

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

**Part Number:** [0743015201](#)  
**Status:** **Active**  
**Overview:** [hdm](#)  
**Description:** 2.00mm (.079") Pitch HDM® Board-to-Board Backplane Header, Vertical, SMC, Press-Fit, Extended PC Tail, Polar/Guide Option, 144 Circuits

**Documents:**

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

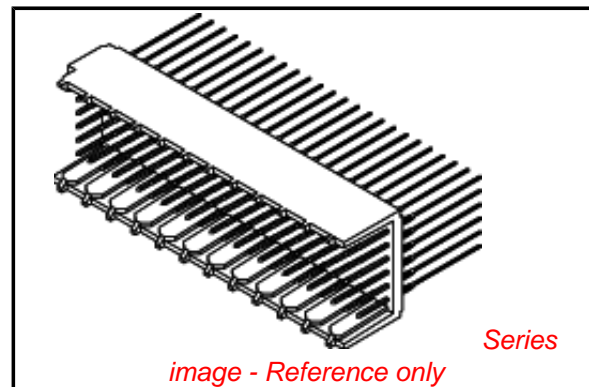
**General**

|                |                       |
|----------------|-----------------------|
| Product Family | Backplane Connectors  |
| Series         | <a href="#">74301</a> |
| Application    | Backplane             |
| 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                               |
| Guide to Mating Part           | No                               |
| Keying to Mating Part          | None                             |
| Material - Metal               | Phosphor Bronze, Stainless Steel |
| Material - Plating Mating      | Gold                             |
| Material - Plating Termination | Tin-Lead                         |
| 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)            | 0.276 In                         |
| PC Tail Length (mm)            | 7.00 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) | 15                               |
| Plating min: Termination (µm)  | 0.375                            |
| 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**



*image - Reference only*

**EU RoHS** **China RoHS**

**Compliance Status**

**Not Reviewed**

**REACH SVHC**

**Not Reviewed**

**Halogen-Free**

**Status**

**Not Reviewed**

**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**

[74301Series](#)

|                               |          |
|-------------------------------|----------|
| 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**

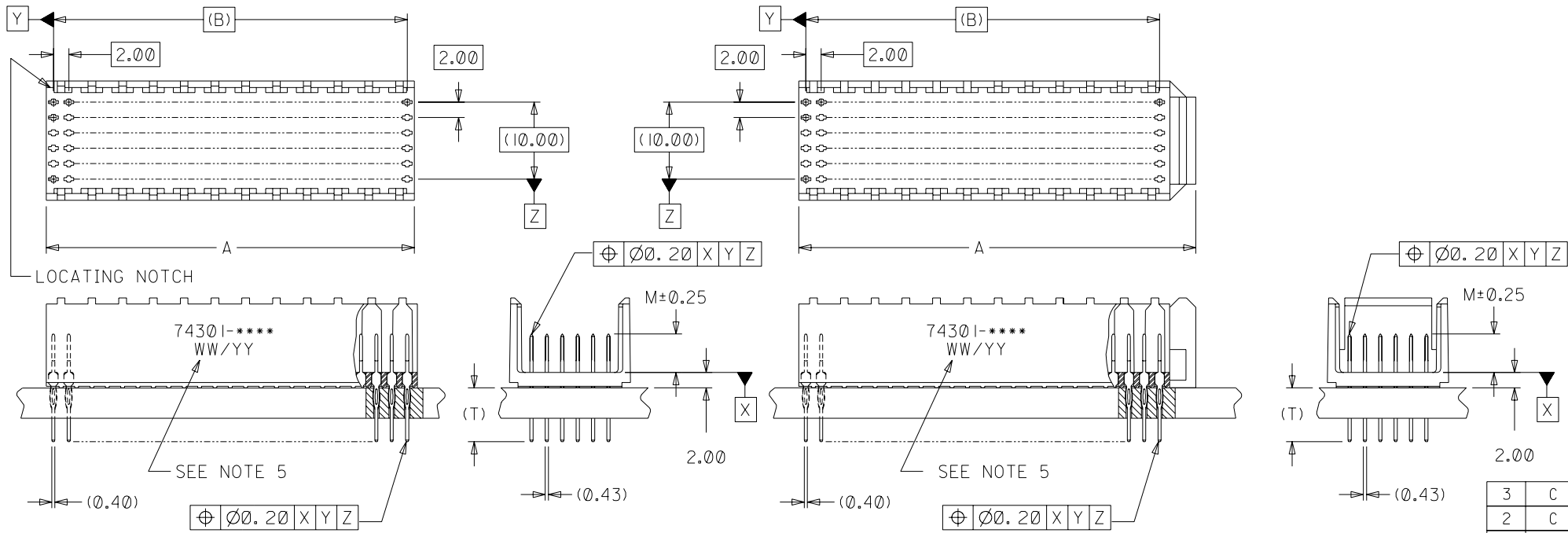
|                         |               |
|-------------------------|---------------|
| Packaging Specification | PK-70873-0868 |
| Sales Drawing           | SD-74301-001  |

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- NOTES:  
 1. MATERIALS: HOUSING-LIQUID CRYSTAL POLYMER (LCP),  
 GLASS-FILLED, UL94V-0, COLOR: BLACK,  
 CONTACT-PHOSPHOR BRONZE.  
 2. FINISH: SELECTIVE GOLD (Au) IN CONTACT AREA,  
 0.00076mm MINIMUM THCKNESS, SELECTIVE TIN/LEAD (Sn/Pb) ON TAILS,  
 NICKEL (Ni) OVERALL.  
 3. THIS PART CONFORMS TO MOLEX PRODUCT SPECIFICATION  
 PS-73670-9999.  
 4. PACKAGED PER PK-70873-0868.  
 5. PARTS MARKED WITH PART NUMBER AND DATE CODE,  
 ON EITHER SIDE, APPROXIMATELY WHERE SHOWN.

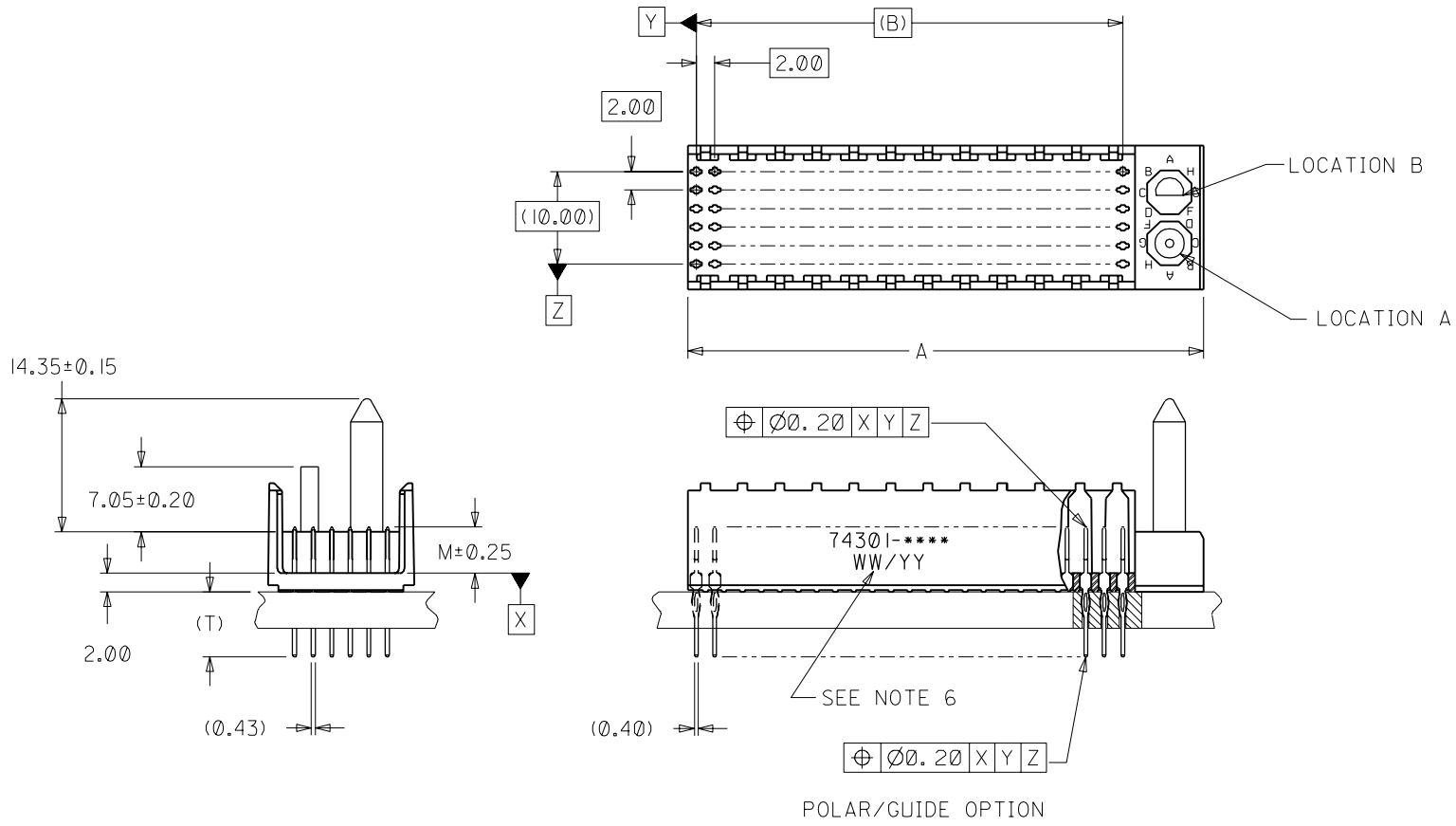


OPEN END OPTION

END WALL OPTION

|   |   |
|---|---|
| 3 | C |
| 2 | C |
| 1 | D |

|                                                                                                         |                                  |                                                         |                                        |                                                                                                                                   |                                                                                      |                             |                                                                                                                      |  |          |          |
|---------------------------------------------------------------------------------------------------------|----------------------------------|---------------------------------------------------------|----------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|-----------------------------|----------------------------------------------------------------------------------------------------------------------|--|----------|----------|
| REVISED<br>EC NO. UCP2003-2260<br>DRWN: THOMAS 03/04/25<br>CHK: BINGHAM 03/04/25<br>APPR: REED 03/04/25 | DESCRIPTION<br>MAJOR<br>CRITICAL | GENERAL TOLERANCES:<br>(UNLESS SPECIFIED)               |                                        | SCALE<br>2 : 1                                                                                                                    | DESIGN UNITS<br><input checked="" type="checkbox"/> mm <input type="checkbox"/> INCH | THIRD ANGLE<br>PROJECTION   | DIMENSIONS:<br><input type="checkbox"/> mm <input type="checkbox"/> INCH <input checked="" type="checkbox"/> mm ONLY |  | SHT<br>3 | REV<br>C |
|                                                                                                         |                                  | 4 PLACES ±0.     ±.                                     | DRAWN BY & DATE<br>JBINGHAM 99/01/21   | TITLE: SALES ASSEMBLY, HDM<br>BACKPLANE CONNECTOR<br>EXTENDED TAIL VERSION                                                        |                                                                                      |                             | REVISION ON<br>CAD ONLY                                                                                              |  |          |          |
|                                                                                                         |                                  | 3 PLACES ±0.     ±.                                     | CHECKED BY & DATE<br>SREED 99/01/21    | MOLEX INCORPORATED                                                                                                                |                                                                                      | REVISE ON<br>CAD ONLY       |                                                                                                                      |  |          |          |
|                                                                                                         |                                  | 2 PLACES ±0.05     ±.                                   | APPROVED BY & DATE<br>CBIXLER 99/01/21 | CAD FILENAME<br>S74301X1.DGN                                                                                                      | MATERIAL NO.<br>SEE CHART                                                            | DRAWING NO.<br>SD-74301-001 | SHEET NO.<br>1 OF 3                                                                                                  |  |          |          |
| 1 PLACE ±0.10     ±.                                                                                    | ANGLUAR: ± 1/2°                  | DRAFT WHERE APPLICABLE MUST<br>REMAIN WITHIN DIMENSIONS |                                        | THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX<br>INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION. |                                                                                      | SIZE<br>B                   |                                                                                                                      |  |          |          |



|                                                                                                                |                                                                  |                                                      |              |                              |                                                                                   |                                                                                                                                |                                     |                                        |                                                                      |
|----------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------|------------------------------------------------------|--------------|------------------------------|-----------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|----------------------------------------|----------------------------------------------------------------------|
| SEE SHEET 1<br>EC NO. UDT2000-0413<br>DRWN: JBINGHAM 99/11/02<br>CHK: SREED 99/11/02<br>APPR: CBIXLER 99/11/02 | QUALITY SYMBOLS<br>MAJOR $\nabla = 0$<br>CRITICAL $\nabla C = 0$ | GENERAL TOLERANCES: (UNLESS SPECIFIED)               |              | SCALE 2 : 1                  | DESIGN UNITS <input checked="" type="checkbox"/> mm <input type="checkbox"/> INCH | DIMENSIONS: <input type="checkbox"/> mm <input type="checkbox"/> INCH <input checked="" type="checkbox"/> mm ONLY              | SHT 1<br>REV 2                      |                                        |                                                                      |
|                                                                                                                |                                                                  | 4 PLACES ±0.                                         | 3 PLACES ±0. | 2 PLACES ±0.05               | 1 PLACE ±0.10                                                                     | DRAWN BY & DATE<br>JBINGHAM 99/01/21                                                                                           | CHECKED BY & DATE<br>SREED 99/01/21 | APPROVED BY & DATE<br>CBIXLER 99/01/21 | TITLE: SALES ASSEMBLY, HDM BACKPLANE CONNECTOR EXTENDED TAIL VERSION |
|                                                                                                                |                                                                  | ANGULAR: ± 1/2°                                      |              | CAD FILENAME<br>S74301X2.DGN |                                                                                   | MATERIAL NO.<br>SEE CHART                                                                                                      |                                     | DRAWING NO.<br>SD-74301-001            |                                                                      |
|                                                                                                                |                                                                  | 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. |                                     |                                        |                                                                      |

# MATERIAL NUMBER ASSIGNMENT

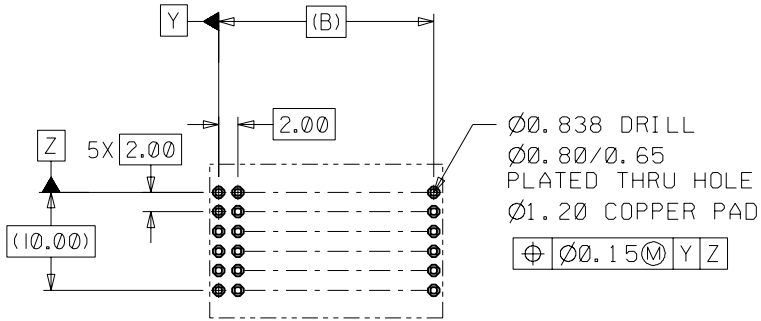
- 0 = 72-CIRCUIT OPEN END
- 1 = 144-CIRCUIT OPEN END
- 2 = 72-CIRCUIT END WALL
- 3 = 144-CIRCUIT END WALL
- 4 = 72-CIRCUIT POALR/GUIDE
- 5 = 144-CIRCUIT POLAR/GUIDE

- 0 = 5.0mm MATING, 7.0mm TAIL
- 1 = 5.5mm MATING, 7.0mm TAIL
- 2 = 6.0mm MATING, 7.0mm TAIL

74301- \* \* \* \*

| PART NUMBER | DIM A | DIM B | DIM M | DIM T |
|-------------|-------|-------|-------|-------|
| 74301-0000  | 23.8  | 22.00 | 5.00  | 7.00  |
| 74301-0100  | 23.8  | 22.00 | 5.50  | 7.00  |
| 74301-0200  | 23.8  | 22.00 | 6.00  | 7.00  |
| 74301-1000  | 47.8  | 46.00 | 5.00  | 7.00  |
| 74301-1100  | 47.8  | 46.00 | 5.50  | 7.00  |
| 74301-1200  | 47.8  | 46.00 | 6.00  | 7.00  |
| 74301-2000  | 27.6  | 22.00 | 5.00  | 7.00  |
| 74301-2100  | 27.6  | 22.00 | 5.50  | 7.00  |
| 74301-2200  | 27.6  | 22.00 | 6.00  | 7.00  |
| 74301-3000  | 51.6  | 46.00 | 5.00  | 7.00  |
| 74301-3100  | 51.6  | 46.00 | 5.50  | 7.00  |
| 74301-3200  | 51.6  | 46.00 | 6.00  | 7.00  |
| 74301-40**  | 31.6  | 22.00 | 5.00  | 7.00  |
| 74301-41**  | 31.6  | 22.00 | 5.50  | 7.00  |
| 74301-42**  | 31.6  | 22.00 | 6.00  | 7.00  |
| 74301-50**  | 55.6  | 46.00 | 5.00  | 7.00  |
| 74301-51**  | 55.6  | 46.00 | 5.50  | 7.00  |
| 74301-52**  | 55.6  | 46.00 | 6.00  | 7.00  |

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



PCB LAYOUT: COMPONENT SIDE  
RECOMMENDED PCB THICKNESS: 2.50 MIN.

|                                                                                                               |                                              |                                                      |                 |                              |                                                                                   |                                                                                                                                |     |     |  |
|---------------------------------------------------------------------------------------------------------------|----------------------------------------------|------------------------------------------------------|-----------------|------------------------------|-----------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------|-----|-----|--|
| SEE SHEET 1<br>EC NO. LDT2000-0413<br>DRWNS:JBINGHAM 99/11/02<br>CHK: SREED 99/11/02<br>APPR:CBIXLER 99/11/02 | QUALITY SYMBOLS<br>MAJOR = 0<br>CRITICAL = 0 | GENERAL TOLERANCES: (UNLESS SPECIFIED)               |                 | SCALE 2 : 1                  | DESIGN UNITS <input checked="" type="checkbox"/> mm <input type="checkbox"/> INCH | DIMENSIONS: <input type="checkbox"/> mm <input type="checkbox"/> INCH <input checked="" type="checkbox"/> mm ONLY              | SHT | REV |  |
|                                                                                                               |                                              |                                                      |                 | 4 PLACES ±0. ±.              | DRAWN BY & DATE<br>JBINGHAM 99/01/21                                              | TITLE: SALES ASSEMBLY, HDM BACKPLANE CONNECTOR EXTENDED TAIL VERSION                                                           |     |     |  |
|                                                                                                               |                                              |                                                      |                 | 3 PLACES ±0. ±.              | CHECKED BY & DATE<br>SREED 99/01/21                                               | MOLEX INCORPORATED                                                                                                             |     |     |  |
|                                                                                                               |                                              |                                                      |                 | 2 PLACES ±0.05 ±.            | APPROVED BY & DATE<br>CBIXLER 99/01/21                                            | MATERIAL NO. SEE CHART DRAWING NO. SD-74301-001 SHEET NO. 3                                                                    |     |     |  |
|                                                                                                               |                                              | 1 PLACE ±0.10 ±.                                     | ANGULAR: ± 1/2° | CAD FILENAME<br>S74301X3.DGN |                                                                                   | THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION. |     |     |  |
|                                                                                                               |                                              | DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS |                 | SIZE B                       |                                                                                   |                                                                                                                                |     |     |  |