

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

**Part Number:** [0459713387](#)  
**Status:** **Active**  
**Description:** 1.27mm (.050") by 1.27mm (.050") Pitch SEARAY\* Receptacle, 240 Circuits, 6.50mm (.255") Unmated Height, 8 Rows, With Pegs, Solder Charge™

**Documents:**  
[3D Model](#)  
[Drawing \(PDF\)](#)  
[Product Specification PS-45970-001 \(PDF\)](#)  
[Product Specification PS-45970-002 \(PDF\)](#)  
[RoHS Certificate of Compliance \(PDF\)](#)

**Agency Certification**

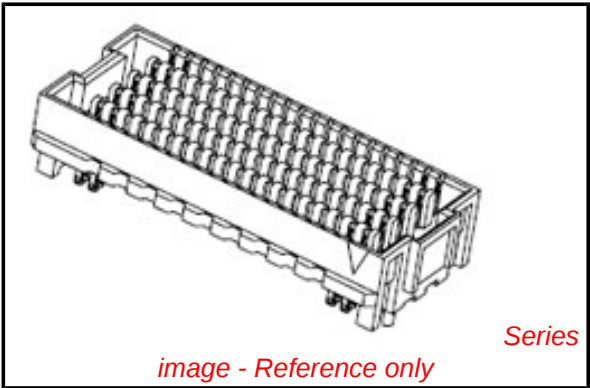
CSA LR19980  
UL E29179

**General**

Product Family PCB Receptacles  
Series [45971](#)  
Application Board-to-Board  
Product Name SEARAY\*

**Physical**

Circuits (Loaded) 240  
Circuits (maximum) 240  
Circuits Detail 240  
Color - Resin Black  
Durability (mating cycles max) 100  
Flammability 94V-0  
Glow-Wire Compliant No  
Guide to Mating Part No  
Keying to Mating Part None  
Lock to Mating Part No  
Material - Metal Copper Alloy  
Material - Plating Mating Gold  
Material - Plating Termination Tin-Lead  
Material - Resin High Temperature Thermoplastic  
Number of Rows 8  
Orientation Vertical  
PC Tail Length (in) 0.086 In  
PC Tail Length (mm) 2.18 mm  
PCB Locator Yes  
PCB Retention Yes  
PCB Thickness Recommended (in) 0.062 In  
PCB Thickness Recommended (mm) 1.57 mm  
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) 0.75  
Plating min: Termination (µin) 100  
Plating min: Termination (µm) 2.5  
Polarized to Mating Part Yes  
Polarized to PCB Yes  
Robotic Placement Pick and Place Cap  
Stackable No



**EU RoHS**  
**Not 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**  
[45971Series](#)

**Mates With**  
[45970 SEARAY\\* Plug](#)

|                                |                 |
|--------------------------------|-----------------|
| Surface Mount Compatible (SMC) | Yes             |
| Temperature Range - Operating  | -55°C to +125°C |
| Termination Interface: Style   | Surface Mount   |

**Electrical**

|                               |         |
|-------------------------------|---------|
| Current - Maximum per Contact | 2.7A    |
| Grounding to PCB              | No      |
| Voltage - Maximum             | 240V AC |

**Solder Process Data**

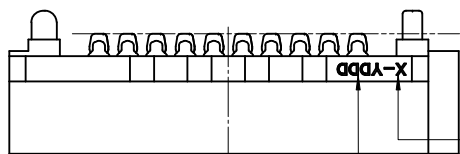
|                                                |                           |
|------------------------------------------------|---------------------------|
| Duration at Max. Process Temperature (seconds) | 3                         |
| Lead-free Process Capability                   | Reflow Capable (SMT only) |
| Max. Cycles at Max. Process Temperature        | 1                         |
| Process Temperature max. C                     | 230                       |
| Replacement RoHS Compliant Part Number         | 0459713385                |

**Material Info**

**Reference - Drawing Numbers**

|                           |                                          |
|---------------------------|------------------------------------------|
| Application Specification | AS-45970-001, AS-45970-002, AS-45970-990 |
| Packaging Specification   | PK-45970-002, PK-45971-001, PK-45971-002 |
| Product Specification     | PS-45970-001, PS-45970-002               |
| Sales Drawing             | SD-45971-001                             |
| Test Summary              | TS-45970-001                             |

\*SEARAY is a trademark of Samtec, Inc.



DATE CODE



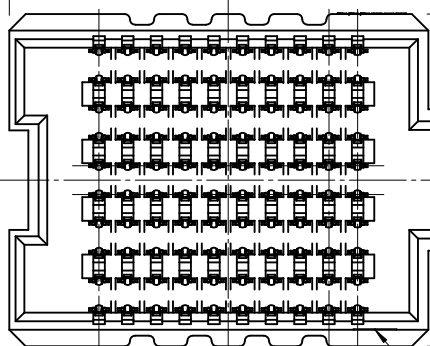
ACROSS ALL  
SOLDER CHARGES

LEAD CODE:

1 = TIN

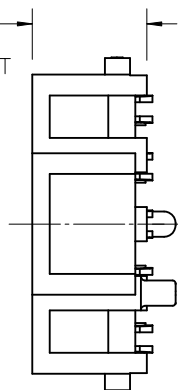
2 = TIN / LEAD

DIM M  $\pm .010$



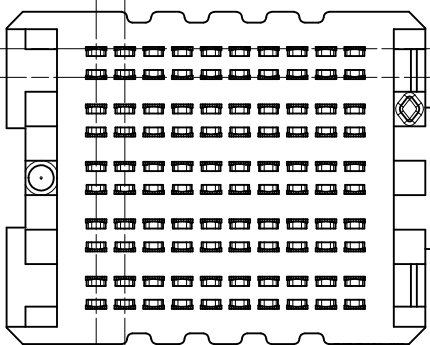
DIM C  $\pm .010$

DIM R  $^{+.002}_{-.004}$   
UNMATED HEIGHT

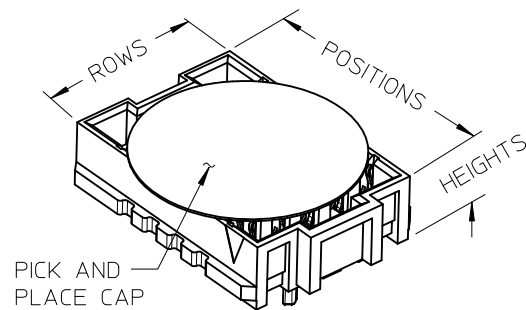


ROW 1 / POSITION 1 ID THIS SIDE

.050 TYP  
TERMINAL PITCH



.050 TYP  
TERMINAL PITCH



PICK AND  
PLACE CAP

#### NOTES:

- MATERIALS: HOUSING: LCP, UL94V-0, BLACK  
CONTACTS: COPPER ALLOY  
SOLDER CHARGE: SEE CHART
- FINISH: ALL OPTIONS - SELECT GOLD IN CONTACT AREA: 30 MI MIN  
OPTIONS 5.0: SELECT GOLD FLASH IN TAIL, 7 MI MIN  
OPTIONS 6.0 THRU 8.0: SELECT TIN IN TAIL, 100 MI MIN  
ALL OPTIONS - OVER NICKEL
- PRODUCT SPECIFICATION: PS-45970-001
- PACKAGING SPECIFICATION: SEE CHART
- MATES WITH SEARAY PLUG ASSEMBLY 45970
- APPLICATION SPECIFICATION: AS-45970-001
- COSMETIC SPECIFICATION: PS-45499-002 CLASS B
- PART STATUS: CONTACT MOLEX

|                                                                                                                           |             |  |
|---------------------------------------------------------------------------------------------------------------------------|-------------|--|
| UPDATED NOTE 2<br>EC NO: UCP2010-2270<br>DRWN: TREGORI 2010/03/05<br>CHKD: JCOMERC 2005/05/17<br>APPR: JCOMERC 2010/03/05 | DESCRIPTION |  |
|                                                                                                                           |             |  |
|                                                                                                                           |             |  |
|                                                                                                                           |             |  |
| O                                                                                                                         | REV         |  |
|                                                                                                                           |             |  |

#### GENERAL TOLERANCES (UNLESS SPECIFIED)

|          | mm        | INCH       |
|----------|-----------|------------|
| 4 PLACES | $\pm$ --- | $\pm$ ---  |
| 3 PLACES | $\pm$ --- | $\pm .005$ |
| 2 PLACES | $\pm$ --- | $\pm$ ---  |
| 1 PLACE  | $\pm$ --- | $\pm$ ---  |

ANGULAR  $\pm$ ---°

DRAFT WHERE APPLICABLE  
MUST REMAIN  
WITHIN DIMENSIONS

#### DIMENSION STYLE INCH ONLY

|             |            |
|-------------|------------|
| DRAWN BY    | DATE       |
| TGREGORI    | 2005/05/17 |
| CHECKED BY  | DATE       |
| JCOMERC     | 2005/05/17 |
| APPROVED BY | DATE       |
| JCOMERC     | 2010/03/05 |

MATERIAL NO.  
SEE CHART

SIZE  
A

SCALE  
3:1

DESIGN UNITS  
INCH

THIRD ANGLE  
PROJECTION

|                                               |                      |
|-----------------------------------------------|----------------------|
| SEARAY<br>RECEPTACLE ASSEMBLY<br>.050 CENTERS |                      |
| MOLEX INCORPORATED                            |                      |
| DOCUMENT NO.<br>SD-45971-001                  | SHEET NO.<br>1 OF 10 |

THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX  
INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION

6

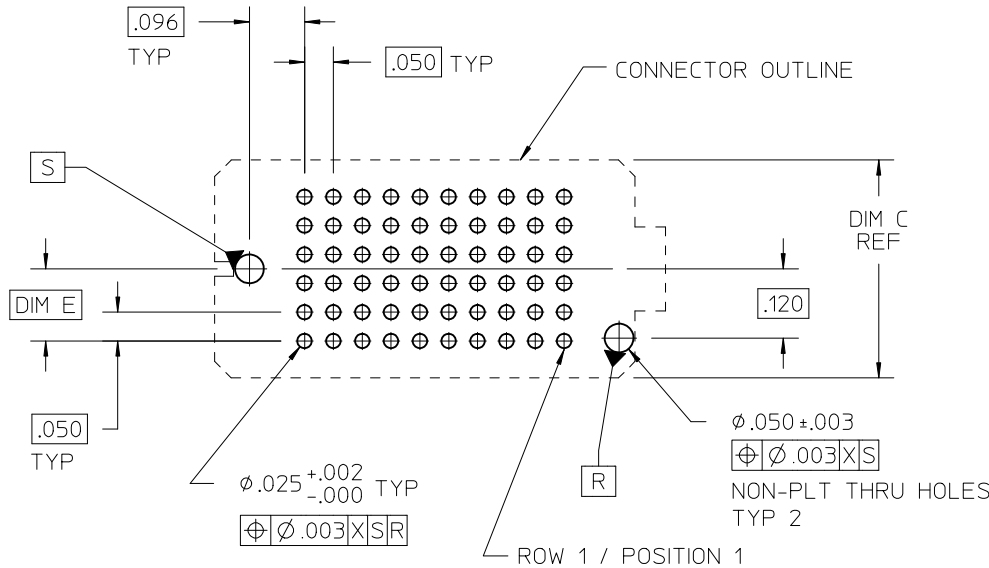
5

4

3

2

1

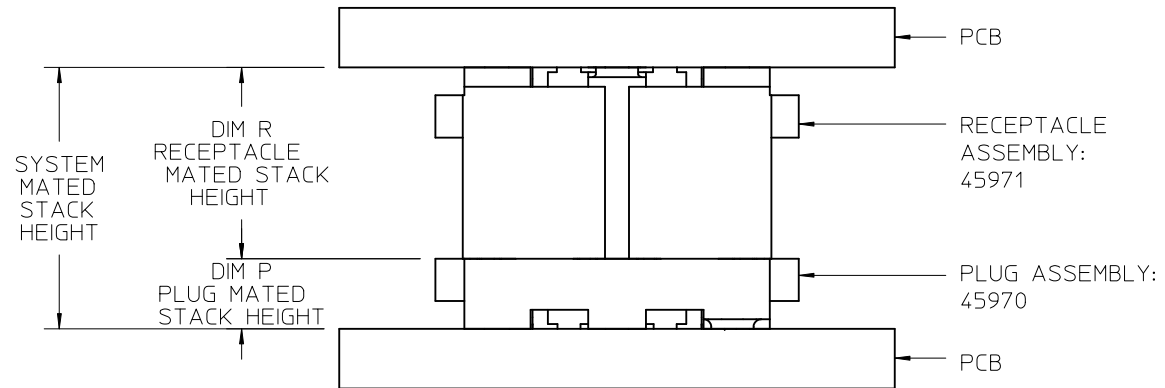


F  
.005  
MIN SOLDER  
PASTE THICKNESS

| NO OF ROWS | DIM C | DIM E |
|------------|-------|-------|
| 6          | .378  | .125  |
| 8          | .478  | .175  |
| 10         | .578  | .225  |
| 12         | .678  | .275  |

