

PLEASE CHECK [WWW.MOLEX.COM](http://WWW.MOLEX.COM) FOR LATEST PART INFORMATION

**Part Number:** [0877051021](#)  
**Status:** **Active**  
**Description:** 1.00mm (.039") Pitch DDR-II DIMM Socket, Vertical, Center Keys, 3.18mm (.125") Tail Length, Beige Latches, 0.38µm (15µ") Gold (Au) Plating, with Beveled Metal Pins, 240 Circuits, Lead-Free

**Documents:**  
[3D Model](#) [Product Specification PS-87705-002 \(PDF\)](#)  
[Drawing \(PDF\)](#) [RoHS Certificate of Compliance \(PDF\)](#)

**Agency Certification**

CSA 1409726  
UL E29179

**General**

Product Family Memory Module Sockets  
Series [87705](#)  
Comments <LI>Latches in Beige Color  
Component Type Socket  
JEDEC Outline MO-237  
Product Name DDR2 DIMM

**Physical**

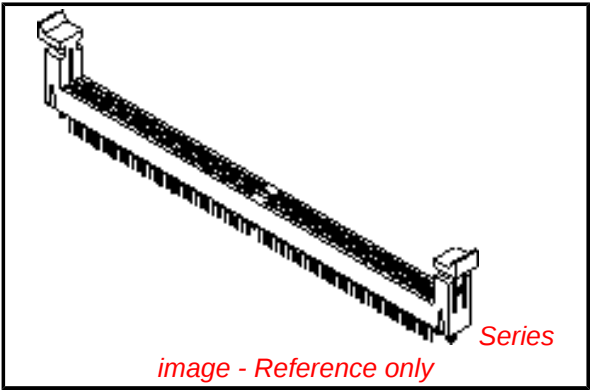
Circuits (Loaded) 240  
Color - Resin Black, Natural  
Durability (mating cycles max) 25  
Entry Angle Vertical (Top Entry)  
Flammability 94V-0  
Keying to Mating Part Yes  
Material - Metal Brass, Phosphor Bronze  
Material - Plating Mating Gold  
Material - Plating Termination Tin  
Material - Resin High Temperature Thermoplastic  
PC Tail Length (in) 0.125 In  
PC Tail Length (mm) 3.18 mm  
PCB Retention Yes  
PCB Thickness Recommended (in) 0.093 In  
PCB Thickness Recommended (mm) 2.40 mm  
Packaging Type Tray  
Pitch - Mating Interface (in) 0.039 In  
Pitch - Mating Interface (mm) 1.00 mm  
Plating min: Mating (µin) 15.2  
Plating min: Mating (µm) 0.38  
Plating min: Termination (µin) 101.6  
Plating min: Termination (µm) 2.54  
Temperature Range - Operating -10°C to +85°C  
Termination Interface: Style Through Hole

**Electrical**

Current - Maximum per Contact 0.5A  
Voltage - Maximum 30V  
Voltage Key 1.8V, Center

**Solder Process Data**

Duration at Max. Process Temperature (seconds) 5  
Lead-free Process Capability SMC & Wave Capable (TH only)  
Max. Cycles at Max. Process Temperature 1



**EU RoHS**  
**ELV and RoHS**  
**Compliant**  
**REACH SVHC**  
**Contains SVHC: No**  
**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**  
[87705Series](#)

**Mates With**  
JEDEC standard 1.27mm modules

|                                    |              |
|------------------------------------|--------------|
| Process Temperature max. C         | 260          |
| <b>Material Info</b>               |              |
| <b>Reference - Drawing Numbers</b> |              |
| Product Specification              | PS-87705-002 |
| Sales Drawing                      | SD-87705-001 |

This document was generated on 05/27/2010

**PLEASE CHECK [WWW.MOLEX.COM](http://WWW.MOLEX.COM) FOR LATEST PART INFORMATION**

10 9 8 7 6 5 4 3 2 1

NOTES:

1. MATERIALS

HOUSING - HIGH TEMP. NYLON GLASS FILLED, UL 94V-0  
COLOR: BLACK  
EJECTOR - HIGH TEMP. NYLON GLASS FILLED, UL 94V-0  
COLOR: SEE TABLE  
TERMINAL - COPPER ALLOY

2. PLATING - SEE TABLE IN SHEET 5 & 6.

3. CARD SLOT ACCEPTS  $1.27 \pm 0.10$  MM MODULE THICKNESS.  
(MEASURED OVER P.C. PADS)

4. RECOMMENDED MODULE LAYOUT SHALL BE AS PER JEDEC MO-237.  
5. REFER TO PRODUCT SPEC. PS-87705-002 FOR PERFORMANCE SPECIFICATIONS.

6. PRODUCT SHALL BE PACKED IN TRAY.

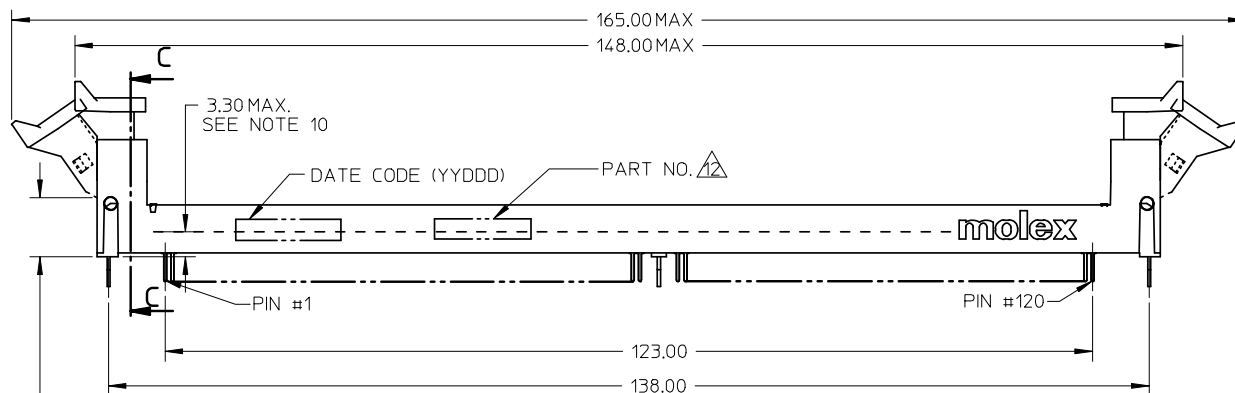
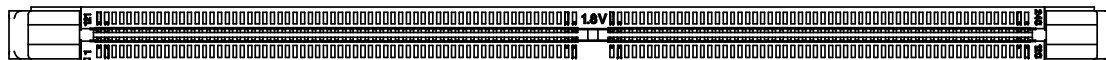
7. PRODUCT SHALL HAVE DATE CODE STAMPED ON SIDE OF HOUSING.  
8. KEEP OUT AREA IS THE AREA WHERE THE CONNECTOR IS MOUNTED ONTO THE PCB WHICH DOES NOT INCLUDE THE LATCH.

9. REFER TO CRITICAL JEDEC INFORMATION FOR SOCKET OUTLINE PER SO-001.

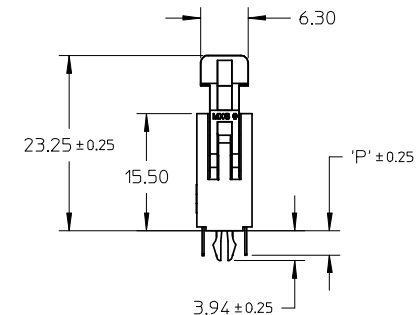
10. DIMM MODULE SEATING PLANE FROM TOP OF PCB.

