F608 – 3U CompactPCI[®] Side Card for RAID Systems

- 4/8 HP extension for 3U Intel[®] SBCs F14, F15, F17, F18, F19P, F21P
- 4 SATA ports via J2 rear I/O
- RAID 0, 1 and 5 support
- CompactPCI[®] PlusIO compliant
- 1 SATA hard-disk slot 2.5" on board
- 2 COMs via SA-Adapters[™]
- Optical isolation depending on SA-Adapter[™]
- Two optical Gigabit Ethernet interfaces via SFP as an option

The F608 is a 4HP SATA extension card for 3U Intel[®] based CompactPCI[®] single-board computers. It can be used in combination with the F14 and compatible CPU boards.

It offers four SATA interfaces over a SATA port multiplier via PCI Express[®] as well as one SATA slot on-board (from the chipset). Two individually configurable UARTs are accessible via D-Sub connector at the front. Two



USB and two PCI Express[®] links are available via rear I/O. As an option, the F608 also offers the possibility to realize two optical Ethernet interfaces via SFP.

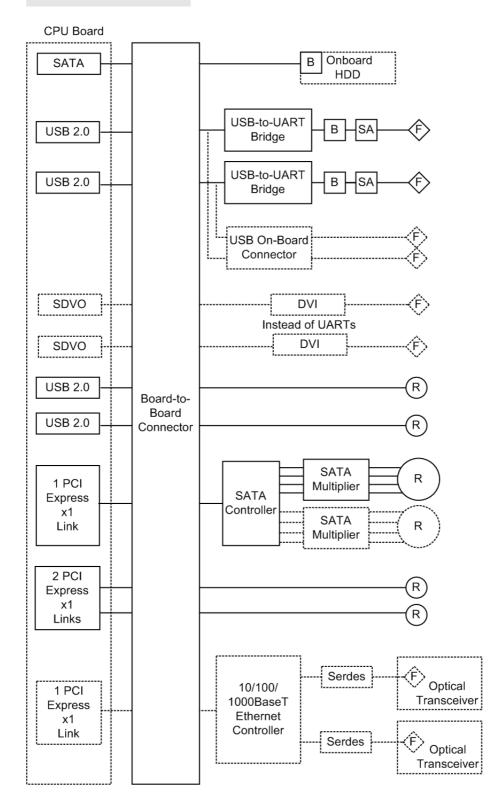
The F608 is directly plugged to the right side of the respective singleboard computer. A robust connector makes for high mechanical stability. It is delivered with an 8HP front panel, replacing the 4HP front panel of a 3U single-board computer and thus resulting in a solid onepiece front panel. The operating temperature range is 0..60°C.



Embedded Solutions for Transportation and Industrial Markets

Diagram





Technical Data

Mass Storage	 One serial ATA (SATA) port for onboard 2.5" hard-disk drive Transfer rates up to 150MB/s (depends on hard disk) RAID level 0/1 support (depends on CPU board) Four serial ATA (SATA) ports via rear I/O Onboard SATA controller via one PCI Express[®] lane from the chipset Port multiplier Transfer rates up to 150MB/s RAID level 0/1/5 support 			
UART	 Two at front panel Physical interface using SA-Adapter[™] via 10-pin connector RS232RS422, isolated or not Only full duplex operation for RS422 Data rates up to 230.4kbit/s FIFO receive and transmit buffers for high data throughput Handshake lines: full support; lines depend on SA-Adapters[™] 			
USB	 Two 2.0 host ports via rear I/O Data rates up to 480Mbit/s 			
PCI Express®	 Two x1 links via rear I/O Data rate 250MB/s in each direction (2.5 Gbit/s per lane) 			
Miscellaneous	 CompactPCI® J1 is assembled for increased mechanical stability and/or for power supply CompactPCI® J2 is used for rear I/O 			
Electrical Specifications	 Supply voltage/power consumption: +5V (-3%/+5%), 3.8A +3.3V (-3%/+5%),0.8A 			
Mechanical Specifications	 Dimensions: conforming to CompactPCI[®] specification for 3U boards Mountable on right side of the CPU Weight: 150g (w/o hard disk and SA-Adapters[™]) 			
Environmental Specifications	 Temperature range (operation): 0+60°C Airflow: 1.0m/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/10150Hz Conformal coating on request 			
MTBF	1,944,987h @ 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	Driver software can be found in the data sheet of the CPU board that you use.			

Configuration & Options

Standard Configurations

Article No.	Interfaces Rear	Interfaces Front	On-Board	Height	Position	Operation Temperature
02F608-00	4 SATA	2 COM	SATA HD slot	4 HP	right of CPU	0+60°C
Options						
Mass Storage		Eight SATA ports via rear I/O (not compliant to PICMG 2.30 PlusIO)				
I/O		 Two USB on 4HP front Two DVI on 4HP front instead of UARTs Two DVI and two USB on 8HP front Two DVI and two UARTS on 8HP front Two SFP slots on 12HP front For optical 1000Base-LX or 1000Base-SX or copper Gigabit Ethernet interfaces SFP not included Two SFP slots, two DVI and two UARTs on 16HP front 				
Mechanical	1	■ 4HP16HP				

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 F608 Models	02F608-00 4 SATA and 2 COM ports, additional SATA hard disk slot on-board, for F14 and compatible SBCs, mounted to the right of the SBC, 0+60°C					
SA-Adapters™	You can find a more detailed overview of possible carrier board/SA-Adapter™ combinations along with software support in our option matrix (PDF).					
	08SA01-00	RS232, not optically isolated, 0+60°C				
	08SA02-01	RS422/485, full duplex, optically isolated, 0+60°C				
	08SA02-07	RS422/485, full duplex, optically isolated, -40+85°C screened				
	08SA03-00	1 RS232, optically isolated, 0+60°C				
	08SA03-01	1 RS232, optically isolated, -40+85°C screened				
	08SA22-00	IBIS master SA-Adapter™, -40+85°C screened				
	085A22-01	IBIS slave SA-Adapter™, -40+85°C screened				
	08SA25-00	GPS receiver, isolated, -40+85°C screened				
	08SA26-00	RS422 with 15-pin D-Sub connector, with handshake signals (RTS, CTS, DCD, DTR), coated, -40+85°C screened				
Miscellaneous Accessories	0710-0038	HDD SATA 2.5", 100 GB, 1.5GB/s, 4200rpm, -10°+70°C				
Software: Linux	This product is designed to work under Linux. See below for potentially available separate software p from MEN.					
	For a Linux driver package supporting the Silicon Imaging Sil3132 SATA controller, please refer to Silicon Image's website.					
Software: Windows®	This product is designed to work under Windows [®] . See below for potentially available separate software packages from MEN.					
	For a Windows® driver package supporting the Silicon Imaging Sil3132 SATA controller, please refer to Silicon Image's website .					
For operating systems not mentioned here contact MEN sales.						
Documentation	Compare Chart 3U CompactPCI® / PlusIO CPU cards » Download					
	Compare Chart 3U CompactPCI® / PlusIO peripheral cards » Download					
	Compare Chart 3U CompactPCI® / PlusIO extension cards » Download					
	For more information on the interoperability of the side cards with the respective CPU boards please see the extension card compatibility matrix (PDF)					
	20F608-00	F608 User Manual				

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