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Part Number: [22-27-2101](#)
Status: **Active**
Overview: [KK® Interconnection System](#)
Description: 2.54mm Pitch KK® Wire-to-Board Header, Vertical, with Friction Lock, 10 Circuits, Tin (Sn) Plating

Documents:

[3D Model](#) [Product Specification PS-99020-0088 \(PDF\)](#)
[Drawing \(PDF\)](#) [RoHS Certificate of Compliance \(PDF\)](#)

Agency Certification

CSA LR19980
 UL E29179

General

Product Family PCB Headers
 Series [6410](#)
 Application Signal, Wire-to-Board
 Overview [KK® Interconnection System](#)
 Product Name KK®
 UPC 800753749924

Physical

Breakaway No
 Circuits (Loaded) 10
 Circuits (maximum) 10
 Color - Resin Natural (White)
 First Mate / Last Break No
 Flammability 94V-0
 Glow-Wire Compliant No
 Guide to Mating Part No
 Keying to Mating Part None
 Lock to Mating Part Yes
 Material - Metal Brass
 Material - Plating Mating Tin
 Material - Plating Termination Tin
 Material - Resin Nylon
 Net Weight 1.072/g
 Number of Rows 1
 Orientation Vertical
 PC Tail Length 3.56mm
 PCB Locator No
 PCB Retention None
 PCB Thickness - Recommended 1.60mm
 Packaging Type Bag
 Pitch - Mating Interface 2.54mm
 Pitch - Termination Interface 2.54mm
 Plating min - Mating 5.080µm
 Plating min - Termination 5.080µm
 Polarized to Mating Part Yes
 Polarized to PCB No
 Shrouded Partial
 Stackable No
 Surface Mount Compatible (SMC) No
 Temperature Range - Operating See Product Specification
 Termination Interface: Style Through Hole



EU RoHS

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

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

[6410Series](#)

Mates With

[KK® Crimp Terminal Housing 2695](#) , [6471](#)

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
Process Temperature max. C 235

Material Info

Old Part Number AE-6410-10A(222)

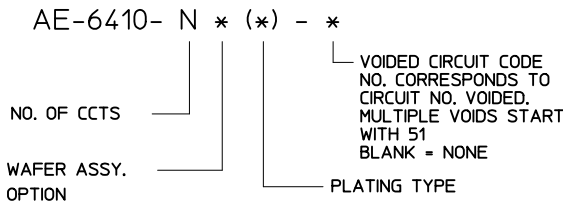
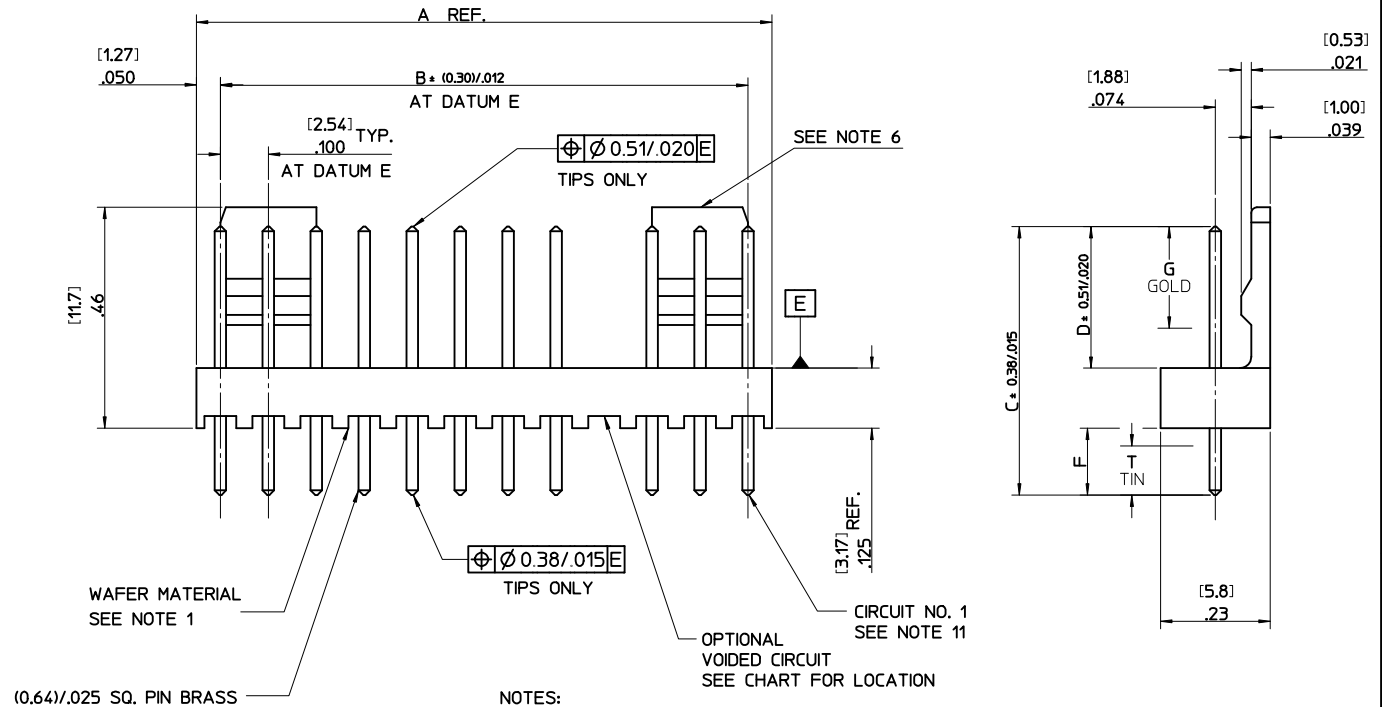
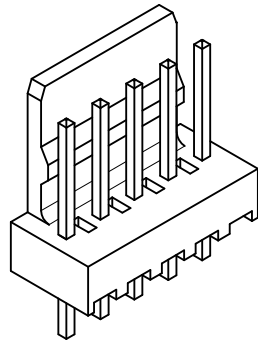
Reference - Drawing Numbers

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

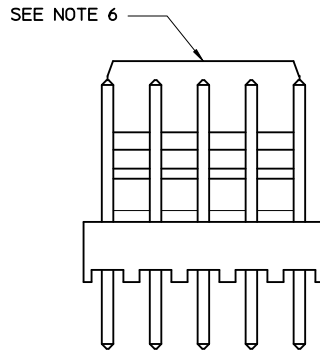
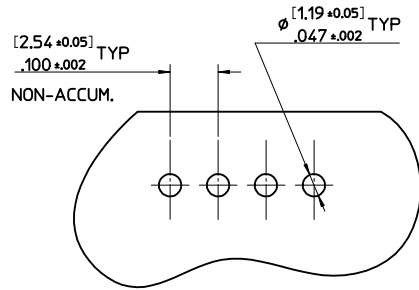
This document was generated on 04/26/2013

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NO. OF CCTS	DIMN. "A"	DIMN. "B"
2	(5.08) .200	(2.54) .100
3	(7.62) .300	(5.08) .200
4	(10.16) .400	(7.62) .300
5	(12.70) .500	(10.16) .400
6	(15.24) .600	(12.70) .500
7	(17.78) .700	(15.24) .600
8	(20.32) .800	(17.78) .700
9	(22.86) .900	(20.32) .800
10	(25.40) 1.000	(22.86) .900
11	(27.94) 1.100	(25.40) 1.000
12	(30.48) 1.200	(27.94) 1.100
13	(33.02) 1.300	(30.48) 1.200
14	(35.56) 1.400	(33.02) 1.300
15	(38.10) 1.500	(35.56) 1.400
16	(40.64) 1.600	(38.10) 1.500



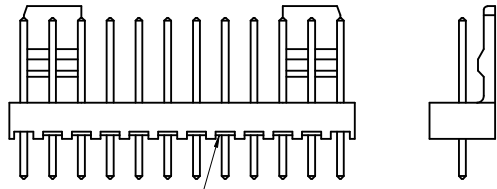
- NOTES:
1. WAFER MATERIAL: NYLON, UL94V-0. PIN MATERIAL: BRASS
 2. FINISH:
154 = OVERALL TIN: 0.00254/.00100 MIN. OVER 0.00127/.000050 MIN. NICKEL
197 = OVERALL REFLOWED MATTE TIN: 0.00152/.00060 MIN. OVER 0.00127/.000050 MIN. NICKEL
222 = OVERALL MATTE TIN: 0.00254/.00100 MIN. OVER 0.00127/.000050 MIN NICKEL
228 = SELECT GOLD 0.00076/.000030 MIN., SELECT MATTE TIN: 0.00254/.00100 OVER 0.00127/.000050 MIN NICKEL
231 = SELECT GOLD 0.00127/.000050 MIN., SELECT MATTE TIN: 0.00254/.00100 OVER 0.00076/.000030 MIN NICKEL
241 = SELECT GOLD 0.00051/.000020 MIN., SELECT MATTE TIN: 0.00254/.00100 OVER 0.00076/.000030 MIN NICKEL
 3. THIS PART CONFORMS TO MOLEX PROD. SPEC. PS-99020-0088.
 4. PACKAGING: PER PK-6410-002
 5. PIN SOLDERABILITY PER MOLEX SPEC. SMES-152.
 6. SINGLE RAMP ON 2-6 CCTS TWO RAMP ON 7-16 CCTS, AS SHOWN.
 7. PIN PUSH OUT FORCE: (0.907 Kg)/2lbs MIN.
 8. PCB THICKNESS 1.6MM
 9. WAFERS STACKABLE END TO END WITH (2.54)/.100 BETWEEN END PINS
 10. THIS PART CONFORMS TO CLASS B REQUIREMENTS OF COSMETIC SPECIFICATION PS-45499-002.
 11. CIRCUIT 1 DESIGNATION IS USED TO DEFINE VOID LOCATION. CIRCUIT 1 MAY OR MAY NOT LINE UP WITH CIRCUIT 1 ON THE MATING HOUSING.



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

REV	DESCRIPTION	QUALITY SYMBOLS	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE		SCALE	DESIGN UNITS	THIRD ANGLE PROJECTION
			mm	INCH	MM/IN	DATE			
BC	CHANGE PLATING EC NO: UCP2012-1821 DRWN:WSTROH 2011/12/22 CHKD:MKIPPER 2012/01/03 APPR:FSMITH 2012/02/02	▽=0 ▽=0 ▽=0	4 PLACES ± --- ± ---	3 PLACES ± --- ± .010	2 PLACES ± 0.25 ± .014	1 PLACE ± 0.35 ± ---	5:1	METRIC	MOLEX INCORPORATED
			ANGULAR ± .5 °		DRAWN BY T. MAHON DATE 28/01/03 CHECKED BY BMAGUIRE DATE 28/01/03 APPROVED BY JDENNEHY DATE 2005/03/11				MOLEX INCORPORATED
			DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		SEE CHART				SDAE-6410-N
					MATERIAL NO. DOCUMENT NO.				SHEET NO. 1 OF 4
			THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION						

ENG. NO.	AE-6410-NA (222)		AE-6410-NC (197)		AE-6410-NH (197)		AE-6410-NJ (197)		AE-6410-NL (154)		AE-6410-NM (154)		
DIMN. "D"	(7.50) .295		(7.14) .281		(7.49) .295		(18.80) .740		(8.58) .338		(7.62) .300		
DIMN. "C"	(14.22) / .560		(20.32) / .800		(14.98) / .590		(25.40) / 1.000		(23.88) / .940		(20.32) / .800		
DIMN. "F"	(3.56) / .140 REF		(10.00) / .394 REF		(4.32) / .170 REF		(3.43) / .135 REF		(12.13) / .477 REF		(9.53) / .375 REF		
DIMN. "G"	N/A		N/A		N/A		N/A		N/A		N/A		
DIMN. "T"	OVERALL		OVERALL		OVERALL		OVERALL		OVERALL		OVERALL		
PLATING	222		197		197		197		154		154		
NO. OF CIRCUITS	2	AE-6410-2A(222)	22-27-2021	AE-6410-2C(197)	38-00-6292	AE-6410-2H(197)	38-00-6754	AE-6410-2J(197)	NOT TOOLED	AE-6410-2L(154)	NOT TOOLED	AE-6410-2M(154)	NOT TOOLED
	3	3 A(222)	▲ 2031	3 C(197)	▲ 6293	3 H(197)	NOT TOOLED	3 J(102)	NOT TOOLED	3 L(154)	26-01-3195	3 M(154)	26-01-3179
	4	4 A(222)	2041	4 C(197)	6294	4 H(197)	22-27-2046	4 J(102)	NOT TOOLED	4 L(154)	NOT TOOLED	4 M(154)	NOT TOOLED
	5	5 A(222)	2051	5 C(197)	6295	5 H(197)	NOT TOOLED	5 J(102)	22-27-2057	5 L(154)	▲	5 M(154)	▲
	6	6 A(222)	2061	6 C(197)	6296	6 H(197)	▲	6 J(102)	NOT TOOLED	6 L(154)	▲	6 M(154)	▲
	7	7 A(222)	2071	7 C(197)	6297	7 H(197)	▲	7 J(102)	NOT TOOLED	7 L(154)	▲	7 M(154)	▲
	8	8 A(222)	2081	8 C(197)	6298	8 H(197)	▲	8 J(102)	22-27-2087	8 L(154)	▲	8 M(154)	▲
	9	9 A(222)	2091	9 C(197)	6299	9 H(197)	▲	9 J(102)	NOT TOOLED	9 L(154)	▲	9 M(154)	▲
	10	10 A(222)	2101	10 C(197)	6300	10 H(197)	▼	10 J(102)	▲	10 L(154)	▲	10 M(154)	▲
	11	11 A(222)	2111	11 C(197)	6301	11 H(197)	NOT TOOLED	11 J(102)	▲	11 L(154)	▲	11 M(154)	▲
	12	12 A(222)	2121	12 C(197)	6302	12 H(197)	22-27-2126	12 J(102)	▲	12 L(154)	▲	12 M(154)	▲
	13	13 A(222)	2131	13 C(197)	6303	13 H(197)	NOT TOOLED	13 J(102)	▲	13 L(154)	▼	13 M(154)	▲
	14	14 A(222)	2141	14 C(197)	6304	14 H(197)	▲	14 J(102)	▲	14 L(154)	NOT TOOLED	14 M(154)	▲
	15	15 A(222)	▼ 2151	15 C(197)	▼ 6305	15 H(197)	▼	15 J(102)	▼	15 L(154)	38-00-1736	15 M(154)	▼
	16	AE-6410-16A(222)	22-27-2161	AE-6410-16C(197)	38-00-6306	AE-6410-16H(197)	NOT TOOLED	AE-6410-16J(197)	NOT TOOLED	AE-6410-16L(154)	NOT TOOLED	AE-6410-16M(154)	NOT TOOLED



RIBS ADDED
(4-16 CCTS. ONLY)
ALTERNATIVE WAFER CONFIGURATION

SEE SHEET 1 EC NO: UCP2012-1821 DRWN:WSTROH 2011/12/22 CHKD:HKIPPER 2012/01/03 APPR:FSMITH 2012/02/07	QUALITY SYMBOLS	GENERAL TOLERANCES (UNLESS SPECIFIED)	DIMENSION STYLE	SCALE	DESIGN UNITS	THIRD ANGLE PROJECTION
	▽=0	mm INCH	MM/IN	4:1	METRIC	
	▽=0	4 PLACES ± --- ± ---	DRAWN BY DATE	T. MAHON 28/01/03	WAFFER, FRICTION LOCK KK (2.54)/.100 FOR (0.64)/.025 SQ. PINS	
	▽=0	3 PLACES ± --- ± .010	CHECKED BY DATE	BMAGUIRE 28/01/03	MOLEX INCORPORATED	
	2 PLACES ± 0.25 ± .014	APPROVED BY DATE	JDENNEHY 2005/03/11	SDAE-6410-N		SHEET NO. 2 OF 4
	1 PLACE ± 0.35 ± ---	MATERIAL NO.	SEE CHART	THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION		
	ANGULAR ± .5 °	SIZE	C			
	DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS					

ENG. NO.	AE-6410-NA (241)		AE-6410-NC (241)		AE-6410-NA (231)		AE-6410-NS (241)		AE-6410-NA (228)		
DIMN. "D"	(7.50) .295		(7.14) .281		(7.50) .295		(7.50) .295		(7.50) .295		
DIMN. "C"	(14.22) / .560		(20.32) / .800		(14.22) / .560		(16.51) / .650		(14.22) / .560		
DIMN. "F"	(3.56) / .140 REF		(10.00) / .394 REF		(3.56) / .140 REF		(5.84) / .230 REF		(3.56) / .140 REF		
DIMN. "G"	(3.56)/.140		(5.08)/.200		(3.56)/.140		(5.08)/.200		(3.56)/.140		
DIMN. "T"	(3.43)/.135		(5.08)/.200		(3.43)/.135		(5.08)/.200		(3.43)/.135		
PLATING	241		241		231		241		228		
NO. OF CIRCUITS	2	AE-6410-2A(241)	22-29-2021	AE-6410-2C(241)	NOT TOOLED	AE-6410-2A(231)	38-00-7250	NOT TOOLED	AE-6410-2A(228)	38-00-7062	
	3	3 A(241)	↑ 2031	3 C(241)	38-00-5909	3 A(231)	NOT TOOLED	NOT TOOLED	3 A(228)	↑ 7063	
	4	4 A(241)	2041	4 C(241)	NOT TOOLED	4 A(231)	38-00-7251	AE-6410-4S(241)	38-00-7666	4 A	↑ 7064
	5	5 A(241)	2051	5 C(241)	↑	5 A(231)	NOT TOOLED	NOT TOOLED	5 A	7065	
	6	6 A(241)	2061	6 C(241)	↑	6 A(231)	↑	6 S(241)	38-00-7667	6 A	7066
	7	7 A(241)	2071	7 C(241)	↑	7 A(231)	↑	NOT TOOLED	NOT TOOLED	7 A	↓ 7067
	8	8 A(241)	2081	8 C(241)	↑	8 A(231)	↑	↑	8 A	38-00-7068	
	9	9 A(241)	2091	9 C(241)	↑	9 A(231)	↑	↑	9 A	NOT TOOLED	
	10	10 A(241)	2101	10 C(241)	↑	10 A(231)	↑	↑	10 A	NOT TOOLED	
	11	11 A(241)	2111	11 C(241)	↑	11 A(231)	↑	↑	11 A	NOT TOOLED	
	12	12 A(241)	2121	12 C(241)	↑	12 A(231)	↑	↑	12 A	38-00-7072	
	13	13 A(241)	2131	13 C(241)	↑	13 A(231)	↑	↑	13 A	NOT TOOLED	
	14	14 A(241)	2141	14 C(241)	↑	14 A(231)	↑	↑	14 A	38-00-7074	
	15	15 A(241)	2151	15 C(241)	↓	15 A(231)	↓	↓	15 A	NOT TOOLED	
	16	AE-6410-16A(241)	22-29-2161	AE-6410-16C(241)	NOT TOOLED	AE-6410-16A(231)	NOT TOOLED	NOT TOOLED	NOT TOOLED	AE-6410-16A(228)	NOT TOOLED

SEE SHEET 1 EC NO: UCP2012-1821 DRWN:WSTROH 2011/12/22 CHKD:MKIPPER 2012/01/03 APPR:FSMITH 2012/02/02	QUALITY SYMBOLS ▽=0 ▽=0 ▽=0	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE		SCALE	DESIGN UNITS	THIRD ANGLE PROJECTION
				MM/IN		4:1	METRIC	
				DRAWN BY DATE		TITLE		
				CHECKED BY DATE		MOLEX MOLEX INCORPORATED		
		APPROVED BY DATE		MATERIAL NO.		DOCUMENT NO.		SHEET NO. 3 OF 4
		JDENNEHY 2005/03/11		SEE CHART		SDAE-6410-N		
		ANGULAR ± .5 °		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		

VOIDED CIRCUIT OPTION

ENG. NO.	AE-6410-NA(197)-*		
DIM. D	7.50/.295		
DIM. C	14.22 /.560		
DIM. F (REF)	3.56 /.140		
DIM. G	N/A		
DIM. T	OVERALL		
PLATING	197		
PART No.	ENG No.	CKT SIZE	VOID LOCATION
38-00-7222	AE-6410-3A(197)-2	3	2
↑ 4749	↑ -4A(197)-3	4	3
0611	-5A(197)-3	5	3
0089	-6A(197)-3	6	3
0090	-6A(197)-51	6	3,4,5
5370	-15A(197)-02	15	2
↓ 7688	↓ -12A(197)-09	12	9

SEE SHEET 1 EC NO: UCP2012-1821 DRW:MMSTROH 2011/12/22 CHKD:HKIPPER 2012/01/03 APPR:FSMLTH 2012/02/02	REV BC	QUALITY SYMBOLS	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE		SCALE	DESIGN UNITS	THIRD ANGLE PROJECTION			
		$\nabla = 0$ $\nabla = 0$ $\nabla = 0$	mm	INCH	MM/IN	4:1	METRIC	WAFER, FRICTION LOCK KK (2.54)/.100 FOR (0.64)/.025 SQ. PINS MOLEX INCORPORATED SDAE-6410-N				
		4 PLACES ± --- ± --- 3 PLACES ± --- ± .010 2 PLACES ± 0.25 ± .014 1 PLACE ± 0.35 ± ---	ANGULAR ± .5 °		DRAWN BY DATE T. MAHON 28/01/03 CHECKED BY DATE BMAGUIRE 28/01/03 APPROVED BY DATE JDENNEHY 2005/03/11 MATERIAL NO.	TITLE MOLEX DOCUMENT NO.	SHEET NO. 4 OF 4					
		DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS			SEE CHART		THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION					