

PLEASE CHECK WWW.MOLEX.COM FOR LATEST PART INFORMATION

Part Number: [0010451121](#)
Status: **Active**
Overview: [kk](#)
Description: 5.08mm (.200") Pitch KK® Header, Vertical, Round Pin, 12 Circuits, Gold (Au) Plating, Pin Length 19.05mm (.750")

Documents:

[3D Model](#) [Product Specification PS-99020-0087 \(PDF\)](#)
[Drawing \(PDF\)](#) [RoHS Certificate of Compliance \(PDF\)](#)

Agency Certification

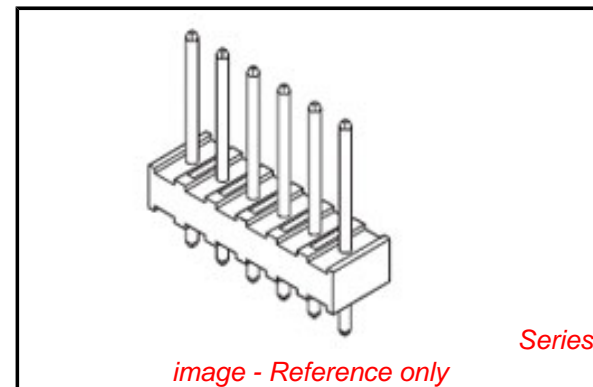
CSA LR19980
 UL E29179

General

Product Family PCB Headers
 Series [3003](#)
 Application Board-to-Board, Wire-to-Board
 Overview [kk](#)
 Product Name KK®

Physical

Breakaway No
 Circuits (Loaded) 12
 Circuits (maximum) 12
 Color - Resin Natural
 Durability (mating cycles max) 25
 First Mate / Last Break No
 Flammability 94V-2
 Glow-Wire Compliant No
 Guide to Mating Part No
 Keying to Mating Part None
 Lock to Mating Part None
 Material - Metal Brass
 Material - Plating Mating Tin
 Material - Plating Termination Tin
 Material - Resin Nylon
 Number of Rows 1
 Orientation Vertical
 PC Tail Length (in) 0.155 In
 PC Tail Length (mm) 3.94 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) 0.200 In
 Pitch - Mating Interface (mm) 5.08 mm
 Pitch - Term. Interface (in) 0.200 In
 Pitch - Term. Interface (mm) 5.08 mm
 Plating min: Mating (µin) 20
 Plating min: Mating (µm) .5
 Plating min: Termination (µin) 30
 Plating min: Termination (µm) .76
 Polarized to Mating Part No
 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

[3003Series](#)

Mates With

KK® Crimp Terminal Housing [3001](#) , [5058](#)

Shrouded	No
Stackable	No
Surface Mount Compatible (SMC)	No
Temperature Range - Operating	0°C to +50°C
Termination Interface: Style	Through Hole

Electrical

Current - Maximum per Contact	7A
Voltage - Maximum	250V

Solder Process Data

Lead-free Process Capability	Wave Capable (TH only)
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Material Info

Old Part Number	3003-12AG
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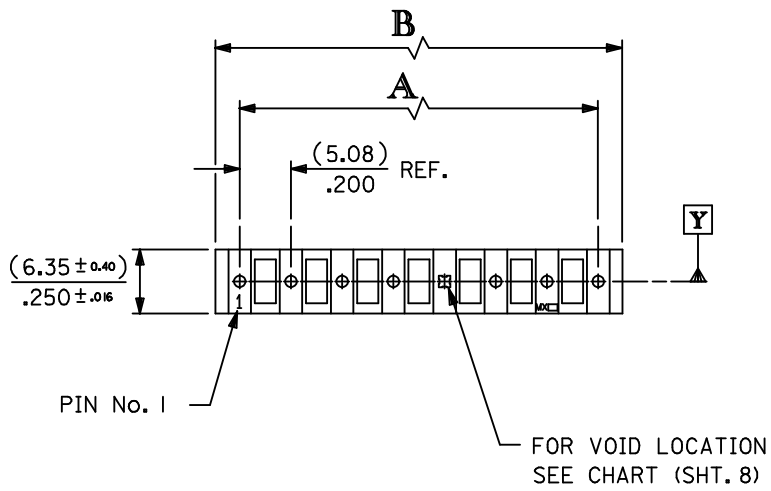
Reference - Drawing Numbers

Product Specification	PS-99020-0087
Sales Drawing	SDAE-3003-N*

This document was generated on 05/24/2010

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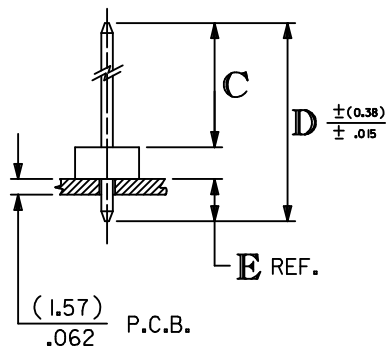
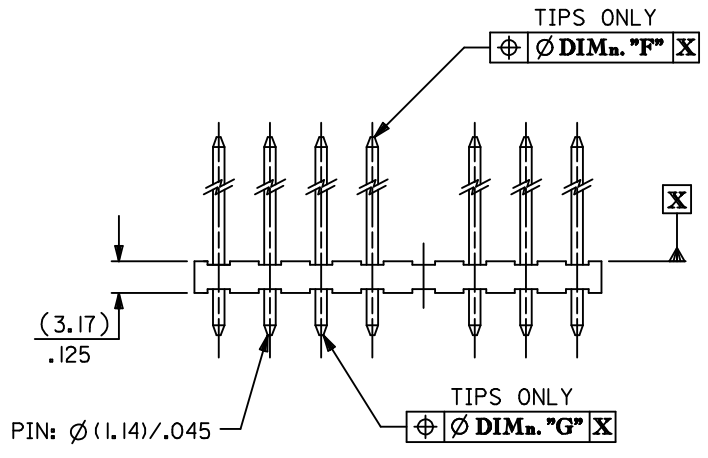
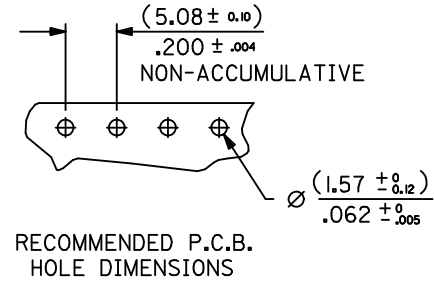
SEE CHART
SDAE-3003-N*



3003-N * - *

BASE No. VOID CODE

No. OF CCTS. VERSION



No OF CCTS.	DIMn. A	DIMn. B
2	(5.08 ± 0.05) .200 ± .002	(9.91 ± 0.15) .390 ± .006
3	(10.16 ± 0.08) .400 ± .003	(14.99 ± 0.15) .590 ± .006
4	(15.24 ± 0.08) .600 ± .003	(20.07 ± 0.18) .790 ± .007
5	(20.32 ± 0.08) .800 ± .003	(25.15 ± 0.20) .990 ± .008
6	(25.40 ± 0.10) 1.000 ± .004	(30.23 ± 0.23) 1.190 ± .009
7	(30.48 ± 0.13) 1.200 ± .005	(35.31 ± 0.25) 1.390 ± .010
8	(35.56 ± 0.20) 1.400 ± .008	(40.39 ± 0.28) 1.590 ± .011
9	(40.64 ± 0.20) 1.600 ± .008	(45.47 ± 0.30) 1.790 ± .012
10	(45.72 ± 0.20) 1.800 ± .008	(50.55 ± 0.30) 1.990 ± .012
11	(50.80 ± 0.20) 2.000 ± .008	(55.63 ± 0.33) 2.190 ± .013
12	(55.88 ± 0.25) 2.200 ± .010	(60.71 ± 0.33) 2.390 ± .013
13	(60.96 ± 0.25) 2.400 ± .010	(65.79 ± 0.36) 2.590 ± .014
14	(66.04 ± 0.25) 2.600 ± .010	(70.87 ± 0.36) 2.790 ± .014
15	(71.12 ± 0.35) 2.800 ± .014	(75.95 ± 0.42) 2.990 ± .017
16	(76.20 ± 0.35) 3.000 ± .014	(81.03 ± 0.42) 3.190 ± .017
17	(81.28 ± 0.40) 3.200 ± .016	(86.11 ± 0.51) 3.390 ± .020
18	(86.36 ± 0.40) 3.400 ± .016	(91.19 ± 0.53) 3.590 ± .021
19	(91.44 ± 0.50) 3.600 ± .020	(96.27 ± 0.53) 3.790 ± .021
20	(96.52 ± 0.50) 3.800 ± .020	(101.35 ± 0.53) 3.990 ± .021

NOTES:

1. MATERIAL: WAFER, NYLON, 94V-2, COLOUR - NATURAL PINS, BRASS (FOR PLATING SEE CHARTS)
2. FOR DIMns. "A","B","C","D","E","F" AND VERSIONS, SEE CHARTS ON SHEET 2 & SUBSEQUENT SHEETS.
3. FOR VERSIONS WITH VOIDS SEE SHEET 8.
4. PIN PUSH OUT FORCE: (1.36Kg)/3lbs MIN.
5. PIN MUST MEET MOLEX SOLDERABILITY SPEC. ES-152.
6. MAX BOW (0.38)/.015 OVER (25.4)/1.00

ADD PART NO SHT 7 EC NO: E2009-0320 DRWN: BMAGUIRE 2009/04/03 CHKD: 2009/04/03 APPR: BMAGUIRE 2009/04/06	QUALITY SYMBOLS ▽=0 ∇=0	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE MM ONLY	SCALE 1:1	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION
		mm	INCH	DRAWN BY	DATE	TITLE 5.08 MM KK HDR VT RPIN	
BM	DESCRIPTION	4 PLACES	± ---	± ---	CHECKED BY	DATE	MATERIAL NO. SDAE-3003-N*
		3 PLACES	± ---	± ---	APPROVED BY	DATE	
		2 PLACES	± ---	± ---	MATERIAL NO. SDAE-3003-N*		DOCUMENT NO.
		1 PLACE	± ---	± ---	SHEET NO. 1 OF 00		
		ANGULAR ± ---°		DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS			
		SIZE A3	THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION				

INDEX: FOR FULL DIMENSIONS SEE RELEVANT SHEET.

ENG. No.	PLATING	DIM. C	DIM. D	SHT. No.
AE-3003-NA	(102)			3
AE-3003-NAG	(501)	(11.94) / .470	(19.05) / .750	6
AE-3003-NA(503)	(503)			6
AE-3003-NB	(102)	(16.69) / .657	(23.80) / .937	3
AE-3003-NC	(102)			3
AE-3003-NCG	(501)	(23.04) / .907	(30.48) / 1.200	6
AE-3003-ND	(102)			3
AE-3003-NDG	(501)	(27.81) / 1.095	(34.92) / 1.375	6
AE-3003-NF	(102)			3
AE-3003-NFG	(501)	(32.56) / 1.282	(39.68) / 1.562	6
AE-3003-NI	(102)	(13.51) / .532	(20.32) / .800	4
AE-3003-NJ	(102)	(21.46) / .845	(28.58) / 1.125	4
AE-3003-NK	(102)			4
AE-3003-NS	(501)	(18.29) / .720	(25.40) / 1.000	7
AE-3003-NM	(102)	(11.89) / .468	(23.80) / .937	4
AE-3003-NU	(102)	(11.18) / .440	(17.45) / .687	4
AE-3003-NV	(102)	(11.94) / .470	(18.29) / .720	5
AE-3003-NY	(102)	(10.90) / .430	(17.45) / .687	5

FOR VOID VERSIONS SEE SHEET 8.

DOCUMENT ERROR EC NO: E2009-0513 DRWN: BMAGUIRE 2009/04/07 CHKD: 2009/04/07 APPR: BMAGUIRE 2009/04/07 REV	QUALITY SYMBOLS	GENERAL TOLERANCES (UNLESS SPECIFIED)	DIMENSION STYLE	SCALE	DESIGN UNITS	THIRD ANGLE PROJECTION
	▼=0 ◻=0	mm INCH 4 PLACES ± --- ± --- 3 PLACES ± --- ± --- 2 PLACES ± --- ± --- 1 PLACE ± --- ± --- ANGULAR ± ---°	MM ONLY	1:1	METRIC	
	DESCRIPTION	DRAWN BY	DATE	TITLE		
		CHECKED BY	DATE	5.08 MM KK HDR VT RPIN		
	APPROVED BY	DATE	MOLEX INCORPORATED			
	MATERIAL NO.	DOCUMENT NO.	SHEET NO.			
	SEE CHART	SDAE-3003-N*	2 OF 08			
	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				

ENG. NO.	AE-3003-NAG	AE-3003-NA(503)	AE-3003-NCG	AE-3003-NDG	AE-3003-NFG						
DIMN. "C"	(11.94 ± 0.51) .470 ± .020	(11.94 ± 0.51) .470 ± .020	(23.04 ± 0.51) .907 ± .020	(27.81 ± 0.51) 1.095 ± .020	(32.56 ± 0.51) 1.282 ± .020						
DIMN. "D"	(19.05) / .750	(19.05) / .750	(30.48) / 1.200	(34.92) / 1.375	(39.68) / 1.562						
DIMN. "E"	(3.94) / .155	(3.94) / .155	(4.27) / .168	(3.94) / .155	(3.94) / .155						
DIMN. "F"	(1.02) / .040	(1.02) / .040	(1.02) / .040	(1.02) / .040	(1.02) / .040						
DIMN. "G"	(1.02) / .040	(1.02) / .040	(1.02) / .040	(1.02) / .040	(1.02) / .040						
PLATING	(501) GOLD (0.5µM) / .000020 MIN. OVER NICKEL (0.76µM) / .000030 MIN.	(503) GOLD (0.76µM) / .000030 MIN. OVER NICKEL (1.27µM) / .000050 MIN.	(501) GOLD (0.5µM) / .000020 MIN. OVER NICKEL (0.76µM) / .000030 MIN.	(501) GOLD (0.5µM) / .000020 MIN. OVER NICKEL (0.76µM) / .000030 MIN.	(501) GOLD (0.5µM) / .000020 MIN. OVER NICKEL (0.76µM) / .000030 MIN.						
	PART NO.	ENG NO.									
NO. OF CIRCUITS	2	10-45-1021	AE-3003-2AG	NOT TOOLED	AE-3003-2A(503)	10-45-1025	AE-3003-2CG	10-45-1024	AE-3003-2DG	38-00-2482	AE-3003-2FG
	3	▲ -1031	▲ -3AG	▲	▲ -3A(503)	▲ -1035	▲ -3CG	▲ -1034	▲ -3DG	▲ -2483	▲ -3FG
	4	-1041	-4AG		-4A(503)	-1045	-4CG	-1044	-4DG	-2484	-4FG
	5	-1051	-5AG		-5A(503)	-1055	-5CG	-1054	-5DG	-2485	-5FG
	6	-1061	-6AG		-6A(503)	-1065	-6CG	-1064	-6DG	-2486	-6FG
	7	-1071	-7AG		-7A(503)	-1075	-7CG	-1074	-7DG	-2487	-7FG
	8	-1081	-8AG		-8A(503)	-1085	-8CG	-1084	-8DG	-2488	-8FG
	9	-1091	-9AG		-9A(503)	-1095	-9CG	-1094	-9DG	-2489	-9FG
	10	-1101	-10AG		-10A(503)	-1105	-10CG	-1104	-10DG	-2490	-10FG
	11	-1111	-11AG		-11A(503)	-1115	-11CG	-1114	-11DG	-2491	-11FG
	12	-1121	-12AG		-12A(503)	-1125	-12CG	-1124	-12DG	-2492	-12FG
	13	-1131	-13AG		-13A(503)	-1135	-13CG	-1134	-13DG	-2493	-13FG
	14	-1141	-14AG		-14A(503)	-1145	-14CG	-1144	-14DG	-2494	-14FG
	15	-1151	-15AG		-15A(503)	-1155	-15CG	-1154	-15DG	-2495	-15FG
	16	-1161	-16AG		-16A(503)	-1165	-16CG	-1164	-16DG	-2496	-16FG
	17	-1171	-17AG		-17A(503)	-1175	-17CG	-1174	-17DG	-2497	-17FG
	18	-1181	-18AG		-18A(503)	-1185	-18CG	-1184	-18DG	-2498	-18FG
	19	▼ -1191	▼ -19AG	▼	▼ -19A(503)	▼ -1195	▼ -19CG	▼ -1194	▼ -19DG	▼ -2499	▼ -19FG
	20	10-45-1201	AE-3003-20AG	NOT TOOLED	AE-3003-20A(503)	10-45-1205	AE-3003-20CG	10-45-1204	AE-3003-20DG	38-00-2500	AE-3003-20FG

SEE VOIDS

FOR PREVIOUS DRAWING ISSUES SEE MRI.

BK SEE SHEET 1

THIRD ANGLE PROJECTION		REVISE ONLY ON CAD SYSTEM		SH.	REV.
DIMENSIONS SHOWN (METRIC) INCH UNLESS OTHERWISE SPECIFIED TOLERANCES: ANGULAR ± 2°		DRWG BY GCH	CADCAM FILENAME SA3003X6 DGN	THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INC. & SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION	
INCH (METRIC)		CHK'D BY	TITLE 5.08 mm KK Hdr Vt RPin		
3 PLACE ± .		APP'D BY	MOLEX EUROPE		
2 PLACE ± .		SCALE	SHEET NO. DATE 60F 29/8 /86		
1 PLACE ±			PART NO. DWG NO. SIZE SEE CHART SDAE-3003-N * B		
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS					
DESIGN DIMENSION (PRIMARY) <input checked="" type="checkbox"/> (MM) <input type="checkbox"/> IN.					
EQUIVALENT DIMENSION (SECONDARY) <input type="checkbox"/> (MM) <input checked="" type="checkbox"/> IN.					