

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: VWPKENWIN00003)

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: VWPKENWIN00003)

Model: KW-1008
Additional Model: W2



GZ08041026-2
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.
- 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 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.

Intertek Testing Services Hong Kong Ltd.

2/F., Garment Centre, 576 Castle Peak Road, Kowloon, Hong Kong.
Tel: (852) 2173 8888 Fax: (852) 2785 5487 Website: www.hk.intertek-etisemko.com

INTERTEK TESTING SERVICE

LIST OF EXHIBITS

INTRODUCTION

<i>EXHIBIT 1:</i>	Summary of Tests
<i>EXHIBIT 2:</i>	General Description
<i>EXHIBIT 3:</i>	System Test Configuration
<i>EXHIBIT 4:</i>	Measurement Results
<i>EXHIBIT 5:</i>	Equipment Photographs
<i>EXHIBIT 6:</i>	Product Labeling
<i>EXHIBIT 7:</i>	Technical Specifications
<i>EXHIBIT 8:</i>	Instruction Manual
<i>EXHIBIT 9:</i>	Confidentiality Request
<i>EXHIBIT 10:</i>	Miscellaneous Information

INTERTEK TESTING SERVICES

MEASUREMENT/TECHNICAL REPORT

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

FCC ID: VWPKENWIN00003

This report concerns (check one) Original Grant Class II Change

Equipment Type: DTS - Part 15 Digital Transmission Systems

Deferred grant requested per 47 CFR 0.457(d)(1)(ii)? Yes No

If yes, defer until : _____
date

Company Name agrees to notify the Commission by: _____
date

of the intended date of announcement of the product so that the grant can be issued on that date.

Transition Rules Request per 15.37? Yes No

If no, assumed Part 15, Subpart C for intentional radiator - the new 47 CFR [09-20-07 Edition] provision.

Report prepared by:

Shawn Xing
Intertek Testing Services Shenzhen Ltd.
Guangzhou Branch
1~8th floor, Block E2, 11 Cai Pin Road,
Sciencecity, Guangzhou Economic
Development Zone, Guangzhou, P. R.China.
Phone: (8620) 8213 9688
Fax: (8620) 3205 7538

INTERTEK TESTING SERVICES

Table of Contents

1.0 <u>Summary of test results</u>	2
2.0 <u>General Description</u>	4
2.1 Product Description.....	4
2.2 Related Submittal(s) Grants	5
2.3 Test Methodology	5
2.4 Test Facility	5
3.0 <u>System Test Configuration</u>	7
3.1 Justification.....	7
3.2 EUT Exercising Software	7
3.3 Details of EUT and Description of Peripherals	7
3.4 Measurement Uncertainty	8
3.5 Equipment Modification.....	8
4.0 <u>Measurement Results</u>	10
4.1 Maximum Conducted Output Power at Antenna Terminals	10
4.2 Minimum 6dB RF Bandwidth.....	11
4.3 Maximum Power Density	12
4.4 Out of Band Conducted Emissions.....	13
4.5 Out of Band Radiated Emissions.....	14
4.6 Transmitter Radiated Emissions in Restricted Bands	15
4.7 Field Strength Calculation	16
4.8 Radiated Emission Configuration Photograph.....	17
4.9 Radiated Emission Data.....	28
4.10 AC Line Conducted Emission	22
4.11 Line Conducted Configuration Photograph.....	23
4.12 Line Conducted Emission Configuration Data.....	24
4.13 Radiated Emission from Digital Section of Transceiver	25
4.14 Transmitter Duty Cycle Calculation and Measurements.....	26
5.0 <u>Equipment Photographs</u>	28
6.0 <u>Product Labelling</u>	30
7.0 <u>Technical Specifications</u>	32
8.0 <u>Instruction Manual</u>	34
9.0 <u>Confidentiality Request</u>	36
10.0 <u>Miscellaneous Information</u>	38

INTERTEK TESTING SERVICES

List of attached file

Exhibit Type	File Description	Filename
Test Report	Test Report	report.pdf
Test Report	6 dB Bandwidth Plot	6dB.pdf
Test Report	Maximum Output Power Plot	maxop.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	radiate.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	Confidentiality Request	request.pdf
Cover Letter	Letter of Agency	letter.pdf
RF Exposure info	RF Safety	RF exposure info.pdf

INTERTEK TESTING SERVICES

EXHIBIT 1

SUMMARY OF TEST RESULTS

INTERTEK TESTING SERVICES

1.0 Summary of Test

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

FCC ID: VWPKENWIN00003

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.

INTERTEK TESTING SERVICES

EXHIBIT 2

GENERAL DESCRIPTION

INTERTEK TESTING SERVICES

2.0 General Description

2.1 Product Description

The Equipment Under Test (EUT) is a transceiver of a wireless multi-media system model: KW-1008. It is powered by an external adaptor (Input: 120V AC / 60Hz, output: DC 15.0V, 2000mA). The main function is to receive RF audio signal from a Multi Media Micro System (sold together) via three auto-selected channels (2412MHz, 2438MHz and 2464MHz) and demodulate the RF signal, decode and convert to analogue audio signal out put via the speaker.

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.

INTERTEK TESTING SERVICES

2.2 Related Submittal(s) Grants

This is an application for Certification of the transmitter portion of wireless speaker (2.4GHz Transceiver), and the corresponding multi media micro system (2.4GHz Transceiver) is authorized by certification procedure with FCC ID: VWPKENWIN00002.

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.

INTERTEK TESTING SERVICES

EXHIBIT 3

SYSTEM TEST CONFIGURATION

INTERTEK TESTING SERVICES

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 15.0V DC, 2000mA)

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

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

INTERTEK TESTING SERVICES

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

INTERTEK TESTING SERVICES

Applicant: KENWIN INDUSTRIAL (H.K.) LTD.
Model: KW-1008

Date of Test: July 7, 2008

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	18.6	72.4
Middle Channel: 2438	18.1	64.6
High Channel: 2464	17.9	61.7

Cable loss : 0.5 dB External Attenuation : 0 dB

EUT dBm max. output level = 18.6 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.

INTERTEK TESTING SERVICES

Applicant: KENWIN INDUSTRIAL (H.K.) LTD.
Model: KW-1008

Date of Test: July 7, 2008

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	9.792

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

INTERTEK TESTING SERVICES

Applicant: KENWIN INDUSTRIAL (H.K.) LTD.
Model: KW-1008

Date of Test: July 7, 2008

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)
2437.306	-0.31

Frequency Span = 1.5MHz

Sweep Time = Frequency Span/3kHz
= 500 seconds

Cable Loss: 0.5dB

Peak Power Density (at 2437.306MHz) = -0.31 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

INTERTEK TESTING SERVICES

Applicant: KENWIN INDUSTRIAL (H.K.) LTD.
Model: KW-1008

Date of Test: July 7, 2008

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

INTERTEK TESTING SERVICES

Applicant: KENWIN INDUSTRIAL (H.K.) LTD.
Model: KW-1008

Date of Test: July 7, 2008

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.

- Not required, since all emissions are more than 20dB below fundamental
- See attached data sheet

INTERTEK TESTING SERVICES

Applicant: KENWIN INDUSTRIAL (H.K.) LTD.
Model: KW-1008

Date of Test: July 7, 2008

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.

INTERTEK TESTING SERVICES

Applicant: KENWIN INDUSTRIAL (H.K.) LTD.
Model: KW-1008

Date of Test: July 7, 2008

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 μ V/m
RA = Receiver Amplitude (including preamplifier) in dB μ 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 μ 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 μ V/m. This value in dB μ V/m was converted to its corresponding level in μ V/m.

$$RA = 62.0 \text{ dB}\mu\text{V}$$

$$AF = 7.4 \text{ dB}$$

$$CF = 1.6 \text{ dB}$$

$$AG = 29.0 \text{ dB}$$

$$PD = 0 \text{ dB}$$

$$AV = -10 \text{ dB}$$

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

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

INTERTEK TESTING SERVICES

Applicant: KENWIN INDUSTRIAL (H.K.) LTD.
Model: KW-1008

Date of Test: July 7, 2008

4.8 Radiated Emission Configuration Photograph

Worst Case Radiated Emission
at
4876.592 MHz

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

INTERTEK TESTING SERVICES

Applicant: KENWIN INDUSTRIAL (H.K.) LTD.
Model: KW-1008

Date of Test: July 7, 2008

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 13.8 dB margin

TEST PERSONNEL:



