

MEASUREMENT REPORT of *Wireless LAN Access Point*

Applicant : Procomp Informatics Ltd.
Model No. : PW-8120AR
EUT : Wireless LAN Access Point
FCC ID : MAA-PW8120AR
Report No. : R2415719

Tested by :

Training Research Co., Ltd.

TEL : 886-2-26935155 **FAX : 886-2-26934440**
No. 255, Nanyang Street, Shijr, Taipei Hsien 221, Taiwan, R.O.C.

CERTIFICATION

We here by verify that:

The test data, data evaluation, test procedures and equipment configurations shown in this report were made mainly in accordance with the procedures given in ANSI C63.4 (1992) as a reference. All test were conducted by **Training Research Co., Ltd.**, 255 Nanyang Street, Shijr, Taipei Hsien 221, Taiwan, R.O.C. Also, we attest to the accuracy of each.

We further submit that the energy emitted by the sample EUT tested as described in the report is **in compliance with** the technical requirements set forth in the FCC Rules Part 15 Subpart C Section 15.247.

Applicant : Procomp Informatics Ltd.
Applicant address : 5F, No 69-10, Chung Cheng E. Rd., Sec2. Tamshui City
Taiwan, R.O.C.
EUT : Wireless LAN Access Point
Model No. : PW-8120AR
FCC ID : MAA-PW8120AR
Report No. : R2415719
Test Date : November 27, 2002

Prepared by: Jack Tsai
Jack Tsai

Approved by: Frank Tsai
Frank Tsai

Tested by :

Training Research Co., Ltd.

TEL: 886-2-26935155 FAX: 886-2-26934440
255 Nanyang Street, Shijr, Taipei Hsien 221, Taiwan, R.O.C.

Tables of Contents

I. GENERAL	5
1.1 Introduction	5
1.2 Description of EUT	5
1.3 Test method	5
1.4 Description of Support Equipment	6
1.5 Configuration of System Under Test	8
1.6 Verify the Frequency and Channel	11
1.7 Test Procedure	12
1.8 Location of the Test Site	12
1.9 General Test Condition	12
II. Section 15.203 : Antenna Requirement	13
III. Section 15.207 : Power Line Conducted Emissions for AC Powered Units	14
3.1 Test Condition & Setup	14
3.2 List of Test Instruments	14
3.3 Test Result of Conducted Emissions	15
Table 1 Conducted emissions of channel 01	15
Table 2 Conducted emissions of Channel 06	16
Table 3 Conducted emissions of Channel 11	17
IV. Section 15.247(a) : Technical Description of the EUT	18
V. Section 15.247(a)(2) : Bandwidth for Direct Sequence System	19
5.1 Test Condition & Setup	19
5.2 Test Instruments Configuration	19
5.3 List of Test Instruments	19
5.4 Test Result of Bandwidth	20
Channel 01	21
Channel 06	22
Channel 11	23

VI. Section 15.247(b) : Power Output	24
6.1 Test Condition & Setup	24
6.2 List of Test Instruments	24
6.3 Test Result	25
VII. Section 15.247(c) : Spurious Emissions (Radiated)	26
7.1 Test Condition & Setup	26
7.2 List of Test Instruments	27
7.3 Test Result of Spurious Radiated Emissions	28
Table 4 Radiated emissions of Horizontal for 30MHz to 1GHz	28
Table 5 Radiated emissions of Vertical for 30MHz to 1GHz	29
Table 6 Above 1GHz radiated emissions of Horizontal of CH1	30
Table 7 Above 1GHz radiated emissions of Vertical of CH1	30
Table 8 Above 1GHz radiated emissions of Horizontal of CH6	31
Table 9 Above 1GHz radiated emissions of Vertical of CH6	31
Table 10 Above 1GHz radiated emissions of Horizontal of CH11	32
Table 11 Above 1GHz radiated emissions of Vertical of CH11	32
7.4 Test Result of Bandedge	33
Channel 01	34
Channel 11	35
VIII. Section 15.247(d) : Power Spectral Density	36
8.1 Test Condition & Setup	36
8.2 Test Instruments Configuration	36
8.3 List of Test Instruments	36
8.4 Test Result of Power Spectral Density	37
Channel 01	38
Channel 06	39
Channel 11	40

. GENERAL

1.1 Introduction

The following measurement report is submitted on behalf of applicant in support that the *Wireless Access Point* certification in accordance with Part 2 Subpart J and Part 15 Subpart A and C of the Commission's Rules and Regulations.

1.2 Description of EUT

EUT	:	Wireless LAN Access Point
Model No.	:	PW-8120AR
FCC ID	:	MAA-PW8120AR
Frequency Range	:	2.412 GHz ~ 2.462GHz
Support Channel	:	11 Channel
Modulation Skill	:	DBPSK, DQPSK, CCK
Power Type	:	By the Power adaptor M/N: SA0105-A I/P: 100-240Vac, 50-60Hz; O/P: +5VDC, 1.4A
Data Cable	:	RJ45 cable x 1 -- 30m long, non-shielded, no ferrite core USB cable x 1 -- 1.85m long, shielded, no ferrite core
Power Cable	:	190cm long, non-shielded, no ferrite core

1.3 Test method

- 1 Using the LAN port of far-end computer and software provided by the manufacturer to control the EUT. The test is performed under those specific conditions.
- 2 Then making access to the mode of continuous transmission and set testing channel. The test is performed under those specific conditions

1.4 Description of Support Equipment

In order to construct the minimum testing, following equipment were used as the support units.

Notebook : **ASUSTek Computer**
 Model No. : AB00F
 Serial No. : 24NP016361
 FCC ID : Doc Approved
 BSMI : 41016012
 Power type : 100 ~ 240VAC, 1A 50/60 Hz, Switching

Adaptor : **LITE-ON Electronics, Inc.**
 Model No. : PA-1530-01
 Serial No. : 00151184
 FCC ID : Doc Approved
 檢磁 : 3882B259
 Power cable : Non-shielded, 1.72m length, Plastic hood, No ferrite core
 (Between power adaptor and AC power source)
 Power cable : Shielded, 1.48m length, Plastic hood, with ferrite core
 (Between power adaptor and notebook)

HUB : **D-Link**
 Model No. : DGS-1008T
 FCC ID : N/A, DoC Approved
 Power type : I/P: 100 ~ 240vac, 50 ~ 60 Hz, 0.7A
 Power cord : Non-shielded, no ferrite core, 1.90m long

USB Mouse : **Logitech**
 Model No. : M-BA47
 Serial No. : LZE92250027
 FCC ID : Doc Approved
 檢磁 : 4872A220
 Power type : By PC
 Data cable : Shielded, 1.8m long, Plastic, No ferrite core

Notebook : **IBM Think Pad X20**
Model No. : 2662-11T
Serial No. : FX-1192200/09
FCC ID : N/A, Doc Approved
檢磁 : 3892B565

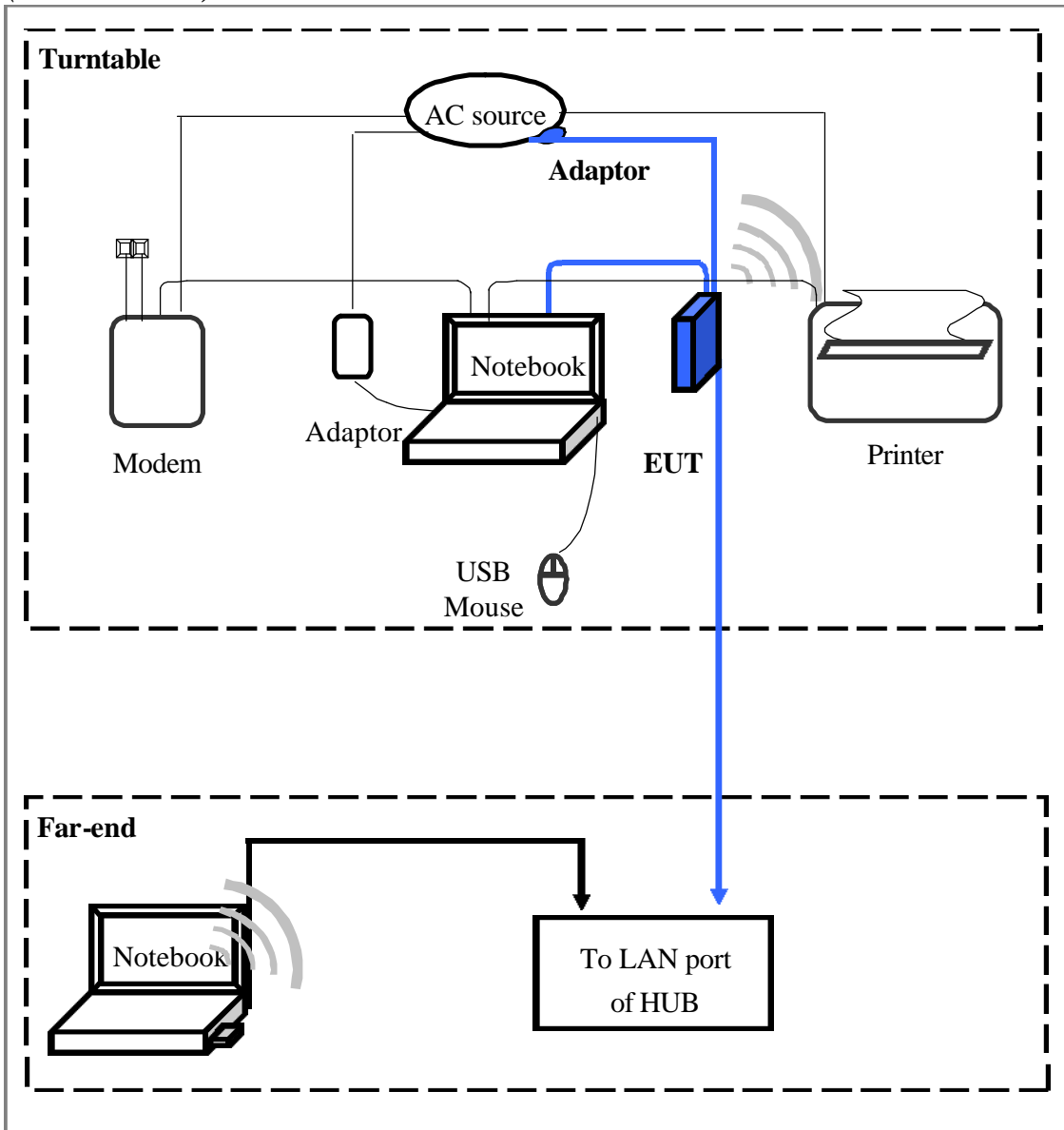
Adaptor : **IBM**
Model No. : PA2450U
Serial No. : 02K6654
FCC ID : N/A, Doc Approved
Power type : I/P: 100 ~ 240vac, 50 ~ 60 Hz, 0.5A ~ 1.2A O/P: 16Vdc, 4.5A
Power cord : Non-shielded, 1.80m long, Plastic, with ferrite core

Fax/Modem : **Aceex**
Model No. : DM-1414
Serial No. : 9010582
FCC ID : IFAXDM1414
Power type : 110 VAC / 50 ~ 60 Hz, Switching
Power Cord : Non-shielded, 1.90m long, Plastic hoods, and no ferrite bead
Data Cable : RS-232 Shielded, 1.30m long, Metal hoods , No bead
RJ-11Cx2 Non-shielded, 7' long, Plastic hoods, No bead

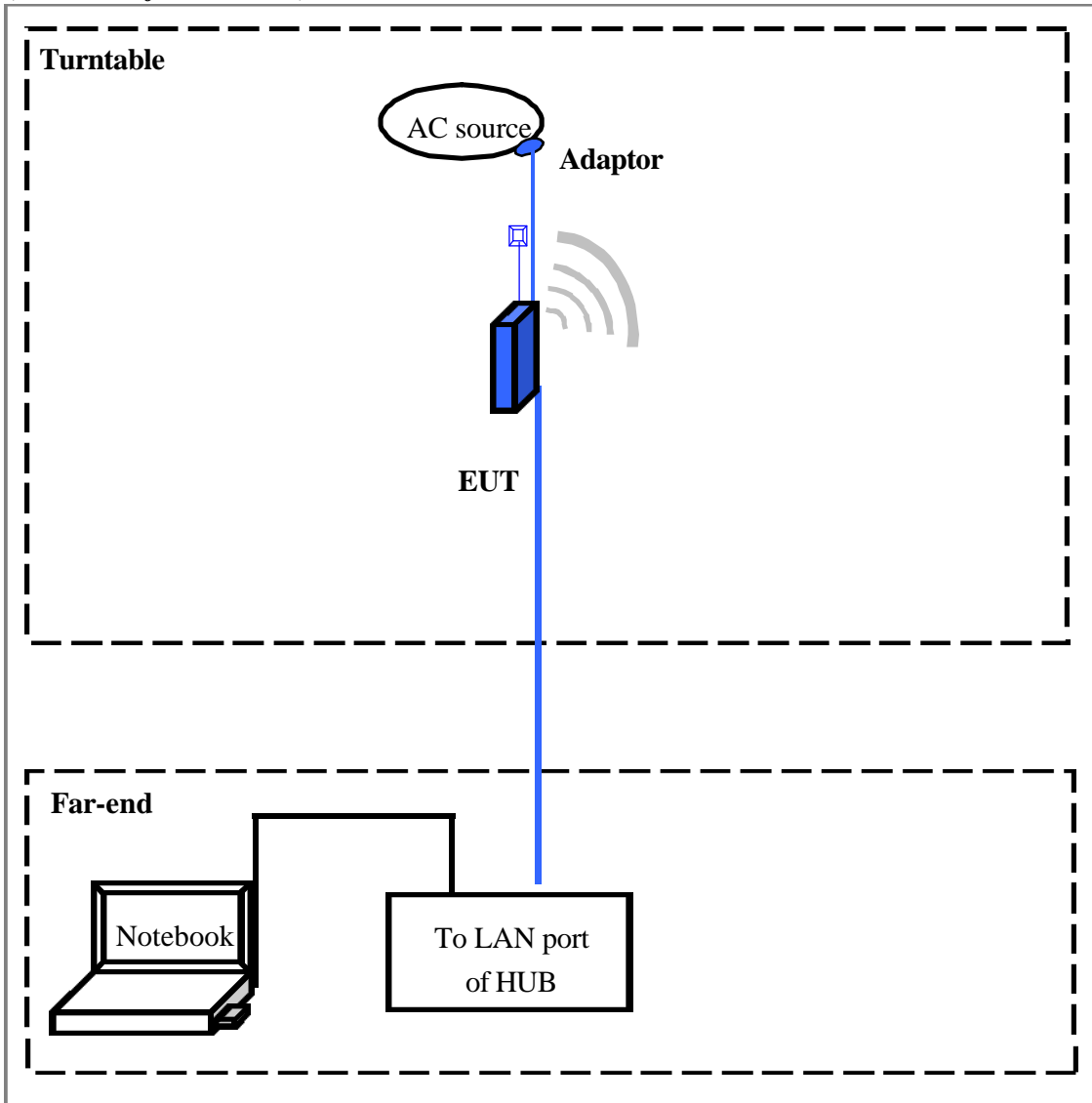
Printer : **HP**
Model No. : C6464A
Serial No. : TH16LEB5PK
FCC ID : N/A, DoC Approved
檢磁 : 3892H381
Power type : Switching adaptor
Power cord : Non-shielded, 173cm long, No ferrite core
(between adaptor and AC source)
Non-shielded, 180cm long, with ferrite core
(between printer and adaptor)
Data cable : Shielded, 1.70m long, No ferrite core

1.5 Configuration of System Under Test

(Conducted Test)



(Radiated of intentional)



The tests below are carried with the EUT transmitter set at high power in TDD mode. The EUT is forced to select of output power level and channel number by notebook computer using with the utility provided by the manufacturer. The setting up procedure was recorded in <1.3> test method.

Connections of Computer

Notebook:

- *Parallel Port --- a printer
- *Serial Port --- an external modem
- *USB Port --- USB mouse
- *USB Port --- EUT

Connections of EUT

Power adaptor:

- M/N: SA-0105-A
- I/P: 100-240Vac, 50-60Hz,
- O/P: +5VDC, 1.4A
- *Power cable of adaptor x 1
- 190cm long, non-shielded, no ferrite core

Wireless Access Point:

****External Antenna Port***

- *Disability*
- *RJ45 Cable x 1
- 30m long, non-shielded, no ferrite core
- *USB Cable x 1
- 1.85m long, shielded, no ferrite core