

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

**Part Number:** **0476500001**  
**Status:** **Active**  
**Overview:** slimline serial ata odd connectors  
**Description:** 1.00mm (.039"), 1.27mm (.050") Pitch Slimline Serial ATA Receptacle for Optical Disk Drives, Vertical, SMT, 0.10µm (4µ") Gold (Au) Plating, withCover, Lead free

**Documents:**

[3D Model](#) [Product Specification PS-47650-001 \(PDF\)](#)  
[Drawing \(PDF\)](#) [RoHS Certificate of Compliance \(PDF\)](#)

**Agency Certification**

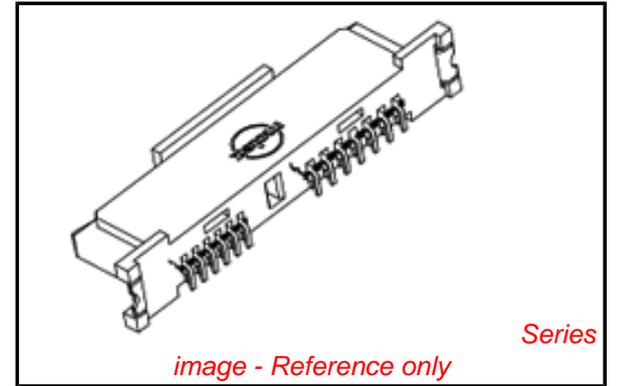
CSA LR 19980  
 UL E29179

**General**

Product Family PCB Receptacles  
 Series 47650  
 Application Board-to-Board  
 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 Yes  
 Material - Metal Copper Alloy  
 Material - Plating Mating Gold  
 Material - Plating Termination Tin  
 Material - Resin High Temperature Thermoplastic  
 Number of Rows 1  
 Orientation Vertical  
 PCB Locator No  
 PCB Retention Yes  
 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) 4  
 Plating min: Mating (µm) 0.1  
 Plating min: Termination (µin) 39  
 Plating min: Termination (µm) 1  
 Polarized to Mating Part Yes  
 Polarized to PCB Yes  
 Robotic Placement Pick and Place Cap  
 Stackable No  
 Surface Mount Compatible (SMC) N/A  
 Temperature Range - Operating -35°C to +85°C  
 Termination Interface: Style Surface Mount



**EU RoHS**

**ELV and RoHS  
 Compliant**  
**REACH SVHC  
 Contains SVHC: No**  
**Halogen-Free  
 Status**

**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**

47650Series

**Mates With**

473001xxx Slimline Serial ATA Plugs

**Electrical**

Current - Maximum per Contact	1.5A
Grounding to PCB	Yes
Voltage - Maximum	15V DC

**Solder Process Data**

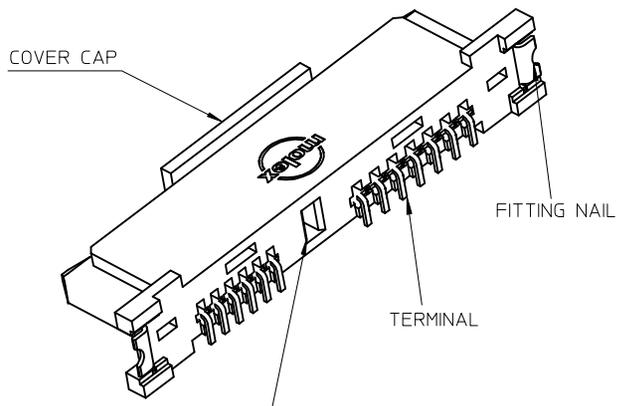
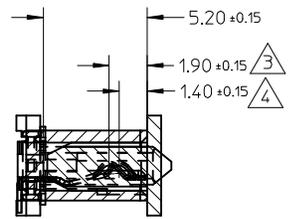
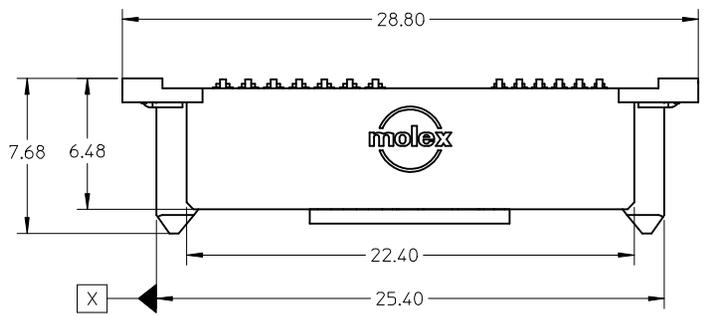
Duration at Max. Process Temperature (seconds)	10
Lead-free Process Capability	Reflow Capable (SMT only)
Max. Cycles at Max. Process Temperature	1
Process Temperature max. C	260

**Material Info****Reference - Drawing Numbers**

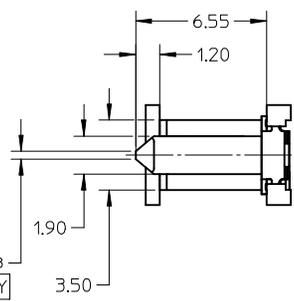
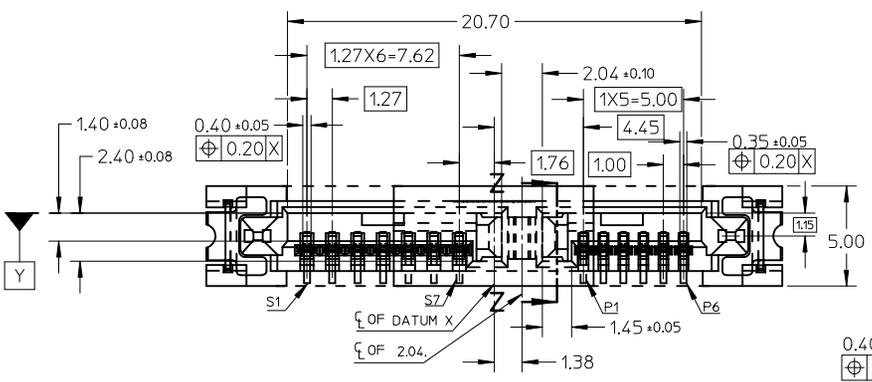
Packaging Specification	PK-47650-001
Product Specification	PS-47650-001
Sales Drawing	SD-47650-001

This document was generated on 05/31/2010

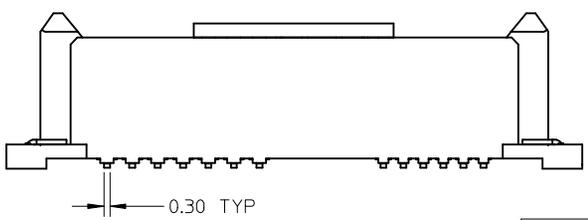
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SECTION Z-Z



- NOTES :
- MATERIAL :  
HOUSING : HIGH TEMPERATURE THERMOPLASTIC, UL94V-0, 30% G.F., BLACK.  
TERMINAL : COPPER ALLOY  
FITTING NAIL : COPPER ALLOY  
COVER CAP:HIGH TEMPERATURE THERMOPLASTIC, UL94V-0, 30% G.F., BLACK.
  - PLATING :  
TERMINAL :  
CONTACT AREA :SEE TABLE.  
SOLDER AREA : TIN PLATING.  
UNDERPLATING : NICKEL PLATING.  
FITTING NAIL :  
TIN PLATING 1.0 MICRONS MIN. OVER NICKEL PLATING 1.0 MICRONS MIN.
3. FOR P1 PIN ONLY.  
4. FOR ALL OTHER PINS.
- PRODUCT SPECIFICATION:PER PS-47650-001.
  - PRODUCT PACKAGE:PER PK-47650-001.
  - TERMINAL AND NAIL COPLANARITY TO BE 0.15MAX.
  - THE PRODUCT COMPLIANT TO RoHS DIRECTIVE 2002/95/EC AND 2000/53/EC.



TABLE

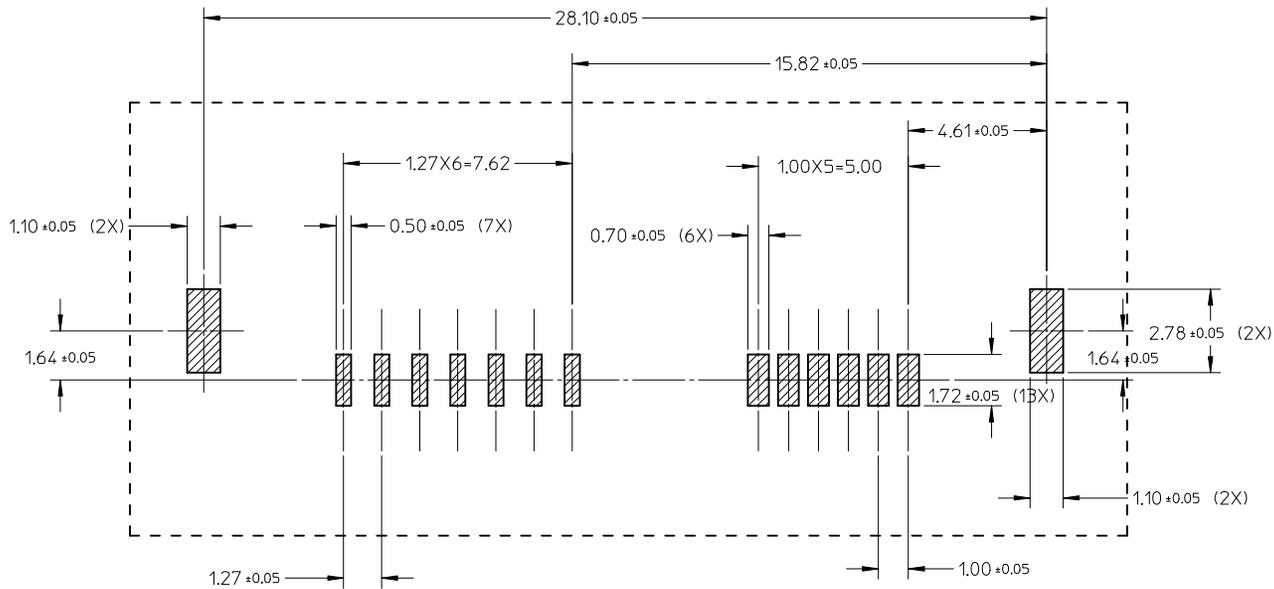
P/N	CONTACT AREA PLATING
47650-0001	0.1 MICRON MIN. GOLD
47650-0002	0.38 MICRON MIN. GOLD

UPDATE DRAWING	DESCRIPTION
EC NO: SH2009-0756	REV
DRWN:XJ SONG 2009/06/01	
CHKD:XJ SONG 2009/06/02	
APPR:HWANG 2009/06/30	

QUALITY SYMBOLS	GENERAL TOLERANCES (UNLESS SPECIFIED)	
	mm	INCH
▽=0	4 PLACES ± ---	± ---
▽=0	3 PLACES ± ---	± ---
	2 PLACES ± 0.15	± ---
	1 PLACE ± 0.20	± ---
	ANGULAR ± 2 °	
	DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS	

DIMENSION STYLE		SCALE	DESIGN UNITS	THIRD ANGLE PROJECTION
MM ONLY		4:1	METRIC	
DRAWN BY	DATE	TITLE		
LSONG	2008-2-16	SLIMLINE SATA RECEPTACLE CONNECTOR		
CHECKED BY	DATE			
JTIAN	2008-2-16			
APPROVED BY	DATE			
HWANG	2008-2-16			
MATERIAL NO.	DOCUMENT NO.			
SEE TABLE	SD-47650-001			
SIZE	THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION			
A3				

MATERIAL NO.		DOCUMENT NO.	SHEET NO.
SEE TABLE		SD-47650-001	1 OF 2



RECOMMENDED PCB LAYOUT DIMENSION

SEE SHEET 1	EC NO: SH2009-0756	2009/06/01	<b>QUALITY SYMBOLS</b> =0 =0	<b>GENERAL TOLERANCES (UNLESS SPECIFIED)</b>		<b>DIMENSION STYLE</b> MM ONLY		SCALE 6:1	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION	
	DRWN: XJSONG	2009/06/01		4 PLACES ± --- ± ---	mm	INCH	DRAWN BY LSONG	DATE 2008-2-16	TITLE SLIMLINE SATA RECEPTACLE CONNECTOR		
	CHKD: XJSONG	2009/06/02		3 PLACES ± --- ± ---			CHECKED BY JTIAN	DATE 2008-2-16			
	APPR: HWWANG	2009/06/30		2 PLACES ± 0.15 ± --- 1 PLACE ± 0.20 ± ---			APPROVED BY HWWANG	DATE 2008-2-16	MOLEX INCORPORATED MATERIAL NO. SEE SHEET 1 DOCUMENT NO. SD-47650-001 SHEET NO. 2 OF 2		
REV	DESCRIPTION	ANGULAR ± 2 °		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				