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Part Number: [0877159000](#)
Status: **Active**
Overview:
Description: 1.00mm (.039") Pitch, PCI Express* Connector, 36 Circuits, Nylon 4/6 Glass-filled, Black Housing, Phosphor Bronze, Gold (Au) Flash, 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) 2
 Plating min: Mating (µm) 0.05
 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
Contains SVHC: No
Halogen-Free
Status
Not Halogen-Free

China RoHS



Need more information on product environmental compliance?

Email 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

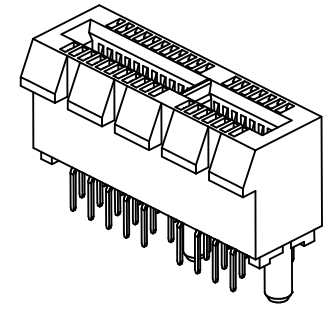
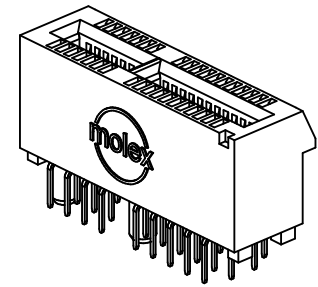
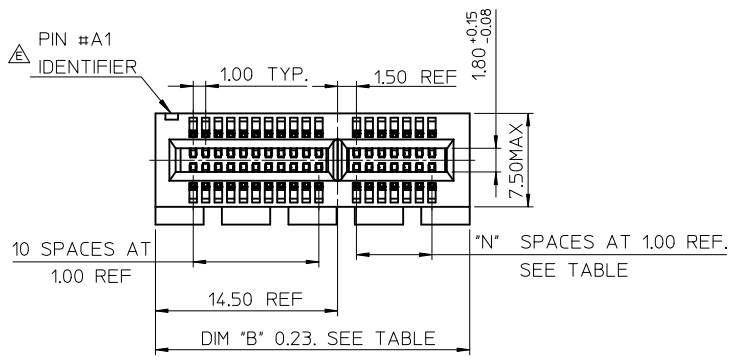
Reference - Drawing Numbers

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

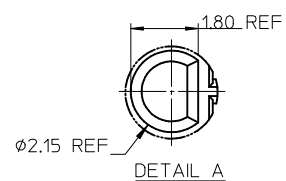
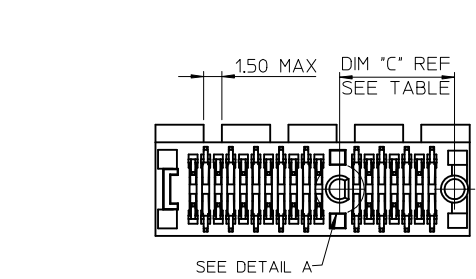
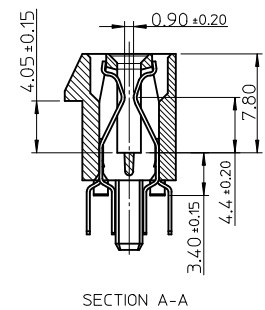
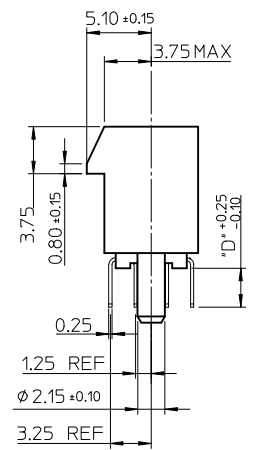
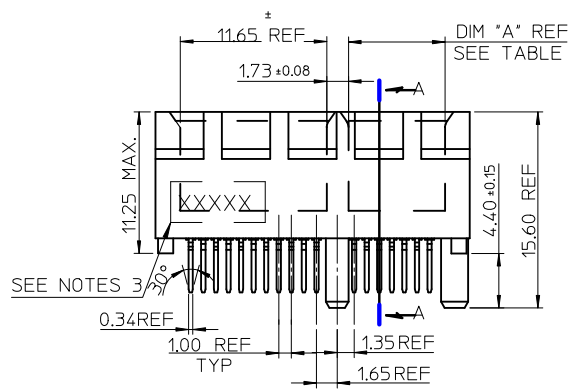
* PCI Express is a registered trademark of PCI-SIG®

This document was generated on 06/04/2010

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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.

