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**Part Number:** [0736441101](#)

**Status:** **Active**

**Overview:** [hdm](#)

**Description:** 2.00mm (.079") Pitch HDM® Board-to-Board Backplane Header, Vertical, SMC, Press-Fit, Guide Post Location A, Polarizing Key Position A, 144 Circuits

**Documents:**

[3D Model](#)

[Test Summary \(PDF\)](#)

[Drawing \(PDF\)](#)

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

**Agency Certification**

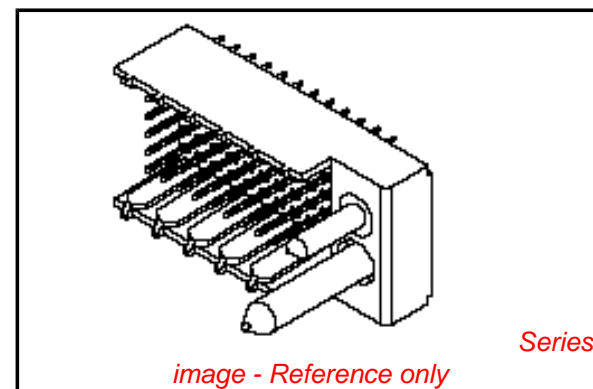
|     |         |
|-----|---------|
| CSA | LR19980 |
| UL  | E29179  |

**General**

|                |                       |
|----------------|-----------------------|
| Product Family | Backplane Connectors  |
| Series         | <a href="#">73644</a> |
| Application    | Backplane             |
| Comments       | Standard Press-Fit    |
| Component Type | PCB Header            |
| Overview       | <a href="#">hdm</a>   |
| 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 | Gold                             |
| 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                    | No                               |
| PCB Retention                  | Yes                              |
| 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) | 2                                |
| Plating min: Termination (µm)  | 0.05                             |



*image - Reference only*

**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**

[73644Series](#)

**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 #                  |
|---|----------------------------|
| Flat Rock Tooling for Pneumatic Press           | <a href="#">0622013700</a> |
| HDM® Backplane Insertion Signal Contact Tool    | <a href="#">0621001400</a> |
| HDM® Backplane Insertion Head for 144 Positions | <a href="#">0622005703</a> |

|                                |                              |
|--------------------------------|------------------------------|
| 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 |

|                 |            |
|-----------------|------------|
| Extraction Tool | 0621001000 |
|-----------------|------------|

### Electrical

|                               |          |
|-------------------------------|----------|
| Current - Maximum per Contact | 1A       |
| Data Rate                     | 1.0 Gbps |
| Real Signals (per 25mm)       | 75       |
| Shielded                      | No       |
| Voltage - Maximum             | 250V AC  |

### Material Info

#### Reference - Drawing Numbers

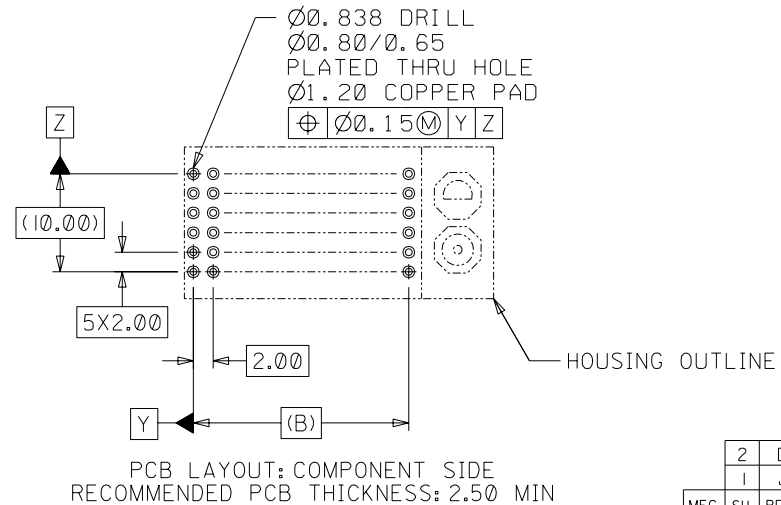
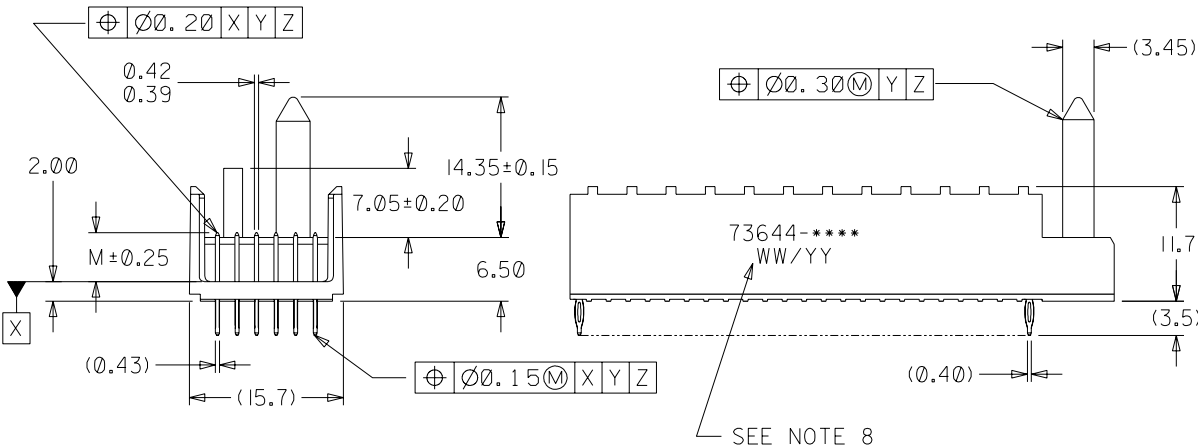
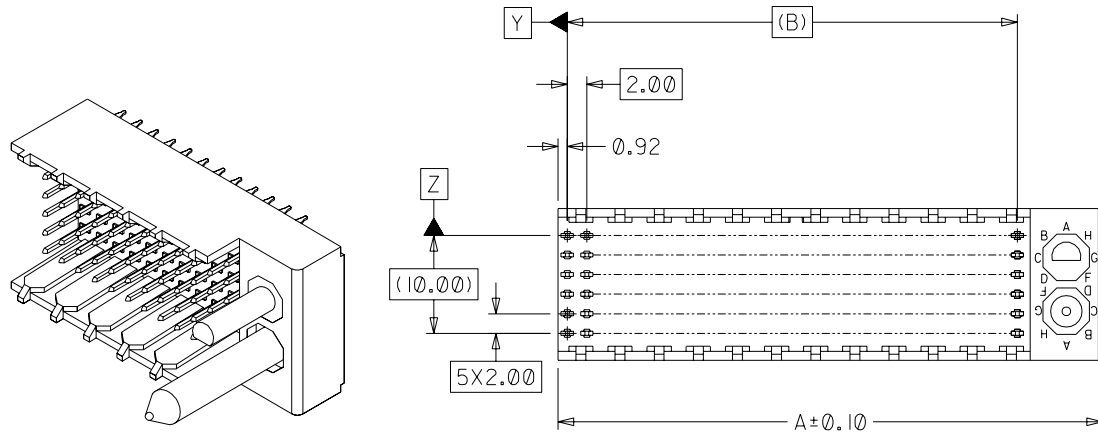
|                         |                |
|-------------------------|----------------|
| Packaging Specification | PK-70873-0818  |
| Sales Drawing           | SDA-73644-**** |

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This document was generated on 05/14/2010

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- NOTES:**
1. MATERIALS: HOUSING - LIQUID CRYSTAL POLYMER (LCP), GLASS-FILLED, UL94V-0, COLOR: BLACK, TERMINAL - PHOSPHOR BRONZE.
  2. FINISHES: SELECTIVE GOLD (Au) IN CONTACT AREA, 0.00076mm MINIMUM THICKNESS; NICKEL (Ni) AND GOLD FLASH OVERALL SELECTIVE GOLD (Au) IN CONTACT AREA, 0.00076mm MIN. THICKNESS; SELECTIVE TIN/LEAD (Sb/Pb) IN TAIL AREA; NICKEL (Ni) OVERALL.
  3. THIS PART CONFORMS TO MOLEX PRODUCT SPECIFICATION PS-73670-9999.
  4. FOR MIXED CONTACT MATING LENGTHS, CONSULT FACTORY FOR AVAILABILITY.
  5. DIMENSIONS ARE IN MILLIMETERS.
  6. FOR SPECIFIC MATERIAL NUMBERS, REFER TO SHEET 2.
  7. PACKAGE PER PK-70873-0818.
  8. PARTS MARKED WITH PART NUMBER AND DATE CODE, ON EITHER SIDE, APPROXIMATELY WHERE SHOWN.



|          |      |
|----------|------|
| 2        | D    |
| 1        | J    |
| MFG. SH. | REV. |

▽ = 0    ▼ = 0    REVISE ONLY ON CAD SYSTEM

|   |                |  |                  |
|---|----------------|--|------------------|
| TITLE                                   |                | SALES ASSY, HDM BACKPLANE<br>MODULE, POLAR/GUIDE OPTION  |                  |
| MOLEX INCORPORATED<br>LISLE, ILL. 60532 |                | SHEET NO.<br>1 OF 2  | DATE<br>96/12/18 |
| PART NO.<br>SEE CHART                   |                | SDA-73644-****   |                  |
| DRWG. BY: JRR                           | CHK'D. BY: SMR | FILE NAME: S73644X1 DGN  | DIV. SIZE: DA B  |
| APP'D. BY: CAB                          | SCALE: 2 : 1   | THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INC. AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION. |                  |

|  |                |   |  |
|--|----------------|---|--|
| DIMENSIONS SHOWN (METRIC) INCH                       |                | UNLESS OTHERWISE SPECIFIED TOLERANCES: ANGULAR ± 1/2° |  |
| 3 PLACE  | ± N/A          | ---   |  |
| 2 PLACE  | ± N/A          | ± 0.05  |  |
| 1 PLACE  | ---            | ± 0.10  |  |
| DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS |                |   |  |
| DRWG. BY: JRR  | CHK'D. BY: SMR |   |  |
| APP'D. BY: CAB                                       | SCALE: 2 : 1   |   |  |

|      |   |      |   |
|------|---|------|---|
| I    | REVISED<br>ECR UDT2000-0348<br>BINGHAM 99/10/12 |      |   |
| H    | REVISED<br>ECR UDT1999-0662<br>BINGHAM 99/05/18 |      |   |
| J    | REVISED<br>ECR UCP2003-2260<br>THOMAS 03/04/25  | G    | REVISED<br>ECR UDT1999-0476<br>BINGHAM 98/12/21 |
| LTR. | REVISIONS                                       | LTR. | REVISIONS                                       |

| MATERIAL NUMBER | NUMBER OF SIGNAL CONTACTS | PLATING                           | DIM "A" | DIM "B" | DIM "M" |
|-----------------|---------------------------|-----------------------------------|---------|---------|---------|
| 73644-00**      | 72                        | SELECTIVE GOLD/GOLD FLASH         | 31.60   | 22.00   | 5.00    |
| 73644-01**      | 72                        | SELECTIVE GOLD/GOLD FLASH         | 31.60   | 22.00   | 5.50    |
| 73644-02**      | 72                        | SELECTIVE GOLD/GOLD FLASH         | 31.60   | 22.00   | 6.00    |
| 73644-10**      | 144                       | SELECTIVE GOLD/GOLD FLASH         | 55.60   | 46.00   | 5.00    |
| 73644-11**      | 144                       | SELECTIVE GOLD/GOLD FLASH         | 55.60   | 46.00   | 5.50    |
| 73644-12**      | 144                       | SELECTIVE GOLD/GOLD FLASH         | 55.60   | 46.00   | 6.00    |
| 73644-20**      | 72                        | SELECTIVE GOLD/SELECTIVE TIN-LEAD | 31.60   | 22.00   | 5.00    |
| 73644-21**      | 72                        | SELECTIVE GOLD/SELECTIVE TIN-LEAD | 31.60   | 22.00   | 5.50    |
| 73644-22**      | 72                        | SELECTIVE GOLD/SELECTIVE TIN-LEAD | 31.60   | 22.00   | 6.00    |
| 73644-30**      | 144                       | SELECTIVE GOLD/SELECTIVE TIN-LEAD | 55.60   | 46.00   | 5.00    |
| 73644-31**      | 144                       | SELECTIVE GOLD/SELECTIVE TIN-LEAD | 55.60   | 46.00   | 5.50    |
| 73644-32**      | 144                       | SELECTIVE GOLD/SELECTIVE TIN-LEAD | 55.60   | 46.00   | 6.00    |

### MATERIAL NUMBER ASSIGNMENT

73644- \* \* \* \*

0 = 72-CIRCUIT, GOLD/GOLD FLASH  
 1 = 144-CIRCUIT, GOLD/GOLD FLASH  
 2 = 72-CIRCUIT, GOLD/TIN-LEAD  
 3 = 144-CIRCUIT, GOLD/TIN-LEAD

0 = 5.00 MATING LENGTH  
 1 = 5.50 MATING LENGTH  
 2 = 6.00 MATING LENGTH

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



REF. MATERIAL NUMBER 73644-0009  
 GUIDE PIN IS IN LOCATION A  
 POLARIZING KEY IS IN LOCATION B, POSITION E

REF. MATERIAL NUMBER 73644-0008  
 GUIDE PIN IS IN LOCATION B  
 POLARIZING KEY IS IN LOCATION A, POSITION E

|   |           |   |       |                           |                    |           |      |                          |   |          |
|---|-----------|---|-------|---------------------------|--------------------|-----------|------|--------------------------|---|----------|
| DIMENSIONS SHOWN (METRIC) INCH                        |           | ▽ = 0   | ▼ = 0 | REVISE ONLY ON CAD SYSTEM |                    |           |      |                          |   |          |
| UNLESS OTHERWISE SPECIFIED TOLERANCES: ANGULAR = 1/2° |           | TITLE   |       |                           |                    |           |      |                          |   |          |
| 3 PLACE ± N/A ---                                     |           | SALES ASSY, HDM BACKPLANE   |       |                           |                    |           |      |                          |   |          |
| 2 PLACE ± N/A ± N/A                                   |           | MODULE, POLAR/GUIDE OPTION  |       |                           |                    |           |      |                          |   |          |
| 1 PLACE --- ± N/A                                     |           | <table border="1"> <tr> <td>MOLEX INCORPORATED</td> <td>SHEET NO.</td> <td>DATE</td> </tr> <tr> <td>LISLE, ILL. 60532 U.S.A.</td> <td>2</td> <td>96/12/18</td> </tr> </table> |       |                           | MOLEX INCORPORATED | SHEET NO. | DATE | LISLE, ILL. 60532 U.S.A. | 2 | 96/12/18 |
| MOLEX INCORPORATED                                    | SHEET NO. | DATE  |       |                           |                    |           |      |                          |   |          |
| LISLE, ILL. 60532 U.S.A.                              | 2         | 96/12/18  |       |                           |                    |           |      |                          |   |          |
| DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS  |           | PART NO. DRWG. NO.  |       |                           |                    |           |      |                          |   |          |
|   |           | SEE CHART SDA-73644-*****   |       |                           |                    |           |      |                          |   |          |
| DRWG. BY: JRR CLK'D. BY: SMR                          |           | FILE NAME: S73644X2.DGN   |       |                           |                    |           |      |                          |   |          |
| APP'D. BY: CAB SCALE: ---:---                         |           | THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INC. AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION.  |       |                           |                    |           |      |                          |   |          |
| LTR. REVISIONS  |           | DIV. DA SIZE B  |       |                           |                    |           |      |                          |   |          |



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