Victorwood Holdings Limited

Application
For
Certification

USB Phone

(FCC ID: T5HUP90R00)

0603372
TL/ Ann Choy
May 10, 2006

- The test results reported in this test report shall refer only to the sample actually tested and shall not refer or be deemed to refer to bulk from which such a sample may be said to have been obtained.
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MEASUREMENT/TECHNICAL REPORT

Victorwood Holdings Limited- MODEL: UP-90
FCC ID: T5HUP90R00

This report concerns (check one) Original Grant___X___ Class II Change_____

Equipment Type: JBP - Part 15 Class B Computer Peripheral

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 [04-05-05 Edition] provision.

Report prepared by:

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List of attached file

Exhibit type	File Description	filename
Cover Letter	Confidentiality Request	request.pdf
Test Report	Test Report	report.pdf
Test Report	Conducted Emission Test Result	conduct.pdf
Test Setup Photo	Radiated Emission	config photos.doc
Test Setup Photo	Conducted Emission	config 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
User Manual	FCC Information	FCC information.pdf
Operation Description	Technical Description	descri.pdf

EXHIBIT 1
SUMMARY OF TEST RESULTS

1.0 Summary of Test

Victorwood Holdings Limited - MODEL: UP-90
FCC ID: T5HUP90R00

TEST	REFERENCE	RESULTS
Radiated Emission	15.109	Pass
AC Conducted Emission	15.107	Pass

EXHIBIT 2
GENERAL DESCRIPTION

2.0 **General Description**

2.1 Product Description

The Equipment Under Test (EUT) is a Voice - Over - IP Phone. It is connected to USB port of personal computer to make any calls through the Internet as well as powered by USB port. It is required to run on the personal computer, which installed applicable software driver. It consists of a keypad with eleven standard keys (0,...9,#) and four function keys (UP, DOWN, START and OK). The START key is used to activate software driver in personal computer and uses “UP/DOWN” keys to select phone number. Then, press “OK” to make a call. To terminate the call, just hang up the phone.

The circuit description is saved with filename: descri.pdf

2.2 Related Submittal(s) Grants

This is an application for Certification of a JBP - Part 15 Class B Computer Peripheral.

2.3 Test Methodology

Both AC mains line-conducted and radiated emission measurements were performed according to the procedures in ANSI C63.4 (2003). All measurements were performed in Open Area Test Sites. Preliminary scans were performed in the Open Area Test Sites only to determine 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.

2.4 Test Facility

The open area test site and conducted measurement facility used to collect the radiated data 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.

EXHIBIT 3
SYSTEM TEST CONFIGURATION

3.0 **System Test Configuration**

3.1 Justification

For emissions testing, the equipment under test (EUT) was setup in a typical fashion (as a user would normally use it), and in the confines as outlined in ANSI C63.4 (2003). The EUT is powered by USB port of a personal computer.

For maximizing emissions, the EUT was rotated through 360°. The antenna height and polarization are varied during the search for maximum signal level. The antenna height is varied from 1 to 4 meters. Detector function is in peak mode. 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 1000MHz.

Radiated emission measurement were performed from the lowest radio frequency signal generated in the device which is greater than 30MHz to 1GHz.

3.2 EUT Exercising Software

The EUT exercise program SJ Phone, Version 1.60.289a (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.

3.3 Support Equipment List and Description

The FCC ID's for all equipment, plus descriptions of all cables used in the tested system (included inserted cards, which have grants) are:

HARDWARE:

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

CABLES:

(1) 1 x parallel cable with 1 meter long
(2) 1 x serial cable with 1 meter long
(3) 1 x RJ45 LAN cable with 3 meter long
(4) 1 x USB cable with 2 meter long (Supplied by Client)

OTHERS:

For Radiated Emission
(1) HP Computer, Model: D530S, S/N: CNG4110DX, DOC Product
(2) HP Keyboard, Model: SK-2502, S/N: M991241228, DOC Product
(3) Philips Monitor, Model: 150B4CG, S/N: CX000409301368, DOC Product
(4) HP Mouse, Model: M-S34, S/N: LZA65254261, FCC ID: DZL211029
(5) HP Printer, Model: C2642A, S/N: SG6121702C, FCC ID: B94C2642X
(6) Hayes Modem, Model: 6800CN, S/N: A00900153317,
FCC ID: BFJ9D907-00038

For Conducted Emission
(1) IBM Computer, Model: NetVista M42, S/N: S99GMHN1
(2) IBM Keyboard, Model: 32P5100, S/N: 1203496
(3) Samsung Monitor, Model: NB15ASHB/XSH, S/N: NB15HVEX103069X
(4) HP Mouse, Model: C3751B, S/N: LZB72359748, FCC ID: DZL211029
(5) HP Printer, Model: C6431D, S/N: CN23B 680ZP, DOC Product
(6) Genius Modem, Model: CM56EX, S/N: ZT5505000355, DOC Product

3.4 Measurement Uncertainty

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

3.5 Equipment Modification

Any modifications installed previous to testing by Victorwood Holdings Limited will be incorporated in each production model sold/leased in the United States.

No modifications were installed by ETL Division, Intertek Testing Services Hong Kong Ltd.

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

Confirmed by:

Leung Wai Leung, Tommy
Assistant Manager
Intertek Testing Services Hong Kong Ltd.
Agent for Victorwood Holdings Limited

_____Signature

May 10, 2006 _____Date

EXHIBIT 4
EMISSION RESULTS

4.0 **Emission Results**

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

4.1 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

<u>Example</u>
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

4.2 Radiated Emission Configuration Photograph

Worst Case Radiated Emission
at
65.529 MHz & 73.719 MHz

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

Company: Victorwood Holdings Limited Date of Test: March 16-23, 2006
Model: UP-90

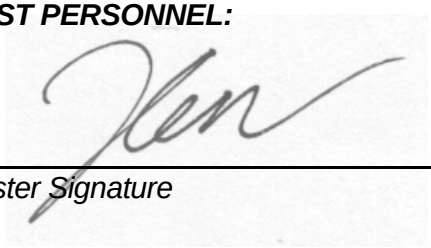
4.3 Radiated Emission Data, FCC Rule 15.109

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

Judgement : Passed by 10.1 dB margin

****

TEST PERSONNEL:



Tester Signature

Kenneth C. C. Lam, Senior Lead Engineer
Typed/Printed Name

May 10, 2006
Date

Company: Victorwood Holdings Limited Date of Test: March 16-23, 2006
Model: UP-90

Table 1

Radiated Scan
Pursuant to FCC Part 15 Section 15.109 Emission Requirements

Polarization	Frequency (MHz)	Reading (dBµV)	Pre-Amp Gain (dB)	Antenna Factor (dB)	Net at 3m (dBµV/m)	Limit at 3m (dBµV/m)	Margin (dB)
V	32.769	31.3	16	10.0	25.3	40	-14.7
V	40.959	33.9	16	10.0	27.9	40	-12.1
V	49.149	31.4	16	11.0	26.4	40	-13.6
V	57.339	34.1	16	11.0	29.1	40	-10.9
V	65.529	36.9	16	9.0	29.9	40	-10.1
V	73.719	39.9	16	6.0	29.9	40	-10.1
V	480.067	24.6	16	26.0	34.6	46	-11.4
V	960.134	17.5	16	33.0	34.5	54	-19.5

NOTES:
1. Peak detector is used for the emission measurement.
2. All measurements were made at 3 meters. Harmonic 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 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.

Test Engineer: Kenneth C. C. Lam

Company: Victorwood Holdings Limited Date of Test: March 16-23, 2006
Model: UP-90

4.4 AC Line Conducted Emission, FCC Rule 15.107:

[ ] Not required; battery operation only

[×] Test data attached

Company: Victorwood Holdings Limited Date of Test: March 16-23, 2006
Model: UP-90

4.5 Line Conducted Configuration Photograph

Worst Case Line-Conducted Configuration
at
2.170 MHz

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

Company: Victorwood Holdings Limited Date of Test: March 16-23, 2006
Model: UP-90

4.6 Line Conducted Emission Data

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

Judgement : Passed by 5.6 dB margin compare with the average limit

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

TEST PERSONNEL:

Tester Signature

Kenneth C. C. Lam, Senior Lead Engineer
Typed/Printed Name

May 10, 2006
Date

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 **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.

Please note that the required FCC Information to the User is saved with filename: FCC information.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**

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