

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

**Part Number:** [0877159322](#)  
**Status:** **Planned for Obsolescence**  
**Description:** 1.00mm (.039") Pitch, PCI Express\* Connector, 164 Circuits, Nylon 4/6 Glass-filled, Blue (287U) Housing, Phosphor Bronze, 0.38µm (15µ") Gold (Au) Plating, with Plastic Pegs, 2.54mm (.100") Solderetail, Lead Free

**Documents:**

[3D Model](#) [Product Specification PS-87715-200 \(PDF\)](#)  
[Drawing \(PDF\)](#) [RoHS Certificate of Compliance \(PDF\)](#)

**Agency Certification**

CSA LR19980  
 UL E29179

**General**

Product Family Edge Card Connectors  
 Series [87715](#)  
 Comments PCI 16 lanes  
 Component Type Edgecard to PCB  
 Product Name PCI Express\*

**Physical**

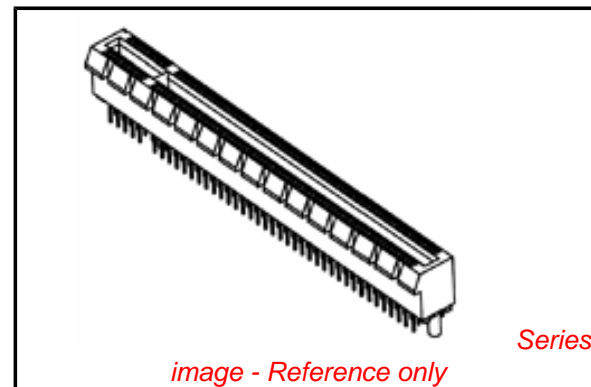
Circuits (Loaded) 164  
 Circuits (maximum) 164  
 Circuits Detail All Signal  
 Durability (mating cycles max) 50  
 Entry Angle Vertical (Top Entry)  
 Flammability 94V-0  
 Keying to Mating Part Yes  
 Material - Plating Mating Gold  
 Material - Plating Termination Tin  
 PC Tail Length (in) 0.100 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) 1.58 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) 2.54  
 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**



*image - Reference only*

**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

Packaging Specification

Product Specification

Sales Drawing

Test Summary

PK-87715-207

PS-87715-200

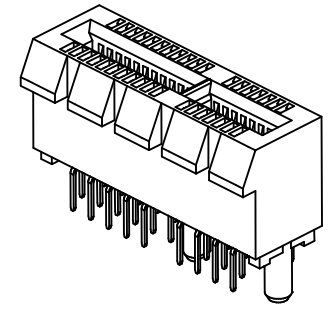
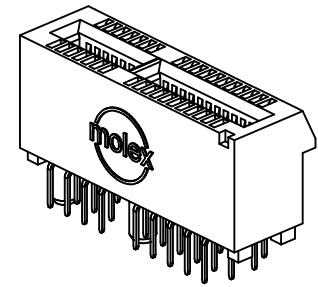
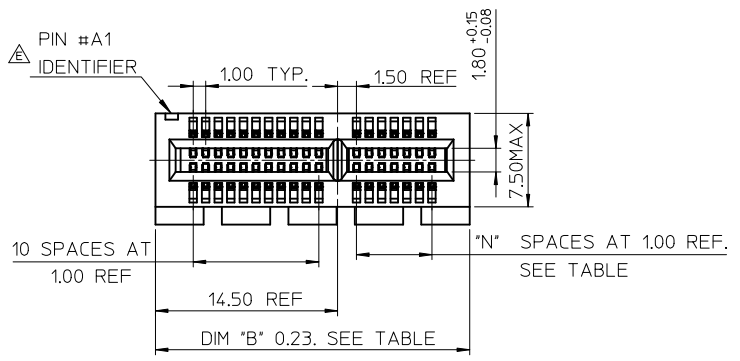
SD-87715-207, SD-87715-901

TS-87715-207

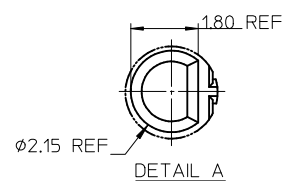
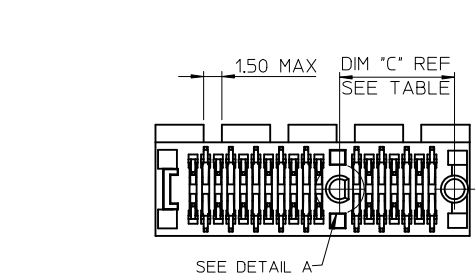
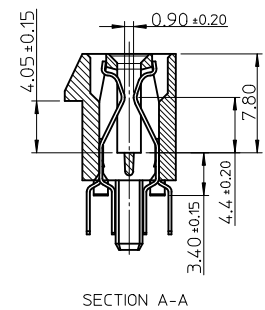
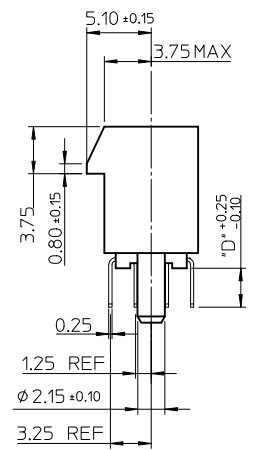
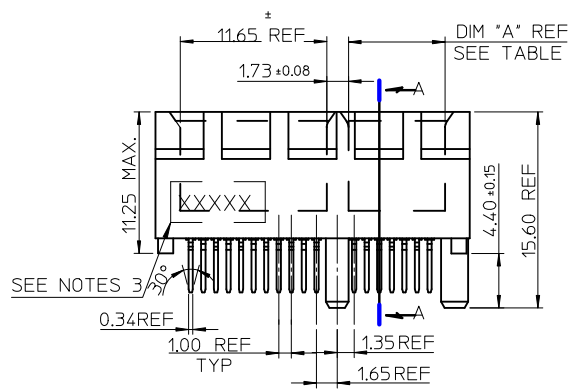
\* PCI Express is a registered trademark of PCI-SIG®

This document was generated on 06/01/2010

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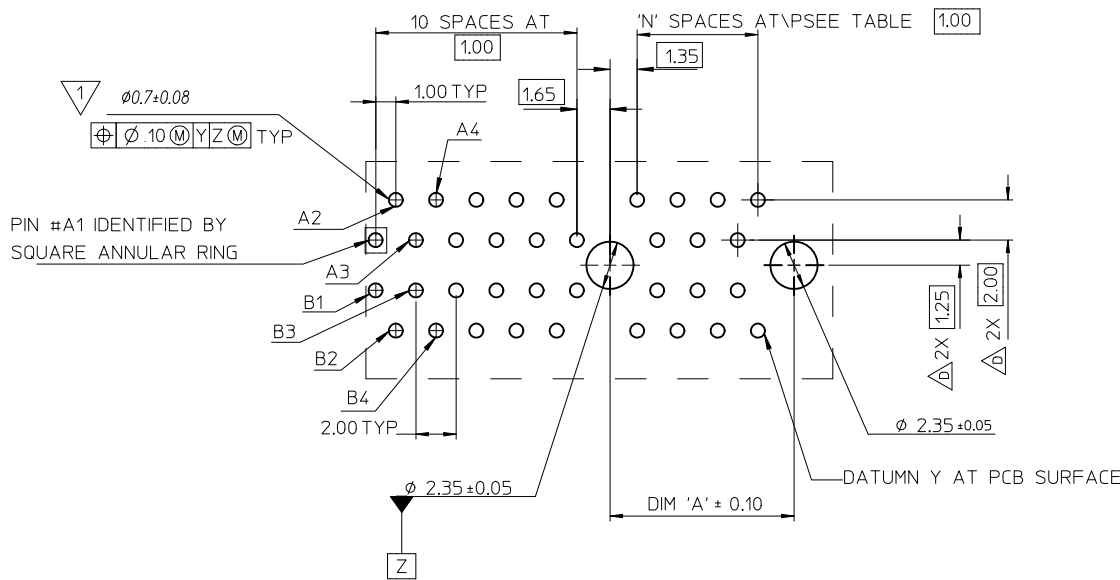
- NOTES:
- 1.MATERIALS:  
1-1.HOUSING: SEE TABLE ,GLASS FIBER FILLED UL94V-0, COLOR: SEE TABLE.  
1-2.CONTACT: SEE TABLE
  - 2.PLATING:  
2-1.CONTACT AREA: GOLD, THICKNESS : SEE TABLE .  
2-2.SOLDER TAIL: 100 MICRINCH MIN. TIN PLATING.  
2-3.UNDER PLATING: NICKEL PLATING OVERALL.
  - 3.WEEK CODE: XX(YEAR) 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

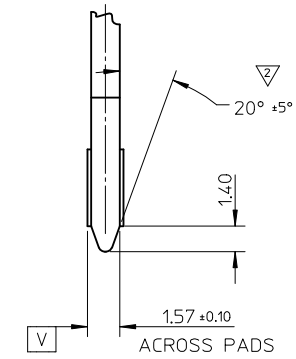
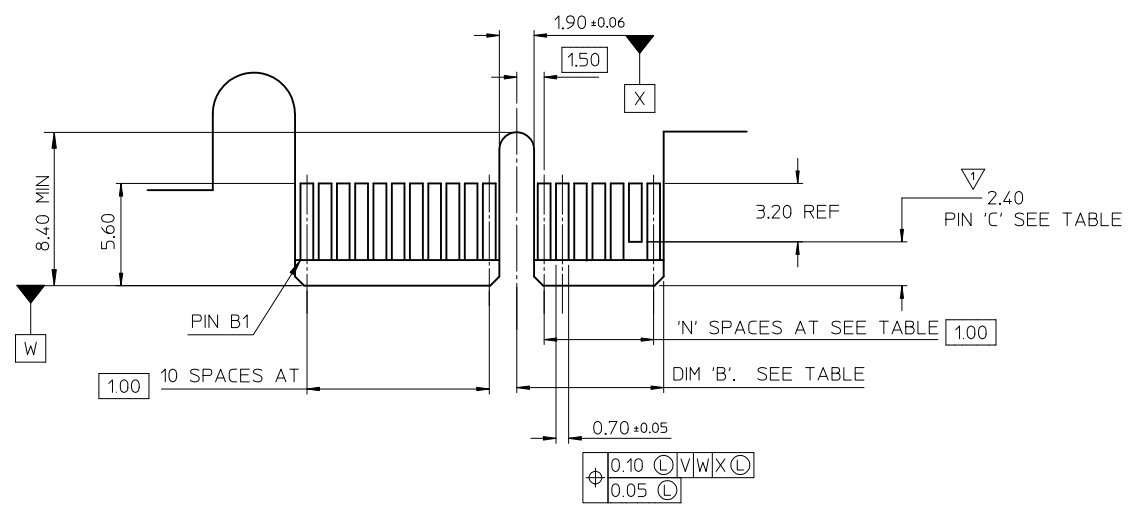
REVISED IEC NO: SH2010-0425 DRW:RZHANG 2010/05/14 CHKD:ALLEN L IN 2004/07/20 APPR:X.J.SONG 2010/06/03	QUALITY SYMBOLS	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE MM ONLY		SCALE	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION	
	$\nabla = 0$ $\nabla = 0$ $\nabla = 0$	4 PLACES ± --- ± --- 3 PLACES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



1 THE HORIZONTAL AXIS FOR THE HOLE PATTERN IS ESTABLISHED BY A LINE THROUGH THE CENTER OF THE TWO Ø2.35 HOLES. THE VERTICAL AXIS IS 90° TO THE HORIZONTAL AXIS, THROUGH THE CENTER OF DATUM Z

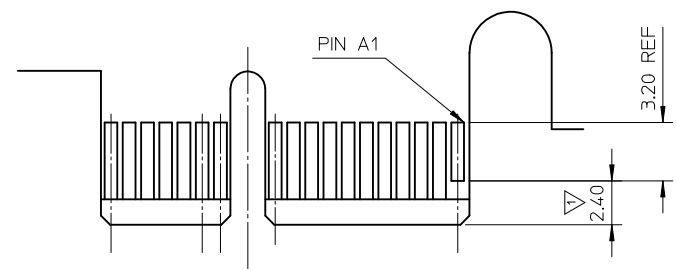
CONNECTOR LINK WIDTH	# POS REF	N	DIM 'A'
X4	64	20	23.15
X8	98	37	40.15

SEE SHEET 1 EC NO: SH2010-0425 DRAWN: ZHANG CHKD: ALLEN LIN APPR: XJSONG	REV	DESCRIPTION	QUALITY SYMBOLS	GENERAL TOLERANCES (UNLESS SPECIFIED)	DIMENSION STYLE	SCALE	DESIGN UNITS	THIRD ANGLE PROJECTION	
			$F_A=0$ $F_G=0$ $F_P=0$	mm INCH	MM ONLY		METRIC		
				4 PLACES ± --- ± ---	DRAWN BY DATE	TITLE	PCI EXPRESS EDGE CARD CONNECTOR (LEAD FREE VERSION) MOLEX INCORPORATED DOCUMENT NO. SD-87715-207 SHEET NO. 2 OF 4		
				3 PLACES ± --- ± ---	CHECKED BY DATE				
				2 PLACES ± 0.25 ± ---	APPROVED BY DATE				
			1 PLACE ± 0.25 ± ---	MATERIAL NO.					
			ANGULAR ± 3 °	SEE SHEET 4					
			DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS	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 B48

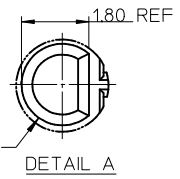
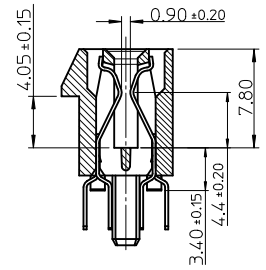
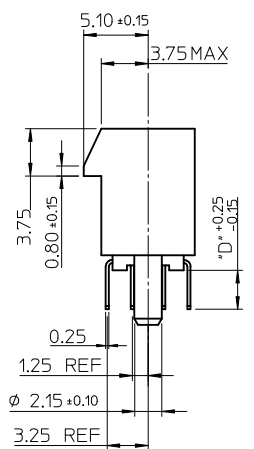
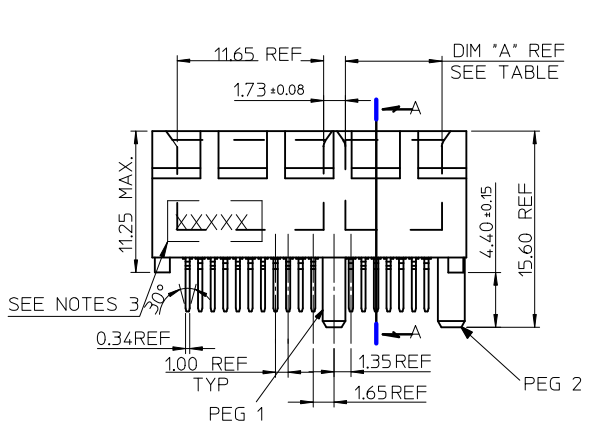
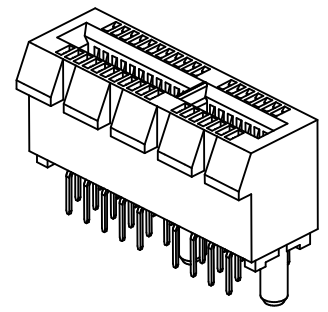
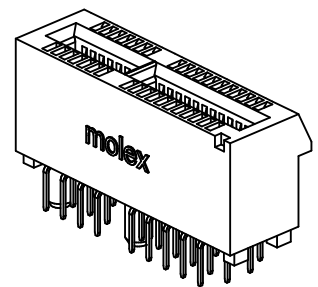
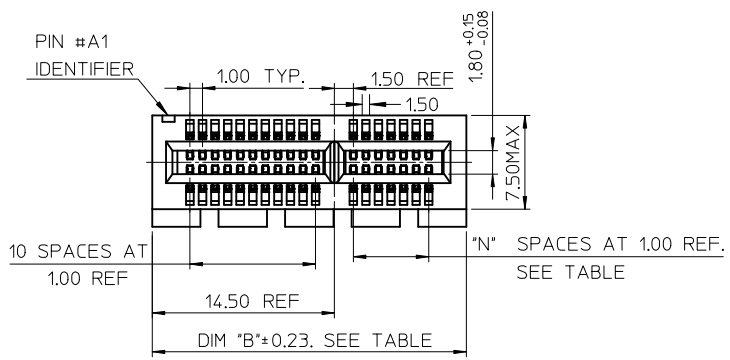
SEE SHEET 1 EC NO: SH2010-0425 DR: WNRZhang 2010/05/14 CH: KD-Allen LIN 2004/07/20 APPR: XJ.SONG 2010/06/03	QUALITY SYMBOLS	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE	SCALE	DESIGN UNITS	THIRD ANGLE PROJECTION
	$F_{\text{A}}=0$	mm	INCH	MM ONLY		METRIC	
	$F_{\text{B}}=0$	4 PLACES ± --- ± ---	3 PLACES ± --- ± ---	DRAWN BY	DATE	TITLE	
	$F_{\text{C}}=0$	2 PLACES ± 0.25 ± ---	1 PLACE ± 0.25 ± ---	TOM	2004/07/20	PCI EXPRESS EDGE CARD CONNECTOR (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	

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

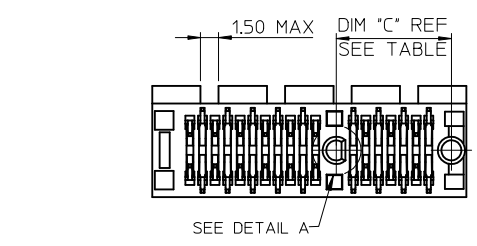
SEE SHEET 1 EC NO: SH2010-0425 DRWNR: ZHANG CHKD: ALLEN LIN APPR: XJ SONG	2010/05/14 2010/07/20 2010/06/03	QUALITY SYMBOLS $F_A=0$ $F_C=0$ $F_P=0$	GENERAL TOLERANCES (UNLESS SPECIFIED) mm INCH 4 PLACES ± --- ± --- 3 PLACES ± --- ± --- 2 PLACES ± 0.25 ± --- 1 PLACE ± 0.25 ± --- ANGULAR ± 3°	DIMENSION STYLE MM ONLY	SCALE DESIGN UNITS METRIC	THIRD ANGLE PROJECTION	DRAWN BY TOM	DATE 2004/07/20	TITLE PCI EXPRESS EDGE CARD CONNECTOR (LEAD FREE VERSION)	
	DESCRIPTION REV	DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS	MATERIAL NO. SEE TABLE	CHECKED BY ALLEN LIN	DATE 2004/07/20	APPROVED BY WILSON	DATE 2004/07/20	moxex MOLEX INCORPORATED	DOCUMENT NO. SD-87715-207	SHEET NO. 4 OF 4
	SIZE A3	THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION								



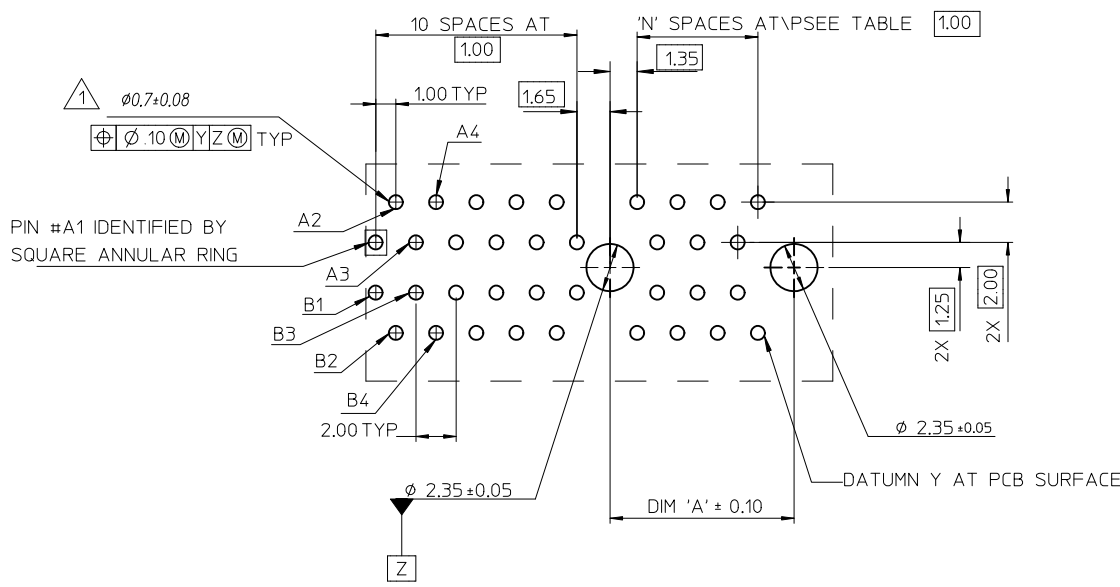
- NOTES:  
 1.MATERIALS:  
 1-1.HOUSING: SEE TABLE ,GLASS FIBER FILLED UL94V-0, COLOR: SEE TABLE.  
 1-2.CONTACT: SEE TABLE  
 2.PLATING:  
 2-1.CONTACT AREA: GOLD, THICKNESS : SEE TABLE .  
 2-2.SOLDER TAIL: 100 MICRINCH MIN. TIN PLATING.  
 2-3.UNDER PLATING: NICKEL PLATING OVERALL.  
 3.DATE CODE: 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 EC NO: SH2010-0425 DRWNR:ZHANG 2010/05/14 CHKD:HARVEY 2007/05/14 APPR:X.J.SONG 2010/06/03	QUALITY SYMBOLS F=0 F=0 F=0	GENERAL TOLERANCES (UNLESS SPECIFIED) mm INCH 4 PLACES ± --- ± --- 3 PLACES ± --- ± --- 2 PLACES ± 0.25 ± --- 1 PLACE ± 0.25 ± --- ANGULAR ± 3°	DIMENSION STYLE MM ONLY DRAWN BY DATE DAVID HU 2007/05/14 CHECKED BY DATE HARVEY 2007/05/14 APPROVED BY DATE JENNY CHEN 2007/05/14 MATERIAL NO.	SCALE DESIGN UNITS METRIC THIRD ANGLE PROJECTION	TITLE PCI EXPRESS EDGE CARD CONNECTOR (LEAD FREE VERSION) MOLEX INCORPORATED	SHEET NO. 1 OF 4
	DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS	SEE SHEET 4	DOCUMENT NO. 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 SHEET 4			
	REV	DESCRIPTION	SEE SHEET 4			



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

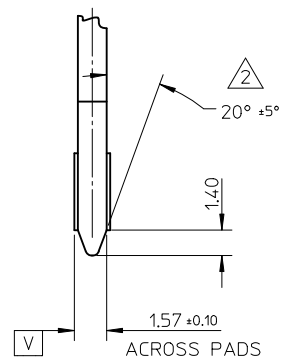
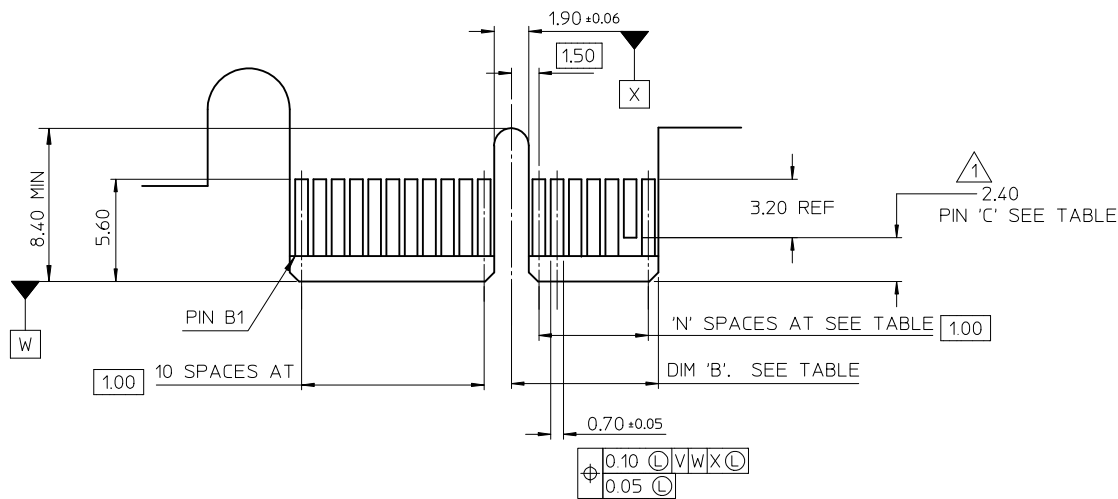
PIN #A1 IDENTIFIED BY SQUARE ANNULAR RING

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

SEE SHEET 1 EC NO: SH2010-0425 DRW:RZHANG 2010/05/14 CH:KD:HARVEY 2007/05/14 APPR:XJ:SONG 2010/06/03	QUALITY SYMBOLS $F_A=0$ $F_C=0$ $F_P=0$	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 EDGE CARD CONNECTOR (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.		SHEET NO.		
				SEE SHEET 1	SD-87715-901		2 OF 4		
				SIZE A3	THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION				

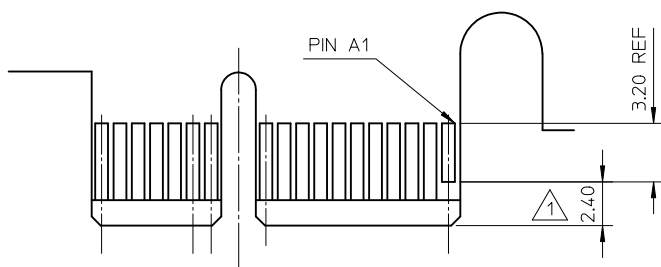


10 9 8 7 6 5 4 3 2 1



← 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' 1
X1	36	6	8.15	B17
X16	164	70	72.15	B17, B31 B48,B81

SEE SHEET 1 EC NO: SH2010-0425 DR: WNRZHANG 2010/05/14 CHKD: HARVEY 2007/05/14 APPR: XJ.SONG 2010/06/03	DESCRIPTION	QUALITY SYMBOLS	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE		SCALE	DESIGN UNITS	THIRD ANGLE PROJECTION	
		▽ <sub>A</sub> =0	mm	INCH	MM ONLY					
		▽ <sub>C</sub> =0	4 PLACES ± --- ± ---		DRAWN BY	DATE	TITLE			
		▽ <sub>B</sub> =0	3 PLACES ± --- ± ---		DAVID HU	2007/05/14	PCI EXPRESS EDGE CARD CONNECTOR (LEAD FREE VERSION)			
	2 PLACES ± 0.25 ± ---		CHECKED BY	DATE	MOLEX INCORPORATED					
	1 PLACE ± 0.25 ± ---		HARVEY	2007/05/14					SD-87715-901	
	ANGULAR ± 3 °		APPROVED BY	DATE	DOCUMENT NO.					
			JENNY CHEN	2007/05/14					SHEET NO.	
			MATERIAL NO.		3 OF 4					
			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	
			SIZE							
			A3							

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