



## μPAC-7186EX(D)-FD

Standard Palm-sized Serial/Ethernet PAC with 80186-80 CPU, MiniOS7, 64 MB NAND Flash (7-Segment LED Display)

### Features

- Built-in High-Performance MiniOS7 from ICP DAS
- Easy-to-use Software Development Tool Kits (Using C language)
- Various Storage Media
  - 640 MB NAND Flash
  - 512 KB Flash
  - 16 KB EEPROM
- Various Communication Interfaces (Ethernet, RS-232/RS-485)
- 64-bit Hardware Serial Number
- Build-in Watchdog Timer
- I/O Expansion Bus Interface

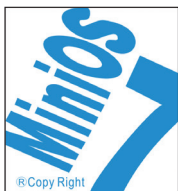


### Introduction

The μPAC-7186EX(D)-FD is a palm-size programmable automation controller with RS-232/485 and Ethernet communication interfaces. 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 μPAC-7186EX(D)-FD 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 μPAC-7186EX(D)-FD, you can choose one of them to expand hardware features.

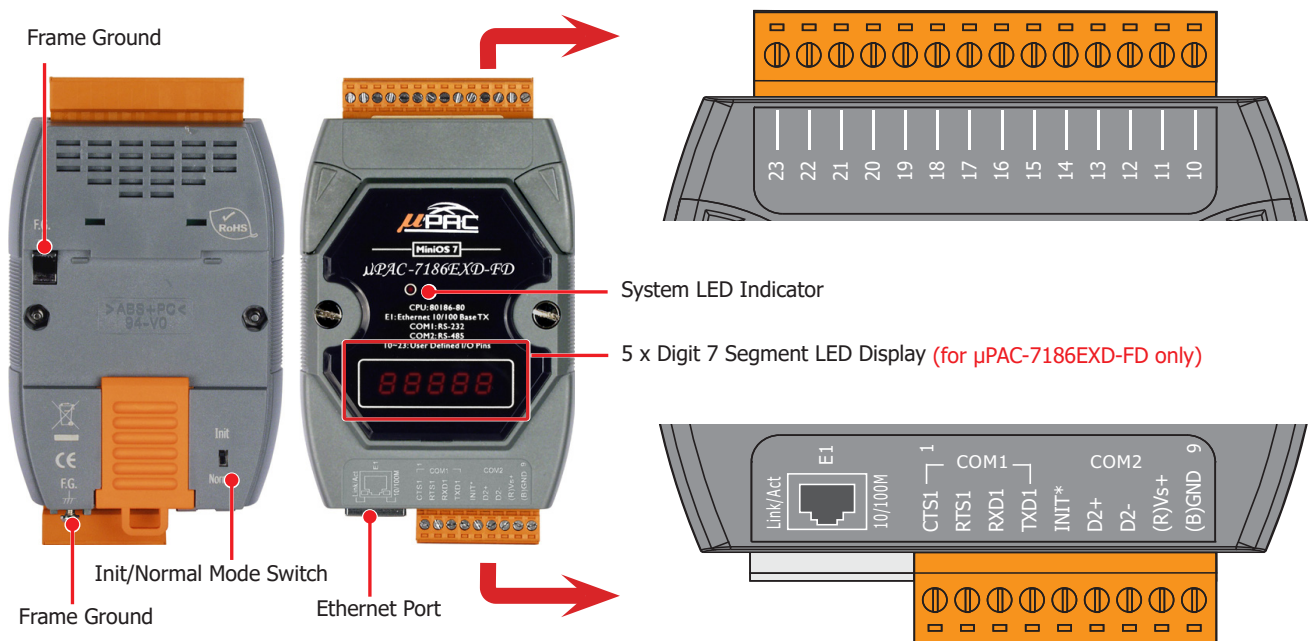
### Powerful Embedded OS — MiniOS7



MiniOS7 is the most stable OS used in the last decade. Up to now, several hundred thousand copies with our PACs have been distributed worldwide.

- DOS-like embedded OS
- Antivirus ability
- Internet connectivity
- Libraries & demo programs for various peripherals, devices and remote I/O modules
- Short boot period (<1 Second)
- Less memory resource required
- Faster watchdog response time

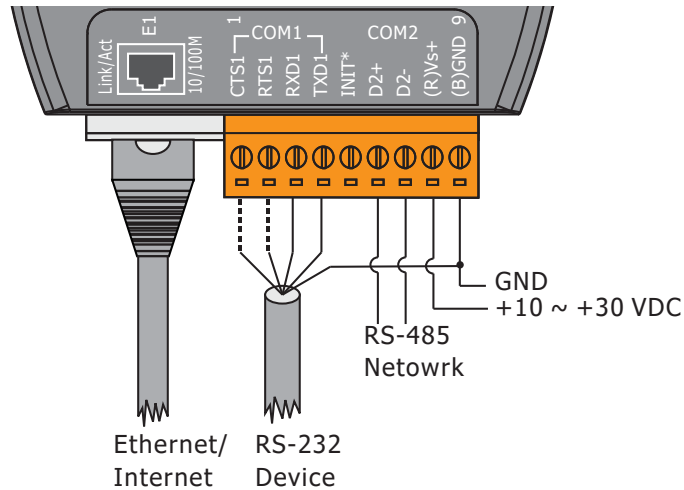
### Appearances



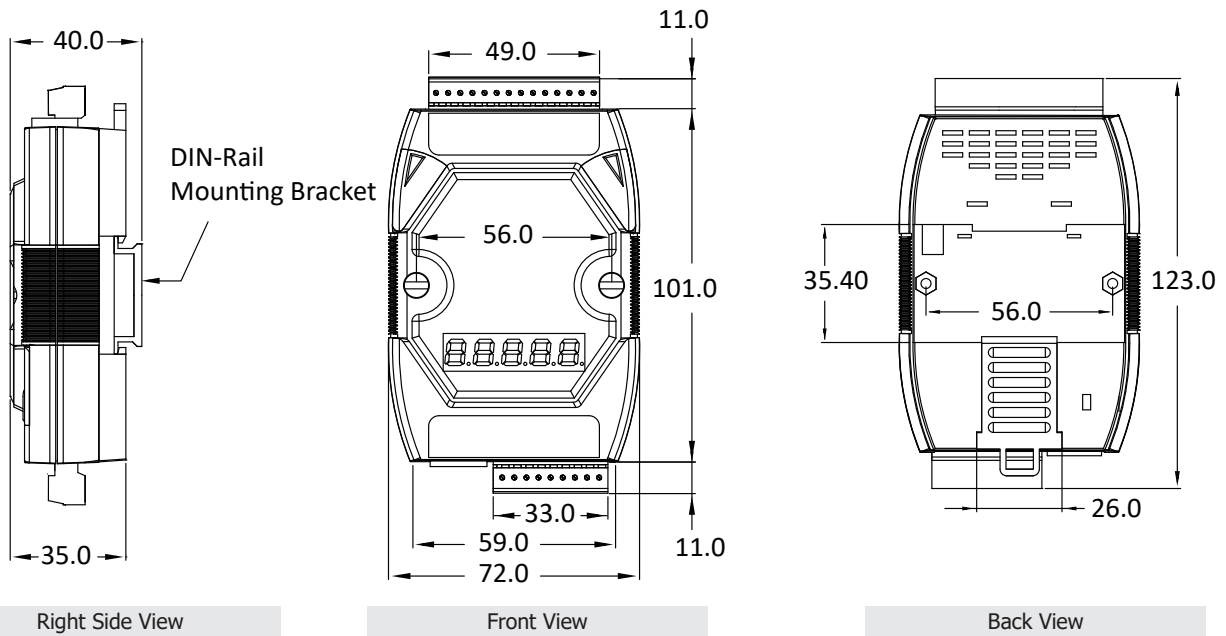
## Specifications

Model	μPAC-7186EX-FD	μPAC-7186EXD-FD
<b>Software</b>		
OS	MiniOS7	
Development	C Language	
<b>CPU Module</b>		
CPU	80186 or compatible, 16-bit and 80 MHz	
SRAM	512 KB	
NAND Flash	64 MB	
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	
Consumption	2.0 W	3.0 W

## Wiring Connections



## Dimensions (Units: mm)



## Ordering Information

<b>μPAC-7186EX-FD-G CR</b>	Standard Palm-sized Serial/Ethernet PAC with 80186-80 CPU, MiniOS7, 64 MB NAND Flash (Gray Cover) (RoHS)
<b>μPAC-7186EXD-FD-G CR</b>	Standard Palm-sized Serial/Ethernet PAC with 80186-80 CPU, MiniOS7, 64 MB NAND Flash and 7-Segment LED Display (Gray Cover) (RoHS)

## Accessories

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