RECOMMENDED PCB LAYOUT: COMPONENT SIDE  
SOLDER SCREEN APERTURE SIZE: .035  
PCB THICKNESS: NA  
F

| DIM P<br>PLUG STACK HEIGHT | DIM R<br>RECEPTACLE STACK HEIGHT |      |      |      |      |      |
|----------------------------|----------------------------------|------|------|------|------|------|
|                            | MM                               | 5.0  | 6.0  | 6.5  | 7.5  | 8.0  |
|                            | 2.0                              | 7.0  | 8.0  | 8.5  | 9.5  | 10.0 |
|                            | 3.0                              | 8.0  | 9.0  | 9.5  | 10.5 | 11.0 |
|                            | 3.5                              | 8.5  | 9.5  | 10.0 | 11.0 | 11.5 |
|                            | 2.5                              | 7.5  | 8.5  | 9.0  | 10.0 | 10.5 |
|                            | 4.5                              | 9.5  | 10.5 | 11.0 | 12.0 | 12.5 |
|                            | 5.0                              | 10.0 | 11.0 | 11.5 | 12.5 | 13.0 |
| 7.0                        | 12.0                             | 13.0 | 13.5 | 14.5 | 15.0 |      |



STACK HEIGHTS GIVEN IN METRIC FOR REF ONLY

MATED STACK HEIGHTS  
(MILLIMETERS) REF

|                                                                                                                             |                                                            |                                                                                                                                  |       |                            |                              |                              |                                                        |                      |                           |  |  |  |  |
|-----------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------|-------|----------------------------|------------------------------|------------------------------|--------------------------------------------------------|----------------------|---------------------------|--|--|--|--|
| SEE SHEET 1<br>EC NO: UCP2010-2270<br>DRWN: TGREGORI 2010/03/05<br>CHKD: JCOMERC I 2005/05/17<br>APPR: JCOMERC I 2010/03/05 | DESCRIPTION                                                | GENERAL TOLERANCES<br>(UNLESS SPECIFIED)                                                                                         |       |                            | DIMENSION STYLE<br>INCH ONLY |                              | SCALE<br>3:1                                           | DESIGN UNITS<br>INCH | THIRD ANGLE<br>PROJECTION |  |  |  |  |
|                                                                                                                             |                                                            |                                                                                                                                  | mm    | INCH                       | DRAWN BY<br>TGREGORI         | DATE<br>2005/05/17           | TITLE<br>SEARAY<br>RECEPTACLE ASSEMBLY<br>.050 CENTERS |                      |                           |  |  |  |  |
|                                                                                                                             |                                                            | 4 PLACES                                                                                                                         | ± --- | ± ---                      | CHECKED BY<br>JCOMERC I      | DATE<br>2005/05/17           |                                                        |                      |                           |  |  |  |  |
|                                                                                                                             |                                                            | 3 PLACES                                                                                                                         | ± --- | ± .005                     | APPROVED BY<br>JCOMERC I     |                              | DATE<br>2010/03/05                                     |                      | MOLEX INCORPORATED        |  |  |  |  |
|                                                                                                                             |                                                            | 2 PLACES                                                                                                                         | ± --- | ± ---                      |                              |                              |                                                        |                      |                           |  |  |  |  |
|                                                                                                                             |                                                            | 1 PLACE                                                                                                                          | ± --- | ± ---                      |                              |                              |                                                        |                      |                           |  |  |  |  |
|                                                                                                                             | ANGULAR ± ---°                                             |                                                                                                                                  |       | MATERIAL NO.<br>SEE CHARTS |                              | DOCUMENT NO.<br>SD-45971-001 |                                                        |                      | SHEET NO.<br>2 OF 10      |  |  |  |  |
| REV                                                                                                                         | DRAFT WHERE APPLICABLE<br>MUST REMAIN<br>WITHIN DIMENSIONS | THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX<br>INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION |       |                            |                              |                              |                                                        |                      |                           |  |  |  |  |

[illegible]

|    |                                                                                                                                    |                                                            |            |                                          |             |                           |             |                                                                                                                                  |             |                           |             |                                                                     |             |                                            |  |
|----|------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------|------------|------------------------------------------|-------------|---------------------------|-------------|----------------------------------------------------------------------------------------------------------------------------------|-------------|---------------------------|-------------|---------------------------------------------------------------------|-------------|--------------------------------------------|--|
| D  | TRAY PACK PK-45971-001                                                                                                             | 6                                                          |            | 5                                        |             | 4                         |             | 3                                                                                                                                |             | 2                         |             | 1                                                                   |             |                                            |  |
|    |                                                                                                                                    | DIM R: (REF)                                               |            | 5.0 MM                                   |             | 6.0 MM                    |             | 6.5 MM                                                                                                                           |             | 7.5 MM                    |             | 8.0 MM                                                              |             | STACK HEIGHTS GIVEN IN METRIC FOR REF ONLY |  |
|    |                                                                                                                                    | DIM R:<br>HOUSING<br>HEIGHT                                |            |                                          |             |                           |             |                                                                                                                                  |             |                           |             |                                                                     |             |                                            |  |
|    |                                                                                                                                    | POSITION                                                   |            | DIM M                                    | MATERIAL NO |                           | MATERIAL NO |                                                                                                                                  | MATERIAL NO |                           | MATERIAL NO |                                                                     | MATERIAL NO |                                            |  |
|    |                                                                                                                                    | 19                                                         |            | 1.232                                    | 45971-0163  |                           | 45971-0263  |                                                                                                                                  | 45971-0363  |                           | 45971-0463  |                                                                     | 45971-0563  |                                            |  |
|    |                                                                                                                                    | 10                                                         |            | 0.782                                    | 45971-1163  |                           | 45971-1263  |                                                                                                                                  | 45971-1363  |                           | 45971-1463  |                                                                     | 45971-1563  |                                            |  |
|    |                                                                                                                                    | 20                                                         |            | 1.282                                    | 45971-2163  |                           | 45971-2263  |                                                                                                                                  | 45971-2363  |                           | 45971-2463  |                                                                     | 45971-2563  |                                            |  |
|    |                                                                                                                                    | 30                                                         |            | 1.782                                    | 45971-3163  |                           | 45971-3263  |                                                                                                                                  | 45971-3363  |                           | 45971-3463  |                                                                     | 45971-3563  |                                            |  |
|    |                                                                                                                                    | 40                                                         |            | 2.282                                    | 45971-4163  |                           | 45971-4263  |                                                                                                                                  | 45971-4363  |                           | 45971-4463  |                                                                     | 45971-4563  |                                            |  |
|    |                                                                                                                                    | 50                                                         |            | 2.782                                    | 45971-5163  |                           | 45971-5263  |                                                                                                                                  | 45971-5363  |                           | 45971-5463  |                                                                     | 45971-5563  |                                            |  |
|    |                                                                                                                                    | 15                                                         |            | 1.032                                    | 45971-6163  |                           | 45971-6263  |                                                                                                                                  | 45971-6363  |                           | 45971-6463  |                                                                     | 45971-6563  |                                            |  |
|    |                                                                                                                                    | 25                                                         |            | 1.532                                    | 45971-7163  |                           | 45971-7263  |                                                                                                                                  | 45971-7363  |                           | 45971-7463  |                                                                     | 45971-7563  |                                            |  |
| 35 |                                                                                                                                    | 2.032                                                      | 45971-8163 |                                          | 45971-8263  |                           | 45971-8363  |                                                                                                                                  | 45971-8463  |                           | 45971-8563  |                                                                     |             |                                            |  |
| 45 |                                                                                                                                    | 2.532                                                      | 45971-9163 |                                          | 45971-9263  |                           | 45971-9363  |                                                                                                                                  | 45971-9463  |                           | 45971-9563  |                                                                     |             |                                            |  |
| C  | TRAY PACK PK-45971-002                                                                                                             | DIM R: (REF)                                               |            | 5.0 MM                                   |             | 6.0 MM                    |             | 6.5 MM                                                                                                                           |             | 7.5 MM                    |             | 8.0 MM                                                              |             | STACK HEIGHTS GIVEN IN METRIC FOR REF ONLY |  |
|    |                                                                                                                                    | DIM R:<br>HOUSING<br>HEIGHT                                |            |                                          |             |                           |             |                                                                                                                                  |             |                           |             |                                                                     |             |                                            |  |
|    |                                                                                                                                    | POSITION                                                   |            | DIM M                                    | MATERIAL NO |                           | MATERIAL NO |                                                                                                                                  | MATERIAL NO |                           | MATERIAL NO |                                                                     | MATERIAL NO |                                            |  |
|    |                                                                                                                                    | 19                                                         |            | 1.232                                    | 45971-0167  |                           | 45971-0267  |                                                                                                                                  | 45971-0367  |                           | 45971-0467  |                                                                     | 45971-0567  |                                            |  |
|    |                                                                                                                                    | 10                                                         |            | 0.782                                    | 45971-1167  |                           | 45971-1267  |                                                                                                                                  | 45971-1367  |                           | 45971-1467  |                                                                     | 45971-1567  |                                            |  |
|    |                                                                                                                                    | 20                                                         |            | 1.282                                    | 45971-2167  |                           | 45971-2267  |                                                                                                                                  | 45971-2367  |                           | 45971-2467  |                                                                     | 45971-2567  |                                            |  |
|    |                                                                                                                                    | 30                                                         |            | 1.782                                    | 45971-3167  |                           | 45971-3267  |                                                                                                                                  | 45971-3367  |                           | 45971-3467  |                                                                     | 45971-3567  |                                            |  |
|    |                                                                                                                                    | 40                                                         |            | 2.282                                    | 45971-4167  |                           | 45971-4267  |                                                                                                                                  | 45971-4367  |                           | 45971-4467  |                                                                     | 45971-4567  |                                            |  |
|    |                                                                                                                                    | 50                                                         |            | 2.782                                    | 45971-5167  |                           | 45971-5267  |                                                                                                                                  | 45971-5367  |                           | 45971-5467  |                                                                     | 45971-5567  |                                            |  |
|    |                                                                                                                                    | 15                                                         |            | 1.032                                    | 45971-6167  |                           | 45971-6267  |                                                                                                                                  | 45971-6367  |                           | 45971-6467  |                                                                     | 45971-6567  |                                            |  |
|    |                                                                                                                                    | 25                                                         |            | 1.532                                    | 45971-7167  |                           | 45971-7267  |                                                                                                                                  | 45971-7367  |                           | 45971-7467  |                                                                     | 45971-7567  |                                            |  |
|    |                                                                                                                                    | 35                                                         |            | 2.032                                    | 45971-8167  |                           | 45971-8267  |                                                                                                                                  | 45971-8367  |                           | 45971-8467  |                                                                     | 45971-8567  |                                            |  |
| 45 |                                                                                                                                    | 2.532                                                      | 45971-9167 |                                          | 45971-9267  |                           | 45971-9367  |                                                                                                                                  | 45971-9467  |                           | 45971-9567  |                                                                     |             |                                            |  |
| B  | SEE SHEET 1<br>EC NO: UCP2010-2270<br>DRWN: TGREGORI 2010/03/05<br>CHKD: JCOMERC I 2005/05/17<br>APPR: JCOMERC I 2010/03/05<br>REV | GENERAL TOLERANCES<br>(UNLESS SPECIFIED)                   |            | DIMENSION STYLE<br>INCH ONLY             |             | SCALE<br>1:1              |             | DESIGN UNITS<br>INCH                                                                                                             |             | THIRD ANGLE<br>PROJECTION |             | SEARAY<br>RECEPTACLE ASSEMBLY<br>.050 CENTERS<br>MOLEX INCORPORATED |             |                                            |  |
|    |                                                                                                                                    | 4 PLACES ± --- mm ± --- INCH                               |            | DRAWN BY DATE<br>TGREGORI 2005/05/17     |             | TITLE                     |             |                                                                                                                                  |             |                           |             |                                                                     |             |                                            |  |
|    |                                                                                                                                    | 3 PLACES ± --- ± .005                                      |            | CHECKED BY DATE<br>JCOMERC I 2005/05/17  |             | DOCUMENT NO.              |             |                                                                                                                                  |             |                           |             |                                                                     |             |                                            |  |
|    |                                                                                                                                    | 2 PLACES ± --- ± ---                                       |            | APPROVED BY DATE<br>JCOMERC I 2010/03/05 |             | SHEET NO.<br>4 OF 10      |             |                                                                                                                                  |             |                           |             |                                                                     |             |                                            |  |
|    |                                                                                                                                    | 1 PLACE ± --- ± ---                                        |            | ANGULAR ± ---°                           |             | MATERIAL NO.<br>SEE CHART |             | THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX<br>INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION |             |                           |             |                                                                     |             |                                            |  |
|    |                                                                                                                                    | DRAFT WHERE APPLICABLE<br>MUST REMAIN<br>WITHIN DIMENSIONS |            |                                          |             |                           |             |                                                                                                                                  |             |                           |             |                                                                     |             |                                            |  |
|    |                                                                                                                                    |                                                            |            |                                          |             |                           |             |                                                                                                                                  |             |                           |             |                                                                     |             |                                            |  |
|    |                                                                                                                                    |                                                            |            |                                          |             |                           |             |                                                                                                                                  |             |                           |             |                                                                     |             |                                            |  |
|    |                                                                                                                                    |                                                            |            |                                          |             |                           |             |                                                                                                                                  |             |                           |             |                                                                     |             |                                            |  |
|    |                                                                                                                                    |                                                            |            |                                          |             |                           |             |                                                                                                                                  |             |                           |             |                                                                     |             |                                            |  |
|    |                                                                                                                                    |                                                            |            |                                          |             |                           |             |                                                                                                                                  |             |                           |             |                                                                     |             |                                            |  |
|    |                                                                                                                                    |                                                            |            |                                          |             |                           |             |                                                                                                                                  |             |                           |             |                                                                     |             |                                            |  |
|    |                                                                                                                                    |                                                            |            |                                          |             |                           |             |                                                                                                                                  |             |                           |             |                                                                     |             |                                            |  |
|    |                                                                                                                                    |                                                            |            |                                          |             |                           |             |                                                                                                                                  |             |                           |             |                                                                     |             |                                            |  |
|    |                                                                                                                                    |                                                            |            |                                          |             |                           |             |                                                                                                                                  |             |                           |             |                                                                     |             |                                            |  |
|    |                                                                                                                                    |                                                            |            |                                          |             |                           |             |                                                                                                                                  |             |                           |             |                                                                     |             |                                            |  |
|    |                                                                                                                                    |                                                            |            |                                          |             |                           |             |                                                                                                                                  |             |                           |             |                                                                     |             |                                            |  |
|    |                                                                                                                                    |                                                            |            |                                          |             |                           |             |                                                                                                                                  |             |                           |             |                                                                     |             |                                            |  |
|    |                                                                                                                                    |                                                            |            |                                          |             |                           |             |                                                                                                                                  |             |                           |             |                                                                     |             |                                            |  |
|    |                                                                                                                                    |                                                            |            |                                          |             |                           |             |                                                                                                                                  |             |                           |             |                                                                     |             |                                            |  |
|    |                                                                                                                                    |                                                            |            |                                          |             |                           |             |                                                                                                                                  |             |                           |             |                                                                     |             |                                            |  |
|    |                                                                                                                                    |                                                            |            |                                          |             |                           |             |                                                                                                                                  |             |                           |             |                                                                     |             |                                            |  |
|    |                                                                                                                                    |                                                            |            |                                          |             |                           |             |                                                                                                                                  |             |                           |             |                                                                     |             |                                            |  |
|    |                                                                                                                                    |                                                            |            |                                          |             |                           |             |                                                                                                                                  |             |                           |             |                                                                     |             |                                            |  |
|    |                                                                                                                                    |                                                            |            |                                          |             |                           |             |                                                                                                                                  |             |                           |             |                                                                     |             |                                            |  |
|    |                                                                                                                                    |                                                            |            |                                          |             |                           |             |                                                                                                                                  |             |                           |             |                                                                     |             |                                            |  |
|    |                                                                                                                                    |                                                            |            |                                          |             |                           |             |                                                                                                                                  |             |                           |             |                                                                     |             |                                            |  |
|    |                                                                                                                                    |                                                            |            |                                          |             |                           |             |                                                                                                                                  |             |                           |             |                                                                     |             |                                            |  |
|    |                                                                                                                                    |                                                            |            |                                          |             |                           |             |                                                                                                                                  |             |                           |             |                                                                     |             |                                            |  |
|    |                                                                                                                                    |                                                            |            |                                          |             |                           |             |                                                                                                                                  |             |                           |             |                                                                     |             |                                            |  |
|    |                                                                                                                                    |                                                            |            |                                          |             |                           |             |                                                                                                                                  |             |                           |             |                                                                     |             |                                            |  |
|    |                                                                                                                                    |                                                            |            |                                          |             |                           |             |                                                                                                                                  |             |                           |             |                                                                     |             |                                            |  |
|    |                                                                                                                                    |                                                            |            |                                          |             |                           |             |                                                                                                                                  |             |                           |             |                                                                     |             |                                            |  |
|    |                                                                                                                                    |                                                            |            |                                          |             |                           |             |                                                                                                                                  |             |                           |             |                                                                     |             |                                            |  |
|    |                                                                                                                                    |                                                            |            |                                          |             |                           |             |                                                                                                                                  |             |                           |             |                                                                     |             |                                            |  |
|    |                                                                                                                                    |                                                            |            |                                          |             |                           |             |                                                                                                                                  |             |                           |             |                                                                     |             |                                            |  |
|    |                                                                                                                                    |                                                            |            |                                          |             |                           |             |                                                                                                                                  |             |                           |             |                                                                     |             |                                            |  |
|    |                                                                                                                                    |                                                            |            |                                          |             |                           |             |                                                                                                                                  |             |                           |             |                                                                     |             |                                            |  |
|    |                                                                                                                                    |                                                            |            |                                          |             |                           |             |                                                                                                                                  |             |                           |             |                                                                     |             |                                            |  |
|    |                                                                                                                                    |                                                            |            |                                          |             |                           |             |                                                                                                                                  |             |                           |             |                                                                     |             |                                            |  |
|    |                                                                                                                                    |                                                            |            |                                          |             |                           |             |                                                                                                                                  |             |                           |             |                                                                     |             |                                            |  |
|    |                                                                                                                                    |                                                            |            |                                          |             |                           |             |                                                                                                                                  |             |                           |             |                                                                     |             |                                            |  |
|    |                                                                                                                                    |                                                            |            |                                          |             |                           |             |                                                                                                                                  |             |                           |             |                                                                     |             |                                            |  |
|    |                                                                                                                                    |                                                            |            |                                          |             |                           |             |                                                                                                                                  |             |                           |             |                                                                     |             |                                            |  |
|    |                                                                                                                                    |                                                            |            |                                          |             |                           |             |                                                                                                                                  |             |                           |             |                                                                     |             |                                            |  |
|    |                                                                                                                                    |                                                            |            |                                          |             |                           |             |                                                                                                                                  |             |                           |             |                                                                     |             |                                            |  |
|    |                                                                                                                                    |                                                            |            |                                          |             |                           |             |                                                                                                                                  |             |                           |             |                                                                     |             |                                            |  |
|    |                                                                                                                                    |                                                            |            |                                          |             |                           |             |                                                                                                                                  |             |                           |             |                                                                     |             |                                            |  |
|    |                                                                                                                                    |                                                            |            |                                          |             |                           |             |                                                                                                                                  |             |                           |             |                                                                     |             |                                            |  |
|    |                                                                                                                                    |                                                            |            |                                          |             |                           |             |                                                                                                                                  |             |                           |             |                                                                     |             |                                            |  |
|    |                                                                                                                                    |                                                            |            |                                          |             |                           |             |                                                                                                                                  |             |                           |             |                                                                     |             |                                            |  |
|    |                                                                                                                                    |                                                            |            |                                          |             |                           |             |                                                                                                                                  |             |                           |             |                                                                     |             |                                            |  |
|    |                                                                                                                                    |                                                            |            |                                          |             |                           |             |                                                                                                                                  |             |                           |             |                                                                     |             |                                            |  |
|    |                                                                                                                                    |                                                            |            |                                          |             |                           |             |                                                                                                                                  |             |                           |             |                                                                     |             |                                            |  |
|    |                                                                                                                                    |                                                            |            |                                          |             |                           |             |                                                                                                                                  |             |                           |             |                                                                     |             |                                            |  |
|    |                                                                                                                                    |                                                            |            |                                          |             |                           |             |                                                                                                                                  |             |                           |             |                                                                     |             |                                            |  |
|    |                                                                                                                                    |                                                            |            |                                          |             |                           |             |                                                                                                                                  |             |                           |             |                                                                     |             |                                            |  |
|    |                                                                                                                                    |                                                            |            |                                          |             |                           |             |                                                                                                                                  |             |                           |             |                                                                     |             |                                            |  |
|    |                                                                                                                                    |                                                            |            |                                          |             |                           |             |                                                                                                                                  |             |                           |             |                                                                     |             |                                            |  |
|    |                                                                                                                                    |                                                            |            |                                          |             |                           |             |                                                                                                                                  |             |                           |             |                                                                     |             |                                            |  |
|    |                                                                                                                                    |                                                            |            |                                          |             |                           |             |                                                                                                                                  |             |                           |             |                                                                     |             |                                            |  |

