



**Free Height**

TE Internal #: 1-5177986-5

PCB Mount Header, Vertical, Board-to-Board, 120 Position, .8 mm [.031 in] Centerline, Fully Shrouded, Gold, Surface Mount, Signal, Free Height

[View on TE.com >](#)

Connectors > PCB Connectors > PCB Headers & Receptacles > Free Height Plug Connector: Board-Board, Vertical, 120, 0.8mm



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

PCB Mount Orientation: **Vertical**

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

Number of Positions: **120**

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

[All Free Height Plug Connector: Board-Board, Vertical, 120, 0.8mm \(23\)](#)

**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	120
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	6 mm [.236 in]
------------------	----------------

Stack Height	6 mm, 10 mm, 14 mm, 18 mm [.236 in][.394 in][.551 in][.709 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	550
--------------------	-----

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-RCB120  
Receptacle Connector: Free Height, PCB Mount for Parallel Stacking



TE Part # 1735681-5  
0.8FH,R13H.5,120,15/Sn,TR,SC

## Also in the Series | Free Height



PCB Headers & Receptacles(758)

## Customers Also Bought



TE Part # 1-963224-1  
42P MESSERLEIST MIX



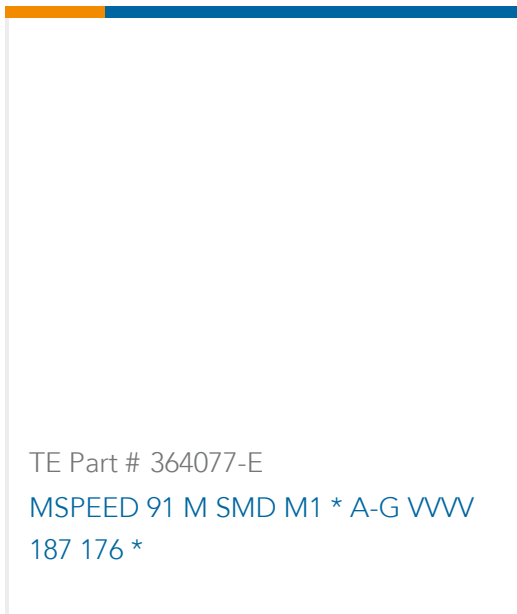
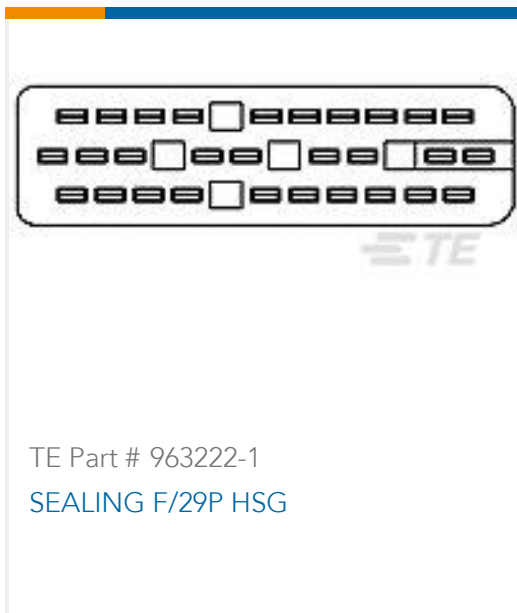
TE Part # 2337815-1  
MINISAS HD TO MINISAS HD,30AWG,0.5M



TE Part # 6-6437144-2  
FSN-23A-8



TE Part # 8-1415536-7  
0410 83 050 001WG



## Documents

### CAD Files

[3D PDF](#)

[3D](#)

**Customer View Model**

[ENG\\_CVM\\_CVM\\_1-5177986-5\\_D.2d\\_dxf.zip](#)

English

**Customer View Model**

[ENG\\_CVM\\_CVM\\_1-5177986-5\\_D.3d\\_igs.zip](#)

English

**Customer View Model**

[ENG\\_CVM\\_CVM\\_1-5177986-5\\_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

1-5177986-5

PCB Mount Header, Vertical, Board-to-Board, 120 Position, .8 mm [.031 in] Centerline,  
Fully Shrouded, Gold, Surface Mount, Signal, Free Height

