

FCC PART 15.247
EMI MEASUREMENT AND TEST REPORT
For
SHEN ZHEN EAST-TECH ELECTRONIC CO., LTD

Room2612,Foreign Trade Building,Zhong Xing Road,Luohu District,ShenZhen

FCC ID: UAAK300

May 18, 2006

This Report Concerns: <input checked="" type="checkbox"/> Original Report	Equipment Type: Bluetooth sunglasses
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Report No.:	RSZ06031002
Test Date:	May 8-10, 2006
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GENERAL INFORMATION

Product Description for Equipment Under Test (EUT)

The *SHEN ZHEN EAST-TECH ELECTRONIC CO., LTD*'s product, model number: *K300* or the "EUT" as referred to in this report is a *Bluetooth sunglasses*, which measures approximately 15.0 cm L x 18 cmW x 4 cmH, rated input voltage: Battery 3.7 V.

** The test data gathered are from production sample, serial number: 0603028 provided by the manufacturer, we receive the EUT on 2006-03-10.*

Objective

This Type approval report is prepared on behalf of *SHEN ZHEN EAST-TECH ELECTRONIC CO.,LTD* in accordance with Part 2, Subpart J, Part 15, Subparts A, B and C of the Federal Communication Commissions rules.

The tests were performed in order to determine compliance with FCC Part 15, Subpart C, and section 15.203,15.205, 15.209 and 15.247 rules.

Related Submittal(s)/Grant(s)

No related submittal(s).

Test Methodology

All measurements contained in this report were conducted with ANSI C63.4-2003, American National Standard for Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the range of 9 kHz to 40 GHz.

All emissions measurement was performed and Bay Area Compliance Lab Corp. (ShenZhen). The radiated testing was performed at an antenna-to-EUT distance of 3 meters.

Test Facility

The Test site used by Bay Area Compliance Lab Corp. (ShenZhen) to collect test data is located in the 6/F, the 3rd Phase of WanLi Industrial Building, ShiHua Road, FuTian Free Trade Zone, ShenZhen, Guangdong 518038, P.R.China.

Test site at Bay Area Compliance Lab Corp. (ShenZhen) has been fully described in reports submitted to the Federal Communication Commission (FCC). The details of these reports have been found to be in compliance with the requirements of Section 2.948 of the FCC Rules on November 04, 2004. The facility also complies with the radiated and AC line conducted test site criteria set forth in ANSI C63.4-2003.

The Federal Communications Commission has the reports on file and is listed under FCC Registration No.: 382179 and Industrial Canada registration test site No.: 5500A. The test site has been approved by the FCC for public use and is listed in the FCC Public Access Link (PAL) database.

Additionally, Bay Area Compliance Lab Corp. (ShenZhen) is a National Institute of Standards and Technology (NIST) accredited laboratory, under the National Voluntary Laboratory Accredited Program (Lab Code 200707-0). The current scope of accreditations can be found at <http://ts.nist.gov/ts/htdocs/210/214/scopes/2007070.htm>

SYSTEM TEST CONFIGURATION

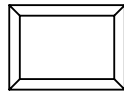
Description of Test Configuration

The system was configured for testing in a typical fashion (as normally used by a typical user).

Equipment Modifications

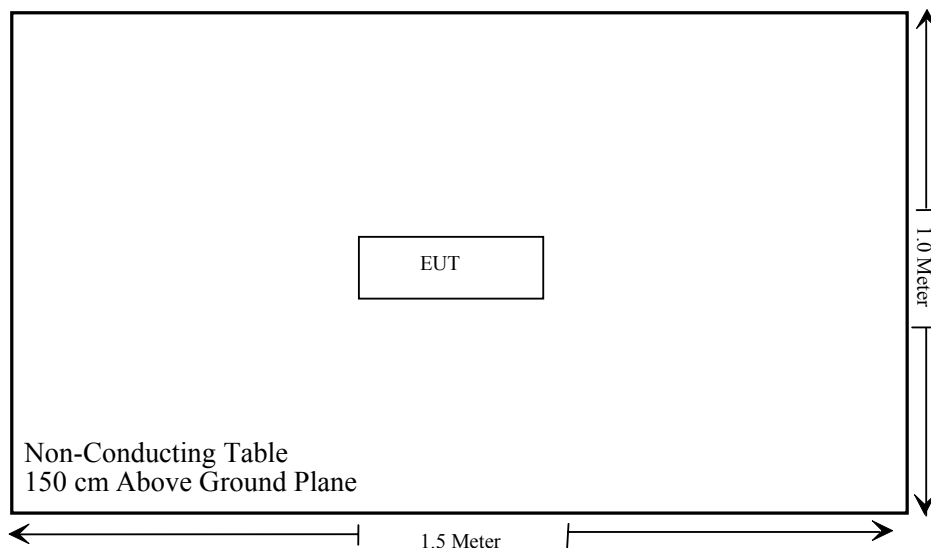
Bay Area Compliance Lab Corp. (ShenZhen) has not done any modification on the EUT.

Configuration of Test Setup



EUT

Block Diagram of Test Setup



SUMMARY OF TEST RESULTS

FCC RULES	DESCRIPTION OF TEST	RESULT
§15.203	Antenna Requirement	Compliant
§15.205	Restricted Band	Compliant
§15.205, §15.209, §15.247(d)	Radiated Emission	Compliant *
§15.247 (a)(1)	20 dB Bandwidth	Compliant
§15.247(a)(1)	Channel Separation Test	Compliant
§15.247(a)(1)(iii)	Time of occupancy (Dwell Time)	Compliant
§15.247(a)(1)(iii)	Quantity of hopping channel Test	Compliant
§15.247(b)(1)	Peak Output Power Measurement	Compliant
§15.247(d)	Band edges testing	Compliant

* Within measurement uncertainty.

§15.203 - ANTENNA REQUIREMENT

Standard Applicable

An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section.

This product has a permanent antenna, fulfill the requirement of this section.

Test Result: Pass

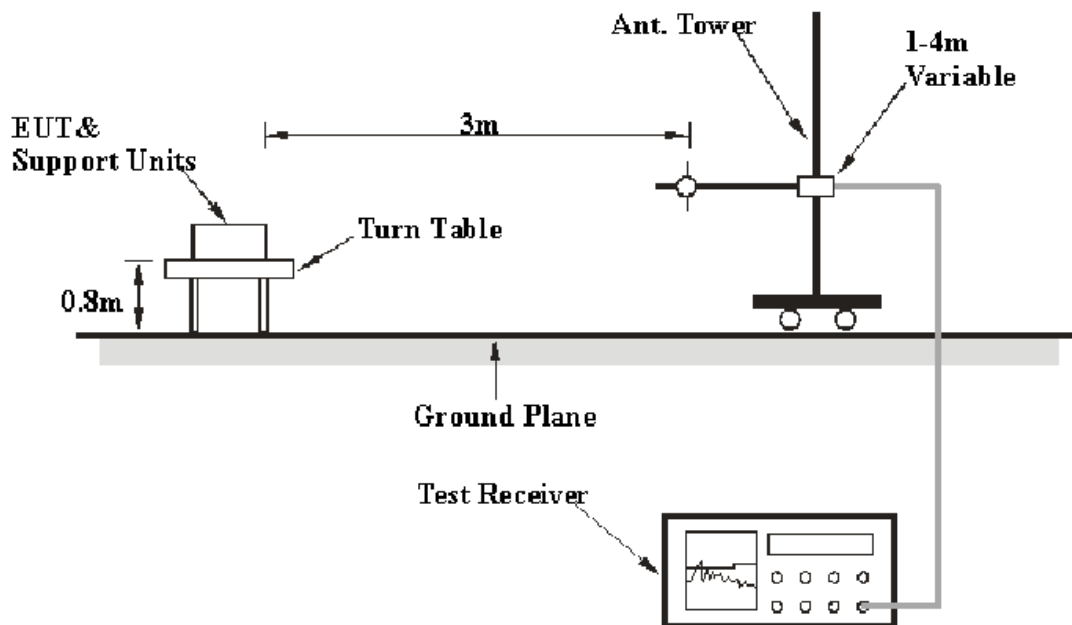
§15.205, §15.209, §15.247 - RADIATED EMISSION**Applicable Standard**

According to FCC §15.247 (d)

Measurement Uncertainty

All measurements involve certain levels of uncertainties, especially in field of EMC. The factors contributing to uncertainties are spectrum analyzer, cable loss, antenna factor calibration, antenna directivity, antenna factor variation with height, antenna phase center variation, antenna factor frequency interpolation, measurement distance variation, site imperfections, mismatch (average), and system repeatability.

Based on NIS 81, The Treatment of Uncertainty in EMC Measurements, the best estimate of the uncertainty of a radiation emissions measurement at Bay Area Compliance Lab Corp. (ShenZhen) is ± 4.0 dB.

EUT Setup

The radiated emission tests were performed in the 3-meter Chamber, using the setup accordance with the ANSI C63.4-2003. The specification used was the FCC 15.209 and FCC 15.247 limits.

EMI Test Receiver & Spectrum Analyzer Setup

The system was investigated from 30 MHz to 25 GHz.

During the radiated emission test, the EMI test receiver & Spectrum Analyzer Setup were set with the following configurations:

<i>Frequency Range</i>	<i>RBW</i>	<i>Video B/W</i>
30MHz – 1000 MHz	100 kHz	300 kHz
1000 MHz – 25 GHz	1 MHz	3 MHz

Test Equipment List and Details

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
A.H. System	Horn Antenna	SAS-200/571	135	2006-4-28	2007-4-28
HP	Amplifier	HP8447D	2944A09795	2005-8-17	2006-8-17
HP	Preamplifier	8449B	3008A00277	2005-8-17	2006-8-17
Agilent	Spectrum Analyzer	8564E	3943A01781	2005-12-8	2006-12-8
Rohde&Schwarz	EMI Test Receiver	ESCI	100035	2005-8-17	2006-8-17
Sunol Sciences	Broadband Antenna	JB1	A040904-1	2006-4-28	2007-4-28

* **Statement of Traceability:** Bay Area Compliance Lab Corp. (ShenZhen) attests that all calibrations have been performed in accordance to NVLAP requirements, traceable to the NIST.

Test Procedure

Maximizing procedure was performed on the highest emissions to ensure that the EUT complied with all installation combinations.

All data was recorded in the PK&AV detection mode.

Corrected Amplitude & Margin Calculation

The Corrected Amplitude is calculated by adding the Antenna Loss and Cable Loss, and subtracting the Amplifier Gain from the Amplitude reading. The basic equation is as follows:

$$\text{Corr. Ampl.} = \text{Meter Reading} + \text{Antenna Loss} + \text{Cable Loss} - \text{Amplifier Gain}$$

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 maximum limit. The equation for margin calculation is as follows:

$$\text{Margin} = \text{Corr. Ampl.} - \text{Standard Limit}$$

Test Results Summary

According to the data in the following table, the EUT complied with the FCC Part 15.205, FCC Part 15.209, and FCC 15.247, with the worst margin reading of:

Above 1 GHz:

Low Frequency: -1.83 dB at 4803.97 MHz in the Horizontal polarization.

Middle Frequency: -1.64 dB at 12205.40 MHz in the Vertical polarization

High Frequency: -2.14 dB at 12400.00 MHz in the Vertical polarization

Test Data

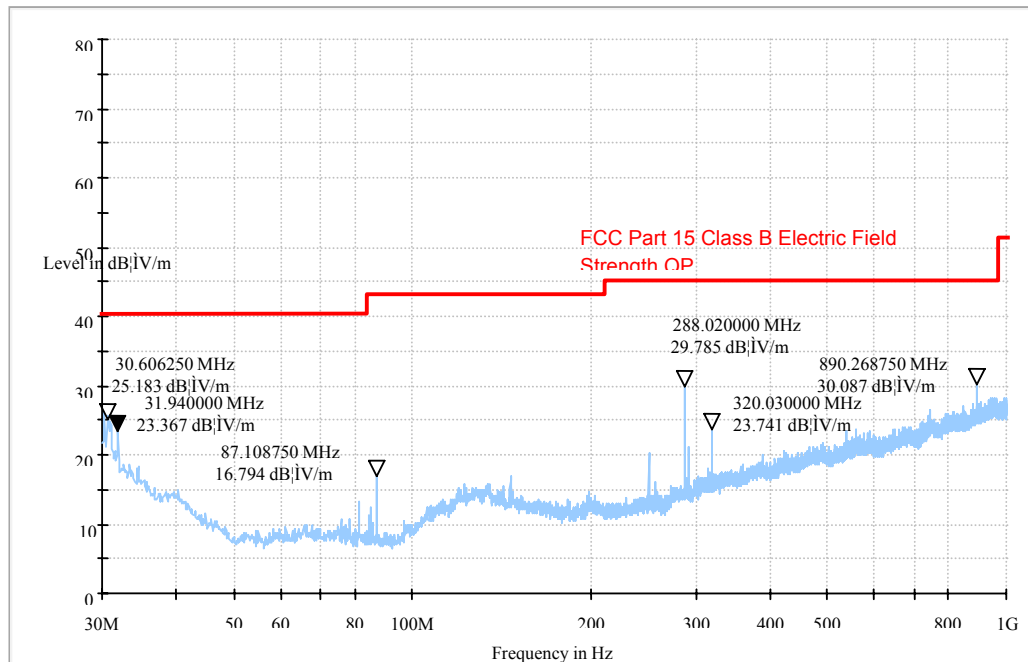
Environmental Conditions

Temperature:	25 ° C
Relative Humidity:	53%
ATM Pressure:	1009mbar

The testing was performed by Deny Xiong on 2006-05-08.

Test Mode: Transmitting

30 MHz-1000MHz:



Note: All Mark points Margin > 10 dB.

Above 1GHz:

Low Channel, 1GHz-25GHz

INDICATED			TABLE	ANTENNA		CORRECTION FACTOR			CORRECTED AMPLITUDE	FCC 15.247	
Frequency	Meter Reading	Comments	Angle	Height	Polar	Antenna Loss	Cable Loss	Amp. Gain	Corr. Ampl.	Limit	Margin
MHz	dBμV/m		Degree	Meter	H/ V	dB	dB	dB	dBμV/m	dBμV/m	dB
2402.00	100.00	PK (Fundamental)	180	1.2	H	28.1	3.6	35.00	96.70		
2402.00	98.70	AV (Fundamental)	90	1.0	H	28.1	3.6	35.00	95.40		
2402.00	103.17	PK (Fundamental)	60	1.2	V	28.1	3.6	35.00	99.87		
2402.00	101.04	AV (Fundamental)	270	1.0	V	28.1	3.6	35.00	97.74		
4803.97	46.77	AV (Harmonics)	45	1.2	H	33.8	4.6	33.00	52.17	54	-1.83*
12010.00	40.10	AV (Harmonics)	60	1.0	H	40.5	6.5	35.00	52.10	54	-1.90*
12010.00	40.02	AV (Harmonics)	60	1.2	V	40.5	6.5	35.00	52.02	54	-1.98*
4803.97	45.97	AV (Harmonics)	90	1.2	V	33.8	4.6	33.00	51.37	54	-2.63*
7206.11	41.02	AV (Harmonics)	90	1.2	V	36.8	4.5	33.50	48.82	54	-5.18
7206.11	40.16	AV (Harmonics)	180	1.2	H	36.8	4.5	33.50	47.96	54	-6.04
9608.00	40.26	AV (Harmonics)	270	1.0	V	36.7	5.4	34.72	47.64	54	-6.36
9608.00	40.00	AV (Harmonics)	60	1.2	H	36.7	5.4	34.72	47.38	54	-6.62
4803.97	51.87	PK (Harmonics)	90	1.2	V	33.8	4.6	33.00	57.27	74	-16.73
4803.97	49.87	PK (Harmonics)	45	1.2	H	33.8	4.6	33.00	55.27	74	-18.73
12010.00	43.11	PK (Harmonics)	60	1.2	V	40.5	6.5	35.00	55.11	74	-18.89
12010.00	42.16	PK (Harmonics)	60	1.0	H	40.5	6.5	35.00	54.16	74	-19.84
7206.11	45.67	PK (Harmonics)	90	1.2	V	36.8	4.5	33.50	53.47	74	-20.53
9608.00	43.24	PK (Harmonics)	270	1.0	V	36.7	5.4	34.72	50.62	74	-23.38
7206.11	42.35	PK (Harmonics)	180	1.2	H	36.8	4.5	33.50	50.15	74	-23.85
9608.00	41.55	PK (Harmonics)	60	1.2	H	36.7	5.4	34.72	48.93	74	-25.07

Continued

Middle Channel, 1GHz-25GHz

INDICATED			TABLE	ANTENNA		CORRECTION FACTOR			CORRECTED AMPLITUDE	FCC 15.247	
Frequency MHz	Meter Reading dBμV/m	Comments	Angle Degree	Height Meter	Polar H/ V	Antenna Loss dB	Cable Loss dB	Amp. Gain dB	Corr. Ampl. dBμV/m	Limit dBμV/m	Margin dB
2441.00	104.50	PK (Fundamental)	180	1.2	H	28.1	3.6	35.00	101.20		
2441.00	103.10	AV (Fundamental)	90	1.0	H	28.1	3.6	35.00	99.80		
2441.00	108.33	PK (Fundamental)	60	1.2	V	28.1	3.6	35.00	105.03		
2441.00	107.30	AV (Fundamental)	270	1.0	V	28.1	3.6	35.00	104.00		
12205.40	40.36	AV (Harmonics)	45	1.2	V	40.5	6.5	35.00	52.36	54	-1.64*
4882.34	46.10	AV (Harmonics)	60	1.2	V	33.8	4.6	33.00	51.50	54	-2.50*
4882.34	44.80	AV (Harmonics)	60	1.2	H	33.8	4.6	33.00	50.20	54	-3.80*
12205.10	38.10	AV (Harmonics)	45	1.2	H	40.5	6.5	35.00	50.10	54	-3.90*
7323.01	41.33	AV (Harmonics)	45	1.2	V	36.8	4.5	33.50	49.13	54	-4.87
7323.01	40.11	AV (Harmonics)	60	1.0	H	36.8	4.5	33.50	47.91	54	-6.09
9764.21	40.43	AV (Harmonics)	60	1.0	V	36.7	5.4	34.72	47.81	54	-6.19
9764.21	40.01	AV (Harmonics)	270	1.0	H	36.7	5.4	34.72	47.39	54	-6.61
4882.34	51.17	PK (Harmonics)	60	1.2	V	33.8	4.6	33.00	56.57	74	-17.43
4882.34	50.00	PK (Harmonics)	60	1.2	H	33.8	4.6	33.00	55.40	74	-18.60
12205.40	42.36	PK (Harmonics)	45	1.2	V	40.5	6.5	35.00	54.36	74	-19.64
7323.01	46.21	PK (Harmonics)	45	1.2	V	36.8	4.5	33.50	54.01	74	-19.99
12205.10	41.10	PK (Harmonics)	45	1.2	H	40.5	6.5	35.00	53.10	74	-20.90
9764.21	44.66	PK (Harmonics)	60	1.0	V	36.7	5.4	34.72	52.04	74	-21.96
7323.01	43.36	PK (Harmonics)	60	1.0	H	36.8	4.5	33.50	51.16	74	-22.84
9764.21	42.37	PK (Harmonics)	270	1.0	H	36.7	5.4	34.72	49.75	74	-24.25

Continued

High Channel, 1GHz-25GHz

INDICATED			TABLE	ANTENNA		CORRECTION FACTOR			CORRECTED AMPLITUDE	FCC 15.247	
Frequency	Meter Reading	Comments	Angle	Height	Polar	Antenna Loss	Cable Loss	Amp. Gain	Corr. Ampl.	Limit	Margin
MHz	dBμV/m		Degree	Meter	H/ V	dB	dB	dB	dBμV/m	dBμV/m	dB
2480.00	104.33	PK (Fundamental)	180	1.2	H	28.1	3.6	35.00	101.03		
2480.00	103.13	AV (Fundamental)	90	1.0	H	28.1	3.6	35.00	99.83		
2480.00	107.33	PK (Fundamental)	60	1.2	V	28.1	3.6	35.00	104.03		
2480.00	106.40	AV (Fundamental)	270	1.0	V	28.1	3.6	35.00	103.10		
12400.00	39.86	AV (Harmonics)	45	1.2	V	40.5	6.5	35.00	51.86	54	-2.14 *
12400.00	39.10	AV (Harmonics)	45	1.2	H	40.5	6.5	35.00	51.10	54	-2.90*
4960.00	45.10	AV (Harmonics)	60	1.2	V	33.8	4.6	33.00	50.50	54	-3.50*
4960.00	44.20	AV (Harmonics)	60	1.2	H	33.8	4.6	33.00	49.60	54	-4.40
7440.00	40.23	AV (Harmonics)	45	1.2	V	36.8	4.5	33.50	48.03	54	-5.97
7440.00	40.00	AV (Harmonics)	60	1.0	H	36.8	4.5	33.50	47.80	54	-6.20
9920.00	40.01	AV (Harmonics)	270	1.0	H	36.7	5.4	34.72	47.39	54	-6.61
9920.00	39.43	AV (Harmonics)	60	1.0	V	36.7	5.4	34.72	46.81	54	-7.19
4960.00	52.17	PK (Harmonics)	60	1.2	V	33.8	4.6	33.00	57.57	74	-16.43
4960.00	50.44	PK (Harmonics)	60	1.2	H	33.8	4.6	33.00	55.84	74	-18.16
12400.00	41.70	PK (Harmonics)	45	1.2	H	40.5	6.5	35.00	53.70	74	-20.30
12400.00	41.56	PK (Harmonics)	45	1.2	V	40.5	6.5	35.00	53.56	74	-20.44
7440.00	45.21	PK (Harmonics)	45	1.2	V	36.8	4.5	33.50	53.01	74	-20.99
9920.00	43.82	PK (Harmonics)	60	1.0	V	36.7	5.4	34.72	51.20	74	-22.80
7440.00	42.36	PK (Harmonics)	60	1.0	H	36.8	4.5	33.50	50.16	74	-23.84
9920.00	42.67	PK (Harmonics)	270	1.0	H	36.7	5.4	34.72	50.05	74	-23.95

* Within measurement uncertainty.

§15.247(a)(1)-CHANNEL SEPARATION TEST**Applicable Standard**

Frequency hopping systems shall have hopping channel carrier frequencies separated by a minimum of 25 kHz or the 20dB 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 20dB bandwidth of the hopping channel, whichever is greater provided the systems operate with an output power no greater than 125 mW.

Test Equipment List and Details

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Rohde & Schwarz	EMI Test Receiver	ESCI	100028	2005-8-17	2006-8-17

* **Statement of Traceability:** Bay Area Compliance Lab Corp. (ShenZhen) attests that all calibrations have been performed in accordance to NVLAP requirements, traceable to the NIST.

Test Procedure

1. Set the EUT in transmitting mode, spectrum Bandwidth was set at 100 kHz, maxhold the channel.
2. Set the adjacent channel of the EUT maxhold another truce
3. Measure the channel separation.

Limit

FCC Part 15, Subpart C Section 15.247(a)(1). 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.

FREQUENCY RANGE (MHz)	Limit (kHz)
902-928	>25kHz or the 20dB bandwidth
2400-2483.5	>25kHz or two-thirds of the 20dB bandwidth
5725-5850	>25kHz or the 20dB bandwidth

Test Data**Environmental Conditions**

Temperature:	27 °C
Relative Humidity:	50 %
ATM Pressure:	1009 mbar

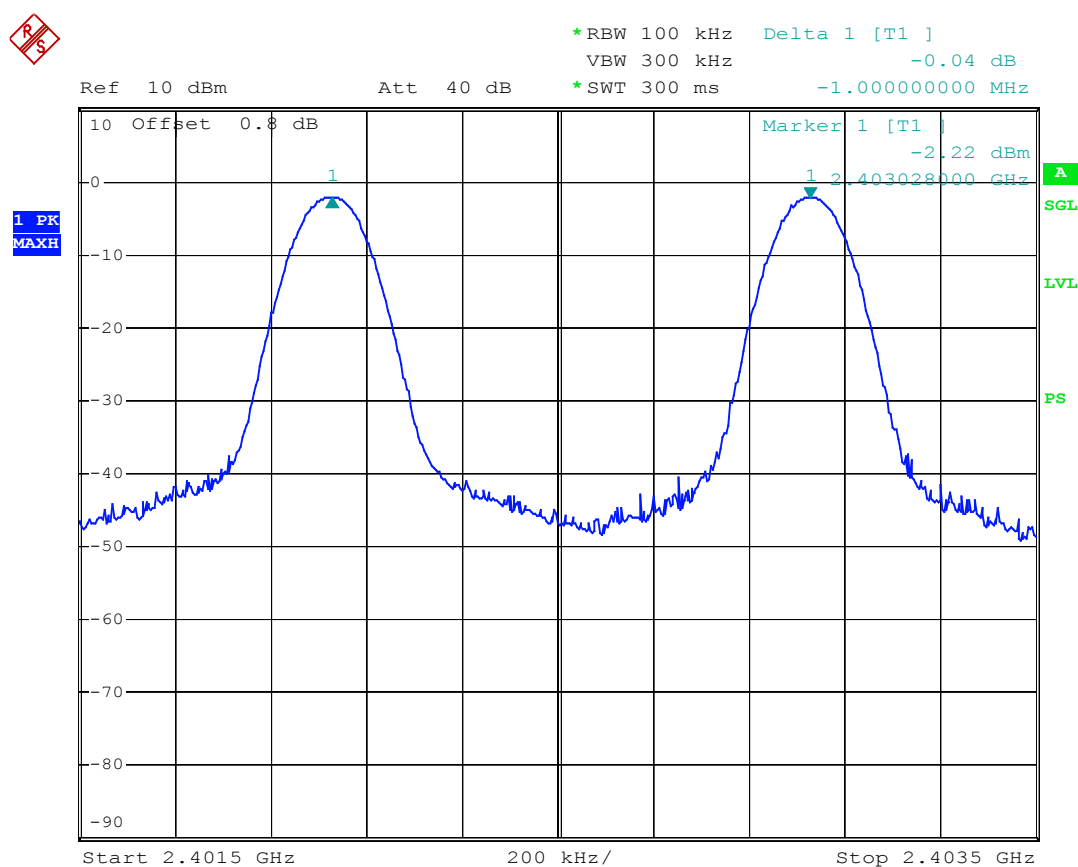
The testing was performed by Charmi Peng on 2006-5-10.

Test Result: Pass

Test mode: Transmitting

Channel	Channel Frequency (MHz)	Channel Separation (KHz)	Limit (kHz)	Result
Low Channel	2402	1000	185	Pass
Adjacency Channel	2403			
Mid Channel	2441	1000	185	Pass
Adjacency Channel	2442			
High Channel	2479	1000	185	Pass
Adjacency Channel	2480			

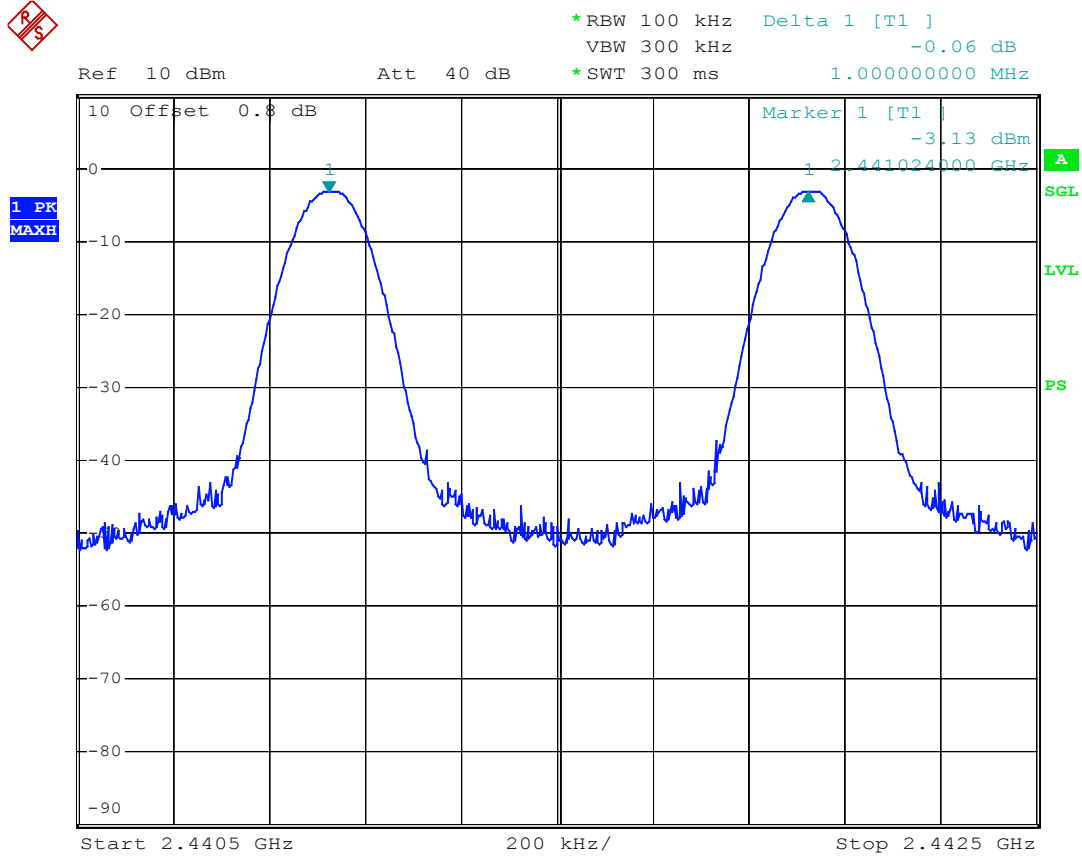
Low channel



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Middle channel

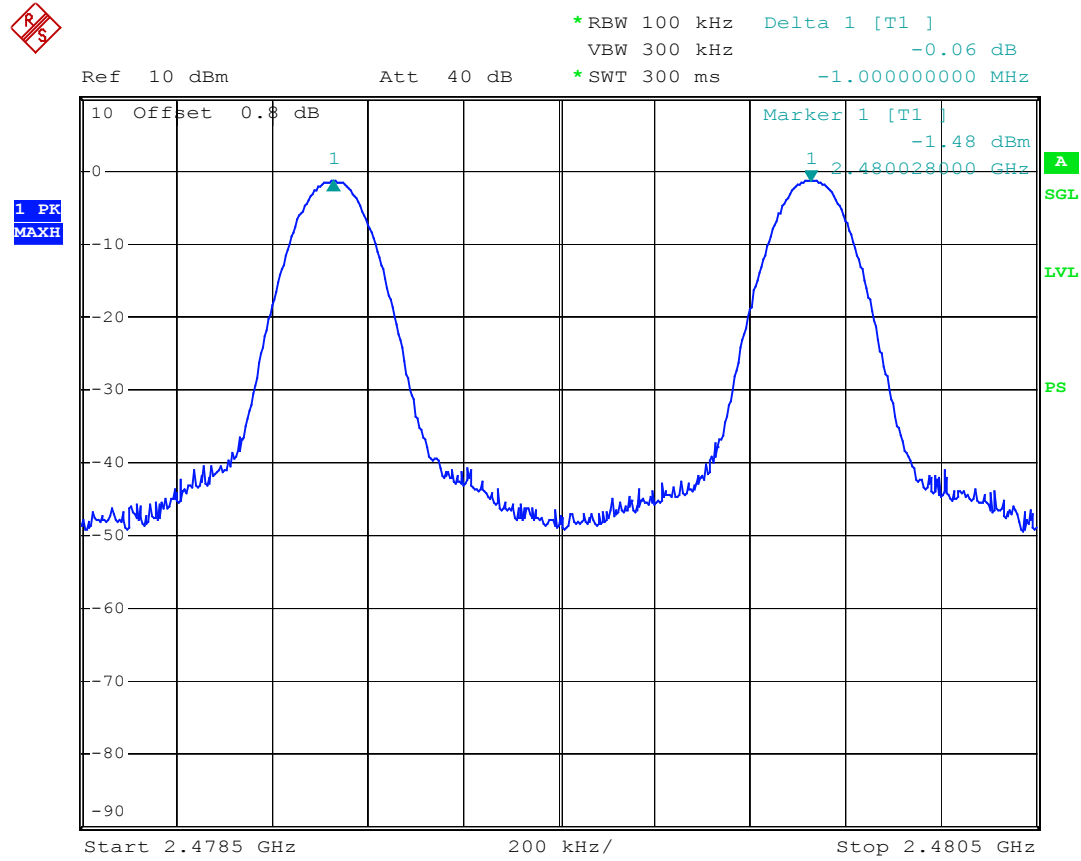


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High channel



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§15.247(a)(1) –20dB BANDWIDTH TESTING

Applicable Standard

Frequency hopping systems shall have hopping channel carrier frequencies separated by a minimum of 25 kHz or the 20dB Bandwidth of the hopping channel, whichever is greater.

Test Equipment List and Details

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Rohde & Schwarz	EMI Test Receiver	ESCI	100035	2005-8-17	2006-8-17

* **Statement of Traceability:** Bay Area Compliance Lab Corp. (ShenZhen) attests that all calibrations have been performed in accordance to NVLAP requirements, traceable to the NIST.

Test Procedure

1. Check the calibration of the measuring instrument using either an internal calibrator or a known signal from an external generator.
2. Position the EUT without connection to measurement instrument. Turn on the EUT and connect it to measurement instrument. Then set it to any one convenient frequency within its operating range. Set a reference level on the measuring instrument equal to the highest peak value.
3. Measure the frequency difference of two frequencies that were attenuated 20 dB from the reference level. Record the frequency difference as the emission bandwidth.
4. Repeat above procedures until all frequencies measured were complete.

Test Data

Environmental Conditions

Temperature:	25 ° C
Relative Humidity:	53%
ATM Pressure:	1009mbar

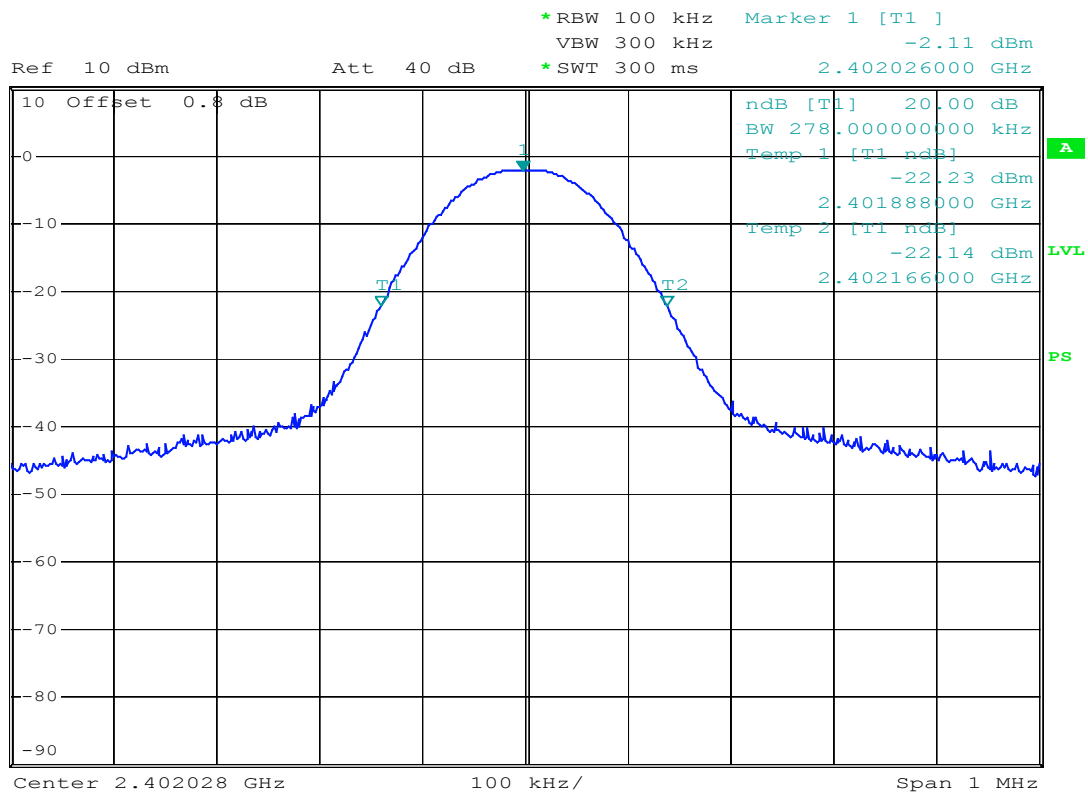
The testing was performed by Charmi Peng on 2006-5-10.

Test Mode: Transmitting

Channel	Channel Frequency (MHz)	20dB Bandwidth (kHz)
Low Channel	2402	278
Mid Channel	2441	278
High Channel	2480	278

Test Result: Pass

Low channel

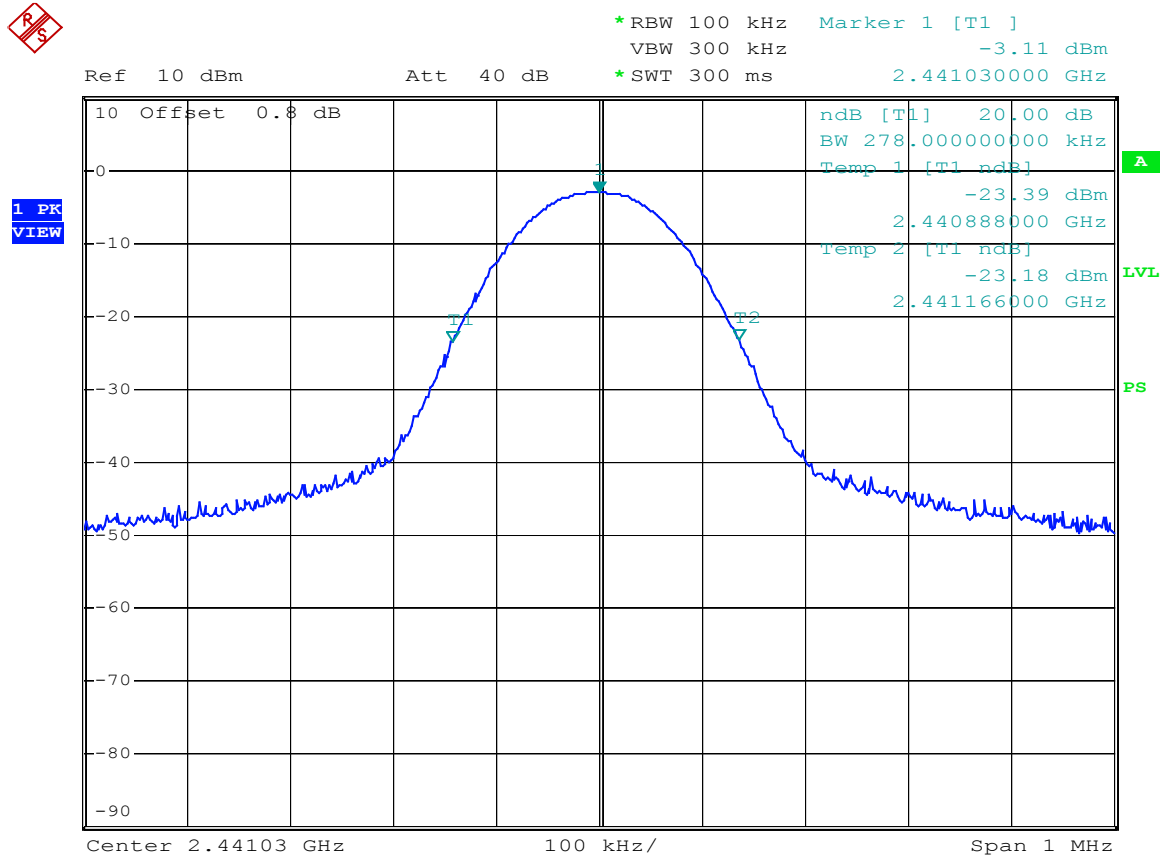
1 PK
VIEW

East-tech Bluetooth sunglasses M/N:K300 20dB Bandwidth Low c

h

Date: 10.MAY.2006 11:05:32

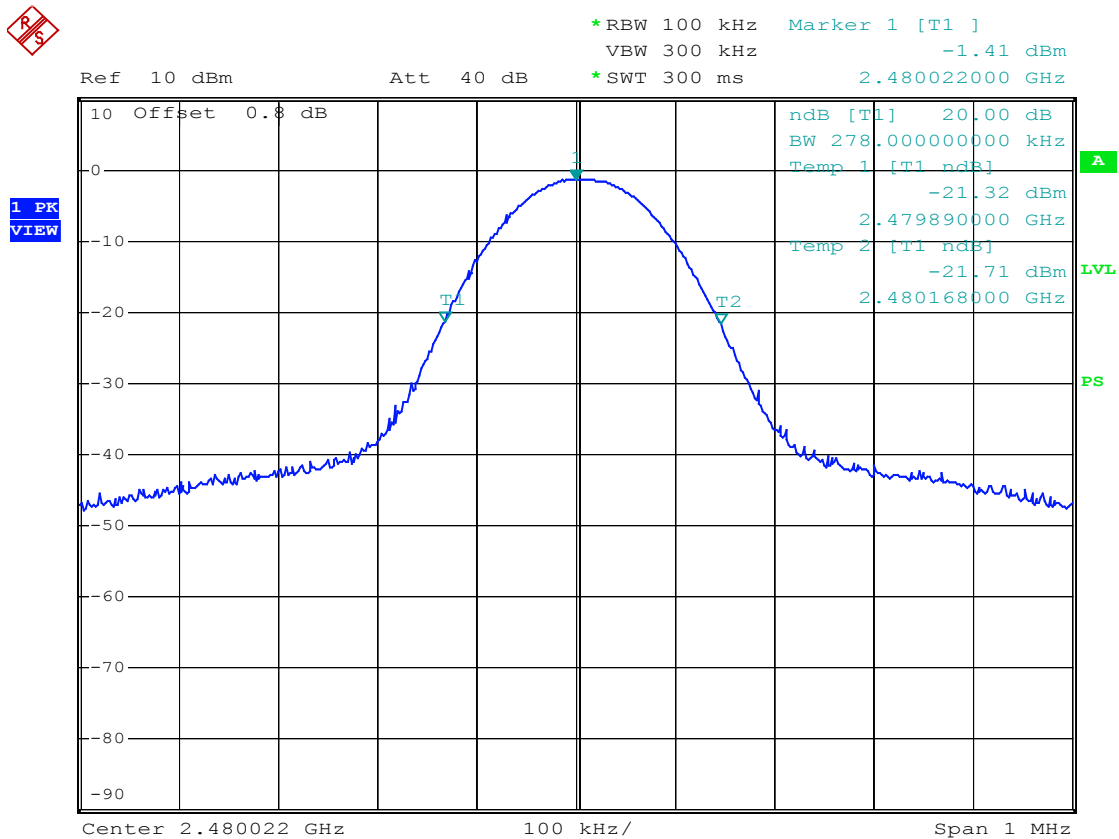
Middle channel



East-tech Bluetooth sunglasses M/N:K300 20dB Bandwidth Mid c
h

Date: 10.MAY.2006 11:04:49

High channel



East-tech Bluetooth sunglasses M/N:K300 20dB Bandwidth High

ch

Date: 10.MAY.2006 11:04:02

§15.247(a)(1)(iii)-QUANTITY OF HOPPING CHANNEL TEST**Applicable Standard**

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.

Test Equipment List and Details

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Rohde & Schwarz	EMI Test Receiver	ESCI	100035	2005-9-15	2006-9-15

* **Statement of Traceability:** Bay Area Compliance Lab Corp. (ShenZhen) attests that all calibrations have been performed in accordance to NVLAP requirements, traceable to the NIST.

Test Procedure

1. Check the calibration of the measuring instrument (SA) using either an internal calibrator or a known signal from an external generator.
2. Set the EUT in transmitting mode from first channel to last.
3. By using the Max-Hold function record the Quantity of the channel.

Limit

FCC Part 15, Subpart C Section 15.247

FREQUENCY RANGE (MHz)	Limit (Quantity of Hopping Channel)			
	20 dB bandwidth <250 kHz	20 dB bandwidth >250 kHz	20 dB bandwidth <1 MHz	20 dB bandwidth >1 MHz
902-928	50	25	N/A	N/A
2400-2483.5	N/A	N/A	≥15	≥15
5725-5850	N/A	N/A	N/A	N/A

Test Data**Environmental Conditions**

Temperature:	27 °C
Relative Humidity:	50 %
ATM Pressure:	1009 mbar

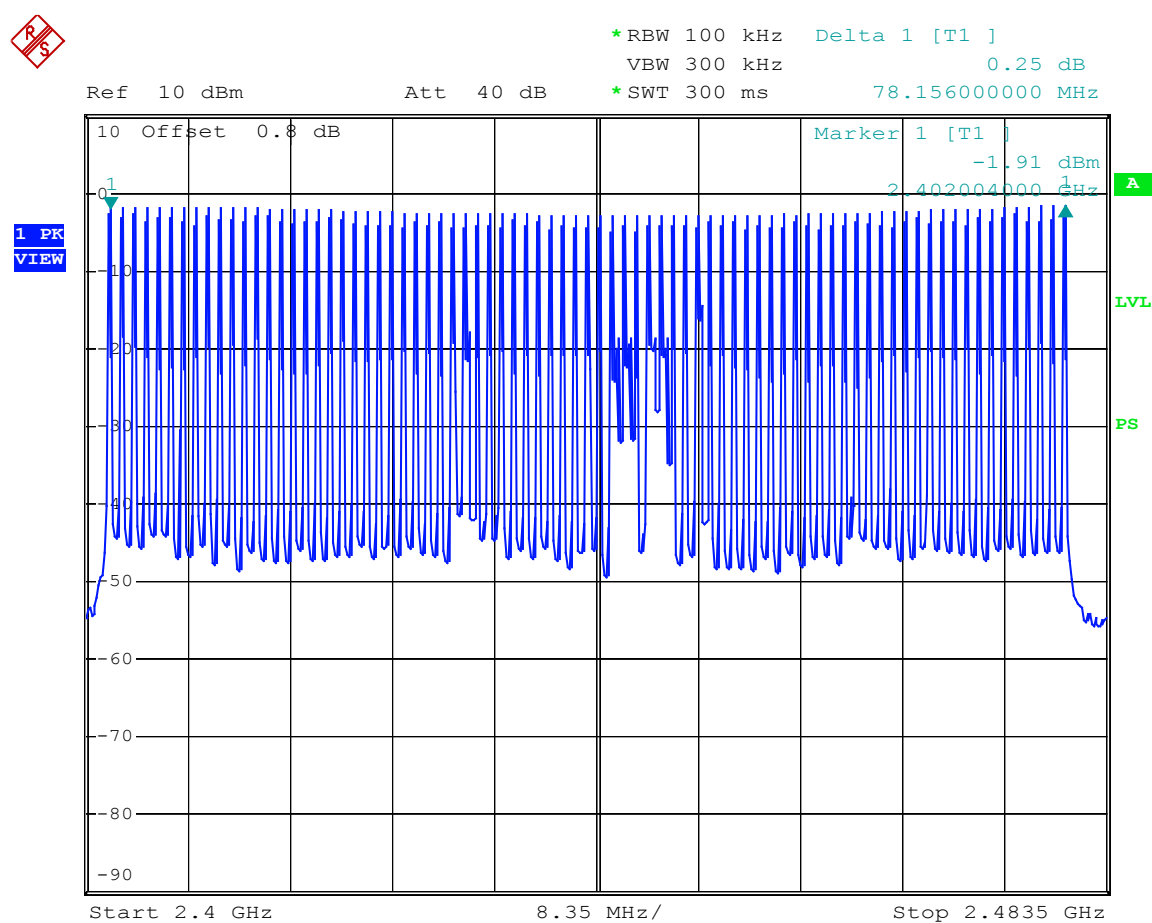
The testing was performed by Charmi Peng on 2006-05-10.

Test mode: Transmitting

The frequency hopping systems operating in 2.400~2.4835 GHz band employ 79 nonoverlapping channels.

Hopping Channel Frequency Range (MHz)	Quantity OF hopping Channel Read Value (Channel)	Quantity Of Hopping channel limit (Channel)
2400.0 ~ 2483.5	79	>15

Test Result: Pass



East-tech Bluetooth sunglasses M/N:K300 Number of channels

Date: 10.MAY.2006 10:39:45

§15.247(a)(1)(iii) - TIME OF OCCUPANCY (DWELL TIME)**Applicable Standard**

Frequency hopping systems in the 2400-2483.5 MHz 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.

Test Equipment List and Details

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Rohde & Schwarz	EMI Test Receiver	ESCI	100035	2005-8-17	2006-8-17

* **Statement of Traceability:** Bay Area Compliance Lab Corp. (ShenZhen) attests that all calibrations have been performed in accordance to NVLAP requirements, traceable to the NIST.

Test Procedure

The spectrum analyzer (SA) was set on any frequency to set measured. Set SA to Zero span mode and sweep was set to 3ms. Set RBW&VBW of SA to proper value.
The SA was set to single sweep, the total ON time was added and compared against the limit (0.4 seconds)

Limit

FCC Part 15, Subpart C Section 15.247.

FREQUENCY RANGE (MHz)	LIMIT (ms)		
	20dB bandwidth <250kHz (50 Channel)	20dB bandwidth >250kHz (50 Channel)	20dB bandwidth <1 MHz (79 Channel)
902-928	N/A	N/A	N/A
2400-2483.5	N/A	N/A	31.6s
5725-5850	N/A	N/A	N/A

Dwell Time= time slot length * hope rate/ number of hopping channels * 31.6s

Test Data**Environmental Conditions**

Temperature:	27 °C
Relative Humidity:	50 %
ATM Pressure:	1009 mbar

The testing was performed by Charmi Peng on 2006-05-10.

Test mode: Transmitting

Low channel:

Dwell time= $0.444(\text{ms}) \times (1600/79) \times 31.6 = 0.284(\text{s}) < 0.4(\text{s})$

Mid channel:

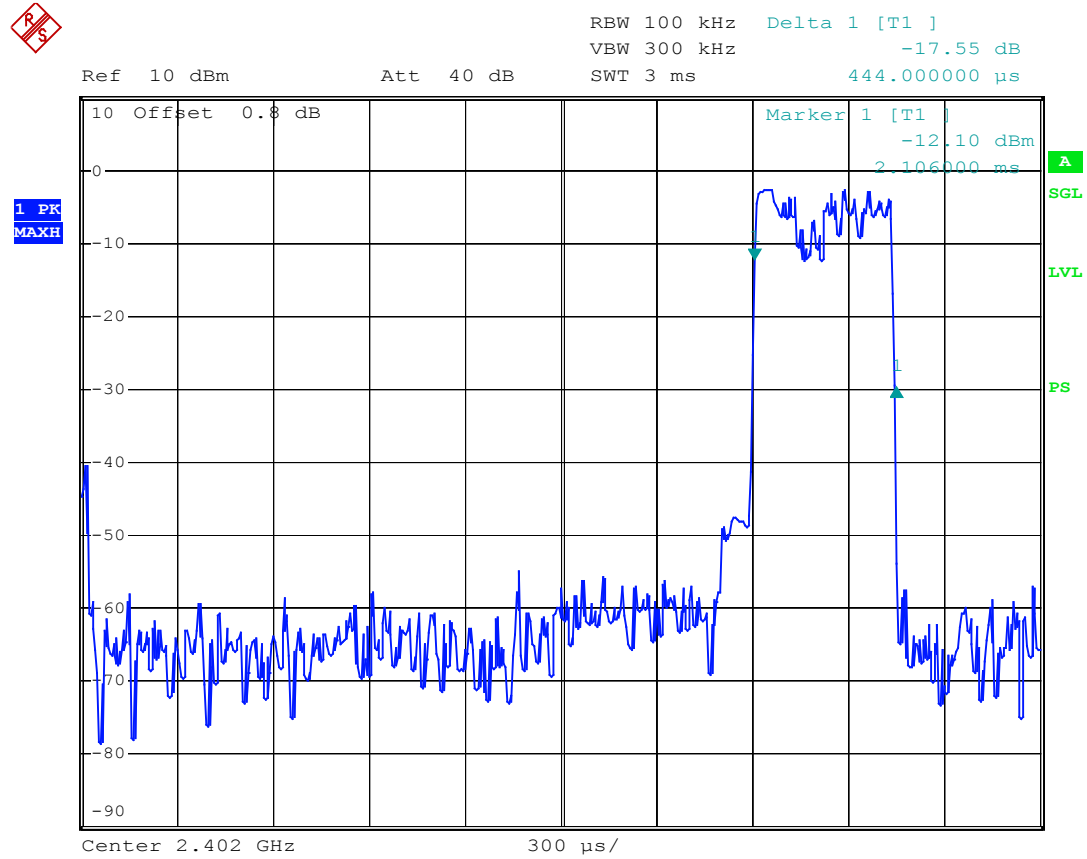
Dwell time= $0.450(\text{ms}) \times (1600/79) \times 31.6 = 0.288(\text{s}) < 0.4(\text{s})$

High channel:

Dwell time= $0.428(\text{ms}) \times (1600/79) \times 31.6 = 0.274(\text{s}) < 0.4(\text{s})$

Test Result: Pass

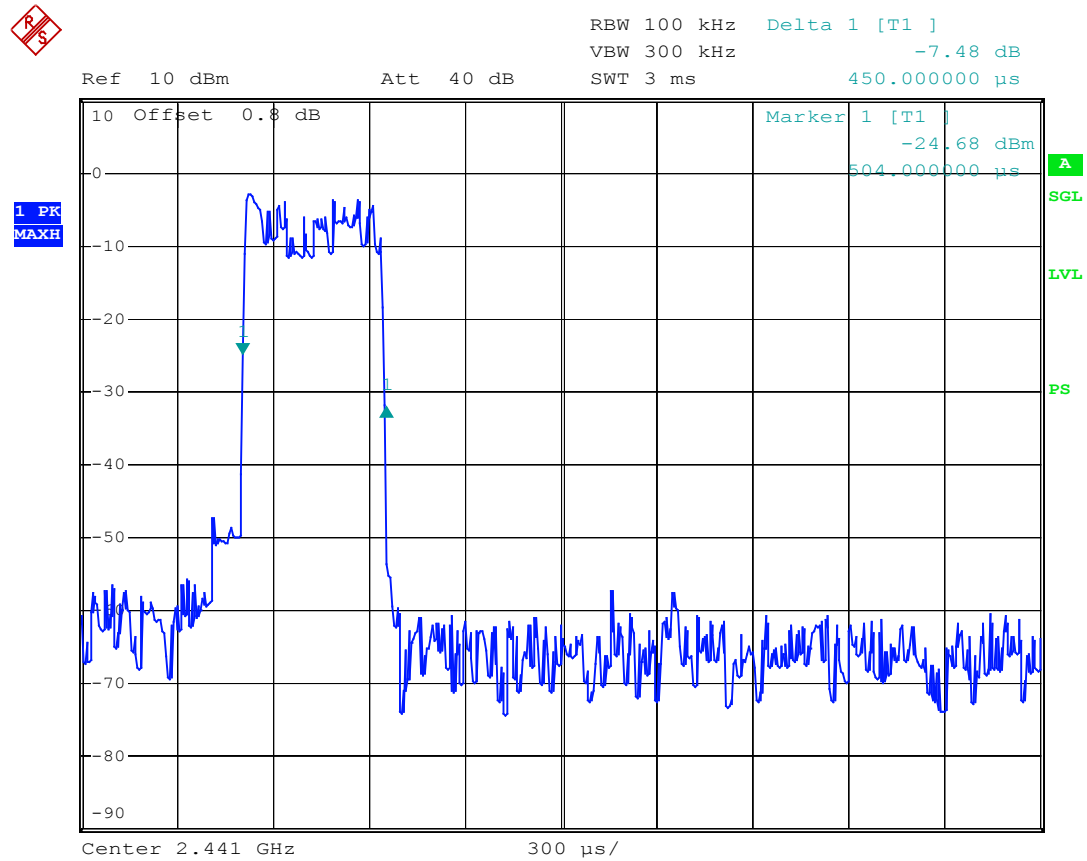
Low channel



East-tech Bluetooth sunglasses M/N:K300 Pulse of channel Lo
w ch

Date: 10.MAY.2006 11:14:13

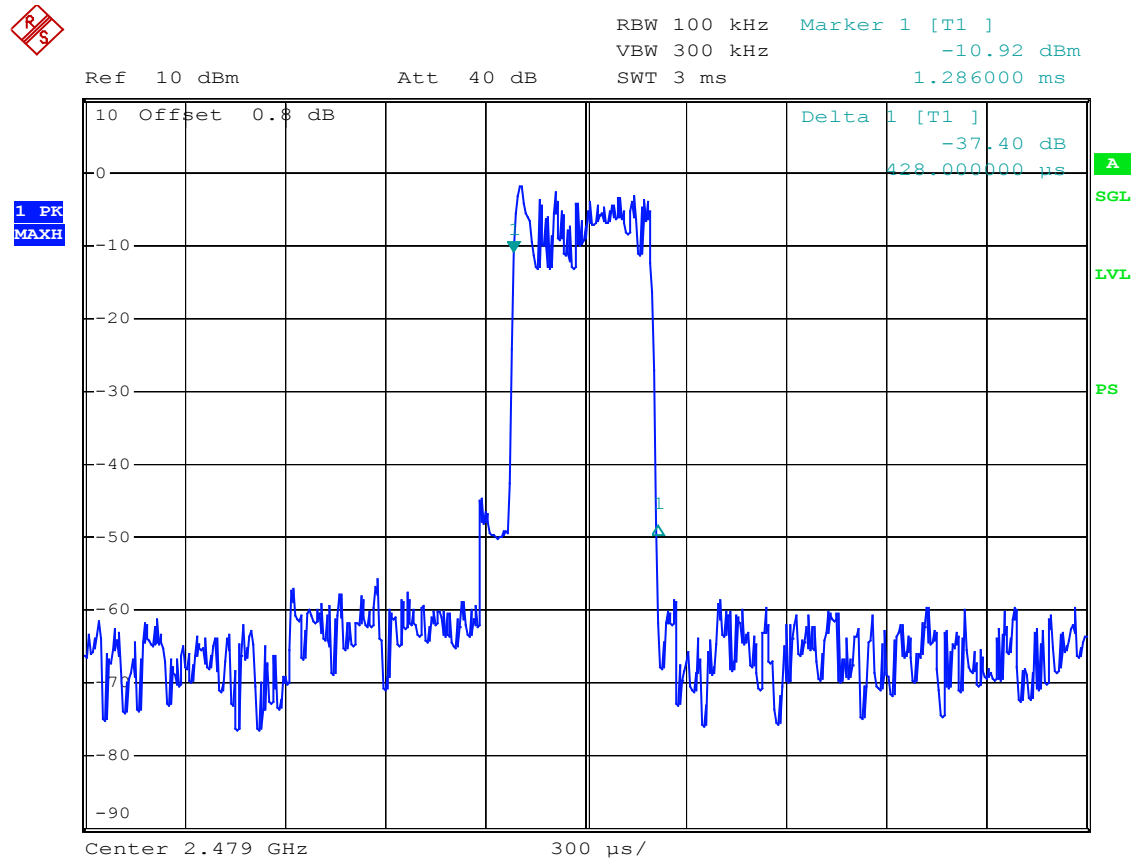
Middle channel



East-tech Bluetooth sunglasses M/N:K300 Pulse of channel Mi
d ch

Date: 10.MAY.2006 11:16:52

High channel



East-tech Bluetooth sunglasses M/N:K300 Pulse of channel Hi
gh ch

Date: 10.MAY.2006 12:07:34

§15.247(b)(1) - PEAK OUTPUT POWER MEASUREMENT

Applicable Standard

According to §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.

