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**SGS**

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**FEDERAL COMMUNICATIONS COMMISSION** Laboratory Division

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May 31, 2002

Registration number: 282399

Report No.: **02.08.0960E-2**

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FCC ID: CCT71644T

## ***FCC TEST REPORT***

**Application No.** : 02.08.0960E-2

**Applicant** : Fisher-Price Inc.

**FCC ID** : CCT71644T

**Equipment under Test (EUT):**

Name : Gentle Message Monitor 49MHz (Baby Unit)

Model No. : 71644

**Standards** : FCC PART 15, SUBPART C : 2002 for Transmit mode  
FCC PART 15 SUBPART B CLASS B for Receive mode

**Date of Receipt** : 7 August 2002

**Date of Test** : 8 August 2002 to 9 August 2002

**Date of Issue** : 12 August 2002

<b>Test Result :</b>	<b>PASS *</b>
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\* In the configuration tested, the EUT complied with the standards specified above.

Authorized Signature:

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation..



Kent Hsu  
Laboratory Manager  
SGS-CSTC Co., Ltd.

This report refers to the General Conditions for Inspection and Testing Services, printed overleaf

This report details the results of the testing carried out on one sample. The results contained in this test report do not relate to other samples of the same product and does not permit the use of the SGS PRODUCT CERTIFICATION MARK.. The manufacturer should ensure that all products in series production are in conformity with the product sample detailed in this report.

This report may only be reproduced and distributed in full. If the product in this report is used in any configuration other than that detailed in the report, the manufacturer must ensure the new system complies with all relevant standards. Any mention of SGS International Electrical Approvals or testing done by SGS International Electrical Approvals in connection with, distribution or use of the product described in this report must be approved by SGS International Electrical Approvals in writing.

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### **3 General Information**

#### **3.1 Client Information**

Applicant:	Fisher-Price Inc.
Address of Applicant:	636 Girard Avenue, East Aurora, NY 14052-1885, USA.
Name:	Gentle Message Monitor 49MHz (Mother Unit)
Item No.:	71644

#### **3.2 Details of E.U.T.**

Power Supply:	120V AC/ 60Hz (for AC/DC adaptor)
Model of adaptor:	DV-9200, 120V 60Hz-9VDC 200mA
Power Cord:	1.8m x 2 wires unscreened DC cable from adaptor.

#### **3.3 Description of Support Units**

The EUT was tested as an independent unit.

#### **3.4 Test Location**

All tests were performed at:-

SGS-CSTC Standards Technical Services Ltd., Guangzhou Safety & EMC Laboratory, 1/F, Building No. 1, Agriculture Machinery Materials Company Warehouse Ltd., Wushan Road Shipai, Tianhe District, Guangzhou, China. P.C. 510630.

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SGS UK Certificate No.: L32

Federal Communications Commission laboratory division

Registration number: 282399

#### **3.5 Other Information Requested by the Customer**

None.

## 4 Test Results

### 4.1 Radiated Emissions

Test Requirement:	FCC Part 15 B for Receive mode FCC Part 15 C for Transmit mode
Test Method:	Based on FCC Part15
Test Date:	8 August 2002
Frequency Range:	30MHz to 1GHz
Measurement Distance:	3m (in Semi-Anechoic Chamber)
Class:	Class B
Limit of intentional emissions:	80.0 dB $\mu$ V (Average detector was applicable)
Limit of other emissions :	40.0 dB $\mu$ V/m between 30MHz & 88MHz 43.5 dB $\mu$ V/m between 88MHz & 216MHz 46.0 dB $\mu$ V/m between 216MHz & 960MHz 54.0 dB $\mu$ V/m above 960MHz (Quasi-Peak detector was applicable)
Detector:	Peak for pre-scan (120kHz resolution bandwidth) Average or Quasi-Peak if maximised peak within 20dB of limit

#### 4.1.1 Test Instruments

Test Equipment	Manufacturer	Model	Asset No.	Cal. Date
Temperature, Humidity & Barometer	Oregon Scientific	BA-888	EMC 0003	26-07-2002
3m Semi- Anechoic Chamber	Frankonia	N/A	EMC0501	21-01-2002
Biconical Antenna	ROHDE & SCHWARZ	HK116	EMC0502	14-12-2001
Log-Periodic Dipole Antenna	ROHDE & SCHWARZ	HL223	EMC0504	14-12-2001
EMI Test Receiver	ROHDE & SCHWARZ	ESCS30	EMC0506	27-11-2001
Spectrum Analyzer	ADVANTEST	R3261C+99	EMC0402	04-08-2002
Antenna Mask	HD-GmbH	MA240	EMC0508	N/A
Turntable	HD-GmbH	DT430	EMC0509	N/A
Turntable & Antenna Mask Controller	HD-GmbH	HD100	EMC0510	N/A
Coaxial cable	ROHDE & SCHWARZ	N/A	EMC0511	08-03-2002

#### 4.1.2 Test Site

SGS-CSTC Ltd.  
Guangzhou Safety & EMC Laboratory  
SGS UK Certificate No.: L32  
Federal Communications Commission laboratory division  
Registration number: 282399

### 4.1.3 E.U.T. Operation

Power Supply: 120Vac /60Hz

Operating Environment:

Temperature: 24.0 °C

Humidity: 67 % RH

Atmospheric Pressure: 1003 mbar

EUT Operation:

Test the EUT in Transmit mode and Received mode with channel A and channel B.

Remark:

Connect the B, E conjunction of transistor D11 when testing in Transmit mode in order to disable the transmit function when testing in EUT in receive mode.

### 4.1.4 Measurement Data

#### 4.1.4.1 Transmit mode:

An initial pre-scan was performed with Peak detection mode. The EUT was measured for 2 orthogonal polarities. For the intentional emission, Average measurement was performed. For other emissions detected within 20dB below the limit line, Quasi-Peak was performed at those frequencies.

Please refer to the following Average and Quasi-Peak measurement result on Transmit mode:

Channel A Intentional emission

Frequency (MHz)	Antenna polarization	Average (dBuV/m)	Limit (dBuV/m)	Margin (dBuV/m)
49.89	Vertical	76.4	80.0	3.6
49.89	Horizontal	63.6	80.0	16.4

Channel A other emissions

Frequency (MHz)	Antenna polarization	Quasi-Peak (dBuV/m)	Limit (dBuV/m)	Margin (dBuV/m)
33.25	Vertical	26.1	40.0	13.9
73.40	Vertical	25.6	40.0	14.4
99.78	Vertical	16.1	46.0	29.9
247.16	Vertical	23.4	40.0	16.6
73.40	Horizontal	19.8	40.0	20.2
247.16	Horizontal	28.2	46.0	17.8

**Channel B Intentional emission**

<b>Frequency (MHz)</b>	<b>Antenna polarization</b>	<b>Average (dBuV/m)</b>	<b>Limit (dBuV/m)</b>	<b>Margin (dBuV/m)</b>
49.83	Vertical	78.4	80.0	1.6
49.83	Horizontal	61.4	80.0	18.6

**Channel B other emissions**

<b>Frequency (MHz)</b>	<b>Antenna polarization</b>	<b>Quasi-Peak (dBuV/m)</b>	<b>Limit (dBuV/m)</b>	<b>Margin (dBuV/m)</b>
33.22	Vertical	24.3	40.0	15.7
66.44	Vertical	28.6	40.0	11.4
66.44	Horizontal	26.7	40.0	13.3

**4.1.4.2 Receive mode**

An initial pre-scan was performed with Peak detection mode. The EUT was measured for 2 orthogonal polarities. Quasi-Peak measurement was performed at those frequencies that Peak was detected within 20 dB below the limit line.

Please refer to the following Quasi-Peak measurement result on Receive mode:

**Channel A**

<b>Frequency (MHz)</b>	<b>Antenna polarization</b>	<b>Quasi-Peak (dBuV/m)</b>	<b>Limit (dBuV/m)</b>	<b>Margin (dBuV/m)</b>
49.435	Vertical	37.2	40.0	2.8
247.190	Vertical	28.9	46.0	17.1
49.435	Horizontal	33.4	40.0	6.6
247.19	Horizontal	31.2	46.0	14.8

**Channel B**

<b>Frequency (MHz)</b>	<b>Antenna polarization</b>	<b>Quasi-Peak (dBuV/m)</b>	<b>Limit (dBuV/m)</b>	<b>Margin (dBuV/m)</b>
49.375	Vertical	22.3	40.0	17.7
279.680	Vertical	22.3	46.0	23.7
49.375	Horizontal	34.5	40.0	5.5

**4.1.5 Occupied Bandwidth**

Test Requirement:

FCC Part15 C

Test Method:

Based on FCC Part15 C Section 15.235:

Operation within the band 49.82 – 49.90MHz

Test Date:

09 August 2002

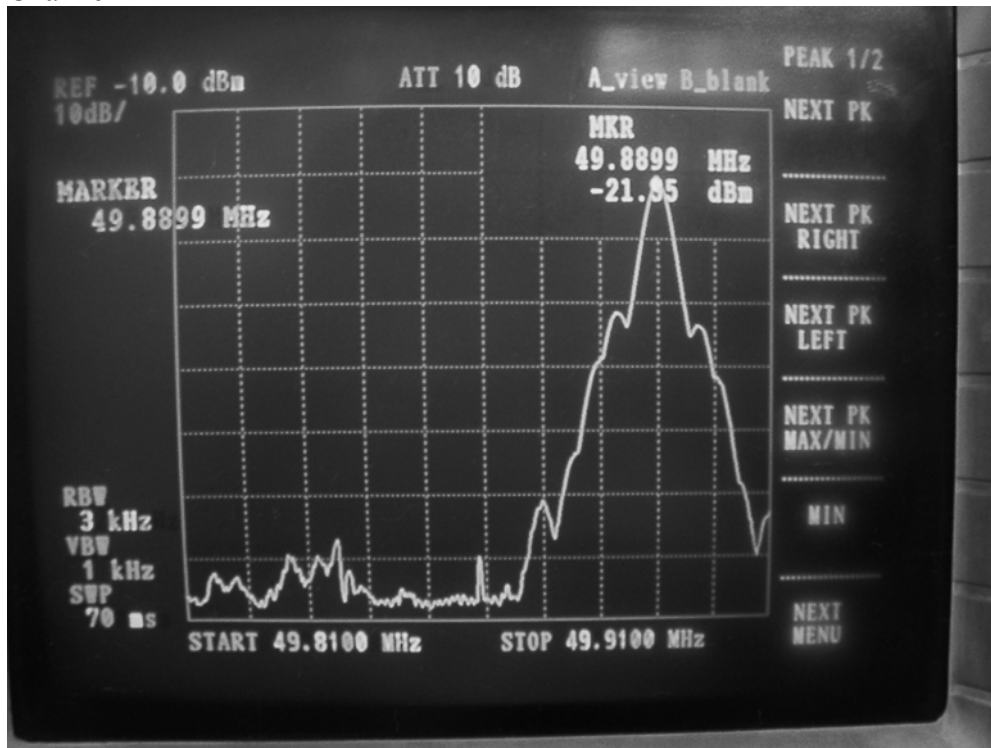
Requirements:

The field strength of any emissions appearing between the band edges and up to 10KHz above and below the band edges shall be attenuated at least 26dB below the level of the unmodulated carrier or to the general limits in Section 15.209, whichever permits the higher emission levels. The field strength of any emissions removed by more than 10KHz from the band edges shall not exceed the general radiated emission limit in Section 15.209.

Method of measurement: A small sample of the transmitter output was fed into the Spectrum Analyzer and the attached plot was taken. The vertical is set to 10dB per division. The horizontal scale is set to 2KHz per division.

The graph as below, represents the emissions take for this device.

Channel A



Channel B



The results: The unit does meet the FCC requirements.



## 4.2 Conducted Emissions Mains Terminals, 150kHz to 30MHz

Test Requirement: FCC Part 15 B for Receive mode  
 FCC Part 15 C for Transmit mode  
 Test Method: Based on FCC Part 15  
 Test Date: 9 August 2002  
 Frequency Range: 150kHz to 30MHz  
 Class / Severity: Class B  
 Detector: Peak for pre-scan (9kHz Resolution Bandwidth)  
 Quasi-Peak if maximised peak within 16dB of Quasi-Peak limit.

### 4.2.1 Test Instruments

Description	Manufacturer	Model No.	Asset No.	Cal. Date
DMM	FLUKE	73	EMC0003	04-08-2002
Temperature, Humidity & Barometer	Oregon Scientific	BA-888	EMC0006	26-07-2002
LISN	SCHAFFNER CHASE	MNZ050D11	EMC0102	10-09-2002
EMI Test Receiver	ROHDE & SCHWARZ	ESCS30	EMC0105	27-11-2001
EMI Test Software	ROHDE & SCHWARZ	ES-K1	EMC0112	N/A
Shielding Room	Frankonia	N/A	EMC0103	N/A
Variac	GZ Debao Factory	TS/DGC <sub>2</sub> -5	EMC0101	Check Before Use
Coaxial Cable	SGS	N/A	EMC0107	06-06-2002

### 4.2.2 Test Site

SGS-CSTC Ltd.  
 Guangzhou Safety & EMC Laboratory  
 SGS UK Certificate No.: L32  
 Federal Communications Commission laboratory division  
 Registration number: 282399

### 4.2.3 E.U.T. Operation

Input voltage: 120V AC 60Hz

Operating Environment:

Temperature: 23.0 °C

Humidity: 68 % RH

Atmospheric Pressure: 1003 mbar

EUT Operation :

Test the EUT in Transmit mode and Receive mode with channel A and channel B.

#### 4.2.4 Measurement Data

An initial pre-scan was performed on the live and neutral lines at 120V AC.

Quasi-peak and Average measurement was performed at the peak maximised frequencies.  
Please refer to the following Quasi-Peak and Average measurement results:

##### Channel A Transmit mode:

Frequency (MHz)	Line	Quasi-Peak (dBuV)	Limit (dBuV)	Margin (dBuV)	Average (dBuV)	Limit (dBuV)	Margin (dBuV)
0.15	Live	20.1	66.0	45.9	10.3	56.0	45.7
0.15	Neutral	20.2	66.0	45.8	9.6	56.0	46.4
16.63	Live	25.4	60.0	34.6	25.3	50.0	24.7
16.63	Neutral	24.8	60.0	35.2	24.6	50.0	25.4

##### Channel B Transmit mode:

Frequency (MHz)	Line	Quasi-Peak (dBuV)	Limit (dBuV)	Margin (dBuV)	Average (dBuV)	Limit (dBuV)	Margin (dBuV)
0.15	Live	20.2	66.0	45.8	11.2	56.0	44.8
0.15	Neutral	20.9	66.0	45.1	9.6	56.0	46.4
16.61	Live	33.2	60.0	26.8	33.1	50.0	16.9
16.61	Neutral	32.4	60.0	27.6	32.4	50.0	17.6

##### Channel A Receive mode:

Frequency (MHz)	Line	Quasi-Peak (dBuV)	Limit (dBuV)	Margin (dBuV)	Average (dBuV)	Limit (dBuV)	Margin (dBuV)
0.15	Live	22.7	66.0	43.3	11.9	56.0	44.1
0.15	Neutral	21.8	66.0	44.2	10.8	56.0	45.2
16.63	Live	15.3	60.0	44.7	15.2	50.0	34.8
16.63	Neutral	14.9	60.0	45.1	14.7	50.0	35.3

##### Channel B Receive mode:

Frequency (MHz)	Line	Quasi-Peak (dBuV)	Limit (dBuV)	Margin (dBuV)	Average (dBuV)	Limit (dBuV)	Margin (dBuV)
0.15	Live	20.4	66.0	45.6	12.4	56.0	43.6
0.15	Neutral	21.3	66.0	44.7	11.7	56.0	44.3
16.61	Live	14.6	60.0	45.4	14.3	50.0	35.7
16.61	Neutral	14.5	60.0	45.5	14.3	50.0	35.7