



**CMA Testing
and Certification
Laboratories**
廠商會檢定中心

TEST REPORT

Report No. : AJ003061-001 Date : 2007 March 12

Application No. : LG233696(7)

Applicant : Portable Innovation Technology Ltd.
Units 601-602, 6th Floor, Park Building,
476 Castle Peak Road,
Cheung Sha Wan,
Kowloon, Hong Kong

Sample Description : One(1) submitted sample(s) stated to be Bi-directional remote control for iPod
(remote controller) of Model No. ALP100C
Radio Frequency : 908.40MHz Transceiver
Rating : 1 x 3.7V rechargeable battery
No. of submitted sample : Two (2) piece(s) ***

Date Received : 2007 January 24

Test Period : 2007 January 29 – 2007 March 01

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 C.

Remark : The receiver within the transceiver is subject to verification procedure.

For and on behalf of
CMA Industrial Development Foundation Limited

Authorized Signature : _____

Danny Chui
Deputy Manager - EL. Division

Page 1 of 11

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TEST REPORT

Report No. : AJ003061-001

Date : 2007 March 12

Table of Contents

1	General Information	3
1.1	General Description	3
1.2	Location of the test site	4
1.3	List of measuring equipment.....	5
2	Description of the radiated emission test	6
2.1	Test Procedure.....	6
2.2	Test Result.....	6
3	Description of the Line-conducted Test.....	8
3.1	Test Procedure.....	8
3.2	Test Result.....	8
3.3	Graph and Table of Conducted Emission Measurement Data	8
4	Photograph	9
4.1	Photographs of the Test Setup for Radiated Emission and Conduction Emission	9
4.2	Photographs of the External and Internal Configurations of the EUT	9
5	Supplementary document	10
5.1	Bandwidth	10
5.2	Duty Cycle.....	10
5.3	Transmission Time.....	10
5.4	Power Spectral Density	10
6	Appendices.....	11



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Report No. : AJ003061-001

Date : 2007 March 12

1 General Information

1.1 General Description

The equipment under test (EUT) is a transceiver for Bi-directional remote control for iPod (remote controller). It operates at 908.40MHz and the oscillation of MCU is generated by a crystal. The EUT is power by a 3.7V rechargeable battery. When an iPod is plugged in to the dock station, the iPod can be controlled by the remote controller.

The brief circuit description is listed as follows:

- U1 and associated circuit act as a MCU.
- U15, U16 and associated circuit act as an integrated RF communication module.
- U3 and associated circuit act as a serial flash.
- U27 and associated circuit act as a low battery detector.
- U2 and associated circuit act as a voltage regulator for 2.8V.
- U4 and associated circuit act as a voltage regulator for 3.0V.
- U19 and associated circuit act as a backlight power supply.

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Page 3 of 11

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Report No. : AJ003061-001

Date : 2007 March 12

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,
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FCC ID: UYAALP1001CR

Page 4 of 11

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TEST REPORT

Report No. : AJ003061-001 Date : 2007 March 12

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
Bilog Antenna	Schaffner	CBL6112B	2718
Horn Antenna	Schwarzbeck	BBHA 9120D	9120D-531
Broadband Pre-Amplifier	Schwarzbeck	BBV 9718	9718-119

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Page 5 of 11

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Report No. : AJ003061-001

Date : 2007 March 12

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.



TEST REPORT

Report No. : AJ003061-001 Date : 2007 March 12

2.3 Radiated Emission Measurement Data

Radiated emission

pursuant to

the requirement of FCC Part 15 subpart C

Frequency (MHz)	Polarity (H/V)	Reading at 3m (dB μ V/m)	Antenna and Cable factor (dB)	Field Strength (dB μ V/m)	Limit at 3m (dB μ V/m)	Margin (dB)
908.400	H	60.3	23.6	83.9	94.0	-10.1
1816.868	H	14.7	30.0	44.7	54.0	-9.3
#2724.976	H	7.3	34.1	41.4	54.0	-12.6
#3633.624	H	6.5	35.7	42.2	54.0	-11.8
#4542.112	H	4.5	38.9	43.4	54.0	-10.6

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Page 7 of 11

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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

No measurement is required as the EUT is a battery-operated product.

3.3 Graph and Table of Conducted Emission Measurement Data

Not Applicable



TEST REPORT

Report No. : AJ003061-001 Date : 2007 March 12

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 ExPho2.jpg and InPho1.jpg to InPho3.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

The plot on saved in TestRpt2.pdf shows the fundamental emission is confined in the specified band. It also shows that the band edge met the 15.249 requirement at 902 and 928MHz.

5.2 Duty Cycle

N/A

5.3 Transmission Time

N/A

5.4 Power Spectral Density

N/A



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6 Appendices

A1.	Photos of the set-up of Radiated Emissions	1	page
A2.	Photos of External Configurations	1	page
A3.	Photos of Internal Configurations	2	pages
A4.	ID Label/Location	1	page
A5.	Bandwidth Plot	1	page
A6.	Block Diagram	1	page
A7.	Schematics Diagram	3	pages
A8.	User Manual	8	pages
A9.	Operation Description	3	pages

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

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Page 11 of 11

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