

PLEASE CHECK WWW.MOLEX.COM FOR LATEST PART INFORMATION

Part Number: [0877159302](#)
Status: **Active**
Overview:
Description: 1.00mm (.039") Pitch, PCI Express* Connector, 164 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 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)	15
Plating min: Mating (µm)	0.375
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

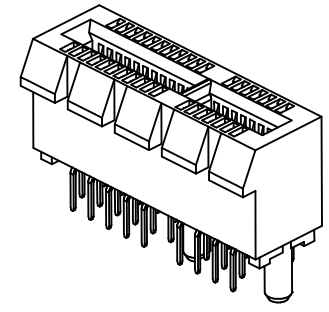
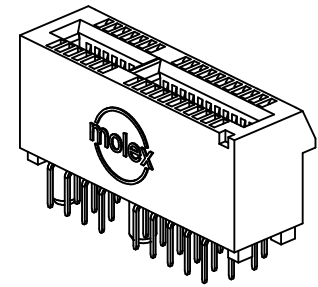
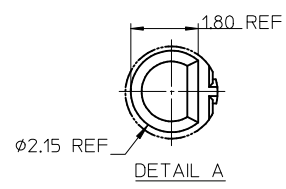
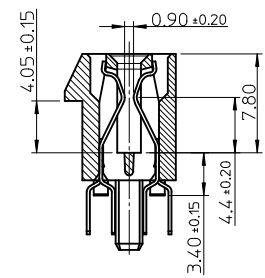
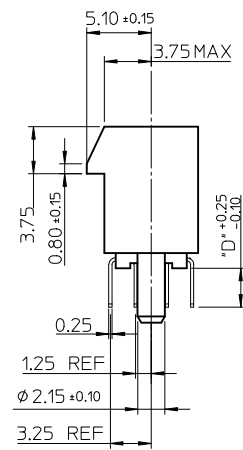
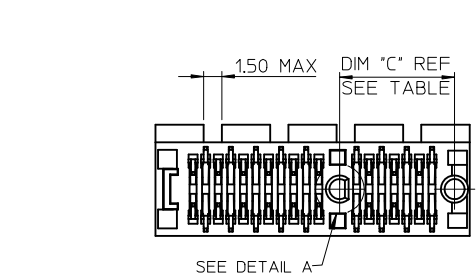
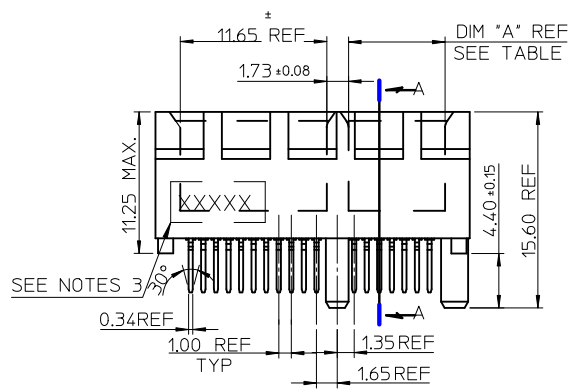
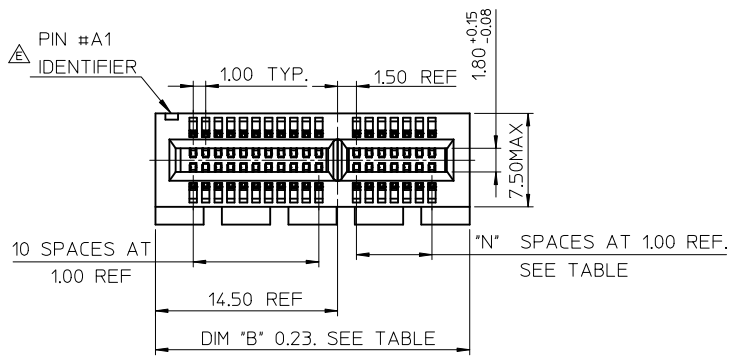
Reference - Drawing Numbers

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®

This document was generated on 06/04/2010

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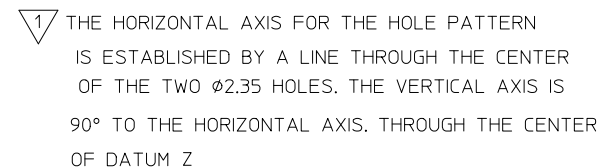


- NOTES:
- 1.MATERIALS:
- 1-1.HOUSING: SEE TABLE ,GLASS FIBER FILLED UL94V-0, COLOR: SEE TABLE.
- 1-2.CONTACT: SEE TABLE
- 2.PLATING:
- 2-1.CONTACT AREA: GOLD, THICKNESS : SEE TABLE .
- 2-2.SOLDER TAIL: 100 MICRINCH MIN. TIN PLATING.
- 2-3.UNDER PLATING: NICKEL PLATING OVERALL.
- 3.WEEK CODE: XX(YEAR) XX(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 EC NO: SH2010-0425 G DRWNRZhang CHKD: ALLEN LIN APPR: XJ.SONG	DESCRIPTION REV	QUALITY SYMBOLS F=0 F=0 F=0	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE MM ONLY	SCALE	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION	TITLE PCI EXPRESS EDGE CARD CONNECTOR (LEAD FREE VERSION)	MOLEX INCORPORATED	DOCUMENT NO. SD-87715-207	SHEET NO. 1 OF 4															
			4 PLACES ± --- ± ---		DRAWN BY TOM	DATE 2004/07/20																					
			3 PLACES ± --- ± ---																								
			2 PLACES ± 0.25 ± ---		CHECKED BY ALLEN LIN	DATE 2004/07/20																					
			1 PLACE ± 0.25 ± ---																								
			ANGULAR ± 3 °		APPROVED BY WILSON	DATE 2004/07/20																					
			DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS																								
					MATERIAL NO. SEE SHEET 4																						
					SIZE A3		THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION																				



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 2010/05/14 CHK'D: ALLEN LIN 2010/07/20 APPR: X J SONG 2010/06/03	DESCRIPTION REV	QUALITY SYMBOLS	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE MM ONLY		SCALE	DESIGN UNITS METRIC	 THIRD ANGLE PROJECTION																							
		 =0  =0  =0	<table><tr><td>mm</td><td>INCH</td></tr><tr><td>4 PLACES ± ---</td><td>± ---</td></tr><tr><td>3 PLACES ± ---</td><td>± ---</td></tr><tr><td>2 PLACES ± 0.25</td><td>± ---</td></tr><tr><td>1 PLACE ± 0.25</td><td>± ---</td></tr><tr><td colspan="2">ANGULAR ± 3 °</td></tr></table>	mm	INCH	4 PLACES ± ---	± ---	3 PLACES ± ---	± ---	2 PLACES ± 0.25	± ---	1 PLACE ± 0.25	± ---	ANGULAR ± 3 °		<table><tr><td>DRAWN BY</td><td>DATE</td></tr><tr><td>TOM</td><td>2004/07/20</td></tr><tr><td>CHECKED BY</td><td>DATE</td></tr><tr><td>ALLEN LIN</td><td>2004/07/20</td></tr><tr><td>APPROVED BY</td><td>DATE</td></tr><tr><td>WILSON</td><td>2004/07/20</td></tr></table>	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)  MOLEX INCORPORATED			
		mm	INCH																													
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ALLEN LIN	2004/07/20																															
APPROVED BY	DATE																															
WILSON	2004/07/20																															
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		MATERIAL NO. SEE SHEET 4		DOCUMENT NO. SD-87715-207		SHEET NO. 2 OF 4																										
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