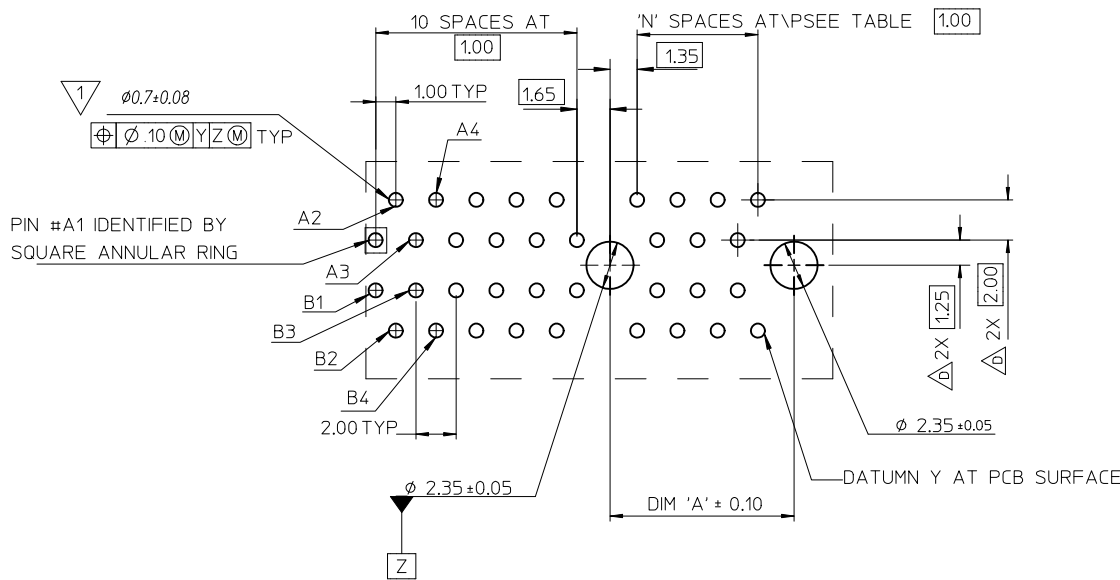


CONNECTOR LINK WIDTH	# POS REF	N	DIM 'A'	DIM 'B'	DIM 'C'
X4	64	20	21.65	39.00	23.15
X8	98	37	38.65	56.00	40.15

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	SCALE	DESIGN UNITS	THIRD ANGLE PROJECTION	
	$\nabla = 0$ $\nabla = 0$ $\nabla = 0$	mm INCH 4 PLACES ± --- ± --- 3 PLACES ± --- ± --- 2 PLACES ± 0.25 ± --- 1 PLACE ± 0.25 ± --- ANGULAR ± 3 °	MM ONLY	METRIC	DRAWN BY: TOM DATE: 2004/07/20 CHECKED BY: ALLEN LIN DATE: 2004/07/20 APPROVED BY: WILSON DATE: 2004/07/20	TITLE	PCI EXPRESS EDGE CARD CONNECTOR (LEAD FREE VERSION) MOLEX INCORPORATED SD-87715-207
	DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS	SEE SHEET 4	MATERIAL NO.	DOCUMENT NO.	SHEET NO. 1 OF 4		
	THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION	SIZE A3					

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

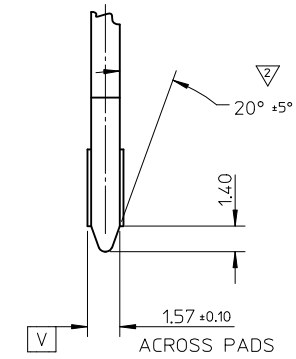
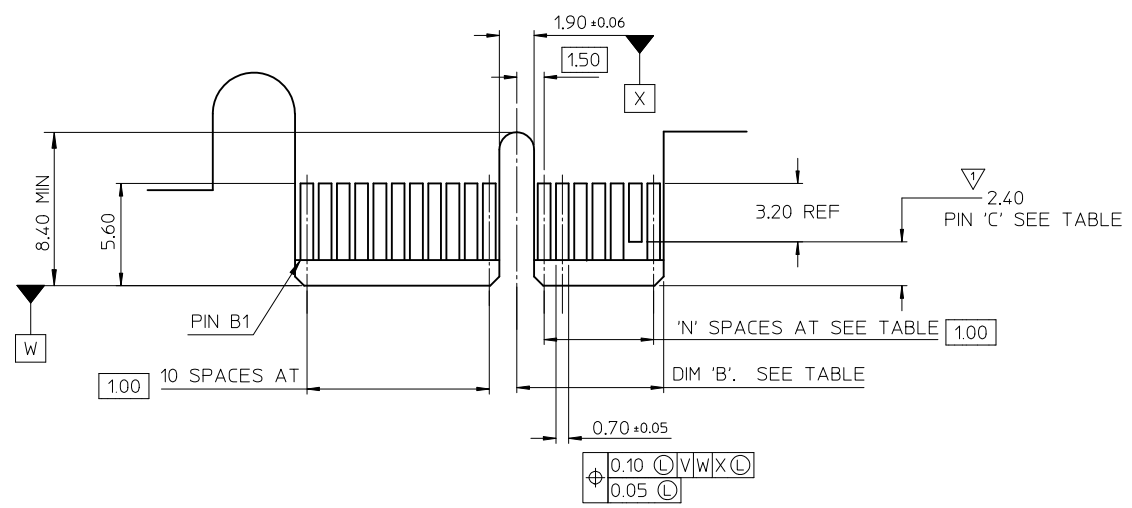


CONNECTOR LINK WIDTH	# POS REF	N	DIM 'A'
X4	64	20	23.15
X8	98	37	40.15

SEE SHEET 1	EC NO: SH2010-0425	2010/05/14	DRW:RZHANG	2010/05/14	QUALITY SYMBOLS	GENERAL TOLERANCES (UNLESS SPECIFIED) 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		
	CHKD:ALLEN LIN	2004/07/20	APPR:XJSONG	2010/06/03	$F_A=0$ $F_G=0$ $F_P=0$		mm INCH ± --- ± --- ± 0.25 ± --- ± 0.25 ± ---	DRAWN BY TOM	DATE 2004/07/20	TITLE	PCI EXPRESS EDGE CARD CONNECTOR (LEAD FREE VERSION)		
							DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS	CHECKED BY ALLEN LIN	DATE 2004/07/20	APPROVED BY WILSON	DATE 2004/07/20	MOLEX INCORPORATED	
							SIZE A3	SEE SHEET 4		MATERIAL NO.	DOCUMENT NO.	SD-87715-207	

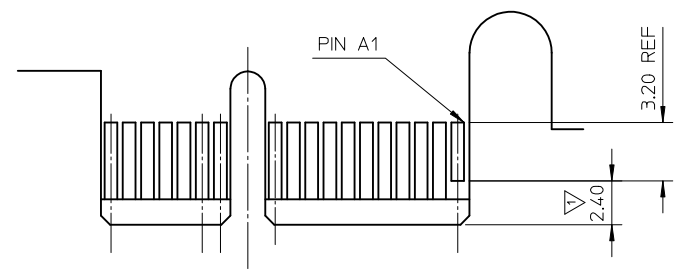
SHEET NO. 2 OF 4

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← 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 2010/05/14
 DRWNR:ZHANG 2010/07/20
 CHKD:ALLEN LIN 2004/07/20
 APPR:XJ.SONG 2010/06/03

REV	DESCRIPTION
1	QUALITY SYMBOLS
2	QUALITY SYMBOLS
3	QUALITY SYMBOLS

	GENERAL TOLERANCES (UNLESS SPECIFIED)	
	mm	INCH
4 PLACES	± ---	± ---
3 PLACES	± ---	± ---
2 PLACES	± 0.25	± ---
1 PLACE	± 0.25	± ---
ANGULAR ± 3 °		

DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS

DIMENSION STYLE		SCALE	DESIGN UNITS	THIRD ANGLE PROJECTION
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. DOCUMENT NO. SHEET NO.		
WILSON	2004/07/20	SD-87715-207 3 OF 4		

MOLEX INCORPORATED

SEE SHEET 4

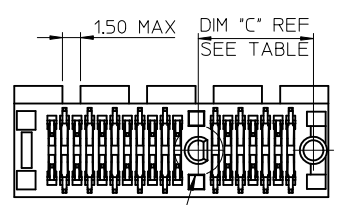
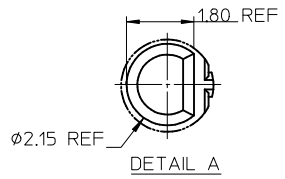
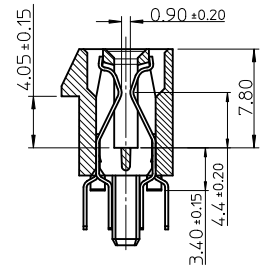
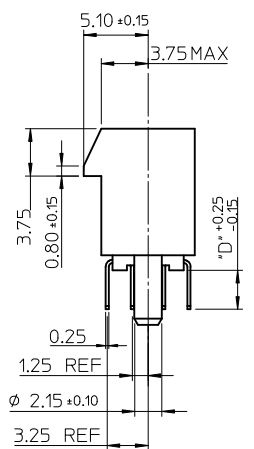
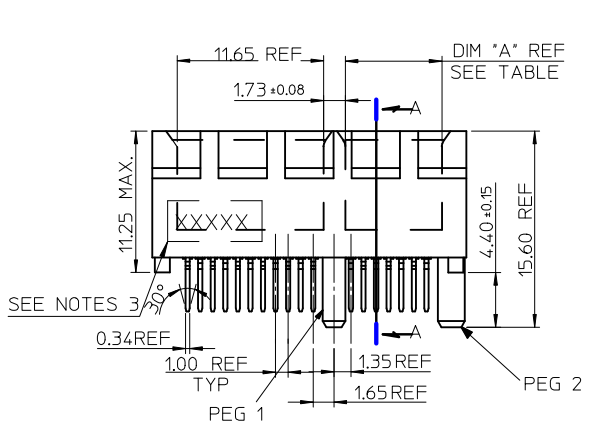
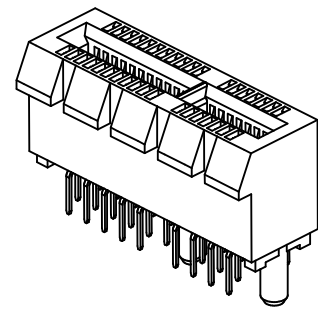
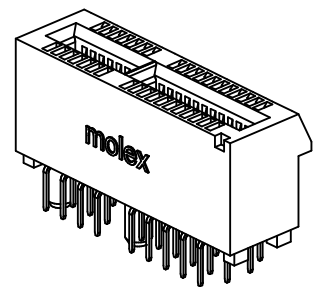
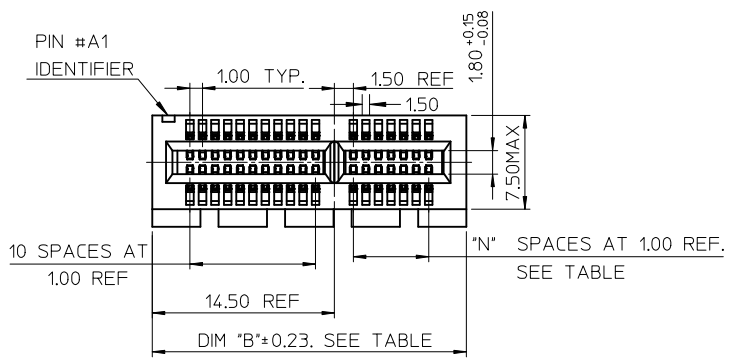
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MOLEX P/N	CIRCUIT SIZE	HOUSING MATERIAL	HOUSING COLOR	TERMINAL MATERIAL	CONTACT PLATING	SOLDER TAIL 'D' LENGTH
87715-9100	64	NYLON46	BLACK	PHOSPHOR BRONZE	GOLD FLASH	2.54
87715-9101					10 MICROINCH	
87715-9102					15 MICROINCH	
87715-9103					GOLD 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 DRWNR:ZHANG 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 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			

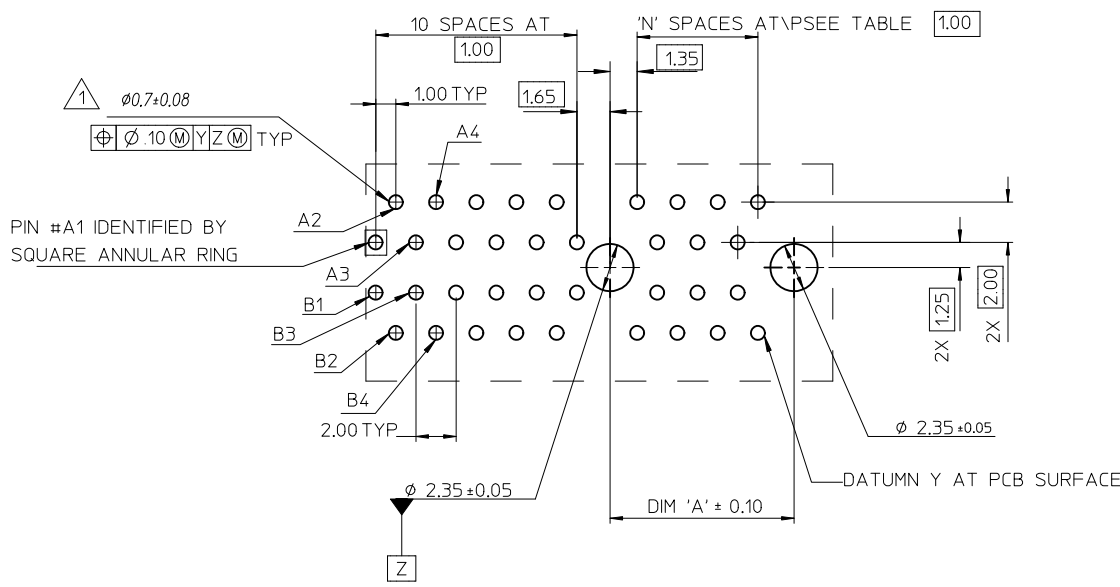


- NOTES:
- MATERIALS:
 - 1-1.HOUSING: SEE TABLE ,GLASS FIBER FILLED UL94V-0, COLOR: SEE TABLE.
 - 1-2.CONTACT: SEE TABLE
 - PLATING:
 - 2-1.CONTACT AREA: GOLD, THICKNESS : SEE TABLE .
 - 2-2.SOLDER TAIL: 100 MICRINCH MIN. TIN PLATING.
 - 2-3.UNDER PLATING: NICKEL PLATING OVERALL.
 - DATE CODE: YY MM 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 CHKD:HARVEY 2007/05/14 APPR:X.JSUNG 2010/06/03	QUALITY SYMBOLS	GENERAL TOLERANCES (UNLESS SPECIFIED)	DIMENSION STYLE	SCALE	DESIGN UNITS	THIRD ANGLE PROJECTION	
	$\nabla = 0$ $\nabla = 0$ $\nabla = 0$	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	TITLE PCI EXPRESS EDGE CARD CONNECTOR (LEAD FREE VERSION)	METRIC	MOLEX INCORPORATED
	DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS	SEE SHEET 4	MATERIAL NO. SD-87715-901	DOCUMENT NO.	SHEET NO. 1 OF 4		
	SIZE A3	THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION					



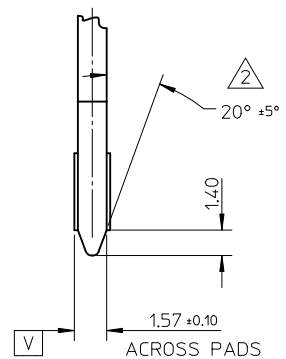
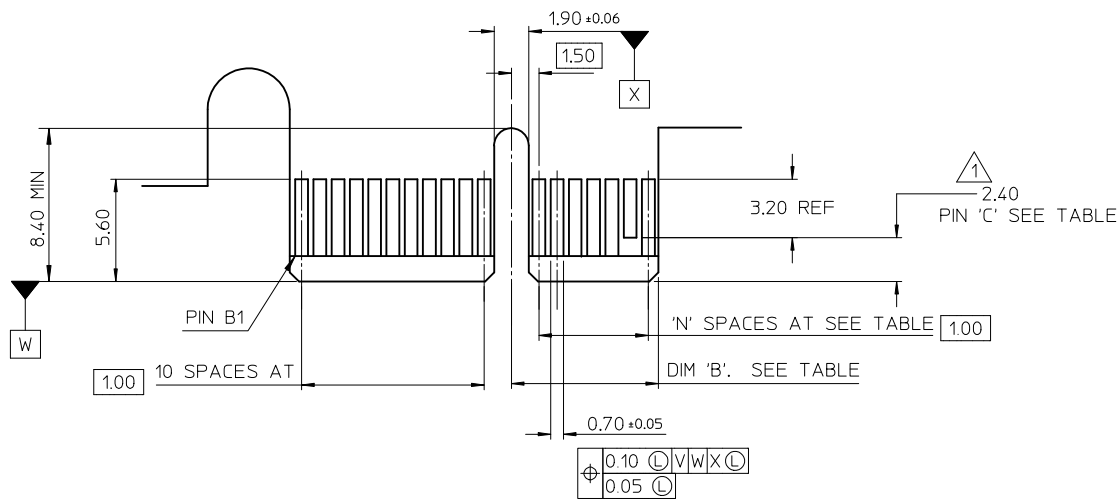
1 THE HORIZONTAL AXIS FOR THE HOLE PATTERN IS ESTABLISHED BY A LINE THROUGH THE CENTER OF THE TWO $\phi 2.35$ HOLES. THE VERTICAL AXIS IS 90° TO THE HORIZONTAL AXIS, THROUGH THE CENTER OF DATUM Z

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

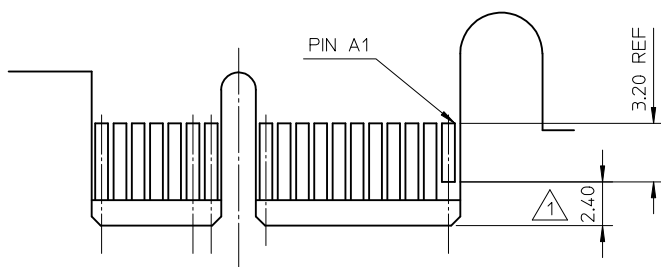
SEE SHEET 1 EC NO: SH2010-0425 DRW:RZHANG 2010/05/14 CH:KD:HARVEY 2007/05/14 APPR:XJ:SONG 2010/06/03	QUALITY SYMBOLS $F_A=0$ $F_C=0$ $F_P=0$	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE	SCALE	DESIGN UNITS	THIRD ANGLE PROJECTION		
				MM ONLY		METRIC			
				mm	INCH	DRAWN BY DATE			
				4 PLACES ± --- ± ---	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	
		▽ _A =0	mm	INCH	MM ONLY					
		▽ _C =0	4 PLACES ± --- ± ---		DRAWN BY	DATE	TITLE			
		▽ _B =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					
			SEE SHEET 1						THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION	
			DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		SIZE					
			A3							

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 CH:KD HARVEY 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) MOLEX INCORPORATED		
				SEE SHEET 1	MATERIAL NO. SD-87715-901 DOCUMENT NO. 4 OF 4			