

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

**Part Number:** [0015249245](#)  
**Status:** **Active**  
**Description:** 4.20mm (.165") Pitch Mini-Fit BMI™ Header, Dual Row, Right Angle, with Snap-in Plastic Peg PCB Lock, 24 Circuits, PA Polyamide Nylon 6/6, UL 94V-0, Overall Gold (Au) Plating

**Documents:**

[3D Model](#) [Product Specification PS-5556-002 \(PDF\)](#)  
[Drawing \(PDF\)](#) [RoHS Certificate of Compliance \(PDF\)](#)

**Agency Certification**

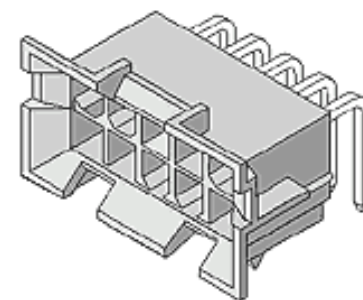
CSA LR19980  
 UL E29179

**General**

Product Family PCB Headers  
 Series [42404](#)  
 Application Board-to-Board, Wire-to-Board  
 Comments Current = 13A max. per circuit when header is mated to a receptacle loaded with [45750](#) Mini-Fit Plus HCS™ Crimp Terminal Crimped to to 16 AWG wire. . See Molex product specification PS-45750-001 for additional current de-rating information.  
 Product Name Mini-Fit BMI™

**Physical**

Breakaway No  
 Circuits (Loaded) 24  
 Circuits (maximum) 24  
 Color - Resin Natural (White)  
 Durability (mating cycles max) 30  
 Flammability 94V-0  
 Glow-Wire Compliant No  
 Guide to Mating Part Yes  
 Lock to Mating Part Yes  
 Material - Metal Brass  
 Material - Plating Mating Gold  
 Material - Plating Termination Gold  
 Material - Resin Nylon  
 Number of Rows 2  
 Orientation Right Angle  
 PC Tail Length (in) 0.130 In  
 PC Tail Length (mm) 3.30 mm  
 PCB Locator Yes  
 PCB Retention Yes  
 PCB Thickness Recommended (in) 0.070 In  
 PCB Thickness Recommended (mm) 1.80 mm  
 Packaging Type Tray  
 Pitch - Mating Interface (in) 0.165 In  
 Pitch - Mating Interface (mm) 4.20 mm  
 Plating min: Mating (µin) 30.4  
 Plating min: Mating (µm) 0.76  
 Plating min: Termination (µin) 30.4  
 Plating min: Termination (µm) 0.76  
 Polarized to Mating Part Yes  
 Polarized to PCB Yes



*image - Reference only*

Series

**EU RoHS**

**ELV and RoHS Compliant**  
**REACH SVHC**  
 Not Reviewed  
**Halogen-Free Status**

**China RoHS**



**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**

[42404Series](#)

**Mates With**

[15-06-0241](#) Mini-Fit BMI™ Panel Mount Receptacle, [39-01-2245](#) Mini-Fit Jr.™ Receptacle, [15-24-7243](#) Mini-Fit BMI™ Vertical Receptacle Header, [44516-0012](#) Mini-Fit BMI™ Slide-and-Lock Panel Mount Receptacle

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

#### **Electrical**

Current - Maximum per Contact	13A
Voltage - Maximum	600V

#### **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	240

#### **Material Info**

Old Part Number	A-42404-24B2
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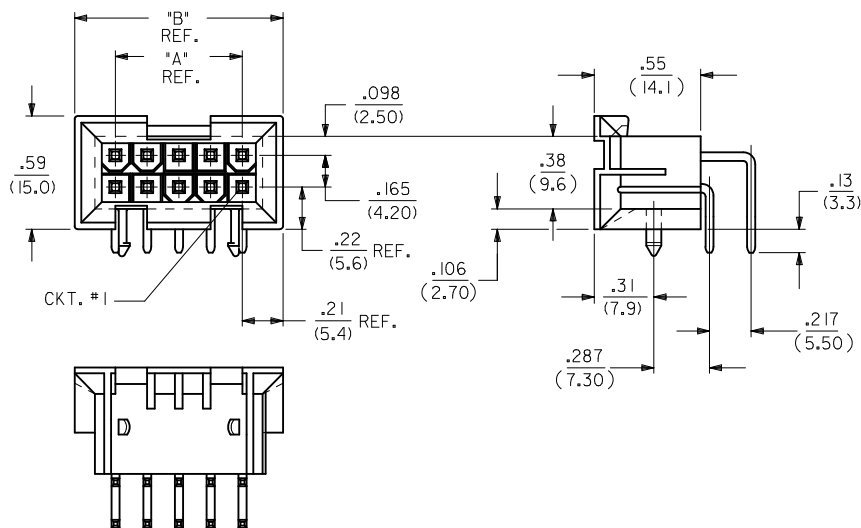
#### **Reference - Drawing Numbers**

Packaging Specification	PK-42404-002
Product Specification	PS-5556-002
Sales Drawing	SDA-42404-****
Test Summary	TS-5556-002

This document was generated on 05/11/2010

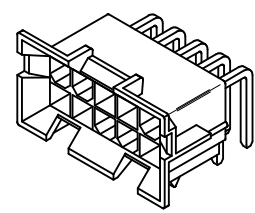
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CIRCUIT SIZE	DIM. "A"	DIM. "B"
6	.331 (8.40)	.76 (19.2)
8	.496 (12.60)	.92 (23.4)
10	.661 (16.80)	1.09 (27.6)
12	.827 (21.00)	1.25 (31.8)
14	.992 (25.20)	1.42 (36.0)
16	1.157 (29.40)	1.58 (40.2)
18	1.323 (33.60)	1.75 (44.4)
20	1.488 (37.80)	1.91 (48.6)
22	1.654 (42.00)	2.08 (52.8)
24	1.819 (46.20)	2.24 (57.0)

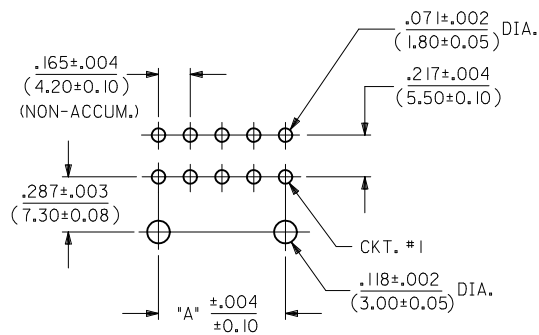


**NOTES:**

- MATERIAL: HOUSING: "A" = NYLON 6/6, U.L. 94V-2, COLOR: NATURAL. "B" = NYLON 6/6, U.L. 94V-0, COLOR: NATURAL. TERMINAL: BRASS ALLOY 260.
- TERMINAL PLATING:
  - .000100/(.00254) MIN. BRIGHT TIN OVER .000050/(.00127) MIN. NICKEL OVERALL.
  - .000030/(.00076) MIN. GOLD OVER .000050/(.00127) MIN. NICKEL OVERALL.
  - \*.000100/(.00254) MIN. MATTE TIN OVER .000050/(.00127) MIN. NICKEL OVERALL.
  - .000030/(.00076) MIN. GOLD AND .000100/(.00254) MIN. MATTE TIN OVER .000050/(.00127) MIN. NICKEL OVERALL.
- \*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 PLATING.
- PRODUCT SPECIFICATION AND PROCESSING PARAMETERS: SEE PS-5556-002
- PACKAGING SPECIFICATION: PK-42404-002.
- 4-24 CKT. PARTS MATE WITH MINI-FIT JR. RECEPTACLES #5557, #42385 AND #42474. 2 CKT. PART MATES WITH #42385 AND #42474 ONLY.
- PART ALLOWS FOR UP TO .100/(2.54) MISALIGNMENT WITH MATING RECEPTACLE IN ANY DIRECTION. SEE MATING CONNECTOR DRAWINGS FOR SPECIFIC ALLOWANCES.
- CONNECTOR ASSEMBLIES ARE NOT TO BE MATED OR UNMATED WHILE CIRCUITS ARE LIVE.
- A MAXIMUM TOLERANCE OF .050/(1.27) ALLOWS FOR 2 POINTS OF ELECTRICAL CONTACT. A MAXIMUM TOLERANCE OF .020/(.51) ALLOWS FOR 4 POINTS OF CONTACT.
- DISCOLORATION IN THE BANDOLIER CARRIER AREA OF THE PIN IS INHERENT TO THE PLATING PROCESS AND IS DUE TO THE MASKING EFFECT OF THE CARRIER. THIS DISCOLORATION IS IN A NON-FUNCTIONAL AREA OF THE PIN AND WILL NOT AFFECT THE PERFORMANCE OF THE HEADER ASSEMBLY.
- PART IS NOT DESIGNED FOR CURRENT SHARING.
- PART IS NOT INTENDED TO PROVIDE ANY ALIGNMENT OF CUSTOMER COMPONENTS OR MODULES, SUCH AS POWER SUPPLIES AND CHASSIS.
- PARTS CONFORM TO CLASS 'B' REQUIREMENTS OF COSMETIC SPECIFICATION PS-45499-002.\*

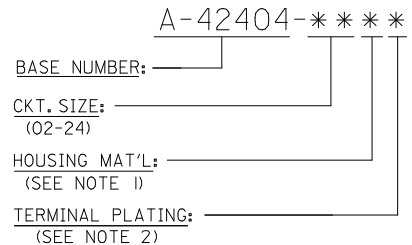


A-42404-\*\*\*\*



RECOMMENDED HOLE LAYOUT FOR .070/(1.78) MAX. THICK P.C. BOARD VIEWED FROM COMPONENT SIDE

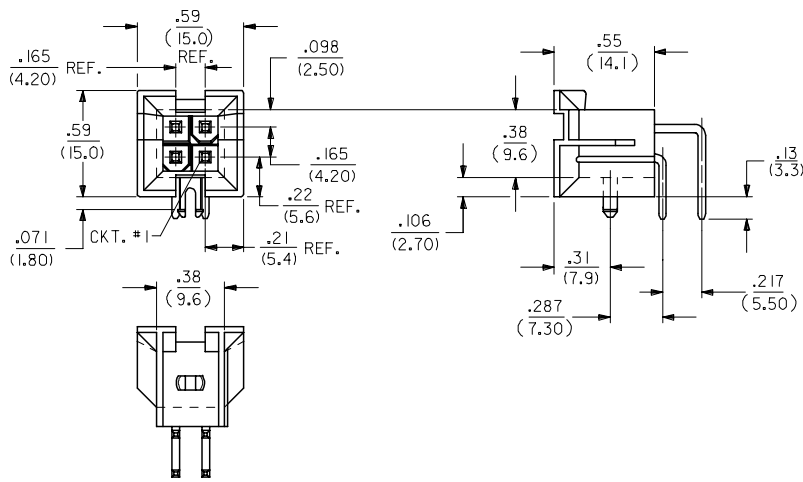
**LEGEND:**



CKT. SIZE	HOUSING MAT'L	TERMINAL MAT'L	PLATING
2-4	PHOS. BRZ.	GOLD	
2-4	PHOS. BRZ.	TIN	
2-4	BRASS	GOLD	
2-4	BRASS	TIN	
2-4	PHOS. BRZ.	GOLD	
2-4	PHOS. BRZ.	TIN	
2-4	BRASS	GOLD	
2-4	BRASS	TIN	

DESCRIPTION	REVISION
R.A. HEADER A-42404	R2
MATING CONNECTOR	
HSG. MAT'L, TERM. MAT'L, PLATING	
MATING CONNECTOR FEATURES	

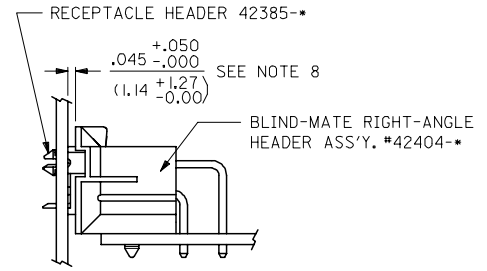
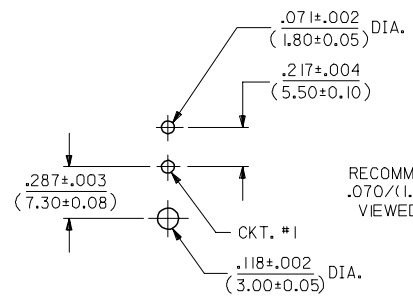
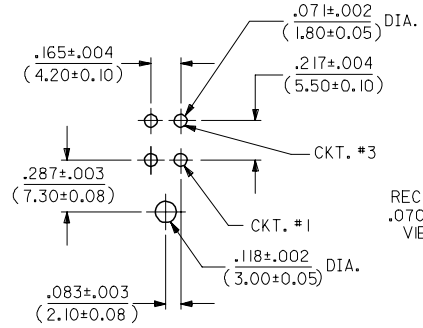
<b>REVISE NOTES</b> EC NO: UCP2010-0864 DRWNG: JAGUILAR 2010/01/18 CHKD: JEBEL 2010/01/06 APPR: FSMITH 2010/03/16 DESCRIPTION REV	<b>QUALITY SYMBOLS</b> ▽=0 ▽=0	<b>GENERAL TOLERANCES (UNLESS SPECIFIED)</b>		<b>DIMENSION STYLE</b> IN/MM	<b>SCALE</b> 1:1	<b>DESIGN UNITS</b> METRIC	THIRD ANGLE PROJECTION																	
		<table border="1"> <thead> <tr> <th></th> <th>mm</th> <th>INCH</th> </tr> </thead> <tbody> <tr> <td>4 PLACES ±</td> <td>---</td> <td>---</td> </tr> <tr> <td>3 PLACES ±</td> <td>---</td> <td>±.010</td> </tr> <tr> <td>2 PLACES ±</td> <td>0.25</td> <td>±.015</td> </tr> <tr> <td>1 PLACE ±</td> <td>0.38</td> <td>---</td> </tr> </tbody> </table>			mm	INCH	4 PLACES ±	---	---	3 PLACES ±	---	±.010	2 PLACES ±	0.25	±.015	1 PLACE ±	0.38	---	DRAWN BY: RWK DATE: 2/7/89 CHECKED BY: RWF DATE: 2/7/89 APPROVED BY: FSMITH DATE: 2010/03/16	TITLE: <b>MINI-FIT JR. 2-24 CKT          RIGHT ANGLE HEADER ASSY          (BLIND MATE)</b>	<b>MOLEX</b> <b>MOLEX INCORPORATED</b>	MATERIAL NO. <b>SEE SHTS 3&amp;4</b>	DOCUMENT NO. <b>SDA-42404-****</b>	SHEET NO. <b>1 OF 4</b>
			mm	INCH																				
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DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		ANGULAR ±1/2°		THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION																				
R2																								



A-42404-04\*\*



A-42404-02\*\*



SEE SHEET 1 FC NO: UCP2006-1780 DRW:ADRAINOL 2006/02/03 CHKD:GPOLGAR 2006/02/03 APPR:ICOMERCJ 2006/02/06 REV:	QUALITY SYMBOLS ▽=0 ▽=0	GENERAL TOLERANCES (UNLESS SPECIFIED) 4 PLACES ± --- ± --- 3 PLACES ± --- ± .01 2 PLACES ± 0.25 ± .015 1 PLACE ± 0.38 ± --- ANGULAR ±1/2°	DIMENSION STYLE IN/MM DRAWN BY DATE RWK 1989/02/07 CHECKED BY DATE RJF 1989/02/07 APPROVED BY DATE RAS 1989/02/07 MATERIAL NO. DOCUMENT NO.	SCALE 2:1 DESIGN UNITS METRIC THIRD ANGLE PROJECTION	TITLE MINI-FIT JR. 2-24 CKT RIGHT ANGLE HEADER ASSY (BLIND MATE)	SHEET NO. 2 OF 4
	DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		SEE SHTS 3&4 SDA-42404-****	MOLEX INCORPORATED		
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	MOLEX INCORPORATED					

J	I	H	G	F	E	D	C	B	A
PLATING (NOTE 5)	HOUSING MATERIAL	CKT. SIZE	ENG. NUMBER	PART NUMBER	PLATING (NOTE 5)	HOUSING MATERIAL	CKT. SIZE	ENG. NUMBER	PART NUMBER
MATTE TIN OVER NICKEL	94V-2	2	A-42404-02A3	NOT TOOLED	BRIGHT TIN OVER NICKEL	94V-2	2	A-42404-02A1	NOT TOOLED
		4	-04A3	NOT TOOLED			4	-04A1	I5-24-6040
		6	-06A3	NOT TOOLED			6	-06A1	I5-24-6060
		8	-08A3	NOT TOOLED			8	-08A1	NOT TOOLED
		10	-10A3	NOT TOOLED			10	-10A1	I5-24-6100
		12	-12A3	NOT TOOLED			12	-12A1	NOT TOOLED
		14	-14A3	NOT TOOLED			14	-14A1	I5-24-6140
		16	-16A3	NOT TOOLED			16	-16A1	NOT TOOLED
		18	-18A3	NOT TOOLED			18	-18A1	I5-24-6180
		20	-20A3	NOT TOOLED			20	-20A1	NOT TOOLED
		22	-22A3	NOT TOOLED			22	-22A1	NOT TOOLED
MATTE TIN OVER NICKEL	94V-2	24	A-42404-24A3	NOT TOOLED	BRIGHT TIN OVER NICKEL	94V-2	24	A-42404-24A1	I5-24-6240

F	E	D	C	B	A
PLATING (NOTE 5)	HOUSING MATERIAL	CKT. SIZE	ENG. NUMBER	PART NUMBER	PLATING (NOTE 5)
30 M.I. GOLD	94V-2	2	A-42404-02A2	NOT TOOLED	BRIGHT TIN OVER NICKEL
		4	-04A2	I5-24-9043	
		6	-06A2	I5-24-9063	
		8	-08A2	NOT TOOLED	
		10	-10A2	I5-24-9103	
		12	-12A2	NOT TOOLED	
		14	-14A2	I5-24-9143	
		16	-16A2	NOT TOOLED	
		18	-18A2	I5-24-9183	
		20	-20A2	NOT TOOLED	
		22	-22A2	NOT TOOLED	
30 M.I. GOLD	94V-2	24	A-42404-24A2	I5-24-9243	BRIGHT TIN OVER NICKEL
		2	A-42404-02B1	NOT TOOLED	BRIGHT TIN OVER NICKEL
		4	-04B1	I5-24-9044	
		6	-06B1	I5-24-9064	
		8	-08B1	NOT TOOLED	
		10	-10B1	I5-24-9104	
		12	-12B1	NOT TOOLED	
		14	-14B1	I5-24-9144	
		16	-16B1	I5-24-9164	
		18	-18B1	I5-24-9184	
		20	-20B1	NOT TOOLED	
		22	-22B1	NOT TOOLED	
BRIGHT TIN OVER NICKEL	94V-0	24	A-42404-24B1	I5-24-9244	BRIGHT TIN OVER NICKEL
30 M.I. GOLD	94V-0	2	A-42404-02B2	NOT TOOLED	30 M.I. GOLD
		4	-04B2	I5-24-9045	
		6	-06B2	I5-24-9065	
		8	-08B2	NOT TOOLED	
		10	-10B2	I5-24-9105	
		12	-12B2	NOT TOOLED	
		14	-14B2	I5-24-9145	
		16	-16B2	I5-24-9165	
		18	-18B2	I5-24-9185	
		20	-20B2	NOT TOOLED	
		22	-22B2	NOT TOOLED	
30 M.I. GOLD	94V-0	24	A-42404-24B2	I5-24-9245	30 M.I. GOLD

**REMOVE PLATE CODE**  
 EC NO: UCP2010-0864  
 DRWN: JAGUILAR 2010/01/18  
 CHKD: J.BELL 2010/01/06  
 APPR: FSMITH 2010/03/16

REVISIONS  
 R2

QUALITY SYMBOLS  
 ▽=0  
 ▽=0

GENERAL TOLERANCES (UNLESS SPECIFIED)

	mm	INCH
4 PLACES	± .005	± .0002
3 PLACES	± .005	± .0002
2 PLACES	± .005	± .0002
1 PLACE	± .005	± .0002

ANGULAR ±1/2°

DRAFT WHERE APPLICABLE  
 MUST REMAIN WITHIN DIMENSIONS

DIMENSION STYLE  
**IN/MM**

DRAWN BY DATE  
 RWK 1989/02/08

CHECKED BY DATE  
 RJF 1989/02/08

APPROVED BY DATE  
 FSMITH 2010/03/16

MATERIAL NO.  
**SEE CHARTS**

SIZE  
 C

SCALE  
 ---  
**METRIC**

DESIGN UNITS  
**METRIC**

THIRD ANGLE PROJECTION

TITLE  
**MINI-FIT JR. 2-24 CKT  
 RIGHT ANGLE HEADER ASSY  
 (BLIND MATE)**

**MOLEX INCORPORATED**

DOCUMENT NO.  
**SDA-42404-\*\*\*\***

SHEET NO.  
**3 OF 4**

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