Power Meter Concentrator

PMC-5000 Series

PMC-5151

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
- Display real-time or historical power data (in data table or chart form)
- Provide power data statistics report (Daily and Monthly report)
- Offer Flash HMI Tools for easy HMI interface design
- 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 (for SMS message sending, GTM-210-USB is required)
- Adjust device operations by its power status via Modbus I/O modules
- Provide Schedule function for operations of I/O modules (devices)
- Support Modbus TCP/RTU Slave protocol for seamless integration with SCADA
- With PMC Data Server software, allow importing the power data into database
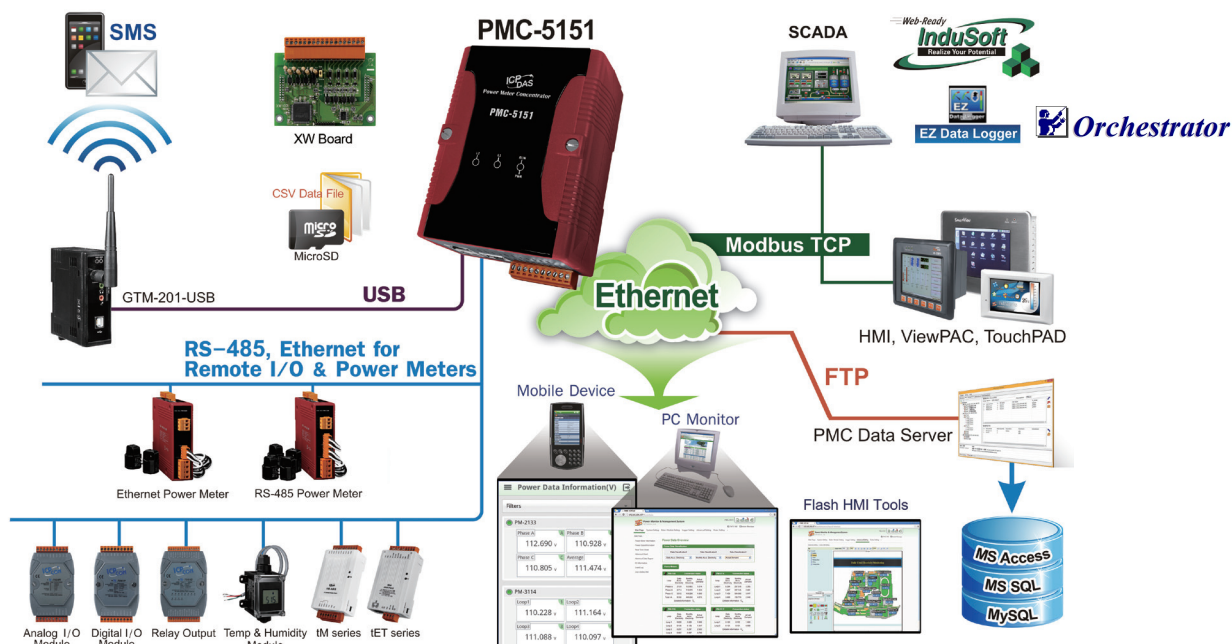
Introduction

The PMC-5151 is a web-based intelligent Power Meter recording unit. It offers a webpage interface, and features various functions such as: power data collection, logic control, power demand management, data logger and alarm notification functions. PMC-5151 allows connections to PM series Smart Power Meters via RS-485 or Ethernet interface to read the power data of the devices measured by the power meters; and then in real-time record the power values in the data logger file. The PMC-5151 also provides data logger file auto send-back function, which together with the PMC Data Server software or SCADA software, allows collection and analysis of the power data.

The PMC-5151 is equipped with a built-in Web Server that allows direct connections via browsers to the PMC-5151 for viewing power data and setting up the system parameters. Additionally to the standard power data review page, by using the Flash HMI web page editor function on PMC-5151, users can easily design a specific power monitor page. The PMC-5151 also offers Modbus TCP/RTU Slave function that allows SCADA software or HMI devices to connect to PMC-5151 to get real-time power data of the devices via Modbus TCP/RTU protocol.

In addition to XW-Board and M-7000 I/O modules, the PMC-5151 can also could connect to standard Modbus TCP/RTU Slave modules. By working with the I/O modules, and utilising functions such as IF-THEN-ELSE logic rule execution and Email/SMS Alarm Notification, the PMC-5151 offers more intelligent power demand management and alarm notification functions, and is able to perform load shedding of the devices if required, enabling real-time monitoring and control of the power consumption of the devices.

When using PMC-5151 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 PMC-5151 is an easy-to-use and easy-to-build total solution for power management and monitoring that makes more efficient energy usage.
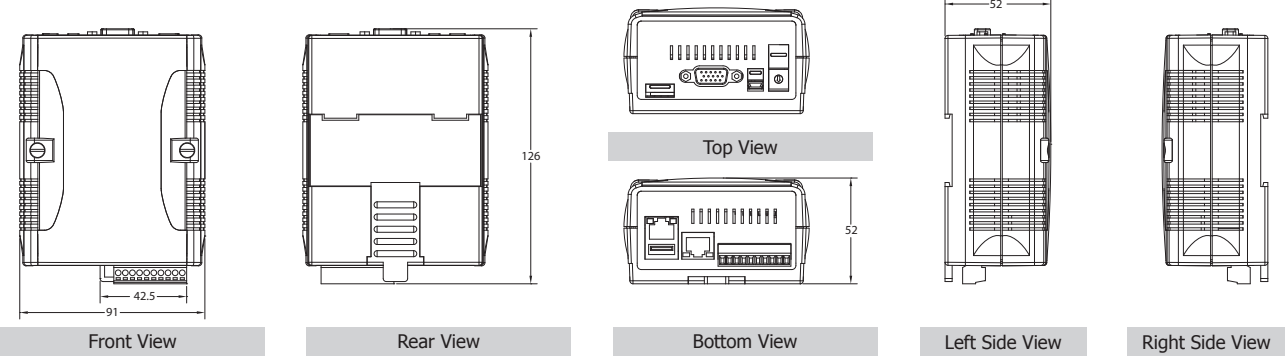
Applications

Specifications

Model	PMC-5151
System Software	
OS	Windows CE OS
Embedded Service	PMC Runtime、Web server、FTP server
CPU Module	
CPU	32-bit ARM CPU
SDRAM	128 MB
Flash	64 MB
Expansion Flash Memory	microSD socket with one 4 GB microSD card (support up to 16 GB microSDHC card)
LED Indicator	1 LED for Power and Running
Rotary Switch	Yes (0 ~ 9)
VGA & Communication Ports	
VGA	Yes, Resolutions:640 × 480/800 × 600
Ethernet	RJ-45 x 2, 10/100 Base-TX (Auto-negotiating, Auto MDI/MDI-X, LED indicators)
USB 1.1 (client)	1
USB 1.1 (host)	1, can connect to SMS Modem (GTM-201-USB)
COM 1	RS-232 (RxD, TxD and GND); non-isolated
COM 2	RS-485 (D+, D-); 2500 V_{DC}; isolated
COM 3	RS-485 (D+, D-); 2500 V_{DC}; isolated
Mechanical	
Dimensions (W x L x H)	91 mm x 126 mm x 52 mm
Installation	DIN-Rail Mounting
Environmental	
Operating Temperature	-25 ~ +75 °C
Storage Temperature	-30 ~ +80 °C
Ambient Relative Humidity	10 ~ 90% RH (non-condensing)
Power	
Input Range	+10 ~ +30 V_{DC}
Isolation	1 kV
Consumption	4.8 W (0.2 A @ 24 V_{DC})

Appearance

microSD Socket, VGA Port, USB Client, Rotary Switch

LED Indicators

LAN1, USB Host, LAN2, Pin Assigment

COM1 (RxD, TxD, GND), COM2 (D+, D-), COM3 (D+, D-), DC +10~30V (PWR, P.GND), F.G.

Dimensions (Units: mm)

Front View

Rear View

Top View

Bottom View

Left Side View

Right Side View

Ordering Information

PMC-5151-EN CR	Power Meter Concentrator (English) (RoHS)

Accessories

Power Meter	Modbus RTU: PM-213x, PM-311x Modbus TCP: PM-3112-MTCP, PM-3114-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
DP-1200 CR	24 V_{DC}/5.0 A, 120 W Power Supply with DIN-Rail Mounting (RoHS)
MDR-20-24 CR	24 V_{DC}/1.0 A, 24 W Power Supply with DIN-Rail Mounting (RoHS)
MDR-60-24 CR	24 V_{DC}/2.5 A, 60 W Power Supply with DIN-Rail Mounting (RoHS)
GTM-201-USB CR	Industrial Quad-band GPRS/GSM Modem with USB Interface (RoHS)

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