

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

**Part Number:** [0746511112](#)  
**Status:** **Active**  
**Overview:** vhdm\_hsd  
**Description:** 2.00mm (.079") Pitch 8-Row VHDM-HSD™ Backplane Header, Guide Pin Signal Module, Shield Pin End Version, Advanced Mate Shield, 60 Circuits

**Documents:**

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

**Agency Certification**

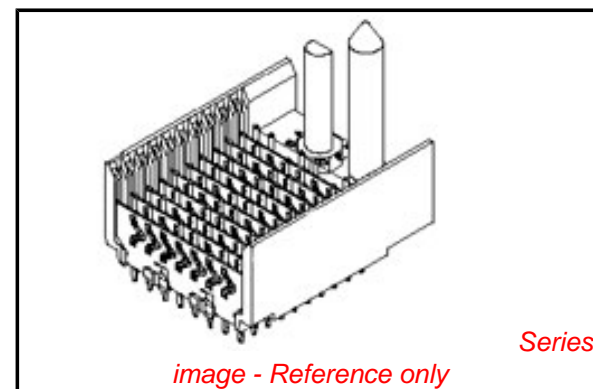
CSA LR19980  
 UL E29179

**General**

Product Family Backplane Connectors  
 Series [74651](#)  
 Application Backplane  
 Application Tooling Documents [Tooling Manual](http://www.molex.com/pdm_docs/ats/TM-622010999.pdf)  
 Comments Keying Position A  
 Component Type PCB Header  
 Overview [vhdm\\_hsd](#)  
 Product Name VHDM-HSD™  
 Style N/A

**Physical**

Circuits (Loaded) 60  
 Circuits (maximum) 60  
 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 Copper-Nickel-Silicon, 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 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



*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**

[74651Series](#)

**Mates With**

HSD Daughtercards [74680](#) , [74686](#)

**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 Module for Advanced Mate Signal Header, 8 Row by 10 Wide, 20.00mm (.787")	<a href="#">0622020205</a>

Plating min: Termination ( $\mu$ in)	30
Plating min: Termination ( $\mu$ m)	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	120V AC (RMS)/DC

### **Material Info**

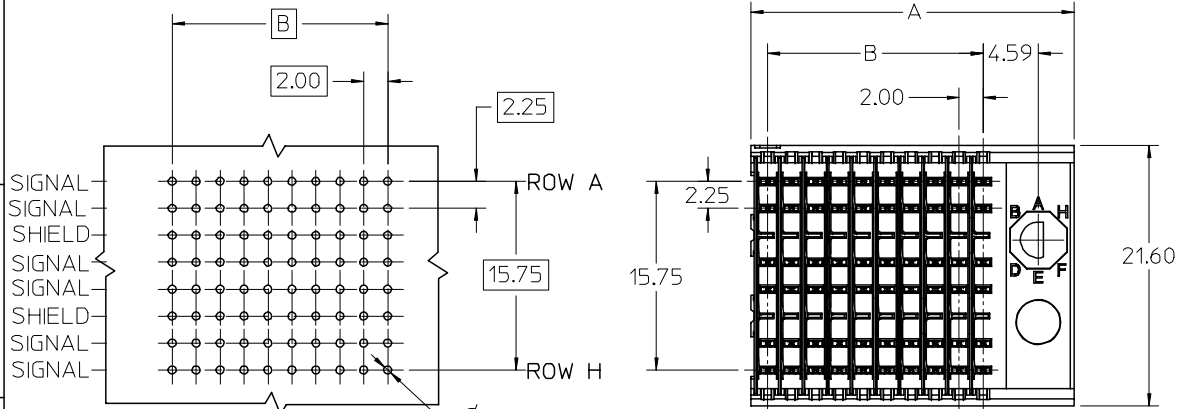
#### **Reference - Drawing Numbers**

Packaging Specification	PK-74061-003
Sales Drawing	SD-74651-003

VHDM-HSD is a trademark of Amphenol Corporation

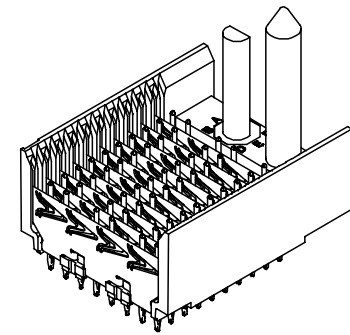
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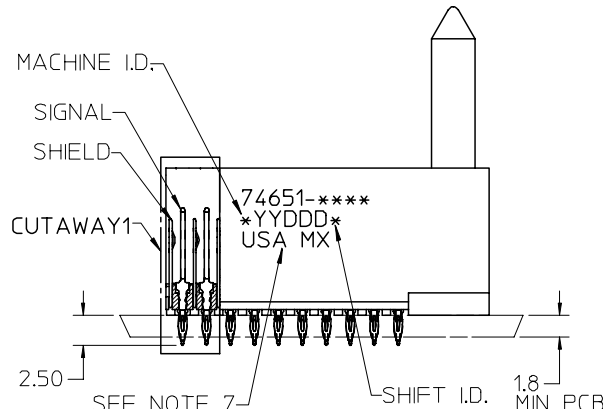
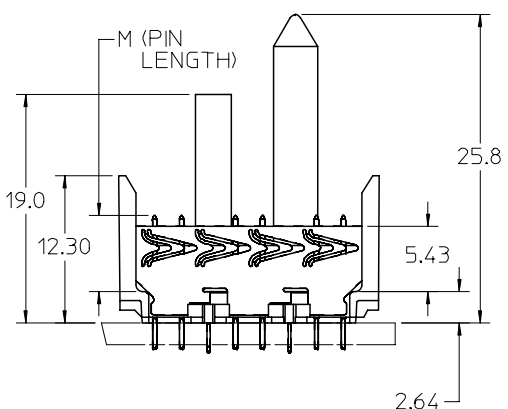


BACKPLANE HOLE PATTERN  
RECOMMENDED DIMENSION

- Ø0.66 DRILL
- Ø0.56 ±0.05 PTH
- Ø1.00 PAD
- ±0.10

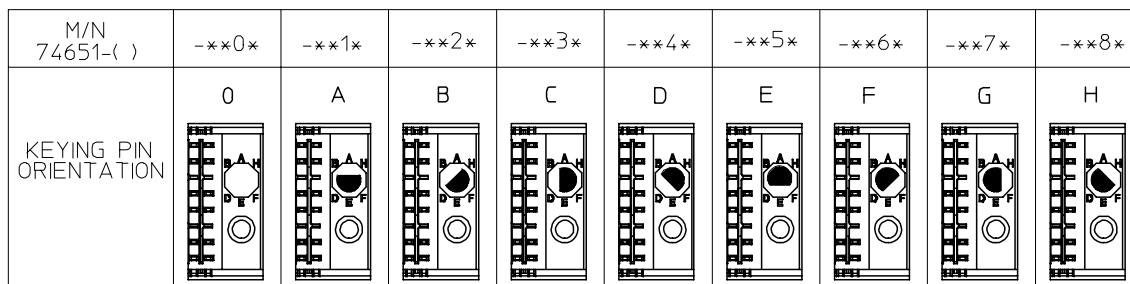


- NOTES:
- MATERIAL: HOUSING -LIQUID CRYSTAL POLYMER (LCP)  
GLASS-FILLED. UL 94-0. COLOR BLACK. SIGNAL & SHIELD -HIGH PERFORMANCE COPPER ALLOY.
  - FINISHES:  
CONTACT AREA: SELECTIVE GOLD (Au)  
PCB TAILS: SELECTIVE TIN/LEAD (Sn/Pb)  
OR SELECTIVE MATTE TIN (Sn)  
NICKEL (Ni) OVERALL.
  - THIS PART CONFORMS TO MOLEX PRODUCT SPECIFICATION PS-74031-999.
  - FOR MIXED CONTACT MATING LENGTHS CONSULT MOLEX FOR AVAILABILITY.
  - FOR SPECIFIC PART NUMBER AND MATING INFORMATION REFER TO SHEET 2.
  - PACKAGE PER PK-74061-003.
  - EITHER MARK PART NUMBER AND DATE CODE APPROXIMATELY WHERE SHOWN OR PLACE LABEL ON THE TUBE.



REVISED - PLATING NOTE EC NO: UCP2006-0051 DRWN: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	± ---	± ---	DRAWN BY	DATE	HSD SALES ASSEMBLY 8 ROW ADVANCED MATE SHIELD END BACKPLANE		
		3 PLACES	± ---	± ---	MQWANG	2001/05/22			
2 PLACES	± ---	± ---	CHECKED BY	DATE	MOLEX INCORPORATED				
1 PLACE	± ---	± ---	JLAURX	2001/05/25					
		ANGULAR ±1/2°	DRAFT WHERE APPLICABLE		APPROVED BY	DATE	MATERIAL NO.	DOCUMENT NO.	SHEET NO.
		MUST REMAIN WITHIN DIMENSIONS			CBIXLER	2001/05/27	SEE SHEET 2	SD-74651-003	1 OF 2
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 74651

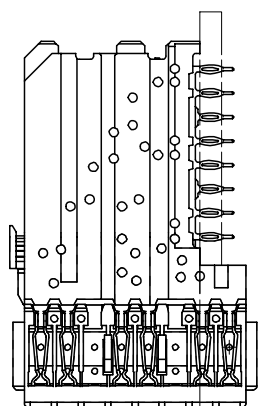
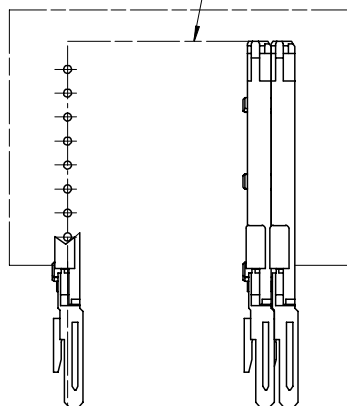


74651-\*\*\*

NUMBER OF COLUMNS/ PLATING CONTACT LOAD (PIN LENGTH)

11 = 10 COLUMN TIN/LEAD	1 & 6 = 4.75
26 = 25 COLUMN TIN/LEAD	2 & 7 = 6.25
91 = 10 COLUMN MATTE TIN	3 & 8 = 4.25
86 = 25 COLUMN MATTE TIN	4 & 9 = 5.15

DAUGHTERCARD CONNECTOR SIDE



PART NUMBER	COLUMN	NUMBER OF SIGNAL PINS	NUMBER OF SHIELDS	A	B	M	Au (um) MIN THICKNESS	Sn (um) THICKNESS
74651-*1*1	10	60	10	27.00	18.00	4.75	0.76	0.76-1.52
74651-*1*6	25	150	25	57.00	48.00		1.27	
74651-*6*1	10	60	10	27.00	18.00	6.25	0.76	
74651-*6*6	25	150	25	57.00	48.00		1.27	
74651-*1*2	10	60	10	27.00	18.00	4.25	0.76	
74651-*1*7	25	150	25	57.00	48.00		1.27	
74651-*6*2	10	60	10	27.00	18.00	5.15	0.76	
74651-*6*7	25	150	25	57.00	48.00		1.27	
74651-*1*3	10	60	10	27.00	18.00	4.75	0.76	
74651-*1*8	25	150	25	57.00	48.00		1.27	
74651-*6*3	10	60	10	27.00	18.00	6.25	0.76	
74651-*6*8	25	150	25	57.00	48.00		1.27	
74651-*1*4	10	60	10	27.00	18.00	5.15	0.76	
74651-*1*9	25	150	25	57.00	48.00		1.27	
74651-*6*4	10	60	10	27.00	18.00	4.75	0.76	
74651-*6*9	25	150	25	57.00	48.00		1.27	

0.41 SIGNAL TO SIGNAL

2.45 TOP DAUGHTERCARD PCB TO CENTER OF ROW A

ROW A

SEE SHEET 1 EC NO: UCP2006-0051 DRW: KMULVEY 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 HSD SALES ASSEMBLY 8 ROW ADVANCED MATE SHIELD END BACKPLANE	
REV	DESCRIPTION	4 PLACES ± --- ± ---	3 PLACES ± --- ± ---	DRAWN BY MQWANG	DATE 2001/05/22	MOLEX INCORPORATED	
		2 PLACES ± --- ± ---	1 PLACE ± --- ± ---	CHECKED BY JLAURX	DATE 2001/05/25	MATERIAL NO. SEE TABLE	DOCUMENT NO. SD-74651-003
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		ANGULAR ±1/2°		APPROVED BY CBIXLER	DATE 2001/05/27	SHEET NO. 2 OF 2	
THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION							

8 7 6 5 4 3 2 1