



## 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)



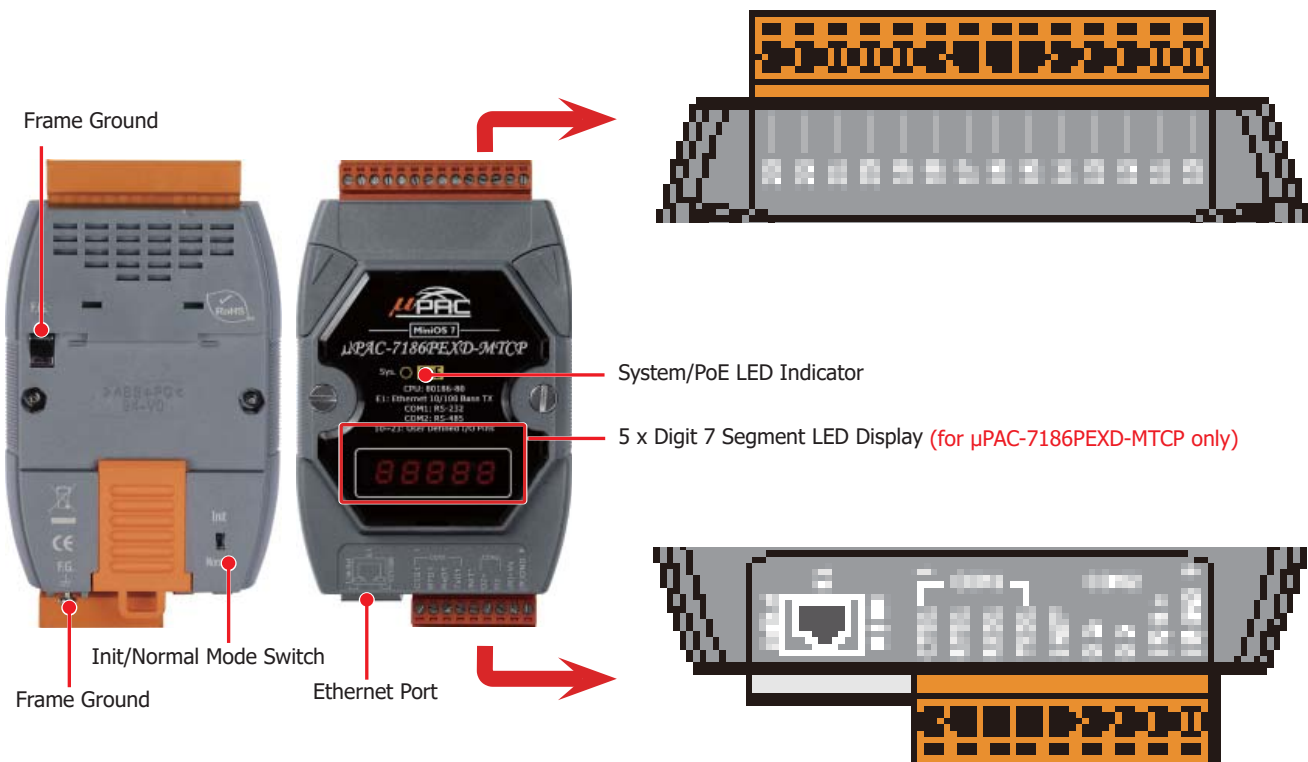
### Introduction

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.

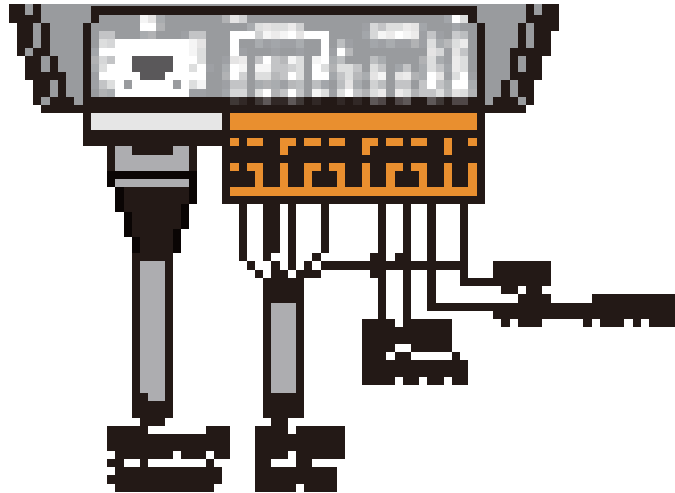
### Appearances



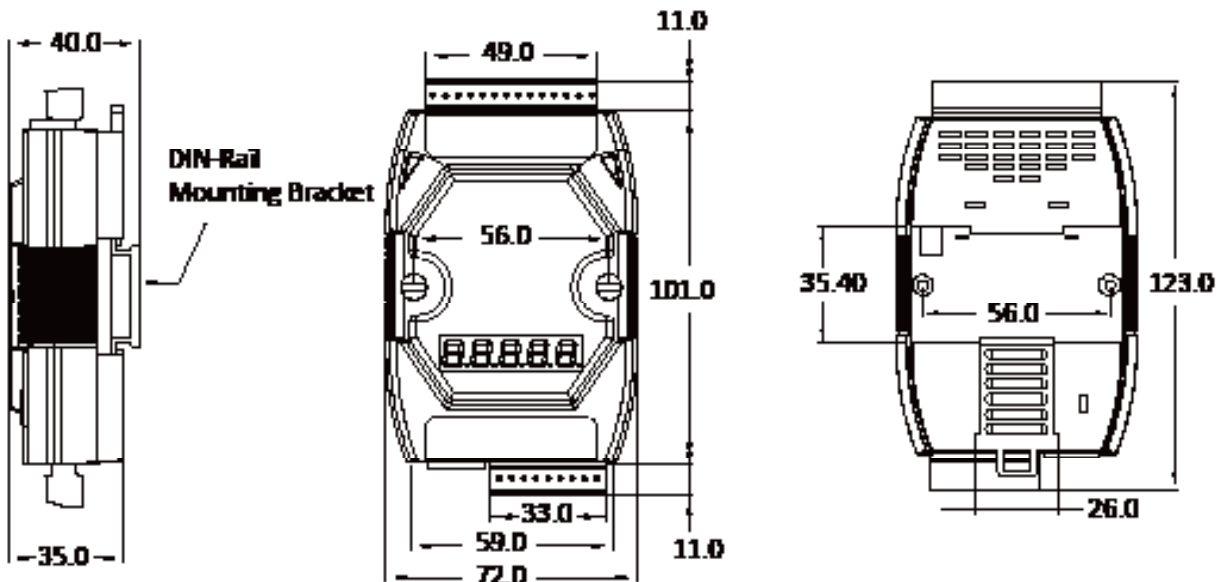
## Specifications

Model	μPAC-7186PEX-MTCP	μPAC-7186PEXD-MTCP
<b>Software</b>		
OS	MiniOS7	
Development	C Language	
<b>CPU Module</b>		
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	
<b>Display</b>		
Type	-	5 x Digit 7 Segment LED Display
<b>LED Indicator</b>		
Status	1 x System	
<b>Communication Interface</b>		
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.	
<b>I/O Expansion</b>		
I/O Type	X-board	
User Defined I/O PINs	14	
<b>Mechanical</b>		
Dimension (W x H x D)	72 mm x 123 mm x 35 mm	
Installation	DIN-Rail Mounting	
<b>Environmental</b>		
Operating Temperature	-25 ~ +75 °C	
Storage Temperature	-40 ~ +80 °C	
Humidity	5 ~ 90 % RH, Non-condensing	
<b>Power</b>		
Input Range	+10 ~ +30 VDC	
Powered from PoE	IEEE 802.3af, Class 1	
Consumption	1.5 W	2.5 W

## Wiring Connections



## Dimensions (Units: mm)



Right Side View

Front View

Back View

## Ordering Information

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

## Accessories

<b>X-Board</b>	Add-on I/O Expansion Board
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