



## Features

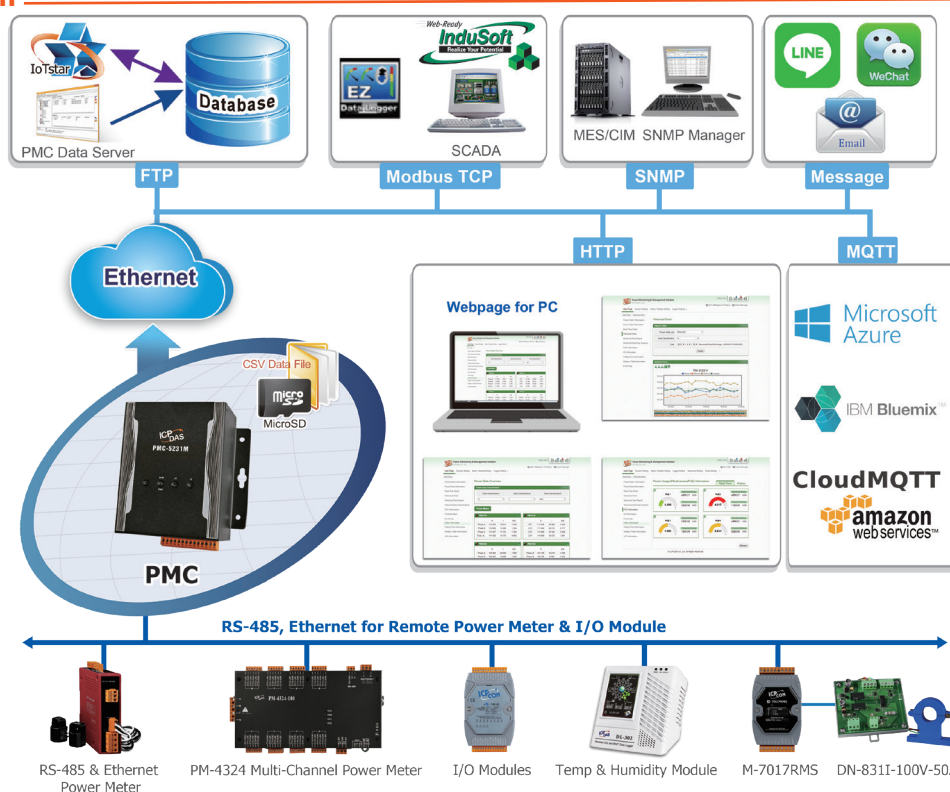
- No extra software tool is required, using browsers to perform system operations
- Support at most 24 ICP DAS Modbus Power Meters (with maximum 16 ICP DAS Modbus TCP Power Meters) and 8 Modbus I/O modules.
  - \* COM3 and COM4 interface can connect to Max. 16 power meters individually.
  - \* Support at most 4 ICP DAS PM-4324 series Power Meters.
- Display real-time or historical power data; Provide power data statistics report.
- 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, WeChat or Email
- 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, SNMP & MQTT protocols
- Support Connection to IoT Cloud Platform (Microsoft Azure and IBM Bluemix); Support ICP DAS IoTstar Cloud software.



## Introduction

PMC-523xM is the new generation of Power Meter Concentrator for meeting the trend of energy saving and carbon reduction in the Industry 4.0 age. It provides flexible integration with the ICP DAS power meters via RS-485 or Ethernet interface, and features various functions such as: measure the power consumption of the devices, energy usage analysis, power demand management and alarm notification functions. The PMC-523xM features a built-in Micro SD card. After it retrieving the power data from the power meter, it will save the power data in data log file, and automatically send back the data log files to the back-end management center for data analysis and statistics. PMC-523xM offers a user-friendly and intuitive web site interface that allows users to implement the Energy monitoring and management system just a few clicks away; no programming is required. In addition to ICP DAS XV-Board and M-7000 I/O modules, the PMC-523xM can also 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/WeChat/Email, PMC-523xM 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. PMC-523xM 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. So that the administrator can monitor the status of power consumption of each device and perform statistics and analysis of the power information, thus improving the overall efficiency in electricity consumption to save costs on utility bills. All of these features make PMC-523xM a perfect concentrator of power meter in the Energy monitoring and management application of Industry 4.0 age.

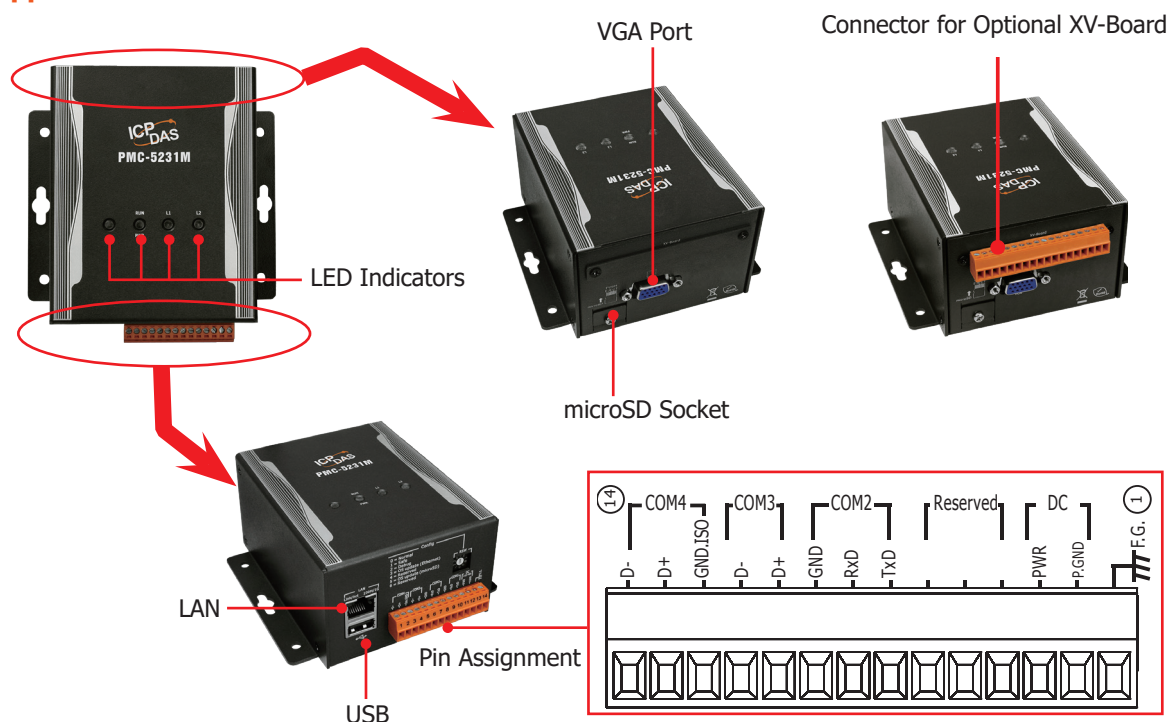
## Application



## Specifications

| Model                      | PMC-523xM                                                                           |
|----------------------------|-------------------------------------------------------------------------------------|
| <b>System Software</b>     |                                                                                     |
| Embedded Service           | PMC Runtime, Web server, FTP server                                                 |
| <b>CPU Module</b>          |                                                                                     |
| CPU                        | 32-bit ARM CPU, 1 GHz                                                               |
| Expansion Flash Memory     | microSD socket with one 4 GB microSD card (support up to 32 GB microSDHC card)      |
| LED Indicator              | Yes. LED for Power and System status                                                |
| <b>Communication Ports</b> |                                                                                     |
| Ethernet                   | RJ-45 x 1, 10/100/1000 Based-TX ( Auto-negotiating, Auto MDI/MDI-X, LED indicators) |
| COM 1                      | Reserved                                                                            |
| COM 2                      | RS-232 (TxD, RxD, GND), non-isolated, Speed: 115200 bps max.                        |
| COM 3                      | RS-485 (Data+, Data-), non-isolated, Speed: 115200 bps max.                         |
| COM 4                      | RS-485 (Data+, Data-), 2500 VDC isolated, Speed: 115200 bps max.                    |
| <b>Mechanical</b>          |                                                                                     |
| Dimensions (W x L x H)     | 117 mm x 126 mm x 58 mm                                                             |
| Installation               | Wall Mounting / DIN-Rail Installation                                               |
| <b>Environmental</b>       |                                                                                     |
| Operating Temperature      | -25 to +75 °C                                                                       |
| Storage Temperature        | -40 to +80 °C                                                                       |
| Ambient Relative Humidity  | 10 to 90% RH (non-condensing)                                                       |
| <b>Power</b>               |                                                                                     |
| Input Range                | +12 to +48 VDC                                                                      |
| Consumption                | 4.8 W                                                                               |

## Appearance



## Ordering Information

|              |                                                                                             |
|--------------|---------------------------------------------------------------------------------------------|
| PMC-5231M CR | Industrial IoT Power Meter Concentrator (RoHS) (Metal casing)                               |
| PMC-5236M CR | Industrial IoT Power Meter Concentrator (With WeChat Message Sending) (RoHS) (Metal casing) |

## Accessories

|              |                                                                                                                                                   |
|--------------|---------------------------------------------------------------------------------------------------------------------------------------------------|
| Power Meter  | Modbus RTU: PM-3033, PM-3133, PM-3112, PM-3114 and PM-4324<br>Modbus TCP: PM-3033-MTCP, PM-3133-MTCP, PM-3112-MTCP, PM-3114-MTCP and PM-4324-MTCP |
| DP-660       | 24 VDC/2.5 A, 60 W and 5 VDC/0.5 A, 2.5 W Power Supply with DIN-Rail Mounting                                                                     |
| DP-1200 CR   | 24 VDC/5.0 A, 120 W Power Supply with DIN-Rail Mounting (RoHS)                                                                                    |
| MDR-20-24 CR | 24 VDC/1.0 A, 24 W Power Supply with DIN-Rail Mounting (RoHS)                                                                                     |
| MDR-60-24 CR | 24 VDC/2.5 A, 60 W Power Supply with DIN-Rail Mounting (RoHS)                                                                                     |