

July 7, 2008

KENWIN INDUSTRIAL (H.K.) LTD. Rm. 1512, 15, 17&19, 15/F., Shatin Galleria, 18-24 Shan Mei St., Fotan, N.T., Hong Kong

Dear Ambert Fok:

Enclosed you will find your file copy of a Part 15 Certification (FCC ID: VWPKENWIN00002)

For your reference, TCB will normally take another 20 days for reviewing the report. Approval will then be granted when no query is sorted.

Please contact me if you have any questions regarding the enclosed material.

Sincerely,

Shawn Xing

**Assistant Manager** 

**Enclosure** 



## **KENWIN INDUSTRIAL (H.K.) LTD.**

Application For Certification

Multi Media Micro System

(FCC ID: VWPKENWIN00002)

Model: KW-1008 Additional Model: W2

C709041026 1

GZ08041026-1 Sam Dong July 7, 2008

The test report only allows to be revised within three years from its original issued date unless further standard or the requirement was noticed.

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## MEASUREMENT/TECHNICAL REPORT

# KENWIN INDUSTRIAL (H.K.) LTD. - MODEL: KW-1008

This report concerns (check one) Origi	nal Grant X Class II Change						
Equipment Type: DTS - Part 15 Digital Transmission Systems							
Deferred grant requested per 47 CFR 0.49	57(d)(1)(ii)? Yes NoX						
	If yes, defer until :						
Company Name agrees to notify the Com	date mission by:						
company manne agreed to nomy and com	date						
of the intended date of announcement issued on that date.	of the product so that the grant can be						
Transition Rules Request per 15.37?	Yes NoX						
If no, assumed Part 15, Subpart C for [09-20-07 Edition] provision.	intentional radiator - the new 47 CFR						
Report prepared by:							
	Shawn Xing ntertek Testing Services Shenzhen Ltd. Guangzhou Branch ~8th floor, Block E2, 11 Cai Pin Road,						
S	Sciencecity, Guangzhou Economic						
С	Development Zone, Guangzhou, P. R.China.						
	Phone: (8620) 8213 9688 Fax: (8620) 3205 7538						

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## List of attached file

Exhibit Type	File Description	Filename
Test Report	Test Report	report.pdf
Test Report	Maximum Output Power Plot	maxop.pdf
Test Report	6 dB Bandwidth Plot	6dB.pdf
Test Report	Maximum Power Density Plot	maxpd.pdf
Test Report	Out Band Antenna Conducted Emission Plot & Radiated Emission on the Bandedge	obantcon.pdf.pdf
Test Report	Average Factor	af.pdf
Test Report	Conducted Emission Test Result	conduct.pdf
Test Report	Radiated Emission Test Result	radiat.pdf
Test Setup Photo	Radiated Emission	radiated photos.doc
Test Setup Photo	Conducted Emission	conducted photos.doc
External Photo	External Photo	external photos.doc
Internal Photo	Internal Photo	internal photos.doc
Block Diagram	Block Diagram	block.pdf
Schematics	Circuit Diagram	circuit.pdf
ID Label/Location	Label Artwork and Location	label.pdf
User Manual	User Manual	manual.pdf
Operation Description	Technical Description	descri.pdf
Cover Letter	Letter of Agency	letter.pdf
Cover Letter	Confidentiality Request	request.pdf
RF Exposure info	RF Safety	RF exposure info.pdf

## **EXHIBIT 1**

# **SUMMARY OF TEST RESULTS**

## 1.0 Summary of Test

# KENWIN INDUSTRIAL (H.K.) LTD. - MODEL: KW-1008

FCC ID: VWPKENWIN00002

TEST	REFERENCE	RESULTS
Max. Output power	15.247(b)	Pass
6 dB Bandwidth	15.247(a)(2)	Pass
Max. Power Density	15.247(e)	Pass
Out of Band Antenna Conducted Emission	15.247(d)	Pass
Radiated Emission in Restricted Bands	15.247(d)	Pass
AC Conducted Emission	15.207	Pass
Antenna Requirement	15.203	Pass (See Notes)

Notes: The EUT uses a detachable mono-pole antenna with reverse SMA connector, which in accordance to Section 15.203 is considered sufficient to comply with the provisions of this section.

# **EXHIBIT 2**

# **GENERAL DESCRIPTION**

## 2.0 **General Description**

## 2.1 Product Description

The Equipment Under Test (EUT) is a Multi Media Micro System model: KW-1008. It is powered by an external adaptor (Input: 120V AC / 60Hz, output: DC 9.0V, 1500mA). The main function of EUT is sending audio signal to the corresponding wireless speakers via three RF channels (2412MHz, 2438MHz and 2464MHz). And also, the music source can be supplied by USB drive, SD Memory Card, Compact Disk and iPod Player or input by an external audio source via the Aux in port.

The Model: W2 is the same as the tested Model: KW-1008 in hardware and software aspect. The only differences are the appearance, trade name and model no. for trading purpose.

Antenna Type: Detachable Mono-pole antenna with reverse SMA connector.

The circuit descriptions are saved with filename: descri.pdf.

#### 2.2 Related Submittal(s) Grants

This is an application for certification of the transmitter portion of main unit (2.4GHz transceiver. The corresponding speaker (2.4GHz transceiver) is authorized by certification procedure with FCC ID: VWPKENWIN00003.

#### 2.3 Test Methodology

Both AC mains line-conducted and radiated emission measurements were performed according to the procedures in ANSI C63.4 (2003). Radiated emission measurement was performed in semi-anechoic chamber and conducted emission measurement was performed in shield room. For radiated emission measurement, preliminary scans were performed in the semi-anechoic chamber only to determine the worst case modes. All radiated tests were performed at an antenna to EUT distance of 3 meters, unless stated otherwise in the "Justification Section" of this Application. All other measurements were made in accordance with the procedures in part 2 of CFR 47 and KDB 558074.

#### 2.4 Test Facility

The Semi-Anechoic chamber used to collect the radiated data is **SHENZHEN ACADEMY OF METROLOGY AND QUALITY INSPECTION** and located at Bldg. of Metrology & Quality Inspection, Longzhu Road, Shenzhen, Guangdong, China. This test facility and site measurement data have been fully placed on file with the FCC.

The shield room used to collect the conducted data is **Intertek Testing Services Shenzhen Ltd.** and located at 6/F., Block D, Huahan Building, Langshan Road, Shenzhen, China. This test facility and site measurement data have been fully placed on file with the FCC.

# **EXHIBIT 3**

# **SYSTEM TEST CONFIGURATION**

#### 3.0 **System Test Configuration**

#### 3.1 Justification

For emissions testing, the equipment under test (EUT) setup to transmit continuously to simplify the measurement methodology. Care was taken to ensure proper power supply voltages during testing. During testing, all cables were manipulated to produce worst case emissions. It was powered by an external adaptor (Input: 120V AC / 60Hz, Output 9.0V DC, 1500mA)

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.

All readings are extrapolated back to the equivalent three meter reading using inverse scaling with distance. Analyzer resolution is 100 kHz or greater for frequencies below 1000 MHz. The resolution is 1 MHz or greater for frequencies above 1000 MHz. The spurious emissions more than 20 dB below the permissible value are not reported.

Radiated emission measurement were performed 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.

## 3.2 EUT Exercising Software

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

The parameters of test software setting:

During the test, Channel and power controlling software provided by the applicant was used to control the operating channel as well as the output power level.

### 3.3 Details of EUT and Description of Peripherals

#### Support equipment:

- 1. iPod Player (Apple, A1136)
- 2. MP3 Player1 (BENQ, Joybee P205)
- 3. MP3 Player2 (Sonny-Ericson, SA-620)
- 4. USB Drive 1 (SA, U007, 1G Byte)
- 5. USB Drive 2 (Zhiguang, 1G Byte)
- 6. SD Card (Scan Disck, 1G Byte)
- 7. Terminal Loading (10 kOhm)

#### 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 Kenwin Industrial (H.K.) Ltd. will be incorporated in each production model sold/leased in the United States.

No modifications were installed by Intertek Testing Services.

All the items listed under section 3.0 of this report are confirmed by:

Confirmed by:

Shawn Xing Assistant Manager Intertek Testing Services Shenzhen Ltd. Guangzhou Branch Agent for KENWIN INDUSTRIAL (H.K.) LTD.

Signature

July 7, 2008

Date

# **EXHIBIT 4**

# **MEASUREMENT RESULTS**

Applicant: KENWIN INDUSTRIAL (H.K.) LTD. Date of Test: July 7, 2008

Model: KW-1008

#### 4.0 Measurement Results

4.1 Maximum Conducted Output Power at Antenna Terminals, FCC Rules 15.247(b)(3):

- [] The antenna power of the EUT was connected to the input of a power meter. Power was read directly and cable loss correction was added to the reading to obtain power at the EUT antenna terminals.
- [x] The antenna port of the EUT was connected to the input of a spectrum analyzer. The analyzer was set for RBW> 6dB bandwidth and power was read directly in dBm. External attenuation and cable loss were compensated from the measured value.

For antennas with gains of 6 dBi or less, maximum allowed Transmitter output is 1 watt (+30 dBm).

Digital Modulation (Antenna Gain = 2 dBi)							
Frequency (MHz)  Output in dBm  Output in mWatt							
Low Channel: 2412	18.1	64.6					
Middle Channel: 2438	17.8	60.3					
High Channel: 2464	17.0	50.1					

Cable loss: 0.5 dB External Attenuation: 0 dB

EUT dBm max. output level = 18.1 dBm (+30 dBm or less)

Please refer to the attached plots for details:

Plot B1A1: Low Channel Output Power Plot B1B1: Middle Channel Output Power Plot B1C1: High Channel Output Power

For electronic filing, the above plots are saved with filename: maxop.pdf

For RF Safety, the information is saved with filename: RF exposure info.pdf.

Applicant: KENWIN INDUSTRIAL (H.K.) LTD. Date of Test: July 7, 2008

Model: KW-1008

### 4.2 Minimum 6 dB RF Bandwidth, FCC Rule 15.247(a)(2):

The antenna port of the EUT was connected to the input of a spectrum analyzer. Analyzer RES BW was set to 100kHz. For each RF output channel investigated, the spectrum analyzer center frequency was set to the channel carrier. A PEAK output reading was taken, a DISPLAY line was drawn 6 dB lower than PEAK level. The 6dB bandwidth was determined from where the channel output spectrum intersected the display line.

Digital Modulation				
Frequency (MHz) 6 dB Bandwidth (MHz)				
2438	9.828			

Limit: at least 500 kHz

Refer to the following plots for 6 dB bandwidth sharp:

Plot B2A1: Low Channel 6 dB RF Bandwidth Plot B2B1: Middle Channel 6 dB RF Bandwidth Plot B2C1: High Channel 6 dB RF Bandwidth

For electronic filing, the above plots are saved with filename: 6dB.pdf

Applicant: KENWIN INDUSTRIAL (H.K.) LTD. Date of Test: July 7, 2008

Model: KW-1008

## 4.3 Maximum Power Density Reading, FCC Rule 15.247(e):

The spectrum analyzer RES BW was set to 3kHz. In order to look for a peak, the START and STOP frequencies were set to the band edges of the maximum output passband. If there is no clear maximum amplitude in any given portion of the band, it may be necessary to make measurements at a number of bands defined by several START and STOP frequency pairs.

Antenna output of the EUT was coupled directly to spectrum analyzer; if an external attenuator and/or cable was used, these losses are compensated for with the analyzer OFFSET function.

Digital Modulation					
Frequency (MHz) Power Density (dBm/3kHz)					
2437.303	0.87				

Frequency Span = 1.5MHz

Sweep Time = Frequency Span/3kHz

= 500 seconds

Cable Loss: 0.5dB

Peak Power Density (at 2437.303MHz) = 0.87 dBm/3kHz

Limit: 8dBm/ 3 kHz

Refer to the following plots for power density data:

Plot B3A1: Low Channel power density Plot B3B1: Middle Channel power density Plot B3C1: High Channel power density

For electronic filing, the above plots are saved with filename: maxpd.pdf

Applicant: KENWIN INDUSTRIAL (H.K.) LTD. Date of Test: July 7, 2008

Model: KW-1008

#### 4.4 Out of Band Conducted Emissions, FCC Rule 15.247(d)

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 20dB below that of the maximum in-band 100 kHz emission, or else shall meet the general limits for radiated emissions at frequencies outside the passband, whichever results in lower attenuation.

All other types of emissions from the EUT shall meet the general limits for radiated frequencies outside the passband.

Refer to the following plots for out of band conducted emissions data & bandedge:

Plot B4A1 - B4A2: Low Channel Emissions Plot B4B1 - B4B2: Middle Channel Emissions Plot B4C1 - B4C2: High Channel Emissions Plot B4D1 - B4D2: Bandedge Emissions

The plots showed all spurious emission and up to the tenth harmonic was measured and they were found to be at least 20 dB below the highest level of the desired power in the passband.

For the electronic filing, the above plots are saved with filename: obantcon.pdf

Applicant: KENWIN INDUSTRIAL (H.K.) LTD. Date of Test: July 7, 2008

Model: KW-1008

4.5 Out of Band Radiated Emissions (for emissions in 4.4 above that are less than 20dB below carrier), FCC Rule 15.247(d):

For out of band emissions that are close to or that exceed the 20dB attenuation requirement described in the specification, radiated measurements were performed at a 3m separation distance to determine whether these emissions complied with the general radiated emission requirement.

	$\times$ ]		Not required, since all emissions are more than 20dB below fundamental
[	-	1	See attached data sheet

Applicant: KENWIN INDUSTRIAL (H.K.) LTD. Date of Test: July 7, 2008

Model: KW-1008

### 4.6 Transmitter Radiated Emissions in Restricted Bands, FCC Rule 15.35(b), (c):

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. All measurements were performed with peak detection unless otherwise specified.

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

Applicant: KENWIN INDUSTRIAL (H.K.) LTD. Date of Test: July 7, 2008

Model: KW-1008

#### 4.7 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  $dB\mu V$ 

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~dB is subtracted. The pulse desensitization factor of the spectrum analyzer was 0~dB, and the resultant average factor was -10~dB. The net field strength for comparison to the appropriate emission limit is  $32~dB\mu V/m$ . This value in  $dB\mu V/m$  was converted to its corresponding level in  $\mu V/m$ .

 $RA = 62.0 \text{ dB}_{\mu}V$  AF = 7.4 dB CF = 1.6 dBAG = 29.0 dB

PD = 0 dB

AV = -10 dB

 $FS = 62 + 7.4 + 1.6 - 29 + 0 + (-10) = 32 dB\mu V/m$ 

Level in mV/m = Common Antilogarithm [(32 dB $\mu$ V/m)/20] = 39.8  $\mu$ V/m

Applicant: KENWIN INDUSTRIAL (H.K.) LTD. Date of Test: July 7, 2008

Model: KW-1008

## 4.8 Radiated Emission Configuration Photograph

Worst Case Radiated Emission at 4876.071 MHz

For the electronic filing, the worst case radiated emission configuration photographs are saved with filename: radiated photos.doc.

Applicant: KENWIN INDUSTRIAL (H.K.) LTD. Date of Test: July 7, 2008

Model: KW-1008

#### 4.9 Radiated Emission Data

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

Judgement: Passed by 8.1 dB margin

TEST PERSON	NEL:	•
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Tester Signature

Sam Dong, Project Engineer
Typed/Printed Name

July 7, 2008 Date

Applicant: KENWIN INDUSTRIAL (H.K.) LTD. Date of Test: July 7, 2008

Model: KW-1008

Mode: TX-Channel 01 (2412MHz)

Table 1

#### **Radiated Emissions**

Polarization	Frequency	Reading	Pre-	Antenna	Average	Net	Limit	Margin
	(MHz)	(dBµV)	Amp	Factor	Factor	at 3m	at 3m	(dB)
			Gain	(dB)	(-dB)	(dBµV/m)	(dBµV/m)	
			(dB)					
Н	*4824.079	46.3	20.0	32.8	18.4	40.7	54.0	-13.3
V	*4824.067	45.1	20.0	32.8	18.4	39.5	54.0	-14.5

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 used for the emission over 1000MHz.
- \* Emission within the restricted band meets the requirement of section 15.205. The corresponding limit as per 15.209 is based on Quasi peak limit for frequencies below 1000 MHz and average limit for frequencies over 1000 MHz. The radio frequency emissions above 1GHz also meet corresponding 20dB permitted peak limit with a peak detector function.

Test Engineer: Sam Dong

Applicant: KENWIN INDUSTRIAL (H.K.) LTD. Date of Test: July 7, 2008

Model: KW-1008

Mode: TX-Channel 02 (2438MHz)

Table 2

#### **Radiated Emissions**

Polarization	Frequency	Reading	Pre-	Antenna	Average	Net	Limit	Margin
	(MHz)	(dBµV)	Amp	Factor	Factor	at 3m	at 3m	(dB)
			Gain	(dB)	(-dB)	(dBµV/m)	(dBµV/m)	
			(dB)					
Н	*4876.071	51.5	20.0	32.8	18.4	45.9	54.0	-8.1
V	*4876.072	49.0	20.0	32.8	18.4	43.4	54.0	-10.6

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 used for the emission over 1000MHz.
- \* Emission within the restricted band meets the requirement of section 15.205. The corresponding limit as per 15.209 is based on Quasi peak limit for frequencies below 1000 MHz and average limit for frequencies over 1000 MHz. The radio frequency emissions above 1GHz also meet corresponding 20dB permitted peak limit with a peak detector function.

Test Engineer: Sam Dong

Applicant: KENWIN INDUSTRIAL (H.K.) LTD. Date of Test: July 7, 2008

Model: KW-1008

Mode: TX-Channel 03 (2464MHz)

Table 3

Radiated Emissions

Polarization	Frequency	Reading	Pre-	Antenna	Average	Net	Limit	Margin
	(MHz)	(dBµV)	Amp	Factor	Factor	at 3m	at 3m	(dB)
			Gain	(dB)	(-dB)	(dBµV/m)	(dBµV/m)	
			(dB)					
V	**2463.04	98.3	20.0	32.8	18.4	92.7	N/A	N/A
Н	*4928.075	43.6	20.0	32.8	18.4	38.0	54.0	-16.0
V	*4928.095	40.2	20.0	32.8	18.4	34.6	54.0	-19.4

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 used for the emission over 1000MHz.
- \* Emission within the restricted band meets the requirement of section 15.205. The corresponding limit as per 15.209 is based on Quasi peak limit for frequencies below 1000 MHz and average limit for frequencies over 1000 MHz. The radio frequency emissions above 1GHz also meet corresponding 20dB permitted peak limit with a peak detector function.
- \*\* Fundamental emissions were measured for determining band-edge compliance of using delta measurement technique. Peak value and average level were 111.1 dBμV/m and 92.7 dBμV/m respectively. The worst case emissions were at 2483.500 MHz, which was passed by 10.6 dB margin compared with average limit.

Test Engineer: Sam Dong

	licant: KENWIN INDUSTRIAL (H.K.) LTD. lel: KW-1008	Date of Test: July 7, 2008
4.10	AC Line Conducted Emission, FCC Rule 15.207:	
[]	Not required; battery operation only	
[×]	Test data attached	

Applicant: KENWIN INDUSTRIAL (H.K.) LTD. Date of Test: July 7, 2008

Model: KW-1008

4.11 Line Conducted Configuration Photograph

Worst Case Line-Conducted Configuration at 0.789 MHz

For electronic filing, the worst case line conducted configuration photographs are saved with filename: conducted photos.doc.

Date of Test: July 7, 2008

Applicant: KENWIN INDUSTRIAL (H.K.) LTD.

Model: KW-1008

### 4.12 Line Conducted Emission Configuration Data

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

Judgement: Passed by 9.4 dB margin

For electronic filing, the conducted emission test result is saved with filename: conducted.pdf

### **TEST PERSONNEL:**

Tester Signature

Sam Dong, Project Engineer
Typed/Printed Name

July 7, 2008

Date

Applicant: KENWIN INDUSTRIAL (H.K.) LTD. Model: KW-1008	Date of Test: July 7, 2008
4.13 Radiated Emissions from Digital Section of Transceive	er, FCC Ref: 15.109
[ ] Not required - No digital part	
[ x ] Test results are attached	
[ ] Included in the separated Verification report.	
For electronic filing, the radiated emission test result is saved	d with filename: radiated pdf

Applicant: KENWIN INDUSTRIAL (H.K.) LTD. Date of Test: July 7, 2008

Model: KW-1008

4.14 Transmitter Duty Cycle Calculation and Measurements, FCC Rule 15.35(b), (c)

The EUT antenna output port was connected to the input of the spectrum analyzer. The analyzer center frequency was set to EUT RF channel carrier. The SWEP function on the analyzer was set to ZERO SPAN. The Transmitter ON time was determined from the resultant time-amplitude display:

Х	See attached spectrum analyzer chart (s) for Transmitter timing	
	See Transmitter timing diagram provided by manufacturer	
	Not applicable, duty cycle was not used.	

# EXHIBIT 5

# **EQUIPMENT PHOTOGRAPHS**

## 5.0 **Equipment Photographs**

For electronic filing, the photographs are saved with filename: external photos.doc & internal photos.doc.

# **EXHIBIT 6**

# **PRODUCT LABELLING**

## 6.0 **Product Labelling**

For electronic filing, the FCC ID label artwork and location is saved with filename: label.pdf.

## **EXHIBIT 7**

# **TECHNICAL SPECIFICATIONS**

## 7.0 <u>Technical Specifications</u>

For electronic filing, the block diagram and circuit diagram are saved with filename: block.pdf and circuit.pdf respectively.

# **EXHIBIT 8**

# **INSTRUCTION MANUAL**

## 8.0 **Instruction Manual**

For electronic filing, a preliminary copy of the Instruction Manual is saved with filename: manual.pdf.

This manual will be provided to the end-user with each unit sold/leased in the United States.

## **EXHIBIT 9**

# **CONFIDENTIALITY REQUEST**

## 9.0 Confidentiality Request

The applicant would like to have confidential protection of the following documents:

- Block Diagram
- Circuit Diagram
- Operational Description

For electronic filing, the request letter is saved with filename: request.pdf.

# **EXHIBIT 10**

# **MISCELLANEOUS INFORMATION**

## 10.0 Discussion of Pulse Desensitization

The determination of pulse desensitivity was made in accordance with Hewlett Packard Application Note 150-2, *Spectrum Analysis ... Pulsed RF.* 

The effective period (Teff) was  $54\mu s$ , as shown in section 4.14. with a resolution bandwidth (3dB) of 1MHz, the pulse desensitivity factor was 0 dB.