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FCC TEST REPORT

Under:
FCC Part 15, Class B

Prepared For:
TRINITY JOIN LIMITED
Unit 7, 5/F., Max Trade Centre, 23 Luk Hop Street, San Po Kong, Kowloon, Hong Kong

FCC ID: WZYIS809BRX

EUT: iPod Docking

Model: 809B

January 13, 2009

Report Type: Original Report

Test Engineer: Hans Hu

Test Date: January 4, 2009

Review By: 

Apollo Liu / Manager

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1. General Information

1.1 Notes

The test results of this report relate exclusively to the test item specified in 1.5. The KMO Lab does not assume responsibility for any conclusions and generalizations drawn from the test results with regard to other specimens or samples of the type of the equipment represented by the test item. The test report may only be reproduced or published in full. Reproduction or publication of extracts from the report requires the prior written approval of the KMO Lab.

1.2 Testing Laboratory

SinTek Laboratory Co., Ltd.

No.7, Xinshidai Industrial, Guantian Village, Shiyan Town, Bao'an District, Shenzhen, Guangdong China..

Tel: +86 755 27608353 Fax: +86 755 27608359

Site on File with the Federal Communications Commission – United States

Registration Number: 963441

1.3 Details of Applicant

Name : TRINITY JOIN LIMITED

Address : Unit 7, 5/F., Max Trade Centre, 23 Luk Hop Street, San Po Kong, Kowloon, Hong Kong

Contact

Tel

Fax

1.4 Application Details

Date of Receipt of Application : December 18, 2008

Date of Receipt of Test Item : January 4, 2009

Date of Test : January 4~January 13, 2009

1.5 Test Item

Manufacturer : Shenzhen Longgang Xinyin Electronic Technology Fty.

Address : Kengwei, Tongle Village, Longgang Street, Longgang District, Shenzhen, Guangdong Province, Hong Kong

Brand Name : iLive

Model No. : 809B

Description : iPod Docking

Additional Information

Frequency : N/A

Number of Channels : N/A

Power Supply : AC 120V/60Hz

Operation Distance : N/A

Resolution : N/A

1.6 Test Standards

FCC 15 Subpart B – 2007

Note: All radiated measurements were made in all three orthogonal planes. The values reported are the maximum values.

2. Technical Test

2.1 Summary of Test Results

The EUT has been tested according to the following specifications:

FCC 15 Subpart B: 2004, Class B

Standard	Test Type	Result	Notes
FCC Part 15, Paragraph 15.107	Conducted Test	PASS	Complies
FCC Part 15, Paragraph 15.109	Radiated Test	PASS	Complies
FCC Part 15, Paragraph 15.111	Antenna Power Conduction Limit for Receiver	N/A	Not applicable. The antenna is permanently attached to the receiver.

3. EUT Modifications

No modification by test lab.

4. Conducted Power Line Test

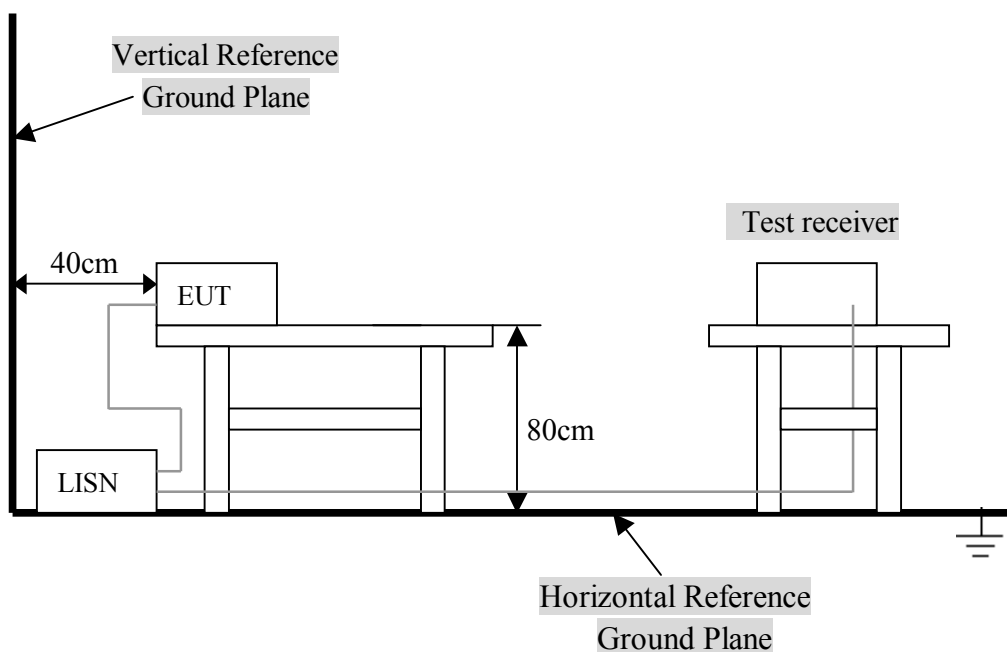
4.1 Test Equipment

Please refer to Section 10 this report.

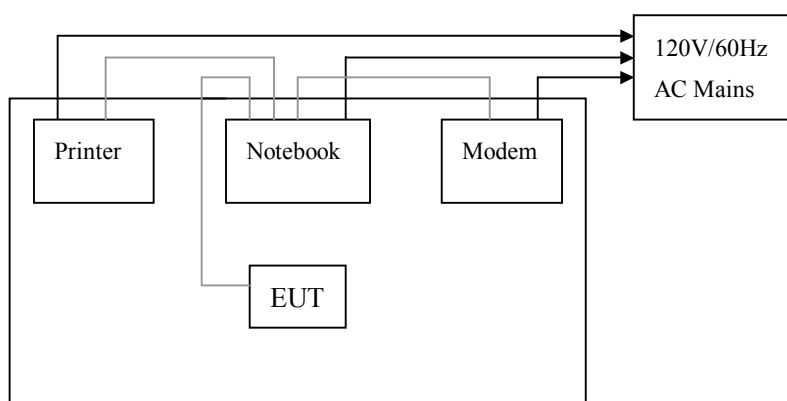
4.2 Test Procedure

The EUT was tested according to ANSI C63.4 - 2003. The frequency spectrum from 0.15 MHz to 30 MHz was investigated. The LISN used was 50 ohm / 50 u-Henry as specified by section 5.1 OF ANSI C63.4 - 2003. cables and peripherals were moved to find the maximum emission levels for each frequency.

4.3 Test Setup



For the actual test configuration, Please refer to the related items – Photos of Testing.



4. 4 Configuration of the EUT

The EUT was configured according to ANSI C63.4-2003. EUT was used AC120V/60Hz. The operation frequency is from 433.840MHz. Enable the signal transmitted from the transmitter antenna to EUT. All interface ports were connected to the appropriate peripherals. All peripherals and cables are listed below.

A. EUT

Device	Manufacturer	Model #	FCC ID
Ipod Docking	Shenzhen Longgang Xinyin Electronic Technology Fty.	809B	WZYIS809BRX

B. Internal Devices

Device	Manufacturer	Model #	FCC ID
N/A			

C. Peripherals

Device	Manufacturer	Model # Serial #	FCC ID	Cable
Remote	Shenzhen Longgang Xinyin Electronic Technology Fty.	809B	WZY809BTX	N/A

4.5 EUT Operating Condition

The EUT was configured according to ANSI C63.4-2003. All interface ports were connected to the appropriate peripherals. All peripherals and cables are listed below.

4.6 Conducted Power Line Emission Limits

Frequency Range (MHz)	Class A QP/AV (dBuV)	Class B QP/AV (dBuV)
0.15 – 0.5	79/66	66 –56/56 –46
0.5 – 5.0	73/60	56/46
5.0 – 30	73/60	60/50

Note: In the above table, the tighter limit applies at the band edges.

4.7 Conducted Power Line Test Result

The frequency spectrum from 0.15 MHz to 30 MHz was investigated. All readings are quasi -peak values with a resolution bandwidth of 9 KHz.

- Temperature : 26 °C
- Humidity : 53 % RH
- Result : **PASSED**

EN55022 Class B							
Frequency (MHz)	Emission (dBuV)		LINE/ NEUTRAL	Limit (dBuV)		Margin (dB)	
	QP	AV		QP	AV	QP	AV
0.326	20.78	19.67	LINE	59.55	49.55	-38.77	-29.88
0.406	21.56	13.63	NEUTRAL	57.73	47.73	-36.17	-34.10
4.414	30.67	23.76	LINE	56.00	46.00	-25.33	-22.24
6.194	40.72	21.35	NEUTRAL	60.00	50.00	-19.28	-28.65
6.034	39.32	23.98	LINE	60.00	50.00	-20.68	-26.02
11.986	32.85	22.95	NEUTRAL	60.00	50.00	-27.15	-27.05

Note: NF = No Significant Peak was Found.

Remarks :

- 1.Uncertainty in conducted emission measured is <+/- 2dB.
- 2.QP and AV are abbreviations of quasi-peak and average individually.
- 3.The emission levels of other frequencies were very low against the limit.
- 4.The Quasi-peak emission level also meets average limit and measurement with the average detector is unnecessary.
- 5.Margin Value= Emission Level – Limit Value.

Conducted Emission**EN55022**

EUT: IPod Docking, M/N: 809B

Manufacturer: Shenzhen Longgang Xinyin Electronic Technology Fty.

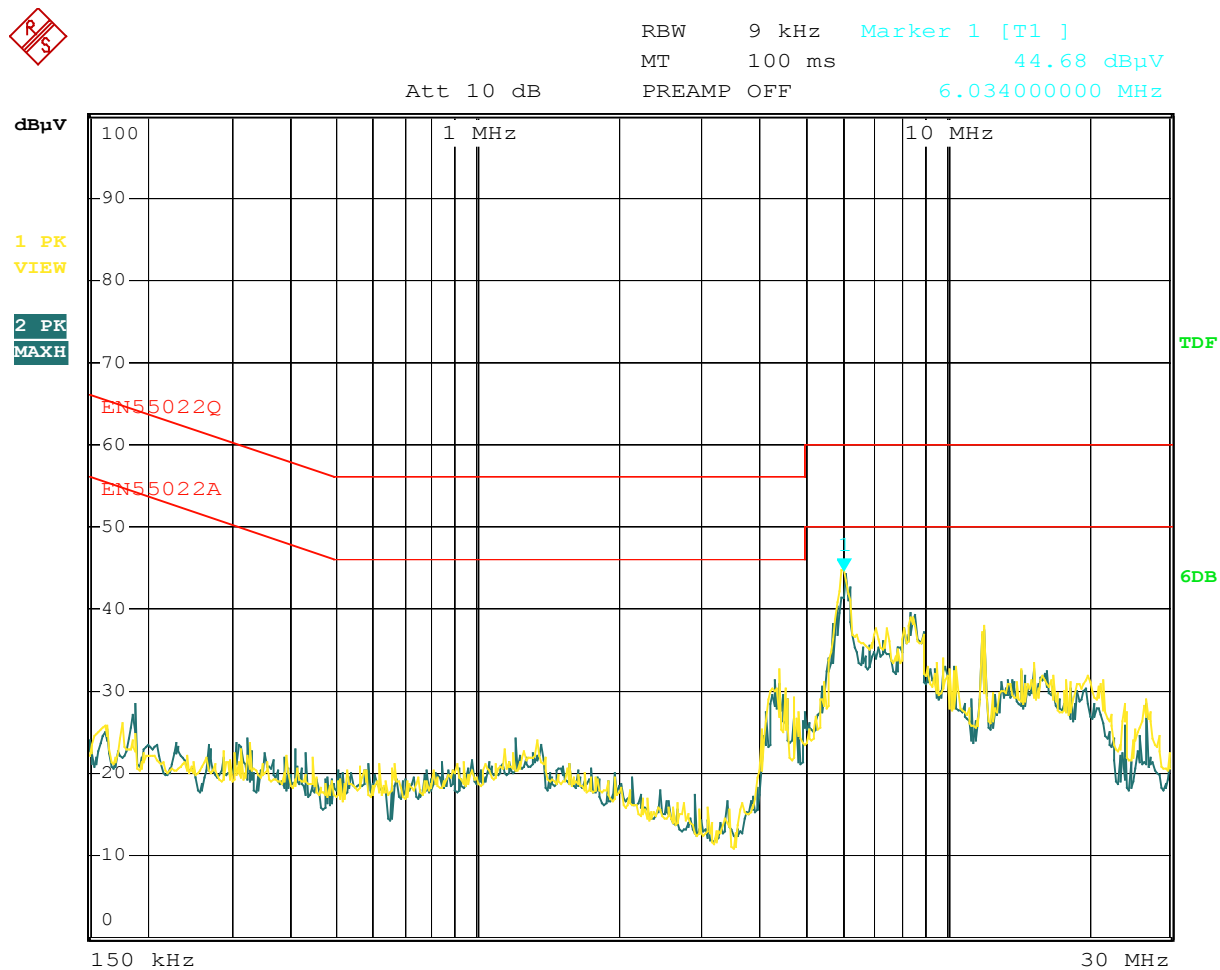
Operating Condition: Receiving

Test Site: Sintek Laboratory

Operator: Hans Hu

Test Specification: LINE&NEUTRAL

Comment:



Date: 13.JAN.2009 08:39:16

5. Radiated Emission Test

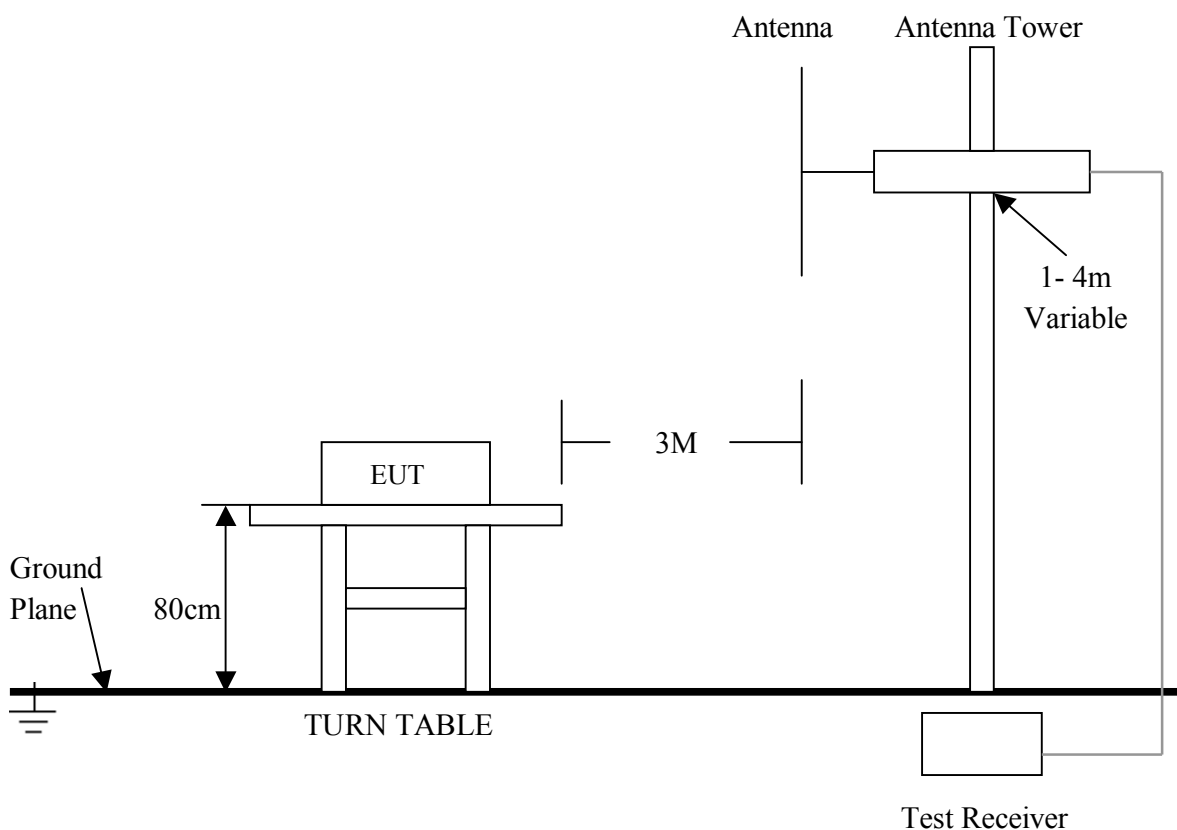
5.1 Test Equipment

Please refer to Section 10 this report.

5.2 Test Procedure

1. The EUT was tested according to ANSI C63.4 - 2003.
2. The EUT, peripherals were put on the turntable which table size is 1m x 1.5 m, table high 0.8 m. All set up is according to ANSI C63.4-2003.
3. The frequency spectrum from 30 MHz to 1 GHz was investigated. All readings from 30 MHz to 1 GHz are quasi-peak values with a resolution bandwidth of 120 KHz. All readings are above 1 GHz , peak values with a resolution bandwidth of 1 MHz . Measurements were made at 3 meters.
4. The antenna high is varied from 1 m to 4 m high to find the maximum emission for each frequency.
5. Maximizing procedure was performed on the six (6) highest emissions to ensure EUT compliance is with all installation combinations. All data was recorded in the peak detection mode. Quasi-peak readings was performed only when an emission was found to be marginal (within -4 dB of specification limit), and are distinguished with a "QP" in the data table.
6. The antenna polarization : Vertical polarization and Horizontal polarization.

5.3 Radiated Test Setup



For the actual test configuration , please refer to the related items – Photos of Testing.

5.4 Configuration of The EUT

Same as section 4.4 of this report

5.5 EUT Operating Condition

Same as section 4.5 of this report

5.6 Radiated Emission Limit

All emission from a digital device, including any network of conductors and apparatus connected thereto, shall not exceed the level of field strength specified below:

Frequencies in restricted band are complied to limit on Paragraph 15.109.

Frequency (MHz)	Distance (m)	Field Strength (dBuV/m)
30 - 88	3	40.0
88 - 216	3	43.5
216 - 960	3	46.0
Above 960	3	54.0

Note:

1. In the emission tables above, the tighter limit applies at the band edges.
2. Distance refers to the distance between measuring instrument, antenna, and the closest point of any part of the device or system.
3. The lower limit shall apply at the transition frequencies.

5.7 Radiated Emission Test Result

The frequency spectrum from 30 MHz to 1 GHz was investigated. All readings from 30 MHz to 1 GHz are quasi-peak values with a resolution bandwidth of 120 KHz. All readings are above 1 GHz, peak values with a resolution bandwidth of 1 MHz. Measurements were made at 3 meters.

- Temperature : 24 °C
- Humidity : 56 %RH
- Result : **PASSED**

FCC 15 Class B				
Freq. (MHz)	Emission (dBuV/m)	HORIZ / VERT	Limits (dBuV/m)	Margin (dB)
42.120	15.30	HORIZ	40.0	-24.70
57.360	14.93	VERT	40.0	-25.07
99.000	15.93	HORIZ	43.5	-27.57
74.440	25.60	VERT	40.0	-14.40
150.160	22.04	HORIZ	43.5	-21.46
193.840	23.94	VERT	43.5	-19.56
433.840	27.84	HORIZ	46.0	-18.16
433.840	28.38	VERT	46.0	-17.62

Note:

1. Uncertainty in radiated emission measured is <+/-4dB
2. Any departure from specification : N/A
3. Emission = Reading Level + Probe Factor + Cable Loss.
4. Margin value = Emission level – Limit value.
5. All other emissions observed had a 20 dB margin below the limit when measurements were attempted up to 5GHz in either horizontal or vertical antenna polarizations.

8. Photo of Testing

8.1 Emission test view

Conducted emission test view



Radiated emission test view



8.2 Photograph - EUT

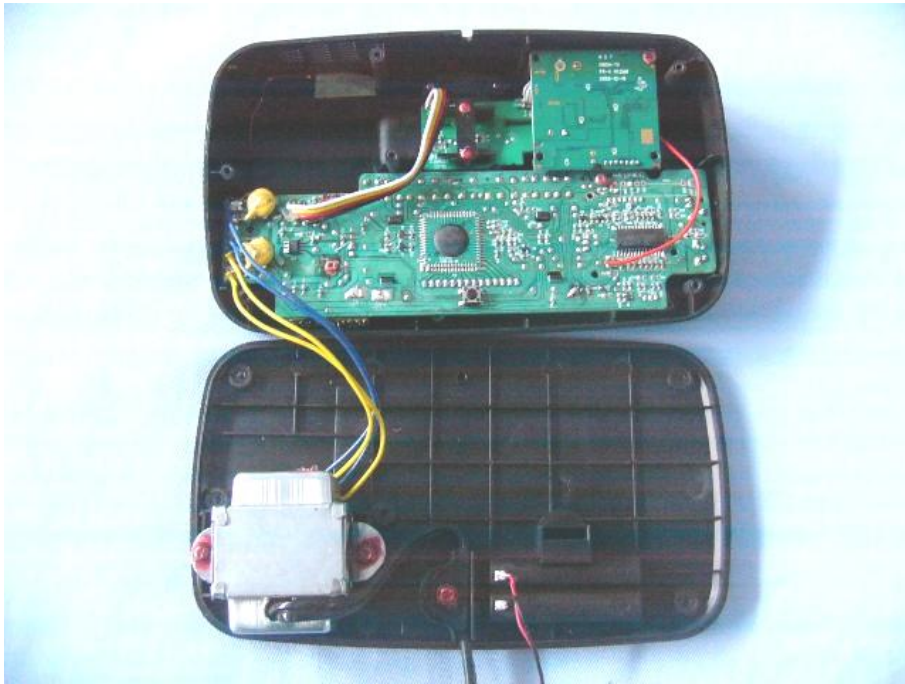
EUT top view



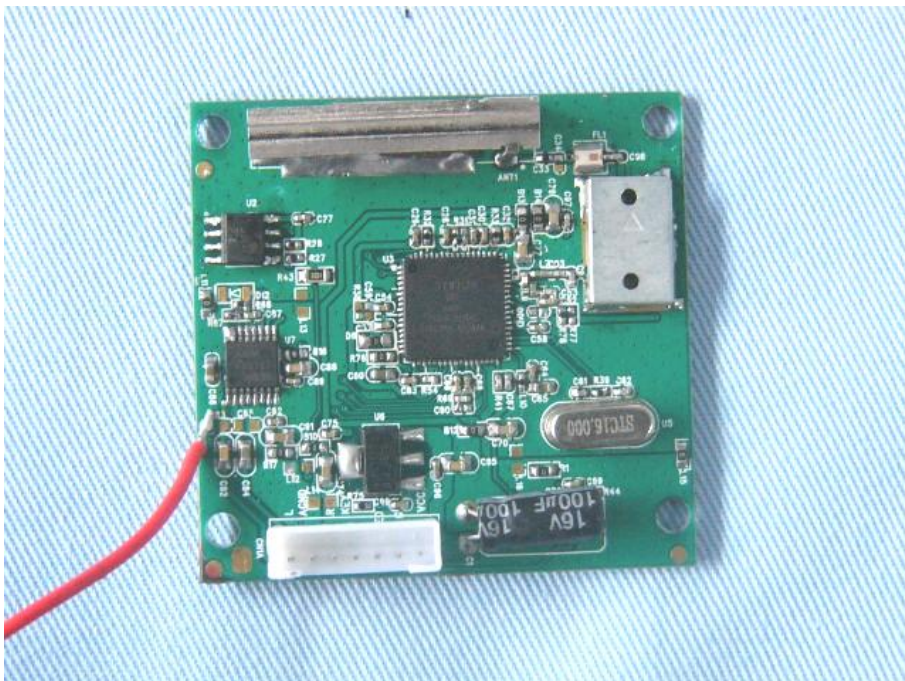
EUT bottom view

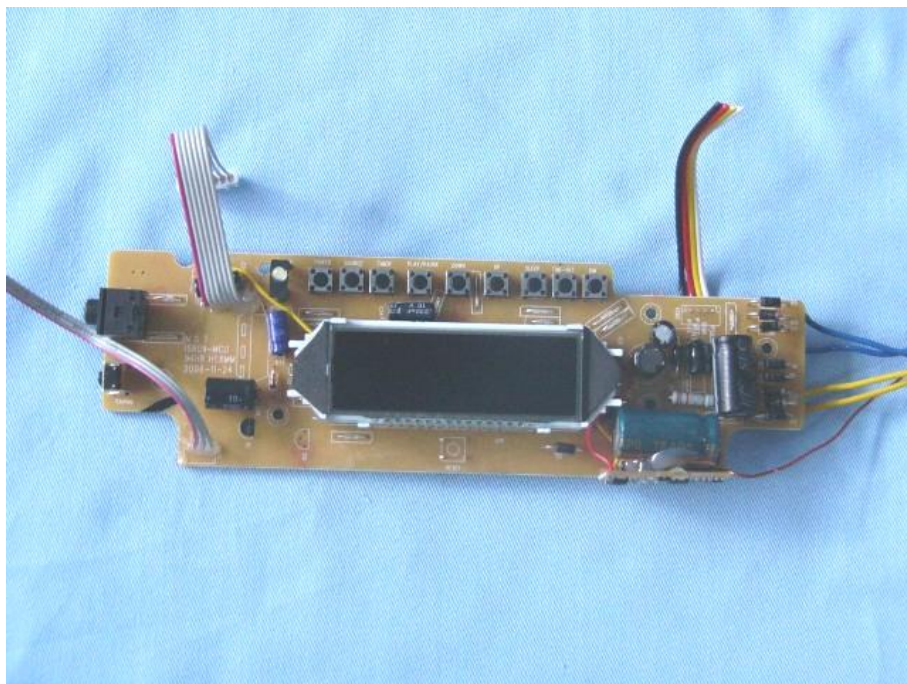
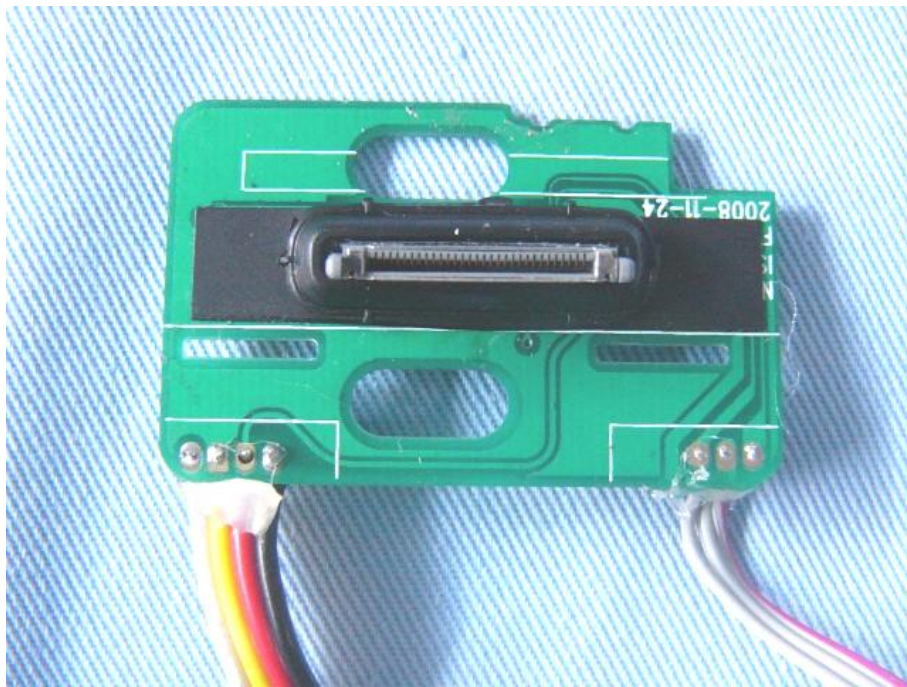


EUT inside whole view

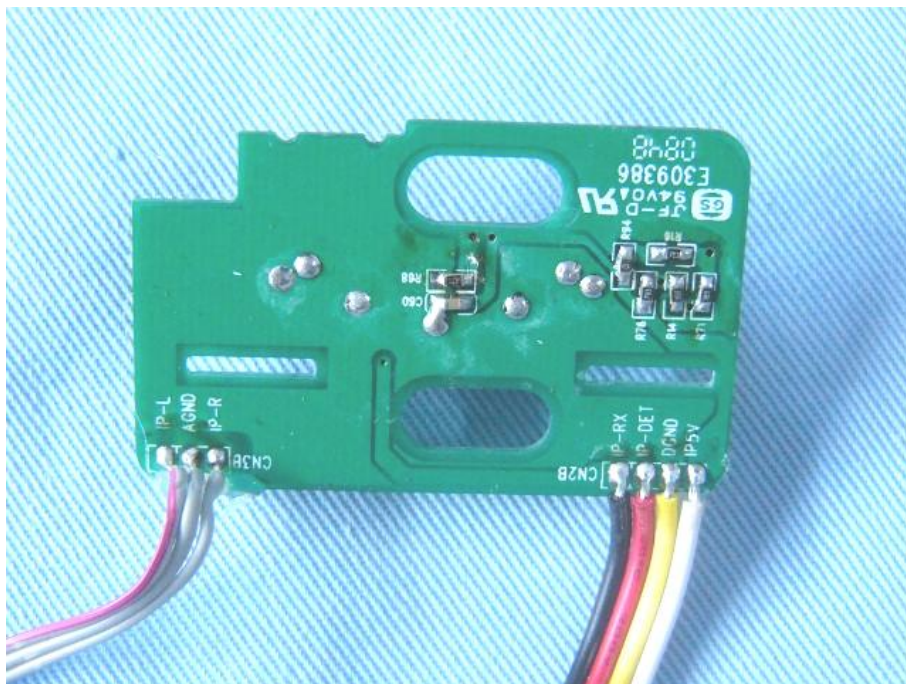
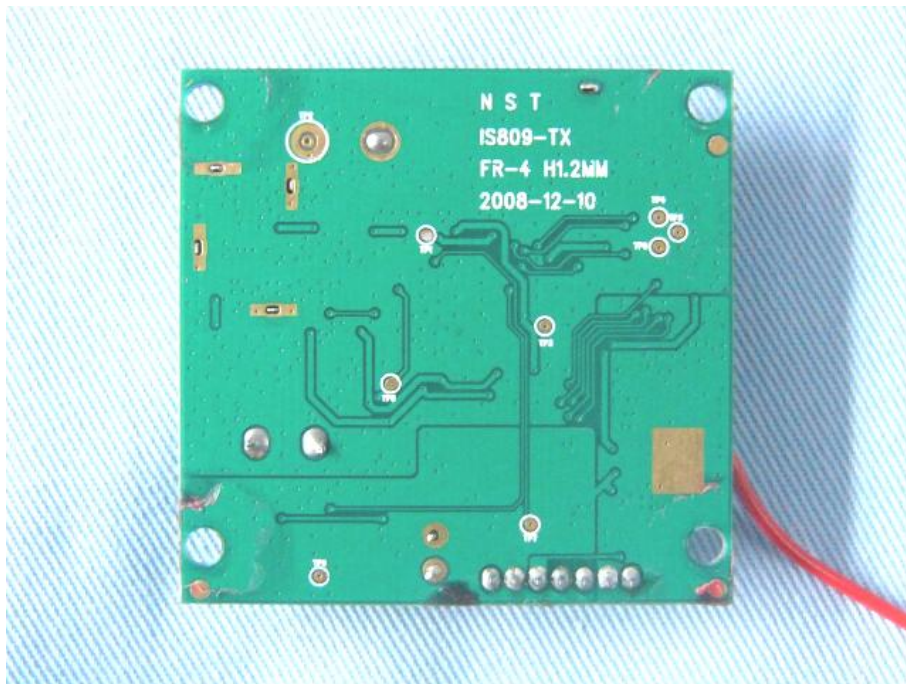


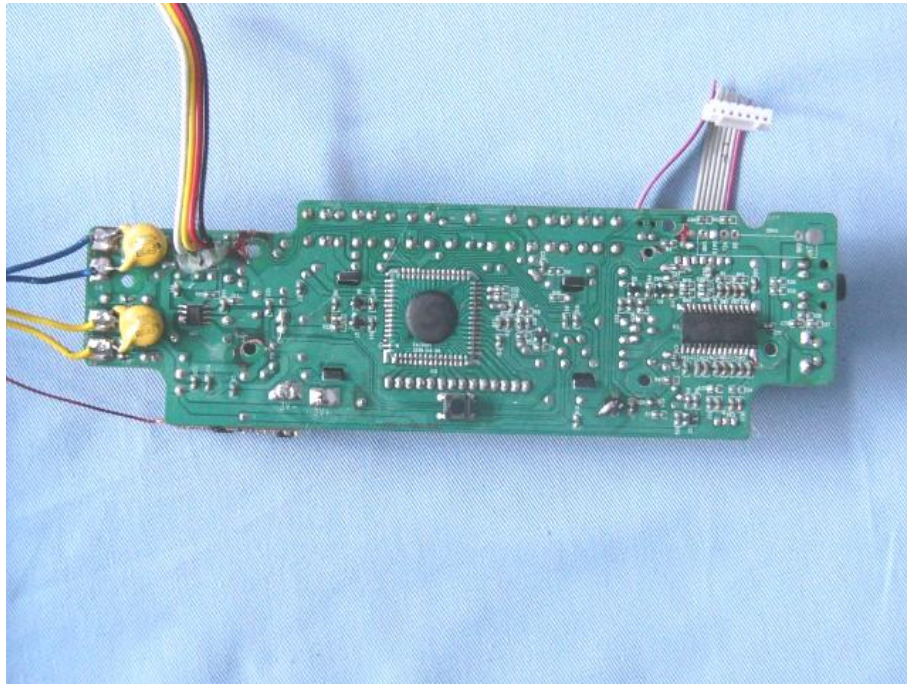
Main board component side





Main board solder side





9. FCC ID Label

FCC ID: WZYIS809BRX

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 label. 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 Bottom View/Proposed CE Mark Location



10. Test Equipment

The following test equipments were used during the radiated & conducted emission test:

Equipment/ Facilities	Manufacturer	Model #	Serial No.	Due Date
Turntable	SinTek	N/A	N/A	NCR
Antenna Tower	SinTek	N/A	N/A	NCR
OATS	SinTek	N/A	N/A	Oct. 9, 2010
EMI Test Receiver	Rohde & Schwarz	ESPI7	100013	July 09, 2009
Spectrum Analyzer	Rohde & Schwarz	FSP40	100273	Sep.18, 2009
Signal Generator	FLUKE	PM5418+Y/C	LO747012	Feb.10, 2009
Signal Generator	FLUKE	PM5418TX	LO738007	Feb.10, 2009
Loop Antenna	SCHWARZBECK	FMZB1516	113	Jan. 30, 2009
Loop Antenna	Rohde & Schwarz	HFH2-Z2	872096/16	Jan. 30, 2009
Trilog-Super Broadband Antenna	SCHWARZBECK	VULB9161	9161-4079	Sep.18, 2009
Trilog-Super Broadband Antenna	SCHWARZBECK	VULB9161	9161-4080	Sep.18, 2009
Broad-Band Horn Antenna	SCHWARZBECK	BBHA 9120D	9120D-564	Sep.18, 2009
Broad-Band Horn Antenna	SCHWARZBECK	BBHA 9120D	9120D-565	Sep.18, 2009
Ultra Broadband Antenna	Rohde & Schwarz	HL 562	100110	June.05, 2009
AMN	Rohde & Schwarz	ESH3-Z5	100196	Oct. 23, 2009
AMN	Rohde & Schwarz	ESH3-Z5	100197	Oct. 23, 2009
Pulse Limiter	Rohde & Schwarz	ESH3-Z2	N/A	N/A
Absorbing Clamp	Rohde & Schwarz	MDS-21	N/A	Oct. 29,2009
KMO Shielded Room	KMO	KMO-001	N/A	N/A
Coaxial Cable with N-Connectors	SCHWARZBECK	AK9515H	95549	Sep.18, 2009
Power Meter	Rohde & Schwarz	NRVD	100041	Feb.10, 2009
Radio Communication Test Set	Rohde & Schwarz	CMS 54	846621/024	Feb.10, 2009
Modulation Analyzer	Hewlett-Packard	8901B	2303A00362	Feb.10, 2009
SOHO Telephone Switching System	IKE	2000-108C	N/A	Feb.10, 2009
Temperature Chamber	TABAI	PSL-4GTW	N/A	Feb.10, 2009