10.4" TFT LCD
PMD-420x

7" TFT LCD
PMD-220x

PMD-220x/420x

Industrial IoT Power Meter Concentrator with Touch Panel

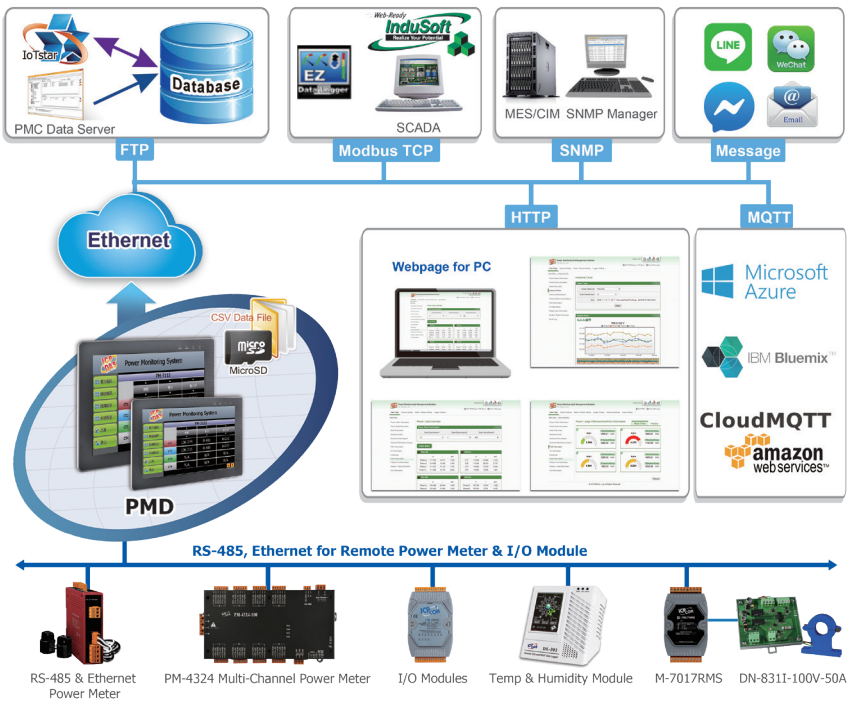
Features

- No extra software tool is required, using browsers to perform system operations
- Support at most 24 ICP DAS Modbus Power Meters (with maximum 16 ICP DAS Modbus TCP Power Meters) and 8 Modbus I/O modules.
  * Support at most 4 ICP DAS PM-4324 series Power Meters.
- 7"/10.4" TFT LCD (with Touch Panel) & PoE (Power over Ethernet) supported
- Display real-time or historical power data by browser or local display
- Provide power data statistics report by browser
- Provide microSD card for power data log operation. Data log file auto send-back & recovery when disconnected network is resumed.
- Built-in IF-THEN-ELSE logic engine for thought-out power demand management
- Provide alarm message notification via LINE, Messenger, WeChat or Email
- Adjust device operations by its power status via Modbus I/O modules
- Provide Schedule and Timer function for operations of I/O modules (devices)
- Support Modbus TCP/RTU, SNMP and MQTT protocols
- Support Connection with IoT Cloud Platform (Microsoft Azure and IBM Bluemix); Support ICP DAS IoTstar Cloud software.

Introduction

PMD is equipped with the TFT LCD (with Touch Panel) and designed for panel mount installation. It provides an easy way for viewing the power data and setting the system parameters at the local side.PMD also is equipped with built-in Web Server that allows direct connections via browsers to the PMD for viewing power data and setting the system parameters. PMD also supports the Modbus TCP/RTU, SNMP, FTP and MQTT protocols for seamless integration with the back-end SCADA/MES/IT/IoT/Network Management systems. In addition to ICP DAS M-7000 I/O modules, the PMD could connect to standard Modbus TCP/RTU Slave modules. By working with the I/O modules, and functions such as IF-THEN-ELSE logic rule execution and alarm notification functions including LINE/Messenger/WeChat/Email, PMD offers more thought-out power demand management and alarm notification functions, and is able to perform load shedding of the devices if required, and enables real-time monitoring and control of the power consumption of the devices. When using PMD to build a power management and monitoring system, during the whole process of system development, no programming is required; it takes a few clicks on web page to complete all settings; it is easy for the user to quickly view the power data of the devices and furthermore process the data for statistics and analysis. The PMD is an easy-to-use and easy-to-build total solution for power management and monitoring that makes more efficient energy usage.

Application



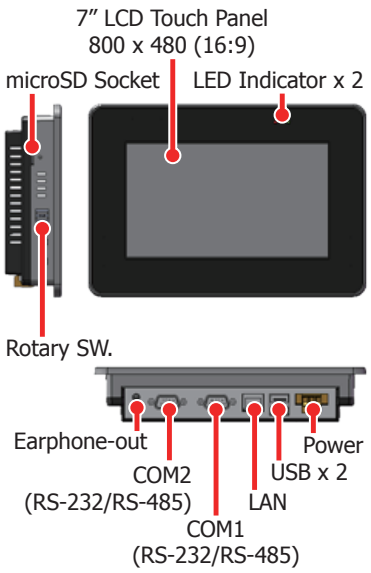
Specifications

Model	PMD-2201	PMD-4201
System Software		
Embedded Service	PMC Runtime, Web server, FTP server	
CPU Module		
CPU	32-bit ARM CPU(720MHz)	32-bit ARM CPU(1GHz)
DRAM	512MB	
Flash (SSD)	256MB	
Memory Expansion	microSD socket with 4 GB micro SDHC card (support up to 32 GB)	SD socket with 4 GB SDHC card (support up to 32 GB)
LED Indicator	2 LEDs for Power and Running (Run, PWR)	
Rotary Switch	Yes (0 to 9)	
LCD		
Diagonal Size	7" (16:9)	10.4" (4:3)
Resolution	800 x 480	800 x 600
Brightness (cd/m2)	400	
Contrast Ratio	500:1	
LED Backlight Life (hrs)	20,000	50,000
Touch Panel	4-wire, resistive type; light transmission: 80 %	5-wire, resistive type; light transmission: 80 %

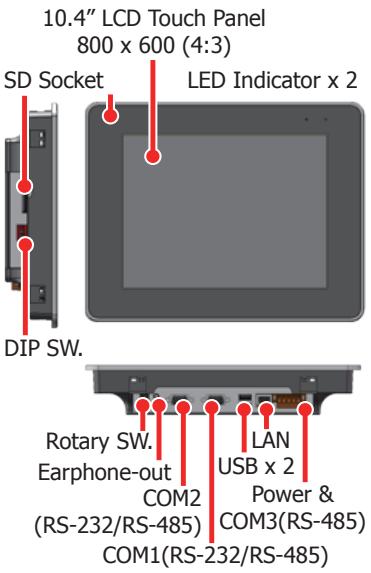
Model	PMD-2201	PMD-4201
Communication Ports		
Ethernet	1 x RJ-45 10/100/1000 Base-TX	
USB 2.0 (host)	2	
COM 1	RS-485 (Data+, Data-) (9-wire DB9 connector); 2500 V_{DC} isolated	
COM 2	RS-485 (Data+, Data-) (9-wire DB9 connector); 2500 V_{DC} isolated	
COM 3	-	RS-485 (Data+, Data-, GND); 2500 V_{DC} isolated
Mechanical		
Dimensions (W x H x D)	213mm x 148mm x 44mm	291mm x 229mm x 54mm
Panel Cut-Out (W x H)	197mm x 133mm, +/- 1mm	277mm x 215mm, +/- 1mm
Installation	Panel Mounting	
Ingress Protection	Front panel: NEMA 4/IP65	
Environmental		
Operating Temperature	-10 °C ~ +60 °C	
Storage Temperature	-20 °C ~ +70 °C	
Ambient Relative Humidity	10 ~ 90% RH (non-condensing)	
Power		
Input Range	+12V_{DC} to +48 V_{DC}	
Power from PoE	IEEE 802.3af	
Consumption	6W	13W

Appearance

PMD-2201



PMD-4201



Ordering Information

PMD-2201 CR	Industrial IoT Power Meter Concentrator with 7" Display (RoHS)
PMD-4201 CR	Industrial IoT Power Meter Concentrator with 10.4" Display (RoHS)
PMD-2206 CR	Industrial IoT Power Meter Concentrator with 7" Display (With WeChat Message Sending) (RoHS)
PMD-4206 CR	Industrial IoT Power Meter Concentrator with 10.4" Display (With WeChat Message Sending) (RoHS)

Accessories

Power Meter	Modbus RTU: PM-2133, PM-3133, PM-3112, PM-3114, PM-3033, PM-4312 and PM-4324 Modbus TCP: PM-3112-MTCP, PM-3114-MTCP, PM-3133-MTCP, PM-3033-MTCP, PM-4312-MTCP and PM-4324-MTCP
DP-660	24 V_{DC}/2.5 A, 60 W and 5 V_{DC}/0.5 A, 2.5 W Power Supply with DIN-Rail Mounting
MDR-60-24 CR	24 V_{DC}/2.5 A, 60 W Power Supply with DIN-Rail Mounting (RoHS)