

TEST REPORT

Report Number: HK10020643-1

Application for Original Grant of 47 CFR Part 15 Certification New Family of RSS-210 Issue 7 Equipment Certification

2.4GHz Frequency Hopping Spread Spectrum Parent Unit

FCC ID: VLJ-MBP35BPU

IC: 4522A-MBP35BPU

Prepared and Checked by:	Approved by:	
Coo	1 de la companya della companya della companya de la companya della companya dell	
Koo Wai Ip Engineer	Nip Ming Fung, Melvin Supervisor April 26, 2010	

The test report only allows to be revised within the retention period unless further standard or the requirement was noticed.
 This report is for the exclusive use of Intertek's Client and is provided pursuant to the agreement between Intertek and its Client. Intertek's responsibility and liability are limited to the terms and conditions of the agreement. Intertek assumes no liability to any party, other than to the Client in accordance with the agreement, for any loss, expense or damage occasioned by the use of this

party, other than to the Client in accordance with the agreement, for any loss, expense or damage occasioned by the use of this report. Only the Client is authorized to permit copying or distribution of this report and then only in its entirety. Any use of the Intertek name or one of its marks for the sale or advertisement of the tested material, product or service must first be approved in writing by Intertek. The observations and test results in this report are relevant only to the sample tested. This report by itself does not imply that the material, product, or service is or has ever been under an Intertek certification program.

GENERAL INFORMATION

Applicant Name:	Binatone Electronics International Limited
Applicant Address:	Floor 23A, 9 Des Voeux Road West,
Applicant Address.	Sheung Wan, Hong Kong.
FOO On a differentian Oran danda	The second secon
FCC Specification Standard:	FCC Part 15: 2008
FCC ID:	VLJ-MBP35BPU
FCC Model(s):	MBP35ByPU, MBP35xByPU
IC Specification Standard:	RSS-210 Issue 7, June 2007
	RSS-Gen Issue 2, June 2007
	RSS-102 Issue 4, March 2010
IC:	4522A-MBP35BPU
IC Model(s):	MBP35BLPU, MBP35BWPU
Type of EUT:	Transceiver
Description of EUT:	2.4GHz Frequency Hopping Spread
•	Spectrum Parent Unit
Serial Number:	N/A
Sample Receipt Date:	February 25, 2010
Date of Test:	April 15-19, 2010
Report Date:	April 26, 2010
Environmental Conditions:	Temperature: +10 to 40°C
	Humidity: 10 to 90%

Test Report Number: HK10020643-1 Page 1 of 22

Table of Contents

1.0 Summary of Test Results	3
2.0 General Description	5
2.1 Product Description	5
2.2 Test Methodology	
2.3 Test Facility	
3.0 System Test Configuration	7
3.1 Justification	
3.2 EUT Exercising Software	8
3.3 Details of EUT and Description of Accessories	9
3.4 Measurement Uncertainty	ç
3.5 Equipment Modification	
4.0 Test Results	11
4.1 Field Strength Calculation	
4.2 Radiated Emissions	
4.2.1 Radiated Emission Configuration Photograph	12
4.2.2 Radiated Emission Data	12
4.2.3 Transmitter Duty Cycle Calculation	13
4.3 Radiated Emissions from Receiver	18
4.3.1 Radiated Emission Configuration Photograph	18
4.3.2 Radiated Emission Data	18
4.4 Radiated Emission on the Bandedge	20
4.5 AC Power Line Conducted Emission	21
4.5.1 AC Power Line Conducted Emission Configuration Photograph	21
4.5.2 AC Power Line Conducted Emission Data	21
4.6 Radio Frequency Exposure Compliance	
5.0 Equipment List	22

Appendix – Exhibits for Application of Certification

Test Report Number: HK10020643-1

1.0 **Summary of Test Results**

Test Items	FCC Part 15 Section	RSS-210/ RSS-Gen [#] / RSS-310^ Section	Results	Details see section
Antenna Requirement	15.203	7.1.4#	Pass	2.1
Radiated Emission Radiated Emission on the Bandedge	15.249(a), 209, & 109 15.249(d)	A2.9(a) A2.9(b)	Pass Pass	4.2 4.4
Radiated Emission in Restricted Bands	15.205	2.2	Pass	4.2
Radiated Emission from Receiver	N/A	2.3	Pass	4.3
AC Power Line Conducted Emission	15.207 & 15.107	7.2.2#	Pass	4.5
Radio Frequency Exposure Compliance	N/A	RSS-102	Pass	4.6

Note: Pursuant to FCC Part 15 Section 15.215(c), the 20dB bandwidth of the emission was contained within the frequency band designated (mentioned as above) which the EUT operated. The effects, if any, from frequency sweeping, frequency hopping, other modulation techniques and frequency stability over expected variations in temperature and supply voltage were considered.

Test Report Number: HK10020643-1 Page 3 of 22

EXHIBIT 2 GENERAL DESCRIPTION

Test Report Number: HK10020643-1 Page 4 of 22

2.0 **General Description**

2.1 Product Description

The Equipment Under Test (EUT) is a 2.4GHz Frequency Hopping Spread Spectrum Parent Unit of Baby Monitor system. It operates at frequency range of 2404MHz to 2479MHz, and there are total 36 channels, and 24 channels are used for the communication environment. The EUT is powered by a 100-240VAC to 6VDC 800mA switching AC adaptor and/or a 3.6V 2000mAh "Ni-MH" type rechargeable battery pack.

The antenna used in Parent Unit is integral, and the test sample is a prototype.

For FCC, The Model(s): MBP35ByPU and MBP35xByPU are the same as the Model: MBP35BWPU in electronics/electrical designs including software & firmware, PCB layout and construction design/physical design/enclosure. The only differences between these models are color and model number to be sold for marketing purpose. The letter "x" indicates different number of Parent Units, and another letter "y" represents color code such as L= Lime and W = Silver-white.

For IC, The Model(s): MBP35BLPU is the same as the Model: MBP35BWPU in electronics/electrical designs including software & firmware, PCB layout and construction design/physical design/enclosure. The only differences between these models are color and model number to be sold for marketing purpose.

The circuit description is attached in the Appendix and saved with filename: descri.pdf.

2.2 Test Methodology

Both AC power line-conducted and radiated emission measurements were performed according to the procedures in ANSI C63.4 (2003). Preliminary radiated scans and all radiated measurements were performed in Open Area Test Sites. All Radiated tests were performed at an antenna to EUT distance of 3 meters, unless stated otherwise in the "Justification Section" of this Application.

2.3 Test Facility

The open area test site and conducted measurement facility used to collect the radiated data and conducted data are located at Roof Top and 2nd Floor respectively of Garment Centre, 576 Castle Peak Road, Kowloon, Hong Kong. This test facility and site measurement data have been fully placed on file with the FCC and the Industry Canada.

Test Report Number: HK10020643-1 Page 5 of 22

EXHIBIT 3 SYSTEM TEST CONFIGURATION

Test Report Number: HK10020643-1 Page 6 of 22

3.0 **System Test Configuration**

3.1 Justification

For radiated emissions testing, the equipment under test (EUT) was setup to transmit / receive continuously to simplify the measurement methodology. Care was taken to ensure proper power supply voltages during testing. During testing, all cables (if any) were manipulated to produce worst case emissions.

The EUT was powered by a 100-240VAC to 6VDC 800mA adaptor and/or a Ni-MH fully charged battery pack.

For the measurements, the EUT is attached to a plastic stand if necessary and placed on the wooden turntable. If the EUT attaches to peripherals, they are connected and operational to simulate typical use.

The signal is maximized through rotation and placement in the three orthogonal axes. The antenna height and polarization are varied during the search for maximum signal level. The antenna height is varied from 1 to 4 meters. Radiated emissions are taken at three meters unless the signal level is too low for measurement at that distance. If necessary, a pre-amplifier is used and/or the test is conducted at a closer distance.

For any intentional radiator powered by AC power line, measurements of the radiated signal level of the fundamental frequency component of the emission was performed with the supply voltage varied between 85% and 115% of the nominal rated supply voltage.

For transmitter radiated measurement, the spectrum analyzer resolution bandwidth was 100 kHz for frequencies below 1000 MHz. The resolution bandwidth was 1 MHz for frequencies above 1000 MHz.

For receiver radiated measurement, the spectrum analyzer resolution bandwidth was 1MHz for measurement above 1GHz while 100kHz for measurement from 30MHz to 1GHz.

For radiated measurement, the spectrum analyzer resolution bandwidth was 100 kHz for frequencies below 1000 MHz.

Radiated emission measurement for transmitter was performed from the lowest radio frequency signal generated in the device which is greater than 9 kHz to the tenth harmonic of the highest fundamental frequency or to 40 GHz, whichever is lower. Receiver was performed from 30MHz to the fifth harmonic of the highest frequency.

Emission that are directly caused by digital circuits in the transmit path and transmitter portion are measured, and the limit are according to FCC Part 15 Section 15.109.

Test Report Number: HK10020643-1

3.1 Justification - Cont'd

Detector function for radiated emissions is in peak mode. Average readings, when required, are taken by measuring the duty cycle of the equipment under test and subtracting the corresponding amount in dB from the measured peak readings. A detailed description for the calculation of the average factor can be found in Exhibit 4.2.3.

Determination of pulse desensitization was made according to *Hewlett Packard Application Note 150-2, Spectrum Analysis... Pulsed RF.* The effective period (Teff) was referred to Exhibit 4.2.3. With the resolution bandwidth 1MHz and spectrum analyzer IF bandwidth 3dB, the pulse desensitization factor was 0dB.

For AC line conducted emission test, the EUT along with its peripherals were placed on a 1.0m(W)x1.5m(L) and 0.8m in height wooden table and the EUT was adjusted to maintain a 0.4 meter space from a vertical reference plane. The EUT was connected to power mains through a line impedance stabilization network (LISN), which provided 50ohm coupling impedance for measuring instrument. The LISN housing, measuring instrument case, reference ground plane, and vertical ground plane were bounded together. The excess power cable between the EUT and the LISN was bundled.

All connecting cables of EUT and peripherals were manipulated to find the maximum emission.

All relevant operation modes have been tested, and the worst case data is included in this report.

3.2 EUT Exercising Software

The EUT exercise program used during radiated and conducted testing was designed to exercise the various system components in a manner similar to a typical use.

Test Report Number: HK10020643-1 Page 8 of 22

3.3 Details of EUT and Description of Accessories

Details of EUT:

An AC adaptor and/or a battery (provided with the unit) were used to power the device. Their description are listed below.

- (1) An AC adaptor (100-240VAC to 6VDC 800mA, Model: SW-060080A) (Supplied by Client)
- (2) A "Ni-MH" type rechargeable battery pack 3.6V, 2000mAh (Supplied by Client)

Description of Accessories:

There are no special accessories necessary for compliance of this product.

3.4 Measurement Uncertainty

When determining of the test conclusion, the Measurement Uncertainty of test has been considered.

Uncertainty and Compliance - Unless the standard specifically states that measured values are to be extended by the measurement uncertainty in determining compliance, all compliance determinations are based on the actual measured value.

3.5 Equipment Modification

Any modifications installed previous to testing by Binatone Electronics International Limited will be incorporated in each production model sold/leased in the United States and Canada.

No modifications were installed by Commercial & Electrical Division, Intertek Testing Services Hong Kong Ltd.

Test Report Number: HK10020643-1 Page 9 of 22

EXHIBIT 4 TEST RESULTS

Test Report Number: HK10020643-1 Page 10 of 22

4.0 Test Results

Data is included of the worst case configuration (the configuration which resulted in the highest emission levels). A sample calculation, configuration photographs and data tables of the emissions are included.

4.1 Field Strength Calculation

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 $FS = Field Strength in dB_{\mu}V/m$

RA = Receiver Amplitude (including preamplifier) in $dB\mu V$

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:-

FS = RR + LF

where $FS = Field Strength in dB_{\mu}V/m$

 $RR = RA - AG \text{ in } dB\mu V$ LF = CF + AF in dB

Assume a receiver reading of 52.0 dB $_{\mu}V$ 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 dB $_{\mu}V/m$. This value in dB $_{\mu}V/m$ was converted to its corresponding level in $_{\mu}V/m$.

 $RA = 52.0 dB\mu V$

AF = 7.4 dB

CF = 1.6 dB

 $AG = 29.0 \, dB$

FS = RR + LF

 $FS = 23 + 9 = 32 \, dB\mu V/m$

 $RR = 23.0 \text{ dB}_{\mu}V$ LF = 9.0 dB

Level in μ V/m = Common Antilogarithm [(32 dB μ V/m)/20] = 39.8 μ V/m

Test Report Number: HK10020643-1

4.2 Radiated Emissions

4.2.1 Radiated Emission Configuration Photograph

Worst Case Radiated Emission at

243.068 MHz

The worst case radiated emission configuration photographs are attached in the Appendix and saved with filename: config photos.pdf

4.2.2 Radiated Emission Data

The data in tables 1-4 list the significant emission frequencies, the limit and the margin of compliance.

Judgement -

Passed by 0.4 dB margin

Test Report Number: HK10020643-1 Page 12 of 22

4.2.3 Transmitter Duty Cycle Calculation

Duty Cycle (DC) = Maximum On time in 100ms/100ms = 1.938ms / 100ms

Average Factor (AF) = 20 log(DC) = 20* log (0.01938) =-34.2dB

The sample plot shows the bit timing is attached in the Appendix and saved with filename: timing.pdf

Test Report Number: HK10020643-1 Page 13 of 22

Mode: TX-Channel 01

Table 1

Radiated Emission Data

			Pre-Amp	Antenna	Average	Calculated	Average	
Polari-	Frequency	Reading	Gain	Factor	Factor	at 3m	Limit at 3m	Margin
zation	(MHz)	(dBµV)	(dB)	(dB)	(dB)	(dBµV/m)	(dBµV/m)	(dB)
V	2404.000	106.8	33	29.4	34.2	69.0	94.0	-25.0
V	4808.000	70.5	33	34.9	34.2	38.2	54.0	-15.8
Н	7212.000	62.5	33	37.9	34.2	33.2	54.0	-20.8
Н	9616.000	55.0	33	40.4	34.2	28.2	54.0	-25.8
Н	12020.000	48.8	33	40.5	34.2	22.1	54.0	-31.9

			Pre-				
			Amp	Antenna	Netat	Peak Limit	
Polari-	Frequency	Reading	Gain	Factor	3m - Peak	at 3 m	Margin
zation	(MHz)	(dBµV)	(dB)	(dB)	(dBµV/m)	(dBµV/m)	(dB)
V	2404.000	106.8	33	29.4	103.2	114.0	-10.8
V	4808.000	70.5	33	34.9	72.4	74.0	-1.6
Н	7212.000	62.5	33	37.9	67.4	74.0	-6.6
Н	9616.000	55.0	33	40.4	62.4	74.0	-11.6
Н	12020.000	48.8	33	40.5	56.3	74.0	-17.7

NOTES: 1. Peak detector is used for the emission measurement.

- 2. All measurements were made at 3 meters. Radiated emissions not detected at the 3-meter distance were measured at 0.3-meter and an inverse proportional extrapolation was performed to compare the signal level to the 3-meter limit. No other radiated emissions than those reported were detected at a test distance of 0.3-meter.
- 3. Negative value in the margin column shows emission below limit.
- 4. Horn antenna is used for the emission over 1000MHz.
- 5. Emission (the row indicated by **bold italic**) within the restricted band meets the requirement of FCC Part 15 Section 15.205 / RSS-210 Section 2.2.

Test Report Number: HK10020643-1 Page 14 of 22

Mode: TX-Channel 18

Table 2

Radiated Emission Data

			Pre-Amp	Antenna	Average	Calculated	Average	
Polari-	Frequency	Reading	Gain	Factor	Factor	at 3m	Limit at 3m	Margin
zation	(MHz)	(dBµV)	(dB)	(dB)	(dB)	(dBµV/m)	(dBµV/m)	(dB)
V	2440.000	107.0	33	29.4	34.2	69.2	94.0	-24.8
V	4880.000	70.4	33	34.9	34.2	38.1	54.0	-15.9
Н	7320.000	62.7	33	37.9	34.2	33.4	54.0	-20.6
Н	9760.000	55.1	33	40.4	34.2	28.3	54.0	-25.7
Н	12200.000	48.9	33	40.5	34.2	22.2	54.0	-31.8

			Pre-				
			Amp	Antenna	Netat	Peak Limit	
Polari-	Frequency	Reading	Gain	Factor	3m - Peak	at 3 m	Margin
zation	(MHz)	(dBµV)	(dB)	(dB)	(dBµV/m)	(dBµV/m)	(dB)
V	2440.000	107.0	33	29.4	103.4	114.0	-10.6
V	4880.000	70.4	33	34.9	72.3	74.0	-1.7
Н	7320.000	62.7	33	37.9	67.6	74.0	-6.4
Н	9760.000	55.1	33	40.4	62.5	74.0	-11.5
Н	12200.000	48.9	33	40.5	56.4	74.0	-17.6

NOTES: 1. Peak detector is used for the emission measurement.

- 2. All measurements were made at 3 meters. Radiated emissions not detected at the 3-meter distance were measured at 0.3-meter and an inverse proportional extrapolation was performed to compare the signal level to the 3-meter limit. No other radiated emissions than those reported were detected at a test distance of 0.3-meter.
- 3. Negative value in the margin column shows emission below limit.
- 4. Horn antenna is used for the emission over 1000MHz.
- 5. Emission (the row indicated by **bold italic**) within the restricted band meets the requirement of FCC Part 15 Section 15.205 / RSS-210 Section 2.2.

Test Report Number: HK10020643-1 Page 15 of 22

Mode: TX-Channel 36

Table 3

Radiated Emission Data

			Pre-Amp	Antenna	Average	Calculated	Average	
Polari-	Frequency	Reading	Gain	Factor	Factor	at 3m	Limit at 3m	Margin
zation	(MHz)	(dBµV)	(dB)	(dB)	(dB)	(dBµV/m)	(dBµV/m)	(dB)
V	2478.000	106.8	33	29.4	34.2	69.0	94.0	-25.0
V	4956.000	70.5	33	34.9	34.2	38.2	54.0	-15.8
Н	7434.000	62.0	33	37.9	34.2	32.7	54.0	-21.3
Н	9912.000	55.7	33	40.4	34.2	28.9	54.0	-25.1
Н	12390.000	49.3	33	40.5	34.2	22.6	54.0	-31.4

Polari- zation	Frequency (MHz)	Reading (dBµV)	Pre- Amp Gain (dB)	Antenna Factor (dB)	Net at 3m - Peak (dBµV/m)	Peak Limit at 3m (dBµV/m)	Margin (dB)
V	2478.000	106.8	33	29.4	103.2	114.0	-10.8
V	4956.000	70.5	33	34.9	72.4	74.0	-1.6
Н	7434.000	62.0	33	37.9	66.9	74.0	-7.1
Н	9912.000	55.7	33	40.4	63.1	74.0	-10.9
Н	12390.000	49.3	33	40.5	56.8	74.0	-17.2

NOTES: 1. Peak detector is used for the emission measurement.

- 2. All measurements were made at 3 meters. Radiated emissions not detected at the 3-meter distance were measured at 0.3-meter and an inverse proportional extrapolation was performed to compare the signal level to the 3-meter limit. No other radiated emissions than those reported were detected at a test distance of 0.3-meter.
- 3. Negative value in the margin column shows emission below limit.
- 4. Horn antenna is used for the emission over 1000MHz.
- Emission (the row indicated by **bold italic**) within the restricted band meets the requirement of FCC Part 15 Section 15.205 / RSS-210 Section 2.2.

