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Part Number: [0746961013](#)
Status: **Active**
Overview: [vhdm_hsd](#)
Description: 2.00mm (.079") Pitch 5-Row VHDM-HSD™ Backplane Header, Guide Pin Signal Module, Pin End Version, 40 Circuits, Pin Length 4.25mm (.167")

Documents:

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

Agency Certification

CSA LR19880

General

Product Family Backplane Connectors
 Series [74696](#)
 Application Backplane
 Application Tooling Documents http://www.molex.com/pdm_docs/ats/TM-622010999.pdf>Tooling Manual
 Comments Keying Position A
 Component Type PCB Header
 Overview [vhdm_hsd](#)
 Product Name VHDM-HSD™
 Style N/A

Physical

Circuits (Loaded) 40
 Circuits (maximum) 40
 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 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 5
 Orientation Vertical
 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
 Plating min: Mating (µin) 30
 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

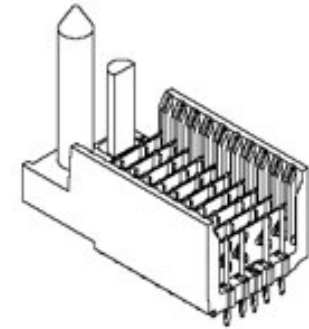


image - Reference only

Series

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
 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

[74696Series](#)

Mates With

[74670 HSD Daughtercard](#)

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	0622015700
VHDM® 5 Row and Shield Repair Tool	0622015810
VHDM® 5 Row Shield Extraction Tool	0622016010
VHDM-HSD™ Signal Header, 5 Row by	0622020201

10 Wide, 20.00mm
(.787")

Electrical

Current - Maximum per Contact	1A
Data Rate	5.0 Gbps
Real Signals (per 25mm)	48
Voltage - Maximum	120V AC (RMS)/DC

Material Info

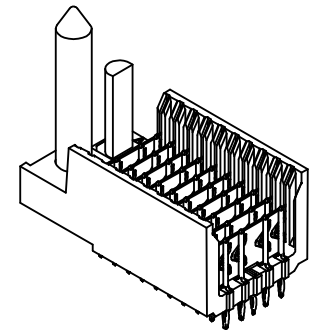
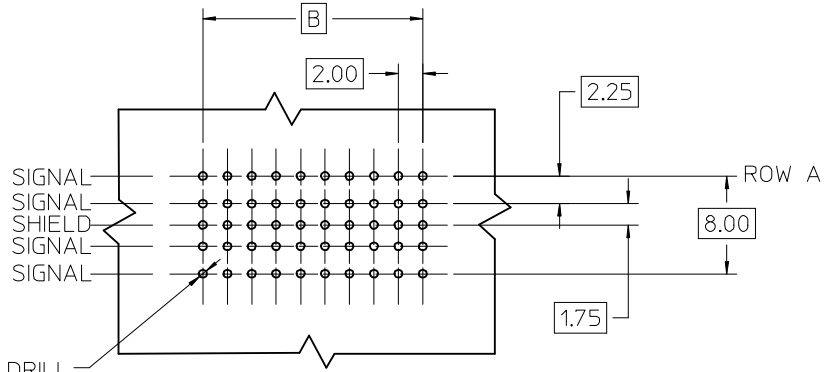
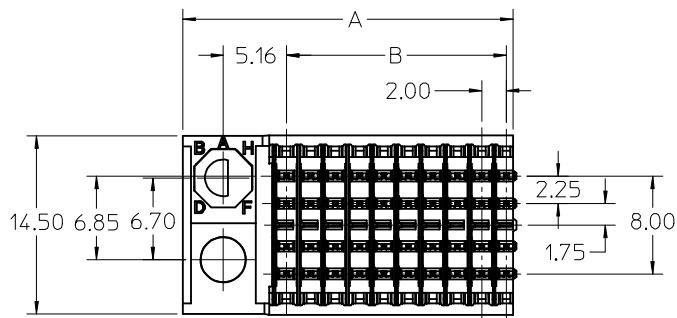
Reference - Drawing Numbers

Packaging Specification	PK-74696-003
Sales Drawing	SD-74696-002

VHDM-HSD is a trademark of Amphenol Corporation

This document was generated on 06/08/2010

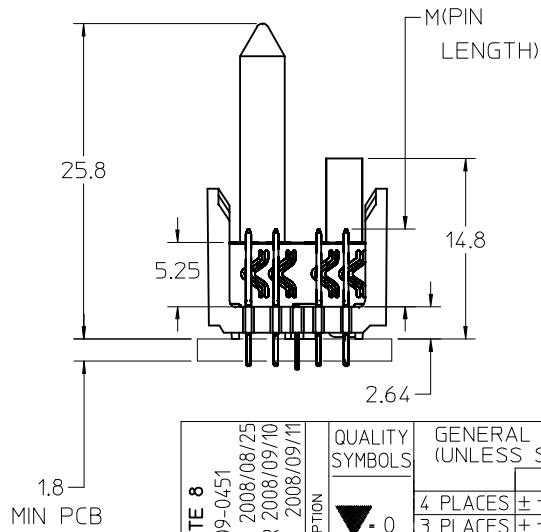
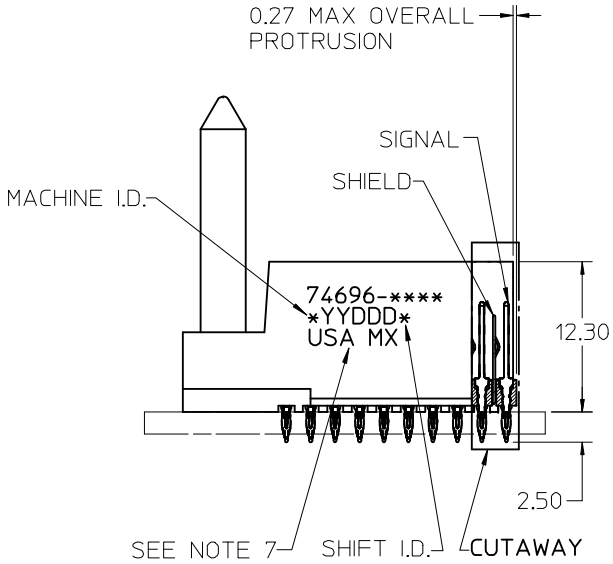
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- Ø 0.66 DRILL
- Ø 0.56 ±0.05 PTH
- Ø 1.00 PAD
- ⊕ Ø 0.10

**BACKPLANE HOLE PATTERN
RECOMMENDED DIMENSIONS**

0.27 MAX OVERALL PROTRUSION



NOTES:

1. MATERIAL: HOUSING -LIQUID CRYSTAL POLYMER (LCP) GLASS-FILLED, UL 94 V-0. COLOR BLACK. SIGNAL & SHIELD -COPPER ALLOY.
2. FINISHES: SELECTIVE GOLD (Au) ON CONTACT AREA. SELECTIVE TIN/LEAD (Sn/Pb) OR MATTE TIN ON PCB TAILS. 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-74696-003.
7. EITHER MARK PART NUMBER AND DATE CODE APPROXIMATELY WHERE SHOWN OR PLACE LABEL ON THE TUBE.
8. PRODUCT COMPLIES WITH COSMETIC SPECIFICATION PS-45499-002.

ADD NOTE 8 EC NO: UCP2009-0451 DRWN:BSMART 2008/08/25 CHKD:BBARKER 2008/09/10 APPR:SWILLER 2008/09/11	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 5 ROW SIGNAL END BACKPLANE			
		4 PLACES ± --- ± ---		DRAWN BY MQWANG		DATE 2001/04/17		MOLEX INCORPORATED	
		3 PLACES ± --- ± ---		CHECKED BY NMARTIN		DATE 2001/04/20			
2 PLACES ± --- ± ---		APPROVED BY CBIXLER		DATE 2001/04/20		MATERIAL NO. SEE TABLE	DOCUMENT NO. SD-74696-002	SHEET NO. 1 OF 3	
1 PLACE ± --- ± ---		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					

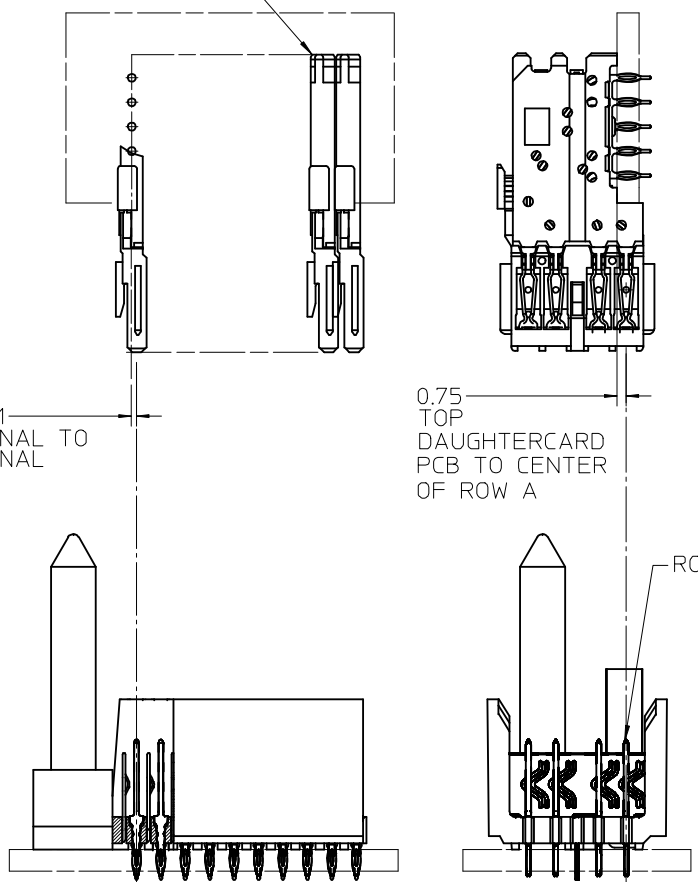
P/N 74696-()	-**0*	-**1*	-**2*	-**3*	-**4*	-**5*	-**6*	-**7*	-**8*
	0	A	B	C	D	E	F	G	H
KEYING PIN ORIENTATION									

74696-****

NUMBER OF COLUMN
5, 10 OR 25
LEADED OR LEAD FREE

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	SnPb(um) THICKNESS
74696-10*1	10	40	10	27.00	18.00	4.75	0.76	0.76-1.52
74696-10*6							1.27	
74696-25*1	25	100	25	57.00	48.00	6.25	0.76	
74696-25*6							1.27	
74696-05*7	5	20	5	17.00	8.00	6.25	1.27	
74696-10*2	10	40	10	27.00	18.00		0.76	
74696-10*7	25	100	25	57.00	48.00	4.25	1.27	
74696-25*2							0.76	
74696-25*7	1.27							
74696-10*3	10	40	10	27.00	18.00	5.15	0.76	
74696-10*8	25	100	25	57.00	48.00		1.27	
74696-25*3						0.76		
74696-25*8	1.27							
74696-10*4	10	40	10	27.00	18.00	6.25	0.76	
74696-10*9	25	100	25	57.00	48.00		1.27	
74696-25*4						0.76		
74696-25*9	1.27							

SEE SHEET 1 EC NO: UCP2009-0451 DRWN:BSMART 2008/08/25 CHKD:BBARKER 2008/09/10 APPR:SWILLER 2008/09/11	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		
		4 PLACES ± --- ± --- 3 PLACES ± --- ± --- 2 PLACES ± --- ± --- 1 PLACE ± --- ± --- ANGULAR ±1/2°	DRAWN BY MQWANG DATE 2001/04/17 CHECKED BY NMARTIN DATE 2001/04/20 APPROVED BY CBIXLER DATE 2001/04/20	HSD SALES ASSEMBLY 5 ROW SIGNAL END BACKPLANE		
	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		MOLEX INCORPORATED SEE TABLE SD-74696-002	
				MATERIAL NO.	DOCUMENT NO.	SHEET NO.
						2 OF 3

10 9 8 7 6 5 4 3 2 1

PART NUMBER	COLUMN	NUMBER OF SIGNAL PINS	NUMBER OF SHIELDS	A	B	M	Au (um) MIN THICKNESS	Sn (um) THICKNESS
74696-90*1	10	40	10	27.00	18.00	4.75	0.76	0.76-1.52
74696-90*6							1.27	
74696-85*1	25	100	25	57.00	48.00		0.76	
74696-85*6							1.27	
74696-95*7	5	20	5	17.00	8.00	6.25	1.27	
74696-90*2	10	40	10	27.00	18.00		0.76	
74696-90*7							1.27	
74696-85*2	25	100	25	57.00	48.00		0.76	
74696-85*7						1.27		
74696-90*3	10	40	10	27.00	18.00	4.25	0.76	
74696-90*8							1.27	
74696-85*3	25	100	25	57.00	48.00		0.76	
74696-85*8							1.27	
74696-90*4	10	40	10	27.00	18.00	5.15	0.76	
74696-90*9							1.27	
74696-85*4	25	100	25	57.00	48.00		0.76	
74696-85*9							1.27	

LEAD FREE P/N CHART

SEE SHEET 1 EC NO: UCP2009-0451 DR: MWBSMART 2008/08/25 CHKD: BBARKER 2008/09/10 APPR: SMILLER 2008/09/11	QUALITY SYMBOLS ▽=0 ▽7=0	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE MM ONLY		SCALE 1:1	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION	
		4 PLACES ± --- ± ---	mm INCH	DRAWN BY MQWANG	DATE 2001/04/17	TITLE HSD SALES ASSEMBLY 5 ROW SIGNAL END BACKPLANE			
		3 PLACES ± --- ± ---	2 PLACES ± --- ± ---	CHECKED BY NMARTIN	DATE 2001/04/20				
		1 PLACE ± --- ± ---	ANGULAR ±1/2°	APPROVED BY CBIXLER	DATE 2001/04/20	MOLEX INCORPORATED			
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		MATERIAL NO. SEE TABLE	DOCUMENT NO. SD-74696-002	SHEET NO. 3 OF 3					
THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION									

9 8 7 6 5 4 3 2 1