

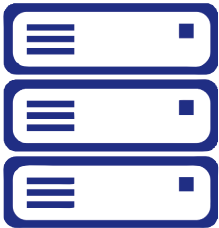
WHAT'S NEXT *IN OPTICS*



WE ARE SOURCE PHOTONICS

Source Photonics is a leading provider of innovative and reliable optical communications technology that enables communications and connectivity in datacenters, metro, and access networks. Through lean management, manufacturing, and our Source Lean Quality (SLQ) system, we run our world-class operation at maximum efficiency, identifying and eliminating waste in our processes to create more value for our customers. Source Photonics has key R&D and manufacturing facilities in California, Taiwan, Chengdu, and Jintan, China.

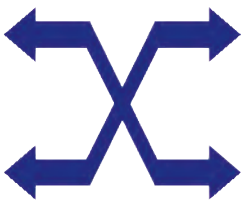
PLUG INTO EVERY APPLICATION



DATACENTER

- Full 100G and 400G Portfolios
- 10G SFP+ and 40G QSFP+ Product Portfolio

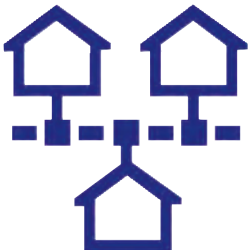
MARKET-LEADING PERFORMANCE
FORM FACTOR CHOICE
LOW-COST DESIGN



OPTICAL TRANSMISSION

- High Data Rate 100G and 400G Transceivers
- Support for 100Mb/s - 400Gb/s, Including Ethernet, SONET/SDH, OTU and DWDM

VERTICAL INTEGRATION
HIGH VOLUME IN-HOUSE MANUFACTURING



FIXED BROADBAND

- PON Transceivers and OSA Product Portfolio
- Device to Complete Transceiver Offering

VERTICAL INTEGRATION
DEPLOYMENT FLEXIBILITY

OUR COMMITMENT TO QUALITY

Source Photonics creates optical transceivers and components that are built on the latest industry standards and help our customers drive bandwidth, reach and efficiency to new heights. Our products can be found within the most advanced data centers in the world. They help form the backbone of the fastest transmission networks on earth. They are helping network operators provide what's next in broadband access, and giving mobile carriers the flexibility and speed to support exploding consumer demand for wireless connectivity.



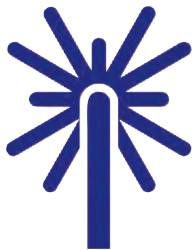
For more information about our TAA compliant products, please email sales@sourcephotonics.com.



MOBILEBROADBAND

- Comprehensive CPRI Portfolio for Wireless Front Haul
- Integrated PON ONT Transceivers for Small Cell Backhaul

HIGH BANDWIDTH
LONG REACH
LOW POWER
TEMPERATURE HARDENED



OPTICALCOMPONENTS

- TO-cans and components manufactured at wholly-owned wafer and chip fab in Asia
- Product offering for fixed access, wireless front-haul, metro, and enterprise markets

VOLUME PRODUCTION
WHOLLY-OWNED FAB
INTEGRATED MANUFACTURING

DATA CENTER



400G DR4 QSFP-DD

SPQ-4E-DR-CDFD

- Compliant to 400GBASE-DR4
- 400GAUI-8 electrical interface
- QSFP-DD type 2 housing
- Channel Insertion Loss of >3dB (for "DR4+") supported



400G-FR4 QSFP-DD

SPQ-4E-FR-CDFA

- 400GAUI-8 electrical interface
- QSFP-DD type 2 housing
- Non-hermetic COB technology
- Platform expandable to support LR4



100G DR/FR QSFP28

SPQ-CE-DR-CDFA

- 100GBASE-DR single lambda optical interface
- Supports 100G-FR (100G Lambda MSA)
- 4x25G CAUI-4 electrical interface
- KP4 FEC termination inside module

