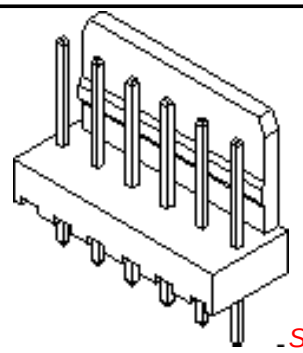
This document was generated on 05/24/2010

PLEASE CHECK WWW.MOLEX.COM FOR LATEST PART INFORMATION

Part Number: 0022272221
Status: Active
Overview: kk
Description: 2.54mm (.100") Pitch KK® Wire-to-Board Header, Vertical, with Friction Lock, 22 Circuits, Tin (Sn) Plating



-Series image - Reference only

Documents:

3D Model
Drawing (PDF)
Product Specification PS-10-07 (PDF)
Product Specification PS-99020-0088 (PDF)
RoHS Certificate of Compliance (PDF)

Agency Certification

CSA	LR19980
UL	E29179

General

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

Physical

Breakaway	No
Circuits (Loaded)	22
Circuits (maximum)	22
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
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
PCB Thickness Recommended (in)	0.063 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
Pitch - Term. Interface (in)	0.100 In
Pitch - Term. Interface (mm)	2.54 mm
Plating min: Mating (µin)	200
Plating min: Mating (µm)	5
Plating min: Termination (µin)	200
Plating min: Termination (µm)	5
Polarized to Mating Part	Yes
Polarized to PCB	No

EU RoHS
ELV and RoHS Compliant
REACH SVHC
Not Reviewed
Halogen-Free Status
Not Reviewed

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

Shrouded	Partial
Stackable	No
Surface Mount Compatible (SMC)	No
Temperature Range - Operating	0°C to +75°C
Termination Interface: Style	Through Hole

Electrical

Current - Maximum per Contact	4A
Voltage - Maximum	250V

Solder Process Data

Lead-free Process Capability	Wave Capable (TH only)

Material Info

Old Part Number	AE-6410-22A(102)

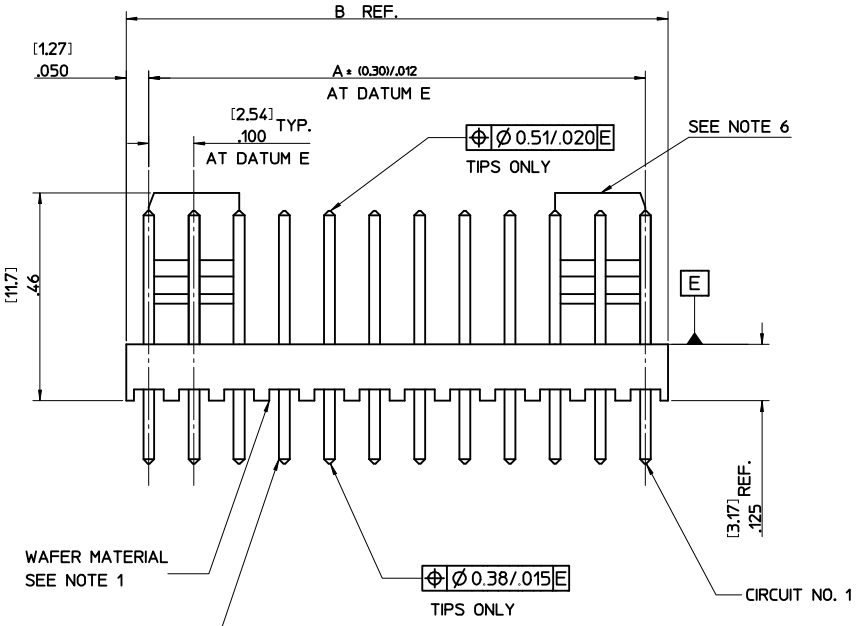
Reference - Drawing Numbers

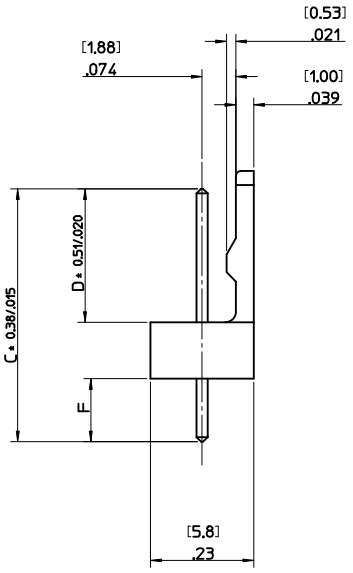
Packaging Specification	PK-6373-001
Product Specification	PS-10-07, PS-99020-0088
Sales Drawing	SDAE-6410-N

This document was generated on 05/24/2010

PLEASE CHECK WWW.MOLEX.COM FOR LATEST PART INFORMATION

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



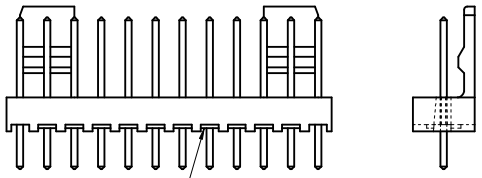


AE-6410- N * (*)

NO. OF CCTS

PLATING TYPE

WAFER ASSY. OPTION

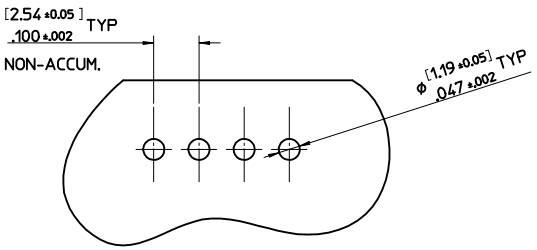


RIBS ADDED (4-28 CCTS. ONLY)

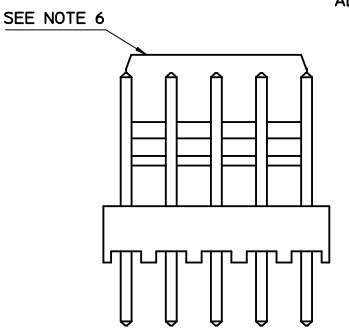
ALTERNATIVE WAFER CONFIGURATION

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



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



ADD VOIDED OPTION
EC NO: E2009-0413 2009/02/24
DRWN:BMAGUIRE 2009/02/24
CHKD: 2009/02/24
APPR:BMAGUIRE 2009/02/24
DESCRIPTION
REV BB

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
MATERIAL NO.	SEE CHART
DOCUMENT NO.	SDAE-6410-N
SHEET NO.	1 OF 4
SIZE	A2

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

MOLEX INCORPORATED

THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION

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						
2	AE-6410-2A(102) 22-27-2021	AE-6410-2C(102) 38-00-6292	AE-6410-2D(102) 38-00-5882	AE-6410-2H(102) 38-00-6754	AE-6410-2J(102) NOT TOOLED	AE-6410-2L(102) 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: E2009-0413
DRWN:BMAGUIRE 2009/02/24
CH'KD: 2009/02/24
APPR:BMAGUIRE
DESCRIPTION
REV BB

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 4
SIZE: A2

THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION

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	(16.51) /.649	(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	(5.84) / .230 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	2	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
	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: E2009-0413 2009/02/24
DRWN:BMAGUIRE 2009/02/24
CHKD:
APPR:BMAGUIRE 2009/02/24
DESCRIPTION
REV BB

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

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

molex MOLEX INCORPORATED

MATERIAL NO.: SEE CHART
DOCUMENT NO.: SDAE-6410-N
SHEET NO.: 3 OF 4
SIZE: A2

THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION

VOIDED OPTION

PART No.	ENG No.	CKT SIZE	VOID LOCATION	DIM A	DIM B	DIM D
38-00-7222	A-6410-3A-2	3	2	(5.08 ±0.10) /.200 ±.004	(7.62)/.300	(7.50)/.295
4749	-4A-3	4	3	(7.62 ±0.13) /.300 ±.005	(10.16)/.400	(7.50)/.295
0611	-5A-3	5	3	(10.16 ±0.13) /.400 ±.005	(12.70)/.500	(7.50)/.295
0089	-6A-3	6	3	(12.70 ±0.13) /.500 ±.005	(15.24)/.600	(7.50)/.295
0090	-6A-51	6	3,4,5	(12.70 ±0.13) /.500 ±.005	(15.24)/.600	(7.50)/.295
5370	-15A-02	15	2	(35.56 ±0.13) /1.400 ±.005	(38.10)/1.500	(7.50)/.295
5371	-19A-12	19	12	(45.72 ±0.15) /1.800 ±.006	(48.26)/1.900	(7.50)/.295
7688	-12A-09	12	9	(27.94 ±0.13) /1.100 ±.005	(30.48)/1.200	(7.50)/.295

ADD VOIDED OPTION
EC NO: E2009-0413 2009/02/24
DRWN:BMAGUIRE 2009/02/24
CHKD:
APPR:BMAGUIRE 2009/02/24
DESCRIPTION
REV
BB

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 TABLE
DOCUMENT NO.: SDAE-6410-N
SHEET NO.: 4 OF 4
SIZE: A3

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