

PLEASE CHECK WWW.MOLEX.COM FOR LATEST PART INFORMATION

Part Number: [0783200001](#)
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, 16 Circuits, Tray, Lead free

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

Agency Certification

CSA LR19980
UL E29179

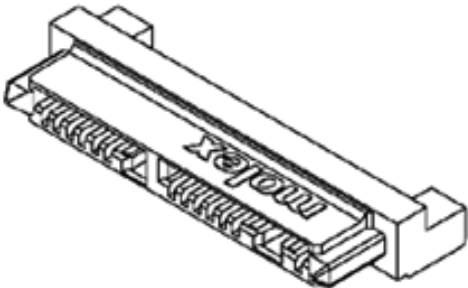
General

Product Family PCB Receptacles
Series [78320](#)
Application Board-to-Board
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 Tray
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



Series

image - Reference only

EU RoHS
ELV and RoHS
Compliant
REACH SVHC
Contains SVHC: No
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

Packaging Specification	PK-78320-001
Product Specification	PS-78320-002
Sales Drawing	SD-78320-001

This document was generated on 05/21/2010

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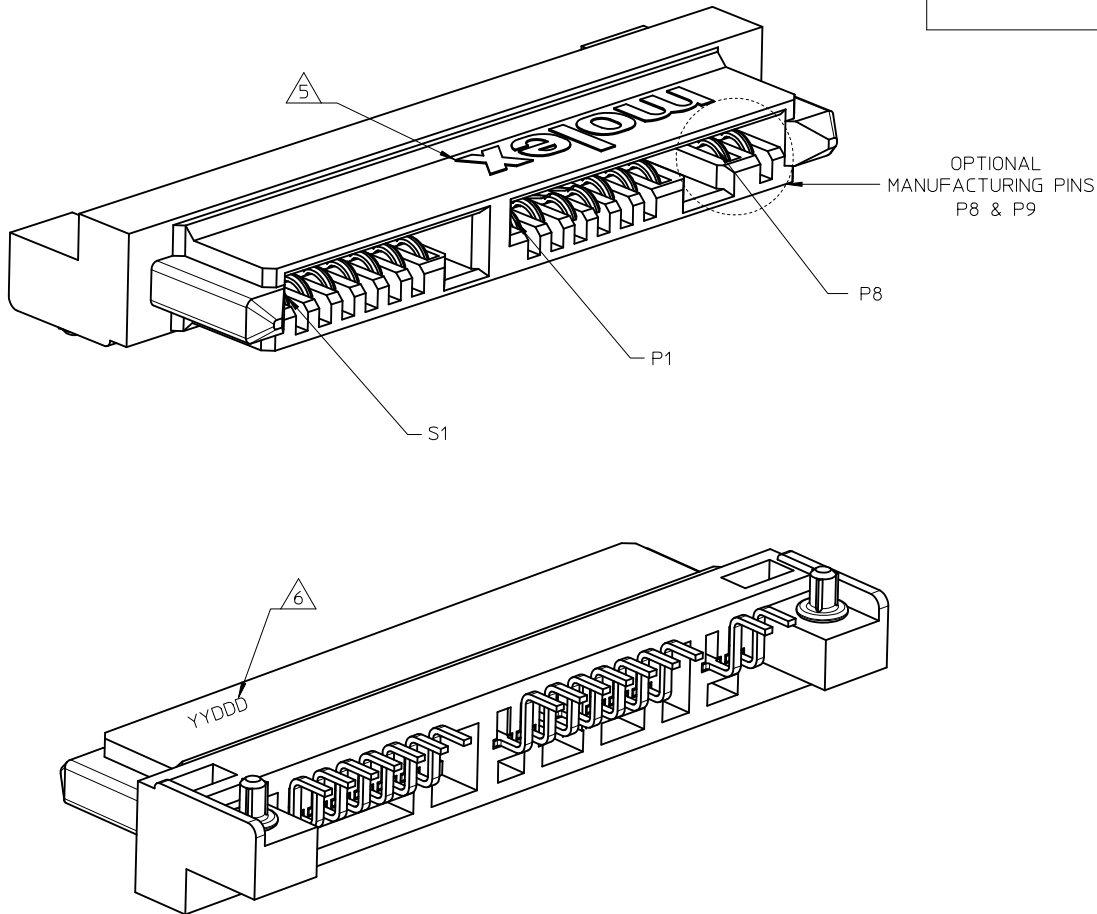
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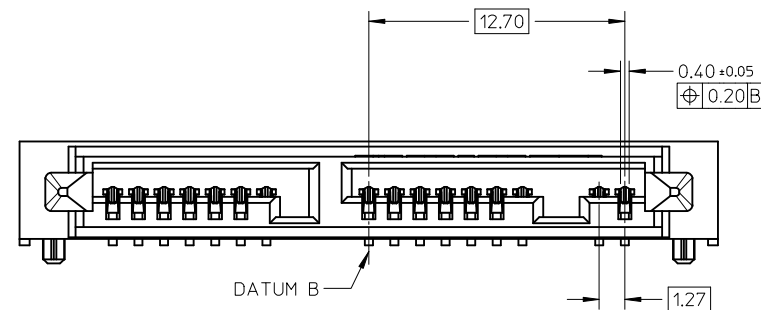
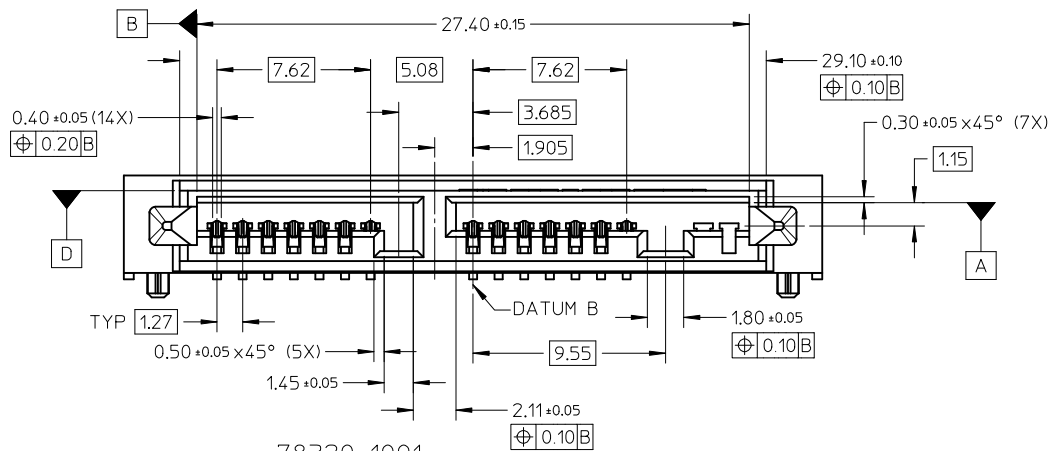
10	9	8	7	6	5	4	3	2	1
					PART NUMBER	TOTAL PINS	DESCRIPTION		
					78320-0001	16	WITH OPTIONAL MANUFACTURING PINS (S1 TO S7 & P1 TO P9)		
					78320-1001	14	WITHOUT OPTIONAL MANUFACTURING PINS (S1 TO S7 & P1 TO P7)		



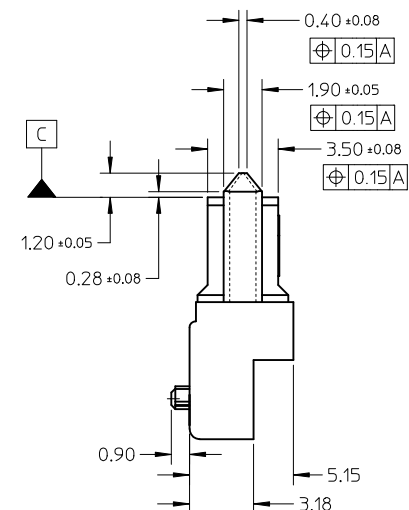
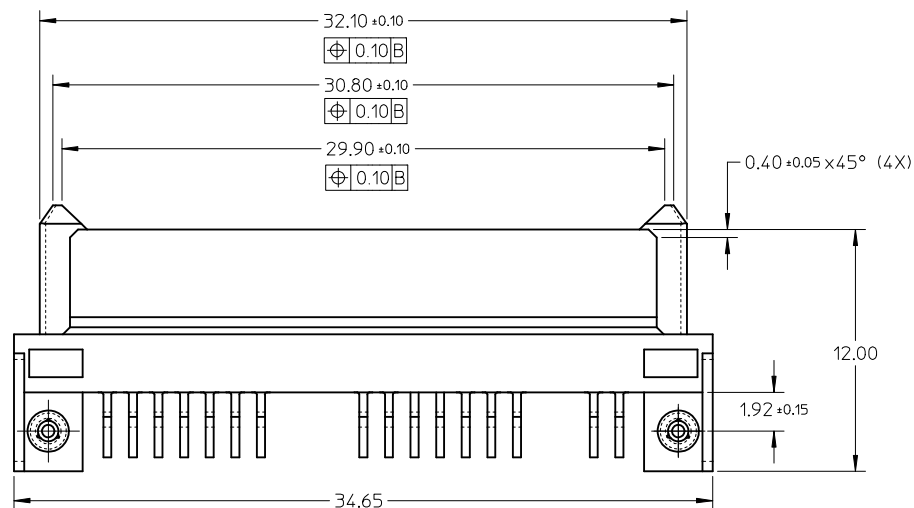
- NOTES:
- 1. MATERIAL : NYLON (PA), GLASS FILLED, UL 94V-0, BLACK
TERMINAL/LOCATING PIN : COPPER ALLOY
 - 2. FINISHES :
 - TERMINAL : 0.76µm MIN. SELECTIVE GOLD OVER
1.27µm MIN. NICKEL UNDERPLATE
: 2.54µm MIN. TIN OVER
1.27µm MIN. NICKEL UNDERPLATE
 - LOCATING PIN : 3.81µm MIN. TIN OVER
2.00µm MIN. NICKEL UNDERPLATE
 - 3. PRODUCT SPECIFICATION: PS-78320-002
 - 4. PACKAGING : TRAY
 - 5. MOLEX LOGO LOCATED APPROXIMATELY AS SHOWN
 - 6. DATE CODE LOCATED APPROXIMATELY AS SHOWN
 - 7. THIS PRODUCT IS COMPLIANT TO RoHS DIRECTIVE WITH THE FOLLOWING BANNED SUBSTANCES - LEAD, MERCURY, CADMIUM, HEXAVALENT CHROMIUM, POLYBROMINATED BIPHENYLS AND POLYBROMINATED DIPHENYLS ETHERS.
 - 8. NON FUNCTIONAL CORING MAY VARY.

UPDATE VIEWS EC NO: S2010-0590 DRWN:GMENARLY CHKD:CGOH APPR:BOKOK A3				DESCRIPTION 2010/01/13 2010/01/25 2010/01/28 REV		QUALITY SYMBOLS F_A=0 F_C=0 F_P=0	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE MM ONLY		SCALE NTS	DESIGN UNITS METRIC	 THIRD ANGLE PROJECTION	
								mm	INCH	DRAWN BY GMENARLY	DATE 2007/08/23	TITLE SERIAL ATA RECEPTACLE 1.8 INCH HDD/SSD R/A, SMT, 3.80MM HEIGHT MOLEX INCORPORATED		
							4 PLACES	± ---	± ---	CHECKED BY YKOH	DATE 2007/10/04			
							3 PLACES	± ---	± ---	APPROVED BY BOKOK	DATE 2010/01/26			
		2 PLACES	± 0.20	± ---										
		1 PLACE	± ---	± ---										
		ANGULAR ± 3 °												
		DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS					MATERIAL NO. SEE TABLE		DOCUMENT NO. SD-78320-001		SHEET NO. 1 OF 5			
					SIZE A3		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

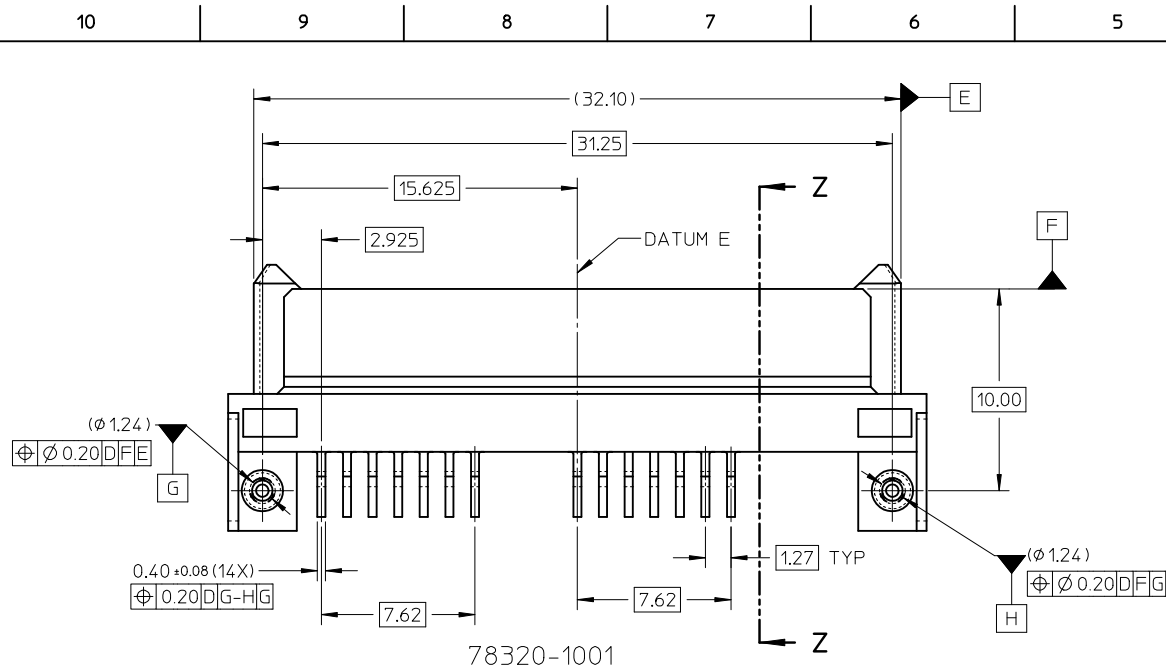


78320-0001

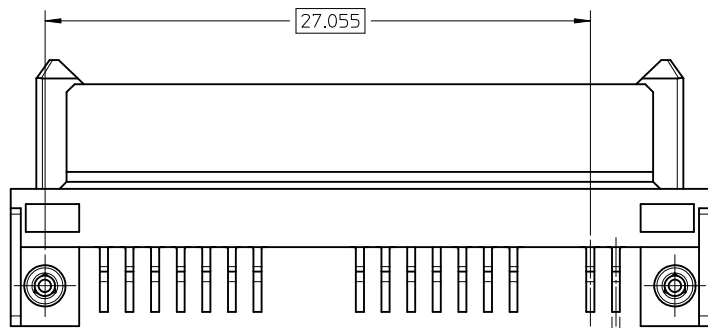


UPDATE VIEWS EC NO: S2010-0590 DRWN:GMENARLY CHKD:CGOH APPR:BOKOK A3			DESCRIPTION REV	QUALITY SYMBOLS $F_A=0$ $F_C=0$ $F_P=0$	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE MM ONLY		SCALE NTS	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION	
						mm	INCH	DRAWN BY GMENARLY	DATE 2007/08/23	TITLE SERIAL ATA RECEPTACLE 1.8 INCH HDD/SSD R/A, SMT, 3.80MM HEIGHT MOLEX INCORPORATED SD-78320-001		
					4 PLACES	± ---	± ---	CHECKED BY YKOH	DATE 2007/10/04			
					3 PLACES	± ---	± ---	APPROVED BY BOKOK	DATE 2010/01/26			
		2 PLACES	± 0.20	± ---								
		1 PLACE	± ---	± ---	ANGULAR ± 3 °		MATERIAL NO.		DOCUMENT NO.		SHEET NO.	
		DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS			SEE TABLE		SD-78320-001				2 OF 5	
					SIZE A3		THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION					

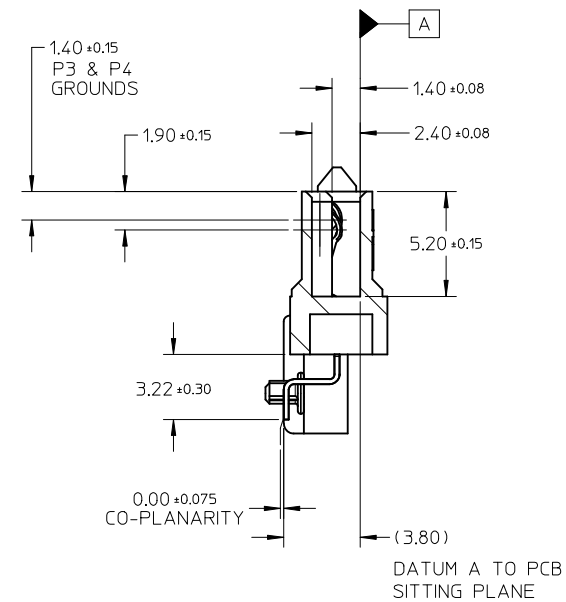
9 8 7 6 5 4 3 2 1



78320-1001



78320-0001



SECTION Z-Z

UPDATE VIEWS EC NO: S2010-0590 DRWN:GMENARLY CHKD:CGOH APPR:BOKOK A3	2010/01/13 2010/01/25 2010/01/28	DESCRIPTION REV	QUALITY SYMBOLS F_A=0 F_G=0 F_P=0	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE MM ONLY		SCALE NTS	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION	
					mm	INCH	DRAWN BY GMENARLY	DATE 2007/08/23	TITLE SERIAL ATA RECEPTACLE 1.8 INCH HDD/SSD R/A, SMT, 3.80MM HEIGHT MOLEX INCORPORATED		
				4 PLACES	± ---	± ---	CHECKED BY YKOH	DATE 2007/10/04			
				3 PLACES	± ---	± ---	APPROVED BY BOKOK	DATE 2010/01/26			
				2 PLACES	± 0.20	± ---	DOCUMENT NO. SD-78320-001				
				1 PLACE	± ---	± ---	SHEET NO. 3 OF 5				
ANGULAR ± 3 °				MATERIAL NO.							
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS				SEE TABLE							
				SIZE A3	THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION						

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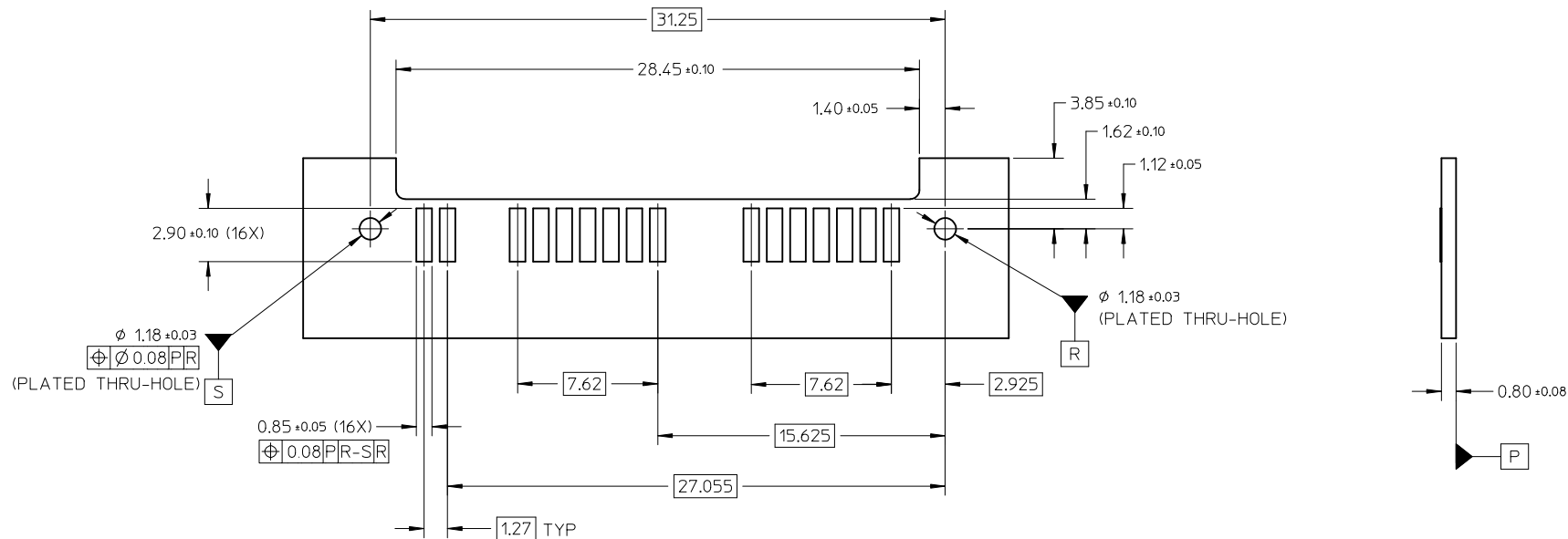
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RECOMMENDED PCB LAYOUT

UPDATE VIEWS EC NO: S2010-0590 DRAWN:GMENARLY CHKD:CGOH APPR:BOKOK A3		DESCRIPTION REV	QUALITY SYMBOLS
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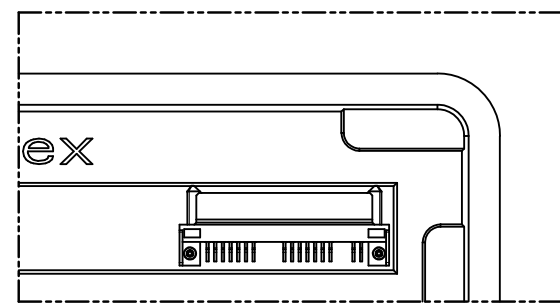
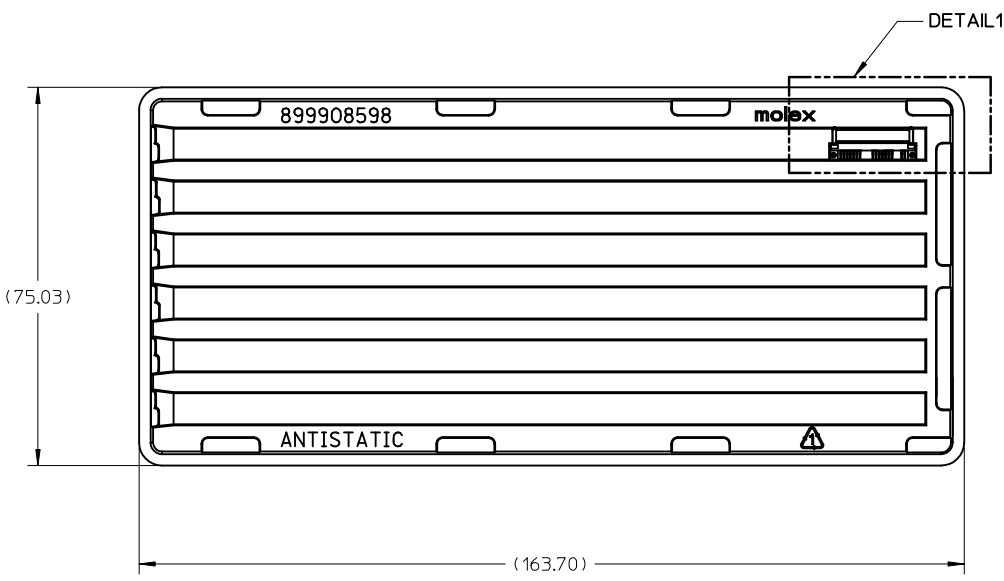
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DETAIL 1

- NOTES:
- 1. PACKAGING QTY: 54PCS/TRAY
 - 2. MATERIAL: PVC-CLEAR, ANTISTATIC 0.70MM THICK (PRE-FORMED)

UPDATE VIEWS EC NO: S2010-0590 DRWNG:GMENARLY CHKD:CGOH APPR:BOKOK A3		DESCRIPTION 2010/01/13 2010/01/25 2010/01/28 REV	QUALITY SYMBOLS F _A =0 F _C =0 F _P =0	GENERAL TOLERANCES (UNLESS SPECIFIED)			DIMENSION STYLE MM ONLY		SCALE NTS	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION			
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				1 PLACE	± ---	± ---	ANGULAR ± 3 °		SEE TABLE			SD-78320-001		
				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					SHEET NO. 5 OF 5	

9 8 7 6 5 4 3 2 1

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

Наши преимущества:

- Поставка оригинальных импортных электронных компонентов напрямую с производств Америки, Европы и Азии, а так же с крупнейших складов мира;
- Широкая линейка поставок активных и пассивных импортных электронных компонентов (более 30 млн. наименований);
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Помощь Конструкторского Отдела и консультации квалифицированных инженеров;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Поставка электронных компонентов под контролем ВП;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- При необходимости вся продукция военного и аэрокосмического назначения проходит испытания и сертификацию в лаборатории (по согласованию с заказчиком);
- Поставка специализированных компонентов военного и аэрокосмического уровня качества (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Actel, Aeroflex, Peregrine, VPT, Syfer, Eurofarad, Texas Instruments, MS Kennedy, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits, General Dynamics и др.);

Компания «Океан Электроники» является официальным дистрибьютором и эксклюзивным представителем в России одного из крупнейших производителей разъемов военного и аэрокосмического назначения «JONHON», а так же официальным дистрибьютором и эксклюзивным представителем в России производителя высокотехнологичных и надежных решений для передачи СВЧ сигналов «FORSTAR».



JONHON

«JONHON» (основан в 1970 г.)

Разъемы специального, военного и аэрокосмического назначения:

(Применяются в военной, авиационной, аэрокосмической, морской, железнодорожной, горно- и нефтедобывающей отраслях промышленности)

«FORSTAR» (основан в 1998 г.)

ВЧ соединители, коаксиальные кабели,
кабельные сборки и микроволновые компоненты:

(Применяются в телекоммуникациях гражданского и специального назначения, в средствах связи, РЛС, а так же военной, авиационной и аэрокосмической отраслях промышленности).



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