

PLEASE CHECK WWW.MOLEX.COM FOR LATEST PART INFORMATION

Part Number: [0022053021](#)
Status: **Active**
Description: 2.54mm (.100") Pitch KK® Solid Header, Right Angle, with Friction Lock, 2 Circuits, Tin (Sn) Plating

Documents:

[3D Model](#) [Product Specification PS-10-07 \(PDF\)](#)
[Drawing \(PDF\)](#) [RoHS Certificate of Compliance \(PDF\)](#)

Agency Certification

CSA LR19980
 UL E29179

General

Product Family PCB Headers
 Series [7478](#)
 Application Wire-to-Board
 Product Name KK®

Physical

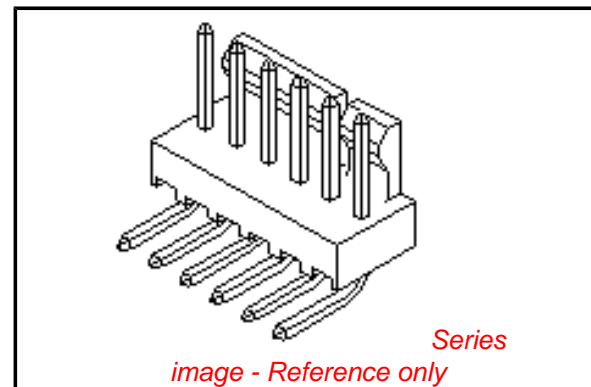
Breakaway No
 Circuits (Loaded) 2
 Circuits (maximum) 2
 Color - Resin Natural (White)
 Durability (mating cycles max) 25
 Flammability 94V-0
 Glow-Wire Compliant No
 Lock to Mating Part Yes
 Material - Metal Brass
 Material - Plating Mating Tin
 Material - Resin Nylon
 Number of Rows 1
 Orientation Right Angle
 PC Tail Length (in) 0.141 In
 PC Tail Length (mm) 3.58 mm
 PCB Locator No
 PCB Retention None
 PCB Thickness Recommended (in) 0.062 In
 PCB Thickness Recommended (mm) 1.60 mm
 Packaging Type Bag
 Pitch - Mating Interface (in) 0.100 In
 Pitch - Mating Interface (mm) 2.54 mm
 Polarized to Mating Part Yes
 Polarized to PCB Yes
 Shrouded Partial
 Stackable Yes
 Temperature Range - Operating 0°C to +75°C
 Termination Interface: Style Through Hole

Electrical

Current - Maximum per Contact 4A
 Voltage - Maximum 250V

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



EU RoHS

ELV and RoHS Compliant
REACH SVHC Contains SVHC: No
Halogen-Free Status

China RoHS



Need more information on product environmental compliance?

Email 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

[7478Series](#)

Mates With

[2695](#) , [6471](#) , [7880](#) , [4455](#) , [7720](#)

