TE CONNECTIVITY OPTICS SOLUTION GUIDE

Expanding Connectivity with Speed and Scale

TE Connectivity (TE) is expanding its high-speed connectivity portfolio with new optical transceivers, complementing our Active Optical Cables (AOCs) and copper solutions. Designed for hyperscale data centers, AI/ML, High Performance Computing, and telecom applications. Our transceivers (200G, 400G, 800G and 1.6T) deliver reliable performance, flexibility, and scalability.

WHY CHOOSE TE OPTICAL SOLUTIONS?

Trusted Partner in Connectivity
With a legacy of innovation, TE offers a strong brand, a well-established network, and **global diverse manufacturing locations** that help minimize supply chain risk.

Comprehensive Portfolio
- 200G, 400G, and 800G transceivers alongside AOCs, with 1.6T transceivers as the latest addition to our broad optics offerings
- Support for distances from <100m to 2km for diverse applications

Reliable Performance
- Built to rigorous standards with best-in-class Bit Error Ratio (BER)
- Compliance with **Forward Error Correction (FEC)** standards including KP4 and RS-FEC ensures low-error data transmission for AI and HPC workloads
- Tested to **Telcordia GR-468-CORE** standards to guarantee environmental reliability

Flexible Integration
Designed for deployment across both single-mode and multimode fibers with plug-and-play ease, providing reliable compatibility that simplifies network scaling to meet dynamic connectivity demands.

Industry Standards Compliance
Our solutions are designed to meet key industry standards for interoperability and future-proof performance:
- IEEE 802.3cd, IEEE 802.3ck, IEEE 802.3df, IEEE 802.3dj
- CMIS 5.0 / 5.1 compliance
- OIF CEI-112G, CEI-224G, and 200G C2M interface standards

Customer-Centric Support
TE is committed to delivering **strong pre-sales and post-sales customer service and support**, offering expert guidance, responsive assistance, and a collaborative approach to help customers navigate their connectivity needs with confidence.

Applications
- High Performance Computing
- Cloud Computing
- AI/ML
- Cloud Service Providers

PRODUCT PORTFOLIO & BENEFITS

Transceivers

56G PAM4

200G QSFP56
2500928-1

400G QSFP56-DD
2500930-1

400G QSFP-DD SR4
2505223-1

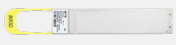
400G QSFP-DD DR4
2508267-1

112G PAM4

400G QSFP112
2500929-1

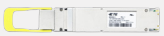
800G QSFP-DD
2500931-1

800G OSFP
2500932-1



***800G OSFP-RHS DR8 LPO**
2504925-1

224G PAM4



1.6T OSFP 2xDR4 Siph
2503503-1

AOC

400G QSFP-DD:
2523382

400G QSFP-DD to 2x QSFP56:
2512420

800G QSFP-DD:
2455042

800G OSFP:
2497177

800G OSFP-2x400GQSFP112
2420142

800G OSFP SR8 to 4x200G QSFP112
2508316

* OSFP-RHS (Riding Heat Sink), optimized for liquid-cooled switches, and OSFP-IHS (Integrated Heat Sink), designed for traditional air-cooled switches, are available in transceiver and AOC variants.

Transceivers

- What is a Transceiver? A transceiver is a standalone device that transmits and receives data over fiber optic cables, offering customizable connectivity for your network
- Offers freedom to adapt with a variety of fiber optic cable types and lengths (from under 100m to up to 2km), ideal for scaling telecom or metro/long-haul setups
- Allows replacement of only the transceiver or cable if an issue arises, saving time and reducing maintenance costs
- Requires periodic connector cleaning to maintain performance, but provide a cost advantage—typically less than half the cost of an AOC
- Best suited for applications needing versatility over longer distances (over 100m) or frequent cable changes

AOC

- What is an AOC? An AOC is a pre-assembled cable with integrated transceivers at both ends, designed for a complete, ready-to-use optical connection
- Provides a plug-and-play solution with integrated transceivers, simplifying installation for data centers or HPC environments
- Features a sealed design that protects against dust and contamination, enhancing reliability with minimal maintenance
- Offers cost-effective performance for short-reach connections (under 100m), helping you save on deployment costs in high-density scenarios like AI/ML racks
- Requires full replacement if a component fails, making them ideal for short-distance, high-density applications where simplicity is key

How to Select the Right Solution

- For flexibility and scalability in dynamic or long-distance setups (e.g., telecom, enterprise networks), transceivers provide the adaptability to meet changing needs
- For simplicity and cost savings in high-density, short-reach environments (e.g., data centers, high performance computing), AOCs deliver reliable performance with minimal setup effort

TE Connectivity offers both options to support your network's unique demands, helping you to achieve optimal performance and efficiency.

PRODUCT DETAILS

800G OSFP-IHS SR8 Transceiver

- Compliant with OSFP MSA
- CMIS 5.0 compliant
- RoHS compliant
- Built to customer's EEPROM specifications
- 53.125GBd PAM4 *8 channel 800GAUI-8 C2M Electrical interface
- 53.125 GBd PAM4 *8 channel 800G-SR8 Optical interface
- Max. Link length – 60m with OM3 and 100m with OM4/OM5
- Power dissipation <15W
- Firmware upgradability via CDB
- Case temperature range of 0 to 70°C

Product	Part Number
800G OSFP-IHS SR8 TRANSCEIVER	2500927-1

800G OSFP-RHS SR8 Transceiver

- Compliant with OSFP MSA
- CMIS 5.0 compliant
- RoHS compliant
- Built to customer's EEPROM specifications
- 53.125GBd PAM4 *8 channel 800GAUI-8 C2M Electrical interface
- 53.125 GBd PAM4 *8 channel 800G-SR8 Optical interface
- Max. Link length – 60m with OM3 and 100m with OM4/OM5
- Power dissipation <15W
- Firmware upgradability via CDB
- Case temperature range of 0 to 70°C

Product	Part Number
800G OSFP-RHS SR8 TRANSCEIVER	2500932-1

800G QSFP-DD SR8 Transceiver

- Compliant with QSFP-DD MSA
- CMIS 5.0 compliant
- RoHS compliant
- Built to EEPROM specification from the customer
- 53.125GBd PAM4 *8 channel 800GAUI-8 C2M Electrical interface
- 53.125 GBd PAM4 *8 channel 800G-SR8 Optical interface
- Max. Link length – 60m with OM3 and 100m with OM4/OM5
- Power dissipation <15W
- Firmware upgradability via CDB
- Case temperature range of 0 to 70°C

Product	Part Number
800G QSFP-DD SR8 TRANSCEIVER	2500931-1

400G QSFP56-DD SR8 Transceiver

- Compliant with QSFP-DD MSA
- CMIS 5.0 compliant
- Hot pluggable
- RoHS-6 compliant
- Built to EEPROM specification from the customer
- Supports 425Gbps aggregate data rate
- MPO-16 connector
- Max. Link length – 70m with OM3 and 100m with OM4/OM5
- Power dissipation <10W
- Firmware upgradability via CDB
- Case temperature range of 0 to 70°C

Product	Part Number
400G QSFP56-DD SR8 TRANSCEIVER	2500930-1

400G QSFP112 SR4 Transceiver

- Compliant with IEEE 802.3db
- CMIS 5.0 compliant
- Hot pluggable, RoHS compliant
- Built to EEPROM specification from the customer
- 53.125GBd PAM4 *4 channel 800GAUI-8 C2M Electrical interface
- 53.125 GBd PAM4 *4 channel 800G-SR8 Optical interface
- MPO-12/APC connector
- Max. Link length – 60m with OM3 and 100m with OM4/OM5
- Power dissipation <9W
- Firmware upgradability via CDB
- Case temperature range of 0 to 70°C

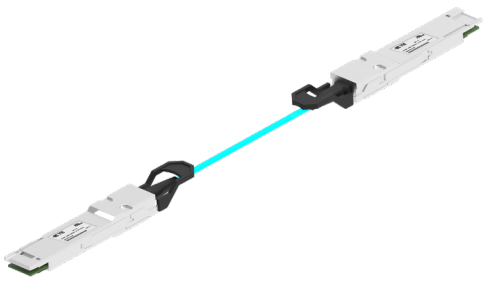
Product	Part Number
400G QSFP112 SR4 TRANSCEIVER	2500929-1

200G QSFP56 SR4 Transceiver

- Hot-pluggable QSFP56 form factor
- Supports 212.5Gb/s aggregate bit rate
- 4-channel full-duplex transceiver module
- Built to customer's EEPROM specifications
- SFF-8636 compliant
- IEEE 802.3cd 200GBASE-SR4 standard compliant
- IEEE 802.3bs 200GAUI-4 standard compliant
- Single MPO-12/UPC receptacle
- RoHS compliant
- Max. Link length: 70m with OM3 and 100m with OM4 with FEC
- Power dissipation <4.5W
- Case temperature range of 0 to 70°C

Product	Part Number
200G QSFP56 SR4 TRANSCEIVER	2500928-1

800G QSFP-DD Active Optical Cables (AOC)

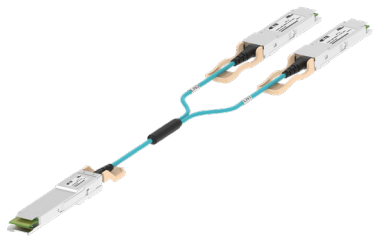


- Compliant with QSFP-DD MSA
- Compliant with CMIS4.0
- Hot-Pluggable QSFP-DD Footprint
- 0°C to 70°C Commercial Temperature Range
- DDM function implemented
- Maximum link length of 60m on OM3 MMF
- Maximum link length of 100m on OM4 MMF
- Single 3.3V power supply
- 850nm VCSEL Laser
- RoHS Compliant

800G QSFP-DD Active Optical Cables (AOC)

Product	Part Number	Length (m)
800G QSFP-DD TO QSFP-DD, AOC	2418083-1	1
800G QSFP-DD TO QSFP-DD, AOC	2418083-2	2
800G QSFP-DD TO QSFP-DD, AOC	2418083-3	3
800G QSFP-DD TO QSFP-DD, AOC	2418083-4	5
800G QSFP-DD TO QSFP-DD, AOC	2418083-5	10
800G QSFP-DD TO QSFP-DD, AOC	2418083-6	15
800G QSFP-DD TO QSFP-DD, AOC	2418083-7	20
800G QSFP-DD TO QSFP-DD, AOC	2418083-8	30

800G QSFP-DD to 2x 400G QSFP-112 AOC



- Active optical cable with breakout from QSFP-DD800 800G to two QSFP112 400G
- Up to 106.25Gbps data rate per channel by PAM4 modulation
- Up to 60m with OM3 fiber
- Up to 100m with OM4 fiber
- Integrated 850nm VCSEL array and PD array
- Single +3.3V power supply
- Hot-pluggable
- Low power dissipation: <14W on QSFP-DD800 800G end, <8W on QSFP112 400G end
- Commercial operating case temperature range: 0 to 70°C

Product	Part Number	Length (m)
800G QSFP-DD112 SR8 - 2x400G QSFP112 SR4 Y-Cable AOC	2500632-1	1
800G QSFP-DD112 SR8 - 2x400G QSFP112 SR4 Y-Cable AOC	2500632-2	2
800G QSFP-DD112 SR8 - 2x400G QSFP112 SR4 Y-Cable AOC	2500632-3	3
800G QSFP-DD112 SR8 - 2x400G QSFP112 SR4 Y-Cable AOC	2500632-4	5
800G QSFP-DD112 SR8 - 2x400G QSFP112 SR4 Y-Cable AOC	2500632-5	10
800G QSFP-DD112 SR8 - 2x400G QSFP112 SR4 Y-Cable AOC	2500632-6	15
800G QSFP-DD112 SR8 - 2x400G QSFP112 SR4 Y-Cable AOC	2500632-7	20
800G QSFP-DD112 SR8 - 2x400G QSFP112 SR4 Y-Cable AOC	2500632-8	30

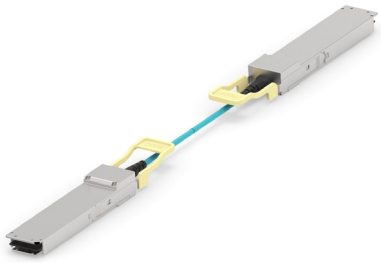
800G OSFP to 4x200G QSFP112 Active Optical Cable

- Active optical cable with breakout from 800G OSFP to four 200G QSFP112
- Up to 106.25Gbps data rate per channel by PAM4 modulation
- Up to 60m with OM3 fiber
- Up to 100m with OM4 fiber
- Integrated 850nm VCSEL array and PD array
- Single +3.3V power supply
- Hot-pluggable
- Compliant with OSFP800 800G MSA 5.0
- Compliant with QSFP112 400G MSA 2.0
- Compliant with CMIS 5.0
- RoHS 2.0 complaint
- Low power dissipation:
  <15W on 800G OSFP end
  <8W on 200G QSFP112 end

Part Number	Description
2508316-1	800G OSFP SR8 to 4x200G QSFP112 SR2, AOC, 1m
2508316-2	800G OSFP SR8 to 4x200G QSFP112 SR2, AOC, 2m
2508316-3	800G OSFP SR8 to 4x200G QSFP112 SR2, AOC, 3m
2508316-4	800G OSFP SR8 to 4x200G QSFP112 SR2, AOC, 5m
2508316-5	800G OSFP SR8 to 4x200G QSFP112 SR2, AOC, 10m
2508316-6	800G OSFP SR8 to 4x200G QSFP112 SR2, AOC, 15m
2508316-7	800G OSFP SR8 to 4x200G QSFP112 SR2, AOC, 20m
2508316-8	800G OSFP SR8 to 4x200G QSFP112 SR2, AOC, 30m

Note: For availability of additional cable lengths, please contact TE.

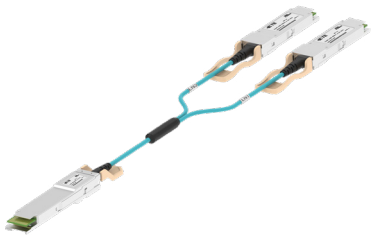
800G OSFP AOC



- Up to 106 Gbps data rate per channel by PAM4 modulation
- Support 800GAUI-8 electrical interface
- Integrated 850nm VCSEL array and PD array
- DDM function implemented
- Hot-pluggable OSFP form factor
- Single +3.3V power supply

Product	Part Number	Length (m)
800G OSFP TO OSFP, AOC	2497177-1	1
800G OSFP TO OSFP, AOC	2497177-2	2
800G OSFP TO OSFP, AOC	2497177-3	3
800G OSFP TO OSFP, AOC	2497177-4	5
800G OSFP TO OSFP, AOC	2497177-5	10
800G OSFP TO OSFP, AOC	2497177-6	15
800G OSFP TO OSFP, AOC	2497177 -7	20
800G OSFP TO OSFP, AOC	2497177-8	30

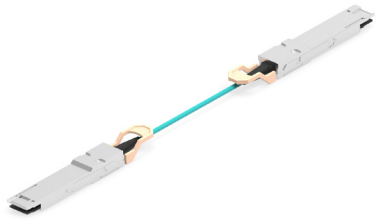
800G OSFP112 to 2x 400G QSFP112, AOC



- Active optical cable with breakout from OSFP 800G to two QSFP112 400G
- Up to 106.25Gbps data rate per channel by PAM4 modulation
- Up to 60m with OM3 fiber
- Up to 100m with OM4 fiber
- Integrated 850nm VCSEL array and PD array
- Single +3.3V power supply
- Hot-pluggable

Product	Part Number	Length (m)
800G OSFP112 to 2x400G QSFP112, AOC	2420142-1	1
800G OSFP112 to 2x400G QSFP112, AOC	2420142-2	2
800G OSFP112 to 2x400G QSFP112, AOC	2420142-3	3
800G OSFP112 to 2x400G QSFP112, AOC	2420142-4	5
800G OSFP112 to 2x400G QSFP112, AOC	2420142-5	10
800G OSFP112 to 2x400G QSFP112, AOC	2420142-6	15
800G OSFP112 to 2x400G QSFP112, AOC	2420142-7	20
800G OSFP112 to 2x400G QSFP112, AOC	2420142-8	30

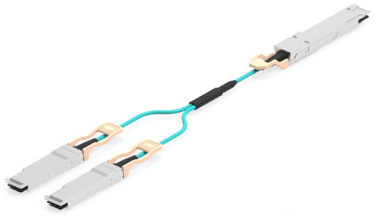
400G QSFP-DD AOC



- Up to 53.125 Gbps data rate per channel by PAM 4 modulation
- Single 3.3 V power supply
- Low power consumption: < 8 W per cable end
- Up to 70m (OM3) / 100m (OM4)
- Built-in digital diagnostic functions (CMIS rev 4.0)
- Hot pluggable
- RoHS compliant
- Commercial operating case temperature range: 0 to 70°C

Product	Part Number	Length (m)
QSFP-DD-QSFP-DD, AOC	2523382-1	1
QSFP-DD-QSFP-DD, AOC	2523382-2	2
QSFP-DD-QSFP-DD, AOC	2523382-3	3
QSFP-DD-QSFP-DD, AOC	2523382-4	5
QSFP-DD-QSFP-DD, AOC	2523382-5	10
QSFP-DD-QSFP-DD, AOC	2523382-6	15
QSFP-DD-QSFP-DD, AOC	2523382-7	20
QSFP-DD-QSFP-DD, AOC	2523382-8	30

400G QSFP-DD to 2x QSFP56 AOC



- Up to 53.125 Gbps data rate per channel by PAM 4 modulation
- Single 3.3 V power supply
- Low power consumption: < 8 W on QSFP-DD end, < 4 W on QSFP56 end
- Up to 70m (OM3) / 100m (OM4)
- Built-in digital diagnostic functions (CMIS rev 4.0)
- Hot pluggable
- RoHS compliant
- Commercial operating case temperature range: 0 to 70°C

Product	Part Number	Length (m)
QSFP-DD to 2X QSFP56, AOC	2512420-1	1
QSFP-DD to 2X QSFP56, AOC	2512420-2	2
QSFP-DD to 2X QSFP56, AOC	2512420-3	3
QSFP-DD to 2X QSFP56, AOC	2512420-4	5
QSFP-DD to 2X QSFP56, AOC	2512420-5	10
QSFP-DD to 2X QSFP56, AOC	2512420-6	15
QSFP-DD to 2X QSFP56, AOC	2512420-7	20
QSFP-DD to 2X QSFP56, AOC	2512420-8	30

Commitment to Innovation

TE Connectivity drives the future of optical networking with sustainable, high-performance solutions. Our transceivers complement our AOCs and copper portfolio, ensuring flexibility for AI, 5G, and cloud infrastructure. Backed by global engineering and supply chain expertise, TE delivers connectivity you can trust.

Website:

te.com/opticaltransceiver

te.com/AOC

Contact Us

Elevate your network with TE's optical solutions. Contact us for a demo or more details.

te.com/optics/contactus

About TE Connectivity

TE Connectivity plc (NYSE: TEL) is a global industrial technology leader creating a safer, sustainable, productive, and connected future. Our broad range of connectivity and sensor solutions enable the distribution of power, signal and data to advance next-generation transportation, energy networks, automated factories, data centers, medical technology and more. With more than 85,000 employees, including 9,000 engineers, working alongside customers in approximately 130 countries, TE ensures that EVERY CONNECTION COUNTS. Learn more at www.te.com and on LinkedIn, Facebook, WeChat and Instagram.

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