







# μPAC-7186EX(D)-MTCP

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

<b>■</b> Features	SYSTE
■ 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	
■ Build-in Watchdog Timer	
CE FC ROHS	

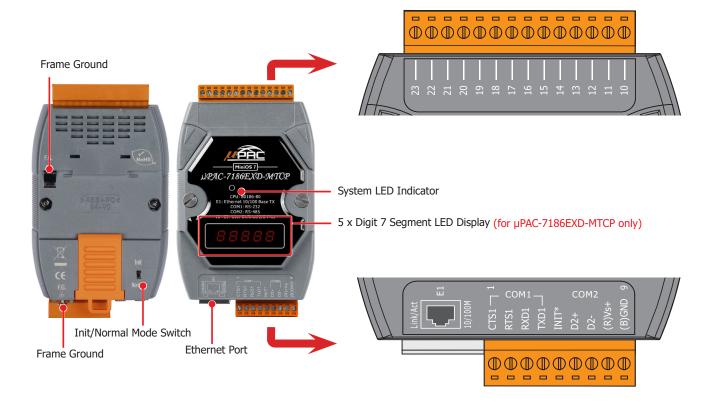
#### **Introduction**

The  $\mu$ PAC-7186EX(D)-MTCP is a family of Programmable Device Servers, also known as "Serial-to-Ethernet gateway", that are designed for linking RS-232/485 devices to an Ethernet network. The  $\mu$ PAC-7186EX(D)-MTCP also works as a Modbus TCP to RTU gateway that supports most SCADA/HMI communications based on the Modbus TCP protocol.

ICP DAS provides easy-to-use software development tool kits (MiniOS7 framework, 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 hardware expansion, the  $\mu$ PAC-7186EX(D)-MTCP also supports an I/O expansion bus. A cost-effective I/O expansion board with A/D, D/A, D/I, D/O and serial ports is available. Nearly all kinds of I/O functions can be implemented by this bus. But the bus can support only one board. There are more than 50 boards available for  $\mu$ PAC-7186EX(D)-MTCP, you can choose one of them to expand hardware features.

#### Appearances



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# **■ Specifications**

Model	µРАС-7186EX-МТСР	μPAC-7186EXD-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		
Consumption	1.5 W	2.5 W	

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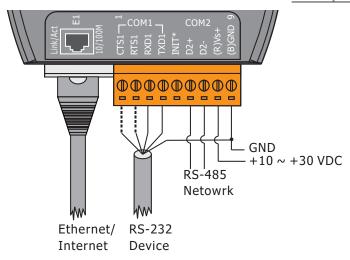
#### **IP SYSTEMES**

8 rue du Colonel Chambonnet - BP67

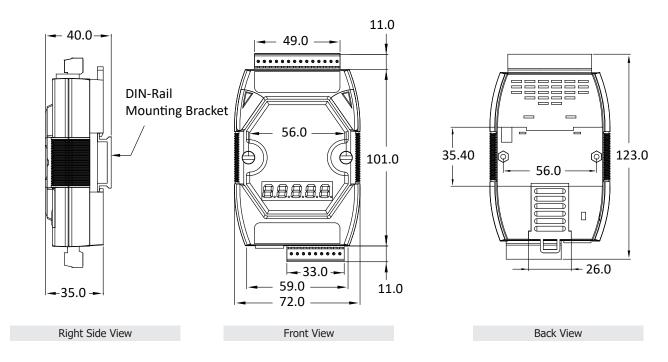
69672 BRON Cedex Tel.: 04 72 14 18 00 Fax: 04 72 14 18 01

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## **■ Wiring Connections**



## **■** Dimensions (Units: mm)



#### **■** Ordering Information

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

#### Accessories

X-Board	Add-on I/O Expansion Board	
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