molex
one company > a world of innovation

This document was generated on 06/04/2010

PLEASE CHECK WWW.MOLEX.COM FOR LATEST PART INFORMATION

Part Number: 0459120008
Status: Active
Overview:
Description: 12.90mm (.508") Pitch EXTreme PowerEdge™, Mixed Power/Signal Card Edge Connector, Double Sided, 3 Segments (Power, 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)	12
Circuits (maximum)	12
Circuits Detail	2 Power, 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
For a multiple part number RoHS Certificate of Compliance, click here

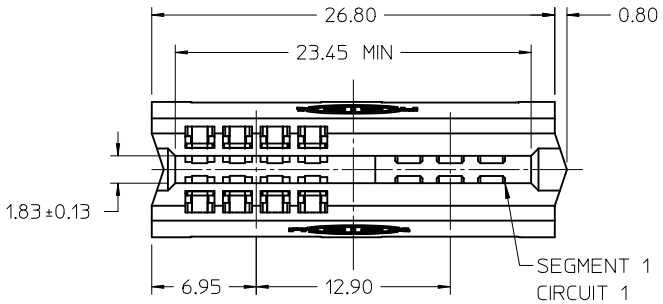
Please visit the Contact Us section for any non-product compliance questions.

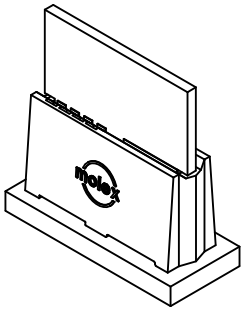
Search Parts in this Series
45912Series

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

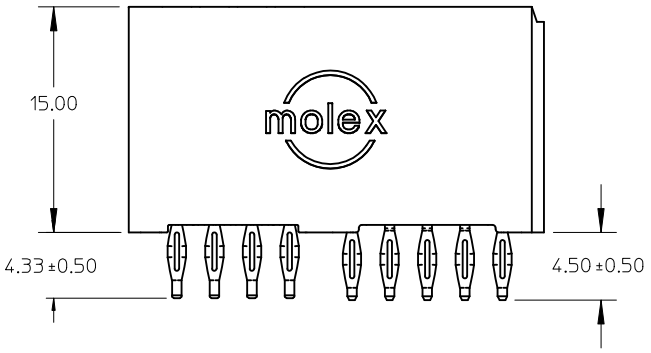
This document was generated on 06/04/2010

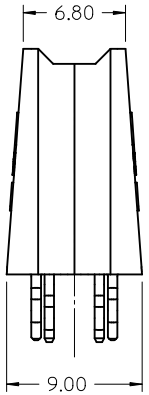
PLEASE CHECK WWW.MOLEX.COM FOR LATEST PART INFORMATION

