TEST REPORT

Report No. : **15050811-3**

Product description: **Signolux Alarmo Transmitter**

Model/Type : **SIGNOLUXATX**

Applicant's name: **Adec & Partner AG**

Lab: I-Test Laboratory
Add: 1-2 floor, South Block, Building A2, No 3 Keyan Lu, Science City, Guangzhou, Guangdong Province, P.R. China
Http:// www.i-testlab.com E-mail: itl@i-testlab.com
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TEST REPORT

FCC Part 15.249: 2014

FCC ID: U94SIGNOLUXATX

Report Reference No. .....:	15050811-3	
Tested by (+ signature) .....:	Jumy qiu	Jumy Qiu
Review by (+ signature) .....:	Sunway Zeng	Sunway Zeng
Approved by (+ signature).....	Pauler Li	Pauler Li
Date of issue .....:	May 20, 2015	
Total number of pages .....:	36 Pages	
Testing Laboratory……..:	I-Test Laboratory (Accredited by CNAS, Accredited Number: L4957) FCC- Registration No: 935596 Renewal on April. 19, 2012 IC Assigned Code: 8368A	
Address .....:	1-2 floor, South Block, Building A2 No3 Keyan Lu, Science City, Guangzhou, Guangdong, China	
Applicant's name .....:	Adec & Partner AG	
Address .....:	Staldenbachstrasse 30 CH-8808 pfaffikon, Switzerland	
Manufacturer's name .....:	Dtech audio company limited	
Address .....:	No. B1 Enping District Zone II, Jiangmen Industrial Transfer District, Guangdong, China	
Test specification……:	Entrusted testing	
Standard.....:	FCC Part 15.249: 2014	
Non-standard test method……...:	N/A	
Date of Sample Receive ..... …...:	Mar. 15, 2015	
Date of Test.....:	Mar. 18, 2015 to May 14, 2015	
Test item description.....:	Signolux Alarmo Transmitter	
Trade Mark.....:	Humantechnik	
Model/Type reference .....:	SIGNOLUXATX	
Ratings .....:	9Vdc A-2995-0 Battery or AC/DC adapter (model: SFP1201000PE): input 100-240V~, 50-60Hz, 500mA, Output: 12Vdc1000mA	

TABLE OF CONTENT

1 TEST SUMMARY

Test	Test Requirement	Test Method	Class / Severity	Result
Radiated Emission (9kHz to 9.3 GHz)	FCC PART 15.249a)d)	ANSI C63.10:2013	In FCC PART 15.249a)d)	PASS
Occupied Bandwidth	FCC PART 15.215	ANSI C63.10:2013	In FCC PART 15.215	PASS
Conducted Emissions at Mains Terminals	FCC PART 15.207	ANSI C63.10: 2013: Clause 6.2 & DA 00-705	In FCC PART 15.207	PASS

Remark:

/

2 GENERAL INFORMATION

2.1 **Client Information**

Applicant:	Adec & Partner AG
Address of Applicant:	Staldenbachstrasse 30 CH-8808 pfaffikon, Switzerland

2.2 **General Description of E.U.T.**

EUT Name:	Signolux Alarmo Transmitter
Item No.:	SIGNOLUXATX
Serial No.:	Not supplied by client

2.3 **Details of E.U.T.**

Power Supply:	9Vdc 1*A-2295-0 Battery or AC/DC adapter (model: SFP1201000PE): input 100-240V~, 50-60Hz, 500mA, Output: 12Vdc1000mA
Main Function:	Copied from the SIGNOLUXATX's manual Alarmo has been conceived to enable the easy incorporation of already existing smoke detectors into the signolux signaling system, without need for modification or wiring. Alarmo scans environmental noises in proximity for sound patterns typical of smoke detectors and fire alarm systems of any type. False alarms, possibly caused by alarm sounds not actually within in the room (e.g. passing emergency vehicles, TV and movie sound effects) are prevented by means of intelligent analysis and filtering of the registered sound. If an alarm sound is identified as such, alarmo transmits a radio signal to all accordingly registered signolun receivers within range, which will indicate the incident with light, vibration or sound depending on the type of receiver.
Oscillating Frequency:	RF module IC (TH72031@IC6) Crystal (@Q3) frequency: 28.59375MHz; MCU IC (STM32F047@IC8) Crystal (@Q2) frequency: 8.0MHz; CPU (MCV14A@IC9) Crystal (@Q1) frequency:12.0MHz

Frequency Range: 915 MHz

Modulation: FSK; Emission designator: 592KF1D

Occupied bandwidth (99 % BW): 592kHz

Antenna Number & Type: One & Fixed on PCB; Gained: 2 dBi; Antenna length: 20mm; Impedance: 50-Ohm; Antenna min distance to the shell: 10mm

1	Product SW/HW version	N/A
2	Radio SW/HW version	N/A
3	Test SW Version	push_door. hex
4	RF power setting in TEST SW	1.0 mW

2.4 Description of Support Units

/

2.5 Standards Applicable for Testing

The standard used was 47 CFR Part 15.249: 2014

The EUT belongs to low power communication device transmitter, and it's an unlicensed low power auxiliary device.

2.6 Test Location

I-Test Laboratory

Address: 1-2 floor, South Block, Building A2 No3 Keyan Lu, Science City, Guangzhou, Guangdong, China

Accredited by CNAS, Accredited Number: L4957

FCC- Registration No: 935596 Renewal on April. 19, 2012

IC Assigned Code: 8368A

2.7 Deviation from Standards

None.

2.8 Abnormalities from Standard Conditions

None.

3 TEST RESULTS

3.1 **Radiation Interference**

Test Requirement:	FCC Part15.249, a) & FCC Part15.209
Test Method:	ANSI C63.10:2013
Detector:	Peak for pre-scan (The resolution bandwidth was 100KHz and the video bandwidth was 300KHz up to 1.0GHz and 1.0MHz with a video BW of 3.0MHz above 1.0GHz.) Average detector if maximised peak within 6dB of limit

3.1.1 **E.U.T. Operation**

Operating Environment:

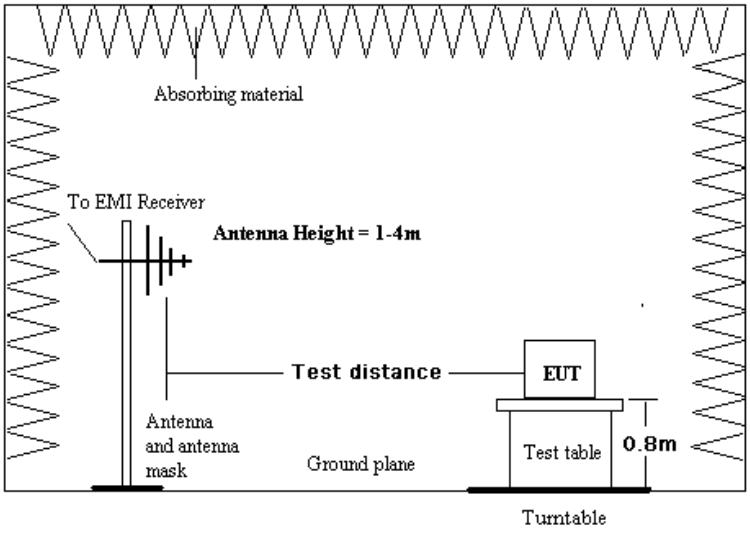
Temperature: 20°C Humidity:50% RH Atmospheric Pressure: 103 kPa

EUT Operation:

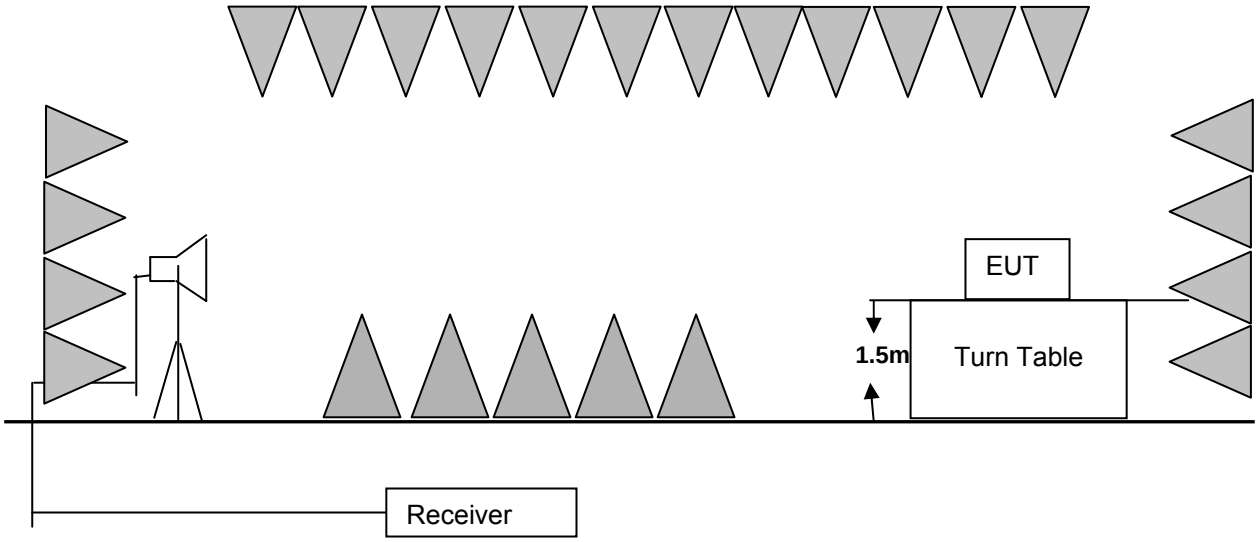
In the fundamental test, connecting the EUT to peripheral devices.

Test the EUT work normally in on mode during the whole test.

3.1.2 **Test Setup**



1 GHz to 40 GHz emissions:



3.1.3 **Test Procedure**

ANSI STANDARD C63.10-2013 6.5 Radiated emissions from unlicensed wireless devices in the frequency range of 30 MHz to 1000 MHz

An initial pre-scan was performed in the 3m chamber using the spectrum analyser in peak detection mode. Average measurements were conducted based on the peak sweep graph. When an emission was found, the table was rotated to produce the maximum signal strength. At this point, the antenna was raised and lowered from 1m to 4m. The antenna was placed in both the horizontal and vertical polarities. The EUT was measured for both the Horizontal and Vertical polarities and performed a pre-test three orthogonal planes.

3.1.4 **Measurement Data**

Copy from FCC Part 15.249.a)

(a) Except as provided in paragraph (b) of this section, the field strength of emissions from intentional radiators operated within these frequency bands shall comply with the following:

Fundamental	Field Strength	
Frequency	Fundamental	Harmonics
MHz	millivolts/meter(mV/m)	microvolts/meter(uV/m)
902 - 928	50	500
2400 - 2483.5	50	500
5725 - 5875	50	500
24000 - 24250	250	2500

Quasi-Peak measurement of carrier

Frequency	Level		Transducer	Limit	Margin	
MHz	dBuV/m		dB	dBuV/m	dB	
	V	H			V	H
915.0	89.6	90.1	24.0	94	4.4	3.9

Note:

50mV/m (94dBuV/m) for QP limit in band (902MHz to 928MHz).
The transducer factor = antenna factor + cable loss - preamplifier.
The Level = Read level + transducer factor.

H: Antenna polarization horizontal direction. V: Antenna polarization vertical direction.

Peak measurement of harmonics and spurious emission at 915.0 MHz

Frequency		Level		Transducer	Limit	Min. Margin	
MHz		dBuV/m		dB	dBuV/m	dB	
		V	H			V	H
2nd	1830.0	40.1	40.4	27.4		33.9	33.6
3rd	2745.0	42.4	43.3	27.9		31.6	30.7
4th	3660.0	43.2	44.3	30.3		30.8	29.7
5th	4575.0	43.1	43.5	34.1		30.9	30.5
6th	5490.0	44.0	44.4	31.0	74dB	30.0	29.6
7th	6405.0	44.7	44.5	35.1		29.3	29.5
8th	7320.0	44.2	44.9	35.0		29.8	29.1
9th	8235.0	44.5	45.6	36.0		29.5	28.4
10th	9150.0	44.1	45.8	37.3		29.9	28.2

Average measurement of harmonics and spurious emission at 915.0 MHz

Frequency		Level		Transducer	Limit	Min. Margin	
MHz		dBuV/m		dB	dBuV/m	dB	
		V	H			V	H
2nd	1830.0	32.2	33.4	27.4		21.8	20.6
3rd	2745.0	31.6	33.2	27.9		22.4	20.8
4th	3660.0	32.1	34.5	30.3		21.9	19.5
5th	4575.0	33.4	34.6	34.1		20.6	19.4
6th	5490.0	33.3	34.8	31.0	54dB	20.7	19.2
7th	6405.0	34.3	34.5	35.1		19.7	19.5
8th	7320.0	34.3	34.5	35.0		19.7	19.5
9th	8235.0	34.4	35.7	36.0		19.6	18.3
10th	9150.0	34.3	35.5	37.3		19.7	18.5

Note:

500μV/m (54dBuV/m) for AVG limit, and Peak limit= AVG limit + 20dB.
The transducer factor = antenna factor + cable loss - preamplifier.
The Level = Read level + transducer factor.
H: Antenna polarization horizontal direction. V: Antenna polarization vertical direction.

Note:

The EUT's transmitting frequency range belonged to 902MHz to 928 MHz, and it is complied with the requirements of FCC Part 15.249.a).

3.1.5 **Radiated outside of the specified frequency bands**

Copy from FCC Part 15.249.d)

(d) Emissions radiated outside of the specified frequency bands, except for harmonics, shall be attenuated by at least 50 dB below the level of the fundamental or to the general radiated emission limits in Section 15.209, whichever is the lesser attenuation.

Copy from FCC Part 15.209: Radiated emission limits, general requirements

(a) Except as provided elsewhere in this Subpart, the emissions from an intentional radiator shall not exceed the field strength levels specified in the following table:

Frequency	Field Strength	Measurement Distance
MHz	microvolts/meter(uV/m)	(meters)
0.009 - 0.490	2400/F(kHz)	300
0.490 - 1.705	24000/F(kHz)	30
1.705 - 30.0	30	30
30 - 88	100 **	3
88 - 216	150 **	3
216 - 960	200 **	3
Above 960	500	3

** Except as provided in paragraph (g), fundamental emissions from intentional radiators operating under this Section shall not be located in the frequency bands 54-72 MHz, 76-88 MHz, 174-216 MHz or 470-806 MHz. However, operation within these frequency bands is permitted under other sections of this Part, e.g., Sections 15.231 and 15.241.

(d) The emission limits shown in the above table are based on measurements employing a CISPR quasi-peak detector except for the frequency bands 9-90 kHz, 110-490 kHz and above 1000 MHz. Radiated emission limits in these three bands are based on measurements employing an average detector.

Note:

Since the fundamental emissions peak and average values are shown on section 6.1.4 of this report, the general radiated emission limits in Section 15.209 is the lesser attenuation.

Limits for the frequency bands of 902M-928M Hz

Frequency	FCC Part 15.209/ General Radiated limits	
MHz	dBuV/m@3m	
	QP	AVG
30 - 88	40	/
88 - 216	43.5	/
216 - 960	46	/
960 - 1000	54	/
Above 1000	74(PK)	54

Frequency	FCC Part 15.249.d) limits	
MHz	dBuV/m@3m	
	QP	AVG
30 - 88	40	/
88 - 216	43.5	/
216 - 902	46	/
928-960	46	/
960 - 1000	54	/
1000-9150	74(PK)	54

Remark:
1. RF line voltage (dBuV)= 20 log RF line voltage (uV)
2. In the above table, the tighter limit applies at the band edges.
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.

3.1.6 **Measurement Data for 15.249.d**

Test the EUT work normally in transmitting mode in mains.

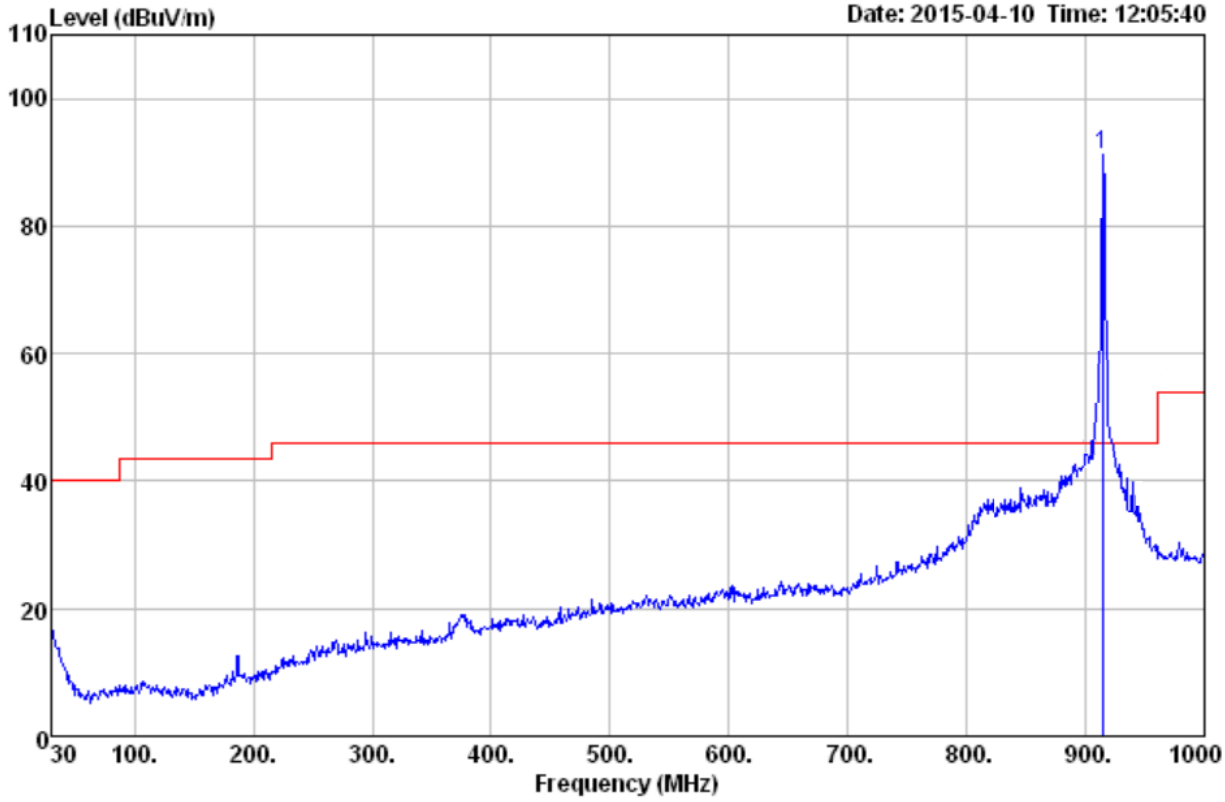
1) 9kHz~30MHz Test result

The Low frequency, which started from 9kHz to 30MHz, was pre-scanned and the result which was 20dB lower than the limit line per 15.31(o) was not report.

2) 30 MHz~1 GHz Spurious Emissions. Quasi-Peak Measurement

Test curves (with the Quasi-peak measurement and QP limit), 30M-1GHz, Horizontal & Vertical:

