

2-103169-3 ✓ ACTIVE

AMPMODU | [AMPMODU Headers](#)

TE Internal #: 2-103169-3

PCB Mount Header, Vertical, Board-to-Board, 50 Position, 2.54 mm  
[.1 in] Centerline, Fully Shrouded, Gold, Through Hole - Solder,  
AMPMODU Headers

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Connectors > PCB Connectors > PCB Headers & Receptacles

PCB Connector Assembly Type: **PCB Mount Header**

PCB Mount Orientation: **Vertical**

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

Number of Positions: **50**

Number of Rows: **2**

## Features

### Product Type Features

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

### Configuration Features

Connector Contact Load Condition	Fully Loaded
PCB Mount Orientation	Vertical
Number of Positions	50
Number of Rows	2
Board-to-Board Configuration	Parallel

### Electrical Characteristics

Insulation Resistance	5000 MΩ
Dielectric Withstanding Voltage (Max)	750 Vrms

### Body Features

Connector Profile	Standard
Primary Product Color	Black

### Contact Features

Mating Square Post Dimension	.64 mm[.025 in]
PCB Contact Termination Area Plating Material Thickness	2.54 – 5.08 μm[100 – 200 μin]
Contact Shape & Form	Square



Contact Underplating Material	Nickel
PCB Contact Termination Area Plating Material	Tin-Lead
Contact Base Material	Phosphor Bronze
Contact Mating Area Plating Material	Gold
Contact Mating Area Plating Material Thickness	.762 $\mu\text{m}$ [30 $\mu\text{in}$ ]
Contact Type	Pin
Contact Current Rating (Max)	3 A

### Termination Features

Square Termination Post & Tail Dimension	.64 mm[.025 in]
Termination Post & Tail Length	3.18 mm[.125 in]
Termination Method to Printed Circuit Board	Through Hole - Solder

### Mechanical Attachment

Mating Retention	With
Mating Retention Type	Detent Window
Mating Alignment	With
Mating Alignment Type	Polarization
PCB Mount Retention	Without
PCB Mount Alignment	Without
Connector Mounting Type	Board Mount

### Housing Features

Centerline (Pitch)	2.54 mm[.1 in]
Housing Material	Thermoplastic

### Dimensions

Row-to-Row Spacing	2.54 mm[.1 in]
PCB Thickness (Recommended)	1.4 mm[.055 in]

### Usage Conditions

Housing Temperature Rating	Standard
Operating Temperature Range	-65 – 105 $^{\circ}\text{C}$ [-85 – 221 $^{\circ}\text{F}$ ]

### Operation/Application

Circuit Application	Signal
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### Industry Standards

Agency/Standard	CSA
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Approved Standards	CSA LR7189, UL E28476
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UL Flammability Rating	UL 94V-0
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### Packaging Features

Packaging Quantity	32
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Packaging Type	Tray
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### Product Compliance

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

EU RoHS Directive 2011/65/EU	Not Compliant
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EU ELV Directive 2000/53/EC	Not Compliant
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China RoHS 2 Directive MIIT Order No 32, 2016	Restricted Materials Above Threshold
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EU REACH Regulation (EC) No. 1907/2006	<p>Current ECHA Candidate List: JUNE 2023 (235)  Candidate List Declared Against: JUNE 2022 (224)  SVHC &gt; Threshold:  Pb (40% in Component Part)</p>
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**Article Safe Usage Statements:**

Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Recycle if possible and dispose of the article by following all applicable governmental regulations relevant to your geographic location.

Halogen Content	Low Halogen - Br, Cl, F, I < 900 ppm per homogenous material. Also BFR/CFR/PVC Free
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Solder Process Capability	Wave solder capable to 240°C
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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 # 4-87456-0  
50 MODIV HSG DR MRKD .100CL

TE Part # 4-87631-1  
50 MODIV HSG COMP DR .100 POL

TE Part # 4-87977-8  
50 MODIV HSG COMP DR .100 POL

TE Part # 1-87733-4  
50 MODIV HSG W/STR RLF DR MRKD

TE Part # 3-87456-9  
50 MODIV HSG COMP DR .100CL

TE Part # 1-88179-2  
050 HOUSING FFC RCPT DR 100CL

TE Part # 4-87631-2  
50 MODIV HSG DR MRKD .100 POL

TE Part # 2-87977-1  
50 MODIV HSG DR MRKD .100 POL

### Also in the Series | AMPMODU Headers

PCB Connector Mounting(1)

PCB Connector Shrouds(1)

PCB Headers & Receptacles(4875)

PCB Latches, Locks & Retainers(1)

Wire-to-Board Connector Assemblies & Housings(5)

Wire-to-Board Connector Contacts(65)

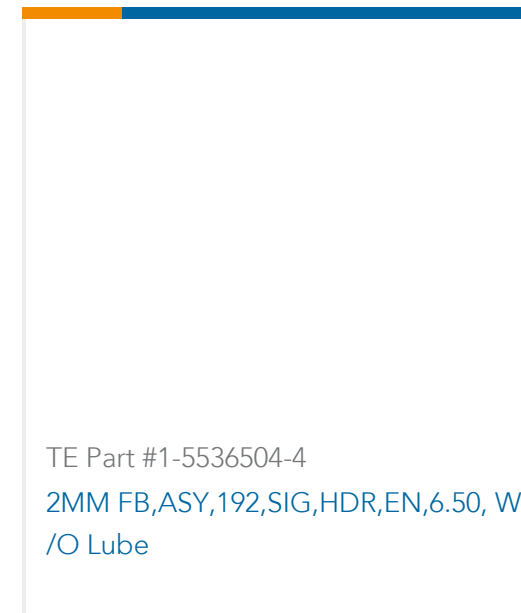
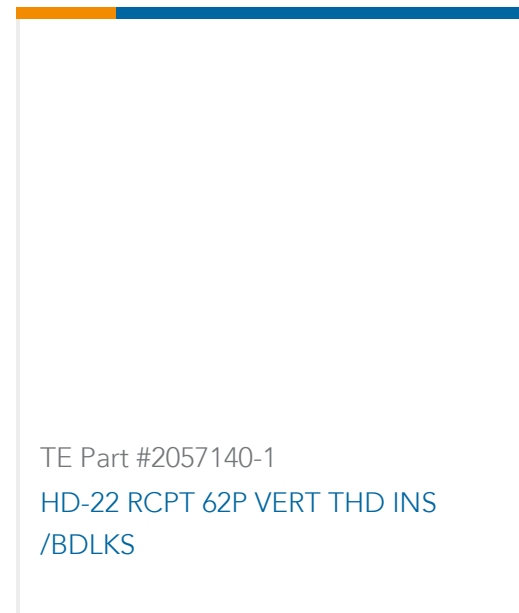
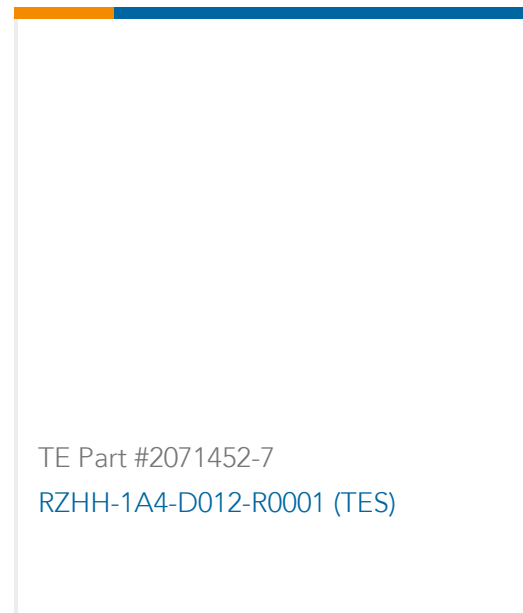
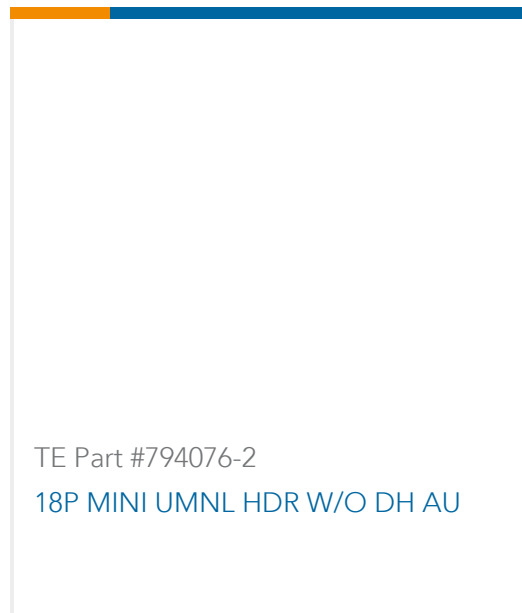
### Customers Also Bought

TE Part #5-102802-4  
50 MODII 2PC HDR DRRR SHRD, ROHS

TE Part #1-1735251-2  
SKT,SODIMM,144P,1.8V (DDR2),ST

TE Part #5-533289-5  
BOX II 2 ROW RECP ASSY 60 POS

TE Part #316998-7  
CHAMP.050 REC HDR ASSY FMS TY



## Documents

### Product Drawings

[50 MODII HDR DRST SHRD .100CL](#)

English

### CAD Files

Customer View Model

[ENG\\_CVM\\_CVM\\_2-103169-3\\_N.2d\\_dxf.zip](#)

English

[3D PDF](#)

3D

Customer View Model

[ENG\\_CVM\\_CVM\\_2-103169-3\\_N.3d\\_igs.zip](#)

English

Customer View Model

[ENG\\_CVM\\_CVM\\_2-103169-3\\_N.3d\\_stp.zip](#)

English

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### Product Specifications

[Product Specification](#)

English