

AFBR-2CAR15Z-C

Avago Broadcom® Compatible 1G/10Gb/s SFP+ Active Optical Cable, Active, 15m

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

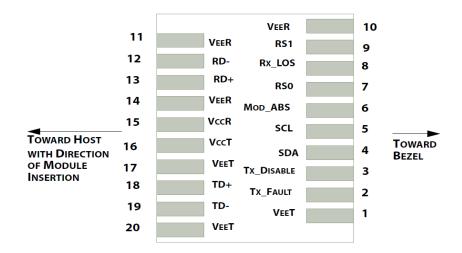
- 10G Ethernet
- Applicable to 1G Ethernet
- 8G Fiber Channel
- Applicable to 4G / 2G / 1G Fiber Channel
- 10G Fiber Channel over Ethernet
- 1X QDR Infiniband
- Applicable to 1X DDR / 1x SDR Infiniband
- High-capacity IO with SFP+ interface
- Data center and in-rack connection
- Compliance
- SFF-8431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

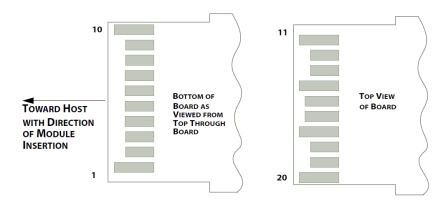


Note:

 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	Тс	-40	+85	°C
Operating Humidity	RH		85	%
Supply Voltage	Vcc	-0.5	3.6	V

Note:

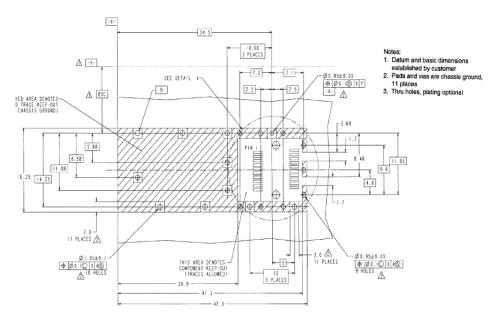
Damage may occur if the transceiver is subjected to conditions beyond the limits.

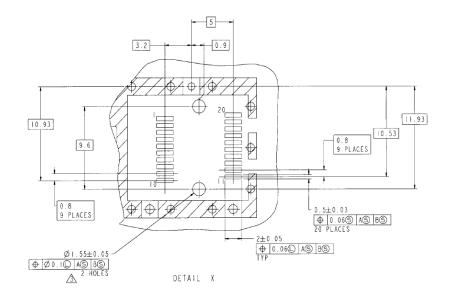
Recommended Operating Conditions

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



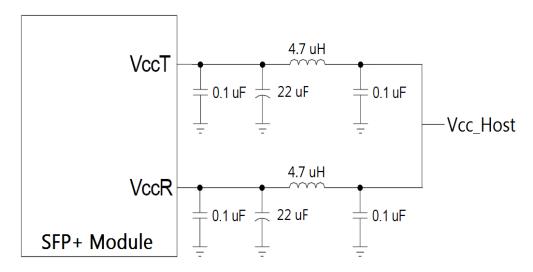
Host PCB Layout







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

