



Araknis Networks Transceiver Modules

1G SFP-SX Transceiver

AN-SFP-1-F-350

This Araknis Networks Accessory Small Form Plug (SFP) Transceiver Module supports multi-mode, and can be used with 850nm fiber optic cables with LC connectors. It's ideal for larger projects requiring data transfers over longer distances up to 550 meters, and pairs perfectly with Araknis Network switches featuring SFP ports. The transceiver features a 1Gbps data transfer speed and ensures stable and consistent network performance, with no loss of speed or throughput.

Product Features

- Supports up to 1Gbps bit rates
- Hot-swappable SFP footprint
- 1Gbps optical systems
- Gigabet Ethernet
- 1Gbps Fiber Channel
- 850nm VCSEL laser and PIN photo detector, Up to 550m for MMF transmission
- Compliant with RoHS
- Operating case temperature: Standard (0 to +70°C), Industrial (-40 to +85°C)



Best Used with Araknis Networks

This SFP transceiver module pairs best with Araknis Networks switches that feature SFP ports.



Designed for Fiber Optic Cables

This SFP transceiver module supports 850nm fiber optic cables with LC connectors and multi-mode capabilities.



High-speed Data Transfer

The transceiver module enables high-speed bi-directional data transfers over fiber optic at 1Gbps, covering distances of up to 550 meters. This makes it an excellent cost-efficient solution for larger projects like businesses and large residential properties.

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Recommended Operating Conditions

Parameter		Min	Typ	Max
Operating Case Temperature	Standard	0°C		+70°C
	Extended	-20°C		+80°C
	Industrial	-40°C		+85°C
Power Supply Voltage		3.135V	3.30V	3.465V
Power Supply Current				300mA
Data Rate		0.1Gbps	1Gbps	

Optical and Electrical Characteristics

Parameter		Min	Typ	Max	Notes/Conditions
Transmitter					
Centre Wavelength		830nm	850nm	870nm	
Side-Mode Suppression Ratio		-	-	-	
Average Output Power		-9dBm		0dBm	1
Extinction Ratio		9.0dB			
Data Input Swing Differential		180mV		1200mV	2
Input Differential Impedance		90Ω	100Ω	110Ω	
TX Disable	Disable	2.0V		VccV	
	Enable	0V		0.8V	
TX Fault	Fault	2.0V		VccV	
	Normal	0V		0.8V	
Receiver					
Centre Wavelength		1260nm		1610nm	
Receiver Sensitivity				-18dBm	3
Receiver Overload		-1dBm			3
LOS De-Assert				-19dBm	
LOS Assert		-38dBm			
LOS Hysteresis		0.5dB		4dB	
Data Output Swing Differential		600mV	800mV	1000mV	4
LOS	High	2.0V		VccV	
	Low			0.8V	

Notes:

1. The optical power is launched into SMF.
2. PECL input, internally AC-coupled and terminated.
3. Measured with a PRBS 27-1 test pattern @1250Mbps, BER ≤1×10⁻¹².
4. Internally AC-coupled.

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Absolute Maximum Ratings

Parameter	Min	Max
Supply Voltage	-0.5V	4.5V
Storage Temperature	-40°C	+85°C
Operating Humidity	5%	85%

Mechanical Dimensions

