

PLEASE CHECK WWW.MOLEX.COM FOR LATEST PART INFORMATION

Part Number:

0009483054

Status:

Active

Description:

3.96mm (.156") Pitch KK® PC Board Connector, Bottom Entry, Polyester Connector, Gold (Au) Selective, 5 Circuits

Documents:

3D Model

Drawing (PDF)

Product Specification PS-08-50 (PDF)

RoHS Certificate of Compliance (PDF)

Agency Certification

CSA

LR19980

UL

E29179

General

Product Family

PCB Receptacles

Series

41815

Application

Board-to-Board

Product Name

KK®

Physical

Circuits (Loaded)

5

Flammability

94V-0

Glow-Wire Compliant

No

Lock to Mating Part

Yes

Material - Plating Mating

Gold

Material - Plating Termination

Tin

Number of Rows

1

Orientation

Bottom Entry

PC Tail Length (in)

0.125 In

PC Tail Length (mm)

3.18 mm

PCB Locator

No

PCB Retention

None

PCB Thickness Recommended (in)

0.062 In

PCB Thickness Recommended (mm)

1.60 mm

Packaging Type

Bag

Pitch - Mating Interface (in)

0.156 In

Pitch - Mating Interface (mm)

3.96 mm

Plating min: Mating (µin)

15

Plating min: Mating (µm)

0.375

Plating min: Termination (µin)

100

Plating min: Termination (µm)

2.5

Polarized to PCB

No

Temperature Range - Operating

0°C to +75°C

Termination Interface: Style

Through Hole

Electrical

Current - Maximum per Contact

5A

Voltage - Maximum

250V

Solder Process Data

Duration at Max. Process Temperature (seconds)

5

Lead-free Process Capability

Wave Capable (TH only)

Max. Cycles at Max. Process Temperature

1

Process Temperature max. C

235

Material Info

Old Part Number

A-41815-0442

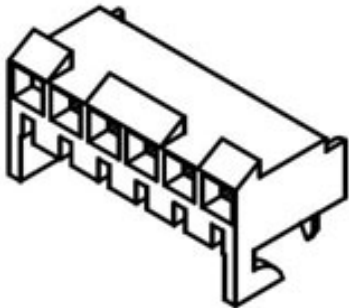


image - Reference only

Series

EU RoHS

ELV and RoHS

Compliant

REACH SVHC

Contains SVHC: No

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

41815Series

**Reference - Drawing Numbers**

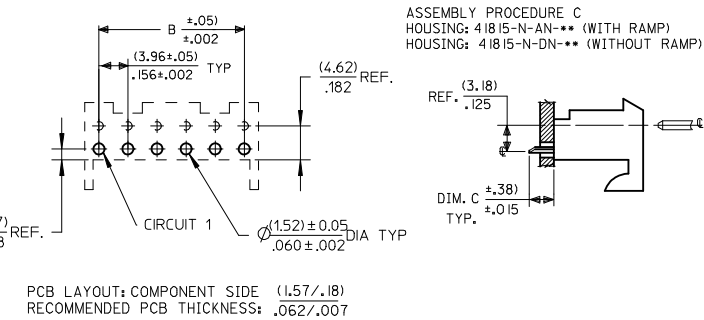
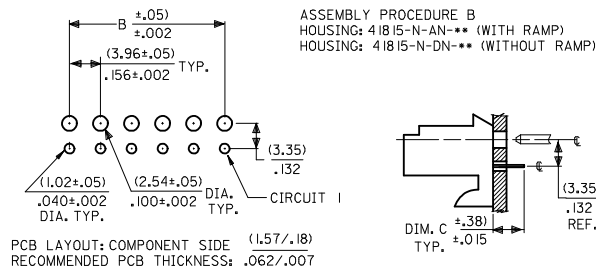
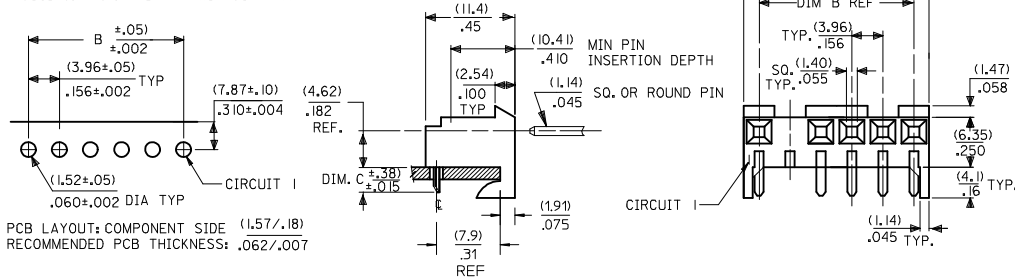
Product Specification  
Sales Drawing

PS-08-50  
SDA-41815

This document was generated on 04/14/2010

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

ASSEMBLY PROCEDURE A  
HOUSING: 41815-N-AN-\*\* (WITH RAMP)  
HOUSING: 41815-N-DN-\*\* (WITHOUT RAMP)



| DIM. B        | DIM. A                 | NO. OF CKTS |
|---------------|------------------------|-------------|
| (3.96) .156   | (7.82±.25) .308±.010   | 2           |
| (7.92) .312   | (11.79±.25) .464±.010  | 3           |
| (11.89) .468  | (15.75±.25) .620±.010  | 4           |
| (15.85) .624  | (19.71±.25) .776±.010  | 5           |
| (19.81) .780  | (23.67±.25) .932±.010  | 6           |
| (23.77) .936  | (27.64±.30) 1.088±.012 | 7           |
| (27.74) 1.092 | (31.60±.25) 1.244±.012 | 8           |
| (31.70) 1.248 | (35.56±.30) 1.400±.012 | 9           |
| (35.66) 1.404 | (39.52±.30) 1.556±.012 | 10          |
| (39.62) 1.560 | (43.48±.30) 1.712±.012 | 11          |
| (43.59) 1.716 | (47.45±.30) 1.868±.012 | 12          |
| (47.55) 1.872 | (51.41±.30) 2.024±.012 | 13          |
| (51.51) 2.028 | (55.37±.36) 2.180±.014 | 14          |
| (55.47) 2.184 | (59.33±.36) 2.336±.014 | 15          |

## NOTES:

1. MATERIAL: HOUSING: POLYESTER, 94V-0 COLOR: NATURAL (WHITE)

## 2. FINISH:

- (102) OVERALL TIN: 0.00508/.000200 MIN OVER 0.00254/.000100 MIN COPPER.  
(208) SELECT GOLD: 0.00038/.000015 MIN,  
\* SELECT TIN: 0.00254/.000100 MIN,  
OVERALL NICKEL UNDERPLATE: 0.00127/.000050 MIN.  
(228) SELECT GOLD: 0.00076/.000030 MIN,  
\* SELECT TIN: 0.00254/.000100 MIN,  
OVERALL NICKEL UNDERPLATE: 0.00127/.000050 MIN.  
(505) OVERALL GOLD: 0.00127/.000050 MIN OVER 0.00127/.000050 MIN NICKEL.  
(909) OVERALL TIN: 0.00254/.000100 MIN.

\*THE PRIMARY SHIPPING CARTON WILL BE LABELED "COMPLIANT TO  
RoHS DIRECTIVE 2002/95/EC AND ELV ANNEX II OF DIRECTIVE  
2002/53/EC". CARTONS WITHOUT THIS LABEL MAY CONTAIN PRODUCT  
WITH TIN-LEAD PLATING.

3. PRODUCT SPECIFICATION: PS-08-50

4. PACKAGING: SEE CHARTS

5. FOR TOP ENTRY AND RIGHT ANGLE ASSEMBLIES WITH LOWER INSERTION  
FORCE USE SINGLE BEAM CONTACT. (TERMINAL NO. 4244)6. SOLDERABILITY: WHEN PARTS ARE SOLDERED AT A TEMPERATURE OF 230°C OR  
446°F FOR 5 SECONDS EACH SOLDERED SURFACE SHALL BE A MINIMUM OF 95%  
COVERED WITH A SMOOTH CONTINUOUS ADHERENT COATING. FOR ADDITIONAL  
INFORMATION SEE ES-152.

7. PARTS ARE STACKABLE END TO END ON (3.96)/.156

8. THIS PART CONFORMS TO CLASS B REQUIREMENTS OF COSMETIC SPEC PS-45499-002.

|                                                                                                                         |                                   |                                                                                                                               |                                       |                       |  |                  |              |                          |  |                                    |  |
|-------------------------------------------------------------------------------------------------------------------------|-----------------------------------|-------------------------------------------------------------------------------------------------------------------------------|---------------------------------------|-----------------------|--|------------------|--------------|--------------------------|--|------------------------------------|--|
| ADD .31 REF<br>EC NO: 00P2000-9850850<br>DRAWN: SAMIEC 2009/01/27<br>CHKD: 2009/01/27<br>APPR: JCOMERC 2009/01/27<br>AM | QUALITY SYMBOLS<br><br>▽=0<br>▽=0 | DESCRIPTION                                                                                                                   | GENERAL TOLERANCES (UNLESS SPECIFIED) | DIMENSION STYLE       |  | SCALE            | DESIGN UNITS | THIRD ANGLE PROJECTION   |  |                                    |  |
|                                                                                                                         |                                   |                                                                                                                               |                                       | MM/IN                 |  | INCH             |              | INCH                     |  | KK 156 HOUSING PCB<br>41815 SERIES |  |
|                                                                                                                         |                                   |                                                                                                                               |                                       | DRAWN BY DATE         |  | TITLE            |              |                          |  |                                    |  |
|                                                                                                                         |                                   |                                                                                                                               |                                       | CHECKED BY DATE       |  |                  |              |                          |  |                                    |  |
|                                                                                                                         |                                   |                                                                                                                               |                                       | 1 PLACES ± --- ± ---  |  | SAMI EC 01/28/87 |              | MOLEX MOLEX INCORPORATED |  | SHEET NO.<br>1 OF 11               |  |
|                                                                                                                         |                                   |                                                                                                                               |                                       | 2 PLACES ± --- ± .010 |  | SAMI EC 01/28/87 |              |                          |  |                                    |  |
|                                                                                                                         |                                   |                                                                                                                               |                                       | 3 PLACES ± --- ± .015 |  | APPROVED BY DATE |              |                          |  |                                    |  |
| 4 PLACES ± --- ± ---                                                                                                    |                                   | LENZ 01/28/87                                                                                                                 |                                       |                       |  |                  |              |                          |  |                                    |  |
| ANGULAR ±1/2°                                                                                                           |                                   | MATERIAL NO.                                                                                                                  |                                       | DOCUMENT NO.          |  |                  |              |                          |  |                                    |  |
| DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS                                                                    |                                   | SEE CHART                                                                                                                     |                                       | SDA-41815             |  |                  |              |                          |  |                                    |  |
| SIZE B                                                                                                                  |                                   | THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION |                                       |                       |  |                  |              |                          |  |                                    |  |



# KK 156 PCB ASSY 2-15 CKT

## 41815 SERIES

|      |              |                   |              |                   |              |                   |              |                   |
|------|--------------|-------------------|--------------|-------------------|--------------|-------------------|--------------|-------------------|
|      | Assy. Proc:  | RIGHT ANGLE       | Assy. Proc:  | RIGHT ANGLE       | Assy. Proc:  | BOTTOM ENTRY      | Assy. Proc:  | BOTTOM ENTRY      |
|      | Housing No:  | 41815-N-AN        | Housing No:  | 41815-N-AN        | Housing No:  | 41815-N-AN        | Housing No:  | 41815-N-AN        |
|      | Options      | WITH RAMP         | Options      | WITH RAMP         | Options      | WITH RAMP         | Options      | WITH RAMP         |
|      | Terminal No: | 2144-BA-A1AA-102B | Terminal No: | 2144-BA-A1AA-208B | Terminal No: | 6298-1-102        | Terminal No: | 6298-1-208        |
|      | Term Matl:   | PHOS BRONZE       | Term Matl:   | PHOS BRONZE       | Term Matl:   | PHOS BRONZE       | Term Matl:   | PHOS BRONZE       |
|      | Plating:     | 102 TIN           | Plating:     | 208 – 15 GOLD     | Plating:     | 102 – TIN         | Plating:     | 208 – 15 GOLD     |
|      | Dim C:       | (3.68) / .145     | Dim C:       | (3.68) / .145     | Dim C:       | (3.18)/. 125      | Dim C:       | (3.18)/. 125      |
|      | Voids:       | NONE              | Voids:       | NONE              | Voids:       | NONE              | Voids:       | NONE              |
|      | Hooks Cut:   | NO                | Hooks Cut:   | NO                | Hooks Cut:   | NO                | Hooks Cut:   | NO                |
|      | Packaging:   | PK-41815-001 TRAY | Packaging:   | PK-41815-001 TRAY | Packaging:   | PK-41815-001 TRAY | Packaging:   | PK-41815-001 TRAY |
| Ckts | Material No  | Engineer Number   | Material No  | Engineer Number   | Material No  | Engineer Number   | Material No  | Engineer Number   |
| 2    | 09-48-1024   | A-41815-0002      | 09-48-5024   | A-41815-0016      | 09-48-4029   | A-41815-0030      | 09-48-5026   | A-41815-0044      |
| 3    | 09-48-1034   | A-41815-0003      | 09-48-5034   | A-41815-0017      | 09-48-4039   | A-41815-0031      | 09-48-5036   | A-41815-0045      |
| 4    | 09-48-1044   | A-41815-0004      | 09-48-5044   | A-41815-0018      | 09-48-4049   | A-41815-0032      | 09-48-5046   | A-41815-0046      |
| 5    | 09-48-1054   | A-41815-0005      | 09-48-5054   | A-41815-0019      | 09-48-4059   | A-41815-0033      | 09-48-5056   | A-41815-0047      |
| 6    | 09-48-1064   | A-41815-0006      | 09-48-5064   | A-41815-0020      | 09-48-4069   | A-41815-0034      | 09-48-5066   | A-41815-0048      |
| 7    | 09-48-1074   | A-41815-0007      | 09-48-5074   | A-41815-0021      | 09-48-4079   | A-41815-0035      | 09-48-5076   | A-41815-0049      |
| 8    | 09-48-1084   | A-41815-0008      | 09-48-5084   | A-41815-0022      | 09-48-4089   | A-41815-0036      | 09-48-5086   | A-41815-0050      |
| 9    | 09-48-1094   | A-41815-0009      | 09-48-5094   | A-41815-0023      | 09-48-4099   | A-41815-0037      | 09-48-5096   | A-41815-0051      |
| 10   | 09-48-1104   | A-41815-0010      | 09-48-5104   | A-41815-0024      | 09-48-4109   | A-41815-0038      | 09-48-5106   | A-41815-0052      |
| 11   | 09-48-1114   | A-41815-0011      | 09-48-5114   | A-41815-0025      | 09-48-4119   | A-41815-0039      | 09-48-5116   | A-41815-0053      |
| 12   | 09-48-1124   | A-41815-0012      | 09-48-5124   | A-41815-0026      | 09-48-4129   | A-41815-0040      | 09-48-5126   | A-41815-0054      |
| 13   | 09-48-1134   | A-41815-0013      | 09-48-5134   | A-41815-0027      | 09-48-4139   | A-41815-0041      | 09-48-5136   | A-41815-0055      |
| 14   | 09-48-1144   | A-41815-0014      | 09-48-5144   | A-41815-0028      | 09-48-4149   | A-41815-0042      | 09-48-5146   | A-41815-0056      |
| 15   | 09-48-1154   | A-41815-0015      | 09-48-5154   | A-41815-0029      | 09-48-4159   | A-41815-0043      | 09-48-5156   | A-41815-0057      |

|                                      |                      |                     |                                                               |                             |
|--------------------------------------|----------------------|---------------------|---------------------------------------------------------------|-----------------------------|
| REV:<br><b>AL6</b>                   | ECR/ECN INFORMATION: |                     | TITLE:<br><b>KK 156 HOUSING ASSY PCB<br/>41815 SERIES DWG</b> | SHEET No.<br><b>- 2 -</b>   |
|                                      | EC NO.               | <b>UCP2009-0167</b> |                                                               |                             |
|                                      | DATE:                | <b>10/30/2008</b>   |                                                               |                             |
| DOCUMENT NUMBER:<br><b>SDA-41815</b> |                      |                     | CREATED / REVISED BY:<br><b>MKIPPER</b>                       | CHECKED BY:<br><b>JBELL</b> |
|                                      |                      |                     | APPROVED BY:<br><b>FSMITH</b>                                 |                             |



# KK 156 PCB ASSY 2-15 CKT

## 41815 SERIES

|              |                   |
|--------------|-------------------|
| Assy. Proc:  | TOP ENTRY         |
| Housing No:  | 41815-N-AN        |
| Options      | WITH RAMP         |
| Terminal No: | 2144-BA-A1AA-102B |
| Term Matl:   | PHOS BRONZE       |
| Plating:     | 102 – TIN         |
| Dim C:       | (3.05) / .120     |
| Voids:       | NONE              |
| Hooks Cut:   | NO                |
| Packaging:   | PK-41815-001 TRAY |

|              |                   |
|--------------|-------------------|
| Assy. Proc:  | TOP ENTRY         |
| Housing No:  | 41815-N-AN        |
| Options      | WITH RAMP         |
| Terminal No: | 2144-BA-A1AA-208B |
| Term Matl:   | PHOS BRONZE       |
| Plating:     | 208 – 15 GOLD     |
| Dim C:       | (3.05) / .120     |
| Voids:       | NONE              |
| Hooks Cut:   | NO                |
| Packaging:   | PK-41815-001 TRAY |

| Ckts | Material No | Engineer Number |
|------|-------------|-----------------|
| 2    | 09-48-4028  | A-41815-0058    |
| 3    | 09-48-4038  | A-41815-0059    |
| 4    | 09-48-4048  | A-41815-0060    |
| 5    | 09-48-4058  | A-41815-0061    |
| 6    | 09-48-4068  | A-41815-0062    |
| 7    | 09-48-4078  | A-41815-0063    |
| 8    | 09-48-4088  | A-41815-0064    |
| 9    | 09-48-4098  | A-41815-0065    |
| 10   | 09-48-4108  | A-41815-0066    |
| 11   | 09-48-4118  | A-41815-0067    |
| 12   | 09-48-4128  | A-41815-0068    |
| 13   | 09-48-4138  | A-41815-0069    |
| 14   | 09-48-4148  | A-41815-0070    |
| 15   | 09-48-4158  | A-41815-0071    |

| Material No | Engineer Number |
|-------------|-----------------|
| 09-48-5025  | A-41815-0072    |
| 09-48-5035  | A-41815-0073    |
| 09-48-5045  | A-41815-0074    |
| 09-48-5055  | A-41815-0075    |
| 09-48-5065  | A-41815-0076    |
| 09-48-5075  | A-41815-0077    |
| 09-48-5085  | A-41815-0078    |
| 09-48-5095  | A-41815-0079    |
| 09-48-5105  | A-41815-0080    |
| 09-48-5115  | A-41815-0081    |
| 09-48-5125  | A-41815-0082    |
| 09-48-5135  | A-41815-0083    |
| 09-48-5145  | A-41815-0084    |
| 09-48-5155  | A-41815-0085    |

|                                      |                      |                     |                                                               |                             |
|--------------------------------------|----------------------|---------------------|---------------------------------------------------------------|-----------------------------|
| REV:<br><b>AL6</b>                   | ECR/ECN INFORMATION: |                     | TITLE:<br><b>KK 156 HOUSING ASSY PCB<br/>41815 SERIES DWG</b> | SHEET No.<br><b>- 3 -</b>   |
|                                      | EC NO.               | <b>UCP2009-0167</b> |                                                               |                             |
|                                      | DATE:                | <b>10/30/2008</b>   |                                                               |                             |
| DOCUMENT NUMBER:<br><b>SDA-41815</b> |                      |                     | CREATED / REVISED BY:<br><b>MKIPPER</b>                       | CHECKED BY:<br><b>JBELL</b> |
|                                      |                      |                     | APPROVED BY:<br><b>FSMITH</b>                                 |                             |



# KK 156 PCB ASSY 2-15 CKT

## 41815 SERIES

|      |              |                   |              |                    |              |                   |              |                   |
|------|--------------|-------------------|--------------|--------------------|--------------|-------------------|--------------|-------------------|
|      | Assy. Proc:  | BOTTOM ENTRY      | Assy. Proc:  | TOP ENTRY          | Assy. Proc:  | RIGHT ANGLE       | Assy. Proc:  | BOTTOM ENTRY      |
|      | Housing No:  | 41815-N-AN        | Housing No:  | 41815-N-AN         | Housing No:  | 41815-N-AN        | Housing No:  | 41815-N-AN        |
|      | Options      | WITH RAMP         | Options      | WITH RAMP          | Options      | WITH RAMP         | Options      | WITH RAMP         |
|      | Terminal No: | 2188-1-P909       | Terminal No: | 2144-AA-A1AA-P909B | Terminal No: | 2144-AA-A1AA-122B | Terminal No: | 2188-1-102        |
|      | Term Matl:   | BRASS             | Term Matl:   | BRASS              | Term Matl:   | BRASS             | Term Matl:   | BRASS             |
|      | Plating:     | P909 – TIN        | Plating:     | P909 – TIN         | Plating:     | 122 – TIN         | Plating:     | 102 – TIN         |
|      | Dim C:       | (3.18) / .125     | Dim C:       | (3.05) / .120      | Dim C:       | (3.68) / .145     | Dim C:       | (3.18) / .125     |
|      | Voids:       | NONE              | Voids:       | NONE               | Voids:       | NONE              | Voids:       | NONE              |
|      | Hooks Cut:   | NO                | Hooks Cut:   | YES                | Hooks Cut:   | NO                | Hooks Cut:   | NO                |
|      | Packaging:   | PK-41815-001 TRAY | Packaging:   | PK-41815-001 TRAY  | Packaging:   | PK-41815-001 TRAY | Packaging:   | PK-41815-001 TRAY |
| Ckts | Material No  | Engineer Number   | Material No  | Engineer Number    | Material No  | Engineer Number   | Material No  | Engineer Number   |
| 2    | 09-48-2022   | A-41815-0100      | 09-48-2025   | A-41815-0114       | 41815-0128   | A-41815-0128      | 09-48-4022   | A-41815-0142      |
| 3    | 09-48-2032   | A-41815-0101      | 09-48-2035   | A-41815-0115       | 41815-0129   | A-41815-0129      | 09-48-4032   | A-41815-0143      |
| 4    | 09-48-2042   | A-41815-0102      | 09-48-2045   | A-41815-0116       | 41815-0130   | A-41815-0130      | 09-48-4042   | A-41815-0144      |
| 5    | 09-48-2052   | A-41815-0103      | 09-48-2055   | A-41815-0117       | 41815-0131   | A-41815-0131      | 09-48-4052   | A-41815-0145      |
| 6    | 09-48-2062   | A-41815-0104      | 09-48-2065   | A-41815-0118       | 41815-0132   | A-41815-0132      | 09-48-4062   | A-41815-0146      |
| 7    | 09-48-2072   | A-41815-0105      | 09-48-2075   | A-41815-0119       | 41815-0133   | A-41815-0133      | 09-48-4072   | A-41815-0147      |
| 8    | 09-48-2082   | A-41815-0106      | 09-48-2085   | A-41815-0120       | 41815-0134   | A-41815-0134      | 09-48-4082   | A-41815-0148      |
| 9    | 09-48-2092   | A-41815-0107      | 09-48-2095   | A-41815-0121       | 41815-0135   | A-41815-0135      | 09-48-4092   | A-41815-0149      |
| 10   | 09-48-2102   | A-41815-0108      | 09-48-2105   | A-41815-0122       | 41815-0136   | A-41815-0136      | 09-48-4102   | A-41815-0150      |
| 11   | 09-48-2112   | A-41815-0109      | 09-48-2115   | A-41815-0123       | 41815-0137   | A-41815-0137      | 09-48-4112   | A-41815-0151      |
| 12   | 09-48-2122   | A-41815-0110      | 09-48-2125   | A-41815-0124       | 09-48-1122   | A-41815-0138      | 09-48-4122   | A-41815-0152      |
| 13   | 09-48-2132   | A-41815-0111      | 09-48-2135   | A-41815-0125       | 41815-0139   | A-41815-0139      | 09-48-4132   | A-41815-0153      |
| 14   | 09-48-2142   | A-41815-0112      | 09-48-2145   | A-41815-0126       | 41815-0140   | A-41815-0140      | 09-48-4142   | A-41815-0154      |
| 15   | 09-48-2152   | A-41815-0113      | 09-48-2155   | A-41815-0127       | 41815-0141   | A-41815-0141      | 09-48-4152   | A-41815-0155      |

|                                      |                      |                     |                                                               |                             |
|--------------------------------------|----------------------|---------------------|---------------------------------------------------------------|-----------------------------|
| REV:<br><b>AL6</b>                   | ECR/ECN INFORMATION: |                     | TITLE:<br><b>KK 156 HOUSING ASSY PCB<br/>41815 SERIES DWG</b> | SHEET No.<br><b>- 4 -</b>   |
|                                      | EC NO.               | <b>UCP2009-0167</b> |                                                               |                             |
|                                      | DATE:                | <b>10/30/2008</b>   |                                                               |                             |
| DOCUMENT NUMBER:<br><b>SDA-41815</b> |                      |                     | CREATED / REVISED BY:<br><b>MKIPPER</b>                       | CHECKED BY:<br><b>JBELL</b> |
|                                      |                      |                     | APPROVED BY:<br><b>FSMITH</b>                                 |                             |



# KK 156 PCB ASSY 2-15 CKT

## 41815 SERIES

|      |              |                 |              |                   |              |                   |              |                    |
|------|--------------|-----------------|--------------|-------------------|--------------|-------------------|--------------|--------------------|
|      | Assy. Proc:  |                 | Assy. Proc:  | BOTTOM ENTRY      | Assy. Proc:  | BOTTOM ENTRY      | Assy. Proc:  | RIGHT ANGLE        |
|      | Housing No:  |                 | Housing No:  | 41815-N-AN        | Housing No:  | 41815-N-AN        | Housing No:  | 41815-N-AN         |
|      | Options      |                 | Options      | WITH RAMP         | Options      | WITH RAMP         | Options      | WITH RAMP          |
|      | Terminal No: |                 | Terminal No: | 6298-1-102        | Terminal No: | 2188-1-228        | Terminal No: | 2144-AA-A1AA-P909B |
|      | Term Matl:   |                 | Term Matl:   | PHOS BRONZE       | Term Matl:   | BRASS             | Term Matl:   | BRASS              |
|      | Plating:     |                 | Plating:     | 102 – TIN         | Plating:     | 228 – GOLD        | Plating:     | P909 – TIN         |
|      | Dim C:       |                 | Dim C:       | (4.60) / .160     | Dim C:       | (3.18) / .125     | Dim C:       | (3.68) / .145      |
|      | Voids:       |                 | Voids:       | NONE              | Voids:       | NONE              | Voids:       | NONE               |
|      | Hooks Cut:   |                 | Hooks Cut:   | NO                | Hooks Cut:   | NO                | Hooks Cut:   | NO                 |
|      | Packaging:   |                 | Packaging:   | PK-41815-001 TRAY | Packaging:   | PK-41815-001 TRAY | Packaging:   | PK-41815-001 TRAY  |
| Ckts | Material No  | Engineer Number | Material No  | Engineer Number   | Material No  | Engineer Number   | Material No  | Engineer Number    |
| 2    |              |                 | 09-48-4021   | A-41815-0170      | 41815-0184   | A-41815-0184      | 09-48-2021   | A-41815-0198       |
| 3    |              |                 | 09-48-4031   | A-41815-0171      | 09-48-5030   | A-41815-0185      | 09-48-2031   | A-41815-0199       |
| 4    |              |                 | 09-48-4041   | A-41815-0172      | 09-48-5040   | A-41815-0186      | 09-48-2041   | A-41815-0200       |
| 5    |              |                 | 09-48-4051   | A-41815-0173      | 09-48-5050   | A-41815-0187      | 09-48-2051   | A-41815-0201       |
| 6    |              |                 | 09-48-4061   | A-41815-0174      | 41815-0188   | A-41815-0188      | 09-48-2061   | A-41815-0202       |
| 7    |              |                 | 09-48-4071   | A-41815-0175      | 41815-0189   | A-41815-0189      | 09-48-2071   | A-41815-0203       |
| 8    |              |                 | 09-48-4081   | A-41815-0176      | 09-48-5090   | A-41815-0190      | 09-48-2081   | A-41815-0204       |
| 9    |              |                 | 09-48-4091   | A-41815-0177      | 41815-0191   | A-41815-0191      | 09-48-2091   | A-41815-0205       |
| 10   |              |                 | 09-48-4101   | A-41815-0178      | 09-48-5100   | A-41815-0192      | 09-48-2101   | A-41815-0206       |
| 11   |              |                 | 09-48-4111   | A-41815-0179      | 41815-0193   | A-41815-0193      | 09-48-2111   | A-41815-0207       |
| 12   |              |                 | 09-48-4121   | A-41815-0180      | 41815-0194   | A-41815-0194      | 09-48-2121   | A-41815-0208       |
| 13   |              |                 | 09-48-4131   | A-41815-0181      | 41815-0195   | A-41815-0195      | 09-48-2131   | A-41815-0209       |
| 14   |              |                 | 09-48-4141   | A-41815-0182      | 41815-0196   | A-41815-0196      | 09-48-2141   | A-41815-0210       |
| 15   |              |                 | 09-48-4151   | A-41815-0183      | 41815-0197   | A-41815-0197      | 09-48-2151   | A-41815-0211       |

|                                      |                      |                     |                                                               |                             |
|--------------------------------------|----------------------|---------------------|---------------------------------------------------------------|-----------------------------|
| REV:<br><b>AL6</b>                   | ECR/ECN INFORMATION: |                     | TITLE:<br><b>KK 156 HOUSING ASSY PCB<br/>41815 SERIES DWG</b> | SHEET No.<br><b>- 5 -</b>   |
|                                      | EC NO.               | <b>UCP2009-0167</b> |                                                               |                             |
|                                      | DATE:                | <b>10/30/2008</b>   |                                                               |                             |
| DOCUMENT NUMBER:<br><b>SDA-41815</b> |                      |                     | CREATED / REVISED BY:<br><b>MKIPPER</b>                       | CHECKED BY:<br><b>JBELL</b> |
|                                      |                      |                     | APPROVED BY:<br><b>FSMITH</b>                                 |                             |



# KK 156 PCB ASSY 2-15 CKT

## 41815 SERIES

|      |              |                   |              |                   |              |                   |              |                    |
|------|--------------|-------------------|--------------|-------------------|--------------|-------------------|--------------|--------------------|
|      | Assy. Proc:  | RIGHT ANGLE       | Assy. Proc:  | BOTTOM ENTRY      | Assy. Proc:  | RIGHT ANGLE       | Assy. Proc:  | TOP ENTRY          |
|      | Housing No:  | 41815-N-AN        | Housing No:  | 41815-N-DN        | Housing No:  | 41815-N-AN        | Housing No:  | 41815-N-DN         |
|      | Options      | WITH RAMP         | Options      | NO RAMPS          | Options      | WITH RAMP         | Options      | NO RAMPS           |
|      | Terminal No: | 2144-AA-A1AA-228B | Terminal No: | 2188-P909         | Terminal No: | 2144-AA-A1AA-505B | Terminal No: | 2144-AA-A1AA-P909B |
|      | Term Matl:   | BRASS             | Term Matl:   | BRASS             | Term Matl:   | BRASS             | Term Matl:   | BRASS              |
|      | Plating:     | 228 – GOLD        | Plating:     | P909 – TIN        | Plating:     | 505 – GOLD        | Plating:     | P909 – TIN         |
|      | Dim C:       | (3.68) / .145     | Dim C:       | (4.06) / .160     | Dim C:       | (3.68) / .145     | Dim C:       | (3.05) / .120      |
|      | Voids:       | NONE              | Voids:       | NONE              | Voids:       | NONE              | Voids:       | NONE               |
|      | Hooks Cut:   | NO                | Hooks Cut:   | YES               | Hooks Cut:   | NO                | Hooks Cut:   | NO                 |
|      | Packaging:   | PK-41815-001 TRAY | Packaging:   | PK-41815-001 TRAY | Packaging:   | PK-41815-001 TRAY | Packaging:   | PK-41815-001 TRAY  |
| Ckts | Material No  | Engineer Number   | Material No  | Engineer Number   | Material No  | Engineer Number   | Material No  | Engineer Number    |
| 2    | 09-48-5023   | A-41815-0313      | 41815-0327   | A-41815-0327      | 41815-0341   | A-41815-0341      | 41815-0355   | A-41815-0355       |
| 3    | 09-48-5033   | A-41815-0314      | 41815-0328   | A-41815-0328      | 09-48-3037   | A-41815-0342      | 41815-0356   | A-41815-0356       |
| 4    | 09-48-5043   | A-41815-0315      | 41815-0329   | A-41815-0329      | 41815-0343   | A-41815-0343      | 09-48-2047   | A-41815-0357       |
| 5    | 09-48-5053   | A-41815-0316      | 09-48-2056   | A-41815-0330      | 41815-0344   | A-41815-0344      | 41815-0358   | A-41815-0358       |
| 6    | 09-48-5063   | A-41815-0317      | 41815-0331   | A-41815-0331      | 41815-0345   | A-41815-0345      | 41815-0359   | A-41815-0359       |
| 7    | 09-48-5073   | A-41815-0318      | 41815-0332   | A-41815-0332      | 41815-0346   | A-41815-0346      | 41815-0360   | A-41815-0360       |
| 8    | 09-48-5083   | A-41815-0319      | 09-48-2086   | A-41815-0333      | 41815-0347   | A-41815-0347      | 41815-0361   | A-41815-0361       |
| 9    | 09-48-5093   | A-41815-0320      | 41815-0334   | A-41815-0334      | 41815-0348   | A-41815-0348      | 41815-0362   | A-41815-0362       |
| 10   | 09-48-5103   | A-41815-0321      | 09-48-2106   | A-41815-0335      | 41815-0349   | A-41815-0349      | 09-48-2107   | A-41815-0363       |
| 11   | 09-48-5113   | A-41815-0322      | 41815-0336   | A-41815-0336      | 41815-0350   | A-41815-0350      | 41815-0364   | A-41815-0364       |
| 12   | 09-48-5123   | A-41815-0323      | 41815-0337   | A-41815-0337      | 41815-0351   | A-41815-0351      | 41815-0365   | A-41815-0365       |
| 13   | 09-48-5133   | A-41815-0324      | 41815-0338   | A-41815-0338      | 41815-0352   | A-41815-0352      | 41815-0366   | A-41815-0366       |
| 14   | 09-48-5143   | A-41815-0325      | 41815-0339   | A-41815-0339      | 41815-0353   | A-41815-0353      | 41815-0367   | A-41815-0367       |
| 15   | 09-48-5153   | A-41815-0326      | 41815-0340   | A-41815-0340      | 41815-0354   | A-41815-0354      | 41815-0368   | A-41815-0368       |

|                                      |                      |                     |                                                               |                             |
|--------------------------------------|----------------------|---------------------|---------------------------------------------------------------|-----------------------------|
| REV:<br><b>AL6</b>                   | ECR/ECN INFORMATION: |                     | TITLE:<br><b>KK 156 HOUSING ASSY PCB<br/>41815 SERIES DWG</b> | SHEET No.<br><b>- 6 -</b>   |
|                                      | EC NO.               | <b>UCP2009-0167</b> |                                                               |                             |
|                                      | DATE:                | <b>10/30/2008</b>   |                                                               |                             |
| DOCUMENT NUMBER:<br><b>SDA-41815</b> |                      |                     | CREATED / REVISED BY:<br><b>MKIPPER</b>                       | CHECKED BY:<br><b>JBELL</b> |
|                                      |                      |                     | APPROVED BY:<br><b>FSMITH</b>                                 |                             |



# KK 156 PCB ASSY 2-15 CKT

## 41815 SERIES

|                              |             |                 |                              |                 |             |                                |             |                 |                              |                 |  |
|------------------------------|-------------|-----------------|------------------------------|-----------------|-------------|--------------------------------|-------------|-----------------|------------------------------|-----------------|--|
| Assy. Proc: RIGHT ANGLE      |             |                 | Assy. Proc: BOTTOM ENTRY     |                 |             | Assy. Proc: RIGHT ANGLE        |             |                 | Assy. Proc: BOTTOM ENTRY     |                 |  |
| Housing No: 41815-N-AN       |             |                 | Housing No: 41815-N-AN       |                 |             | Housing No: 41815-N-AN         |             |                 | Housing No: 41815-N-AN       |                 |  |
| Options WITH RAMP            |             |                 | Options WITH RAMP            |                 |             | Options WITH RAMP              |             |                 | Options WITH RAMP            |                 |  |
| Terminal No: 4244-A-102A     |             |                 | Terminal No: 2188-1-122      |                 |             | Terminal No: 2144-AA-A1AA-208B |             |                 | Terminal No: 2188-1-208      |                 |  |
| Term Matl: PHOS BRONZE       |             |                 | Term Matl: BRASS             |                 |             | Term Matl: BRASS               |             |                 | Term Matl: BRASS             |                 |  |
| Plating: 102 – TIN           |             |                 | Plating: TIN – 122           |                 |             | Plating: 208 – 15 GOLD         |             |                 | Plating: 208 – 15 GOLD       |                 |  |
| Dim C: (3.68) / .145         |             |                 | Dim C: (3.18) / .125         |                 |             | Dim C: (3.68) / .145           |             |                 | Dim C: (3.18) / .125         |                 |  |
| Voids: NONE                  |             |                 | Voids: NONE                  |                 |             | Voids: NONE                    |             |                 | Voids: NONE                  |                 |  |
| Hooks Cut: NO                |             |                 | Hooks Cut: NO                |                 |             | Hooks Cut: NO                  |             |                 | Hooks Cut: NO                |                 |  |
| Packaging: PK-41815-001 TRAY |             |                 | Packaging: PK-41815-001 TRAY |                 |             | Packaging: PK-41815-001 TRAY   |             |                 | Packaging: PK-41815-001 TRAY |                 |  |
|                              |             |                 |                              |                 |             |                                |             |                 |                              |                 |  |
| Ckts                         | Material No | Engineer Number | Material No                  | Engineer Number | Material No | Engineer Number                | Material No | Engineer Number | Material No                  | Engineer Number |  |
| 2                            | 09-48-1023  | A-41815-0369    | 09-48-4025                   | A-41815-0383    | 09-48-3025  | A-41815-0425                   | 09-48-3024  | A-41815-0439    | 09-48-3024                   | A-41815-0439    |  |
| 3                            | 09-48-1033  | A-41815-0370    | 09-48-4035                   | A-41815-0384    | 09-48-3035  | A-41815-0426                   | 09-48-3034  | A-41815-0440    | 09-48-3034                   | A-41815-0440    |  |
| 4                            | 09-48-1043  | A-41815-0371    | 09-48-4045                   | A-41815-0385    | 09-48-3045  | A-41815-0427                   | 09-48-3044  | A-41815-0441    | 09-48-3044                   | A-41815-0441    |  |
| 5                            | 09-48-1053  | A-41815-0372    | 09-48-4055                   | A-41815-0386    | 09-48-3055  | A-41815-0428                   | 09-48-3054  | A-41815-0442    | 09-48-3054                   | A-41815-0442    |  |
| 6                            | 09-48-1063  | A-41815-0373    | 09-48-4065                   | A-41815-0387    | 09-48-3065  | A-41815-0429                   | 09-48-3064  | A-41815-0443    | 09-48-3064                   | A-41815-0443    |  |
| 7                            | 09-48-1073  | A-41815-0374    | 09-48-4075                   | A-41815-0388    | 09-48-3075  | A-41815-0430                   | 09-48-3074  | A-41815-0444    | 09-48-3074                   | A-41815-0444    |  |
| 8                            | 09-48-1083  | A-41815-0375    | 09-48-4085                   | A-41815-0389    | 09-48-3085  | A-41815-0431                   | 09-48-3084  | A-41815-0445    | 09-48-3084                   | A-41815-0445    |  |
| 9                            | 09-48-1093  | A-41815-0376    | 09-48-4095                   | A-41815-0390    | 09-48-3095  | A-41815-0432                   | 09-48-3094  | A-41815-0446    | 09-48-3094                   | A-41815-0446    |  |
| 10                           | 09-48-1103  | A-41815-0377    | 09-48-4105                   | A-41815-0391    | 09-48-3105  | A-41815-0433                   | 09-48-3104  | A-41815-0447    | 09-48-3104                   | A-41815-0447    |  |
| 11                           | 09-48-1113  | A-41815-0378    | 09-48-4115                   | A-41815-0392    | 09-48-3115  | A-41815-0434                   | 09-48-3114  | A-41815-0448    | 09-48-3114                   | A-41815-0448    |  |
| 12                           | 09-48-1123  | A-41815-0379    | 09-48-4125                   | A-41815-0393    | 09-48-3125  | A-41815-0435                   | 09-48-3124  | A-41815-0449    | 09-48-3124                   | A-41815-0449    |  |
| 13                           | 09-48-1133  | A-41815-0380    | 09-48-4135                   | A-41815-0394    | 09-48-3135  | A-41815-0436                   | 09-48-3134  | A-41815-0450    | 09-48-3134                   | A-41815-0450    |  |
| 14                           | 09-48-1143  | A-41815-0381    | 09-48-4145                   | A-41815-0395    | 09-48-3145  | A-41815-0437                   | 09-48-3144  | A-41815-0451    | 09-48-3144                   | A-41815-0451    |  |
| 15                           | 09-48-1153  | A-41815-0382    | 09-48-4155                   | A-41815-0396    | 09-48-3155  | A-41815-0438                   | 09-48-3154  | A-41815-0452    | 09-48-3154                   | A-41815-0452    |  |

