

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

**Part Number:** [0785000001](#)  
**Status:** **Active**  
**Overview:** [micro\\_sata](#)  
**Description:** 1.27mm (.050") Pitch Micro Serial ATA Device Receptacle for 1.8" SSD/HDD, SMT, Vertical, with Pegs and Kapton Tape, 16 Circuits, EmbossedTape on Reel, Lead free

**Documents:**

[Drawing \(PDF\)](#) [RoHS Certificate of Compliance \(PDF\)](#)  
[Product Specification PS-78500-001 \(PDF\)](#)

**Agency Certification**

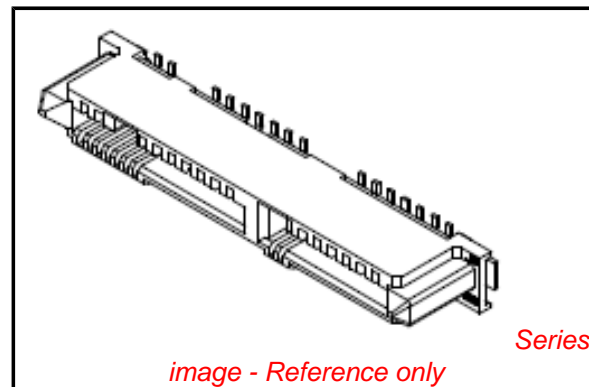
CSA LR19980  
 UL E29179

**General**

Product Family PCB Receptacles  
 Series [78500](#)  
 Application Board-to-Board  
 Comments Straight connector base; connector width: 4.15mm (.172")  
 Overview [micro\\_sata](#)  
 Product Name Micro Serial ATA, Serial ATA

**Physical**

Circuits (Loaded) 16  
 Circuits (maximum) 16  
 Color - Resin Black  
 Durability (mating cycles max) 500  
 Flammability 94V-0  
 Glow-Wire Compliant No  
 Guide to Mating Part Yes  
 Keying to Mating Part Yes  
 Lock to Mating Part No  
 Material - Metal Copper Alloy  
 Material - Plating Mating Gold  
 Material - Plating Termination Tin  
 Material - Resin High Temperature Thermoplastic  
 Number of Rows 1  
 Orientation Vertical  
 PCB Locator Yes  
 PCB Retention Yes  
 Packaging Type Embossed Tape on Reel  
 Pitch - Mating Interface (in) 0.050 In  
 Pitch - Mating Interface (mm) 1.27 mm  
 Pitch - Term. Interface (in) 0.050 In  
 Pitch - Term. Interface (mm) 1.27 mm  
 Plating min: Mating (µin) 30  
 Plating min: Mating (µm) 0.76  
 Plating min: Termination (µin) 100  
 Plating min: Termination (µm) 2.54  
 Polarized to Mating Part Yes  
 Polarized to PCB Yes  
 Stackable No  
 Temperature Range - Operating 0°C to +55°C  
 Termination Interface: Style Surface Mount



*image - Reference only*

**EU RoHS**

**ELV and RoHS Compliant**  
**REACH SVHC Not Reviewed**  
**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**

[78500Series](#)

**Mates With**

[78103](#) , [78283](#) and [78285](#) Micro SATA Device Plugs

**Electrical**

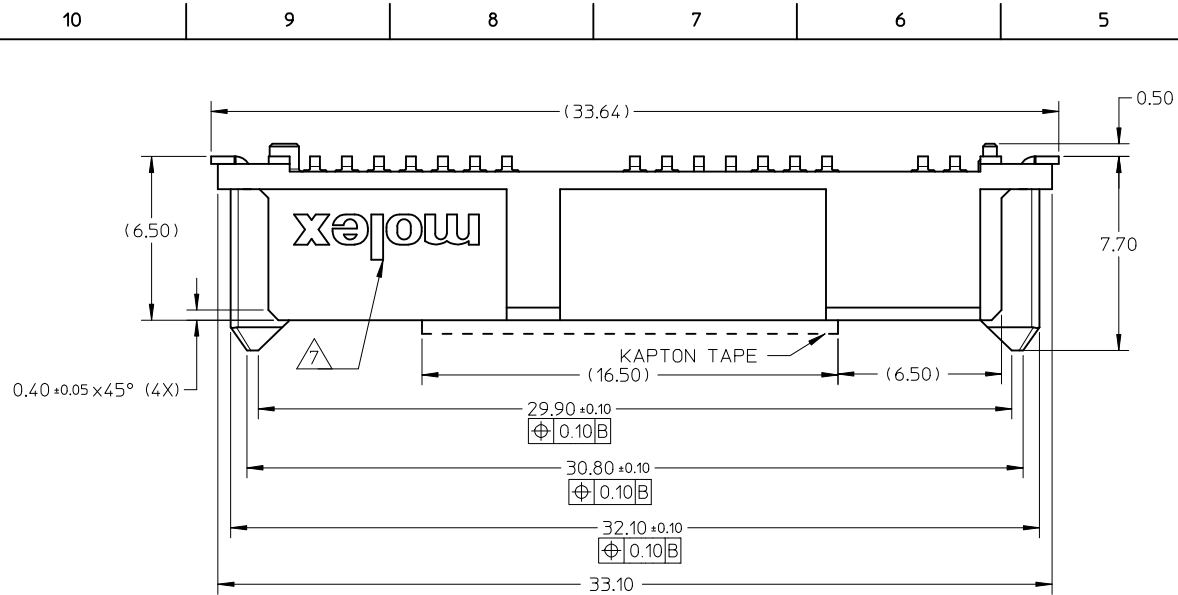
|                               |      |
|-------------------------------|------|
| Current - Maximum per Contact | 1.5A |
| Grounding to PCB              | Yes  |
| Voltage - Maximum             | 30V  |

**Material Info****Reference - Drawing Numbers**

|                         |              |
|-------------------------|--------------|
| Packaging Specification | PK-78500-001 |
| Product Specification   | PS-78500-001 |
| Sales Drawing           | SD-78500-001 |

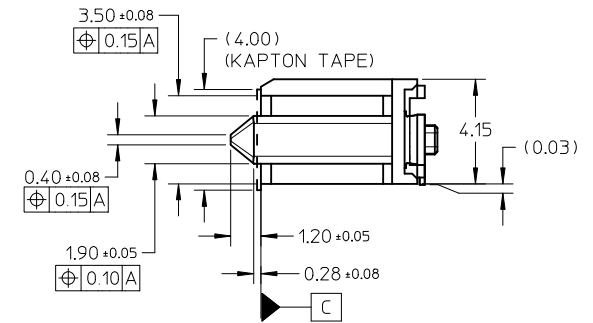
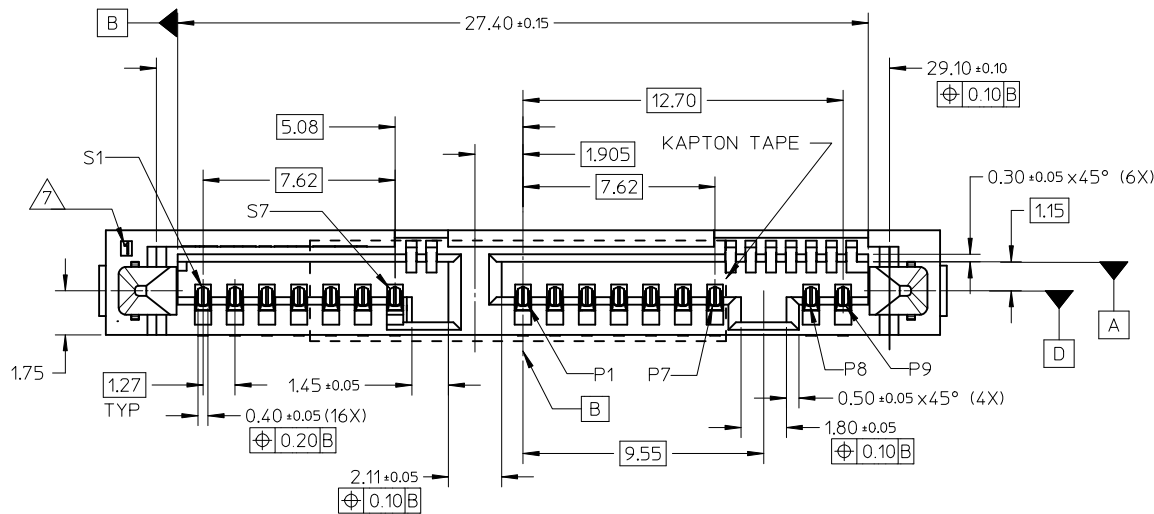
This document was generated on 05/21/2010

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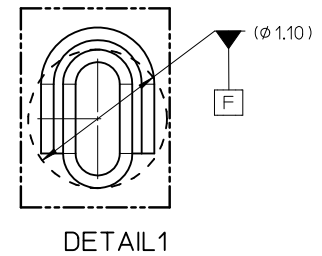
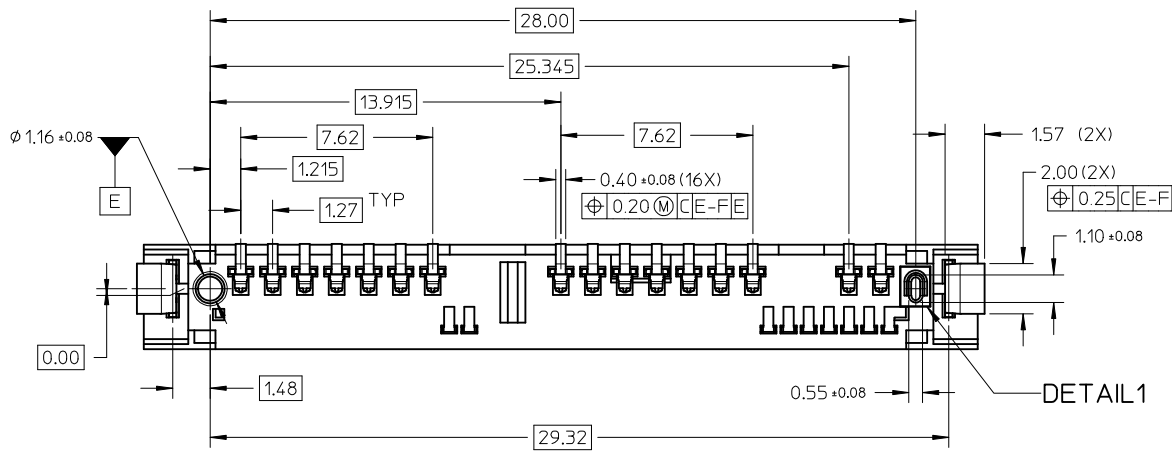
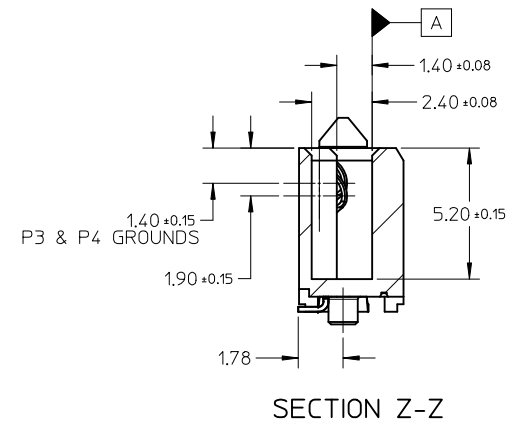
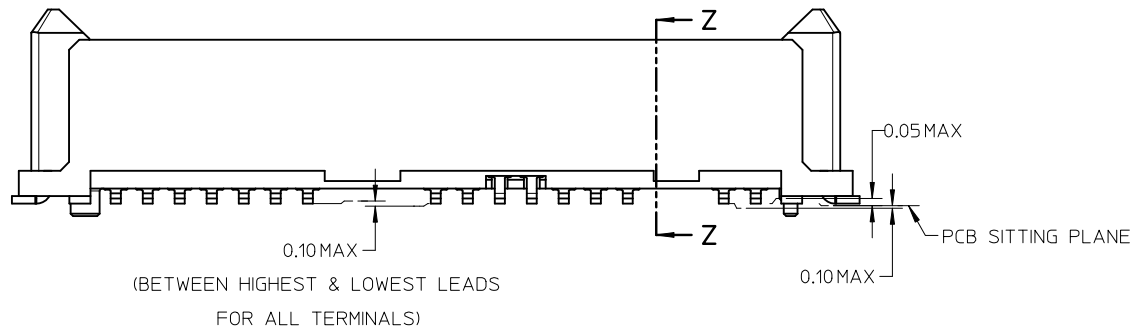
NOTES:

- MATERIAL :  
HOUSING: LCP, GLASS FILLED, UL 94V-0, BLACK  
TERMINAL/SOLDER TAB : COPPER ALLOY
- PLATING :  
TERMINAL :  
- CONTACT :0.764µm MIN. SELECTIVE GOLD OVER  
1.27µm MIN. NICKEL UNDERPLATE  
- SOLDER TAIL :2.54µm MIN. TIN OVER  
1.27µm MIN. NICKEL UNDERPLATE  
SOLDER TAB : 2.54µm MIN. TIN OVER  
1.91µm MIN. NICKEL UNDERPLATE
- PRODUCT SPECIFICATION : PS-78500-001
- PACKAGING SPECIFICATION : PK-78500-001
- MATES WITH : MOLEX MICRO SATA PLUG
- THIS PRODUCT IS COMPLIANT TO RoHS DIRECTIVE WITH THE FOLLOWING BANNED SUBSTANCES - LEAD, MERCURY, CADMIUM, HEXAVALENT CHROMIUM, POLYBROMINATED BIPHENYLS AND POLYBROMINATED DIPHENYLS ETHERS.  
△ MOLEX LOGO AND CAVITY NUMBER LOCATED APPROXIMATELY AS SHOWN
- NON FUNCTIONAL CORING MAY VARY



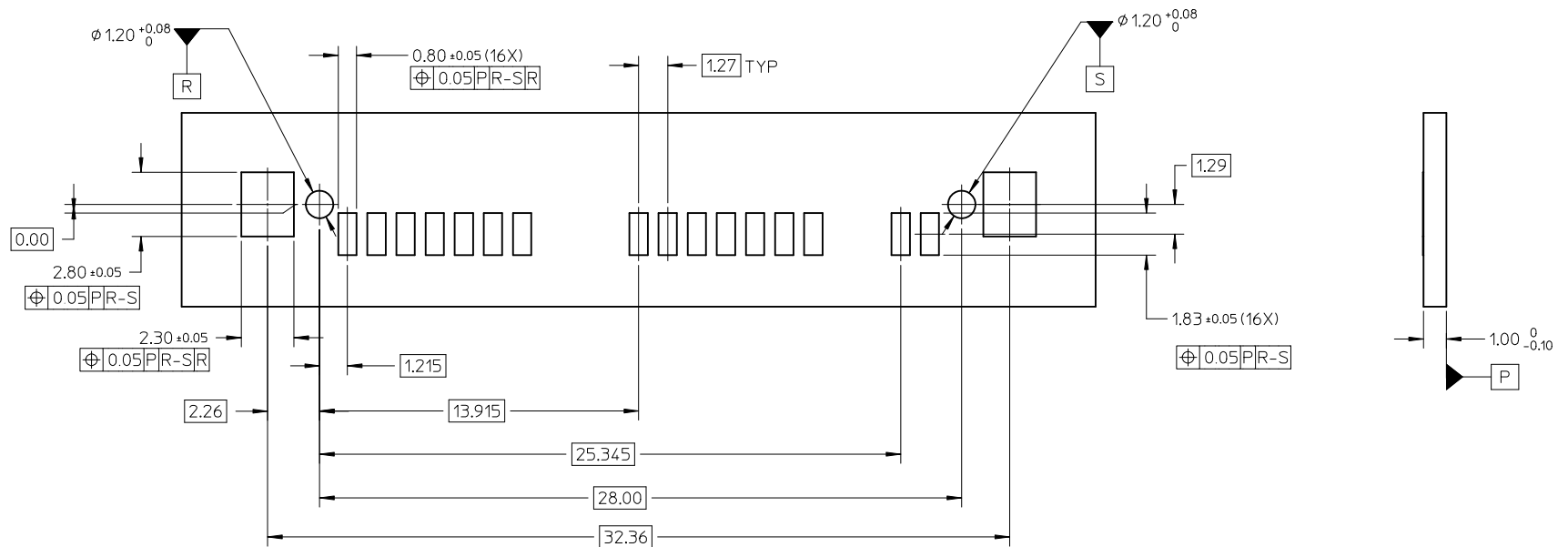
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|---|-------------|--|---------------------------------------|--------------|-----------------|---|---|--------------|------------------------|--|--|
| CHANGE PCS/REEL<br>EC NO: S2010-0549<br>DRWN:WJAP 2010/01/08<br>CHKD:GMENARLY 2010/01/08<br>APPR:BOKOK 2010/01/08 | DESCRIPTION | QUALITY SYMBOLS                                      | GENERAL TOLERANCES (UNLESS SPECIFIED) |              | DIMENSION STYLE |   | SCALE   | DESIGN UNITS | THIRD ANGLE PROJECTION |  |  |
|   |             | ▽ <sub>A</sub> =0                                    | mm                                    | INCH         | MM ONLY         |   | NTS   | METRIC       |                        |  |  |
|   |             | ▽ <sub>E</sub> =0                                    | 4 PLACES ± ---                        | ± ---        | DRAWN BY        | DATE  | TITLE   |              |                        |  |  |
|   |             | ▽ <sub>P</sub> =0                                    | 3 PLACES ± ---                        | ± ---        | GMENARLY        | 2009/04/06  | MICRO SATA RECEPTACLE<br>VERTICAL SMT<br>1.8 INCH SSD/HDD |              |                        |  |  |
|   |             | 2 PLACES ± 0.20                                      | ± ---                                 | CHECKED BY   | DATE            | MOLEX INCORPORATED  |   |              |                        |  |  |
|   |             | 1 PLACE ± ---  | ± ---                                 | CGOH         | 2009/04/16      | MOLEX INCORPORATED  |   |              |                        |  |  |
|   |             | ANGULAR ± 3 °  |                                       | APPROVED BY  | DATE            | MOLEX INCORPORATED  |   |              |                        |  |  |
|   |             | DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS |                                       | BOKOK        | 2009/04/16      | MOLEX INCORPORATED  |   |              |                        |  |  |
|   |             |  |                                       | MATERIAL NO. | 78500-0001      | DOCUMENT NO.  |   | SD-78500-001 |                        |  |  |
|   |             |  |                                       | SIZE         | A3              | THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION |   |              |                        |  |  |
|   |             |  |                                       |              |                 | SHEET NO.   |   | 1 OF 4       |                        |  |  |

10 9 8 7 6 5 4 3 2 1



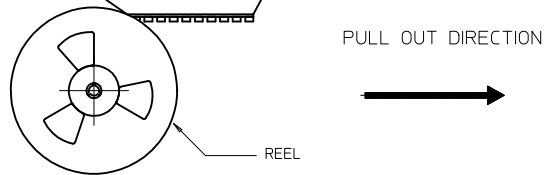
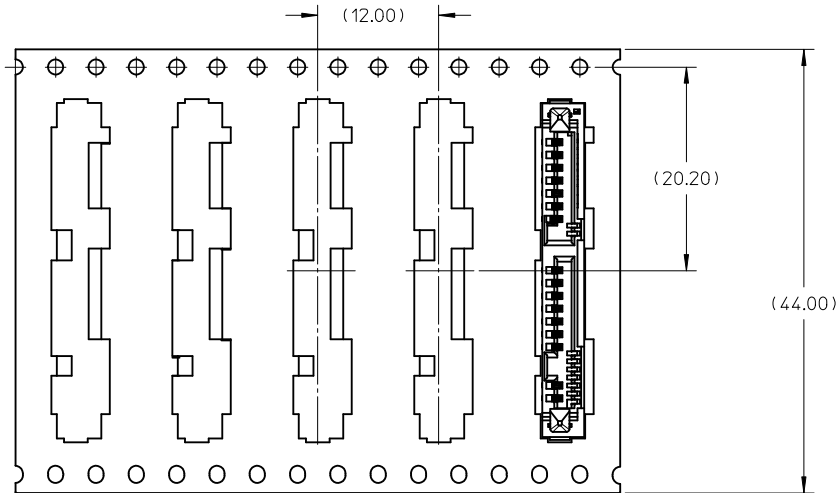
|   |  |   |                      |                                   |                     |                      |                        |  |                              |                     |  |
|---|--|---|----------------------|-----------------------------------|---------------------|----------------------|------------------------|--|------------------------------|---------------------|--|
| <b>CHANGE PCS/REEL</b><br>EC NO: S2010-0549<br>DRWN:WJYAP 2010/01/08<br>CHKD:GMENARLY 2010/01/08<br>APPR:BOKOK 2010/01/08 | QUALITY SYMBOLS<br>$F_A=0$<br>$F_C=0$<br>$F_P=0$ | GENERAL TOLERANCES (UNLESS SPECIFIED)                   |                      | DIMENSION STYLE<br><b>MM ONLY</b> |                     | SCALE<br>NTS         | DESIGN UNITS<br>METRIC | THIRD ANGLE PROJECTION   |                              |                     |  |
|   |  | 4 PLACES ± --- ± ---                                    | 3 PLACES ± --- ± --- | 2 PLACES ± 0.20 ± ---             | 1 PLACE ± --- ± --- | DRAWN BY<br>GMENARLY | DATE<br>2009/04/06     | TITLE<br>MICRO SATA RECEPTACLE<br>VERTICAL SMT<br>1.8 INCH SSD/HDD |                              |                     |  |
|   |  | ANGULAR ± 3 °   |                      |                                   |                     | CHECKED BY<br>CGOH   | DATE<br>2009/04/16     | MOLEX INCORPORATED   |                              |                     |  |
|   |  | DRAFT WHERE APPLICABLE<br>MUST REMAIN WITHIN DIMENSIONS |                      |                                   |                     | APPROVED BY<br>BOKOK | DATE<br>2009/04/16     | MATERIAL NO.<br>78500-0001   | DOCUMENT NO.<br>SD-78500-001 | SHEET NO.<br>2 OF 4 |  |

9 8 7 6 5 4 3 2 1



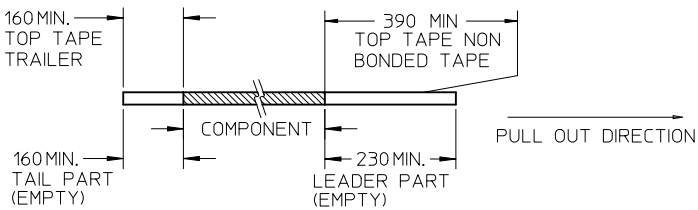
RECOMMENDED PCB LAYOUT

|   |   |   |   |  |  |
|---|---|---|---|--|--|
| CHANGE PCS/REEL<br>EC NO: S2010-0549<br>DRWN:WJAP 2010/01/08<br>CHKD:GMENARLY 2010/01/08<br>APPR:BOKOK 2010/01/08 | QUALITY SYMBOLS<br>$F_A=0$<br>$F_C=0$<br>$F_P=0$        | GENERAL TOLERANCES (UNLESS SPECIFIED)<br>mm INCH<br>4 PLACES $\pm$ --- $\pm$ ---<br>3 PLACES $\pm$ --- $\pm$ ---<br>2 PLACES $\pm 0.20$ $\pm$ ---<br>1 PLACE $\pm$ --- $\pm$ ---<br>ANGULAR $\pm 3^\circ$ | DIMENSION STYLE<br>MM ONLY<br>DRAWN BY GMENARLY DATE 2009/04/06<br>CHECKED BY CGOH DATE 2009/04/16<br>APPROVED BY BOKOK DATE 2009/04/16 | SCALE NTS<br>DESIGN UNITS METRIC<br>THIRD ANGLE PROJECTION | TITLE<br>MICRO SATA RECEPTACLE<br>VERTICAL SMT<br>1.8 INCH SSD/HDD |
|   | DRAFT WHERE APPLICABLE<br>MUST REMAIN WITHIN DIMENSIONS | MATERIAL NO.<br>78500-0001  | MOLEX INCORPORATED<br>DOCUMENT NO.<br>SD-78500-001  | SHEET NO.<br>3 OF 4  |  |
|   | SIZE<br>A3  | THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION   |   |  |  |
|   | REV<br>A1   |   |   |  |  |

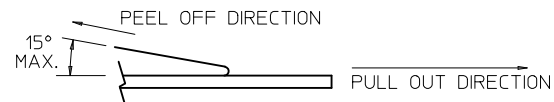


NOTES:

1. LEADER AND TRAILER TAPE



2. PEELING OFF FORCE OF THE TOP TAPE: 20 - 80gf.  
(PEELING DIRECTION AS SHOWN IN FOLLOWING FIGURE)



- 3. TAPE AND REEL SPECIFICATION IS AS PER EIA-481.
- 4. TAPE AND REEL QUANTITY : 450 PCS/ REEL.
- 5. THE TAPE IS TREATED FOR ANTI-STATIC.

| CHANGE PCS/REEL<br>EC NO: S2010-0549<br>DRWN:WJAP 2010/01/08<br>CHKD:GMENARLY 2010/01/08<br>APPR:BOKOK 2010/01/08 | DESCRIPTION<br>A1 | QUALITY SYMBOLS  | $F_A=0$<br>$F_C=0$<br>$F_P=0$ | GENERAL TOLERANCES (UNLESS SPECIFIED)  | DIMENSION STYLE<br><b>MM ONLY</b> | SCALE | DESIGN UNITS | THIRD ANGLE PROJECTION |       |       |          |       |       |          |        |       |         |       |       |                      |                    |       |   |
|---|-------------------|--|-------------------------------|--|-----------------------------------|-------|--------------|------------------------|-------|-------|----------|-------|-------|----------|--------|-------|---------|-------|-------|----------------------|--------------------|-------|---|
|   |                   |  |                               | <table border="1"> <thead> <tr> <th></th> <th>mm</th> <th>INCH</th> </tr> </thead> <tbody> <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>± 0.20</td> <td>± ---</td> </tr> <tr> <td>1 PLACE</td> <td>± ---</td> <td>± ---</td> </tr> </tbody> </table> |                                   | mm    | INCH         | 4 PLACES               | ± --- | ± --- | 3 PLACES | ± --- | ± --- | 2 PLACES | ± 0.20 | ± --- | 1 PLACE | ± --- | ± --- | DRAWN BY<br>GMENARLY | DATE<br>2009/04/06 | TITLE | MICRO SATA RECEPTACLE<br>VERTICAL SMT<br>1.8 INCH SSD/HDD<br>MOLEX INCORPORATED |
|   |                   |  | mm                            | INCH   |                                   |       |              |                        |       |       |          |       |       |          |        |       |         |       |       |                      |                    |       |   |
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| 2 PLACES  | ± 0.20            | ± ---  |                               |  |                                   |       |              |                        |       |       |          |       |       |          |        |       |         |       |       |                      |                    |       |   |
| 1 PLACE   | ± ---             | ± ---  |                               |  |                                   |       |              |                        |       |       |          |       |       |          |        |       |         |       |       |                      |                    |       |   |
|   |                   | ANGULAR ± 3 °  | CHECKED BY<br>CGOH            | DATE<br>2009/04/16   |                                   |       |              |                        |       |       |          |       |       |          |        |       |         |       |       |                      |                    |       |   |
|   |                   | DRAFT WHERE APPLICABLE<br>MUST REMAIN<br>WITHIN DIMENSIONS | APPROVED BY<br>BOKOK          | DATE<br>2009/04/16   | MATERIAL NO.<br>78500-0001        |       |              |                        |       |       |          |       |       |          |        |       |         |       |       |                      |                    |       |   |
|   |                   |  | DOCUMENT NO.<br>SD-78500-001  | SHEET NO.<br>4 OF 4  |                                   |       |              |                        |       |       |          |       |       |          |        |       |         |       |       |                      |                    |       |   |