F

E

D

C

B

A

F

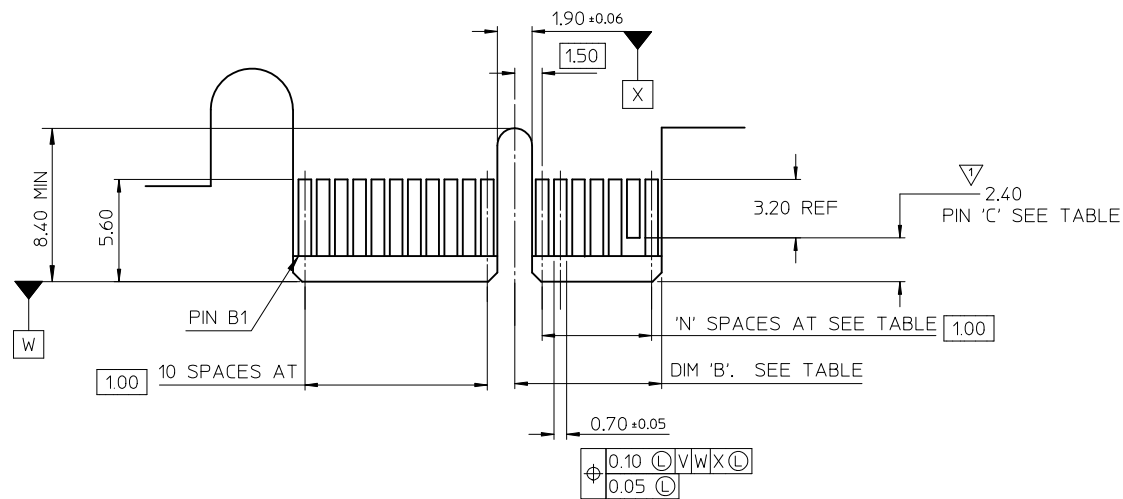
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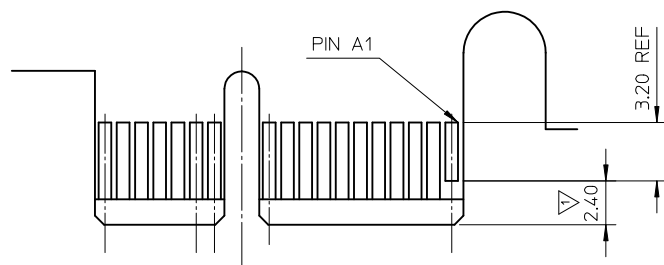
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A



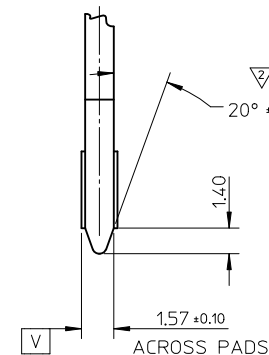
← I/O PANEL DIRECTION

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 DRAWN: ZHANG CHKD: ALLEN LIN APPR: XJ SONG	2010/05/14 2004/07/20 2010/06/03	DESCRIPTION	QUALITY SYMBOLS F =0 F =0 F =0	GENERAL TOLERANCES (UNLESS SPECIFIED)		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)			
						CHECKED BY ALLEN LIN	DATE 2004/07/20				
						APPROVED BY WILSON	DATE 2004/07/20	molex MOLEX INCORPORATED			
						MATERIAL NO. SEE SHEET 4					
G	REV			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				

9 8 7 6 5 4 3 2 1

F

F

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E

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C

C

B

B

A

A

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	3.00

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	3.00

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

DRWN:RZHANG

CHKD:ALLEN LIN

APPR:XJ.SONG

2010/05/14

2004/07/20

2010/06/03

DESCRIPTION

REV

QUALITY SYMBOLS

F_A=0

F_G=0

F_P=0

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

MM ONLY

DRAWN BY

DATE

TOM

2004/07/20

CHECKED BY

DATE

ALLEN LIN

2004/07/20

APPROVED BY

DATE

WILSON

2004/07/20

MATERIAL NO.

SEE TABLE

SIZE

A3

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SCALE

DESIGN UNITS

METRIC

THIRD ANGLE PROJECTION

TITLE

PCI EXPRESS
EDGE CARD CONNECTOR
(LEAD FREE VERSION)

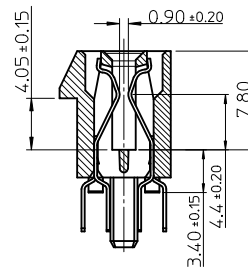
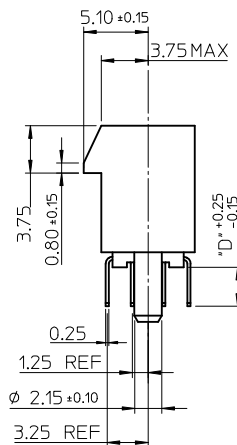
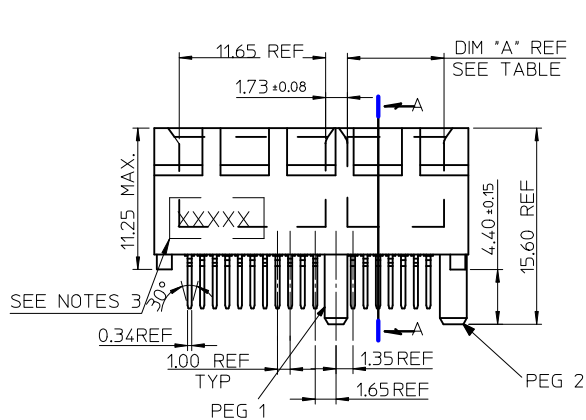
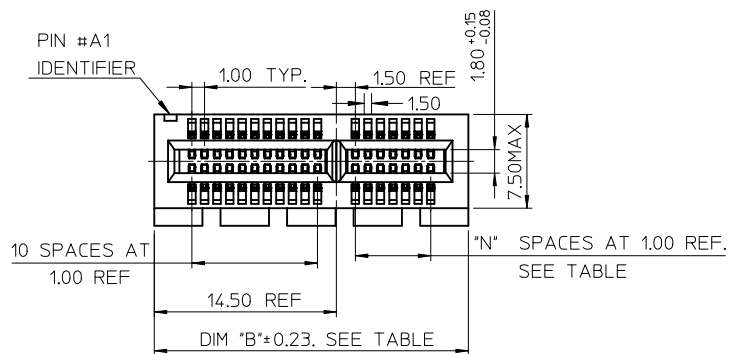
 MOLEX INCORPORATED

DOCUMENT NO.

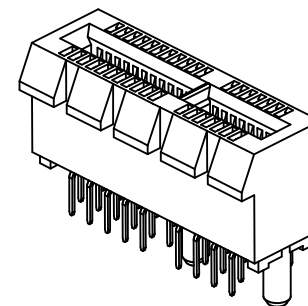
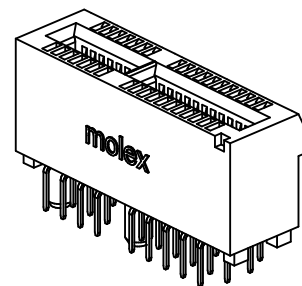
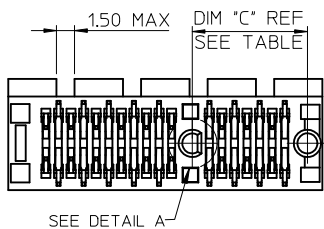
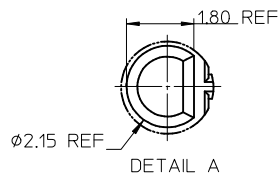
SD-87715-207

SHEET NO.

