

IEM304-4D

Industrial-Grade Embedded Serial Server Module



- 1× 10/100Base Ethernet port, 4× TTL serial ports
- Support UDP, TCP, Modbus, HTTPD, WebSocket protocols, support virtual com port
- Support CAN to serial conversion, transparent transmission, transparent transmission with identification, format conversion, Modbus, etc.,
- Compact design for easy installation, maintenance and PCBA
- Supply voltage: 3.3V (DC 3~3.6V)
- -40~85℃ industrial working temperature











Product Description

IEM304-4D is an industrial class embedded serial port server module, can be embedded within a serial device, adding an Ethernet port to enable network monitoring and control of the serial device. The server module is integrated serial port device networking, Modbus gateway, CAN relay and CAN serial port and other functions. It has 1 10/100Base Ethernet interface and 4 TTL serial ports. It can be embedded mounted to meet the requirements of various industrial buses or network field.

The server module can be managed via WEB and supports various network protocols, such as IP, ARP, UDP, TCP, ICMP, HTTP, Modbus TCP, Modbus RTU / ASCII, HTTPD, WebSocket, RealCOM, RFC2217, DHCP Client, DNS, etc. Its serial port supports various network transmission modes, such as UDP, UDP Multicast, TCP Client / Server, Pair Connection Master / Slave, Modbus TCP / RTU / ASCII, Httpd Client, WebSocket Client, etc. It supports CAN and serial port interface conversion, and virtual serial port function. The system provides user permission management, supporting online restart, upgrade and factory reset.

The 4 port embedded server module supports hardware watchdog, and reset, factory settings restore, designed with indicators. It features low power consumption, wide temperature range, compact modular design. The surface



mounted female header is easy to easy and maintain, flexible for platemaking and customize interface connection mode. Developed with industrial components, high performance low power processor, the module can work reliably in multiple harsh environments with -40° C $\sim +85^{\circ}$ C wide temperature range. The products can be widely used in industrial automation, comprehensive energy, intelligent transportation, smart city, smart mining and other fields.





Features and Benefits

- CAN port supports UDP, UDP Multicast, TCP Client/Server, Pair Connection Master/Slave, Modbus TCP Slave, Relay Mode, CAN to Serial, Httpd Client, WebSocket Client operating modes
- CAN baud rate 5kbps-1000kbps
- CAN support Normal, Loopback and Listen modes, for regular communication, test and troubleshooting
- Support CAN ID filter
- Serial port supports UDP, UDP Multicast, TCP Client/Server, Modbus RTU Master/Slave, Modbus ASCII Master/Slave, RealCOM_MCP/CCP/MW, Pair Connection Master/Slave, Httpd Client, WebSocket Client, CAN to Serial conversion modes, to enable conversion between serial to Ethernet, CAN and Modbus RTU/ASCI protocol
- Serial baud rate 600bps-921600bps
- Support multiple data packaging mechanism to enable conversion from Serial to Ethernet
- Support serial port and CAN port communication parameters, working mode, send and receive frame counts
- Support network address static configuration and DHCP protocol dynamic acquisition
- Support user permission management
- Support the network logging, remote server monitoring
- Support online upgrade and factory reset



Specification

Software		
Serial Port Working Mode	UDP, UDP Multicast, TCP Client, TCP Server, Modbus RTU Master, Modbus RTU Slave, Modbus ASCII Master, Modbus ASCII Slave, RealCOM_MCP, RealCOM_CCP, RealCOM_MW, Pair Connection Master, Pair Connection Slave, Httpd Client, WebSocket Client, CAN to Serial	
System Management	DHCP Client, DNS User permission management Serial/CAN port statistics, network log CAN/Serial port restart, device reboot, connection reset after idle for some time Upgrade and factory reset	
Interface		
Ethernet port	1×10/100Base-T(X) auto-sensing Ethernet pin, full/half duplex, auto MDI/MDI-X, 1.5 kV isolation protection, built-in network transformer	



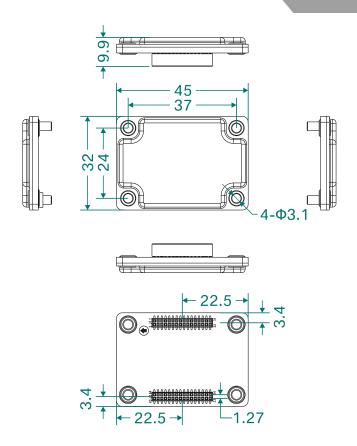
□ = Specification

	Type: 3.3V TTLport Baud rate: 600bps-921600bps				
TTL serial port	Data bit: 7bit, 8bit				
	Stop bit: 1bit, 2bit Parity bit: None, Odd, Even				
Status LEDs	Support the RUN, Ethernet port Link/ACT, Ethernet port speed, serial port indicator pins				
Power Supply					
Input Voltage	DC 3.3V(DC 3~3.6V)				
Power Consumption	<0.7W@DC3.3V (full load)				
Connection	2*1.27mm pitch 2*16P surface-plated female header (pins included)				
Physical Characteristic					
	45×32×9.9 mm				
Dimensions	45×32×9.9 mm				
Dimensions Installations	45×32×9.9 mm Embedded Mounted				
Installations	Embedded Mounted 15g				
Installations Weight	Embedded Mounted 15g				
Installations Weight Working Environ	Embedded Mounted 15g ment				
Installations Weight Working Environ Operating Temp	Embedded Mounted 15g ment -40°C~+85°C				
Installations Weight Working Environ Operating Temp Storage Temp Relative	Embedded Mounted 15g ment $-40^{\circ}\text{C} \sim +85^{\circ}\text{C}$ $-40^{\circ}\text{C} \sim +85^{\circ}\text{C}$ $5\% \sim 95\% \text{ (non-condensing)}$				



Unit: mm









Ordering Information

Standard Model	10/100M Ethernet Port	TTL Serial Port	Input Voltage
IEM304-4D	1	4	DC 3.3V (DC 3~3.6V)



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