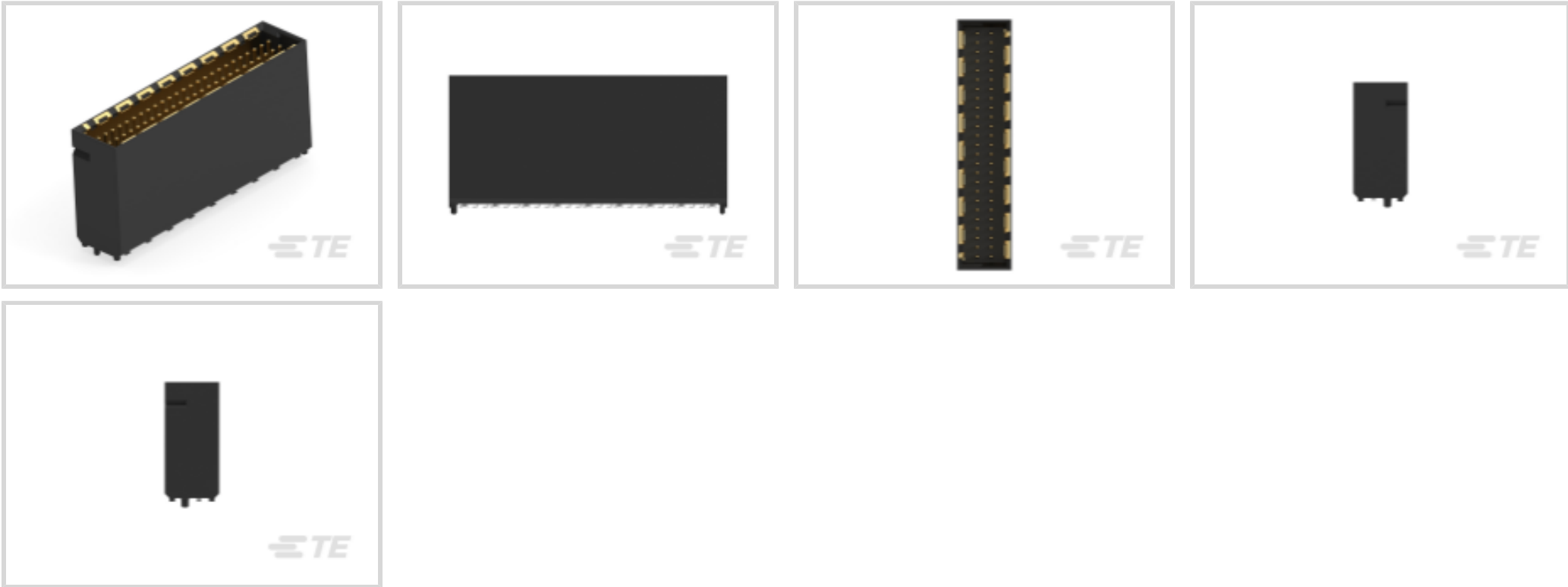




Connectors > PCB Connectors > PCB Headers & Receptacles



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
Electrical Characteristics	
Impedance	100 Ω
Dielectric Withstanding Voltage (Max)	500 Vrms
Signal Characteristics	
Data Rate	25 Gb/s
Body Features	
Primary Product Color	Black
Contact Features	
Contact Shape & Form	Rectangular
PCB Contact Termination Area Plating Material Thickness	4 – 6 μm[157.48 – 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 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)



Dimensions

Connector Width	5.85 mm[.23 in]
Connector Height	12.8 mm[.504 in]
Profile Height from PCB	12.8 mm[.504 in]
Connector Length	26.95 mm[1.061 in]
Row-to-Row Spacing	1.5 mm[.059 in]
Stack Height	9 mm[.354 in]

Usage Conditions

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

Operation/Application

Assembly Process Feature	Pick and Place Cover
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	220
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: JAN 2025 (247)



Does not contain REACH SVHC

Halogen Content	Low Halogen - Br, Cl, F < 900 ppm per homogenous material. Also BFR/CFR/PVC Free
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Solder Process Capability	Not reviewed for solder process capability
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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 # 144662-E
MSPEED 50 F SMD F4 * AB VV 137 094
** E

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

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

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

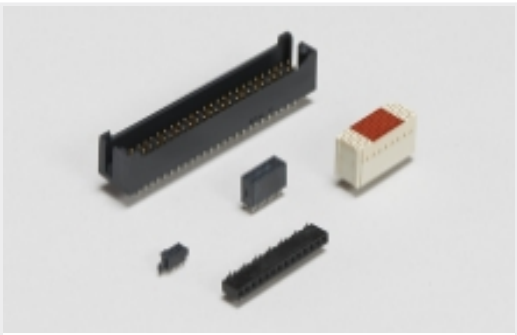
TE Part # 224515-E
MSPEED 50 F SMDTHR F8 * AB VV 137 094 *

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

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

TE Part # 144663-E
MSPEED 50 F SMDTHR F4 * AB VV 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 #494981-E
M12 MALE, UNI CODE, 5P, 10.5MM SMT, DI



TE Part #515944-E
MCBA 10 M * SMD 137 * 176 * GURT C5 J 2



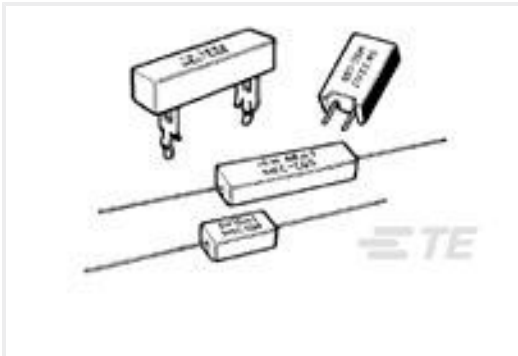
TE Part #254707-E
SRCP 2,54 6 M 1 SMD 137 E1 094 * GU-H *



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



TE Part #5-103414-8
10 MODII HDR SRST SHRD LF



TE Part #1623782-5
SQM5 1K5 5% (METAL FILM)



TE Part #5-1761185-6
16 SDL SE GRND RCPT ASSY



TE Part #515974-E
MCBA 6 M * SMD 137 * 194 * GURT C6 J 2 5



TE Part #515966-E
MCBA 4 M * SMD 137 * 176 * GURT C4 J 2 5



TE Part #515971-E
MCBA 6 M * SMD 137 * 176 * GURT C6 J 2 5

Documents

Product Drawings

MSPEED 50 M SMD M9 * AB VV 137 176 ** E

German

CAD Files

Customer View Model

ENG_CVM_CVM_224559-E_1.3d_stp.zip

English

Customer View Model

224559-E

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



[ENG_CVM_CVM_224559-E_1.2d_dxf.zip](#)

English

Customer View Model

[ENG_CVM_CVM_224559-E_1.3d_igs.zip](#)

English

3D PDF

3D

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