

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

**Part Number:** **0459120029**  
**Status:** **Active**  
**Overview:**  
**Description:** 12.90mm (.508") Pitch EXTreme PowerEdge™, Mixed Power/Signal Card Edge Connector, Double Sided, 4 Segments (Power, Signal, Signal, Power 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)	20
Circuits (maximum)	20
Circuits Detail	2 Power, 8 Signal, 8 Signal, 2 Power
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**

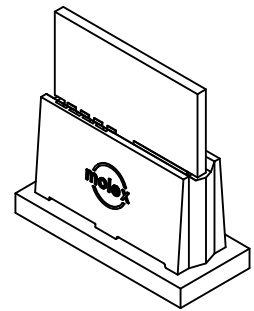
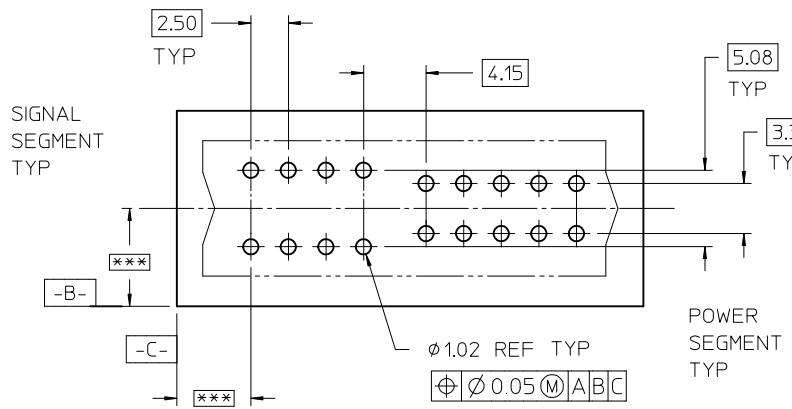
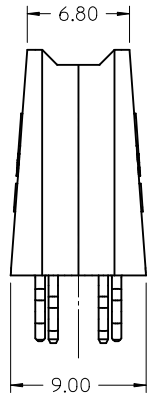
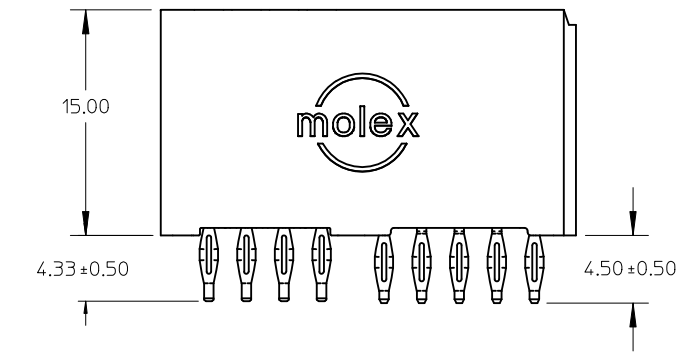
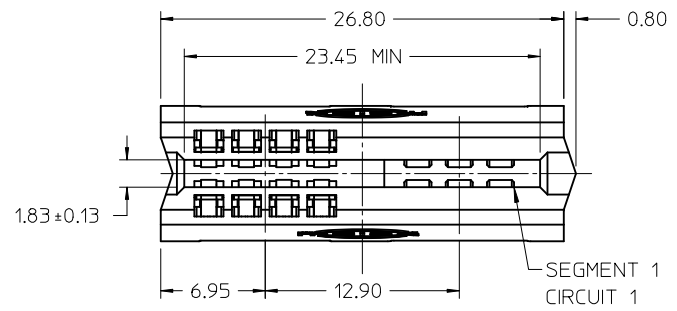
[45912Series](#)

**Mates With**

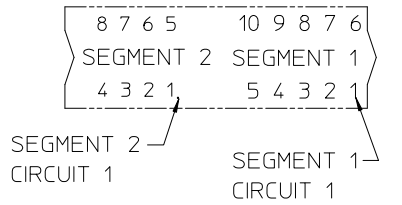
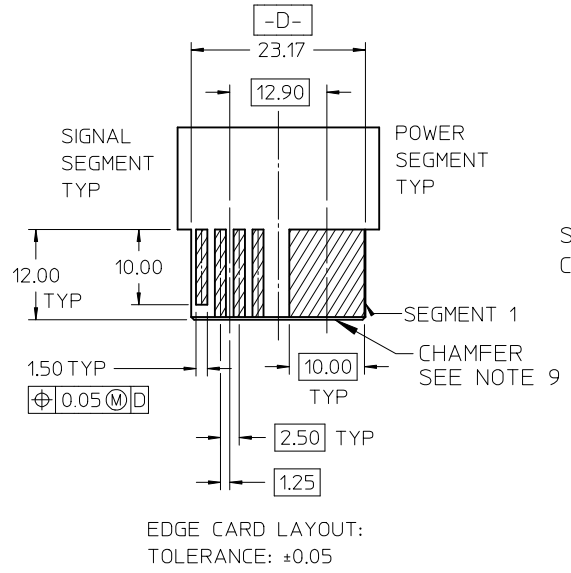
1.58mm (.062") double sided card edge

This document was generated on 06/04/2010

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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

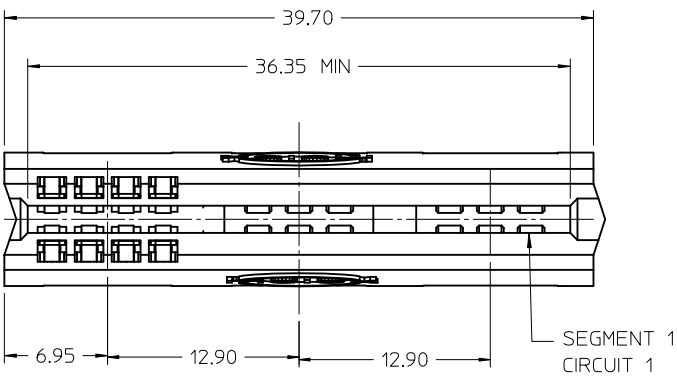
PCB LAYOUT: COMPONENT SIDE  
\*\*\* = TO BE DETERMINED BY CUSTOMER

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
	GENERAL TOLERANCES (UNLESS SPECIFIED)
	DIMENSION STYLE
	SCALE

	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		

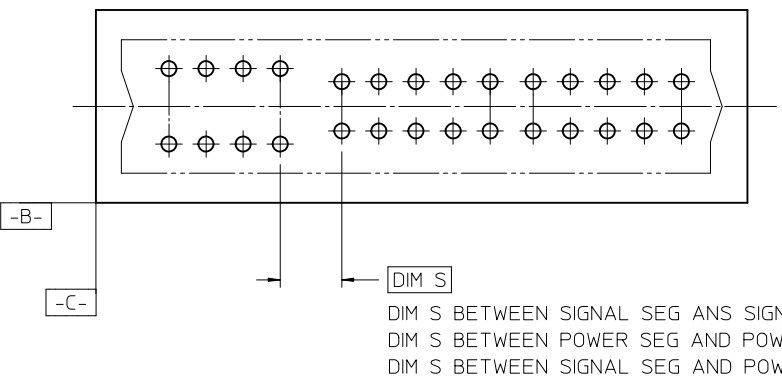
DIMENSION STYLE	
MM ONLY	
DRAWN BY	DATE
SAMIEC	2005/04/14
CHECKED BY	DATE
SAMIEC	2005/04/14
APPROVED BY	DATE
MARGULIS	2005/04/14
MATERIAL NUMBER	SEE CHART
SIZE	A

SCALE	DESIGN UNITS	THIRD ANGLE PROJECTION
2:1	METRIC	
TITLE		
POWER EDGE ASSEMBLY POWER / SIGNAL MIXED VERTICAL CPI		
molex MOLEX INCORPORATED		
MATERIAL NUMBER	DOCUMENT NO.	SHEET NO.
SEE CHART	SD-45912-001	1 OF 4
THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION		



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

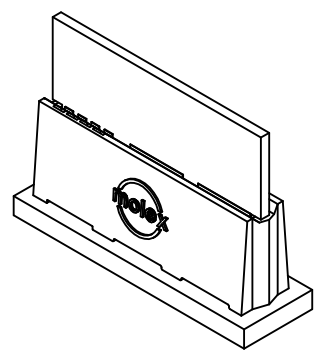
SIGNAL SEGMENT	POWER SEGMENT	POWER SEGMENT
8 7 6 5	10 9 8 7 6	10 9 8 7 6
SEGMENT 3	SEGMENT 2	SEGMENT 1
4 3 2 1	5 4 3 2 1	5 4 3 2 1



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 <b>MM ONLY</b>		SCALE <b>2:1</b>	DESIGN UNITS <b>METRIC</b>	THIRD ANGLE PROJECTION	
		4 PLACES	± ---	± ---	DRAWN BY	DATE	TITLE <b>POWER EDGE ASSEMBLY          POWER / SIGNAL MIXED          VERTICAL CPI</b>			
		3 PLACES	± ---	± ---	CHECKED BY	DATE				
		2 PLACES	± 0.25	± ---	SAMIEC	2005/04/14	<b>MOLEX INCORPORATED</b>			
1 PLACE	± 0.25	± ---	APPROVED BY	DATE						
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS			MATERIAL NUMBER SEE CHART		DOCUMENT NO. <b>SD-45912-001</b>		SHEET NO. <b>2 OF 4</b>			
THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION										

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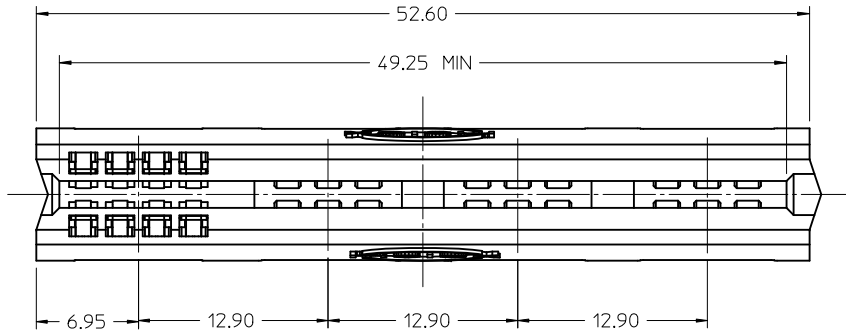
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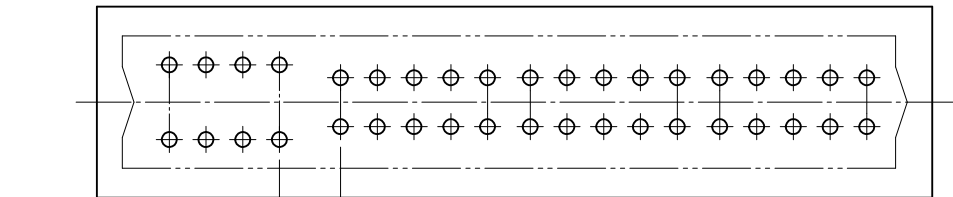
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MATERIAL NUMBER 45912-0025 SHOWN  
SEE SHEET ONE FOR OTHER NOTES AND DIM.



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



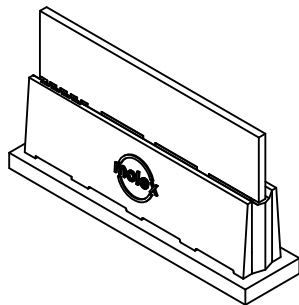
-B-

-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: 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 <b>MM ONLY</b>		SCALE <b>2:1</b>	DESIGN UNITS <b>METRIC</b>	THIRD ANGLE PROJECTION		
			mm	INCH	DRAWN BY SAMIEC	DATE 2005/04/14	<b>POWER EDGE ASSEMBLY          POWER / SIGNAL MIXED          VERTICAL CPI</b>			
		4 PLACES	± ---	± ---	CHECKED BY SAMIEC	DATE 2005/04/14				
		3 PLACES	± ---	± ---	APPROVED BY MARGULIS	DATE 2005/04/14	<b>MOLEX INCORPORATED</b>			
2 PLACES	± 0.25	± ---	MATERIAL NUMBER SEE CHART		DOCUMENT NO. <b>SD-45912-001</b>	SHEET NO. <b>3</b>				
1 PLACE	± 0.25	± ---	DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		SIZE 	THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION				
		ANGULAR ±1/2°								

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