Process Temperature max. C

235

Material Info

Old Part Number

A-7478-02A102

Reference - Drawing Numbers

Packaging Specification

PK-7478-001

Product Specification

PS-10-07, RPS-7478-001

Sales Drawing

SDA-7478

This document was generated on 05/10/2010

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	13	12	11	10	9	8	7	6	5	4	3	2	1
J	28	(71.12 / 70.61) 2.800 / 2.780	(68.58 ± 0.25) 2.700 ± .010	4 , 5 24 , 25									
	27	(68.58 / 68.07) 2.700 / 2.680	(66.04 ± 0.25) 2.600 ± .010	4 , 5 24 , 25									
	26	(66.04 / 65.53) 2.600 / 2.580	(63.50 ± 0.25) 2.500 ± .010	4 , 5 20 , 21									
I	25	(63.50 / 62.99) 2.500 / 2.480	(60.96 ± 0.25) 2.400 ± .010	4 , 5 20 , 21									
	24	(60.96 / 60.45) 2.400 / 2.380	(58.42 ± 0.25) 2.300 ± .010	4 , 5 20 , 21									
	23	(58.42 / 57.96) 2.300 / 2.282	(55.88 ± 0.23) 2.200 ± .009	4 , 5 20 , 21									
	22	(55.88 / 55.42) 2.200 / 2.182	(53.34 ± 0.23) 2.100 ± .009	4 , 5 16 , 17									
H	21	(53.34 / 52.88) 2.100 / 2.082	(50.80 ± 0.23) 2.000 ± .009	4 , 5 16 , 17									
	20	(50.80 / 50.34) 2.000 / 1.982	(48.26 ± 0.23) 1.900 ± .009	4 , 5 16 , 17									
	19	(48.26 / 47.80) 1.900 / 1.882	(45.72 ± 0.23) 1.800 ± .009	4 , 5 16 , 17									
G	18	(45.72 / 45.31) 1.800 / 1.784	(43.18 ± 0.20) 1.700 ± .008	4 , 5 12 , 13									
	17	(43.18 / 42.77) 1.700 / 1.684	(40.64 ± 0.20) 1.600 ± .008	4 , 5 12 , 13									
	16	(40.64 / 40.23) 1.600 / 1.584	(38.10 ± 0.20) 1.500 ± .008	4 , 5 12 , 13									
F	15	(38.10 / 37.69) 1.500 / 1.484	(35.56 ± 0.20) 1.400 ± .008	4 , 5 12 , 13									
	14	(35.56 / 35.20) 1.400 / 1.386	(33.02 ± 0.18) 1.300 ± .007	4 , 5 8 , 9									
	13	(33.02 / 32.66) 1.300 / 1.286	(30.48 ± 0.18) 1.200 ± .007	4 , 5 8 , 9									
E	12	(30.48 / 30.12) 1.200 / 1.186	(27.94 ± 0.18) 1.100 ± .007	4 , 5 8 , 9									
	11	(27.94 / 27.58) 1.100 / 1.086	(25.40 ± 0.18) 1.000 ± .007	4 , 5 8 , 9									
	10	(25.40 / 25.04) 1.000 / .986	(22.86 ± 0.15) .900 ± .006	4 , 5									
	9	(22.86 / 22.50) .900 / .886	(20.32 ± 0.15) .800 ± .006	4 , 5									
D	8	(20.32 / 19.96) .800 / .786	(17.78 ± 0.15) .700 ± .006	4 , 5									
	7	(17.78 / 17.42) .700 / .686	(15.24 ± 0.13) .600 ± .005	4 , 5									
	6	(15.24 / 14.88) .600 / .586	(12.70 ± 0.13) .500 ± .005	4 , 5									
C	5	(12.70 / 12.40) .500 / .488	(10.16 ± 0.13) .400 ± .005	NONE									
	4	(10.16 / 9.86) .400 / .388	(7.62 ± 0.13) .300 ± .005	NONE									
	3	(7.62 / 7.32) .300 / .288	(5.08 ± 0.10) .200 ± .004	NONE									
B	2	(5.08 / 4.78) .200 / .188	(2.54 ± 0.05) .100 ± .002	NONE									

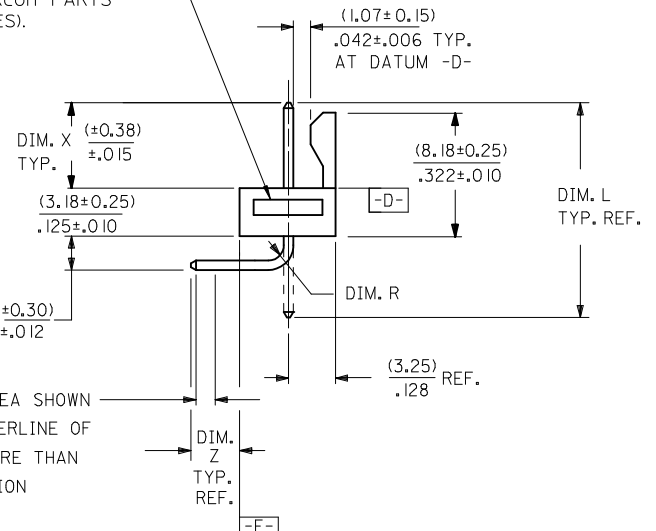


CTKT. #1, REF SEE NOTE 7

SLOTS LOCATED BETWEEN CIRCUITS (SEE CHART)

