




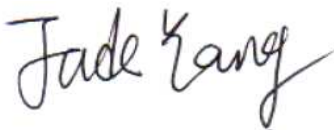

# TEST REPORT

Applicant	SHENZHEN YUXINXIN ELECTRONICS CO.,LTD.
Address	Building 7, Xin Xing Industrial Park, Fu Yong Town Bao,an District, Shenzhen City, Guangdong, China

Manufacturer or Supplier	SHENZHEN YUXINXIN ELECTRONICS CO.,LTD.	
Address	Building 7, Xin Xing Industrial Park, Fu Yong Town Bao,an District, Shenzhen City, Guangdong, China	
Product	Wireless Headphone	
Brand Name	YUXINXIN, SENTRY	
Model	FM-8898	
Additional Model & Model Difference	FM-8899/RF-1009/RF-1168/YX-2011/RF-1102/RF-8138/RF-8139/RF-8913/FM1101-A/HO700 (SENTRY)/HO750(SENTRY) See item 2.1	
Date of tests	July. 25-August.2, 2011	

- FCC Part 15, Subpart C:2009
- ANSI C63.4 : 2003

**CONCLUSION: The submitted sample was found to COMPLY with the test requirement**

Reviewed by Jade Yang Supervisor / EMC Department	Approved by Sam Tung Manager / EMC Department
	
	Date: August.3, 2011

This report is for your exclusive use. Any copying or replication of this report to or for any other person or entity, or use of our name or trademark, is permitted only with our prior written permission. This report sets forth our findings solely with respect to the test samples identified herein. The results set forth in this report are not indicative or representative of the quality or characteristics of the lot from which a test sample was taken or any similar or identical product unless specifically and expressly noted. Our report includes all of the tests requested by you and the results thereof based upon the information that you provided to us. You have 60 days from date of issuance of this report to notify us of any material error or omission caused by our negligence, provided, however, that such notice shall be in writing and shall specifically address the issue you wish to raise. A failure to raise such issue within the prescribed time shall constitute your unqualified acceptance of the completeness of this report, the tests conducted and the correctness of the report contents. Unless specific mention, the uncertainty of measurement has been explicitly taken into account to declare the compliance or non-compliance to the specification



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**BUREAU  
VERITAS**

Test Report No:FC110711N027

FCC ID: ZRH2011071501A

## RELEASE CONTROL RECORD

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
Original release	N/A	August.3, 2011

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# 1 SUMMARY OF TEST RESULTS

The EUT has been tested according to the following specifications:

APPLIED STANDARD: FCC Part 15, Subpart C			
Standard Section	Test Item	Result	Remark
15.207	Conducted Emission Test	PASS	Meet Class B limit. Minimum passing margin is -11.16dB at 1.33594MHz
15.239	Radiated Emission Test	PASS	Meet Class B limit. Minimum passing margin is -6.53dB at 443.64MHz
15.215	20dB Bandwidth Test	PASS	N/A

**Note :** The maximum emission levels were compared with the requirements in section 15.207and 15.239 of FCC Part 15 regulation.

## 1.1 MEASUREMENT UNCERTAINTY

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the EUT as specified in CISPR 16-4-2:

This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.

MEASUREMENT	FREQUENCY	UNCERTAINTY
Conducted Emission	150kHz ~ 30MHz	2.56 dB
Radiated emissions	30MHz ~ 1GHz	3.58 dB



## 2 GENERAL INFORMATION

### 2.1 GENERAL DESCRIPTION OF EUT

<b>PRODUCT</b>	Wireless Headphone
<b>MODEL NO.</b>	FM-8898/FM-8899/RF-1009/RF-1168/YX-2011/RF-1102/RF-8138/ RF-8139/RF-8913/FM1101-A/HO700(SENTRY)/HO750(SENTRY)
<b>POWER SUPPLY</b>	DC 3V ("AAA" size battery x 2) and DC 5V From Adapter Input AC 120V/60Hz
<b>MODULATION TYPE</b>	FM
<b>OPERATION FREQUENCY</b>	88.3MHz
<b>DATA CABLE SUPPLIED</b>	Audio In Line: Unshielded, Undetachable 1.2m

#### NOTE:

1. Our production units bearing the following model numbers are identical in circuitry and electrical, mechanical and physical construction, RF module. the only differences are the appearance color, trade name and model no. for trading purpose, The FM-8898 was selected to test with all combinations.
2. The EUT's high test operating frequency is less than 108MHz.
3. The above EUT information was declared by manufacturer and for more detailed features description, please refer to the manufacturer's specifications or User's Manual.
4. This device has only 1 fixed channel of operation at 88.3MHz and has no controls available to change the frequency.



## 2.2 DESCRIPTION OF TEST MODES

The EUT was tested under the following modes, the final worst mode were marked in boldface and recorded in this report.

◆ **FOR MAINS TERMINAL DISTURBANCE VOLTAGE TEST:**

Test Result	Description of Test Mode	Remark
1	TX MONITOR Mode	DC 5V from adapter input AC 120V/60Hz
2	TX WIRELESS EARPHONE Mode	
3	<b>TX AUDIO-CHAT Mode</b>	

*For Other test, the EUT was tested under the following modes:*

Test Result	Description of Test Mode	Remark
1	TX MONITOR Mode	<b>DC 3V</b>
2	TX WIRELESS EARPHONE Mode	
3	TX AUDIO-CHAT Mode	
4	TX MONITOR Mode	DC 5V from adapter input AC 120V/60Hz
5	TX WIRELESS EARPHONE Mode	
6	TX AUDIO-CHAT Mode	

Note: The test signal we used max lever 1kHz audio signal and craze music. Yet, we found the worst mode was playing 1kHz audio signal.



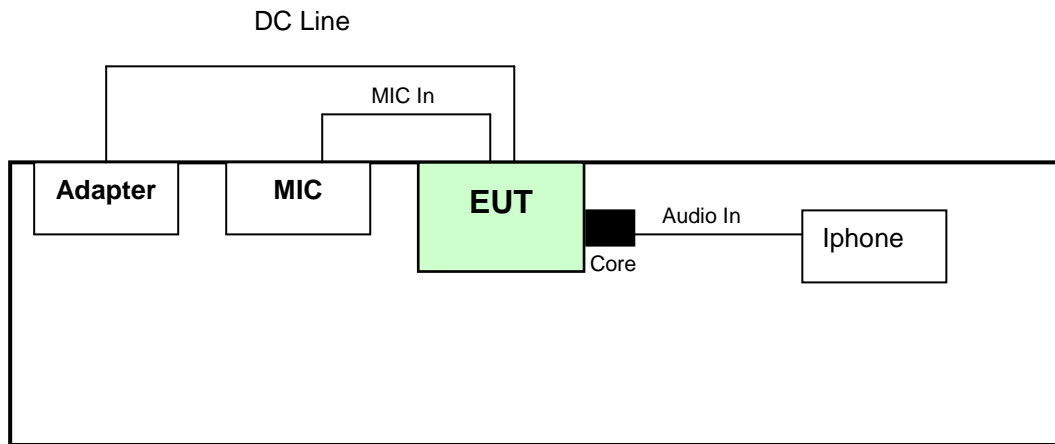
### 2.3 DESCRIPTION OF SUPPORT UNITS

The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

NO.	PRODUCT	BRAND	MODEL NO.	SERIAL NO.	FCC ID
1	Iphone	APPLE	A1332	N/A	BCG-E2380B
2	MIC	RGC	DM-110	N/A	N/A
3	Adapter	S&S	UA200-75	E199558	N/A

NO.	SIGNAL CABLE DESCRIPTION OF THE ABOVE SUPPORT UNITS
1	Audio In Line: Unshielded; Detachable_0.5_m
2	MIC In Line: Unshielded_1.8_m
3	DC Line: Unshielded_1.5_m

### TEST CONFIGURATION





### 3 EMISSION TEST

#### 3.1 CONDUCTED EMISSION MEASUREMENT

##### 3.1.1 LIMITS OF CONDUCTED EMISSION MEASUREMENT

TEST STANDARD: FCC Part 15, Subpart C (Section: 15.207)

FREQUENCY (MHz)	Class A (dBuV)		Class B (dBuV)	
	Quasi-peak	Average	Quasi-peak	Average
0.15 - 0.5	79	66	66 - 56	56 - 46
0.50 - 5.0	73	60	56	46
5.0 - 30.0	73	60	60	50

- NOTES:**
- (1) The lower limit shall apply at the transition frequencies.
  - (2) The limit decreases in line with the logarithm of the frequency in the range of 0.15 to 0.50 MHz.
  - (3) All emanations from a class A/B digital device or system, including any network of conductors and apparatus connected thereto, shall not exceed the level of field strengths specified above.

##### 3.1.2 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
EMI Test Receiver	ESCS30	100199	May 25,11	May 25,12
Artificial Mains Network	ESH3-Z5	100317	May 25,11	May 25,12
Artificial Mains Network (AUX)	ENV216	101173	May 25,11	May 25,12
Pulse Limiter	ESH3-Z2	100168	May 2,11	May 2,12

- NOTE:**
- 1. The calibration interval of the above test instruments is 12 months. And the calibrations are traceable to CEPREI/CHINA and NIM/CHINA.
  - 2. The test was performed at Shielded Room 743,





### 3.1.3 TEST PROCEDURE

The basic test procedure was in accordance with ANSI C63.4:2009 (section 7).

- a. The EUT was placed 0.4 meters from the conducting wall of the shielded room with EUT being connected to the power mains through a line impedance stabilization network (LISN). Other support units were connected to the power mains through another LISN. The two LISNs provide 50 Ohm/ 50uH of coupling impedance for the measuring instrument.
- b. Both lines of the power mains connected to the EUT were checked for maximum conducted interference.
- c. The frequency range from 150 kHz to 30 MHz was searched. Emission levels under (Limit - 20dB) were not recorded.

#### NOTE:

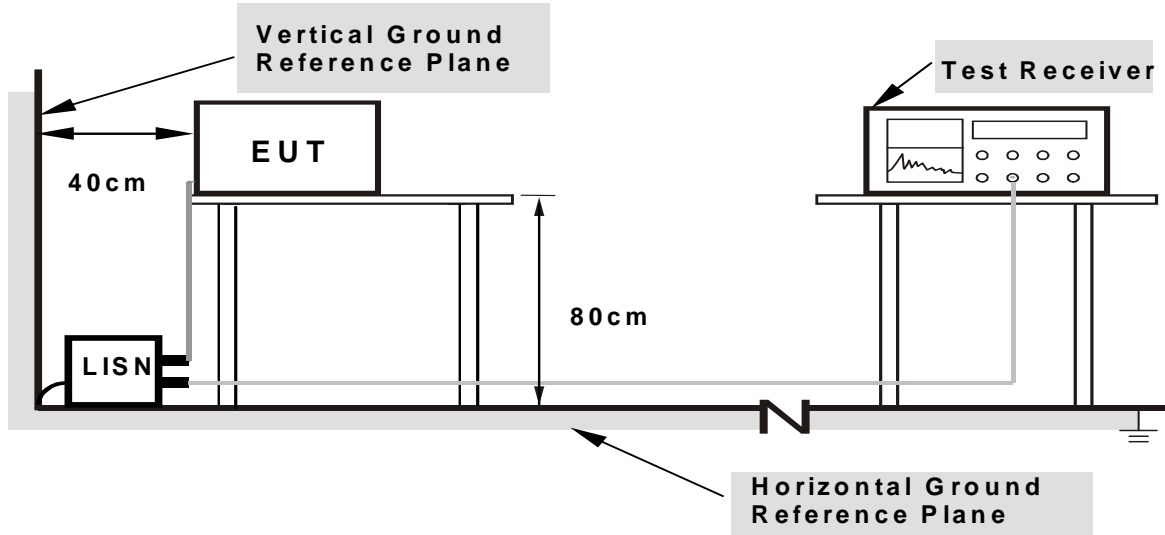
1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. "-": The Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary.
3. Margin value = Emission level - Limit value
4. Correction factor = Insertion loss + Cable loss
5. Emission Level = Correction Factor + Reading Value.

### 3.1.4 DEVIATION FROM TEST STANDARD

No deviation



### 3.1.5 TEST SETUP



- Note:**
- 1.Support units were connected to second LISN.
  - 2.Both of LISNs (AMN) are 80cm from EUT and at least 80cm from other units and other metal planes support units.

### 3.1.6 EUT OPERATING CONDITIONS

- a. Turned on the power of all equipment.
- b. EUT was operated according to the type used was description in manufacturer's specifications or the User's Manual.

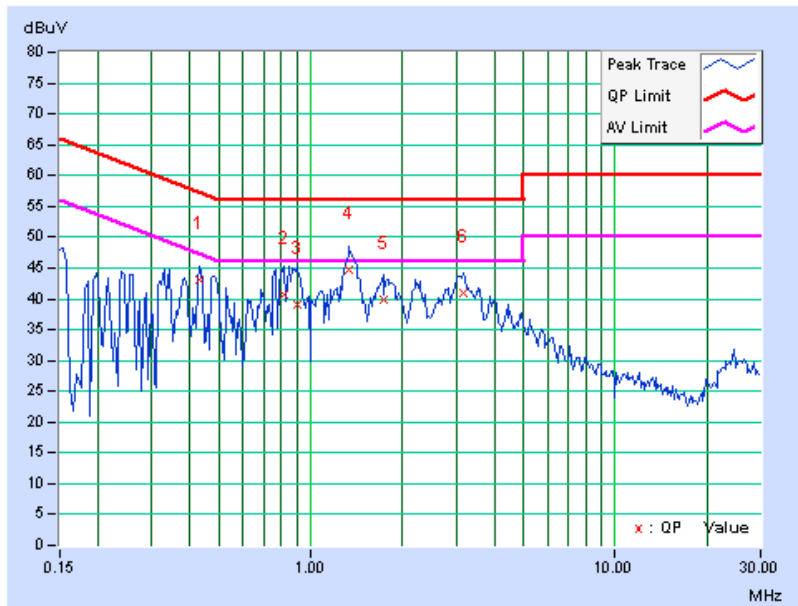


### 3.1.7 TEST RESULTS

<b>TEST MODE</b>	AUDIO-CHAT Mode	<b>6dB BANDWIDTH</b>	9 kHz
<b>INPUT POWER</b>	DC 5V From Adapter Input AC 120V/60Hz	<b>PHASE</b>	Line (L)
<b>ENVIRONMENTAL CONDITIONS</b>	25 deg. C, 55% RH, 101.52 kPa	<b>TESTED BY:</b> Madison	

No	Freq. [MHz]	Corr. Factor (dB)	Reading Value		Emission Level		Limit		Margin	
			[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.43125	9.46	33.70	22.27	43.16	31.73	57.23	47.23	-14.07	-15.50
2	0.82188	9.80	31.00	17.26	40.80	27.06	56.00	46.00	-15.20	-18.94
3	0.90391	9.87	29.14	15.14	39.01	25.01	56.00	46.00	-16.99	-20.99
<b>4</b>	<b>1.33594</b>	<b>10.00</b>	<b>34.84</b>	<b>19.82</b>	<b>44.84</b>	<b>29.82</b>	<b>56.00</b>	<b>46.00</b>	<b>-11.16</b>	<b>-16.18</b>
5	1.73438	10.06	29.84	18.04	39.90	28.10	56.00	46.00	-16.10	-17.90
6	3.15625	10.16	30.80	19.84	40.96	30.00	56.00	46.00	-15.04	-16.00

**REMARKS:** The emission levels of other frequencies were very low against the limit.



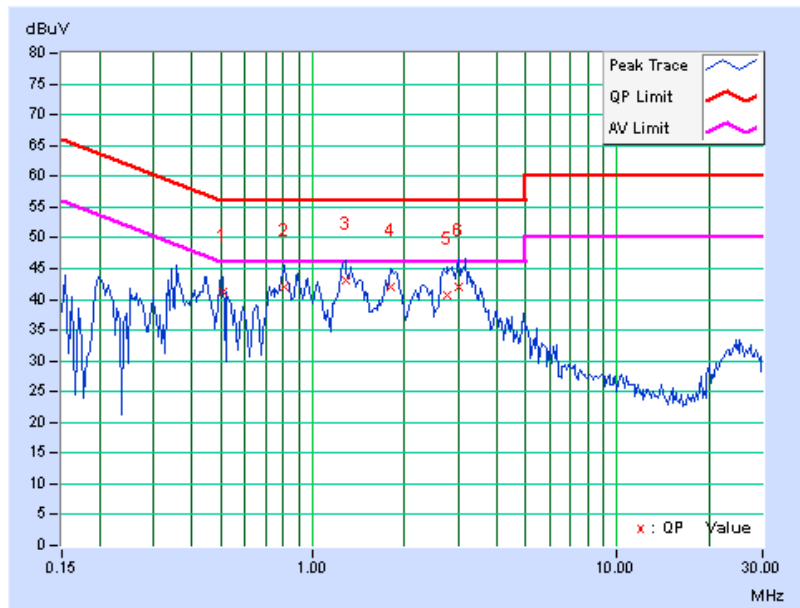


### 3.1.8 TEST RESULTS

<b>TEST MODE</b>	AUDIO-CHAT Mode	<b>6dB BANDWIDTH</b>	9 kHz
<b>INPUT POWER</b>	DC 5V From Adapter Input AC 120V/60Hz	<b>PHASE</b>	Line (N)
<b>ENVIRONMENTAL CONDITIONS</b>	25 deg. C, 55% RH, 101.52 kPa	<b>TESTED BY:</b> Madison	

No	Freq. [MHz]	Corr. Factor (dB)	Reading Value		Emission Level		Limit		Margin	
			[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.50547	9.42	31.83	21.72	41.25	31.14	56.00	46.00	-14.75	-14.86
2	0.81016	9.79	32.30	19.75	42.09	29.54	56.00	46.00	-13.91	-16.46
3	1.27734	9.99	33.11	22.31	43.10	32.30	56.00	46.00	-12.90	-13.70
4	1.81250	10.08	31.92	20.82	42.00	30.90	56.00	46.00	-14.00	-15.10
5	2.77344	10.14	30.57	21.83	40.71	31.97	56.00	46.00	-15.29	-14.03
6	3.02344	10.15	31.84	21.37	41.99	31.52	56.00	46.00	-14.01	-14.48

**REMARKS:** The emission levels of other frequencies were very low against the limit.





### 3.2 RADIATED EMISSION MEASUREMENT

#### 3.2.1 LIMITS OF RADIATED EMISSION MEASUREMENT

TEST STANDARD: FCC Part 15, Subpart C (Section: 15.239)

FREQUENCY (MHz)	Limits	
	PK(dBuV/m)	AV(dBuV/m)
88~108	68	48

Limits for Radiated Emissions [FCC 47 CFR 15.209]:

Frequency Range [MHz]	Quasi-Peak Limits [μV/m]
1.705-30	300
30-88	100
88-216	150
216-960	200
Above960	500

- Note: (1) The lower limit shall apply at the transition frequencies.  
 (2) Emission level (dBuV/m) = 20 log Emission level (uV/m).  
 (3) All emanation from a class A/B digital device or system, including any network of conductors and apparatus connected thereto, shall not exceed the level of field strengths specified above.



### 3.2.2 TEST INSTRUMENTS

For radiated emission test (30MHz-1GHz, 966 Chamber)

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
EMI Test Receiver	Rohde&Schwarz	ESVD	847398/003	May 25,11	May 25,12
Bilog Antenna	Teseq	CBL 6111D	25757	Nov.29,10	Nov.29,11
Spectrum Analyzer	HP	8593E	3448U00806	May 25,11	May 25,12
3m Semi-anechoic Chamber	ETS-LINDGREN	9m*6m*6m	NSEMC003	May 2,11	May 2,12
Signal Amplifier	Agilent	8447D	2944A10488	May 2,11	May 2,12
RF Cable	IMRO	IMRO-400	966 Cable 1#	May 2,11	May 2,12

For 20dB bandwidth test

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
Spectrum Analyzer	Rohde & Schwarz	ESPI	100302	May 31,11	May 31,12

- NOTE:**
1. The calibration interval of the above test instruments is 12 months. And the calibrations are traceable to CEPREI/CHINA and NIM/CHINA.
  2. The test was performed at 966 Chamber (a 3m Semi-semi anechoic chamber).
  3. The test was performed in Shielded Room 20.



### 3.2.3 TEST PROCEDURE

The basic test procedure was in accordance with ANSI C63.4 (section 12).

- a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meters Semi-anechoic chamber room. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- c. The height of antenna is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- e. The test-receiver system was set to quasi-peak detect function and specified bandwidth with maximum hold mode when the test frequency is below 1 GHz.
- f. The test-receiver system was set to peak and average detect function and specified bandwidth with maximum hold mode when the test frequency is above 1 GHz.

#### NOTE:

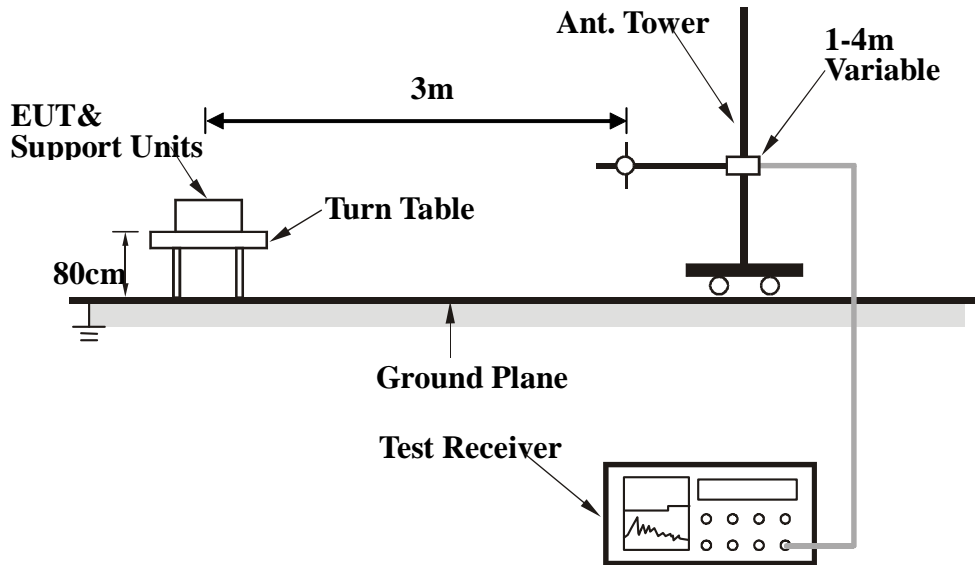
1. The resolution bandwidth of test receiver/spectrum analyzer is 120kHz for Quasi-peak detection (QP) at frequency below 1GHz.
2. The resolution bandwidth is 1MHz and video bandwidth of test receiver/spectrum analyzer is 3MHz for Peak detection at frequency above 1GHz. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz for Average detection (AV) at frequency above 1GHz.
3. For measurement of frequency above 1000 MHz, the EUT was set 3 meters away from the receiver antenna.
4.  $\text{Emission level(dBuV/m)} = \text{Raw Value(dBuV)} + \text{Correction Factor(dB/m)}$
5.  $\text{Correction Factor(dB/m)} = \text{Antenna Factor (dB/m)} + \text{Cable Factor (dB)}$
6.  $\text{Margin value} = \text{Emission level} - \text{Limit value.}$

