



QUIO QU-KD2N-HF Chip Card Reader User Guide

[Home](#) » [QUIO](#) » QUIO QU-KD2N-HF Chip Card Reader User Guide 

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Reader User Guide

QU-KD2N-HF

QUIO TCP/IP OLED Display Reader

Operation Manual



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Contents

- [1 Features & Specification](#)
- [2 Wiring Diagram](#)
- [3 Network Parameter Setting](#)
- [4 Network Mode Switch](#)
- [5 USB Connection](#)
- [6 V8 Tools Tool Parameter Setting](#)
- [7 Documents / Resources](#)
 - [7.1 References](#)

Features & Specification

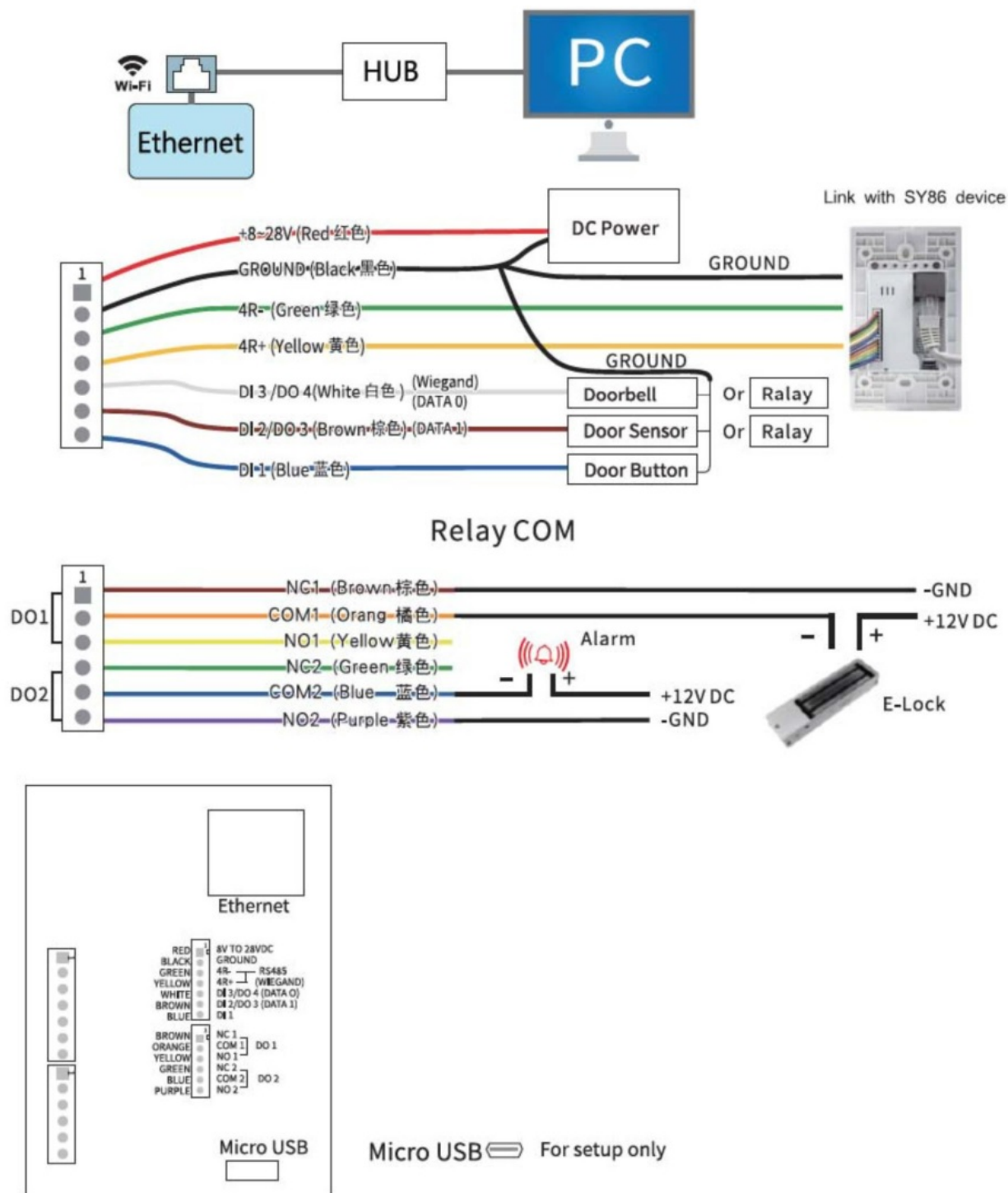
Feature:

- Multi-mode access control
- Support ISO15693 / ISO14443A (Mifare) / ISO14443B / DESFire / NTAG203
- 2.42 inch OLED Display
- Multi communication interface
- Provide protocol to develop

Specification:

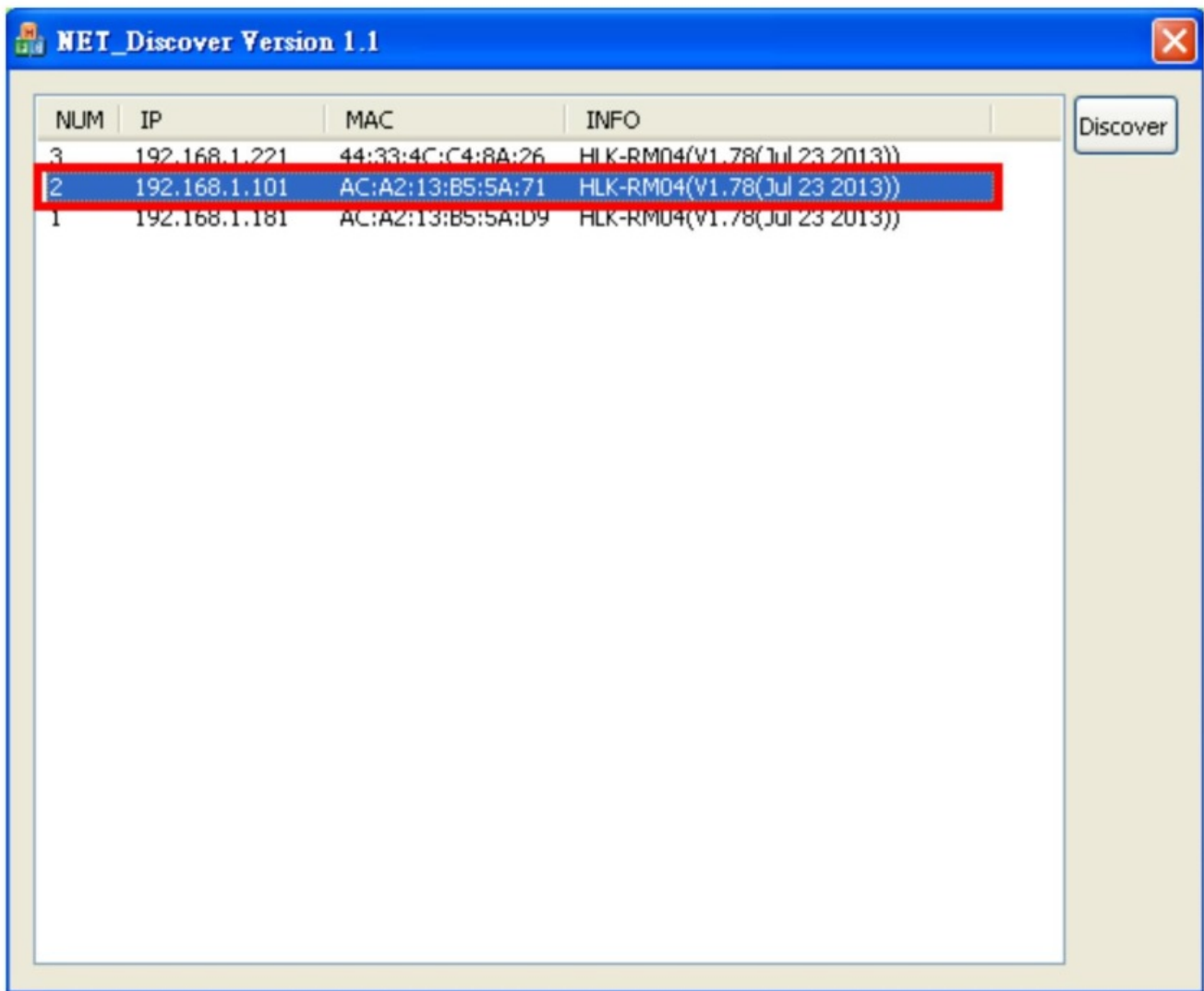
Frequency	13.56MHz
Interface	RS485 / Wiegand / Ethernet / Wi-Fi
Wiegand	Wiegand (support 26/32/34/35/37/42/66 bits)
RS485 baud rate	19,200 bits/sec (4,800~460,800)
Ethernet	10M/100M Ethernet Port
Wi-Fi	802.11 b/g/n
Display	2.42 inch 128 x 64 OLED display
Status Indicator	Tricolor LED(RGB) & Beeper
Keypad	13 capacitive touch button
IR Sensor	1 IR sensor for waving hand to access door (adjustable range 0~10cm)
Digital Input	Up to 3 (1 DI+2 no-voltage DI share the same port with Wiegand)
Digital Output	Up to 4 (2 Relay output+ 2 open collector DO share the same port with Wiegand)
HF Protocols	ISO15693 / ISO14443A / ISO14443B / DESFire / NTAG203
HF Read range	Up to 5 cm
ID	0001~9999
Number of Cards	10000
Capacity of Records	100000
Power Supply	9 ~28 VDC (12 VDC)
Power consumption	1W~6W
Operating temperature	-10°C to 60°C
Dimensions (mm)	124 x 90 x 27mm

Wiring Diagram



Network Parameter Setting

1. Execute "NET_Discover_V0110.exe" and press  to search QUIO series product.
2. Factory default IP is "192.168.1.101". User can check the MAC address from product sticker with IP to confirm the device.



3. Double click IP (192.168.1.101) to open the web configure page(<http://192.168.1.101>)

Default login ID / Password : admin / admin

192.168.1.101

登入

http://192.168.1.101

你與這個網站之間的連線不是私人連線

使用者名稱

admin

密碼

登入

取消

← → ↺ 🏠

⚠ 不安全 | 192.168.1.101

☆

SYRIS

Settings

Network

Serial 0

Serial 1

	Current	Updated
Network Mode	Default	Default ▾
IP Type	Static	Static ▾
IP Addr	192.168.1.101	192.168.1.101 ⓘ
Mask	255.255.255.0	255.255.255.0
Gateway	192.168.1.254	192.168.1.254
Dns	192.168.1.254	192.168.1.254
AP Enable	Enable	Enable ▾
AP SSID	SerialWiFi_0EA0	SerialWiFi_0EA0
AP EncType	WPA2AES	WPA2AES ▾
AP Passwd	12345678	12345678
LAN IP Addr	192.168.16.254	192.168.16.254
LAN Mask	255.255.255.0	255.255.255.0
DHCP Server	Enable	Enable ▾

- Default Net Mode is the same as the following. User can modify Net Mode and other parameters. If device cannot communicate properly after setting, user can reset NET module via Micro USB.

Settings

Network

Serial 0

Serial 1

	Current	Updated
Baudrate	230400	230400
Data Width	8	8
Parity	NONE	NONE
Stop Bit	1	1
Flow Control	Disable	Disable
Socket Protocol Type	Tcp Server	Tcp Server
Locale Port	5001	5001
Packet Framing Lenth	1050	1050
Packet Framing Timeout	3	3
Packet Framing Interval	3	3
TCP Timeout	0	0
Reconnect Interval	200	200
TCP Keep Alive	1	1
TCP Max Connect	100	100
Without data Timeout	60	60

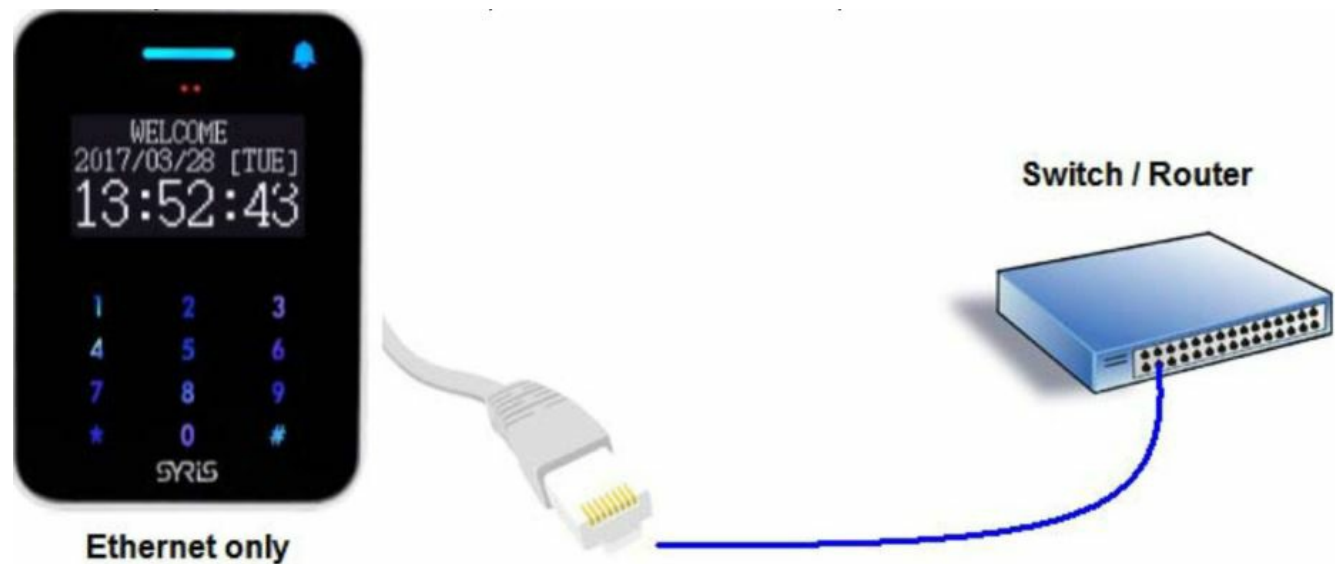
Communication Parameter	Factory Default
Serial Configure	230400,8,n,1
Serial Framing Length	1050
Locale/Remote Port Number	5001

Network Mode Switch

QUIO device support 4 network modes: Default, ETH (Ethernet) Wi-Fi(STA)

Default	Ethernet (DHCP) +Wi-Fi AP mode
ETH	Ethernet only
WIFI(STA)	Wi-Fi client mode

1. **ETH:** Factory default is **ETH-SERIAL.** (**Standard TCP/IP Reader**)



When user modify the IP and click on Apply button, device will reboot and apply the setting after 30 seconds.

	Current	Updated
Network Mode	Default	ETH ▾
IP Type	Static	Static ▾
IP Addr	192.168.1.101	192.168.1.101
Mask	255.255.255.0	255.255.255.0
Gateway	192.168.1.254	192.168.1.254
Dns	192.168.1.254	192.168.1.254

2. **WIFI(STA)** QUIO can be set to communicate via Wireless AP without Ethernet.



Wi-Fi client mode



Wi-Fi AP

Settings		Network	Serial 0	Serial 1
	Current	Updated		
Network Mode	Default	WIFI(STA) ▼		
STA SSID	Delta-IoT	Delta-IoT		Scan
STA EncType	Open	Open ▼		
STA Passwd				
IP Type	Static	Static ▼		
IP Addr	192.168.1.101	192.168.1.101 ⓘ		
Mask	255.255.255.0	255.255.255.0		
Gateway	192.168.1.254	192.168.1.254		
Dns	192.168.1.254	192.168.1.254		

STA SSID: Enter the SSID from AP you will connect to network.

Scan : User can scan AP in range of device and select one to connect. But user cannot scan the AP after changing default network mode (Ethernet only) to Wi-Fi (Client). Device need to power off / on to enable the scan function.

STA Enc Type : Select Encrypt type for AP connection.

Password: Enter password for AP.

IP Type: DHCP is default mode. If user have to setup a static IP, please select Static.

PS: Wi-Fi MAC address is Ethernet MAC subtract 1.

Ex. Ethernet MAC : AC:A2:13:B5:5A:B5 Wi-Fi MAC : AC:A2:13:B5:5A:B4

3. Default mode Ethernet (DHCP) +Wi-Fi AP mode.

It's Dual-Mode (Ethernet and Wi-Fi AP but Ethernet only support DHCP.)



Settings	Network	Serial 0	Serial 1
	Current	Updated	
Network Mode	Default	Default ▾	
IP Type	Static	Static ▾	
IP Addr	192.168.1.101	192.168.1.101 ⓘ	
Mask	255.255.255.0	255.255.255.0	
Gateway	192.168.1.254	192.168.1.254	
Dns	192.168.1.254	192.168.1.254	
AP Enable	Enable	Enable ▾	
AP SSID	SerialWiFi_0EA0	SerialWiFi_0EA0	
AP EncType	WPA2AES	WPA2AES ▾	
AP Passwd	12345678	12345678	
LAN IP Addr	192.168.16.254	192.168.16.254	
LAN Mask	255.255.255.0	255.255.255.0	
DHCP Server	Enable	Enable ▾	

AP SSID: Setup device's SSID.

AP Passwd: Device's Wi-Fi password. (Default is 12345678)

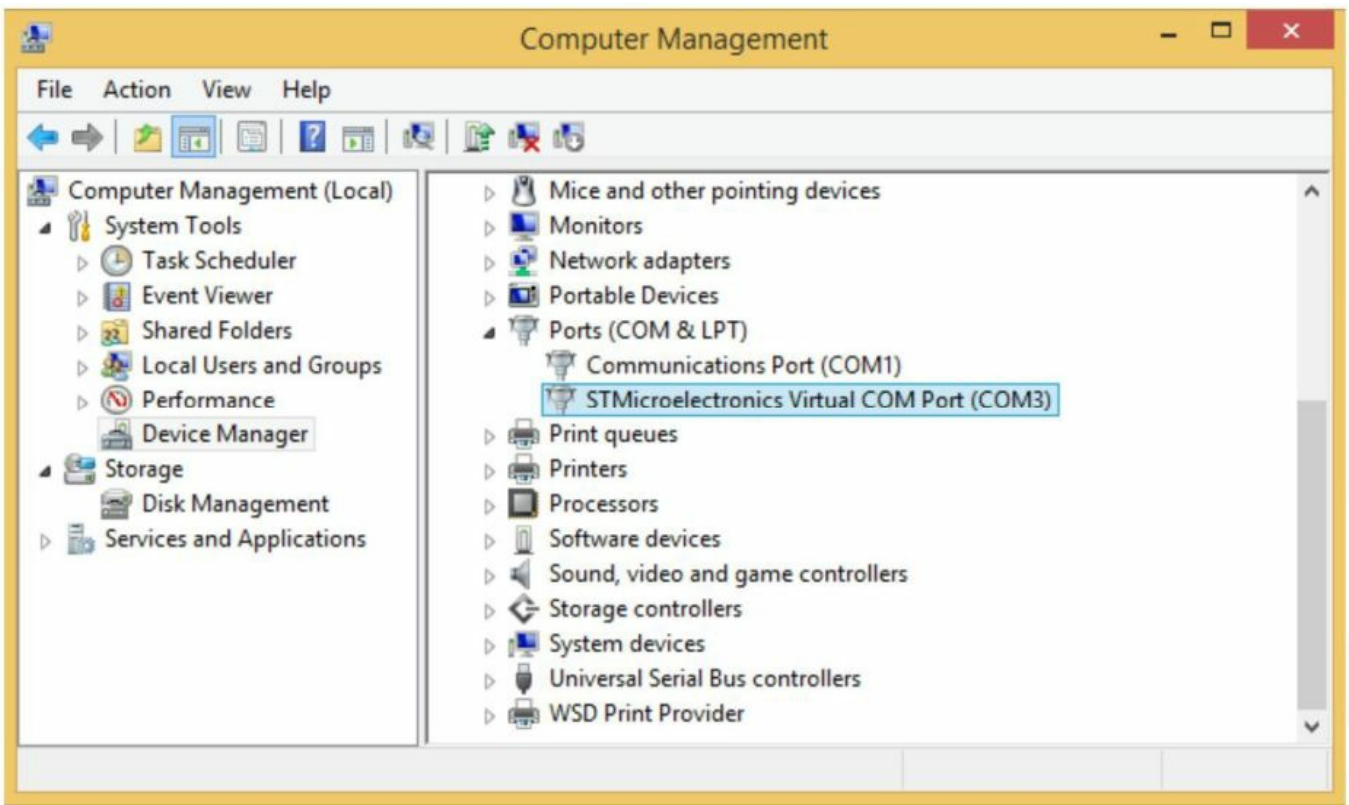
USB Connection

Setup parameters via Micro USB.

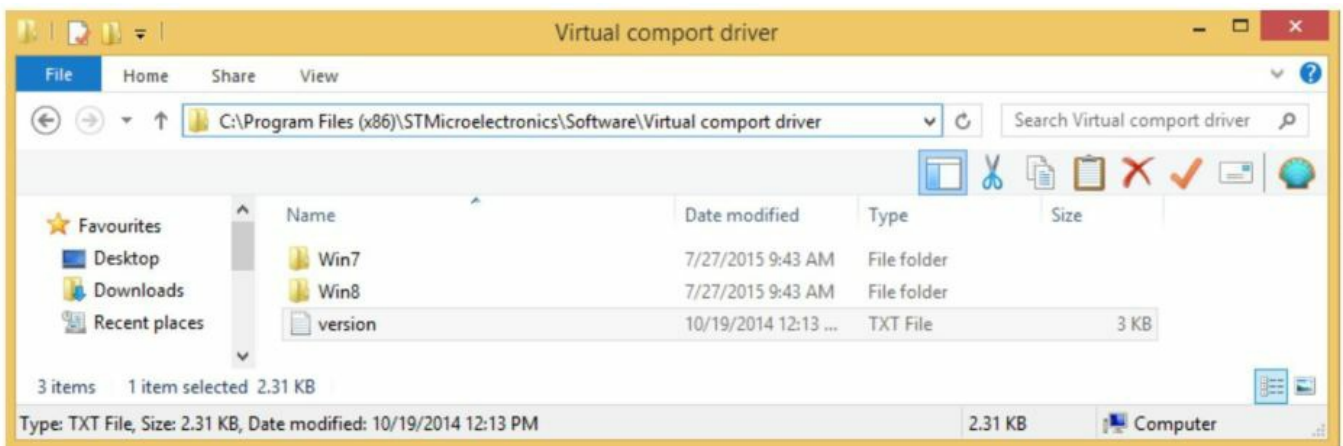


1. Install USB driver "CDC_USB_Driver_VCP_V1.4.0_Setup.exe"
2. System will generate a virtual COM port.

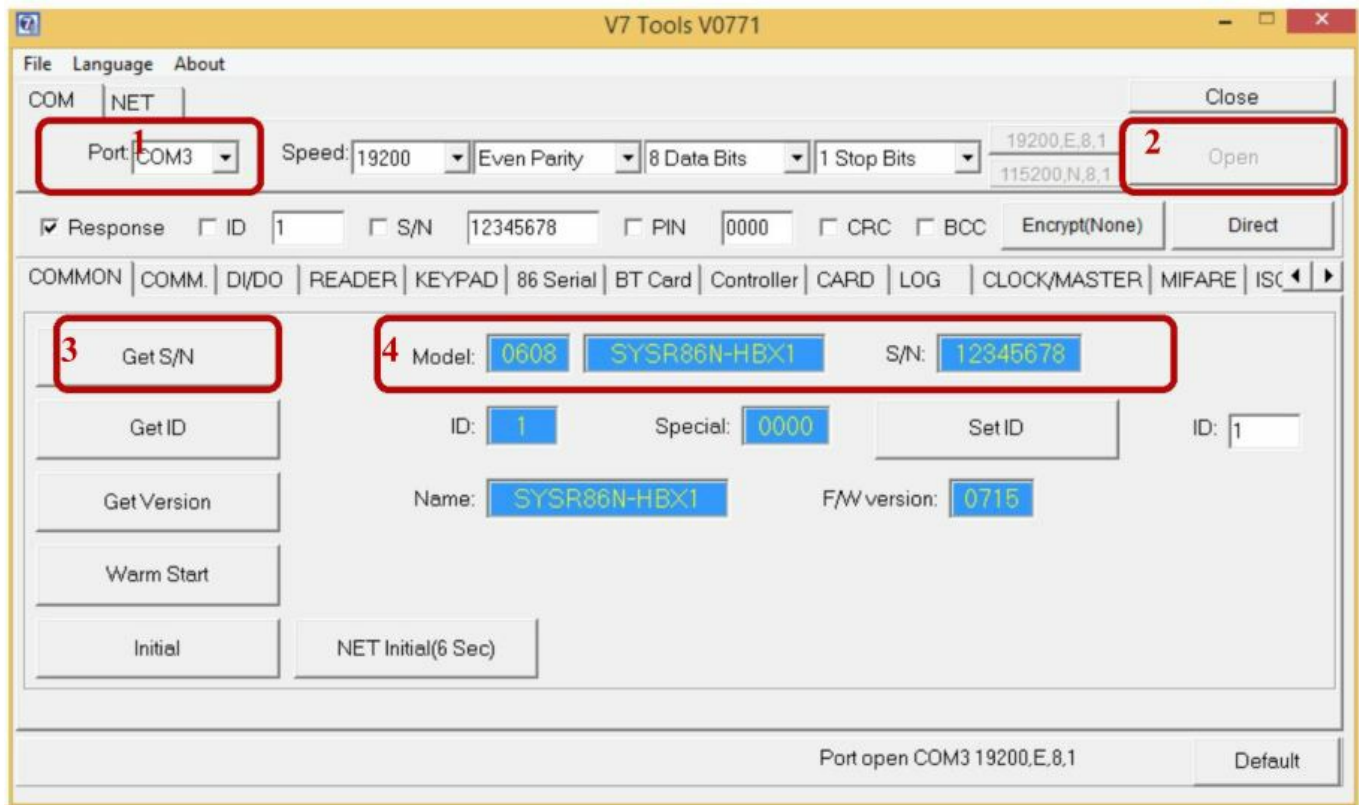
For example. Check port in device manager.(below picture is COM 3)



User also can update driver manually. The driver is saved in the folder that is same as following.

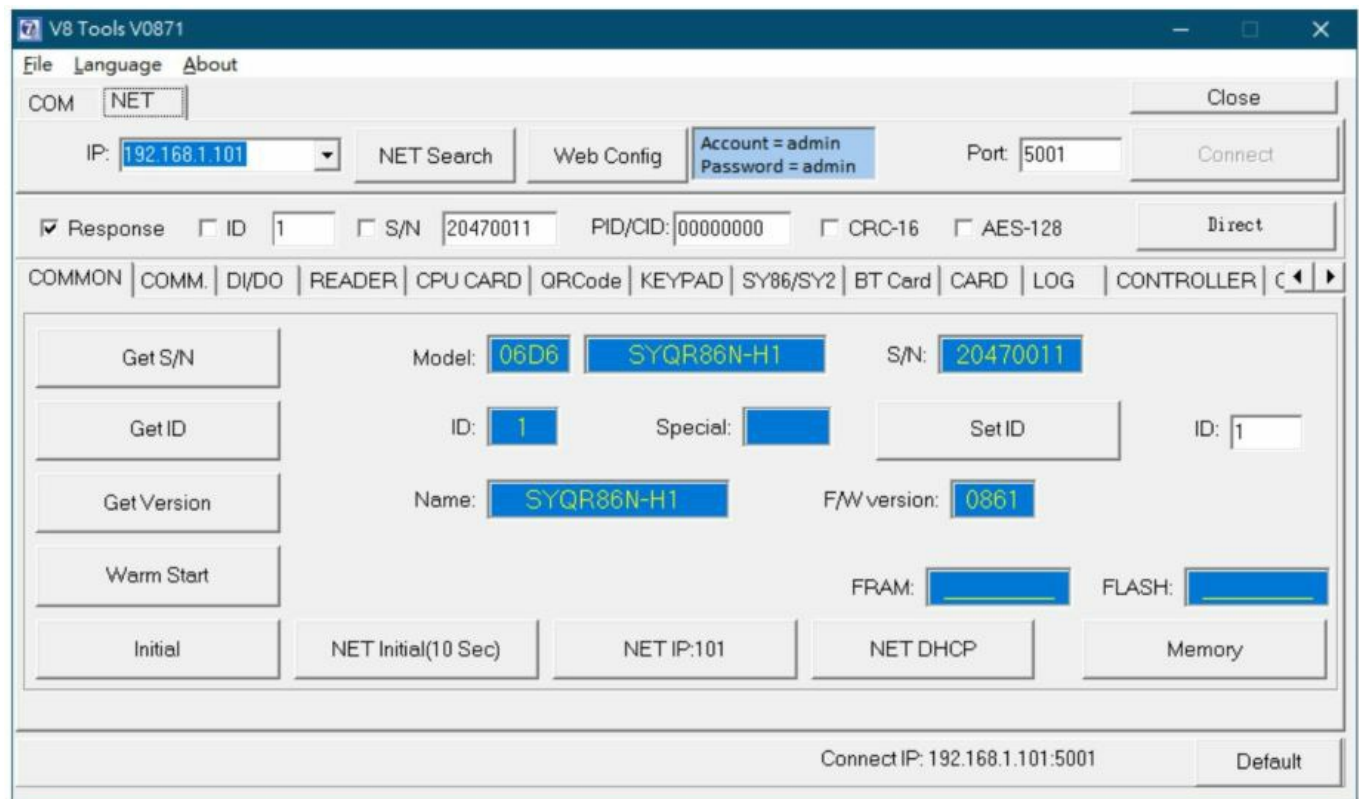


3. Get device Model information and serial number by using V8 Tools with correct COM port or Ethernet connection.



V8 Tools Tool Parameter Setting

1. Basic:



Basic: Get device serial number device ID and firmware version

Warm Start: Reboot device

Initial: Restore device to factory default (It is NOT including network setting).

NET Initial (6 sec): Restore network parameter of device to Default mode.

2. Reader

The screenshot shows the V8 Tools V0871 software interface. It has a menu bar with 'File', 'Language', and 'About'. Below the menu bar are tabs for 'COM' and 'NET'. The 'NET' tab is active, showing fields for 'IP' (192.168.1.101), 'NET Search', 'Web Config', 'Account = admin', 'Password = admin', and 'Port' (5001). There is a 'Connect' button. Below these are checkboxes for 'Response', 'ID' (1), 'S/N' (20470011), 'PID/CID' (00000000), 'CRC-16', and 'AES-128', along with a 'Direct' button. A tabbed interface follows with options like 'COMMON', 'COMM.', 'DI/DO', 'READER', 'CPU CARD', 'QRCode', 'KEYPAD', 'SY86/SY2', 'BT Card', 'CARD', 'LOG', and 'CONTROLLER'. The 'READER' tab is selected, showing 'Set Interface' (Interface: RS485, WIEGAND: 26 bits, RS485: 64 bits) and 'Set Message Mode' (Active, Blue(Power) LED, Card LED: 30 x10ms, Card BEEP: 30 x10ms). Below these are 'ISO14443A/B/ISO15693' settings, including 'Same Card Delay' (10 x100ms), 'Green Mode', 'Reset', 'Card Type' (UID(A), Block, UID(B), GUID(B), ISO15693), 'Use 7 Byte', and 'CPU'. A 'Card test' section includes 'DI', 'TYPE', 'ID', 'Delay' (100 ms), 'Auto Read', and 'Test Message'. At the bottom, a green bar shows 'Command ok' and a status bar shows 'Connect IP: 192.168.1.101:5001' and a 'Default' button.

Set Interface: Setup reader's communication interface. Default is "RS485".

Set Message Mode:

Card LED: Time for read card LED ON, default is 30 x 10ms

Card Beep: Time for read card beep on, default is 30 x 10ms

ISO14443A/B/ISO15693 :

Same Card Delay: Setup time gap for reading the same card, default is 10 x100ms (1 second)

Green Mode: Slow down the card read speed to power saving.

Reset: Reset RF IC after read card.

Card Type: Choose card type to enable device's read specific card.

UID(A): Read ISO14443A Card UID.

Block: Read Block data (Must disable other card type).

UID(B): Read ISO14443B Card UID.

GUID(B): Read the China second generation of resident identification card.

ISO15693: Read ISO15693 Card UID

7 byte: Read 7byte format Card UID

Card Test: Test the reader function.

3. Display : Set up display language and encode for different country.

V8 Tools V0871

File Language About

COM NET

Port: COM10 Speed: 19200 Even Parity 8 Data Bits 1 Stop Bits 19200,E,8,1 115200,N,8,1

☒ Response ☐ ID 1 ☐ S/N 18039001 PID/CID: 00000000 ☐ CRC-16 ☐ AES-128 Direct

UHF UHF TID KEYPAD SY86/SY2 BT Card CARD LOG CONTROLLER DISPLAY CLOCK/MASTER SECURITY COI

Display Setting

English Set Language Get

UNICODE Set Encode Get

24H Set Hour Mode Get

YYYY/MM/DD Week Date Type Get

Title_Message

Title Status Message Action

Meeting Notice

Set Title Message Clear Title Message Get

Good morning. Show Message

☒ Beeper ☒ LED Green ☐ LED Red

Show Delay: 30 0.1s

☐ Show Always Off Message

Port open COM10 19200,E,8,1 Default

Test send message command with tools.

Title_Message

Title Status Message Action

Meeting Notice

Set Title Message Clear Title Message Get

Good morning. Show Message

☒ Beeper ☒ LED Green ☐ LED Red

Show Delay: 30 0.1s

☐ Show Always Off Message

Auto send reader mode

1.Un- Select "Controller Mode" and then click "Set DI/DO Mode" to disable controller mode.

V8 Tools V0871

File Language About

COM NET |

IP: 192.168.1.241 NET Search Web Config Account = admin Password = admin Port: 5001 Connect

☒ Response ☐ ID 1 ☐ S/N 20470003 PID/CID: 00000000 ☐ CRC-16 ☐ AES-128 Direct

COMMON | COMM. | DI/DO | READER | CPU CARD | QRCode | KEYPAD | SY86/SY2 | BT Card | CARD | LOG | CONTROLLER | C ◀ ▶

Touch IR Sensor
 HF/LF Read: Auto
 Touch Key: CALL
 IR Sensor: DI4 IR Power: 10%
 Set Touch IR Sensor Get

XtIVE TAG/BT
 BT XtIVE
 XtIVE TAG: Key Exciter ID: 0 0 ☐ Mute
 Same: 50 Gain: 13 RSSI: 120
 Set XtIVE TAG/BT Get

DI/DO Mode
 Set DI/DO Mode Get

RS485 Mode | WIEGAND Mode | Controller |
☐ Controller Mode ☐ BCard Free Mode
☐ Patrol Mode ☐ XtIVE Direct Mode
☐ RS485 Master Mode ☐ Wiegand Reader Mode

DO Time (Unit: 0.1 Sec)
 DO1: 50 DO3: 50 DO5: 50
 DO2: 50 DO4: 50 DO6: 50

Connect IP: 192.168.1.241:5001 Default

2. Select "EN" (means enable), "S/N", "CLR", "CRC" and set heartbeat to 50 (means 5 sec) and then click "Auto Mode" to finish configure.

V8 Tools V0871

File Language About

COM NET |

IP: 192.168.1.241 NET Search Web Config Account = admin Password = admin Port: 5001 Connect

☒ Response ☐ ID 1 ☐ S/N 20470003 PID/CID: 00000000 ☐ CRC-16 ☐ AES-128 Direct

COMMON | **COMM.** | DI/DO | READER | CPU CARD | QRCode | KEYPAD | SY86/SY2 | BT Card | CARD | LOG | CONTROLLER | C ◀ ▶

Set Baudrate Speed: 19200, E, 8, 1 115200, N, 8, 1
 115200 No Parity 8 Data Bits 1 Stop Bits Get

Set Comm. Delay Time-out: 10 ms TX Delay: 20 x 0.1ms RX Delay: 10 x 0.1ms 00 00 Get

Auto Mode | Engineer Mode | Scan Device | NET Reboot |

Auto Mode
 Mode: ☒ EN ☐ ID ☒ S/N ☐ ASC ☐ DI ☐ TIME
 Encrypt: None ☐ EXIT ☒ CLR ☒ CRC
 Delay: 10 x 100ms Heartbeat: 50 x 100ms V7 V5 Get

Connect IP: 192.168.1.241:5001 Default

Documents / Resources

QU-KD2N-HF QUIO TCP/IP OLED Display Reader Operation Manual   QUIO TCP/IP OLED Display Reader	QUIO QU-KD2N-HF Chip Card Reader [pdf] User Guide QU-KD2N-HF Chip Card Reader, QU-KD2N-HF, Chip Card Reader, Card Reader
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References

- [RFID for industrial, commercial & logistics - HERPA TECH](#)
- [QUIO – RFID/NFC und Kartentechnologie](#)

Manuals+.