

F C C - TEST REPORT

REPORT NO.: 44828B

FCC – Test Report

Date: 2006-03-29

No. 44828B

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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 - 2003**

Product : Toy Go Car

Product Class : Low Power Communication
Device Receiver

Brand Name : -

Model : #4892-49MHzR

Importer : WELBIG COMPANY

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LABORATORY - REPORT

APPLICANT: WELBIG COMPANY
ADDRESS: Flat C, 20/F., Gold King Industrial Building
35-41 Tai Lin Pai Road
Kwai Chung, N.T.
Hong Kong

DATE OF SAMPLE RECEIVED: 2006-03-23

DATE OF TESTING: 2006-03-24 to 2006-03-28

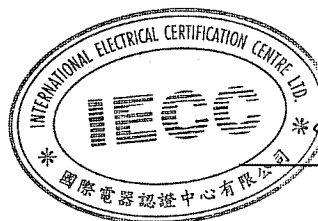
DESCRIPTION OF SAMPLE:

Product: Toy Go Car
Product class: Low Power Communication Device Receiver
Model number: #4892-49MHzR
Rating: DC 6V ('AA' Size Battery x 4)

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.



A handwritten signature in black ink, appearing to read "H. P. Wong", is written over a horizontal line.

Authorized Signature

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Test Location

International Electrical Certification Centre Ltd.
Unit 602-605, 31 Lok Yip Road, On Lok Tsuen, Fanling, N.T., Hong Kong

Summary of Test Results

Radiated Emission:

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

Conducted Emission:

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

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TEST EQUIPMENT LIST

Equipment	Manufacturer	Model	Serial No.	Remark
Test Receiver	Rohde & Schwarz	ESVP	860688/022	20MHz – 1,300 MHz
Test Receiver	Rohde & Schwarz	ESH 3	892580/006	9KHz – 30MHz
Antenna	Schaffner	CBL6111C	2791	30MHz – 1000MHz
Antenna	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
Spectrum Analyzer with Q. Peak	Advantest	R3132	140101852	9KHz – 3GHz

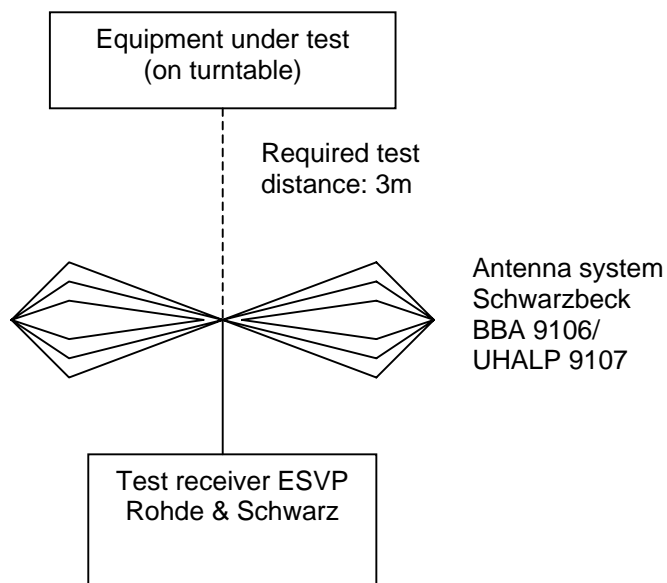
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Radiated Emission Test Procedure (> 30MHz)



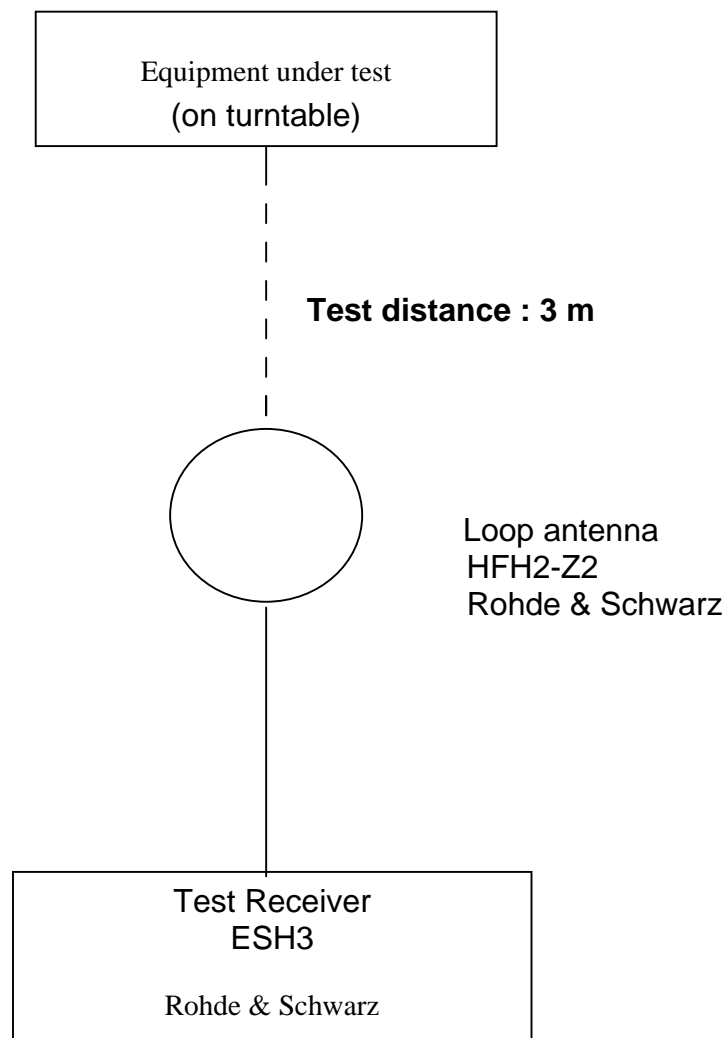
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Radiated Emission Test Procedure (9kHz – 30MHz)



Radiated Emission

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

IECC Ref: 44828B
Model: #4892-49MHzR
Applicant: WELBIG COMPANY
Sample No.: 1
Set under test: Toy Go Car
Connected sets: -
Operating mode: Operate

Test Equipment
Receiver: ESVP Rohde & Schwarz
Antenna: Schaffner CBL6111C

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	18.0	< 34.0	< 34.0	40.0
50	< 16	< 16	8.1	< 24.1	< 24.1	40.0
80	< 16	< 16	7.3	< 23.3	< 23.3	40.0
100	17	< 16	10.1	27.1	< 26.1	43.5
300	< 16	< 16	13.6	< 29.6	< 29.6	46.0
310	16	< 16	13.9	29.9	< 29.9	46.0
315	20	< 16	14.0	34.0	< 30.0	46.0
320	18	< 16	14.1	32.1	< 30.1	46.0
330	16	< 16	14.4	30.4	< 30.4	46.0
345	22	< 16	14.8	36.8	< 30.8	46.0
350	16	< 16	14.9	30.9	< 30.9	46.0
360	< 16	< 16	15.2	< 31.2	< 31.2	46.0
500	< 16	< 16	17.8	< 33.8	< 33.8	46.0
1000	< 16	< 16	24.9	< 40.9	< 40.9	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: 1. Unless otherwise indicated, the recorded readings are in quasi-peak values.
2. The measurement is conducted with the sample placed on the turnable in 3 orthogonal planes.

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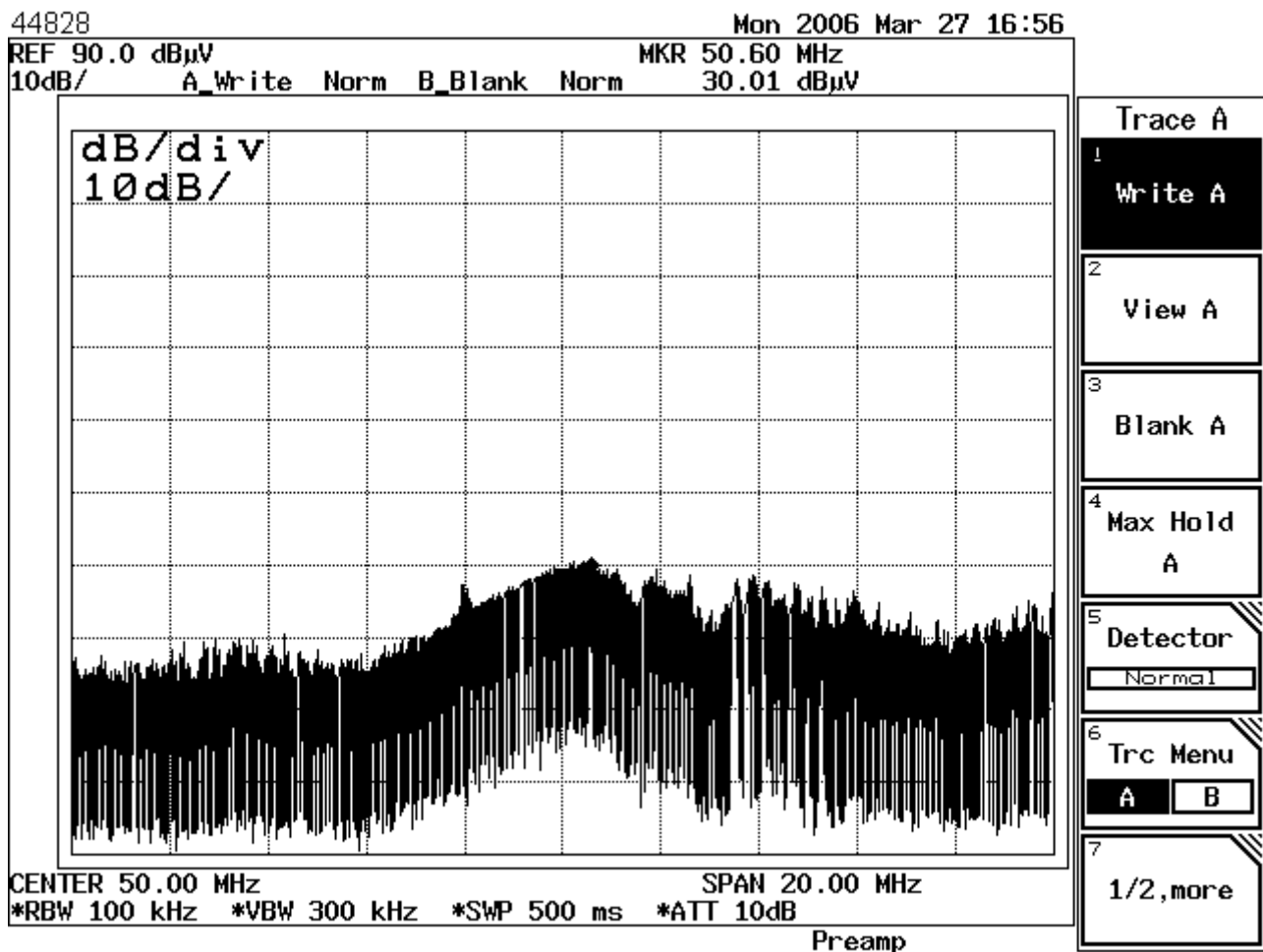
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Cohere Plot at fundamental frequency

Superregenerative Receiver : According to ANSI C63.4-2003 clause 12.1.1.1, a signal generator was set to the unit under test operating frequency. An un-modulated continuous wave (CW) signal was radiated at the super-regenerative receiver operating frequency to cohere the characteristic broadband emissions from the receiver.

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



All emissions observed complies with FCC limits.

Notes for Radiated Emission 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 (FCC Registration No. : 97774).

2. Distance between the EUT and measuring antenna:

3 meters.

3. Measuring instrumentations:

Rohde & Schwarz ESH3 Test Receiver (9kHz – 30MHz), 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 - 1000 MHz, connected with 10 meters coaxial cable. Cable loss of the coaxial cable included in the Antenna Factor for measurement data. The antenna is capable of measuring both horizontal and vertical polarizations. The antenna was raised from 1 to 4 meters to find out the maximum emission level from the EUT.

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 ranges 9kHz - 30MHz, 30 - 1000 MHz have 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 placed on a turn table and operated under various modes at rated supply voltage. The table is 0.8 meter above ground and can rotate 360 degrees to determine the position of the maximum emission level.

7. Measuring Procedure:

In **accordance** with the relevant sections of the American National Standards Institute (ANSI) C63.4-2003 '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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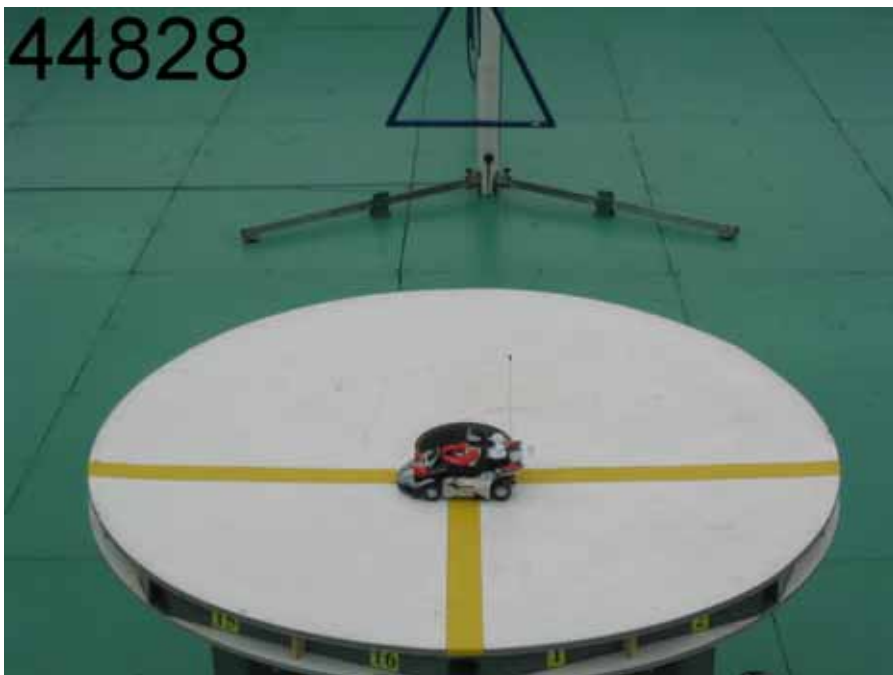
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Photographs

Radiated Emission Test setup



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Sample Construction Details



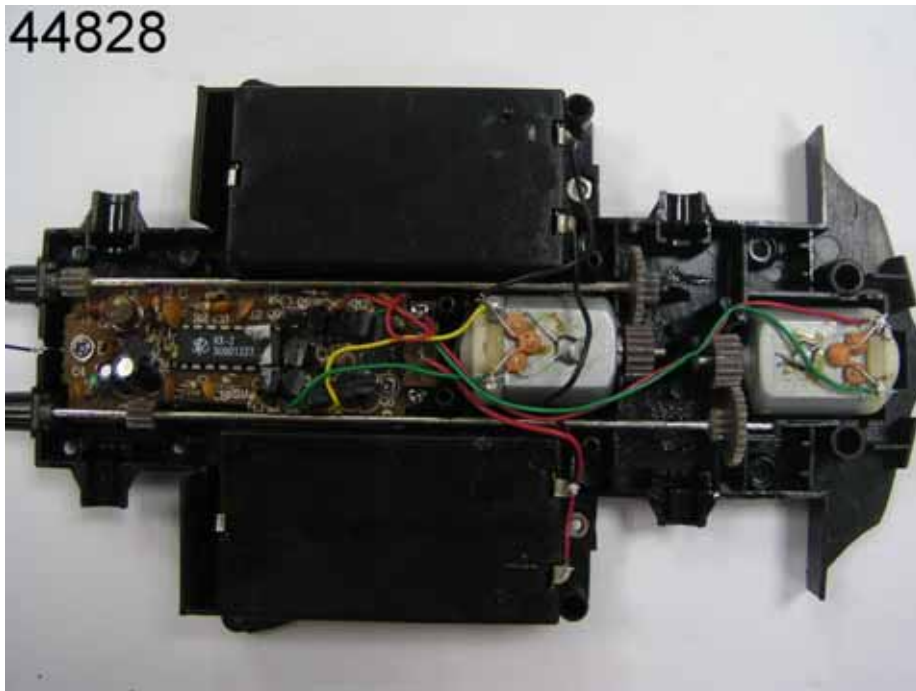
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