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Part Number: [0877159300](#)
Status: **Active**
Overview:
Description: 1.00mm (.039") Pitch, PCI Express* Connector, 164 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 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)	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
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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
 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

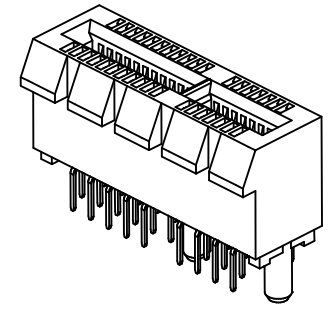
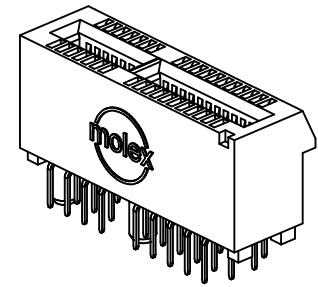
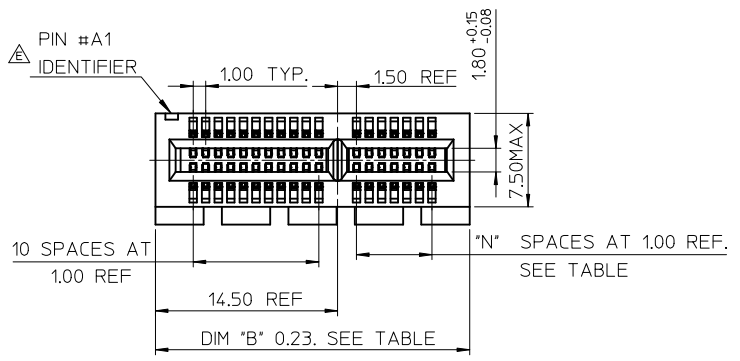
Reference - Drawing Numbers

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

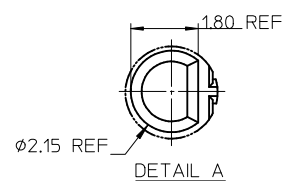
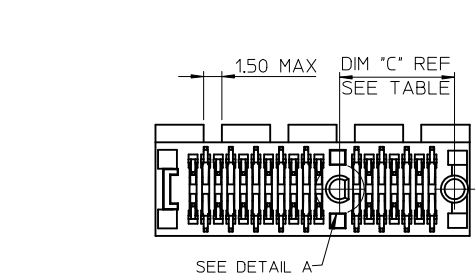
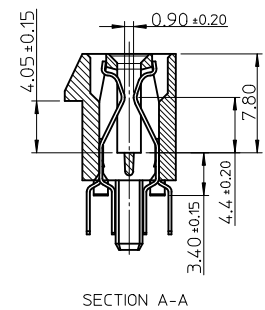
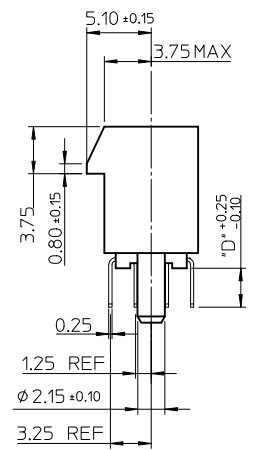
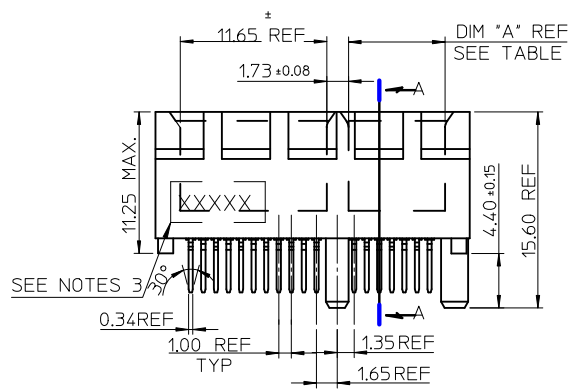
* PCI Express is a registered trademark of PCI-SIG®

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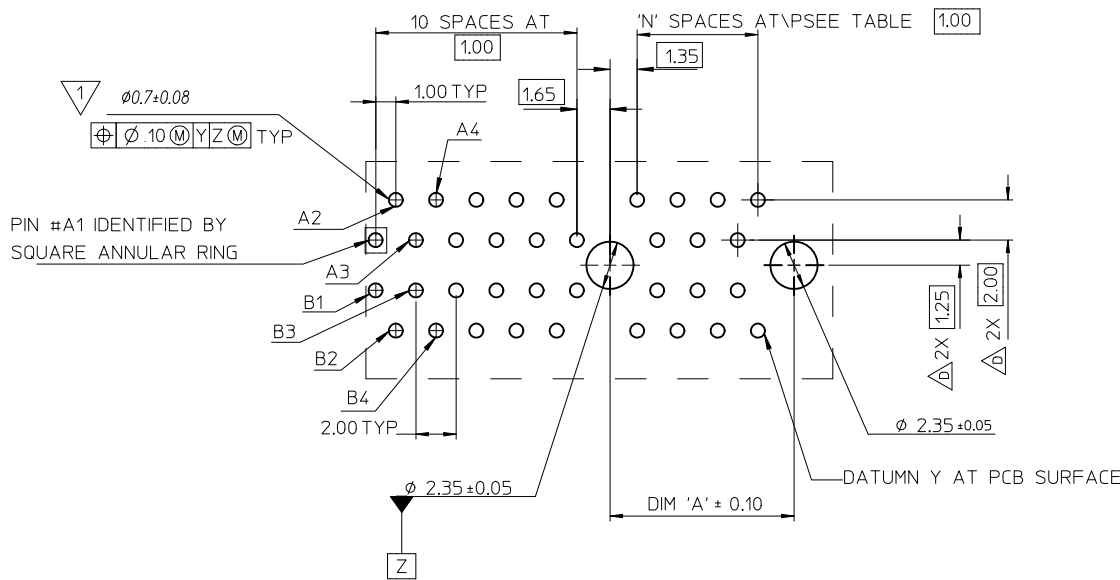
- NOTES:
- 1.MATERIALS:
1-1.HOUSING: SEE TABLE ,GLASS FIBER FILLED UL94V-0, COLOR: SEE TABLE.
1-2.CONTACT: SEE TABLE
 - 2.PLATING:
2-1.CONTACT AREA: GOLD, THICKNESS : SEE TABLE .
2-2.SOLDER TAIL: 100 MICRINCH MIN. TIN PLATING.
2-3.UNDER PLATING: NICKEL PLATING OVERALL.
 - 3.WEEK CODE: XX(YEAR) XXI(WEEK) 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 DR:WNRZHHANG 2010/05/14 CHYKD:ALLEN L LIN 2004/07/20 APPR:X.J.SONG 2010/06/03	QUALITY SYMBOLS F=0 E=0 E=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	CHECKED BY ALLEN LIN DATE 2004/07/20	APPROVED BY WILSON DATE 2004/07/20	MATERIAL NO. SEE SHEET 4	TITLE PCI EXPRESS EDGE CARD CONNECTOR (LEAD FREE VERSION)	MOLEX INCORPORATED
	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	DOCUMENT NO. SD-87715-207	SHEET NO. 1 OF 4	

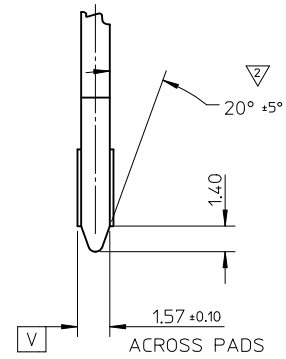
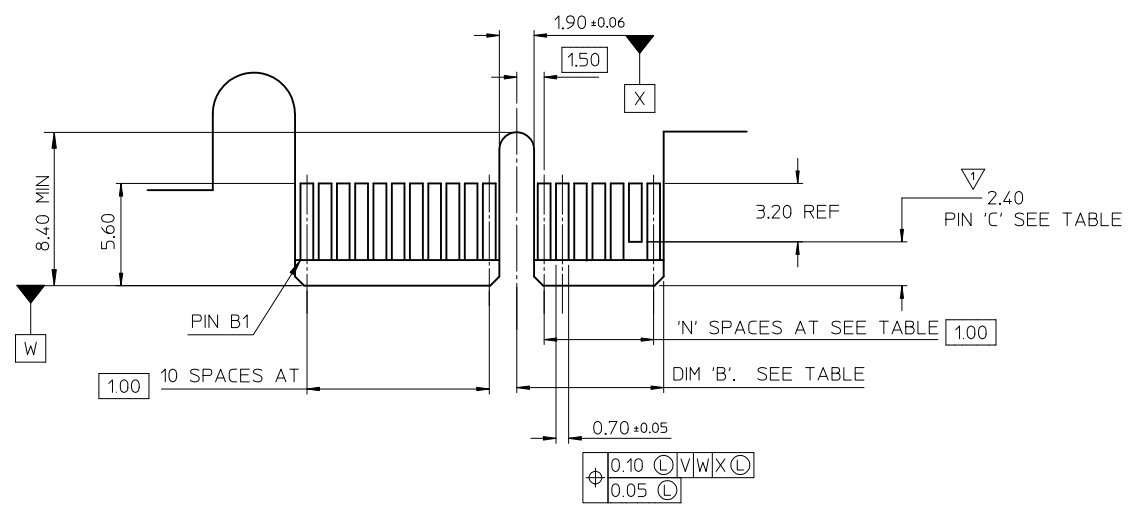


1 THE HORIZONTAL AXIS FOR THE HOLE PATTERN IS ESTABLISHED BY A LINE THROUGH THE CENTER OF THE TWO $\phi 2.35$ HOLES. THE VERTICAL AXIS IS 90° TO THE HORIZONTAL AXIS, THROUGH THE CENTER OF DATUM Z

PIN #A1 IDENTIFIED BY SQUARE ANNULAR RING

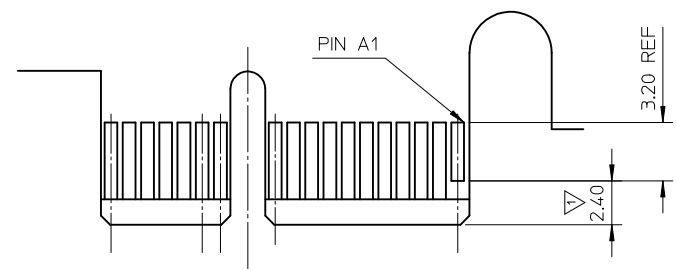
CONNECTOR LINK WIDTH	# POS REF	N	DIM 'A'
X4	64	20	23.15
X8	98	37	40.15

SEE SHEET 1	EC NO: SH2010-0425 DRW: RZHANG 2010/05/14 CHKD: ALLEN LIN 2004/07/20 APPR: XJSONG 2010/06/03	QUALITY SYMBOLS $F_A=0$ $F_G=0$ $F_P=0$	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE MM ONLY		SCALE	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION			
				mm	INCH	DRAWN BY	DATE	TITLE				
			4 PLACES	± ---	± ---	TOM	2004/07/20	PCI EXPRESS EDGE CARD CONNECTOR (LEAD FREE VERSION)				
			3 PLACES	± ---	± ---	CHECKED BY	DATE					
	2 PLACES	± 0.25	± ---	ALLEN LIN	2004/07/20	molex MOLEX INCORPORATED						
	1 PLACE	± 0.25	± ---	APPROVED BY	DATE							
ANGULAR ± 3 °			DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		WILSON		2004/07/20	DOCUMENT NO.			SHEET NO.	
					SEE SHEET 4		SD-87715-207			2 OF 4		
					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
 DRWNR: ZHANG 2010/05/14
 CHKD: ALLEN LIN 2004/07/20
 APPR: XJ.SONG 2010/06/03

QUALITY SYMBOLS	GENERAL TOLERANCES (UNLESS SPECIFIED)	
	mm	INCH
= 0	4 PLACES ± ---	± ---
= 0	3 PLACES ± ---	± ---
= 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	

MOLEX INCORPORATED

THIRD ANGLE PROJECTION

3 OF 4

THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION

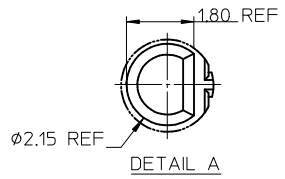
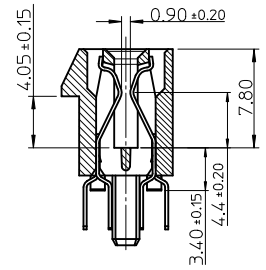
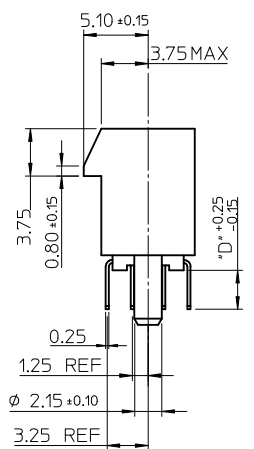
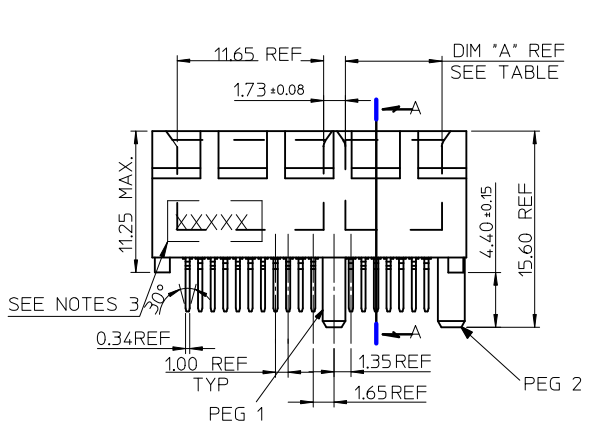
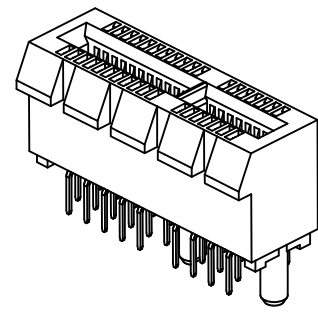
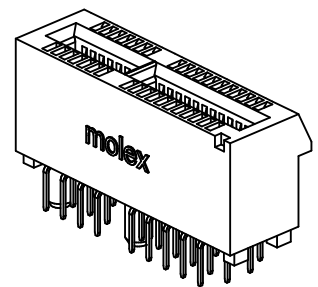
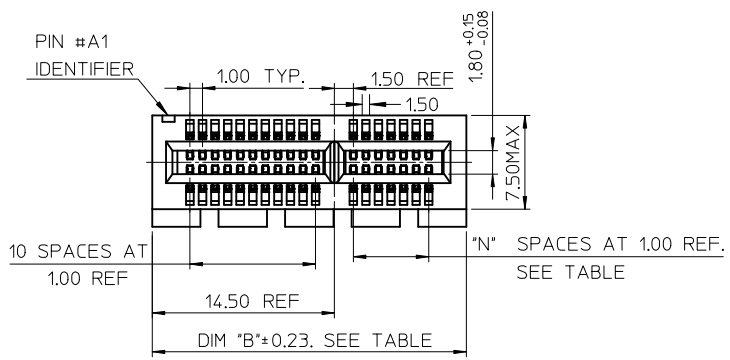
MOLEX P/N	CIRCUIT SIZE	HOUSING MATERIAL	HOUSING COLOR	TERMINAL MATERIAL	CONTACT PLATING	SOLDER TAIL 'D' LENGTH
87715-9100	64	NYLON46	BLACK	PHOSPHOR BRONZE	GOLD FLASH	2.54
87715-9101					10 MICROINCH	
87715-9102					15 MICROINCH	
87715-9103					GOLD FLASH	3.00
87715-9104					10 MICROINCH	
87715-9105					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 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	
		DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS	DRAWN BY DATE TOM 2004/07/20 CHECKED BY DATE ALLEN LIN 2004/07/20 APPROVED BY DATE WILSON 2004/07/20	TITLE PCI EXPRESS EDGE CARD CONNECTOR (LEAD FREE VERSION)		
			MATERIAL NO. SEE TABLE SIZE A3	MOLEX INCORPORATED SD-87715-207		SHEET NO. 4 OF 4

