SGS-CSTC Standards Technical Services Co., Ltd.

No.198 Kezhu Road, Science Town Economic& Technology Development District
Guangzhou, China 510663

Telephone: +86 (0) 20 8215 5555
Fax: +86 (0) 20 8207 5059
Email: sgs_internet_operations@sgs.com

FCC Test Report

Application No.: SZEMO080301030RF
Applicant: Honeywell International Inc.
Manufacturer: VTech Communications Ltd
FCC ID HS9-51459SL

Equipment Under Test (EUT):

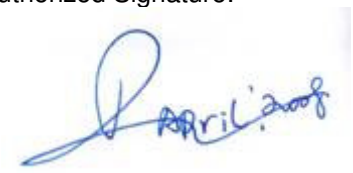
Name: Premium Portable Plus Wireless Chime
Model: 51459SL
Band Name: Honeywell

Standards: FCC PART 15 SUBPART B:2007
Date of Receipt: 31 March 2008
Date of Test: 31 March to 18 April 2008
Date of Issue: 21 April 2008

Test Result :	**PASS***

* In the configuration tested, the EUT complied with the standards specified above.

Authorized Signature:



Robinson Lo
Laboratory Manager

2 Test Summary

Test	Test Requirement	Test Method	Class / Severity	Result
Radiated Emission (30MHz to 5GHz)	FCC PART 15, SUBPART B: 2007	ANSI C63.4:2003	Class B	PASS
Conducted Emission (150KHz to 30MHz)	FCC PART 15, SUBPART B: 2007	ANSI C63.4:2003	Class B	PASS

Remark:The EUT can work with Portrait Push(Model: 51367SL/51368SL/51369SL/51370SL) and Landscape Push/Converter/Extender (Model: 51371SL) together.

Contents

3 General Information

3.1 Client Information

Applicant Name:	Honeywell International Inc.
Applicant Address:	1985 Douglas Drive, Golden Valley Minnesota United States
Manufacturer:	VTech Communications Ltd
Manufacturer Address:	Xia Ling Bei Management Zone, Liaobu District, Dongguan City, Guangdong, China

3.2 General Description of E.U.T.

EUT Name:	Premium Portable Plus Wireless Chime
Item No.:	51459SL
Serial No.:	Not supplied by client

3.3 Details of E.U.T.

Power Supply: 6V DC(Supply by adapter or 4*1.5V'LR14C' Size Batteries)

3.4 Description of Support Units

The EUT was tested as an independent unit:Premium Portable Plus Wireless Chime.

3.5 Standards Applicable for Testing

The customer requested FCC for Premium Portable Plus Wireless Chime.
The standard used was FCC PART 15, SUBPART B, CLASS B (2007)

3.6 Test Location

All tests were performed at:

SGS-CSTC Standards Technical Services Co., Ltd., Guangzhou EMC Laboratory, No.198 Kezhu Road, Science Town Economic& Technology Development District Guangzhou, China 510663

Tel: +86 20 8215 5555 Fax: +86 20 8207 5059

No tests were sub-contracted.

3.7 Test Facility

The test facility is recognized, certified, or accredited by the following organizations:

- **NVLAP – Lab Code: 200611-0**
  SGS-CSTC Standards Technical Services Co., Ltd., Guangzhou EMC Laboratory is recognized under the National Voluntary Laboratory Accreditation Program (NVLAP/NIST). NVLAP Code: 200611-0.
- **ACA**
  SGS-CSTC Standards Technical Services Co., Ltd., EMC Laboratory can also perform testing for the Australian C-Tick mark as a result of our NVLAP accreditation.
- **VCCI**
  The 3m Semi-anechoic chamber and Shielded Room (7.5m x 4.0m x 3.0m) of SGS-CSTC Standards Technical Services Co., Ltd. have been registered in accordance with the Regulations for Voluntary Control Measures with Registration No.: R-2197 and C-2383 respectively.
  Date of Registration: September 29, 2005. Valid until September 28, 2008.
- **SGS UK(Certificate No.: 32), SGS-TUV SAARLAND and SGS-FIMKO**
  Have approved SGS-CSTC Standards Technical Services Co., Ltd., EMC Laboratory as a supplier of EMC TESTING SERVICES and SAFETY TESTING SERVICES.
- **CNAS L0167**
  SGS-CSTC Standards Technical Services Co., Ltd., EMC Laboratory has been assessed and in compliance with CNAS-CL01:2006 accreditation criteria for testing laboratories (identical to ISO/IEC 17025:2005 General Requirements) for the Competence of Testing Laboratories.
- **FCC – Registration No.: 556682**
  SGS-CSTC Standards Technical Services Co., Ltd., Shenzhen EMC Laboratory has been registered and fully described in a report filed with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in our files. Registration 556682, Aug. 04, 2005
- **Industry Canada (IC)**
  The 3m Semi-anechoic chamber of SGS-CSTC Standards Technical Services Co., Ltd. has been registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing with Registration No.: 6002.

3.8 Deviation from Standards

None.

3.9 Abnormalities from Standard Conditions

None.

4 Equipments Used during Test

Conducted Emission					
Item	**Test Equipment**	**Manufacturer**	**Serial No.**	**Cal.Date (dd-mm-yy)**	**Cal.Due date (dd-mm-yy)**
1	Shielding Room	ZhongYu Electron	SEL0042	N/A	N/A
2	LISN	ETS-LINDGREN	00033512	19-09-2005	18-09-2006
3	EMI Test Receiver	Rohde & Schwarz	100119	09-03-2006	08-03-2007
4	Coaxial Cable	SGS	SEL0024	31-05-2005	30-05-2006

RE in Chamber					
Item	**Test Equipment**	**Manufacturer**	**Serial No.**	**Cal.Date (dd-mm-yy)**	**Cal.Due date (dd-mm-yy)**
1	3m Semi-Anechoic Chamber	ETS-LINDGREN	SEL0017	28-04-2005	27-04-2006
2	EMI Test Receiver	Rohde & Schwarz	100249	22-09-2005	21-09-2006
3	EMI Test software	AUDIX	E3	N/A	N/A
4	Coaxial cable	SGS	SEL0028	30-05-2005	29-05-2006
5	Coaxial cable	SGS	SEL0027	30-05-2005	29-05-2006
6	BiConiLog Antenna	ETS-LINDGREN	00042673	10-01-2006	09-01-2007
7	BiConiLog Antenna	ETS-LINDGREN	00042670	10-01-2006	09-01-2007
8	Amplifier	Agilent Technologies	2944A10861	26-08-2005	25-08-2006

General used equipment					
Item	**Test Equipment**	**Manufacturer**	**Serial No.**	**Cal.Date (dd-mm-yy)**	**Cal.Duedate (dd-mm-yy)**
1	Temperature,Humidity & Barometer	OREGON/VAISALA/ TESTO/ANDTEK	EMC0001 to EMC0004	30-08-2005	29-08-2006
2	DMM	Mastech	SEL0044	20-09-2005	19-09-2006
3	Audio	Rohde&Schwarz	100855	20-10-2005	19-10-2006

5 Test Results

5.1 Conducted Emissions Mains Terminals, 150kHz to 30MHz

Test Requirement: FCC Part15 B

Test Method: ANSI C63.4

Test Date: 18 April 2008

Frequency Range: 150KHz to 30MHz

Class / Severity: Class B

Detector: RBW=9KHz VBW=30KHz

Quasi-Peak if maximised peak within 6dB of Quasi-Peak limit

5.1.1 E.U.T. Operation

Operating Environment:

Temperature: 24.0 °C Humidity: 63 % RH Atmospheric Pressure: 1020 Mbar

EUT Operation: Test under touch by handle operation.

5.1.2 Measurement Data

An initial pre-scan was performed on the live and neutral lines with peak detector.

Quasi-Peak and Average measurement were performed at the frequencies with maximized peak emission were detected.

The following Quasi-Peak and Average measurements were performed on the EUT on 18 April 2008:

Line.

Frequency (MHz)	Cable Loss (dB)	Antenna Factor (dB)	Read Level (dBuV)	Level (dBuV)	Limit Line (dBuV)	Over Limit (dB)	Remark
0.199	-0.10	-0.05	16.53	16.39	63.67	-47.28	QP
0.199	-0.10	-0.05	14.12	13.98	53.67	-39.69	Average
0.369	0.00	-0.04	11.48	11.44	58.52	-47.08	QP
0.369	0.00	-0.04	9.15	9.11	48.52	-39.41	Average
0.402	0.00	-0.04	16.86	16.82	57.81	-41.00	QP
0.402	0.00	-0.04	13.45	13.41	47.81	-34.41	Average
0.601	0.00	-0.05	16.81	16.76	56.00	-39.24	QP
0.601	0.00	-0.05	12.44	12.40	46.00	-33.61	Average
1.628	0.10	-0.06	16.12	16.16	56.00	-39.84	QP
1.628	0.10	-0.06	12.33	12.37	46.00	-33.63	Average
5.085	0.10	-0.11	15.64	15.63	60.00	-44.37	QP
5.085	0.10	-0.11	11.97	11.96	50.00	-38.04	Average

Neutral.

Frequency (MHz)	Cable Loss (dB)	Antenna Factor (dB)	Read Level (dBuV)	Level (dBuV)	Limit Line (dBuV)	Over Limit (dB)	Remark
0.162	-0.03	-0.05	22.24	22.17	65.38	-43.21	QP
0.162	-0.03	-0.05	20.13	20.06	55.38	-35.32	Average
0.219	-0.08	-0.04	18.06	17.94	62.88	-44.93	QP
0.219	-0.08	-0.04	13.46	13.34	52.88	-39.54	Average
0.529	0.00	-0.04	16.55	16.51	56.00	-39.49	QP
0.529	0.00	-0.04	13.97	13.93	46.00	-32.07	Average
2.608	0.10	-0.07	15.81	15.83	56.00	-40.17	QP
2.608	0.10	-0.07	14.11	14.14	46.00	-31.86	Average
7.407	0.16	-0.19	14.50	14.46	60.00	-45.54	QP
7.407	0.16	-0.19	12.88	12.84	50.00	-37.16	Average
11.198	0.22	-0.37	17.06	16.91	60.00	-43.09	QP
11.198	0.22	-0.37	15.44	15.29	50.00	-34.71	Average

5.2 Radiated Emissions, 30MHz to 5GHz

Test Requirement:	FCC Part15 B
Test Method:	ANSI C63.4
Test Date:	10 April 2008
Frequency Range:	30MHz to 5GHz
Measurement Distance:	3m
Class:	Class B
Limit:	40.0 dBμV/m between 30MHz & 88MHz
	43.5 dBμV/m between 88MHz & 216MHz
	46.0 dBμV/m between 216MHz & 960MHz
	54.0 dBμV/m zbove 960MHz
Detector:	RBW=120KHz VBW=300KHz
	RBW=1MHz VBW=1MHz
	Quasi-Peak if maximised peak within 6dB of limit

Fundamental Frequency (MHz)	Field Strength (dBuV/m @ 3m)
30 to 88	40.0
88 to 216	43.5
216 to 960	46.0
Above 960	54.0

Test Procedure:

1. The EUT is placed on a turntable, which is 0.8m above ground plane.
2. The turntable shall be rotated for 360 degrees to determine the position of maximum emission level.
3. EUT is set 3m away from the receiving antenna, which is varied from 1m to 4m to find out the highest emissions.
4. Maximum procedure was performed on the six highest emissions to ensure EUT compliance.
5. And also, each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical.
6. Repeat above procedures until the measurements for all frequencies are complete.

The following quasi-peak measurements were performed.

5.2.1 E.U.T. Operation

Operating Environment:

Temperature: 24.0 °C Humidity: 50 % RH Atmospheric Pressure: 1020 mbar

EUT Operation: Test under touch by handle operation.

5.2.2 Measurement Data

An initial pre-scan was performed in the 3m chamber using the spectrum analyser in peak detection mode. The EUT was measured by Bilog antenna with 2 orthogonal polarities and peak emissions from the EUT were detected within 6dB of the class B limit line.

The following quasi-peak measurements were performed on the EUT on 10 April 2008:

Horizontal.

Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Read Level (dBuV)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)
32.91	13.84	0.60	28.16	26.38	12.66	40.00	-27.34
99.84	9.09	1.20	27.88	27.16	9.57	43.50	-33.93
198.78	10.19	1.40	27.16	27.33	11.76	43.50	-31.74
355.92	15.56	2.08	27.13	25.97	16.48	46.00	-29.52
597.45	19.68	2.70	27.62	27.53	22.29	46.00	-23.71
916.79	22.25	3.26	26.87	25.69	24.33	46.00	-21.67
1832	3.15	36.21	44.46	48.04	42.94	54.00	-11.06
2750	3.46	37.01	42.17	44.21	42.51	54.00	-11.49
3674	3.84	38.93	43.61	43.93	43.09	54.00	-10.91
4591	4.18	39.87	45.19	46.94	45.80	54.00	-8.20

Vertical.

Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Read Level (dBuV)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)
33.88	13.51	0.60	28.15	25.87	11.83	40.00	-28.17
98.87	9.06	1.19	27.89	30.95	13.31	43.50	-30.19
197.81	10.18	1.40	27.16	28.93	13.35	43.50	-30.15
350.10	15.40	2.06	27.09	27.68	18.05	46.00	-27.95
628.49	20.51	2.76	27.52	26.43	22.18	46.00	-23.82
916.70	22.77	3.47	26.58	26.85	26.51	46.00	-19.49
1834	3.15	36.29	44.49	45.95	40.90	54.00	-13.10
2749	3.46	37.01	42.19	43.48	41.76	54.00	-12.24
3676	3.82	38.82	43.37	43.46	42.73	54.00	-11.27
4589	4.13	39.45	45.52	45.21	43.27	54.00	-10.73