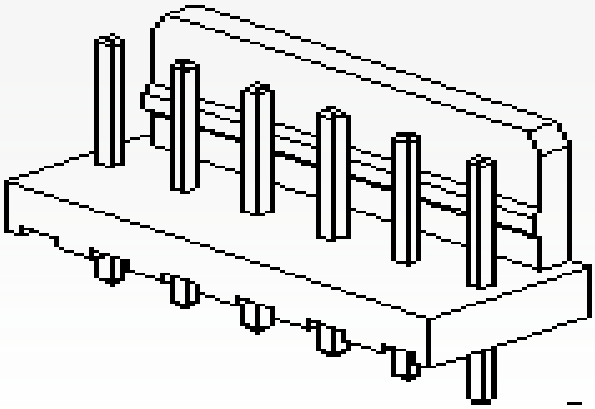


Series image - Reference only

EU RoHS | China RoHS

ELV and RoHS Compliant

Duration at Max. Process Temperature (seconds)	5
Lead-free Process Capability	Wave Capable (TH only)
Max. Cycles at Max. Process Temperature	3
Process Temperature max. C	230

Search Parts in this Series
6410 Series

Mates With
KK® Crimp Terminal Housing 2695, 6471

Part Number: 0022272041

Status: Active

Description: 2.54mm (.100") Pitch KK® Header, Vertical, with Friction Lock, 4 Circuits, Tin (Sn) Plating

Documents:

- Drawing (PDF)
- Product Specification PS-10-07 (PDF)
- Product Specification PS-99020-0088 (PDF)
- 3D Model
- Related Catalog Page (PDF)

Order Products:

Check Distributor Inventory

Request Samples

Part Detail: (show all)

- General
- Physical
- Electrical
- Material Info
- Reference - Drawing Numbers

General

Product Family	PCB Headers
Series	6410
Application	Wire-to-Board
Product Name	KK®

Physical

Breakaway	No
Circuits (Loaded)	4
Circuits (maximum)	4
Color - Resin	Natural (White)
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	Vertical
PC Tail Length (in)	0.140 In
PC Tail Length (mm)	3.56 mm
PCB Locator	No
PCB Retention	None
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 PCB	No
Shrouded	Partial
Stackable	No
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

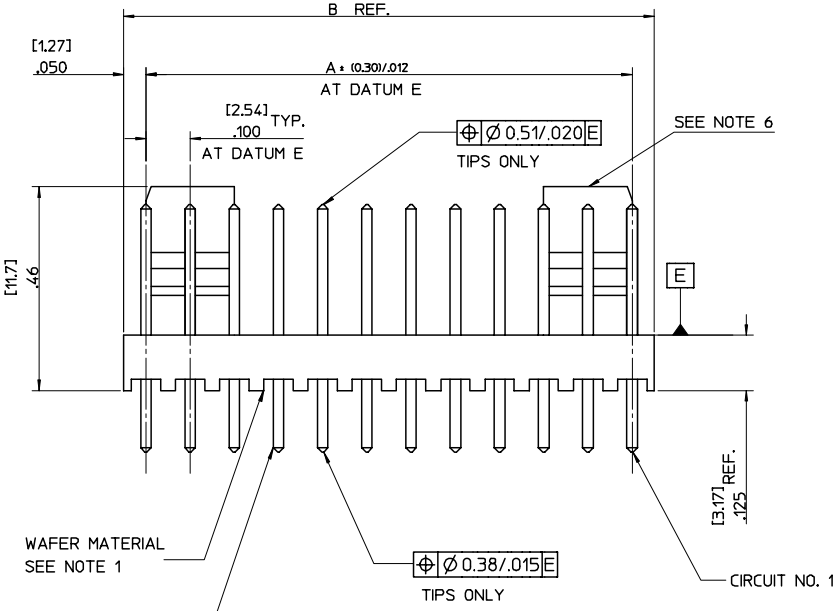
Material Info

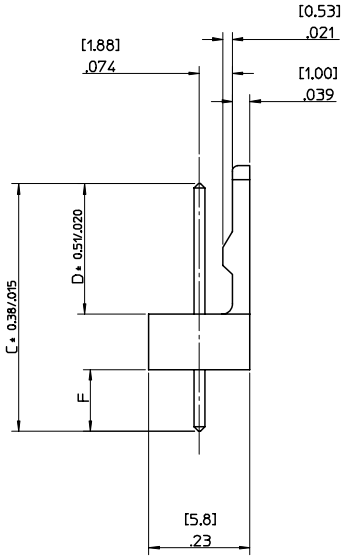
Old Part Number	AE-6410-04A(102)

Reference - Drawing Numbers

Product Specification	PS-10-07
Product Specification	PS-99020-0088
Sales Drawing	SDAE-6410-N

NO. OF CCTS	DIMN. "A"	DIMN. "B"
2	(2.54) .100	(5.08) .200
3	(5.08) .200	(7.62) .300
4	(7.62) .300	(10.16) .400
5	(10.16) .400	(12.70) .500
6	(12.70) .500	(15.24) .600
7	(15.24) .600	(17.78) .700
8	(17.78) .700	(20.32) .800
9	(20.32) .800	(22.86) .900
10	(22.86) .900	(25.40) 1.000
11	(25.40) 1.000	(27.94) 1.100
12	(27.94) 1.100	(30.48) 1.200
13	(30.48) 1.200	(33.02) 1.300
14	(33.02) 1.300	(35.56) 1.400
15	(35.56) 1.400	(38.10) 1.500
16	(38.10) 1.500	(40.64) 1.600
17	(40.64) 1.600	(43.18) 1.700
18	(43.18) 1.700	(45.72) 1.800
19	(45.72) 1.800	(48.26) 1.900
20	(48.26) 1.900	(50.80) 2.000
21	(50.80) 2.000	(53.34) 2.100
22	(53.34) 2.100	(55.88) 2.200
23	(55.88) 2.200	(58.42) 2.300
24	(58.42) 2.300	(60.86) 2.400
25	(60.86) 2.400	(63.50) 2.500
26	(63.50) 2.500	(66.04) 2.600
27	(66.04) 2.600	(68.58) 2.700
28	(68.58) 2.700	(71.12) 2.800



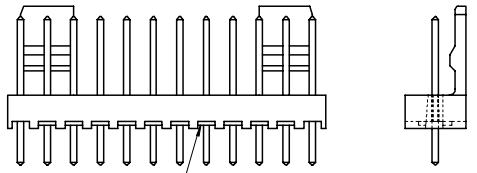


AE-6410- N * (*)

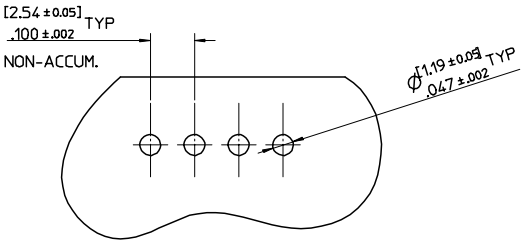
NO. OF CCTS

PLATING TYPE

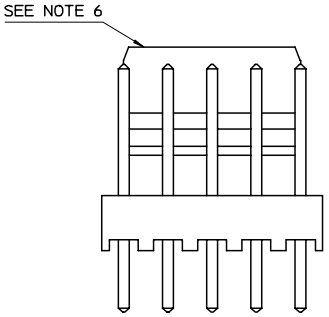
WAFER ASSY. OPTION



ALTERNATIVE WAFER CONFIGURATION



RECOMMENDED P.C.B. HOLE DIMENSIONS (STANDARD SERIES)



NOTES:

1. WAFER MATERIAL: NYLON, 94V-0
2. PIN PUSH OUT FORCE: (0.907 Kg)/2lbs MIN.
3. WAFERS STACKABLE END TO END WITH (2.54)/.100 BETWEEN END PINS
4. THIS PART CONFORMS TO MOLEX PROD. SPEC. PS99020-0088.
5. PIN SOLDERABILITY PER MOLEX SPEC. NO. 152.
6. SINGLE RAMP ON 2-6 CCTS TWO RAMPS ON 7-28 CCTS, AS SHOWN.
7. PRODUCT SPECIFICATION: PS-99020-0087
8. PCB THICKNESS 1.6MM

CHANGED DOC.TYPE 2007/09/10
EC NO: E2008-0119 2007/09/10
DRWN:DBYRNES 2007/09/10
CH'KD: APPR:EOMAHONY
DESCRIPTION
REV
AZ

QUALITY SYMBOLS
▼=0
▽=0

GENERAL TOLERANCES (UNLESS SPECIFIED)

	mm	INCH
4 PLACES	± ---	± ---
3 PLACES	± ---	± .010
2 PLACES	± 0.25	± .014
1 PLACE	± 0.35	± ---
ANGULAR ± .5 °		

DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS

DIMENSION STYLE: MM/IN
SCALE: 4:1
DESIGN UNITS: METRIC
THIRD ANGLE PROJECTION

DRAWN BY: T. MAHON DATE: 28/01/03
CHECKED BY: BMAGUIRE DATE: 28/01/03
APPROVED BY: JDENNEHY DATE: 2005/03/11

TITLE: WAFER, FRICTION LOCK KK (2.54)/.100 FOR (0.64)/.025 SQ. PINS

MOLEX INCORPORATED

MATERIAL NO.: SEE CHART
DOCUMENT NO.: SDAE-6410-N
SHEET NO.: 1 OF 3

SIZE A2

ENG. NO.	AE-6410-NA (102)	AE-6410-NC (102)	AE-6410-ND (102)	AE-6410-NH (102)	AE-6410-NJ (102)	AE-6410-NL (102)
DIMN. "D"	(7.50 ±0.25) .295 ±.010	(7.14 ±0.25) .281 ±.010	(8.05 ±0.25) .317 ±.010	)(7.49 ±0.25) .295 ±.010	(18.80 ±0.38 .740 ±.015	(8.50 ±0.38) .335 ±.015
DIMN. "C"	(14.22)/ .560	(20.32)/ .800	(14.22)/ .560	(14.98)/ .590	(25.40)/ 1.000	(23.80)/ .937
DIMN. "F"	(3.56)/ .140 REF	(10.00)/ .394 REF	(2.99) .118 REF	(4.32)/ .170 REF	(3.43)/ .135 REF	(12.13)/ .477 REF
PLATING	TIN MIN. (0.005)/.0002 OVER (0.0025)/.0001 COPPER MIN.	TIN MIN. (0.005)/.0002 OVER (0.0025)/.0001 COPPER MIN.	TIN MIN. (0.005)/.0002 OVER (0.0025)/.0001 COPPER MIN.	TIN MIN. (0.005)/.0002 OVER (0.0025)/.0001 COPPER MIN.	TIN MIN. (0.005)/.0002 OVER (0.0025)/.0001 COPPER MIN.	TIN MIN. (0.005)/.0002 OVER (0.0025)/.0001 COPPER MIN.

NO. OF CIRCUITS	AE-6410-2A(102)	AE-6410-2C(102)	AE-6410-2D(102)	AE-6410-2H(102)	AE-6410-2J(102)	AE-6410-2L(102)
2	22-27-2021	38-00-6292	38-00-5882	38-00-6754	NOT TOOLED	NOT TOOLED
3	3 A(102) 2031	3 C(102) 6293	3 D(102) 5883	3 H(102) NOT TOOLED	3 J(102) NOT TOOLED	L(102)
4	4 A(102) 2041	4 C(102) 6294	4 D(102) 5884	4 H(102) 22-27-2046	4 J(102) NOT TOOLED	L(102)
5	5 A(102) 2051	5 C(102) 6295	5 D(102) 5885	5 H(102) NOT TOOLED	5 J(102) 22-27-2057	L(102)
6	6 A(102) 2061	6 C(102) 6296	6 D(102) 5886	6 H(102)	6 J(102) NOT TOOLED	L(102)
7	7 A(102) 2071	7 C(102) 6297	7 D(102) 5887	7 H(102)	7 J(102) NOT TOOLED	L(102)
8	8 A(102) 2081	8 C(102) 6298	8 D(102) 5888	8 H(102)	8 J(102) 22-27-2087	L(102)
9	9 A(102) 2091	9 C(102) 6299	9 D(102) 5889	9 H(102)	9 J(102) NOT TOOLED	L(102)
10	10 A(102) 2101	10 C(102) 6300	10 D(102) 5890	10 H(102)	10 J(102)	L(102)
11	11 A(102) 2111	11 C(102) 6301	11 D(102) 5891	11 H(102) NOT TOOLED	11 J(102)	L(102)
12	12 A(102) 2121	12 C(102) 6302	12 D(102) 5892	12 H(102) 22-27-2126	12 J(102)	L(102)
13	13 A(102) 2131	13 C(102) 6303	13 D(102) 5893	13 H(102) NOT TOOLED	13 J(102)	L(102)
14	14 A(102) 2141	14 C(102) 6304	14 D(102) 5894	14 H(102)	14 J(102)	L(102) NOT TOOLED
15	15 A(102) 2151	15 C(102) 6305	15 D(102) 5895	15 H(102)	15 J(102)	L(102) 38-00-1736
16	16 A(102) 2161	16 C(102) 6306	16 D(102) 5896	16 H(102)	16 J(102)	L(102) NOT TOOLED
17	17 A(102) 2171	17 C(102) 6307	17 D(102) 5897	17 H(102)	17 J(102)	L(102)
18	18 A(102) 2181	18 C(102) 6308	18 D(102) 5898	18 H(102)	18 J(102)	L(102)
19	19 A(102) 2191	19 C(102) 6309	19 D(102) 5899	19 H(102)	19 J(102)	L(102)
20	20 A(102) 2201	20 C(102) 38-00-6310	20 D(102) 5900	20 H(102)	20 J(102)	L(102)
21	21 A(102) 2211	21 C(102) NOT TOOLED	21 D(102) 5901	21 H(102)	21 J(102)	L(102)
22	22 A(102) 2221	22 C(102)	22 D(102) 5902	22 H(102)	22 J(102)	L(102)
23	23 A(102) 2231	23 C(102)	23 D(102) 5903	23 H(102)	23 J(102)	L(102)
24	24 A(102) 2241	24 C(102)	24 D(102) 5904	24 H(102)	24 J(102)	L(102)
25	25 A(102) 2251	25 C(102)	25 D(102) 5905	25 H(102)	25 J(102)	L(102)
26	26 A(102) 2261	26 C(102)	26 D(102) 5906	26 H(102)	26 J(102)	L(102)
27	27 A(102) 2271	27 C(102)	27 D(102) 5907	27 H(102)	27 J(102)	L(102)
28	AE-6410-28A(102) 22-27-2281	AE-6410-28C(102) NOT TOOLED	AE-6410-28D(102) 38-00-5908	AE-6410-28H(102) NOT TOOLED	AE-6410-28J(102) NOT TOOLED	AE-6410-28L(102) NOT TOOLED

SEE SHEET 1
EC NO: E2008-0119 2007/09/10
DRWN:DBYRNES 2007/09/10
CH'KD: 2007/09/10
APPR:EDMAHONY
DESCRIPTION
REV
AZ

QUALITY SYMBOLS
▼=0
▽=0

GENERAL TOLERANCES (UNLESS SPECIFIED)

	mm	INCH
4 PLACES	± ---	± ---
3 PLACES	± ---	± .010
2 PLACES	± 0.25	± .014
1 PLACE	± 0.35	± ---

ANGULAR ± .5 °

DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS

DIMENSION STYLE: MM/IN
SCALE: 4:1
DESIGN UNITS: METRIC
THIRD ANGLE PROJECTION

DRAWN BY: T. MAHON DATE: 28/01/03
CHECKED BY: BMAGUIRE DATE: 28/01/03
APPROVED BY: JDENNEHY DATE: 2005/03/11

TITLE: WAFER, FRICTION LOCK KK (2.54)/.100 FOR (0.64)/.025 SQ. PINS

MOLEX INCORPORATED

MATERIAL NO.: SEE CHART
DOCUMENT NO.: SDAE-6410-N
SHEET NO.: 2 OF 3
SIZE: A2

ENG. NO.	AE-6410-NA (501)	AE-6410-NA (516)	AE-6410-NK (516)	AE-6410-NC (501)	AE-6410-NA (509)	AE-6410-NS (501)	AE-6410-NA (503)
DIMN. "D"	(7.50 ±0.25) .295 ±.010	(7.50 ±0.25) .295 ±.010	(9.22) .363 REF	(7.14 ±0.25) .281 ±.010	(7.50 ±0.25) .295 ±.010	(7.50 ±0.25) .295 ±.010	(7.50 ±0.25) .295 ±.010
DIMN. "C"	(14.22) / .560	(14.22) /.560	(15.88) /.625	(20.32) /.800	(14.22) /.560	(16.15) /.636	(14.22) /.560
DIMN. "F"	(3.56) / .140 REF	(3.56) / .140 REF	(3.48 \0.25) .137 \.010	(10.00) /.394 REF	(3.56) / .140 REF	(5.48) / .216 REF	(3.56) /.140 REF
PLATING	GOLD MIN. (0.0005)/.000020 OVER (0.00076)/.000030 NICKEL MIN.	GOLD MIN. (0.00025)/.000010 OVER (0.00076)/.000030 NICKEL MIN.	GOLD MIN. (0.00025)/.000010 OVER (0.00076)/.000030 NICKEL MIN.	GOLD MIN. (0.00051)/.000020 OVER (0.00076)/.000030 NICKEL MIN.	GOLD MIN. (0.00127)/.000050 OVER (0.00076)/.000030 NICKEL MIN.	GOLD MIN. (0.0005)/.000020 OVER (0.00076)/.000030 NICKEL MIN.	GOLD MIN. (0.00076)/.000030 OVER (0.00127)/.000050 NICKEL MIN.

NO. OF CIRCUITS	AE-6410-2A(501)	22-29-2021	AE-6410-2A(516)	22-29-2022	AE-6410-2K(516)	38-00-0932	AE-6410-2C(501)	NOT TOOLED	AE-6410-2A(509)	38-00-7250		NOT TOOLED	AE-6410-2A(503)	38-00-7062
2														
3	3 A(501)	2031	3 A(516)	2032	3 K(516)	0933	3 C(501)	38-00-5909	3 A(509)	NOT TOOLED		NOT TOOLED	3 A(503)	7063
4	4 A(501)	2041	4 A(516)	2042	4 K(516)	0934	4 C(501)	NOT TOOLED	4 A(509)	38-00-7251	AE-6410-4S(501)	38-00-7666	4 A	7064
5	5 A(501)	2051	5 A(516)	2052	5 K(516)	0935	5 C(501)		5 A(509)	NOT TOOLED		NOT TOOLED	5 A	7065
6	6 A(501)	2061	6 A(516)	2062	6 K(516)	0936	6 C(501)		6 A(509)		6 S(501)	38-00-7667	6 A	7066
7	7 A(501)	2071	7 A(516)	2072	7 K(516)	0937	7 C(501)		7 A(509)			NOT TOOLED	7 A	7067
8	8 A(501)	2081	8 A(516)	2082	8 K(516)	0938	8 C(501)		8 A(509)				8 A	38-00-7068
9	9 A(501)	2091	9 A(516)	2092	9 K(516)	0939	9 C(501)		9 A(509)				9 A	NOT TOOLED
10	10 A(501)	2101	10 A(516)	2102	10 K(516)	0940	10 C(501)		10 A(509)				10 A	NOT TOOLED
11	11 A(501)	2111	11 A(516)	2112	11 K(516)	0941	11 C(501)		11 A(509)				11 A	NOT TOOLED
12	12 A(501)	2121	12 A(516)	2122	12 K(516)	0942	12 C(501)		12 A(509)				12 A	38-00-7072
13	13 A(501)	2131	13 A(516)	2132	13 K(516)	0943	13 C(501)		13 A(509)				13 A	NOT TOOLED
14	14 A(501)	2141	14 A(516)	2142	14 K(516)	0944	14 C(501)		14 A(509)				14 A	38-00-7074
15	15 A(501)	2151	15 A(516)	2152	15 K(516)	0945	15 C(501)		15 A(509)				15 A	NOT TOOLED
16	16 A(501)	2161	16 A(516)	2162	16 K(516)	0946	16 C(501)		16 A(509)				16 A	
17	17 A(501)	2171	17 A(516)	2172	17 K(516)	0947	17 C(501)		17 A(509)				17 A	
18	18 A(501)	2181	18 A(516)	2182	18 K(516)	0948	18 C(501)		18 A(509)				18 A	
19	19 A(501)	2191	19 A(516)	2192	19 K(516)	0949	19 C(501)		19 A(509)				19 A	NOT TOOLED
20	20 A(501)	2201	20 A(516)	2202	20 K(516)	0950	20 C(501)		20 A(509)				20 A	38-00-7080
21	21 A(501)	2211	21 A(516)	2212	21 K(516)	0951	21 C(501)		21 A(509)				21 A	NOT TOOLED
22	22 A(501)	2221	22 A(516)	2222	22 K(516)	0952	22 C(501)		22 A(509)				22 A	NOT TOOLED
23	23 A(501)	2231	23 A(516)	2232	23 K(516)	0953	23 C(501)		23 A(509)				23 A	NOT TOOLED
24	24 A(501)	2241	24 A(516)	2242	24 K(516)	0954	24 C(501)		24 A(509)				24 A	38-00-0441
25	25 A(501)	2251	25 A(516)	2252	25 K(516)	0955	25 C(501)		25 A(509)				25 A	NOT TOOLED
26	26 A(501)	2261	26 A(516)	2262	26 K(516)	0956	26 C(501)		26 A(509)				26 A	
27	27 A(501)	2271	27 A(516)	2272	27 K(516)	0957	27 C(501)		27 A(509)				27 A(503)	
28	AE-6410-28A(501)	22-29-2281	AE-6410-28A(516)	22-29-2282	AE-6410-28K(516)	38-00-0958	AE-6410-28C(501)	NOT TOOLED	AE-6410-28A(509)	NOT TOOLED		NOT TOOLED	AE-6410-28A(503)	NOT TOOLED

SEE SHEET 1
EC NO: E2008-0119 2007/09/10
DRWN:DBYRNES 2007/09/10
CH'KD: 2007/09/10
APPR:EDMAHONY
DESCRIPTION
REV
AZ

QUALITY SYMBOLS
▼=0
▽=0

GENERAL TOLERANCES (UNLESS SPECIFIED)

	mm	INCH
4 PLACES	± ---	± ---
3 PLACES	± ---	± .010
2 PLACES	± 0.25	± .014
1 PLACE	± 0.35	± ---

ANGULAR ± .5 °

DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS

DIMENSION STYLE: MM/IN
SCALE: 4:1
DESIGN UNITS: METRIC
THIRD ANGLE PROJECTION

DRAWN BY: T. MAHON DATE: 28/01/03
CHECKED BY: BMAGUIRE DATE: 28/01/03
APPROVED BY: JDENNEHY DATE: 2005/03/11

TITLE: WAFER, FRICTION LOCK KK (2.54)/.100 FOR (0.64)/.025 SQ. PINS

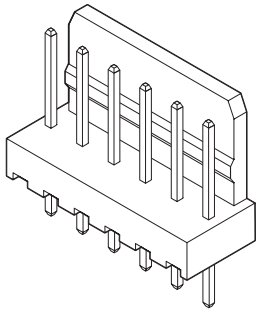
MOLEX INCORPORATED

MATERIAL NO.: SEE CHART
DOCUMENT NO.: SDAE-6410-N
SHEET NO.: 3 OF 3

SIZE: A2

2.54mm (.100") Pitch KK® 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

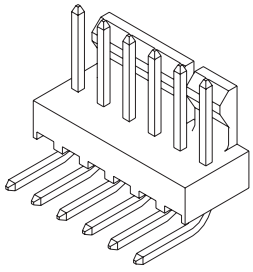
Circuits	Order No.		Lead-free
	Tin	Gold	
2	22-27-2021	22-29-2021	Yes
3	22-27-2031	22-29-2031	
4	22-27-2041	22-29-2041	
5	22-27-2051	22-29-2051	
6	22-27-2061	22-29-2061	
7	22-27-2071	22-29-2071	
8	22-27-2081	22-29-2081	
9	22-27-2091	22-29-2091	
10	22-27-2101	22-29-2101	

Circuits	Order No.		Lead-free
	Tin	Gold	
11	22-27-2111	22-29-2111	Yes
12	22-27-2121	22-29-2121	
13	22-27-2131	22-29-2131	
14	22-27-2141	22-29-2141	
15	22-27-2151	22-29-2151	
16	22-27-2161	22-29-2161	
17	22-27-2171	22-29-2171	
18	22-27-2181	22-29-2181	
19	22-27-2191	22-29-2191	

Circuits	Order No.		Lead-free
	Tin	Gold	
20	22-27-2201	22-29-2201	Yes
21	22-27-2211	22-29-2211	
22	22-27-2221	22-29-2221	
23	22-27-2231	22-29-2231	
24	22-27-2241	22-29-2241	
25	22-27-2251	22-29-2251	
26	22-27-2261	22-29-2261	
27	22-27-2271	22-29-2271	
28	22-27-2281	22-29-2281	

2.54mm (.100") Pitch KK® 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	22-05-3021	22-12-2024	Yes
3	22-05-3031	22-12-2034	
4	22-05-3041	22-12-2044	
5	22-05-3051	22-12-2054	
6	22-05-3061	22-12-2064	
7	22-05-3071	22-12-2074	
8	22-05-3081	22-12-2084	
9	22-05-3091	22-12-2094	
10	22-05-3101	22-12-2104	

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

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

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