AR-727iV2 / AR-727CM V2

Contents

AR-727iV2

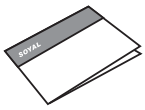
1 Product

- AR-727iV2 Supports varies Ethernet protocol (TCP server/TCP), which is a Serial-to-Ethernet device to connect to networking.
- It is a compact design, 45*28mm less than the size of a credit card, easily connect to Serial device to get on networking with 10/100M.

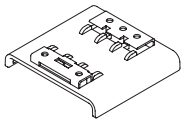
AR-727CM V2

1 Product

2 User Guide



3 Accessories



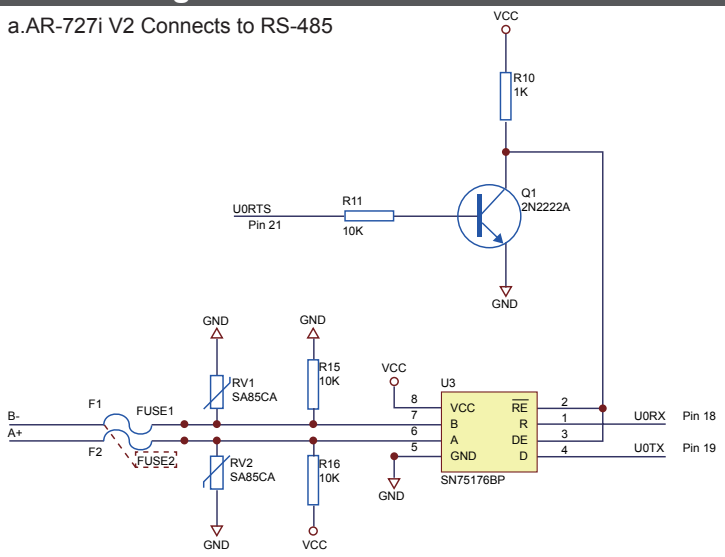
- 32bits/50MHz RISC CPU upgrades Serial device to Networking device.
- Compatible with 5V and 3V system.
- Dual UART ports support 4K/4K R/T buffer.
- Easy to use. No need of other tools.
- 10/100 Mbps auto-negotiation Ethernet interface

Specification

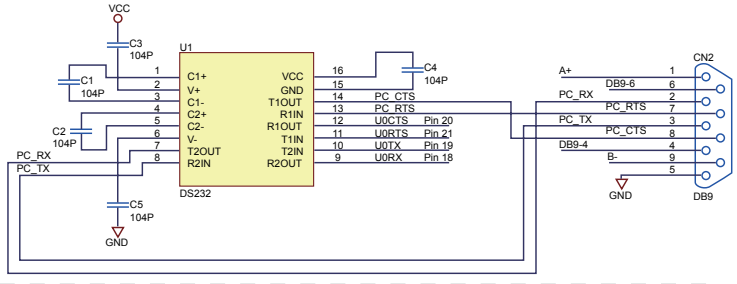
Part NO.	AR-727i V2	AR-727CM V2	
Type	36-pin 2mm compact package	Ethernet to Serial Port Device	
Input Voltage	5 VDC (±5%)	9-24 VDC (±5%)	
Power Consumption	<0.5W	<2W	
Dimensions	45(L)x28(W)x14(H)	106.5(L)x66(W)x27.7(H)	
Port 1	TTL 3.3VDC (Rx, Tx, RTS, CTS)	RS-232 (Rx, Tx, RTS, CTS)	RS-485 (A+, B-)
Port 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 ESD	
N.W.(g)	15	86±5	
Thunder Protection	1.5KV		
Data Bits	7, 8		
Stop Bits	1, 2		
Parity Check	None, Even, Odd		
Baudrate	4800-115200 bps		
Network Protocols	TCP/UDP, DHCP, IGMP v2, SNMP v1, v2c, v3, ARP		
Software Configuration Interface	Web Console		
Operating Temperature	-20℃~+75℃		
Operating Humidity	5 to 95% RH		

727i V2 Diagram

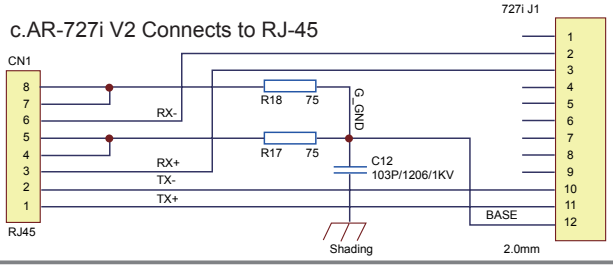
a.AR-727i V2 Connects to RS-485



b.AR-727i V2 Connects to RS-232



c.AR-727i V2 Connects to RJ-45

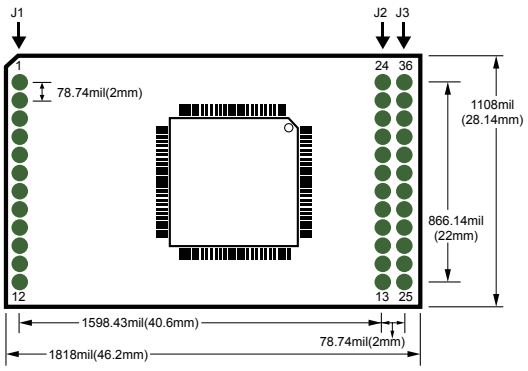


Serial to Ethernet Device

10/ 100 Base-T

V090910

AR-727i V2 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

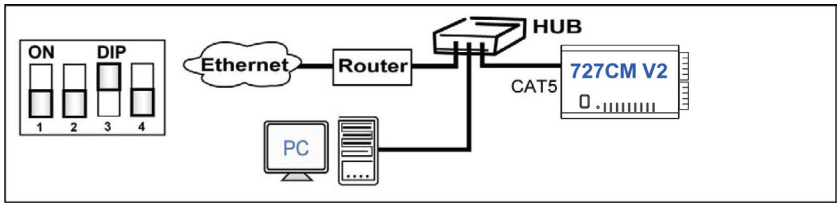
Pin No.	Signal	Description
24	GND	Power input.
23	Reserved	
22	IP Send Out	Connect to ground will send IP address out from UART channel 0 per second
21	U0 RTS	UART channel 0 Request to Send.
20	U0 CTS	UART channel 0 Clear to Send.
19	U0 TX	UART channel 0 Tranceive Data.
18	U0 RX	UART channel 0 Receive Data.
17	Factory Reset	Connect to ground more then 3 seconds will reset the module to Factory Default Value.
16	Reserved	
15	50Hz	50Hz square ware output for external watchdog strobe use.
14	Reset	Low active. System reset input.
13	GND	Power input.

J3

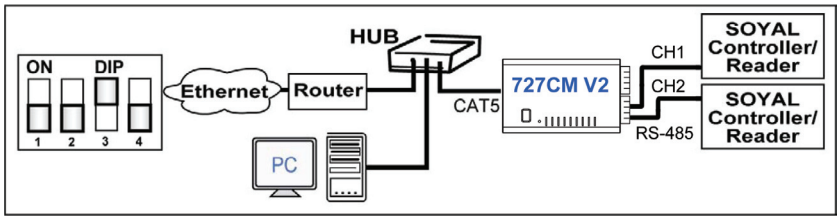
Pin No.	Signal	Description
36	V33	3.3V voltage output.(max 20mA)
35	Reserved	
34	U1 RTS	UART channel 1 Request to Send.
33	U1 CTS	UART channel 1 Clear to Send.
32	U1 RX	UART channel 1 Receive Data.
31	U1 TX	UART channel 1Tranceive Data.
30	Reserved	
29	Reserved	
28	Reserved	
27	Reserved	
26	Reserved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

AR-727CM V2 (2 UART Ports): Connection and Configuration

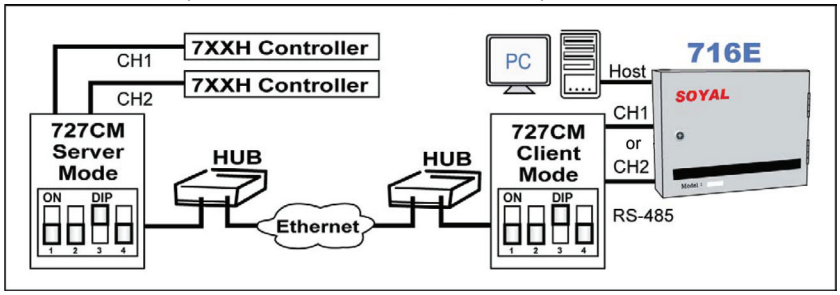
A. IP setting



B. Normal use



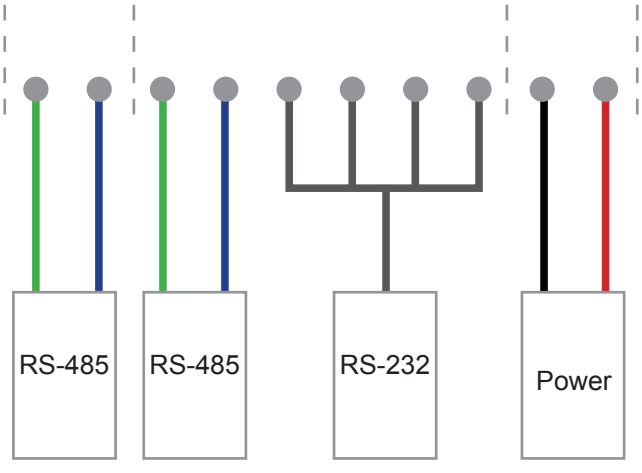
C. Remoe use (Server mode and client mode)



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

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

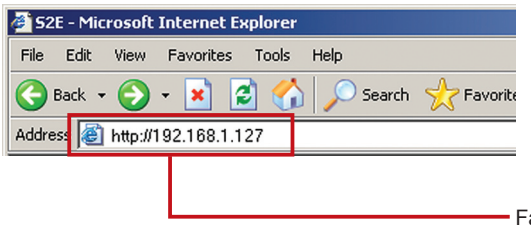


※ CH1 only can select either RS-485 or RS-232.

Web Console

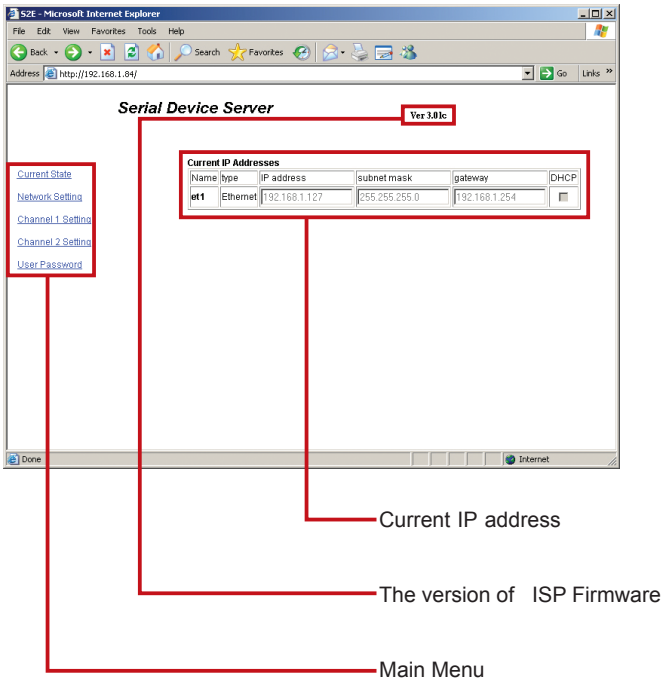
Set up IP Address:

1. Connect the device to a computer, Then turn on your Web Browser and input factory default IP address: 192.168.1.127



※ 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 input the IP address, you will see the [Current State] page.

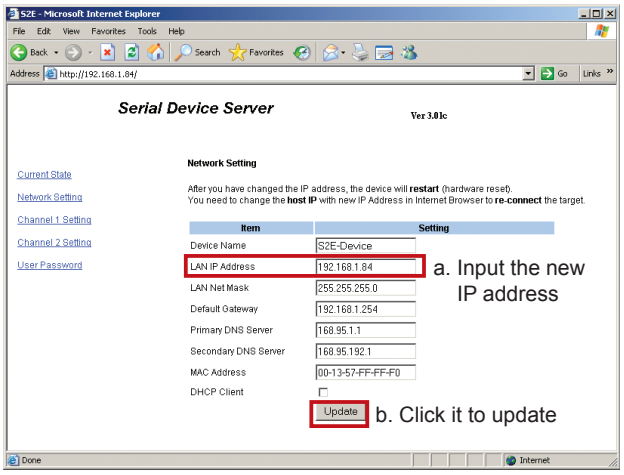


3. Login

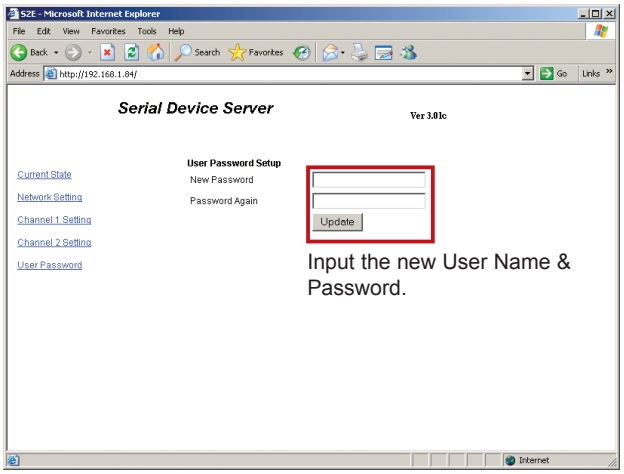
It will pop up a login window then input the User name & Password.

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

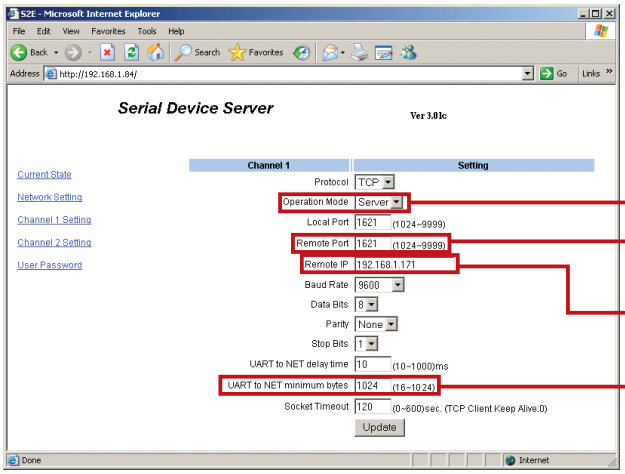
4. Click on [Network Setting] on Main Menu to set up new IP address.



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



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

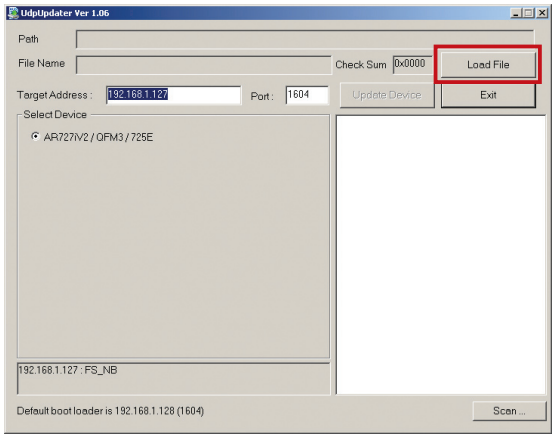


- Set the [Operation Mode] at the [Server] or the [Client].
- At the [Server]: [Remote Port] need to be set [0].
  At the [Client]: [Remote Port] need to be set as the server port.
- At the [Server]: [Remote IP] need to be set [0.0.0.0].
  At the [Client]: [Remote IP] need to be set as the server IP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

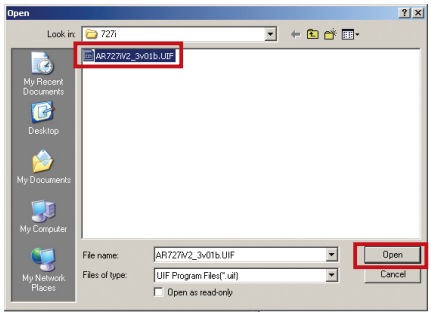
Update the ISP Firmware

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

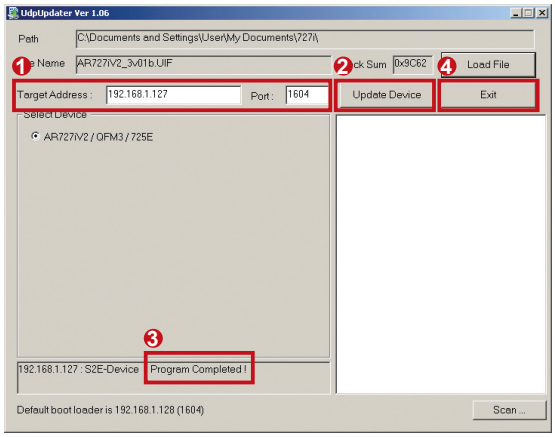
Step 2: Click on [Load File] to open the Firmware



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



Step 4: Then follow the steps:



1. Input the IP address and COM Port
2. Click on [Update Device]
3. Until the screen appears [Program Completed]
4. It mean the upgrade is successed, and click on [Exit] to leave.