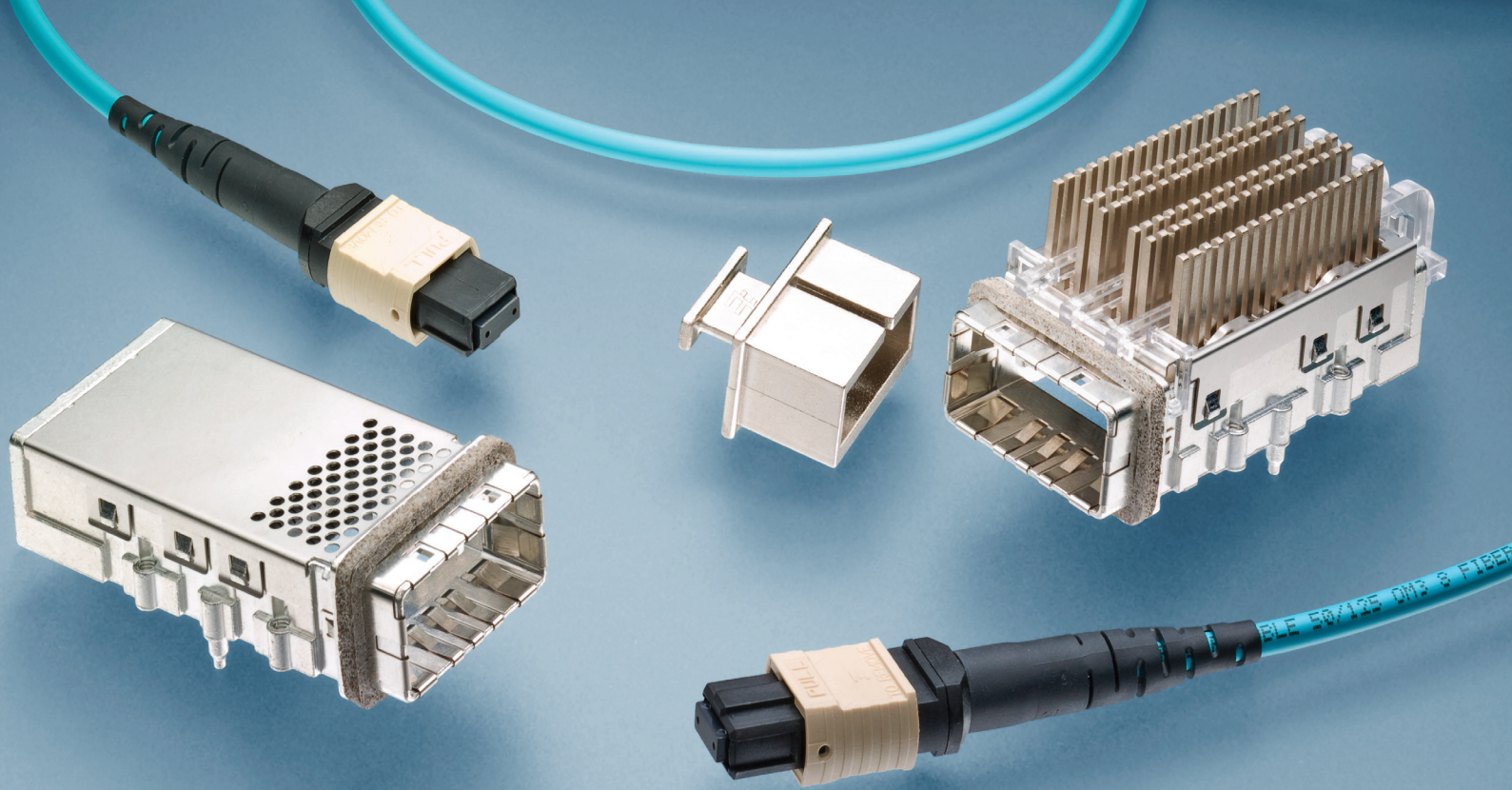


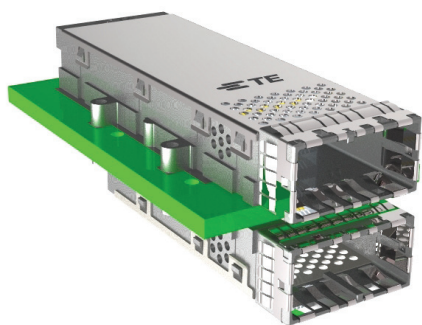


## Introducing CXP Pluggable I/O Interconnect

The TE Connectivity CXP connector and cage assembly offers 12 channels of 12.5 Gbps data rates for 150 Gbps of total bandwidth in one-piece press-fit assembly. The TE CXP system complies with InfiniBand CXP 12x QDR and IEEE 100 Gbps Ethernet standards and enables pluggable copper or optical cable options. The system has been engineered for applications in high-speed data environments with EMI gasketing at bezel opening and EMI springs for plug-to-receptacle containment. It provides one-step placement to the host board and comes with multiple heat-sink, lightpipe and EMI/dust plug options. Enhanced Footprint (EF), dual sourced footprint offers reduced cross-talk and improved electrical performance.

TE also offers a complement of fiber optic cable assemblies with CXP fiber paths to interconnect CXP transceivers to CXP, QSFP+ and SFP+ transceivers. All are available with OM2 and OM3 fiber as a standard offering, with OM4 being available upon request.





**Belly-to-Belly Version**  
(See next page for part number details)

## KEY FEATURES

- Standard CXP interface complies with InfiniBand CXP 12x QDR and IEEE 100 Gbps Ethernet
- Provides 12 channels of 12.5 Gbps data rates for 150Gbps of total bandwidth in one-piece press-fit assembly
- Enhanced Footprint (EF), dual-sourced footprint offers reduced cross-talk
- Pre-assembled (one-piece) connector and cage assembly offers one-step placement to the board
- EMI gasketing at bezel opening and EMI springs for plug-to receptacle containment
- CXP cages accommodate belly-to-belly mounting (can be applied to both sides of the board)
- Offering includes multiple heat-sink, lightpipe and EMI/dust plug options to fit customer applications

## APPLICATIONS

- Controller Cards and Servers
- Network Switches
- Routers
- Storage Devices
- Direct Attached Storage (DAS)
- Storage Attached Networks (SAN)
- Network Attached Storage (NAS)

## ELECTRICAL

- Connector signal integrity performance meets requirements of InfiniBand CXP specification
- Enhanced footprint (EF) offers superior isolation at the board termination
- Fully shielded and bezel gasket integrated for EMI containment
- **Current rating** : 0.5 amps max. per pin

## MECHANICAL

- **Mating force** : 210N min.
- **Unmating force** : 42N min.
- **Durability** : 250 cycles
- **Max. PCB insertion force** : 25N per pin

## MATERIALS

- **Body** : Zinc diecast
- **Connector housing** : LCP
- **Connector contacts** : Copper alloy
- **Heatsinks** : Aluminum

## STANDARDS AND SPECIFICATIONS

- Application Specification — **114-13283**
- Product Specification — **108-2426**
- Instruction Sheet — **408-10380**

## PRODUCT OFFERING

## CXP Connector

| Part Number | Part Description        | Height  | Profile                  | Cover | Heat Sink | Light Pipes |
|-------------|-------------------------|---------|--------------------------|-------|-----------|-------------|
| 2149126-3   | EMI / DUST COVER        | —       | —                        | —     | —         | —           |
| 2149448-1   | CXP receptacle Assembly | 11.88mm | Standard                 | No    | No        | No          |
| 2149152-1   | CXP receptacle Assembly | 11.88mm | Standard                 | Yes   | No        | No          |
| 2149157-1   | CXP receptacle Assembly | 14.37mm | Standard                 | No    | Yes       | No          |
| 2149157-3   | CXP receptacle Assembly | 16.5mm  | Standard                 | No    | Yes       | No          |
| 2149157-5   | CXP receptacle Assembly | 23.5mm  | Standard                 | No    | Yes       | No          |
| 2149159-1   | CXP receptacle Assembly | 16.37mm | Standard                 | Yes   | No        | Yes         |
| 2149159-3   | CXP receptacle Assembly | 16.37mm | Standard                 | No    | Yes       | Yes         |
| 2149159-5   | CXP receptacle Assembly | 16.5mm  | Standard                 | No    | Yes       | Yes         |
| 2149159-7   | CXP receptacle Assembly | 23.5mm  | Standard                 | No    | Yes       | Yes         |
| 2149699-1   | CXP receptacle Assembly | 11.55mm | Belly - Belly (standard) | Yes   | No        | No          |
| 2149701-1   | CXP receptacle Assembly | 11.3mm  | Belly - Belly (standard) | No    | No        | No          |
| 2149731-1   | CXP receptacle Assembly | 11.55mm | Belly - Belly (extended) | Yes   | No        | No          |
| 2149733-1   | CXP receptacle Assembly | 11.3mm  | Belly - Belly (extended) | No    | No        | No          |

## CXP Fiber Optic Cable Assemblies

| Part Number | Part Description                                                          |
|-------------|---------------------------------------------------------------------------|
| 2148039-x   | CXP 24Fiber C/A, 50/125μm OM2, MPO (f) -MPO (f)                           |
| 2148238-x   | CXP 24Fiber C/A, 50/125μm OM3, MPO (f) -MPO (f)                           |
| 2148040-x   | CXP-SFP+ 24Fiber C/A, 50/125μm OM2, MPO (f) - LC                          |
| 2148041-x   | CXP-SFP+ 24Fiber C/A, 50/125μm OM3, MPO (f) - LC                          |
| 2148042-x   | CXP-QSFP+ 24Fiber C/A, 50/125μm OM2, 24 pos MPO (f) to 3 (8fiber) MPO (f) |
| 2148043-x   | CXP-QSFP+ 24Fiber C/A, 50/125μm OM3, 24 pos MPO (f) to 3 (8fiber) MPO (f) |
| 2123248-1   | CXP 24 Fiber Loopback                                                     |

**Note:** For -X see cable length chart below.

## CXP Fiber Optic Cables Length Chart (Dash Numbers = Length in Meters)

| 1 -50 Meters Length |           |             |           | 50 - 100 Meters Length |            |
|---------------------|-----------|-------------|-----------|------------------------|------------|
| Base PN             | Length    | Base PN     | Length    | Base PN                | Length     |
| xxxxxxx-1           | 1 meter   | 2-xxxxxxx-6 | 26 meters | 5-xxxxxxx-5            | 55 meters  |
| xxxxxxx-2           | 2 meters  | 2-xxxxxxx-7 | 27 meters | 6-xxxxxxx-0            | 60 meters  |
| xxxxxxx-3           | 3 meters  | 2-xxxxxxx-8 | 28 meters | 6-xxxxxxx-5            | 65 meters  |
| xxxxxxx-4           | 4 meters  | 2-xxxxxxx-9 | 29 meters | 7-xxxxxxx-0            | 70 meters  |
| xxxxxxx-5           | 5 meters  | 3-xxxxxxx-0 | 30 meters | 7-xxxxxxx-5            | 75 meters  |
| xxxxxxx-6           | 6 meters  | 3-xxxxxxx-1 | 31 meters | 8-xxxxxxx-0            | 80 meters  |
| xxxxxxx-7           | 7 meters  | 3-xxxxxxx-2 | 32 meters | 8-xxxxxxx-5            | 85 meters  |
| xxxxxxx-8           | 8 meters  | 3-xxxxxxx-3 | 33 meters | 9-xxxxxxx-0            | 90 meters  |
| xxxxxxx-9           | 9 meters  | 3-xxxxxxx-4 | 34 meters | 9-xxxxxxx-5            | 95 meters  |
| 1-xxxxxxx-0         | 10 meters | 3-xxxxxxx-5 | 35 meters | 9-xxxxxxx-9            | 100 meters |
| 1-xxxxxxx-1         | 11 meters | 3-xxxxxxx-6 | 36 meters |                        |            |
| 1-xxxxxxx-2         | 12 meters | 3-xxxxxxx-7 | 37 meters |                        |            |
| 1-xxxxxxx-3         | 13 meters | 3-xxxxxxx-8 | 38 meters |                        |            |
| 1-xxxxxxx-4         | 14 meters | 3-xxxxxxx-9 | 39 meters |                        |            |
| 1-xxxxxxx-5         | 15 meters | 4-xxxxxxx-0 | 40 meters |                        |            |
| 1-xxxxxxx-6         | 16 meters | 4-xxxxxxx-1 | 41 meters |                        |            |
| 1-xxxxxxx-7         | 17 meters | 4-xxxxxxx-2 | 42 meters |                        |            |
| 1-xxxxxxx-8         | 18 meters | 4-xxxxxxx-3 | 43 meters |                        |            |
| 1-xxxxxxx-9         | 19 meters | 4-xxxxxxx-4 | 44 meters |                        |            |
| 2-xxxxxxx-0         | 20 meters | 4-xxxxxxx-5 | 45 meters |                        |            |
| 2-xxxxxxx-1         | 21 meters | 4-xxxxxxx-6 | 46 meters |                        |            |
| 2-xxxxxxx-2         | 22 meters | 4-xxxxxxx-7 | 47 meters |                        |            |
| 2-xxxxxxx-3         | 23 meters | 4-xxxxxxx-8 | 48 meters |                        |            |
| 2-xxxxxxx-4         | 24 meters | 4-xxxxxxx-9 | 49 meters |                        |            |
| 2-xxxxxxx-5         | 25 meters | 5-xxxxxxx-0 | 50 meters |                        |            |

## FOR MORE INFORMATION

[te.com/products/CXP](http://te.com/products/CXP)

### TE Technical Support Center

|                   |                       |
|-------------------|-----------------------|
| USA:              | +1 (800) 522-6752     |
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| Mexico            | +52 (0) 55-1106-0800  |
| Latin/S. America: | +54 (0) 11-4733-2200  |
| Germany:          | +49 (0) 6251-133-1999 |
| UK:               | +44 (0) 800-267666    |
| France:           | +33 (0) 1-3420-8686   |
| Netherlands:      | +31 (0) 73-6246-999   |
| China:            | +86 (0) 400-820-6015  |

Part numbers in this brochure are RoHS Compliant\*, unless marked otherwise.

\*as defined [www.te.com/leadfree](http://www.te.com/leadfree)

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