

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

**Part Number:** [0746968512](#)  
**Status:** **Active**  
**Overview:** vhdm\_hsd  
**Description:** 2.00mm (.079") Pitch 5-Row VHDM-HSD™ Backplane Header, Guide Pin Signal Module, Signal Pin End Version, Advanced Mate Shield, 100 Circuits, Pin Length 6.25mm (.246")

**Documents:**

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

**Agency Certification**

CSA LR19980

**General**

Product Family Backplane Connectors  
 Series [74696](#)  
 Application Backplane  
 Application Tooling Documents [http://www.molex.com/pdm\\_docs/ats/TM-622010999.pdf](http://www.molex.com/pdm_docs/ats/TM-622010999.pdf)>Tooling Manual</a>  
 Component Type PCB Header  
 Overview [vhdm\\_hsd](#)  
 Product Name VHDM-HSD™  
 Style N/A

**Physical**

Circuits (Loaded) 100  
 Circuits (maximum) 100  
 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 High Performance Alloy (HPA), Stainless Steel  
 Material - Plating Mating Gold  
 Material - Plating Termination Tin  
 Material - Resin High Temperature Thermoplastic  
 Number of Columns 25  
 Number of Pairs Open Pin Field  
 Number of Rows 5  
 Orientation Vertical  
 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  
 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  
 Surface Mount Compatible (SMC) Yes  
 Temperature Range - Operating -55°C to +105°C  
 Termination Interface: Style Through Hole - Compliant Pin

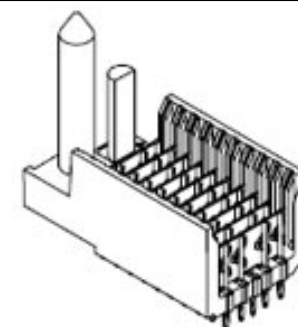


image - Reference only

Series

**EU RoHS**

**ELV and RoHS Compliant**  
**REACH SVHC Contains SVHC: No**  
**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**

[74696Series](#)

**Mates With**

[74670 HSD Daughtercard](#)

**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® 5 Row and Shield Repair Tool	<a href="#">0622015810</a>
VHDM® 5 Row Shield Extraction Tool	<a href="#">0622016010</a>
VHDM-HSD™ Signal Header, 5 Row by	<a href="#">0622020202</a>

25 Wide, 50.00mm  
(1.97")

### **Electrical**

Current - Maximum per Contact	1A
Data Rate	5.0 Gbps
Voltage - Maximum	120V AC (RMS)/DC

### **Material Info**

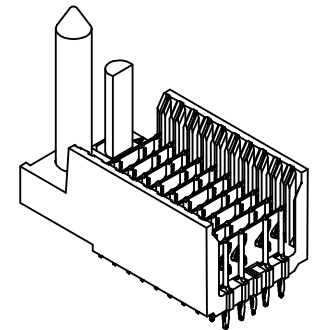
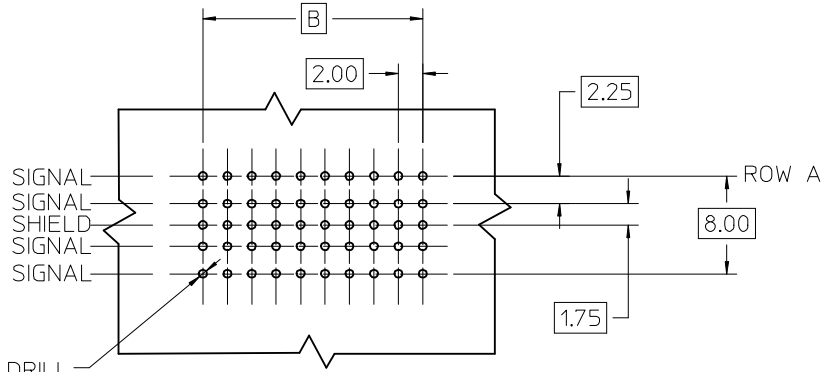
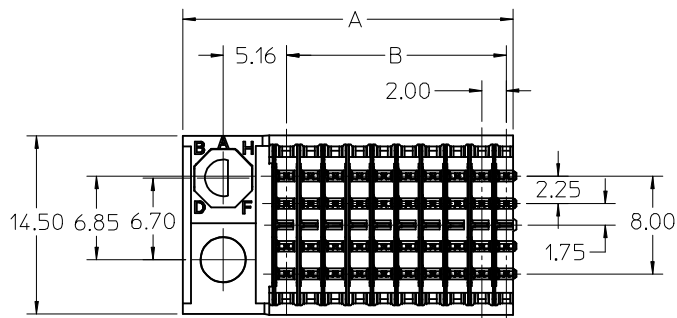
#### **Reference - Drawing Numbers**

Packaging Specification	PK-74696-003
Sales Drawing	SD-74696-002

VHDM-HSD is a trademark of Amphenol Corporation

This document was generated on 05/27/2010

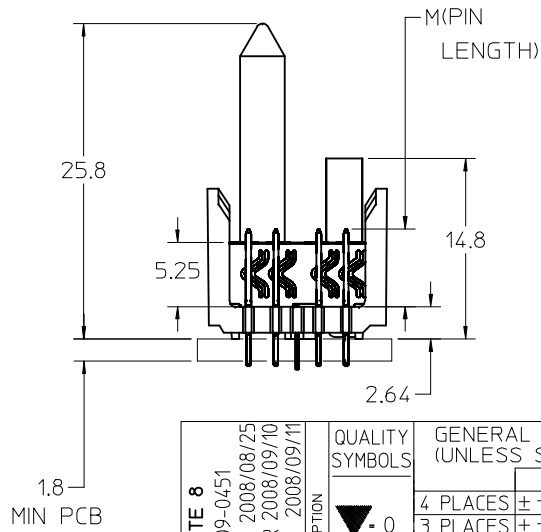
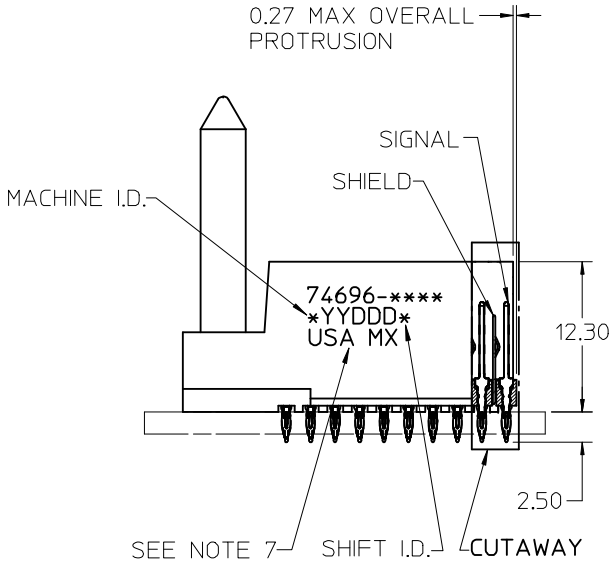
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- Ø 0.66 DRILL
- Ø 0.56 ± 0.05 PTH
- Ø 1.00 PAD
- ⊕ Ø 0.10

**BACKPLANE HOLE PATTERN**  
**RECOMMENDED DIMENSIONS**

0.27 MAX OVERALL PROTRUSION



**NOTES:**

1. MATERIAL: HOUSING -LIQUID CRYSTAL POLYMER (LCP) GLASS-FILLED, UL 94 V-0, COLOR BLACK. SIGNAL & SHIELD -COPPER ALLOY.
2. FINISHES: SELECTIVE GOLD (Au) ON CONTACT AREA, SELECTIVE TIN/LEAD (Sn/Pb) OR MATTE TIN ON PCB TAILS, 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 NUMBER AND MATING INFORMATION REFER TO SHEET 2.
6. PACKAGE PER: PK-74696-003.
7. EITHER MARK PART NUMBER AND DATE CODE APPROXIMATELY WHERE SHOWN OR PLACE LABEL ON THE TUBE.
8. PRODUCT COMPLIES WITH COSMETIC SPECIFICATION PS-45499-002.

<p><b>ADD NOTE 8</b></p> <p>EC NO: UCP2009-0451                  DRWN:BSMART 2008/08/25                  CHKD:BBARKER 2008/09/10                  APPR:SWILLER 2008/09/11</p>	<p>QUALITY SYMBOLS</p> <p>▽ - 0</p> <p>∇ - 0</p>	GENERAL TOLERANCES (UNLESS SPECIFIED)		SCALE <b>2.5:1</b>	DESIGN UNITS <b>METRIC</b>	THIRD ANGLE PROJECTION	REVISE ON CAD ONLY		
				DIMENSION STYLE <b>MM ONLY</b>		TITLE <b>HSD SALES ASSEMBLY 5 ROW SIGNAL END BACKPLANE</b>			
				DRAWN BY MQWANG		DATE 2001/04/17		<b>MOLEX INCORPORATED</b>	
				CHECKED BY NMARTIN		DATE 2001/04/20			
		ANGULAR ±1/2°		APPROVED BY CBIXLER	DATE 2001/04/20	MATERIAL NO. <b>SEE TABLE</b>	DOCUMENT NO. <b>SD-74696-002</b>	SHEET NO. <b>1 OF 3</b>	
		DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION					

10 9 8 7 6 5 4 3 2 74696

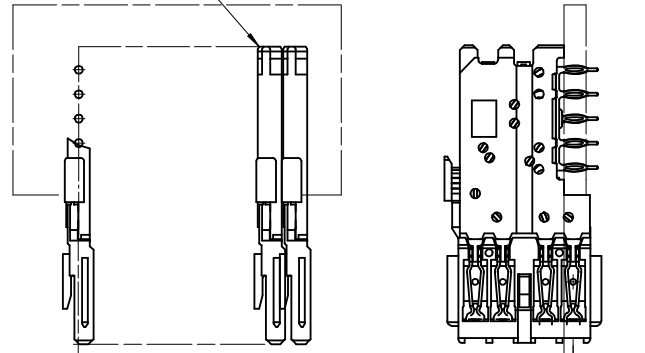
P/N 74696-( )	-**0*	-**1*	-**2*	-**3*	-**4*	-**5*	-**6*	-**7*	-**8*
	0	A	B	C	D	E	F	G	H
KEYING PIN ORIENTATION									

**74696-\*\*\*\***

NUMBER OF COLUMN  
5, 10 OR 25  
LEADED OR LEAD FREE

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

DAUGHTERCARD  
CONNECTOR SIDE



0.41  
SIGNAL TO  
SIGNAL

0.75  
TOP  
DAUGHTERCARD  
PCB TO CENTER  
OF ROW A

ROW A

PART NUMBER	COLUMN	NUMBER OF SIGNAL PINS	NUMBER OF SHIELDS	A	B	M	Au (um) MIN THICKNESS	SnPb(um) THICKNESS
74696-10*1	10	40	10	27.00	18.00	4.75	0.76	0.76-1.52
74696-10*6							1.27	
74696-25*1	25	100	25	57.00	48.00	6.25	0.76	
74696-25*6							1.27	
74696-05*7	5	20	5	17.00	8.00	6.25	1.27	
74696-10*2	10	40	10	27.00	18.00		0.76	
74696-10*7	25	100	25	57.00	48.00	4.25	1.27	
74696-25*2							0.76	
74696-25*7							1.27	
74696-10*3	10	40	10	27.00	18.00	5.15	0.76	
74696-10*8	25	100	25	57.00	48.00		1.27	
74696-25*3						0.76		
74696-25*8							1.27	
74696-10*4	10	40	10	27.00	18.00	6.25	0.76	
74696-10*9	25	100	25	57.00	48.00		1.27	
74696-25*4						0.76		
74696-25*9							1.27	

SEE SHEET 1 EC NO: UCP2009-0451 DRWN:BSMART 2008/08/25 CHKD:BBARKER 2008/09/10 APPR:SWILLER 2008/09/11	QUALITY SYMBOLS	GENERAL TOLERANCES (UNLESS SPECIFIED)	SCALE 2.5:1	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION	REVISE ON CAD ONLY
	-0 -0	mm INCH	DIMENSION STYLE MM ONLY	TITLE HSD SALES ASSEMBLY 5 ROW SIGNAL END BACKPLANE		
		4 PLACES ± --- ± --- 3 PLACES ± --- ± --- 2 PLACES ± --- ± --- 1 PLACE ± --- ± --- ANGULAR ±1/2°	DRAWN BY DATE MQWANG 2001/04/17 CHECKED BY DATE NMARTIN 2001/04/20 APPROVED BY DATE CBIXLER 2001/04/20	MOLEX INCORPORATED SEE TABLE SD-74696-002		
	DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS	THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION		MATERIAL NO.	DOCUMENT NO.	SHEET NO.
					2 OF 3	

8 7 6 5 4 3 2 1

PART NUMBER	COLUMN	NUMBER OF SIGNAL PINS	NUMBER OF SHIELDS	A	B	M	Au (um) MIN THICKNESS	Sn (um) THICKNESS
74696-90*1	10	40	10	27.00	18.00	4.75	0.76	0.76-1.52
74696-90*6							1.27	
74696-85*1	25	100	25	57.00	48.00		0.76	
74696-85*6							1.27	
74696-95*7	5	20	5	17.00	8.00	6.25	1.27	
74696-90*2	10	40	10	27.00	18.00		0.76	
74696-90*7							1.27	
74696-85*2	25	100	25	57.00	48.00		0.76	
74696-85*7						1.27		
74696-90*3	10	40	10	27.00	18.00	4.25	0.76	
74696-90*8							1.27	
74696-85*3	25	100	25	57.00	48.00		0.76	
74696-85*8							1.27	
74696-90*4	10	40	10	27.00	18.00	5.15	0.76	
74696-90*9							1.27	
74696-85*4	25	100	25	57.00	48.00		0.76	
74696-85*9							1.27	

### LEAD FREE P/N CHART

SEE SHEET 1 EC NO: UCP2009-0451 DR: MWBSMART 2008/08/25 CHKD: BBARKER 2008/09/10 APPR: SMILLER 2008/09/11	QUALITY SYMBOLS	GENERAL TOLERANCES (UNLESS SPECIFIED)	DIMENSION STYLE	SCALE	DESIGN UNITS	THIRD ANGLE PROJECTION	
	▼=0 ▽=0	mm INCH 4 PLACES ± --- ± --- 3 PLACES ± --- ± --- 2 PLACES ± --- ± --- 1 PLACE ± --- ± --- ANGULAR ±1/2°	MM ONLY	1:1	METRIC	DRAWN BY DATE MQWANG 2001/04/17 CHECKED BY DATE NMARTIN 2001/04/20 APPROVED BY DATE CBIXLER 2001/04/20	TITLE HSD SALES ASSEMBLY 5 ROW SIGNAL END BACKPLANE
		DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS	MATERIAL NO.	DOCUMENT NO.	MOLEX INCORPORATED SD-74696-002		SHEET NO. 3 OF 3
			SEE TABLE	THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION			