Media Converter Module 1000Base-TX/1000Base-SX/LX

MICROSENS

Description

Gigabit Ethernet media converter for the direct, repeaterless connection of twisted pair and fiber segments in an Ethernet network. Main application is the cost effective conversion from twisted pair to fiber and the extension of twisted pair segments.

The converter is in form of a module to be mounted in the MICROSENS 19" modular chassis. The power is supplied by the central power supply of the chassis.
A maximum of 12 modules plus one power supply can be mounted in one chassis.

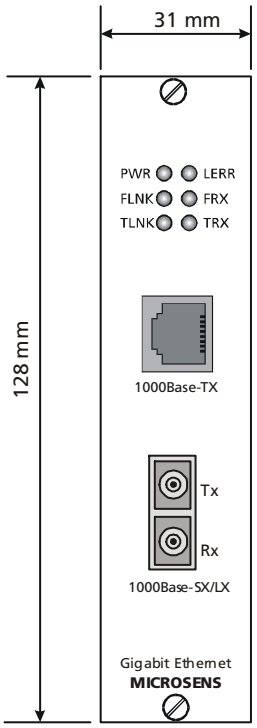
In combination with the MICROSENS SNMP management module (MS416020) it is possible to monitor the extended version of this converter module.

Technical Specifications

Type	Gigabit-Ethernet media converter for the repeaterless connection of twisted pair (1000Base-TX) and fiber (1000Base-SX/LX) for mounting in MICROSENS modular chassis.	
Fiber types	Multimode 62,5/125 or 50/125 µm Single mode 9/125 µm, SC connectors	
Cable type	Shielded twisted pair cable, 100 Ohm, Category 5e	
Multimode Port	*Wavelength:* *min. opt. power:* *min. sensitivity:* *max. distance:*	850 nm MM -10 dBm -20 dBm 550 m (50 µm fiber)
Single mode Port FP Laser 10km	*Wavelength:* *min. opt. power:* *min. sensitivity:* *max. distance:*	1300 nm SM -8 dBm -22 dBm 10 km
Single mode Port FP Laser 20km	*Wavelength:* *min. opt. power:* *min. sensitivity:* *max. distance:*	1300 nm SM -7 dBm -22 dBm 20 km
Single mode Port DFB Laser 50km	*Wavelength:* *min. opt. power:* *min. sensitivity:* *max. distance:*	1550 nm SM -5 dBm -21 dBm 50 km
Single mode Port DFB Laser 70km	*Wavelength:* *min. opt. power:* *min. sensitivity:* *max. distance:*	1550 nm SM -3 dBm -23 dBm 70 km

LED displays	*PWR* module active *FLNK* fiber connection correct *FRCV* Data received on SX port *TLNK* twisted pair connection correct *TRCV* Data received on TX port *LERR* fiber link interrupted
Power supply	12 V DC / max. 400 mA via backplane
Operating temperature	0°C to 55°C
Storage temperature	-20°C to 80°C
Rel. humidity	5% to 80% non condensing
Dimensions	128 x 31 mm

Dimensions



Configuration

The converter module is designed for the insertion into the MICROSENS modular chassis. It can be combined with all other converter modules of the same series.

The power supply is done by a central power supply via the backplane of the chassis. Together with the power supply it is possible to insert up to 12 modules into one 3 HU chassis. Optional it is possible to insert a second redundant power supply. Then the number of modules is reduced to 10.

Beside the 3HU chassis, a 1 HU chassis for three modules (horizontal mounted) is also available. This chassis (MS416006) has one integrated power supply, which can be redundant (MS416007) if required.

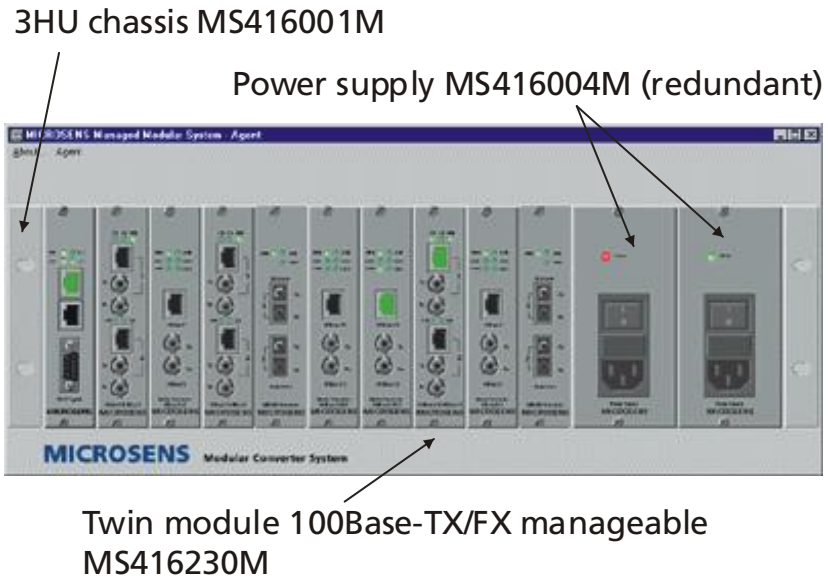
In addition to the 19" chassis, desktop chassis for the mounting of one (MS417001) or two (MS417041) modules are available. Together with the wall bracket (MS417001-WH) it is possible to fix these desktop chassis on the wall.

Management (optional)

The SNMP and web based management features of the system is provided by the management master module (MS416020). Be Aware: it must be considered that the chassis (e.g. MS416001M) and the power supply (MS416004M) support the management too (ordered products with an "M").

To access the data of the modules with the SNMP management, it is necessary to integrate the structure of the data into the existing management platform using the MIB file. The MICROSENS-MIB can be downloaded with http download from the management master. The MIB file has an ASCII format.

Example of visualising and configuration in a SNMP management platform:



Safety notes

WARNING: Infrared radiation as used for data transmission within the fiber optic, although invisible to the human eye, can nevertheless cause damage.

To avoid damage to the eyes

- *never look straight into the output of fiber optic components – danger of blinding!*
- *cover all unused optical connections with caps.*
- *commission the transmission link only after completing all connections.*

The active laser components used with this product comply with the provisions of **Laser Class 1**.

Order Designation

Art.-no.	Description	Connectors
MS416180*	Gigabit Ethernet converter module 1000Base-TX/1000Base-SX	Multimode 850 nm SC, RJ45
MS416181*	Gigabit Ethernet converter module 1000Base-TX/1000Base-LX, 10 km	Single mode 1300 nm SC, RJ45
MS416182*	Gigabit Ethernet converter module 1000Base-TX/1000Base-LX, 20 km	Single mode 1300 nm SC, RJ45
MS416183*	Gigabit Ethernet converter module 1000Base-TX/1000Base-LX, 50 km	Single mode 1550 nm SC, RJ45
MS416184*	Gigabit Ethernet converter module 1000Base-TX/1000Base-LX, 70 km	Single mode 1550 nm SC, RJ45

*) Option „M“ for manageable converter modules (e.g. MS416180M)