G212 – 3U CompactPCI® Serial PCIe® Mini Card Carrier for Wireless Functions

- **Up to 2 PCI Express® Mini Cards (full-size)**
- **ExpressCard®/34 or 54 modules optional**
- **For cards with internal PCIe® and USB interface**
- **For HF applications (WLAN, UMTS, GPS, GSM, HSDPA)**
- **-40 to +85°C screened**
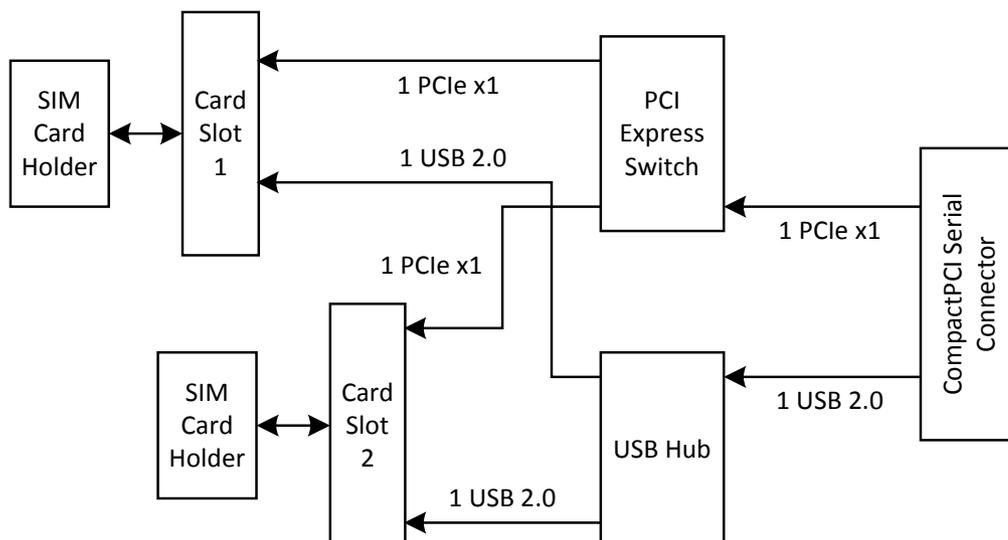- **PICMG CPCI-S.0 CompactPCI® Serial peripheral card**

The G212 is a rugged single Eurocard CompactPCI® Serial carrier board supporting the PCI Express® Mini Card standard or, as an option, the ExpressCard® standard. ExpressCard® is the successor of the CardBus standard and offers different construction sizes as well as connection via PCI Express® or USB 2.0.
The standard version of the G212 offers two PCI Express® Mini Card slots. It allows to use all types of cards for HF applications, for example GPS, WLAN, UMTS, GSM, or HSDPA. Each card is connected to two robust redundant external SMA antenna connectors at the front panel of the G212.
Using these standard cards that give access to the whole world of common notebook PC expansions is a fast and easy way to extend the functionality of a CompactPCI® Serial system as well.
The G212 is designed for -40 to +85°C operating temperature and prepared for conformal coating in order to be used also in harsh and mobile environments. The final environmental qualification depends on the respective cards used on the carrier.

Diagram

Technical Data

Card Interfaces	■ Two PCI Express® Mini Cards (only full size) or ■ Two ExpressCard®/34 modules ■ One ExpressCard®/54 module ■ SIM card holder ■ USB and PCI Express® interface ■ Please note that MEN does not offer SIM cards or mobile telephony contracts!
Front Connections	■ Four Reverse SMA antenna connectors

CompactPCI® Serial	■ Compliance with CompactPCI® Serial PICMG CPCI-S.0 Specification
	■ Peripheral slot
	■ Host interface: one PCI Express® x1 link and a differential pair of USB lines
	  □ PCIe® 1.1: Data rate up to 250 MB/s in each direction (2.5 Gbit/s per lane)
	  □ USB 2.0: Data rate up to 480 Mbit/s

Electrical Specifications	■ Supply voltage/power consumption: □ +12V (-10%/+10%), depending on plugged card, 0.1A max. w/o card
Mechanical Specifications	■ Dimensions: conforming to CompactPCI® Serial specification for 3U boards ■ Front panel: 4HP or 8HP with ejector ■ Weight: 134g (without cards)

Environmental Specifications	■ Temperature range (operation):
	  □ -40..+85°C (screened, only carrier, depending on configuration)
	  □ Airflow: min. 1.0 m/s
	■ Temperature range (storage): -40..+85°C
	■ Relative humidity (operation): max. 95% non-condensing
	■ Relative humidity (storage): max. 95% non-condensing
	■ Altitude: -300m to + 3,000m
	■ Shock: 15g/11ms
	■ Bump: 10g/16ms
	■ Vibration (sinusoidal): 1g/10..150Hz
	■ Conformal coating on request

MTBF	■ MTBF: 2,534,034h @ 40°C according to IEC/TR 62380 (RDF 2000)
Safety	■ PCB manufactured with a flammability rating of 94V-0 by UL recognized manufacturers
EMC	■ Conforming to EN 55022 (radio disturbance), IEC1000-4-2 (ESD) and IEC1000-4-4 (burst)
Software Support	■ PCIe® Mini Card and ExpressCard® drivers as supported

Configuration & Options

Standard Configurations

Article No.	Card Slots	Front Panel	Operation Temperature
02G212-00	2 PCIe MiniCards	4 SMA connectors	-40..+85°C

Options

Card Slots	■ Two PCI Express® Mini Cards ■ Two ExpressCard®/34 modules ■ One ExpressCard®/54 module
I/O	■ 4 USB interfaces at the front
Cooling Concept	■ Also available with conduction cooling in MEN CCA frame

Please note that some of these options may only be available for large volumes. Please ask our sales staff for more information.

Ordering Information

Standard G212 Models	**02G212-00**	2 PCI Express® Mini Card slots (USB and PCIe®), -40..+85°C screened
Related Hardware	**15PX01-00**	GLONASS & GPS PCI Express® MiniCard (full size), 3-axis Gyro sensor, -40..+85°C with qualified components
Documentation	Compare Chart 3U CompactPCI® Serial CPU and I/O cards » Download	
	Compare Chart 3U CompactPCI® / PlusIO CPU cards » Download	
	20G212-00	G212 User Manual

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