Test Report Number: HK10020643-1 Page 16 of 22

Mode: Talk

Table 4

Radiated Emission Data

			Pre-	Antenna	Net	Limit	
	Frequency	Reading	amp	Factor	at 3m	at 3m	Margin
Polarization	(MHz)	(dBµV)	(dB)	(dB)	(dBµV/m)	(dBµV/m)	(dB)
V	40.544	39.9	16	10.0	33.9	40.0	-6.1
V	67.532	41.8	16	8.0	33.8	40.0	-6.2
Н	121.508	36.1	16	14.0	34.1	43.5	-9.4
Н	148.434	36.0	16	14.0	34.0	43.5	-9.5
Н	188.916	35.1	16	16.0	35.1	43.5	-8.4
Н	216.098	42.0	16	17.0	43.0	46.0	-3.0
Н	229.398	38.2	16	18.0	40.2	46.0	-5.8
Н	243.068	41.6	16	20.0	45.6	46.0	-0.4
Н	270.003	39.4	16	22.0	45.4	46.0	-0.6
Н	290.121	31.4	16	22.0	37.4	46.0	-8.6
Н	297.006	38.5	16	22.0	44.5	46.0	-1.5
Н	323.856	29.6	16	24.0	37.6	46.0	-8.4
Н	364.338	27.2	16	24.0	35.2	46.0	-10.8
Н	458.970	24.9	16	26.0	34.9	46.0	-11.1

NOTES: 1. Peak detector is used for the emission measurement.

- 2. All measurements were made at 3 meters. Radiated emissions not detected at the 3-meter distance were measured at 0.3-meter and an inverse proportional extrapolation was performed to compare the signal level to the 3-meter limit. No other radiated emissions than those reported were detected at a test distance of 0.3-meter.
- 3. Negative value in the margin column shows emission below limit.
- Emission (the row indicated by **bold italic**) within the restricted band meets the requirement of FCC Part 15 Section 15.205 / RSS-210 Section 2.2.

Test Report Number: HK10020643-1 Page 17 of 22

- 4.3 Radiated Emissions from Receiver
- 4.3.1 Radiated Emission Configuration Photograph

Worst Case Radiated Emission at

2432.000 MHz

The worst case radiated emission configuration photographs are attached in the Appendix and saved with filename: config photos.pdf

4.3.2 Radiated Emission Data

The data in tables 5 list the significant emission frequencies, the limit and the margin of compliance.

Judgement -

Passed by 11.6 dB margin

Test Report Number: HK10020643-1 Page 18 of 22

Mode: Receiving - Middle Channel

Table 5

Radiated Emissions Data

			Pre-	Antenna	Net	Limit	
	Frequency	Reading	amp	Factor	at 3m	at 3m	Margin
Polarization	(MHz)	(dBµV)	(dB)	(dB)	(dBµV/m)	(dBµV/m)	(dB)
V	2432.000	46.0	33	29.4	42.4	54.0	-11.6
V	4864.000	40.3	33	34.9	42.2	54.0	-11.8
V	7296.000	35.9	33	37.9	40.8	54.0	-13.2
V	9728.000	32.8	33	40.4	40.2	54.0	-13.8
V	12160.000	32.1	33	40.5	39.6	54.0	-14.4

NOTES:

- 1. Peak detector is used for the emission measurement.
- 2. All measurements were made at 3 meters. Radiated emissions not detected at the 3-meter distance were measured at 0.3-meter and an inverse proportional extrapolation was performed to compare the signal level to the 3-meter limit. No other radiated emissions than those reported were detected at a test distance of 0.3-meter.
- 3. Negative value in the margin column shows emission below limit.
- 4. Horn antenna is used for the emission over 1000MHz.

Test Report Number: HK10020643-1 Page 19 of 22

4.4 Radiated Emission on the Bandedge

From the following plots, they show that the fundamental emissions are confined in the specified band (2400MHz and 2483.5MHz). In case of the fundamental emissions are within two standard bandwidths from the bandedge, the delta measurement technique is used for determining bandedge compliance. Standard bandwidth is the bandwidth specified by ANSI C63.4 (2003) for frequency being measured.

Emissions radiated outside of the specified frequency bands, except harmonics, are attenuated by 50 dB below the level of the fundamental or to the general radiated emission limits in FCC Part 15 Section 15.209 / Table 2 of RSS-210, whichever is the lesser attenuation, which meet the requirement of FCC Part 15 Section 15.249(d) / RSS-210 A2.9(b).

Radiated Emission on bandedge plots are attached in the Appendix and saved with filename: be.pdf

Bandedge compliance is determined by applying marker-delta method, i.e.

Resultant Field Strength = Fundamental Emissions - Delta from the plot

Resultant field strength for the lowest and/or highest channel(s), with corresponding average values are calculated as follows:

			Resultant		
	Fundamental	Delta from	Field	Average	
	Emission	the Plot	Strength	Limit	Margin
Channel	(dBµV/m)	(dB)	(dBµV/m)	(dBµV/m)	(dB)
Lowest	69.0	40.85	28.15	54	-25.85
Highest	69.0	40.10	28.90	54	-25.10

			Resultant		
	Fundamental	Delta from	Field		
	Emission	the Plot	Strength	Peak Limit	Margin
Channel	(dBµV/m)	(dB)	(dBµV/m)	(dBµV/m)	(dB)
Lowest	103.2	40.85	62.35	74	-11.65
Highest	103.2	40.10	63.10	74	-10.90

The resultant field strength meets the general radiated emission limit in FCC Part 15 Section 15.209 / Table 2 of RSS-210, which does not exceed $74dB\mu V/m$ for peak limit and also $54dB\mu V/m$ for average limit.

Test Report Number: HK10020643-1 Page 20 of 22

4.5 AC Power Line Conducted Emission

- Not applicable EUT is only powered by battery for operation.
- [x] EUT connects to AC power line. Emission Data is listed in following pages.
- [] Base Unit connects to AC power line and has transmission. Handset connects to AC power line but has no transmission. Emission Data of Base Unit is listed in following pages.

4.5.1 AC Power Line Conducted Emission Configuration Photograph

Worst Case Line-Conducted Configuration at

0.726 MHz

The worst case line conducted configuration photographs are attached in the Appendix and saved with filename: config photos.pdf

4.5.2 AC Power Line Conducted Emission Data

The conducted emission test result is attached in the Appendix and saved with filename: conduct.pdf

Judgement -

Passed by 12.78 dB margin compare with average limit

4.6 Radio Frequency Exposure Compliance

The Routine RF Exposure Evaluation, Routine SAR Evaluation and Declaration of RF Exposure Compliance are saved as filename: RF exposure.pdf

Test Report Number: HK10020643-1 Page 21 of 22

5.0 **Equipment List**

1) Radiated Emissions Test

Equipment	EMI Test Receiver	Spectrum Analyzer	Log Periodic Antenna
Registration No.	EW-0014	EW-2188	EW-0447
Manufacturer	R&S	AGILENTTECH	EMCO
Model No.	ESVS30	E4407B	3146
Calibration Date	Jun. 01, 2009	Dec. 25, 2009	Nov. 12, 2008
Calibration Due Date	Jun. 01, 2010	Dec. 31, 2010	May 12, 2010

Equipment	Digital Multimeter	Biconical Antenna	Double Ridged
			Guide Antenna
Registration No.	EW-1237	EW-2512	EW-1015
Manufacturer	FLUKE	EMCO	EMCO
Model No.	179	3104C	3115
Calibration Date	Sep. 01, 2009	Oct. 31, 2008	Feb. 09, 2010
Calibration Due Date	Oct. 01, 2010	Apr. 30, 2010	Aug. 09, 2011

Equipment	Spectrum Analyzer	Broad-Band Horn Antenna with	
		frequency range 14G - 40GHz	
Registration No.	EW-2466	EW-1679	
Manufacturer	R&S	SCHWARZBECK	
Model No.	FSP30	BBHA9170	
Calibration Date	Nov. 11, 2009	Feb. 17, 2010	
Calibration Due Date	Nov. 11, 2010	Feb. 17, 2011	

2) Conducted Emissions Test

Equipment	Artificial Mains	Pulse Limiter	EMI Test Receiver
Registration No.	EW-0192	EW-0699	EW-2251
Manufacturer	R&S	R&S	R&S
Model No.	ESH3-Z5	ESH3-Z2	ESCI
Calibration Date	Nov. 23, 2009	Dec. 24, 2009	Oct. 22, 2009
Calibration Due Date	Nov. 23, 2010	Jun. 24, 2011	Oct. 22, 2010

END OF TEST REPORT

Test Report Number: HK10020643-1 Page 22 of 22