

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: 0022053101

Status: Active

Description: 2.54mm (.100") Pitch KK® Solid Header, Right Angle, with Friction Lock, 10 Circuits, Tin (Sn) Plating

Documents:

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

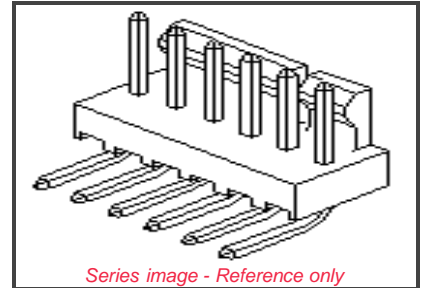
[Drawing \(PDF\)](#)

[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)	10
Circuits (maximum)	10
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 - Plating Termination	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
Plating min: Mating (uin)	200
Plating min: Mating (um)	5
Plating min: Termination (uin)	200
Plating min: Termination (um)	5
Polarized to Mating Part	Yes
Polarized to PCB	Yes

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](#)

Shrouded	Partial
Stackable	Yes
Temperature Range - Operating	0°C to +75°C
Termination Interface: Style	Through Hole

Electrical

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

Material Info

Old Part Number	A-7478-10A102
-----------------	---------------

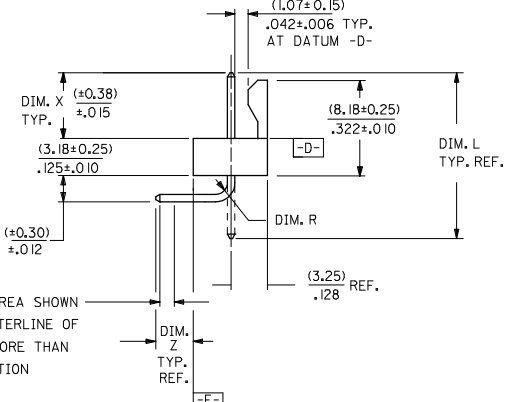
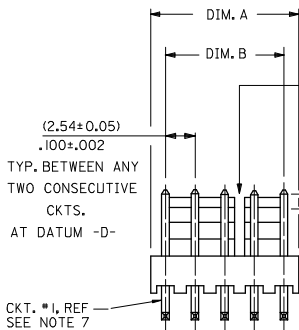
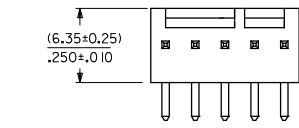
Reference - Drawing Numbers

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:

1. MATERIAL: NYLON, UL94V-0, COLOR WHITE
2. 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.
3. PARTS CONFORM TO PRODUCT SPECIFICATION PS-10-07.
4. PACKAGING INFORMATION: SEE LEGEND.
5. PARTS ARE STACKABLE END TO END ON (2.54)/.100 CENTERS.
6. PIN PUSH OUT FORCE: 2 LBS. MIN.
7. CIRCUIT ONE DESIGNATION IS USED TO DEFINE VOID LOCATION. CIRCUIT ONE MAY OR MAY NOT LINE UP WITH CIRCUIT ONE ON THE HOUSING.
8. 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

VERSION LETTER CHANGES WHEN PIN NO. OR PRESS DIM. CHANGES

PLATING SEE NOTE 2

RECOMMENDED P.C. BOARD HOLE LAYOUT

REMOVE ES-42003 EC NO. UCP2009-0359 DRAWING: GAVRILL 2008/08/12 CHK: CHKRK PPR 2008/08/14 APPR: ESMITH 2008/08/14	QUALITY SYMBOLS ▽=0 ▽=0	GENERAL TOLERANCES (UNLESS SPECIFIED): mm INCH 4 PLACES ±.005 ±.005 3 PLACES ±.005 ±.010 2 PLACES ±.025 ±.015 1 PLACE ±.038 ±.015 ANGULAR ±1/2°	DIMENSION STYLE: MM/IN DRAWN BY: GUZIC DATE: 1987/07/30 CHECKED BY: PATEL DATE: 1987/07/30 APPROVED BY: LENZ DATE: 1987/07/30	SCALE: 4:1 DESIGN UNITS: INCH THIRD ANGLE PROJECTION	TITLE: FRICTION LOCK HEADER ASY .100 CL BENT SQ PINS 7478 SERIES DWG
		DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS	MATERIAL NO.: SEE CHART DOCUMENT NO.: SDA-7478 SHEET NO.: 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-NA50I	2766-4 (I50 I)	(18.69) .736	(6.60) .260	(3.58) .141	(3.05) .120	90°	(1.17) .046																		
I	A-7478-NA50IT	2766-4 (I50 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								ADD A-7478-NA I02T SEC NO: UCP2006-1815 2006/02/06 DRW: WADERR 2006/02/06 CH: KOBELHAG 2006/02/06 APPR: SMITH 2006/02/09		QUALITY SYMBOLS ▽=0 ▽=0	GENERAL TOLERANCES (UNLESS SPECIFIED) 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									
A								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

	13	12	11	10	9	8	7	6	5	4	3	2	1	
	A-7478-NA I02		A-7478-NA501		A-7478-NA501T		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.
	22-05-3021	A-7478-2A I02	22-12-2024	A-7478-2A501	50-29-1710	A-7478-2A501T	50-34-8500	A-7478-2A I02T						
	22-05-3031	A-7478-3A I02	22-12-2034	A-7478-3A501	50-29-1711	A-7478-3A501T	50-34-8501	A-7478-3A I02T						
	22-05-3041	A-7478-4A I02	22-12-2044	A-7478-4A501	50-29-1705	A-7478-4A501T	50-34-8502	A-7478-4A I02T						
I	22-05-3051	A-7478-5A I02	22-12-2054	A-7478-5A501	50-29-1712	A-7478-5A501T								
	22-05-3061	A-7478-6A I02	22-12-2064	A-7478-6A501	50-29-1713	A-7478-6A501T								
	22-05-3071	A-7478-7A I02	22-12-2074	A-7478-7A501	50-29-1714	A-7478-7A501T								
	22-05-3081	A-7478-8A I02	22-12-2084	A-7478-8A501	50-29-1715	A-7478-8A501T								
H	22-05-3091	A-7478-9A I02	22-12-2094	A-7478-9A501	50-29-1716	A-7478-9A501T								
	22-05-3101	A-7478-10A I02	22-12-2104	A-7478-10A501	50-29-1717	A-7478-10A501T								
	22-05-3111	A-7478-11A I02	22-12-2114	A-7478-11A501	50-29-1718	A-7478-11A501T								
	22-05-3121	A-7478-12A I02	22-12-2124	A-7478-12A501	50-29-1719	A-7478-12A501T								
	22-05-3131	A-7478-13A I02	22-12-2134	A-7478-13A501	50-29-1720	A-7478-13A501T								
	22-05-3141	A-7478-14A I02	22-12-2144	A-7478-14A501	50-29-1721	A-7478-14A501T								
G	22-05-3151	A-7478-15A I02	22-12-2154	A-7478-15A501	50-29-1722	A-7478-15A501T								
	22-05-3161	A-7478-16A I02	22-12-2164	A-7478-16A501	50-29-1723	A-7478-16A501T								
	22-05-3171	A-7478-17A I02	22-12-2174	A-7478-17A501	50-29-1724	A-7478-17A501T								
	22-05-3181	A-7478-18A I02	22-12-2184	A-7478-18A501	50-29-1725	A-7478-18A501T								
	22-05-3191	A-7478-19A I02	22-12-2194	A-7478-19A501	50-29-1726	A-7478-19A501T								
F	22-05-3201	A-7478-20A I02	22-12-2204	A-7478-20A501	50-29-1727	A-7478-20A501T								
	22-05-3211	A-7478-21A I02	22-12-2214	A-7478-21A501	50-29-1728	A-7478-21A501T								
	22-05-3221	A-7478-22A I02	22-12-2224	A-7478-22A501	50-29-1729	A-7478-22A501T								
	22-05-3231	A-7478-23A I02	22-12-2234	A-7478-23A501	50-29-1730	A-7478-23A501T								
	22-05-3241	A-7478-24A I02	22-12-2244	A-7478-24A501	50-29-1731	A-7478-24A501T								
	22-05-3251	A-7478-25A I02	22-12-2254	A-7478-25A501	50-29-1732	A-7478-25A501T								
	22-05-3261	A-7478-26A I02	22-12-2264	A-7478-26A501	50-29-1733	A-7478-26A501T								
E	22-05-3271	A-7478-27A I02	22-12-2274	A-7478-27A501	50-29-1734	A-7478-27A501T								
	22-05-3281	A-7478-28A I02	22-12-2284	A-7478-28A501	50-29-1735	A-7478-28A501T								
D														
C														
B														
A														

ADD PINS EC NO. UCP2006-1815 2006/02/06 DRW:ADBR 2006/02/06 CHK:BELHAG 2006/02/06 APP:FSMTH 2006/02/09 REV DESCRIPTION	QUALITY SYMBOLS	GENERAL TOLERANCES (UNLESS SPECIFIED)	DIMENSION STYLE	SCALE	DESIGN UNITS	THIRD ANGLE PROJECTION
	▽=0	mm INCH	IN/MM	---	INCH	
	▽=0	4 PLACES ± --- ± ---	DRAWN BY DATE			TITLE
		3 PLACES ± --- ± ---	SUZIK 1987/07/10			FRICION LOCK HEADER ASY
	2 PLACES ± --- ± ---	CHECKED BY DATE			.100 CL BENT SQ PINS	
	1 PLACE ± --- ± ---	PATEL 1987/07/10			7478 SERIES DWG.	
	ANGULAR ± ---°	APPROVED BY DATE			MOLEX INCORPORATED	
		LENZ 1987/07/10				
	DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS	MATERIAL NO.	SEE CHART	DOCUMENT NO.	SDA-7478	SHEET NO. 3 OF 7
		SIZE C		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