
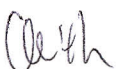
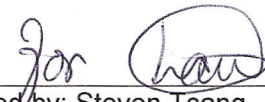
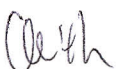
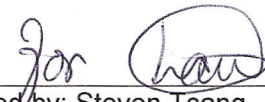
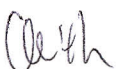
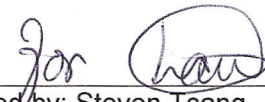


TEST REPORT No: (5210)004-0560

TEST REPORT

To:	ELEGANT INNOVATION LIMITED	To:	-						
Attn:	Ms. Peggy Lim	Attn:	-						
Address:	Suit 2001, 20 th Floor, Chinachem Century Tower, 178 Gloucester road, Wanchai, Hong Kong	Address:	-						
Fax:	2295 6229	Fax:	-						
E-mail:	eil@etielegant.com.hk	E-mail:	-						
Folder No.:	EGI-10JA001VTHS-B								
Factory name:	--								
Location:	--								
Product:	SUPER SOUNDS TURNS CAR RADIO INTO SPEAKER PHONE MODEL: 4451								
		Sample No:	(5210)004-0560						
		Test date:	January 26, 2010						
		Test Requested:	FCC Part 15 - 2008						
		Test Method:	ANSI C63.4 – 2003						
		FCC ID:	V9GINNOVATION						
<p>The results given in this report are related to the tested specimen of the described electrical apparatus.</p> <p>CONCLUSION: The submitted sample was found to COMPLY with requirement of FCC Part 15 Subpart C.</p> <p style="text-align: center;">Authorized Signature:</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; text-align: center;">  </td> <td style="width: 50%; text-align: center;">  </td> </tr> <tr> <td>Reviewed by: Keith Yeung</td> <td>Approved by: Steven Tsang</td> </tr> <tr> <td>Date: February 5, 2010</td> <td>Date: February 5, 2010</td> </tr> </table>						Reviewed by: Keith Yeung	Approved by: Steven Tsang	Date: February 5, 2010	Date: February 5, 2010
									
Reviewed by: Keith Yeung	Approved by: Steven Tsang								
Date: February 5, 2010	Date: February 5, 2010								



TEST REPORT No: (5210)004-0560

Location of the test laboratory

Radiated and Conducted emissions measurements are investigated and taken pursuant to the procedures of ANSI C63.4 – 2003. An Open Area Test Site and Full Anechoic Chamber (FCC Listed Site, Registration No. 642151) are set up for investigation and located at :

BUREAU VERITAS HONG KONG LIMITED, EMC CENTRE

No. 2106-2107, 21/F., Westin Centre,
26 Hung To Road,
Kwun Tong, Kowloon,
Hong Kong

List of measuring equipment

Radiated Emission

EQUIPMENT	MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATION DUE
EMI TEST RECEIVER	R&S	ESCI	100379	24-AUG-2010
BILOG ANTENNA	SCHAFFNER	CBL6112D	25229	31-MAY-2010
OPEN AREA TEST SITE	BVCPS	N/A	N/A	03-JULY-2010
ANECHOIC CHAMBER	ALBATROSS	M-CDC	80374004499B	07-JULY-2010
COAXIAL CABLE	SUHNER	N/A	N/A	11-MAY-2010
SPECTRUM ANALYZER	ADVANTEST	R3127	111000909	17-DEC-2010

Remarks:-

N/A : Not Applicable or Not Available

The measurement instrumentation uncertainty would be taking into consideration on each of the test result

TEST REPORT No: (5210)004-0560

Description of Sample:

Model Name: SUPER SOUNDS TURNS CAR RADIO INTO SPEAKER PHONE
Model Number: 4451
Rating: 3Vd.c. ("CR2032" size battery x 1)
Remark: --

Description of EUT Operation:

The Equipment Under Test (EUT) is an **Elegant Innovation Limited.** of Super Sounds Turns Car Radio into Speaker Phone. The transmitter is operating at 99.32MHz and 101.32MHz. The EUT continues to transmit while it turns on. Modulation by audio input, and type is frequency modulation. The transmit channel is selected by the 99.3/101.3 switch. It has been verified that device could not operate on any other frequencies via any adjustments or controls available to the user.

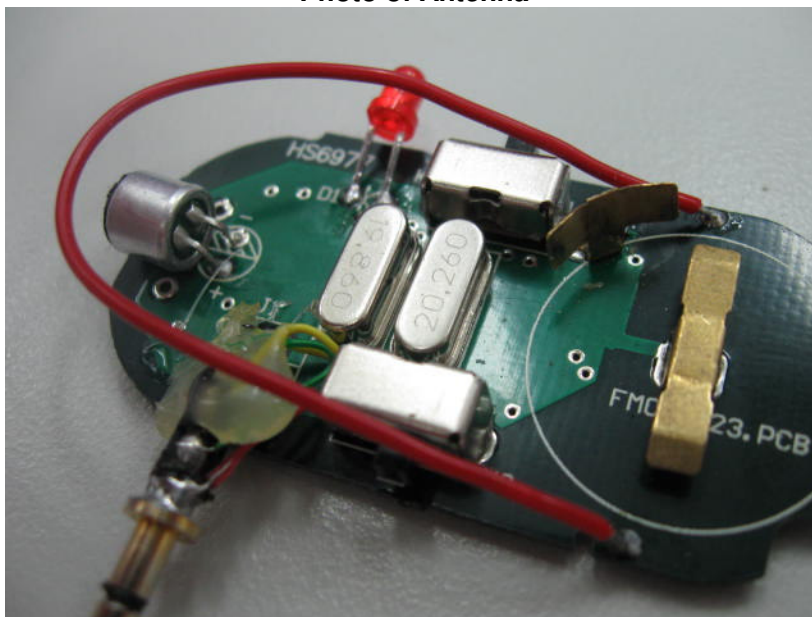
The transmitter has different control:

1. ON / OFF switch – on/off control
2. 99.3/101.3 switch – transmission frequency control

Antenna Requirement (Section 15.203)

The EUT is use of a permanently antenna. It is soldered on the PCB. The antenna is not replaceable or user serviceable. The requirements of S15.203 are met. There are no deviations or exceptions to the specifications.

Photo of Antenna



TEST REPORT No: (5210)004-0560

Radiated Emissions (Fundamental)

Test Requirement: FCC Part 15 Section 15.239

Test Method: ANSI C63.4

Test Date(s): 2010-01-26

Mode of Operation: Transmission mode

Tested Voltage: 3Vd.c. ("CR2032" size battery x 1)

Test Procedure:

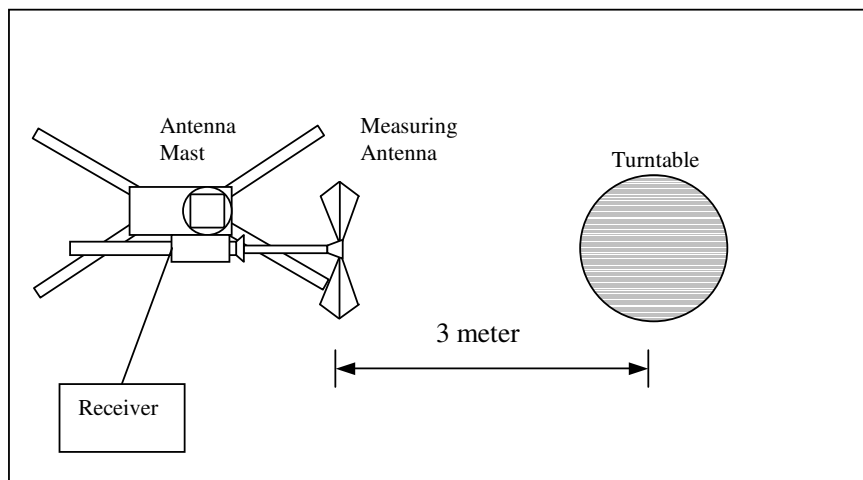
Radiated emissions measurements are investigated and taken pursuant to the procedures of ANSI C63.4 – 2003.

The equipment under test (EUT) was placed on a non-conductive turntable with dimensions of 1.5m x 1m and 0.8m high above the ground. 3m from the EUT, a broadband antenna mounting on the mast received the signal strength. During the test, each emission was maximized by: having the EUT continuously working, investigated all operating modes, rotated about all 3 axis (X, Y & Z) and considered typical configuration to obtain worst position, manipulating interconnecting cables, For battery operated equipment, the equipment tests shall be perform using new battery. The turntable was rotated to maximize the emission level. The antenna was then moving along the mast from 1m up to 4m until no more higher value was found. Both horizontal and vertical polarization of the antenna were placed and investigated.

For below 30MHz, a loop antenna with its vertical plane is place 3m from the EUT and rotated about its vertical axis for maximum response at each azimuth about the EUT. And the centre of the loop shall be 1m above the ground.

Location: The Roof, Westin Centre, 26 Hung To Road, Kwun Tong, Kowloon, Hong Kong

Test Setup: Open Area Test Site





TEST REPORT No: (5210)004-0560

Limits for Field Strength of Fundamental Emissions [FCC 47CFR 15.239]:

Frequency Range of Fundamental [MHz]	Field Strength of Fundamental Emission [Peak] [μV/m]	Field Strength of Fundamental Emission [Average] [μV/m]
88 – 108	2,500 (68 dBμV/m)	250 (48 dBμV/m)

Measurement Data

Test Result of (Transmission mode – 99.3MHz): PASS

Detection mode: Peak

Frequency (MHz)	Polarity (H/V) and degree	Antenna Factor and Cable Loss (dB/m)	Field Strength at 3m (dBμV/m)	Limit at 3m (dBμV/m)	Margin (dB)
99.32	V	10.7	46.7	68.0	-21.3

Detection mode: # Average

Frequency (MHz)	Polarity (H/V) and degree	Antenna Factor and Cable Loss (dB/m)	Field Strength at 3m (dBμV/m)	Limit at 3m (dBμV/m)	Margin (dB)
99.32	V	10.7	43.3	48.0	-4.7

Test Result of (Transmission mode – 101.3MHz): PASS

Detection mode: Peak

Frequency (MHz)	Polarity (H/V) and degree	Antenna Factor and Cable Loss (dB/m)	Field Strength at 3m (dBμV/m)	Limit at 3m (dBμV/m)	Margin (dB)
101.32	V	10.9	46.1	68.0	-21.9

Detection mode: # Average

Frequency (MHz)	Polarity (H/V) and degree	Antenna Factor and Cable Loss (dB/m)	Field Strength at 3m (dBμV/m)	Limit at 3m (dBμV/m)	Margin (dB)
101.32	V	10.9	43.2	48.0	-4.8

For Average detection, Receiver setting will be changed: RBW = 100kHz
VBW = 10Hz

Note: Field Strength includes Antenna Factor and Cable Loss.

Receiver setting: RBW = 100KHz
VBW = 300KHz



TEST REPORT No: (5210)004-0560

Radiated Emissions (9kHz – 1GHz)

Test Requirement: FCC Part 15 Section 15.209

Test Method: ANSI C63.4

Test Date(s): 2009-01-26

Mode of Operation: **Transmission mode**

Tested Voltage: 3Vd.c. ("CR2032" size battery x 1)

Limits for Radiated Emissions [FCC 47 CFR 15.209]:

Frequency Range [MHz]	Quasi-Peak Limits [$\mu\text{V/m}$]
1.705-30	300
30-88	100
88-216	150
216-960	200
Above 960	500

Measurement Data

Test Result of (Transmission mode – 99.3MHz): PASS

Detection mode: Quasi-Peak

Frequency (MHz)	Polarity (H/V)	Antenna Factor and Cable Loss (dB/m)	Field Strength at 3m (dB $\mu\text{V/m}$)	Limit at 3m (dB $\mu\text{V/m}$)	Margin (dB)
32.60	H	17.7	26.5	40.0	-13.5
43.16	H	12.2	19.3	40.0	-20.7
79.44	V	7.7	30.0	40.0	-10.0
119.20	H	11.0	31.9	43.5	-11.6
139.04	H	10.9	28.9	43.5	-14.6
158.92	V	11.0	24.1	43.5	-19.4
479.24	V	20.1	24.2	46.0	-21.8
679.96	H	22.6	24.6	46.0	-21.4
950.72	H	25.4	29.2	46.0	-16.8

Note: Field Strength includes Antenna Factor and Cable Loss.

Receiver setting: RBW = 120KHz

VBW = 120KHz



TEST REPORT No: (5210)004-0560

Measurement Data

Test Result of (Transmission mode – 99.3MHz): PASS

Detection mode: Peak

Frequency (MHz)	Polarity (H/V)	Antenna Factor and Cable Loss (dB/m)	Field Strength at 3m (dB μ V/m)	Limit at 3m (dB μ V/m)	Margin (dB)
1092.52	H	-8.3	42.3	74.0	-31.7

Note: Field Strength includes Antenna Factor and Cable Loss.

Receiver setting: RBW = 1MHz
VBW = 1MHz

Detection mode: Average

Frequency (MHz)	Polarity (H/V)	Antenna Factor and Cable Loss (dB/m)	Field Strength at 3m (dB μ V/m)	Limit at 3m (dB μ V/m)	Margin (dB)
1092.52	V	-8.3	42.8	54.0	-11.2

Note: Field Strength includes Antenna Factor and Cable Loss.

Receiver setting: RBW = 1MHz
VBW = 10Hz



TEST REPORT No: (5210)004-0560

Measurement Data

Test Result of (Transmission mode – 101.3MHz): PASS

Detection mode: Quasi-Peak

Frequency (MHz)	Polarity (H/V)	Antenna Factor and Cable Loss (dB/m)	Field Strength at 3m (dBμV/m)	Limit at 3m (dBμV/m)	Margin (dB)
32.60	V	17.7	26.3	40.0	-13.7
43.88	H	11.9	19.0	40.0	-21.0
81.04	H	7.9	31.7	40.0	-8.3
121.56	H	11.0	32.8	43.5	-10.7
141.84	H	10.9	25.2	43.5	-18.3
162.12	H	10.9	22.6	43.5	-20.9
479.28	V	20.1	24.4	46.0	-21.6
698.72	V	23.0	24.9	46.0	-21.1
957.92	V	25.5	29.4	46.0	-16.6

Note: Field Strength includes Antenna Factor and Cable Loss.

Receiver setting: RBW = 120KHz
VBW = 120KHz

Detection mode: Peak

Frequency (MHz)	Polarity (H/V)	Antenna Factor and Cable Loss (dB/m)	Field Strength at 3m (dBμV/m)	Limit at 3m (dBμV/m)	Margin (dB)
1114.52	V	-8.3	42.8	74.0	-31.2

Note: Field Strength includes Antenna Factor and Cable Loss.

Receiver setting: RBW = 1MHz
VBW = 1MHz

Detection mode: Average

Frequency (MHz)	Polarity (H/V)	Antenna Factor and Cable Loss (dB/m)	Field Strength at 3m (dBμV/m)	Limit at 3m (dBμV/m)	Margin (dB)
1114.52	V	-8.3	42.2	54.0	-11.8

Note: Field Strength includes Antenna Factor and Cable Loss.

Receiver setting: RBW = 1MHz
VBW = 10Hz



TEST REPORT No: (5210)004-0560

Bandwidth of Fundamental Emission

Test Requirement: FCC 47 CFR 15.239
Test Method: ANSI C63.4: 2003 (Section 13.1.7)
Test Date: 2010-01-06
Mode of Operation: Transmission mode (99.3MHz & 101.3MHz)
Tested Voltage: 3Vd.c. ("CR2032" size battery x 1)

Test Method:

The bandwidth is measured at an amplitude level reduced from the reference level by a specified ratio. The reference level is the level of the highest amplitude signal observed from the transmitter at the fundamental frequency. Once the reference level is established, the equipment is conditioned with typical modulating signal to produce the worst-case (i.e. the widest) bandwidth.

For the voice transmission, it would try different type and very loud music in order to get worst result.

Limits for 26dB Bandwidth of Fundamental Emission:

Frequency [MHz]	Bandwidth [KHz]	FCC Limits [KHz]
99.32	110.00	200
101.32	106.00	200

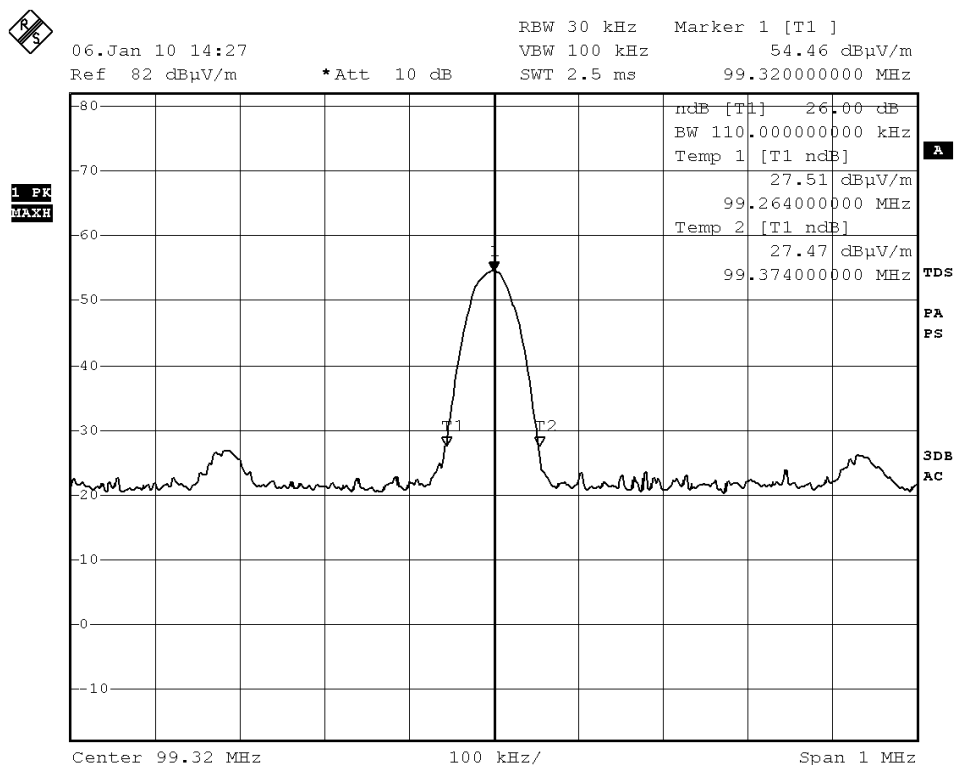


TEST REPORT No: (5210)004-0560

Measurement Data :

Test Result of 26dB Bandwidth of Fundamental Emission: PASS

99.32MHz

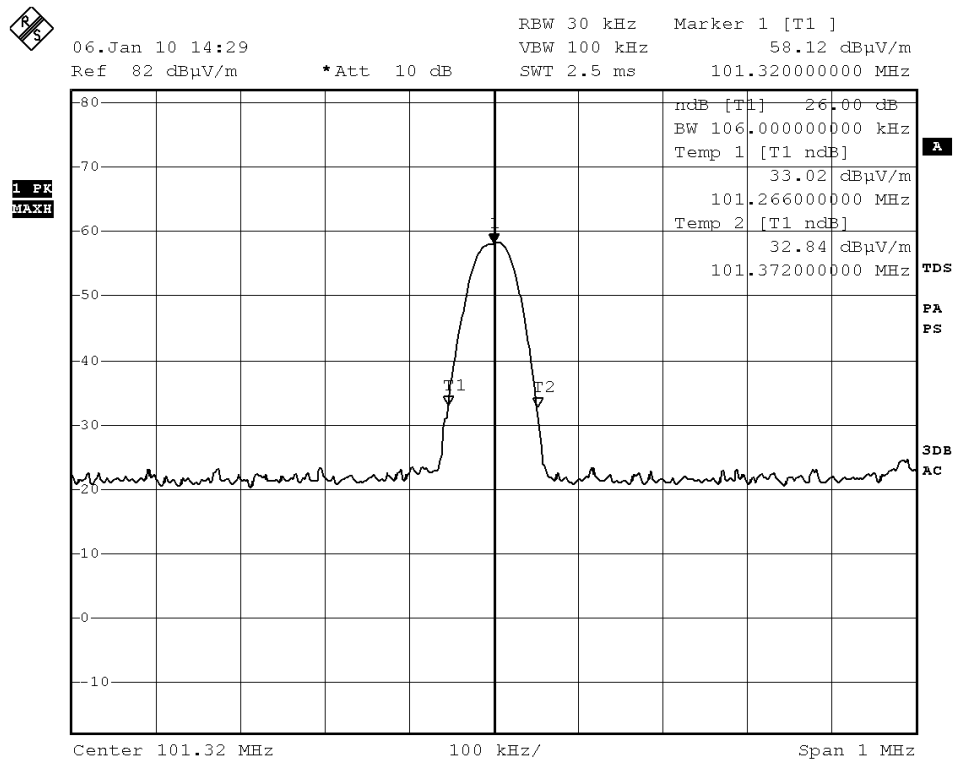




TEST REPORT No: (5210)004-0560

Test Result of 26dB Bandwidth of Fundamental Emission: PASS

101.32MHz



TEST REPORT No: (5210)004-0560

Photographs of EUT

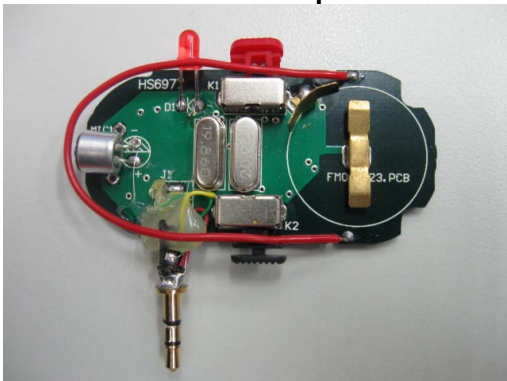
Front View of the product



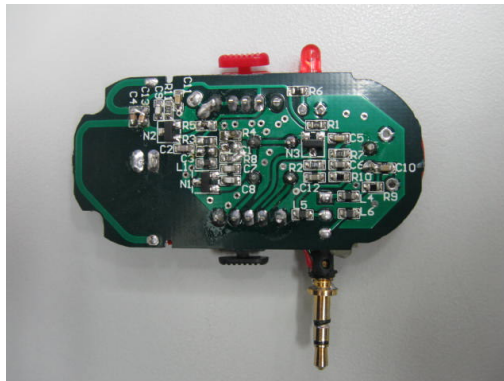
Rear View of the product



Inner Circuit Top View



Inner Circuit Bottom View



TEST REPORT No: (5210)004-0560

Battery compartment



Battery Cover



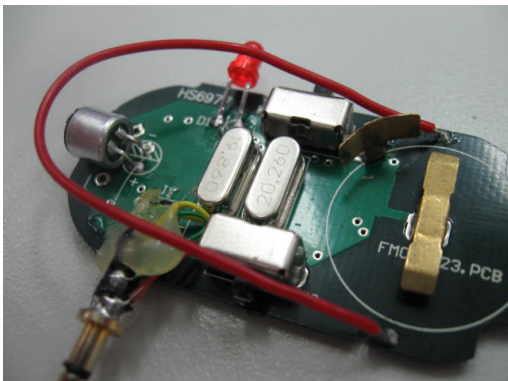
Front View of the product (Internal)



Rear View of the product (Internal)



Antenna



TEST REPORT No: (5210)004-0560

Measurement of Radiated Emission Test Set Up



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