

<b>Prüfbericht - Nr.: 17022544 002</b> <i>Test Report No.:</i>			<b>Seite 1 von 15</b> <i>Page 1 of 15</i>		
<b>Auftraggeber:</b> Zen Factory Group (ASIA) Limited <i>Client:</i>			House 23, Hibiscus Path, Westwood, Palm Springs, Yuen Long, NT, Hong Kong		
<b>Gegenstand der Prüfung:</b> Rocketfish Wireless Headset Transmitter <i>Test item:</i>					
<b>Bezeichnung:</b> RF-GUV1202 <i>Identification:</i>		<b>Serien-Nr.:</b> n.a. <i>Serial No.:</i>			
<b>Wareneingangs-Nr.:</b> 163083494 <i>Receipt No.:</i>		<b>Eingangsdatum:</b> 2011-09-01 <i>Date of receipt:</i>			
<b>Prüfart:</b> Accurate Technology Co. Ltd. <i>Testing location:</i>		F1, Bldg. A, Changyuan New Material Port, Keyuan Rd., Science & Industry Park, Nanshan District, Shenzhen 518057, China  FCC Registration No.: 752051 Industry Canada Test Site No.: 5077A-2			
<b>Prüfgrundlage:</b> FCC CFR47 Part 15: Subpart B Section 15.109 <i>Test specification:</i>		FCC CFR47 Part 15: Subpart B Section 15.107			
<b>Prüfergebnis:</b> <i>Test Result:</i>		<b>Der Prüfgegenstand entspricht oben genannter Prüfgrundlage(n).</b> <i>The test item passed the test specification(s).</i>			
<b>Prüflaboratorium:</b> TÜV Rheinland (Shenzhen) Co., Ltd. <i>Testing Laboratory:</i>					
<b>geprüft/ tested by:</b>			<b>kontrolliert/ reviewed by:</b>		
					
2011-10-08 Sam Lin/ Project Manager			2011-10-10 Shawn Peng/ Manager		
Datum <i>Date</i>	Name/Stellung <i>Name/Position</i>	Unterschrift <i>Signature</i>	Datum <i>Date</i>	Name/Stellung <i>Name/Position</i>	Unterschrift <i>Signature</i>
<b>Sonstiges/ Other Aspects:</b>					
<b>Abkürzungen:</b> P(ass) = entspricht Prüfgrundlage F(ail) = entspricht nicht Prüfgrundlage N/A = nicht anwendbar NIT = nicht getestet					
<b>Abbreviations:</b> P(ass) = passed F(ail) = failed N/A = not applicable NIT = not tested					
<b>Dieser Prüfbericht bezieht sich nur auf das o.g. Prüfmuster und darf ohne Genehmigung der Prüfstelle nicht auszugsweise vervielfältigt werden. Dieser Bericht berechtigt nicht zur Verwendung eines Prüfzeichens.</b> <i>This test report relates to the a. m. test sample. Without permission of the test center this test report is not permitted to be duplicated in extracts. This test report does not entitle to carry any safety mark on this or similar products.</i>					

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*Test Report No.*

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## TEST SUMMARY

**5.1.1 CONDUCTED EMISSION FOR FCC PART15 SUBPART B SECTION 15.107(A)**

*RESULT: Passed*

**6.1.1 RADIATED EMISSION FOR FCC PART15 SUBPART B SECTION 15.109(G)**

*RESULT: Passed*

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## 1. General Remarks

### 1.1 Complementary Materials

All attachments are integral parts of this test report. This applies especially to the following appendix:

Appendix 1: Test Results

## 2. Test Sites

### 2.1 Test Facilities

Accurate Technology Co. Ltd.

F1, Bldg. A, Changyuan New Material Port, Keyuan Rd., Science & Industry Park,  
Nanshan District, Shenzhen 518057, China

FCC Registration No.: 752051

Industry Canada Test site No.: 5077A-2

The tests at the test site have been conducted under the supervision of a TÜV engineer.

