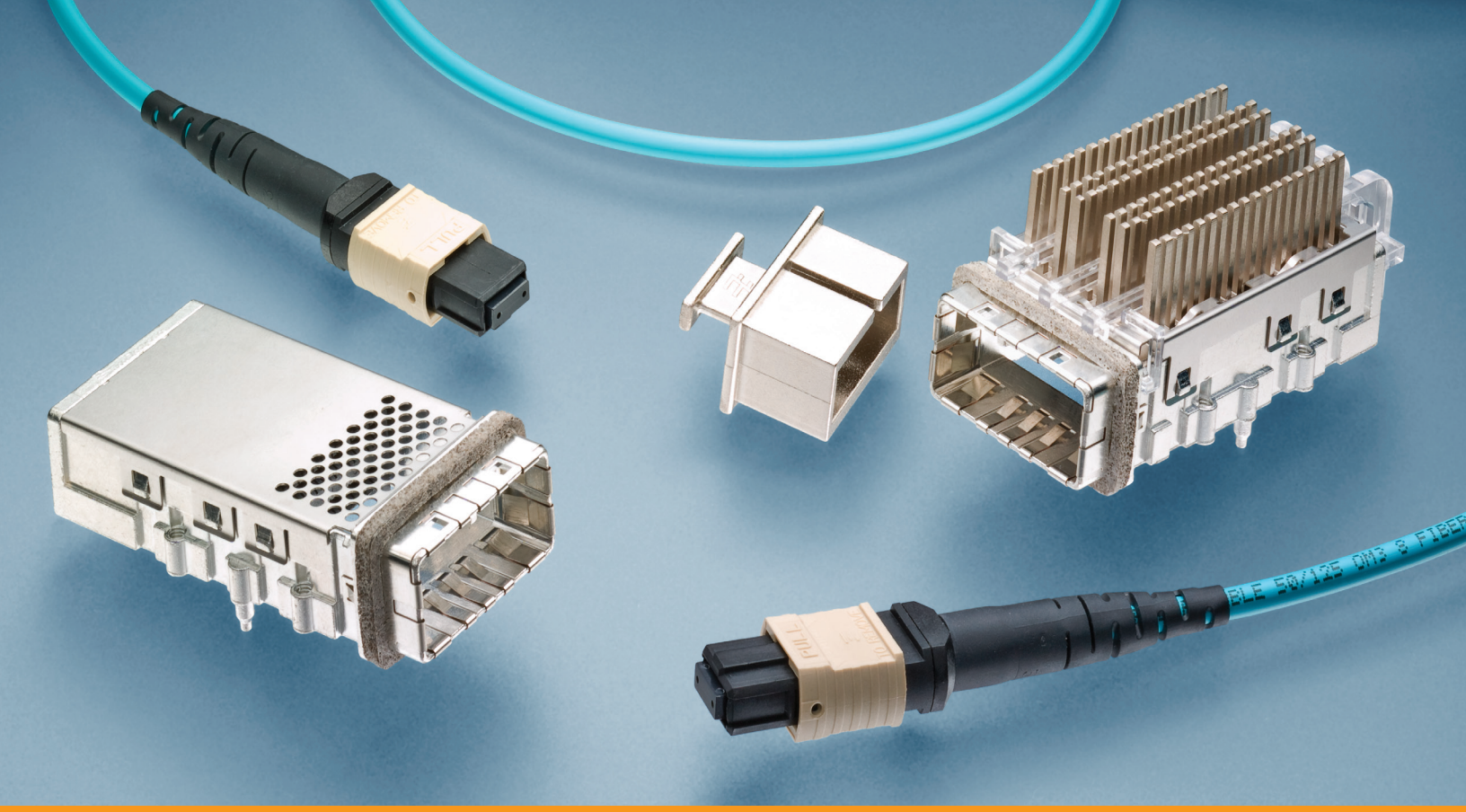
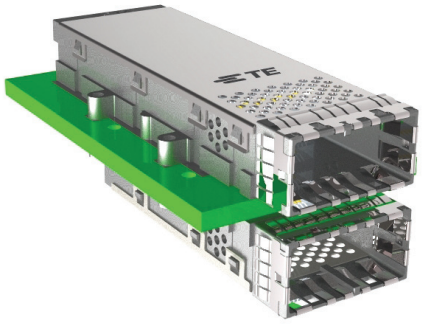


Introducing
CXP Pluggable I/O Interconnect

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.

TE connectivity



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

TE Technical Support Center

USA:	+1 (800) 522-6752
Canada:	+1 (905) 475-6222
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

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*as defined www.te.com/leadfree

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TE connectivity