

# Active Optical Cables

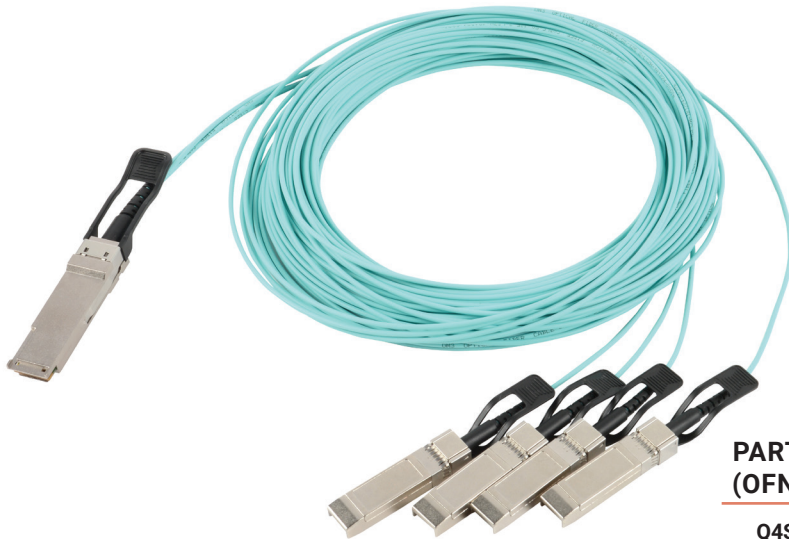
## 40G QSFP+ Breakout

### Regional Availability - Global

Siemon 40G QSFP+ to 4x SFP+ Breakout Active Optical Cable (AOC) assemblies offer a highly reliable and cost-effective alternative to transceiver assemblies available in lengths ranging from 0.5m to 100m, beyond the range of Direct Attach Copper Cables (DAC). These high performance and low power consumption AOCs are Ethernet, InfiniBand and MSA compliant with a robust construction, including a high-strength pull tab latching system which reduces plug loss and ensures more secure installations.

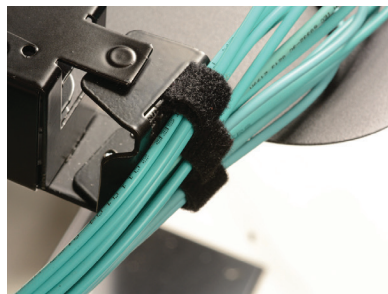
These 40G QSFP+ to 4x SFP+ Breakout assemblies are capable of transmitting data up to 4 x 10Gb/s, offering an easy installation with a flexible, multimode fiber cable. AOCs eliminate the interoperability issues of transceiver assemblies to achieve proper parameter optimization and are equipped with Digital Diagnostic Monitoring, allowing I<sup>2</sup>C (Inter-integrated circuit) real-time supervision of operating parameters and transmits warnings if those parameters exceed specification.

Typical AOC applications include point-to-point connections within data centers, high performance computing and storage racks. The versatile connections can be rack-to-rack within the same row or another row and their hot swappable and high-density design allows use within a wide range of requirements.



### Standards Compliance

- QSFP+ MSA
- SFP+ MSA
- SFF8431 Electrical
- SFF8432 Mechanical
- IEEE P802.3bm
- 100GBASE-SR4
- RoHS/REACH compliant
- TUV/UL certified



### Small Diameter Bundles

AOC's thin diameter allow for smaller bundles which promotes better airflow.

PART NUMBER (OFNP)	PART NUMBER (LSZH/OFNR)	LENGTH
Q4S10F-Y00.5B13	Q4S10F-V00.5B13	0.5m (1.64 ft.)
Q4S10F-Y01.0B13	Q4S10F-V01.0B13	1.0m (3.28 ft.)
Q4S10F-Y01.5B13	Q4S10F-V01.5B13	1.5m (4.92 ft.)
Q4S10F-Y02.0B13	Q4S10F-V02.0B13	2.0m (6.56 ft.)
Q4S10F-Y03.0B13	Q4S10F-V03.0B13	3.0m (9.87 ft.)
Q4S10F-Y05.0B13	Q4S10F-V05.0B13	5.0m (16.40 ft.)
Q4S10F-Y07.0B13	Q4S10F-V07.0B13	7.0m (22.97 ft.)
Q4S10F-Y10.0B13	Q4S10F-V10.0B13	10m (32.80 ft.)
Q4S10F-Y15.0B13	Q4S10F-V15.0B13	15m (49.21 ft.)
Q4S10F-Y20.0B13	Q4S10F-V20.0B13	20m (65.62 ft.)
Q4210F-Y25.0B13	Q4S10F-V25.0B13	25m (82.02 ft.)
Q4210F-Y30.0B13	Q4S10F-V30.0B13	30m (98.43 ft.)
Q4210F-Y40.0B13	Q4S10F-V40.0B13	40m (131.23 ft.)
Q4210F-Y50.0B13	Q4S10F-V50.0B13	50m (164.04 ft.)
Q4S10F-Y0100B13	Q4S10F-V0100B13	100m (328.08 ft.)

# Product Information

## Absolute Maximum Ratings

	Min	Max
Module Supply Voltage	0.0V	4.0V
Storage Temperature	-40°C (-40°F)	100°C (212°F)
Relative Humidity - Storage	0%	85%
Relative Humidity - Operating	0%	85%

## Mechanical Specifications

Minimum Bend Radius	20 × OD mm (without tension) 10 × OD mm (with max tension)
Cable Diameter (OD)	3.0mm ± 0.15
Fiber Type	OM3 multimode

## Electrical Specifications

Module Supply Voltage	3.13V to 3.47V (3.3V typical)
Case Operating Temperature	-5°C (23°F) to 70°C (158°F) 25°C (77°F) (typical)
Single Module Supply Current	SFP+ 50mA (typical per end) QSFP+ .150mA (typical)
Maximum Power Consumption Per End	SFP+ 0.25W (max per end) QSFP+ 0.5W (max)

## Channel Parameters

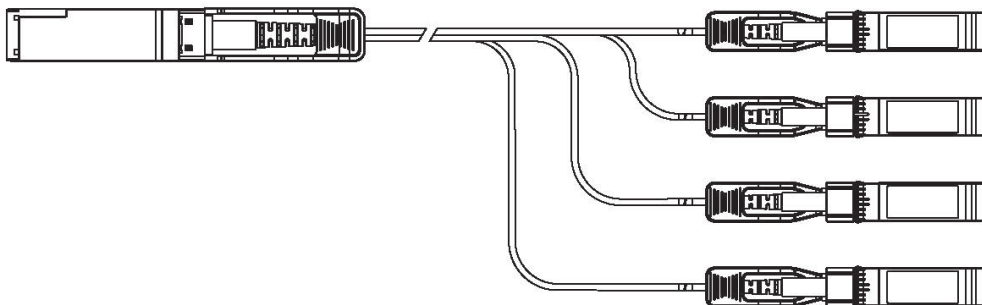
Channels	4 Lanes, bi-directional
Data Rate per Channel	10.3125 Gb/s (max)
Operating Wavelength	850nm

## Receiver Electrical Interface

Rx Data Differential Output Voltage (SFP+)	200mV to 1000mV
Rx Data Differential Output Voltage (QSFP+)	200mV to 1000mV
Rx Data Differential Output Impedance	100Ω (typical)
LOS Assert Voltage	2V to $V_{cc}+0.3$
LOS De-assert Voltage	0.3V to 0.4V

## Transmitter Electrical Interface

Tx Data Differential Input Voltage (SFP+)	200mV to 1600mV
Tx Data Differential Input Voltage (QSFP+)	200mV to 1600mV
Tx Data Differential Input Impedance	100Ω (typical)
Transmitter Disable Voltage	2V to $V_{cc}+0.3$
Transmitter Enable Voltage	0.3V to 0.8V



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