

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

**Part Number:** [0746971004](#)  
**Status:** **Active**  
**Overview:** [vhdm\\_hsd](#)  
**Description:** 2.00mm (.079") Pitch 5-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**

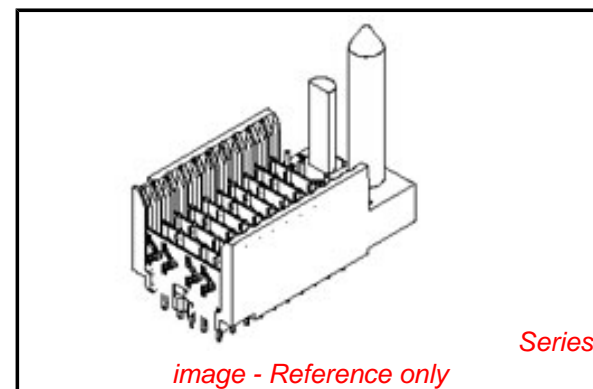
CSA LR19980

**General**

Product Family Backplane Connectors  
 Series [74697](#)  
 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>  
 Comments No Keying Position  
 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 None  
 Material - Metal 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 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  
 Stackable Yes  
 Surface Mount Compatible (SMC) Yes  
 Temperature Range - Operating -55°C to +105°C  
 Termination Interface: Style Through Hole - Compliant Pin



*image - Reference only*

**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**

[74697Series](#)

**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="#">0622020201</a>

10 Wide, 20.00mm  
(.787")

### **Electrical**

Current - Maximum per Contact	1A
Data Rate	5.0 Gbps
Real Signals (per 25mm)	48
Voltage - Maximum	120V AC (RMS)/DC

### **Material Info**

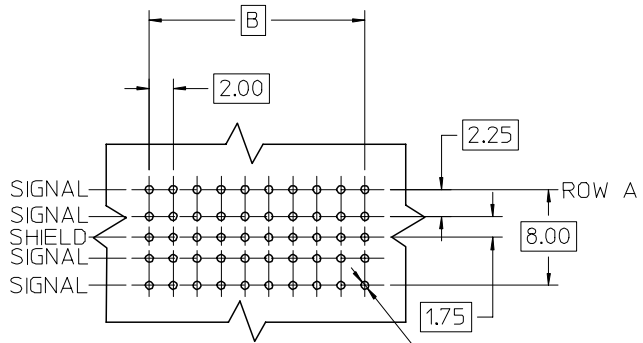
#### **Reference - Drawing Numbers**

Packaging Specification	PK-74696-003
Sales Drawing	SD-74697-002

VHDM-HSD is a trademark of Amphenol Corporation

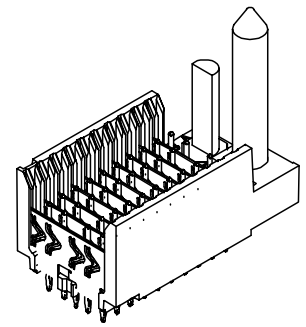
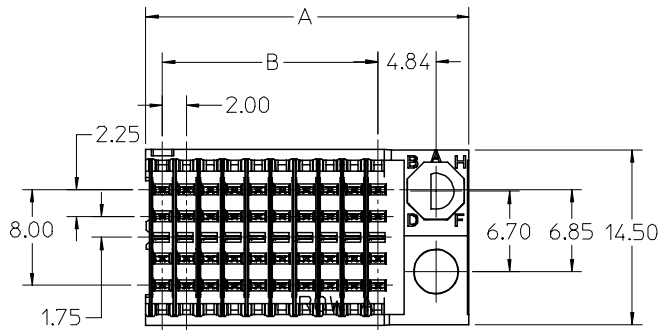
This document was generated on 05/27/2010

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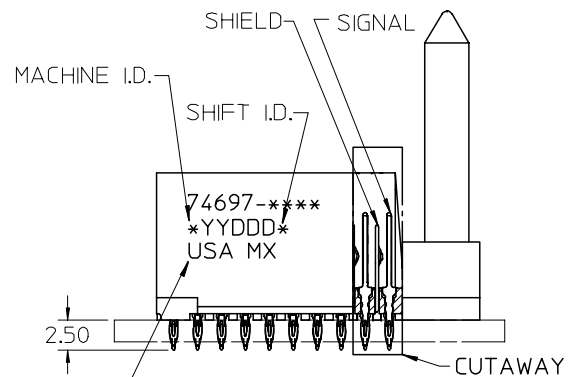
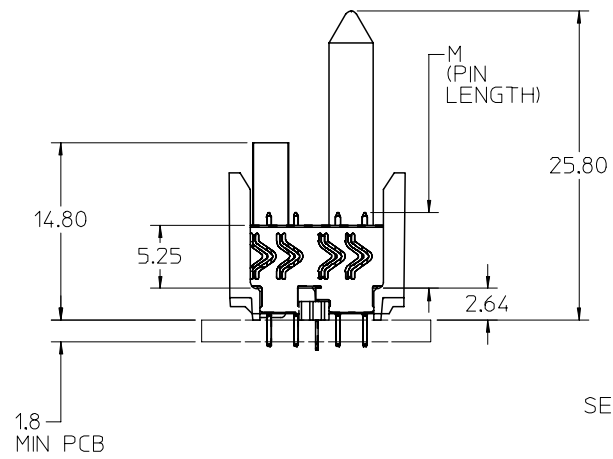
BACKPLANE HOLE PATTERN  
RECOMMENDED DIMENSION

- Ø0.66 DRILL
- Ø0.56 ±0.05 PTH
- Ø1.00 PAD
- ⊕ Ø0.10



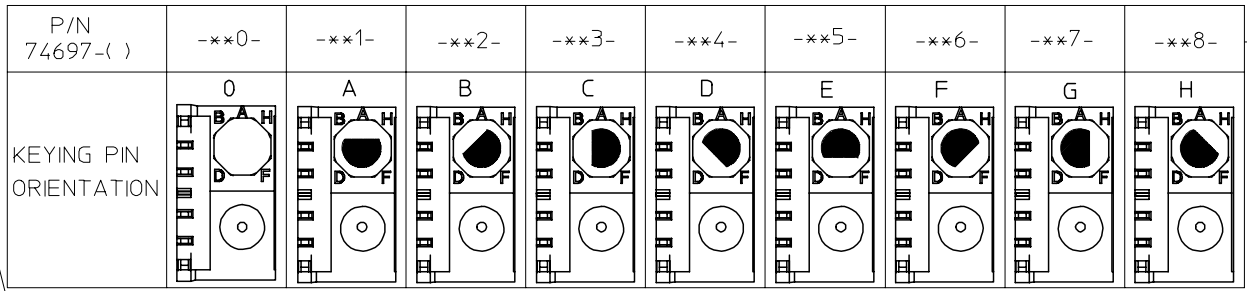
NOTES:

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 SELECTIVE MATTE TIN (Sn) 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.

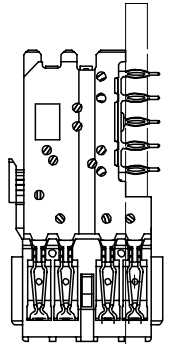
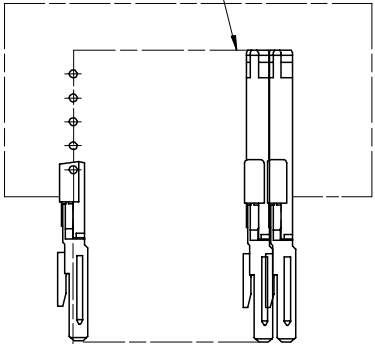


SEE NOTE 7

ADDED LEAD-FREE INFO. EC NO: UCP2006-1744 DRWN:CTHOMAS 2006/02/17 CHKD:JBINGHAM 2006/02/17 APPR:KMULVEY 2006/02/17	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	±---	±---	DRAWN BY MQWANG	DATE 2001/04/17	HSD SALES ASSEMBLY 5 ROW SHIELD END BACKPLANE	
		3 PLACES	±---	±---	CHECKED BY NMARTIN	DATE 2001/04/20		
2 PLACES	±---	±---	ANGULAR ±1/2°		MOLEX INCORPORATED		MATERIAL NO. SEE SHT.2&3 DOCUMENT NO. SD-74697-002	
1 PLACE	±---	±---	DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS					SHEET NO. 1 OF 3
REV		DESCRIPTION		APPROVED BY DATE		THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION		



DAUGHTERCARD  
CONNECTOR SIDE



74697-\*\*\*

NUMBER OF COLUMNS/PLATING	CONTACT LOAD (PIN LENGTH)
05 = 05 COLUMN TIN/LEAD	1 & 6 = 4.75
10 = 10 COLUMN TIN/LEAD	2 & 7 = 6.25
25 = 25 COLUMN TIN/LEAD	3 & 8 = 4.25
95 = 05 COLUMN MATTE TIN	4 & 9 = 5.15
90 = 10 COLUMN MATTE TIN	
85 = 25 COLUMN MATTE TIN	

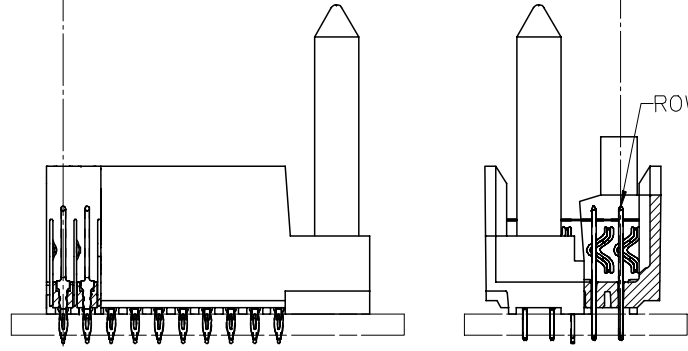
0.41

SIGNAL TO  
SIGNAL

0.75

TOP  
DAUGHTERCARD  
PCB TO CENTER  
OF ROW A

ROW A



<b>ADDED LEAD-FREE INFO.</b> EC NO: UCP2006-1744 DRWN:CTHOMAS 2006/02/17 CHKD:JBINGHAM 2006/02/17 APPR:KMULVEY 2006/02/17	<b>QUALITY SYMBOLS</b> ▽ - 0 ▽ - 0	<b>GENERAL TOLERANCES (UNLESS SPECIFIED)</b>		SCALE 2.5:1	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION	REVISE ON CAD ONLY
		4 PLACES ± --- ± --- 3 PLACES ± --- ± --- 2 PLACES ± --- ± --- 1 PLACE ± --- ± ---	DIMENSION STYLE MM ONLY	TITLE HSD SALES ASSEMBLY 5 ROW SHIELD END BACKPLANE			
		ANGULAR ±1/2°	DRAWN BY MQWANG	DATE 2001/04/17	MOLEX INCORPORATED		
		DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS	CHECKED BY NMARTIN	DATE 2001/04/20	MATERIAL NO. SEE TABLES	DOCUMENT NO. SD-74697-002	SHEET NO. 2 OF 3

J  
I  
H  
G  
F  
E  
D  
C  
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A

J  
I  
H  
G  
F  
E  
D  
C  
B  
A

PART NUMBER	COLUMN	NUMBER OF SIGNAL PINS	NUMBER OF SHIELDS	A	B	M	Au (um) MIN THICKNESS	Sn/Pb (um) THICKNESS
74697-10*1	10	40	10	27.00	18.00	4.75	0.76	0.76-1.52
74697-10*6							1.27	
74697-25*1	25	100	25	57.00	48.00	6.25	0.76	
74697-25*6							1.27	
74697-05*7	5	20	5	17.00	8.00	6.25	1.27	
74697-10*2	10	40	10	27.00	18.00	6.25	0.76	
74697-10*7							1.27	
74697-25*2	25	100	25	57.00	48.00	6.25	0.76	
74697-25*7							1.27	
74697-10*3	10	40	10	27.00	18.00	4.25	0.76	
74697-10*8							1.27	
74697-25*3	25	100	25	57.00	48.00	4.25	0.76	
74697-25*8							1.27	
74697-10*4	10	40	10	27.00	18.00	5.15	0.76	
74697-10*9							1.27	
74697-25*4	25	100	25	57.00	48.00	5.15	0.76	
74697-25*9							1.27	

PART NUMBER	COLUMN	NUMBER OF SIGNAL PINS	NUMBER OF SHIELDS	A	B	M	Au (um) MIN THICKNESS	Sn (um) THICKNESS
74697-90*1	10	40	10	27.00	18.00	4.75	0.76	0.76-1.52
74697-90*6							1.27	
74697-85*1	25	100	25	57.00	48.00	6.25	0.76	
74697-85*6							1.27	
74697-95*7	5	20	5	17.00	8.00	6.25	1.27	
74697-90*2	10	40	10	27.00	18.00	6.25	0.76	
74697-90*7							1.27	
74697-85*2	25	100	25	57.00	48.00	6.25	0.76	
74697-85*7							1.27	
74697-90*3	10	40	10	27.00	18.00	4.25	0.76	
74697-90*8							1.27	
74697-85*3	25	100	25	57.00	48.00	4.25	0.76	
74697-85*8							1.27	
74697-90*4	10	40	10	27.00	18.00	5.15	0.76	
74697-90*9							1.27	
74697-85*4	25	100	25	57.00	48.00	5.15	0.76	
74697-85*9							1.27	

TIN/LEAD P/N CHART

LEAD FREE P/N CHART

ADDED SHEET:3 EC NO: UCP2006-1744 DRW: NCTHOMAS 2006/02/17 CHKD: JB INGHAM 2006/02/17 APPR: KMULVEY 2006/02/17 REVISIONS DESCRIPTION	QUALITY SYMBOLS	GENERAL TOLERANCES (UNLESS SPECIFIED)	DIMENSION STYLE	SCALE	DESIGN UNITS	THIRD ANGLE PROJECTION	
	$\nabla=0$ $\nabla=0$	mm INCH	MM ONLY	2.5:1	METRIC		
		4 PLACES ± --- ± ---	DRAWN BY	DATE	TITLE		
		3 PLACES ± --- ± ---	MQWANG	2001/04/17	HSD SALES ASSEMBLY		
	2 PLACES ± --- ± ---	CHECKED BY	DATE	5 ROW SHIELD END			
	1 PLACE ± --- ± ---	NMARTIN	2001/04/20	BACKPLANE			
	ANGULAR ±1/2°	APPROVED BY	DATE	MOLEX INCORPORATED			
		CBIXLER	2001/04/20	DOCUMENT NO.			
		MATERIAL NO.		SD-74697-002			
				SHEET NO.			
				3 OF 3			