FCC TEST REPORT

Under

FCC 15 Subpart B

For

GUANGDONG ROULE ELECTRONICS CO., LTD

Wireless Auto_dial System

FCC ID	:	YI6RL-R1
Model No.	:	RL-0503C
Prepared for	:	GUANGDONG ROULE ELECTRONICS CO., LTD NO. 12, Pingdong 3rd Road, Nanping Industry Community, Zhuhai, Guangdong China
Prepared By	:	Shenzhen AOV Testing Technology Co., Ltd. 2-6/F, No.5, Yuantou Lane , Tanglang, Taoyuan Street, Nanshan District, Shenzhen ,Guangdong, China
		Tel : (86) 755-86008000 Fax : (86) 755-86008282
Report No.	:	A001P100415010E-1
Date of Test	:	June 2-8, 2010
Date of Rep.	:	June 8, 2010

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Test Report Declaration

TEST REPORT DECLARATION

Applicant	:	GUANGDONG ROULE ELECTRONICS CO., LTD
Manufacturer	:	GUANGDONG ROULE ELECTRONICS CO., LTD
EUT Description	:	Wireless Auto_dial System

(A)	Model No.	:	RL-0503C
(B)	Serial No.	:	E2010060801C
(C)	Power Supply	:	AC 120V 60Hz

Test Procedure Used:
FCC Rules and Regulations Part 15 Subpart B 2007.

The device described above has been tested by **Shenzhen AOV Testing 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 B Class B limits both conducted and radiated emissions. The test results are contained in this test report and **Shenzhen AOV Testing Technology Co., Ltd** is assumed of full responsibility for the accuracy and completeness of these tests. Also, this report shows that the EUT (Equipment Under Test) is complies with the FCC requirements.

This report applies to above tested sample only. This report shall not be reproduced in parts without written approval of **Shenzhen AOV Testing Technology Co., Ltd.**

Date of Test: June 2-8, 2010

Prepared by: _____
Project Engineer

Approved & Authorized Signer: _____
Project Manager

1. GENERAL INFORMATION

1.1. Description of Device (EUT)

Description	:	Wireless Auto_dial System
Model Number	:	RL-0503C
Applicant	:	GUANGDONG ROULE ELECTRONICS CO., LTD
Address	:	NO. 12, Pingdong 3rd Road, Nanping Industry Community, Zhuhai, Guangdong China
Manufacturer	:	GUANGDONG ROULE ELECTRONICS CO., LTD
Address	:	NO. 12, Pingdong 3rd Road, Nanping Industry Community, Zhuhai, Guangdong China
Date of Test	:	June 2-8, 2010

1.2. Test Facility

Test Firm	:	Bontek Compliance Testing Laboratory Ltd. Certificated by FCC, Registration No.: 338263
Address	:	FL.1, Building H-3, Hua Qiao Cheng East Industrial Area Qiaocheng East Road, Nanshan, Shenzhen, P.R.China
Tel	:	86-755-86337020
Fax	:	86-755-86337028

1.3. Uncertainty

Conducted Emission Uncertainty = ±2.23dB

Radiated Emission Uncertainty = ±4.26dB

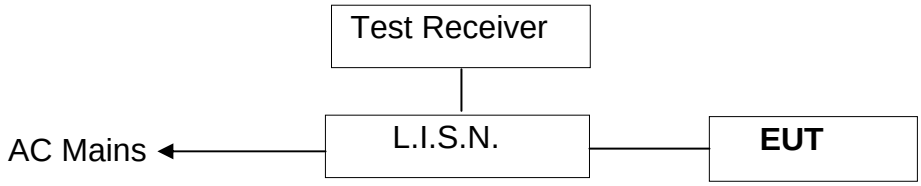
2. POWER LINE CONDUCTED EMISSION TEST

2.1. Test Equipment

The following test equipments are used during the power line conducted emission test:

Item	Equipment	Manufacturer	Model No.	Serial No.	Cal date
1.	Spedtrum Analyzer	ADVANTEST	R3261C	51720141	2010-2-22
2.	EMI Test Receiver	R&S	ESCI	837010/012	2010-2-22
3.	RF Selector	TOYO	NS4000	9507001	2010-2-22
4.	AM/FM Stereo Signal Generator	Panasonic	VP-8122A	4D0461C125	2010-2-22

2.2. Block Diagram of Test Setup



(EUT: Wireless Auto_dial System)

2.3. Power Line Conducted Emission Limit

Frequency MHz	Limits (dBμV)	
	Quasi-peak Level	Average Level
0.15 ~ 0.50	66 ~ 56*	56 ~ 46*
0.50 ~ 5.00	56	46
5.00 ~ 30.00	60	50

Notes:

1. *Decreasing linearly with logarithm of frequency.
2. The lower limit shall apply at the transition frequencies.

2.4. EUT Configuration on Test

The following equipments are installed on conducted emission Test to meet the Commission requirement and operating regulations in a manner that tends to maximize its emission characteristics in a normal application.

2.4.1.1.Wireless Auto_dial System（EUT）

Model Number : RL-0503C

Serial Number : E2010060801C

Manufacturer : GUANGDONG ROULE ELECTRONICS CO., LTD

2.5. Operating Condition of EUT

Setup the EUT and simulator as shown on Section 2.2.

Turn on the power of all equipment.

Let the EUT work in test mode (On) and measure it.

2.6. Test Procedure

The EUT is put on the table that is 0.8m high above the ground and at least away from other Metallic surface 0.4m. The EUT is connected to the power mains through a line impedance stabilization network (L.I.S.N.). This provides a 50 ohms coupling impedance for the testing equipment; and the peripheral equipment powers form other L.I.S.N. Please refer to the block diagram of the test setup and photographs. Both sides of AC line (Line & Neutral) are checked for maximum conducted interference. In order to find the maximum emission levels, the relative positions of equipment and all of the interface cables must be changed according to FCC part 15 B.

The bandwidth of the field strength meter (R&S Test Receiver ESCI) is set at 120 KHz.

The frequency range from 150KHz to 30MHz is checked. The details of test modes are listed as follows, and the test data has been listed in APPENDIX I.

2.7. Power Line Conducted Emission Test Results

PASS.

The frequency range 150KHz to 30MHz is investigated.

Detailed information, please see the appendix (I) file.

3. RADIATED EMISSION TEST

3.1. Test Equipment

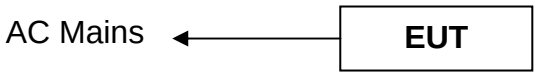
The following test equipments are used during the radiated emission test:

For Anechoic Chamber

Item	Equipment	Manufacturer	Model No.	Serial No.	Cal date
1.	EMI Test Receiver	R&S	ESPI	RL-0503C786/013	2010-2-22
2.	Amplifier	HP	8447D	1937A02492	2010-2-22
3.	TRILOG Broadband Test-Antenna	SCHWARZBECK	VULB9163	9163-324	2010-2-22

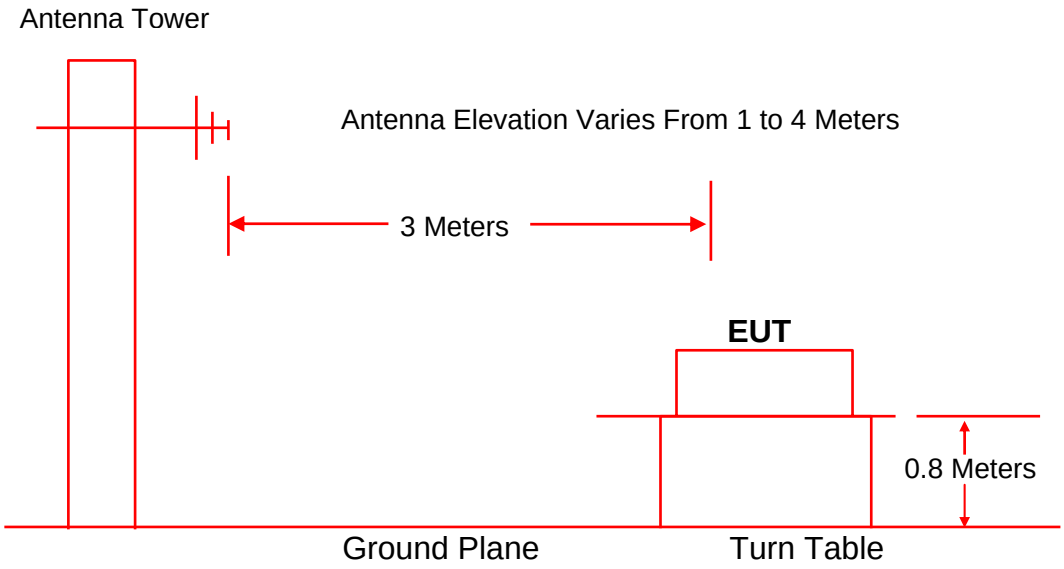
3.2. Block Diagram of Test Setup

3.2.1. For Block Diagram of Test Setup



(EUT: Wireless Auto_dial System)

3.2.2. Anechoic Chamber Setup Diagram



3.3. Radiation Limit

Frequency MHz	Distance (Meter/s)	Field Strengths Limits dB(μV)/m
30 ~ 88	3	40.0
88 ~ 216	3	43.5
216 ~ 960	3	46.0
960 ~ 1000	3	54.0

Remark: (1) Emission level (dB (μV)/m) = 20 log Emission level (μV/m)

(2)The smaller limit shall apply at the cross point between two frequency bands.

(3)Distance refers to the distance in meters between the measuring instrument, antenna and the closed point of any part of the device or system.

3.4. EUT Configuration on Test

The following equipments are installed on RF LINE VOLTAGE Test to meet the Commission requirement and operating regulations in a manner that tends to maximize its emission characteristics in a normal application.

3.5. Operating Condition of the EUT

3.5.1.Setup the EUT and simulator as shown on Section 3.2.

3.5.2.Turn on the power of all equipment.

3.5.3.Let the EUT work in test mode (On) and measure it.

3.6. Test Procedure

The EUT and its simulators are placed on a turned table that is 0.8 meter above the ground. The turned table can rotate 360 degrees to determine the position of the maximum emission level. The EUT is set 3 meters away from the receiving antenna that is mounted on the antenna tower. The antenna can move up and down between 1 meter and 4 meters to find out the maximum emission level. Broadband antenna (calibrated biconical and log periodical antenna) is used as receiving antenna. Both horizontal and vertical polarization of the antenna is set on test. In order to find the maximum emission levels, the interface cable must be manipulated according to ANSI / IEEE Standard 187-1990 on radiated emission test.

The bandwidth setting on the field strength meter (R & S Test Receiver ESPI) is set at 120 KHz.

The frequency range from 30MHz to 1000MHz is checked. The test data are listed in the Section 3.7 and the scanning waveform are attached within Appendix II.

3.7. Radiated Emission Test Result

PASS.

Detailed information, please see the appendix (II) file.

4. TEST SETUP PHOTOGRAPH

4.1. Photo of Power Line Conducted Emission Test

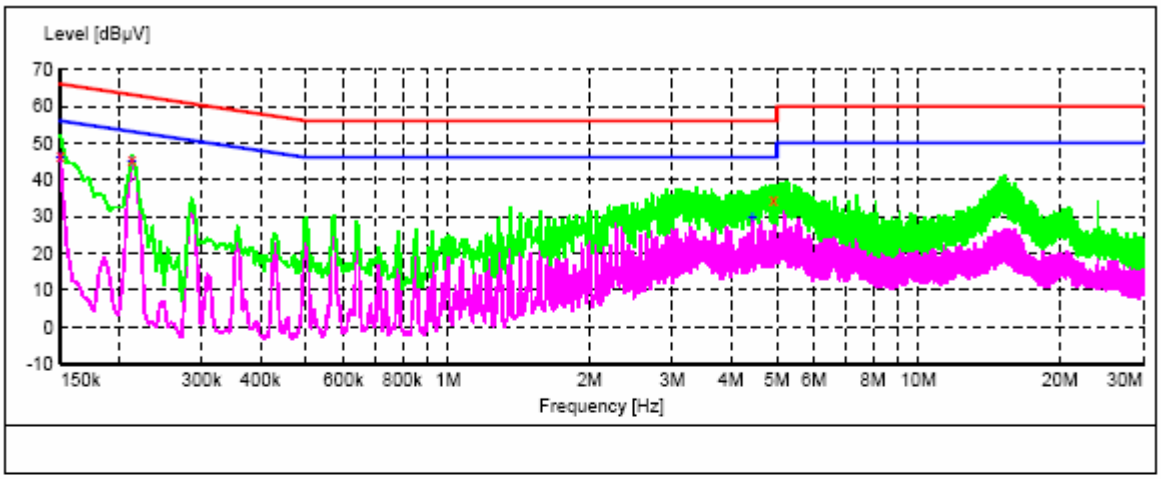
4.2. Photo of Radiated Emission Test

APPENDIX I

Power line conducted Emission Test Data

Power Line Conducted Emission

Engineer : Andy	
EUT : Wireless Auto_dial System	**Time : 2010/06/03**
Limit : FCC Part15 B	**Comment : 25℃/55％**
MN: RL-0503C	**Note : L**
Power : AC 120V 60Hz	



MEASUREMENT RESULT:

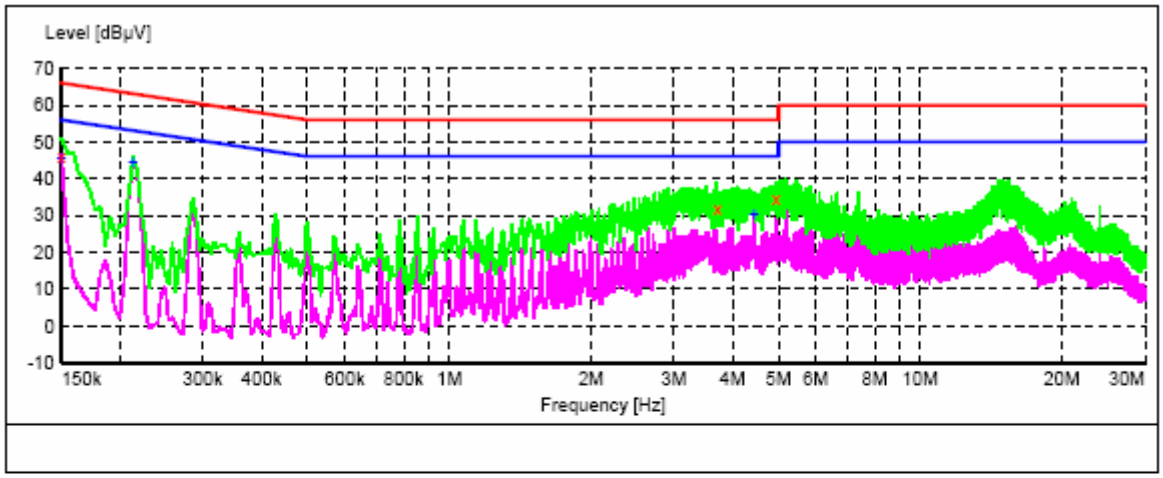
Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
0.150000	46.40	11.4	66	19.6	QP	L1	GND
0.213000	45.30	10.8	63	17.8	QP	L1	GND
4.924500	34.30	10.4	56	21.7	QP	L1	GND

MEASUREMENT RESULT:

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
0.150000	46.40	11.4	56	9.6	AV	L1	GND
0.213000	45.50	10.8	53	7.6	AV	L1	GND
4.434000	30.40	10.3	46	15.6	AV	L1	GND

Power Line Conducted Emission

Engineer : Andy	
EUT : Wireless Auto_dial System	**Time : 2010/06/03**
Limit : FCC Part15 B	**Comment : 25℃/55％**
MN: RL-0503C	**Note : N**
Power : AC 120V 60Hz	



MEASUREMENT RESULT:

Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
0.150000	46.10	11.4	66	19.9	QP	N	GND
3.705000	32.10	10.3	56	23.9	QP	N	GND
4.938000	34.80	10.4	56	21.2	QP	N	GND

MEASUREMENT RESULT:

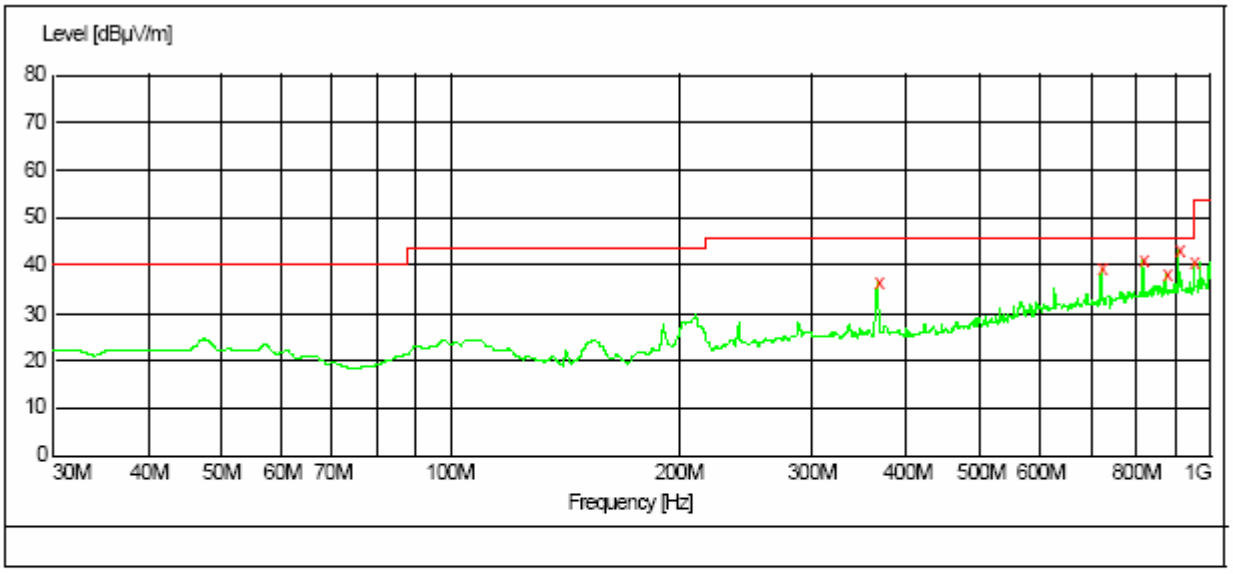
Frequency MHz	Level dBµV	Transd dB	Limit dBµV	Margin dB	Detector	Line	PE
0.150000	46.20	11.4	56	9.8	AV	N	GND
0.213000	45.10	10.8	53	8.0	AV	N	GND
4.434000	30.90	10.3	46	15.1	AV	N	GND

APPENDIX II

Radiated Emission
Test Data

Radiated Emission

Engineer : Andy	
EUT : Wireless Auto_dial System	**Time : 2010/06/03**
Limit : FCC Part 15 B	**Comment : 25℃/55％**
MN: RL-0503C	**Note : Hor**
Power : AC120V/50Hz	

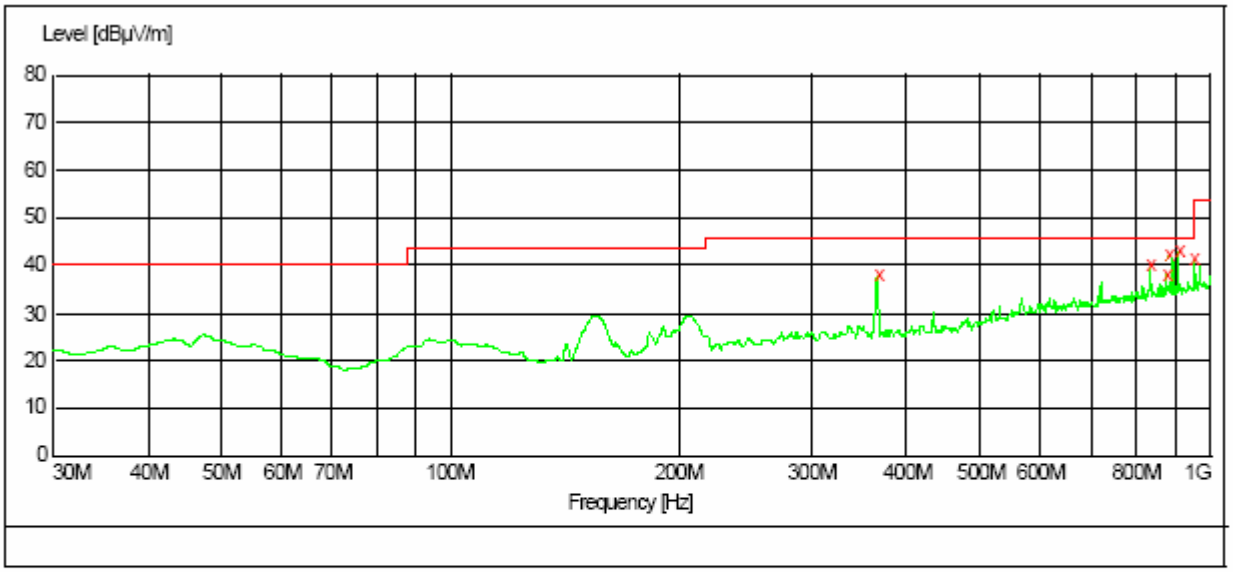


MEASUREMENT RESULT:

Frequency MHz	Level dBµV/m	Transd dB	Limit dBµV/m	Margin dB	Det.	Height cm	Azimuth deg	Polarization
367.560000	36.40	20.8	46.0	9.6	---	100.0	0.00	HORIZONTAL
720.640000	39.20	27.0	46.0	6.8	---	100.0	0.00	HORIZONTAL
817.640000	41.10	28.2	46.0	4.9	---	100.0	0.00	HORIZONTAL
877.780000	38.10	29.0	46.0	7.9	---	100.0	0.00	HORIZONTAL
912.700000	43.20	29.4	46.0	2.8	---	100.0	0.00	HORIZONTAL
949.560000	40.60	29.7	46.0	5.4	---	100.0	0.00	HORIZONTAL

Radiated Emission

Engineer : Andy	
EUT : Wireless Auto_dial System	**Time : 2010/06/03**
Limit : FCC Part 15 B	**Comment : 25℃/55％**
MN: RL-0503C	**Note : Ver**
Power : AC120V/50Hz	



MEASUREMENT RESULT:

Frequency MHz	Level dBµV/m	Transd dB	Limit dBµV/m	Margin dB	Det.	Height cm	Azimuth deg	Polarization
367.560000	37.90	20.8	46.0	8.1	---	100.0	0.00	VERTICAL
835.100000	39.90	28.5	46.0	6.1	---	100.0	0.00	VERTICAL
877.780000	38.20	29.0	46.0	7.8	---	100.0	0.00	VERTICAL
895.240000	44.00	29.2	46.0	2.0	---	100.0	0.00	VERTICAL
912.700000	43.00	29.4	46.0	3.0	---	100.0	0.00	VERTICAL
949.560000	41.40	29.7	46.0	4.6	---	100.0	0.00	VERTICAL