

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

**Part Number:** [0452801602](#)

**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, 16 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](#)

[Drawing \(PDF\)](#)

[Product Specification PS-44300-001 \(PDF\)](#)

[RoHS Certificate of Compliance \(PDF\)](#)

**Agency Certification**

CSA	LR19980
TUV	R72081037
UL	E29179

**General**

Product Family	PCB Headers
Series	<a href="#">45280</a>
Application	Board-to-Board, Wire-to-Board
Application Tooling Part Link	622008400
Overview	<a href="#">microfit_30</a>
Product Literature Order No	USA-106
Product Name	Micro-Fit 3.0 BMI CPI™

**Physical**

Breakaway	No
Circuits (Loaded)	16
Circuits (maximum)	16
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

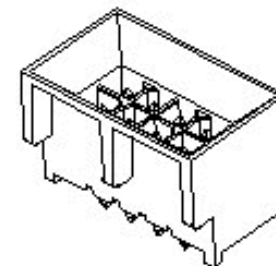


image - Reference only

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](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**

[45280Series](#)

**Mates With**

[44133-1600](#) Panel Mount Receptacle,  
[44769-1602](#) Vertical Receptacle Header,  
[44764-1602](#) 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™

[0622008400](#)

Compliant Pin

Insertion Flat Rock

Tool

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	0452801652
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### **Material Info**

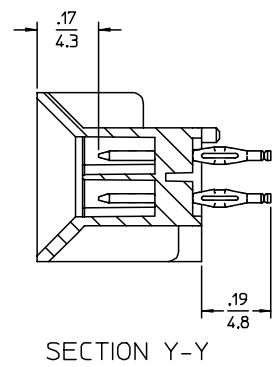
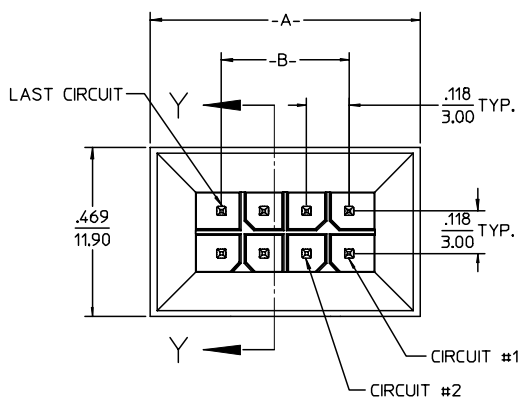
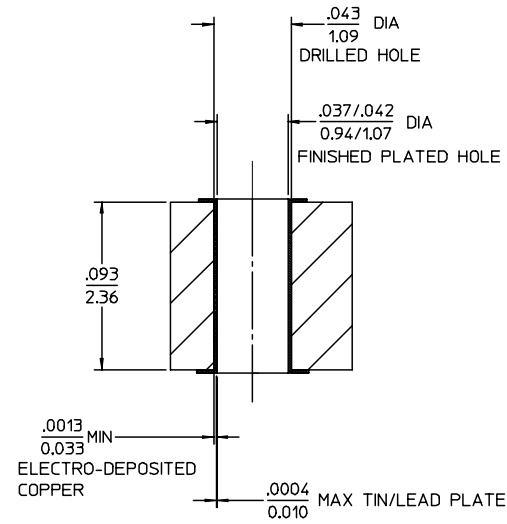
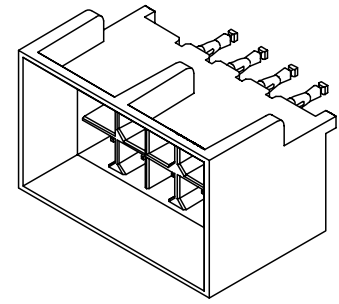
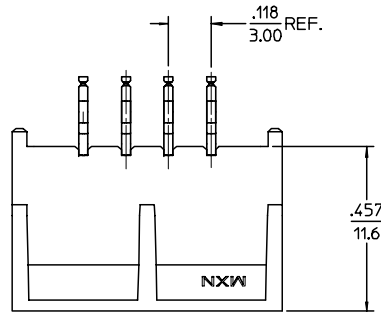
### **Reference - Drawing Numbers**

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

This document was generated on 05/24/2010

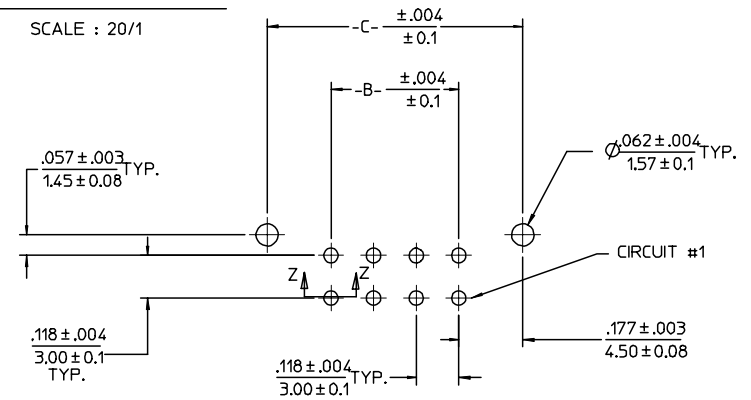
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CIRCUIT SIZE	DIM. -A-	DIM. -B-	DIM. -C-
04	.512/13.00	.118/3.00	.472/12.00
06	.630/16.00	.236/6.00	.590/15.00
08	.748/19.00	.354/9.00	.709/18.00
10	.866/22.00	.472/12.00	.827/21.00
12	.984/25.00	.590/15.00	.945/24.00
14	1.102/28.00	.709/18.00	1.063/27.00
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		
		4 PLACES ± --- ± ---		CHECKED BY MARGULIS	DATE 2002/06/11	MOLEX INCORPORATED		
		3 PLACES ± --- ± .010		APPROVED BY R. FRY	DATE 2002/06/11	DOCUMENT NO. SD-45280-001		SHEET NO. 1 OF 2
		2 PLACES ± 0.25 ± .015		MATERIAL NO.		THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION		
		1 PLACE ± 0.38 ± ---		SIZE C		SEE CHART		
		ANGULAR ±1/2°		DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS				

	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											

ADD *D* FINISH FCC NO: UCP2007-2424 DRAWN/KIPPER 2007/04/24 CHKD:SSOUSEK 2007/04/24 APPR:FSM TH 2007/04/26 J1	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	DATE	TITLE				
		4 PLACES ± ---	± ---	MARGUL IS	2002/06/11	MICRO-FIT (3.0) DUAL ROW VERTICAL BMI CPI HEADER - ASS'Y				
		3 PLACES ± ---	± .010	CHECKED BY	DATE	MATERIAL NO. SHEET NO.				
2 PLACES ± 0.25	± .015	MARGUL IS	2002/06/11	SD-45280-001 2 OF 2						
1 PLACE ± 0.38	± ---	APPROVED BY	DATE	DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS SEE CHART THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION						
ANGULAR ±1/2°		R. FRY	2002/06/11							