

# Active Optical Modules

## Overview

Mellanox active optical modules provide outstanding performance for high-bandwidth fabrics, extending the benefits of Mellanox's high-performance InfiniBand and 10 Gigabit Ethernet adapters throughout the network. In addition to meeting or exceeding IBTA and IEEE standards, Mellanox certified modules are 100% tested on Mellanox equipment to ensure optimal signal integrity and the best end-to-end performance. Mellanox QSFP module uses MTP/MPO connector type to connect an OM3/OM4 fiber cable. Mellanox SFP+ modules use LC connector type to connect to single mode or multi mode fiber cable.

Mellanox optical solutions provide short, medium and long range scalability for all topologies, utilizing innovative optical technologies to enable extremely high signal integrity and reliability. Rigorous production testing ensures best out-of-the-box installation experience, performance and durability.

Table 1 - Module Specifications and Ordering Information

Form Factor	Targeted Application	Max Power Consumption [W]	Data Rate [Gb/s]		Part Number
			Min	Max	
QSFP	40Gb/s, QDR, InfiniBand	1.7	2.5	10.0	MFM4R12C-QDR
SFP/SFP+	10GigE, 10GBase-SR	1	9.95	10.5	MFM1T02A-SR
SFP/SFP+	10GigE, 10GBase-LR	1	9.95	10.5	MFM1T02A-LR

Table 2 - Absolute Maximum Ratings

Parameter	Range
Supply Voltage	3.45V
Operating Case Temperature	0°C to 70°C
Storage Ambient Temperature	-10°C to 75°C

Table 3 - Operating Conditions

Parameter	Minimum	Typical	Maximum	Units
Supply Voltage	3.15	3.3	3.45	V
Input Voltage	-0.3		3.6	V
Humidity (RH)	5		85	%

## Warranty Information

The Mellanox optical modules include a 1-year limited hardware warranty, which covers parts repair or replacement.

## Additional Information

For more information about Mellanox cable solutions, please contact your Mellanox Technologies sales representative or visit: <http://www.mellanox.com=>Products=>Cables=>Cables Overview>



## HIGHLIGHTS

- Low power consumption
- Compliant with SFF-8436
- Compliant with SFF-8431
- Compliant with SFF-8432
- Low insertion loss
- BER Better than 10<sup>-15</sup>
- Tested in Mellanox's end-to-end environment
- RoHS 6 compliant



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