ICP DAS

µPAC-5001(D)/µPAC-5001(D)-FD

Standard Palm-sized PAC with 80186-80 CPU, MiniOS7
(256 MB Flash and 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
  - ● 512 KB Flash
  - ● 16 KB EEPROM
  - ● microSD (Up to 32GB micro SD cards are supported)
- ■ Various Communication Interfaces (Ethernet, RS-232/RS-485)
- ■ 64-bit Hardware Serial Number
- ■ I/O Expansion Bus Interface
- ■ Redundant Power Inputs

CE FC RoHS

■ Introduction

The µPAC-5001(D)/µPAC-5001(D)-FD is a 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-5001(D)/µPAC-5001(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. There are more than 10 boards available for µPAC-5001(D)/µPAC-5001(D)-FD, you can choose one of them to expand hardware features.
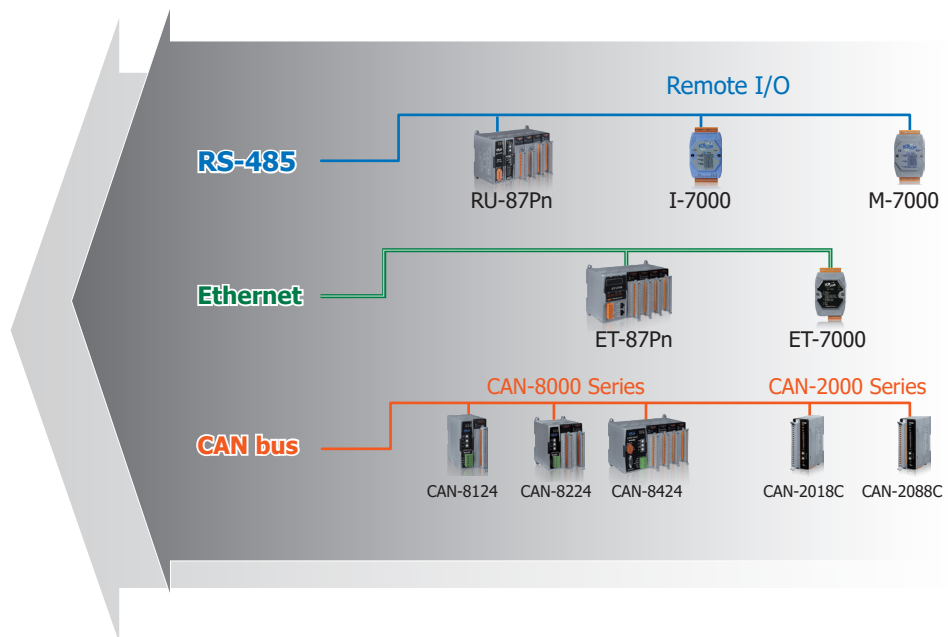
■ Powerful Embedded OS — MiniOS7

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
- • Short boot period (<1 Second)
- • Less memory resource required
- • Faster watchdog response time
- • Libraries & demo programs for various peripherals, devices and remote I/O modules

■ Appications

RS-485 — Remote I/O — RU-87Pn — I-7000 — M-7000

Ethernet — ET-87Pn — ET-7000

CAN bus — CAN-8000 Series (CAN-8124, CAN-8224, CAN-8424) — CAN-2000 Series (CAN-2018C, CAN-2088C)

■ Specifications

Model	μPAC-5001	μPAC-5001-FD	μPAC-5001D	μPAC-5001D-FD
Software				
OS	MiniOS7			
Development	C Language			
CPU Module				
CPU	80186 or compatible, 16-bit and 80 MHz			
SRAM	512 KB			
NAND Flash	-	256 MB	-	256 MB
Flash	512 KB			
EEPROM	16 KB			
NVRAM	31 Bytes			
Storage Expansion	Yes, support up 32 GB microSD card			
RTC (Real Time Clock)	Provide seconds, minutes, hours, dates, day of week, month, year			
64-bit Hardware Serial Number	Yes			
Watchdog Timer	Yes			
Display				
Type	-		5 x Digit 7 Segment LED Display	
LED Indicator				
Status	2 x Programmable			
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	XW-board			
Mechanical				
Dimension (W x H x D)	91 mm x 123 mm x 52 mm			
Installation	DIN-Rail Mounting			
Environmental				
Operating Temperature	-25 ~ +75 °C			
Storage Temperature	-30 ~ +80 °C			
Humidity	10 ~ 90 % RH, Non-condensing			
Power				
Input Range	+12 ~ +48 VDC			
Redundant Power Inputs	Yes			
Consumption	2.0 W		2.5 W	

■ Appearances

micro SD Card Socket

Connector for Optional XW-Board

2 x Programmable LED Indicator (L1, LAN2)

LAN LED Indicator (Link(Y))

5 x Digit 7 Segment LED Display (for µPAC-5001D and µPAC-5001D-FD only)

Rotary Switch

Lock and Init*

Ethernet Port (LAN)

Pin Assignment

COM1			COM2	
N/A	GND	CTS	RTS	RxD	TxD	GND	D+	D-	PWR2	P.GND	PWR.1	P.GND	F.G.

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■ Dimensions (Units: mm)

113.5   123.0

91.0

52.0

Front View

Back View

Left Side View
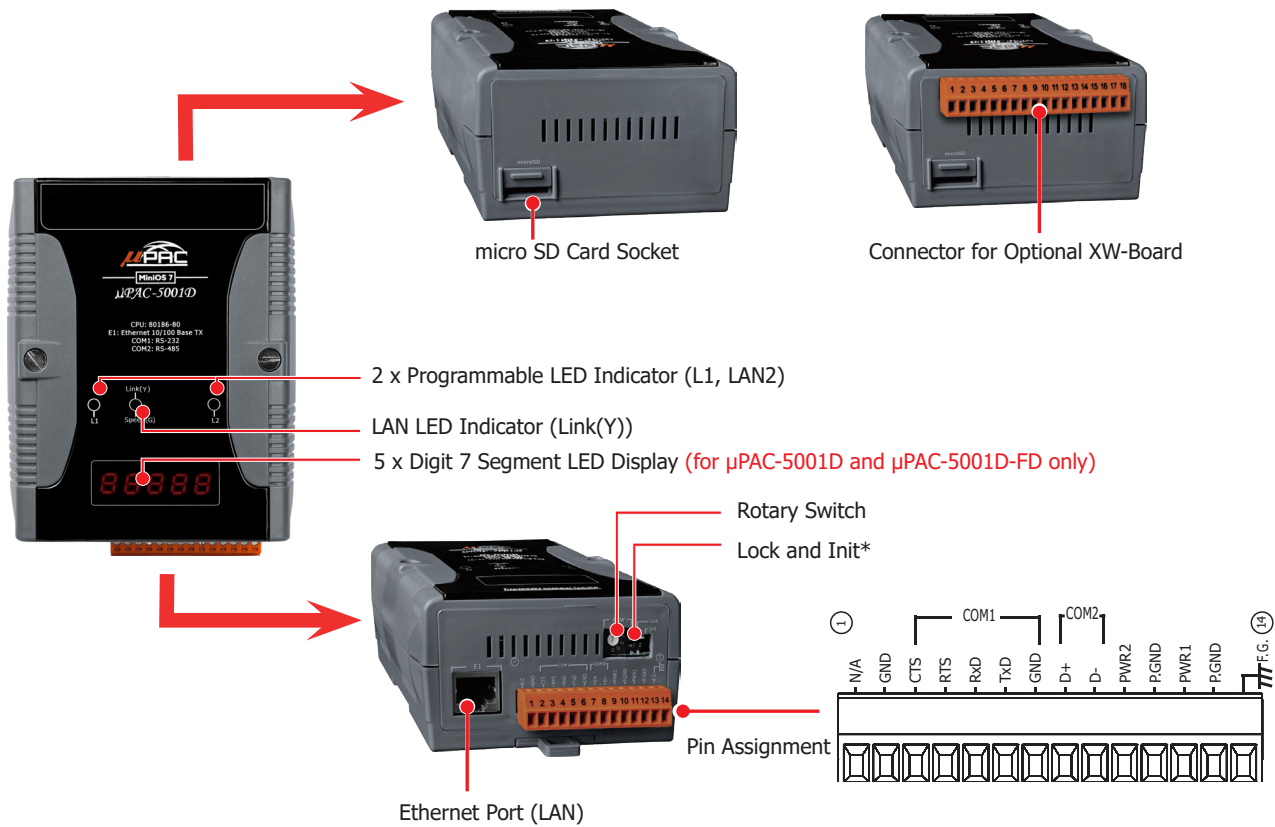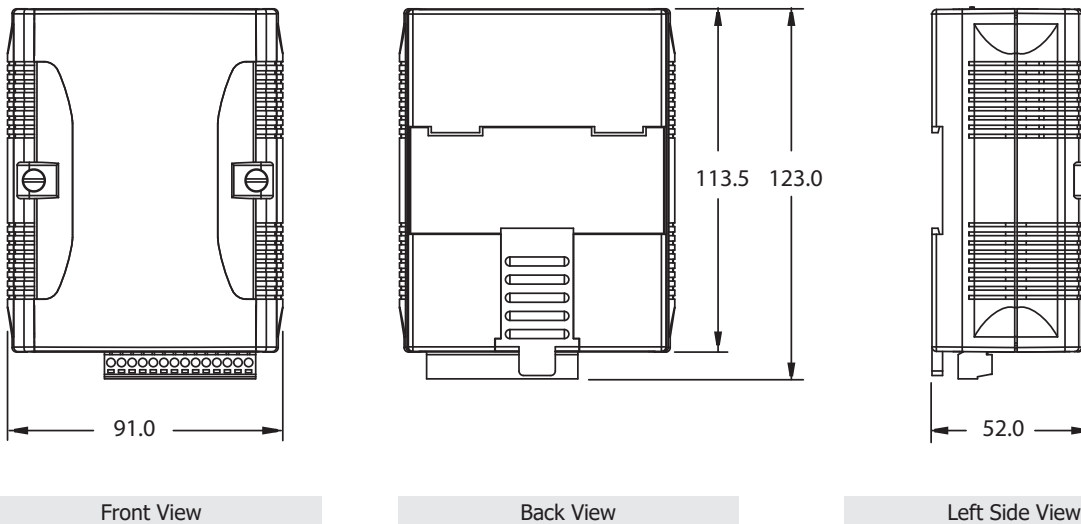
■ Ordering Information

µPAC-5001 CR	Standard Palm-sized PAC with 80186-80 CPU and MiniOS7 (RoHS)
µPAC-5001D CR	Standard Palm-sized PAC with 80186-80 CPU, MiniOS7 and 7-Segment LED Display (RoHS)
µPAC-5001-FD CR	Standard Palm-sized PAC with 80186-80 CPU, MiniOS7 and 256 MB Flash (RoHS)
µPAC-5001D-FD CR	Standard Palm-sized PAC with 80186-80 CPU, MiniOS7, 256 MB Flash and 7-Segment LED Display (RoHS)