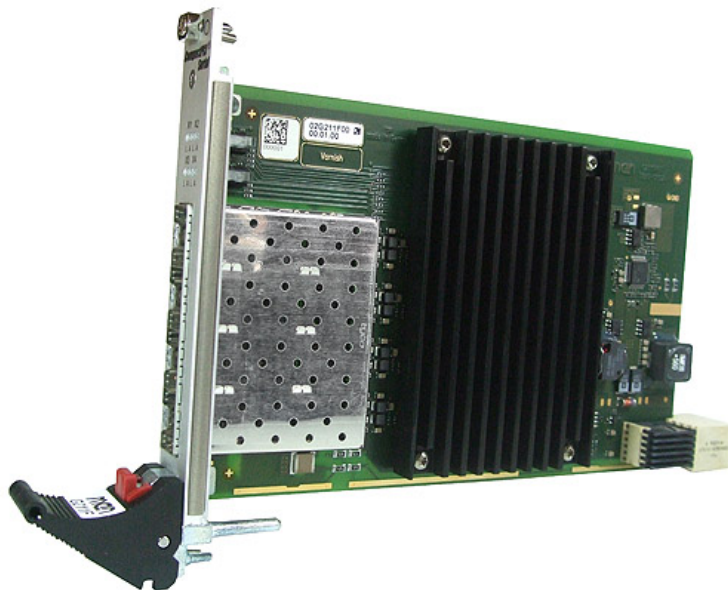


G211F – 3U CompactPCI® Serial Quad Fiber Optics Interface

- **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**

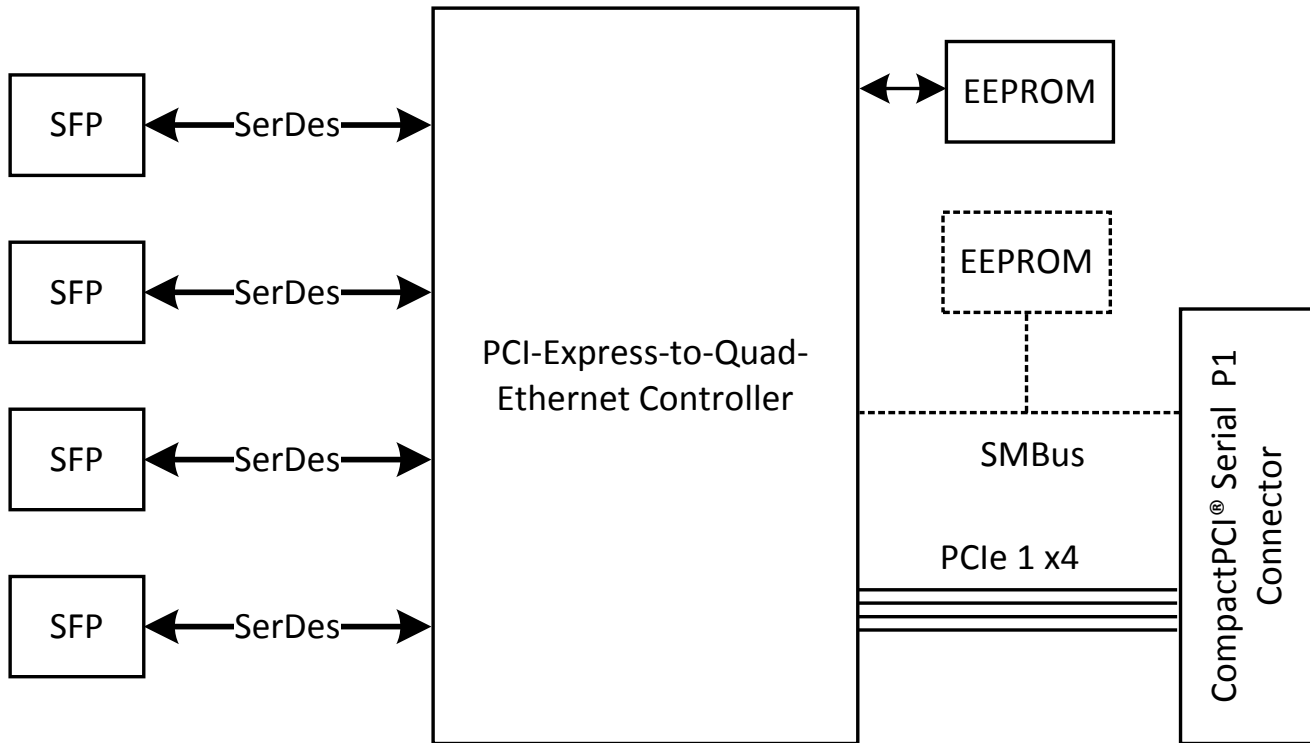


The G211F is a rugged 3U CompactPCI® Serial peripheral board. It offers the possibility to implement four optical fiber Ethernet interfaces. The board is equipped with a cage for connection of four SFP transceivers. The cage hosts the optical adapter. The cables are connected to the adapter module. MEN 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 potentially available separate software packages from MEN.	
	13T001-90	Linux network driver (MEN) for G211, G211F, GM1 and GM2
Software: Windows®	This product is designed to work under Windows®. See below for potentially available separate software packages from MEN.	
	13T010-70	Windows® 32-bit network driver (Intel®) for XM1, XM1L, XM2, MM2, F11S, F18, F18E, F19P, F21P, F22P, G20, G22, GM1, GM2, G211, G211F, SC24, BC50I, BC50M and BL50W
	13T020-70	Windows® 64-bit network driver (Intel®) for F18, F18E, F19P, F21P, F22P, G20, G22, GM1, GM2, G211, G211F, XM2, SC24, BC50I, BC50M and BL50W

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

Contact Information

Germany

MEN Mikro Elektronik GmbH
Neuwieder Straße 3-7
90411 Nuremberg
Phone +49-911-99 33 5-0
Fax +49-911-99 33 5-901

info@men.de
www.men.de

France

MEN Mikro Elektronik SA
18, rue René Cassin
ZA de la Châtelaine
74240 Gaillard
Phone +33 (0) 450-955-312
Fax +33 (0) 450-955-211

info@men-france.fr
www.men-france.fr

USA

MEN Micro Inc.
860 Penllyn Blue Bell Pike
Blue Bell, PA 19422
Phone (215) 542-9575
Fax (215) 542-9577

sales@menmicro.com
www.menmicro.com

The date of issue stated in this data sheet refers to the Technical Data only. Changes in ordering information given herein do not affect the date of issue. All brand or product names are trademarks or registered trademarks of their respective holders.

MEN is not responsible for the results of any actions taken on the basis of information in the publication, nor for any error in or omission from the publication.

MEN expressly disclaims all and any liability and responsibility to any person, whether a reader of the publication or not, in respect of anything, and of the consequences of anything, done or omitted to be done by any such person in reliance, whether wholly or partially, on the whole or any part of the contents of the publication.

The correct function of MEN products in mission-critical and life-critical applications is limited to the environmental specification given for each product in the technical user manual. The correct function of MEN products under extended environmental conditions is limited to the individual requirement specification and subsequent validation documents for each product for the applicable use case and has to be agreed upon in writing by MEN and the customer. Should the customer purchase or use MEN products for any unintended or unauthorized application, the customer shall indemnify and hold MEN and its officers, employees, subsidiaries, affiliates, and distributors harmless against all claims, costs, damages, and expenses, and reasonable attorney fees arising out of, directly or indirectly, any claim or personal injury or death associated with such unintended or unauthorized use, even if such claim alleges that MEN was negligent regarding the design or manufacture of the part.

In no case is MEN liable for the correct function of the technical installation where MEN products are a part of.

Copyright © 2013 MEN Mikro Elektronik GmbH. All rights reserved.