

PLEASE CHECK WWW.MOLEX.COM FOR LATEST PART INFORMATION

Part Number: [0740591002](#)
Status: **Active**
Overview: [vhdm](#)
Description: 2.00mm (.079") Pitch VHDM® Board-to-Board Backplane Header, Vertical, 6-Row, Guide Pin Signal Module, Shield End Version, 60 Circuits, Pin Length 6.25mm (.246")

Documents:

[3D Model](#) [RoHS Certificate of Compliance \(PDF\)](#)
[Drawing \(PDF\)](#)

Agency Certification

UL E29179

General

Product Family Backplane Connectors
 Series [74059](#)
 Application Backplane
 Application Tooling Documents [Tooling Manual](http://www.molex.com/pdm_docs/ats/TM-622010999.pdf)
 Comments No Keying Position
 Component Type PCB Header
 Overview [vhdm](#)
 Product Name VHDM®
 Style N/A

Physical

Circuits (Loaded) 60
 Circuits (maximum) 60
 Color - Resin Black
 Durability (mating cycles max) 200
 First Mate / Last Break No
 Flammability 94V-0
 Guide to Mating Part Yes
 Keying to Mating Part None
 Material - Metal Beryllium Copper, High Performance Alloy (HPA), Stainless Steel
 Material - Plating Mating Gold
 Material - Plating Termination Tin-Lead
 Material - Resin High Temperature Thermoplastic
 Number of Columns N/A
 Number of Pairs Open Pin Field
 Number of Rows 6
 Orientation Vertical
 PC Tail Length (in) 0.098 In
 PC Tail Length (mm) 2.50 mm
 PCB Locator No
 PCB Retention None
 PCB Thickness Recommended (in) 0.070 In
 PCB Thickness Recommended (mm) 1.80 mm
 Packaging Type Tube
 Pitch - Mating Interface (in) 0.079 In
 Pitch - Mating Interface (mm) 2.00 mm
 Pitch - Term. Interface (in) 0.039 In
 Pitch - Term. Interface (mm) 2.00 mm
 Plating min: Mating (µin) 30
 Plating min: Mating (µm) 0.75

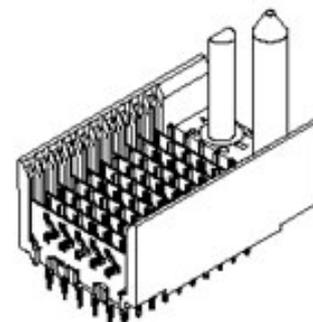


image - Reference only

Series

EU RoHS

RoHS Compliant by Exemption

REACH SVHC

Contains SVHC: No

Halogen-Free

Status

Halogen-Free

China RoHS



Pb

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

[74059Series](#)

Mates With

[74030 VHDM® Board-to-Board Daughtercard Receptacle](#)

Application Tooling | FAQ

Tooling specifications and manuals are found by selecting the products below. Crimp Height Specifications are then contained in the Application Tooling Specification document.

Global

| Description | Product # |
|---|----------------------------|
| Flat Rock Tooling for Pneumatic Press | 0622013700 |
| VHDM® Insertion Module for Advanced Mate Signal Header, 6 Row by 11 Wide, 20.00mm (.787") | 0622011101 |
| VHDM® Signal Pin Inserter Repair Tool | 0622015700 |

| | |
|--------------------------------------|------------------------------|
| Plating min: Termination (μ in) | 30 |
| Plating min: Termination (μ m) | 0.75 |
| Polarized to PCB | Yes |
| Stackable | No |
| Surface Mount Compatible (SMC) | Yes |
| Temperature Range - Operating | -55°C to +105°C |
| Termination Interface: Style | Through Hole - Compliant Pin |

Electrical

| | |
|-------------------------------|---------------------|
| Current - Maximum per Contact | 1A |
| Data Rate | 3.125 Gbps |
| Real Signals (per 25mm) | 72 |
| Shield Type | Ground Plane Shield |
| Shielded | Yes |
| Voltage - Maximum | 120V AC (RMS)/DC |

Material Info

Reference - Drawing Numbers

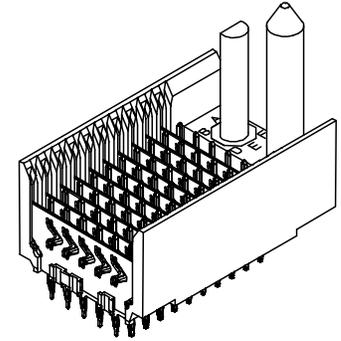
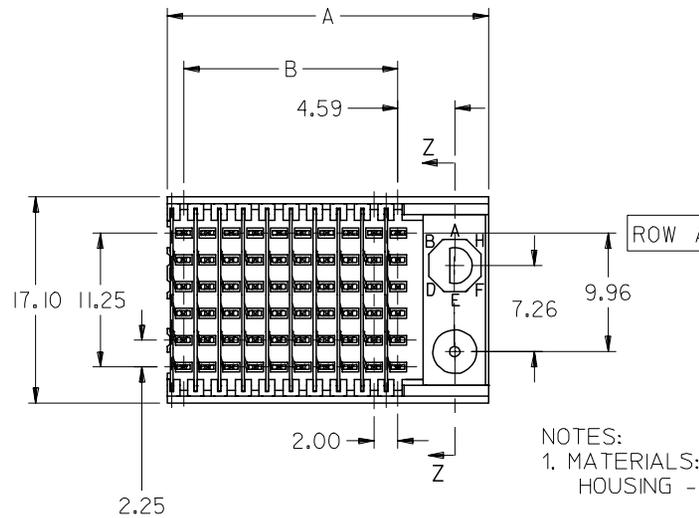
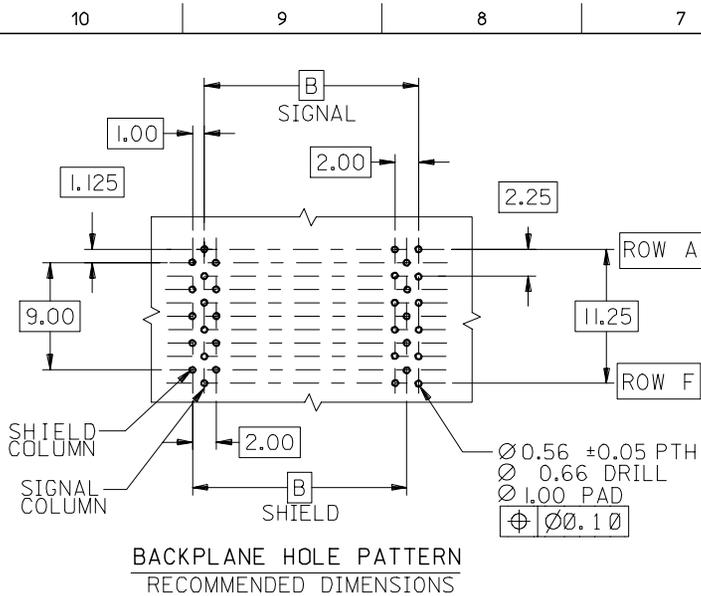
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|---------------|--------------|
| Sales Drawing | SD-74059-002 |
|---------------|--------------|

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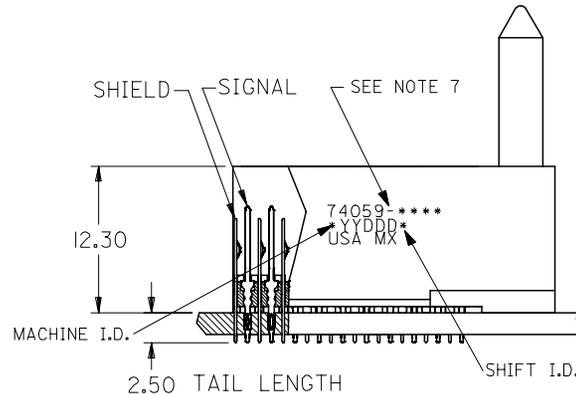
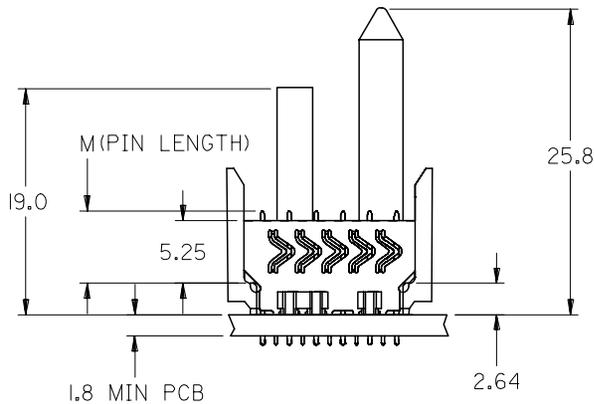
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|---|----------------------------|
| VHDM® 6 Row Pin and Shield Repair Tool | 0622015800 |
| VHDM® 6 Row Shield Extraction Tool | 0622016000 |
| VHDM® Insertion Module for Advanced Mate Signal Header, 6 Row by 10 Wide, 20.00mm (.787") | 0622020203 |
| VHDM® Insertion Module for Advanced Mate Signal Header, 6 Row by 10 Wide, 20.00mm (.787") | 0622020207 |

This document was generated on 05/19/2010

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- NOTES:
- MATERIALS:
HOUSING - LIQUID CRYSTAL POLYMER (LCP),
GLASS-FILLED, UL 94V-0, COLOR: BLACK
SIGNAL PIN & SHIELD - COPPER ALLOY
 - FINISHES:
CONTACT AREA: SELECTIVE GOLD (Au)
PCB TAILS: SELECTIVE TIN/LEAD (Sn/Pb)
OR SELECTIVE MATTE TIN (Sn)
NICKEL (Ni) OVERALL.
 - THIS PART CONFORMS TO MOLEX PRODUCT
SPECIFICATION PS-74031-999
 - FOR MIXED CONTACT LENGTHS CONSULT
MOLEX FOR AVAILABILITY
 - FOR SPECIFIC MATERIAL NUMBERS & MATING
INFORMATION REFER TO SHEET 2 AND 3
 - PACKAGE PER PK-74058-003
 - EITHER MARK PART WITH PART NUMBER & DATE
CODE APPROXIMATELY WHERE SHOWN OR PLACE
LABEL ON THE TUBE.



| | | | | | | | | |
|--|--|--|----------------------|-----------------------------------|-----------------------|---|-------------------------------------|----------------------------|
| ADDED TOLERANCE EC NO: UCP2006-2669 DRWNE: JONIAK 2006/06/02 CHKD: JONIAK 2006/06/02 APPR: CBIXLER 2006/06/09 | QUALITY SYMBOLS ▽=0 ▽=0 | GENERAL TOLERANCES (UNLESS SPECIFIED) | | DIMENSION STYLE MM ONLY | SCALE 2.5:1 | DESIGN UNITS METRIC | THIRD ANGLE PROJECTION | |
| | | 4 PLACES ± --- ± --- | 3 PLACES ± --- ± --- | DRAWN BY MWANG | DATE 1998/11/09 | TITLE VHDM 6 ROW SHIELD END BACKPLANE SALES DRAWING | | |
| | | 2 PLACES ± 0.15 ± --- | 1 PLACE ± 0.25 ± --- | CHECKED BY JLAURX | DATE 1998/11/09 | MOLEX INCORPORATED | | |
| | | ANGULAR ±1/2° | | APPROVED BY CBIXLER | DATE 1998/11/19 | MATERIAL NO. SEE SHEET 2 | DOCUMENT NO. SD-74059-002 | SHEET NO. 1 OF 3 |
| REV M | DESCRIPTION DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS | THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION | | | | | | |

10 9 8 7 6 5 4 3 2 1

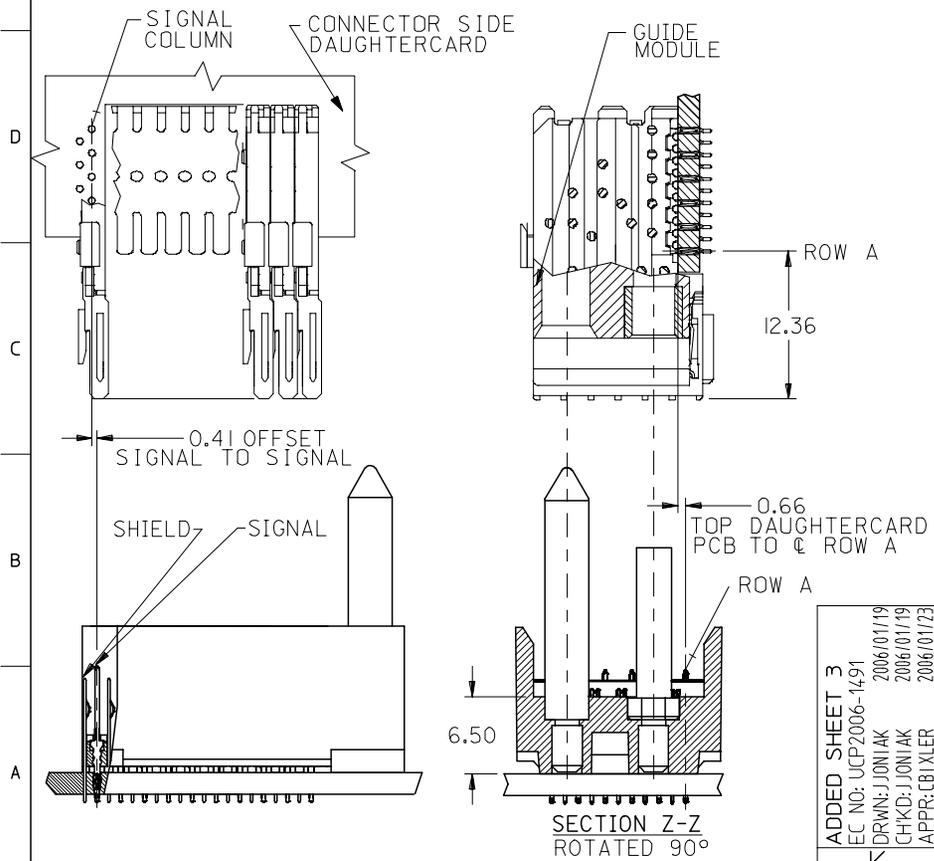
| | | | | | | | | | |
|------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| M/N 74059-() | -**0* | -**1* | -**2* | -**3* | -**4* | -**5* | -**6* | -**7* | -**8* |
| KEYING PIN ORIENTATION | O | A | B | C | D | E | F | G | H |

74059- * * * *

NUMBER OF COLUMNS/PLATING
 10 = 10 COLUMN TIN/LEAD
 21 = 11 COLUMN TIN/LEAD*
 25 = 25 COLUMN TIN/LEAD
 90 = 10 COLUMN MATTE TIN
 85 = 25 COLUMN MATTE TIN
 81 = 11 COLUMN MATTE TIN*

CONTACT LOAD (PIN LENGTH)
 1 & 6 = 4.75
 2 & 7 = 6.25
 3 & 8 = 4.25
 4 & 9 = 5.15

* - SEE SHEET 3 FOR 11 COLUMN P/N'S



| PART NUMBER | COLUMN | NUMBER OF SIGNAL PIN | NUMBER OF SHIELD | A | B | M | Au (um) THICKNESS | Sn (um) THICKNESS |
|-------------|--------|----------------------|------------------|-------|-------|------|-------------------|-------------------|
| 74059-*0*1 | 10 | 60 | 10 | 27.00 | 18.00 | 4.75 | 0.76 | 0.76-1.52 |
| 74059-*0*6 | | | | | | | 1.27 | |
| 74059-*5*1 | 25 | 150 | 25 | 57.00 | 48.00 | 6.25 | 0.76 | |
| 74059-*5*6 | | | | | | | 1.27 | |
| 74059-*0*2 | 10 | 60 | 10 | 27.00 | 18.00 | 4.25 | 0.76 | |
| 74059-*0*7 | | | | | | | 1.27 | |
| 74059-*5*2 | 25 | 150 | 25 | 57.00 | 48.00 | 5.15 | 0.76 | |
| 74059-*5*7 | | | | | | | 1.27 | |
| 74059-*0*3 | 10 | 60 | 10 | 27.00 | 18.00 | 4.75 | 0.76 | |
| 74059-*0*8 | | | | | | | 1.27 | |
| 74059-*5*3 | 25 | 150 | 25 | 57.00 | 48.00 | 6.25 | 0.76 | |
| 74059-*5*8 | | | | | | | 1.27 | |
| 74059-*0*4 | 10 | 60 | 10 | 27.00 | 18.00 | 5.15 | 0.76 | |
| 74059-*0*9 | | | | | | | 1.27 | |
| 74059-*5*4 | 25 | 150 | 25 | 57.00 | 48.00 | 4.75 | 0.76 | |
| 74059-*5*9 | | | | | | | 1.27 | |

| | | | | | | |
|--|--|--|---|----------------|---|------------------------|
| ADDED SHEET 3 EC NO: UCP2006-1491 DRWN: JONIAK 2006/01/19 CHKD: JONIAK 2006/01/19 APPR: CBIXLER 2006/01/23 | QUALITY SYMBOLS | GENERAL TOLERANCES (UNLESS SPECIFIED) | DIMENSION STYLE MM ONLY | SCALE 2.5:1 | DESIGN UNITS METRIC | THIRD ANGLE PROJECTION |
| | ▽=0 ▽=0 | 4 PLACES ± --- ± --- 3 PLACES ± --- ± --- 2 PLACES ± --- ± --- 1 PLACE ± --- ± --- ANGULAR ±1/2° | DRAWN BY DATE MWANG 1998/11/09 CHECKED BY DATE JLAURX 1998/11/09 APPROVED BY DATE CBIXLER 1998/11/09 | TITLE | VHDM 6 ROW SHIELD END BACKPLANE SALES DRAWING | |
| | MATERIAL NO. SEE CHART | DOCUMENT NO. SD-74059-002 | MOLEX INCORPORATED | | | |
| | DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS | SIZE B | THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION | | | |

9 8 7 6 5 4 3 2 1

10 9 8 7 6 5 4 3 2 1

| PART NUMBER | COLUMN | NUMBER OF SIGNAL | NUMBER OF PIN | NUMBER OF SHIELD | A | B | M | Au (um) THICKNESS | Sn (um) THICKNESS |
|-------------|--------|------------------|---------------|------------------|-------|-------|------|-------------------|-------------------|
| 74059-*1*1 | 11 | 66 | 11 | 11 | 29.00 | 20.00 | 4.75 | 0.76 | 0.76-1.52 |
| 74059-*1*6 | | | | | | | | 1.27 | |
| 74059-*1*2 | 11 | 66 | 11 | 11 | 29.00 | 20.00 | 6.25 | 0.76 | |
| 74059-*1*7 | | | | | | | | 1.27 | |
| 74059-*1*3 | 11 | 66 | 11 | 11 | 29.00 | 20.00 | 4.25 | 0.76 | |
| 74059-*1*8 | | | | | | | | 1.27 | |
| 74059-*1*4 | 11 | 66 | 11 | 11 | 29.00 | 20.00 | 5.15 | 0.76 | |
| 74059-*1*9 | | | | | | | | 1.27 | |

11 COLUMN P/N'S

| ADDED SHEET 3 EC NO: UCP2006-1491 DRWN: JJONIAK 2006/01/19 CHKD: JJONIAK 2006/01/19 APPR: CBI XLER 2006/01/23 | DESCRIPTION REV | QUALITY SYMBOLS | GENERAL TOLERANCES (UNLESS SPECIFIED) | DIMENSION STYLE | SCALE | DESIGN UNITS | THIRD ANGLE PROJECTION | | | | | | | | | | | | | | | |
|---|---|---|---|---------------------|-------|--------------|------------------------|-------|-------|----------|-------|-------|----------|-------|-------|---------|-------|-------|---------|---|--------|--|
| | | $\nabla=0$ $\nabla=0$ | <table border="1"> <tr> <th></th> <th>mm</th> <th>INCH</th> </tr> <tr> <td>4 PLACES</td> <td>± ---</td> <td>± ---</td> </tr> <tr> <td>3 PLACES</td> <td>± ---</td> <td>± ---</td> </tr> <tr> <td>2 PLACES</td> <td>± ---</td> <td>± ---</td> </tr> <tr> <td>1 PLACE</td> <td>± ---</td> <td>± ---</td> </tr> </table> | | mm | INCH | 4 PLACES | ± --- | ± --- | 3 PLACES | ± --- | ± --- | 2 PLACES | ± --- | ± --- | 1 PLACE | ± --- | ± --- | MM ONLY | - | METRIC | |
| | | | mm | INCH | | | | | | | | | | | | | | | | | | |
| | | 4 PLACES | ± --- | ± --- | | | | | | | | | | | | | | | | | | |
| 3 PLACES | ± --- | ± --- | | | | | | | | | | | | | | | | | | | | |
| 2 PLACES | ± --- | ± --- | | | | | | | | | | | | | | | | | | | | |
| 1 PLACE | ± --- | ± --- | | | | | | | | | | | | | | | | | | | | |
| DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS | DRAWN BY JJONIAK DATE 2005/09/15 CHECKED BY JJONIAK DATE 2005/09/15 APPROVED BY JJONIAK DATE 2005/09/15 MATERIAL NO. SEE CHART SIZE B | DATE 2005/09/15 DATE 2005/09/15 DATE 2005/09/15 DOCUMENT NO. SD-74059-002 THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION | TITLE VHDM 6 ROW SHIELD END BACKPLANE SALES DRAWING MOLEX INCORPORATED | SHEET NO. 3 OF 3 | | | | | | | | | | | | | | | | | | |

9 8 7 6 5 4 3 2 1