CMA Testing and Certification Laboratories
廠商會檢定中心

TEST REPORT

Report No.	:	AK013225-001 Date : 2008-05-23
Application No.	:	LK208356(2)
Client	:	Janam Technologies LLC 100 Crossways Park West, Suite 105,Woodbury, NY 11797
Sample Description	:	One(1) submitted sample(s) stated to be Janam XP20W of Series No. XP20W-1P and XP20W-1N Model No. for XP20W-1P series XP20W-1PMLYC06, XP20W-1PMLYC00 and XP20W-1PMLYC05 Model No. for XP20W-1N series XP20W-1NMLYC06, XP20W-1NMLYC00 and XP20W-1NMLYC05 Rating : 1 x 3.7 V rechargeable battery : AC 100V ~ 240V to DC 5V adaptor No. of submitted sample : Two (2) piece(s) ***
Date Received	:	2008-03-22.
Test Period	:	2008-03-22 – 2008-04-18.
Test Requested	:	FCC Part 15 Class II Permissive Change.
Test Method	:	47 CFR Part 15 (10-1-07 Edition) and ANSI C63.4 – 2003
Test Result	:	See attached sheet(s) from page 2 to 12.
Conclusion	:	The submitted sample was found to comply with requirement of FCC Part 15 Subpart C and Subpart B.
Remark	:	All six models in two different series are the same in construction; and therefore model XP20W-1PMLYC06 has been chosen to be the representative of the test sample. The difference in between six models is utilized laser aimer or LED aimer for barcode scanner.

For and on behalf of
CMA Industrial Development Foundation Limited

Authorized Signature : _____

Danny Chui
Manager
Electrical Division

FCC ID: UTWP20W

This document is issued subject to CMA Testing standard TEARMS AND CONDITIONS, and shall not be reproduced except in full or with written approval by CMA Testing.
CMA Industrial Development Foundation Limited
Room 1302, Yan Hing Centre, 9-13 Wong Chuk Yeung St.., Fo Tan, Shatin, Hong Kong.
Tel: (852) 2698 8198 Fax: (852) 2695 4177 E-mail: info@cmatcl.com Web Site: http://www.cmatcl.com

CMA Testing and Certification Laboratories
廠商會檢定中心

TEST REPORT

Report No. : AK013225-001 Date : 2008-05-23

Table of Contents

This document is issued subject to CMA Testing standard TEARMS AND CONDITIONS, and shall not be reproduced except in full or with written approval by CMA Testing.

CMA Industrial Development Foundation Limited
Room 1302, Yan Hing Centre, 9-13 Wong Chuk Yeung St.., Fo Tan, Shatin, Hong Kong.
Tel: (852) 2698 8198 Fax: (852) 2695 4177 E-mail: info@cmatcl.com Web Site: http://www.cmatcl.com

TEST REPORT

Report No. : AK013225-001 Date : 2008-05-23

1 General Information

1.1 General Description

The equipment under test (EUT) is a PDA for Janam XP20W. The EUT is powered by 1 x 3.7V rechargeable battery. There is built-in 320MB memory, Barcode Scanner and Wi-Fi features.

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

This document is issued subject to CMA Testing standard TEARMS AND CONDITIONS, and shall not be reproduced except in full or with written approval by CMA Testing.

CMA Industrial Development Foundation Limited
Room 1302, Yan Hing Centre, 9-13 Wong Chuk Yeung St.., Fo Tan, Shatin, Hong Kong.
Tel: (852) 2698 8198 Fax: (852) 2695 4177 E-mail: info@cmatcl.com Web Site: http://www.cmatcl.com

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,
Fo Tan, Shatin,
New Territories,
Hong Kong.

This document is issued subject to CMA Testing standard TEARMS AND CONDITIONS, and shall not be reproduced except in full or with written approval by CMA Testing.
CMA Industrial Development Foundation Limited
Room 1302, Yan Hing Centre, 9-13 Wong Chuk Yeung St.., Fo Tan, Shatin, Hong Kong.
Tel: (852) 2698 8198 Fax: (852) 2695 4177 E-mail: info@cmatcl.com Web Site: http://www.cmatcl.com

1.3 List of measuring equipment

Equipment	Manufacturer	Model No.	Serial No.
EMI Test Receiver	R&S	ESCI	100152
Spectrum Analyzer	R&S	FSP30	100628
Broadband Antenna	Schaffner	CBL6112B	2692
EMI Test Receiver	R&S	ESCS30	100001
LISN	R&S	ESH3-Z5	100038
LISN	R&S	ESH3-Z5	100010

This document is issued subject to CMA Testing standard TEARMS AND CONDITIONS, and shall not be reproduced except in full or with written approval by CMA Testing.

CMA Industrial Development Foundation Limited
Room 1302, Yan Hing Centre, 9-13 Wong Chuk Yeung St.., Fo Tan, Shatin, Hong Kong.
Tel: (852) 2698 8198 Fax: (852) 2695 4177 E-mail: info@cmatcl.com Web Site: http://www.cmatcl.com

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 measurement.

2.2 Test Result

Peak Detector data was measured unless otherwise stated.

"#" means emissions appearing within the restricted bands shall follow the requirement of section 15.205.

It was found that the EUT meet the FCC requirement.

This document is issued subject to CMA Testing standard TEARMS AND CONDITIONS, and shall not be reproduced except in full or with written approval by CMA Testing.

CMA Industrial Development Foundation Limited
Room 1302, Yan Hing Centre, 9-13 Wong Chuk Yeung St.., Fo Tan, Shatin, Hong Kong.
Tel: (852) 2698 8198 Fax: (852) 2695 4177 E-mail: info@cmatcl.com Web Site: http://www.cmatcl.com

TEST REPORT

Report No. : AK013225-001 Date : 2008-05-23

2.3 Radiated Emission Measurement Data

Radiated Emission

pursuant to

the requirement of FCC part 15 subpart B

Operation Mode: Barcode Scanning with PC connection (with laser aimer)

Frequency (MHz)	Polarity (H/V)	Reading at 3m (dBμV/m)	Antenna and Cable factor	Field Strength at 3m (dBμV/m)	Limit at 3m (dBμV/m)	Margin (dB)
76.020	V	32.1	6.0	38.1	40.0	-1.9
168.744	V	29.0	10.7	39.7	43.5	-3.8
649.811	H	21.8	21.2	43.0	46.0	-3.0
698.320	H	23.3	21.2	44.5	46.0	-1.5
746.925	H	19.1	21.8	40.9	46.0	-5.1
769.530	H	22.1	21.8	43.9	46.0	-2.1
795.881	H	22.8	21.8	44.6	46.0	-1.4

This document is issued subject to CMA Testing standard TEARMS AND CONDITIONS, and shall not be reproduced except in full or with written approval by CMA Testing.

CMA Industrial Development Foundation Limited
Room 1302, Yan Hing Centre, 9-13 Wong Chuk Yeung St.., Fo Tan, Shatin, Hong Kong.
Tel: (852) 2698 8198 Fax: (852) 2695 4177 E-mail: info@cmatcl.com Web Site: http://www.cmatcl.com

TEST REPORT

Report No. : AK013225-001 Date : 2008-05-23

Radiated Emission

pursuant to

the requirement of FCC part 15 subpart B

Operation Mode: Barcode Scanning with PC connection (with LED aimer)

Frequency (MHz)	Polarity (H/V)	Reading at 3m (dBμV/m)	Antenna and Cable factor	Field Strength at 3m (dBμV/m)	Limit at 3m (dBμV/m)	Margin (dB)
43.160	V	10.8	13.0	23.8	40.0	-16.2
105.421	H	4.9	11.1	16.0	43.5	-27.5
138.900	H	4.0	12.6	16.6	43.5	-26.9
179.460	H	5.2	10.7	15.9	43.5	-27.6
184.080	H	5.4	9.5	14.9	43.5	-28.6

This document is issued subject to CMA Testing standard TEARMS AND CONDITIONS, and shall not be reproduced except in full or with written approval by CMA Testing.

CMA Industrial Development Foundation Limited
Room 1302, Yan Hing Centre, 9-13 Wong Chuk Yeung St.., Fo Tan, Shatin, Hong Kong.
Tel: (852) 2698 8198 Fax: (852) 2695 4177 E-mail: info@cmatcl.com Web Site: http://www.cmatcl.com

TEST REPORT

Report No. : AK013225-001 Date : 2008-05-23

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 battery charging mode has been tested. The EUT was connected to the adaptor producing the Maximum emission. The measurement data was indicated in Appendix.

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.

This document is issued subject to CMA Testing standard TEARMS AND CONDITIONS, and shall not be reproduced except in full or with written approval by CMA Testing.

CMA Industrial Development Foundation Limited
Room 1302, Yan Hing Centre, 9-13 Wong Chuk Yeung St.., Fo Tan, Shatin, Hong Kong.
Tel: (852) 2698 8198 Fax: (852) 2695 4177 E-mail: info@cmatcl.com Web Site: http://www.cmatcl.com

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 InPho2.jpg.

This document is issued subject to CMA Testing standard TEARMS AND CONDITIONS, and shall not be reproduced except in full or with written approval by CMA Testing.

CMA Industrial Development Foundation Limited
Room 1302, Yan Hing Centre, 9-13 Wong Chuk Yeung St.., Fo Tan, Shatin, Hong Kong.
Tel: (852) 2698 8198 Fax: (852) 2695 4177 E-mail: info@cmatcl.com Web Site: http://www.cmatcl.com

TEST REPORT

Report No. : AK013225-001 Date : 2008-05-23

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

5.4 Power Spectral Density

N/A

This document is issued subject to CMA Testing standard TEARMS AND CONDITIONS, and shall not be reproduced except in full or with written approval by CMA Testing.

CMA Industrial Development Foundation Limited
Room 1302, Yan Hing Centre, 9-13 Wong Chuk Yeung St.., Fo Tan, Shatin, Hong Kong.
Tel: (852) 2698 8198 Fax: (852) 2695 4177 E-mail: info@cmatcl.com Web Site: http://www.cmatcl.com

TEST REPORT

Report No. : AK013225-001 Date : 2008-05-23

6 Appendices

A1.	Photos of the set-up of Radiated Emissions	1	page
A2.	Photos of the set-up of Conducted Emissions	2	pages
A3.	Photos of External Configurations	1	page
A4.	Photos of Internal Configurations	4	pages
A5.	ID Label/Location	1	page
A6.	Block Diagram	1	page
A7.	Conducted Emission Measurement Data	2	pages
A8.	Schematics Diagram	19	pages
A9.	User Manual	12	pages
A10.	Operation Description	2	pages

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

This document is issued subject to CMA Testing standard TEARMS AND CONDITIONS, and shall not be reproduced except in full or with written approval by CMA Testing.

CMA Industrial Development Foundation Limited
Room 1302, Yan Hing Centre, 9-13 Wong Chuk Yeung St.., Fo Tan, Shatin, Hong Kong.
Tel: (852) 2698 8198 Fax: (852) 2695 4177 E-mail: info@cmatcl.com Web Site: http://www.cmatcl.com