## 2.2 List of Test and Measurement Instruments

**Table 1: List of Test and Measurement Equipment**

Kind of Equipment	Manufacturer	Type	S/N	Calibrated until
<b>Conducted emissions</b>				
EMI Test Receiver	Rohde & Schwarz	ESCS30	100307	2012-01-08
LISN	Rohde & Schwarz	ESH3-Z5	100305	2012-01-08
<b>Radiated emissions</b>				
EMI Test Receiver	Rohde & Schwarz	ESPI3	101526/003	2012-01-08
Pre-Amplifier	Rohde & Schwarz	CBLU1183540-01	3791	2012-01-08
Bilog Antenna	Schwarzbeck	VULB9163	9163-323	2012-01-08

## 2.3 Traceability

All measurement equipment calibrations are traceable to NIM (National Institute of Metrology) or where calibration is performed in other countries, to equivalent nationally recognized standards organizations.

## 2.4 Calibration

Equipment requiring calibration is calibrated periodically by the manufacturer or according to manufacturer's specifications. Additionally all equipment is verified for proper performance on a regular basis using in house standards or comparisons.

## 2.5 Measurement Uncertainty

For a 95% confidence level, the measurement expanded uncertainties for defined systems, in accordance with the recommendations of ISO/IEC 17025 are:

**Table 2: Measurement Uncertainty**

Items		Extended Uncertainty
CE	Disturbance Voltage (dBuV)	U=2.23dB, k=2, $\sigma$ =95%
RE (9kHz-30MHz)	Field strength (dBuV/m)	U=3.08dB, k=2, $\sigma$ =95%
RE (30-1000MHz)	Field strength (dBuV/m)	U=4.42dB, k=2, $\sigma$ =95%
RE (above 1000MHz)	Field strength (dBuV/m)	U=4.06dB, k=2, $\sigma$ =95%

## 2.6 Location of Original Data

The original copies of all test data taken during actual testing were attached in this report and delivered to the applicant. A copy has been retained in the TÜV Rheinland (Shenzhen) file for certification follow-up purposes.

## 2.7 Status of Facility Used for Testing

The Accurate Technology Co. Ltd. facility located at F1, Bldg. A, Changyuan New Material Port, Keyuan Rd., Science & Industry Park, Nanshan District, Shenzhen 518057, China is listed on the US Federal Communications Commission list of facilities approved to perform measurements.

### 3. General Product Information

#### 3.1 Product Function and Intended Use

The EUT is a wireless transmitter used together with PlayStation®3, Xbox 360®, Stereo audio devices and personal computer for domestic use. It contains two antennas, but only one antenna is used for transmitting at one time. The EUT provides the wireless audio source capability for connecting to receiver.

For more information refer to the Instruction Manual.

#### 3.2 Ratings and System Details

**Table 3: Information of EUT**

Kind of Equipment:	Rocketfish Wireless Headset Transmitter
Type Designation:	RF-GUV1202
FCC ID	WP8-UV0WH5Y06019Z
IC:	8632A-UV0WH5Y0

**Table 4: Technical Specification of EUT**

Technical Specification	Value
Operating Frequency	2403-2477 MHz
Operation Voltage	DC 5V (via USB port)
Modulation	GFSK
Antenna Type	Internal Antenna, Non-User Replaceable
Antenna Gain	2.61dBi
Number of Antenna	2
Number of Channels	75
Channel Separation (MHz)	1MHz
External Ports	Line-in port

### 3.3 Independent Operation Modes

The basic operation modes are:

- A. On, connect to PC by USB port
- B. Line-in audio input
- C. Off

### 3.4 Noise Generating and Noise Suppressing Parts

Refer to the Circuit Diagram.

### 3.5 Submitted Documents

- |                          |                      |
|--------------------------|----------------------|
| - Bill of Material       | - Circuit Diagram    |
| - Constructional Drawing | - Instruction Manual |
| - PCB Layout             | - Rating Label       |
| - Photo Document         |                      |

## 4. Test Set-up and Operation Modes

### 4.1 Principle of Configuration Selection

**Emission:** The equipment under test (EUT) was configured to measure its highest possible radiation level. The test modes were adapted accordingly in reference to the instructions for use.

