



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
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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
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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
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Packaging Features

	.5 in
Packaging Quantity	400
Packaging Method	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: JAN 2024 (240) Candidate List Declared Against: JAN 2024 (240) 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

TE Part # CAT-313-RCB160

Free Height Receptacle Conn: Board-Board, Vertical, 160, 0.8mm

Also in the Series | Free Height

PCB Headers & Receptacles(758)

Customers Also Bought

TE Part # 5332610001

TMS-SCE-3/16-2.0-4

TE Part # 6-1676966-1

SMW2 33R 5%

TE Part # 4-1393254-8

W91-X152-40=M6/M7/M9/W6/W7

TE Part # 2176349-6

CRGCQ 2512 27R 1%



TE Part # 2-2176331-4  
CRGP 2512 820R 1%

TE Part # 5677932007  
RNF-3000 Heat Shrink Tubing

TE Part # NB09524001  
ATUM-16/4-0-SP

TE Part # 640900-3  
05P UMNL PIN HDR ASSY 94VO LF

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

Agency Approvals

UL

English