Power Meter Monitor

Business and Mission-

Critical Solutions Provider

Arm Based Industrial Computer

Data Sheet

Model: PMM0105
Document: Data Sheet
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DECLARATION OF CONFORMITY

This restriction is subject to protect the operational process of the system in the business environment, which will produce, use, and transmit radiofrequency energy. Harmful interference to radio communication could result if instructions to the correct installation and usage were not applied. The interference prevention cannot be guaranteed even with proper installation according to the manual. If the device causes a bad effect on the radio / TV signal. The user could preclude that by turning the device on/off.
When this device produces some harmful interference, the user can use the following measure to solve the interference problem:
1-Setting the receiving antenna's direction or location to increase the distance between this device and receiver.
2-Plug in the device's power connector into different circuits of the power outlet with the receiver.
3-If any technical support is needed, the dealer or experienced radio/TV technical personnel must be informed.

TECHNICAL SUPPORT AND SERVICE

Visit Pmm-usa.us to browse FAQs and get further details.
User should collect the following information before submitting technical support and service requests:
- Product name, model and serial number.
- Installed software (operating system, OS version, installed applications and so on).
- Full description of the problem
-Detailed information about every error.

SAFETY INSTRUCTIONS

- Only trained and qualified personnel can install, operate, or maintain the device.
- Before starting the installation, all safety precautions must be read, and warning labels affixed to the device must be observed. Doing so protects the device from damage and ensures your safety.
- Safety precautions provided in this document may not cover all safety aspects, note to always remain mindful of safety.
- PMM is not liable for any consequence that results from violation of regulations pertaining to safe operations or safety codes pertaining to design, production, and equipment usage.
- DO NOT use liquids or decontamination spray to clean the device surface and assure that it is totally disconnected while cleaning.
- Take all measures to prevent device drop before or during installation.
- Prior to connecting the device to power source, ensure the source and device voltage and power are 100% matched.
- Keep the cables in a suitable covered place.
- If the device is not used for a long time, shut off the power to avoid the damages by transient overvoltage.
- DO NOT allow any liquid flow into the device; to avoid fire or short circuit.
- The recommended storage temperature range should NOT be less than 30°C OR higher than 85°C.

Warning:

- Read the power source and device inlet carefully.
- Handle device with both hands.
- Clean and maintain the device using recommended, safe and suitable methods.

Caution:

If any unauthorized changes of settings or repairs are done without PMM approval; then user's rights of controlling this device will be canceled.

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KEY FEATURES

- Allwinner H3, Quad-core Cortex-A7 CPU
- Meets all substation requirements
- Arduino® compatible programming
- 2x Fiber optic ports
- 2x Ethernet 10/100 ports
- 2x Customizable communication ports; RS485, RS232, RS422, CAN bus or IO
- Built-in or add-on cards are easily customized
- Wide range of power supply options
- -40 to 85°C system operating temperature
- Different mounting system style options are applicable
- Compact, fanless design
- Ubuntu core with mainline kernel 4.14
- Degree of protection: IP54

TARGET APPLICATION

PMM0105 is specifically designed for industrial applications where the environmental conditions are tough and unpredictable. The device contains many interfaces to cover all industrial standards giving the client increased connectivity and easy customization to fit their specific needs.

There are many applications that PMM0105 can perform with high efficiency and effectiveness offering a large variety of intelligent and flexible solutions such as:

- Billing server
- SQL data banks
- Data loggers
- Power Plant Controllers
- Power Meter Reader
- IEC101/104 to Modbus converter
- DLMS to Modbus converter
- Database synchronizing
- Tracker controller
- Factory automation

DESCRIPTION

PMM0105 is a rugged, powerful, reliable and fanless industrial embedded computer, powered by Allwinner H3, Quad-core Cortex-A7 CPU.

It is enclosed within a durable metal chassis that has been thoroughly tested on field to withstand shock, vibration, extended temperature ranges as well as the challenging elements of the harsh environment.

With this industrial computer all field standards of power, power substation requirements are met. Besides being reliable it is easily configured giving it a long-lasting life.

TECHNICAL SPECIFICATIONS

Computer

CPU	Allwinner H3, Quad-core Cortex-A7 CPU
DRAM	1 GB
RTC CHIP	DS3231
Pre-installed OS	Linux

Computer Interface

Ethernet	2x ports 10/100
Fiber	2x customized fiber optics ports on ordering: SC or SFP port
Expansion COMM Slots	2x customizable communication slots: PMM RS485 Module PMM RS232 Module PMM RS422 Module PMM CAN Bus Module PMM IO Module
USB Ports	1x USB2.0 type A

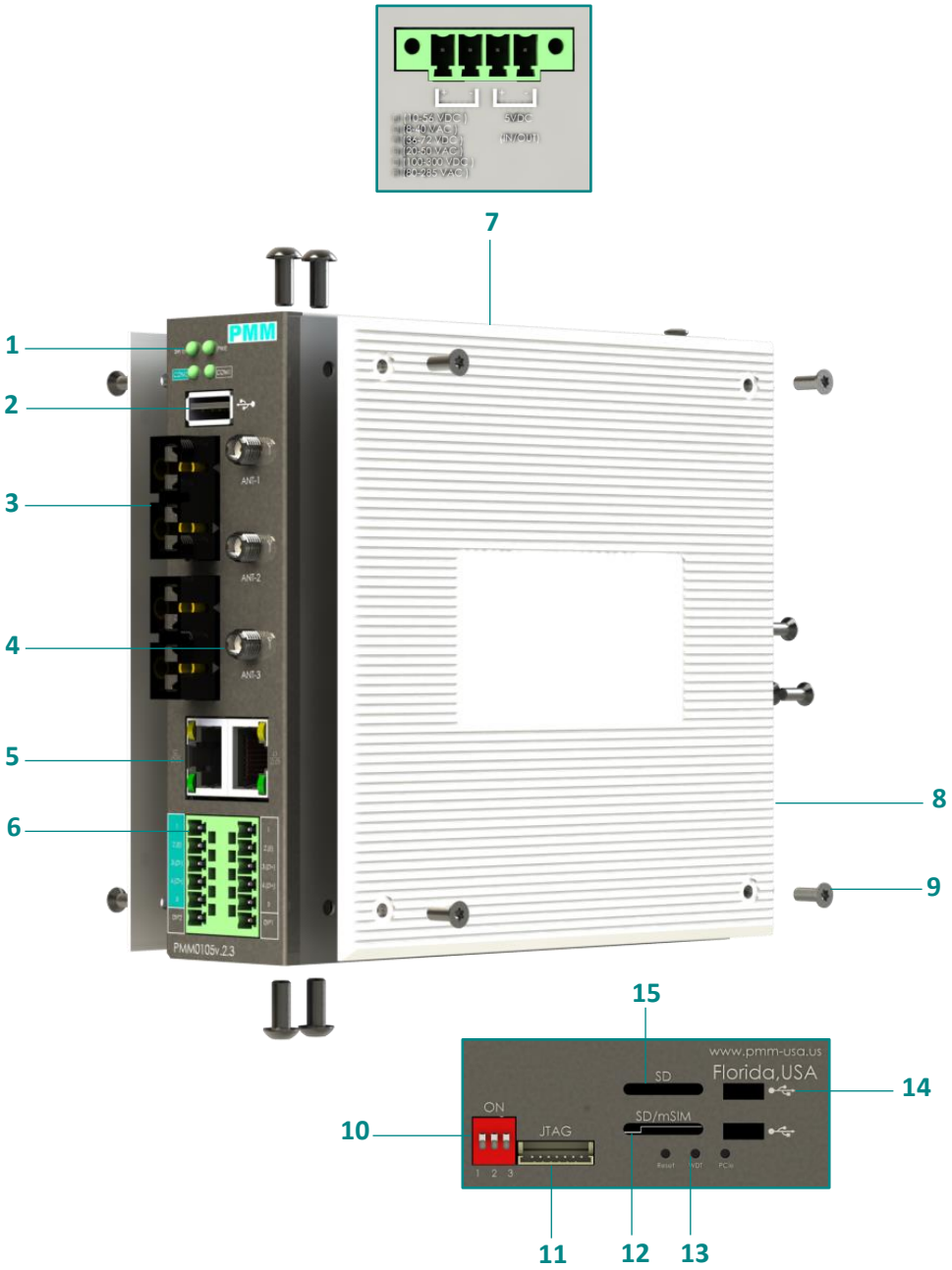
Power Parameters

Power Supply Options	10-56 VDC 8-40 VAC 36-72 VDC 25-50 VAC 85-285 VAC / 100-300 VDC
Power Connector	Phoenix Contact 6 pins 3.5mm

Physical Characteristics

Housing	Metal
Dimensions	5.27*5.27*1.45 inch (134*134*37 mm)
Mounting Options	Standard 35mm DIN Rail Direct Panel Mounting Front Panel Mounting 19” rack 1U
Certifications	RoHS, CE and FCC

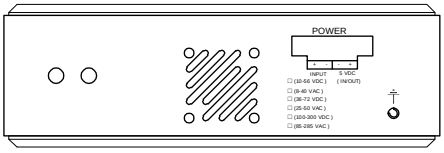
ENCLOSURE ASSEMBLY INFORMATION

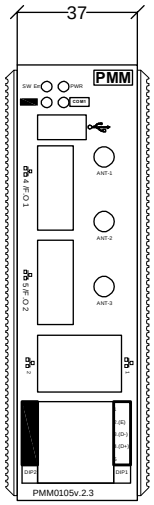


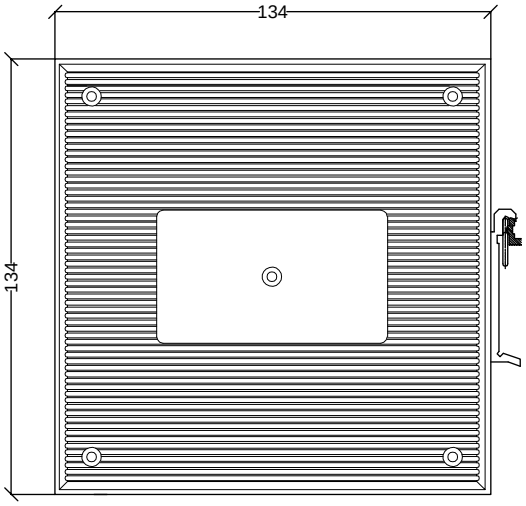
ITEM	DESCRIPTION
1	4x LED indicators
2	USB port
3	2x SC Fiber Optic Ports
4	3x Antennas
5	2x Ethernet ports
6	COMM Port
7	Power supply

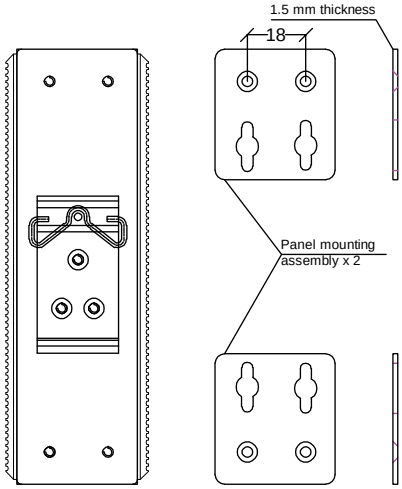
8	Heat sink
9	Screw
10	DIP switch
11	JTAG interface port
12	SD/mSIM card slot
13	Reset buttons
14	2x USB ports
15	SD card slot

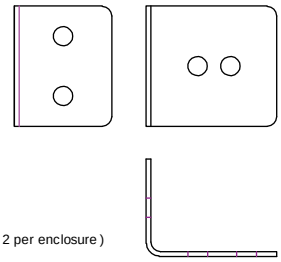
ENCLOSURE DIMENSIONS

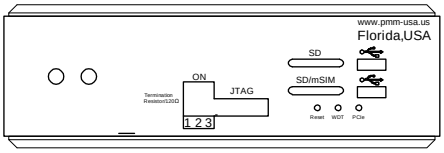












ORDERING INFORMATION

Order Configuration Table					
PMM0105	-x	-09xx	-09xx	-xxxx	-xxxx
Power Supply					
10-56 VDC	-1				
8-40 VAC	-2				
36-72 VDC	-3				
25-50 VAC	-4				
85-285 VAC / 100-300 VDC	-5				
COM Port 1					
RS485		-0912			
CAN Bus		-0910			
ANALOG INPUTS		-0901			
DIGTAL INPUT		-0920			
GSM/GPRS		-0917			
See the COM Ports table for more options					
COM port 2 (*Same as **COM port 1** options*)			-09xx		
Fiber Optic port 1					
SFP Connector				-SFP0	
Single Mode 20 Km /SC type connector				-SC20	
Single Mode 40 Km /SC type connector				-SC40	
Single Mode 80 Km /SC type connector				-SC80	
Fiber Optic port 2 (*Same as **Fiber Optic port 1** options*)					-xxxx

Table1* Comm port options

COM Ports Options	
Analog input	PMM0901
Analog output	PMM0902
CANBUS (UART)	PMM0910
CANBUS (UART)	PMM0910i
CANBUS (SPI)	PMM0911
CANBUS (SPI)	PMM0911i
RS485	PMM0912
RS422	PMM0913
RS422	PMM0914
RS232	PMM0915
LTE module	PMM0916
Digital input	PMM0920
Digital output	PMM0921

Accessories

DIN Mounting Kit (Included 1 Kit)	DIN Rail Mounting Bracket
Wall Mounting Kit (Included 1 Kit)	2x Wall Mounting Bracket
Panel Mounting Kit (Optional)	2x Panel Mounting Bracket
Rack Mounting Kit (Optional)	Rack Mounting Bracket

CONTACT INFORMATION:

For direct inquiries or any customized orders, contact us on **sales@Pmm-usa.us**