# ELECTROMAGNETIC EMISSIONS COMPLIANCE REPORT CERTIFICATION TO FCC PART 15 REQUIREMENTS

for

# INTENTIONAL RADIATOR

RF RC TRANSMITTER

**MODEL NO: 26640** 

FCC ID NO: APB26440-00A2T

**REPORT NO: 00U0232-1** 

**ISSUE DATE: MAY 12, 2000** 

Prepared for

MATTEL, INC. 333 CONTINENTAL BLVD. EL SEGUNDO, CA 90245 USA

Prepared by

COMPLIANCE ENGINEERING SERVICES, INC.

d.b.a.

COMPLIANCE CERTIFICATION SERVICES 1366 BORDEAUX DRIVE SUNNYVALE, CA 94089, USA

TEL: (408) 752-8166 FAX: (408) 752-8168

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- EUT Photographs
- Schematic Diagram

## 1. VERIFICATION OF COMPLIANCE

COMPANY NAME : MATTEL, INC.

333 CONTINENTAL BLVD. EL SEGUNDO, CA 90245 USA

CONTACT PERSON : VLADIMIR SOSNOVSKY / PROJECT ENGINEER

TELEPHONE NO. : (310) 252-5595

EUT DESCRIPTION : RF RC TRANSMITTER

MODEL NAME/NUMBER : 26640

BRAND NAME : DANCING DIVA DEBBIE

SERIAL NUMBER : 2

FCC ID : APB26440-00A2T

DATE TESTED : MAY 12, 2000

REPORT NUMBER : 00U0232-1

TYPE OF EQUIPMENT	REMOTE CONTROL
EQUIPMENT TYPE	27 MHZ TRANSMITTER
MEASUREMENT PROCEDURE	ANSI 63.4 / 1992
LIMIT TYPE	CERTIFICATION
FCC RULE	CFR 47, PART 15.227

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.

Approved By

T. N. COKENIAS / ENGINEERING DIRECTOR COMPLIANCE CERTIFICATION SERVICES

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#### 2. PRODUCT DESCRIPTION

CHASSIS TYPE	PLASTIC
Fundamental Frequency	27.145 MHz
Power Source	4 AAA Batteries, 6V
CHIPSET BRAND AND PART NO	<b>MATTEL. 26640/TX</b>
Transmitting Time	CONTINUOUS
BOARD REVISION NO	F
NO. OF LAYER	1
Local Osc.	27.145 MHz

### 3. **Test Facility**

The 3/10/30 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 facility was submitted to the Commission on May 27,1994.

#### **Measurement Standards** 4.

The site is constructed and calibrated in conformance with the requirements of ANSI C63.4/1992.

### 5. **Test Methodology**

revision section of the document.

For an intentional radiator, the spectrum shall be investigated from the lowest radio frequency signal generated in the device, without going below 9 KHz, up to at least the tenth harmonic of the highest fundamental frequency or to 40 GHz, whichever is lower. (CFR 47 Section 15.33)

# 6. Measurement Equipment Used

Manufacturer	Model Number	Description	Cal Due Date
H.P.	8568B	Spectrum Analyzer	11/18/00
		(100Hz - 1.5GHz)	
EMCO 6502		Active Loop Antenna	02/23/01
		(10K - 30MHz)	
SCHAFFNER-	CBL6112B	Antenna	11/23/00
CHASE		(30-2000 MHz)	
H.P.	8447D	Preamplifier	08/10/00
		(0.1 - 1300 MHz)	

# 7. POWERLINE RFI LIMIT

CONNECTED TO AC POWER LINE	SECTION 15.207
CARRIER CURRENT SYSTEM IN THE FREQUENCY RANGE OF 450 kHz TO 30 MHz	SECTION 15.205 AND SECTION 15.209, 15.221, 15.223, 15.225 OR 15.227, AS APPROPRIATE.
BATTERY POWER	NOT REQUIRED.

# 8. RADIATED EMISSION LIMITS

GENERAL REQUIREMENTS	SECTION 15.209.
RESTRICTED BANDS OF OPERATION	SECTION 15.205
OPERATION WITHIN THE BAND 26.96 - 27.28 MHZ	SECTION 15.227

# 9. SYSTEM TEST CONFIGURATION

The EUT was configured for testing in a typical fashion (as a customer would normally use it). Push-to-Transmit switch is held in transmit position using electrician's (PVC) tape for transmit mode. The tape is removed for receive mode. Please refer to the following photograph for actual setup.





Radiated Open Site Test Set-up

# 10. Equipment Modifications

To achieve compliance to FCC Section 15.227 technical limits, the following change(s) were made during compliance testing:

NOT APPLICABLE

### 11. TEST PROCEDURE AND RESULT

Powerline RFI Limits	Eut	Radiated Emission Limits	Eut
SECTION 15.207		SECTION 15.209	X
SECTION 15.205, 15.209, 15.221, 15.223, x 15.225 OR 15.227		SECTION 15.205	Х
BATTERY POWER	X	SECTION 15.227	X

### 11.1 Radiated Emission Test Procedure and Result

- 1. The EUT was placed on a wooden table on the outdoor ground plane. The search antenna was placed 3 meter from the EUT. The EUT antenna was mounted vertically as per normal installation.
- 2. The turntable was slowly rotated to locate the direction of maximum emission at each emission falling in the restricted bands of 15.205. The EUT was moved throughout the XY, XZ, and YZ planes to maximize emissions received by the search antenna.
- 3. Once maximum direction was determined, the search antenna was raised and lowered in both vertical and horizontal polarizations. The six maximum readings so obtained are recorded in the data listed below.