

IMPACT

TE Internal #: 2143632-1
High Speed Backplane Connectors, Board-to-Board, 180 Position,
Mating Alignment, Polarization Mating Alignment Type, 15 Row, 12
Column, IMPACT

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Connectors > PCB Connectors > Backplane Connectors > High Speed Connectors



Connector System: **Board-to-Board**
Number of Positions: **180**
Row-to-Row Spacing: **1.15 mm [.045 in]**
Mating Alignment: **With**
Mating Alignment Type: **Polarization**

Features

Product Type Features

Signal Arrangement	Differential
Connector System	Board-to-Board
PCB Connector Assembly Type	PCB Mount Header
Shroud Style	Partially Shrouded
Sealable	No
Connector & Contact Terminates To	Printed Circuit Board

Configuration Features

Number of Ground Positions	60
Number of Pairs	60
Stackable	No
Number of Signal Positions	120
Number of Positions	180
Number of Rows	15
Number of Columns	12
Backplane Architecture	Orthogonal
PCB Mount Orientation	Vertical
Guide Location	Unguided

Electrical Characteristics

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Impedance	100 Ω
Operating Voltage	30 VAC

Signal Characteristics

Number of Differential Pairs per Column	5
Data Rate	20 – 25 Gb/s

Contact Features

Contact Layout	Inline
Contact Mating Area Length	4.9 mm[.193 in]
PCB Contact Termination Area Plating Material Thickness	.76 – 1.52 μm[30 – 60 μin]
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

Mating Retention	Without
Guide Hardware	Without
PCB Mount Retention	With
PCB Mount Retention Type	Action/Compliant Tail
Mating Alignment	With
Mating Alignment Type	Polarization
Connector Mounting Type	Board Mount

Housing Features

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

Dimensions

Connector Length	25.6 mm[1.008 in]
Connector Height	11.95 mm[.47 in]
Connector Width	24.8 mm[.976 in]
PCB Thickness (Recommended)	3 mm[.118 in]
PCB Hole Diameter	.46 mm[.018 in]
Row-to-Row Spacing	1.15 mm[.045 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

UL File Number	E28476
UL Rating	Recognized
CSA Certified	Yes
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	Not Yet Reviewed
EU ELV Directive 2000/53/EC	Not Yet Reviewed
China RoHS 2 Directive MIIT Order No 32, 2016	Not reviewed for China RoHS compliance
EU REACH Regulation (EC) No. 1907/2006	Current ECHA Candidate List: JUNE 2022 (224) Not Yet Reviewed
Halogen Content	Not Yet Reviewed for halogen content
Solder Process Capability	Not reviewed 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 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 # 2132698-1
IMP100O,R,RA5P12C,UG,39

Also in the Series | IMPACT

High Speed Backplane Connectors
(1769)

Documents

- Product Drawings
- IMP100O,HMP,V5P12C,UG,REW46,4.9
- English
- IMP100O,HMP,V5P12C,UG,REW46,4.9
- English

- CAD Files
- 3D PDF



3D

Customer View Model

[ENG_CVM_CVM_2143632-1_1.2d_dxf.zip](#)

English

Customer View Model

[ENG_CVM_CVM_2143632-1_1.3d_igs.zip](#)

English

Customer View Model

[ENG_CVM_CVM_2143632-1_1.3d_stp.zip](#)

English

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Product Specifications

[Application Specification](#)

English

Agency Approvals

[Agency Approval Document](#)

English