

# μPAC-7186EX-FD

Faster Ethernet μPAC



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Palm-size PAC - μPAC



μPAC-7186EX-FD

μPAC-7186EXD-FD

### Main Features

- 80186 (80MHz) CPU, 512K Flash, 512K SRAM
- **64M NAND Flash**
- Ethernet 10/100M Base-TX, RS-232 / RS-485
- OS: MiniOS7
- Support I/O expansion bus
- Remote maintenance via the Ethernet IE, Netscape, FireFox...
- Modbus protocol to SCADA
- Indusoft, DasyLab, Trace Mode, Citect, iFix...



### Comparison

New Advantages	μPAC-7186EX-FD	I-7188EX
<b>More NAND Flash</b>	<b>64M</b>	--
<b>Faster normal running speed</b>	<b>2~4 times</b>	1
<b>More powerful CPU</b>	<b>80186-80MHz</b>	80188-40MHz
<b>Faster / powerful Ethernet</b>	<b>10/100 Base-TX</b>	10 Base-T
<b>More EEPROM</b>	<b>16K</b>	2K

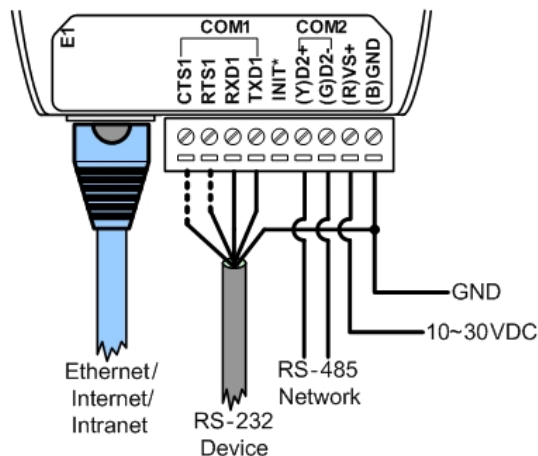
### Features

- High reliability in harsh environment
- Embedded MiniOS7, anti-virus
- Built-in watchdog timer (WDT)
- Ethernet Protocols: TCP, UDP, IP, ICMP, ARP
- Faster 10/100M Ethernet port
- Modbus Protocols
- Free easy-to-use software development toolkits for your applications
- Expansion Bus Interface
- Remote / web Configuration/Maintenance
- Support for Virtual COM technology

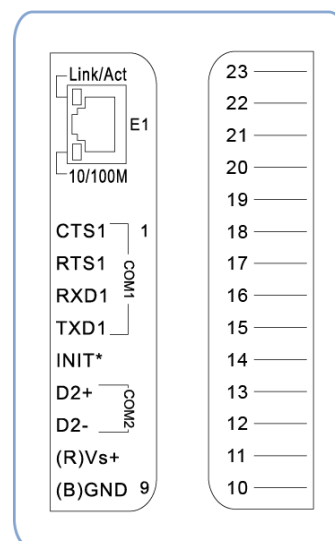
### Expansion Board Selection Guide

For:	X-Boards:						
DI/O, photo mos, PWM	X107	X109	X110	X111	X116	X119	
A/D, D/A, DI/O	X202	X203	X303	X304	X305	X308	X310
Prototype, Testing	X002	X004	X005	X006			
RS-232/485	X503	X504	X505	X506	X511		
RS-232/485/422, DI/O	X507	X508	X509	X510	X510-128		X518
Flash ROM	X600	X601					
Battery Backup SRAM	X607	X608					
Motion Control	X702	X703					

### Wiring



### Pin Assignments

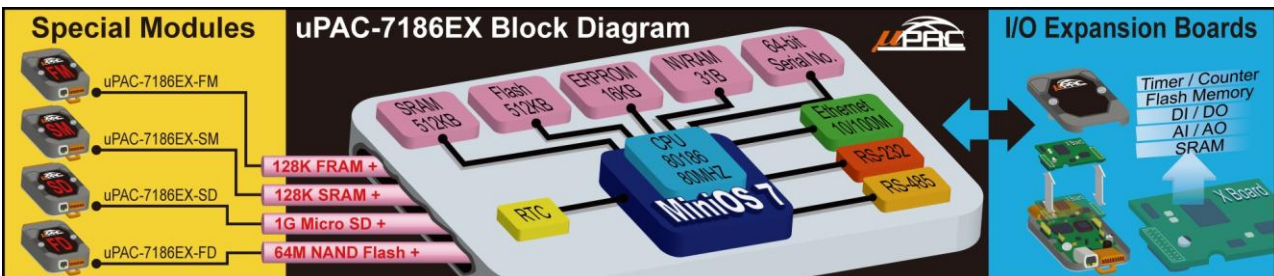


**Specifications**

Series : Palm-size PAC >  $\mu$ PAC-7186 > 86E > 86EX

PACs	$\mu$ PAC-7186EX-FD	$\mu$ PAC-7186EXD-FD
<b>■ CPU Specification</b>		
CPU	80186-80M Hz	
SRAM	512K Bytes	
Flash	512K Bytes	
NAND Flash	<b>64M Bytes</b>	
FRAM	--	
EEPROM	16K Bytes	
NVRAM	31 Bytes	
OS	MiniOS7	
RTC	Yes	
64-bit hardware serial number	Yes	
Watchdog Timer	Yes	
<b>■ Communication Interface</b>		
Ethernet Port	10/100M Base-TX (Auto-negotiating, Auto_MDIX, LED indicator)	
COM1	RS-232 (TXD, RXD, RTS, CTS, GND), Non-isolation, Speed: 115200 bps max	
COM2	RS-485 (D2+, D2-, self-tuner ASIC inside); Non-isolation, Speed: 115200 bps max	
<b>■ LED Display</b>		
System LED	Yes, as power / communication Indicator	
5-digit 7-segment LED Display	No	Yes
<b>■ Hardware Expansion</b>		
I/O Expansion Bus	Yes	
User Defined I/O Pins	14 Pins	
<b>■ Operating Environment</b>		
Operating Temperature	-25° C to +75° C (-13° F to +167° F)	
Storage Temperature	-40° C to +80° C (-40° F to +176° F)	
Humidity	5% to 90%, non-condensing	
<b>■ Power</b>		
Protection	Power reverse polarity protection	
Frame Ground	Yes (for ESD Protection)	
Required Supply Voltage	+10 VDC to +30 VDC (non-regulated)	
Power Consumption	2 W	3 W
<b>■ Green Status</b>		
RoHS	RoHS Compliance 2002/95/EC	
WEEE	WEEE Compliance	
<b>■ Dimensions</b>		
	123 x 72 x 33 mm	

**Block Diagram**



**Applications**

- Fast Ethernet communication application • Industry automation
- Auto deflection devices • Process monitor & control
- High speed data acquisition system • Laboratory automation
- Communication switching • Factory automation • IO monitor



**Ordering Information**

Model Number	Description	* All orders include download utility, download cable and manual.
$\mu$ PAC-7186EX-FD CR	10/100M Ethernet $\mu$ PAC, 80186-80, 512K SRAM, 512K Flash, 64M NAND Flash (RoHS)	
$\mu$ PAC-7186EXD-FD CR	10/100M Ethernet $\mu$ PAC, 80186-80, 512K SRAM, 512K Flash, 64M NAND Flash (RoHS), LED display	
<b>Optional Accessories</b>		
<b>PWR-24/110</b>	Wall-plug power adaptor /110VAC, 60Hz, 3.6W	
<b>GPSU06U-6</b>	Wall-plug power Adapter / 100-240VAC, 50/60Hz, 6W	
<b>PWR-24/230</b>	Wall-plug power adaptor /220VAC, 50Hz, 3.6W	
<b>Expansion Boards</b>	More than 50 X-boards are available, please check out the Expansion I/O guide	

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 **$\mu$ PAC 7186 EX**  
 **$\mu$ PAC 7186 EG**  
 **$\mu$ PAC 7186 XG**  
 **$\mu$ PAC 7186 XB**  
**I-7188 E**  
**I-7188 G**  
**I-7188 X**