

FCC TEST REPORT

FCC ID NO. : SJ8RX210

Applicant : **RDI Technology (Shenzhen) Co., Ltd.**
Building C1 Xingtang Industrial Park, East Baishixia, Fuyong, Baoan,
Shenzhen, P.R.C.

Equipment Under Test (EUT) :

Product Name : Wireless Receiver

Model No. : RX210

Standards : FCC Part 15 SUBPART B

Date of Test : Mar. 5, 2008

Test Engineer : **Tiger Su**

Reviewed By : 

PERPARED BY:

Waltek Services (Shenzhen) Co., Ltd.

8C, West Tower, Aidi Building, No.5003 Binhe Rd, Futian District, Shenzhen 518045,
Guangdong, China.

Tel: 86-755-83551033

Fax: 86-755-83552400

2 Test Summary

Test	Test Requirement	Test Method	Class / Severity	Result
Radiated Emission (30MHz to 5GHz)	FCC PART 15, SUBPART B: 2003	ANSI C63.4: 2003	Class B	PASS
Conducted Emission (150KHz to 30MHz)	FCC PART 15, SUBPART B: 2003	ANSI C63.4: 2003	Class B	PASS

3 Contents

	Page
1 COVER PAGE.....	1
2 TEST SUMMARY.....	2
3 CONTENTS.....	3
4 GENERAL INFORMATION.....	4
4.1 CLIENT INFORMATION	4
4.2 GENERAL DESCRIPTION OF E.U.T.....	4
4.3 DETAILS OF E.U.T.....	4
4.4 DESCRIPTION OF SUPPORT UNITS	4
4.5 TEST FACILITY.....	5
4.6 TEST LOCATION.....	5
5 EQUIPMENT USED DURING TEST	6
5.1 CONDUCTION EMISSIONS, 0.15MHZ TO 30MHZ.....	7
5.1.1 E.U.T. Operation.....	7
5.1.2 Measurement Result	8
5.1.3 Measurement Data	9
5.2 RADIATED EMISSIONS, 30MHZ TO 5GHZ.....	10
5.2.1 E.U.T Operation.....	10
5.2.2 EUT Setup	10
5.2.3 Spectrum Analyzer Setup.....	11
5.2.4 Test procedure.....	11
5.2.5 Summary of Test Results	11
5.2.6 Radiated Emissions Test Data	12
6 PHOTOGRAPHS - TEST SETUP.....	13
6.1.1 Conduction Emissions Test Setup	13
6.1.2 Radiated Emissions Test Setup For 30MHz-1000MHz.....	14
6.1.3 Radiated Emissions Test Setup For 1GHz-5GHz.....	14
7 PHOTOGRAPHS - CONSTRUCTIONAL DETAILS.....	15
7.1.1 EUT - Front View.....	15
7.1.2 EUT - Back View.....	15
7.1.3 Adapter - Front View.....	16
7.1.4 Adapter - Back View.....	16
7.1.5 PCB1 - Front View.....	17
7.1.6 PCB1 - Back View.....	17
7.1.7 PCB2 - Front View.....	18
7.1.8 PCB2 - Back View.....	18
8 FCC ID LABEL.....	19

4 General Information

4.1 Client Information

Applicant: **RDI Technology (Shenzhen) Co., Ltd.**
Address of Applicant: Building C1 Xingtang Industrial Park, East Baishixia, Fuyong, Baoan, Shenzhen, P.R.C.
Manufacturer: RDI Technology (Shenzhen) Co., Ltd.
Address of Manufacturer: Building C1 Xingtang Industrial Park, East Baishixia, Fuyong, Baoan, Shenzhen, P.R.C.

4.2 General Description of E.U.T.

Product Name: Wireless Receiver
Model No.: RX210

4.3 Details of E.U.T.

Power Supply: Adapter input: 120V AC 60Hz
Adapter output: 9V DC

4.4 Description of Support Units

Compliance test was performed test in ON mode .

The customer requested FCC tests for a Wireless Receiver.

The standard used was FCC Part 15.107 & Part15.109, SUBPART B, CLASS B (2003)

4.5 Test Facility

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

- **FCC – Registration No.: 759397**

Solid Industrial (Shenzhen) 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 759397, December 28, 2006.

4.6 Test Location

All Emissions tests were performed at:-

Solid Industrial (Shenzhen) Co., Ltd. at 333 Bulong Highway Buji Longgang, Shenzhen, Guangdong, China

5 Equipment Used during Test

Equipment	Brand Name	Model	Cal. Int Months	Last Cal. Date
3m Anechoic chamber				
EMC Analyzer	Agilent	E7402A	12	2007-08
EMI Test Receiver	R&S	ESS	12	2007-08
Pre Amplifier	Anritsu	MH648A	12	2007-08
Bilog Antenna	SCHAFFNER	CBL6111C	12	2007-08
Loop Antenna	R&S	6108	12	2007-08
Horn Antenna	ETS.LINDGERN	GH14-H052	12	2007-08
AM/FM Stereo Signal Generator	Panasonic	VP-8122A	12	2007-08
Signal Generator	R&S	SMG	12	2007-08
RF Selector	TOYO	NS4901A	-	-
Turn Disc	HD	DS4150S	-	-
Antenna Mast	HD	MA2400	-	-
EMI Shielded Room				
Spectrum analyzer	ADVANTEST	R3261C	12	2007-08
EMI Test Receiver	R&S	ESS	12	2007-08
Pre Amplifier	Anritsu	MH648A	12	2007-08
LISN	Kyoritsu	KNW-403D	12	2007-08
Absorbing Clamp	R&S	MDS-21	12	2007-08
Distortion Meter	MEGURO	MAK-6578A	12	2007-08
AM/FM Stereo Signal Generator	Panasonic	VP-8122A	12	2007-08
Oscilloscope	LEADER	LS1020	12	2007-08
Function Generator	National	VP-7422A	12	2007-08
Signal Generator	R&S	SMG	12	2007-08
RF Selector	TOYO	NS4000	-	-
Remote Controller	TOYO	MAC	-	-

5.1 Conduction Emissions, 0.15MHz to 30MHz

Test Requirement:	FCC Part 15.107
Test Method:	ANSI C63.4: 2003
Test Date:	Mar. 5, 2008
Frequency Range:	150kHz to 30MHz
Class:	Class B
Limit:	66-56 dB μ V/m between 0.15MHz & 0.5MHz 56 dB μ V/m between 0.5MHz & 5MHz 60 dB μ V/m between 5MHz & 30MHz
Detector:	Peak for pre-scan (9kHz Resolution Bandwidth) Quasi-Peak & Average if maximised peak within 6dB of Average Limit

5.1.1 E.U.T. Operation

Operating Environment:

Temperature:	24.0 °C
Humidity:	52 % RH
Atmospheric Pressure:	1012 mbar

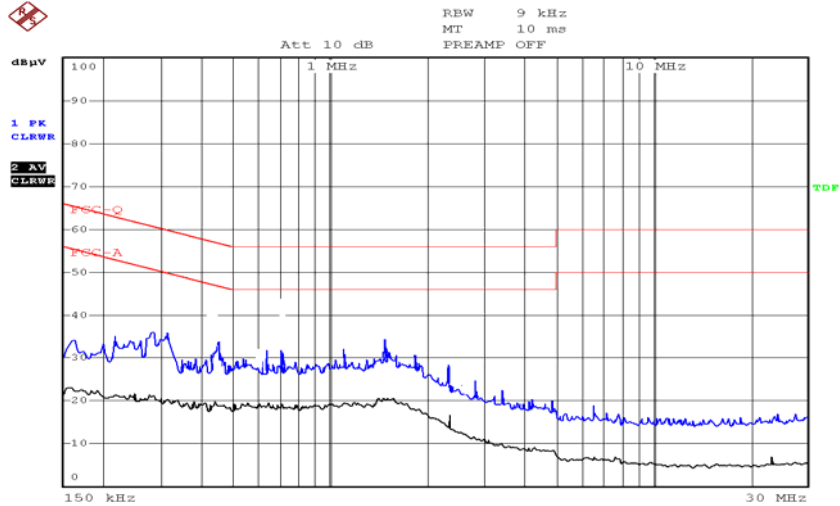
EUT Operation :

Compliance test was performed test in ON mode.

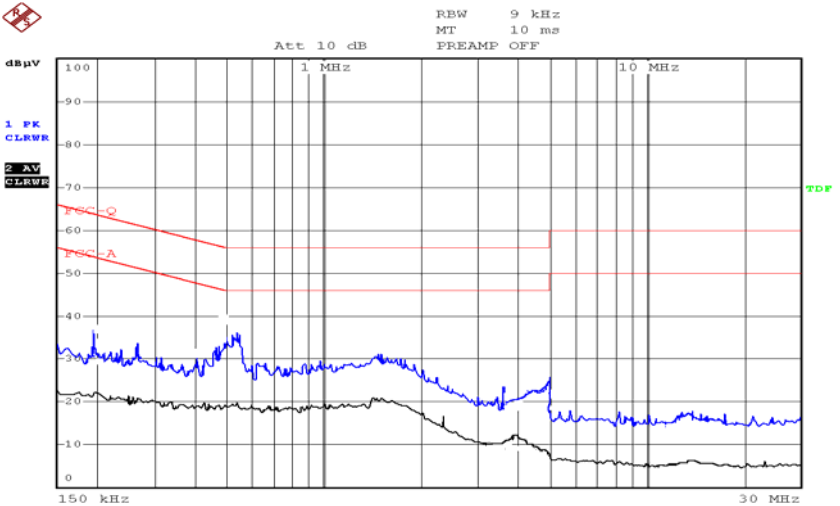
The maximised peak emissions from the EUT was scanned and measured for both the Live and Neutral Lines. Quasi-peak & average measurements were performed if peak emissions were within 6dB of the average limit line.

5.1.2 Measurement Result

Live Line



Neutral Line



5.1.3 Measurement Data

Freq. MHz	Line	QP Reading dBuV	Limit dBuV	Margin dB	AV Reading dBuV	Limit dBuV	Margin dB
0.19	Live	37.57	64.04	26.47	23.85	56.44	32.59
0.35	Live	35.46	59.00	23.54	20.09	49.85	29.76
0.65	Neutral	37.18	54.00	16.82	21.63	44.00	22.37
1.89	Neutral	31.60	54.00	22.40	18.59	44.00	25.41

5.2 Radiated Emissions, 30MHz to 5GHz

Test Requirement:	FCC Part 15.109
Test Method:	ANSI C63.4: 2003
Test Date:	Mar. 5, 2008
Frequency Range:	30MHz to 5GHz
Measurement Distance:	3m
Class:	Class B
Limit:	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 zbove 960MHz
Detector:	Peak for pre-scan (120kHz resolution bandwidth) Quasi-Peak if maximised peak within 6dB of limit

5.2.1 E.U.T Operation

Operating Environment:	
Temperature:	24.0 °C
Humidity:	52 % RH
Atmospheric Pressure:	1012 mbar

EUT Operation :

Compliance test was performed test in ON mode.

5.2.2 EUT Setup

The radiated emission tests were performed in the 3m Semi- Anechoic Chamber test site, using the setup accordance with the ANSI C63.4: 2003, The specification used in this report was the FCC Part 15.109 Class B limits.

5.2.3 Spectrum Analyzer Setup

According to FCC Part 15 B Rules, the system was tested to 5000 MHz.

Start Frequency	30 MHz
Stop Frequency	5000 MHz
Sweep Speed	Auto
IF Bandwidth.....	1 MHz
Video Bandwidth	1 MHz
Quasi-Peak Adapter Bandwidth	120 kHz
Quasi-Peak Adapter Mode.....	Normal
Resolution Bandwidth	1MHz

5.2.4 Test procedure

For the radiated emissions test, since the EUT does not have a power source, there was no connection to AC outlets.

