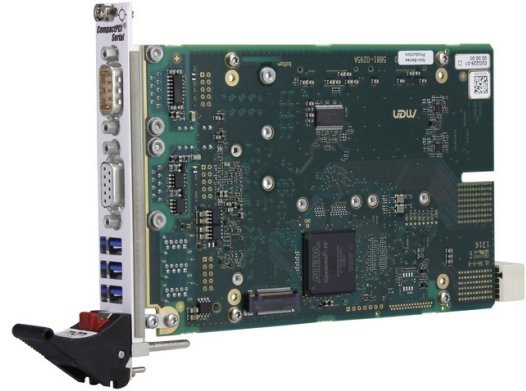


# G229

## Serial I/O Expansion Board 3U CompactPCI Serial

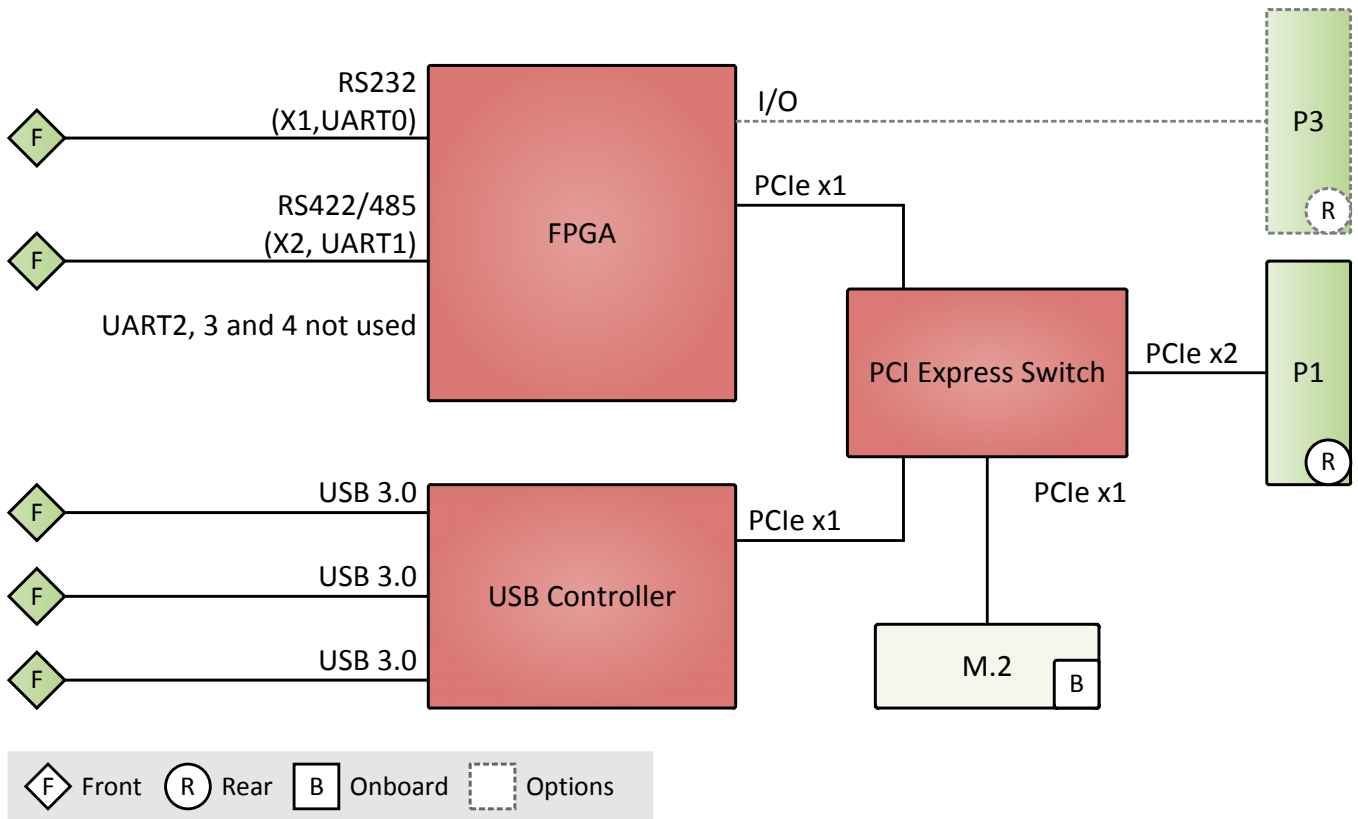
- » Three USB 3.0 interfaces
- » One RS232 interface
- » One RS422/485 interface
- » One M.2 SSD slot
- » -40 to +85°C screened
- » Compliant with EN 50155 (railways)
- » PICMG CPCI-S.0 CompactPCI Serial peripheral card



The MEN G229 is an I/O expansion board for CompactPCI Serial for adding often required functions to a CPU board on a single slot. It can be used, e.g., as a main boot device for a server CPU.

The board is designed and tested for the railway and industrial market. It provides 3 USB 3.0 ports and isolated RS232 and RS422/485 interfaces, for either service or continuous operation in a railway or industrial environment.

For data storage or as a boot medium a m.2 slot supporting NVMe is provided on the board. It provides a fast boot time as it is connected via a PCI Express x1 link. The G229 is a low-power solution for the extended temperature range.



## Diagram

**Front Interfaces**

- USB
  - Three Series A connectors, USB 3.0
- RS232
  - D-Sub connector at front panel
  - Handshake lines: RTS, CTS
- RS422/485
  - D-Sub connector at front panel
  - Full duplex

**Mass Storage**

- m.2 slot for NVMe

**Backplane Standard**

- Compliance with CompactPCI Serial PICMG CPCI-S.0 Specification
- Peripheral slot
- Host interface:
  - One PCI Express x2 link, PCIe 2.x

**Electrical Specifications**

- Supply voltage
  - +12 V (-5%/+5%)
- Power consumption
  - 4.91 A max.
  - 2.79 A typ.

**Mechanical Specifications**

- Dimensions
  - 3U, 4 HP
  - Only slim guide rails can be used in Heitec housings (included in delivery)
- Weight
  - 178 g (model 02G229-01)

**Environmental Specifications**

- Temperature range (operation)
  - -40°C to +70°C (screened)
  - Airflow: min. 1.5 m/s
- Temperature range (storage): -40°C to +85°C
- Cooling concept
  - Air-cooled
  - Conduction-cooled in MEN CCA frame
- Humidity: EN 60068-2-30, EN 50155
- Altitude: -300 m to +3000 m
- Shock: EN 50155
- Vibration: EN 50155
- Conformal coating

**Reliability**

- MTBF: 630 662 h @ 40°C according to IEC/TR 62380 (RDF 2000)

**Safety**

- Electrical Safety
  - EN 62368-1 (former EN 60950-1)
  - EN 50153
- Flammability
  - UL 94V-0

**EMC**

- EMC Radiated Emission: EN 55022, EN 50121-3-2 class B
- EMC Conducted Emission: EN 55022, EN 50121-3-2 class B
- EMC Immunity: EN 55024, EN 50121-3-2

## **Software Support**

- Windows
- Linux
- For more information on supported operating system versions and drivers see Software.

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**Up-to-date information, documentation and ordering information:**  
[www.men.de/products/g229/](http://www.men.de/products/g229/)

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