4 OF 4



SECTION A-A



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 MICROINCH 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

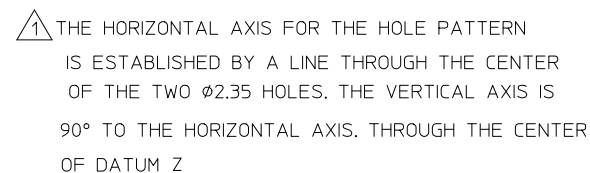
REV	DESCRIPTION	DATE	BY
REVISED	EC NO: SH2010-0425	2010/05/14	DRWNRZhang
	CHKD:Harvey	2007/05/14	
	APPR:XJ Song	2010/06/03	

QUALITY SYMBOLS
▽F=0
▽F=0
▽F=0

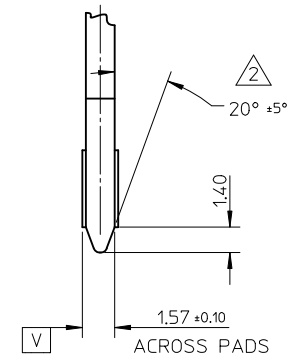
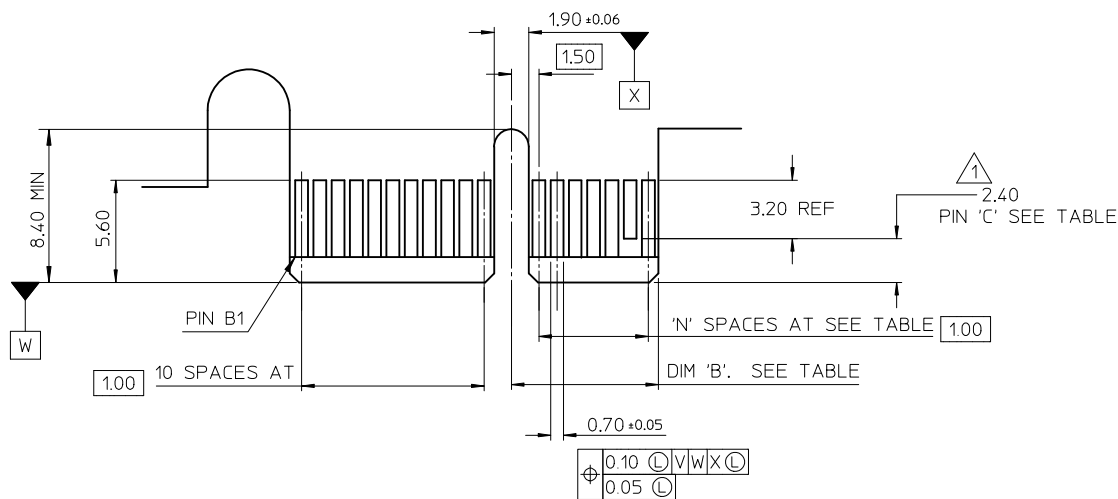
GENERAL TOLERANCES (UNLESS SPECIFIED)		
	mm	INCH
4 PLACES	± ---	± ---
3 PLACES	± ---	± ---
2 PLACES	± 0.25	± ---
1 PLACE	± 0.25	± ---
ANGULAR ± 3 °		
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		

DIMENSION STYLE	SCALE	DESIGN UNITS	THIRD ANGLE PROJECTION
MM ONLY		METRIC	
DRAWN BY	DATE	TITLE	
DAVID HU	2007/05/14	PCI EXPRESS	
CHECKED BY	DATE	EDGE CARD CONNECTOR	
HARVEY	2007/05/14	(LEAD FREE VERSION)	
APPROVED BY	DATE	MOLEX INCORPORATED	
JENNY CHEN	2007/05/14		
MATERIAL NO.	DOCUMENT NO.	SHEET NO.	
SEE SHEET 4	SD-87715-901	1 OF 4	

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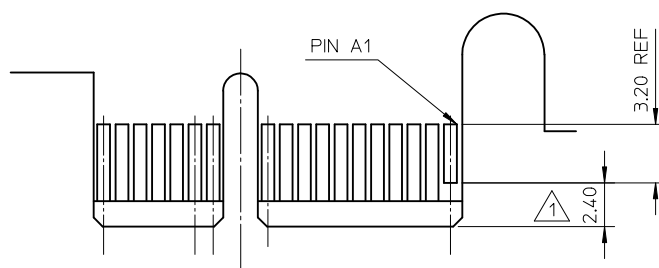


SEE SHEET 1 EC NO: SH2010-0425 DWG:RZHANG CHYD:HARVEY APPR:XJUSONG	2010/05/14 2007/05/14 2010/06/03	DESCRIPTION REV	QUALITY SYMBOLS	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE MM ONLY		SCALE	DESIGN UNITS METRIC	 THIRD ANGLE PROJECTION
			 =0	4 PLACES ± --- ± ---	DRAWN BY DATE DAVID HU 2007/05/14	PCI EXPRESS EDGE CARD CONNECTOR (LEAD FREE VERSION)				
			 =0	3 PLACES ± --- ± ---	CHECKED BY DATE HARVEY 2007/05/14					
			 =0	2 PLACES ± 0.25 ± ---	APPROVED BY DATE JENNY CHEN 2007/05/14	 MOLEX INCORPORATED				
				1 PLACE ± 0.25 ± ---	MATERIAL NO. SEE SHEET 1					DOCUMENT NO. SD-87715-901
			DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS							



- 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



I/O PANEL DIRECTION →
SECONDARY (SOLDER) SIDE

QUALITY SYMBOLS		GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE		SCALE	DESIGN UNITS	THIRD ANGLE PROJECTION	
				MM ONLY					
				mm	INCH	DRAWN BY	DATE	TITLE	
				4 PLACES	± ---	DAVID HU	2007/05/14	PCI EXPRESS	
				3 PLACES	± ---	CHECKED BY	DATE	EDGE CARD CONNECTOR	
				2 PLACES	± 0.25	HARVEY	2007/05/14	(LEAD FREE VERSION)	
				1 PLACE	± 0.25	APPROVED BY	DATE	MOLEX INCORPORATED	
				ANGULAR ± 3 °		JENNY CHEN	2007/05/14	MOLEX INCORPORATED	
				DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		MATERIAL NO.		DOCUMENT NO.	
						SEE SHEET 1		SD-87715-901	
						THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION		SHEET NO.	
								3 OF 4	

F

E

D

C

B

A

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				
87715-9009					30 MICROINCH	3.00			
87715-0001					15 MICROINCH	2.54			

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	3.00			
87715-9303					GOLD FLASH				
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:D HARVEY 2007/05/14

APPR:XJ SONG 2010/06/03

B

REV

DESCRIPTION

QUALITY SYMBOLS

$F_A=0$

$F_C=0$

$F_P=0$

GENERAL TOLERANCES (UNLESS SPECIFIED)

	mm	INCH
4 PLACES	$\pm$ ---	$\pm$ ---
3 PLACES	$\pm$ ---	$\pm$ ---
2 PLACES	$\pm$ 0.25	$\pm$ ---
1 PLACE	$\pm$ 0.25	$\pm$ ---

ANGULAR $\pm$ 3 °

DRAFT WHERE APPLICABLE
MUST REMAIN
WITHIN DIMENSIONS

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.

SEE SHEET 1

SIZE

A3

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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.

4 OF 4



Компания «ЭлектроПласт» предлагает заключение долгосрочных отношений при поставках импортных электронных компонентов на взаимовыгодных условиях!

Наши преимущества:

- Оперативные поставки широкого спектра электронных компонентов отечественного и импортного производства напрямую от производителей и с крупнейших мировых складов;
- Поставка более 17-ти миллионов наименований электронных компонентов;
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- Лицензия ФСБ на осуществление работ с использованием сведений, составляющих государственную тайну;
- Поставка специализированных компонентов (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Aeroflex, Peregrine, Syfer, Eurofarad, Texas Instrument, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits, General Dynamics и др.);

Помимо этого, одним из направлений компании «ЭлектроПласт» является направление «Источники питания». Мы предлагаем Вам помощь Конструкторского отдела:

- Подбор оптимального решения, техническое обоснование при выборе компонента;
- 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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