Maximizing procedure was performed on the six (6) highest emissions to ensure EUT is compliant with all installation combinations.

All data was recorded in the peak detection mode. Quasi-peak readings were performed only when an emission was found to be marginal (within -4 dBµV of specification limits), and are distinguished with a "Qp" in the data table.

The EUT was under normal mode during the final qualification test and the configuration was used to represent the worst case results.

ANSI STANDARD C63.4-2003 12.1.1.2 OTHER TYPES OF RECEIVERS: A typical signal or an unmodulated CW signal at the operating frequency of the EUT shall be supplied to the EUT for all measurements. Such a signal may be supplied by either a signal generator and an antenna in close proximity to the EUT or directly conducted into the antenna terminals of the EUT. The signal level shall be sufficient to the local oscillator of the EUT.

5.2.5 Summary of Test Results

According to the data in section 5.2.6, the EUT complied with the FCC Part 15.109 Class B standards.

The test results: PASS.

5.2.6 Radiated Emissions Test Data

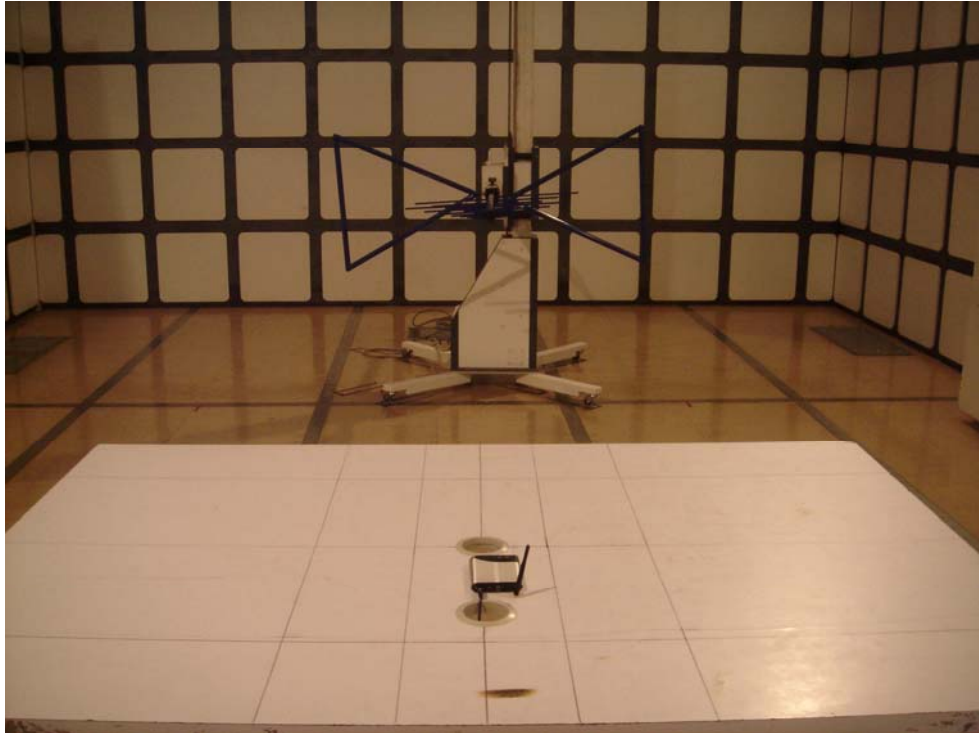
Frequency (MHz)	Antenna Polarization	Emission Level (dBuV/m)	FCC 15 Subpart B Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Turntable Angle (°C)
35.59	Horizontal	21.64	40.0	18.36	1.5	120
627.54	Horizontal	25.37	46.0	20.63	1.0	60
837.25	Horizontal	32.54	46.0	13.46	1.5	45
944.03	Horizontal	38.24	46.0	7.76	1.8	50
1888.06	Horizontal	34.21	54.0	19.79	1.6	70
31.63	Vertical	24.41	40.0	15.59	2.0	180
618.35	Vertical	27.38	46.0	18.62	1.0	90
877.37	Vertical	31.24	46.0	14.76	1.5	90
944.03	Vertical	37.58	46.0	8.42	1.6	80
1888.06	Vertical	31.65	54.0	22.35	1.5	90

6 Photographs - Test Setup

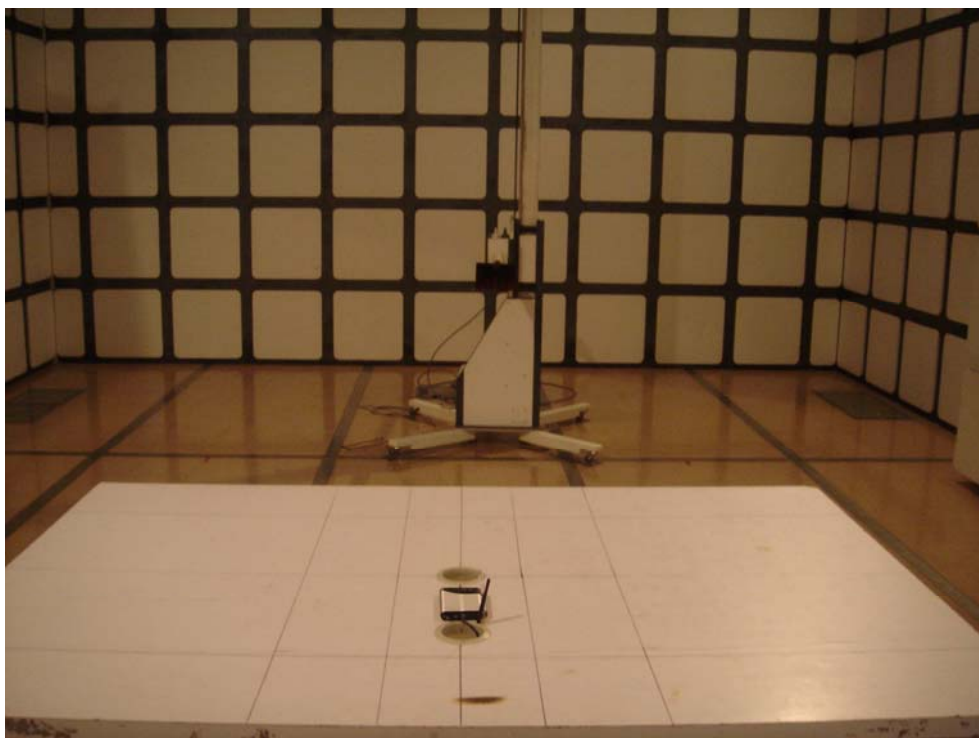
6.1.1 Conduction Emissions Test Setup



6.1.2 Radiated Emissions Test Setup For 30MHz-1000MHz



6.1.3 Radiated Emissions Test Setup For 1GHz-5GHz



7 Photographs - Constructional Details

7.1.1 EUT - Front View



7.1.2 EUT - Back View



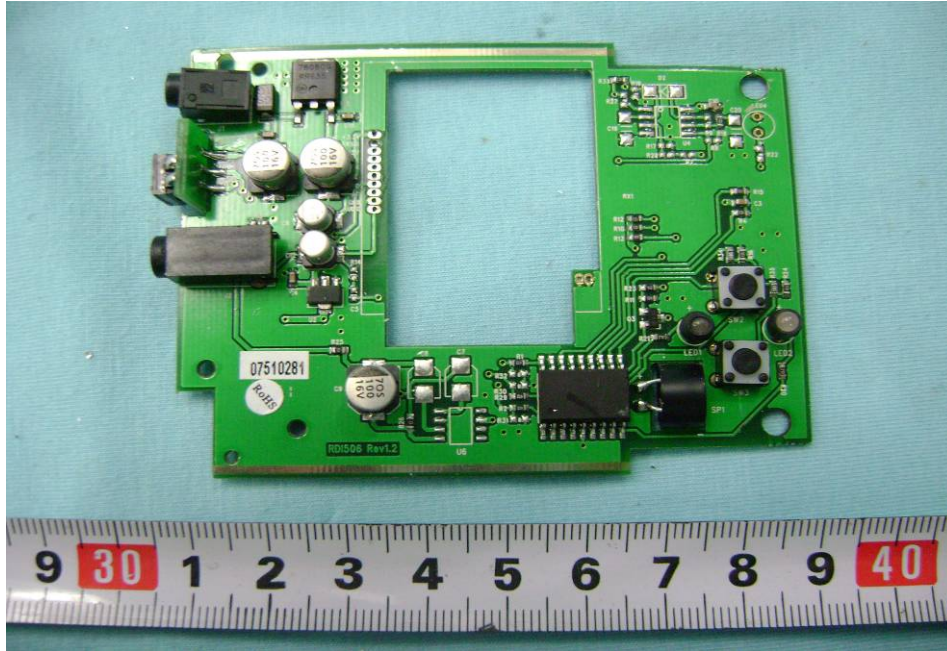
7.1.3 Adapter - Front View



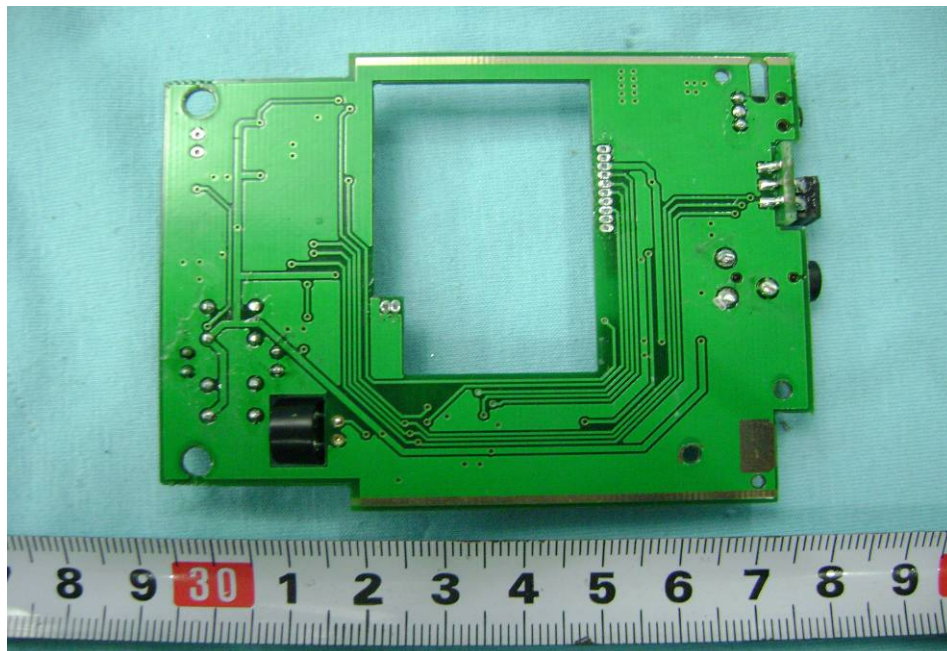
7.1.4 Adapter - Back View



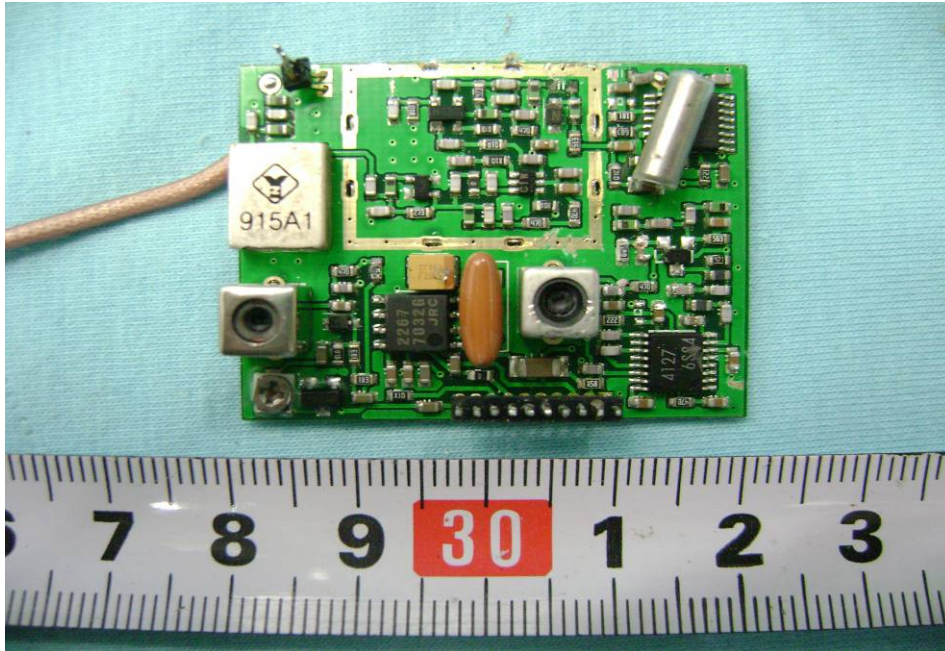
7.1.5 PCB1 - Front View



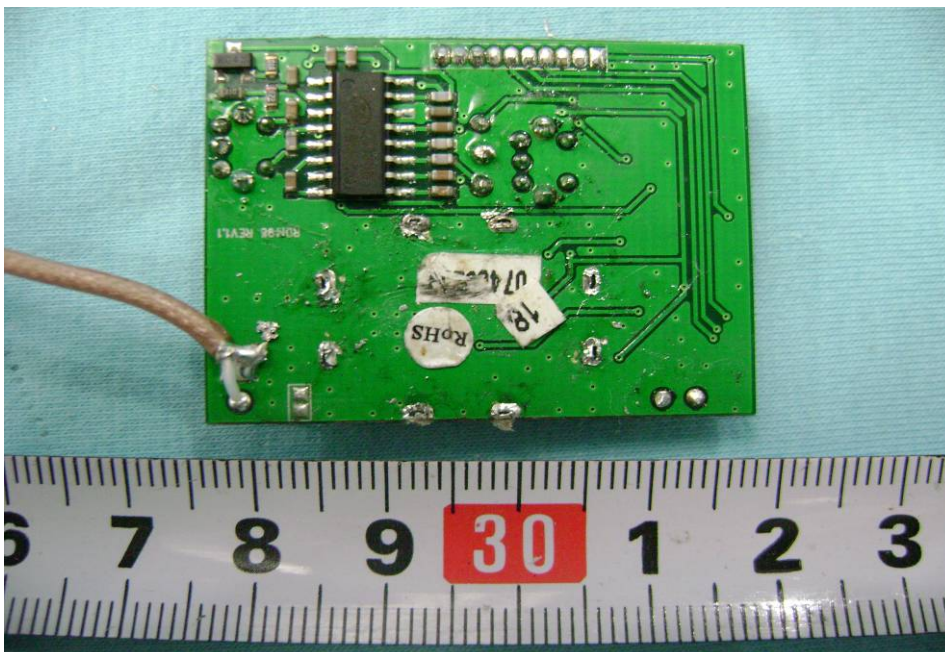
7.1.6 PCB1 - Back View



7.1.7 PCB2 - Front View



7.1.8 PCB2 - Back View



8 FCC ID Label

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:(1)this device may not cause harmful interference,and (2) this device must accept any interference received, including interference that may cause undesired operation.

The Label must not be a stick-on paper. The Label on these products must be permanently affixed to the product and readily visible at the time of purchase and must last the expected lifetime of the equipment not be readily detachable.

Proposed Label Location on EUT
EUT Top View/ proposed FCC Mark Location

