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Part Number:

0878333420

Status:

Active

Overview:

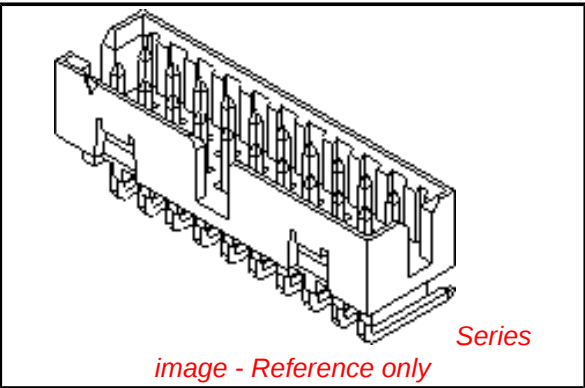
milligrid

Description:

2.00mm (.079") Pitch Milli-Grid™ Header, Right Angle, Shrouded, Lead-free, 34 Circuits, 0.38µm (15µ") Gold (Au) Plating, without PCB Locator, with Locking Windows, Center Polarization Slot, Tube

|                               |                                                          |
|-------------------------------|----------------------------------------------------------|
| Documents:                    |                                                          |
| <a href="#">3D Model</a>      | <a href="#">Product Specification PS-87831-027 (PDF)</a> |
| <a href="#">Drawing (PDF)</a> | <a href="#">RoHS Certificate of Compliance (PDF)</a>     |

|                                |                                                      |
|--------------------------------|------------------------------------------------------|
| Agency Certification           |                                                      |
| CSA                            | LR19980                                              |
| UL                             | E29179                                               |
| General                        |                                                      |
| Product Family                 | PCB Headers                                          |
| Series                         | 87833                                                |
| Application                    | Wire-to-Board                                        |
| Comments                       | Contact Molex for application in automotive industry |
| Overview                       | milligrid                                            |
| Product Name                   | Milli-Grid™                                          |
| Physical                       |                                                      |
| Breakaway                      | No                                                   |
| Circuits (Loaded)              | 34                                                   |
| Circuits (maximum)             | 34                                                   |
| Color - Resin                  | Black                                                |
| Durability (mating cycles max) | 100                                                  |
| First Mate / Last Break        | No                                                   |
| Flammability                   | 94V-0                                                |
| Glow-Wire Compliant            | No                                                   |
| Guide to Mating Part           | No                                                   |
| Keying to Mating Part          | None                                                 |
| Lock to Mating Part            | Yes                                                  |
| Material - Metal               | Phosphor Bronze                                      |
| Material - Plating Mating      | Gold                                                 |
| Material - Plating Termination | Tin                                                  |
| Material - Resin               | Nylon                                                |
| Number of Rows                 | 2                                                    |
| Orientation                    | Right Angle                                          |
| PC Tail Length (in)            | 0.085 In                                             |
| PC Tail Length (mm)            | 2.16 mm                                              |
| PCB Locator                    | No                                                   |
| PCB Retention                  | None                                                 |
| PCB Thickness Recommended (in) | 0.062 In                                             |
| PCB Thickness Recommended (mm) | 1.60 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)      | 15                                                   |
| Plating min: Mating (µm)       | 0.38                                                 |
| Plating min: Termination (µin) | 75                                                   |
| Plating min: Termination (µm)  | 1.88                                                 |



EU RoHS

ELV and RoHS

Compliant

REACH SVHC

Contains SVHC: No

Halogen-Free

Status

Not Halogen-Free

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.

China RoHS

Search Parts in this Series

87833Series

Mates With

50394 Wire-to-Board Terminals. 51110 Wire-to-Board Crimp Housing. 87568 Wire-to-Board IDT Housings. 79107 Board-to-Board Top Entry Through Hole Receptacle. 79108 Board-to-Board FFC/FPC Top Entry Through Hole Receptacle. L

|                                |                 |
|--------------------------------|-----------------|
| Polarized to Mating Part       | Side Slots (2)  |
| Polarized to PCB               | No              |
| Shrouded                       | Fully           |
| Stackable                      | No              |
| Surface Mount Compatible (SMC) | Yes             |
| Temperature Range - Operating  | -55°C to +105°C |
| Termination Interface: Style   | Through Hole    |

**Electrical**

|                               |      |
|-------------------------------|------|
| Current - Maximum per Contact | 2A   |
| Voltage - Maximum             | 125V |

**Solder Process Data**

|                                                |                              |
|------------------------------------------------|------------------------------|
| Duration at Max. Process Temperature (seconds) | 11                           |
| Lead-free Process Capability                   | SMC & Wave Capable (TH only) |
| Max. Cycles at Max. Process Temperature        | 1                            |
| Process Temperature max. C                     | 265                          |

**Material Info**

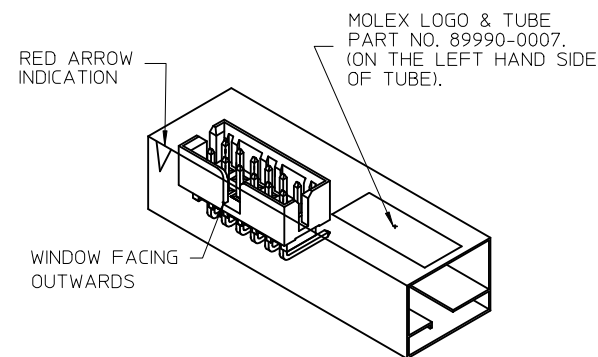
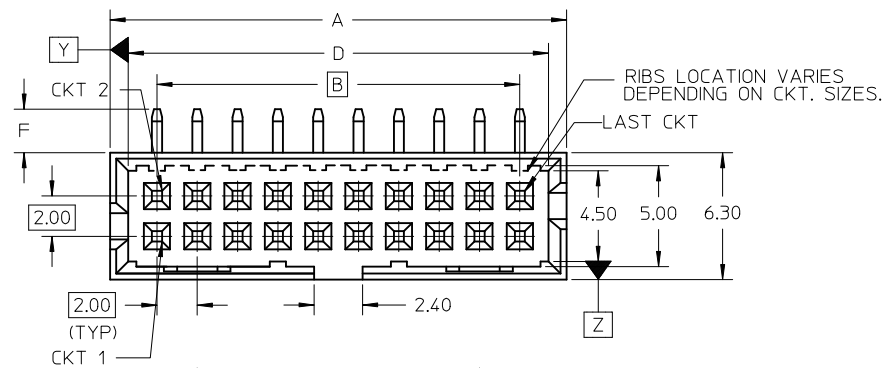
**Reference - Drawing Numbers**

|                       |              |
|-----------------------|--------------|
| Product Specification | PS-87831-027 |
| Sales Drawing         | SD-87833-010 |

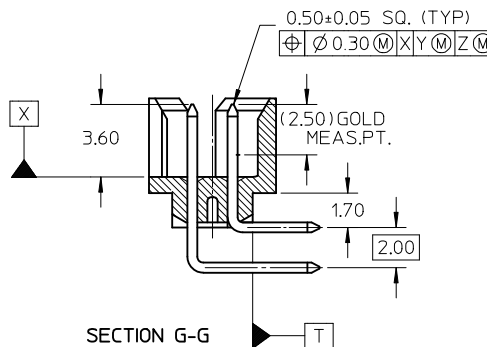
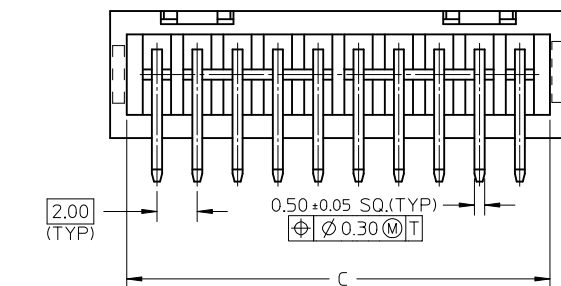
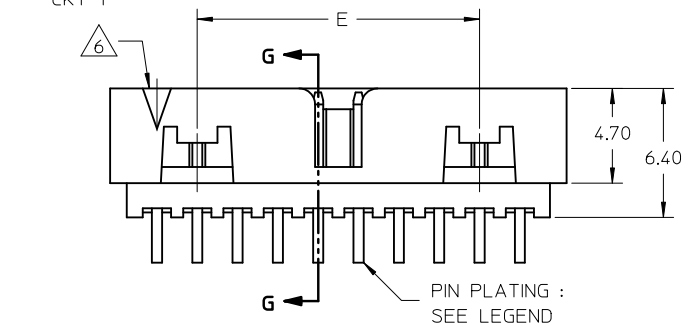
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10 9 8 7 6 5 4 3 2 1

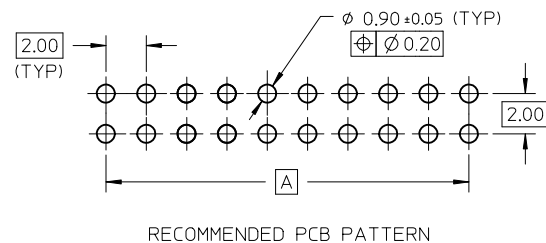


REF: ORIENTATION OF PART IN TUBE  
(FOR THE REFERENCE OF PART/TUBE ASSEMBLY)



#### NOTES:

1. FOR ILLUSTRATION PURPOSES, 20 CIRCUIT SIZE WAFER IS SHOWN.
2. MATERIAL :  
HOUSING : NYLON 46, UL94V-0, COLOR BLACK.  
PIN : 0.50MM SQ.PHOSPHOR BRONZE.
3. PRODUCT SPECIFICATION PS-87831-027 APPLIES.
4. NO CENTRE POLARIZATION SLOT FOR CKT SIZE 4 AND 6.
5. NO SIDE LOCKING SLOT FROM 4 TO 12 CKT SIZE.
6. CKT 4 & 6 HAS NO IDENTIFICATION TAG.
7. THIS HEADER MATES WITH MOLEX:  
a) CRIMP RECEPTACLE HOUSING, 51110 SERIES WITH CRIMP TERMINAL, 50394 SERIES.  
b) 2MM MILLIGRID DUAL ROW IDT, 87568 SERIES.
8. PARTS TO BE PACKED IN TUBE WITH MOISTURE BARRIER BAG.
9. PLATING SPECIFICATION REFERRED TO SHEET 2.



|                                                                                        |                                                       |                                                                                                     |                                                            |       |                            |                   |                    |                                                             |                                                                                                                                  |                              |                     |  |
|----------------------------------------------------------------------------------------|-------------------------------------------------------|-----------------------------------------------------------------------------------------------------|------------------------------------------------------------|-------|----------------------------|-------------------|--------------------|-------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------|------------------------------|---------------------|--|
| ADD 87833-66/6720<br>EC NO: S2010-0699<br>DRWN:SKANG<br>CHKD:ATSEE<br>APPR:MLONG<br>B4 | DESCRIPTION<br>2010/02/18<br>2010/04/19<br>2010/04/22 | QUALITY SYMBOLS<br><div>F<sub>A</sub>=0</div> <div>F<sub>C</sub>=0</div> <div>F<sub>P</sub>=0</div> | GENERAL TOLERANCES (UNLESS SPECIFIED)                      |       | DIMENSION STYLE<br>MM ONLY |                   | SCALE<br>NTS       | DESIGN UNITS<br>METRIC                                      | THIRD ANGLE<br>PROJECTION                                                                                                        |                              |                     |  |
|                                                                                        |                                                       |                                                                                                     | 4 PLACES<br>3 PLACES<br>2 PLACES<br>1 PLACE                | mm    | INCH                       | DRAWN BY<br>ATSEE | DATE<br>2003/10/23 | TITLE<br>MGRID, SHROUDED HEADER<br>W/SLOT AND STANDOFF, R/A | MOLEX<br>MOLEX INCORPORATED                                                                                                      | DOCUMENT NO.<br>SD-87833-010 | SHEET NO.<br>1 OF 3 |  |
|                                                                                        |                                                       |                                                                                                     |                                                            | ± --- | ± ---                      | CHECKED BY        | DATE               |                                                             |                                                                                                                                  |                              |                     |  |
|                                                                                        |                                                       |                                                                                                     |                                                            | ± --- | ± ---                      | KCL ING           | 2003/11/07         |                                                             |                                                                                                                                  |                              |                     |  |
|                                                                                        |                                                       |                                                                                                     |                                                            | ± --- | ± ---                      | APPROVED BY       | DATE               |                                                             |                                                                                                                                  |                              |                     |  |
|                                                                                        |                                                       |                                                                                                     |                                                            | ± --- | ± ---                      | MLONG             | 2010/01/05         |                                                             |                                                                                                                                  |                              |                     |  |
|                                                                                        |                                                       |                                                                                                     | ANGULAR ± 3 °                                              |       | MATERIAL NO.               |                   | SEE TABLE          |                                                             |                                                                                                                                  |                              |                     |  |
|                                                                                        |                                                       |                                                                                                     | DRAFT WHERE APPLICABLE<br>MUST REMAIN<br>WITHIN DIMENSIONS |       |                            |                   | SIZE<br>A3         |                                                             | THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX<br>INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION |                              |                     |  |

9 8 7 6 5 4 3 2 1

|   |                                                                                                                   |   |   |   |   |                                      |                                                            |                   |                            |                                                                                                                               |                                                    |                        |                        |                  |             |
|---|-------------------------------------------------------------------------------------------------------------------|---|---|---|---|--------------------------------------|------------------------------------------------------------|-------------------|----------------------------|-------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------|------------------------|------------------------|------------------|-------------|
|   | 10                                                                                                                | 9 | 8 | 7 | 6 | 5                                    | 4                                                          | 3                 | 2                          | 1                                                                                                                             |                                                    |                        |                        |                  |             |
| F | PLS REFER TO PART 87833-**-3* FOR CENTER LOCKING SLOT OPTION.                                                     |   |   |   |   | PART NO.                             | CKT SIZE                                                   | VOID PIN LOCATION | DIMENSION                  |                                                                                                                               |                                                    |                        |                        | 9 PLATING OPTION |             |
|   |                                                                                                                   |   |   |   |   | A                                    | B                                                          | C                 | D                          | E                                                                                                                             | F                                                  |                        |                        |                  |             |
| E |                                                                                                                   |   |   |   |   | 87833-04**                           | 4                                                          | -                 | 6.65                       | 2.00                                                                                                                          | 5.00                                               | 4.85                   | -----                  | 2.16             | 19,20 OR 21 |
|   |                                                                                                                   |   |   |   |   | 87833-06**                           | 6                                                          | -                 | 8.65                       | 4.00                                                                                                                          | 7.00                                               | 6.85                   | -----                  |                  |             |
| D |                                                                                                                   |   |   |   |   | 87833-08**                           | 8                                                          | -                 | 10.65                      | 6.00                                                                                                                          | 9.00                                               | 8.85                   | -----                  | 19,20 OR 21      |             |
|   |                                                                                                                   |   |   |   |   | 87833-10**                           | 10                                                         | -                 | 12.65                      | 8.00                                                                                                                          | 11.00                                              | 10.85                  | -----                  |                  |             |
| C |                                                                                                                   |   |   |   |   | 87833-12**                           | 12                                                         | -                 | 14.65                      | 10.00                                                                                                                         | 13.00                                              | 12.85                  | -----                  | 20               |             |
|   |                                                                                                                   |   |   |   |   | 87833-14**                           | 14                                                         | -                 | 16.65                      | 12.00                                                                                                                         | 15.00                                              | 14.85                  | 8.00                   |                  |             |
| B |                                                                                                                   |   |   |   |   | 87833-16**                           | 16                                                         | -                 | 18.65                      | 14.00                                                                                                                         | 17.00                                              | 16.85                  | 10.00                  | 3.18             | 20 OR 21    |
|   |                                                                                                                   |   |   |   |   | 87833-18**                           | 18                                                         | -                 | 20.65                      | 16.00                                                                                                                         | 19.00                                              | 18.85                  | 12.00                  |                  |             |
| A |                                                                                                                   |   |   |   |   | 87833-20**                           | 20                                                         | -                 | 22.65                      | 18.00                                                                                                                         | 21.00                                              | 20.85                  | 14.00                  | 20               |             |
|   |                                                                                                                   |   |   |   |   | 87833-22**                           | 22                                                         | -                 | 24.65                      | 20.00                                                                                                                         | 23.00                                              | 22.85                  | 16.00                  |                  |             |
|   |                                                                                                                   |   |   |   |   | 87833-24**                           | 24                                                         | -                 | 26.65                      | 22.00                                                                                                                         | 25.00                                              | 24.85                  | 18.00                  | 20               |             |
|   |                                                                                                                   |   |   |   |   | 87833-26**                           | 26                                                         | -                 | 28.65                      | 24.00                                                                                                                         | 27.00                                              | 26.85                  | 20.00                  |                  |             |
|   |                                                                                                                   |   |   |   |   | 87833-28**                           | 28                                                         | -                 | 30.65                      | 26.00                                                                                                                         | 29.00                                              | 28.85                  | 22.00                  | 20               |             |
|   |                                                                                                                   |   |   |   |   | 87833-30**                           | 30                                                         | -                 | 32.65                      | 28.00                                                                                                                         | 31.00                                              | 30.85                  | 24.00                  |                  |             |
|   |                                                                                                                   |   |   |   |   | 87833-32**                           | 32                                                         | -                 | 34.65                      | 30.00                                                                                                                         | 33.00                                              | 32.85                  | 26.00                  | 20               |             |
|   |                                                                                                                   |   |   |   |   | 87833-34**                           | 34                                                         | -                 | 36.65                      | 32.00                                                                                                                         | 35.00                                              | 34.85                  | 28.00                  |                  |             |
|   |                                                                                                                   |   |   |   |   | 87833-36**                           | 36                                                         | -                 | 38.65                      | 34.00                                                                                                                         | 37.00                                              | 36.85                  | 30.00                  | 20               |             |
|   |                                                                                                                   |   |   |   |   | 87833-38**                           | 38                                                         | -                 | 40.65                      | 36.00                                                                                                                         | 39.00                                              | 38.85                  | 32.00                  |                  |             |
|   |                                                                                                                   |   |   |   |   | 87833-40**                           | 40                                                         | -                 | 42.65                      | 38.00                                                                                                                         | 41.00                                              | 40.85                  | 34.00                  | 20               |             |
|   |                                                                                                                   |   |   |   |   | 87833-42**                           | 42                                                         | -                 | 44.65                      | 40.00                                                                                                                         | 43.00                                              | 42.85                  | 36.00                  |                  |             |
|   |                                                                                                                   |   |   |   |   | 87833-44**                           | 44                                                         | -                 | 46.65                      | 42.00                                                                                                                         | 45.00                                              | 44.85                  | 38.00                  | 20               |             |
|   |                                                                                                                   |   |   |   |   | 87833-46**                           | 46                                                         | -                 | 48.65                      | 44.00                                                                                                                         | 47.00                                              | 46.85                  | 40.00                  |                  |             |
|   |                                                                                                                   |   |   |   |   | 87833-48**                           | 48                                                         | -                 | 50.65                      | 46.00                                                                                                                         | 49.00                                              | 48.85                  | 42.00                  | 20               |             |
|   |                                                                                                                   |   |   |   |   | 87833-50**                           | 50                                                         | -                 | 52.65                      | 48.00                                                                                                                         | 51.00                                              | 50.85                  | 44.00                  |                  |             |
|   |                                                                                                                   |   |   |   |   | 87833-7000                           | 34                                                         | 21                | 36.65                      | 32.00                                                                                                                         | 35.00                                              | 34.85                  | 28.00                  | 20               |             |
|   |                                                                                                                   |   |   |   |   | 87833-5121                           | 26                                                         | 14                | 28.65                      | 24.00                                                                                                                         | 27.00                                              | 26.85                  | 20.00                  |                  |             |
|   |                                                                                                                   |   |   |   |   | 87833-5120                           | 10                                                         | 7                 | 12.65                      | 8.00                                                                                                                          | 11.00                                              | 10.85                  | -----                  | 20               |             |
|   |                                                                                                                   |   |   |   |   | 87833-5520                           | 40                                                         | 21                | 42.65                      | 38.00                                                                                                                         | 41.00                                              | 40.85                  | 34.00                  |                  |             |
|   |                                                                                                                   |   |   |   |   | 87833-5620                           | 20                                                         | 14                | 22.65                      | 18.00                                                                                                                         | 21.00                                              | 20.85                  | 14.00                  | 20               |             |
|   |                                                                                                                   |   |   |   |   | 87833-5720                           | 24                                                         | 13                | 26.65                      | 22.00                                                                                                                         | 25.00                                              | 24.85                  | 18.00                  |                  |             |
|   |                                                                                                                   |   |   |   |   | 87833-5820                           | 14                                                         | 1                 | 16.65                      | 12.00                                                                                                                         | 15.00                                              | 14.85                  | 8.00                   | 20               |             |
|   |                                                                                                                   |   |   |   |   | 87833-63**                           | 8                                                          | -                 | 10.65                      | 6.00                                                                                                                          | 9.00                                               | 8.85                   | -----                  |                  |             |
|   |                                                                                                                   |   |   |   |   | 87833-53**                           | 14                                                         | -                 | 16.65                      | 12.00                                                                                                                         | 15.00                                              | 14.85                  | 8.00                   | 20               |             |
|   |                                                                                                                   |   |   |   |   | 87833-5420                           | 34                                                         | -                 | 36.65                      | 32.00                                                                                                                         | 35.00                                              | 34.85                  | 28.00                  |                  |             |
|   |                                                                                                                   |   |   |   |   | 87833-5920                           | 4                                                          | -                 | 6.65                       | 2.00                                                                                                                          | 5.00                                               | 4.85                   | -----                  | 20               |             |
|   |                                                                                                                   |   |   |   |   | 87833-6020                           | 12                                                         | -                 | 14.65                      | 10.00                                                                                                                         | 13.00                                              | 12.85                  | -----                  |                  |             |
|   |                                                                                                                   |   |   |   |   | 87833-6120                           | 16                                                         | -                 | 18.65                      | 14.00                                                                                                                         | 17.00                                              | 16.85                  | 10.00                  | 20               |             |
|   |                                                                                                                   |   |   |   |   | 87833-6220                           | 18                                                         | -                 | 20.65                      | 16.00                                                                                                                         | 19.00                                              | 18.85                  | 12.00                  |                  |             |
|   |                                                                                                                   |   |   |   |   | 87833-6420                           | 6                                                          | -                 | 8.65                       | 4.00                                                                                                                          | 7.00                                               | 6.85                   | -                      | 20               |             |
|   |                                                                                                                   |   |   |   |   | 87833-6520                           | 20                                                         | -                 | 22.65                      | 18.00                                                                                                                         | 21.00                                              | 20.85                  | 14.00                  |                  |             |
|   |                                                                                                                   |   |   |   |   |                                      |                                                            |                   |                            |                                                                                                                               |                                                    |                        |                        |                  |             |
| A | ADD 87833-66/6720<br>EC NO: S2010-0699<br>DRWN:SKANG 2010/02/18<br>CHKD:ATSEE 2010/04/19<br>APPR:MLONG 2010/04/22 |   |   |   |   | QUALITY SYMBOLS<br>F=0<br>F=0<br>F=0 | GENERAL TOLERANCES (UNLESS SPECIFIED)                      |                   | DIMENSION STYLE<br>MM ONLY |                                                                                                                               | SCALE<br>NTS                                       | DESIGN UNITS<br>METRIC | THIRD ANGLE PROJECTION |                  |             |
|   |                                                                                                                   |   |   |   |   |                                      | DRAFT WHERE APPLICABLE<br>MUST REMAIN<br>WITHIN DIMENSIONS |                   | SEE TABLE                  |                                                                                                                               | MGRID, SHROUDED HEADER<br>W/SLOT AND STANDOFF, R/A |                        |                        |                  |             |
|   |                                                                                                                   |   |   |   |   | B4                                   | REV                                                        | MATERIAL NO.      |                            | DOCUMENT NO.                                                                                                                  |                                                    | SHEET NO.              |                        |                  |             |
|   |                                                                                                                   |   |   |   |   |                                      |                                                            | SIZE<br>A3        |                            | THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION |                                                    |                        |                        |                  |             |
|   |                                                                                                                   |   |   |   |   |                                      |                                                            |                   |                            |                                                                                                                               |                                                    |                        |                        |                  |             |

