

SFP Transceiver up to 1.25 Gbps for CWDM applications

MICROSENS

Description

The actual SFP transceivers from MICROSENS offer an optical transmission over multimode or single mode fiber. Depending on the model the transceiver can cover distances up to 120 km.

The SFP (Small Form Factor Pluggable) is based on the same principle as the GBIC. The main difference is the size of the transceiver with only half of the width (mechanical dimensions) due to the use of the LC connector.

The optical transceiver from MICROSENS comply to the SFP specifications Revision 5.4.. Additional they are compliant to the Gigabit Ethernet specifications according IEEE Std. 802.3@, the Fibre Channel specifications FC-PH, PH2, PH3, FC-PI 10.0 and all common ATM (OC-12, OC-48) and Sonet (SDH STM-4, SDH STM-16) standards.

The transceivers are available with different wavelengths. For multimode applications such as Gigabit Ethernet, Fibre Channel or Double Rate Fibre Channel VCSEL lasers with a wavelength of 850 nm are used. This allows to realise distances up to 550 m using a 50/125 µm multimode fiber.

For single mode applications there are FP and DFB lasers with the wavelengths of 1310 and 1550 nm available. Depending on the model it is possible to cover distances from 10 km up to 120 km. The transceivers offer the highest flexibility and can be installed during operation (hot swap).

The SFPs described in this data sheet are designed for CWDM application. They are specially tuned for a specific wavelength according to the ITU G 694.2 grid and have a very low tolerance.

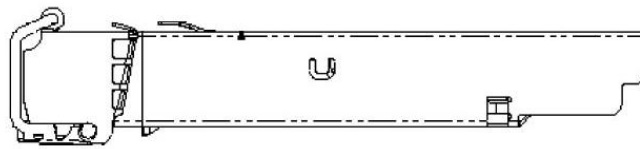
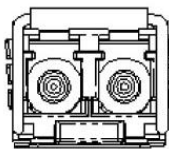
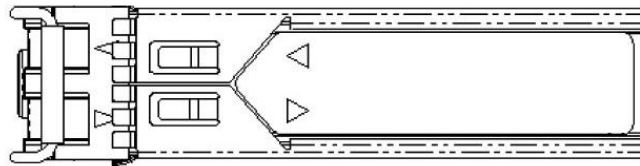
Technical Specifications

Type	SFP (Small Form Factor Pluggable) Transceiver for data transmission up to Gigabit speed with wavelength according to ITU G 694.2 grid
Fiber type	Single Mode 9/125 µm duplex, LC-connector
Data Rates	up to 1.25 Gbps
Standards	CDRH and IEC 825-1 class 1 eye safety
Operating temperature	0°C to 60° C
Supply Voltage	3.3 V

Optical Parameters

Article No.	Wavelength	Min. opt. Power	Min. opt. Sensitivity	Min. Distance
MS100206*-ww	ITU G 694.2	-5 dBm	-24 dBm	n/a
MS100207*-ww	ITU G 694.2	0 dBm	-24 dBm	n/a
MS100208*-ww	ITU G 694.2	0 dBm	-32 dBm	n/a
MS100213*-ww	ITU G 694.2	0 dBm	-23 dBm	n/a
MS100214*-ww	ITU G 694.2	0 dBm	- 29 dBm	n/a

Construction



Diagnostic Function (optional)

Optional the transceivers are available with Diagnostic function (Extension of article number with "D", e.g. MS100200D), to monitor detailed all operating information.

This offers to read information such as optical transmit power, receive power, the optical budget, the resulting possible distances and the real used data rate via the management system.

This feature is particular useful in combination with the MICROSENS xWDM systems, because it increases the functionality significant.

Eye Safety

Attention: Visible and invisible light emitted from fiber optical component may cause permanent damage to your eyes!

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 Information

Art.-No.	Description	Connectors
MS100206*-ww	CWDM Line Interface max. 1.25 Gbps for Gigabit Ethernet & Fibre Channel, Single Mode CWDM Laser, LC connector, min. 19dB Budget	LC duplex
MS100207*-ww	CWDM Line Interface max. 1.25 Gbps for Gigabit Ethernet & Fibre Channel, Single Mode CWDM Laser, LC connector, min. 24dB Budget	LC duplex
MS100208*-ww	CWDM Line Interface max. 1.25 Gbps for Gigabit Ethernet & Fibre Channel, Single Mode CWDM Laser, LC connector, min. 32dB Budget	LC duplex
MS100213*-ww	CWDM Line Interface max. 1.25 Gbps for STM-1/OC-3, STM-4/OC-12, Gigabit Ethernet, 1x Fibre Channel, Single Mode CWDM Laser, LC connector, min. 23dB Budget	LC duplex
MS100214*-ww	CWDM Line Interface max. 1.25 Gbps for STM-1/OC-3, STM-4/OC-12, Gigabit Ethernet, 1x Fibre Channel, Single Mode CWDM Laser, LC connector, min. 29dB Budget	LC duplex

ww Wavelength: 29-1291nm, 31-1311nm, 33-1331nm, 35-1351nm, 37-1371nm, 39-1391nm, 41-1411nm, 43-1431nm, 47-1471nm, 49-1491nm, 51-1511nm, 53-1531nm, 55-1551nm, 57-1571nm, 59-1591nm, 61-1611nm

*) Option "D" for Diagnostic Function (e.g. MS100240D)