

**PLEASE CHECK WWW.MOLEX.COM FOR LATEST PART INFORMATION**

**Part Number:** **0444281003**  
**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, 10 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	<u>44428</u>
Application	Board-to-Board, Wire-to-Board
Comments	High Temperature Square Pin Solder Type Polarized to Mating Part
Overview	<u>microfit_30</u>
Product Literature Order No	USA-106
Product Name	Micro-Fit 3.0 BMI™

**Physical**

Breakaway	No
Circuits (Loaded)	10
Circuits (maximum)	10
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



**EU RoHS**

**ELV and RoHS Compliant**  
**REACH SVHC Contains SVHC: No**  
**Halogen-Free Status**

**China RoHS**



**Not Halogen-Free**  
**Need more information on product environmental compliance?**

Email [productcompliance@molex.com](mailto: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](#)

Plating min: Termination (µm)	2.54
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**

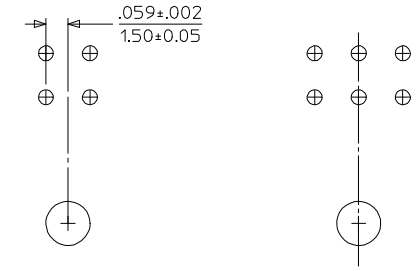
Packaging Specification	PK-44428-001
Product Specification	PS-44300-001, RPS-44300-001
Sales Drawing	SD-44428-001

This document was generated on 05/24/2010

**PLEASE CHECK [WWW.MOLEX.COM](http://WWW.MOLEX.COM) FOR LATEST PART INFORMATION**



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 DRWN:MKIPER 2007/12/12 CHKD:SSOUSEK 2007/12/14 APPR:FSMLTH 2007/12/14	QUALITY SYMBOLS	GENERAL TOLERANCES (UNLESS SPECIFIED)	DIMENSION STYLE	SCALE	DESIGN UNITS	THIRD ANGLE PROJECTION
	$\nabla=0$ $\nabla=0$	± mm    ± INCH 4 PLACES ± --- ± --- 3 PLACES ± --- ± .010 2 PLACES ± 0.25 ± .015 1 PLACE ± 0.38 ± --- ANGULAR ± 1/2°	IN/MM	4:1	METRIC	
	DESCRIPTION	DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS	DRAWN BY	DATE	TITLE	
	H2		MUELLER	1999/11/29	MICRO FIT (3.0) DUAL ROW RIGHT ANGLE BMI HEADER ASS'Y	
			CHECKED BY	DATE		
			MUELLER	1999/11/29		
			APPROVED BY	DATE		
			EDGLEY	1999/11/30		
			MATERIAL NO.	DOCUMENT NO.		
			SEE CHART	SD-44428-001		
			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;"><b>POLARIZATION LAYOUT</b> <b>4-24 CIRCUITS</b></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/KIPPER 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				
						DRAWN BY DATE		TITLE			
						CHECKED BY DATE		MICRO FIT (3.0) DUAL ROW RIGHT ANGLE BMI HEADER ASS'Y			
				APPROVED BY DATE		MATERIAL NO. DOCUMENT NO. SHEET NO.					
				ANGULAR ±1/2°		SD-44428-001					
				DRAWN BY DATE		MATERIAL NO. DOCUMENT NO. SHEET NO.					
				CHECKED BY DATE		SD-44428-001					
				APPROVED BY DATE		MATERIAL NO. DOCUMENT NO. SHEET NO.					
				ANGULAR ±1/2°		SD-44428-001					
				DRAWN BY DATE		MATERIAL NO. DOCUMENT NO. SHEET NO.					
				CHECKED BY DATE		SD-44428-001					
				APPROVED BY DATE		MATERIAL NO. DOCUMENT NO. SHEET NO.					
				ANGULAR ±1/2°		SD-44428-001					