

**AQ+Q+40GxxxxySz Cable Assemblies - 40G Active Optical Cable QSFP+**



For more Information  
please call  
1-800-Belden1



**Description**

40G QSFP+ Active Optical Cable QSFP+/QSFP+, Multimode Duplex, LSZH or OFNP, Color, Various Lengths (see Product Family Table)

**Usage (Overall):**

Suitable Applications	Data Centers, Main Equipment Rooms, Telecommunications Rooms, Work Area, 40G Fiber Channel over Ethernet, Infiniband QDR, Storage Area Networks (SAN), Network Attached Storage (NAS) and High Performance Computing.
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**Multi Conductor:**

**Physical Characteristics:**

**Overall Diameter:**

Overall Nominal Diameter:	0.12 in.
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**Physical Characteristics (Connectivity):**

**Fiber Type:**

Fiber Type	MM
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**Wiring Scheme:**

Wiring Scheme	SFF-8436
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**Packaging:**

Packaging	Individually packaged in a clear ESD plastic bag.
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**Mechanical Characteristics (Connectivity):**

Storage Temperature Range	-20°C To +80°C
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Installation Temperature Range	0°C To +70°C
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Operating Temperature Range	0°C To +70°C
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**Applicable Specifications and Agency Compliance (Overall):**

**Applicable Standards & Environmental Programs:**

IEEE Specification	802.3ba-2010
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EU Directive 2002/95/EC (RoHS)	Yes
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EU RoHS Compliance Date (mm/dd/yyyy)	01/01/2006
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MII Order #39 (China RoHS)	EUP 50
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**Suitability:**

Suitability - Indoor	Yes
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**Transmission Characteristics (Connectivity):**

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Performance Table - Footnote

Operating Optical Wavelength: 850 nm

**Electrical Characteristics (Overall):**

Electrical Characteristics

Parameter	Symbol	Min.	Typ.	Max.	Unit	Note
Data rate	-	1.000	10.313	10.520	Gb/s	per Lane
Power supply voltage	Vcc	3.135	3.300	3.465	V	-
Power supply current	Icc	-	220	330	mA	TX+RX
Power consumption	-	-	700	1000	mW	TX+RX
Output rise time (20%-80%)	-	24	28	-	ps	-
Output fall time (20%-80%)	-	24	28	-	ps	-
Deterministic jitter	DJ	-	-	0.420	Unit Interval (UI)	RX
Total jitter	TJ	-	-	0.700	Unit Interval (UI)	RX
J2	-	-	-	0.420	Unit Interval (UI)	BER=2E-3
J9	-	-	-	0.650	Unit Interval (UI)	BER=2E-10
Bit error rate	BER	-	-	1E-15	-	-
Differential data input voltage	-	300	-	800	mVpp	Internal AC coupled
Differential input impedance	-	90	100	110	Ohm	-
TX-Disable input voltage-low	-	0	-	0.800	V	-
TX-Disable input voltage-high	-	2.000	-	Vcc	V	-
TX-Fault output voltage-low	-	0	-	0.800	V	-
TX-Fault output voltage-high	-	2.000	-	Vcc	V	-
Differential data output voltage	-	300	-	800	mV	Internal AC coupled
Differential output impedance	-	90	100	110	Ohm	-
LOS-asserted output voltage-low	-	0	-	0.800	V	-
LOS-deasserted output voltage-high	-	2.000	-	Vcc	V	-

**Labeling:**

Labeling

Labeling: Belden Part Number, Length and Short Description.

**Notes (Overall):**

Notes Conformance: SFF-8436, IEEE 802.3ba-2010.

Notes (Cont'd.)

- Cable Type: Plenum or LSZH.
- Supporting 0.5 to 100 M. Lengths and colors not shown into the Product Family Table are available upon special request.

**Product Family:**

Product List

Belden P/N	Description
AQ+Q+40G001M	Active Optical Cable, QSFP+/QSFP+, LSZH Standard, Orange, 1.0 M
AQ+Q+40G003M	Active Optical Cable, QSFP+/QSFP+, LSZH Standard, Orange, 3.0 M
AQ+Q+40G005M	Active Optical Cable, QSFP+/QSFP+, LSZH Standard, Orange, 5.0 M
AQ+Q+40G010M	Active Optical Cable, QSFP+/QSFP+, LSZH Standard, Orange, 10 M
AQ+Q+40G015M	Active Optical Cable, QSFP+/QSFP+, LSZH Standard, Orange, 15 M
AQ+Q+40G020M	Active Optical Cable, QSFP+/QSFP+, LSZH Standard, Orange, 20 M
AQ+Q+40G100MLSA	Active Optical Cable, QSFP+/QSFP+, LSZH Standard, Aqua, 100 M
AQ+Q+40GxxxxLSz	Active Optical Cable, QSFP+/QSFP+, LSZH Standard, Color, Length
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AQ+Q+40G001MP50	Active Optical Cable, QSFP+/QSFP+, OFNP Standard, Orange, 1.0 M
AQ+Q+40G003MP50	Active Optical Cable, QSFP+/QSFP+, OFNP Standard, Orange, 3.0 M
AQ+Q+40G005MP50	Active Optical Cable, QSFP+/QSFP+, OFNP Standard, Orange, 5.0 M
AQ+Q+40G010MP50	Active Optical Cable, QSFP+/QSFP+, OFNP Standard, Orange, 10.0 M
AQ+Q+40G015MP50	Active Optical Cable, QSFP+/QSFP+, OFNP Standard, Orange, 15.0 M
AQ+Q+40G020MP50	Active Optical Cable, QSFP+/QSFP+, OFNP Standard, Orange, 20.0 M
AQ+Q+40G100MP5A	Active Optical Cable, QSFP+/QSFP+, OFNP Standard, Aqua, 100.0 M
AQ+Q+40GxxxxPSz	Active Optical Cable, QSFP+/QSFP+, OFNP Standard, Color, Length

Revision Number: 0 Revision Date: 11-12-2015

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