



# Araknis Networks Transceiver Modules

## 10G SFP+ RJ-45 80m

### AN-SFP-10-E-80

This Araknis Networks Accessory Small Form Plug Plus (SFP+) Transceiver Module is an excellent solution for connecting RJ-45 Cat6A ethernet cables without sacrificing any PoE ports. The module supports high-speed data transfers of 10Gbps up to 80 meters over ethernet. It features a metallic enclosure which helps reduce electromagnetic interference (EMI). Designed for optimal use with Araknis Networks switches featuring SFP+ ports.

### Product Features

- Support 10Gbase-T / on line port
- Support 10Gbase-R on host port
- Hot-swappable SFP footprint
- Compact RJ-45 connector
- RoHS compliant
- 10 Gigabit Ethernet over Cat 6a cable
- Ambient operating temperature: -40°C to +85°C
- Up to 80m reach over Cat 6a cable



### Best Used with Araknis Networks

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



### Designed for Ethernet Cables

This SFP+ transceiver module supports RJ-45 Cat6A ethernet cables, removing the need to sacrifice a PoE port for data transfer.



### High-speed Data Transfer

The transceiver module supports speeds of up to 10Gbps over distances of 80 meters, offering a cost-efficient solution for larger projects like businesses and large residential properties that demand high-speed data transfers. It features 10GBase-T on the line port and 10GBase-R on the host port.

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## +3.3V Electrical Power Interface

This transceiver module has an input voltage range of +3.3V +/- 5%. The 4V maximum voltage is not allowed for continuous operation. *Caution: Power consumption and surge current are higher than the specified values in the SFP MSA.*

Parameter	Min	Typ	Max	Notes/Conditions
Supply Current		570mA	820mA	2.7W max power over full range of voltage and temperature. See caution note.
Input Voltage	3.13V	3.3V	3.47V	Referenced to GND
Maximum Voltage			4V	
Surge Current		TBD		Hot plug above steady state current. See caution note.

## High-Speed Electrical Interface

All high-speed signals are AC-coupled internally.

Parameter	Min	Typ	Max	Notes/Conditions
<b>Transmission Line-SFP</b>				
Line Frequency		125MHz		5-level encoding, per IEEE 802.3
Tx Output Impedance		100Ohm		Differential, for all Frequencies between 1MHz and 125MHz
Rx Input Impedance		100Ohm		Differential, for all Frequencies between 1MHz and 125MHz
<b>Host-SFP</b>				
Single ended data input swing	250mV		1200mV	Single ended
Single ended data output swing	250mV		800mV	Single ended
Rise/Fall Time		175psec		20-80%
Tx Input Impedance		50Ohm		Single ended
Tx Output Impedance		50Ohm		Single ended

## Cable Length

Line Port	Cable	Reach	Host Port
10Gbase-T	CAT6A	80m	10Gbase-R

## General Specifications

Parameter	Min	Typ	Max	Notes/Conditions
Data Rate		10Gbps		IEEE 802.3 compatible. Clock tolerance is +/- 50 ppm.

## Environmental Specifications

Parameter	Min	Typ	Max	Notes/Conditions
Operating Temperature	-40°C		85°C	Case Temperature
Storage Temperature	-40°C		85°C	Ambient Temperature

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## Mechanical Specifications

