

User Manual for Ethernet Interface Board

(RIF-350E/STD_10BaseT)



[Front picture]



[Rear picture]

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1. Hardware & Software

1) Hardware

- Ethernet interface card: RIF-350E/STD (PS-100SPM_10BaseT)

2) Software

- [Configurator.exe](#): Setup program supplied separately.
- [VirtualCOM_9x.exe](#): Virtual port setup program for Win98 supplied separately.
- [VirtualCOM_NT.exe](#): Virtual port setup program for NT (2000, XP) supplied separately.
- Printer Windows Driver: Available at website.

2. Applicable Printers

1) SRP-350 (max 19200 bps)

2) SRP-270 (max 19200 bps)

3. Specifications

- Ethernet: 10BaseT, IEEE802.3
- Protocol: IP/ICMP/ARP, TCP/IP (Data, Telnet), UDP (Utility, DHCP)
- Serial: Full-duplex, RTS/CTS flow control
- IP mode: Static IP, DHCP (Dynamic Host Configuration Protocol)
- CPU: Rabbit2000 (8bit microprocessor)
- RAM: 168Kbyte
- ROM: 256Kbyte
- Ethernet Chip: RTL8019AS
- RJ45 Connector: XF10BASE-COMBO1-4S
- Serial Connector: DHB-RA34
- Ethernet cable must use [direct cable](#) in case to connect to Hub.
- Ethernet cable must use Twist cable in case to connect to PC LAN card.

4. How to Install

- 1) Put Ethernet interface card to the printer.
- 2) Set the following conditions to the printer by dip switches.
 - BPS: 19200 bps
 - Handshaking: DTR/DSR
 - Reference [Appendix 1. "Baud rate \(bps\) & Handshaking"](#)
- 3) Connect LAN cable and turn the printer ON.
 - Ethernet cable must use [direct cable](#) in case to connect to Hub.
 - Ethernet cable must use Twist cable in case to connect to PC LAN card.
- 4) Run [Configurator.exe](#) and follow the below instructions.
 - Ethernet address, IP address
 - TCP port: 6000 (6000 ~ 10000), Multi TCP session: [check](#)
 - Baud rate: 19200 (9600~ 115200)
 - 8 data bit, [non](#) parity, 1 stop bit, [hardware](#) flow control
 - Inactivity timeout: 0 (0~3600)
 - Reference [Appendix 2. "Ethernet interface card setup"](#)
- 5) Virtual serial driver install
 - Win NT (2000, XP) users: [VirtualCOM_NT.exe](#)
 - Win98 users: [VirtualCOM_9x.exe](#)
 - Virtual port select: COM9 (not used port)
 - Win NT (2000, XP): [COM3 ~ COM9](#)
 - Win98: [COM3 ~ COM256](#)
 - IP address
 - Port number: 6000 (6000 ~ 10000)
 - Reference [Appendix 3. "Virtual serial driver install"](#)

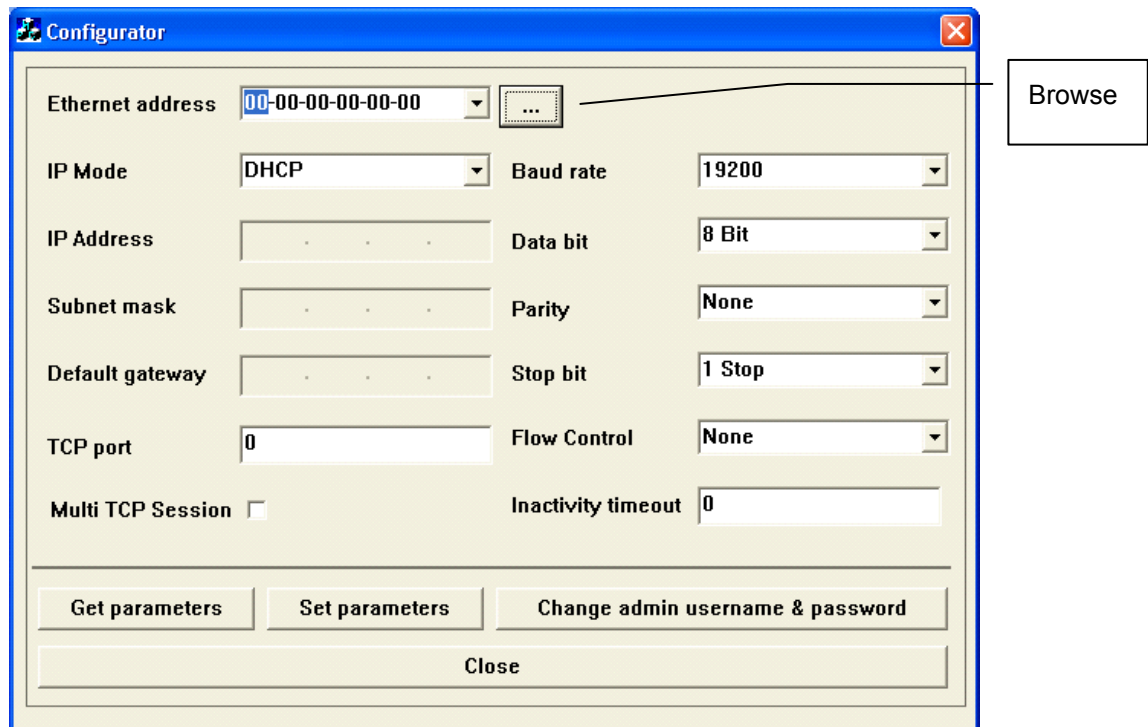
- 6) After setting up the printer driver, select port and print test page.
- Printer Windows Driver: Download at website.
(SRP 350: V3.0.4E or higher, SRP 270: V3.0.3E or higher)
 - Win NT (2000, XP) user: **Add printer port and print test page.**
 - (1) Print > Select 'Samsung SRP-350' > mouse right button > Select 'Property'
 - (2) Ports > add port > Local port > new port > port name (COM9) > ok
 - (3) Apply > general > print test page
 - Win98 user: **Select printer port and print test page.**
 - (1) Print > Select 'Samsung SRP-350' > mouse right button > Select 'Property'
 - (2) Port > select port (COM9) > apply > port settings (19200, 8, non, 1, hardware)
 - (3) General > print test page
 - Reference [Appendix 4. "Set up the printer driver and test printout"](#)
- 7) Select the standard TCP/IP printer port and print test page.
- **In case of using standard TCP/IP protocol without virtual driver.**
 - Win NT (2000, XP) users.
 - Print > Select 'Samsung SRP-350' > mouse right button > Select 'Property'
 - Port > Add port > Standard TCP/IP port > New port > IP address > Apply
 - Port > Configure port > Port number (6000) > Ok
 - General > Print test page
 - Reference [Appendix 5. "Set up the standard TCP/IP port and test printout"](#)
- 8) Reference for standard TCP/IP protocol
- [Protocol.txt](#)

[Appendix 1] "Baud rate (bps) & Handshaking"

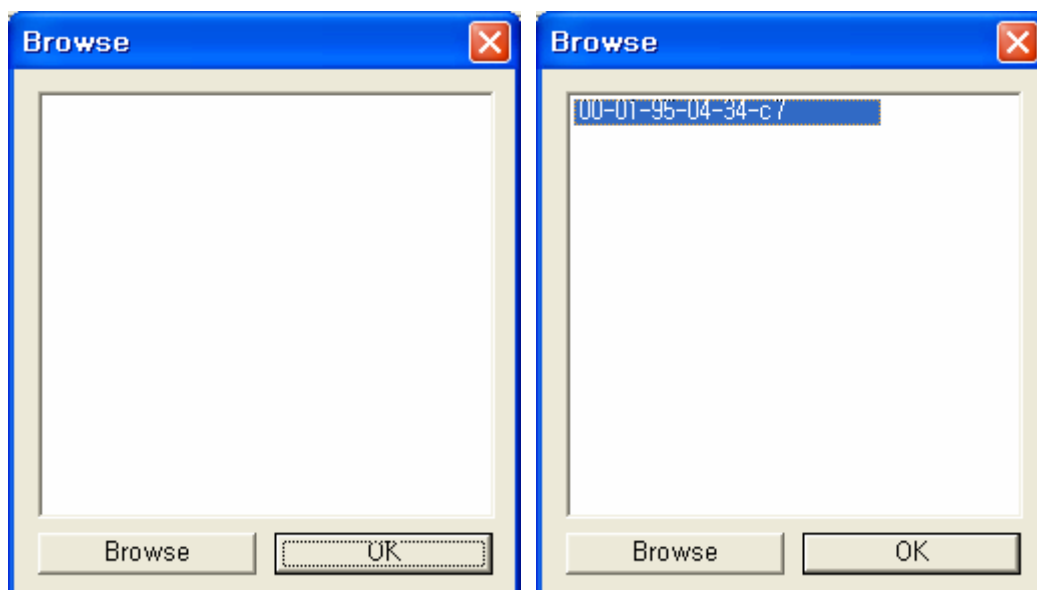
Model	Baud rate(bps)			Hand shaking
SRP-350	Bps	SW1-7	SW1-8	DTR/DSR (SW1-3 off)
	19200	Off	Off	
	9600	On	Off	
	4800	Off	On	
	2400	On	On	
SRP-270	bps	SW2-7	SW2-8	DTR/DSR (SW2-3 off)
	9600	Off	Off	
	4800	On	Off	
	2400	Off	On	
	19200	On	On	
SRP-370	bps	SW1-1	SW1-2	DTR/DSR (SW1-3 off)
	115200	On	On	
	38400	Off	On	
	19200	On	Off	
	9600	Off	Off	
SRP-500	bps	SW2-7	SW2-8	DTR/DSR (SW2-3 on)
	19200	On	Off	
	9600	Off	Off	
	4800	Off	On	
	2400	On	On	

[Appendix 2] "Ethernet interface card setup"

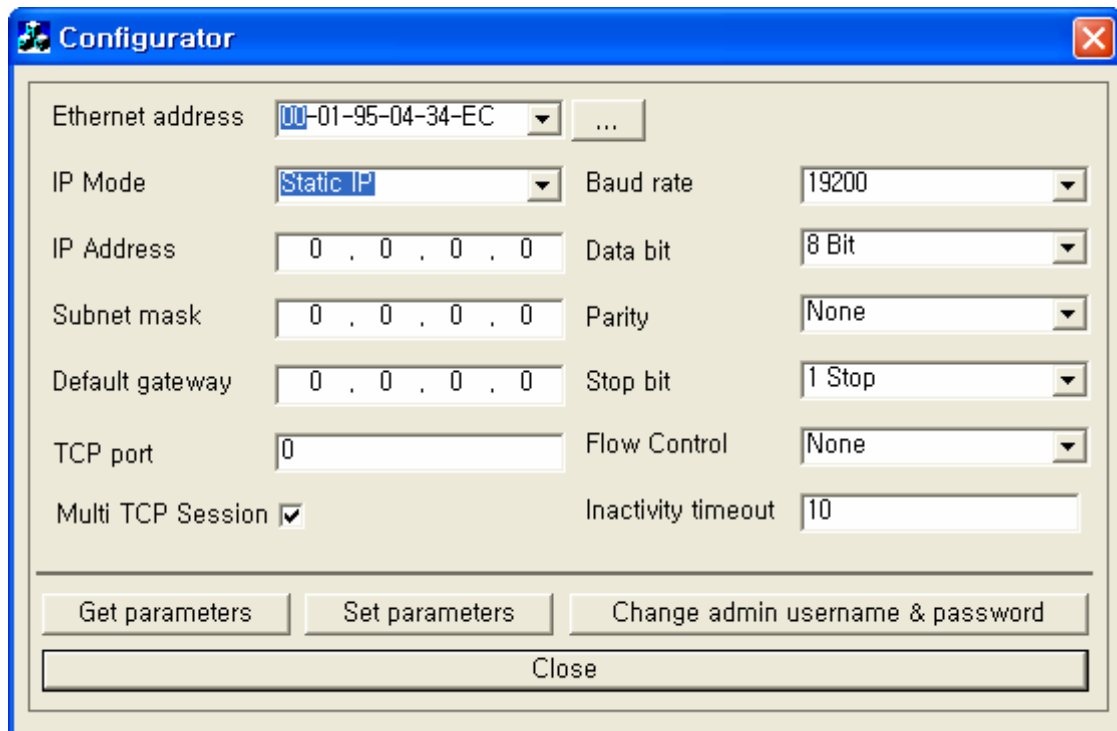
1. Run **Configurator.exe**
2. Click on the button next to 'Ethernet address' then the 'Browse' pops up.



