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**Part Number:** [0459110015](#)  
**Status:** **Active**  
**Overview:** [edge\\_card\\_connectors](#)  
**Description:** 12.90mm (.508") Pitch EXTreme PowerEdge™, Mixed Power/Signal Card Edge Connector, Double Sided, 3 Segments (Power, Signal, Signal Sequence), Through Hole Solder for 1.57mm (.062") 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)              | 18                             |
| Circuits (maximum)             | 18                             |
| Circuits Detail                | 2 Power, 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)            | 0.126 In                       |
| PC Tail Length (mm)            | 3.19 mm                        |
| PCB Thickness Recommended (in) | 0.062 In                       |
| PCB Thickness Recommended (mm) | 1.60 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**  
**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**  
[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 |

This document was generated on 06/04/2010

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Diagram illustrating a 16-bit bus structure. The bus is divided into two segments:

- SEGMENT 2** (Left): Labeled "SEGMENT 2" and "CIRCUIT 1". It contains bits 8, 7, 6, 5, 4, 3, 2, 1.
- SEGMENT 1** (Right): Labeled "SEGMENT 1" and "CIRCUIT 1". It contains bits 10, 9, 8, 7, 6, 5, 4, 3, 2, 1.

1

A

6 5 4 3 2 1

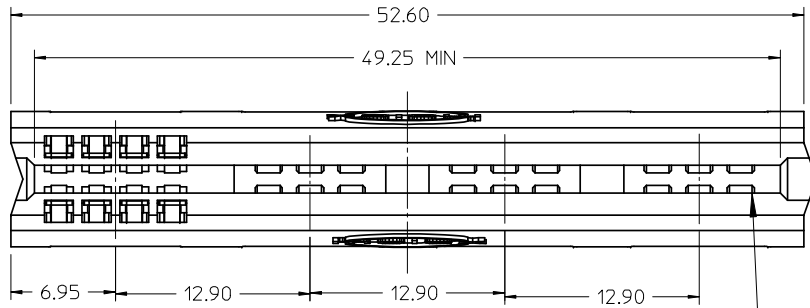
MATERIAL NUMBER: 45911-0007 SHOWN  
SEE SHEET ONE FOR ALL OTHER NOTES AND DIMENSIONS



| MATERIAL NUMBER | SEGMENT 3 | SEGMENT 2 | SEGMENT 1 | $\frac{DIM P}{DIM T}$ | PCB THK      |
|-----------------|-----------|-----------|-----------|-----------------------|--------------|
| 45911-0007      | SIGNAL    | POWER     | POWER     | $\frac{4.50}{4.33}$   | 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    |                       |              |
| 45911-0012      | POWER     | POWER     | SIGNAL    | $\frac{3.19}{3.19}$   | 1.57         |
| 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 | DESCRIPTION | QUALITY SYMBOLS | 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                                                                                                                       |                                                                                                          |                        |                                                                                                              |           |
|                                                                                                 |             |                 | 2 PLACES                                                   | ± 0.25 | ± --- | APPROVED BY                | DATE                                                                                                                             |                                                                                                          |                        |                                                                                                              |           |
|                                                                                                 |             |                 | 1 PLACE                                                    | ± 0.25 | ± --- | MARGULIS                   | 2005/04/14                                                                                                                       |  MOLEX INCORPORATED |                        |                                                                                                              |           |
|                                                                                                 |             |                 | ANGULAR ±1/2°                                              |        |       | MATERIAL NUMBER            |                                                                                                                                  |                                                                                                          | DOCUMENT NO.           |                                                                                                              | SHEET NO. |
|                                                                                                 |             |                 | DRAFT WHERE APPLICABLE<br>MUST REMAIN<br>WITHIN DIMENSIONS |        |       | SEE CHART                  |                                                                                                                                  |                                                                                                          | SD-45911-001           |                                                                                                              | 2 OF 4    |
|                                                                                                 |             |                 | REV                                                        |        |       | SIZE<br>A                  | 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



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



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