

AC-13100XXXXYZ

QSFP28 Direct Attach Passive Copper Cables 0.5m、1m、3m、5mReach

Features

- ◆ Support for multi-gigabit data rates up to 100Gbps
- ◆ Available in length from 0.5 to 5m
- ◆ Low insertion loss and low crosstalk
- ◆ Hot-pluggable SFP
- ◆ I/O Connector designed for high-speed differential signal applications
- ◆ Compliant with SFF-8636@ IEEE802.3bj
- ◆ Wire/Cable Type Twinax
- ◆ Conductor size from 26~30AWG
- ◆ Temperature Range: 0~ 70 °C
- ◆ RoHS Compatible



Applications

- ◆ High capacity I/O in Storage Area Networks, Network Attached Storage, and Storage Servers
- ◆ Switched fabric I/O such as ultra high bandwidth switches and routers
- ◆ Data center cabling infrastructure
- ◆ High density connections between networking equipment
- ◆ InfiniBand SDR, DDR, QDR, FDR, EDR

Product Description

The Hermesys® HydraX™ series DAC cables are compliant with InfiniBand Architecture, SFF-8636 specifications and provide connectivity between devices using QSFP28 ports. The QSFP28 cable is an assembly of 4 full-duplex lanes, where each lane is capable of transmitting data at rates up to 25Gb/s per direction, providing an aggregated rate of 100Gb/s.

Recommended Operating Conditions

Parameter	Symbol	Min	Typical	Max	Unit
Storage Ambient Temperature		-40		+80	°C
Operating Case Temperature	T _c	-0		+70	°C

Performance	Media
25 Gbps line speed, 4 full duplex lanes	Hot-pluggable, industry-standard Quad Small Form-Factor 28 Pluggable (QSFP28) copper cable, available as 0.5 to 5m.

Electrical Performance

No.	Item	Requirement	Test Condition	Notes
1	Low Level Contact Resistance	70milliohms Max. From initial	EIA-364-23: Apply a maximum voltage of 20mV And a current of 100 mA.	
2	Insulation Resistance	10Mohm (Min.)	EIA364-21:AC 300V 1minute	
3	Dielectric Withstanding Voltage	NO disruptive discharge	EIA-364-20: Apply a voltage of 300 VDC for 1minute between adjacent terminals And between adjacent terminals and ground.	
4	Insertion Loss Deviation	$-0.176 * f - 0.7 \leq ILD \leq 0.176 * f + 0.7$	$50MHz \leq f \leq 19GHz$	

Enviroment Performance

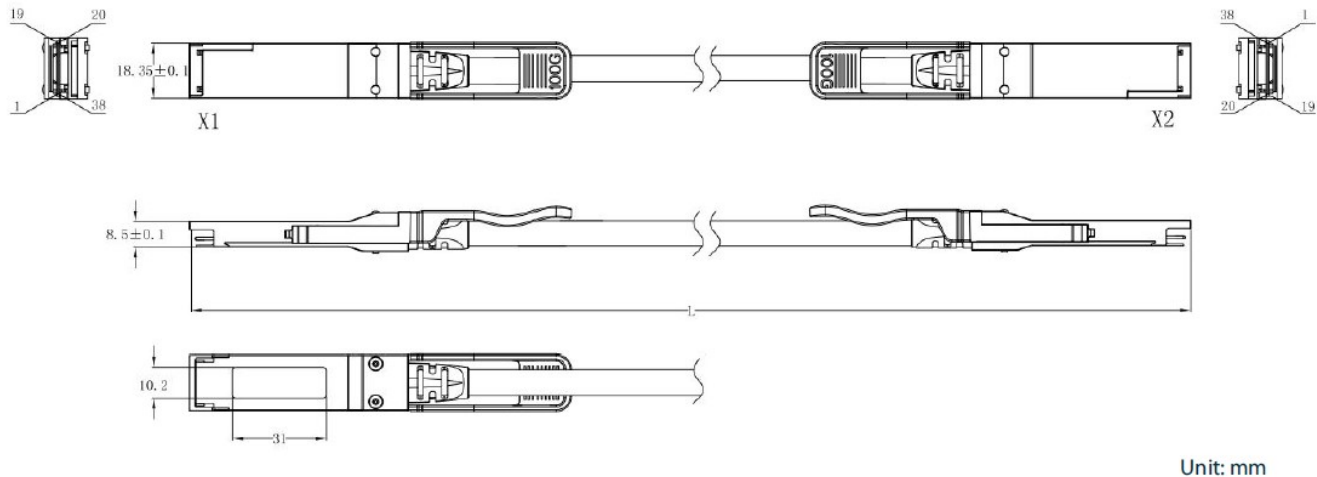
No.	Item	Requirement	Test Condition	Notes
1	Thermal Cycling Non-Powered	No evidence of physical damage	EIA-364-32D, Method A, -25 to 90C, 100 cycles, 15 min. dwells	
2	Salt Spraying	48 hours salt spraying after shell corrosive area less than 5%.	EIA-364-26	
3	Mixed Flowing Gas	Pass electrical tests per 3.1 after stressing. (For connector only)	EIA-364-35 Class II, 14 days.	
4	Temp. Life	No evidence of physical damage	EIA-364-17C w/ RH, Damp heat 90°C at 85% RH for 500 hours then return to ambient	
5	Cable Cold Bend	4H, No evidence of physical damage	Condition: -20°C ± 2°C, mandrel diameter is 6 times the cable diameter	

Mechanical and Physical Characteristics

No.	Item	Requirement	Test Condition
1	Vibration	Pass electrical tests per 3.1 after stressing.	Clamp & vibrate per EIA-364-28E, TC-VII, test condition letter – D, 15 minutes in X, Y & Z axis.
2	Twist	No evidence of physical damage	Twist cable 180° (±90° from nominal position) for 100 cycles at 30 cycles per minute with a 0.5kg load applied to the cable jacket. Clamp position: 300mm
3	Cable Flex	No evidence of physical damage	Flex cable 180° for 20 cycles (±90° from nominal position) at 12 cycles per minute with a 1.0kg load applied to the cable jacket. Flex in the boot area 90° in each direction from vertical. Per EIA-364-41C
4	Cable Plug Retention in Cage	90N Min. No evidence of physical damage	Pull on cable jacket approximately 1 ft behind cable plug. No functional damage to cable plug below 90N. Per SFF-8432 Rev 5.0
5	Cable Retention in Plug	90N Min. No evidence of physical damage	Cable plug is fixtured with the bulk cable hanging vertically. A 90N axial load is applied (gradually) to the cable jacket and held for 1 minute. Per EIA-364-38B
	Mechanical Shock	Pass electrical tests Per 3.1 after stressing.	Clamp and shock per EIA-364-27B, TC-G, 3 times in 6 directions, 100g, 6ms.

	Cable Plug Insertion	40N Max.(QSFP28)	Per SFF8661 Rev 2.1
	Cable plug Extraction	30N Max. (QSFP28)	Place axial load on de-latch to de-latch plug. Per SFF8661 Rev 2.1
	Durability	50 cycles, No evidence of physical damage	EIA-364-09, perform plug &unplug cycles: Plug and receptacle mate rate: 250times/hour. 50times for QSFP28/SFP28 module (CONNECTOR TO PCB)

Mechanical Specifications



Ordering information

P/N AC-13100XXXYYZ

XXX- Length of Cable 010=1M

YY- Copper Conductor Size 30=30AWG 28=28AWG 26=26AWG

Z=Compatible Brand

Note: The conductor OD and length could be customized