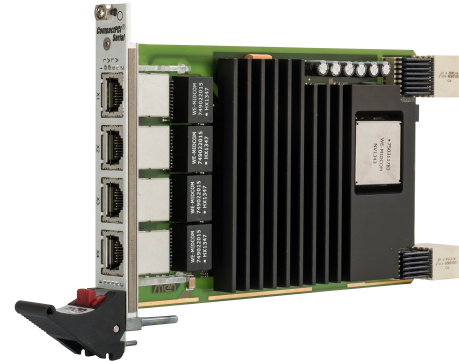


G304

Unmanaged 4-Port Industrial Ethernet Switch with PoE+ 3U CompactPCI Serial

- » Unmanaged 4-port rugged Ethernet switch
- » 4 Gigabit Ethernet on RJ45 or M12 X-coded
- » Power over Ethernet (PoE+) PSE (all ports)
- » LEDs for link and activity status
- » 1 Gigabit Ethernet on rear I/O (optional)
- » -40 °C to +85 °C
- » EN 50155 (rolling stock)
- » PICMG CPCI-S.0 CompactPCI Serial



Unmanaged Industrial Ethernet Switch

The G304 is an unmanaged 3U Ethernet switch implemented as a CompactPCI Serial board. It occupies one peripheral slot, using a 4 HP front panel with 4 Gigabit Ethernet ports on RJ45 or X-coded M12 connectors, and one direct Ethernet connection to the CPU card using PCI Express on P1. A P6 connector can optionally extend the number of Ethernet channels available on the board to six.

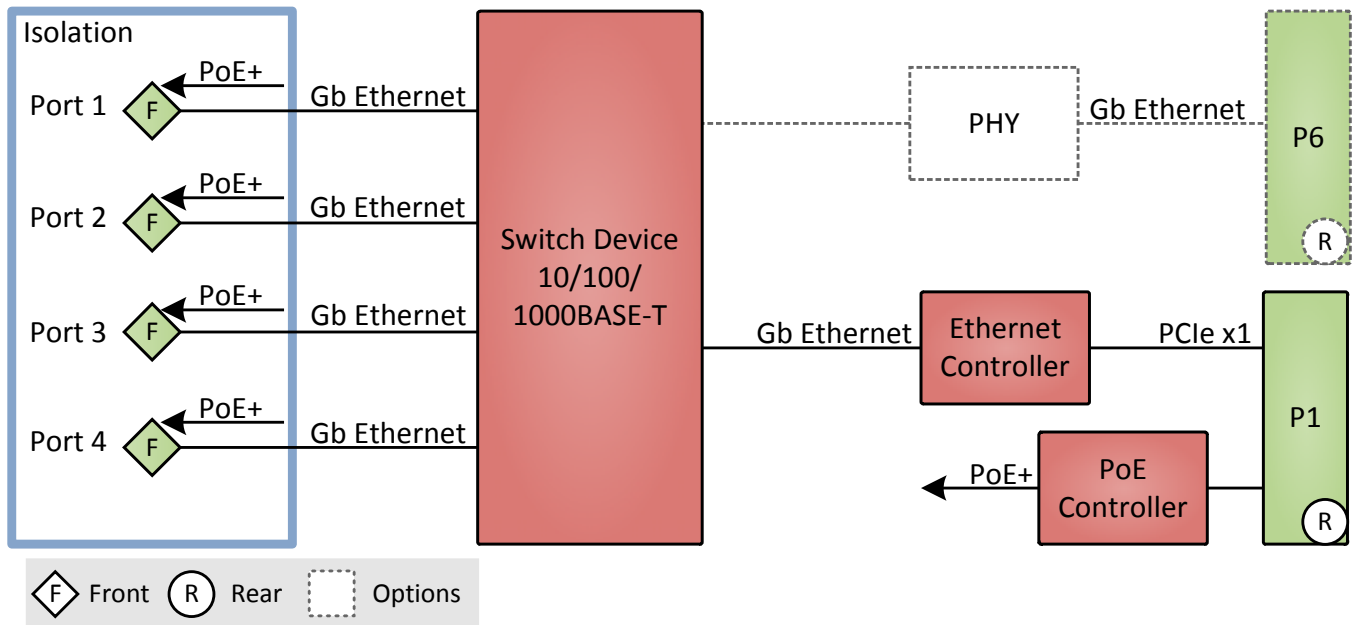
Reliable Communication System Component

The G304 supports full-duplex and half-duplex operation with auto-negotiation, high-speed nonblocking store-and-forward switching. Its built-in test mechanisms make the G304 an even more reliable component in the communication system.

In addition, the switch can act as Power over Ethernet Plus (PoE+) Power Sourcing Equipment (PSE), supplying other devices on all ports with up to 30 W (class 0, 1, 2, 3, 4) per port for power according to IEEE 802.3 Section 2 - Type 1 and 2 (formerly known as IEEE 802.3at). The maximum power available for one G304 is limited to 61.6 W, according to CPCI-S.0 specification.

Compliant to Railway Standards

The board is specifically designed for rugged mobile communication systems. It is, for example, compliant with the EN 50155 railway standard, supports a -40 °C to +85 °C operating temperature and rail-ready versions are coated.



Switch Key Features

- High-speed non-blocking, store-and-forward switching
- Port configuration: copper, 10/100 and 1000 Mbit/s
- Auto-negotiation / Auto MDI/MDIX crossover on all ports
- 8K MAC address lookup table with automatic learning and aging
- Port-based VLANs

Power Over Ethernet

- PSE (Power Sourcing Equipment)
- Supported standard: IEEE 802.3 Section 2, Type 1 and 2
- Supply classes: 0, 1, 2, 3, 4
- Number of powered devices: up to four (up to 61.6 W total)

Interfaces

- Ethernet
 - 4x 10/100/1000BASE-T, RJ45
 - 4x 10/100/1000BASE-T, M12, X-coded, receptacle
 - 1x 1000BASE-T, backplane, P1, uplink
 - 1x 10/100/1000BASE-T, backplane, P6 (optional)
- LED
 - Ethernet: link, activity

Product Standard

- Compliance with CompactPCI Serial PICMG CPCI-S.0 Specification
- Peripheral slot
- Host connection:
 - One PCI Express x1 link, PCIe 1.x
 - Used as Ethernet switch uplink

Electrical Specifications

- Supply voltage: +12 V (9.5 V to 15.5 V)
- Power consumption
 - 7 W approx. (without PoE)
 - 85 W max. (with PoE)
- Isolation voltage: 500 V

Mechanical Specifications

- Dimensions: 3U, 4 HP
- Weight: 348 g (with M12 connectors)
- Cooling
 - Air cooling, forced convection, airflow 1.0 m/s

Environmental Specifications

- Temperature range (operation)
 - -40 °C to +85 °C
- Temperature range (storage): -40 °C to +85 °C
- Relative humidity (operation): max. 95% non-condensing
- Relative humidity (storage): max. 95% non-condensing
- Altitude: -300 m to +3000 m
- Climatic tests according to EN 68068
- Shock: EN 61373
- Vibration: EN 61373

Reliability

- MTBF: 1 040 974 h @ 40°C according to IEC/TR 62380 (RDF 2000)

Safety

- Flammability (PCBs): UL 94 V-0

EMC

- EN 55022 (radio disturbance)
- IEC 61000-4-2 (ESD)
- IEC 61000-4-4 (burst)

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