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FEDERAL COMMUNICATIONS COMMISSION

Registration number: 282399

Report No.: GLEMR060800928RFI

Page: 1 of 11

FCC ID: UHR13178796777

TEST REPORT

Application No. : GLEMR060800928RF

Applicant: JMK-IIT INC.

FCC ID: UHR13178796777

**Fundamental
Frequency :** 27.145MHz

Equipment Under Test (EUT):

Name: R/C PICKUP TRUCK

Model No.: 928

Standards: FCC PART 15, SUBPART C : 2005 Section 15.227

Date of Receipt: 03 Aug 2006

Date of Test: 03 to 17 Aug 2006

Date of Issue: 17 Aug 2006

Test Result :	PASS *
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* In the configuration tested, the EUT complied with the standards specified above.

Authorized Signature:

Jerry Chen
Manager

This report refers to the General Conditions for Inspection and Testing Services, printed overleaf

This report details the results of the testing carried out on one sample. The results contained in this test report do not relate to other samples of the same product. The manufacturer should ensure that all products in series production are in conformity with the product sample detailed in this report.

This report may only be reproduced and distributed in full. If the product in this report is used in any configuration other than that detailed in the report, the manufacturer must ensure the new system complies with all relevant standards. Any mention of SGS International Electrical Approvals or testing done by SGS International Electrical Approvals in connection with, distribution or use of the product described in this report must be approved by SGS International Electrical Approvals in writing.

The report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the federal government.

All test results in this report can be traceable to National or International Standards.

2 Test Summary

Test	Test Requirement	Standard Paragraph	Result
Radiated Emission (30MHz to 1000MHz)	FCC PART 15 :2005	Section 15.227	PASS
Occupied Bandwidth	FCC PART 15 :2005	Section 15.215	PASS

Remark:

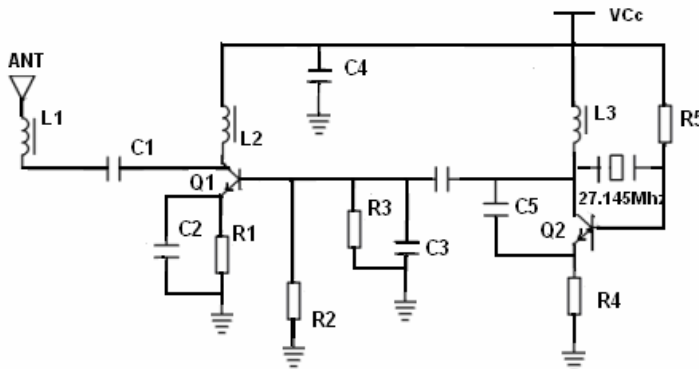
- ① Outer color of the cars :red, yellow and silvery white. All of the cars are controlled by the same transmitter.
- ② The EUT passed Radiated Emission and Occupied Bandwidth test after the modification as shown as the below:

L1 : 5.6 μ H; L2,L3 2.2 μ H

C1: 100pF, C2 :2pF, C3:680pF, C4:0.1 μ F,

R1: 100 Ω , R2:10k Ω , R: 3.3 Ω , R4:100 Ω , R5:68k Ω

X: 27.145MHz crystal. (manufacturer: DongGuan Telestar Electronics Ltd.)



Please refer the section 6 of this report and circuit diagram for the detail.



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4 General Information

4.1 Client Information

Applicant Name: JMK-IIT INC.

Applicant Address: 8811 South 77th Avenue Bridgeview, IL 60455 USA

4.2 Details of E.U.T.

Name: R/C PICKUP TRUCK

Model No.: 928

Power Supply: 9V DC (1 x '6F 22' Size Battery)

Power Cord: N/A-

4.3 Description of Support Units

The EUT was tested as an independent unit: a 27MHz radio transmitter.

4.4 Test Location

All tests were performed at:

SGS-CSTC Standards Technical Services Co., Ltd., Guangzhou EMC Laboratory, No.198
Kezhu Road, Science Town Economic& Technology Development District Guangzhou, China
510663

Tel: +86 20 82155555

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No tests were sub-contracted.

4.5 Other Information Requested by the Customer

None.



4.6 Test Facility

The test facility is recognized, certified, or accredited by the following organizations:

- **NVLAP – Lab Code: 200611-0**
SGS-CSTC Standards Technical Services Co., Ltd., Guangzhou EMC Laboratory is recognized under the National Voluntary Laboratory Accreditation Program (NVLAP/NIST). NVLAP Code: 200611-0. Effective through December 31, 2006.
- **ACA**
SGS-CSTC Standards Technical Services Co., Ltd., EMC Laboratory can also perform testing for the Australian C-Tick mark as a result of our NVLAP accreditation.
- **VCCI**
The 3m Semi-anechoic chamber and Shielded Room (11.5m x 4m x 4m) of SGS-CSTC Standards Technical Services Co., Ltd. have been registered in accordance with the Regulations for Voluntary Control Measures with Registration No.: R-1599 and C-1706 respectively.
Date of Registration: June 01, 2005. Valid until February 22, 2008
- **SGS UK(Certificate No.: 32), SGS-TUV SAARLAND and SGS-FIMKO**
Have approved SGS-CSTC Standards Technical Services Co., Ltd., EMC Laboratory as a supplier of EMC TESTING SERVICES and SAFETY TESTING SERVICES.
- **CNAL – LAB Code: L0141**
SGS-CSTC Standards Technical Services Co., Ltd., EMC Laboratory has been assessed and in compliance with CNAL/AC01:2002 accreditation criteria for testing laboratories (identical to ISO/IEC 17025:1999 General Requirements) for the Competence of Testing Laboratories.
- **FCC – Registration No.: 282399**
SGS-CSTC Standards Technical Services Co., Ltd., EMC Laboratory has been registered and fully described in a report filed with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in our files. Registration 282399, May 31, 2002. With the above and NVLAP's accreditation, SGS-CSTC is an authorised test laboratory for the DoC process.
- **Industry Canada (IC)**
The 3m Semi-anechoic chamber of SGS-CSTC Standards Technical Services Co., Ltd. has been registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing with Registration No.: 5169.



5 Test Results

5.1 Test Instruments

No:	Test Equipment	Manufacturer	Model No.	Serial No.	Cal.Date (dd-mm-yy)	Cal.Duedate (dd-mm-yy)
1	Temperature Chamber	TERCHY	MHG-800RR	0118	05-12-2005	05-12-2006
2	D.C. Power Supply	Instek	PS-3030	9862036	Check when used	
3	DMM	Fluke	73	70681569 or 70671122	12-09-2005	12-09-2006
4	Impact 3m Semi- Anechoic Chamber	ChangZhou ZhongYu	N/A	N/A	06-03-2006	06-03-2007
5	Biconical Antenna (Rx)	Rohde & Schwarz	HK116	100032	30-01-2006	30-01-2007
6	Biconical Antenna (Tx)	Rohde & Schwarz	HK116	100033	10-05-2006	09-05-2007
7	Log-Perd. Dipole Antenna (Rx)	Rohde & Schwarz	HL223	100039	11-06-2006	10-06-2007
8	Log-Perd. Dipole Antenna (Tx)	Rohde & Schwarz	HL223	100040	10-05-2006	09-05-2007
9	Horn Antenna (Rx)	Rohde & Schwarz	HF906	100095	11-06-2006	10-06-2007
10	Horn Antenna (Tx)	Rohde & Schwarz	HF906	100096	10-06-2006	09-06-2007
11	Bilog Type Antenna	Schaffner Chase	CBL6143	5070	14-01-2006	13-01-2007
12	Bilog Type Antenna	Schaffner Chase	CBL6112B	2966	31-10-2005	31-10-2006
13	0.1-1300 MHz Pre Amplifier	HP	8447D OPT 010	2944A06252	16-01-2006	16-01-2007
14	1-26.5GHz Pre Amplifier	Agilent	8449B	3008A01649	06-03-2006	06-03-2007
15	Antenna Mask (Tx)	HD-GmbH	AS620M	620/408	06-03-2006	06-03-2007
16	Antenna Mask (Rx)	HD-GmbH	MA240	240/619	N/A	N/A
17	Turntable	HD-GmbH	DT430	EMC0509	N/A	N/A
18	Turntable & Antenna Mask Controller	HD-GmbH	HD100	EMC0510	N/A	N/A
19	EMI Test Software	Rohde & Schwarz	ES-K1	EMC0512	N/A	N/A
20	Coaxial cable	Rohde & Schwarz	N/A	EMC0514	04-11-2005	03-11-2006
21	EMI Test Receiver	Rohde & Schwarz	ESIB26	100249	04-11-2005	03-11-2006
22	Spectrum Analyzer	Rohde & Schwarz	FSP30	100324	05-12-2005	05-12-2006
23	Signal Generator	Rohde & Schwarz	SMR20	100416	05-12-2005	05-12-2006
24	Radio Communication Monitor	Rohde & Schwarz	CMS54	100137	05-12-2005	05-12-2006
25	Power Meter	Rohde & Schwarz	NRVS	825770/074	20-12-2005	20-12-2006
26	Audio Analyzer	Rohde & Schwarz	UPL	100855	16-08-2005	16-08-2006
27	Digital Oscilloscope	Tektronix	TDS3012	B015508	14-07-2006	14-07-2007
28	Active Loop Antenna	EMCO	6502	00042963	14-01-2006	14-01-2007
29	Temp. Humidity	Shenzhen Tai Kong	THG-1	EMC0054	04-01-2006	04-01-2007



5.2 E.U.T. Operation

Input voltage:	9V DC (1 x '6F 22' Size Battery)
Operating Environment:	
Temperature:	25.0 °C
Humidity:	50 % RH
Atmospheric Pressure:	1013 mbar
EUT Operation:	Test the EUT in transmitting mode.

5.3 Test Procedure & Measurement Data

5.3.1 Radiated Emissions

Test Requirement:	FCC Part 15 C Section 15.227
Test Method:	ANSI C63.4 section 8 & 13
Test Date:	
Measurement Distance:	3m (Semi-Anechoic Chamber and OATS)
Requirements:	Carrier frequency will not exceed 80dBuV/m at 3m. Out of band emissions shall not exceed: 40.0 dB μ V/m between 30MHz & 88MHz 43.5 dB μ V/m between 88MHz & 216MHz 46.0 dB μ V/m between 216MHz & 960MHz 54.0 dB μ V/m above 960MHz
Detector:	Peak Scan (120kHz resolution bandwidth)



Test Procedure: The procedure used was ANSI Standard C63.4-2003. The receive was scanned from 30MHz to 1000MHz. When an emission was found, the table was rotated to produce the maximum signal strength. An initial pre-scan was performed for in peak detection mode using the receiver. The EUT was measured for both the Horizontal and Vertical polarities and performed a pre-test three orthogonal planes. The worst case emissions were reported.

An initial pre-scan was performed in the 3m chamber using the spectrum analyser in peak detection mode. Quasi-peak measurements were conducted based on the peak sweep graph. The EUT was measured by Bilog antenna and Active Loop Antenna with 2 orthogonal polarities.

Test the EUT in transmitting mode.

Intentional emission

Test Frequency (MHz)	Peak (dB μ V/m)		Limits (dB μ V/m)	Margin (dB)	
	Vertical	Horizontal		Vertical	Horizontal
27.145	63.5	50.6	100.0	36.5	49.4

Test Frequency (MHz)	Average (dB μ V/m)		Limits (dB μ V/m)	Margin (dB)	
	Vertical	Horizontal		Vertical	Horizontal
27.145	57.6	46.3	80.0	22.4	33.7



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Other emissions:

Horizontal:

Freq	ReadAntenna	Cable	Preamp		Limit	Over	
Level	Factor	Loss	Factor	Level	Line	Limit	Remark
MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB
54.290	52.42	9.93	0.70	25.21	37.84	40.00	-2.16 QP
81.435	52.02	9.47	0.80	25.12	37.17	40.00	-2.83 QP
108.580	52.66	12.51	0.94	25.10	41.01	43.50	-2.49 QP
135.725	53.15	11.88	1.05	25.10	40.98	43.50	-2.52 QP
162.870	48.76	9.84	1.16	24.88	34.87	43.50	-8.63 QP
190.015	47.61	8.93	1.26	24.70	33.10	43.50	-10.40 QP
217.160	53.73	10.56	1.37	24.53	41.13	46.00	-4.87 QP
244.305	54.56	12.35	1.48	24.42	43.96	46.00	-2.04 QP
271.450	53.23	12.65	1.54	24.40	43.02	46.00	-2.98 QP

Vertical:

Freq	ReadAntenna	Cable	Preamp		Limit	Over	
Level	Factor	Loss	Factor	Level	Line	Limit	Remark
MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB
54.290	50.15	9.93	0.70	25.21	35.57	40.00	-4.43 QP
81.435	45.86	9.47	0.80	25.12	31.01	40.00	-8.99 QP
108.580	42.02	12.51	0.94	25.10	30.37	43.50	-13.13 QP
135.725	48.13	11.88	1.05	25.10	35.96	43.50	-7.54 QP
162.870	45.81	9.84	1.16	24.88	31.92	43.50	-11.58 QP
190.015	46.15	8.93	1.26	24.70	31.64	43.50	-11.86 QP
217.160	54.10	10.56	1.37	24.53	41.50	46.00	-4.50 QP
244.305	48.99	12.35	1.48	24.42	38.39	46.00	-7.61 QP
271.450	49.69	12.65	1.54	24.40	39.48	46.00	-6.52 QP

Remark:

According to 15.35 (b) When average radiated emission measurements are specified in the regulations, including emission measurements below 1000 MHz, there is also a limit on the radio frequency emissions, as measured using instrumentation with a peak detector function, corresponding to 20 dB above the maximum permitted average limit for the frequency being investigated unless a different peak emission limit is otherwise specified in the rules, e.g., see Section 15.255.

Test Results: The unit does meet the FCC Part 15 C Section 15.227 requirements.



5.3.2 Occupied Bandwidth

Test Requirement: FCC Part 15 C Section 15.215 (C)

Test Method: ANSI C63.4 section 13 & FCC Part 2.1049

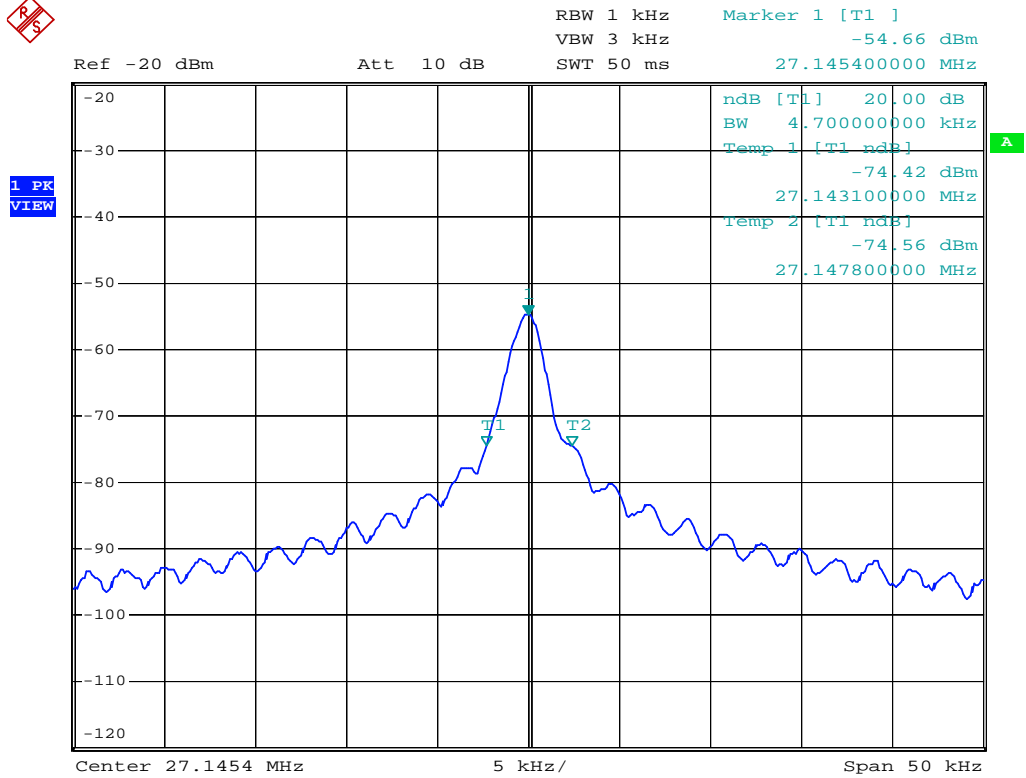
Operation within the band 26.960 – 27.280 MHz

Test Date: 03 to 17 Aug 2006

Requirements: Intentional radiators operating under the alternative provisions to the general emission limits, as contained in §§ 15.217 through 15.257 and in subpart E of this part, must be designed to ensure that the 20 dB bandwidth of the emission is contained within the frequency band designated in the rule section under which the equipment is operated. The requirement to contain the 20 dB bandwidth of the emission within the specified frequency band includes the effects from frequency sweeping, frequency hopping and other modulation techniques that may be employed as well as the frequency stability of the transmitter over expected variations in temperature and supply voltage. If a frequency stability is not specified in the regulations, it is recommended that the fundamental emission be kept within at least the central 80% of the permitted band in order to minimize the possibility of out-of-band operation.

Method of measurement: The useful radiated emission from the EUT was detected by the spectrum analyser with peak detector. The vertical Scale is set to 10dB per division. The horizontal scale is set to 5KHz per division.

The graph as below, represents the emissions take for this device.



Date: 17.AUG.2006 11:02:09

The results: The unit does meet the FCC Part 15 C Section 15.215 requirements.