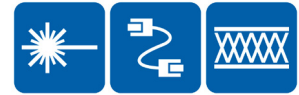


AOC-QS-40-xx



Active Optical Cable (AOC) assemblies
for QSFP+ to SFP+ applications, RoHS6 compliant



Product description

The AOC-QS-40-xx copper active optical cables are suitable for very short distances and offer a highly cost-effective way to establish a 40-Gigabit link between one QSFP+ port and four SFP+ ports. These cables are designed to meet emerging data center and high performance computing application needs for a high density cabling interconnect system capable of delivering an aggregate data bandwidth of 40Gb/s.

Features

- Supports 40G to 10G ethernet interoperability
- No optical splices - seamless fiber from end-to-end
- Less cabling to order and manage
- Simplify cable installation
- Aggregate 4 discrete SFP+ 10G channels into single parallel QSFP+ 40G interface
- Optimize network cabling by offsetting the delta between switch and server ports (1:4)
- Light weight, very small fiber outer diameter - easy to dress-out, route and manage for better airflow and aesthetics
- Lengths up to 100 meters over OM3
- QSFP+ module compliant to SFF 8436 MSA
- SFP+ module compliant to SFF8431/8432 MSA

Applications

- Data Centers with 10GbE requirements with ToR and Aggregation Architectures
- Network Switch Manufacturers supporting 40/10 GbE
- Server Manufactures supporting 10/40 GbE
- Manufactures of 10GbE Host Card Adapters (HCA/NIC)
- System Integrators
- PCI-Express, SAS/SATA, Fiber Channel compatible interconnect
- Datacom and Telecom switch and router backplane connections



All product specifications are subject to change without notice to improve reliability, function or design or otherwise.

Opticonnect SYSTEMS B.V., an Optical Networking vendor with its headquarters in the Netherlands, provides Optical Transport solutions and Optical Transceivers at the best price performance ratio possible. Our goal is to simplify the planning, deployment and maintenance of

complex Optical Networks. This is achieved by our user friendly planning apps and information, sophisticated products and transparent support. Relying on our superior product quality, all items are supplied with life time warranty.

Ordering information

Part no.	Data rate	AOC Length* note2	Temp.	DDMI
AOC-QS-40-xx*note1	40 Gbps	1~100m	0 °C ~+70 °C	YES

Note1: Standard version.

Note2: Length measured OM3 fiber. XX denote the AOC length with unit meter. For example, 01 denote 1m, 02 denote 2m ... 99 denote 99m and 1H denote 100m.

Absolute maximum ratings*note 3

Parameter	Symbol	Min	Max	Unit
Storage temperature	T _s	0	85	°C
Supply voltage	V _{CC}	-0.5	3.6	V
Operating relative humidity	RH	5	85	%

Note 3: Exceeding any one of these values may destroy the device immediately.

Recommend operating condition

Parameter	Symbol	Min	Typ	Max	Units
Operating case temperature	AOC-QS-40M-xx	0		+70	°C
Power supply voltage	V _{CC}	3.15	3.3	3.45	V
Aggregate bit rate	BR _{AVE}		41.25		Gbps
Lane bit rate	BR _{LANE}		10.3125		Gbps

Regulatory compliance

Feature	Standard	Performance
Electrostatic discharge (ESD) to the electrical pins	MIL-STD-883G Method 3015.7	Class 1C (>1000 V)
Electrostatic discharge to the enclosure	EN 55024:1998+A1+A2 IEC-61000-4-2 GR-1089-CORE	Compliant with standards
Electromagnetic interference (EMI)	FCC Part 15 Class B EN55022:2006 CISPR 22B :2006 VCCI Class B	Compliant with standards. Noise frequency range: 30 Hz to 6GHz. Good system EMI design practice required to achieve Class B margins. System margins are dependent on customer host board and chassis design.
Immunity	EN 55024:1998+A1+A2 IEC 61000-4-3	Compliant with standards. 1KHz sine-wave, 80% AM, from 80MHz to 1GHz. No effect on transmitter/ receiver performance is detectable between these limits.
Laser eye safety	FDA 21CFR 1040.10 and 1040.11 EN (IEC) 60825-1:2007 EN (IEC) 60825-2:2004+A1	CDRH compliant and Class I laser product. TüV Certificate No. 50135086



Feature	Standard	Performance
Component recognition	UL and CUL EN60950-1:2006	UL file E317337 TüV Certificate No. 50135086 (CB scheme)
RoHS6	2002/95/EC 4.1&4.2 2005/747/EC 5&7&13	Compliant with standards ^{*note4}

Note 4: For update of the equipments and strict control of raw materials, Opticonnect has the ability to supply the customized products since Jan 1st, 2007, which meet the requirements of RoHS6 (Restrictions on use of certain Hazardous Substances) of European Union.

In light of item 5 in RoHS exemption list of RoHS Directive 2002/95/EC, Item 5: Lead in glass of cathode ray tubes, electronic components and fluorescent tubes.

In light of item 13 in RoHS exemption list of RoHS Directive 2005/747/EC, Item13: Lead and cadmium in optical and filter glass. The three exemptions are being concerned for Opticonnect's transceivers, because Opticonnect's transceivers use glass, which may contain Pb, for components such as lenses, windows, isolators, and other electronic components.