HQE-72012-xx-xM

QSFP+ to QSFP+ 40Gbps Passive Direct Attach Copper Cable Assembly (DAC)

Product Description

Our QSFP+ passive cable uses shielded high-speed differential cables compliant with IEEE P802.3ba 40GBASE-CR4, it supports 40G transmission rate and is backward compatible with lower data-rate applications. The QSFP+ passive cable is the preferred solution for up to 40G rate short-distance applications. Its ultra-low power consumption and high reliability allow users to achieve high port density in a cost and power efficient way.

Features

- Conforms to SFF-8436

- Mutirate 1Gb/s -10Gb/s per channel

- Length up to 5M

- Bend radius < 45 mm

- Power consumption < 0.5 W

- EEPROM ID functions

- Hot-pluggable

Applications

- 40G Ethernet

- SDR, DDR and QDR Infiniband

- Fibre channel

- SAS

Ordering Information

Part No.	Data rate	Length	AWG
HQE-72012-XX-05M	Up to 40G	0.5m	30
HQE-72012-XX-1M	Up to 40G	1m	30
HQE-72012-XX-2M	Up to 40G	2m	30
HQE-72012-XX-3M	Up to 40G	3m	30
HQE-72012-XX-4M	Up to 40G	4m	26
HQE-72012-XX-5M	Up to 40G	5m	26

Absolute Maximum Ratings

Parameter	Symbol	Min	Typ	Max	Units
Input Voltage	Vcc	-0.5		4.0	V
Storage Temperature	T_S	-40		85	℃
Operating Temperature	Tc	0		70	℃

Operating conditions

Parameter	Symbol	Min	Typ	Max	Units	Ref.
Supply Voltage	Vcc	3.14	3.3	3.47	V	
Power Consumption	P			0.5	W	
Data Rate		1		40	Gbps	

Cable Specifications

Parameter	Symbol	Min.	Typ	Max	Unit	Note
Wire Gauge		30	-	26	AWG	
Cable Impedance	Z	90	100	110	Ohms	

For safety and reliability reasons, please read the following information carefully.

Light Budget is one of the key items for designing fiber optic network. in order to create a product that will meet application requirements. To adequately characterize the budget loss, the following key parameters are generally considered:

- Transmitter: Output power, temperature and aging

- Fiber connections: Active connection and splices

- Fiber Cable: fiber attenuation and temperature effect

- Receiver: Detector sensitivity

- Others: Safety margin and repairs

When one of the above-listed variables fails to meet specifications, the performance of the network can be greatly affected or worse, the degradation can lead to network failure. Unfortunately, not all the variables can be controlled with ease during the deployment of the network or the maintenance stage; however, there exists one component—the connector—that is too-often overlooked, sometimes overused (test jumpers) but that can be controlled using the proper procedure.

This transceiver is specified as ESD threshold 1kV for SFI pins and 2kV for all others electrical input pins, tested per MIL-STD-883G, Method 3015.4 / JESD22-A114-A (HBM). However, normal ESD precautions are still required during the handling of this module.

EU declaration of conformity

The CE marking is mandatory for this category of products. It is the manufacturer's declaration that the product meets the requirements of the applicable EU directives required to allow free movement and sale of the product throughout the European Economic Area.

Equipment Specific part number extension

-51	Cisco	-59	Alcatel (Nokia)
-52	Ericsson	-60	Combo code
-53	Huawei	-61	H3C (HP)
-54	Juniper	-62	Brocade
-55	Generic (MSA)	-63	Arista Networs
-56	HP	-64	Adva
-57	Extreme	-65	Microsens
-58	3COM (HP)		