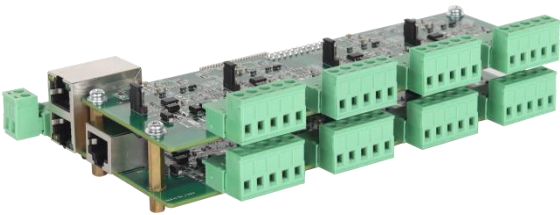


IEM308-DEMO-8D485

Dual network port 8-channel RS232 / 485 embedded Ethernet serial port server



- Supports 2*100M Ethernet interfaces and 8* RS232 / 485 serial port
- Support serial port terminal equipment networking, can convert UDP, TCP, Modbus, HTTPD, WebSocket, MQTT and other protocols, support virtual serial port
- Support Modbus slave pre-read, single port to automatically learn up to 256 RTU or 128 ASCII instructions, pre-read data for quick response Support Modbus
- Address mapping, mapping a single read / write instruction to the read / write instructions of multiple addresses, and realizing the batch read / write of a single instruction.
- Support standard MQTT protocol, can connect Ali Cloud, OneNet, Tencent Cloud, Huawei Cloud, Maiwe Cloud or other cloud platforms, to realize the interconnection of everything between the end and the cloud
- Support JSON function, can convert the collected Modbus from the station equipment data to JSON format to the server
- Support DC9~48V power input,
- anti-reverse connection Support -40°C ~ + 85°C working wide temperature, to meet the needs of industrial environment application





Product Description

IEM308-DEMO-8D485 is a dual-port 8* RS232 / 485 embedded Ethernet serial port server, used with IEM308-8D core module. The product provides 2*100 MB Ethernet interfaces and 8* RS232 / 485 serial ports, support DC9~48V power input, using embedded installation mode, to meet the needs of a variety of industrial bus or network field. The hardware adopts low power consumption, wide temperature, wide pressure design, selected industrial components, using high performance and low power processor, support-40°C ~ + 85°C working wide temperature, through strict safety regulations and EMC test, suitable for various harsh field environment. The products can be widely used in industrial automation, comprehensive energy, intelligent transportation, smart city, smart mining and other fields.

The IEM308-8D core module supports WEB configuration with a variety of network management functions, Such as serial port / network working mode, serial port forwarding, network card mode, DNS, access control, IP / MAC filtering, log management, mail alarm, SNMP alarm, system management, serial port restart, system management, etc.; Support for multiple conversion modes, such as Modbus RTU Master/Slave, Modbus ASCII Master/Slave, UDP Client/Server, TCP Client/Server, UDP Multicast, RealCOM_MCP/CCP/MW, Pair Connection Master/Slave, HTTPD Client, WebSocket Client, MQTT, Implement the serial port to Ethernet or Modbus TCP protocol



Features and Benefits

- Dual network ports can be configured as two separate network segments or cascade ports
- Serial port support 300bps-460800bps port rate is optional
- Support UDP Client / Server / Multicast mode, and can realize point-to-point, point-to-many or many-to-many communication through UDP protocol, fast and efficient
- It supports TCP Client / Server mode, establishes session connection through TCP protocol, TCP Client supports up to 16-way session connection, TCP Server supports up to 32-way session connection, and supports RFC2217 instructions to dynamically modify communication parameters such as serial port and portport rate
- Support Pair Connection Master / Slave mode, devices can be used in pairs, easy to operate
- Support the WebSocket Client mode for two-way communication with the WebSocket server
- Support RealCOM MCP / CCP / MW mode, mapping network for local COM, seamless connection
- Support HTTPD Client mode and can perform GET or POST operation with HTTPD server

- Support the WebSocket Client mode for two-way communication with the WebSocket server
- Support serial port forwarding, realize transparent data transmission between serial ports and other serial ports, and provide one-directional forwarding / receiving and two-directional forwarding direction control
- Multiple subcontracting mechanisms are supported to convert serial port data into Ethernet data packets according to the data length or time, to meet the real-time needs of different networks
- Support frame head and tail mode, serial port can filter data frames according to the start and end bytes of the frame
- Support for registration packages and heartbeat packages to realize connection verification and connection status detection
- Support Modbus virtual ID, map Modbus slave real ID to virtual ID for data communication, and avoid slave ID duplication
- Support DES / 3 DES / AES / RC2 / RC4 / RC5 / BlowFish and other data encryption algorithms to ensure the security of data
- Support SSL (TLS1.0/1.1/1.2) connection encryption, one-way / two-way certificate verification, to ensure the security of the connection
- Support for HTTP / HTTPS / SSH / TELNET access control, along with IP / MAC address filtering
- Support device restart, login event, configuration change, password change and other events alarm, support email and SNMP alarm mode
- Support serial port communication parameters, working mode, sending and receiving frame number statistics
- Support log local storage, network storage, and serial port log output
- Support serial port / device restart, restore factory setting, device upgrade and NTP client



Specifications

software function (With the IEM308-8D core module)	
Serial Port Working Mode	<p>Support Modbus RTU Master, Modbus RTU Slave, Modbus ASCII Master, Modbus ASCII Slave, UDP Client, UDP Server, UDP Multicast, TCP Client, TCP Server, RealCOM_MCP, RealCOM_CCP, RealCOM_MW, Pair Connection Master, Pair Connection Slave, HTTPD Client, WebSocket Client, MQTTworking mode</p> <p>Support serial port forwarding</p> <p>Support SSL encryption, data encryption, data transmission / JSON transmission</p> <p>Support Modbus slave virtual address, Modbus pre-read, Modbus address mapping batch read and write</p> <p>Support Keepalive, heartbeat package, registration package, frame head and frame tail, RFC2217 function</p>
Security management	<p>Support for user password settings</p> <p>Support WEB/ SSH/ TELNET/ HTTPS access control</p> <p>Support for IP / MAC address filtering</p> <p>Support for mail alarms and SNMP alarms</p> <p>Support certificate upload</p>
System management	<p>Support device information, serial port information statistics</p> <p>Supports independent network segment or cascade mode, static address / DHCP</p> <p>supports local log, remote network log, and serial port log output</p> <p>Support SNMPv1/v2c/v3</p> <p>Support serial port restart, no data device restart</p> <p>Support equipment online restart, upgrade and restore factory Settings</p> <p>Support for NTP synchronization time</p>
Interface specifications	
100M Ethernet	2*10/100Base-T(X)Adaptive 100-megabit electrical port, Full / half-duplex, MDI / MDI-X-adaptive



Specifications

Serial port	<p>Quantity: 8 road Type: RS232 / 485 serial port Baud rate: 300bps-460800bps Data bit: 7bit、8bit Stop bit: 1bit、2bit Check bit: no, odd check, even check Connection mode: 5.08mm spacing, 5 PIN wiring terminals Terminal resistance: support 120 Ω terminal resistance, can be set by the jumper cap</p>
CONSOLE	1*CONSOLE, RS232 signal RJ45, For device debugging and command-line configuration
Key	Restart and restore the factory setting button
Indicator	Power indicator, operation indicator, Link / ACT, Speed, serial port indicator

Power Supply

power input	DC9~48V
Power Consumption	<2.5W@DC12V (With the core module test)
attended mode	5.08mm spacing of 2 PIN wiring terminals
power protection	Anti-counter connection

Mechanical parameters

Physical	168×100×29.74(mm) (There is no interface)
Installation	Embedded installation
Weight	About 0.27kg (including the core module)

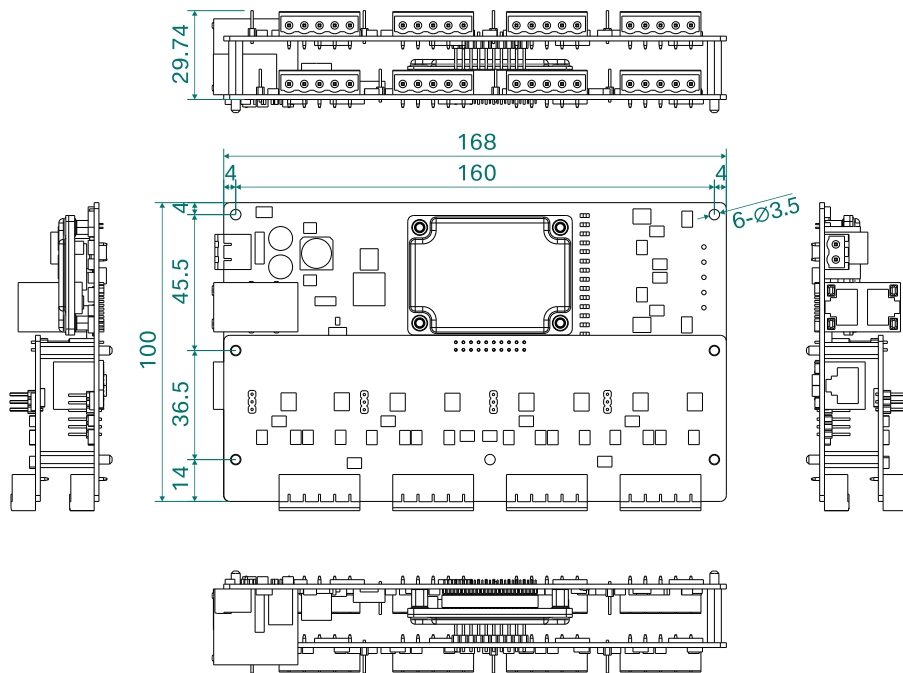
Working environment

Specifications

Working temperature	-40°C~+85°C
Storage temperature	-40°C~+85°C
Relative humidity	5%~95% (No condensation)
occupation standard	
EMC	<p>IEC 61000-4-5 (Surge): Level 3 (Power supply: common mode $\pm 2\text{kV}$, differential mode $\pm 1\text{kV}$; Network port: common mode $\pm 2\text{kV}$, differential mode $\pm 2\text{kV}$; Serial port: common mode $\pm 4\text{kV}$, differential mode $\pm 2\text{kV}$ IEC 61000-4-4 (EFT): Level 4 (power supply: $\pm 4\text{kV}$; network port, serial port: $\pm 2\text{kV}$)</p>

Size

unit: mm



Standard Model	100M Ethernet port	RS232/485	Power Voltage
IEM308-DEMO-8D485	2	8	DC 9~48V