

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

**Part Number:** [0746509004](#)  
**Status:** **Active**  
**Overview:** [vhdm\\_hsd](#)  
**Description:** 2.00mm (.079") Pitch 8-Row VHDM-HSD™ Backplane Header, Guide Pin Signal Module, Signal Pin End Version, Advanced Mate Shield, 60 Circuits, Pin Length 5.15mm (.203")

**Documents:**

[Drawing \(PDF\)](#) [RoHS Certificate of Compliance \(PDF\)](#)  
[Product Specification PS-74031-999 \(PDF\)](#)

**Agency Certification**

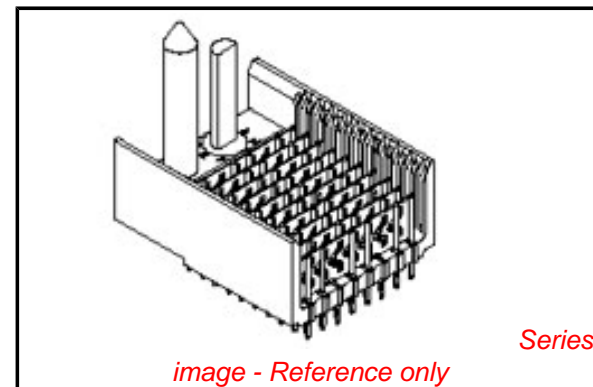
CSA LR19980

**General**

Product Family Backplane Connectors  
 Series [74650](#)  
 Application Backplane  
 Application Tooling Documents [Tooling Manual](http://www.molex.com/pdm_docs/ats/TM-622010999.pdf)  
 Comments No Keying Position  
 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  
 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



**EU RoHS**

**ELV and RoHS Compliant**  
**REACH SVHC**  
 Not Reviewed  
**Halogen-Free Status**

**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**

[74650Series](#)

**Mates With**

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

**Use With**

Daughtercard Modules

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

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

### **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	250V

### **Material Info**

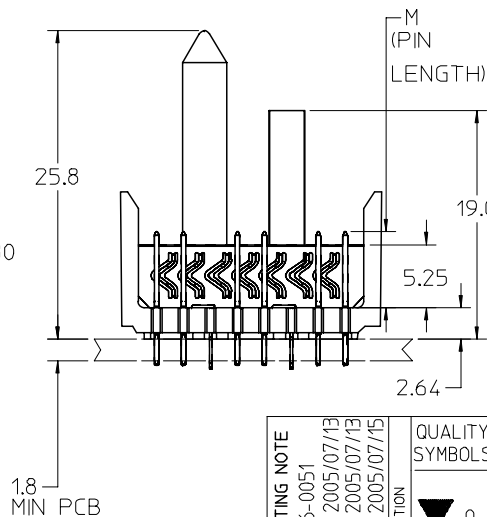
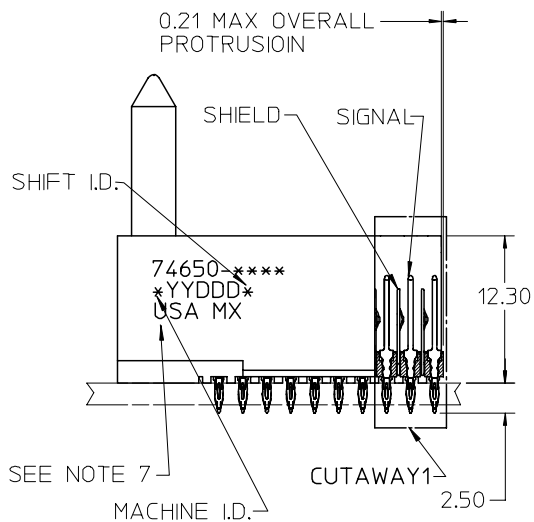
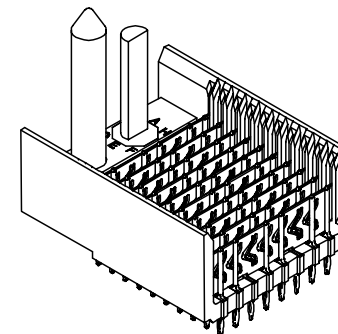
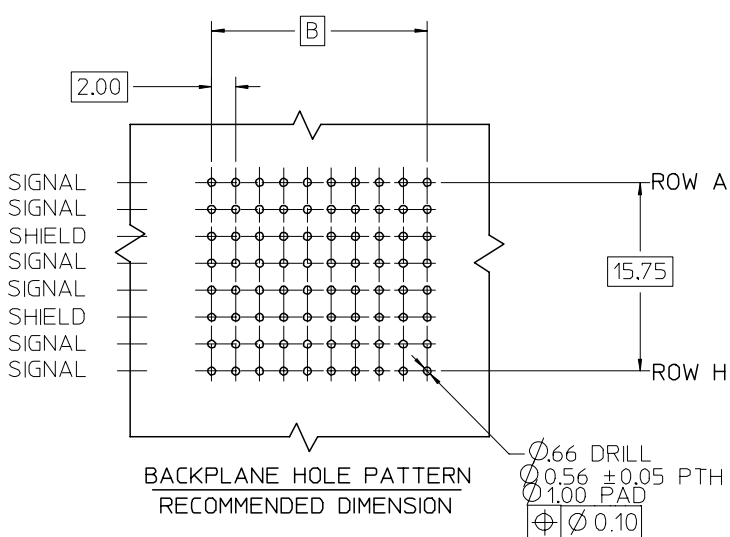
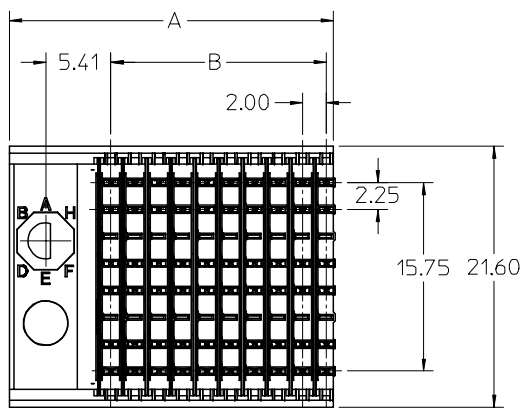
#### **Reference - Drawing Numbers**

Packaging Specification	PK-74061-003
Product Specification	PS-74031-999
Sales Drawing	SD-74650-002

VHDM-HSD is a trademark of Amphenol Corporation

This document was generated on 05/27/2010

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NOTES:

1. MATERIAL: HOUSING -LIQUID CRYSTAL POLYMER (LCP) GLASS-FILLED. UL 94-0. COLOR BLACK. SIGNAL & SHIELD -HIGH PERFORMANCE COPPER ALLOY.
2. FINISHES:  
CONTACT AREA: SELECTIVE GOLD (Au)  
PCB TAILS: SELECTIVE TIN/LEAD (Sn/Pb) OR SELECTIVE MATTE TIN (Sn) 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-74061-003.
7. EITHER MARK PART NUMBER AND DATE CODE APPROXIMATELY WHERE SHOWN OR PLACE LABEL ON THE TUBE.

REVISED - PLATING NOTE EC NO: UCP2006-0051 DRWN: 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	
				DIMENSION STYLE MM ONLY		TITLE HSD SALES ASSEMBLY 8 ROW SIGNAL END BACKPLANE		
		4 PLACES ± --- ± ---		DRAWN BY DATE MQWANG 2001/03/22		MATERIAL NO. DOCUMENT NO. SHEET NO. SEE SHEET 2 SD-74650-002 1 OF 2		
		3 PLACES ± --- ± ---		CHECKED BY DATE JLAURX 2001/03/27				
2 PLACES ± --- ± ---		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				
1 PLACE ± --- ± ---		ANGULAR ±1/2°						

10 9 8 7 6 5 4 3 2 74650

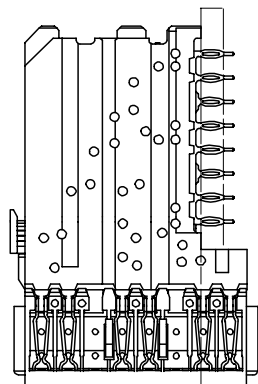
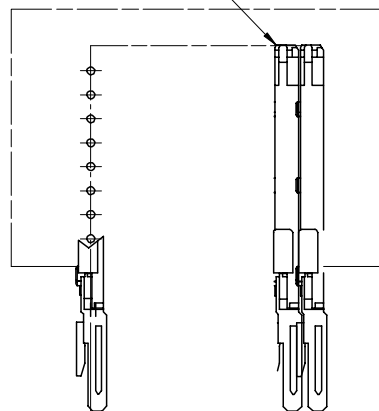
M/N 74650-( )	-**0*	-**1*	-**2*	-**3*	-**4*	-**5*	-**6*	-**7*	-**8*
KEYING PIN ORIENTATION	0	A	B	C	D	E	F	G	H

74650-\*\*\*

NUMBER OF COLUMNS/  
PLATING  
10=10 COLUMN TIN/LEAD  
25=25 COLUMN TIN/LEAD  
90=10 COLUMN MATTE TIN  
85=25 COLUMN MATTE TIN

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

DAUGHTERCARD  
CONNECTOR SIDE

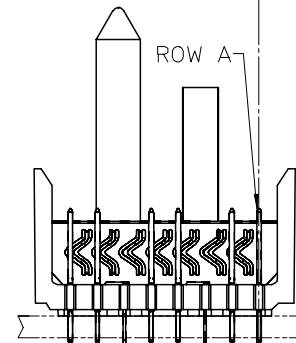
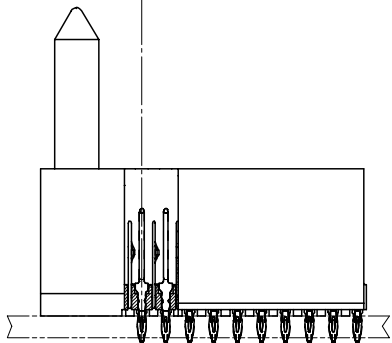


PART NUMBER	COLUMN	NUMBER OF SIGNAL PINS	NUMBER OF SHIELDS	A MAX	B	M	Au (um) MIN THICKNESS	Sn/Pb (um) THICKNESS
74650-*0*1	10	60	10	27.00	18.00	4.75	0.76	0.76-1.52
74650-*0*6							1.27	
74650-*5*1	25	150	25	57.00	48.00		0.76	
74650-*5*6							1.27	
74650-*0*2	10	60	10	27.00	18.00	6.25	0.76	
74650-*0*7							1.27	
74650-*5*2	25	150	25	57.00	48.00		0.76	
74650-*5*7							1.27	
74650-*0*3	10	60	10	27.00	18.00	4.25	0.76	
74650-*0*8							1.27	
74650-*5*3	25	150	25	57.00	48.00		0.76	
74650-*5*8							1.27	
74650-*0*4	10	60	10	27.00	18.00	5.15	0.76	
74650-*0*9							1.27	
74650-*5*4	25	150	25	57.00	48.00		0.76	
74650-*5*9							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	GENERAL TOLERANCES (UNLESS SPECIFIED)	SCALE 2.5:1	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION	REVISE ON CAD ONLY
	DESCRIPTION	mm INCH	DIMENSION STYLE MM ONLY	TITLE	HSD SALES ASSEMBLY 8 ROW SIGNAL END BACKPLANE	
D	▽ 0	4 PLACES ± --- ± ---	DRAWN BY DATE	MOLEX INCORPORATED		
	▽ 0	3 PLACES ± --- ± ---	MQWANG 2001/03/22	MATERIAL NO. DOCUMENT NO. SHEET NO.		
		2 PLACES ± --- ± ---	CHECKED BY DATE	SEE TABLE	SD-74650-002	2 OF 2
		1 PLACE ± --- ± ---	JLAURX 2001/03/27	THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION		
		ANGULAR ±1/2°	APPROVED BY DATE			
		DRAFT WHERE APPLICABLE	CBIXLER 2001/03/27			
		MUST REMAIN WITHIN DIMENSIONS				