

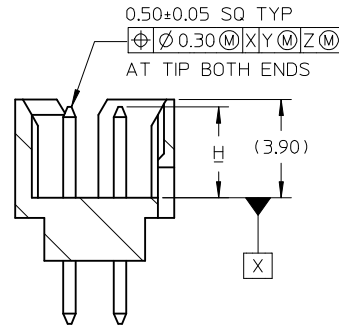
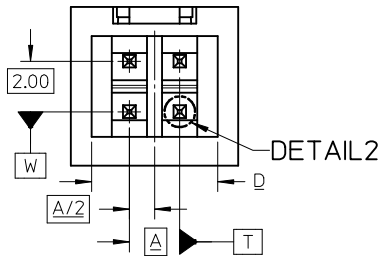
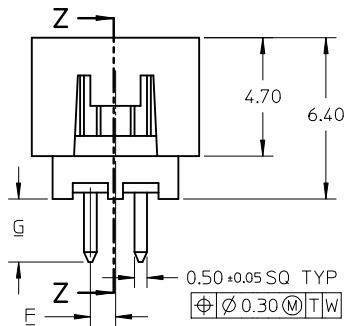
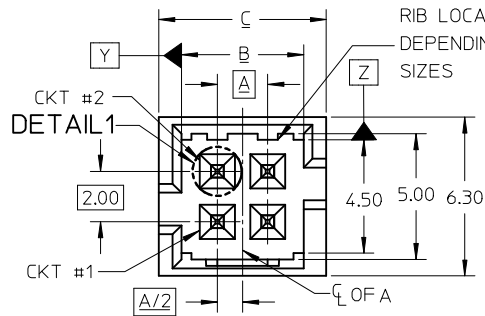
# FEATURES SELECTION GUIDE



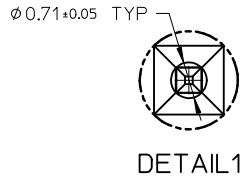
| CIRCUIT SIZE | FEATURES       |          |            |          |                       |       | SHEET NO |
|--------------|----------------|----------|------------|----------|-----------------------|-------|----------|
|              | FRICTION LOCKS |          | SIDE SLOTS |          | 5 CENTER POLARIZATION | 6 PEG |          |
|              | 1 DUAL         | 2 CENTER | 3 DUAL     | 4 SINGLE |                       |       |          |
| 4            | N.A            | N.A      | YES        | N.A      | N.A                   | N.A   | 2 - 3    |
|              | N.A            | YES      | YES        | N.A      | N.A                   | N.A   |          |
|              | N.A            | YES      | N.A        | YES      | N.A                   | N.A   |          |
| 6            | N.A            | N.A      | YES        | N.A      | N.A                   | N.A   | 4 - 5    |
|              | N.A            | N.A      | YES        | N.A      | N.A                   | YES   |          |
|              | N.A            | YES      | YES        | N.A      | N.A                   | N.A   |          |
|              | N.A            | YES      | YES        | N.A      | N.A                   | YES   |          |
|              | N.A            | YES      | N.A        | YES      | N.A                   | YES   |          |
|              | N.A            | YES      | N.A        | YES      | N.A                   | YES   |          |
|              | N.A            | N.A      | YES        | N.A      | YES                   | N.A   |          |
| 8 TO 12      | N.A            | N.A      | YES        | N.A      | YES                   | N.A   | 6 - 8    |
|              | N.A            | N.A      | YES        | N.A      | YES                   | YES   |          |
|              | N.A            | YES      | YES        | N.A      | N.A                   | N.A   |          |
|              | N.A            | YES      | YES        | N.A      | N.A                   | YES   |          |
|              | N.A            | YES      | N.A        | YES      | N.A                   | N.A   |          |
|              | N.A            | YES      | N.A        | YES      | N.A                   | YES   |          |
| 14 TO 50     | YES            | N.A      | YES        | N.A      | YES                   | N.A   | 9 - 13   |
|              | YES            | N.A      | YES        | N.A      | YES                   | YES   |          |

|   |  |   |   |       |              |                        |
|---|--|---|---|-------|--------------|------------------------|
| <b>RELEASED</b><br>EC NO: S2015-1188<br>DRWNG: GMENARLY 2015/04/15<br>CHK'D: CGOH 2015/06/29<br>APPR: KHL IM 2015/06/29 | QUALITY SYMBOLS  | GENERAL TOLERANCES (UNLESS SPECIFIED)   | DIMENSION STYLE   | SCALE | DESIGN UNITS | THIRD ANGLE PROJECTION |
|   | $\nabla_{\sqrt{A}} = 0$<br>$\nabla_{\sqrt{C}} = 0$<br>$\nabla_{\sqrt{P}} = 0$      | mm    INCH<br>4 PLACES ± --- ± ---<br>3 PLACES ± --- ± ---<br>2 PLACES ± 0.20 ± ---<br>1 PLACE ± --- ± ---<br>0 PLACE ± --- ± --- | MM ONLY   | NTS   | METRIC       |                        |
|   | ANGULAR ± 3 °<br>DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS              | DRAWN BY: GMENARLY    DATE: 2015/04/15<br>CHECKED BY:    DATE:<br>APPROVED BY: KHL IM    DATE: 2015/06/29                         | TITLE: MILLIGRID 2MM PITCH, THROUGH HOLE VERTICAL SHROUDED HEADER<br><b>molex</b> |       |              |                        |
|   | MATERIAL NO.    DOCUMENT NO.    SHEET NO.<br>SEE TABLE    SD-87831-0001    1 OF 13 | THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION     |   |       |              |                        |

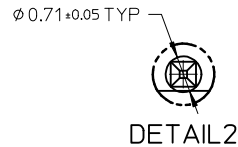
4 CIRCUITS



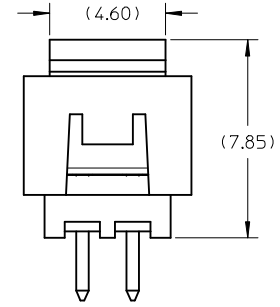
SECTION Z-Z



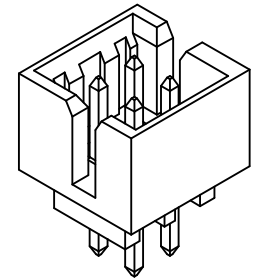
DETAIL1



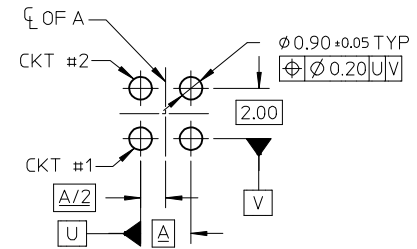
DETAIL2



VIEW FOR HEADER WITH CAP



VIEW FOR HEADER WITH ONLY DUAL SLOTS



RECOMMENDED PCB LAYOUT

NOTES:

- MATERIALS:  
HOUSING: 30% GF, NYLON, UL94V-0, COLOR: BLACK  
PIN: 0.50MM SQ PHOSPHOR BRONZE
- FINISHES: REFER TO PLATING OPTIONS
- PRODUCT SPECIFICATION: PS-87831-027
- PACKAGING SPECIFICATION:  
TUBE: PK-87831-001, TAPE AND REEL: PK-87831-300
- MATES WITH: A. MOLEX CRIMP RECEPTACLE HOUSING: 51110 SERIES AND CRIMP TERMINAL: 50394 SERIES  
B. MOLEX 2MM MILLIGRID DUAL ROW IDT: 87568 SERIES  
C. MOLEX 2MM MILLIGRID DUAL ROW RECEPTACLE: 79107 (GOLD PLATED), 78787 (TIN PLATED)

|   |  |  |              |                 |               |              |  |  |
|---|--|--|--------------|-----------------|---------------|--------------|--|--|
| RELEASED<br>EC NO: S2015-1188<br>DRWING: GMENARLY<br>CHK'D: CGOH<br>APPR: KHL IM<br>2015/04/15<br>2015/06/29<br>2015/06/29    | QUALITY SYMBOLS<br>$F_A=0$<br>$F_G=0$<br>$F_P=0$ | GENERAL TOLERANCES (UNLESS SPECIFIED)                |              | DIMENSION STYLE | SCALE         | DESIGN UNITS | THIRD ANGLE PROJECTION   |  |
|   |  |  |              | MM ONLY         | NTS           | METRIC       |  |  |
|   |  | mm   | INCH         | DRAWN BY        | DATE          | TITLE        |  |  |
|   |  | 4 PLACES   | ± ---        | ± ---           | GMENARLY      | 2015/04/15   | MILLIGRID<br>2MM PITCH, THROUGH HOLE<br>VERTICAL SHROUDED HEADER |  |
| 3 PLACES  | ± ---  | ± ---  | CHECKED BY   | DATE            |               |              |  |  |
| 2 PLACES  | ± 0.20   | ± ---  | APPROVED BY  | DATE            |               |              |  |  |
| 1 PLACE   | ± ---  | ± ---  | KHL IM       | 2015/06/29      | DOCUMENT NO.  |              |  |  |
| 0 PLACE   | ± ---  | ± ---  | MATERIAL NO. |                 | SD-87831-0001 |              |  |  |
| ANGULAR ± 3°  |  | DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS |              | SIZE            | SHEET NO.     |              |  |  |
|   |  |  |              | A3              | 2 OF 13       |              |  |  |
| THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION |  |  |              |                 |               |              |  |  |

4 CIRCUITS

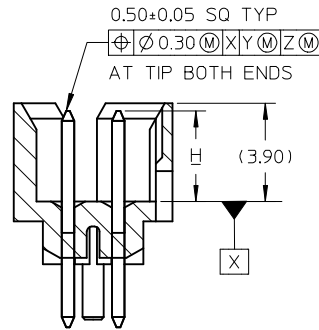
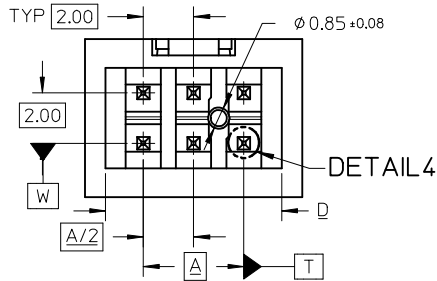
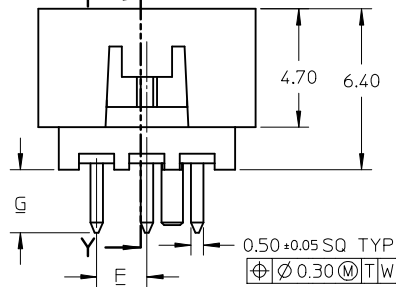
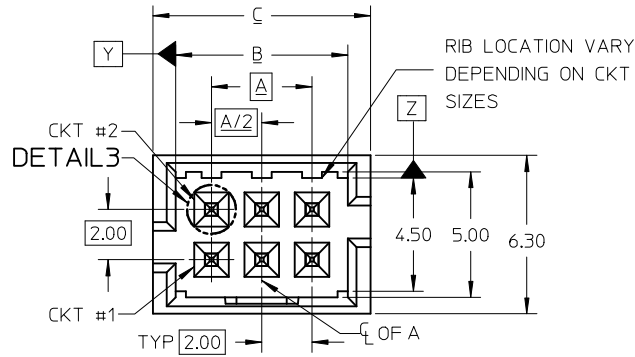
| CKT SIZE   | ASSY P/N WITHOUT CAP IN TUBE | ASSY P/N WITH CAP IN TUBE | ASSY P/N WITH CAP IN T&R | PLATING OPTIONS | FRICTION LOCKS |        | SIDE SLOTS |        | CENTER POLARIZATION | PEG  | DIMENSION |      |      |      |     |      |      |           |
|------------|------------------------------|---------------------------|--------------------------|-----------------|----------------|--------|------------|--------|---------------------|------|-----------|------|------|------|-----|------|------|-----------|
|            |                              |                           |                          |                 | DUAL           | CENTER | DUAL       | SINGLE |                     |      | A         | B    | C    | D    | E   | F    | G    | H         |
| 4          | 87831-0419                   | N.A                       | N.A                      | 1               | N.A            | N.A    | YES        | N.A    | N.A                 | N.A  | 2.00      | 4.85 | 6.65 | 5.00 | N.A | N.A  | 2.50 | 3.60±0.20 |
|            | 87831-0420                   | N.A                       | N.A                      | 2               |                |        |            |        |                     |      |           |      |      |      |     |      |      |           |
|            | 87831-0421                   | N.A                       | N.A                      | 3               |                |        |            |        |                     |      |           |      |      |      |     |      |      |           |
|            | 87831-0436                   | N.A                       | N.A                      | 4               |                |        |            |        |                     |      |           |      |      |      |     |      |      |           |
|            | 87831-0441                   | 87831-0456                | N.A                      | 2               | N.A            | YES    | YES        | N.A    | N.A                 | N.A  |           |      |      |      |     | 1.00 | 2.50 |           |
|            | 87831-0442                   | N.A                       | N.A                      | 3               |                |        |            |        |                     |      |           |      |      |      |     |      |      |           |
|            | 87831-5141                   | N.A                       | N.A                      | 2               | N.A            | YES    | YES        | N.A    | N.A                 | N.A  |           |      |      |      |     | 3.50 |      |           |
|            | 87831-5142                   | N.A                       | N.A                      | 3               |                |        |            |        |                     |      |           |      |      |      |     |      |      |           |
|            | 87831-6141                   | N.A                       | N.A                      | 2               | N.A            | YES    | YES        | N.A    | N.A                 | N.A  |           |      |      |      |     | 2.80 |      |           |
|            | 87831-6142                   | N.A                       | N.A                      | 3               |                |        |            |        |                     |      |           |      |      |      |     |      |      |           |
| 87831-0443 | N.A                          | N.A                       | 2                        | N.A             | YES            | N.A    | YES        | N.A    | N.A                 | 2.50 |           |      |      |      |     |      |      |           |
| 87831-0444 | N.A                          | N.A                       | 3                        |                 |                |        |            |        |                     |      |           |      |      |      |     |      |      |           |

PLATING OPTIONS:

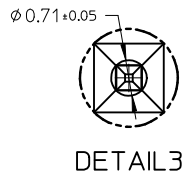
- 1 - 0.05-0.13um/2-5uin GOLD IN CONTACT AREA AND 1.88um/75uin MIN. MATTE TIN IN SOLDER TAIL AREA OVER 1.27um/50uin MIN. NICKEL OVERALL.
- 2 - 0.38um/15uin GOLD IN CONTACT AREA AND 1.88um/75uin MIN. MATTE TIN IN SOLDER TAIL AREA OVER 1.27um/50uin MIN. NICKEL OVERALL.
- 3 - 0.76um/30uin GOLD IN CONTACT AREA AND 1.88um/75uin MIN. MATTE TIN IN SOLDER TAIL AREA OVER 1.27um/50uin MIN. NICKEL OVERALL.
- 4 - 2.50um/100uin MIN. MATTE TIN OVER 1.25um/50uin MIN. NICKEL OVERALL.

|  |                      |                               |   |                 |       |              |   |   |  |
|--|----------------------|-------------------------------|---|-----------------|-------|--------------|---|---|--|
| RELEASED<br>EC NO: S2015-1188<br>DRW:GMENARLY 2015/04/15<br>CHKD:CGOH 2015/06/29<br>APPR:KHL IM 2015/06/29 | DESCRIPTION<br>REV A | QUALITY SYMBOLS               | GENERAL TOLERANCES (UNLESS SPECIFIED)   | DIMENSION STYLE | SCALE | DESIGN UNITS | THIRD ANGLE PROJECTION  |   |  |
|  |                      | $F_A=0$<br>$F_G=0$<br>$F_P=0$ | mm    INCH<br>4 PLACES ± --- ± ---<br>3 PLACES ± --- ± ---<br>2 PLACES ± 0.20 ± ---<br>1 PLACE ± --- ± ---<br>0 PLACE ± --- ± --- | MM ONLY         | NTS   | METRIC       | DRAWN BY: GMENARLY<br>DATE: 2015/04/15<br>CHECKED BY: _____<br>DATE: _____<br>APPROVED BY: KHL IM<br>DATE: 2015/06/29         | TITLE: MILLIGRID 2MM PITCH, THROUGH HOLE VERTICAL SHROUDED HEADER<br>molex<br>DOCUMENT NO. SD-87831-0001<br>SHEET NO. 3 OF 13 |  |
|  |                      |                               | ANGULAR ± 3 °   | SEE TABLE       |       |              | THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION |   |  |
|  |                      |                               | DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS  | SIZE A3         |       |              |   |   |  |

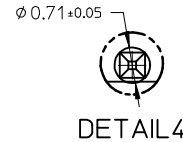
6 CIRCUITS



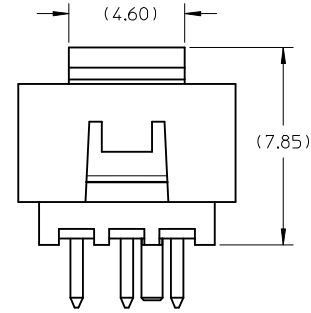
SECTION Y-Y



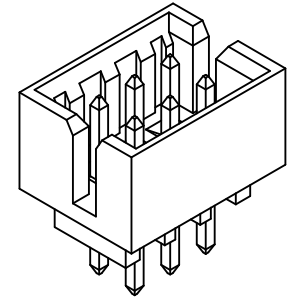
DETAIL 3



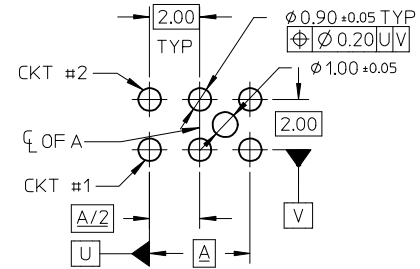
DETAIL 4



VIEW FOR HEADER WITH CAP



VIEW FOR HEADER WITH ONLY DUAL SLOTS



RECOMMENDED PCB LAYOUT

NOTES:

- MATERIALS:  
HOUSING: 30% GF, NYLON, UL94V-0, COLOR: BLACK  
PIN: 0.50MM SQ PHOSPHOR BRONZE
- FINISHES: REFER TO PLATING OPTIONS
- PRODUCT SPECIFICATION: PS-87831-027
- PACKAGING SPECIFICATION:  
TUBE: PK-87831-001, TAPE AND REEL: PK-87831-300
- MATES WITH: A. MOLEX CRIMP RECEPTACLE HOUSING: 51110 SERIES AND CRIMP TERMINAL: 50394 SERIES  
B. MOLEX 2MM MILLIGRID DUAL ROW IDT: 87568 SERIES  
C. MOLEX 2MM MILLIGRID DUAL ROW RECEPTACLE: 79107 (GOLD PLATED), 78787 (TIN PLATED)

|  |             |                     |                                       |  |                 |   |  |                        |  |
|--|-------------|---------------------|---------------------------------------|--|-----------------|---|--|------------------------|--|
| RELEASED<br>IEC NO: S2015-1188<br>DRAWN: GEMARLY 2015/04/15<br>CHKD: CGOH 2015/06/29<br>APPR: KHLIM 2015/06/29 | DESCRIPTION | QUALITY SYMBOLS     | GENERAL TOLERANCES (UNLESS SPECIFIED) |  | DIMENSION STYLE | SCALE   | DESIGN UNITS   | THIRD ANGLE PROJECTION |  |
|  |             | $\nabla F = 0$      | mm                                    | INCH   | MM ONLY         | NTS   | METRIC   |                        |  |
|  |             | $\nabla E = 0$      | 4 PLACES ± --- ± ---                  | 3 PLACES ± --- ± ---                                 | DRAWN BY        | DATE  | TITLE  |                        |  |
|  |             | $\nabla F = 0$      | 2 PLACES ± 0.20 ± ---                 | 1 PLACE ± --- ± ---                                  | GEMARLY         | 2015/04/15  | MILLIGRID<br>2MM PITCH, THROUGH HOLE<br>VERTICAL SHROUDED HEADER |                        |  |
|  |             | 0 PLACE ± --- ± --- | ANGULAR ± 3°                          | DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS | CHECKED BY      | DATE  | DOCUMENT NO.   |                        |  |
|  |             |                     |                                       |  | APPROVED BY     | DATE  | SHEET NO.  |                        |  |
|  |             |                     |                                       |  | KHLIM           | 2015/06/29  | 4 OF 13  |                        |  |
|  |             |                     |                                       |  | MATERIAL NO.    | SEE TABLE   |  |                        |  |
|  |             |                     |                                       |  | SIZE            | THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION |  |                        |  |
|  |             |                     |                                       |  | A3              | SD-87831-0001   |  |                        |  |

6 CIRCUITS

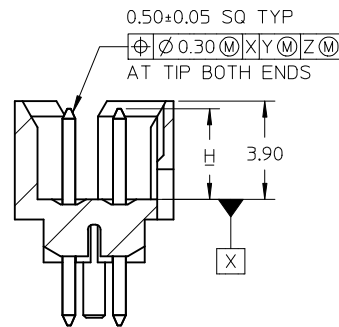
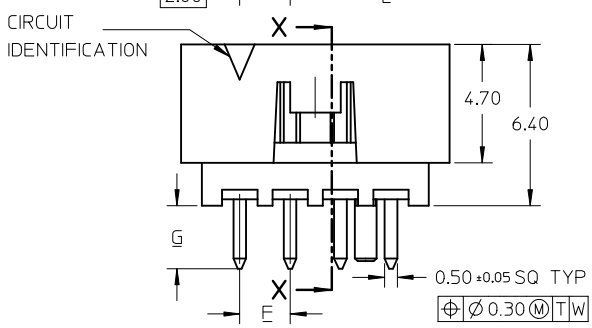
| CKT SIZE   | ASSY P/N WITHOUT CAP IN TUBE | ASSY P/N WITH CAP IN TUBE | ASSY P/N WITH CAP IN T&R | PLATING OPTIONS | FRICTION LOCKS |        | SIDE SLOTS |        | CENTER POLARIZATION | PEG | DIMENSION |      |      |      |      |     |      |           |     |     |     |      |
|------------|------------------------------|---------------------------|--------------------------|-----------------|----------------|--------|------------|--------|---------------------|-----|-----------|------|------|------|------|-----|------|-----------|-----|-----|-----|------|
|            |                              |                           |                          |                 | DUAL           | CENTER | DUAL       | SINGLE |                     |     | A         | B    | C    | D    | E    | F   | G    | H         |     |     |     |      |
| 6          | 87831-0619                   | N.A                       | N.A                      | 1               | N.A            | N.A    | YES        | N.A    | N.A                 | N.A | 4.00      | 6.85 | 8.65 | 7.00 | N.A  | N.A | 2.50 | 3.60±0.20 |     |     |     |      |
|            | 87831-0620                   | N.A                       | N.A                      | 2               |                |        |            |        |                     |     |           |      |      |      |      |     |      |           |     |     |     |      |
|            | 87831-0621                   | N.A                       | N.A                      | 3               |                |        |            |        |                     |     |           |      |      |      |      |     |      |           |     |     |     |      |
|            | 87831-0636                   | N.A                       | N.A                      | 4               | N.A            | N.A    | YES        | N.A    | N.A                 | YES |           |      |      |      |      | N.A | N.A  |           | N.A | N.A | N.A | 2.50 |
|            | 87831-0628                   | N.A                       | N.A                      | 2               |                |        |            |        |                     |     |           |      |      |      |      |     |      |           |     |     |     |      |
|            | 87831-0629                   | N.A                       | N.A                      | 3               |                |        |            |        |                     |     |           |      |      |      |      |     |      |           |     |     |     |      |
|            | 87831-0641                   | N.A                       | N.A                      | 2               | N.A            | YES    | YES        | N.A    | N.A                 | N.A |           |      |      |      |      | N.A | N.A  |           | N.A | N.A | N.A | 2.50 |
|            | 87831-0642                   | N.A                       | 87831-5552               | 3               |                |        |            |        |                     |     |           |      |      |      |      |     |      |           |     |     |     |      |
|            | 87831-5241                   | N.A                       | N.A                      | 2               |                |        |            |        |                     |     |           |      |      |      |      |     |      |           |     |     |     |      |
|            | 87831-5242                   | N.A                       | N.A                      | 3               | N.A            | YES    | YES        | N.A    | N.A                 | N.A |           |      |      |      |      | N.A | N.A  |           | N.A | N.A | N.A | 2.50 |
|            | 87831-6241                   | N.A                       | N.A                      | 2               |                |        |            |        |                     |     |           |      |      |      |      |     |      |           |     |     |     |      |
|            | 87831-6242                   | N.A                       | N.A                      | 3               |                |        |            |        |                     |     |           |      |      |      |      |     |      |           |     |     |     |      |
|            | 87831-0643                   | N.A                       | N.A                      | 2               | N.A            | YES    | N.A        | YES    | N.A                 | N.A |           |      |      |      |      | N.A | N.A  |           | N.A | N.A | N.A | 2.50 |
|            | 87831-0644                   | N.A                       | N.A                      | 3               |                |        |            |        |                     |     |           |      |      |      |      |     |      |           |     |     |     |      |
|            | 87831-0645                   | N.A                       | N.A                      | 2               |                |        |            |        |                     |     |           |      |      |      |      |     |      |           |     |     |     |      |
| 87831-0646 | N.A                          | N.A                       | 3                        | N.A             | YES            | N.A    | YES        | N.A    | N.A                 | YES | N.A       | N.A  | N.A  | N.A  | 2.50 |     |      |           |     |     |     |      |
| 87831-0632 | N.A                          | N.A                       | 2                        |                 |                |        |            |        |                     |     |           |      |      |      |      |     |      |           |     |     |     |      |
| 87831-5119 | N.A                          | N.A                       | 1                        |                 |                |        |            |        |                     |     |           |      |      |      |      | N.A | N.A  | YES       | N.A | YES | N.A | N.A  |

PLATING OPTIONS:

- 1 - 0.05-0.13um/2-5uin GOLD IN CONTACT AREA AND 1.88um/75uin MIN. MATTE TIN IN SOLDER TAIL AREA OVER 1.27um/50uin MIN. NICKEL OVERALL.
- 2 - 0.38um/15uin GOLD IN CONTACT AREA AND 1.88um/75uin MIN. MATTE TIN IN SOLDER TAIL AREA OVER 1.27um/50uin MIN. NICKEL OVERALL.
- 3 - 0.76um/30uin GOLD IN CONTACT AREA AND 1.88um/75uin MIN. MATTE TIN IN SOLDER TAIL AREA OVER 1.27um/50uin MIN. NICKEL OVERALL.
- 4 - 2.50um/100uin MIN. MATTE TIN OVER 1.25um/50uin MIN. NICKEL OVERALL.

|  |   |                                       |              |  |             |   |                        |   |  |  |  |  |
|--|---|---------------------------------------|--------------|--|-------------|---|------------------------|---|--|--|--|--|
| RELEASED<br>EC NO: S2015-1188<br>DRW:GMENARLY 2015/04/15<br>CHKD:CGOH 2015/06/29<br>APPR:KHL IM 2015/06/29 | DESCRIPTION<br>QUALITY SYMBOLS<br>$F_A=0$<br>$F_G=0$<br>$F_P=0$ | GENERAL TOLERANCES (UNLESS SPECIFIED) |              | DIMENSION STYLE<br>MM ONLY                           |             | SCALE<br>NTS  | DESIGN UNITS<br>METRIC | THIRD ANGLE PROJECTION  |  |  |  |  |
|  |   |                                       |              | mm   | INCH        | DRAWN BY<br>GMENARLY  | DATE<br>2015/04/15     | TITLE<br>MILLIGRID<br>2MM PITCH, THROUGH HOLE<br>VERTICAL SHROUDED HEADER |  |  |  |  |
|  |   |                                       |              | 4 PLACES   | ± --- ± --- | CHECKED BY  |                        | DATE  |  |  |  |  |
|  |   |                                       |              | 3 PLACES   | ± --- ± --- | APPROVED BY<br>KHL IM   |                        | DATE<br>2015/06/29  |  |  |  |  |
|  |   | 2 PLACES                              | ± 0.20 ± --- | MATERIAL NO.   |             | DOCUMENT NO.  |                        | SHEET NO.   |  |  |  |  |
|  |   | 1 PLACE                               | ± --- ± ---  | SEE TABLE  |             | SD-87831-0001   |                        | 5 OF 13   |  |  |  |  |
|  |   | 0 PLACE                               | ± --- ± ---  | DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS |             | THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION |                        |   |  |  |  |  |

8 TO 12 CIRCUITS



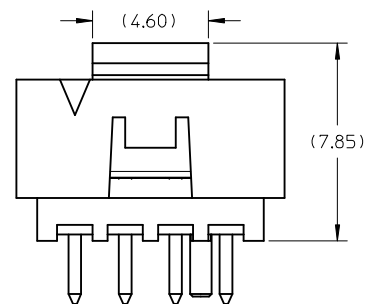
SECTION X-X



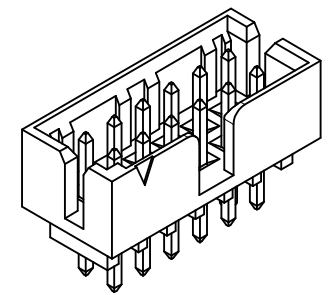
DETAIL 7



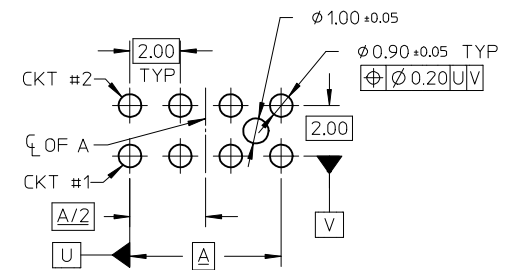
DETAIL 8



VIEW FOR HEADER WITH CAP



VIEW FOR HEADER WITH CENTER POLARIZATION AND DUAL SIDE SLOTS



RECOMMENDED PCB LAYOUT

- NOTES:
- MATERIALS:  
HOUSING: 30% GF, NYLON, UL94V-0, COLOR: BLACK  
PIN: 0.50MM SQ PHOSPHOR BRONZE
  - FINISHES: REFER TO PLATING OPTIONS
  - PRODUCT SPECIFICATION: PS-87831-027
  - PACKAGING SPECIFICATION:  
TUBE: PK-87831-001, TAPE AND REEL: PK-87831-300
  - MATES WITH: A. MOLEX CRIMP RECEPTACLE HOUSING: 51110 SERIES AND CRIMP TERMINAL: 50394 SERIES  
B. MOLEX 2MM MILLIGRID DUAL ROW IDT: 87568 SERIES  
C. MOLEX 2MM MILLIGRID DUAL ROW RECEPTACLE: 79107 (GOLD PLATED), 78787 (TIN PLATED)

|  |  |                                       |                       |                            |                      |   |   |                        |         |  |
|--|--|---------------------------------------|-----------------------|----------------------------|----------------------|---|---|------------------------|---------|--|
| RELEASED<br>EC NO: S2015-1188<br>DRWN:GMENARLY 2015/04/15<br>CHKD:CGOH 2015/06/29<br>APPR:KHLIM 2015/06/29 | DESCRIPTION<br>QUALITY SYMBOLS<br>$\nabla_A = 0$<br>$\nabla_E = 0$<br>$\nabla_F = 0$ | GENERAL TOLERANCES (UNLESS SPECIFIED) |                       | DIMENSION STYLE<br>MM ONLY |                      | SCALE<br>NTS  | DESIGN UNITS<br>METRIC  | THIRD ANGLE PROJECTION |         |  |
|  |  |                                       | mm                    | INCH                       | DRAWN BY<br>GMENARLY | DATE<br>2015/04/15  | TITLE<br>MILLIGRID<br>2MM PITCH, THROUGH HOLE<br>VERTICAL SHROUDED HEADER |                        |         |  |
|  |  |                                       | 4 PLACES ± --- ± ---  | 3 PLACES ± --- ± ---       | CHECKED BY           | DATE  |   |                        |         |  |
|  |  |                                       | 2 PLACES ± 0.20 ± --- | 1 PLACE ± --- ± ---        | APPROVED BY<br>KHLIM | DATE<br>2015/06/29  |   |                        |         |  |
|  | 0 PLACE ± --- ± ---  | ANGULAR ± 3 °                         |                       | MATERIAL NO.               | DOCUMENT NO.         | SHEET NO.   |   |                        |         |  |
|  | DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS                                 |                                       | SEE TABLE             |                            | SD-87831-0001        |   |   |                        | 6 OF 13 |  |
|  |  |                                       |                       | SIZE<br>A3                 |                      | THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION |   |                        |         |  |

8 CIRCUITS

| F          | CKT SIZE   | ASSY P/N WITHOUT CAP IN TUBE | ASSY P/N WITH CAP IN TUBE | ASSY P/N WITH CAP IN T&R | PLATING OPTIONS | FRICTION LOCKS |        | SIDE SLOTS |        | CENTER POLARIZATION | PEG | DIMENSION |      |       |      |     |      |      |           |
|------------|------------|------------------------------|---------------------------|--------------------------|-----------------|----------------|--------|------------|--------|---------------------|-----|-----------|------|-------|------|-----|------|------|-----------|
|            |            |                              |                           |                          |                 | DUAL           | CENTER | DUAL       | SINGLE |                     |     | A         | B    | C     | D    | E   | F    | G    | H         |
| E          | 8          | 87831-0819                   | N.A                       | N.A                      | 1               | N.A            | N.A    | YES        | N.A    | YES                 | N.A | 6.00      | 8.85 | 10.65 | 9.00 | N.A | N.A  | 2.50 | 3.60±0.20 |
|            | 87831-0820 | N.A                          | N.A                       | 2                        |                 |                |        |            |        |                     |     |           |      |       |      |     |      |      |           |
|            | 87831-0821 | N.A                          | N.A                       | 3                        |                 |                |        |            |        |                     |     |           |      |       |      |     |      |      |           |
|            | 87831-0836 | N.A                          | N.A                       | 4                        | N.A             | N.A            | YES    | N.A        | YES    | YES                 | YES |           |      |       |      |     | N.A  | 2.50 |           |
|            | 87831-0828 | N.A                          | N.A                       | 2                        |                 |                |        |            |        |                     |     |           |      |       |      |     |      |      |           |
|            | 87831-0829 | N.A                          | N.A                       | 3                        |                 |                |        |            |        |                     |     |           |      |       |      |     |      |      |           |
|            | 87831-0841 | N.A                          | 87831-5551                | 2                        | N.A             | YES            | YES    | N.A        | N.A    | N.A                 | N.A |           |      |       |      |     | 3.00 | 2.50 |           |
|            | 87831-0842 | N.A                          | N.A                       | 3                        |                 |                |        |            |        |                     |     |           |      |       |      |     |      |      |           |
|            | 87831-5441 | N.A                          | N.A                       | 2                        |                 |                |        |            |        |                     |     |           |      |       |      |     | N.A  | YES  |           |
|            | 87831-5442 | N.A                          | N.A                       | 3                        |                 |                |        |            |        |                     |     |           |      |       |      |     |      |      |           |
|            | N.A        | 87831-5541                   | N.A                       | 2                        | N.A             | YES            | YES    | N.A        | N.A    | N.A                 | N.A |           |      |       |      |     |      |      |           |
|            | N.A        | 87831-5542                   | N.A                       | 3                        |                 |                |        |            |        |                     |     |           |      |       |      |     |      |      |           |
|            | 87831-5741 | N.A                          | N.A                       | 2                        |                 |                |        |            |        |                     |     |           |      |       |      |     | N.A  | YES  |           |
|            | 87831-5742 | N.A                          | N.A                       | 3                        |                 |                |        |            |        |                     |     |           |      |       |      |     |      |      |           |
|            | 87831-0832 | N.A                          | N.A                       | 2                        | N.A             | YES            | YES    | N.A        | N.A    | YES                 | YES |           |      |       |      |     |      |      |           |
| 87831-0843 | N.A        | N.A                          | 2                         |                          |                 |                |        |            |        |                     |     |           |      |       |      |     |      |      |           |
| 87831-0844 | N.A        | N.A                          | 3                         | N.A                      |                 |                |        |            |        |                     |     | YES       | N.A  | YES   | N.A  | N.A | YES  | 2.50 |           |
| 87831-0845 | N.A        | N.A                          | 2                         |                          |                 |                |        |            |        |                     |     |           |      |       |      |     |      |      |           |
| 87831-0846 | N.A        | N.A                          | 3                         |                          |                 |                |        |            |        |                     |     |           |      |       |      |     |      |      |           |

PLATING OPTIONS:

- 1 - 0.05-0.13um/2-5uin GOLD IN CONTACT AREA AND 1.88um/75uin MIN. MATTE TIN IN SOLDER TAIL AREA OVER 1.27um/50uin MIN. NICKEL OVERALL.
- 2 - 0.38um/15uin GOLD IN CONTACT AREA AND 1.88um/75uin MIN. MATTE TIN IN SOLDER TAIL AREA OVER 1.27um/50uin MIN. NICKEL OVERALL.
- 3 - 0.76um/30uin GOLD IN CONTACT AREA AND 1.88um/75uin MIN. MATTE TIN IN SOLDER TAIL AREA OVER 1.27um/50uin MIN. NICKEL OVERALL.
- 4 - 2.50um/100uin MIN. MATTE TIN OVER 1.25um/50uin MIN. NICKEL OVERALL.

|  |  |   |   |   |              |                            |                   |
|--|--|---|---|---|--------------|----------------------------|-------------------|
| RELEASED<br>EC NO: S2015-1188<br>DRAWN: GEMEARLY 2015/04/15<br>CH'KD: CGOH 2015/06/29<br>APPR: KHL IM 2015/06/29 | QUALITY SYMBOLS                                    | GENERAL TOLERANCES (UNLESS SPECIFIED)   | DIMENSION STYLE   | SCALE   | DESIGN UNITS | THIRD ANGLE PROJECTION     |                   |
|  | $\nabla_A = 0$<br>$\nabla_C = 0$<br>$\nabla_P = 0$ | mm    INCH<br>4 PLACES ± --- ± ---<br>3 PLACES ± --- ± ---<br>2 PLACES ± 0.20 ± ---<br>1 PLACE ± --- ± ---<br>0 PLACE ± --- ± --- | MM ONLY   | NTS   | METRIC       |                            |                   |
|  |  | ANGULAR ± 3 °   | DRAWN BY: GMENARLY    DATE: 2015/04/15  | TITLE: MILLIGRID 2MM PITCH, THROUGH HOLE VERTICAL SHROUDED HEADER |              |                            |                   |
|  |  | DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS  | CHECKED BY:    DATE:  |   |              |                            |                   |
|  |  |   | APPROVED BY: KHL IM    DATE: 2015/06/29   | SEE TABLE   |              | DOCUMENT NO. SD-87831-0001 | SHEET NO. 7 OF 13 |
|  |  | MATERIAL NO.  | THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION |   |              |                            |                   |

10 TO 12 CIRCUITS

| CKT SIZE   | ASSY P/N WITHOUT CAP IN TUBE | ASSY P/N WITH CAP IN TUBE | ASSY P/N WITH CAP IN T&R | PLATING OPTIONS | FRICTION LOCKS |        | SIDE SLOTS |        | CENTER POLARIZATION | PEG | DIMENSION |       |       |       |     |     |      |                    |     |     |     |      |                    |                    |                    |
|------------|------------------------------|---------------------------|--------------------------|-----------------|----------------|--------|------------|--------|---------------------|-----|-----------|-------|-------|-------|-----|-----|------|--------------------|-----|-----|-----|------|--------------------|--------------------|--------------------|
|            |                              |                           |                          |                 | DUAL           | CENTER | DUAL       | SINGLE |                     |     | A         | B     | C     | D     | E   | F   | G    | H                  |     |     |     |      |                    |                    |                    |
| 10         | 87831-1019                   | N.A                       | N.A                      | 1               | N.A            | N.A    | YES        | N.A    | YES                 | N.A | 8.00      | 10.85 | 12.65 | 11.00 | N.A | N.A | 2.50 | 3.60±0.20          |     |     |     |      |                    |                    |                    |
|            | 87831-1020                   | N.A                       | N.A                      | 2               |                |        |            |        |                     |     |           |       |       |       |     |     |      |                    |     |     |     |      |                    |                    |                    |
|            | 87831-1021                   | N.A                       | N.A                      | 3               |                |        |            |        |                     |     |           |       |       |       |     |     |      |                    |     |     |     |      |                    |                    |                    |
|            | 87831-1036                   | N.A                       | N.A                      | 4               |                |        |            |        |                     |     |           |       |       |       |     |     |      |                    |     |     |     |      |                    |                    |                    |
|            | 87831-1010                   | N.A                       | N.A                      | 2               |                |        |            |        |                     |     |           |       |       |       |     |     |      |                    |     |     |     |      |                    |                    |                    |
|            | 87831-1011                   | N.A                       | N.A                      | 3               |                |        |            |        |                     |     |           |       |       |       |     |     |      |                    |     |     |     |      |                    |                    |                    |
|            | 87831-1028                   | N.A                       | N.A                      | 2               | N.A            | N.A    | YES        | N.A    | YES                 | YES |           |       |       |       |     | N.A | N.A  | N.A                | N.A | N.A | N.A | 2.50 | 3.60±0.15<br>-0.10 |                    |                    |
|            | 87831-1029                   | N.A                       | N.A                      | 3               |                |        |            |        |                     |     |           |       |       |       |     |     |      |                    |     |     |     |      |                    |                    |                    |
|            | 87831-1035                   | N.A                       | N.A                      | 3               |                |        |            |        |                     |     |           |       |       |       |     |     |      |                    |     |     |     |      |                    |                    |                    |
|            | 87831-1041                   | N.A                       | N.A                      | 2               | N.A            | YES    | YES        | N.A    | N.A                 | N.A |           |       |       |       |     | N.A | N.A  | N.A                | N.A | N.A | N.A | N.A  | 2.50               | 3.60±0.15<br>-0.10 |                    |
|            | 87831-1042                   | N.A                       | 87831-5553               | 3               |                |        |            |        |                     |     |           |       |       |       |     |     |      |                    |     |     |     |      |                    |                    |                    |
|            | 87831-1032                   | N.A                       | N.A                      | 2               |                |        |            |        |                     |     |           |       |       |       |     |     |      |                    |     |     |     |      |                    |                    |                    |
| 87831-1043 | N.A                          | N.A                       | 2                        | N.A             | YES            | N.A    | YES        | N.A    | N.A                 | N.A | N.A       | N.A   | N.A   | N.A   | N.A | N.A | 2.50 | 3.60±0.15<br>-0.10 |     |     |     |      |                    |                    |                    |
| 87831-1044 | N.A                          | N.A                       | 3                        |                 |                |        |            |        |                     |     |           |       |       |       |     |     |      |                    |     |     |     |      |                    |                    |                    |
| 87831-1045 | N.A                          | N.A                       | 2                        |                 |                |        |            |        |                     |     |           |       |       |       |     |     |      |                    |     |     |     |      |                    |                    |                    |
| 87831-1046 | N.A                          | N.A                       | 3                        | N.A             | YES            | N.A    | YES        | N.A    | YES                 | N.A | N.A       | N.A   | N.A   | N.A   | N.A | N.A | 2.50 | 3.60±0.15<br>-0.10 |     |     |     |      |                    |                    |                    |
| 87831-1219 | N.A                          | N.A                       | 1                        |                 |                |        |            |        |                     |     |           |       |       |       |     |     |      |                    |     |     |     |      |                    |                    |                    |
| 87831-1220 | N.A                          | N.A                       | 2                        |                 |                |        |            |        |                     |     |           |       |       |       |     |     |      |                    |     |     |     |      |                    |                    |                    |
| 12         | 87831-1221                   | N.A                       | N.A                      | 3               | N.A            | N.A    | YES        | N.A    | YES                 | N.A | 10.00     | 12.85 | 14.65 | 13.00 | N.A | N.A | 2.50 | 3.60±0.20          |     |     |     |      |                    |                    |                    |
|            | 87831-1236                   | N.A                       | N.A                      | 4               |                |        |            |        |                     |     |           |       |       |       |     |     |      |                    |     |     |     |      |                    |                    |                    |
|            | 87831-1228                   | N.A                       | N.A                      | 2               |                |        |            |        |                     |     |           |       |       |       |     |     |      |                    |     |     |     |      |                    |                    |                    |
|            | 87831-1229                   | N.A                       | N.A                      | 3               |                |        |            |        |                     |     |           |       |       |       |     |     |      |                    |     |     |     |      |                    |                    |                    |
|            | 87831-1241                   | N.A                       | N.A                      | 2               | N.A            | YES    | YES        | N.A    | N.A                 | N.A |           |       |       |       |     |     | N.A  |                    | N.A | N.A | N.A | N.A  | N.A                | 2.50               | 3.60±0.15<br>-0.10 |
|            | 87831-1242                   | N.A                       | N.A                      | 3               |                |        |            |        |                     |     |           |       |       |       |     |     |      |                    |     |     |     |      |                    |                    |                    |
|            | 87831-1255                   | 87831-1256                | N.A                      | 2               |                |        |            |        |                     |     |           |       |       |       |     |     |      |                    |     |     |     |      |                    |                    |                    |
|            | 87831-1232                   | N.A                       | N.A                      | 2               | N.A            | YES    | YES        | N.A    | N.A                 | N.A |           |       |       |       |     | N.A | N.A  | N.A                | N.A | N.A | N.A | N.A  | 2.50               | 3.60±0.15<br>-0.10 |                    |
|            | 87831-1243                   | N.A                       | N.A                      | 2               |                |        |            |        |                     |     |           |       |       |       |     |     |      |                    |     |     |     |      |                    |                    |                    |
|            | 87831-1244                   | N.A                       | N.A                      | 3               |                |        |            |        |                     |     |           |       |       |       |     |     |      |                    |     |     |     |      |                    |                    |                    |
|            | 87831-1245                   | N.A                       | N.A                      | 2               | N.A            | YES    | N.A        | YES    | N.A                 | YES |           |       |       |       |     | N.A | N.A  | N.A                | N.A | N.A | N.A | N.A  | 2.50               | 3.60±0.15<br>-0.10 |                    |
|            | 87831-1246                   | N.A                       | N.A                      | 3               |                |        |            |        |                     |     |           |       |       |       |     |     |      |                    |     |     |     |      |                    |                    |                    |

PLATING OPTIONS:

- 1 - 0.05-0.13um/2-5uin GOLD IN CONTACT AREA AND 1.88um/75uin MIN. MATTE TIN IN SOLDER TAIL AREA OVER 1.27um/50uin MIN. NICKEL OVERALL.
- 2 - 0.38um/15uin GOLD IN CONTACT AREA AND 1.88um/75uin MIN. MATTE TIN IN SOLDER TAIL AREA OVER 1.27um/50uin MIN. NICKEL OVERALL.
- 3 - 0.76um/30uin GOLD IN CONTACT AREA AND 1.88um/75uin MIN. MATTE TIN IN SOLDER TAIL AREA OVER 1.27um/50uin MIN. NICKEL OVERALL.
- 4 - 2.50um/100uin MIN. MATTE TIN OVER 1.25um/50uin MIN. NICKEL OVERALL.

|  |  |                    |                               |   |   |   |              |  |   |  |  |
|--|--|--------------------|-------------------------------|---|---|---|--------------|--|---|--|--|
| RELEASED<br>EC NO: S2015-1188<br>DRW:GMENARLY<br>CHKD:CGOH<br>APPR:KHLIM | 2015/04/15<br>2015/06/29<br>2015/06/29 | DESCRIPTION<br>REV | QUALITY SYMBOLS               | GENERAL TOLERANCES (UNLESS SPECIFIED)   | DIMENSION STYLE   | SCALE   | DESIGN UNITS | THIRD ANGLE PROJECTION   |   |  |  |
|  |  |                    | $F_A=0$<br>$F_G=0$<br>$F_P=0$ | mm INCH   | MM ONLY   | NTS   | METRIC       | DRAWN BY: GMENARLY<br>DATE: 2015/04/15<br>CHECKED BY: _____<br>DATE: _____ | TITLE: MILLIGRID<br>2MM PITCH, THROUGH HOLE<br>VERTICAL SHROUDED HEADER |  |  |
|  |  |                    |                               | 4 PLACES ± --- ± ---<br>3 PLACES ± --- ± ---<br>2 PLACES ± 0.20 ± ---<br>1 PLACE ± --- ± ---<br>0 PLACE ± --- ± --- | DRAWN BY: KHLIM<br>DATE: 2015/06/29<br>APPROVED BY: _____<br>DATE: _____  | DOCUMENT NO. SD-87831-0001<br>SHEET NO. 8 OF 13 |              |  |   |  |  |
|  |  |                    |                               | ANGULAR ± 3 °<br>DRAFT WHERE APPLICABLE<br>MUST REMAIN WITHIN DIMENSIONS  | MATERIAL NO. SEE TABLE<br>SIZE: A3<br>THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION |   |              |  |   |  |  |



14 TO 50 CIRCUITS



SECTION W-W



DETAIL5



DETAIL6



RECOMMENDED PCB LAYOUT

NOTES:

- MATERIALS:  
HOUSING: 30% GF, NYLON, UL94V-0, COLOR: BLACK  
PIN: 0.50MM SQ PHOSPHOR BRONZE
- FINISHES: REFER TO PLATING OPTIONS
- PRODUCT SPECIFICATION: PS-87831-027
- PACKAGING SPECIFICATION:  
TUBE: PK-87831-001, TAPE AND REEL: PK-87831-300
- MATES WITH: A. MOLEX CRIMP RECEPTACLE HOUSING: 51110 SERIES AND CRIMP TERMINAL: 50394 SERIES  
B. MOLEX 2MM MILLIGRID DUAL ROW IDT: 87568 SERIES  
C. MOLEX 2MM MILLIGRID DUAL ROW RECEPTACLE: 79107 (GOLD PLATED), 78787 (TIN PLATED)

|   |  |   |                                       |                      |                            |                     |   |                        |                        |  |  |  |  |
|---|--|---|---------------------------------------|----------------------|----------------------------|---------------------|---|------------------------|------------------------|--|--|--|--|
| RELEASED<br>EC NO: S2015-1188<br>DRWN:GMENARLY<br>CHKD:CGOH<br>APPR:KHL IM  | 2015/04/15<br>2015/06/29<br>2015/06/29 | DESCRIPTION<br>QUALITY SYMBOLS<br>$F_a=0$<br>$F_b=0$<br>$F_p=0$ | GENERAL TOLERANCES (UNLESS SPECIFIED) |                      | DIMENSION STYLE<br>MM ONLY |                     | SCALE<br>NTS  | DESIGN UNITS<br>METRIC | THIRD ANGLE PROJECTION |  |  |  |  |
|   |  |   | mm                                    | INCH                 | DRAWN BY<br>GMENARLY       | DATE<br>2015/04/15  | TITLE<br>MILLIGRID<br>2MM PITCH, THROUGH HOLE<br>VERTICAL SHROUDED HEADER |                        |                        |  |  |  |  |
|   |  |   | 4 PLACES ± --- ± ---                  | 3 PLACES ± --- ± --- | 2 PLACES ± 0.20 ± ---      | 1 PLACE ± --- ± --- | 0 PLACE ± --- ± ---   | APPROVED BY<br>KHL IM  | DATE<br>2015/06/29     |  |  |  |  |
|   |  |   | ANGULAR ± 3 °                         |                      |                            |                     |   | MATERIAL NO.           |                        |  |  |  |  |
| DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS  |  |   |                                       |                      | SEE TABLE                  |                     | SD-87831-0001   |                        | 9 OF 13                |  |  |  |  |
| THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION |  |   |                                       |                      |                            |                     |   |                        |                        |  |  |  |  |

14 TO 20 CIRCUITS

| F          | CKT SIZE | ASSY P/N WITHOUT CAP IN TUBE | ASSY P/N WITH CAP IN TUBE | ASSY P/N WITH CAP IN T&R | PLATING OPTIONS | FRICTION LOCKS |        | SIDE SLOTS |        | CENTER POLARIZATION | PEG | DIMENSION |       |       |       |       |     |      |           |
|------------|----------|------------------------------|---------------------------|--------------------------|-----------------|----------------|--------|------------|--------|---------------------|-----|-----------|-------|-------|-------|-------|-----|------|-----------|
|            |          |                              |                           |                          |                 | DUAL           | CENTER | DUAL       | SINGLE |                     |     | A         | B     | C     | D     | E     | F   | G    | H         |
| E          | 14       | 87831-1419                   | N.A                       | N.A                      | 1               | YES            | N.A    | YES        | N.A    | YES                 | N.A | 12.00     | 14.85 | 16.65 | 15.00 | 8.00  | N.A | 2.50 | 3.60±0.20 |
|            |          | 87831-1420                   | N.A                       | 87831-5554               | 2               |                |        |            |        |                     |     |           |       |       |       |       |     |      |           |
|            |          | 87831-1421                   | N.A                       | N.A                      | 3               |                |        |            |        |                     |     |           |       |       |       |       |     |      |           |
|            |          | 87831-1436                   | N.A                       | N.A                      | 4               |                |        |            |        |                     |     |           |       |       |       |       |     |      |           |
|            |          | 87831-1428                   | N.A                       | N.A                      | 2               |                |        |            |        |                     |     |           |       |       |       |       |     |      |           |
|            |          | 87831-1429                   | N.A                       | N.A                      | 3               |                |        |            |        |                     |     |           |       |       |       |       |     |      |           |
|            |          | 87831-1435                   | N.A                       | N.A                      | 3               |                |        |            |        |                     |     |           |       |       |       |       |     |      |           |
| D          | 16       | 87831-1410                   | N.A                       | N.A                      | 2               | YES            | N.A    | YES        | N.A    | YES                 | N.A | 14.00     | 16.85 | 18.65 | 17.00 | 10.00 | N.A | 2.50 | 3.60±0.20 |
|            |          | 87831-1411                   | N.A                       | N.A                      | 3               |                |        |            |        |                     |     |           |       |       |       |       |     |      |           |
|            |          | 87831-1619                   | N.A                       | N.A                      | 1               |                |        |            |        |                     |     |           |       |       |       |       |     |      |           |
|            |          | 87831-1620                   | N.A                       | N.A                      | 2               |                |        |            |        |                     |     |           |       |       |       |       |     |      |           |
|            |          | 87831-1621                   | N.A                       | N.A                      | 3               |                |        |            |        |                     |     |           |       |       |       |       |     |      |           |
|            |          | 87831-1636                   | N.A                       | N.A                      | 4               |                |        |            |        |                     |     |           |       |       |       |       |     |      |           |
|            |          | 87831-1628                   | N.A                       | N.A                      | 2               |                |        |            |        |                     |     |           |       |       |       |       |     |      |           |
| C          | 18       | 87831-1629                   | N.A                       | N.A                      | 3               | YES            | N.A    | YES        | N.A    | YES                 | N.A | 16.00     | 18.85 | 20.65 | 19.00 | 12.00 | N.A | 2.50 | 3.60±0.20 |
|            |          | 87831-1819                   | N.A                       | N.A                      | 1               |                |        |            |        |                     |     |           |       |       |       |       |     |      |           |
|            |          | 87831-1820                   | N.A                       | N.A                      | 2               |                |        |            |        |                     |     |           |       |       |       |       |     |      |           |
|            |          | 87831-1821                   | N.A                       | N.A                      | 3               |                |        |            |        |                     |     |           |       |       |       |       |     |      |           |
|            |          | 87831-1836                   | N.A                       | N.A                      | 4               |                |        |            |        |                     |     |           |       |       |       |       |     |      |           |
|            |          | 87831-1828                   | N.A                       | N.A                      | 2               |                |        |            |        |                     |     |           |       |       |       |       |     |      |           |
| A          | 20       | 87831-1829                   | N.A                       | N.A                      | 3               | YES            | N.A    | YES        | N.A    | YES                 | N.A | 18.00     | 20.85 | 22.65 | 21.00 | 14.00 | N.A | 2.50 | 3.60±0.20 |
|            |          | 87831-2019                   | N.A                       | N.A                      | 1               |                |        |            |        |                     |     |           |       |       |       |       |     |      |           |
|            |          | 87831-2020                   | N.A                       | N.A                      | 2               |                |        |            |        |                     |     |           |       |       |       |       |     |      |           |
|            |          | 87831-2021                   | N.A                       | N.A                      | 3               |                |        |            |        |                     |     |           |       |       |       |       |     |      |           |
|            |          | 87831-2036                   | N.A                       | N.A                      | 4               |                |        |            |        |                     |     |           |       |       |       |       |     |      |           |
|            |          | 87831-2028                   | N.A                       | N.A                      | 2               |                |        |            |        |                     |     |           |       |       |       |       |     |      |           |
|            |          | 87831-2029                   | N.A                       | N.A                      | 3               |                |        |            |        |                     |     |           |       |       |       |       |     |      |           |
|            |          | 87831-2035                   | N.A                       | N.A                      | 3               |                |        |            |        |                     |     |           |       |       |       |       |     |      |           |
| 87831-2010 | N.A      | N.A                          | 2                         |                          |                 |                |        |            |        |                     |     |           |       |       |       |       |     |      |           |
| 87831-2011 | N.A      | N.A                          | 3                         |                          |                 |                |        |            |        |                     |     |           |       |       |       |       |     |      |           |

**PLATING OPTIONS:**

- 0.05-0.13um/2-5uin GOLD IN CONTACT AREA AND 1.88um/75uin MIN. MATTE TIN IN SOLDER TAIL AREA OVER 1.27um/50uin MIN. NICKEL OVERALL.
- 0.38um/15uin GOLD IN CONTACT AREA AND 1.88um/75uin MIN. MATTE TIN IN SOLDER TAIL AREA OVER 1.27um/50uin MIN. NICKEL OVERALL.
- 0.76um/30uin GOLD IN CONTACT AREA AND 1.88um/75uin MIN. MATTE TIN IN SOLDER TAIL AREA OVER 1.27um/50uin MIN. NICKEL OVERALL.
- 2.50um/100uin MIN. MATTE TIN OVER 1.25um/50uin MIN. NICKEL OVERALL.

|   |                    |   |   |                               |                       |              |  |   |  |
|---|--------------------|---|---|-------------------------------|-----------------------|--------------|--|---|--|
| RELEASED<br>EC NO: S2015-1188<br>DRW:GMENARLY 2015/04/15<br>CHKD:CGOH 2015/06/29<br>APPR:KHLIM 2015/06/29 | DESCRIPTION<br>REV | QUALITY SYMBOLS   | GENERAL TOLERANCES (UNLESS SPECIFIED)   | DIMENSION STYLE               | SCALE                 | DESIGN UNITS | THIRD ANGLE PROJECTION   |   |  |
|   |                    | $F_A=0$<br>$F_G=0$<br>$F_P=0$   | mm    INCH<br>4 PLACES ± --- ± ---<br>3 PLACES ± --- ± ---<br>2 PLACES ± 0.20 ± ---<br>1 PLACE ± --- ± ---<br>0 PLACE ± --- ± --- | MM ONLY                       | NTS                   | METRIC       | DRAWN BY: GMENARLY<br>DATE: 2015/04/15<br>CHECKED BY: _____<br>DATE: _____<br>APPROVED BY: KHLIM<br>DATE: 2015/06/29 | TITLE<br>MILLIGRID<br>2MM PITCH, THROUGH HOLE<br>VERTICAL SHROUDED HEADER |  |
|   |                    | ANGULAR ± 3 °<br>DRAFT WHERE APPLICABLE<br>MUST REMAIN WITHIN DIMENSIONS  | MATERIAL NO.<br>SEE TABLE   | DOCUMENT NO.<br>SD-87831-0001 | SHEET NO.<br>10 OF 13 |              |  |   |  |
|   |                    | THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION |   |                               |                       |              |  |   |  |

22 TO 30 CIRCUITS

| F          | CKT SIZE   | ASSY P/N WITHOUT CAP IN TUBE | ASSY P/N WITH CAP IN TUBE | ASSY P/N WITH CAP IN T&R | PLATING OPTIONS | FRICTION LOCKS |        | SIDE SLOTS |        | CENTER POLARIZATION | PEG   | DIMENSION |       |       |       |     |      |           |     |     |     |     |     |     |      |
|------------|------------|------------------------------|---------------------------|--------------------------|-----------------|----------------|--------|------------|--------|---------------------|-------|-----------|-------|-------|-------|-----|------|-----------|-----|-----|-----|-----|-----|-----|------|
|            |            |                              |                           |                          |                 | DUAL           | CENTER | DUAL       | SINGLE |                     |       | A         | B     | C     | D     | E   | F    | G         | H   |     |     |     |     |     |      |
| 22         | 87831-2219 | N.A                          | N.A                       | 1                        | YES             | N.A            | YES    | N.A        | YES    | N.A                 | 20.00 | 22.85     | 24.65 | 23.00 | 16.00 | N.A | 2.50 | 3.60±0.20 |     |     |     |     |     |     |      |
|            | 87831-2220 | N.A                          | N.A                       | 2                        |                 |                |        |            |        |                     |       |           |       |       |       |     |      |           |     |     |     |     |     |     |      |
|            | 87831-2221 | N.A                          | N.A                       | 3                        |                 |                |        |            |        |                     |       |           |       |       |       |     |      |           |     |     |     |     |     |     |      |
|            | 87831-2236 | N.A                          | N.A                       | 4                        |                 |                |        |            |        |                     |       |           |       |       |       |     |      |           |     |     |     |     |     |     |      |
|            | 87831-2228 | N.A                          | N.A                       | 2                        |                 |                |        |            |        |                     |       |           |       |       |       |     |      |           |     |     |     |     |     |     |      |
| 87831-2229 | N.A        | N.A                          | 3                         | YES                      | N.A             | YES            | N.A    | YES        | YES    | 2.50                |       |           |       |       |       |     |      |           |     |     |     |     |     |     |      |
| 24         | 87831-2419 | N.A                          | N.A                       | 1                        | YES             | N.A            | YES    | N.A        | YES    | N.A                 | 22.00 | 24.85     | 26.65 | 25.00 | 18.00 | N.A | 2.50 | 3.60±0.20 |     |     |     |     |     |     |      |
|            | 87831-2420 | N.A                          | N.A                       | 2                        |                 |                |        |            |        |                     |       |           |       |       |       |     |      |           |     |     |     |     |     |     |      |
|            | 87831-2421 | N.A                          | N.A                       | 3                        |                 |                |        |            |        |                     |       |           |       |       |       |     |      |           |     |     |     |     |     |     |      |
|            | 87831-2436 | N.A                          | N.A                       | 4                        |                 |                |        |            |        |                     |       |           |       |       |       |     |      |           |     |     |     |     |     |     |      |
|            | 87831-2428 | N.A                          | N.A                       | 2                        |                 |                |        |            |        |                     |       |           |       |       |       |     |      |           |     |     |     |     |     |     |      |
|            | 87831-2429 | N.A                          | N.A                       | 3                        |                 |                |        |            |        |                     |       |           |       |       |       |     |      |           |     |     |     |     |     |     |      |
|            | 87831-2435 | N.A                          | N.A                       | 3                        |                 |                |        |            |        |                     |       |           |       |       |       |     |      |           | YES | N.A | YES | N.A | YES | YES | 3.50 |
| 87831-2410 | N.A        | N.A                          | 2                         | YES                      | N.A             | YES            | N.A    | YES        | N.A    | 3.50                |       |           |       |       |       |     |      |           |     |     |     |     |     |     |      |
| 26         | 87831-2619 | N.A                          | N.A                       | 1                        | YES             | N.A            | YES    | N.A        | YES    | N.A                 | 24.00 | 26.85     | 28.65 | 27.00 | 20.00 | N.A | 2.50 | 3.60±0.20 |     |     |     |     |     |     |      |
|            | 87831-2620 | N.A                          | N.A                       | 2                        |                 |                |        |            |        |                     |       |           |       |       |       |     |      |           |     |     |     |     |     |     |      |
|            | 87831-2621 | N.A                          | N.A                       | 3                        |                 |                |        |            |        |                     |       |           |       |       |       |     |      |           |     |     |     |     |     |     |      |
|            | 87831-2636 | N.A                          | N.A                       | 4                        |                 |                |        |            |        |                     |       |           |       |       |       |     |      |           |     |     |     |     |     |     |      |
|            | 87831-2628 | N.A                          | N.A                       | 2                        |                 |                |        |            |        |                     |       |           |       |       |       |     |      |           |     |     |     |     |     |     |      |
|            | 87831-2629 | N.A                          | N.A                       | 3                        |                 |                |        |            |        |                     |       |           |       |       |       |     |      |           |     |     |     |     |     |     |      |
|            | 87831-2610 | N.A                          | N.A                       | 2                        |                 |                |        |            |        |                     |       |           |       |       |       |     |      |           | YES | N.A | YES | N.A | YES | N.A | 3.50 |
| 28         | 87831-2819 | N.A                          | N.A                       | 1                        | YES             | N.A            | YES    | N.A        | YES    | N.A                 | 26.00 | 28.85     | 30.65 | 29.00 | 22.00 | N.A | 2.50 | 3.60±0.20 |     |     |     |     |     |     |      |
|            | 87831-2820 | N.A                          | N.A                       | 2                        |                 |                |        |            |        |                     |       |           |       |       |       |     |      |           |     |     |     |     |     |     |      |
|            | 87831-2821 | N.A                          | N.A                       | 3                        |                 |                |        |            |        |                     |       |           |       |       |       |     |      |           |     |     |     |     |     |     |      |
|            | 87831-2836 | N.A                          | N.A                       | 4                        |                 |                |        |            |        |                     |       |           |       |       |       |     |      |           |     |     |     |     |     |     |      |
|            | 87831-2828 | N.A                          | N.A                       | 2                        |                 |                |        |            |        |                     |       |           |       |       |       |     |      |           |     |     |     |     |     |     |      |
|            | 87831-2829 | N.A                          | N.A                       | 3                        |                 |                |        |            |        |                     |       |           |       |       |       |     |      |           | YES | N.A | YES | N.A | YES | YES | 2.50 |
| 30         | 87831-3019 | N.A                          | N.A                       | 1                        | YES             | N.A            | YES    | N.A        | YES    | N.A                 | 28.00 | 30.85     | 32.65 | 31.00 | 24.00 | N.A | 2.50 | 3.60±0.20 |     |     |     |     |     |     |      |
|            | 87831-3020 | N.A                          | N.A                       | 2                        |                 |                |        |            |        |                     |       |           |       |       |       |     |      |           |     |     |     |     |     |     |      |
|            | 87831-3021 | N.A                          | N.A                       | 3                        |                 |                |        |            |        |                     |       |           |       |       |       |     |      |           |     |     |     |     |     |     |      |
|            | 87831-3036 | N.A                          | N.A                       | 4                        |                 |                |        |            |        |                     |       |           |       |       |       |     |      |           |     |     |     |     |     |     |      |
|            | 87831-3028 | N.A                          | N.A                       | 2                        |                 |                |        |            |        |                     |       |           |       |       |       |     |      |           |     |     |     |     |     |     |      |
|            | 87831-3029 | N.A                          | N.A                       | 3                        |                 |                |        |            |        |                     |       |           |       |       |       |     |      |           | YES | N.A | YES | N.A | YES | YES | 2.50 |
|            | 87831-3035 | N.A                          | N.A                       | 3                        |                 |                |        |            |        |                     |       |           |       |       |       |     |      |           | YES | N.A | YES | N.A | YES | YES | 3.50 |
| 87831-3010 | 87831-3030 | 87831-3050                   | 2                         | YES                      | N.A             | YES            | N.A    | YES        | N.A    | 3.50                |       |           |       |       |       |     |      |           |     |     |     |     |     |     |      |

**PLATING OPTIONS:**  
 1 - 0.05-0.13um/2-5uin GOLD IN CONTACT AREA AND 1.88um/75uin MIN. MATTE TIN IN SOLDER TAIL AREA OVER 1.27um/50uin MIN. NICKEL OVERALL.  
 2 - 0.38um/15uin GOLD IN CONTACT AREA AND 1.88um/75uin MIN. MATTE TIN IN SOLDER TAIL AREA OVER 1.27um/50uin MIN. NICKEL OVERALL.  
 3 - 0.76um/30uin GOLD IN CONTACT AREA AND 1.88um/75uin MIN. MATTE TIN IN SOLDER TAIL AREA OVER 1.27um/50uin MIN. NICKEL OVERALL.  
 4 - 2.50um/100uin MIN. MATTE TIN OVER 1.25um/50uin MIN. NICKEL OVERALL.

RELEASED  
 IEC NO: S2015-1188  
 DRW:GMENARLY 2015/04/15  
 CH:KD:G0H 2015/06/29  
 APPR:KHL IM 2015/06/29

QUALITY SYMBOLS  
 $\nabla_A = 0$   
 $\nabla_B = 0$   
 $\nabla_C = 0$

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

DIMENSION STYLE  
**MM ONLY**

SCALE  
**NTS**

DESIGN UNITS  
**METRIC**

THIRD ANGLE PROJECTION

TITLE  
**MILLIGRID  
 2MM PITCH, THROUGH HOLE  
 VERTICAL SHROUDED HEADER**

APPROVED BY  
**KHL IM**

DATE  
 2015/06/29

MATERIAL NO.  
**SEE TABLE**

DOCUMENT NO.  
**SD-87831-0001**

SHEET NO.  
 11 OF 13


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

32 TO 40 CIRCUITS

| F          | CKT SIZE   | ASSY P/N WITHOUT CAP IN TUBE | ASSY P/N WITH CAP IN TUBE | ASSY P/N WITH CAP IN T&R | PLATING OPTIONS | FRICTION LOCKS |        | SIDE SLOTS |        | CENTER POLARIZATION | PEG   | DIMENSION |       |       |       |     |      |           |
|------------|------------|------------------------------|---------------------------|--------------------------|-----------------|----------------|--------|------------|--------|---------------------|-------|-----------|-------|-------|-------|-----|------|-----------|
|            |            |                              |                           |                          |                 | DUAL           | CENTER | DUAL       | SINGLE |                     |       | A         | B     | C     | D     | E   | F    | G         |
| 32         | 87831-3219 | N.A                          | N.A                       | 1                        | YES             | N.A            | YES    | N.A        | YES    | N.A                 | 30.00 | 32.85     | 34.65 | 33.00 | 26.00 | N.A | 2.50 | 3.60±0.20 |
|            | 87831-3220 | N.A                          | N.A                       | 2                        |                 |                |        |            |        |                     |       |           |       |       |       |     |      |           |
|            | 87831-3221 | N.A                          | N.A                       | 3                        |                 |                |        |            |        |                     |       |           |       |       |       |     |      |           |
|            | 87831-3236 | N.A                          | N.A                       | 4                        |                 |                |        |            |        |                     |       |           |       |       |       |     |      |           |
|            | 87831-3228 | N.A                          | N.A                       | 2                        | YES             | N.A            | YES    | N.A        | YES    | YES                 |       |           |       |       |       |     | 2.50 |           |
| 87831-3229 | N.A        | N.A                          | 3                         |                          |                 |                |        |            |        |                     |       |           |       |       |       |     |      |           |
| 34         | 87831-3419 | N.A                          | N.A                       | 1                        | YES             | N.A            | YES    | N.A        | YES    | N.A                 | 32.00 | 34.85     | 36.65 | 35.00 | 28.00 | N.A | 2.50 | 3.60±0.20 |
|            | 87831-3420 | N.A                          | N.A                       | 2                        |                 |                |        |            |        |                     |       |           |       |       |       |     |      |           |
|            | 87831-3421 | N.A                          | N.A                       | 3                        |                 |                |        |            |        |                     |       |           |       |       |       |     |      |           |
|            | 87831-3436 | N.A                          | N.A                       | 4                        | YES             | N.A            | YES    | N.A        | YES    | YES                 |       |           |       |       |       |     | 2.50 |           |
|            | 87831-3428 | N.A                          | N.A                       | 2                        |                 |                |        |            |        |                     |       |           |       |       |       |     |      |           |
|            | 87831-3429 | N.A                          | N.A                       | 3                        |                 |                |        |            |        |                     |       |           |       |       |       |     |      |           |
| 87831-3435 | N.A        | N.A                          | 3                         | YES                      | N.A             | YES            | N.A    | YES        | YES    | 3.50                |       |           |       |       |       |     |      |           |
| 36         | 87831-3619 | N.A                          | N.A                       | 1                        | YES             | N.A            | YES    | N.A        | YES    | N.A                 | 34.00 | 36.85     | 38.65 | 37.00 | 30.00 | N.A | 2.50 | 3.60±0.20 |
|            | 87831-3620 | N.A                          | N.A                       | 2                        |                 |                |        |            |        |                     |       |           |       |       |       |     |      |           |
|            | 87831-3621 | N.A                          | N.A                       | 3                        |                 |                |        |            |        |                     |       |           |       |       |       |     |      |           |
|            | 87831-3636 | N.A                          | N.A                       | 4                        | YES             | N.A            | YES    | N.A        | YES    | YES                 |       |           |       |       |       |     | 2.50 |           |
|            | 87831-3628 | N.A                          | N.A                       | 2                        |                 |                |        |            |        |                     |       |           |       |       |       |     |      |           |
|            | 87831-3629 | N.A                          | N.A                       | 3                        |                 |                |        |            |        |                     |       |           |       |       |       |     |      |           |
| 38         | 87831-3819 | N.A                          | N.A                       | 1                        | YES             | N.A            | YES    | N.A        | YES    | N.A                 | 36.00 | 38.85     | 40.65 | 39.00 | 32.00 | N.A | 2.50 | 3.60±0.20 |
|            | 87831-3820 | N.A                          | N.A                       | 2                        |                 |                |        |            |        |                     |       |           |       |       |       |     |      |           |
|            | 87831-3821 | N.A                          | N.A                       | 3                        |                 |                |        |            |        |                     |       |           |       |       |       |     |      |           |
|            | 87831-3836 | N.A                          | N.A                       | 4                        | YES             | N.A            | YES    | N.A        | YES    | YES                 |       |           |       |       |       |     | 2.50 |           |
|            | 87831-3828 | N.A                          | N.A                       | 2                        |                 |                |        |            |        |                     |       |           |       |       |       |     |      |           |
|            | 87831-3829 | N.A                          | N.A                       | 3                        |                 |                |        |            |        |                     |       |           |       |       |       |     |      |           |
| 40         | 87831-4019 | N.A                          | N.A                       | 1                        | YES             | N.A            | YES    | N.A        | YES    | N.A                 | 38.00 | 40.85     | 42.65 | 41.00 | 34.00 | N.A | 2.50 | 3.60±0.20 |
|            | 87831-4020 | N.A                          | N.A                       | 2                        |                 |                |        |            |        |                     |       |           |       |       |       |     |      |           |
|            | 87831-4021 | N.A                          | N.A                       | 3                        |                 |                |        |            |        |                     |       |           |       |       |       |     |      |           |
|            | 87831-4036 | N.A                          | N.A                       | 4                        | YES             | N.A            | YES    | N.A        | YES    | YES                 |       |           |       |       |       |     | 2.50 |           |
|            | 87831-4028 | N.A                          | N.A                       | 2                        |                 |                |        |            |        |                     |       |           |       |       |       |     |      |           |
|            | 87831-4029 | N.A                          | N.A                       | 3                        |                 |                |        |            |        |                     |       |           |       |       |       |     |      |           |
|            | 87831-4010 | N.A                          | N.A                       | 2                        |                 |                |        |            |        |                     |       |           |       |       |       |     |      |           |

PLATING OPTIONS:

- 1 - 0.05-0.13um/2-5uin GOLD IN CONTACT AREA AND 1.88um/75uin MIN. MATTE TIN IN SOLDER TAIL AREA OVER 1.27um/50uin MIN. NICKEL OVERALL.
- 2 - 0.38um/15uin GOLD IN CONTACT AREA AND 1.88um/75uin MIN. MATTE TIN IN SOLDER TAIL AREA OVER 1.27um/50uin MIN. NICKEL OVERALL.
- 3 - 0.76um/30uin GOLD IN CONTACT AREA AND 1.88um/75uin MIN. MATTE TIN IN SOLDER TAIL AREA OVER 1.27um/50uin MIN. NICKEL OVERALL.
- 4 - 2.50um/100uin MIN. MATTE TIN OVER 1.25um/50uin MIN. NICKEL OVERALL.

|   |                  |                               |   |                 |   |              |  |  |  |
|---|------------------|-------------------------------|---|-----------------|---|--------------|--|--|--|
| RELEASED<br>EC NO: S2015-1188<br>DRWNG:GMENARLY 2015/04/15<br>CHKD:CGOH 2015/06/29<br>APPR:KHLIM 2015/06/29 | DESCRIPTION<br>A | QUALITY SYMBOLS               | GENERAL TOLERANCES (UNLESS SPECIFIED)   | DIMENSION STYLE | SCALE   | DESIGN UNITS | THIRD ANGLE PROJECTION   |  |  |
|   |                  | $F_A=0$<br>$F_G=0$<br>$F_P=0$ | mm    INCH<br>4 PLACES ± --- ± ---<br>3 PLACES ± --- ± ---<br>2 PLACES ± 0.20 ± ---<br>1 PLACE ± --- ± ---<br>0 PLACE ± --- ± --- | MM ONLY         | NTS   | METRIC       | DRAWN BY: GMENARLY<br>DATE: 2015/04/15<br>CHECKED BY: _____<br>DATE: _____<br>APPROVED BY: KHLIM<br>DATE: 2015/06/29 | TITLE<br>MILLIGRID<br>2MM PITCH, THROUGH HOLE<br>VERTICAL SHROUDED HEADER<br> |  |
|   |                  | ANGULAR ± 3 °                 | DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS  | SEE TABLE       | MATERIAL NO.  | DOCUMENT NO. | SHEET NO.  | SD-87831-0001<br>12 OF 13  |  |
|   |                  |                               |   |                 | THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION |              |  |  |  |

42 TO 50 CIRCUITS

| CKT SIZE   | ASSY P/N WITHOUT CAP IN TUBE | ASSY P/N WITH CAP IN TUBE | ASSY P/N WITH CAP IN T&R | PLATING OPTIONS | FRICTION LOCKS |        | SIDE SLOTS |        | CENTER POLARIZATION | PEG  | DIMENSION |       |       |       |       |     |      |           |     |     |     |     |     |     |      |
|------------|------------------------------|---------------------------|--------------------------|-----------------|----------------|--------|------------|--------|---------------------|------|-----------|-------|-------|-------|-------|-----|------|-----------|-----|-----|-----|-----|-----|-----|------|
|            |                              |                           |                          |                 | DUAL           | CENTER | DUAL       | SINGLE |                     |      | A         | B     | C     | D     | E     | F   | G    | H         |     |     |     |     |     |     |      |
| 42         | 87831-4219                   | N.A                       | N.A                      | 1               | YES            | N.A    | YES        | N.A    | YES                 | N.A  | 40.00     | 42.85 | 44.65 | 43.00 | 36.00 | N.A | 2.50 | 3.60±0.20 |     |     |     |     |     |     |      |
|            | 87831-4220                   | N.A                       | N.A                      | 2               |                |        |            |        |                     |      |           |       |       |       |       |     |      |           |     |     |     |     |     |     |      |
|            | 87831-4221                   | N.A                       | N.A                      | 3               |                |        |            |        |                     |      |           |       |       |       |       |     |      |           |     |     |     |     |     |     |      |
|            | 87831-4236                   | N.A                       | N.A                      | 4               |                |        |            |        |                     |      |           |       |       |       |       |     |      |           |     |     |     |     |     |     |      |
|            | 87831-4228                   | N.A                       | N.A                      | 2               |                |        |            |        |                     |      |           |       |       |       |       |     |      |           |     |     |     |     |     |     |      |
| 87831-4229 | N.A                          | N.A                       | 3                        | YES             | N.A            | YES    | N.A        | YES    | YES                 | 2.50 |           |       |       |       |       |     |      |           |     |     |     |     |     |     |      |
| 44         | 87831-4419                   | N.A                       | N.A                      | 1               | YES            | N.A    | YES        | N.A    | YES                 | N.A  | 42.00     | 44.85 | 46.65 | 45.00 | 38.00 | N.A | 2.50 | 3.60±0.20 |     |     |     |     |     |     |      |
|            | 87831-4420                   | N.A                       | N.A                      | 2               |                |        |            |        |                     |      |           |       |       |       |       |     |      |           |     |     |     |     |     |     |      |
|            | 87831-4421                   | N.A                       | N.A                      | 3               |                |        |            |        |                     |      |           |       |       |       |       |     |      |           |     |     |     |     |     |     |      |
|            | 87831-4436                   | N.A                       | N.A                      | 4               |                |        |            |        |                     |      |           |       |       |       |       |     |      |           |     |     |     |     |     |     |      |
|            | 87831-4428                   | N.A                       | N.A                      | 2               |                |        |            |        |                     |      |           |       |       |       |       |     |      |           |     |     |     |     |     |     |      |
|            | 87831-4429                   | N.A                       | N.A                      | 3               |                |        |            |        |                     |      |           |       |       |       |       |     |      |           | YES | N.A | YES | N.A | YES | YES | 2.50 |
| 87831-4435 | N.A                          | N.A                       | 3                        | YES             | N.A            | YES    | N.A        | YES    | YES                 | 3.50 |           |       |       |       |       |     |      |           |     |     |     |     |     |     |      |
| 46         | 87831-4619                   | N.A                       | N.A                      | 1               | YES            | N.A    | YES        | N.A    | YES                 | N.A  | 44.00     | 46.85 | 48.65 | 47.00 | 40.00 | N.A | 2.50 | 3.60±0.20 |     |     |     |     |     |     |      |
|            | 87831-4620                   | N.A                       | N.A                      | 2               |                |        |            |        |                     |      |           |       |       |       |       |     |      |           |     |     |     |     |     |     |      |
|            | 87831-4621                   | N.A                       | N.A                      | 3               |                |        |            |        |                     |      |           |       |       |       |       |     |      |           |     |     |     |     |     |     |      |
|            | 87831-4636                   | N.A                       | N.A                      | 4               |                |        |            |        |                     |      |           |       |       |       |       |     |      |           |     |     |     |     |     |     |      |
|            | 87831-4628                   | N.A                       | N.A                      | 2               |                |        |            |        |                     |      |           |       |       |       |       |     |      |           |     |     |     |     |     |     |      |
|            | 87831-4629                   | N.A                       | N.A                      | 3               |                |        |            |        |                     |      |           |       |       |       |       |     |      |           | YES | N.A | YES | N.A | YES | YES | 2.50 |
| 48         | 87831-4819                   | N.A                       | N.A                      | 1               | YES            | N.A    | YES        | N.A    | YES                 | N.A  | 46.00     | 48.85 | 50.65 | 49.00 | 42.00 | N.A | 2.50 | 3.60±0.20 |     |     |     |     |     |     |      |
|            | 87831-4820                   | N.A                       | N.A                      | 2               |                |        |            |        |                     |      |           |       |       |       |       |     |      |           |     |     |     |     |     |     |      |
|            | 87831-4821                   | N.A                       | N.A                      | 3               |                |        |            |        |                     |      |           |       |       |       |       |     |      |           |     |     |     |     |     |     |      |
|            | 87831-4836                   | N.A                       | N.A                      | 4               |                |        |            |        |                     |      |           |       |       |       |       |     |      |           |     |     |     |     |     |     |      |
|            | 87831-4828                   | N.A                       | N.A                      | 2               |                |        |            |        |                     |      |           |       |       |       |       |     |      |           |     |     |     |     |     |     |      |
|            | 87831-4829                   | N.A                       | N.A                      | 3               |                |        |            |        |                     |      |           |       |       |       |       |     |      |           | YES | N.A | YES | N.A | YES | YES | 2.50 |
| 50         | 87831-5019                   | N.A                       | N.A                      | 1               | YES            | N.A    | YES        | N.A    | YES                 | N.A  | 48.00     | 50.85 | 52.65 | 51.00 | 44.00 | N.A | 2.50 | 3.60±0.20 |     |     |     |     |     |     |      |
|            | 87831-5020                   | N.A                       | N.A                      | 2               |                |        |            |        |                     |      |           |       |       |       |       |     |      |           |     |     |     |     |     |     |      |
|            | 87831-5021                   | N.A                       | N.A                      | 3               |                |        |            |        |                     |      |           |       |       |       |       |     |      |           |     |     |     |     |     |     |      |
|            | 87831-5036                   | N.A                       | N.A                      | 4               |                |        |            |        |                     |      |           |       |       |       |       |     |      |           |     |     |     |     |     |     |      |
|            | 87831-5028                   | N.A                       | N.A                      | 2               |                |        |            |        |                     |      |           |       |       |       |       |     |      |           |     |     |     |     |     |     |      |
|            | 87831-5029                   | N.A                       | N.A                      | 3               |                |        |            |        |                     |      |           |       |       |       |       |     |      |           | YES | N.A | YES | N.A | YES | YES | 2.50 |
|            | 87831-5035                   | N.A                       | N.A                      | 3               |                |        |            |        |                     |      |           |       |       |       |       |     |      |           | YES | N.A | YES | N.A | YES | YES | 3.50 |

PLATING OPTIONS:

- 1 - 0.05-0.13um/2-5uin GOLD IN CONTACT AREA AND 1.88um/75uin MIN. MATTE TIN IN SOLDER TAIL AREA OVER 1.27um/50uin MIN. NICKEL OVERALL.
- 2 - 0.38um/15uin GOLD IN CONTACT AREA AND 1.88um/75uin MIN. MATTE TIN IN SOLDER TAIL AREA OVER 1.27um/50uin MIN. NICKEL OVERALL.
- 3 - 0.76um/30uin GOLD IN CONTACT AREA AND 1.88um/75uin MIN. MATTE TIN IN SOLDER TAIL AREA OVER 1.27um/50uin MIN. NICKEL OVERALL.
- 4 - 2.50um/100uin MIN. MATTE TIN OVER 1.25um/50uin MIN. NICKEL OVERALL.

|  |  |                    |   |  |      |  |   |        |  |   |  |  |
|--|--|--------------------|---|--|------|--|---|--------|--|---|--|--|
| RELEASED<br>IEC NO: S2015-1188<br>DRWNG:GMENARLY<br>CHK'D:CGOH<br>APPR:KHLIM | 2015/04/15<br>2015/06/29<br>2015/06/29 | DESCRIPTION<br>REV | QUALITY SYMBOLS   | GENERAL TOLERANCES (UNLESS SPECIFIED)                |      | DIMENSION STYLE                        |   | SCALE  | DESIGN UNITS   | THIRD ANGLE PROJECTION  |  |  |
|  |  |                    | $\nabla_F = 0$<br>$\nabla_F = 0$<br>$\nabla_F = 0$  | mm   | INCH | MM ONLY                                | NTS   | METRIC | DRAWN BY: GMENARLY<br>DATE: 2015/04/15<br>CHECKED BY: _____<br>DATE: _____ | TITLE<br>MILLIGRID<br>2MM PITCH, THROUGH HOLE<br>VERTICAL SHROUDED HEADER<br><b>molex</b><br>DOCUMENT NO. SD-87831-0001<br>SHEET NO. 13 OF 13 |  |  |
|  |  |                    | 4 PLACES ± --- ± ---<br>3 PLACES ± --- ± ---<br>2 PLACES ± 0.20 ± ---<br>1 PLACE ± --- ± ---<br>0 PLACE ± --- ± --- | ANGULAR ± 3°   |      | APPROVED BY: KHLIM<br>DATE: 2015/06/29 |   |        |  |   |  |  |
|  |  |                    | A   | DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS |      | SEE TABLE                              | THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION |        |  |   |  |  |

## Данный компонент на территории Российской Федерации

### Вы можете приобрести в компании MosChip.

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Нашей специализацией является поставка электронной компонентной базы двойного назначения, продукции таких производителей как XILINX, Intel (ex.ALTERA), Vicor, Microchip, Texas Instruments, Analog Devices, Mini-Circuits, Amphenol, Glenair.

Сотрудничество с глобальными дистрибьюторами электронных компонентов, предоставляет возможность заказывать и получать с международных складов практически любой перечень компонентов в оптимальные для Вас сроки.

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