

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

**Part Number:** [0015249143](#)  
**Status:** **Active**  
**Description:** 4.20mm (.165") Pitch Mini-Fit BMI™ Header, Dual Row, Right Angle, with Snap-in Plastic Peg PCB Lock, 14 Circuits, PA Polyamide Nylon 6/6, UL 94V-2, with 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) 14  
 Circuits (maximum) 14  
 Color - Resin Natural  
 Durability (mating cycles max) 30  
 Flammability 94V-2  
 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

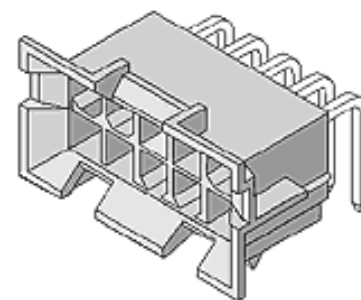


image - Reference only

Series

**EU RoHS**

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

**China RoHS**



**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**

[15-06-0140](#) Mini-Fit BMI™ Panel Mount Receptacle, [39-01-2140](#) Mini-Fit Jr.™ Receptacle, [15-24-7142](#) Mini-Fit BMI™ Vertical Receptacle Header

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-42404-14A2
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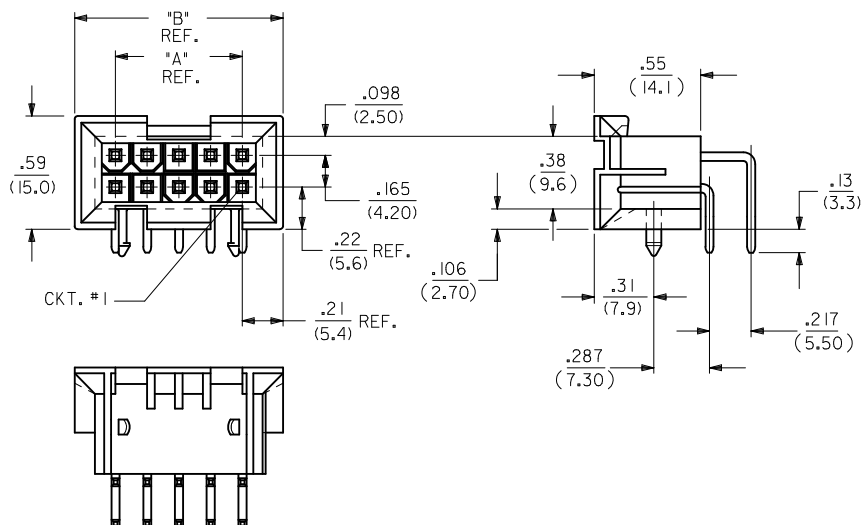
**Reference - Drawing Numbers**

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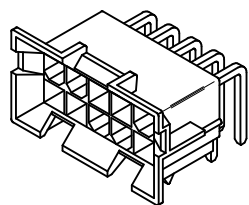
CIRCUIT SIZE	DIM. "A"	DIM. "B"
6	.331 (8.40)	.76 (19.2)
8	.496 (12.60)	.92 (23.4)
10	.661 (16.80)	1.09 (27.6)
12	.827 (21.00)	1.25 (31.8)
14	.992 (25.20)	1.42 (36.0)
16	1.157 (29.40)	1.58 (40.2)
18	1.323 (33.60)	1.75 (44.4)
20	1.488 (37.80)	1.91 (48.6)
22	1.654 (42.00)	2.08 (52.8)
24	1.819 (46.20)	2.24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



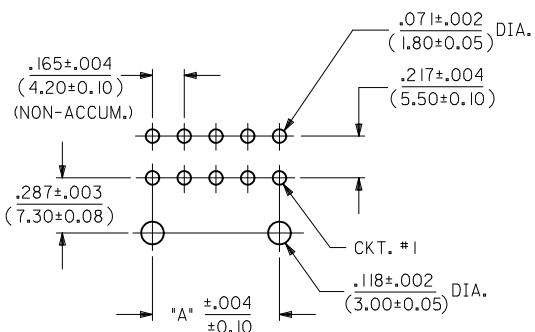
**NOTES:**

- 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.
  - \*3 = .000100/(.00254) MIN. MATTE TIN OVER .000050/(.00127) MIN. NICKEL OVERALL.
  - 5 = .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.\*

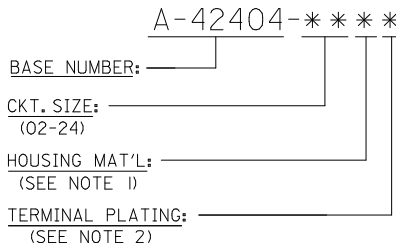


A-42404-\*\*\*\*



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

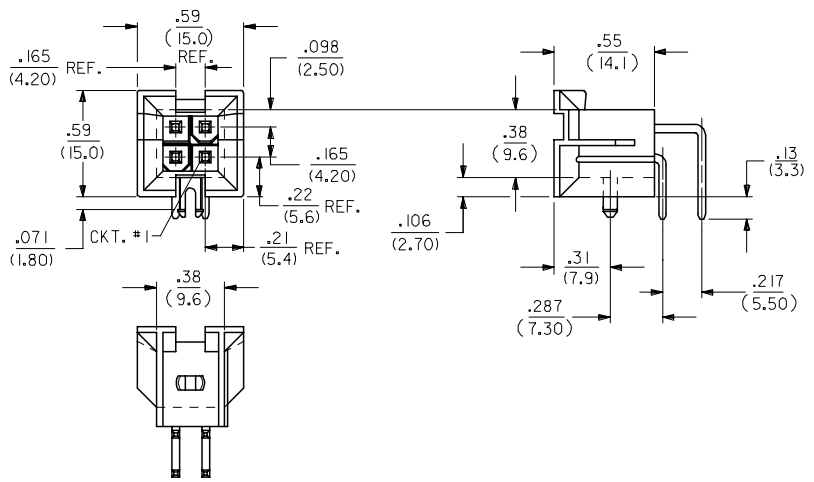
**LEGEND:**



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

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

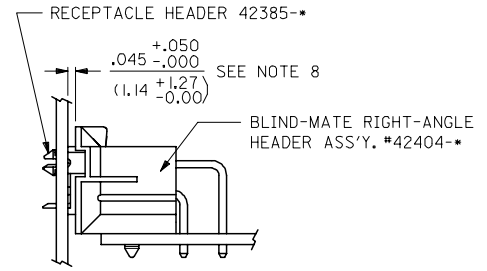
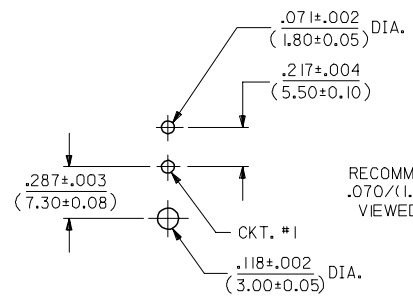
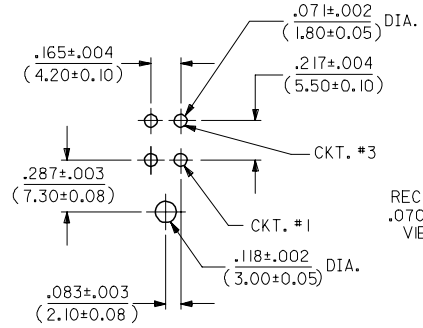
<b>REVISE NOTES</b> EC NO: UCP2010-0864 DRWNG: JAGUILAR 2010/01/18 CHKD: JEBEL 2010/01/06 APPR: FSMITH 2010/03/16 DESCRIPTION REV	<b>QUALITY SYMBOLS</b> ▽=0 ▽=0	<b>GENERAL TOLERANCES (UNLESS SPECIFIED)</b>		<b>DIMENSION STYLE</b> IN/MM		SCALE 1:1	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION		
		mm    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



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) mm INCH 4 PLACES ± .010 ± .004 3 PLACES ± .015 ± .006 2 PLACES ± 0.25 ± .015 1 PLACE ± 0.38 ± .015 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 MOLEX INCORPORATED	THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION	

**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**

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**

SIZE  
C THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION

PART NUMBER	ENG. NUMBER	CKT. SIZE	HOUSING MATERIAL	PLATING (NOTE 5)
NOT TOOLED	A-42404-02A1	2	94V-2	BRIGHT TIN OVER NICKEL
I5-24-6040	-04A1	4		
I5-24-6060	-06A1	6		
NOT TOOLED	-08A1	8		
I5-24-6100	-10A1	10		
NOT TOOLED	-12A1	12		
I5-24-6140	-14A1	14		
NOT TOOLED	-16A1	16		
I5-24-6180	-18A1	18		
NOT TOOLED	-20A1	20		
NOT TOOLED	-22A1	22		
I5-24-6240	A-42404-24A1	24	94V-2	BRIGHT TIN OVER NICKEL
NOT TOOLED	A-42404-02A2	2	94V-2	30 M.I. GOLD
I5-24-9043	-04A2	4		
I5-24-9063	-06A2	6		
NOT TOOLED	-08A2	8		
I5-24-9103	-10A2	10		
NOT TOOLED	-12A2	12		
I5-24-9143	-14A2	14		
NOT TOOLED	-16A2	16		
I5-24-9183	-18A2	18		
NOT TOOLED	-20A2	20		
NOT TOOLED	-22A2	22		
I5-24-9243	A-42404-24A2	24	94V-2	30 M.I. GOLD
NOT TOOLED	A-42404-02B1	2	94V-0	BRIGHT TIN OVER NICKEL
I5-24-9044	-04B1	4		
I5-24-9064	-06B1	6		
NOT TOOLED	-08B1	8		
I5-24-9104	-10B1	10		
NOT TOOLED	-12B1	12		
I5-24-9144	-14B1	14		
I5-24-9164	-16B1	16		
I5-24-9184	-18B1	18		
NOT TOOLED	-20B1	20		
NOT TOOLED	-22B1	22		
I5-24-9244	A-42404-24B1	24	94V-0	BRIGHT TIN OVER NICKEL
NOT TOOLED	A-42404-02B2	2	94V-0	30 M.I. GOLD
I5-24-9045	-04B2	4		
I5-24-9065	-06B2	6		
NOT TOOLED	-08B2	8		
I5-24-9105	-10B2	10		
NOT TOOLED	-12B2	12		
I5-24-9145	-14B2	14		
I5-24-9165	-16B2	16		
I5-24-9185	-18B2	18		
NOT TOOLED	-20B2	20		
NOT TOOLED	-22B2	22		
I5-24-9245	A-42404-24B2	24	94V-0	30 M.I. GOLD

PART NUMBER	ENG. NUMBER	CKT. SIZE	HOUSING MATERIAL	PLATING (NOTE 5)
NOT TOOLED	A-42404-02A3	2	94V-2	MATTE TIN OVER NICKEL
NOT TOOLED	-04A3	4		
NOT TOOLED	-06A3	6		
NOT TOOLED	-08A3	8		
NOT TOOLED	-10A3	10		
NOT TOOLED	-12A3	12		
NOT TOOLED	-14A3	14		
NOT TOOLED	-16A3	16		
NOT TOOLED	-18A3	18		
NOT TOOLED	-20A3	20		
NOT TOOLED	-22A3	22		
NOT TOOLED	A-42404-24A3	24	94V-2	MATTE TIN OVER NICKEL