

Switch Language

English

Need Assistance?

- Contact Us
- Find a Distributor
- Order Samples
- Tech Library

Printer-friendly page

Email this page

[Home](#) [PCB Headers](#) [Datasheet](#)

Part Number: 0022053061

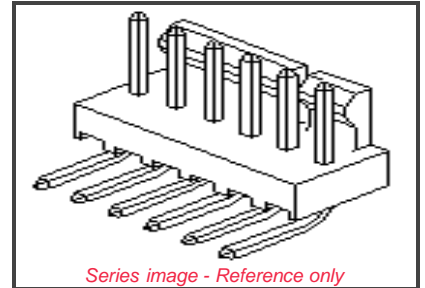
Status: Active

Description: 2.54mm (.100") Pitch KK® Solid Header, Right Angle, with Friction Lock, 6 Circuits, Tin (Sn) Plating

Documents:

Note - Please disable browser pop-up blockers for documents on www.molex.com

- [Drawing \(PDF\)](#)
- [Product Specification PS-10-07 \(PDF\)](#)
- [3D Model](#)
- [Packaging Specification \(PDF\)](#)
- [Related Catalog Page \(PDF\)](#)



Order Products:

- [Check Distributor Inventory](#)
- [Add to My Parts](#)
- [Request Samples](#)

Part Detail: (show all)

[General](#) [Physical](#) [Electrical](#) [Material Info](#)

General

Product Family	PCB Headers
Series	7478
Application	Wire-to-Board
Product Name	KK®

Physical

Breakaway	No
Circuits (Loaded)	6
Circuits (maximum)	6
Color - Resin	Natural (White)
Durability (mating cycles) min	25 cycles
Flammability	94V-0
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

EU RoHS

ELV and RoHS Compliant

China RoHS



Need more information on product compliance?

Email productcompliance@molex.com

Please visit the [Contact Us](#) section for any non-product compliance questions.

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	235

Search Parts in this Series

[7478](#) Series

Mates With

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

Electrical

CSA	LR19980
Current - Maximum	4.000 Amp
UL	E29179
Voltage - Maximum	250V

Material Info

Old Part Number	A-7478-06A102
-----------------	---------------

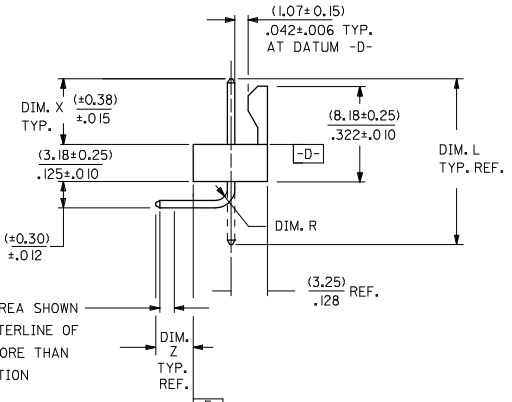
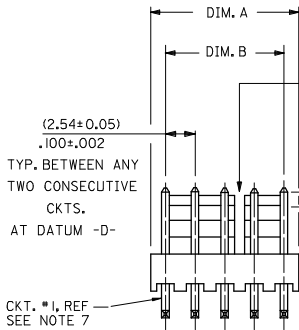
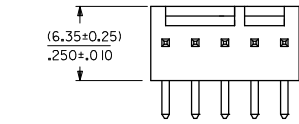
Reference - Drawing Numbers

Product Specification	PS-10-07
Sales Drawing	SDA-7478

	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									
I	26	(66.04 / 65.53) 2.600 / 2.580	(63.50 ± 0.25) 2.500 ± .010	4 , 5 20 , 21									
	25	(63.50 / 62.99) 2.500 / 2.480	(60.96 ± 0.25) 2.400 ± .010	4 , 5 20 , 21									
H	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									
G	22	(55.88 / 55.42) 2.200 / 2.182	(53.34 ± 0.23) 2.100 ± .009	4 , 5 16 , 17									
	21	(53.34 / 52.88) 2.100 / 2.082	(50.80 ± 0.23) 2.000 ± .009	4 , 5 16 , 17									
F	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									
E	18	(45.72 / 45.31) 1.800 / 1.784	(43.18 ± 0.20) 1.700 ± .008	4 , 5 12 , 13									
D	17	(43.18 / 42.77) 1.700 / 1.684	(40.64 ± 0.20) 1.600 ± .008	4 , 5 12 , 13									
C	16	(40.64 / 40.23) 1.600 / 1.584	(38.10 ± 0.20) 1.500 ± .008	4 , 5 12 , 13									
B	15	(38.10 / 37.69) 1.500 / 1.484	(35.56 ± 0.20) 1.400 ± .008	4 , 5 12 , 13									
A	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									
	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									
	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									
	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									
	2	(5.08 / 4.78) .200 / .188	(2.54 ± 0.05) .100 ± .002	NONE									

