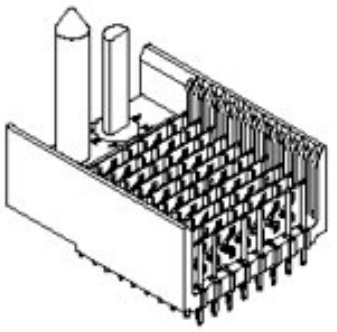
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# PLEASE CHECK WWW.MOLEX.COM FOR LATEST PART INFORMATION

**Part Number:** 0746509012
**Status:** Active
**Overview:** vhdm__hsd
**Description:** 2.00mm (.079") Pitch 8-Row VHDM-HSD™ Backplane Header, Guide Pin Signal Module, Pin End Version, Lead Free, 60 Circuits, Pin Length 6.25mm (.246")



*Series image - Reference only*

**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 | <a href="http://www.molex.com/pdm_docs/ats/TM-622010999.pdf">Tooling Manual</a> |
| Comments | Keying Position A |
| Component Type | PCB Header |
| Overview | vhdm__hsd |
| 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 | 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 |
| Plating min: Mating (µm) | 0.75 |

**EU RoHS**
ELV and RoHS Compliant
**REACH SVHC**
Contains SVHC: No
**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**
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 | 0622015700 |
| VHDM® Insertion Module for Advanced Mate Signal Header, 8 Row by 10 Wide, 20.00mm (.787") | 0622020205 |

| | |
|---|---|
| Plating min: Termination (µin) | 30 |
| Plating min: Termination (µm) | 0.75 |
| Polarized to PCB | No |
| Stackable | No |
| Surface Mount Compatible (SMC) | Yes |
| Temperature Range - Operating | -55°C to +105°C |
| Termination Interface: Style | Through Hole - Compliant Pin |

## Electrical

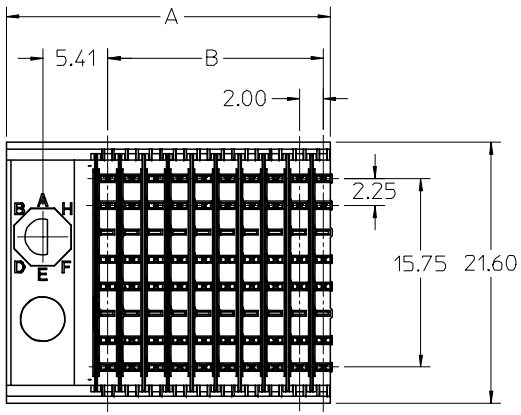
| | |
|---|---|
| Current - Maximum per Contact | 1A |
| Data Rate | 5.0 Gbps |
| Real Signals (per 25mm) | 100 |
| Shield Type | Ground Plane Shield |
| Shielded | Yes |
| Voltage - Maximum | 250V |

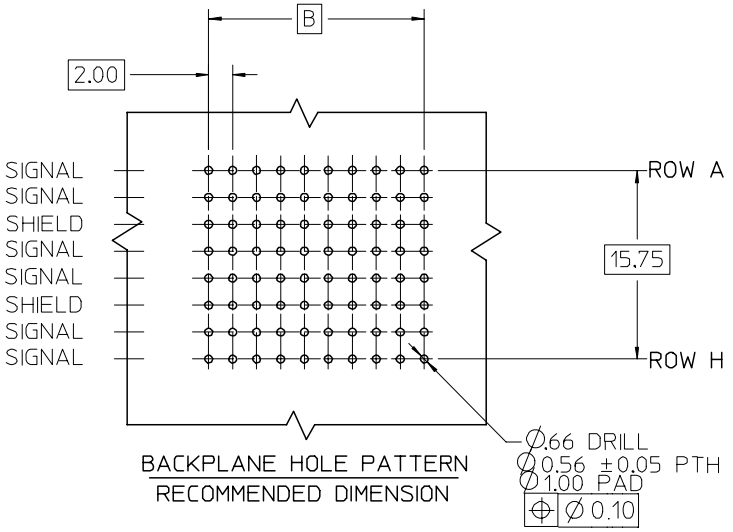
## Material Info

## Reference - Drawing Numbers

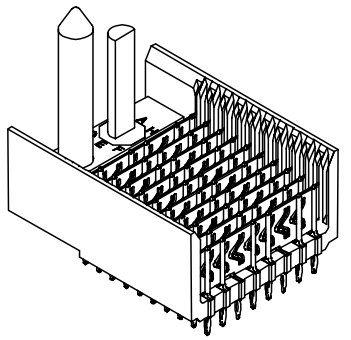
| | |
|---|---|
| Packaging Specification | PK-74061-003 |
| Product Specification | PS-74031-999 |
| Sales Drawing | SD-74650-002 |

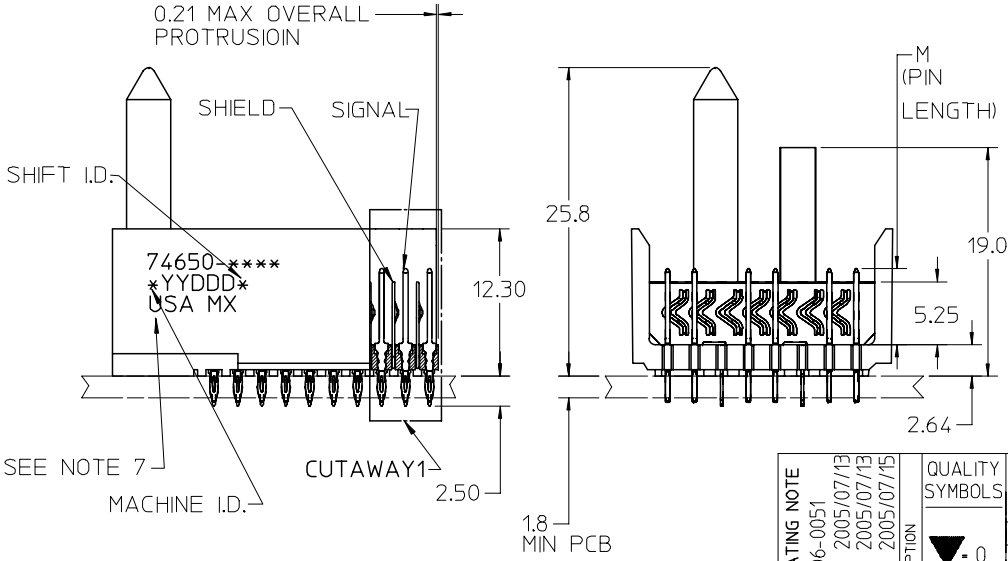
VHDM-HSD is a trademark of Amphenol Corporation




BACKPLANE HOLE PATTERN
RECOMMENDED DIMENSION






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 2005/07/13
DRWN:KMULVEY 2005/07/13
CH'KD: 2005/07/15
APPR: SREED
DESCRIPTION
REV
D

QUALITY SYMBOLS
▼ - 0
▽ (C) - 0

GENERAL TOLERANCES (UNLESS SPECIFIED)

| | mm | INCH |
|---|---|---|
| 4 PLACES | ± --- | ± --- |
| 3 PLACES | ± --- | ± --- |
| 2 PLACES | ± --- | ± --- |
| 1 PLACE | ± --- | ± --- |
| ANGULAR ±1/2° | | |

DRAFT WHERE APPLICABLE
MUST REMAIN
WITHIN DIMENSIONS

| | |
|---|---|
| SCALE | 2.5:1 |
| DESIGN UNITS | METRIC |
| | THIRD ANGLE PROJECTION |
| | REVISE ON CAD ONLY |
| DIMENSION STYLE | MM ONLY |
| DRAWN BY | MQWANG |
| DATE | 2001/03/22 |
| CHECKED BY | JLAURX |
| DATE | 2001/03/27 |
| APPROVED BY | CBIXLER |
| DATE | 2001/03/27 |

TITLE
HSD SALES ASSEMBLY
8 ROW SIGNAL END
BACKPLANE

MOLEX INCORPORATED

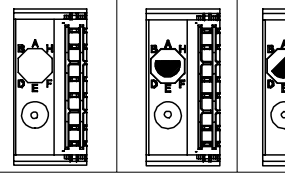
| MATERIAL NO. | DOCUMENT NO. | SHEET NO. |
|---|---|---|
| SEE SHEET 2 | SD-74650-002 | 1 OF 2 |

THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION

B

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 |

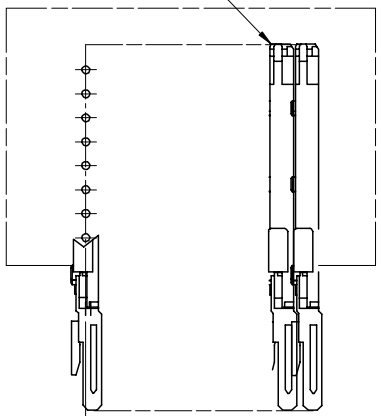


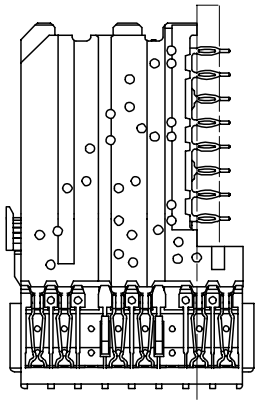
74650-****

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

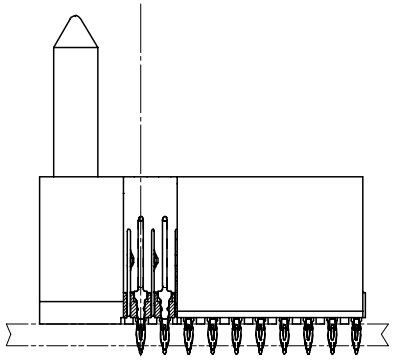
DAUGHTERCARD CONNECTOR SIDE

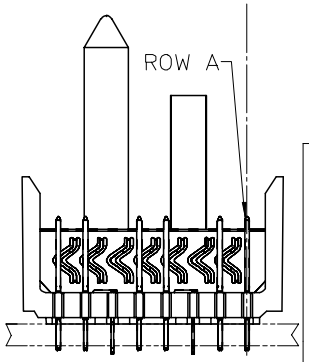




0.41
SIGNAL TO SIGNAL

2.45
TOP DAUGHTERCARD PCB TO CENTER OF ROW A






| 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
DRWN:KMULVEY 2005/07/13
CH'KD: 2005/07/13
APPR: SREED 2005/07/15
DESCRIPTION
REV
D

QUALITY SYMBOLS
▼ - 0
▽ (C) - 0

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| 3 PLACES | ± --- | ± --- |
| 2 PLACES | ± --- | ± --- |
| 1 PLACE | ± --- | ± --- |
| ANGULAR ±1/2° | | |

DRAFT WHERE APPLICABLE
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SCALE 2.5:1
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REVISE ON CAD ONLY
DIMENSION STYLE MM ONLY

DRAWN BY MQWANG DATE 2001/03/22
CHECKED BY JLAURX DATE 2001/03/27
APPROVED BY CBIXLER DATE 2001/03/27

TITLE
HSD SALES ASSEMBLY
8 ROW SIGNAL END
BACKPLANE

MOLEX INCORPORATED

MATERIAL NO. SEE TABLE
DOCUMENT NO. SD-74650-002
SHEET NO. 2 OF 2

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