

FCC

EMC

TEST REPORT

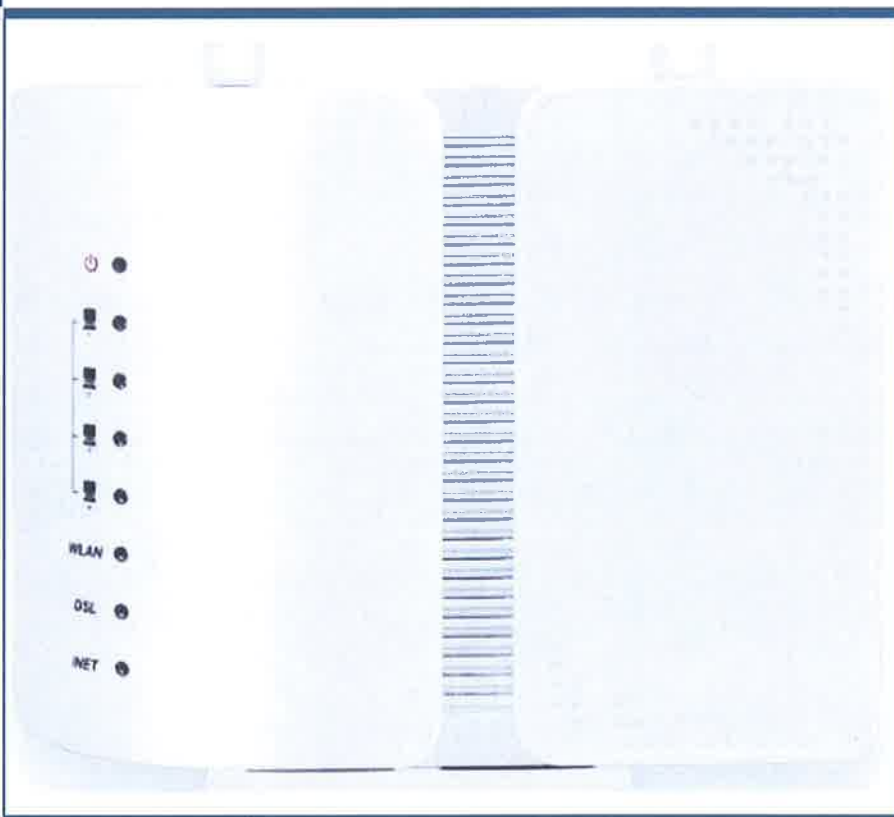
ISSUED BY
Shenzhen BALUN Technology Co., Ltd.



FOR
4 Port Wireless DSL Router

ISSUED TO
Shenzhen Kasda Digital Technology Co.,LTD

B-31,Tanglang Industry Park, Xili, Nanshan District, Shenzhen, China



Prepared by:

Cao Shaoqiang
Cao Shaoqiang
(Reporting Specialist)

Date

2014.5.5

Approved by:

Wei Yanliuan
Wei Yanliuan
(Lab Director)

Date

2014.5.5

Report No.: BL-SZ1440016-401

EUT Type: 4 Port Wireless DSL Router

Model Name: KW5813H, KW5813, NG12AO, NG12AH

Brand Name: KASDA

Test Standard: 47 CFR Part 15 Subpart B

FCC ID: OWI-KW5813H

Test conclusion: PASS

Test Date: Apr 14, 2014 ~ May 5, 2014

Date of Issue: May 5, 2014

NOTE: This test report can be duplicated completely for the legal use with the approval of the applicant; it shall not be reproduced except in full, without the written approval of Shenzhen BALUN Technology Co., Ltd. BALUN Laboratory. Any objections should be raised within thirty days from the date of issue. To validate the report, please visit BALUN website.

Revision History

Version	Issue Date	Revisions
<u>Rev. 01</u>	<u>Apr 25, 2014</u>	<u>Initial Issue</u>
<u>Rev. 02</u>	<u>May 1, 2014</u>	<u>The Second Issue</u>
<u>Rev. 03</u>	<u>May 5, 2014</u>	<u>The Third Issue</u>

TABLE OF CONTENTS

1	GENERAL INFORMATION	4
1.1	Identification of the Testing Laboratory	4
1.2	Identification of the Responsible Testing Location	4
1.3	Test Environment Condition	4
1.4	Announce	4
2	PRODUCT INFORMATION	6
2.1	Applicant	6
2.2	Manufacturer	6
2.3	General Description for Equipment under Test (EUT)	6
2.4	Ancillary Equipment	7
3	SUMMARY OF TEST RESULTS	8
3.1	Test Standards	8
3.2	Verdict	8
3.3	Test Uncertainty	8
4	GENERAL TEST CONFIGURATIONS	9
4.1	Test Environments	9
4.2	Test Equipment List	9
4.3	Test Enclosure list	10
4.4	Test Configurations	10
4.5	Test Setups	12
4.6	Test Conditions	14
5	TEST ITEMS	15
5.1	Emission Tests	15
ANNEX A	TEST RESULTS	17
A.1	Radiated Emission	17
A.2	Conducted Emission	24

ANNEX B	TEST SETUP PHOTOS	28
B.1	Radiated Field Strength Measurement	28
B.2	Conducted Emission	34
ANNEX C	EUT PHOTOS	36
C.1	Appearance of the EUT.....	36
C.2	Inside of the EUT	44

1 GENERAL INFORMATION

1.1 Identification of the Testing Laboratory

Company Name	Shenzhen BALUN Technology Co., Ltd.
Address	Block B, 1st FL, Baisha Science and Technology Park, Shahe Xi Road, Nanshan District, Shenzhen, Guangdong Province, P. R. China
Phone Number	+86 755 6683 3402
Fax Number	+86 755 6182 4271

1.2 Identification of the Responsible Testing Location

Test Location	Shenzhen BALUN Technology Co., Ltd.
Address	Block B, 1st FL, Baisha Science and Technology Park, Shahe Xi Road, Nanshan District, Shenzhen, Guangdong Province, P. R. China
Accreditation Certificate	<p>The laboratory has been listed by Industry Canada to perform electromagnetic emission measurements. The recognition numbers of test site are 11524A-1.</p> <p>The laboratory has been listed by US Federal Communications Commission to perform electromagnetic emission measurements. The recognition numbers of test site are 832625.</p> <p>The laboratory has met the requirements of the IAS Accreditation Criteria for Testing Laboratories (AC89), has demonstrated compliance with ISO/IEC Standard 17025:2005. The accreditation certificate number is TL-588.</p> <p>The laboratory is a testing organization accredited by China National Accreditation Service for Conformity Assessment (CNAS) according to ISO/IEC 17025. The accreditation certificate number is L6791.</p>
Description	All measurement facilities used to collect the measurement data are located at Block B, FL 1, Baisha Science and Technology Park, Shahe Xi Road, Nanshan District, Shenzhen, Guangdong Province, P. R. China 518055

1.3 Test Environment Condition

Ambient Temperature	15 to 35°C
Ambient Relative Humidity	30 to 60%
Ambient Pressure	86 to 106kPa

1.4 Announce

- (1) The test report is invalid if not marked with the signatures of the persons responsible for preparing and approving the test report.
- (2) The test report is invalid if there is any evidence and/or falsification.

- (3) The results documented in this report apply only to the tested sample, under the conditions and modes of operation as described herein.
- (4) This document may not be altered or revised in any way unless done so by BALUN and all revisions are duly noted in the revisions section.
- (5) Content of the test report, in part or in full, cannot be used for publicity and/or promotional purposes without prior written approval from the laboratory.

2 PRODUCT INFORMATION

2.1 Applicant

Applicant	Shenzhen Kasda Digital Technology Co., LTD
Address	B-31, Tanglang Industry Park, Xili, Nanshan District, Shenzhen, China

2.2 Manufacturer

Manufacturer	Shenzhen Kasda Digital Technology Co., LTD
Address	B-31, Tanglang Industry Park, Xili, Nanshan District, Shenzhen, China

2.3 General Description for Equipment under Test (EUT)

EUT Type	4 Port Wireless DSL Router
Model under test	KW5813H
Series Model Name	KW5813H, KW5813, NG12AO, NG12AH
Description of Model name differentiation	The model KW5813H and NG12AO support USB function, share the identical schematics with KW5813H, so these two models named differently due to different clients. As to KW5813 and NG12AH, are not support USB function, other functions and schematics are same as model KW5813H.
Hardware Version	V1.3
Software Version	N/A
Network and Wireless connectivity	WIFI 802.11b, 802.11g and 802.11n (HT20/40)
About the Product	The EUT is the 4 Port Wireless DSL Router, it contains WIFI Module operating at 2.4GHz ISM band which supports 802.11b, 802.11g and 802.11n (HT20/40)

2.4 Ancillary Equipment

Ancillary Equipment 1	AC Adapter	
	Brand Name	DVE
	Model No	DSA-12PFA-09 FUS 120100
	Serial No	N/A
	Rated Input	~ 100-240V, 500mA, 50/60Hz
	Rated Output	≐12V, 1000mA
Ancillary Equipment 2	AC Adapter	
	Brand Name	DVE
	Model No	DSA-12CA-12 120100
	Serial No	(n.a. marked #1 by test site)
	Rated Input	~ 100-240V, 300mA, 50/60Hz
	Rated Output	≐12V, 1000mA
Ancillary Equipment 3	Network Cable	
Ancillary Equipment 4	Telephone Wire	
Ancillary Equipment 5	Splitter	

3 SUMMARY OF TEST RESULTS

3.1 Test Standards

No.	Identity	Document Title
1	FCC 47 CFR Part 15 Subpart B (10-1-09 Edition)	Radio Frequency Devices

3.2 Verdict

No.	Description	FCC Rule	Test Verdict	Result
1	Radiated Emission	15.107	PASS	Annex A .1
2	Conducted Emission, AC Ports	15.109	PASS	Annex A .2

Note: The tests were performed according to the method of measurements prescribed in ANSI C63.4 2009.

3.3 Test Uncertainty

The following measurement uncertainty levels have been estimated for tests performed on the EUT as specified in CISPR 16-4-2. This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.

Measurement	Value
Conducted emissions (9KHz-30MHz)	1.12dB
Radiated emissions (30MHz-1GHz)	2.11dB
Radiated emissions (1GHz-18GHz)	3.31dB

4 GENERAL TEST CONFIGURATIONS

4.1 Test Environments

Environment Parameter	Selected Values During Tests		
	Temperature	Voltage	Relative Humidity
Normal Temperature, Normal Voltage (NTNV)	23°C~25°C	AC 110V/60Hz	50%-55%

4.2 Test Equipment List

Radiated Emission Test						
Description	Manufacturer	Model	Serial No.	Cal. Date	Cal. Due	Use
EMI Receiver	ROHDE&SCHWARZ	ESRP	101036	2013.06.04	2014.06.03	<input checked="" type="checkbox"/>
Test Antenna- Loop(9kHz- 30MHz)	SCHWARZBECK	FMZB 1519	1519-037	2013.07.02	2014.07.01	<input checked="" type="checkbox"/>
Test Antenna- Bi-Log(30MHz -3GHz)	SCHWARZBECK	VULB 9163	9163-624	2013.07.03	2014.07.02	<input checked="" type="checkbox"/>
Test Antenna- Horn(1- 18GHz)	SCHWARZBECK	BBHA 9120D	9120D-1148	2013.07.02	2014.07.01	<input checked="" type="checkbox"/>
Test Antenna- Horn(15- 26.5GHz)	SCHWARZBECK	BBHA 9170	9170-305	2013.07.02	2014.07.01	<input type="checkbox"/>
Anechoic Chamber	RAINFORD	9m*6m*6 m	N/A	2013.10.07	2014.10.06	<input checked="" type="checkbox"/>

Conducted disturbance Test						
Description	Manufacturer	Model	Serial No.	Cal. Date	Cal. Due	Use
EMI Receiver	ROHDE&SCHWA RZ	ESRP	101036	2013.06.04	2014.06.03	<input checked="" type="checkbox"/>
LISN	SCHWARZBECK	NSLK 8127	8127-687	2013.06.04	2014.06.03	<input checked="" type="checkbox"/>
AMN	SCHWARZBECK	NNBM812 4	8124-509	2013.06.29	2014.06.28	<input type="checkbox"/>
AMN	SCHWARZBECK	NNBM812 4	8124-510	2013.06.29	2014.06.28	<input type="checkbox"/>
ISN	TESEQ	ISN T800	34449	2013.06.29	2014.06.28	<input type="checkbox"/>

4.3 Test Enclosure list

Description	Manufacturer	Model	Serial No.	Length	Description	Use
PC	N/A	N/A	N/A	N/A	Special Handled	<input checked="" type="checkbox"/>
Printer	HP	DESKJET 1000	N/A	N/A	N/A	<input checked="" type="checkbox"/>
Keyboard	logitech	Y-BP62a	N/A	N/A	N/A	<input checked="" type="checkbox"/>
Mouse	logitech	M100	N/A	N/A	N/A	<input checked="" type="checkbox"/>
USB disk	Kingston	N/A	N/A	N/A	N/A	<input type="checkbox"/>
TF Card	Kingston	N/A	N/A	N/A	N/A	<input type="checkbox"/>
VGA Cable	N/A	N/A	N/A	1.5m	Shielded with core	<input type="checkbox"/>
HDMI Cable	N/A	N/A	N/A	1.5m	Shielded with core	<input type="checkbox"/>
DVI Cable	N/A	N/A	N/A	1.5m	Shielded with core	<input type="checkbox"/>
Coaxial video cable	N/A	N/A	N/A	2m	Shielded with core	<input type="checkbox"/>
Phone	BBK	HCD007TSD	N/A	N/A	N/A	<input checked="" type="checkbox"/>
laptop	LENOVO	K29	N/A	N/A	N/A	<input checked="" type="checkbox"/>

4.4 Test Configurations

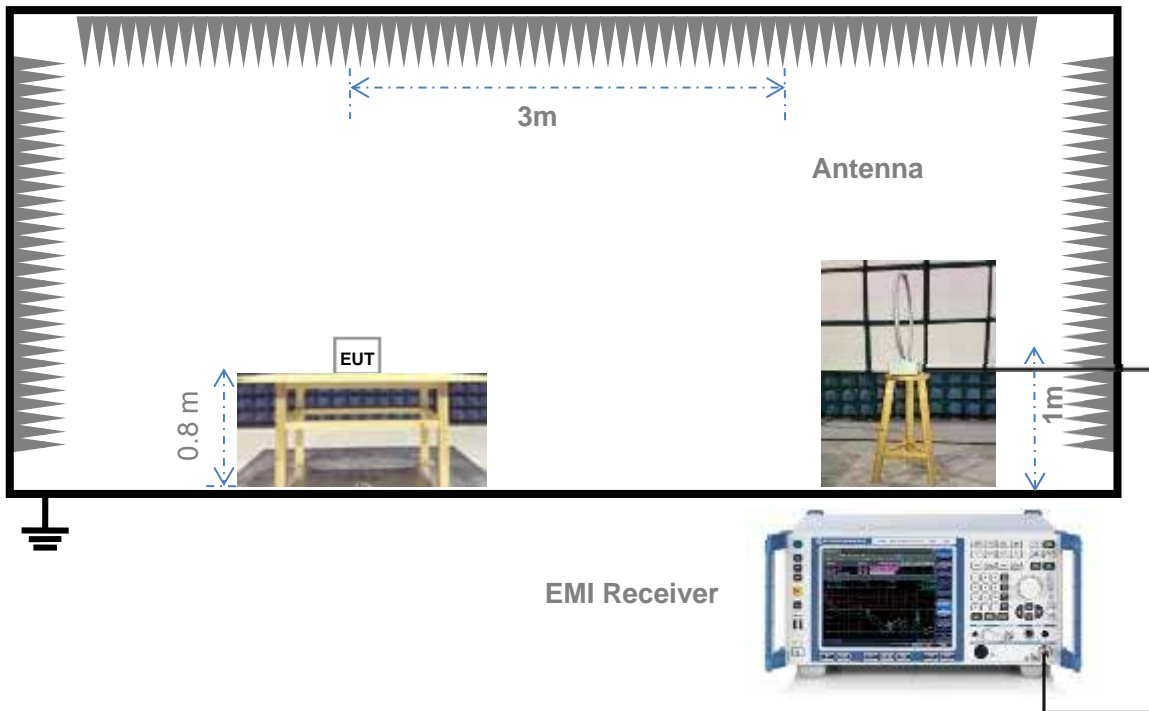
Test Configurations (TC) No.	Description
TC01	<p><u>The Normal Test mode</u></p> <p>The EUT configuration of the emission tests is EUT + PC + Phone+ Adapter1. During the measurement of working mode. The EUT was powered by the Adapter. Using a telephone line to connect the DSL port of ROUTER to the MODEM port of the splitter, and using a other telephone line connect telephone to the PHONE port of the splitter, then connect the wall phone jack to the LINE port of the splitter. The splitter comes with three connectors as below: LINE: Connects to a wall phone jack (RJ-11 jack).MODEM: Connects to the DSL jack of ROUTER.PHONE: Connects to a telephone set. Using an Ethernet Cable to connect the LAN port of the ROUTER to a PC with network card installed. All ports were working normally And connect and transfer data to another via a wireless laptop with it.</p>
TC02	<p><u>The Normal Test mode</u></p> <p>The EUT configuration of the emission tests is EUT + PC + Phone+ Adapter2. During the measurement of working mode. The EUT was powered by the Adapter. Using a telephone line to connect the DSL port of ROUTER to the MODEM port of the splitter, and using a other telephone line connect telephone to the PHONE port of the splitter, then connect the wall phone jack to the LINE port of the splitter. The splitter comes with three connectors as below: LINE: Connects to a wall phone jack (RJ-11 jack).MODEM: Connects to the DSL jack of ROUTER.PHONE: Connects to a telephone set. Using an Ethernet Cable to connect the LAN port of the ROUTER</p>

	to a PC with network card installed. All ports were working normally And connect and transfer data to another via a wireless laptop with it.
TC03	<u>The Idle Test mode</u> The EUT configuration of the emission tests is EUT + PC + Phone+ Adapter1. During the measurement of idle mode, The EUT was powered by the Adapter only.
TC04	<u>The Idle Test mode</u> The EUT configuration of the emission tests is EUT + PC + Phone+ Adapter2. During the measurement of idle mode, The EUT was powered by the Adapter only.

Note: The EUT have two adapter. They are all tested in this report. Based on client request, all normal using modes of the normal function were tested but only the worst test data of the worst mode is reported by this report.

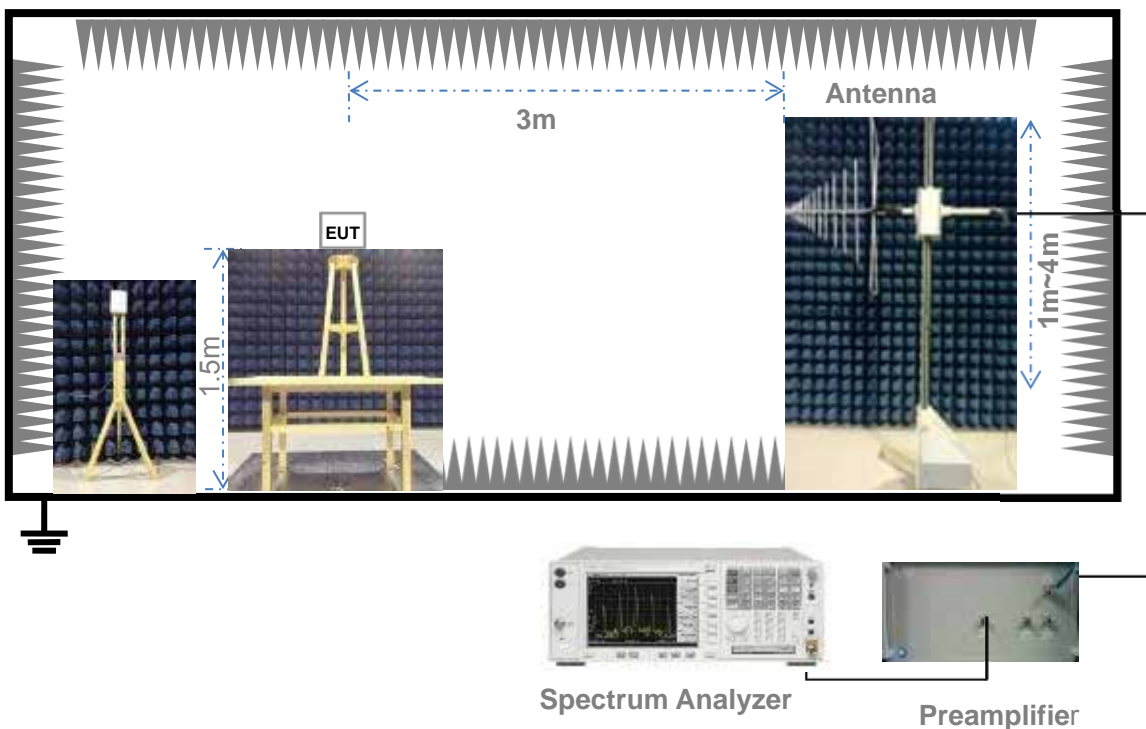
4.5 Test Setups

Test Setup 1



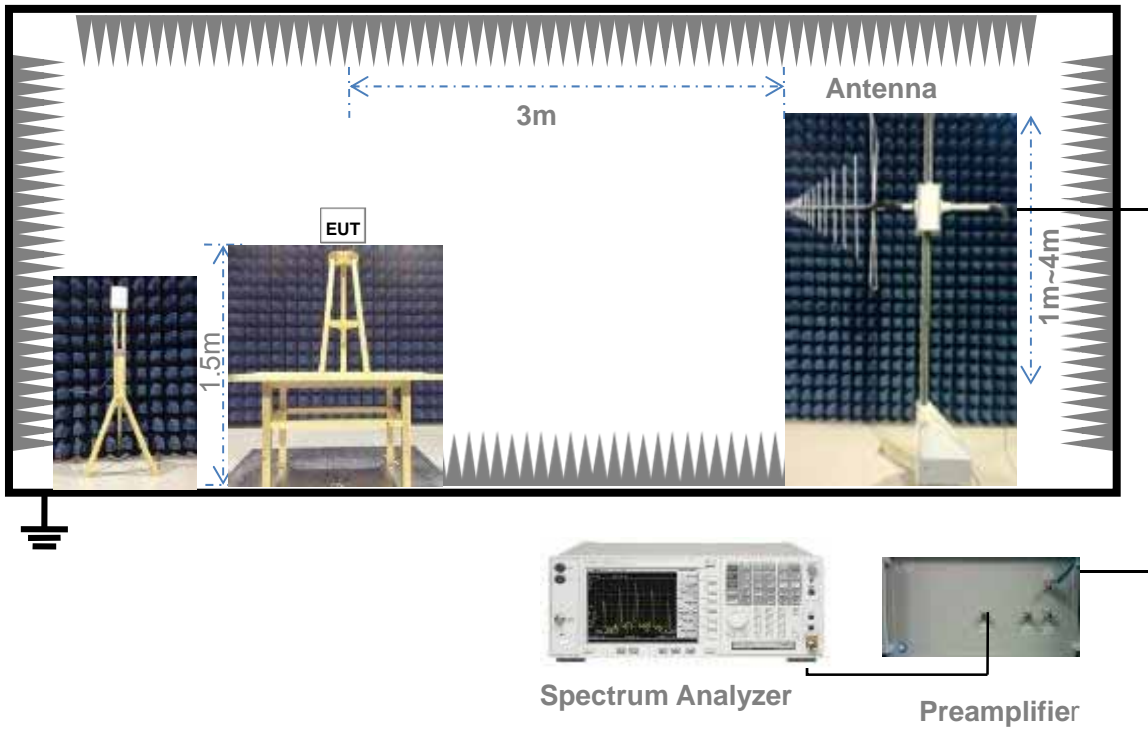
For Radiated Emission Test (Below 30MHz)

Test Setup 2



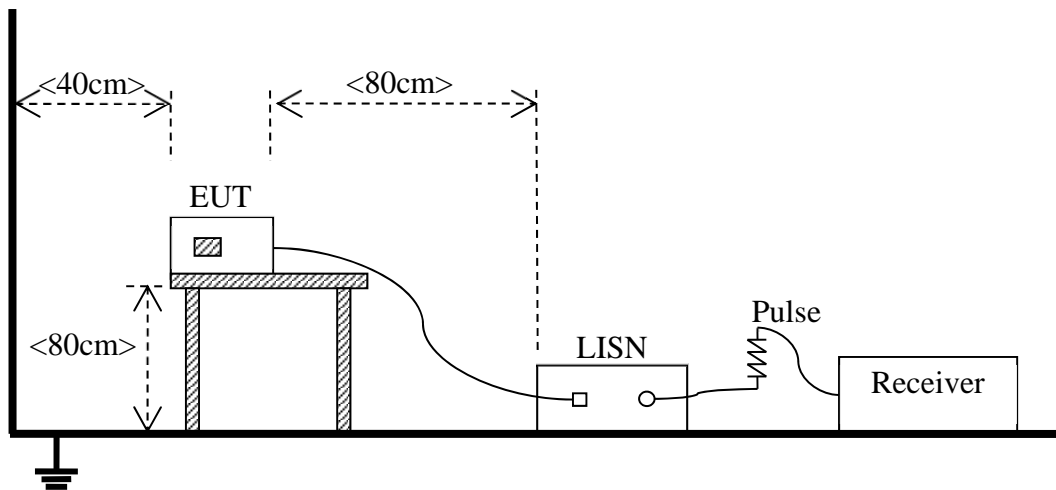
(For Radiated Emission Test (30MHz-1GHz))

Test Setup 3



(For Radiated Emission Test (above 1GHz))

Test Setup 4



(For Conducted Emission, AC Ports Test)

4.6 Test Conditions

Test Case	Test Conditions	
Radiated Emission	Test Env.	NTNV
	Test Setup	Test Setup 1&3
	Test Configuration	TC01~TC02
Conducted Emission, AC Ports	Test Env.	NTNV
	Test Setup	Test Setup 4
	Test Configuration	TC01~TC02

5 TEST ITEMS

5.1 Emission Tests

5.1.1 Radiated Emission

5.1.1.1 Limit

Frequency (MHz)	Field Strength ($\mu\text{V/m}$)	Measurement Distance (m)
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

NOTE:

- 1) Field Strength ($\text{dB}\mu\text{V/m}$) = $20 \cdot \log[\text{Field Strength } (\mu\text{V/m})]$.
- 2) In the emission tables above, the tighter limit applies at the band edges.

5.1.1.2 Test Procedure

An initial pre-scan was performed in the chamber using the EMI Receiver in peak detection mode. Quasi-peak measurements were conducted based on the peak sweep graph. The EUT was measured by Bi-Log antenna with 2 orthogonal polarities.

5.1.2 Conducted Emission

5.1.2.1 Test Limit

Frequency range (MHz)	Conducted Limit (dB μ V)	
	Quasi-peak	Average
0.15 - 0.50	66 to 56	56 to 46
0.50 - 5	56	46
5 - 30	60	50

NOTE:

- 1) The limit is applicable to Class B ITE.
- 2) The lower limit shall apply at the band edges.
- 3) The limit decreases linearly with the logarithm of the frequency in the range 0.15 - 0.50MHz.

5.1.2.2 Test Procedure

The EUT is connected to the power mains through a LISN which provides 50 Ω /50 μ H of coupling impedance for the measuring instrument. The test frequency range is from 150kHz to 30MHz. The maximum conducted interference is searched using Peak (PK), Quasi-peak (QP) and Average (AV) detectors; the emission levels that are more than the AV and QP limits, and that have narrow margins from the AV and QP limits will be re-measured with AV and QP detectors. Tests for both L phase and N phase lines of the power mains connected to the EUT are performed.

ANNEX A TEST RESULTS

A.1 Radiated Emission

Test Data (The Adapter DSA-12PFA-09 FUS 120100)

NO.	Fre. (MHz)	PK (dB μ V/ m)	QP (dB μ V /m)	AV (dB μ V /m)	Limit-PK (dB μ V/m)	Limit-QP (dB μ V/m)	Limit-AV (dB μ V/m)	Antenna	Verdict
1	0.069	25.75	--	--	--	110.8	--	N/A	PASS
2	0.166	26.81	--	--	--	103.2	--	N/A	PASS
3	0.339	19.90	--	--	--	97.0	--	N/A	PASS
4	86.003	36.53	--	--	--	40.0	--	Vertical	PASS
5	90.367	37.50	--	--	--	43.5	--	Vertical	PASS
6	158.978	37.37	--	--	--	43.5	--	Vertical	PASS
7	218.133	35.52	--	--	--	46.0	--	Vertical	PASS
8	293.774	38.35	--	--	--	46.0	--	Vertical	PASS
9	333.292	39.03	--	--	--	46.0	--	Vertical	PASS
10	2333.167	46.94	--	--	74.0	--	54.0	Vertical	PASS
11	2411.647	100.53	--	--	74.0	--	54.0	Vertical	N/A ^{NOTE}
12	2571.607	50.44	--	44.32	74.0	--	54.0	Vertical	PASS
13	3229.443	45.32	--	--	74.0	--	54.0	Vertical	PASS
14	4999.750	49.90	--	--	74.0	--	54.0	Vertical	PASS
15	5932.517	46.98	--	--	74.0	--	54.0	Vertical	PASS
16	75.094	35.58	--	--	--	40.0	--	Horizontal	PASS
17	143.219	37.42	--	--	--	43.5	--	Horizontal	PASS
18	250.620	36.38	--	--	--	46.0	--	Horizontal	PASS
19	289.653	43.63	--	--	--	46.0	--	Horizontal	PASS
20	333.292	38.71	--	--	--	46.0	--	Horizontal	PASS
21	639.978	36.09	--	--	--	46.0	--	Horizontal	PASS
22	2265.684	54.28	--	45.95	74.0	--	54.0	Horizontal	PASS
23	2426.143	107.37	--	--	74.0	--	54.0	Horizontal	N/A ^{NOTE}
24	2501.125	54.40	--	44.58	74.0	--	54.0	Horizontal	PASS
25	2546.113	52.05	--	42.62	74.0	--	54.0	Horizontal	PASS
26	2585.604	60.09	--	47.65	74.0	--	54.0	Horizontal	PASS
27	4852.037	60.86	--	49.73	74.0	--	54.0	Horizontal	PASS

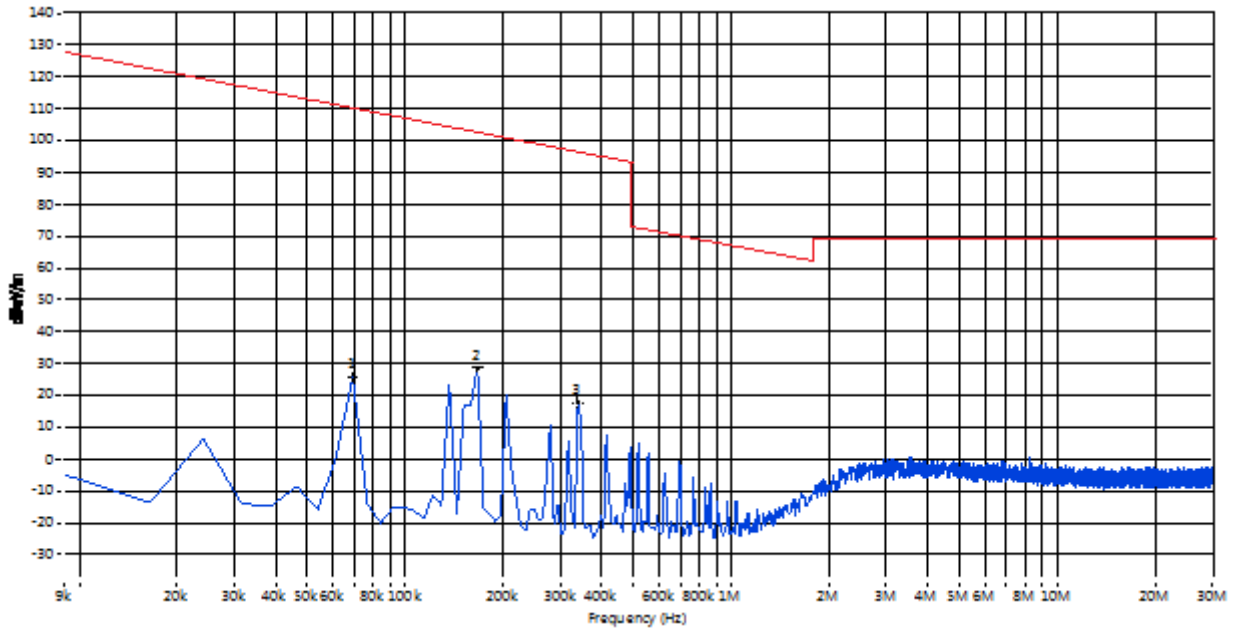
Test Data (The Adapter DSA-12CA-12 120100)

NO.	Fre. (MHz)	PK (dB μ V/m)	QP (dB μ V/m)	AV (dB μ V/m)	Limit-PK (dB μ V/m)	Limit-QP (dB μ V/m)	Limit-AV (dB μ V/m)	Antenna	Verdict
1	0.069	29.18	--	--	--	110.8	--	N/A	PASS
2	0.166	27.12	--	--	--	103.2	--	N/A	PASS
3	0.339	17.61	--	--	--	97.0	--	N/A	PASS
4	86.003	36.76	--	--	--	40.0	--	Vertical	PASS
5	90.367	37.32	--	--	--	43.5	--	Vertical	PASS
6	143.219	34.91	--	--	--	43.5	--	Vertical	PASS
7	158.978	37.23	--	--	--	43.5	--	Vertical	PASS
8	333.292	38.65	--	--	--	46.0	--	Vertical	PASS
9	639.978	36.33	--	--	--	46.0	--	Vertical	PASS
10	2265.684	56.80	--	--	74.0	--	54.0	Vertical	PASS
11	2426.143	109.40	--	--	74.0	--	54.0	Vertical	N/A ^{NOTE}
12	2491.627	60.92	--	45.85	74.0	--	54.0	Vertical	PASS
13	2546.113	51.60	--	--	74.0	--	54.0	Vertical	PASS
14	2586.103	65.36	--	49.12	74.0	--	54.0	Vertical	PASS
15	4852.037	57.34	--	41.88	74.0	--	54.0	Vertical	PASS
16	75.094	35.18	--	--	--	40.0	--	Horizontal	PASS
17	119.218	34.03	--	--	--	43.5	--	Horizontal	PASS
18	142.977	36.82	--	--	--	43.5	--	Horizontal	PASS
19	288.925	42.70	--	--	--	46.0	--	Horizontal	PASS
20	479.968	36.93	--	--	--	46.0	--	Horizontal	PASS
21	639.978	37.59	--	--	--	46.0	--	Horizontal	PASS
22	2266.183	59.52	--	43.91	74.0	--	54.0	Horizontal	PASS
23	2426.143	110.99	--	--	74.0	--	54.0	Horizontal	N/A ^{NOTE}
24	2546.113	64.77	--	48.65	74.0	--	54.0	Horizontal	PASS
25	2586.103	63.92	--	--	74.0	--	54.0	Horizontal	PASS
26	4852.037	62.60	--	50.62	74.0	--	54.0	Horizontal	PASS
27	5949.013	46.69	--	--	74.0	--	54.0	Horizontal	PASS

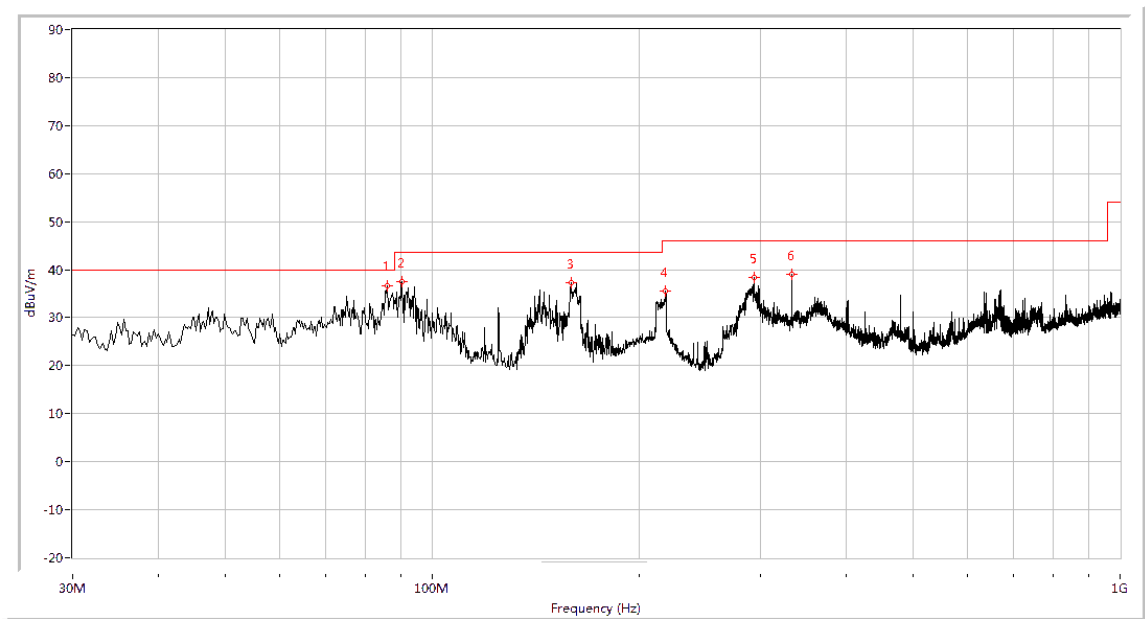
Note: The marked spikes near 2400MHz with circle should be ignored because they are WIFI carrier frequency.

Test Plots

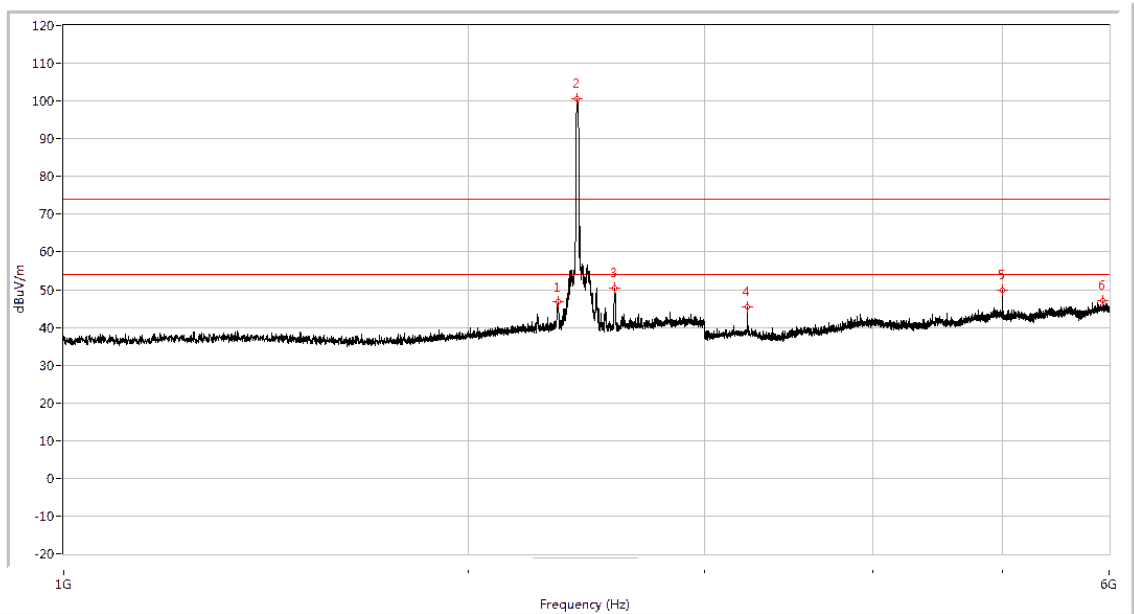
A.1.1 Below 30MHz(The Adapter DSA-12PFA-09 FUS 120100)



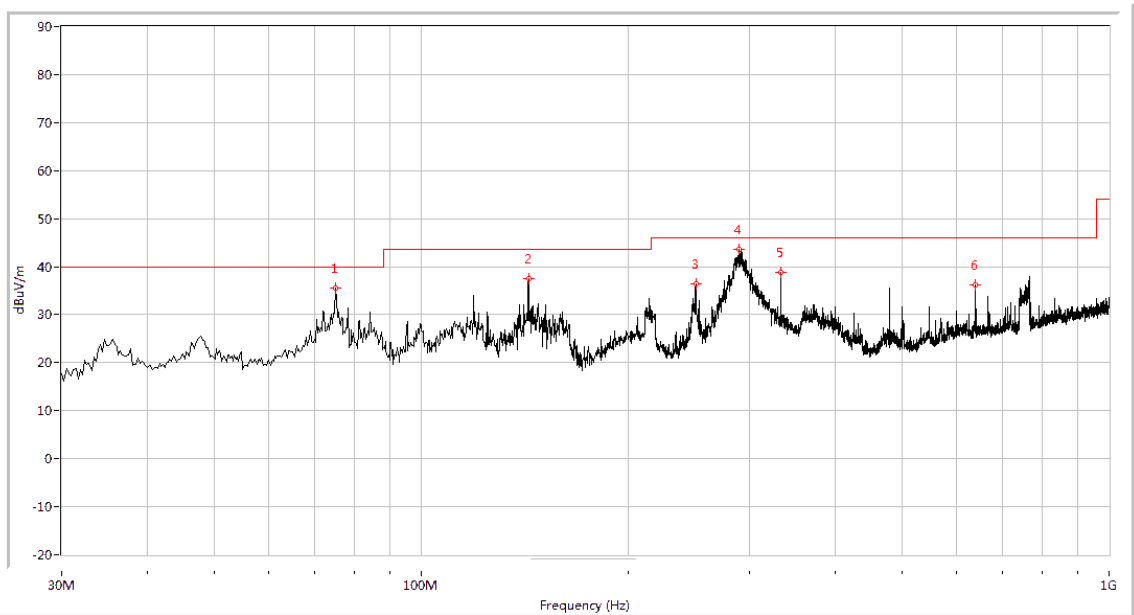
A.1.2 Test Antenna Vertical, 30MHz – 1GHz(The Adapter DSA-12PFA-09 FUS 120100)



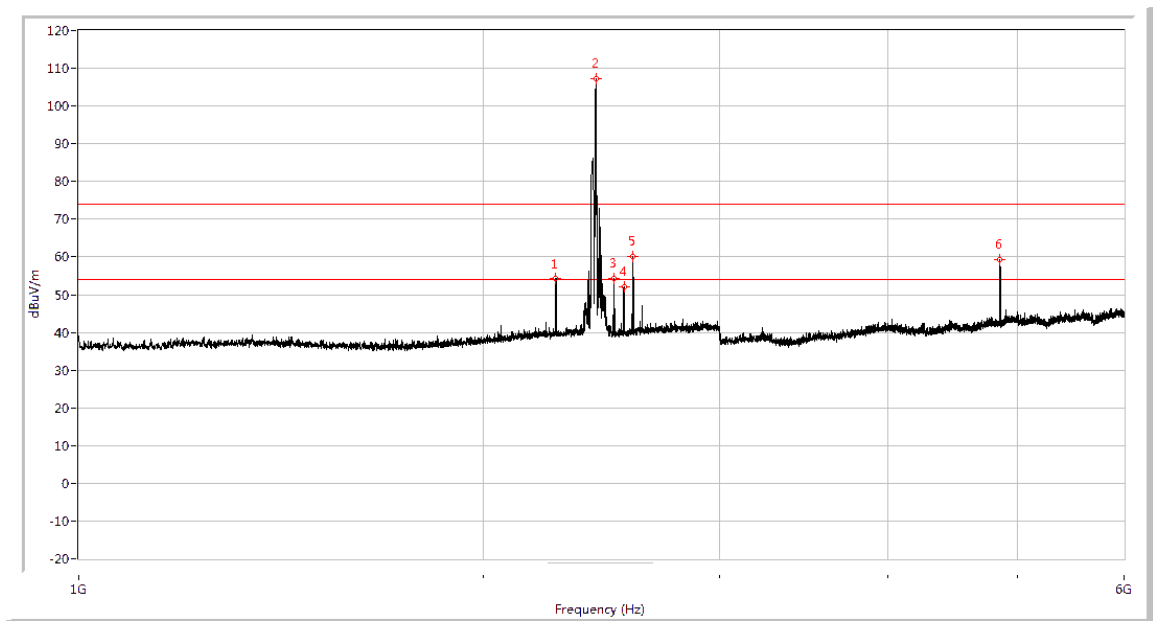
A.1.3 Test Antenna Vertical, 1GHz – 6GHz(The Adapter DSA-12PFA-09 FUS 120100)



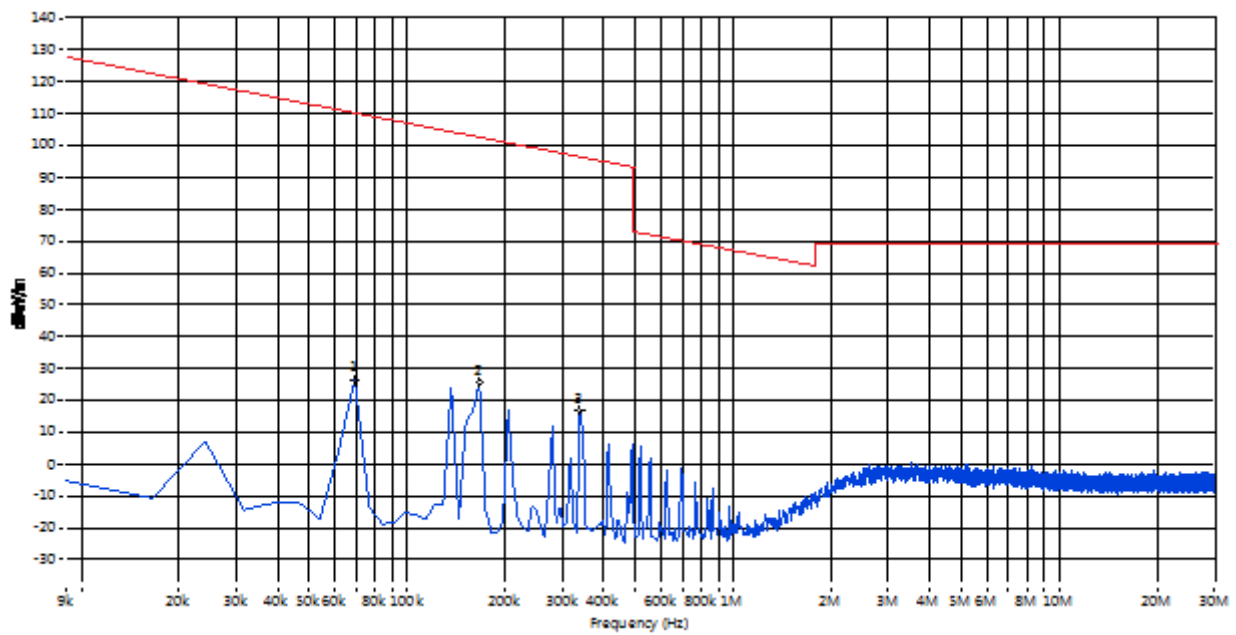
A.1.4 Test Antenna Horizontal, 30MHz – 1GHz(The Adapter DSA-12PFA-09 FUS 120100)



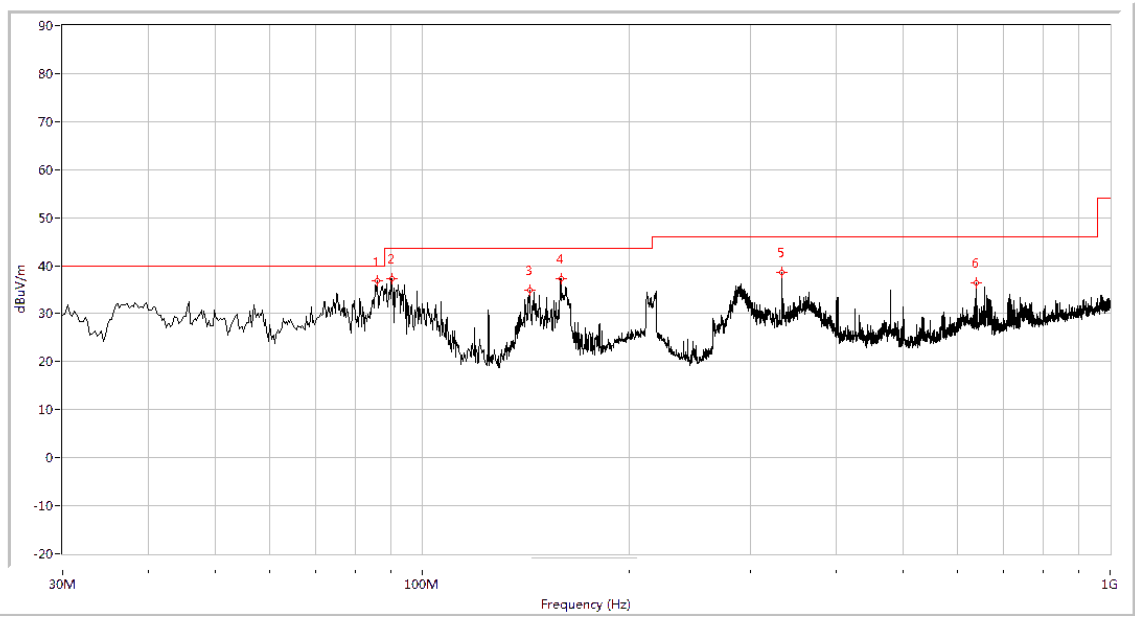
A.1.5 Test Antenna Horizontal, 1GHz – 6GHz(The Adapter DSA-12PFA-09 FUS 120100)



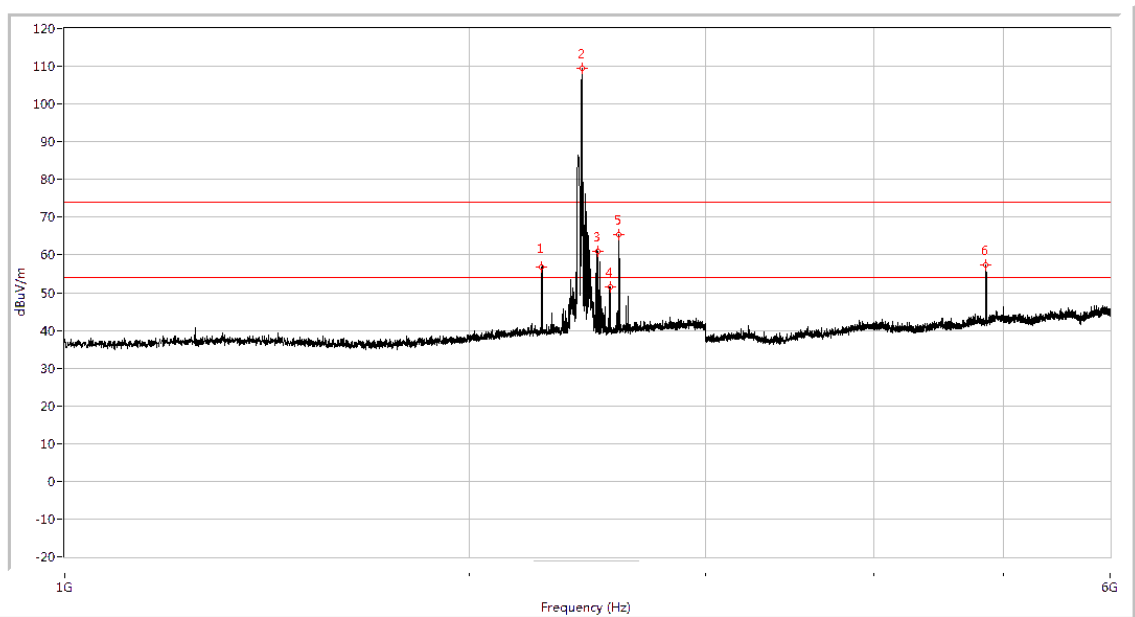
A.1.6 Below 30MHz (The Adapter DSA-12CA-12 120100)



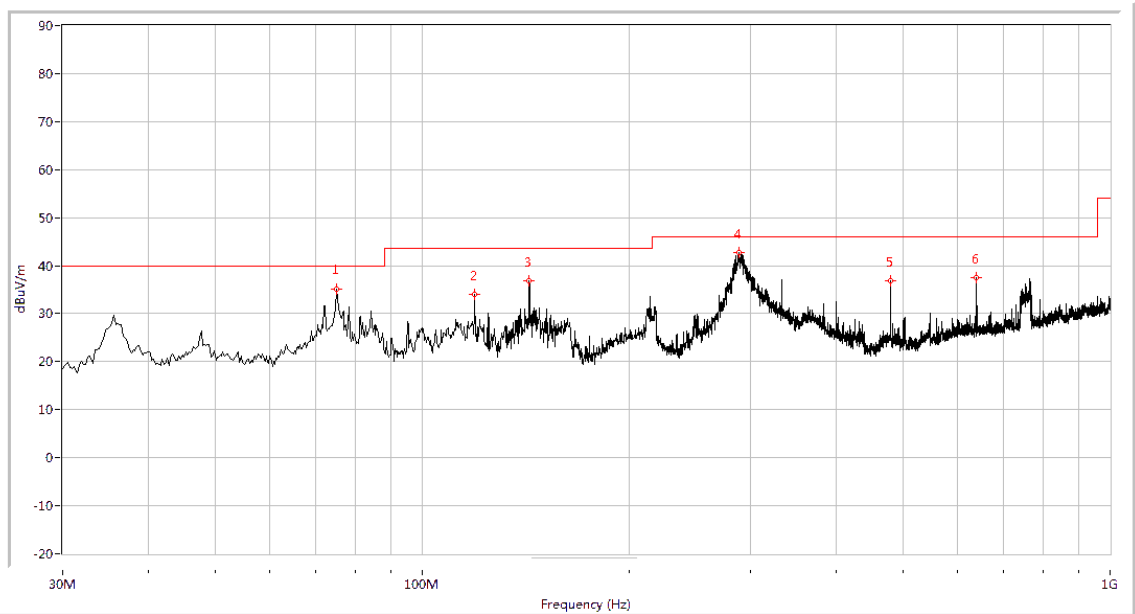
A.1.7 Test Antenna Vertical, 30MHz – 1GHz(The Adapter DSA-12CA-12 120100)



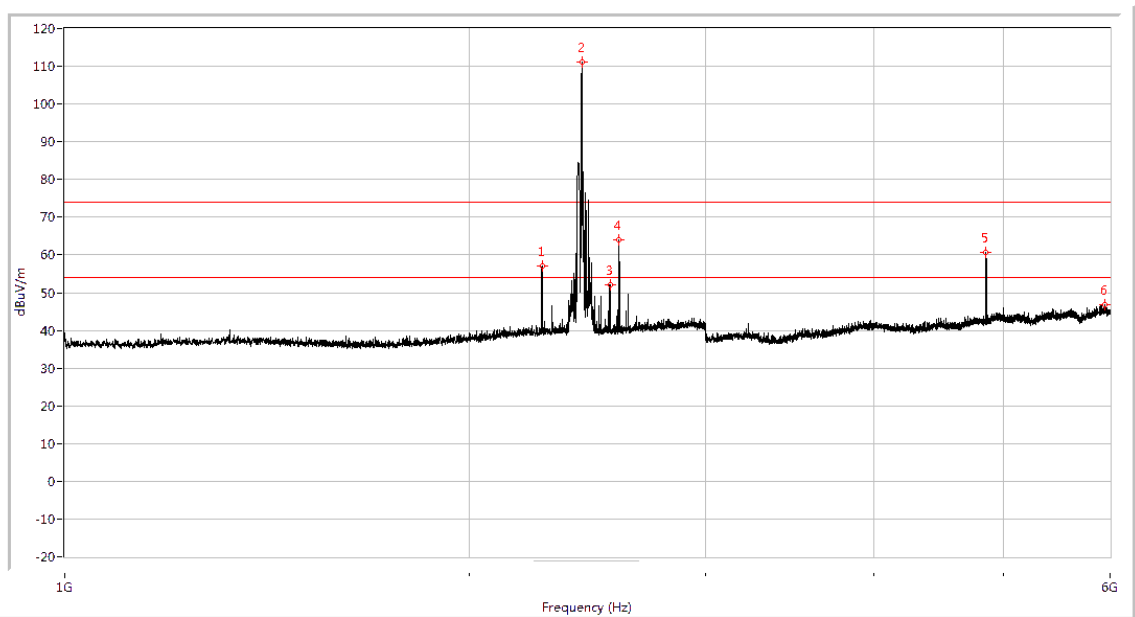
A.1.8 Test Antenna Vertical, 1GHz – 6GHz(The Adapter DSA-12CA-12 120100)



A.1.9 Test Antenna Horizontal, 30MHz – 1GHz(The Adapter DSA-12CA-12 120100)



A.1.10 Test Antenna Horizontal, 1GHz – 6GHz(The Adapter DSA-12CA-12 120100)



A.2 Conducted Emission

Test Data (The Adapter DSA-12PFA-09 FUS 120100)

No.	Frequency (MHz)	Measurement Level (dBuV)	Limit (dBuV)	Margin (dB)	Phase	Detector	Result
1	0.186	56.1	64.97	-8.87	L	QP	PASS
2	0.186	43.15	54.97	-11.82	L	AV	PASS
3	0.230	56.2	63.71	-7.51	L	QP	PASS
4	0.230	44.81	53.71	-8.90	L	AV	PASS
5	1.066	34	46.00	-12.00	L	AV	PASS
6	1.094	34.09	46.00	-11.91	L	AV	PASS
7	1.186	47.24	56.00	-8.76	L	QP	PASS
8	1.514	47.72	56.00	-8.28	L	QP	PASS
9	5.130	41.21	60.00	-18.79	L	QP	PASS
10	5.654	29.86	50.00	-20.14	L	AV	PASS
11	9.154	36.68	60.00	-23.32	L	QP	PASS
12	23.130	29.99	50.00	-20.01	L	AV	PASS
13	0.186	51.33	64.97	-13.64	N	QP	PASS
14	0.226	54.43	63.83	-9.40	N	QP	PASS
15	0.226	45.15	53.83	-8.68	N	AV	PASS
16	0.258	40.9	52.91	-12.01	N	AV	PASS
17	1.106	32.55	46.00	-13.45	N	AV	PASS
18	1.298	31.34	46.00	-14.66	N	AV	PASS
19	1.314	41.93	56.00	-14.07	N	QP	PASS
20	1.378	42.46	56.00	-13.54	N	QP	PASS
21	5.186	29.08	50.00	-20.92	N	AV	PASS
22	5.242	36.91	60.00	-23.09	N	QP	PASS
23	8.482	30.7	60.00	-29.30	N	QP	PASS
24	23.130	29.42	50.00	-20.58	N	AV	PASS

Test Data (The Adapter DSA-12CA-12 120100)

No.	Frequency (MHz)	Measurement Level (dBuV)	Limit (dBuV)	Margin (dB)	Phase	Detector	Result
1	0.150	40.81	66.00	-25.19	L	QP	PASS
2	0.318	37.03	51.20	-14.17	L	AV	PASS
3	0.342	46.24	60.51	-14.27	L	QP	PASS
4	0.342	45.51	50.51	-5.00	L	AV	PASS
5	0.930	32.94	46.00	-13.06	L	AV	PASS
6	3.078	33.37	46.00	-12.63	L	AV	PASS
7	4.758	41.05	56.00	-14.95	L	QP	PASS
8	4.902	40.58	56.00	-15.42	L	QP	PASS
9	5.318	40.55	60.00	-19.45	L	QP	PASS
10	6.522	32.14	50.00	-17.86	L	AV	PASS

No.	Frequency (MHz)	Measurement Level (dBuV)	Limit (dBuV)	Margin (dB)	Phase	Detector	Result
11	6.546	41.16	60.00	-18.84	L	QP	PASS
12	23.130	31.82	50.00	-18.18	L	AV	PASS
13	0.186	36.09	54.97	-18.88	N	AV	PASS
14	0.194	41.25	64.74	-23.49	N	QP	PASS
15	0.334	46.63	60.74	-14.11	N	QP	PASS
16	0.338	45.81	50.63	-4.82	N	AV	PASS
17	0.914	30.95	46.00	-15.05	N	AV	PASS
18	1.434	31.39	46.00	-14.61	N	AV	PASS
19	4.766	39.5	56.00	-16.50	N	QP	PASS
20	4.842	39.33	56.00	-16.67	N	QP	PASS
21	5.274	38.79	60.00	-21.21	N	QP	PASS
22	5.946	30.66	50.00	-19.34	N	AV	PASS
23	6.090	30.94	50.00	-19.06	N	AV	PASS
24	6.126	39.53	60.00	-20.47	N	QP	PASS

Test Plots

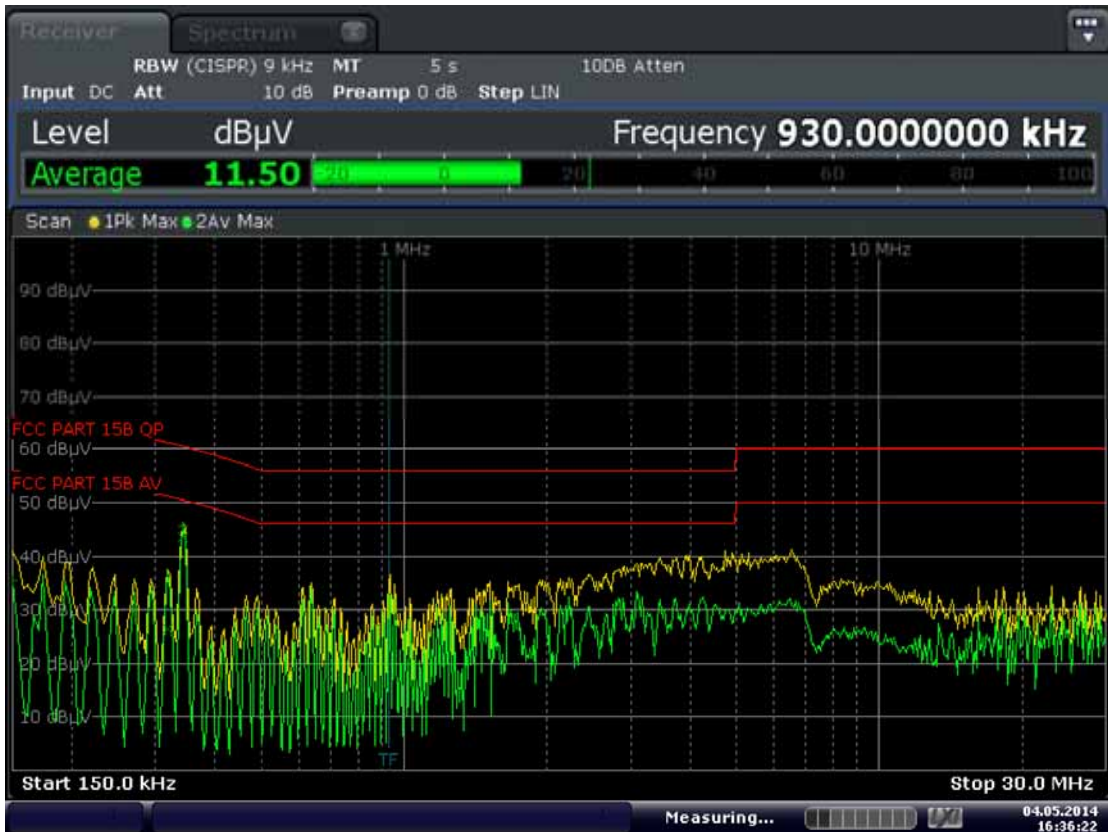
A.2.1 L Phase (The Adapter DSA-12PFA-09 FUS 120100)



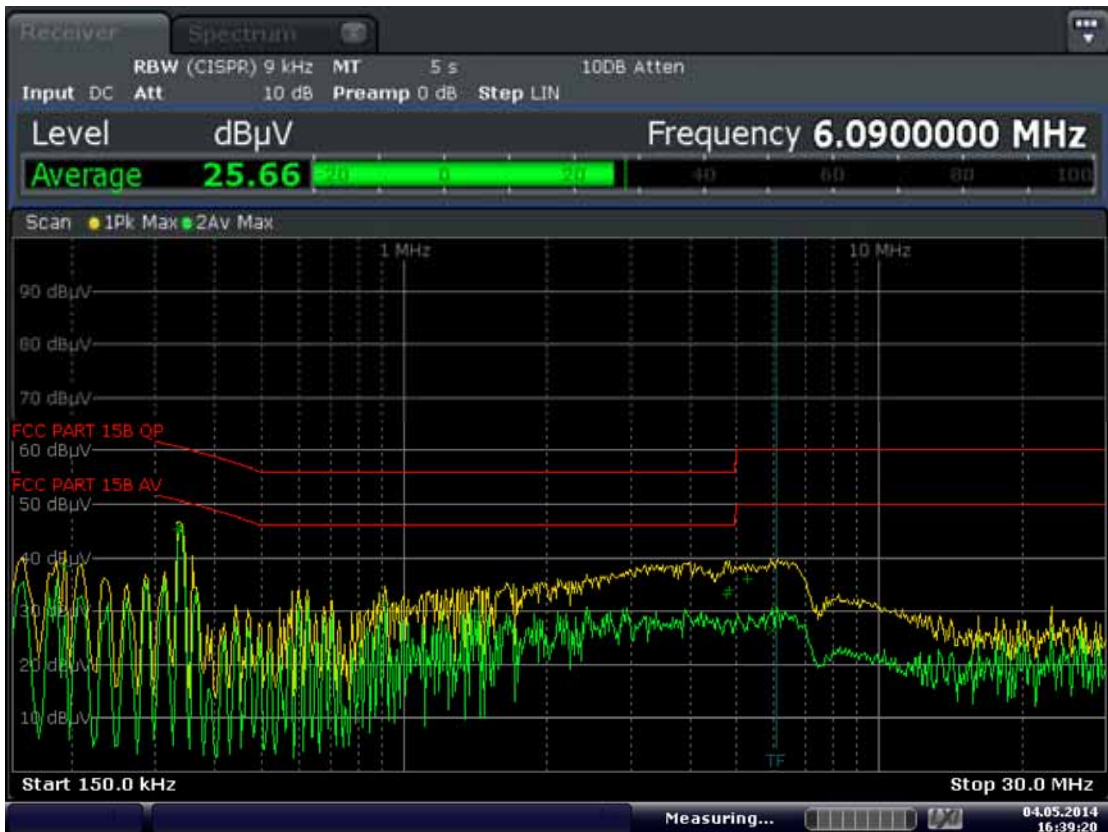
A.2.2 N Phase (The Adapter DSA-12PFA-09 FUS 120100)



A.2.3 L Phase (The Adapter DSA-12CA-12 120100)



A.2.4 N Phase (The Adapter DSA-12CA-12 120100)



ANNEX B TEST SETUP PHOTOS

B.1 Radiated Field Strength Measurement



Below 30MHz (The Adapter DSA-12PFA-09 FUS 120100)



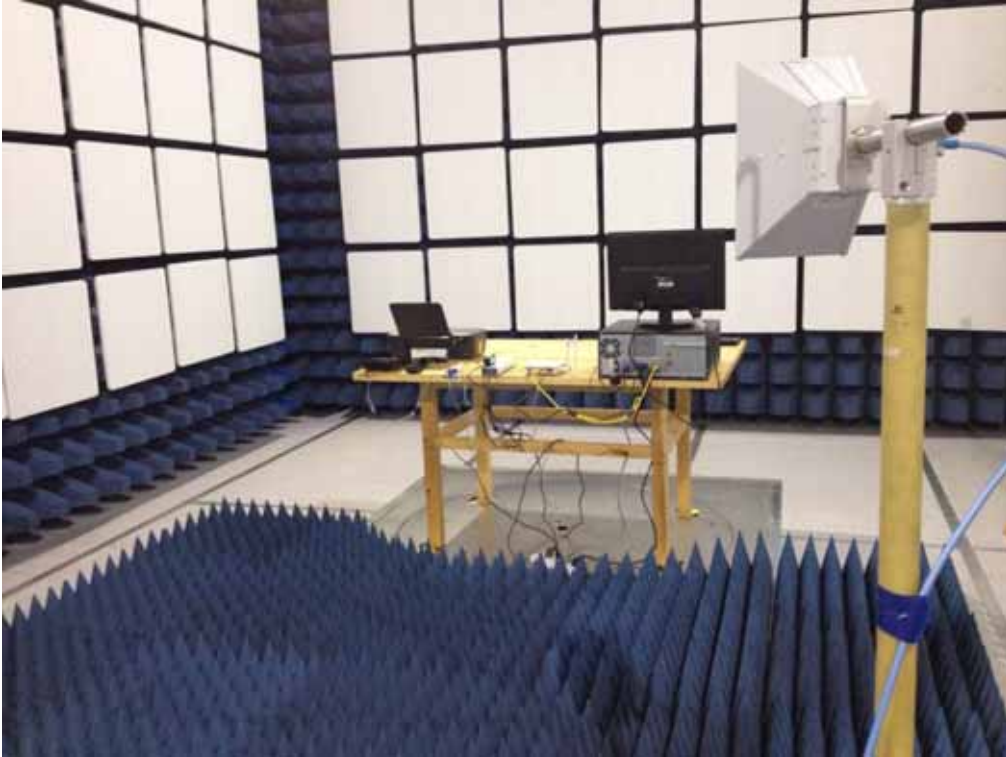
THE FRONT OF THE TEST PHOTO (The Adapter DSA-12PFA-09 FUS 120100)



30MHz-1GHz (The Adapter DSA-12PFA-09 FUS 120100)



THE FRONT OF THE TEST PHOTO (The Adapter DSA-12PFA-09 FUS 120100)



Above 1GHz(The Adapter DSA-12PFA-09 FUS 120100)



THE FRONT OF TEST PHOTO (The Adapter DSA-12PFA-09 FUS 120100)



Below 30MHz (The Adapter DSA-12CA-12 120100)



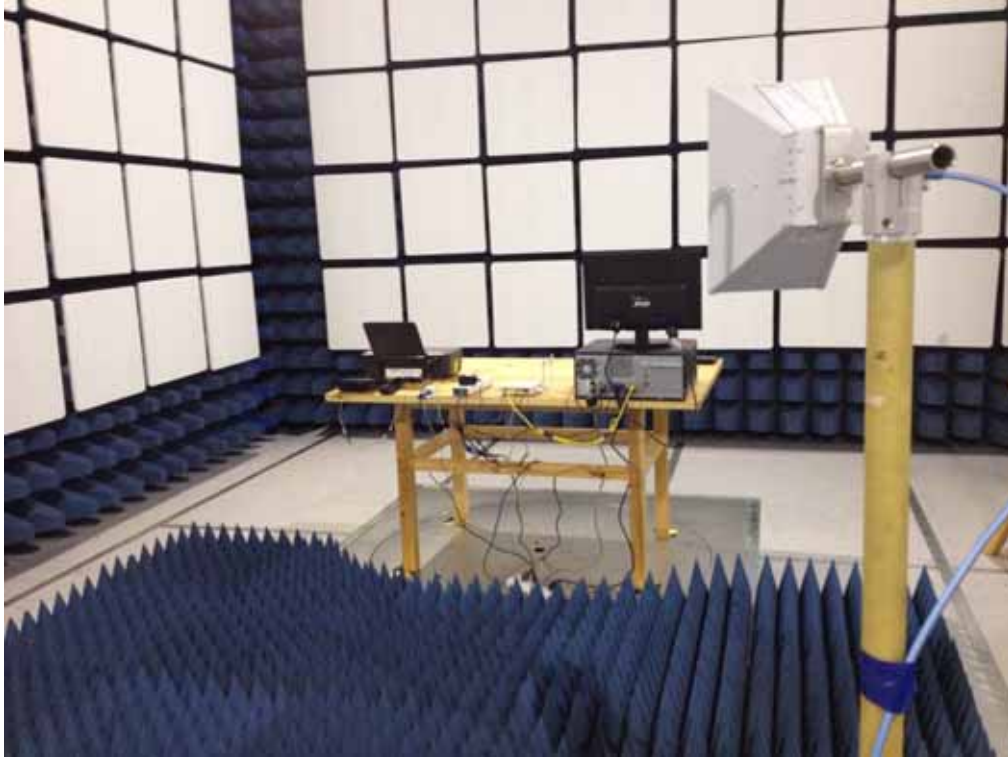
THE FRONT OF THE TEST PHOTO (The Adapter DSA-12CA-12 120100)



30MHz-1GHz (The Adapter DSA-12CA-12 120100)



THE FRONT OF TEST PHOTO (The Adapter DSA-12CA-12 120100)



Above 1GHz (The Adapter DSA-12CA-12 120100)



THE FRONT OF TEST PHOTO (The Adapter DSA-12CA-12 120100)

B.2 Conducted Emission



(The Adapter DSA-12PFA-09 FUS 120100)



THE FRONT OF TEST PHOTO (The Adapter DSA-12PFA-09 FUS 120100)



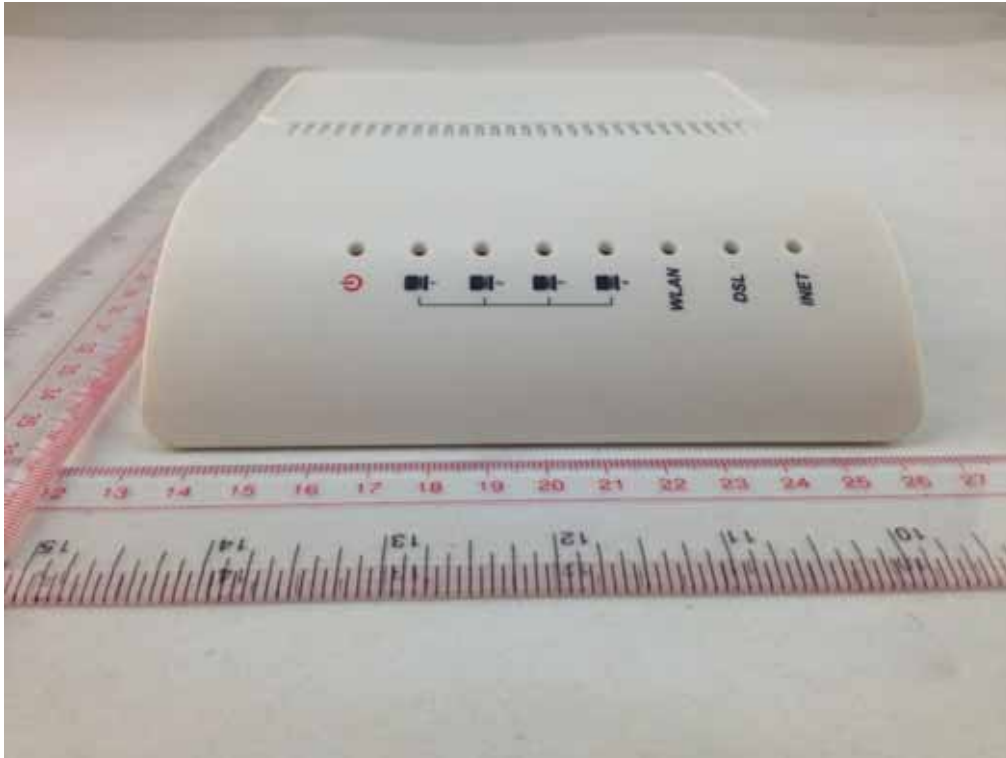
(The Adapter DSA-12CA-12 120100)



THE FRONT OF TEST PHOTO (The Adapter DSA-12PFA-09 FUS 120100)

ANNEX C EUT PHOTOS

C.1 Appearance of the EUT



THE FRONT OF EUT



THE BACK OF EUT



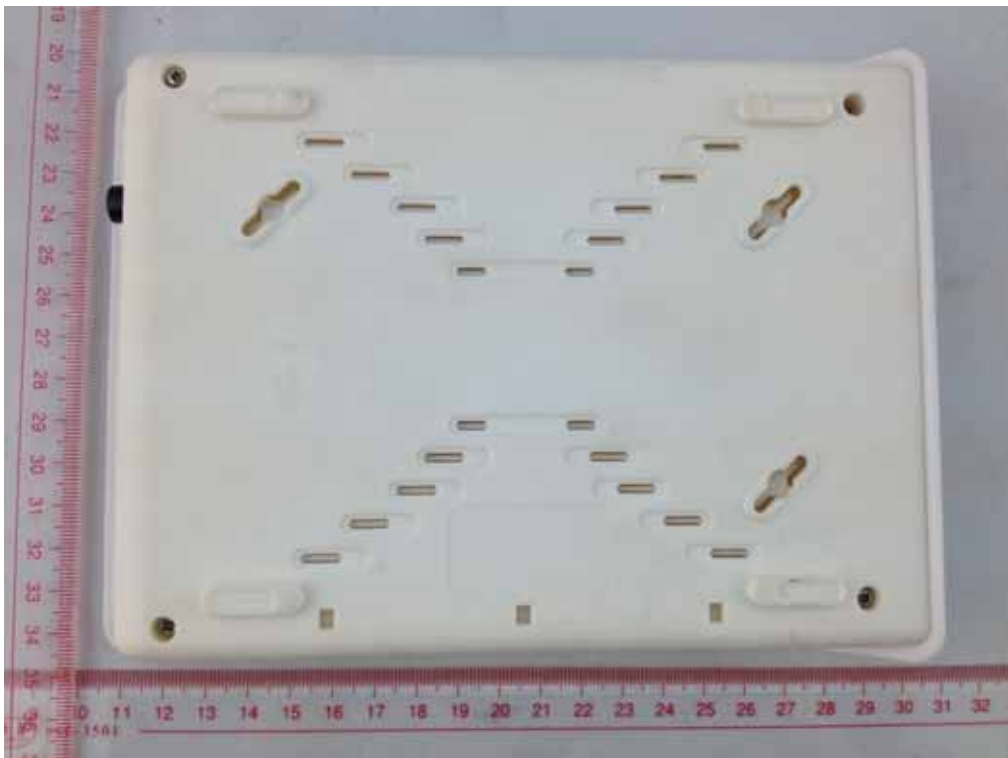
THE LEFT OF EUT



THE RIGHT OF EUT



THE UP OF EUT



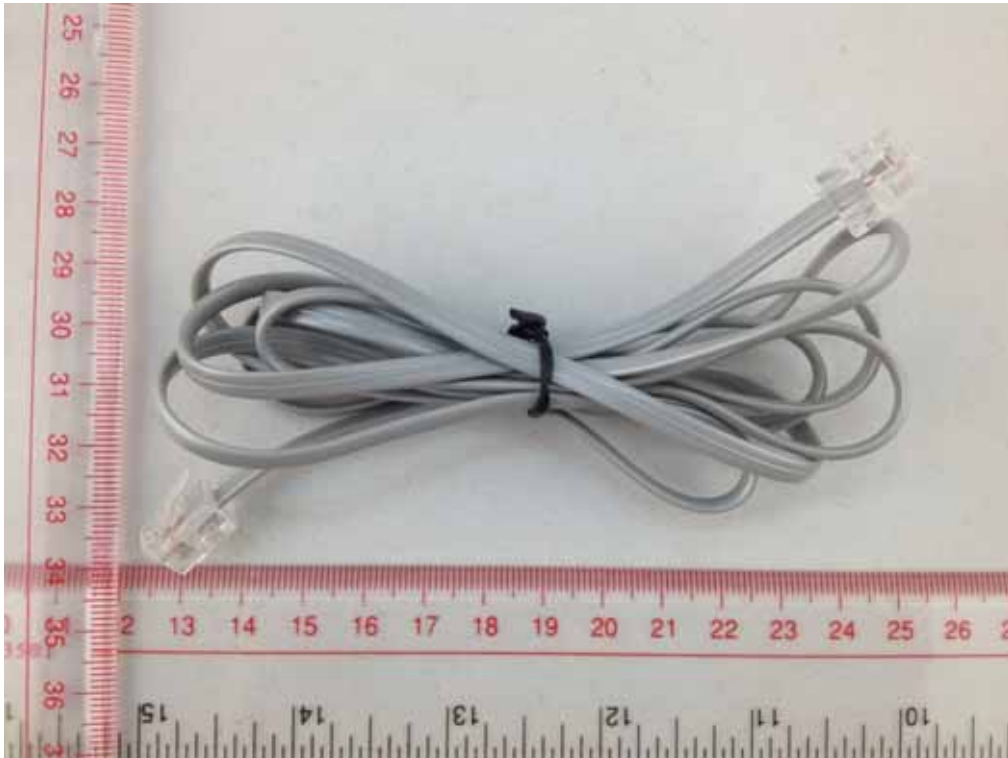
THE DOWN OF EUT



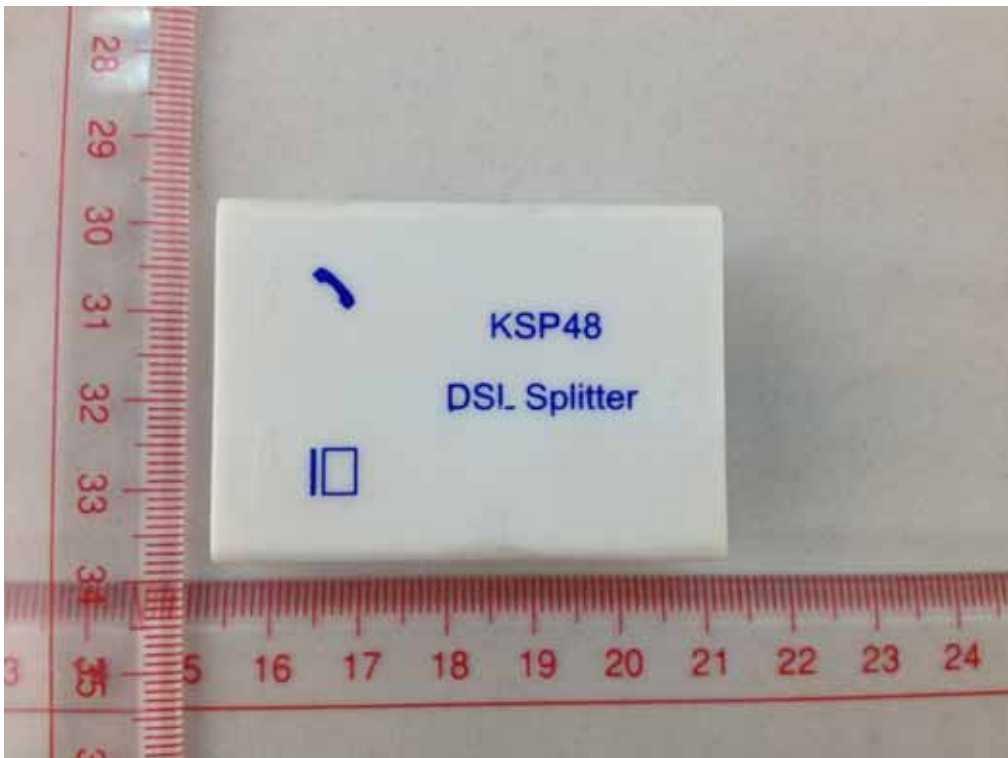
TWO ANTENNA



NETWORK CABLE



TELEPHONE WIRE



SPLITTER



THE ADAPTER DSA-12PFA-09 FUS 120100



THE ADAPTER DSA-12PFA-09 FUS 120100



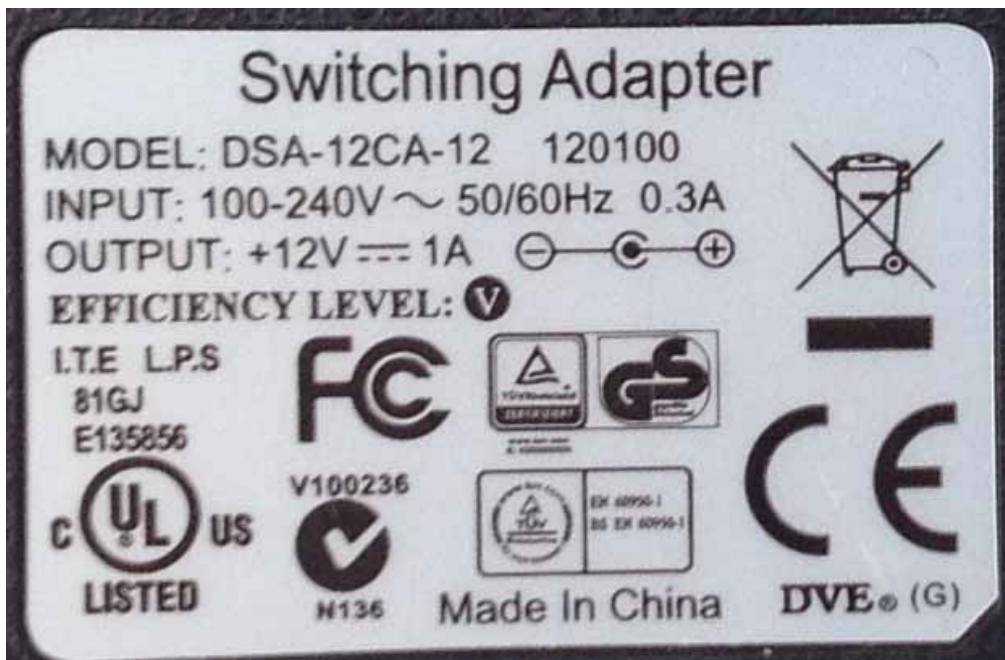
THE LABEL OF ADAPTER DSA-12PFA-09 FUS 120100



