CMA Testing and Certification Laboratories
廠商會檢定中心

# TEST REPORT

Report No. : AF019207-001 Date : 2005 August 17

Application No. : LF212370(4)

Client : Mattel Asia Pacific Sourcing Limited
13/F., South Tower, World Finance Centre,
Harbour City, Tsimshatsui, Kowloon, Hong Kong.

Sample Description : One(1) submitted sample stated to be Pound Puppy Mutt of Model No. J7205
Rating : 4 x 1.5V AA size batteries
No. of submitted sample : Three (3) piece(s)***

Date Received : 2005 July 18

Test Period : 2005 July 18 – 2005 July 22

Test Requested : FCC Part 15 Certification

Test Method : FCC Rules and Regulations Part 15 – July 2004
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 Testing and Certification Laboratories

Authorized Signature : _____

Danny Chui
EMC Engineer - EL. Division



FCC ID : PIYJ7205-05A4R


**Room 1302, Yan Hing Centre, 9-13 Wong Chuk Yeung St.., Fo Tan, Shatin, Hong Kong.**
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## 1 General Information

### 1.1 General Description

The equipment under test (EUT) is a superregenerative receiver for Pound Puppy Mutt. Operating at 49.860MHz which is controlled by a LRC circuit. The EUT is powered by 4 x 1.5V "AA" size battery. When it switch on, it can receive a radio signal and running to difference direction.

The brief circuit description is listed as follows :
- L3, Q11 and associated circuit act as superregenerative receiver.
- IC1 and associated circuit act as decoder.
- IC2 and associated circuit act as voice IC.
- Q12 and associated circuit act as voltage adjust.
- Q1 – Q10 and associated circuit act as motor drive circuit.



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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,
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### 1.3 List of measuring equipment

| Equipment | Manufacturer | Model No. | Serial No. | Calibration Certification No. |
|---|---|---|---|---|
| EMI Test Receiver | R&S | ESCS30 | 100001 | S43284 |
| Broadband Antenna | Schaffner | CBL6112B | 2692 | CA3025 |
| Signal Generator | IFR | 2023B | 202302/938 | S43098 |
| LISN | R&S | ESH3-Z5 | 100038 | S43377 |
| LISN | R&S | ESH3-Z5 | 100010 | S43101 |
| Pulse Limiter | R&S | ESH3-Z2 | 100001 | S43325 |
| Biconical Antenna | R&S | HK116 | 837414/004 | 2GB05000535-0001 |
| Loop Antenna | EMCO | 6502 | 00056620 | 49906 |



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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.

A signal generator was used to radiate an unmodulated continuous wave (CW) signal to the EUT (superregenerative receiver) at its operating frequency in order to “cohere” the characteristic broadband emissions from the receiver.

### 2.2 Test Result

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

The harmonic emissions meeting the requirement of section 15.109 are based on measurements employing the CISPR quasi-peak detector.

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) |
|---|---|---|---|---|---|---|
| 48.520 | V | 21.1 | 10.2 | 31.3 | 40.0 | -8.7 |
| 48.749 | V | 22.3 | 10.2 | 32.5 | 40.0 | -7.5 |
| 48.971 | V | 22.7 | 10.2 | 32.9 | 40.0 | -7.1 |
| 49.199 | V | 21.7 | 10.2 | 31.9 | 40.0 | -8.1 |
| 51.350 | V | 17.9 | 8.0 | 25.9 | 40.0 | -14.1 |
| 51.641 | V | 18.8 | 8.0 | 26.8 | 40.0 | -13.2 |
| 95.472 | V | 14.4 | 9.4 | 23.8 | 43.5 | -19.7 |
| 95.720 | V | 14.1 | 9.4 | 23.5 | 43.5 | -20.0 |
| 99.270 | V | 12.1 | 9.4 | 21.5 | 43.5 | -22.0 |
| 99.396 | V | 15.2 | 9.4 | 24.6 | 43.5 | -18.9 |



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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

N/A

### 5.2 Duty Cycle

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 | 1 page |
| A4 | ID Label/Location | 1 page |
| A5 | Bandwidth Plot | 1 page |
| A6 | Schematics | 1 page |
| A7 | User Manual | 6 pages |
| A8 | Operation Description | 1 page |

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



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