



**Free Height**

TE Internal #: 3-5177986-8

PCB Mount Header, Vertical, Board-to-Board, 160 Position, .8 mm [.031 in] Centerline, Fully Shrouded, Gold, Surface Mount, Signal, Free Height

[View on TE.com >](#)

Connectors > PCB Connectors > PCB Headers & Receptacles > Plug Connector: Free Height, Board-Board, Vertical



PCB Connector Assembly Type: **PCB Mount Header**

PCB Mount Orientation: **Vertical**

Connector System: **Board-to-Board**

Number of Positions: **160**

Centerline (Pitch): **.8 mm [.031 in]**

[All Plug Connector: Free Height, Board-Board, Vertical \(20\)](#)

**Features**

**Product Type Features**

|                                   |                       |
|-----------------------------------|-----------------------|
| PCB Connector Assembly Type       | PCB Mount Header      |
| Connector System                  | Board-to-Board        |
| Header Type                       | Fully Shrouded        |
| Sealable                          | No                    |
| Connector & Contact Terminates To | Printed Circuit Board |

**Configuration Features**

|                              |          |
|------------------------------|----------|
| Stackable                    | Yes      |
| PCB Mount Orientation        | Vertical |
| Number of Positions          | 160      |
| Board-to-Board Configuration | Parallel |

**Electrical Characteristics**

|                                       |         |
|---------------------------------------|---------|
| Dielectric Withstanding Voltage (Max) | 500 VAC |
|---------------------------------------|---------|



|                       |      |
|-----------------------|------|
| Insulation Resistance | 2 MΩ |
|-----------------------|------|

|                   |         |
|-------------------|---------|
| Operating Voltage | 100 VAC |
|-------------------|---------|

### Body Features

|                                   |       |
|-----------------------------------|-------|
| Assembly Process Feature Material | Steel |
|-----------------------------------|-------|

|                       |         |
|-----------------------|---------|
| Primary Product Color | Natural |
|-----------------------|---------|

### Contact Features

|   |                 |
|---|-----------------|
| PCB Contact Termination Area Plating Material Thickness | 2 μm[78.74 μin] |
|---|-----------------|

|                |        |
|----------------|--------|
| Contact Layout | Inline |
|----------------|--------|

|                  |                |
|------------------|----------------|
| Mating Tab Width | .4 mm[.016 in] |
|------------------|----------------|

|                      |                |
|----------------------|----------------|
| Mating Tab Thickness | .2 mm[.008 in] |
|----------------------|----------------|

|  |       |
|--|-------|
| PCB Contact Termination Area Plating Material Finish | Matte |
|--|-------|

|   |       |
|---|-------|
| Contact Mating Area Plating Material Finish | Matte |
|---|-------|

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

|                       |       |
|-----------------------|-------|
| Contact Base Material | Brass |
|-----------------------|-------|

|                                      |      |
|--------------------------------------|------|
| Contact Mating Area Plating Material | Gold |
|--------------------------------------|------|

|  |              |
|--|--------------|
| Contact Mating Area Plating Material Thickness | .2 μm[8 μin] |
|--|--------------|

|              |     |
|--------------|-----|
| Contact Type | Tab |
|--------------|-----|

|                              |      |
|------------------------------|------|
| Contact Current Rating (Max) | .5 A |
|------------------------------|------|

### Termination Features

|   |                |
|---|----------------|
| Rectangular Termination Post & Tail Thickness | .2 mm[.008 in] |
|---|----------------|

|   |                |
|---|----------------|
| Rectangular Termination Post & Tail Width | .25 mm[.01 in] |
|---|----------------|

|   |               |
|---|---------------|
| Termination Method to Printed Circuit Board | Surface Mount |
|---|---------------|

### Mechanical Attachment

|                                   |               |
|-----------------------------------|---------------|
| Mounting Alignment Feature Length | .5 mm[.02 in] |
|-----------------------------------|---------------|

|                          |                    |
|--------------------------|--------------------|
| PCB Mount Alignment Type | Positioning Bosses |
|--------------------------|--------------------|

|                  |      |
|------------------|------|
| Mating Alignment | With |
|------------------|------|

|                       |              |
|-----------------------|--------------|
| Mating Alignment Type | Polarization |
|-----------------------|--------------|

|                     |         |
|---------------------|---------|
| PCB Mount Retention | Without |
|---------------------|---------|

|                     |      |
|---------------------|------|
| PCB Mount Alignment | With |
|---------------------|------|

|                         |             |
|-------------------------|-------------|
| Connector Mounting Type | Board Mount |
|-------------------------|-------------|

### Housing Features

|                       |     |
|-----------------------|-----|
| Mating Entry Location | Top |
|-----------------------|-----|



|                    |                 |
|--------------------|-----------------|
| Centerline (Pitch) | .8 mm [.031 in] |
|--------------------|-----------------|

|                  |       |
|------------------|-------|
| Housing Material | Matte |
|------------------|-------|

### Dimensions

|                  |                |
|------------------|----------------|
| Connector Height | 8 mm [.315 in] |
|------------------|----------------|

|              |  |
|--------------|--|
| Stack Height | 8 mm, 12 mm, 16 mm, 20 mm [.315 in] [.472 in] [.63 in] [.787 in] |
|--------------|--|

### Usage Conditions

|                            |      |
|----------------------------|------|
| Housing Temperature Rating | High |
|----------------------------|------|

|                             |                             |
|-----------------------------|-----------------------------|
| Operating Temperature Range | -40 – 125 °C [-40 – 257 °F] |
|-----------------------------|-----------------------------|

### Operation/Application

|                          |                      |
|--------------------------|----------------------|
| Assembly Process Feature | Pick and Place Cover |
|--------------------------|----------------------|

|                     |        |
|---------------------|--------|
| Circuit Application | Signal |
|---------------------|--------|

### Industry Standards

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

### Packaging Features

|  |       |
|--|-------|
|  | .5 in |
|--|-------|

|                    |     |
|--------------------|-----|
| Packaging Quantity | 400 |
|--------------------|-----|

|                |             |
|----------------|-------------|
| Packaging Type | Tape & Reel |
|----------------|-------------|

### 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: JUNE 2023 (235)<br>Candidate List Declared Against: JAN 2023 (233)<br>Does not contain REACH SVHC |
|--|--|

|                 |   |
|-----------------|---|
| Halogen Content | Low Halogen - Br, Cl, F, I < 900 ppm per homogenous material. Also BFR/CFR/PVC Free |
|-----------------|---|

|                           |                                |
|---------------------------|--------------------------------|
| Solder Process Capability | Reflow solder capable to 260°C |
|---------------------------|--------------------------------|

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



## Also in the Series | Free Height



## Customers Also Bought





## Documents

### CAD Files

[3D PDF](#)

[3D](#)

#### Customer View Model

[ENG\\_CVM\\_CVM\\_3-5177986-8\\_D.2d\\_dxf.zip](#)

English

#### Customer View Model

[ENG\\_CVM\\_CVM\\_3-5177986-8\\_D.3d\\_igs.zip](#)

English

#### Customer View Model

[ENG\\_CVM\\_CVM\\_3-5177986-8\\_D.3d\\_stp.zip](#)

English

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

### Datasheets & Catalog Pages

[Fine Pitch Stacking Connectors - 0.8mm Free Height \(FH\) Connectors](#)

English

### Product Specifications

[Product Specification](#)

English

[Product Specification](#)

English

### Product Environmental Compliance

[MD\\_3-5177986-8\\_072420162159\\_dmtec](#)

English

[MD\\_3-5177986-8\\_072420162159\\_dmtec](#)

English

### Agency Approvals

[UL](#)

English