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Part Number: [0783200002](#)
Status: **Active**
Overview: [micro_sata](#)
Description: 1.27mm (.050") Pitch High Speed Micro Serial ATA Device Receptacle for 1.8" HDD/SSD, SMT, Right Angle, Top Mount, with Support Rib, Tape on Reel, Lead free

Documents:

[3D Model](#) [Product Specification PS-78320-002 \(PDF\)](#)
[Drawing \(PDF\)](#) [RoHS Certificate of Compliance \(PDF\)](#)

Agency Certification

CSA LR19980
 UL E29179

General

Product Family PCB Receptacles
 Series [78320](#)
 Application Board-to-Board
 Comments With central support rib on underside of housing
 Overview [micro_sata](#)
 Product Name Micro Serial ATA, Serial ATA

Physical

Circuits (Loaded) 16
 Circuits (maximum) 16
 Circuits Detail With optional manufacturing pins (S1 to S7 and P1 to P9)
 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 Nylon
 Number of Rows 1
 Orientation Right Angle
 PCB Locator Yes
 PCB Retention Yes
 Packaging Type Embossed Tape on Reel
 Pitch - Mating Interface (in) 0.050 In, 0.200 In
 Pitch - Mating Interface (mm) 1.27 mm, 5.08 mm
 Pitch - Term. Interface (in) 0.050 In, 0.200 In
 Pitch - Term. Interface (mm) 1.27 mm, 5.08 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
 Stackable No
 Temperature Range - Operating -40°C to +105°C
 Termination Interface: Style Surface Mount

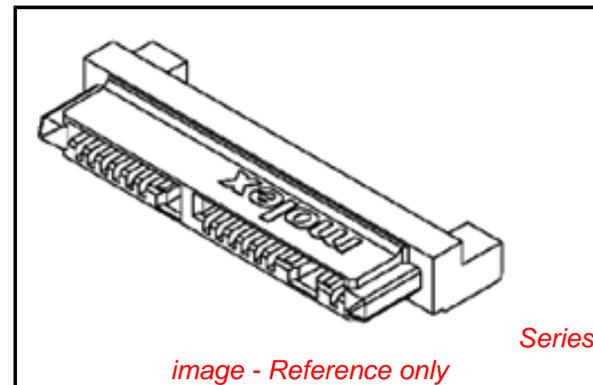


image - Reference only

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

[78320Series](#)

Mates With

[78103](#) , [78283](#) and [78285](#) Micro SATA Device Plugs

Electrical

Current - Maximum per Contact	1.5A
Grounding to PCB	Yes
Voltage - Maximum	30V

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**

Product Specification	PS-78320-002
Sales Drawing	SD-78320-002

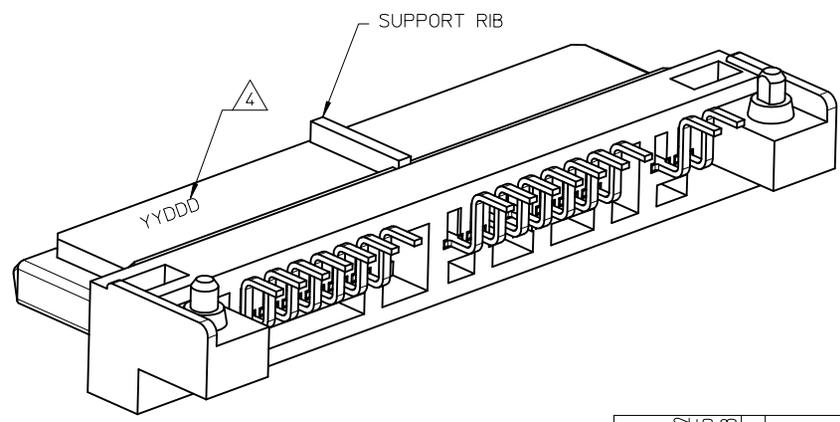
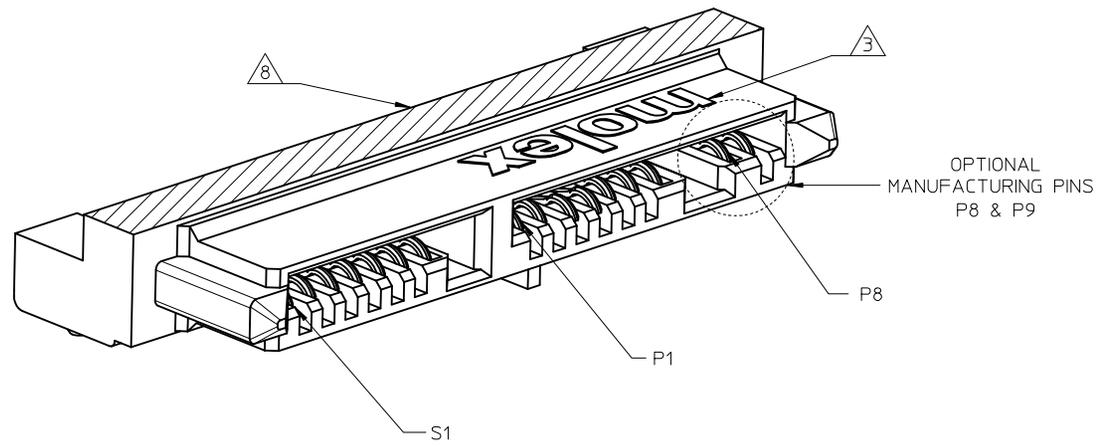
This document was generated on 05/21/2010

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5	4	3	2	1
PART NUMBER	TOTAL PINS	DESCRIPTION		
78320-0002	16	WITH OPTIONAL MANUFACTURING PINS (S1 TO S7 & P1 TO P9)		
78320-1002	14	WITHOUT OPTIONAL MANUFACTURING PINS (S1 TO S7 & P1 TO P7)		

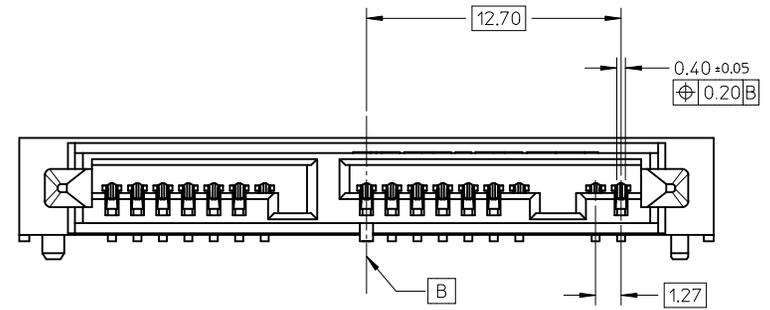
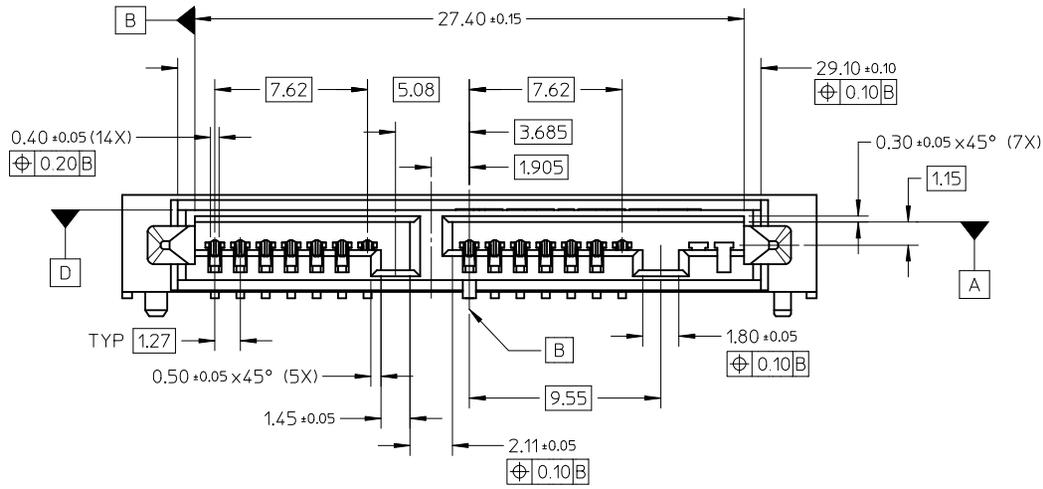
NOTES:

- MATERIAL : NYLON (PA) 9T, GLASS FILLED, UL 94V-0, BLACK
TERMINAL : COPPER ALLOY
- PLATING :
TERMINAL : 0.76µm MIN. SELECTIVE GOLD OVER
1.27µm MIN. NICKEL UNDERPLATE
2.54µm MIN. TIN OVER
1.27µm MIN. NICKEL UNDERPLATE
- MOLEX LOGO LOCATED APPROXIMATELY AS SHOWN
- DATE CODE LOCATED APPROXIMATELY AS SHOWN
- PACKAGING : TAPE AND REEL
- THIS PRODUCT IS COMPLIANT TO RoHS DIRECTIVE WITH THE FOLLOWING BANNED SUBSTANCES - LEAD, MERCURY, CADMIUM, HEXAVALENT CHROMIUM, POLYBROMINATED BIPHENYLS AND POLYBROMINATED DIPHENYLS ETHERS.
- NON FUNCTIONAL CORING MAY VARY.
- PROPOSED PICK & PLACE SURFACE.
- PRODUCT SPECIFICATION: PS-78320-002

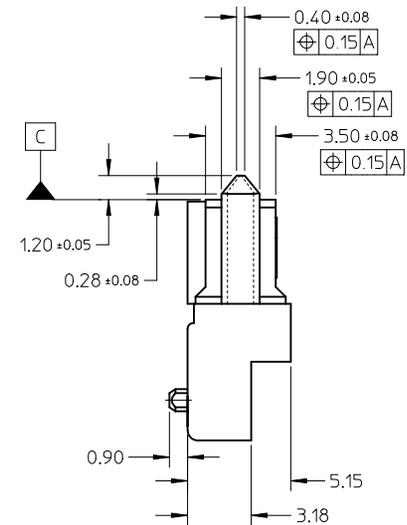
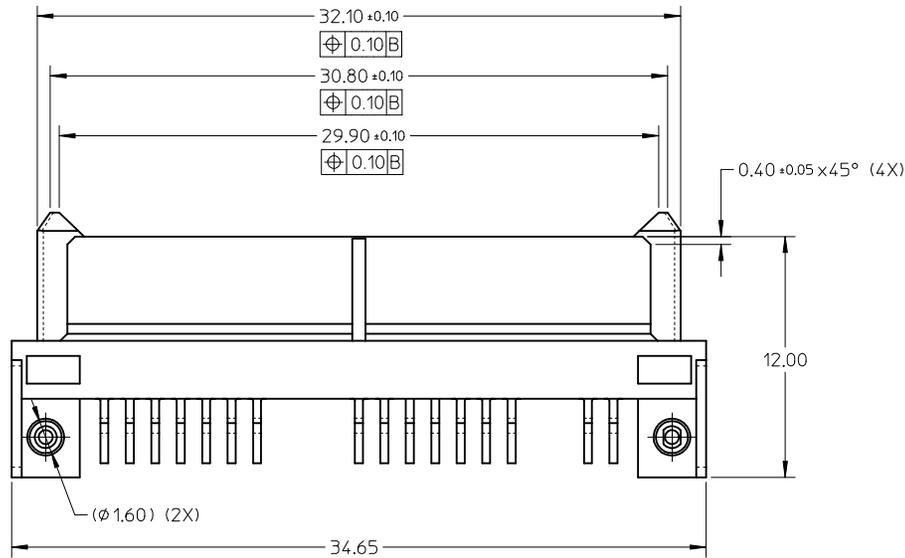


UPDATE VIEWS EC NO: S2010-0590 DRWN:GMENARLY 2010/01/12 CHKD:CGOH 2010/01/25 APPR:BOKOK 2010/01/28	DESCRIPTION REV	QUALITY SYMBOLS	GENERAL TOLERANCES (UNLESS SPECIFIED)	DIMENSION STYLE	SCALE	DESIGN UNITS	THIRD ANGLE PROJECTION
		$F_A=0$ $F_G=0$ $F_P=0$	(UNLESS SPECIFIED) mm INCH	MM ONLY	NTS	METRIC	<input checked="" type="checkbox"/> THIRD ANGLE PROJECTION
		4 PLACES ± --- ± --- 3 PLACES ± --- ± --- 2 PLACES ± 0.20 ± --- 1 PLACE ± --- ± ---	DRAWN BY: GMENARLY DATE: 2007/10/08 CHECKED BY: YKOH DATE: 2007/11/21 APPROVED BY: BOKOK DATE: 2010/01/26	TITLE	SERIAL ATA RECEPTACLE 1.8 INCH HDD/SSD R/A, SMT, 3.80MM HEIGHT		
		ANGULAR ± 3 °	MATERIAL NO. DOCUMENT NO. SHEET NO.	SEE TABLE SD-78320-002 1 OF 5			
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					

10 9 8 7 6 5 4 3 2 1



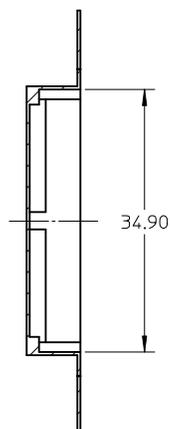
78320-0002



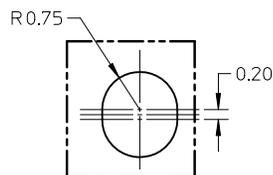
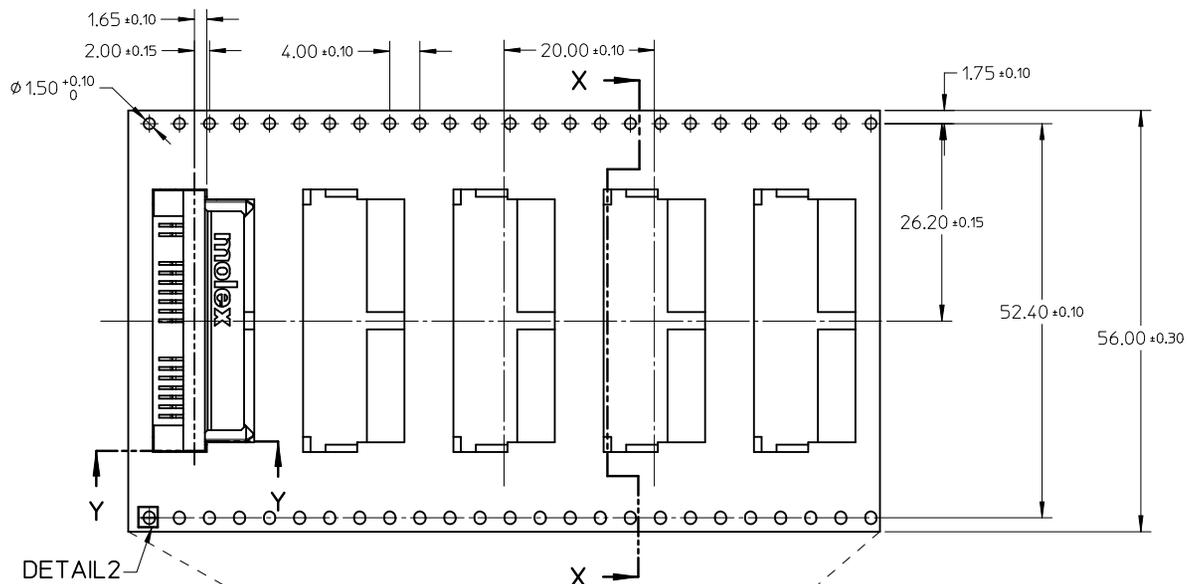
UPDATE VIEWS EC NO: S2010-0590 DRWN:GMENARLY 2010/01/12 CH'KD:CGOH 2010/01/25 APPR:BOKOK 2010/01/28	QUALITY SYMBOLS $F_A=0$ $F_C=0$ $F_P=0$	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE		SCALE	DESIGN UNITS	THIRD ANGLE PROJECTION		
				MM ONLY		NTS	METRIC			
			mm	INCH	DRAWN BY	DATE	TITLE			
		4 PLACES	± ---	± ---	GMENARLY	2007/10/08	SERIAL ATA RECEPTACLE			
3 PLACES	± ---	± ---	CHECKED BY	DATE	1.8 INCH HDD/SSD					
2 PLACES	± 0.20	± ---	YKOH	2007/11/21	R/A, SMT, 3.80MM HEIGHT					
1 PLACE	± ---	± ---	APPROVED BY	DATE	MOLEX INCORPORATED					
		ANGULAR ± 3 °		BOKOK	2010/01/26	MOLEX INCORPORATED				
		DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		MATERIAL NO.	DOCUMENT NO.	SHEET NO.				
				SEE TABLE	SD-78320-002	2 OF 5				
				SIZE	THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION					
				A3						

9 8 7 6 5 4 3 2 1

PACKAGING INFORMATION



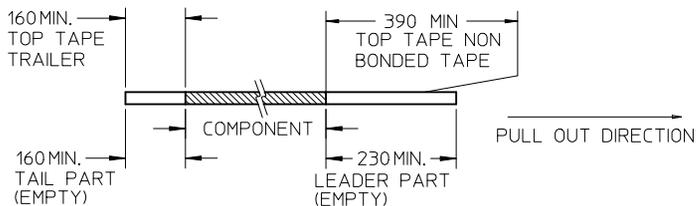
SECTION X-X



DETAIL2

NOTES:

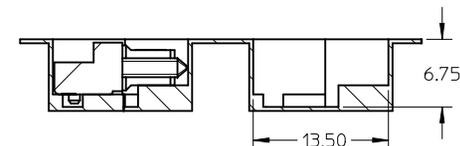
1. LEADER AND TRAILER TAPE



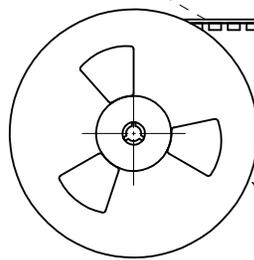
2. PEELING OFF FORCE OF THE TOP TAPE: 20 - 80gf.
(PEELING DIRECTION AS SHOWN IN FOLLOWING FIGURE)



- 3. TAPE AND REEL SPECIFICATION IS AS PER EIA-481.
- 4. TAPE AND REEL QUANTITY : SPQ=500PCS/REEL, MDQ=100PCS/CARTON
: QTY/REEL=500PCS, REELS/CARTON=2
- 5. THE TAPE IS TREATED FOR ANTI-STATIC.



PARTIAL1 OF SECTION Y-Y



PULL OUT DIRECTION

REEL

UPDATE VIEWS EC NO: S2010-0590 DRW:GMENARLY CHKD:CGOH APPR:BOKOK	DESCRIPTION 2010/01/12 2010/01/25 2010/01/28	QUALITY SYMBOLS	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE MM ONLY		SCALE NTS	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION	
		$F_A=0$ $F_C=0$ $F_P=0$	mm	INCH	DRAWN BY GMENARLY	DATE 2007/10/08	TITLE SERIAL ATA RECEPTACLE 1.8 INCH HDD/SSD R/A, SMT, 3.80MM HEIGHT			
			4 PLACES ± --- ± ---	3 PLACES ± --- ± ---	CHECKED BY YKOH	DATE 2007/11/21	MOLEX INCORPORATED			
			2 PLACES ± 0.20 ± ---	1 PLACE ± --- ± ---	APPROVED BY BOKOK	DATE 2010/01/26	MATERIAL NO. SEE TABLE DOCUMENT NO. SD-78320-002 SHEET NO. 5 OF 5			
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					

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Сотрудничество с глобальными дистрибьюторами электронных компонентов, предоставляет возможность заказывать и получать с международных складов практически любой перечень компонентов в оптимальные для Вас сроки.

На всех этапах разработки и производства наши партнеры могут получить квалифицированную поддержку опытных инженеров.

Система менеджмента качества компании отвечает требованиям в соответствии с ГОСТ Р ИСО 9001, ГОСТ РВ 0015-002 и ЭС РД 009

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