

TEST REPORT

REPORT NUMBER: I11GC0275-FCC-PART15B

ON

Sort of equipment: Premier XC
Type of designation: PremierWave XC
Manufacturer: iWOW Connections Pte Ltd

ACCORDING TO
Part 15B: Radio Frequency Devices, Oct 1, 2009

China Telecommunication Technology Labs.

Month date, year

Mar, 26, 2012

Signature

A handwritten signature in blue ink, appearing to read 'He Guili'.

He Guili
Director

FCC ID: R68PWXC
Report Date: 2012-03-26

Test Firm Name: China Telecommunication Technology Labs
Registration Number: 840587

Statement

The measurements shown in this report were made in accordance with the procedures described on test pages. All reported tests were carried out on a sample equipment to demonstrate limited compliance with FCC C FR 47 Parts 15B. The sample tested was found to comply with the requirements defined in the applied rules.

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1 General Information

1.1 Notes

All reported tests were carried out on a sample equipment to demonstrate limited compliance with FCC CFR 47 Parts 15B.

The test results of this test report relate exclusively to the item(s) tested as specified in section 2.

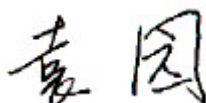
The following deviation from, additions to, or exclusions from the test specifications have been made. See Annex C.

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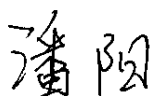
1.2 Testers

Name: Yuan Yuan
Position: Engineer
Department: Department of EMC test
Signature:



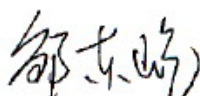
Editor of this test report:

Name: Pang yang
Position: Engineer
Department: Department of EMC test
Date: 2012-03-26
Signature:



Technical responsibility for area of testing:

Name: Zou Dongyi
Position: Manager
Department: Department of EMC test
Date: 2012-03-26
Signature:



1.3 Testing Laboratory information

1.3.1 Location

Name: China Telecommunication Technology Labs.
Address: No. 11, Yue Tan Nan Jie, Xi Cheng District
BEIJING
P. R. CHINA, 100045
Tel: +86 10 68094053
Fax: +86 10 68011404
Email: emc@chinattl.com

1.3.2 Details of accreditation status

Accredited by: China National Accreditation Service for Conformity
Assessment (CNAS)
Registration number: CNAS Registration No. CNAS L0570
Standard: ISO/IEC 17025:2005

1.3.3 Test location, where different from section 1.3.1

Name: -----
Street: -----
City: -----
Country: -----
Telephone: -----
Fax: -----
Postcode: -----

1.4 Details of applicant or manufacturer

1.4.1 Applicant

Name: Lantronix, Inc.
Address: 167 Technology Drive. Irvine, CA 92618 USA
Country: USA
Telephone: 949-453-7133
Fax: 949-453-3995
Contact: Walton Leung
Telephone: 949-453-7133
Email: walton.leung@lantronix.com

1.4.2 Manufacturer (if different from applicant in section 1.4.1)

Name: iWOW Connections Pte Ltd
Address: 1 Lorong 2 Toa Payoh #04-01 Yellow Pages Building
Singapore 319637

1.4.3 Manufactory (if different from applicant in section 1.4.1)

Name: iWOW Connections Pte Ltd
Address: 1 Lorong 2 Toa Payoh #04-01 Yellow Pages Building
Singapore 319637

2 Test Item

2.1 General Information

Manufacturer: iWOW Connections Pte Ltd
 Name: Premier XC
 Model Number: --
 Serial Number: --
 Production Status: Product
 Receipt date of test item: 2011-05-04

2.2 Outline of EUT

EUT is a 850/1900 Dual-Band GSM(GPRS) module.

2.3 Modifications Incorporated in EUT

The EUT has not been modified from what is described by the brand name and unique type identification stated above.

2.4 Equipment Configuration

Equipment configuration list:

Item	Generic Description	Manufacturer	Type	Serial No.	Remarks
A	Module	iWOW Connections Pte Ltd	PremierWave XC	--	None
B	Adaptor	Click Technology (SHEN ZHEN) CO.LTD	CPS012A12010 0*	--	None
C	Computer	HP	--	--	Afford by test lab
D	Monitor	HP	LP2001	--	Afford by test lab
E	Mouse	HP	--	--	Afford by test lab
F	Keyboard	HP	--	--	Afford by test lab
G	Printer	HP	C6414A	--	Afford by test lab

Cables:

Item	Cable Type	Manufacturer	Length	Shield	Quantity	Remarks
1	DC cable on Adapter	Unknown	1.7 m	No	1	None

2.5 Other Information

Hardware version: P2
 Software version: 1.6

3 Summary of Test Results

A brief summary of the tests carried out is shown as following.

Specification Clause	Name of Test	Result
15.109	Radiated Emission	Pass
15.107	Conducted Emission	Pass
Note: The EUT complies with the requirements of the Class B digital devices.		

TTL Test Report

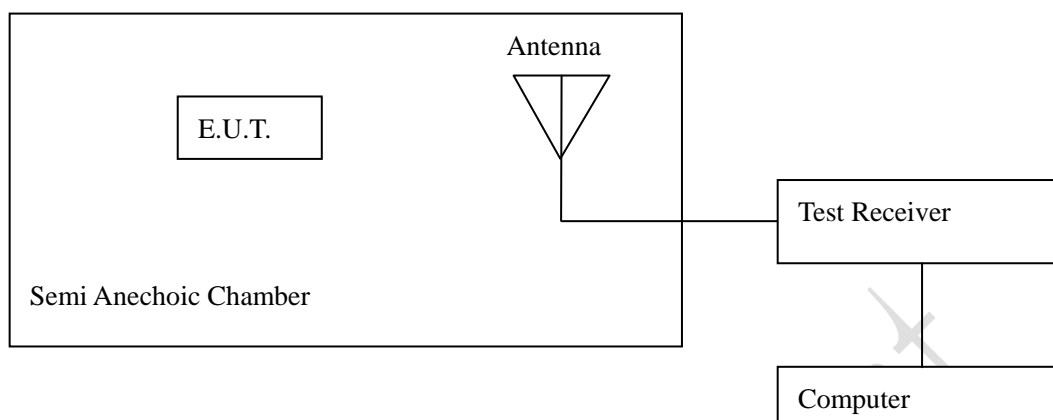
4 Test Results

4.1 Radiated Emission

Specifications:	15.109, ANSI C63.4-2003					
Date of Tests	2011-07-18, 2012-03-22					
Test conditions:	Ambient Temperature:15°C-35°C Relative Humidity:30%-60% Air pressure: 86-106kPa					
Operation Mode	Transfer data					
Test Results:	Pass					
Test equipment Used:						
Asset Number	Description	Manufacturer	Model Number	Serial Number	Cal Due	State
7805	EMI Test Receiver	R/S	ESIB26	100211	2013-01-10	Normal
7330	Ultra Broadband Antenna	SCHWARZBECK	VULB 9160	--	2013-11-24	Normal
7330	Double-Ridged Horn Antenna	R/S	HF906	100037	2013-01-24	Normal
713	Fully-Anechoic Chamber	ETS	11.8m×6.5m×6.3m	--	2013-11-16	Normal

Limit Level Construction: According to Part 15.109(a).			
Limits			
Frequency [MHz]	Field Strength [μ V/m]	Field Strength [dB μ V/m]	Measurement distance [m]
30 -88	100	40.0	3
88-216	150	43.5	3
216 - 960	200	46.0	3
Above 960	500	54.0	3
Note: The tighter limit applies at the band edges.			

Test Configuration



The measuring distance between E.U.T and antenna is 3m.

Test Setup:

The EUT was placed in an anechoic chamber, see figure RE. The EUT is tested as tabletop EUT. The EUT is positioned on an 80cm height wood table.

The EUT is used as the peripheral equipment of the PC.

The setup is according to Figure 11a of ANSI C63.4-2003.



Figure RE

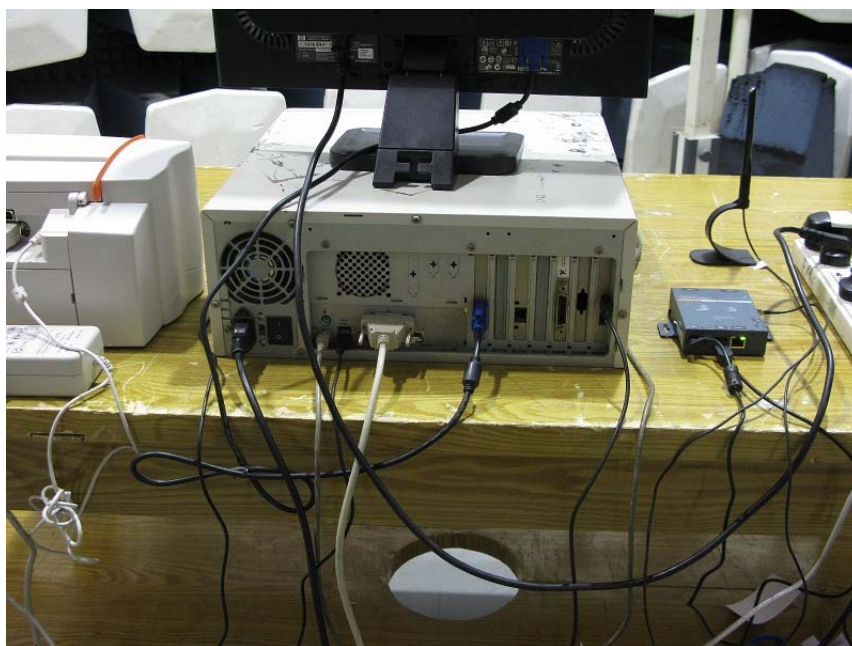


Figure:USB Ports

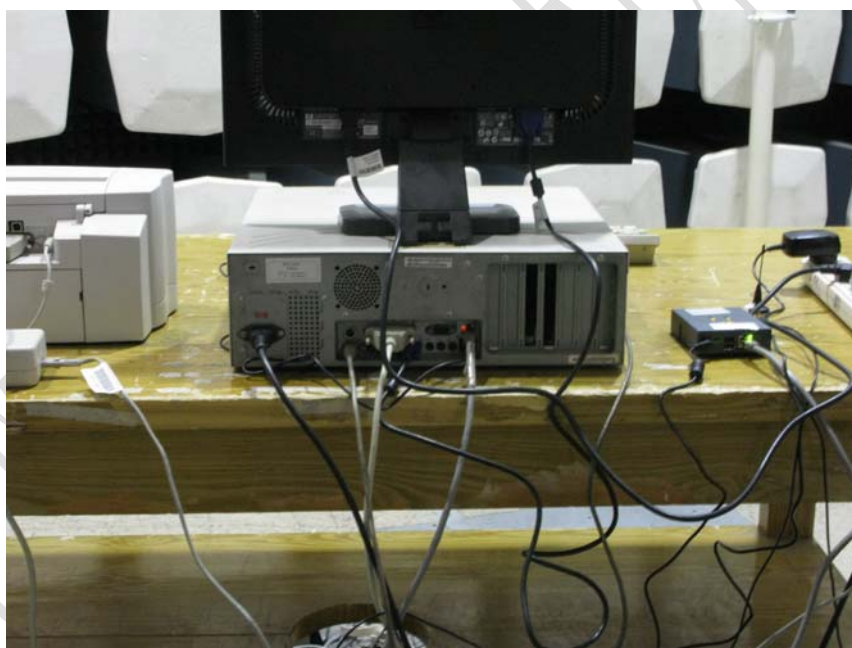


Figure:RJ45 Ports

Test Method

During the test, the EUT was operating in its typical mode. The test method is according to ANSI C63.4-2003. The measurement was done by the automated test system.

RBW:100kHz

Test Data (USB port) :

Vertical

Frequency (MHz)	QuasiPeak (dBuV/m)	Height (cm)	Polarization	Azimuth (deg)	Margin (dB)	Limit (dBuV/m)
200.000000	39.4	100	V	135.0	4.1	43.5
250.000000	41.7	100	V	144.0	4.3	46.0

Remark: The test result is the worst case.

Horizontal

Frequency (MHz)	QuasiPeak (dBuV/m)	Height (cm)	Polarization	Azimuth (deg)	Margin (dB)	Limit (dBuV/m)
200.000000	42.1	175	H	0.0	1.4	43.5
250.000000	43.5	125	H	201.0	2.5	46.0

Remark: The test result is the worst case.

Test Data (RJ45 port) :

Vertical

Frequency (MHz)	QuasiPeak (dBuV/m)	Height (cm)	Polarization	Azimuth (deg)	Margin (dB)	Limit (dBuV/m)
200.000000	35.0	100	V	145.0	8.5	43.5
264.160000	37.7	100	V	80.0	8.3	46.0

Remark: The test result is the worst case.

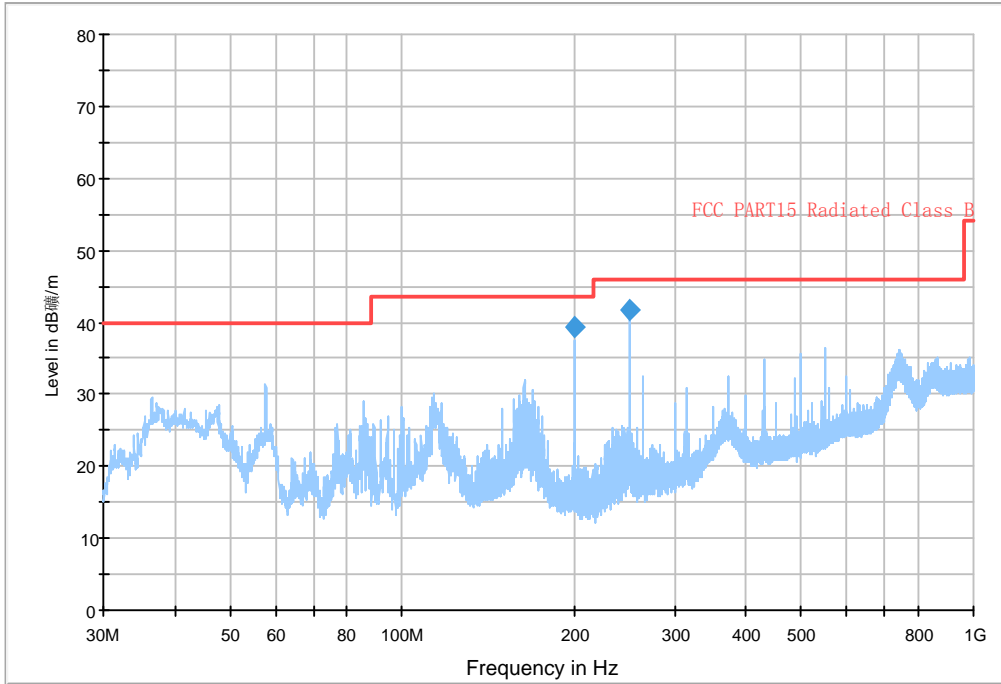
Horizontal

Frequency (MHz)	QuasiPeak (dBuV/m)	Height (cm)	Polarization	Azimuth (deg)	Margin (dB)	Limit (dBuV/m)
200.000000	34.0	125	H	45.0	9.5	43.5
264.160000	37.0	100	H	180.0	9.0	46.0

Remark: The test result is the worst case.

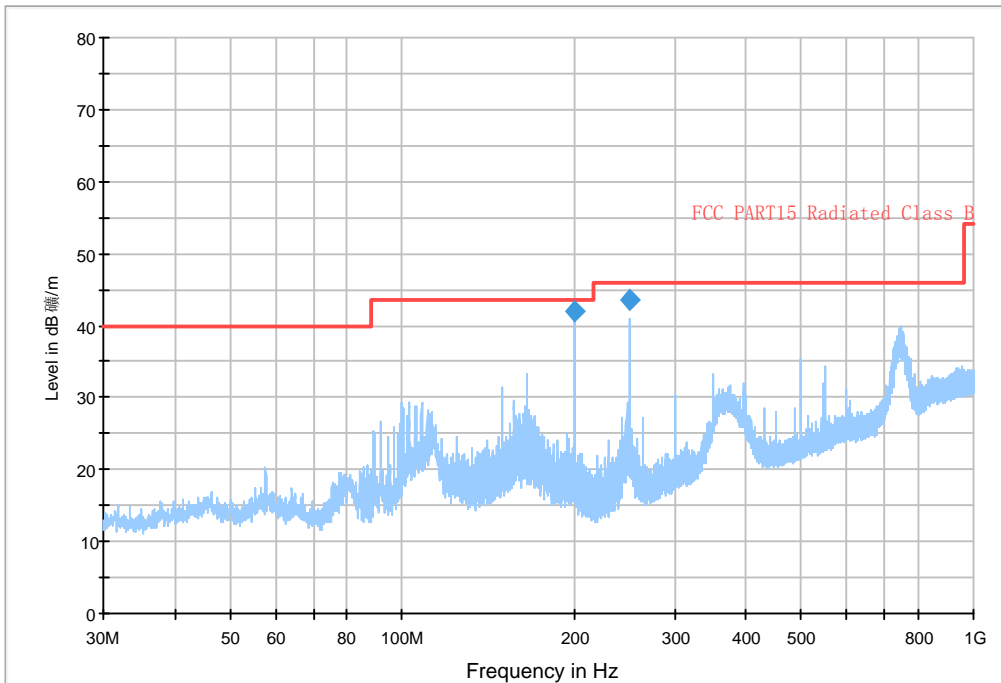
Graphical Results:

FCC



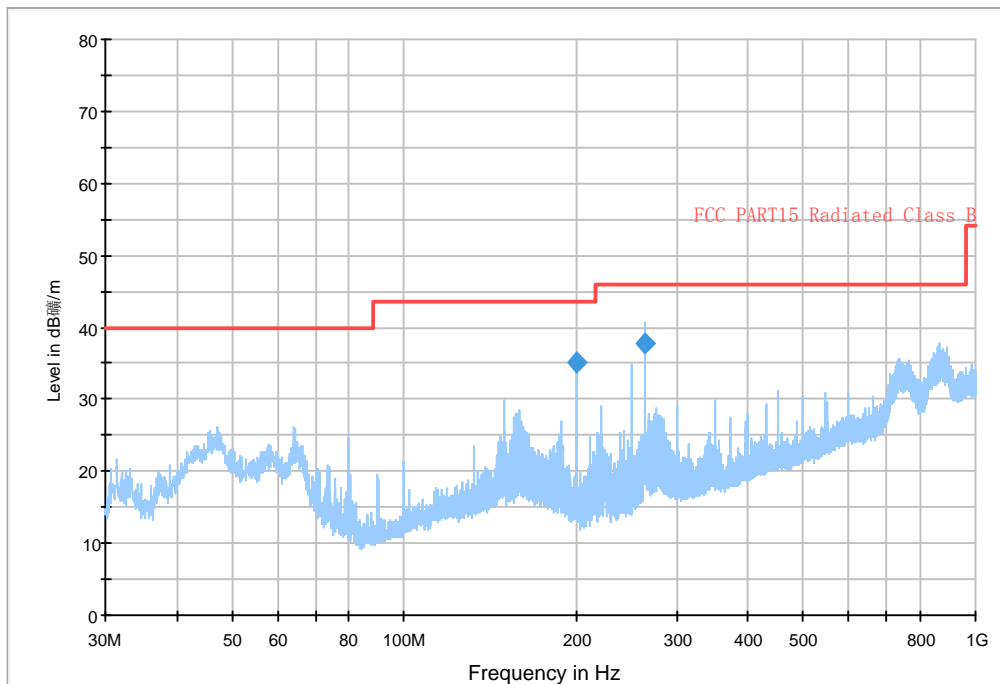
Graphical results(USB Vertical)

FCC



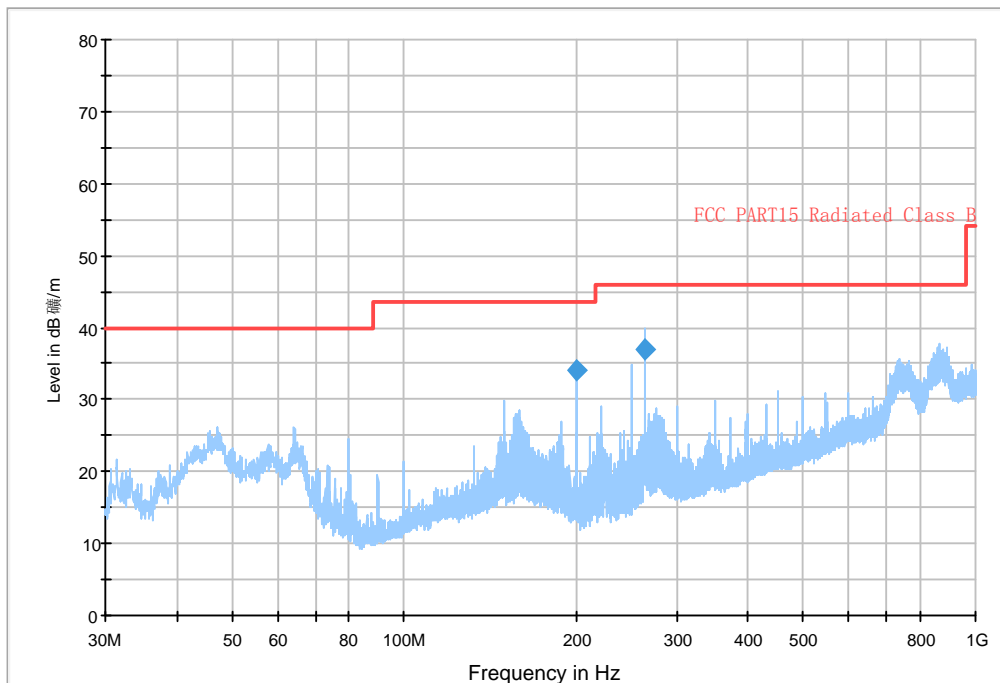
Graphical results(USB Horizontal)

FCC



Graphical results(RJ45 Vertical)

FCC



Graphical results(RJ45 Horizontal)

4.2 Conducted Emission

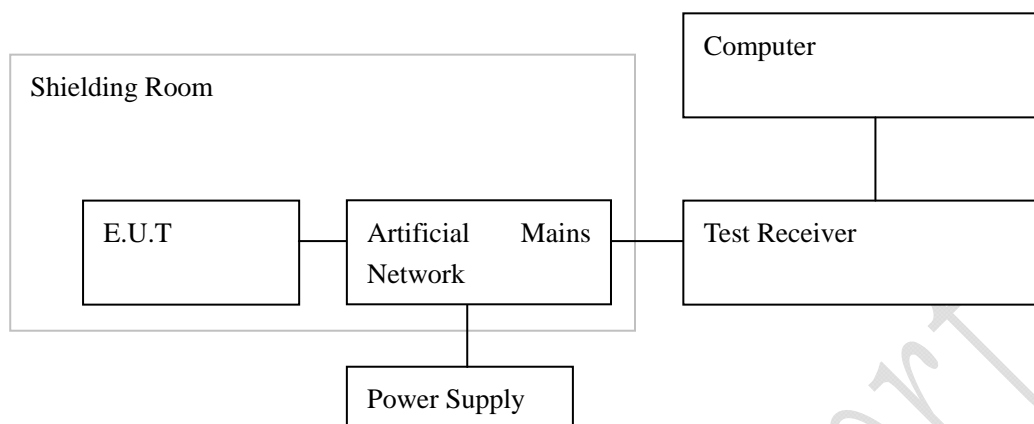
Specifications:	15.107, ANSI C63.4-2003					
Date of Tests	2011-07-19, 2012-03-22					
Test conditions:	Ambient Temperature:15°C-35°C Relative Humidity:30%-60% Air pressure: 86-106kPa					
Operation Mode	Transfer data					
Test Results:	Pass					
Test equipment Used:						
Asset Number	Description	Manufacturer	Model Number	Serial Number	Cal Due	State
7330	EMI Test Receiver	R/S	ESI40	839283/007	2012-02-15	Normal
7330	Artificial Mains Network	R/S	ESH2-Z5	837480/002	2012-01-07	Normal
7330	Artificial Mains Network	R/S	ESH2-Z5	100268	2013-01-28	Normal
714	Shielding Room	ETS	--	19003	2013-11-15	Normal

Limit Level Construction:
According to Part 15.107 (a)

Limits for Conducted Emission		
Frequency of Emission [MHz]	Conducted limit [dBµV]	
	Quasi-peak	Average
0.15 - 0.5	66 to 56*	56 to 46*
0.5 - 5	56	46
5 - 30	60	50

* Decreases with the logarithm of the frequency.

Test Configuration



Test Setup:

The EUT was placed in a shielding room, see figure CE. The EUT is positioned on an 80cm height wood table. The EUT is used as the peripheral equipment of the PC.

The setup is according to Figure 10a of ANSI C63.4-2003.



Figure CE (USB port)



Figure CE(RJ45 port)

Test Method:

During the test, the EUT was operating in its typical mode. The test method is according to ANSI C63.4-2003. The AC power line of the Notebook was connected to the artificial mains network then to EMI receiver. The measurement was done by the automated test system.

RBW: 9kHz

Line N (USB port) :

Detector (QP/AV)	Frequency (MHz)	Level (dBµV)	Transducer (dB)	Limit (dB)	PE
QP	1.014000	47.40	10.0	56	Grounded
QP	1.045500	46.40	10.0	56	Grounded
AV	6.328500	43.90	10.0	50	Grounded
AV	6.364500	44.50	10.0	50	Grounded

Remarks: The test result is the worst case.

Line L (USB port) :

Detector (QP/AV)	Frequency (MHz)	Level (dBµV)	Transducer (dB)	Limit (dB)	PE
--	--	--	--	--	--

Remarks: The test result is the worst case.

Line N (RJ45 port) :

Detector (QP/AV)	Frequency (MHz)	Level (dBµV)	Transducer (dB)	Limit (dB)	PE
--	--	--	--	--	--

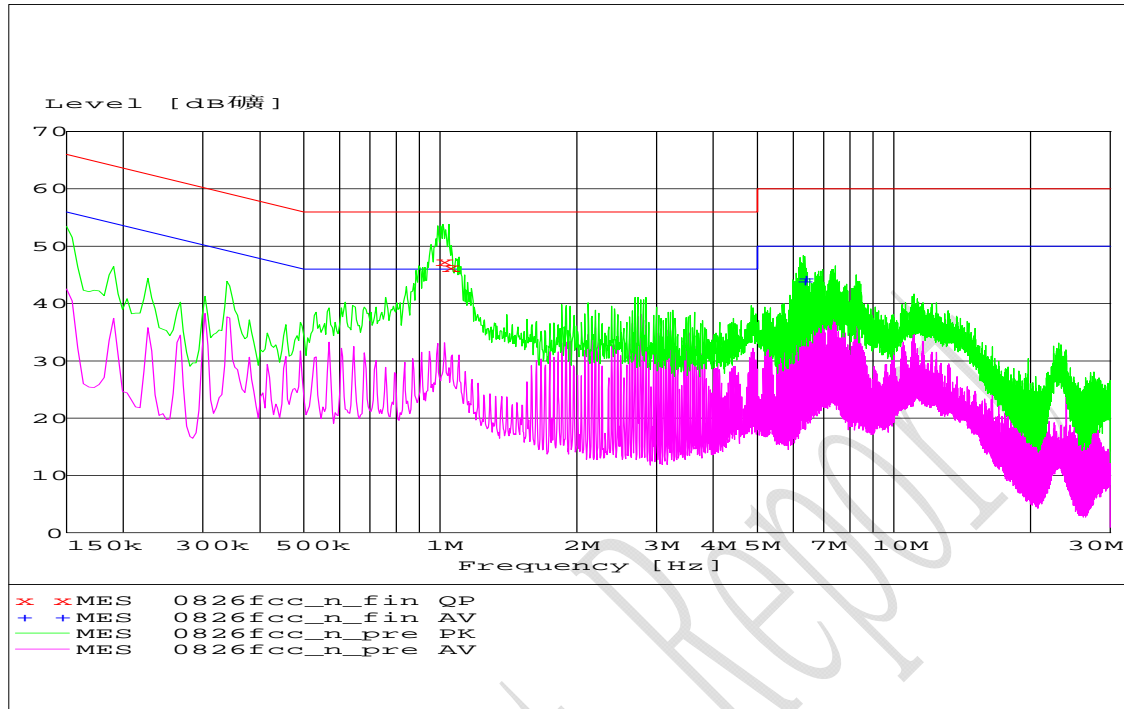
Remarks: The test result is the worst case.

Line L (RJ45 port) :

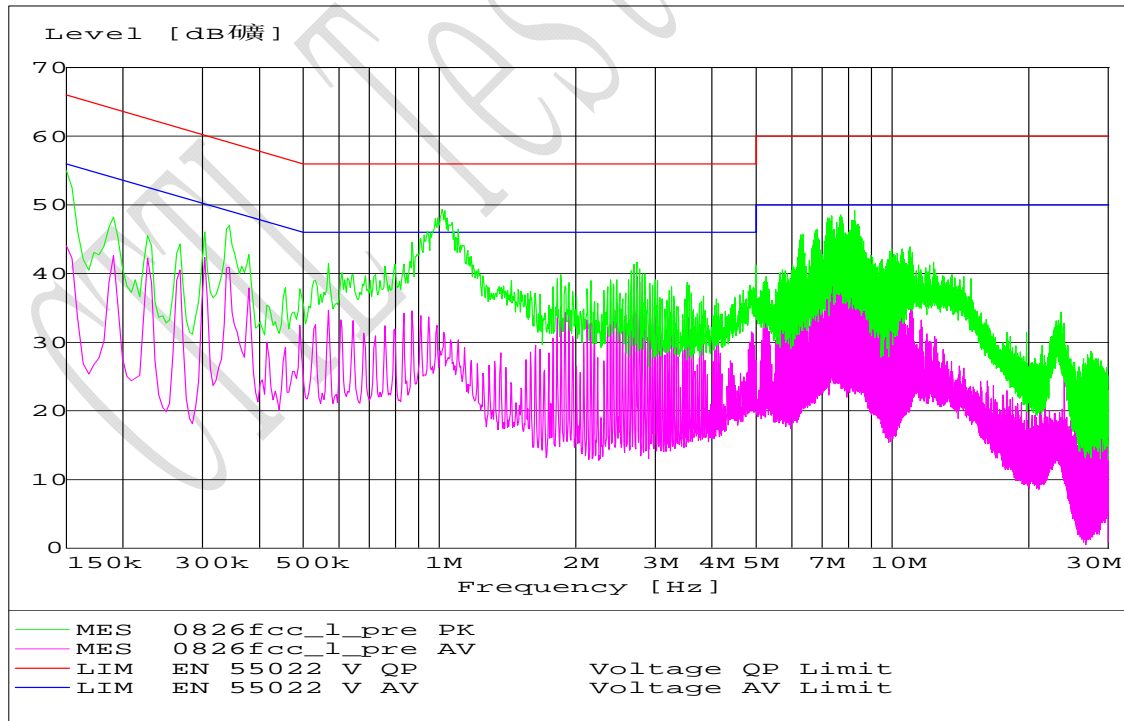
Detector (QP/AV)	Frequency (MHz)	Level (dBµV)	Transducer (dB)	Limit (dB)	PE
--	--	--	--	--	--

Remarks: The test result is the worst case.

Graphical results:

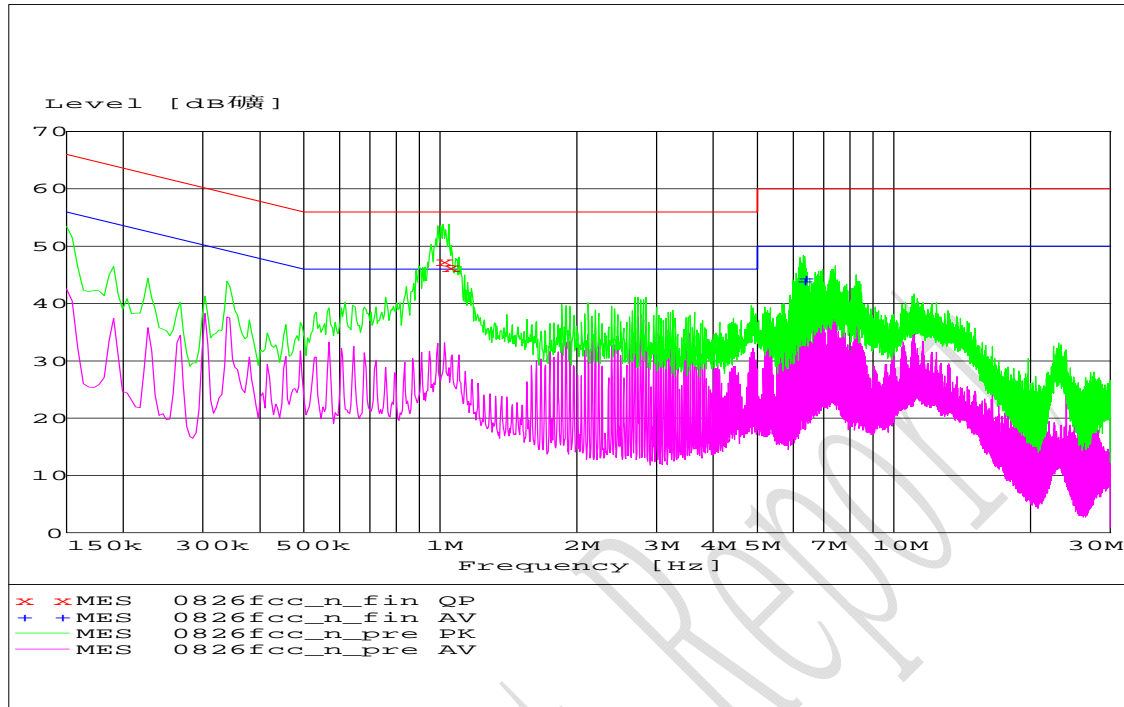


CE graphical results(USB port, Line N)

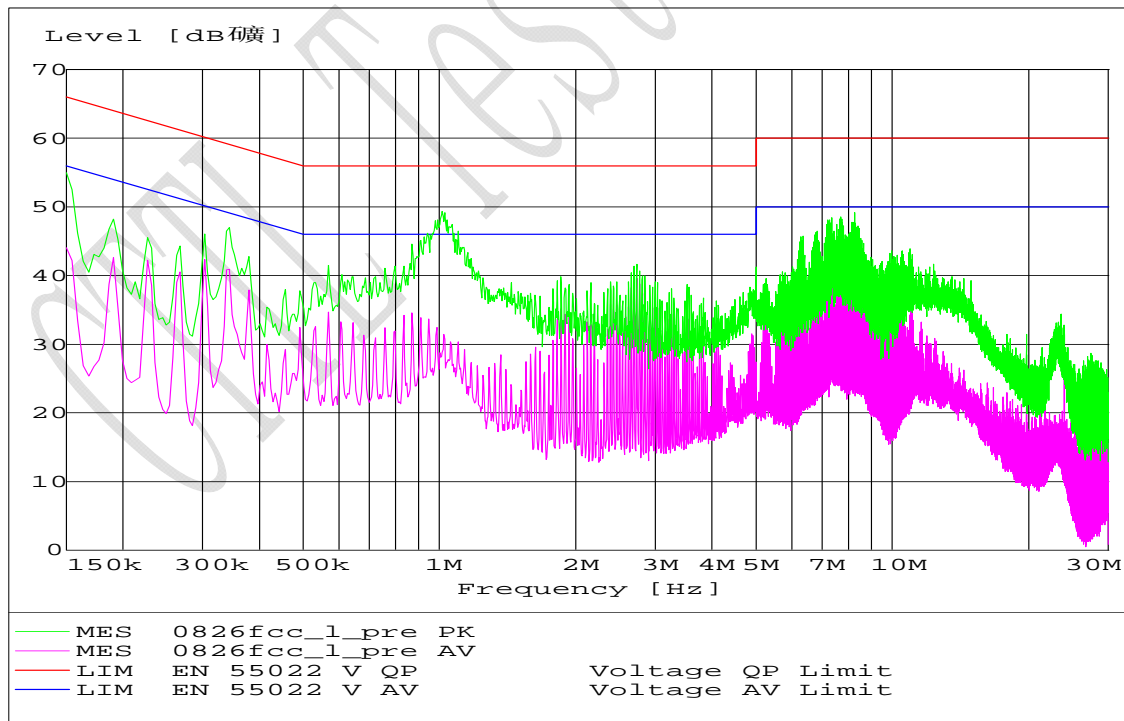


CE graphical results(USB port, Line L)

Graphical results:

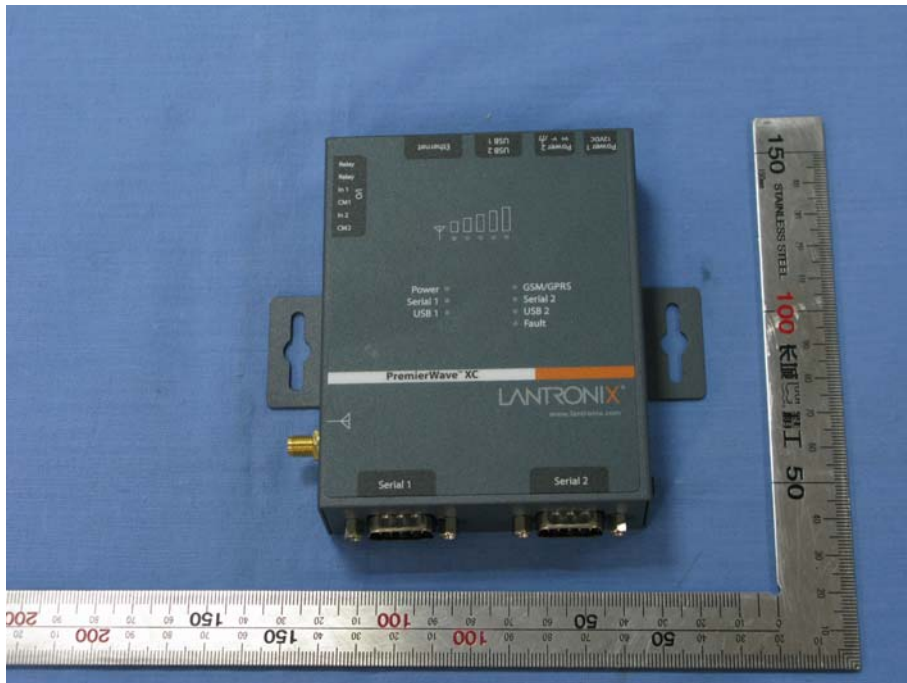


CE graphical results(RJ45 port、Line N)

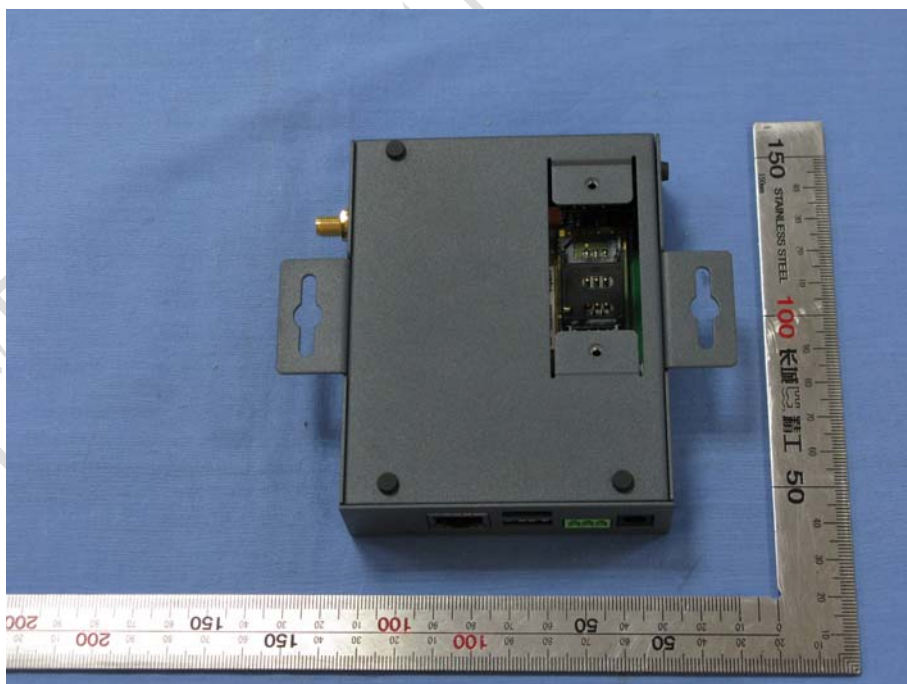


CE graphical results(RJ45 port、Line L)

Annex A External Photos



Front view



Back view



Adaptor and Antenna



Port 1

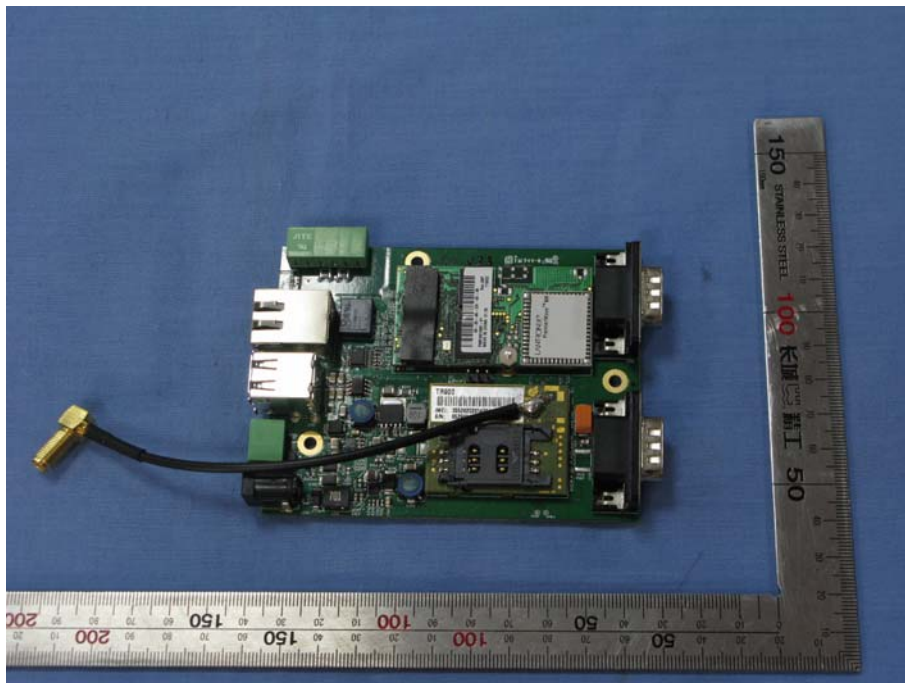


Port 2

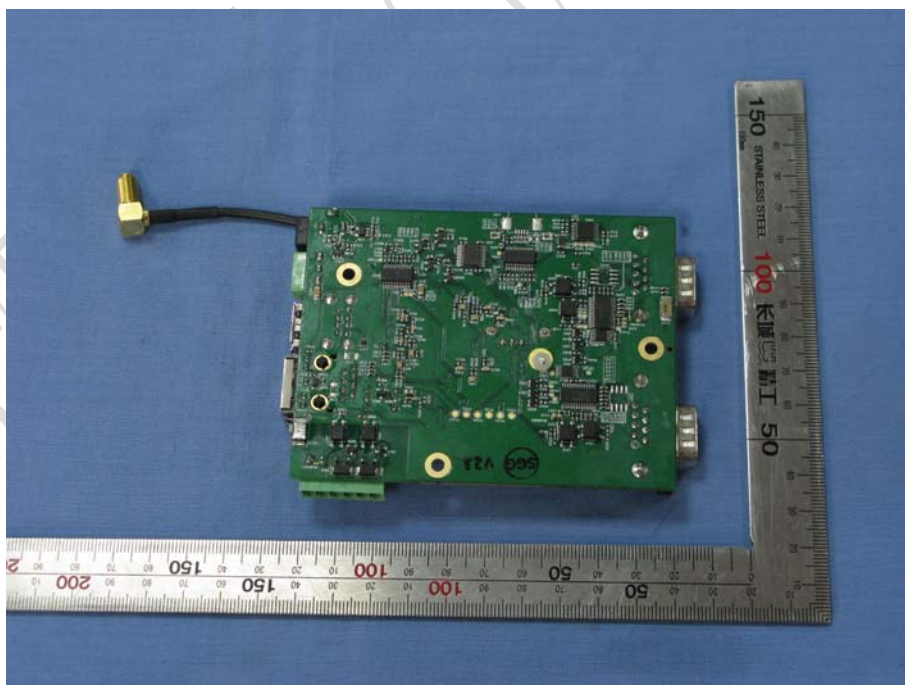


Port 3

Annex B Internal Photos



Main board (face)



Main board (back)

ANNEX C Deviations from Prescribed Test Methods

No deviation from Prescribed Test Methods.

————— The End of this Report —————

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