



Free Height

TE Internal #: 120527-2
PCB Mount Header, Vertical, Board-to-Board, 84 Position, 1 mm [.039 in] Centerline, Fully Shrouded, Gold, Surface Mount, Signal, Black, Free Height

[View on TE.com >](#)

Connectors > PCB Connectors > PCB Headers & Receptacles > Free Height Plug Connector: Board-Board, Vertical, 84, 1mm



PCB Connector Assembly Type: **PCB Mount Header**
PCB Mount Orientation: **Vertical**
Connector System: **Board-to-Board**
Number of Positions: **84**
Centerline (Pitch): **1 mm [.039 in]**

[All Free Height Plug Connector: Board-Board, Vertical, 84, 1mm \(28\)](#)

Features

Electrical Characteristics

Operating Voltage	250 VAC
Insulation Resistance	2 MΩ

Signal Characteristics

Differential Signaling	Yes
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Dimensions

Stack Height	10 mm, 15 mm, 12 mm, 13 mm[.591 in]
Connector Width	3.81 mm[150 in]
Connector Height	8.35 mm[.328 in]
Connector Length	44.22 mm[1.74 in]

Packaging Features

Packaging Quantity	400
Packaging Method	Tape & Reel

Industry Standards

Compatible With Agency/Standards Products	UL, CSA
Industry Standard	IEEE 1386
UL Rating	Listed



Compatible With Approved Standards Products	UL E28476, CSA LR7189
UL Flammability Rating	UL 94V-0

Operation/Application

Assembly Process Feature	None
Circuit Application	Signal

Mechanical Attachment

Mating Retention	Without
Mating Alignment Type	None
PCB Mount Retention Type	None
PCB Mount Alignment Type	Locating Posts
PCB Mount Retention	Without
PCB Mount Alignment	With
Mating Alignment	Without

Termination Features

Rectangular Termination Post & Tail Width	.3 mm[.011 in]
Rectangular Termination Post & Tail Thickness	.2 mm[.008 in]
Termination Method to PCB	Surface Mount

Contact Features

Contact Underplating Material Thickness	1.27 μm[50 μin]
PCB Contact Termination Area Plating Material Finish	Matte
Contact Mating Area Plating Material Thickness	.76 μm[29.9212 μin]
Mating Tab Width	.63 mm[.024 in]
PCB Contact Termination Area Plating Material Thickness	3.81 μm[150 μin]
Contact Shape & Form	Single Beam
Contact Layout	Inline
Contact Mating Area Length	2 mm
Contact Base Material	Phosphor Bronze
Mating Tab Thickness	.2 mm[.008 in]
PCB Contact Termination Area Plating Material	Tin-Lead
Contact Mating Area Plating Material	Gold
Contact Type	Pin
Contact Current Rating (Max)	1 A



Housing Features

Mating Entry Location	Top
Housing Material	Matte
Centerline (Pitch)	1 mm[.039 in]

Configuration Features

Number of Columns	42
Board-to-Board Configuration	Parallel
Stackable	Yes
PCB Mount Orientation	Vertical
Number of Positions	84

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

Body Features

Primary Product Color	Black
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Usage Conditions

Operating Temperature Range	-55 – 110 °C[-67 – 230 °F]
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Other

EU RoHS Compliance	Not Compliant
EU ELV Compliance	Compliant with Exemptions

Product Compliance

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

EU RoHS Directive 2011/65/EU	Not Compliant
EU ELV Directive 2000/53/EC	Compliant with Exemptions
China RoHS 2 Directive MIIT Order No 32, 2016	Restricted Materials Above Threshold
EU REACH Regulation (EC) No. 1907/2006	Current ECHA Candidate List: JUNE 2024 (241) Candidate List Declared Against: JUNE 2024 (241) SVHC > Threshold:



Pb (13% in Component Part)

Article Safe Usage Statements:
Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Recycle if possible and dispose of the article by following all applicable governmental regulations relevant to your geographic location.

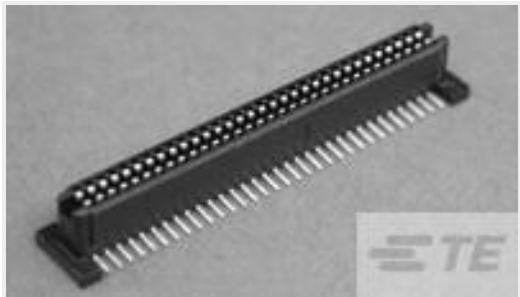
Halogen Content	Low Halogen - Br, Cl, F, I < 900 ppm per homogenous material. Also BFR/CFR/PVC Free
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Solder Process Capability	Reflow solder capable to 260°C
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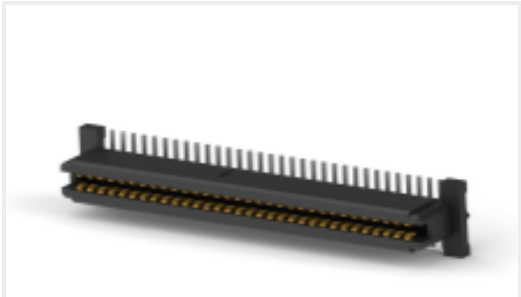
Product Compliance Disclaimer

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

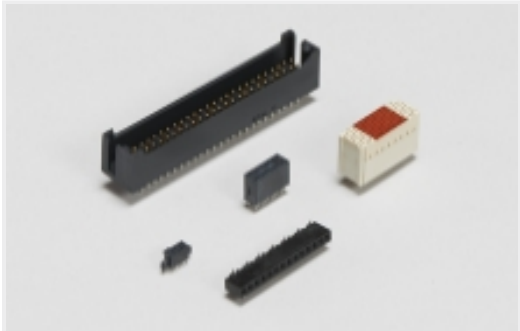


TE Part # 146893-2
[1FHR,84,30A/P,S,C,S08,09,10](#)

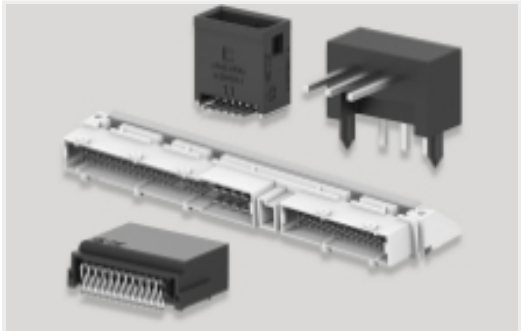


TE Part # CAT-314-RCB84
[Free Height Receptacle Conn: Board-Board, Vertical, 84, 1mm](#)

Also in the Series | [Free Height](#)



[Board-to-Board Headers & Receptacles\(751\)](#)



[PCB Headers & Receptacles\(751\)](#)

Customers Also Bought






TE Part #DT04-2P
REC, 2P, GRY, N



TE Part #DT06-2S
PLG, 2P, GRY, N



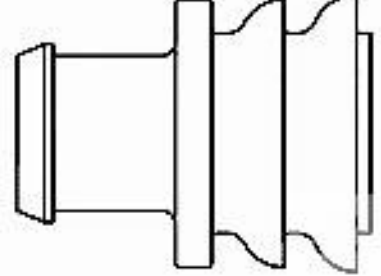
TE Part #CAT-D487-W416
Wedgelocks: DEUTSCH DT



TE Part #CAT-D48-ST273
DEUTSCH Solid Contacts



TE Part #CAT-AM71-CH8172
AMP SUPERSEAL 1.5MM,
CONNECTOR HOUSING



TE Part #281934-2
SINGLE WIRE SEAL



TE Part #114017-ZZ
SEALING PLUG, SIZE 12/16, WHT

Documents

Product Drawings

1FHP,84,30A/P,S,N,S10,12,13,15

English

CAD Files

3D PDF

3D

Customer View Model

ENG_CVM_CVM_120527-2_F1.2d_dxf.zip

English

Customer View Model

ENG_CVM_CVM_120527-2_F1.3d_igs.zip

English

Customer View Model

ENG_CVM_CVM_120527-2_F1.3d_stp.zip

English

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

Product Specifications

Application Specification

English