

# FIBERSTAMP TRANSCEIVERS & CABLES POST



## Mainly Integrated Solutions



**Data Center & HPC**

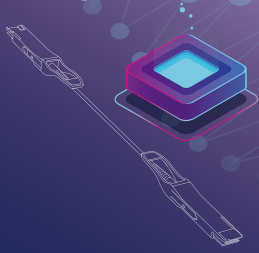


**5G Optical Networks**

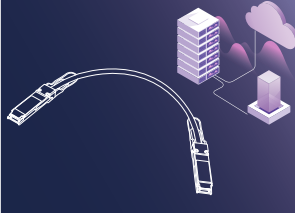


**UHD Video Transmission**

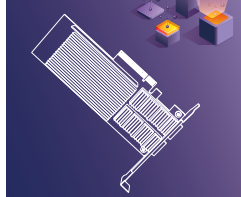
**Data Center AOC  
(Active Optical  
Cable)**



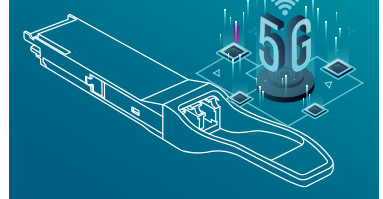
**Data Center DAC  
(Direct Attach Cable)**



**Ethernet Network  
Adapters**



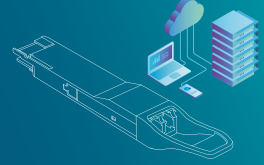
**5G Backhaul Optical  
Transceiver Modules**



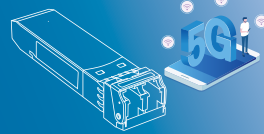
**Transceiver Checkers**



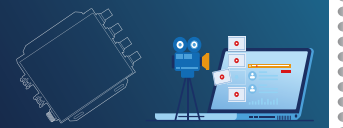
**Data Center Optical  
Transceiver Modules**



**5G Fronthaul Optical  
Transceiver Modules**



**UHD Video  
Transmission**



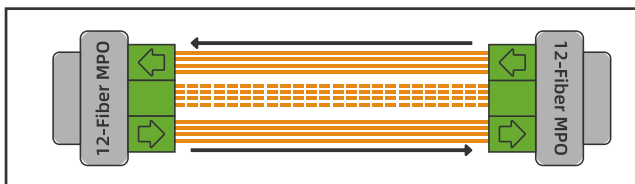
## For Utmost Economy — Technologies to Lower Cost!

Increase Baud Rate  
(10G-25G-50G)



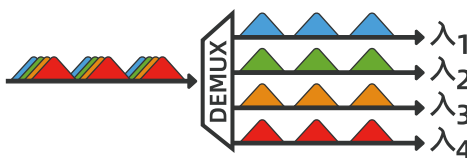
SR, LR, ER etc.

Increase Number of Fibers  
(Parallel)



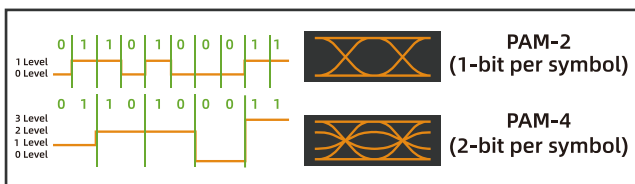
SR4, PSM4, DR4,  
SR8, PSM8, DR8

Increase Number of Wavelengths  
(xWDM)



LR4, ER4, BiDi,  
CWDM4, LR8

Modulation Format Upgrade  
(NRZ to PAM4)



100G FR1/LR1 100G BiDi,  
400G DR4 400G CWDM4  
800G DR8

## Perfect Quality Management System

### Perfect Reliability Verification Capability

Rigorous testing and  
verification capabilities  
Mature ESD and safety testing  
and analysis

### Original Triangle CSD Quality Management Teams

DQE: R & D Quality improvement  
SQE: Supplier management and  
evaluation  
CQE: Timely consumer problems  
handling

### Quality Assuare for Underlayer Units and Chips

Accurate product service life evaluation  
Lean component selection and  
evaluation system  
Timely response to market feedback



**TÜV Rheinland®**  
Precisely Right.

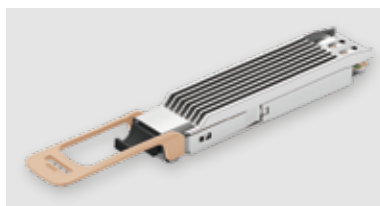
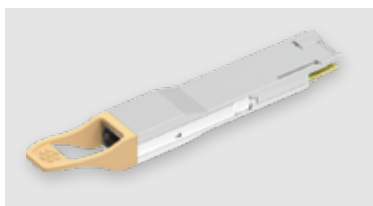
# PRODUCT INFRASTRUCTURE——10GE~800GE

Flexible scale paths for different fiber options

| Data Rate | SMF                                                                                 |                                                            | MMF                          |                                             | Twinax     |
|-----------|-------------------------------------------------------------------------------------|------------------------------------------------------------|------------------------------|---------------------------------------------|------------|
|           | Duplex Simplex                                                                      | Parallel                                                   | Duplex                       | Parallel                                    |            |
| 10G       | LR/LRM/ER/ZR<br>BR10/20/40/80<br>CWDM<br>DWDM                                       |                                                            | SR/AOC                       |                                             | CR         |
| 25G       | LR/ER<br>BR10/20/40<br>CWDM (O-band)<br>LWDM<br>DWDM (C-band)                       |                                                            | SR/eSR/AOC                   |                                             | CR         |
| 40G       | LR4/ER4/ZR4                                                                         | PSM4 (2km/10km/30km)                                       | SR-BD (2x 20G NRZ)           | SR4/AOC                                     | CR4        |
| 50G       | LR/ER<br>BR10/20/30<br>DWDM (C-band)                                                |                                                            |                              |                                             | CR         |
| 100G      | DR1/FR1 (SiPh)<br>LR1/ER1<br>CWDM4/CLR4/4WDM-10<br>4WDM-40/ER4 Lite<br>ER4/eER4/ZR4 | DWDM (2x 50G PAM4)<br>PSM4 (2km/10km)                      | SR-BD (2x 50G PAM4)<br>SWDM4 | SR4/eSR4/AOC<br>SR10<br>SR12/AOC (120G CXP) | CR4        |
| 200G      | FR4/LR4/ER4<br>2x CWDM4<br>LR8                                                      | DR4/DR4+ (SiPh)<br>PSM4 (2km/10km)<br>PSM8 (2km/10km)      |                              | SR4/AOC<br>SR8/AOC                          | CR4<br>CR8 |
| 400G      | CWDM4 (FR4/LR4-6/LR4-10)<br>FR8/LR8/ER8                                             | DR4/DR4+/DR4++(SiPh)<br>PSM4 (2km/10km)<br>PSM8 (2km/10km) |                              | SR4/AOC<br>SR8/AOC                          | CR4<br>CR8 |
| 800G      | 2x FR4<br>FR8                                                                       | DR8/DR8+/DR8++ (SiPh)                                      |                              | SR8/AOC                                     | CR8        |

# Optical Transceivers & Active Optical Cables (AOC)

## 800G QSFP-DD/OSFP Series



### Features

- Hot-pluggable QSFP-DD/OSFP form factor
- 8-channel full-duplex transceiver modules or AOC
- Data rate up to 850Gbps
- 8x 106.25Gbps PAM4 optical interface
- 8x 106.25Gbps PAM4 electrical interface
- Compliant with QSFP-DD/OSFP MSA and CMIS

| Product Name          | Application | Max. Distance or Length | Center Wavelength | LD    | PD  | Optical Interface | Max. Power Consumption | Operating Temp Range Grade | Part Number                    |
|-----------------------|-------------|-------------------------|-------------------|-------|-----|-------------------|------------------------|----------------------------|--------------------------------|
| 800G QSFP-DD AOC      | 800GE       | 100m                    | 850nm             | VCSEL | PIN | N/A               | 15W                    | C                          | FYJ-800MxxxC                   |
| 800G QSFP-DD SR8      | 800GE       | 100m                    | 850nm             | VCSEL | PIN | MPO16 Dual MPO12  | 14W                    | C                          | FEL-800S8M10C                  |
| 800G QSFP-DD SR4.2    | 800GE       | 100m                    | 850/910nm         | VCSEL | PIN | MPO12             | 12W                    | C                          | FEL-800B8M10C                  |
| 800G QSFP-DD DR8/DR8+ | 800GE       | 500m/2km                | 1310nm            | SiPh  | PIN | MPO16 Dual MPO12  | 16W                    | C                          | FUL-800P4M50C<br>FUL-800P4K02C |
| 800G QSFP-DD 2x FR4   | 800GE       | 5km                     | CWDM4             | SiPh  | PIN | Dual LC           | TBD                    | C                          | FUL-800C4K05C                  |
| 800G QSFP-DD FR8      | 800GE       | 5km                     | CWDM              | SiPh  | PIN | Dual LC           | TBD                    | C                          | FUL-800C8K02C                  |
| 800G OSFP AOC         | 800GE       | 100m                    | 850nm             | VCSEL | PIN | N/A               | 15W                    | C                          | FTU-800MxxxC                   |
| 800G OSFP SR8         | 800GE       | 100m                    | 850nm             | VCSEL | PIN | MPO16 Dual MPO12  | 14W                    | C                          | FUU-800S8M10C                  |
| 800G OSFP DR8/DR8+    | 800GE       | 500m/2km                | 1310nm            | SiPh  | PIN | MPO16 Dual MPO12  | 16W                    | C                          | FUU-800P4M50C<br>FUU-800P4K02C |
| 800G OSFP 2x FR4      | 800GE       | 5km                     | CWDM4             | SiPh  | PIN | Dual LC           | TBD                    | C                          | FUU-800C4K05C                  |
| 800G OSFP FR8         | 800GE       | 5km                     | CWDM              | SiPh  | PIN | Dual LC           | TBD                    | C                          | FUU-800C8K05C                  |

## 400G QSFP-DD/QSFP112/OSFP Series



400G QSFP-DD



400G QSFP112

### Features

- Hot-pluggable QSFP-DD/QSFP112/OSFP form factor
- 4/8-channel full-duplex transceiver modules or AOC
- Data rate up to 425Gbps
- 8x 53.125Gbps or 4x 106.25Gbps PAM4 optical interface
- 8x 53.125Gbps PAM4 electrical interface
- Compliant with QSFP-DD/QSFP112 MSA and CMIS

| Product Name            | Application | Max. Distance or Length | Center Wavelength | LD    | PD  | Optical Interface | Max. Power Consumption | Operating Temp Range Grade | Part Number                    |
|-------------------------|-------------|-------------------------|-------------------|-------|-----|-------------------|------------------------|----------------------------|--------------------------------|
| 400G QSFP-DD AOC        | 400GE       | 100m                    | 850nm             | VCSEL | PIN | N/A               | 9W                     | C                          | FYL-400MxxxC                   |
| 400G QSFP-DD SR8        | 400GE       | 100m                    | 850nm             | VCSEL | PIN | MPO24/16          | 9W                     | C                          | FEL-400S8M10C                  |
| 400G QSFP-DD SR4.2      | 400GE       | 150m                    | 850/910nm         | VCSEL | PIN | MPO12             | 9W                     | C                          | FEL-400B8M15C                  |
| 400G QSFP-DD PSM8       | 400GE       | 2km/10km                | 1310nm            | EML   | PIN | MPO16             | 11W                    | C                          | FEL-400P8K02C<br>FEL-400P8K10C |
| 400G QSFP-DD LR8        | 400GE       | 10km                    | LWDM8             | EML   | PIN | Dual LC           | 12.5W                  | C                          | FBL-400L8K10C                  |
| 400G QSFP-DD 2x200G FR4 | 400GE       | 2km                     | CWDM4             | DML   | PIN | Dual Duplex LC    | 12W                    | C                          | FBL-400C4xK02C                 |
| 400G QSFP-DD DR4/DR4+   | 400GE       | 500m/2km                | 1310nm            | SiPh  | PIN | MPO12             | 10W                    | C                          | FUL-400P4M50C<br>FUL-400P4K02C |
| 400G QSFP-DD DR4++      | 400GE       | 10km                    | 1310nm            | SiPh  | PIN | MPO12             | 10W                    | C                          | FUL-400P4K10C                  |
| 400G QSFP-DD FR4        | 400GE       | 2km                     | CWDM4             | SiPh  | PIN | Dual LC           | 10W                    | C                          | FUL-400C4K02C                  |
| 400G QSFP-DD CWDM4      | 400GE       | 6km                     | CWDM4             | SiPh  | PIN | Dual LC           | 10W                    | C                          | FBL-400C4K06C                  |
| 400G QSFP-DD LR4        | 400GE       | 10km                    | CWDM4             | SiPh  | PIN | Dual LC           | 10W                    | C                          | FBL-400C4K10C                  |
| 400G QSFP112 AOC        | 400GE       | 100m                    | 850nm             | VCSEL | PIN | N/A               | 9W                     | C                          | FYJ-400MxxxC                   |
| 400G QSFP112 SR4        | 400GE       | 100m                    | 850nm             | VCSEL | PIN | MPO12             | 10W                    | C                          | FEJ-400S4M10C                  |
| 400G QSFP112 DR4/DR4+   | 400GE       | 500m/2km                | 1310nm            | SiPh  | PIN | MPO12             | 10W                    | C                          | FUJ-400P4M50C<br>FUJ-400P4K02C |
| 400G QSFP112 DR4++      | 400GE       | 10km                    | 1310nm            | SiPh  | PIN | MPO12             | 10W                    | C                          | FUJ-400P4K10C                  |
| 400G QSFP112 FR4        | 400GE       | 2km                     | CWDM4             | SiPh  | PIN | Dual LC           | 12W                    | C                          | FUJ-400C4K02C                  |
| 400G QSFP112 CWDM4      | 400GE       | 6km                     | CWDM4             | SiPh  | PIN | Dual LC           | 12W                    | C                          | FUJ-400C4K02C                  |
| 400G QSFP112 LR4        | 400GE       | 10km                    | CWDM4             | SiPh  | PIN | Dual LC           | 12W                    | C                          | FUJ-400C4K10C                  |
| 400G OSFP AOC           | 400GE       | 100m                    | 850nm             | VCSEL | PIN | N/A               | 9W                     | C                          | FYU-400MxxxC                   |
| 400G OSFP SR8           | 400GE       | 100m                    | 850nm             | VCSEL | PIN | MPO24/16          | 9W                     | C                          | FUU-400S8M10C                  |

## 200G QSFP56/QSFP-DD Series



200G QSFP56



200G QSFP-DD

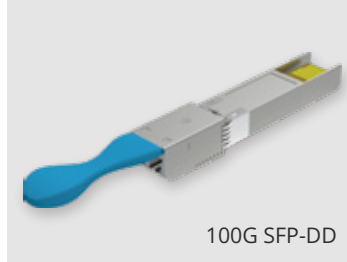
### Features

- Hot-pluggable QSFP56/QSFP-DD form factor
- 4/8-channel full-duplex transceiver modules or AOC
- Data rate up to 212.5Gbps or 206.25Gbps
- 4x 53.125Gbps or 8x 25.78125Gbps PAM4 optical interface
- 4x 53.125Gbps or 8x 25.78125Gbps PAM4 electrical interface
- Compliant with QSFP56/QSFP-DD MSA and CMIS

| Product Name           | Application | Max. Distance or Length | Center Wavelength | LD    | PD  | Optical Interface | Max. Power Consumption | Operating Temp Range Grade | Part Number                     |
|------------------------|-------------|-------------------------|-------------------|-------|-----|-------------------|------------------------|----------------------------|---------------------------------|
| 200G QSFP-DD AOC       | 200GE/EDR   | 100m                    | 850nm             | VCSEL | PIN | N/A               | 4W                     | C                          | FYL-200MxxxC                    |
| 200G QSFP-DD SR8       | 200GE/EDR   | 100m                    | 850nm             | VCSEL | PIN | MPO24             | 4W                     | C/I                        | FEL-200S8M10x                   |
| 200G QSFP DD SR4       | 200GE/HDR   | 100m                    | 850nm             | VCSEL | PIN | MPO12             | 5W                     | C                          | FEH-200S4M10C                   |
| 200G QSFP-DD PSM8      | 200GE/EDR   | 2km/10km                | 1310nm            | DML   | PIN | MPO24             | 6W/6.5W                | C/I                        | FEL-200P8K02x<br>FEL-200P8K10x  |
| 200G QSFP-DD LR8       | 200GE       | 10km                    | LWDM8             | DML   | PIN | Dual LC           | 7.5W                   | C                          | FBL-200L8K10C                   |
| 200G QSFP-DD 2x CWDM4  | 200GE/EDR   | 2km/10km                | 2x CWDM4          | DML   | PIN | Dual Duplex LC    | 7W                     | C                          | FBL-200CLxK02C<br>FBL-200CLx10C |
| 200G QSFP-DD PSM4      | 200GE/HDR   | 2km/10km                | 1310nm            | EML   | PIN | MPO12             | 6W                     | C                          | FEL-200P4K02C<br>FEL-200P4K10C  |
| 200G QSFP-DD LR4       | 200GE/HDR   | 10km                    | LWDM4             | EML   | PIN | Dual LC           | 7.5W                   | C                          | FBL-200L4K10C                   |
| 200G QSFP-DD xLR4      | 200GE/HDR   | 20km                    | LWDM4             | EML   | PIN | Dual LC           | 7.5W                   | C                          | FBL-200L4K20C                   |
| 200G QSFP-DD ER4       | 200GE       | 40km                    | LWDM4             | EML   | APD | Dual LC           | 7.5W                   | C                          | FBL-200L4K40C                   |
| 200G QSFP-DD PSM DWDM4 | 200GE       | 80km                    | DWDM              | EML   | PIN | MPO12             | 10W                    | C                          | FUL-200xxK80C                   |
| 200G QSFP56 AOC        | 200GE/HDR   | 100m                    | 850nm             | VCSEL | PIN | MPO12             | 5W                     | C                          | FYH-200MxxxC                    |
| 200G QSFP56 SR4        | 200GE/HDR   | 100m                    | 850nm             | VCSEL | PIN | MPO12             | 5W                     | C                          | FEH-200S4M10C                   |
| 200G QSFP56 DR4        | 200GE/HDR   | 500m                    | 1310nm            | DML   | PIN | MPO12             | 5.5W                   | C                          | FEH-200P4M50C                   |
| 200G QSFP56 FR4        | 200G/HDR    | 2km                     | CWDM4             | DML   | PIN | Dual LC           | 7W                     | C                          | FBH-200C4K02C                   |
| 200G QSFP56 LR4        | 200GE       | 10km                    | CWDM4             | DML   | PIN | Dual LC           | 5W                     | C                          | FBH-200L4K10C                   |



## 100G QSFP28/SFP-DD Series

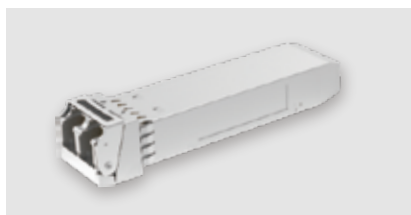


### Features

- Hot-pluggable QSFP28/SFP-DD form factor
- 1/2/4-channel full-duplex transceiver modules or AOC
- Data rate up to 103.125Gbps or 106.25Gbps or 112Gbps
- 4x 25.78125Gbps NRZ or 2x 53.125Gbps PAM4 or 1x 106.25 Gbps PAM4 optical interface
- 4x 25.78125Gbps NRZ or 2x 53.125Gbps PAM4 electrical interface
- Compliant with QSFP28/SFP-DD MSA

| Product Name          | Application | Max. Distance or Length | Center Wavelength | LD    | PD            | Optical Interface | Max. Power Consumption | Operating Temp Range Grade | Part Number                        |
|-----------------------|-------------|-------------------------|-------------------|-------|---------------|-------------------|------------------------|----------------------------|------------------------------------|
| 100G QSFP28 AOC       | 100G/EDR    | 100m/300m               | 850nm             | VCSEL | PIN           | N/A               | 2W                     | C                          | FYG-100MxxxC<br>FYG-100MxxxCE      |
| 100G QSFP28 HAOC      | 100GE/EDR   | 100m/300m               | 850nm             | VCSEL | PIN           | N/A               | 2W                     | I                          | FYG-100MxxxTH<br>FYG-100MxxxTHE    |
| 100G QSFP28 SR4       | 100G/EDR    | 100m/300m               | 850nm             | VCSEL | PIN           | MPO               | 2W                     | C/I                        | FEG-100S4M10x                      |
| 100G QSFP28 SWDM4     | 100G/EDR    | 150m                    | SWDM4             | VCSEL | PIN           | Dual LC           | 3.5W                   | C                          | FBG-100S4M15C                      |
| 100G QSFP28 SR BiDi   | 100GE       | 100m                    | 850/910nm         | VCSEL | PIN           | Dual LC           | 4W                     | C                          | FBG-100B2M10C                      |
| 100G QSFP28 PSM4      | 100G/EDR    | 2km/10km                | 1310nm            | DML   | PIN           | MPO12             | 3.5W                   | C/I                        | FEG-100P4K02x<br>FEG-100P4K10x     |
| 100G QSFP28 CWDM4     | 100G/EDR    | 2km/10km                | CWDM4             | DML   | PIN           | Dual LC           | 3.5W                   | C/I                        | FBG-100CLK02x<br>FBG-100CLK10x     |
| 100G QSFP28 CLR4      | 100G/EDR    | 2km/10km                | CWDM4             | DML   | PIN           | Dual LC           | 3.5W                   | C/I                        | FBG-100C4K02x                      |
| 100G QSFP28 BiDi LR1  | 100GE       | 10km                    | 1271/1331nm       | EML   | PIN           | Single LC         | 4.5W                   | C                          | FCG-1002733K40C<br>FCG-1003327K40C |
| 100G QSFP28 4WDM-10   | 100G/EDR    | 10km                    | CWDM4             | DML   | PIN           | Dual LC           | 3.5W                   | C/I                        | FBG-100W4K10x                      |
| 100G QSFP28 LR4       | 100GE       | 10km/20km               | LWDM4             | DML   | PIN           | Dual LC           | 3.5W                   | C/I                        | FBG-100L4K10x                      |
| 100G QSFP28 LR1       | 100GE       | 20km                    | 1310nm            | EML   | PIN           | Dual LC           | 4W                     | C                          | FBG-10031K20C                      |
| 100G QSFP28 ER1       | 100GE       | 40km                    | 1310nm            | EML   | APD           | Dual LC           | 4W                     | C                          | FBG-10031K40C                      |
| 100G QSFP28 4WDM-40   | 100GE       | 30km/40km               | LWDM4             | DML   | APD           | Dual LC           | 3.5W                   | C                          | FBG-100W4K40C                      |
| 100G QSFP28 ER4 Lite  | 100GE/OTU4  | 30km/40km               | LWDM4             | DML   | APD           | Dual LC           | 3.5W                   | C                          | FBG-100LLK40C<br>FBG-112LLK40C     |
| 100G QSFP28 ER4       | 100GE/OTU4  | 40km                    | LWDM4             | EML   | PIN+SOA       | Dual LC           | 6W                     | C                          | FBG-100L4K40C<br>FBG-112L4K40C     |
| 100G QSFP28 eER4      | 100GE/OTU4  | 60km                    | LWDM4             | EML   | PIN+SOA       | Dual LC           | 6W                     | C                          | FBG-100L4K60C<br>FBG-112L4K60C     |
| 100G QSFP28 ZR4       | 100GE/OTU4  | 80km                    | LWDM4             | EML   | PIN+SOA       | Dual LC           | 6W                     | C                          | FBG-100L4K80C<br>FBG-112L4K80C     |
| 100G QSFP28 PSM DWDM4 | 100GE       | 80km                    | C-band 100GHz     | EML   | PIN+SOA       | MPO               | 6.5W                   | C                          | FEG-100D4K80C                      |
| 100G QSFP28 PSM DWDM4 | 100GE       | 80km                    | O-band 100GHz     | DML   | PIN+EDF A+DCM | MPO               | 5W                     | C                          | FEG-100x4K80C                      |
| 100G QSFP28 FR1       | 100GE       | 2km                     | 1310nm            | SiPh  | PIN           | Dual LC           | 4W                     | C                          | FTG-10031K02C                      |
| 100G SFP-DD LR1       | 100GE       | 10km                    | 1310nm            | SiPh  | PIN           | Dual LC           | 4W                     | C                          | FTG-10031K10C                      |
| 100G QSFP28 DWDM1     | 100GE       | 25km                    | O-band            | SiPh  | PIN           | Dual LC           | 4W                     | C                          | FTG-100x4K25C                      |
| 100G QSFP28 ER1       | 100GE       | 40km                    | 1310nm            | SiPh  | PIN           | Dual LC           | 4W                     | C                          | FTG-10031K40C                      |
| 100G SFP-DD LR1       | 100GE       | 2km                     | 1310nm            | EML   | PIN           | Dual LC           | 3.5W                   | C                          | FBK-10031K10C                      |
| 100G SFP-DD ER1       | 100GE       | 40km                    | 1310nm            | EML   | PIN           | Dual LC           | 3.5W                   | C                          | FBK-10031K40C                      |

## 50G SFP56 Series

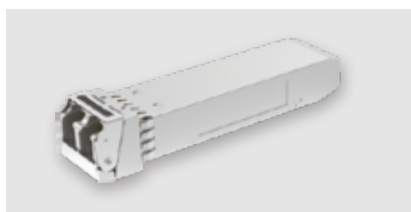


### Features

- Hot-pluggable SFP56 form factor
- Single-channel full-duplex transceiver modules or AOC
- Data rate up to 53.125Gbps
- 53.125Gbps PAM4 optical interface
- 53.125Gbps PAM4 electrical interface
- Compliant with SFP56 MSA

| Product Name                 | Application | Max. Distance or Length | Center Wavelength | LD    | PD  | Optical Interface | Max. Power Consumption | Operating Temp Range Grade | Part Number                        |
|------------------------------|-------------|-------------------------|-------------------|-------|-----|-------------------|------------------------|----------------------------|------------------------------------|
| 50G SFP56 AOC                | 50GE        | 100m                    | 850nm             | VCSEL | PIN | N/A               | 2W                     | C/I                        | FYD-E50Mxxxx                       |
| 50G SFP56 HAOC               | 50GE        | 100m                    | 850nm             | VCSEL | PIN | N/A               | 2W                     | I                          | FYD-E50MxxxTH                      |
| 50G SFP56 SR                 | 50GE        | 100m                    | 850nm             | VCSEL | PIN | Dual LC           | 2W                     | C/I                        | FBD-E5085M10x                      |
| 50G SFP56 BiDi LR            | 50GE        | 10km                    | 1270/1330nm       | EML   | PIN | Dual LC           | 3W                     | C/I                        | FCD-E502733K30x<br>FCD-E503327K30x |
| 50G SFP56 BiDi eLR           | 50GE        | 30km                    | 1270/1310nm       | EML   | APD | Dual LC           | 3W                     | C/I                        | FCD-E502731K30x<br>FCD-E503127K30x |
| 50G SFP56 LR                 | 50GE        | 10km                    | 1310nm            | EML   | PIN | Dual LC           | 3W                     | C/I                        | FBD-E5031K10x                      |
| 50G SFP56 ER                 | 50GE        | 40km                    | 1310nm            | EML   | APD | Dual LC           | 3W                     | C/I                        | FBD-E5031K40x                      |
| 50G SFP56 DWDM (C-band 44CH) | 50GE        | 80km                    | 1528-1563nm       | EML   | PIN | Dual LC           | 3.1W                   | C/I                        | FBD-E50DxxK80x                     |

## 25G SFP28 Series



### Features

- Hot-pluggable SFP28 form factor
- Single-channel full-duplex transceiver modules or AOC
- Data rate up to 25.78125Gbps
- 25.78125Gbps NRZ optical interface
- 25.78125Gbps NRZ electrical interface
- Compliant with SFP28 MSA

| Product Name                    | Application    | Max. Distance or Length | Center Wavelength          | LD    | PD      | Optical Interface | Max. Power Consumption | Operating Temp Range Grade | Part Number                        |
|---------------------------------|----------------|-------------------------|----------------------------|-------|---------|-------------------|------------------------|----------------------------|------------------------------------|
| 25G SFP28 AOC                   | 10GE/25GE/CPRI | 100m                    | 850nm                      | VCSEL | APD     | N/A               | 1W                     | C/I                        | FYC-M25Mxxxx                       |
| 25G SFP28 HAOC                  | 10GE/25GE/CPRI | 100m                    | 850nm                      | VCSEL | PIN     | N/A               | 1W                     | I                          | FYC-M25MxxxTH                      |
| 25G SFP28 SR/eSR                | 10GE/25GE/CPRI | 100m                    | 850nm                      | VCSEL | APD     | PIN               | 1W                     | C/I                        | FBC-M2585M10x<br>FBC-M2585M30x     |
| 25G SFP28 LR                    | 10GE/25GE/CPRI | 10km                    | 1310nm                     | DML   | PIN     | Dual LC           | 1.8W                   | C/I                        | FBC-M2531K10x                      |
| 25G SFP28 ER                    | 25GE/CPRI      | 40km                    | 1310nm                     | EML   | APD     | Dual LC           | 2W                     | C/I                        | FBC-D2531K40x                      |
| 25G SFP28 BiDi LR               | 10GE/25GE/CPRI | 10km                    | 1270/1330nm                | DML   | PIN     | Dual LC           | 1.6W                   | C/I                        | FCC-M252733K10x<br>FCC-M253327K20x |
| 25G SFP28 BiDi eLR              | 10GE/25GE/CPRI | 20km                    | 1270/1330nm                | DML   | APD     | Dual LC           | 1.8W                   | C/I                        | FCC-M252733K20x<br>FCC-M253327K40x |
| 25G SFP28 BiDi ER               | 10GE/25GE/CPRI | 40km                    | 1270/1330nm<br>1270/1310nm | EML   | APD     | Dual LC           | 1.9W                   | C/I                        | FCC-M25273xK40x<br>FCC-M253327K40x |
| 25G SFP28 LWDM LR (12CH)        | 10GE/25GE/CPRI | 10km                    | 1269-1318nm                | DML   | PIN     | Dual LC           | 2W                     | C/I                        | FBC-M25LxxK10x                     |
| 25G SFP28 LWDM eLR (12CH)       | 10GE/25GE/CPRI | 20km                    | 1269-1318nm                | DML   | APD     | Dual LC           | 2W                     | C/I                        | FBC-M25LxxK20x                     |
| 25G SFP28 LWDM ER (9CH)         | 10GE/25GE/CPRI | 40km                    | 1273-1309nm                | EML   | APD     | Dual LC           | 2W                     | C/I                        | FBC-M25LxxK40x                     |
| 25G SFP28 CWDM (S/C/L-band 6CH) | 25GE/CPRI      | 10km                    | 1471-1571nm                | EML   | APD     | Dual LC           | 1.8W                   | C/I                        | FBC-D25CxxK10x                     |
| 25G SFP28 CWDM (O-band 6CH)     | 25GE/CPRI      | 10km/15km               | 1271-1371nm                | DML   | PIN/APD | Dual LC           | 1.8W                   | C/I                        | FBC-D25CxxK10x<br>FBC-D25CxxK15x   |
| 25G SFP28 DWDM (C-band 44CH)    | 25GE/CPRI      | 10km                    | 1528-1563nm                | EML   | APD     | Dual LC           | 2W                     | C/I                        | FBC-D25DxxK10x                     |
| 25G SFP28 DWDM (O-band)         | 25GE/CPRI      | 40km                    | O-band                     | EML   | APD     | Dual LC           | 2W                     | C/I                        | FBC-D25DxxK40x                     |

# Direct Attach Copper Cables (DAC)

FIBERSTAMP utilizes the industry-leading PAM4 modulation technology and has developed a variety of high-speed direct-connect copper cables up to 800G rate, with the advantages of simplicity, flexibility and low power consumption, which can achieve low-cost, short-distance high-speed transmission in the data center, and superior signal integrity to meet the next-generation data center requirements for insertion loss, return loss, TDR and crosstalk.



## Features

- Hot-pluggable MSA-compliant DAC cables
- Data rate up to 10.3125-850Gbps
- 24/26/28/30 AWG optional
- ACC/PCC BER better than 1E-13
- Support immersion liquid cooling
- Commercial case temperature range of 0°C to 70°C
- RoHS compliant

| Product Name                                | Application        | Modulation   | Max. Length | AWG      | Part Number                                     |
|---------------------------------------------|--------------------|--------------|-------------|----------|-------------------------------------------------|
| 800G QSFP-DD PCC                            | 800GE to 800GE     | 8x100G PAM4  | 2m          | 30/26    | FWL-80030xxxC<br>FWL-80026xxxC                  |
| 800G QSFP-DD to 2x400G QSFP112 Breakout PCC | 800GE to 800GE     | 8x100G PAM4  | 2m          | 30/26    | FWL2J-80030xxxC<br>FWL2J-80026xxxC              |
| 800G QSFP-DD to 4x200G QSFP56 Breakout PCC  | 800GE to 800GE     | 8x100G PAM4  | 2m          | 30/26    | FWL4H-80030xxxC<br>FWL4H-80026xxxC              |
| 800G OSFP PCC                               | 800GE to 800GE     | 8x100G PAM4  | 2m          | 30/26    | FWL2J-800xxxxxC                                 |
| 400G QSFP112 PCC                            | 400GE to 400GE     | 4x100G PAM4  | 2m          | 30/26    | FWJ-40030xxxC<br>FWJ-40026xxxC                  |
| 400G QSFP-DD PCC                            | 400GE to 400GE     | 8x 50G PAM4  | 3m          | 30/26    | FWL-40030xxxC<br>FWL-40026xxxC                  |
| 400G QSFP-DD to 2x 200G QSFP56 PCC          | 400GE to 2x 200GE  | 8x 50G PAM4  | 3m          | 30/26    | FWL2H-40030xxxC<br>FWL2H-40026xxxC              |
| 400G QSFP-DD to 4x 100G QSFP56 PCC          | 400GE to 4x 100GE  | 8x 50G PAM4  | 3m          | 30/26    | FWL4H-40030xxxC<br>FWL4H-40026xxxC              |
| 400G QSFP-DD to 8x 50G SFP56 PCC            | 400GE to 8x 50GE   | 8x 50G PAM4  | 3m          | 30/26    | FWL8D-40030xxxC<br>FWL8D-40026xxxC              |
| 200G QSFP56 PCC                             | 200GE to 200GE     | 4x 50G PAM4  | 3m          | 30/26    | FWH-20030xxxC<br>FWH-20026xxxC                  |
| 200G QSFP56 to 2x 100G QSFP56 PCC           | 200GE to 2x 100GE  | 4x 50G PAM4  | 3m          | 30/26    | FWH2H-20030xxxC<br>FWH2H-20026xxxC              |
| 200G QSFP-DD PCC                            | 200GE to 200GE     | 8x 25G NRZ   | 5m          | 30/26    | FWL-20030xxxC<br>FWL-20026xxxC                  |
| 100G QSFP28 PCC                             | 100GE to 100GE     | 4x 25G NRZ   | 5m          | 30/26    | FWG-10030xxxC<br>FWG-10026xxxC                  |
| 100G QSFP28 to 4x 25G SFP28 PCC             | 100GE to 4x 25G GE | 4x 25G NRZ   | 5m          | 30/26    | FWG4C-10030xxxC<br>FWG4C-10026xxxC              |
| 56G QSFP+ PCC                               | 4x FDR to 4x FDR   | 4x 14G NRZ   | 5m          | 30/28/26 | FWF-F5630xxxC<br>FWF-F5628xxxC<br>FWF-F5626xxxC |
| 50G SFP56 PCC                               | 50GE to 50GE       | 1x 50G PAM4  | 3m          | 30/26    | FWD-E5030xxxC<br>FWD-E5026xxxC                  |
| 40G QSFP+ PCC                               | 40GE to 40GE       | 4x 10G NRZ   | 6m          | 30/26    | FWF-E4030xxxC<br>FWF-E4026xxxC                  |
| 40G QSFP+ to 4x 10G SFP+ PCC                | 40GE to 4x 10GE    | 4x 10G NRZ   | 3m          | 30       | FWF4B-E4030xxxC                                 |
| 25G SFP28 PCC                               | 25GE to 25GE       | 1x 25G NRZ   | 5m          | 30/26    | FWC-E2530xxxC<br>FWC-E2526xxxC                  |
| 10G SFP+ PCC                                | 10GE to 10GE       | 1x 10G NRZ   | 7m          | 30/24    | FWB-E1030xxxC<br>FWB-E1024xxxC                  |
| 800G QSFP-DD ACC                            | 800GE to 800GE     | 8x100G PAM4  | 5m          | 30/26    | FZL-800xxxxxC                                   |
| 800G OSFP ACC                               | 800GE to 800GE     | 8x100G PAM4  | 5m          | 30/26    | FZU-800xxxxxC                                   |
| 400G QSFP112 ACC                            | 400GE to 400GE     | 4x 100G PAM4 | 5m          | 30/26    | FZJ-400xxxxxC                                   |
| 400G QSFP-DD ACC                            | 400GE to 400GE     | 8x 50G PAM4  | 7m          | 30/26    | FZL-400xxxxxC                                   |
| 400G OSFP ACC                               | 400GE to 400GE     | 8x50G NRZ    | 7m          | 30/26    | FZU-400xxxxxC                                   |
| 200G QSFP56 ACC                             | 200GE to 200GE     | 4x 50G PAM4  | 7m          | 30/26    | FZH-200xxxxxC                                   |
| 200G OSFP ACC                               | 200GE to 200GE     | 8x25G NRZ    | 10m         | 30/26    | FZU-200xxxxxC                                   |



# Immersion Liquid Cooling Optical Transceivers & Extenders

## Immersion Liquid Cooling Optical Transceivers

The FIBERSTAMP Immersion Liquid Cooling Optical Transceivers are designed for 25G/100G/200G Ethernet and Infiniband EDR applications in liquid immersion environment. They are suitable for high-performance data communication and interconnects applications.

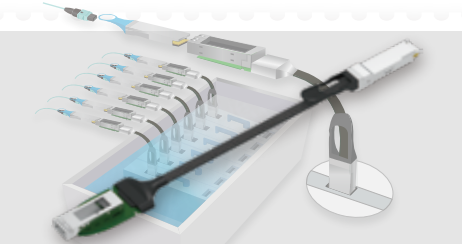


### Features

- Hot-pluggable MSA-compliant pigtailed transceiver assemblies
- Data rate up to 25.78125-212.5Gbps
- Support immersion liquid cooling
- Customized pigtail length up to 99m
- Commercial case temperature range of 0°C to 60°C
- RoHS compliant

| Product Name          | Application    | Max. Distance or Length | Center Wavelength | LD    | PD  | Pigtail Type     | Max. Power Consumption | Part Number                        |
|-----------------------|----------------|-------------------------|-------------------|-------|-----|------------------|------------------------|------------------------------------|
| 800G QSFP-DD SR8      | 800GE          | 100m                    | 850nm             | VCSEL | PIN | MPO16 Dual MPO12 | 14W                    | FQL-800SR8M10xxx                   |
| 800G QSFP-DD DR8/DR8+ | 800GE          | 500m/2km                | 1310nm            | VCSEL | PIN | MPO16 Dual MPO12 | 15W                    | FQL-800P8M50xxx<br>FQL-800P8K02xxx |
| 800G OSFP DR8/DR8+    | 800GE          | 500m/2km                | 1310nm            | VCSEL | PIN | MPO16 Dual MPO12 | 15W                    | FQU-800P8M50xxx<br>FQU-800P8K02xxx |
| 400G QSFP-DD SR8      | 400GE          | 100m                    | 850nm             | VCSEL | PIN | MPO16            | 9W                     | FQL-400SR8M10xxx                   |
| 400G QSFP-DD DR4/DR4+ | 400GE          | 100m                    | 1310nm            | VCSEL | PIN | MPO16            | 9W                     | FQL-400P4M50xxx<br>FQL-400P4K02xxx |
| 400G QSFP112 SR4      | 400GE          | 100m                    | 1310nm            | VCSEL | PIN | MPO12            | 10W                    | FQJ-400SR4M10xxx                   |
| 400G QSFP112 DR4/DR4+ | 400GE          | 500m/2km                | 850nm             | VCSEL | PIN | MPO16            | 9W                     | FUJ-400P4M50xxx<br>FUJ-400P4K02xxx |
| 200G QSFP56 SR4       | 100GE/HDR      | 100m                    | 850nm             | VCSEL | PIN | MPO12            | 5W                     | FQH-200S4M10xxx                    |
| 100G QSFP28 SR4       | 100GE/HDR      | 100m/300m               | 1310nm            | VCSEL | PIN | MPO12            | 2W                     | FQG-100S4M10xxx<br>FQG-100S4M30xxx |
| 100G QSFP28 PSM4      | 100GE/HDR      | 2km/10km                | 850nm             | DML   | PIN | MPO12            | 3.5W                   | FQG-100P4K02xxx<br>FQG-100P4K10xxx |
| 40G QSFP+ SR4         | 40GE           | 70m/100m                | 850nm             | VCSEL | PIN | MPO12            | 1.5W                   | FQF-M4085M07xxx<br>FQF-M4085M10xxx |
| 25G SFP28 SR          | 10GE/25GE/CPRI | 100m/300m               | 850nm             | VCSEL | PIN | Dual LC          | 1W                     | FMC-M2585M10xxx<br>FMC-M2585M30xxx |
| 25G SFP28 LR          | 10GE/25GE/CPRI | 10km                    | 1310nm            | DML   | PIN | Dual LC          | 1W                     | FMC-M2531K10xxx                    |
| 25G SFP28 BiDi LR     | 10GE/25GE/CPRI | 10km                    | 1270/1330nm       | DML   | PIN | Single LC        | 1.6W                   | FRC-M2523K10xxx<br>FRC-M2532K10xxx |

## Immersion Cooling Extender



### Features

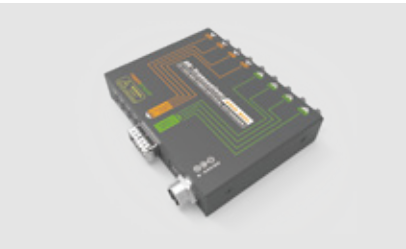
- Significant CAPEX savings for immersion liquid-cooling data centers
- Support 40G/100G/200G QSFP transceivers or AOC with QSFP-QSFP flat cage
- 30AWG twinax copper cable with length up to 50cm
- Simple deployment and fast connection
- Ultra-high reliability with simple structure
- Commercial case temperature range of 0°C to 60°C
- RoHS compliant

| Product Name                     | Package Type                 | AWG   | Length     | Temperature (°C) |
|----------------------------------|------------------------------|-------|------------|------------------|
| Immersible 200G QSFP56 Extender  | QSFP56 to QSFP56 Flat Cage   | 30AWG | up to 50cm | 0~60             |
| Immersible 100G QSFP28 Extender  | QSFP28 to QSFP28 Flat Cage   | 30AWG | up to 50cm | 0~60             |
| Immersible 40G QSFP+ Extender    | QSFP+ to QSFP+ Flat Cage     | 30AWG | up to 50cm | 0~60             |
| PRELIMINARY                      |                              |       |            |                  |
| Immersible 800G QSFP-DD Extender | QSFP-DD to QSFP-DD Flat Cage | 30AWG | up to 50cm | 0~60             |
| Immersible 400G QSFP-DD Extender | QSFP-DD to QSFP-DD Flat Cage | 30AWG | up to 50cm | 0~60             |
| Immersible 200G QSFP-DD Extender | QSFP-DD to QSFP-DD Flat Cage | 30AWG | up to 50cm | 0~60             |

# 3G/12G/48G SDI Optical Extenders & Modules

## 3G/12G/48G SDI Optical Extenders

The FIBERSTAMP 3G/12G/48G SDI optical extenders are used to extend the reach of 4K/8K video transmission between SDI Source and Sink devices over fiber. The transmission distance can be extended up to 40km with FIBERSTAMP 3G/12G/48G SDI optical modules.



### Features

- Support 4K/8K video over fiber transmission up to 40km
- Compliant with SMPTE SD/HD/3G/6G/12G-SDI standards
- Tx&Rx, Rx-only, and Tx-only optional
- SDI signal connecting status indicated by LED
- All-metal housing for superior EMI performance
- Commercial case temperature range of -10°C to +55°C
- RoHS compliant

| Product Name                              | Application | Max. Distance | Center Wavelength | Optical Interface | Electrical Interface          | Part Number                |
|-------------------------------------------|-------------|---------------|-------------------|-------------------|-------------------------------|----------------------------|
| 48G SDI PSM Optical Extender (TRx w/ CDR) | 4x 12G-SDI  | 20km          | N/A               | 1x QSFP+ (TRx)    | 4x BNC Input<br>4x BNC Output | FE1QP-4V12F                |
| 4x12G SDI CWDM Optical Extender (Tx/Rx)   | 4x 12G-SDI  | 20km          | CWDM4             | Simplex FC        | 4x BNC Input/Output           | FE1FC-4V12T<br>FE1FC-4V12R |
| 2x12G SDI Optical Extender (TRx)          | 2x 12G-SDI  | 20km          | N/A               | 2x SFP+ (TRx)     | 2x BNC Input<br>2x BNC Output | FE2SP-2V12F                |
| 1x12G SDI Optical Extender (TRx)          | 1x 12G-SDI  | 20km          | N/A               | 1x SFP+ (TRx)     | 1x BNC Input<br>1x BNC Output | FE1SP-1V12F                |
| 1x12G SDI Optical Extender (Tx)           | 1x 12G-SDI  | 20km          | N/A               | 1x SFP+ (Tx)      | 1x BNC Input                  | FE1SP-1V12T                |
| 1x12G SDI Optical Extender (Rx)           | 1x 12G-SDI  | 20km          | N/A               | 1x SFP+ (Rx)      | 1x BNC Output                 | FE1SP-1V12R                |
| 4x3G SDI Optical Extender (Tx)            | 4x 3G-SDI   | 40km          | N/A               | 2x SFP (2Tx)      | 4x BNC Input                  | FE4SP-4V3GT                |
| 4x3G SDI Optical Extender (Rx)            | 4x 3G-SDI   | 40km          | N/A               | 2x SFP (2Rx)      | 4x BNC Output                 | FE4SP-4V3GR                |

## 3G/12G/48G SDI Optical Modules



### Features

- Hot-pluggable SFP/SFP+/QSFP+ form factor
- 1/2/4-channel video optical modules
- Data rate up to 2.97-47.52Gbps
- Tx&Rx, Rx-only, and Tx-only optional
- MSA and Non-MSA pinout optional
- Commercial case temperature range of 0°C to 70°C
- RoHS compliant

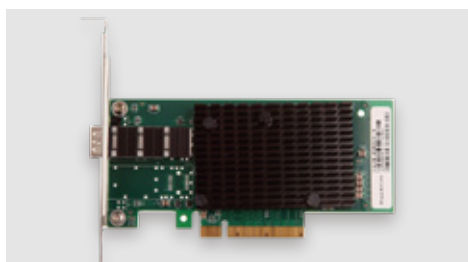
| Product Name                | Application | Max. Distance          | Center Wavelength          | LD  | PD      | Optical Interface | MSA/Non-MSA Pinout | Part Number                          |
|-----------------------------|-------------|------------------------|----------------------------|-----|---------|-------------------|--------------------|--------------------------------------|
| 48G SDI QSFP+ PSM4 TRx      | 4x 12G-SDI  | 20km                   | 1310nm                     | DFB | PIN     | MPO12 (8F)        | MSA<br>Non-MSA     | FEF-V48P4K20CM<br>FEF-V48P4K20CN     |
| 48G SDI QSFP+ PSM CWDM4 TRx | 4x 12G-SDI  | 10km                   | CWDM4                      | DFB | PIN     | MPO12 (8F)        | MSA<br>Non-MSA     | FEF-V48C4K10CM<br>FEF-V48C4K10CN     |
| 12G SDI SFP+ TRx            | 1x 12G-SDI  | 20km                   | 1310nm                     | DFB | PIN     | Dual LC           | MSA<br>Non-MSA     | FBB-V1231K20CM<br>FBB-V1231K20CN     |
| 12G SDI SFP+ BiDi TRx       | 1x 12G-SDI  | 20km                   | 1270/1330nm                | DFB | PIN     | Single LC         | MSA<br>Non-MSA     | FCB-V122733K20CM<br>FCB-V122733K20CN |
| 12G SDI SFP+ CWDM TRx       | 1x 12G-SDI  | 10km                   | 1271-1571nm                | DFB | PIN     | Dual LC           | MSA<br>Non-MSA     | FBB-V12CxxK10CM<br>FBB-V12CxxK10CN   |
| 12G SDI SFP+ 2Tx            | 2x 12G-SDI  | 20km                   | 1310nm                     | DFB | N/A     | Dual LC           | Non-MSA            | FJB-V123131K20N                      |
| 12G SDI SFP+ CWDM 2Tx       | 2x 12G-SDI  | 10km                   | 1271-1571nm<br>1271-1571nm | DFB | N/A     | Dual LC           | Non-MSA            | FJB-V12xxxxK10CN                     |
| 12G SDI SFP+ 2Rx            | 2x 12G-SDI  | 20km                   | N/A                        | N/A | PIN     | Dual LC           | Non-MSA            | FHB-V12K20CN                         |
| 12G SDI SFP+ Tx             | 1x 12G-SDI  | 20km                   | 1310nm                     | DFB | N/A     | Single LC         | MSA<br>Non-MSA     | FGB-V1231K20CM<br>FGB-V1231K20CN     |
| 12G SDI SFP+ CWDM Tx        | 1x 12G-SDI  | 10km                   | 1271-1571nm                | DFB | N/A     | Single LC         | MSA<br>Non-MSA     | FGB-V12CxxK10CM<br>FGB-V12CxxK10CN   |
| 12G SDI SFP+ Rx             | 1x 12G-SDI  | 20km                   | N/A                        | DFB | PIN     | Single LC         | MSA<br>Non-MSA     | FFB-V12K20CM<br>FFB-V12K20CN         |
| 3G SDI SFP TRx              | 1x 3G-SDI   | 2km/20km/<br>40km/80km | 1310nm<br>1550nm           | DFB | PIN/APD | Dual LC           | MSA                | FBA-V3GxxKxxCM                       |
| 3G SDI SFP CWDM TRx         | 1x 3G-SDI   | 40km/80km              | 1271-1611nm                | DFB | PIN/APD | Dual LC           | MSA                | FBA-V3GCxxK40CM<br>FBA-V3GCxxK80CM   |
| 3G SDI SFP 2Tx              | 2x 3G-SDI   | 2km/20km/<br>40km      | 1310nm<br>1550nm           | DFB | N/A     | Dual LC           | Non-MSA            | FJA-V3GxxxxKxxCN                     |
| 3G SDI SFP CWDM 2Tx         | 2x 3G-SDI   | 40km                   | 1271-1611nm<br>1271-1611nm | DFB | N/A     | Dual LC           | Non-MSA            | FJA-V3GxxxxK40CN                     |
| 3G SDI SFP 2Rx              | 2x 3G-SDI   | 2km/20km/<br>40km      | N/A                        | N/A | PIN     | Dual LC           | Non-MSA            | FHA-V3GKxxCN                         |
| 3G SDI SFP Tx               | 1x 3G-SDI   | 2km/20km/<br>40km      | 1310nm<br>1550nm           | DFB | N/A     | Single LC         | MSA<br>Non-MSA     | FGA-V3G31K20CM<br>FGA-V3GxxKxxCN     |
| 3G SDI SFP CWDM Tx          | 1x 3G-SDI   | 40km                   | 1271-1611nm                | DFB | N/A     | Single LC         | Non-MSA            | FGA-V3GCxxK40CN                      |
| 3G SDI SFP Rx               | 1x 3G-SDI   | 2km/20km/<br>40km      | N/A                        | N/A | PIN     | Single LC         | MSA<br>Non-MSA     | FFA-V3GKxxCM<br>FFA-V3GKxxCN         |

# Ethernet Network Adapters

## Ethernet Network Adapters

The FIBERSTAMP Ethernet Network Adapters offer exceptional network performance, delivering low latency and high-throughput applications across one, two, or four ports at Ethernet speeds ranging from 10Gb/s to 400Gb/s. These adapters feature efficient remote direct memory access (RDMA) services, providing outstanding RoCE performance for bandwidth- and latency-sensitive applications.

In addition, our adapters provide advanced offloading and acceleration capabilities for encryption/decryption tasks, achieving speeds of up to 400GB per second. Powered by the robust Data Plane Development Kit (DPDK), they maximize throughput while minimizing CPU utilization. Our products are certified for performance by leading operating systems, virtualization platforms, and containerization solutions, ensuring seamless compatibility and reliable operation.



### Features

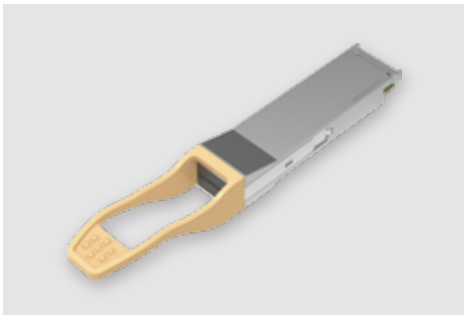
- Based on Intel controllers
- Support standard PCIe interface
- Support MSI, MSI-X and VMDq queue
- Support iSCSI acceleration
- Support QoS strategy
- Support FCOE offload
- Support RSS/TX queue
- Support 802.3x flow control
- Widely deployable with support for most network operating systems

| Product Name                                              | Controller           | Optical Interface | Data Rate Per Port | System Interface Type        | Max. Power Consumption | Part Number      |
|-----------------------------------------------------------|----------------------|-------------------|--------------------|------------------------------|------------------------|------------------|
| Single-Port 400G QSFP112 Ethernet Network Adapter         | NVIDIA ConnectX-7    | 1x QSFP112        | 400GE              | PCIe v5.0 (32GT/s)           | 19.3W                  | FS-X7-QF1        |
| Single-Port 200G QSFP56 Ethernet Network Adapter          | NVIDIA ConnectX-6 Dx | 1x QSFP56         | 200GE              | PCIe v5.0 (32GT/s)           | 19.3W                  | FS-X6DX-QF1      |
| Dual-Port 100G QSFP28 Ethernet Network Adapter For OCP3.0 | Intel E810           | 2x QSFP28         | 100/50/25/10GE     | OCP3.0 SFF                   | 27.1W                  | FS-E810-QF2-OCP  |
| Dual-Port 100G Ethernet Network Adapter                   | Intel E810-CAM2      | 2x QSFP28         | 100Gbps            | PCIe 3.0/4.0 x16 (16.0 GT/s) | 20.8W                  | FS-E810CAM2-QF2  |
| Dual-Port 40G Ethernet Network Adapter                    | Intel XL710-BM2      | 2x QSFP+          | 40/10/1Gbps        | PCIe 3.0 x8 (8.0 GT/s)       | 8.5W                   | FS-XL710BM2-QF2  |
| Single-Port 40G Ethernet Network Adapter                  | Intel XL710-BM1      | 1x QSFP+          | 40/10/1Gbps        | PCIe 3.0 x8 (8.0 GT/s)       | 3.82W                  | FS-XL710BM1-QF1  |
| Dual-Port 25G SFP28 Ethernet Network Adapter For OCP3.0   | Intel E810           | 2x SFP28          | 25/10/1GE          | OCP3.0 SFF                   | 14.3W                  | FS-E810-F2-OCP   |
| Quad-Port 25G SFP28 Ethernet Network Adapter For OCP3.0   | Intel E810           | 4x SFP28          | 25/10/1GE          | OCP3.0 SFF                   | 25W                    | FS-E810-F4-OCP   |
| Dual-Port 25G Ethernet Network Adapter                    | Intel E810-XXVAM2    | 2x SFP28          | 25Gbps             | PCIe 3.0/4.0 x16 (16.0 GT/s) | 20.8W                  | FS-E810XXVAM2-F2 |
|                                                           | Intel XXV710-AM2     | 2x SFP28          | 25/10/1Gbps        | PCIe 3.0 x8 (8.0 GT/s)       | 10.3W                  | FS-XXV710AM2-F2  |
| Quad-Port 10G SFP+ Ethernet Network Adapter For OCP3.0    | Intel XL710          | 4x SFP+           | 10GE               | OCP3.0 SFF                   | 7.4W                   | FS-XL710-F4-OCP  |
| Quad-Port 10G Ethernet Network Adapter                    | Intel XL710-BM1      | 4x SFP+           | 10/1Gbps           | PCIe 3.0 x8 (8.0 GT/s)       | 6.9W                   | FS-XL710BM1-F4   |
| Dual-Port 10G Ethernet Network Adapter                    | Intel X710-BM2       | 2x SFP+           | 10/1Gbps           | PCIe 3.0 x8 (8.0 GT/s)       | 6.9W                   | FS-X710BM2-F2    |
|                                                           | Intel 82599ES        | 2x SFP+           | 10/1Gbps           | PCIe 2.0 x8 (5.0 GT/s)       | 6.6W                   | FS-82599ES-F2    |
| Single-Port 10G Ethernet Network Adapter                  | Intel 82599EN        | 1x SFP+           | 10/1Gbps           | PCIe 2.0 x8 (5.0 GT/s)       | 4.5W                   | FS-82599EN-F1    |

# Electrical Loopback Modules & Transceiver Checkers

## Electrical Loopback Modules

The FIBERSTAMP Electrical Loopback Modules are available in different form factors for a variety of board-level testing and provide cost-effective port testing solutions for data center customers.



### Features

- Hot-pluggable MSA-compliant active electrical loopback modules
- Data rate up to 25.78125-425Gbps
- Low power consumption
- Commercial case operating temperature range of 0°C to 70
- Single 3.3V power supply
- RoHS compliant

| Product Name          | Application | Modulation | Number of Channels | Max. Data Rate per Channel | Max. Power Consumption | Part Number |
|-----------------------|-------------|------------|--------------------|----------------------------|------------------------|-------------|
| 400G QSFP-DD Loopback | 400GE       | PAM4       | 8                  | 53.125Gbps                 | 5W                     | FLPL-400    |
| 200G QSFP56 Loopback  | 200GE       | PAM4       | 4                  | 53.125Gbps                 | 2.5W                   | FLPH-200    |
| 200G QSFP-DD Loopback | 200GE       | NRZ        | 8                  | 25.78125Gbps               | 5W                     | FLPL-200    |
| 100G QSFP28 Loopback  | 100GE       | NRZ        | 4                  | 25.78125Gbps               | 1W                     | FLPG-100    |
| 25G SFP28 Loopback    | 25GE        | NRZ        | 1                  | 25.78125Gbps               | 1W                     | FLPC-E25    |



## Transceiver Checkers

The FIBERSTAMP transceiver checker combines Serial Pattern Generator and Bit Error Rate Analyzer to read the internal memory EEPROM of the optics, display the details, monitor the DDM information, change the EEPROM, and measure the power of the pluggable optical modules or active optical cables.

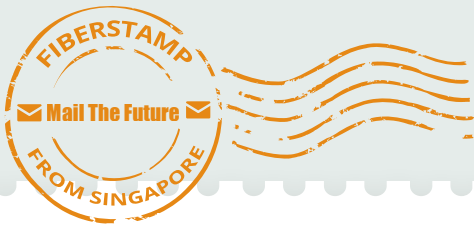


### Features

- Support 8.5-425Gbps bit error rate test
- Updating and maintaining compatible codes from cloud database
- Friendly Graphic User Interface (GUI)
- Robust and slim design with compact and portable full-metal case
- Support working independently without PC
- RoHS compliant

| Product Name          | Port Type                                  | Compatible Module Types                                        | BERT Rates                                             | Power Supply | GUI Operating Environment | Part Number |
|-----------------------|--------------------------------------------|----------------------------------------------------------------|--------------------------------------------------------|--------------|---------------------------|-------------|
| 400G QSFP-DD Checker  | 1x QSFP-DD                                 | 400G QSFP56-DD<br>200G QSFP28-DD<br>200G QSFP56<br>100G QSFP28 | 8x 50G PAM4<br>8x 25G NRZ<br>4x 50G PAM4<br>4x 25G NRZ | 12V DC       | Win XP/7/8/10             | FCKL-400    |
| 200G QSFP56 Checker   | 1x QSFP56                                  | 200G QSFP56<br>100G QSFP28                                     | 4x 50G PAM4<br>4x 25G NRZ                              | 12V DC       | Win XP/7/8/10             | FCKH-200    |
| 200G QSFP-DD Checker  | 1x QSFP-DD                                 | 200G QSFP28-DD<br>100G QSFP28                                  | 8x 25G NRZ<br>4x 25G NRZ                               | 12V DC       | Win XP/7/8/10             | FCKL-200    |
| 40G/100G QSFP Checker | 1x QSFP+ (Port-1)<br>1x QSFP28 (Port-2)    | 112G QSFP28<br>100G QSFP28<br>40G QSFP+                        | 4x 28G NRZ<br>4x 25G NRZ<br>4x 10G NRZ                 | 12V DC       | Win XP/7/8/10             | FCKG-112    |
| 25G SFP28 Checker     | 2x SFP28                                   | 28G SFP28<br>25G SFP28<br>10G SFP+                             | 1x 28G NRZ<br>1x 25G NRZ<br>1x 10G NRZ                 | 12V DC       | Win XP/7/8/10             | FCKC-F28    |
| 10G SFP+ Checker      | 1x SFP+ TR (Port-1)<br>1x SFP+ Tx (Port-2) | 8.5G/10G SFP+                                                  | 1x 10G NRZ<br>1x 8.5G NRZ                              | 5V DC        | Win XP/7/8/10             | FCKB-E10    |

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