

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

**Part Number:** **0739447016**  
**Status:** **Active**  
**Overview:** hdm  
**Description:** 2.00mm (.079") Pitch HDM® Board-to-Board Backplane Header, Vertical, SMC, Solder Tail, Guide Pin Option, 144 Circuits

**Documents:**

[3D Model](#) [Product Specification PS-73670-9999 \(PDF\)](#)  
[Drawing \(PDF\)](#) [RoHS Certificate of Compliance \(PDF\)](#)

**Agency Certification**

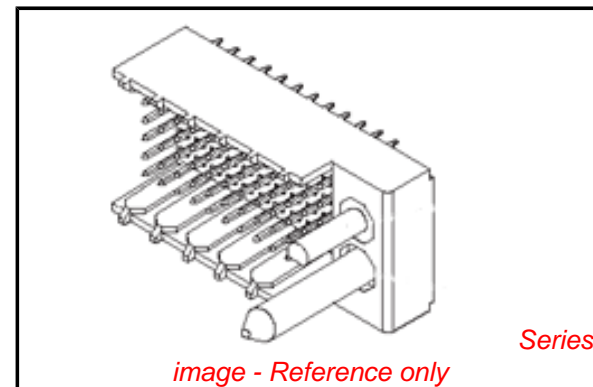
CSA LR19980  
 UL E29179

**General**

Product Family Backplane Connectors  
 Series 73944  
 Application Backplane  
 Component Type PCB Header  
 Overview hdm  
 Product Name HDM®  
 Style N/A

**Physical**

Circuits (Loaded) 144  
 Circuits (maximum) 144  
 Color - Resin Black, Natural  
 Durability (mating cycles max) 250  
 First Mate / Last Break No  
 Flammability 94V-0  
 Guide to Mating Part Yes  
 Keying to Mating Part Yes  
 Material - Metal Phosphor Bronze, Stainless Steel  
 Material - Plating Mating Gold  
 Material - Plating Termination Tin  
 Material - Resin High Temperature Thermoplastic  
 Number of Columns 24  
 Number of Pairs Open Pin Field  
 Number of Rows 6  
 Orientation Vertical  
 PC Tail Length (in) 0.138 In  
 PC Tail Length (mm) 3.50 mm  
 PCB Locator Yes  
 PCB Retention None  
 PCB Thickness Recommended (in) 0.098 In  
 PCB Thickness Recommended (mm) 2.50 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) 100  
 Plating min: Termination (µm) 2.5  
 Polarized to PCB No



**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](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**

[73944Series](#)

**Mates With**

[73632 HDM PLUS® Board-to-Board Daughtercard Receptacle](#). [73780 HDM® Board-to-Board Daughtercard Receptacle](#)

**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 #                  |
|------------------|----------------------------|
| HDM® Backplane   | <a href="#">0621001400</a> |
| Insertion Signal |                            |
| Contact Tool     |                            |
| Extraction Tool  | <a href="#">0621001000</a> |

|                                |                 |
|--------------------------------|-----------------|
| Stackable                      | No              |
| Surface Mount Compatible (SMC) | No              |
| Temperature Range - Operating  | -55°C to +105°C |
| Termination Interface: Style   | Through Hole    |

### **Electrical**

|                               |          |
|-------------------------------|----------|
| Current - Maximum per Contact | 1A       |
| Data Rate                     | 1.0 Gbps |
| Shielded                      | No       |
| Voltage - Maximum             | 250V AC  |

### **Solder Process Data**

|  |                              |
|--|------------------------------|
| Duration at Max. Process Temperature (seconds) | 40                           |
| Lead-free Process Capability                   | SMC & Wave Capable (TH only) |
| Max. Cycles at Max. Process Temperature        | 3                            |
| Process Temperature max. C                     | 260                          |

### **Material Info**

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

|                         |               |
|-------------------------|---------------|
| Packaging Specification | PK-70873-0818 |
| Product Specification   | PS-73670-9999 |
| Sales Drawing           | SD-73944-001  |

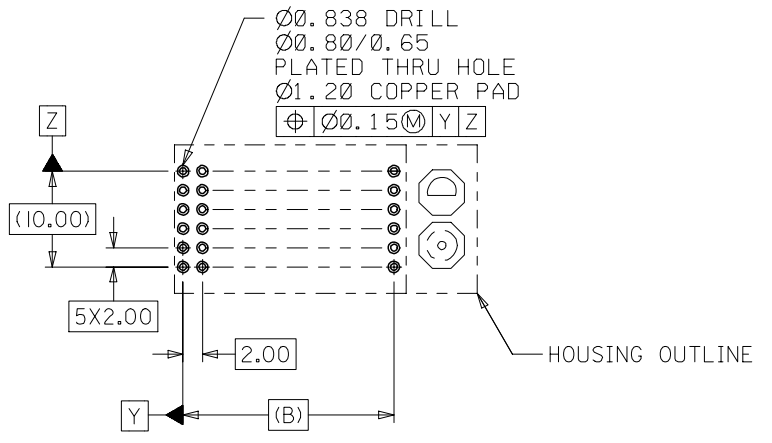
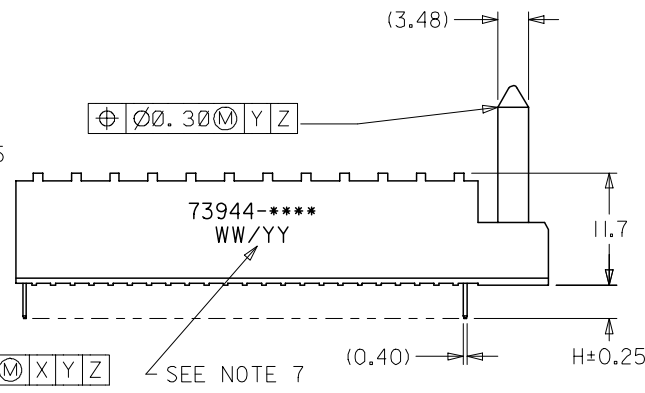
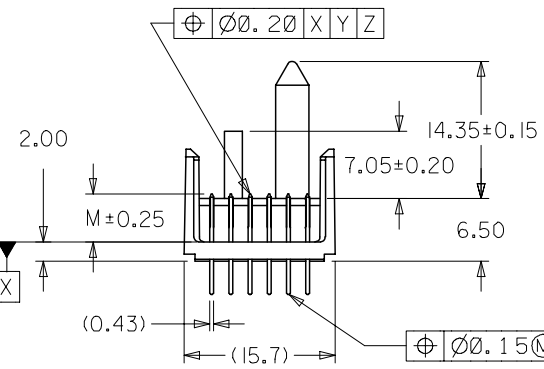
HDM and High Density Metric are trademarks of Amphenol Corporation

This document was generated on 05/14/2010

**PLEASE CHECK [WWW.MOLEX.COM](http://WWW.MOLEX.COM) FOR LATEST PART INFORMATION**

**NOTES:**

1. MATERIALS: HOUSING--LIQUID CRYSTAL POLYMER (LCP), GLASS FILLED, UL94V-0, COLOR: BLACK, TERMINAL: PHOSPHOR BRONZE.
2. FINISH: 0.75 MICROMETERS MINIMUM SELECTIVE GOLD (Au) IN MATING AREA 2.50 MICROMETERS MINIMUM SELECTIVE TIN (Sn) IN TAIL AREA NICKEL (Ni) UNDERPLATE OVERALL.
3. THIS PART CONFORMS TO MOLEX PRODUCT SPECIFICATION PS-73670-9999.
4. FOR MIXED CONTACT MATING LENGTHS, CONSULT FACTORY FOR AVAILABILITY.
5. SEE SHEET 2 FOR SPECIFIC MATERIAL NUMBERS.
6. PACKAGE PER PK-70873-0818.
7. PARTS MARKED WITH PART NUMBER AND DATE CODE, ON EITHER SIDE, APPROXIMATELY WHERE SHOWN.



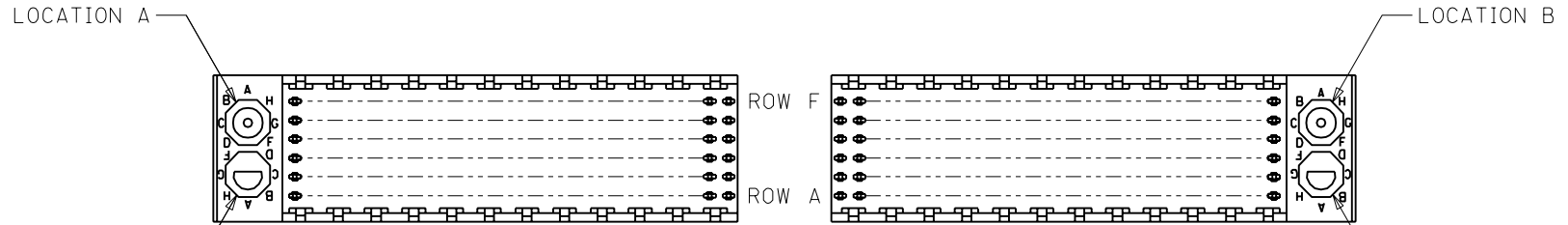
PCB LAYOUT: COMPONENT SIDE  
RECOMMENDED PCB THICKNESS: 2.50 MIN

|     |     |
|-----|-----|
| 2   | A   |
| 1   | G   |
| SHT | REV |

| MODIFY FINISH NOTE<br>EC NO: UCP2007-2259<br>DRWN:MSIBARRA 2007/03/13<br>CHKD:BBARKER 2007/03/21<br>APPR:SMILLER 2007/03/22 | QUALITY SYMBOLS<br>▽=0<br>▽=0 | GENERAL TOLERANCES (UNLESS SPECIFIED)<br><table border="1"> <tr> <th></th> <th>mm</th> <th>INCH</th> </tr> <tr> <td>4 PLACES</td> <td>± ---</td> <td>± ---</td> </tr> <tr> <td>3 PLACES</td> <td>± ---</td> <td>± ---</td> </tr> <tr> <td>2 PLACES</td> <td>± 0.05</td> <td>± ---</td> </tr> <tr> <td>1 PLACE</td> <td>± 0.10</td> <td>± ---</td> </tr> <tr> <td colspan="3">ANGULAR ±1/2°</td> </tr> </table> |                              | mm                  | INCH | 4 PLACES | ± --- | ± --- | 3 PLACES | ± --- | ± --- | 2 PLACES | ± 0.05 | ± --- | 1 PLACE | ± 0.10 | ± --- | ANGULAR ±1/2° |  |  | DIMENSION STYLE<br>MM ONLY | SCALE<br>2:1 | DESIGN UNITS<br>METRIC | THIRD ANGLE PROJECTION |
|---|-------------------------------|--|------------------------------|---------------------|------|----------|-------|-------|----------|-------|-------|----------|--------|-------|---------|--------|-------|---------------|--|--|----------------------------|--------------|------------------------|------------------------|
|   |                               | mm   | INCH                         |                     |      |          |       |       |          |       |       |          |        |       |         |        |       |               |  |  |                            |              |                        |                        |
|   | 4 PLACES                      | ± ---  | ± ---                        |                     |      |          |       |       |          |       |       |          |        |       |         |        |       |               |  |  |                            |              |                        |                        |
|   | 3 PLACES                      | ± ---  | ± ---                        |                     |      |          |       |       |          |       |       |          |        |       |         |        |       |               |  |  |                            |              |                        |                        |
| 2 PLACES  | ± 0.05                        | ± ---  |                              |                     |      |          |       |       |          |       |       |          |        |       |         |        |       |               |  |  |                            |              |                        |                        |
| 1 PLACE   | ± 0.10                        | ± ---  |                              |                     |      |          |       |       |          |       |       |          |        |       |         |        |       |               |  |  |                            |              |                        |                        |
| ANGULAR ±1/2°   |                               |  |                              |                     |      |          |       |       |          |       |       |          |        |       |         |        |       |               |  |  |                            |              |                        |                        |
| DRAWN BY<br>JB INGHAM   | DATE<br>1998/01/14            | TITLE<br>SALES ASSY HDM BACKPLANE POLAR/GUIDE OPTION SOLDER TAIL VERSION   |                              |                     |      |          |       |       |          |       |       |          |        |       |         |        |       |               |  |  |                            |              |                        |                        |
| CHECKED BY<br>SREED   | DATE<br>1998/01/14            | MOLEX INCORPORATED   |                              |                     |      |          |       |       |          |       |       |          |        |       |         |        |       |               |  |  |                            |              |                        |                        |
| APPROVED BY<br>CBIXLER  | DATE<br>1998/01/14            | MATERIAL NO.<br>SEE CHART  | DOCUMENT NO.<br>SD-73944-001 | SHEET NO.<br>1 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



REF. MATERIAL NUMBER 73944-1009  
GUIDE PIN IS IN LOCATION A  
POLARIZING KEY IS IN LOCATION B, POSITION E

REF. MATERIAL NUMBER 73944-1008  
GUIDE PIN IS IN LOCATION B  
POLARIZING KEY IS IN LOCATION A, POSITION E

### MATERIAL NUMBER ASSIGNMENT

73944- \* \* \* \*

| NUMBER | CIRCUIT SIZE | DIM "A" | DIM "B" | DIM "H" |
|--------|--------------|---------|---------|---------|
| 0      | 72           | 31.60   | 22.00   | 2.00    |
| 1      | 144          | 55.60   | 46.00   | 2.00    |
| 2      | 72           | 31.60   | 22.00   | 2.50    |
| 3      | 144          | 55.60   | 46.00   | 2.50    |
| 4      | 72           | 31.60   | 22.00   | 3.00    |
| 5      | 144          | 55.60   | 46.00   | 3.00    |
| 6      | 72           | 31.60   | 22.00   | 3.50    |
| 7      | 144          | 55.60   | 46.00   | 3.50    |

| NUMBER | DIM "M" |
|--------|---------|
| 0      | 5.00    |
| 1      | 5.50    |
| 2      | 6.00    |

| NUMBER | GUIDE POST LOCATION | POLAR KEY POSITION |
|--------|---------------------|--------------------|
| 00     | B                   |                    |
| 01     | A                   | A                  |
| 02     | B                   | B                  |
| 03     | A                   | C                  |
| 04     | B                   | D                  |
| 05     | A                   | E                  |
| 06     | B                   | F                  |
| 07     | A                   | G                  |
| 08     | B                   | H                  |
| 09     | A                   |                    |
| 10     | B                   |                    |
| 11     | A                   |                    |
| 12     | B                   |                    |
| 13     | A                   |                    |
| 14     | B                   |                    |
| 15     | A                   |                    |
| 16     | B                   |                    |
| 17     | A                   |                    |
| 18     | N/A                 | N/A                |

SEE SHEET 1  
EC No. U81577  
DRWN: BINGHAM 98/02/03  
CHK: REED 98/02/03  
APPR: BIXLER 98/02/03

DESCRIPTION  
A

REV

QUALITY SYMBOLS  
MAJOR = 0  
CRITICAL = 0

GENERAL TOLERANCES: (UNLESS SPECIFIED)  
mm INCH  
4 PLACES ±0. ±.  
3 PLACES ±0. ±.  
2 PLACES ±0.N/A ±.  
1 PLACE ±0.N/A ±.  
ANGULAR: ± 1/2°

SCALE 2 : 1  
DESIGN UNITS  mm  INCH

DRAWN BY & DATE  
JBINGHAM 98/01/14

CHECKED BY & DATE  
SREED 98/01/14

APPROVED BY & DATE  
CBIXLER 98/01/14

CAD FILENAME  
S73944X2.DGN

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.

DIMENSIONS:  
 mm  INCH  mm ONLY

SHT REV  
REVISE ON CAD ONLY

TITLE: SALES ASSY, HDM BACKPLANE  
POLAR/GUIDE OPTION  
SOLDER TAIL VERSION

MOLEX MOLEX INCORPORATED

MATERIAL NO. SEE CHART  
DRAWING NO. SD-73944-001  
SHEET NO. 2

SIZE B