



TEST REPORT

Report No. : AJ003060-001 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 (dock station) of Model No. ALP1001C
Radio Frequency : 908.40MHz Transceiver
Rating : AC 100~240V to DC 8~12 V adaptor
: USB DC 5V
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

FCC ID: UYAALP1001CC

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1 General Information

1.1 General Description

The equipment under test (EUT) is a transceiver for Bi-directional remote control for iPod (dock station). It operates at 908.40MHz and the oscillation of radio control is generated by a Z-wave module. The EUT is powered by a DC 5V, either USB 5V or AC to DC adaptor. When an iPod is plugged in to the dock station, the iPod can be controlled by the remote controller. The audio output can be chosen either "original" or "amplified". The video output is a S-Video output.

The brief circuit description is listed as follows:

- U15 and associated circuit act as an integrated RF communication module.
- U1 and associated circuit act as a voltage regulator for 3.3V.
- U2 and associated circuit act as a voltage regulator for 5V.
- U8 and associated circuit act as a battery charger.
- U5 and associated circuit act as a volume controller.



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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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New Territories,
Hong Kong.



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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 |
| 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 |
| LISN | R&S | ESH3-Z5 | 100010 |



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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

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.



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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) |
|--------------------|-------------------|------------------------------------|-------------------------------------|-------------------------------------|-------------------------------|----------------|
| 908.408 | H | 64.7 | 23.6 | 88.3 | 94.0 | -5.7 |
| 1816.870 | H | 19.3 | 30.0 | 49.3 | 54.0 | -4.7 |
| #2725.250 | H | 9.9 | 34.1 | 44.0 | 54.0 | -10.0 |
| #3633.554 | H | 7.1 | 35.7 | 42.8 | 54.0 | -11.2 |
| #4542.048 | H | 5.6 | 38.9 | 44.5 | 54.0 | -9.5 |



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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. The EUT is powered by a USB port of the PC only. There is no communication between the EUT and the PC.

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.



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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 InPho2.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 TestRpt3.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 Calculation

N/A

5.3 Transmission Time

N/A

5.4 Power Spectral Density

N/A



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6 Appendices

| | | | |
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| 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 | 1 | page |
| A5. | ID Label/Location | 1 | page |
| A6. | Bandwidth Plot | 1 | page |
| A7. | Conducted Emission Measurement Data | 2 | pages |
| A8. | Block Diagram | 1 | page |
| A9. | Schematics Diagram | 3 | pages |
| A10. | User Manual | 8 | pages |
| A11. | Operation Description | 3 | pages |

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