ELECTROMAGNETIC EMISSIONS COMPLIANCE REPORT
CERTIFICATION TO FCC PART 15 REQUIREMENTS

for

UNINTENTIONAL RADIATOR

49 MHz REMOTE CONTROL CAR RECEIVER

MODEL NO: 50800

BRAND NAME: R/C SUSIE AND ANGELICA CHATMOBILE

FCC ID NO: APB50800-01A4R

REPORT NO: 01U0732-1

DATE: MAY 15, 2001

Prepared for
MATTEL TOYS, INC.
333 CONTINENTAL BLVD.
EL SEGUNDO, CA 90245-5012
USA

Prepared by
COMPLIANCE ENGINEERING SERVICES, INC.
561 F MONTEREY ROAD
MORGAN HILL, CA 95037, USA
TEL: (408) 463-0885
FAX: (408) 463-0888

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1. VERIFICATION OF COMPLIANCE

COMPANY NAME	:	MATTEL TOYS, INC. 333 CONTINENTAL BLVD. EL SEGUNDO, CA 90245-5012 USA
CONTACT PERSON	:	JOHN DASPIT, STAFF ENGINEER
TELEPHONE NO.	:	310-252-4211
EUT DESCRIPTION	:	49MHz REMOTE CONTROL CAR RECEIVER
MODEL NAME/NUMBER	:	50800
BRAND NAME	:	R/C SUSIE AND ANGELICA CHATMOBILE
SERIAL NUMBER	:	N/A
FCC ID	:	APB50800-01A4R
DATE TESTED	:	MAY 07, 2001
REPORT NUMBER	:	01U0732-1

TYPE OF EQUIPMENT	REMOTE CONTROL CAR RECEIVER (UNINTENTIONAL RADIATOR)
EQUIPMENT TYPE	49 MHz SUPERREGENERATE RECEIVER
MEASUREMENT PROCEDURE	ANSI 63.4 / 1992
LIMIT TYPE	CERTIFICATION
FCC RULE	CFR 47, PART 15.109

The above equipment was tested by Compliance Engineering Services, Inc. for compliance with the requirements set forth in CFR 47, PART 15. This said equipment in the configuration described in this report shows that maximum emission levels emanating from equipment are within the compliance requirements. **Warning**: This document reports conditions under which testing was conducted and results of tests performed. This document may not be altered or revised in any way unless done so by Compliance Certification Services and all revisions are duly noted in the revisions section. Any alteration of this document not carried out by Compliance Certification will constitute fraud and shall nullify the document.

Tested and/or Reviewed By:

MIKE ZHU
SENIOR EMC ENGINEER
COMPLIANCE CERTIFICATION SERVICES

Approved & Released For CCS By:

STEVE CHENG
EMC ENGINEERING MANAGER
COMPLIANCE CERTIFICATION SERVICES

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2. PRODUCT DESCRIPTION

MATTEL TOYS, INC., Model R/C SUSIE AND ANGELICA CHATMOBILE is the receiving portion of a remote control toy. The associated Transmitter is manufactured by MATTEL TOYS, INC., Model No 50800: FCC ID APB50800-01A4T.

3. TEST FACILITY

The 3 meter open area test site and conducted measurement facility used to collect the radiated data is located at 561F Monterey Road, Morgan Hill, California, U.S.A. A detailed description of the test facilities was submitted to the Commission on May 27, 1994.

The measuring instrument, which was utilized in performing the tests documented herein, has been calibrated in accordance with the manufacturer's recommendations for utilizing calibration equipment, which is traceable to recognized national standards.

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4. MEASUREMENT EQUIPMENT USED

Manufacturer	Model Number	Description	Serial Number	Cal Due Date
H.P.	85686B	Spectrum Analyzer	3014A06685	06/16/01
H.P.	85650A	Quasi-Peak Detector	C0559	05/04/02
H.P.	8447D	Pre-Amplifier	2944A06833	121/01
H.P.	8640B	Signal Generator	C00597	04/10/02
SCHAFFNER-CHASE	CBL6112B	Antenna, Bilog	2586	12/11/01
BATTERY	N/A	3 x 1.5Volt Nicad or 3 x 1.5Volt Alkaline	N/A	N/A

5. TEST CONFIGURATION

Set signal generator to transmit at 49 MHz. Adjusted generator level and frequency to get the maximum coherent and emission of the Eut. The receiver receives the signal. All the wires are placed on the turntable to their maximum length to simulate the worse emission condition.

6. TESTS CONDUCTED

CFR 47, 15.109 RADIATED EMISSION TESTS	CONDUCTED AT 3 METERS

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561 F MONTEREY, MORGAN HILL CA 95037 TEL:(408)463-0885 FAX:(408)463-0885

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7. RADIATED EMISSION TEST PROCEDURE

The EUT and all other support equipment are placed on a wooden table 80 cm above the ground screen. Antenna to EUT distance is 3 meters. During the test, the table is rotated 360 degrees to maximize emissions and the antenna is positioned from 1 to 4 meters above the ground screen to further maximize emissions. The antenna is polarized in both vertical and horizontal positions.

Monitor the frequency range of interest at a fixed antenna height and EUT azimuth. Frequency span should be small enough to easily differentiate between broadcast stations and intermittent ambients. Rotate EUT 360 degrees to maximize emissions received from EUT. If emission increases by more than 1 dB, or if another emission appears that is greater by 1 dB, return to azimuth where maximum occurred and perform additional cable manipulation to further maximize received emission.

Move antenna up and down to further maximize suspected highest amplitude signal. If emission increased by 1 dB or more, or if another emission appears that is greater by 1dB or more, return to antenna height where maximum signal was observed and manipulate cables to produce highest emissions, noting frequency and amplitude.

8. COHERENT TESTS

During Radiated Emission Tests, H.P. Signal Generator Model No: 8640B (0.5 - 1024 MHz) was used to radiate unmodulated CW signal to EUT at 49 MHz. Please refer to radiated emission data for six highest readings.

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9. EQUIPMENT MODIFICATIONS

To achieve compliance to FCC Section 15.109, the following change(s) were made during compliance testing:

No changes were required in order to achieve compliance to FCC Section 15.109.

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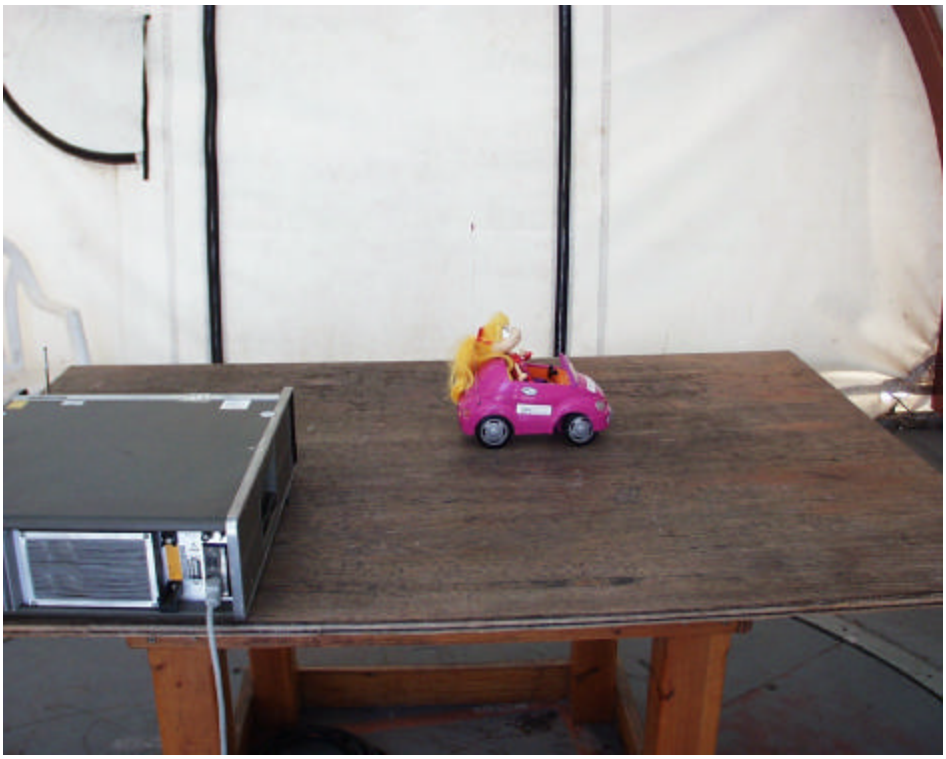
10. TEST CONFIGURATION PHOTOS (Radiated Emission Test)



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COMPLIANCE
Certification Services

FCC, VCCI, CISPR, CE, AUSTEL, NZ
UL, CSA, TUV, BSMI, DHHS, NVLAP

561F MONTEREY ROAD, SAN JOSE, CA 95037-9001
PHONE: (408) 463-0885 FAX: (408) 463-0888

Project #: 01U0732-1
Report #: 010507A5
Date& Time: 05/07/01 10:41 AM
Test Engr: MIKE ZHU

Company: MATTEL EL SEGUANDO KM
EUT Description: 40MHZ RECEIVER,M/N: RC SUSIE CHATMOBILE
Test Configuration : EUT/SIGNAL GENERATOR
Type of Test: FCC CLASS B
Mode of Operation: RX MODE

(●) A-Site ( ) B-Site ( ) C-Site ( ) F-Site | 6 Worst Data | Descending

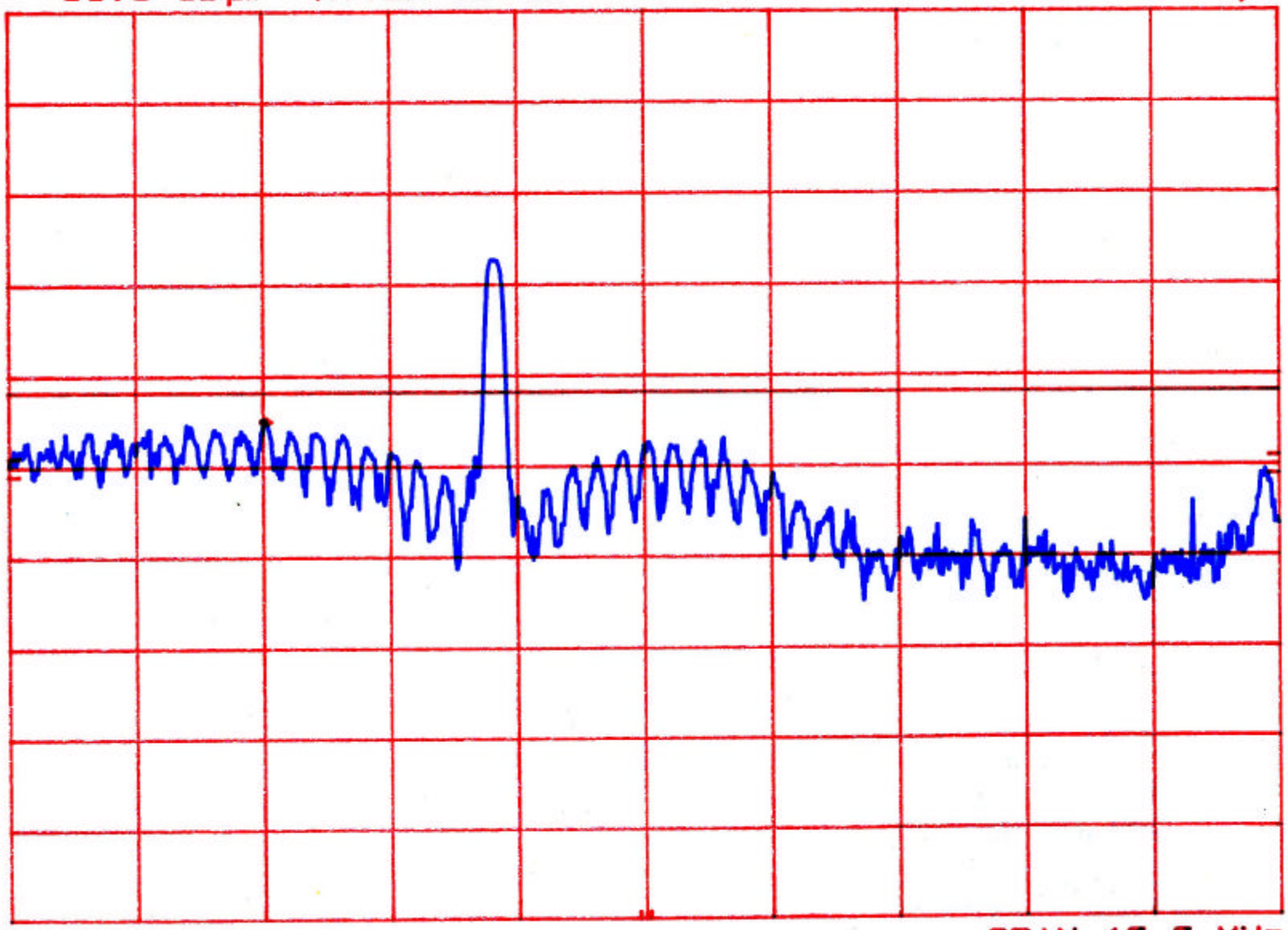
Freq. (MHz)	Reading (dBuV)	AF (dB)	Closs (dB)	Pre-amp (dB)	Level (dBuV/m)	Limit FCC_B	Margin (dB)	Pol (H/V)	Az (Deg)	Height (Meter)	Mark (P/Q/A)
46.90	49.70	13.59	0.90	27.84	36.35	40.00	-3.65	3mV	60.00	1.00	P
47.09	49.10	13.50	0.90	27.84	35.66	40.00	-4.34	3mV	60.00	1.00	P
47.09	49.30	13.50	0.90	27.84	35.86	40.00	-4.14	3mV	60.00	1.00	P
47.31	49.30	13.39	0.90	27.84	35.76	40.00	-4.24	3mV	60.00	1.00	P
47.48	50.42	13.31	0.90	27.84	36.80	40.00	-3.20	3mV	60.00	1.00	P
47.68	49.30	13.21	0.91	27.83	35.59	40.00	-4.41	3mV	60.00	1.00	P
47.87	48.90	13.12	0.91	27.83	35.10	40.00	-4.90	3mV	60.00	1.00	P

Total data #: 7
V.2a

Above data taken by using a coherent freq.=49.30Mhz.
Completed full scan in the range 30-1000Mhz in vertical & horizantal pol. For X,Y,Z positions.

MATTEL 49MHZ RECEIVER FCCID APB50800-01A4R MKR 47.48 MHz

REF 81.8 dBμV ATTEN 10 dB 36.80 dBμV



10 dB/

POS PK

OFFSET
-13.8
dB

DL
40.0
dBμV

CENTER 50.4 MHz SPAN 10.0 MHz

RES BW 100 kHz VBW 100 kHz SWP 20.0 msec

M/2

MATTEL 49MHZ RECEIVER FCCID APB50800-01A4R MKR 49.30 MHz

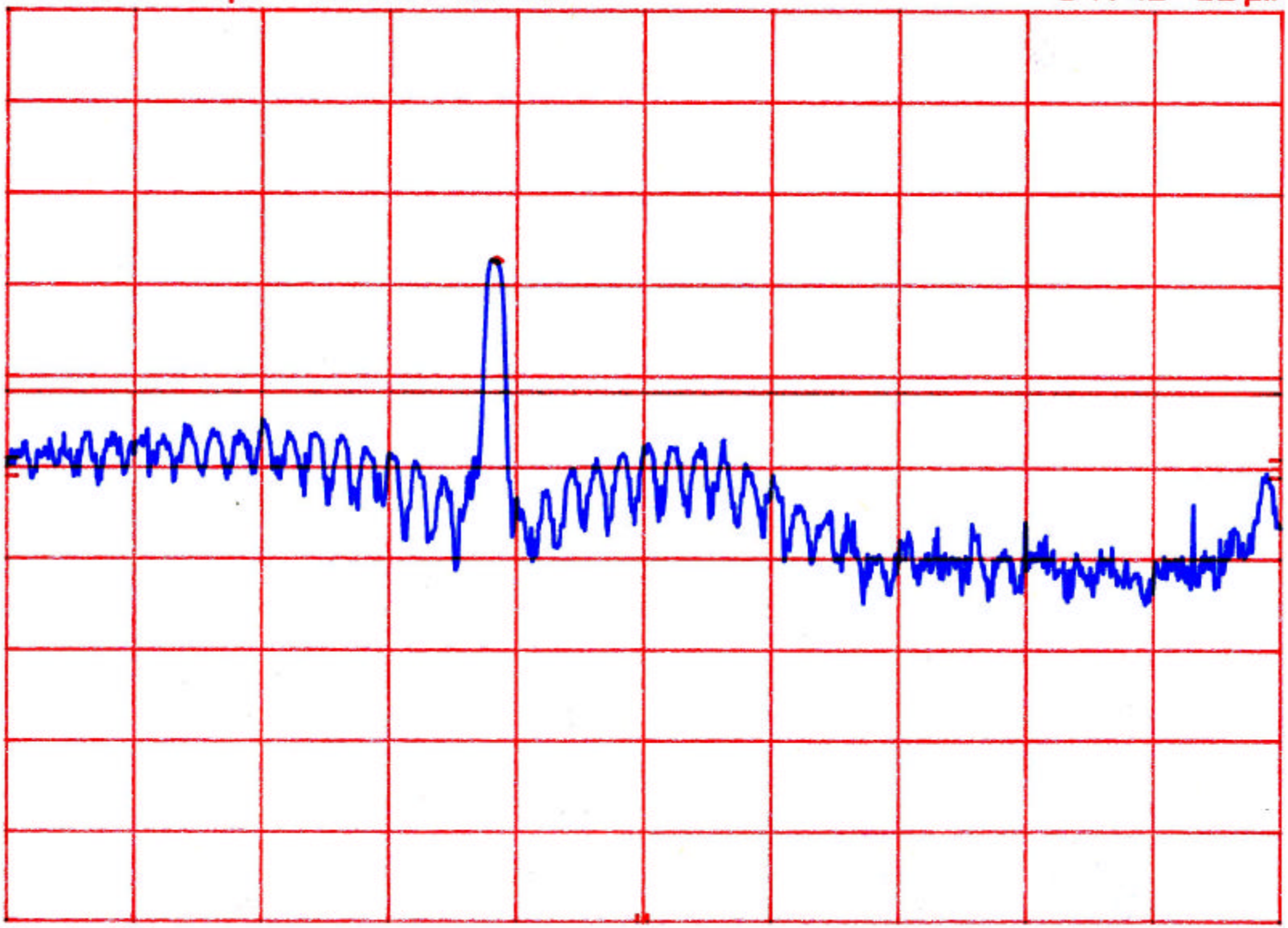
hp REF 81.8 dBμV ATTEN 10 dB 54.40 dBμV

10 dB/

POS PK

OFFSET
-13.8
dB

DL
40.0
dBμV



CENTER 50.4 MHz SPAN 10.0 MHz

RES BW 100 kHz VBW 100 kHz SWP 20.0 msec