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#### **TEST REPORT**

Report Number: HK12100535-1

Application for Original Grant of 47 CFR Part 15 Certification Single New of RSS-210 Issue 8 Equipment Certification

WiFi Video Baby Monitor - Baby Unit

FCC ID: OTA44231TX

IC: 7783A-44231TX

Prepared and Checked by:

Koo Wai lp

Senior Lead Engineer

Approved by:

Nip Ming Fung, Melvin Assistant Manager

December 13, 2012

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### **GENERAL INFORMATION**

Applicant Name:	JAKKS Pacific (HK) Ltd.	
Applicant Address:	12/F., Wharf T&T Centre,	
	7 Canton Road, Tsim Sha Tsui,	
	Kowloon, Hong Kong.	
FCC Specification Standard:	FCC Part 15, October 1, 2011 Edition	
FCC ID:	OTA44231TX	
FCC Model(s):	44231TX	
IC Specification Standard:	RSS-210 Issue 8, December 2010	
	RSS-Gen Issue 3, December 2010	
IC:	7783A-44231TX	
IC Model(s):	44231TX	
Type of EUT:	Digital Transmission System	
Description of EUT:	WiFi Video Baby Monitor - Baby Unit	
Serial Number:	N/A	
Sample Receipt Date:	October 22, 2012	
Date of Test:	November 06 - 09, 2012	
Report Date:	December 13, 2012	
Environmental Conditions:	Temperature: +10 to 40°C	
	Humidity: 10 to 90%	

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# EXHIBIT 1 SUMMARY OF TEST RESULTS & STATEMENT OF COMPLIANCE

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#### 1.0 **Summary of Test Results**

Test Items	FCC Part 15 Section	RSS-210/ RSS-Gen# Section	Results	Details see section
Antenna Requirement	15.203	7.1.2#	Pass	2.1
Security Code Information	15.214(d)	2.4	NA	2.1
Max. Conducted Output Power	15.247(b)(3)&(4)	A8.4(4)	Pass	4.1
Min. 6dB RF Bandwidth	15.247(a)(2)	A8.2(a)	Pass	4.2
99% Occupied Bandwidth		4.6.1#	NA	4.2
Max. Power Density	15.247(e)	A8.2(b)	Pass	4.3
Out of Band Antenna Conducted Emission	15.247(d)	A8.5	Pass	4.4
Radiated Emission in Restricted Bands and Spurious Emissions	15.247(d), 15.209 & 15.109	A8.5	Pass	4.6
AC Power Line Conducted Emission	15.207 & 15.107	7.2.4#	Pass	4.7
Radio Frequency Radiation Exposure	15.247(i)		Pass	4.8

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.

#### 1.1 Statement of Compliance

The equipment under test is found to be complying with the following standards:

FCC Part 15, October 1, 2011 Edition RSS-210 Issue 8, December 2010 RSS-Gen Issue 3, December 2010

Test Report Number: HK12100535-1

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# **EXHIBIT 2 GENERAL DESCRIPTION**

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#### 2.0 General Description

#### 2.1 Product Description

The 44231TX is a WiFi Video Baby Monitor - Baby Unit. It operates at frequency range of 2412.000 — 2462.000MHz. For 802.11b mode, it operates at frequency range of 2412.000MHz to 2462.000MHz with 11 channels. Maximum bit rate can be up to 11Mbps. For 802.11g mode, it operates at frequency range of 2412.000MHz to 2462.000MHz with 11 channels. Maximum bit rate can be up to 54Mbps. The Baby Unit is powered by an AC adaptor 100-240VAC to 5VDC 1000mA.

The antenna(s) used in the EUT are integral, and the test sample is a prototype.

The circuit description is 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 (2009). 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. Antenna port conducted measurements were performed according to ANSI C63.10 (2009) and KDB Publication No. 558074 D01 v02 (10/04/2012). All other measurements were made in accordance with the procedures in RSS-Gen Issue 3 (2010).

#### 2.3 Test Facility

The open area test site, AC Power Line conducted measurement facility, and antenna port conducted measurement facility used to collect the radiated data, AC Power Line conducted data, and conductive data are at Roof Top, 2<sup>nd</sup> Floor, and 5<sup>th</sup> Floor respectively of Intertek Testing Services Hong Kong Ltd., which is located at 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.

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# **EXHIBIT 3 SYSTEM TEST CONFIGURATION**

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#### 3 System Test Configuration

#### 3.1 Justification

For radiated emissions testing, the equipment under test (EUT) was setup to transmit 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 5VDC 1000mA adaptor.

For the measurements, the EUT was attached to a plastic stand if necessary and placed on the wooden turntable. If the baby unit attached to peripherals, they were connected and operational (as typical as possible). The parent unit was remotely located as far from the antenna and the baby unit as possible to ensure full power transmission from the parent unit. Else, the baby unit was wired to transmit full power with modulation.

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

Radiated emission measurement for transmitter were 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.

Radiated measurements of the fundamental-signal peak field strength is made using instrumentation with a bandwidth equal to or greater than the 6dB bandwidth of the emission.

Emission that are directly caused by digital circuits in the transmit path and transmitter portion were measured, and the limit are according to FCC Part 15 Section 15.209. Digital circuitry used to control additional functions other than the operation of the transmitter is subject to FCC Part 15 Section 15.109 Limits.

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#### 3.1 Justification – Cont'd

Detector function for radiated emissions was in peak/average mode.

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.

Both individual WiFi transmission and simultaneous transmission of WiFi and FHSS were checked.

All data rates were tested under normal mode of WiFi. Only the worst-case data is shown in the report for DSSS and OFDM modulation types. When investigating simultaneous transmission, no new emissions were found.

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 (if any) used during radiated and conducted testing was designed to exercise the various system components in a manner similar to a typical use.

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### 3.3 Details of EUT and Description of Accessories <u>Details of EUT</u>:

An AC adaptor (provided with the unit) was used to power the device. Their description are listed below.

(1) Baby Unit: An AC adaptor (100-240VAC to 5VDC 1000mA, Model: SHB0501000PU) (Supplied by Client)

#### **Description of Accessories:**

- (1) Parent Unit, Model: 44231RX, FCC ID: OTA44231RX, IC: 7783A-44231RX (Supplied by Client)
- (2) Lenovo Notebook, Model: T61, S/N: L3-CF468, DoC Product (Supplied by Intertek)
- (3) 1 x USB cable with 1.0 meter long (Supplied by Client)

#### 3.4 Measurement Uncertainty

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

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# **EXHIBIT 4 TEST RESULTS**

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#### 4 Test Results

	tput Power at Antenna Termina EUT was connected to the input	
	n and cable loss were compen yser. The measurement proced	•
	e configured to transmit conti I power over the measurement as used.	
Baby Unit, IEEE	802.11b (DSSS, 1Mbps) Antenn	a Gain = 0.5dBi
Frequency (MHz)	Output in dBm	Output in mWatt
Low Channel: 2412	12.39	17.39
Middle Channel: 2437	10.37	11.75
High Channel: 2462	9.76	9.46
Baby Unit, IEEE 802.11g (DSSS, 54Mbps) Antenna Gain = 0.5dBi		
Frequency (MHz)	Output in dBm	Output in mWatt
Low Channel: 2412	19.43	87.70
Middle Channel: 2437	17.82	60.53
High Channel: 2462	17.74	59.43
Baby Unit, 802.11g : Cable los	ss: 0.5 dB External Attenuationss: 0.5 dB External Attenuations: \( \sum \) included in OFFSET function added to SA raw reading	n : <u>0</u> dB ction
Baby Unit, 802.11b		
dBm max. output level = $12.39$	<u>9</u> dBm	
Baby Unit, 802.11g		
dBm max. output level = 19.43	<u>3</u> dBm	
Limits:  1W (30dBm) for antennas	with gains of 6dBi or less	
W (dBm) for anten	nas with gains more than 6dBi	
The plots of conducted output	power are saved as below.	

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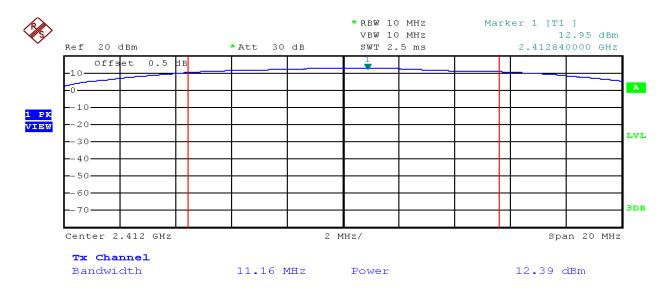
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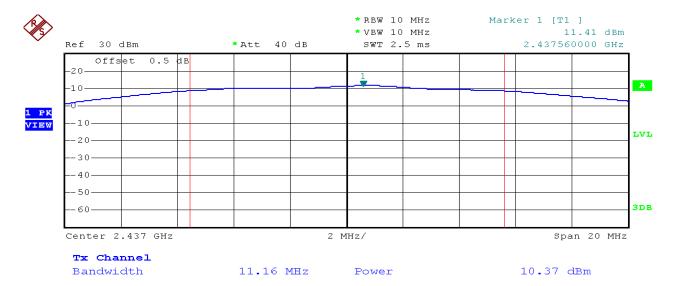


### Plots of maximum output power

### 802.11b, Lowest channel



### 802.11b, Middle channel



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### Plots of maximum output power

## 802.11b, Highest channel



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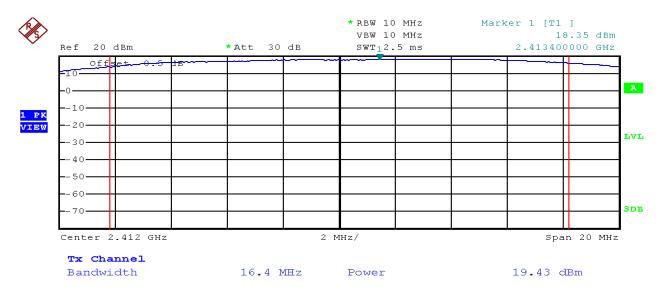
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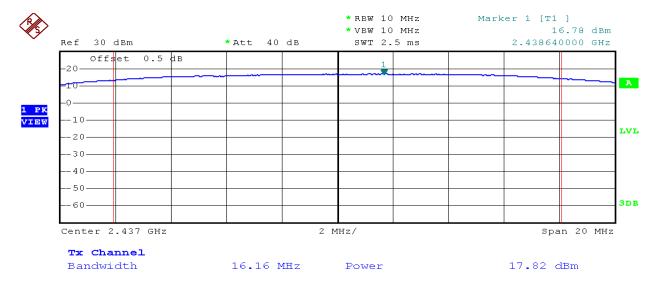


### Plots of maximum output power

### 802.11g, Lowest channel



## 802.11g, Middle channel



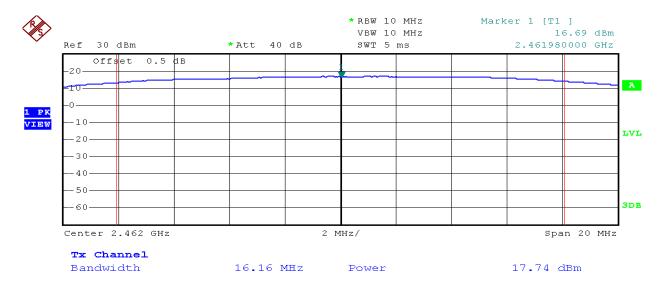
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### Plots of maximum output power

## 802.11g, Highest channel



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#### Minimum 6dB RF Bandwidth

The antenna port of the EUT was connected to the input of a spectrum analyzer. The EBW measurement procedure was used. A PEAK output reading was taken, a DISPLAY line was drawn 6dB lower than PEAK level. The 6dB bandwidth was determined from where the channel output spectrum intersected the display line.

Baby Unit, IEEE 802.11b (DSSS, 1Mbps)		
Frequency (MHz)	6dB Bandwidth (kHz)	
Low Channel: 2412	11160	
Middle Channel: 2437	11160	
High Channel: 2462	11160	

Baby Unit, IEEE 802.11g (DSSS, 54Mbps)		
Frequency (MHz)	6dB Bandwidth (kHz)	
Low Channel: 2412	16400	
Middle Channel: 2437	16160	
High Channel: 2462	16160	

#### Limits

6 dB bandwidth shall be at least 500kHz

The plots of 6dB RF bandwidth and occupied bandwidth are saved as below.

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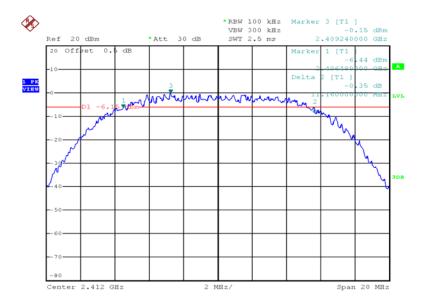
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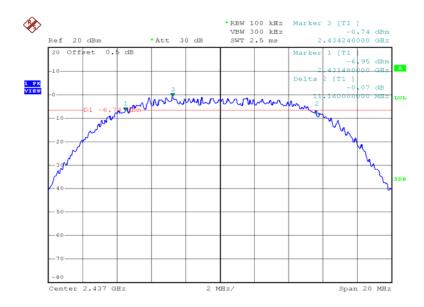


## Plots of 6dB RF bandwidth

#### 802.11b Lowest channel



#### 802.11b Middle channel



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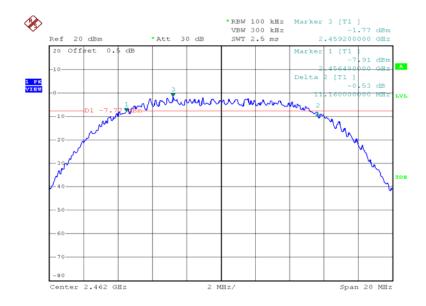
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### Plots of 6dB RF bandwidth

## 802.11b Highest channel



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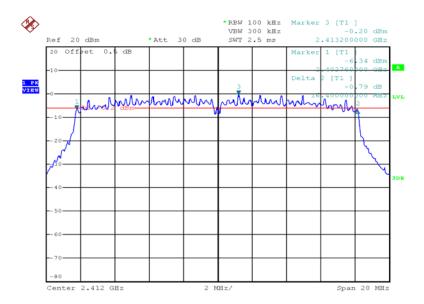
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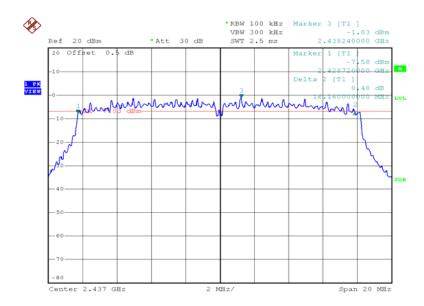


#### Plots of 6dB RF bandwidth

### 802.11g, Lowest channel



## 802.11g, Middle channel



Test Report Number: HK12100535-1

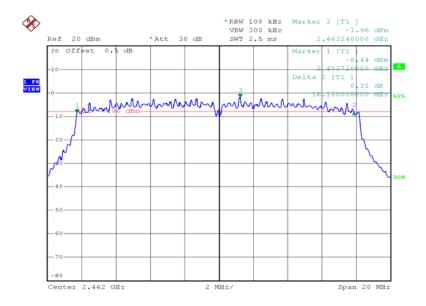
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### Plots of 6dB RF bandwidth

## 802.11g, Highest channel



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#### Maximum Power Spectral Density

Antenna output of the EUT was coupled directly to spectrum analyzer. The measurement procedure PKPSD was used. If an external attenuator and/or cable was used, these losses are compensated for using the OFFSET function of the analyser.

Baby Unit, IEEE 802.11b (DSSS, 1Mbps)	
Frequency (MHz)	PSD in 3kHz (dBm)
Low Channel: 2412	-13.04
Middle Channel: 2437	-14.24
High Channel: 2462	-15.05

Baby Unit, IEEE 802.11g (DSSS, 54Mbps)	
Frequency (MHz)	PSD in 3kHz (dBm)
Low Channel: 2412	-12.87
Middle Channel: 2437	-13.00
High Channel: 2462	-14.03

Cable Loss: 0.5 dB

Limit:

8dBm in 3kHz

The plots of n power spectral density are as below.

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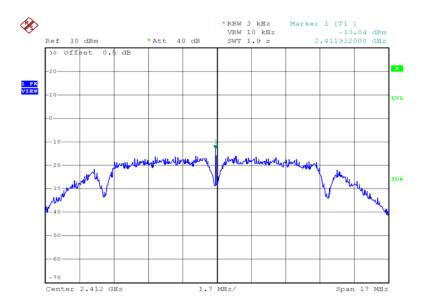
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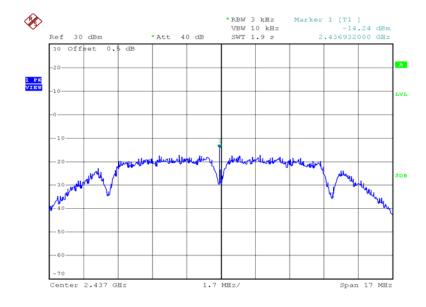


## Plots of power spectral density

### 802.11b, Lowest channel



### 802.11b, Middle channel



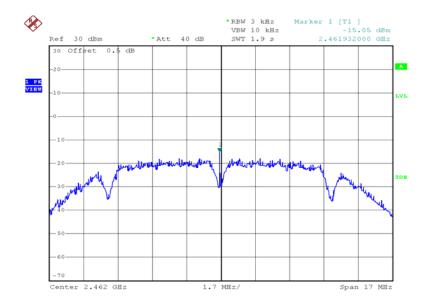
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## Plots of power spectral density

## 802.11b, Highest channel



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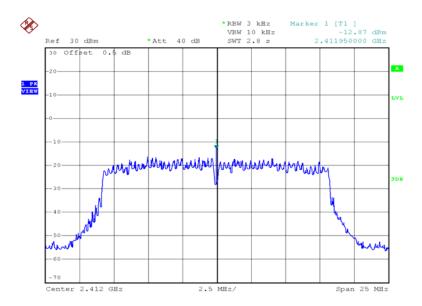
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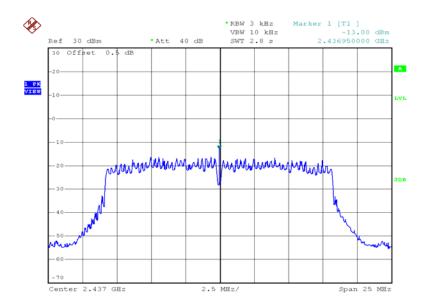


### Plots of power spectral density

## 802.11g, Lowest channel



## 802.11g, Middle channel



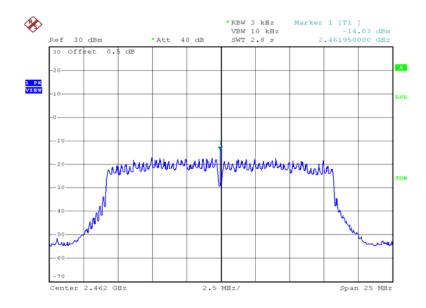
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## Plots of power spectral density

## 802.11g, Highest channel



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#### Out of Band Conducted Emissions

In any 100 kHz bandwidth outside the EUT passband, the RF power produced by the modulation products of the spreading sequence, the information sequence, and the carrier frequency shall be at least 20 dB below that of the maximum in-band 100 kHz emission.

The measurement procedures under sections 10.1.2 of KDB558074 were used.

#### Limits:

All spurious emission and up to the tenth harmonic was measured and they were found to be at least 20 dB below the maximum measured in-band peak PSD level.

The plots of out of band conducted emissions and bandedge are as below.

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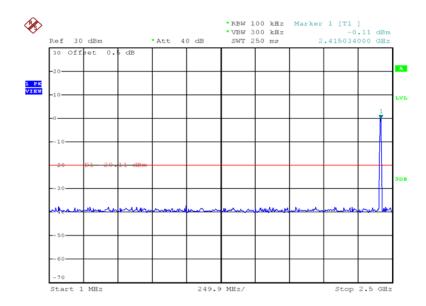
### Intertek Testing Services Hong Kong Limited

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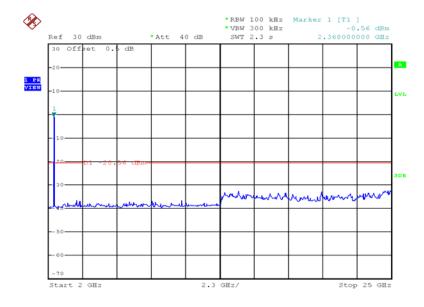


#### Plots of out of band conducted emissions

### 802.11b, Lowest channel, Plot 1



## 802.11b, Lowest channel, Plot 2



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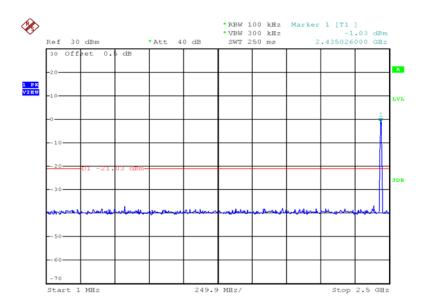
### Intertek Testing Services Hong Kong Limited

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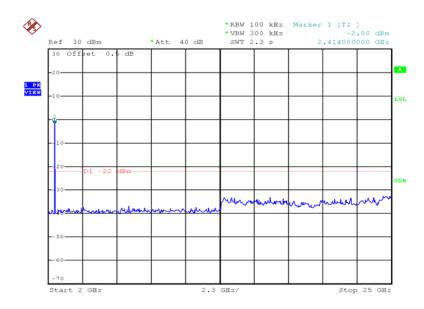


#### Plots of out of band conducted emissions

### 802.11b, Middle channel, Plot 1



## 802.11b, Middle channel, Plot 2



Test Report Number: HK12100535-1

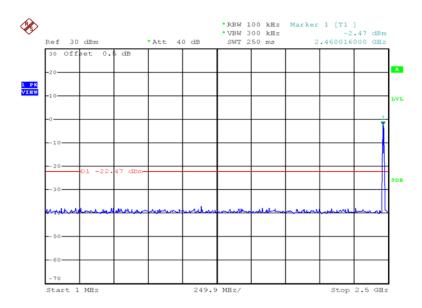
### Intertek Testing Services Hong Kong Limited

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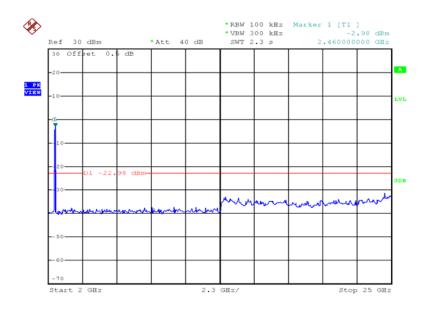


#### Plots of out of band conducted emissions

### 802.11b, Highest channel, Plot 1



## 802.11b, Highest channel, Plot 2



Test Report Number: HK12100535-1

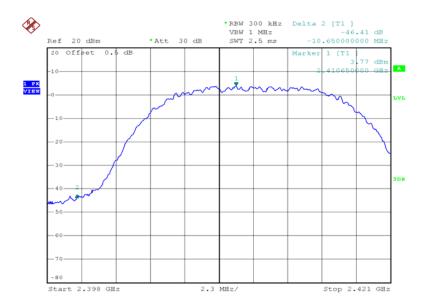
### Intertek Testing Services Hong Kong Limited

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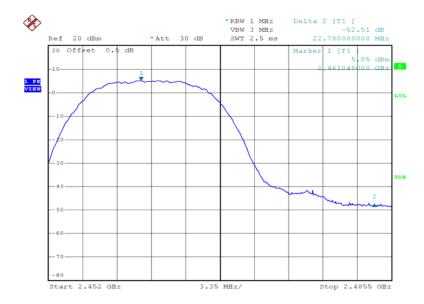


## Plots of bandedge

## 802.11b, Bandedge plot, Plot 1



## 802.11b, Bandedge plot, Plot 2



Test Report Number: HK12100535-1

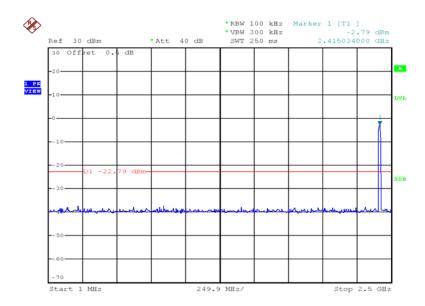
### Intertek Testing Services Hong Kong Limited

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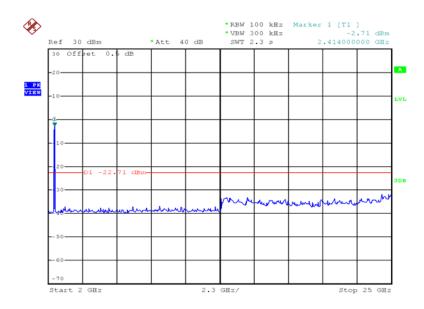


#### Plots of out of band conducted emissions

### 802.11g, Lowest channel, Plot 1



## 802.11g, Lowest channel, Plot 2



Test Report Number: HK12100535-1

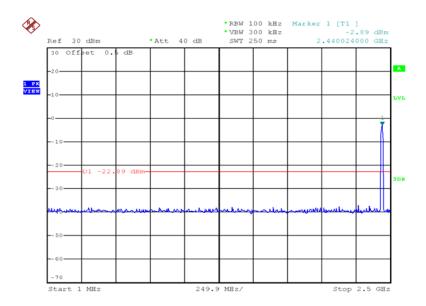
### Intertek Testing Services Hong Kong Limited

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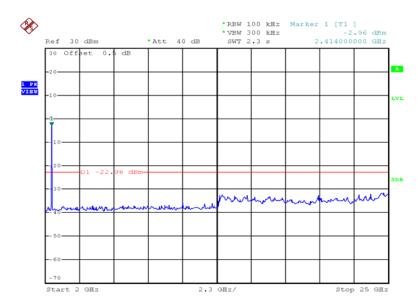


#### Plots of out of band conducted emissions

### 802.11g, Middle channel, Plot 1



## 802.11g, Middle channel, Plot 2



Test Report Number: HK12100535-1

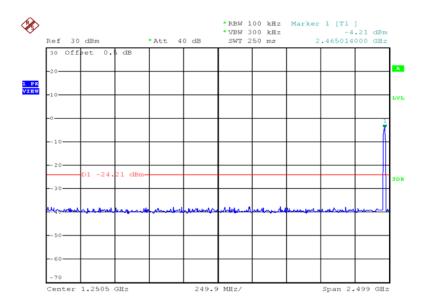
### Intertek Testing Services Hong Kong Limited

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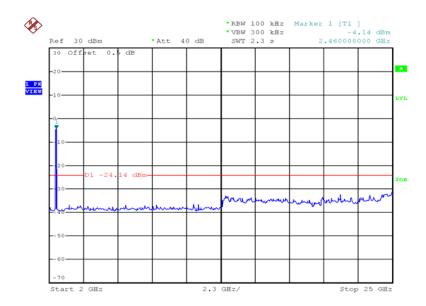


#### Plots of out of band conducted emissions

### 802.11g, Highest channel, Plot 1



## 802.11g, Highest channel, Plot 2



Test Report Number: HK12100535-1

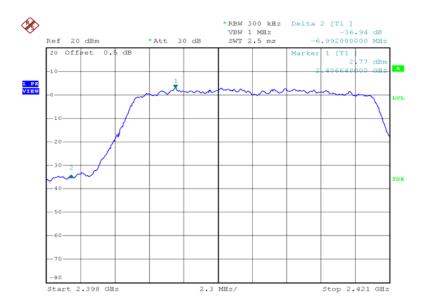
### Intertek Testing Services Hong Kong Limited

Hong Kong Accreditation Service (HKAS) has accredited this laboratory under the Hong Kong Laboratory Accreditation Scheme (HOKLAS) for specific laboratory activities as listed in the HOKLAS directory of accredited laboratories. The results shown in this report were determined by this laboratory in accordance with its terms of accreditation.

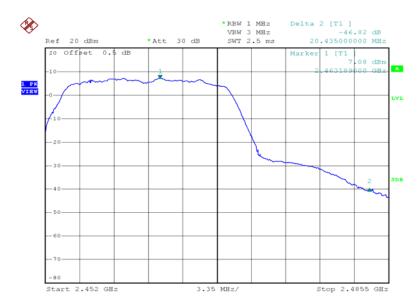


## Plots of bandedge

## 802.11g, Bandedge plot, Plot 1



## 802.11g, Bandedge plot, Plot 2



Test Report Number: HK12100535-1

#### Issuing Laboratory:

#### Intertek Testing Services Hong Kong Limited

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#### Field Strength Calculation

The field strength is calculated by adding the reading on the Spectrum Analyzer to the factors associated with preamplifiers (if any), antennas, cables, pulse desensitization and average factors (when specified limit is in average and measurements are made with peak detectors). A sample calculation is included below.

FS = RA + AF + CF - AG + PD + AV

Where FS = Field Strength in  $dB\mu V/m$ 

RA = Receiver Amplitude (including preamplifier) in dBμV

CF = Cable Attenuation Factor in dB

AF = Antenna Factor in dB AG = Amplifier Gain in dB

PD = Pulse Desensitization in dB

AV = Average Factor in -dB

In the radiated emission table which follows, the reading shown on the data table may reflect the preamplifier gain. An example of the calculations, where the reading does not reflect the preamplifier gain, follows:

FS = RA + AF + CF - AG + PD + AV

#### Example

Assume a receiver reading of 62.0 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 29.0 dB is subtracted. The pulse desensitization factor of the spectrum analyzer is 0.0 dB, and the resultant average factor is -10.0 dB. The net field strength for comparison to the appropriate emission limit is 32.0 dB $\mu$ V/m. This value in dB $\mu$ V/m is converted to its corresponding level in  $\mu$ V/m.

 $RA = 62.0 dB\mu V$ 

AF = 7.4 dB

CF = 1.6 dB

 $AG = 29.0 \, dB$ 

PD = 0.0 dB

AV = -10 dB

 $FS = 62.0 + 7.4 + 1.6 - 29.0 + 0.0 + (-10.0) = 32.0 \text{ dB}\mu\text{V/m}$ 

Level in  $\mu$ V/m = Common Antilogarithm [(32.0 dB $\mu$ V/m)/20] = 39.8  $\mu$ V/m

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Hong Kong Accreditation Service (HKAS) has accredited this laboratory under the Hong Kong Laboratory Accreditation Scheme (HOKLAS) for specific laboratory activities as listed in the HOKLAS directory of accredited laboratories. The results shown in this report were determined by this laboratory in accordance with its terms of accreditation.



#### 4.2 Transmitter Radiated Emissions in Restricted Bands and Spurious Emissions

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.

The data on the following pages list the significant emission frequencies, the limit and the margin of compliance.

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Hong Kong Accreditation Service (HKAS) has accredited this laboratory under the Hong Kong Laboratory Accreditation Scheme (HOKLAS) for specific laboratory activities as listed in the HOKLAS directory of accredited laboratories. The results shown in this report were determined by this laboratory in accordance with its terms of accreditation.



#### 4.2.1 Radiated Emission Configuration Photograph

Worst Case Restricted Band Radiated Emission at

Base Unit: 288.028 MHz

The worst case radiated emission configuration photographs are saved with filename: config photos.pdf

#### 4.2.2 Radiated Emission Data

The data in tables 1-7 list the significant emission frequencies, the limit and the margin of compliance.

Judgement -

Base Unit: Passed by 5.4 dB margin

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Mode: TX-Channel 01

### Table 1 Baby Unit - IEEE 802.11b (DSSS, 1Mbps)

#### **Radiated Emission Data**

			Pre-Amp	Antenna	Net at	Average Limit	
Polari-		Reading	Gain	Factor	3m - Average	at 3m	Margin
zation	Frequency	(dBuV)	(dB)	(dB)	(dBuV/m)	(dBuV/m)	(dB)
V	2390.000	49.5	33	29.4	45.9	54.0	-8.1
V	4824.000	39.9	33	34.9	41.8	54.0	-12.2
Н	12060.000	33.3	33	40.5	40.8	54.0	-13.2
Н	14472.000	33.6	33	40.0	40.6	54.0	-13.4

			Pre-Amp	Antenna	Net at	Peak Limit	
Polari-		Reading	Gain	Factor	3m - Peak	at 3m	Margin
zation	Frequency	(dBuV)	(dB)	(dB)	(dBuV/m)	(dBuV/m)	(dB)
V	2390.000	59.6	33	29.4	56.0	74.0	-18.0
V	4824.000	48.7	33	34.9	50.6	74.0	-23.4
Н	12060.000	41.9	33	40.5	49.4	74.0	-24.6
Н	14472.000	41.6	33	40.0	48.6	74.0	-25.4

NOTES: 1. Peak/Average 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.

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Hong Kong Accreditation Service (HKAS) has accredited this laboratory under the Hong Kong Laboratory Accreditation Scheme (HOKLAS) for specific laboratory activities as listed in the HOKLAS directory of accredited laboratories. The results shown in this report were determined by this laboratory in accordance with its terms of accreditation.



Mode: TX-Channel 06

# Table 2 Baby Unit - IEEE 802.11b (DSSS, 1Mbps)

#### **Radiated Emission Data**

			Pre-Amp	Antenna	Net at	Average Limit	
Polari-		Reading	Gain	Factor	3m - Average	at 3m	Margin
zation	Frequency	(dBuV)	(dB)	(dB)	(dBuV/m)	(dBuV/m)	(dB)
V	4874.000	39.7	33	34.9	41.6	54.0	-12.4
Н	7311.000	36.5	33	37.9	41.4	54.0	-12.6
Н	12185.000	33.1	33	40.5	40.6	<i>54.0</i>	-13.4

			Pre-Amp	Antenna	Net at	Peak Limit	
Polari-		Reading	Gain	Factor	3m - Peak	at 3m	Margin
zation	Frequency	(dBuV)	(dB)	(dB)	(dBuV/m)	(dBuV/m)	(dB)
V	4874.000	48.5	33	34.9	50.4	74.0	-23.6
Н	7311.000	45.7	33	37.9	50.6	74.0	-23.4
Н	12185.000	41.8	33	40.5	49.3	74.0	-24.7

NOTES: 1. Peak/Average 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.

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Hong Kong Accreditation Service (HKAS) has accredited this laboratory under the Hong Kong Laboratory Accreditation Scheme (HOKLAS) for specific laboratory activities as listed in the HOKLAS directory of accredited laboratories. The results shown in this report were determined by this laboratory in accordance with its terms of accreditation.



Mode: TX-Channel 11

# Table 3 Baby Unit - IEEE 802.11b (DSSS, 1Mbps)

#### **Radiated Emission Data**

			Pre-Amp	Antenna	Net at	Average Limit	
Polari-		Reading	Gain	Factor	3m - Average	at 3m	Margin
zation	Frequency	(dBuV)	(dB)	(dB)	(dBuV/m)	(dBuV/m)	(dB)
V	2483.500	49.0	33	29.4	45.4	54.0	-8.6
V	4924.000	39.9	33	34.9	41.8	54.0	-12.2
Н	7386.000	36.7	33	37.9	41.6	54.0	-12.4
Н	12310,000	33.1	33	40.5	40.6	54.0	-13.4

			Pre-Amp	Antenna	Net at	Peak Limit	
Polari-		Reading	Gain	Factor	3m - Peak	at 3m	Margin
zation	Frequency	(dBuV)	(dB)	(dB)	(dBuV/m)	(dBuV/m)	(dB)
V	2483.500	59.2	33	29.4	55.6	74.0	-18.4
V	4924.000	48.5	33	34.9	50.4	74.0	-23.6
Н	7386.000	45.3	33	37.9	50.2	74.0	-23.8
Н	12310.000	41.3	33	40.5	48.8	74.0	-25.2

NOTES: 1. Peak/Average 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.

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Hong Kong Accreditation Service (HKAS) has accredited this laboratory under the Hong Kong Laboratory Accreditation Scheme (HOKLAS) for specific laboratory activities as listed in the HOKLAS directory of accredited laboratories. The results shown in this report were determined by this laboratory in accordance with its terms of accreditation.



Mode: TX-Channel 01

# Table 4 Baby Unit - IEEE 802.11g (DSSS, 54Mbps)

#### **Radiated Emission Data**

			Pre-Amp	Antenna	Net at	Average Limit	
Polari-		Reading	Gain	Factor	3m - Average	at 3m	Margin
zation	Frequency	(dBuV)	(dB)	(dB)	(dBuV/m)	(dBuV/m)	(dB)
V	2390.000	49.2	33	29.4	45.6	54.0	-8.4
V	4824.000	39.5	33	34.9	41.4	54.0	-12.6
Н	12060.000	32.8	33	40.5	40.3	54.0	-13.7
Н	14472.000	33.2	33	40.0	40.2	54.0	-13.8

			Pre-Amp	Antenna	Net at	Peak Limit	
Polari-		Reading	Gain	Factor	3m - Peak	at 3m	Margin
zation	Frequency	(dBuV)	(dB)	(dB)	(dBuV/m)	(dBuV/m)	(dB)
V	2390.000	58.8	33	29.4	55.2	74.0	-18.8
V	4824.000	48.7	33	34.9	50.6	74.0	-23.4
Н	12060.000	42.4	33	40.5	49.9	74.0	-24.1
Н	14472.000	42.6	33	40.0	49.6	74.0	-24.4

NOTES: 1. Peak/Average 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.

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Hong Kong Accreditation Service (HKAS) has accredited this laboratory under the Hong Kong Laboratory Accreditation Scheme (HOKLAS) for specific laboratory activities as listed in the HOKLAS directory of accredited laboratories. The results shown in this report were determined by this laboratory in accordance with its terms of accreditation.



Mode: TX-Channel 06

### Table 5 Baby Unit - IEEE 802.11g (DSSS, 54Mbps)

#### **Radiated Emission Data**

			Pre-Amp	Antenna	Net at	Average Limit	
Polari-		Reading	Gain	Factor	3m - Average	at 3m	Margin
zation	Frequency	(dBuV)	(dB)	(dB)	(dBuV/m)	(dBuV/m)	(dB)
V	4874.000	39.5	33	34.9	41.4	54.0	-12.6
Н	7311.000	36.3	33	37.9	41.2	54.0	-12.8
Н	12185.000	32.7	33	40.5	40.2	54.0	-13.8

			Pre-Amp	Antenna	Net at	Peak Limit	
Polari-		Reading	Gain	Factor	3m - Peak	at 3m	Margin
zation	Frequency	(dBuV)	(dB)	(dB)	(dBuV/m)	(dBuV/m)	(dB)
V	4874.000	48.5	33	34.9	50.4	74.0	-23.6
Н	7311.000	45.4	33	37.9	50.3	74.0	-23.7
Н	12185.000	42.1	33	40.5	49.6	74.0	-24.4

NOTES: 1. Peak/Average 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.

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Mode: TX-Channel 11

# Table 6 Baby Unit - IEEE 802.11g (DSSS, 54Mbps)

#### **Radiated Emission Data**

			Pre-Amp	Antenna	Net at	Average Limit	
Polari-		Reading	Gain	Factor	3m - Average	at 3m	Margin
zation	Frequency	(dBuV)	(dB)	(dB)	(dBuV/m)	(dBuV/m)	(dB)
V	2483.500	49.7	33	29.4	46.1	54.0	-7.9
V	4924.000	39.7	33	34.9	41.6	54.0	-12.4
Н	7386.000	36.4	33	37.9	41.3	54.0	-12.7
Н	12310.000	32.7	33	40.5	40.2	54.0	-13.8

			Pre-Amp	Antenna	Net at	Peak Limit	
Polari-		Reading	Gain	Factor	3m - Peak	at 3m	Margin
zation	Frequency	(dBuV)	(dB)	(dB)	(dBuV/m)	(dBuV/m)	(dB)
V	2483.500	58.9	33	29.4	55.3	74.0	-18.7
V	4924.000	48.7	33	34.9	50.6	74.0	-23.4
Н	7386.000	45.5	33	37.9	50.4	74.0	-23.6
Н	12310.000	41.9	33	40.5	49.4	74.0	-24.6

NOTES: 1. Peak/Average 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.

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Hong Kong Accreditation Service (HKAS) has accredited this laboratory under the Hong Kong Laboratory Accreditation Scheme (HOKLAS) for specific laboratory activities as listed in the HOKLAS directory of accredited laboratories. The results shown in this report were determined by this laboratory in accordance with its terms of accreditation.



Mode: Talk (FHSS+WiFi)

#### Table 7

#### **Baby Unit**

#### **Radiated Emission Data**

			Pre-	Antenna	Net	Limit	
Polari-	Frequency	Reading	amp	Factor	at 3m	at 3m	Margin
zation	(MHz)	(dBµV)	(dB)	(dB)	(dBµV/m)	(dBµV/m)	(dB)
V	36.008	39.6	16	10.0	33.6	40.0	-6.4
<b>V</b>	96.019	38.1	16	12.0	34.1	43.5	-9.4
V	144.024	37.4	16	14.0	35.4	43.5	-8.1
Н	192.026	35.8	16	16.0	35.8	43.5	-7.7
Н	216.029	35.1	16	17.0	36.1	46.0	-9.9
Н	240.034	35.9	16	19.0	38.9	46.0	-7.1
Н	288.028	34.6	16	22.0	40.6	46.0	-5.4
Н	432.017	29.1	16	25.0	38.1	46.0	-7.9
Н	480.016	26.9	16	26.0	36.9	46.0	-9.1
Н	720.098	22.2	16	30.0	36.2	46.0	-9.8

NOTES: 1. Peak/Average 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. 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.

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Hong Kong Accreditation Service (HKAS) has accredited this laboratory under the Hong Kong Laboratory Accreditation Scheme (HOKLAS) for specific laboratory activities as listed in the HOKLAS directory of accredited laboratories. The results shown in this report were determined by this laboratory in accordance with its terms of accreditation. accreditation.



### 4.6.3 Transmitter Duty Cycle Calculation

Not a	pplicable – No average factor is required.
4.7	AC Power Line Conducted Emission
	Not applicable – EUT is only powered by battery for operation.
	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.
4.7.1	AC Power Line Conducted Emission Configuration Photograph
	Worst Case Line-Conducted Configuration
	worst case line conducted configuration photographs are attached in the ndix and saved with filename: config photos.pdf
4.7.2	AC Power Line Conducted Emission Data
The p	plot(s) and data in the following pages list the significant emission frequencies, the

Passed by more than 20 dB margin

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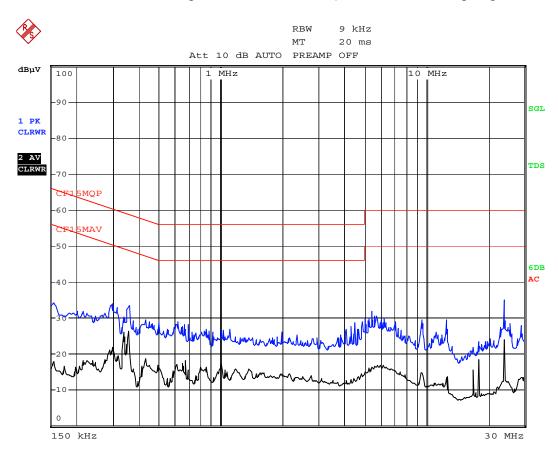
FCC ID: OTA44231TX IC: 7783A-44231TX

limit and the margin of compliance

Hong Kong Accreditation Service (HKAS) has accredited this laboratory under the Hong Kong Laboratory Accreditation Scheme (HOKLAS) for specific laboratory activities as listed in the HOKLAS directory of accredited laboratories. The results shown in this report were determined by this laboratory in accordance with its terms of accreditation.



### Worst Case: Transmitting Sounds and Video (FHSS + WiFi + Nightlight + Motor On)



Date: 6.NOV.2012 14:50:23

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Hong Kong Accreditation Service (HKAS) has accredited this laboratory under the Hong Kong Laboratory Accreditation Scheme (HOKLAS) for specific laboratory activities as listed in the HOKLAS directory of accredited laboratories. The results shown in this report were determined by this laboratory in accordance with its terms of accreditation.



### 4.8 Radio Frequency Radiation Exposure

1.130	s subject to the radio frequency exposure requirements specified in FCC Rule §§ 7. It shall be considered to operate in a "general population / uncontrolled" onment.
	Output power is less than the applicable low threshold from SAR evaluation. The evaluation calculation results are saved with filename: RF exposure info.pdf
	EUT was evaluated for Maximum Permissible Exposure (MPE) evaluation compliance according to OET Bulletin 65, Supplement C (Edition 01-01). The evaluation calculation results are saved with filename: RF exposure info.pdf
	EUT was evaluated for Specific Absorption Rate (SAR) evaluation compliance according to OET Bulletin 65, Supplement C (Edition 01-01). It is in compliance with the SAR evaluation requirements. A SAR test report was submitted at same time and saved as SAR Report.pdf

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Hong Kong Accreditation Service (HKAS) has accredited this laboratory under the Hong Kong Laboratory Accreditation Scheme (HOKLAS) for specific laboratory activities as listed in the HOKLAS directory of accredited laboratories. The results shown in this report were determined by this laboratory in accordance with its terms of accreditation.



# **EXHIBIT 5 EQUIPMENT LIST**

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### Issuing Laboratory:

### Intertek Testing Services Hong Kong Limited

Hong Kong Accreditation Service (HKAS) has accredited this laboratory under the Hong Kong Laboratory Accreditation Scheme (HOKLAS) for specific laboratory activities as listed in the HOKLAS directory of accredited laboratories. The results shown in this report were determined by this laboratory in accordance with its terms of accreditation.



### 5.0 Equipment List

#### 1) Radiated Emissions Test

1				
Equipment	Biconical Antenna	Log Periodic Antenna	Double Ridged Guide	
			Antenna	
Registration No.	EW-2512	EW-0446	EW-1015	
Manufacturer	EMCO	EMCO	EMCO	
Model No.	3104C	3146	3115	
Calibration Date	Nov. 15, 2011	Oct. 31, 2011	Aug. 24, 2011	
Calibration Due Date May. 15, 2013		Apr. 30, 2013	Feb. 24, 2013	

Equipment	EMI Test Receiver	Spectrum Analyzer	Broad-Band Horn
			Antenna with
			frequency range
			14G - 40GHz
Registration No.	EW-2500	EW-2253	EW-1679
Manufacturer	ROHDESCHWARZ	ROHDESCHWARZ	SCHWARZBECK
Model No.	ESCI	FSP40	BBHA9170
Calibration Date	Feb. 24, 2012	Jan. 12, 2012	Mar. 21, 2012
Calibration Due Date	Feb. 24, 2013	Jan. 12, 2013	Mar. 21, 2013

#### 2) Conducted Emissions Test

Equipment	EMI Test Receiver	Artificial Mains	Pulse Limiter	
Registration No.	EW-2500	EW-0192	EW-0698	
Manufacturer	ROHDESCHWARZ	ROHDESCHWARZ	ROHDESCHWARZ	
Model No.	ESCI	ESH3-Z5	ESH3-Z2	
Calibration Date	Feb. 24, 2012	Apr. 11, 2012	Apr. 06, 2012	
Calibration Due Date	Feb. 24, 2013	Apr. 11, 2013	Apr. 06, 2013	

### 3) Conductive Measurement Test

Equipment	Spectrum Analyzer		
Registration No.	EW-2253		
Manufacturer	R&S		
Model No.	FSP40		
Calibration Date	Jan. 12, 2012		
Calibration Due Date	Jan. 12, 2013		

#### **END OF TEST REPORT**

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