3. Click on 'Browse' button, Select Address, Click on 'OK'.



4. 'Get parameters' button click.
5. Select IP mode: Static IP

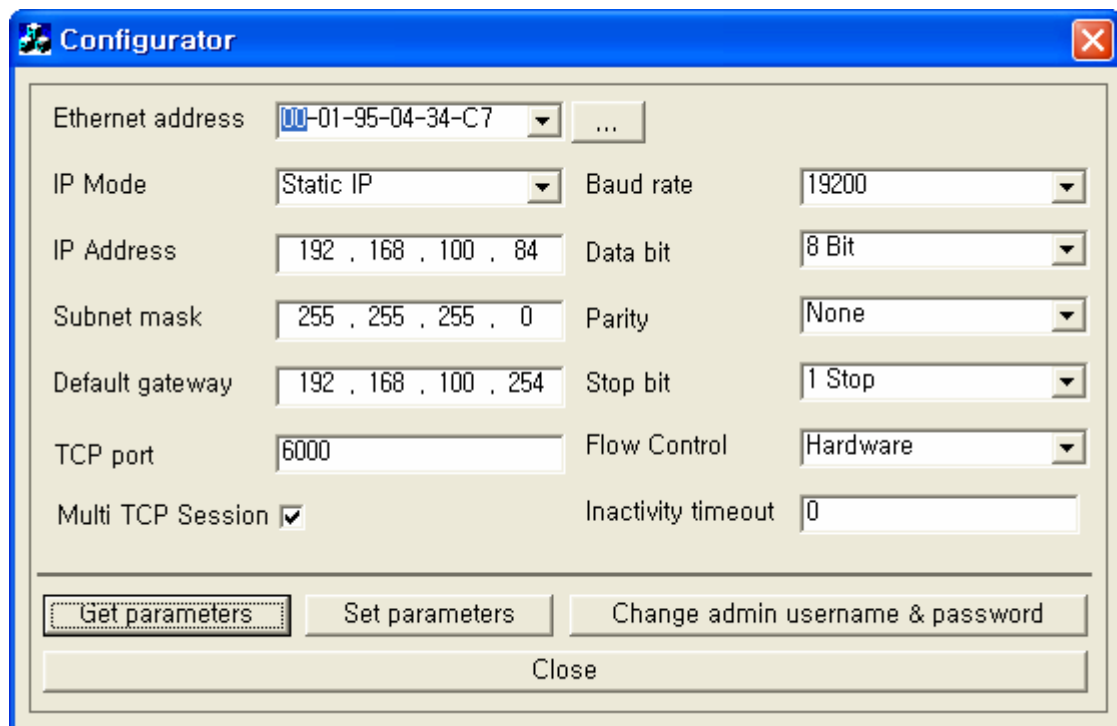


The screenshot shows the 'Configurator' window with the following settings:

- Ethernet address: 00-01-95-04-34-EC
- IP Mode: Static IP
- IP Address: 0 . 0 . 0 . 0
- Subnet mask: 0 . 0 . 0 . 0
- Default gateway: 0 . 0 . 0 . 0
- TCP port: 0
- Multi TCP Session: ☒
- Baud rate: 19200
- Data bit: 8 Bit
- Parity: None
- Stop bit: 1 Stop
- Flow Control: None
- Inactivity timeout: 10

Buttons at the bottom: Get parameters, Set parameters, Change admin username & password, Close.

6. Set the remaining fields as shown. Click on 'Set parameters' button.

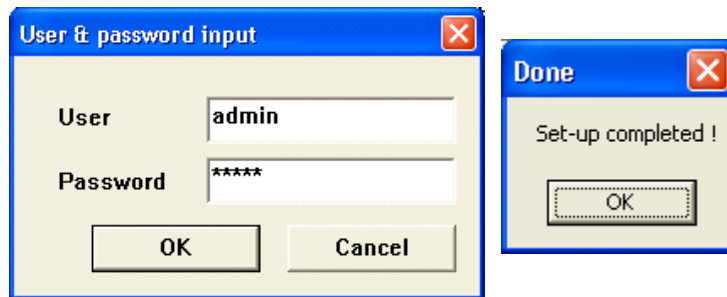


The screenshot shows the 'Configurator' window with the following updated settings:

- Ethernet address: 00-01-95-04-34-C7
- IP Mode: Static IP
- IP Address: 192 . 168 . 100 . 84
- Subnet mask: 255 . 255 . 255 . 0
- Default gateway: 192 . 168 . 100 . 254
- TCP port: 6000
- Multi TCP Session: ☒
- Baud rate: 19200
- Data bit: 8 Bit
- Parity: None
- Stop bit: 1 Stop
- Flow Control: Hardware
- Inactivity timeout: 0

Buttons at the bottom: Get parameters, Set parameters, Change admin username & password, Close.

7. Type in user name and password: 'admin', Click on 'OK' button.



WARNING: Be sure to remember user name and password. You will not be able to initialize without user name and password.

8. Click on 'Close' button.

Notes:

- DHCP: Dynamic Host Configuration Protocol used when IP may change.
- STATIC IP: Used when IP is fixed.
- If Ethernet card is more than one, start TCP port in serial number; 6000, 6001, 6002..., (6000 ~ 10000)
- You may change user name and password using "Change admin username & password" button.
- When you forgot user name and password, reset it while the power is on process.
- Then recall "Get parameter" and check the previous settings.
- Inactivity timeout: The data keeping time of Ethernet interface card when the printer is busy. (0 ~ 3600 sec, 0: Infinity)

[Appendix 3] "Virtual serial port driver install"

1. VirtualCOM install

- Win NT (2000, XP): [VirtualCOM_NT.exe](#)
- Win98: [VirtualCOM_9x.exe](#)

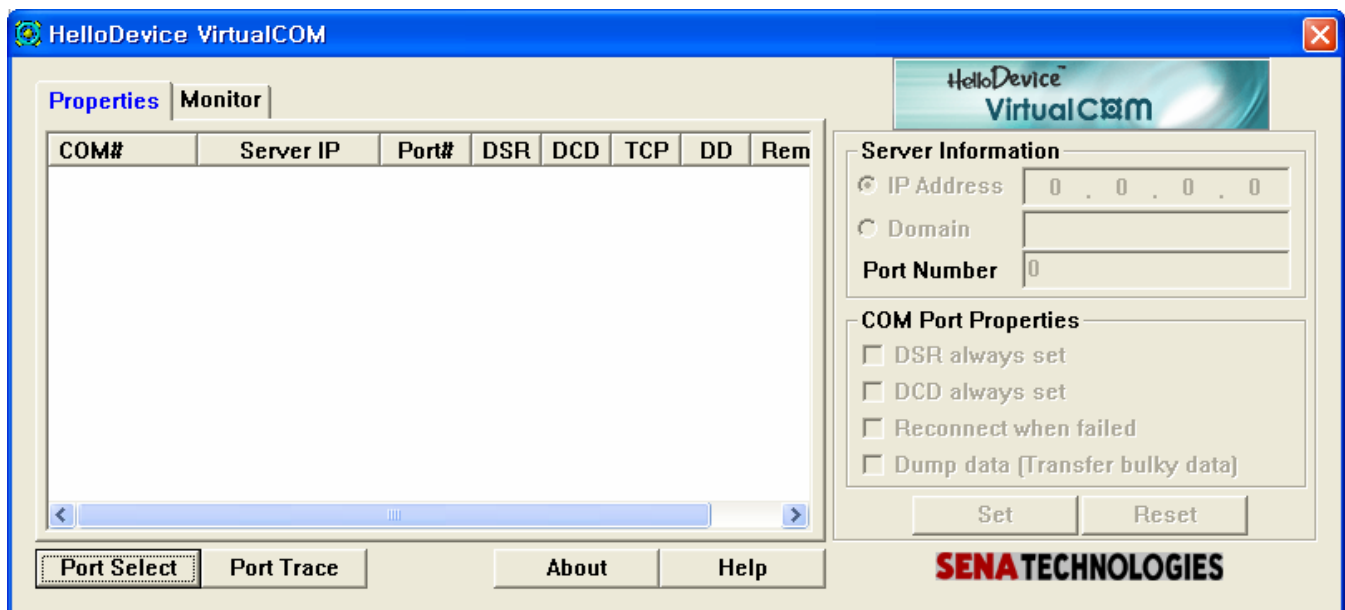
2. Rebooting

License: [0305-1922-BE17-A825](#)

3. Run Virtual port setup program: HelloPortTray.exe

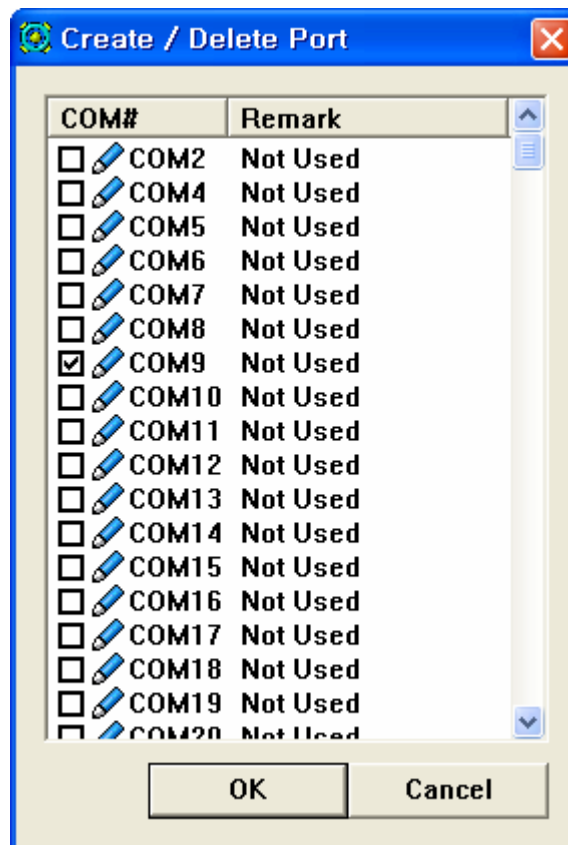
(Start > Program > Hello Device VirtualCOM > Click on 'Run Hello Device VirtualCOM')

4. Click on 'Port select' button.

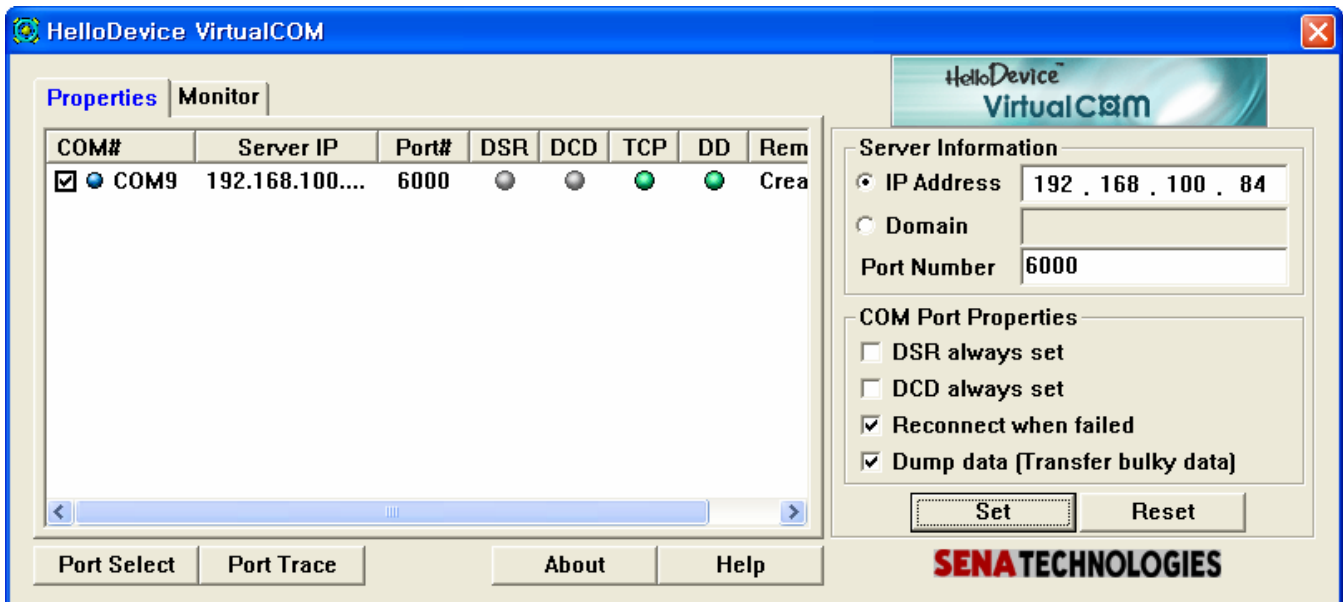


5. Port select: COM9

- COM9 (Select the port that is not used by another device)
- Win NT (2000, XP): [COM3 ~ COM9](#)
- Win98: [COM3 ~ COM256](#)



6. IP addresses input, port number input, properties check, Click on 'set' button.
 - Win 98: Click on 'Reboot now'



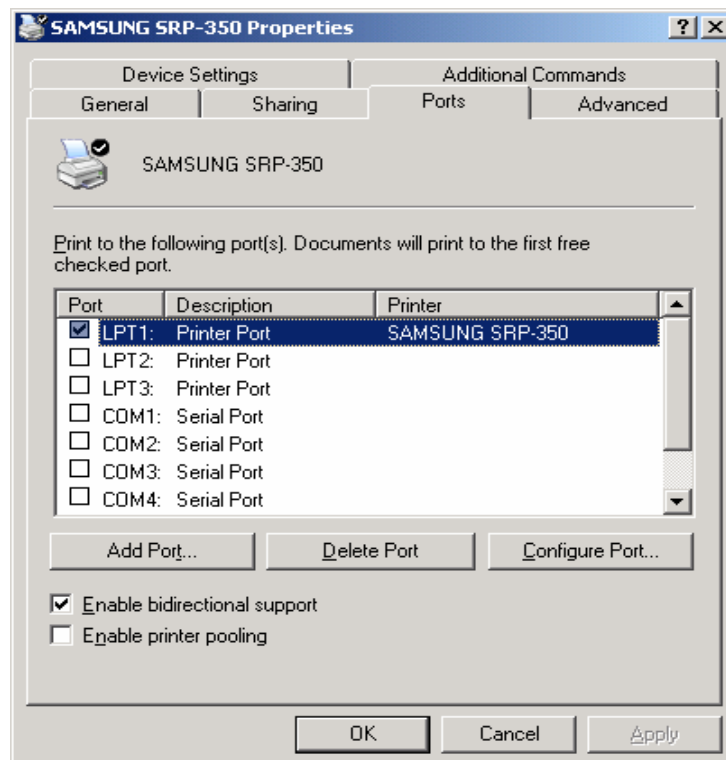
[Appendix 4] "Set up the printer driver and test printout"

1. Printer Driver Installation

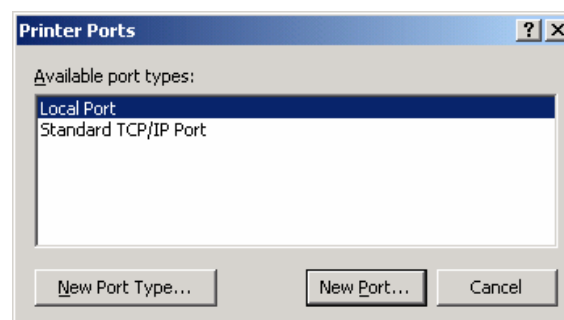
- SRP 350: V3.0.4E
- SRP 270: V3.0.3E

2. Win NT (2000, XP) User

2-1. Ports > add port



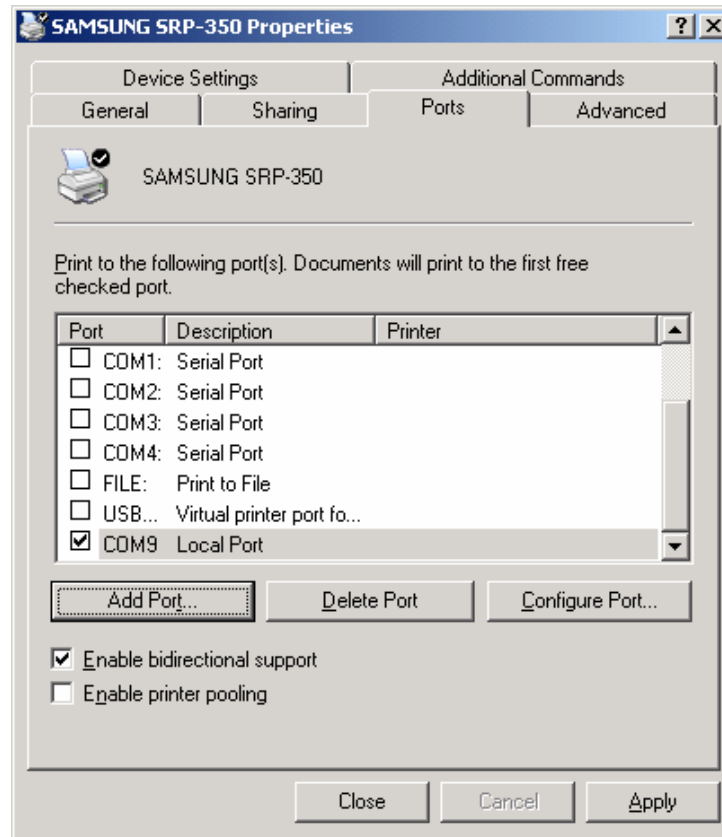
2-2. Local port > new port



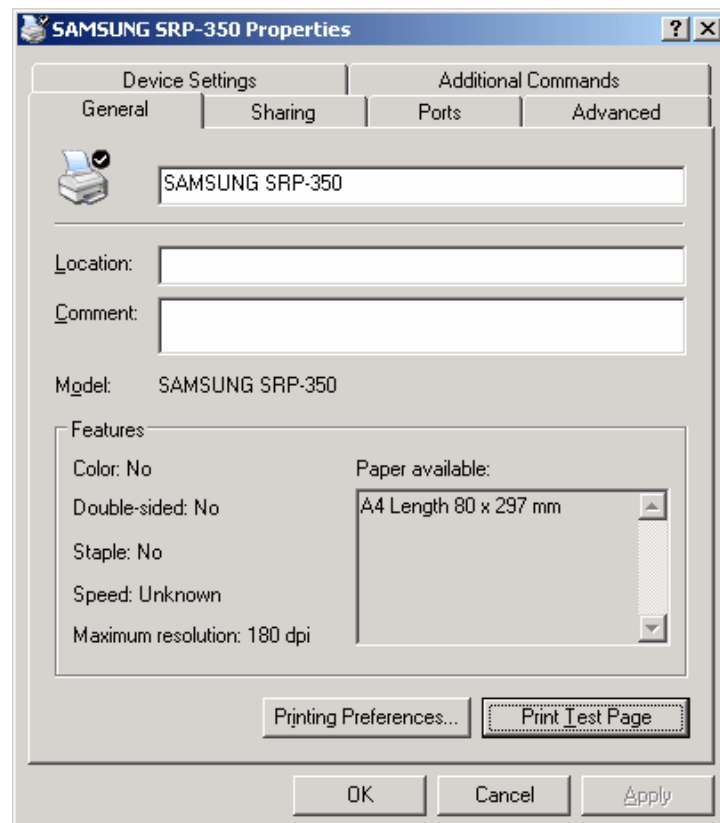
2-3. Virtual port name (COM9)



2-4. Apply



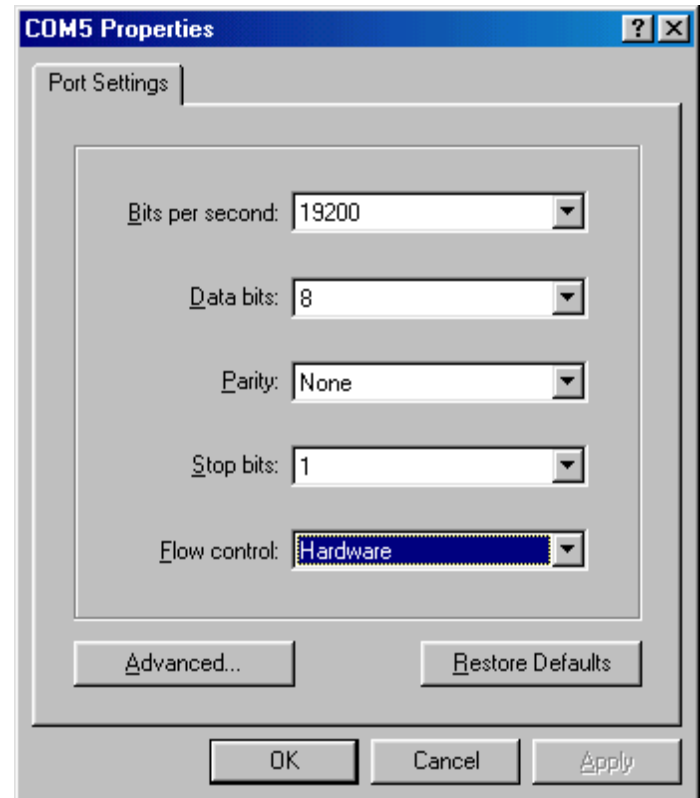
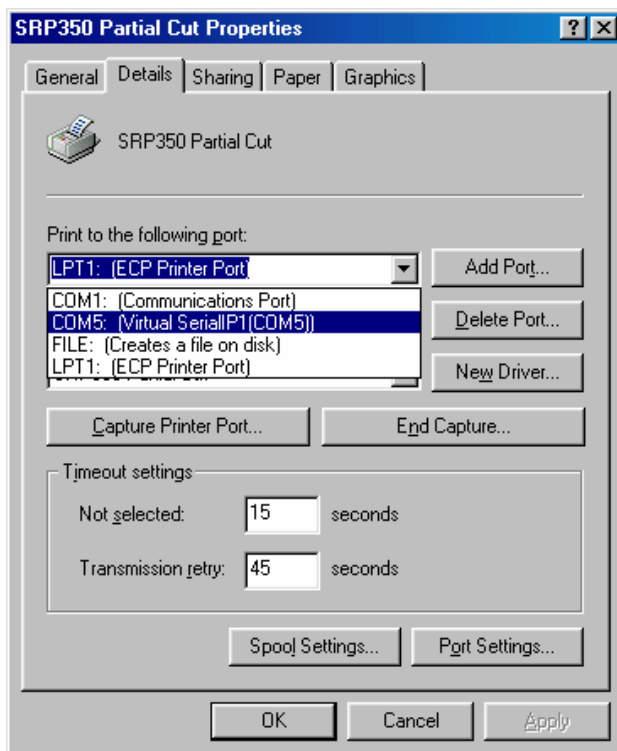
2-5. General > print test page



3. Win 98 User

3-1. Select the port, Click on the Apply.

3-2. Click on the Port setting.

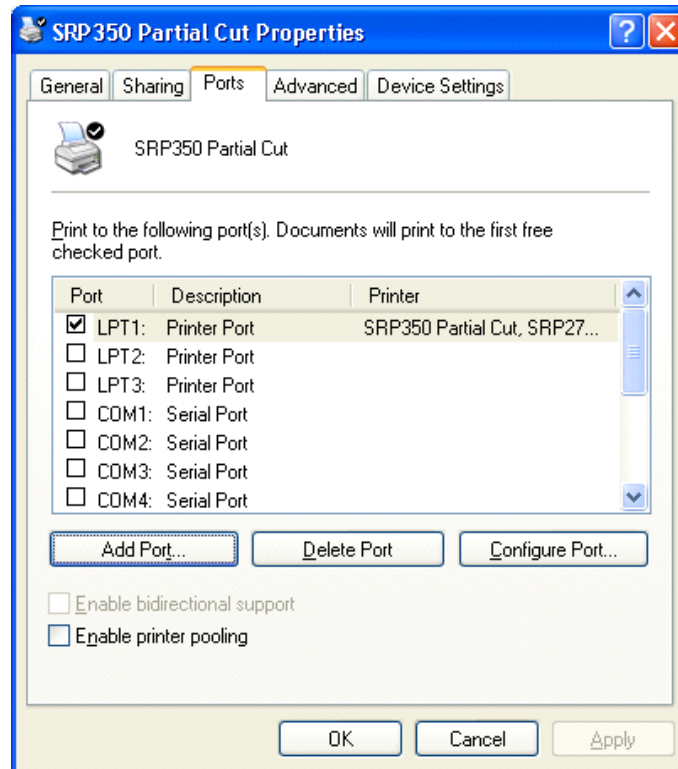


3-3. OK

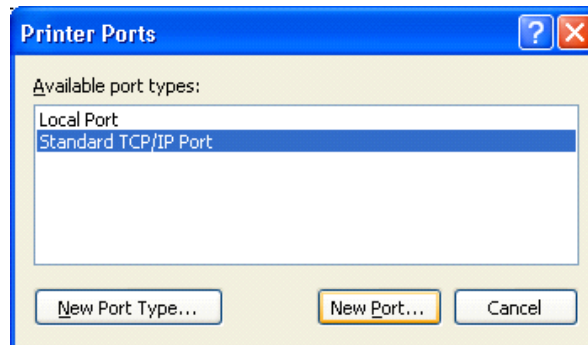
3-4. General > Print test page

[Appendix 5] "Set up the standard TCP/IP port and test printout"

1. Port > Add port



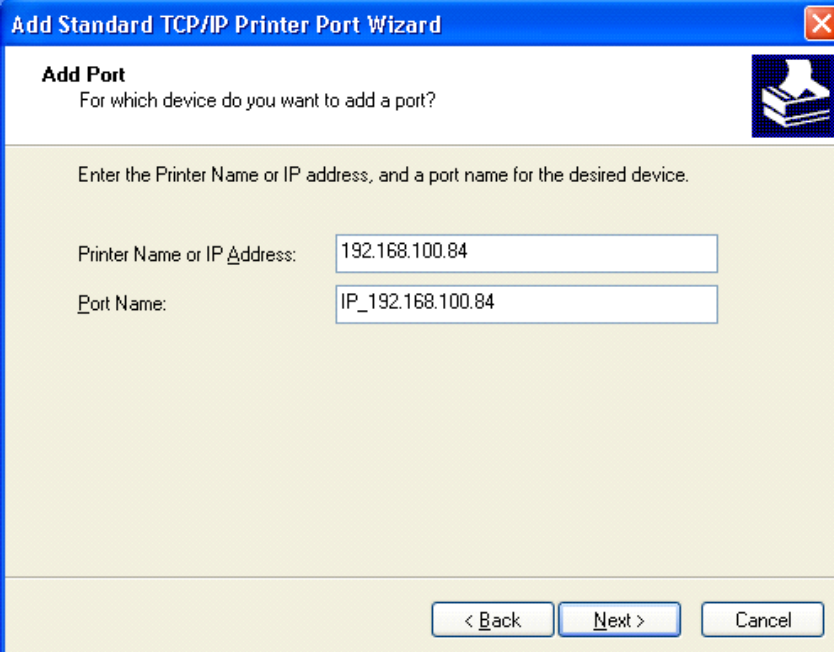
2. Standard TCP/IP port > New port



3. Click on Next.

4. Type in IP address: 192.168.100.84

5. Click on Next.



Add Standard TCP/IP Printer Port Wizard

Add Port
For which device do you want to add a port?

