# 254590-E ✔ ACTIVE

ERNI | ERNI SMC

TE Internal #: 254590-E

PCB Mount Header, Vertical, Board-to-Board, 40 Position, 1.27 mm [.05 in] Centerline, Fully Shrouded, Gold (Au), Surface Mount, ERNI SMC

View on TE.com >

Connectors > PCB Connectors > PCB Headers & Receptacles

PCB Connector Type: **PCB Mount Header**

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

Number of Positions: **40**

Number of Rows: **2**

Centerline (Pitch): **1.27 mm [ .05 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 | 20 |
| Number of Loaded Positions | 40 |
| Stacking Configuration | Stack Through |
| Connector Contact Load Condition | Fully Loaded |
| Stackable | Yes |
| Number of Positions | 40 |
| Number of Rows | 2 |

| | |
|---|---|
| PCB Mount Orientation | Vertical |
| Board-to-Board Configuration | Parallel |

## Electrical Characteristics

| | |
|---|---|
| Dielectric Withstanding Voltage (Max) | 500 Vrms |

## Body Features

| | |
|---|---|
| Connector Profile | Low |
| Primary Product Color | Black |

## Contact Features

| | |
|---|---|
| PCB Contact Termination Area Plating Material Thickness | 4 – 6 µm[157.48 – 236.22 µin] |
| Contact Shape & Form | Rectangular |
| Contact Layout | Matrix |
| Contact Mating Area Length | 4 mm[.157 in] |
| Contact Base Material | Copper Alloy |
| Contact Mating Area Plating Material | Gold (Au) |
| Contact Type | Pin |
| Contact Current Rating (Max) | 1.7 A |
| PCB Contact Termination Area Plating Material | Tin |

## Termination Features

| | |
|---|---|
| Termination Method to PCB | Surface Mount |

## Mechanical Attachment

| | |
|---|---|
| Mounting Alignment Feature Length | .75 mm[.029 in] |
| PCB Mount Retention Type | Location Peg |
| PCB Mount Alignment Type | Locating Posts |
| Mating Alignment Type | Polarization |
| Connector Mounting Type | Board Mount |
| Mating Alignment | With |
| PCB Mount Alignment | With |
| PCB Mount Retention | With |

## Housing Features

| | |
|---|---|
| Mating Entry Location | Top |
| Centerline (Pitch) | 1.27 mm[.05 in] |
| Housing Material | Liquid Crystal Polymer (LCP) |

### Dimensions

| | |
|---|---|
| Connector Width | 7 mm[.275 in] |
| Connector Height | 6.75 mm[.266 in] |
| Profile Height from PCB | 6.75 mm[.266 in] |
| Connector Length | 30.48 mm[1.2 in] |
| Row-to-Row Spacing | 1.27 mm[.05 in] |
| Stack Height | 1.75 mm[.069 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 |

### 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 | 280 |
| 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)<br>Candidate List Declared Against: JUNE 2025 (250)<br>Does not contain REACH SVHC |

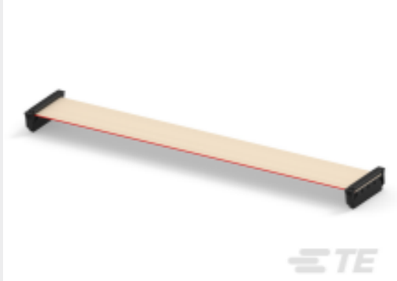
| | |
|---|---|
| Halogen Content | Low Halogen - Br, Cl, F < 900 ppm per homogenous material. Also BFR/CFR/PVC Free |
| Solder Process Capability | Not reviewed for solder process capability |

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 # 354073-E
SMCB 40 F AB VV 7-23 CL * H007 137 E002



TE Part # 168340-E
IDCCS SMC 1,27 40 * AU AUI 200 PVC

TE Part # 168341-E
IDCCS SMC 1,27 40 * AU AUI 300 PVC

TE Part # 168338-E
IDCCS SMC 1,27 40 * AU AUI 100 PVC

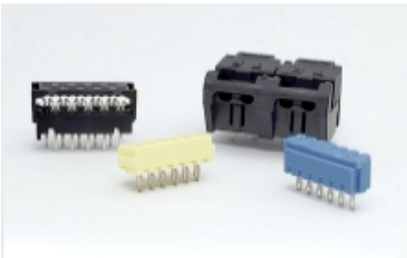
TE Part # 354081-E
SMCQ 40 F AB VV 7-03 CL * 0007 137 E002

TE Part # 354065-E
SMCB 40 F AB VV 7-03 CL * H007 137 E002

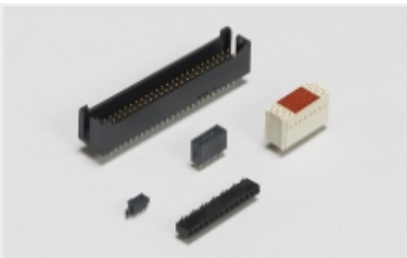
TE Part # 204632-E
SMCB 40 F AB VV 7-13 CL * H007 137 E002

TE Part # 294816-E
SMCB 40 F AB VV 6-01 VH * 0008 137 E002

## Also in the Series | ERNI SMC



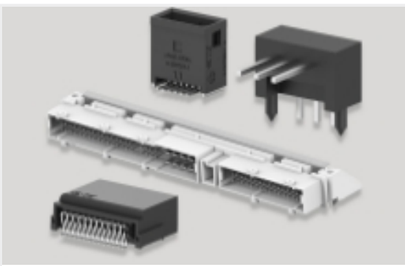
Board-In Connectors(6)



Board-to-Board Headers & Receptacles(79)

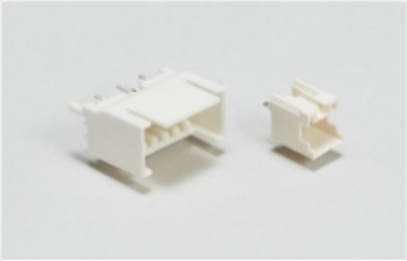
Connector Adapters & Connector Savers(41)

High Speed I/O Cable Assemblies(27)



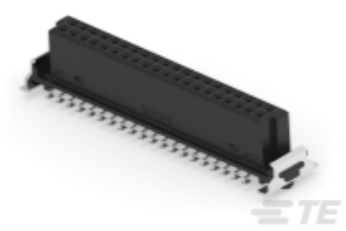
PCB Headers & Receptacles(79)

Rectangular Power Connectors(84)



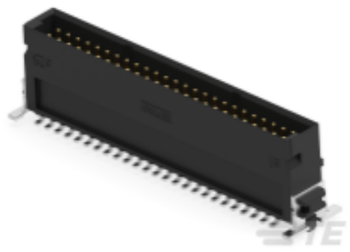
Wire-to-Board Headers & Receptacles (3)

## Customers Also Bought

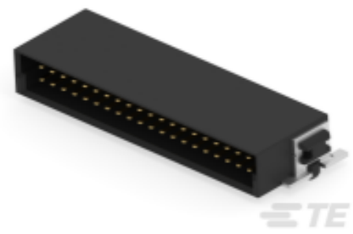


TE Part #204632-E
SMCB 40 F AB VV 7-13 CL * H007 137 E002

TE Part #294816-E
SMCB 40 F AB VV 6-01 VH * 0008 137 E002

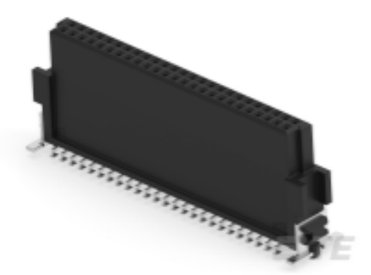


TE Part #234208-E
SMCQ 50 M AB VV 8-23 CL * H007 137 E005



TE Part #354097-E
SMCB 40 M AB VV 7-03 CL * 0007 137 E004

TE Part #T1936030000-000
H3APR-AGC



TE Part #234199-E
SMCB 50 F AB VV 7-23 CL * H007 137 E002

TE Part #T1012241100-001
H24BK-KDTP-SS

TE Part #1648358-1
708-0130-01109

TE Part #1775134-1
MOD JACK, RJ45, SINGLE, 6u" Au

TE Part #6651810-1
294-0091-01100=SA CONN,SKT

## Documents

### CAD Files

Customer View Model
ENG_CVM_CVM_254590-E_1.3d_igs.zip
English

Customer View Model
ENG_CVM_CVM_254590-E_1.3d_stp.zip
English

Customer View Model
ENG_CVM_CVM_254590-E_1.2d_dxf.zip

English

3D PDF

3D

By downloading the CAD file I accept and agree to the Terms and Conditions of use.

## Datasheets & Catalog Pages

Datasheet - ERNI SMC 1.27mm Connectors

English

Datasheet - ERNI SMC 1.27mm Connectors

Datasheet - ERNI SMC 1.27mm Connectors

German

## Product Specifications

SMC_Receptacle_with_Ribbon_Cable_IDC_and_Header

English