Intertek ETL SEMKO

November 30, 2006

Robert Friedman
Chill Sound
77 Eliot Street
Chestnut Hill, MA 02467

Dear Mr. Friedman,

Enclosed you will find our EMI test report covering testing on the Radio, Model GEORGE. Testing was performed from November 13 to November 29, 2006.

If there are any questions regarding this report, please contact the undersigned or your account representative.

Sincerely,

Vathana Ven
Sr. Project Engineer

Reviewed by,

Jeff Gotter
Engineering Team Leader, EMC

Enclosure

Intertek ETL SEMKO

EMISSION TEST REPORT

Report Number: 3110539BOX-001
Project Number: 3110539

Testing performed on the

Radio

Model: GEORGE

To

Basic Standards from FCC Part 15 Subparts B & C
(FCC § 15.109, § 15.249)

For

Chill Sound

Test Performed by:	Test Authorized by:
Intertek – ETL SEMKO	Chill Sound
70 Codman Hill Road	77 Eliot Street
Boxborough, MA 01719	Chestnut Hill, MA 02467

Prepared by: Vathana F. Ven Date: 11/30/06
Vathana F. Ven

Reviewed by: for Date: 11-30-06
Michael F. Murphy

1.0 Job Description

1.1 Client Information

This EUT has been tested at the request of:

Company:	Chill Sound 77 Eliot Street Chestnut Hill, MA 02467
Contact:	Robert Friedman
Telephone:	(617) 558-1279
Fax:	Not available
Email:	robf@chillsound.com

1.1 Equipment Under Test:

Equipment Type:	Radio
Model Number(s):	GEORGE
Serial number(s):	BOX0611131152-001 (Base Unit) and BOX0611131152-002 (Remote)
Manufacturer:	Chill Sound
EUT receive date:	November 13, 2006
EUT received condition:	A production unit was received with no visible damage.
Test start date:	November 13, 2006
Test end date:	November 29, 2006

1.2 Test Plan Reference: ANSI C63.4-2005

1.3 Test Configuration:

1.3.1 EUT Voltage Range:

The EUT operated by 120 Vac/60 Hz.

1.3.2 Cables:

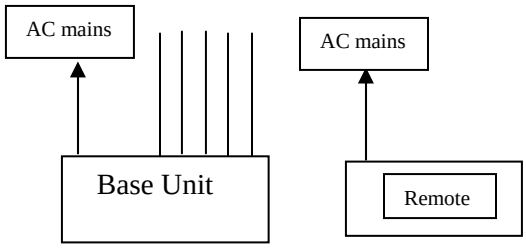
Description	Shielding	Connector	Length (m)	Qty.
USB Cable	Braid	Metal/360	1	1
AC Mains Cable	None	Plastic	2	3
Audio cables	Braid	Metal	2	3
Antenna cable	None	Plastic	1	1

1.3.3 Support Equipment:

Name:	CUI INC. AC adapter
Model No.:	Class 2 transformer
Serial No.:	Not labeled

Name:	Technics-QP AC adapter
	TESA5A-0501200d-B
	Not labeled

1.3.4 Block Diagram:



1.4 Mode(s) of Operation:

The Base unit and remote operated from 120 Vac/60Hz. During all tests, the EUT was configured to transmit continously.

1.5 EUT Cycle Time:

Continuous.

1.6 Monitoring of Sample:

N/A

1.7 Sample Performance Criteria:

Below specified limits.

1.8 Floor Standing Equipment: Applicable:___ Not Applicable:_X_

For floor standing equipment, 40cm RFI field uniformity data is located in the chamber equipment folder.

2.0 Test Summary

TEST STANDARD	RESULTS	
Basic Standards from FCC Part 15 Subpart C, Section 231 & FCC Part 15 Subpart B, Class B		
SUB-TEST	**TEST PARAMETER**	**COMMENT**
FCC § 15.209, § 15.109 FCC § 15.249	Radiated Emissions	Pass
FCC § 15.107	Line-conducted Emissions	Pass

Notes:

REVISION SUMMARY – The following changes have been made to this Report:

Date	Project No.	Project Handler	Page(s)	Item	Description of Change

3.0 Sample Calculations

The field strength is calculated by adding the Antenna Factor and Cable Factor, and subtracting the Amplifier Gain (if any) from the measured reading. The basic equation with a sample calculation is as follows:

FS = RA + AF + CF - AG
Where FS = Field Strength in dBμV/m
RA = Receiver Amplitude (including preamplifier) in dBμV
CF = Cable Attenuation Factor in dB
AF = Antenna Factor in dB
AG = Amplifier Gain in dB

In the following table(s), the reading shown on the data table reflects the preamplifier gain. An example for the calculations in the following table is as follows.

Assume a receiver reading of 52.0 dBμV is obtained. The antenna factor of 7.4 dB and cable factor of 1.6 dB is added. The amplifier gain of 29 dB is subtracted, giving a field strength of 32 dBμV/m. This value in dBμV/m was converted to its corresponding level in μV/m.

RA = 52.0 dBμV
AF = 7.4 dB/m
CF = 1.6 dB
AG = 29.0 dB
FS = 32 dBμV/m

Level in μV/m = [10(32 dBμV/m)/20] = 39.8 μV/m

The following is how net line-conducted readings were determined:

NF = RF + LF + CF + AF
Where NF = Net Reading in dBμV
RF = Reading from receiver in dBμV
LF = LISN Correction Factor in dB
CF = Cable Correction Factor in dB
AF = Attenuator Loss Factor in dB

To convert from dBμV to μV or mV the following was used:

UF = $10^{(NF / 20)}$ where UF = Net Reading in μV

Example:

NF = RF + LF + CF + AF = 28.5 + 0.2 + 0.4 + 20.0 = 49.1 dBμV
UF = $10^{(48.1\ dB\mu V / 20)}$ = 254 μV/m

3.1 Measurement Uncertainty

Compliance of the product is based on the measured value. However, the measurement uncertainty is included for informational purposes.
The expanded uncertainty (k = 2) for radiated emissions from 30 to 1000 MHz has been determined to be:

±3.5 dB at 10m, ±3.8 dB at 3m

The expanded uncertainty (k = 2) for mains conducted emissions from 150 kHz to 30 MHz has been determined to be:

±2.6 dB

The expanded uncertainty (k = 2) for telecom port conducted emissions from 150 kHz to 30 MHz has been determined to be:

±3.2 for ISN and voltage probe measurements
±3.1 for current probe measurements

3.2 Site Description

Test Site(s): 2

Our OATS are 3m and 10m sheltered emissions measurement ranges located in a light commercial environment in Boxborough, Massachusetts. They meet the technical requirements of ANSI C63.4-2003 and CISPR 22:1993/EN 55022:1994 for radiated and conducted emission measurements. The shelter structure is entirely fiberglass and plastic, with outside dimensions of 33 ft x 57 ft. The structure resembles a quonset hut with a center ceiling height of 16.5 ft.

The testing floor is covered by a galvanized sheet metal groundplane that is earth-grounded via copper rods around the perimeter of the site. The joints between individual metal sheets are bridged with a 2 inch wide metal strips to provide low RF impedance contact throughout. The sheets are screwed in place with stainless steel, round-head screws every three inches. Site illumination and HVAC are provided from beneath the ground reference plane through flush entry ports, the port covers are electrically bonded to the ground plane.

A flush metal turntable with 12 ft. diameter and 5000 lb. load capacity (12,000 lb. in Site 3) is provided for floor-standing equipment. A wooden table 80 cm high is used for table-top equipment. The turntable is electrically connected to the ground plane with three copper straps. The straps are connected to the turntable at the center of it with ground braid. The copper strap is directly connected to the groundplane at the edges of the turntable. The turntable is located on the south end of the structure and the antennas are mounted 3 and 10 meters away to the north. The antenna mast is a non-conductive with remote control of antenna height and polarization. The antenna height is adjustable from 1 to 4 meters.

All final radiated emission measurements are performed with the testing personnel and measurement equipment located below the ground reference plane. The site has a full basement underneath the turntable where support equipment may be remotely located. Operation of the antenna, turntable and equipment under test is controlled by remote controls that manipulate the antenna height and polarization and with a turntable control. Test personnel are located below the ellipse when measurements are performed, however the site maintains the ability of having personnel manipulate cables while monitoring test equipment. Ambient radiated emissions are 6 dB or more below the relevant FCC emission limits.

AC mains power is brought to the equipment under test through a power line filter, to remove ambient conducted noise. 50 Hz (240 VAC single phase), 60 Hz power (120 VAC single phase, 208 VAC three phase), and 60 Hz (480 VAC three phase) are available. Conducted emission measurements are performed with a Line Impedance Stabilization Network (LISN) or Artificial Mains Network (AMN) bonded to the ground reference plane. A removable vertical groundplane (2 meter X 2 meter area) is used for line-conducted measurements for table top equipment. The vertical groundplane is electrically connected to the reference groundplane.

The EMC Lab has two Semi-anechoic Chambers and one Shielded Chamber. AC Mains Power is available at 120, 230, and 277 Single Phase; 208, 400, and 480 3-Phase. Large reference groundplanes are installed in the general lab area to facilitate EMC work not requiring a shielded environment.

Test Results: Pass

Test Standard: Basic Standards from FCC § 15.109, FCC § 15.209, FCC § 15.249

Test: Radiated emissions

Performance Criterion: Readings below specified limits

Test Environment:

Environmental Conditions During Testing:	Humidity (%):	54 61	Pressure (hPa):	1008 998	Ambient (°C):	21 20
Pretest Verification Performed	Yes		Equipment under Test:		GEORGE	

Maximum Test Disturbance Parameters: Readings below specified limits.

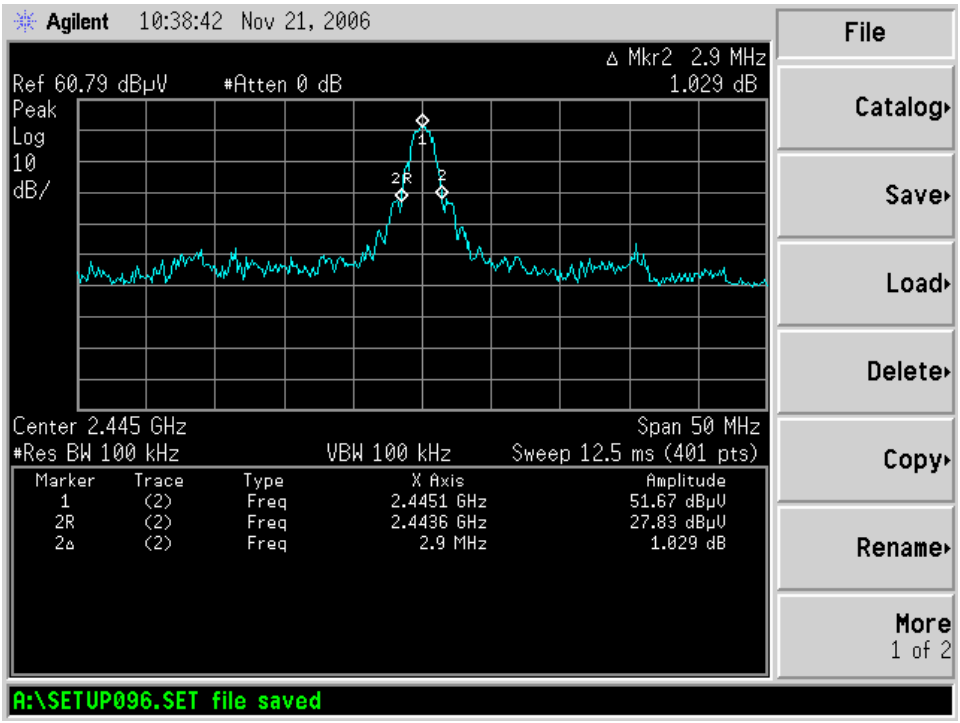
Test Equipment Used:

TEST EQUIPMENT LIST					
Item	**Equipment Type**	**Make**	**Model No.**	**Serial No.**	**Next Cal. Due**
1	ANTENNA	EMCO	3142	9711-1223	01/25/2007
2	Spectrum Analyzer	Agilent	E7405A	US40240205	08/16/2007
3	10 Meter in floor cable for site 2	ITS	RG214B/U	S2 10M FLR	09/26/2007
4	HORN ANTENNA	EMCO	3115	9602-4675	09/11/2007
5	High Frequency Cable 40GHz	Megaphase	TM40 K1K1 197	CBL028	12/12/2006
6	High Frequency Cable 40GHz	Megaphase	TM40 K1K1 80	CBL030	12/12/2006
7	PREAMPLFIER 1-40 GHz	MITEQ	NSP4000-NF	507145	11/14/2007
8	ANTENNA, RIDGED GUIDE, 18-40 GHZ	EMCO	3116	2090	12/13/2007
9	Digital 4 Line Barometer	Mannix	0ABA116	BAR2	08/02/2007

Software Utilized:

Name	Manufacturer	Version
EXCEL 2000	Microsoft Corporation	9.0.6926 SP-3
EMI BOXBOROUGH	Intertek	2/07/05 Revision

Test Results:



Test Results Continue:

Channel 11

Radiated Emissions

Company: Chill Sound
Model #: GEORGE
Serial #: BOX0611131152-001 (Base Unit) and BOX0611131152-002 (Remote)
Engineers: Vathana Ven Location: Site 2
Project #: 3110539 Date(s): 11/13/06
Standard: FCC Part 15 Subpart B Class B
Receiver: Agilent E7405A (AGL001) Limit Distance (m): 3
PreAmp: PRE8 11-14-07.txt Test Distance (m): 10
Barometer: BAR2 Temp/Humidity/Pressure: 21 deg. C 54% 1008 mb
PreAmp Used? (Y or N): N Voltage/Frequency: 120 Vac/ 60 Hz Frequency Range: 30 MHz - 1 GHz

Antenna & Cables: N Bands: N, LF, HF, SHF
LF Antenna: NONE. NONE.
N Antenna: LOG2 1-25-07 V10.txt LOG2 1-25-07 H10.txt
HF Antenna: Horn2 V1m 9-11-2007.txt Horn2 H1m 9-11-2007.txt
SHF Antenna: EMC04 V 1m 12-13-2006.txt EMC04 H 1m 12-13-2006.txt
LF Cable(s): NONE. NONE.
N Cable(s): S2 10M FLR 9-26-07.txt NONE.
HF Cable(s): CBL028 12-12-2006.txt CBL030 12-12-2006.txt
SHF Cable(s): CBL028 12-12-2006.txt NONE.

Peak: PK Quasi-Peak: QP Average: AVG RMS: RMS; NF = Noise Floor, RB = Restricted Band; Bandwidth denoted as RBW/VBW

Detector Type	Ant. Pol. (V/H)	Frequency MHz	Reading dB(uV)	Antenna Factor dB(1/m)	Cable Loss dB	Pre-amp Factor dB	Distance Factor dB	Net dB(uV/m)	Limit dB(uV/m)	Margin dB	Bandwidth	FCC	IC
QP	H	287.900	8.5	13.2	3.0	0.0	-10.5	35.2	46.0	-10.8	120/300 kHz		
QP	H	384.000	6.0	16.5	3.5	0.0	-10.5	36.4	46.0	-9.6	120/300 kHz		
QP	H	479.900	7.7	18.7	3.8	0.0	-10.5	40.7	46.0	-5.3	120/300 kHz		

Radiated Emissions

Company: Chill Sound
Model #: GEORGE
Serial #: BOX0611131152-001 (Base Unit) and BOX0611131152-002 (Remote)
Engineers: Vathana Ven Location: Site 2
Project #: 3110539 Date(s): 11/20/06
Standard: FCC Part 15 Subpart B Class B
Receiver: Agilent E7405A (AGL001) Limit Distance (m): 3
PreAmp: PRE8 11-14-07.txt Test Distance (m): 3
Barometer: BAR2 Temp/Humidity/Pressure: 20 deg. C 61% 998 mb
PreAmp Used? (Y or N): y Voltage/Frequency: 120 Vac/ 60 Hz Frequency Range: 1 - 25 GHz

Antenna & Cables: HF Bands: N, LF, HF, SHF
LF Antenna: NONE. NONE.
N Antenna: LOG2 1-25-07 V10.txt LOG2 1-25-07 H10.txt
HF Antenna: Horn2 V1m 9-11-2007.txt Horn2 H1m 9-11-2007.txt EMC 04
SHF Antenna: EMC04 V 1m 12-13-2006.txt EMC04 H 1m 12-13-2006.txt
LF Cable(s): NONE. NONE.
N Cable(s): S2 10M FLR 9-26-07.txt NONE.
HF Cable(s): CBL028 12-12-2006.txt CBL030 12-12-2006.txt
SHF Cable(s): CBL028 12-12-2006.txt NONE.

Peak: PK Quasi-Peak: QP Average: AVG RMS: RMS; NF = Noise Floor, RB = Restricted Band; NF = Noise Floor; Bandwidth denoted as RBW/VBW

Detector Type	Ant. Pol. (V/H)	Frequency MHz	Reading dB(uV)	Antenna Factor dB(1/m)	Cable Loss dB	Pre-amp Factor dB	Distance Factor dB	Net dB(uV/m)	Limit dB(uV/m)	Margin dB	Bandwidth	FCC	IC	Harmonic? nf
Power level was set to 11														
PK	V	2405.000	79.3	28.6	4.5	20.2	0.0	92.2	94.0	Pass	1/3 MHz	<20 dB		
AVG	V	2405.000	57.4	28.6	4.5	20.2	0.0	70.4	94.0	-23.6	1/3 MHz			
AVG	H	4805.000	28.5	33.5	6.8	21.5	0.0	47.2	54.0	-6.8	1/3 MHz	RB	RB	
AVG	H	4811.000	29.2	33.5	6.8	21.5	0.0	47.9	54.0	-6.1	1/3 MHz	RB	RB	
AVG	H	7213.000	24.2	36.5	8.9	20.4	0.0	49.3	54.0	-4.7	1/3 MHz			
AVG	H	7217.000	25.3	36.6	8.9	20.4	0.0	50.4	54.0	-3.6	1/3 MHz	NF		
AVG	H	9620.000	16.9	38.2	11.1	18.6	0.0	47.6	54.0	-6.5	1/3 MHz	NF		

Test Results Continue:

Channel 19

Radiated Emissions

Company: Chill Sound | Antenna & Cables: N | Bands: N, LF, HF, SHF
Model #: GEORGE | LF Antenna: NONE. | NONE.
Serial #: BOX0611131152-001 (Base Unit) and BOX0611131152-002 (Remote) | N Antenna: LOG2 1-25-07 V10.txt | LOG2 1-25-07 H10.txt
Engineers: Vathana Ven | Location: Site 2 | HF Antenna: Horn2 V1m 9-11-2007.txt | Horn2 H1m 9-11-2007.txt
Project #: 3110539 | Date(s): 11/13/06 | SHF Antenna: EMC04 V 1m 12-13-2006.txt | EMC04 H 1m 12-13-2006.txt
Standard: FCC Part 15 Subpart B Class B | LF Cable(s): NONE. | NONE.
Receiver: Agilent E7405A (AGL001) | Limit Distance (m): 3 | N Cable(s): S2 10M FLR 9-26-07.txt | NONE.
PreAmp: PRE8 11-14-07.txt | Test Distance (m): 10 | HF Cable(s): CBL028 12-12-2006.txt | CBL030 12-12-2006.txt
Barometer: BAR2 | Temp/Humidity/Pressure: 21 deg. C 54% 1008 mb | SHF Cable(s): CBL028 12-12-2006.txt | NONE.
PreAmp Used? (Y or N): N | Voltage/Frequency: 120 Vac/ 60 Hz | Frequency Range: 30 MHz - 1 GHz
Peak: PK Quasi-Peak: QP Average: AVG RMS: RMS; NF = Noise Floor, RB = Restricted Band; Bandwidth denoted as RBW/VBW

Detector Type	Ant. Pol. (V/H)	Frequency MHz	Reading dB(uV)	Antenna Factor dB(1/m)	Cable Loss dB	Pre-amp Factor dB	Distance Factor dB	Net dB(uV/m)	Limit dB(uV/m)	Margin dB	Bandwidth	FCC
QP	H	287.900	9.0	13.2	3.0	0.0	-10.5	35.7	46.0	-10.3	120/300 kHz	
QP	H	384.000	7.0	16.5	3.5	0.0	-10.5	37.4	46.0	-8.6	120/300 kHz	
QP	H	479.900	8.0	18.7	3.8	0.0	-10.5	41.0	46.0	-5.0	120/300 kHz	

Radiated Emissions

Company: Chill Sound | Antenna & Cables: HF | Bands: N, LF, HF, SHF
Model #: GEORGE | LF Antenna: NONE. | NONE.
Serial #: BOX0611131152-001 (Base Unit) and BOX0611131152-002 (Remote) | N Antenna: LOG2 1-25-07 V10.txt | LOG2 1-25-07 H10.txt
Engineers: Vathana Ven | Location: Site 2 | HF Antenna: Horn2 V1m 9-11-2007.txt | Horn2 H1m 9-11-2007.txt | EMC04
Project #: 3110539 | Date(s): 11/20/06 | SHF Antenna: EMC04 V 1m 12-13-2006.txt | EMC04 H 1m 12-13-2006.txt
Standard: FCC Part 15 Subpart B Class B | LF Cable(s): NONE. | NONE.
Receiver: Agilent E7405A (AGL001) | Limit Distance (m): 3 | N Cable(s): S2 10M FLR 9-26-07.txt | NONE.
PreAmp: PRE8 11-14-07.txt | Test Distance (m): 3 | HF Cable(s): CBL028 12-12-2006.txt | CBL030 12-12-2006.txt
Barometer: BAR2 | Temp/Humidity/Pressure: 20 deg. C 61% 998 mb | SHF Cable(s): CBL028 12-12-2006.txt | NONE.
PreAmp Used? (Y or N): y | Voltage/Frequency: 120 Vac/ 60 Hz | Frequency Range: 1 - 25 GHz
Peak: PK Quasi-Peak: QP Average: AVG RMS: RMS; NF = Noise Floor, RB = Restricted Band; NF = Noise Floor; Bandwidth denoted as RBW/VBW

Detector Type	Ant. Pol. (V/H)	Frequency MHz	Reading dB(uV)	Antenna Factor dB(1/m)	Cable Loss dB	Pre-amp Factor dB	Distance Factor dB	Net dB(uV/m)	Limit dB(uV/m)	Margin dB	Bandwidth	FCC
Power level was set to 11												
PK	V	2445.000	80.9	28.7	4.6	20.3	0.0	94.0	94.0	Pass	120/300 kHz	<20 dB
AVG	V	2445.000	53.0	28.7	4.6	20.3	0.0	66.0	94.0	-28.0	120/300 kHz	
AVG	V	4891.000	29.1	33.7	6.9	21.6	0.0	48.1	54.0	-5.9	120/300 kHz	RB
AVG	V	4889.000	27.9	33.7	6.9	21.6	0.0	46.9	54.0	-7.1	120/300 kHz	RB
AVG	H	7335.000	2.2	36.9	9.0	20.3	0.0	27.8	54.0	-26.2	120/300 kHz	RB
AVG	V	9780.000	20.0	38.3	11.3	18.5	0.0	51.1	54.0	-2.9	120/300 kHz	
AVG	V	12225.000	16.0	39.1	12.6	18.3	0.0	49.4	54.0	-4.6	120/300 kHz	NF

Test Results Continue:

Channel 26

Radiated Emissions

Company: Chill Sound | Antenna & Cables: N | Bands: N, LF, HF, SHF
Model #: GEORGE | LF Antenna: NONE. | NONE.
Serial #: BOX0611131152-001 (Base Unit) and BOX0611131152-002 (Remote) | N Antenna: LOG2 1-25-07 V10.txt | LOG2 1-25-07 H10.txt
Engineers: Vathana Ven | Location: Site 2 | HF Antenna: Horn2 V1m 9-11-2007.txt | Horn2 H1m 9-11-2007.txt
Project #: 3110539 | Date(s): 11/13/06 | SHF Antenna: EMC04 V 1m 12-13-2006.txt | EMC04 H 1m 12-13-2006.txt
Standard: FCC Part 15 Subpart B Class B | LF Cable(s): NONE. | NONE.
Receiver: Agilent E7405A (AGL001) | Limit Distance (m): 3 | N Cable(s): S2 10M FLR 9-26-07.txt | NONE.
PreAmp: PRE8 11-14-07.txt | Test Distance (m): 10 | HF Cable(s): CBL028 12-12-2006.txt | CBL030 12-12-2006.txt
Barometer: BAR2 | Temp/Humidity/Pressure: 21 deg. C 54% 1008 mb | SHF Cable(s): CBL028 12-12-2006.txt | NONE.
PreAmp Used? (Y or N): N | Voltage/Frequency: 120 Vac/ 60 Hz | Frequency Range: 30 MHz - 1 GHz
Peak: PK Quasi-Peak: QP Average: AVG RMS: RMS; NF = Noise Floor, RB = Restricted Band; Bandwidth denoted as RBW/VBW

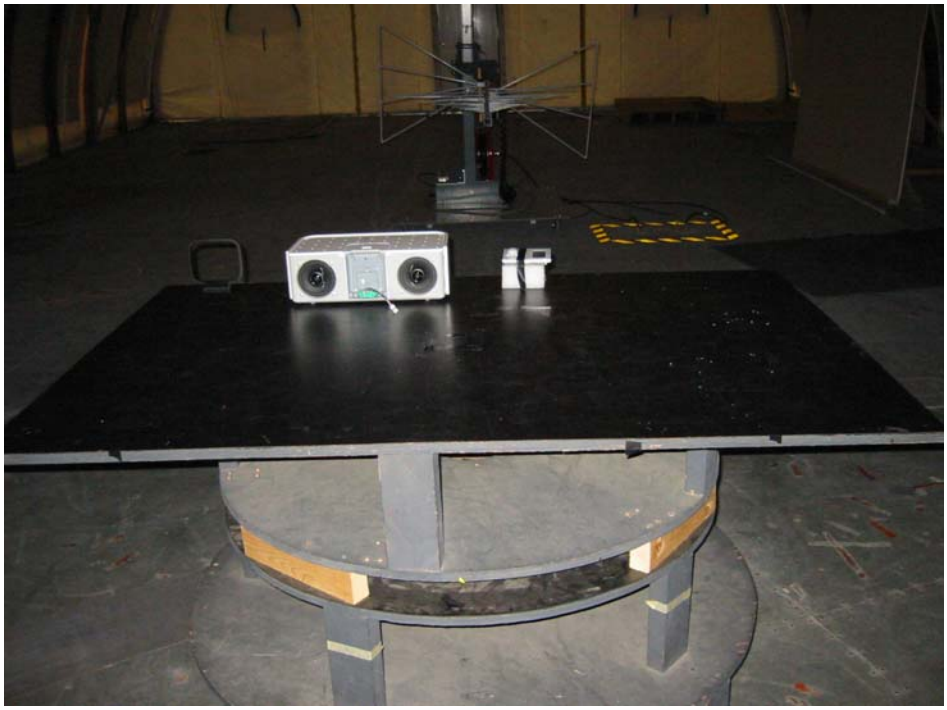
Detector Type	Ant. Pol. (V/H)	Frequency MHz	Reading dB(uV)	Antenna Factor dB(1/m)	Cable Loss dB	Pre-amp Factor dB	Distance Factor dB	Net dB(uV/m)	Limit dB(uV/m)	Margin dB	Bandwidth	
QP	H	287.900	8.1	13.2	3.0	0.0	-10.5	34.8	46.0	-11.2	120/300 kHz	FCC
QP	H	384.000	7.0	16.5	3.5	0.0	-10.5	37.4	46.0	-8.6	120/300 kHz	
QP	H	479.900	8.0	18.7	3.8	0.0	-10.5	41.0	46.0	-5.0	120/300 kHz	

Radiated Emissions

Company: Chill Sound | Antenna & Cables: HF | Bands: N, LF, HF, SHF
Model #: GEORGE | LF Antenna: NONE. | NONE.
Serial #: BOX0611131152-001 (Base Unit) and BOX0611131152-002 (Remote) | N Antenna: LOG2 1-25-07 V10.txt | LOG2 1-25-07 H10.txt
Engineers: Vathana Ven | Location: Site 2 | HF Antenna: Horn2 V1m 9-11-2007.txt | Horn2 H1m 9-11-2007.txt | EMC 04
Project #: 3110539 | Date(s): 11/20/06 | SHF Antenna: EMC04 V 1m 12-13-2006.txt | EMC04 H 1m 12-13-2006.txt
Standard: FCC Part 15 Subpart B Class B | LF Cable(s): NONE. | NONE.
Receiver: Agilent E7405A (AGL001) | Limit Distance (m): 3 | N Cable(s): S2 10M FLR 9-26-07.txt | NONE.
PreAmp: PRE8 11-14-07.txt | Test Distance (m): 3 | HF Cable(s): CBL028 12-12-2006.txt | CBL030 12-12-2006.txt
Barometer: BAR2 | Temp/Humidity/Pressure: 20 deg. C 61% 998 mb | SHF Cable(s): CBL028 12-12-2006.txt | NONE.
PreAmp Used? (Y or N): y | Voltage/Frequency: 120 Vac/ 60 Hz | Frequency Range: 1 - 25 GHz
Peak: PK Quasi-Peak: QP Average: AVG RMS: RMS; NF = Noise Floor, RB = Restricted Band; Bandwidth denoted as RBW/VBW

Detector Type	Ant. Pol. (V/H)	Frequency MHz	Reading dB(uV)	Antenna Factor dB(1/m)	Cable Loss dB	Pre-amp Factor dB	Distance Factor dB	Net dB(uV/m)	Limit dB(uV/m)	Margin dB	Bandwidth	
Power level was set to 11												
PK	V	2480.000	86.1	28.8	4.6	20.3	0.0	99.2	94.0	Pass	1/3 MHz	<20 dB
AVG	V	2480.000	61.8	28.8	4.6	20.3	0.0	75.0	94.0	-19.0	1/3 MHz	
AVG	V	4959.000	31.1	33.9	6.9	21.7	0.0	50.2	54.0	-3.8	1/3 MHz	RB
AVG	V	4961.000	32.5	33.9	6.9	21.7	0.0	51.6	54.0	-2.4	1/3 MHz	RB
AVG	V	7438.000	20.4	37.1	9.1	20.2	0.0	46.4	54.0	-7.6	1/3 MHz	RB
AVG	V	7441.000	20.1	37.1	9.1	20.2	0.0	46.1	54.0	-7.9	1/3 MHz	RB
AVG	V	9916.000	16.0	38.5	11.4	18.4	0.0	47.5	54.0	-6.5	1/3 MHz	NF

FCC Part 15 Subpart B & C Radiated emissions setup photos



Test Results: Pass

Test Standard: FCC Part 15 Subpart B & C

Test: Line-conducted emissions

Performance Criterion: Readings below specified limits

Test Environment:

Environmental Conditions During Testing:	Humidity (%):	32 32	Pressure (hPa):	1019 1019	Ambient (°C):	19 19
Pretest Verification Performed	Yes		Equipment under Test:		GEORGE	

Maximum Test Disturbance Parameters: Readings below specified limits.

Test Equipment Used:

TEST EQUIPMENT LIST					
Item	**Equipment Type**	**Make**	**Model No.**	**Serial No.**	**Next Cal. Due**
1	Spectrum Analyzer	Agilent	E7405A	US40240205	08/16/2007
2	Attenuator, 20dB	Mini Circuits	20dB, 50 ohm	DS23A	01/03/2007
3	LISN, 50uH, .01 - 50MHz, 24A	Solar Electronics	8012-50-R-24-BNC	934610	08/23/2007
4	Digital 4 Line Barometer	Mannix	0ABA116	BAR2	08/02/2007
5	Cable BNC/BNC, 30'	ITS	BNC-30	CBLBNC1	01/03/2007

Software Utilized:

Name	Manufacturer	Version
EXCEL 2000	Microsoft Corporation	9.0.6926 SP-3
EMI BOXBOROUGH	Intertek	2/07/05 Revision

Test Results:

Conducted Emissions

Company:	Chill Sound	Receiver:	Agilent E7405A (AGL001)
Model #:	GEORGE	Cable:	CBLBNC1 1-03-07.cbl
Serial #:	BOX0611131152-001 (Base Unit) and BOX0611131152-002 (Remote)	LISN 1:	LISN5 [1] 8-23-07.txt
Engineer(s):	Vathana Ven Location: Site 2	LISN 2:	LISN5 [2] 8-23-07.txt
Project #:	3110539 Date: 11/22/06	LISN 3:	NONE.
Standard:	FCC Part 15 Subpart B Class B	LISN 4:	NONE.
Barometer:	BAR 2 Temp/Humidity/Pressure: 19 deg. C 32% 1019 mb	Attenuator:	DS23A 1-04-07.att

Notes: ***Line-conducted emissions on the Base Unit***

Voltage/Frequency: 120 Vac/60 Hz Frequency Range: 0.150-30 MHz

Net is the sum of worst-case lisn, cable, & attenuator losses, and initial reading, factors are not shown

Peak: PK Quasi-Peak: QP Average: AVG RMS: RMS; NF = Noise Floor; Bandwidth denoted as RBW/VBW

Detector Type	Frequency MHz	Reading Line 1 dB(uV)	Reading Line 2 dB(uV)	Reading Line 3 dB(uV)	Reading Line 4 dB(uV)	Net dB(uV)	QP Limit dB(uV)	Margin dB	Bandwidth
QP	0.150	45.4	45.5			65.9	66.0	-0.1	9/30 kHz
QP	0.165	44.8	44.9			65.2	65.2	-0.0	9/30 kHz
QP	0.500	33.6	33.6			53.7	56.0	-2.3	9/30 kHz
QP	0.804	22.9	22.9			43.0	56.0	-13.0	9/30 kHz
QP	0.994	14.2	13.4			34.4	56.0	-21.6	9/30 kHz
QP	1.094	10.6	8.4			30.8	56.0	-25.2	9/30 kHz

Detector Type	Frequency MHz	Reading Line 1 dB(uV)	Reading Line 2 dB(uV)	Reading Line 3 dB(uV)	Reading Line 4 dB(uV)	Net dB(uV)	Average Limit dB(uV)	Margin dB	Bandwidth
AVG	0.150	11.2	12.0			32.4	56.0	-23.6	9/30 kHz
AVG	0.165	11.8	11.3			32.1	55.2	-23.1	9/30 kHz
AVG	0.500	0.2	0.1			20.3	46.0	-25.7	9/30 kHz
AVG	0.804	-10.7	-10.5			9.6	46.0	-36.4	9/30 kHz
AVG	0.994	-18.0	-17.5			2.7	46.0	-43.3	9/30 kHz
AVG	1.094	-19.0	-17.0			3.2	46.0	-42.8	9/30 kHz

Test Results continue:

Conducted Emissions

Company: Chill Sound
Model #: GEORGE
Serial #: BOX0611131152-001 (Base Unit) and BOX0611131152-002 (Remote)
Engineer(s): Vathana Ven Location: Site 2
Project #: 3110539 Date: 11/29/06
Standard: FCC Part 15 Subpart B Class B
Barometer: BAR 2 Temp/Humidity/Pressure: 19 deg. C 32% 1019 mb

Receiver: Agilent E7405A (AGL001)
Cable: CBLBNC1 1-03-07.cbl
LISN 1: LISN5 [1] 8-23-07.txt
LISN 2: LISN5 [2] 8-23-07.txt
LISN 3: NONE.
LISN 4: NONE.
Attenuator: DS23A 1-04-07.att

Notes: ***Line-conducted emissions on Remote with new ac adapter (m/n): TESA5A-0501200d-B***
Voltage/Frequency: 120 Vac/60 Hz Frequency Range: 0.150-30 MHz
Net is the sum of worst-case lisn, cable, & attenuator losses, and initial reading, factors are not shown
Peak: PK Quasi-Peak: QP Average: AVG RMS: RMS; NF = Noise Floor; Bandwidth denoted as RBW/VBW

Detector Type	Frequency MHz	Reading Line 1 dB(uV)	Reading Line 2 dB(uV)	Reading Line 3 dB(uV)	Reading Line 4 dB(uV)	Net dB(uV)	QP Limit dB(uV)	Margin dB	Bandwidth
QP	0.230	32.1	32.5			52.7	62.4	-9.8	9/30 kHz
QP	0.459	30.8	31.3			51.4	56.7	-5.3	9/30 kHz
QP	0.689	23.9	26.5			46.6	56.0	-9.4	9/30 kHz
QP	1.146	23.5	26.1			46.3	56.0	-9.7	9/30 kHz
QP	1.824	13.8	20.0			40.2	56.0	-15.8	9/30 kHz
QP	2.060	16.5	20.6			40.9	56.0	-15.1	9/30 kHz

Detector Type	Frequency MHz	Reading Line 1 dB(uV)	Reading Line 2 dB(uV)	Reading Line 3 dB(uV)	Reading Line 4 dB(uV)	Net dB(uV)	Average Limit dB(uV)	Margin dB	Bandwidth
AVG	0.230	20.0	26.4			46.6	52.4	-5.9	9/30 kHz
AVG	0.459	17.4	24.1			44.2	46.7	-2.5	9/30 kHz
AVG	0.689	10.6	16.0			36.1	46.0	-9.9	9/30 kHz
AVG	1.146	7.8	14.8			35.0	46.0	-11.0	9/30 kHz
AVG	1.824	-1.7	6.0			26.2	46.0	-19.8	9/30 kHz
AVG	2.060	1.5	9.1			29.4	46.0	-16.6	9/30 kHz

FCC Part 15 Subpart B & C Line-conducted emissions setup photos