



IMPACT

TE Internal #: 2143623-1

High Speed Backplane Connectors, Board-to-Board, 120 Position, Mating Alignment, Polarization Mating Alignment Type, 15 Row, 8 Column, IMPACT

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Connectors > PCB Connectors > Backplane Connectors > High Speed Connectors



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

Number of Positions: **120**

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 | 40 |
| Number of Pairs | 40 |
| Stackable | No |
| Number of Signal Positions | 80 |
| Number of Positions | 120 |
| Number of Rows | 15 |
| Number of Columns | 8 |
| Backplane Architecture | Orthogonal |
| PCB Mount Orientation | Vertical |
| Guide Location | Unguided |

Electrical Characteristics

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|--|--|
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|-----------|--------------|
| Impedance | 100 Ω |
|-----------|--------------|

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|-------------------|--------|
| Operating Voltage | 30 VAC |
|-------------------|--------|

Signal Characteristics

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|---|---|
| Number of Differential Pairs per Column | 5 |
|---|---|

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|-----------|--------------|
| Data Rate | 20 – 25 Gb/s |
|-----------|--------------|

Contact Features

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| Contact Layout | Inline |
|----------------|--------|

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|----------------------------|-----------------|
| Contact Mating Area Length | 4.9 mm[.193 in] |
|----------------------------|-----------------|

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|---|--|
| 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 |
|-----------------------|--------------|

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|------------------------------|-------|
| Contact Current Rating (Max) | .75 A |
|------------------------------|-------|

Termination Features

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|--------------------------------|-----------------|
| Termination Post & Tail Length | 1.4 mm[.055 in] |
|--------------------------------|-----------------|

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|---|--------------------------|
| Termination Method to Printed Circuit Board | Through Hole - Press-Fit |
|---|--------------------------|

Mechanical Attachment

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|------------------|---------|
| 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

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|--------------------------|---|
| Number of Shrouded Sides | 3 |
|--------------------------|---|



| | |
|--------------------|------------------------------|
| End Wall Location | Left |
| Housing Material | LCP (Liquid Crystal Polymer) |
| Housing Color | Black |
| Centerline (Pitch) | 1.9 mm[.075 in] |

Dimensions

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|-----------------------------|------------------|
| Connector Length | 17.5 mm[.689 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

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|-----------------------------|---------------------------|
| Operating Temperature Range | -55 – 85 °C[-67 – 185 °F] |
|-----------------------------|---------------------------|

Operation/Application

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|---------------------|--------|
| Circuit Application | Signal |
|---------------------|--------|

Industry Standards

| | |
|------------------------|------------|
| UL File Number | E28476 |
| UL Rating | Recognized |
| CSA Certified | Yes |
| UL Flammability Rating | UL 94V-0 |

Packaging Features

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|------------------|------------------|
| Packaging Method | Box & Tube, Tube |
|------------------|------------------|

Product Compliance

[For compliance documentation, visit the product page on TE.com>](#)

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|---|--|
| 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 # 2132701-1
IMP1000,R,RA5P8C,UG,46

Also in the Series | IMPACT



High Speed Backplane Connectors
(1769)

Documents

Product Drawings

[IMP1000,HMP,V5P8C,UG,LEW46,4.9](#)

English

CAD Files

[3D PDF](#)

[3D](#)

[Customer View Model](#)

[ENG_CVM_CVM_2143623-1_1.2d_dxf.zip](#)



English

Customer View Model

[ENG_CVM_CVM_2143623-1_1.3d_igs.zip](#)

English

Customer View Model

[ENG_CVM_CVM_2143623-1_1.3d_stp.zip](#)

English

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Product Specifications

[Application Specification](#)

English

Agency Approvals

[Agency Approval Document](#)

English