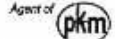




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Qualified Independent LaboratoryAgent of
Accredited Laboratory

F C C - TEST REPORT

REPORT NO.: 22467B/0/400F

Head Office:

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Date: 2000-05-12

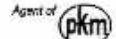
No. 22467B/0/400F

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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** : Helicopter -- 49 MHz Receiver**Model** : 60-2771 (49MHz)**Importer** : ECHO TOYS LTD**Manufacturer** : ECHO TOYS LTD



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No. 22467B/0/400F

Date: 2000-05-12

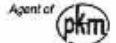
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5. Summary of Testresults
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7. Radiated Emission Testprocedure
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9. Interference Radiation (Datasheet)
10. Notes for Radiation Measurement (acc. to ANSI C63.4 – 1992)



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FCC – Test Report

Date: 2000-05-12

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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.

PHOTOGRAPH OF THE SAMPLE**Head Office:**

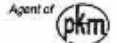
Unit 602-605, 6/F., 31 Lok Yip Rd., On Lok Tsuen, Fanling, N.T., Hong Kong. Tel: (852) 2305 2570 Fax: (852) 2758-4480 Home page: <http://www.iecc.com.hk> E-mail: info@iecc.com.hk
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Date: 2000-05-12

No. 22467B/0/400F

Page 5 of 10

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.

PHOTOGRAPH OF THE SAMPLE**Head Office:**

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FCC – Test Report

Date: 2000-05-12

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TEST EQUIPMENT LIST

Equipment	Manufacturer	Model	Serial No.	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- 2510GTW105 55	10KHz – 30MHz
Turntable with Controller	Drehtisch	DT312	--	φ120 cm

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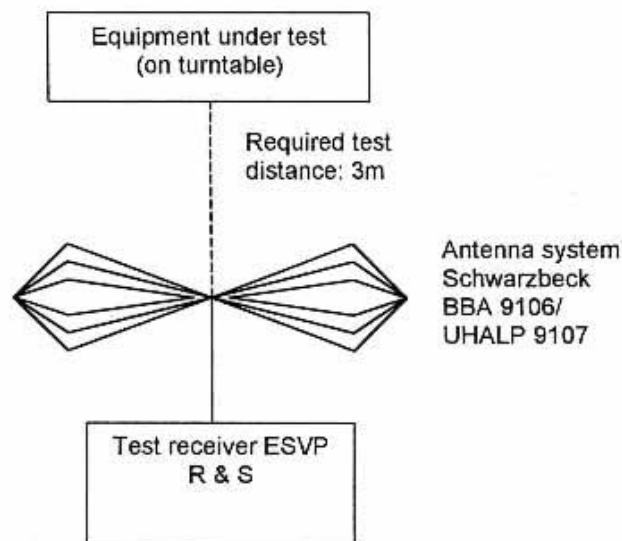
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Date: 2000-05-12

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Radiated Emission Test procedure

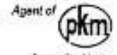


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Unintentional Radiators



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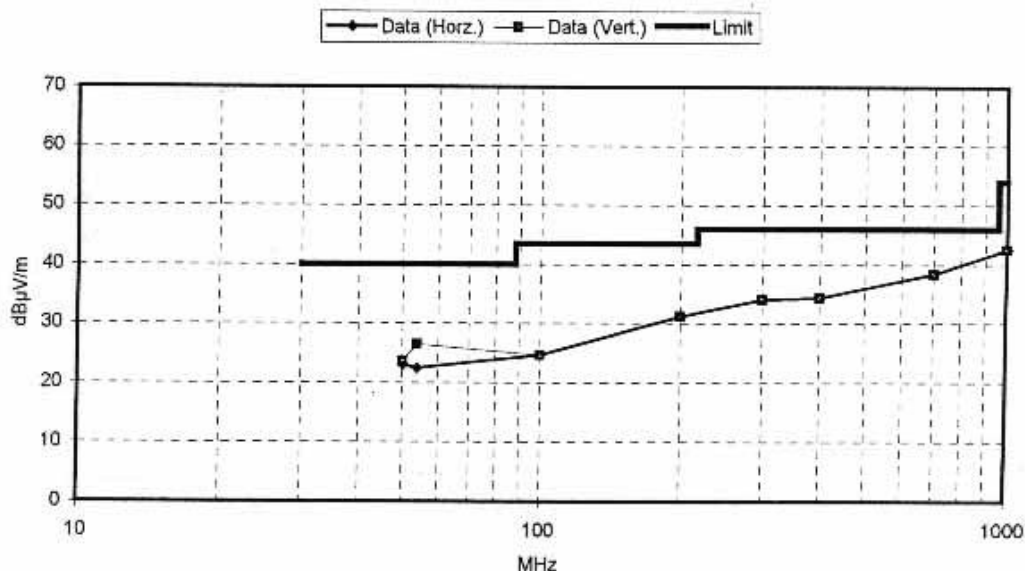
Measurement of Radiated Emissions (30MHz-1000MHz)

Acc: FCC Part 15 Subpart B

IECC Ref: 22467B/0/400F
 Model: 60-2771 (49MHz)
 Applicant: ECHO TOYS LTD
 Ser.Nr.: 1
 Set under test: Helicopter
 Connected sets: -
 Operating mode: Power "On" (Standby mode)

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)
50.08	< 16	16.5	7.0	< 14.1	14.9	100.0
53.88	< 16	20	6.4	< 13.2	20.9	100.0
100	< 16	< 16	8.6	< 17.0	< 17.0	150.0
200	< 16	< 16	15.1	< 35.9	< 35.9	150.0
300	< 16	< 16	18.0	< 50.1	< 50.1	200.0
400	< 16	< 16	18.3	< 51.9	< 51.9	200.0
700	< 16	< 16	22.4	< 83.2	< 83.2	200.0
1000	< 16	< 16	26.5	< 133.4	< 133.4	500.0



12 MAY 2000

Date: _____

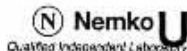
Test result:

☒ O.K.
☐ Not O.K.

Operator: _____

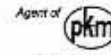


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Unintentional Radiators



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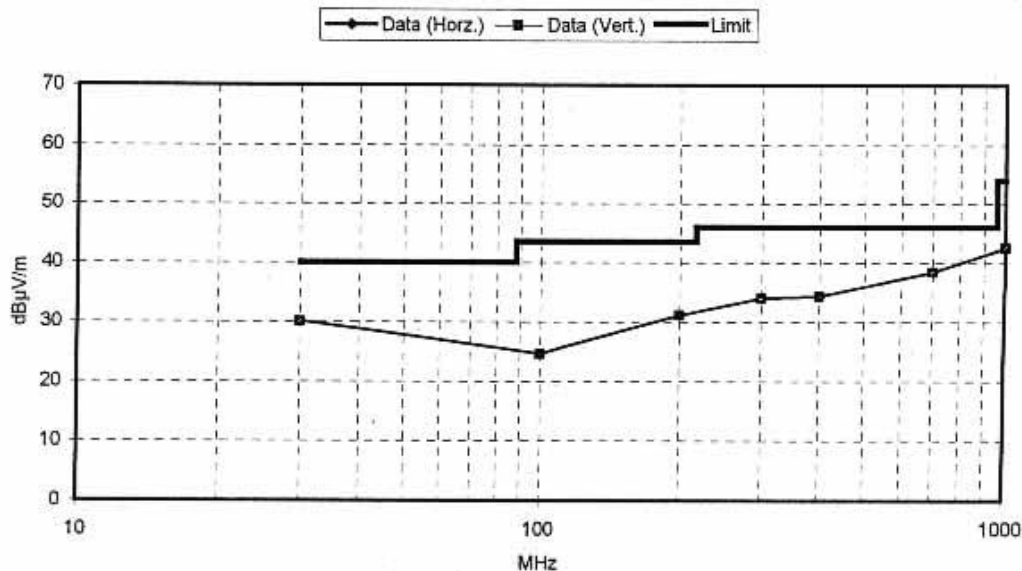
Measurement of Radiated Emissions (30MHz-1000MHz)

Acc: FCC Part 15 Subpart B

IECC Ref: 22467B/0/400F
 Model: 60-2771 (49MHz)
 Applicant: ECHO TOYS LTD
 Ser.Nr.: 1
 Set under test: Helicopter
 Connected sets: -
 Operating mode: Rx tested with backward mode
 Remark: Motor noise measurement

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
300	< 16	< 16	18.0	< 50.1	< 50.1	200.0
400	< 16	< 16	18.3	< 51.9	< 51.9	200.0
700	< 16	< 16	22.4	< 83.2	< 83.2	200.0
1000	< 16	< 16	26.5	< 133.4	< 133.4	500.0



Test result:

☒ O.K.
☐ Not O.K.

Date: 12 MAY 2000

Operator: e



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FCC – Test ReportDate: 2000-05-12

No. 22467/0/400F

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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'.

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