



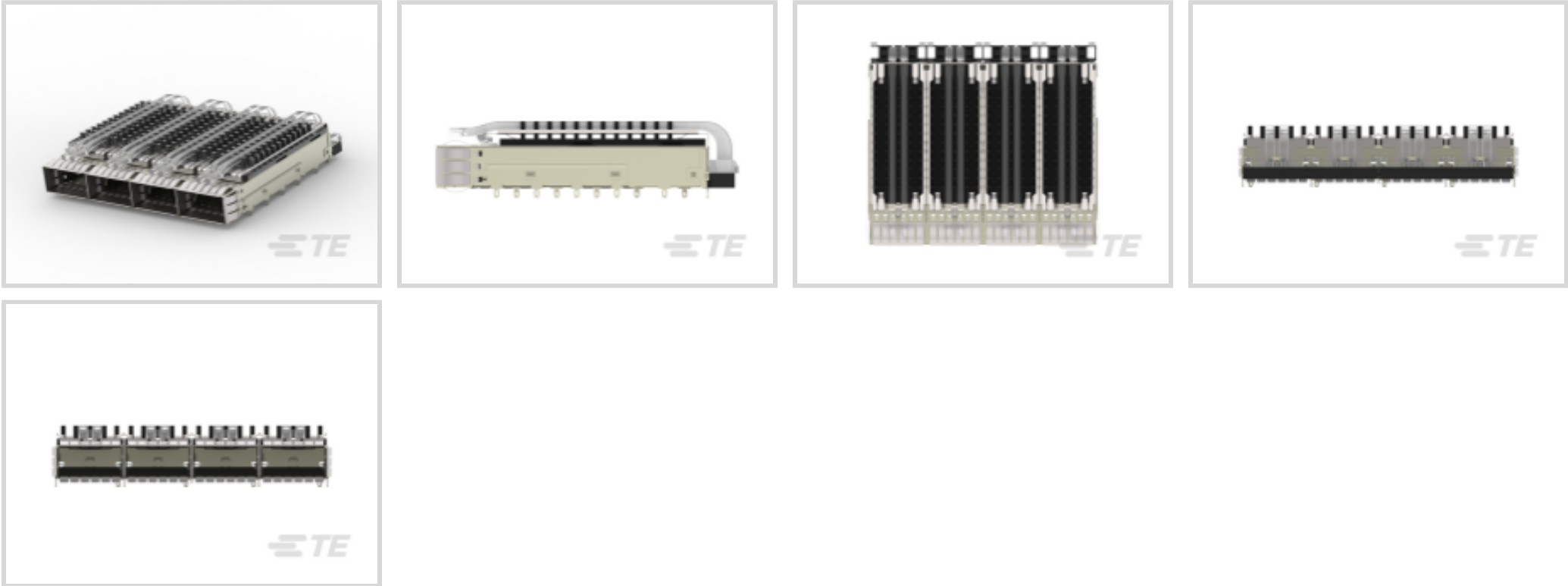
zQSFP+/QSFP28

TE Internal #: 2-2170747-2

QSFP28/56, Cage Assembly, Signal, Operating Temperature Range  
-40 – 85 °C [-40 – 185 °F], Data Rate (Max) 28 Gb/s, 4 Ports

[View on TE.com >](#)

Connectors > Pluggable IO Connectors & Cages



Form Factor: **QSFP28/56**  
Pluggable I/O Product Type: **Cage Assembly**  
Sealable: **No**  
Circuit Application: **Signal**  
Operating Temperature Range: **-40 – 85 °C [ -40 – 185 °F ]**

Features

Product Type Features

|                                 |               |
|---------------------------------|---------------|
| Cage Type                       | Ganged        |
| Thermal Accessory Type Included | Heat Sink     |
| Form Factor                     | QSFP28/56     |
| Pluggable I/O Product Type      | Cage Assembly |
| Sealable                        | No            |

Configuration Features

|                                     |       |
|-------------------------------------|-------|
| Number of Rear EONs per Port Column | 1     |
| Number of Ports                     | 4     |
| Port Matrix Configuration           | 1 x 4 |

Electrical Characteristics

|                 |         |
|-----------------|---------|
| Data Rate (Max) | 28 Gb/s |
|-----------------|---------|

Body Features

|                  |                |
|------------------|----------------|
| Heat Sink Style  | Pin            |
| Heat Sink Finish | Anodized Black |



|                        |         |
|------------------------|---------|
|                        | .256 in |
| Heat Sink Height Class | SAN     |

Contact Features

|                                               |     |
|-----------------------------------------------|-----|
| PCB Contact Termination Area Plating Material | Tin |
|-----------------------------------------------|-----|

Termination Features

|                                |                          |
|--------------------------------|--------------------------|
| Termination Method to PCB      | Through Hole - Press-Fit |
| Termination Post & Tail Length | 2.05 mm[.081 in]         |

Housing Features

|               |               |
|---------------|---------------|
| Cage Material | Nickel Silver |
|---------------|---------------|

Dimensions

|                             |                  |
|-----------------------------|------------------|
| PCB Thickness (Recommended) | 1.57 mm[.062 in] |
|-----------------------------|------------------|

Usage Conditions

|                             |                           |
|-----------------------------|---------------------------|
| Operating Temperature Range | -40 – 85 °C[-40 – 185 °F] |
|-----------------------------|---------------------------|

Operation/Application

|                            |                             |
|----------------------------|-----------------------------|
| Pluggable I/O Applications | SFP+ Stacked Belly-to-Belly |
| Circuit Application        | Signal                      |

Industry Standards

|                        |          |
|------------------------|----------|
| UL Flammability Rating | UL 94V-0 |
|------------------------|----------|

Packaging Features

|                  |            |
|------------------|------------|
| Packaging Method | Box & Tray |
|------------------|------------|

Other

|                              |                               |
|------------------------------|-------------------------------|
| Included Lightpipe           | Yes                           |
| EMI Containment Feature Type | Internal/External EMI Springs |

Product Compliance

For compliance documentation, visit the product page on TE.com>

|                                               |                                             |
|-----------------------------------------------|---------------------------------------------|
| EU RoHS Directive 2011/65/EU                  | Compliant                                   |
| EU ELV Directive 2000/53/EC                   | Compliant                                   |
| China RoHS 2 Directive MIIT Order No 32, 2016 | No Restricted Materials Above Threshold     |
| EU REACH Regulation (EC) No. 1907/2006        | Current ECHA Candidate List: JAN 2025 (247) |



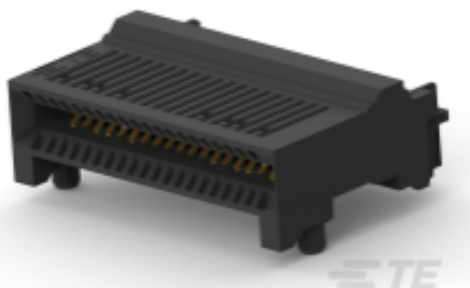
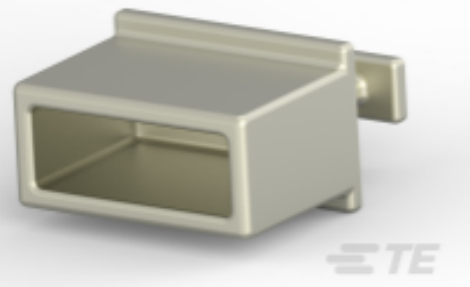
Candidate List Declared Against: JAN 2025  
(247)  
Does not contain REACH SVHC

|                           |                                                |
|---------------------------|------------------------------------------------|
| Halogen Content           | Not Low Halogen - contains Br or Cl > 900 ppm. |
| Solder Process Capability | Not applicable for solder process capability   |

Product Compliance Disclaimer

This information is provided based on reasonable inquiry of our suppliers and represents our current actual knowledge based on the information they provided. This information is subject to change. The part numbers that TE has identified as EU RoHS compliant have a maximum concentration of 0.1% by weight in homogenous materials for lead, hexavalent chromium, mercury, PBB, PBDE, DBP, BBP, DEHP, DIBP, and 0.01% for cadmium, or qualify for an exemption to these limits as defined in the Annexes of Directive 2011/65/EU (RoHS2). Finished electrical and electronic equipment products will be CE marked as required by Directive 2011/65/EU. Components may not be CE marked. Additionally, the part numbers that TE has identified as EU ELV compliant have a maximum concentration of 0.1% by weight in homogenous materials for lead, hexavalent chromium, and mercury, and 0.01% for cadmium, or qualify for an exemption to these limits as defined in the Annexes of Directive 2000/53/EC (ELV). Regarding the REACH Regulation, the information TE provides on SVHC in articles for this part number is based on the latest European Chemicals Agency (ECHA) 'Guidance on requirements for substances in articles' posted at this URL: <https://echa.europa.eu/guidance-documents/guidance-on-reach>

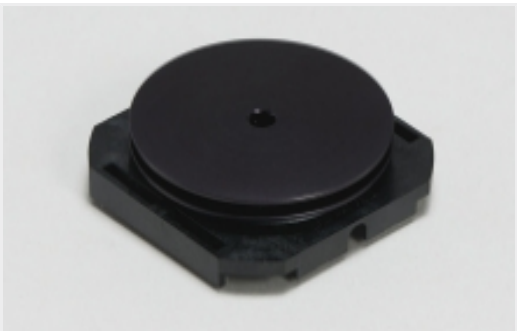
Compatible Parts

|                                                                                                                                                                      |                                                                                                                                                                       |                                                                                                                                                                        |                                                                                                                                                                         |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  <p>TE Part # CAT-C11-N490333<br/>QSFP28-Four SFP+ Cable Assembly:<br/>30 AWG</p> |  <p>TE Part # CAT-C11-N490325<br/>QSFP28-Four SFP+ Cable Assembly:<br/>26 AWG</p> |  <p>TE Part # CAT-C11-N49<br/>QSFP28-Two QSFP28 Cable<br/>Assembly: 30 AWG</p>    |  <p>TE Part # CAT-Q17-N490333<br/>QSFP56-Four SFP56 Cable Assembly:<br/>26 AWG</p> |
|  <p>TE Part # 1551920-2<br/>zQSFP+ connector assembly</p>                         |  <p>TE Part # CAT-Q17-N490325<br/>QSFP56 to QSFP56 Cable Assembly:<br/>30 AWG</p> |  <p>TE Part # CAT-C11-Z806726<br/>QSFP28 to QSFP28 Cable Assembly:<br/>30 AWG</p> |  <p>TE Part # CAT-Q17-N49011<br/>QSFP56-Four SFP56 Cable Assembly:<br/>30 AWG</p>  |
|  <p>TE Part # 5-2215048-2<br/>ASSY, SEATING TL, QSFP28, 1X4</p>                   |  <p>TE Part # 1888810-2<br/>EMI/Dust Cover,XFP And QSFP</p>                       |  <p>TE Part # CAT-C11-Z8<br/>QSFP28 to QSFP28 Cable Assembly:<br/>26 AWG</p>      |  <p>TE Part # CAT-C11-Q17<br/>QSFP56 to QSFP56 Cable Assembly:<br/>26 AWG</p>      |

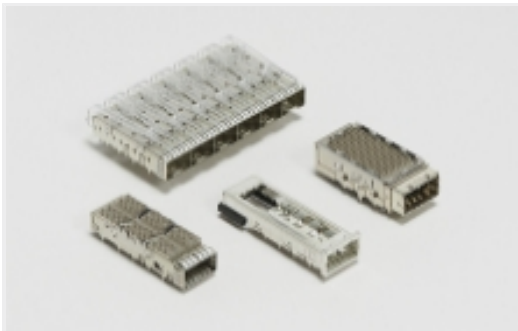


TE Part # CAT-Q17-N49033  
QSFP56-Two QSFP56 Cable  
Assembly: 30 AWG

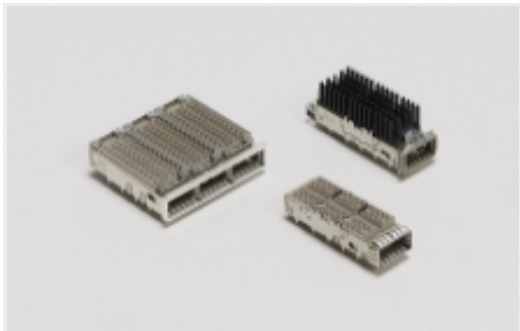
Also in the Series | [zQSFP+/QSFP28](#)



[Heat Sinks\(7\)](#)

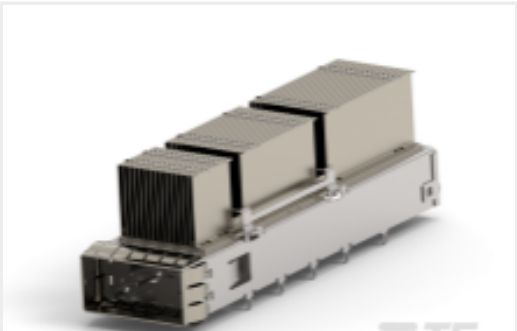


[Pluggable IO Connectors & Cages\(424\)](#)



[QSFP, QSFP+ & zQSFP+\(424\)](#)

Customers Also Bought



TE Part #2342934-3  
QSFP-DD 1X1, STANDARD, W/  
ZIPPER HS



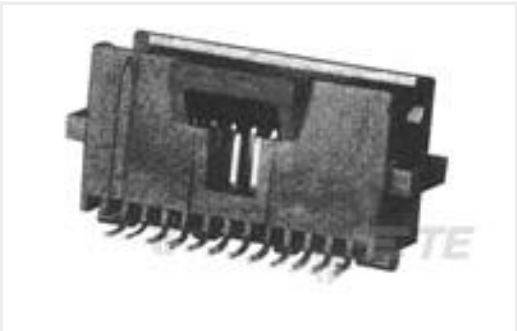
TE Part #5-1622825-8  
RL73K 2A R33 5% 5K RL



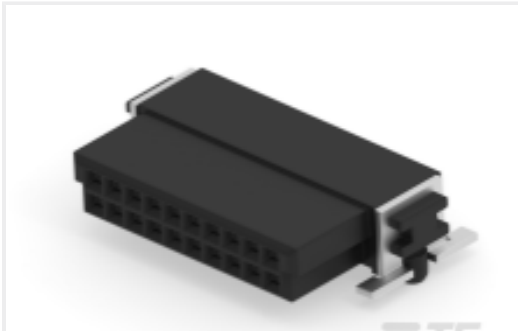
TE Part #4-1614882-4  
CPF 0603 7K5 0.1% 25PPM 5K RL



TE Part #6600150-1  
MBXL R/A HDR DB 4P+24S



TE Part #5-147377-1  
10 SYS50 SMT HDR DR SHD SN



TE Part #354079-E  
SMCQ 20 F AB VV 7-03 CL \* 0007 137  
E002



TE Part #1367646-4  
Heatsink clip Stamped and Form



TE Part #2274842-2  
HARDWARE KIT, CFP2, 1X1,



TE Part #1-5767007-1  
MICT,260PLUG,152,ASSY,.025,REC



TE Part #5-1624113-7  
3650 0805 0.33uH 5% 2K RL



Documents

Product Drawings

CAGE ASSY, 1X4, QSFP28, SPRING, HS, LP

English

CAD Files

3D PDF

3D

Customer View Model

ENG\_CVM\_CVM\_2-2170747-2\_A.2d\_dxf.zip

English

Customer View Model

ENG\_CVM\_CVM\_2-2170747-2\_A.3d\_igs.zip

English

Customer View Model

ENG\_CVM\_CVM\_2-2170747-2\_A.3d\_stp.zip

English

By downloading the CAD file I accept and agree to the [Terms and Conditions](#) of use.

Datasheets & Catalog Pages

QSFP28/56 and zQSFP+ Interconnects

English

Product Specifications

Application Specification

English