

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

**Part Number:** [0740592522](#)  
**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, 150 Circuits, Pin Length 6.25mm (.246")

**Documents:**

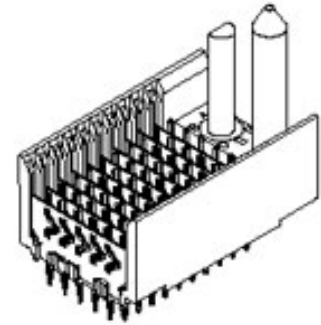
[3D Model](#) [RoHS Certificate of Compliance \(PDF\)](#)  
[Drawing \(PDF\)](#)

**General**

|                               |   |
|-------------------------------|---|
| Product Family                | Backplane Connectors  |
| Series                        | <a href="#">74059</a>   |
| Application                   | Backplane   |
| Application Tooling Documents | <a href="http://www.molex.com/pdm_docs/ats/TM-622010999.pdf">Tooling Manual</a> |
| Comments                      | Position B  |
| Component Type                | PCB Header  |
| Overview                      | <a href="#">vhdm</a>  |
| Product Name                  | VHDM®   |
| Style                         | N/A   |

**Physical**

|                                |   |
|--------------------------------|---|
| Circuits (Loaded)              | 150   |
| Circuits (maximum)             | 150   |
| Color - Resin                  | Black   |
| Durability (mating cycles max) | 200   |
| First Mate / Last Break        | No  |
| Guide to Mating Part           | Yes   |
| Keying to Mating Part          | Yes   |
| 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  |
| Plating min: Termination (µin) | 30  |
| Plating min: Termination (µm)  | 0.75  |
| Polarized to PCB               | Yes   |
| Stackable                      | No  |



Series

image - Reference only

**EU RoHS**

**Not RoHS Compliant**  
**REACH SVHC**  
**Not Reviewed**  
**Halogen-Free**  
**Status**  
**Not Reviewed**

**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**

[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                  | <a href="#">0622013700</a> |
| Pneumatic Press                        |                            |
| VHDM® Signal Pin                       | <a href="#">0622015700</a> |
| Insert Repair Tool                     |                            |
| VHDM® 6 Row Pin and Shield Repair Tool | <a href="#">0622015800</a> |
| VHDM® 6 Row Shield Extraction Tool     | <a href="#">0622016000</a> |

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

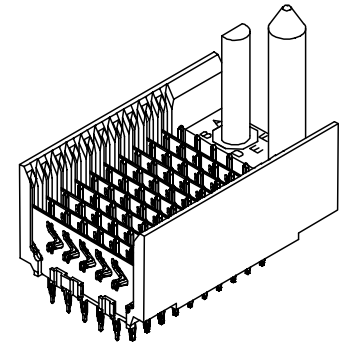
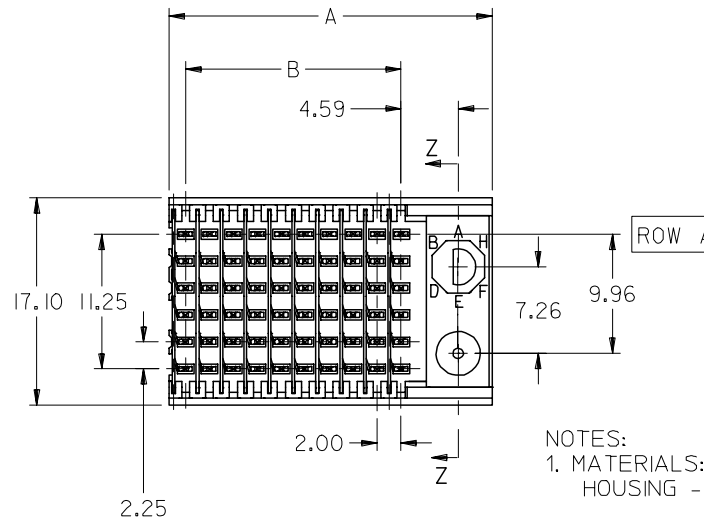
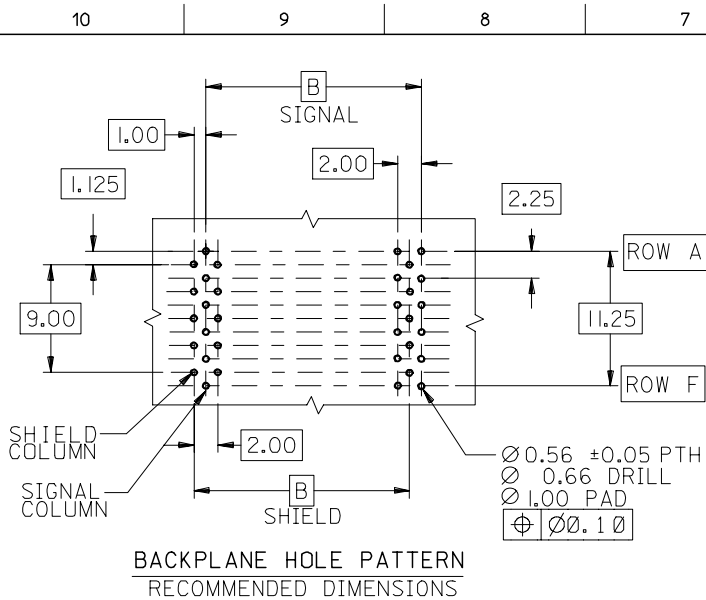
Sales Drawing SD-74059-002

VHDM and Very High Density Metric are trademarks of Amphenol Corporation

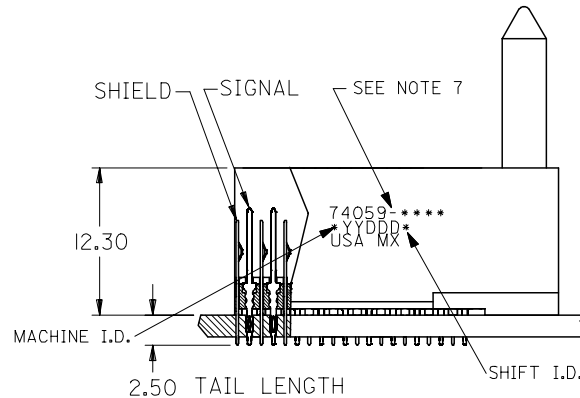
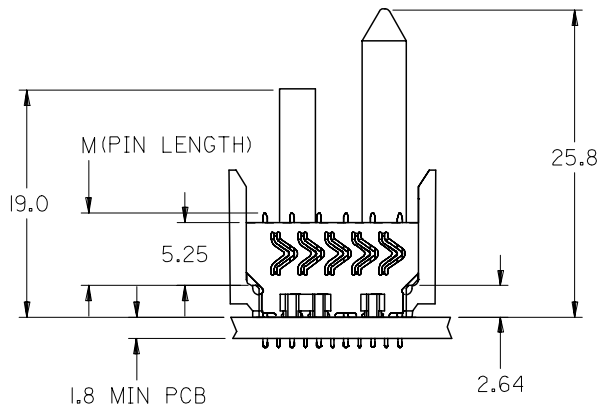
VHDM® Insertion 0622020204  
Module for Advanced  
Mate Signal Header,  
6 Row by 25 Wide,  
50.00mm (1.97")  
VHDM® Insertion 0622020208  
Module for Standard  
Shield Signal  
Header, 6 Row by  
25 Wide, 50.00mm  
(1.97")

This document was generated on 05/19/2010

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



- 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.

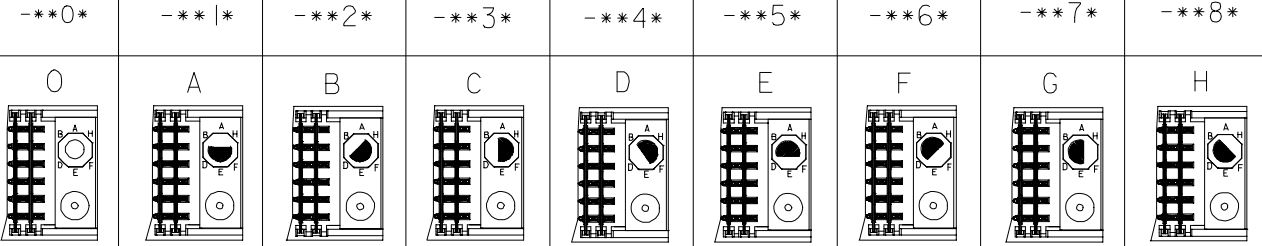


|  |                                      |  |                      |                                   |                              |                               |                        |  |  |
|--|--------------------------------------|--|----------------------|-----------------------------------|------------------------------|-------------------------------|------------------------|--|--|
| <b>ADDED TOLERANCE</b><br>EC NO: UCP2006-2669<br>DRW: JONIAK 2006/06/02<br>CHKD: JONIAK 2006/06/02<br>APPR: CBIXLER 2006/06/09 | <b>QUALITY SYMBOLS</b><br>▽=0<br>▽=0 | <b>GENERAL TOLERANCES (UNLESS SPECIFIED)</b>               |                      | <b>DIMENSION STYLE</b><br>MM ONLY | <b>SCALE</b><br>2.5:1        | <b>DESIGN UNITS</b><br>METRIC | THIRD ANGLE PROJECTION |  |  |
|  |                                      | 4 PLACES ± --- ± ---                                       | 3 PLACES ± --- ± --- | 2 PLACES ± 0.15 ± ---             | 1 PLACE ± 0.25 ± ---         | DRAWN BY<br>MWANG             | DATE<br>1998/11/09     | TITLE<br>VHD6 6 ROW<br>SHIELD END BACKPLANE<br>SALES DRAWING |  |
|  |                                      | ANGULAR ±1/2°  |                      | CHECKED BY<br>JLAURX              | DATE<br>1998/11/09           | APPROVED BY<br>CBIXLER        | DATE<br>1998/11/19     | MOLEX INCORPORATED   |  |
|  |                                      | DRAFT WHERE APPLICABLE<br>MUST REMAIN<br>WITHIN DIMENSIONS |                      | MATERIAL NO.<br>SEE SHEET 2       | DOCUMENT NO.<br>SD-74059-002 | SHEET NO.<br>1 OF 3           |                        |  |  |

10 9 8 7 6 5 4 3 2 1

M/N  
74059-( )

KEYING PIN ORIENTATION

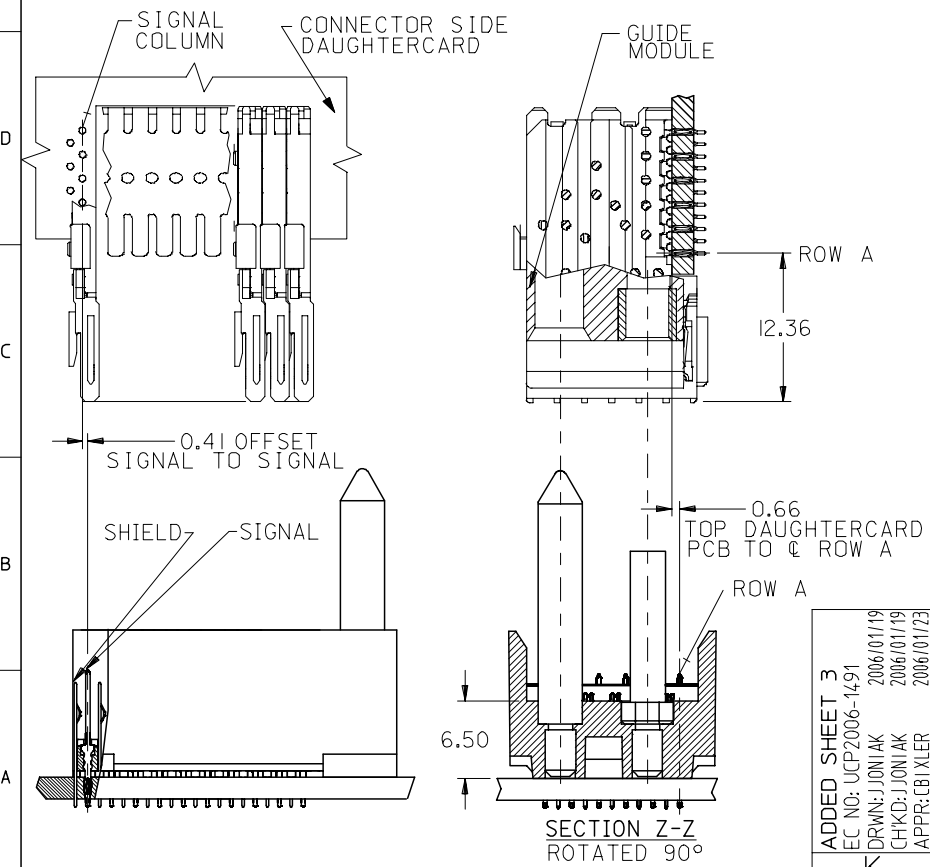


74059- \* \* \* \*

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 | 6.25 | 0.76              |                   |
| 74059-*0*7  |        |                      |                  |       |       |      | 1.27              |                   |
| 74059-*5*2  | 25     | 150                  | 25               | 57.00 | 48.00 | 4.25 | 0.76              |                   |
| 74059-*5*7  |        |                      |                  |       |       |      | 1.27              |                   |
| 74059-*0*3  | 10     | 60                   | 10               | 27.00 | 18.00 | 5.15 | 0.76              |                   |
| 74059-*0*8  |        |                      |                  |       |       |      | 1.27              |                   |
| 74059-*5*3  | 25     | 150                  | 25               | 57.00 | 48.00 | 5.15 | 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 | 5.15 | 0.76              |                   |
| 74059-*5*9  |        |                      |                  |       |       |      | 1.27              |                   |

|  |   |  |   |  |  |  |
|--|---|--|---|--|--|--|
| ADDED SHEET 3<br>EC NO: UCP2006-1491<br>DRWN: JONIAK 2006/01/19<br>CHKD: JONIAK 2006/01/19<br>APPR: CBIXLER 2006/01/23 | QUALITY SYMBOLS<br>▽=0<br>▽=0   | GENERAL TOLERANCES (UNLESS SPECIFIED)<br>mm INCH<br>4 PLACES ± --- ± ---<br>3 PLACES ± --- ± ---<br>2 PLACES ± --- ± ---<br>1 PLACE ± --- ± ---<br>ANGULAR ±1/2° | DIMENSION STYLE<br>MM ONLY<br>DRAWN BY DATE<br>MWANG 1998/11/09<br>CHECKED BY DATE<br>JLAURX 1998/11/09<br>APPROVED BY DATE<br>CBIXLER 1998/11/09 | SCALE<br>2.5:1<br>TITLE<br>VHDM 6 ROW SHIELD END BACKPLANE SALES DRAWING | DESIGN UNITS<br>METRIC<br>THIRD ANGLE PROJECTION |  |
|  | MATERIAL NO.<br>SEE CHART   | DOCUMENT NO.<br>SD-74059-002   | SHEET NO.<br>2 OF 3   |  |  |  |
|  | DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS  |  |   | MOLEX INCORPORATED   |  |  |
|  | 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