

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

**Part Number:** [0746491101](#)  
**Status:** **Active**  
**Overview:** vhdm\_hsd  
**Description:** 2.00mm (.079") Pitch 8-Row VHDM-HSD™ Backplane Header, Guide Pin Signal Module, Open End Version, Advanced Mate Shield, 80 Circuits

**Documents:**

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

**Agency Certification**

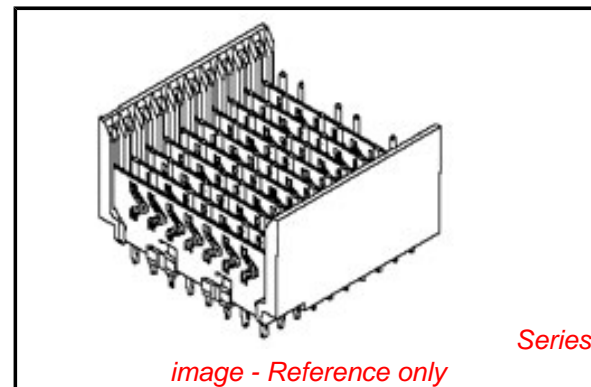
CSA LR19980

**General**

Product Family	Backplane Connectors
Series	<a href="#">74649</a>
Application	Backplane
Application Tooling Documents	<a href="http://www.molex.com/pdm_docs/ats/TM-622010999.pdf">Tooling Manual</a>
Comments	Open Header
Component Type	PCB Header
Overview	<a href="#">vhdm_hsd</a>
Product Name	VHDM-HSD™
Style	N/A

**Physical**

Circuits (Loaded)	80
Circuits (maximum)	80
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	Copper-Nickel-Silicon, 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	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
Plating min: Termination (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**

[74649Series](#)

**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>

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**

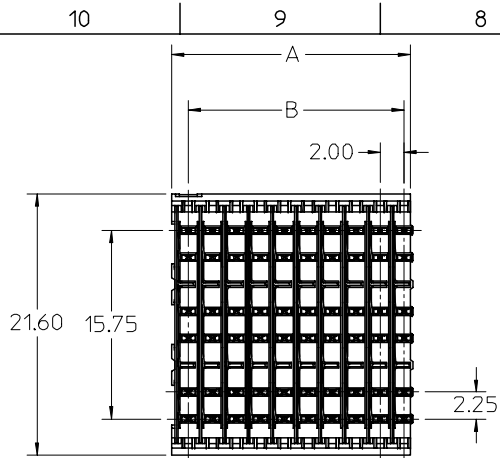
#### **Reference - Drawing Numbers**

Packaging Specification	PK-74060-003
Sales Drawing	SD-74649-003

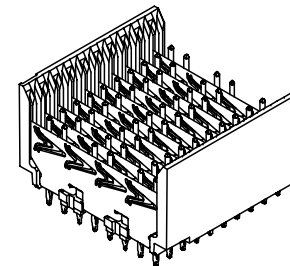
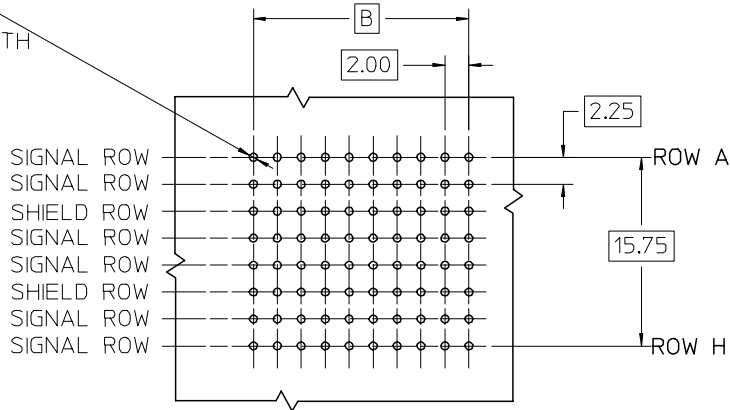
VHDM-HSD is a trademark of Amphenol Corporation

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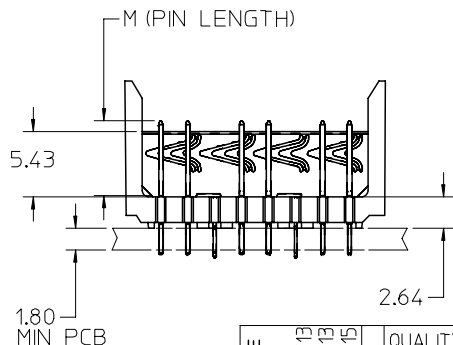
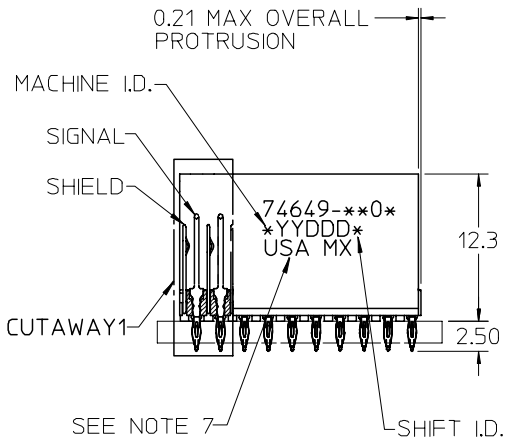
$\varnothing 0.66$  DRILL  
 $\varnothing 0.56 \pm 0.05$  PTH  
 $\varnothing 1.00$  PAD  
 $\varnothing 0.10$



**BACKPLANE HOLE PATTERN  
RECOMMENDED DIMENSION**

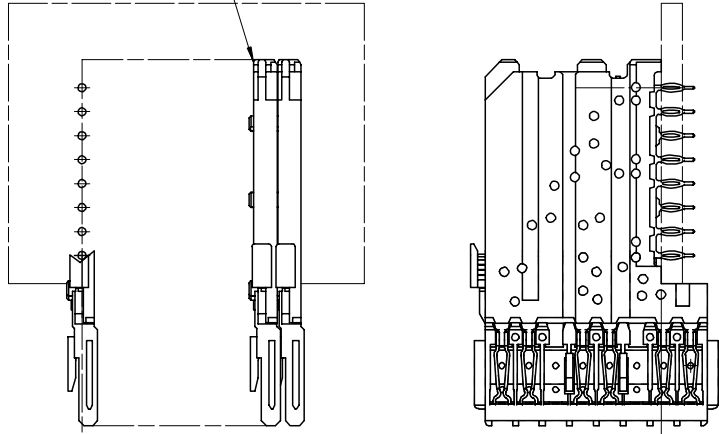
**NOTES:**

- MATERIAL:**  
HOUSING -LIQUID CRYSTAL POLYMER (LCP), GLASS-FILLED. UL 94V-0. COLOR BLACK. SIGNAL PIN & 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 NUMBERS AND MATING INFORMATION REFER TO SHEET 2.
- PACKAGE PER PK-74060-003.
- EITHER MARK PART NUMBER AND DATE CODE APPROXIMATELY WHERE SHOWN OR PLACE LABEL ON THE TUBE.



REVISED - PLATING NOTE EC NO: UCP2006-0051 DRW: 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		
		4 PLACES ± --- ± --- 3 PLACES ± --- ± --- 2 PLACES ± --- ± --- 1 PLACE ± --- ± ---		DRAWN BY DATE MQWANG 2001/05/21 CHECKED BY DATE JLAURX 2001/05/25		HSD SALES ASSEMBLY 8 ROW ADVANCED MATE OPEN END BACKPLANE		
		ANGULAR ±1/2°		APPROVED BY DATE		MATERIAL NO.		DOCUMENT NO.
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		CBIXLER 2001/05/25		SEE SHEET 2		SD-74649-003	1 OF 2	
THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION								

DAUGHTERCARD  
CONNECTOR SIDE



0.41 OFFSET  
SIGNAL TO SIGNAL

2.45  
TOP DAUGHTERCARD PCB  
TO CENTER LINE OF ROW A

ROW A

MATERIAL NUMBER ASSIGNMENT

74649-XXYY

SEE TABLE

- 11 = 10 COLUMN TIN/LEAD
- 26 = 25 COLUMN TIN/LEAD
- 91 = 10 COLUMN MATTE TIN
- 86 = 25 COLUMN MATTE TIN

PART NUMBER	COLUMN	NUMBER OF SIGNAL PINS	NUMBER OF SHIELDS	A	B	M	Au (um) MIN THICKNESS	Sn (um) THICKNESS
74649-*101	10	60	10	20.00	18.00	4.75	0.76	0.76-1.52
74649-*106							1.27	
74649-*601	25	150	25	50.00	48.00		0.76	
74649-*606							1.27	
74649-*102	10	60	10	20.00	18.00	6.25	0.76	
74649-*107							1.27	
74649-*602	25	150	25	50.00	48.00		0.76	
74649-*607							1.27	
74649-*103	10	60	10	20.00	18.00	4.25	0.76	
74649-*108							1.27	
74649-*603	25	150	25	50.00	48.00		0.76	
74649-*608							1.27	
74649-*104	10	60	10	20.00	18.00	5.15	0.76	
74649-*109							1.27	
74649-*604	25	150	25	50.00	48.00		0.76	
74649-*609							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	
	▽ = 0 ∇ = 0		mm	INCH	DIMENSION STYLE MM ONLY		TITLE	HSD SALES ASSEMBLY 8 ROW ADVANCED MATE OPEN END BACKPLANE
		4 PLACES	± ---	± ---	DRAWN BY	DATE	MOLEX INCORPORATED	
		3 PLACES	± ---	± ---	MQWANG	2001/05/21		
2 PLACES	± ---	± ---	CHECKED BY	DATE	JLAURX 2001/05/25	DOCUMENT NO.		SHEET NO.
1 PLACE	± ---	± ---	ANGULAR ±1/2°			SEE TABLE	SD-74649-003	2 OF 2
	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				