

2149997-1 ✓ ACTIVE



IMPACT

TE Internal #: 2149997-1

High Speed Backplane Connectors, 144 Position, Mating Alignment, Keyed Mating Alignment Type, 12 Row, 12 Column, PCB Mount Header, Vertical, IMPACT

[View on TE.com >](#)

Connectors > PCB Connectors > Backplane Connectors > High Speed Backplane Connectors



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

Number of Positions: **144**

Row-to-Row Spacing: **1.35 mm [.053 in]**

Mating Alignment: **With**

Mating Alignment Type: **Keyed**

Features

Product Type Features

Signal Arrangement	Differential
Connector System	Board-to-Board
PCB Connector Assembly Type	PCB Mount Header
Shroud Style	Fully Shrouded
Connector & Contact Terminates To	Printed Circuit Board

Configuration Features

Number of Ground Positions	48
Number of Pairs	48
Stackable	No
Number of Signal Positions	96
Number of Positions	144
Number of Rows	12
Number of Columns	12
PCB Mount Orientation	Vertical



Guide Location	Right
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Electrical Characteristics

Impedance	100 Ω
Operating Voltage	30 VAC

Signal Characteristics

Number of Differential Pairs per Column	4
Data Rate	20 – 25 Gb/s

Body Features

Primary Product Color	Black
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Contact Features

Contact Mating Area Length	4.5 mm[.177 in]
PCB Contact Termination Area Plating Material Thickness	.76 – 1.52 μm [30 – 60 μin]
Contact Layout	Inline
Contact Type	Pin
Contact Underplating Material Thickness	1.27 μm [50 μin]
Contact Mating Area Plating Material Thickness	.76 μm [29.92 μin]
Contact Mating Area Plating Material	Gold
PCB Contact Termination Area Plating Material Finish	Matte
Contact Shape & Form	Dual Beam
Contact Underplating Material	Nickel
PCB Contact Termination Area Plating Material	Tin
Contact Base Material	Copper Alloy
Contact Current Rating (Max)	.75 A

Termination Features

Termination Post & Tail Length	1.4 mm[.055 in]
Termination Method to Printed Circuit Board	Through Hole - Press-Fit

Mechanical Attachment

PCB Mount Alignment Type	Locating Posts
Guide Hardware	With
Mating Retention	Without
PCB Mount Retention	With
PCB Mount Retention Type	Action/Compliant Tail & Screw



Mating Alignment	With
Mating Alignment Type	Keyed
Connector Mounting Type	Board Mount

Housing Features

Number of Shrouded Sides	3
End Wall Location	Left
Housing Material	LCP (Liquid Crystal Polymer)
Centerline (Pitch)	1.9 mm[.075 in]

Dimensions

Connector Length	30.7 mm[1.209 in]
Connector Height	11.95 mm[.47 in]
Connector Width	20.8 mm[.819 in]
PCB Thickness (Recommended)	1 mm
PCB Hole Diameter	.39 mm[.015 in]
Row-to-Row Spacing	1.35 mm[.053 in]

Usage Conditions

Operating Temperature Range	-55 – 85 °C[-67 – 185 °F]
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Operation/Application

Circuit Application	Signal
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Industry Standards

Approved Standards	CSA Certified, UL E28476
UL Flammability Rating	UL 94V-0

Packaging Features

Packaging Method	Box & Tube, Tube
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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)



Candidate List Declared Against: JUNE 2023 (235)
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	Not applicable for solder process capability

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 # 1-2057957-1
IMP100S,R,RA4P12C,RG,46

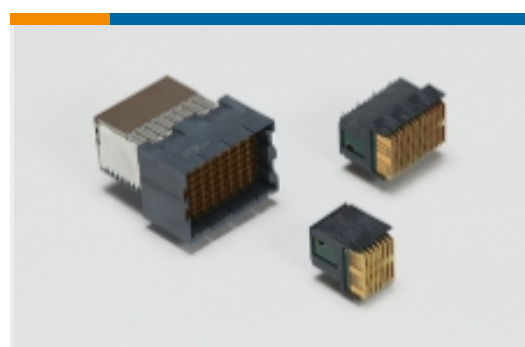


TE Part # 1-2057960-1
IMP100S,R,RA4P12C,RG,39



TE Part # 2057961-1
IMP100S,R,RA4P12C,UG,39

Also in the Series | IMPACT



High Speed Backplane Connectors
(1768)

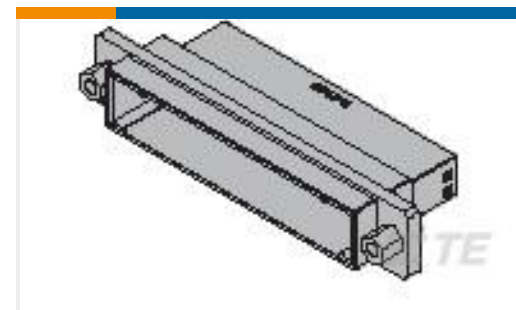
Customers Also Bought



TE Part #1735482-4
0.8FH,R17H.5,100,08/Sn,TR,SC



TE Part #50865
SOCKET,MIN-SPR AU SER-4



TE Part #1376073-2
DYNAMIC D-2000 TAB ASSY 50P



TE Part #1-1879208-4
CPF 0402 36R 0.1% 25PPM 1K RL



TE Part #4-2176230-7
3522 5K6 5% 3W



TE Part #9-1734774-3
PCI EXP 2.3L 64 POS BLK 30u"

Documents

Product Drawings

[IMP100S,H,V4P12C,RG,LEW39,4.5](#)

English

CAD Files

[3D PDF](#)

3D

Customer View Model

[ENG_CVM_CVM_2149997-1_A.2d_dxf.zip](#)

English

Customer View Model

[ENG_CVM_CVM_2149997-1_A.3d_igs.zip](#)

English

Customer View Model

[ENG_CVM_CVM_2149997-1_A.3d_stp.zip](#)

English

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Product Specifications

[Application Specification](#)

English

Agency Approvals

[Agency Approval Document](#)

English