TEST REPORT

Test Report No.: D20150280

Applicant:	LYNXNET NZ LTD
Manufacturer:	LYNXNET NZ LTD
Factory:	/
Name of the sample:	Lynxnet Multi-Room Distribution Hub
Brand Name:	/
Model:	LN-3200DH-US , LN-2400DH-US

Test Result: PASS

STATEMENT

1. This test report shall not be reproduced in full or partial without the written approval of Jiangsu Electronic Information Product Quality Supervision and Inspection Institute.
2. The test results presented in this report relate only to the sample and the item tested.
3. This test report is ineffective if it is without special inspection seal of the test laboratory.
4. If you have any question or comment, please bring them to our attention within 15 days, after you receive the test report.(Please lodge them to the assignment department if the task is consigned by the government.)
5. Please retake the samples in 60 days after you receive the report, the laboratory will dispose the samples after exceeding the time limit.
6. The test items in the report with accreditation symbols have already been accredited by related accreditation bodies (except for the items with *)

Date of test: Jun. 1, 2015 To Jun 11, 2015

Tested by: Wei canbao Wei Canbao **Checked by:** He Fei He Fei

Approved by: Zhangzhiqiang Zhang Zhiqiang **Date:** Jun. 24. 2015

Issued By: Jiangsu Electronic Products Supervision Institute

LAB Address: No.100 Jinshui Road, WuXi, Jiangsu, P.R.China

Test standard:
FCC part 15 *
ANSI C63.4:2009*

Test item description:

Model/Type reference:	LN-3200DH-US LN2400DH-US
Ratings:	120V AC 60Hz

Possible test case verdicts:

- test case does not apply to the test object:	N/A
- test object does meet the requirement:	P (Pass)
- test object does not meet the requirement:	F (Fail)

FCC ID:
2AERN-LYNXNET-DH-US

General product information:

The test sample is Multi-Room Distribution Hub , maximum frequency used is 1.2GHz.

The test sample includes two models , the difference of them as show bellow:

Description of Product Similarity		
Features	LN2400DH-US	LN3200DH-US
Metal Case Dimensions (MM)	410×370×96	410×1002×96
CAT6 Room Outlets	24	32
Power supply 18V, 3A	√	√
Fuse stand	×	√
Power Strip	×	√
Distribution Amplifier	√	√
1 Gb Network Switch	√	√
IR/Phone Board	√	√

CONTENTS

1 CLIENT INFORMATION

Applicant: LYNXNET NZ LTD

Company name: LYNXNET NZ LTD

Brand Name: /

Address: 67 WESTGATE DRIVE, MASSEY, AUCKLAND, 0614, NEW ZEALAND

Telephone Number: /

Facsimile Number: /

Contact Person: /

2 EQUIPMENT UNDER TEST (EUT)

2.1 Identification of EUT

Type of Equipment: Lynxnet Multi-Room Distribution Hub

Trade Name: /

Model No.: LN-3200DH-US

Rating: 120V AC 60Hz

Receipt Date of Sample: May.21, 2015

2.2 Additional information about the EUT

The tests have been performed on the EUT provided with the following modification: None

3 TEST SPECIFICATIONS

3.1 Standards

FCC part 15 *
ANSI C63.4:2009*

3.2 Additions, deviations and exclusions from standards

No additions, deviations or exclusions have been made from standard.

3.3 Purpose of the test

To determine if the Environmental adaptability of EUT complied with the standards listed above.

3.4 Test Summary

Item	Test procedure	Results
Conducted Emission	FCC part 15 ANSI C63.4:2009	Complied
Radiated Emission	FCC part 15 ANSI C63.4:2009	Complied

3.5 Environmental Conditions

Temperature : 25℃
Humidity : 55%

3.6 Test equipments

Conducted Emission

No	Item	Type	Serial No.	Manufacture	Cali. Date	Cali. Due Date	Cali. interval
1	EMI test receiver	ESCI7	100820	R&S	2015-5-23	2016-5-22	1year
2	Artificial mains	ENV216	100497	R&S	2014-12-28	2015-12-27	1year
3	Cable	N/A	N/A	ROSENBERGER	N/A	N/A	N/A

Radiated Emission

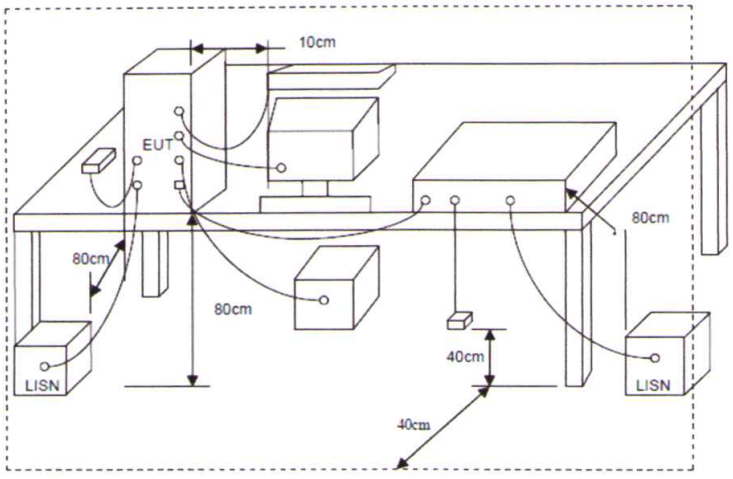
No	Item	Type	Serial No.	Manufacture	Cali. Date	Cali. Due Date	Cali. interval
1	EMI test receiver	ESU	100186	R&S	2014-12-14	2015-12-13	1year
2	BILOG antenna	3142C	00098966	ETS	2013-7-25	2016-7-24	3years
3	Antenna	BBHA9120D	9120D-513	Schwarzbeck	2014-7-2	2017-7-1	3years
4	TOYO EMI Software	EP5/RE	N/A	TOYO	N/A	N/A	N/A
5	Cable	N/A	N/A	ROSENBERGER	N/A	N/A	N/A
6	Antenna mast	111580	00106843	ETS	N/A	N/A	N/A
7	Turntable	2181-4	N/A	ETS	N/A	N/A	N/A

3.7 Support equipment used

No	Item	Type	Manufacture	FCC ID
1	Telephone	HCD007	Bubugao	DOC
2	Telephone	GO19	Zhongnuo	DOC
3	Laptop	4710s	HP	DOC
4	Laptop	E6420	DELL	DOC
5	TV	L19E09	TCL	DOC

4. Test requirement / Results

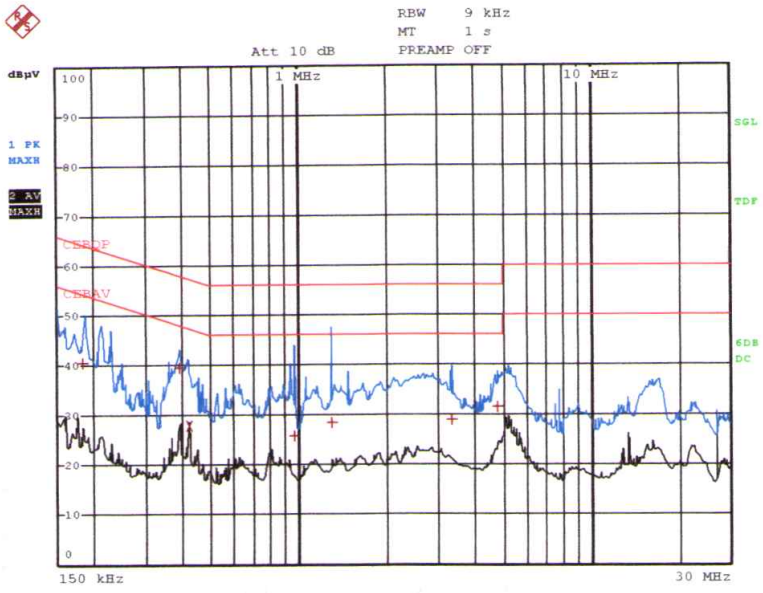
4.1.1 Test set-up



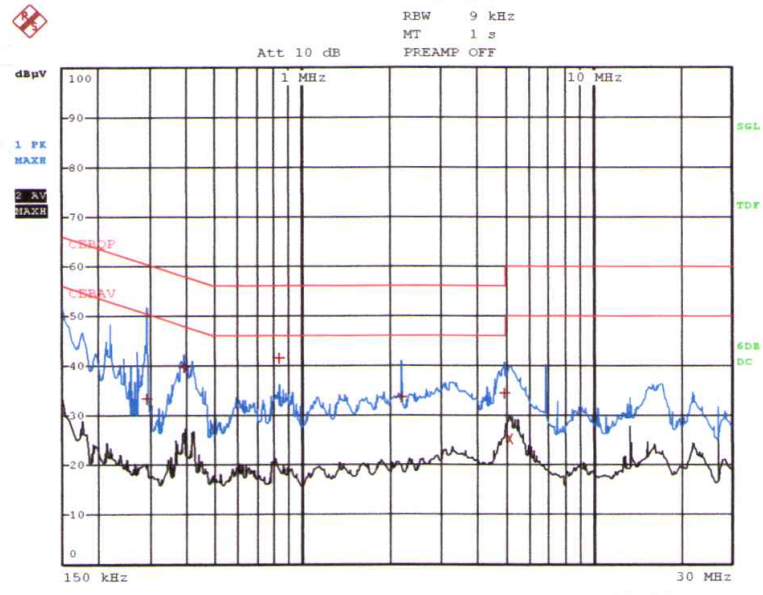
The EUT was placed on a platform of nominal size, 1 m by 1.5 m, raised 80 cm above the conducting ground plane. The vertical conducting plane was located 40 cm to the rear of the EUT. All other surfaces of EUT were at least 80 cm from any other grounded conducting surface. The EUT and simulators are connected to the main power through a line impedance stabilization network (LISN). The LISN provides a 50 ohm /50uH coupling impedance for the measuring equipment. The peripheral devices are also connected to the main power through a LISN. (Please refer to the block diagram of the test setup and photographs) Each current-carrying conductor of the EUT power cord, except the ground (safety) conductor, was individually connected through a LISN to the input power source. The excess length of the power cord between the EUT and the LISN receptacle were folded back and forth at the center of the lead to form a bundle not exceeding 40 cm in length. Conducted emissions were investigated over the frequency range from 0.15MHz to 30MHz using a receiver bandwidth of 9kHz.

4.1.2Test curve:

Line:



Neutral:



4.1.3 Test data:

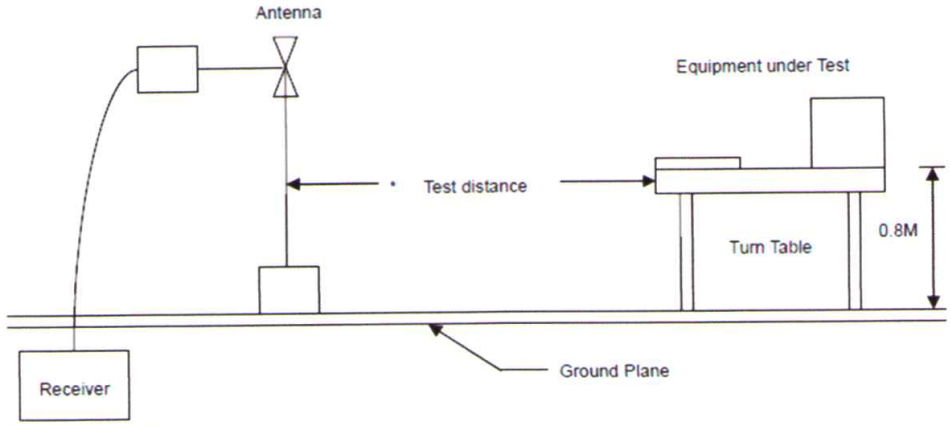
Quasi-Peak			Average		
Frequency (MHz)	Limits (dBμV)	Result (dBμV)	Frequency (MHz)	Limits (dBμV)	Result (dBμV)
0.390	58.1	39.8	0.418	47.5	28.0
0.830	56.0	41.5	5.152	50.0	25.3
4.986	56.0	34.5	/	/	/

Result: Pass

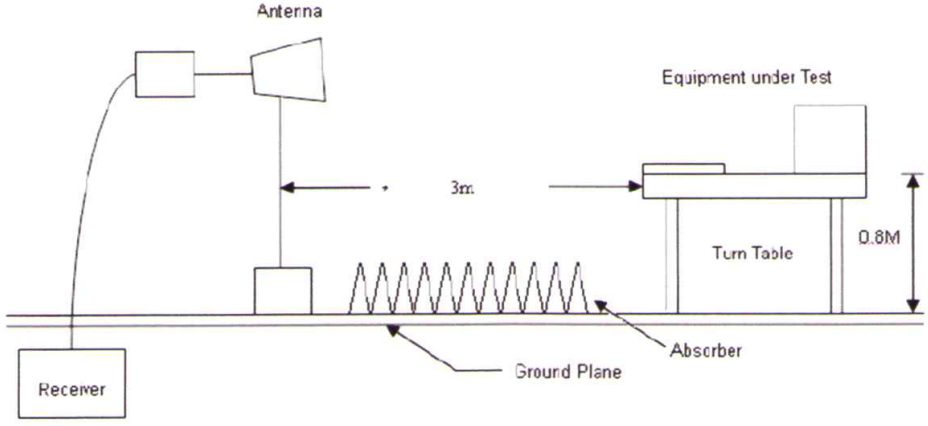
4.2Radio frequency interference Emission test

4.2.1 Test set-up

Below 1GHz Test Setup



Above 1GHz Test Setup



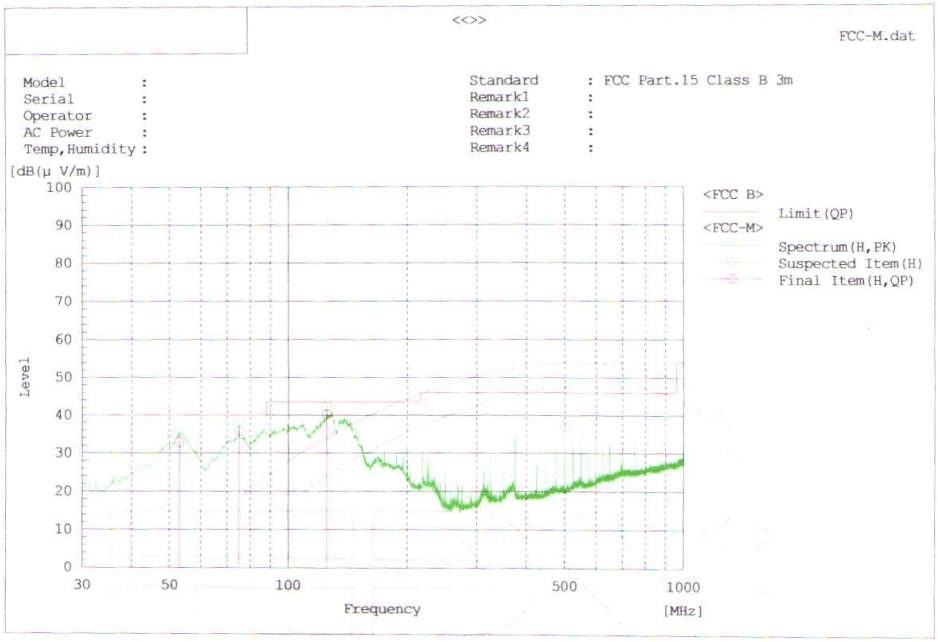
The EUT was placed on a rotatable table top 0.8 meter above ground.

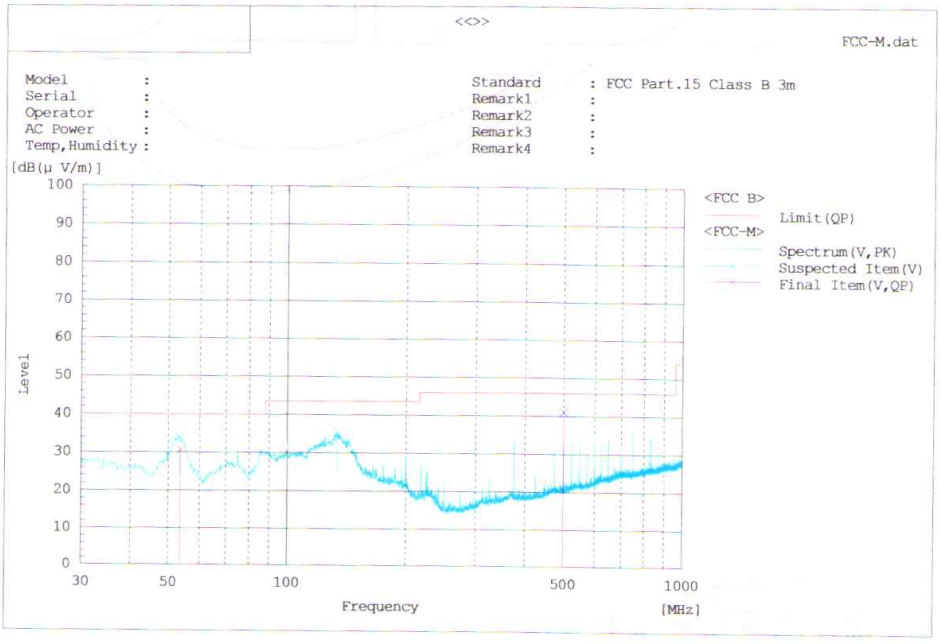
The EUT was set 3 meters from the interference receiving antenna which was mounted on the top of a variable height antenna tower.

The Turntable was rotated 360 degrees to determine the position of the highest radiation.

The antenna is a broadband antenna and its height is varied between one meter and four meters above ground to find the maximum value of the field strength both horizontal polarization and vertical polarization of the antenna are set to make the measurement.

4.2.3 Radio frequency interference Emission test (30MHz-1000MHz)





Suspected List

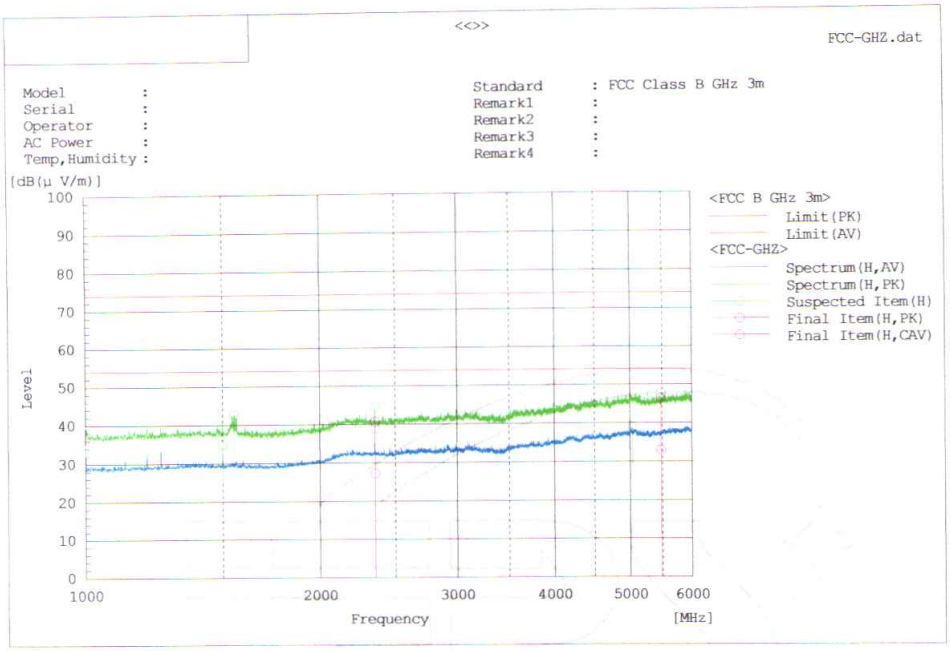
Frequency MHz	Antenna Polarity [H/V]	Reading dB(uV/m)	Limit dB(uV/m)	Margin dB	Height cm	Angle °
124.866	H	42.4	43.5	1.1	250.0	334.2
75.008	H	38.2	40.0	1.8	250.0	11.7
52.892	H	35.6	40.0	4.4	400.0	199.4
500.062	V	41.0	46.0	5.0	100.0	90.1
53.280	V	34.2	40.0	5.8	100.0	266.8
133.984	V	35.3	43.5	8.2	100.0	159.4
500.062	H	37.2	46.0	8.8	200.1	0.8

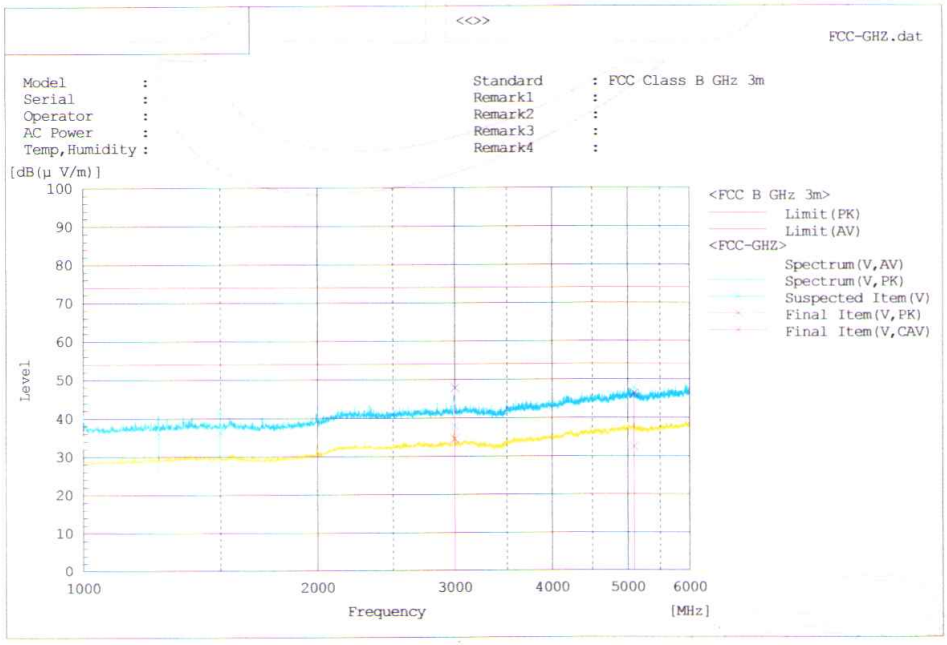
Final Data List

Frequency MHz	Antenna Polarity [H/V]	QPK dB(uV/m)	Limit dB(uV/m)	Margin dB	Height cm	Angle °
125.022	H	40.3	43.5	3.2	165.7	341.7
74.974	H	35.9	40.0	4.1	242.6	0.1
52.977	H	32.8	40.0	7.2	334.4	192.3
500.068	V	41.1	46.0	4.9	104.2	84.7
53.609	V	30.8	40.0	9.2	102.1	294.9

Result: Pass

4.2.4 Radio frequency interference Emission test (1GHz-6GHz)





Suspected List

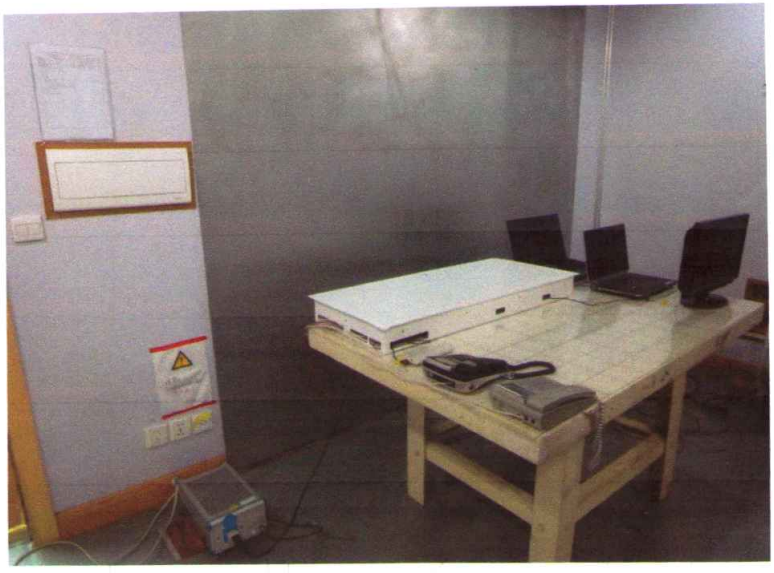
Frequency MHz	Antenna Polarity H/V	PK/AV dB(uV/m)	Limit PK dB(uV/m)	Limit AV dB(uV/m)	Margin PK dB	Margin AV dB	Height cm	Angle °
1500.000	V	41.5	74.0	/	32.5	/	125.0	107.3
1552.000	H	42.8	74.0	/	31.2	/	125.0	326.7
2356.000	H	44.6	74.0	/	29.4	/	125.0	320.1
5482.000	H	47.6	74.0	/	26.4	/	100.0	331.0
3000.000	V	47.7	74.0	/	26.3	/	100.0	290.8
5096.000	V	48.0	74.0	/	26.0	/	100.0	165.2
3000.000	V	38.0	/	54.0	/	16.0	125.0	274.3
1250.000	V	36.2	/	54.0	/	17.8	125.0	114.9
1500.000	V	36.3	/	54.0	/	17.7	125.0	114.9
5038.000	H	39.0	/	54.0	/	15.0	100.0	331.0
2356.000	H	39.0	/	54.0	/	15.0	125.0	320.1
1500.000	H	35.1	/	54.0	/	18.9	100.0	100.5

Final Data List

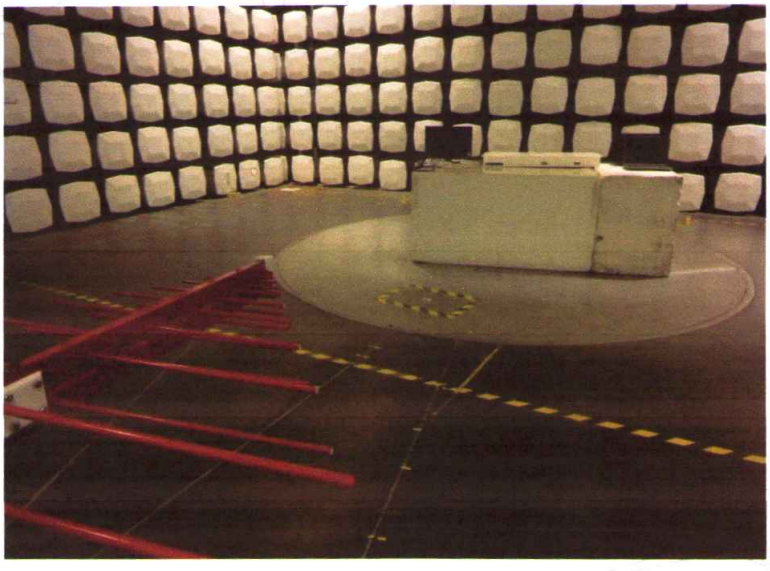
Frequency MHz	Antenna Polarity H/V	PK dB(uV/m)	PK dB(uV/m)	Limit PK dB(uV/m)	Limit AV dB(uV/m)	Margin PK dB	Margin AV dB	Height cm	Angle °
5481.051	H	46.4	32.9	74.0	54.0	27.6	21.1	100.0	88.6
5096.458	V	46.3	32.4	74.0	54.0	27.7	21.6	100.0	115.5
3000.028	V	47.8	34.6	74.0	54.0	26.2	19.4	125.0	293.2
2356.662	H	40.7	27.2	74.0	54.0	33.3	26.8	125.0	333.8

Result: Pass

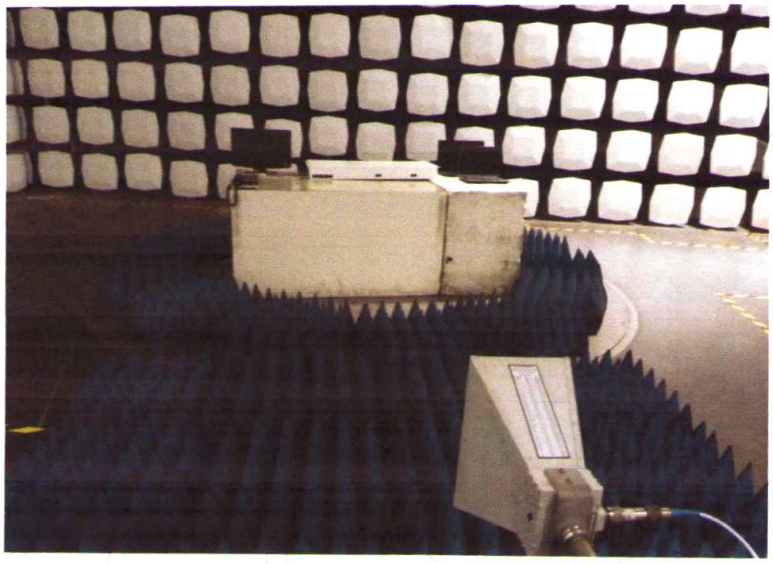
5. Test set-up chart



Photograph1- Conducted Emission

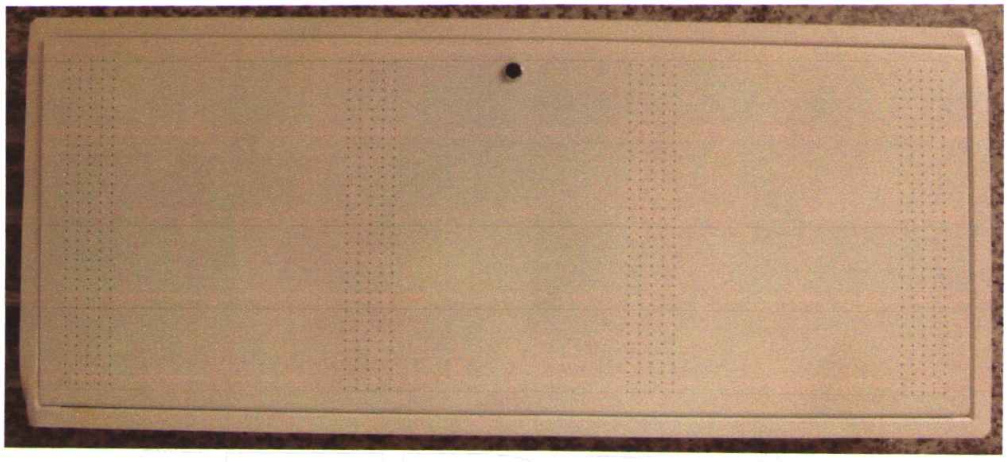


Photograph2- Radiated Emission(30MHz-1000MHz)

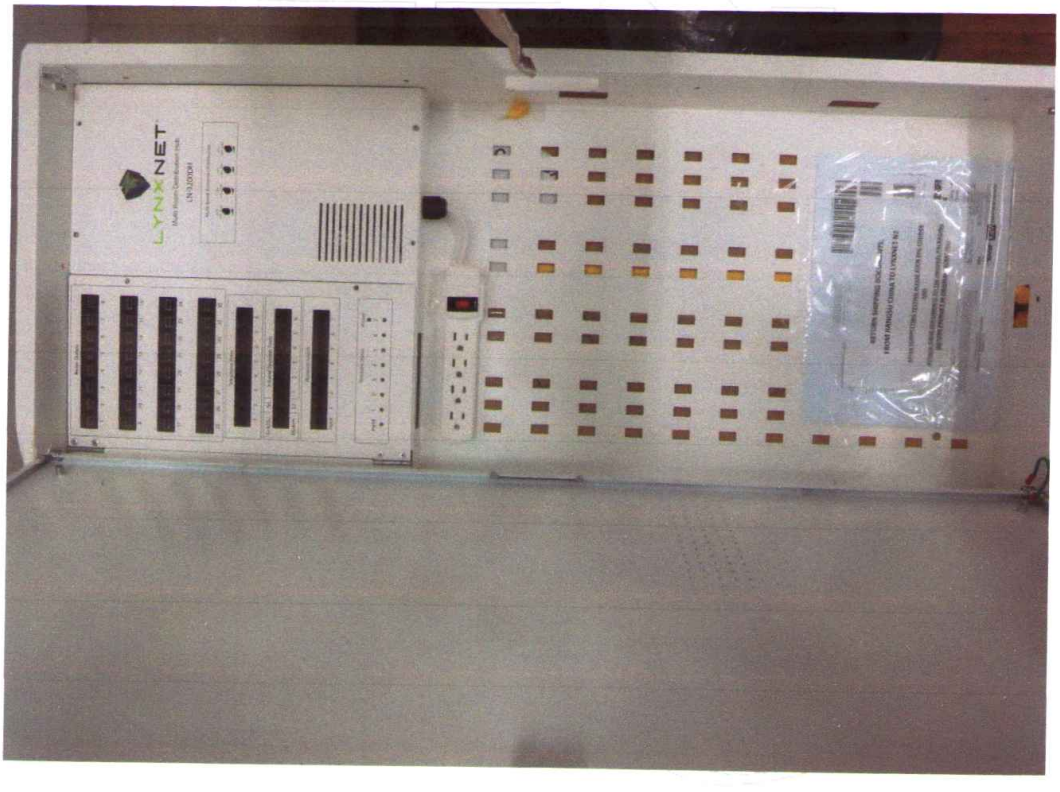


Photograph3- Radiated Emission (1GHz-6GHz)

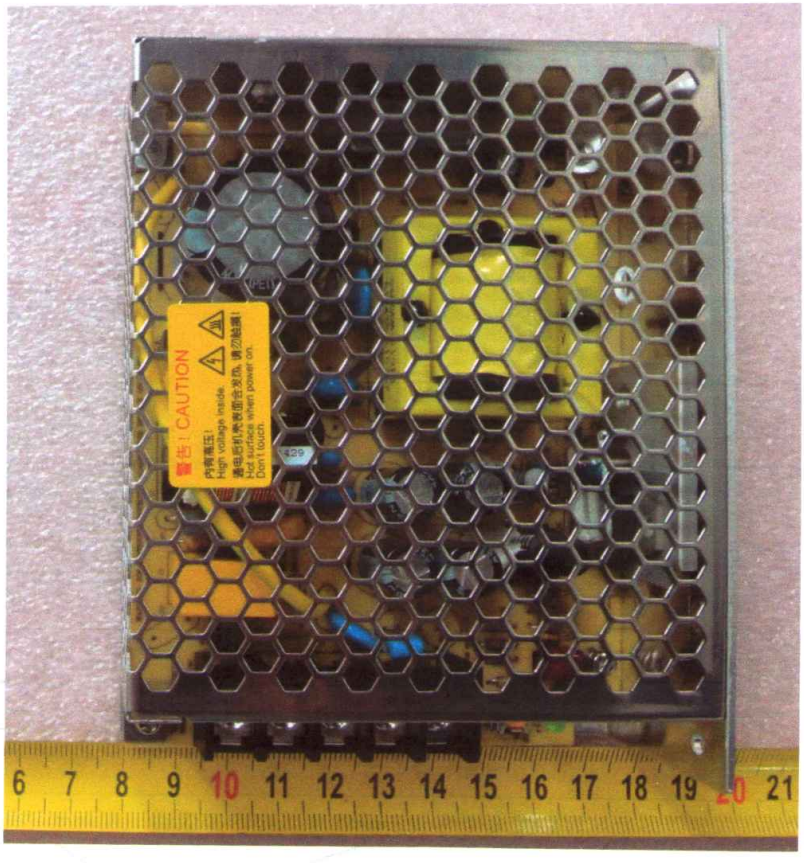
6. Sample photos



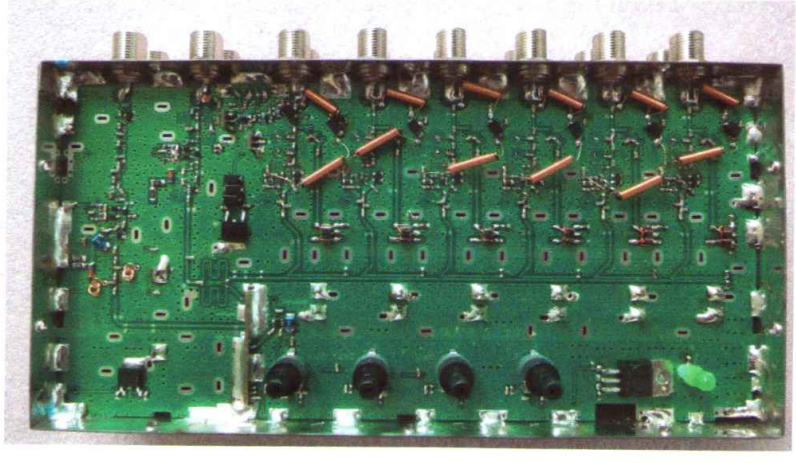
External Photo

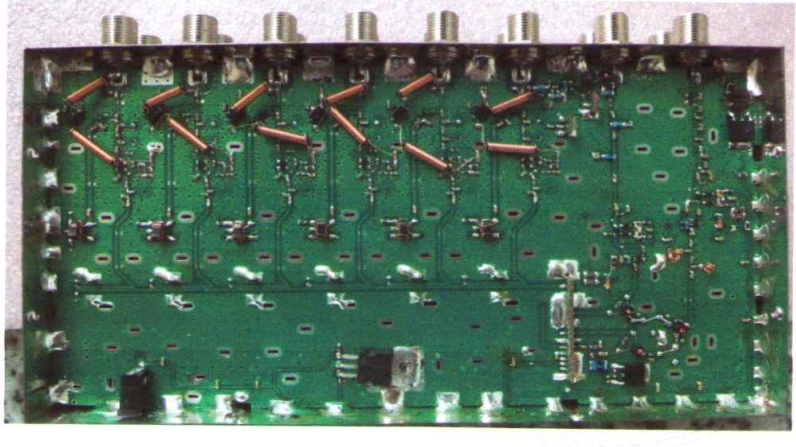


Internal Photo

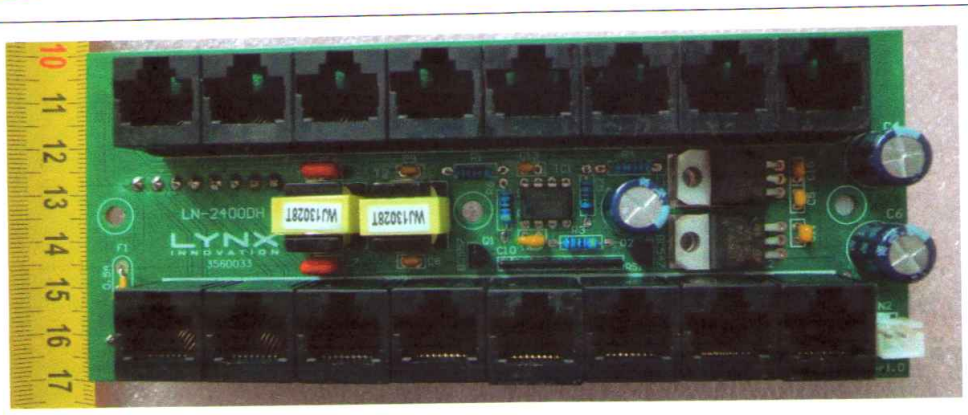


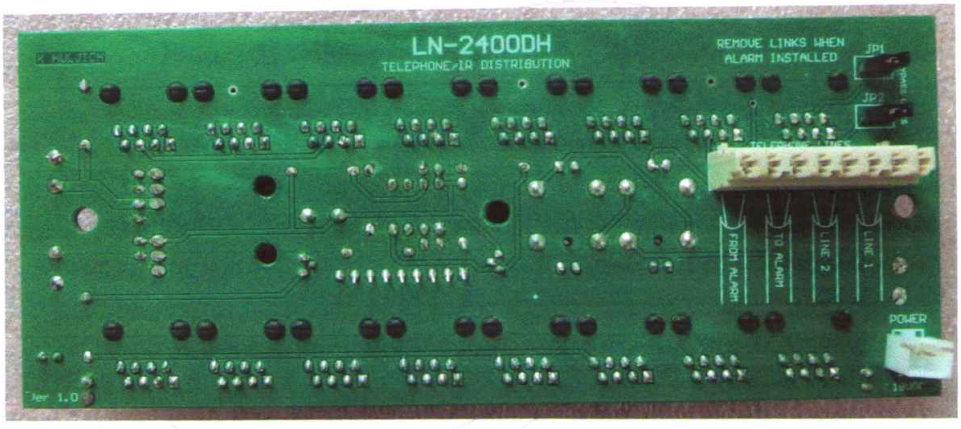
Power photos



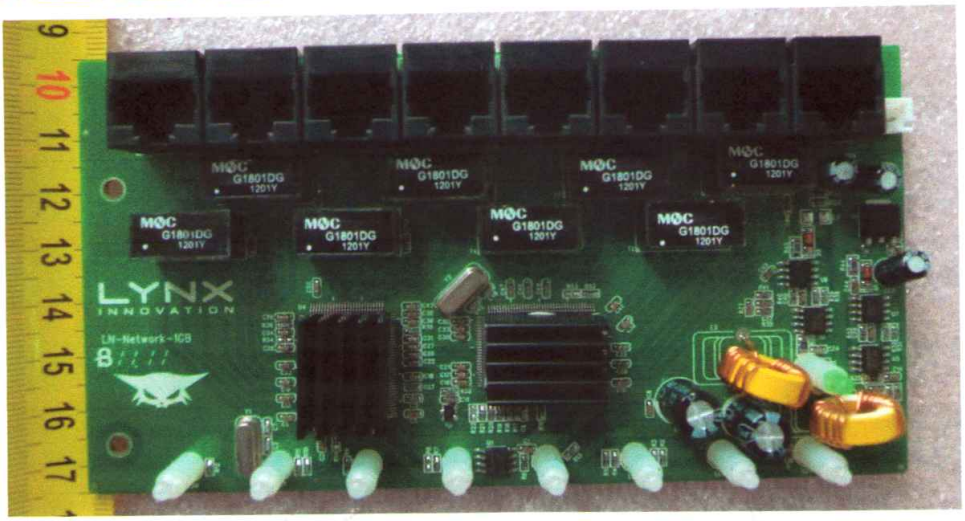


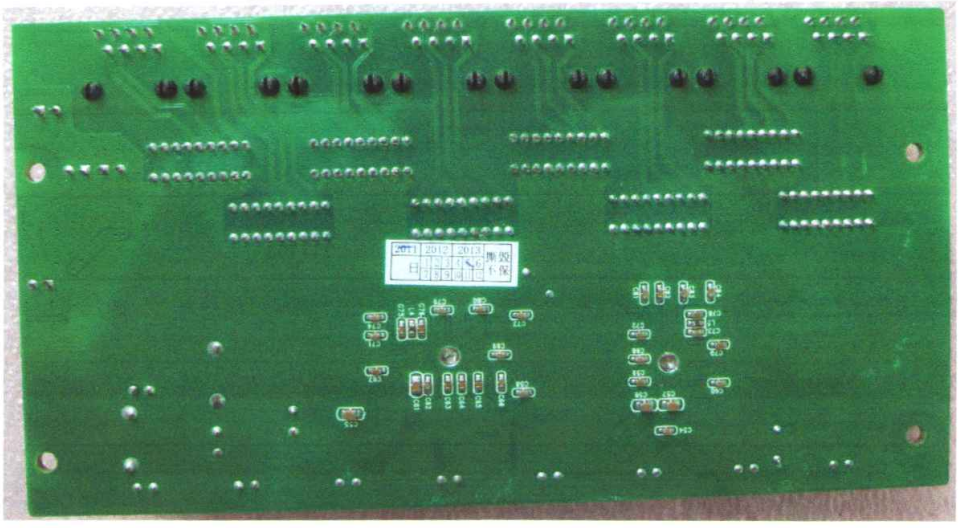
Multi-band Distribution Amplifier photos





Telephone Ports and Infrared Repeater ports photos





Network Switch ports photos