

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

**Part Number:** [0746969001](#)  
**Status:** **Active**  
**Overview:** vhdm\_hsd  
**Description:** 2.00mm (.079") Pitch 5-RowVHDM-HSD™ Backplane Header, Guide Pin Signal Module, Pin End Version, Lead Free, 40 Circuits, Pin Length 4.75mm (.187")

**Documents:**

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

**Agency Certification**

CSA LR19980

**General**

Product Family	Backplane Connectors
Series	<a href="#">74696</a>
Application	Backplane
Application Tooling Documents	<a href="http://www.molex.com/pdm_docs/ats/TM-622010999.pdf">Tooling Manual</a>
Comments	No Keying Position
Component Type	PCB Header
Overview	<a href="#">vhdm_hsd</a>
Product Name	VHDM-HSD™
Style	N/A

**Physical**

Circuits (Loaded)	40
Circuits (maximum)	50
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	None
Material - Metal	High Performance Alloy (HPA), Stainless Steel
Material - Plating Mating	Gold
Material - Plating Termination	Tin
Material - Resin	High Temperature Thermoplastic
Number of Columns	10
Number of Pairs	Open Pin Field
Number of Rows	5
Orientation	Vertical
PC Tail Length (in)	0.100 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

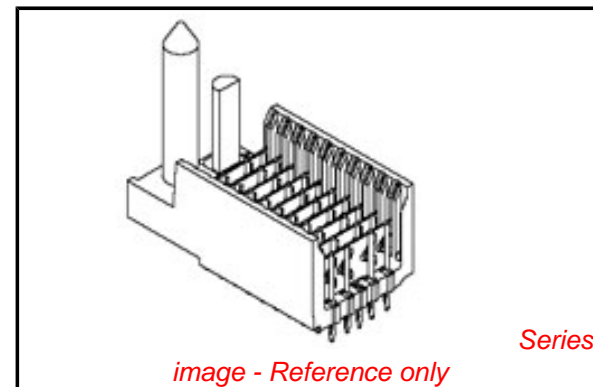


image - Reference only

**EU RoHS**

**ELV and RoHS Compliant**  
**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**

[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	<a href="#">0622015700</a>
Insertion Repair Tool	
VHDM-HSD™ Signal	<a href="#">0622020201</a>
Header, 5 Row by 10 Wide, 20.00mm (.787")	

Polarized to PCB	No
Stackable	No
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)	62
Shield Type	Ground Plane Shield
Shielded	Yes
Voltage - Maximum	120V AC (RMS)/DC

### **Material Info**

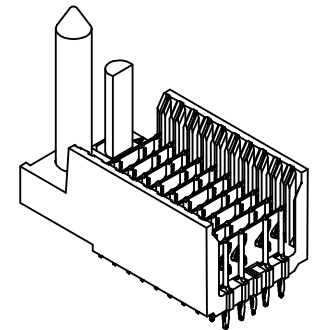
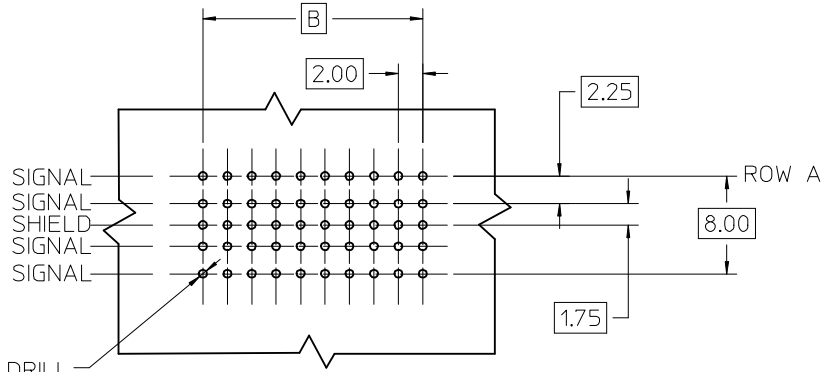
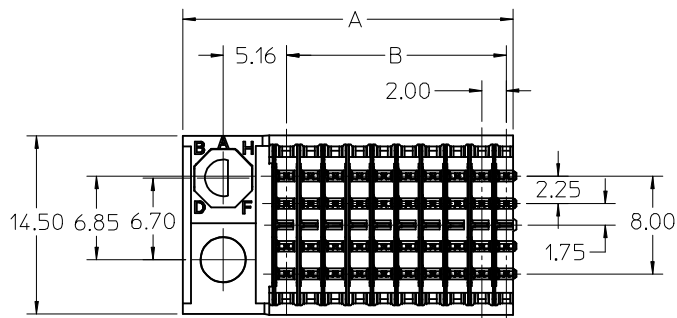
#### **Reference - Drawing Numbers**

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

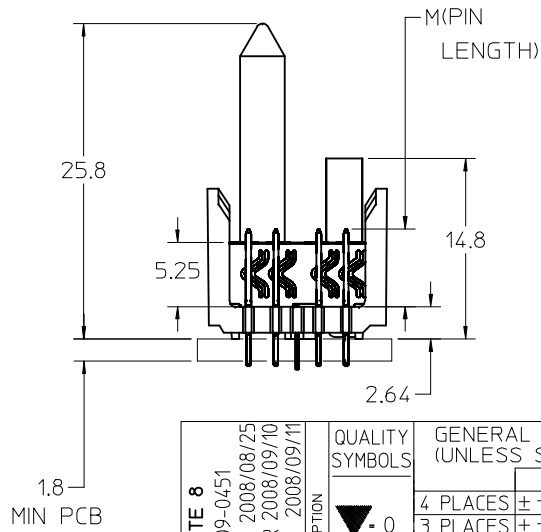
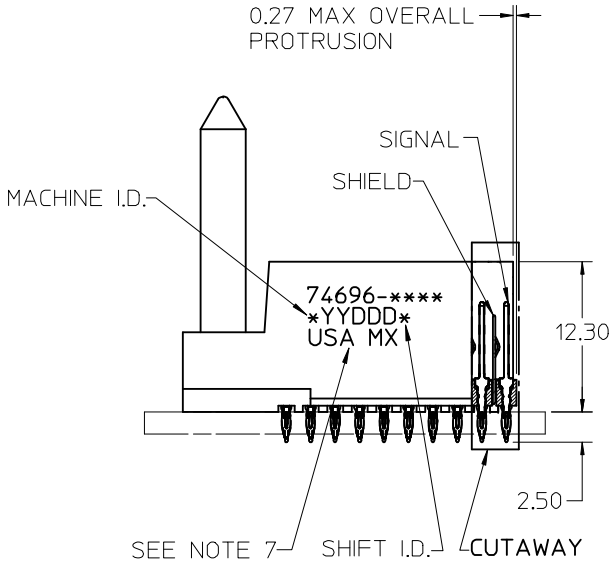
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- Ø 0.66 DRILL
- Ø 0.56 ±0.05 PTH
- Ø 1.00 PAD
- ⊕ Ø 0.10

**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	DESIGN UNITS	THIRD ANGLE PROJECTION	REVISE ON CAD ONLY		
		mm	INCH	2.5:1	METRIC				
		4 PLACES ± --- ± ---		DIMENSION STYLE		DATE		HSD SALES ASSEMBLY 5 ROW SIGNAL END BACKPLANE MOLEX INCORPORATED	
		3 PLACES ± --- ± ---		MM ONLY		2001/04/17			
2 PLACES ± --- ± ---		DRAWN BY		DATE					
1 PLACE ± --- ± ---		CHECKED BY		DATE		MATERIAL NO.			
ANGULAR ±1/2°		NMARTIN		2001/04/20		DOCUMENT NO.			
DRAFT WHERE APPLICABLE		APPROVED BY		DATE		SHEET NO.			
MUST REMAIN WITHIN DIMENSIONS		CBIXLER		2001/04/20		1 OF 3			
THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION									

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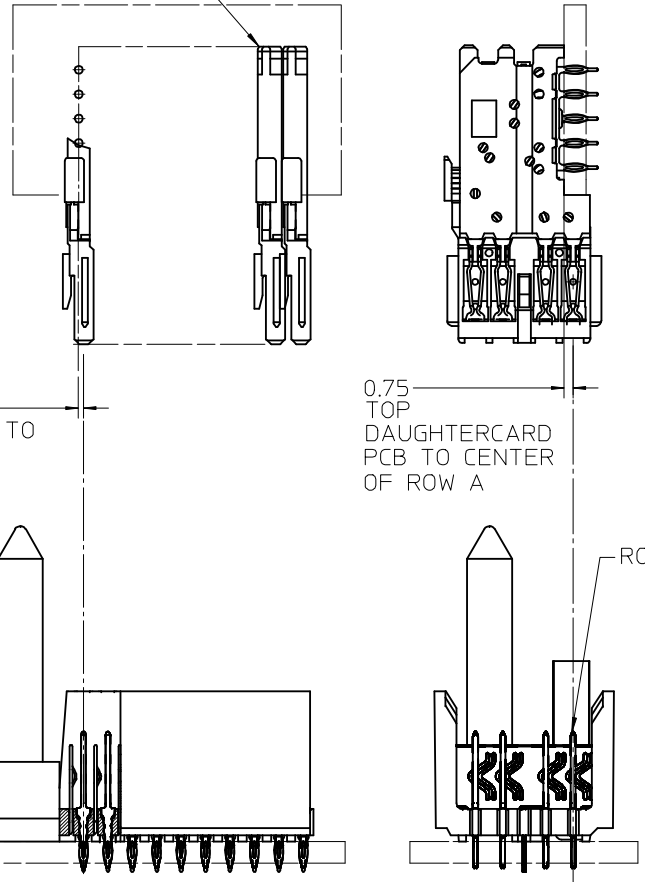
P/N 74696-( )	-**0*	-**1*	-**2*	-**3*	-**4*	-**5*	-**6*	-**7*	-**8*
	0	A	B	C	D	E	F	G	H
KEYING PIN ORIENTATION									

**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



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								
74696-25*1	25	100	25	57.00	48.00	6.25	0.76	
74696-25*6								
74696-05*7	5	20	5	17.00	8.00	4.25	1.27	
74696-10*2	10	40	10	27.00	18.00			
74696-10*7							1.27	
74696-25*2	25	100	25	57.00	48.00	5.15	0.76	
74696-25*7								
74696-10*3	10	40	10	27.00	18.00	4.75	0.76	
74696-10*8								1.27
74696-25*3	25	100	25	57.00	48.00	6.25	0.76	
74696-25*8								1.27
74696-10*4	10	40	10	27.00	18.00	4.25	0.76	
74696-10*9								1.27
74696-25*4	25	100	25	57.00	48.00	5.15	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		
		4 PLACES ± --- ± --- 3 PLACES ± --- ± --- 2 PLACES ± --- ± --- 1 PLACE ± --- ± --- ANGULAR ±1/2°	DRAWN BY MQWANG DATE 2001/04/17 CHECKED BY NMARTIN DATE 2001/04/20 APPROVED BY CBIXLER DATE 2001/04/20	HSD SALES ASSEMBLY 5 ROW SIGNAL END BACKPLANE		
	DRAFT WHERE APPLICABLE	MUST REMAIN WITHIN DIMENSIONS	MOLEX INCORPORATED SEE TABLE SD-74696-002			
		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

10 9 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 ▽7=0	mm	MM ONLY	1:1	METRIC	HSD SALES ASSEMBLY 5 ROW SIGNAL END BACKPLANE
		INCH	DRAWN BY	DATE	TITLE	
		4 PLACES	± --- ± ---	MQWANG	2001/04/17	MOLEX INCORPORATED
		3 PLACES	± --- ± ---	CHECKED BY	DATE	
	2 PLACES	± --- ± ---	NMARTIN	2001/04/20		
	1 PLACE	± --- ± ---	APPROVED BY	DATE	DOCUMENT NO.	SHEET NO.
		ANGULAR ±1/2°	CBIXLER	2001/04/20	SD-74696-002	3 OF 3
		DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS	MATERIAL NO.	SEE TABLE	THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION	

9 8 7 6 5 4 3 2 1