

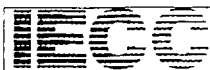


INTERNATIONAL ELECTRICAL CERTIFICATION CENTRE LTD.

**F C C -
TEST REPORT**

REPORT NO.: 17121/8/400F

Units 602-605, 6/F., 31 Lok Yip Road, On Lok Tsuen, Fanling, N.T., Hong Kong
Tel: [852] 2305-2570 Fax: [852] 2756-4480



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

in compliance with the requirements of
ANSI C63.4 - 1992

Product : Remote Control Car -- 49 MHz
Receiver

Model : 8809-49MHz

Importer : ECHO TOYS LTD

Manufacturer : ECHO ELECTRONIC TOYS
FACTORY



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LABORATORY - REPORT

APPLICANT: ECHO TOYS LTD
ADDRESS: 8 A&B, Block 1, Tai Ping Industrial Centre
57 Ting Kok Road
Taipo, NT
HONG KONG

DATE OF SAMPLE RECEIVED: 1998-07-28

DATE OF TESTING: 1998-08-10

DESCRIPTION OF SAMPLE:

Product: Remote Control Car -- 49 MHz Receiver
Manufacturer: ECHO ELECTRONIC TOYS FACTORY
Model number: 8809-49MHz
Rating: DC 9.6V (Battery pack x 1)
Country of Origin: P.R. CHINA

INVESTIGATIONS REQUESTED:

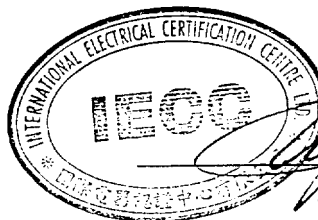
Measurements to the relevant clauses of F.C.C. Rules and Regulations
Part 15 Subpart B – 'Unintentional Radiators'

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.



Authorized Signature

Remark: Purpose of these 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



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Summary of Test Results

Interference Radiation:

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

Interference Voltage:

Test result: N.A.
Test data: N.A.



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TEST EQUIPMENT LIST

Equipment	Manufacturer	Model	Serial Number	Remark
Test Receiver	Rohde & Schwarz	ESH 3	863497/015	10KHz – 30MHz
Test Receiver	Rohde & Schwarz	ESVP	860688/022	25MHz – 1,300 MHz
Artificial Mains Network (LISN)	Schwarzbeck	NSLK 8127	--	2 x 10A, 50Ω, 50μH 10KHz-30MHz
Antenna System	Schwarzbeck	BBA 9106 / UHALP 9107	--	30MHz – 1000MHz
Antenna Mast System	Schwarzbeck	AM9104	--	Max. 4 meters height
Spectrum Analyzer with Q. Peak	Tektronix	2712	B023006	9KHz – 1.8GHz
Interface for Spectrum 2712	Tektronix	TD3F14A	--	
Test Receiver	Rohde & Schwarz	ESH 3	892580/006	10KHz – 30MHz
Test Receiver	Rohde & Schwarz	ESVP	863512/012	25MHz – 1,300 MHz
Impulse Limiter	Rohde & Schwarz	ESH-3-Z2	--	
Artificial Mains Network (LISN)	Schwarzbeck	NSLK 8127	--	2 x 10A, 50Ω, 50μH 10KHz-30MHz
Antenna System	Schwarzbeck	BBA 9106 / UHALP 9107	--	30MHz – 1000MHz
Signal Generator	Rohde & Schwarz	SWS 2	879113/42	100KHz – 1040 MHz
Digital Multimeter	Tektronix	DM2510G	DM-2510GTW10555	10KHz – 30MHz
Turntable with Controller	Drehtisch	DT312	--	φ120 cm



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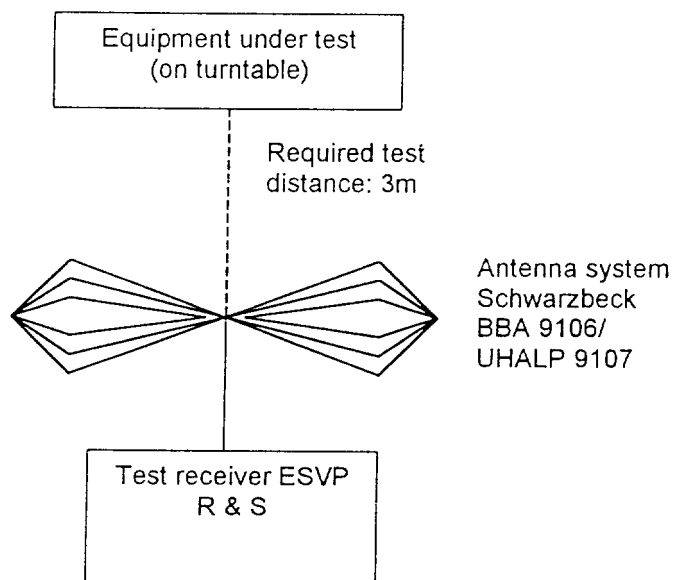
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Radiated Emission Test procedure





International Electrical Certification Centre Ltd.

Unintentional Radiators

Measurement of Radiated Emissions (30MHz-1000MHz)

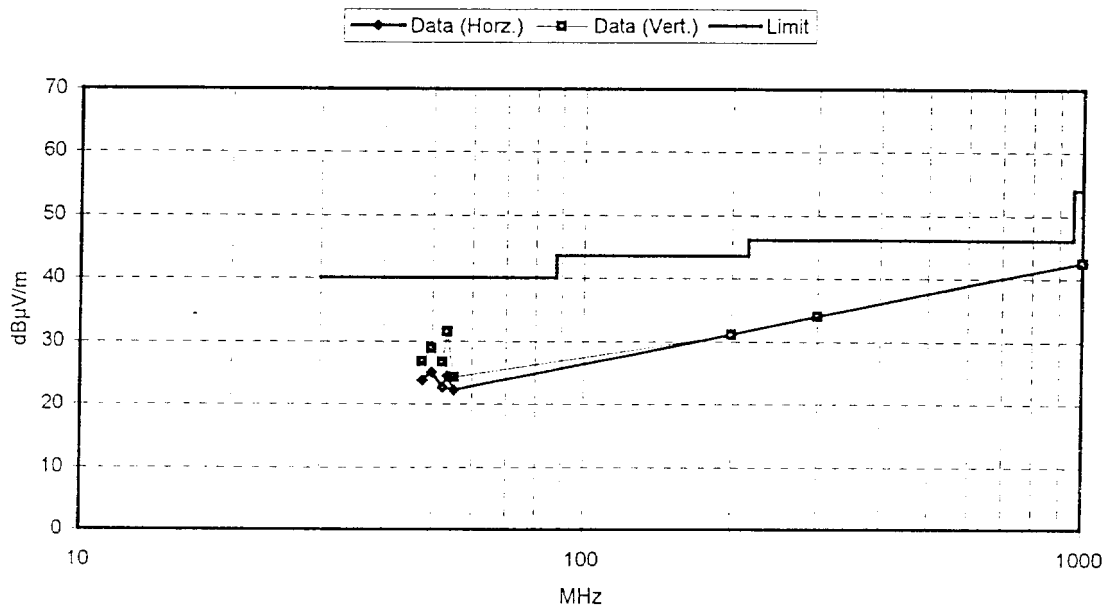
Acc: FCC Part 15 Subpart B

IECC Ref: 17121/8/400F
Model: 8809-49MHz
Applicant: ECHO TOYS LTD
Ser.Nr.: 1

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

Set under test: Remote Control Car
Connected sets: -
Operating mode: Power "On" (Rx noise "circuit")

Frequency (MHz)	Horz. Reading dB(μV)	Vert. Reading dB(μV)	Antenna Factor (dB)	Horiz. Test Result (μV/m)	Vert. Test Result (μV/m)	Limit (μV/m)
47.76	< 16	19	7.7	< 15.3	21.7	100.0
49.84	18	21.8	7.1	17.9	27.7	100.0
52.4	< 16	20	6.6	< 13.5	21.4	100.0
53.52	18	25	6.4	16.7	37.3	100.0
55.12	< 16	18	6.2	< 12.9	16.2	100.0
200	< 16	< 16	15.1	< 35.9	< 35.9	150.0
300	< 16	< 16	18.0	< 50.1	< 50.1	200.0
1000	< 16	< 16	26.5	< 133.4	< 133.4	500.0



10 AUG 1998

Date: _____

☒ O.K.

Test result:



Unintentional Radiators

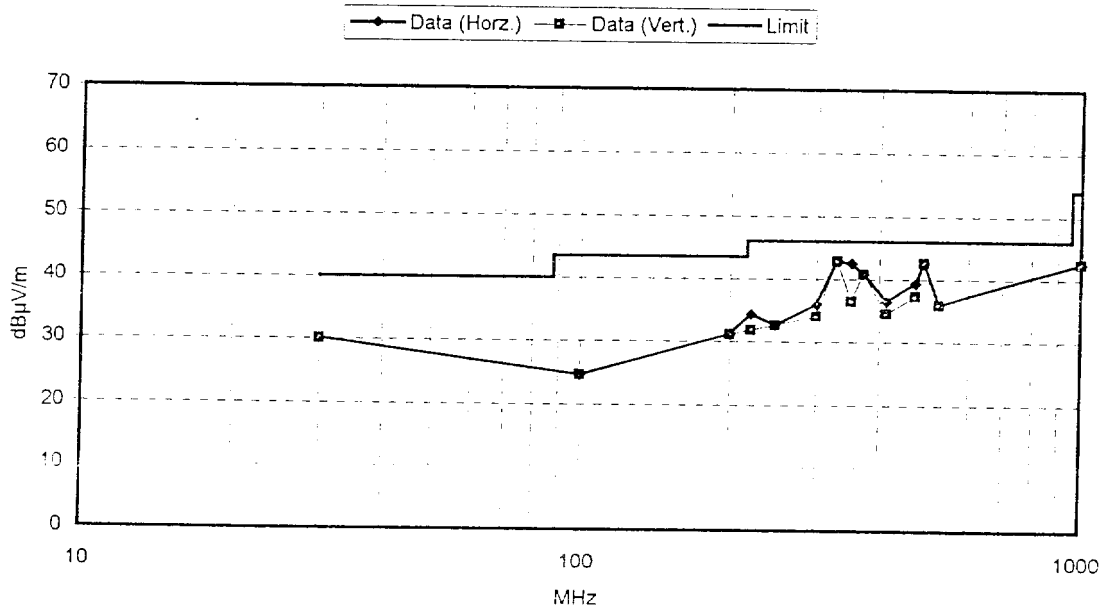
International Electrical Certification Centre Ltd.

Measurement of Radiated Emissions (30MHz-1000MHz)
Acc: FCC Part 15 Subpart B

IECC Ref: 17121/8/400F
Model: 8809-49MHz
Applicant: ECHO TOYS LTD
Ser.Nr.: 1
Set under test: Remote Control Car
Connected sets: -
Operating mode: Power "On" (Rx noise "motor")

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 (μV/m)	Vert. Test Result (μV/m)	Limit (μV/m)
30	< 16	< 16	14.0	< 31.6	< 31.6	100.0
100	< 16	< 16	8.6	< 17.0	< 17.0	150.0
200	< 16	< 16	15.1	< 35.9	< 35.9	150.0
220.4	18.5	< 16	15.8	52.0	< 39.0	200.0
247.1	16	< 16	16.6	42.7	< 42.7	200.0
300	18	16	18.0	63.1	50.1	200.0
329.3	26	26	16.9	139.7	139.7	200.0
352.3	25	19	17.4	132.5	66.4	200.0
371.7	23	23	17.8	109.7	109.7	200.0
413.9	18	16	18.5	66.9	53.1	200.0
471.4	20	18	19.3	92.3	73.4	200.0
490	23	23	19.6	134.4	134.4	200.0
525.9	16	16	20.0	62.8	62.8	200.0
1000	< 16	< 16	26.5	< 133.4	< 133.4	500.0



10 AUG 1998

Date: _____

☒ O.K.

Test result:



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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.
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.
7. **Measuring Procedure:**
In accordance with the relevant sections of the American National Standards Institute (ANSI) C63.4-1992 'Methods of Measurement of Radio Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the Range of 9KHz to 40GHz'.