

PLEASE CHECK WWW.MOLEX.COM FOR LATEST PART INFORMATION

**Part Number:** [0459120035](#)  
**Status:** **Active**  
**Overview:**  
**Description:** 12.90mm (.508") Pitch EXTreme PowerEdge™, Mixed Power/Signal Card Edge Connector, Double Sided, 4 Segments (Signal, Signal, Power, Signal Sequence), Press-Fit

**Agency Certification**

|     |          |
|-----|----------|
| CSA | LR19980  |
| TUV | 30482572 |
| UL  | E29179   |

**General**

|                |                      |
|----------------|----------------------|
| Product Family | Edge Card Connectors |
| Series         | 45912                |
| Component Type | Edgecard to PCB      |
| Overview       | edge_card_connectors |
| Product Name   | EXTreme PowerEdge™   |

**Physical**

|                                |                                               |
|--------------------------------|-----------------------------------------------|
| Circuits (Loaded)              | 26                                            |
| Circuits (maximum)             | 26                                            |
| Circuits Detail                | 8 Signal, 8 Signal, 2 Power, 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               | High Performance Alloy (HPA), Phosphor Bronze |
| Material - Plating Mating      | Gold                                          |
| Material - Plating Termination | Tin                                           |
| Material - Resin               | High Temperature Thermoplastic                |
| PC Tail Length (in)            | 0.177 In                                      |
| PC Tail Length (mm)            | 4.50 mm                                       |
| PCB Thickness Recommended (in) | 0.093 In                                      |
| PCB Thickness Recommended (mm) | 2.40 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 - Compliant Pin                  |

**Electrical**

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

**Material Info**

**Reference - Drawing Numbers**

|                         |              |
|-------------------------|--------------|
| Packaging Specification | PK-45714-001 |
| Product Specification   | PS-45719-001 |
| Sales Drawing           | SD-45912-001 |

**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**  
[45912Series](#)

**Mates With**  
1.58mm (.062") double sided card edge

This document was generated on 06/04/2010

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



6

5

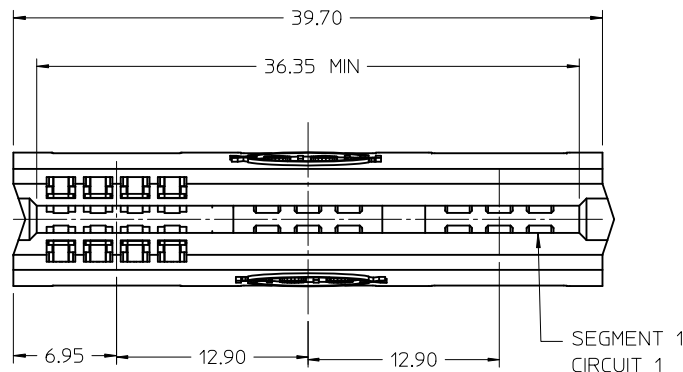
4

3

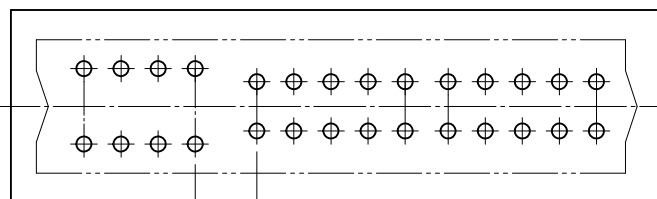
2

1

NOTE:  
FINISH (FOR -1008 ONLY)  
NICKEL (MATING AREA) 50-150 M.I.  
Pd/Ni 100-200 M.I. IN MATING AREA  
GOLD FLASH IN MATING AREA  
TIN NICKEL (COMPLIANT OR TAIL AREA)  
30-60 M.I. NICKEL UNDER 15-60 M.I. TIN



| SIGNAL<br>SEGMENT | POWER<br>SEGMENT | POWER<br>SEGMENT |
|-------------------|------------------|------------------|
| 8 7 6 5           | 10 9 8 7 6       | 10 9 8 7 6       |
| SEGMENT 3         | SEGMENT 2        | SEGMENT 1        |
| 4 3 2 1           | 5 4 3 2 1        | 5 4 3 2 1        |

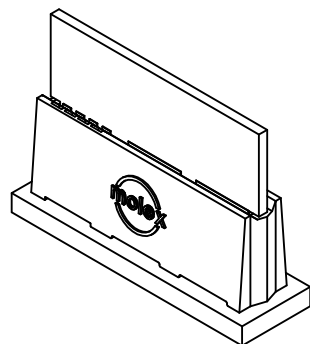


DIM S BETWEEN SIGNAL SEG AND SIGNAL SEG: 5.40  
DIM S BETWEEN POWER SEG AND POWER SEG: 2.90  
DIM S BETWEEN SIGNAL SEG AND POWER SEG: 4.15

PCB LAYOUT: COMPONENT SIDE

| MATERIAL<br>NUMBER     | SEGMENT 3 | SEGMENT 2 | SEGMENT 1 | OPTIONAL<br>VOID<br>LOCATION |
|------------------------|-----------|-----------|-----------|------------------------------|
| 45912-0007             | SIGNAL    | POWER     | POWER     |                              |
| 45912-0008             | POWER     | SIGNAL    | POWER     |                              |
| 45912-1008<br>SEE NOTE | POWER     | SIGNAL    | POWER     |                              |
| 45912-1108             | POWER     | SIGNAL    | POWER     | SIGNAL SEG<br>PIN 3          |
| 45912-2108             | VOID      | SIGNAL    | POWER     | SIGNAL SEG<br>PIN 3          |
| 45912-0009             | SIGNAL    | SIGNAL    | POWER     |                              |
| 45912-0010             | SIGNAL    | POWER     | SIGNAL    |                              |
| 45912-0011             | POWER     | SIGNAL    | SIGNAL    |                              |
| 45912-0012             | POWER     | POWER     | SIGNAL    |                              |
| SEE 45845              | SIGNAL    | SIGNAL    | SIGNAL    |                              |
| SEE 45714              | POWER     | POWER     | POWER     |                              |

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



|                     |  |            |                                                            |                 |                                       |                 |                                                                                                                               |                 |  |                          |  |                                                                      |  |                        |  |
|---------------------|--|------------|------------------------------------------------------------|-----------------|---------------------------------------|-----------------|-------------------------------------------------------------------------------------------------------------------------------|-----------------|--|--------------------------|--|----------------------------------------------------------------------|--|------------------------|--|
| EC NO: UCP2010-2087 |  | 2010/02/17 | DESCRIPTION                                                | QUALITY SYMBOLS | GENERAL TOLERANCES (UNLESS SPECIFIED) |                 |                                                                                                                               | DIMENSION STYLE |  | SCALE                    |  | DESIGN UNITS                                                         |  | THIRD ANGLE PROJECTION |  |
| DRWN: JSCHAFER      |  | 2010/03/24 |                                                            |                 |                                       |                 |                                                                                                                               | MM ONLY         |  | 2:1                      |  | METRIC                                                               |  |                        |  |
| CHKD: SAMIEC        |  | 2010/03/25 |                                                            |                 |                                       | mm              | INCH                                                                                                                          | DRAWN BY        |  | DATE                     |  | TITLE<br>POWER EDGE ASSEMBLY<br>POWER / SIGNAL MIXED<br>VERTICAL CPI |  |                        |  |
| APPR: APATEL        |  |            |                                                            |                 | 4 PLACES                              | ± ---           | ± ---                                                                                                                         | SAMIEC          |  | 2005/04/14               |  |                                                                      |  |                        |  |
|                     |  |            |                                                            |                 | 3 PLACES                              | ± ---           | ± ---                                                                                                                         | CHECKED BY      |  | DATE                     |  |                                                                      |  |                        |  |
|                     |  |            | 2 PLACES                                                   | ± 0.25          | ± ---                                 | SAMIEC          |                                                                                                                               | 2005/04/14      |  |                          |  |                                                                      |  |                        |  |
|                     |  |            | 1 PLACE                                                    | ± 0.25          | ± ---                                 | APPROVED BY     |                                                                                                                               | 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       |                                                                                                                               | SD-45912-001    |  | 2 OF 4                   |  |                                                                      |  |                        |  |
| N                   |  | REV        |                                                            |                 |                                       | SIZE            | THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION |                 |  |                          |  |                                                                      |  |                        |  |

6

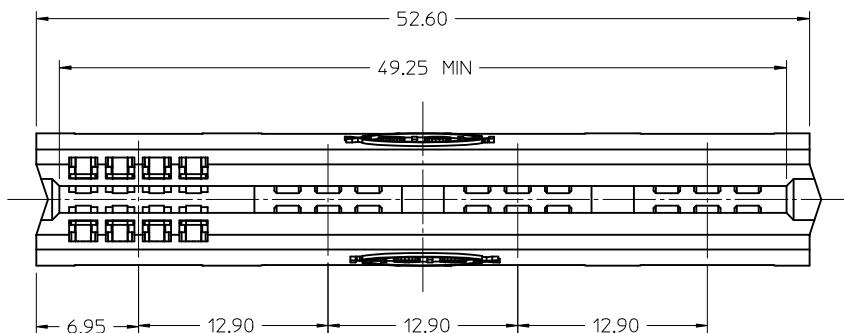
5

4

3

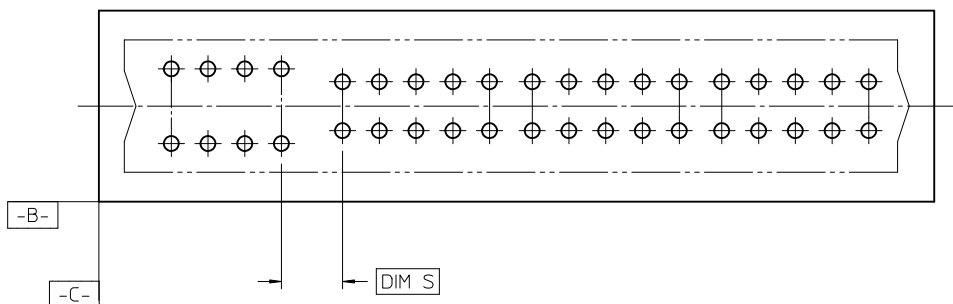
2

1



MATERIAL NUMBER 45912-0025 SHOWN  
SEE SHEET ONE FOR OTHER NOTES AND DIM.

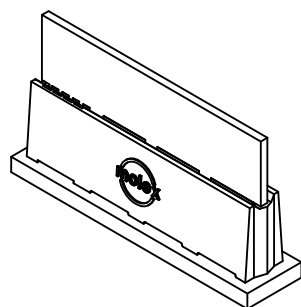
|           |            |            |            |
|-----------|------------|------------|------------|
| 8 7 6 5   | 10 9 8 7 6 | 10 9 8 7 6 | 10 9 8 7 6 |
| SEGMENT 4 | SEGMENT 3  | SEGMENT 2  | SEGMENT 1  |
| 4 3 2 1   | 5 4 3 2 1  | 5 4 3 2 1  | 5 4 3 2 1  |



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 4 | SEGMENT 3 | SEGMENT 2 | SEGMENT 1 |
|-----------------|-----------|-----------|-----------|-----------|
| 45912-0025      | SIGNAL    | POWER     | POWER     | POWER     |
| 45912-0026      | POWER     | SIGNAL    | POWER     | POWER     |
| 45912-0027      | SIGNAL    | SIGNAL    | POWER     | POWER     |
| 45912-0028      | SIGNAL    | POWER     | SIGNAL    | POWER     |
| 45912-0029      | POWER     | SIGNAL    | SIGNAL    | POWER     |
| 45912-0030      | POWER     | POWER     | SIGNAL    | POWER     |
| 45912-0031      | SIGNAL    | SIGNAL    | SIGNAL    | POWER     |
| 45912-0032      | SIGNAL    | POWER     | POWER     | SIGNAL    |
| 45912-0033      | POWER     | SIGNAL    | POWER     | SIGNAL    |
| 45912-0034      | SIGNAL    | SIGNAL    | POWER     | SIGNAL    |
| 45912-0035      | SIGNAL    | POWER     | SIGNAL    | SIGNAL    |
| 45912-0036      | POWER     | SIGNAL    | SIGNAL    | SIGNAL    |
| 45912-0037      | POWER     | POWER     | SIGNAL    | SIGNAL    |
| 45912-0038      | POWER     | POWER     | POWER     | SIGNAL    |



|                                                                                                        |  |  |               |             |                              |                                                                                                                                  |                              |                    |                                                                      |  |              |                        |                           |  |
|--------------------------------------------------------------------------------------------------------|--|--|---------------|-------------|------------------------------|----------------------------------------------------------------------------------------------------------------------------------|------------------------------|--------------------|----------------------------------------------------------------------|--|--------------|------------------------|---------------------------|--|
| EC NO: UCP2010-2087<br>DRWN: JSCHAFER 2010/02/17<br>CHKD: SAMIEC 2010/03/24<br>APPR: APATEL 2010/03/25 |  |  |               | DESCRIPTION | QUALITY SYMBOLS              | GENERAL TOLERANCES (UNLESS SPECIFIED)                                                                                            |                              |                    | DIMENSION STYLE<br>MM ONLY                                           |  | SCALE<br>2:1 | DESIGN UNITS<br>METRIC | THIRD ANGLE<br>PROJECTION |  |
|                                                                                                        |  |  | mm            |             |                              | INCH                                                                                                                             | DRAWN BY<br>SAMIEC           | DATE<br>2005/04/14 | TITLE<br>POWER EDGE ASSEMBLY<br>POWER / SIGNAL MIXED<br>VERTICAL CPI |  |              |                        |                           |  |
| 4 PLACES                                                                                               |  |  | ± ---         |             | ± ---                        | CHECKED BY<br>SAMIEC                                                                                                             |                              | DATE<br>2005/04/14 |                                                                      |  |              |                        |                           |  |
| 3 PLACES                                                                                               |  |  | ± ---         |             | ± ---                        | APPROVED BY<br>MARGULIS                                                                                                          |                              | DATE<br>2005/04/14 |                                                                      |  |              |                        |                           |  |
| 2 PLACES                                                                                               |  |  | ± 0.25        |             | ± ---                        |                                                                                                                                  |                              |                    | molex MOLEX INCORPORATED                                             |  |              |                        |                           |  |
| 1 PLACE                                                                                                |  |  | ± 0.25        |             | ± ---                        |                                                                                                                                  |                              |                    |                                                                      |  |              |                        |                           |  |
|                                                                                                        |  |  | ANGULAR ±1/2° |             | MATERIAL NUMBER<br>SEE CHART |                                                                                                                                  | DOCUMENT NO.<br>SD-45912-001 |                    | SHEET NO.<br>3                                                       |  |              |                        |                           |  |
| 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 |                              |                    |                                                                      |  |              |                        |                           |  |

5

4

3

2

1



Компания «ЭлектроПласт» предлагает заключение долгосрочных отношений при поставках импортных электронных компонентов на взаимовыгодных условиях!

Наши преимущества:

- Оперативные поставки широкого спектра электронных компонентов отечественного и импортного производства напрямую от производителей и с крупнейших мировых складов;
- Поставка более 17-ти миллионов наименований электронных компонентов;
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- Лицензия ФСБ на осуществление работ с использованием сведений, составляющих государственную тайну;
- Поставка специализированных компонентов (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Aeroflex, Peregrine, Syfer, Eurofarad, Texas Instrument, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits, General Dynamics и др.);

Помимо этого, одним из направлений компании «ЭлектроПласт» является направление «Источники питания». Мы предлагаем Вам помощь Конструкторского отдела:

- Подбор оптимального решения, техническое обоснование при выборе компонента;
- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



#### Как с нами связаться

**Телефон:** 8 (812) 309 58 32 (многоканальный)

**Факс:** 8 (812) 320-02-42

**Электронная почта:** [org@eplast1.ru](mailto:org@eplast1.ru)

**Адрес:** 198099, г. Санкт-Петербург, ул. Калинина, дом 2, корпус 4, литера А.