

|                           |                                        |
|---------------------------|----------------------------------------|
| 21700128                  | <b>DATA SHEET</b>                      |
| Valid from:<br>05.06.2025 | <b>MUN-SFP-155-SM-LC-13-40-DDI-LLP</b> |

### Description

- Single-Mode 1310nm
- Operating Data Rate up to 155Mbps
- Duplex SFP Transceiver
- 40 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-155-SM-LC-13-40-DDI-LLP single-mode transceiver is small form factor pluggable module for duplex optical data communications such as Fast Ethernet and OC-3/STM-1 SDH/SONET. 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-155-SM-LC-13-40-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             | OC-3/STM-1 |      | 155     |      | Mbps |
|                       | 100M       |      | 100     |      |      |

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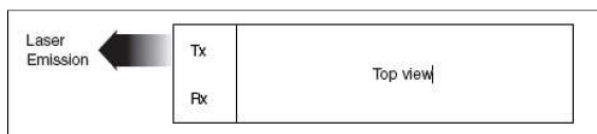
#### Optical and electrical characteristics

|                                 |                            |      |         |      |      |
|---------------------------------|----------------------------|------|---------|------|------|
| Parameter                       | Symbol                     | Min. | Typical | Max. | Unit |
| Length of 9µm Core Diameter SMF | L                          |      | 40      |      | km   |
| Data rate                       |                            |      | 100/155 |      | Mbps |
| Transmitter                     |                            |      |         |      |      |
| Centre wavelength               | λ <sub>c</sub>             | 1260 | 1310    | 1360 | nm   |
| Average output power *(1)       | P <sub>out</sub>           | -5   |         | 0    | dBm  |
| Output optical eye *(2)         | IUT-T G.957 Compliant *(3) |      |         |      |      |
| Receiver                        |                            |      |         |      |      |
| Center wavelength               | λ <sub>c</sub>             | 1260 |         | 1600 | nm   |
| Receiver sensitivity *(4)       | P <sub>min</sub>           |      |         | -34  | dBm  |
| Receiver overload               | P <sub>max</sub>           | -3   |         |      | dBm  |

#### Notes:

- \*(1) Output power is measured by coupling into a 9/125 µm single-mode fiber
- \*(2) Filtered, measured with a PRBS 2<sup>23</sup>-1 test pattern @155Mbps
- \*(3) Eye pattern mask
- \*(4) Minimum average optical power measured at BER less than 1E-12, with a 2<sup>23</sup>-1 PRBS and ER=9 dB.

#### Laser emission



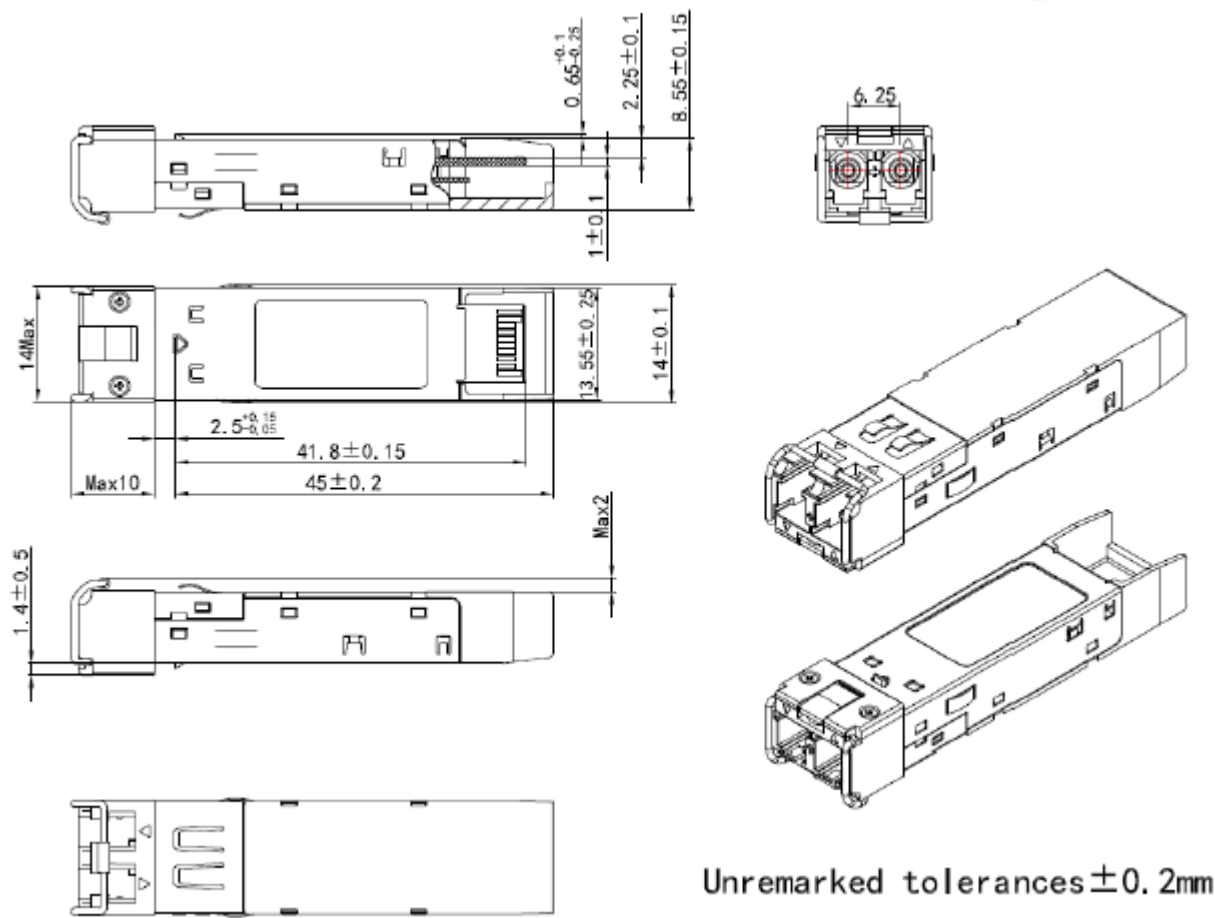
#### Standards / Approvals

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

Fast 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.