





# μPAC-7186PEX(D)-MTCP

Palm-sized Programmable Modbus Gateway with 80186-80 CPU, Modbus Firmware. PoE (7-Segment LED Display)

## **■** Features

- Incorporate Serial Devices in an Ethernet Network
- Supports Modbus TCP to RTU Gateway
- Built-in High Performance MiniOS7 from ICP DAS
- Easy-to-use Software Development Tool Kits (Using C language)
- Various Communication Interfaces
  - 10/100 Base-TX Ethernet
  - RS-232/RS-485
- 64-bit Hardware Serial Number
- I/O Expansion Bus Interface
- Power over Ethernet (PoE, IEEE 802 3af, Class 1)









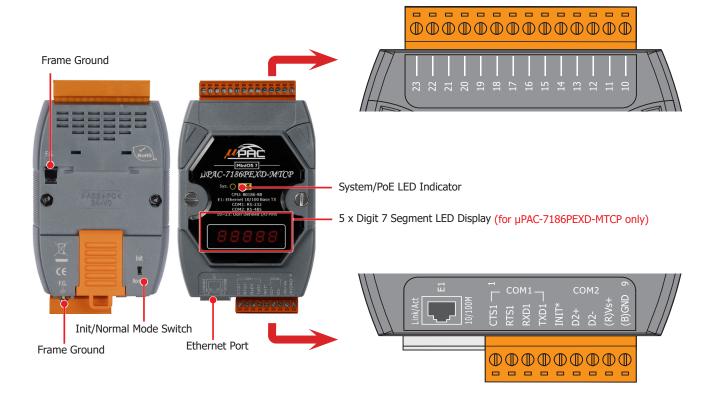
### **■** Introduction

The uPAC-7186PEX(D)-MTCP series features true IEEE 802.3af-compliant (classification, Class 1) Power over Ethernet (PoE) using a standard category 5 Ethernet cable to receive power from a PoE switch like the NS-205PSE. The uPAC-7186PEX(D)-MTCP also works as a Modbus/TCP to Modbus/RTU or Modbus/ASCII gateway that supports most SCADA/HMI communications based on the Modbus communication protocol.

ICP DAS provides easy-to-use software development tool kits (Xserver, VxComm, Modbus libraries). Users can use them to easily integrate serial devices to have Ethernet/Internet communication ability and through the standard Modbus protocol to communicate with SCADA software (Indusoft, ISaGARF, DasyLab, Trace Mode, Citect, iFix, etc.).

For the hardware, it also supports an I/O expansion bus. The I/O expansion bus can be used to implement various I/O functions such as D/I, D/O, A/D, D/A, Timer/Counter, UART, flash memory, battery backup SRAM, AsicKey and other I/O functions. Nearly all kinds of I/O functions can be implemented by this bus but the bus can support only one Xboard. There are more than 30 boards available for uPAC-7186PEX(D)-MTCP, user can use one suitable Xboard to expand hardware features.

#### Appearances



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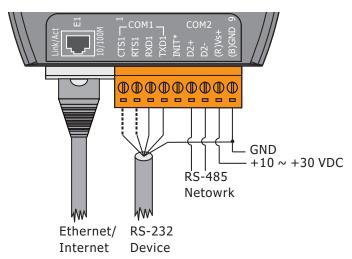
## **■** Specifications

Model	µРАС-7186РЕХ-МТСР	μPAC-7186PEXD-MTCP	
Software			
OS	MiniOS7		
Development	C Language		
CPU Module			
CPU	80186 or compatible, 16-bit and 80 MHz		
SRAM	512 KB		
Flash	512 KB		
EEPROM	16 KB		
NVRAM	31 Bytes		
RTC (Real Time Clock)	Provide seconds, minutes, hours, dates, day of week, month, year		
64-bit Hardware Serial Number	Yes		
Watchdog Timer	Yes		
Display			
Туре	-	5 x Digit 7 Segment LED Display	
LED Indicator			
Status	1 x System		
Communication Interface			
Ethernet	1 x RJ-45, 10/100 Base-TX (Auto-negotiating, Auto MDI/MDI-X, LED indicators)		
COM1	RS-232 (TXD, RXD, RTS, CTS, GND), Non-isolated, Speed: 115200 bps Max.		
COM2	RS-485 (Data+, Data-) with internal self-tuner ASIC; Non-isolated, Speed: 115200 bps Max.		
I/O Expansion			
I/O Type	X-board		
User Defined I/O PINs	14		
Mechanical			
Dimension (W x H x D)	72 mm x 123 mm x 35 mm		
Installation	DIN-Rail Mounting		
Environmental			
Operating Temperature	-25 ~ +75 °C		
Storage Temperature	-40 ~ +80 °C		
Humidity	5 ~ 90 % RH, Non-condensing		
Power			
Input Range	+10 ~ +30 VDC		
Powered from PoE	IEEE 802 3af, Class 1		
Consumption	1.5 W	2.5 W	

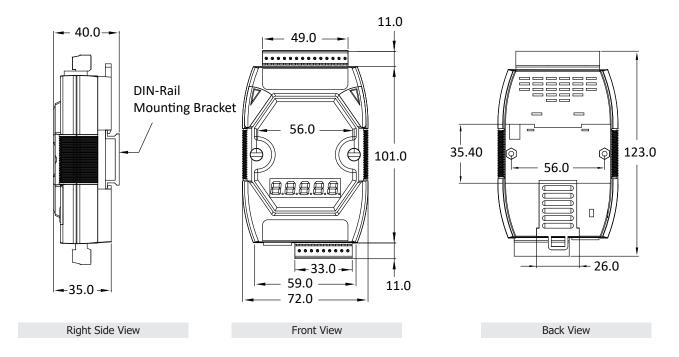
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## **■** Wiring Connections



## **■** Dimensions (Units: mm)



## **■** Ordering Information

μPAC-7186PEX-MTCP-G CR	Palm-sized Programmable Modbus Gateway with 80186-80 CPU, Modbus Firmware and PoE (Gray Cover) (RoHS)
Palm-sized Programmable Modbus Gateway with 80186-80 CPU, Modbus Firmware, 7-Segment LED Display (Gray Cover) (RoHS)	

Accessories		PRI
X-Board	Add-on I/O Expansion Board	

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