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**Part Number:** [0740591013](#)  
**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, Pin End Version, 60 Circuits, Pin Length 4.25mm (.167")

**Documents:**  
[Drawing \(PDF\)](#) [RoHS Certificate of Compliance \(PDF\)](#)

**Agency Certification**

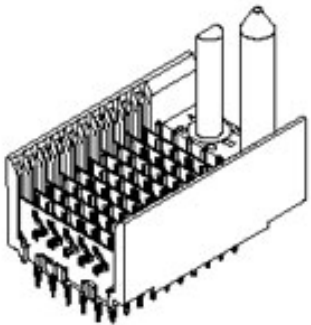
UL E29179

**General**

Product Family Backplane Connectors  
Series [74059](#)  
Application Backplane  
Application Tooling Documents <a href="http://www.molex.com/pdm\_docs/ats/TM-622010999.pdf">Tooling Manual</a>  
Comments Position A  
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 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



Series

image - Reference only

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



**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

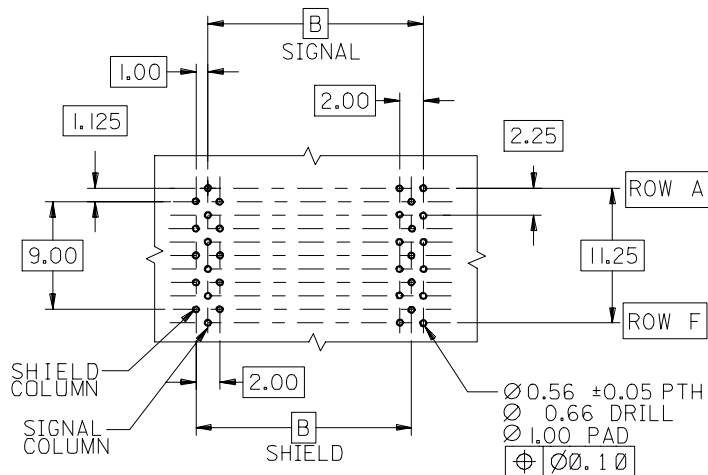
**Application Tooling | FAQ**  
*Tooling specifications and manuals are found by selecting the products below. Crimp Height Specifications are then contained in the Application Tooling Specification document.*  
**Global**  

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

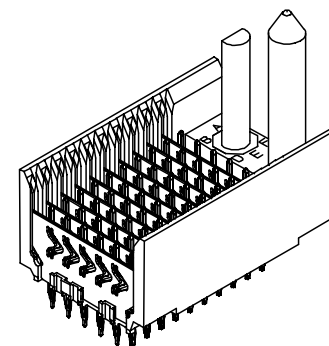
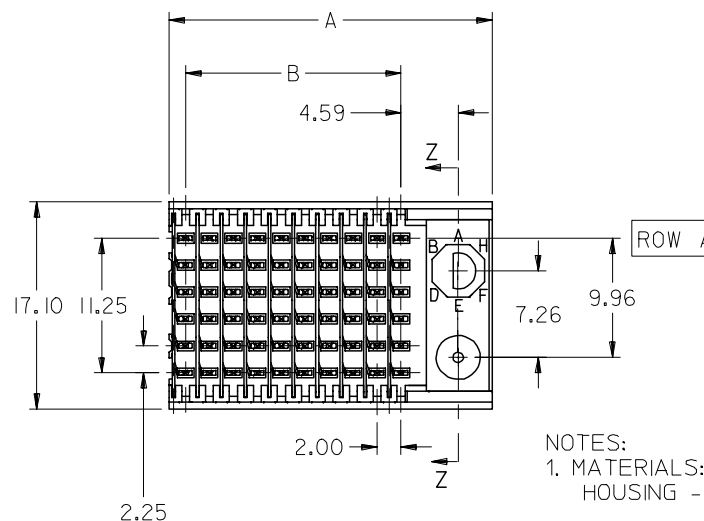
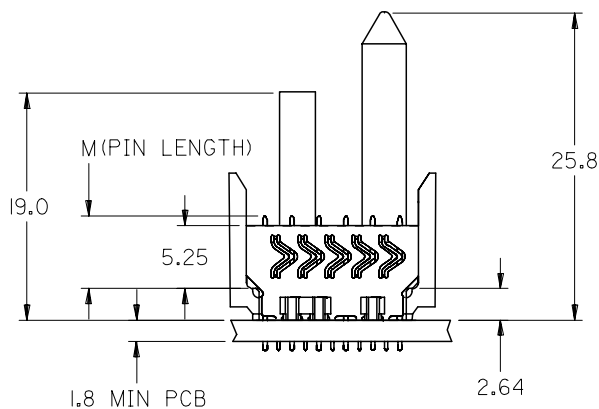
|                                                                          |                              |                                                                                           |                            |
|--------------------------------------------------------------------------|------------------------------|-------------------------------------------------------------------------------------------|----------------------------|
| Plating min: Termination (µin)                                           | 30                           | VHDM® 6 Row Pin and Shield Repair Tool                                                    | <a href="#">0622015800</a> |
| Plating min: Termination (µm)                                            | 0.75                         | VHDM® 6 Row Shield Extraction Tool                                                        | <a href="#">0622016000</a> |
| Polarized to PCB                                                         | Yes                          | VHDM® Insertion Module for Advanced Mate Signal Header, 6 Row by 10 Wide, 20.00mm (.787") | <a href="#">0622020203</a> |
| Stackable                                                                | No                           | VHDM® Insertion Module for Advanced Mate Signal Header, 6 Row by 10 Wide, 20.00mm (.787") | <a href="#">0622020207</a> |
| Surface Mount Compatible (SMC)                                           | Yes                          |                                                                                           |                            |
| Temperature Range - Operating                                            | -55°C to +105°C              |                                                                                           |                            |
| Termination Interface: Style                                             | Through Hole - Compliant Pin |                                                                                           |                            |
| <b>Electrical</b>                                                        |                              |                                                                                           |                            |
| Current - Maximum per Contact                                            | 1A                           |                                                                                           |                            |
| Data Rate                                                                | 3.125 Gbps                   |                                                                                           |                            |
| Real Signals (per 25mm)                                                  | 75                           |                                                                                           |                            |
| Shield Type                                                              | Ground Plane Shield          |                                                                                           |                            |
| Shielded                                                                 | Yes                          |                                                                                           |                            |
| Voltage - Maximum                                                        | 120V AC (RMS)/DC             |                                                                                           |                            |
| <b>Material Info</b>                                                     |                              |                                                                                           |                            |
| <b>Reference - Drawing Numbers</b>                                       |                              |                                                                                           |                            |
| Sales Drawing                                                            | SD-74059-002                 |                                                                                           |                            |
| VHDM and Very High Density Metric are trademarks of Amphenol Corporation |                              |                                                                                           |                            |

This document was generated on 05/19/2010

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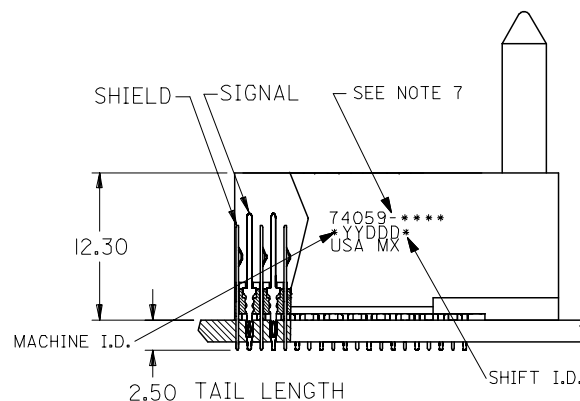


BACKPLANE HOLE PATTERN  
RECOMMENDED DIMENSIONS



NOTES:

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



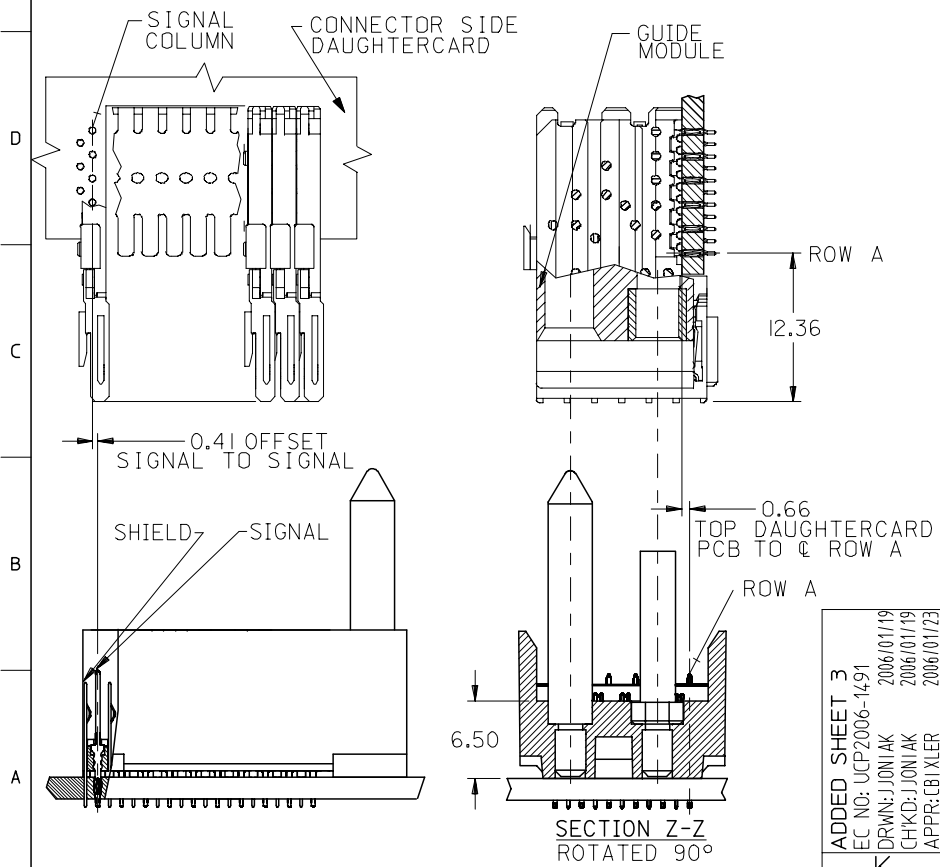
|                                                                                                                          |  |                                                            |                                                                                                                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

|                           |       |       |       |       |       |       |       |       |       |
|---------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| M/N<br>74059-( )          | -**0* | -**1* | -**2* | -**3* | -**4* | -**5* | -**6* | -**7* | -**8* |
| KEYING PIN<br>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 |      | 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 |      | 0.76              |                   |
| 74059-*5*7  |        |                      |                  |       |       |      | 1.27              |                   |
| 74059-*0*3  | 10     | 60                   | 10               | 27.00 | 18.00 | 4.25 | 0.76              |                   |
| 74059-*0*8  |        |                      |                  |       |       |      | 1.27              |                   |
| 74059-*5*3  | 25     | 150                  | 25               | 57.00 | 48.00 |      | 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 |      | 0.76              |                   |
| 74059-*5*9  |        |                      |                  |       |       |      | 1.27              |                   |

ADDED SHEET 3  
EC NO: UCP2006-1491  
DRW: JONIAK 2006/01/19  
CHKD: JONIAK 2006/01/19  
APPR: CBIXLER 2006/01/23

DESCRIPTION  
REV

QUALITY SYMBOLS  
=0  
=0

GENERAL TOLERANCES (UNLESS SPECIFIED)  
mm INCH  
4 PLACES ± --- ± ---  
3 PLACES ± --- ± ---  
2 PLACES ± --- ± ---  
1 PLACE ± --- ± ---  
ANGULAR ±1/2°

DRAFT WHERE APPLICABLE  
MUST REMAIN WITHIN DIMENSIONS

DIMENSION STYLE  
MM ONLY  
DRAWN BY DATE  
MWANG 1998/11/09  
CHECKED BY DATE  
JLAURX 1998/11/09  
APPROVED BY DATE  
CBIXLER 1998/11/09  
MATERIAL NO.  
SEE CHART

SCALE  
2.5:1

DESIGN UNITS  
METRIC

THIRD ANGLE PROJECTION

VHDM 6 ROW  
SHIELD END BACKPLANE  
SALES DRAWING

MOLEX INCORPORATED

DOCUMENT NO.  
SD-74059-002

SHEET NO.  
2 OF 3



Компания «ЭлектроПласт» предлагает заключение долгосрочных отношений при поставках импортных электронных компонентов на взаимовыгодных условиях!

Наши преимущества:

- Оперативные поставки широкого спектра электронных компонентов отечественного и импортного производства напрямую от производителей и с крупнейших мировых складов;
- Поставка более 17-ти миллионов наименований электронных компонентов;
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- Лицензия ФСБ на осуществление работ с использованием сведений, составляющих государственную тайну;
- Поставка специализированных компонентов (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Aeroflex, Peregrine, Syfer, Eurofarad, Texas Instrument, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits, General Dynamics и др.);

Помимо этого, одним из направлений компании «ЭлектроПласт» является направление «Источники питания». Мы предлагаем Вам помощь Конструкторского отдела:

- Подбор оптимального решения, техническое обоснование при выборе компонента;
- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



#### Как с нами связаться

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**Факс:** 8 (812) 320-02-42

**Электронная почта:** [org@eplast1.ru](mailto:org@eplast1.ru)

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