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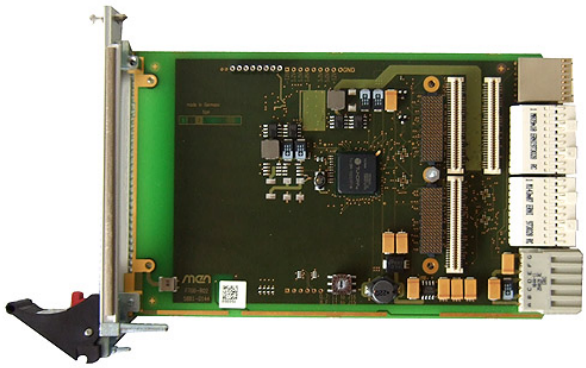
F700 - 3U CompactPCI® Express XMC/PMC Carrier



- **1 CompactPCI® Express bus slot**
- **1 XMC slot (2 PCI Express® links) or**
- **1 PMC slot (32-bit, 64-bit, PCI-X up to 133MHz)**

The F700 is a universal 3U XMC or PMC carrier board for I/O with high speed requirements in a CompactPCI® Express environment. It allows to add I/O functions to a CompactPCI® Express system in a flexible way. Combined with MEN's scalable Intel® Core™ (2) Duo / Pentium® M single-board computer family it can also be used in CompactPCI® / CompactPCI® Express hybrid systems.
The F700 offers instant access to the already existing high-speed XMC modules on the market as well as to the huge range of legacy PMC modules of all different speed types. It supports efficient modular system extension with I/O that reaches from typical computer functions like communication or graphics up to the whole world of industrial functions with analog and binary I/O, measurement, instrumentation, motion control, or fieldbus interfaces.

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Technical Data

XMC Slot
- Compliant with XMC standard VITA 42.3-2006
- Two configurations adjustable via hex switch
  - Two PCI Express® links with four lanes each on J15
  - Two PCI Express® links with eight lanes each on J15 and J16

PMC Slot
- Via PCI Express® to PCI-X Bridge
  - Support of PCI-X or PCI local bus specification 2.2
  - Support of one PCI Express® link with up to four lanes
- 32/64-bit, 33/66MHz
- PCI-X, 133MHz

CompactPCI® Express
- Compliance with CompactPCI® Express PICMG EXP.0 R1.0 Specification
- CompactPCI® Express connector XP1 for power supply
- CompactPCI® Express connectors XJ2 and XJ3 for two CompactPCI® Express links with one, four or eight lanes each
- CompactPCI® Express connector XJ4 for control signals and ground

Electrical Specifications
- Supply voltage/power consumption:
  - +12V (-5%/+5%) for XMC and PMC (from CompactPCI® Express backplane connector)
  - +5V (-5%/+5%) for PMC (from CompactPCI® Express backplane connector)
  - +3.3V (-5%/+5%) for XMC and PMC (from CompactPCI® Express backplane connector)
  - -12V (-10%/+10%), 100mA (generated onboard for XMC and PMC)
- MTBF: tbd @ 40°C according to IEC/TR 62380 (RDF 2000)

Mechanical Specifications
- Dimensions: standard single Eurocard
- Front panel: 4HP with ejector
- Weight: 152g

Environmental Specifications
- Temperature range (operation):
  - 0..+60°C
  - Airflow: min. 10m³/h
- 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): 2g/10..150Hz
- Conformal coating on request

Safety
- PCB manufactured with a flammability rating of 94V-0 by UL recognized manufacturers

EMC
- Tested according to EN 55022 (radio disturbance), IEC1000-4-2 (ESD) and IEC1000-4-4 (burst)

Software Support
- XMC and PMC drivers as supported
- For more information on supported operating system versions and drivers see Software.

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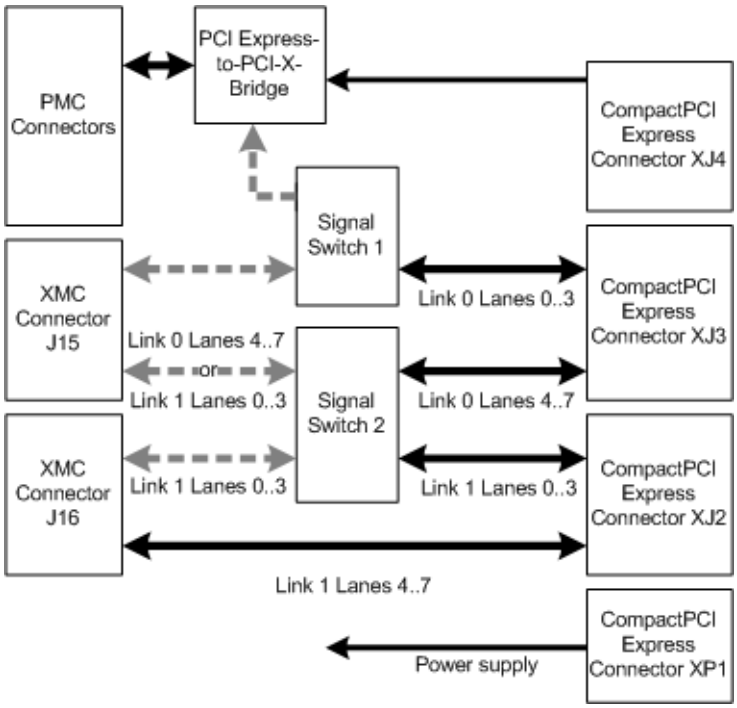
Diagram


PMC Connectors
PCI Express-to-PCI-X-Bridge
CompactPCI Express Connector XJ4
Signal Switch 1
XMC Connector J15
Link 0 Lanes 0..3
CompactPCI Express Connector XJ3
Link 0 Lanes 4..7
or
Link 1 Lanes 0..3
Signal Switch 2
Link 0 Lanes 4..7
XMC Connector J16
Link 1 Lanes 0..3
Link 1 Lanes 0..3
CompactPCI Express Connector XJ2
Link 1 Lanes 4..7
CompactPCI Express Connector XP1
Power supply

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Ordering Information

Standard Hardware

02F700-00 1 XMC or PMC slot, 0..+60°C

Documentation

20F700-00 F700 User Manual

For the most up-to-date ordering information and direct links to other data sheets and downloads, see the F700 online data sheet under » www.men.de.

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