

Primatronix Ltd.

**Application
For
Certification
(FCC ID: DYFC7)**

Web Cam

0609721
BC/ Sandy Lee
June 22, 2006

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MEASUREMENT/TECHNICAL REPORT

**Primatronix Ltd. - MODEL: VOIP VOICE C7
CYBERSERIES C7
Skype C7**

FCC ID: DYFC7

June 22, 2006

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

Equipment Type: Computer Peripheral (example: computer, printer, modem, etc.)

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 [04-05-05 Edition] provision.

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List of attached file

Exhibit type	File Description	filename
Test Report	Test Report	report.pdf
Operation Description	Technical Description	descri.pdf
Test Setup Photo	Radiated Emission	radiated photos.doc
Test Setup Photo	Conducted Emission	conducted photos.doc
Test Report	Conducted Emission Test Result	conducted.pdf
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

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EXHIBIT 1

GENERAL DESCRIPTION

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1.0 General Description

1.1 Product Description

The Equipment Under Test (EUT) is a Web Cam. The EUT is connected to USB port when use. It can capture pictures or videos and stored them into digital format and saved in computer.

The Model: CYBERSERIES C7 and Skype C7 are the same as the Model: VOIP VOICE C7 in hardware aspect. The difference in trade name serves as marketing strategy.

For electronic filing, the brief circuit description is saved with filename: descri.pdf.

1.2 Related Submittal(s) Grants

This is an application for certification of a computer peripheral.

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1.3 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. For each scan, the procedure for maximizing emissions in Appendices D and E were followed. All Radiated tests were performed at an antenna to EUT distance of 3 meters, unless stated otherwise in the **“Justification Section”** of this Application.

1.4 Test Facility

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

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EXHIBIT 2

SYSTEM TEST CONFIGURATION

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2.0 **System Test Configuration**

2.1 Justification

The system was configured for testing in typical fashions (as a customer would normally use it), and in the confines as outlined in ANSI C63.4 (2003). The typical testing mode was selected i.e. PC live mode.

The EUT is connected to USB port.

For maximizing emissions, the EUT was rotated through 360°, the antenna height was varied from 1 meter to 4 meters above the ground plane, and the antenna polarization was changed. This step by step procedure for maximizing emissions led to the data reported in Exhibit 3.0.

2.2 EUT Exercising Software

The EUT exercise program used during radiated and conducted testing was designed to exercise the various system components in a manner similar to a typical use. The software, contained in a CD ROM, was inserted into CD Drive and was installed into the hard disk.

Once the program was loaded, the cameras will capture images and the images will be shown on the monitor and recorded in the hard disk.

2.3 Special Accessories

Shielded cable is necessary for compliance of this product.

2.4 Equipment Modification

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

No modifications were installed by Intertek Testing Services.

2.5 Measurement Uncertainty

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

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2.6 Support Equipment List and Description

Refer List:

1. HP Computer Model: D530S S/N: CNG4110DX DOC Product	1. HP Computer Model: DC5100 S/N: CNG611064K DOC Product
2. Philips LCD Monitor Model: 150B4CG S/N: CX000409301774 DOC Product	2. Samsung Monitor Model: D2813 S/N: NB15HMEWA08810A DOC Product
3. HP Keyboard Model: SDM4700P S/N: 323686-B31 DOC Product	3. HP Keyboard Model: KB-0316 S/N: 382641-B31 DOC Product
4. HP Mouse Model: M-S69 S/N: 323614-001 FCCID: JNZ211443	4. HP Mouse Model: M-S34 S/N: LZB21702883 FCCID: DZL211029
5. HP Printer Model: C2642A S/N: SG67B131RY FCCID: B94C2642X	
6. Hayes Modem Model: 6800CN S/N: A00900153317 FCCID: BFJ9D907-00038	
7. Software: Web Cam driver	
8. 2 x 1m telephone line with termination	
9. 1 x serial cable with 1 meter long	
10. 1 x parallel cable with 1 meter long	

Confirmed by:

Chow Chi Ming, Billy
Assistant Manager
Intertek Testing Services Hong Kong Ltd.
Agent for Primatronix Ltd.



Signature

June 22, 2006

Date

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EXHIBIT 3

EMISSION RESULTS

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3.0 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.

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3.1 Field Strength Calculation

The field strength is calculated by adding the Antenna Factor and Cable Factor, and subtracting the Amplifier Gain (if any) from the measured reading. The basic equation with a sample calculation is as below:

$$FS = RA + AF + CF - AG$$

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

In the following table(s), the reading shown on the data table reflects the preamplifier gain. An example for the calculations in the following table is as follows:

$$FS = RR + LF$$

where FS = Field Strength in dB μ V/m

RR = RA - AG in dB μ V

LF = CF + AF in dB

Assume a receiver reading of 52.0 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, giving a field strength of 32 dB μ V/m. This value in dB μ V/m was converted to its corresponding level in μ V/m.

$$RA = 52.0 \text{ dB}\mu\text{V}/\text{m}$$

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

$$RR = 23.0 \text{ dB}\mu\text{V}$$

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

$$LF = 9.0 \text{ dB}$$

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

$$FS = RR + LF$$

$$FS = 23 + 9 = 32 \text{ dB}\mu\text{V}/\text{m}$$

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

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3.2 Radiated Emission Configuration Photograph

**Worst Case Radiated Emission
at
72.002 MHz**

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

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3.3 Radiated Emission Data

The data on the following page lists the significant emission frequencies, the limit and the margin of compliance. Numbers with a minus sign are below the limit.

Judgement: Passed by 5.8 dB

TEST PERSONNEL:



Signature

Ben W. K. Ho, Compliance Engineer
Typed/Printed Name

June 22, 2006

Date

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Applicant: Primatronix Ltd.
Model: VOIP VOICE C7

Date of Test: May 18, 2006

Table 1

Radiated Emissions

Polarization	Frequency (MHz)	Reading (dB μ V)	Antenna Factor (dB)	Pre-Amp Gain (dB)	Net at 3m (dB μ V/m)	Limit at 3m (dB μ V/m)	Margin (dB)
V	48.001	37.6	11.0	16	32.6	40.0	-7.4
H	72.002	43.2	7.0	16	34.2	40.0	-5.8
H	120.003	36.0	14.0	16	34.0	43.5	-9.5
H	168.004	31.6	18.0	16	33.6	43.5	-9.9
H	192.056	34.3	16.0	16	34.3	43.5	-9.2
H	216.043	39.0	17.0	16	40.0	46.0	-6.0
H	240.071	30.6	19.0	16	33.6	46.0	-12.4
H	264.078	29.4	21.0	16	34.4	46.0	-11.6
H	288.068	28.5	22.0	16	34.5	46.0	-11.5
H	336.101	27.1	24.0	16	35.1	46.0	-10.9
H	384.116	25.2	24.0	16	33.2	46.0	-12.8
H	432.131	24.6	25.0	16	33.6	46.0	-12.4
H	456.138	22.8	26.0	16	32.8	46.0	-13.2
H	508.161	21.0	27.0	16	32.0	46.0	-14.0

Notes:

1. Peak Detector Data unless otherwise stated.
2. All measurements were made at 3 meter. 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.
4. Horn antenna is used for the emission over 1000MHz.

Test Engineer: Ben W. K. Ho

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3.4 Conducted Emission Configuration Photograph

**Worst Case Line-Conducted Configuration
at
15.450 MHz**

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

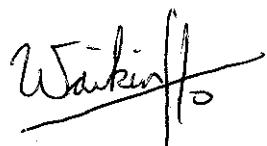
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3.5 Conducted Emission Data

For electronic filing, the graph and data table of conducted emission is saved with filename: conducted.pdf.

Judgement: Passed by 9.6 dB

TEST PERSONNEL:



Signature

Ben W. K. Ho, Compliance Engineer
Typed/Printed Name

June 22, 2006
Date

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Applicant: Primatronix Ltd.
Model: VOIP VOICE C7

Date of Test: May 18, 2006

Graph 1

Conducted Emissions Section 15.107 Requirements

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Applicant: Primatronix Ltd.
Model: VOIP VOICE C7

Date of Test: May 18, 2006

Table 2

Conducted Emissions Section 15.107 Requirements

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EXHIBIT 4

EQUIPMENT PHOTOGRAPHS

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4.0 Equipment Photographs

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

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EXHIBIT 5

PRODUCT LABELLING

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5.0 Product Labelling

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

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EXHIBIT 6

TECHNICAL SPECIFICATIONS

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6.0 Technical Specifications

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

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EXHIBIT 7

INSTRUCTION MANUAL

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7.0 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.