

### JNP-10G-AOC-1M-C

Juniper® Compatible 1G/10Gb/s SFP+ Active Optical Cable, Active, 1m

#### **FEATURES**

- Hot pluggable
- Bit rate support from 1G to 11.3Gbps
- Up to 100m by active optical cable with OM2/OM3 fiber
- Pre-terminated fiber cable
- Operating environment temperature 0 ~ 70°C
- Low power consumption
- SFP+ housing with enhanced EMI shielding
- Single 3.3V power supply
- Programmable EEPROM for serial identification

#### **APPLICATIONS**

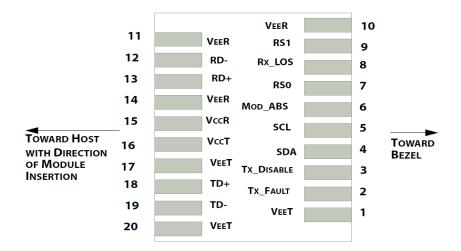
- 10G Ethernet
- Applicable to 1G Ethernet
- 8G Fiber Channel
- Applicable to 4G / 2G / 1G Fiber Channel
- 10G Fiber Channel over Ethernet
- 1X QDR Infiniband
- Applicable to 1X DDR / 1x SDR Infiniband
- High-capacity IO with SFP+ interface
- Data center and in-rack connection
- Compliance
- SFF-8431 SFP+ Electrical MSA
- SFF-8432 SFP+ Mechanical MSA
- RoHS complaint

#### **DESCRIPTION**

ATGBICS SFP AOC cable assemblies are high-performance, cost effective I/O solutions for 10Gb Ethernet and 10G Fiber Channel applications. SFP+ active optical cables allow hardware manufacturers to achieve high port density, configurability, and utilization at a very low cost and to reduce power budget. The high-speed cable assemblies meet and exceed the performance and reliability requirements stipulated by Gigabit Ethernet and Fiber Channel industry standard.



### **Host Board Connector Pin (Top View)**

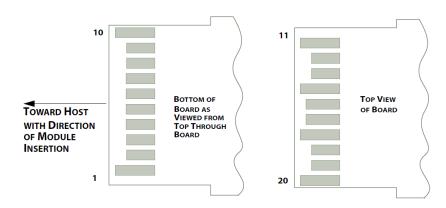


#### Note:

 For detail information, please refer to SFF-8083 0.8mm Card Edge Connector for 8/10 Gbps Applications



#### **SFP+ Connector Pin**



Pin	Symbol	Logic	Description	Note	
1	VeeT		Module Transmitter Ground	1	
2	Tx_Fault	LVTTL-O	Not supported.	3	
3	Tx_Disable	LVTTL-I	Not supported.	3	
4	SDA	LVTTL-I/O	2-wire Serial Interface Data Line	2	
5	SCL	LVTTL-I/O	2-wire Serial Interface Clock	2	
6	Mod_ABS		Module Absent	2	
7	RS0	LVTTL-I	Not supported.	3	
8	Rx_LOS	LVTTL-O	Not supported.	3	
9	RS1	LVTTL-I	Not supported.	3	
10	VeeR		Module Receiver Ground	1	
11	VeeR		Module Receiver Ground	1	
12	RD-	CML-O	Receiver Inverted Data Output		
13	RD+	CML-O	Receiver Non-Inverted Data Output		
14	VeeR		Module Receiver Ground	1	
15	VccR		Module Receiver 3.3 V Supply	4	
16	VccT		Module Transmitter 3.3 V Supply	4	
17	VeeT		Module Transmitter Ground	1	
18	TD+	CML-I	Transmitter Non-Inverted Data Input		
19	TD-	CML-I	Transmitter Inverted Data Input		
20	VeeT		Module Transmitter Ground 1		



#### **Notes:**

- 1. Module circuit ground pins are isolated from the module chassis ground
- 2. Pull up to VccHost with 4.7k 10k
- 3. No connection required
- 4. Power supply filtering circuit required

#### **Absolute Maximum Ratings**

Parameter	Symbol	Min	Max	Unit
Storage Temperature	Ts	-40	+85	°C
Operating Case Temperature	Tc	-40	+85	°C
Operating Humidity	RH		85	%
Supply Voltage	Vcc	-0.5	3.6	V

#### Note:

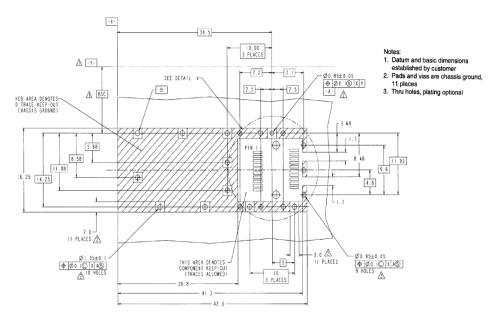
Damage may occur if the transceiver is subjected to conditions beyond the limits.

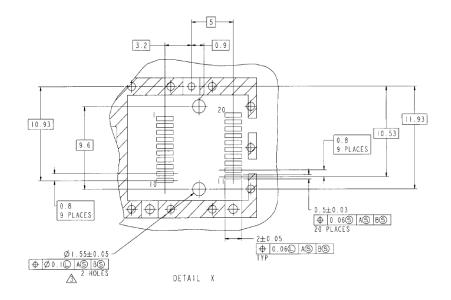
### **Recommended Operating Conditions**

Parameter	Symbol	Min	Max	Unit
Operating Case Temperature	Tc	0	+70	°C
Supply Voltage	Vcc	3.1	3.5	V
Bit Rate	BR	1	11.3	GB



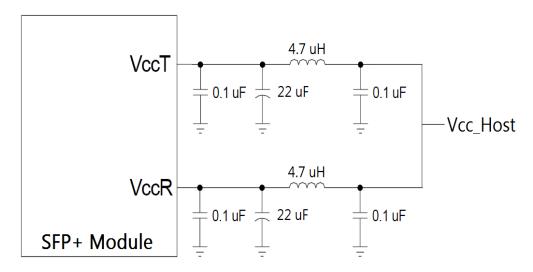
### **Host PCB Layout**







### **Recommended Power Supply Filter**



#### References:

- 1. SFF-8431 "Specifications for Enhanced Small Form Factor Pluggable Module SFP+"
- 2. SFF-8432 "Specification for Improved Pluggable Form factor"
- 3. SFF-8472 "Specification for Diagnostic Monitoring Interface for Optical Transceivers"

#### **Mechanical Drawing**

