Perinet
Seamless IoT Connectivity

periMICA

Open Modular Edge Computer



The periMICA is the modular edge computer for your field-level IoT application, even in rough environments. It hosts virtualized applications and provides a runtime for lightweight Linux-containers.
Just as you would in the cloud, the periMICA allows you to set up applications locally. So, migration of applications between the field and your IT-infrastructure becomes easy. A periMICA is the perfect tool for gathering and preprocessing data: Straight from the field-level, where sensors and actuators are networked by the Perinet Smart Components.

Key Features

- Brand labelling supported
- User-friendly web-based UI
- Various Ethernet options
  - Fast Ethernet (100BASE-TX)
  - Single Pair Ethernet (100BASE-T1)
- IoT native
  - IPv6
  - Secure by design (mTLS)
- RESTful API
- Open Source software
- Containerized Software (LXC):
  - MQTT broker
  - Dashboard editor
  - PKI2GO, user-friendly security
  - MODBUS-TCP bridge
  - JTAG debug container
- Customizable hard- & software

Hardware Customization

Select among different Processor, Function and Supply Modules.

Processor Module

P1 Cortex A8, ARMv7 1.00 GHz Single Core, 1GB RAM, 4GB eMMC
P2 Cortex A9, ARMv7 1.33 GHz Dual Core, 2GB RAM, 16GB eMMC

Supply Module

S1 100BASE-TX & PoE M12
24VDC & 8xGPIO M12
S3 100BASE-TX ix, 24VDC
100BASE-T1 M8 hybrid source

Function Module

F2 2 x USB-A host
F3 rapid prototyping (breadboard)

Further modules are provided by third-party partners.



periMICAs modular hardware (F2 | P2 | S3)

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Further Modular Fronts



periMICAs fronts (F3|S3, F2|S1, F3|S3)

General Specification

Dimensions 132mm x 35mm x 86mm
Supply 24V or PoE (S1 only), compliant IEC 60950-1 / EN 60950-1 / VDE 0805-1 (SELV) or EN 50178 (PELV)
IP class IP67 or IP20
Operation Temperature -25...+75°C
Storage Temperature -25...+85°C
Relative Humidity 5...95% non-condensing
Housing Material Aluminium
Mounting DIN-rail mounting Kit (PRN.000.037)
Wall mounting Kit (PRN.000.036)

Ordering Code	Product Name	Description
PRN.000.025-00001	periMICA spec. 0001	Single Core, 100Base-TX (PoE), GPIOs
PRN.000.025-00002	periMICA spec. 0002	Single Core, 100Base-TX (PoE), GPIOs, USB
PRN.000.025-00004	periMICA spec. 0004	Dual Core, 100Base-TX (PoE), GPIOs, USB
PRN.000.025-00005	periMICA spec. 0005	Dual Core, 100Base-TX (PoE), GPIOs
PRN.000.025-00006	periMICA spec. 0006	Single Core, 100Base-TX, 100BASE-T1
PRN.000.025-00007	periMICA spec. 0007	Single Core, 100Base-TX, 100BASE-T1, USB
PRN.000.025-00008	periMICA spec. 0008	Dual Core, 100Base-TX, 100BASE-T1
PRN.000.025-00009	periMICA spec. 0009	Dual Core, 100Base-TX, 100BASE-T1, USB
Support Products		
PRN.000.036	Wall mounting Kit	A Kit for installing the periMICA on a wall
PRN.000.037	DIN-rail mounting Kit	A Kit for installing the periMICA on a DIN-rail
33480147826010	HARTING ix Industrial® Type A to RJ45	HARTING Pre-assembled cable ix Industrial® Type A to RJ45 (S3 only)
21348400C79010	HARTING M12 Cable Assembly A-coded 12 pol st/- m/- 1,0m	System cabling, Circular connectors M12, Pre-assembled on one side, M12 A-coding, 12 cores (S1 only)
TL-PoE150S	TP-LINK TL-PoE150S PoE Injector	PoE-Injector, 1 GBit/s IEEE 802.3af

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