

Preliminary DATA SHEET

**CFORTH-SFP-H10GB-CUxM
SFP+ Direct Attach Copper Cable Assembly**

CFORTH-SFP-H10GB-CUxM Overview

CFORTH-SFP-H10GB-CUxM SFP+ Direct Attach Copper Cable Assembly are based on 10G Ethernet IEEE 802.3ae standard, Fiber Channel and SFF-8431 standard, and the passive SFP+ Cable is a low cost alternative for short reach applications. The passive design has no signal amplification in the cable assembly. Electronic Dispersion Compensation (EDC) is typically used on the host board designs when passive copper cable assemblies are utilized.

Product Features

- Up to 11 Gb/s bi-directional data links
- Compliant with 10GFC
- Compliant with SFF-8431
- Hot-pluggable SFP+ footprint
- AC coupled inputs and outputs
- 100 Ohm differential impedance
- Enhanced EMI design
- Single power supply 3.3V
- RoHS compliant
- Operating temperature range: 0°C to 70°C.

Applications

- 10 Gigabit Ethernet
- 10GFC
- Serial Data Transmission

Ordering Information

Part Number	Description
CFORTH-SFP-H10GB-CU1M	SFP+ Direct Attach Copper Cable Assembly, 1 m
CFORTH-SFP-H10GB-CU2M	SFP+ Direct Attach Copper Cable Assembly, 2 m
CFORTH-SFP-H10GB-CU3M	SFP+ Direct Attach Copper Cable Assembly, 3 m
CFORTH-SFP-H10GB-CU5M	SFP+ Direct Attach Copper Cable Assembly, 5 m

CFORTH-SFP-H10GB-CUxM Specifications Rev. D00D

General Specifications

Parameter	Symbol	Min	Typ	Max	Unit	Remarks
Data Rate	DR		10.3125		Gb/s	1
Bit Error Rate	BER			10^{-12}		
Operating Temperature	T _{OP}	0		70	°C	2
Storage Temperature	T _{STO}	- 40		85	°C	3
Supply Current	I _S			4	mA	4
Input Voltage	V _{CC}	3	3.3	3.6	V	
Maximum Voltage	V _{MAX}	- 0.5		4	V	4

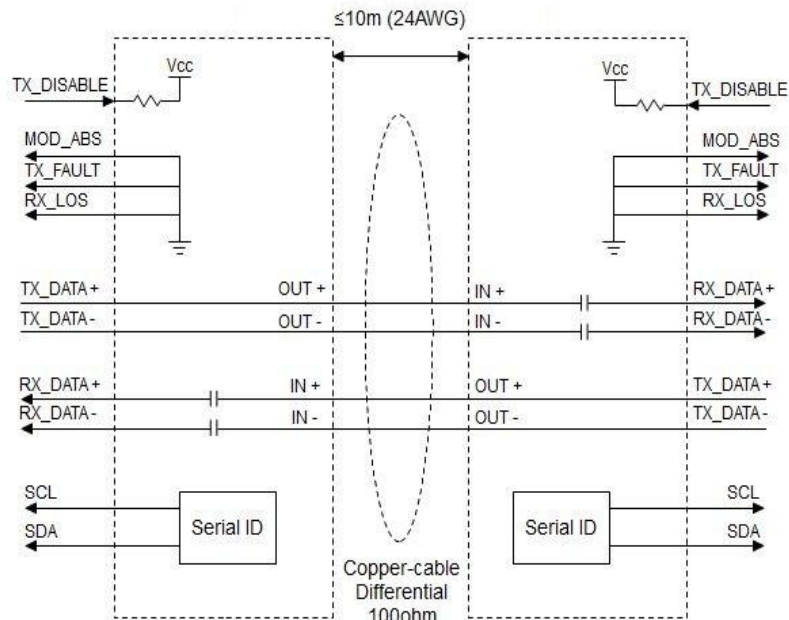
Notes:

1. IEEE 802.3ae compatible
2. Case temperature
3. Ambient temperature
4. For electrical power interface

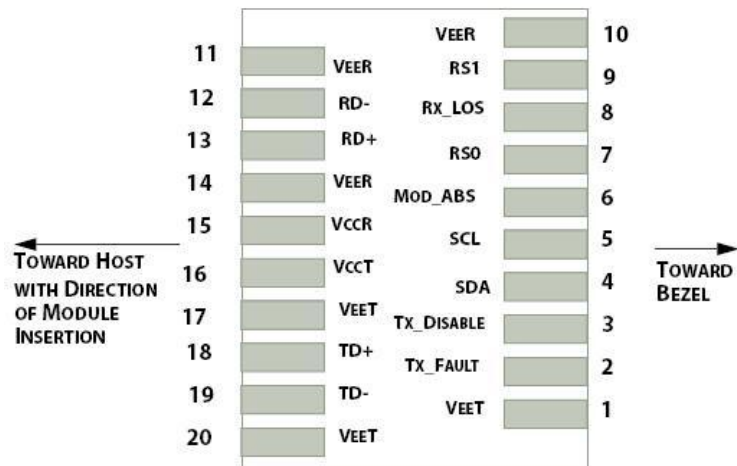
Cable Mechanical Specifications

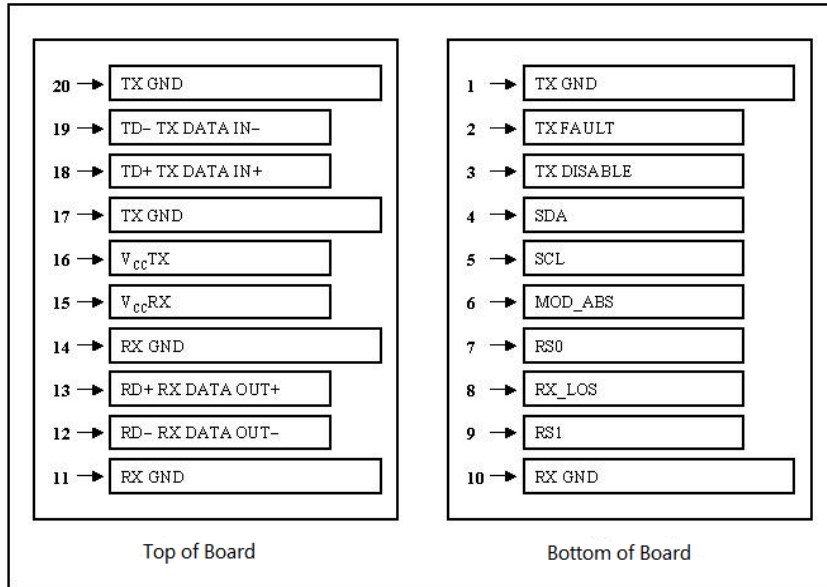
Parameter	Symbol	Min	Typ	Max	Unit	Remarks
Cable Diameter	D _{IA}		0.255		Inches	
Cable Diameter	D _{IA}		0.170		Inches	
Cable Impedance	Z _C	95	100	105	Ohm	

Block Diagram of Transceiver



Electrical Pad Layout





Pin Assignment

PIN #	Symbol	Description	Remarks
1	V _{EET}	Transmitter ground (common with receiver ground)	
2	TX_FAULT	Transmitter Fault.	
3	TX_DISABLE	Transmitter Disable. Laser output disable on high or open	
4	SDA	2-wire Serial Interface Data Line	
5	SCL	2-wire Serial Interface Clock Line	
6	MOD_ABS	Module Absent. Grounded within the module	
7	RS0	No connection required	
8	LOS	Loss of signal indication. Logic 0 indicates normal operation	
9	RS1	No connection required	
10	V _{EER}	Receiver ground (common with transmitter ground)	
11	V _{EER}	Receiver ground (common with transmitter ground)	
12	RD-	Receiver Inverted DATA out. AC coupled	
13	RD+	Receiver Non-inverted DATA out. AC coupled	
14	V _{EER}	Receiver ground (common with transmitter ground)	
15	V _{CCR}	Receiver power supply	
16	V _{CCT}	Transmitter power supply	
17	V _{EET}	Transmitter ground (common with receiver ground)	
18	TD+	Transmitter Non-Inverted DATA in. AC coupled	
19	TD-	Transmitter Inverted DATA in. AC coupled	
20	V _{EET}	Transmitter ground (common with receiver ground)	

References

1. IEEE standard 802.3ae. IEEE Standard Department, 2005.
2. Enhanced 8.5 and 10 Gigabit Small Form Factor Pluggable Module "SFP+" – SFF-8431