GL10-DY1xxxxM
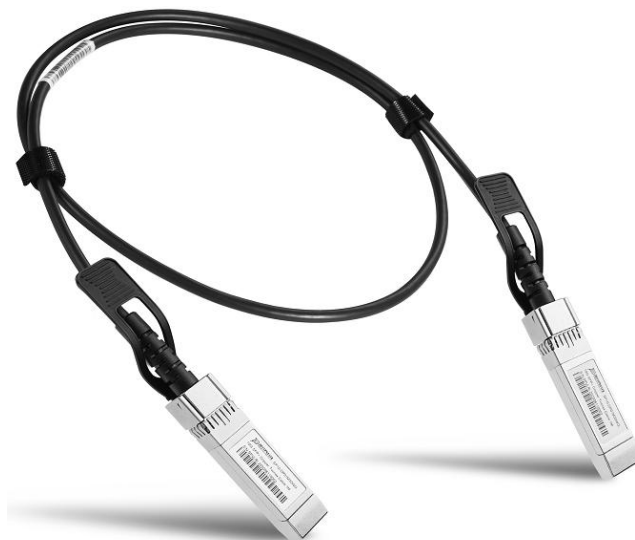## SFP+ 10Gb/s Direct Attached Cable

PRODUCT FEATURES

- Up to 10.3125 Gbps data rate
- Up to 7meter transmission
- Compliant with SFF-8472.
- Temperature Range: 0~ 70 °C
- RoHS compliant

APPLICATIONS

- 10G Ethernet
- Network storage systems
- Hubs, Switches, Routers, Servers

PRODUCT DESCRIPTION

The FIBRECROSS's GL10-DY130xxM SFP+ passive cable assemblies are high performance, cost effective I/O solutions for 10G Ethernet. SFP+ copper cables allow hardware manufactures to achieve high port density, configurability and utilization at a very low cost and reduced power budget.

Ordering Information

| Part Number	Description
GL10-DY1300.5M	10G SFP+ DAC Passive cable 30AWG 0.5M
GL10-DY13001M	10G SFP+ DAC Passive cable 30AWG 1M
GL10-DY13002M	10G SFP+ DAC Passive cable 30AWG 2M
GL10-DY13003M	10G SFP+ DAC Passive cable 30AWG 3M
GL10-DY12405M	10G SFP+ DAC Passive cable 24AWG 5M
GL10-DY12407M	10G SFP+ DAC Passive cable 24AWG 7M

General Product Characteristics

SFP+ DAC Specifications	
Number of Lanes	Tx & Rx
Channel Data Rate	10.3125 Gbps
Operating Temperature	0 to + 70°C
Storage Temperature	-40 to + 85°C
Supply Voltage	3.3 V nominal
Electrical Interface	20 pins edge connector
Management Interface	Serial, I^2C

High Speed Characteristics

Parameter	Symbol	Min	Typ	Max	Units	Notes
Differential Impedance	Zd	90	100	110	Ω	
Differential Input Return Loss	SDDXX		$<-12+2*$ SQRT (f) with f in GHz		dB	0.01~4.1GHz
			$<-6.3+13*$ Log10/(f/5.5) with f in GHz		dB	4.1~11.1GHz
Common Mode Output Return Loss	SCCXX		$< -7+1.6*f$ with f in GHz		dB	0.01~2.5GHz
				-3	dB	2.5~11.1GHz
Difference Waveform Distortion Penalty	dWDPc			6.75	dB	
VMA Loss	L			4.4	dB	
VMA Loss to Crosstalk Ratio	VCR	32.5			dB	

Pin Function Definition
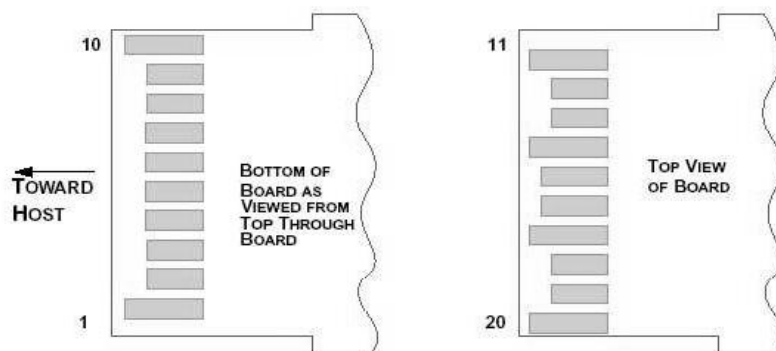
Pin	Logic	Symbol	Description
1		VeeT	Module Transmitter Ground
2	LVTTL-O	Tx_Fault	Module Transmitter Fault
3	LVTTL-I	Tx_Disable	Transmitter disable; Turns off transmitter laser output
4	LVTTL-I/O	SDA	2-wire Serial Interface Data Line (Same as MOD-DEF2 in INF-
5	LVTTL-I/O	SCL	2-wire Serial Interface Clock (Same as MOD-DEF1 in INF-
6		Mod_ABS	Module Absent, connected to VeeT or VeeR in the module
7	LVTTL-I	RS0	Rate Select 0, optionally controls SFP+ module receiver
8	LVTTL-O	Rx_LOS	Receiver Loss of Signal Indication (In FC designated as Rx_LOS
9	LVTTL-I	RS1	Rate Select 1, optionally controls SFP+ module
10		VeeR	Module Receiver Ground
11		VeeR	Module Receiver Ground
12	CML-O	RD-	Receiver Inverted Data Output
13	CML-O	RD+	Receiver Non-Inverted Data Output
14		VeeR	Module Receiver Ground
15		VccR	Module Receiver 3.3 V Supply
16		VccT	Module Transmitter 3.3 V Supply
17		VeeT	Module Transmitter Ground
18	CML-I	TD+	Transmitter Non-Inverted Data Input
19	CML-I	TD-	Transmitter Inverted Data Input
20		VeeT	Module Transmitter Ground

Mechanical Specifications

The connector is compatible with the SFF-8432 specification.
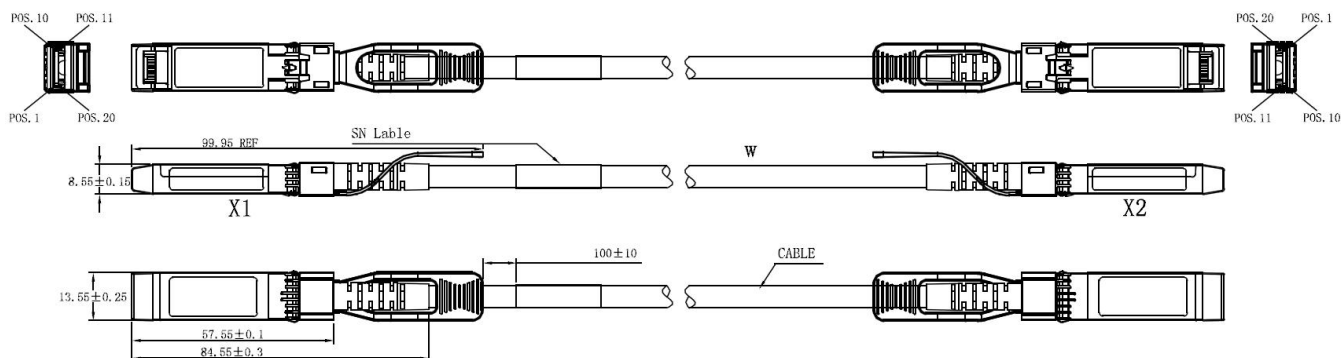
Regulatory Compliance

Feature	Test Method	Performance
Electrostatic Discharge (ESD) to the Electrical Pins	MIL-STD-883C Method 3015.7	Class 1(>2000 Volts)
Electromagnetic Interference (EMI)	FCC Class B	Compliant with Standards
	CENELEC EN55022 Class B	
	CISPR22 ITE Class B	
RF Immunity (RFI)	IEC61000-4-3	Typically Show no Measurable Effect from a 10V/m Field Swept from 80 to 1000MHz
RoHS Compliance	RoHS Directive 2011/65/EU and it's Amendment Directives 6/6	RoHS 6 compliant