



Araknis Networks Transceiver Modules

10G SFP+ 850nm, 300m 10GBase-SR

AN-SFP-10-F-300

This Araknis Networks Accessory Small Form Plug Plus (SFP+) Transceiver Module is optimized for use with Araknis Networks switches featuring SFP+ ports, supporting 10Gbps data speed capabilities. The transceiver module enables high-speed data transfer of 10Gbps up to 300 meters over 850nm fiber optic cables. It is a great addition to larger commercial projects requiring high-speed data transfer capabilities over long distances, such as large businesses, servers, and data storage centers.

Product Features

- Support 10Gbase-SR/10G Fiber Channel application
- 10 Gigabit Ethernet
- Multi rate of up to 10Gbps
- Transmission distance up to 300m (OM3)
- Operating case temperature: commercial (0 to +70°C)
- RoHS compliant
- Works with 850nm fiber optic cable



Best Used with Araknis Networks

This SFP+ transceiver module pairs best with Araknis Network switches that feature 10Gbps 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 supports speeds of 10Gbps up to 300 meters over fiber optic cables, offering a cost-efficient solution for larger projects that require high-speed data transfer capabilities.

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Absolute Maximum Ratings

Parameter	Min	Typ	Max	Notes/Conditions
Supply Voltage	-0.5V		+3.6V	
Storage Temperature	-40°C		+85°C	
Operating Humidity	+5%		+85%	1

Recommended Operating Conditions

Parameter	Min	Typ	Max	Notes/Conditions
Operating Case Temperature	0°C		+70°C	
Power Supply Voltage	3.14V	3.3V	3.47V	
Power Supply Current			150mA	1
Power Dissipation			0.6W	
Bit Rate		10.3125Gbps		

Electrical Characteristics

Parameter	Min	Typ	Max	Notes/Conditions
Transmitter				
Differential Data Input Swing	200mVpp		1600mVpp	
Input Differential Impedance	90Ω	100Ω	110Ω	
Tx_Fault	Normal Operation	0V	0.8V	
	Transmitter Fault	2.0V	VccV	
Tx_Disable	Normal Operation	0V	0.8V	
	Laser Disable	2.0V	Vcc+0.3V	
Receiver				
Differential Data Output Swing	370mV		1600mV	
Output Differential Impedance	90Ω	100Ω	110Ω	
Output Rise Time (20%~80%)	24ps			
Output Fall Time (20%~80%)	24ps			
Rx_LOS	Normal Operation	0V	0.8V	
	Lose Signal	2.0V	VccV	

Warnings

Handling Precautions: This device is susceptible to damage as a result of electrostatic discharge (ESD). A static free environment is highly recommended. Follow guidelines according to proper ESD procedures.

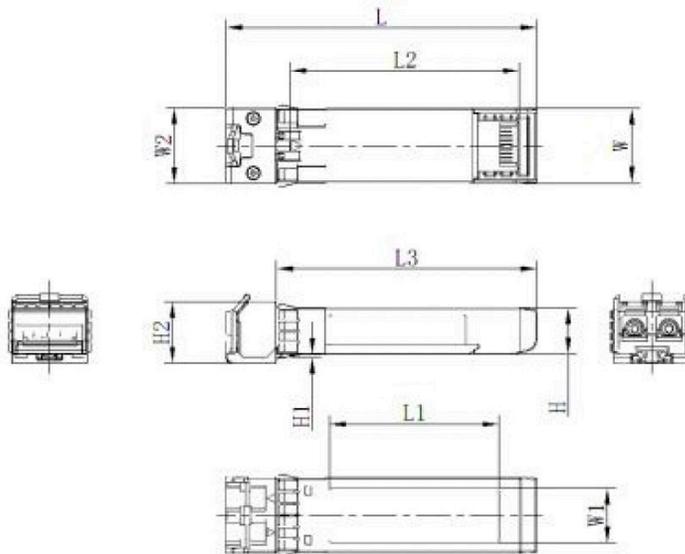
Laser Safety: Radiation emitted by laser devices can be dangerous to human eyes. Avoid eye exposure to direct or indirect radiation.

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Optical Characteristics

Parameter	Min	Typ	Max	Notes/Conditions
Transmitter				
Bit Rate	9.953Gbps	10.3125Gbps	11.3Gbps	
Center Wavelength Range	820nm	850nm	880nm	
RMS Spectral Width	3		0.45nm	
Average Launch Power Tx_off			-45dBm	
Launch Optical Power	-6.5dBm		-1dBm	Coupled into 50/125 MMF.
Extinction Ratio	3dB			
Jitter P-P			27ps	
Jitter RMS			5ps	
Optical Rise/Fall Time			100ps	
Receiver				
Bit Rate	9.953Gbps	10.3125Gbps	11.3Gbps	
Receiver Sensitivity			-9.9dBm	Measured with PRBS 231-1 test pattern @10.3125Gbps. BER=E-12
Overload Input Optical Power	-1dBm			Measured with PRBS 231-1 test pattern @10.3125Gbps. BER=E-12
Center Wavelength Range	820nm		880nm	
LOS	-26dBm (LOS _A)		-12dBm (LOS _D)	
LOS Hysteresis	0.5dB			

Mechanical Specifications



Unit: mm

	L	L1	L2	L3	W	W1	W2	H	H1	H2
MAX	58.9	31.2	41.95	47.7	13.8	10.2	14.0	8.6	0.6	11.5
Typical	58.7	31.0	41.80	47.5	13.7	10.0	-	8.5	0.55	11.3
MIN	56.5	30.8	41.65	47.3	13.5	9.8	-	8.4	0.5	11.1