

# 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

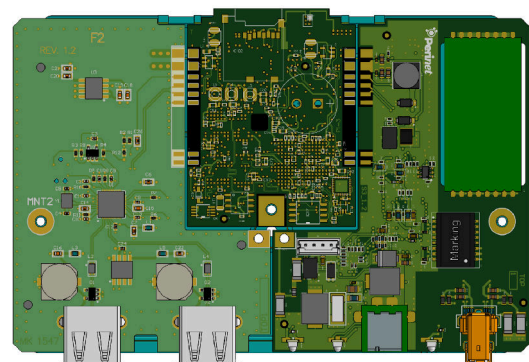
#### Supply Module

- 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)

## 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