

**PLEASE CHECK WWW.MOLEX.COM FOR LATEST PART INFORMATION**

**Part Number:** [0459110031](#)  
**Status:** **Active**  
**Overview:** edge card connectors  
**Description:** 12.90mm (.508") Pitch EXTreme PowerEdge™, Mixed Power/Signal Card Edge Connector, Double Sided, 4 Segments (Power, Signal, Signal, Signal Sequence), Through Hole Solder for 2.36mm (.093") or 3.18mm (.125") Thick PC Board

**Documents:**

[3D Model](#) [Product Specification PS-45719-001 \(PDF\)](#)  
[Drawing \(PDF\)](#) [RoHS Certificate of Compliance \(PDF\)](#)

**Agency Certification**

|     |              |
|-----|--------------|
| CSA | LR 19980     |
| TUV | 30482572.001 |
| UL  | E29179       |

**General**

|                |                                      |
|----------------|--------------------------------------|
| Product Family | Edge Card Connectors                 |
| Series         | <a href="#">45911</a>                |
| Component Type | Edgecard to PCB                      |
| Overview       | <a href="#">edge_card_connectors</a> |
| Product Name   | EXTreme PowerEdge™                   |

**Physical**

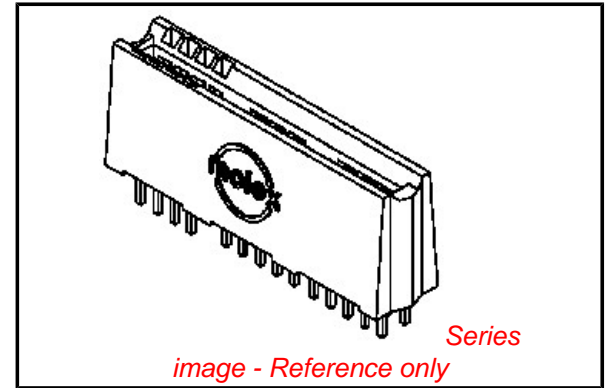
|                                |                                       |
|--------------------------------|---------------------------------------|
| Circuits (Loaded)              | 26                                    |
| Circuits (maximum)             | 26                                    |
| Circuits Detail                | 2 Power, 8 Signal, 8 Signal, 8 Signal |
| Color - Resin                  | Black                                 |
| Durability (mating cycles max) | 250                                   |
| Entry Angle                    | Vertical (Top Entry)                  |
| Flammability                   | 94V-0                                 |
| Keying to Mating Part          | N/A                                   |
| Material - Metal               | Phosphor Bronze                       |
| Material - Plating Mating      | Gold                                  |
| Material - Plating Termination | Tin                                   |
| Material - Resin               | High Temperature Thermoplastic        |
| PC Tail Length (in)            | 0.182 In                              |
| PC Tail Length (mm)            | 4.63 mm                               |
| PCB Thickness Recommended (in) | 0.093 In, 0.125 In                    |
| PCB Thickness Recommended (mm) | 2.40 mm, 3.20 mm                      |
| Packaging Type                 | Tray                                  |
| Pitch - Mating Interface (in)  | 0.508 In                              |
| Pitch - Mating Interface (mm)  | 12.90 mm                              |
| Plating min: Mating (µin)      | 30                                    |
| Plating min: Mating (µm)       | 0.75                                  |
| Plating min: Termination (µin) | 150                                   |
| Plating min: Termination (µm)  | 3.75                                  |
| Temperature Range - Operating  | -40°C to +105°C                       |
| Termination Interface: Style   | Through Hole                          |

**Electrical**

|                               |         |
|-------------------------------|---------|
| Current - Maximum per Contact | 3A, 40A |
| Voltage - Maximum             | 250V    |

**Solder Process Data**

|  |                        |
|--|------------------------|
| Duration at Max. Process Temperature (seconds) | 5                      |
| Lead-free Process Capability                   | Wave Capable (TH only) |



**EU RoHS**

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

**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**

[45911Series](#)

**Mates With**

1.58mm (.062") double sided card edge

|   |     |
|---|-----|
| Max. Cycles at Max. Process Temperature | 1   |
| Process Temperature max. C              | 250 |

### **Material Info**

### **Reference - Drawing Numbers**

|                         |              |
|-------------------------|--------------|
| Packaging Specification | PK-45714-001 |
| Product Specification   | PS-45719-001 |
| Sales Drawing           | SD-45911-001 |

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SEGMENT 2  
CIRCUIT 1

SEGMENT 1  
CIRCUIT 1

- NOTES:
- MATERIAL: HOUSING - LCP, UL94V-0, BLACK  
MATERIAL: TERMINALS - COPPER ALLOY
  - FINISH: SELECT GOLD: 30 MI MIN IN CONTACT AREA  
SELECT TIN: 150 MI MIN IN PC TAIL AREA  
BOTH OVER NICKEL: 50 MI MIN
  - PRODUCT SPECIFICATION: PS-45719-001.
  - PACKAGING SPECIFICATION: PK-45714-001.
  - PCB THICKNESS: SEE CHART
  - EDGE CARD THICKNESS: 1.57±0.15
  - DIMENSIONS GIVEN ACROSS CENTERLINES ARE SYMMETRICAL ABOUT THOSE CENTERLINES WITHIN HALF THE TOTAL TOLERANCE.
  - 0.50 X 45° CHAMFER ON LEADING EDGE, TYP 4 SIDES.



PCB LAYOUT: COMPONENT SIDE  
\*\*\* = TO BE DETERMINED BY CUSTOMER

| MATERIAL NUMBER | SEGMENT 2 | SEGMENT 1 | DIM P |       | PCB THK |
|-----------------|-----------|-----------|-------|-------|---------|
|                 |           |           | DIM P | DIM T |         |
| 45911-0001      | SIGNAL    | POWER     | 4.50  | 3.18  | 3.18    |
| 45911-0002      | POWER     | SIGNAL    | 4.33  | 2.36  | 2.36    |
| 45911-0003      | SIGNAL    | POWER     | 3.19  | 1.57  | 1.57    |
| 45911-0004      | POWER     | SIGNAL    | 3.19  | 1.57  | 1.57    |
| SEE 45844       | SIGNAL    | SIGNAL    | ---   | ---   | ---     |
| SEE 45719       | POWER     | POWER     | ---   | ---   | ---     |

EDGE CARD LAYOUT:  
TOLERANCE: ±0.05



| REV | DESCRIPTION                |
|-----|----------------------------|
| G   | REVISE SLOT TOLRANCE       |
|     | EC NO: UCP2008-2498        |
|     | DRWN: JSCHAFFER 2008/04/16 |
|     | CHKD: 2008/04/22           |
|     | APPR: APATEL 2008/04/25    |

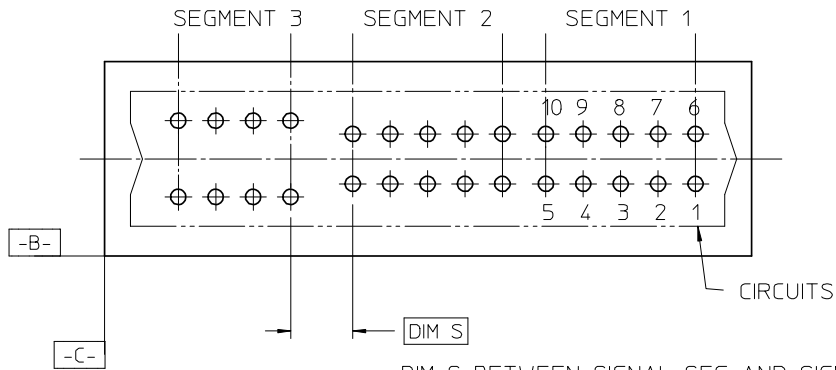
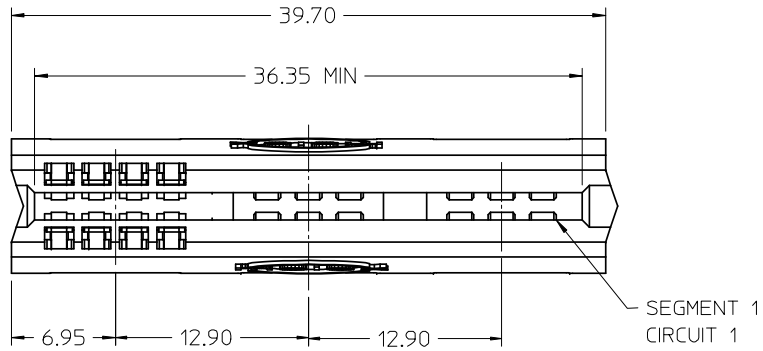
| QUALITY SYMBOLS |
|-----------------|
|                 |

| GENERAL TOLERANCES (UNLESS SPECIFIED)                |        |       |
|--|--------|-------|
|  | mm     | INCH  |
| 4 PLACES   | ± ---  | ± --- |
| 3 PLACES   | ± ---  | ± --- |
| 2 PLACES   | ± 0.25 | ± --- |
| 1 PLACE  | ± 0.25 | ± --- |
| ANGULAR ±1/2°  |        |       |
| DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS |        |       |

| DIMENSION STYLE |            |
|-----------------|------------|
| MM ONLY         |            |
| DRAWN BY        | DATE       |
| SAMIEC          | 2005/04/14 |
| CHECKED BY      | DATE       |
| SAMIEC          | 2005/04/14 |
| APPROVED BY     | DATE       |
| MARGULIS        | 2005/04/14 |
| MATERIAL NUMBER | SEE CHART  |
| SIZE            | A          |

|   |     |              |        |                        |
|---|-----|--------------|--------|------------------------|
| SCALE   | 2:1 | DESIGN UNITS | METRIC | THIRD ANGLE PROJECTION |
| TITLE   |     |              |        |                        |
| POWER EDGE ASSEMBLY<br>POWER / SIGNAL MIXED<br>VERTICAL SOLDER TAIL   |     |              |        |                        |
| MOLEX INCORPORATED  |     |              |        |                        |
| DOCUMENT NO.  |     |              |        | SHEET NO.              |
| SD-45911-001  |     |              |        | 1 OF 4                 |
| THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION |     |              |        |                        |

MATERIAL NUMBER: 45911-0007 SHOWN  
 SEE SHEET ONE FOR ALL OTHER NOTES AND DIMENSIONS



DIM S BETWEEN SIGNAL SEG AND SIGNAL SEG: 5.40  
 DIM S BETWEEN POWER SEG AND POWER SEG: 2.90  
 DIM S BETWEEN SIGNAL SEG AND POWER SEG: 4.15

PCB LAYOUT: COMPONENT SIDE

| MATERIAL NUMBER | SEGMENT 3 | SEGMENT 2 | SEGMENT 1 | DIM P<br>DIM T | PCB<br>THK   |
|-----------------|-----------|-----------|-----------|----------------|--------------|
| 45911-0007      | SIGNAL    | POWER     | POWER     | 4.50<br>4.33   | 3.18<br>2.36 |
| 45911-0008      | POWER     | SIGNAL    | POWER     |                |              |
| 45911-0009      | SIGNAL    | SIGNAL    | POWER     |                |              |
| 45911-0010      | SIGNAL    | POWER     | SIGNAL    |                |              |
| 45911-0011      | POWER     | SIGNAL    | SIGNAL    | 3.19<br>3.19   | 1.57         |
| 45911-0012      | POWER     | POWER     | SIGNAL    |                |              |
| 45911-0013      | SIGNAL    | POWER     | POWER     |                |              |
| 45911-0014      | POWER     | SIGNAL    | POWER     |                |              |
| 45911-0015      | SIGNAL    | SIGNAL    | POWER     |                |              |
| 45911-0016      | SIGNAL    | POWER     | SIGNAL    |                |              |
| 45911-0017      | POWER     | SIGNAL    | SIGNAL    |                |              |
| 45911-0018      | POWER     | POWER     | SIGNAL    |                |              |



|  |                                |  |          |                            |                              |                    |  |                        |  |
|--|--------------------------------|--|----------|----------------------------|------------------------------|--------------------|--|------------------------|--|
| EC NO: UCP2008-2498<br>DRWN: JSCHAFER 2008/04/16<br>CHKD: 2008/04/22<br>APPR: APATEL 2008/04/25<br>REV G | QUALITY SYMBOLS<br>DESCRIPTION | GENERAL TOLERANCES (UNLESS SPECIFIED)  |          | DIMENSION STYLE<br>MM ONLY |                              | SCALE<br>1:1       | DESIGN UNITS<br>METRIC   | THIRD ANGLE PROJECTION |  |
|  |                                |  | mm       | INCH                       | DRAWN BY<br>SAMIEC           | DATE<br>2005/04/14 | TITLE<br>POWER EDGE ASSEMBLY<br>POWER / SIGNAL MIXED<br>VERTICAL SOLDER TAIL |                        |  |
|  |                                | 4 PLACES   | ± ---    | ± ---                      | CHECKED BY                   | DATE               |  |                        |  |
|  |                                | 3 PLACES   | ± ---    | ± ---                      | SAMIEC                       | 2005/04/14         | MOLEX INCORPORATED   |                        |  |
|  |                                | 2 PLACES   | ± 0.25   | ± ---                      | APPROVED BY                  | DATE               |  |                        |  |
| 1 PLACE  | ± 0.25                         | ± ---  | MARGULIS | 2005/04/14                 | MATERIAL NUMBER<br>SEE CHART |                    | DOCUMENT NO.<br>SD-45911-001   | SHEET NO.<br>2 OF 4    |  |
| DRAFT WHERE APPLICABLE<br>MUST REMAIN<br>WITHIN DIMENSIONS   |                                | THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX<br>INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION |          |                            |                              |                    |  |                        |  |



SEGMENT 1  
CIRCUIT 1

SEE CHART ON SHEET 4  
FOR MATERIAL NUMBERS



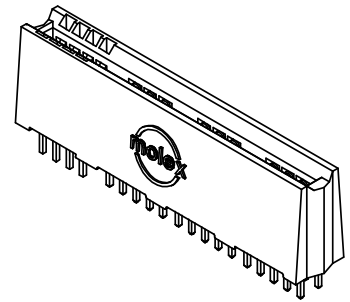
-B-

-C-

DIM S

DIM S BETWEEN SIGNAL SEG AND SIGNAL SEG: 5.40  
 DIM S BETWEEN POWER SEG AND POWER SEG: 2.90  
 DIM S BETWEEN SIGNAL SEG AND POWER SEG: 4.15

PCB LAYOUT: COMPONENT SIDE



|   |                                       |                                       |  |                                   |   |  |  |                        |  |  |
|---|---------------------------------------|---------------------------------------|--|-----------------------------------|---|--|--|------------------------|--|--|
| EC NO: UCP2008-2498<br>DRWN: JSCHAFFER 2008/04/16<br>CHKD: 2008/04/22<br>APPR: APATEL 2008/04/25<br>G | QUALITY SYMBOLS<br>DESCRIPTION<br>REV | GENERAL TOLERANCES (UNLESS SPECIFIED) |  | DIMENSION STYLE<br><b>MM ONLY</b> |   | SCALE<br>2:1   | DESIGN UNITS<br>METRIC   | THIRD ANGLE PROJECTION |  |  |
|   |                                       |                                       | mm   | INCH                              | DRAWN BY<br>SAMIEC                      | DATE<br>2005/04/14   | TITLE<br>POWER EDGE ASSEMBLY<br>POWER / SIGNAL MIXED<br>VERTICAL SOLDER TAIL |                        |  |  |
|   |                                       | 4 PLACES                              | ± ---  | ± ---                             | CHECKED BY<br>SAMIEC                    | DATE<br>2005/04/14   |  |                        |  |  |
|   |                                       | 3 PLACES                              | ± ---  | ± ---                             | APPROVED BY<br>MARGULIS                 | DATE<br>2005/04/14   | MOLEX INCORPORATED   |                        |  |  |
|   |                                       | 2 PLACES                              | ± 0.25   | ± ---                             | MATERIAL NUMBER<br>SEE CHART ON SHEET 4 |  |  |                        |  |  |
| 1 PLACE   | ± 0.25                                | ± ---                                 | DRAFT WHERE APPLICABLE<br>MUST REMAIN<br>WITHIN DIMENSIONS |                                   | SIZE<br>A                               | THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX<br>INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION |  |                        |  |  |

| 6               |           | 5         |           |           | 4                     |              | 3               |           | 2         |           |           | 1                     |         |
|-----------------|-----------|-----------|-----------|-----------|-----------------------|--------------|-----------------|-----------|-----------|-----------|-----------|-----------------------|---------|
| MATERIAL NUMBER | SEGMENT 4 | SEGMENT 3 | SEGMENT 2 | SEGMENT 1 | $\frac{DIM P}{DIM T}$ | PCB THK      | MATERIAL NUMBER | SEGMENT 4 | SEGMENT 3 | SEGMENT 2 | SEGMENT 1 | $\frac{DIM P}{DIM T}$ | PCB THK |
| 45911-0025      | SIGNAL    | POWER     | POWER     | POWER     | $\frac{4.50}{4.33}$   | 3.18<br>2.36 | 45911-0039      | SIGNAL    | POWER     | POWER     | POWER     | $\frac{3.19}{3.19}$   | 1.57    |
| 45911-0026      | POWER     | SIGNAL    | POWER     | POWER     |                       |              | 45911-0040      | POWER     | SIGNAL    | POWER     | POWER     |                       |         |
| 45911-0027      | SIGNAL    | SIGNAL    | POWER     | POWER     |                       |              | 45911-0041      | SIGNAL    | SIGNAL    | POWER     | POWER     |                       |         |
| 45911-0028      | SIGNAL    | POWER     | SIGNAL    | POWER     |                       |              | 45911-0042      | SIGNAL    | POWER     | SIGNAL    | POWER     |                       |         |
| 45911-0029      | POWER     | SIGNAL    | SIGNAL    | POWER     |                       |              | 45911-0043      | POWER     | SIGNAL    | SIGNAL    | POWER     |                       |         |
| 45911-0030      | POWER     | POWER     | SIGNAL    | POWER     |                       |              | 45911-0044      | POWER     | POWER     | SIGNAL    | POWER     |                       |         |
| 45911-0031      | SIGNAL    | SIGNAL    | SIGNAL    | POWER     |                       |              | 45911-0045      | SIGNAL    | SIGNAL    | SIGNAL    | POWER     |                       |         |
| 45911-0032      | SIGNAL    | POWER     | POWER     | SIGNAL    |                       |              | 45911-0046      | SIGNAL    | POWER     | POWER     | SIGNAL    |                       |         |
| 45911-0033      | POWER     | SIGNAL    | POWER     | SIGNAL    |                       |              | 45911-0047      | POWER     | SIGNAL    | POWER     | SIGNAL    |                       |         |
| 45911-0034      | SIGNAL    | SIGNAL    | POWER     | SIGNAL    |                       |              | 45911-0048      | SIGNAL    | SIGNAL    | POWER     | SIGNAL    |                       |         |
| 45911-0035      | SIGNAL    | POWER     | SIGNAL    | SIGNAL    |                       |              | 45911-0049      | SIGNAL    | POWER     | SIGNAL    | SIGNAL    |                       |         |
| 45911-0036      | POWER     | SIGNAL    | SIGNAL    | SIGNAL    |                       |              | 45911-0050      | POWER     | SIGNAL    | SIGNAL    | SIGNAL    |                       |         |
| 45911-0037      | POWER     | POWER     | SIGNAL    | SIGNAL    |                       |              | 45911-0051      | POWER     | POWER     | SIGNAL    | SIGNAL    |                       |         |
| 45911-0038      | POWER     | POWER     | POWER     | SIGNAL    |                       |              | 45911-0052      | POWER     | POWER     | POWER     | SIGNAL    |                       |         |



|  |  |        |                            |  |                    |  |                        |  |
|--|--|--------|----------------------------|--|--------------------|--|------------------------|--|
| EC NO: UCP2008-2498<br>DRWN: JSCHAFER<br>CHKD:<br>APPR: APATEL<br>2008/04/25<br>DESCRIPTION<br>REV | GENERAL TOLERANCES (UNLESS SPECIFIED)                      |        | DIMENSION STYLE<br>MM ONLY |  | SCALE<br>1:1       | DESIGN UNITS<br>METRIC   | THIRD ANGLE PROJECTION |  |
|  |  | mm     | INCH                       | DRAWN BY<br>SAMIEC   | DATE<br>2005/04/14 | TITLE<br>POWER EDGE ASSEMBLY<br>POWER / SIGNAL MIXED<br>VERTICAL SOLDER TAIL<br>MOLEX INCORPORATED |                        |  |
|  | 4 PLACES   | ± ---  | ± ---                      | CHECKED BY<br>SAMIEC   | DATE<br>2005/04/14 |  |                        |  |
|  | 3 PLACES   | ± ---  | ± ---                      |  |                    |  |                        |  |
|  | 2 PLACES   | ± 0.25 | ± ---                      |  |                    |  |                        |  |
|  | 1 PLACE  | ± 0.25 | ± ---                      |  |                    |  |                        |  |
|  | ANGULAR ±1/2°  |        | MATERIAL NO.<br>SEE CHART  | MARGULIS   | 2005/04/14         | DOCUMENT NO.<br>SD-45911-001   | SHEET NO.<br>4 OF 4    |  |
|  | DRAFT WHERE APPLICABLE<br>MUST REMAIN<br>WITHIN DIMENSIONS |        | SIZE<br>A                  | THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX<br>INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION |                    |  |                        |  |