



**IMPACT**

TE Internal #: 2143012-3

High Speed Backplane Connectors, Board-to-Board, 60 Position, Mating Alignment, Polarization Mating Alignment Type, 6 Row, 10 Column, IMPACT

[View on TE.com >](#)

Connectors > PCB Connectors > Backplane Connectors > High Speed Connectors



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

Number of Positions: **60**

Row-to-Row Spacing: **1.35 mm [ .053 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	20
Number of Pairs	20
Stackable	No
Number of Signal Positions	40
Number of Positions	60
Number of Rows	6
Number of Columns	10



PCB Mount Orientation	Vertical
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Guide Location	Unguided
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### Electrical Characteristics

Impedance	100 $\Omega$
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Operating Voltage	30 VAC
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### Signal Characteristics

Number of Differential Pairs per Column	2
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Data Rate	20 – 25 Gb/s
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### Contact Features

Contact Layout	Inline
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Contact Mating Area Length	5.5 mm[.217 in]
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PCB Contact Termination Area Plating Material Thickness	.76 – 1.52 $\mu\text{m}$ [30 – 60 $\mu\text{in}$ ]
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Contact Type	Pin
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Contact Underplating Material Thickness	1.27 $\mu\text{m}$ [50 $\mu\text{in}$ ]
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Contact Mating Area Plating Material Thickness	.76 $\mu\text{m}$ [29.92 – 59.84 $\mu\text{in}$ ]
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Contact Mating Area Plating Material	Gold
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PCB Contact Termination Area Plating Material Finish	Matte
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Contact Shape & Form	Dual Beam
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Contact Underplating Material	Nickel
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PCB Contact Termination Area Plating Material	Tin
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Contact Base Material	Copper Nickel Silicon
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Contact Current Rating (Max)	.75 A
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### Termination Features

Termination Post & Tail Length	1.2 mm[.047 in]
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Termination Method to Printed Circuit Board	Through Hole - Press-Fit
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### Mechanical Attachment

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

Number of Shrouded Sides	2
End Wall Location	Open
Housing Material	LCP (Liquid Crystal Polymer)
Housing Color	Black
Centerline (Pitch)	1.9 mm[.075 in]

### Dimensions

Connector Length	18.9 mm[.74 in]
Connector Height	12.7 mm[.49 in]
Connector Width	24.6 mm[.96 in]
PCB Thickness (Recommended)	1.6 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

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	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: JUNE 2022 (224)  
 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

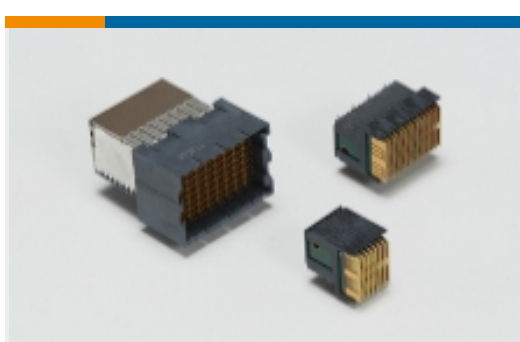
This information is provided based on reasonable inquiry of our suppliers and represents our current actual knowledge based on the information they provided. This information is subject to change. The part numbers that TE has identified as EU RoHS compliant have a maximum concentration of 0.1% by weight 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 # 2057405-1  
 IMP100S,R,RA2P10C,UG,39

## Also in the Series | IMPACT



High Speed Backplane Connectors (1769)

## Documents

**Product Drawings**

IMP100S,H,RA2P10C,UG,OEW39,5.5



English

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**CAD Files**

Customer View Model

[ENG\\_CVM\\_CVM\\_2143012-3\\_A.2d\\_dxf.zip](#)

English

**3D PDF**

3D

Customer View Model

[ENG\\_CVM\\_CVM\\_2143012-3\\_A.3d\\_igs.zip](#)

English

Customer View Model

[ENG\\_CVM\\_CVM\\_2143012-3\\_A.3d\\_stp.zip](#)

English

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

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**Product Specifications**

[Application Specification](#)

English

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**Product Environmental Compliance**

[TE Material Declaration](#)

English

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**Agency Approvals**

[Agency Approval Document](#)

English