

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

**Part Number:** [0746951004](#)  
**Status:** **Active**  
**Overview:** vhdm\_hsd  
**Description:** 2.00mm (.079") Pitch 5-Row VHDM-HSD™ Backplane Header, Open Module, 40 Circuits, Pin Length 5.15mm (.203")

**Documents:**

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

**Agency Certification**

CSA LR19880

**General**

Product Family Backplane Connectors  
 Series [74695](#)  
 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 Open Header  
 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 No  
 Keying to Mating Part None  
 Material - Metal 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 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

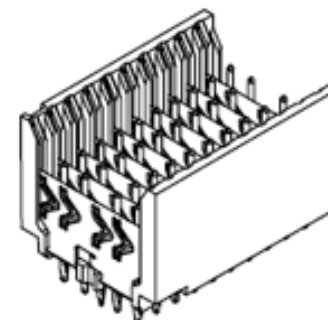


image - Reference only

Series

**EU RoHS**

**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**

[74695Series](#)

**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
Shielded	Yes
Voltage - Maximum	120V AC (RMS)/DC

### Material Info

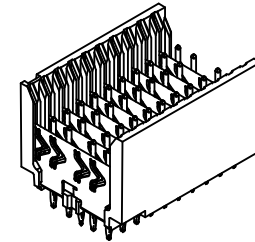
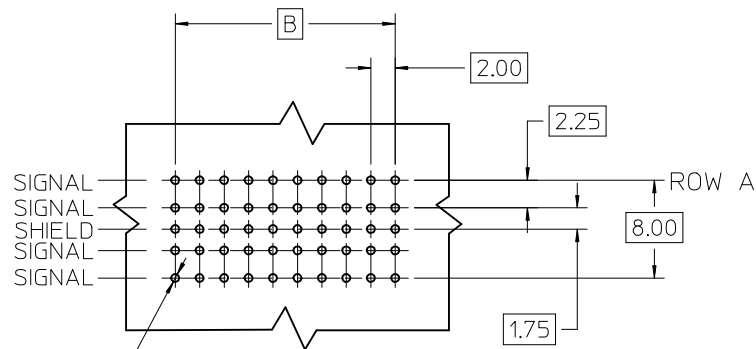
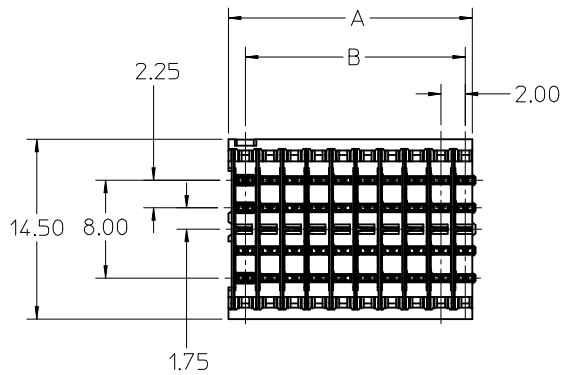
#### Reference - Drawing Numbers

Packaging Specification	PK-74695-003
Sales Drawing	SD-74695-002

VHDM-HSD is a trademark of Amphenol Corporation

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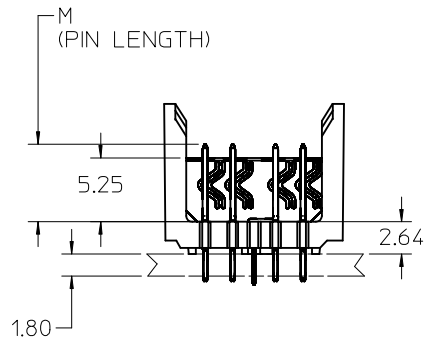
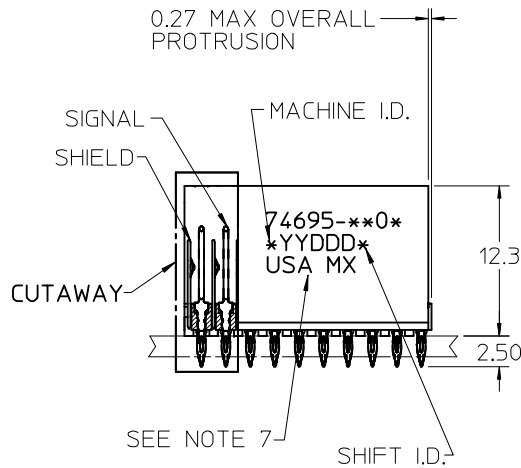


Ø0.66 DRILL  
 Ø0.56 ±0.05 PTH  
 Ø1.00 PAD

⊕ Ø0.10

**BACKPLANE HOLE PATTERN  
 RECOMMENDED DIMENSION**

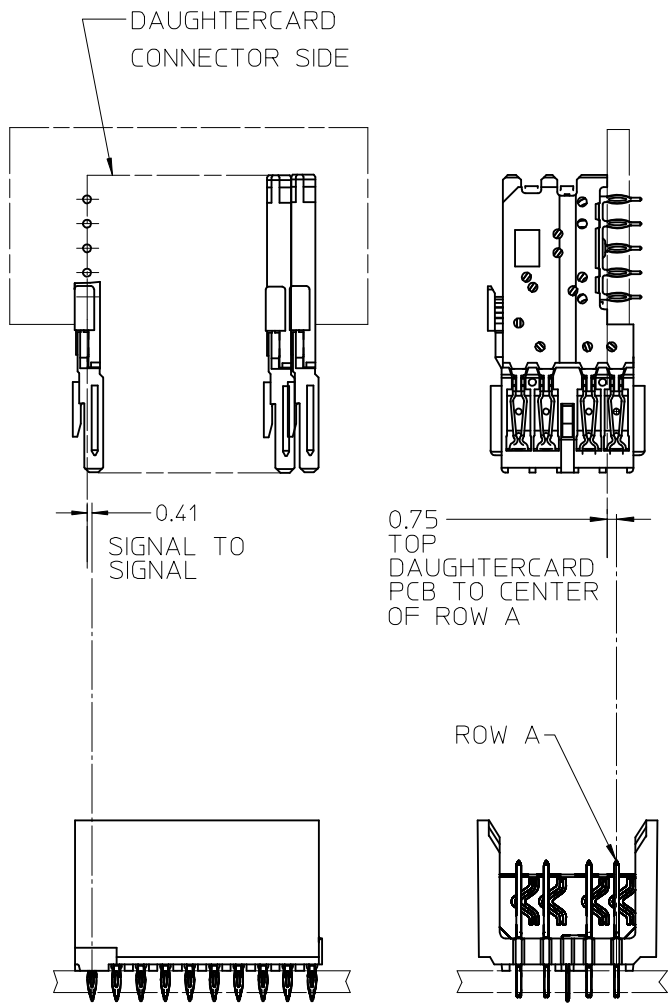
0.27 MAX OVERALL PROTRUSION



**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 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-74695-003.
7. EITHER MARK PART NUMBER AND DATE CODE APPROXIMATELY WHERE SHOWN OR PLACE LABEL ON THE TUBE.

REVISED: ADD LEAD-FREE EC NO: UCP2006-1727 DRWN:CTHOMAS 2006/02/16 CHKD:JBINGHAM 2006/02/16 APPR:KYULVEY 2006/02/16	DESCRIPTION D	QUALITY SYMBOLS	GENERAL TOLERANCES (UNLESS SPECIFIED)	SCALE 2.5:1	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION	REVISE ON CAD ONLY
		▽ -0 ∇ -0	mm      INCH 4 PLACES ± --- ± --- 3 PLACES ± --- ± --- 2 PLACES ± --- ± --- 1 PLACE ± --- ± --- ANGULAR ±1/2°	DIMENSION STYLE MM ONLY	TITLE HSD SALES ASSEMBLY 5 ROW OPEN END BACKPLANE		
		DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS	DRAWN BY: MQWANG      DATE: 2001/04/11 CHECKED BY: NMARTIN      DATE: 2001/04/14 APPROVED BY: CBIXLER      DATE: 2001/04/14	MOLEX INCORPORATED MATERIAL NO. SEE SHT.2&3      DOCUMENT NO. SD-74695-002      SHEET NO. 1 OF 3			
		THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION					



MATERIAL NUMBER ASSIGNMENT

74695-\*\* \*\* SEE TABLES (SHEET 3)

- NUMBER OF COLUMNS/PLATING
- 10 = 10 COLUMN TIN/LEAD
- 12 = 12 COLUMN TIN/LEAD
- 15 = 15 COLUMN TIN/LEAD
- 25 = 25 COLUMN TIN/LEAD
- 90 = 10 COLUMN MATTE TIN
- 92 = 12 COLUMN MATTE TIN
- 95 = 15 COLUMN MATTE TIN
- 85 = 25 COLUMN MATTE TIN

REVISED: ADD LEAD-FREE EC NO: UCP2006-1727 DRWN:CTHOMAS 2006/02/16 CHKD:JBINGHAM 2006/02/16 APPR:KMYLVEY 2006/02/16	DESCRIPTION REV	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 OPEN END BACKPLANE			
			4 PLACES	± ---	± ---	DRAWN BY MQWANG	DATE 2001/04/11	MOLEX INCORPORATED		
			3 PLACES	± ---	± ---	CHECKED BY NMARTIN	DATE 2001/04/14	MATERIAL NO. SEE TABLES	DOCUMENT NO. SD-74695-002	SHEET NO. 2 OF 3
			2 PLACES	± ---	± ---	APPROVED BY CBIXLER		DATE 2001/04/14	THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION	
1 PLACE	± ---	± ---	ANGULAR ±1/2°		DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS					

PART NUMBER	COLUMN	NUMBER OF SIGNAL PINS	NUMBER OF SHIELDS	A	B	M	Au (um) THICKNESS	Sn/Pb (um)	
74695-1001	10	40	10	20.00	18.00	4.75	0.76	0.76-1.52	
74695-1006							1.27		
74695-1201	12	48	12	24.00	22.00		0.76		
74695-1206							1.27		
74695-2501	25	100	25	50.00	48.00	0.76			
74695-2506						1.27			
74695-1002	10	40	10	20.00	18.00	0.76	0.76-1.52		
74695-1007						1.27			
74695-1202	12	48	12	24.00	22.00	0.76			
74695-1207						1.27			
74695-2502	25	100	25	50.00	48.00	0.76			
74695-2507						1.27			
74695-1003	10	40	10	20.00	18.00	0.76			0.76-1.52
74695-1008						1.27			
74695-1203	12	48	12	24.00	22.00	0.76			
74695-1208						1.27			
74695-2503	25	100	25	50.00	48.00	0.76			
74695-2508						1.27			
74695-1004	10	40	10	20.00	18.00	0.76		0.76-1.52	
74695-1009						1.27			
74695-1204	12	48	12	24.00	22.00	0.76			
74695-1209						1.27			
74695-2504	25	100	25	50.00	48.00	0.76			
74695-2509						1.27			

TIN/LEAD CHART

PART NUMBER	COLUMN	NUMBER OF SIGNAL PINS	NUMBER OF SHIELDS	A	B	M	Au (um) THICKNESS	Sn (um)	
74695-9001	10	40	10	20.00	18.00	4.75	0.76	0.76-1.52	
74695-9006							1.27		
74695-9501	12	48	12	24.00	22.00		0.76		
74695-9506							1.27		
74695-8501	25	100	25	50.00	48.00	0.76			
74695-8506						1.27			
74695-9002	10	40	10	20.00	18.00	0.76	0.76-1.52		
74695-9007						1.27			
74695-9502	12	48	12	24.00	22.00	0.76			
74695-9507						1.27			
74695-8502	25	100	25	50.00	48.00	0.76			
74695-8507						1.27			
74695-9003	10	40	10	20.00	18.00	0.76			0.76-1.52
74695-9008						1.27			
74695-9503	12	48	12	24.00	22.00	0.76			
74695-9508						1.27			
74695-8503	25	100	25	50.00	48.00	0.76			
74695-8508						1.27			
74695-9004	10	40	10	20.00	18.00	0.76		0.76-1.52	
74695-9009						1.27			
74695-9504	12	48	12	24.00	22.00	0.76			
74695-9509						1.27			
74695-8504	25	100	25	50.00	48.00	0.76			
74695-8509						1.27			

LEAD FREE CHART

<b>ADDED SHEET: 3</b> EC NO: UCP2006-1727 DRWNG: THOMAS 2006/02/16 CHKD: JBI INGHAM 2006/02/16 APPR: KMULVEY 2006/02/16	QUALITY SYMBOLS 	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE <b>MM ONLY</b>	SCALE <b>METRIC</b>	DESIGN UNITS <b>METRIC</b>	THIRD ANGLE PROJECTION		
		4 PLACES ± --- ± --- 3 PLACES ± --- ± --- 2 PLACES ± --- ± --- 1 PLACE ± --- ± ---	mm INCH ± --- ± --- ± --- ± --- ± --- ± --- ± --- ± ---	DRAWN BY MQWANG 2001/04/11	DATE 2001/04/11	TITLE <b>HSD SALES ASSEMBLY          5 ROW OPEN END          BACKPLANE</b>	<b>MOLEX INCORPORATED</b>		
		ANGULAR ±1/2°		CHECKED BY NMARTIN 2001/04/14	DATE 2001/04/14	DOCUMENT NO. <b>SD-74695-002</b>			
		DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		APPROVED BY CBIXLER 2001/04/14		MATERIAL NO. <b>SEE TABLES</b>		SHEET NO. <b>3 OF 3</b>	

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