224514-E ✔ ACTIVE

ERNI | ERNI MicroSpeed

TE Internal #: 224514-E

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

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Connectors > PCB Connectors > PCB Headers & Receptacles







PCB Connector Type: **PCB Mount Receptacle**

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 Receptacle
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

PCB Contact Termination Area Plating Material Thickness	2 – 6 µm[78.74 – 236.22 µin]
Contact Shape & Form	Dual Beam
Contact Layout	Matrix
Contact Base Material	Copper Alloy
Contact Mating Area Plating Material	Gold (Au)
Contact Type	Receptacle
Contact Current Rating (Max)	1 A
PCB Contact Termination Area Plating Material	Tin

Termination Features

Termination Method to PCB	Surface Mount

Mechanical Attachment

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 Length	26.55 mm[1.045 in]

Row-to-Row Spacing	1.5 mm[.059 in]
Stack Height	8 mm[.315 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	260
Packaging Method	Tape & Reel

Product Compliance

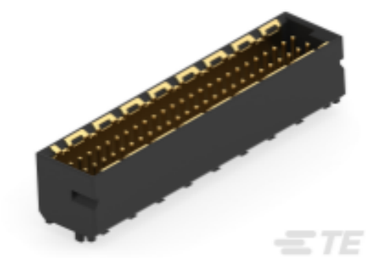
For compliance documentation, visit the product page on TE.com>

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: FEB 2026 (253) 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

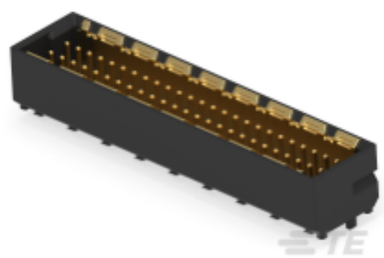
Product Compliance Disclaimer

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



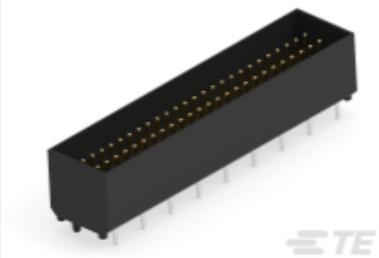
TE Part # 224557-E
MSPEED 50 M SMD M2 * AB VV 137 094 * * E



TE Part # 144680-E
MSPEED 50 M SMD M1 * AB VV 137 094 * * E



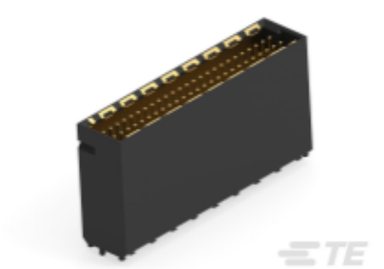
TE Part # 224562-E
MSPEED 50 M SMDTHR M10 * AB VV 137 176 *



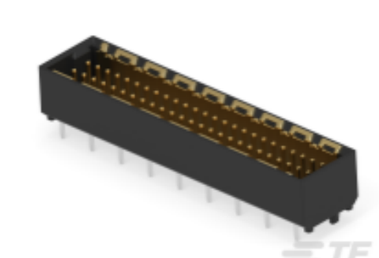
TE Part # 224558-E
MSPEED 50 M SMDTHR M2 * AB VV 137 094 *



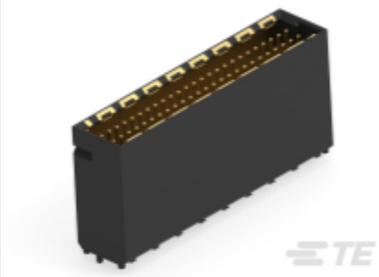
TE Part # 224560-E
MSPEED 50 M SMDTHR M9 * AB VV 137 176 *



TE Part # 224561-E
MSPEED 50 M SMD M10 * AB VV 137 176 * *

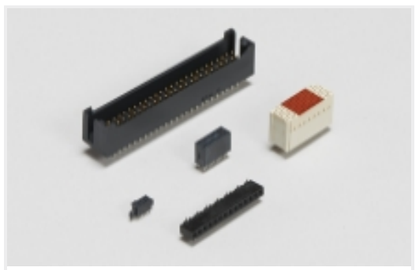


TE Part # 144681-E
MSPEED 50 M SMDTHR M1 * AB VV 137 094 *

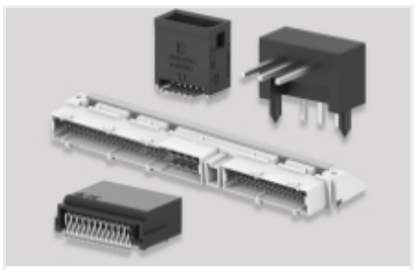


TE Part # 224559-E
MSPEED 50 M SMD M9 * AB VV 137 176 * * E

Also in the Series | ERNI MicroSpeed



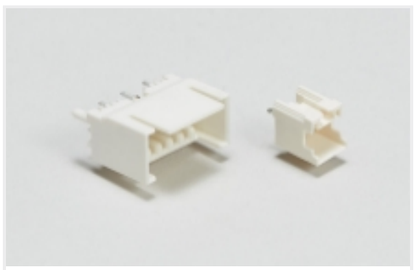
Board-to-Board Headers & Receptacles(60)



PCB Headers & Receptacles(67)



Rectangular Power Connectors(50)



Wire-to-Board Headers & Receptacles (7)

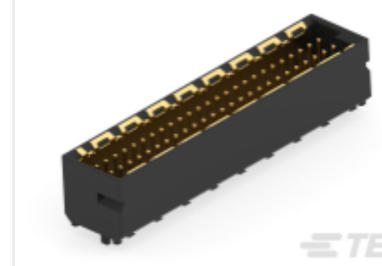
Customers Also Bought



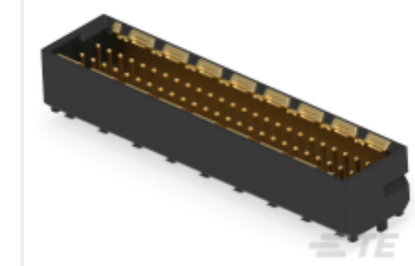
TE Part #224561-E
MSPEED 50 M SMD M10 * AB VV 137 176 * *



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



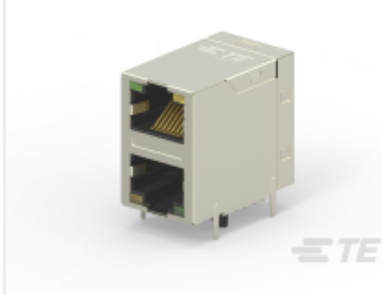
TE Part #224557-E
MSPEED 50 M SMD M2 * AB VV 137 094 * * E



TE Part #144680-E
MSPEED 50 M SMD M1 * AB VV 137 094 * * E



TE Part #2-2301994-5
RJ45 JACK INT.MAG. 1GB 1X1 INV.



TE Part #1-2301997-0
RJ45 JACK INT.MAG. 1GB LED 2X1



TE Part #1-2308107-2
DDR4 DIMM 288 PIN TH TYPE

TE Part #5-1393704-8
V23552A2255S 3=SIPAC FL 2SU

TE Part #6-1393704-5
V23552A2455S 6=SIPAC FL 4SU

TE Part #2-2007492-8
SFP+assy2x1 Spring Fingers No Lp Sn

Documents

Product Drawings

MSPEED 50 F SMD F8 * AB VV 137 094 * * E

German

CAD Files

Customer View Model

ENG_CVM_CVM_224514-E_1.2d_dxf.zip

English

Customer View Model

ENG_CVM_CVM_224514-E_1.3d_stp.zip

English

Customer View Model

ENG_CVM_CVM_224514-E_1.3d_igs.zip

English

3D PDF

3D

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