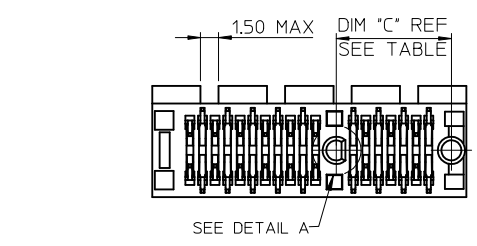
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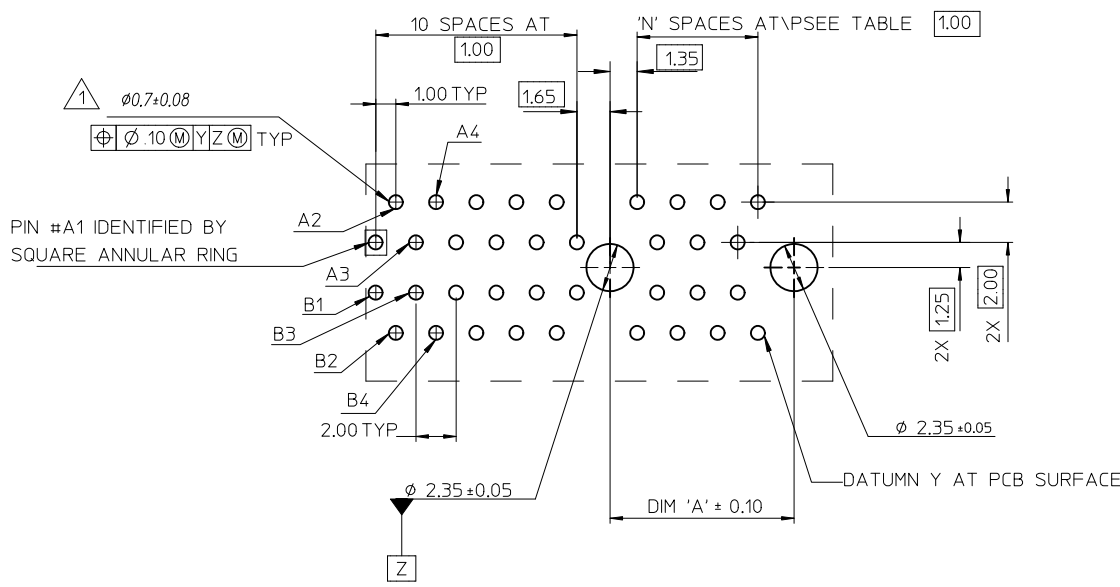
- NOTES:
- MATERIALS:
 - HOUSING: SEE TABLE ,GLASS FIBER FILLED UL94V-0, COLOR: SEE TABLE.
 - CONTACT: SEE TABLE
 - PLATING:
 - CONTACT AREA: GOLD, THICKNESS : SEE TABLE .
 - SOLDER TAIL: 100 MICRINCH MIN. TIN PLATING.
 - UNDER PLATING: NICKEL PLATING OVERALL.
 - DATE CODE: YY MM DD.
 - PRODUCT SPECIFICATION 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



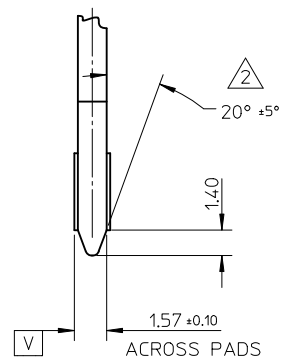
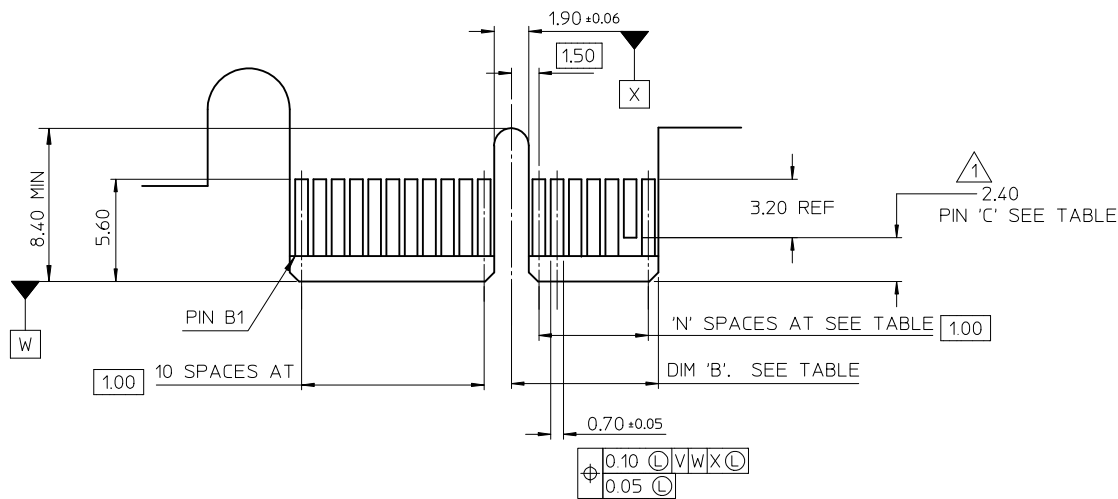
REVISED EC NO: SH2010-0425 DRWNR:ZHANG 2010/05/14 CHKD:HARVEY 2007/05/14 APPR:X.JSUNG 2010/06/03	QUALITY SYMBOLS F=0 F=0 F=0	GENERAL TOLERANCES (UNLESS SPECIFIED) mm INCH 4 PLACES ± --- ± --- 3 PLACES ± --- ± --- 2 PLACES ± 0.25 ± --- 1 PLACE ± 0.25 ± --- ANGULAR ± 3 °	DIMENSION STYLE MM ONLY DRAWN BY 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 DOCUMENT NO. SD-87715-901	SHEET NO. 1 OF 4
	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			
	SIZE A3					
	REV B					



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

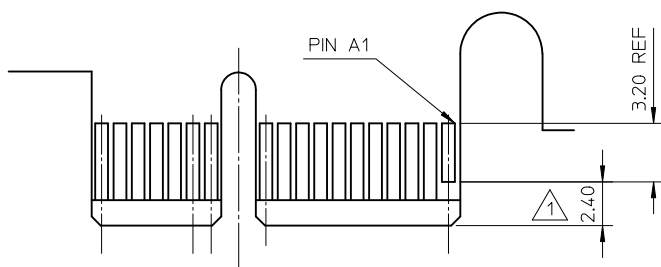
CONNECTOR LINK WIDTH	# POS REF	N	DIM 'A'
X1	36	6	9.15
X16	164	70	73.15

SEE SHEET 1 EC NO: SH2010-0425 DRW:RZHANG 2010/05/14 CHK:DHARVEY 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 MM ONLY		SCALE	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION	
			mm	INCH	DRAWN BY DAVID HU	DATE 2007/05/14	TITLE PCI EXPRESS EDGE CARD CONNECTOR (LEAD FREE VERSION)		
		4 PLACES ± --- ± --- 3 PLACES ± --- ± --- 2 PLACES ± 0.25 ± --- 1 PLACE ± 0.25 ± --- ANGULAR ± 3°	DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		CHECKED BY HARVEY	DATE 2007/05/14	APPROVED BY JENNY CHEN	DATE 2007/05/14	MATERIAL NO. SEE SHEET 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	
		▽ _A =0	mm	INCH	MM ONLY			METRIC		
		▽ _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					MATERIAL NO. DOCUMENT NO. SHEET NO.	
	ANGULAR ± 3°		APPROVED BY	DATE	SD-87715-901 3 OF 4					
	DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		JENNY CHEN	2007/05/14					THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION	
			MATERIAL NO.							
			SIZE							
			A3							

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 DR: WZRZHANG 2010/05/14 CH: KDHARVEY 2007/05/14 APPR: XJSONG 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			