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AR-727iV3

1 Product



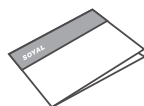
- AR-727iV3 Supports varies Ethernet protocol (TCP server/TCP), which is a Serial-to-Ethernet device to connect to networking.
- Small volume with compact design, 45mm*28mm size less than a semi credit card, easily connect to Serial device to get on networking with 10/100M.

AR-727CM V3

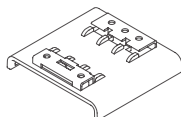
1 Product



2 User Guide



3 Accessories



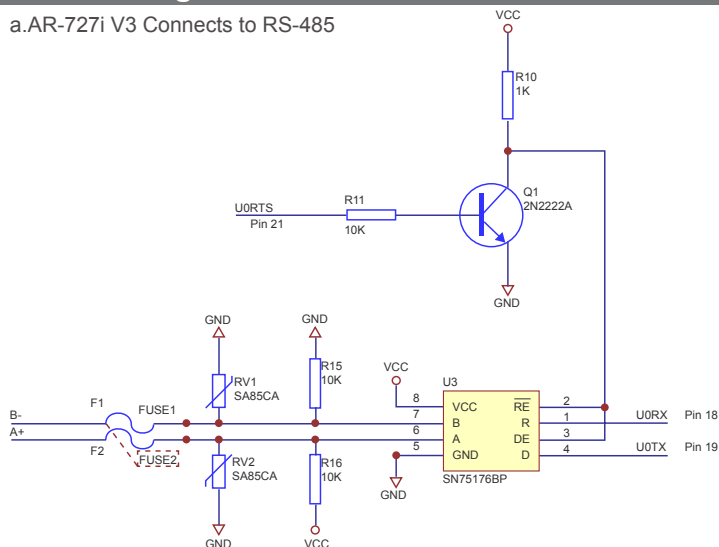
- 32 bits/50MHz ARM CPU upgrades serial device to networking device.
- Compatible with 5V and 3V system.
- Dual UART port supported and 4K/4K Rx/Tx buffer.
- Easy to use with compact volume. Need for external components.
- 10/100 Mbps auto-negotiation Ethernet interface.
- The Virtual COM software builds 1-255 virtual series communication ports onto your computer.

Specification

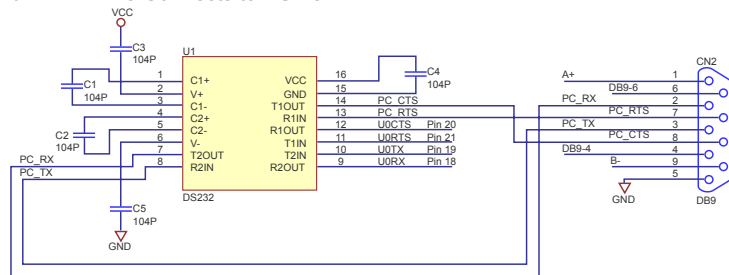
| Part NO. | AR-727i V3 | AR-727CM V3 |
|---------------------------------------|-------------------------------------|---|
| Type | 36-pin 2mm compact package | Ethernet to Serial Port Device |
| Input Voltage | 5 VDC (±5%) | 9-24 VDC (±5%) |
| Power Consumption | <0.5W | <2W |
| Dimensions | 45(L)x28(W)x14(H) | 106.5(L)x66(W)x27.7(H) |
| Port 1 | TTL 3.3VDC (Rx, Tx, RTS, CTS) | RS-232 (Rx, Tx, RTS, CTS) RS-485 (A+, B-) |
| Port 2 | TTL 3.3VDC (Rx, Tx, RTS, CTS) | RS-485 (A+, B-) |
| RS-485 Transmission Direction Control | RTS pin | - |
| Interface | 10/100M Base T Ethernet ↔ UART(TTL) | 10/100M Base T Ethernet ↔ RS-232/RS-485 |
| Active Distance | - | 2M/RS-232 300M/RS-485 |
| Surge protection | - | 16KV |
| N.W.(g) | 15 | 86±5 |
| Thunder Protection | | 1.5KV |
| Data Bits | | 8, 9 |
| Stop Bits | | 1, 2 |
| Parity Check | | None, Even, Odd |
| Baudrate | | 4800-115200 bps |
| Network Protocols | | ARP, IP, TCP Client, UDP, ICMP, HTTP, DHCP, NetBIOS, SNMP v1, v2, v3, |
| Software Configuration Interface | | Web Console |
| Operating Temperature | | -20℃~+60℃ |
| Operating Humidity | | 5 to 95% RH |

727i V3 Diagram

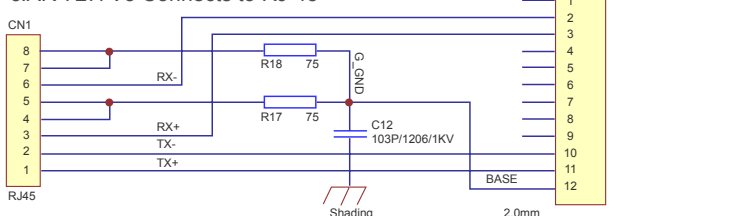
a.AR-727i V3 Connects to RS-485



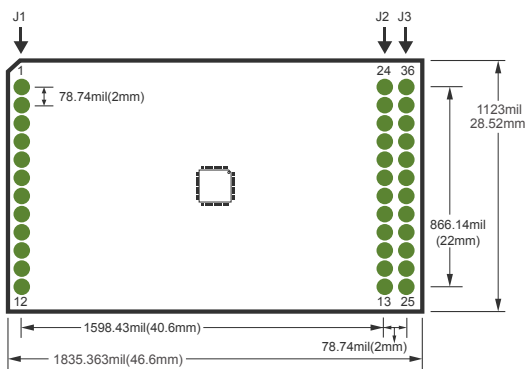
b.AR-727i V3 Connects to RS-232



c.AR-727i V3 Connects to RJ-45



AR-727i V3 PIN Assignments



J1

| Pin No. | Signal | Description |
|---------|-----------|--|
| 1 | 5V | Power input. |
| 2 | NET RX(-) | Ethernet Network Receive Data(-). |
| 3 | NET RX(+) | Ethernet Network Receive Data(+). |
| 4 | 5V | Power input |
| 5 | BUSY LED | Low active for external LED Driver to indicate busy status. |
| 6 | LINK LED | Low active for external LED Driver to indicate cable connected status. |
| 7 | ACT LED | Low active for external LED Driver to indicate TCP/UDP connect status. |
| 8 | RX/TX LED | Low active for external LED Driver to indicate Ethernet RX/TX status. |
| 9 | GND | Power input. |
| 10 | NET TX(-) | Ethernet Network Tranceive Data(-). |
| 11 | NET TX(+) | Ethernet Network Tranceive Data(+). |
| 12 | BASE | Connect to shading through 103P/2KV capacitor. |

J2

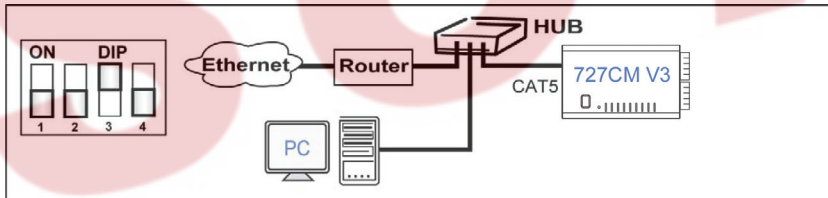
| Pin No. | Signal | Description |
|---------|---------------|--|
| 24 | GND | Power input. |
| 23 | Reserved | |
| 22 | Reserved | |
| 21 | U0 RTS | UART channel 0 Request to Send. |
| 20 | U0 CTS | UART channel 0 Clear to Send. |
| 19 | U0 TX | UART channel 0 Tranceive Data. |
| 18 | U0 RX | UART channel 0 Receive Data. |
| 17 | Factory Reset | Connect to ground more then 3 seconds will reset the module to Factory Default Value. |
| 16 | DHCP | AR-727i support Auto Configuration of the IP and gateway addresses and subnet mask function, but must make sure the DHCP Server is active. |
| 15 | 50Hz | 50Hz square ware output for external watchdog strobe use. |
| 14 | Reset | Low active. System reset input. |
| 13 | GND | Power input. |

J3

| Pin No. | Signal | Description |
|---------|----------|---------------------------------|
| 36 | V33 | 3.3V voltage output.(max 20mA) |
| 35 | Reserved | |
| 34 | U1 RTS | UART channel 1 Request to Send. |
| 33 | U1 CTS | UART channel 1 Clear to Send. |
| 32 | U1 RX | UART channel 1 Receive Data. |
| 31 | U1 TX | UART channel 1Tranceive Data. |
| 30 | Reserved | |
| 29 | Reserved | |
| 28 | Reserved | |
| 27 | Reserved | |
| 26 | Reserved | |
| 25 | Reserved | |

AR-727CM V3 (2 UART Ports): Connection and Configuration

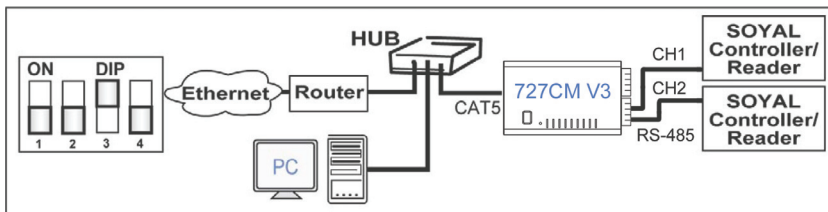
A. IP setting



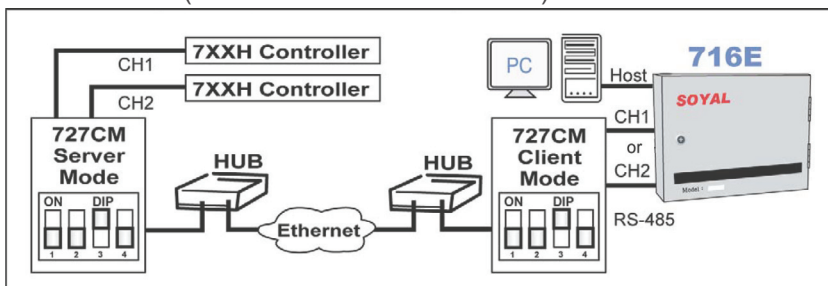
D. DIP Switch Settings

| DIP Switch | | 1 | 2 | 3 | 4 |
|--|------------------|---|-----|-----|-----|
| Normal Run Mode and Networking Setup | RS-232 | | ON | OFF | |
| | Two RS-485 Wires | | OFF | ON | |
| DHCP Enable (Auto IP Address Configuration) | | | | | ON |
| DHCP Disable (Auto IP Address Configuration) | | | | | OFF |

B. Normal use



C. Remoe use (Server mode and client mode)



| CH2 | | CH1 | | | | POWER | | | |
|--------|------|--------|-----|--------|-----|-------|-----|-----|-----|
| RS-485 | | RS-485 | | RS-232 | | | | | |
| LB- | LA+ | LB- | LA+ | RTS | Tx | Rx | CTS | GND | V12 |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 20 | 19 | 18 | 17 | 16 | 15 | 14 | 13 | 12 | 11 |
| COM | N.C. | N.O. | DO1 | DO2 | DO3 | DI3 | DI2 | DI1 | DI0 |

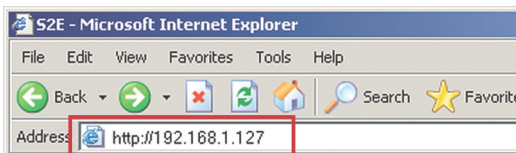


※ CH1 only can select either RS-485 or RS-232.

Web Console

Set up IP Address:

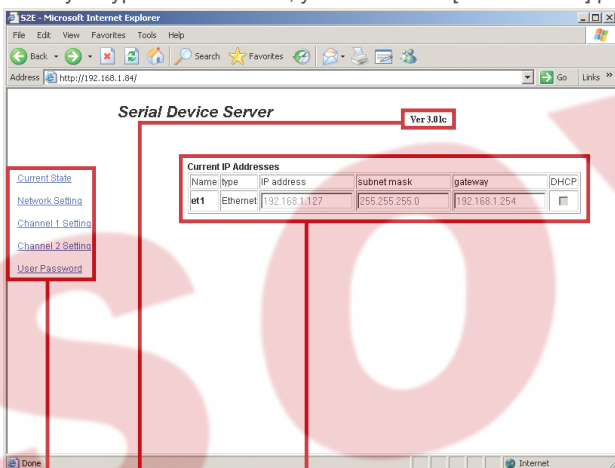
1. Connect the device to a computer, Then turn on your Web Browser and type "http://192.168.1.127" on IP address to start factory default webbrowser.



Factory Default

※ http://192.168.1.127 is the factory default, if the IP address has been changed, the new IP address may be entered.

2. When you type the IP address, you will see the [Current State] page.



Current IP address

The version of ISP Firmware

Main Menu

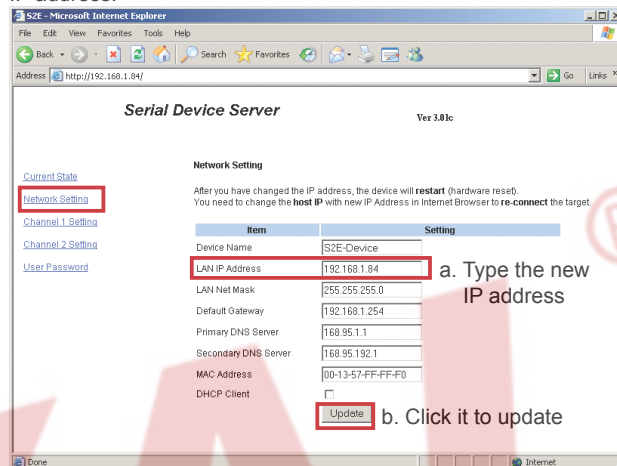
3. Login

Type "User name" & "Password" on the pop up login window.

※ Factory Default :
User name: admin
Password:(NO need to type)



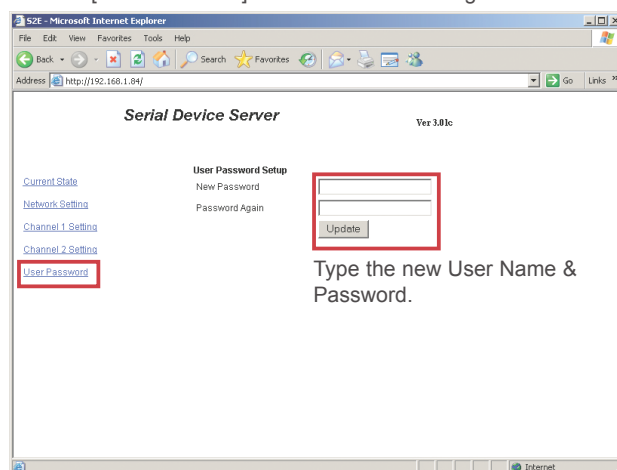
4. Click on [Network Setting] on Main Menu to set up new IP address.



a. Type the new IP address

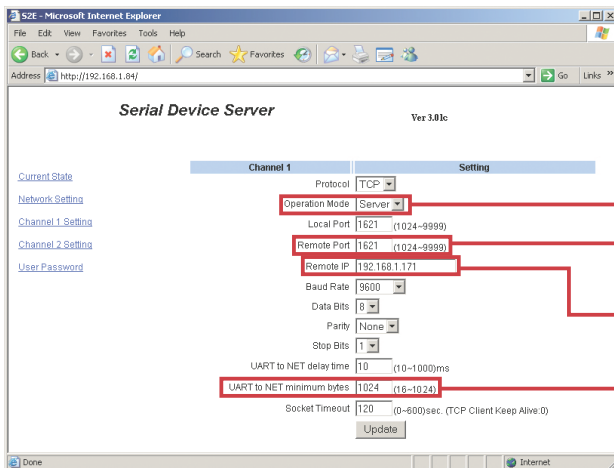
b. Click it to update

5. Click on [User Password] on Main Menu to change.



Type the new User Name & Password.

6. Click on [Port 0 Setting] or [Port 1 Setting] on Main Menu to set the port.

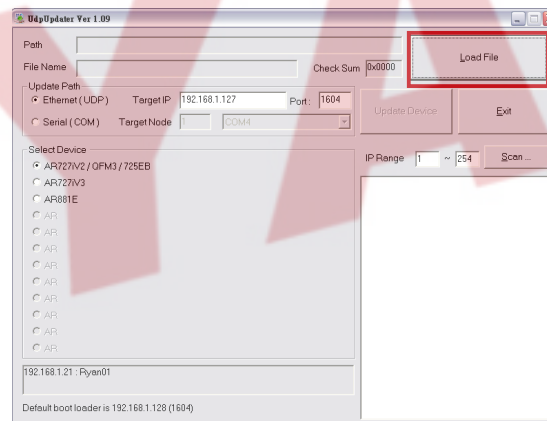


- Set the [Operation Mode] at the [Server] or the [Client].
- At the [Server]: [Remote Port] need to be set [0].
At the [Client]: [Remote Port] need to be set as the server port.
- At the [Server]: [Remote IP] need to be set [0.0.0.0].
At the [Client]: [Remote IP] need to be set as the server IP address.
- [UART to NET minimum bytes]: Proposes to set more than 900.

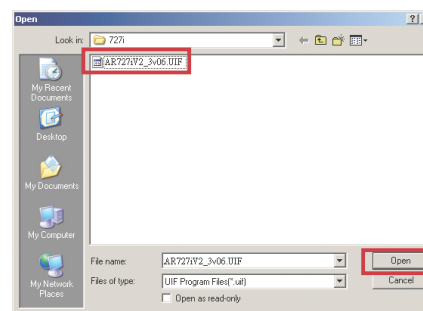
Update the ISP Firmware

Step 1: Execute the software [ UdpUpdater.exe] provided by **SOYAL**.

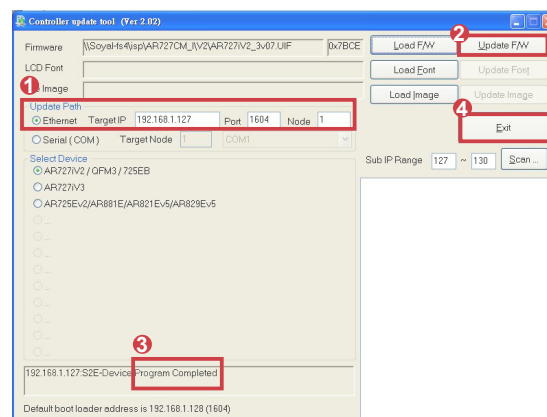
Step 2: Click on [Load File] to open the Firmware



Step 3: Click on the latest firmware, and click on [Open].



Step 4: Then follow the steps:



1. Type the IP address and COM Port
2. Click on [Update F/W]
3. Until the screen appears [Program Completed]
4. It mean the upgrade is succeeded, and click on [Exit] to leave.