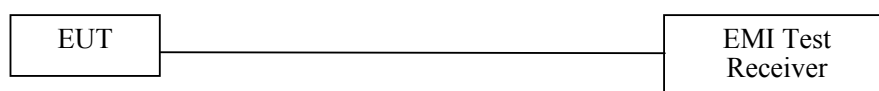
Test Equipment List and Details

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Rohde & Schwarz	EMI Test Receiver	ESCI	100035	2005-8-17	2006-8-17

* **Statement of Traceability:** Bay Area Compliance Lab Corp. (ShenZhen) attests that all calibrations have been performed in accordance to NVLAP requirements, traceable to the NIST.

Test Procedure

1. Place the EUT on a bench and set it in transmitting mode.
2. Remove the antenna from the EUT and then connect a low loss RF cable from the antenna port to a EMI Test Receiver.
3. Add a correction factor to the display.



Test Data

Environmental Conditions

Temperature:	25 ° C
Relative Humidity:	53%
ATM Pressure:	1009mbar

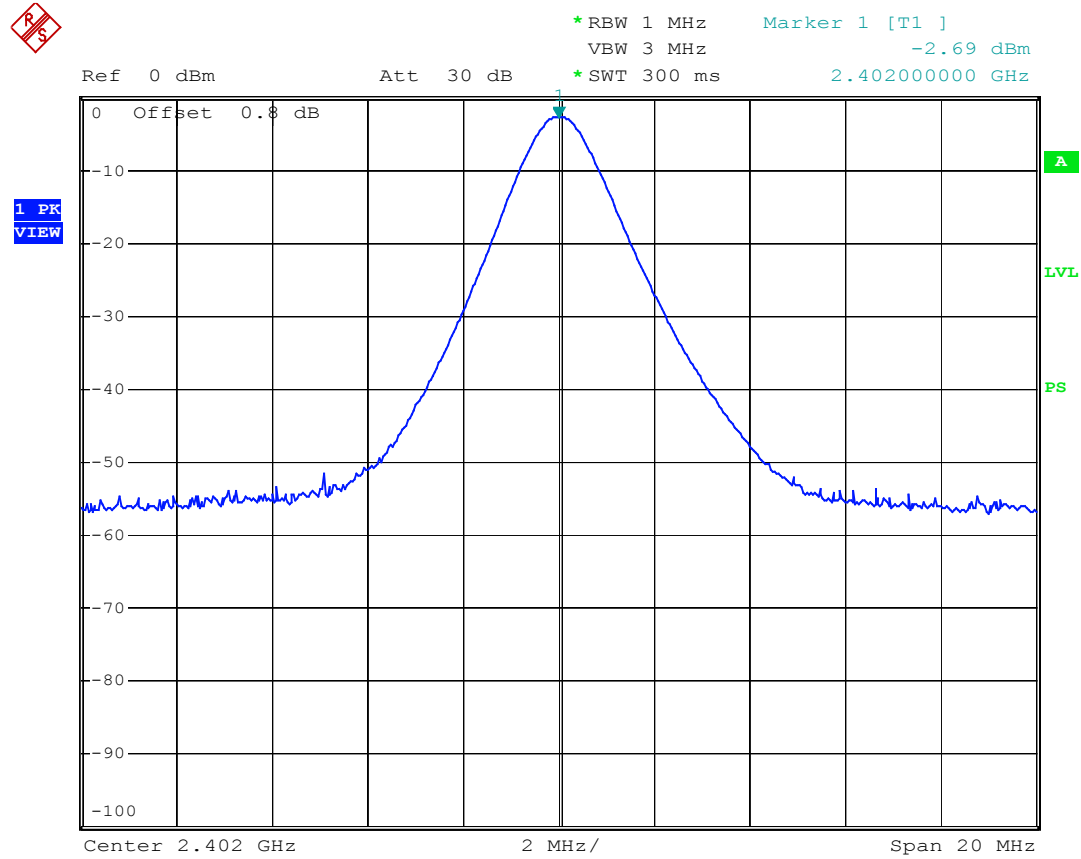
The testing was performed by Charmi Peng on 2006-5-10.

Please refer to the following plots.

Channel	Channel Frequency (MHz)	Reading Power (dBm)	Cable Loss (dB)	Power Output		Limit (w)
				(dBm)	(w)	
Low Channel	2402	-2.69	0	-2.69	0.00054	1
Mid Channel	2441	-3.88	0	-3.88	0.00041	1
High Channel	2480	-2.03	0	-2.03	0.00063	1

Test Result: Pass

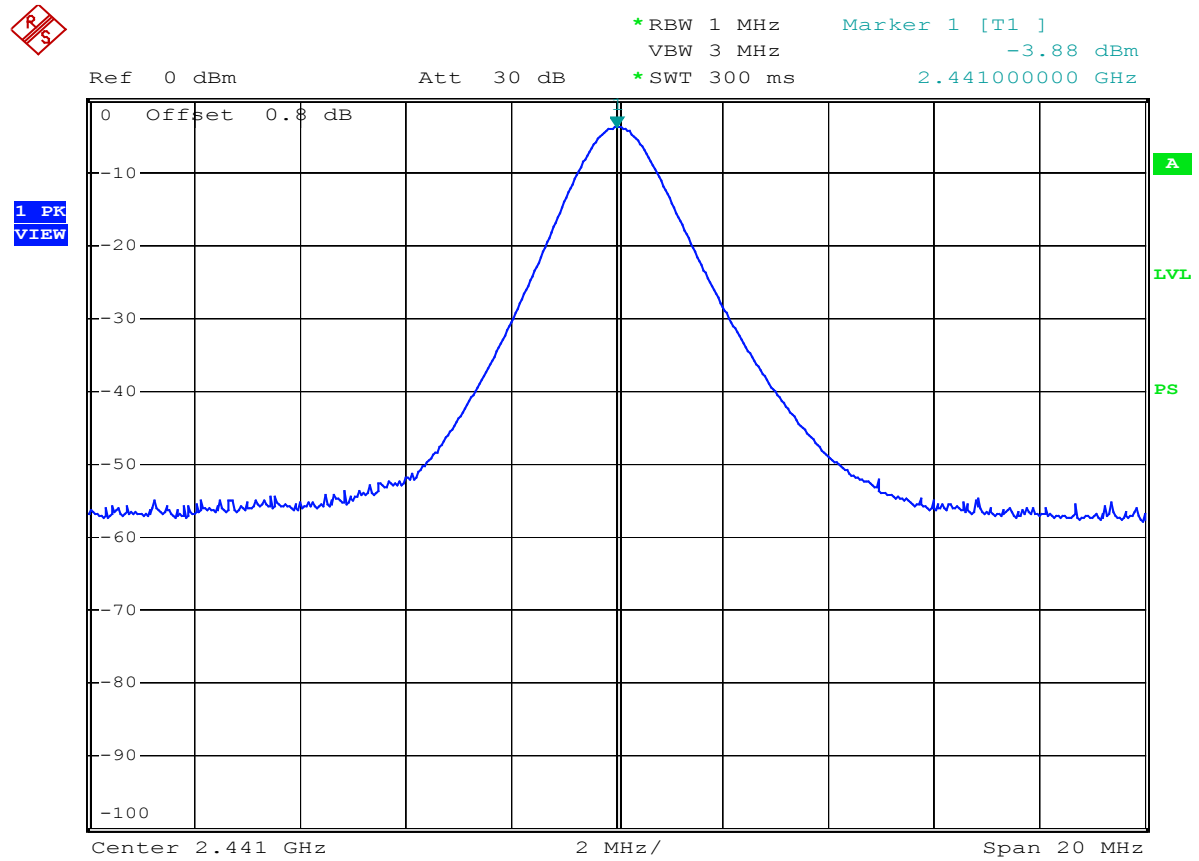
Low channel



East-tech Bluetooth sunglasses M/N:K300 Peak output power Low channel

Date: 10.MAY.2006 09:01:43

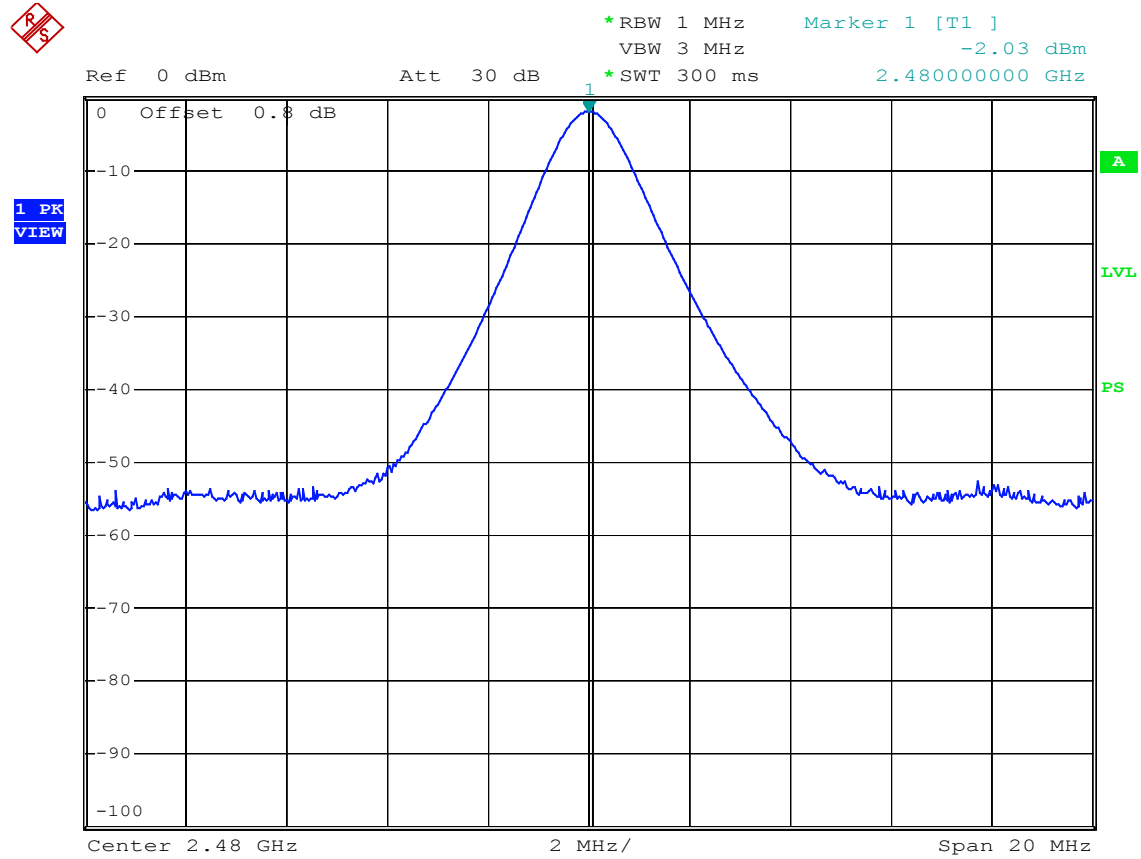
Middle channel



East-tech Bluetooth sunglasses M/N:K300 Peak output power Middle channel

Date: 10.MAY.2006 09:03:28

High channel



East-tech Bluetooth sunglasses M/N:K300 Peak output power High channel

Date: 10.MAY.2006 09:02:35

§15.247(d) - BAND EDGES TESTING

Applicable Standard

In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in §15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a) (see §15.205(c)).

Test Equipment List and Details

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Rohde & Schwarz	EMI Test Receiver	ESCI	100035	2005-8-17	2006-8-17

* **Statement of Traceability:** Bay Area Compliance Lab Corp. (ShenZhen) attests that all calibrations have been performed in accordance to NVLAP requirements, traceable to the NIST.

Test Procedure

1. Check the calibration of the measuring instrument using either an internal calibrator or a known signal from an external generator.
2. Position the EUT without connection to measurement instrument. Turn on the EUT and connect its antenna terminal to measurement instrument via a low loss cable. Then set it to any one measured frequency within its operating range, and make sure the instrument is operated in its linear range.
3. Set both RBW and VBW of spectrum analyzer to 100 kHz with a convenient frequency span including 100kHz bandwidth from band edge.
4. Measure the highest amplitude appearing on spectral display and set it as a reference level. Plot the graph with marking the highest point and edge frequency.
5. Repeat above procedures until all measured frequencies were complete.

Test Data**Environmental Conditions**

Temperature:	18 °C
Relative Humidity:	53 %
ATM Pressure:	1009mbar

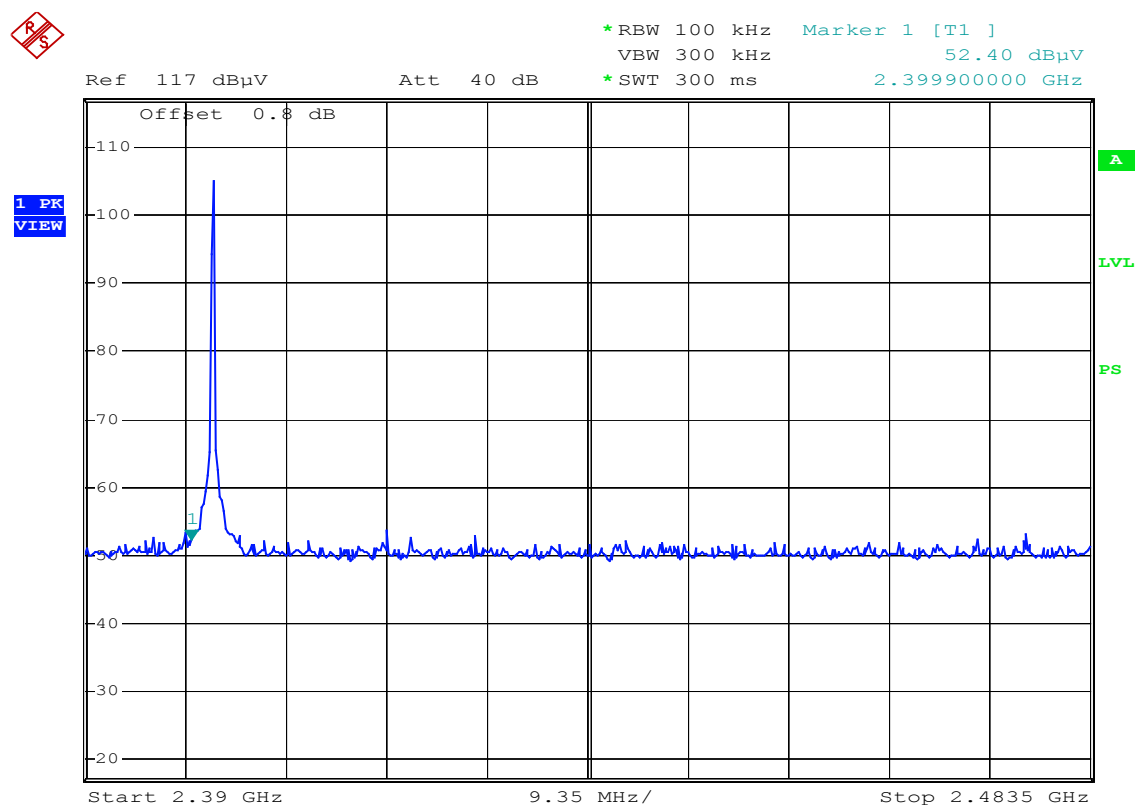
The testing was performed by Charmi Peng on 2006-5-10.

Test Mode: Transmitting

Frequency (MHz)	Emission (dBuV/m)	Limit (dBuV/m)
2399.9	51.27	54
2483.6	52.40	54

Test Result: Pass

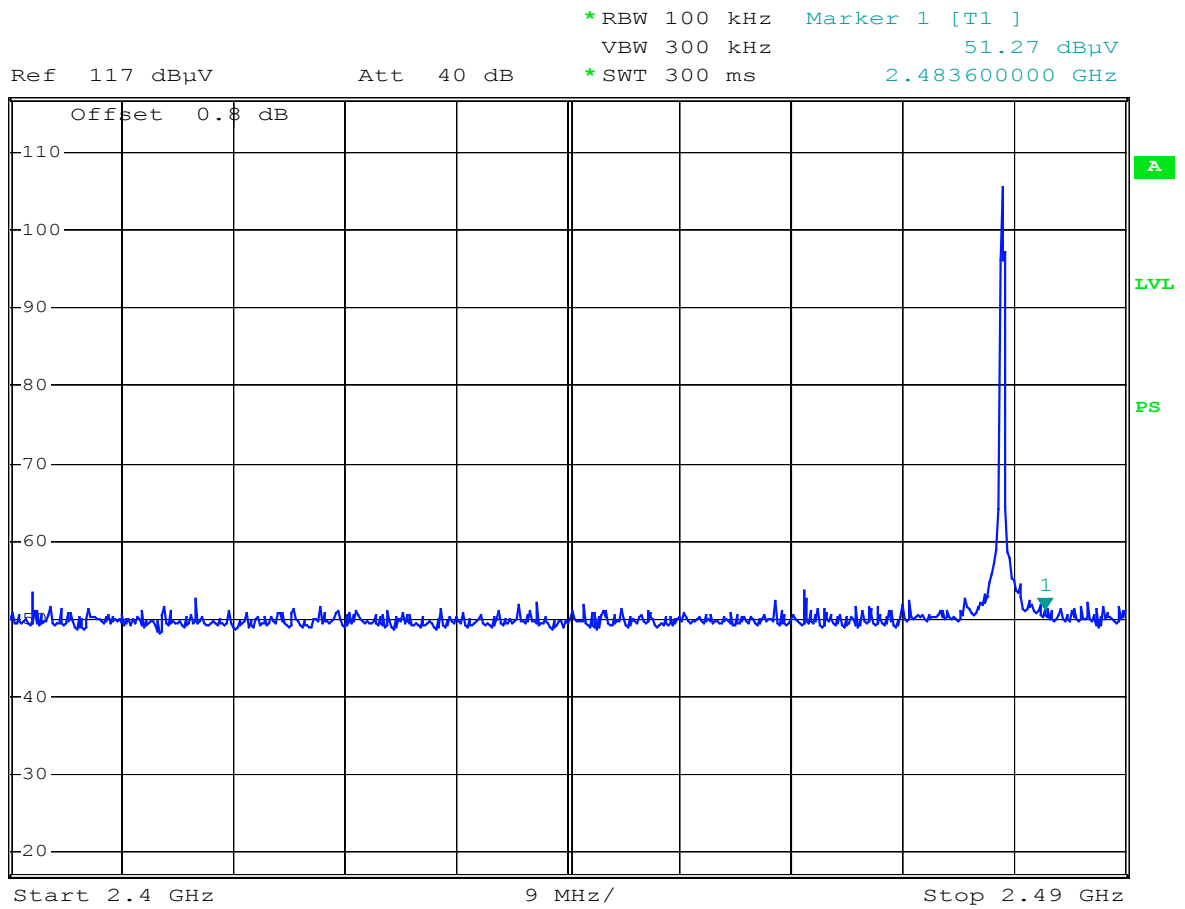
Low channel



East-tech Bluetooth sunglasses M/N:K300 Bandedge Low ch

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High channel

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East-tech Bluetooth sunglasses M/N:K300 Bandedge High ch

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