Tester Signature

Sam Dong, Project Engineer
Typed/Printed Name

July 7, 2008

Date

INTERTEK TESTING SERVICES

Applicant: KENWIN INDUSTRIAL (H.K.) LTD.
Model: KW-1008

Date of Test: July 7, 2008

Mode: TX-Channel 01 (2412MHz)

Table 1

Radiated Emissions

Polarization	Frequency (MHz)	Reading (dB μ V)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Average Factor (-dB)	Net at 3m (dB μ V/m)	Limit at 3m (dB μ V/m)	Margin (dB)
H	*4824.067	42.1	20.0	32.8	17.6	37.3	54.0	-16.7
V	*4824.027	37.3	20.0	32.8	17.6	32.5	54.0	-21.5

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

INTERTEK TESTING SERVICES

Applicant: KENWIN INDUSTRIAL (H.K.) LTD.
Model: KW-1008

Date of Test: July 7, 2008

Mode: TX-Channel 02 (2438MHz)

Table 2

Radiated Emissions

Polarization	Frequency (MHz)	Reading (dB μ V)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Average Factor (-dB)	Net at 3m (dB μ V/m)	Limit at 3m (dB μ V/m)	Margin (dB)
H	*4876.592	45.0	20.0	32.8	17.6	40.2	54.0	-13.8
V	*4876.072	39.4	20.0	32.8	17.6	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.

Test Engineer: Sam Dong

INTERTEK TESTING SERVICES

Applicant: KENWIN INDUSTRIAL (H.K.) LTD.
Model: KW-1008

Date of Test: July 7, 2008

Mode: TX-Channel 03 (2464MHz)

Table 3

Radiated Emissions

Polarization	Frequency (MHz)	Reading (dB μ V)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Average Factor (-dB)	Net at 3m (dB μ V/m)	Limit at 3m (dB μ V/m)	Margin (dB)
H	**2466.51	96.9	20.0	32.8	17.6	92.1	N/A	N/A
H	*4928.075	42.4	20.0	32.8	17.6	37.6	54.0	-16.4
V	*4928.095	39.0	20.0	32.8	17.6	34.2	54.0	-19.8

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 109.7dB μ V/m and 92.1dB μ V/m respectively. The worst case emissions were at 2483.500 MHz, which was passed by 10.2 dB margin compared with average limit.

Test Engineer: Sam Dong

INTERTEK TESTING SERVICES

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

INTERTEK TESTING SERVICES

Applicant: KENWIN INDUSTRIAL (H.K.) LTD.
Model: KW-1008

Date of Test: July 7, 2008

4.11 Line Conducted Configuration Photograph

Worst Case Line-Conducted Configuration
at
0.382 MHz

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

INTERTEK TESTING SERVICES

Applicant: KENWIN INDUSTRIAL (H.K.) LTD.
Model: KW-1008

Date of Test: July 7, 2008

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 11.5 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

INTERTEK TESTING SERVICES

Applicant: KENWIN INDUSTRIAL (H.K.) LTD.
Model: KW-1008

Date of Test: July 7, 2008

4.13 Radiated Emissions from Digital Section of Transceiver, 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 with filename: radiated.pdf

INTERTEK TESTING SERVICES

Applicant: KENWIN INDUSTRIAL (H.K.) LTD.
Model: KW-1008

Date of Test: July 7, 2008

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:

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

INTERTEK TESTING SERVICES

EXHIBIT 5

EQUIPMENT PHOTOGRAPHS

INTERTEK TESTING SERVICES

5.0 Equipment Photographs

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

EXHIBIT 6

PRODUCT LABELLING

INTERTEK TESTING SERVICES

6.0 Product Labelling

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

EXHIBIT 7

TECHNICAL SPECIFICATIONS

INTERTEK TESTING SERVICES

7.0 Technical Specifications

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

INTERTEK TESTING SERVICES

EXHIBIT 8

INSTRUCTION MANUAL

INTERTEK TESTING SERVICES

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.

INTERTEK TESTING SERVICES

EXHIBIT 9

CONFIDENTIALITY REQUEST

INTERTEK TESTING SERVICES

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

INTERTEK TESTING SERVICES

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 25.8 μ s, as shown in section 4.14. with a resolution bandwidth (3dB) of 1MHz, the pulse desensitivity factor was 0 dB.