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**Part Number:** [0877811001](#)  
**Status:** **Active**  
**Description:** 1.27mm (.050") Pitch Serial ATA Host Receptacle, Surface Mount, Vertical, Extended Height, 0.76µm (30µ") Gold (Au) Selective, 22 Circuits, Leadfree

**Documents:**

[3D Model](#) [Product Specification PS-87781-005 \(PDF\)](#)  
[Drawing \(PDF\)](#) [RoHS Certificate of Compliance \(PDF\)](#)

**General**

Product Family	PCB Receptacles
Series	<a href="#">87781</a>
Application	Board-to-Board
Product Literature Order No	SNG-029
Product Name	Serial ATA

**Physical**

Circuits (Loaded)	22
Circuits Detail	Power 15 pins Signal 7 pins
Durability (mating cycles max)	500
Glow-Wire Compliant	No
Guide to Mating Part	Yes
Lock to Mating Part	None
Material - Plating Mating	Gold
Material - Plating Termination	Tin
Number of Rows	1
Orientation	Vertical
PCB Locator	Yes
PCB Retention	None
Packaging Type	Tray
Pitch - Mating Interface (in)	0.050 In
Pitch - Mating Interface (mm)	1.27 mm
Plating min: Mating (µin)	30.4
Plating min: Mating (µm)	0.76
Plating min: Termination (µin)	101.6
Plating min: Termination (µm)	2.54
Polarized to Mating Part	Yes
Polarized to PCB	Yes
Surface Mount Compatible (SMC)	N/A
Temperature Range - Operating	-40°C to +105°C
Termination Interface: Style	Through Hole and Surface Mount

**Electrical**

Current - Maximum per Contact	1.5A
Voltage - Maximum	30V

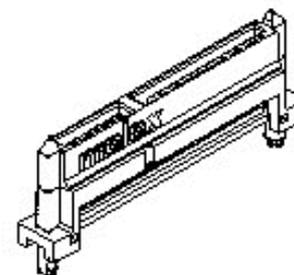
**Solder Process Data**

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-87781-005
Sales Drawing	SD-87781-017



*image - Reference only*

*Series*

**EU RoHS**

**ELV and RoHS Compliant**  
**REACH SVHC**  
 Not Reviewed  
**Halogen-Free Status**

**China RoHS**



**Halogen-Free**  
**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**

[87781Series](#)

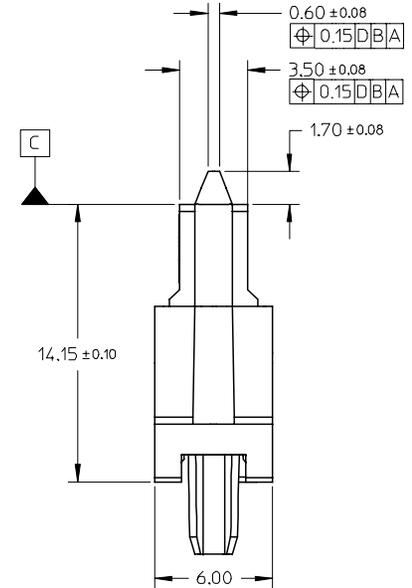
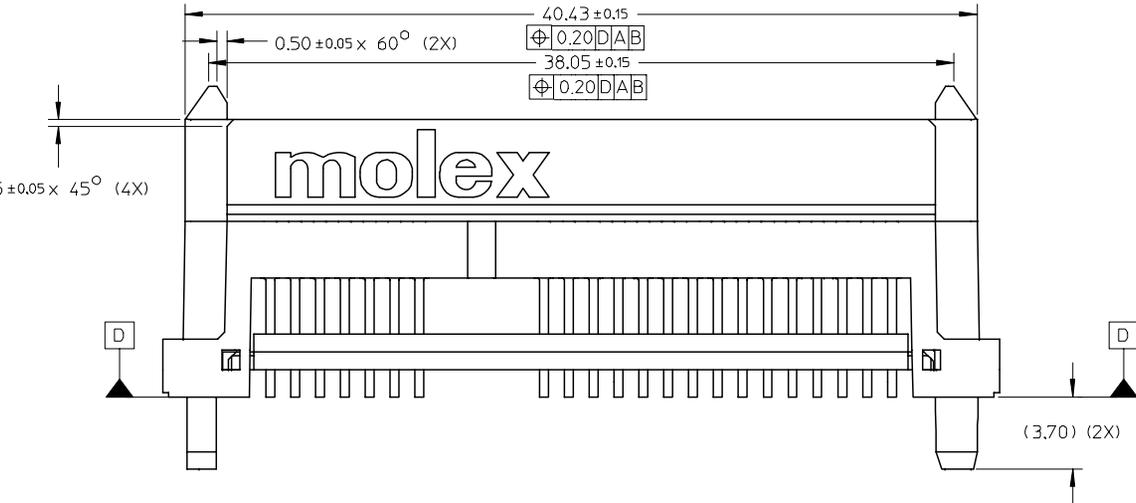
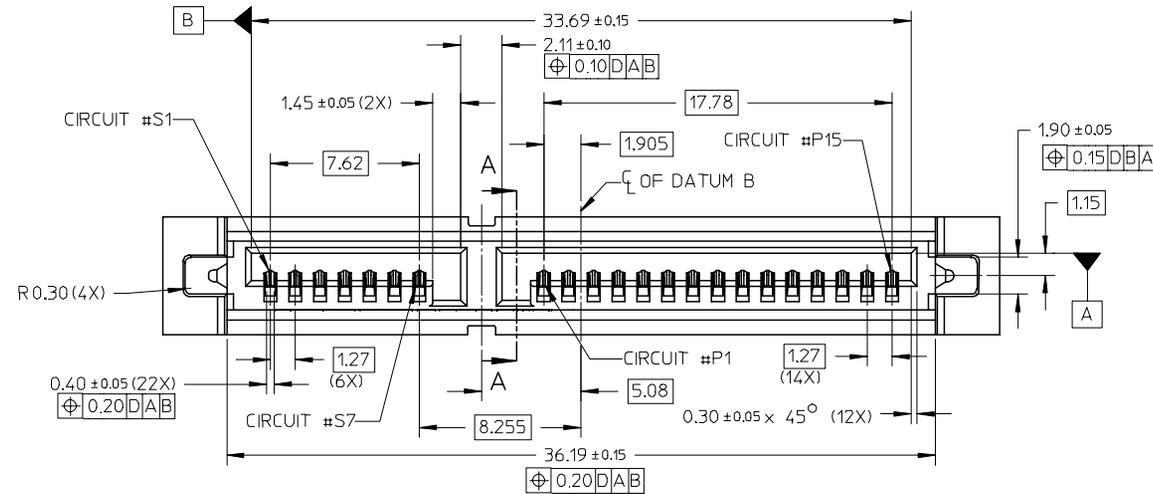
**Mates With**

[87679](#) , [87799](#) , [87703](#)

This document was generated on 04/09/2010

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NOTES:

- MATERIAL: HIGH TEMPERATURE THERMOPLASTIC, UL 94V-0, COLOR: BLACK  
TERMINAL: COPPER ALLOY
- PLATING  
CONTACT: 0.76µm MIN. SELECTIVE GOLD  
OVER 1.27µm MIN. NICKEL UNDERPLATE  
SOLDERTAIL: 2.54µm MIN. TIN OVER 1.27µm MIN. NICKEL UNDERPLATE
- MOLEX LOGO LOCATED APPROXIMATELY AS SHOWN
- MAXIMUM WARPAGE OF 0.13 mm OVER THE LENGTH OF THE CONNECTOR IN ANY DIRECTION BEFORE AND AFTER EXPOSURE TO MAX. 260°C FOR 10 SECONDS
- PRODUCT SPECIFICATION: PS-87781-005 APPLIES
- PACKAGING  
30 CONNECTORS PER TRAY

THE DESIGN IS BASED ON DESIGN OBJECTIVES AND IS STRICTLY TENTATIVE. IT MAY CHANGE BASED ON RESULTS OF ADDITIONAL DESIGN REVIEWS & VERIFICATIONS

EC NO: S2005-0571	2005/02/05	DRWN:KHLIM	2005/02/14	CHKD:KCLIM	2005/02/14	APPR:SKTOH	2005/02/16
A	REV	DESCRIPTION					

QUALITY SYMBOLS	▽=0
	∇=0

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

DIMENSION STYLE		SCALE		DESIGN UNITS	
MM ONLY		NTS		METRIC	
DRAWN BY	DATE	TITLE			
KHLIM	2004/01/12	SERIAL ATA BACKPLANE			
CHECKED BY	DATE	EXTENDED HEIGHT			
KCLING	2005/02/03	SIL SMT RECEPTACLE			
APPROVED BY	DATE	MOLEX	MOLEX INCORPORATED		
SKTOH	2005/02/04	MATERIAL NO.	DOCUMENT NO.	SHEET NO.	
		87781-1001	SD-87781-017	1 OF 4	
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

10 9 8 7 6 5 4 3 2 1

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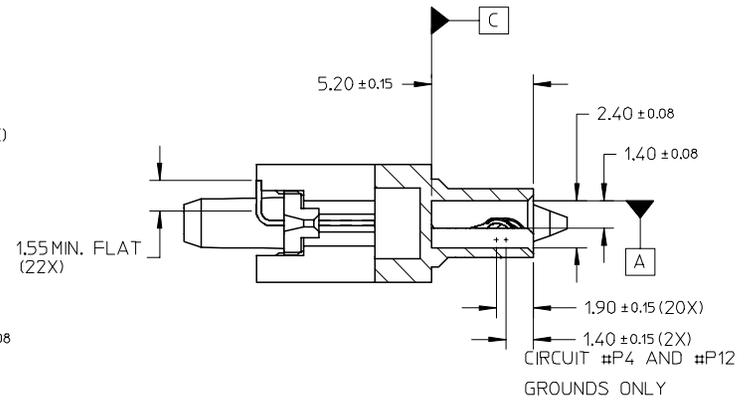
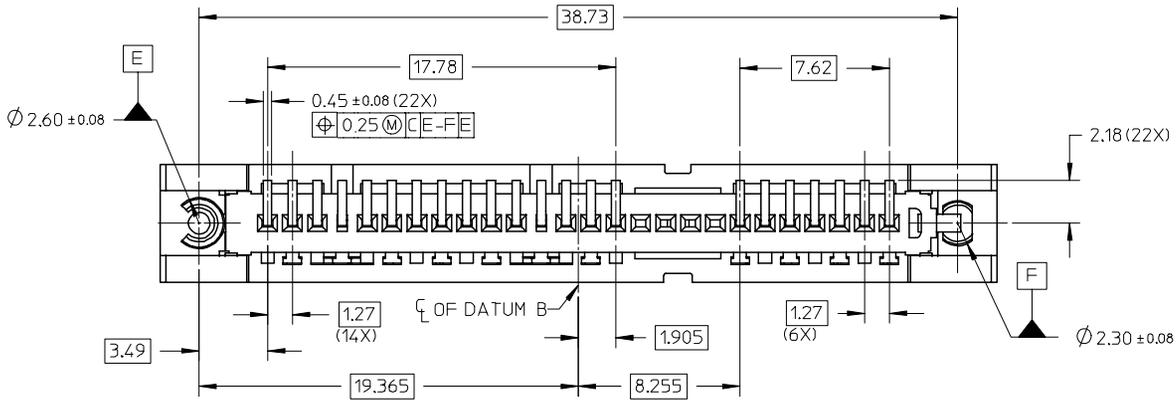
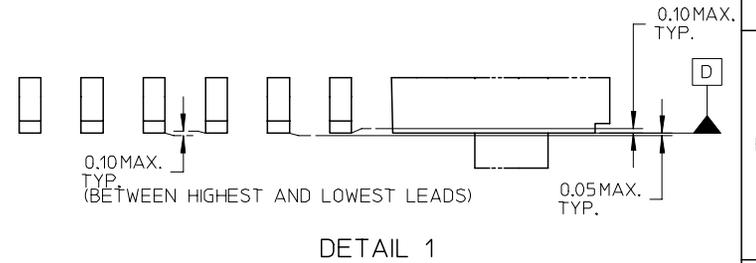
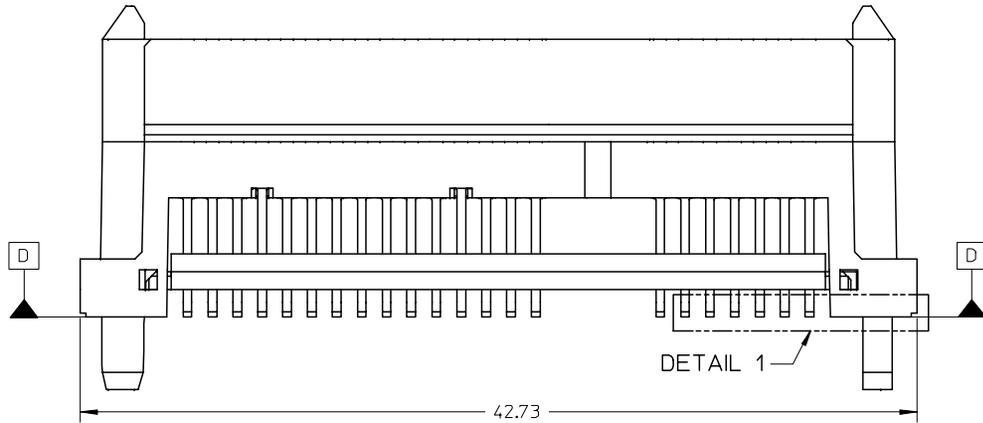
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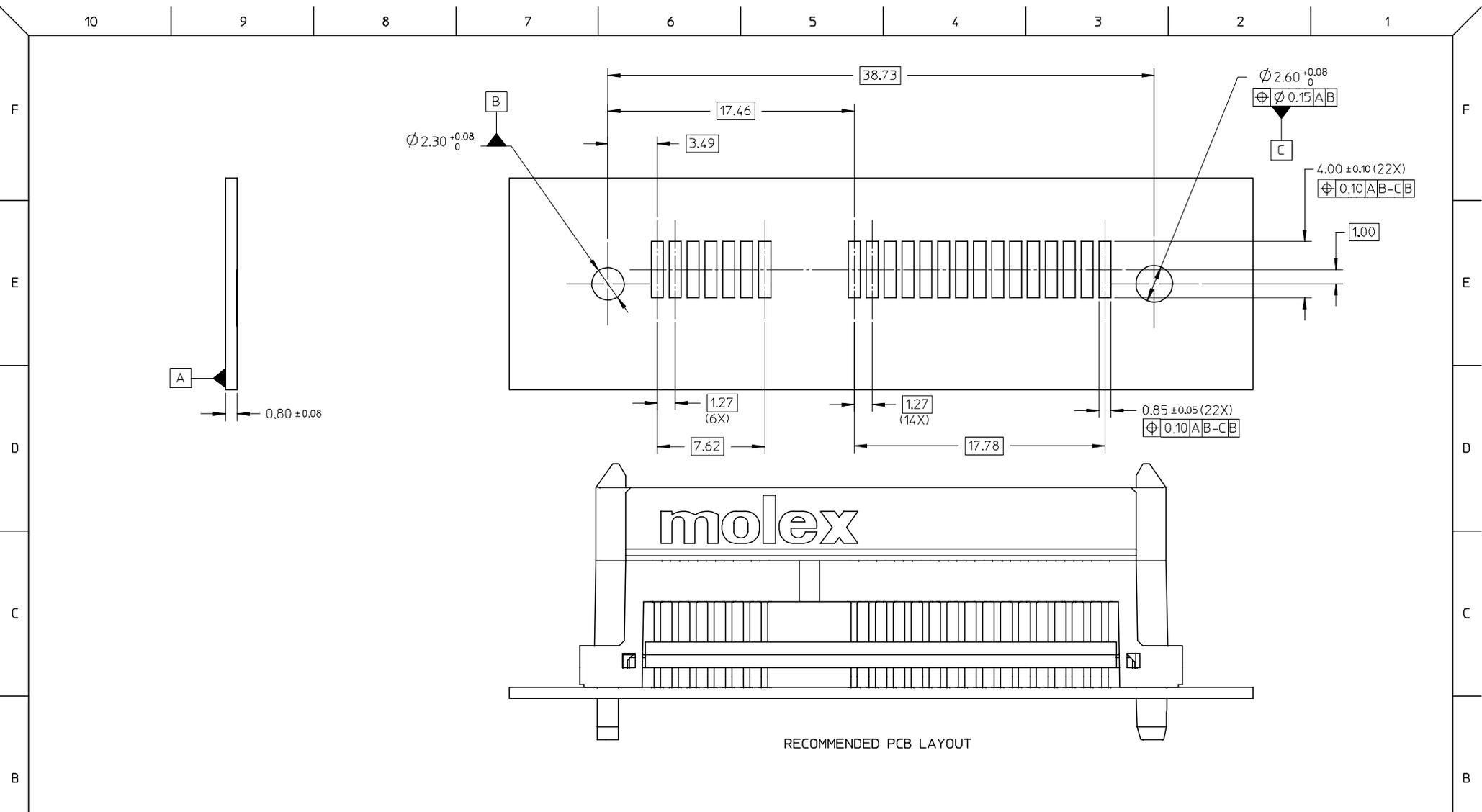
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SECTION A-A

EC NO: S2005-0571 DRWN:KHLIM 2005/02/05 CHKD:KCLING 2005/02/14 APPR:SKTOH 2005/02/16	QUALITY SYMBOLS ▽=0 ◻=0	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE MM ONLY		SCALE NTS	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION		
			mm	INCH	DRAWN BY	DATE	SERIAL ATA BACKPLANE EXTENDED HEIGHT SIL SMT RECEPTACLE MOLEX INCORPORATED			
		4 PLACES	± ---	± ---	KHLIM	2004/01/12				
		3 PLACES	± ---	± ---	CHECKED BY	DATE	MOLEX INCORPORATED MATERIAL NO. 87781-1001 DOCUMENT NO. SD-87781-017 SHEET NO. 2 OF 4			
2 PLACES	± 0.20	± ---	KCLING	2005/02/03						
1 PLACE	± ---	± ---	APPROVED BY	DATE	THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION					
ANGULAR ± 3 °			SKTOH	2005/02/04						
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		SIZE A3								

9 8 7 6 5 4 3 2 1



RECOMMENDED PCB LAYOUT

EC NO: S2005-0571 DRWN:KHLIM 2005/02/05 CHKD:KCLING 2005/02/14 APPR:SKTOH 2005/02/16	QUALITY SYMBOLS ▽=0 ▽C=0	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE MM ONLY		SCALE NTS	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION		
			mm	INCH	DRAWN BY	DATE	SERIAL ATA BACKPLANE EXTENDED HEIGHT SIL SMT RECEPTACLE MOLEX INCORPORATED			
		4 PLACES	± ---	± ---	KHLIM	2004/01/12				
		3 PLACES	± ---	± ---	CHECKED BY	DATE	MOLEX MOLEX INCORPORATED			
2 PLACES	± 0.20	± ---	KCLING	2005/02/03						
1 PLACE	± ---	± ---	APPROVED BY	DATE	MATERIAL NO.	DOCUMENT NO.	SHEET NO.			
		ANGULAR ± 3 °	SKTOH	2005/02/04	87781-1001	SD-87781-017	3 OF 4			
A	REV	DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		SIZE	THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION					
				A3						

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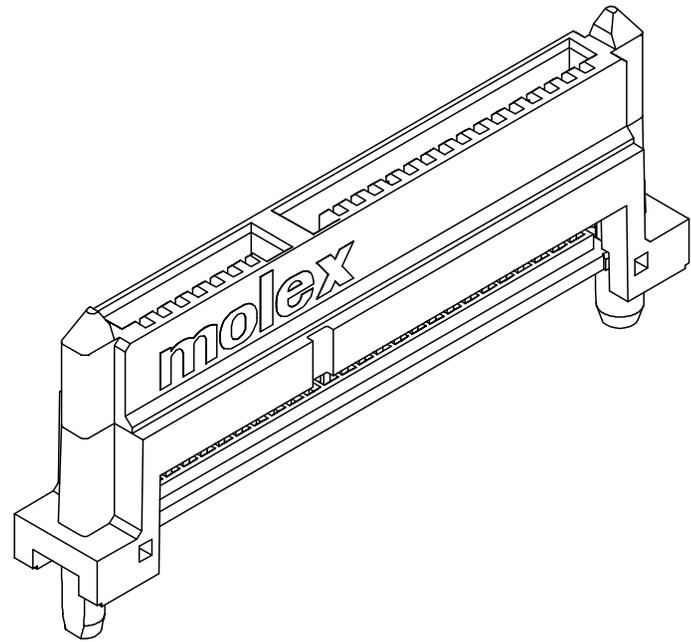
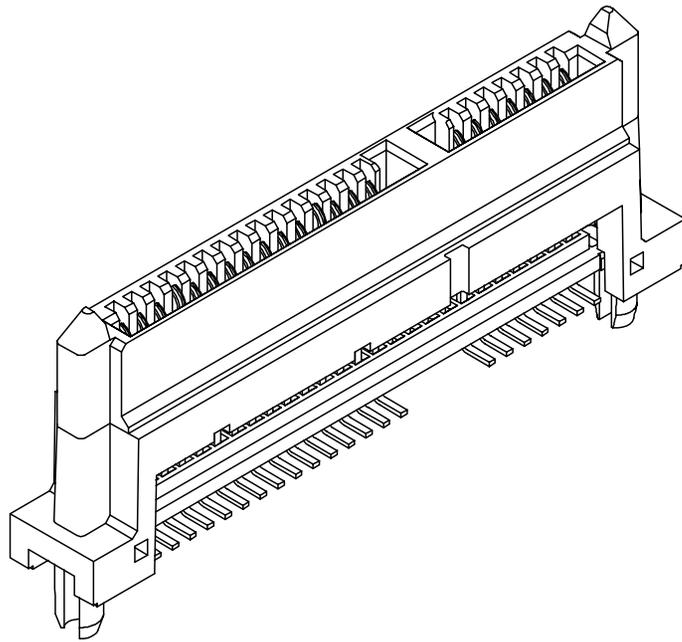
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EC NO: S2005-0571 2005/02/05 DRWN:KHLIM 2005/02/14 CHKD:KCLING APPR:SKTOH 2005/02/16	DESCRIPTION REV	QUALITY SYMBOLS ▽=0 ◻=0	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE MM ONLY		SCALE NTS	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION		
			4 PLACES ± --- ± --- 3 PLACES ± --- ± --- 2 PLACES ± 0.20 ± --- 1 PLACE ± --- ± ---	mm      INCH	DRAWN BY KHLIM	DATE 2004/01/12	TITLE SERIAL ATA BACKPLANE EXTENDED HEIGHT SIL SMT RECEPTACLE				
			ANGULAR ± 3 °		CHECKED BY KCLING	DATE 2005/02/03	MOLEX INCORPORATED				
			DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		APPROVED BY SKTOH	DATE 2005/02/04	MATERIAL NO. 87781-1001	DOCUMENT NO. SD-87781-017	SHEET NO. 4 OF 4		

9 8 7 6 5 4 3 2 1

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Нашей специализацией является поставка электронной компонентной базы двойного назначения, продукции таких производителей как XILINX, Intel (ex.ALTERA), Vicor, Microchip, Texas Instruments, Analog Devices, Mini-Circuits, Amphenol, Glenair.

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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