

PLEASE CHECK WWW.MOLEX.COM FOR LATEST PART INFORMATION

Part Number: [0452801202](#)
Status: **Active**
Overview: [microfit_30](#)
Description: 3.00mm (.118") Pitch Micro-Fit 3.0 BMI CPI™ Compliant Pin Header, Blind Mate Interface, Dual Row, Vertical, 12 Circuits, PA Polyamide Nylon 4/6, UL 94V-0, 0.38µm (15µ") Gold (Au) Selective Contact Plating, Tin/Lead (Sn/Pb) Tail Plating

Documents:

[3D Model](#) [Product Specification PS-44300-001 \(PDF\)](#)
[Drawing \(PDF\)](#) [RoHS Certificate of Compliance \(PDF\)](#)

Agency Certification

| | |
|-----|-----------|
| CSA | LR19980 |
| TUV | R72081037 |
| UL | E29179 |

General

| | |
|-------------------------------|-------------------------------|
| Product Family | PCB Headers |
| Series | 45280 |
| Application | Board-to-Board, Wire-to-Board |
| Application Tooling Part Link | 622008400 |
| Overview | microfit_30 |
| Product Literature Order No | USA-106 |
| Product Name | Micro-Fit 3.0 BMI CPI™ |

Physical

| | |
|--------------------------------|--------------------------------|
| Breakaway | No |
| Circuits (Loaded) | 12 |
| Circuits (maximum) | 12 |
| Color - Resin | Black |
| Durability (mating cycles max) | 30 |
| Flammability | 94V-0 |
| Glow-Wire Compliant | No |
| Guide to Mating Part | Yes |
| Lock to Mating Part | None |
| Material - Metal | High Performance Alloy (HPA) |
| Material - Plating Mating | Gold |
| Material - Plating Termination | 90/10 Tin Lead |
| Material - Resin | High Temperature Thermoplastic |
| Number of Rows | 2 |
| Orientation | Vertical |
| PC Tail Length (in) | 0.189 In |
| PC Tail Length (mm) | 4.80 mm |
| PCB Locator | Yes |
| PCB Retention | Yes |
| Packaging Type | Tray |
| Pitch - Mating Interface (in) | 0.118 In |
| Pitch - Mating Interface (mm) | 3.00 mm |
| Plating min: Mating (µin) | 15 |
| Plating min: Mating (µm) | 0.375 |
| Plating min: Termination (µin) | 100 |
| Plating min: Termination (µm) | 2.5 |
| Polarized to Mating Part | Yes |
| Polarized to PCB | Yes |
| Shrouded | Fully |
| Stackable | No |

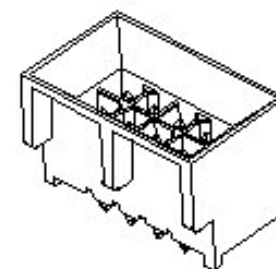


image - Reference only

Series

EU RoHS

RoHS Compliant by Exemption

REACH SVHC

Contains SVHC: No

Halogen-Free

Status

Not Halogen-Free

China RoHS



Pb

Need more information on product environmental compliance?

Email productcompliance@molex.com
 For a multiple part number RoHS Certificate of Compliance, [click here](#)

Please visit the [Contact Us](#) section for any non-product compliance questions.

Search Parts in this Series

[45280Series](#)

Mates With

[44133-1200](#) Panel Mount Receptacle,
[44769-1202](#) Vertical Receptacle Header,
[44764-1202](#) Right Angle Receptacle Header

Application Tooling | FAQ

Tooling specifications and manuals are found by selecting the products below. Crimp Height Specifications are then contained in the Application Tooling Specification document.

Global

| Description | Product # |
|--|----------------------------|
| Micro-Fit™ Compliant Pin Insertion Flat Rock Tool | 0622008400 |

| | |
|--------------------------------|------------------------------|
| Surface Mount Compatible (SMC) | No |
| Temperature Range - Operating | -40°C to +105°C |
| Termination Interface: Style | Through Hole - Compliant Pin |

Electrical

| | |
|-------------------------------|------|
| Current - Maximum per Contact | 5A |
| Voltage - Maximum | 250V |

Solder Process Data

| | |
|--|------------|
| Replacement RoHS Compliant Part Number | 0452801252 |
|--|------------|

Material Info**Reference - Drawing Numbers**

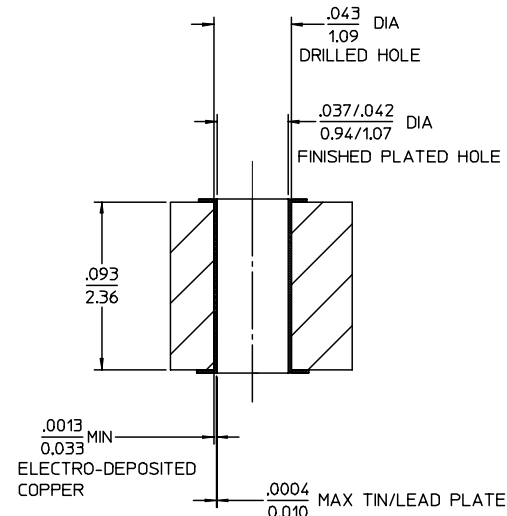
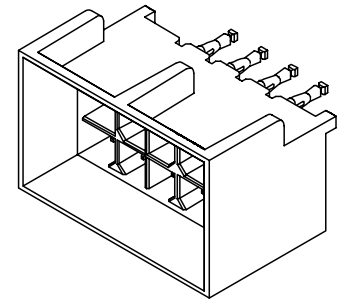
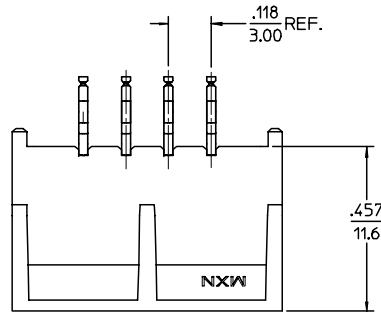
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|-------------------------|-----------------------------|
| Packaging Specification | PK-45280-002 |
| Product Specification | PS-44300-001, RPS-44300-001 |
| Sales Drawing | SD-45280-001 |
| Test Summary | TS-45280-001 |

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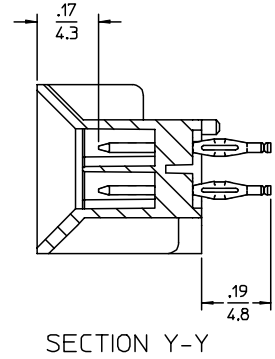
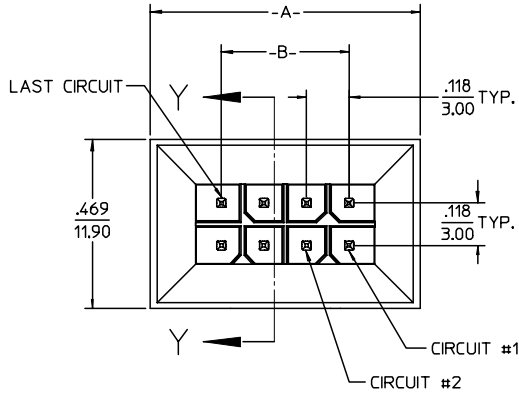
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13 12 11 10 9 8 7 6 5 4 3 2 1

J
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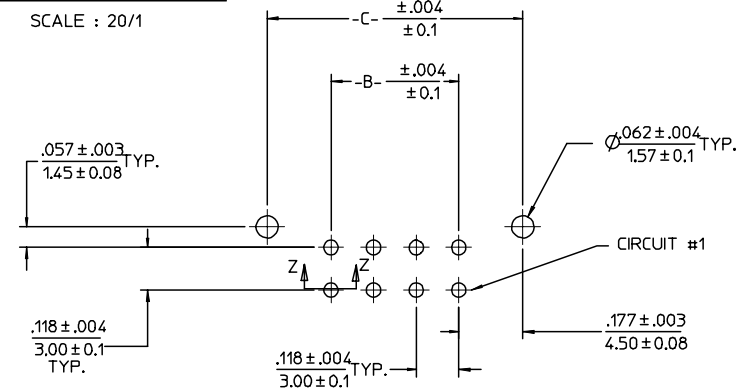


| CIRCUIT SIZE | DIM. -A- | DIM. -B- | DIM. -C- |
|--------------|-------------|-------------|-------------|
| 04 | .512/13.00 | .118/3.00 | .472/12.00 |
| 06 | .630/16.00 | .236/6.00 | .590/15.00 |
| 08 | .748/19.00 | .354/9.00 | .709/18.00 |
| 10 | .866/22.00 | .472/12.00 | .827/21.00 |
| 12 | .984/25.00 | .590/15.00 | .945/24.00 |
| 14 | 1.102/28.00 | .709/18.00 | 1.063/27.00 |
| 16 | 1.220/31.00 | .827/21.00 | 1.181/30.00 |
| 18 | 1.338/34.00 | .945/24.00 | 1.299/33.00 |
| 20 | 1.457/37.00 | 1.063/27.00 | 1.417/36.00 |
| 22 | 1.575/40.00 | 1.181/30.00 | 1.535/39.00 |
| 24 | 1.693/43.00 | 1.299/33.00 | 1.653/42.00 |



SECTION Z-Z

SCALE : 20/1



RECOMMENDED PCB LAYOUT (COMPONENT SIDE)
RECOMMENDED PCB THICKNESS .093/2.36 MIN.

- NOTES:
- MATERIALS:
HOUSING: GLASS FILLED NYLON, UL94V-0, COLOR: BLACK, TERMINALS: COPPER ALLOY.
 - FINISH:
A= .000200/(0.00508) MIN. BRIGHT TIN OVER .000050/(0.00127) MIN. NICKEL.
B= .000015/(0.00038) MIN. GOLD IN CONTACT AREA AND .000100/(0.00254) MIN. TIN/LEAD (90/10) ON PCB TAILS BOTH OVER .000050/(0.00127) MIN. NICKEL OVERALL.
C= .000030/(0.00076) MIN. GOLD IN CONTACT AREA AND .000100/(0.00254) MIN. TIN/LEAD (95/05) ON PCB TAILS BOTH OVER .000050/(0.00127) MIN. NICKEL OVERALL.
D= .000200/(0.00508) MIN. MATTE TIN IN CONTACT AREA AND .000100/(0.00254) MIN. MATTE TIN ON PCB TAILS BOTH OVER .000050/(0.00127) MIN. NICKEL. OVERALL.
 - PRODUCT SPECIFICATION: PS-44300-001
 - PACKAGING SPECIFICATION: PK-45280-002.
 - THIS ASSEMBLY MATES WITH MOLEX BMI PANEL MOUNT RECEPTACLE (SEE DRAWING SD-44133-001) WITH FEMALE CRIMP TERMINAL (SEE DRAWING SD-43030-****) AND BMI RECEPTACLE HEADERS (SEE DRAWING SD-44764-001 OR SD-44769-001).
 - THIS HEADER REQUIRES A MOLEX INSERTION TOOL (62200-8400) TO PROPERLY INSTALL IT TO THE PCB.

| | | | | | | | | |
|--|-----------------------------|---------------------------------------|-----------------------|--------------------------|--------------------|---|------------------------|------------------------|
| ADD *D* FINISH FCC NO: UCP2007-2424 DRAWN:MK/PPER 2007/04/24 CHKD:SSOUSEK 2007/04/24 APPR:FSM/TH 2007/04/26 REV | QUALITY SYMBOLS =0 =0 | GENERAL TOLERANCES (UNLESS SPECIFIED) | | DIMENSION STYLE IN/MM | | SCALE 4:1 | DESIGN UNITS METRIC | THIRD ANGLE PROJECTION |
| | | mm | INCH | DRAWN BY MARGULIS | DATE 2002/06/11 | TITLE MICRO-FIT (3.0) DUAL ROW VERTICAL BMI CPI HEADER - ASS'Y | | |
| J1 | DESCRIPTION | 4 PLACES ± --- ± --- | 3 PLACES ± --- ± .010 | CHECKED BY MARGULIS | DATE 2002/06/11 | MOLEX INCORPORATED | | |
| | | 2 PLACES ± 0.25 ± .015 | 1 PLACE ± 0.38 ± --- | APPROVED BY R. FRY | DATE 2002/06/11 | DOCUMENT NO. SD-45280-001 | SHEET NO. 1 OF 2 | |
| DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS | | ANGULAR ±1/2° | | SEE CHART | | THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION | | |

12 11 10 9 8 7 6 5 4 3 2 1

| | 13 | 12 | 11 | 10 | 9 | 8 | 7 | 6 | 5 | 4 | 3 | 2 | 1 | |
|---|-----------------|--------------|----------------|----|---|---|---|---|---|---|---|---|---|---|
| | MATERIAL NUMBER | CIRCUIT SIZE | PLATING OPTION | | | | | | | | | | | |
| J | 452800401 | 04 | A | | | | | | | | | | | J |
| | 452800402 | 04 | B | | | | | | | | | | | |
| | 452800403 | 04 | C | | | | | | | | | | | |
| | 452800404 | 04 | D | | | | | | | | | | | |
| I | 452800601 | 06 | A | | | | | | | | | | | I |
| | 452800602 | 06 | B | | | | | | | | | | | |
| | 452800603 | 06 | C | | | | | | | | | | | |
| | 452800604 | 06 | D | | | | | | | | | | | |
| | 452800801 | 08 | A | | | | | | | | | | | |
| H | 452800802 | 08 | B | | | | | | | | | | | H |
| | 452800803 | 08 | C | | | | | | | | | | | |
| | 452800804 | 08 | D | | | | | | | | | | | |
| | 452801001 | 10 | A | | | | | | | | | | | |
| | 452801002 | 10 | B | | | | | | | | | | | |
| G | 452801003 | 10 | C | | | | | | | | | | | G |
| | 452801004 | 10 | D | | | | | | | | | | | |
| | 452801201 | 12 | A | | | | | | | | | | | |
| | 452801202 | 12 | B | | | | | | | | | | | |
| | 452801203 | 12 | C | | | | | | | | | | | |
| F | 452801204 | 12 | D | | | | | | | | | | | F |
| | 452801401 | 14 | A | | | | | | | | | | | |
| | 452801402 | 14 | B | | | | | | | | | | | |
| | 452801403 | 14 | C | | | | | | | | | | | |
| E | 452801404 | 14 | D | | | | | | | | | | | E |
| | 452801601 | 16 | A | | | | | | | | | | | |
| | 452801602 | 16 | B | | | | | | | | | | | |
| | 452801603 | 16 | C | | | | | | | | | | | |
| | 452801604 | 16 | D | | | | | | | | | | | |
| D | 452801801 | 18 | A | | | | | | | | | | | D |
| | 452801802 | 18 | B | | | | | | | | | | | |
| | 452801803 | 18 | C | | | | | | | | | | | |
| | 452801804 | 18 | D | | | | | | | | | | | |
| C | 452802001 | 20 | A | | | | | | | | | | | C |
| | 452802002 | 20 | B | | | | | | | | | | | |
| | 452802003 | 20 | C | | | | | | | | | | | |
| | 452802004 | 20 | D | | | | | | | | | | | |
| | 452802201 | 22 | A | | | | | | | | | | | |
| B | 452802202 | 22 | B | | | | | | | | | | | B |
| | 452802203 | 22 | C | | | | | | | | | | | |
| | 452802204 | 22 | D | | | | | | | | | | | |
| | 452802401 | 24 | A | | | | | | | | | | | |
| A | 452802402 | 24 | B | | | | | | | | | | | A |
| | 452802403 | 24 | C | | | | | | | | | | | |
| | 452802404 | 24 | D | | | | | | | | | | | |

| | | | | | | | | | | |
|---|-----------------------------|---------------------------------------|------------|--------------------------|------------|-------------------|------------------------|------------------------|--|--|
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| | | mm | INCH | DRAWN BY | DATE | TITLE | | | | |
| | | 4 PLACES ± --- | ± --- | MARGUL IS | 2002/06/11 | MICRO-FIT (3.0) | | | | |
| | | 3 PLACES ± --- | ± .010 | CHECKED BY | DATE | DUAL ROW VERTICAL | | | | |
| 2 PLACES ± 0.25 | ± .015 | MARGUL IS | 2002/06/11 | BMI CPI HEADER - ASS'Y | | | | | | |
| 1 PLACE ± 0.38 | ± --- | APPROVED BY | DATE | MOLEX INCORPORATED | | | | | | |
| ANGULAR ±1/2° | | R. FRY | 2002/06/11 | MATERIAL NO. | | DOCUMENT NO. | | SHEET NO. | | |
| DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS | | SEE CHART | | SD-45280-001 | | 2 OF 2 | | | | |
| THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION | | | | | | | | | | |