



Connectors > PCB Connectors > PCB Headers & Receptacles



PCB Connector Type: **PCB Mount Header**

PCB Mount Orientation: **Vertical**

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

Number of Positions: **12**

Number of Rows: **4**

Features

Product Type Features

Connector Shape	Rectangular
PCB Connector Type	PCB Mount Header
Connector System	Wire-to-Board
Header Type	Fully Shrouded
Sealable	No
Connector & Contact Terminates To	Printed Circuit Board
Connector Product Type	Connector Assembly

Configuration Features

Number of Columns	3
Number of Loaded Positions	12
Number of Signal Positions	12
PCB Mount Orientation	Vertical
Number of Positions	12
Number of Rows	4



Electrical Characteristics

Operating Voltage	250 VAC
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Body Features

Primary Product Color	Black
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Contact Features

Contact Underplating Material	Nickel
Contact Underplating Material Thickness	1.27 µm[50 µin]
Contact Mating Area Plating Material Thickness	.76 µm[30 µin]
PCB Contact Termination Area Plating Material Thickness	3.81 µm[150 µin]
Contact Layout	Matrix
Contact Base Material	Phosphor Bronze
PCB Contact Termination Area Plating Material	Tin
Contact Mating Area Plating Material	Gold (Au)
Contact Type	Pin
Contact Current Rating (Max)	6 A

Termination Features

Termination Post & Tail Length	3.81 mm[.15 in]
Termination Method to PCB	Through Hole - Solder

Mechanical Attachment

Mating Retention Type	Positive Lock
Mating Retention	With
Mating Alignment Type	Polarization
PCB Mount Retention	Without
PCB Mount Alignment	Without
Connector Mounting Type	Board Mount
Mating Alignment	With

Housing Features

Housing Material	PA 66
Centerline (Pitch)	4.2 mm[.165 in]

Dimensions

Row-to-Row Spacing	4.19 mm[.165 in]
Connector Width	15.75 mm[.62 in]



PCB Thickness (Recommended)	1.6 mm[.063 in]
Connector Height	13.46 mm[.53 in]
Connector Length	19.94 mm[.785 in]

Usage Conditions

Operating Temperature (Max)	105 °C[221 °F]
Operating Temperature Range	-55 – 105 °C[-67 – 221 °F]

Operation/Application

Circuit Application	Power & Signal
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Industry Standards

Compatible With Agency/Standards Products	CSA, UL
UL Rating	Recognized
Compatible With Approved Standards Products	UL E28476
Glow Wire Rating	Standard Part - Not Glow Wire
UL Flammability Rating	UL 94V-0

Packaging Features

Packaging Quantity	200
Packaging Method	Bag

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: JAN 2025 (247) Candidate List Declared Against: JUNE 2024 (241) Does not contain REACH SVHC
Halogen Content	Not Low Halogen - contains Br or Cl > 900 ppm.
Solder Process Capability	Wave solder capable to 265°C

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 # 2-640502-4
12P MR HDR ASSY VO LF

TE Part # 640502-1
12P MR HDR ASSY VO

TE Part # 1-640522-0
12P MR II PLUG HSG

Also in the Series | AMP Miniature Rectangular MR

Connector Caps & Covers(15)

Connector Contacts(20)

Connector Hardware(2)

Connector Strain Relief(9)

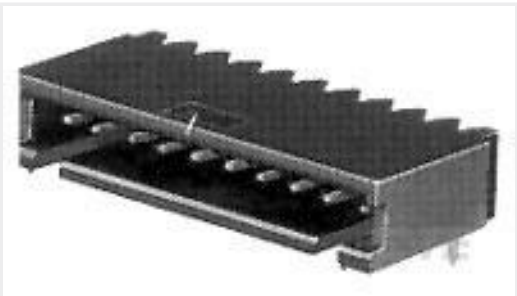
PCB Headers & Receptacles(57)

Power Contacts(20)

Rectangular Power Connectors(77)

Wire-to-Board Headers & Receptacles (57)

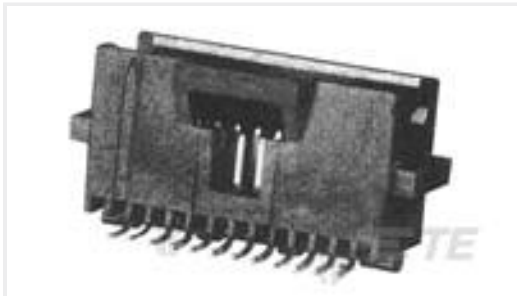
Customers Also Bought



TE Part #5-103361-2
04 MODII HDR SRRA SHRD LF



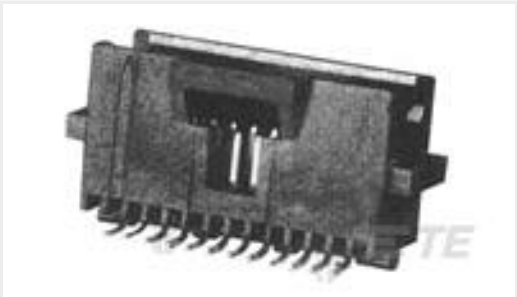
TE Part #745253-6
20 DF SOCKET CONT L.P.



TE Part #5-104549-8
60 SYS50 S/M HDR DRST SHRDSN



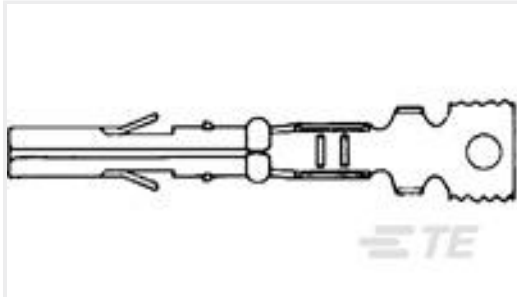
TE Part #5499141-3
A/L UNIV HDR 16P RA LAT



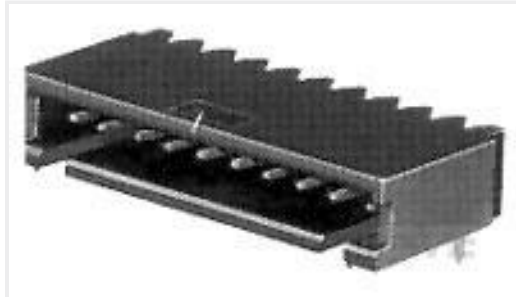
TE Part #6-104549-0
100 SYS50 S/M HDR DRST SHRDSN



TE Part #9-1393243-7
RT444012



TE Part #641300-1
MR RECPT PTPHBZ LP 26-18



TE Part #5-103361-5
07 MODII HDR SRRA SHRD LF



TE Part #1658609-1
37 POS HDF RCPT, AP



TE Part #745254-6
20 DF PIN CONT L.P.

Documents

Product Drawings

12P MR HDR ASSY VO LF

English

CAD Files

3D PDF

3D

Customer View Model

ENG_CVM_CVM_2-640502-2_AA.2d_dxf.zip

English

Customer View Model

ENG_CVM_CVM_2-640502-2_AA.3d_igs.zip

English

Customer View Model

ENG_CVM_CVM_2-640502-2_AA.3d_stp.zip

English

Customer View Model

ENG_CVM_2-640502-2_S.3d_igs.zip

English



Customer View Model

[ENG_CVM_2-640502-2_S.3d_stp.zip](#)

English

Customer View Model

[ENG_CVM_2-640502-2_S.2d_dxf.zip](#)

English

3D PDF

English

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

Datasheets & Catalog Pages

[SOFT_SHELL_PIN_AND_SOCKET_CONNECTORS_CATALOG](#)

English

Product Specifications

[AMP Miniature Rectangular \(MR\) Headers](#)

English

English

Agency Approvals

[Agency Approval Document](#)

English