

21700149	DATA SHEET
Valid from: 05.06.2025	MUN-SFP-1G-SM-LC-13-10-DDI-LLP

Description

- Single-Mode 1310nm
- Operating Data Rate up to 1.25Gbps
- Duplex SFP Transceiver
- 10 km with 9/125 µm single mode fiber
- Hot pluggable SFP footprint duplex LC connector interface
- Class 1 FDA and IEC60825-1 Laser Safety Compliant
- Operating Temperature: -40°C - 85°C
- Compliant with MSA SFP Specification
- Digital Diagnostic compliant with SFF-8472
- Safety Certification: TUV/UL/FDA



Picture just for illustration

General characteristics

The MUN-SFP-1G-SM-LC-13-10-DDI-LLP single-mode transceiver is a small form factor pluggable module for bi-directional serial optical data communications such as Gigabit Ethernet 1000BASE-LX and Fiber Channel 1x SM-LC-L FC-PI. It is with the SFP 20-pin connector to allow hot plug capability. This module is designed for single mode fiber and operates at a nominal wavelength of 1310nm.

The transmitter section uses a multiple quantum well 1310nm laser and is a class 1 laser compliant according to International Safety Standard IEC-60825.

The MUN-SFP-1G-SM-LC-13-10-DDI-LLP is designed to be compliant with SFF-8472 SFP Multi-source Agreement (MSA).

Variation

Article	Description
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Electrical properties

Absolute maximum ratings

Parameter	Symbol	Min.	Max.	Unit
Storage Temperature	Ts	-40	+85	°C
Supply Voltage	Vcc	-0,5	3.6	V
Operating Relative Humidity		-	95	%

Recommended Operating conditions

Parameter	Symbol	Min.	Typical	Max.	Unit
Operating temperature	Tc	-40		+85	°C
Power supply voltage	Vcc	3.15	3.3	3.45	V
Power supply current	Icc			300	mA
Data rate	GBE		1.25		Gbps
	FC		1.063		

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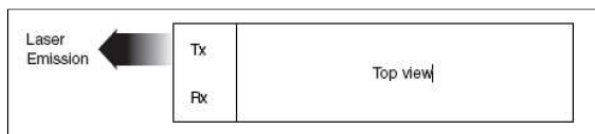
Optical and electrical characteristics

Parameter	Symbol	Min.	Typical	Max.	Unit
Length of 9µm Core Diameter SMF	L		10		km
Data rate			1.063/1.25		Gbps
Transmitter					
Centre wavelength	λ_c	1270	1310	1355	nm
Average output power	P _{out}	-9		-3	dBm
Output optical eye *(1)	Compliant with IEEE 802.3z *(2)				
Receiver					
Centre wavelength	λ_c	1270		1355	nm
Receiver sensitivity *(3)	P _{min}			-21	dBm
Receiver overload	P _{max}	-3			dBm

Notes:

- *(1) Filtered, measured with a PRBS 2⁷-1 test pattern @1.25Gbps
- *(2) Eye pattern mask
- *(3) Minimum average optical power at BER less than 1E-12, with a 2⁷-1 NRZ PRBS and ER=9 dB.

Laser emission



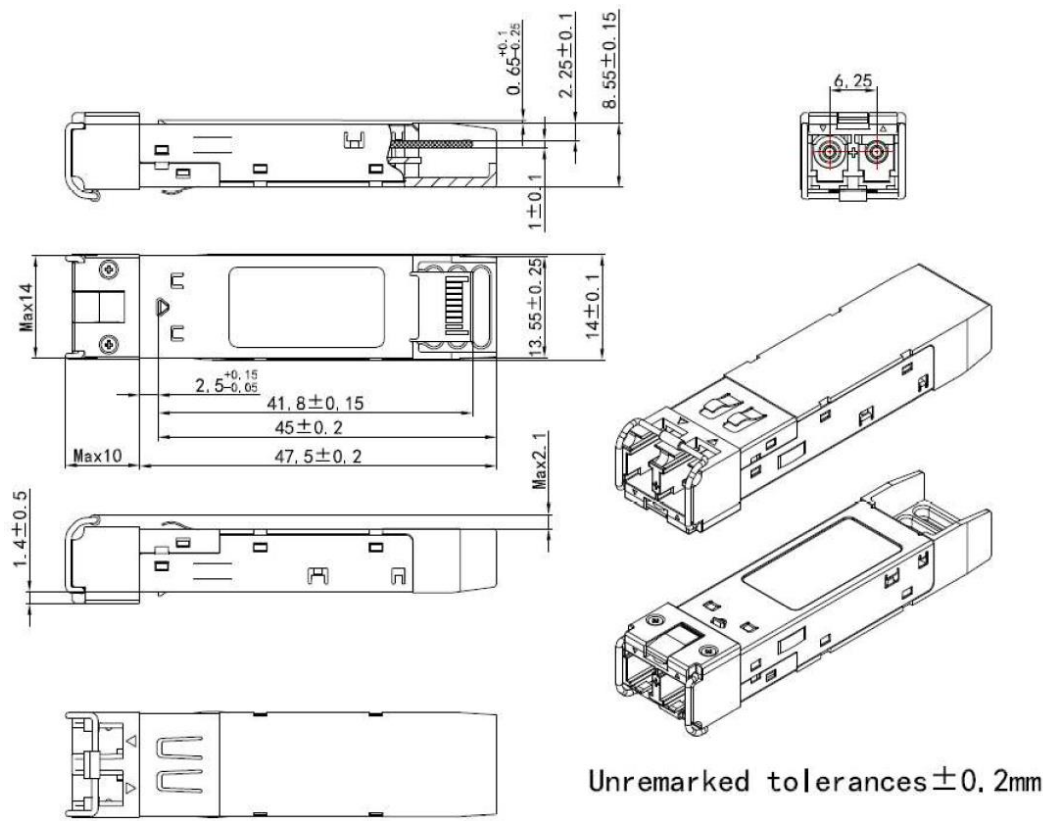
Standards / Approvals

Multiple source agreement
FDA laser class
Diagnostic monitoring
Laser safety compliance
Safety certification

MSA SFP specification
Class 1
SFF-8472
IEC60825-1
TUV/UL/FDA

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Technical drawing



Application range

Gigabit Ethernet Switches and Routers, Fiber Channel Switch Infrastructure, other optical links,
Automation, industrial machinery and plant engineering

Note

Photographs are not true to scale and do not represent detailed images of the respective products.
Commodity product, not a Lapp product.