

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

**Part Number:** [0877159002](#)

**Status:** **Active**

**Overview:**

**Description:** 1.00mm (.039") Pitch, PCI Express\* Connector, 36 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 1 lane
Component Type	Edgecard to PCB
Overview	pci_express_card_edge_connector
Product Name	PCI Express*

**Physical**

Circuits (Loaded)	36
Circuits (maximum)	36
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)	0.38
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**

Lead-free Process Capability	Wave Capable (TH only)
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**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

Process Temperature max. C

245

## Material Info

### Reference - Drawing Numbers

Packaging Specification

PK-87715-207

Product Specification

PS-87715-200

Sales Drawing

SD-87715-207, SD-87715-901

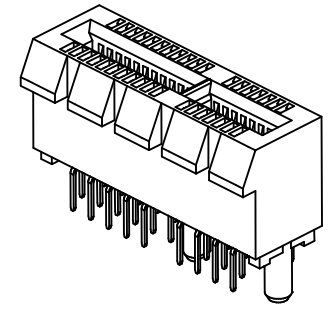
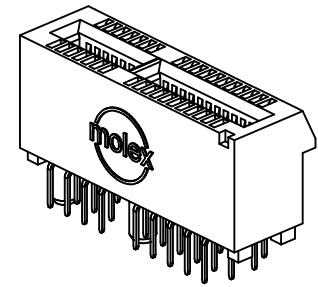
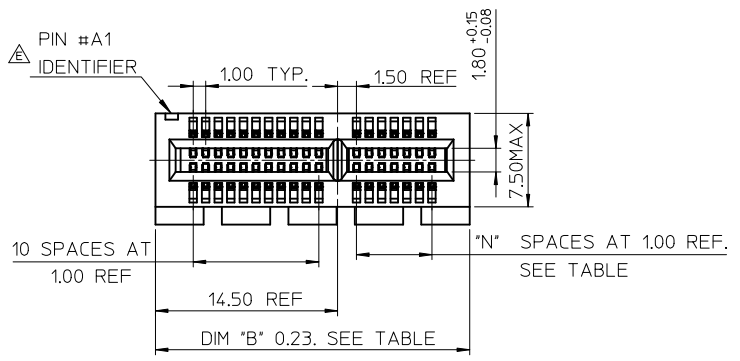
Test Summary

TS-87715-207

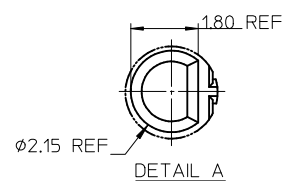
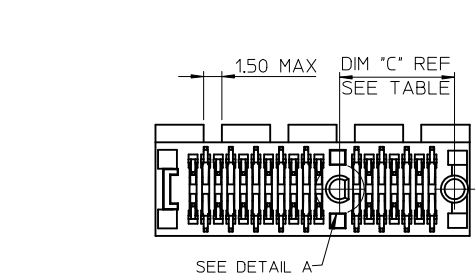
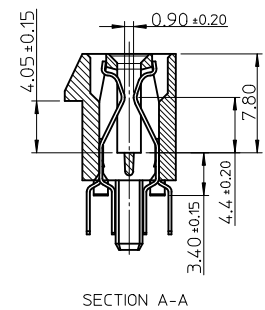
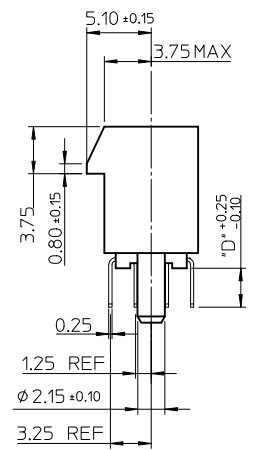
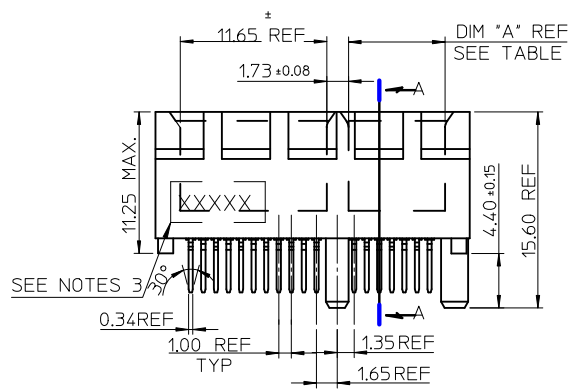
\* PCI Express is a registered trademark of PCI-SIG®

This document was generated on 06/04/2010

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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.

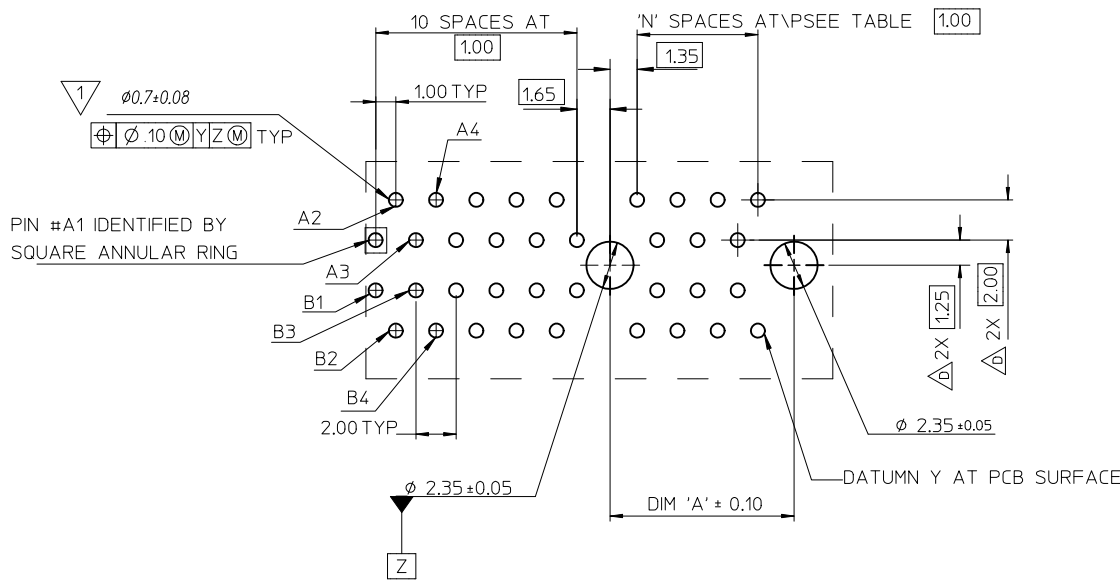


CONNECTOR LINK WIDTH	# POS REF	N	DIM 'A'	DIM 'B'	DIM 'C'
X4	64	20	21.65	39.00	23.15
X8	98	37	38.65	56.00	40.15

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

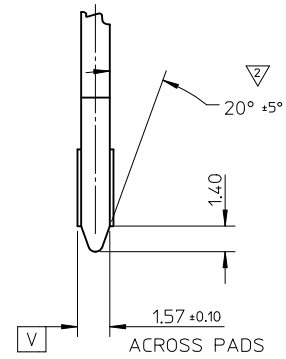
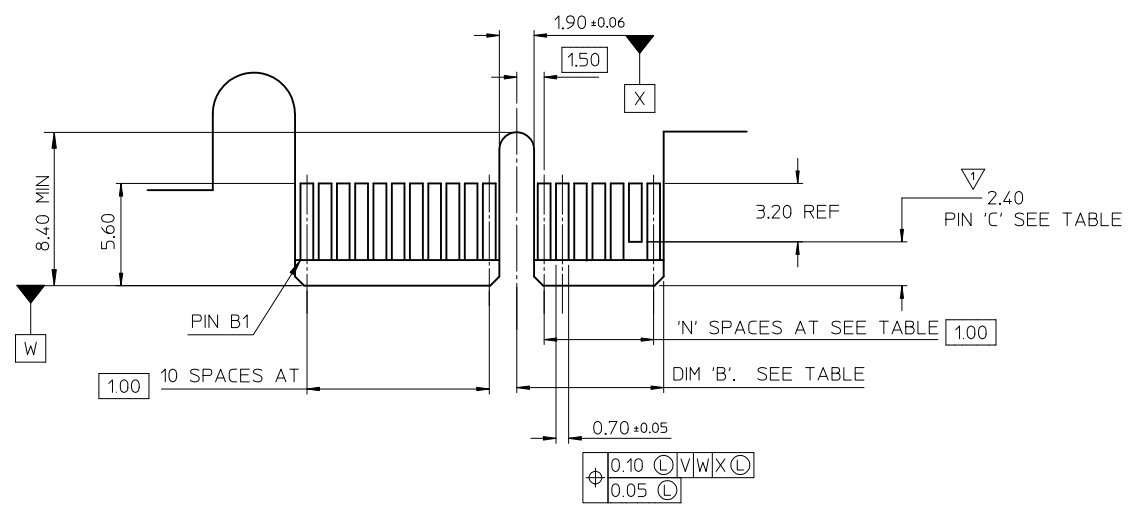
REVISED IEC NO: SH2010-0425 DRW:RZHANG 2010/05/14 CHKD:ALLEN L IN 2004/07/20 APPR:X.J.SONG 2010/06/03	QUALITY SYMBOLS	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE MM ONLY		SCALE	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION	
	$\nabla = 0$ $\nabla = 0$ $\nabla = 0$	4 PLACES ± --- ± ---	3 PLACES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



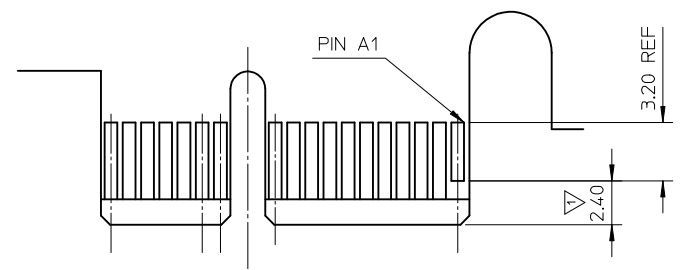
CONNECTOR LINK WIDTH	# POS REF	N	DIM 'A'
X4	64	20	23.15
X8	98	37	40.15

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	
		$F_A=0$	mm INCH	MM ONLY		METRIC		
		$F_G=0$	4 PLACES ± --- ± ---	DRAWN BY DATE	TITLE			
		$F_P=0$	3 PLACES ± --- ± ---	CHECKED BY DATE	PCI EXPRESS EDGE CARD CONNECTOR (LEAD FREE VERSION)			
	2 PLACES ± 0.25 ± ---	APPROVED BY DATE	MOLEX INCORPORATED					
		1 PLACE ± 0.25 ± ---	ANGULAR ± 3°	MATERIAL NO.	DOCUMENT NO.	SHEET NO.		
			DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS	SEE SHEET 4		2 OF 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' $\Delta$
X4	64	20	22.15	B17, B31
X8	98	37	39.15	B17, B31 B48

SEE SHEET 1  
 EC NO: SH2010-0425 2010/05/14  
 DRWNR: ZHANG 2010/07/20  
 CHKD: ALLEN LIN 2004/07/20  
 APPR: XJ.SONG 2010/06/03

QUALITY SYMBOLS	GENERAL TOLERANCES (UNLESS SPECIFIED)	
	mm	INCH
$F_{A/0}$	4 PLACES ± ---	± ---
$F_{B/0}$	3 PLACES ± ---	± ---
$F_{C/0}$	2 PLACES ± 0.25	± ---
	1 PLACE ± 0.25	± ---
	ANGULAR ± 3°	

DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS

DIMENSION STYLE		SCALE	DESIGN UNITS
MM ONLY			METRIC
DRAWN BY	DATE	TITLE	
TOM	2004/07/20	PCI EXPRESS EDGE CARD CONNECTOR (LEAD FREE VERSION)	
CHECKED BY	DATE		
ALLEN LIN	2004/07/20		
APPROVED BY	DATE	MATERIAL NO.	
WILSON	2004/07/20	DOCUMENT NO.	
SEE SHEET 4		SD-87715-207	

THIRD ANGLE PROJECTION

**MOLEX** MOLEX INCORPORATED

3 OF 4

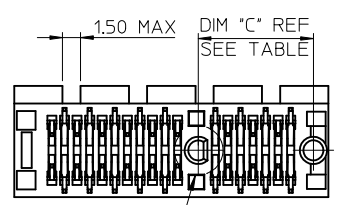
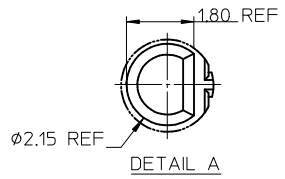
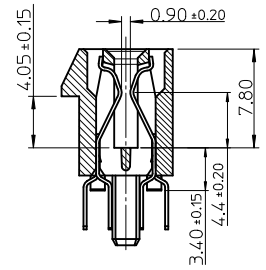
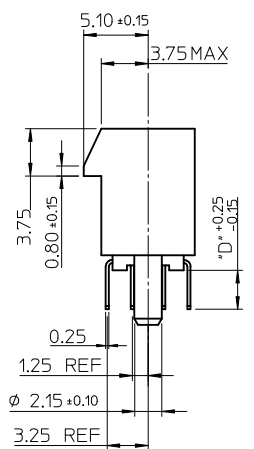
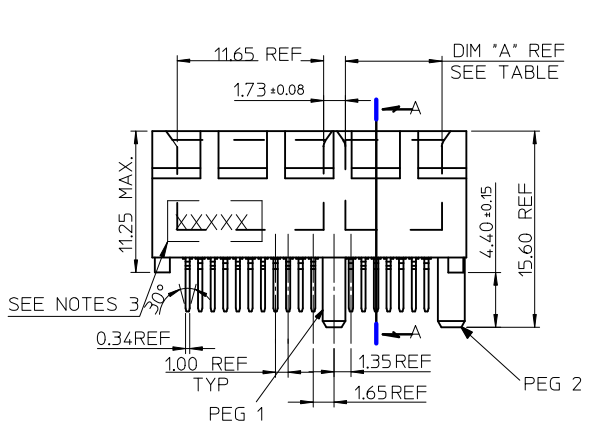
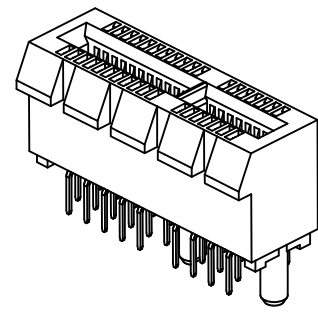
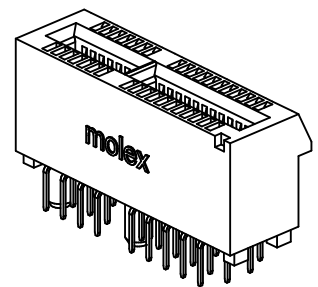
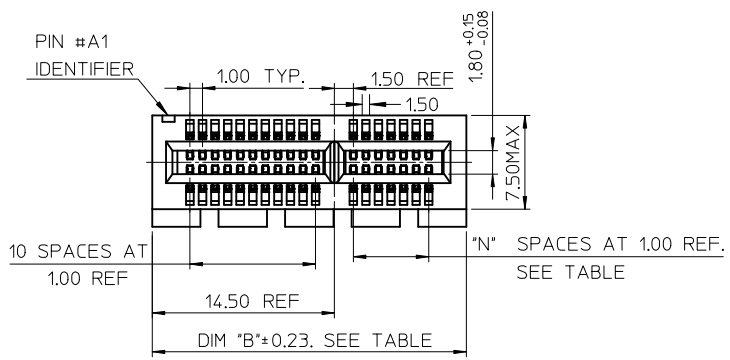
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MOLEX P/N	CIRCUIT SIZE	HOUSING MATERIAL	HOUSING COLOR	TERMINAL MATERIAL	CONTACT PLATING	SOLDER TAIL 'D' LENGTH
87715-9100	64	NYLON46	BLACK	PHOSPHOR BRONZE	GOLD FLASH	2.54
87715-9101					10 MICROINCH	
87715-9102					15 MICROINCH	
87715-9103					GOLD 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 DRW: RZHANG 2010/05/14 CHKD: 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
	$F_A=0$ $F_C=0$ $F_P=0$	mm INCH 4 PLACES ± --- ± --- 3 PLACES ± --- ± --- 2 PLACES ± 0.25 ± --- 1 PLACE ± 0.25 ± --- ANGULAR ± 3 °	MM ONLY		METRIC	
	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			

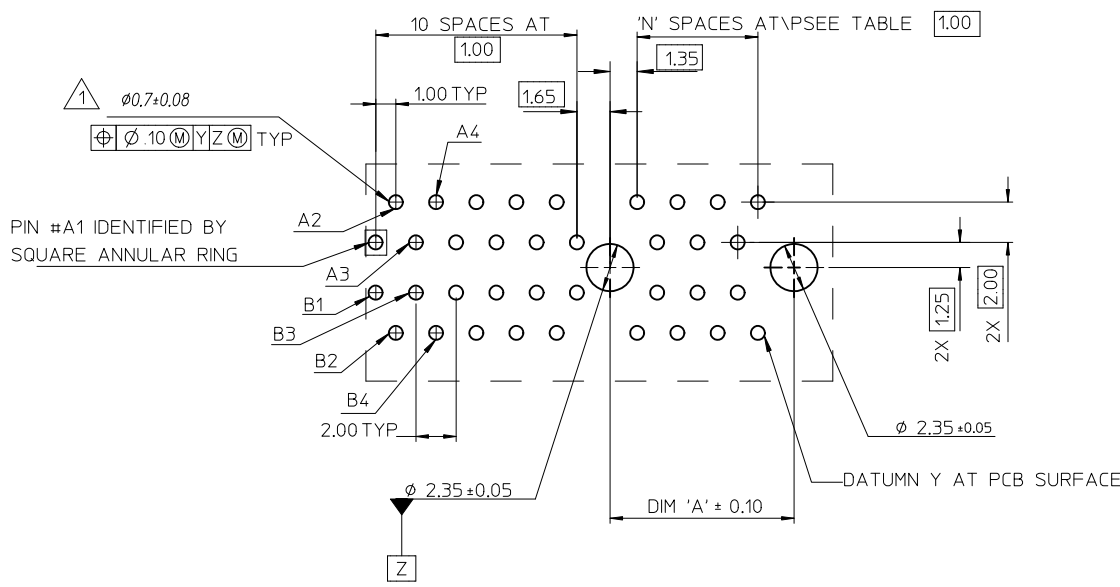


- NOTES:
- MATERIALS:
    - 1-1.HOUSING: SEE TABLE ,GLASS FIBER FILLED UL94V-0, COLOR: SEE TABLE.
    - 1-2.CONTACT: SEE TABLE
  - PLATING:
    - 2-1.CONTACT AREA: GOLD, THICKNESS : SEE TABLE .
    - 2-2.SOLDER TAIL: 100 MICRINCH MIN. TIN PLATING.
    - 2-3.UNDER PLATING: NICKEL PLATING OVERALL.
  - DATE CODE: YY MM DD.
  - PRODUCT SPECIFICATION REFER TO PS-87715-200.
  - 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	CHKR:HARVEY 2007/05/14	APPR:X.JSUNG 2010/06/03	DESCRIPTION	QUALITY SYMBOLS		GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE		SCALE	DESIGN UNITS	THIRD ANGLE PROJECTION		
						mm	INCH	MM ONLY	SCALE	METRIC	THIRD ANGLE PROJECTION					
						▽=0	▽=0	4 PLACES	± ---	± ---	DRAWN BY	DATE	TITLE	PCI EXPRESS EDGE CARD CONNECTOR (LEAD FREE VERSION)  MOLEX INCORPORATED		
						▽=0	▽=0	3 PLACES	± ---	± ---	DAVID HU	2007/05/14				
						▽=0	▽=0	2 PLACES	± 0.25	± ---	CHECKED BY	DATE				
						▽=0	▽=0	1 PLACE	± 0.25	± ---	HARVEY	2007/05/14				
											APPROVED BY	DATE				
											JENNY CHEN	2007/05/14				
											MATERIAL NO.		DOCUMENT NO.	SHEET NO.		
											SEE SHEET 4		SD-87715-901	1 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					



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

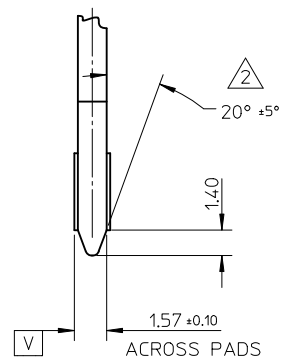
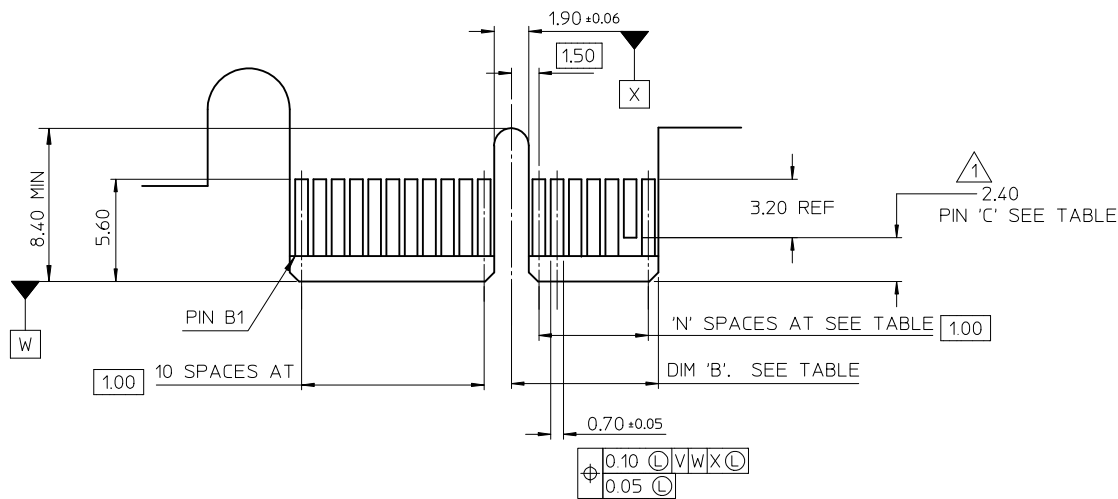
PIN #A1 IDENTIFIED BY SQUARE ANNULAR RING

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	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	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.	TITLE	PCI EXPRESS EDGE CARD CONNECTOR (LEAD FREE VERSION)	MOLEX INCORPORATED DOCUMENT NO. SD-87715-901 SHEET NO. 2 OF 4
	DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS	SEE SHEET 1	THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION				
	REV	DESCRIPTION	SIZE				

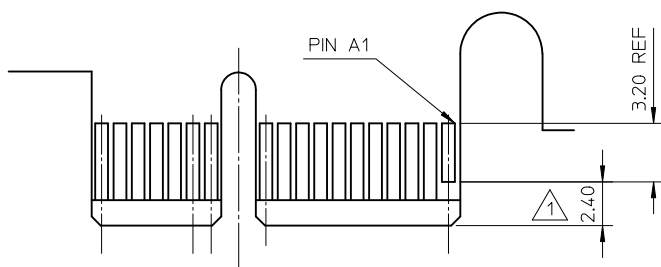


10 9 8 7 6 5 4 3 2 1



← 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 DRW:RZHANG 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		METRIC	PCI EXPRESS EDGE CARD CONNECTOR (LEAD FREE VERSION)	
		▽ <sub>C</sub> =0	4 PLACES ± --- ± ---	DRAWN BY	DATE	TITLE			
		▽ <sub>B</sub> =0	3 PLACES ± --- ± ---	DAVID HU	2007/05/14				
		2 PLACES ± 0.25 ± ---	CHECKED BY	DATE	MATERIAL NO.		MOLEX INCORPORATED		SHEET NO.
	1 PLACE ± 0.25 ± ---	HARVEY	2007/05/14						
		ANGULAR ± 3 °	APPROVED BY	DATE	SEE SHEET 1		SD-87715-901		3 OF 4
		DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS	JENNY CHEN	2007/05/14					
			SIZE		THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION				
			A3						

9 8 7 6 5 4 3 2 1

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	



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 CH:KD/HARVEY 2007/05/14 APPR:XJ.SONG 2010/06/03	QUALITY SYMBOLS	GENERAL TOLERANCES (UNLESS SPECIFIED)	DIMENSION STYLE <b>MM ONLY</b>	SCALE	DESIGN UNITS <b>METRIC</b>	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 °	DRAWN BY    DATE DAVID HU    2007/05/14 CHECKED BY    DATE HARVEY    2007/05/14 APPROVED BY    DATE JENNY CHEN    2007/05/14	TITLE	PCI EXPRESS EDGE CARD CONNECTOR (LEAD FREE VERSION)		
		DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS	MATERIAL NO. <b>SEE SHEET 1</b>	DOCUMENT NO. SD-87715-901	MOLEX INCORPORATED		
			SIZE <b>A3</b>	THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION			