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Part Number: [0878240007](#)
Status: **Active**
Description: 1.27mm (.050") Signal Pitch, 0.80mm (.031") SCSI Pitch, 1.27mm (.050") Power Pitch SAS Receptacle, Vertical, Surface Mount, with Straight Solder Tab, 1.6mm (.062") PCB Thickness, 29 Circuits, with Cap, Embossed Tape on Reel, Leadfree

Documents:

[3D Model](#) [Product Specification PS-87824-029 \(PDF\)](#)
[Drawing \(PDF\)](#) [RoHS Certificate of Compliance \(PDF\)](#)

General

| | |
|----------------|-----------------------------|
| Product Family | I/O Connectors |
| Series | 87824 |
| Application | Board-to-Board |
| Comments | With Pick-and-Place Cap |
| Component Type | Receptacle |
| Product Name | SAS |
| Type | N/A |

Physical

| | |
|--------------------------------|--------------------------------|
| Boot Color | N/A |
| Circuits (Loaded) | 29 |
| Circuits (maximum) | 29 |
| Circuits Detail | Signal 7, SCSI 7, Power 15 |
| Color - Resin | Black |
| Durability (mating cycles max) | 500 |
| Gender | Female |
| Keying to Mating Part | Yes |
| Lock to Mating Part | None |
| Material - Metal | Copper Alloy |
| Material - Plating Mating | Gold |
| Material - Plating Termination | Tin |
| Material - Resin | High Temperature Thermoplastic |
| Number of Rows | 2 |
| Orientation | Vertical |
| PCB Locator | Yes |
| PCB Retention | Yes |
| PCB Thickness Recommended (in) | 0.063 In |
| PCB Thickness Recommended (mm) | 1.60 mm |
| Packaging Type | Embossed Tape on Reel |
| Panel Mount | Yes |
| Pitch - Mating Interface (in) | 0.031 In, 0.050 In |
| Pitch - Mating Interface (mm) | 0.80 mm, 1.27 mm |
| Pitch - Term. Interface (in) | 0.031 In, 0.050 In |
| Pitch - Term. Interface (mm) | 0.80 mm, 1.27 mm |
| Plating min: Mating (µin) | 30 |
| Plating min: Mating (µm) | 0.76 |
| Plating min: Termination (µin) | 102 |
| Plating min: Termination (µm) | 2.54 |
| Polarized to Mating Part | Yes |
| Polarized to PCB | Yes |
| Surface Mount Compatible (SMC) | N/A |
| Temperature Range - Operating | 0°C to +55°C |
| Termination Interface: Style | Surface Mount |
| Waterproof / Dustproof | No |
| Wire Size AWG | N/A |

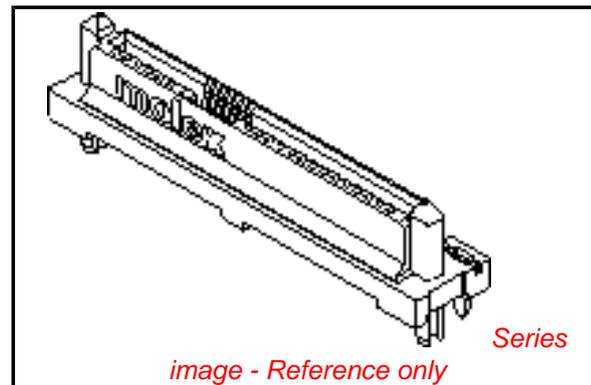


image - Reference only

EU RoHS

**ELV and RoHS
Compliant**

REACH SVHC

Not Reviewed

Halogen-Free

Status

Not Halogen-Free

China RoHS



**Need more information on product
environmental compliance?**

Email 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

[87824Series](#)

Mates With

SFF-8482 Hard Disk Drive and Backplane Plug. [87679](#) Serial ATA Device Plug with Latch. [87703](#) Serial ATA Device Plug without Jumper. [87799](#) Serial ATA Device Plug with Jumper

Electrical

| | |
|-------------------------------|------|
| Current - Maximum per Contact | 1.5A |
| Shielded | No |
| Voltage - Maximum | 30V |

Solder Process Data

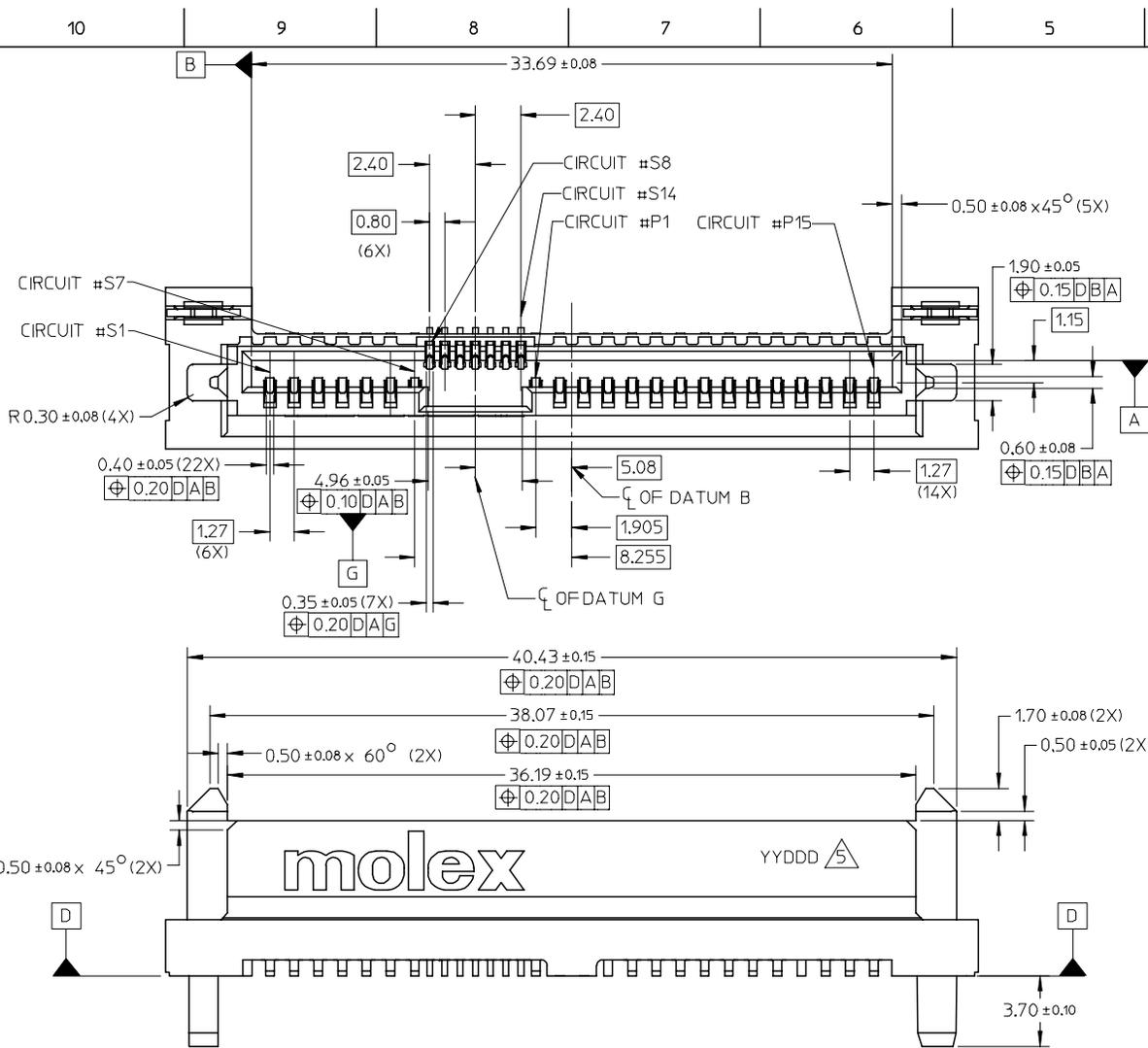
| | |
|--|---------------------------|
| Duration at Max. Process Temperature (seconds) | 10 |
| Lead-free Process Capability | Reflow Capable (SMT only) |
| Max. Cycles at Max. Process Temperature | 1 |
| Process Temperature max. C | 260 |

Material Info**Reference - Drawing Numbers**

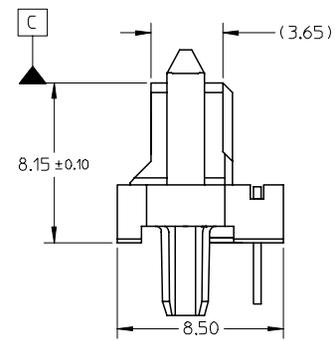
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|-----------------------|--------------|
| Product Specification | PS-87824-029 |
| Sales Drawing | SD-87824-027 |

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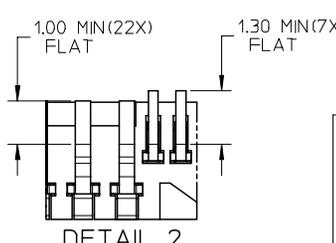
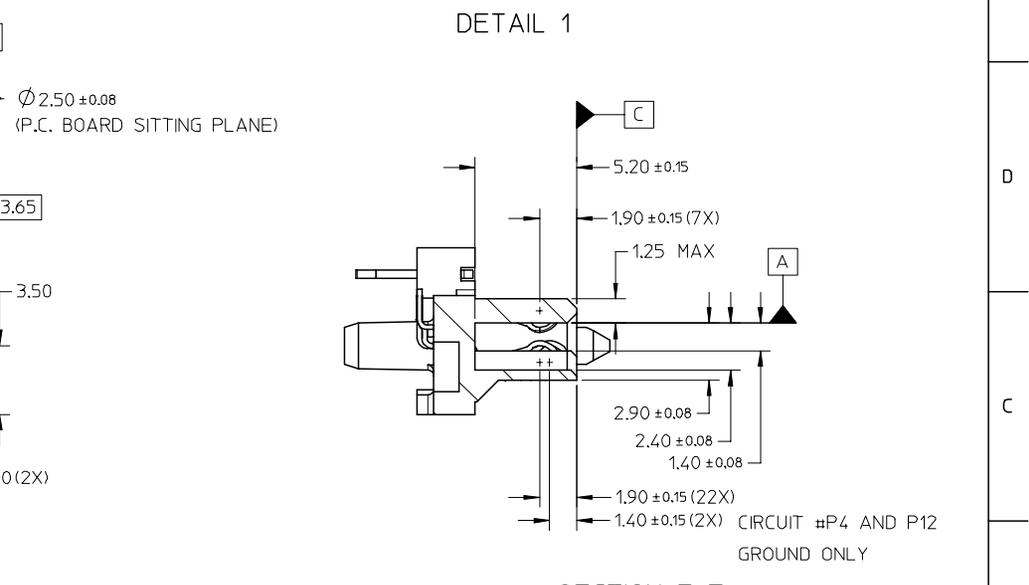
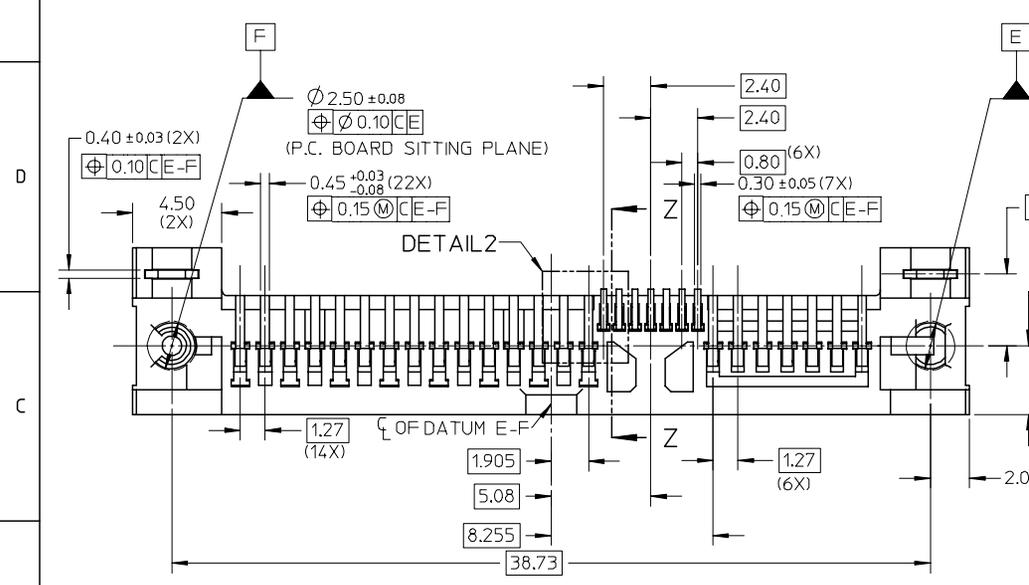
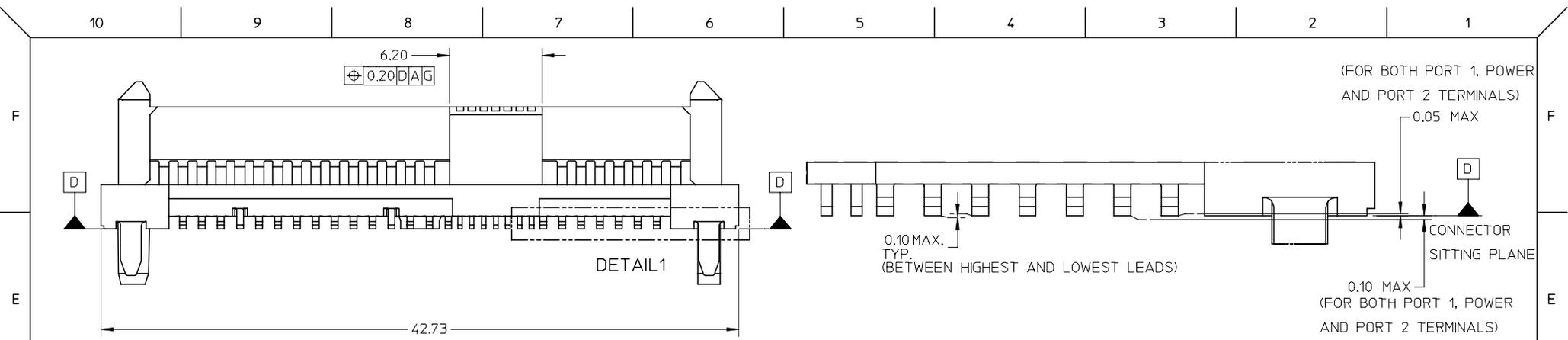
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- NOTES:
- MATERIAL: LIQUID CRYSTALLINE POLYMER (LCP). GLASS FILLED UL 94V-0
COLOR: BLACK
TERMINAL: COPPER ALLOY
 - PLATING:
CONTACT: 0.76µm MIN. SELECTIVE GOLD OVER 1.27µm MIN.
NICKEL UNDERPLATE
SOLDERTAIL: 2.54µm MIN. TIN OVER 1.27 µm MIN.
NICKEL UNDERPLATE
 - MOLEX LOGO LOCATED APPROXIMATELY AS SHOWN
 - PACKAGING: SEE TABLE
 - DATE CODE TO BE LOCATED APPROXIMATELY AS SHOWN.
 - PRODUCT IS COMPLIANT TO RoHS DIRECTIVE WITH THE FOLLOWING BANNED SUBSTANCES - LEAD, MERCURY, CADMIUM, HEXAVALENT CHROMIUM, POLYBROMINATED BIPHENYLS AND POLYBROMINATED DIPHENYL ETHERS.
 - PRODUCT SPECIFICATION PS-87824-029 APPLIES.
 - MATES WITH: SFF-8482 PLUG
SATA PLUG SERIES: 87679, 87703, 87799



| | | | | | | | | | | | |
|--|--|-------------------------------|---------------------------------------|------------|----------------------------|-------------------|--------------------|---|------------------------|--|--|
| NEW PKG OPTION EC NO: S2006-0334 DRWN:KHLIM CHKD:SHONG APPR:KCLING | 2005/10/26 2005/10/27 2005/10/28 | QUALITY SYMBOLS ▽=0 ▽=0 | GENERAL TOLERANCES (UNLESS SPECIFIED) | | DIMENSION STYLE MM ONLY | | SCALE NTS | DESIGN UNITS METRIC | THIRD ANGLE PROJECTION | | |
| | | | | mm | INCH | DRAWN BY KHLIM | DATE 2004/10/12 | SERIAL ATTACH SCSI STD HEIGHT BACKPLANE SMT RECEPT (WITH BLADE) | | | |
| | | | 4 PLACES | ± --- | ± --- | CHECKED BY | DATE | | | | |
| | | | 3 PLACES | ± --- | ± --- | KCLING | 2004/11/25 | | | | |
| 2 PLACES | ± 0.20 | ± --- | APPROVED BY | DATE | MOLEX INCORPORATED | | | | | | |
| 1 PLACE | ± --- | ± --- | SKTOH | 2004/11/26 | | | | | | | |
| DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS | | | SEE TABLE | | MATERIAL NO. | | DOCUMENT NO. | | SHEET NO. | | |
| A4 | | | A3 | | SD-87824-027 | | 1 OF 4 | | | | |



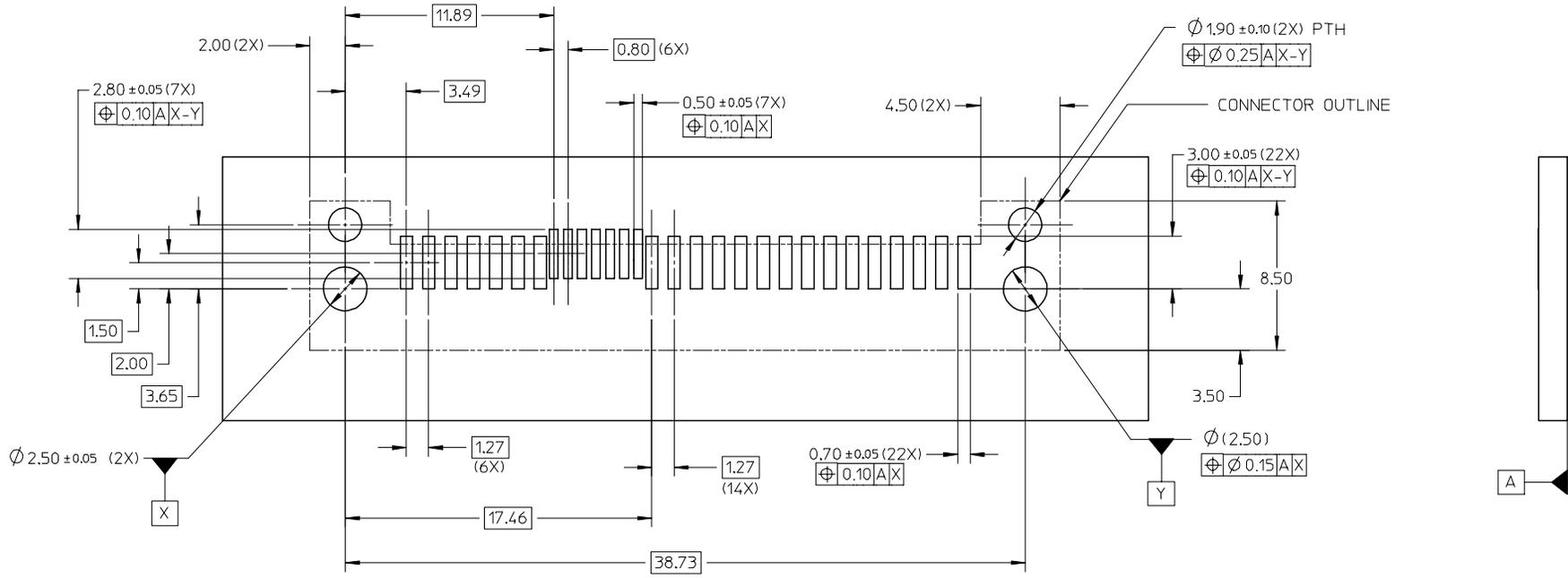
| | |
|-------------------|-------------|
| NEW PKG OPTION | DESCRIPTION |
| EC NO: S2006-0334 | 2005/10/26 |
| DRWN:KHLIM | 2005/10/27 |
| CHKD:SHONG | 2005/10/27 |
| APPR:KCLING | 2005/10/28 |
| A4 | REV |

| | |
|-----------------|-------------|
| QUALITY SYMBOLS | DESCRIPTION |
| ▽=0 | |
| ∇=0 | |

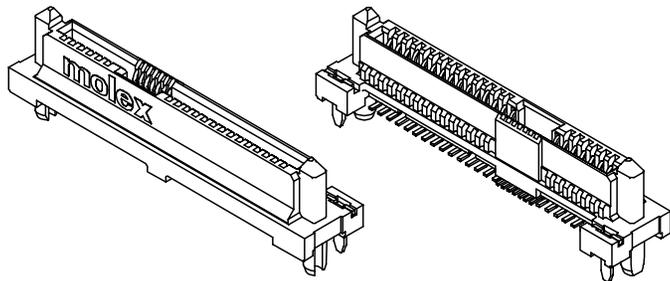
| | | |
|--|--------|-------|
| GENERAL TOLERANCES (UNLESS SPECIFIED) | mm | INCH |
| 4 PLACES | ± --- | ± --- |
| 3 PLACES | ± --- | ± --- |
| 2 PLACES | ± 0.20 | ± --- |
| 1 PLACE | ± --- | ± --- |
| ANGULAR ± 3 ° | | |
| DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS | | |

| | | | | |
|-----------------|---|---|--------------|------------------------|
| DIMENSION STYLE | | SCALE | DESIGN UNITS | THIRD ANGLE PROJECTION |
| MM ONLY | | NTS | METRIC | |
| DRAWN BY | DATE | TITLE | | |
| KHLIM | 2004/10/12 | SERIAL ATTACH SCSI STD HEIGHT BACKPLANE SMT RECEPT (WITH BLADE) | | |
| CHECKED BY | DATE | MOLEX INCORPORATED | | |
| KCLING | 2004/11/25 | MOLEX INCORPORATED | | |
| APPROVED BY | DATE | DOCUMENT NO. | | |
| SKTOH | 2004/11/26 | SD-87824-027 | | |
| MATERIAL NO. | | SHEET NO. | | |
| | | 2 OF 4 | | |
| SIZE | THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION | | | |
| A3 | | | | |

| PART NO | PACKAGING | QUANTITY | PICK AND PLACE CAP |
|------------|---------------|----------|--------------------|
| 87824-0003 | TRAY | 50/TRAY | YES |
| 87824-0005 | TRAY | 30/TRAY | NO |
| 87824-0007 | TAPE AND REEL | 350/REEL | YES |



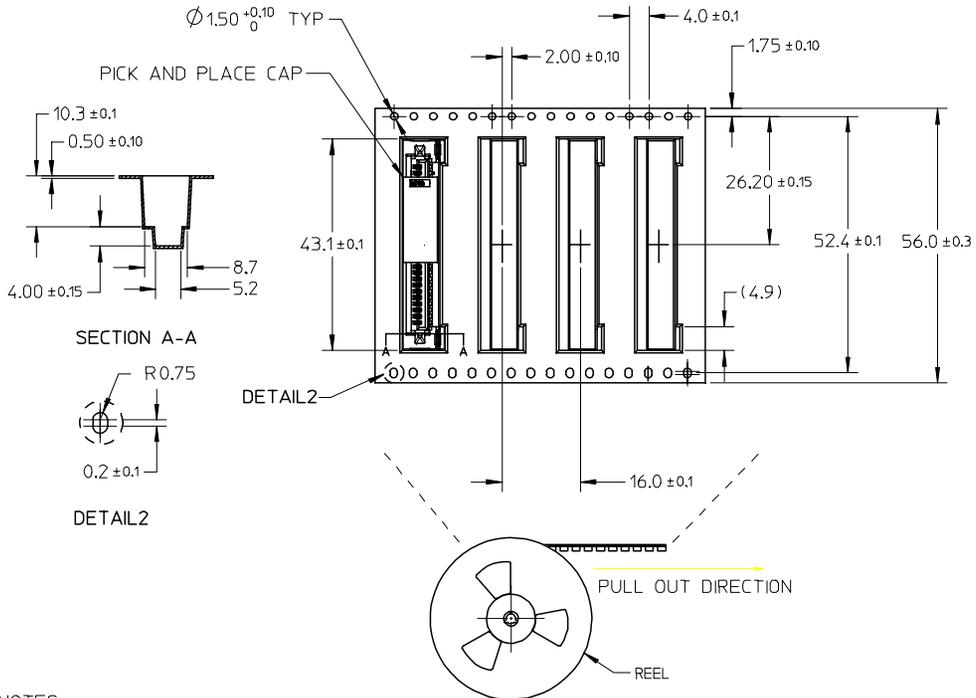
RECOMMENDED PCB LAYOUT
THICKNESS: 1.60±0.10



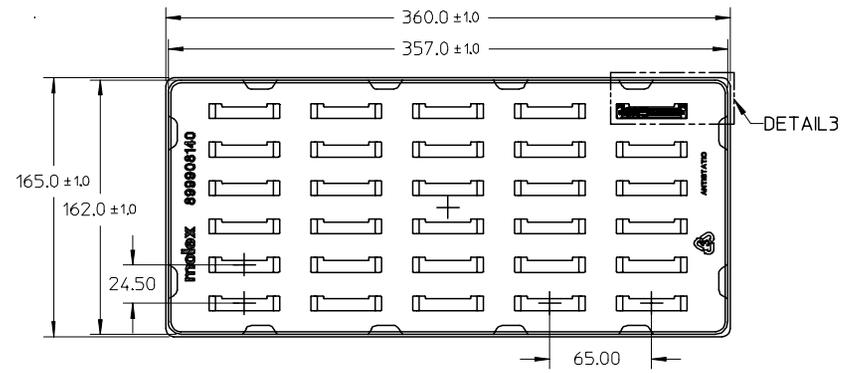
| NEW PKG OPTION EC NO: S2006-0334 DRWN:KHLIM 2005/10/26 CHKD:SHONG 2005/10/27 APPR:KCLING 2005/10/28 | QUALITY SYMBOLS ▽=0 ▽=0 | GENERAL TOLERANCES (UNLESS SPECIFIED) <table border="1"> <thead> <tr> <th></th> <th>mm</th> <th>INCH</th> </tr> </thead> <tbody> <tr> <td>4 PLACES</td> <td>± ---</td> <td>± ---</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 | ± --- | ± --- | DIMENSION STYLE MM ONLY | SCALE NTS | DESIGN UNITS METRIC | THIRD ANGLE PROJECTION |
|--|---|--|---|---|---------------------------|------------------|-------|-------|----------|-------|-------|----------|--------|-------|---------|-------|-------|-----------------------------------|---------------------|-------------------------------|------------------------|
| | | mm | INCH | | | | | | | | | | | | | | | | | | |
| | 4 PLACES | ± --- | ± --- | | | | | | | | | | | | | | | | | | |
| | 3 PLACES | ± --- | ± --- | | | | | | | | | | | | | | | | | | |
| 2 PLACES | ± 0.20 | ± --- | | | | | | | | | | | | | | | | | | | |
| 1 PLACE | ± --- | ± --- | | | | | | | | | | | | | | | | | | | |
| DESCRIPTION A4 | DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS | DRAWN BY: KHLIM CHECKED BY: KCLING APPROVED BY: SKTOH DATE: 2004/10/12 DATE: 2004/11/25 DATE: 2004/11/26 | TITLE: SERIAL ATTACH SCSI STD HEIGHT BACKPLANE SMT RECEIPT (WITH BLADE) | MATERIAL NO. SKTOH | DOCUMENT NO. SD-87824-027 | SHEET NO. 3 OF 4 | | | | | | | | | | | | | | | |
| | | SEE TABLE | MOLEX INCORPORATED | THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION | | | | | | | | | | | | | | | | | |

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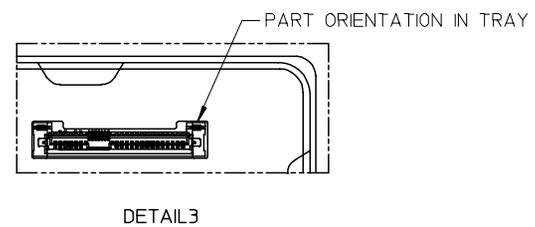
TAPE AND REEL PACKAGING



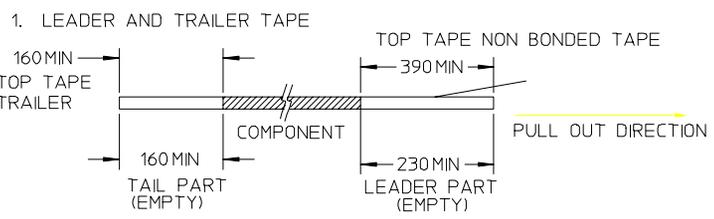
TRAY PACKAGING



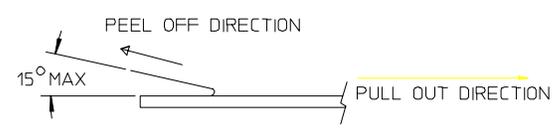
- NOTES:
 1. PACKAGING QTY: 30PCS/TRAY
 2. NO PICK AND PLACE CAP



NOTES:



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



3. PACKAGING QTY: 350 PCS/REEL
 4. PACKAGING STANDARD IS AS PER EIA-481.
 5. CONNECTOR COMES WITH PICK AND PLACE CAP.

| | | |
|--|------------|--------------------|
| NEW PKG OPTION EC NO: S2006-0334 DRWN:KHLIM CHKD:SHONG APPR:KCLING | 2005/10/26 | DESCRIPTION REV |
| | 2005/10/27 | |
| | 2005/10/28 | |
| | A4 | |

| | |
|-----------------|-----|
| QUALITY SYMBOLS | ▽=0 |
| | △=0 |

| | | |
|--|-----------------|-------|
| GENERAL TOLERANCES (UNLESS SPECIFIED) | mm | INCH |
| | 4 PLACES ± --- | ± --- |
| | 3 PLACES ± --- | ± --- |
| | 2 PLACES ± 0.20 | ± --- |
| | 1 PLACE ± --- | ± --- |
| | ANGULAR ± 3 ° | |
| DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS | SEE TABLE | |

| | |
|----------------------------|------------------------------|
| DIMENSION STYLE MM ONLY | |
| DRAWN BY KHLIM | DATE 2004/10/12 |
| CHECKED BY KCLING | DATE 2004/11/25 |
| APPROVED BY SKTOH | DATE 2004/11/26 |
| MATERIAL NO. | DOCUMENT NO. SD-87824-027 |

| | | |
|---|------------------------|------------------------|
| SCALE NTS | DESIGN UNITS METRIC | THIRD ANGLE PROJECTION |
| SERIAL ATTACH SCSI STD HEIGHT BACKPLANE SMT RECEPT (WITH BLADE) | | |
| MOLEX INCORPORATED | | |
| SHEET NO. 4 OF 4 | | |

9 8 7 6 5 4 3 2 1