|                                                 |                      |                     |                                                                          |                                        |                                          |
|-------------------------------------------------|----------------------|---------------------|--------------------------------------------------------------------------|----------------------------------------|------------------------------------------|
| REV:<br><br><b>AL6</b>                          | ECR/ECN INFORMATION: |                     | <u>TITLE:</u><br><br><b>KK 156 HOUSING ASSY PCB<br/>41815 SERIES DWG</b> | <u>SHEET No.</u><br><br><b>- 7 -</b>   |                                          |
|                                                 | EC NO.               | <b>UCP2009-0167</b> |                                                                          |                                        |                                          |
|                                                 | DATE:                | <b>10/30/2008</b>   |                                                                          |                                        |                                          |
| <u>DOCUMENT NUMBER:</u><br><br><b>SDA-41815</b> |                      |                     | <u>CREATED / REVISED BY:</u><br><br><b>MKIPPER</b>                       | <u>CHECKED BY:</u><br><br><b>JBELL</b> | <u>APPROVED BY:</u><br><br><b>FSMITH</b> |



# KK 156 PCB ASSY 2-15 CKT

## 41815 SERIES

|                                 |             |                 |                                |                 |             |                                 |             |                 |                              |                 |  |
|---------------------------------|-------------|-----------------|--------------------------------|-----------------|-------------|---------------------------------|-------------|-----------------|------------------------------|-----------------|--|
| Assy. Proc: TOP ENTRY           |             |                 | Assy. Proc: TOP ENTRY          |                 |             | Assy. Proc: RIGHT ANGLE         |             |                 | Assy. Proc: BOTTOM ENTRY     |                 |  |
| Housing No: 41815-N-AN          |             |                 | Housing No: 41815-N-AN         |                 |             | Housing No: 41815-N-AN          |             |                 | Housing No: 41815-N-AN       |                 |  |
| Options WITH RAMP               |             |                 | Options WITH RAMP              |                 |             | Options WITH RAMP               |             |                 | Options WITH RAMP            |                 |  |
| Terminal No: 2144-AA-A1AA-P909B |             |                 | Terminal No: 2144-AA-A1AA-208B |                 |             | Terminal No: 2144-BA-A1AA-P909B |             |                 | Terminal No: 6298-1-P909     |                 |  |
| Term Matl: BRASS                |             |                 | Term Matl: BRASS               |                 |             | Term Matl: PHOS BRONZE          |             |                 | Term Matl: PHOS BRONZE       |                 |  |
| Plating: P909 – TIN             |             |                 | Plating: 208 – 15 GOLD         |                 |             | Plating: P909 – TIN             |             |                 | Plating: P909 – TIN          |                 |  |
| Dim C: (3.05) / .120            |             |                 | Dim C: (3.05) / .120           |                 |             | Dim C: (3.68) / .145            |             |                 | Dim C: (3.18) / .125         |                 |  |
| Voids: NONE                     |             |                 | Voids: NONE                    |                 |             | Voids: NONE                     |             |                 | Voids: NONE                  |                 |  |
| Hooks Cut: NO                   |             |                 | Hooks Cut: NO                  |                 |             | Hooks Cut: NO                   |             |                 | Hooks Cut: NO                |                 |  |
| Packaging: PK-41815-001 TRAY    |             |                 | Packaging: PK-41815-001 TRAY   |                 |             | Packaging: PK-41815-001 TRAY    |             |                 | Packaging: PK-41815-001 TRAY |                 |  |
|                                 |             |                 |                                |                 |             |                                 |             |                 |                              |                 |  |
| Ckts                            | Material No | Engineer Number | Material No                    | Engineer Number | Material No | Engineer Number                 | Material No | Engineer Number | Material No                  | Engineer Number |  |
| 2                               | 09-48-2023  | A-41815-0453    | 09-48-3026                     | A-41815-0467    | 09-48-2020  | A-41815-0481                    | 09-48-2029  | A-41815-0495    | 09-48-2029                   | A-41815-0495    |  |
| 3                               | 09-48-2033  | A-41815-0454    | 09-48-3036                     | A-41815-0468    | 09-48-2030  | A-41815-0482                    | 09-48-2039  | A-41815-0496    | 09-48-2039                   | A-41815-0496    |  |
| 4                               | 09-48-2043  | A-41815-0455    | 09-48-3046                     | A-41815-0469    | 09-48-2040  | A-41815-0483                    | 09-48-2049  | A-41815-0497    | 09-48-2049                   | A-41815-0497    |  |
| 5                               | 09-48-2053  | A-41815-0456    | 09-48-3056                     | A-41815-0470    | 09-48-2050  | A-41815-0484                    | 09-48-2059  | A-41815-0498    | 09-48-2059                   | A-41815-0498    |  |
| 6                               | 09-48-2063  | A-41815-0457    | 09-48-3066                     | A-41815-0471    | 09-48-2060  | A-41815-0485                    | 09-48-2069  | A-41815-0499    | 09-48-2069                   | A-41815-0499    |  |
| 7                               | 09-48-2073  | A-41815-0458    | 09-48-3076                     | A-41815-0472    | 09-48-2070  | A-41815-0486                    | 09-48-2079  | A-41815-0500    | 09-48-2079                   | A-41815-0500    |  |
| 8                               | 09-48-2083  | A-41815-0459    | 09-48-3086                     | A-41815-0473    | 09-48-2080  | A-41815-0487                    | 09-48-2089  | A-41815-0501    | 09-48-2089                   | A-41815-0501    |  |
| 9                               | 09-48-2093  | A-41815-0460    | 09-48-3096                     | A-41815-0474    | 09-48-2090  | A-41815-0488                    | 09-48-2099  | A-41815-0502    | 09-48-2099                   | A-41815-0502    |  |
| 10                              | 09-48-2103  | A-41815-0461    | 09-48-3106                     | A-41815-0475    | 09-48-2100  | A-41815-0489                    | 09-48-2109  | A-41815-0503    | 09-48-2109                   | A-41815-0503    |  |
| 11                              | 09-48-2113  | A-41815-0462    | 09-48-3116                     | A-41815-0476    | 09-48-2110  | A-41815-0490                    | 09-48-2119  | A-41815-0504    | 09-48-2119                   | A-41815-0504    |  |
| 12                              | 09-48-2123  | A-41815-0463    | 09-48-3126                     | A-41815-0477    | 09-48-2120  | A-41815-0491                    | 09-48-2129  | A-41815-0505    | 09-48-2129                   | A-41815-0505    |  |
| 13                              | 09-48-2133  | A-41815-0464    | 09-48-3136                     | A-41815-0478    | 09-48-2130  | A-41815-0492                    | 09-48-2139  | A-41815-0506    | 09-48-2139                   | A-41815-0506    |  |
| 14                              | 09-48-2143  | A-41815-0465    | 09-48-3146                     | A-41815-0479    | 09-48-2140  | A-41815-0493                    | 09-48-2149  | A-41815-0507    | 09-48-2149                   | A-41815-0507    |  |
| 15                              | 09-48-2153  | A-41815-0466    | 09-48-3156                     | A-41815-0480    | 09-48-2150  | A-41815-0494                    | 09-48-2159  | A-41815-0508    | 09-48-2159                   | A-41815-0508    |  |

|                                                  |                      |                     |                                                                          |                                        |                                          |
|--------------------------------------------------|----------------------|---------------------|--------------------------------------------------------------------------|----------------------------------------|------------------------------------------|
| REV:<br><br><b>AL6</b>                           | ECR/ECN INFORMATION: |                     | <u>TITLE:</u><br><br><b>KK 156 HOUSING ASSY PCB<br/>41815 SERIES DWG</b> | <u>SHEET No.</u><br><br><b>- 8 -</b>   |                                          |
|                                                  | EC NO.               | <b>UCP2009-0167</b> |                                                                          |                                        |                                          |
|                                                  | DATE:                | <b>10/30/2008</b>   |                                                                          |                                        |                                          |
| <u>DOCUMENT NUMBER:</u><br><br><b>SDA-41815</b>  |                      |                     | <u>CREATED / REVISED BY:</u><br><br><b>MKIPPER</b>                       | <u>CHECKED BY:</u><br><br><b>JBELL</b> | <u>APPROVED BY:</u><br><br><b>FSMITH</b> |
| TEMPLATE FILENAME: PRODUCT_SPEC[SIZE_A](V.1).DOC |                      |                     |                                                                          |                                        |                                          |



# KK 156 PCB ASSY 2-15 CKT

## 41815 SERIES

|                                 |             |                 |                                |                 |             |                                |             |                 |                              |                 |  |
|---------------------------------|-------------|-----------------|--------------------------------|-----------------|-------------|--------------------------------|-------------|-----------------|------------------------------|-----------------|--|
| Assy. Proc: TOP ENTRY           |             |                 | Assy. Proc: TOP ENTRY          |                 |             | Assy. Proc: TOP ENTRY          |             |                 | Assy. Proc: BOTTOM ENTRY     |                 |  |
| Housing No: 41815-N-AN          |             |                 | Housing No: 41815-N-AN         |                 |             | Housing No: 41815-N-AN         |             |                 | Housing No: 41815-N-AN       |                 |  |
| Options WITH RAMP               |             |                 | Options WITH RAMP              |                 |             | Options WITH RAMP              |             |                 | Options WITH RAMP            |                 |  |
| Terminal No: 2144-BA-A1AA-P909B |             |                 | Terminal No: 2144-BA-A1AA-102B |                 |             | Terminal No: 2144-BA-A1AA-208B |             |                 | Terminal No: 2188-1-208      |                 |  |
| Term Matl: PHOS BRONZE          |             |                 | Term Matl: PHOS BRONZE         |                 |             | Term Matl: PHOS BRONZE         |             |                 | Term Matl: BRASS             |                 |  |
| Plating: P909 – TIN             |             |                 | Plating: 102 – TIN             |                 |             | Plating: 208 – 15 GOLD         |             |                 | Plating: 208 – 15 GOLD       |                 |  |
| Dim C: (3.05) / .120            |             |                 | Dim C: (3.05) / .120           |                 |             | Dim C: (3.05) / .120           |             |                 | Dim C: (3.18) / .125         |                 |  |
| Voids: NONE                     |             |                 | Voids: NONE                    |                 |             | Voids: NONE                    |             |                 | Voids: TERMINAL VOID 2       |                 |  |
| Hooks Cut: NO                   |             |                 | Hooks Cut: YES                 |                 |             | Hooks Cut: YES                 |             |                 | Hooks Cut: NO                |                 |  |
| Packaging: PK-41815-001 TRAY    |             |                 | Packaging: PK-41815-001 TRAY   |                 |             | Packaging: PK-41815-001 TRAY   |             |                 | Packaging: PK-41815-001 TRAY |                 |  |
|                                 |             |                 |                                |                 |             |                                |             |                 |                              |                 |  |
| Ckts                            | Material No | Engineer Number | Material No                    | Engineer Number | Material No | Engineer Number                | Material No | Engineer Number | Material No                  | Engineer Number |  |
| 2                               | 09-48-2028  | A-41815-0509    | 09-48-5028                     | A-41815-0523    | 09-48-1025  | A-41815-0537                   |             |                 |                              |                 |  |
| 3                               | 09-48-2038  | A-41815-0510    | 09-48-5038                     | A-41815-0524    | 09-48-1035  | A-41815-0538                   | 41815-0551  | 41815-0551      |                              |                 |  |
| 4                               | 09-48-2048  | A-41815-0511    | 09-48-5048                     | A-41815-0525    | 09-48-1045  | A-41815-0539                   | 41815-0552  | 41815-0552      |                              |                 |  |
| 5                               | 09-48-2058  | A-41815-0512    | 09-48-5058                     | A-41815-0526    | 09-48-1055  | A-41815-0540                   | 41815-0553  | 41815-0553      |                              |                 |  |
| 6                               | 09-48-2068  | A-41815-0513    | 09-48-5068                     | A-41815-0527    | 09-48-1065  | A-41815-0541                   | 41815-0554  | 41815-0554      |                              |                 |  |
| 7                               | 09-48-2078  | A-41815-0514    | 09-48-5078                     | A-41815-0528    | 09-48-1075  | A-41815-0542                   | 41815-0555  | 41815-0555      |                              |                 |  |
| 8                               | 09-48-2088  | A-41815-0515    | 09-48-5088                     | A-41815-0529    | 09-48-1085  | A-41815-0543                   | 41815-0556  | 41815-0556      |                              |                 |  |
| 9                               | 09-48-2098  | A-41815-0516    | 09-48-5098                     | A-41815-0530    | 09-48-1095  | A-41815-0544                   | 41815-0557  | 41815-0557      |                              |                 |  |
| 10                              | 09-48-2108  | A-41815-0517    | 09-48-5108                     | A-41815-0531    | 09-48-1105  | A-41815-0545                   | 41815-0558  | 41815-0558      |                              |                 |  |
| 11                              | 09-48-2118  | A-41815-0518    | 09-48-5118                     | A-41815-0532    | 09-48-1115  | A-41815-0546                   | 41815-0559  | 41815-0559      |                              |                 |  |
| 12                              | 09-48-2128  | A-41815-0519    | 09-48-5128                     | A-41815-0533    | 09-48-1125  | A-41815-0547                   | 41815-0560  | 41815-0560      |                              |                 |  |
| 13                              | 09-48-2138  | A-41815-0520    | 09-48-5138                     | A-41815-0534    | 09-48-1135  | A-41815-0548                   | 41815-0561  | 41815-0561      |                              |                 |  |
| 14                              | 09-48-2148  | A-41815-0521    | 09-48-5148                     | A-41815-0535    | 09-48-1145  | A-41815-0549                   | 41815-0562  | 41815-0562      |                              |                 |  |
| 15                              | 09-48-2158  | A-41815-0522    | 09-48-5158                     | A-41815-0536    | 09-48-1155  | A-41815-0550                   | 41815-0563  | 41815-0563      |                              |                 |  |

|                                                 |                      |                     |                                                                          |                                        |                                          |
|-------------------------------------------------|----------------------|---------------------|--------------------------------------------------------------------------|----------------------------------------|------------------------------------------|
| REV:<br><br><b>AL6</b>                          | ECR/ECN INFORMATION: |                     | <u>TITLE:</u><br><br><b>KK 156 HOUSING ASSY PCB<br/>41815 SERIES DWG</b> | <u>SHEET No.</u><br><br><b>- 9 -</b>   |                                          |
|                                                 | EC NO.               | <b>UCP2009-0167</b> |                                                                          |                                        |                                          |
|                                                 | DATE:                | <b>10/30/2008</b>   |                                                                          |                                        |                                          |
| <u>DOCUMENT NUMBER:</u><br><br><b>SDA-41815</b> |                      |                     | <u>CREATED / REVISED BY:</u><br><br><b>MKIPPER</b>                       | <u>CHECKED BY:</u><br><br><b>JBELL</b> | <u>APPROVED BY:</u><br><br><b>FSMITH</b> |



# KK 156 PCB ASSY 2-15 CKT

## 41815 SERIES

|      |              |                   |              |                   |              |                   |              |                   |
|------|--------------|-------------------|--------------|-------------------|--------------|-------------------|--------------|-------------------|
|      | Assy. Proc:  | BOTTOM ENTRY      | Assy. Proc:  | BOTTOM ENTRY      | Assy. Proc:  | RIGHT ANGLE       | Assy. Proc:  | TOP ENTRY         |
|      | Housing No:  | 41815-N-DN        | Housing No:  | 41815-N-DN        | Housing No:  | 41815-N-A15-7     | Housing No:  | 41815-N-DN        |
|      | Options      | WITHOUT RAMPS     | Options      | WITHOUT RAMPS     | Options      | WITH RAMP         | Options      | WITHOUT RAMP      |
|      | Terminal No: | 6298-1-102        | Terminal No: | 6298-1-102        | Terminal No: | 2144-BA-A1AA-102B | Terminal No: | 2144-BA-A1AA-102B |
|      | Term Matl:   | PHOS BRONZE       | Term Matl:   | PHOS BRONZE       | Term Matl:   | PHOS BRONZE       | Term Matl:   | PHOS BRONZE       |
|      | Plating:     | 102               | Plating:     | 102               | Plating:     | 102 TIN           | Plating:     | 102 TIN           |
|      | Dim C:       | 3.18 / .125       | Dim C:       | 3.18 / .125       | Dim C:       | (3.68) / .145     | Dim C:       | (3.05)/.120       |
|      | Voids:       | NONE              | Voids:       | TERMINAL VOID 2   | Voids:       | TERMINAL VOID 7   | Voids:       | NONE              |
|      | Hooks Cut:   | NO                | Hooks Cut:   | NO                | Hooks Cut:   | NO                | Hooks Cut:   | YES               |
|      | Packaging:   | PK-41815-001 TRAY | Packaging:   | PK-41815-001 TRAY | Packaging:   | PK-41815-001 TRAY | Packaging:   | PK-41815-001 TRAY |
| Ckts | Material No  | Engineer Number   | Material No  | Engineer Number   | Material No  | Engineer Number   | Material No  | Engineer Number   |
| 2    | 41815-0564   | A-41815-0564      |              |                   |              |                   | 41815-0601   | A-41815-0601      |
| 3    | 41815-0565   | A-41815-0565      | 41815-0579   | A-41815-0579      |              |                   | 41815-0602   | A-41815-0602      |
| 4    | 41815-0566   | A-41815-0566      | 41815-0580   | A-41815-0580      |              |                   |              |                   |
| 5    | 41815-0567   | A-41815-0567      | 41815-0581   | A-41815-0581      |              |                   |              |                   |
| 6    | 41815-0568   | A-41815-0568      | 41815-0582   | A-41815-0582      |              |                   | 41815-0605   | A-41815-0605      |
| 7    | 41815-0569   | A-41815-0569      | 41815-0583   | A-41815-0583      |              |                   |              |                   |
| 8    | 41815-0570   | A-41815-0570      | 41815-0584   | A-41815-0584      |              |                   |              |                   |
| 9    | 41815-0571   | A-41815-0571      | 41815-0585   | A-41815-0585      |              |                   |              |                   |
| 10   | 41815-0572   | A-41815-0572      | 41815-0586   | A-41815-0586      |              |                   |              |                   |
| 11   | 41815-0573   | A-41815-0573      | 41815-0587   | A-41815-0587      |              |                   |              |                   |
| 12   | 41815-0574   | A-41815-0574      | 41815-0588   | A-41815-0588      |              |                   |              |                   |
| 13   | 41815-0575   | A-41815-0575      | 41815-0589   | A-41815-0589      |              |                   |              |                   |
| 14   | 41815-0576   | A-41815-0576      | 41815-0590   | A-41815-0590      |              |                   |              |                   |
| 15   | 41815-0577   | A-41815-0577      | 41815-0591   | A-41815-0591      | 41815-0600   | A-41815-0600      |              |                   |

|                                      |                      |                     |                                                               |                             |
|--------------------------------------|----------------------|---------------------|---------------------------------------------------------------|-----------------------------|
| REV:<br><b>AL6</b>                   | ECR/ECN INFORMATION: |                     | TITLE:<br><b>KK 156 HOUSING ASSY PCB<br/>41815 SERIES DWG</b> | SHEET No.<br><b>- 10 -</b>  |
|                                      | EC NO.               | <b>UCP2009-0167</b> |                                                               |                             |
|                                      | DATE:                | <b>10/30/2008</b>   |                                                               |                             |
| DOCUMENT NUMBER:<br><b>SDA-41815</b> |                      |                     | CREATED / REVISED BY:<br><b>MKIPPER</b>                       | CHECKED BY:<br><b>JBELL</b> |
|                                      |                      |                     | APPROVED BY:<br><b>FSMITH</b>                                 |                             |



# KK 156 PCB ASSY 2-15 CKT

## 41815 SERIES

|              |                   |
|--------------|-------------------|
| Assy. Proc:  | RIGHT ANGLE       |
| Housing No:  | 41815-N-DN        |
| Options      | WITHOUT RAMP      |
| Terminal No: | 2144-BA-A1AA-102B |
| Term Matl:   | PHOS BRONZE       |
| Plating:     | 102 TIN           |
| Dim C:       | (3.68) / .145     |
| Voids:       | NONE              |
| Hooks Cut:   | NO                |
| Packaging:   | PK-41815-001 TRAY |

|              |                    |
|--------------|--------------------|
| Assy. Proc:  | TOP ENTRY          |
| Housing No:  | 41815-N-DN         |
| Options      | WITHOUT RAMP       |
| Terminal No: | 2144-AA-A1AA-P909B |
| Term Matl:   | BRASS              |
| Plating:     | P909 – TIN         |
| Dim C:       | (3.05) / .120      |
| Voids:       | NONE               |
| Hooks Cut:   | YES                |
| Packaging:   | PK-41815-001 TRAY  |

| Ckts | Material No | Engineer Number |
|------|-------------|-----------------|
| 2    | 41815-0630  | A-41815-0630    |
| 3    | 41815-0631  | A-41815-0631    |
| 4    | 41815-0632  | A-41815-0632    |
| 5    | 41815-0633  | A-41815-0633    |
| 6    | 41815-0634  | A-41815-0634    |
| 7    | 41815-0635  | A-41815-0635    |
| 8    | 41815-0636  | A-41815-0636    |
| 9    | 41815-0637  | A-41815-0637    |
| 10   | 41815-0638  | A-41815-0638    |
| 11   | 41815-0639  | A-41815-0639    |
| 12   | 41815-0640  | A-41815-0640    |
| 13   | 41815-0641  | A-41815-0641    |
| 14   | 41815-0642  | A-41815-0642    |
| 15   | 41815-0643  | A-41815-0643    |

| Material No | Engineer Number |
|-------------|-----------------|
|             |                 |
|             |                 |
| 41815-0646  | A-41815-0646    |
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|--------------------------------------|----------------------|---------------------|---------------------------------------------------------------|-----------------------------|
| REV:<br><b>AL6</b>                   | ECR/ECN INFORMATION: |                     | TITLE:<br><b>KK 156 HOUSING ASSY PCB<br/>41815 SERIES DWG</b> | SHEET No.<br><b>- 11 -</b>  |
|                                      | EC NO.               | <b>UCP2009-0167</b> |                                                               |                             |
|                                      | DATE:                | <b>10/30/2008</b>   |                                                               |                             |
| DOCUMENT NUMBER:<br><b>SDA-41815</b> |                      |                     | CREATED / REVISED BY:<br><b>MKIPPER</b>                       | CHECKED BY:<br><b>JBELL</b> |
|                                      |                      |                     | APPROVED BY:<br><b>FSMITH</b>                                 |                             |