FCC CERTIFICATION
On Behalf of
MANGO'S (HK) LTD

R/C CAR
Model No.: 007,008

Prepared for	:	MANGO'S (HK) LTD
Address	:	Unit 201, Block 7, Xiushui Garden, Laimei Road,Chenghai ShantouCity, Guangdong P.R.C
Prepared by	:	ACCURATE TECHNOLOGY CO. LTD
Address	:	F1, Bldg. A, Changyuan New Material Port, Keyuan Rd. Science & Industry Park, Nanshan, Shenzhen, Guangdong P.R. China
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Report Number	:	ATE2005156
Date of Test	:	February 3, 2005
Date of Report	:	February 3, 2005

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Test Report Certification

Applicant	:	MANGO'S (HK) LTD
Manufacturer	:	MANGO'S (HK) LTD
EUT Description	:	R/C CAR

(A) MODEL NO.: 007,008

(B) SERIAL NO.: N/A

(C) POWER SUPPLY: 4.5V DC ("AAA" batteries 3×)

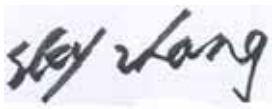
Measurement Procedure Used:

FCC Rules and Regulations Part 15 Subpart C Section 15.209,15.235: 2004
& ANSI C63.4: 2003

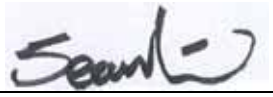
The device described above is tested by ACCURATE TECHNOLOGY CO. LTD to determine the maximum emission levels emanating from the device. The maximum emission levels are compared to the FCC Part 15 Subpart C Section 15.209,15.235 limits. The measurement results are contained in this test report and ACCURATE TECHNOLOGY CO. LTD is assumed full responsibility for the accuracy and completeness of these measurements. Also, this report shows that the Equipment Under Test (EUT) is to be technically compliant with the FCC requirements.

This report applies to above tested sample only. This report shall not be reproduced in part without written approval of ACCURATE TECHNOLOGY CO. LTD.

Date of Test : February 3, 2005

Prepared by : 

(Engineer)

Reviewer : 

(Quality Manager)

Approved & Authorized Signer : 

(Manager)

1. GENERAL INFORMATION

1.1.Description of Device (EUT)

EUT	:	R/C CAR
Model Number	:	007,008(Note:The samples are same except the appearance are different,So we prepare 007 for test only.)
Power Supply	:	4.5V DC ("AAA" batteries 3×)
Applicant	:	MANGO'S (HK) LTD
Address	:	Unit 201,Block 7,Xiushui Road,Chenghai,Shantou City Guangdong, P.R.C
Manufacturer	:	MANGO'S (HK) LTD
Address	:	Unit 201,Block 7,Xiushui Road,Chenghai,Shantou City Guangdong, P.R.C
Date of sample received	:	February 3, 2005
Date of Test	:	February 3, 2005

1.2.Description of Test Facility

EMC Lab	:	Accredited by TUV Rheinland Shenzhen, May 10, 2004 Accredited by FCC, May 10, 2004 The Certificate Registration Number is 253065 Accredited by Industry Canada, May 18, 2004 The Certificate Registration Number is IC 5077
Name of Firm	:	ACCURATE TECHNOLOGY CO. LTD
Site Location	:	F1, Bldg. A, Changyuan New Material Port, Keyuan Rd. Science & Industry Park, Nanshan, Shenzhen, Guangdong P.R. China

1.3.Measurement Uncertainty

Conducted Emission Uncertainty = ±2.66dB

Radiated Emission Uncertainty = ±4.26dB

2. MEASURING DEVICE AND TEST EQUIPMENT

Table 1: List of Test and Measurement Equipment

Kind of equipment	Manufacturer	Type	S/N	Calibrated until
EMI Test Receiver	Rohde&Schwarz	ESI26	838786/013	01.02.2006
Bilog Antenna	Chase	CBL6112B	2591	01.02.2006
Horn Antenna	Rohde&Schwarz	HF906	100013	01.02.2006

3. RADIATED EMISSION FOR FCC PART 15 SECTION 15.209(A)

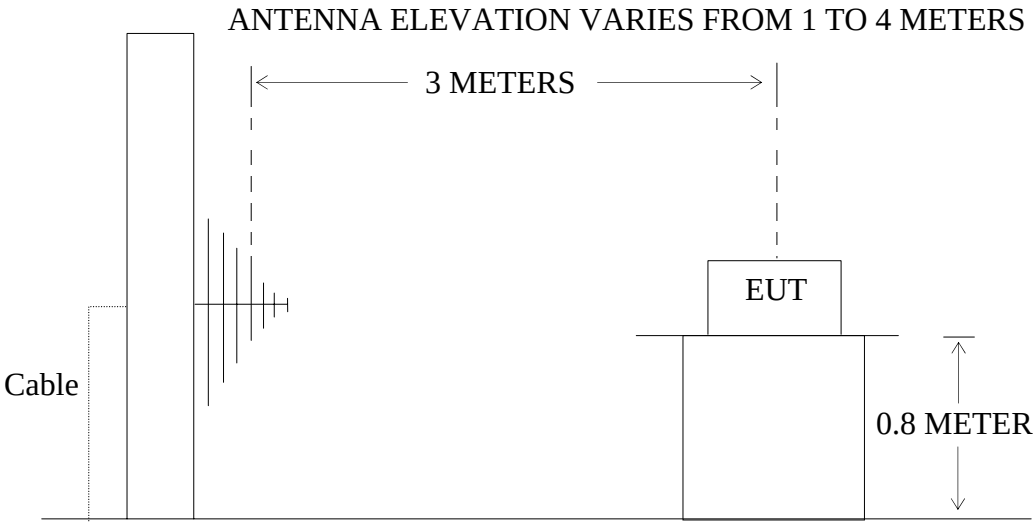
3.1.Block Diagram of Test Setup

3.1.1.Block diagram of connection between the EUT and simulators

EUT

(EUT: R/C CAR)

3.1.2.Anechoic Chamber Test Setup Diagram



(EUT:R/C CAR)

3.2.The Field Strength of Radiation Emission Measurement Limits

3.2.1 Radiation Emission Measurement Limits According to Section 15.209(a)

Frequency (MHz)	Limit,		
	Field Strength of Quasi-peak Value (microvolts/m)	Field Strength of Quasi-peak Value (dBμV/m)	
30 - 88	100	40	
88 - 216	150	43.5	
216 - 960	200	46	
Above 960	500	54	

3.3. Configuration of EUT on Measurement

The following equipment are installed on Radiated Emission Measurement to meet the commission requirements and operating regulations in a manner which tends to maximize its emission characteristics in normal application.

3.3.1. R/C CAR (EUT)

Model Number	:	007
Serial Number	:	N/A
Manufacturer	:	MANGO'S (HK) LTD

3.4. Operating Condition of EUT

3.4.1. Setup the EUT and simulator as shown as Section 3.1.

3.4.2. Turn on the power of all equipment.

3.4.3. Let the EUT work in TX modes (On with stand, On with lie) measure it.

3.5. Test Procedure

The EUT and its simulators are placed on a turntable, which is 0.8 meter high above ground. The turntable can rotate 360 degrees to determine the position of the maximum emission level. EUT is set 3.0 meters away from the receiving antenna, which is mounted on an antenna tower. The antenna can be moved up and down between 1.0 meter and 4 meters to find out the maximum emission level. Broadband antenna (calibrated bilog antenna) is used as receiving antenna. Both horizontal and vertical polarizations of the antenna are set on measurement. In order to find the maximum emission levels, all of the interface cables must be manipulated according to FCC Part 15 Subpart C on radiated emission measurement.

The bandwidth of test receiver (R&S ESI26) is set at 120KHz in 30-1000MHz.
The frequency range from 30MHz to 1000MHz is checked.

The final measurement in band 9-90kHz, 110-490kHz and above 1000MHz is performed with Average detector. Except those frequency bands mention above, the final measurement for frequencies below 1000MHz is performed with Quasi Peak detector.

3.6. The Field Strength of Radiation Emission Measurement Results

PASS.

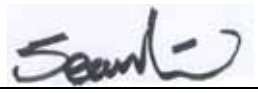
The frequency range 30MHz to 1000MHz is investigated.

Date of Test:	February 2, 2005	Temperature:	22°C
EUT:	R/C CAR	Humidity:	50%
Model No.:	007	Power Supply:	4.5V DC ("AAA" battery 3×)
Test Mode:	TX	Test Engineer:	Andy

Polarization	Frequency MHz	Emission Level dBμV/m QP	Limits dBμV/m	Margin dBμV/m
Horizontal	*	*	*	*
Vertical	*	*	*	*

*** Disturbances are small or not detectable.**

The spectral diagrams in appendix 1 display the measurement of un-weighted peak values.

Reviewer **:** 

4. FUNDAMENTAL AND HARMONICS RADIATED EMISSION FOR FCC PART 15 SECTION 15.235

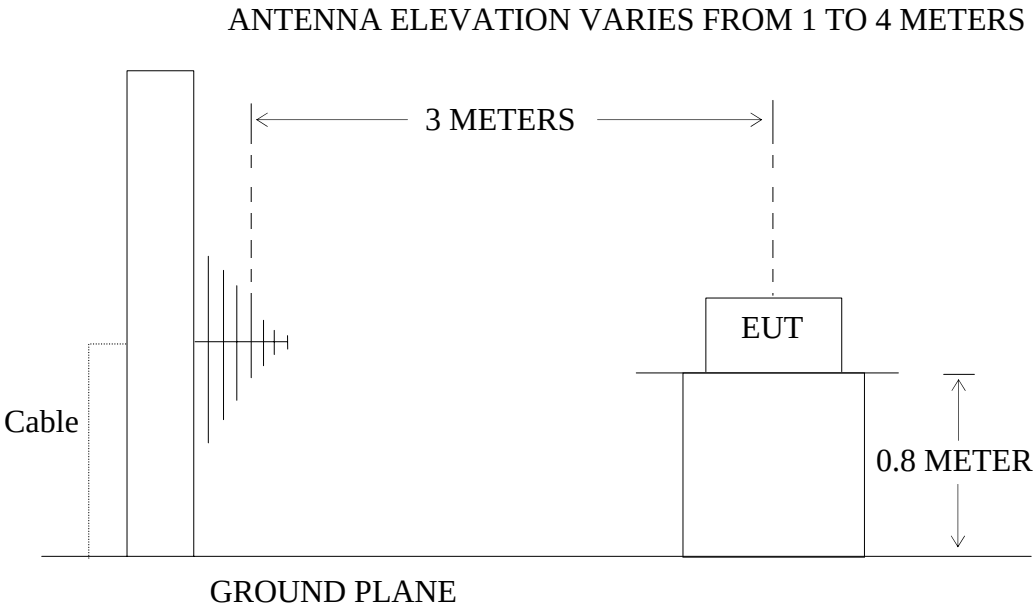
4.1.Block Diagram of Test Setup

4.1.1.Block diagram of connection between the EUT and simulators

EUT

(EUT: R/C CAR)

4.1.2.Anechoic Chamber Test Setup Diagram



(EUT: R/C CAR)

4.2.The Emission Limit For Section 15.235

4.2.1 The field strength of any emission within this band shall not exceed 10000microvolts/meter at 3 meters. The emission limit in this paragraph is based on measurement instrumentation employing an average detector.

4.2.2 The field strength of any emissions appearing between the band edges and up to 10kHz above and below the band edges shall not exceed the general radiated emission limits in section 15.209. The field strength of any emissions removed by more than 10KHz from the band edges shall not exceed the general radiated emission limits in section 15.209.

4.3.EUT Configuration on Measurement

The following equipment are installed on the emission Measurement to meet the commission requirements and operating regulations in a manner which tends to maximize its emission characteristics in normal application.

4.3.1.R/C CAR(EUT)

Model Number	**:**	007
Serial Number	**:**	N/A
Manufacturer	**:**	MANGO'S (HK) LTD

4.4.Operating Condition of EUT

4.4.1.Setup the EUT and simulator as shown as Section 4.1.

4.4.2.Turn on the power of all equipment.

4.4.3.Let the EUT work in TX mode (On) measure it.

4.5.Test Procedure

In order to find the maximum emission levels, all of the interface cables must be manipulated according to FCC Part 15 Subpart C Section 15.235 .

4.6. The Emission Measurement Result

PASS.

Date of Test:	February 2, 2005	Temperature:	22°C
EUT:	R/C CAR	Humidity:	50%
Model No.:	007	Power Supply:	4.5V DC ("AAA" battery 3×)
Test Mode:	TX	Test Engineer:	Andy

Fundamental Radiated Emissions

Test conditions		Fundamental Frequency	
		Channel 1 (49.86MHz)	
T_{nom}(22°C)	Unit	(dBμV/m)	(μV/m)
	Read value	28.0	*25.12*
limit		80	10000
Note: Measurement was performed with modulated signal with average detector.			

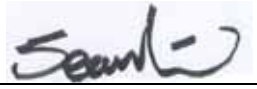
Harmonics Radiated Emission

Polarization	Frequency MHz	Emission Level dBμV/m QP	Limits dBμV/m	Margin dBμV/m
Horizontal	*	*	*	*
Vertical	*	*	*	*

The final measurement for frequencies below 1000MHz is performed with Quasi Peak detector; the final measurement for frequencies above 1000MHz is performed with Average detector.

*** Disturbances are small or not detectable.**

The spectral diagrams in appendix 1 display the measurement of un-weighted peak values

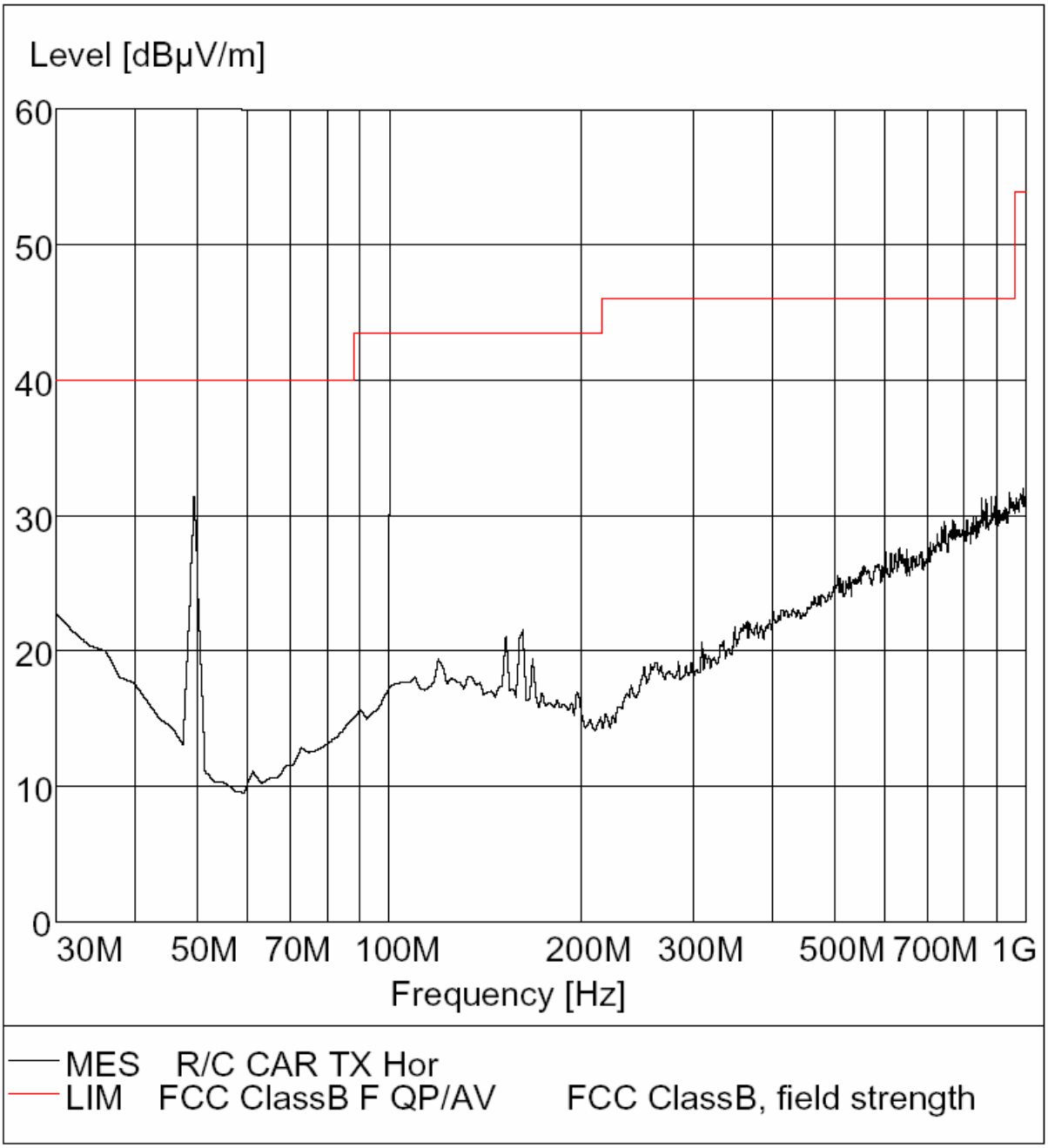
Reviewer **:** 

APPENDIX I
(Test Curves)

Radiated Disturbance

FCC part15

EUT: R/C CAR M/N:007
Manufacturer: MANGO'S (HK) LTD
Operating Condition: TX
Test Site:
Operator:
Test Specification: Horizontal
Comment:



Radiated Disturbance

FCC part15

EUT: R/C CAR M/N:007
Manufacturer: MANGO'S (HK) LTD
Operating Condition: TX
Test Site:
Operator:
Test Specification: Vertical
Comment: