



Angora Networks

Iris SFPs

As part of our commitment to robust and highly available products, IRIS, small form pluggable (SFP) interface converter (IC), is the most important component of all, connecting your physical infrastructure with your active devices to create a vital circulatory system, your network.

We know small things make a big difference. A faulty cable may affect all your network performance, yet it is not easy to troubleshoot. This makes SFPs roles highly important, so there is no room for low quality products.

In Angora Networks, we are working with top level manufacturers, to build our own SFP, with highest possible quality. Optical and copper modules can be intermixed on all VERGE models, with different flavors based on your bandwidth and cabling requirements. All models are RoHS compatible, hot pluggable, have single +3.3V ps and all-metal housing.

1000 Base-T Copper SFP Transceiver

Based on the SFP Multi Source Agreement (MSA), copper SFPs are fully compatible with Gigabit Ethernet standards, as specified in IEEE 802.3 . It can provide up to 1.25 Gbps bandwidth on supported devices. Lower EMI due to its full metal lead-free enclosure and typical power consumption values of 1.05W makes it very energy efficient. Copper transceivers operates CAT5 or better UTP cabling with a maximum length of 100m.

- Up to 1.25 Gb/s bi-directional data links
- Low power dissipation(1.05W typical)
- Compact RJ-45 connector assembly
- 10/100/1000 BASE-T operation in host systems with SGMII interface

1000 Base-SX 850nm SFP Optical Transceiver

Short range high performance SFPs supporting 1.25Gbps bandwidth and 550m transmission distance with multi-mode fiber cabling. Consisting of three sections; a VCSEL transmitter, a PIN photodiode integrated with a trans-impedance preamplifier and a master control unit; all modules satisfy class 1 laser safety requirements. It supports wireless base station applications involving the OBSAI or CPRI protocols, as well as related applications. The transceiver is compliant with Small Form Pluggable (SFP) multi-source agreements (MSA) INF-8074 and SFF-8472 for mechanical and electrical specifications and FOCIS/IEC specifications for optical duplex LC connectors.

- Data-rate of 1.25Gbps operation
- 500m transmission with 50/125µm MMF
- 300m transmission with 62.5/125µm MMF
- 850nm VCSEL laser and PIN photodetector
- Compliant with SFP MSA and SFF-8472 with duplex LC receptacle
- Digital Diagnostic Monitoring: Internal Calibration or External Calibration

1000 Base-LX 1310nm SFP Optical Transceiver

Long range SFPs are capable of providing 1.25Gbps bandwidth within 10km transmission distance with single mode fiber (10/125 µm) cabling. Consisting of three sections; FP laser transmitter, PIN photodiode with transparent impedance preamplifier and master control unit; all modules satisfy class 1 laser safety requirements. The transceivers are compatible with SFP Multi-Source Agreement (MSA) and SFF-8472.

- Data-rate of 1.25Gbps operation
- 10Km transmission with 10/125µm SMF
- 1310nm FP laser and PIN photo detector
- Compliant with SFP MSA and SFF-8472 with duplex LC receptacle
- Digital Diagnostic Monitoring: Internal Calibration or External Calibration



10Gbps LR SFP+ Optical Transceiver

Long range SFP+ transceivers capable of providing 10.3125Gbps bandwidth for up to 10Km over 9/125um Single Mode Fiber. They are compliant with SFF-8431, SFF-8432 and IEEE 802.3 aq 10GBASE-LRM. Digital diagnostics functions are available via a 2-wire serial interface, as specified in SFF-8472. Made with all-metal housing for superior EMI performance

- Data-rate of 10.3125Gbps operation
- Maximum link length of 10Km on 9/125um SMF
- SFP+ Package with Duplex LC Connector
- 1310nm DFB laser and PIN photo detector
- Optical interface compliant to IEEE 802.3ae
- Compliant with SFP+ MSA and SFF-8472 with duplex LC receptacle

10Gbps SR SFP+ Optical Transceiver

Short range SFP+ transceivers; support 10.3125Gbps Ethernet links up to 300m over multi mode fiber cabling. They are compliant with SFF-8431, SFF-8432, IEEE 802.3 aq 10GBASE-LRM and RoHS. Digital diagnostics functions are available via a 2-wire serial interface, as specified in SFF-8472. Made with , all-metal housing for superior EMI performance

- Data-rate of 10.3125Gbps operation
- Up to 300m Transmission on MMF
- 850nm VCSEL Transmitter and PIN Photo-detector
- SFP+ Package with Duplex LC Connector

General Specifications

SFP Model	SFP Type	Connector Type	Max Bandwidth	Cable Type	
ANW-SFP-1G-T	1000 Base-T SFP	RJ45	1.25 Gbps	CAT5 or better UTP Copper	100m
ANW-SFP-1G-SX	1000 Base-SX SFP	LC	1.25 Gbps	Multi mode fiber	550m
ANW-SFP-1G-LX	1000 Base-LX SFP	LC	1.25 Gbps	Single mode fiber	10km
ANW-SFP-10G-SR	10G SR SFP+	LC	10.3125 Gbps	Multi mode fiber	300m
ANW-SFP-10G-LR	10G LR SFP+	LC	10.3125 Gbps	Single mode fiber	10km

Optical Specification

SFP Model	Wavelength (nm)	Fiber Type	Core Size	Distance(m)
ANW-SFP-1G-SX	850	Multi Mode	50	500
			62.5	300
ANW-SFP-10G-SR	1310	Single Mode	10	10k
ANW-SFP-10G-SR	850	Multi Mode	50/62.5	300
ANW-SFP-10G-LR	1310	Single Mode	9	10k

Dimensions & Environmental Conditions

Dimensions (H x W x D): 12.4 x 13.7 x 56.6 mm.

Weight: 70 grams

Operating temperature range:

- Commercial temperature range (COM): 0 to 70°C (32 to 158°F)
- Extended temperature range (EXT): -10°C to 80°C (23 to 185°F)

Ordering Information

SFP Model	SFP Type
ANW-SFP-1G-T	SFP-1G-T RJ45 1000BASE 100M
ANW-SFP-1G-SX	1G SFP SX 850nm 550m
ANW-SFP-1G-LX	1G SFP LX 1310nm 10km
ANW-SFP-10G-SR	10G SFP+ SR 850nm 300m
ANW-SFP-10G-LR	10G SFP+ LR 1310nm 10km