### 4.2 Test Operation and Test Software

Test operation refers to test setup in chapter 5&6.



### 4.3 Special Accessories and Auxiliary Equipment

The product has been tested together with the following accessories:

**Table 5: List of Auxiliary Equipment**

Description	Manufacturer	Model Name	Serial Number
Notebook PC	Lenovo	4290-RT8	R9-FW93G
iPod	Apple	A1238	8K039T1Y9ZU
Printer	Canon	BJC-1000SP	n.a.

### 4.4 Countermeasures to achieve EMC Compliance

The test sample which has been tested contained the noise suppression parts as described in the Constructional Data Form or the Technical Construction File. No additional measures were employed to achieve compliance.

## 4.5 Test Setup Diagram

Diagram of Measurement Configuration for Radiation Test

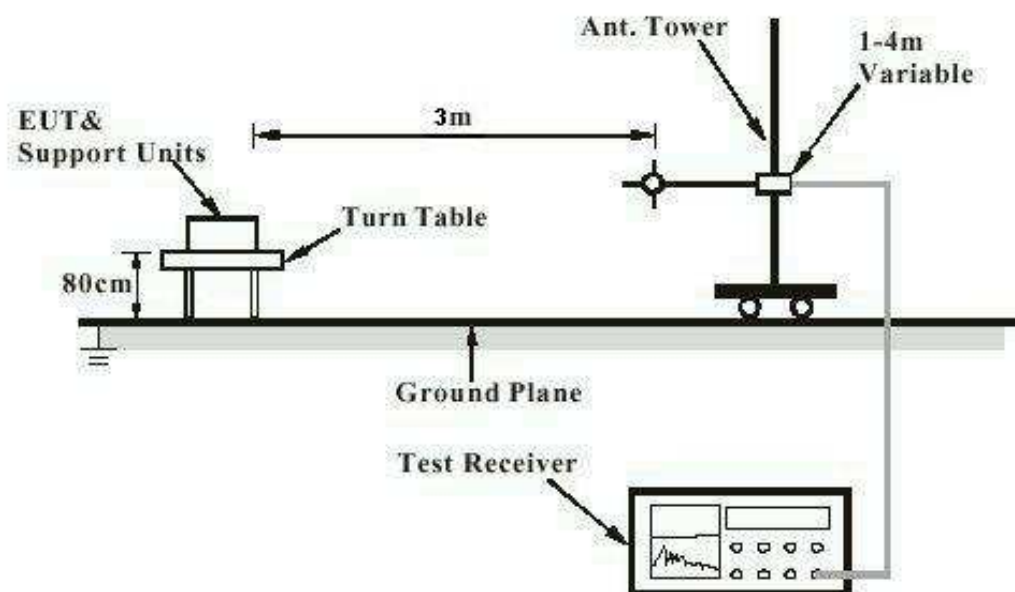
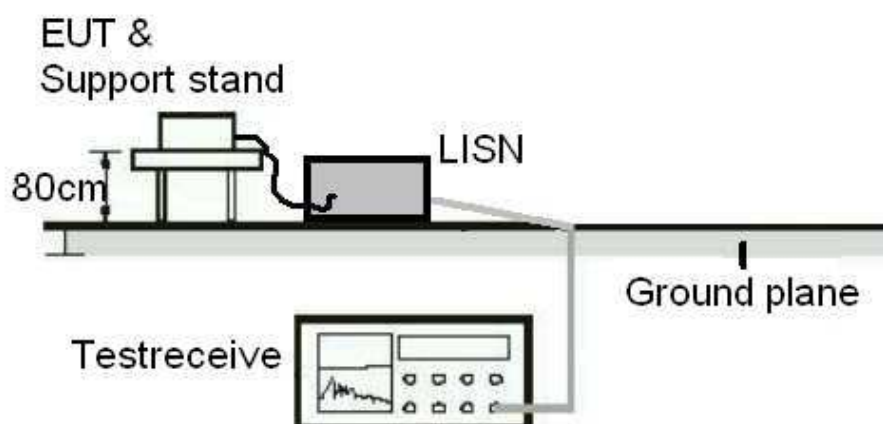
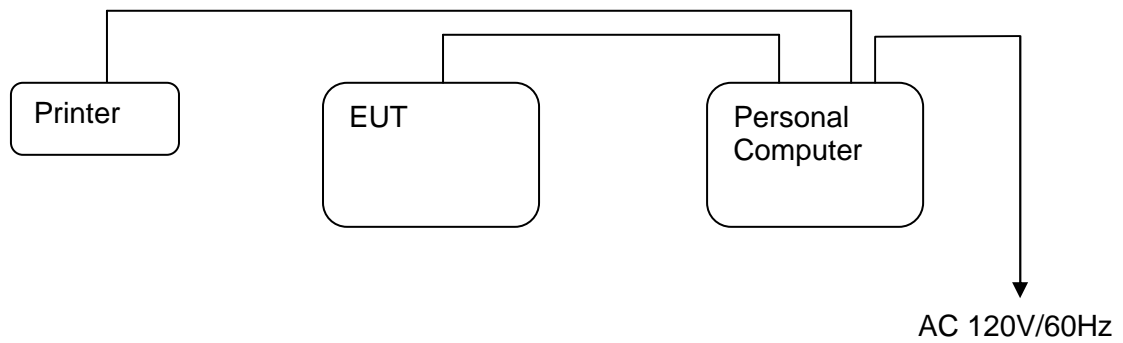


Diagram of Measurement Equipment Configuration for Conduction Measurement



**Diagram of Equipment Configuration for Testing**



## 5. Test Results EMISSION

### 5.1 Emission in the Frequency Range up to 30 MHz

#### 5.1.1 Conducted Emission for FCC Part15 Subpart B Section 15.107(a)

**RESULT:****Passed**

Date of testing	:	2011-09-23
Test specification	:	FCC Part15 Subpart B Section 15.107(a)
Frequency range	:	0.15 – 30MHz
Classification	:	Class B
Test procedure	:	ANSI C63.4:2009
Kind of test site	:	Shielded room

**Test setup**

Input Voltage	:	AC 120V, 60Hz
Operation mode	:	A&B
Ambient temperature	:	23°C
Relative humidity	:	50%
Atmospheric pressure	:	101 kPa

Refer to attached Appendix 1 for details.

## 6. Emission in the Frequency Range above 30 MHz

### 6.1.1 Radiated Emission for FCC Part15 Subpart B Section 15.109(g)

**RESULT:****Passed**

Date of testing	:	2011-10-01
Test standard	:	FCC Part15 Subpart B Section 15.109(g)
Frequency range	:	30 - 1000MHz
Classification	:	Class B
Test procedure	:	ANSI C63.4:2009
Kind of test site	:	3m Semi-Anechoic Chamber

**Test setup**

Input Voltage	:	AC 120V, 60Hz
Operation mode	:	A&B
Ambient temperature	:	24°C
Relative humidity	:	48%
Atmospheric pressure	:	101 kPa

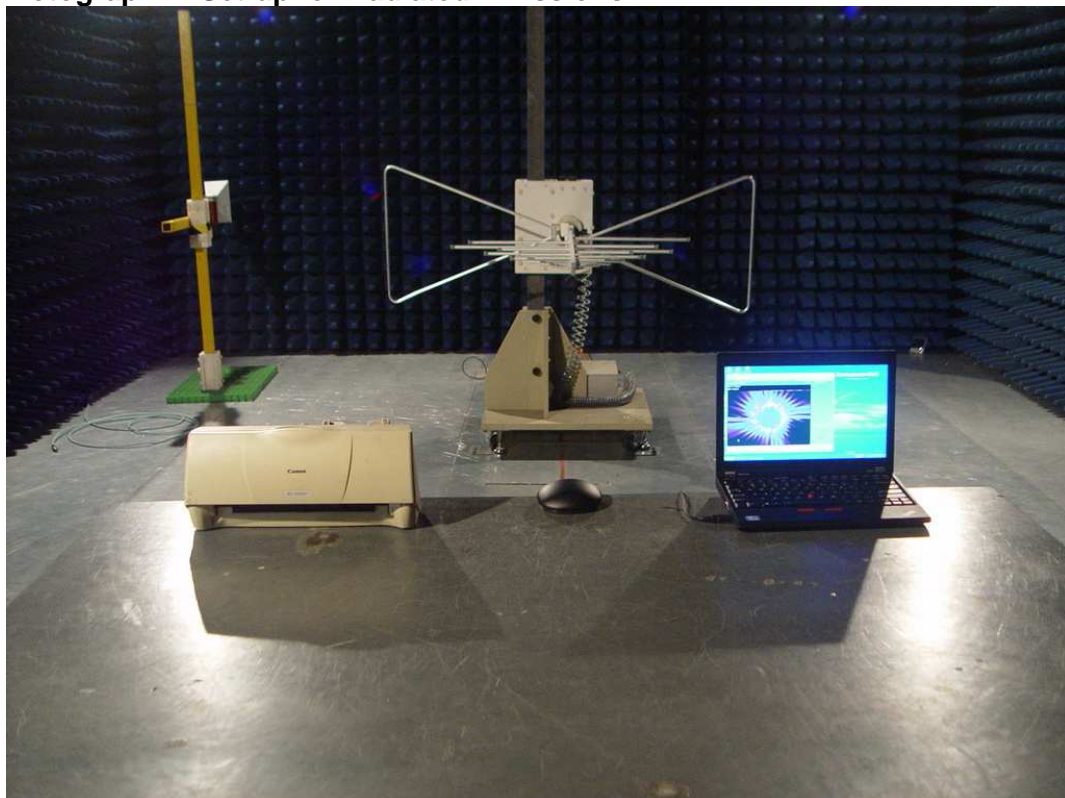
Refer to attached Appendix 1 for details.

## 7. Photographs of the Test Set-Up

**Photograph 1: Set-up for Conducted Emissions**



**Photograph 2: Set-up for Radiated Emissions**



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## Test plots of Radiated Emissions



### ACCURATE TECHNOLOGY CO., LTD.

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.: pei #6365

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.( C/Hum.(%) 24 C / 48 %

EUT: Rocketfish Wireless Headset Transmitter

Mode: A

Model: RF-GUV1202

Manufacturer: ZEN

Polarization: Horizontal

Power Source: DC 5V

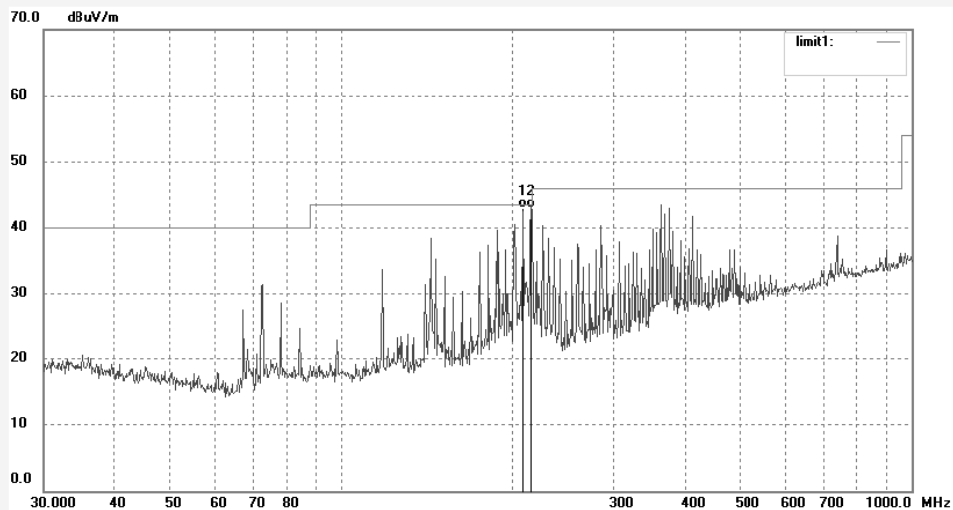
Date: 2011/10/01

Time: 15:17:28

Engineer Signature: PEI

Distance: 3m

Note:



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	208.8968	26.69	16.31	43.00	43.50	-0.50	QP			
2	215.9956	26.34	16.56	42.90	43.50	-0.60	QP			





**ACCURATE TECHNOLOGY CO., LTD.**

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.: pei #6366

Standard: FCC Class B 3M Radiated

Test item: Radiation Test

Temp.( C)/Hum.(%) 24 C / 48 %

EUT: Rocketfish Wireless Headset Transmitter

Mode: A

Model: RF-GUV1202

Manufacturer: ZEN

Polarization: Vertical

Power Source: DC 5V

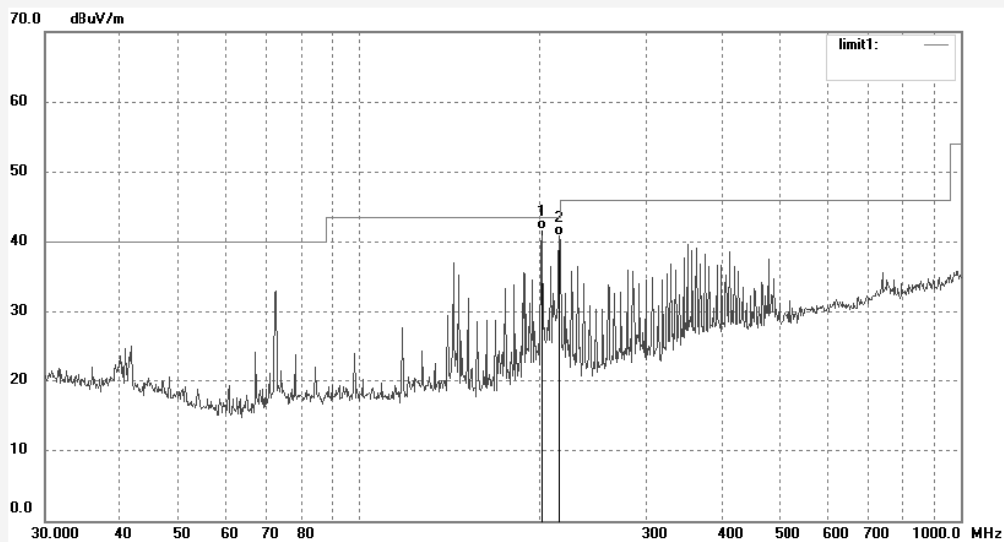
Date: 2011/10/03

Time: 15:28:39

Engineer Signature: PEI

Distance: 3m

Note:



No.	Freq. (MHz)	Reading (dBuV/m)	Factor (dB)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Degree (deg.)	Remark
1	202.7530	25.61	16.19	41.80	43.50	-1.70	QP			
2	215.0410	24.36	16.54	40.90	43.50	-2.60	QP			

## Test plots of Conducted Emissions

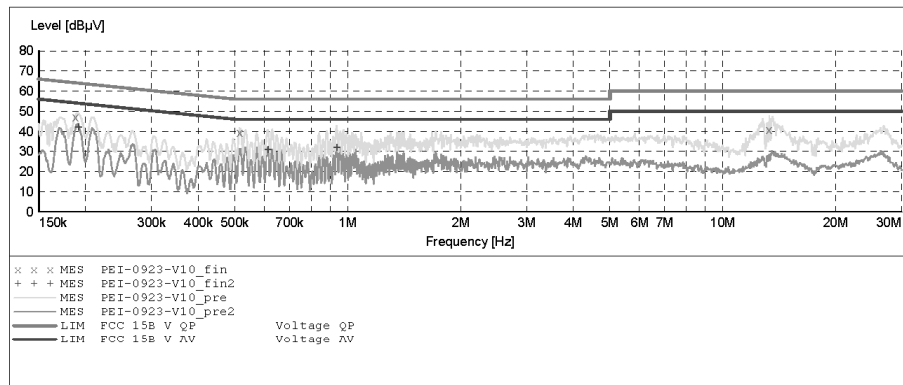
ACCURATE TECHNOLOGY CO., LTD

CONDUCTED EMISSION STANDARD FCC PART 15 B

EUT: Rocketfish Wireless Headset Transmitter M/N:RF-GUV1202  
 Manufacturer: ZEN  
 Operating Condition: A&B  
 Test Site: 1#Shielding Room  
 Operator: PEI  
 Test Specification: L 120V/60Hz  
 Comment:  
 Start of Test: 9/23/2011 / 9:17:36AM

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

Short Description: SUB STD VTERM2 1.70  
 Start Stop Step Detector Meas. IF Transducer  
 Frequency Frequency Width Time Bandw.  
 150.0 kHz 30.0 MHz 0.8 % QuasiPeak 1.0 s 9 kHz NSLK8126 2008  
 Average



### MEASUREMENT RESULT: "PEI-0923-V10\_fin"

9/23/2011 9:20AM

Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE
0.188327	47.10	11.2	64	17.0	QP	L1	GND
0.515002	39.50	12.0	56	16.5	QP	L1	GND
13.328598	40.80	11.2	60	19.2	QP	L1	GND

### MEASUREMENT RESULT: "PEI-0923-V10\_fin2"

9/23/2011 9:20AM

Frequency MHz	Level dBμV	Transd dB	Limit dBμV	Margin dB	Detector	Line	PE
0.191358	42.10	11.2	54	11.9	AV	L1	GND
0.611446	31.10	12.0	46	14.9	AV	L1	GND
0.933537	32.20	11.8	46	13.8	AV	L1	GND

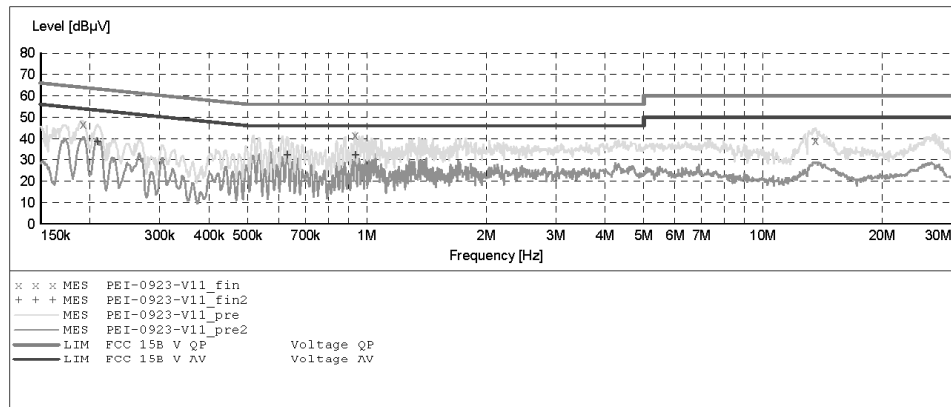
ACCURATE TECHNOLOGY CO., LTD

CONDUCTED EMISSION STANDARD FCC PART 15 B

EUT: Rocketfish Wireless Headset Transmitter M/N:RF-GUV1202  
 Manufacturer: ZEN  
 Operating Condition: A&B  
 Test Site: 1#Shielding Room  
 Operator: PEI  
 Test Specification: N 120V/60Hz  
 Comment:  
 Start of Test: 9/23/2011 / 9:20:50AM

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

Short Description: SUB STD VTERM2 1.70  
 Start Stop Step Detector Meas. IF Transducer  
 Frequency Frequency Width Time Bandw.  
 150.0 kHz 30.0 MHz 0.8 % QuasiPeak 1.0 s 9 kHz NSLK8126 2008  
 Average



MEASUREMENT RESULT: "PEI-0923-V11\_fin"

9/23/2011 9:22AM

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
0.192124	46.70	11.2	64	17.2	QP	N	GND
0.933537	41.60	11.8	56	14.4	QP	N	GND
13.597311	39.00	11.2	60	21.0	QP	N	GND

MEASUREMENT RESULT: "PEI-0923-V11\_fin2"

9/23/2011 9:22AM

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
0.208092	38.90	11.3	53	14.4	AV	N	GND
0.628773	32.60	11.9	46	13.4	AV	N	GND
0.933537	32.40	11.8	46	13.6	AV	N	GND