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ELECTRONICS

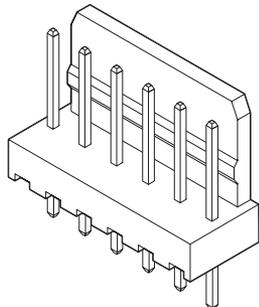
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Jameco Part Number 1966157

# 2.54mm (.100") Pitch KK<sup>®</sup> Header

## 6410 Vertical Friction Lock



### Features and Benefits

- Sizes 2 to 28 circuits
- Friction lock provides passive lock to connector with ramp
- Good in high vibration applications
- Higher backwall than the 6373 Series
- Various pin lengths available

### Reference Information

Product Specification: PS-10-07  
 Packaging: Bag  
 UL File No.: E29179  
 CSA File No.: LR19980  
 Mates With: 2695 with locking ramp, 6471 and 7880  
 Designed In: Inches

### Electrical

Voltage: 250V  
 Current: 4.0A  
 Contact Resistance: 20 milliohms max.  
 Dielectric Withstanding Voltage: 1500V  
 Insulation Resistance: 50K Megohms min.

### Physical

Housing: Nylon, UL 94V-0  
 Contact: Brass, 0.64mm (.025") square  
 Plating: See Table  
 Operating Temperature: 0 to +75°C

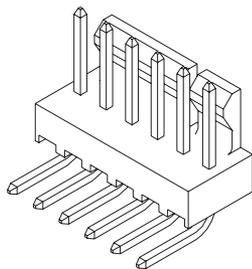
Circuits	Order No.		Lead-free
	Tin	Gold	
2	<a href="#">22-27-2021</a>	<a href="#">22-29-2021</a>	Yes
3	<a href="#">22-27-2031</a>	<a href="#">22-29-2031</a>	
4	<a href="#">22-27-2041</a>	<a href="#">22-29-2041</a>	
5	<a href="#">22-27-2051</a>	<a href="#">22-29-2051</a>	
6	<a href="#">22-27-2061</a>	<a href="#">22-29-2061</a>	
7	<a href="#">22-27-2071</a>	<a href="#">22-29-2071</a>	
8	<a href="#">22-27-2081</a>	<a href="#">22-29-2081</a>	
9	<a href="#">22-27-2091</a>	<a href="#">22-29-2091</a>	
10	<a href="#">22-27-2101</a>	<a href="#">22-29-2101</a>	

Circuits	Order No.		Lead-free
	Tin	Gold	
11	<a href="#">22-27-2111</a>	<a href="#">22-29-2111</a>	Yes
12	<a href="#">22-27-2121</a>	<a href="#">22-29-2121</a>	
13	<a href="#">22-27-2131</a>	<a href="#">22-29-2131</a>	
14	<a href="#">22-27-2141</a>	<a href="#">22-29-2141</a>	
15	<a href="#">22-27-2151</a>	<a href="#">22-29-2151</a>	
16	<a href="#">22-27-2161</a>	<a href="#">22-29-2161</a>	
17	<a href="#">22-27-2171</a>	<a href="#">22-29-2171</a>	
18	<a href="#">22-27-2181</a>	<a href="#">22-29-2181</a>	
19	<a href="#">22-27-2191</a>	<a href="#">22-29-2191</a>	

Circuits	Order No.		Lead-free
	Tin	Gold	
20	<a href="#">22-27-2201</a>	<a href="#">22-29-2201</a>	Yes
21	<a href="#">22-27-2211</a>	<a href="#">22-29-2211</a>	
22	<a href="#">22-27-2221</a>	<a href="#">22-29-2221</a>	
23	<a href="#">22-27-2231</a>	<a href="#">22-29-2231</a>	
24	<a href="#">22-27-2241</a>	<a href="#">22-29-2241</a>	
25	<a href="#">22-27-2251</a>	<a href="#">22-29-2251</a>	
26	<a href="#">22-27-2261</a>	<a href="#">22-29-2261</a>	
27	<a href="#">22-27-2271</a>	<a href="#">22-29-2271</a>	
28	<a href="#">22-27-2281</a>	<a href="#">22-29-2281</a>	

# 2.54mm (.100") Pitch KK<sup>®</sup> Solid Header

## 7478 Right Angle, Friction Lock



### Features and Benefits

- Sizes 2 to 28 circuits
- Friction lock provides passive lock to connector with ramp
- 7478 with voids is 7832 Series
- Various pin lengths available
- End-to-end stackable
- Edge mount only

### Reference Information

Product Specification: PS-10-07  
 Packaging: Bag  
 UL File No.: E29179  
 CSA File No.: LR19980  
 Mates With: 2695, 4455, 6471, 7720 and 7880  
 Designed In: Inches

### Electrical

Voltage: 250V  
 Current: 4.0A  
 Contact Resistance: 20 milliohms max.  
 Dielectric Withstanding Voltage: 1500V  
 Insulation Resistance: 50K Megohms min.

### Mechanical

Durability: Tin—25 cycles max.  
 Gold—100 cycles max.

### Physical

Housing: Nylon, UL 94V-0  
 Contact: Brass, 0.64mm (.025") square  
 Plating: See Table  
 Operating Temperature: 0 to +75°C

Circuits	Order No.		Lead-free
	Tin	Gold	
2	<a href="#">22-05-3021</a>	<a href="#">22-12-2024</a>	Yes
3	<a href="#">22-05-3031</a>	<a href="#">22-12-2034</a>	
4	<a href="#">22-05-3041</a>	<a href="#">22-12-2044</a>	
5	<a href="#">22-05-3051</a>	<a href="#">22-12-2054</a>	
6	<a href="#">22-05-3061</a>	<a href="#">22-12-2064</a>	
7	<a href="#">22-05-3071</a>	<a href="#">22-12-2074</a>	
8	<a href="#">22-05-3081</a>	<a href="#">22-12-2084</a>	
9	<a href="#">22-05-3091</a>	<a href="#">22-12-2094</a>	
10	<a href="#">22-05-3101</a>	<a href="#">22-12-2104</a>	

Circuits	Order No.		Lead-free
	Tin	Gold	
11	<a href="#">22-05-3111</a>	<a href="#">22-12-2114</a>	Yes
12	<a href="#">22-05-3121</a>	<a href="#">22-12-2124</a>	
13	<a href="#">22-05-3131</a>	<a href="#">22-12-2134</a>	
14	<a href="#">22-05-3141</a>	<a href="#">22-12-2144</a>	
15	<a href="#">22-05-3151</a>	<a href="#">22-12-2154</a>	
16	<a href="#">22-05-3161</a>	<a href="#">22-12-2164</a>	
17	<a href="#">22-05-3171</a>	<a href="#">22-12-2174</a>	
18	<a href="#">22-05-3181</a>	<a href="#">22-12-2184</a>	
19	<a href="#">22-05-3191</a>	<a href="#">22-12-2194</a>	

Circuits	Order No.		Lead-free
	Tin	Gold	
20	<a href="#">22-05-3201</a>	<a href="#">22-12-2204</a>	Yes
21	<a href="#">22-05-3211</a>	<a href="#">22-12-2214</a>	
22	<a href="#">22-05-3221</a>	<a href="#">22-12-2224</a>	
23	<a href="#">22-05-3231</a>	<a href="#">22-12-2234</a>	
24	<a href="#">22-05-3241</a>	<a href="#">22-12-2244</a>	
25	<a href="#">22-05-3251</a>	<a href="#">22-12-2254</a>	
26	<a href="#">22-05-3261</a>	<a href="#">22-12-2264</a>	
27	<a href="#">22-05-3271</a>	<a href="#">22-12-2274</a>	
28	<a href="#">22-05-3281</a>	<a href="#">22-12-2284</a>	

Note: Circuit 1 designation is used to orient the header to locate the voided circuit. Review mating connector to assure correct mating orientation.



# PRODUCT SPECIFICATION

## 1.0 SCOPE

This Product Specification covers the 2.54 mm (.100 inch) centerline (pitch) 0.64 mm (.025) square pin headers when mated with either printed circuit board (PCB) connectors or connectors terminated with 22 to 28 AWG wire using crimp technology.

## 2.0 PRODUCT DESCRIPTION

### 2.1 PRODUCT NAME AND SERIES NUMBERS

Crimp Terminals: 2759, 41572, 6459  
Crimp Housings: 2695  
PCB Connectors: 4455, 42625  
Headers: 4030, 4094, 6373, 7478, 42225, 42226, 42227, 42228, 42152, 42153, 42375, 42376, 42377, 42624.  
Other products conforming to this specification are noted on the individual drawings.

### 2.2 DIMENSIONS, MATERIALS, PLATINGS AND MARKINGS

Terminal Material: Brass or Phos. Bronze (for Max performance use phos bronze material.)  
Housing: Nylon or Polyester  
Pins: Brass or Phos. Bronze  
For more information on dimensions, materials, and plating see the individual drawings.

### 2.3 SAFETY AGENCY APPROVALS

UL File Number ..... E29179  
CSA .....LR19980

## 3.0 APPLICABLE DOCUMENTS AND SPECIFICATIONS

None

## 4.0 RATINGS

### 4.1 VOLTAGE

250 Volts

**4.2 CURRENT AND APPLICABLE WIRES** (Current is dependent on connector size, contact material, plating, ambient temperature, printed circuit board characteristics and related factors. Actual current rating is application dependent and should be evaluated for each application.)

AWG	Amps (Max)	Outside Insulation Diameter
22	4.00	See Drawings
24	3.75	See Drawings
26	3.50	See Drawings
28	3.00	See Drawings

### 4.3 TEMPERATURE (ambient + 30° temp rise)

Operating: 0°C to +75°C  
Nonoperating: - 40°C to +105°C

<b>REVISION:</b> <b>P3</b>	<b>EGR/ECN INFORMATION:</b> EC No: <b>UCP2008-0956</b> DATE: <b>11/6/2007</b>	<b>TITLE:</b> <b>PRODUCT SPECIFICATION</b> <b>.100 CENTER KK CONNECTORS</b>	<b>SHEET No.</b> <b>1 of 5</b>
<b>DOCUMENT NUMBER:</b> <b>PS-10-07</b>	<b>CREATED / REVISED BY:</b> <b>ADERR</b>	<b>CHECKED BY:</b> <b>JBELL</b>	<b>APPROVED BY:</b> <b>FSMITH</b>



# PRODUCT SPECIFICATION

## 5.0 PERFORMANCE

### 5.1 ELECTRICAL REQUIREMENTS

DESCRIPTION	TEST CONDITION	REQUIREMENT
Contact Resistance (Low Level)	Mate connectors: apply a maximum voltage of 20 mV and a current of 100 mA.	10 milliohms MAXIMUM [initial]
Contact Resistance of Wire Termination (Low Level)	Terminate the applicable wire to the terminal and measure wire using a voltage of 20 mV and a current of 100 mA.	2 milliohms MAXIMUM [initial]
Insulation Resistance	Unmate & unmount connectors: apply a voltage of 500 VDC between adjacent terminals and between terminals to ground.	1000 Megohms MINIMUM
Dielectric Withstanding Voltage	Unmate connectors: apply a voltage of {two times the rated voltage plus 1000 volts} VAC for 1 minute between adjacent terminals and between terminals to ground.	No breakdown
Capacitance	Measure between adjacent terminals at 1 MHz.	2 picofarads MAXIMUM
Temperature Rise (via Current Cycling)	Mate connectors: measure the temperature rise at the rated current after: 1) 96 hours (steady state) 2) 240 hours (45 minutes ON and 15 minutes OFF per hour) 3) 96 hours (steady state)	Temperature rise: +30°C MAXIMUM

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# PRODUCT SPECIFICATION

## 5.2 MECHANICAL REQUIREMENTS

DESCRIPTION	TEST CONDITION	REQUIREMENT		
Connector Mate and Unmate Forces	Per circuit when mated to an .025 Sq. pin. Mate and unmate connector (male to female) at a rate of 25 ± 6 mm (1 ± ¼ inch) per minute.	1.95 N (0.438 lbf) MAXIMUM insertion force & 0.56 N (0.125 lbf) MINIMUM withdrawal force		
Terminal Retention Force (in Housing)	Axial pullout force on the terminal in the housing at a rate of 25 ± 6 mm (1 ± ¼ inch) per minute. (Forces will change with platings and materials.)	17.8 N (4.0 lbf) MINIMUM withdrawal force		
Terminal Insertion Force (into Housing)	Apply an axial insertion force on the terminal at a rate of 25 ± 6 mm (1 ± ¼ inch) per minute. (Forces will change with platings and materials.)	6.67 N (1.5 lbf) MAXIMUM insertion force		
Durability	Mate connectors up to 25 cycles at a maximum rate of 10 cycles per minute prior to Environmental Tests.	10 milliohms MAXIMUM (change from initial)		
Vibration (Random)	Mate connectors and vibrate per EIA 364-28, test condition VII.	10 milliohms MAXIMUM (change from initial) & Discontinuity < 1 microsecond		
Shock (Mechanical)	Mate connectors and shock at 50 g's with ½ sine wave (11 milliseconds) shocks in the ±X,±Y,±Z axes (18 shocks total).	10 milliohms MAXIMUM (change from initial) & Discontinuity < 1 microsecond		
Wire Pullout Force (Axial)	Apply an axial pullout force on the wire at a rate of 25 ± 6 mm (1 ± ¼ inch) per minute. (For maximum performance use Molex application tooling with stranded tinned copper wire)	22 awg = 44 N (10 lbf) 24 awg = 35 N (8 lbf) 26 awg = 26 N (6 lbf) 28 awg = 17 N (4 lbf) 30 awg = 13 N (3 lbf)		
Normal Force	Apply a perpendicular force.	2.94 N (300 grams) average		
Kinked PC Pin Insertion Force (into PCB Hole)	Apply an axial insertion force on pins at a rate of 25 ± 6 mm (1 ± ¼ inch) per minute.	Number of kinked pins	Maximum Insertion force (per pin)	Average Insertion force (per pin)
		2	44.0 N (9.9 lbf)	15.1N (3.4 lbf)
		4	21.4 N (4.8 lbf)	9.8 N (2.2 lbf)
		6	18.2 N (4.1 lbf)	4.9 N (1.1 lbf)

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# PRODUCT SPECIFICATION

## 5.3 ENVIRONMENTAL REQUIREMENTS

DESCRIPTION	TEST CONDITION	REQUIREMENT										
Shock (Thermal)	Mate connectors; expose to 5 cycles of: <table border="1"> <thead> <tr> <th>Temperature °C</th> <th>Duration (Minutes)</th> </tr> </thead> <tbody> <tr> <td>-40 +0/-3</td> <td>30</td> </tr> <tr> <td>+25 ±10</td> <td>5 MAXIMUM</td> </tr> <tr> <td>+105 +3/-0</td> <td>30</td> </tr> <tr> <td>+25 ±10</td> <td>5 MAXIMUM</td> </tr> </tbody> </table>	Temperature °C	Duration (Minutes)	-40 +0/-3	30	+25 ±10	5 MAXIMUM	+105 +3/-0	30	+25 ±10	5 MAXIMUM	10 milliohms MAXIMUM (change from initial) & Visual: No Damage
Temperature °C	Duration (Minutes)											
-40 +0/-3	30											
+25 ±10	5 MAXIMUM											
+105 +3/-0	30											
+25 ±10	5 MAXIMUM											
Thermal Aging	Mate connectors; expose to: 96 hours at 105 ± 2°C	10 milliohms MAXIMUM (change from initial]) & Visual: No Damage										
Humidity (Steady State)	Mate connectors: expose to a temperature of 40 ± 2°C with a relative humidity of 90-95% for 96 hours.  Note: Remove surface moisture and air dry for 1 hour prior to measurements.	10 milliohms MAXIMUM (change from initial) & Dielectric Withstanding Voltage: No Breakdown at 500 VAC & Insulation Resistance: 1000 Megohms MINIMUM & Visual: No Damage										
Humidity (Cyclic)	Mate connectors: cycle per EIA-364-31: 24 cycles at temperature 25 ± 3°C at 80 ± 5% relative humidity and 65 ± 3°C at 50 ± 5% relative humidity; dwell time of 1.0 hour; ramp time of 0.5 hours.  {Note: Remove surface moisture and air dry for 1 hour prior to measurements.}	10 milliohms MAXIMUM (change from initial) & Dielectric Withstanding Voltage: No Breakdown at 500 VAC & Insulation Resistance: 1000 Megohms MINIMUM & Visual: No Damage										
Solderability	Per SMES-152	Solder coverage: 95% MINIMUM (per SMES-152)										

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# PRODUCT SPECIFICATION

## 5.3 ENVIRONMENTAL REQUIREMENTS

DESCRIPTION	TEST CONDITION	REQUIREMENT
Solder Resistance	Dip connector terminal tails in solder: Solder Duration: 5 ± 0.5 seconds; Solder Temperature: 230 ± 5°C	Visual: No Damage to insulator material
Cold Resistance	Mate connectors: Duration: 96 hours; Temperature: -40 ± 3°C	10 milliohms MAXIMUM (change from initial) & Visual: No Damage
Corrosive Atmosphere: Flowing Mixed Gas (FMG)	Test per EIA-364-65, Class II, Exposure to gasses for 4 days, unmated.	10 milliohms MAXIMUM (change from initial) & Visual: No Damage

## 6.0 PACKAGING

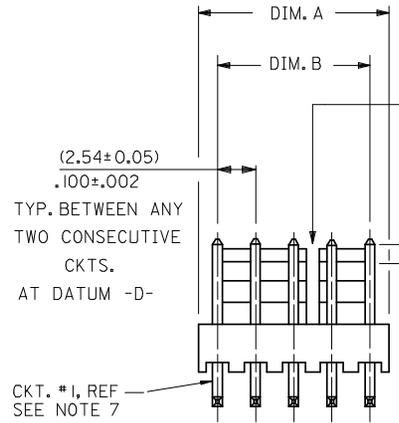
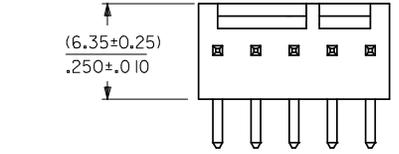
Parts shall be packaged to protect against damage during handling, transit and storage.

## 7.0 GAGES AND FIXTURES

## 8.0 OTHER

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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									

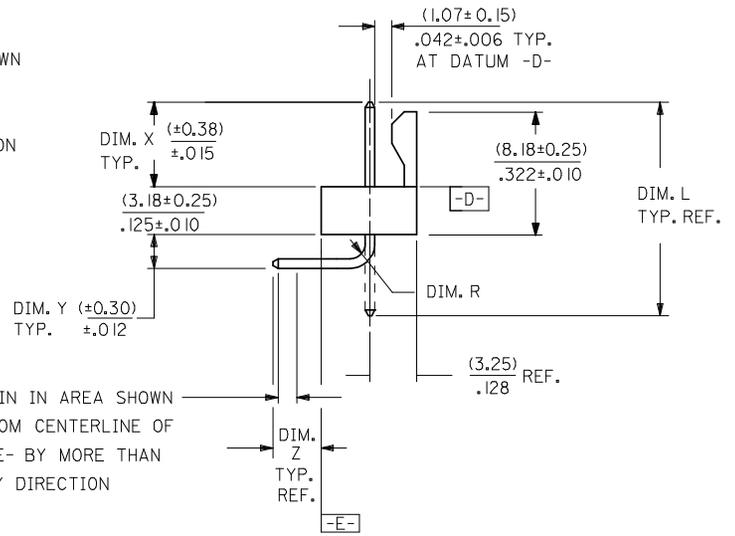


NOTES:

- 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.

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



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

NO. OF CKTS.	DIM. A	DIM. B	SLOTS LOC.
7	Y4		
6	W1		
5	Y8		
4	Y7		
3	Y9		
2	Y9		
1	Y11		
SHT	REV		

REMOVE ES-42003 EC NO: UCP2009-0359 DRAWING: GAVRILL 2008/08/12 CHKD: HKIPPER 2008/08/14 APPR: FSM/ITH 2008/08/14	QUALITY SYMBOLS ▽=0 ▽=0	GENERAL TOLERANCES (UNLESS SPECIFIED) <table border="1"> <thead> <tr> <th></th> <th>mm</th> <th>INCH</th> </tr> </thead> <tbody> <tr> <td>4 PLACES</td> <td>± ---</td> <td>± ---</td> </tr> <tr> <td>3 PLACES</td> <td>± ---</td> <td>± .010</td> </tr> <tr> <td>2 PLACES</td> <td>± 0.25</td> <td>± .015</td> </tr> <tr> <td>1 PLACE</td> <td>± 0.38</td> <td>± ---</td> </tr> </tbody> </table>		mm	INCH	4 PLACES	± ---	± ---	3 PLACES	± ---	± .010	2 PLACES	± 0.25	± .015	1 PLACE	± 0.38	± ---	DIMENSION STYLE MM/IN	SCALE 4:1	DESIGN UNITS INCH	THIRD ANGLE PROJECTION
				mm	INCH																
4 PLACES	± ---	± ---																			
3 PLACES	± ---	± .010																			
2 PLACES	± 0.25	± .015																			
1 PLACE	± 0.38	± ---																			
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS	MATERIAL NO. SEE CHART	DIMENSION STYLE MM/IN	DRAWN BY GUZIC	DATE 1987/07/30	TITLE FRICTION LOCK HEADER ASY .100 CL BENT SQ PINS 7478 SERIES DWG	SHEET NO. 1 OF 7															
MOLEX INCORPORATED																					
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
		DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		SEE CHART		MATERIAL NO. SDA-7478		DOCUMENT NO. SDA-7478		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	22-05-305 I	* A-7478-5A I02	22-12-2054	A-7478-5A50 I	50-29- I7 I2	A-7478-5A50 IT								
	22-05-306 I	* A-7478-6A I02	22-12-2064	* A-7478-6A50 I	50-29- I7 I3	A-7478-6A50 IT								
	22-05-307 I	* A-7478-7A I02	22-12-2074	* A-7478-7A50 I	50-29- I7 I4	A-7478-7A50 IT								
	22-05-308 I	* A-7478-8A I02	22-12-2084	* A-7478-8A50 I	50-29- I7 I5	A-7478-8A50 IT								
	22-05-309 I	* A-7478-9A I02	22-12-2094	* A-7478-9A50 I	50-29- I7 I6	A-7478-9A50 IT								
	22-05-310 I	* A-7478-10A I02	22-12-2104	* A-7478-10A50 I	50-29- I7 I7	A-7478-10A50 IT								
H	22-05-311 I	* A-7478-11A I02	22-12-2114	* A-7478-11A50 I	50-29- I7 I8	A-7478-11A50 IT								
	22-05-312 I	* A-7478-12A I02	22-12-2124	* A-7478-12A50 I	50-29- I7 I9	A-7478-12A50 IT								
	22-05-313 I	* A-7478-13A I02	22-12-2134	* A-7478-13A50 I	50-29- I720	A-7478-13A50 IT								
	22-05-314 I	* A-7478-14A I02	22-12-2144	* A-7478-14A50 I	50-29- I721	A-7478-14A50 IT								
	22-05-315 I	* A-7478-15A I02	22-12-2154	* A-7478-15A50 I	50-29- I722	A-7478-15A50 IT								
	22-05-316 I	* A-7478-16A I02	22-12-2164	* A-7478-16A50 I	50-29- I723	A-7478-16A50 IT								
G	22-05-317 I	* A-7478-17A I02	22-12-2174	* A-7478-17A50 I	50-29- I724	A-7478-17A50 IT								
	22-05-318 I	* A-7478-18A I02	22-12-2184	* A-7478-18A50 I	50-29- I725	A-7478-18A50 IT								
	22-05-319 I	* A-7478-19A I02	22-12-2194	* A-7478-19A50 I	50-29- I726	A-7478-19A50 IT								
	22-05-320 I	* A-7478-20A I02	22-12-2204	* A-7478-20A50 I	50-29- I727	A-7478-20A50 IT								
	22-05-321 I	* A-7478-21A I02	22-12-2214	* A-7478-21A50 I	50-29- I728	A-7478-21A50 IT								
F	22-05-322 I	* A-7478-22A I02	22-12-2224	* A-7478-22A50 I	50-29- I729	A-7478-22A50 IT								
	22-05-323 I	* A-7478-23A I02	22-12-2234	* A-7478-23A50 I	50-29- I730	A-7478-23A50 IT								
	22-05-324 I	* A-7478-24A I02	22-12-2244	* A-7478-24A50 I	50-29- I731	A-7478-24A50 IT								
	22-05-325 I	* A-7478-25A I02	22-12-2254	* A-7478-25A50 I	50-29- I732	A-7478-25A50 IT								
	22-05-326 I	* A-7478-26A I02	22-12-2264	* A-7478-26A50 I	50-29- I733	A-7478-26A50 IT								
E	22-05-327 I	* A-7478-27A I02	22-12-2274	* A-7478-27A50 I	50-29- I734	A-7478-27A50 IT								
	22-05-328 I	* A-7478-28A I02	22-12-2284	* A-7478-28A50 I	50-29- I735	A-7478-28A50 IT								

D

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ADD P/N'S FCC NO. UCP2006-1815 DRAWN/ADERR CHKD: AELHAG APPR: FSM TH Y9 REVISION DESCRIPTION 2006/02/06 2006/02/06 2006/02/09	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																						

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