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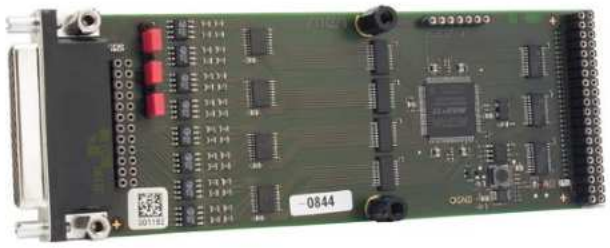
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Find the *MEN Micro / Mikro Elektronik M58* at our website: ***Click HERE***

Embedded Solutions

M58 - 32-bit TTL I/O Interface



- **32 TTL inputs/outputs**
- **Output current per pin: max. 25 mA**
- **Active terminators**
- **Same line interface as SCSI**
- **Fast 16-bit host access**
- **-40 to +85°C screened versions**

The M58 TTL I/O M-Module™ is used for fast and trouble-free transmission of binary signals. It is organized in four 8-bit groups, where each group can be programmed as an input or output. Every group supports active termination, which can be activated by software. A trigger line allows simultaneous acquisition of the inputs of several groups - also on several modules - at a specific point of time. All port lines are ESD-protected, but not optically isolated.

The M58 is based on the M-Module™ ANSI mezzanine standard. It can be used as an I/O extension in any type of bus system, i.e. CPCI, VME or on any type of stand-alone SBC. Appropriate M-Module™ carrier cards in 3U, 6U and other formats are available from MEN or other manufacturers.

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Technical Data

Input/Output
- 32-bit TTL I/O
- Output current permanent per pin: max. 25mA
- 4 groups, alternatively input or output
- Active terminators can be activated for each group
- Output low current (VOL max. 0.55V): sink min. 25mA
- Output high current (VOH min. 2.0V): source min. 25mA
- Input high current: max. 100µA
- Input low current: max. -100µA
- Input voltage: min. -0.5V, max. 6V
- Switching times:
  - Output low-to-high: tbd.
  - Output high-to-low: tbd.
  - Input: tbd.

Miscellaneous
- Trigger line with interrupt capabilities

Peripheral Connections
- Via front panel on a shielded 44-pin HD-Sub receptacle connector
- Via carrier board (rear I/O)

M-Module™ Characteristics
- A08, D16, INTA, IDENT

Electrical Specifications
- Supply voltage/power consumption: +5V (-3%/+5%), 230mA typ. (idle), 1000mA max.
- MTBF: 1,058,309h @ 40°C according to IEC/TR 62380 (RDF 2000)

Mechanical Specifications
- Dimensions: conforming to M-Module™ Standard
- Weight: 68g

Environmental Specifications
- Temperature range (operation):
  - 0..+60°C or -40..+85°C (screened)
  - Airflow: min. 10m³/h
- Temperature range (storage): -40..+85°C
- Relative humidity range (operation): max. 95% non-condensing
- Relative humidity range (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)

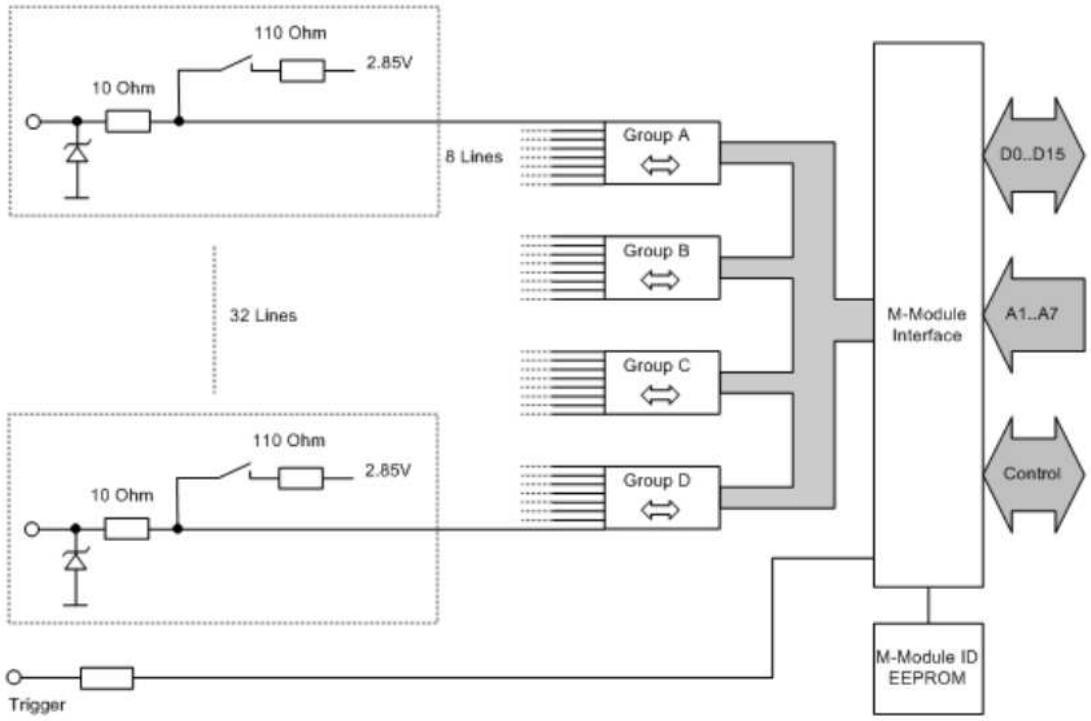
Software Support
- MEN Driver Interface System (MDIS™ for Windows®, Linux, VxWorks®, QNX®, OS-9®)
- For more information on supported operating system versions and drivers see Software.

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Diagram



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Ordering Information

Standard Hardware

04M058-00	32-bit TTL I/O, 0..+60°C
04M058-02	32-bit TTL I/O, -40..+85°C screened

Miscellaneous

05M000-14	M-Module cable, 2.5m, with 44-pin HD-Sub plug/housing to pig tail
05M000-17	25 mounting screw sets to fix M-Modules on carrier boards
05M000-20	M-Module cable, 2m with 44-pin HD-Sub plug/housing to 44-pin HD-Sub plug/housing, (connecting 1:1)
05M000-25	M-Module cable, 2m, with 44-pin half-pitch D-Sub plug/housing to 50-pin D-Sub receptacle/housing, (connecting 1:1)

Software: OS independent

13M058-06	MDIS4/2004 low-level driver sources (MEN) for M58

Software: Windows

13M058-70	MDIS4/2004 Windows driver (MEN) for M58

Documentation

20M000-00	M-Module Draft Specification, Rev. 3.0
20M058-00	M58 User Manual

For the most up-to-date ordering information and direct links to other data sheets and downloads, see the M58 online data sheet under » www.men.de.

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