THE ADAPTER DSA-12CA-12 120100

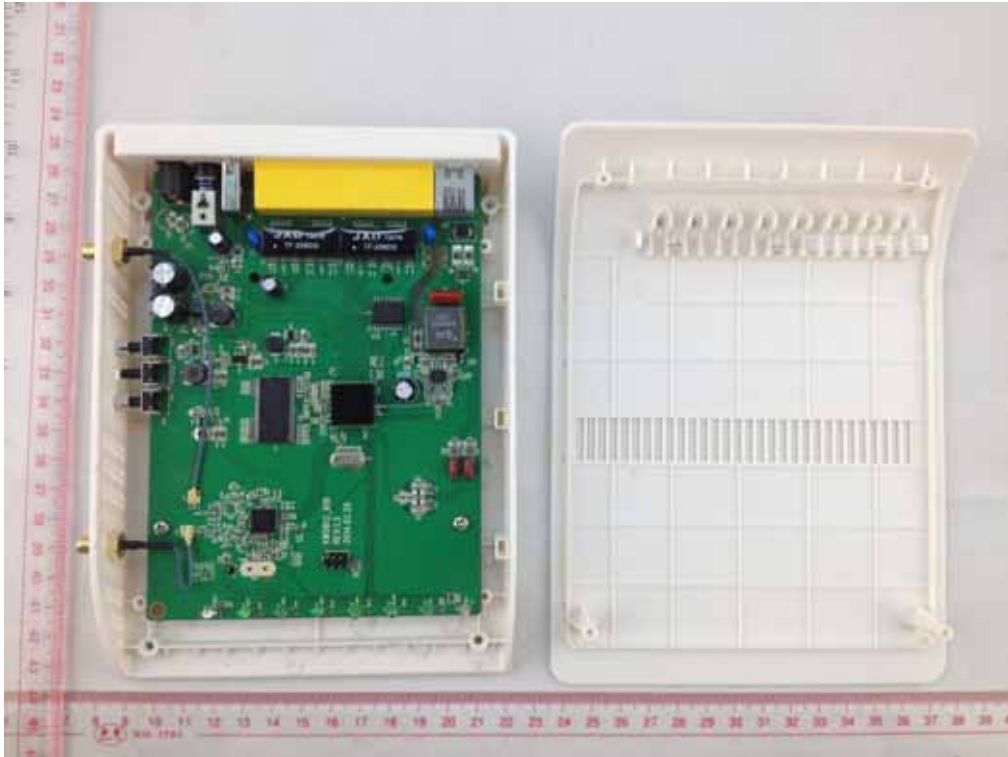


THE ADAPTER DSA-12CA-12 120100

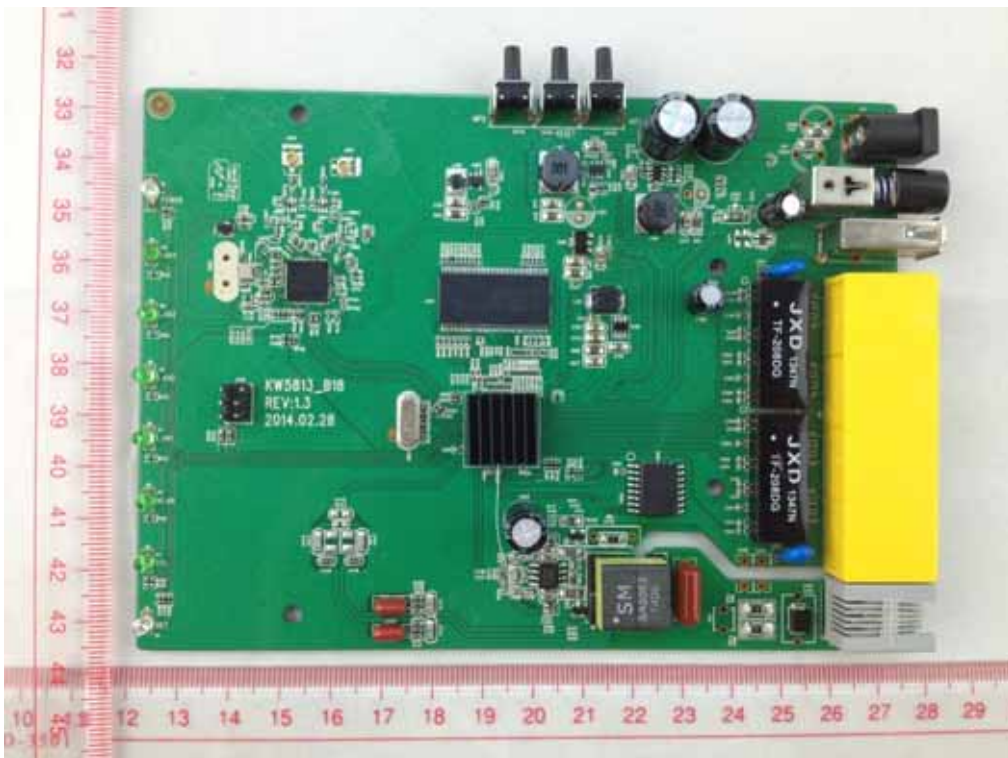


THE LABEL OF ADAPTER DSA-12CA-12 120100

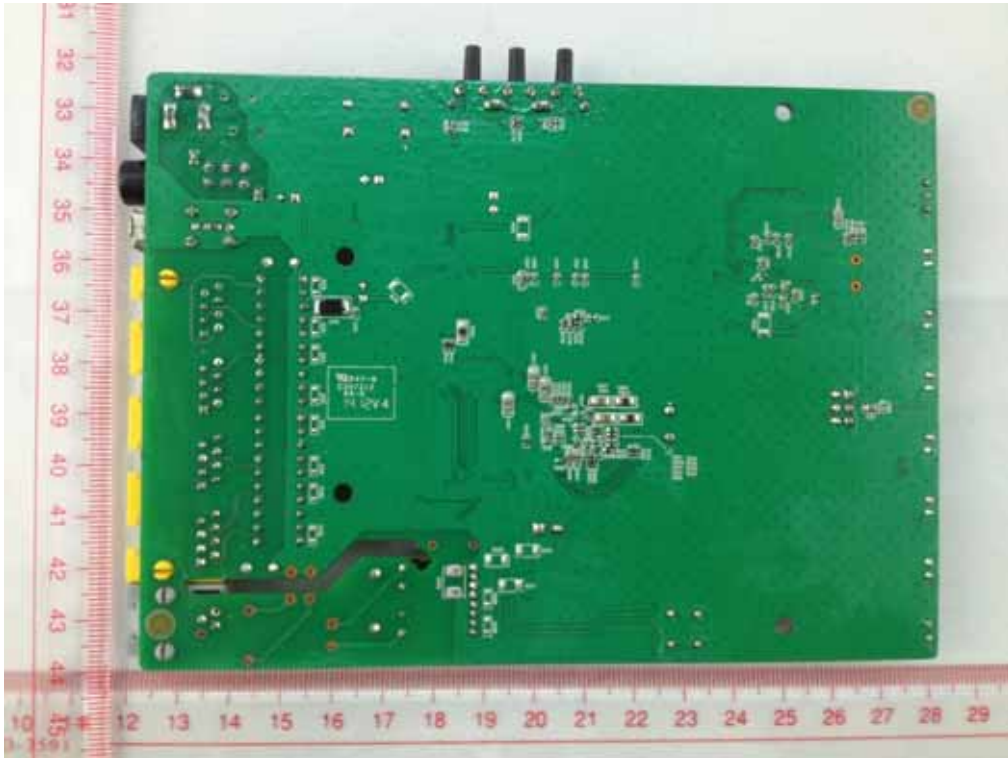
C.2 Inside of the EUT



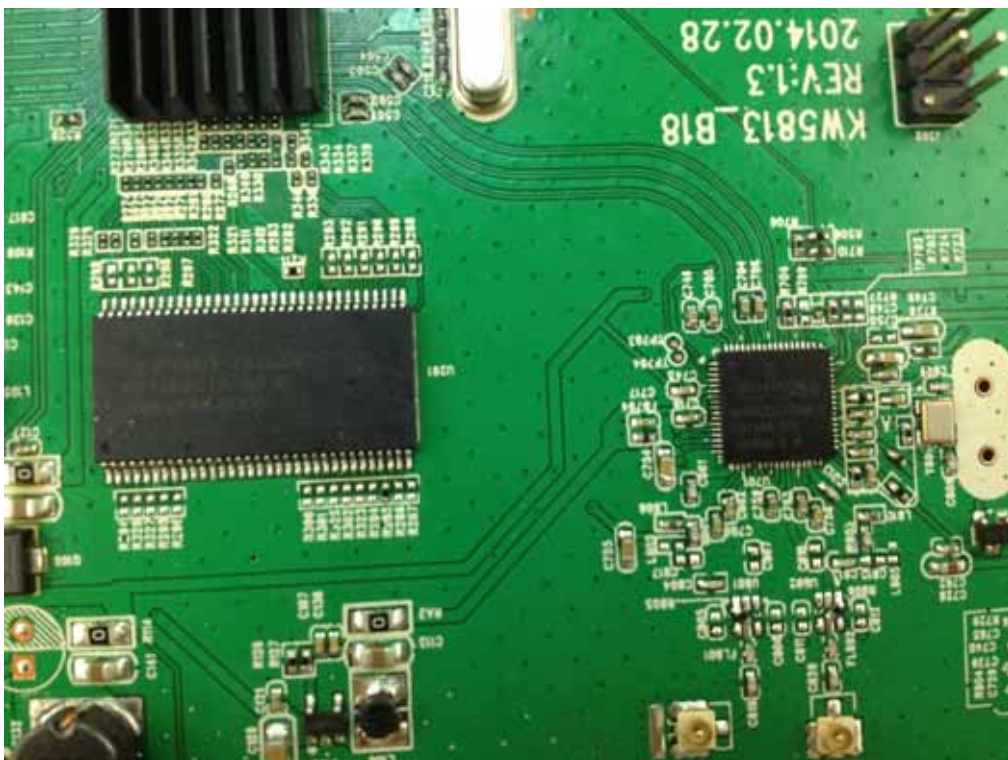
EUT UNCOVER VIEW



MAIN BOARD TOP VIEW 1



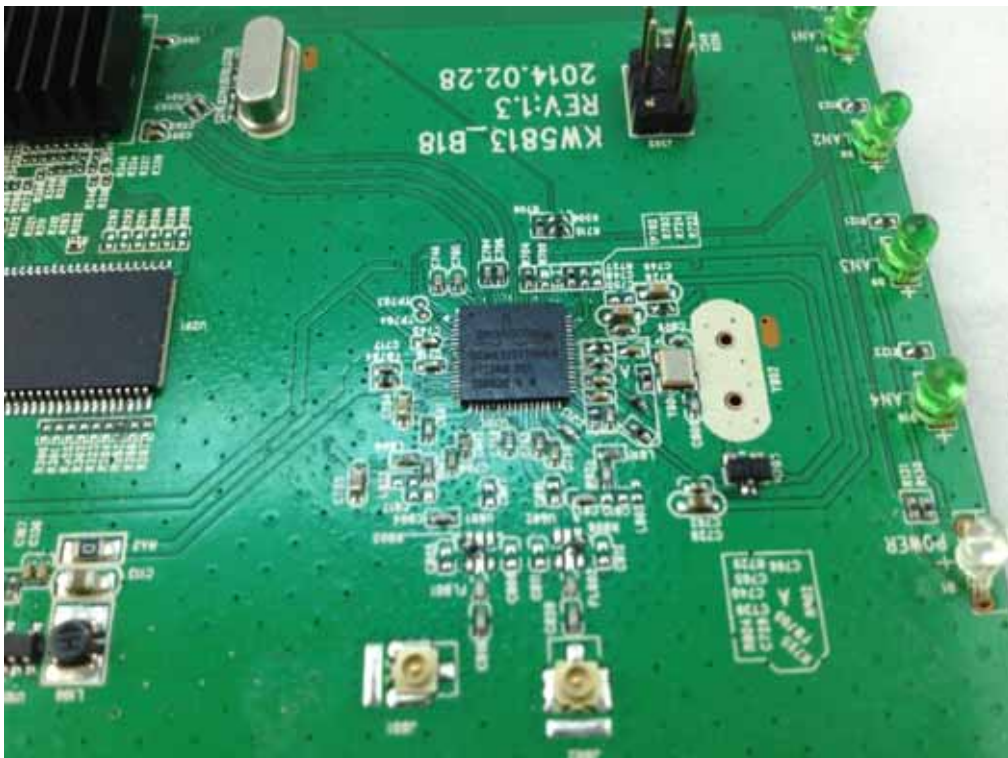
MAIN BOARD BACK VIEW 1



MAIN BOARD TOP VIEW 2



MAIN BOARD TOP VIEW 3



MAIN BOARD TOP VIEW 4

--END OF REPORT--