

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

**Part Number:** [0746501104](#)  
**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 \(PDF\)](#)

**Agency Certification**

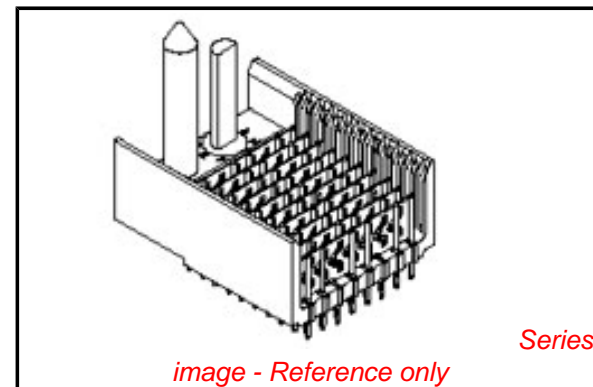
CSA LR19980

**General**

Product Family Backplane Connectors  
 Series [74650](#)  
 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) 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 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 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



**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**

[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® 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	250V

### **Material Info**

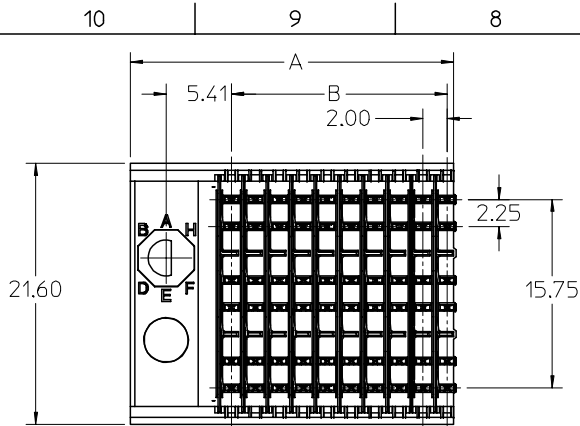
#### **Reference - Drawing Numbers**

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

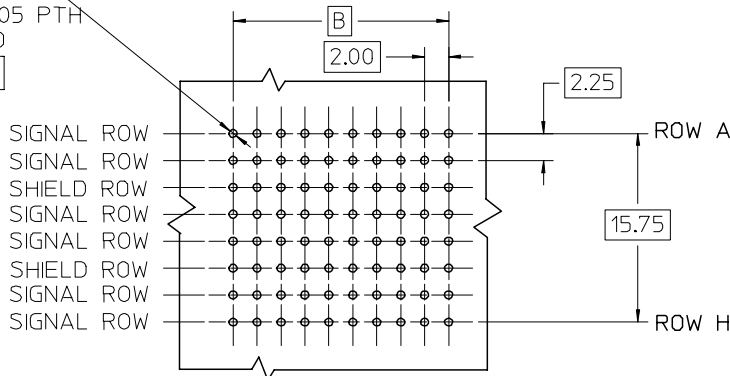
VHDM-HSD is a trademark of Amphenol Corporation

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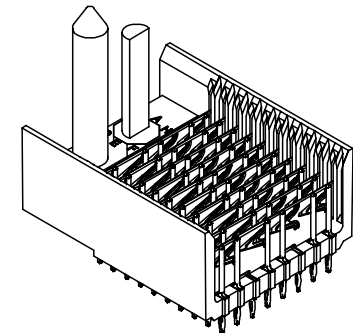
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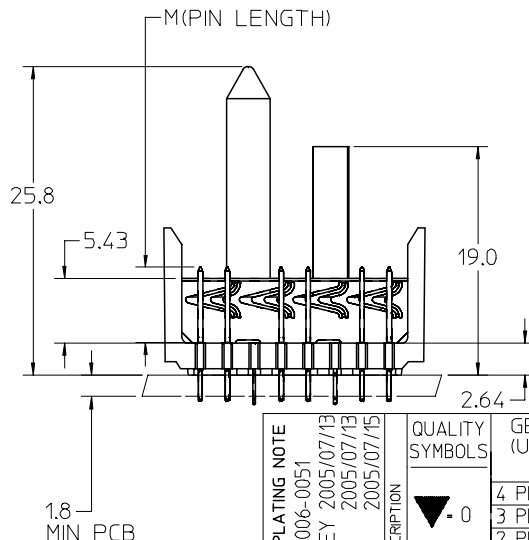
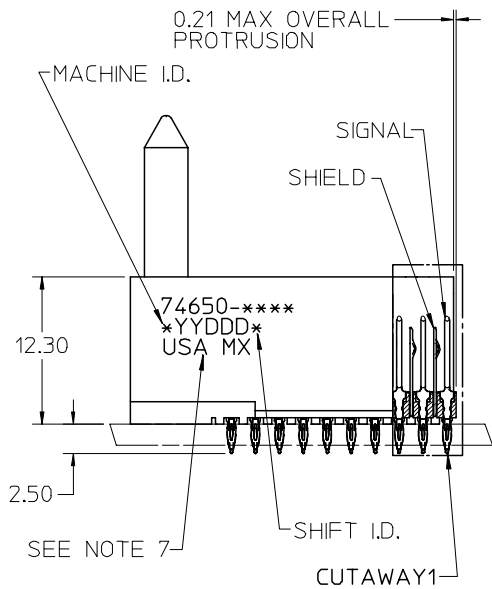
$\varnothing 0.66$  DRILL  
 $\varnothing 0.56 \pm 0.05$  PTH  
 $\varnothing 1.00$  PAD  
 $\varnothing 0.10$



BACKPLANE HOLE PATTERN  
RECOMMENDED DIMENSION



0.21 MAX OVERALL PROTRUSION



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  
 DRW:KML/VEY 2005/07/13  
 CHKD: 2005/07/13  
 APPR: SREED 2005/07/15

REV	DESCRIPTION
0	QUALITY SYMBOLS
0	ANGULAR ±1/2°

GENERAL TOLERANCES (UNLESS SPECIFIED)	DIMENSION STYLE	
	mm	INCH
4 PLACES	± ---	± ---
3 PLACES	± ---	± ---
2 PLACES	± ---	± ---
1 PLACE	± ---	± ---

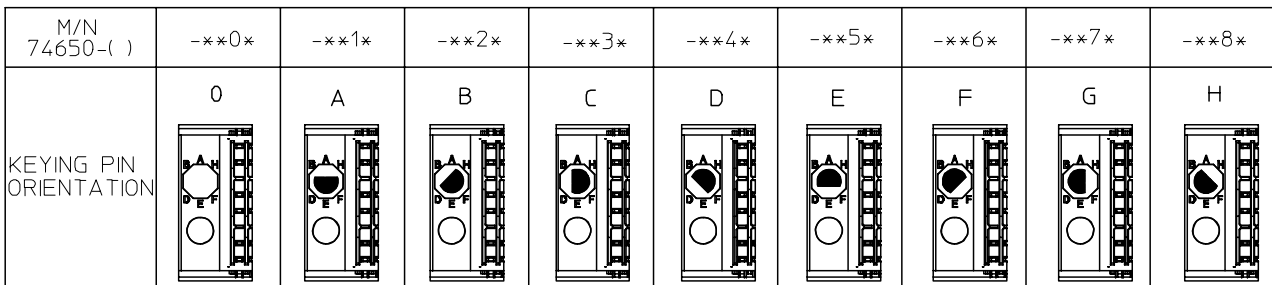
DRAFT WHERE APPLICABLE  
 MUST REMAIN WITHIN DIMENSIONS

SCALE	DESIGN UNITS
2.5:1	METRIC
DIMENSION STYLE	
MM ONLY	
DRAWN BY	DATE
MQWANG	2001/05/21
CHECKED BY	DATE
JLAURX	2001/05/25
APPROVED BY	DATE
CBIXLER	2001/05/25

THIRD ANGLE PROJECTION	REVISE ON CAD ONLY
TITLE	
HSD SALES ASSEMBLY 8 ROW ADVANCED MATE SIGNAL END BACKPLANE	
MOLEX MOLEX INCORPORATED	
MATERIAL NO.	DOCUMENT NO.
SEE SHEET 2	SD-74650-003
SHEET NO.	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 74650

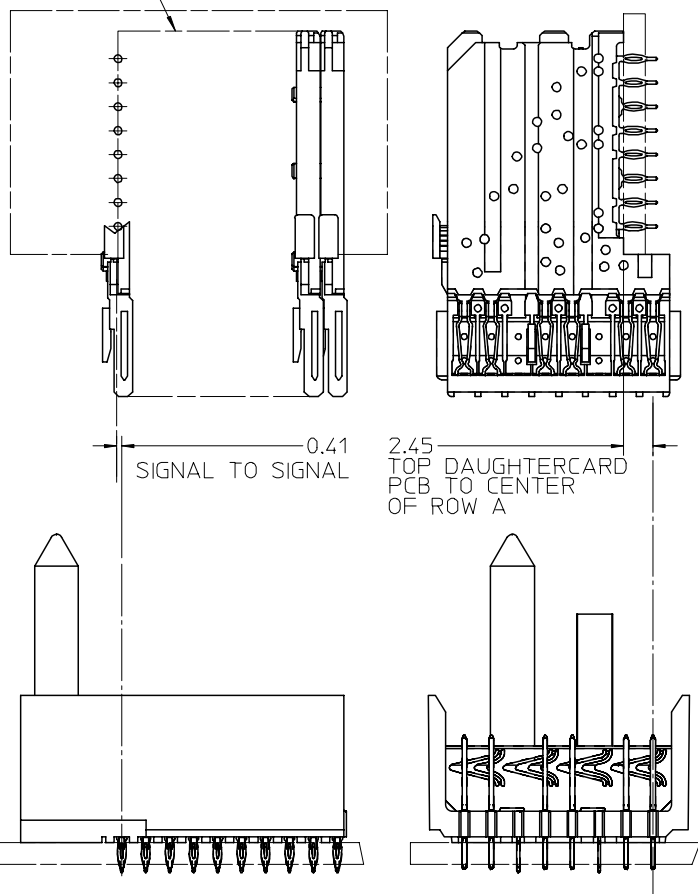


74650-\*\*\*\*

NUMBER OF COLUMNS/  
PLATING  
11=10 COLUMN TIN/LEAD  
26=25 COLUMN TIN/LEAD  
91=10 COLUMN MATTE TIN  
86=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	B	M	Au (um) MIN THICKNESS	Sn (um) THICKNESS
74650-*1*1	10	60	10	27.00	18.00	4.75	0.76	0.76-152
74650-*1*6							1.27	
74650-*6*1	25	150	25	57.00	48.00	4.75	0.76	
74650-*6*6							1.27	
74650-*1*2	10	60	10	27.00	18.00	6.25	0.76	
74650-*1*7							1.27	
74650-*6*2	25	150	25	57.00	48.00	6.25	0.76	
74650-*6*7							1.27	
74650-*1*3	10	60	10	27.00	18.00	4.25	0.76	
74650-*1*8							1.27	
74650-*6*3	25	150	25	57.00	48.00	4.25	0.76	
74650-*6*8							1.27	
74650-*1*4	10	60	10	27.00	18.00	5.15	0.76	
74650-*1*9							1.27	
74650-*6*4	25	150	25	57.00	48.00	5.15	0.76	
74650-*6*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 ▽ 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 ADVANCED MATE SIGNAL END BACKPLANE	
REV	DESCRIPTION	4 PLACES ± --- ± ---	DRAWN BY MQWANG	DATE 2001/05/21	MOLEX INCORPORATED	
		3 PLACES ± --- ± ---	CHECKED BY JLAURX	DATE 2001/05/25	MATERIAL NO. SEE TABLE	DOCUMENT NO. SD-74650-003
DRAFT WHERE APPLICABLE		2 PLACES ± --- ± ---	THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION			
MUST REMAIN WITHIN DIMENSIONS		1 PLACE ± --- ± ---				

8 7 6 5 4 3 2 1