

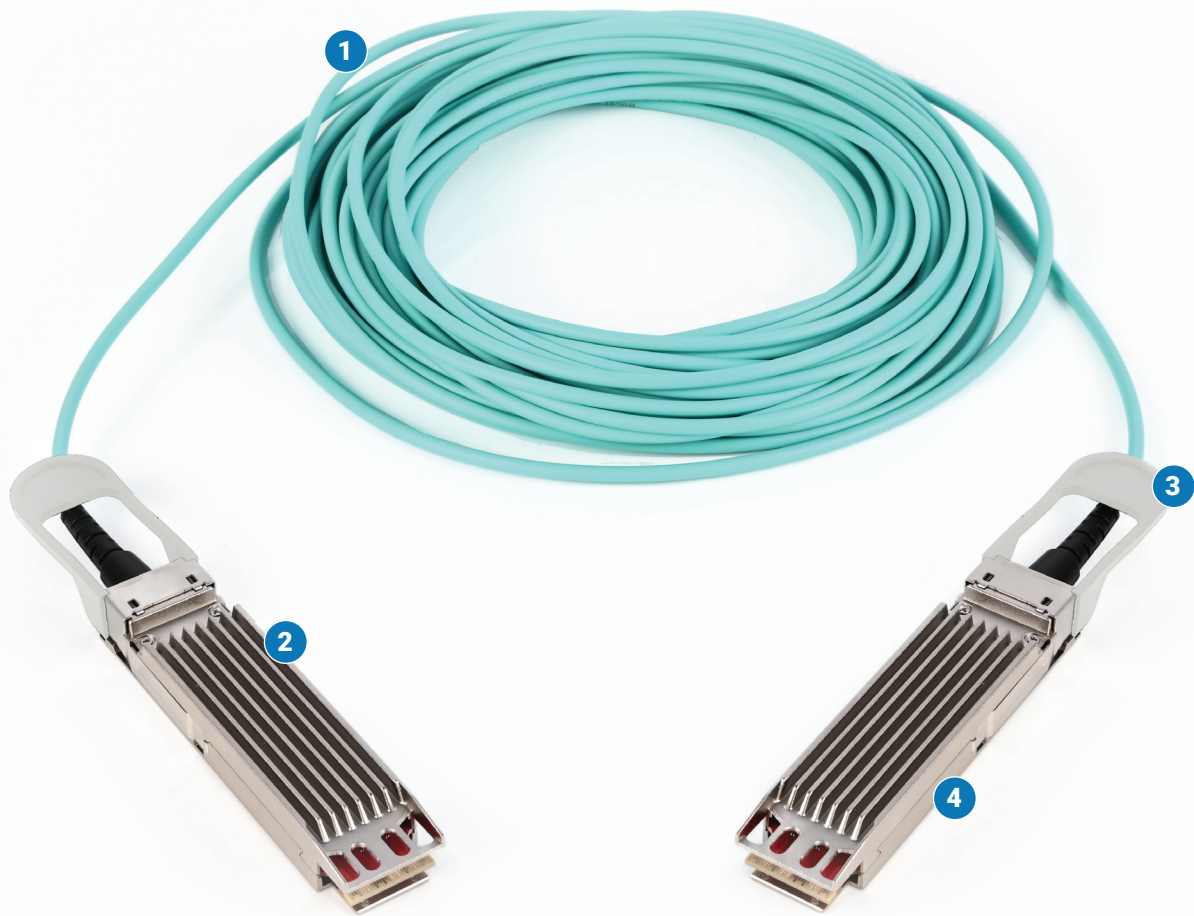
Active Optical Cables

400G PAM4 OSFP Straight Throughs and Breakouts

Regional Availability – Global



Siemon's 50G per lane PAM4 Ethernet or InfiniBand™ OSFP Active Optical Cable assemblies (AOCs) are designed to exceed industry standard performance offering a cost-effective, low latency, low-power option for high-speed data center interconnects. The Active Optical Cables support 400G PAM4 applications and are available in standard lengths up to 100 meters including 1:2, 1:4 and 1:8 breakouts.



1. OSFP and LSZH/OFNR Jacket Versions Available

2. Ultra-Low Crosstalk for Enhanced Performance

3. Positive Retention Pull-Release Latch System

4. MSA Compliant Connectors

Applications

- Ethernet 400GBASE CR4
- InfiniBand HDR 400G
- Top-of-Rack
- Rack-to-Rack
- Switch-to-Switch
- Switch-to-Server
- Network Interface Adapter
- Accelerator Cards
- Storage
- Routers
- Servers

