August 16, 2010

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: VWPKENWIN00006)

For your reference, TCB will normally take another 10 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

Soundbar with Wireless Subwoofer

(2.4GHz Transceiver)

(FCC ID: VWPKENWIN00006)

Model: SBW100
Additional Model: KW-SB001; D15; SB150V; KW-SB002

SZ10050384-2
Billy Li
August 16, 2010

TRF No.: FCC 15C_TXa

Intertek Testing Services Shenzhen Ltd. Kejiyuan Branch
6F, D Block, Huahan Building, Langshan Road, Nanshan District, Shenzhen, P. R. China

Tel: (86 755) 8601 6288 Fax: (86 755) 8601 6751 Website: www.china.intertek-etlsemko.com

LIST OF EXHIBITS

MEASUREMENT/TECHNICAL REPORT

KENWIN INDUSTRIAL (H.K.) LTD. - MODEL: SBW100

FCC ID: VWPKENWIN00006

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

Equipment Type: DTS - Part 15 Digital Transmission Systems

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

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 ___X___

If no, assumed Part 15, Subpart C for intentional radiator - the new 47 CFR [10-1-09 Edition] provision.

Report prepared by:

Shawn Xing
Intertek Testing Services Shenzhen Ltd.
Kejiyuan Branch
6F, Block D, Huahan Building, Langshan Road,
Nanshan District, Shenzhen, P. R. China
Phone: (86 755) 8601 6288
Fax: (86 755) 8601 6751

Table of Contents

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 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: SBW100

FCC ID: VWPKENWIN00006

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 an internal PCB antenna, 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 Speaker Unit of Soundbar with Wireless Subwoofer model: SBW100. It is powered by AC mains, Input: 120V AC / 60Hz. The main function is to receive RF audio signal from a Soundbar with Wireless Subwoofer (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: KW-SB001; D15; SB150V; KW-SB002 are the same as the tested Model: SBW100 in hardware and software aspect. The only differences are the appearance, trade name and model no. for trading purpose.

Antenna Type: Antenna Type: Integral PCB antenna.

Type of Modulation: QPSK (Digital Modulation)

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 speaker unit (2.4GHz transceiver. The corresponding speaker (2.4GHz transceiver) is authorized by certification procedure with FCC ID: VWPKENWIN00005.

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 facility and shield room used to collect the radiated data is **Interterk Testing Services Shenzhen Ltd. Kejiyuan Branch** and located at 6F, D Block, Huahan Building, Langshan Road, Nanshan District, Shenzhen, P. R. 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 Input: 120V AC / 60Hz.

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.

The rear of unit shall be flushed with the rear of the table.

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, Model: A1136)
2. Main Unit (Kenwin, Model: SBW100)

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

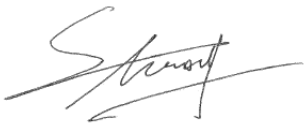
Any modifications installed previous to testing by Kenwin Industrial (H.K.) Ltd. will be incorporated in each production model sold/leased in the United States.

No modifications were installed by Intertek Testing Services Shenzhen Ltd. Kejiyuan Branch.

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.
Kejiyuan Branch
Agent for KENWIN INDUSTRIAL (H.K.) LTD.



_____ *Signature*

August 16, 2010 *Date*

EXHIBIT 4

MEASUREMENT RESULTS

Applicant: KENWIN INDUSTRIAL (H.K.) LTD. Date of Test: August 16, 2010
Model: SBW100

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.

[×] 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 = 0 dBi)		
Frequency (MHz)	Output in dBm	Output in mWatt
Low Channel: 2412	13.4	21.9
Middle Channel: 2438	13.1	20.4
High Channel: 2464	12.1	16.2

Cable loss: 0.5 dB External Attenuation : 0 dB

EUT dBm max. output level = 13.4 dBm

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: August 16, 2010
Model: SBW100

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)
2412	9.6

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: August 16, 2010
Model: SBW100

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)
2411.309	-4.48

Frequency Span = 15KHz

Sweep Time = Frequency Span/3kHz
= 5 seconds

Cable Loss: 0.5dB

Peak Power Density (at 2411.309MHz) = -4.48 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: August 16, 2010
Model: SBW100

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.

Furthermore, delta measurement technique for measuring bandage emissions was shown as below:

(i) Lower channel 2412MHz:

Peak Resultant field strength = Fundamental emissions (peak value) – delta from the bandedge plot

= 100.5dBµv/m-35.7dB
= 64.8dBµv/m

Average Resultant field strength = 64.8dBµv/m-17.9dB
= 46.9dBµv/m

(ii) Upper channel 2464MHz:

Peak Resultant field strength = Fundamental emissions (peak value) – delta from the bandedge plot

= 99.0dBµv/m-48.9dB
= 50.1dBµv/m

Average Resultant field strength = 50.1dBµv/m-17.9dB
= 32.2dBµv/m

The resultant field strength meets the general radiated emission limit in section 15.209, which does not exceed 74 dBµv/m (Peak Limit) and 54dBµv/m (Average Limit).

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

Applicant: KENWIN INDUSTRIAL (H.K.) LTD. Date of Test: August 16, 2010
Model: SBW100

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

Applicant: KENWIN INDUSTRIAL (H.K.) LTD. Date of Test: August 16, 2010
Model: SBW100

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.

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 dBμV/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 dBμV 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 dBμV/m. This value in dBμV/m was converted to its corresponding level in μV/m.

RA = 62.0 dBμV
AF = 7.4 dB
CF = 1.6 dB
AG = 29.0 dB
PD = 0 dB
AV = -10 dB
FS = 62 + 7.4 + 1.6 - 29 + 0 + (-10) = 32 dBμV/m

Level in mV/m = Common Antilogarithm [(32 dBμV/m)/20] = 39.8 μV/m

Applicant: KENWIN INDUSTRIAL (H.K.) LTD. Date of Test: August 16, 2010
Model: SBW100

4.8 Radiated Emission Configuration Photograph

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: August 16, 2010
Model: SBW100

4.9 Radiated Emission Data

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

Worst Case Radiated Emission
at
42.121 MHz

Judgement: Passed by 4.9 dB

TEST PERSONNEL:

Tester Signature

Billy Li, Project Engineer
Typed/Printed Name

August 16, 2010
Date

Applicant: KENWIN INDUSTRIAL (H.K.) LTD. Date of Test: August 16, 2010
Model: SBW100

Mode: Link with Main Unit

Table 1

Radiated Emissions

Polarization	Frequency (MHz)	Reading (dBµV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dBµV/m)	Limit at 3m (dBµV/m)	Margin (dB)
Vertical	31.940	31.4	20.0	18.2	29.6	40.0	-10.4
Vertical	40.670	40.6	20.0	12.7	33.3	40.0	-6.7
Vertical	42.121	42.4	20.0	12.7	35.1	40.0	-4.9
Vertical	210.500	45.3	20.0	11.0	36.3	43.5	-7.2
Vertical	890.570	35.5	20.0	25.0	40.5	46.0	-5.5
Horizontal	98.870	41.6	20.0	9.9	31.5	40.0	-8.5
Horizontal	233.700	44.9	20.0	13.3	38.2	46.0	-7.8
Horizontal	565.440	37.5	20.0	20.6	38.1	46.0	-7.9

NOTES:
1. Quasi-Peak detector is used except for others stated.
2. All measurements were made at 3 meters. Harmonic emissions not detected at the 3-meter distances 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 harmonic 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. All emissions are below the QP limit.

Test Engineer: Billy Li

Applicant: KENWIN INDUSTRIAL (H.K.) LTD. Date of Test: August 16, 2010
Model: SBW100

Mode: TX-Channel 01 (2412MHz)

Table 2

Radiated Emissions

Polarization	Frequency (MHz)	Reading (dBµV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dBµV/m)	Peak Limit at 3m (dBµV/m)	Margin (dB)
Vertical	**2412.000	108.7	36.7	28.5	100.5	--	--
Vertical	*4824.000	58.2	36.1	33.1	55.2	74.0	-18.8
Horizontal	*4824.000	49.1	35.6	39.5	53.0	74.0	-21.0

Polarization	Frequency (MHz)	Reading (dBµV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Average Factor (-dB)	Net at 3m (dBµV/m)	Average Limit at 3m (dBµV/m)	Margin (dB)
Vertical	*4824.000	58.2	36.1	33.1	17.9	37.3	54.0	-16.7

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

2. All measurements were made at 3 meters. Radiated emissions not detected at the 3-meter distance were measured at 0.3-meter and an inverse proportional extrapolation was performed to compare the signal level to the 3-meter limit. No other radiated emissions than those reported were detected at a test distance of 0.3-meter.

3. Negative value in the margin column shows emission below limit.

4. Horn antenna 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 emission was measured for determining band-edge compliance of using delta measurement technique.

Test Engineer: Billy Li

Applicant: KENWIN INDUSTRIAL (H.K.) LTD. Date of Test: August 16, 2010
Model: SBW100

Mode: TX-Channel 02 (2438MHz)

Table 3

Radiated Emissions

Polarization	Frequency (MHz)	Reading (dBµV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dBµV/m)	Peak Limit at 3m (dBµV/m)	Margin (dB)
Vertical	*4876.000	57.0	36.1	33.3	54.2	74.0	-19.8
Horizontal	*4876.000	54.9	36.1	33.3	52.1	74.0	-21.9
Vertical	*7314.000	48.8	36.2	37.9	50.5	74.0	-23.5

Polarization	Frequency (MHz)	Reading (dBµV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Average Factor (-dB)	Net at 3m (dBµV/m)	Average Limit at 3m (dBµV/m)	Margin (dB)
Vertical	*4876.000	57.0	36.1	33.3	17.9	36.3	54.0	-17.7

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

2. All measurements were made at 3 meters. Radiated emissions not detected at the 3-meter distance were measured at 0.3-meter and an inverse proportional extrapolation was performed to compare the signal level to the 3-meter limit. No other radiated emissions than those reported were detected at a test distance of 0.3-meter.

3. Negative value in the margin column shows emission below limit.

4. Horn antenna 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: Billy Li

Applicant: KENWIN INDUSTRIAL (H.K.) LTD. Date of Test: August 16, 2010
Model: SBW100

Mode: TX-Channel 03 (2464MHz)

Table 4

Radiated Emissions

Polarization	Frequency (MHz)	Reading (dBµV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dBµV/m)	Peak Limit at 3m (dBµV/m)	Margin (dB)
Vertical	**2464.000	107.1	36.7	28.6	99.0	--	--
Vertical	*4928.000	56.1	36.1	33.3	53.3	74.0	-20.7
Horizontal	*4928.000	56.0	36.1	33.3	53.2	74.0	-20.8
Vertical	*7392.000	52.6	36.2	37.9	54.3	74.0	-19.7

Polarization	Frequency (MHz)	Reading (dBµV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Average Factor (-dB)	Net at 3m (dBµV/m)	Average Limit at 3m (dBµV/m)	Margin (dB)
Vertical	*7392.000	52.6	36.2	37.9	17.9	36.4	54.0	-17.6

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

2. All measurements were made at 3 meters. Radiated emissions not detected at the 3-meter distance were measured at 0.3-meter and an inverse proportional extrapolation was performed to compare the signal level to the 3-meter limit. No other radiated emissions than those reported were detected at a test distance of 0.3-meter.

3. Negative value in the margin column shows emission below limit.

4. Horn antenna 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 emission was measured for determining band-edge compliance of using delta measurement technique.

Test Engineer: Billy Li

Applicant: KENWIN INDUSTRIAL (H.K.) LTD. Date of Test: August 16, 2010
Model: SBW100

4.10 AC Line Conducted Emission, FCC Rule 15.207:

Line Conducted Configuration Photograph

Worst Case Line-Conducted Configuration
at
0.502 MHz

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

Applicant: KENWIN INDUSTRIAL (H.K.) LTD. Date of Test: August 16, 2010
Model: SBW100

4.11 Line Conducted Emission Configuration Data

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

Judgment: Passed by 4.0 dB margin

The conducted emission test result is in below page.

TEST PERSONNEL:

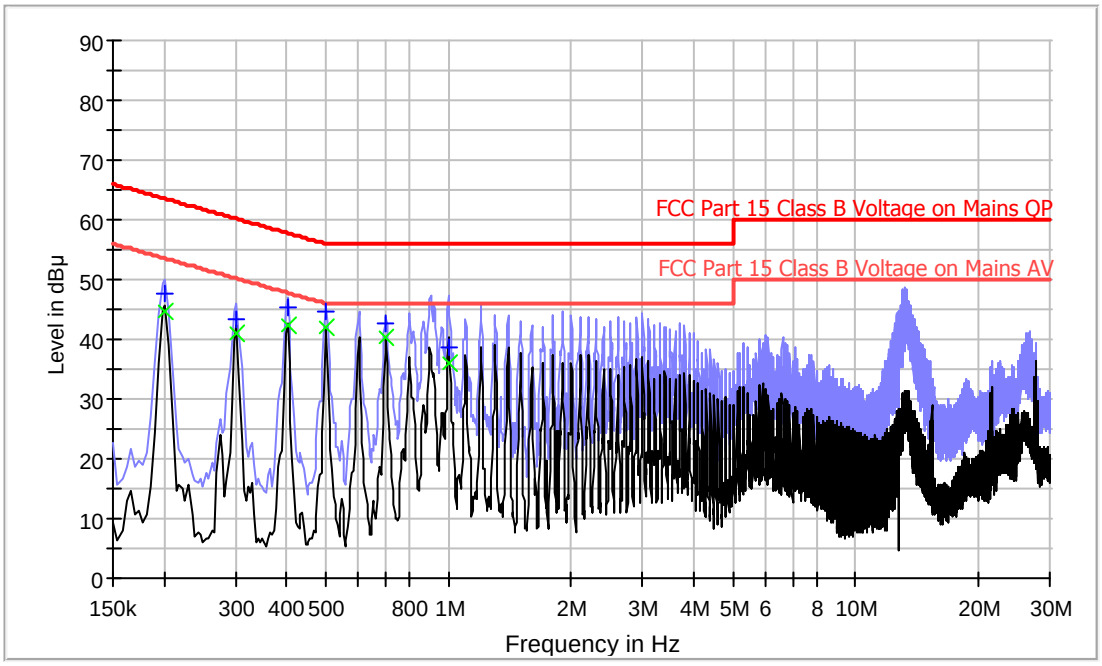
Tester Signature

Billy Li, Project Engineer
Typed/Printed Name

August 16, 2010
Date

Applicant: KENWIN INDUSTRIAL (H.K.) LTD. Date of Test: August 16, 2010
Model: SBW100
Mode: Transmit with frequency 2438MHz

Conducted Emission Test - FCC



Result Table-QP

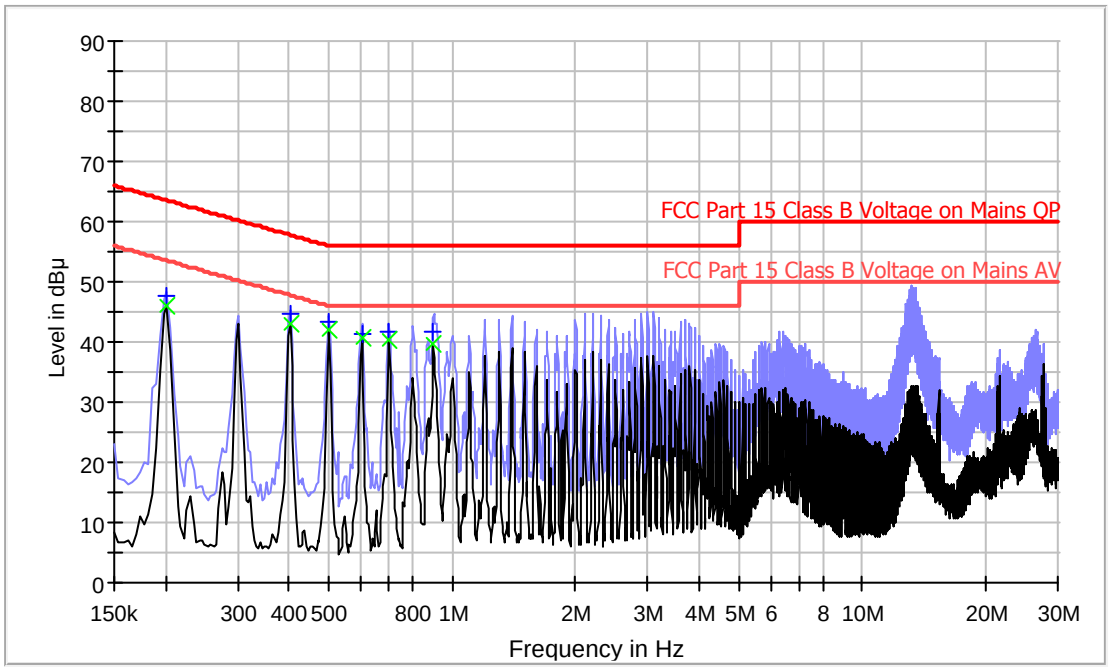
Frequency (MHz)	QuasiPeak (dB µ V)	Line	Corr. (dB)	Margin (dB)	Limit (dB µ V)
0.202000	47.5	L1	9.6	16.0	63.5
0.302000	43.4	L1	9.6	16.8	60.2
0.402000	45.2	L1	9.6	12.6	57.8
0.502000	44.7	L1	9.6	11.3	56.0
0.702000	42.6	L1	9.7	13.4	56.0
1.002000	38.7	L1	9.7	17.3	56.0

Result Table-AV

Frequency (MHz)	Average (dB µ V)	Line	Corr. (dB)	Margin (dB)	Limit (dB µ V)
0.202000	44.6	L1	9.6	8.9	53.5
0.302000	41.1	L1	9.6	9.1	50.2
0.402000	42.2	L1	9.6	5.6	47.8
0.502000	42.0	L1	9.6	4.0	46.0
0.702000	40.3	L1	9.7	5.7	46.0
1.002000	36.2	L1	9.7	9.8	46.0

Applicant: KENWIN INDUSTRIAL (H.K.) LTD. Date of Test: August 16, 2010
Model: SBW100
Mode: Transmit with frequency 2438MHz

Conducted Emission Test - FCC



Result Table-QP

Frequency (MHz)	QuasiPeak (dB µ V)	Line	Corr. (dB)	Margin (dB)	Limit (dB µ V)
0.202000	47.8	N	9.6	15.7	63.5
0.402000	44.6	N	9.6	13.2	57.8
0.502000	43.2	N	9.6	12.8	56.0
0.602000	41.3	N	9.6	14.7	56.0
0.702000	41.7	N	9.6	14.3	56.0
0.902000	41.6	N	9.6	14.4	56.0

Result Table-AV

Frequency (MHz)	Average (dB µ V)	Line	Corr. (dB)	Margin (dB)	Limit (dB µ V)
0.202000	45.9	N	9.6	7.6	53.5
0.402000	43.0	N	9.6	4.8	47.8
0.502000	42.0	N	9.6	4.0	46.0
0.602000	40.7	N	9.6	5.3	46.0
0.702000	40.4	N	9.6	5.6	46.0
0.902000	39.7	N	9.6	6.3	46.0

Applicant: KENWIN INDUSTRIAL (H.K.) LTD. Date of Test: August 16, 2010
Model: SBW100

4.12 Transmitter Average Factor 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:

For electronic filing, the Average Factor Calculation is saved with filename: af.pdf.

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 Labeling**

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

EXHIBIT 7

TECHNICAL SPECIFICATIONS

7.0 **Technical Specifications**

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 320us, as shown in section 4.12 with a resolution bandwidth (3dB) of 1MHz, the pulse desensitivity factor was 0 dB.

EXHIBIT 11

TEST EQUIPMENT LIST

11.0 **Test Equipment List**

Equipment No.	Equipment	Manufacturer	Model No.	Serial No.	Cal. Date	Due Date
SZ061-03	BiConiLog Antenna	ETS	3142C	00066460	25-Nov-09	25-May-11
SZ185-01	EMI Receiver	R&S	ESCI	100547	08-Mar-10	08-Mar-11
SZ061-08	Horn Antenna	ETS	3115	00092346	15-Mar-10	15-Sep-11
SZ056-03	Spectrum Analyzer	R&S	FSP 30	101148	18-Mar-10	18-Mar-11
SZ181-04	Preamplifier	Agilent	8449B	3008A02474	18-Mar-10	18-Mar-11
SZ188-01	Anechoic Chamber	ETS	RFD-F/A-100	4102	09-Jan-10	09-Jan-11
SZ062-02	RF Cable	RADIALL	RG 213U	--	19-Apr-10	19-Oct-10
SZ062-06	RF Cable	RADIALL	0.04-26.5GHz	--	17-Aug-09	17-Aug-10
SZ062-12	RF Cable	RADIALL	0.04-26.5GHz	--	17-Aug-09	17-Aug-10
SZ185-02	EMI Test Receiver	R&S	ESCI	100692	23-Nov-09	23-Nov-10
SZ187-01	Two-Line V-Network	R&S	ENV216	100072	23-Nov-09	23-Nov-10
SZ187-02	Two-Line V-Network	R&S	ENV216	100073	23-Nov-09	23-Nov-10
SZ188-03	Shielding Room	ETS	RFD-100	4100	15-Sep-07	15-Sep-10
SZ067-04	Notch Filter	Micro-Tronics	BRM50702-02	--	19-Apr-10	19-Oct-10