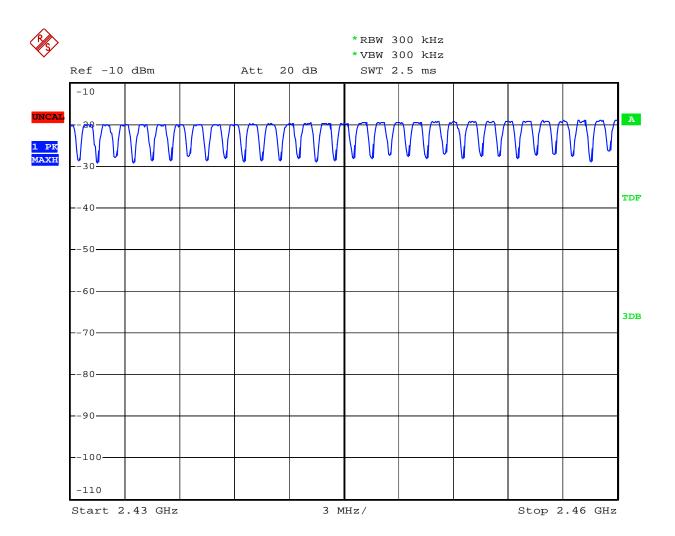
Date of Test:September 27, 2009Temperature:25°CEUT:TV Ears TV Wireless HeadsetHumidity:50%Model No.:10500Power Supply:DC 3.7VTest Mode:HoppingTest Engineer:Joe

Total number of	Measurement result (CH)	Limit (CH)
hopping channel	79	>15

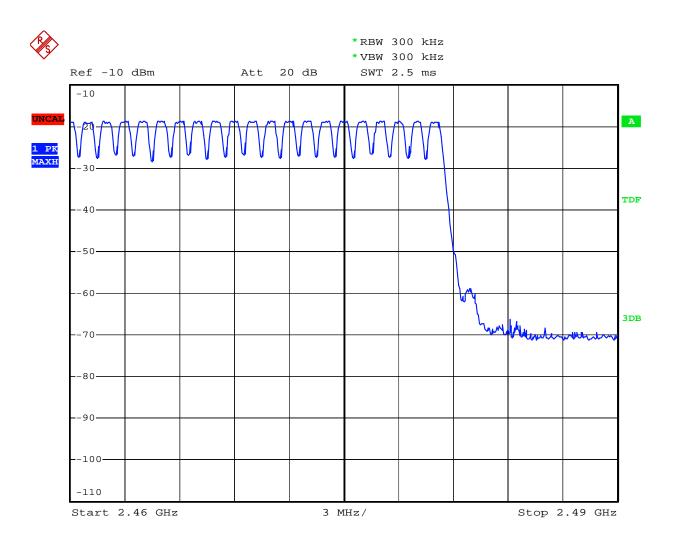
The spectrum analyzer plots are attached as below.



Date: 27.SEP.2009 09:31:07



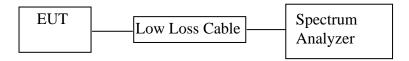
Date: 27.SEP.2009 09:32:51



Date: 27.SEP.2009 09:34:52

8. DWELL TIME TEST

8.1.Block Diagram of Test Setup



(EUT: TV Ears TV Wireless Headset)

8.2. The Requirement For Section 15.247(a)(1)(iii)

Section 15.247(a)(1)(iii): Frequency hopping systems in the 2400-2483.5 MHz band shall use at least 15 channels. The average time of occupancy on any channel shall not be greater than 0.4 seconds within a period of 0.4 seconds multiplied by the number of hopping channels employed. Frequency hopping systems may avoid or suppress transmissions on a particular hopping frequency provided that a minimum of 15 channels are used.

8.3.EUT Configuration on Measurement

The following 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.

8.3.1.TV Ears TV Wireless Headset (EUT)

Model Number : 10500 Serial Number : N/A

Manufacturer : 1. Zylux Acoustic Corporation

2. Jie Hao Elec. (Su zhou) Co., Ltd.

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 (Hopping on) modes measure it. The transmit frequency are 2402-2480MHz. We select 2402MHz, 2441MHz, 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.Set center frequency of spectrum analyzer = operating frequency.
- 8.5.3.Set the spectrum analyzer as RBW=100kHz, VBW=300kHz, Span=0Hz, Adjust Sweep=1s. Get the burst (in 1 sec.).
- 8.5.4.Set the spectrum analyzer as RBW=1MHz, VBW=3MHz, Span=0Hz, Adjust Sweep=2ms. Get the pulse time.
- 8.5.5.Repeat above procedures until all frequency measured were complete.

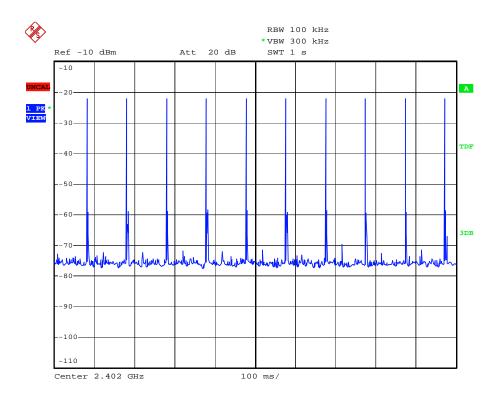
8.6.Test Result

PASS.

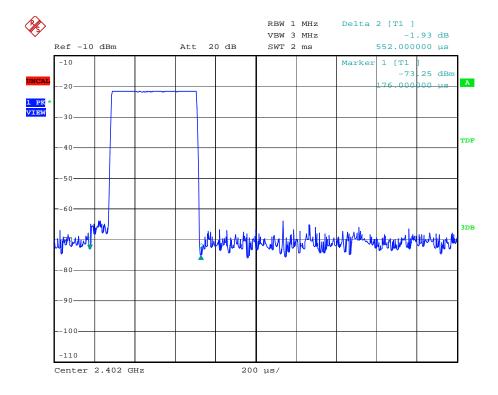
Date of Test:September 27, 2009Temperature:25°CEUT:TV Ears TV Wireless HeadsetHumidity:50%Model No.:10500Power Supply:DC 3.7VTest Mode:HoppingTest Engineer:Joe

A period transmit time = $0.4 \times 79 = 31.6$						
Dwell time = p	ulse time × burst (in 1 se	ec.)×31.6				
Channel	Channel Frequency	Pulse Time	Burst	Dwell Time	Limit	
	(MHz)	(ms)	(in 1 sec.)	(ms)	(ms)	
Low	2402	0.552	10	174.4	400	
Middle	2441	0.552	10	174.4	400	
High	2480	0.548	10	173.2	400	

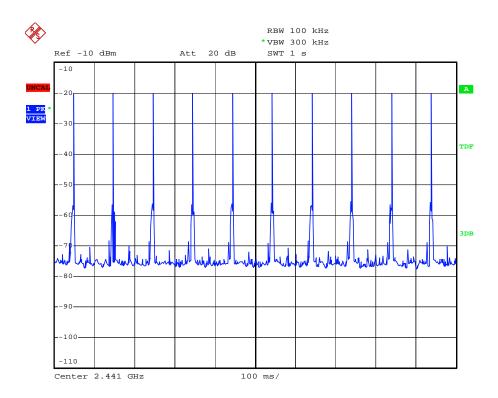
The spectrum analyzer plots are attached as below.