|                                        |                        |                       |       |             |  |             |  |             |  |             |  |             |  |                                            |
|----------------------------------------|------------------------|-----------------------|-------|-------------|--|-------------|--|-------------|--|-------------|--|-------------|--|--------------------------------------------|
|                                        |                        | 6                     |       | 5           |  | 4           |  | 3           |  | 2           |  | 1           |  |                                            |
| D                                      | TRAY PACK PK-45971-001 | DIM R: (REF)          |       | 5.0 MM      |  | 6.0 MM      |  | 6.5 MM      |  | 7.5 MM      |  | 8.0 MM      |  | STACK HEIGHTS GIVEN IN METRIC FOR REF ONLY |
|                                        |                        | DIM R: HOUSING HEIGHT |       |             |  |             |  |             |  |             |  |             |  |                                            |
|                                        |                        | POSITION              | DIM M | MATERIAL NO |  | MATERIAL NO |  | MATERIAL NO |  | MATERIAL NO |  | MATERIAL NO |  |                                            |
|                                        |                        | 19                    | 1.232 | 45971-0181  |  | 45971-0281  |  | 45971-0381  |  | 45971-0481  |  | 45971-0581  |  |                                            |
|                                        |                        | 10                    | 0.782 | 45971-1181  |  | 45971-1281  |  | 45971-1381  |  | 45971-1481  |  | 45971-1581  |  |                                            |
|                                        |                        | 20                    | 1.282 | 45971-2181  |  | 45971-2281  |  | 45971-2381  |  | 45971-2481  |  | 45971-2581  |  |                                            |
|                                        |                        | 30                    | 1.782 | 45971-3181  |  | 45971-3281  |  | 45971-3381  |  | 45971-3481  |  | 45971-3581  |  |                                            |
|                                        |                        | 40                    | 2.282 | 45971-4181  |  | 45971-4281  |  | 45971-4381  |  | 45971-4481  |  | 45971-4581  |  |                                            |
|                                        |                        | 50                    | 2.782 | 45971-5181  |  | 45971-5281  |  | 45971-5381  |  | 45971-5481  |  | 45971-5581  |  |                                            |
|                                        |                        | 15                    | 1.032 | 45971-6181  |  | 45971-6281  |  | 45971-6381  |  | 45971-6481  |  | 45971-6581  |  |                                            |
|                                        |                        | 25                    | 1.532 | 45971-7181  |  | 45971-7281  |  | 45971-7381  |  | 45971-7481  |  | 45971-7581  |  |                                            |
|                                        |                        | 35                    | 2.032 | 45971-8181  |  | 45971-8281  |  | 45971-8381  |  | 45971-8481  |  | 45971-8581  |  |                                            |
| 45                                     | 2.532                  | 45971-9181            |       | 45971-9281  |  | 45971-9381  |  | 45971-9481  |  | 45971-9581  |  |             |  |                                            |
| C                                      | TRAY PACK PK-45971-002 | DIM R: (REF)          |       | 5.0 MM      |  | 6.0 MM      |  | 6.5 MM      |  | 7.5 MM      |  | 8.0 MM      |  | STACK HEIGHTS GIVEN IN METRIC FOR REF ONLY |
|                                        |                        | DIM R: HOUSING HEIGHT |       |             |  |             |  |             |  |             |  |             |  |                                            |
|                                        |                        | POSITION              | DIM M | MATERIAL NO |  | MATERIAL NO |  | MATERIAL NO |  | MATERIAL NO |  | MATERIAL NO |  |                                            |
|                                        |                        | 19                    | 1.232 | 45971-0185  |  | 45971-0285  |  | 45971-0385  |  | 45971-0485  |  | 45971-0585  |  |                                            |
|                                        |                        | 10                    | 0.782 | 45971-1185  |  | 45971-1285  |  | 45971-1385  |  | 45971-1485  |  | 45971-1585  |  |                                            |
|                                        |                        | 20                    | 1.282 | 45971-2185  |  | 45971-2285  |  | 45971-2385  |  | 45971-2485  |  | 45971-2585  |  |                                            |
|                                        |                        | 30                    | 1.782 | 45971-3185  |  | 45971-3285  |  | 45971-3385  |  | 45971-3485  |  | 45971-3585  |  |                                            |
|                                        |                        | 40                    | 2.282 | 45971-4185  |  | 45971-4285  |  | 45971-4385  |  | 45971-4485  |  | 45971-4585  |  |                                            |
|                                        |                        | 50                    | 2.782 | 45971-5185  |  | 45971-5285  |  | 45971-5385  |  | 45971-5485  |  | 45971-5585  |  |                                            |
|                                        |                        | 15                    | 1.032 | 45971-6185  |  | 45971-6285  |  | 45971-6385  |  | 45971-6485  |  | 45971-6585  |  |                                            |
|                                        |                        | 25                    | 1.532 | 45971-7185  |  | 45971-7285  |  | 45971-7385  |  | 45971-7485  |  | 45971-7585  |  |                                            |
|                                        |                        | 35                    | 2.032 | 45971-8185  |  | 45971-8285  |  | 45971-8385  |  | 45971-8485  |  | 45971-8585  |  |                                            |
| 45                                     | 2.532                  | 45971-9185            |       | 45971-9285  |  | 45971-9385  |  | 45971-9485  |  | 45971-9585  |  |             |  |                                            |
| B                                      | TRAY PACK PK-45971-002 | DIM R: (REF)          |       | 5.0 MM      |  | 6.0 MM      |  | 6.5 MM      |  | 7.5 MM      |  | 8.0 MM      |  | STACK HEIGHTS GIVEN IN METRIC FOR REF ONLY |
|                                        |                        | DIM R: HOUSING HEIGHT |       |             |  |             |  |             |  |             |  |             |  |                                            |
|                                        |                        | POSITION              | DIM M | MATERIAL NO |  | MATERIAL NO |  | MATERIAL NO |  | MATERIAL NO |  | MATERIAL NO |  |                                            |
|                                        |                        | 19                    | 1.232 | 45971-0185  |  | 45971-0285  |  | 45971-0385  |  | 45971-0485  |  | 45971-0585  |  |                                            |
|                                        |                        | 10                    | 0.782 | 45971-1185  |  | 45971-1285  |  | 45971-1385  |  | 45971-1485  |  | 45971-1585  |  |                                            |
|                                        |                        | 20                    | 1.282 | 45971-2185  |  | 45971-2285  |  | 45971-2385  |  | 45971-2485  |  | 45971-2585  |  |                                            |
|                                        |                        | 30                    | 1.782 | 45971-3185  |  | 45971-3285  |  | 45971-3385  |  | 45971-3485  |  | 45971-3585  |  |                                            |
|                                        |                        | 40                    | 2.282 | 45971-4185  |  | 45971-4285  |  | 45971-4385  |  | 45971-4485  |  | 45971-4585  |  |                                            |
|                                        |                        | 50                    | 2.782 | 45971-5185  |  | 45971-5285  |  | 45971-5385  |  | 45971-5485  |  | 45971-5585  |  |                                            |
|                                        |                        | 15                    | 1.032 | 45971-6185  |  | 45971-6285  |  | 45971-6385  |  | 45971-6485  |  | 45971-6585  |  |                                            |
|                                        |                        | 25                    | 1.532 | 45971-7185  |  | 45971-7285  |  | 45971-7385  |  | 45971-7485  |  | 45971-7585  |  |                                            |
|                                        |                        | 35                    | 2.032 | 45971-8185  |  | 45971-8285  |  | 45971-8385  |  | 45971-8485  |  | 45971-8585  |  |                                            |
| 45                                     | 2.532                  | 45971-9185            |       | 45971-9285  |  | 45971-9385  |  | 45971-9485  |  | 45971-9585  |  |             |  |                                            |
| A                                      | TRAY PACK PK-45971-002 | DIM R: (REF)          |       | 5.0 MM      |  | 6.0 MM      |  | 6.5 MM      |  | 7.5 MM      |  | 8.0 MM      |  | STACK HEIGHTS GIVEN IN METRIC FOR REF ONLY |
|                                        |                        | DIM R: HOUSING HEIGHT |       |             |  |             |  |             |  |             |  |             |  |                                            |
|                                        |                        | POSITION              | DIM M | MATERIAL NO |  | MATERIAL NO |  | MATERIAL NO |  | MATERIAL NO |  | MATERIAL NO |  |                                            |
|                                        |                        | 19                    | 1.232 | 45971-0185  |  | 45971-0285  |  | 45971-0385  |  | 45971-0485  |  | 45971-0585  |  |                                            |
|                                        |                        | 10                    | 0.782 | 45971-1185  |  | 45971-1285  |  | 45971-1385  |  | 45971-1485  |  | 45971-1585  |  |                                            |
|                                        |                        | 20                    | 1.282 | 45971-2185  |  | 45971-2285  |  | 45971-2385  |  | 45971-2485  |  | 45971-2585  |  |                                            |
|                                        |                        | 30                    | 1.782 | 45971-3185  |  | 45971-3285  |  | 45971-3385  |  | 45971-3485  |  | 45971-3585  |  |                                            |
|                                        |                        | 40                    | 2.282 | 45971-4185  |  | 45971-4285  |  | 45971-4385  |  | 45971-4485  |  | 45971-4585  |  |                                            |
|                                        |                        | 50                    | 2.782 | 45971-5185  |  | 45971-5285  |  | 45971-5385  |  | 45971-5485  |  | 45971-5585  |  |                                            |
|                                        |                        | 15                    | 1.032 | 45971-6185  |  | 45971-6285  |  | 45971-6385  |  | 45971-6485  |  | 45971-6585  |  |                                            |
|                                        |                        | 25                    | 1.532 | 45971-7185  |  | 45971-7285  |  | 45971-7385  |  | 45971-7485  |  | 45971-7585  |  |                                            |
|                                        |                        | 35                    | 2.032 | 45971-8185  |  | 45971-8285  |  | 45971-8385  |  | 45971-8485  |  | 45971-8585  |  |                                            |
| 45                                     | 2.532                  | 45971-9185            |       | 45971-9285  |  | 45971-9385  |  | 45971-9485  |  | 45971-9585  |  |             |  |                                            |
| tb_frame_A_P_AM_T<br>Rev. E 2006/04/15 |                        | 5                     |       | 4           |  | 3           |  | 2           |  | 1           |  |             |  |                                            |

NOTES:

1. THIS SHEET CONTAINS THE FOLLOWING OPTIONS  
NO OF ROWS: 8  
SOLDER CHARGE: TIN  
PACKAGING: TRAYS AND TAPE AND REEL

SEE SHEET 1  
EC NO: UCP2010-2270  
DRWN:TGREGORI 2010/03/05  
CH'KD:JCOMERC I 2005/05/17  
APPR:JCOMERC I 2010/03/05

REV

DESCRIPTION

GENERAL TOLERANCES  
(UNLESS SPECIFIED)

mm

INCH

4 PLACES ± --- ± ---

3 PLACES ± --- ± .005

2 PLACES ± --- ± ---

1 PLACE ± --- ± ---

ANGULAR ± ---°

DRAFT WHERE APPLICABLE  
MUST REMAIN  
WITHIN DIMENSIONS

DIMENSION STYLE  
INCH ONLY

DRAWN BY

DATE

TGREGORI 2005/05/17

CHECKED BY

DATE

JCOMERC I 2005/05/17

APPROVED BY

DATE

JCOMERC I 2010/03/05

MATERIAL NO.

SEE CHART

SIZE

A

THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX  
INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION

SCALE  
1:1

DESIGN UNITS  
INCH

THIRD ANGLE  
PROJECTION

TITLE

SEARAY  
RECEPTACLE ASSEMBLY  
.050 CENTERS

molex

MOLEX INCORPORATED

DOCUMENT NO.  
SD-45971-001

SHEET NO.  
5 OF 10

[illegible]

|    |                                                                                                                                      |                                                            |       |             |  |             |  |                           |  |                              |  |                                                                              |  |                                                                                                                                  |  |              |  |                      |  |                           |  |   |  |
|----|--------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------|-------|-------------|--|-------------|--|---------------------------|--|------------------------------|--|------------------------------------------------------------------------------|--|----------------------------------------------------------------------------------------------------------------------------------|--|--------------|--|----------------------|--|---------------------------|--|---|--|
| D  | TRAY PACK PK-45971-001                                                                                                               | 6                                                          |       | 5           |  | 4           |  | 3                         |  | 2                            |  | 1                                                                            |  |                                                                                                                                  |  |              |  |                      |  |                           |  |   |  |
|    |                                                                                                                                      | DIM R: (REF)                                               |       | 5.0 MM      |  | 6.0 MM      |  | 6.5 MM                    |  | 7.5 MM                       |  | 8.0 MM                                                                       |  | STACK HEIGHTS GIVEN IN METRIC FOR REF ONLY                                                                                       |  |              |  |                      |  |                           |  |   |  |
|    |                                                                                                                                      | DIM R:<br>HOUSING<br>HEIGHT                                |       |             |  |             |  |                           |  |                              |  |                                                                              |  |                                                                                                                                  |  |              |  |                      |  |                           |  |   |  |
|    |                                                                                                                                      | POSITION                                                   | DIM M | MATERIAL NO |  | MATERIAL NO |  | MATERIAL NO               |  | MATERIAL NO                  |  | MATERIAL NO                                                                  |  |                                                                                                                                  |  |              |  |                      |  |                           |  |   |  |
|    |                                                                                                                                      | 19                                                         | 1.232 | 45971-0111  |  | 45971-0211  |  | 45971-0311                |  | 45971-0411                   |  | 45971-0511                                                                   |  |                                                                                                                                  |  |              |  |                      |  |                           |  |   |  |
|    |                                                                                                                                      | 10                                                         | 0.782 | 45971-1111  |  | 45971-1211  |  | 45971-1311                |  | 45971-1411                   |  | 45971-1511                                                                   |  |                                                                                                                                  |  |              |  |                      |  |                           |  |   |  |
|    |                                                                                                                                      | 20                                                         | 1.282 | 45971-2111  |  | 45971-2211  |  | 45971-2311                |  | 45971-2411                   |  | 45971-2511                                                                   |  |                                                                                                                                  |  |              |  |                      |  |                           |  |   |  |
|    |                                                                                                                                      | 30                                                         | 1.782 | 45971-3111  |  | 45971-3211  |  | 45971-3311                |  | 45971-3411                   |  | 45971-3511                                                                   |  |                                                                                                                                  |  |              |  |                      |  |                           |  |   |  |
|    |                                                                                                                                      | 40                                                         | 2.282 | 45971-4111  |  | 45971-4211  |  | 45971-4311                |  | 45971-4411                   |  | 45971-4511                                                                   |  |                                                                                                                                  |  |              |  |                      |  |                           |  |   |  |
|    |                                                                                                                                      | 50                                                         | 2.782 | 45971-5111  |  | 45971-5211  |  | 45971-5311                |  | 45971-5411                   |  | 45971-5511                                                                   |  |                                                                                                                                  |  |              |  |                      |  |                           |  |   |  |
|    |                                                                                                                                      | 15                                                         | 1.032 | 45971-6111  |  | 45971-6211  |  | 45971-6311                |  | 45971-6411                   |  | 45971-6511                                                                   |  |                                                                                                                                  |  |              |  |                      |  |                           |  |   |  |
|    |                                                                                                                                      | 25                                                         | 1.532 | 45971-7111  |  | 45971-7211  |  | 45971-7311                |  | 45971-7411                   |  | 45971-7511                                                                   |  |                                                                                                                                  |  |              |  |                      |  |                           |  |   |  |
| 35 | 2.032                                                                                                                                | 45971-8111                                                 |       | 45971-8211  |  | 45971-8311  |  | 45971-8411                |  | 45971-8511                   |  |                                                                              |  |                                                                                                                                  |  |              |  |                      |  |                           |  |   |  |
| 45 | 2.532                                                                                                                                | 45971-9111                                                 |       | 45971-9211  |  | 45971-9311  |  | 45971-9411                |  | 45971-9511                   |  |                                                                              |  |                                                                                                                                  |  |              |  |                      |  |                           |  |   |  |
| C  | TRAY PACK PK-45971-002                                                                                                               | DIM R: (REF)                                               |       | 5.0 MM      |  | 6.0 MM      |  | 6.5 MM                    |  | 7.5 MM                       |  | 8.0 MM                                                                       |  | STACK HEIGHTS GIVEN IN METRIC FOR REF ONLY                                                                                       |  |              |  |                      |  |                           |  |   |  |
|    |                                                                                                                                      | DIM R:<br>HOUSING<br>HEIGHT                                |       |             |  |             |  |                           |  |                              |  |                                                                              |  |                                                                                                                                  |  |              |  |                      |  |                           |  |   |  |
|    |                                                                                                                                      | POSITION                                                   | DIM M | MATERIAL NO |  | MATERIAL NO |  | MATERIAL NO               |  | MATERIAL NO                  |  | MATERIAL NO                                                                  |  |                                                                                                                                  |  |              |  |                      |  |                           |  |   |  |
|    |                                                                                                                                      | 19                                                         | 1.232 | 45971-0115  |  | 45971-0215  |  | 45971-0315                |  | 45971-0415                   |  | 45971-0515                                                                   |  |                                                                                                                                  |  |              |  |                      |  |                           |  |   |  |
|    |                                                                                                                                      | 10                                                         | 0.782 | 45971-1115  |  | 45971-1215  |  | 45971-1315                |  | 45971-1415                   |  | 45971-1515                                                                   |  |                                                                                                                                  |  |              |  |                      |  |                           |  |   |  |
|    |                                                                                                                                      | 20                                                         | 1.282 | 45971-2115  |  | 45971-2215  |  | 45971-2315                |  | 45971-2415                   |  | 45971-2515                                                                   |  |                                                                                                                                  |  |              |  |                      |  |                           |  |   |  |
|    |                                                                                                                                      | 30                                                         | 1.782 | 45971-3115  |  | 45971-3215  |  | 45971-3315                |  | 45971-3415                   |  | 45971-3515                                                                   |  |                                                                                                                                  |  |              |  |                      |  |                           |  |   |  |
|    |                                                                                                                                      | 40                                                         | 2.282 | 45971-4115  |  | 45971-4215  |  | 45971-4315                |  | 45971-4415                   |  | 45971-4515                                                                   |  |                                                                                                                                  |  |              |  |                      |  |                           |  |   |  |
|    |                                                                                                                                      | 50                                                         | 2.782 | 45971-5115  |  | 45971-5215  |  | 45971-5315                |  | 45971-5415                   |  | 45971-5515                                                                   |  |                                                                                                                                  |  |              |  |                      |  |                           |  |   |  |
|    |                                                                                                                                      | 15                                                         | 1.032 | 45971-6115  |  | 45971-6215  |  | 45971-6315                |  | 45971-6415                   |  | 45971-6515                                                                   |  |                                                                                                                                  |  |              |  |                      |  |                           |  |   |  |
|    |                                                                                                                                      | 25                                                         | 1.532 | 45971-7115  |  | 45971-7215  |  | 45971-7315                |  | 45971-7415                   |  | 45971-7515                                                                   |  |                                                                                                                                  |  |              |  |                      |  |                           |  |   |  |
|    |                                                                                                                                      | 35                                                         | 2.032 | 45971-8115  |  | 45971-8215  |  | 45971-8315                |  | 45971-8415                   |  | 45971-8515                                                                   |  |                                                                                                                                  |  |              |  |                      |  |                           |  |   |  |
| 45 | 2.532                                                                                                                                | 45971-9115                                                 |       | 45971-9215  |  | 45971-9315  |  | 45971-9415                |  | 45971-9515                   |  |                                                                              |  |                                                                                                                                  |  |              |  |                      |  |                           |  |   |  |
| B  | NOTES:<br>1. THIS SHEET CONTAINS THE FOLLOWING OPTIONS<br>NO OF ROWS: 10<br>SOLDER CHARGE: TIN<br>PACKAGING: TRAYS AND TAPE AND REEL |                                                            |       |             |  |             |  |                           |  |                              |  |                                                                              |  |                                                                                                                                  |  |              |  |                      |  |                           |  |   |  |
|    |                                                                                                                                      |                                                            |       |             |  |             |  |                           |  |                              |  |                                                                              |  |                                                                                                                                  |  |              |  |                      |  |                           |  |   |  |
|    |                                                                                                                                      |                                                            |       |             |  |             |  |                           |  |                              |  |                                                                              |  |                                                                                                                                  |  |              |  |                      |  |                           |  |   |  |
|    |                                                                                                                                      |                                                            |       |             |  |             |  |                           |  |                              |  |                                                                              |  |                                                                                                                                  |  |              |  |                      |  |                           |  |   |  |
|    |                                                                                                                                      |                                                            |       |             |  |             |  |                           |  |                              |  |                                                                              |  |                                                                                                                                  |  |              |  |                      |  |                           |  |   |  |
|    |                                                                                                                                      |                                                            |       |             |  |             |  |                           |  |                              |  |                                                                              |  |                                                                                                                                  |  |              |  |                      |  |                           |  |   |  |
|    |                                                                                                                                      |                                                            |       |             |  |             |  |                           |  |                              |  |                                                                              |  |                                                                                                                                  |  |              |  |                      |  |                           |  |   |  |
|    |                                                                                                                                      |                                                            |       |             |  |             |  |                           |  |                              |  |                                                                              |  |                                                                                                                                  |  |              |  |                      |  |                           |  |   |  |
|    |                                                                                                                                      |                                                            |       |             |  |             |  |                           |  |                              |  |                                                                              |  |                                                                                                                                  |  |              |  |                      |  |                           |  |   |  |
|    |                                                                                                                                      |                                                            |       |             |  |             |  |                           |  |                              |  |                                                                              |  |                                                                                                                                  |  |              |  |                      |  |                           |  |   |  |
|    |                                                                                                                                      |                                                            |       |             |  |             |  |                           |  |                              |  |                                                                              |  |                                                                                                                                  |  |              |  |                      |  |                           |  |   |  |
|    |                                                                                                                                      |                                                            |       |             |  |             |  |                           |  |                              |  |                                                                              |  |                                                                                                                                  |  |              |  |                      |  |                           |  |   |  |
| A  | SEE SHEET 1<br>EC NO: UCP2010-2270<br>DRWN: TGREGORI 2010/03/05<br>CHKD: JCOMERC I 2005/05/17<br>APPR: JCOMERC I 2010/03/05<br>REV   |                                                            |       |             |  |             |  |                           |  |                              |  | GENERAL TOLERANCES<br>(UNLESS SPECIFIED)                                     |  | DIMENSION STYLE<br>INCH ONLY                                                                                                     |  | SCALE<br>1:1 |  | DESIGN UNITS<br>INCH |  | THIRD ANGLE<br>PROJECTION |  |   |  |
|    |                                                                                                                                      | 4 PLACES                                                   |       | ± ---       |  | ± ---       |  | DRAWN BY<br>TGREGORI      |  | DATE<br>2005/05/17           |  | TITLE<br>SEARAY<br>RECEPTACLE ASSEMBLY<br>.050 CENTERS<br>MOLEX INCORPORATED |  |                                                                                                                                  |  |              |  |                      |  |                           |  |   |  |
|    |                                                                                                                                      | 3 PLACES                                                   |       | ± ---       |  | ± .005      |  | CHECKED BY<br>JCOMERC I   |  | DATE<br>2005/05/17           |  |                                                                              |  |                                                                                                                                  |  |              |  |                      |  |                           |  |   |  |
|    |                                                                                                                                      | 2 PLACES                                                   |       | ± ---       |  | ± ---       |  | APPROVED BY<br>JCOMERC I  |  | DATE<br>2010/03/05           |  |                                                                              |  |                                                                                                                                  |  |              |  |                      |  |                           |  |   |  |
|    |                                                                                                                                      | 1 PLACE                                                    |       | ± ---       |  | ± ---       |  | MATERIAL NO.<br>SEE CHART |  | DOCUMENT NO.<br>SD-45971-001 |  |                                                                              |  |                                                                                                                                  |  |              |  | SHEET NO.<br>7 OF 10 |  |                           |  |   |  |
|    |                                                                                                                                      | DRAFT WHERE APPLICABLE<br>MUST REMAIN<br>WITHIN DIMENSIONS |       |             |  |             |  |                           |  |                              |  | SIZE<br>A                                                                    |  | THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX<br>INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION |  |              |  |                      |  |                           |  |   |  |
|    |                                                                                                                                      | 5                                                          |       | 4           |  | 3           |  | 2                         |  | 1                            |  |                                                                              |  |                                                                                                                                  |  |              |  |                      |  |                           |  |   |  |
|    |                                                                                                                                      | tb_frame_A_P_AM_T<br>Rev. E 2006/04/15                     |       |             |  |             |  |                           |  |                              |  |                                                                              |  | 5                                                                                                                                |  | 4            |  | 3                    |  | 2                         |  | 1 |  |

|    |                        |                       |            |             |             |             |             |             |             |             |             |             |             |                                            |  |  |  |   |  |  |  |   |  |  |
|----|------------------------|-----------------------|------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|--------------------------------------------|--|--|--|---|--|--|--|---|--|--|
|    |                        | 6                     |            |             |             | 5           |             |             |             | 4           |             |             |             | 3                                          |  |  |  | 2 |  |  |  | 1 |  |  |
| D  | TRAY PACK PK-45971-001 | DIM R: (REF)          |            | 5.0 MM      |             | 6.0 MM      |             | 6.5 MM      |             | 7.5 MM      |             | 8.0 MM      |             | STACK HEIGHTS GIVEN IN METRIC FOR REF ONLY |  |  |  |   |  |  |  |   |  |  |
|    |                        | DIM R: HOUSING HEIGHT |            |             |             |             |             |             |             |             |             |             |             |                                            |  |  |  |   |  |  |  |   |  |  |
|    |                        | POSITION              |            | DIM M       | MATERIAL NO |             | MATERIAL NO |             | MATERIAL NO |             | MATERIAL NO |             | MATERIAL NO |                                            |  |  |  |   |  |  |  |   |  |  |
|    |                        | 19                    |            | 1.232       | 45971-0113  |             | 45971-0213  |             | 45971-0313  |             | 45971-0413  |             | 45971-0513  |                                            |  |  |  |   |  |  |  |   |  |  |
|    |                        | 10                    |            | 0.782       | 45971-1113  |             | 45971-1213  |             | 45971-1313  |             | 45971-1413  |             | 45971-1513  |                                            |  |  |  |   |  |  |  |   |  |  |
|    |                        | 20                    |            | 1.282       | 45971-2113  |             | 45971-2213  |             | 45971-2313  |             | 45971-2413  |             | 45971-2513  |                                            |  |  |  |   |  |  |  |   |  |  |
|    |                        | 30                    |            | 1.782       | 45971-3113  |             | 45971-3213  |             | 45971-3313  |             | 45971-3413  |             | 45971-3513  |                                            |  |  |  |   |  |  |  |   |  |  |
|    |                        | 40                    |            | 2.282       | 45971-4113  |             | 45971-4213  |             | 45971-4313  |             | 45971-4413  |             | 45971-4513  |                                            |  |  |  |   |  |  |  |   |  |  |
|    |                        | 50                    |            | 2.782       | 45971-5113  |             | 45971-5213  |             | 45971-5313  |             | 45971-5413  |             | 45971-5513  |                                            |  |  |  |   |  |  |  |   |  |  |
|    |                        | 15                    |            | 1.032       | 45971-6113  |             | 45971-6213  |             | 45971-6313  |             | 45971-6413  |             | 45971-6513  |                                            |  |  |  |   |  |  |  |   |  |  |
|    |                        | 25                    |            | 1.532       | 45971-7113  |             | 45971-7213  |             | 45971-7313  |             | 45971-7413  |             | 45971-7513  |                                            |  |  |  |   |  |  |  |   |  |  |
|    |                        | 35                    |            | 2.032       | 45971-8113  |             | 45971-8213  |             | 45971-8313  |             | 45971-8413  |             | 45971-8513  |                                            |  |  |  |   |  |  |  |   |  |  |
| 45 |                        | 2.532                 | 45971-9113 |             | 45971-9213  |             | 45971-9313  |             | 45971-9413  |             | 45971-9513  |             |             |                                            |  |  |  |   |  |  |  |   |  |  |
| C  | TRAY PACK PK-45971-002 | DIM R: (REF)          |            | 5.0 MM      |             | 6.0 MM      |             | 6.5 MM      |             | 7.5 MM      |             | 8.0 MM      |             | STACK HEIGHTS GIVEN IN METRIC FOR REF ONLY |  |  |  |   |  |  |  |   |  |  |
|    |                        | DIM R: HOUSING HEIGHT |            |             |             |             |             |             |             |             |             |             |             |                                            |  |  |  |   |  |  |  |   |  |  |
|    |                        | POSITION              |            | DIM M       | MATERIAL NO |             | MATERIAL NO |             | MATERIAL NO |             | MATERIAL NO |             | MATERIAL NO |                                            |  |  |  |   |  |  |  |   |  |  |
|    |                        | 19                    |            | 1.232       | 45971-0117  |             | 45971-0217  |             | 45971-0317  |             | 45971-0417  |             | 45971-0517  |                                            |  |  |  |   |  |  |  |   |  |  |
|    |                        | 10                    |            | 0.782       | 45971-1117  |             | 45971-1217  |             | 45971-1317  |             | 45971-1417  |             | 45971-1517  |                                            |  |  |  |   |  |  |  |   |  |  |
|    |                        | 20                    |            | 1.282       | 45971-2117  |             | 45971-2217  |             | 45971-2317  |             | 45971-2417  |             | 45971-2517  |                                            |  |  |  |   |  |  |  |   |  |  |
|    |                        | 30                    |            | 1.782       | 45971-3117  |             | 45971-3217  |             | 45971-3317  |             | 45971-3417  |             | 45971-3517  |                                            |  |  |  |   |  |  |  |   |  |  |
|    |                        | 40                    |            | 2.282       | 45971-4117  |             | 45971-4217  |             | 45971-4317  |             | 45971-4417  |             | 45971-4517  |                                            |  |  |  |   |  |  |  |   |  |  |
|    |                        | 50                    |            | 2.782       | 45971-5117  |             | 45971-5217  |             | 45971-5317  |             | 45971-5417  |             | 45971-5517  |                                            |  |  |  |   |  |  |  |   |  |  |
|    |                        | 15                    |            | 1.032       | 45971-6117  |             | 45971-6217  |             | 45971-6317  |             | 45971-6417  |             | 45971-6517  |                                            |  |  |  |   |  |  |  |   |  |  |
|    |                        | 25                    |            | 1.532       | 45971-7117  |             | 45971-7217  |             | 45971-7317  |             | 45971-7417  |             | 45971-7517  |                                            |  |  |  |   |  |  |  |   |  |  |
|    |                        | 35                    |            | 2.032       | 45971-8117  |             | 45971-8217  |             | 45971-8317  |             | 45971-8417  |             | 45971-8517  |                                            |  |  |  |   |  |  |  |   |  |  |
| 45 |                        | 2.532                 | 45971-9117 |             | 45971-9217  |             | 45971-9317  |             | 45971-9417  |             | 45971-9517  |             |             |                                            |  |  |  |   |  |  |  |   |  |  |
| B  | TRAY PACK PK-45971-002 | DIM R: (REF)          |            | 5.0 MM      |             | 6.0 MM      |             | 6.5 MM      |             | 7.5 MM      |             | 8.0 MM      |             | STACK HEIGHTS GIVEN IN METRIC FOR REF ONLY |  |  |  |   |  |  |  |   |  |  |
|    |                        | DIM R: HOUSING HEIGHT |            |             |             |             |             |             |             |             |             |             |             |                                            |  |  |  |   |  |  |  |   |  |  |
|    |                        | POSITION              |            | DIM M       | MATERIAL NO |             | MATERIAL NO |             | MATERIAL NO |             | MATERIAL NO |             | MATERIAL NO |                                            |  |  |  |   |  |  |  |   |  |  |
|    |                        | 19                    |            | 1.232       | 45971-0117  |             | 45971-0217  |             | 45971-0317  |             | 45971-0417  |             | 45971-0517  |                                            |  |  |  |   |  |  |  |   |  |  |
|    |                        | 10                    |            | 0.782       | 45971-1117  |             | 45971-1217  |             | 45971-1317  |             | 45971-1417  |             | 45971-1517  |                                            |  |  |  |   |  |  |  |   |  |  |
|    |                        | 20                    |            | 1.282       | 45971-2117  |             | 45971-2217  |             | 45971-2317  |             | 45971-2417  |             | 45971-2517  |                                            |  |  |  |   |  |  |  |   |  |  |
|    |                        | 30                    |            | 1.782       | 45971-3117  |             | 45971-3217  |             | 45971-3317  |             | 45971-3417  |             | 45971-3517  |                                            |  |  |  |   |  |  |  |   |  |  |
|    |                        | 40                    |            | 2.282       | 45971-4117  |             | 45971-4217  |             | 45971-4317  |             | 45971-4417  |             | 45971-4517  |                                            |  |  |  |   |  |  |  |   |  |  |
|    |                        | 50                    |            | 2.782       | 45971-5117  |             | 45971-5217  |             | 45971-5317  |             | 45971-5417  |             | 45971-5517  |                                            |  |  |  |   |  |  |  |   |  |  |
|    |                        | 15                    |            | 1.032       | 45971-6117  |             | 45971-6217  |             | 45971-6317  |             | 45971-6417  |             | 45971-6517  |                                            |  |  |  |   |  |  |  |   |  |  |
|    |                        | 25                    |            | 1.532       | 45971-7117  |             | 45971-7217  |             | 45971-7317  |             | 45971-7417  |             | 45971-7517  |                                            |  |  |  |   |  |  |  |   |  |  |
|    |                        | 35                    |            | 2.032       | 45971-8117  |             | 45971-8217  |             | 45971-8317  |             | 45971-8417  |             | 45971-8517  |                                            |  |  |  |   |  |  |  |   |  |  |
| 45 |                        | 2.532                 | 45971-9117 |             | 45971-9217  |             | 45971-9317  |             | 45971-9417  |             | 45971-9517  |             |             |                                            |  |  |  |   |  |  |  |   |  |  |
| A  | TRAY PACK PK-45971-002 | DIM R: (REF)          |            | 5.0 MM      |             | 6.0 MM      |             | 6.5 MM      |             | 7.5 MM      |             | 8.0 MM      |             | STACK HEIGHTS GIVEN IN METRIC FOR REF ONLY |  |  |  |   |  |  |  |   |  |  |
|    |                        | DIM R: HOUSING HEIGHT |            |             |             |             |             |             |             |             |             |             |             |                                            |  |  |  |   |  |  |  |   |  |  |
|    |                        | POSITION              |            | DIM M       | MATERIAL NO |             | MATERIAL NO |             | MATERIAL NO |             | MATERIAL NO |             | MATERIAL NO |                                            |  |  |  |   |  |  |  |   |  |  |
|    |                        | 19                    |            | 1.232       | 45971-0117  |             | 45971-0217  |             | 45971-0317  |             | 45971-0417  |             | 45971-0517  |                                            |  |  |  |   |  |  |  |   |  |  |
|    |                        | 10                    |            | 0.782       | 45971-1117  |             | 45971-1217  |             | 45971-1317  |             | 45971-1417  |             | 45971-1517  |                                            |  |  |  |   |  |  |  |   |  |  |
|    |                        | 20                    |            | 1.282       | 45971-2117  |             | 45971-2217  |             | 45971-2317  |             | 45971-2417  |             | 45971-2517  |                                            |  |  |  |   |  |  |  |   |  |  |
|    |                        | 30                    |            | 1.782       | 45971-3117  |             | 45971-3217  |             | 45971-3317  |             | 45971-3417  |             | 45971-3517  |                                            |  |  |  |   |  |  |  |   |  |  |
|    |                        | 40                    |            | 2.282       | 45971-4117  |             | 45971-4217  |             | 45971-4317  |             | 45971-4417  |             | 45971-4517  |                                            |  |  |  |   |  |  |  |   |  |  |
|    |                        | 50                    |            | 2.782       | 45971-5117  |             | 45971-5217  |             | 45971-5317  |             | 45971-5417  |             | 45971-5517  |                                            |  |  |  |   |  |  |  |   |  |  |
|    |                        | 15                    |            | 1.032       | 45971-6117  |             | 45971-6217  |             | 45971-6317  |             | 45971-6417  |             | 45971-6517  |                                            |  |  |  |   |  |  |  |   |  |  |
|    |                        | 25                    |            | 1.532       | 45971-7117  |             | 45971-7217  |             | 45971-7317  |             | 45971-7417  |             | 45971-7517  |                                            |  |  |  |   |  |  |  |   |  |  |
|    |                        | 35                    |            | 2.032       | 45971-8117  |             | 45971-8217  |             | 45971-8317  |             | 45971-8417  |             | 45971-8517  |                                            |  |  |  |   |  |  |  |   |  |  |
| 45 |                        | 2.532                 | 45971-9117 |             | 45971-9217  |             | 45971-9317  |             | 45971-9417  |             | 45971-9517  |             |             |                                            |  |  |  |   |  |  |  |   |  |  |
|    |                        | DIM R: (REF)          |            | 5.0 MM      |             | 6.0 MM      |             | 6.5 MM      |             | 7.5 MM      |             | 8.0 MM      |             | STACK HEIGHTS GIVEN IN METRIC FOR REF ONLY |  |  |  |   |  |  |  |   |  |  |
|    |                        | DIM R: HOUSING HEIGHT |            |             |             |             |             |             |             |             |             |             |             |                                            |  |  |  |   |  |  |  |   |  |  |
|    |                        |                       |            | .199        |             | .238        |             | .258        |             | .297        |             | .297        |             |                                            |  |  |  |   |  |  |  |   |  |  |
|    |                        | POSITION              | DIM M      | MATERIAL NO |             | MATERIAL NO |             | MATERIAL NO |             | MATERIAL NO |             | MATERIAL NO |             |                                            |  |  |  |   |  |  |  |   |  |  |
|    |                        | 19                    | 1.232      | 45971-0117  |             | 45971-0217  |             | 45971-0317  |             | 45971-0417  |             | 45971-0517  |             |                                            |  |  |  |   |  |  |  |   |  |  |
|    |                        | 10                    | 0.782      | 45971-1117  |             | 45971-1217  |             | 45971-1317  |             | 45971-1417  |             | 45971-1517  |             |                                            |  |  |  |   |  |  |  |   |  |  |
|    |                        | 20                    | 1.282      | 45971-2117  |             | 45971-2217  |             | 45971-2317  |             | 45971-2417  |             | 45971-2517  |             |                                            |  |  |  |   |  |  |  |   |  |  |
|    |                        | 30                    | 1.782      | 45971-3117  |             | 45971-3217  |             | 45971-3317  |             | 45971-3417  |             | 45971-3517  |             |                                            |  |  |  |   |  |  |  |   |  |  |
|    |                        | 40                    | 2.282      | 45971-4117  |             | 45971-4217  |             | 45971-4317  |             | 45971-4417  |             | 45971-4517  |             |                                            |  |  |  |   |  |  |  |   |  |  |
|    |                        | 50                    | 2.782      | 45971-5117  |             | 45971-5217  |             | 45971-5317  |             | 45971-5417  |             | 45971-5517  |             |                                            |  |  |  |   |  |  |  |   |  |  |
|    |                        | 15                    | 1.032      | 45971-6117  |             | 45971-6217  |             | 45971-6317  |             | 45971-6417  |             | 45971-6517  |             |                                            |  |  |  |   |  |  |  |   |  |  |
|    |                        | 25                    | 1.532      | 45971-7117  |             | 45971-7217  |             | 45971-7317  |             | 45971-7417  |             | 45971-7517  |             |                                            |  |  |  |   |  |  |  |   |  |  |
|    |                        | 35                    | 2.032      | 45971-8117  |             | 45971-8217  |             | 45971-8317  |             | 45971-8417  |             | 45971-8517  |             |                                            |  |  |  |   |  |  |  |   |  |  |
|    |                        | 45                    | 2.532      | 45971-9117  |             | 45971-9217  |             | 45971-9317  |             | 45971-9417  |             | 45971-9517  |             |                                            |  |  |  |   |  |  |  |   |  |  |
|    |                        | DIM R: (REF)          |            | 5.0 MM      |             | 6.0 MM      |             | 6.5 MM      |             | 7.5 MM      |             | 8.0 MM      |             | STACK HEIGHTS GIVEN IN METRIC FOR REF ONLY |  |  |  |   |  |  |  |   |  |  |
|    |                        | DIM R: HOUSING HEIGHT |            |             |             |             |             |             |             |             |             |             |             |                                            |  |  |  |   |  |  |  |   |  |  |
|    |                        |                       |            | .199        |             | .238        |             | .258        |             | .297        |             | .297        |             |                                            |  |  |  |   |  |  |  |   |  |  |
|    |                        | POSITION              | DIM M      | MATERIAL NO |             | MATERIAL NO |             | MATERIAL NO |             | MATERIAL NO |             | MATERIAL NO |             |                                            |  |  |  |   |  |  |  |   |  |  |
|    |                        | 19                    | 1.232      | 45971-0117  |             | 45971-0217  |             | 45971-0317  |             | 45971-0417  |             | 45971-0517  |             |                                            |  |  |  |   |  |  |  |   |  |  |
|    |                        | 10                    | 0.782      | 45971-1117  |             | 45971-1217  |             | 45971-1317  |             | 45971-1417  |             | 45971-1517  |             |                                            |  |  |  |   |  |  |  |   |  |  |
|    |                        | 20                    | 1.282      | 45971-2117  |             | 45971-2217  |             | 45971-2317  |             | 45971-2417  |             | 45971-2517  |             |                                            |  |  |  |   |  |  |  |   |  |  |
|    |                        | 30                    | 1.782      | 45971-3117  |             | 45971-3217  |             | 45971-3317  |             | 45971-3417  |             | 45971-3517  |             |                                            |  |  |  |   |  |  |  |   |  |  |
|    |                        | 40                    | 2.282      | 45971-4117  |             | 45971-4217  |             | 45971-4317  |             | 45971-4417  |             | 45971-4517  |             |                                            |  |  |  |   |  |  |  |   |  |  |
|    |                        | 50                    | 2.782      | 45971-5117  |             | 45971-5217  |             | 45971-5317  |             | 45971-5417  |             | 45971-5517  |             |                                            |  |  |  |   |  |  |  |   |  |  |
|    |                        | 15                    | 1.032      | 45971-6117  |             | 45971-6217  |             | 45971-6317  |             | 45971-6417  |             | 45971-6517  |             |                                            |  |  |  |   |  |  |  |   |  |  |
|    |                        | 25                    | 1.532      | 45971-7117  |             | 45971-7217  |             | 45971-7317  |             | 45971-7417  |             | 45971-7517  |             |                                            |  |  |  |   |  |  |  |   |  |  |
|    |                        | 35                    | 2.032      | 45971-8117  |             | 45971-8217  |             | 45971-8317  |             | 45971-8417  |             | 45971-8517  |             |                                            |  |  |  |   |  |  |  |   |  |  |
|    |                        | 45                    | 2.532      | 45971-9117  |             | 45971-9217  |             | 45971-9317  |             | 45971-9417  |             | 45971-9517  |             |                                            |  |  |  |   |  |  |  |   |  |  |
|    |                        | DIM R: (REF)          |            | 5.0 MM      |             | 6.0 MM      |             | 6.5 MM      |             | 7.5 MM      |             | 8.0 MM      |             | STACK HEIGHTS GIVEN IN METRIC FOR REF ONLY |  |  |  |   |  |  |  |   |  |  |
|    |                        | DIM R: HOUSING HEIGHT |            |             |             |             |             |             |             |             |             |             |             |                                            |  |  |  |   |  |  |  |   |  |  |
|    |                        |                       |            | .199        |             | .238        |             | .258        |             | .297        |             | .297        |             |                                            |  |  |  |   |  |  |  |   |  |  |
|    |                        | POSITION              | DIM M      | MATERIAL NO |             | MATERIAL NO |             | MATERIAL NO |             | MATERIAL NO |             | MATERIAL NO |             |                                            |  |  |  |   |  |  |  |   |  |  |
|    |                        | 19                    | 1.232      | 45971-0117  |             | 45971-0217  |             | 45971-0317  |             | 45971-0417  |             | 45971-0517  |             |                                            |  |  |  |   |  |  |  |   |  |  |
|    |                        | 10                    | 0.782      | 45971-1117  |             | 45971-1217  |             | 45971-1317  |             | 45971-1417  |             | 45971-1517  |             |                                            |  |  |  |   |  |  |  |   |  |  |
|    |                        | 20                    | 1.282      | 45971-2117  |             | 45971-2217  |             | 45971-2317  |             | 45971-2417  |             | 45971-2517  |             |                                            |  |  |  |   |  |  |  |   |  |  |
|    |                        | 30                    | 1.782      | 45971-3117  |             | 45971-3217  |             | 45971-3317  |             | 45971-3417  |             | 45971-3517  |             |                                            |  |  |  |   |  |  |  |   |  |  |
|    |                        | 40                    | 2.282      | 45971-4117  |             | 45971-4217  |             | 45971-4317  |             | 45971-4417  |             | 45971-4517  |             |                                            |  |  |  |   |  |  |  |   |  |  |
|    |                        | 50                    | 2.782      | 45971-5117  |             | 45971-5217  |             | 45971-5317  |             | 45971-5417  |             | 45971-5517  |             |                                            |  |  |  |   |  |  |  |   |  |  |
|    |                        | 15                    | 1.032      | 45971-6117  |             | 45971-6217  |             | 45971-6317  |             | 45971-6417  |             | 45971-6517  |             |                                            |  |  |  |   |  |  |  |   |  |  |
|    |                        | 25                    | 1.532      | 45971-7117  |             | 45971-7217  |             | 45971-7317  |             | 45971-7417  |             | 45971-7517  |             |                                            |  |  |  |   |  |  |  |   |  |  |
|    |                        | 35                    | 2.032      | 45971-8117  |             | 45971-8217  |             | 45971-8317  |             | 45971-8417  |             | 45971-8517  |             |                                            |  |  |  |   |  |  |  |   |  |  |
|    |                        | 45                    | 2.532      | 45971-9117  |             | 45971-9217  |             | 45971-9317  |             | 45971-9417  |             | 45971-9517  |             |                                            |  |  |  |   |  |  |  |   |  |  |
|    |                        | DIM R: (REF)          |            | 5.0 MM      |             | 6.0 MM      |             | 6.5 MM      |             | 7.5 MM      |             | 8.0 MM      |             | STACK HEIGHTS GIVEN IN METRIC FOR REF ONLY |  |  |  |   |  |  |  |   |  |  |
|    |                        | DIM R: HOUSING HEIGHT |            |             |             |             |             |             |             |             |             |             |             |                                            |  |  |  |   |  |  |  |   |  |  |
|    |                        |                       |            | .199        |             | .238        |             | .258        |             | .297        |             | .297        |             |                                            |  |  |  |   |  |  |  |   |  |  |
|    |                        | POSITION              | DIM M      | MATERIAL NO |             | MATERIAL NO |             | MATERIAL NO |             | MATERIAL NO |             | MATERIAL NO |             |                                            |  |  |  |   |  |  |  |   |  |  |
|    |                        | 19                    | 1.232      | 45971-0117  |             | 45971-0217  |             | 45971-0317  |             | 45971-0417  |             | 45971-0517  |             |                                            |  |  |  |   |  |  |  |   |  |  |
|    |                        | 10                    | 0.782      | 45971-1117  |             | 45971-1217  |             | 45971-1317  |             | 45971-1417  |             | 45971-1517  |             |                                            |  |  |  |   |  |  |  |   |  |  |
|    |                        | 20                    | 1.282      | 45971-2117  |             | 45971-2217  |             | 45971-2317  |             | 45971-2417  |             | 45971-2517  |             |                                            |  |  |  |   |  |  |  |   |  |  |
|    |                        | 30                    | 1.782      | 45971-3117  |             | 45971-3217  |             | 45971-3317  |             | 45971-3417  |             | 45971-3517  |             |                                            |  |  |  |   |  |  |  |   |  |  |
|    |                        | 40                    | 2.282      | 45971-4117  |             | 45971-4217  |             | 45971-4317  |             | 45971-4417  |             | 45971-4517  |             |                                            |  |  |  |   |  |  |  |   |  |  |
|    |                        | 50                    | 2.782      | 45971-5117  |             | 45971-5217  |             | 45971-5317  |             | 45971-5417  |             | 45971-5517  |             |                                            |  |  |  |   |  |  |  |   |  |  |
|    |                        | 15                    | 1.032      | 45971-6117  |             | 45971-6217  |             | 45971-6317  |             | 45971-6417  |             | 45971-6517  |             |                                            |  |  |  |   |  |  |  |   |  |  |
|    |                        | 25                    | 1.532      | 45971-7117  |             | 45971-7217  |             | 45971-7317  |             | 45971-7417  |             | 45971-7517  |             |                                            |  |  |  |   |  |  |  |   |  |  |
|    |                        |                       |            |             |             |             |             |             |             |             |             |             |             |                                            |  |  |  |   |  |  |  |   |  |  |

|                             |                                                                                                                              |                             |                        |              |             |                                          |                                                            |                    |                                                        |        |              |                      |                           |                                            |                         |                                                                                                                                  |                                            |              |  |              |         |  |  |
|-----------------------------|------------------------------------------------------------------------------------------------------------------------------|-----------------------------|------------------------|--------------|-------------|------------------------------------------|------------------------------------------------------------|--------------------|--------------------------------------------------------|--------|--------------|----------------------|---------------------------|--------------------------------------------|-------------------------|----------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------|--------------|--|--------------|---------|--|--|
|                             |                                                                                                                              | 6                           |                        | 5            |             | 4                                        |                                                            | 3                  |                                                        | 2      |              | 1                    |                           |                                            |                         |                                                                                                                                  |                                            |              |  |              |         |  |  |
| D                           | TRAY PACK PK-45971-001                                                                                                       | DIM R: (REF)                |                        | 5.0 MM       |             | 6.0 MM                                   |                                                            | 6.5 MM             |                                                        | 7.5 MM |              | 8.0 MM               |                           | STACK HEIGHTS GIVEN IN METRIC FOR REF ONLY |                         |                                                                                                                                  |                                            |              |  |              |         |  |  |
|                             |                                                                                                                              | DIM R:<br>HOUSING<br>HEIGHT |                        |              |             |                                          |                                                            |                    |                                                        |        |              |                      |                           |                                            |                         |                                                                                                                                  |                                            |              |  |              |         |  |  |
|                             |                                                                                                                              | POSITION                    |                        | DIM M        | MATERIAL NO |                                          | MATERIAL NO                                                |                    | MATERIAL NO                                            |        | MATERIAL NO  |                      | MATERIAL NO               |                                            |                         |                                                                                                                                  |                                            |              |  |              |         |  |  |
|                             |                                                                                                                              | 19                          |                        | 1.232        | 45971-0121  |                                          | 45971-0221                                                 |                    | 45971-0321                                             |        | 45971-0421   |                      | 45971-0521                |                                            |                         |                                                                                                                                  |                                            |              |  |              |         |  |  |
|                             |                                                                                                                              | 10                          |                        | 0.782        | 45971-1121  |                                          | 45971-1221                                                 |                    | 45971-1321                                             |        | 45971-1421   |                      | 45971-1521                |                                            |                         |                                                                                                                                  |                                            |              |  |              |         |  |  |
|                             |                                                                                                                              | 20                          |                        | 1.282        | 45971-2121  |                                          | 45971-2221                                                 |                    | 45971-2321                                             |        | 45971-2421   |                      | 45971-2521                |                                            |                         |                                                                                                                                  |                                            |              |  |              |         |  |  |
|                             |                                                                                                                              | 30                          |                        | 1.782        | 45971-3121  |                                          | 45971-3221                                                 |                    | 45971-3321                                             |        | 45971-3421   |                      | 45971-3521                |                                            |                         |                                                                                                                                  |                                            |              |  |              |         |  |  |
|                             |                                                                                                                              | 40                          |                        | 2.282        | 45971-4121  |                                          | 45971-4221                                                 |                    | 45971-4321                                             |        | 45971-4421   |                      | 45971-4521                |                                            |                         |                                                                                                                                  |                                            |              |  |              |         |  |  |
|                             |                                                                                                                              | 50                          |                        | 2.782        | 45971-5121  |                                          | 45971-5221                                                 |                    | 45971-5321                                             |        | 45971-5421   |                      | 45971-5521                |                                            |                         |                                                                                                                                  |                                            |              |  |              |         |  |  |
|                             |                                                                                                                              | 15                          |                        | 1.032        | 45971-6121  |                                          | 45971-6221                                                 |                    | 45971-6321                                             |        | 45971-6421   |                      | 45971-6521                |                                            |                         |                                                                                                                                  |                                            |              |  |              |         |  |  |
|                             |                                                                                                                              | 25                          |                        | 1.532        | 45971-7121  |                                          | 45971-7221                                                 |                    | 45971-7321                                             |        | 45971-7421   |                      | 45971-7521                |                                            |                         |                                                                                                                                  |                                            |              |  |              |         |  |  |
|                             |                                                                                                                              | 35                          |                        | 2.032        | 45971-8121  |                                          | 45971-8221                                                 |                    | 45971-8321                                             |        | 45971-8421   |                      | 45971-8521                |                                            |                         |                                                                                                                                  |                                            |              |  |              |         |  |  |
|                             |                                                                                                                              | 45                          |                        | 2.532        | 45971-9121  |                                          | 45971-9221                                                 |                    | 45971-9321                                             |        | 45971-9421   |                      | 45971-9521                |                                            |                         |                                                                                                                                  |                                            |              |  |              |         |  |  |
|                             |                                                                                                                              | C                           | TRAY PACK PK-45971-002 | DIM R: (REF) |             | 5.0 MM                                   |                                                            | 6.0 MM             |                                                        | 6.5 MM |              | 7.5 MM               |                           |                                            | 8.0 MM                  |                                                                                                                                  | STACK HEIGHTS GIVEN IN METRIC FOR REF ONLY |              |  |              |         |  |  |
| DIM R:<br>HOUSING<br>HEIGHT |                                                                                                                              |                             |                        |              |             |                                          |                                                            |                    |                                                        |        |              |                      |                           |                                            |                         |                                                                                                                                  |                                            |              |  |              |         |  |  |
| POSITION                    |                                                                                                                              |                             |                        | DIM M        | MATERIAL NO |                                          | MATERIAL NO                                                |                    | MATERIAL NO                                            |        | MATERIAL NO  |                      | MATERIAL NO               |                                            |                         |                                                                                                                                  |                                            |              |  |              |         |  |  |
| 19                          |                                                                                                                              |                             |                        | 1.232        | 45971-0125  |                                          | 45971-0225                                                 |                    | 45971-0325                                             |        | 45971-0425   |                      | 45971-0525                |                                            |                         |                                                                                                                                  |                                            |              |  |              |         |  |  |
| 10                          |                                                                                                                              |                             |                        | 0.782        | 45971-1125  |                                          | 45971-1225                                                 |                    | 45971-1325                                             |        | 45971-1425   |                      | 45971-1525                |                                            |                         |                                                                                                                                  |                                            |              |  |              |         |  |  |
| 20                          |                                                                                                                              |                             |                        | 1.282        | 45971-2125  |                                          | 45971-2225                                                 |                    | 45971-2325                                             |        | 45971-2425   |                      | 45971-2525                |                                            |                         |                                                                                                                                  |                                            |              |  |              |         |  |  |
| 30                          |                                                                                                                              |                             |                        | 1.782        | 45971-3125  |                                          | 45971-3225                                                 |                    | 45971-3325                                             |        | 45971-3425   |                      | 45971-3525                |                                            |                         |                                                                                                                                  |                                            |              |  |              |         |  |  |
| 40                          |                                                                                                                              |                             |                        | 2.282        | 45971-4125  |                                          | 45971-4225                                                 |                    | 45971-4325                                             |        | 45971-4425   |                      | 45971-4525                |                                            |                         |                                                                                                                                  |                                            |              |  |              |         |  |  |
| 50                          |                                                                                                                              |                             |                        | 2.782        | 45971-5125  |                                          | 45971-5225                                                 |                    | 45971-5325                                             |        | 45971-5425   |                      | 45971-5525                |                                            |                         |                                                                                                                                  |                                            |              |  |              |         |  |  |
| 15                          |                                                                                                                              |                             |                        | 1.032        | 45971-6125  |                                          | 45971-6225                                                 |                    | 45971-6325                                             |        | 45971-6425   |                      | 45971-6525                |                                            |                         |                                                                                                                                  |                                            |              |  |              |         |  |  |
| 25                          |                                                                                                                              |                             |                        | 1.532        | 45971-7125  |                                          | 45971-7225                                                 |                    | 45971-7325                                             |        | 45971-7425   |                      | 45971-7525                |                                            |                         |                                                                                                                                  |                                            |              |  |              |         |  |  |
| 35                          |                                                                                                                              |                             |                        | 2.032        | 45971-8125  |                                          | 45971-8225                                                 |                    | 45971-8325                                             |        | 45971-8425   |                      | 45971-8525                |                                            |                         |                                                                                                                                  |                                            |              |  |              |         |  |  |
| 45                          |                                                                                                                              |                             |                        | 2.532        | 45971-9125  |                                          | 45971-9225                                                 |                    | 45971-9325                                             |        | 45971-9425   |                      | 45971-9525                |                                            |                         |                                                                                                                                  |                                            |              |  |              |         |  |  |
| B                           | SEE SHEET 1<br>EC NO: UCP2010-2270<br>DRWN: TGREGORI 2010/03/05<br>CH'KD: JCOMERC I 2005/05/17<br>APPR: JCOMERC I 2010/03/05 |                             |                        | REV          | DESCRIPTION | GENERAL TOLERANCES<br>(UNLESS SPECIFIED) |                                                            |                    | DIMENSION STYLE<br>INCH ONLY                           |        | SCALE<br>3:1 | DESIGN UNITS<br>INCH | THIRD ANGLE<br>PROJECTION |                                            |                         |                                                                                                                                  |                                            |              |  |              |         |  |  |
|                             |                                                                                                                              | 4 PLACES                    | ± ---                  |              |             | ± ---                                    | DRAWN BY<br>TGREGORI                                       | DATE<br>2005/05/17 | TITLE<br>SEARAY<br>RECEPTACLE ASSEMBLY<br>.050 CENTERS |        |              |                      |                           |                                            |                         |                                                                                                                                  |                                            |              |  |              |         |  |  |
|                             |                                                                                                                              |                             |                        |              |             |                                          |                                                            |                    |                                                        |        |              |                      |                           |                                            | CHECKED BY<br>JCOMERC I | DATE<br>2005/05/17                                                                                                               |                                            |              |  |              |         |  |  |
|                             |                                                                                                                              |                             |                        |              |             |                                          | APPROVED BY<br>JCOMERC I                                   | DATE<br>2010/03/05 |                                                        |        |              |                      |                           |                                            |                         |                                                                                                                                  |                                            |              |  |              |         |  |  |
|                             |                                                                                                                              |                             |                        |              |             |                                          |                                                            |                    |                                                        |        |              |                      |                           |                                            | ANGULAR ± ---°          |                                                                                                                                  |                                            | MATERIAL NO. |  | DOCUMENT NO. |         |  |  |
|                             |                                                                                                                              |                             |                        |              |             |                                          | DRAFT WHERE APPLICABLE<br>MUST REMAIN<br>WITHIN DIMENSIONS |                    |                                                        |        |              |                      |                           |                                            | SEE CHART               |                                                                                                                                  | SD-45971-001                               |              |  |              | 9 OF 10 |  |  |
|                             |                                                                                                                              |                             |                        |              |             |                                          |                                                            |                    |                                                        |        |              |                      |                           |                                            | SIZE<br>A               | THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX<br>INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION |                                            |              |  |              |         |  |  |
|                             |                                                                                                                              |                             |                        |              |             |                                          |                                                            |                    |                                                        |        |              |                      |                           |                                            |                         |                                                                                                                                  |                                            |              |  |              |         |  |  |
|                             |                                                                                                                              |                             |                        |              |             |                                          | tb_frame_A_P_AM_T<br>Rev. E 2006/04/15                     |                    | 5                                                      |        | 4            |                      | 3                         |                                            | 2                       |                                                                                                                                  | 1                                          |              |  |              |         |  |  |

NOTES:  
 1. THIS SHEET CONTAINS THE FOLLOWING OPTIONS  
 NO OF ROWS: 12  
 SOLDER CHARGE: TIN  
 PACKAGING: TRAYS AND TAPE AND REEL

|   |                        |                       |       |             |  |             |  |             |  |             |  |             |  |                                                                                                                                             |
|---|------------------------|-----------------------|-------|-------------|--|-------------|--|-------------|--|-------------|--|-------------|--|---------------------------------------------------------------------------------------------------------------------------------------------|
|   |                        | 6                     |       | 5           |  | 4           |  | 3           |  | 2           |  | 1           |  |                                                                                                                                             |
| D | TRAY PACK PK-45971-001 | DIM R: (REF)          |       | 5.0 MM      |  | 6.0 MM      |  | 6.5 MM      |  | 7.5 MM      |  | 8.0 MM      |  | STACK HEIGHTS GIVEN IN METRIC FOR REF ONLY                                                                                                  |
|   |                        | DIM R: HOUSING HEIGHT |       |             |  |             |  |             |  |             |  |             |  |                                                                                                                                             |
|   |                        |                       |       | .199        |  | .238        |  | .258        |  | .297        |  | .297        |  |                                                                                                                                             |
|   |                        | POSITION              | DIM M | MATERIAL NO |  | MATERIAL NO |  | MATERIAL NO |  | MATERIAL NO |  | MATERIAL NO |  |                                                                                                                                             |
|   |                        | 19                    | 1.232 | 45971-0123  |  | 45971-0223  |  | 45971-0323  |  | 45971-0423  |  | 45971-0523  |  |                                                                                                                                             |
|   |                        | 10                    | 0.782 | 45971-1123  |  | 45971-1223  |  | 45971-1323  |  | 45971-1423  |  | 45971-1523  |  |                                                                                                                                             |
|   |                        | 20                    | 1.282 | 45971-2123  |  | 45971-2223  |  | 45971-2323  |  | 45971-2423  |  | 45971-2523  |  |                                                                                                                                             |
|   |                        | 30                    | 1.782 | 45971-3123  |  | 45971-3223  |  | 45971-3323  |  | 45971-3423  |  | 45971-3523  |  |                                                                                                                                             |
|   |                        | 40                    | 2.282 | 45971-4123  |  | 45971-4223  |  | 45971-4323  |  | 45971-4423  |  | 45971-4523  |  |                                                                                                                                             |
|   |                        | 50                    | 2.782 | 45971-5123  |  | 45971-5223  |  | 45971-5323  |  | 45971-5423  |  | 45971-5523  |  |                                                                                                                                             |
|   |                        | 15                    | 1.032 | 45971-6123  |  | 45971-6223  |  | 45971-6323  |  | 45971-6423  |  | 45971-6523  |  |                                                                                                                                             |
|   |                        | 25                    | 1.532 | 45971-7123  |  | 45971-7223  |  | 45971-7323  |  | 45971-7423  |  | 45971-7523  |  |                                                                                                                                             |
|   |                        | 35                    | 2.032 | 45971-8123  |  | 45971-8223  |  | 45971-8323  |  | 45971-8423  |  | 45971-8523  |  |                                                                                                                                             |
|   |                        | 45                    | 2.532 | 45971-9123  |  | 45971-9223  |  | 45971-9323  |  | 45971-9423  |  | 45971-9523  |  |                                                                                                                                             |
| C | TRAY PACK PK-45971-002 | DIM R: (REF)          |       | 5.0 MM      |  | 6.0 MM      |  | 6.5 MM      |  | 7.5 MM      |  | 8.0 MM      |  | STACK HEIGHTS GIVEN IN METRIC FOR REF ONLY                                                                                                  |
|   |                        | DIM R: HOUSING HEIGHT |       |             |  |             |  |             |  |             |  |             |  |                                                                                                                                             |
|   |                        |                       |       | .199        |  | .238        |  | .258        |  | .297        |  | .297        |  |                                                                                                                                             |
|   |                        | POSITION              | DIM M | MATERIAL NO |  | MATERIAL NO |  | MATERIAL NO |  | MATERIAL NO |  | MATERIAL NO |  |                                                                                                                                             |
|   |                        | 19                    | 1.232 | 45971-0127  |  | 45971-0227  |  | 45971-0327  |  | 45971-0427  |  | 45971-0527  |  |                                                                                                                                             |
|   |                        | 10                    | 0.782 | 45971-1127  |  | 45971-1227  |  | 45971-1327  |  | 45971-1427  |  | 45971-1527  |  |                                                                                                                                             |
|   |                        | 20                    | 1.282 | 45971-2127  |  | 45971-2227  |  | 45971-2327  |  | 45971-2427  |  | 45971-2527  |  |                                                                                                                                             |
|   |                        | 30                    | 1.782 | 45971-3127  |  | 45971-3227  |  | 45971-3327  |  | 45971-3427  |  | 45971-3527  |  |                                                                                                                                             |
|   |                        | 40                    | 2.282 | 45971-4127  |  | 45971-4227  |  | 45971-4327  |  | 45971-4427  |  | 45971-4527  |  |                                                                                                                                             |
|   |                        | 50                    | 2.782 | 45971-5127  |  | 45971-5227  |  | 45971-5327  |  | 45971-5427  |  | 45971-5527  |  |                                                                                                                                             |
|   |                        | 15                    | 1.032 | 45971-6127  |  | 45971-6227  |  | 45971-6327  |  | 45971-6427  |  | 45971-6527  |  |                                                                                                                                             |
|   |                        | 25                    | 1.532 | 45971-7127  |  | 45971-7227  |  | 45971-7327  |  | 45971-7427  |  | 45971-7527  |  |                                                                                                                                             |
|   |                        | 35                    | 2.032 | 45971-8127  |  | 45971-8227  |  | 45971-8327  |  | 45971-8427  |  | 45971-8527  |  |                                                                                                                                             |
|   |                        | 45                    | 2.532 | 45971-9127  |  | 45971-9227  |  | 45971-9327  |  | 45971-9427  |  | 45971-9527  |  |                                                                                                                                             |
| B |                        |                       |       |             |  |             |  |             |  |             |  |             |  | NOTES:<br>1. THIS SHEET CONTAINS THE FOLLOWING OPTIONS<br>NO OF ROWS: 12<br>SOLDER CHARGE: TIN / LEAD<br>PACKAGING: TRAYS AND TAPE AND REEL |
|   |                        |                       |       |             |  |             |  |             |  |             |  |             |  |                                                                                                                                             |
|   |                        |                       |       |             |  |             |  |             |  |             |  |             |  |                                                                                                                                             |
|   |                        |                       |       |             |  |             |  |             |  |             |  |             |  |                                                                                                                                             |
|   |                        |                       |       |             |  |             |  |             |  |             |  |             |  |                                                                                                                                             |
|   |                        |                       |       |             |  |             |  |             |  |             |  |             |  |                                                                                                                                             |
|   |                        |                       |       |             |  |             |  |             |  |             |  |             |  |                                                                                                                                             |
|   |                        |                       |       |             |  |             |  |             |  |             |  |             |  |                                                                                                                                             |
|   |                        |                       |       |             |  |             |  |             |  |             |  |             |  |                                                                                                                                             |
|   |                        |                       |       |             |  |             |  |             |  |             |  |             |  |                                                                                                                                             |
|   |                        |                       |       |             |  |             |  |             |  |             |  |             |  |                                                                                                                                             |
|   |                        |                       |       |             |  |             |  |             |  |             |  |             |  |                                                                                                                                             |
|   |                        |                       |       |             |  |             |  |             |  |             |  |             |  |                                                                                                                                             |
|   |                        |                       |       |             |  |             |  |             |  |             |  |             |  |                                                                                                                                             |
| A |                        |                       |       |             |  |             |  |             |  |             |  |             |  | A                                                                                                                                           |
|   |                        |                       |       |             |  |             |  |             |  |             |  |             |  |                                                                                                                                             |
|   |                        |                       |       |             |  |             |  |             |  |             |  |             |  |                                                                                                                                             |
|   |                        |                       |       |             |  |             |  |             |  |             |  |             |  |                                                                                                                                             |
|   |                        |                       |       |             |  |             |  |             |  |             |  |             |  |                                                                                                                                             |
|   |                        |                       |       |             |  |             |  |             |  |             |  |             |  |                                                                                                                                             |
|   |                        |                       |       |             |  |             |  |             |  |             |  |             |  |                                                                                                                                             |
|   |                        |                       |       |             |  |             |  |             |  |             |  |             |  |                                                                                                                                             |
|   |                        |                       |       |             |  |             |  |             |  |             |  |             |  |                                                                                                                                             |
|   |                        |                       |       |             |  |             |  |             |  |             |  |             |  |                                                                                                                                             |
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|   |                        |                       |       |             |  |             |  |             |  |             |  |             |  |                                                                                                                                             |
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|   |                        |                       |       |             |  |             |  |             |  |             |  |             |  |                                                                                                                                             |
|   |                        |                       |       |             |  |             |  |             |  |             |  |             |  |                                                                                                                                             |
|   |                        |                       |       |             |  |             |  |             |  |             |  |             |  |                                                                                                                                             |
|   |                        |                       |       |             |  |             |  |             |  |             |  |             |  |                                                                                                                                             |
|   |                        |                       |       |             |  |             |  |             |  |             |  |             |  |                                                                                                                                             |
|   |                        |                       |       |             |  |             |  |             |  |             |  |             |  |                                                                                                                                             |
|   |                        |                       |       |             |  |             |  |             |  |             |  |             |  |                                                                                                                                             |
|   |                        |                       |       |             |  |             |  |             |  |             |  |             |  |                                                                                                                                             |
|   |                        |                       |       |             |  |             |  |             |  |             |  |             |  |                                                                                                                                             |
|   |                        |                       |       |             |  |             |  |             |  |             |  |             |  |                                                                                                                                             |
|   |                        |                       |       |             |  |             |  |             |  |             |  |             |  |                                                                                                                                             |
|   |                        |                       |       |             |  |             |  |             |  |             |  |             |  |                                                                                                                                             |
|   |                        |                       |       |             |  |             |  |             |  |             |  |             |  |                                                                                                                                             |
|   |                        |                       |       |             |  |             |  |             |  |             |  |             |  |                                                                                                                                             |
|   |                        |                       |       |             |  |             |  |             |  |             |  |             |  |                                                                                                                                             |
|   |                        |                       |       |             |  |             |  |             |  |             |  |             |  |                                                                                                                                             |
|   |                        |                       |       |             |  |             |  |             |  |             |  |             |  |                                                                                                                                             |
|   |                        |                       |       |             |  |             |  |             |  |             |  |             |  |                                                                                                                                             |
|   |                        |                       |       |             |  |             |  |             |  |             |  |             |  |                                                                                                                                             |
|   |                        |                       |       |             |  |             |  |             |  |             |  |             |  |                                                                                                                                             |
|   |                        |                       |       |             |  |             |  |             |  |             |  |             |  |                                                                                                                                             |
|   |                        |                       |       |             |  |             |  |             |  |             |  |             |  |                                                                                                                                             |
|   |                        |                       |       |             |  |             |  |             |  |             |  |             |  |                                                                                                                                             |
|   |                        |                       |       |             |  |             |  |             |  |             |  |             |  |                                                                                                                                             |
|   |                        |                       |       |             |  |             |  |             |  |             |  |             |  |                                                                                                                                             |
|   |                        |                       |       |             |  |             |  |             |  |             |  |             |  |                                                                                                                                             |
|   |                        |                       |       |             |  |             |  |             |  |             |  |             |  |                                                                                                                                             |
|   |                        |                       |       |             |  |             |  |             |  |             |  |             |  |                                                                                                                                             |
|   |                        |                       |       |             |  |             |  |             |  |             |  |             |  |                                                                                                                                             |
|   |                        |                       |       |             |  |             |  |             |  |             |  |             |  |                                                                                                                                             |
|   |                        |                       |       |             |  |             |  |             |  |             |  |             |  |                                                                                                                                             |
|   |                        |                       |       |             |  |             |  |             |  |             |  |             |  |                                                                                                                                             |
|   |                        |                       |       |             |  |             |  |             |  |             |  |             |  |                                                                                                                                             |
|   |                        |                       |       |             |  |             |  |             |  |             |  |             |  |                                                                                                                                             |
|   |                        |                       |       |             |  |             |  |             |  |             |  |             |  |                                                                                                                                             |
|   |                        |                       |       |             |  |             |  |             |  |             |  |             |  |                                                                                                                                             |
|   |                        |                       |       |             |  |             |  |             |  |             |  |             |  |                                                                                                                                             |
|   |                        |                       |       |             |  |             |  |             |  |             |  |             |  |                                                                                                                                             |