

# F205 - 3U CompactPCI/PXI Carrier Board for M-Modules



- ◆ **1 CompactPCI bus slot**
- ◆ **1 PXI slot**
- ◆ **2 M-Module slots**
- ◆ **Flexible PXI trigger routing**

The F205 is a 3U M-Module carrier board for universal I/O on the CompactPCI bus as well as on PXI for automated testing requirements. It allows high flexibility in applications such as data acquisition or process control. The F205 supports all eight PXI trigger lines as defined in the PXI specification. The F205 is slightly higher than standard 3U format, providing enough space for two M-Modules while staying compatible with CompactPCI or PXI racks through

special guide rails already included in the delivery. M-Modules are screwed tightly on the board and require no separately mounted transition panel. The F205 offers developers instant access to more than 70 different M-Modules for I/O in fields such as process I/O, measurement, instrumentation, motion control, communication, and development.

## Technical Data

### CompactPCI Bus

- Compliance with CompactPCI Specification 2.0 R2.1
- Only one slot required on the 3U CompactPCI bus
- FPGA-based PCI-to-M-Module bridge
  - Target on PCI bus
  - Max. clock frequency 33MHz
- Compliance with PCI Specification 2.2
- 32-bit PCI data bus
- V(I/O): +5V (+3.3V on request)

### M-Modules

- F204: one M-Module slot on the board
- F205: two M-Module slots on the board
- M-Module compliance: D08, D16, A08, INTA, TRIG1, TRIGO

### PXI

- Eight trigger lines compliant with PXI Specification
- Routing of PXI trigger lines to M-Module interface TRIGA, TRIGB

### Peripheral Connections

- Via front panel

### Electrical Specifications

- Supply voltage/power consumption:
  - +5V (4.85V..5.25V), 20mA typ.
  - +3.3V (3.0V..3.6V), 20mA typ.
- MTBF: tbd. @ 50°C

### Mechanical Specifications

- F204:
  - Dimensions: conforming to CompactPCI specification for 3U boards
  - Front panel: aluminum with 1 handle, cut-out for front connector of M-Module
  - Weight: tbd. (without M-Modules)
- F205:
  - Dimensions: 111.7mm x 160mm standard
  - Front panel: aluminum without handles, cut-outs for front connectors of 2 M-Modules
  - Weight: tbd. (without M-Modules)

### Environmental Specifications

- Temperature range (operation):
  - 0..+60°C or -40..+85°C
  - Airflow: min. 10m<sup>3</sup>/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

### Safety

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

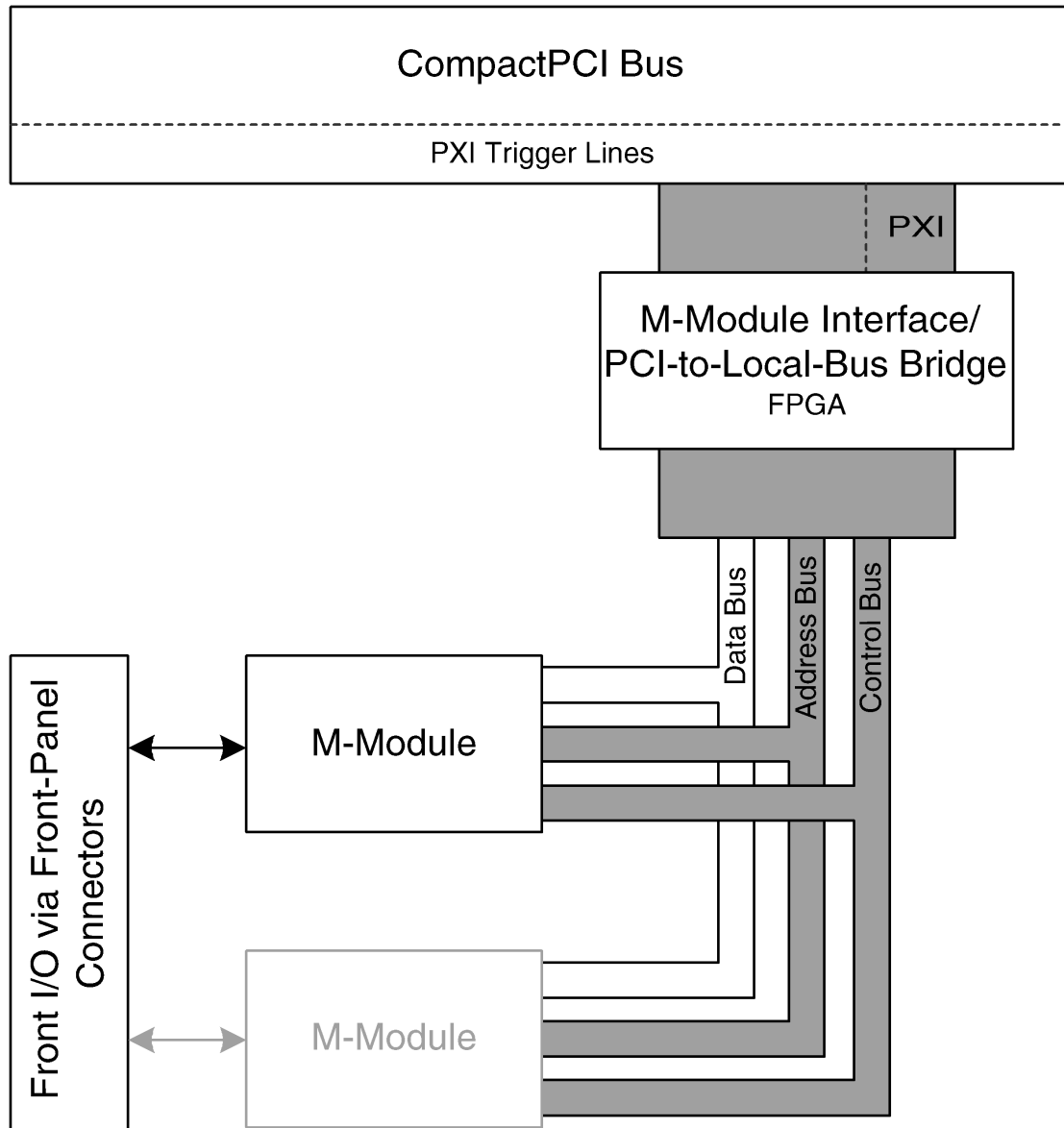
### EMC

- Tested according to EN 55022 (radio disturbance), IEC1000-4-2 (ESD) and IEC1000-4-4 (burst) with regard to CE conformity

### Software Support

- M-Module drivers for Windows, VxWorks, Linux, OS-9, RTX as supported

**Diagram**



## Related Products

### Standard Hardware

02F205-00	F205, CompactPCI/PXI 3U, carrier board for 2 M-Modules, temperature range 0..+60°C
02F205-01	F205, CompactPCI/PXI 3U, carrier board for 2 M-Modules, temperature range -40..+85°C

### Accessories

05M000-15	Front-panel cover for M-Module cut-outs at front panels, snap-in, 10 pcs
05M000-17	25 mounting screw sets to fix M-Modules on carrier boards

### Software

Driver software for Windows, Linux, VxWorks, QNX, RTX and OS-9 is available for the different M-Modules. Please refer to the M-Module/s of your choice for information and download.

### Documentation

20APPN001	Application Note: Using MEN +5V CompactPCI Boards with +3.3V V(I/O)
20F204-00	F204/F205 user manual

*For the most up-to-date ordering information and direct links to other data sheets and downloads, see the F205 online data sheet under [www.men.de](http://www.men.de). --> [Click here!](#)*

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