CMA Testing and Certification Laboratories
廠商會檢定中心

# TEST REPORT

| | | | | |
|---|---|---|---|---|
| Report No. | : | AJ020537-001 | Date : | 2007 August 14 |
| Application No. | : | LJ213160(2) | | |
| Applicant | : | LEXIBOOK LIMITED<br>8TH FLOOR,<br>17 WANG CHIU ROAD,<br>KOWLOON BAY, KOWLOON,<br>HONG KONG. | | |
| Sample Description | : | One(1) submitted sample(s) stated to be Barbie Walkie Talkie and Spider Man Walkie Talkie of model No TW06BBUS and TW06SPUS<br>Radio Frequency : 49.860 MHz Transceiver<br>Rating : 1 x 9V size battery<br>No. of submitted sample : Two (2) set(s) *** | | |
| Date Received | : | 2007 July 10 | | |
| Test Period | : | 2007 July 10 – 2007 July 31 | | |
| Test Requested | : | FCC Part 15 Certification. | | |
| Test Method | : | 47 CFR Part 15 (10-1-05 Edition)<br>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 | : | All Two models are the same in circuitry and components; and therefore model TW06BBUS has been chosen to be the representative of the test sample.<br><br>The receiver for the transceiver is under FCC Part 15 verification procedure | | |

*For and on behalf of*
CMA Industrial Development Foundation Limited

Authorized Signature : _____

Danny Chui
Deputy Manager - EL. Division



FCC ID: UU8-TW06


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## 1 General Information

### 1.1 General Description

The equipment under test (EUT) is a transceiver for Barbie Walkie Talkie operating at 49.860MHz which is controlled by a crystal. The EUT is powered by 1 x 9V size battery. When it switched on and pressed the "Talk" button once, it transmits the voice signal or morse code. The radio output power is unable to adjust by the user and the antenna is permanently attached to the EUT.

The brief circuit description is listed as follows:

- XTAL and associated circuit act as oscillator.
- Q1 and associated circuit act as RF amplifier.
- Q2, Q3, Q4 and associated circuit act as amplifier.




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




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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 | 2007 Sept 20 |
| Broadband Antenna | Schaffner | CBL6112B | 2692 | 2008 May 23 |




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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.

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 (dBµV/m) | Antenna and Cable factor (dB) | Field Strength (dBµV/m) | Limit at 3m (dBµV/m) | Margin (dB) |
|---|---|---|---|---|---|---|
| 49.860 | V | 54.3 | 10.6 | 64.9 | 80.0 | -15.1 |
| 99.721 | H | 22.3 | 9.5 | 31.8 | 43.5 | -11.7 |
| 149.441 | H | 12.2 | 12.0 | 24.2 | 43.5 | -19.3 |
| 199.581 | H | 10.2 | 9.5 | 19.7 | 43.5 | -23.8 |
| #249.303 | H | 4.9 | 9.8 | 14.7 | 46.0 | -31.3 |
| 299.163 | H | 6.0 | 13.9 | 19.9 | 46.0 | -26.1 |
| 349.015 | H | 8.5 | 14.9 | 23.4 | 46.0 | -22.6 |
| 398.873 | H | 9.7 | 14.9 | 24.6 | 46.0 | -21.4 |
| 448.732 | H | 7.0 | 17.9 | 24.9 | 46.0 | -21.1 |
| 498.732 | H | 7.1 | 17.9 | 25.0 | 46.0 | -21.0 |




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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




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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 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 TestRpt2.pdf shows the fundamental emission is confined in the specified band. The field strength of any emission appearing between the band edges and up to 10 kHz above and below the band edges (49.81 and 49.91 MHz) is at least 26dB below the carrier level. It meets the requirement of Section 15.235(b).

### 5.2 Duty cycle

N/A

### 5.3 Transmission time

N/A




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## 6 Appendices

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| A2. | Photos of External Configurations | 1 | page |
| A3. | Photos of Internal Configurations | 1 | page |
| A4. | ID Label/Location | 1 | page |
| A5. | Bandwidth Plot | 1 | page |
| A6. | Block Diagram | 1 | page |
| A7. | Schematics Diagram | 1 | page |
| A8. | User Manual | 4 | pages |
| A9. | Operation Description | 1 | page |

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




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