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Part Number: [0879700001](#)
Status: **Active**
Description: 1.27mm (.050") Signal Pitch, 0.80mm (.031") SCSI Pitch, 1.27mm (.050") Power Pitch SAS Receptacle, Vertical, Through Hole, with Straight Solder Tab, 29 Circuits, Lead free

Documents:

[3D Model](#) [Product Specification PS-87970-003 \(PDF\)](#)
[Drawing \(PDF\)](#) [RoHS Certificate of Compliance \(PDF\)](#)

Agency Certification

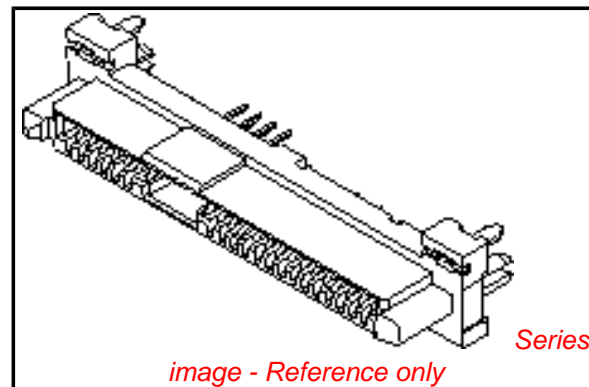
CSA LR19980
 UL E29179

General

Product Family I/O Connectors
 Series [87970](#)
 Application Board-to-Board
 Comments No pick and place cap
 Component Type Receptacle
 Product Name SAS
 Type N/A

Physical

Boot Color N/A
 Circuits (Loaded) 29
 Circuits (maximum) 29
 Circuits Detail Signal 7, SCSI 7, Power 15
 Color - Resin Black
 Durability (mating cycles max) 500
 Flammability 94V-0
 Gender Female
 Keying to Mating Part Yes
 Lock to Mating Part None
 Material - Plating Mating Gold
 Material - Plating Termination Tin
 Number of Rows 2
 Orientation Vertical
 PC Tail Length (in) 0.087 In, 0.106 In
 PC Tail Length (mm) 2.20 mm, 2.70 mm
 PCB Locator Yes
 PCB Retention Yes
 PCB Thickness Recommended (in) 0.070 In
 PCB Thickness Recommended (mm) 1.80 mm
 Packaging Type Tray
 Panel Mount Yes
 Pitch - Mating Interface (in) 0.031 In, 0.050 In
 Pitch - Mating Interface (mm) 0.80 mm, 1.27 mm
 Pitch - Term. Interface (in) 0.031 In, 0.050 In
 Pitch - Term. Interface (mm) 0.80 mm, 1.27 mm
 Plating min: Mating (µin) 30
 Plating min: Mating (µm) 0.76
 Plating min: Termination (µin) 102
 Plating min: Termination (µm) 2.54
 Polarized to Mating Part Yes
 Polarized to PCB Yes



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
 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

[87970Series](#)

Mates With

[87679](#) , [87799](#) , [87703](#) , SFF 8482 Hard Disk Drive and Backplane Plug

Surface Mount Compatible (SMC)	Yes
Temperature Range - Operating	0°C to +55°C
Termination Interface: Style	Through Hole
Waterproof / Dustproof	No
Wire Size AWG	N/A

Electrical

Current - Maximum per Contact	1.5A
Shielded	No
Voltage - Maximum	30V

Solder Process Data

Duration at Max. Process Temperature (seconds)	10
Lead-free Process Capability	SMC & Wave Capable (TH only)
Max. Cycles at Max. Process Temperature	1
Process Temperature max. C	260

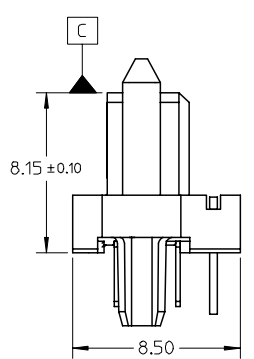
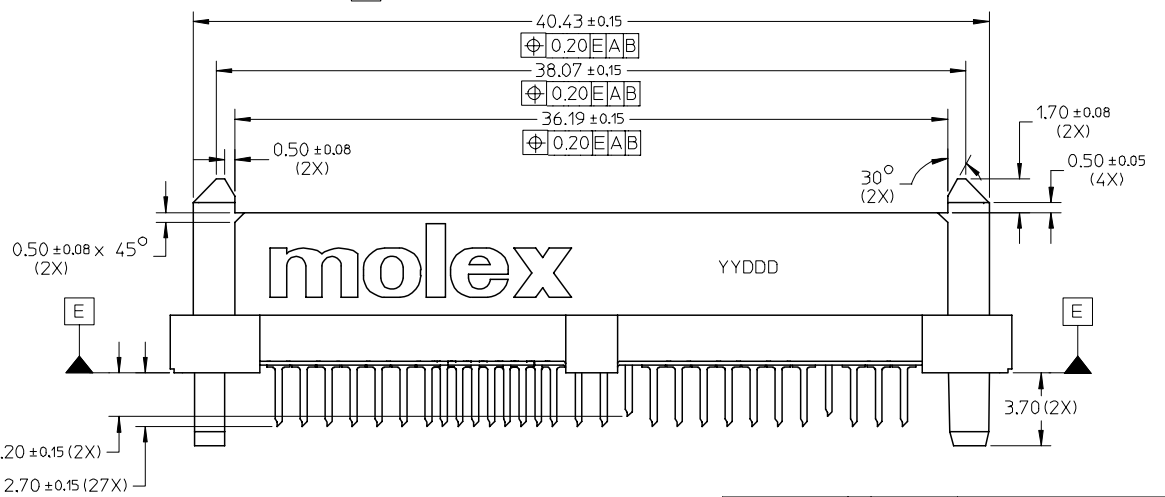
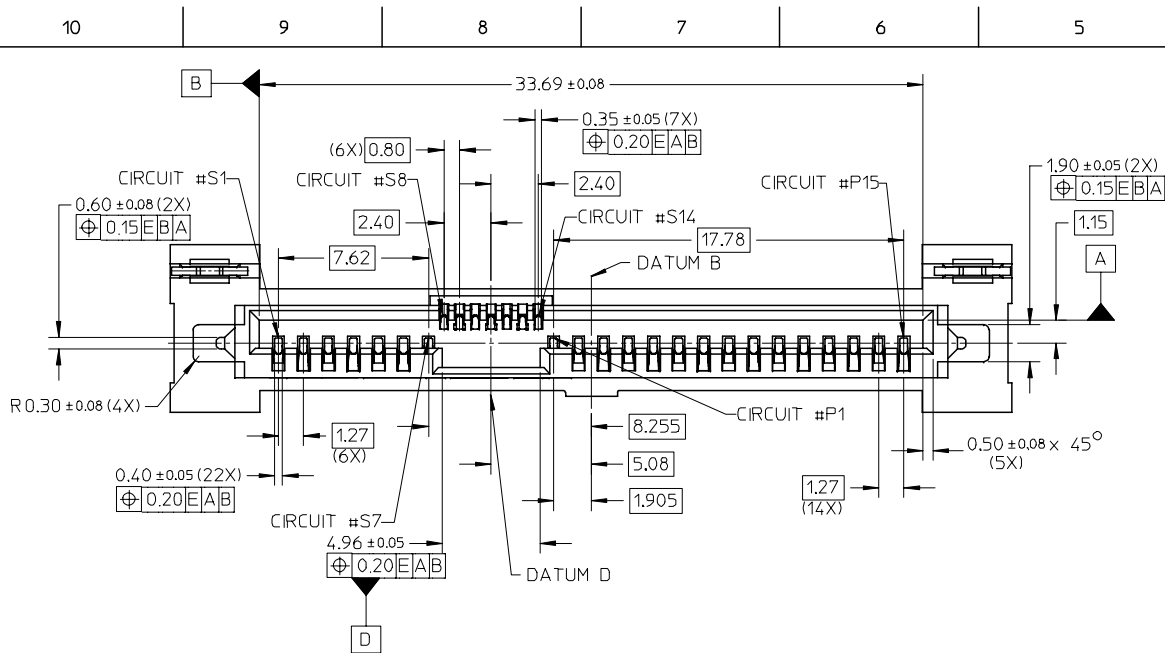
Material Info

Reference - Drawing Numbers

Product Specification	PS-87970-003
Sales Drawing	SD-87970-001

This document was generated on 04/02/2010

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NOTES:

- MATERIAL:
HOUSING: LIQUID CRYSTAL POLYMER, GLASS FILLED, UL 94V-0, COLOUR BLACK.
TERMINAL/BLADE: COPPER ALLOY.
- PLATING:
TERMINAL CONTACTS: 0.76µm MIN. SELECTIVE GOLD
OVER 1.27m MIN. NICKEL UNDERPLATE.
TERMINAL SOLDER TAILS/BLADE: 2.54µm MIN. TIN
OVER 1.27m MIN. NICKEL UNDERPLATE.
- MOLEX LOGO AND DATE CODE LOCATED APPROXIMATELY AS SHOWN.
- PRODUCT CONFORMS TO SFF-8482 SPECIFICATION.
- KEEP OUT ZONE ON BOTH SIDE OF THE PCB FOR CONNECTOR.
- PACKAGING: TRAY.
- PRODUCT SPECIFICATION PS-87970-003 APPLIES.
- MATES WITH: SFF-8482 PLUG
SATA PLUG SERIES 87679, 87703 AND 87799
- THIS PRODUCT IS COMPLIANT TO RoHS DIRECTIVE WITH THE FOLLOWING BANNED SUBSTANCES - LEAD, MERCURY, CADMIUM, HEXAVALENT CHROMIUM, POLYBROMINATED BIPHENYLS, POLYBROMINATED DIPHENYLS ETHERS.

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

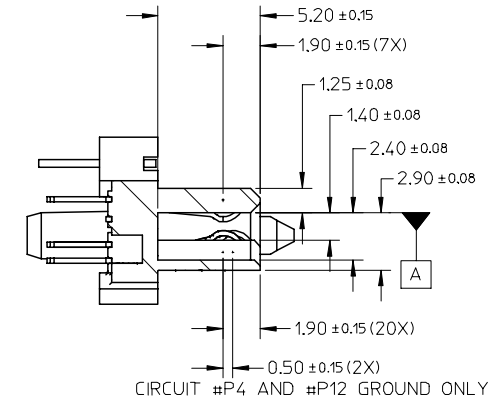
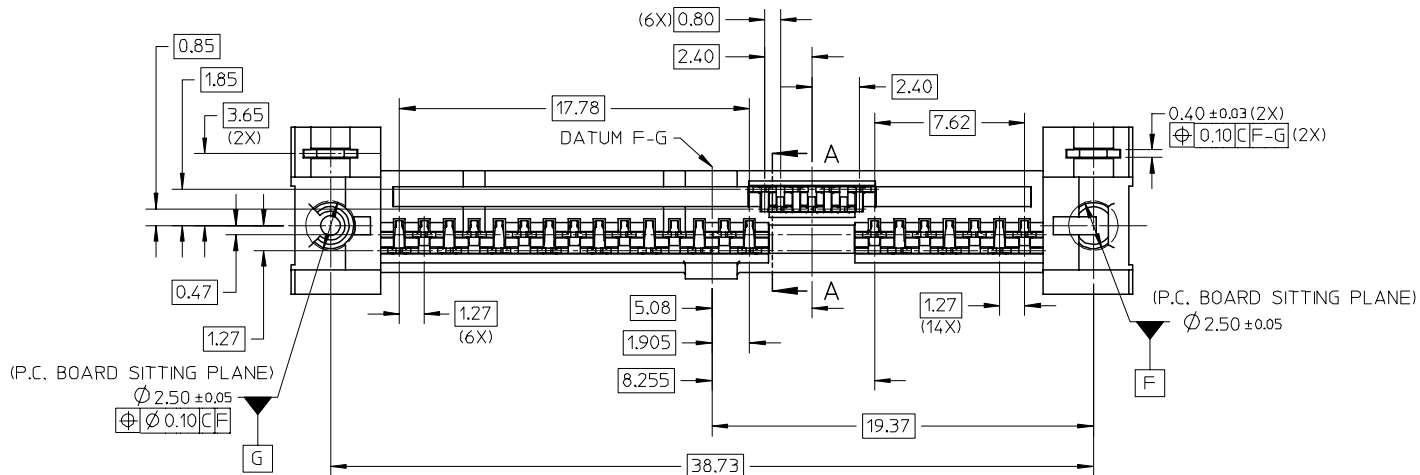
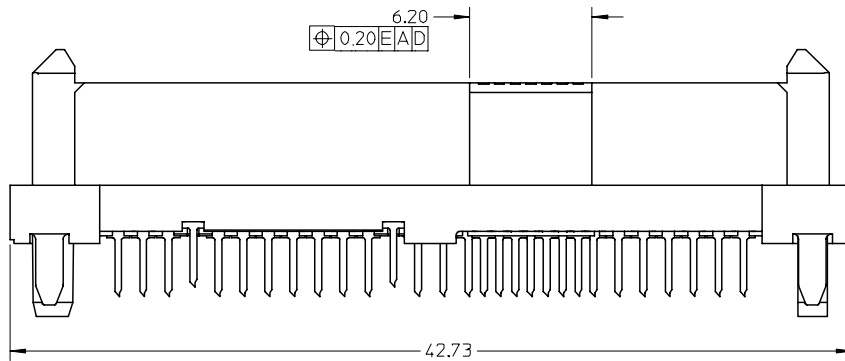
REVISED	EC NO: S2006-0480	2005/11/10
DRWN:YKOH	2005/11/10	
CHKD:SHONG	2005/11/10	
APPR:KCLING	2005/11/11	
DESCRIPTION		
REV		

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	THIRD ANGLE PROJECTION
MM ONLY		NTS	METRIC	
DRAWN BY	DATE	TITLE		
DKOH	2004/12/03	SERIAL ATTACH SCSI VERT. STAGGERED T/H STANDARD HEIGHT		
CHECKED BY	DATE			
KCLING	2005/01/13			
APPROVED BY	DATE			
SKTOH	2005/01/14			
MATERIAL NO.	DOCUMENT NO.			
87970-0001	SD-87970-001			
SIZE				
A3	THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION			

MOLEX INCORPORATED		SHEET NO.
		1 OF 4

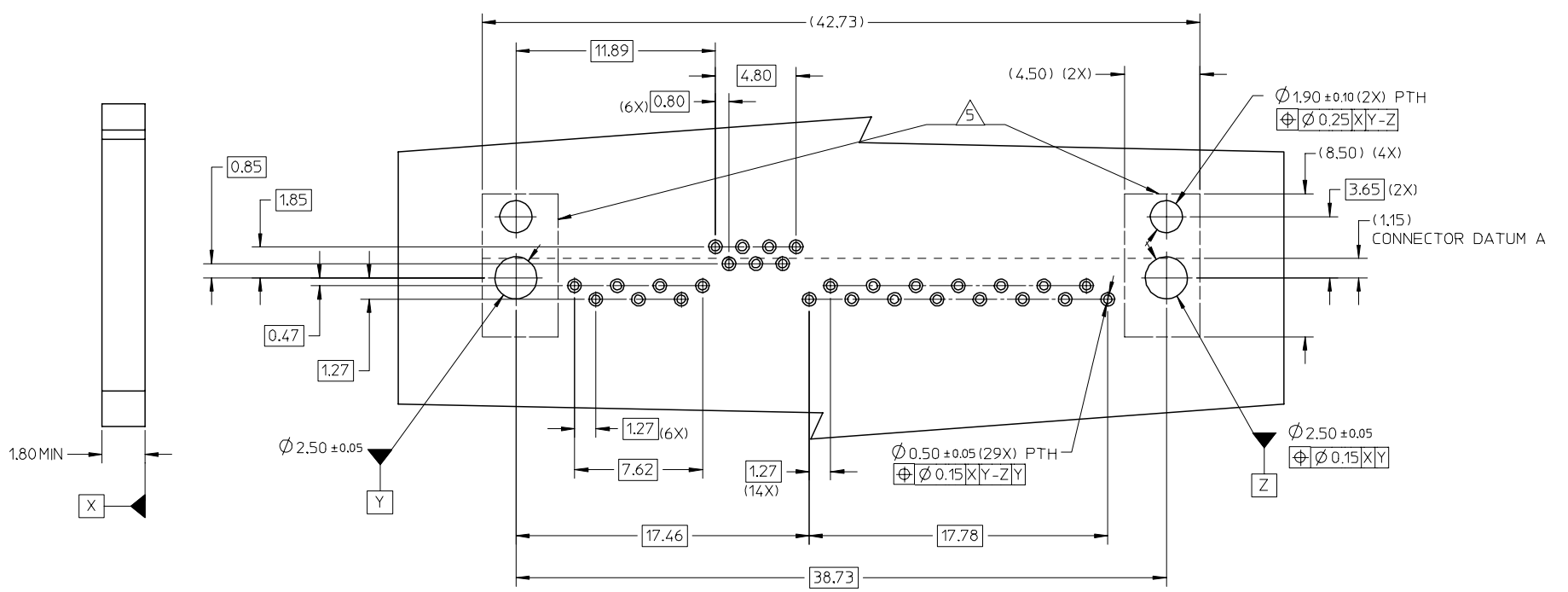


SECTION A-A

SEE SHEET 1 EC NO: S2006-0480 DRWN:YKH CHKD:SHH APPR:KCLING 2005/11/10 2005/11/10 2005/11/11	QUALITY SYMBOLS $\nabla=0$ $\triangle=0$	GENERAL TOLERANCES (UNLESS SPECIFIED) <table border="1"> <thead> <tr> <th></th> <th>mm</th> <th>INCH</th> </tr> </thead> <tbody> <tr> <td>4 PLACES</td> <td>± ---</td> <td>± ---</td> </tr> <tr> <td>3 PLACES</td> <td>± ---</td> <td>± ---</td> </tr> <tr> <td>2 PLACES</td> <td>± 0.20</td> <td>± ---</td> </tr> <tr> <td>1 PLACE</td> <td>± ---</td> <td>± ---</td> </tr> <tr> <td colspan="3">ANGULAR ± 3 °</td> </tr> </tbody> </table>		mm	INCH	4 PLACES	± ---	± ---	3 PLACES	± ---	± ---	2 PLACES	± 0.20	± ---	1 PLACE	± ---	± ---	ANGULAR ± 3 °			DIMENSION STYLE MM ONLY DRAWN BY: DKOH DATE: 2004/12/03 CHECKED BY: KCLING DATE: 2005/01/13 APPROVED BY: SKTOH DATE: 2005/01/14	SCALE: NTS DESIGN UNITS: METRIC THIRD ANGLE PROJECTION	TITLE: SERIAL ATTACH SCSI VERT. STAGGERED T/H STANDARD HEIGHT MOLEX INCORPORATED	MATERIAL NO.: 87970-0001 DOCUMENT NO.: SD-87970-001 SHEET NO.: 2 OF 4
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A1	REV																							

10 9 8 7 6 5 4 3 2 1

F E D C B A



RECOMMENDED PCB LAYOUT

SEE SHEET 1 EC NO: S2006-0480 DRWN:YKOH CHKD:SHONG APPR:KCLING	2005/11/10 2005/11/10 2005/11/11	QUALITY SYMBOLS ▽=0 ▽C=0	GENERAL TOLERANCES (UNLESS SPECIFIED) <table border="1"> <thead> <tr> <th></th> <th>mm</th> <th>INCH</th> </tr> </thead> <tbody> <tr> <td>4 PLACES</td> <td>± ---</td> <td>± ---</td> </tr> <tr> <td>3 PLACES</td> <td>± ---</td> <td>± ---</td> </tr> <tr> <td>2 PLACES</td> <td>± 0.20</td> <td>± ---</td> </tr> <tr> <td>1 PLACE</td> <td>± ---</td> <td>± ---</td> </tr> </tbody> </table> ANGULAR ± 3°		mm	INCH	4 PLACES	± ---	± ---	3 PLACES	± ---	± ---	2 PLACES	± 0.20	± ---	1 PLACE	± ---	± ---	DIMENSION STYLE MM ONLY DRAWN BY: DKOH DATE: 2004/12/03 CHECKED BY: KCLING DATE: 2005/01/13 APPROVED BY: SKTOH DATE: 2005/01/14	SCALE: NTS DESIGN UNITS: METRIC THIRD ANGLE PROJECTION	TITLE: SERIAL ATTACH SCSI VERT. STAGGERED T/H STANDARD HEIGHT MOLEX INCORPORATED
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A1	REV		DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS	MATERIAL NO.: 87970-0001 SIZE: A3	DOCUMENT NO.: SD-87970-001	SHEET NO.: 3 OF 4															
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SEE SHEET 1																					

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10 9 8 7 6 5 4 3 2 1

F

F

E

E

D

D

C

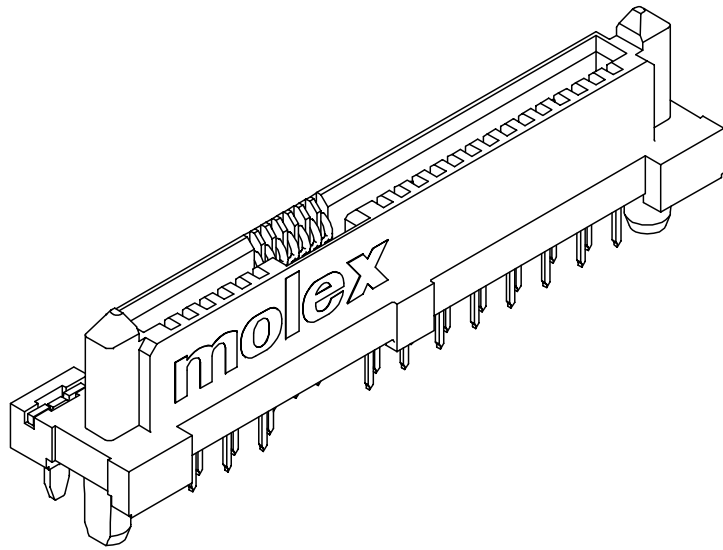
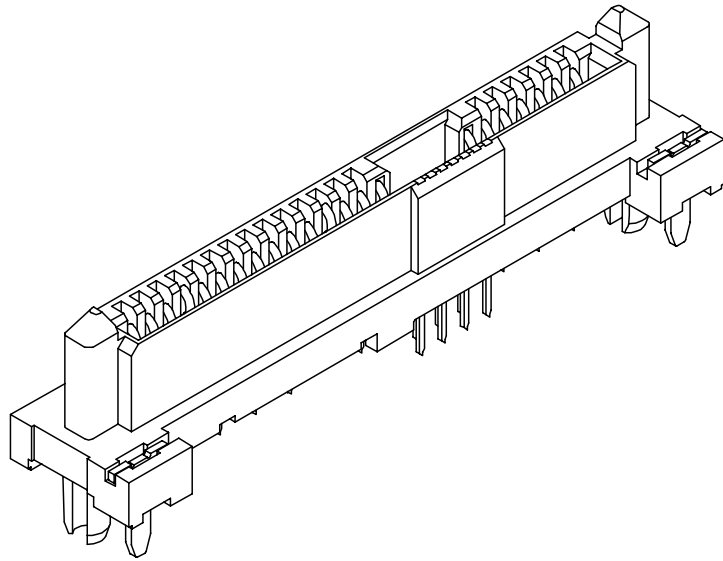
C

B

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A



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				ANGULAR ± 3 °		CHECKED BY KCLING	DATE 2005/01/13					
						APPROVED BY SKTOH	DATE 2005/01/14	MOLEX INCORPORATED				
				DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS	MATERIAL NO. 87970-0001	DOCUMENT NO. SD-87970-001	SHEET NO. 4 OF 4					

9 8 7 6 5 4 3 2 1