| | Part Number | Data Rate | Transmitter | Receiver | Wavelength (nm) | Reach (km) | Temperature Range |
|---------------------|-----------------|--------------|-------------|----------|-----------------|------------|-------------------|
| 400G QSFP-DD | SPQ-4E-DR-CDFD | 400 Gb/s | EML | PIN | 1310 | 500m | C |
| | SPQ-4E-DR-CDFE | 400 Gb/s | EML | PIN | 1310 | 2 | C |
| | SPQ-4E-DR-CDFD | 400 Gb/s | EML | PIN | 1310 | 10 | C |
| | SPQ-4E-FR-CDFA | 400 Gb/s | EML | PIN | CWDM | 2 | C |
| | SPQ-4E-LR-CDFP | 400 Gb/s | EML | PIN | CWDM | 6 | C |
| | SPQ-4E-LR-CDFQ | 400 Gb/s | EML | PIN | CWDM | 10 | C |
| | SPQ-4E-LR-CDFA | 400 Gb/s | EML | PIN | LAN WDM | 10 | C |
| 400G OSFP | SPQ-4E-LR-CDFO | 400 Gb/s | EML | PIN | LAN WDM | 10 | C |
| 100G QSFP28 | SPQ-CE-LR-CDFD | 103.125 Gb/s | EML | PIN | LAN WDM | 10 | C |
| | SPQ-CE-CL-CDFP | 103.125 Gb/s | DML | PIN | CWDM | 2 | C |
| | SPQ-CE-DR-CDFA | 103.125 Gb/s | EML | PIN | 1310 | 500m | C |
| | SPQ-CE-FR-CDFA | 103.125 Gb/s | EML | PIN | 1310 | 2 | C |
| | SPQ-CE-LR-CDFG | 103.125 Gb/s | EML | PIN | 1310 | 10 | C |
| | SPQ-CE-CL-CDFD | 103.125 Gb/s | DML | PIN | CWDM | 10 | C |
| | SPQ-CE-LR-xDFC | 103.125 Gb/s | EML | PIN | LAN WDM | 10 | E, I |
| | SPQ-CE-ER-CDFL | 103.125 Gb/s | EML | APD | LAN WDM | 40 | C |
| 40G QSFP+ | SPQ-10E-LR-CDFD | 41.25 Gb/s | DFB | PIN | CWDM | 10 | C |
| | SPQ-10E-LR-CDFN | 41.25 Gb/s | DFB | PIN | CWDM | 2 | C |
| 10G SFP+ | SPP-10E-LR-CDFD | 10 Gb/s | DFB | PIN | 1310 | 10 | C |

C: Commercial (0°C to 70°C) I: Industrial (-40°C to 85°C) E: Extended (-5°C to 85°C)

OPTICAL TRANSMISSION



400G LR8 QSFP-DD

SPQ-4E-LR-CDFB

- Compliant with IEEE 802.3bs standard:
 - 400GBASE-LR8 optical interface
 - 400GAUI-8 electrical interface
- Compliant with QSFP-DD MSA HW



100G 4WDM-40 QSFP28

SPQ-CE-ER-CDFL

- Compliant with 4WDM-40 MSA
- Supports up to 40 km transmission with FEC over SMF
- EML laser and APD receiver



100G ZR4 QSFP28

SPQ-CE-ZR-CDFA

- CAUI-4 serial electrical interface
- 4 wavelengths LWDM EML and SOA-PIN
- Up to 80km (with FEC) link distance of SSMF fiber
- Support over 30dB link budget

| | Part Number | Data Rate | Transmitter | Receiver | Wavelength (nm) | Reach (km) | Temperature Range |
|--------------------|-----------------------|--------------------|-------------|----------|-----------------|------------------------------|-------------------|
| 400G QSFP-DD | SPQ-4E-LR-CDFB | 400 Gb/s | EML | PIN | LAN WDM | 10 | C |
| | SPQ-4E-ER-CDFA | 400 Gb/s | EML | APD | LAN WDM | 40 | C |
| 100G QSFP28 | SPQ-CS-LR-CDFE | 103.1-111.8 Gb/s | EML | PIN | LAN WDM | 10 | C |
| | SPQ-CS-ER-CDFL | 103.1-111.8 Gb/s | EML | APD | LAN WDM | 40 | C |
| | SPQ-CE-LR-xDFC | 103.125 Gb/s | EML | PIN | LAN WDM | 10 | E, I |
| | SPQ-CE-LR-CDFE | 103.125 Gb/s | EML | PIN | LAN WDM | 10 | C |
| 50G QSFP28 | SPQ-50E-LR-CDFA | 53.125 Gb/s | DFB | PIN | 1310 | 10 | C |
| | SPQ-50E-ER-CDFA | 53.125 Gb/s | DFB | APD | 1310 | 40 | C |
| | SPQ-50E-BX-CDFA/B | 53.125 Gb/s | DFB | PIN | 1271/1331 | 10 | C |
| | SPQ-50E-BD-CDFA/B | 53.125 Gb/s | EML | APD | 1295/1309 | 40 | C |
| SFP+ Ethernet | SPP-10E-LR-xDFR | 10.3 Gb/s | FP | PIN | 1310 | 1.4 | C, E |
| | SPP-10E-LR-xDFE | 10.3 Gb/s | DFB | PIN | 1310 | 10 | C, E, I |
| | SPP-10E-ER-xDFE | 10.3 Gb/s | EML | PIN | 1550 | 40 | C, I |
| | SPP-10E-ZR-xDFE | 10.3 Gb/s | EML | APD | 1550 | 80 | C, I |
| SFP+ SONET/SDH | SPP-10S-LR-xDFC | 9.9-11.3 Gb/s | DFB | PIN | 1310 | 10 | C, E |
| | SPP-10S-ER-XDFB | 9.9-11.3 Gb/s | EML | PIN | 1550 | 40 | C, E |
| SFP | SP-GB-LX-xDFN | 1.25 Gb/s | FP | PIN | 1310 | 10 | C, I |
| | SP-GB-EX-xDFC | 1.25 Gb/s | DFB | PIN | 1310 | 40 | C, I |
| | SP-GB-ZX-xDFC | 1.25 Gb/s | DFB | PIN | 1550 | 80 | C, I |
| CWDM SFP | SPC-03-XLR-xxCDFB | 155 Mb/s | DFB | APD | CWDM | 150 | C |
| SGMII SFP | SPG-DR-FX-xDFC | 125/1250 Mb/s | FP | PIN | 1310 | 0.5 (GB, MMF) 2 (FE, MMF) | C, I |
| | SPG-DR-LX-xDFC | 125/1250 Mb/s | FP | PIN | 1310 | 10 (SMF) | C, I |
| | SPG-DR-LH-CDFC | 125/1250 Mb/s | DFB | PIN | 1310 | 40 (SMF) | C |
| Bi-directional SFP | SPL-34/43-GB-BD-xDFM | 1.25 Gb/s | DFB | PIN | 1310/1490 | 40 | C, I |
| | SPL-35/53-GB-BD-xDFM | 1.25 Gb/s | DFB | PIN | 1310/1550 | 40 | C, I |
| | SPL-34/43-MR-IR2-IDFM | 155 Mb/s-2.67 Gb/s | DFB | PIN | 1310/1490 | 40 | I |
| | SPLC-34/43-GB-BX-xDFA | 1.25 Gb/s | FP/DFB | PIN | 1310/1490 | 10 | C, I |
| | SPL-34/43-GB-BX | 1.25 Gb/s | FP/DFB | PIN | 1310/1490 | 10 | C, I |
| | SPL-35/53-03-EBX | 155 Mb/s | FP | PIN | 1310/1550 | 20 | C, I |

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FIXED BROADBAND



XGS PON ONU

SPPS-27-10S-N2-CDFA

- Compliant with ITU-T G.9807.1 XGS-PON N1/N2/E1 class
- 1270nm Burst-Mode Transmitter with DFB Laser
- 1577nm Continuous-Mode Receiver with APD-TIA
- Sleep Mode for Power Consumption
- Compliant with SFP+ MSA SFF-8431



GPON ONU with MAC

SPS-34-24T-HP-TDFx

- Simplex SC Connector, Integrated Diplexer Transceiver
- 1244 Mbps Tx, 2488 Mbps Rx Asymmetric Data Rate
- OMCI support per ITU-T G.988
- Compliant to FSAN G.984.2 Specifications



10G EPON OLT

XPP-XE0-R3-CDFD

- Single fiber, integrated triplexer transceiver
- Supports IEEE802.3-av 10/10 G base PR30 symmetric EPON OLT
- Supports IEEE802.3-2008 EPON OLT
- Integrated with micro-optics WDM filter

| | Part Number | Application | Form Factor | Data Rate TX (Gb/s) RX | Transmitter | Receiver | Wavelength (nm) | Reach (km) | Temperature Range |
|-------------------------|---------------------|------------------------|-----------------------|---------------------------|-------------|------------|------------------------|---------------|----------------------|
| 10G EPON OLT | XPP-XE0-R3-CDFD | 10G EPON | XFP | 1.25 1.25 10.3 10.3 | DFB EML | APD APD | 1490/1310 1577/1270 | 20 20 | C C |
| | XPP-XE0-R3-IDFD | 10G EPON | XFP | 1.25 1.25 10.3 10.3 | DFB EML | APD APD | 1490/1310 1577/1270 | 20 20 | I I |
| 10G EPON ONU | SPPS-27-XE-R3-CDFD | 10G EPON | SFP+ | 10.3 10.3 | DFB | APD | 1270/1577 | 20 | C |
| | SPPS-27-XE-R3-IDFD | 10G EPON | SFP+ | 10.3 10.3 | DFB | APD | 1270/1577 | 20 | I |
| XGPON OLT | XPP-XG-N1-CDFA | XGPON | XFP | 9.9 2.5 | EML | APD | 1577/1270 | 20 | C |
| XGSPON ONU | SPPS-27-10S-N2-IDFA | XGSPON | SFP+ | 9.9 9.9 | DFB | APD | 1270/1577 | 20 | I |
| | SPPS-27-10S-N2-CDFA | XGSPON | SFP+ | 9.9 9.9 | DFB | APD | 1270/1577 | 20 | C |
| | SPPS-27-10S-N2-IMFA | XGSPON ONU with MAC | SFP+ | 9.9 9.9 | DFB | APD | 1270/1577 | 20 | I |
| XGSPON OLT | XPP-XG2-N1-CDFA | XGSPON | XFP | 9.9 9.9 9.9 2.5 | EML EML | APD APD | 1577/1270 1577/1270 | 20 20 | C C |
| | XPP-XG2-N2-CDFA | XGSPON | XFP | 9.9 9.9 9.9 2.5 | EML EML | APD APD | 1577/1270 1577/1270 | 20 20 | C C |
| | XPP-XG2-N1-IDFA | XGSPON | XFP | 9.9 9.9 9.9 2.5 | EML EML | APD APD | 1577/1270 1577/1270 | 20 20 | I I |
| GPON ONU | SPS-34-24T-HP-TDFO | GPON ONU with MAC | SFP, SC Receptacle | 1.25 2.5 | DFB | APD | 1310/1490 | Class B+ | I |
| 10G BOB SYMMETRICAL | ODP-27-CGA322-SD | 10G EPON | OSA, Pigtail | 10.3 10.3 | DFB | APD | 1270/1577 | 20 | C/I |
| | | XGSPON | OSA, Pigtail | 9.9 9.9 | DFB | APD | 1270/1577 | 20 | C/I |
| | ODP-27-IGA322-SD | 10G EPON | OSA, Pigtail | 10.3 10.3 | DFB | APD | 1270/1577 | 20 | C/I |
| | | XGSPON | OSA, Pigtail | 9.9 9.9 | DFB | APD | 1270/1577 | 20 | C/I |
| 10G BOB ASYMMETRICAL | ODP-27-CGA312-SD | 10G EPON | OSA, Pigtail | 1.25 10.3 | DFB | APD | 1310/1577 | 20 | C/I |
| | | 10G EPON | OSA, Pigtail | 1.25 10.3 | DFB | APD | 1270/1577 | 20 | C/I |
| | | XGPON | OSA, Pigtail | 2.5 10.3 | DFB | APD | 1270/1577 | 20 | C/I |
| | ODP-27-IGA312-SD | 10G EPON | OSA, Pigtail | 1.25 10.3 | DFB | APD | 1310/1577 | 20 | C/I |
| | | 10G EPON | OSA, Pigtail | 1.25 10.3 | DFB | APD | 1270/1577 | 20 | C/I |
| | | XGPON | OSA, Pigtail | 2.5 10.3 | DFB | APD | 1270/1577 | 20 | C/I |

C: Commercial (0°C to 70°C) I: Industrial (-40°C to 85°C) E: Extended (-5°C to 85°C)

MOBILE **BROADBAND**



25G LR Lite SFP28

SP-25E-LR-IDFR

- Supports CPRI wireless and 25GBASE-LR application
- Up to 300m transmission on SMF
- 1310nm DFB laser and PIN receiver



25G BIDI 10km SFP28

SPL-RO/OR-25E-BX-IDFC

- Supports CPRI wireless and 25GBASELR application
- Supports multi-rate for both 10 Gps and 25 Gbps
- Up to 15km transmission on SMF
- 1270nm DFB laser and 1330nm PIN receiver



25G SFP28 MWM 12chs

SPM-25E-LR-xxIDFC

- Supports CPRI option 10/eCPRI wireless applications
- Supports SFP28 MSA package with duplex LC connector
- 12 Channel in MWM grid: 1267.5nm – 1374.5nm
- Maximum Power consumption <2 W
- 1267.5-1374.5 DML Laser & PIN Receiver

| | Part Number | Data Rate | Transmitter | Receiver | Wavelength (nm) | Reach (km) | Temperature Range |
|---------------------------|-----------------------|----------------------|-------------|----------|-----------------|------------|-------------------|
| Bi-directional SFP | SPPL-RO/OR-XE-BX-xDFF | 6.144 Gb/s-10.1 Gb/s | DFB | PIN | 1270/1330 | 10 | I |
| SFP | SP-MR-SR1-IDFD | 614 Mb/s-2.457 Gb/s | FP | PIN | 1310 | 2 | I |
| | SP-MR-IR1-IDFD | 614 Mb/s-2.457 Gb/s | DFB | PIN | 1310 | 15 | I |
| SFP+ | SPP-10E-LR-IDFR | 10.1 Gb/s | FP | PIN | 1310 | 1.4 | I |
| | SPP-10E-LR-IDFJ | 10.1 Gb/s | DFB | PIN | 1310 | 10 | I |
| | SPD-10S-ER-xxIDFB | 11.3 Gb/s | EML | APD | DWDM | 20 | I |
| | SPP-8F-LR-IDFR | 1.25-6.25 Gb/s | FP | PIN | 1310 | 2 | I |
| | SPP-8F-LR-IDFF | 1.25-6.25 Gb/s | DFB | PIN | 1310 | 15 | I |
| | SP-25E-LM-xxIDFA | 25.78 Gb/s | EML | APD | 1290-1310 | 20 | I |
| | SP-25E-LR-IDFD | 25.78 Gb/s | DML | PIN | 1310 | 10 | I |
| | SP-25E-LR-IDFR | 25.78 Gb/s | DML | PIN | 1310 | 2 | I |
| | SPL-RO/OR-25E-BX-IDFC | 25.78 Gb/s | DML | PIN | 1270/1330 | 10 | I |
| | SPM-25E-LR-xxIDFC | 25.78 Gb/s | DML | PIN | 1267.5-1374.5 | 10 | I |
| | SP-25E-LR-xxIDFF | 25.78 Gb/s | DML | PIN | 1269-1318 | 10 | I |
| | SP-25E-LR-xxEDFA | 25.78 Gb/s | DML | PIN | 1271-1371 | 10 | C, E, I |

C: Commercial (0°C to 70°C) I: Industrial (-40°C to 85°C) E: Extended (-5°C to 85°C)

OPTICAL **COMPONENTS**



| Product | Part Number | Form Factor | Application | Data Rate | Fiber Type | Operating Temperature |
|--------------------|-------------------|-------------|-------------|-----------|-------------|-----------------------|
| 10G 1577nm EML | T-E-CDBC-157MA-SD | TO-can | 10G PON OLT | 10 Gbps | Single Mode | Commercial |
| 2.5G 1490nm DFB TO | T-D-CBBA-149DA | TO-can | GPON OLT | 2.5 Gbps | Single Mode | Commercial/Industrial |
| | OCT-DCB149B | Chip | Combo PON | | | |
| 2.5G 1270nm DFB | TD-EBBC-127DC | TO-can | XGPON ONU | 2.5 Gbps | Single Mode | Commercial/Industrial |
| | OCT-DTB127A | Chip | | | | |
| 2.5G 1310nm DFB | T-D-TBBB-131DB | TO-can | GPON ONU | 2.5 Gbps | Single Mode | Commercial/Industrial |
| | OCT-DCB131A | Chip | | | | |
| 10G APD | R-A-TDAB-MWLLC | TO-can | 10G PON OLT | 10 Gbps | Single Mode | Industrial |
| | OCR-ATDMWLA | Chip | 10G PON ONU | | | |
| 10G 1310nm DFB TO | T-D-CDBB-131LA | TO-can | 10G LR | 10 Gbps | Single Mode | Commercial/Industrial |
| | OCT-DCD131A | Chip | | | | |
| 10G 1310nm FP TO | T-F-TDBB-131LA | TO-can | 10G LR lite | 10 Gbps | Single Mode | Industrial |



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