

Product Specification

1000Base-SX

MULTIMODE OPTICAL SFP MODULE

1.25 Gbps DUPLEX LC 550m, 2km



Overview

Atrian optical transceivers are Small Form Factor Pluggable (SFP) compatible with the Multi Sourcing Agreement (MSA) and available as a vendor compatible SFP upon request. This family of transceivers are designed for 1.25Gbps 1000Base-SX Ethernet transmission and operates with an integrated duplex data link over 50/125µm Multi Mode Fiber (MMF).

Atrian Small Form Factor Pluggable (SFP) transceivers provides a reliable and high-performing Gigabit Ethernet network connectivity. They can be easily installed without interrupting the host equipment in operation thanks to the hot pluggable feature.

Atrian optical transceivers are designed to be used on Atrian's media converters and switches as well as third party equipments that supports SFP transceivers.

Key Features

- **Fiber Mode:** Multimode @ 50/125µm
- **Speed:** 1.25 Gbps
- **Distance:** 550m, 2 Km
- **Wavelength:** 850nm VCSEL Laser or 1310nm FP Laser
- **Temperature:** 0~70°C (Commercial) or -40~+85°C (Industrial)
- **Connector:** Duplex LC/UPC Connector
- **DMI:** SFF-8472 DOM/DMI Diagnostic Monitoring

Regulatory Compliance

aTrian Communication Technologies transceivers are products with Class 1 Lasers that complies with FDA regulations on eye safety and ETSI EN 60825 and electrical safety measures in accordance with ETSI EN 60950.

Technical Specifications

General Parameters	Symbol	Min.	Typical	Max.	Unit
Storage Temperature	Ts	-40		+85	°C
Operating Temperature	Tc		See Ordering Information		
Power Voltage	Vcc	3.15	3.3	3.45	V
Absolute Max Voltage	Vcc	-0.5		3.6	V
Power Current	Icc			200	mA
Data Rate			1.25		Gbps

Tx Optical Parameters	Symbol	Min.	Typical	Max.	Unit
Central Wavelength	Δc 850nm	830	850	860	nm
	Δc 1310nm	1270	1310	1350	
Spectral Width (RMS)	σ			1	nm
Power Output	Pout	-9		-3	dBm
Extinction Ratio	ER	9			dB
Optical Rise/Fall Time	tr/tf			250	ps

Rx Optical Parameters	Symbol	Min.	Typical	Max.	Unit
Central Wavelength	Δc 850nm	780	850	860	nm
	Δc 1310nm	1300	1310	1330	
Receive Sensitivity	PIN 850nm			-17	dBm
	PIN 1310nm			-20	
Receiver Overload	PMAX	2			dBm
LOS De-Assert	LOSD			-20	dBm
LOS Assert	LOSA	-35			dBm
LOS Hysteresis	tr/tf	0.5		4.5	dB

Ordering Information

Part Number	Wavelength Tx & Rx	Distance	Laser Type	Temperature
ASFP1GD850-550M ASFP1GD850-550MI	850 nm	550 mts.	VCSEL	0~+70°C Commercial -40~+85°C Industrial
ASFP1GD1310-550M ASFP1GD1310-550MI	1310 nm	550 mts.	FP	0~+70°C Commercial -40~+85°C Industrial
ASFP1GD850-2	850 nm	2 Km	VCSEL	0~+70°C Commercial

Warranty

FIVE years of limited warranty for products sold directly by Atrian Technologies, unless special agreements have been set. Warranty period start from the ship date and will be only valid for the original customer who bought the product. If you have purchased the product from a reseller you must contact him directly. RMA Form and full warranty details are available on our website.