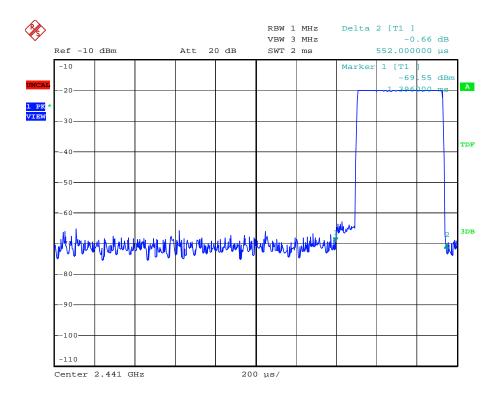
Date: 27.SEP.2009 09:55:13



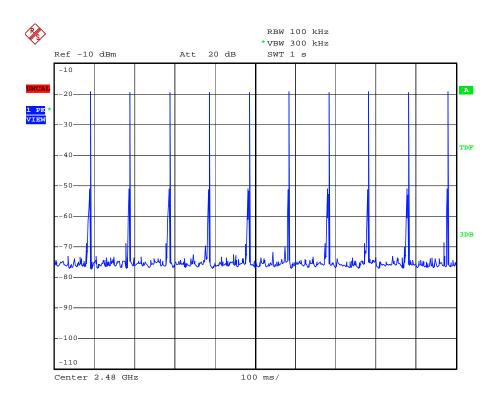
Date: 27.SEP.2009 10:07:57



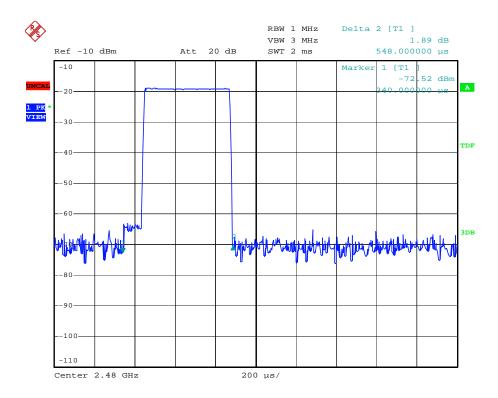
Date: 27.SEP.2009 09:56:02



Date: 27.SEP.2009 10:05:57



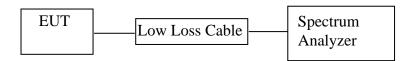
Date: 27.SEP.2009 09:56:47



Date: 27.SEP.2009 10:02:06

9. MAXIMUM PEAK OUTPUT POWER TEST

9.1.Block Diagram of Test Setup



(EUT: TV Ears TV Wireless Headset)

9.2. The Requirement For Section 15.247(b)(1)

Section 15.247(b)(1): For frequency hopping systems operating in the 2400-2483.5 MHz band employing at least 75 non-overlapping hopping channels, and all frequency hopping systems in the 5725-5850 MHz band: 1 watt. For all other frequency hopping systems in the 2400-2483.5 MHz band: 0.125 watts.

9.3.EUT Configuration on Measurement

The following 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.

9.3.1.TV Ears TV Wireless Headset (EUT)

Model Number : 10500 Serial Number : N/A

Manufacturer : 1. Zylux Acoustic Corporation

2. Jie Hao Elec. (Su zhou) Co., Ltd.

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 (Hopping off) modes measure it. The transmit frequency are 2402-2480MHz. We select 2402MHz, 2441MHz, 2480MHz TX frequency to transmit.

9.5.Test Procedure

- 9.5.1.The transmitter output was connected to the spectrum analyzer through a low loss cable.
- 9.5.2.Set RBW of spectrum analyzer to 1MHz and VBW to 3MHz.
- 9.5.3.Measurement the maximum peak output power.

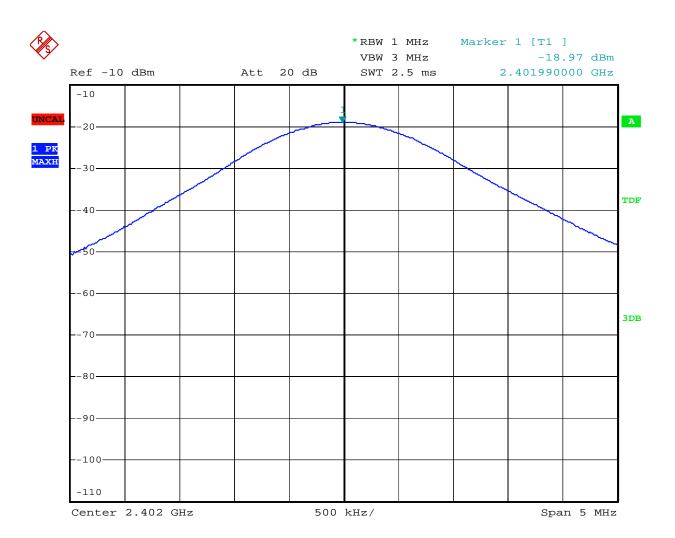
9.6.Test Result

PASS.

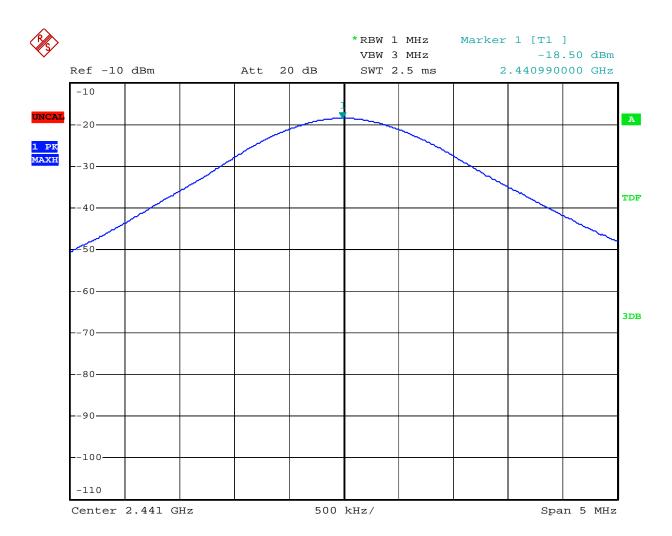
Date of Test:September 27, 2009Temperature:25°CEUT:TV Ears TV Wireless HeadsetHumidity:50%Model No.:10500Power Supply:DC 3.7VTest Mode:TXTest Engineer:Joe

Channel	Frequency (MHz)	Peak Output Power (dBm)	Peak Output Power (mW)	Limits dBm / W
Low	2402	-18.97	0.013	30 dBm / 1 W
Middle	2441	-18.50	0.014	30 dBm / 1 W
High	2480	-17.45	0.018	30 dBm / 1 W

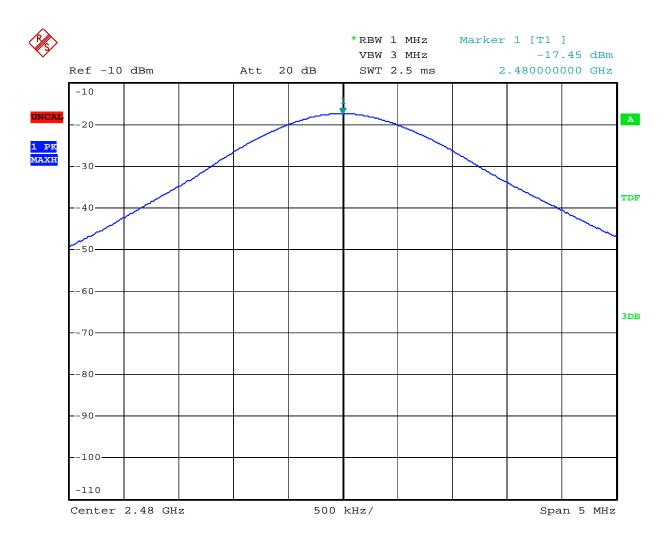
The spectrum analyzer plots are attached as below.



Date: 27.SEP.2009 10:11:49



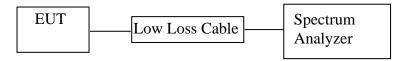
Date: 27.SEP.2009 10:14:01



Date: 27.SEP.2009 10:16:40

10.BAND EDGE COMPLIANCE TEST

10.1.Block Diagram of Test Setup



(EUT: TV Ears TV Wireless Headset)

10.2. 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).

10.3.EUT Configuration on Measurement

The following 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.

10.3.1.TV Ears TV Wireless Headset (EUT)

Model Number : 10500 Serial Number : N/A

Manufacturer : 1. Zylux Acoustic Corporation

2. Jie Hao Elec. (Su zhou) Co., Ltd.

10.4. Operating Condition of EUT

- 10.4.1. Setup the EUT and simulator as shown as Section 10.1.
- 10.4.2. Turn on the power of all equipment.
- 10.4.3.Let the EUT work in TX (Hopping off, Hopping on) modes measure it. The transmit frequency are 2402-2480MHz. We select 2402MHz, 2480MHz TX frequency to transmit.

10.5.Test Procedure

- 10.5.1. The transmitter output was connected to the spectrum analyzer via a low loss cable.
- 10.5.2.Set RBW of spectrum analyzer to 100kHz and VBW to 100kHz.
- 10.5.3. The band edges was measured and recorded.

10.6.Test Result

Pass

Date of Test:September 27, 2009Temperature:25°CEUT:TV Ears TV Wireless HeadsetHumidity:50%Model No.:10500Power Supply:DC 3.7VTest Mode:TX (Hopping off)Test Engineer:Joe

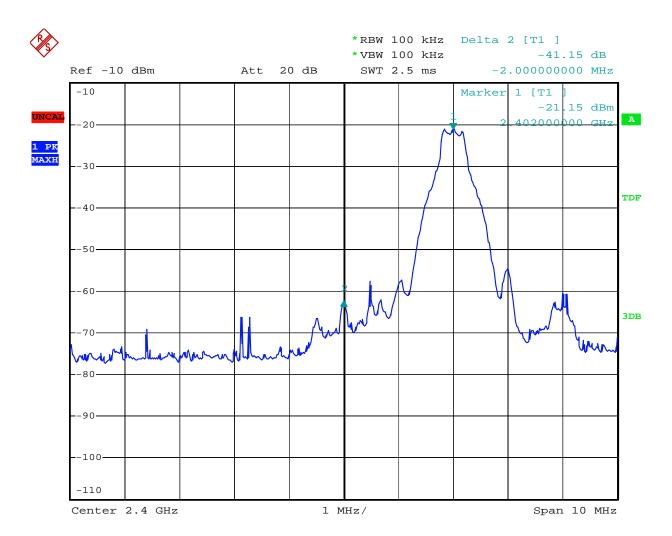
Conducted test

Frequency	Result of Band Edge (dBc)	Limit of Band Edge (dBc)
(MHz)		
2402	41.15	> 20dBc
2480	45.17	> 20dBc

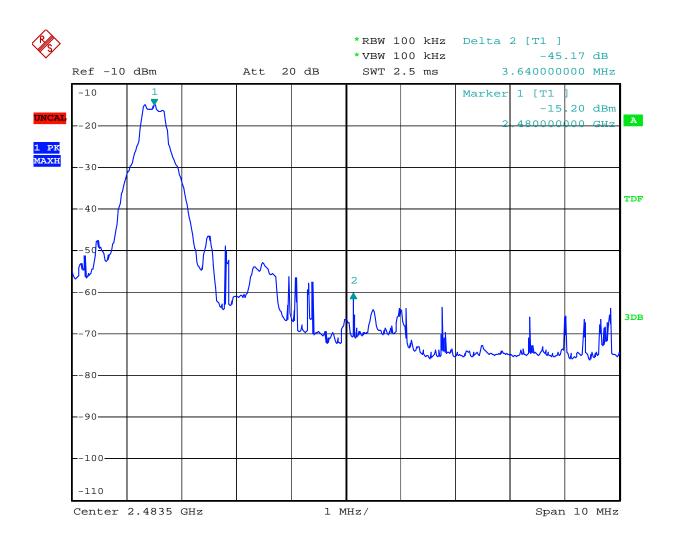
Date of Test:September 27, 2009Temperature:25°CEUT:TV Ears TV Wireless HeadsetHumidity:50%Model No.:10500Power Supply:DC 3.7VTest Mode:TX (Hopping on)Test Engineer:Joe

Conducted test

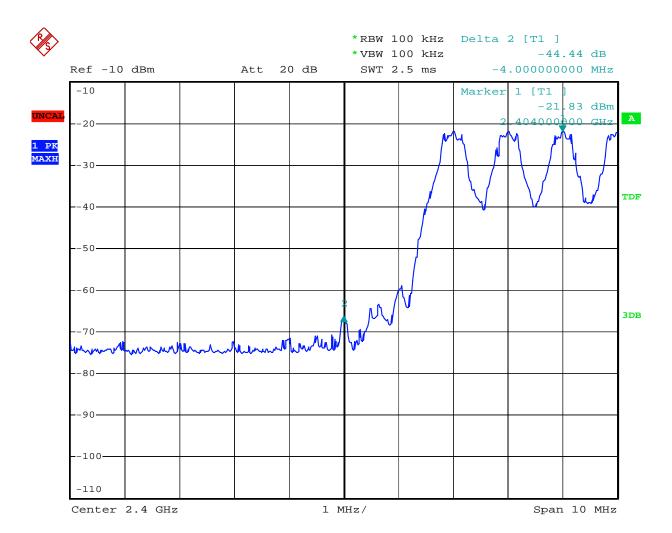
Frequency	Result of Band Edge (dBc)	Limit of Band Edge (dBc)
(MHz)		
2402	44.44	> 20dBc
2480	50.28	> 20dBc



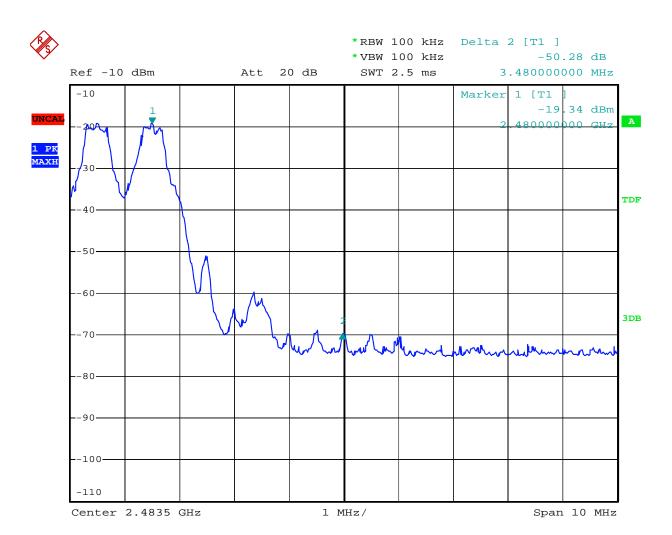
Date: 27.SEP.2009 10:42:15



Date: 27.SEP.2009 11:04:46



Date: 27.SEP.2009 09:49:52



Date: 27.SEP.2009 09:53:39

11. RADIATED SPURIOUS EMISSION TEST

11.1.Block Diagram of Test Setup

11.1.1.Block diagram of connection between the EUT and simulators



Figure 1 Setup: Transmitting mode

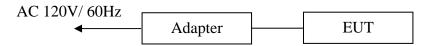
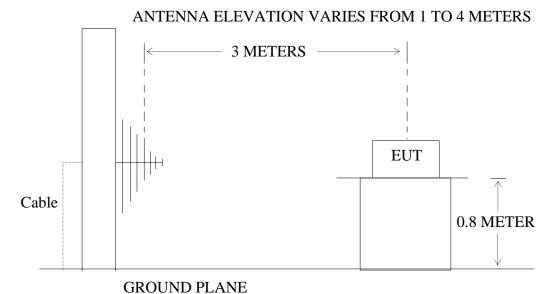


Figure 2 Setup: Charging mode

(EUT: TV Ears TV Wireless Headset)

11.1.2.Semi-Anechoic Chamber Test Setup Diagram



(EUT: TV Ears TV Wireless Headset)

11.2.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).

11.3.Restricted bands of operation

11.3.1.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	$\binom{2}{}$
13.36-13.41			

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

(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 Section15.209 shall be demonstrated based on the average value of the measured emissions. The provisions in Section 15.35 apply to these measurements.

²Above 38.6

11.4.Configuration of EUT on Measurement

The following 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.

11.4.1.TV Ears TV Wireless Headset (EUT)

Model Number : 10500 Serial Number : N/A

Manufacturer : 1. Zylux Acoustic Corporation

2. Jie Hao Elec. (Su zhou) Co., Ltd.

11.5.Operating Condition of EUT

- 11.5.1. Setup the EUT and simulator as shown as Section 11.1.
- 11.5.2. Turn on the power of all equipment.
- 11.5.3.Let the EUT work in TX (Hopping off), Charging modes measure it. The transmit frequency are 2402-2480MHz. We select 2402MHz, 2441MHz, 2480MHz TX frequency to transmit.

11.6.Test Procedure

The EUT and its simulators are placed on a turntable, which is 0.8 meter high above ground. 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 bilog 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 interface cables must be manipulated according to ANSI C63.4: 2003 on radiated emission measurement. The EUT was tested in 3 orthogonal planes.

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

The frequency range from 30MHz to 25000MHz is checked.

