



1GbE SFP 1000BASE-T Transceiver



MC3208411-T

Mellanox® 1000BASE-T copper SFP modules provide reliable transport for aggregate data rates of up to 1.25GbE. These modules are compatible with the Gigabit Ethernet and 1000BASE-T standards.

The 1000BASE-T physical layer IC (PHY), including all settings and features, can be accessed via I²C.

Rigorous production testing ensures the best out-of-the-box installation experience, performance, and durability.

Table 1 - Absolute Maximum Ratings

Parameter	Minimum	Typical	Maximum	Units
Supply voltage	---	320	375	mA
Input voltage (referenced to GND)	3.13	3.3	3.47	V _{cc}
Maximum voltage	---	---	4	V _{max}
Surge current	---	---	30 ^(A)	mA
Storage ambient temperature	-40	---	85	°C

Table 2 - Operational Specifications

Parameter	Minimum	Typical	Maximum	Units
Power consumption	---	1.05	1.2 ^(B)	W
Single ended data input swing	250	---	1200	mV
Single ended data output swing	350	---	800	mV
Rise/fall time (20%-80%)	---	175	---	ps
Tx input impedance (single ended)	---	50	---	ohm
Rx output impedance (single ended)	---	50	---	ohm
Operating case temperature	0	---	85	°C

Notes: (A) Hot plug above steady state current. (B) 1.2W max power over full range of voltage and temperature.

Caution: Power consumption and surge current are higher than the specified values in the SFP multi-source agreement (MSA).

HIGHLIGHTS

- Up to 1.25Gb/s bi-directional data links
- Hot-pluggable SFP footprint
- Extended case temperature range (0°C to +85°C)
- Fully metallic enclosure for low EMI
- Low power dissipation (1.05 W typ.)
- Compact RJ-45 connector assembly
- RoHS compliant and lead free
- Access to physical layer IC via 2-wire serial bus
- 10/100/1000 BASE-T operation in host systems with SGMII interfaces
- 1.25 Gigabit Ethernet over Cat 5 cable