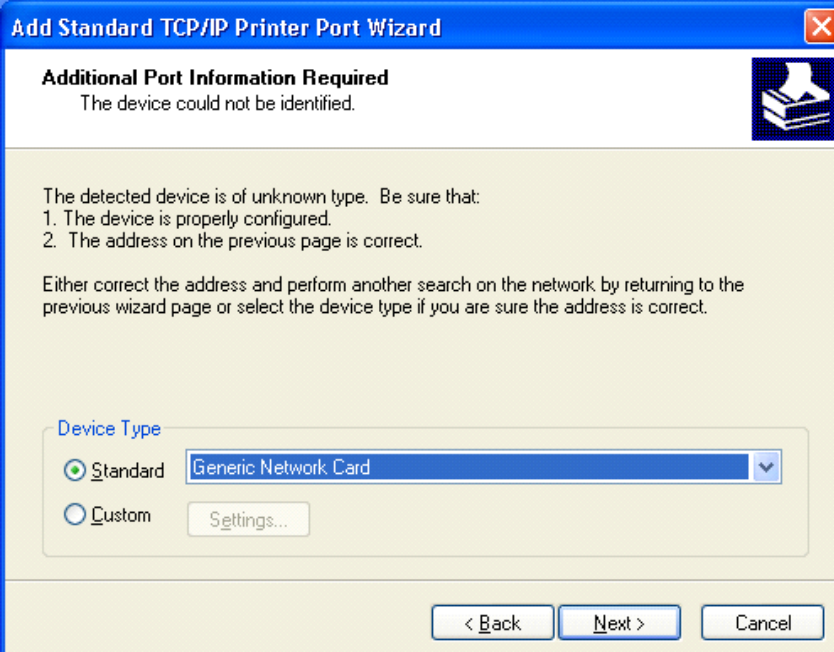
Enter the Printer Name or IP address, and a port name for the desired device.

Printer Name or IP Address: 192.168.100.84

Port Name: IP_192.168.100.84

< Back Next > Cancel

6. Select at 'Device type' and 'Next'.



Add Standard TCP/IP Printer Port Wizard

Additional Port Information Required
The device could not be identified.

The detected device is of unknown type. Be sure that:

1. The device is properly configured.
2. The address on the previous page is correct.

Either correct the address and perform another search on the network by returning to the previous wizard page or select the device type if you are sure the address is correct.

Device Type

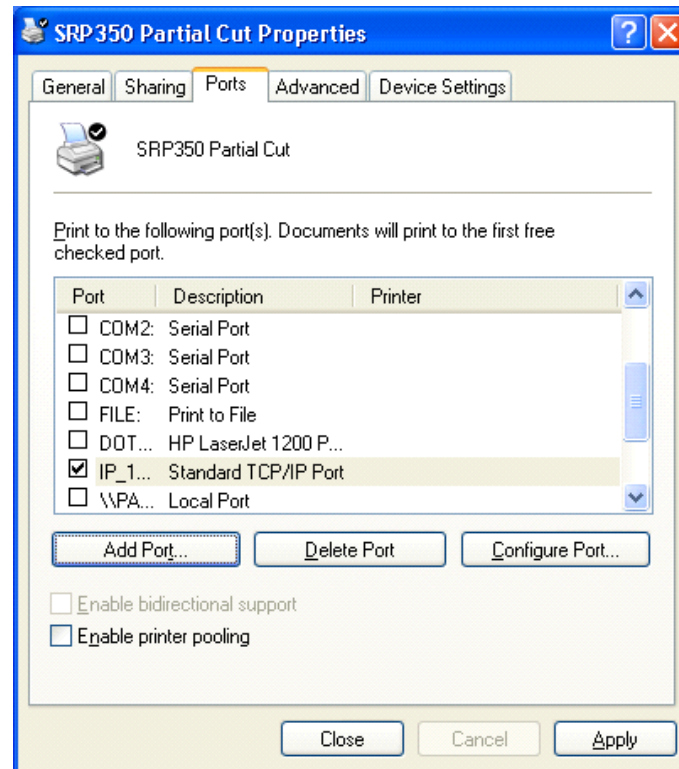
☒ Standard Generic Network Card

☐ Custom Settings...

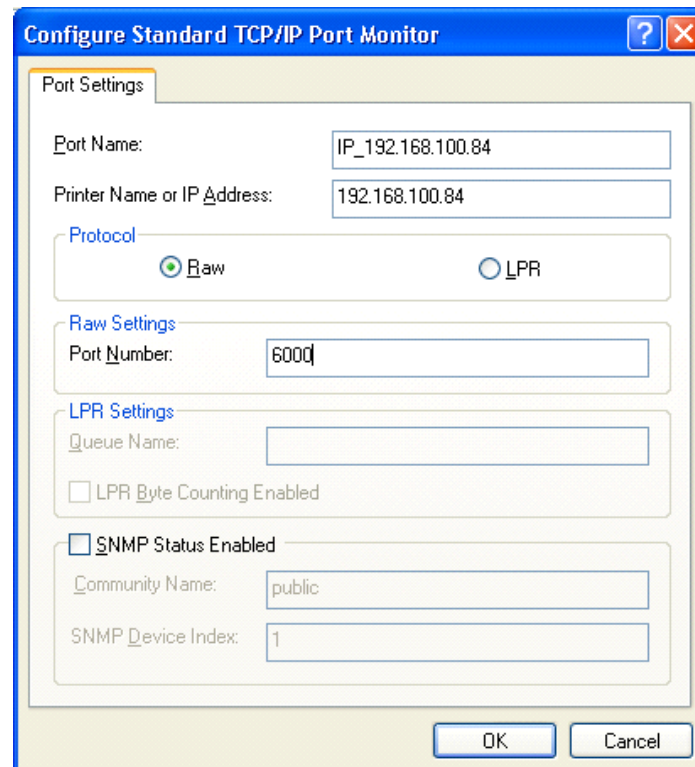
< Back Next > Cancel

7. Finish > close > apply

8. Configure port



9. Port number (6000) > OK



10. General > Print test page