NOTES:

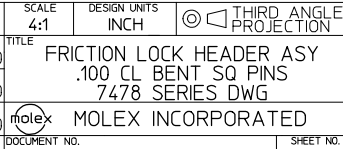
- MATERIAL: NYLON, UL94V-0, COLOR WHITE
- FINISH:
 - (102) - OVERALL TIN: (0.00508)/.000200 MIN., OVERALL COPPER UNDERPLATE: (0.00254)/.000100 MIN.
 - (154) - OVERALL TIN: (0.00254)/.000100 MIN., OVERALL NICKEL UNDERPLATE: (0.00127)/.000050 MIN.
 - (501) - OVERALL GOLD: (0.00051)/.000020 MIN., OVERALL 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 HOUSING.
- THIS PART CONFORMS TO CLASS B REQUIREMENTS OF COSMETIC SPECIFICATION PS-45499-002.



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

A-7478-N***
 NO. OF CKTS. →
 VERSION LETTER CHANGES WHEN PIN NO. OR PRESS DIM. CHANGES
 PLATING SEE NOTE 2

RECOMMENDED P.C. BOARD HOLE LAYOUT



7 Y4	REMOVE ES-42003	QUALITY SYMBOLS	GENERAL TOLERANCES (UNLESS SPECIFIED)	DIMENSION STYLE	SCALE	DESIGN UNITS	THIRD ANGLE PROJECTION
6 W1	EC NO. UCP2009-0359	▽=0	4 PLACES ±.25 ±.015	MM/IN	4:1	INCH	
5 Y8	DRAWING REVISIONS	▽=0	3 PLACES ±.38 ±.015				
4 Y7	DRWNG: GAVRELL 2008/08/12		2 PLACES ±.025 ±.015				
3 Y9	CHK: CHKRK PPR 2008/08/14		1 PLACE ±.038 ±.015				
2 Y9	APPR: ESMITH 2008/08/14		ANGULAR ±1/2°				
1 Y11							
REV							

DRAWN BY	DATE	TITLE
GUZIC	1987/07/30	FRICITION LOCK HEADER ASY
CHECKED BY	DATE	.100 CL BENT SQ PINS
PATEL	1987/07/30	7478 SERIES DWG
APPROVED BY	DATE	
LENZ	1987/07/30	
MATERIAL NO.	DOCUMENT NO.	SHEET NO.
SEE CHART	SDA-7478	1 OF 7

	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	A-7478-NA I02	2766-4 (I02)	(18.69) .736	(6.60) .260	(3.58) .141	(3.05) .120	90°	(1.17) .046																										
I	A-7478-NA50 I	2766-4 (K50 I)	(18.69) .736	(6.60) .260	(3.58) .141	(3.05) .120	90°	(1.17) .046																										
I	A-7478-NA50 IT	2766-4 (K50 I)	(18.69) .736	(6.60) .260	(3.58) .141	(3.05) .120	90°	(1.17) .046																										
I	A-7478-NA I02T	2766-4 (I02)	(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																																		
B	<table border="1"> <tr> <td rowspan="2"> ADD A-7478-NA I02T SEC NO. UCP2006-1815 DRW:WADRR CHK:KJELHAG APP:RSMITH Y9 </td> <td> QUALITY SYMBOLS ▽=0 ▽=0 </td> <td> GENERAL TOLERANCES (UNLESS SPECIFIED) mm INCH 4 PLACES ±--- ±--- 3 PLACES ±--- ±--- 2 PLACES ±--- ±--- 1 PLACE ±--- ±--- ANGULAR ±---° </td> <td> DIMENSION STYLE IN/MM DRAWN BY SUZIK DATE 1987/07/10 CHECKED BY DATE PATEL 1987/07/10 APPROVED BY LENZ DATE 1987/07/10 </td> <td> SCALE --- DESIGN UNITS INCH THIRD ANGLE PROJECTION </td> <td> TITLE FRICTION LOCK HEADER ASY .100 CL BENT SQ PINS 7478 SERIES DWG </td> <td> MATERIAL NO. SEE CHART </td> <td> DOCUMENT NO. SDA-7478 </td> <td> SHEET NO. 2 OF 7 </td> </tr> <tr> <td> DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS </td> <td> THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION </td> <td> MOLEX MOLEX INCORPORATED </td> <td></td> <td></td> </tr> </table>							ADD A-7478-NA I02T SEC NO. UCP2006-1815 DRW:WADRR CHK:KJELHAG APP:RSMITH Y9	QUALITY SYMBOLS ▽=0 ▽=0	GENERAL TOLERANCES (UNLESS SPECIFIED) mm INCH 4 PLACES ±--- ±--- 3 PLACES ±--- ±--- 2 PLACES ±--- ±--- 1 PLACE ±--- ±--- ANGULAR ±---°	DIMENSION STYLE IN/MM DRAWN BY SUZIK DATE 1987/07/10 CHECKED BY DATE PATEL 1987/07/10 APPROVED BY LENZ DATE 1987/07/10	SCALE --- DESIGN UNITS INCH THIRD ANGLE PROJECTION	TITLE FRICTION LOCK HEADER ASY .100 CL BENT SQ PINS 7478 SERIES DWG	MATERIAL NO. SEE CHART	DOCUMENT NO. SDA-7478	SHEET NO. 2 OF 7	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	MOLEX MOLEX INCORPORATED															
ADD A-7478-NA I02T SEC NO. UCP2006-1815 DRW:WADRR CHK:KJELHAG APP:RSMITH Y9									QUALITY SYMBOLS ▽=0 ▽=0	GENERAL TOLERANCES (UNLESS SPECIFIED) mm INCH 4 PLACES ±--- ±--- 3 PLACES ±--- ±--- 2 PLACES ±--- ±--- 1 PLACE ±--- ±--- ANGULAR ±---°	DIMENSION STYLE IN/MM DRAWN BY SUZIK DATE 1987/07/10 CHECKED BY DATE PATEL 1987/07/10 APPROVED BY LENZ DATE 1987/07/10	SCALE --- DESIGN UNITS INCH THIRD ANGLE PROJECTION	TITLE FRICTION LOCK HEADER ASY .100 CL BENT SQ PINS 7478 SERIES DWG	MATERIAL NO. SEE CHART	DOCUMENT NO. SDA-7478	SHEET NO. 2 OF 7																		
	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	MOLEX MOLEX INCORPORATED																															
A																																		
A																																		

tb_frame_C_P_ME_T
Rev. D 2004/04/02

	13	12	11	10	9	8	7	6	5	4	3	2	1																			
	A-7478-NA I02		A-7478-NA50 I		A-7478-NA50 I T		A-7478-NA I02 T																									
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.																		
	22-05-3021	A-7478-2A I02	22-12-2024	A-7478-2A50 I	50-29-1710	A-7478-2A50 I T	50-34-8500	A-7478-2A I02 T																								
	22-05-3031	A-7478-3A I02	22-12-2034	A-7478-3A50 I	50-29-1711	A-7478-3A50 I T	50-34-8501	A-7478-3A I02 T																								
	22-05-3041	A-7478-4A I02	22-12-2044	A-7478-4A50 I	50-29-1705	A-7478-4A50 I T	50-34-8502	A-7478-4A I02 T																								
I	22-05-3051	A-7478-5A I02	22-12-2054	A-7478-5A50 I	50-29-1712	A-7478-5A50 I T																										
	22-05-3061	A-7478-6A I02	22-12-2064	A-7478-6A50 I	50-29-1713	A-7478-6A50 I T																										
	22-05-3071	A-7478-7A I02	22-12-2074	A-7478-7A50 I	50-29-1714	A-7478-7A50 I T																										
	22-05-3081	A-7478-8A I02	22-12-2084	A-7478-8A50 I	50-29-1715	A-7478-8A50 I T																										
H	22-05-3091	A-7478-9A I02	22-12-2094	A-7478-9A50 I	50-29-1716	A-7478-9A50 I T																										
	22-05-3101	A-7478-10A I02	22-12-2104	A-7478-10A50 I	50-29-1717	A-7478-10A50 I T																										
	22-05-3111	A-7478-11A I02	22-12-2114	A-7478-11A50 I	50-29-1718	A-7478-11A50 I T																										
	22-05-3121	A-7478-12A I02	22-12-2124	A-7478-12A50 I	50-29-1719	A-7478-12A50 I T																										
	22-05-3131	A-7478-13A I02	22-12-2134	A-7478-13A50 I	50-29-1720	A-7478-13A50 I T																										
	22-05-3141	A-7478-14A I02	22-12-2144	A-7478-14A50 I	50-29-1721	A-7478-14A50 I T																										
G	22-05-3151	A-7478-15A I02	22-12-2154	A-7478-15A50 I	50-29-1722	A-7478-15A50 I T																										
	22-05-3161	A-7478-16A I02	22-12-2164	A-7478-16A50 I	50-29-1723	A-7478-16A50 I T																										
	22-05-3171	A-7478-17A I02	22-12-2174	A-7478-17A50 I	50-29-1724	A-7478-17A50 I T																										
	22-05-3181	A-7478-18A I02	22-12-2184	A-7478-18A50 I	50-29-1725	A-7478-18A50 I T																										
	22-05-3191	A-7478-19A I02	22-12-2194	A-7478-19A50 I	50-29-1726	A-7478-19A50 I T																										
F	22-05-3201	A-7478-20A I02	22-12-2204	A-7478-20A50 I	50-29-1727	A-7478-20A50 I T																										
	22-05-3211	A-7478-21A I02	22-12-2214	A-7478-21A50 I	50-29-1728	A-7478-21A50 I T																										
	22-05-3221	A-7478-22A I02	22-12-2224	A-7478-22A50 I	50-29-1729	A-7478-22A50 I T																										
	22-05-3231	A-7478-23A I02	22-12-2234	A-7478-23A50 I	50-29-1730	A-7478-23A50 I T																										
	22-05-3241	A-7478-24A I02	22-12-2244	A-7478-24A50 I	50-29-1731	A-7478-24A50 I T																										
	22-05-3251	A-7478-25A I02	22-12-2254	A-7478-25A50 I	50-29-1732	A-7478-25A50 I T																										
	22-05-3261	A-7478-26A I02	22-12-2264	A-7478-26A50 I	50-29-1733	A-7478-26A50 I T																										
E	22-05-3271	A-7478-27A I02	22-12-2274	A-7478-27A50 I	50-29-1734	A-7478-27A50 I T																										
	22-05-3281	A-7478-28A I02	22-12-2284	A-7478-28A50 I	50-29-1735	A-7478-28A50 I T																										
D																																
C																																
B																																
A																																
	ADD PINS EC NO. UCP2006-1815 2006/02/06 DRW:ADBR CHK:KJELHAG APP:RSMITH 2006/02/09		QUALITY SYMBOLS ▽=0 ▽=0		GENERAL TOLERANCES (UNLESS SPECIFIED) <table border="1"> <tr> <td></td> <td>mm</td> <td>INCH</td> </tr> <tr> <td>4 PLACES</td> <td>±.005</td> <td>±.0004</td> </tr> <tr> <td>3 PLACES</td> <td>±.008</td> <td>±.0006</td> </tr> <tr> <td>2 PLACES</td> <td>±.012</td> <td>±.0008</td> </tr> <tr> <td>1 PLACE</td> <td>±.015</td> <td>±.0010</td> </tr> <tr> <td>ANGULAR</td> <td>±.005°</td> <td></td> </tr> </table>			mm	INCH	4 PLACES	±.005	±.0004	3 PLACES	±.008	±.0006	2 PLACES	±.012	±.0008	1 PLACE	±.015	±.0010	ANGULAR	±.005°		DIMENSION STYLE IN/MM		SCALE ---		DESIGN UNITS INCH		THIRD ANGLE PROJECTION	
	mm	INCH																														
4 PLACES	±.005	±.0004																														
3 PLACES	±.008	±.0006																														
2 PLACES	±.012	±.0008																														
1 PLACE	±.015	±.0010																														
ANGULAR	±.005°																															
DRAWN BY SUZIK DATE 1987/07/10		CHECKED BY PATEL DATE 1987/07/10		APPROVED BY LENZ DATE 1987/07/10		MATERIAL NO. SEE CHART		DOCUMENT NO. SDA-7478		SHEET NO. 3 OF 7																						
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																				

tb_frame_C_P_ME_T
Rev. D 2004/04/02