

Gigabit Ethernet Bridge

SFP 100/1000Base-X / SFP 1000Base-X

MICROSENS

General

The Gigabit Ethernet Bridge has two SFP slots. One is supporting 100/1000Base-X and the other one SFP slot 1000Base-X. The SFP slot accepts all SFPs available on the market, which offers a high flexibility.

The device is mainly used in enterprise networks, in order to combine the multimode and single mode fiber in a flexible way. Beside the mode conversion also the speed can be adjusted with 100 and 1000 Mbps. This also enables the connection of older devices to the converter. An additional application of this device is in Fiber To The Home applications.

Beside the automatic configuration of the ports can be configured manually as well by using the integrated DIP switches. Coloured LEDs are showing the status information and can be used for diagnostics of the network.

Connectors

SFP Slot 1:

The SFP Slot 1 is supporting the two different data rates 100 Mbps (100Base-TX Fast Ethernet) or 1 Gbps (1000Base-T Gigabit Ethernet). The adjustment of the data rate is only possible by the relevant selection of the SFP module. A manual adjustment of the data rate 100Base-X or 1000Base-X is not necessary.

SFP Slot 2:

All common SFP transceiver according to the Revision 5.4 are supported. The SFPs slot supports Gigabit Ethernet (1000Base-X) only. Other data rates are not supported at this SFP slot.

Features

- Compact Desktop Device
- Compatible with IEEE 802.3u, 802.3x and 802.3z
- Bandwidth conversion 100/1000 Mbps
- Integrated Link Through functionality
- Manual configuration via DIP switch possible

Technical Specifications

Type	Gigabit Ethernet Bridge for the mode conversion from multimode to single mode fiber and/or bandwidth adaptation (100/1000Base-X to 1000Base-X) or for a distance prolongation	
Fiber Ports	2xSFP Slots (100/1000Base-X + 1000Base-X)	
LED displays	<i>PWR</i>	ready for operation
	<i>SDP</i>	Data rate on SFP slot 1
	<i>LK/ACT</i>	Data transmission
Power Supply	9 V DC / max. 0.7 A via external supply	
Operating Temp.	0 °C to 50 °C	
Storage Temp.	-20 °C to 80 °C	
Humidity	5 % to 90 % non condensing	
Dimensions	26 x 85 x 119 mm (h x w x d)	

Construction

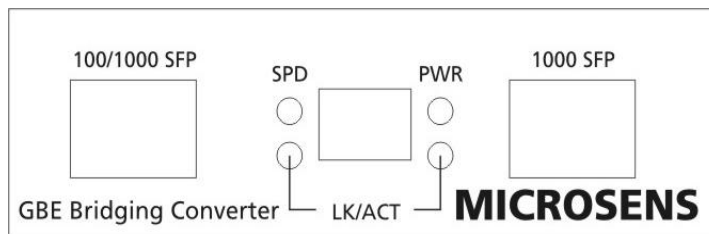


Fig. 1: Front View



Fig. 2: Rear View

Configuration

The Gigabit Ethernet Bridge can be configured manually by DIP-Switches. The factory default setting of all switches is "Off".

Configurable are:

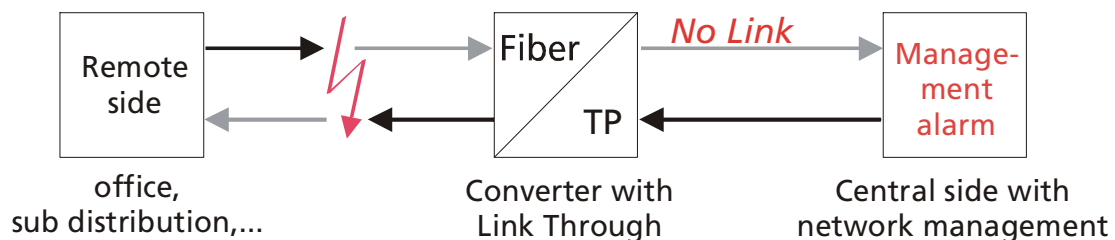
- Operation Mode for the auto negotiation on the SFP slot 1
- Link Through function

DIP-Switch	Status	Function
1	On	1000Base-X SFP force mode
	Off	1000Base-X SFP auto negotiation mode
2	On	Link Through function activated
	Off	Link Through function deactivated
3	On	1000Base-X SFP force mode
	Off	1000Base-X SFP auto negotiation mode

Note: For operation in a pair the SFP ports of both bridges should be configured to autonegotiation.

Link Through

The converter has the integrated "Link Through" functionality to support the connection control. The connection status of the fiber segment is forwarded to the twisted pair segment. In due to this the twisted pair connection is switched off in a case of failure at the fiber segment.



LED-Displays

LED	Status	Function
PWR	Green	Ready for operation
SPD	Green	SFP slot with 1000 Mbps
(only SFP slot 1)	Off	No link or SFP slot with 100Mbps
LNK/ACT	Green	Link at SFP slot
	Flashing	Data received on SFP slot
	Off	No Link at SFP slot

Order Information

Art.-No.	Description	Connectors
MS400230	Gigabit Ethernet Bridge SFP100/1000Base-X / SFP 1000Base-X	2 x SFP slot 1 x RJ-45 1 x Power
MS100200	SFP, Gigabit Ethernet 850 nm Multimode Transceiver, max. 1.25 Gbps	LC duplex
MS100210	SFP, Gigabit Ethernet / Fibre Channel 1310 nm Single Mode Transceiver, max. 1.25 Gbps, min. 10 km	LC duplex

MICROSENS reserves the right to make any changes without further notice to any product to improve reliability, function or design. MICROSENS does not assume any liability arising out of the application or use of any product. 0608/JR

www.microsens.com