

PLEASE CHECK WWW.MOLEX.COM FOR LATEST PART INFORMATION

Part Number:

0877159910

Status:

Active

Overview:

Description:

1.00mm (.039") Pitch, PCI Express\* Connector, 98 Circuits, Nylon 4/6 Glass-filled, Black Housing, Copper Alloy, 0.76µm (30µ") Gold (Au) Plating, with Beveled Metal Pins, 2.54mm (.100") Solder tail, Lead Free

Agency Certification

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

General

|                |                                 |
|----------------|---------------------------------|
| Product Family | Edge Card Connectors            |
| Series         | 87715                           |
| Comments       | PCI 8 lanes                     |
| Component Type | Edgecard to PCB                 |
| Overview       | pci_express_card_edge_connector |
| Product Name   | PCI Express*                    |

Physical

|                                |                      |
|--------------------------------|----------------------|
| Circuits (Loaded)              | 98                   |
| Circuits (maximum)             | 98                   |
| Circuits Detail                | All Signal           |
| Durability (mating cycles max) | 50                   |
| Entry Angle                    | Vertical (Top Entry) |
| Flammability                   | 94V-0                |
| Keying to Mating Part          | Yes                  |
| Material - Plating Mating      | Gold                 |
| Material - Plating Termination | Tin                  |
| 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)      | 30                   |
| Plating min: Mating (µm)       | 0.76                 |
| Plating min: Termination (µin) | 100                  |
| Plating min: Termination (µm)  | 2.50                 |
| 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 |

Material Info

Reference - Drawing Numbers

|                         |              |
|-------------------------|--------------|
| Packaging Specification | PK-87715-204 |
| Product Specification   | PS-87715-200 |

EU RoHS

ELV and RoHS

Compliant

REACH SVHC

Not Reviewed

Halogen-Free

Status

Not Reviewed

China RoHS



Need more information on product environmental compliance?

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

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

Search Parts in this Series

87715Series

Mates With

PCI Express Card

Sales Drawing  
Test Summary

SD-87715-210  
TS-87715-210

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

This document was generated on 06/04/2010

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| 10          | 9     | 8                              | 7                                                   | 6         | 5                  | 4 | 3 | 2 | 1 |
|-------------|-------|--------------------------------|-----------------------------------------------------|-----------|--------------------|---|---|---|---|
| PART NUMBER | DIM A | CONTACT AREA<br>PLATING OPTION | SOLDER TAIL PLATING                                 | PORT SIZE | TOTAL<br>CKTS SIZE |   |   |   |   |
| 87715-9910  | 2.54  | 30 MICROINCH<br>GOLD PLATED    | 100 MICROINCH MIN TIN OVER<br>NICKEL PLATED OVERALL | 8         | 98                 |   |   |   |   |
| 87715-9911  | 3.00  | 30 MICROINCH<br>GOLD PLATED    | 100 MICROINCH MIN TIN OVER<br>NICKEL PLATED OVERALL | 8         | 98                 |   |   |   |   |

