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Part Number:

0746492502

Status:

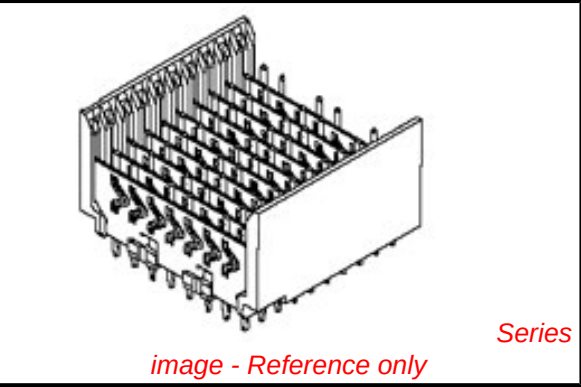
Active

Overview:

vhdm\_\_hsd

Description:

2.00mm (.079") Pitch 8-Row VHDM-HSD™ Backplane Header, Open Module, 150 Circuits, Pin Length 6.25mm (.246")



Documents:

Drawing (PDF)

RoHS Certificate of Compliance (PDF)

|                                |                                                                                 |
|--------------------------------|---------------------------------------------------------------------------------|
| Agency Certification           |                                                                                 |
| CSA                            | LR19980                                                                         |
| General                        |                                                                                 |
| Product Family                 | Backplane Connectors                                                            |
| Series                         | 74649                                                                           |
| Application                    | Backplane                                                                       |
| Application Tooling Documents  | <a href="http://www.molex.com/pdm_docs/ats/TM-622010999.pdf">Tooling Manual</a> |
| Comments                       | Open Header                                                                     |
| Component Type                 | PCB Header                                                                      |
| Overview                       | vhdm__hsd                                                                       |
| Product Name                   | VHDM-HSD™                                                                       |
| Style                          | N/A                                                                             |
| Physical                       |                                                                                 |
| Circuits (Loaded)              | 150                                                                             |
| Circuits (maximum)             | 150                                                                             |
| Color - Resin                  | Black                                                                           |
| Durability (mating cycles max) | 200                                                                             |
| First Mate / Last Break        | No                                                                              |
| Flammability                   | 94V-0                                                                           |
| Guide to Mating Part           | No                                                                              |
| Keying to Mating Part          | None                                                                            |
| Material - Metal               | Copper-Nickel-Silicon, High Performance Alloy (HPA)                             |
| Material - Plating Mating      | Gold                                                                            |
| Material - Plating Termination | Tin-Lead                                                                        |
| Material - Resin               | High Temperature Thermoplastic                                                  |
| Number of Columns              | 25                                                                              |
| Number of Pairs                | Open Pin Field                                                                  |
| Number of Rows                 | 8                                                                               |
| 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)   | 0.079 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

Contains SVHC: No

Halogen-Free

Status

Halogen-Free

China RoHS



Pb

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

74649Series

Mates With

HSD Daughtercards [74680](#) , [74686](#)

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® Insertion Module for Advanced Mate Signal Header, 6 Row by 25 Wide, 50.00mm (1.97") | <a href="#">0622020206</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)       | 72                  |
| Shield Type                   | Ground Plane Shield |
| Shielded                      | Yes                 |
| Voltage - Maximum             | 250V                |

**Material Info**

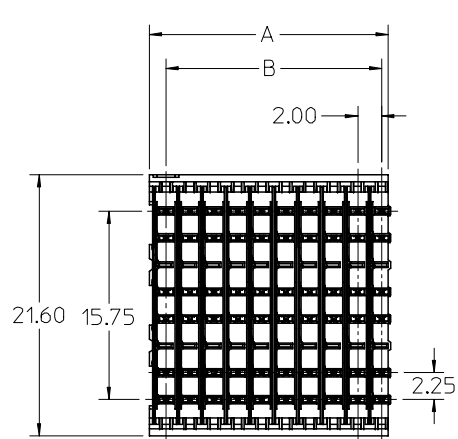
**Reference - Drawing Numbers**

|                         |              |
|-------------------------|--------------|
| Packaging Specification | PK-74060-003 |
| Sales Drawing           | SD-74649-002 |

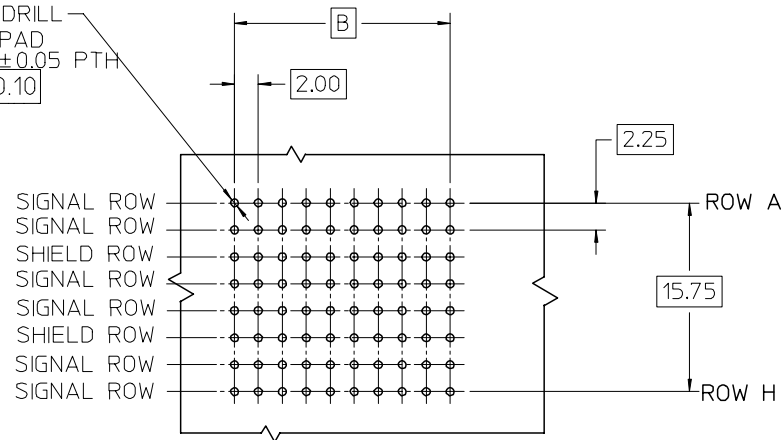
VHDM-HSD is a trademark of Amphenol Corporation

This document was generated on 05/27/2010

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$\varnothing 0.66$  DRILL  
 $\varnothing 1.00$  PAD  
 $\varnothing 0.56 \pm 0.05$  PTH  
 $\varnothing 0.10$



### BACKPLANE HOLE PATTERN RECOMMENDED DIMENSION

#### NOTES:

#### 1. MATERIAL:

HOUSING -LIQUID CRYSTAL POLYMER (LCP), GLASS-FILLED, UL 94V-0, COLOR BLACK.  
SIGNAL PIN & 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.

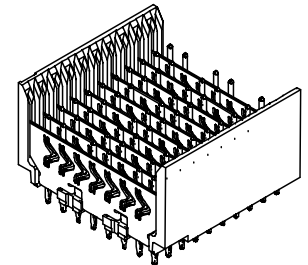
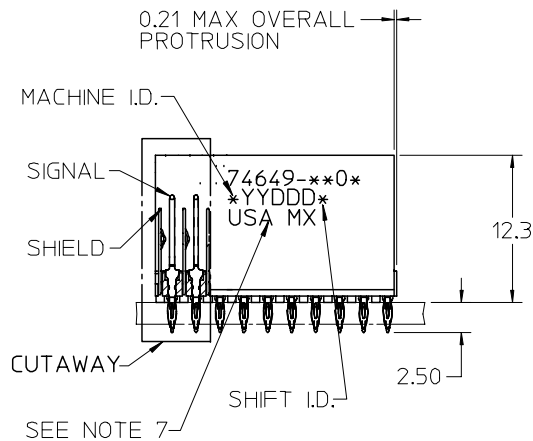
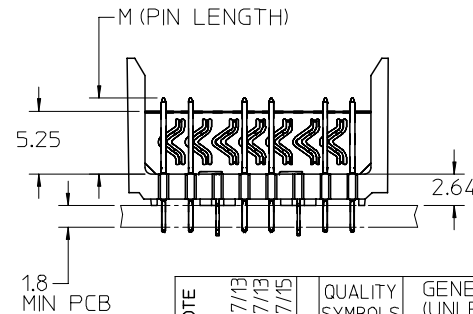
#### 3. THIS PART CONFORMS TO MOLEX PRODUCT SPECIFICATION PS-74031-999.

#### 4. FOR MIXED CONTACT MATING LENGTHS CONSULT MOLEX FOR AVAILABILITY.

#### 5. FOR SPECIFIC PART NUMBERS AND MATING INFORMATION REFER TO SHEET 2.

#### 6. PACKAGE PER PK-74060-003.

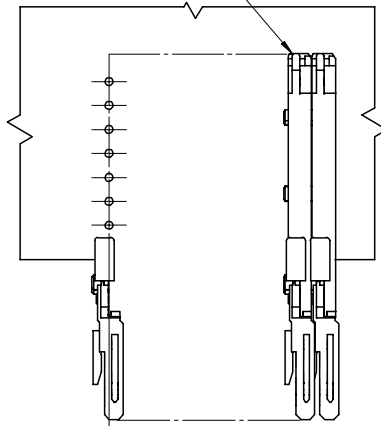
#### 7. EITHER MARK PART NUMBER AND DATE CODE APPROXIMATELY WHERE SHOWN OR PLACE LABEL ON THE TUBE.



|                                                                                                                         |             |                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                  |       |                                                                                                                               |                        |                                                                                                              |                     |       |          |       |       |          |       |       |         |       |       |                            |  |                                                            |  |  |
|-------------------------------------------------------------------------------------------------------------------------|-------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|-------------------------------------------------------------------------------------------------------------------------------|------------------------|--------------------------------------------------------------------------------------------------------------|---------------------|-------|----------|-------|-------|----------|-------|-------|---------|-------|-------|----------------------------|--|------------------------------------------------------------|--|--|
| REVISED - PLATING NOTE<br>EC NO: UCP2006-0051<br>DRWN: KMULVEY 2005/07/13<br>CHKD: 2005/07/13<br>APPR: SREED 2005/07/15 | DESCRIPTION | QUALITY SYMBOLS                                                                                                                                                                      | GENERAL TOLERANCES (UNLESS SPECIFIED)                                                                                                                                                                                                                                            |       | SCALE<br>2.5:1                                                                                                                | DESIGN UNITS<br>METRIC |  THIRD ANGLE PROJECTION | REVISE ON CAD ONLY  |       |          |       |       |          |       |       |         |       |       |                            |  |                                                            |  |  |
|                                                                                                                         |             |  0<br><br> 0 | <table><tr><td></td><td>mm</td><td>INCH</td></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<br>HSD SALES ASSEMBLY<br>8 ROW OPEN END<br>BACKPLANE |  |  |
|                                                                                                                         |             |                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                  | mm    | INCH                                                                                                                          |                        |                                                                                                              |                     |       |          |       |       |          |       |       |         |       |       |                            |  |                                                            |  |  |
|                                                                                                                         |             |                                                                                                                                                                                      | 4 PLACES                                                                                                                                                                                                                                                                         | ± --- | ± ---                                                                                                                         |                        |                                                                                                              |                     |       |          |       |       |          |       |       |         |       |       |                            |  |                                                            |  |  |
|                                                                                                                         |             |                                                                                                                                                                                      | 3 PLACES                                                                                                                                                                                                                                                                         | ± --- | ± ---                                                                                                                         |                        |                                                                                                              |                     |       |          |       |       |          |       |       |         |       |       |                            |  |                                                            |  |  |
| 2 PLACES                                                                                                                | ± ---       | ± ---                                                                                                                                                                                |                                                                                                                                                                                                                                                                                  |       |                                                                                                                               |                        |                                                                                                              |                     |       |          |       |       |          |       |       |         |       |       |                            |  |                                                            |  |  |
| 1 PLACE                                                                                                                 | ± ---       | ± ---                                                                                                                                                                                |                                                                                                                                                                                                                                                                                  |       |                                                                                                                               |                        |                                                                                                              |                     |       |          |       |       |          |       |       |         |       |       |                            |  |                                                            |  |  |
| DRAWN BY<br>MQWANG                                                                                                      |             | DATE<br>2001/01/22                                                                                                                                                                   |                                                                                                                                                                                                                                                                                  |       |                                                                                                                               |                        |                                                                                                              |                     |       |          |       |       |          |       |       |         |       |       |                            |  |                                                            |  |  |
| CHECKED BY<br>JLAURX                                                                                                    |             | DATE<br>2001/01/23                                                                                                                                                                   |                                                                                                                                                                                                                                                                                  |       |                                                                                                                               |                        |                                                                                                              |                     |       |          |       |       |          |       |       |         |       |       |                            |  |                                                            |  |  |
| APPROVED BY<br>CBIXLER                                                                                                  |             | DATE<br>2001/01/24                                                                                                                                                                   |                                                                                                                                                                                                                                                                                  |       |                                                                                                                               |                        |                                                                                                              |                     |       |          |       |       |          |       |       |         |       |       |                            |  |                                                            |  |  |
|                                      | REV         |                                                                                                                                                                                      | DRAFT WHERE APPLICABLE<br>MUST REMAIN<br>WITHIN DIMENSIONS                                                                                                                                                                                                                       |       | MATERIAL NO.<br>SEE SHEET 2                                                                                                   |                        | DOCUMENT NO.<br>SD-74649-002                                                                                 | SHEET NO.<br>1 OF 2 |       |          |       |       |          |       |       |         |       |       |                            |  |                                                            |  |  |
|                                                                                                                         |             |                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                  |       | THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION |                        |                                                                                                              |                     |       |          |       |       |          |       |       |         |       |       |                            |  |                                                            |  |  |

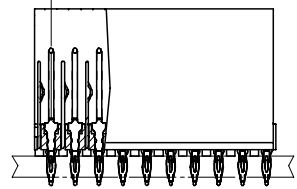
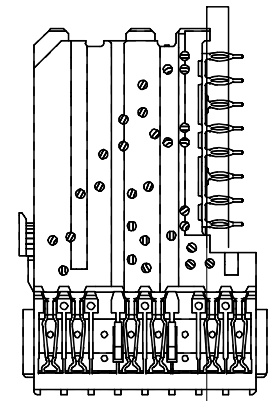
F  
E  
D  
C  
B  
A

DAUGHTERCARD  
CONNECTOR SIDE

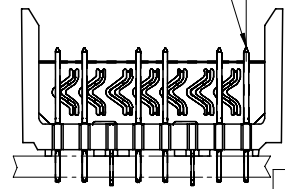


0.41  
SIGNAL TO  
SIGNAL

2.45  
TOP DAUGHTERCARD PCB  
TO CENTER LINE OF ROW A



ROW A



MATERIAL NUMBER ASSIGNMENT

74649-XXYY

SEE TABLE

- 10 = 10 COLUMN TIN/LEAD
- 25 = 25 COLUMN TIN/LEAD
- 90 = 10 COLUMN MATTE TIN
- 85 = 25 COLUMN MATTE TIN

| PART NUMBER | COLUMN | NUMBER OF SIGNAL PINS | NUMBER OF SHIELDS | A     | B     | M    | Au (um) MIN THICKNESS | Sn (um) THICKNESS |
|-------------|--------|-----------------------|-------------------|-------|-------|------|-----------------------|-------------------|
| 74649-*001  | 10     | 60                    | 10                | 20.00 | 18.00 | 4.75 | 0.76                  | 0.76-1.52         |
| 74649-*006  |        |                       |                   |       |       |      | 1.27                  |                   |
| 74649-*501  | 25     | 150                   | 25                | 50.00 | 48.00 | 6.25 | 0.76                  |                   |
| 74649-*506  |        |                       |                   |       |       |      | 1.27                  |                   |
| 74649-*002  | 10     | 60                    | 10                | 20.00 | 18.00 | 4.25 | 0.76                  |                   |
| 74649-*007  |        |                       |                   |       |       |      | 1.27                  |                   |
| 74649-*502  | 25     | 150                   | 25                | 50.00 | 48.00 | 5.15 | 0.76                  |                   |
| 74649-*507  |        |                       |                   |       |       |      | 1.27                  |                   |
| 74649-*003  | 10     | 60                    | 10                | 20.00 | 18.00 | 4.75 | 0.76                  |                   |
| 74649-*008  |        |                       |                   |       |       |      | 1.27                  |                   |
| 74649-*503  | 25     | 150                   | 25                | 50.00 | 48.00 | 6.25 | 0.76                  |                   |
| 74649-*508  |        |                       |                   |       |       |      | 1.27                  |                   |
| 74649-*004  | 10     | 60                    | 10                | 20.00 | 18.00 | 5.15 | 0.76                  |                   |
| 74649-*009  |        |                       |                   |       |       |      | 1.27                  |                   |
| 74649-*504  | 25     | 150                   | 25                | 50.00 | 48.00 | 4.25 | 0.76                  |                   |
| 74649-*509  |        |                       |                   |       |       |      | 1.27                  |                   |

A

SEE SHEET 1  
EC NO: UCP2006-0051  
DRAWN: MULVEY 2005/07/13  
CHKD: 2005/07/13  
APPR: SREED 2005/07/15

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

SCALE 2.5:1  
DESIGN UNITS METRIC  
DIMENSION STYLE MM ONLY  
DRAWN BY DATE  
MQWANG 2001/01/22  
CHECKED BY DATE  
JLAURX 2001/01/23  
APPROVED BY DATE  
CBIXLER 2001/01/24

THIRD ANGLE PROJECTION  
REVISE ON CAD ONLY  
TITLE  
HSD SALES ASSEMBLY  
8 ROW OPEN END  
BACKPLANE  
MOLEX INCORPORATED  
MATERIAL NO. SEE TABLE  
DOCUMENT NO. SD-74649-002  
SHEET NO. 2 OF 2

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