Standards Compliance

OSFP-FT

IEEE 802.3cd
OSFP MSA
CMIS

QSFP-DD

IEEE 802.3cd
QSFP-DD MSA
CMIS

QSFP

IEEE 802.3cd
SFF-8636
SFF-8661
SFF-8672
SFF-8679

SFP

IEEE 802.3cd
SFF-8402
SFF-8071
SFF-8419
SFF-8472

PHYSICAL PROPERTIES – CONNECTOR

| CONNECTOR TYPE | | OSFP-FT | QSFP-DD | QSFP | QSFP | SFP |
|--------------------------|------------------------------------|----------------------------|-----------|------------|------------|------------|
| LANES UTILIZED | | SR8 | SR8 | SR4 | SR2 | SR1 |
| CONNECTOR SIDE(S) | | A/B | B | B | B | B |
| CABLE ASSEMBLY TYPE | | 1:1 | 1:1 | 1:2 | 1:4 | 1:8 |
| 50G PER LANE ETHERNET | Application Speed | 400G PAM4 | 400G PAM4 | 200G PAM4 | 100G PAM4 | 50G PAM4 |
| | Power Supply Current Per End (Max) | 2.3 A | 2.3 A | 1.1 A | 0.71 A | 220 mA |
| | Power Consumption Per End (Max) | 8.0 W | 8.0 W | 3.9 W | 2.5 W | .80 W |
| 50G PER LANE INFINIBAND™ | Application Speed | 400G HDR | | 200G HDR | 100G HDR | |
| | Power Supply Current Per End (Max) | 2.3 A | | 1.1 A | 0.71 A | |
| | Power Consumption Per End (Max) | 8.0 W | | 3.9 W | 2.5 W | |
| SUPPLY VOLTAGE | | 3.13 V | 3.13 V | 3.13 V | 3.13 V | 3.13 V |
| INSERTION FORCE (Max) | | 40N | 90N | 60N | 60N | 18N |
| EXTRACTION FORCE (Max) | | 30N | 50N | 30N | 30N | 12.5N |
| RETENTION FORCE (Max) | | 125N | 90N | 90N | 90N | 90N |
| DURABILITY (Min) | | 50 cycles | 50 cycles | 250 cycles | 250 cycles | 250 cycles |
| OPERATING TEMPERATURE | | 0 to 70°C (32 to 158°F) | | | | |
| STORAGE TEMPERATURE | | -40 to 85°C (-40 to 185°F) | | | | |

PHYSICAL PROPERTIES – FIBER

| CONSTRUCTION | | LSZH/OFNR OM3 | LSZH/OFNR OM4 | OFNP OM3 | OFNP OM4 |
|---------------------------|-----------------------------|---------------|---------------|----------|----------|
| FLAMMABILITY RATING | | Riser | Riser | Plenum | Plenum |
| CABLE O.D. (mm) | | 3.0 mm | 3.0 mm | 3.0 mm | 3.0 mm |
| BEND RADIUS (mm) SINGLE | | 30.0 mm | 30.0 mm | 30.0 mm | 30.0 mm |
| BEND RADIUS (mm) REPEATED | | 60.0 mm | 60.0 mm | 60.0 mm | 60.0 mm |
| SR(X) MAX LENGTH | 50G PER LANE ETHERNET | 70 m | 100 m | 70 m | 100 m |
| | 50G PER LANE INFINIBAND HDR | 70 m | 100 m | 70 m | 100 m |

Ordering Information

400G PAM4 OSFP AOC

(XXX) (XXX) (X) (XX.X) -2 (X) Q

| CONNECTOR TYPE | Side A | Side B | SPEED PER LANE | CABLE STYLE | LENGTH (meters) | FIBER TYPE |
|----------------|---------------|---------------|---------------------------|-----------------------------------|-----------------|--------------------------------|
| F1F | OSFP-FT (SR8) | OSFP-FT (SR8) | -56 = 50G PAM4 Ethernet | F = AOC (Active Optical Cable) | 00.5 = 0.5 m | Y = OM3 Plenum (OFNP) |
| F1D | OSFP-FT (SR8) | QSFP-DD (SR8) | -H- = 50G HDR InfiniBand™ | | 01.0 = 1.0 m | V = OM3 LSZH Riser (LSZH/OFNR) |
| F2Q | OSFP-FT (SR8) | 2QSFP (SR4) | | | 50.0 = 50.0 m | X = OM4 Plenum (OFNP) |
| F4Q | OSFP-FT (SR8) | 4QSFP (SR2) | | | 100 = 100 m | T = OM4 LSZH Riser (LSZH/OFNR) |
| F8S | OSFP-FT (SR8) | 8SFP (SR1) | | | | |

Please contact our Technical Sales Group if you require connectivity or cable configurations that are not listed above.

Please contact our Technical Sales Group if you require connectivity solutions specifically for NVIDIA or Mellanox active equipment to ensure proper product selection.

Siemon is a provider of InfiniBand™ compliant cabling solutions and is a member of the InfiniBand Trade Association (IBTA).

Part Number Examples:

| Part Number | Description |
|-----------------|--|
| F1F-56F0100-2TQ | AOC, 400G PAM4, SR8/SR8, OSFP-FT, OM4, 100m, LSZH/OFNR, Aqua |
| F2Q-H-F25.0-2VQ | AOC, 400G HDR, SR8/SR4, OSFP-FT/2QSFP56, OM3, 25m, LSZH/OFNR, Aqua |
| F4Q-56F05.0-2YQ | AOC, 400G PAM4, SR8/SR2, OSFP-FT/4QSFP56, OM3, 5m, OFNP, Aqua |

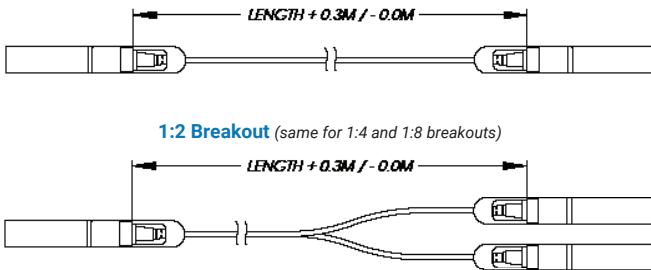
Notes:

OSFP-FT is OSFP Finned Top

OSFP-RHS is OSFP Riding Heat Sink (also called Flat Top).

SFP, SFP-DD, and QSFP-DD are not supported by InfiniBand.

RS-544 FEC



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SPEC SHEET

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