F

E

D

C

B

A

F

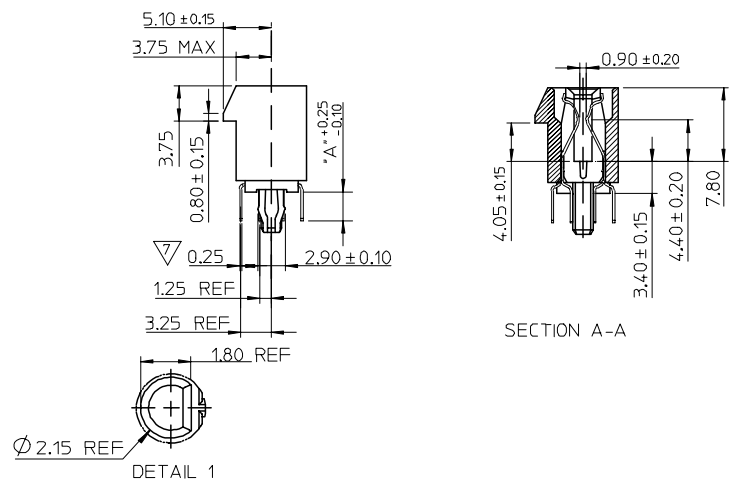
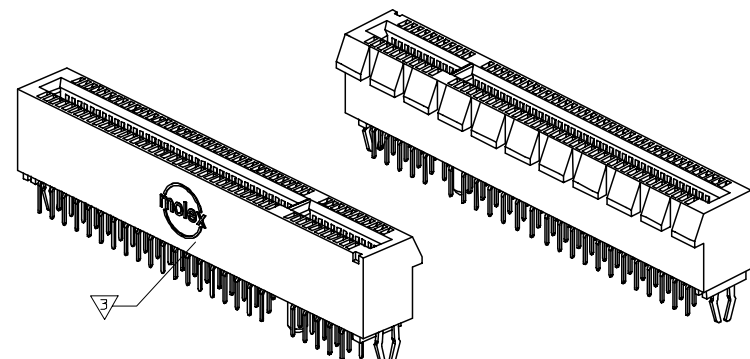
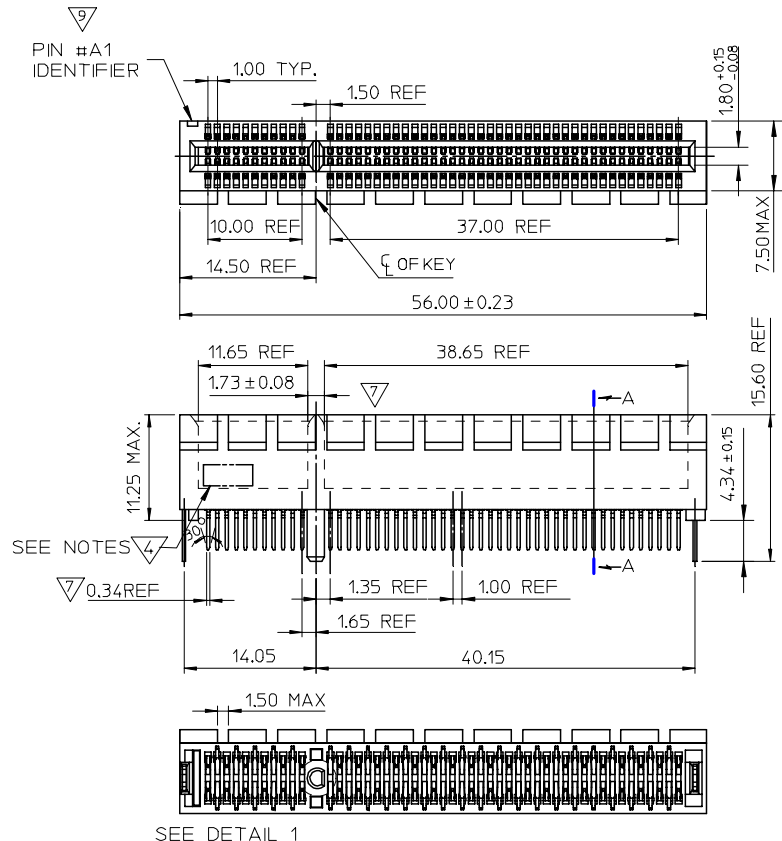
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|                                                                            |                          |                                                                                                                               |                                                  |                                       |        |                            |                             |                    |                                                                                      |                                                                                                              |                     |
|----------------------------------------------------------------------------|--------------------------|-------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------|---------------------------------------|--------|----------------------------|-----------------------------|--------------------|--------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------|---------------------|
| NEW RELEASED<br>EC NO: SH2006-0549<br>DRWN:ALLIN<br>CHKD:<br>APPR:WMSCHANG | 2006/05/15<br>2006/05/17 | DESCRIPTION<br>REV                                                                                                            | QUALITY SYMBOLS<br><div>▽=0</div> <div>▽=0</div> | GENERAL TOLERANCES (UNLESS SPECIFIED) |        | DIMENSION STYLE<br>MM ONLY |                             | SCALE              | DESIGN UNITS<br>METRIC                                                               |  THIRD ANGLE PROJECTION |                     |
|                                                                            |                          |                                                                                                                               |                                                  |                                       | mm     | INCH                       | DRAWN BY<br>KEN LEE         | DATE<br>2006/03/22 | TITLE<br>PCI EXPRESS X8 (98 CKTS)<br>VERT DIP WITH BOARD LOCK<br>(LEAD FREE VERSION) |                                                                                                              |                     |
|                                                                            |                          |                                                                                                                               |                                                  | 4 PLACES                              | ± ---  | ± ---                      | CHECKED BY<br>ALLEN LIN     | DATE<br>2006/03/22 |                                                                                      |                                                                                                              |                     |
|                                                                            |                          |                                                                                                                               |                                                  | 3 PLACES                              | ± ---  | ± ---                      | APPROVED BY<br>WILSON CHANG | DATE<br>2006/03/22 |                                                                                      |                                                                                                              |                     |
|                                                                            |                          |                                                                                                                               |                                                  | 2 PLACES                              | ± 0.25 | ± ---                      | MATERIAL NO.<br>SEE TABLE   |                    | DOCUMENT NO.<br>SD-87715-210                                                         |                                                                                                              | SHEET NO.<br>1 OF 3 |
|                                                                            |                          |                                                                                                                               |                                                  | 1 PLACE                               | ± 0.25 | ± ---                      |                             |                    |                                                                                      |                                                                                                              |                     |
|                                                                            |                          |                                                                                                                               |                                                  | ANGULAR ± 3 °                         |        | MOLEX MOLEX INCORPORATED   |                             |                    |                                                                                      |                                                                                                              |                     |
| DRAFT WHERE APPLICABLE<br>MUST REMAIN<br>WITHIN DIMENSIONS                 |                          | THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION |                                                  |                                       |        |                            |                             |                    |                                                                                      |                                                                                                              |                     |

9

8

7

6

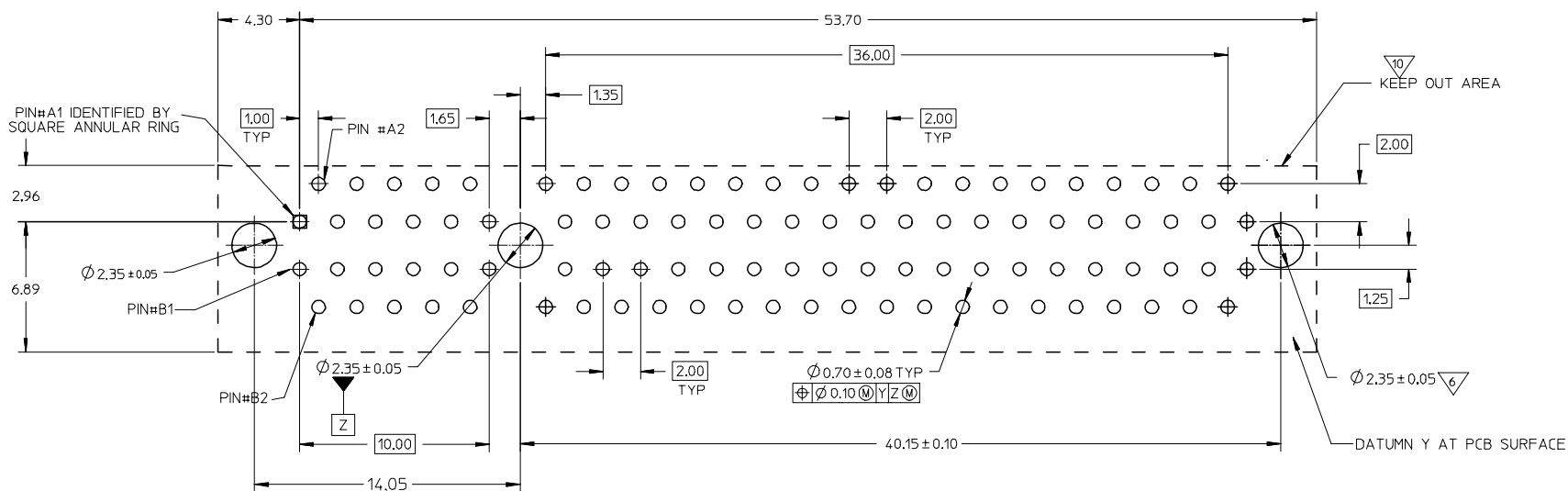
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1



# NOTES:

1. MATERIALS: HOUSING - HIGH TEMPERATURE THERMOPLASTIC, GLASS FIBER FILLED, UL 94-V0 (BLACK)  
TERMINAL - COPPER ALLOY
2. PLATING: CONTACT AREA - SEE TABLE IN SHEET 1  
SOLDER TAILS - SEE TABLE IN SHEET 1  
UNDERPLATING - SEE TABLE IN SHEET 1

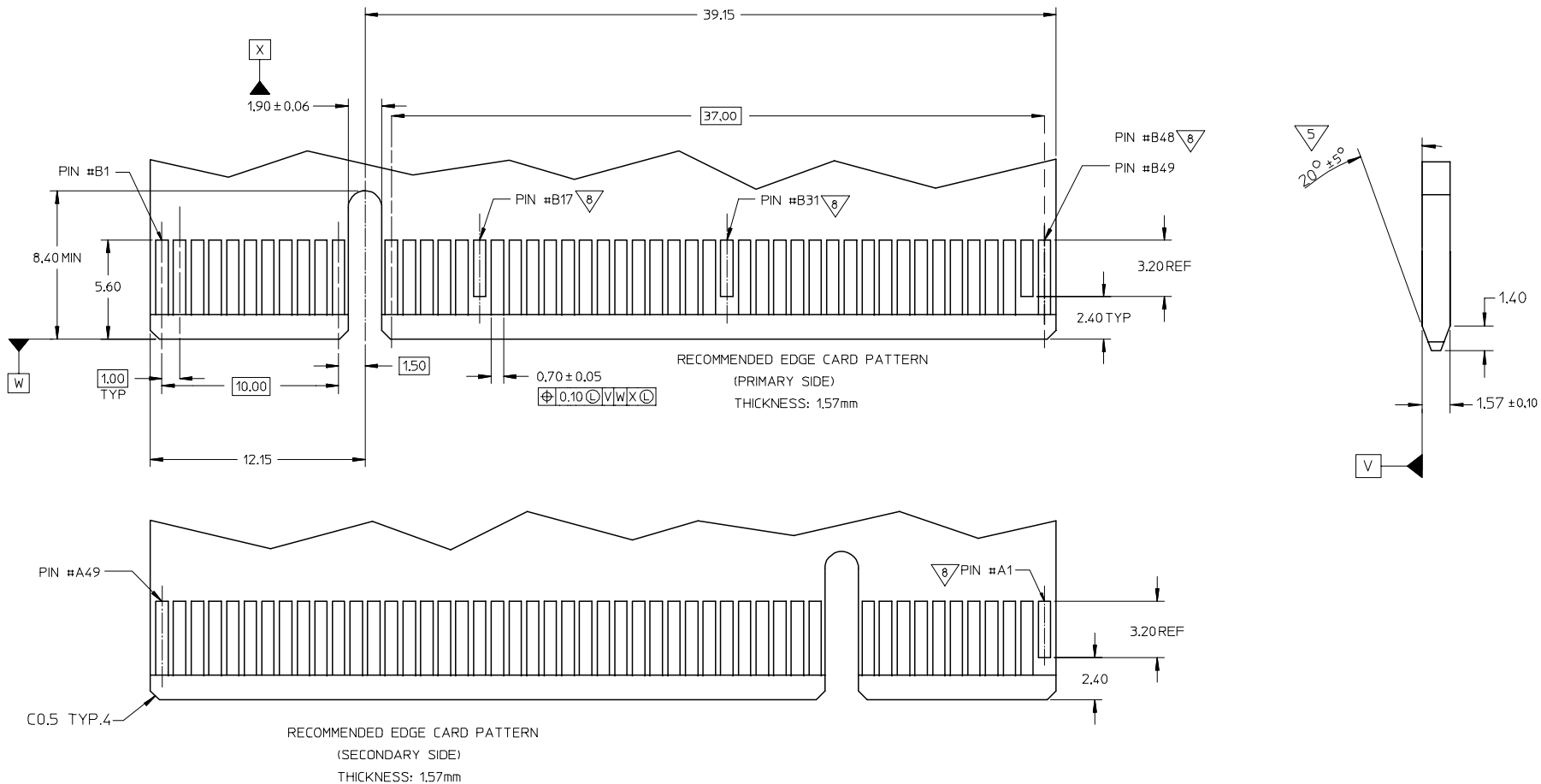
## RECOMMENDED P.C.B. PATTERN (CONNECTOR SIDE)

THICKNESS: 1.57mm FOR 2.54mm SOLDER TAIL LENGTH  
2.35mm FOR 3.00mm SOLDER TAIL LENGTH

3. MOLEX LOGO
4. DATE CODE - TO BE PRINTED
5. CHAMFER EDGES OF EDGE CARD MUST BE FREE OF CUTTING BURRS
6. THE HORIZONTAL AXIS FOR THE FOOTPRINT HOLE PATTERN IS ESTABLISHED BY A LINE THROUGH THE CENTRE OF THE TWO Ø2.35 HOLES. THE VERTICAL AXIS IS 90° TO THE HORIZONTAL AXIS, THROUGH THE CENTRE OF DATUM Z
7. FEATURES DESIGNED TO FUNCTIONALLY MATE/MOUNT(SLIP FIT) PER THE RECOMMENDED EDGE CARD AND PCB PATTERN.
8. PINS FOR HOT PLUG PRESENCE DETECTION. NO TIE BAR PERMITTED FROM CARD EDGE TO LEADING EDGE OF PAD FOR THE HOT PLUG PINS.
9. PIN #1 IDENTIFIER
10. KEEP OUT AREA - NO EXTERNAL COMPONENTS ALLOWED ON PCB SURFACE

11. PRODUCT SPECIFICATION REFER TO PS-87715-200.
12. PACKAGE SPECIFICATION REFER TO PK-87715-204.
13. TEST SUMMARY: REFER TO TS-87715-210.
14. LEAD FREE AND RoHS COMPLIANT PRODUCT.

|                                                                                                            |             |                                   |                                                            |  |                             |  |                                                                                                                                  |                                                                                      |                           |  |  |  |
|------------------------------------------------------------------------------------------------------------|-------------|-----------------------------------|------------------------------------------------------------|--|-----------------------------|--|----------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|---------------------------|--|--|--|
| SEE SHEET 1<br>EC NO: SH2006-0549<br>DRWN:ALLIN 2006/05/15<br>CHKD: 2006/05/15<br>APPR:WMSCHANG 2006/05/17 | DESCRIPTION | QUALITY SYMBOLS<br><br>▽=0<br>▽=0 | GENERAL TOLERANCES (UNLESS SPECIFIED)                      |  | DIMENSION STYLE<br>MM ONLY  |  | SCALE<br>NTS                                                                                                                     | DESIGN UNITS<br>METRIC                                                               | THIRD ANGLE<br>PROJECTION |  |  |  |
|                                                                                                            |             |                                   |                                                            |  | DRAWN BY<br>KEN LEE         |  | DATE<br>2006/03/22                                                                                                               | TITLE<br>PCI EXPRESS X8 (98 CKTS)<br>VERT DIP WITH BOARD LOCK<br>(LEAD FREE VERSION) |                           |  |  |  |
|                                                                                                            |             |                                   |                                                            |  | CHECKED BY<br>ALLEN LIN     |  | DATE<br>2006/03/22                                                                                                               |                                                                                      |                           |  |  |  |
|                                                                                                            |             |                                   |                                                            |  | APPROVED BY<br>WILSON CHANG |  | DATE<br>2006/03/22                                                                                                               |                                                                                      |                           |  |  |  |
|                                                                                                            |             |                                   |                                                            |  | MATERIAL NO.                |  | DOCUMENT NO.                                                                                                                     |                                                                                      | SHEET NO.                 |  |  |  |
|                                                                                                            |             |                                   | DRAFT WHERE APPLICABLE<br>MUST REMAIN<br>WITHIN DIMENSIONS |  | SEE TABLE                   |  | SD-87715-210                                                                                                                     |                                                                                      | 2 OF 3                    |  |  |  |
|                                                                                                            |             |                                   |                                                            |  | SIZE<br>A3                  |  | THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX<br>INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION |                                                                                      |                           |  |  |  |
|                                                                                                            |             |                                   |                                                            |  |                             |  |                                                                                                                                  |                                                                                      |                           |  |  |  |
|                                                                                                            |             |                                   |                                                            |  |                             |  |                                                                                                                                  |                                                                                      |                           |  |  |  |
|                                                                                                            |             |                                   |                                                            |  |                             |  |                                                                                                                                  |                                                                                      |                           |  |  |  |



|                                                                             |                                     |                                                                                                                               |                                       |              |                            |                     |                    |                                                                                      |                           |  |  |  |
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|                                                                             |                                     |                                                                                                                               |                                       | mm           | INCH                       | DRAWN BY<br>KEN LEE | DATE<br>2006/03/22 | TITLE<br>PCI EXPRESS X8 (98 CKTS)<br>VERT DIP WITH BOARD LOCK<br>(LEAD FREE VERSION) |                           |  |  |  |
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|                                                                             |                                     |                                                                                                                               | 3 PLACES                              | ± ---        | ± ---                      | ALLEN LIN           | 2006/03/22         |                                                                                      |                           |  |  |  |
|                                                                             |                                     |                                                                                                                               | 2 PLACES                              | ± 0.25       | ± ---                      | APPROVED BY         |                    | DATE                                                                                 | molex MOLEX INCORPORATED  |  |  |  |
|                                                                             |                                     |                                                                                                                               | 1 PLACE                               | ± 0.25       | ± ---                      | WILSON CHANG        |                    | 2006/03/22                                                                           |                           |  |  |  |
| ANGULAR ± 3 °                                                               |                                     | MATERIAL NO.                                                                                                                  |                                       | DOCUMENT NO. |                            |                     |                    | SHEET NO.                                                                            |                           |  |  |  |
| DRAFT WHERE APPLICABLE<br>MUST REMAIN<br>WITHIN DIMENSIONS                  |                                     | SEE TABLE                                                                                                                     |                                       | SD-87715-210 |                            |                     |                    | 3 OF 3                                                                               |                           |  |  |  |
| B                                                                           | REV                                 | THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION |                                       |              |                            |                     |                    |                                                                                      |                           |  |  |  |



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- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



#### Как с нами связаться

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