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TEST REPORT

REPORT NO.: 39712/4/400F

FCC listed testlab
acc. to Section 2.948 of the FCC - Rules

in compliance with the requirements of
ANSI C63.4 - 2001

Product	:	Electronic Remote Control Car
Product Class	:	Low Power Communication Device Receiver
Model	:	83005
Importer	:	JADA TOYS COMPANY LIMITED

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LABORATORY - REPORT

APPLICANT:	JADA TOYS COMPANY LIMITED
ADDRESS:	Unit 1-2 & 4-6, 9th Floor, Energy Plaza 92 Granville Road, Tsimshatsui East Kowloon, HONG KONG
DATE OF SAMPLE RECEIVED:	2004-09-02
DATE OF TESTING:	2004-09-14

DESCRIPTION OF SAMPLE:

Product:	Electronic Remote Control Car
Product class:	Low Power Communication Device Receiver
Model number:	83005
Brand name:	JADA TOYS
Rating:	DC 9.6V (Rechargeable Battery Pack x1) Charger : AC/DC Adaptor – TL9.6170D-08, Input : AC120V 60Hz, Output : DC9.6V

INVESTIGATIONS REQUESTED:	Measurements to the relevant clauses of F.C.C. Rules and Regulations Part 15 Subpart B – 'Unintentional Radiators'
RESULTS:	See the attached test sheets
CONCLUSIONS	From the measurement data obtained, the tested sample was considered to have COMPLIED with the requirements for the relevant clauses of Federal Communications Commission Rules as specified above.

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Authorized Signature

Remark: 1. Purpose of those tests in this report is to provide the applicant with the necessary test data of their device for the submission to FCC with application for Equipment Authorization under the FCC Equipment Authorization Program. The tests themselves are not Approval Tests.

2. The conducted emissions test (if applicable) has considered the limits in Sections 15.107 and 15.207 adopted under FCC 02-157 (ETDocket 98-80). The product may be marketed after July 11, 2005, and is not affected by the 15.37(j) transition provisions.

Summary of Test Results

Interference Radiation:

Test result: O.K.
Test data: See attached data sheet

Interference Voltage:

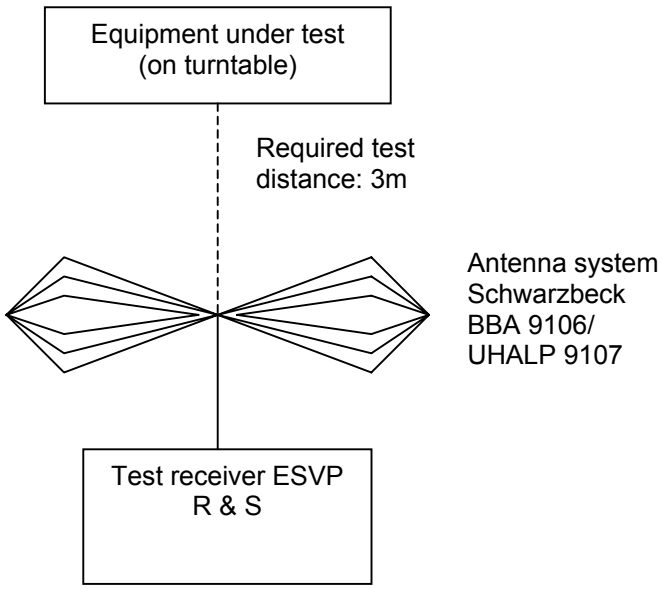
Test result: O.K.
Test data: See attached data sheet

PHOTOGRAPH OF THE SAMPLE

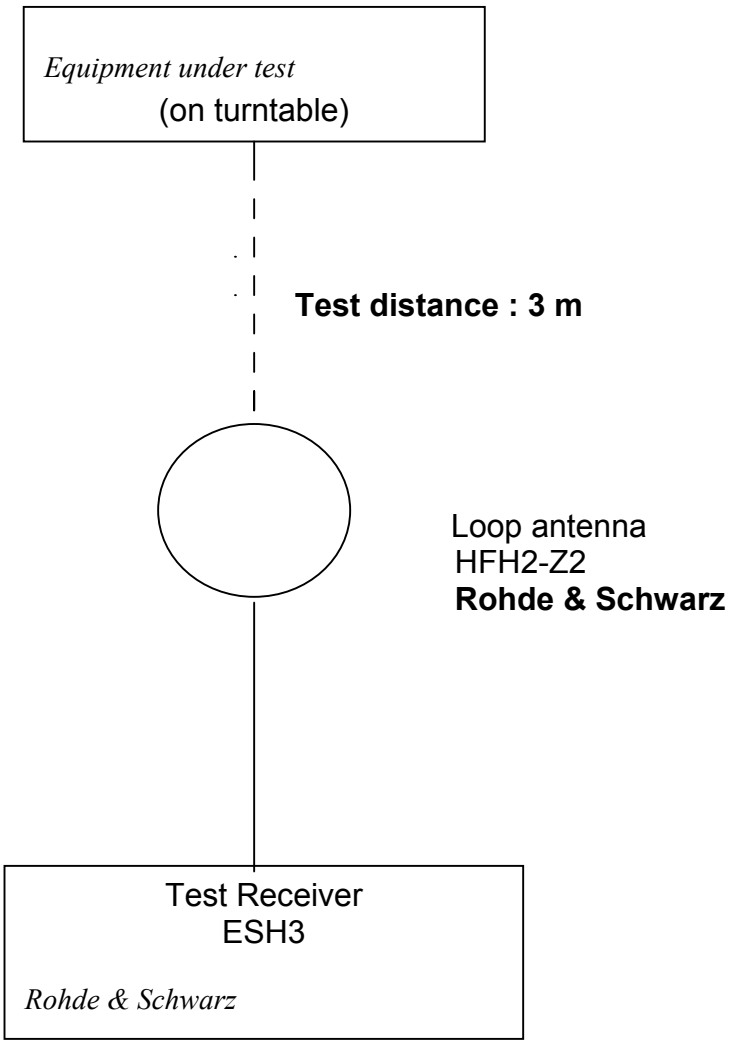
TEST EQUIPMENT LIST

Equipment	Manufacturer	Model	Serial No.	Remark
Test Receiver	Rohde & Schwarz	ESH 3	863497/015	150KHz – 30MHz
Test Receiver	Rohde & Schwarz	ESH 3	892580/006	9KHz – 30MHz
Test Receiver	Rohde & Schwarz	ESVP	860688/022	25MHz – 1,000 MHz
Test Receiver	Rohde & Schwarz	ESVP	863512/012	25MHz – 1,000 MHz
Test Receiver	Rohde & Schwarz	ESHS30	839667/002	9KHz – 30MHz
Test Receiver	Rohde & Schwarz	ESVS30	828525/006	25MHz – 1000MHz
Spectrum Analyzer with Q. Peak	Advantest	R3132	140101852	9KHz – 3GHz
Spectrum Analyzer with Q. Peak	Tektronix	2712	B023006	0.15MHz – 1000MHz
Interface for Spectrum 2712	Tektronix	TD3F14A	--	--
Impulse Limiter	Rohde & Schwarz	ESH-3-Z2	--	--
Artificial Mains Network (LISN)	Schwarzbeck	NSLK 8127	8127312	2 x 10A, 50Ω, 50μH 9KHz-30MHz
Artificial Mains Network (LISN)	Schwarzbeck	NSLK 8127	8127309	2 x 10A, 50Ω, 50μH 9KHz-30MHz
Antenna System	Schwarzbeck	BBA 9106 / UHALP 9107	--	30MHz – 1000MHz
Antenna Mast System	Schwarzbeck	AM9104	--	Max. 4 meters height
Loop Antenna	Rohde & Schwarz	HFH2-Z2	871336/48	9KHz-30MHz
Turntable with Controller	Drehtisch	DT312	--	ϕ120 cm

Radiated Emission Testprocedure (> 30MHz)



Radiated Emission Test Procedure (9kHz – 30MHz)



Unintentional Radiators

Measurement of Radiated Emissions
Acc: FCC Part 15 Subpart B (15.109)

IECC Ref: 39712/4/200F
Model: 83005
Applicant: JADA TOYS COMPANY LIMITED

Ser.Nr.: 1

Set under test: Electronic Remote Control Car
Connected sets: -
Operating mode: Operate

Test Equipment
Receiver: ESVP Rohde & Schwarz
Antenna: Schwarzbeck BBA 9106
and UHALP 9107

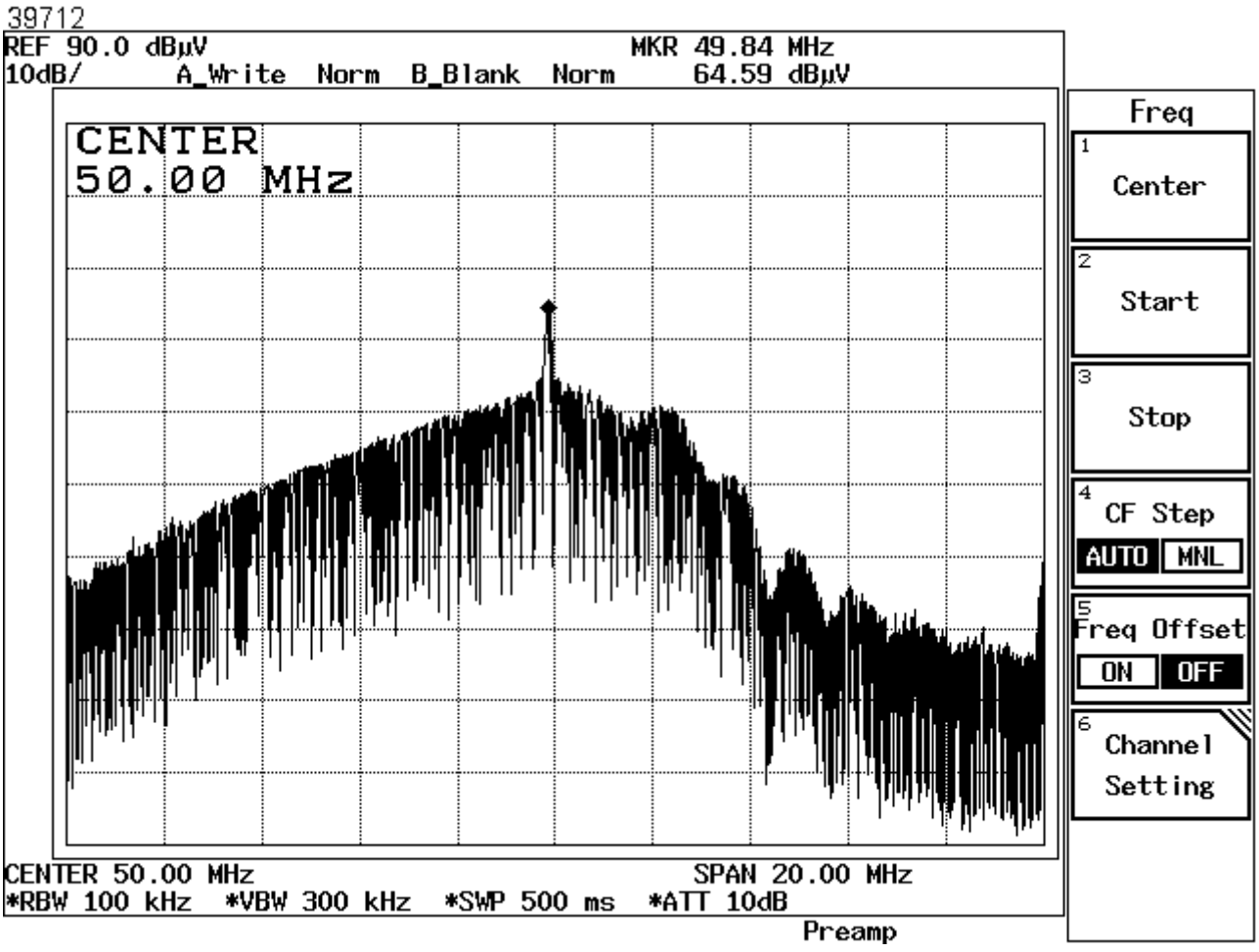
Frequency (MHz)	Horz. Reading dB(µV)	Vert. Reading dB(µV)	Antenna Factor (dB)	Horiz. Test Result dB(µV/m)	Vert. Test Result dB(µV/m)	Limit dB(µV/m)
30	< 16	< 16	18.4	< 34.4	< 34.4	40.0
50	18	20	11.7	29.7	< 31.7	40.0
100	< 16	< 16	10.3	< 26.3	< 26.3	43.5
146	16	< 16	14.9	30.9	< 30.9	43.5
151.3	16	< 16	15.1	31.1	< 31.1	43.5
192.8	18	< 16	16.4	34.4	< 32.4	43.5
200	< 16	< 16	16.5	< 32.5	< 32.5	43.5
309.7	16	< 16	16.5	32.5	< 32.5	46.0
400	< 16	< 16	18.3	< 34.3	< 34.3	46.0
500	< 16	< 16	19.7	< 35.7	< 35.7	46.0
700	< 16	< 16	22.4	< 38.4	< 38.4	46.0
1000	< 16	< 16	26.5	< 42.5	< 42.5	54.0

Remark: All frequencies in the required range have been scanned and only those significant and representative readings are reported above.
All emissions not reported above are all well below the limit.

Note: Unless otherwise indicated, the recorded readings are in quasi-peak values.

Cohere Plot at fundamental frequency

Sample location: Less than 0.5m from the measuring antenna
Applied signal: - 60dBm (non-modulated, 49.86 MHz)
Remark: Cohere



All emissions observed complies with FCC limits.

Notes for Radiation Measurement

1. **Measurement facility:**
   Measurement facility located at Fanling (Hong Kong), placed on file with the FCC Pursuant to Section 2.948 of the FCC Rules.

2. **Distance between the EUT and measuring antenna:**
   3 meters.

3. **Measuring instrumentations:**
   Rohde & Schwarz ESVP Test Receiver (20 - 1300 MHz) with a CISPR weighting QP detector, 6 dB bandwidth set at 120 KHz.

4. **Measuring antenna:**
   Broad-band antenna for the frequency range 30 - 300 MHz and frequency range 300 - 1000 MHz, connected with 10 meters coaxial cable. Cable loss of the coaxial cable included in the Antenna Factor for measurement data. The antennas are capable of measuring both horizontal and vertical polarizations.

   Loop antenna for the frequency range 9KHz – 30MHz, connected with 10 meters coaxial cable. Cable loss of the coaxial cable included in the measurement data. The center of the loop 1. m above the ground plane, positioned with its plane vertical at the specified distance and rotated about its vertical axis and placed horizontal for maximum response at each azimuth about the EUT.

5. **Frequency range scanned:**
   The frequency range 30 - 1000 MHz has been scanned. Readings of the highest emissions relating to the limit were reported as above.

6. **Arrangement of EUT:**
   During the test, the sample was operated at rated supply voltage and arranged for maximum emissions. To find the maximum emission (30MHz – 1000MHz), the antenna was raised from 1 to 4 meters and was stopped at the maximum emission point.

7. **Measuring Procedure:**
   In **accordance** with the relevant sections of the American National Standards Institute (ANSI) C63.4-2001'Methods of Measurement of Radio Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the Range of 9KHz to 40GHz'.

Unintentional Radiators

Interference Voltage 150kHz - 30MHz
Acc: FCC Part 15 Subpart B (15.107)

IECC Ref: 39712/4/400F
Model: 83005
Applicant: JADA TOYS COMPANY LIMITED

Ser.Nr.: 1
Set under test: Electronic Remote Control Car
Connected sets: -
Operating mode: Charging Battery

Test Equipment
Receiver: Rohde & Schwarz ESH 3
Schwarzbeck NNLA 8119

Frequency (MHz)	Test Result (Quasi-Peak) dB(µV)	Test Result (Average) dB(µV)	Limit (Quasi-Peak) dB(µV)	Limit (Average) dB(µV)
0.15	35	< 25	66	56
0.24	37	< 25	62	52
0.5	< 25	< 25	56	46
1	< 25	< 25	56	46
1.4	< 25	< 25	56	46
2	< 25	< 25	56	46
5	< 25	< 25	60	50
10	< 25	< 25	60	50
16	< 25	< 25	60	50
22	< 25	< 25	60	50
26	< 25	< 25	60	50
30	< 25	< 25	60	50

Remark: The above recorded data were the higher value of the measurement on the line and neutral supply cables. All frequencies in the required range were scanned and those significant readings were reported.

Notes for Voltage Measurement

1. **LISN (Line Impedance Stabilization Network) used:**
   LISN in accordance with IEEE Standard 213.

2. **Measuring instrumentations:**
   Rohde & Schwarz ESH3 Test Receiver (9 KHz - 30 MHz) with a CISPR weighting QP detector, 6 dB bandwidth set at 10 KHz.

3. **Frequency range scanned:**
   The frequency range 150 KHz - 30 MHz has been scanned. Readings of the highest emissions relating to the limit were reported as above.

4. **Setup of EUT:**
   Connection of equipment and operation conditions are the same as those in the Radiation measurement.

5. **Measuring Procedure:**
   In accordance with the relevant sections of the American National Standards Institute (ANSI) C63.4-2001'Methods of Measurement of Radio Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the Range of 9KHz to 40GHz'