Power Meter Monitor

Business and Mission-

Critical Solutions Provider

Industrial Intelligence Processing Unit

Data Sheet

Model: PMM0108
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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

- Intel® Apollo Lake Series J3355
- Dual-core 2.3 GHz frequency
- Operating system: MS Windows 10, 64-bit
- 2x RS485 Ports serial/IO communication ports
- Supports 2.4/5GHz WIFI
- Wide range of power supply options
- Compact size with fanless design
- Built to meet all Power substation requirements
- Wide range of mounting systems to ensure excellent heat dissipation
- -20 to 60°C system operating temperature
- -40 to 85°C storage temperature

TARGET APPLICATION

PMM0108 is made with intelligent and flexible solutions to equip the clients with all features needed to deploy their industrial applications with swiftness and reliability. It is ideal, including, but not limited to the following target application:

- Power plant controllers
- Hybrid controller
- PV optimizer
- Billing server
- Database synchronizer
- Power meter reader
- Historical power meter reader
- Modbus data logger
- Multi data logger
- Database SQL

DESCRIPTION

PMM0108 is a rugged, powerful, reliable and fanless industrial embedded computer, powered by Intel® Apollo Lake Series J3355.

It's enclosed within a durable metal chassis that has been thoroughly tested on the 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 and PV requirements are met. Besides being reliable it is easily configured giving it a long-lasting life.

TECHNICAL SPECIFICATIONS

Processor	
CPU	Intel® Apollo Lake Series J3355
Frequency	Dual core 2.3GHz
L2 Cache	2 MB
Display	
Display Controller	Integrated graphics media accelerator
HDMI	Max resolution up to 4096×2160@30Hz
Memory	
BIOS	AMI EFI 16Mbit
Architecture	DDR3L-1666MHz
Capacity	Up to 8GB
DIMM	1 x 204-pin SODIMM
LAN	
LAN 1	Intel i210 Gbe LAN controller
LAN 2	Intel i210 Gbe LAN controller
Extended LAN	4x 1000Mbps RJ-45
IO	
COM	2x RS-232 Ports (RS-232/485 Optional)
USB	4x USB3.0/2.0/1.1
Other	
Digital IO	N/A
Watchdog	1x full size mSATA SSD
Expansion Slot	
Mini ePCI	2x full size PCIe with SIM holder
ePCI	N/A
Storage Medium	
SSD	1x full size mSATA SSD
Operating System	
Microsoft Windows	Windows 10
Linux	Ubuntu
Power	
Type	AT
Input Voltage	9-30V DC ±10%
Minimum Input	12V, 3A
Power Adapter	Optional
Power Dissipation	
No-load	15 Watt
Full load	31 Watt
physical Characteristics	
housing	Aluminum Alloy Box
Mounting	Standard 35mm Din-rail 2 Bracket wall mounting
Dimensions	5.71 x 5.71 x 2.95 inch (145 x 145 x 75 mm)
Weight	1.6 Kg
Environmental	
Operating Temperature	-20 to 60°C (-4 to 140°F) Wide temperature SSD 0 to 45°C (32 to 113°F) General temperature HDD/SSD

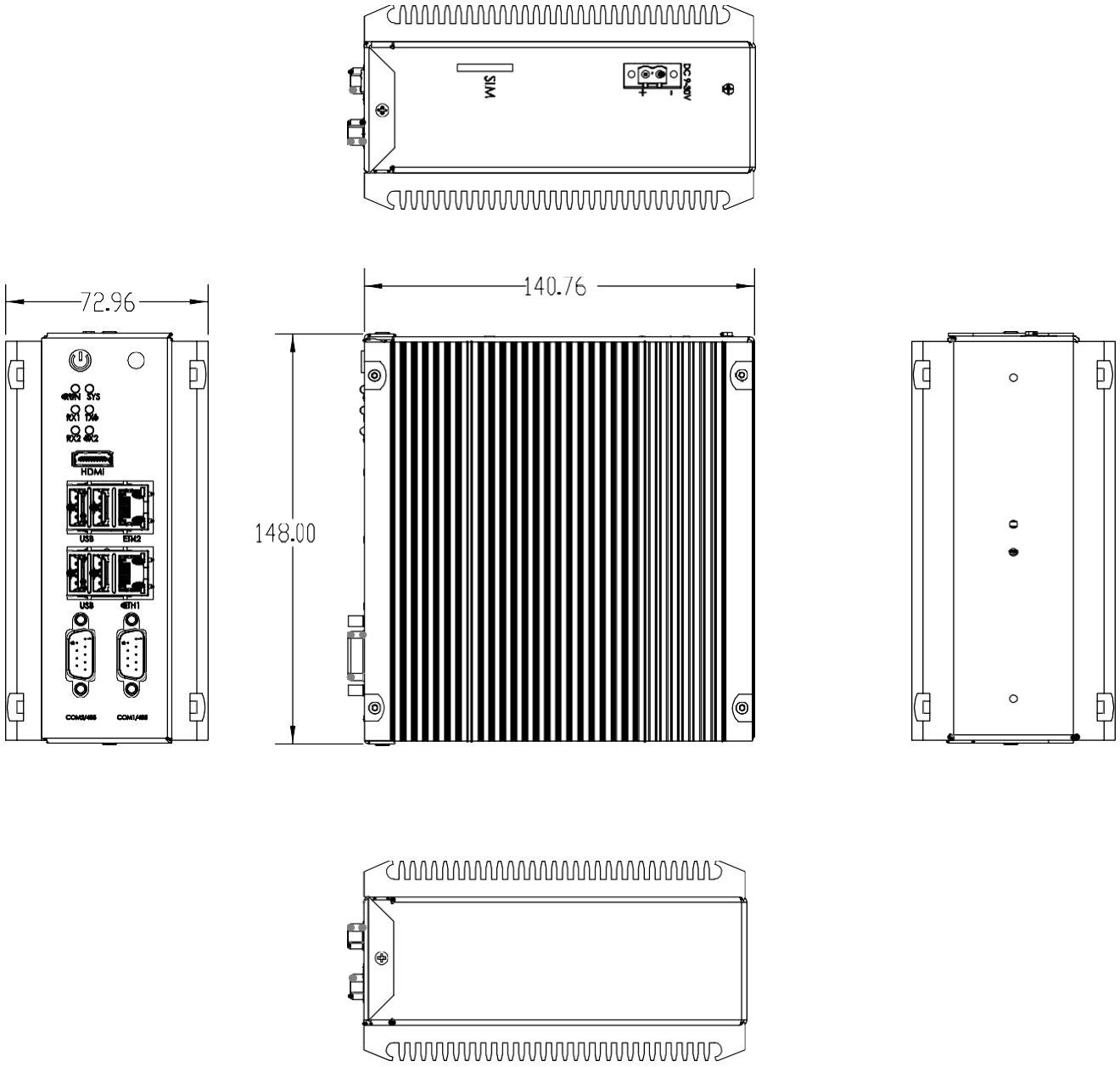
Storage Temperature	-40 to 80°C (-40 to 176°F)
Operating Humidity	5 to 95% (Non condensation)
Shake	SSD applied: 1.5 Grms, IEC 60068-2-64, random, 5 to 500 HZ, 1hr/axis
Shock	SSD applied: 10 G, IEC 60068-2-64, Half sine wave, 11ms duration
EMC	CE/FCC Class A
Safety Certification	CCC

ENCLOSURE ASSEMBLY INFORMATION

ITEM	DESCRIPTION
1	Power Switch
2	6x LED indicators
3	HDMI Port
4	4x USB3.0 Ports
5	2x Ethernet Ports

6	2x RS485 Ports
7	SIM card slot (option only)
8	9-30 VDC
9	Heatsink
10	Screw

ENCLOSURE DIMENTIONS



ORDERING INFORMATION

Order Configuration table			
PMM0108	-x	-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			
RS232/RS42/RS485		-0912i	
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

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 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**