### 3.2.4 DEVIATION FROM TEST STANDARD

No deviation



### 3.2.5 TEST SETUP



### 3.2.6 EUT OPERATING CONDITIONS

See Item 3.1.6



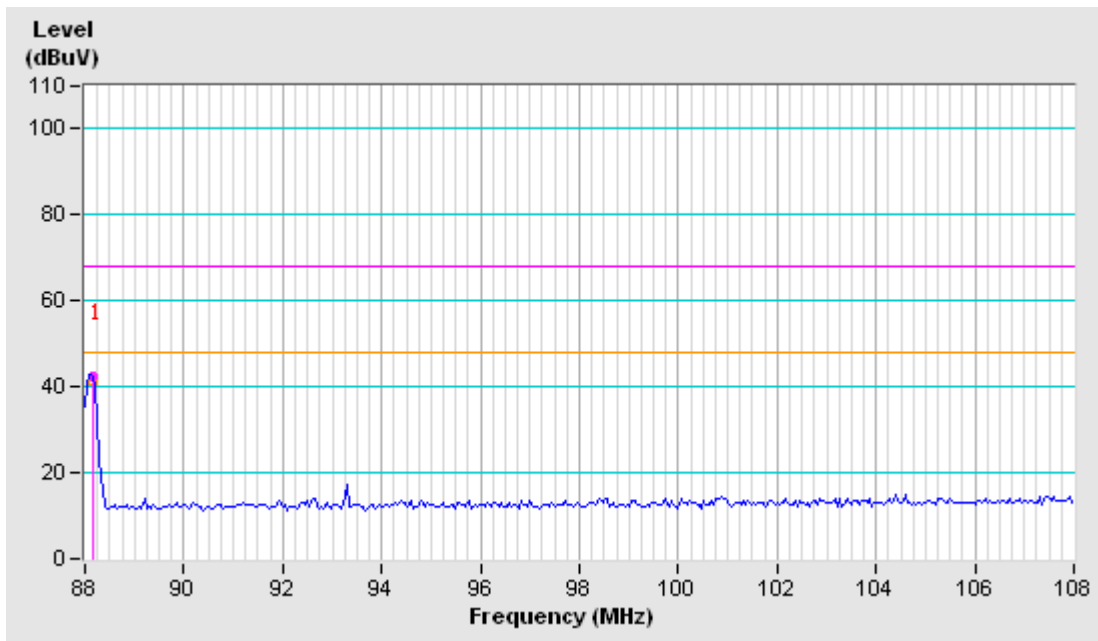


### 3.2.7 TEST RESULTS(88-108MHZ)

<b>TEST MODE</b>	AUDIO-CHAT Mode	<b>MODEL NO.</b>	FM-8898
<b>INPUT POWER (SYSTEM)</b>	DC 3V	<b>FREQUENCY RANGE</b>	88-108 MHz
<b>ENVIRONMENTAL CONDITIONS</b>	25 deg. C, 55% RH, 101.52 kPa	<b>DETECTOR FUNCTION &amp; BANDWIDTH</b>	Quasi-Peak,120 kHz
<b>TESTED BY</b>	Madison		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (cm)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	88.3	42.62 PK	68.00	-25.38	128	126	32.66	9.96
2	88.3	41.37 AV	48.00	-6.63	128	126	31.41	9.96

- REMARKS:**
1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB/m)
  2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
  3. The other emission levels were very low against the limit.
  4. Margin value = Emission level – Limit value.



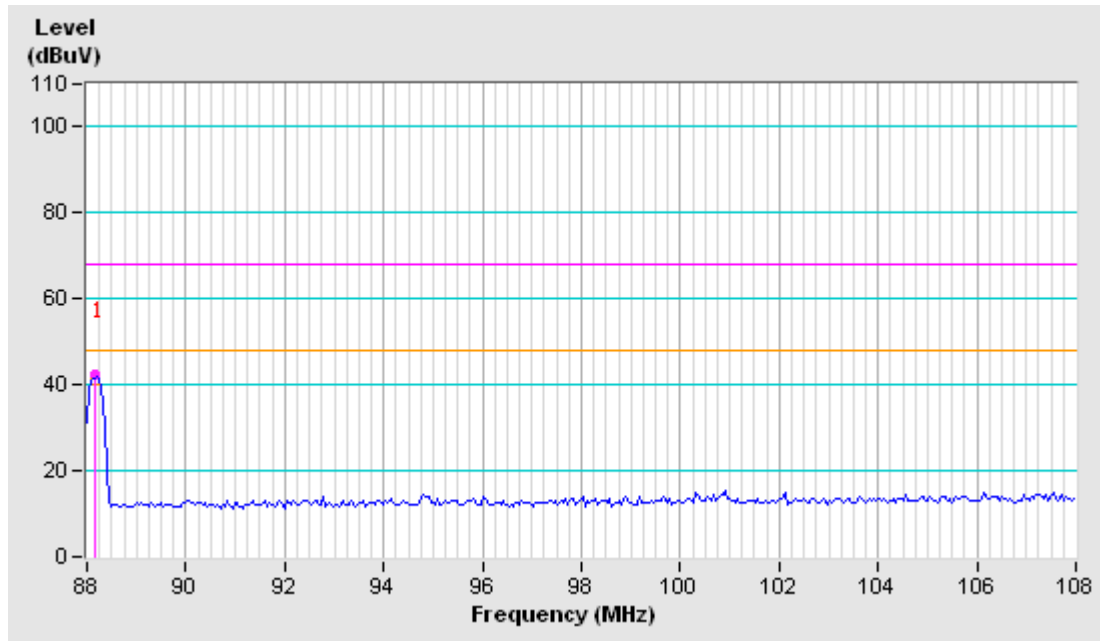


<b>TEST MODE</b>	AUDIO-CHAT Mode	<b>MODEL NO.</b>	FM-8898
<b>INPUT POWER (SYSTEM)</b>	DC 3V	<b>FREQUENCY RANGE</b>	88-108 MHz
<b>ENVIRONMENTAL CONDITIONS</b>	25 deg. C, 55% RH, 101.52 kPa	<b>DETECTOR FUNCTION &amp; BANDWIDTH</b>	Quasi-Peak,120 kHz
<b>TESTED BY</b>	Madison		

**ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M**

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (cm)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	88.3	42.38 PK	68.00	-25.62	124	49	32.42	9.96
2	88.3	41.12 AV	48.00	-6.88	124	49	31.16	9.96

- REMARKS:**
1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB/m)
  2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
  3. The other emission levels were very low against the limit.
  4. Margin value = Emission level – Limit value.

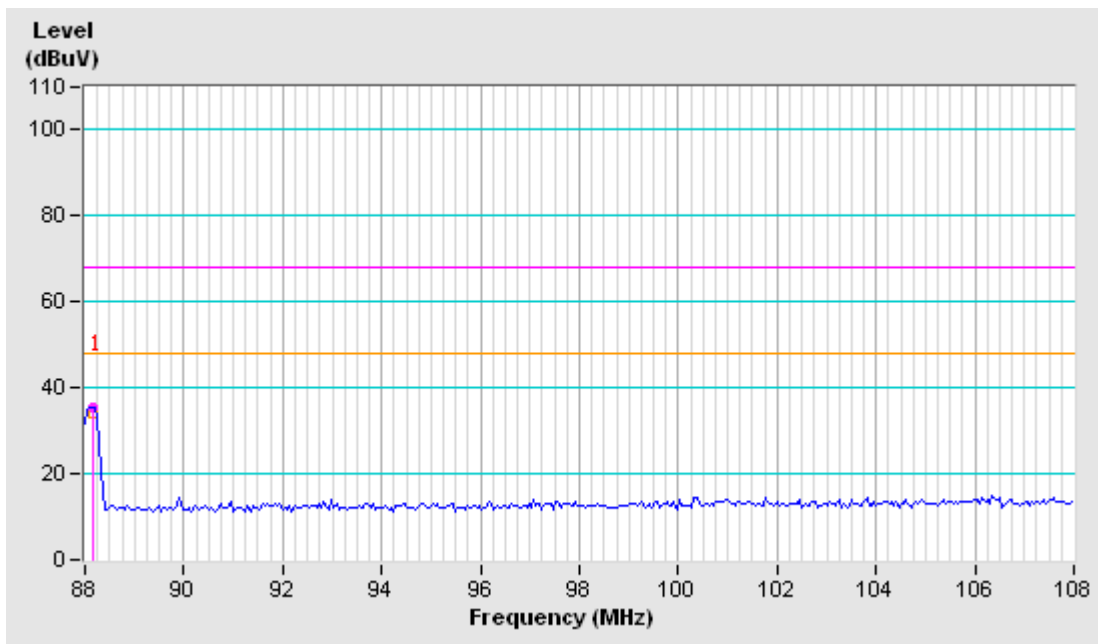




<b>TEST MODE</b>	WIRELESS EARPHONE Mode	<b>MODEL NO.</b>	FM-8898
<b>INPUT POWER (SYSTEM)</b>	DC 3V	<b>FREQUENCY RANGE</b>	88-108 MHz
<b>ENVIRONMENTAL CONDITIONS</b>	25 deg. C, 55% RH, 101.52 kPa	<b>DETECTOR FUNCTION &amp; BANDWIDTH</b>	Quasi-Peak,120 kHz
<b>TESTED BY</b>	Madison		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (cm)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	88.3	35.56 PK	68.00	-32.44	124	149	25. 60	9.96
2	88.3	34.21 AV	48.00	-13.79	124	149	24. 25	9.96

- REMARKS:**
1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB/m)
  2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
  3. The other emission levels were very low against the limit.
  4. Margin value = Emission level – Limit value.

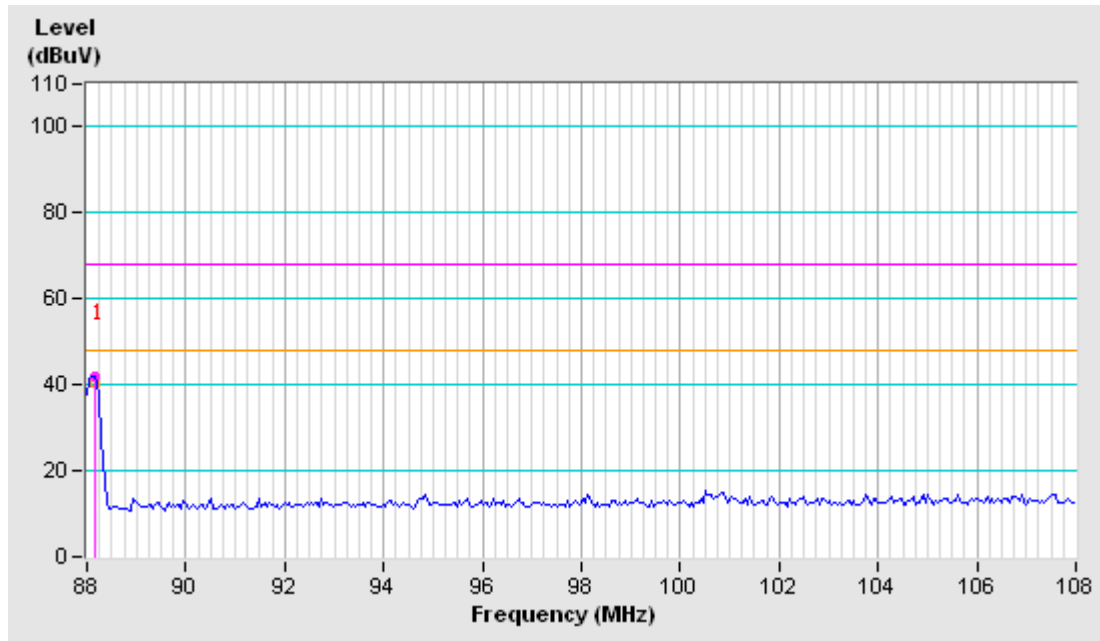




<b>TEST MODE</b>	WIRELESS EARPHONE Mode	<b>MODEL NO.</b>	FM-8898
<b>INPUT POWER (SYSTEM)</b>	DC 3V	<b>FREQUENCY RANGE</b>	88-108 MHz
<b>ENVIRONMENTAL CONDITIONS</b>	25 deg. C, 55% RH, 101.52 kPa	<b>DETECTOR FUNCTION &amp; BANDWIDTH</b>	Quasi-Peak,120 kHz
<b>TESTED BY</b>	Madison		

<b>ANTENNA POLARITY &amp; TEST DISTANCE: VERTICAL AT 3 M</b>								
No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (cm)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	88.3	41.85 PK	68.00	-26.15	122	140	31.89	9.96
2	88.3	40.36 AV	48.00	-7.64	122	140	30.40	9.96

- REMARKS:**
1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB/m)
  2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
  3. The other emission levels were very low against the limit.
  4. Margin value = Emission level – Limit value.

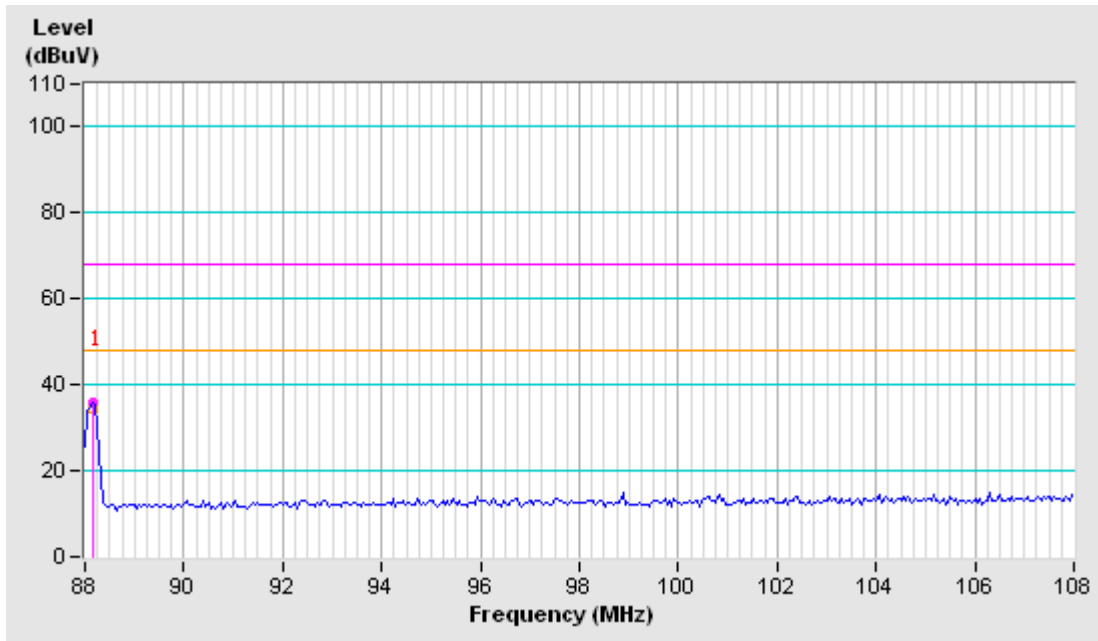




<b>TEST MODE</b>	MONITOR Mode	<b>MODEL NO.</b>	FM-8898
<b>INPUT POWER (SYSTEM)</b>	DC 3V	<b>FREQUENCY RANGE</b>	88-108 MHz
<b>ENVIRONMENTAL CONDITIONS</b>	25 deg. C, 55% RH, 101.52 kPa	<b>DETECTOR FUNCTION &amp; BANDWIDTH</b>	Quasi-Peak,120 kHz
<b>TESTED BY</b>	Madison		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (cm)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	88.3	35.89 PK	68.00	-32.11	108	216	25.93	9.96
2	88.3	34.33 AV	48.00	-13.67	108	216	24.37	9.96

- REMARKS:**
1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB/m)
  2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
  3. The other emission levels were very low against the limit.
  4. Margin value = Emission level – Limit value.



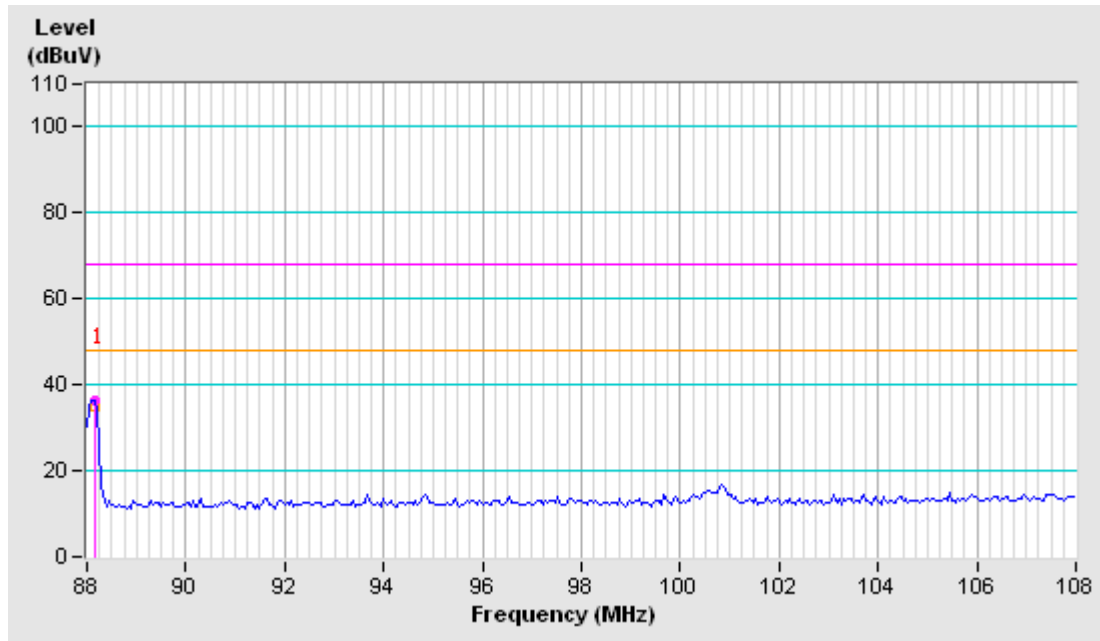


<b>TEST MODE</b>	MONITOR Mode	<b>MODEL NO.</b>	FM-8898
<b>INPUT POWER (SYSTEM)</b>	DC 3V	<b>FREQUENCY RANGE</b>	88-108 MHz
<b>ENVIRONMENTAL CONDITIONS</b>	25 deg. C, 55% RH, 101.52 kPa	<b>DETECTOR FUNCTION &amp; BANDWIDTH</b>	Quasi-Peak,120 kHz
<b>TESTED BY</b>	Madison		

**ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M**

No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (cm)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	88.3	36.44 PK	68.00	-31.56	107	306	26.48	9.96
2	88.3	35.05 AV	48.00	-12.97	107	306	25.07	9.96

- REMARKS:**
1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB/m)
  2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
  3. The other emission levels were very low against the limit.
  4. Margin value = Emission level – Limit value.



