10.4" TFT LCD
PMD-4201
(Available soon)

7" TFT LCD
PMD-2201

PMD-2201/4201

🔧 Features

- No extra software tool is required, using browsers to perform system operations
- Support at most 24 ICP DAS Modbus Power Meter and 8 Modbus I/O modules
- 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
- Data file auto send-back & recovery when network is resumed after disconnection
- Built-in IF-THEN-ELSE logic engine for thought-out power demand management
- Provide alarm message notification function via Email or SMS (Refer to ICP DAS related product for SMS message sending.)
- 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 Slave protocol for seamless integration with SCADA
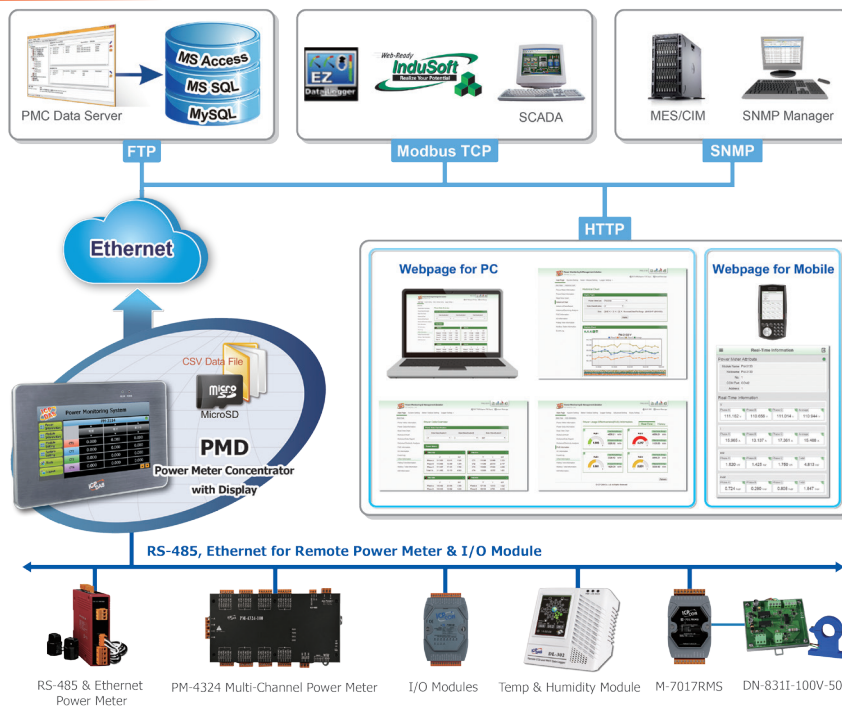- Support SNMP Protocol

🔖 Introduction

The PMD-2201/PMD-4201 is a web-based intelligent Power Meter Concentrator developed by ICP DAS. It offers webpage interface, and features various functions such as: power data collection, logic control, power demand management, data logger, local display/Web page data display and alarm notification functions. PMD-2201/PMD-4201 allows connections to ICP DAS Smart Power Meters via RS-485 or Ethernet interface to read the power data of the devices measured by the power meters; and then real-time record the power values in the data logger file. PMD-2201/PMD-4201 also provides data logger file auto send-back function; together with PMC Data Server software or SCADA software, it allows collection and analysis of the power data.

PMD-2201/PMD-4201 is equipped with the 7"/10.4" 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. In addition, PMD-2201/PMD-4201 also is equipped with built-in Web Server that allows direct connections via browsers to the PMD-2201/PMD-4201 for viewing power data and setting up the system parameters. PMD-2201/PMD-4201 also offers Modbus TCP/RTU Slave function that allows SCADA software to connect to PMD-2201/PMD-4201 to get real-time power data of the devices via Modbus TCP/RTU protocol.

In addition to ICP DAS M-7000 I/O modules, the PMD-2201/PMD-4201 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 Email/SMS/SNMP Trap, PMD-2201/PMD-4201 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-2201/PMD-4201 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-2201/PMD-4201 is an easy-to-use and easy-to-build total solution for power management and monitoring that makes more efficient energy usage.
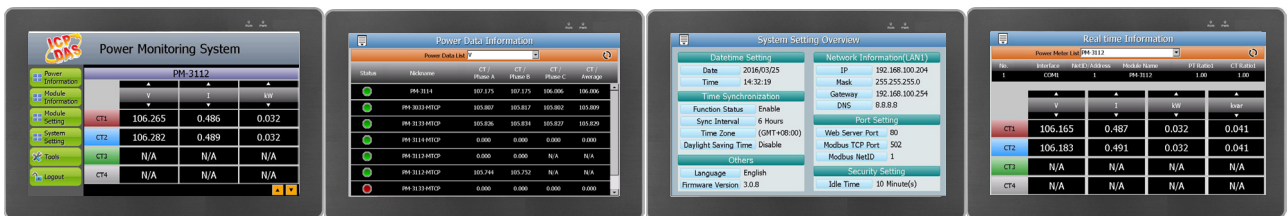
🔖 Applications

PMC Data Server — MS Access / MS SQL / MySQL

SCADA

MES/CIM — SNMP Manager

FTP — Modbus TCP — SNMP

HTTP

Ethernet

CSV Data File — MicroSD

PMD
Power Meter Concentrator
with Display

Webpage for PC

Webpage for Mobile

RS-485, Ethernet for Remote Power Meter & I/O Module

RS-485 & Ethernet Power Meter | PM-4324 Multi-Channel Power Meter | I/O Modules | Temp & Humidity Module | M-7017RMS | DN-831I-100V-50A

Specifications

Model	PMD-2201	PMD-4201
System Software		
OS	Windows CE OS	
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)	200mm x 133mm, +/- 1mm	276mm x 214mm, +/- 1mm
Installation	Panel Mounting	
Ingress Protection	Front panel: NEMA 4/IP65	
Weight	0.7 kg estimate	1.8 kg estimate
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

7" LCD Touch Panel
800 x 480 (16:9)

microSD Socket   LED Indicator x 2

Rotary SW.

Earphone-out
COM2
(RS-232/RS-485)
COM1
(RS-232/RS-485)
LAN
USB x 2
Power

PMD-4201

10.4" LCD Touch Panel
800 x 600 (4:3)

SD Socket   LED Indicator x 2

DIP SW.

Rotary SW.
Earphone-out
COM2
(RS-232/RS-485)
COM1(RS-232/RS-485)
LAN
USB x 2
Power &
COM3(RS-485)
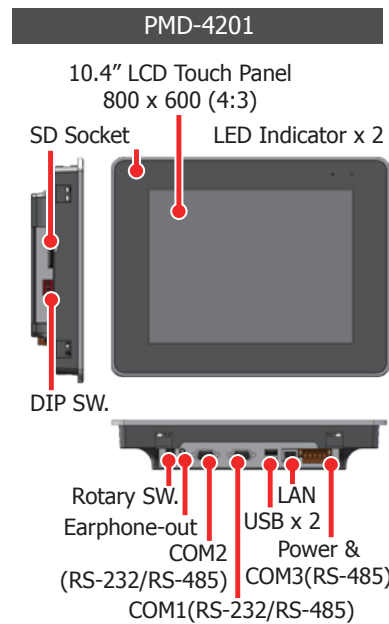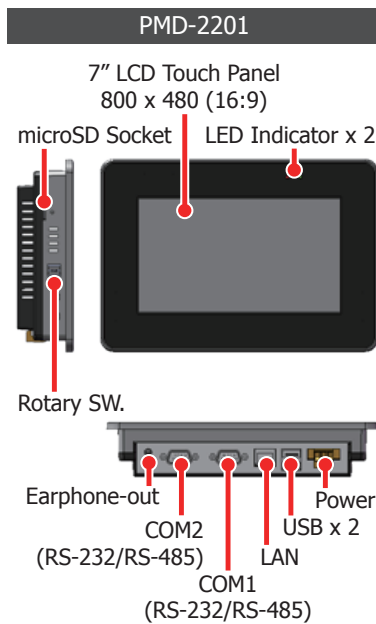
Ordering Information

PMD-2201 CR	Power Meter Concentrator (RoHS) with 7" TFT LCD (with Touch Panel) supported
PMD-4201 CR	Power Meter Concentrator (RoHS) with 10.4" TFT LCD (with Touch Panel) supported*(Available soon~)*

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)

Power Meter Concentrator

PMD Series