

PLEASE CHECK [WWW.MOLEX.COM](http://WWW.MOLEX.COM) FOR LATEST PART INFORMATION

**Part Number:** [0919991284](#)  
**Status:** **Active**  
**Overview:** [rast\\_5\\_connector\\_system](#)  
**Description:** 5.00mm (.197") Pitch Appli-Mate RAST 5 Header, Vertical, 4 Circuits, No Reference, Tin (Sn) Plating, Glow Wire Compatible

**Documents:**  
[3D Model](#) [Product Specification PS-99020-0037 \(PDF\)](#)  
[Drawing \(PDF\)](#) [RoHS Certificate of Compliance \(PDF\)](#)

**Agency Certification**

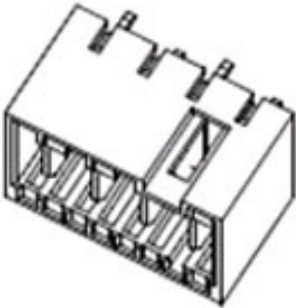
CSA LR19980  
UL E29179

**General**

Product Family PCB Headers  
Series [91999](#)  
Application Wire-to-Board  
Overview [rast\\_5\\_connector\\_system](#)  
Product Name RAST 5

**Physical**

Breakaway No  
Circuits (Loaded) 4  
Circuits (maximum) 4  
Color - Resin Natural  
Durability (mating cycles max) 10  
First Mate / Last Break No  
Flammability 94V-0  
Glow-Wire Compliant Yes  
Guide to Mating Part No  
Keying to Mating Part Yes  
Lock to Mating Part No  
Material - Metal Brass  
Material - Plating Mating Tin  
Material - Resin Nylon  
Number of Rows 1  
Orientation Vertical  
PC Tail Length (in) 0.154 In  
PC Tail Length (mm) 3.90 mm  
PCB Locator Yes  
PCB Retention None  
PCB Thickness Recommended (in) 0.055 In  
PCB Thickness Recommended (mm) 1.40 mm  
Packaging Type Bag  
Pitch - Mating Interface (in) 0.197 In  
Pitch - Mating Interface (mm) 5.00 mm  
Plating min: Mating (µin) 200  
Plating min: Mating (µm) 5  
Polarized to PCB Yes  
Robotic Placement None  
Shrouded Fully  
Stackable No  
Surface Mount Compatible (SMC) No  
Temperature Range - Operating -20C TO +120C  
Termination Interface: Style Through Hole



Series

image - Reference only

**EU RoHS**

**ELV and RoHS  
Compliant**

**REACH SVHC**

Not Reviewed

**Halogen-Free**

**Status**

**Not Halogen-Free**

**China RoHS**



**Need more information on product  
environmental compliance?**

Email [productcompliance@molex.com](mailto: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**  
[91999Series](#)

**Electrical**

|                               |         |
|-------------------------------|---------|
| Current - Maximum per Contact | 16A     |
| Voltage - Maximum             | 250V AC |

**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                     | 260                    |

**Material Info**

|                 |               |
|-----------------|---------------|
| Old Part Number | WITH ZYTEL RM |
|-----------------|---------------|

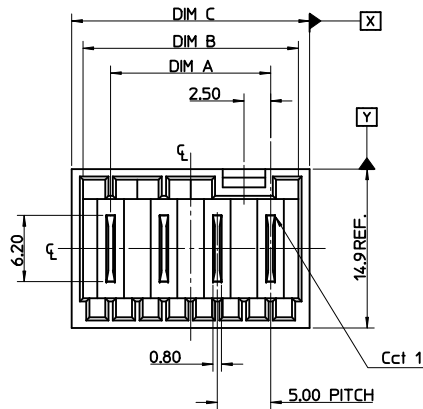
**Reference - Drawing Numbers**

|                         |               |
|-------------------------|---------------|
| Packaging Specification | PK-90858-001  |
| Product Specification   | PS-99020-0037 |
| Sales Drawing           | SD-91999-001  |

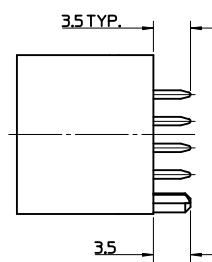
This document was generated on 05/26/2010

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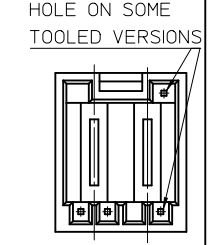
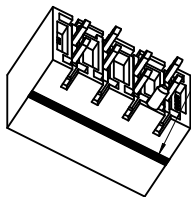
13 12 11 10 9 8 7 6 5 4 3 2 1



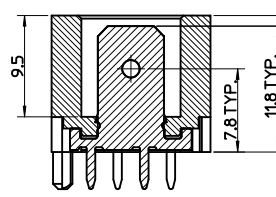
PCB PIN POLARISATION  
OPTION A AND B



COLOUR STRIPE OPTION



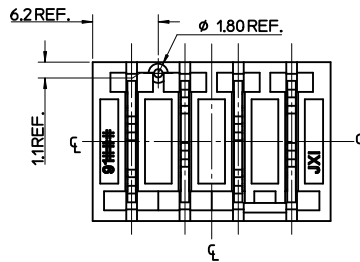
HOLE ON SOME  
TOOLED VERSIONS



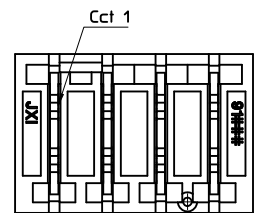
A-A  
Scale 3:1

| CCT | DIM A | DIM B | DIM C | TOL     |
|-----|-------|-------|-------|---------|
| 2   | 5.00  | 10.20 | 12.30 | +/-0.30 |
| 3   | 10.00 | 15.20 | 17.30 |         |
| 4   | 15.00 | 20.20 | 22.30 |         |
| 5   | 20.00 | 25.20 | 27.30 |         |
| 6   | 25.00 | 30.20 | 32.30 |         |
| 7   | 30.00 | 35.20 | 37.30 |         |
| 8   | 35.00 | 40.20 | 42.30 |         |
| 9   | 40.00 | 45.20 | 47.30 |         |
| 10  | 45.00 | 50.20 | 52.30 |         |
| 11  | 50.00 | 55.20 | 57.30 |         |
| 12  | 55.00 | 60.20 | 62.30 |         |

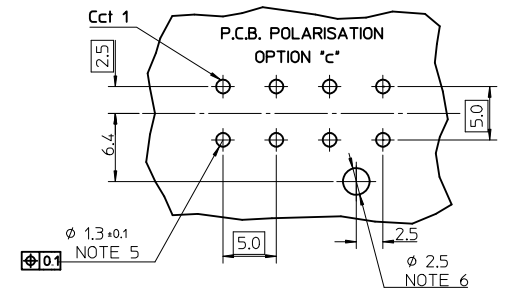
- NOTES:
- MATERIALS  
HOUSING: PA 66, UL94 V-0 750°C GWT NO FLAME  
TERMINAL: BRASS 0.80REF. THICK  
PLATING: OPTIONAL (SEE CHARTS SHEETS 2-6)  
54µm TIN OVER  
2.54µm NICKEL ALLOVER  
SELECTIVE SILVER  
24µm MIN SILVER  
3-54µm TIN OVER  
2.54µm NICKEL ALLOVER
  - PRODUCT CONFORMS TO SPECIFICATION PS-99020-0037/39
  - MATES WITH MOLEX 91338, 90833, 90835, 91777, 91778, 91779, 91954 & 92000.
  - SEE PACKAGING SPECIFICATION PK-90858-001  
TWO PACKAGING OPTIONS  
"A" LOOSE IN POLYBAGS IN SHIPPING CARTON  
"B" IN TUBES IN SHIPPING CARTON  
SEE TABLES IN FOLLOWING SHEETS FOR PACKAGING TYPE FOR EACH PART NUMBER
  - PLATED THRU HOLE
  - NON-PLATED THRU HOLE
  - RECOMMENDED PCB THICKNESS: 1.4±0.1mm
  - PCB VIEW IS FROM SOLDER SIDE



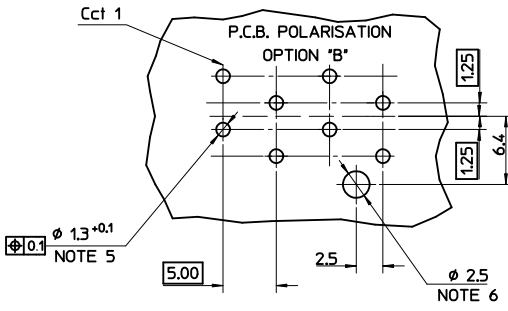
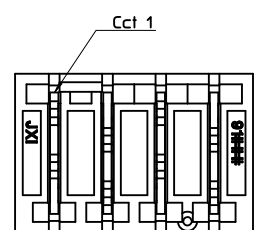
OPTION "C"



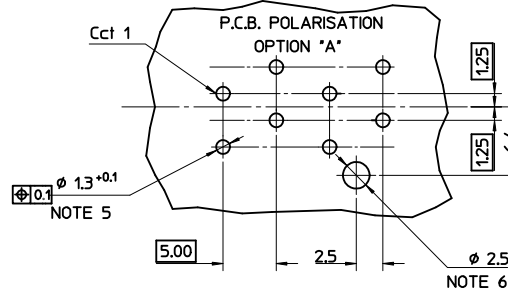
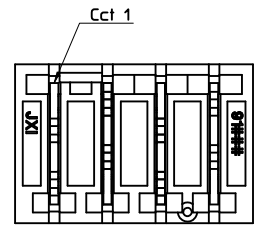
PCB LAYOUT



OPTION "B"



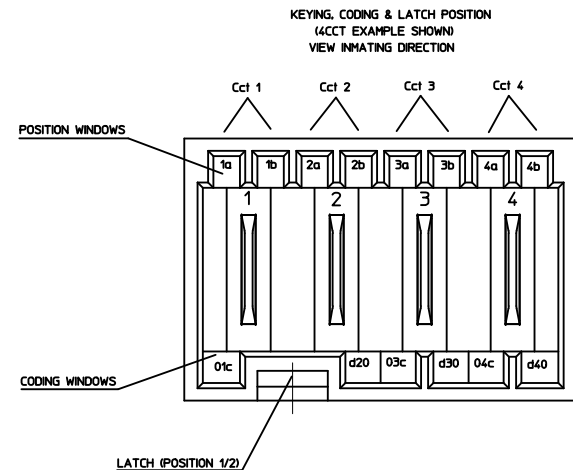
OPTION "A"



|                                                                                                                                         |                               |                                       |  |                                                                                                                               |  |                    |                                           |                        |  |
|-----------------------------------------------------------------------------------------------------------------------------------------|-------------------------------|---------------------------------------|--|-------------------------------------------------------------------------------------------------------------------------------|--|--------------------|-------------------------------------------|------------------------|--|
| MOULD TOOLING CHANGE<br>EC NO: E2010-0370<br>DRAWN: BRUTTE 2010/05/17<br>CHKD: T. TOURSH 2006/10/04<br>APPR: BMAGUIRE 2010/06/08<br>REV | QUALITY SYMBOLS<br>▽=0<br>▽=0 | GENERAL TOLERANCES (UNLESS SPECIFIED) |  | DIMENSION STYLE<br>MM ONLY                                                                                                    |  | SCALE<br>1:1       | DESIGN UNITS<br>METRIC                    | THIRD ANGLE PROJECTION |  |
|                                                                                                                                         |                               |                                       |  | DRAWN BY<br>B. RUTTLE                                                                                                         |  | DATE<br>2006/10/04 | TITLE<br>RAST 5 VERT HDR<br>PA 66 HOUSING |                        |  |
|                                                                                                                                         |                               |                                       |  | CHECKED BY<br>T. TOURSH                                                                                                       |  | DATE<br>2006/10/04 | DOCUMENT NO.<br>SD-91999-001              |                        |  |
|                                                                                                                                         |                               |                                       |  | APPROVED BY<br>BMAGUIRE                                                                                                       |  | DATE<br>2006/10/04 | SHEET NO.<br>1 OF 6                       |                        |  |
| DRAFT WHERE APPLICABLE<br>MUST REMAIN<br>WITHIN DIMENSIONS                                                                              |                               | MATERIAL NO.                          |  | THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION |  |                    |                                           |                        |  |

|                   |         | 19                         | 18                       | 17                | 16                           | 15  | 14                                                                              | 13 | 12                               | 11                    |                  |
|-------------------|---------|----------------------------|--------------------------|-------------------|------------------------------|-----|---------------------------------------------------------------------------------|----|----------------------------------|-----------------------|------------------|
| 2 CIRCUIT         |         |                            |                          |                   |                              |     | SEE CODE DESIGNATION TABLE FOR NUMBERING<br>FORMAT WHEN ADDING NEW PART NUMBERS |    | P.C.B.<br>POLARISATION<br>OPTION | PACKAGING<br>OPTION * | COLOUR<br>STRIPE |
| PART NO.<br>(TIN) | COLOUR  | UNBLOCKED<br>POSITION KEYS | UNBLOCKED<br>CODING KEYS | LATCH<br>POSITION | CONFIGURATION<br>(SEE NOTES) | REF | PART NO.<br>(SILVER)                                                            |    |                                  |                       |                  |
| 91999-0003        | NATURAL | 1b 2a                      | 01c d20                  | 1/2               |                              | K01 | 91999-0499                                                                      | A  |                                  |                       |                  |
| 91999-0004        | NATURAL | 1a 2b                      | 01c                      | 1/2               |                              | K02 | 91999-0482                                                                      | A  |                                  |                       |                  |
| 91999-0007        | NATURAL | 1b 2b                      | 01c                      | 1/2               |                              | K09 | 91999-0497                                                                      | A  |                                  |                       |                  |
| 91999-0018        | NATURAL | 2a                         | 01c, d20                 | 1/2               |                              | K03 | 91999-0495                                                                      | A  |                                  |                       |                  |
| 91999-0019        | NATURAL | 1a 2b                      | d20                      | 1/2               |                              | K05 | 91999-0478                                                                      | A  |                                  |                       |                  |
| 91999-0021        | NATURAL | 1b                         | 01c, d20                 | 1/2               |                              | K16 | 91999-0492                                                                      | A  |                                  |                       |                  |
| 91999-0022        | NATURAL | 1a 2b                      | NONE                     | 1/2               |                              | K06 | 91999-0491                                                                      | A  |                                  |                       |                  |
| 91999-0027        | NATURAL | 2b                         | NONE                     | 1/2               |                              | K11 | 91999-0487                                                                      | A  |                                  |                       |                  |
| 91999-0029        | NATURAL | 1a 1b                      | d20                      | 1/2               |                              | K13 | 91999-0486                                                                      | A  |                                  |                       |                  |
| 91999-0030        | NATURAL | 2a 2b                      | NONE                     | 1/2               |                              | K31 | 91999-0485                                                                      | A  |                                  |                       |                  |
| 91999-0032        | NATURAL | 2b                         | d20                      | 1/2               |                              | K38 | 91999-0484                                                                      | A  |                                  |                       |                  |
| 91999-0047        | NATURAL | 1a 2a                      | 01c d20                  | 1/2               |                              | K44 | 91999-0483                                                                      | A  |                                  |                       |                  |
| 91999-0055        | NATURAL | 1a 1b                      | NONE                     | 1/2               |                              | K40 | 91999-0480                                                                      | A  |                                  |                       |                  |
| 91999-0020        | NATURAL | 1a 1b                      | 01c                      | 1/2               |                              | K04 | 91999-0475                                                                      | A  |                                  |                       |                  |
| 91999-0054        | NATURAL | 2b                         | 01c d20                  | 1/2               |                              | K15 | 91999-0476                                                                      | A  |                                  |                       |                  |
| 91999-0057        | NATURAL | 1a                         | 01c d20                  | 1/2               |                              | K12 | 91999-0477                                                                      | A  |                                  |                       |                  |
| 91999-0058        | NATURAL | 1a 2a                      | 01c                      | 1/2               |                              | K10 | 91999-0472                                                                      | A  |                                  |                       |                  |
| 91999-0059        | NATURAL | ALL                        | d20                      | 1/2               |                              | K34 | 91999-0474                                                                      | A  |                                  |                       |                  |
| 91999-0060        | NATURAL | 1b 2a 2b                   | d20                      | 1/2               |                              | K07 | 91999-0473                                                                      | A  |                                  |                       |                  |
| 91999-0061        | NATURAL | 1b 2a                      | 01c d20                  | 1/2               |                              | K01 | 91999-0471                                                                      | B  |                                  |                       |                  |
| 91999-0062        | NATURAL | 2a                         | 01c                      | 1/2               |                              | K42 | 91999-0470                                                                      | A  |                                  |                       |                  |
| 91999-0063        | NATURAL | 1b, 2a                     | d20                      | 1/2               |                              | K46 | 91999-0469                                                                      | A  |                                  |                       |                  |
| 91999-0064        | NATURAL | 1a, 2b                     | 01c, d20                 | 1/2               |                              | K48 | 91999-0468                                                                      | A  |                                  |                       |                  |

| 2 CIRCUIT         |         |                            |                          |                   | SEE CODE DESIGNATION TABLE FOR NUMBERING<br>FORMAT WHEN ADDING NEW PART NUMBERS |     |                      | P.C.B.<br>POLARISATION<br>OPTION | PACKAGING<br>OPTION * | COLOUR<br>STRIPE |   |   |      |
|-------------------|---------|----------------------------|--------------------------|-------------------|---------------------------------------------------------------------------------|-----|----------------------|----------------------------------|-----------------------|------------------|---|---|------|
| PART NO.<br>(TIN) | COLOUR  | UNBLOCKED<br>POSITION KEYS | UNBLOCKED<br>CODING KEYS | LATCH<br>POSITION | CONFIGURATION<br>(SEE NOTES)                                                    | REF | PART NO.<br>(SILVER) |                                  |                       |                  |   |   |      |
| 91999-0065        | NATURAL | 1b 2a                      | 01c d20                  | 1/2               |                                                                                 | K01 | 91999-0467           |                                  |                       |                  | A | B | NONE |
| 91999-0066        | NATURAL | 1a 2b                      | 01c                      | 1/2               |                                                                                 | K02 | 91999-0466           |                                  |                       |                  | A | B | NONE |
| 91999-0067        | NATURAL | ALL                        | ALL                      | 1/2               |                                                                                 | K00 | 91999-0465           |                                  |                       |                  | A | A | NONE |
| 91999-0068        | NATURAL | 1a 2b                      | 01c                      | 1/2               |                                                                                 | K02 | 91999-0464           |                                  |                       |                  | A | B | RED  |
| 91999-0069        | NATURAL | 1a                         | 01c                      | 1/2               |                                                                                 | K57 | 91999-0463           |                                  |                       |                  | A | A | NONE |
| 91999-0070        | NATURAL | 2a 2b                      | 01c                      | 1/2               |                                                                                 | K32 | 91999-0462           |                                  |                       |                  | A | B | NONE |
| 91999-0071        | NATURAL | 1b 2b                      | 01c                      | 1/2               |                                                                                 | K09 | 91999-0461           |                                  |                       |                  | C | A | NONE |



NOTES:  
\* SEE SHEET 1 NOTE 4

|                                                                                                                     |                                  |                                          |                      |                                                            |                     |                                    |                                       |                                                                                                                                  |  |
|---------------------------------------------------------------------------------------------------------------------|----------------------------------|------------------------------------------|----------------------|------------------------------------------------------------|---------------------|------------------------------------|---------------------------------------|----------------------------------------------------------------------------------------------------------------------------------|--|
| SEE SHEET 1<br>EC NO: E2010-0370<br>2010/05/17<br>N<br>DRWN:BRUTLE<br>CHKD:T. TOURSH<br>APPR:BMAGUIRE<br>2010/06/08 | QUALITY<br>SYMBOLS<br>▽=0<br>▽=0 | GENERAL TOLERANCES<br>(UNLESS SPECIFIED) |                      | DIMENSION STYLE<br>MM ONLY                                 |                     | SCALE<br>1:1                       | DESIGN UNITS<br>METRIC                | THIRD ANGLE<br>PROJECTION                                                                                                        |  |
|                                                                                                                     |                                  | 4 PLACES ± --- ± ---                     | 3 PLACES ± --- ± --- | 2 PLACES ± 0.1 ± ---                                       | 1 PLACE ± 0.2 ± --- | DRAWN BY<br>B. RUTLE<br>2006/10/04 | CHECKED BY<br>T. TOURSH<br>2006/10/04 | APPROVED BY<br>BMAGUIRE<br>2006/10/04                                                                                            |  |
|                                                                                                                     |                                  | ANGULAR ± 2 °                            |                      | DRAFT WHERE APPLICABLE<br>MUST REMAIN<br>WITHIN DIMENSIONS |                     | SEE CHART                          |                                       | THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX<br>INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION |  |
|                                                                                                                     |                                  | MATERIAL NO.                             |                      | DOCUMENT NO.                                               |                     | SHEET NO.                          |                                       | 2 OF 6                                                                                                                           |  |

3 CIRCUIT

SEE CODE DESIGNATION TABLE FOR NUMBERING  
FORMAT WHEN ADDING NEW PART NUMBERS

| PART NO.<br>(TIN) | COLOUR  | UNBLOCKED<br>POSITION KEYS | UNBLOCKED<br>CODING KEYS | LATCH<br>POSITION | CONFIGURATION<br>(SEE NOTES) | REF  | PART NO.<br>(SILVER) | P.C.B.<br>POLARISATION<br>OPTION | PACKAGING<br>OPTION * | COLOUR<br>STRIPE |
|-------------------|---------|----------------------------|--------------------------|-------------------|------------------------------|------|----------------------|----------------------------------|-----------------------|------------------|
| 91999-0502        | NATURAL | 1b                         | 01c, d20                 | 1/2               |                              | K01  | 91999-1249           | A                                | A                     | NONE             |
| 91999-0508        | NATURAL | 1a                         | 03c                      | 1/2               |                              | K04  | 91999-1248           | A                                |                       |                  |
| 91999-0511        | NATURAL | 1a 1b                      | d30                      | 1/2               |                              | K05  | 91999-1247           | A                                |                       |                  |
| 91999-0512        | NATURAL | 1a 3b                      | 01c                      | 1/2               |                              | K06  | 91999-1246           | A                                |                       |                  |
| 91999-0513        | NATURAL | 1b                         | d20 03c                  | 1/2               |                              | K09  | 91999-1245           | A                                |                       |                  |
| 91999-0524        | NATURAL | 1b 2a 2b                   | d30                      | 1/2               |                              | K33  | 91999-1244           | A                                |                       |                  |
| 91999-0525        | NATURAL | 2b                         | d20                      | 1/2               |                              | K56  | 91999-1243           | A                                |                       |                  |
| 91999-0528        | NATURAL | ALL                        | d10 d30                  | 2/3               |                              | K38  | 91999-1242           | A                                |                       |                  |
| 91999-0527        | NATURAL | ALL                        | d20                      | 1/2               |                              | K40  | 91999-1240           | A                                |                       |                  |
| 91999-0526        | NATURAL | 2b 3b                      | d10 02c                  | 2/3               |                              | K02  | 91999-1241           | A                                |                       |                  |
| 91999-0529        | NATURAL | 1b                         | 01c d20                  | 1/2               |                              | N/A  | 91999-1239           | A                                | A                     | NONE             |
| 91999-0530        | NATURAL | 2b 3b                      | ALL                      | 2/3               |                              | k145 | 91999-1238           | A                                |                       |                  |
| 91999-0531        | NATURAL | 3b                         | 01c d30                  | 2/3               |                              | k10  | 91999-1237           | A                                |                       |                  |
| 91999-0532        | NATURAL | 3b                         | d10, 02c                 | 2/3               |                              | N/A  | 91999-1236           | A                                |                       |                  |
| 91999-0533        | NATURAL | 2b 3b                      | ALL                      | 2/3               |                              | k145 | 91999-1235           | A                                |                       |                  |
| 91999-0534        | NATURAL | ALL                        | ALL                      | 1/2               |                              | k00  | 91999-1234           | A                                |                       |                  |
| 91999-0506        | NATURAL | 1a 3a                      | d20                      | 1/2               |                              | k43  | 91999-1233           | A                                |                       |                  |
| 91999-0507        | NATURAL | 2a                         | d10 d30                  | 2/3               |                              | k44  | 91999-1232           | A                                |                       |                  |
| 91999-0535        | NATURAL | 3b                         | d10 d30                  | 2/3               |                              | N/A  | 91999-1231           | A                                |                       |                  |
| 91999-0536        | NATURAL | 1b                         | 01c                      | 1/2               |                              | N/A  | 91999-1230           | A                                |                       |                  |

NOTES:

\* SEE SHEET 1 NOTE 4

|                                                                                                                                          |                                                                                          |                                                                                                                                                                  |                                           |              |                        |                        |
|------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|--------------|------------------------|------------------------|
| SEE SHEET 1<br>EC NO: E2010-0370<br>DRAWN BY: B. RUTLE<br>CHKD BY: T. TOURSH<br>APPR: BMAGUIRE<br>2010/05/17<br>2006/10/04<br>2010/06/08 | QUALITY SYMBOLS<br>▽=0<br>▽=0                                                            | GENERAL TOLERANCES (UNLESS SPECIFIED)<br>mm INCH<br>4 PLACES ± --- ± ---<br>3 PLACES ± --- ± ---<br>2 PLACES ± 0.1 ± ---<br>1 PLACE ± 0.2 ± ---<br>ANGULAR ± 2 ° | DIMENSION STYLE<br>MM ONLY                | SCALE<br>1:1 | DESIGN UNITS<br>METRIC | THIRD ANGLE PROJECTION |
|                                                                                                                                          | DRAWN BY: B. RUTLE<br>CHECKED BY: T. TOURSH<br>APPROVED BY: BMAGUIRE<br>DATE: 2006/10/04 |                                                                                                                                                                  | TITLE<br>RAST 5 VERT HDR<br>PA 66 HOUSING |              | MOLEX INCORPORATED     |                        |
|                                                                                                                                          | MATERIAL NO.<br>SD-91999-001                                                             |                                                                                                                                                                  | DOCUMENT NO.<br>SD-91999-001              |              | SHEET NO.<br>3 OF 6    |                        |
|                                                                                                                                          | 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

| 4 CIRCUIT         |         |                           |                         |                   |                              |      | SEE CODE DESIGNATION TABLE FOR NUMBERING<br>FORMAT WHEN ADDING NEW PART NUMBERS |   | P.C.B.<br>POLARISATION<br>OPTION | PACKAGING<br>OPTION * | COLOUR<br>STRIPE |
|-------------------|---------|---------------------------|-------------------------|-------------------|------------------------------|------|---------------------------------------------------------------------------------|---|----------------------------------|-----------------------|------------------|
| PART NO.<br>(TIN) | COLOUR  | UNLOCKED<br>POSITION KEYS | UNLOCKED<br>CODING KEYS | LATCH<br>POSITION | CONFIGURATION<br>(SEE NOTES) | REF  | PART NO.<br>(SILVER)                                                            |   |                                  |                       |                  |
| 91999-1254        | NATURAL | 1b                        | 03c d40                 | 1/2 3/4           |                              | K01  | 91999-1999                                                                      | A | ↑<br>↓                           | ↑                     | NONE             |
| 91999-1264        | NATURAL | 1a 4b                     | d40                     | 1/2 3/4           |                              | K03  | 91999-1998                                                                      | A |                                  |                       |                  |
| 91999-1265        | NATURAL | 2a 4b                     | d20                     | 1/2 3/4           |                              | K07  | 91999-1996                                                                      | A |                                  |                       |                  |
| 91999-1267        | NATURAL | 1b 2a 3a 4b               | 01c d40                 | 1/2 3/4           |                              | K37  | 91999-1994                                                                      | A |                                  |                       |                  |
| 91999-1270        | NATURAL | 1a 2b 4b                  | 01c 03c d40             | 1/2 3/4           |                              | K44  | 91999-1993                                                                      | A |                                  |                       |                  |
| 91999-1274        | NATURAL | 1a 3a 3b                  | 01c d20 d40             | 1/2 3/4           |                              | K32  | 91999-1992                                                                      | A |                                  |                       |                  |
| 91999-1275        | NATURAL | 1b 2a 4b                  | 01c d20 03c             | 1/2 3/4           |                              | K61  | 91999-1991                                                                      | A |                                  |                       |                  |
| 91999-1278        | NATURAL | 1a 3a                     | d40                     | 1/2 3/4           |                              | K06  | 91999-1987                                                                      | A |                                  |                       |                  |
| 91999-1280        | NATURAL | 1a 2b<br>3b 4a            | 01c 03c d40             | 1/2 3/4           |                              | K65  | 91999-1988                                                                      | A |                                  |                       |                  |
| 91999-1281        | NATURAL | 2a 4b                     | d20 03c                 | 1/2 3/4           |                              | K30  | 91999-1986                                                                      | A |                                  |                       |                  |
| 91999-1282        | NATURAL | 3b                        | d30                     | 2/3               |                              | K04  | 91999-1985                                                                      | A |                                  |                       |                  |
| 91999-1283        | NATURAL | 1b 2a 4b                  | ALL                     | 1/2 3/4           |                              | N/A  | 91999-1984                                                                      | A | ↑<br>↓                           | ↑                     | NONE             |
| 91999-1284        | NATURAL | 2a 3a 3b 4b               | ALL                     | 1/2 3/4           |                              | N/A  | 91999-1983                                                                      | A |                                  |                       |                  |
| 91999-1285        | NATURAL | 2a 2b 3b 4b               | ALL                     | 1/2 3/4           |                              | k153 | 91999-1982                                                                      | A |                                  |                       |                  |
| 91999-1286        | NATURAL | 2a 2b 3b 4b               | ALL                     | 1/2 3/4           |                              | k153 | 91999-1981                                                                      | A |                                  |                       |                  |
| 91999-1287        | NATURAL | 1a, 4b                    | 01c                     | 1/2 3/4           |                              | k02  | 91999-1980                                                                      | A |                                  |                       |                  |
| 91999-1288        | NATURAL | 1b, 2b,<br>3b, 4a         | 01c 03c d40             | 1/2 3/4           |                              | k--  | 91999-1979                                                                      | A |                                  |                       |                  |
| 91999-1289        | NATURAL | 1b                        | 03c d40                 | 1/2 3/4           |                              | k01  | 91999-1978                                                                      | C |                                  |                       |                  |
| 91999-1290        | NATURAL | 1b 2a 2b<br>3a 4a 4b      | 03c d40                 | 1/2 3/4           |                              | k12  | 91999-1977                                                                      | A |                                  |                       |                  |
| 91999-1291        | NATURAL | ALL                       | ALL                     | 1/2 3/4           |                              | k00  | 91999-1976                                                                      | A |                                  |                       |                  |
| 91999-1292        | NATURAL | 1b 2a<br>3a 4a            | 01c d20 03c             | 1/2 3/4           |                              | k83  | 91999-1975                                                                      | A |                                  |                       |                  |
| 91999-1293        | NATURAL | 1b 2b<br>3b 4a            | 01c 03c d40             | 1/2 3/4           |                              | k120 | 91999-1974                                                                      | A |                                  |                       |                  |
| 91999-1294        | NATURAL | 1a 2a 2b<br>3a 3b 4a 4b   | NONE                    | 1/2 3/4           |                              | k102 | 91999-1973                                                                      | A |                                  |                       |                  |
| 91999-1295        | NATURAL | 1b 3b 4b                  | 01c d20 03c             | 1/2 3/4           |                              | k85  | 91999-1972                                                                      | A |                                  |                       |                  |

|                                                                                                  |                                  |                                                                                                                                  |             |                              |      |                         |                        |                                  |  |  |
|--------------------------------------------------------------------------------------------------|----------------------------------|----------------------------------------------------------------------------------------------------------------------------------|-------------|------------------------------|------|-------------------------|------------------------|----------------------------------|--|--|
| SEE SHEET 1<br>SEC NO: E2010-0370<br>DRAWN BY: B. RUTTLE<br>CHKD BY: T. TOURSH<br>APPR: BMAGUIRE | QUALITY<br>SYMBOLS<br>▽=0<br>▽=0 | GENERAL TOLERANCES<br>(UNLESS SPECIFIED)                                                                                         |             | DIMENSION STYLE<br>MM ONLY   |      | SCALE<br>1:1            | DESIGN UNITS<br>METRIC | THIRD ANGLE<br>PROJECTION        |  |  |
|                                                                                                  |                                  | 4 PLACES                                                                                                                         | ± --- ± --- | mm                           | INCH | DRAWN BY<br>B. RUTTLE   | DATE<br>2006/10/04     | RAST 5 VERT HDR<br>PA 66 HOUSING |  |  |
|                                                                                                  |                                  | 3 PLACES                                                                                                                         | ± --- ± --- |                              |      | CHECKED BY<br>T. TOURSH | DATE<br>2006/10/04     |                                  |  |  |
|                                                                                                  |                                  | 2 PLACES                                                                                                                         | ± 0.1 ± --- |                              |      | APPROVED BY<br>BMAGUIRE | DATE<br>2006/10/04     | MOLEX INCORPORATED               |  |  |
| DRAFT WHERE APPLICABLE<br>MUST REMAIN<br>WITHIN DIMENSIONS                                       |                                  | 1 PLACE                                                                                                                          | ± 0.2 ± --- | ANGULAR ± 2 °                |      | MATERIAL NO.            |                        |                                  |  |  |
| SEE CHART                                                                                        |                                  | THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX<br>INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION |             | DOCUMENT NO.<br>SD-91999-001 |      | SHEET NO.<br>4 OF 6     |                        |                                  |  |  |



| 7 CIRCUIT         |         |                              |                            |                   |                              |     |                      | SEE CODE DESIGNATION TABLE FOR NUMBERING<br>FORMAT WHEN ADDING NEW PART NUMBERS | P.C.B.<br>POLARISATION<br>OPTION | PACKAGIG<br>OPTION * | COLOUR<br>STRIPE |
|-------------------|---------|------------------------------|----------------------------|-------------------|------------------------------|-----|----------------------|---------------------------------------------------------------------------------|----------------------------------|----------------------|------------------|
| PART NO.<br>(TIN) | COLOUR  | UNBLOCKED<br>POSITION KEYS   | UNBLOCKED<br>CODING KEYS   | LATCH<br>POSITION | CONFIGURATION<br>(SEE NOTES) | REF | PART NO.<br>(SILVER) |                                                                                 |                                  |                      |                  |
| 91999-3511        | NATURAL | NONE                         | 03c d40 07c                | 1/2 5/6           |                              | K01 | 91999-4249           | A                                                                               | ↑<br>↓                           | ↑<br>↓               | NONE             |
| 91999-3512        | NATURAL | 3a 4a                        | d30 d70                    | 1/2 5/6           |                              | K30 | 91999-4248           | A                                                                               |                                  |                      |                  |
| 91999-3504        | NATURAL | 2b                           | d20 d60                    | 1/2 5/6           |                              | K32 | 91999-4247           | A                                                                               |                                  |                      |                  |
| 91999-3508        | NATURAL | 1a 1b 3a<br>4b 5a            | 01c 07c                    | 1/2 3/4 5/6       |                              | K40 | 91999-4243           | A                                                                               |                                  |                      |                  |
| 91999-3509        | NATURAL | 2a                           | 01c d50                    | 2/3 4/5           |                              | K41 | 91999-4242           | A                                                                               |                                  |                      |                  |
| 91999-3515        | NATURAL | 7b                           | 01c d40 d70                | 1/2 3/4 6/7       |                              | K43 | 91999-4240           | A                                                                               |                                  |                      |                  |
| 91999-3516        | NATURAL | 1b                           | 03c d60                    | 1/2 4/5           |                              | K31 | 91999-4239           | A                                                                               |                                  |                      |                  |
| 91999-3517        | NATURAL | 1a 3a 4b<br>7b               | 01c d20<br>03c 06c         | 1/2 3/4 6/7       |                              | K45 | 91999-4238           | A                                                                               |                                  |                      |                  |
| 91999-3519        | NATURAL | 1b 7a                        | 02c d50                    | 2/3 6/7           |                              | K48 | 91999-4237           | A                                                                               |                                  |                      |                  |
| 91999-3521        | NATURAL | 1a 2b 3a<br>4b 6a            | d20 03c d40<br>d50 d70     | 1/2 3/4 6/7       |                              | K51 | 91999-4236           | A                                                                               |                                  |                      |                  |
| 91999-3522        | NATURAL | 1b 6a                        | d20 03c<br>d50 d70         | 1/2 3/4 6/7       |                              | K69 | 91999-4235           | A                                                                               |                                  |                      |                  |
| 91999-3523        | NATURAL | 1b 2a 5a 5b<br>7b            | d20 d50 06c<br>d70         | 1/2 4/5 6/7       |                              | K34 | 91999-4234           | A                                                                               |                                  |                      |                  |
| 91999-3524        | NATURAL | 2b                           | d20 07c                    | 1/2 3/4 5/6       |                              | K35 | 91999-4233           | A                                                                               |                                  |                      |                  |
| 91999-3525        | NATURAL | 2a 2b 4b 5b<br>6a            | d20 03c d40<br>d60         | 1/2 3/4 5/6       |                              | K38 | 91999-4232           | A                                                                               |                                  |                      |                  |
| 91999-3526        | NATURAL | 2b 4a 4b 5b<br>6a            | 01c d20 d40<br>d60         | 1/2 3/4 5/6       |                              | K42 | 91999-4231           | A                                                                               |                                  |                      |                  |
| 91999-3527        | NATURAL | 1b, 2a, 3a<br>5b, 6a, 6b, 7b | 01c, d70                   | 2/3, 6/7          |                              | K05 | 91999-4230           | A                                                                               | A                                | ↓                    |                  |
| 91999-3528        | NATURAL | ALL                          | ALL                        | 1/2, 5/6          |                              | K00 | 91999-4229           | A                                                                               | A                                |                      | NONE             |
| 91999-3529        | NATURAL | 2a 3b 4b<br>5a 6a 6b 7a      | 01c d30 04c<br>06c d60 d70 | 1/2 4/5           |                              | N/A | 91999-4228           | A                                                                               | A                                |                      | NONE             |
| 91999-3530        | NATURAL | NONE                         | 04c 07c                    | 1/2 5/6           |                              | N/A | 91999-4227           | A                                                                               | A                                |                      | NONE             |

NOTES:  
\* SEE SHEET 1 NOTE 4

|                                                                                                                                  |                                  |                                          |                      |                            |                    |                              |                        |                                                                                                                                  |                                           |  |  |  |
|----------------------------------------------------------------------------------------------------------------------------------|----------------------------------|------------------------------------------|----------------------|----------------------------|--------------------|------------------------------|------------------------|----------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|--|--|--|
| SEE SHEET 1<br>EC NO: E2010-0370<br>DRAWN: BRUTLE<br>CHKD: T. TOURSH<br>APPR: BMAGUIRE<br>2010/05/17<br>2006/10/04<br>2010/06/08 | QUALITY<br>SYMBOLS<br>▽=0<br>▽=0 | GENERAL TOLERANCES<br>(UNLESS SPECIFIED) |                      | DIMENSION STYLE<br>MM ONLY |                    | SCALE<br>1:1                 | DESIGN UNITS<br>METRIC | THIRD ANGLE<br>PROJECTION                                                                                                        | TITLE<br>RAST 5 VERT HDR<br>PA 66 HOUSING |  |  |  |
|                                                                                                                                  |                                  | mm                                       | INCH                 | DRAWN BY<br>B. RUTLE       | DATE<br>2006/10/04 | DOCUMENT NO.<br>SD-91999-001 |                        |                                                                                                                                  | SHEET NO.<br>6 OF 6                       |  |  |  |
|                                                                                                                                  |                                  | 4 PLACES ± --- ± ---                     | 3 PLACES ± --- ± --- | CHECKED BY<br>T. TOURSH    | DATE<br>2006/10/04 | MOLEX INCORPORATED           |                        | THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX<br>INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION |                                           |  |  |  |
|                                                                                                                                  |                                  | 2 PLACES ± 0.1 ± ---                     | 1 PLACE ± 0.2 ± ---  | APPROVED BY<br>BMAGUIRE    | DATE<br>2006/10/04 | SEE CHART                    |                        |                                                                                                                                  |                                           |  |  |  |
| DRAFT WHERE APPLICABLE<br>MUST REMAIN<br>WITHIN DIMENSIONS                                                                       |                                  | ANGULAR ± 2 °                            |                      |                            |                    |                              |                        |                                                                                                                                  |                                           |  |  |  |

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