Power Meter Monitor

Business and Mission-

Critical Solutions Provider

COMPACT ARM BASED EMBEDDED INDUSTRIAL COMPUTER

Data Sheet

Model: PMM0103
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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 H5, Quad-core 64-bit high-performance Cortex A53 CPU
- Ubuntu Core operating system
- Embedded 8GB eMMC hard drive
- Built to meet all Power substation requirements
- 2x Ethernet 10/100 ports
- Supports 2.4 WIFI
- 3x customized serial/IO communication ports covering all industrial standards
- 1x USB2.0 Type A
- 10x LEDs for communications and power
- Wide range of power supply options
- -40 to 85°C system operating temperature
- DIN rail, wall, panel and rack mounting
- Compact size with fanless design

TARGET APPLICATION

PMM0103's hardware equips customers with the interfaces and processing power they need to rapidly build, deploy, and effectively operate almost any industrial software application.

There are various industrial applications that can be performed with high efficiency and effectiveness offering intelligent and flexible solutions, PMM0103 is ideal for, but not limited to the following target applications:

- Power plant controllers
- NTP timing servers
- SQL data banks
- Data loggers
- Power meter reader
- IEC 101/104 to Modbus converter
- Database synchronizing
- Tracker controller
- Factory automation

DESCRIPTION

PMM0103 is a rugged powerful reliable fanless LINUX BASED embedded industrial computer, powered by Allwinner H3 CPU, which offers high-performance processing with a high degree of functional integration.

The device represents an ideal computing solution for tight spaces. It is remarkably compact, designed with a small footprint and multiple I/Os. Covered by a durable metal chassis which was designed and tested on the field to withstand shock, vibration, extended temperature ranges and challenging elements of a harsh environment.

PMM0103 offers the client a wide range of interfaces covering most of the industrial standards and increasing the connectivity.

Moreover, PMM0103 is especially designed to meet all power substations and PV plants requirements. Furthermore, it covers all field standards of power, reliability, easy configuration and long-lasting life.

TECHNICAL SPECIFICATIONS

Computer

CPU	Allwinner H5 CPU
DRAM	512 DD3RAM
Storage	8GB eMMC
RTC CHIP	DS3231
Pre-installed OS	Ubuntu Core

Computer Interface

Ethernet	2x 10/100Base-T RJ45
USB	1x USB2.0 Type A 1x Micro USB
Wi-Fi	BL-R7601MU5
Serial	1x RS485
Optional Interface	16 pin connector on edge with following connectivity options (max 3 options can be chosen upon order to be factory pre-fitted) RS232 RS485 RS422 CAN bus Analogue Inputs Analogue Output Digital Inputs Digital Output
SD Slot	1x MicroSD card socket for user supplied card up to 64GB

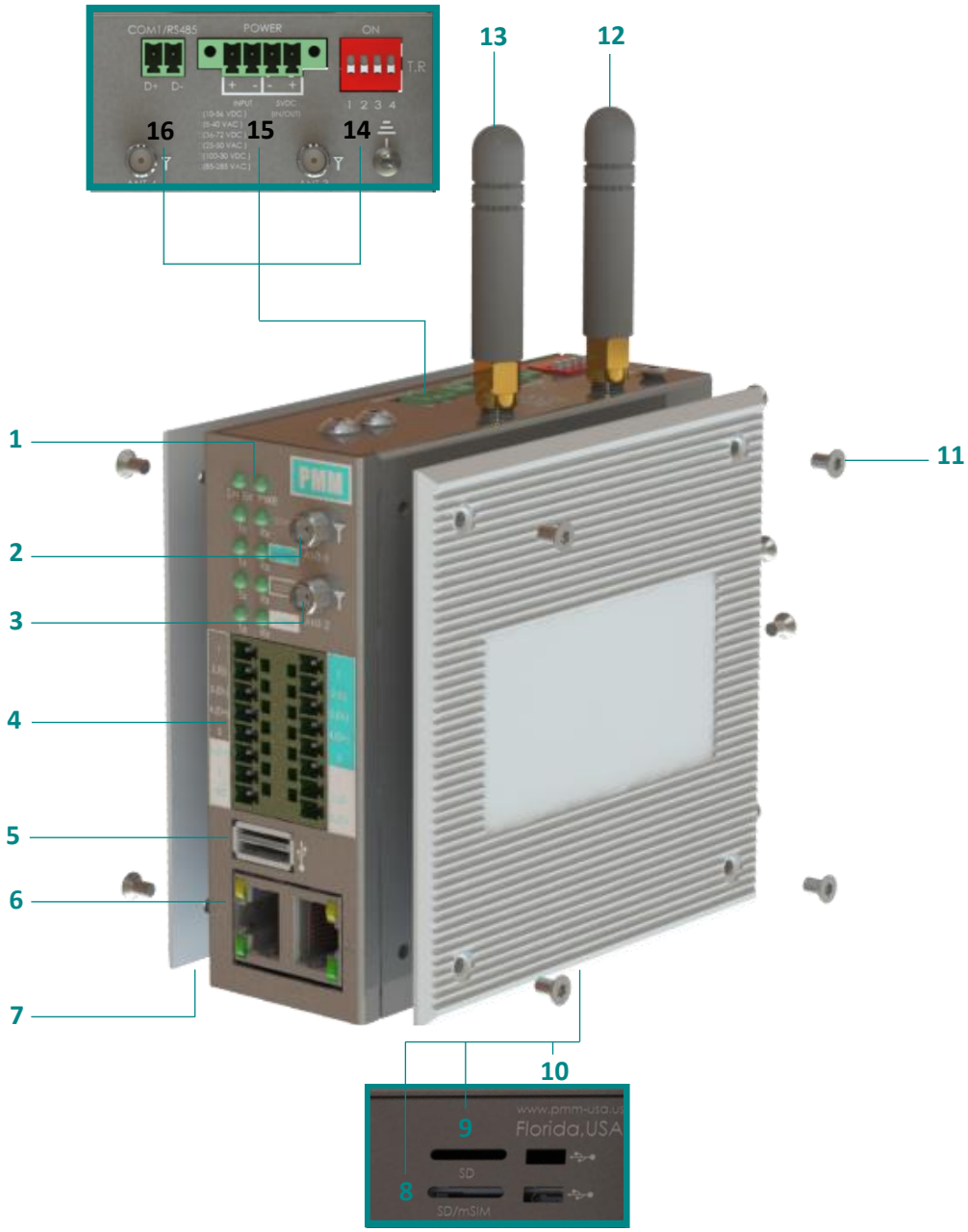
Power Parameters

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 4pins 3.5mm

Physical Characteristics

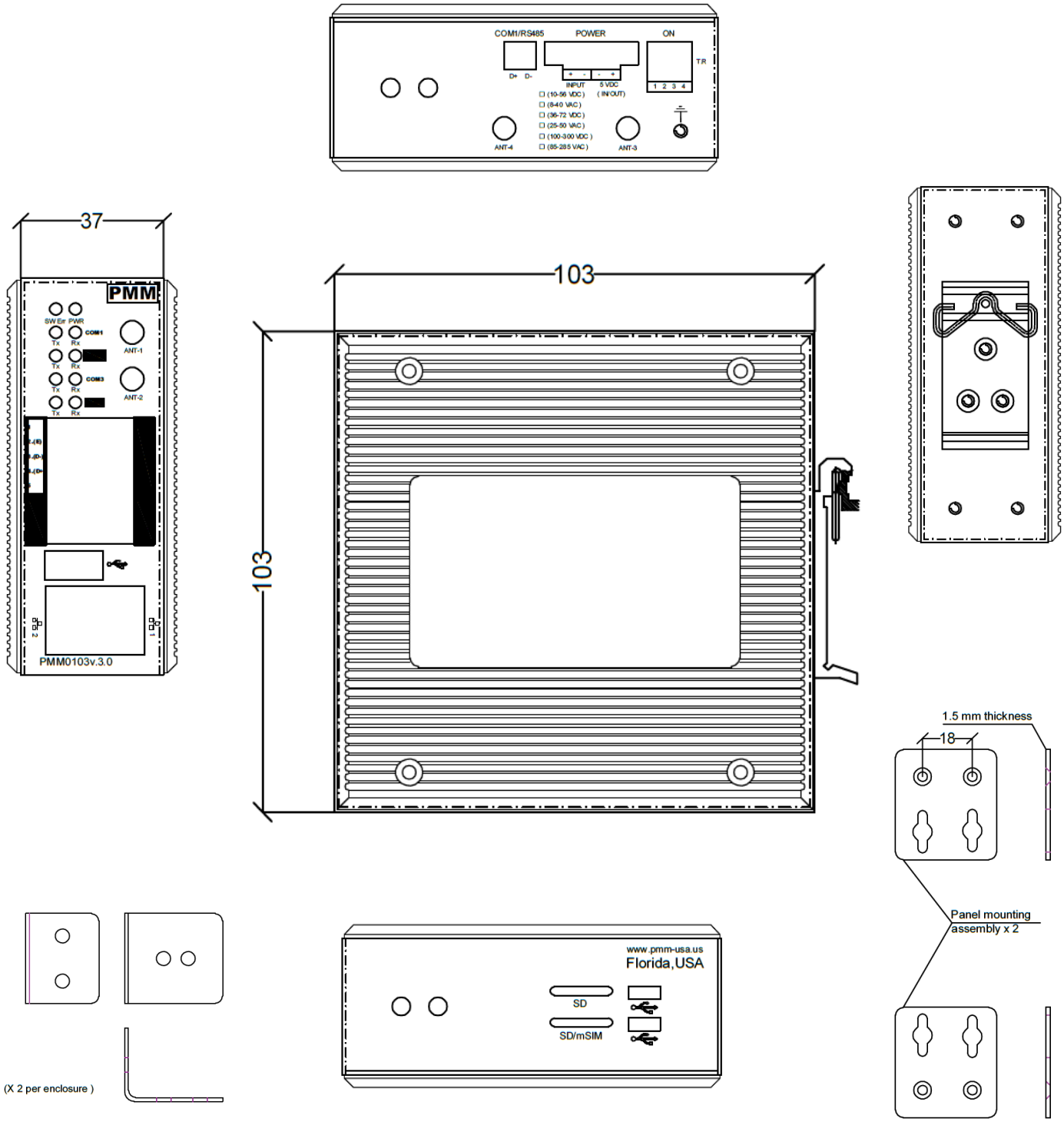
Housing	Metal
Dimensions	3.93*3.93*1.45 inch (100*100*37 mm)
Mounting Options	Standard 35mm DIN Rail Direct Panel Mounting Front Panel Mounting 19” rack 1U

ENCLOSURE ASSEMBLY INFORMATION



ITEM	DESCRIPTION
1	8x LED indicators
2	Antenna 1
3	Antenna 2
4	3x Serial interfaces
5	USB A interface
6	2x Ethernet ports
7	Heat sink
8	mSIM interface
9	SD interface
10	USB interface
11	Screw
12	Antenna 3
13	Antenna 4
14	Termination Resistor Selector RS485
15	Power inlet
16	RS485 interface

ENCLOSURE DIMENTIONS



ORDERING INFORMATION

Order Configuration table				
PMM0103	-x	-09xx	-09xx	-09xx
Power supply				
10-56 VDC	-1			
8-40 VAC	-2			
36-72 VDC	-3			
25-50 VAC	-4			
85-265 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	
COM Port 3 (*Same as **COM Port 1&2 options*)**				-09xx

Table1* Comm port options

COM Ports Options	
Analog input	PMM0901
Analog output	PMM0902
CANBUS (UART)	PMM0910
CANBUS (UART)	PMM0910i
CANBUS (SPI)	PMM00911
CANBUS (SPI)	PMM0911i
RS485	PMM0912
RS422	PMM0913
RS422	PMM0914
RS232	PMM0915
LTE	PMM0916
Digital input	PMM0920
Digital output	PMM0921

Accessories

DIN Mount (included)	DIN Rail Mounting Bracket
Wall Mounting Kit (included)	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**