



UC-ETH-RS232-D

Veawe manufactures various products for industrial use like

- ✓ **USB to RS485, RS232to RS485, RS485 to RS485 Repeater**
- ✓ **Isolated RS232 to RS485, RS485 to RS485 Repeater, RS232 to RS232**
- ✓ **Ethernet to RS485, Dual RS232, Dual RS485**
- ✓ **Remote IO modules, 4 Input 20mA /10V, 24 DI, DO, etc**
- ✓ **0 – 20mA / 0 – 10V simulator with display**
- ✓ **Surge protection devices for RS485, 230V AC, 24V DC**

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Features

- * Works with all type of industrial equipments
 - PC, PLC, SCADA, HMI, AC/DC Drives, Genset, UPS, Development Kits, etc.
- * RS232 Rx and Tx light indications for easy visibility and troubleshooting
- * RJ45 Status light indications, RJ45 built-in 2KV isolation
- * User Friendly Configuration Software
- * Easy to use web page configuration option
- * Unique MAC address
- * Compact design suitable for both DIN Rail and Wall mount
- * Dimension in mm – 110 x 74 x 70
- * Support 10/100M, TCP Server, TCP Client, UDP, Httpd Client, Web socket
- * Supports Transparent Mode data transmission
- * Supports Modbus TCP to Modbus RTU protocol conversion on both ports
- * ESD and Surge protection for Ethernet, RS232 and Power
- * Supports all Baud Rates from 300 to 250 kBaud.
 - varies on cable length
- * ESD protection for RS232 pins
 - ±15-kV Human-Body Model (HBM)
 - ±8-kV IEC1000-4-2, Contact Discharge
 - ±15-kV IEC1000-4-2, Air-Gap Discharge
- * 12~24V DC Supply
- * 1 Year Warranty against any manufacturing defects

Electrical characteristics

<i>Power Input</i>	<i>12V DC ~ 24V DC</i> <i>(not more than 30V DC max. Reverse polarity protected)</i>
<i>Operating Temperature</i>	<i>-40 ~85 °C</i>
<i>Working Current</i>	<i>200mA Max</i>
<i>RS232-1 in Receive input</i>	<i>± 30V</i>
<i>RS232-1 in Transmit output</i>	<i>± 7V</i>
<i>RS232-2 in Receive input</i>	<i>± 30V</i>
<i>RS232 -2 in Transmit output</i>	<i>± 7V</i>

Hardware Connection

Mounting

The module can be mounted in all standard **35mm** DIN Rail channels and as well in Wall with screws. Pull the clip out one step for wall mounting



Fig 1 DIN Rail Mounting | Wall Mounting

Electrical connection



Fig 2 Typical connection example

First Time Settings

Settings for PC

* For connecting directly to a PC a cross over cable is required and PC network settings need to be changed as below.

In Network settings → Properties → Internet Protocol (TCP/IP)

Define a manual IP as below

IP address	192.168.0.1
Subnet mask	255.255.255.0
Default gateway	192.168.0.1

Default Parameters

IP:	192.168.0.7
username:	admin
password:	admin
baud rate:	115200, 8, N, 1
Local TCP Port RS232-1:	23
Local TCP Port RS232-2:	26
Work mode:	TCP Server, None
RS232 Timeout, Len:	0,0
Web config port:	80

Web based configuration

You can use a web browser to view and change the IP and Serial settings

Go to the address 192.168.0.7 in the web browser and enter default user name and password as above

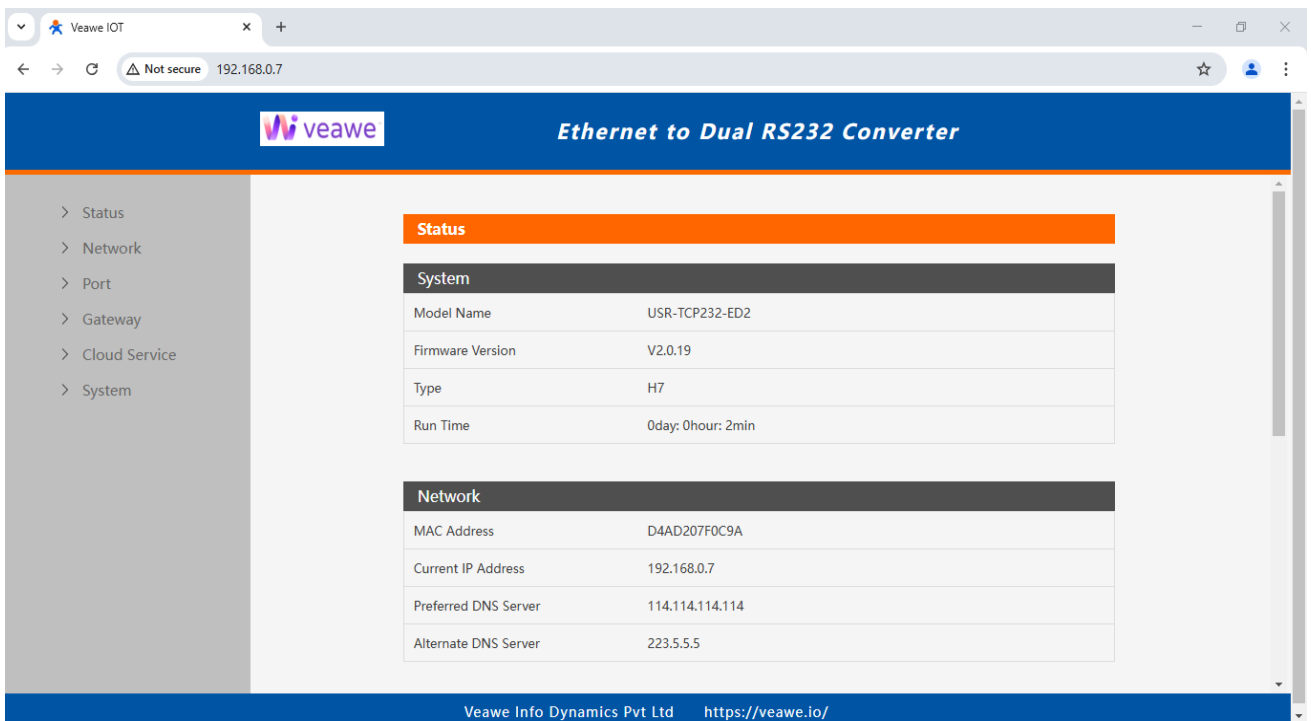
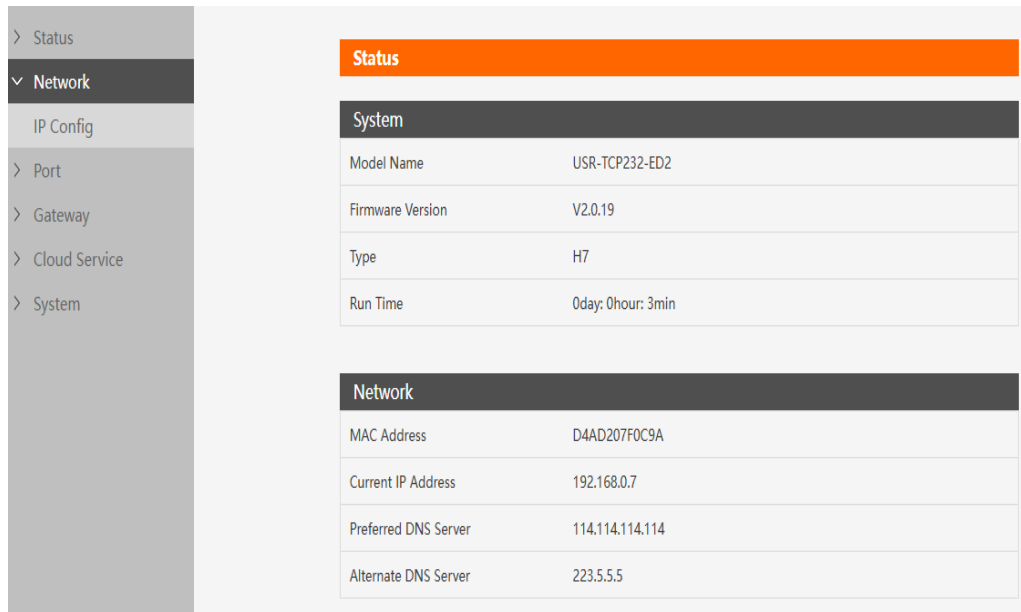


Fig 3 Current Status

Local IP Configuration

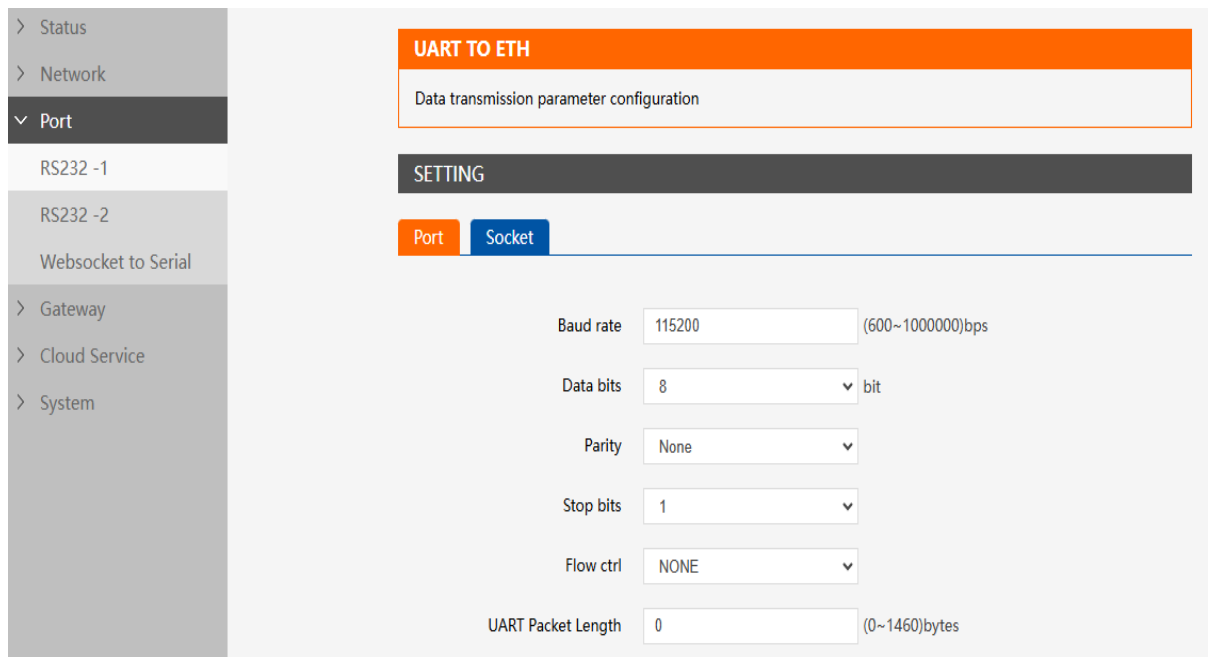
Select Static IP or DHCP for the Ethernet to RS485 Converter



Status	
System	
Model Name	USR-TCP232-ED2
Firmware Version	V2.0.19
Type	H7
Run Time	0day: 0hour: 3min
Network	
MAC Address	D4AD207F0C9A
Current IP Address	192.168.0.7
Preferred DNS Server	114.114.114.114
Alternate DNS Server	223.5.5.5

Fig 4 IP Settings

RS232-1 Settings



UART TO ETH	
Data transmission parameter configuration	
SETTING	
Port Socket	
Baud rate	115200 (600~1000000)bps
Data bits	8 bit
Parity	None
Stop bits	1
Flow ctrl	NONE
UART Packet Length	0 (0~1460)bytes

Fig 5 RS232 Settings

RS232 serial port settings can be changed like Baud Rate, Data Size, Parity and Stop bit
 Note: Do not change the Flow Control and RS485 from Hardware if RTS/CTS are required

When RS232 Packet Time / RS232 Packet Length

0/0 automatic packet mechanism.
 User defined/User defined Fixed packet mechanism

Recommended 0/0 for most protocols

In auto mode

RS232 Packet Time = 4 Bytes time (e.g @ 115200 Baud ~350 usec)

RS232 Packet Length = 1460 Bytes

Data will be transmitted if any one of the above condition is met

In fixed packet mode

RS232 Packet Time = User defined milli Seconds

RS232 Packet Length = User defined Bytes

Data will be transmitted if any one of the above condition is met

RS232-2 Settings

The screenshot displays the 'SYSTEM SETTING' interface for RS232-2. On the left, a navigation menu lists 'Status', 'Network', 'Port', 'Gateway', 'Cloud Service', and 'System' (which is expanded to show 'System Setting', 'Management', and 'Log'). The main content area has an orange header 'SYSTEM SETTING' and a button 'Set System Parameters'. Below this is a 'SETTING' section with a 'System Setting' tab. The settings are as follows:

Parameter	Value	Range/Options
Model Name	USR-TCP232-ED2	
Websocket Port	6432	(1~65535)
Websocket Direction	UART1	Dropdown menu
Log Switch	OFF	(port:6433)
Webserver Port	80	(1~65535)
User Name	admin	
Pass Word	*****	

Fig 6 RS232-2 Settings

ModbusTCP to Modbus RTU

Module supports Modbus TCP to Modbus RTU mode.
 This option can be selected from

RS232 Settings → Work Mode: TCP Server ModbusTCP

This option is suitable for Modbus TCP servers requiring a connection to remote RTU device

Transparent Serial Connection

For transparent serial data transmission over TCP select the Work mode option to none

RS232 Settings → Work Mode: TCP Server None

This option is suitable for Custom serial protocols, Ascii terminals, Virtual COM ports, Telnet server connections, Modbus RTU over telnet.

Web to Serial

This option is handy for testing the interface. This option works on RS232 Channel 1 only

Fig 7 Send and receive data using web page

Top window display the received data from the serial interface.

Bottom window can be used to type and send ASCII or hex data

Misc Configuration

Fig 8 Additional settings

Web page user name, password, MAC ID can be changed

Reboot

Module needs to be Reboot from web page for the saved changes to be applied

The screenshot displays a web management interface with a sidebar on the left and a main content area on the right. The sidebar contains a list of menu items: Status, Network, Port, Gateway, Cloud Service, System (expanded), System Setting, Management, and Log. The 'System' menu is expanded, showing 'System Setting', 'Management', and 'Log'. The 'Management' menu item is highlighted. The main content area has a header 'Management' and a sub-header 'Firmware upgrade/Reset/Restart'. Below this, there are three sections: 'Firmware upgrade', 'Reset', and 'Restart'. The 'Firmware upgrade' section includes a 'Firmware file:' label, a 'Select firmware file' button, a 'Select the file' button, and a 'Flashing the firmware...' button. The 'Reset' section includes a 'Reset' label and a 'Restore factory defaults' button. The 'Restart' section includes a 'Restart' label and a 'Restart' button.

Management

Firmware upgrade/Reset/Restart

Firmware upgrade

Firmware file:

Reset

Reset

Restart

Restart: