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**Part Number:** [0444742431](#)  
**Status:** **Active**  
**Description:** 4.20mm (.165") Pitch Mini-Fit HCS™ Header, Dual Row, Vertical, Blind Mating, with Snap-in Plastic Peg PCB Lock, 24 Circuits, PA Polyamide Nylon 6/6 94V-2, with Drain Holes

**Documents:**

[3D Model](#) [Product Specification PS-44476-001 \(PDF\)](#)  
[Drawing \(PDF\)](#) [RoHS Certificate of Compliance \(PDF\)](#)

**Agency Certification**

CSA LR19980  
 UL E29179

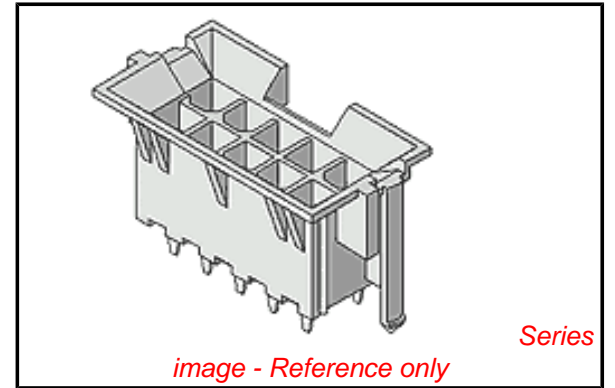
**General**

Product Family PCB Headers  
 Series [44474](#)  
 Application Board-to-Board, Wire-to-Board  
 Comments Square Pin|Solder Type  
 Product Name Mini-Fit HCS™

**Physical**

Breakaway No  
 Circuits (Loaded) 24  
 Circuits (maximum) 24  
 Color - Resin Natural  
 Durability (mating cycles max) 30  
 Flammability 94V-2  
 Glow-Wire Compliant No  
 Material - Metal High Performance Alloy (HPA)  
 Material - Plating Mating Tin  
 Material - Plating Termination Tin  
 Material - Resin Nylon  
 Number of Rows 2  
 Orientation Vertical  
 PC Tail Length (in) 0.138 In  
 PC Tail Length (mm) 3.50 mm  
 PCB Locator Yes  
 PCB Retention Yes  
 PCB Thickness Recommended (in) 0.070 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) 100  
 Plating min: Mating (µm) 2.50  
 Plating min: Termination (µin) 100  
 Plating min: Termination (µm) 2.50  
 Polarized to PCB Yes  
 Shrouded Fully  
 Stackable No  
 Surface Mount Compatible (SMC) No  
 Temperature Range - Operating -40°C to +105°C  
 Termination Interface: Style Through Hole

**Electrical**



**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**

[44474Series](#)

**Mates With**

[42474](#) , [44475](#) , [44516](#) , [5557d](#)

Current - Maximum per Contact	11A
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	260

### **Material Info**

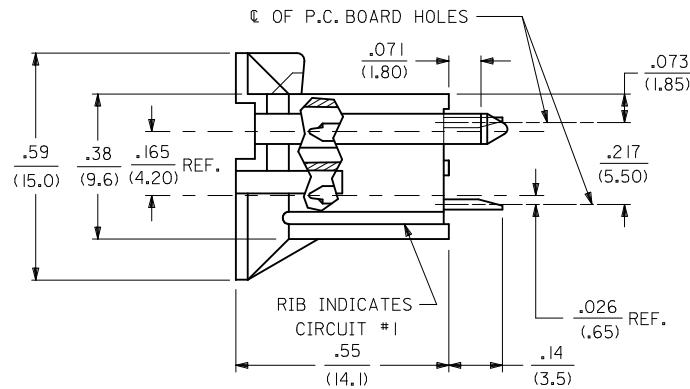
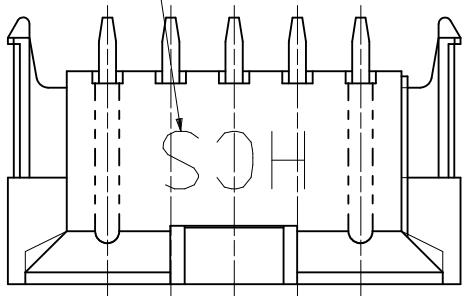
### **Reference - Drawing Numbers**

Product Specification	PS-44476-001, RPS-44476-001
Sales Drawing	SDA-44474-****

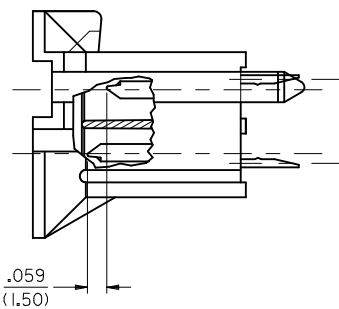
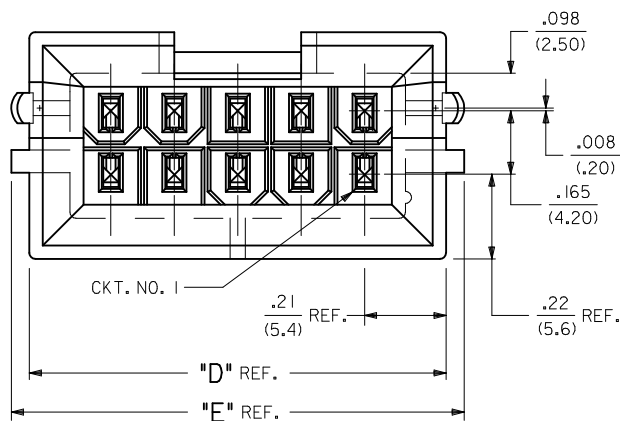
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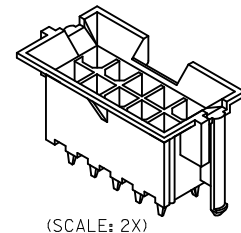
SEE NOTE 14



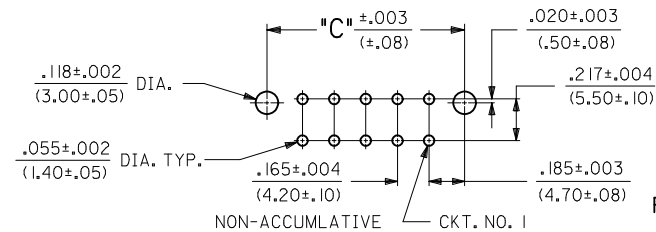
CIRCUIT SIZE	DIM. "A"	DIM. "B"	DIM. "C"	DIM. "D"	DIM. "E"
2	—	.21 (5.4)	.370 (9.40)	.425 (10.80)	.520 (13.20)
4	.17 (4.2)	.38 (9.6)	.535 (13.60)	.590 (15.00)	.685 (17.40)
6	.33 (8.4)	.54 (13.8)	.701 (17.80)	.756 (19.20)	.850 (21.60)
8	.50 (12.6)	.71 (18.0)	.866 (22.00)	.921 (23.40)	1.016 (25.80)
10	.66 (16.8)	.87 (22.2)	1.031 (26.20)	1.087 (27.60)	1.181 (30.00)
12	.83 (21.0)	1.04 (26.4)	1.197 (30.40)	1.252 (31.80)	1.346 (34.20)
14	.99 (25.2)	1.20 (30.6)	1.362 (34.60)	1.417 (36.00)	1.512 (38.40)
16	1.16 (29.4)	1.37 (34.8)	1.528 (38.80)	1.583 (40.20)	1.677 (42.60)
18	1.32 (33.6)	1.54 (39.0)	1.693 (43.00)	1.748 (44.40)	1.843 (46.80)
20	1.49 (37.8)	1.70 (42.2)	1.858 (47.20)	1.913 (48.60)	2.008 (51.00)
22	1.65 (42.0)	1.87 (47.4)	2.024 (51.40)	2.079 (52.80)	2.173 (55.20)
24	1.82 (46.2)	2.03 (51.6)	2.189 (55.60)	2.244 (57.00)	2.339 (59.40)



MATE-FIRST/BREAK-LAST DETAIL  
(SEE NOTE 12)

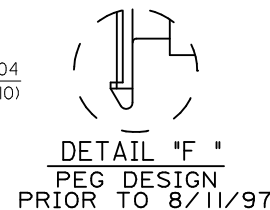


(SCALE: 2X)

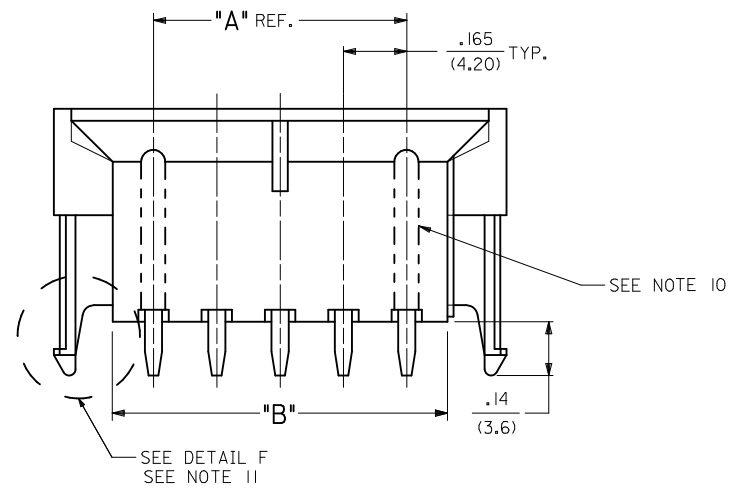


RECOMMENDED HOLE LAYOUT FOR .070/(1.78) MAX. THICK P.C. BOARD

(SEE NOTE 5)  
(SCALE: 2X)



6	G
5	G
4	G1
3	G
2	D1
1	G1



SEE DETAIL F  
SEE NOTE 11

SEE NOTE 10

<b>MODIFIED SHT 4</b> EC NO: UCP2010-0472 DRWN: JAGUILAR 2009/11/11 CHKD: J BELL 2009/12/01 APPR: FSMITH 2009/12/01 G1	QUALITY SYMBOLS ▽=0 ▽=0	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE IN/MM		SCALE 1:1	DESIGN UNITS INCH	THIRD ANGLE PROJECTION	
		4 PLACES ± --- ± --- 3 PLACES ± --- ± .010 2 PLACES ± 0.25 ± .015 1 PLACE ± 0.38 ± --- ANGULAR ± 1/2°	mm INCH DRAWN BY DATE CHECKED BY DATE APPROVED BY DATE R/JF	TITLE VERTICAL HEADER ASSEMBLY MINI-FIT HCS SERIES		MATERIAL NO. SEE CHARTS		DOCUMENT NO. SDA-44474-****	
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							

**NOTES:**

- 1) HOUSING MAT'L. & OPTIONS:  
 1 = NYLON 6/6, U.L. 94V-2, COLOR: NATURAL, WITHOUT DRAIN HOLES.  
 2 = NYLON 6/6, U.L. 94V-0, COLOR: NATURAL, WITHOUT DRAIN HOLES.  
 3 = NYLON 6/6, U.L. 94V-2, COLOR: NATURAL, WITH DRAIN HOLES.  
 4 = NYLON 6/6, U.L. 94V-0, COLOR: NATURAL, WITH DRAIN HOLES.
- 2) TERMINAL MAT'L.: C197 ALLOY.
- 3) 6-24 CKT. PARTS MATE WITH MINI-FIT JR. RECEPT.\*5557, H.C.S. VERT. HEADER #44475 AND B.M.I. HEADER #42474. 2 & 4 CKT. PARTS MATE WITH HEADERS ONLY.
- 4) PART ALLOWS FOR UP TO .100/(2.54) MISALIGNMENT WITH MATING RECEPTACLE IN ANY DIRECTION. SEE MATING CONNECTOR DRAWINGS FOR SPECIFIC ALLOWANCES.
- 5) PART IS DESIGNED IN METRIC.
- 6) TERMINAL PLATING:  
 \*1 = POSTPLATE .000100/(.00254) MIN. BRIGHT TIN OVER .000050/(.00127) MIN. NICKEL.  
 2 = POSTPLATE .000100/(.00254) MIN. BRIGHT TIN OVER .000050/(.00127) MIN. NICKEL.  
 \*THE PRIMARY SHIPPING CARTON WILL BE LABELED \*COMPLIANT TO ROHS DIRECTIVE 2002/95/EC AND ELV ANNEX II OF DIRECTIVE 2002/53/EC\*. CARTONS WITHOUT THIS LABEL MAY CONTAIN PRODUCT WITH TIN-LEAD PLATING.
- 7) PRODUCT SPECIFICATION AND PROCESSING PARAMETERS: SEE PS-44476-001.
- 8) CONNECTOR ASSEMBLIES ARE NOT TO BE MATED OR UNMATED WHILE CIRCUITS ARE LIVE.
- 9) ITEM NUMBERS PRECEDED BY AN "X" IN THE CHARTS ON THE FOLLOWING SHEETS ARE NOT AVAILABLE.
- 10) OPTIONAL RIBS MAY BE FOUND ON PARTS MANUFACTURED AFTER 08/11/97.
- 11) PARTS MANUFACTURED AFTER 8/15/97 MAY HAVE REVISED LOCK PEG.
- 12) CIRCUITS SHOWN PROVIDE CUSTOM MATE-FIRST/BREAK-LAST FEATURE. SEE CHART ON SHEET SIX FOR ASSEMBLIES WITH ADDITIONAL CUSTOM OPTIONS.
- 13) PACKAGING:  
 1 = TRAY PER PK-42440-001.  
 2 = TUBE PER PK-40873-015L.
- 14) PARTS PRODUCED AFTER JULY 1, 2004 WILL HAVE "HCS" MARKING INSTEAD OF BLACK STRIPE.

SEE SHEET 1 EC NO: UCP2005-1986 DRAWN: JSCHAFFER 2005/03/17 CHKD: 2005/03/21 APPR: YMARGULLI 2005/03/22	QUALITY SYMBOLS 	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE IN/MM		SCALE 1:1	DESIGN UNITS INCH	THIRD ANGLE PROJECTION		
						DRAWN BY GEP	DATE	TITLE VERTICAL HEADER ASSEMBLY MINI-FIT HCS SERIES		
						CHECKED BY RJF	DATE	MATERIAL NO.		
						APPROVED BY RJF	DATE	DOCUMENT NO.		
		ANGULAR ±1/2°		DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		SEE CHART		SDA-44474-****		
				SIZE C		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	PLATING:	I (SEE NOTE 6)	PLATING:	I (SEE NOTE 6)	PLATING:	I (SEE NOTE 6)	PLATING:	I (SEE NOTE 6)	PLATING:	I (SEE NOTE 6)	PLATING:	I (SEE NOTE 6)			
	DRAINS:	WITHOUT DRAIN HOLES	DRAINS:	WITHOUT DRAIN HOLES	DRAINS:	WITH DRAIN HOLES	DRAINS:	WITH DRAIN HOLES	DRAINS:	WITHOUT DRAIN HOLES	DRAINS:	WITHOUT DRAIN HOLES			
	PEGS:	WITH PEGS	PEGS:	WITH PEGS	PEGS:	WITH PEGS	PEGS:	WITH PEGS	PEGS:	WITH PEGS	PEGS:	WITH PEGS			
	MAT'L:	94V-2 [NATURAL]	MAT'L:	94V-0 [NATURAL]	MAT'L:	94V-2 [NATURAL]	MAT'L:	94V-0 [NATURAL]	MAT'L:	94V-2 [NATURAL]	MAT'L:	94V-0 [NATURAL]			
	PACKAGING:	TRAY (SEE NOTE I3)	PACKAGING:	TRAY (SEE NOTE I3)	PACKAGING:	TRAY (SEE NOTE I3)	PACKAGING:	TRAY (SEE NOTE I3)	PACKAGING:	TUBE (SEE NOTE I3)	PACKAGING:	TUBE (SEE NOTE I3)			
I		ITEM NO.	CKTS	ITEM NO.	CKTS	ITEM NO.	CKTS	ITEM NO.	CKTS	ITEM NO.	CKTS	ITEM NO.	CKTS		
	X	44474-0211	2	X	44474-0221	2	X	44474-0231	2	X	-	2	X	-	2
		44474-0411	4		44474-0421	4		44474-0431	4		44474-3001	4		44474-3013	4
		44474-0611	6	X	44474-0621	6	O	44474-0631	6	X	-	6	X	-	6
	X	44474-0811	8	X	44474-0821	8	X	44474-0831	8	X	-	8	X	-	8
		44474-1011	10		44474-1021	10		44474-1031	10		44474-3004	10		44474-3016	10
	X	44474-1211	12	X	44474-1221	12	X	44474-1231	12	X	-	12	X	-	12
		44474-1411	14		44474-1421	14		44474-1431	14		44474-3006	14		44474-3018	14
	X	44474-1611	16	X	44474-1621	16	X	44474-1631	16	X	-	16	X	-	16
H		44474-1811	18		44474-1821	18		44474-1831	18		44474-3008	18		44474-3020	18
	X	44474-2011	20	X	44474-2021	20	X	44474-2031	20	X	-	20	X	-	20
	X	44474-2211	22	X	44474-2221	22	X	44474-2231	22	X	-	22	X	-	22
		44474-2411	24		44474-2421	24		44474-2431	24		44474-3011	24		44474-3023	24

G	PLATING:	I (SEE NOTE 6)	PLATING:	I (SEE NOTE 6)	PLATING:		PLATING:		PLATING:		PLATING:		
	DRAINS:	WITH DRAIN HOLES	DRAINS:	WITH DRAIN HOLES	DRAINS:		DRAINS:		DRAINS:		DRAINS:		
	PEGS:	WITH PEGS	PEGS:	WITH PEGS	PEGS:		PEGS:		PEGS:		PEGS:		
	MAT'L:	94V-2 [NATURAL]	MAT'L:	94V-0 [NATURAL]	MAT'L:		MAT'L:		MAT'L:		MAT'L:		
	PACKAGING:	TUBE (SEE NOTE I3)	PACKAGING:	TUBE (SEE NOTE I3)	PACKAGING:		PACKAGING:		PACKAGING:		PACKAGING:		
F		ITEM NO.	CKTS	ITEM NO.	CKTS	ITEM NO.	CKTS	ITEM NO.	CKTS	ITEM NO.	CKTS	ITEM NO.	CKTS
	X	-	2	X	-	2	2	-	2	-	2	-	2
		44474-3025	4		44474-3037	4			4				4
	X	-	6	X	-	6	6	-	6	-	6	-	6
	X	-	8	X	-	8	8	-	8	-	8	-	8
		44474-3028	10		44474-3040	10			10				10
	X	-	12	X	-	12	12	-	12	-	12	-	12
		44474-3030	14		44474-3042	14			14				14
	X	-	16	X	-	16	16	-	16	-	16	-	16
E		44474-3032	18		44474-3044	18			18				18
	X	-	20	X	-	20	20	-	20	-	20	-	20
	X	-	22	X	-	22	22	-	22	-	22	-	22
		44474-3035	24		44474-3047	24			24				24

\* ITEMS PRECEDED BY "X" ARE NOT AVAILABLE  
 ITEMS ON THIS PAGE ARE STANDARD PRODUCT. REFER TO  
 SHEET SIX FOR PRODUCT WITH CUSTOM OPTIONS.  
 "O" = OBSOLETE

<b>MODIFIED CHART</b> EC NO: UCP2010-0472 DRWN: JAGUILAR 2009/11/11 CHKD: J.BELL 2009/12/01 APPR: F.SMITH 2009/12/01 REV: G1	QUALITY SYMBOLS ▽=0 ▽=0	GENERAL TOLERANCES (UNLESS SPECIFIED) <table border="1"> <tr> <th></th> <th>mm</th> <th>INCH</th> </tr> <tr> <td>4 PLACES</td> <td>± .---</td> <td>± .---</td> </tr> <tr> <td>3 PLACES</td> <td>± .---</td> <td>± .---</td> </tr> <tr> <td>2 PLACES</td> <td>± .---</td> <td>± .---</td> </tr> <tr> <td>1 PLACE</td> <td>± .---</td> <td>± .---</td> </tr> </table>		mm	INCH	4 PLACES	± .---	± .---	3 PLACES	± .---	± .---	2 PLACES	± .---	± .---	1 PLACE	± .---	± .---	DIMENSION STYLE <b>IN/MM</b> DRAWN BY: ERH DATE: _____ CHECKED BY: MB DATE: _____ APPROVED BY: RE DATE: _____	SCALE: 1:1 DESIGN UNITS: INCH THIRD ANGLE PROJECTION	TITLE: VERTICAL HEADER ASSEMBLY MINI-FIT HCE SERIES
		mm	INCH																	
	4 PLACES	± .---	± .---																	
	3 PLACES	± .---	± .---																	
2 PLACES	± .---	± .---																		
1 PLACE	± .---	± .---																		
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		MATERIAL NO. SEE CHART SIZE: C	MOLEX INCORPORATED DOCUMENT NO. SDA-44474-**** SHEET NO. 4 OF 6	THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION																