ELECTROMAGNETIC EMISSIONS COMPLIANCE REPORT
CERTIFICATION TO FCC PART 15 REQUIREMENTS

for

UNINTENTIONAL RADIATOR

RF REMOTE CONTROLLED TOY

MODEL NO: 55647, 55648, 55649, 56508

BRAND NAME: VESPA SCOOTER SHANNEN AND ZIP 'N ZOOM SHANNEN

FCC ID NO: APB55647-02A4R

REPORT NO: 02U1223-1

DATE: MARCH 26, 2002

Prepared for
MATTEL INC.
2031 MARIPOSA AVENUE
EL SEGUNDO, CA 90245
USA

Prepared by
COMPLIANCE CERTIFICATION SERVICES
561 F MONTEREY ROAD
MORGAN HILL, CA 95037, USA
TEL: (408) 463-0885
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1. VERIFICATION OF COMPLIANCE

COMPANY NAME	:	MATTEL INC. 2031 MARIPOSA AVENUE EL SEGUNDO, CA 90245 USA
CONTACT PERSON	:	VLADIMIR SOSNOVSKY, PROJECT ENGINEER
TELEPHONE NO.	:	310-252-5595
EUT DESCRIPTION	:	RF REMOTE CONTROLLED CAR
MODEL NAME/NUMBER	:	55647, 55648, 55649, 56508
BRAND NAME	:	VESPA SCOOTER SHANNEN AND ZIP 'N ZOOM SHANNEN
FCC ID	:	APB55647-02A4R
DATE TESTED	:	MARCH 25, 2002
REPORT NUMBER	:	02U1223-1

TYPE OF EQUIPMENT	REMOTE CONTROL TOY RECEIVER (UNINTENTIONAL RADIATOR)
EQUIPMENT TYPE	49 MHz SUPERREGENERATE RECEIVER
MEASUREMENT PROCEDURE	ANSI 63.4 / 1992
LIMIT TYPE	CERTIFICATION
FCC RULE	CFR 47, PART 15 SUBPART B

The above equipment was tested by Compliance Engineering Services, Inc. for compliance with the requirements set forth in CFR 47, PART 15 SUBPART B. 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 By:

JERRY HOVEY
EMC ENGINEER
COMPLIANCE CERTIFICATION SERVICES

Approved & Released For CCS By:

MIKE HECKROTTE
CHIEF EMC ENGINNER
COMPLIANCE CERTIFICATION SERVICES

2. PRODUCT DESCRIPTION

MATTEL INC., Model No# 55647 RF REMOTE CONTROLLED TOY is the receiving portion of a remote control toy. The associated Transmitter is manufactured by MATTEL INC., Model No# 55647, FCC ID APB55647-02A4T.

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.

4. MEASUREMENT EQUIPMENT USED

TEST EQUIPMENTS LIST				
Name of Equipment	**Manufacturer**	**Model No.**	**Serial No.**	**Due Date**
Spectrum Analyzer	**HP100Hz - 22GHz**	**8566B**	**2140A01296**	**5/4/02**
Spectrum Display	**HP**	**85662A**	**2152A03066**	**5/10/02**
Quasi-Peak Detector	**HP9K - 1GHz**	**85650A**	**2811A01335**	**5/4/02**
Pre-Amplifier, 25 dB	**HP 0.1 - 1300MHz**	**8447D (P_1M)**	**2944A06833**	**8/21/02**
Antenna, BiLog	**Chase EMC Ltd.30 - 2000MI**	**CBL6112**	**2049**	**8/2/02**
Signal Generator	**HP**	**8640B**	**2322A22402**	**4/10/02**

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

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 TEST

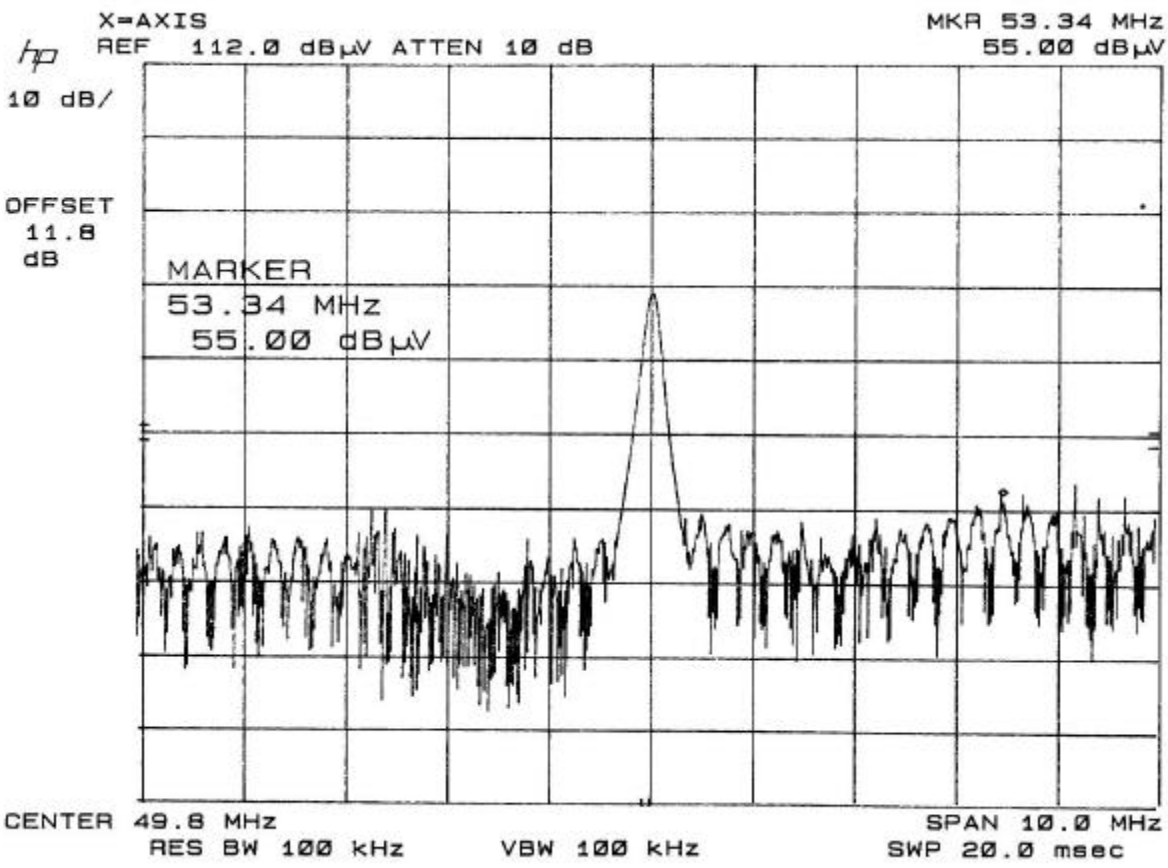
During Radiated Emission Tests, H.P. Signal Generator Model No: 8640B was used to radiate unmodulated CW signal to EUT at 49.882 MHz. Please refer to radiated emission data for six highest readings.

9. EQUIPMENT MODIFICATIONS

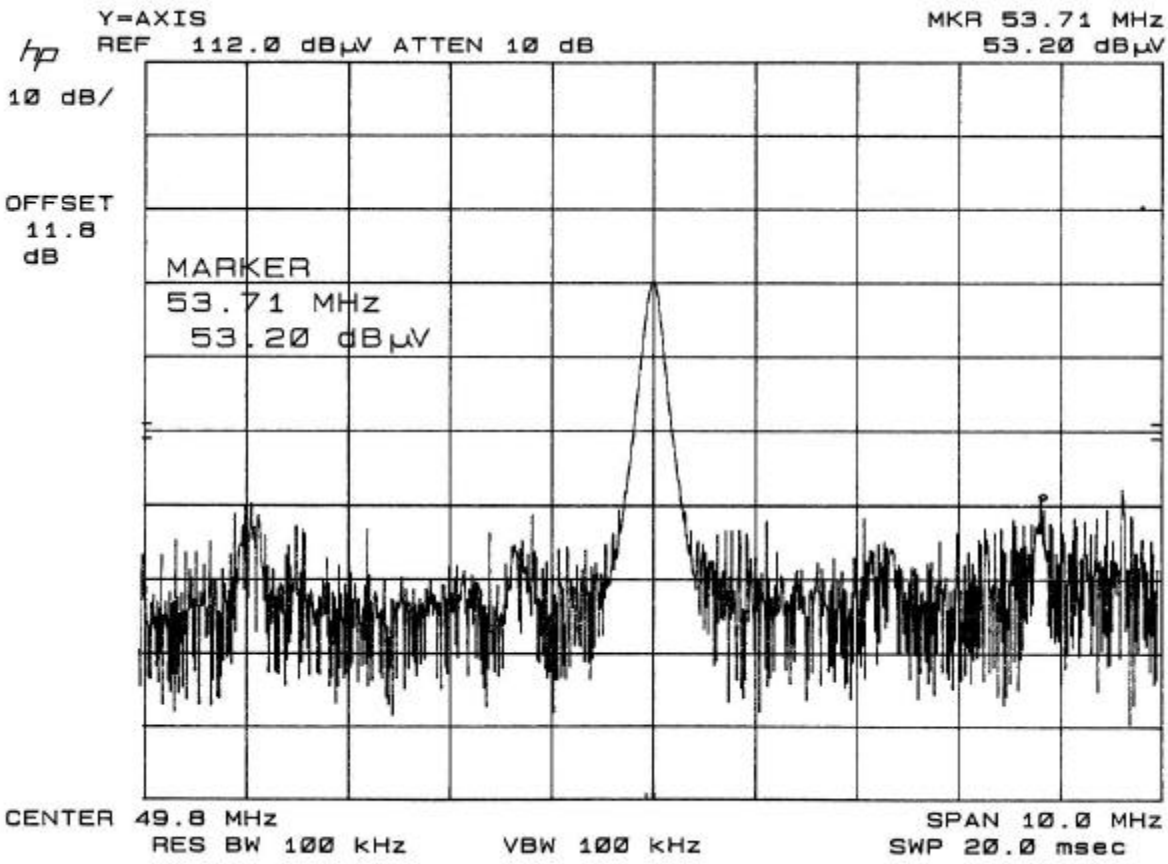
To achieve compliance to FCC Section 15.109, the following change(s) were made during compliance testing:

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

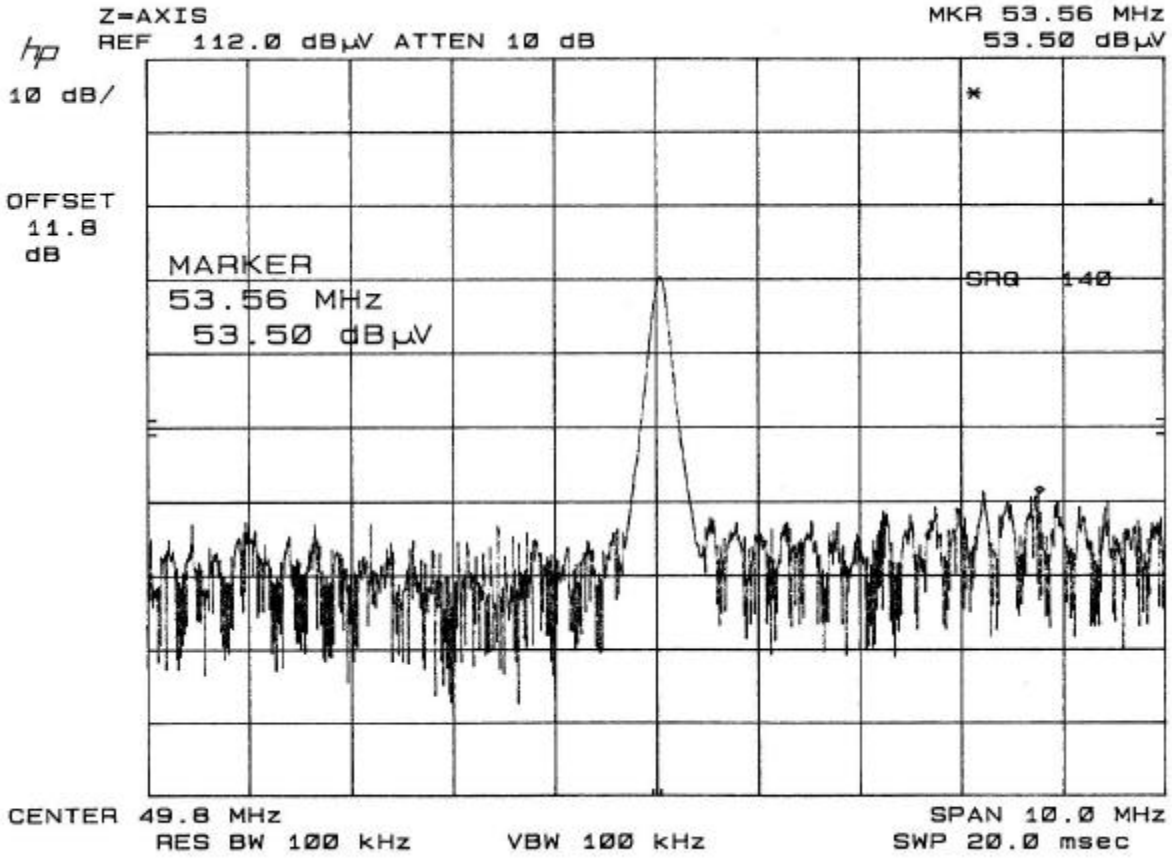
10. TEST CONFIGURATION PHOTOS (Radiated Emission Test)



COHERENT EMISSION PLOT



COHERENT EMISSION PLOT



COHERENT EMISSION PLOT

COMPLIANCE Certification Services

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

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Project #:	O2U1223-1
Report #:	030225B2
Date& Time:	03/25/02 3:33 PM
Test Engr:	JCB

Company:	MATTEL EL SEGUNDO
EUT Description:	49 MHZ RECEIVER VESPA
Test Configuration :	EUT & SIGNAL GENERATOR
Type of Test:	FCC PART 15 SUPERREGENERATIVE RECEIVER
Mode of Operation:	EUT RECEIVING FROM SIGNAL GENERATOR

( ) 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)
X-AXIS											
52.61	51.10	5.64	1.79	29.67	28.86	40.00	-11.14	3mV	90.00	1.00	P
52.84	51.50	5.61	1.79	29.67	29.23	40.00	-10.77	3mV	90.00	1.00	P
53.10	53.70	5.57	1.80	29.67	31.40	40.00	-8.60	3mV	90.00	1.00	P
53.34	55.00	5.54	1.80	29.67	32.67	40.00	-7.33	3mV	90.00	1.00	P
53.56	55.10	5.51	1.80	29.67	32.75	40.00	-7.25	3mV	90.00	1.00	P
53.88	52.40	5.47	1.81	29.66	30.01	40.00	-9.99	3mV	90.00	1.00	P
Y-AXIS											
45.96	52.50	6.93	1.69	29.68	31.44	40.00	-8.56	3mV	90.00	1.00	P
53.44	50.40	5.53	1.80	29.67	28.06	40.00	-11.94	3mV	90.00	1.00	P
53.71	53.20	5.49	1.80	29.67	30.83	40.00	-9.17	3mV	90.00	1.00	P
54.26	50.50	5.42	1.81	29.66	28.07	40.00	-11.93	3mV	90.00	1.00	P
50.36	51.70	5.93	1.76	29.68	29.72	40.00	-10.28	3mV	90.00	1.00	P
54.51	54.40	5.38	1.81	29.66	31.94	40.00	-8.06	3mV	90.00	1.00	P
Y-AXIS											
45.78	49.40	6.98	1.68	29.68	28.38	40.00	-11.62	3mV	90.00	1.00	P
52.76	51.10	5.62	1.79	29.67	28.84	40.00	-11.16	3mV	90.00	1.00	P
53.02	53.40	5.58	1.80	29.67	31.11	40.00	-8.89	3mV	90.00	1.00	P
53.26	51.90	5.55	1.80	29.67	29.58	40.00	-10.42	3mV	90.00	1.00	P
53.56	53.50	5.51	1.80	29.67	31.15	40.00	-8.85	3mV	90.00	1.00	P
54.24	52.10	5.42	1.81	29.66	29.67	40.00	-10.33	3mV	90.00	1.00	P
NO OTHER EMISSIONS WERE FOUND OUT TO 1 GHZ											
Total data #: 18											
V.2b											

RADIATION DATA

END OF REPORT