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Part Number: [0444281603](#)
Status: **Active**
Overview: [microfit_30](#)
Description: 3.00mm (.118") Pitch Micro-Fit 3.0 BMI™ Header, Surface Mount Compatible, Dual Row, Right Angle, with Snap-in Plastic Peg PCB Lock, 16 Circuits, 0.76µm (30µ") Gold (Au) Selective 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 | 44428 |
| Application | Board-to-Board, Wire-to-Board |
| Comments | High Temperature Square Pin Solder Type Polarized to Mating Part |
| Overview | microfit_30 |
| Product Name | Micro-Fit 3.0 BMI™ |

Physical

| | |
|--------------------------------|--------------------------------|
| Breakaway | No |
| Circuits (Loaded) | 16 |
| Circuits (maximum) | 16 |
| Color - Resin | Black |
| Durability (mating cycles max) | 30 |
| First Mate / Last Break | No |
| Flammability | 94V-0 |
| Glow-Wire Compliant | No |
| Guide to Mating Part | No |
| Keying to Mating Part | None |
| Lock to Mating Part | Yes |
| Material - Metal | Brass |
| Material - Plating Mating | Gold |
| Material - Plating Termination | Tin |
| Material - Resin | High Temperature Thermoplastic |
| Number of Rows | 2 |
| Orientation | Right Angle |
| PC Tail Length (in) | 0.138 In |
| PC Tail Length (mm) | 3.50 mm |
| PCB Locator | Yes |
| PCB Retention | Yes |
| PCB Thickness Recommended (in) | 0.062 In |
| PCB Thickness Recommended (mm) | 1.60 mm |
| Packaging Type | Tray |
| Pitch - Mating Interface (in) | 0.118 In |
| Pitch - Mating Interface (mm) | 3.00 mm |
| Plating min: Mating (µin) | 30 |
| Plating min: Mating (µm) | 0.76 |
| Plating min: Termination (µin) | 100 |
| Plating min: Termination (µm) | 2.54 |



EU RoHS

ELV and RoHS Compliant
REACH SVHC Contains SVHC: No
Halogen-Free Status
Not Reviewed

China RoHS



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

[44428Series](#)

Mates With

[44133](#) , [44764](#) , [44769](#)

| | |
|--------------------------------|-----------------|
| Polarized to PCB | Yes |
| Shrouded | Fully |
| Stackable | No |
| Surface Mount Compatible (SMC) | Yes |
| Temperature Range - Operating | -40°C to +105°C |
| Termination Interface: Style | Through Hole |

Electrical

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

Solder Process Data

| | |
|--|------------------------|
| Duration at Max. Process Temperature (seconds) | 5 |
| Lead-free Process Capability | Wave Capable (TH only) |
| Max. Cycles at Max. Process Temperature | 1 |
| Process Temperature max. C | 260 |

Material Info

Reference - Drawing Numbers

| | |
|-------------------------|-----------------------------|
| Packaging Specification | PK-44428-001 |
| Product Specification | PS-44300-001, RPS-44300-001 |
| Sales Drawing | SD-44428-001 |

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| CIRCUIT SIZE | A | B | C |
|--------------|----------------|----------------|----------------|
| 04 | .512 13.00 | .118 3.00 | NA |
| 06 | .630 16.00 | .236 6.00 | NA |
| 08 | .748 19.00 | .354 9.00 | .184 4.68 |
| 10 | .866 22.00 | .472 12.00 | .302 7.68 |
| 12 | .984 25.00 | .590 15.00 | .420 10.68 |
| 14 | 1.102 28.00 | .709 18.00 | .539 13.68 |
| 16 | 1.220 31.00 | .827 21.00 | .657 16.68 |
| 18 | 1.338 34.00 | .945 24.00 | .775 19.68 |
| 20 | 1.457 37.00 | 1.063 27.00 | .893 22.68 |
| 22 | 1.575 40.00 | 1.181 30.00 | 1.011 25.68 |
| 24 | 1.693 43.00 | 1.299 33.00 | 1.129 28.68 |



PCB LAYOUT:
COMPONENT SIDE
4 CIRCUIT ONLY

PCB LAYOUT:
COMPONENT SIDE
6 CIRCUIT ONLY

PCB LAYOUT: COMPONENT SIDE
RECOMMENDED PCB THICKNESS .062/1.57
8 THRU 24 CIRCUITS

NOTES :

- MATERIALS - HOUSING : NYLON , GLASS-FILLED, UL94V-0 COLOR - BLACK
TERMINAL : BRASS ALLOY
TERMINAL POSITIONING STRIP : MYLAR, COLOR - NATURAL
- FINISH:
A= .000200/(0.00508) MIN. TIN OVER .000050/(0.00127) MIN. NICKEL.
B= .000015/(0.00038) MIN. SELECT GOLD IN CONTACT AREA, .000100/(0.00254) MIN. MATTE TIN ON SOLDER TAILS, BOTH OVER .000050/(0.00127) MIN. NICKEL.
C= .000030/(0.00076) MIN. SELECT GOLD IN CONTACT AREA, .000100/(0.00254) MIN. MATTE TIN ON SOLDER TAILS, BOTH OVER .000050/(0.00127) MIN. NICKEL.
* THE PRIMARY SHIPPING CARTON WILL BE LABELED "COMPLIANT TO RoHS DIRECTIVE 2002/95/EC AND ELV ANNEX II OF DIRECTIVE 2000/53/EC." CARTONS WITHOUT THIS LABEL MAY CONTAIN PRODUCT WITH TIN/LEAD IN THE PC TAIL AREA.
- PRODUCT SPECIFICATION : PS-44300-001
- PACKAGING SPECIFICATION : PK-44428-001
- 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 PART CONFORMS TO CLASS 'B' REQUIREMENTS OF COSMETIC SPECIFICATION PS-45499-002.

| | | | | | | |
|---|-------------------------------|--|---|--|--|--|
| CORRECT .230 DIM. EC NO: UCP2008-0675 DRAWN:KIPER 2007/12/12 CHKD:SSOUSEK 2007/12/14 APPR:FSMLTH 2007/12/14 | QUALITY SYMBOLS ▽=0 ▽=0 | GENERAL TOLERANCES (UNLESS SPECIFIED) mm INCH 4 PLACES ±--- ±--- 3 PLACES ±--- ±.010 2 PLACES ±0.25 ±.015 1 PLACE ±0.38 ±--- ANGULAR ±1/2° | DIMENSION STYLE IN/MM DRAWN BY DATE MUELLER 1999/11/29 CHECKED BY DATE MUELLER 1999/11/29 APPROVED BY DATE EDGLEY 1999/11/30 | SCALE 4:1 DESIGN UNITS METRIC THIRD ANGLE PROJECTION | TITLE MICRO FIT (3.0) DUAL ROW RIGHT ANGLE BMI HEADER ASS'Y MOLEX MOLEX INCORPORATED | |
| | DESCRIPTION H2 | DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS | MATERIAL NO. SEE CHART | DOCUMENT NO. SD-44428-001 | SHEET NO. 1 OF 2 | |
| | REV | SIZE THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION | | | | |
| | | | | | | |

| | 13 | 12 | 11 | 10 | 9 | 8 | 7 | 6 | 5 | 4 | 3 | 2 | 1 | |
|---|-----------------|--------------------|---------------|----------------------|-----------------|--------------------|---------------|----------------------|--|---|---|---|---|---|
| J | MATERIAL NUMBER | NUMBER OF CIRCUITS | FINISH OPTION | RETENTION PEG OPTION | MATERIAL NUMBER | NUMBER OF CIRCUITS | FINISH OPTION | RETENTION PEG OPTION | <p style="text-align: center;">POLARIZATION LAYOUT 4-24 CIRCUITS</p> | | | | | J |
| I | 44428-0401 | 04 | A | YES | 44428-1601 | 16 | A | YES | | | | | | I |
| | 44428-0402 | 04 | B | YES | 44428-1602 | 16 | B | YES | | | | | | |
| | 44428-0403 | 04 | C | YES | 44428-1603 | 16 | C | YES | | | | | | |
| | 44428-0404 | 04 | A | NO | 44428-1604 | 16 | A | NO | | | | | | |
| | 44428-0405 | 04 | B | NO | 44428-1605 | 16 | B | NO | | | | | | |
| | 44428-0406 | 04 | C | NO | 44428-1606 | 16 | C | NO | | | | | | |
| H | 44428-0601 | 06 | A | YES | 44428-1801 | 18 | A | YES | | | | | | H |
| | 44428-0602 | 06 | B | YES | 44428-1802 | 18 | B | YES | | | | | | |
| | 44428-0603 | 06 | C | YES | 44428-1803 | 18 | C | YES | | | | | | |
| | 44428-0604 | 06 | A | NO | 44428-1804 | 18 | A | NO | | | | | | |
| | 44428-0605 | 06 | B | NO | 44428-1805 | 18 | B | NO | | | | | | |
| | 44428-0606 | 06 | C | NO | 44428-1806 | 18 | C | NO | | | | | | |
| G | 44428-0801 | 08 | A | YES | 44428-2001 | 20 | A | YES | | | | | | G |
| | 44428-0802 | 08 | B | YES | 44428-2002 | 20 | B | YES | | | | | | |
| | 44428-0803 | 08 | C | YES | 44428-2003 | 20 | C | YES | | | | | | |
| | 44428-0804 | 08 | A | NO | 44428-2004 | 20 | A | NO | | | | | | |
| | 44428-0805 | 08 | B | NO | 44428-2005 | 20 | B | NO | | | | | | |
| | 44428-0806 | 08 | C | NO | 44428-2006 | 20 | C | NO | | | | | | |
| F | 44428-1001 | 10 | A | YES | 44428-2201 | 22 | A | YES | | | | | | F |
| | 44428-1002 | 10 | B | YES | 44428-2202 | 22 | B | YES | | | | | | |
| | 44428-1003 | 10 | C | YES | 44428-2203 | 22 | C | YES | | | | | | |
| | 44428-1004 | 10 | A | NO | 44428-2204 | 22 | A | NO | | | | | | |
| | 44428-1005 | 10 | B | NO | 44428-2205 | 22 | B | NO | | | | | | |
| E | 44428-1006 | 10 | C | NO | 44428-2206 | 22 | C | NO | E | | | | | |
| | 44428-1201 | 12 | A | YES | 44428-2401 | 24 | A | YES | | | | | | |
| | 44428-1202 | 12 | B | YES | 44428-2402 | 24 | B | YES | | | | | | |
| | 44428-1203 | 12 | C | YES | 44428-2403 | 24 | C | YES | | | | | | |
| | 44428-1204 | 12 | A | NO | 44428-2404 | 24 | A | NO | | | | | | |
| D | 44428-1205 | 12 | B | NO | 44428-2405 | 24 | B | NO | D | | | | | |
| | 44428-1206 | 12 | C | NO | 44428-2406 | 24 | C | NO | | | | | | |
| | 44428-1401 | 14 | A | YES | | | | | | | | | | |
| | 44428-1402 | 14 | B | YES | | | | | | | | | | |
| | 44428-1403 | 14 | C | YES | | | | | | | | | | |
| C | 44428-1404 | 14 | A | NO | | | | | C | | | | | |
| | 44428-1405 | 14 | B | NO | | | | | | | | | | |
| | 44428-1406 | 14 | C | NO | | | | | | | | | | |

| | | | | | | | | | | | |
|---|---------------------|---------------------------------------|-----------------------|------------------------|----------------------|--------------|--------------|---|--|--|--|
| SEE SHEET 1 FCC NO: UICP2007-0836 DRAWN/KIPER 2006/10/04 CHKD:SSOUSEK 2006/10/04 APPR:FSM TH 2006/10/05 H1 | QUALITY SYMBOLS | GENERAL TOLERANCES (UNLESS SPECIFIED) | | DIMENSION STYLE | | SCALE | DESIGN UNITS | THIRD ANGLE PROJECTION | | | |
| | | | | IN/MM | | 4:1 | METRIC | | | | |
| | | 4 PLACES ± --- ± --- | 3 PLACES ± --- ± .010 | 2 PLACES ± 0.25 ± .015 | 1 PLACE ± 0.38 ± --- | APPROVED BY | DATE | MICRO FIT (3.0) DUAL ROW RIGHT ANGLE BMI HEADER ASS'Y MOLEX INCORPORATED | | | |
| | | ANGULAR ±1/2° | | | | EDGLEY | 1999/11/30 | | | | |
| DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS | | SEE CHART | | MATERIAL NO. | | DOCUMENT NO. | | SHEET NO. | | | |
| | | | | | | SD-44428-001 | | 2 OF 2 | | | |
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