CMA Testing and Certification Laboratories
廠商會檢定中心

TEST REPORT

Report No.	:	AG032238-001	Date :	2006 December 27
Application No.	:	LG223518(0)		
Client	:	Janam Technologies LLC 40 Goose Hill Road, Cold Spring Harbor, NY 11724		
Sample Description	:	One(1) submitted sample(s) stated to be Janam XP20 of Model No. XP-20N-1P and XP-20N-1N Radio Frequency : N/A Rating : 1 x 3.7V rechargeable battery AC100~240V to DC 5V adaptor No. of submitted sample : Three (3) piece(s) ***		
Date Received	:	2006 December 04		
Test Period	:	2006 December 05 – 2006 December 06		
Test Requested	:	FCC Part 15 Certification.		
Test Method	:	47 CFR Part 15 (10-1-05 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.		

For and on behalf of
CMA Industrial Development Foundation Limited

Authorized Signature : _____

Danny Chui
Deputy Manager - EL. Division

FCC ID: UTWP20N

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

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Table of Contents

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1 General Information

1.1 General Description

The equipment under test (EUT) is a multi-function product and is powered by a 3.7V rechargeable battery with built-in 320MB memory. It is controlled by a CPU and it has two features(s):
- PDA and barcode scanning.

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.
EMI Test Receiver	R&S	ESCI	100152
EMI Test Receiver	R&S	ESCS30	100001
Broadband Antenna	Schaffner	CBL6112B	2718
LISN	R&S	ESH3-Z5	100038

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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 measurement.

2.2 Test Result

All other measurements are well below the limit. Thus, those highest emissions were presented in next page.

The emissions meeting the requirement of section 15.109 are based on measurements employing the CISPR quasi-peak detector below 1000MHz and average detector for frequencies above 1000MHz.

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

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)
168.672	H	15.4	10.7	26.1	43.5	-17.4
216.852	H	21.7	9.8	31.5	46.0	-14.5
313.214	H	20.7	14.9	35.6	46.0	-10.4
398.954	H	24.7	14.9	39.6	46.0	-6.4
443.286	H	19.3	17.9	37.2	46.0	-8.8
487.640	V	18.8	17.9	36.7	46.0	-9.3
531.960	V	20.7	19.1	39.8	46.0	-6.2
664.980	V	14.3	21.2	35.5	46.0	-10.5
797.916	V	19.2	21.8	41.0	46.0	-5.0
886.586	H	16.2	22.7	38.9	46.0	-7.1

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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 battery charging mode was tested. The EUT was connected to the adaptor to produce the maximum emission. The measurement data was indicated in Appendix.

The result showed 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.

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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 TSup2.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 ExPho3.jpg and InPho1.jpg to InPho4.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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Report No. : AG032238-001 Date : 2006 December 27

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	2	Pages
A4.	Photos of Internal Configurations	2	Pages
A5.	ID Label/Location	1	Page
A6.	Conducted Emission Measurement Data	2	Pages
A7.	Block Diagram	1	Page
A8.	Schematics Diagram	18	Pages
A9.	User Manual	12	Pages
A10.	Operation Description	2	Pages

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

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