

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

**Part Number:** **0483212002**  
**Status:** **Active**  
**Overview:** slimline serial ata odd connectors  
**Description:** 1.00mm (.039"), 1.27mm (.050") Pitch Slimline Serial ATA Receptacle, Right Angle, Standard DIP with Nut, 0.76µm (30µ") Gold (Au) Plating, Mounted Height: 4.25mm (.167"), without pin alignment, Lead free

**Documents:**

[3D Model](#) [Product Specification PS-48321-001 \(PDF\)](#)  
[Drawing \(PDF\)](#) [RoHS Certificate of Compliance \(PDF\)](#)

**Agency Certification**

CSA LR19980  
 UL E29179

**General**

Product Family PCB Receptacles  
 Series 48321  
 Application Board-to-Board  
 Comments Standard DIP, with nut; without pin alignment  
 Overview slimline serial ata odd connectors  
 Product Name Serial ATA, Slimline Serial ATA

**Physical**

Circuits (Loaded) 13  
 Circuits (maximum) 13  
 Color - Resin Black  
 Durability (mating cycles max) 500  
 Flammability 94V-0  
 Glow-Wire Compliant No  
 Guide to Mating Part Yes  
 Keying to Mating Part Yes  
 Lock to Mating Part No  
 Material - Metal Copper Alloy  
 Material - Plating Mating Gold  
 Material - Plating Termination Tin  
 Material - Resin High Temperature Thermoplastic  
 Number of Rows 1  
 Orientation Right Angle  
 PC Tail Length (in) 0.063 In  
 PC Tail Length (mm) 1.60 mm  
 PCB Locator Yes  
 PCB Retention Yes  
 PCB Thickness Recommended (in) 0.047 In  
 PCB Thickness Recommended (mm) 1.20 mm  
 Packaging Type Embossed Tape on Reel  
 Pitch - Mating Interface (in) 0.039 In, 0.050 In  
 Pitch - Mating Interface (mm) 1.00 mm, 1.27 mm  
 Pitch - Term. Interface (in) 0.039 In, 0.050 In  
 Pitch - Term. Interface (mm) 1.00 mm, 1.27 mm  
 Plating min: Mating (µin) 30  
 Plating min: Mating (µm) 0.76  
 Plating min: Termination (µin) 100  
 Plating min: Termination (µm) 2.54  
 Polarized to Mating Part Yes  
 Polarized to PCB Yes

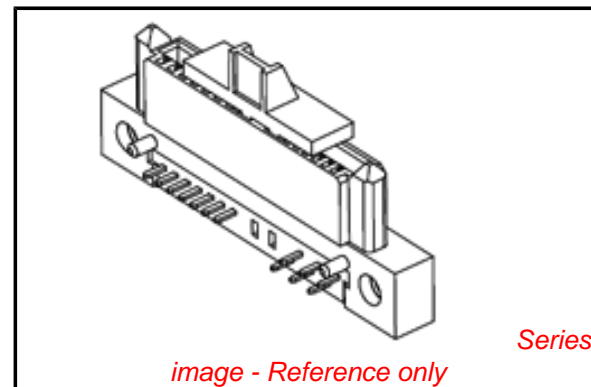


image - Reference only

**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**

48321Series

**Mates With**

473001xxx Slimline Serial ATA Plugs

Stackable	No
Surface Mount Compatible (SMC)	Yes
Temperature Range - Operating	-40°C to +85°C
Termination Interface: Style	Through Hole

### **Electrical**

Current - Maximum per Contact	1A
Grounding to PCB	Yes
Voltage - Maximum	15V (RMS)

### **Material Info**

### **Reference - Drawing Numbers**

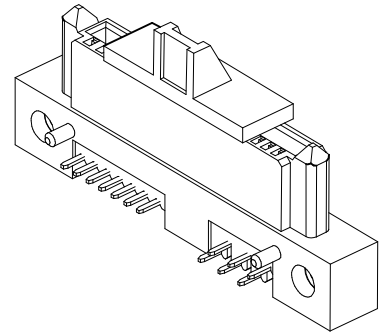
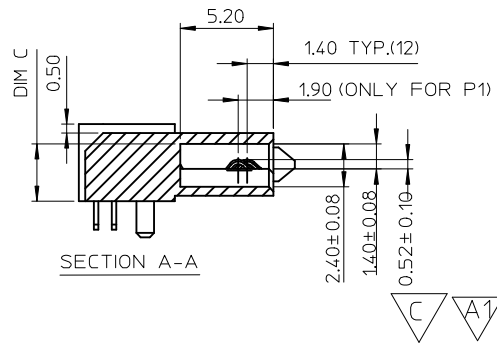
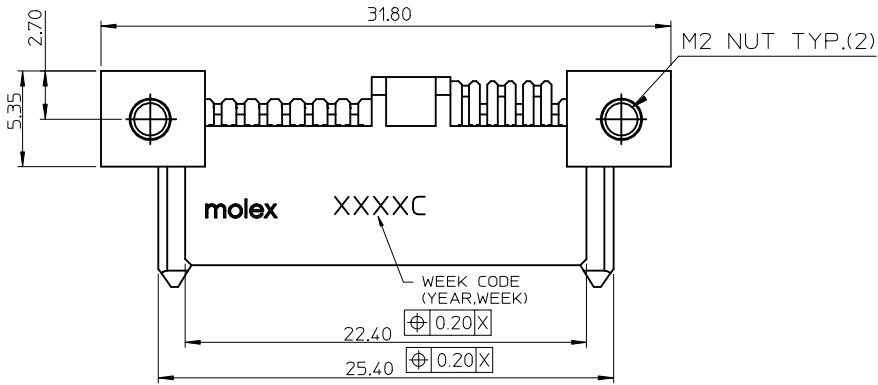
Packaging Specification	PK-48321-001
Product Specification	PS-48321-001
Sales Drawing	E-48321-001, SD-48321-001
Test Summary	TS-48321-001

This document was generated on 05/31/2010

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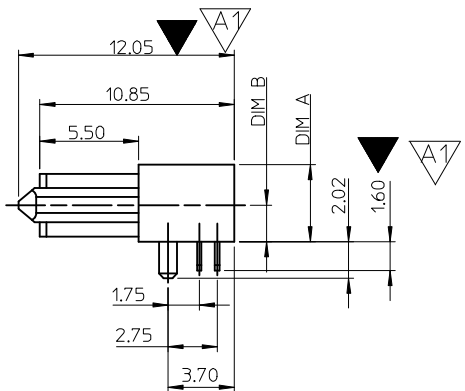
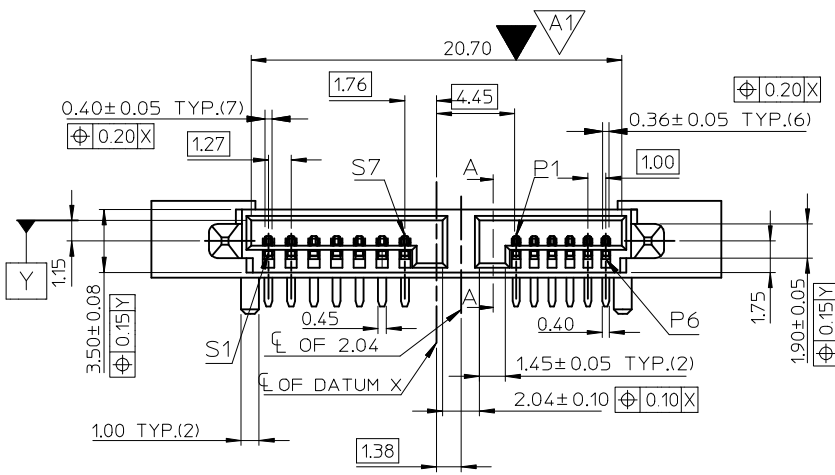
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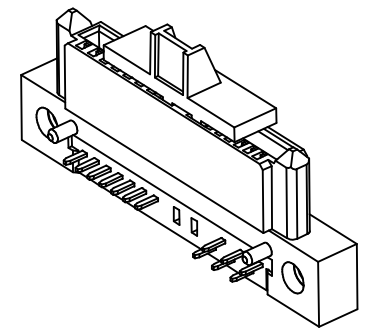


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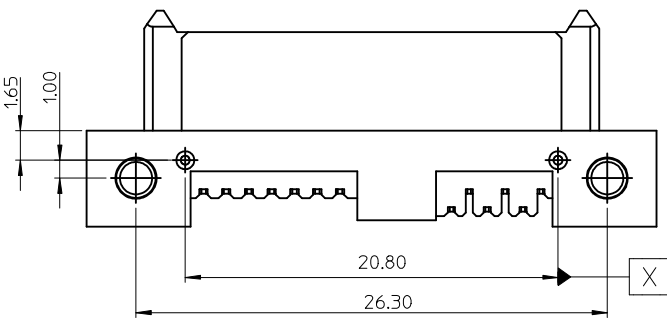


WITHOUT ALIGNMENT  
(48321-2XXX)



WITH ALIGNMENT  
(48321-1XXX)

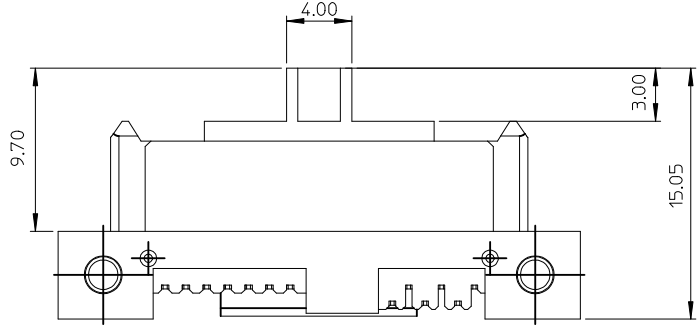
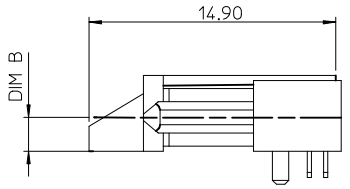
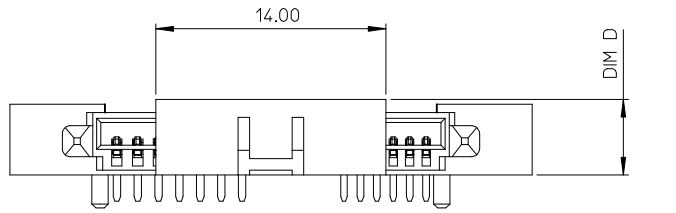
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A

SUPPLIER		ACRON		THIRD ANGLE PROJECTION	
REVISION		QUALITY SYMBOLS		TITLE	
EC NO: SH2009-0089		▽=3		SLIMLINE SATA RECEPTACLE	
DRWN:LLIU10		▽=1		STANDARD DIP WITH NUT	
CHKD:YLZHU		ANGULAR ± 2°		MATERIAL NO.	
APPR:HWANG		DRAFT WHERE APPLICABLE		MATERIAL NO.	
REV		MUST REMAIN WITHIN DIMENSIONS		DOCUMENT NO.	
B		SEE TABLE		E-48321-001	
		SIZE A3		SHEET NO. 1 OF 2	
THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION					

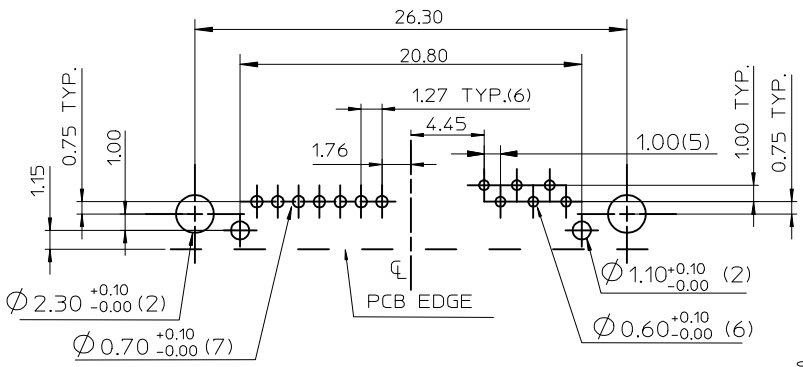
9 8 7 6 5 4 3 2 1



P/N	PLATING OPTIONS	DIM A	DIM B	DIM C	DIM D	DIM E	PIN ALIGNMENT	WITHSTANDING MFG TEST	ACRON P/N
48321-1000	GOLD FLASH	3.50	1.25	2.40	3.80	0.35	YES	NO	SAT01-A3-R0000
48321-1001	15 MICROINCH							NO	SAT01-A3-R0020
48321-1002	30 MICROINCH							YES	SAT01-A3-R0030
48321-2000	GOLD FLASH	4.25	2.00	3.15	4.55	0.40	NO	NO	SAT01-A3-R0101
48321-2001	15 MICROINCH							NO	SAT01-A3-R0121
48321-2002	30 MICROINCH							YES	SAT01-A3-R0131

NOTES:

- MATERIAL:
  - HOUSING & CAP: LIQUID CRYSTAL POLYMER, 6130(L), 30% GLASS FILLED, UL94V-0, COLOR: BLACK.
  - TERMINAL: 0.25mm THICKNESS, PHOSPHOR BRONZE C5210EH.
  - NUT: ZINC ALLOY.
  - ALIGNER: LIQUID CRYSTAL POLYMER, 6130(L), 30% GLASS FILLED, UL94V-0, COLOR: BLACK.
- PLATING:
  - TERMINAL:
    - CONTACT AREA: SEE TABLE.
    - SOLDER TAIL: MATTE TIN PLATED, THICKNESS=100 MICROINCH MIN/2.54 MICROMETER MIN.
    - UNDER PLATE: NICKEL(Ni) PLATED, THICKNESS=50 MICROINCH MIN/1.27 MICROMETER MIN.
    - NUT: NICKEL(Ni) PLATED, THICKNESS=50 MICROINCH MIN/1.27 MICROMETER MIN.
- SCREW MEETS TORQUE WITHSTANDED 2.5 kgf-cm MIN.
- RECOMMENDED PCB THICKNESS: 1.20±0.05mm.
- PRODUCT SPECIFICATION REFER TO PS-48321-001.
- TEST SUMMARY REFER TO TS-48321-001.
- PACKAGING SPECIFICATION REFER TO PK-48321-001.
- MATES WITH: SERIES 47300.
- LEAD FREE & RoHS COMPLIANT PRODUCT.



RECOMMENDED PC BOARD LAYOUT  
TOLERANCE: ±0.05mm(TOP VIEW)

SEE SHEET1	2008/08/20	2008/09/29
EC NO: SH2009-0089	DRW: NLLIU10	CHKD: YLZHU
	APPR: HWANG	
DESCRIPTION	REV	

QUALITY SYMBOLS	▽=0	▽=0
	▽=0	▽=0
GENERAL TOLERANCES (UNLESS SPECIFIED)	4 PLACES	± --- ± ---
	3 PLACES	± --- ± ---
	2 PLACES	± 0.15 ± ---
	1 PLACE	± 0.15 ± ---
	ANGULAR ± 2 °	
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS	SIZE	SEE TABLE
	SIZE	A3

DIMENSION STYLE		SCALE	DESIGN UNITS	THIRD ANGLE PROJECTION
MM ONLY		1:1	METRIC	
DRAWN BY	DATE	TITLE		
LINDA	2007/12/13	SLIMLINE SATA RECEPTACLE STANDARD DIP WITH NUT		
CHECKED BY	DATE	MOLEX MOLEX INCORPORATED		
ALLEN LIN	2007/12/17			
APPROVED BY	DATE	DOCUMENT NO.		
EICK LAN	2007/12/17	E-48321-001		
MATERIAL NO.		SHEET NO.		
		2 OF 2		

DRAWN BY		DATE	TITLE	
LINDA		2007/12/13	SLIMLINE SATA RECEPTACLE STANDARD DIP WITH NUT	
CHECKED BY		DATE	MOLEX MOLEX INCORPORATED	
ALLEN LIN		2007/12/17		
APPROVED BY		DATE	DOCUMENT NO.	
EICK LAN		2007/12/17	E-48321-001	
MATERIAL NO.			SHEET NO.	
			2 OF 2	

10 9 8 7 6 5 4 3 2 1

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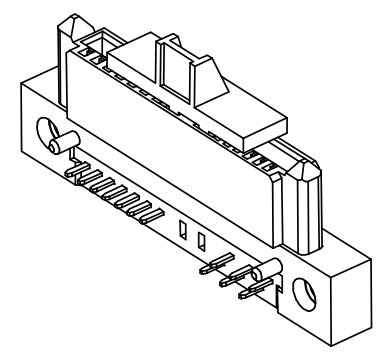
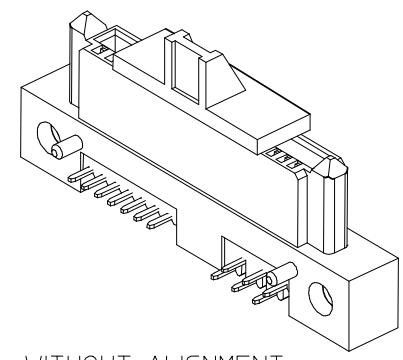
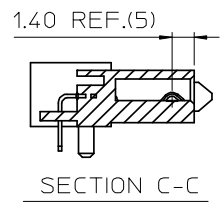
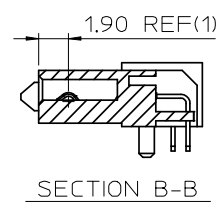
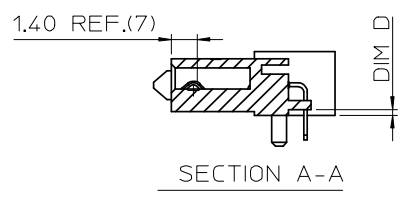
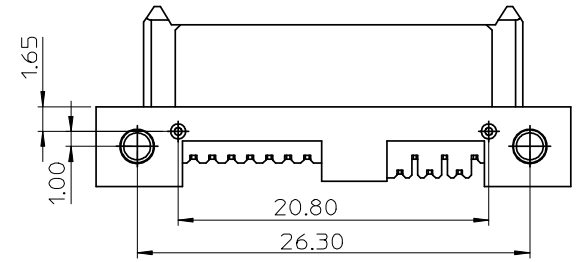
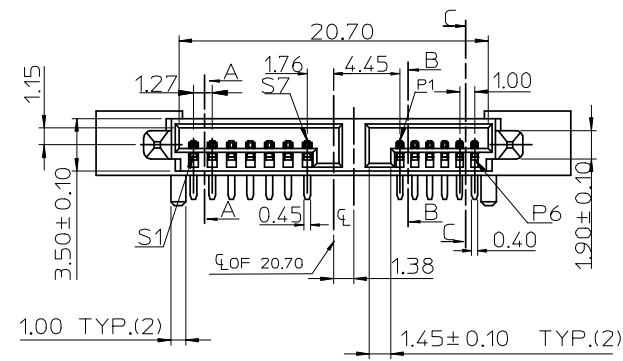
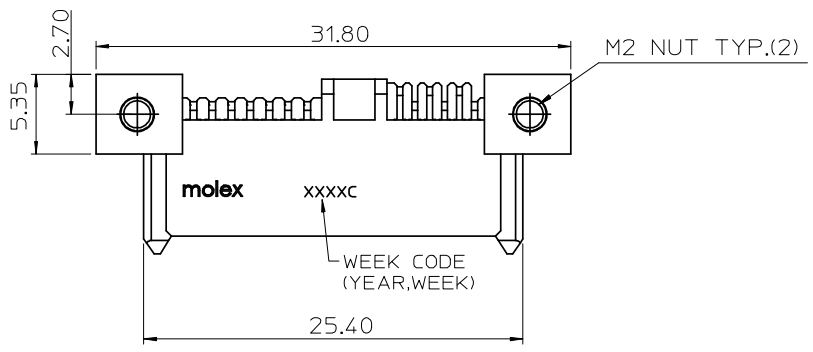
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CHANGE NUT'S MATERIAL	2008/07/29
EC NO: SH2008-0659	DESCRIPTION
DRW:LLU10	REV
CHKD:YLZHU	
APPR:HWANG	

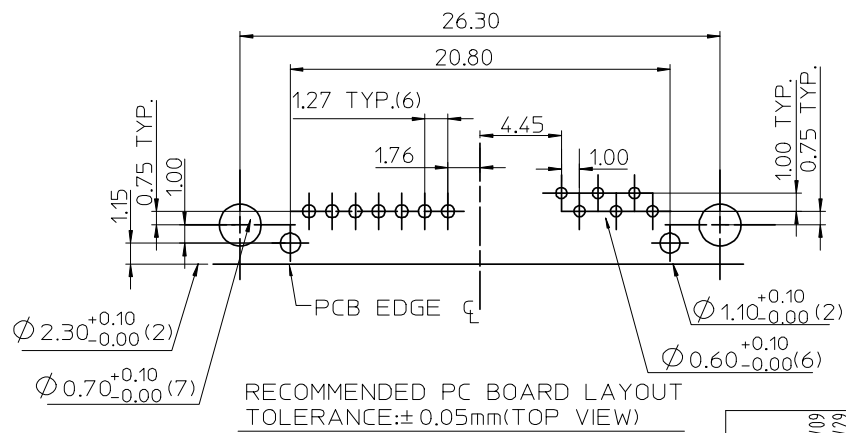
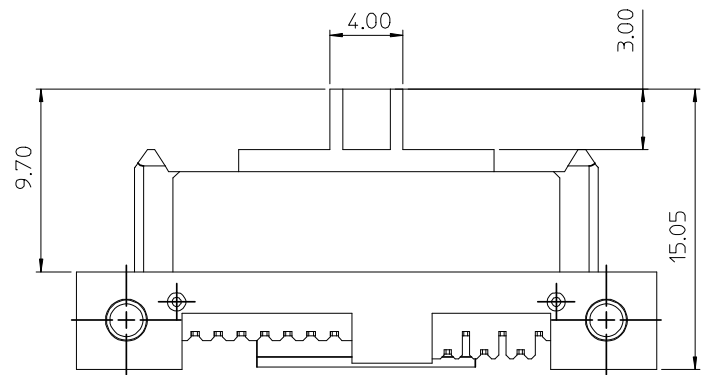
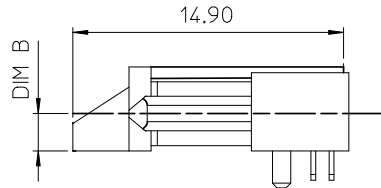
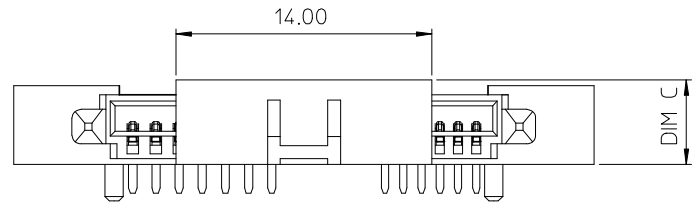
QUALITY SYMBOLS	DESCRIPTION
▽=0	
∇=0	

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
LINDA	2007/12/13
CHECKED BY	DATE
ALLEN LIN	2007/12/17
APPROVED BY	DATE
EICK LAN	2007/12/17
MATERIAL NO.	
SEE TABLE	
SIZE	
A3	

SCALE	DESIGN UNITS	THIRD ANGLE PROJECTION
1:1	METRIC	
TITLE		
SLIMLINE SATA RECEPTACLE STANDARD DIP WITH NUT		
MOLEX INCORPORATED		SHEET NO.
DOCUMENT NO.		1 OF 2
SD-48321-001		
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



P/N	PLATING OPTIONS	DIM A	DIM B	DIM C	DIM D	PIN ALIGNMENT	WITHSTANDING MFG TEST
48321-1000	GOLD FLASH	3.50	1.25	3.80	0.35	YES	NO
48321-1001	15 MICROINCH						NO
48321-1002	30 MICROINCH						YES
48321-2000	GOLD FLASH	4.25	2.00	4.55	0.40	NO	NO
48321-2001	15 MICROINCH						NO
48321-2002	30 MICROINCH						YES

- NOTES:**
- MATERIAL:**  
HOUSING & CAP: LIQUID CRYSTAL POLYMER, GLASS FIBER FILLED, UL94V-0, COLOR: BLACK.  
TERMINAL: COPPER ALLOY.  
NUT: ZINC ALLOY.  
ALIGNER: LIQUID CRYSTAL POLYMER, GLASS FIBER FILLED, UL94V-0, COLOR: BLACK.
  - PLATING:**  
TERMINAL:  
CONTACT AREA: SEE TABLE.  
SOLDER TAIL: MATTE TIN PLATED, THICKNESS=100 MICROINCH MIN/2.54 MICROMETER MIN.  
UNDER PLATE: NICKEL(Ni) PLATED OVERALL.  
NUT: NICKEL(Ni) PLATED, THICKNESS=50 MICROINCH MIN/1.27 MICROMETER MIN.
  - RECOMMENDED PCB THICKNESS: 1.20 ± 0.05mm.
  - PRODUCT SPECIFICATION REFER TO PS-48321-001.
  - TEST SUMMARY REFER TO TS-48321-001.
  - PACKAGING SPECIFICATION REFER TO PK-48321-001.
  - MATES WITH: SERIES 47300.
  - LEAD FREE & RoHS COMPLIANT PRODUCT.

SEE SHEET 1 EC NO: SH2008-0659 DRWN: LILIU10 CHKD: YLZHU APPR: HWANG 2008/07/09 2008/07/29	DESCRIPTION REV A1	QUALITY SYMBOLS ▽=0 ◻=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: LINDA    DATE: 2007/12/13 CHECKED BY: ALLEN LIN    DATE: 2007/12/17 APPROVED BY: EICK LAN    DATE: 2007/12/17	SCALE: 1:1 DESIGN UNITS: METRIC THIRD ANGLE PROJECTION	TITLE: SLIMLINE SATA RECEPTACLE STANDARD DIP WITH NUT MOLEX INCORPORATED DOCUMENT NO. SD-48321-001 SHEET NO. 2 OF 2	
		DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS			MATERIAL NO. SEE TABLE	THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION	
					SIZE: A3		