11. CONTACT MOLEX FOR AVAILABILITY OF PRODUCT OPTIONS.

 PART NUMBER SHALL BE MARKED LEGIBLY AS 87705-\*\*\*\*



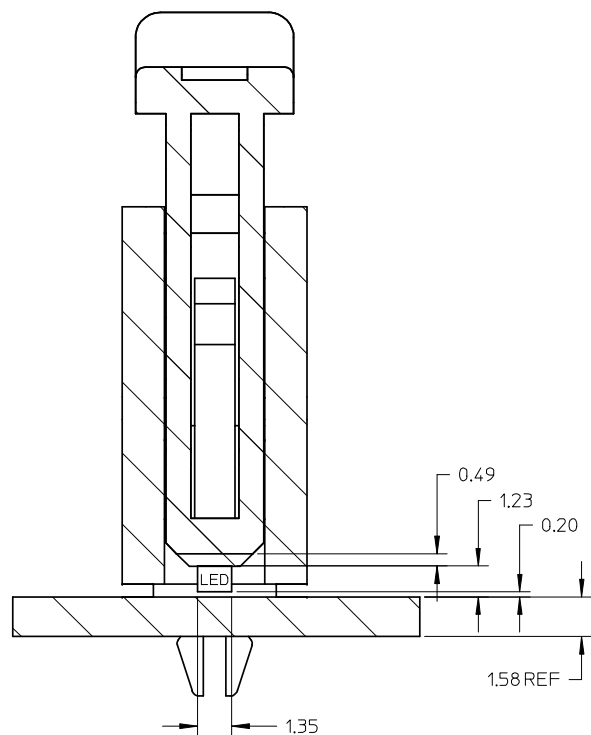
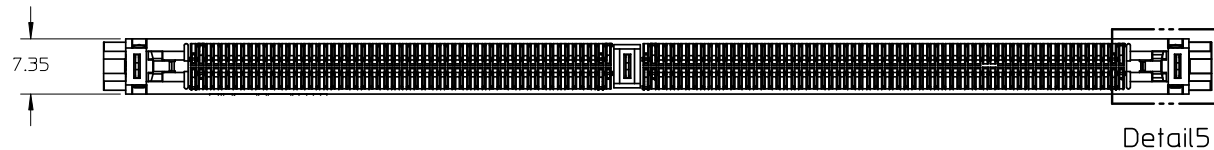
5.00 MIN  
LATCH KEEP  
OUT AREA



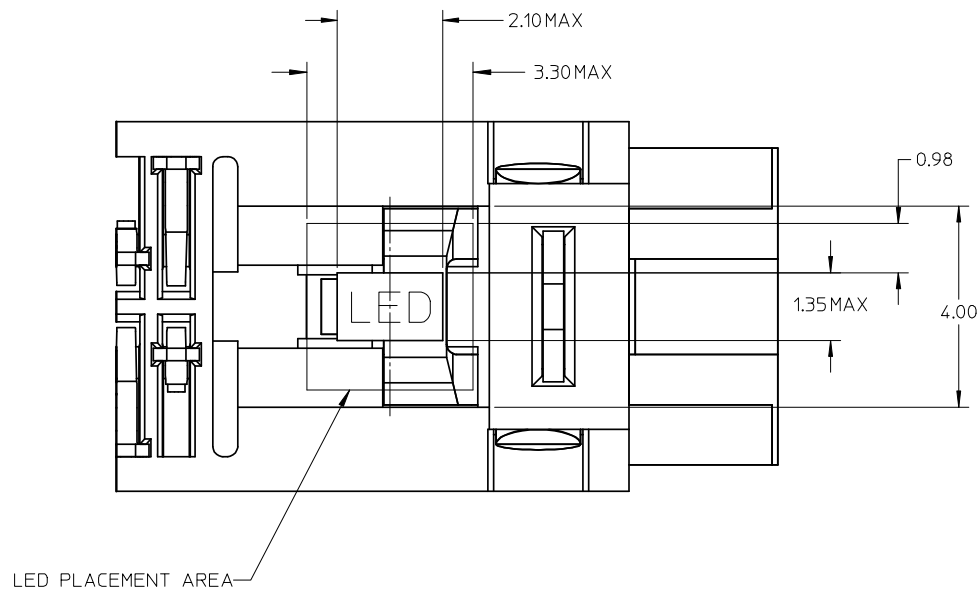
|                                                                                                                           |  |                                                            |                                                  |             |                                             |                                                                                                                                  |                            |                           |                    |                                                                                          |                                                                                                              |
|---------------------------------------------------------------------------------------------------------------------------|--|------------------------------------------------------------|--------------------------------------------------|-------------|---------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------|----------------------------|---------------------------|--------------------|------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------|
| ADD NOTE @SHT4 C1<br>EC NO: S2008-1044<br>DRWN:CMTEO 2008/05/15<br>CHKD:CGTAN 2008/05/15<br>APPR:SHLENI 2008/05/15<br>REV |  |                                                            | QUALITY SYMBOLS<br><div>▽=0</div> <div>▽=0</div> | DESCRIPTION | GENERAL TOLERANCES (UNLESS SPECIFIED)       |                                                                                                                                  | DIMENSION STYLE<br>MM ONLY |                           | SCALE<br>NTS       | DESIGN UNITS<br>METRIC                                                                   |  THIRD ANGLE PROJECTION |
|                                                                                                                           |  |                                                            |                                                  |             | 4 PLACES<br>3 PLACES<br>2 PLACES<br>1 PLACE | mm                                                                                                                               | INCH                       | DRAWN BY<br>CGOH          | DATE<br>2002/05/09 | TITLE<br>DDR2 DIMM, 1.00MM PITCH<br>240 CKTS<br>(FORKLOCK VERSION)<br>MOLEX INCORPORATED |                                                                                                              |
|                                                                                                                           |  |                                                            |                                                  |             |                                             | ± ---                                                                                                                            | ± ---                      | CHECKED BY<br>DSOH        | DATE<br>2002/07/22 |                                                                                          |                                                                                                              |
|                                                                                                                           |  |                                                            |                                                  |             |                                             | ± ---                                                                                                                            | ± ---                      | APPROVED BY<br>SKTOH      | DATE<br>2002/07/23 |                                                                                          |                                                                                                              |
|                                                                                                                           |  |                                                            |                                                  |             |                                             | ± 0.20                                                                                                                           | ± ---                      | MATERIAL NO.<br>SEE TABLE |                    |                                                                                          | DOCUMENT NO.<br>SD-87705-001                                                                                 |
| ANGULAR ± 5 °                                                                                                             |  | 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



SECTION C-C



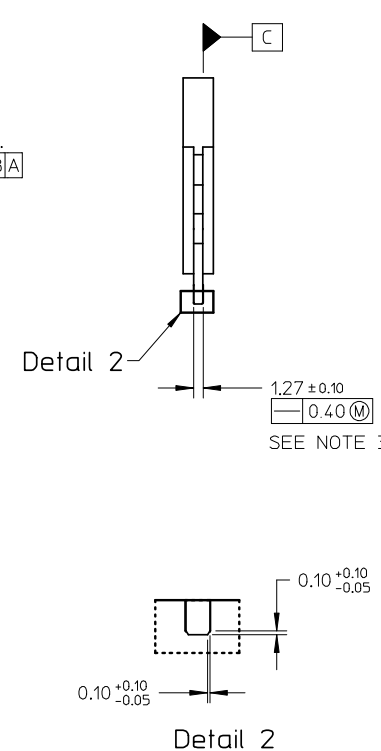
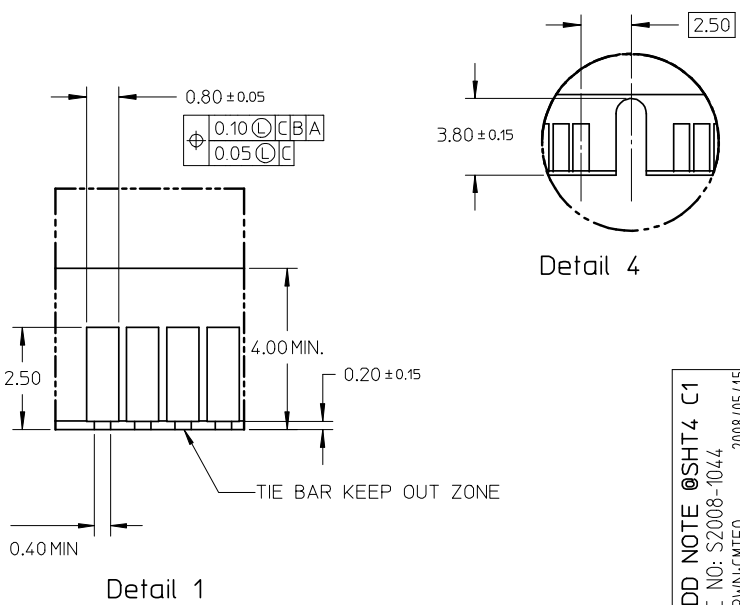
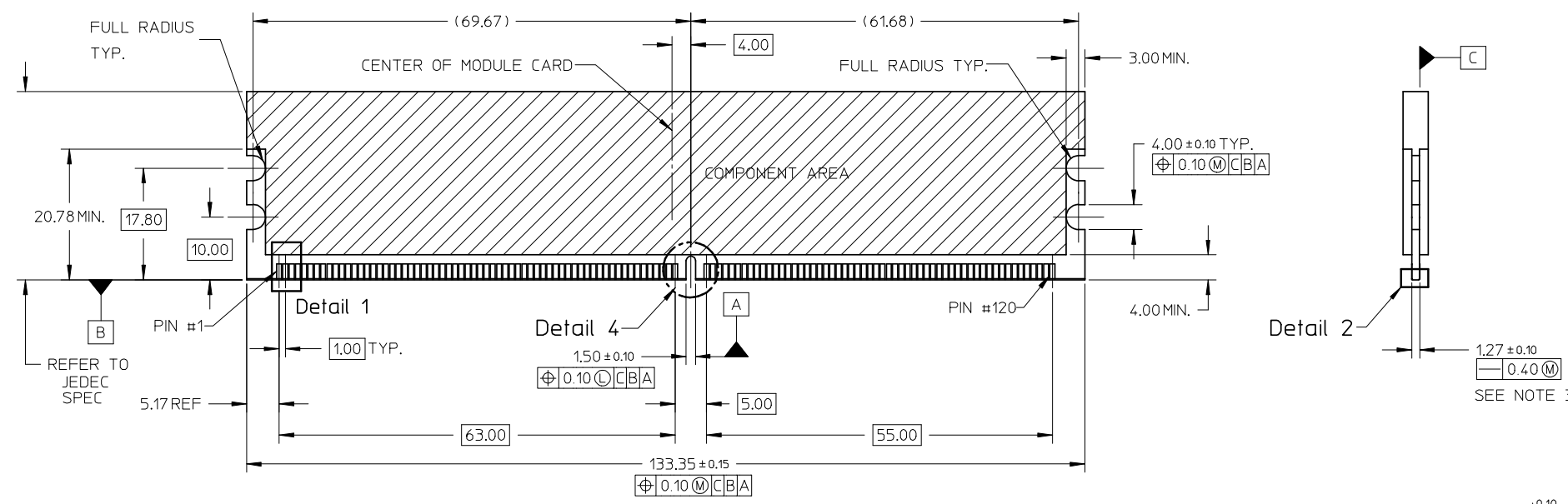
Detail 5

|                                                                                                                              |  |  |                    |                                                  |                                       |                           |                            |                                                                                                                                  |                    |                                                                                         |                                   |  |
|------------------------------------------------------------------------------------------------------------------------------|--|--|--------------------|--------------------------------------------------|---------------------------------------|---------------------------|----------------------------|----------------------------------------------------------------------------------------------------------------------------------|--------------------|-----------------------------------------------------------------------------------------|-----------------------------------|--|
| ADD NOTE @SHT 4 C1<br>EC NO: S2008-1044<br>2008/05/15<br>DRWN:CMTEO<br>CHKD:CGTAN<br>2008/05/15<br>APPR:SHLENI<br>2008/05/15 |  |  | DESCRIPTION<br>REV | QUALITY SYMBOLS<br><div>▽=0</div> <div>▽=0</div> | GENERAL TOLERANCES (UNLESS SPECIFIED) |                           | DIMENSION STYLE<br>MM ONLY |                                                                                                                                  | SCALE<br>NTS       | DESIGN UNITS<br>METRIC                                                                  | <div>THIRD ANGLE PROJECTION</div> |  |
|                                                                                                                              |  |  |                    |                                                  | 4 PLACES                              | mm                        | INCH                       | DRAWN BY<br>CGOH                                                                                                                 | DATE<br>2002/05/09 | TITLE<br>DDR2 DIMM, 100MM PITCH<br>240 CKTS<br>(FORKLOCK VERSION)<br>MOLEX INCORPORATED |                                   |  |
|                                                                                                                              |  |  |                    |                                                  |                                       | 3 PLACES                  |                            | CHECKED BY<br>DSOH                                                                                                               | DATE<br>2002/07/22 |                                                                                         |                                   |  |
|                                                                                                                              |  |  |                    |                                                  |                                       | 2 PLACES                  |                            | APPROVED BY<br>SKTOH                                                                                                             | DATE<br>2002/07/23 |                                                                                         |                                   |  |
| 1 PLACE                                                                                                                      |  |  |                    | ANGULAR ± 5 °                                    |                                       | MATERIAL NO.<br>SEE TABLE |                            | DOCUMENT NO.<br>SD-87705-001                                                                                                     |                    | SHEET NO.<br>2 OF 6                                                                     |                                   |  |
| 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

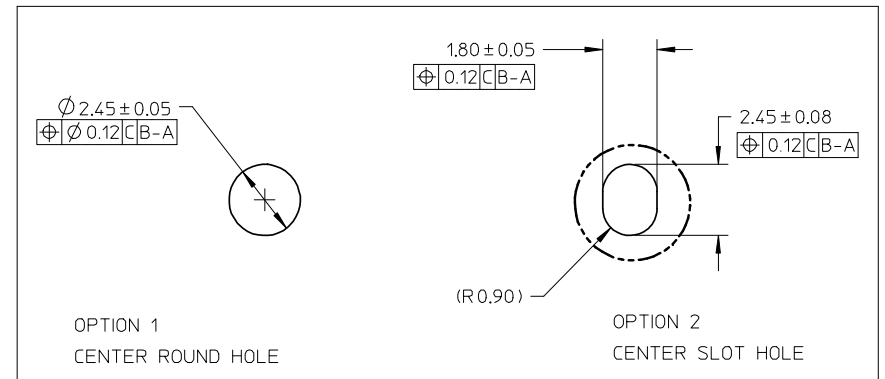
RECOMMENDED MODULE LAYOUT



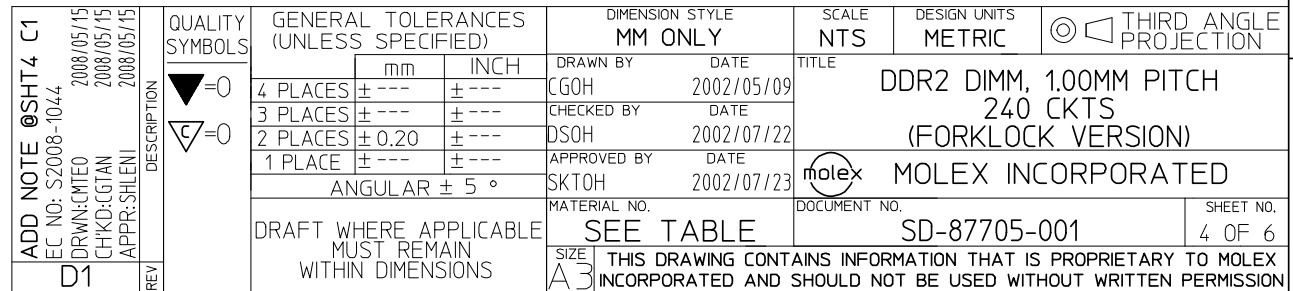
NOTES:  
1. MODULE CARD USED FOR TESTS ARE WITH 0.10MM CHAMFER.

|                                                                                                                  |  |  |                          |                               |                                       |       |                                                                                                                                  |                            |                                                                   |                          |                        |                           |  |  |
|------------------------------------------------------------------------------------------------------------------|--|--|--------------------------|-------------------------------|---------------------------------------|-------|----------------------------------------------------------------------------------------------------------------------------------|----------------------------|-------------------------------------------------------------------|--------------------------|------------------------|---------------------------|--|--|
| ADD NOTE @SHT4 C1<br>EC NO: S2008-1044<br>DRWN:CMTE0 2008/05/15<br>CHKD:GTAN 2008/05/15<br>APPR:SHENI 2008/05/15 |  |  | DESCRIPTION<br>REV<br>D1 | QUALITY SYMBOLS<br>▽=0<br>◻=0 | GENERAL TOLERANCES (UNLESS SPECIFIED) |       |                                                                                                                                  | DIMENSION STYLE<br>MM ONLY |                                                                   | SCALE<br>NTS             | DESIGN UNITS<br>METRIC | THIRD ANGLE<br>PROJECTION |  |  |
|                                                                                                                  |  |  |                          |                               | mm                                    | INCH  | DRAWN BY<br>CGOH                                                                                                                 | DATE<br>2002/05/09         | TITLE<br>DDR2 DIMM, 100MM PITCH<br>240 CKTS<br>(FORKLOCK VERSION) |                          |                        |                           |  |  |
|                                                                                                                  |  |  |                          |                               | 4 PLACES ± ---                        | ± --- | CHECKED BY<br>DSOH                                                                                                               | DATE<br>2002/07/22         |                                                                   |                          |                        |                           |  |  |
|                                                                                                                  |  |  |                          |                               | 3 PLACES ± ---                        | ± --- | APPROVED BY<br>SKTOH                                                                                                             |                            | DATE<br>2002/07/23                                                | molex MOLEX INCORPORATED |                        |                           |  |  |
|                                                                                                                  |  |  |                          |                               | 2 PLACES ± 0.20                       | ± --- |                                                                                                                                  |                            |                                                                   |                          |                        |                           |  |  |
|                                                                                                                  |  |  |                          |                               | 1 PLACE ± ---                         | ± --- |                                                                                                                                  |                            |                                                                   |                          |                        |                           |  |  |
|                                                                                                                  |  |  |                          |                               | ANGULAR ± 5 °                         |       |                                                                                                                                  |                            |                                                                   |                          |                        |                           |  |  |
| DRAFT WHERE APPLICABLE<br>MUST REMAIN<br>WITHIN DIMENSIONS                                                       |  |  |                          |                               | MATERIAL NO.<br>SEE TABLE             |       | DOCUMENT NO.<br>SD-87705-001                                                                                                     |                            |                                                                   | SHEET NO.<br>3 OF 6      |                        |                           |  |  |
|                                                                                                                  |  |  |                          |                               | 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



Detail 3



| PART NO.   | KEY POS.      | DIM 'P' | RECOMMENDED PCB THICKNESS | PLATING OPTION                                                                                                           | LATCH COLOR |
|------------|---------------|---------|---------------------------|--------------------------------------------------------------------------------------------------------------------------|-------------|
| 87705-0021 | CENTER (1.8V) | 2.67    | 1.57                      | 0.38uM / 15 uIN MIN. GOLD ON CONTACT,<br>2.54uM/ 100uIN MIN. TIN ON SOLDERTAILS,<br>1.27uM/ 50uIN MIN. NICKEL UNDERPLATE | NATURAL     |
| 87705-1021 |               | 3.18    | 2.36                      |                                                                                                                          |             |
| 87705-1053 |               | 3.66    |                           |                                                                                                                          |             |
| 87705-0031 |               | 2.67    | 1.57                      | 0.03uM / 1 uIN MIN. GOLD ON CONTACT,<br>2.54uM/ 100uIN MIN. TIN ON SOLDERTAILS,<br>1.27uM/ 50uIN MIN. NICKEL UNDERPLATE  |             |
| 87705-1031 |               | 3.18    | 2.36                      |                                                                                                                          |             |
| 87705-0051 |               | 2.67    | 1.57                      | 0.76uM / 30 uIN MIN. GOLD ON CONTACT,<br>2.54uM/ 100uIN MIN. TIN ON SOLDERTAILS,<br>1.27uM/ 50uIN MIN. NICKEL UNDERPLATE |             |
| 87705-1051 |               | 3.18    | 2.36                      |                                                                                                                          |             |

|                                                                                                                     |                                   |             |                                       |        |                            |                                                                                                                               |              |                              |                                                                    |                     |  |
|---------------------------------------------------------------------------------------------------------------------|-----------------------------------|-------------|---------------------------------------|--------|----------------------------|-------------------------------------------------------------------------------------------------------------------------------|--------------|------------------------------|--------------------------------------------------------------------|---------------------|--|
| ADD NOTE @SHT4 C1<br>EC NO: S2008-1044<br>DRWN:CMTEO 2008/05/15<br>CHK'D:CGTAN 2008/05/15<br>APPR:SHLENI 2008/05/15 | QUALITY SYMBOLS<br><br>▽=0<br>▽=0 | DESCRIPTION | GENERAL TOLERANCES (UNLESS SPECIFIED) |        | DIMENSION STYLE<br>MM ONLY |                                                                                                                               | SCALE<br>NTS | DESIGN UNITS<br>METRIC       | THIRD ANGLE<br>PROJECTION                                          |                     |  |
|                                                                                                                     |                                   |             |                                       | mm     | INCH                       | DRAWN BY<br>CGOH                                                                                                              |              | DATE<br>2002/05/09           | TITLE<br>DDR2 DIMM, 1.00MM PITCH<br>240 CKTS<br>(FORKLOCK VERSION) |                     |  |
|                                                                                                                     |                                   |             | 4 PLACES                              | ± ---  | ± ---                      | CHECKED BY<br>DSOH                                                                                                            |              | DATE<br>2002/07/22           |                                                                    |                     |  |
|                                                                                                                     |                                   |             | 3 PLACES                              | ± ---  | ± ---                      | APPROVED BY<br>SKTOH                                                                                                          |              | DATE<br>2002/07/23           |                                                                    |                     |  |
|                                                                                                                     |                                   |             | 2 PLACES                              | ± 0.20 | ± ---                      | MATERIAL NO.<br>SEE TABLE                                                                                                     |              | DOCUMENT NO.<br>SD-87705-001 |                                                                    | SHEET NO.<br>5 OF 6 |  |
|                                                                                                                     |                                   |             | 1 PLACE                               | ± ---  | ± ---                      | DRAFT WHERE APPLICABLE<br>MUST REMAIN<br>WITHIN DIMENSIONS                                                                    |              | MOLEX INCORPORATED           |                                                                    |                     |  |
|                                                                                                                     |                                   |             | ANGULAR ± 5 °                         |        |                            |                                                                                                                               |              |                              |                                                                    |                     |  |
| D1                                                                                                                  | REV                               |             |                                       |        | SIZE<br>A3                 | THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION |              |                              |                                                                    |                     |  |

