
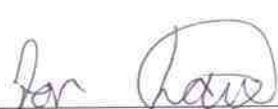




TEST REPORT No: (5210)224-0131 (Revision)  
Supplement to Technical Report No.: (5210)224-0131

## TEST REPORT

To:	<b>TOLLYTOTS LIMITED</b>	To:	-
Attn:	Ben Yu / Jacky Tong / Allan Yuen / Kurt Kiang / Pan Tong / Sally / Alfred Law	Attn:	-
Address:	10/F., Wharf T&T Centre, 7 Canton Road, Tsim Sha Tsui, Kowloon, Hong Kong	Address:	-
Fax:	2736 0671	Fax:	-
E-mail:	<a href="mailto:benyu@tollytots.com">benyu@tollytots.com</a> / <a href="mailto:jacky@tollytots.com">jacky@tollytots.com</a> / <a href="mailto:allan@tollytots.com">allan@tollytots.com</a> / <a href="mailto:kurt@tollytots.com">kurt@tollytots.com</a> / <a href="mailto:panlong@tollytots.com">panlong@tollytots.com</a> / <a href="mailto:sally@tollytots.com">sally@tollytots.com</a> / <a href="mailto:alfred@tollytots.com">alfred@tollytots.com</a>	E-mail:	-
Folder No.:	BVCK10AU267MTHS-B		
Factory name:	--		
Location:	--		
Product:	<b>Fisher Price Little Mommy Interactive Playset MODEL: 86864, 00958-I-D01-10</b>		
(Please see Exhibit: External Photo)		Sample No:	(5210)224-0131
		Test date:	August 19, 2010 to August 23, 2010
		Test Requested:	FCC Part 15 - 2008
		Test Method:	ANSI C63.4 - 2003
		FCC ID:	YOG86864
The results given in this report are related to the tested specimen of the described electrical apparatus.			
CONCLUSION: The submitted sample was found to COMPLY with requirement of FCC Part 15 Subpart C.			
Authorized Signature:			
			
Reviewed by: Keith Yeung		Approved by: Steven Tsang	
Date: September 10, 2010		Date: September 10, 2010	

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This report is intended for your exclusive use. Any copying or replication of this report to or for any other person or entity, or use of our name or trademark, is permitted only with our prior written permission. Our report is limited to the test samples identified herein. The results set forth in this report are not necessarily indicative or representative of the statistical quality or characteristics of the lot from which a test sample was taken or any similar or identical product unless specifically and expressly noted. Our report includes all of the tests requested by you and the results thereof. You shall have thirty days from receipt of this report to request additional testing of the samples or to notify us of any errors or omissions relating to our report, provided, however, such notice shall be in writing and shall specifically address the issue you wish to raise. A failure to raise such issue within the prescribed time shall constitute your unqualified acceptance of the completeness of this report, the tests conducted and the correctness of the report contents.



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**Location of the test laboratory**

Radiated and Conducted emissions measurements are investigated and taken pursuant to the procedures of ANSI C63.4 – 2003. An Open Area Test Site and Full Anechoic Chamber (FCC Listed Site, Registration No. 642151) are set up for investigation and located at :

**BUREAU VERITAS HONG KONG LIMITED, EMC CENTRE**

No. 2106-2107, 21/F., Westin Centre,  
26 Hung To Road,  
Kwun Tong, Kowloon,  
Hong Kong

**List of measuring equipment**

**Radiated Emission**

EQUIPMENT	MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATION DUE
EMI TEST RECEIVER	R&S	ESCI	100379	24-AUG-2010
LOOP ANTENNA	ETS-LINDGREN	6502	00102266	17-MAY-2011
BILOG ANTENNA	SCHAFFNER	CBL6112D	25229	02-AUG-2011
OPEN AREA TEST SITE	BVCPS	N/A	N/A	05-JULY-2011
ANECHOIC CHAMBER	ALBATROSS	M-CDC	80374004499B	06-JULY-2011
COAXIAL CABLE	SUHNER	N/A	N/A	07-DEC-2010

**Frequency error and Frequency drift, Modulation bandwidth, Frequency stability**

EQUIPMENT	MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATION DUE
EMI TEST RECEIVER	ROHDE & SCHWARZ	ESCI	100379	24-AUG-2010
CLIMATIC CHAMBER	EMV	TH-22P2S	N/A	09-JUNE-2011

**Remarks:-**

N/A : Not Applicable or Not Available

The measurement instrumentation uncertainty would be taking into consideration on each of the test result



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**Equipment Under Test [EUT]**

**Description of Sample:**

Model Name: Fisher Price Little Mommy Interactive Playset

Model Number: 86864, 00958-I-D01-10

Model information: 86864 is the item number of the Playset  
00958-I-D01-10 is the part number of the doll.

Rating: 4.5Vd.c ("AAA" size battery x 3)

**Description of EUT Operation:**

The Equipment Under Test (EUT) is a Tollytots Limited of RFID toy. The transceiver with 2 antenna & 7 Passive Tags is operating at 13.56MHz. Both antennas are continue to transmit when switch is turn to ON and the Passive Tags provoked the signal transmission when the transceiver track on them. The doll does not respond to two different triggers at the same time. The worst case (both antennas are on) was tested and the result is shown in the report. Modulation by IC, and type is pulse modulation.

The transceiver has different control:

1. ON/OFF switch – on/off control

**Antenna Requirement (Section 15.203)**

The EUT is use of a permanently antenna. The antenna is soldered on the PCB. The antenna is not replaceable or user serviceable. The requirements of S15.203 are met. There are no deviations or exceptions to the specifications.

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**Radiated Emissions (Fundamental)**

Test Requirement: FCC Part 15 Section 15.225  
Test Method: ANSI C63.4  
Test Date(s): 2010-08-20  
Temperature: 26.0 °C  
Humidity: 67.0 %  
Atmospheric Pressure: 100.7 kPa  
Mode of Operation: Transmission mode  
Tested Voltage: 4.5Vd.c ("AAA" size battery x 3)

**Test Procedure:**

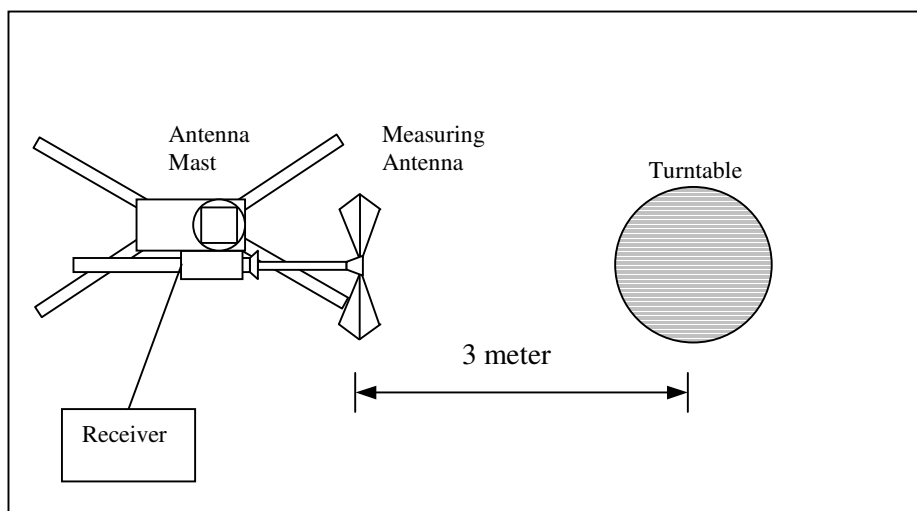
Radiated emissions measurements are investigated and taken pursuant to the procedures of ANSI C63.4 – 2003.

The equipment under test (EUT) was placed on a non-conductive turntable with dimensions of 1.5m x 1m and 0.8m high above the ground. 3m from the EUT, a broadband antenna mounting on the mast received the signal strength. During the test, each emission was maximized by: having the EUT continuously working, investigated all operating modes, rotated about all 3 axis (X, Y & Z) and considered typical configuration to obtain worst position, manipulating interconnecting cables, For battery operated equipment, the equipment tests shall be perform using new battery. The turntable was rotated to maximize the emission level. The antenna was then moving along the mast from 1m up to 4m until no more higher value was found. Both horizontal and vertical polarization of the antenna were placed and investigated.

For below 30MHz, a loop antenna with its vertical plane is place 3m from the EUT and rotated about its vertical axis for maximum response at each azimuth about the EUT. And the centre of the loop shall be 1m above the ground.

Location: The Roof, Westin Centre, 26 Hung To Road, Kwun Tong, Kowloon, Hong Kong

**Test Setup: Open Area Test Site**





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**Limits for Field Strength of Fundamental Emissions [FCC 47CFR 15.225]:**

Frequency Range of Fundamental [MHz]	Field Strength of Fundamental Emission
13.553-13.567	124 dB $\mu$ V/m

**Measurement Data**

**Test Result of (Transmission mode): PASS**

**Detection mode: Quasi-Peak**

Frequency (MHz)	Polarity (H/V) and degree	Antenna Factor and Cable Loss (dB/m)	Field Strength at 3m (dB $\mu$ V/m)	Limit at 3m (dB $\mu$ V/m)	Margin (dB)
13.564	V/0°	11.5	50.7	124.0	-73.3

Note: Field Strength includes Antenna Factor and Cable Loss.

Receiver setting: RBW = 120KHz  
 VBW = 120KHz



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**Radiated Emissions (9kHz – 1GHz)**

Test Requirement: FCC Part 15 Section 15.209  
Test Method: ANSI C63.4  
Test Date(s): 2010-08-20  
Temperature: 26.0 °C  
Humidity: 67.0 %  
Atmospheric Pressure: 100.7 kPa  
Mode of Operation: Transmission and On mode  
Tested Voltage: 4.5Vd.c ("AAA" size battery x 3)

**Limits for Radiated Emissions [FCC 47 CFR 15.209]:**

Frequency Range [MHz]	Quasi-Peak Limits [μV/m]
1.705-30	300
30-88	100
88-216	150
216-960	200
Above960	500

**Measurement Data**

**Test Result of (Transmission mode): PASS**

**Detection mode: Quasi-Peak**

Frequency (MHz)	Polarity (H/V)	Antenna Factor and Cable Loss (dB/m)	Field Strength at 3m (dBμV/m)	Limit at 3m (dBμV/m)	Margin (dB)
27.128	V	10.0	28.7	69.5	-40.8
40.692	V	13.2	29.9	40.0	-10.1
54.256	V	8.5	22.3	40.0	-17.7
67.820	V	7.5	23.6	40.0	-16.4
81.384	V	7.9	22.1	40.0	-17.9
94.948	H	10.1	25.6	43.5	-17.9
108.512	H	11.0	23.2	43.5	-20.3
122.076	V	10.9	22.2	43.5	-21.3
135.640	H	10.9	23.7	43.5	-19.8
149.204	V	11.0	24.6	43.5	-18.9

Note: Field Strength includes Antenna Factor and Cable Loss.

Receiver setting: RBW = 120KHz  
VBW = 120KHz



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**Measurement Data**

**Test Result of (On mode): PASS**

**Detection mode: Quasi-Peak**

Frequency (MHz)	Polarity (H/V)	Antenna Factor and Cable Loss (dB/m)	Field Strength at 3m (dB $\mu$ V/m)	Limit at 3m (dB $\mu$ V/m)	Margin (dB)
36.36	H	15.6	24.7	40.0	-15.3
42.64	V	12.4	22.6	40.0	-17.4
128.08	H	10.9	20.9	43.5	-22.6
205.96	H	11.9	22.7	43.5	-20.8
297.44	V	15.0	25.6	46.0	-20.4
487.24	V	20.0	29.1	46.0	-16.9

Note: Field Strength includes Antenna Factor and Cable Loss.

Receiver setting: RBW = 120KHz  
VBW = 120KHz





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**26dB Bandwidth of Fundamental Emission**

Test Requirement: FCC 47 CFR 15.225  
Test Method: ANSI C63.4:2003 (Section 13.1.7)  
Test Date(s): 2010-08-19  
Temperature: 26.0 °C  
Humidity: 67.0 %  
Atmospheric Pressure: 100.7 kPa  
Mode of Operation: Transmission mode  
Tested Voltage: 4.5Vd.c ("AAA" size battery x 3)

**Test Method:**

The bandwidth is measured at an amplitude level reduced from the reference level by a specified ratio. The reference level is the level of the highest amplitude signal observed from the transmitter at the fundamental frequency. Once the reference level is established, the equipment is conditioned with typical modulating signal to produce the worst-case (i.e. the widest) bandwidth.

**Limits for 26dB Bandwidth of Fundamental Emission:**

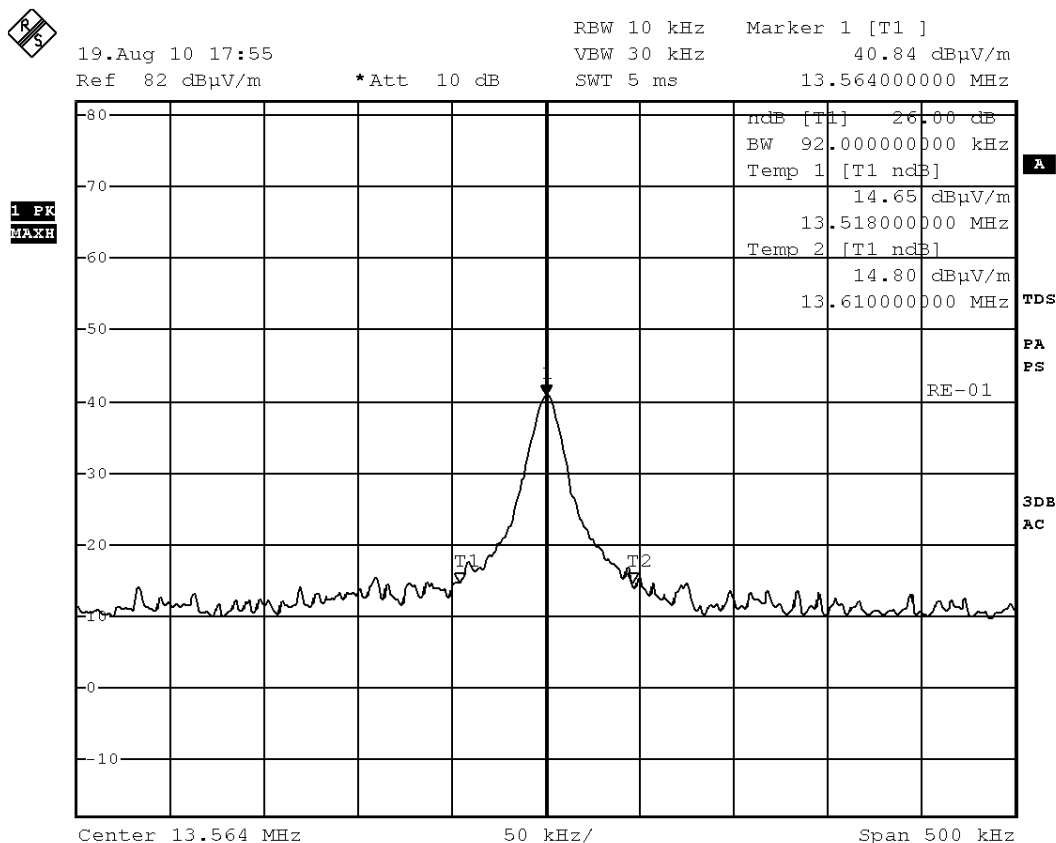
Frequency [MHz]	26dB Bandwidth [KHz]
13.564	92.000



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**Measurement Data :**

**Test Result of 26dB Bandwidth of Fundamental Emission: PASS**



Date: 19.AUG.2010 17:55:58



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**Frequency Drift**

Test Requirement: FCC Part 15 Section 15.225  
 Test Method: ANSI C63.4  
 Test Date(s): 2010-08-23  
 Temperature: 21.0 °C  
 Humidity: 52.0 %  
 Atmospheric Pressure: 100.6 kPa  
 Mode of Operation: Transmission mode  
 Tested Voltage: 4.5Vd.c ("AAA" size battery x 3)

**Test Setup:**

The EUT was placed at a site with temperature control and supplied with power for extreme voltage testing. Antenna with suitable frequency range was used during the test.

The test was performed in accordance with ANSI C63.4.

Location: Anechoic Chamber, No. 2106-2107, 21/F., Westin Centre, 26 Hung To Road, Kwun Tong, Kowloon, Hong Kong

**Limit for Frequency Tolerance:**

**Maintained within +/- 0.01% of the operating frequency**

**Test Result of (Transmission mode): PASS**

Test Condition		Nominal Transmit Frequency: 13.564MHz				
		Time				
		Start up	Two minutes after	Five minutes after	Ten minutes after	Frequency tolerance (%)
T <sub>nom</sub> : 20°C	V <sub>nom</sub> : 4.50V	13.56457	13.56457	13.56457	13.56457	0.00000
T <sub>min</sub> : -20°C	V <sub>nom</sub> : 4.50V	13.56457	13.56457	13.56457	13.56457	0.00000
T <sub>max</sub> : 50°C	V <sub>nom</sub> : 4.50V	13.56457	13.56457	13.56457	13.56457	0.00000

**Remarks:-**

N/A: Not Applicable or Not Available

**\*\*\*\*\* End of Report \*\*\*\*\***