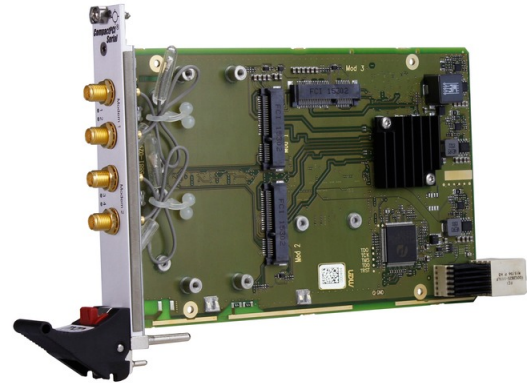


# G227

## PCIe Mini Card Carrier for Wireless Functions 3U CompactPCI Serial

- » 2 PCI Express Mini Card slots for LTE, UMTS, GSM, HSPA communication
- » 2 external antennas per module (reverse SMA)
- » 1 PCI Express Mini Card slot for WLAN, GPS, virtual SIM card, audio codec
- » 1 external antenna optional
- » 10 microSIM card slots
- » Software tool for switching SIM cards and remote power up/down of modems
- » -40°C to +85°C screened, conformal coating
- » PICMG CPCI-S.0 CompactPCI Serial peripheral card



The G227 is a rugged single slot CompactPCI Serial carrier board for up to three PCI Express Mini Cards. Two PCI Express Mini Card slots are by default equipped with two RP-SMA antenna connectors / cables each. Other types of antenna connectors are available on request. These slots can be used for UMTS, GSM, HSPA, LTE modems.

### Fields of Application

The G227 provides connectivity solutions to cellular networks by adding LTE, UMTS, GSM or other types of wireless modems.

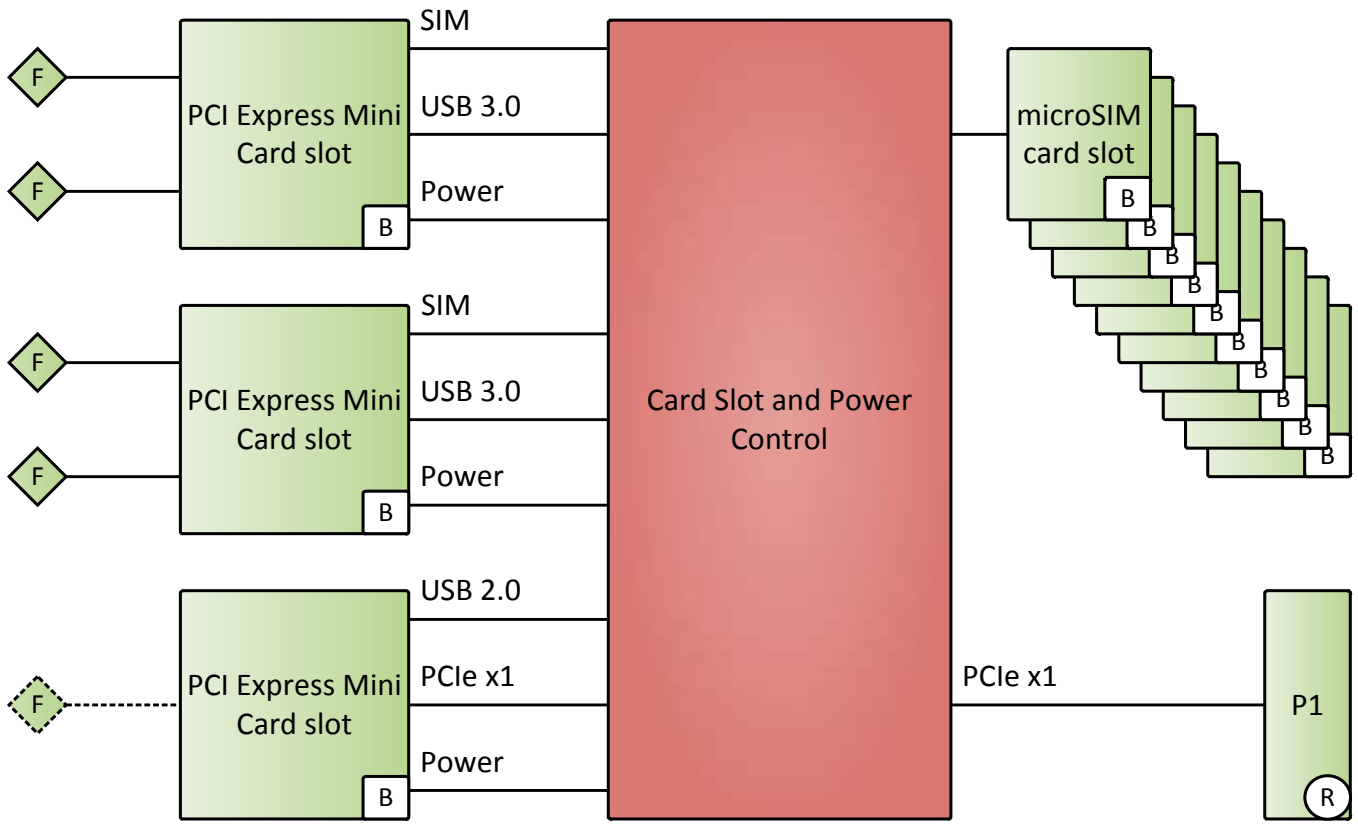
It is intended for use in various train connectivity applications including onboard WLAN, passenger infotainment and fleet management systems. In the train communication system architecture, the G227 is typically located at the front end where it communicates directly with a cellular network. To optimize the connection and network coverage, the G227 features ten microSIM card slots.

### Software

MEN provides a user friendly software tool designed for interacting with the G227. The user is able to remotely control which microSIM cards are connected to the modems. Remote power reset is also possible for each modem and the third optional PCI Express Mini Card module.

### Suited for harsh and mobile environments

The G227 is designed for -40 to +85°C operating temperature and conformal coated in order to be used also in harsh and mobile environments. The final environmental qualification depends on the respective PCI Express Mini Cards used with the carrier.



**Diagram**



**Card Interfaces**

- Two PCI Express Mini Card slots (only full size)
  - USB 3.0 interface
  - For UMTS, GSM, HSPA, LTE functionality
- One PCI Express Mini Card slot (only full size)
  - USB 2.0 interface
  - PCI Express interface
  - For WLAN, GPS, GLONASS, audio, virtual SIM functionality
- 10 microSIM card holders
- Individual reset and power on/off for each PCI Express Mini Card
  - Via software
- Please note that MEN does not offer SIM cards or mobile telephony contracts!

**Front Interfaces**

- Four Reverse SMA antenna connectors or
- Five Reverse SMA antenna connectors (on request)
- Other types of antenna connectors (on request)
- Four HF cables
- One power LED and one user LED for each PCI Express Mini card

**Backplane Standard**

- Compliance with CompactPCI Serial PICMG CPCI-S.0 Specification
- Peripheral slot
- Host connection: one PCI Express x1 link

**Electrical Specifications**

- Supply voltage:
  - +12 V (-5%/+5%)
- Power consumption:
  - Depending on plugged PCI Express Mini card
  - 2.5 W without PCIe Express Mini cards

**Mechanical Specifications**

- Dimensions:
  - 3U, 4 HP
- Weight: 172 g (without cards)

**Environmental Specifications**

- Temperature range (operation):
  - -40°C to +85°C (screened, only carrier, depending on configuration)
  - Airflow: min. 1.5 m/s
- Temperature range (storage): -40°C to +85°C
- Humidity (operation): EN 60068-2-30, EN 50155
- Shock: EN 50155
- Vibration: EN 50155
- Conformal coating

**MTBF**

- MTBF: 1 722 735 h @ 40°C according to IEC/TR 62380 (RDF 2000)

**Safety**

- Electrical Safety
  - EN 50155
  - EN 50153
- Flammability (PCBs)
  - UL 94 V-0
- Fire Protection
  - EN 45545-2

**EMC**

- Radiated Emission: EN 50121-3-2
- Immunity: 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/g227/](http://www.men.de/products/g227/)

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