

#### JNP-SFP-25G-AOC-2M-PRO

Juniper Networks<sup>®</sup> JNP-SFP-25G-AOC-2M Compatible TAA 25GBase-AOC SFP28 to SFP28 Active Optical Cable (850nm, MMF, 2m)

#### Features

- Hot-pluggable SFP28 form factor
- 850nm VCSEL laser and PIN photo-detector
- Supports 25Gbps data rate
- Single 3.3V power supply
- Power dissipation < 1W
- Internal CDR on both Transmitter and receiver channel
- Operating Case temperature: 0 to 70 Celsius
- Digital diagnostics functions are available via the I2C interface
- RoHS Compliant and Lead-Free



**Applications:** 

• 25Gbase-SR Ethernet

### **Product Description**

This is a Juniper Networks<sup>®</sup> JNP-SFP-25G-AOC-2M Compatible 25GBase-AOC SFP28 to SFP28 active optical cable that operates over active fiber with a maximum reach of 2m. It has been programmed, uniquely serialized, and data-traffic and application tested to ensure it is 100% compliant and functional. We stand behind the quality of our products and proudly offer a limited lifetime warranty. This cable is TAA (Trade Agreements Act) compliant and is built to comply with MSA (Multi-Source Agreement) standards.

Proline's transceivers are RoHS compliant and lead-free.

TAA refers to the Trade Agreements Act (19 U.S.C. & 2501-2581), which is intended to foster fair and open international trade. TAA requires that the U.S. Government may acquire only "U.S. – made or designated country end products.



Rev. 032924

## **General Specifications**

Parameter	Symbol	Min	Тур.	Max.	Unit
Storage Temperature		-40		85	°C
Operating Case Temperature	Тс	0		70	°C
Power Supply Voltage	Vcc	3.13	3.3	3.47	V
Supply Voltage	Vcc	0		3.6	V
Storage Temperature	Tstg	-40		85	°C
Operating Humidity		5		85	%

## **Optical Characteristics**

Parameter		Symbol	Min.	Тур.	Max.	Unit	Notes	
Transmitter								
Data Rate		BR		25.78		Gbps		
Centre Wavelength		λς	840	850	860	nm		
Spectral Width (-20dB)		σ			0.6	nm		
Average Output Power		Pavg	-8.4		2.4	dBm		
Optical Power OMA		P <sub>OMA</sub>	-6.4		3	dBm		
Extinction Ratio		ER	2			dB		
Differential data input swing		V <sub>IN,PP</sub>	40		1000	mV		
Input Differential Impedance		ZIN	90	100	110	Ω		
TX Disable	Disable		2.0		Vcc	V		
TA Disable	Enable		0		0.8	V		
TV Foult	Fault		2.0		Vcc	V		
TX Fault	Normal		0		0.8	V		
Receiver								
Data Rate		BR		25.78		Gbps		
Centre Wavelength		λς	840	850	860	nm		
Receiver Sensitivity (OMA)		Psens			-10	dBm		
Stressed Sensitivity (OMA)					-5.2	dBm		
Receiver Power (OMA)					3	dBm		
LOS De-Assert		LOS <sub>D</sub>			-13	dBm		
LOS Assert		LOS <sub>A</sub>	-30			dBm		
LOS Hysteresis			0.5			dB		
Differential data output swing		Vout,PP	500		1130	mV		
LOS	High		2.0		Vcc	V		
	Low				0.8	V		

## **Pin Descriptions**

Pin	Logic	Symbol	Name/Description	Notes
1		VeeT	Transmitter Ground.	
2	LV-TTL-O	TX_Fault	N/A	1
3	LV-TTL-I	TX_DIS	Transmitter Disable.	
4	LV-TTL-I/O	SDA	2-Wire Serial Data.	
5	LV-TTL-I	SCL	2-Wire Serial Clock.	
6		MOD_DEF0	Module present, connect to VeeT.	
7	LV-TTL-I	RSO	N/A	1
8	LV-TTL-O	LOS	LOS of Signal.	
9	LV-TTL-I	RS1	N/A	1
10		VeeR	Receiver Ground.	
11		VeeR	Receiver Ground.	
12	CML-0	RD-	Receiver Data Inverted.	
13	CML-0	RD+	Receiver Data Non-inverted.	
14		VeeR	Receiver Ground.	
15		VccR	Receiver Supply +3.3V.	
16		VccT	Transmitter Supply +3.3V.	
17		VeeT	Transmitter Ground.	
18	CML-I	TD+	Transmitter Data Non-Inverted.	
19	CML_I	TD-	Transmitter Data Inverted.	
20		VeeT	Transmitter Ground.	

### Note:

1. Signals not supported in SFP28 Copper pulled-down to VeeT with  $30k\Omega$  resistor.

**Host Board** 





# **Mechanical Specification**





### About Us:

Proline Options is one of North America's leading providers of transceivers and high speed cabling. With a reputation for quality, tested products that cover the connectivity spectrum, Proline Options has a solution for you regardless of the specification.

At Proline Options, every product is tested in its intended application - never batch or spec tested only. We run bandwidth, distance and IOS network tests. We have documented an impressive 0.03% failure rate over the last 10 years. To continue this rate of success we invest millions annually in our own on-site testing lab.



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