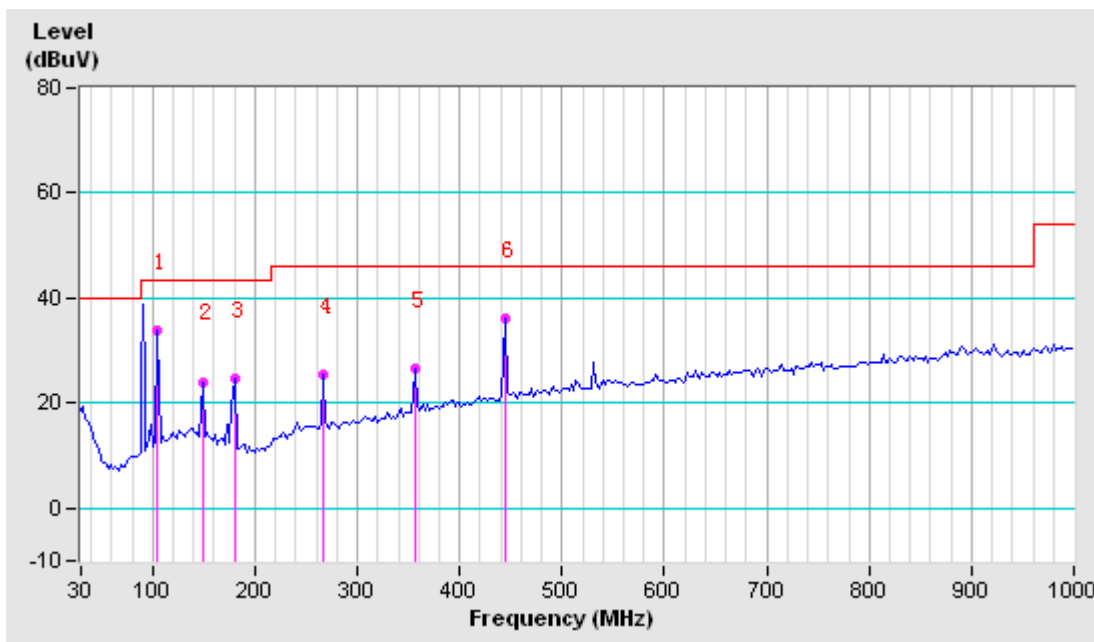


### 3.2.8 TEST RESULTS(30-1000MHZ)

<b>TEST MODE</b>	AUDIO-CHAT Mode	<b>MODEL NO.</b>	FM-8898
<b>INPUT POWER (SYSTEM)</b>	DC 3V	<b>FREQUENCY RANGE</b>	30-1000 MHz
<b>ENVIRONMENTAL CONDITIONS</b>	25 deg. C, 55% RH, 101.52 kPa	<b>DETECTOR FUNCTION &amp; BANDWIDTH</b>	Quasi-Peak,120 kHz
<b>TESTED BY</b>	Madison		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (cm)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	104.99	33.98	43.50	-9.52	231	102	22.52	11.46
2	148.53	24.12	43.50	-19.38	247	120	10.97	13.15
3	176.98	24.66	43.50	-18.84	302	75	13.52	11.14
4	265.06	25.43	46.00	-20.57	304	111	10.55	14.88
5	353.26	26.56	46.00	-19.44	264	140	9.04	17.52
6	441.64	36.07	46.00	-9.93	222	171	15.90	20.17

- REMARKS:**
1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB/m)
  2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
  3. The other emission levels were very low against the limit.
  4. Margin value = Emission level – Limit value.

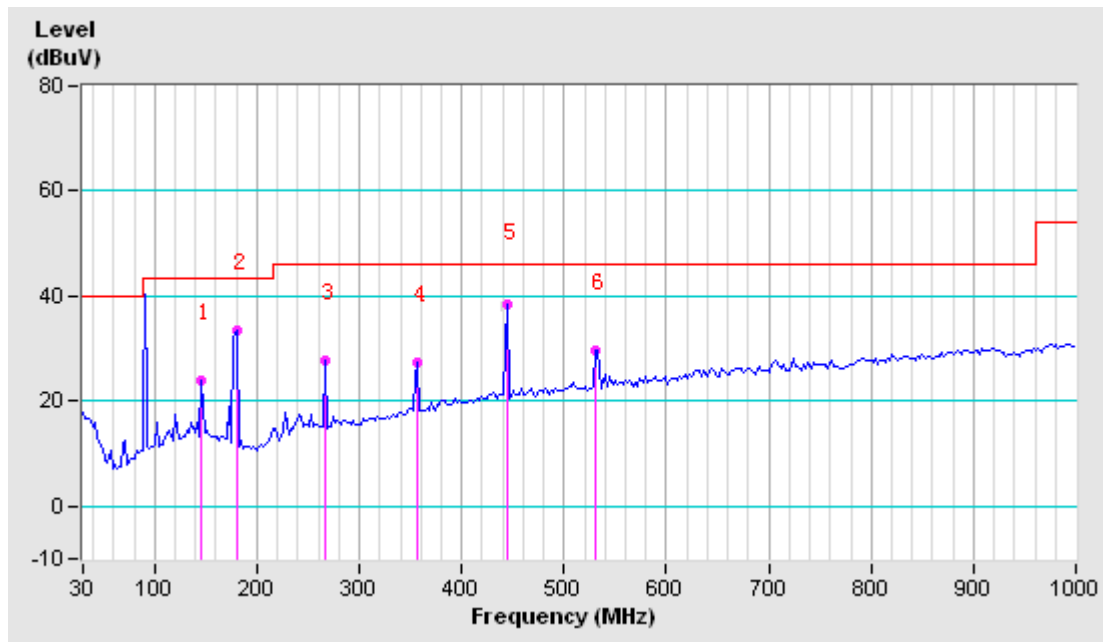




<b>TEST MODE</b>	AUDIO-CHAT Mode	<b>MODEL NO.</b>	FM-8898
<b>INPUT POWER (SYSTEM)</b>	DC 3V	<b>FREQUENCY RANGE</b>	30-1000 MHz
<b>ENVIRONMENTAL CONDITIONS</b>	25 deg. C, 55% RH, 101.52 kPa	<b>DETECTOR FUNCTION &amp; BANDWIDTH</b>	Quasi-Peak,120 kHz
<b>TESTED BY</b>	Madison		

<b>ANTENNA POLARITY &amp; TEST DISTANCE: VERTICAL AT 3 M</b>								
No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (cm)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	146.11	23.79	43.50	-19.71	110	184	10.53	13.26
2	176.98	33.62	43.50	-9.88	111	233	22.48	11.14
3	265.06	27.75	46.00	-18.25	148	155	12.87	14.88
4	353.56	27.27	46.00	-18.73	179	132	9.75	17.52
<b>5</b>	<b>441.64</b>	<b>39.47</b>	<b>46.00</b>	<b>-6.53</b>	<b>159</b>	<b>268</b>	<b>19.30</b>	<b>20.17</b>
6	529.72	29.50	46.00	-16.50	163	88	7.31	22.19

- REMARKS:**
1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB/m)
  2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
  3. The other emission levels were very low against the limit.
  4. Margin value = Emission level – Limit value.



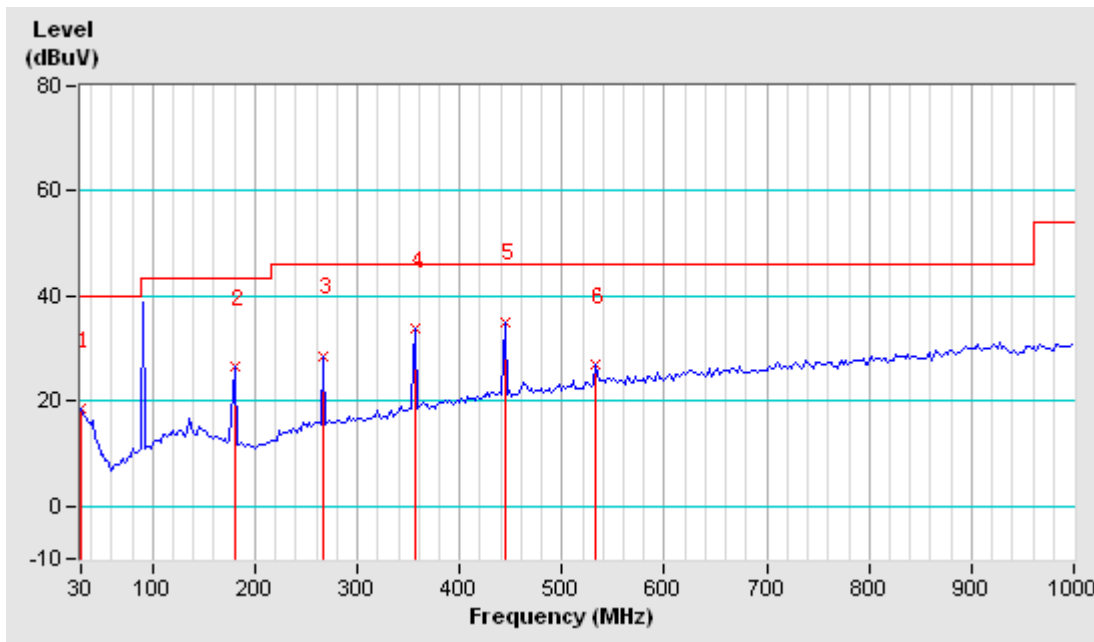




<b>TEST MODE</b>	MONITOR Mode	<b>MODEL NO.</b>	FM-8898
<b>INPUT POWER (SYSTEM)</b>	DC 3V	<b>FREQUENCY RANGE</b>	30-1000 MHz
<b>ENVIRONMENTAL CONDITIONS</b>	25 deg. C, 55% RH, 101.52 kPa	<b>DETECTOR FUNCTION &amp; BANDWIDTH</b>	Quasi-Peak,120 kHz
<b>TESTED BY</b>	Madison		

<b>ANTENNA POLARITY &amp; TEST DISTANCE: HORIZONTAL AT 3 M</b>								
No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (cm)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	30.00	18.62	40.00	-21.38	338	165	0.59	18.03
2	176.98	26.72	43.50	-16.78	325	145	15.58	11.14
3	265.06	28.67	46.00	-17.33	344	26	13.79	14.88
4	353.56	34.00	46.00	-12.00	313	111	16.48	17.52
5	441.64	35.19	46.00	-10.81	303	176	15.02	20.17
6	530.14	27.10	46.00	-18.90	315	120	4.86	22.24

- REMARKS:**
1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB/m)
  2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
  3. The other emission levels were very low against the limit.
  4. Margin value = Emission level – Limit value.

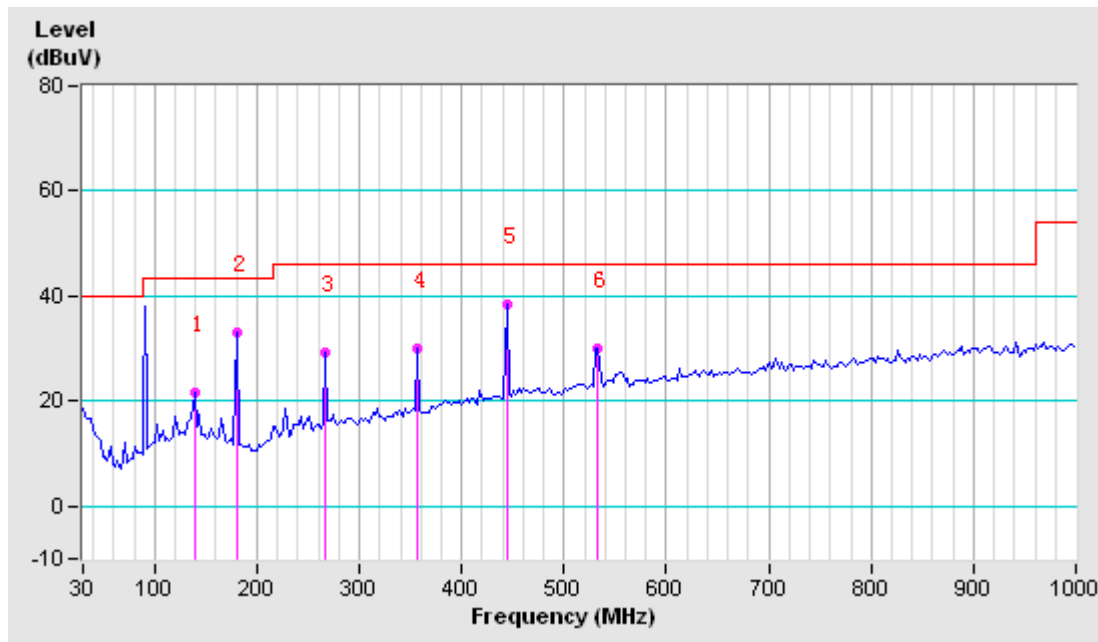




<b>TEST MODE</b>	MONITOR Mode	<b>MODEL NO.</b>	FM-8898
<b>INPUT POWER (SYSTEM)</b>	DC 3V	<b>FREQUENCY RANGE</b>	30-1000 MHz
<b>ENVIRONMENTAL CONDITIONS</b>	25 deg. C, 55% RH, 101.52 kPa	<b>DETECTOR FUNCTION &amp; BANDWIDTH</b>	Quasi-Peak,120 kHz
<b>TESTED BY</b>	Madison		

<b>ANTENNA POLARITY &amp; TEST DISTANCE: VERTICAL AT 3 M</b>								
No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (cm)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	138.85	21.59	43.50	-21.91	222	233	8.11	13.48
2	176.98	33.17	43.50	-10.33	199	163	22.03	11.14
3	265.06	29.11	46.00	-16.89	155	130	14.23	14.88
4	353.56	30.16	46.00	-15.84	116	100	12.64	17.52
5	441.64	38.40	46.00	-7.60	103	63	18.23	20.17
6	530.14	30.01	46.00	-15.99	178	45	7.77	22.24

- REMARKS:**
1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB/m)
  2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
  3. The other emission levels were very low against the limit.
  4. Margin value = Emission level – Limit value.

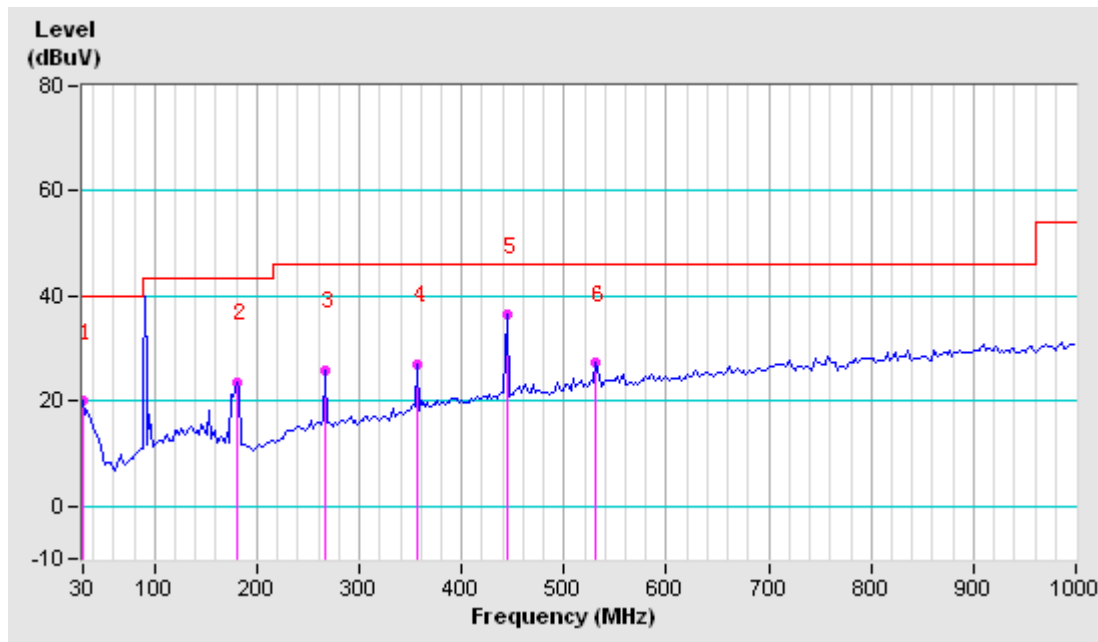




<b>TEST MODE</b>	WIRELESS EARPHONE Mode	<b>MODEL NO.</b>	FM-8898
<b>INPUT POWER (SYSTEM)</b>	DC 3V	<b>FREQUENCY RANGE</b>	30-1000 MHz
<b>ENVIRONMENTAL CONDITIONS</b>	25 deg. C, 55% RH, 101.52 kPa	<b>DETECTOR FUNCTION &amp; BANDWIDTH</b>	Quasi-Peak,120 kHz
<b>TESTED BY</b>	Madison		

<b>ANTENNA POLARITY &amp; TEST DISTANCE: HORIZONTAL AT 3 M</b>								
No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (cm)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	30.00	20.06	40.00	-19.94	397	158	2.03	18.03
2	176.98	23.71	43.50	-19.79	328	212	12.57	11.14
3	265.06	26.01	46.00	-19.99	292	239	11.13	14.88
4	353.56	27.18	46.00	-18.82	256	267	9.66	17.52
5	441.64	36.63	46.00	-9.37	250	305	16.46	20.17
6	530.12	27.23	46.00	-18.77	263	349	5.04	22.19

- REMARKS:**
1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB/m)
  2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
  3. The other emission levels were very low against the limit.
  4. Margin value = Emission level – Limit value.

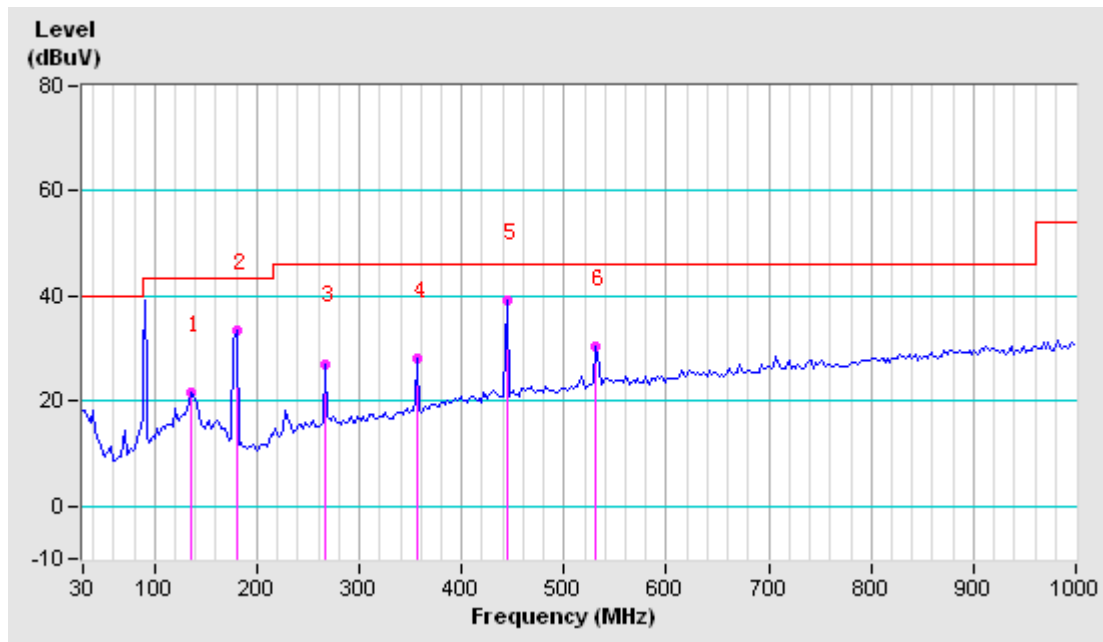




<b>TEST MODE</b>	WIRELESS EARPHONE Mode	<b>MODEL NO.</b>	FM-8898
<b>INPUT POWER (SYSTEM)</b>	DC 3V	<b>FREQUENCY RANGE</b>	30-1000 MHz
<b>ENVIRONMENTAL CONDITIONS</b>	25 deg. C, 55% RH, 101.52 kPa	<b>DETECTOR FUNCTION &amp; BANDWIDTH</b>	Quasi-Peak,120 kHz
<b>TESTED BY</b>	Madison		

<b>ANTENNA POLARITY &amp; TEST DISTANCE: VERTICAL AT 3 M</b>								
No.	Freq. (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (cm)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	136.43	21.80	43.50	-21.70	114	335	8.43	13.37
2	176.98	33.31	43.50	-10.91	103	347	22.17	11.14
3	265.06	27.17	46.00	-18.83	147	295	12.29	14.88
4	353.56	28.05	46.00	-17.95	160	257	10.53	17.52
5	441.64	39.11	46.00	-6.89	130	215	18.94	20.17
6	530.12	30.27	46.00	-15.73	102	189	8.08	22.19

- REMARKS:**
1. Emission level(dBuV/m)=Raw Value(dBuV) + Correction Factor(dB/m)
  2. Correction Factor(dB/m) = Antenna Factor (dB/m) + Cable Factor (dB)
  3. The other emission levels were very low against the limit.
  4. Margin value = Emission level – Limit value.





### 3.3 20 dB BANDWIDTH

#### 3.3.1 TEST LIMITS

No requirement.

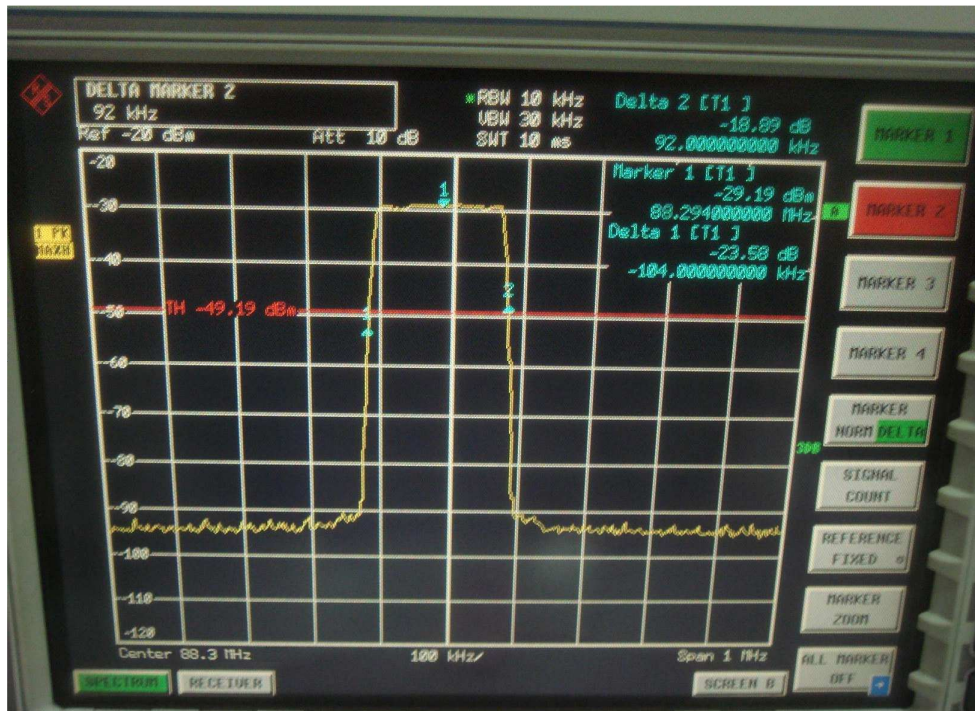
#### 3.3.2 TEST PROCEDURE

1. The EUT was placed on a table which is 0.8m above ground plane.
2. Connect EUT RF output port to the spectrum analyzer through an RF attenuator.
3. Set SA Center Frequency = Operation frequency, RBW=100kHz,VBW=300kHz.
4. Set SA trace max hold, then view.

#### 3.3.3 TEST RESULT (PASS)

Frequency MHz	20dB bandwidth kHz
TX MONITOR Mode (Playing with 1kHz signal)	195.33
TX WIRELESS EARPHONE Mode (Playing with 1kHz signal)	195.28
TX AUDIO-CHAT Mode (Playing with 1kHz signal)	196.00

The test plots as following:





**BUREAU  
VERITAS**

**Test Report No:FC110711N027**

**FCC ID: ZRH2011071501A**

## **4 PHOTOGRAPHS OF TEST CONFIGURATION**

Please test setup photo to file.

**Bureau Veritas Shenzhen Co., Ltd.  
Dongguan Branch**

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**BUREAU  
VERITAS**

Test Report No:FC110711N027

FCC ID: ZRH2011071501A

## 5 APPENDIX A – MODIFICATIONS RECORDERS FOR ENGINEERING CHANGES TO THE EUT BY THE LAB

No any modifications were made to the EUT by the lab during the test.

---END---

**Bureau Veritas Shenzhen Co., Ltd.**  
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