

**PLEASE CHECK WWW.MOLEX.COM FOR LATEST PART INFORMATION**

**Part Number:** [0877159302](#)

**Status:** **Active**

**Overview:**

**Description:** 1.00mm (.039") Pitch, PCI Express\* Connector, 164 Circuits, Nylon 4/6 Glass-filled, Black Housing, Phosphor Bronze, 0.38µm (15µ") Gold (Au) Plating, with Plastic Pegs, 2.54mm (.100") Solder tail, Lead Free

**Agency Certification**

|     |         |
|-----|---------|
| CSA | LR19980 |
| UL  | E29179  |

**General**

|                |                                 |
|----------------|---------------------------------|
| Product Family | Edge Card Connectors            |
| Series         | 87715                           |
| Comments       | PCI 16 lanes                    |
| Component Type | Edgecard to PCB                 |
| Overview       | pci_express_card_edge_connector |
| Product Name   | PCI Express*                    |

**Physical**

|                                |                                |
|--------------------------------|--------------------------------|
| Circuits (Loaded)              | 164                            |
| Circuits (maximum)             | 164                            |
| Circuits Detail                | All Signal                     |
| Color - Resin                  | Black                          |
| Durability (mating cycles max) | 50                             |
| Entry Angle                    | Vertical (Top Entry)           |
| Flammability                   | 94V-0                          |
| Keying to Mating Part          | Yes                            |
| Material - Metal               | Phosphor Bronze                |
| Material - Plating Mating      | Gold                           |
| Material - Plating Termination | Tin                            |
| Material - Resin               | High Temperature Thermoplastic |
| PC Tail Length (in)            | 0.100 In                       |
| PC Tail Length (mm)            | 2.54 mm                        |
| PCB Locator                    | Yes                            |
| PCB Retention                  | Yes                            |
| PCB Thickness Recommended (in) | 0.062 In                       |
| PCB Thickness Recommended (mm) | 1.60 mm                        |
| Packaging Type                 | Tray                           |
| Pitch - Mating Interface (in)  | 0.039 In                       |
| Pitch - Mating Interface (mm)  | 1.00 mm                        |
| Pitch - Term. Interface (in)   | 0.039 In                       |
| Pitch - Term. Interface (mm)   | 1.00 mm                        |
| Plating min: Mating (µin)      | 15                             |
| Plating min: Mating (µm)       | 0.375                          |
| Plating min: Termination (µin) | 100                            |
| Plating min: Termination (µm)  | 2.5                            |
| Polarized to Mating Part       | Yes                            |
| Temperature Range - Operating  | -55°C to +85°C                 |
| Termination Interface: Style   | Through Hole                   |

**Electrical**

|                               |                 |
|-------------------------------|-----------------|
| Current - Maximum per Contact | 1.1A            |
| Voltage - Maximum             | 50V AC (RMS)/DC |

**Solder Process Data**

|  |    |
|--|----|
| Duration at Max. Process Temperature (seconds) | 10 |
|--|----|

**EU RoHS**

**ELV and RoHS  
Compliant**

**REACH SVHC**

Not Reviewed

**Halogen-Free**

**Status**

**Not Halogen-Free**

**China RoHS**



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

Email [productcompliance@molex.com](mailto:productcompliance@molex.com)  
For a multiple part number RoHS Certificate of  
Compliance, [click here](#)

Please visit the [Contact Us](#) section for any  
non-product compliance questions.

**Search Parts in this Series**

87715Series

**Mates With**

PCI Express Card

|   |                        |
|---|------------------------|
| Lead-free Process Capability            | Wave Capable (TH only) |
| Max. Cycles at Max. Process Temperature | 1                      |
| Process Temperature max. C              | 260                    |

### **Material Info**

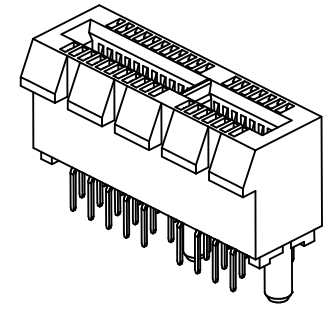
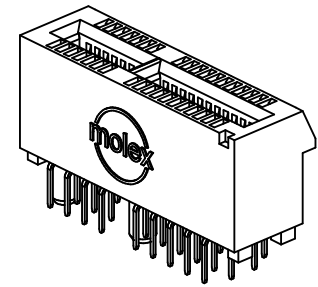
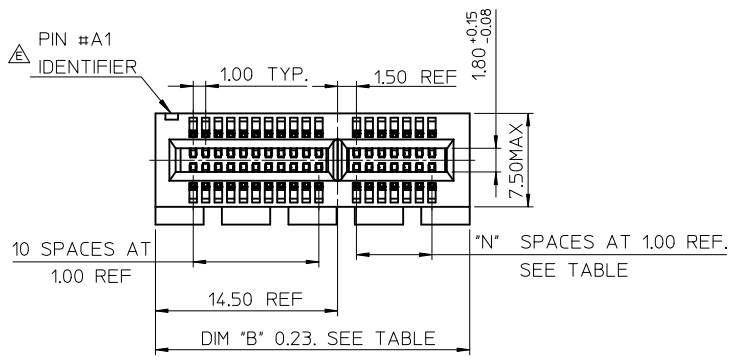
### **Reference - Drawing Numbers**

|                         |                            |
|-------------------------|----------------------------|
| Packaging Specification | PK-87715-207               |
| Product Specification   | PS-87715-200               |
| Sales Drawing           | SD-87715-207, SD-87715-901 |
| Test Summary            | TS-87715-207               |

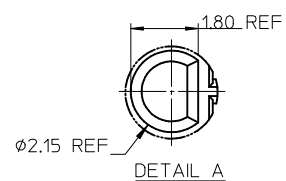
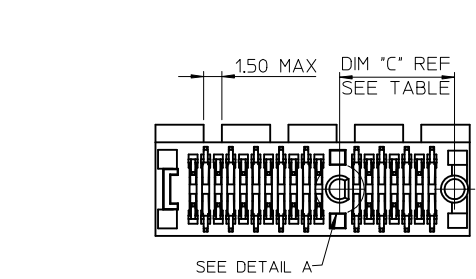
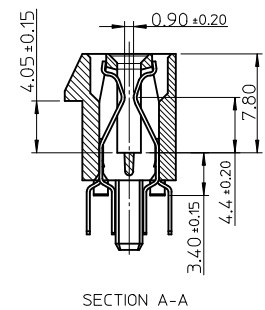
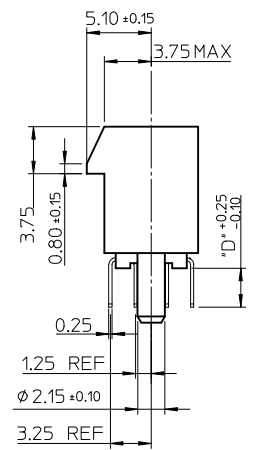
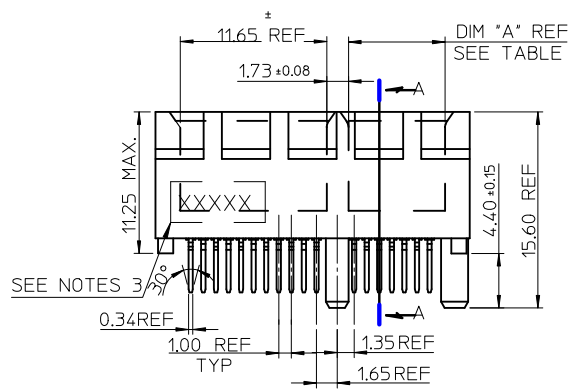
\* PCI Express is a registered trademark of PCI-SIG®

This document was generated on 06/04/2010

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



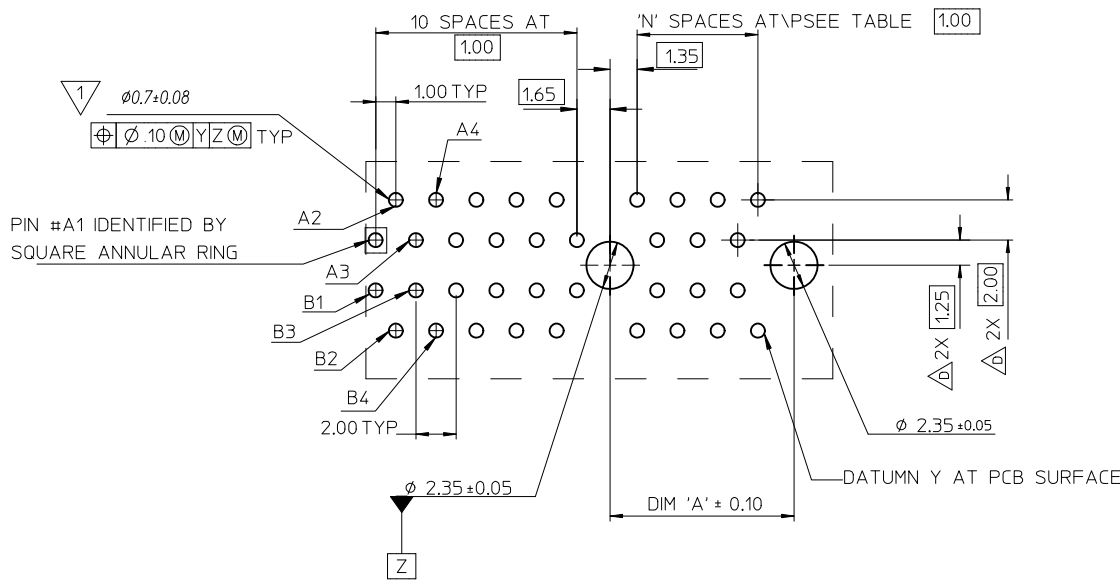
- NOTES:
- 1.MATERIALS:  
1-1.HOUSING: SEE TABLE ,GLASS FIBER FILLED UL94V-0, COLOR: SEE TABLE.  
1-2.CONTACT: SEE TABLE
  - 2.PLATING:  
2-1.CONTACT AREA: GOLD, THICKNESS : SEE TABLE .  
2-2.SOLDER TAIL: 100 MICRINCH MIN. TIN PLATING.  
2-3.UNDER PLATING: NICKEL PLATING OVERALL.
  - 3.WEEK CODE: XX(YEAR) XXI(WEEK) X(LOCATION).
  - 4.PRODUCT SPECIFICATION REFER TO PS-87715-200.
  - 5.PACKAGING SPECIFICATION REFER TO PK-87715-207.
  - 6.TEST SUMMARY:REFER TO TS-87715-207.
  - 7.LEAD FREE AND ROHS COMPLIANCE PRODUCT.



| CONNECTOR LINK WIDTH | # POS REF | N  | DIM 'A' | DIM 'B' | DIM 'C' |
|----------------------|-----------|----|---------|---------|---------|
| X4                   | 64        | 20 | 21.65   | 39.00   | 23.15   |
| X8                   | 98        | 37 | 38.65   | 56.00   | 40.15   |

| PCB THK (REF) | DIM 'D' |
|---------------|---------|
| 1.60          | 2.30    |
| 1.58          | 2.54    |
| 2.36          | 3.00    |

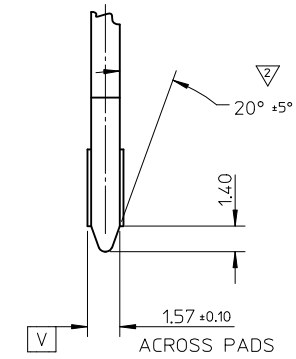
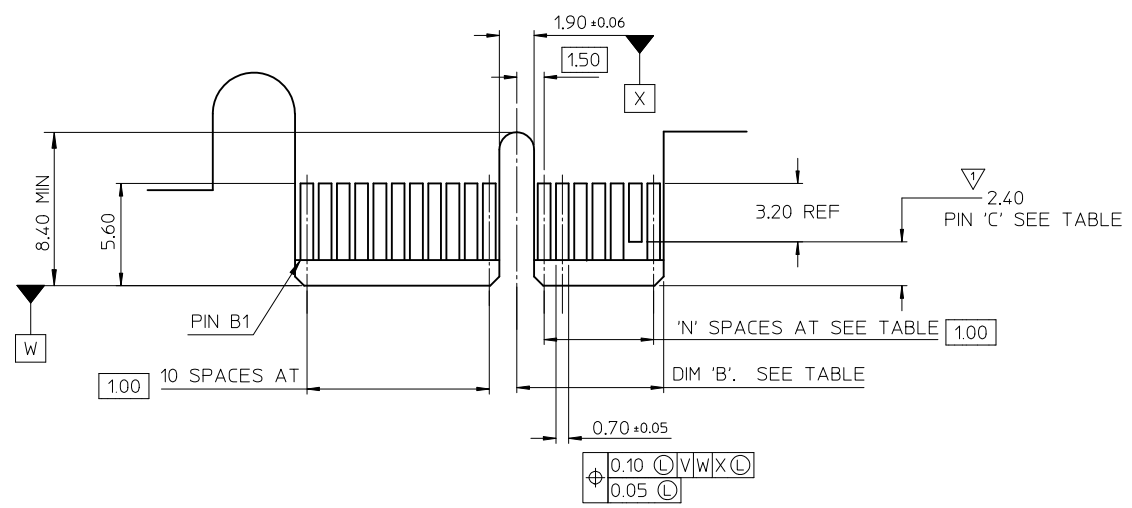
|   |  |  |  |  |   |                     |
|---|--|--|--|--|---|---------------------|
| REVISED<br>IEC NO: SH2010-0425<br>DRW:RZHANG 2010/05/14<br>CHKD:ALLEN L IN 2004/07/20<br>APPR:X.J.SONG 2010/06/03 | QUALITY SYMBOLS<br>F=0<br>E=0<br>E=0                       | GENERAL TOLERANCES (UNLESS SPECIFIED)<br>mm INCH<br>4 PLACES ± --- ± ---<br>3 PLACES ± --- ± ---<br>2 PLACES ± 0.25 ± ---<br>1 PLACE ± 0.25 ± ---<br>ANGULAR ± 3 ° | DIMENSION STYLE<br>MM ONLY<br>DRAWN BY TOM DATE 2004/07/20<br>CHECKED BY ALLEN LIN DATE 2004/07/20<br>APPROVED BY WILSON DATE 2004/07/20<br>MATERIAL NO. SEE SHEET 4 | SCALE DESIGN UNITS<br>THIRD ANGLE PROJECTION<br>METRIC | TITLE<br>PCI EXPRESS<br>EDGE CARD CONNECTOR<br>(LEAD FREE VERSION)<br>MOLEX INCORPORATED<br>DOCUMENT NO. SD-87715-207 | SHEET NO.<br>1 OF 4 |
|   | DRAFT WHERE APPLICABLE<br>MUST REMAIN<br>WITHIN DIMENSIONS | THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX<br>INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION                                   |  |  |   |                     |
|   | REV<br>G   | DESCRIPTION  |  |  |   |                     |
|   |  |  |  |  |   |                     |



1 THE HORIZONTAL AXIS FOR THE HOLE PATTERN IS ESTABLISHED BY A LINE THROUGH THE CENTER OF THE TWO  $\phi 2.35$  HOLES. THE VERTICAL AXIS IS 90° TO THE HORIZONTAL AXIS, THROUGH THE CENTER OF DATUM Z

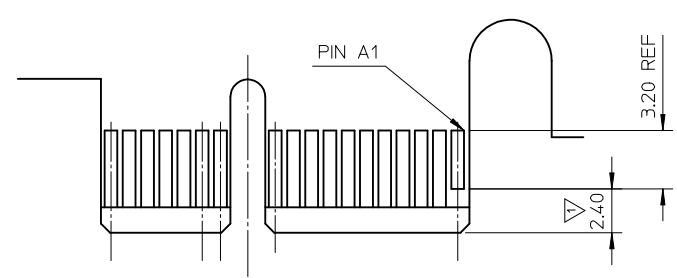
| CONNECTOR LINK WIDTH | # POS REF | N  | DIM 'A' |
|----------------------|-----------|----|---------|
| X4                   | 64        | 20 | 23.15   |
| X8                   | 98        | 37 | 40.15   |

|             |   |  |  |            |   |            |            |   |                          |  |
|-------------|---|--|--|------------|---|------------|------------|---|--------------------------|--|
| SEE SHEET 1 | EC NO: SH2010-0425<br>DRW: RZHANG 2010/05/14<br>CHKD: ALLEN LIN 2004/07/20<br>APPR: XJSONG 2010/06/03 | QUALITY SYMBOLS<br>$F_A=0$<br>$F_G=0$<br>$F_P=0$ | GENERAL TOLERANCES (UNLESS SPECIFIED)                |            | DIMENSION STYLE<br>MM ONLY  |            | SCALE      | DESIGN UNITS  | THIRD ANGLE PROJECTION   |  |
|             |   |  |  | mm         | INCH  | DRAWN BY   | DATE       | TITLE   |                          |  |
|             |   |  | 4 PLACES   | ± ---      | ± ---   | TOM        | 2004/07/20 | PCI EXPRESS<br>EDGE CARD CONNECTOR<br>(LEAD FREE VERSION) |                          |  |
|             |   |  | 3 PLACES   | ± ---      | ± ---   | CHECKED BY | DATE       |   | molex MOLEX INCORPORATED |  |
| 2 PLACES    | ± 0.25  | ± ---  | ALLEN LIN  | 2004/07/20 | DOCUMENT NO.  | SHEET NO.  |            |   |                          |  |
| 1 PLACE     | ± 0.25  | ± ---  | APPROVED BY  | DATE       |   |            |            |   |                          |  |
|             |   |  | ANGULAR ± 3 °  |            | WILSON 2004/07/20   |            |            |   |                          |  |
|             |   |  | DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS |            | MATERIAL NO.  |            |            |   |                          |  |
|             |   |  |  |            | SEE SHEET 4   |            |            |   |                          |  |
|             |   |  |  |            | SIZE A3   |            |            |   |                          |  |
|             |   |  |  |            | THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION |            |            |   |                          |  |



← I/O PANEL DIRECTION

PRIMARY (COMPONENT) SIDE



I/O PANEL DIRECTION →

SECONDARY (SOLDER) SIDE

- 1 NO TIE BAR PERMITTED FROM CARD EDGE TO LEADING EDGE OF PAD FOR PINS A1 AND "C".
- 2 CHAMFER EDGES MUST BE FREE OF CUTTING BURRS.
- 3. TOLERANCE: .XX±.13

| CONNECTOR LINK WIDTH | # POS REF | N  | DIM 'B' | 'C'             |
|----------------------|-----------|----|---------|-----------------|
| X4                   | 64        | 20 | 22.15   | B17, B31        |
| X8                   | 98        | 37 | 39.15   | B17, B31<br>B48 |

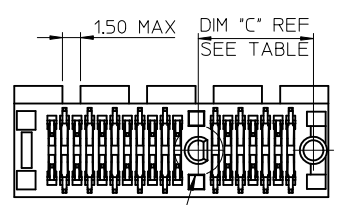
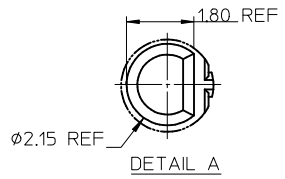
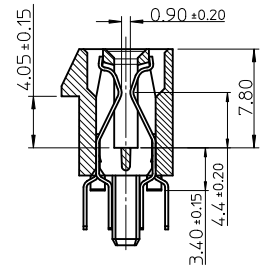
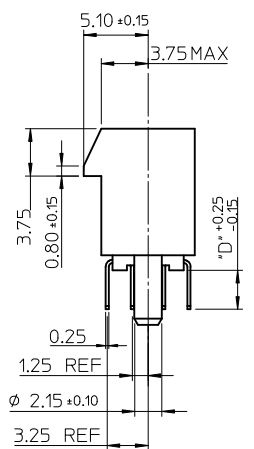
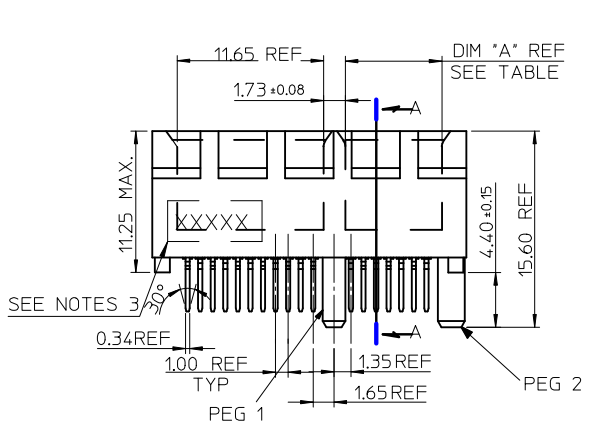
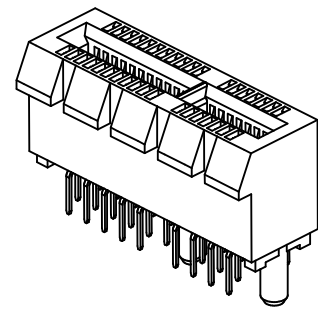
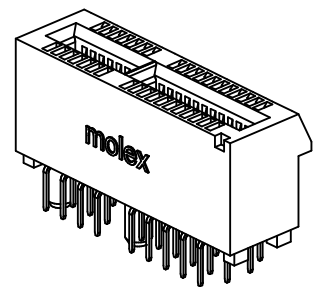
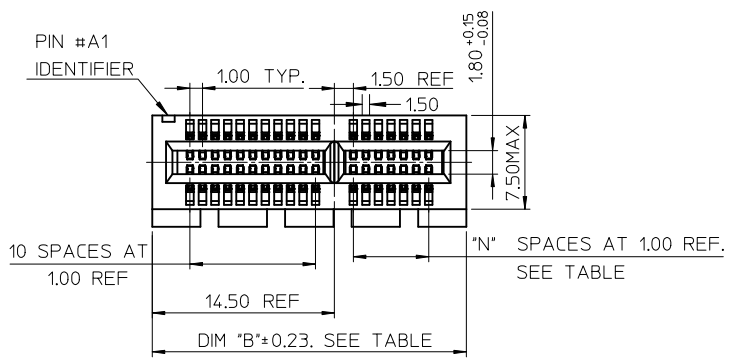
|   |                 |  |                      |                 |            |   |                        |  |
|---|-----------------|--|----------------------|-----------------|------------|---|------------------------|--|
| SEE SHEET 1<br>EC NO: SH2010-0425<br>DR: WNRZhang 2010/05/14<br>CH: KD-Allen LIN 2004/07/20<br>APPR: XJ.SONG 2010/06/03 | QUALITY SYMBOLS | GENERAL TOLERANCES (UNLESS SPECIFIED)                |                      | DIMENSION STYLE | SCALE      | DESIGN UNITS  | THIRD ANGLE PROJECTION |  |
|   | $F_s = 0$       | mm   | INCH                 | MM ONLY         |            | METRIC  |                        |  |
|   | $F_e = 0$       | 4 PLACES ± --- ± ---                                 | 3 PLACES ± --- ± --- | DRAWN BY        | DATE       | TITLE   |                        |  |
|   | $F_p = 0$       | 2 PLACES ± 0.25 ± ---                                | 1 PLACE ± 0.25 ± --- | TOM             | 2004/07/20 | PCI EXPRESS<br>EDGE CARD CONNECTOR<br>(LEAD FREE VERSION)   |                        |  |
|   | ANGULAR ± 3°    | DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS |                      | CHECKED BY      | DATE       | MOLEX INCORPORATED  |                        |  |
|   |                 |  |                      | ALLEN LIN       | 2004/07/20 | MATERIAL NO. DOCUMENT NO. SHEET NO.   |                        |  |
|   |                 |  |                      | APPROVED BY     | DATE       | SD-87715-207 3 OF 4   |                        |  |
|   |                 |  |                      | WILSON          | 2004/07/20 | THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION |                        |  |
|   |                 |  |                      | SEE SHEET 4     |            |   |                        |  |

| MOLEX P/N  | CIRCUIT SIZE | HOUSING MATERIAL | HOUSING COLOR | TERMINAL MATERIAL | CONTACT PLATING | SOLDER TAIL 'D' LENGTH |
|------------|--------------|------------------|---------------|-------------------|-----------------|------------------------|
| 87715-9100 | 64           | NYLON46          | BLACK         | PHOSPHOR BRONZE   | GOLD FLASH      | 2.54                   |
| 87715-9101 |              |                  |               |                   | 10 MICROINCH    |                        |
| 87715-9102 |              |                  |               |                   | 15 MICROINCH    |                        |
| 87715-9103 |              |                  |               |                   | GOLD FLASH      | 3.00                   |
| 87715-9104 |              |                  |               |                   | 10 MICROINCH    |                        |
| 87715-9105 |              |                  |               |                   | 15 MICROINCH    |                        |
| 87715-9106 |              |                  |               |                   | 30 MICROINCH    | 2.54                   |
| 87715-9107 |              |                  |               |                   | GOLD FLASH      | 2.30                   |
| 87715-9108 |              |                  |               |                   | 15 MICROINCH    |                        |
| 87715-9109 | 30 MICROINCH |                  |               |                   |                 |                        |

| MOLEX P/N  | CIRCUIT SIZE | HOUSING MATERIAL | HOUSING COLOR | TERMINAL MATERIAL | CONTACT PLATING | SOLDER TAIL 'D' LENGTH |
|------------|--------------|------------------|---------------|-------------------|-----------------|------------------------|
| 87715-9200 | 98           | NYLON46          | BLACK         | PHOSPHOR BRONZE   | GOLD FLASH      | 2.54                   |
| 87715-9201 |              |                  |               |                   | 10 MICROINCH    |                        |
| 87715-9202 |              |                  |               |                   | 15 MICROINCH    |                        |
| 87715-9203 |              |                  |               |                   | GOLD FLASH      | 3.00                   |
| 87715-9204 |              |                  |               |                   | 10 MICROINCH    |                        |
| 87715-9205 |              |                  |               |                   | 15 MICROINCH    |                        |
| 87715-9206 |              |                  |               |                   | 30 MICROINCH    | 2.54                   |
| 87715-9207 |              |                  |               |                   | GOLD FLASH      | 2.30                   |
| 87715-9208 |              |                  |               |                   | 15 MICROINCH    |                        |
| 87715-9209 | 30 MICROINCH |                  |               |                   |                 |                        |

| MOLEX P/N  | CIRCUIT SIZE | HOUSING MATERIAL | HOUSING COLOR | TERMINAL MATERIAL | CONTACT PLATING | SOLDER TAIL 'D' LENGTH |
|------------|--------------|------------------|---------------|-------------------|-----------------|------------------------|
| 87715-9602 | 98           | NYLON46          | BLACK         | BRASS             | 15 MICROINCH    | 2.54                   |

|   |                               |   |                 |              |   |                        |
|---|-------------------------------|---|-----------------|--------------|---|------------------------|
| SEE SHEET 1<br>EC NO: SH2010-0425<br>DRWNR:ZHANG 2010/05/14<br>CHKD:ALLEN LIN 2004/07/20<br>APPR:XJ.SONG 2010/06/03 | QUALITY SYMBOLS               | GENERAL TOLERANCES (UNLESS SPECIFIED)   | DIMENSION STYLE | SCALE        | DESIGN UNITS  | THIRD ANGLE PROJECTION |
|   | $F_A=0$<br>$F_C=0$<br>$F_P=0$ | mm INCH<br>4 PLACES ± --- ± ---<br>3 PLACES ± --- ± ---<br>2 PLACES ± 0.25 ± ---<br>1 PLACE ± 0.25 ± ---<br>ANGULAR ± 3 ° | MM ONLY         |              | METRIC  |                        |
|   | DESCRIPTION                   | DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS  | DRAWN BY        | DATE         | TITLE   |                        |
|   | REV                           |   | TOM             | 2004/07/20   | PCI EXPRESS EDGE CARD CONNECTOR (LEAD FREE VERSION)   |                        |
|   |                               |   | CHECKED BY      | DATE         | MOLEX MOLEX INCORPORATED  |                        |
|   |                               |   | ALLEN LIN       | 2004/07/20   | SD-87715-207  |                        |
|   |                               |   | APPROVED BY     | DATE         | SHEET NO.   |                        |
|   |                               |   | WILSON          | 2004/07/20   | 4 OF 4  |                        |
|   |                               |   | MATERIAL NO.    | DOCUMENT NO. | THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION |                        |
|   |                               |   | SEE TABLE       |              |   |                        |

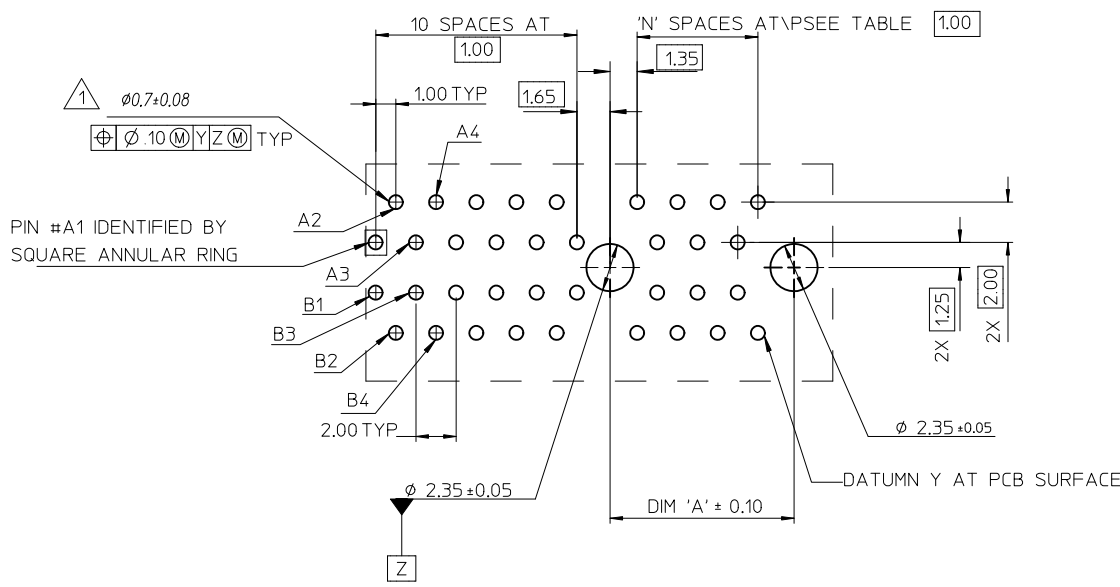


- NOTES:  
 1.MATERIALS:  
 1-1.HOUSING: SEE TABLE ,GLASS FIBER FILLED UL94V-0, COLOR: SEE TABLE.  
 1-2.CONTACT: SEE TABLE  
 2.PLATING:  
 2-1.CONTACT AREA: GOLD, THICKNESS : SEE TABLE .  
 2-2.SOLDER TAIL: 100 MICRINCH MIN. TIN PLATING.  
 2-3.UNDER PLATING: NICKEL PLATING OVERALL.  
 3.DATE CODE: YY MM DD.  
 4.PRODUCT SPECIFICATION REFER TO PS-87715-200.  
 5.TEST SUMMARY:REFER TO TS-87715-207.

| CONNECTOR LINK WIDTH | # POS REF | N  | DIM 'A' | DIM 'B' | DIM 'C' |
|----------------------|-----------|----|---------|---------|---------|
| X1                   | 36        | 6  | 7.65    | 25.00   | 9.15    |
| X16                  | 164       | 70 | 71.65   | 89.00   | 73.15   |

| PCB THK (REF) | DIM 'D' |
|---------------|---------|
| 1.58          | 2.54    |
| 2.36          | 3.00    |

|  |  |   |   |   |  |                     |
|--|--|---|---|---|--|---------------------|
| REVISED<br>EC NO: SH2010-0425<br>DRWNR:ZHANG 2010/05/14<br>CHKD:HARVEY 2007/05/14<br>APPR:X.JSUNG 2010/06/03 | QUALITY SYMBOLS<br>F=0<br>F=0<br>F=0                       | GENERAL TOLERANCES (UNLESS SPECIFIED)<br>mm INCH<br>4 PLACES ± --- ± ---<br>3 PLACES ± --- ± ---<br>2 PLACES ± 0.25 ± ---<br>1 PLACE ± 0.25 ± ---<br>ANGULAR ± 3° | DIMENSION STYLE<br>MM ONLY<br>DRAWN BY DATE<br>DAVID HU 2007/05/14<br>CHECKED BY DATE<br>HARVEY 2007/05/14<br>APPROVED BY DATE<br>JENNY CHEN 2007/05/14<br>MATERIAL NO. | SCALE<br>DESIGN UNITS<br>METRIC<br>THIRD ANGLE PROJECTION   | TITLE<br>PCI EXPRESS<br>EDGE CARD CONNECTOR<br>(LEAD FREE VERSION)<br>MOLEX INCORPORATED | SHEET NO.<br>1 OF 4 |
|  | DRAFT WHERE APPLICABLE<br>MUST REMAIN<br>WITHIN DIMENSIONS | SEE SHEET 4   | DOCUMENT NO.<br>SD-87715-901  | THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION |  |                     |
|  | REV B  | DESCRIPTION   | SEE DETAIL A  |   |  |                     |
|  | MOLEX INCORPORATED   |   |   |   |  |                     |



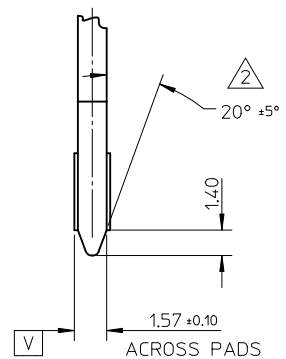
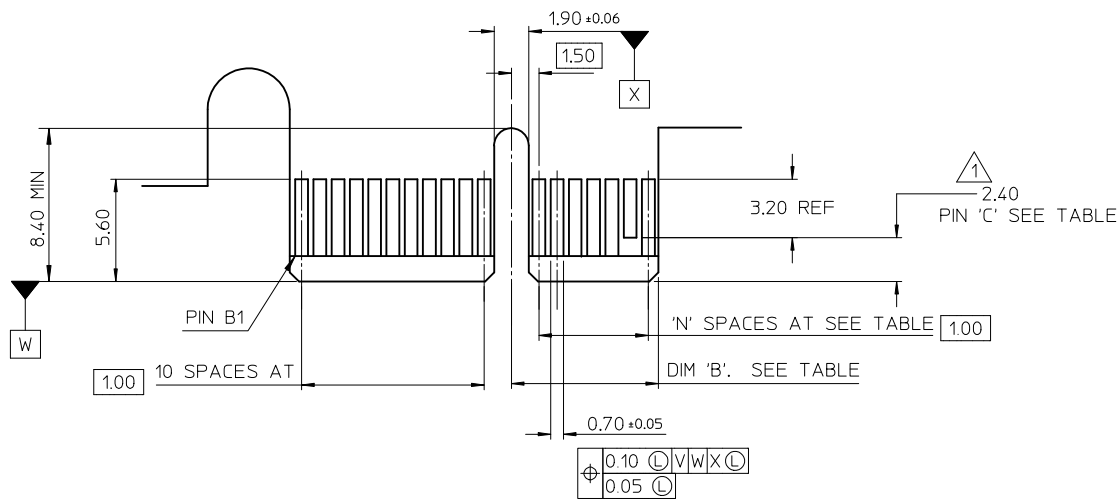
1 THE HORIZONTAL AXIS FOR THE HOLE PATTERN IS ESTABLISHED BY A LINE THROUGH THE CENTER OF THE TWO  $\phi 2.35$  HOLES. THE VERTICAL AXIS IS 90° TO THE HORIZONTAL AXIS, THROUGH THE CENTER OF DATUM Z

| CONNECTOR LINK WIDTH | # POS REF | N  | DIM 'A' |
|----------------------|-----------|----|---------|
| X1                   | 36        | 6  | 9.15    |
| X16                  | 164       | 70 | 73.15   |

|   |  |  |                       |   |                     |               |                        |  |  |
|---|--|--|-----------------------|---|---------------------|---------------|------------------------|--|--|
| SEE SHEET 1<br>EC NO: SH2010-0425<br>DRW:RZHIANG 2010/05/14<br>CH:KD:HARVEY 2007/05/14<br>APPR:XJ:SONG 2010/06/03 | QUALITY SYMBOLS<br>$F_A=0$<br>$F_C=0$<br>$F_P=0$ | GENERAL TOLERANCES (UNLESS SPECIFIED)                |                       | DIMENSION STYLE   | SCALE               | DESIGN UNITS  | THIRD ANGLE PROJECTION |  |  |
|   |  |  |                       | MM ONLY   |                     | METRIC        |                        |  |  |
|   |  |  |                       | mm  | INCH                | DRAWN BY DATE |                        |  |  |
|   |  |  |                       | 4 PLACES ± --- ± ---  | DAVID HU 2007/05/14 | TITLE         |                        |  |  |
|   |  | 3 PLACES ± --- ± ---                                 | CHECKED BY DATE       | PCI EXPRESS<br>EDGE CARD CONNECTOR<br>(LEAD FREE VERSION)   |                     |               |                        |  |  |
|   |  | 2 PLACES ± 0.25 ± ---                                | HARVEY 2007/05/14     |   |                     |               |                        |  |  |
|   |  | 1 PLACE ± 0.25 ± ---                                 | APPROVED BY DATE      | MOLEX MOLEX INCORPORATED  |                     |               |                        |  |  |
|   |  | ANGULAR ± 3°   | JENNY CHEN 2007/05/14 |   |                     |               |                        |  |  |
|   |  | DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS | MATERIAL NO.          | DOCUMENT NO.  |                     |               |                        |  |  |
|   |  |  | SEE SHEET 1           | SD-87715-901  |                     |               |                        |  |  |
|   |  |  | SIZE A3               | THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION |                     |               |                        |  |  |
|   |  |  |                       | SHEET NO. 2 OF 4  |                     |               |                        |  |  |



10 9 8 7 6 5 4 3 2 1

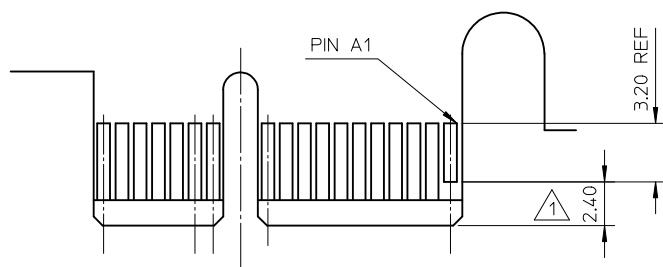


← I/O PANEL DIRECTION

PRIMARY (COMPONENT) SIDE

- 1 NO TIE BAR PERMITTED FROM CARD EDGE TO LEADING EDGE OF PAD FOR PINS A1 AND "C".
- 2 CHAMFER EDGES MUST BE FREE OF CUTTING BURRS.
- 3 TOLERANCE: .XX±.13

| CONNECTOR LINK WIDTH | # POS REF | N  | DIM 'B' | 'C' 1               |
|----------------------|-----------|----|---------|---------------------|
| X1                   | 36        | 6  | 8.15    | B17                 |
| X16                  | 164       | 70 | 72.15   | B17, B31<br>B48,B81 |



I/O PANEL DIRECTION →

SECONDARY (SOLDER) SIDE

|  |  |                 |                                       |            |   |            |   |              |   |  |
|--|--|-----------------|---------------------------------------|------------|---|------------|---|--------------|---|--|
| SEE SHEET 1<br>EC NO: SH2010-0425<br>DR: WNRZhang 2010/05/14<br>CHKD: HARVEY 2007/05/14<br>APPR: XJSong 2010/06/03 | DESCRIPTION  | QUALITY SYMBOLS | GENERAL TOLERANCES (UNLESS SPECIFIED) |            | DIMENSION STYLE   |            | SCALE   | DESIGN UNITS | THIRD ANGLE PROJECTION  |  |
|  |  |                 | mm                                    | INCH       | MM ONLY   |            |   | METRIC       |   |  |
|  |  | FA=0            | 4 PLACES ±---                         | ±---       | DRAWN BY  | DATE       | TITLE   |              |   |  |
|  |  | FC=0            | 3 PLACES ±---                         | ±---       | DAVID HU  | 2007/05/14 | PCI EXPRESS<br>EDGE CARD CONNECTOR<br>(LEAD FREE VERSION) |              |   |  |
| FB=0   | 2 PLACES ±0.25                                       | ±---            | CHECKED BY                            | DATE       | MOLEX INCORPORATED  |            |   |              |   |  |
|  | 1 PLACE ±0.25  | ±---            | HARVEY                                | 2007/05/14 |   |            |   |              | MATERIAL NO. SEE SHEET 1 DOCUMENT NO. SD-87715-901 SHEET NO. 3 OF 4 |  |
|  | ANGULAR ± 3°   |                 | APPROVED BY                           | DATE       | 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 |                 | JENNY CHEN                            | 2007/05/14 |   |            |   |              |   |  |

9 8 7 6 5 4 3 2 1

B

| MOLEX P/N  | CIRCUIT SIZE | HOUSING MATERIAL | HOUSING COLOR | TERMINAL MATERIAL | CONTACT PLATING | SOLDER TAIL 'D' LENGTH | PEG 1 | PEG 2 | DESCRIPTION |
|------------|--------------|------------------|---------------|-------------------|-----------------|------------------------|-------|-------|-------------|
| 87715-9000 | 36           | NYLON46          | BLACK         | PHOSPHOR BRONZE   | GOLD FLASH      | 2.54                   | WITH  | WITH  | TOOLED      |
| 87715-9001 |              |                  |               |                   | 10 MICROINCH    |                        |       |       |             |
| 87715-9002 |              |                  |               |                   | 15 MICROINCH    |                        |       |       |             |
| 87715-9003 |              |                  |               |                   | GOLD FLASH      | 3.00                   |       |       |             |
| 87715-9004 |              |                  |               |                   | 10 MICROINCH    |                        |       |       |             |
| 87715-9005 |              |                  |               |                   | 15 MICROINCH    |                        |       |       |             |
| 87715-9006 |              |                  |               |                   | 30 MICROINCH    | 2.54                   |       |       |             |
| 87715-9009 |              |                  |               |                   | 30 MICROINCH    | 3.00                   |       |       |             |
| 87715-0001 | 15 MICROINCH | 2.54             | WITHOUT       |                   |                 |                        |       |       |             |

B

| MOLEX P/N  | CIRCUIT SIZE | HOUSING MATERIAL | HOUSING COLOR | TERMINAL MATERIAL | CONTACT PLATING | SOLDER TAIL 'D' LENGTH | PEG 1 | PEG 2 | DESCRIPTION |
|------------|--------------|------------------|---------------|-------------------|-----------------|------------------------|-------|-------|-------------|
| 87715-9300 | 164          | NYLON46          | BLACK         | PHOSPHOR BRONZE   | GOLD FLASH      | 2.54                   | WITH  | WITH  | TOOLED      |
| 87715-9301 |              |                  |               |                   | 10 MICROINCH    |                        |       |       |             |
| 87715-9302 |              |                  |               |                   | 15 MICROINCH    |                        |       |       |             |
| 87715-9303 |              |                  |               |                   | GOLD FLASH      | 3.00                   |       |       |             |
| 87715-9304 |              |                  |               |                   | 10 MICROINCH    |                        |       |       |             |
| 87715-9305 |              |                  |               |                   | 15 MICROINCH    |                        |       |       |             |
| 87715-9306 |              |                  |               |                   | 30 MICROINCH    | 2.54                   |       |       |             |
| 87715-9309 |              |                  |               |                   | 30 MICROINCH    | 3.00                   |       |       |             |

|  |          |                    |  |  |                 |             |   |   |                                    |   |                     |
|--|----------|--------------------|--|--|-----------------|-------------|---|---|------------------------------------|---|---------------------|
| SEE SHEET 1<br>EC NO: SH2010-0425<br>DR: WZRZHANG 2010/05/14<br>CH: KDHARVEY 2007/05/14<br>APPR: XJSONG 2010/06/03 | REV<br>B | DESCRIPTION<br>REV | QUALITY SYMBOLS                                      | GENERAL TOLERANCES (UNLESS SPECIFIED)  | DIMENSION STYLE | SCALE       | DESIGN UNITS  | THIRD ANGLE PROJECTION  |                                    |   |                     |
|  |          |                    | $F_A=0$<br>$F_C=0$<br>$F_P=0$                        | mm    INCH<br>4 PLACES ± --- ± ---<br>3 PLACES ± --- ± ---<br>2 PLACES ± 0.25 ± ---<br>1 PLACE ± 0.25 ± ---<br>ANGULAR ± 3 ° | MM ONLY         |             | METRIC  | DRAWN BY: DAVID HU    DATE: 2007/05/14<br>CHECKED BY: HARVEY    DATE: 2007/05/14<br>APPROVED BY: JENNY CHEN    DATE: 2007/05/14 | TITLE                              | PCI EXPRESS<br>EDGE CARD CONNECTOR<br>(LEAD FREE VERSION) |                     |
|  |          |                    | DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS |  |                 | SEE SHEET 1 | MATERIAL NO.  | DOCUMENT NO.  | MOLEX INCORPORATED<br>SD-87715-901 |   | SHEET NO.<br>4 OF 4 |
|  |          |                    |  |  |                 | SIZE<br>A3  | THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION |   |                                    |   |                     |