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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**

China RoHS



Halogen-Free

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

Email productcompliance@molex.com
 For a multiple part number RoHS Certificate of Compliance, [click here](#)

Please visit the [Contact Us](#) section for any non-product compliance questions.

Search Parts in this Series

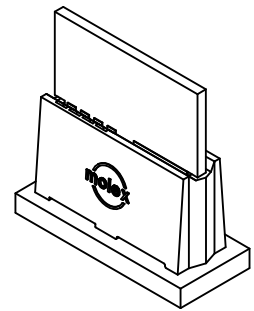
45912Series

Mates With

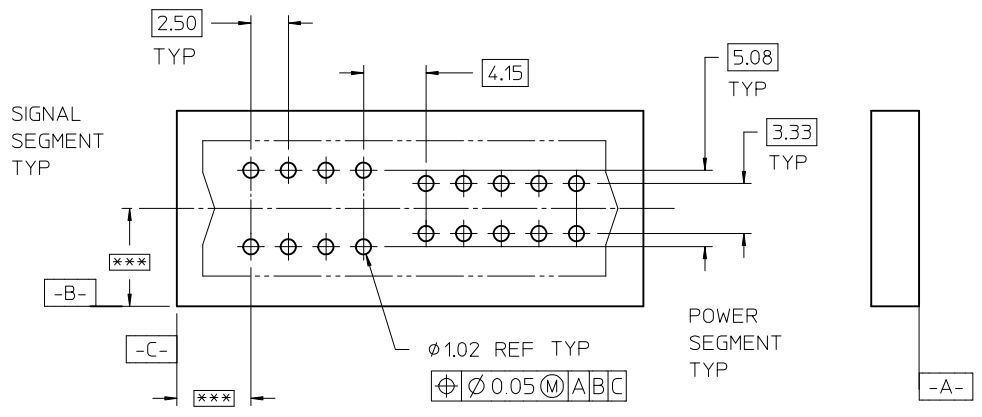
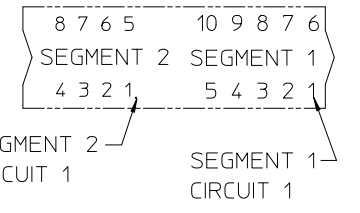
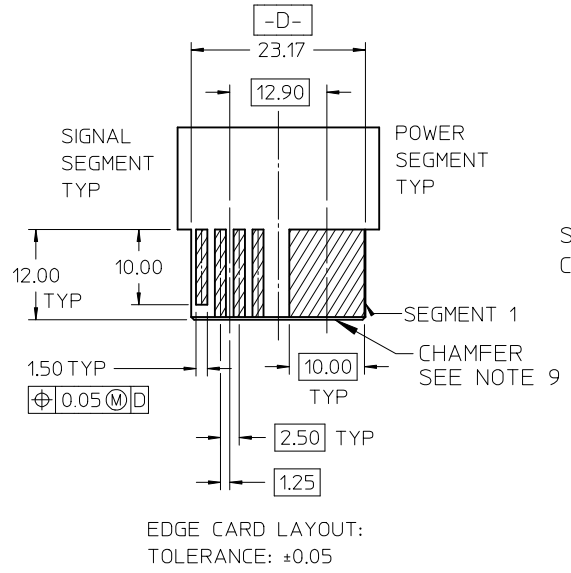
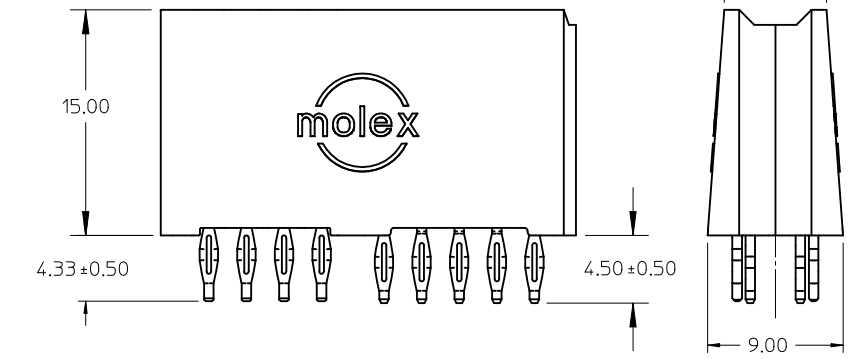
1.58mm (.062") double sided card edge

This document was generated on 06/04/2010

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- NOTES:
1. MATERIAL: HOUSING - LCP, UL94V-0, BLACK
MATERIAL: TERMINAL - COPPER ALLOY
 2. FINISH: SELECT GOLD: 30 M.I. MIN IN CONTACT AREA
SELECT TIN: 150 M.I. MIN IN PC TAIL AREA
BOTH OVER NICKEL: 50 M.I. MIN
 3. PRODUCT SPECIFICATION: PS-45719-001.
 4. PACKAGING SPECIFICATION: PK-45714-001.
 5. PCB THICKNESS: SEE CHART
 6. EDGE CARD THICKNESS: 1.57±0.15
 7. DIMENSIONS GIVEN ACROSS CENTERLINES ARE SYMMETRICAL ABOUT THOSE CENTERLINES WITHIN HALF THE TOTAL TOLERANCE.
 8. PCB HOLE SPECIFICATION: SEE PS-45719-001
 9. 0.50 X 45° CHAMFER ON LEADING EDGE, TYP 4 SIDES
 10. PART IS RoHS COMPLIANT. SEE ES-45482-999 FOR LABEL REQUIREMENTS.
 11. SEE SHEET 4 FOR OPTIONAL END LATCH VERSION.



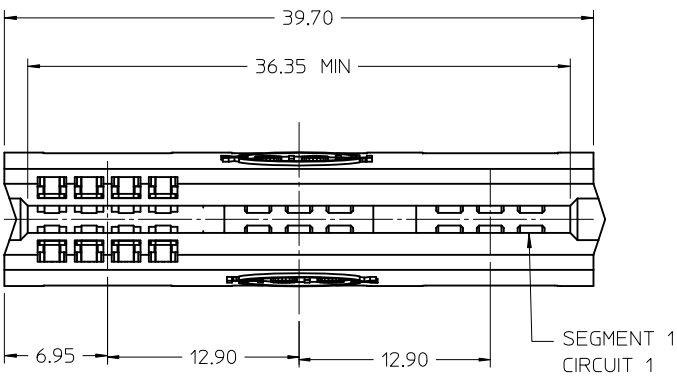
| MATERIAL NUMBER | SEGMENT | SEGMENT |
|-----------------|---------|---------|
| 45912-0001 | SIGNAL | POWER |
| 45912-0002 | POWER | SIGNAL |
| SEE 45845 | SIGNAL | SIGNAL |
| SEE 45714 | POWER | POWER |

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

| | |
|---|-----------------|
| DELETE SHT 4 EC NO: UCP2010-2087 DRWN: JSCHAFFER 2010/02/17 CHKD: SAMIEC 2010/03/24 APPR: APATEL 2010/03/25 | DESCRIPTION |
| | QUALITY SYMBOLS |
| | REV |
| | N |
| | |

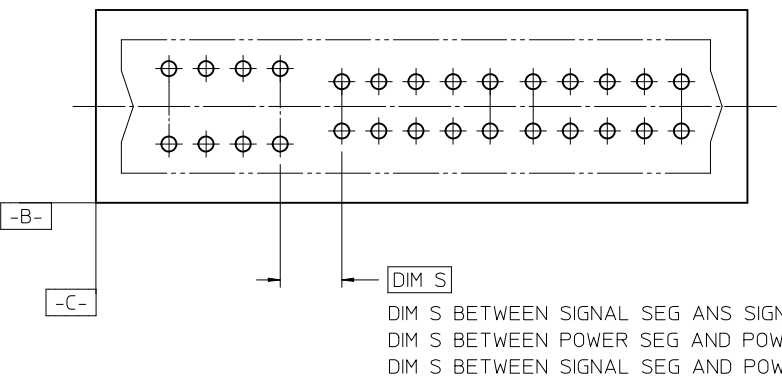
| | | | | |
|--|----------|--------|-------|-------|
| GENERAL TOLERANCES (UNLESS SPECIFIED) | mm | | INCH | |
| | 4 PLACES | ± --- | ± --- | ± --- |
| | 3 PLACES | ± --- | ± --- | ± --- |
| | 2 PLACES | ± 0.25 | ± --- | ± --- |
| | 1 PLACE | ± 0.25 | ± --- | ± --- |
| ANGULAR ±1/2° | | | | |
| DRAFT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

| | | | | |
|-----------------|---|---|--------------|------------------------|
| DIMENSION STYLE | | SCALE | DESIGN UNITS | THIRD ANGLE PROJECTION |
| MM ONLY | | 2:1 | METRIC | |
| DRAWN BY | DATE | TITLE | | |
| SAMIEC | 2005/04/14 | POWER EDGE ASSEMBLY POWER / SIGNAL MIXED VERTICAL CPI | | |
| CHECKED BY | DATE | MOLEX MOLEX INCORPORATED | | |
| SAMIEC | 2005/04/14 | DOCUMENT NO. SD-45912-001 | | |
| APPROVED BY | DATE | SHEET NO. 1 OF 4 | | |
| MARGULIS | 2005/04/14 | MATERIAL NUMBER SEE CHART | | |
| SIZE | THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION | | | |
| A | | | | |



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

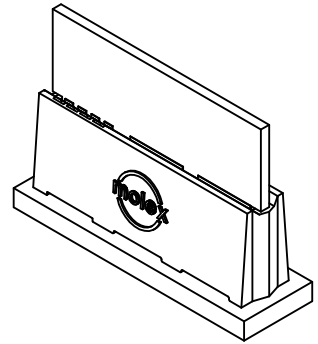
| SIGNAL SEGMENT | POWER SEGMENT | POWER SEGMENT |
|----------------|---------------|---------------|
| 8 7 6 5 | 10 9 8 7 6 | 10 9 8 7 6 |
| SEGMENT 3 | SEGMENT 2 | SEGMENT 1 |
| 4 3 2 1 | 5 4 3 2 1 | 5 4 3 2 1 |



PCB LAYOUT: COMPONENT SIDE

| MATERIAL NUMBER | SEGMENT 3 | SEGMENT 2 | SEGMENT 1 | OPTIONAL VOID LOCATION |
|------------------------|-----------|-----------|-----------|------------------------|
| 45912-0007 | SIGNAL | POWER | POWER | |
| 45912-0008 | POWER | SIGNAL | POWER | |
| 45912-1008 SEE NOTE | POWER | SIGNAL | POWER | |
| 45912-1108 | POWER | SIGNAL | POWER | SIGNAL SEG PIN 3 |
| 45912-2108 | VOID | SIGNAL | POWER | SIGNAL SEG 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 DRWN: JSCHAFFER 2010/02/17 CHKD: SAMIEC 2010/03/24 APPR: APATEL 2010/03/25 | QUALITY SYMBOLS DESCRIPTION REV | GENERAL TOLERANCES (UNLESS SPECIFIED) | | | DIMENSION STYLE MM ONLY | | SCALE 2:1 | DESIGN UNITS METRIC | THIRD ANGLE PROJECTION |
| | | 4 PLACES | ± --- | ± --- | mm | INCH | DRAWN BY SAMIEC | DATE 2005/04/14 | TITLE POWER EDGE ASSEMBLY POWER / SIGNAL MIXED VERTICAL CPI MOLEX INCORPORATED |
| | | 3 PLACES | ± --- | ± --- | mm | INCH | CHECKED BY SAMIEC | DATE 2005/04/14 | |
| | | 2 PLACES | ± 0.25 | ± --- | mm | INCH | APPROVED BY MARGULIS | DATE 2005/04/14 | |
| | | 1 PLACE | ± 0.25 | ± --- | mm | INCH | MATERIAL NUMBER SEE CHART | | |
| ANGULAR ±1/2° | | | DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS | | SIZE A | SHEET NO. 2 OF 4 | | | |

6

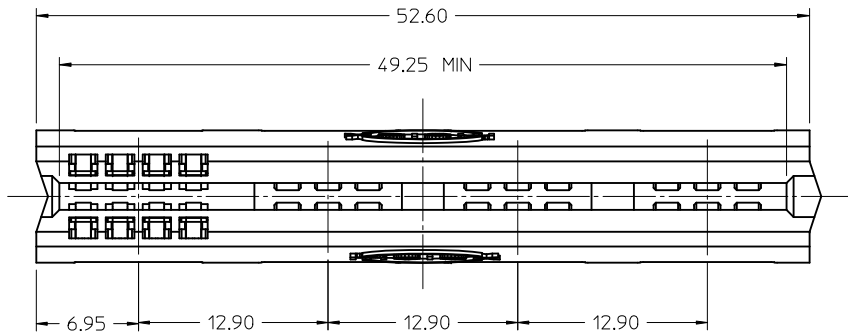
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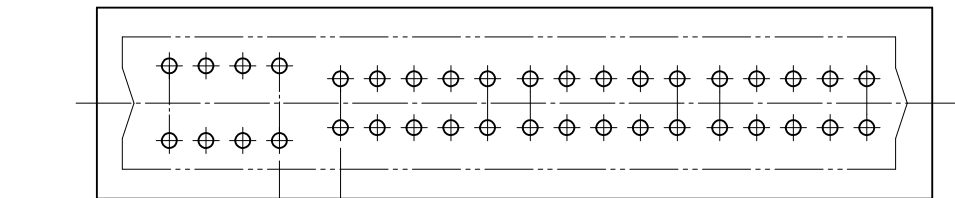
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1



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



-B-

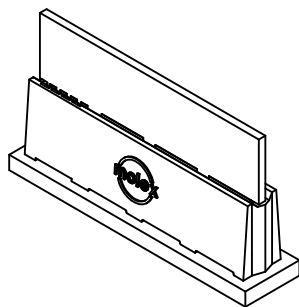
-C-

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

| 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 DRWN: JSCHAFFER 2010/02/17 CHKD: SAMIEC 2010/03/24 APPR: APATEL 2010/03/25 | QUALITY SYMBOLS | DESCRIPTION |
| | REV | |

| | | | |
|--|---------------|--------|-------|
| GENERAL TOLERANCES (UNLESS SPECIFIED) | 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 | | SCALE 2:1 | DESIGN UNITS METRIC |
| DRAWN BY SAMIEC | DATE 2005/04/14 | TITLE POWER EDGE ASSEMBLY POWER / SIGNAL MIXED VERTICAL CPI | |
| CHECKED BY SAMIEC | DATE 2005/04/14 | APPROVED BY MARGULIS | |
| MATERIAL NUMBER SEE CHART | | DOCUMENT NO. SD-45912-001 | |
| SIZE A | THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION | | |

| |
|---------------------------|
| THIRD ANGLE PROJECTION |
| MOLEX INCORPORATED |
| SHEET NO. 3 |

5

4

3

2

1