



Power Meter Monitor

**Business and Mission-Critical
Solutions Provider**

PMM0102

DataSheet



Model: PMM0102

Document: Datasheet

Document version: 1.1

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DECLARATION OF CONFORMITY

This restriction is subject to provide protection for system operation in business environment, which will produce, use and transmit radio frequency energy. Without notice of the instructions of the correct installation and use, it may cause harmful interference to radio communication. The interference prevention cannot be guaranteed even with proper installation according to the manual. If the device gets bad effect on the signal of radio / TV. User could insure by turn device on/off.

When this device produces some harmful interference, user can use the following measure to solve interference problem:

Setting the receiving antenna's direction or location
Increase the distance between this device and receiver.

Plug in this device's power connector into different circuits of the power outlet with receiver.

If you need technical support, please inform the dealer or experienced radio/TV technical personnel.

TECHNICAL SUPPORT AND SERVICE

Please visit: Pmm-usa.us to get the details.

User should collect the product information following:

- Product name and serial number.
- Attached device's description.
- User software description (operational system, vision, application software and so on).
- Full description of the product's problem -Full details of every error information.

SAFETY INSTRUCTIONS

- Read the safety operating introduction carefully.
- Be cautious of the warnings and notices on the device.
- DO NOT use any liquid or decontamination spray to clean up the device, and assure that it is totally disconnected while cleaning!
- Ensure that the device is in a stable position before installation; to avoid falling it down.
- Ensure that the out voltage of power outlet, fits the required voltage, before connecting the device.
- Keep the cables in 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.
- DO NOT pull the device up by yourself, let certificated engineer collaborate for safety assurance purposes.
- DO NOT store the device in out of the recommended temperature range; NOT less than -30°C or higher than 80°C.

If you face the following situations, please repair it by professional party:

- Broken Power cable or connector.
- Liquid flow into the device.
- Device is not working properly.
- The device falls down or damaged.
- Appearing of any obvious malfunctions.

Warning:

- Read the power supply input carefully.
- Package: be careful, please take the device by both hands.
- Maintenance: clean and maintain the device using recommended, safe and suitable methods.

Caution:

If user changes the unauthorized setting, or repairs the device without any approval of the relevant authority; then user's rights of controlling this device will be canceled.



Contents

FEATURES	5
APPLICATION	5
DESCRIPTION	5
ORDERING INFORMATION	6
OPTIONAL ITEMS.....	6
ACCESSORIES.....	6
WORLDWIDE DISTRIBUTION (OUT OF USA).....	6
SPECIAL MODIFICATIONS TO FIT YOUR NEEDS	6
ENCLOSURE ASSEMBLY INFORMATION.....	7
ENCLOSURE DIMENTIONS	8
TECHNICAL SPECIFICATIONS	9

HAZARDOUS MATERIALS DISCLOSURE

HAZARDOUS MATERIALS DISCLOSURE TABLE FOR IPB PRODUCTS CERTIFIED AS ROHS COMPLIANT	10
UNDER 2002/95/EC WITHOUT MERCURY	

FEATURES

- Allwinner H5, Quad-core 64-bit high-performance Cortex A53 CPU
- Embedded 8GB emmc hard drive
- Built to meet all Power substation requirements
- 4x customized serial ports covered all industrial standard.
- 2x Ethernet 10/100 ports
- Support 2.4GHz WIFI
- 10x direct-isolated High-speed digital inputs (24VDC)
- Many options for built-in /add-on cards
- Wide range of power supply options
- -40 to 85°C system operating temperature
- Wide range of mounting system
- Compact size with fanless design
- Ubuntu Core operating system

APPLICATION

The PMM0102 is a LINUX BASED embedded computer powered by ALLWINNER H5 CPU.

The PMM0102 is designed especially for industrial applications and harsh working environments.

The PMM0102 has many interfaces to cover all of the industrial standards and to increase the connectivity giving the client a wide range of options to fits all of his needs.

There are many applications that PMM0102 can perform with high efficiency and effectiveness offering intelligent and flexible solution such as:

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

DESCRIPTION

PMM0102 is a Rugged, Powerful & Reliable industrial fanless Embedded computer powered by ALLWINNER H5 CPU.

PMM0102 has metal durable chassis that is tested on field to withstand shock, vibration, extended temperature ranges and challenging elements of a harsh environment.

PMM0102 meets all field standards of power, reliability, easy configuration and long-lasting life

PMM0102 designed to meet all power substation and PV plants requirements

ORDERING INFORMATION

PMM0102-AC3-24852232-FP01

(PMM0102 - SUPPLY VOLTAGE - OPTION1/OPTION2/OPTION3/OPTION4 - ACC1/ACC2/ACC3/ACC4)

Type	Description
PMM0102-DC1	1x in: 36VDC-75VDC
PMM0102-DC2	1x in: 10VDC-56VDC
PMM0102-AC1	1x in: 220VAC,out: 5W
PMM0102-AC2	1x in: 220VAC,out: 10W
PMM0102-AC3	1x in: 220VAC,out: 15W

OPTIONS

PMM0102-232	1x RS232 module
PMM0102-485	1x RS485 module
PMM0102-422	1x RS422 module
PMM0102-SCAN	1x SPI CANBUS module
PMM0102-UCAN	1x UART CANBUS module
PMM0102-232F	1x RS232 FULL module
PMM0102-DI	1x Digital inputs module
PMM0102-DO	1x Digital outputs module
PMM0102-AI	1x Analog inputs module
PMM0102-AO	1x Analog outputs module

ACCESSORIES

PMM0102-DIN01	1x DIN Rail Clip
PMM0102-MB01	2x Mounting Bracket
PMM0102-PM01	2x Front panel Bracket
PMM0102-FP01	2x Mounting 19 Inch Bracket (4mm screw)

WORLDWIDE DISTRIBUTION (OUT OF USA)

Amazon, ebay, and direct sales are the sole and exclusive distributor outside the territory of USA.

For direct quotation contact us on sales@Pmm-usa.us

SPECIAL MODIFICATIONS TO FIT YOUR NEEDS

For any customized inquiries and orders; contact us on sales@Pmm-usa.us

ENCLOSURE ASSEMBLY INFORMATION



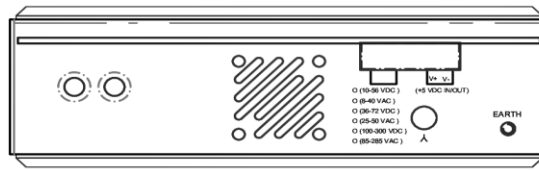
Front Mounting Holder

Rear Holder

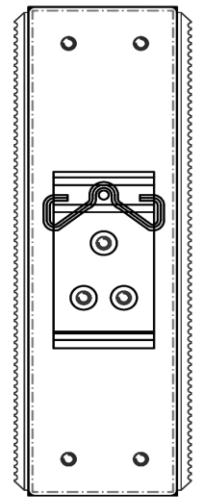
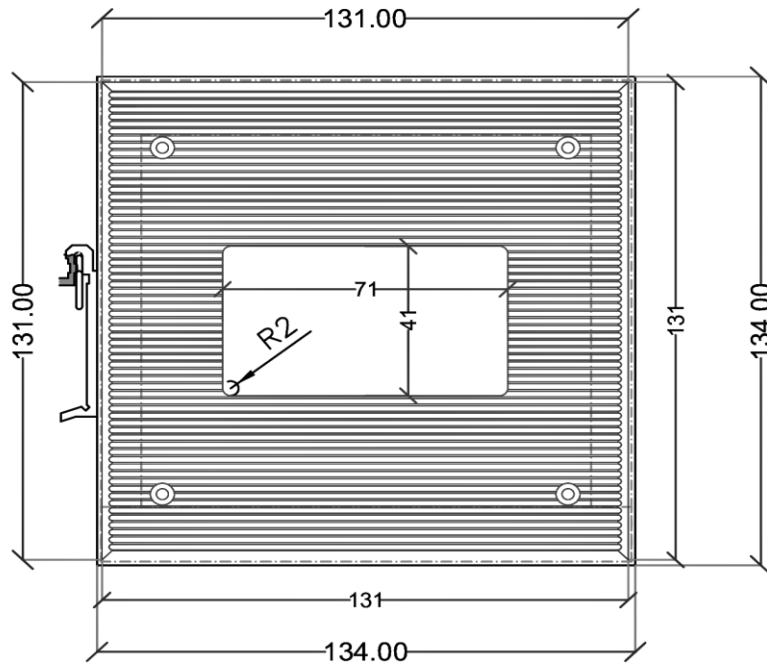


HeatSink

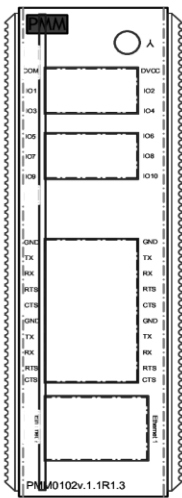
ENCLOSURE DIMENTIONS



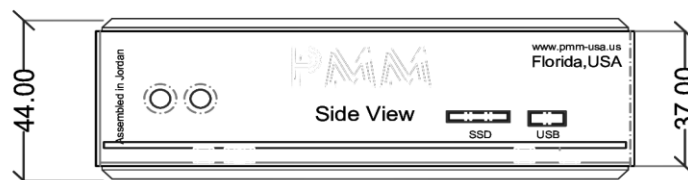
Top View



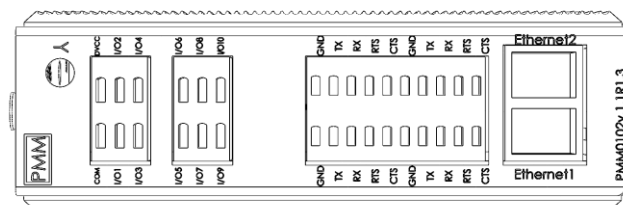
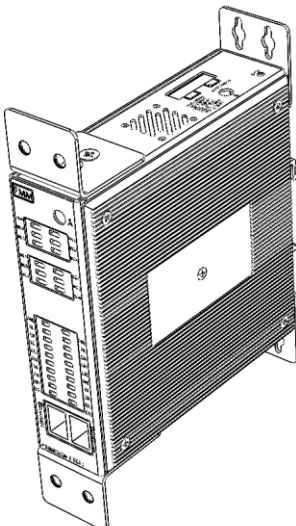
Back View



Front View



Bottom View



TECHNICAL SPECIFICATION

Computer

CPU	ALLWINNER H5 CPU
DRAM	512 DD3RAM
Storage	8GB eMMC
SD SLOT	Micro SD Up to 64gb (not included)
RTC CHIP	DS3231
Pre-installed OS	Ubuntu Core

Computer Interface

Ethernet ports	2 X ports 10/100
Communication ports	4 X customized serial ports on ordering: RS485/RS232/RS422/Can BUS/2xAnalog inputs/2xAnalog outputs/2xDigital inputs / Digital outputs
USB ports	1x mUSB
Digital Inputs	10 x High speed digital inputs (24VDC)
Wi-Fi chip	MT7601UN

Serial signals

RS232F	TX,RX,RTS,CTS,GND
RS232	TX,RX,GND
RS485	TX,RX,GND
RS422	A,B,Y,Z
SPI CANBUS	CANH,CANL
UART CANBUS	CANH,CANL

Power Parameters

Power supply options	85-265 VAC /100-300 VDC 10-48VAC / 10-60VDC 25-60VAC / 36-72VDC Direct input 5VDC/3A
Power connector	Phoenix Contact 4pins 3.5mm

Physical Characteristics

Housing	Metal
Dimensions	5.27(134)x5.27(134)x1.45(37) inch (mm)
Mounting system	Standard 35mm din rail / direct panel mounting / front panel mounting / 19" rack 1U

HAZARDOUS MATERIALS DISCLOSURE

Hazardous Materials Disclosure Table for IPB Products Certified as RoHS Compliant Under 2002/95/EC without Mercury

The details provided in this appendix are to ensure that the product is compliant with the Peoples United states of America (USA) RoHS standards. The table below acknowledges the presences of small quantities of certain materials in the product and is applicable to USA RoHS only.

A label will be placed on each product to indicate the estimated “Environmentally Friendly Use Period” (EFUP). This is an estimate of the number of years that these substances would “not leak out or undergo abrupt change.” This product may contain replace able sub-assemblies/components which have a shorter EFUP such as batteries and lamps. These components will be separately marked.

Please refer to the table below.

Part Name	Toxic or Hazardous Substances and Elements					
	Lead (Pb)	Mercury (Hg)	Cadmium (Cd)	Hexavalent Chromium (CR(VI))	Polybrominated Biphenyls (PBB)	Polybrominated Diphenyl Ethers(PBDE)
Housing	X	O	O	O	O	X
Housing	X	O	O	O	O	X
Printed Circuit Board	X	O	O	O	O	X
Metal Fasteners	X	O	O	O	O	O
Cable Assembly	X	O	O	O	O	X
Fan Assembly	X	O	O	O	O	X
Fan Assembly	X	O	O	O	O	X
Battery	O	O	O	O	O	O

O: This toxic or hazardous substance is contained in all the homogeneous materials for the part is below the limit requirement in SJ/T11363-2006

X: This toxic or hazardous substance is contained in at least one of the homogeneous materials for this part is above the limit requirement in SJ/T11363-2006