

AS-i Master Module with M-Module Interface

Watchdog

Advanced AS-i diagnostics

AS-i Specification 2.1



Article no. BW1230

The AS-i Master M-Module realizes the functionality of a complete AS-i Master on a M-Module (similar functions as AS-i PC2 with ISA-bus interface).

The module is with the VITA standard "M-Module Mezzanine Specification".

The AS-i Master M-Module is supporting the following features:

- Single M-Module
- +5 V operating voltage
- no +/-12 V operating voltage
- 8 Bit data bus
- 8 Bit address bus
- Interrupt-capable, Typ A (software-end-of-interrupt)
- AS-i connection through COMBICON connectors on the front
- AS-i signal additional through Pin 23 and 24 of the Peripheral Connectors

The activated watchdog sets the Master to the offline phase, if it is not triggered by a host program. Advanced AS-i diagnostics to detect occasional occurring configuration errors and judge the quality of the AS-i communication are implemented. Normally there is no need for an interrupt, but the AS-i Master M-Module is capable to generate interrupts cyclically with every AS-i cycle or leaded by configuration errors or changes in input data.

The AS-i Master M-Module uses a DPRAM interface for data exchange. The DPRAM interface is consuming 128 words, but only the low bytes are used. The DPRAM interface is easy to use, especially with any operating systems and with different programming languages.

Beside the use in VMEbus or other systems through carrier boards (for example 3U or 6U carrier boards) this AS-i Master module can be implemented as embedded AS-i Master into specific controllers.

Article no.	BW1230
AS-i specification	2.1
Type	M-Module
Interface	8 bit M-Bus interface; galvanic separation from AS-i
Operating voltage	5 V DC and AS-i voltage
Operating current	approx. 200 mA out of PC power supply approx. 70 mA from AS-i
Voltage of insulation	≥ 500 V
EMC directions	EN 50 082 EN 50 081
Ambient operating temperature	0°C ... +55°C
Storage temperature	-25°C ... +70°C
AS-i cycle time	150 μs*(Number of slaves + 1)
Dimensions (L / W / H in mm)	150 / 53 / 14

Requirements:

Carrier boards for example 3U or 6U for VME-bus system, Compact PCI etc.

Connections:

