# A203N – 6U VME64 M-Module™ Carrier Board

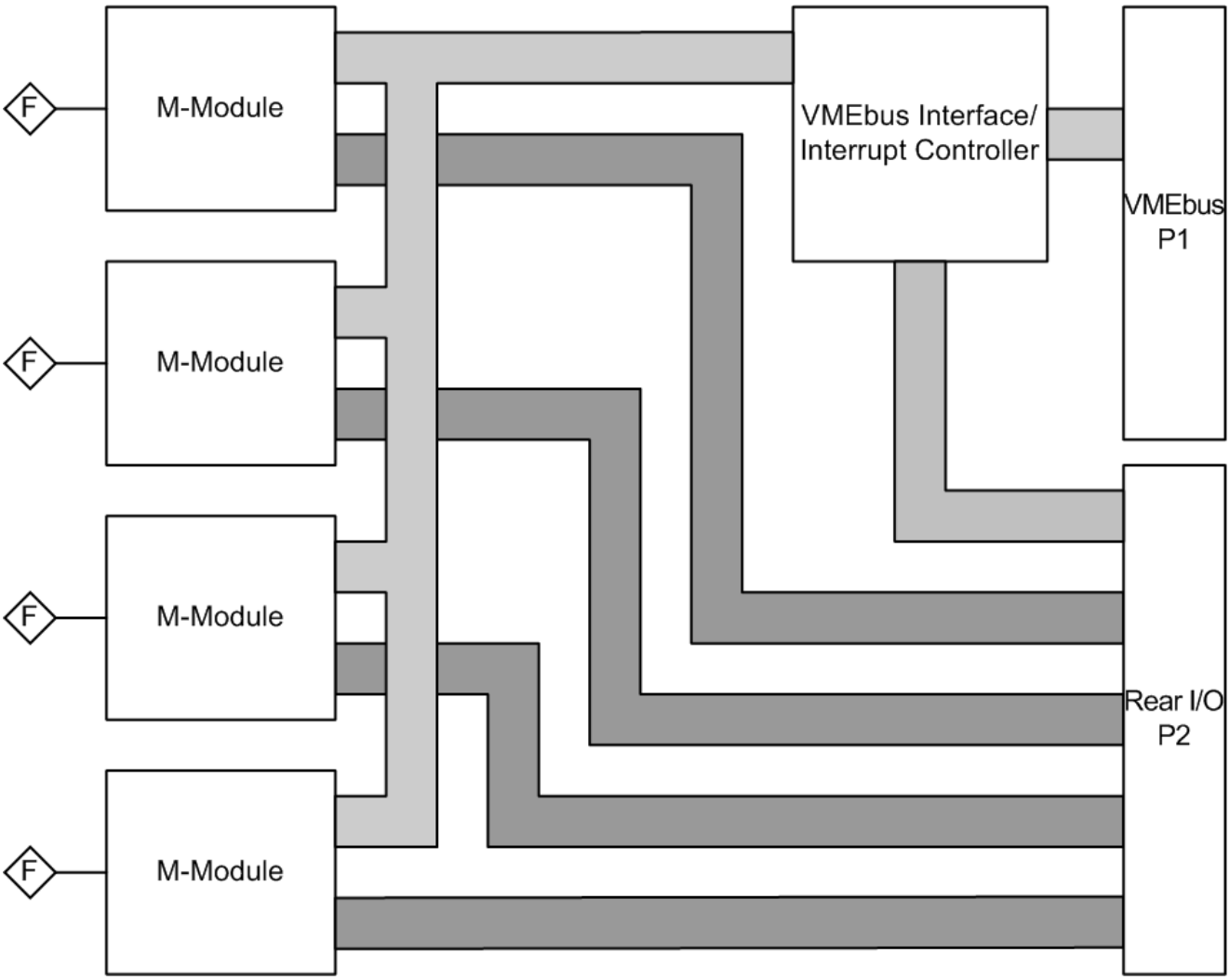
- **4 M-Module™ slots**
- **1 VME64 slave slot**
- **7-level interrupter**
- **-40 to +85°C with qualified components**

The A203N is an M-Module™ carrier board for universal I/O on the VMEbus, allowing high flexibility in applications such as process and motion control, measurement and instrumentation, communication or special-purpose tasks. The M-Modules™ are screwed tightly on the carrier board, and the board needs only one slot on the VMEbus.

The A203N is a VME64 slave card and supports four D16/D32 M-Modules™ with the signals either at the front or via rear I/O. An interrupt controller handles the M-Modules™ individually.
For rugged requirements the A203N is equipped with a stiffener front panel, allows a standard -40 to +85°C operation temperature and is prepared for conformal coating.

Additionally, the A203N is prepared for DMA transfer support.

## Diagram


F
M-Module
F
M-Module
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M-Module
F
M-Module
VMEbus Interface/
Interrupt Controller
VMEbus
P1
Rear I/O
P2

# Technical Data

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|---|---|
| **Mezzanine Slots** | ■ Four M-Module™ slots<br>■ Compliant with M-Module™ standard<br>■ Characteristics: D08, D16, D32, A08, A24, INTA, INTC, TRIGO, TRIGI<br>■ Prepared for DMA16, DMA32<br>■ Prepared for D16 burst, D32 burst |
| **Interrupt Controller** | ■ Interrupt handling individually for each M-Module™ |
| **Peripheral Connections** | ■ Via front panel<br>■ Via 160-pin P2 connector (rear I/O) |
| **VMEbus** | ■ Only one slot required on the VMEbus<br>■ Slave<br>□ D08(EO):D16:D32:A16:A24:A32;BLT, prepared for D16BLT and D32BLT<br>■ Interrupter D08(O):I(7-1) |
| **Electrical Specifications** | ■ Supply voltage/power consumption: +5V (-3%/+5%), typ. 140mA (without M-Modules™)<br>■ MTBF: 274,000h @ 40°C (derived from MIL-HDBK-217F) |
| **Mechanical Specifications** | ■ Dimensions: standard double Eurocard, 233.3mm x 160mm<br>■ Front panel: stiffener panel, aluminum with 2 handles, cut-outs for front connectors of 4 M-Modules™<br>■ Weight: 350g |
| **Environmental Specifications** | ■ Temperature range (operation):<br>□ -40..+85°C<br>□ Airflow: min. 10m³/h<br>■ Temperature range (storage): -40..+85°C<br>■ Relative humidity range (operation): max. 95% without condensation<br>■ Relative humidity range (storage): max. 95% without condensation<br>■ Altitude: -300m to + 3,000m<br>■ Shock: 15g/11ms<br>■ Bump: 10g/16ms<br>■ Vibration (sinusoidal): 2g/10..150Hz<br>■ 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** | ■ M-Module™ drivers for Windows®, VxWorks®, Linux, QNX®, OS-9® as supported<br>■ Basic board driver included in MDIS™ system package for the respective operating system |

# Ordering Information

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|---|---|---|
| **Standard A203N Models** | **01A203N00** | M-Module™ carrier board, -40...+85°C with qualified components |
| **Miscellaneous 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: Miscellaneous** | 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.<br><br>A basic board driver for this carrier card is included in the MDIS™ system package for the respective operating system. You can find an overview of available packages for download under www.men.de/mdis. | |
| **For operating systems not mentioned here contact MEN sales.** | | |
| **Documentation** | **20A203N00** | A203N User Manual |

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