915MHz, Horizontal

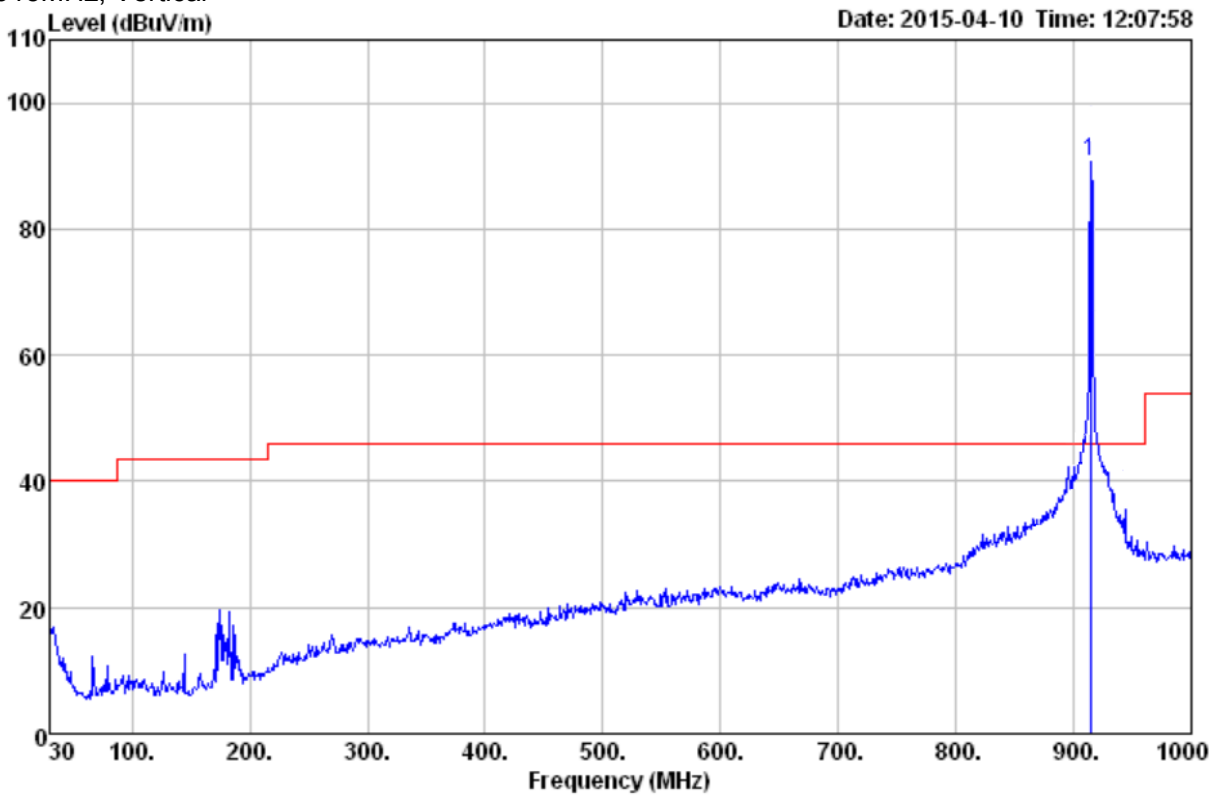


Quasi-peak measurement

Frequency	Level	Transducer	Limit	Margin
MHz	dBuV/m	dB	dBuV/m	dB
30.0	17.6	17.9	40	22.4
184.0	15.4	8.3	43.5	28.1
374.3	19.2	14.9	46	26.8
900.3*	42.0	41.2	46	4.0
933.5*	39.9	24.0	46	6.1
975.3	33.0	23.9	54	21.0

Note:
The transducer factor includes antenna factor and cable loss.
* means the max Quasi peak value for band-edge (frequency range of 802 MHz to 902MHz, except for harmonics) is the plot measurement at 900.3 MHz.
* means the max Quasi peak value for band-edge (frequency range of 928 MHz to 1000 MHz, except for harmonics) is the plot measurement at 933.5 MHz.

915MHz, Vertical



Quasi-peak measurement

Frequency	Level	Transducer	Limit	Margin
MHz	dBuV/m	dB	dBuV/m	dB
30.0	17.6	17.9	40	22.4
179.1	19.7	8.3	43.5	23.8
545.3	22.3	19.3	46	23.7
895.3*	41.2	23.9	46	4.8
941.0*	37.5	24.2	46	8.5
982.7	33.2	23.7	54	20.8

Note:

The transducer factor includes antenna factor and cable loss.

* means the max Quasi peak value for band-edge (frequency range of 802 MHz to 902MHz, except for harmonics) is the plot measurement at 895.3 MHz.

* means the max Quasi peak value for band-edge (frequency range of 928 MHz to 1000 MHz, except for harmonics) is the plot measurement at 941.0 MHz.

3) 1 GHz~9.30 GHz Spurious Emissions .Average & PK Measurement

Horizontal & Vertical:

Average measurement at 915 MHz

Frequency	Level		Transducer	Limit	Margin	
GHz	dBuV/m		dB	dBuV/m	dB	
	Horizontal	Vertical			Horizontal	Vertical
1.240	40.5	40.1	24.8	54	13.5	13.9
2.382	40.2	40.6	26.6		13.8	13.4
2.489	50.9	47.8	25.7		3.1	6.2
5.335	40.6	40.4	32.4		13.4	13.6
7.478	40.4	40.2	35.9		13.6	13.8
9.118	40.4	39.7	37.3		13.6	14.3
Note: The transducer factor includes antenna factor and cable loss.						

Peak measurement at 915 MHz

Frequency	Level		Transducer	Limit	Margin	
GHz	dBuV/m		dB	dBuV/m	dB	
	Horizontal	Vertical			Horizontal	Vertical
1.240	50.3	50.1	24.8	74	23.7	23.9
2.382	50.9	50.3	26.6		23.1	23.7
2.489	54.6	51.6	25.7		19.4	22.4
5.335	50.5	50.1	32.4		23.5	23.9
7.478	50.5	50.7	35.9		23.5	23.3
9.118	50.5	50.3	37.3		23.5	23.7
Note: The transducer factor includes antenna factor and cable loss.						

3.2 Occupied Bandwidth

Test Requirement:	FCC Part15.215
Test Method:	ANSI C63.10: 2013
Detector:	Peak for scan (The resolution bandwidth was 1kHz and the video bandwidth was 1kHz, span was 2MHz) maximised peak hold

3.2.1 E.U.T. Operation

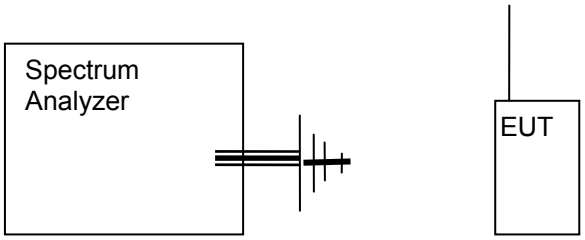
Operating Environment:

Temperature: 25°C Humidity:45% RH Atmospheric Pressure: 1020mBar

EUT Operation:

Test the EUT work normally in on mode during the whole test.

3.2.2 Test Setup



3.2.3 Test Procedure

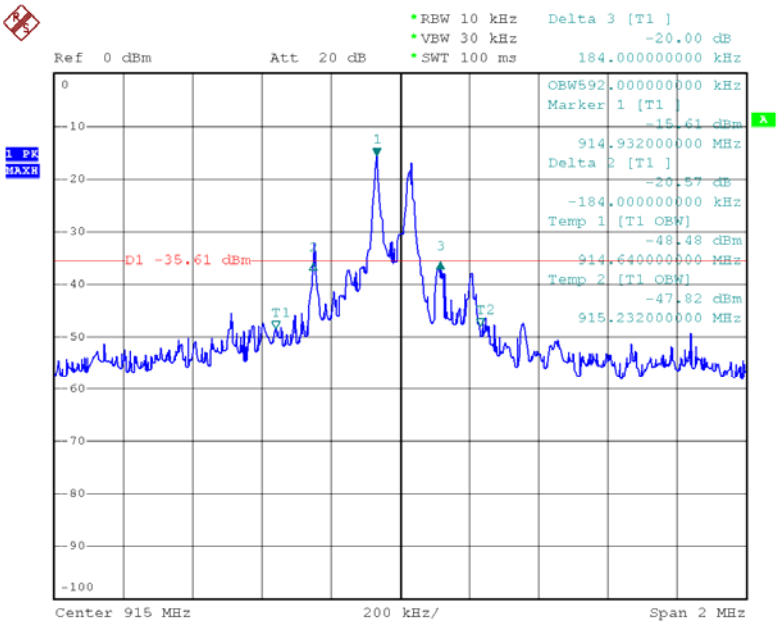
ANSI STANDARD C63.10-2013 6.9 Occupied bandwidth tests:

An initial pre-scan was performed in the 3m chamber using the spectrum analyzer in peak detection mode. Average measurements were conducted based on the peak sweep graph. When an emission was found, the table was rotated to produce the maximum signal strength. At this point, the antenna was raised and lowered from 1m to 4m. The antenna was placed in both the horizontal and vertical polarities.

3.2.4 Measurement Data

Test for the EUT with switch ON.

Maximum Peak hold measurement for 915.0 MHz



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Center Frequency	ΔFL- / kHz	ΔFL+ / kHz	-20dB Bandwidth/ kHz	Occupied Bandwidth (99% of total power)/ kHz
915MHz	-184	184	368	592

3.3 Conducted Emissions at Mains Terminals 150 kHz to 30 MHz

Test Requirement: FCC Part 15 C section 15.207

Test Method: ANSI C63.10: 2013: Clause 6.2 & DA 00-705

Frequency Range: 150 kHz to 30 MHz

Detector: Peak for pre-scan (9 kHz Resolution Bandwidth)

Test Limit

Limits for conducted disturbance at the mains ports of class B

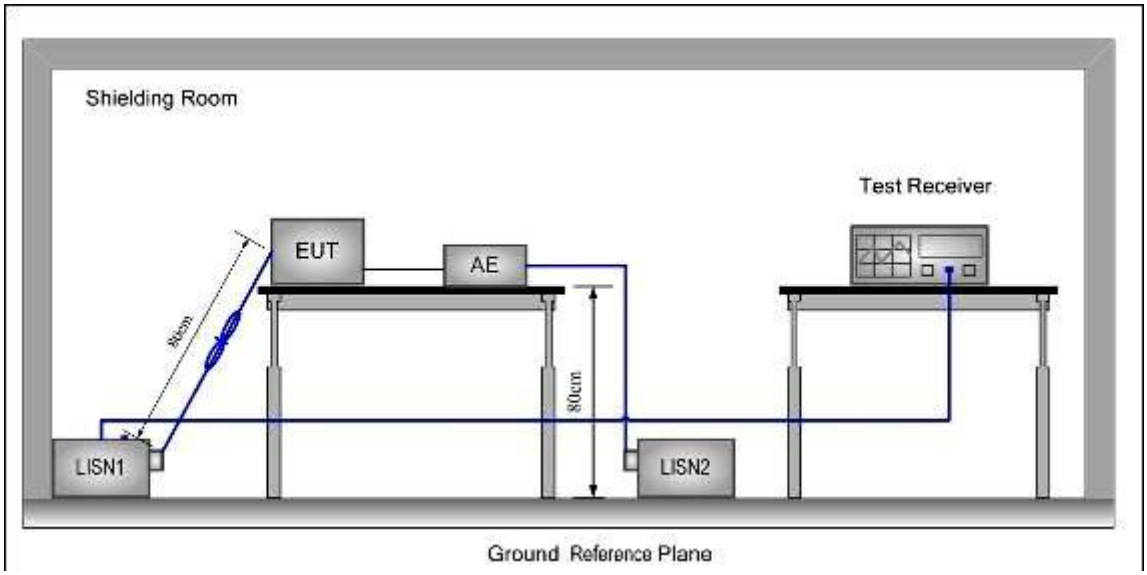
Frequency Range	Class B Limit dB(μV)	
	Quasi-peak	Average
0.15 to 0.50	66 to 56	56 to 46
0.50 to 5	56	46
5 to 30	60	50
NOTE 1 The limit decreases linearly with the logarithm of the frequency in the range 0,15 MHz to 0,50 MHz.		

3.3.1 EUT Operation

Test in normal operating mode. For intentional radiators, measurements of the variation of the input power or the radiated signal level of the fundamental frequency component of the emission, as appropriate, shall be performed with the supply voltage varied between 85% and 115% of the nominal rated supply voltage.

Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).

3.3.2 **Test Configuration**



3.3.3 **Test Procedure**

1. The mains terminal disturbance voltage test was conducted in a shielded room.

2. The EUT was connected to AC power source through a LISN 1 (Line Impedance Stabilization Network) which provides a 50Ω/50μH + 5Ω linear impedance. The power cables of all other units of the EUT were connected to a second LISN 2, which was bonded to the ground reference plane in the same way as the LISN 1 for the unit being measured. A multiple socket outlet strip was used to connect multiple power cables to a single LISN provided the rating of the LISN was not exceeded.

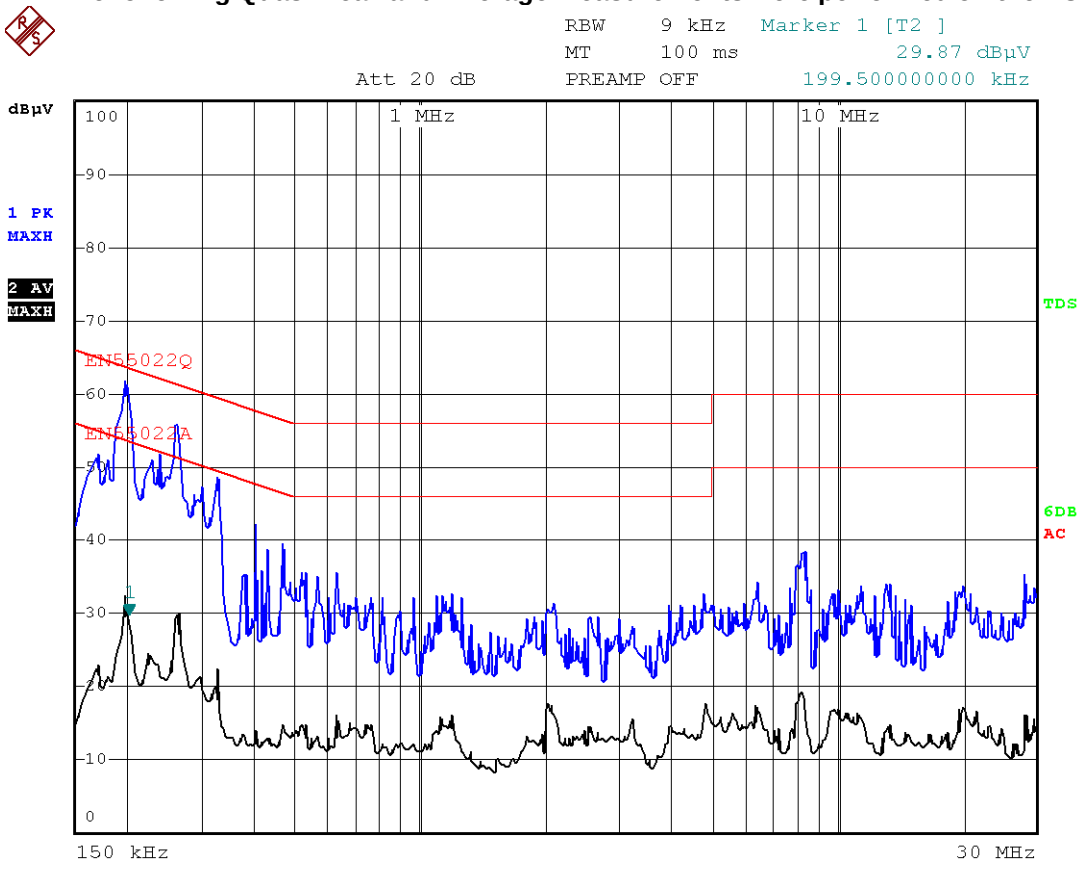
3. The tabletop EUT was placed upon a non-metallic table 0.8m above the ground reference plane. And for floor-standing arrangement, the EUT was placed on the horizontal ground reference plane, but separated from metallic contact with the ground reference plane by 0.1m of insulation.

4. The test was performed with a vertical ground reference plane. The rear of the EUT shall be 0,4 m from the vertical ground reference plane. The vertical ground reference plane was bonded to the horizontal ground reference plane. The LISN 1 was placed 0,8 m from the boundary of the unit under test and bonded to a ground reference plane for LISNs mounted on top of the ground reference plane. This distance was between the closest points of the LISN 1 and the EUT. All other units of the EUT and associated equipment was at least 0,8 m from the LISN 2.

3.3.4 **Measurement Data**

An initial pre-scan was performed on the live and neutral lines with peak detector. Quasi-Peak and Average measurement were performed at the frequencies with maximized peak emission were detected. For EUT the communicating was worst case mode.

The following Quasi-Peak and Average measurements were performed on the EUT:



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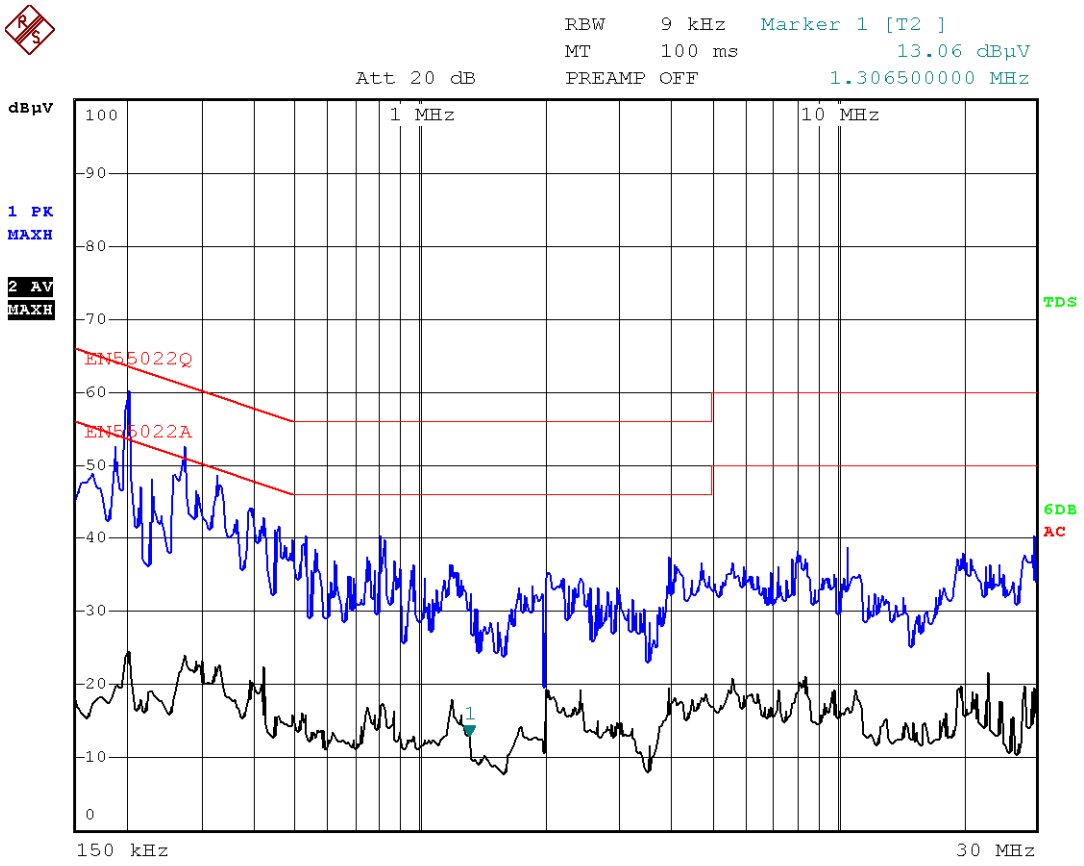
Quasi-peak and Average measurement

Freq. (MHz)	Line	QP (dBµV)	Transducer (dB)	QP limit (dBµV)	Margin (dB)	AV (dBµV)	Transducer (dB)	AV limit (dBµV)	Margin (dB)
0.195	Live	54.2	0.1	63.8	9.6	30.1	0.1	53.8	23.7
0.263	Live	48.2	0.1	61.3	13.1	30.1	0.1	51.3	21.2
2.020	Live	25.1	0.1	56	30.9	17.6	0.1	46	28.4
4.826	Live	25.3	0.1	56	30.7	17.7	0.1	46	28.3
8.237	Live	29.1	0.2	60	30.9	19.2	0.2	50	30.8
20.01	Live	25.0	0.3	60	35.0	17.1	0.3	50	32.9



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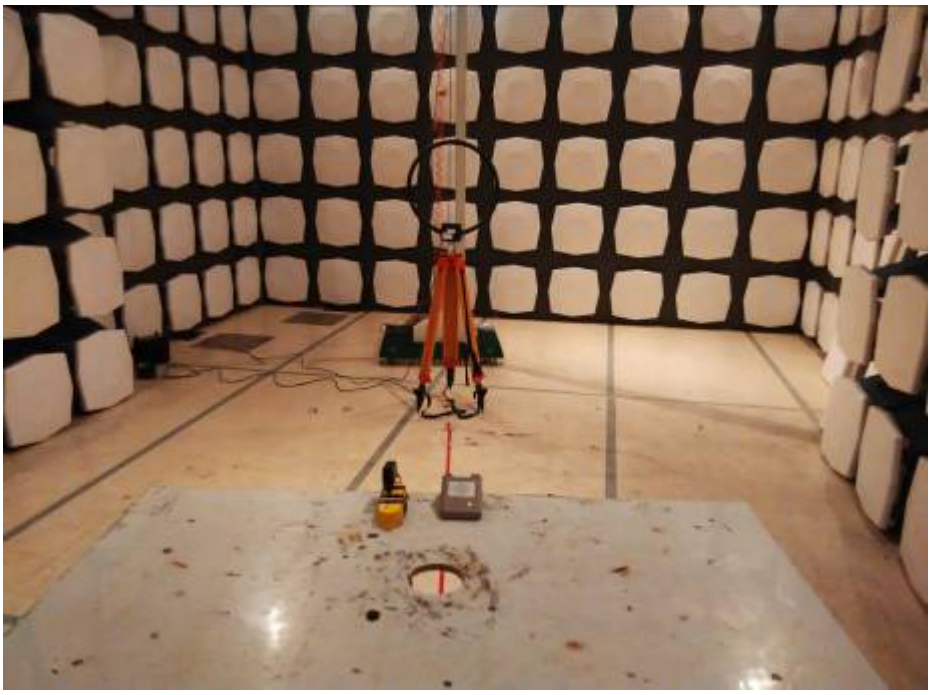
Quasi-peak and Average measurement

Freq. (MHz)	Line	QP (dBµV)	Transducer (dB)	QP limit (dBµV)	Margin (dB)	AV (dBµV)	Transducer (dB)	AV limit (dBµV)	Margin (dB)
0.200	Neutral	51.3	0.1	63.6	12.3	24.6	0.1	53.6	29.0
0.272	Neutral	42.4	0.1	61.1	18.7	24.0	0.1	51.1	27.1
2.009	Neutral	29.3	0.1	56	26.7	19.3	0.1	46	26.7
5.636	Neutral	29.6	0.1	60	30.4	20.7	0.1	50	29.3
8.370	Neutral	30.4	0.2	60	29.6	21.2	0.2	50	28.8
22.93	Neutral	27.1	0.3	60	32.9	21.5	0.3	50	28.5

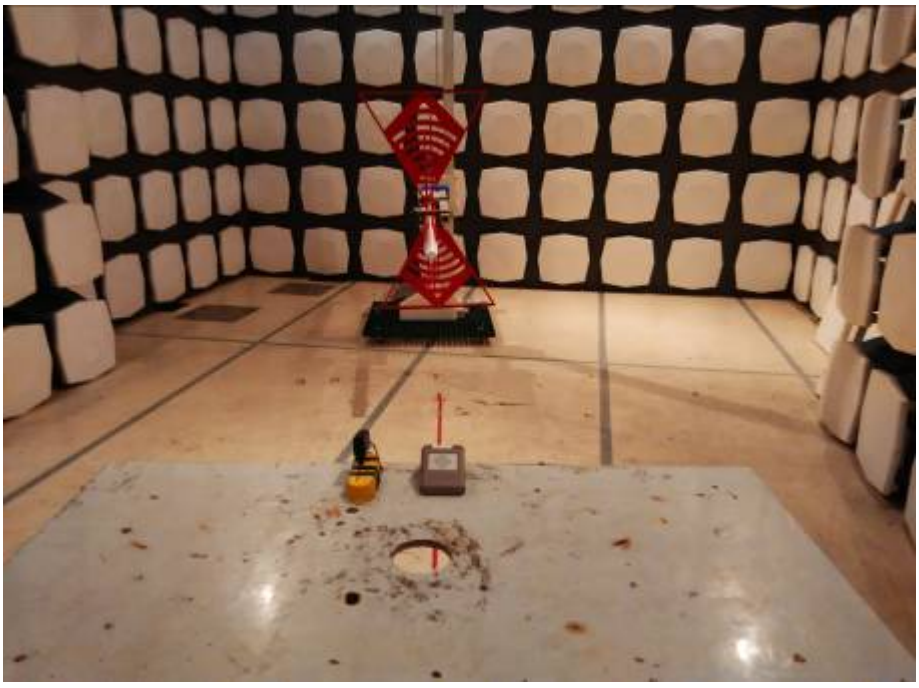
4 PHOTOGRAPHS

4.1 **Radiated Emission Test Setup**

9kHz - 30MHz



30MHz – 1GHz



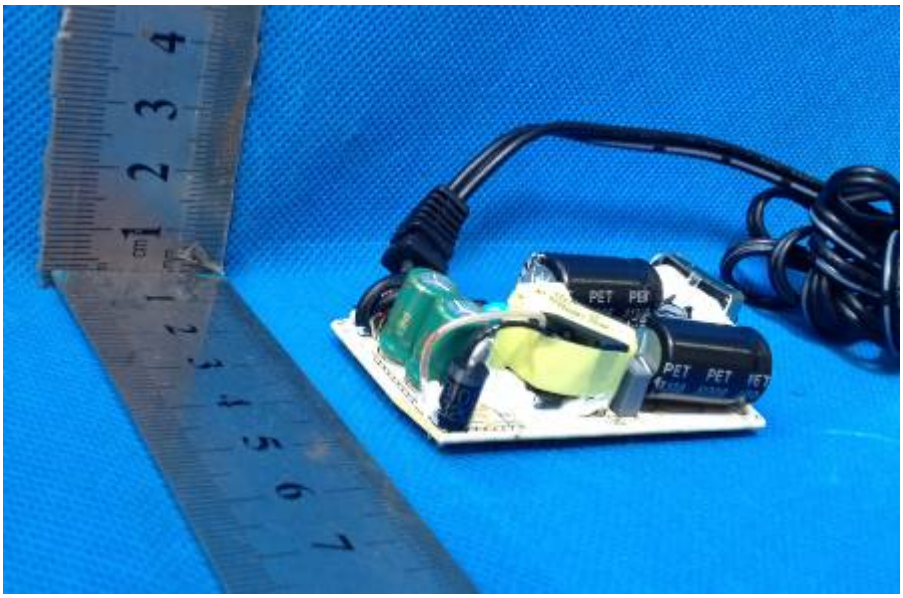
1GHz – 9.3GHz

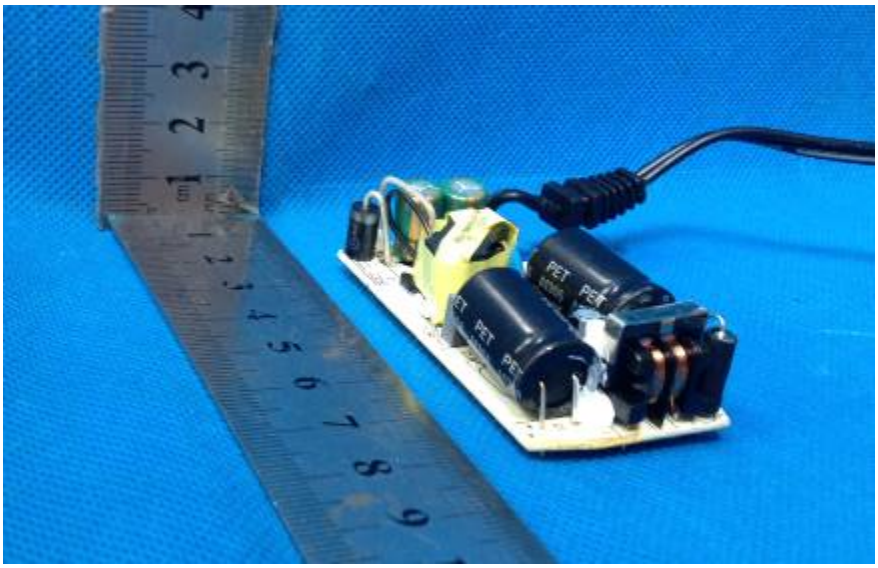
4.2 **Conducted Emission Test Setup**

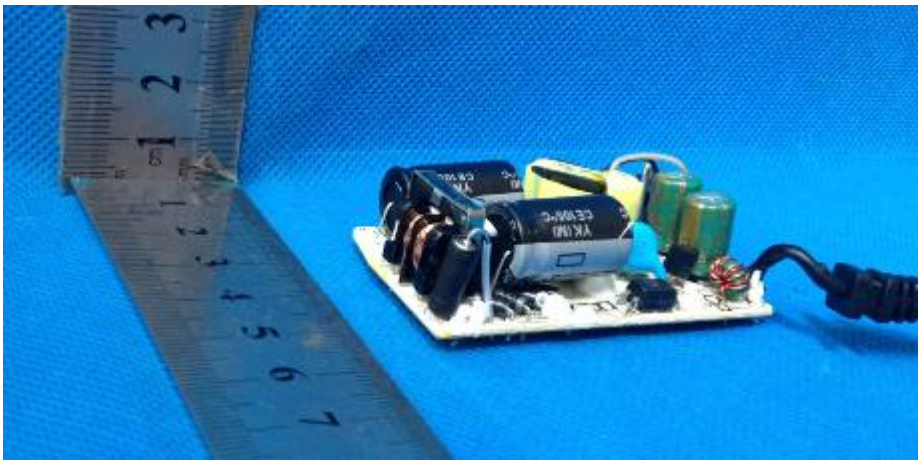
4.3 **EUT Constructional Details**

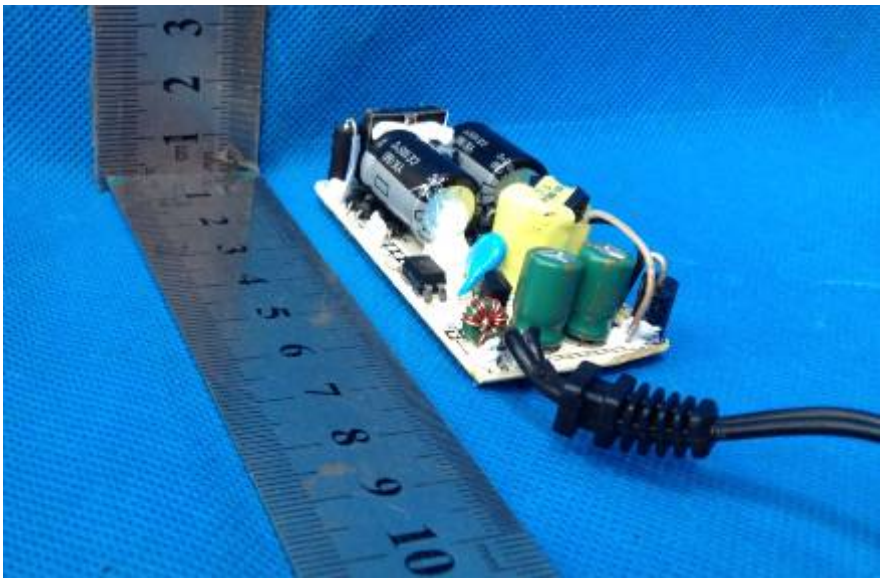
SIGNOLUXATX

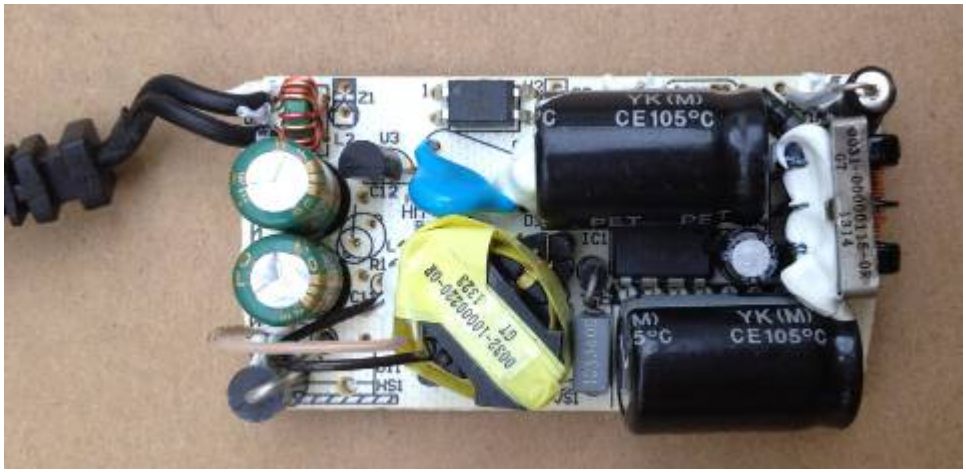

MOTRAX
AC/DC
ADAPTOR

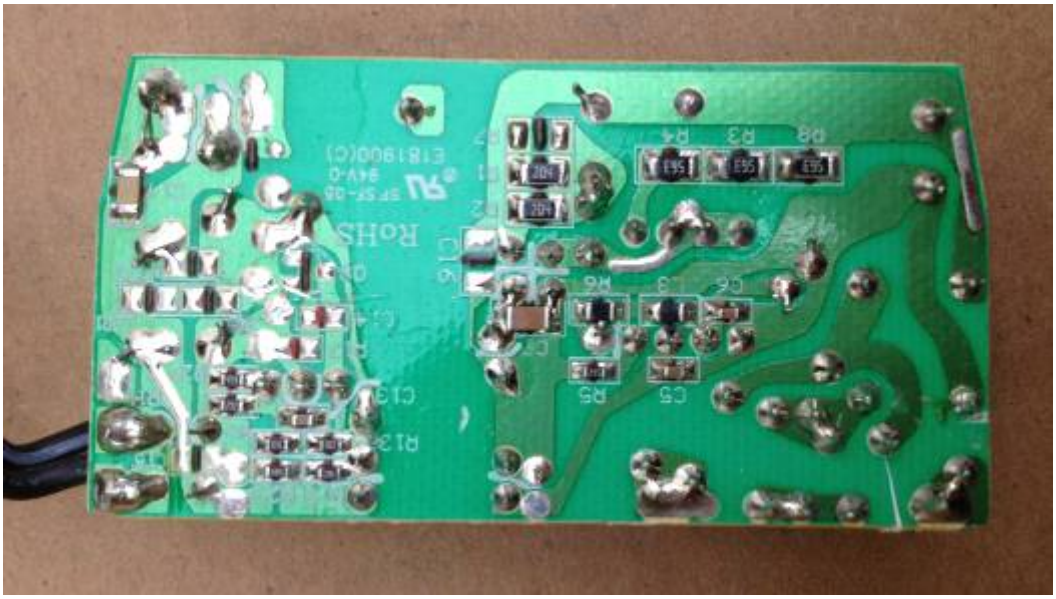

PET
PET
PET
PET

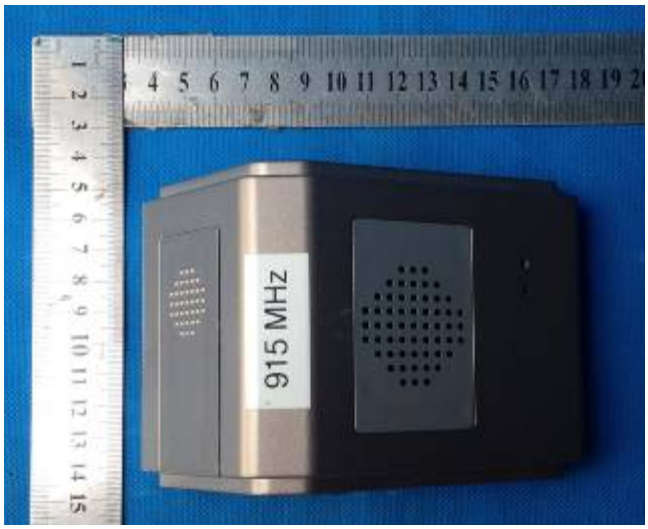

PET
PET
PET
PET

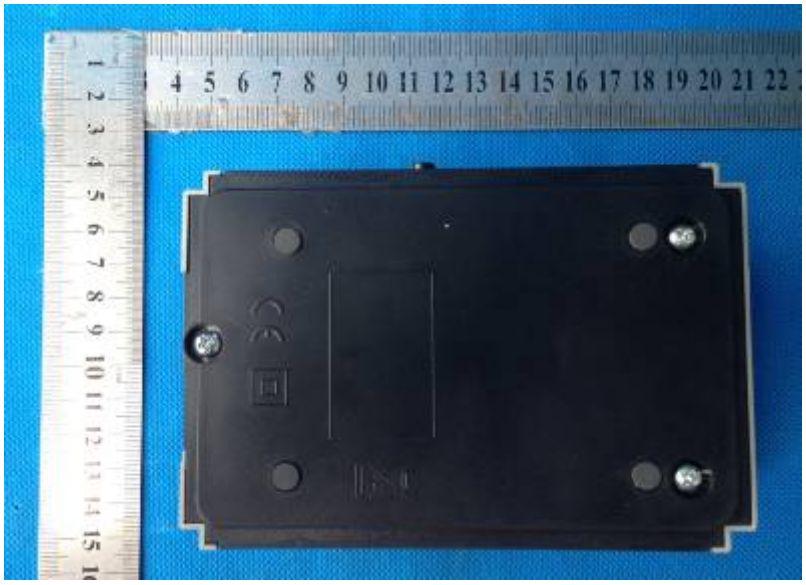


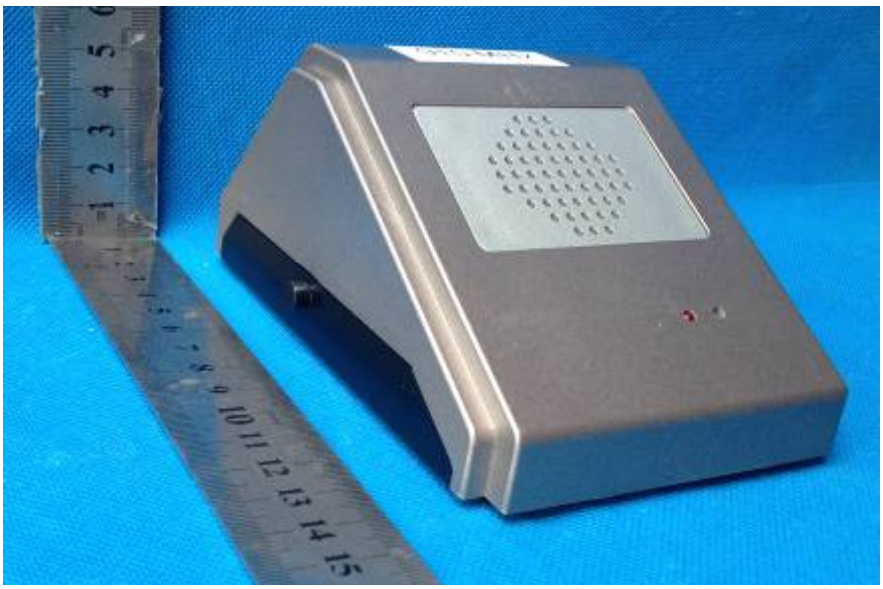


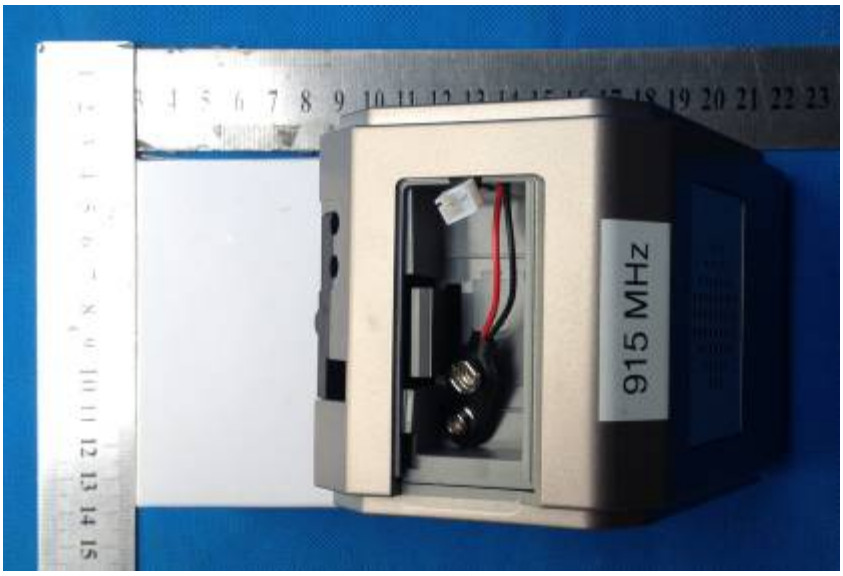

CE105°C
CE105°C

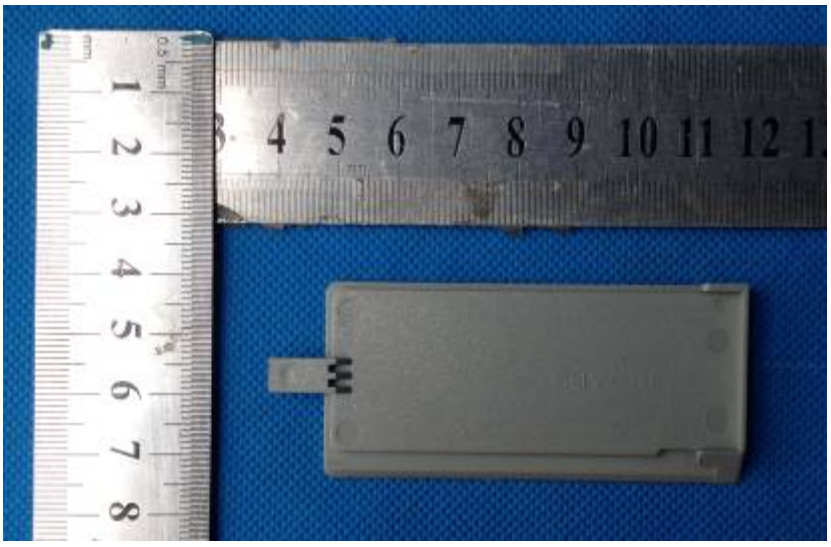


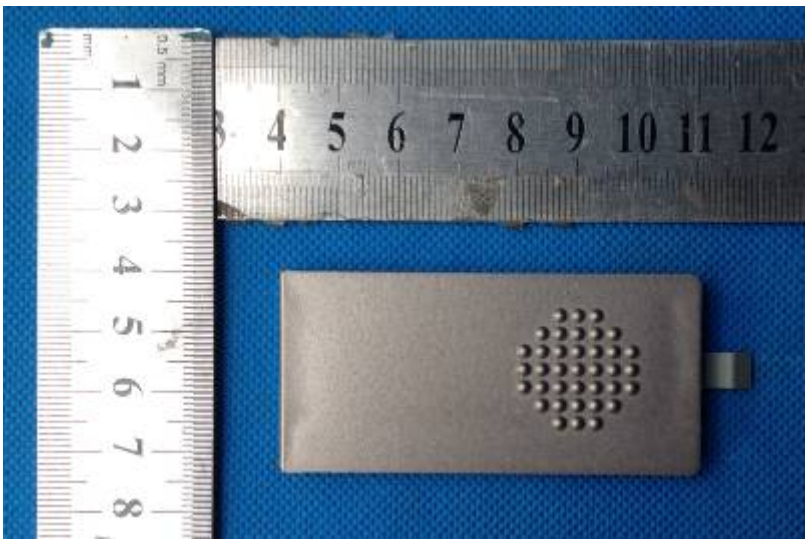

915 MHz

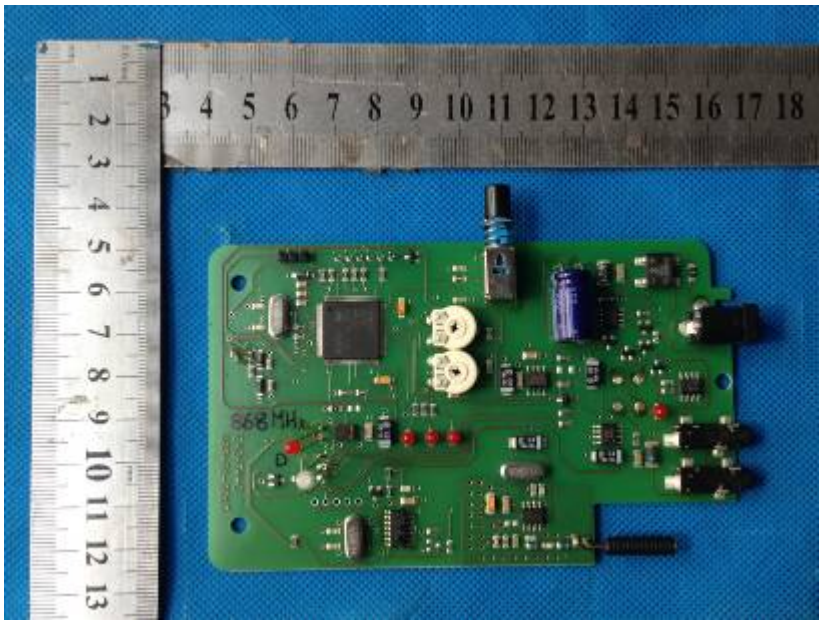


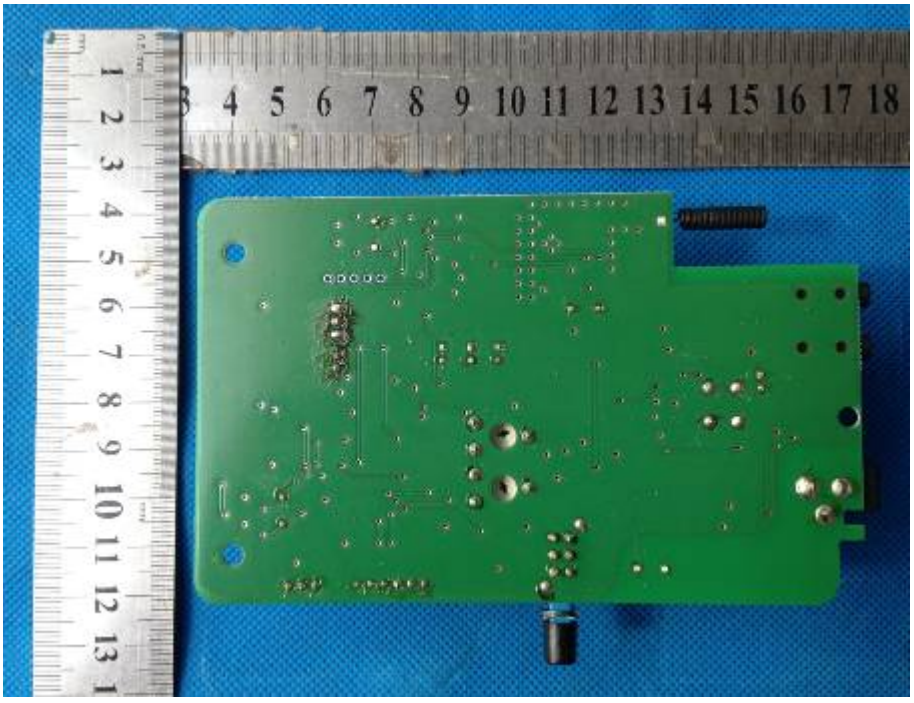


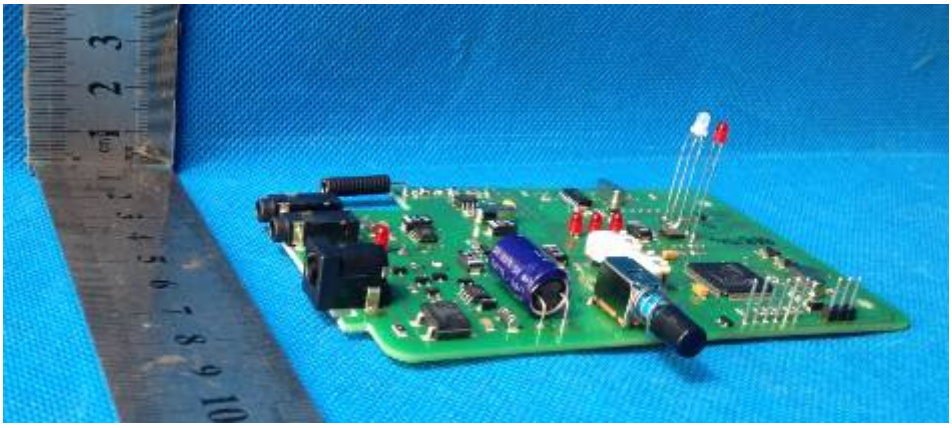

915 MHz

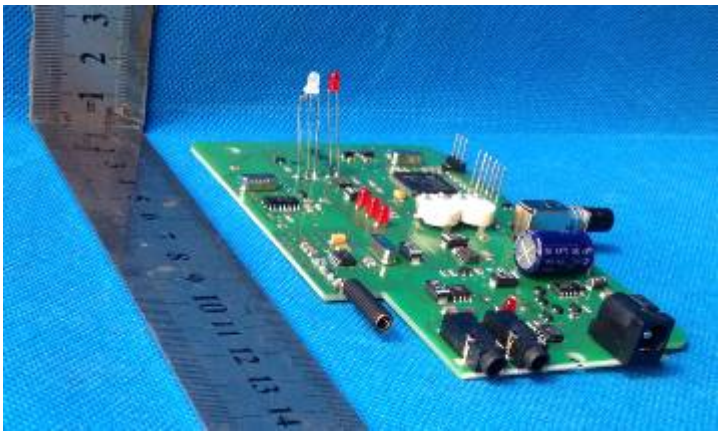


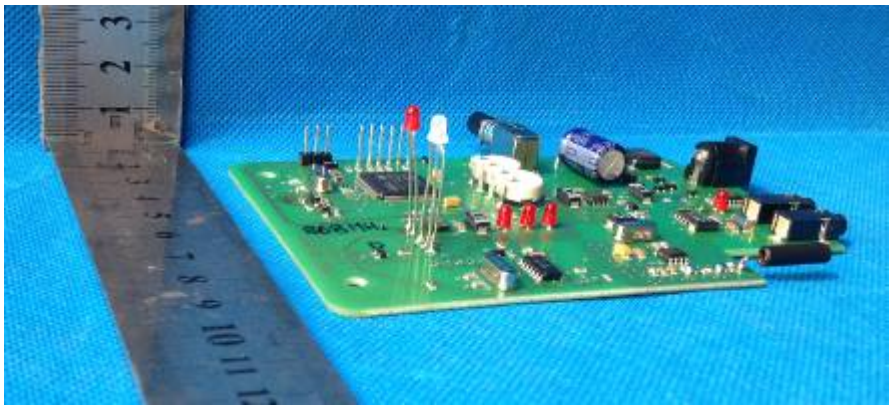


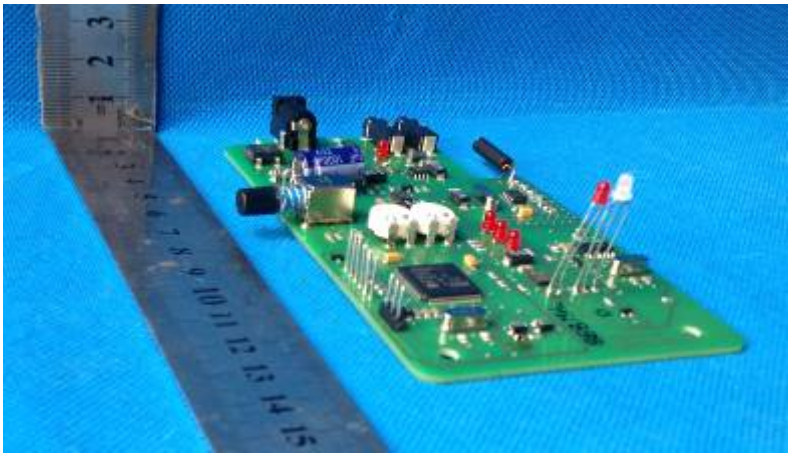


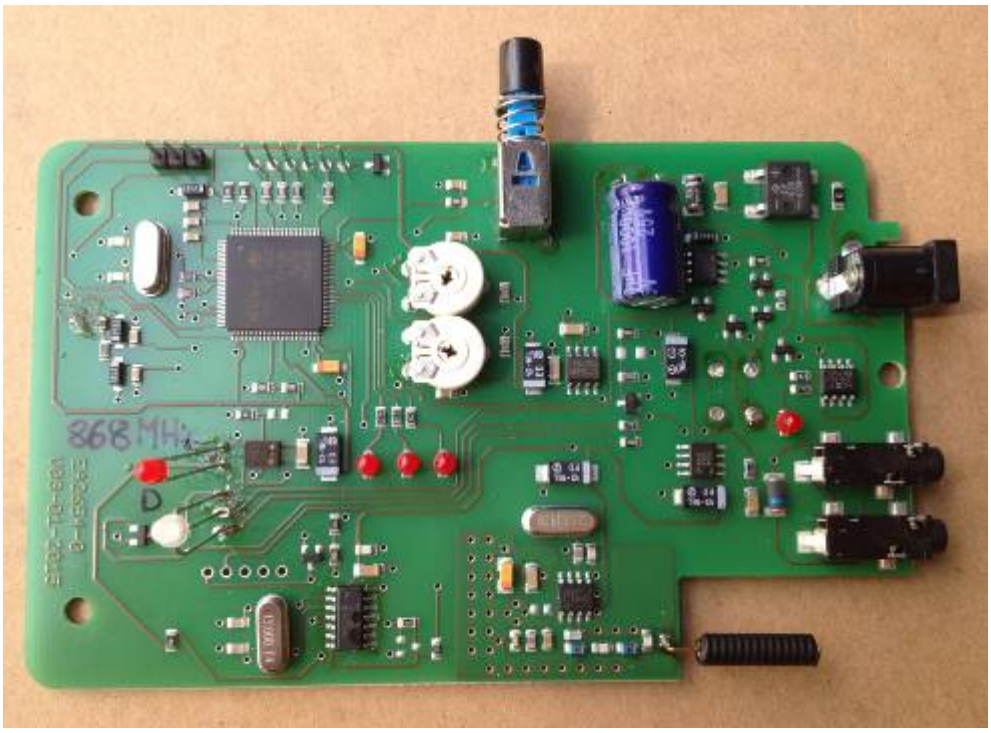


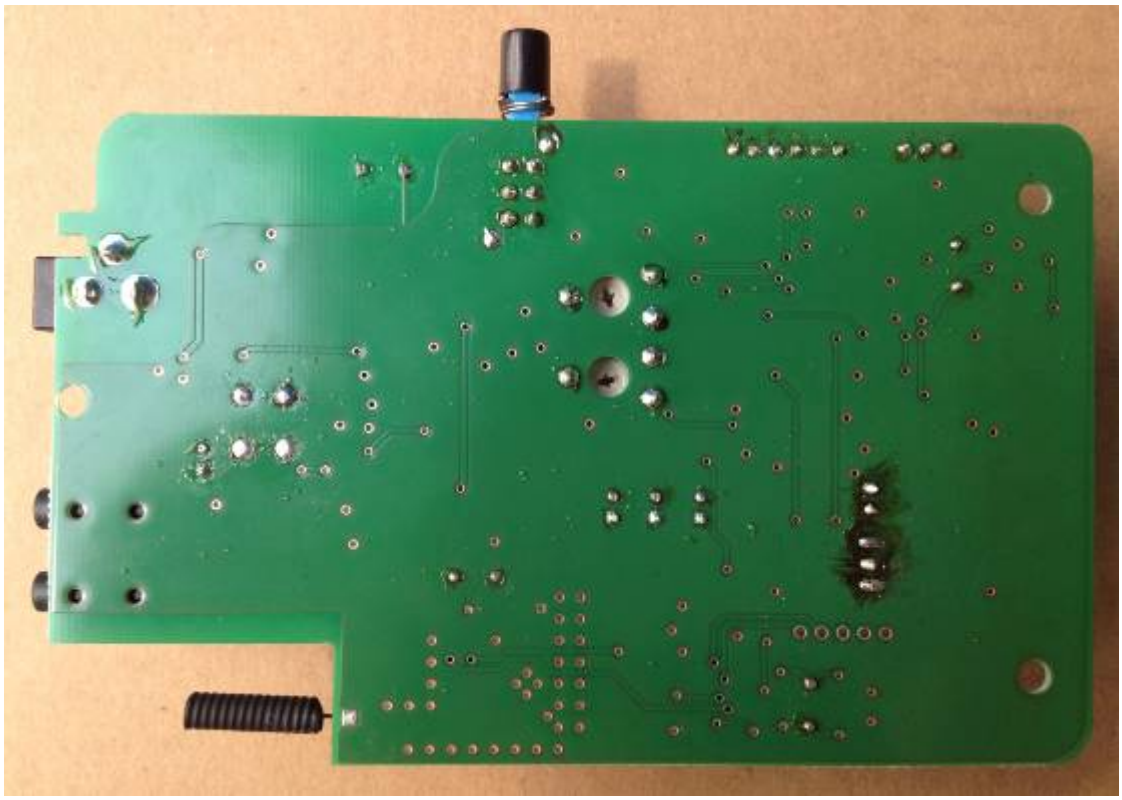








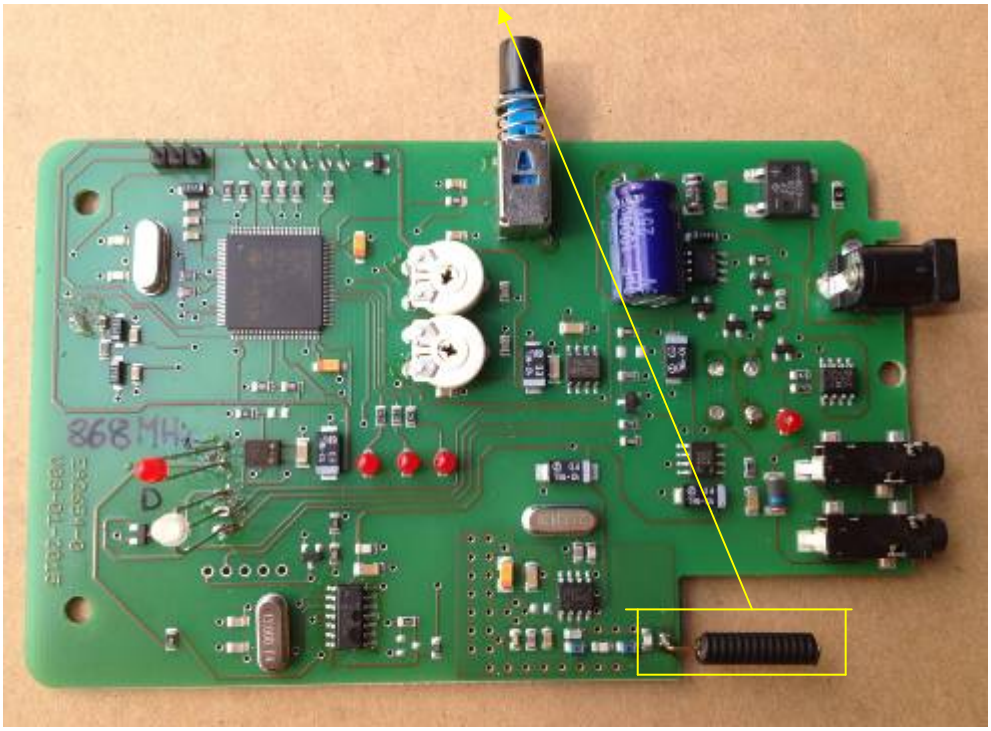

868MHz



4.4 **Antenna Photo**

SIGNOLUXATX

Antenna



Note:

The EUT was used permanently attached antenna, and it's complied with the requirements of section 15.203: antenna requirement.

5 EQUIPMENTS USED DURING TEST

Item	Test Equipment	Manufacturer	Model No.	Inventory No.	Cal. Date	Cal. Due date
1	RF Generator	Rohde & Schwarz	SMB100A-B106	1.031	2014-5-10	2015-5-10
					2015-5-10	2016-5-10
2	Spectrum Analyzer	Rohde & Schwarz	FSP30	EMC0001	2015-3-24	2016-3-24
3	EMI Test Receiver	Rohde & Schwarz	ESCI	EMC1002	2015-3-24	2016-3-24
4	2-Channel Power Meter	Rohde & Schwarz	NRP2	1.033	2014-5-10	2015-5-10
					2014-5-10	2016-5-10
5	Audio Analyzer	Hewlett Packard	8903B	EMC0011	2014-11-5	2015-11-5
6	Power Sensor	Rohde & Schwarz	NRP-Z91	1.034	2014-5-10	2015-5-10
					2015-5-10	2016-5-10
7	Power Sensor	Rohde & Schwarz	NRP-Z91	1.035	2014-5-10	2015-5-10
					2015-5-10	2016-5-10
8	Temperature Chamber	Gongwen	GDS-250	SFT0009	2014-11-5	2015-11-5
9	D.C. Power Supply	KIKUSUI	PAN35-10A	SFT0319	2014-11-5	2015-11-5
10	Temperature Chamber	Gongwen	GDS-250	SFT0009	2014-11-5	2015-11-5
11	D.C. Power Supply	KIKUSUI	PAN35-10A	SFT0319	2014-11-5	2015-11-5
12	Humidity/ Temperature Meter	Anymetre	TH101B	SFT0063	2014-11-5	2015-11-5
13	Barometer	ChangChun	DYM3	SEL0088	2014-6-8	2015-6-8
14	Multimeter	UNI-T	UT70A	EMC0017	2014-11-5	2015-11-5
15	Monopole Antenna	HST	N/A	EMC0089	2014-11-5	2015-11-5
16	Low loss coaxial cable	HST	2 m	EMC1008	2014-11-5	2015-11-5
17	Monopole Antenna	HST	N/A	N/A	2014-11-5	2015-11-5
18	Noise Generaror	Ningbo Zhongce	DF1681	EMC0009	2014-11-5	2015-11-5
19	Semi-Anechoic chamber	ETS•Lindgren	FACT3 2.0	ITL-100	2013-6-17	2016-6-17
20	EMI Test receiver	R&S	ESVS10	ITL-111	2015-1-19	2016-1-19
21	EXA Spectrum Analyzer	Agilent Technologies	N9010A	ITL-114	2015-1-19	2016-1-19
22	Biconilog Antenna	ETS•Lindgren	3142D	ITL-105	2015-1-24	2018-1-24
23	Pre Amplifier	HP	8447F	ITL-116	2015-1-19	2016-1-19
24	Wideband Amplifier Super Ultra	Mini-circuits	ZVA-183-S+	ITL-117	2015-1-19	2016-1-19
25	Horn Antenna	A-INFOMW	JXTXLB-10180-N	ITL-110	2015-1-24	2018-1-24
26	Software	Audix	E3	ITL-109	/	/
27	Loop Antenna	BJ 2nd Factory	ZN30900A	EMC6001	2013-7-29	2016-7-29
28	LISN	AFJ	LS16C	EMC1003	2015-3-23	2016-3-23
29	Shielding room	DG ZongZhou	ZW-391 7x3.9x3 m	EMC1001	2014-5-28	2017-5-28

End of report