

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

**Part Number:** [0746502501](#)  
**Status:** **Active**  
**Overview:** [vhdm\\_hsd](#)  
**Description:** 2.00mm (.079") Pitch 8-Row VHDM-HSD™ Backplane Header, Guide Pin Signal Module, Pin End Version, 150 Circuits, Pin Length 4.75mm (.187")

**Documents:**

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

**Agency Certification**

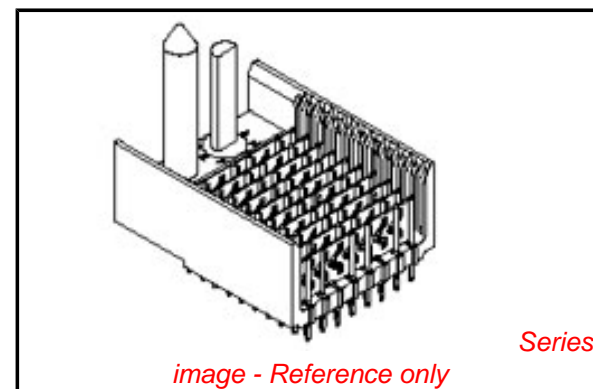
CSA LR19980

**General**

Product Family	Backplane Connectors
Series	<a href="#">74650</a>
Application	Backplane
Application Tooling Documents	<a href="http://www.molex.com/pdm_docs/ats/TM-622010999.pdf">http://www.molex.com/pdm_docs/ats/TM-622010999.pdf</a> >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)	150
Circuits (maximum)	150
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	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	25
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
Plating min: Termination (µin)	30



**EU RoHS**

**RoHS Compliant by Exemption**  
**REACH SVHC**  
**Contains SVHC: No**  
**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**

[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, 6 Row by 25 Wide, 50.00mm (1.97")	<a href="#">0622020206</a>

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**

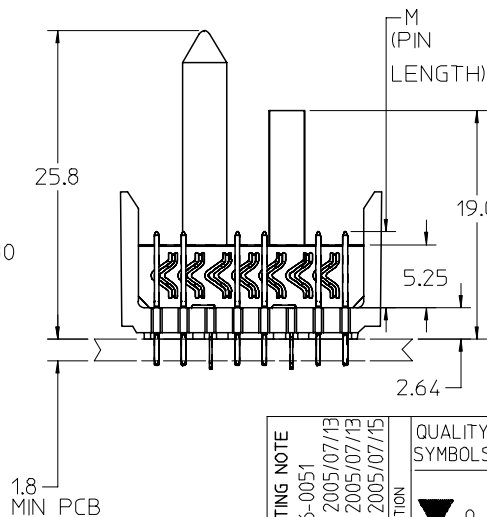
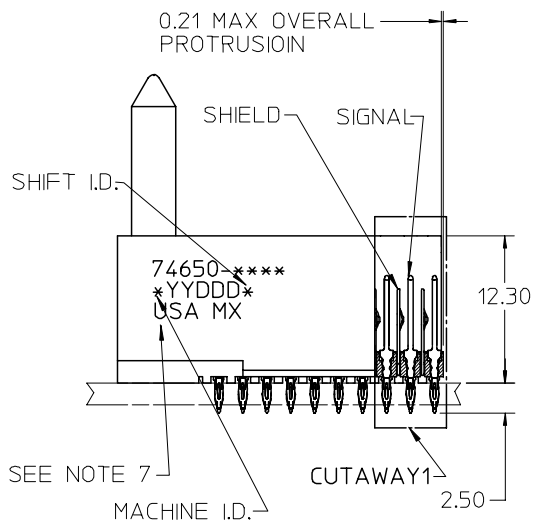
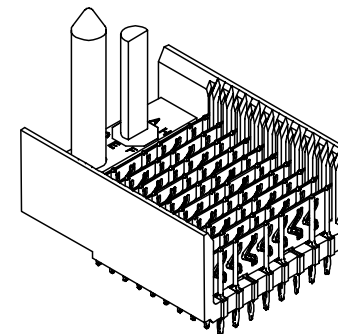
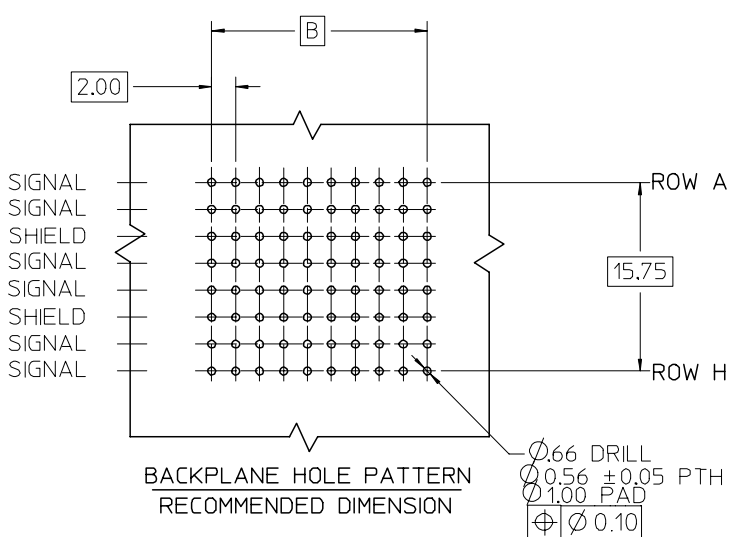
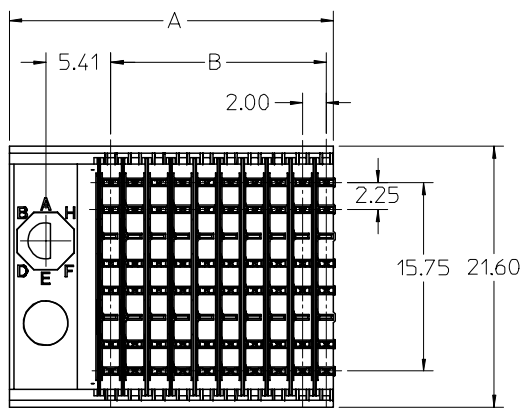
#### **Reference - Drawing Numbers**

Packaging Specification	PK-74061-003
Sales Drawing	SD-74650-002

VHDM-HSD is a trademark of Amphenol Corporation

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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

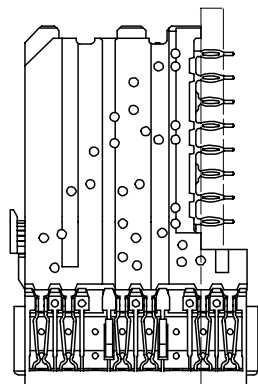
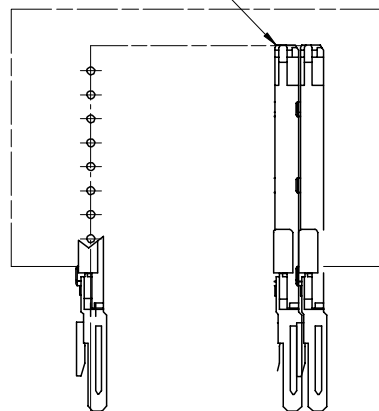
M/N 74650-( )	-**0*	-**1*	-**2*	-**3*	-**4*	-**5*	-**6*	-**7*	-**8*
KEYING PIN ORIENTATION	0	A	B	C	D	E	F	G	H

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



0.41  
SIGNAL TO SIGNAL

2.45  
TOP DAUGHTERCARD  
PCB TO CENTER OF  
ROW A

ROW A

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	

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	
REV	DESCRIPTION	4 PLACES ± --- ± --- 3 PLACES ± --- ± --- 2 PLACES ± --- ± --- 1 PLACE ± --- ± ---	DRAWN BY DATE MQWANG 2001/03/22	CHECKED BY DATE JLAURX 2001/03/27	MOLEX INCORPORATED	
D	ANGULAR ±1/2°	DRAFT WHERE APPLICABLE	APPROVED BY DATE CBIXLER 2001/03/27	MATERIAL NO. SEE TABLE	DOCUMENT NO. SD-74650-002	SHEET NO. 2 OF 2
		MUST REMAIN WITHIN DIMENSIONS	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