

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

**Part Number:** [0452801603](#)

**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, 0.76µm (30µ") 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 - 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)	30
Plating min: Mating (µm)	0.75
Plating min: Termination (µin)	100
Plating min: Termination (µm)	2.5
Polarized to Mating Part	Yes
Polarized to PCB	Yes
Shrouded	Fully
Stackable	No
Surface Mount Compatible (SMC)	No

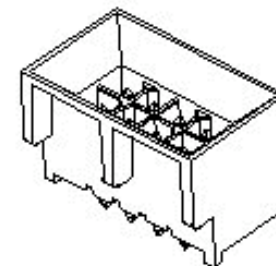


image - Reference only

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,  
[44769-1603](#) Vertical Receptacle Header,  
[44764-1603](#) 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	<a href="#">0622008400</a>

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 0452801653

### **Material Info**

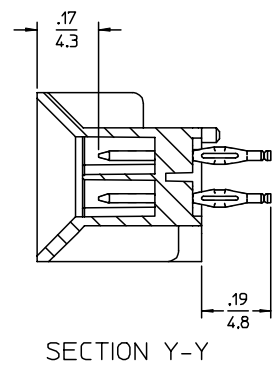
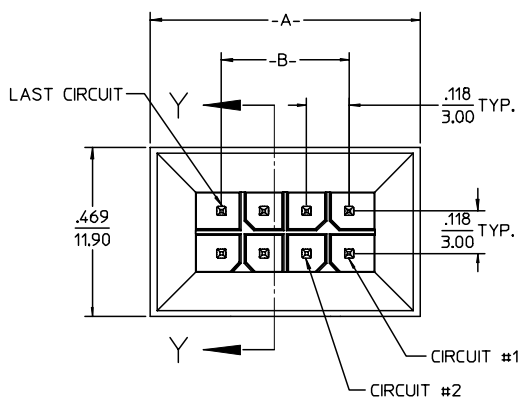
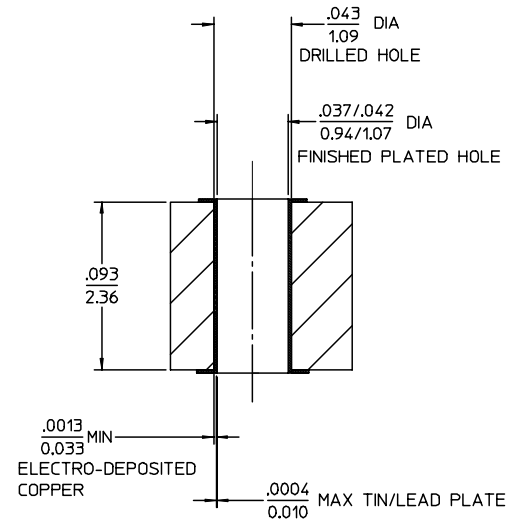
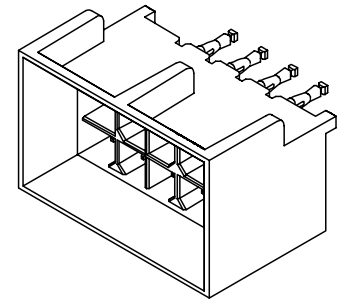
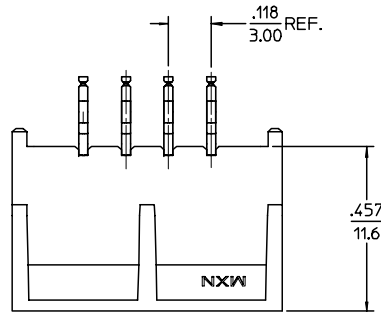
### **Reference - Drawing Numbers**

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

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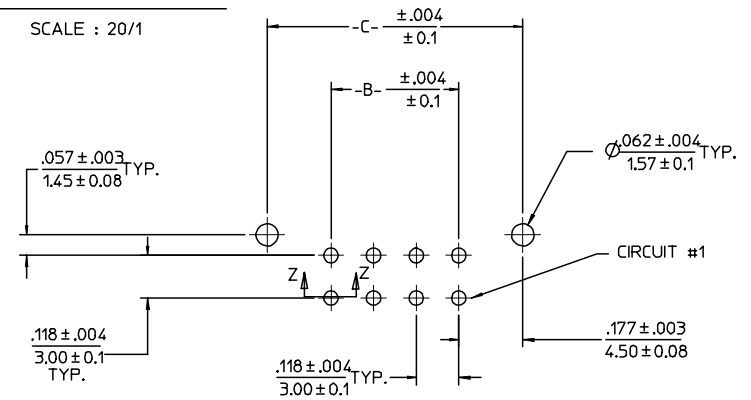
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CIRCUIT SIZE	DIM. -A-	DIM. -B-	DIM. -C-
04	.512/13.00	.118/3.00	.472/12.00
06	.630/16.00	.236/6.00	.590/15.00
08	.748/19.00	.354/9.00	.709/18.00
10	.866/22.00	.472/12.00	.827/21.00
12	.984/25.00	.590/15.00	.945/24.00
14	1.102/28.00	.709/18.00	1.063/27.00
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: 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 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		
		4 PLACES ± --- ± ---	DRAWN BY MARGUL IS	DATE 2002/06/11	TITLE MICRO-FIT (3.0) DUAL ROW VERTICAL BMI CPI HEADER - ASS'Y					
		3 PLACES ± --- ± .010	CHECKED BY MARGUL IS	DATE 2002/06/11	MATERIAL NO. SEE CHART					
		2 PLACES ± 0.25 ± .015 1 PLACE ± 0.38 ± --- ANGULAR ±1/2°	APPROVED BY R. FRY	DATE 2002/06/11	DOCUMENT NO. SD-45280-001					
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		SIZE 	THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION							