

SHC, SAM4S

User Guide

WLAN Setup Utility

Ver 1.0

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2014/04/07

www.sam4s.com

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1. INTRODUCTION

It includes all of necessary utilities for WLAN Interface's network setting.

2. SUPPORT DEVICE

DEVICES

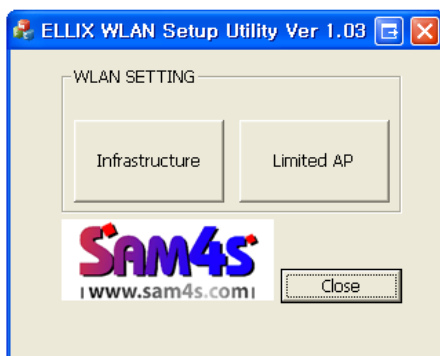
- GIANT-100

FUNCTIONS

- Infrastructure mode setting
- Limited AP mode setting

3. User Interface

1) WLAN Setup Utility Dialog



WLAN Setup Utility Dialog

You can select a function button as you want to use.

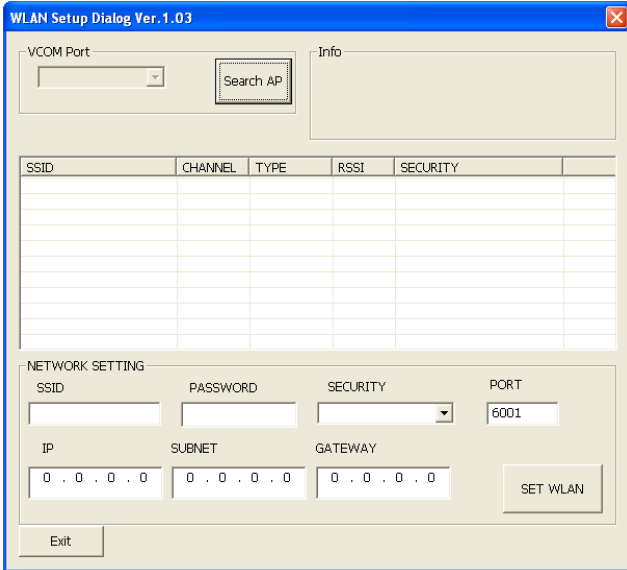
Infrastructure

You can check list of AP and AP connection setting

Limited AP

You can set a printer to be AP.

2) WLAN Setup Dialog (Infrastructure)

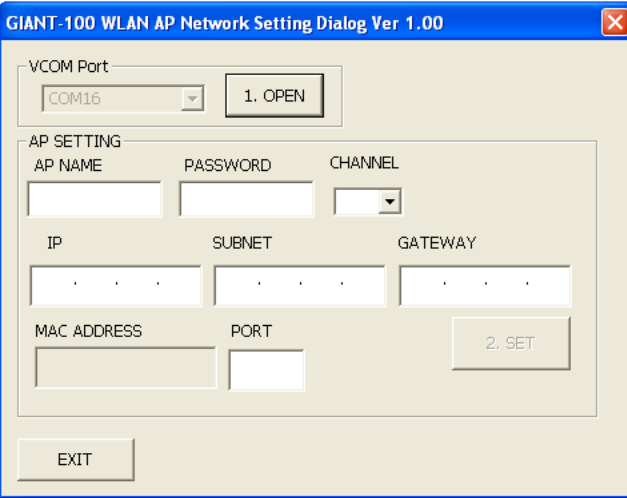


The screenshot shows the 'WLAN Setup Dialog Ver. 1.03' window. It features a 'VCOM Port' dropdown menu and a 'Search AP' button. Below these is an 'Info' section. A table with columns 'SSID', 'CHANNEL', 'TYPE', 'RSSI', and 'SECURITY' is present. At the bottom, there is a 'NETWORK SETTING' section with fields for SSID, PASSWORD, SECURITY (dropdown), PORT (6001), IP (0.0.0.0), SUBNET (0.0.0.0), and GATEWAY (0.0.0.0). Buttons for 'Exit' and 'SET WLAN' are also visible.

WLAN Setup Dialog

Infrastructure mode is selected, this dialog appears. You can check an AP list and set to connection for target AP.

3) WLAN AP Network Setting Dialog (Limited AP)



The screenshot shows the 'GIANT-100 WLAN AP Network Setting Dialog Ver 1.00' window. It includes a 'VCOM Port' dropdown menu set to 'COM16' and a '1. OPEN' button. The 'AP SETTING' section contains fields for AP NAME, PASSWORD, CHANNEL (dropdown), IP, SUBNET, GATEWAY, MAC ADDRESS, and PORT. Buttons for 'EXIT' and '2. SET' are located at the bottom.

WLAN AP Network Setting Dialog

Limited AP mode is selected, this dialog appears. You can set a printer to be AP.

4. Glossary of Terms

1) AP (Access Point)

AP, actually as a device is a hotspot that is like an Ethernet hub. It can be possible to communicate, which is binding one network with wireless clients (devices) nearly located in AP. And it can be possible to connect to WAN, backbone or another AP (hotspot) through the Ethernet line connected with one AP.

2) Infrastructure

If several terminals (PC, PCPOS etc.) or clients connect to one AP and they are composed to the same network, this is called 'infrastructure'. In other words, infrastructure is a structure that GIANT-100 WLAN interface connects with PC or terminals through AP.



3) Limited AP

Limited AP, which GIANT-100 WLAN interface is become AP by itself, can be possible to communicate directly with other terminals (PC, PCPOS etc.) or clients without any other APs.



5. How to set WLAN network

1) Install a Virtual COM Driver (Windows XP, POSReady 2009)

Virtual COM port driver must be installed when WLAN Interface sets up. During installation, Please do these steps are following.

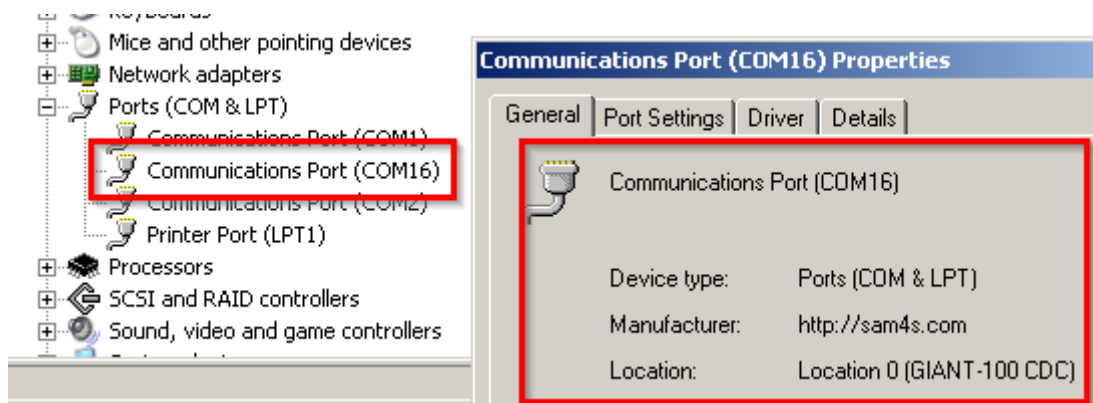
1. Turn a printer off.
2. Install SAM4S Printer Driver for installing virtual COM driver automatically.
(SAM4SPrinterDriverInstallerV1.9.4.exe). Please refer to the manual of SAM4S Printer Driver Installer.
(Select a connection type of the printer: ETHERNET CONNECTION
Create a TCP/IP Printer Port: The value for use later)
3. Connect a USB cable to printer and PC.
4. Turn a printer on.
5. When "Found New Hardware Wizard" is appeared, select a "Install the software automatically (Recommended)"



6. Select a "Continue Anyway" Button.



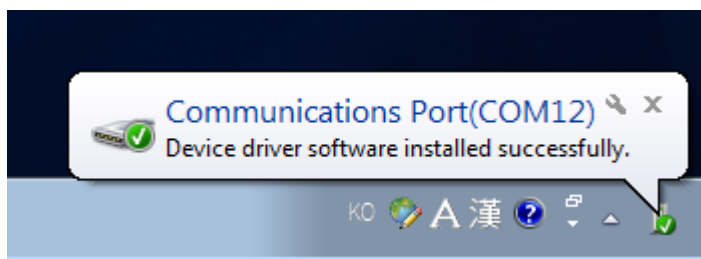
7. When the installation is completed, run the "Device Manager" for checking a New Virtual COM port number.



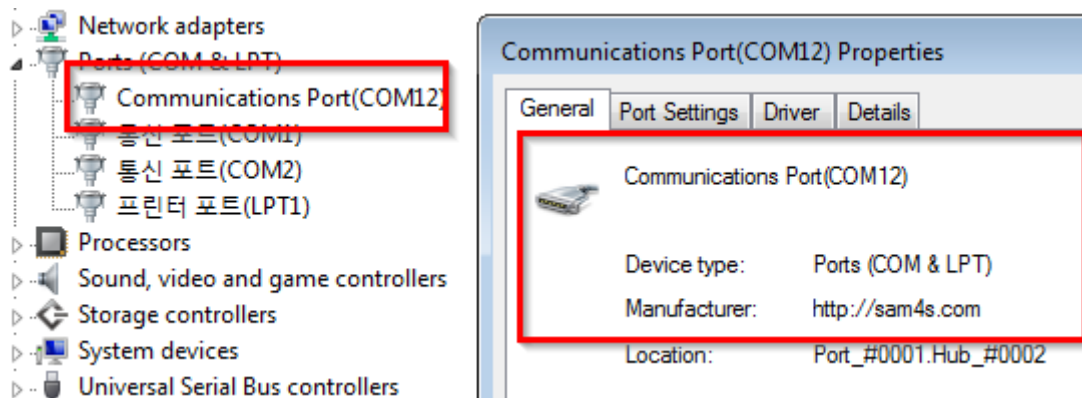
2) Install a Virtual COM Driver (Windows 7, POSReady 7)

Virtual COM port driver must be installed when WLAN Interface to set up. During installation, Please proceed as follows, depending.

1. Turn a printer off.
2. Install SAM4S Printer Driver for installing virtual COM driver automatically.
(SAM4SPrinterDriverInstallerV1.9.4.exe) Please refer to the manual of SAM4S Printer Driver Installer.
(Select a connection type of the printer: ETHERNET CONNECTION
Create a TCP/IP Printer Port: The value for use later)
3. Connect a USB cable to printer and PC.
4. Turn a printer on.
5. When Virtual COM port is installed properly in Windows, this balloon appears as shown.



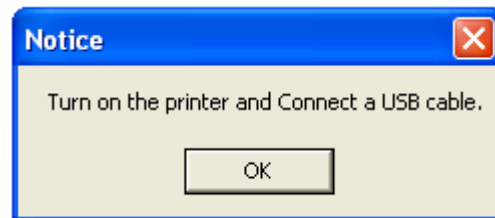
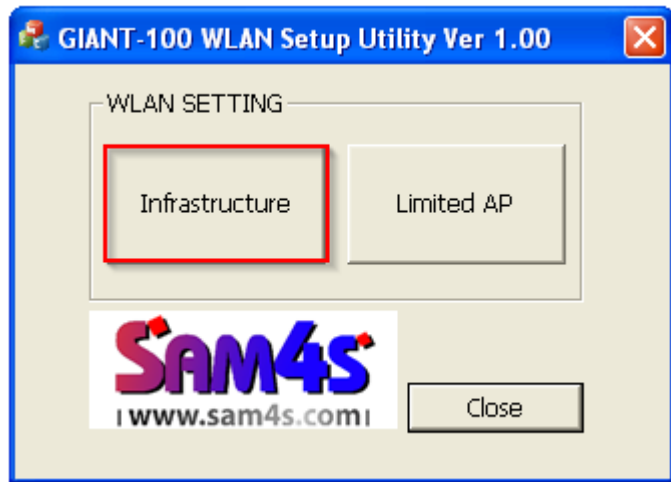
6. When the installation is completed, run the "Device Manager" for checking a New Virtual COM port number.



3) Infrastructure mode

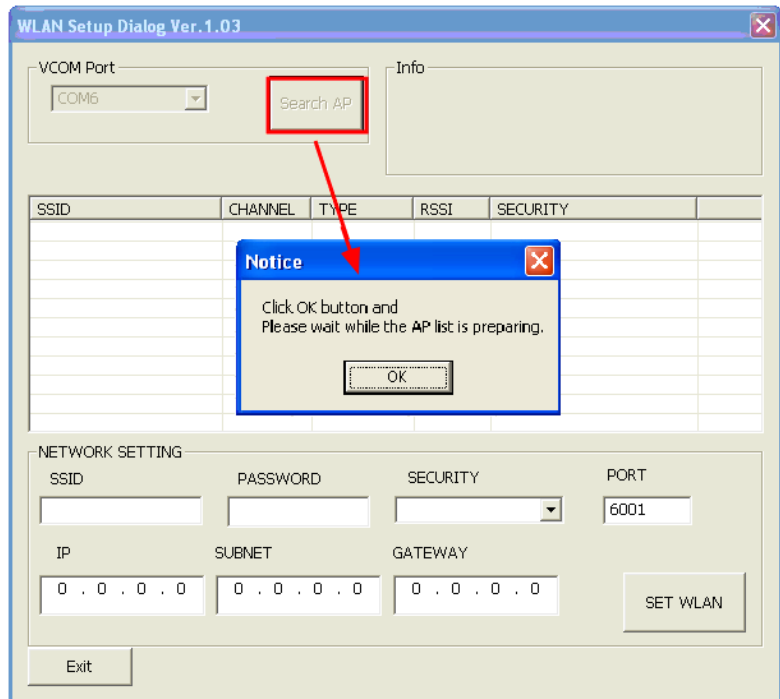
Click **"Infrastructure"** Button in WLAN Setup Utility Dialog.

When message box is appeared, turn a printer on and then connect USB cable PC and printer.



Click **"Search AP"** button to search AP list.

When message box is appeared, click "OK" button.



When "Search AP" is completed,
WLAN interface information and
list of around the AP devices appear .

- SSID : AP Name
- CHANNEL: Communication channel
- TYPE : Operation mode
- RSSI : Received signal strength indication
 - O: Weak signal
 - OO : Normal signal
 - OOO : Strong signal

WLAN Setup Dialog Ver.1.03

VCOM Port: COM6

Info
SSID : Wlzf2xx18878c Security : NONE
IP : 192.168.1.101
Subnet : 255.255.255.0
Gateway : 192.168.1.1

SSID	CHANNEL	TYPE	RSSI	SECURITY
HelloWireless	10	INFRA	O	WEP
iptime	11	INFRA	O	NONE
NETGEAR-JY	11	INFRA	O	WPA-PERSONAL
HARDWARE	11	INFRA	OO	WPA2-PERSONAL
SAM4S3	11	INFRA	O	WPA-PERSONAL
HelloDial LAP	11	INFRA	OO	WEP
KIC	12	INFRA	O	WEP
OUTRIDER	12	INFRA	OO	WPA2-PERSONAL
TANGTANG	13	INFRA	O	WPA-PERSONAL
ALSnetwork	13	INFRA	OO	WEP

NETWORK SETTING

SSID: PASSWORD: SECURITY: PORT: 6001

IP: 192.168.1.101 SUBNET: 255.255.255.0 GATEWAY: 192.168.1.1

Select the SSID of AP which you want to connect. **(You must select Normal or Strong signal SSID for a safety communication.)**

If you need a password for connection, enter a PASSWORD.

If the security of SSID is WEP, you need to select WEP Encryption key.

Enter the Network setting values (IP, SUBNET, and GATEWAY) that are assigned from the **network administrator**. And then click "SET WLAN" button.

GIANT-100 WLAN Setup Dialog Ver.1.00

VCOM Port: COM16

Info
SSID : JYW_WIFI Security : WPA2
IP : 192.168.0.254 SN : 255.255.255.0
GW : 192.168.0.1 PORT : 6001
MAC : 00:08:DC:1C:D4:7B

☐ Deep Scan

SSID	CHANNE	TYPE	RSSI	SECURITY
security	5	Infra	OOO	Open
JYW_WIFI	5	Infra	OOO	WPA2
Tabby-Demo	7	Infra	OO	WPA2-Mixed
SAM4S	6	Infra	OO	WEP
IPTIME_MAIN	6	Infra	OO	WPA2-Mixed

NETWORK SETTING

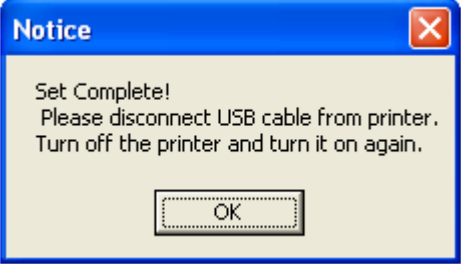
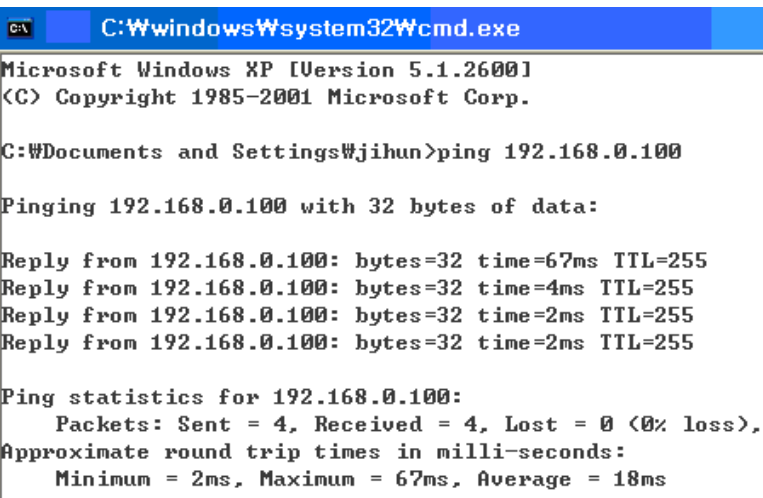
SSID: JYW_WIFI PASSWORD: 1234567890 SECURITY: WPA2 WEP Encryption Key:

IP: 192.168.0.254 SUBNET: 255.255.255.0 GATEWAY: 192.168.0.1 PORT: 6001

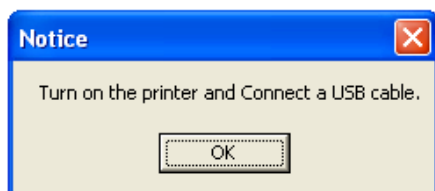
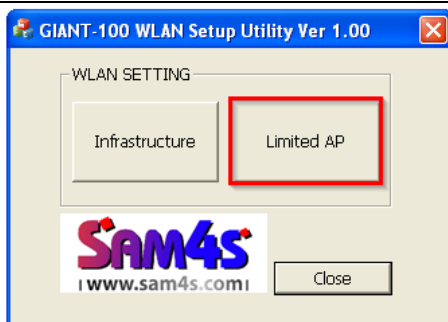
Click the "OK" button; please wait for the completion of setting.

Notice

Click OK button and
Please wait while the AP Setting is updating.

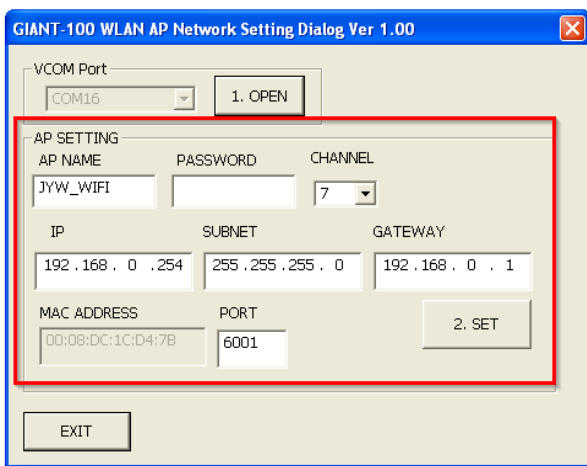
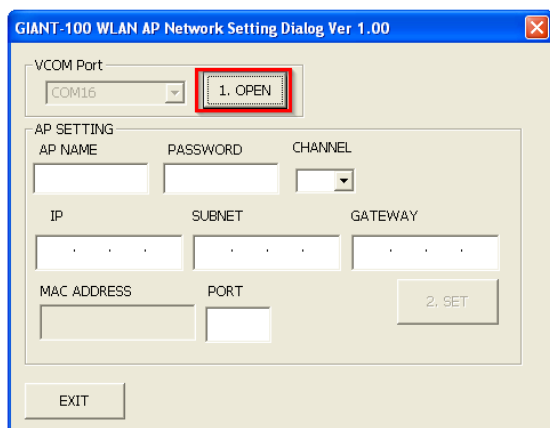
<p>When the setting is completed, this message appears as shown in the figure.</p> <p>Then disconnect the USB cable from the printer, the printer off and turn it on.</p>	
<p>Run the ping test at the command prompt.</p> <p>Ex) ping 192.168.0.100</p> <p><u>Note: PC and the printer must be on the same network.</u></p>	 <pre> C:\Windows\system32\cmd.exe Microsoft Windows XP [Version 5.1.2600] (C) Copyright 1985-2001 Microsoft Corp. C:\Documents and Settings\jihun>ping 192.168.0.100 Pinging 192.168.0.100 with 32 bytes of data: Reply from 192.168.0.100: bytes=32 time=67ms TTL=255 Reply from 192.168.0.100: bytes=32 time=4ms TTL=255 Reply from 192.168.0.100: bytes=32 time=2ms TTL=255 Reply from 192.168.0.100: bytes=32 time=2ms TTL=255 Ping statistics for 192.168.0.100: Packets: Sent = 4, Received = 4, Lost = 0 (0% loss), Approximate round trip times in milli-seconds: Minimum = 2ms, Maximum = 67ms, Average = 18ms </pre>

4) Limited AP mode



Click "**Limited AP**" Button to GIANT-100 WLAN Setup Utility Dialog.

When a message box is appeared, turn a printer on and then connect USB cable between PC and printer.



Click "**1.OPEN**" button to start WLAN interface setting.

After a few seconds you can see the value of setting WLAN Interface as following image.

- AP NAME: WLAN Interface SSID
- PASSWORD: Password to connect WLAN Interface
(Enter a password with 10 number digit or alphabetic value.)
- MAC ADDRESS : MAC address of WLAN Interface
- IP : WLAN Interface IP
- SUBNET : WLAN Interface Subnet
- GATEWAY : WLAN Interface Gateway
- PORT : WLAN Interface Port number
(6001,default)
- CHANNEL: WLAN channel

Enter unique AP name and 10-digit password and then set a network values (IP, SUBNET and GATEWAY).

Ex) AP NAME : TEST_AP

PASSWORD : 1234567890

IP : 192.168.0.123

SUBNET : 255.255.255.0

GATEWAY : 192.168.0.1

CHANNEL : It varies from country to country

→ch 1-11(USA only)

→ch 1-13(Europe, Japan)

Click the “2.SET” button; please wait for the completion of setting.

The screenshot shows the 'GIANT-100 WLAN AP Network Setting Dialog Ver 1.00'. At the top, there is a 'VCOM Port' dropdown set to 'COM16' and a '1. OPEN' button. Below this is the 'AP SETTING' section, which is highlighted with a red rectangle. It contains fields for 'AP NAME' (TEST_AP), 'PASSWORD' (1234567890), and 'CHANNEL' (1). Below these are fields for 'IP' (192.168.0.123), 'SUBNET' (255.255.255.0), and 'GATEWAY' (192.168.0.1). Further down are 'MAC ADDRESS' (00:08:DC:1C:D4:7B) and 'PORT' (6001). A '2. SET' button is located to the right of the PORT field. At the bottom left is an 'EXIT' button.

A 'Notice' dialog box with a blue header and a red close button. The text inside says: 'Click OK button and Please wait while the AP Setting is updating.' Below the text is an 'OK' button.

When the setting is complete, a message appears as shown in the figure.

Disconnect the USB cable from the printer, then turn the printer off and turn it on.

A 'Notice' dialog box with a blue header and a red close button. The text inside says: 'Set Complete! Please disconnect USB cable from printer. Turn off the printer and turn it on again.' Below the text is an 'OK' button.

To make sure it is set up properly, try searching WLAN interface.

This figure shows result of connection to WLAN interface on iPhone.

Please refer to the manual for how to set up a wireless network of wireless LAN equipment you are using.



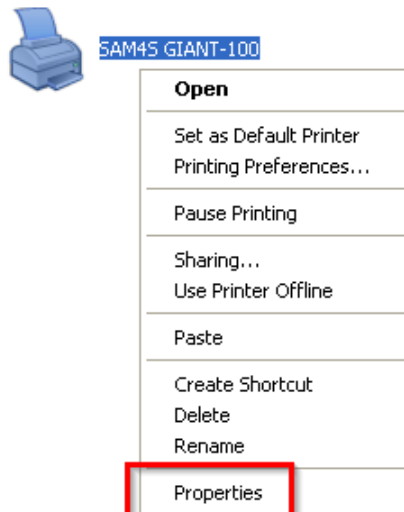
6. How to Set Printer Driver

1) Print Test page (Windows XP, POSReady 2009)

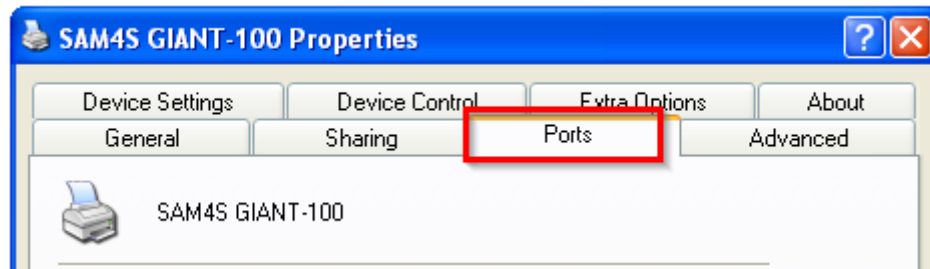
Install SAM4S Printer Driver Installer (SAM4SPrinterDriverInstallerV1.9.4.exe). Please refer to the manual of SAM4S Printer Driver Installer.

(Select a connection type of the printer: ETHERNET CONNECTION Input a Create a TCP/IP Printer Port: any value)

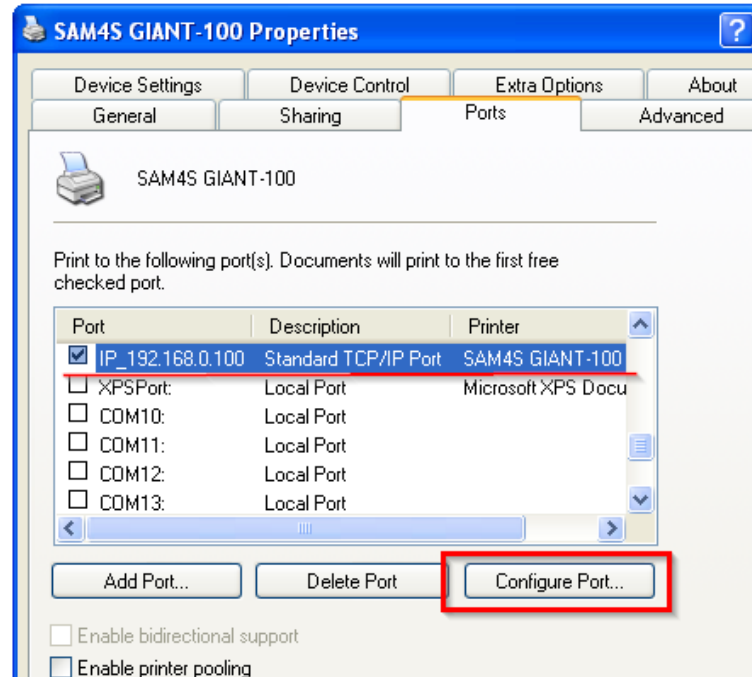
1. Turn a print off.
2. Disconnect a USB cable from printer.
3. Turn a print on again.
4. Select "SAM4S GIANT-100" in "Printers and Faxes" folder. Click a right mouse button and select "Properties".



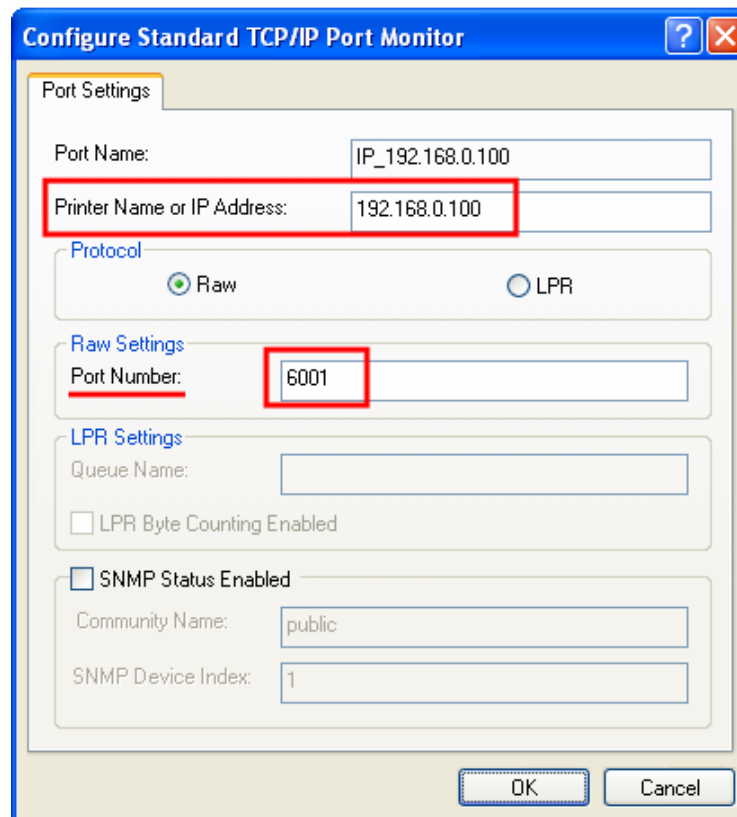
5. Move "Ports" tab.



6. Select Standard TCP/IP Port and click "Configure Port" button.

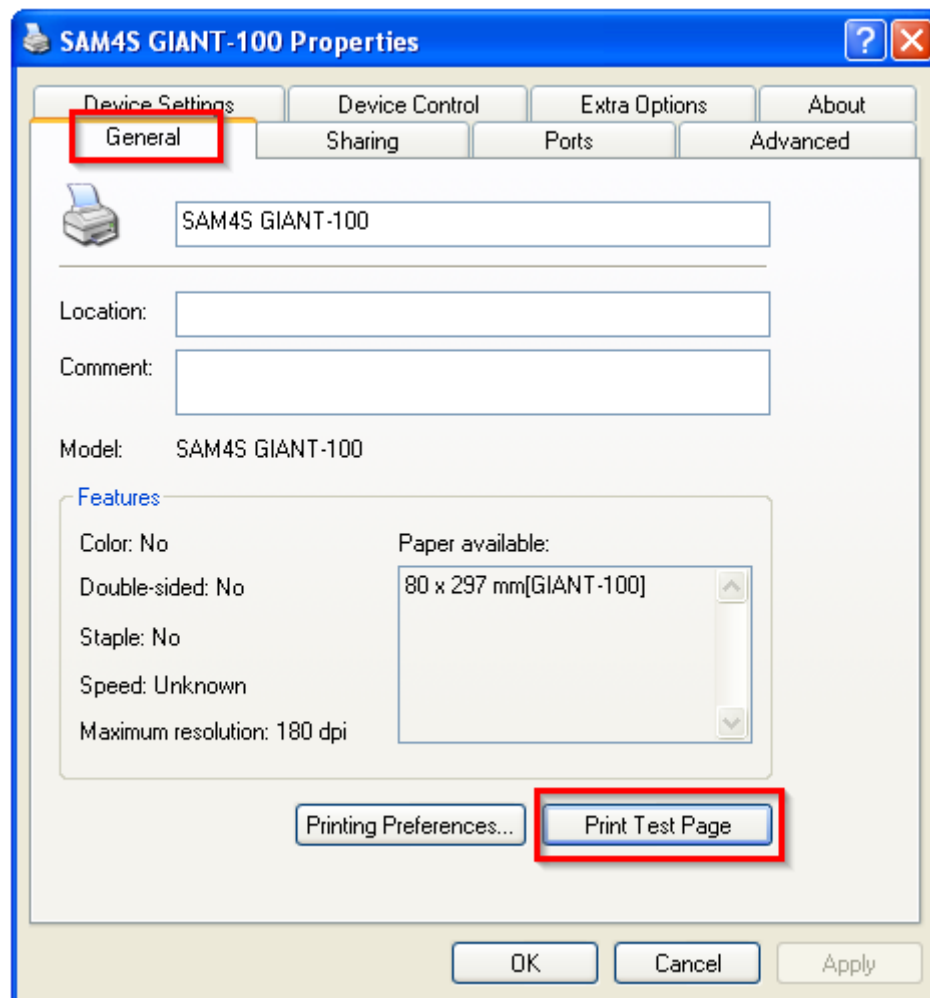


7. Enter a WLAN IP and Port number.



8. Move "General" tab; click "Print Test Page". If a printer doesn't print any page, check network setting and run

ping test.

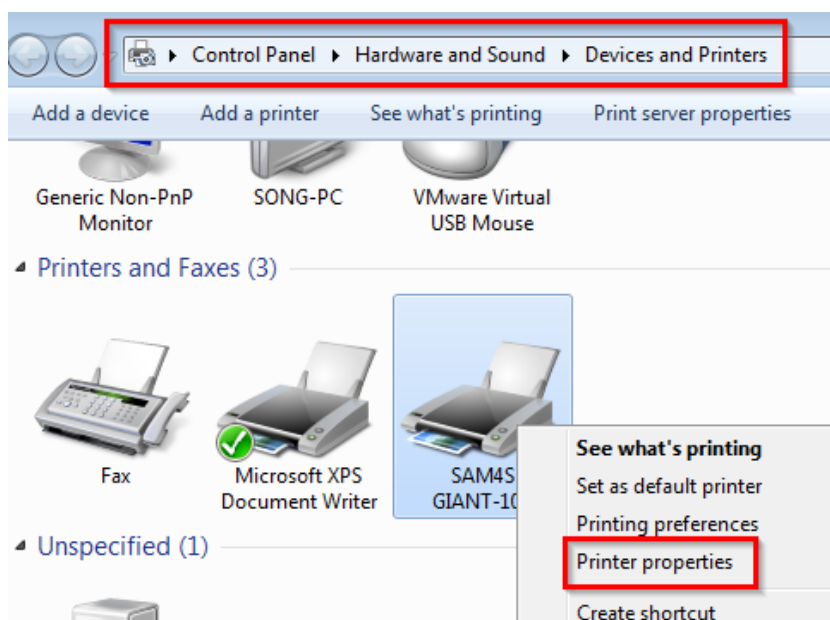


2) Print Test page (Windows 7, POSReady 7)

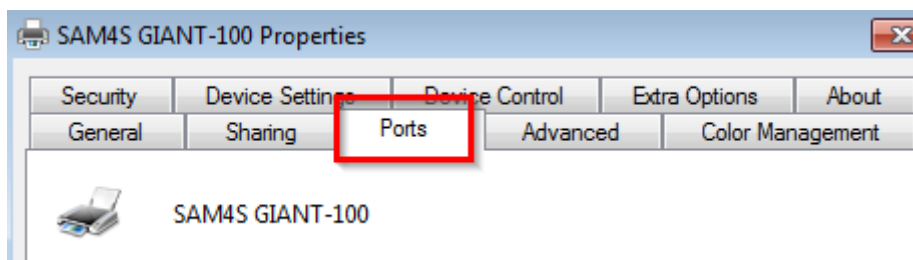
Install SAM4S Printer Driver Installer (SAM4SPrinterDriverInstallerV1.9.4.exe). Please refer to the manual of SAM4S Printer Driver Installer.

(Select a connection type of the printer: ETHERNET CONNECTION / Input a Create a TCP/IP Printer Port: The value for use later)

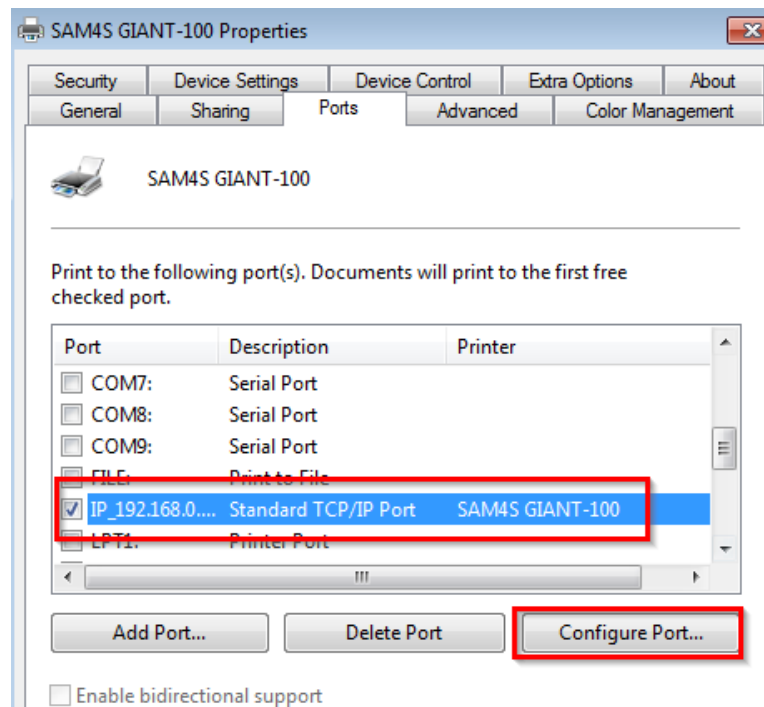
1. Turn a print off.
2. Disconnect a USB cable from printer.
3. Turn a print on again.
4. Click "SAM4S GIANT-100" in "start → Control Panel → Hardware and Sound → Devices and Printers". Click a right mouse button and click "Printer properties".



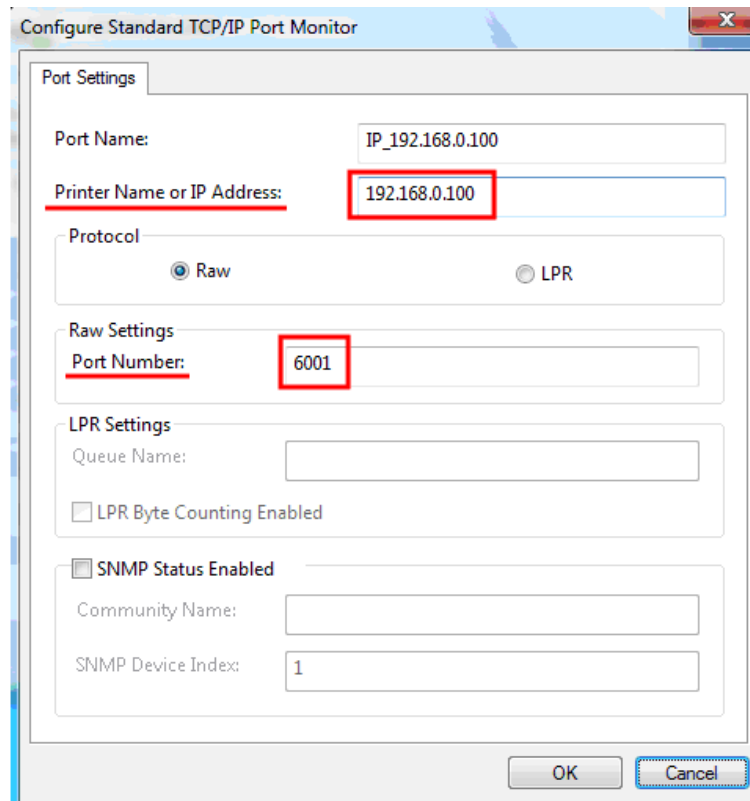
5. Move "Ports" tab.



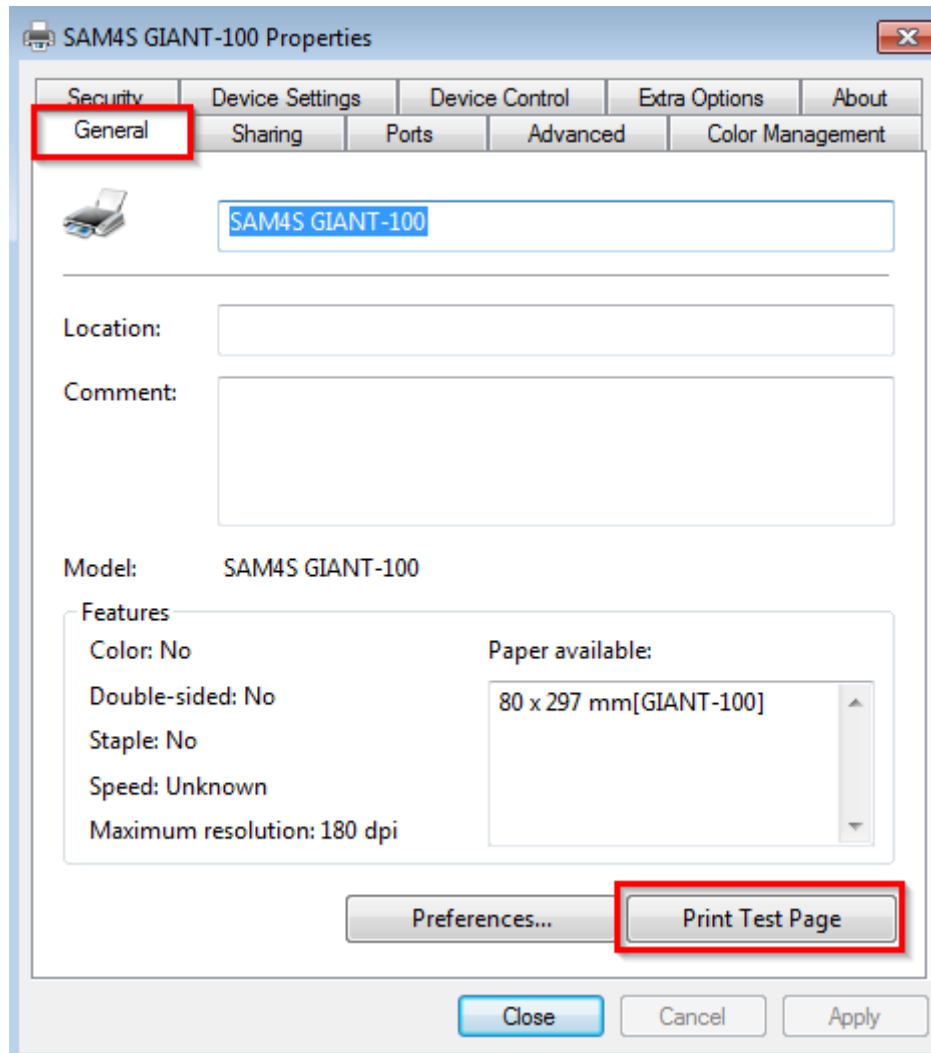
6. Select "Standard TCP/IP Port". Click "Configure Port" button



7. Input a WLAN IP address and Port number.



8. Move "General" tab; click "Print Test Page". If a printer doesn't print any page, check network setting and do ping test.



REV 1.0

Revision History	
Rev 1.0	2014/04/07