The final measurement in band 9-90kHz, 110-490kHz 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. The basic equation calculation is as follows:

Result = Reading + Corrected Factor

Where Corrected Factor = Antenna Factor + Cable Loss - Amplifier Gain

11.7.The Field Strength of Radiation Emission Measurement Results **PASS.**

Date of Test:	September 25-26, 2009	Temperature:	25°C
EUT:	TV Ears TV Wireless Headset	Humidity:	50%
Model No.:	10500	Power Supply:	DC 3.7V
Test Mode:	TX (2402MHz)	Test Engineer:	Joe

For 30MHz-1000MHz

Corrected Factor = Antenna Factor + Cable Loss – Amplifier Gain

Confected 1 detor	Antibered Fuelor Fine Fine Fuelo Found Fuelo Fue										
Frequency	Reading	Factor	Result	Limit	Margin	Polarization					
(MHz)	(dBµV/m)	Corr.	(dBµV/m)	(dBµV/m)	(dB)						
	QP	(dB)	QP	QP	QP						
-	-	-	-	-	-	Vertical					
-	-	-	-	-	-	Horizontal					

For 1GHz-25GHz

Corrected Factor = Antenna Factor + Cable Loss - Amplifier Gain

Frequency	Reading(Reading(dBµV/m)		Result(c	Result(dBµV/m)		Limit(dBµV/m)		Margin(dBµV/m)	
(MHz)	AV	PEAK	Corr. (dB)	AV	PEAK	AV	PEAK	AV	PEAK	on
2400.000	43.33	45.37	-7.46	35.87	37.91	54	74	-18.13	-36.09	Vertical
2402.004	100.46	102.54	-7.45	93.01	95.09	-	-	-	-	Vertical
*4804.008	47.97	50.05	-0.30	47.67	49.75	54	74	-6.33	-24.25	Vertical
2400.000	43.70	45.73	-7.46	36.24	38.27	54	74	-17.76	-35.73	Horizontal
2402.004	105.97	108.00	-7.45	98.52	100.55	-	-	-	-	Horizontal
*4804.008	49.91	51.93	-0.30	49.61	51.63	54	74	-4.39	-22.37	Horizontal

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

2. *: Denotes restricted band of operation.

Date of Test:September 25-26, 2009Temperature:25°CEUT:TV Ears TV Wireless HeadsetHumidity:50%Model No.:10500Power Supply:DC 3.7VTest Mode:TX (2441MHz)Test Engineer:Joe

For 30MHz-1000MHz

Corrected Factor = Antenna Factor + Cable Loss - Amplifier Gain

Frequency	Reading	Factor	Result	Limit	Margin	Polarization
(MHz)	(dBµV/m)	Corr.	(dBµV/m)	(dBµV/m)	(dB)	
	QP	(dB)	QP	QP	QP	
-	-	1	-	-	-	Vertical
-	-	-	-	-	-	Horizontal

For 1GHz-25GHz

Corrected Factor = Antenna Factor + Cable Loss - Amplifier Gain

Frequency	Reading(dBμV/m)	Factor			$Limit(dB\mu V/m)$		Margin(dBµV/m)		Polarizati
(MHz)	AV	PEAK	Corr. (dB)	AV	PEAK	AV	PEAK	AV	PEAK	on
2441.005	102.25	104.29	-7.35	94.90	96.94	-	-	-	-	Vertical
*4882.010	47.65	49.71	0.14	47.79	49.85	54	74	-6.21	-24.15	Vertical
2441.005	106.58	108.65	-7.35	99.23	101.30	-	-	-	-	Horizontal
*4882.010	49.24	51.29	0.14	49.38	51.43	54	74	-4.62	-22.57	Horizontal

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

2. *: Denotes restricted band of operation.

Date of Test:September 25-26, 2009Temperature:25°CEUT:TV Ears TV Wireless HeadsetHumidity:50%Model No.:10500Power Supply:DC 3.7VTest Mode:TX (2480MHz)Test Engineer:Joe

For 30MHz-1000MHz

Corrected Factor = Antenna Factor + Cable Loss - Amplifier Gain

Frequency	Reading	Factor	Result	Limit	Margin	Polarization
(MHz)	(dBµV/m)	Corr.	(dBµV/m)	(dBµV/m)	(dB)	
	QP	(dB)	QP	QP	QP	
-	-	1	-	-	-	Vertical
-	-	-	-	-	-	Horizontal

For 1GHz-25GHz

Corrected Factor = Antenna Factor + Cable Loss - Amplifier Gain

Frequency	Reading(dBμV/m)			Result(dBµV/m) I		Limit(dBµV/m)		Margin(dBµV/m)	
(MHz)	AV	PEAK	Corr. (dB)	AV	PEAK	AV	PEAK	AV	PEAK	on
2480.004	105.27	107.32	-7.37	97.90	99.95	1	-	-	-	Vertical
2483.500	42.95	45.01	-7.37	35.58	37.64	54	74	-18.42	-36.36	Vertical
*4960.011	48.07	50.11	0.52	48.59	50.63	54	74	-5.41	-23.37	Vertical
2480.004	109.24	111.26	-7.37	101.87	103.89	1	-	-	-	Horizontal
2483.500	43.14	45.18	-7.37	35.77	37.81	54	74	-18.23	-36.19	Horizontal
*4960.011	49.64	51.67	0.52	50.16	52.19	54	74	-3.84	-21.81	Horizontal

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

2. *: Denotes restricted band of operation.

Date of Test:September 25, 2009Temperature:25°CEUT:TV Ears TV Wireless HeadsetHumidity:50%Model No.:10500Power Supply:AC 120V/60HzTest Mode:ChargingTest Engineer:Joe

Corrected Factor = Antenna Factor + Cable Loss – Amplifier Gain

Frequency	Reading	Factor(dB)	Result	Limit	Margin	Polarization
(MHz)	(dBµV/m)	Corr.	(dBµV/m)	(dBµV/m)	(dB)	
	QP		QP	QP	QP	
32.0586	9.56	17.34	26.90	40.00	-13.10	Vertical
256.0250	7.42	18.01	25.43	46.00	-20.57	Horizontal

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



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Site: 966 chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Polarization: Horizontal

Power Source: DC 3.7V

Engineer Signature: Joe

Date: 2009-9-25

Time: 10:23:41

Job No.: RTTE #3210

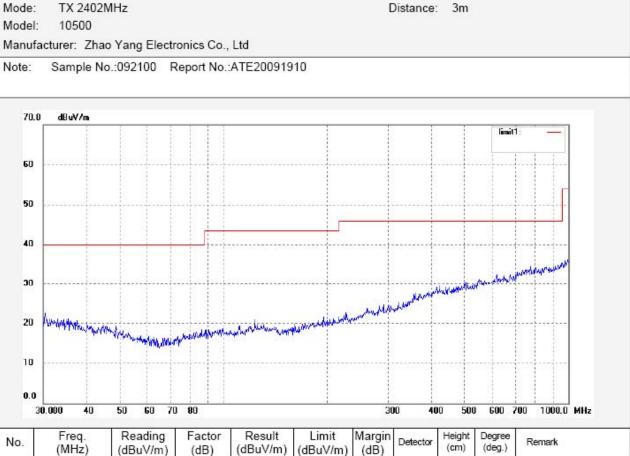
Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 25 C / 50 %

EUT: TV Ears TV Wireless Headset

Mode: TX 2402MHz





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Site: 966 chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Job No.: RTTE #3209

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 25 C / 50 %

EUT: TV Ears TV Wireless Headset

Mode: TX 2402MHz Model: 10500

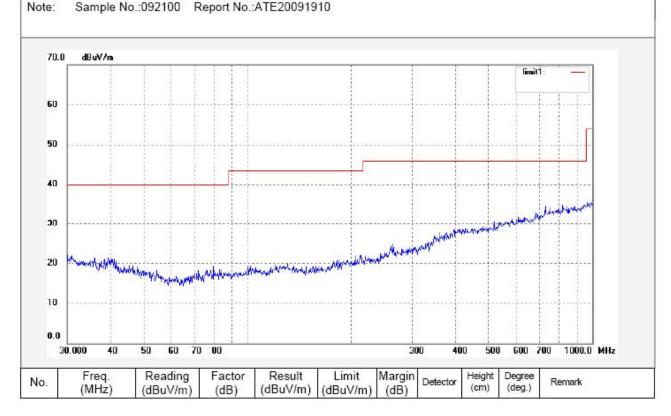
Manufacturer: Zhao Yang Electronics Co., Ltd

Sample No.:092100 Report No.:ATE20091910

Polarization: Vertical Power Source: DC 3.7V

Date: 2009-9-25 Time: 10:20:38

Engineer Signature: Joe





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Job No.: RTTE #3216

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 25 C / 50 %

EUT: TV Ears TV Wireless Headset

Mode: TX 2402MHz

Model: 10500

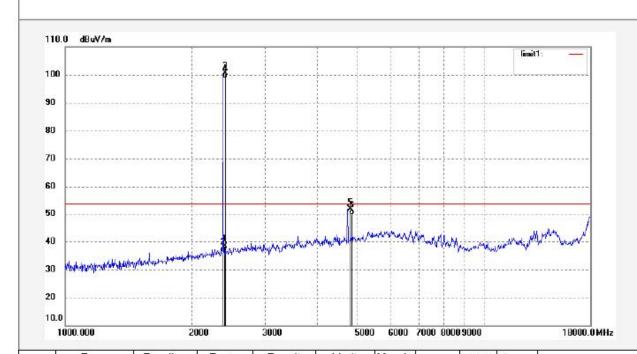
Manufacturer: Zhao Yang Electronics Co., Ltd

Note: Sample No.:092100 Report No.:ATE20091910

Power Source: DC 3.7V Date: 2009-9-25 Time: 17:34:04

Engineer Signature: Joe

Polarization: Horizontal



No.	Freq. (MHz)	(dBuV/m)	Factor (dB)	(dBuV/m)	(dBuV/m)	(dB)	Detector	Height (cm)	(deg.)	Remark	
1	2400.000	45.73	-7.46	38.27	74.00	-35.73	peak				
2	2400.000	43.70	-7.46	36.24	54.00	-17.76	AVG			8	
3	2402.004	108.00	-7.45	100.55	1470	3/30	peak				
4	2402.004	105.97	-7.45	98.52	-	-	AVG	3		3	
5	4804.008	51.93	-0.30	51.63	74.00	-22.37	peak		0	2)	
6	4804.008	49.91	-0.30	49.61	54.00	-4.39	AVG				



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Job No.: RTTE #3215

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 25 C / 50 %

EUT: TV Ears TV Wireless Headset

Mode: TX 2402MHz

Model: 10500

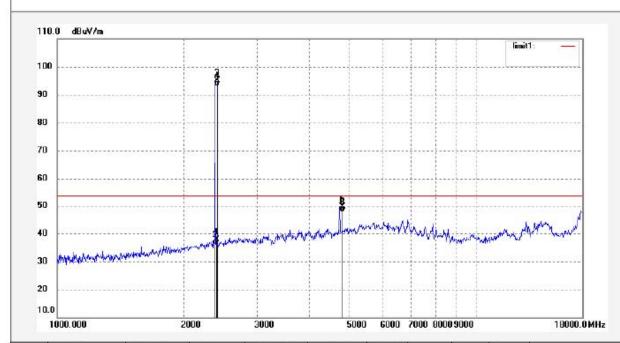
Manufacturer: Zhao Yang Electronics Co., Ltd

Note: Sample No.:092100 Report No.:ATE20091910

Polarization: Vertical Power Source: DC 3.7V

Date: 2009-9-25 Time: 17:30:59

Engineer Signature: Joe



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark	
1	2400.000	45.37	-7.46	37.91	74.00	-36.09	peak				
2	2400.000	43.33	-7.46	35.87	54.00	-18.13	AVG			5	
3	2402.004	102.54	-7.45	95.09	1,50	3/30	peak				
4	2402.004	100.46	-7.45	93.01	(#)	-	AVG		2.2		
5	4804.008	50.05	-0.30	49.75	74.00	-24.25	peak	9			
6	4804.008	47.97	-0.30	47.67	54.00	-6.33	AVG		,		



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Polarization: Horizontal

Power Source: DC 3.7V

Engineer Signature: Joe

Date: 2009-9-25

Time: 18:00:49

Distance: 3m

Job No.: RTTE #3221

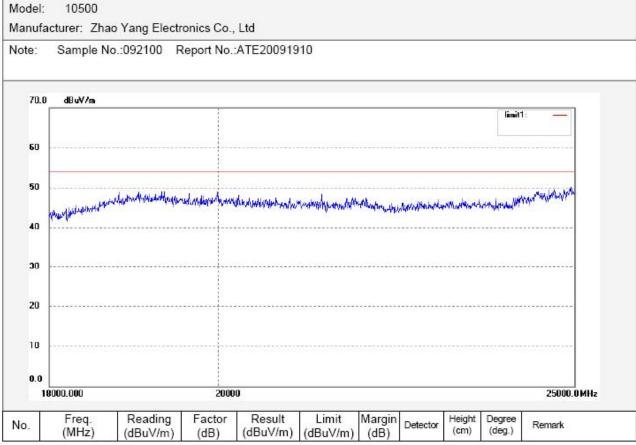
Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 25 C / 50 %

EUT: TV Ears TV Wireless Headset

Mode: TX 2402MHz





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Site: 966 chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Polarization: Vertical

Job No.: RTTE #3222

Standard: FCC Class B 3M Radiated Power Source: DC 3.7V Test item: Radiation Test Date: 2009-9-25 Temp.(C)/Hum.(%) 25 C / 50 % Time: 18:03:57 EUT: TV Ears TV Wireless Headset Engineer Signature: Joe Mode: TX 2402MHz Distance: 3m Model: 10500 Manufacturer: Zhao Yang Electronics Co., Ltd Sample No.:092100 Report No.:ATE20091910 Note: 70.0 dBuV/m limit1 60 50 40 30 20 10 18000.000 20000 25000.0 MHz

Reading Freq Factor Result Limit Margin Height Degree Detector No. Remark (deg.) (MHz) (dBuV/m) (dBuV/m) (dB) (dBuV/m) (dB)



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Job No.: RTTE #3211

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 25 C / 50 %

EUT: TV Ears TV Wireless Headset

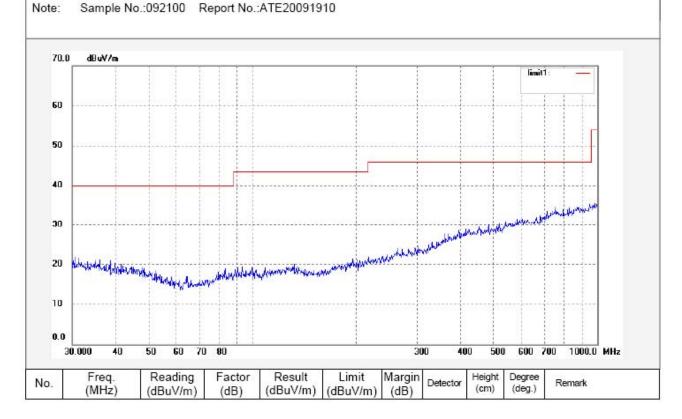
Mode: TX 2441MHz Model: 10500

Manufacturer: Zhao Yang Electronics Co., Ltd

Polarization: Horizontal Power Source: DC 3.7V

Date: 2009-9-25 Time: 10:27:50

Engineer Signature: Joe





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Polarization: Vertical

Date: 2009-9-25

Time: 10:30:54

Distance: 3m

Power Source: DC 3.7V

Engineer Signature: Joe

Job No.: RTTE #3212

Standard: FCC Class B 3M Radiated

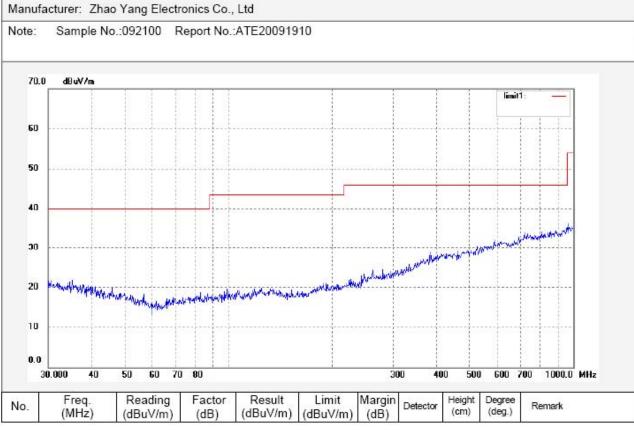
Test item: Radiation Test

Temp.(C)/Hum.(%) 25 C / 50 %

EUT: TV Ears TV Wireless Headset

Mode: TX 2441MHz

Model: 10500





F1,Bldg,A,Changyuan New Material Port Keyuan Rd, Science & Industry Park,Nanshan Shenzhen,P.R.China Site: 966 chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Job No.: RTTE #3217

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 25 C / 50 %

EUT: TV Ears TV Wireless Headset

Mode: TX 2441MHz

Model: 10500

Manufacturer: Zhao Yang Electronics Co., Ltd

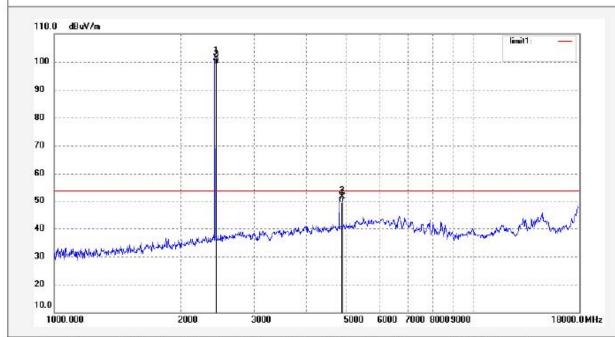
Note: Sample No.:092100 Report No.:ATE20091910

Power Source: DC 3.7V

Polarization: Horizontal

Date: 2009-9-25 Time: 17:38:29

Engineer Signature: Joe



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2441.005	108.65	-7.35	101.30	-	14	peak			
2	2441.005	106.58	-7.35	99.23	8.74	-	AVG			
3	4882.010	51.29	0.14	51.43	74.00	-22.57	peak			
4	4882.010	49.24	0.14	49.38	54.00	-4.62	AVG	3	0.1	



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Job No.: RTTE #3218

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 25 C / 50 %

EUT: TV Ears TV Wireless Headset

Mode: TX 2441MHz

Model: 10500

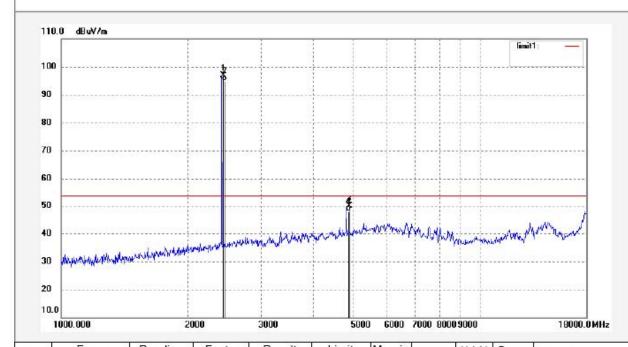
Manufacturer: Zhao Yang Electronics Co., Ltd

Note: Sample No.:092100 Report No.:ATE20091910

Polarization: Vertical Power Source: DC 3.7V

Date: 2009-9-25 Time: 17:41:40

Engineer Signature: Joe





F1,Bldg,A,Changyuan New Material Port Keyuan Rd, Science & Industry Park,Nanshan Shenzhen,P.R.China Site: 966 chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Job No.: RTTE #3224

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 25 C / 50 %

EUT: TV Ears TV Wireless Headset

Mode: TX 2441MHz Model: 10500

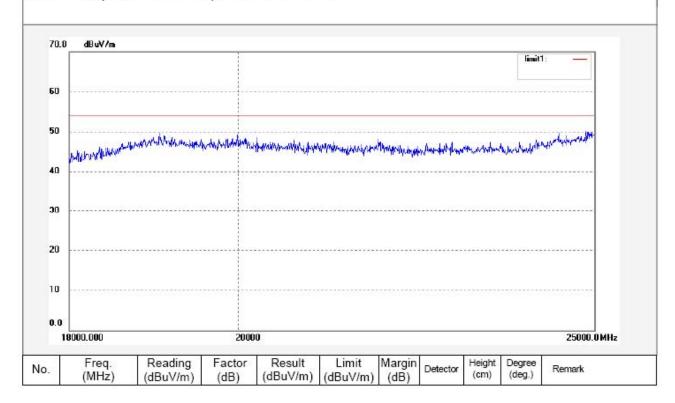
Manufacturer: Zhao Yang Electronics Co., Ltd

Note: Sample No.:092100 Report No.:ATE20091910

Polarization: Horizontal Power Source: DC 3.7V

Date: 2009-9-25 Time: 18:11:17

Engineer Signature: Joe





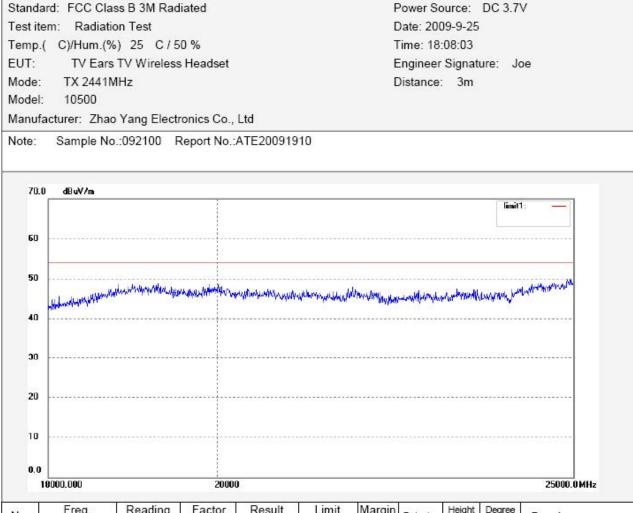
F1,Bldg,A,Changyuan New Material Port Keyuan Rd, Science & Industry Park, Nanshan Shenzhen, P.R. China

Site: 966 chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Polarization: Vertical

Job No.: RTTE #3223

Standard: FCC Class B 3M Radiated





F1,Bldg,A,Changyuan New Material Port Keyuan Rd, Science & Industry Park,Nanshan Shenzhen,P.R.China Site: 966 chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Polarization: Horizontal

Power Source: DC 3.7V

Engineer Signature: Joe

Date: 2009-9-25

Time: 10:38:12

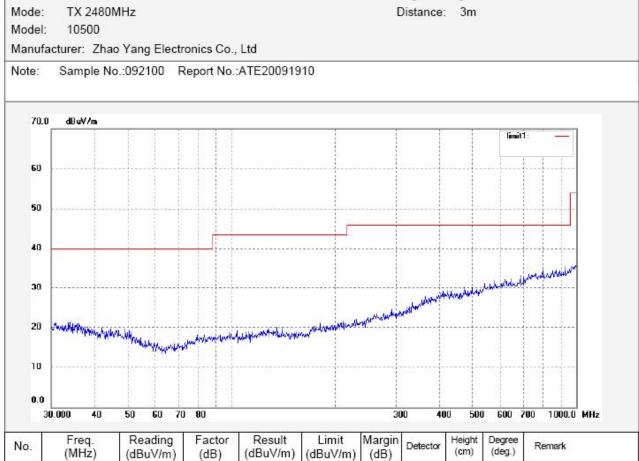
Job No.: RTTE #3214

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 25 C / 50 %

EUT: TV Ears TV Wireless Headset





F1,Bldg,A,Changyuan New Material Port Keyuan Rd, Science & Industry Park,Nanshan Shenzhen,P.R.China Site: 966 chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Job No.: RTTE #3213

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 25 C / 50 %

EUT: TV Ears TV Wireless Headset

Mode: TX 2480MHz Model: 10500

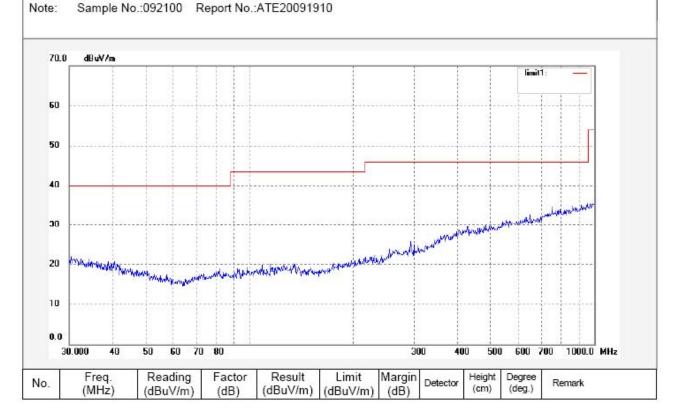
Manufacturer: Zhao Yang Electronics Co., Ltd

•

Polarization: Vertical Power Source: DC 3.7V

Date: 2009-9-25 Time: 10:35:03

Engineer Signature: Joe





F1,Bldg,A,Changyuan New Material Port Keyuan Rd, Science & Industry Park,Nanshan Shenzhen,P.R.China Site: 966 chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Job No.: RTTE #3220

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 25 C / 50 %

EUT: TV Ears TV Wireless Headset

Mode: TX 2480MHz

Model: 10500

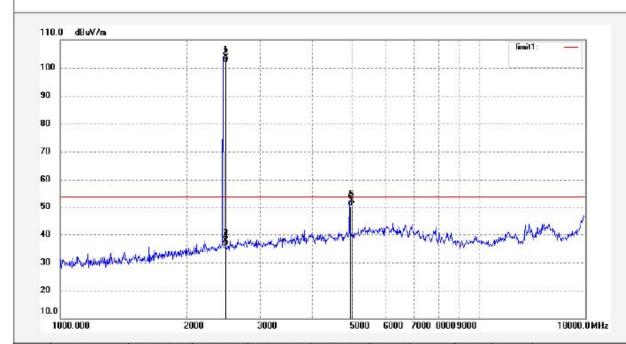
Manufacturer: Zhao Yang Electronics Co., Ltd

Note: Sample No.:092100 Report No.:ATE20091910

Polarization: Horizontal Power Source: DC 3.7V

Date: 2009-9-25 Time: 17:49:07

Engineer Signature: Joe



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	2480.004	111.26	-7.37	103.89	-	24	peak			
2	2480.004	109.24	-7.37	101.87	87	-	AVG			
3	2483.500	45.18	-7.37	37.81	74.00	-36.19	peak			
4	2483.500	43.14	-7.37	35.77	54.00	-18.23	AVG	3	2.2	3
5	4960.011	51.67	0.52	52.19	74.00	-21.81	peak		0	
6	4960.011	49.64	0.52	50.16	54.00	-3.84	AVG			



F1,Bldg,A,Changyuan New Material Port Keyuan Rd, Science & Industry Park,Nanshan Shenzhen,P.R.China Site: 966 chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Job No.: RTTE #3219

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 25 C / 50 %

EUT: TV Ears TV Wireless Headset

Mode: TX 2480MHz

Model: 10500

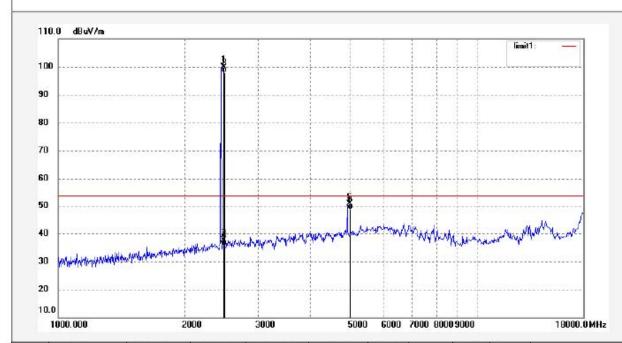
Manufacturer: Zhao Yang Electronics Co., Ltd

Note: Sample No.:092100 Report No.:ATE20091910

Polarization: Vertical Power Source: DC 3.7V

Date: 2009-9-25 Time: 17:45:59

Engineer Signature: Joe



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark	
1	2480.004	107.32	-7.37	99.95	-	14	peak				
2	2480.004	105.27	-7.37	97.90	87	-	AVG			5	
3	2483.500	45.01	-7.37	37.64	74.00	-36.36	peak				_
4	2483.500	42.95	-7.37	35.58	54.00	-18.42	AVG		2.2	3	
5	4960.011	50.11	0.52	50.63	74.00	-23.37	peak	9			_
6	4960.011	48.07	0.52	48.59	54.00	-5.41	AVG		,		



F1,Bldg,A,Changyuan New Material Port Keyuan Rd, Science & Industry Park, Nanshan Shenzhen, P.R. China

Polarization:

Power Source: DC 3.7V

Horizontal

Site: 966 chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Job No.: RTTE #3225

Standard: FCC Class B 3M Radiated

Test item: Radiation Test Date: 2009-9-25 Temp.(C)/Hum.(%) 25 C / 50 % Time: 18:15:34 EUT: TV Ears TV Wireless Headset Engineer Signature: Joe Mode: TX 2480MHz Distance: 3m Model: 10500 Manufacturer: Zhao Yang Electronics Co., Ltd Sample No.:092100 Report No.:ATE20091910 Note: 70.0 dBuV/m limit1 60 50 40 30 20 10 18000.000 20000 25000.0 MHz

Reading Freq Factor Result Limit Margin Height Degree Detector No. Remark (deg.) (MHz) (dBuV/m) (dBuV/m) (dB) (dBuV/m) (dB)



F1,Bldg,A,Changyuan New Material Port Keyuan Rd, Science & Industry Park,Nanshan Shenzhen,P.R.China Site: 966 chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Job No.: RTTE #3226

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 25 C / 50 %

EUT: TV Ears TV Wireless Headset

Mode: TX 2480MHz Model: 10500

Note:

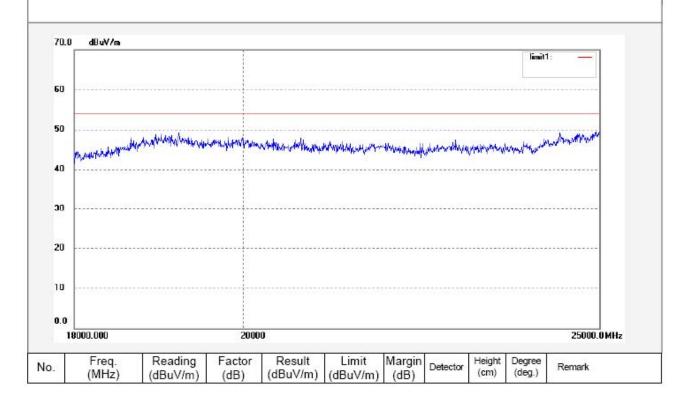
Manufacturer: Zhao Yang Electronics Co., Ltd

Sample No.:092100 Report No.:ATE20091910

Polarization: Vertical Power Source: DC 3.7V

Date: 2009-9-25 Time: 18:18:48

Engineer Signature: Joe





F1,Bldg,A,Changyuan New Material Port Keyuan Rd, Science & Industry Park,Nanshan Shenzhen,P.R.China Site: 966 chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Job No.: RTTE #3195

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.(C)/Hum.(%) 25 C / 50 %

EUT: TV Ears TV Wireless Headset

Mode: Charging Model: 10500

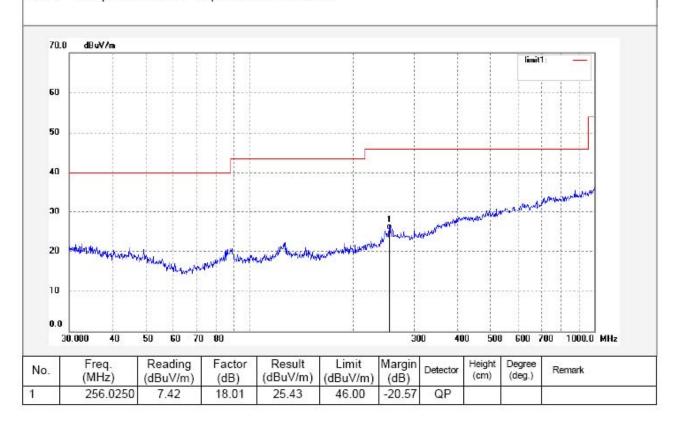
Manufacturer: Zhao Yang Electronics Co., Ltd

Note: Sample No.:092100 Report No.:ATE20091910

Polarization: Horizontal Power Source: AC 120V/60Hz

Date: 2009-9-25 Time: 9:24:51

Engineer Signature: Joe





F1,Bldg,A,Changyuan New Material Port Keyuan Rd, Science & Industry Park,Nanshan Shenzhen,P.R.China Site: 966 chamber Tel:+86-0755-26503290 Fax:+86-0755-26503396

Job No.: RTTE #3196

Standard: FCC Class B 3M Radiated

Test item: Radiation Test
Temp.(C)/Hum.(%) 25 C / 50 %
EUT: TV Ears TV Wireless Headset

Mode: Charging Model: 10500

Model. 10300

Manufacturer: Zhao Yang Electronics Co., Ltd

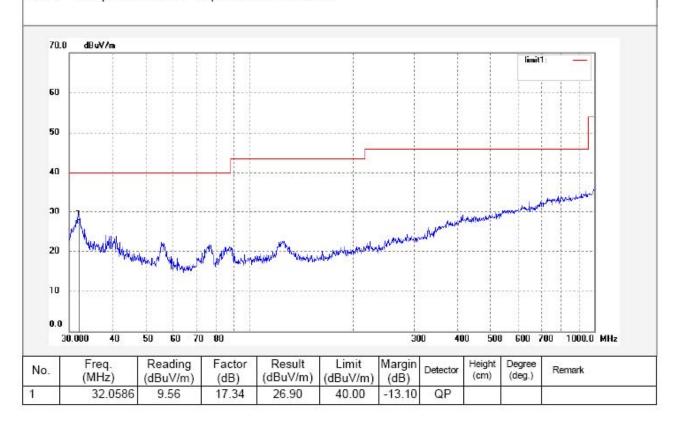
Note: Sample No.:092100 Report No.:ATE20091910

Polarization: Vertical

Power Source: AC 120V/60Hz

Date: 2009-9-25 Time: 9:28:02

Engineer Signature: Joe



12. CONDUCTED EMISSION FOR FCC PART 15 SECTION

15.207(A)

12.1.Block Diagram of Test Setup

12.1.1.Block diagram of connection between the EUT and simulators

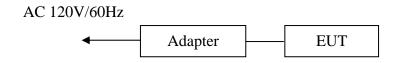
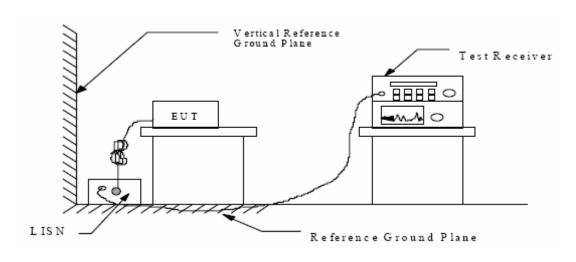


Figure 2 Setup: Charging

(EUT: TV Ears TV Wireless Headset)

12.1.2. Shielding Room Test Setup Diagram



(EUT: TV Ears TV Wireless Headset)

12.2.The Emission Limit

12.2.1.Conducted Emission Measurement Limits According to Section 15.207(a)

Frequency	Limit dB(μV)				
(MHz)	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			

^{*} Decreases with the logarithm of the frequency.

12.3.Configuration of EUT on Measurement

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

12.3.1.TV Ears TV Wireless Headset (EUT)

Model Number : 10500 Serial Number : N/A

Manufacturer : 1. Zylux Acoustic Corporation

2. Jie Hao Elec. (Su zhou) Co., Ltd.

12.4. Operating Condition of EUT

12.4.1. Setup the EUT and simulator as shown as Section 12.1.

12.4.2. Turn on the power of all equipment.

12.4.3.Let the EUT work in Charging mode measure it.

12.5.Test Procedure

The EUT is put on the plane 0.8m 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 C63.4: 2003 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.

12.6.Power Line Conducted Emission Measurement Results

PASS.

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

Date of Test:September 23, 2009Temperature:25°CEUT:TV Ears TV Wireless HeadsetHumidity:50%Model No.:10500Power Supply:AC 120V/60HzTest Mode:ChargingTest Engineer:Joe

Frequency (MHz)	Result	Limit	Margin (dB)	Detector	Line
0.422630	(dBµV) 31.30	(dBµV) 57	-26.1	QP	
1.536621	28.30	56	-27.7	QP QP	
26.212960	33.70	60	-26.3	QP	Neutral
0.499611	19.60	46	-26.4	AV	
2.977082	12.60	46	-33.4	AV	
26.847117	20.60	50	-29.4	AV	
0.487809	34.30	56	-21.9	QP	
1.524425	31.30	56	-24.7	QP	
26.634045	32.80	60	-27.2	QP	. .
0.558572	17.70	46	-28.3	AV	Live
1.512327	15.50	46	-30.5	AV	
26.422664	19.40	50	-30.6	AV	

Emissions attenuated more than 20 dB below the permissible value are not reported. The spectral diagrams are attached as below.

CONDUCTED EMISSION STANDARD FCC PART 15B

TV Ears TV Wireless Headset M/N:10500

Manufacturer: Zhao Yang Electronics Co., Ltd

Operating Condition: Charging

1#Shielding Room Test Site:

Operator: Joe

Test Specification: N 120V/60Hz

Sample No.:092100 F 9/23/2009 / 9:42:29AM Report No.:ATE20091910 Comment:

Start of Test:

SCAN TABLE: "V 150K-30MHz fin"

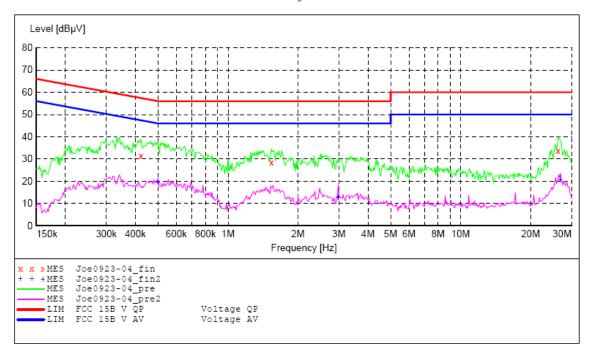
_SUB_STD_VTERM2 1.70 Short Description:

Step Start Detector Meas. TF Transducer Stop

Width Time Bandw.

Frequency Frequency 150.0 kHz 30.0 MHz 0.8 % QuasiPeak 1.0 s 9 kHz NSLK8126 2008

Average



MEASUREMENT RESULT: "Joe0923-04 fin"

9/23/2009 9:4	44AM						
Frequency	Level	Transd	Limit	Margin	Detector	Line	PE
MHz	dΒμV	dB	dΒμV	dB			
0.400630	21 20	11 0		0.6 1	0.5		COLE
0.422630	31.30	11.9	5/	26.1	QP	N	GND
1.536621	28.30	11.7	56	27.7	QP	N	GND
26.212960	33.70	11.0	60	26.3	QP	N	GND

MEASUREMENT RESULT: "Joe0923-04 fin2"

9/23/2009	9:44AM						
-	cy Level Hz dBuV		Limit dBuV	Margin dB	Detector	Line	PE
0.49961	11 19.60	12.0	46	26.4	AV	N	GND
2.97708	32 12.60	11.6	46	33.4	AV	N	GND
26.84711	17 20.60	11.0	50	29.4	AV	N	GND

CONDUCTED EMISSION STANDARD FCC PART 15B

TV Ears TV Wireless Headset M/N:10500

Manufacturer: Zhao Yang Electronics Co., Ltd

Operating Condition: Charging

1#Shielding Room Test Site:

Operator: Joe

Test Specification: L 120V/60Hz

Sample No.:092100 F 9/23/2009 / 9:44:47AM Report No.:ATE20091910 Comment:

Start of Test:

SCAN TABLE: "V 150K-30MHz fin" Short Description: _SUB_S

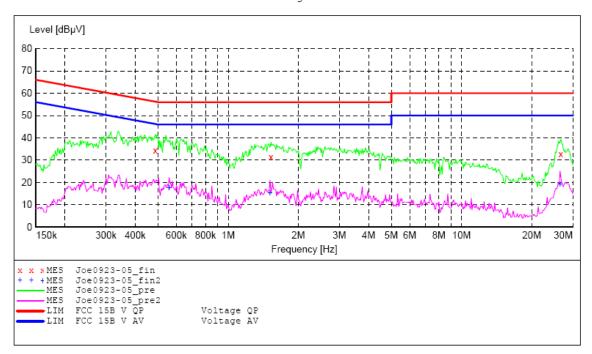
_SUB_STD_VTERM2 1.70

Step Start Stop Detector Meas. ΙF Transducer

Time Bandw.

Frequency Frequency Width 150.0 kHz 30.0 MHz 0.8 % QuasiPeak 1.0 s 9 kHz NSLK8126 2008

Average



MEASUREMENT RESULT: "Joe0923-05 fin"

:46AM						
Level	Transd	Limit	Margin	Detector	Line	PΕ
dBuV	dB	dBuV	dB			
34.30	12.0	56	21.9	OP	L1	GND
						GND
32.80	11.0	60	27.2	QP	L1	GND
	Level dBµV	Level Transd dB	Level Transd Limit dBμV dB dBμV 34.30 12.0 56 31.30 11.7 56	Level Transd Limit Margin dBμV dB dBμV dB 34.30 12.0 56 21.9 31.30 11.7 56 24.7	Level Transd Limit Margin Detector dBμV dB dBμV dB 34.30 12.0 56 21.9 QP 31.30 11.7 56 24.7 QP	Level Transd Limit Margin Detector Line dBμV dB dBμV dB 34.30 12.0 56 21.9 QP L1 31.30 11.7 56 24.7 QP L1

MEASUREMENT RESULT: "Joe0923-05 fin2"

3/2009 9:40							
Frequency					Detector	Line	PΕ
MHz	dΒμV	dB	dBµV	dB			
0.558572	17.70	12.0	46	28.3	AV	L1	GND
1.512327	15.50	11.7	46	30.5	AV	L1	GND
26.422664	19.40	11.0	50	30.6	AV	L1	GND

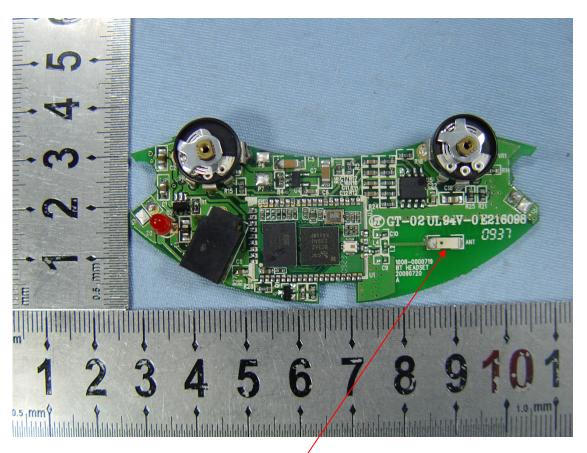
13.ANTENNA REQUIREMENT

13.1.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.

13.2.Antenna Construction

The transmitter utilizes SMD chip antenna, no consideration of replacement. Therefore, the equipment complies with the antenna requirement of Section 15.203.



Antenna