CMA Testing and Certification Laboratories
廠商會檢定中心

TEST REPORT

Report No.	:	AK026333-001	Date :	2008-07-30
Application No.	:	LK213865(3)		
Client	:	Janam Technologies LLC 40 Goose Hill Road, Cold Spring Harbor, New York 11724, United States		
Sample Description	:	One(1) submitted sample(s) stated to be Janam barcode scanning mobile computer of Model No. XP30W-1P, XP30W-1N, XM60W-1P, XM60W-1N, XM65W-1P and XM65W-1N Rating : 1 x 3.7 V rechargeable battery : AC 100V ~ 240V to DC 5V adaptor No. of submitted sample : One (1) piece(s) ***		
Date Received	:	2008-05-29.		
Test Period	:	2008-05-29 to 2008-06-30.		
Test Requested	:	FCC Part 15 Certification.		
Test Method	:	47 CFR Part 15 (10-1-07 Edition) ANSI C63.4 – 2003		
Test Result	:	See attached sheet(s) from page 2 to 11.		
Conclusion	:	The submitted sample was found to comply with requirement of FCC Part 15 Subpart B.		
Remark	:	All six models are the same in circuitry and components; and therefore model has been XP30W-1N chosen to be the representative of the test sample.		

For and on behalf of
CMA Industrial Development Foundation Limited

Authorized Signature : _____

Andrew Wong
Senior Technical Officer
Electrical Division

FCC ID: UTWM60M65W

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1 General Information

1.1 General Description

The equipment under test (EUT) is a PDA for Janam barcode scanning mobile computer. The EUT is powered by 1 x 3.7V rechargeable battery. The operation system is Palm and built-in 34888 KB RAM, Barcode Scanner, Bluetooth and Wi-Fi features. The operation system in between six models as below:

-Model XP30W-1P and XP30W-1N is Palm platform.
-Model XM60W-1P and XM60W-1N is WinCE platform.
-Model XM65W-1P and XM65W-1N is Window Mobile platform.

The brief circuit description is saved with filename: OpDes.pdf

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1.2 Location of the test site

Radiated emissions measurements are investigated and taken pursuant to the procedures of ANSI C63.4 – 2003. A Semi-Anechoic Chamber Testing Site is set up for investigation and located at:

Ground Floor, Yan Hing Centre,
9 – 13 Wong Chuk Yeung Street,
Fo Tan, Shatin,
New Territories,
Hong Kong.

Conducted emissions measurements are investigated and also taken pursuant to the procedures of ANSI C63.4 – 2003. A shielded room is located at :

Ground Floor, Yan Hing Centre,
9 – 13 Wong Chuk Yeung Street,
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1.3 List of measuring equipment

Equipment	Manufacturer	Model No.	Serial No.	Calibration Due Date
EMI Test Receiver	R&S	ESCI	100152	2008 October 14
Broadband Antenna	Schaffner	CBL6112B	2692	2009 February 04
EMI Test Receiver	R&S	ESCS30	100001	2008 August 20
LISN	R&S	ESH3-Z5	100038	2009 March 02
LISN	R&S	ESH3-Z5	100010	2008 July 16

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2 Description of the radiated emission test

2.1 Test Procedure

Radiated emissions measurements are investigated and taken pursuant to the procedures of ANSI C63.4 – 2003.

The equipment under test (EUT) was placed on a non-conductive turntable with dimensions of 1.5m x 1m and 0.8m high above the ground. 3m from the EUT, a broadband antenna mounting on the mast received the signal strength. The turntable was rotated to maximize the emission level. The antenna was then moving along the mast from 1m up to 4m until no more higher value was found. Both horizontal and vertical polarization of the antenna were placed and investigated.

For below 30MHz, a loop antenna with its vertical plane is placed 3m from the EUT and rotated about its vertical axis for maximum response at each azimuth about the EUT. And the centre of the loop shall be 1 m above the ground.

The device was rotated through three orthogonal axes to determine which attitude and configuration produce the highest emission during Radiated Emission measurement.

2.2 Test Result

Peak Detector data was measured unless otherwise stated.

The frequencies from 30MHz to 1000MHz were investigated, and emissions more 20dB below limited were not reported. Thus, those higher emissions were presented in next page (section 2.3)

It was found that the EUT meet the FCC requirement.

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2.3 Radiated Emission Measurement Data

Radiated Emission

pursuant to

the requirement of FCC part 15 subpart B

Operation Mode: PC connected mode with Barcode scanning

Frequency (MHz)	Polarity (H/V)	Reading at 3m (dBμV/m)	Antenna and Cable factor (dB)	Field Strength (dBμV/m)	Limit at 3m (dBμV/m)	Margin (dB)
88.476	H	24.5	7.1	31.6	43.5	-11.9
398.964	H	28.9	14.7	43.6	46.0	-2.4
432.216	H	24.7	17.2	41.9	46.0	-4.1
531.957	H	25.9	19.0	44.9	46.0	-1.1
598.448	H	25.9	19.0	44.9	46.0	-1.1
615.082	H	23.6	21.2	44.8	46.0	-1.2
665.000	H	22.2	21.2	43.4	46.0	-2.6
672.321	H	20.2	21.2	41.4	46.0	-4.6
698.198	H	19.7	21.2	40.9	46.0	-5.1
708.760	V	8.6	21.5	30.1	46.0	-15.9

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3 Description of the Line-conducted Test

3.1 Test Procedure

Conducted emissions measurements are investigated and also taken pursuant to the procedures of ANSI C63.4 – 2003. The EUT was setup as described in the procedures, and both lines were measured.

3.2 Test Result

The PC connected mode has been tested.

It was found that the EUT met the FCC requirement.

3.3 Graph and Table of Conducted Emission Measurement Data

For electronic filing, the documents are saved with filename TestRpt2.pdf for PC connection.

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4 Photograph

4.1 Photographs of the Test Setup for Radiated Emission and Conduction Emission

For electronic filing, the photos are saved with filename TSup1.jpg to Tsup5.jpg

4.2 Photographs of the External and Internal Configurations of the EUT

For electronic filing, the photos are saved with filename ExPho1.jpg to ExPho2.jpg and InPho1.jpg to InPho6.jpg.

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5 Supplementary document

The following document were submitted by applicant, and for electronic filing, the document are saved with the following filenames:

Document	Filename
ID Label/Location	LabelSmp.jpg
Block Diagram	BlkDia.pdf
Schematic Diagram	Schem.pdf
Users Manual	UserMan.pdf
Operational Description	OpDes.pdf

5.1 Bandwidth

N/A

5.2 Duty Cycle

N/A

5.3 Transmission Time

N/A

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6 Appendices

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A3.	Photos of External Configurations	1	page
A4.	Photos of Internal Configurations	3	pages
A5.	ID Label/Location	1	page
A6.	Conducted Emission Measurement Data	2	pages
A7.	Block Diagram	1	page
A8.	Schematics Diagram	11	pages
A9.	User Manual	12	pages
A10.	Operation Description	2	pages

***** End of Report *****

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