

144680-E ✓ ACTIVE

ERNI | ERNI MicroSpeed

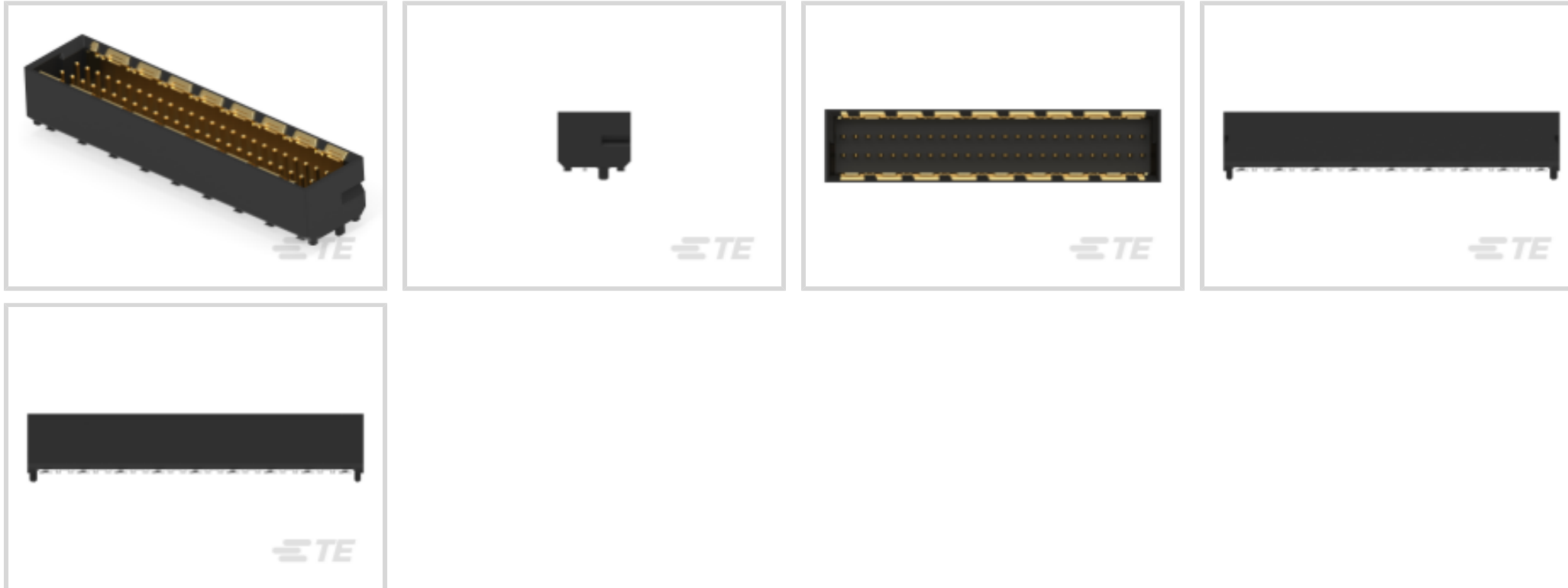
TE Internal #: 144680-E

PCB Mount Header, Vertical, Board-to-Board, 50 Position, 1 mm [.039 in] Centerline, Fully Shrouded, Gold (Au), Surface Mount, ERNI MicroSpeed

[View on TE.com >](#)



Connectors > PCB Connectors > PCB Headers & Receptacles



PCB Connector Type: **PCB Mount Header**

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

Number of Positions: **50**

Number of Rows: **2**

Centerline (Pitch): **1 mm [.039 in]**

Features

Product Type Features

Connector Shape	Rectangular
PCB Connector Type	PCB Mount Header
Connector System	Board-to-Board
Header Type	Fully Shrouded
Connector & Contact Terminates To	Printed Circuit Board
Connector Product Type	Connector Assembly

Configuration Features

Number of Columns	25
Number of Loaded Positions	50
Stacking Configuration	Stack Through
Connector Contact Load Condition	Fully Loaded
Stackable	Yes
Number of Positions	50
Number of Rows	2



PCB Mount Orientation	Vertical
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Electrical Characteristics

Impedance	100 Ω
Dielectric Withstanding Voltage (Max)	500 Vrms

Signal Characteristics

Data Rate	25 Gb/s
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Body Features

Primary Product Color	Black
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Contact Features

Contact Shape & Form	Rectangular
PCB Contact Termination Area Plating Material Thickness	2 – 6 μm[78.74 – 236.22 μin]
Contact Layout	Matrix
Contact Mating Area Length	2.9 mm[.114 in]
Contact Base Material	Copper Alloy
Contact Mating Area Plating Material	Gold (Au)
Contact Type	Pin
Contact Current Rating (Max)	1 A
PCB Contact Termination Area Plating Material	Tin

Termination Features

Termination Post & Tail Length	1.2 mm[.047 in]
Termination Method to PCB	Surface Mount

Mechanical Attachment

Mounting Alignment Feature Length	.65 mm[.025 in]
PCB Mount Alignment Type	Locating Posts
Mating Alignment Type	Polarizing Rib
Connector Mounting Type	Board Mount
Mating Alignment	With
PCB Mount Alignment	With
PCB Mount Retention	Without

Housing Features

Mating Entry Location	Top
Centerline (Pitch)	1 mm[.039 in]



Housing Material	Liquid Crystal Polymer (LCP)
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Dimensions

Connector Width	5.85 mm[.23 in]
Connector Height	4.8 mm[.189 in]
Profile Height from PCB	4.8 mm[.189 in]
Connector Length	26.95 mm[1.061 in]
Row-to-Row Spacing	1.5 mm[.059 in]
Stack Height	1 mm[.039 in]

Usage Conditions

Operating Temperature (Max)	125 °C[257 °F]
Operating Temperature Range	-55 – 125 °C[-67 – 257 °F]

Operation/Application

Shielded	No
Circuit Application	Power, Signal & High Speed Data

Industry Standards

Compatible With Agency/Standards Products	DIN, UL
Industry Standard	IEC
Compatible With Approved Standards Products	UL
UL Flammability Rating	UL 94V-0

Packaging Features

Packaging Reel Diameter	330 mm[12.99 in]
Packaging Quantity	400
Packaging Method	Tape & Reel

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	有害物质含量符合标准要求 No Restricted Substance(s) Above Threshold
EU REACH Regulation (EC) No. 1907/2006	Current ECHA Candidate List: JUNE 2025 (250) Candidate List Declared Against: JUNE 2025 (250)



Does not contain REACH SVHC

Halogen Content

Low Bromine/Chlorine - Br and Cl < 900 ppm per homogenous material. Also BFR /CFR/PVC Free

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 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 # 144663-E
MSPEED 50 F SMDTHR F4 * AB W
137 094 *



TE Part # 224513-E
MSPEED 50 F SMDTHR F6 * AB W
137 094 *



TE Part # 224512-E
MSPEED 50 F SMD F6 * AB W 137 094
** E



TE Part # 144662-E
MSPEED 50 F SMD F4 * AB W 137 094
** E



TE Part # 224514-E
MSPEED 50 F SMD F8 * AB W 137 094
** E



TE Part # 224517-E
MSPEED 50 F SMDTHR F10 * AB W
137 094 *

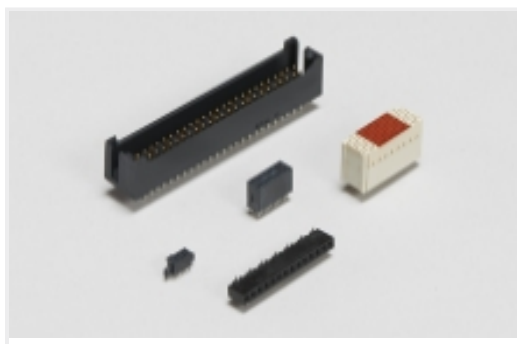


TE Part # 224515-E
MSPEED 50 F SMDTHR F8 * AB W
137 094 *

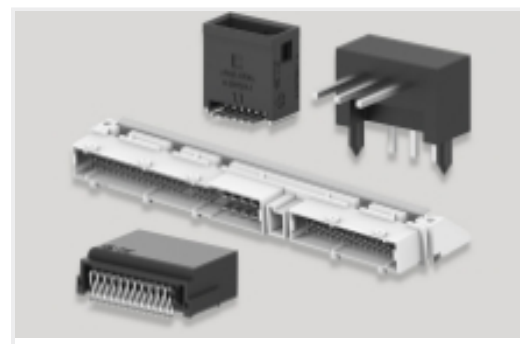


TE Part # 224516-E
MSPEED 50 F SMD F10 * AB W 137
094 **

Also in the Series | [ERNI MicroSpeed](#)



Board-to-Board Headers & Receptacles(60)



PCB Headers & Receptacles(67)



Rectangular Power Connectors(50)



Wire-to-Board Headers & Receptacles (7)

Customers Also Bought

TE Part #224512-E
MSPEED 50 F SMD F6 * AB VV 137 094 ** ETE Part #144662-E
MSPEED 50 F SMD F4 * AB VV 137 094 ** ETE Part #224557-E
MSPEED 50 M SMD M2 * AB VV 137 094 ** ETE Part #214356-E
MSPPM 5 F SMD F4 * A V 137 094 * E008 JTE Part #214357-E
MSPPM 5 M SMD M1 * A V 137 094 * E008 JTE Part #224514-E
MSPEED 50 F SMD F8 * AB VV 137 094 ** ETE Part #2-1462037-7
IM06TS=IM RELAY 140mW 12V ** ETE Part #7-1879262-1
RP 2B 22K6 0.1% 15PPM 1K RLTE Part #2-2176056-3
RLP73N 2B R082 5% 5K RLTE Part #2204440-1
MULTI-BEAM HD R/A PLUG 15S+2P+2P+15S

Documents

CAD Files

Customer View Model

[ENG_CVM_CVM_144680-E_1.2d_dxf.zip](#)

English

Customer View Model

[ENG_CVM_CVM_144680-E_1.3d_stp.zip](#)

English

Customer View Model

[ENG_CVM_CVM_144680-E_1.3d_igs.zip](#)

144680-E

PCB Mount Header, Vertical, Board-to-Board, 50 Position, 1 mm [.039 in] Centerline,
Fully Shrouded, Gold (Au), Surface Mount, ERNI MicroSpeed



English

[3D PDF](#)

3D

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