TEST REPORT

Report Number: HK11020095-1

Application
for
Original Grant of 47 CFR Part 15 Certification

Category II Equipment of RSS-310 Issue 3

49MHz Superheterodyne Receiver(Parent Unit of Baby Monitor)

FCC ID: BMWTFY3040P

Prepared and Checked by:	Approved by:
	
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GENERAL INFORMATION

Applicant Name:	Learning Curve Brands, Inc.
Applicant Address:	1111 W. 22nd Street, Suite 320 Oak Brook, Illnois 60523 United States
FCC Specification Standard:	FCC Part 15, October 1, 2009 Edition
FCC ID:	BMWTFY3040P
FCC Model(s):	Y3040P
IC Specification Standard:	RSS-Gen Issue 3, December 2010 RSS-310 Issue 3, December 2010
IC Model(s):	Y3040P
Type of EUT:	Superheterodyne Receiver
Description of EUT:	49MHz Superheterodyne Receiver(Parent Unit of Baby Monitor)
Serial Number:	N/A
Sample Receipt Date:	January 18, 2011
Date of Test:	January 18-20, 2011
Report Date:	February 18, 2011
Environmental Conditions:	Temperature: +10 to 40°C Humidity: 10 to 90%

Table of Contents

EXHIBIT 1
TEST RESULTS SUMMARY & STATEMENT OF COMPLIANCE

1.0 Test Results Summary & Statement of Compliance

1.1 Summary of Test Results

Test Items	FCC Part 15 Section	RSS-210/ RSS-Gen# / RSS-310^ Section	Results	Details see section
Radiated Emission from Receiver	15.109	3.1^	Pass	4.3
AC Power Line Conducted Emission	15.107	7.2.4#	Pass	4.5

1.2 Statement of Compliance

The equipment under test is found to be complying with the following standards:

FCC Part 15, October 1, 2009 Edition
RSS-Gen Issue 3, December 2010
RSS-310 Issue 3, December 2010

EXHIBIT 2
GENERAL DESCRIPTION

2.0 General Description

2.1 Product Description

The Y3040P is a 49MHz Superheterodyne Receiver(Parent Unit of Baby Monitor). It operates at 49.83MHz and 49.89MHz. EUT is powered by 120VAC to 6VDC 200mA AC adaptor and/or 3 x “AA” 1.5VDC battery.

The circuit description is attached in the Appendix and saved with filename: descri.pdf.

2.2 Test Methodology

Both AC power line-conducted and radiated emission measurements were performed according to the procedures in ANSI C63.4 (2003). Preliminary radiated scans and all radiated measurements were performed in Open Area Test Sites. All Radiated tests were performed at an antenna to EUT distance of 3 meters, unless stated otherwise in the "**Justification Section**" of this Application.

2.3 Test Facility

The open area test site and conducted measurement facility used to collect the radiated data and conducted data are at Roof Top and 2nd Floor respectively of Intertek Testing Services Hong Kong Ltd., which is located at Garment Centre, 576 Castle Peak Road, Kowloon, Hong Kong. This test facility and site measurement data have been fully placed on file with the FCC and the Industry Canada.

EXHIBIT 3
SYSTEM TEST CONFIGURATION

3.0 System Test Configuration

3.1 Justification

For radiated emissions testing, the equipment under test (EUT) was setup to receive continuously to simplify the measurement methodology. Care was taken to ensure proper power supply voltages during testing. During testing, all cables (if any) were manipulated to produce worst case emissions.

The EUT was powered by a 120VAC to 6VDC 200mA AC adaptor and/or new batteries.

For the measurements, the EUT was attached to a plastic stand if necessary and placed on the wooden turntable. If the EUT attached to peripherals, they were connected and operational to simulate typical use.

The signal was maximized through rotation and placement in the three orthogonal axes. The antenna height and polarization were varied during the search for maximum signal level. The antenna height was varied from 1 to 4 meters. Radiated emissions were taken at three meters unless the signal level was too low for measurement at that distance. If necessary, a pre-amplifier was used and/or the test was conducted at a closer distance.

A typical signal or an unmodulated CW signal at the operating frequency of the EUT has been supplied to the EUT for all radiated measurements. Such a signal is supplied by a signal generator and an antenna in close proximity to the EUT. The signal level is sufficient to stabilize the local oscillator of the EUT.

For receiver radiated measurement, the spectrum analyzer resolution bandwidth was 100kHz for measurement from 30MHz to 1GHz.

3.1 Justification - Cont'd

Detector function for radiated emissions is in peak mode.

The device is a superheterodyne receiver. No desensitization of the measurement equipment is required as the received signals are continuously.

For AC line conducted emission test, the EUT along with its peripherals were placed on a 1.0m(W)x1.5m(L) and 0.8m in height wooden table and the EUT was adjusted to maintain a 0.4 meter space from a vertical reference plane. The EUT was connected to power mains through a line impedance stabilization network (LISN), which provided 50ohm coupling impedance for measuring instrument. The LISN housing, measuring instrument case, reference ground plane, and vertical ground plane were bounded together. The excess power cable between the EUT and the LISN was bundled.

All connecting cables of EUT and peripherals were manipulated to find the maximum emission.

All relevant operation modes have been tested, and the worst case data is included in this report.

3.2 EUT Exercising Software

There was no special software to exercise the device. Once the unit is powered up, it receives the RF signal continuously.

3.3 Details of EUT and Description of Accessories

Details of EUT:

An AC adaptor and/or a battery (provided with the unit) were used to power the device. Their description are listed below.

(1) An AC adaptor (120VAC to 6VDC 200mA, Model: UD060020B) (Supplied by Client)
(2) An Operated battery (3 x "AA" 1.5VDC) (Supplied by Client)

Description of Accessories:

(1) Baby Unit, Model: Y3040C, FCC ID: BMWTFY3040C (Supplied by Client)

3.4 Measurement Uncertainty

When determining of the test conclusion, the Measurement Uncertainty of test has been considered.

EXHIBIT 4
TEST RESULTS

4.0 **Test Results**

Data is included of the worst case configuration (the configuration which resulted in the highest emission levels). A sample calculation, configuration photographs and data tables of the emissions are included.

4.1 Field Strength Calculation

The field strength is calculated by adding the reading on the Spectrum Analyzer to the factors associated with preamplifiers (if any), antennas, cables, pulse desensitization and average factors (when specified limit is in average and measurements are made with peak detectors). A sample calculation is included below.

FS = RA + AF + CF - AG + PD + AV

where FS = Field Strength in dBμV/m
RA = Receiver Amplitude (including preamplifier) in dBμV
CF = Cable Attenuation Factor in dB
AF = Antenna Factor in dB
AG = Amplifier Gain in dB
PD = Pulse Desensitization in dB
AV = Average Factor in -dB

In the radiated emission table which follows, the reading shown on the data table may reflects the preamplifier gain. An example of the calculations, where the reading does not reflect the preamplifier gain, follows:

FS = RA + AF + CF - AG + PD +AV

Example
Assume a receiver reading of 62.0 dBμV is obtained. The antenna factor of 7.4 dB and cable factor of 1.6 dB is added. The amplifier gain of 29 dB is subtracted. The pulse desensitization factor of the spectrum analyzer was 0 dB, and the resultant average factor was -10 dB. The net field strength for comparison to the appropriate emission limit is 32 dBμV/m. This value in dBμV/m was converted to its corresponding level in μV/m.

RA = 62.0 dBμV
AF = 7.4 dB
CF = 1.6 dB
AG = 29 dB
PD = 0 dB
AV = -10 dB
FS = 62 + 7.4 +1.6 -29 +0 + (-10) = 32 dBμV/m

Level in μV/m = Common Antilogarithm [(32 dBμV/m)/20] = 39.8 μV/m

4.2 Radiated Emissions from Receiver

4.2.1 Radiated Emission Configuration Photograph

Worst Case Radiated Emission
at

Parent Unit: 49.375 MHz

The worst case radiated emission configuration photographs are attached in the Appendix and saved with filename: config photos.pdf

4.2.2 Radiated Emission Data

The data in tables 1 list the significant emission frequencies, the limit and the margin of compliance.

Judgement -

Parent Unit: Passed by 5.9 dB margin

Mode: Receiving-Channel A

Table 1, Parent Unit

Radiated Emissions Data

Polarization	Frequency (MHz)	Reading (dBµV)	Pre-amp (dB)	Antenna Factor (dB)	Net at 3m (dBµV/m)	Limit at 3m (dBµV/m)	Margin (dB)
V	49.375	39.1	16	11.0	34.1	40.0	-5.9
V	98.750	38.5	16	12.0	34.5	43.5	-9.0
V	148.125	35.9	16	14.0	33.9	43.5	-9.6
V	197.500	33.6	16	16.0	33.6	43.5	-9.9
V	246.875	30.2	16	20.0	34.2	46.0	-11.8
V	296.250	28.0	16	22.0	34.0	46.0	-12.0
V	345.625	27.1	16	24.0	35.1	46.0	-10.9
V	395.000	25.6	16	25.0	34.6	46.0	-11.4
V	444.375	24.2	16	26.0	34.2	46.0	-11.8

NOTES:

1. Peak detector is used for the emission measurement.

2. All measurements were made at 3 meters. Radiated emissions not detected at the 3-meter distance were measured at 0.3-meter and an inverse proportional extrapolation was performed to compare the signal level to the 3-meter limit. No other radiated emissions than those reported were detected at a test distance of 0.3-meter.

3. Negative value in the margin column shows emission below limit.

4.3 AC Power Line Conducted Emission

[ ] Not applicable – EUT is only powered by battery for operation.

[×] EUT connects to AC power line. Emission Data is listed in following pages.

[ ] Base Unit connects to AC power line and has transmission. Handset connects to AC power line but has no transmission. Emission Data of Parent Unit is listed in following pages.

4.3.1 AC Power Line Conducted Emission Configuration Photograph

Worst Case Line-Conducted Configuration

The worst case line conducted configuration photographs are attached in the Appendix and saved with filename: config photos.pdf

4.3.2 AC Power Line Conducted Emission Data

The plot(s) and data in the following pages list the significant emission frequencies, the limit and the margin of compliance.

Passed by more than 20 dB margin

Worst Case: Receiving

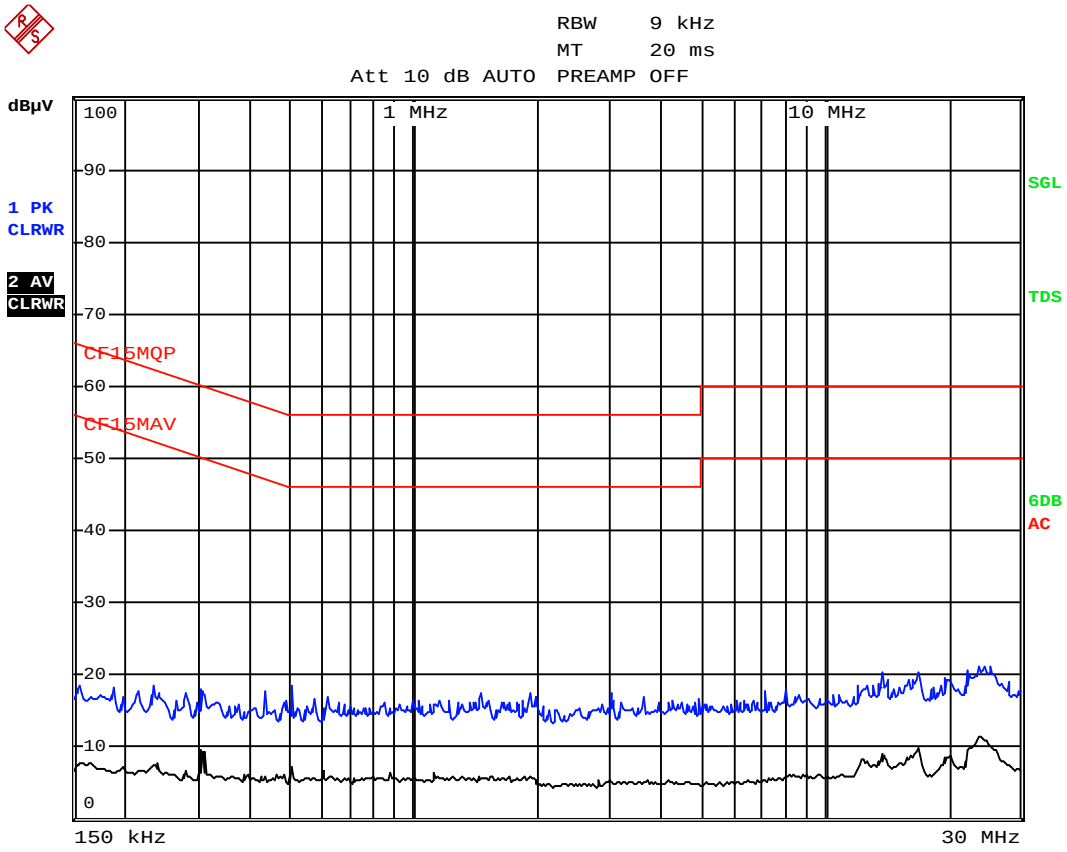

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EXHIBIT 5
EQUIPMENT LIST

5.0 **Equipment List**

1) Radiated Emissions Test

Equipment	Biconical Antenna	Log Periodic Antenna	EMI Test Receiver
Registration No.	EW-0954	EW-0446	EW-2251
Manufacturer	EMCO	EMCO	R&S
Model No.	3104C	3146	ESCI
Calibration Date	Apr. 14, 2010	Apr. 26, 2010	Oct. 22, 2009
Calibration Due Date	Oct. 14, 2011	Oct. 26, 2011	Jan. 22, 2011

Equipment	Spectrum Analyzer
Registration No.	EW-2188
Manufacturer	AGILENTTECH
Model No.	E4407B
Calibration Date	Dec. 27, 2010
Calibration Due Date	Dec. 31, 2011

2) Conducted Emissions Test

Equipment	EMI Test Receiver	Pulse Limiter	LISN
Registration No.	EW-2666	EW-0699	EW-0090
Manufacturer	R&S	R&S	R&S
Model No.	ESCI7	ESH3-Z2	ESH3-Z5
Calibration Date	Oct 12. , 2010	Dec. 24, 2009	Feb. 5, 2010
Calibration Due Date	Oct 12. , 2011	Jun. 24, 2011	Feb. 5, 2011

END OF TEST REPORT

APPENDIX
EXHIBITS OF APPLICATION FOR CERTIFICATION