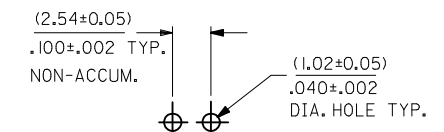
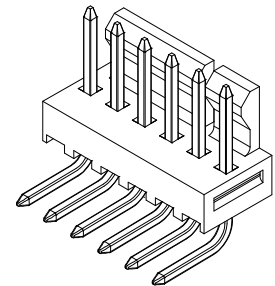
CENTERLINE OF PIN IN AREA SHOWN NOT TO VARY FROM CENTERLINE OF PIN AT DATUM -D- BY MORE THAN (0.20)/.008 IN ANY DIRECTION

GROOVE MAY BE PRESENT ON 2-6 CIRCUIT PARTS (BOTH SIDES).



CENTERLINE OF PIN IN AREA SHOWN NOT TO VARY FROM CENTERLINE OF PIN AT DATUM -E- BY MORE THAN (0.13)/.005 IN ANY DIRECTION

SECONDARY OPERATIONS	
CODE	PACKAGE
BLANK	BULK PK-7478-001
T	TUBE PER PK-44743-001



RECOMMENDED P.C. BOARD HOLE LAYOUT

NOTES:

- MATERIAL: NYLON, UL94V-0, COLOR: WHITE
- FINISH:
 - (102) - OVERALL TIN: (0.00508)/.000200 MIN., OVERALL COPPER UNDERPLATE: (0.00254)/.000100 MIN.
 - (154) - OVERALL TIN: (0.00254)/.000100 MIN., OVERALL NICKEL UNDERPLATE: (0.00127)/.000050 MIN.
 - (501) - OVERALL GOLD: (0.00051)/.000020 MIN., OVERALL NICKEL UNDERPLATE: (0.00076)/.000030 MIN.
 - (503) - OVERALL GOLD: (0.00076)/.000030 MIN., OVERALL NICKEL UNDERPLATE: (0.00127)/.000050 MIN.
 - (531) - OVERALL GOLD: (0.00038)/.000015 MIN., OVERALL NICKEL UNDERPLATE: (0.00076)/.000030 MIN.
- PARTS CONFORM TO PRODUCT SPECIFICATION PS-10-07.
- PACKAGING INFORMATION: SEE LEGEND.
- PARTS ARE STACKABLE END TO END ON (2.54)/.100 CENTERS.
- PIN PUSH OUT FORCE: 2 LBS. MIN.
- CIRCUIT ONE DESIGNATION IS USED TO DEFINE VOID LOCATION. CIRCUIT ONE MAY OR MAY NOT LINE UP WITH CIRCUIT ONE ON THE MATING HOUSING.
- THIS PART CONFORMS TO CLASS B REQUIREMENTS OF COSMETIC SPECIFICATION PS-45499-002.

A-7478-N***
NO. OF CKTS.
VERSION LETTER CHANGES WHEN PIN NO. OR PRESS DIM. CHANGES

PLATING SEE NOTE 2

7	Y4
6	W1
5	Y8
4	Y7
3	Y9
2	Y9
1	Z
SHT	REV

ADD GROOVE	EC NO: UCP2009-0785	2008/12/29
DRWN:MKIPPER	2009/01/30	
CHKD:SSOUSEK	2009/01/30	
APPR:FSMITH	2009/01/30	
REV	DESCRIPTION	QUALITY SYMBOLS
Z		▽=0
		▽=0

GENERAL TOLERANCES (UNLESS SPECIFIED)	
	mm
	INCH
4 PLACES	± --- ± ---
3 PLACES	± --- ± .010
2 PLACES	± 0.25 ± .015
1 PLACE	± 0.38 ± ---
ANGULAR ± 1/2°	
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS	

DIMENSION STYLE	
MM/IN	
DRAWN BY	DATE
GUZIC	1987/07/30
CHECKED BY	DATE
PATEL	1987/07/30
APPROVED BY	DATE
LENZ	1987/07/30
MATERIAL NO.	SEE CHART
SIZE	C

SCALE	DESIGN UNITS	THIRD ANGLE PROJECTION
4:1	INCH	
FRICITION LOCK HEADER ASY .100 CL BENT SQ PINS 7478 SERIES DWG		
MOLEX INCORPORATED		
DOCUMENT NO.	SHEET NO.	
SDA-7478	1 OF 7	
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	ENG. NO.	PIN NO.	DIM. L	DIM. X	DIM. Z	DIM. Y	DIM. W	DIM. R	ENG. NO.	PIN NO.	DIM. L	DIM. X	DIM. Z	DIM. Y	DIM. W	DIM. T	J
	A-7478-NA102	2766-41(I102)	(18.69) .736	(6.60) .260	(3.58) .141	(3.05) .120	90°	(1.17) .046									
	A-7478-NA50I	2766-41(I50I)	(18.69) .736	(6.60) .260	(3.58) .141	(3.05) .120	90°	(1.17) .046									
I	A-7478-NA50IT	2766-41(I50IT)	(18.69) .736	(6.60) .260	(3.58) .141	(3.05) .120	90°	(1.17) .046									I
	A-7478-NA102T	2766-41(I102T)	(18.69) .736	(6.60) .260	(3.58) .141	(3.05) .120	90°	(1.17) .046									
H																	H
G																	G
F																	F
E																	E
D																	D
C																	C

ADD A-7478-NA102T EC NO: UCP2006-1815 DRW:ADERR 2006/02/06 CHKD:AEI/HAG 2006/02/06 APPR:FSM/TH 2006/02/09 Y9	QUALITY SYMBOLS 	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE IN/MM		SCALE ---	DESIGN UNITS INCH	THIRD ANGLE PROJECTION			
		4 PLACES ± --- ± ---	3 PLACES ± --- ± ---	2 PLACES ± --- ± ---	1 PLACE ± --- ± ---	ANGULAR ± --- °	DRAWN BY GUZIK DATE 1987/07/10	CHECKED BY PATEL DATE 1987/07/10	APPROVED BY LENZ DATE 1987/07/10	MATERIAL NO.	DOCUMENT NO.
		DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS					SEE CHART	MOLEX INCORPORATED			SHEET NO. 2 OF 7
		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	
	A-7478-NA I02		A-7478-NA50 I		A-7478-NA50 IT		A-7478-NA I02T							
J	PART NO.	ENG. NO.	PART NO.	ENG. NO.	PART NO.	ENG. NO.	PART NO.	ENG. NO.	PART NO.	ENG. NO.	PART NO.	ENG. NO.	PART NO.	ENG. NO.
	22-05-302I	* A-7478-2A I02	22-12-2024	* A-7478-2A50 I	50-29- I7 I0	A-7478-2A50 IT	50-34-8500	A-7478-2A I02T						
	22-05-303I	* A-7478-3A I02	22-12-2034	* A-7478-3A50 I	50-29- I7 I1	A-7478-3A50 IT	50-34-8501	A-7478-3A I02T						
	22-05-304I	* A-7478-4A I02	22-12-2044	* A-7478-4A50 I	50-29- I705	A-7478-4A50 IT	50-34-8502	A-7478-4A I02T						
I	22-05-305I	* A-7478-5A I02	22-12-2054	* A-7478-5A50 I	50-29- I7 I2	A-7478-5A50 IT								
	22-05-306I	* A-7478-6A I02	22-12-2064	* A-7478-6A50 I	50-29- I7 I3	A-7478-6A50 IT								
	22-05-307I	* A-7478-7A I02	22-12-2074	* A-7478-7A50 I	50-29- I7 I4	A-7478-7A50 IT								
	22-05-308I	* A-7478-8A I02	22-12-2084	* A-7478-8A50 I	50-29- I7 I5	A-7478-8A50 IT								
	22-05-309I	* A-7478-9A I02	22-12-2094	* A-7478-9A50 I	50-29- I7 I6	A-7478-9A50 IT								
	22-05-310I	* A-7478-10A I02	22-12-2104	* A-7478-10A50 I	50-29- I7 I7	A-7478-10A50 IT								
H	22-05-311I	* A-7478-11A I02	22-12-2114	* A-7478-11A50 I	50-29- I7 I8	A-7478-11A50 IT								
	22-05-312I	* A-7478-12A I02	22-12-2124	* A-7478-12A50 I	50-29- I7 I9	A-7478-12A50 IT								
	22-05-313I	* A-7478-13A I02	22-12-2134	* A-7478-13A50 I	50-29- I720	A-7478-13A50 IT								
	22-05-314I	* A-7478-14A I02	22-12-2144	* A-7478-14A50 I	50-29- I721	A-7478-14A50 IT								
	22-05-315I	* A-7478-15A I02	22-12-2154	* A-7478-15A50 I	50-29- I722	A-7478-15A50 IT								
	22-05-316I	* A-7478-16A I02	22-12-2164	* A-7478-16A50 I	50-29- I723	A-7478-16A50 IT								
G	22-05-317I	* A-7478-17A I02	22-12-2174	* A-7478-17A50 I	50-29- I724	A-7478-17A50 IT								
	22-05-318I	* A-7478-18A I02	22-12-2184	* A-7478-18A50 I	50-29- I725	A-7478-18A50 IT								
	22-05-319I	* A-7478-19A I02	22-12-2194	* A-7478-19A50 I	50-29- I726	A-7478-19A50 IT								
	22-05-320I	* A-7478-20A I02	22-12-2204	* A-7478-20A50 I	50-29- I727	A-7478-20A50 IT								
	22-05-321I	* A-7478-21A I02	22-12-2214	* A-7478-21A50 I	50-29- I728	A-7478-21A50 IT								
F	22-05-322I	* A-7478-22A I02	22-12-2224	* A-7478-22A50 I	50-29- I729	A-7478-22A50 IT								
	22-05-323I	* A-7478-23A I02	22-12-2234	* A-7478-23A50 I	50-29- I730	A-7478-23A50 IT								
	22-05-324I	* A-7478-24A I02	22-12-2244	* A-7478-24A50 I	50-29- I731	A-7478-24A50 IT								
	22-05-325I	* A-7478-25A I02	22-12-2254	* A-7478-25A50 I	50-29- I732	A-7478-25A50 IT								
	22-05-326I	* A-7478-26A I02	22-12-2264	* A-7478-26A50 I	50-29- I733	A-7478-26A50 IT								
E	22-05-327I	* A-7478-27A I02	22-12-2274	* A-7478-27A50 I	50-29- I734	A-7478-27A50 IT								
	22-05-328I	* A-7478-28A I02	22-12-2284	* A-7478-28A50 I	50-29- I735	A-7478-28A50 IT								

D
C
B
A

J
I
H
G
F
E
D
C
B
A

ADD P/N'S FCC NO. UCP2006-1815 DRAWN/ADERR CHKD: AELHAG APPR: FSM TH Y9 REVISION DESCRIPTION	QUALITY SYMBOLS	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> <tr> <td colspan="3">ANGULAR ± --- °</td> </tr> </table>		mm	INCH	4 PLACES	± ---	± ---	3 PLACES	± ---	± ---	2 PLACES	± ---	± ---	1 PLACE	± ---	± ---	ANGULAR ± --- °			DIMENSION STYLE	SCALE	DESIGN UNITS	THIRD ANGLE PROJECTION
			mm	INCH																				
	4 PLACES		± ---	± ---																				
	3 PLACES		± ---	± ---																				
2 PLACES	± ---	± ---																						
1 PLACE	± ---	± ---																						
ANGULAR ± --- °																								
		IN/MM	---	INCH																				
		DRAWN BY	DATE	TITLE																				
		GUZIK	1987/07/10	FRICION LOCK HEADER ASY .100 CL BENT SQ PINS 7478 SERIES DWG.																				
		CHECKED BY	DATE																					
		PATEL	1987/07/10																					
		APPROVED BY	DATE																					
		LENZ	1987/07/10																					
		MATERIAL NO.	DOCUMENT NO.	SHEET NO.																				
		SEE CHART	SDA-7478	3 OF 7																				
		THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION																						