

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

**Part Number:** [0749811014](#)  
**Status:** **Active**  
**Overview:** [vhdm\\_hsd](#)  
**Description:** 2.00mm (.079") Pitch 6-Row VHDM-HSD™ Backplane Header, Guide Pin Signal Module, Shield End Version, 40 Circuits, Pin Length 5.15mm (.203")

**Documents:**

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

**Agency Certification**

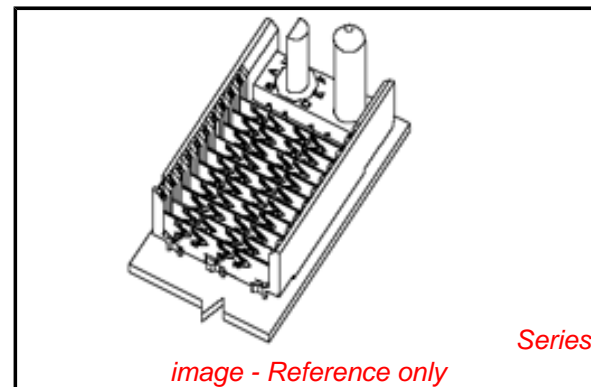
CSA LR19980  
 UL E29179

**General**

Product Family Backplane Connectors  
 Series [74981](#)  
 Application Backplane  
 Application Tooling Documents [Tooling Manual](http://www.molex.com/pdm_docs/ats/TM-622010999.pdf)  
 Comments Keying Position A  
 Component Type PCB Header  
 Overview [vhdm\\_hsd](#)  
 Product Name VHDM-HSD™  
 Style N/A

**Physical**

Circuits (Loaded) 40  
 Circuits (maximum) 40  
 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 Copper-Nickel-Silicon, High Performance Alloy (HPA), Stainless Steel  
 Material - Plating Mating Gold  
 Material - Plating Termination Tin-Lead  
 Material - Resin High Temperature Thermoplastic  
 Number of Columns 10  
 Number of Pairs Open Pin Field  
 Number of Rows 6  
 Orientation Vertical  
 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) 0.079 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



**EU RoHS**

**RoHS Compliant by Exemption**  
**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**

[74981Series](#)

**Mates With**

[74880 VHDMHSD Daughtercard](#)

**Use With**

[Daughtercard Modules](#)

**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 #                  |
|--|----------------------------|
| VHDM® Signal Pin Inserter Repair Tool                      | <a href="#">0622015700</a> |
| VHDM-HSD™ Signal Header, 6 Row by 10 Wide, 20.00mm (.787") | <a href="#">0622020216</a> |

|                                |                              |
|--------------------------------|------------------------------|
| Polarized to PCB               | Yes                          |
| Stackable                      | Yes                          |
| 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                     | 5.0 Gbps         |
| Real Signals (per 25mm)       | 48               |
| Shielded                      | No               |
| Voltage - Maximum             | 120V AC (RMS)/DC |

### **Material Info**

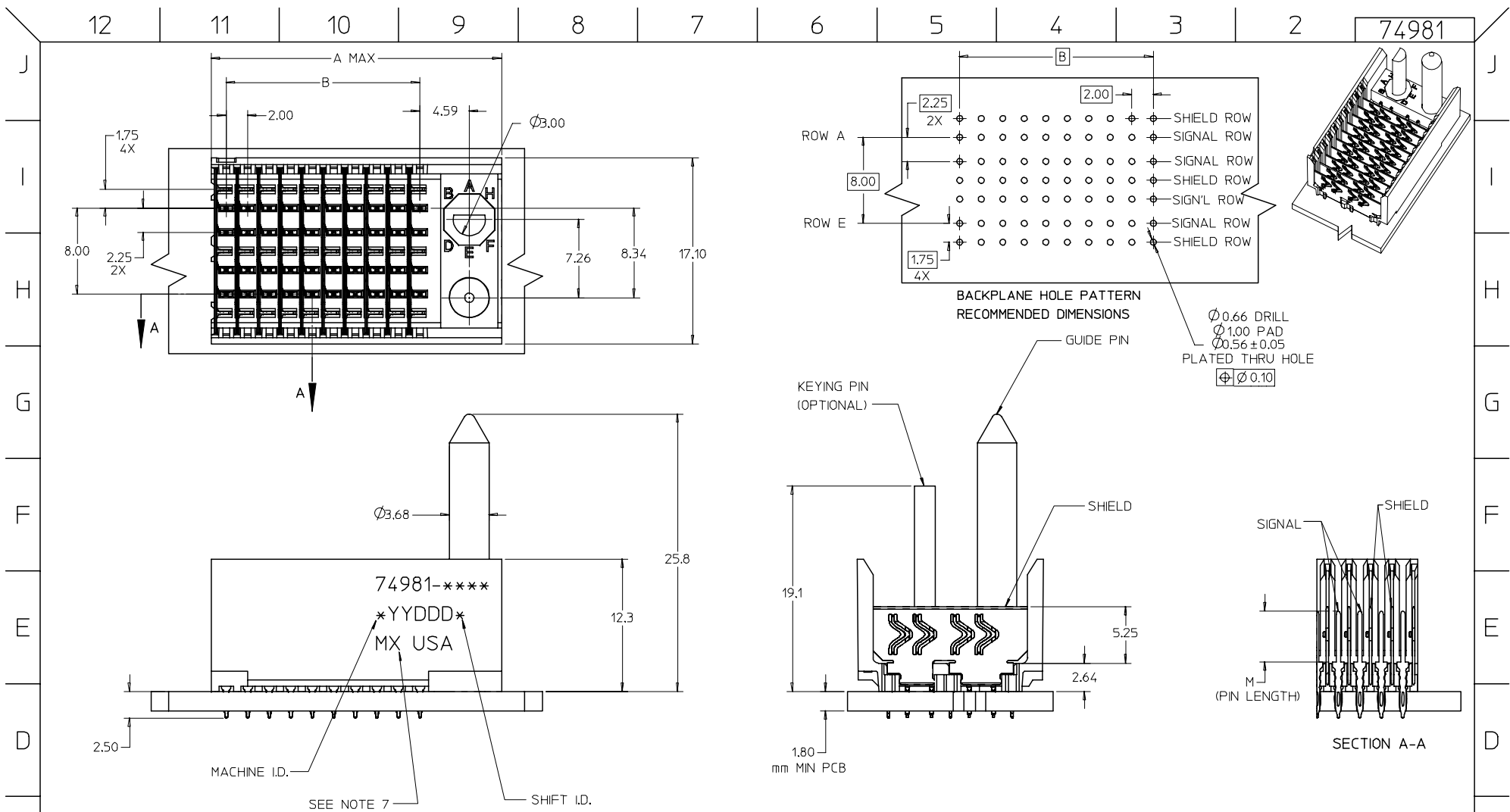
#### **Reference - Drawing Numbers**

|               |              |
|---------------|--------------|
| Sales Drawing | SD-74981-010 |
|---------------|--------------|

VHDM-HSD is a trademark of Amphenol Corporation

This document was generated on 06/08/2010

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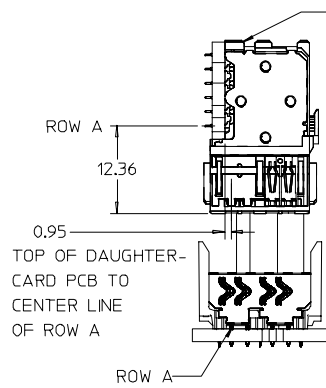
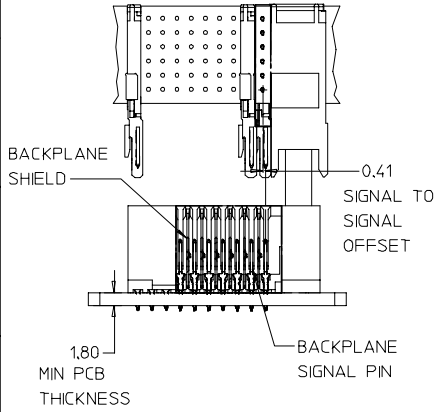


NOTES:

1. MATERIAL: HOUSING-LIQUID CRYSTAL POLYMER (LCP) GLASS-FILLED. UL 94V-0. COLOR-BLACK. SIGNAL AND SHIELD - HIGH PERFORMANCE 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 PART NUMBER AND MATING INFORMATION REFER TO SHEET 2.
6. PACKAGE PER PK-74058-003.
7. EITHER MARK PART NUMBER AND DATE CODE APPROXIMATELY WHERE SHOWN OR PLACE LABEL ON TUBE.

|   |             |                                       |                                       |       |                         |                     |                        |   |  |  |
|---|-------------|---------------------------------------|---------------------------------------|-------|-------------------------|---------------------|------------------------|---|--|--|
| ADD LEADFREE PNs<br>EC NO: UCP2006-0067<br>DRAWN: KMULVEY 2005/07/15<br>CHKD: 2005/07/18<br>APPR: SREED 2005/08/11            | DESCRIPTION | QUALITY SYMBOLS                       | GENERAL TOLERANCES (UNLESS SPECIFIED) |       | SCALE 4:1               | DESIGN UNITS METRIC | THIRD ANGLE PROJECTION | REVISE ON CAD ONLY                                  |  |  |
|   |             | $\nabla = 0$<br>$\sphericalangle = 0$ | m                                     | INCH  | DIMENSION STYLE MM ONLY |                     | TITLE                  |   |  |  |
|   |             |                                       | 4 PLACES                              | ± --- | ± ---                   | DRAWN BY DATE       |                        | HSD SALES ASSEMBLY<br>6 ROW SHIELD END<br>BACKPLANE |  |  |
|   |             |                                       | 3 PLACES                              | ± --- | ± ---                   | NMARTIN 2002/09/06  |                        |   |  |  |
| 2 PLACES  | ± ---       | ± ---                                 | CHECKED BY DATE                       |       | MOLEX INCORPORATED      |                     |                        |   |  |  |
| 1 PLACE   | ± ---       | ± ---                                 | SREED 2002/09/06                      |       |                         |                     |                        |   |  |  |
|   |             | ANGULAR ± 1°                          | DRAFT WHERE APPLICABLE                |       | APPROVED BY DATE        | MATERIAL NO.        | DOCUMENT NO.           | SHEET NO.   |  |  |
|   |             |                                       | MUST REMAIN WITHIN DIMENSIONS         |       | CBIXLER 2002/09/06      | SEE SHEET 2         | SD-74981-010           | 1 OF 2  |  |  |
| THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION |             |                                       |                                       |       |                         |                     |                        |   |  |  |

12 11 10 9 8 7 6 5 4 3 2 74981



DAUGHTERCARD CONNECTOR SIDE

74981-\*\*\*\*

NUMBER OF COLUMNS/PLATING  
 10 = 10 COLUMN TIN/LEAD  
 25 = 25 COLUMN TIN/LEAD  
 90 = 10 COLUMN MATTE TIN  
 85 = 25 COLUMN MATTE TIN

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

| P/N<br>74981-( )       | ---0*<br>O | ---1*<br>A | ---2*<br>B | ---3*<br>C | ---4*<br>D | ---5*<br>E | ---6*<br>F | ---7*<br>G | ---8*<br>H |
|------------------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| KEYING PIN ORIENTATION |            |            |            |            |            |            |            |            |            |

| PART NUMBER | COLUMN | NUMBER OF SIGNAL PINS | NUMBER OF SHIELDS | A MAX | B     | M    | Au (µm) MIN THICKNESS | Sn/Pb (µm) THICKNESS |
|-------------|--------|-----------------------|-------------------|-------|-------|------|-----------------------|----------------------|
| 74981-*0*1  | 10     | 40                    | 10                | 27.00 | 18.00 | 4.75 | 0.76                  | 0.38-152             |
| 74981-*0*6  |        |                       |                   |       |       |      | 1.27                  |                      |
| 74981-*5*1  | 25     | 100                   | 25                | 57.00 | 48.00 | 4.75 | 0.76                  |                      |
| 74981-*5*6  |        |                       |                   |       |       |      | 1.27                  |                      |
| 74981-*0*2  | 10     | 40                    | 10                | 27.00 | 18.00 | 6.25 | 0.76                  |                      |
| 74981-*0*7  |        |                       |                   |       |       |      | 1.27                  |                      |
| 74981-*5*2  | 25     | 100                   | 25                | 57.00 | 48.00 | 6.25 | 0.76                  |                      |
| 74981-*5*7  |        |                       |                   |       |       |      | 1.27                  |                      |
| 74981-*0*3  | 10     | 40                    | 10                | 27.00 | 18.00 | 4.25 | 0.76                  |                      |
| 74981-*0*8  |        |                       |                   |       |       |      | 1.27                  |                      |
| 74981-*5*3  | 25     | 100                   | 25                | 57.00 | 48.00 | 4.25 | 0.76                  |                      |
| 74981-*5*8  |        |                       |                   |       |       |      | 1.27                  |                      |
| 74981-*0*4  | 10     | 40                    | 10                | 27.00 | 18.00 | 5.15 | 0.76                  |                      |
| 74981-*0*9  |        |                       |                   |       |       |      | 1.27                  |                      |
| 74981-*5*4  | 25     | 100                   | 25                | 57.00 | 48.00 | 5.15 | 0.76                  |                      |
| 74981-*5*9  |        |                       |                   |       |       |      | 1.27                  |                      |

| SEE SHT 1<br>EC NO: UCP2006-0067<br>DRAWN: KMULVEY 2005/07/15<br>CHKD: 2005/07/18<br>APPR: SREED 2005/08/11                   | QUALITY SYMBOLS  | GENERAL TOLERANCES (UNLESS SPECIFIED)   | SCALE 4:1          | DESIGN UNITS METRIC | THIRD ANGLE PROJECTION | REVISE ON CAD ONLY |       |       |          |       |       |          |       |       |         |       |       |                            |       |   |  |
|---|--|---|--------------------|---------------------|------------------------|--------------------|-------|-------|----------|-------|-------|----------|-------|-------|---------|-------|-------|----------------------------|-------|---|--|
|   | ▽=0<br>◁=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 | ± --- | ± --- | DIMENSION STYLE<br>MM ONLY | TITLE | HSD SALES ASSEMBLY<br>6 ROW SHIELD END<br>BACKPLANE |  |
|   |  | mm  | INCH               |                     |                        |                    |       |       |          |       |       |          |       |       |         |       |       |                            |       |   |  |
|   | 4 PLACES   | ± ---   | ± ---              |                     |                        |                    |       |       |          |       |       |          |       |       |         |       |       |                            |       |   |  |
| 3 PLACES  | ± ---  | ± ---   |                    |                     |                        |                    |       |       |          |       |       |          |       |       |         |       |       |                            |       |   |  |
| 2 PLACES  | ± ---  | ± ---   |                    |                     |                        |                    |       |       |          |       |       |          |       |       |         |       |       |                            |       |   |  |
| 1 PLACE   | ± ---  | ± ---   |                    |                     |                        |                    |       |       |          |       |       |          |       |       |         |       |       |                            |       |   |  |
| ANGULAR ± 1°<br>DRAFT WHERE APPLICABLE<br>MUST REMAIN WITHIN DIMENSIONS   | DRAWN BY DATE<br>NMARTIN 2002/09/06<br>CHECKED BY DATE<br>SREED 2002/09/06<br>APPROVED BY DATE<br>CBIXLER 2002/09/06 | DIMENSION STYLE<br>MM ONLY<br>MATERIAL NO.<br>SEE TABLE<br>DOCUMENT NO.<br>SD-74981-010<br>SHEET NO.<br>2 OF 2  | MOLEX INCORPORATED |                     |                        |                    |       |       |          |       |       |          |       |       |         |       |       |                            |       |   |  |
| THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION |  |   |                    |                     |                        |                    |       |       |          |       |       |          |       |       |         |       |       |                            |       |   |  |

11 10 9 8 7 6 5 4 3 2 1