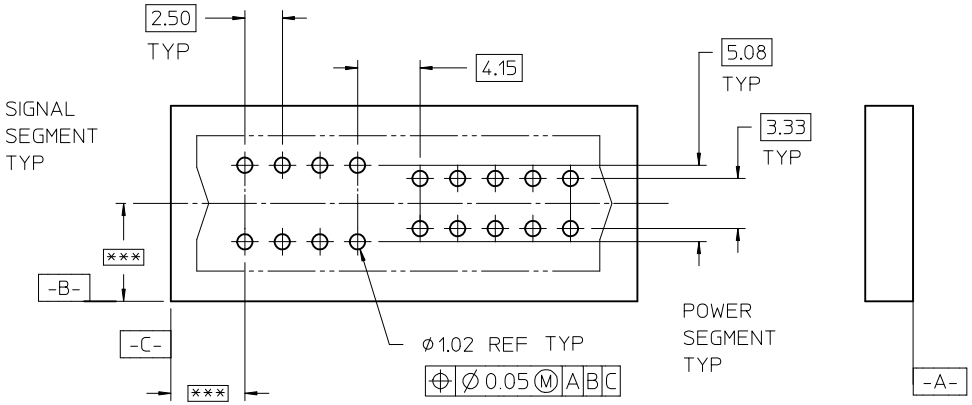


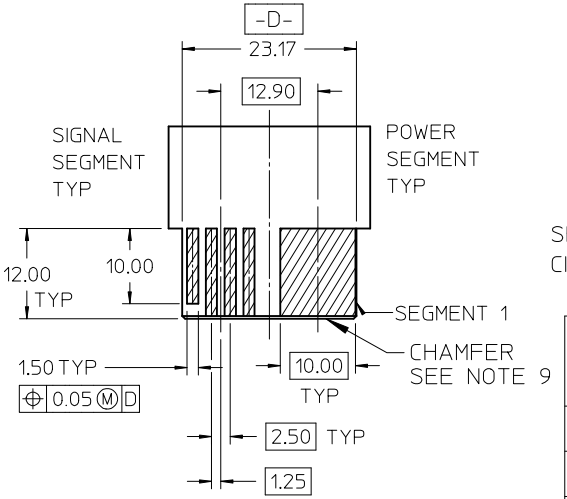


NOTES:
1. MATERIAL: HOUSING - LCP, UL94V-0, BLACK
   MATERIAL: TERMINAL - COPPER ALLOY
2. FINISH: SELECT GOLD: 30 M.I. MIN IN CONTACT AREA
   SELECT TIN: 150 M.I. MIN IN PC TAIL AREA
   BOTH OVER NICKEL: 50 M.I. MIN
3. PRODUCT SPECIFICATION: PS-45719-001.
4. PACKAGING SPECIFICATION: PK-45714-001.
5. 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.

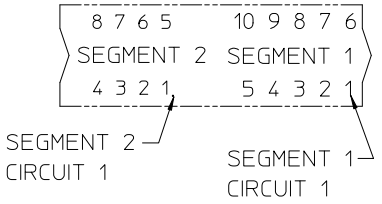








EDGE CARD LAYOUT:
TOLERANCE: ±0.05



MATERIAL NUMBER	SEGMENT 2	SEGMENT 1
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 2010/02/17
DRWN:JSCHAFER 2010/03/24
CH'KD:SAMIEC 2010/03/25
APPR:APATEL
DESCRIPTION
N
REV

QUALITY SYMBOLS

GENERAL TOLERANCES (UNLESS SPECIFIED)

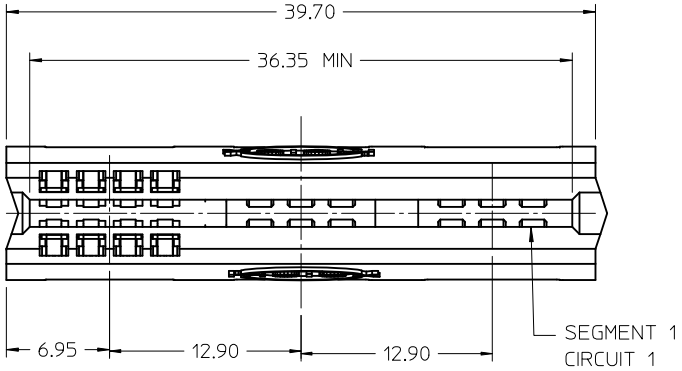
	mm	INCH
4 PLACES	± ---	± ---
3 PLACES	± ---	± ---
2 PLACES	± 0.25	± ---
1 PLACE	± 0.25	± ---
ANGULAR ±1/2°		

DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS

DIMENSION STYLE: MM ONLY	SCALE: 2:1	DESIGN UNITS: METRIC	THIRD ANGLE PROJECTION
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 — DATE: 2005/04/14	molex MOLEX INCORPORATED		
MATERIAL NUMBER: SEE CHART	DOCUMENT NO.: SD-45912-001		SHEET NO.: 1 OF 4

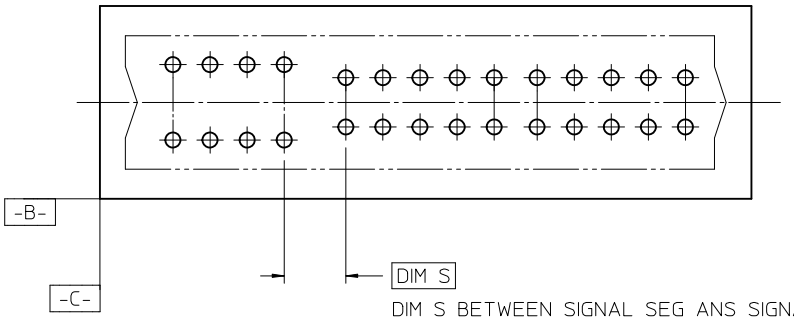
SIZE A

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

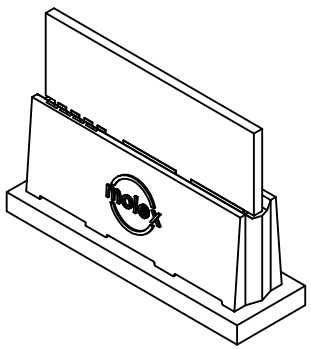


DIM S BETWEEN SIGNAL SEG ANS SIGNAL SEG: 5.40
DIM S BETWEEN POWER SEG AND POWER SEG: 2.90
DIM S BETWEEN SIGNAL SEG AND POWER SEG: 4.15

PCB LAYOUT: COMPONENT SIDE

MATERIAL NUMBER	SEGMENT 3	SEGMENT 2	SEGMENT 1	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 2010/02/17
DRWN: JSCHAFER 2010/03/24
CH'KD: SAMIEC 2010/03/25
APPR: APATEL
DESCRIPTION
N
REV

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
SCALE: 2:1
DESIGN UNITS: METRIC
THIRD ANGLE PROJECTION

DRAWN BY: SAMIEC DATE: 2005/04/14
CHECKED BY: SAMIEC DATE: 2005/04/14
APPROVED BY: MARGULIS DATE: 2005/04/14
MATERIAL NUMBER: SEE CHART

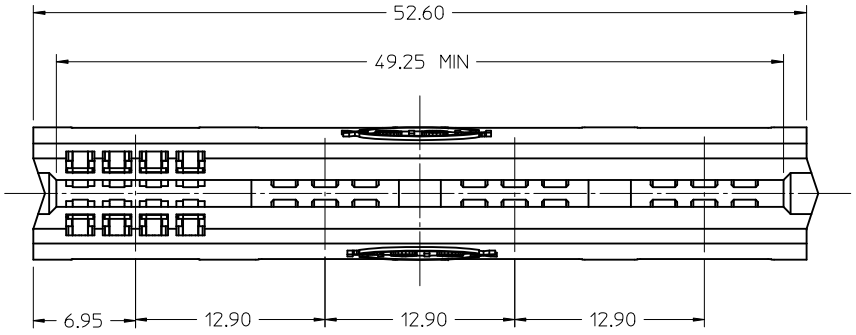
TITLE: POWER EDGE ASSEMBLY POWER / SIGNAL MIXED VERTICAL CPI

MOLEX INCORPORATED

DOCUMENT NO.: SD-45912-001
SHEET NO.: 2 OF 4

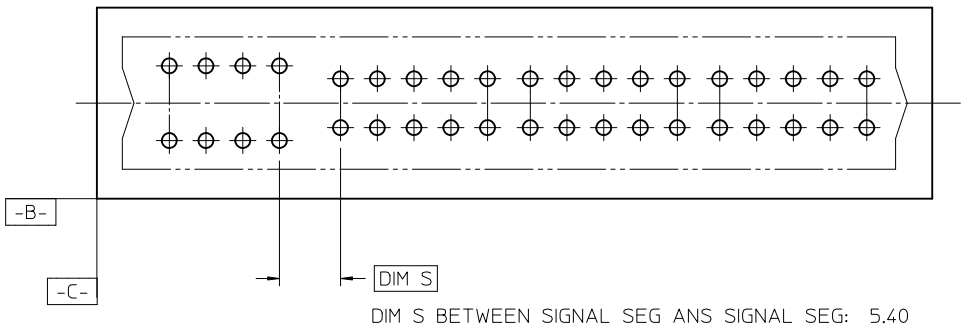
SIZE: A

THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION



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

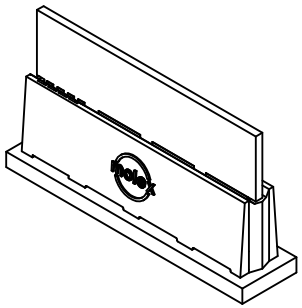
8 7 6 5	10 9 8 7 6	10 9 8 7 6	10 9 8 7 6
SEGMENT 4	SEGMENT 3	SEGMENT 2	SEGMENT 1
4 3 2 1	5 4 3 2 1	5 4 3 2 1	5 4 3 2 1



DIM S BETWEEN SIGNAL SEG ANS 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 2010/02/17
DRWN:JSCHAFER 2010/03/24
CH'KD:SAMIEC 2010/03/25
APPR:APATEL 2010/03/25
DESCRIPTION
N
REV

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
SCALE: 2:1
DESIGN UNITS: METRIC
THIRD ANGLE PROJECTION

DRAWN BY: SAMIEC DATE: 2005/04/14
CHECKED BY: SAMIEC DATE: 2005/04/14
APPROVED BY: MARGULIS DATE: 2005/04/14

TITLE
POWER EDGE ASSEMBLY
POWER / SIGNAL MIXED
VERTICAL CPI

MOLEX INCORPORATED

MATERIAL NUMBER: SEE CHART
DOCUMENT NO.: SD-45912-001
SHEET NO.: 3

SIZE A

THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION