

**STEP-Z**

TE Internal #: 6-1761617-1

PCB Mount Receptacle, Vertical, Board-to-Board, 296 Position, 1.3 mm [.051 in] Centerline, Gold, Surface Mount - Solder Ball, Power & Signal, Natural

[View on TE.com >](#)
[Connectors >](#) [PCB Connectors >](#) [PCB Headers & Receptacles](#)
PCB Connector Assembly Type: **PCB Mount Receptacle**PCB Mount Orientation: **Vertical**Connector System: **Board-to-Board**Number of Positions: **296**Number of Rows: **2****Features****Product Type Features**

PCB Connector Assembly Type	PCB Mount Receptacle
Connector System	Board-to-Board
Sealable	No
Connector & Contact Terminates To	Printed Circuit Board

Configuration Features

Stackable	Yes
PCB Mount Orientation	Vertical
Number of Positions	296
Number of Rows	2
Board-to-Board Configuration	Parallel

Electrical Characteristics

Dielectric Withstanding Voltage (Max)	500 VAC
Insulation Resistance	18 MΩ
Operating Voltage	48 VAC

Body Features

Primary Product Color	Natural
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Contact Features

Contact Layout	Matrix
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Mating Tab Width	1 mm[.04 in]
Mating Tab Thickness	.2 mm[.008 in]
Contact Shape & Form	Dual Beam, Single Beam
PCB Contact Termination Area Plating Material	Tin-Silver
Contact Base Material	Copper Alloy
Contact Mating Area Plating Material	Gold
Contact Mating Area Plating Material Thickness	.76 µm[29.9212 µin]
Contact Type	Socket
Contact Current Rating (Max)	1 A

Termination Features

Termination Method to Printed Circuit Board	Surface Mount - Solder Ball
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Mechanical Attachment

Mating Retention	With
Mating Alignment	Without
PCB Mount Retention	Without
PCB Mount Alignment	Without
Connector Mounting Type	Board Mount

Housing Features

Centerline (Pitch)	1.3 mm[.051 in]
Housing Material	Thermoplastic

Dimensions

Connector Height	16.65 mm[.654 in]
Row-to-Row Spacing	2 mm[.079 in]
Stack Height	21 mm, 23 mm, 24 mm, 26 mm, 31 mm, 36 mm[1.417 in]
PCB Thickness (Recommended)	1.57 mm[.8 in]

Usage Conditions

Operating Temperature Range	0 – 100 °C[32 – 212 °F]
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Operation/Application

Assembly Process Feature	None
Circuit Application	Power & Signal

Industry Standards

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UL Flammability Rating	UL 94V-0
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Packaging Features

Packaging Quantity	20
Packaging Type	Tray

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 2022 (224) Candidate List Declared Against: DEC 2011 (71) SVHC > Threshold: Not Yet Reviewed
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 Regulations, TE's information on SVHC in articles for this part number is still based on the European Chemical Agency (ECHA) 'Guidance on requirements for substances in articles' (Version: 2, April 2011), applying the 0.1% weight on weight concentration threshold at the finished product level. TE is aware of the European Court of Justice ruling of September 10th, 2015 also known as O5A (Once An Article Always An Article) stating that, in case of 'complex object', the threshold for a SVHC must be applied to both the product as a whole and simultaneously to each of the articles forming part of its composition. TE has evaluated this ruling based on the new ECHA "Guidance on requirements for substances in articles" (June 2017, version 4.0) and will be updating its statements accordingly.

Compatible Parts



TE Part # 6-1761616-3
STEP-Z PLUG 13MM 296P LF ST



TE Part # 6-1761616-0
STEP-Z PLUG 10MM 296P LF ST



TE Part # 6-1761616-2
STEP-Z PLUG 12MM 296P LF ST



TE Part # 6-1761616-5
STEP-Z PLUG 15MM 296P LF ST



TE Part # 7-1761616-0
STEP-Z PLUG 20MM 296P LF ST



TE Part # 7-1761616-5
STEP-Z PLUG 25MM 296P LF ST

Documents

Product Drawings

[STEP-Z RCPT 11MM 296P LF ST](#)

English

CAD Files

[3D PDF](#)

3D

Customer View Model

[ENG_CVM_CVM_6-1761617-1_A.2d_dxf.zip](#)

English

Customer View Model

[ENG_CVM_CVM_6-1761617-1_A.3d_igs.zip](#)

English

Customer View Model

[ENG_CVM_CVM_6-1761617-1_A.3d_stp.zip](#)

English

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Product Specifications

[Product Specification](#)

English