

PLEASE CHECK WWW.MOLEX.COM FOR LATEST PART INFORMATION

Part Number: [0010081091](#)
Status: **Active**
Overview: [kk](#)
Description: 5.08mm (.200") Pitch KK® Header, Vertical, Round Pin, 9 Circuits, Tin (Sn) 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) 9
 Circuits (maximum) 9
 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) 200
 Plating min: Mating (µm) 5
 Plating min: Termination (µin) 200
 Plating min: Termination (µm) 5
 Polarized to Mating Part No
 Polarized to PCB No

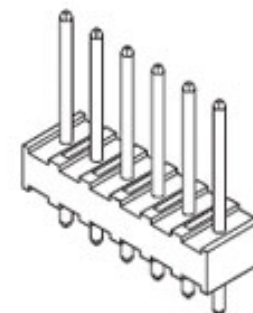


image - Reference only

Series

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 Housing [3001](#) , [5058](#). [3002](#) KK® PC Board Connector

| | |
|--------------------------------|--------------|
| 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) |
|------------------------------|------------------------|

Material Info

| | |
|-----------------|----------|
| Old Part Number | 3003-09A |
|-----------------|----------|

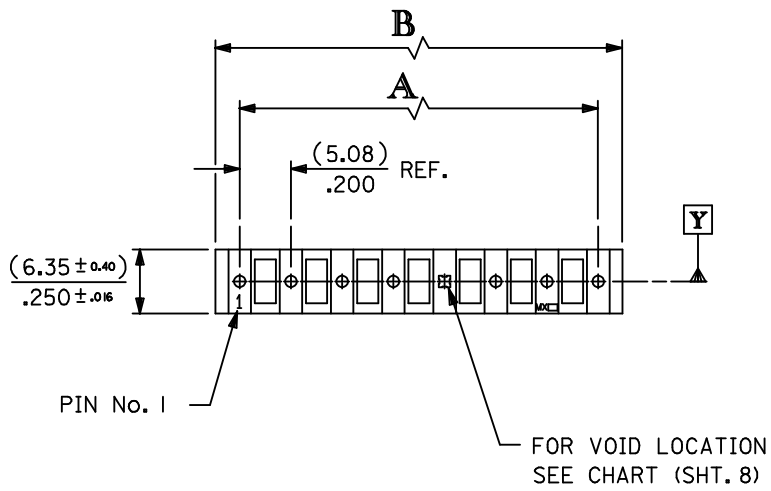
Reference - Drawing Numbers

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

This document was generated on 05/24/2010

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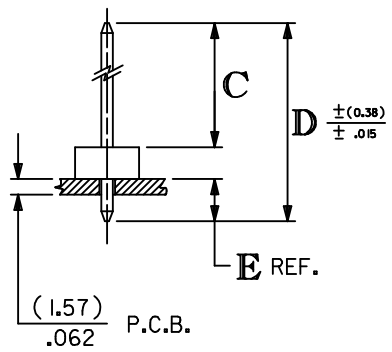
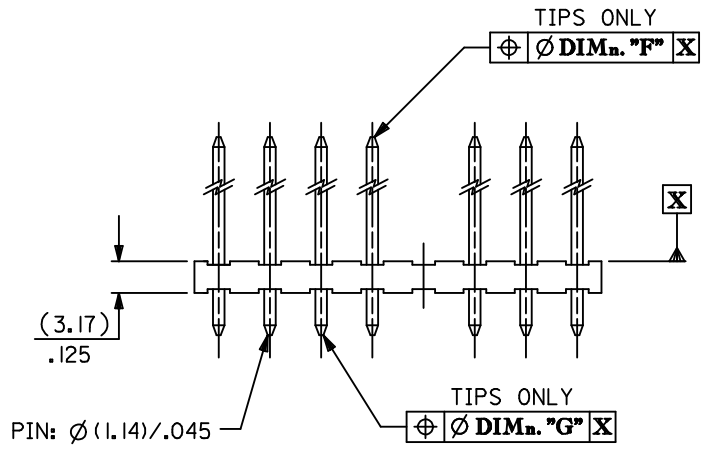
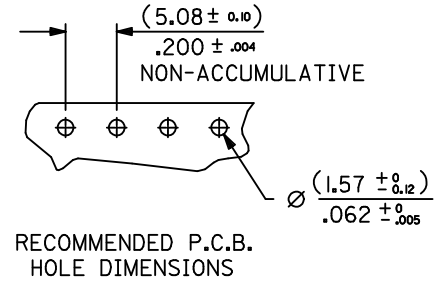
SEE CHART
SDAE-3003-N*



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 | |
| | | 4 PLACES ± --- ± --- | 3 PLACES ± --- ± --- | DRAWN BY | DATE | TITLE 5.08 MM KK HDR VT RPIN | | |
| | | 2 PLACES ± --- ± --- | 1 PLACE ± --- ± --- | CHECKED BY | DATE | APPROVED BY | | |
| | | ANGULAR ± ---° | | APPROVED BY | | DATE | MATERIAL NO. SEE TABLES | |
| BM | REV | 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 | | | |
| | | | | DOCUMENT NO. SDAE-3003-N* | | SHEET NO. 1 OF 00 | | |

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: APPR: BMAGUIRE 2009/04/07 REV | QUALITY SYMBOLS | GENERAL TOLERANCES (UNLESS SPECIFIED) | | DIMENSION STYLE | SCALE | DESIGN UNITS | THIRD ANGLE PROJECTION | | |
| | ▼=0 ◻=0 | mm | INCH | MM ONLY | 1:1 | METRIC | | | |
| | | 4 PLACES | ± --- | ± --- | DRAWN BY | DATE | TITLE | | |
| | | 3 PLACES | ± --- | ± --- | CHECKED BY | DATE | 5.08 MM KK HDR VT RPIN | | |
| | 2 PLACES | ± --- | ± --- | APPROVED BY | DATE | MOLEX INCORPORATED | | | |
| | 1 PLACE | ± --- | ± --- | ANGULAR ± ---° | | MATERIAL NO. | | SHEET NO. | |
| | | DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS | | SEE CHART | | DOCUMENT NO. | | 2 OF 08 | |
| | | | | SIZE | THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION | | | | |
| | | | | A3 | | | | | |

PART NO. SEE CHART
 DRWG. NO. SDAE-3003-N*

| ENG. NO. | AE-3003-NA | | AE-3003-NB | | AE-3003-NC | | AE-3003-ND | | AE-3003-NF | | |
|-----------------|--|------------|--|------------|--|------------|--|------------|--|------------|-------------|
| DIMN. "C" | (11.94 ± 0.51) .470 ± .020 | | (16.69 ± 0.51) .657 ± .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 | | (23.80) / .937 | | (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 | (102) TIN (5.0µM) / .000200 MIN. OVER COPPER (2.5µM) / .000100 MIN. | | (102) TIN (5.0µM) / .000200 MIN. OVER COPPER (2.5µM) / .000100 MIN. | | (102) TIN (5.0µM) / .000200 MIN. OVER COPPER (2.5µM) / .000100 MIN. | | (102) TIN (5.0µM) / .000200 MIN. OVER COPPER (2.5µM) / .000100 MIN. | | (102) TIN (5.0µM) / .000200 MIN. OVER COPPER (2.5µM) / .000100 MIN. | | |
| | PART NO. | ENG NO. | PART NO. | ENG NO. | PART NO. | ENG NO. | PART NO. | ENG NO. | PART NO. | ENG NO. | |
| NO. OF CIRCUITS | 2 | 10-08-1021 | AE-3003-2A | 10-08-1022 | AE-3003-2B | 10-08-1023 | AE-3003-2C | 10-08-1024 | AE-3003-2D | 10-08-1026 | AE-3003-2F |
| | 3 | ▲ -1031 | ▲ -3A | ▲ -1032 | ▲ -3B | ▲ -1033 | ▲ -3C | ▲ -1034 | ▲ -3D | ▲ -1036 | ▲ -3F |
| | 4 | -1041 | -4A | -1042 | -4B | -1043 | -4C | -1044 | -4D | -1046 | -4F |
| | 5 | -1051 | -5A | -1052 | -5B | -1053 | -5C | -1054 | -5D | -1056 | -5F |
| | 6 | -1061 | -6A | -1062 | -6B | -1063 | -6C | -1064 | -6D | -1066 | -6F |
| | 7 | -1071 | -7A | -1072 | -7B | -1073 | -7C | -1074 | -7D | -1076 | -7F |
| | 8 | -1081 | -8A | -1082 | -8B | -1083 | -8C | -1084 | -8D | -1086 | -8F |
| | 9 | -1091 | -9A | -1092 | -9B | -1093 | -9C | -1094 | -9D | -1096 | -9F |
| | 10 | -1101 | -10A | -1102 | -10B | -1103 | -10C | -1104 | -10D | -1606 | -10F |
| | 11 | -1111 | -11A | -1112 | -11B | -1113 | -11C | -1114 | -11D | -1116 | -11F |
| | 12 | -1121 | -12A | -1122 | -12B | -1123 | -12C | -1124 | -12D | -1126 | -12F |
| | 13 | -1131 | -13A | -1132 | -13B | -1133 | -13C | -1134 | -13D | -1136 | -13F |
| | 14 | -1141 | -14A | -1142 | -14B | -1143 | -14C | -1144 | -14D | -1146 | -14F |
| | 15 | -1151 | -15A | -1152 | -15B | -1153 | -15C | -1154 | -15D | -1156 | -15F |
| | 16 | -1161 | -16A | -1162 | -16B | -1163 | -16C | -1164 | -16D | -1166 | -16F |
| | 17 | -1171 | -17A | -1172 | -17B | -1173 | -17C | -1174 | -17D | -1176 | -17F |
| | 18 | -1181 | -18A | -1182 | -18B | -1183 | -18C | -1184 | -18D | -1186 | -18F |
| | 19 | ▼ -1191 | ▼ -19A | ▼ -1192 | ▼ -19B | ▼ -1193 | ▼ -19C | ▼ -1194 | ▼ -19D | ▼ -1196 | ▼ -19F |
| | 20 | 10-08-1201 | AE-3003-20A | 10-08-1202 | AE-3003-20B | 10-08-1203 | AE-3003-20C | 10-08-1204 | AE-3003-20D | 10-08-1206 | AE-3003-20F |

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° INCH (METRIC) 3 PLACE ± . () 2 PLACE ± . () 1 PLACE ± () DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS | | DRWG BY GCH CHK'D BY APP'D BY | CAD/CAM FILENAME SA3003X3 DGN THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INC. & SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION | TITLE <h2 style="text-align: center;">5.08 mm KK Hdr Vt RPin</h2> | |
| DESIGN DIMENSION (PRIMARY) <input checked="" type="checkbox"/> (MM) <input type="checkbox"/> IN. EQUIVALENT DIMENSION (SECONDARY) <input type="checkbox"/> (MM) <input checked="" type="checkbox"/> IN. | | SCALE | MOLEX EUROPE | SHEET NO. 30F | DATE 29/8 /86 |
| PART NO. SEE CHART | | | DWG NO. SDAE-3003-N* | SIZE B | |