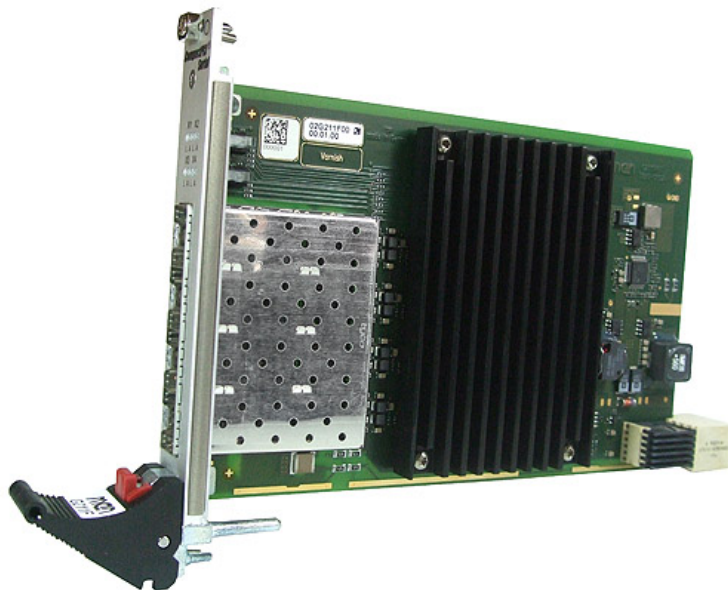


G211F – 3U CompactPCI® Serial Quad Fiber Optics Interface

- **Four optical transceiver channels
1000BASE-SX**
- **Alternatively two redundant channel pairs**
- **Full-duplex or half-duplex depending on
transceiver**
- **Fully integrated to comply with IEEE802.3x**
- **500 V isolation voltage**
- **-40 to +85°C screened (without
transceivers)**
- **4HP PICMG CPCI-S.0 CompactPCI® Serial
peripheral card**

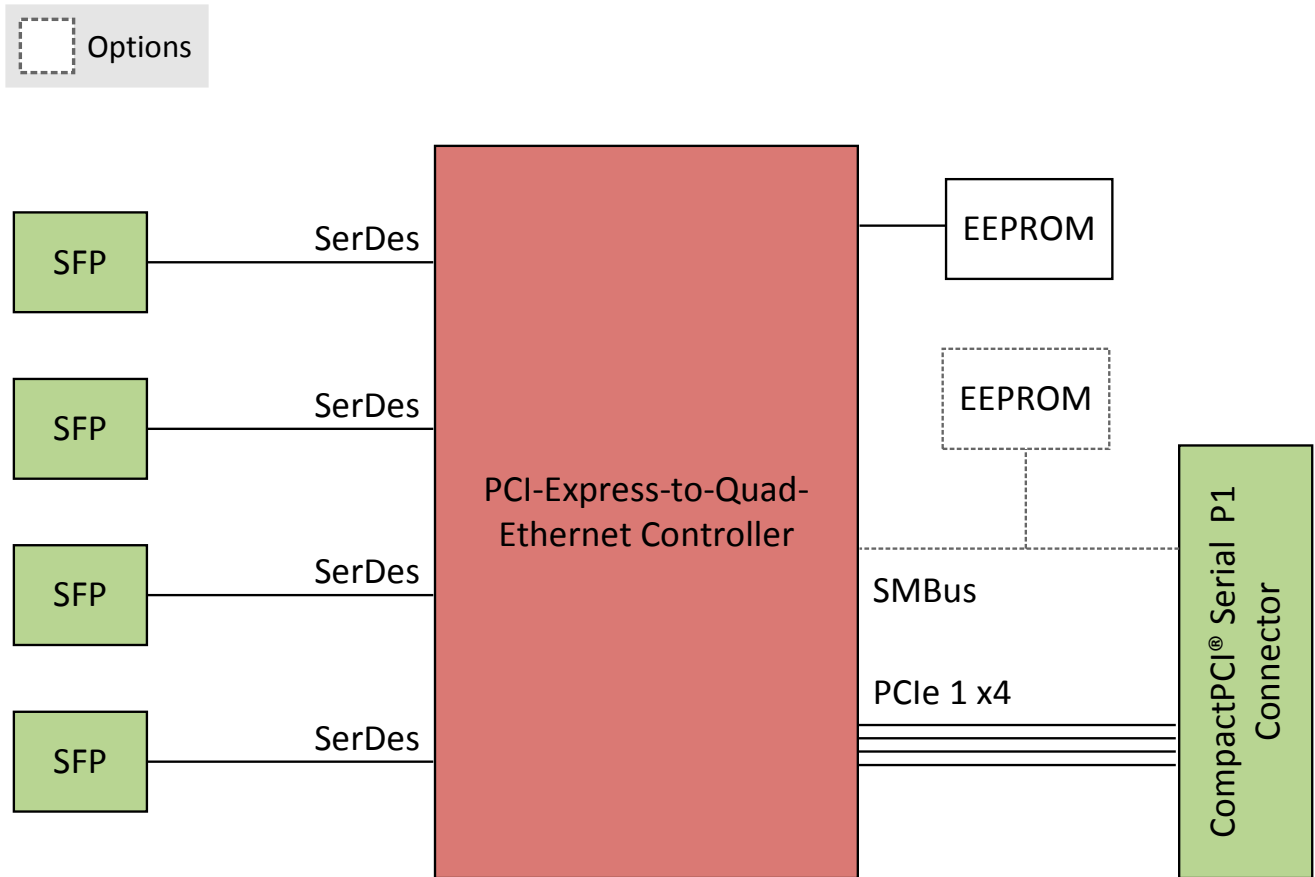


The G211F is a rugged 3U CompactPCI® Serial peripheral board. It offers the possibility to implement four optical fiber Ethernet interfaces. The board is equipped with a cage for connection of four SFP transceivers. The cage hosts the optical adapter. The cables are connected to the adapter module. MEN offers an optical transceiver with LC-Duplex connectors as an accessory.

All four interfaces are controlled by one Ethernet controller which is connected to the backplane via a x4 PCI Express® link and supports the IEEE 802.3x standard. Each interface supports a data transfer rate of 1000 Mbit/s if all interfaces are used simultaneously. Two LEDs show the link and activity status of every interface.

The G211F can be used in combination with a CompactPCI® Serial or CompactPCI® PlusIO CPU board in a CompactPCI® Serial or hybrid system. It is screened for extended operating temperature and prepared for conformal coating for use in harsh and mobile environments.

Diagram



Technical Data

| | |
|-------------------------------------|--|
| Ethernet Interfaces | <ul style="list-style-type: none"> ■ Four 1000Base-SX interfaces ■ IEEE802.3x support <ul style="list-style-type: none"> □ Full-duplex flow control □ 1 Gbit/s data transfer rate for each interface when all 4 interfaces are used simultaneously ■ 4x2 status LEDs to signal link status and activity |
| Front Connections | <ul style="list-style-type: none"> ■ Four SFP slots |
| CompactPCI® Serial | <ul style="list-style-type: none"> ■ Compliance with CompactPCI® Serial PICMG CPCI-S.0 Specification ■ Peripheral slot ■ Host interface: One PCI Express® x4 link <ul style="list-style-type: none"> □ PCIe® 2.0 support □ Data rate up to 2 GB/s in each direction (5 Gbit/s per lane) |
| Electrical Specifications | <ul style="list-style-type: none"> ■ Isolation voltage: 500V between Ethernet links and between Ethernet links and shield or ground ■ Supply voltage/power consumption: <ul style="list-style-type: none"> □ +12V (-5%/+5%), 3.65 W typ./ 8 W max. |
| Mechanical Specifications | <ul style="list-style-type: none"> ■ Dimensions: conforming to CompactPCI® Serial specification for 3U boards ■ Weight: 216 g (with heat sink) |
| Environmental Specifications | <ul style="list-style-type: none"> ■ Temperature range (operation): <ul style="list-style-type: none"> □ -40..+85°C (screened) □ 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: -300 m to + 3,000 m ■ Shock: 50 m/s², 30 ms ■ Vibration (Function): 1 m/s², 5 Hz - 150 Hz ■ Vibration (Lifetime): 7.9 m/s², 5 Hz - 150 Hz ■ Conformal coating on request |
| MTBF | <ul style="list-style-type: none"> ■ MTBF: 311,742h @ 40°C according to IEC/TR 62380 (RDF 2000) |
| Safety | <ul style="list-style-type: none"> ■ PCB manufactured with a flammability rating of 94V-0 by UL recognized manufacturers |
| EMC | <ul style="list-style-type: none"> ■ Tested according to EN 55022 (radio disturbance), EN 61000-4-2 (ESD) and EN 61000-4-3 (HF irradiation) |
| Software Support | <ul style="list-style-type: none"> ■ Windows® ■ Linux |

Configuration & Options

Standard Configurations

| Article No. | Channels | Connectors | Front Panel | Operating Temperature |
|-------------|----------|-------------------------------|-------------|-----------------------|
| 02G211F00 | 4 | Quadruple card cage for 4 SFP | 4HP | -40..+85°C screened |

Options

| | |
|------------------------|--|
| Ethernet | <ul style="list-style-type: none"> ■ Two single SFP cages (ruggedized) on 8HP ■ Four single SFP cages (ruggedized) on 16HP |
| Cooling Concept | <ul style="list-style-type: none"> ■ 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 G211F Models | 02G211F00 | 4-channel 1000Base-SX Ethernet SerDes, 4 SFP slots, -40..+85°C screened |
| Miscellaneous Accessories | 05G211F00 | SFP optical transceiver for Gigabit Ethernet (1.25Gbd), 1000BASE-SX, -40..+85°C |
| Software: Linux | This product is designed to work under Linux. See below for all available separate software packages. | |
| | 13T001-90 | Linux network driver (MEN) for G211, G211F, GM1, GM2 and GM3 |
| Software: Windows® | This product is designed to work under Windows®. See below for all available separate software packages. | |
| | 13T010-70 | Windows® 32-bit network driver (Intel®) for XM1, XM1L, XM2, MM2, CB70C, F11S, F18, F18E, F19P, F21P, F22P, G20, G22, GM1, GM2, GM3, G211, G211F, SC24, BC50I, BC50M, BL50W, BL50S, BL70W and BL70S |
| | 13T020-70 | Windows® 64-bit network driver (Intel®) for F18, F18E, F19P, F21P, F22P, G20, G22, GM1, GM2, GM3, G211, G211F, XM2, CB70C, SC24, BC50I, BC50M, BL50W, BL50S, BL70W and BL70S |

For operating systems not mentioned here [contact MEN sales](#).

| | | |
|----------------------|--|-------------------|
| Documentation | Compare Chart 3U CompactPCI® Serial CPU and I/O cards » Download | |
| | Compare Chart 3U CompactPCI® / PlusIO CPU cards » Download | |
| | 20G211F00 | G211F User Manual |
| | 20G211FER | G211F Errata |

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