FCC TEST REPORT

according to

FCC Rules and Regulations

Part 15 Subpart C

Applicant	SerComm Corporation
Address	8F, No. 3-1, YuanQu St., NanKang, Taipei 115, Taiwan, R.O.C.
Equipment	3 in 1 AP
Model No.	IP802SM V2
FCC ID	P27IP802SMV2
Trade Name	Sercomm

Laboratory accreditation

CNLA

1332

- The test result refers exclusively to the test presented test model / sample.,
- Without written approval of ***E**xclusive **C**ertification **C**orp.* the test report shall not be reproduced except in full.
- The EUT is also considered as a kind of computer peripheral, because the connection to computer is necessary for typical use. It has been verified to comply with the requirements of FCC Part 15, Subpart B, Class B (DoC). The test report has been issued separately.

Contents

CERTIFICATE OF COMPLIANCE

according to

FCC Rules and Regulations

Part 15 Subpart C

Applicant	SerComm Corporation
Address	8F, No. 3-1, YuanQu St., NanKang, Taipei 115, Taiwan, R.O.C.
Equipment	3 in 1 AP
Model No.	IP802SM V2
FCC ID	P27IP802SMV2

I **HEREBY** CERTIFY THAT :

The measurements shown in this test report were made in accordance with the procedures given in **ANSI C63.4** The equipment was ***passed*** the test performed according to **FCC Rules and Regulations Part 15 Subpart C (2003).** The test was carried out on Mar. 10, 2005 at ***Exclusive Certification Corp.***

Signature

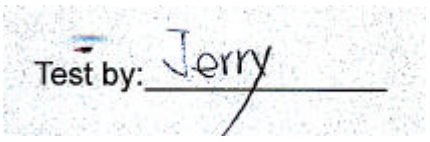
Anson Chou Mar. 18, 2005

Anson Chou / Manager

1. Report of Measurements and Examinations

1.1. List of Measurements and Examinations

FCC Rule	. Description of Test	Result
15.203	. Antenna Requirement	Pass
15.207	. Conducted Emission	Pass
15.209	. Radiated Emission	Pass
15.247(a)(2)	. 6dB Bandwidth	Pass
15.247(b)	. Maximum Peak Output Power	Pass
15.247(c)	. 100kHz Bandwidth of Frequency Band Edges	Pass
15.247(d)	. Power Spectral Density	Pass
1.1307 1.1310 2.1091 2.1093	. RF Exposure Compliance	Pass



2. Test Configuration of Equipment under Test

2.1. Test Mode and Test Software

The following test mode and test software was performed for conduction and radiation test:

- 802.11b (CH LO: 2412MHz) • 802.11b (CH MID: 2437MHz) • 802.11b (CH HI: 2462MHz)
- 802.11g (CH LO: 2412MHz) • 802.11g (CH MID: 2437MHz) • 802.11g (CH HI: 2462MHz)
- An executive programs, "DUTAPIDLL" Application under WIN XP.

The test mode including two kind of type for radiated and conduction test:

- Test mode 1: Transmit/ Receive (DC 5V from adapter)
- Test mode 2: Transmit/ Receive (DC 5V from pc system)

2.2. Description of Test System

Device	Manufacturer	Model No.	Description
PC	IBM	IGV	Power Cable, Unshielding 1.8 m
Monitor	SlimAGE	510A	Power Cable, Adapter Unshielding 1.8 m Data Cable, VGA shielding 1.35 m
Keyboard	IBM	KB-0225	Data Cable, PS2, shielding 1.85 m
Mouse	IBM	MO28VO	Data Cable, USB shielding 1.85 m
Modem	ACEXX	DM-1414	Power Cable, Adapter Unshielding 1.8 m Data Cable, RS232 shielding 1.35 m
Printer	HP	Desk Jet400	Power Cable, Adapter Unshielding 1.8 m Data Cable, PRINT shielding 1.6 m

Use Cable:

EMI

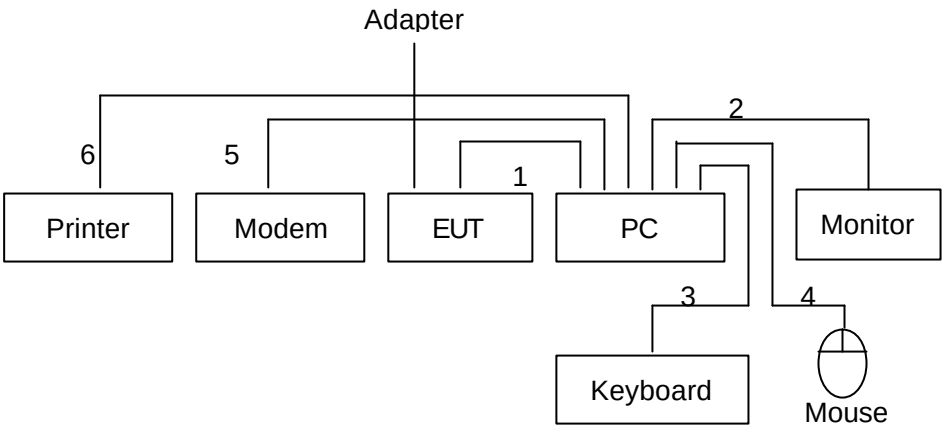
Cable	Description
USB	Shielding, 0.6m
RJ-45	Unshielding, 1m

EMS

Cable	Description
USB	Shielding, 0.6m
RJ-45	Unshielding, 3m

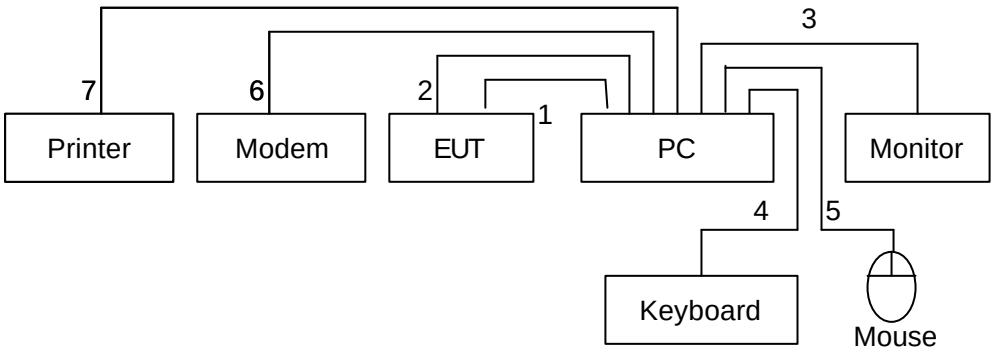
2.3. Connection Diagram of Test System

The test setup including two kind of mode:
Test mode 1: Transmit/ Receive (DC 5V from adapter)



1. The RJ45 cable is connected form PC to the EUT.
2. The I/O cable is connected from PC to the Monitor.
3. The I/O cable is connected from PC to the Keyboard.
4. The I/O cable is connected from PC to the Mouse.
5. The I/O cable is connected from PC to the MODEM
6. The I/O cable is connected from PC to the Printer.

Test mode 2: Transmit/ Receive (DC 5V from pc system)



1. The RJ45 cable is connected form PC to the EUT.
2. The USB cable is connected form PC to the EUT.
3. The I/O cable is connected from PC to the Monitor.
4. The I/O cable is connected from PC to the Keyboard.
5. The I/O cable is connected from PC to the Mouse.
6. The I/O cable is connected from PC to the MODEM
7. The I/O cable is connected from PC to the Printer.

2.4. Feature of Equipment under Test

Model	Wireless 3-in-1 Companion
Dimensions	70 mm (W) * 105 mm(D) * 22 mm (H)
Operating Temperature	0°C to 40°C
Storage Temperature	-10°C to 70°C
Network Protocol:	TCP/IP
Network Interface:	1 * 10/100BaseT Ethernet
	1 * Wireless Interface
LEDs	3
Power Adapter	5 V DC External

2.5. RF Module Specifications

Standards	IEEE802.11g WLAN, JEIDA 4.2, roaming support
Frequency	2.4 to 2.4835GHz (Industrial Scientific Medical Band)
Channels	Maximum 14 Channels, depending on regulatory authorities
Modulation	DSSS BPSK/QPSK/CCK, OFDM/CCK
Data Rate	Up to 54 Mbps
Coverage Area	Indoors : 10m @54Mbps, 80m @6Mbps or lower
	Outdoors : 30m @54Mbps, 200m @6Mbps or lower
Security	WEP 64Bit, WEP 128Bit, WPA-PSK
Output Power	15 dBm (typical)
Receiver Sensitivity	-80 dBm Min.

2.6. History of this test report

ORIGINAL.

3. General Information of Test

Test Site:	Exclusive Certification Corp. 4F-2, No. 28, Lane 78, Xing-Ai Rd. Nei-hu, Taipei City 114 Taiwan R.O.C.
Test Site Location (OATS1-SD):	No.68-1, Shihbachongsi, shihding Township, Taipei County 223, Taiwan, R.O.C.
Test Voltage:	AC 110V/ 60Hz
Test in Compliance with:	ANSI C63.4-2003 FCC Part 15 Subpart C
Frequency Range Investigated:	Conducted: from 150kHz to 30 MHz Radiation: from 30 MHz to 24620MHz
Test Distance:	The test distance of radiated emission from antenna to EUT is 3 M.

4. Antenna Requirements

4.1. Standard Applicable

For intentional device, according to FCC 47 CFR Section 15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device.

And according to FCC 47 CFR Section 15.247 (b), if transmitting antennas of directional gain greater than 6dBi are used, the power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6dBi.

4.2. Antenna Construction and Directional Gain

Antenna type: Integral PIFA Antenna

Antenna Gain: 1 dBi.

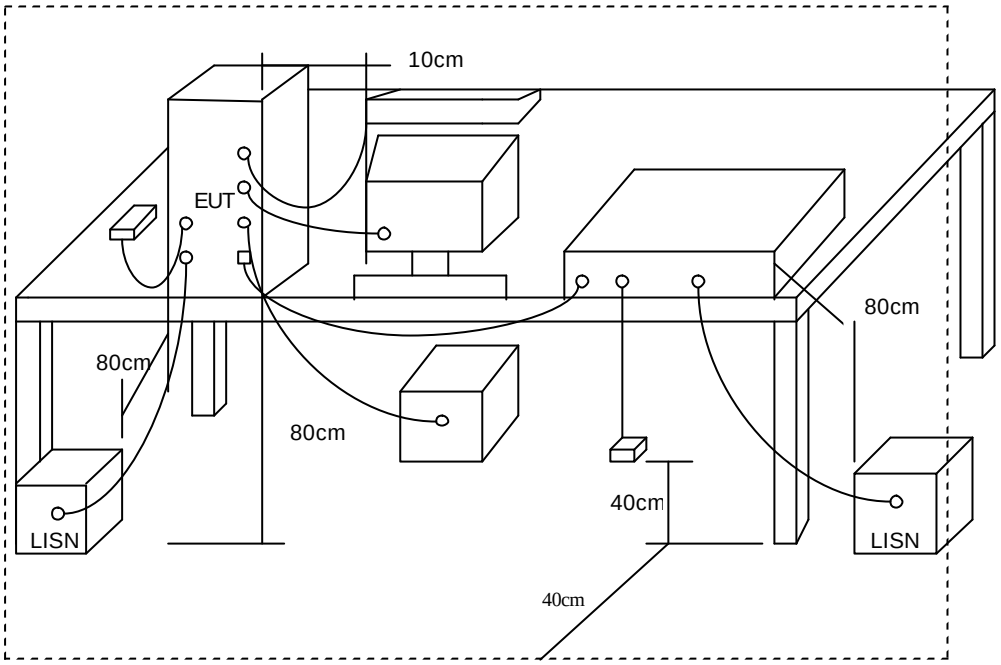
5. Test of Conducted Emission

Conducted Emissions were measured from 150 kHz to 30 MHz with a bandwidth of 9 KHz on the 115 VAC power and return leads of the EUT according to the methods defined in ANSI C63.4-2003 Section 3.1. The EUT was placed on a nonmetallic stand in a shielded room 0.8 meters above the ground plane as shown in section 1.3.1. The interface cables and equipment positioning were varied within limits of reasonable applications to determine the position produced maximum conducted emissions.

5.1. Test Procedures

a. The EUT was placed 0.4 meter from the conducting wall of the shielding room was kept at least 80 centimeters from any other grounded conducting surface.
b. Connect EUT to the power mains through a line impedance stabilization network (LISN).
c. All the support units are connecting to the other LISN.
d. The LISN provides 50 ohm coupling impedance for the measuring instrument.
e. The FCC states that a 50 ohm, 50 micro-henry LISN should be used.
f. Both sides of AC line were checked for maximum conducted interference.
g. The frequency range from 150 kHz to 30 MHz was searched.
h. Set the test-receiver system to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.

Typical Test Setup Layout of Conducted Emission



5.2. Conducted Emission Requirement

Except for A digital devices, for equpment that is designed to be connected to the public utility (AC) power line on any frequency voltage that is conducted back onto the AC power line on ant frequency or frequencies within the band 150KHz to 30MHz shall not exceed the limits in the following table, as measured using a 50μH/50 ohms line impeddance stabilization network (LISN). Compliance with the provisions of this paragraph shall be based on the measurement of the Radio frequency voltage between each power line and ground at the power terminal. The lower limit applies at the band edges.

Frequency (MHz)	Quasi Peak (dB μ V)	Average (dB μ V)
0.15 – 0.5	66-56*	56-46*
0.5 – 5.0	56	46
5.0 – 30.0	60	50