

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

**Part Number:** [0746491003](#)  
**Status:** **Active**  
**Overview:** [vhdm\\_hsd](#)  
**Description:** 2.00mm (.079") Pitch 8-Row VHDM-HSD™ Backplane Header, Open Module, 80 Circuits, Pin Length 4.25mm (.167")

**Documents:**

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

**Agency Certification**

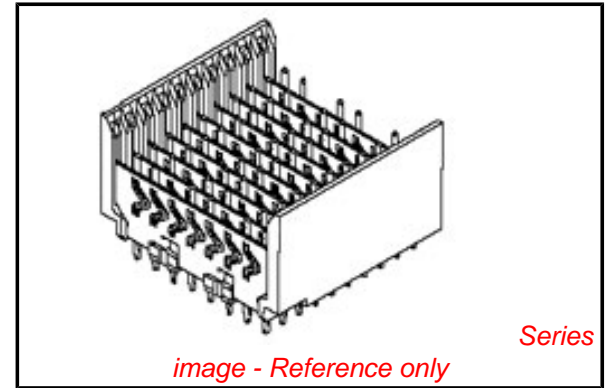
CSA LR19980  
 UL E29179

**General**

Product Family Backplane Connectors  
 Series [74649](#)  
 Application Backplane  
 Application Tooling Documents [Tooling Manual](http://www.molex.com/pdm_docs/ats/TM-622010999.pdf)  
 Comments Open Header  
 Component Type PCB Header  
 Overview [vhdm\\_hsd](#)  
 Product Name VHDM-HSD™  
 Style N/A

**Physical**

Circuits (Loaded) 80  
 Circuits (maximum) 80  
 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 10  
 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



**EU RoHS**

**RoHS Compliant by Exemption**

**REACH SVHC**

Not Reviewed

**Halogen-Free**

**Status**

**Halogen-Free**

**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**

[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 [0622020205](#)  
 Module for Advanced Mate Signal Header, 8 Row by 10 Wide, 20.00mm (.787")

Plating min: Termination (µm)	0.75
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**

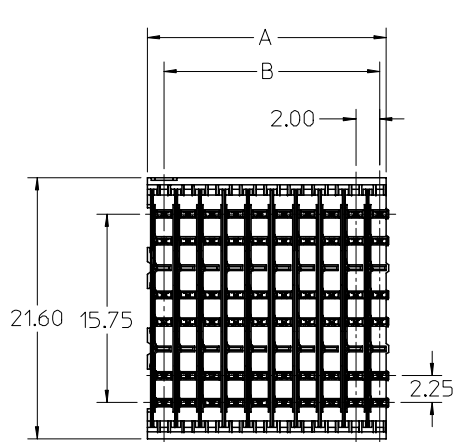
#### **Reference - Drawing Numbers**

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

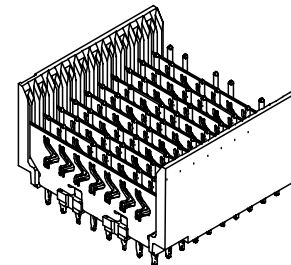
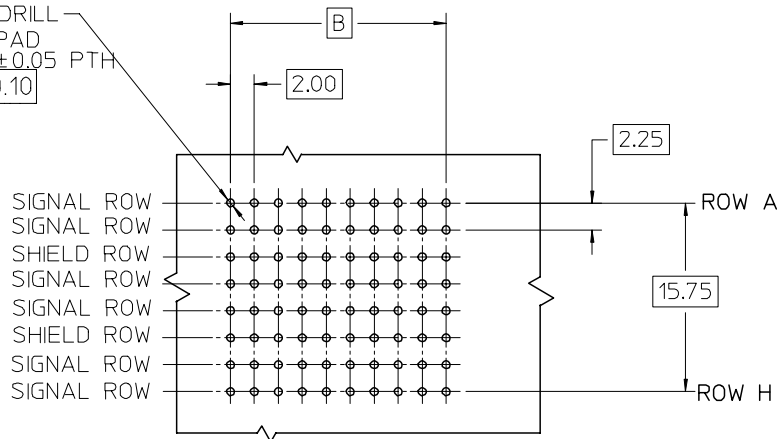
VHDM-HSD is a trademark of Amphenol Corporation

This document was generated on 05/27/2010

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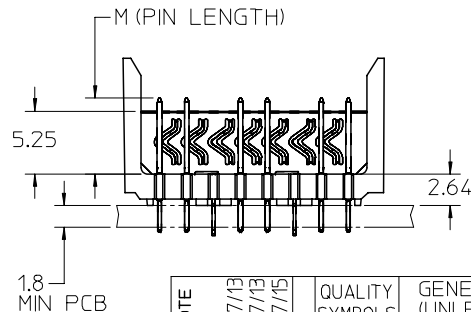
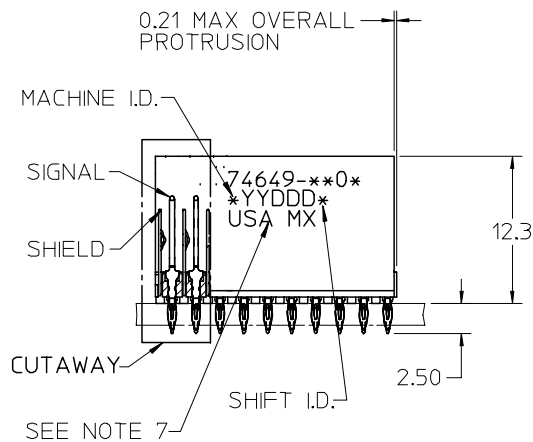
$\varnothing 0.66$  DRILL  
 $\varnothing 1.00$  PAD  
 $\varnothing 0.56 \pm 0.05$  PTH  
 $\varnothing 0.10$



**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 EC NO: UCP2006-0051 DRW:K MULVEY 2005/07/13 CHKD: 2005/07/13 APPR: SREED 2005/07/15	QUALITY SYMBOLS ▽ - 0 ▽ - 0	GENERAL TOLERANCES (UNLESS SPECIFIED)		SCALE 2.5:1	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION	REVISE ON CAD ONLY	
		mm	INCH	DIMENSION STYLE MM ONLY		TITLE		
		4 PLACES ± --- ± ---	3 PLACES ± --- ± ---	DRAWN BY MQWANG	DATE 2001/01/22	HSD SALES ASSEMBLY 8 ROW OPEN END BACKPLANE		
		2 PLACES ± --- ± ---	1 PLACE ± --- ± ---	CHECKED BY JLAURX	DATE 2001/01/23			
ANGULAR ±1/2°		DRAFT WHERE APPLICABLE		MATERIAL NO. SEE SHEET 2		DOCUMENT NO. SD-74649-002		
MUST REMAIN WITHIN DIMENSIONS		THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION		SHEET NO. 1 OF 2		B		

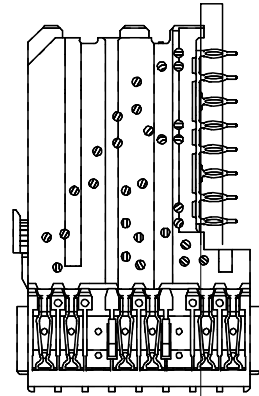
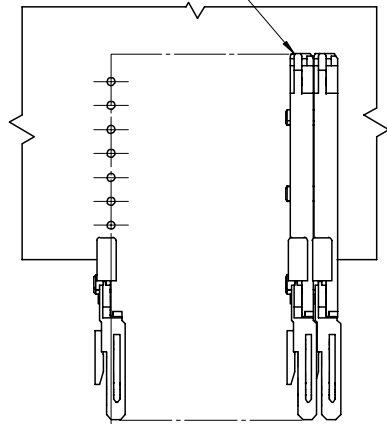
MATERIAL NUMBER ASSIGNMENT

74649-XXYY

SEE TABLE

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

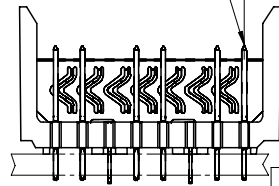
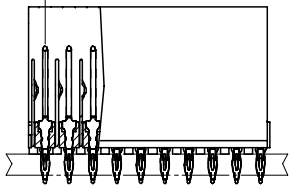
DAUGHTERCARD  
CONNECTOR SIDE



0.41  
SIGNAL TO  
SIGNAL

2.45  
TOP DAUGHTERCARD PCB  
TO CENTER LINE OF ROW A

ROW A



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	0.76-152
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	4.25	0.76	
74649-*008							1.27	
74649-*503	25	150	25	50.00	48.00	5.15	0.76	
74649-*508							1.27	
74649-*004	10	60	10	20.00	18.00	4.25	0.76	
74649-*009							1.27	
74649-*504	25	150	25	50.00	48.00	5.15	0.76	
74649-*509							1.27	

SEE SHEET 1 EC NO: UCP2006-0051 DRW: KMULVEY 2005/07/13 CHKD: 2005/07/13 APPR: SREED 2005/07/15	QUALITY SYMBOLS	GENERAL TOLERANCES (UNLESS SPECIFIED)	SCALE 2.5:1	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION	REVISE ON CAD ONLY															
	▽ = 0 ▽ = 0	<table border="1"> <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 MM ONLY	TITLE HSD SALES ASSEMBLY 8 ROW OPEN END BACKPLANE	MOLEX INCORPORATED	
		mm	INCH																		
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DRAFT WHERE APPLICABLE	APPROVED BY JLAURX 2001/01/23	CHECKED BY MQWANG 2001/01/22	MATERIAL NO. SEE TABLE		DOCUMENT NO. SD-74649-002	SHEET NO. 2 OF 2															
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