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Part Number: [0876781001](#)
Status: **Active**
Description: 1.27mm (.050") Pitch Serial ATA Backplane Receptacle, Through Hole, Vertical, Extended Height, 0.76µm (30µ") Gold (Au) Selective, 22 Circuits, Leadfree

Documents:

[3D Model](#) [Product Specification PS-87678-029 \(PDF\)](#)
[Drawing \(PDF\)](#) [RoHS Certificate of Compliance \(PDF\)](#)

Agency Certification

CSA LR 19980
 UL E29179

General

Product Family PCB Receptacles
 Series [87678](#)
 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
 Flammability 94V-0
 Glow-Wire Compliant No
 Guide to Mating Part Yes
 Lock to Mating Part Yes
 Material - Metal Copper
 Material - Plating Mating Gold
 Material - Plating Termination Tin
 Number of Rows 1
 Orientation Vertical
 PC Tail Length (in) 0.136 In
 PC Tail Length (mm) 3.45 mm
 PCB Locator Yes
 PCB Retention None
 PCB Thickness Recommended (in) 0.031 In, 0.035 In, 0.040 In, 0.042 In, 0.045 In, 0.050 In, 0.055 In, 0.060 In, 0.061 In, 0.062 In, 0.070 In, 0.075 In, 0.080 In, 0.086 In, 0.093 In, 0.098 In
 PCB Thickness Recommended (mm) 0.80 mm, 0.90 mm, 1.00 mm, 1.07 mm, 1.20 mm, 1.27 mm, 1.40 mm, 1.50 mm, 1.55 mm, 1.60 mm, 1.80 mm, 1.90 mm, 2.00 mm, 2.20 mm, 2.40 mm, 2.50 mm
 Packaging Type Tray
 Pitch - Mating Interface (in) 0.050 In
 Pitch - Mating Interface (mm) 1.27 mm
 Plating min: Mating (µin) 30
 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) Yes
 Temperature Range - Operating -40°C to +105°C
 Termination Interface: Style Through Hole - Compliant Pin

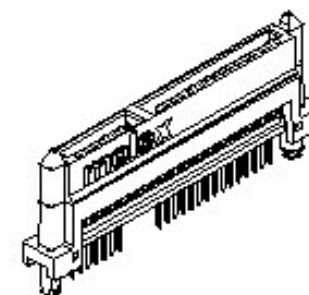


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Series

EU RoHS

ELV and RoHS Compliant
REACH SVHC
 Not Reviewed
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

[87678Series](#)

Mates With

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

Electrical

Current - Maximum per Contact	1.5A
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

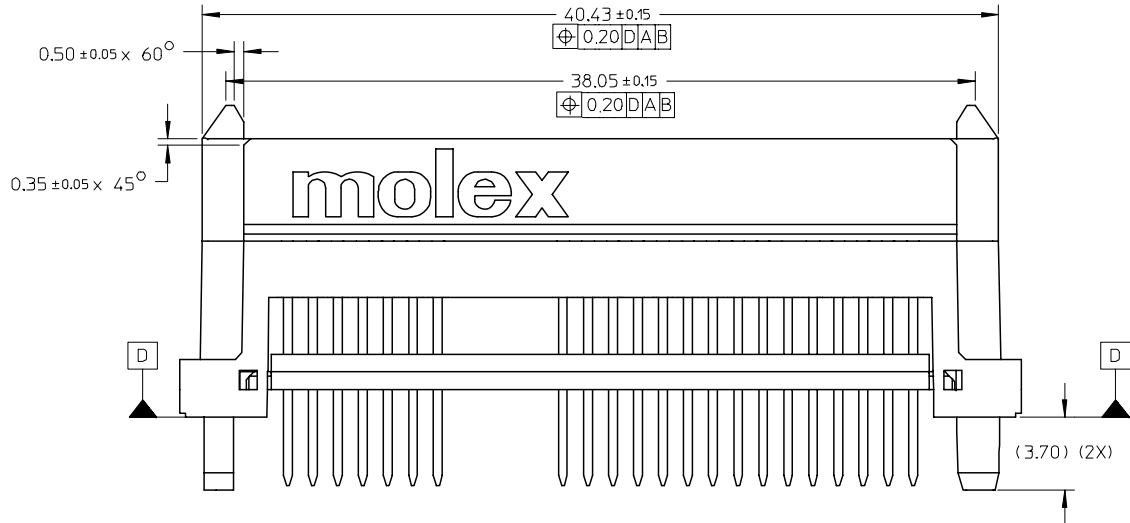
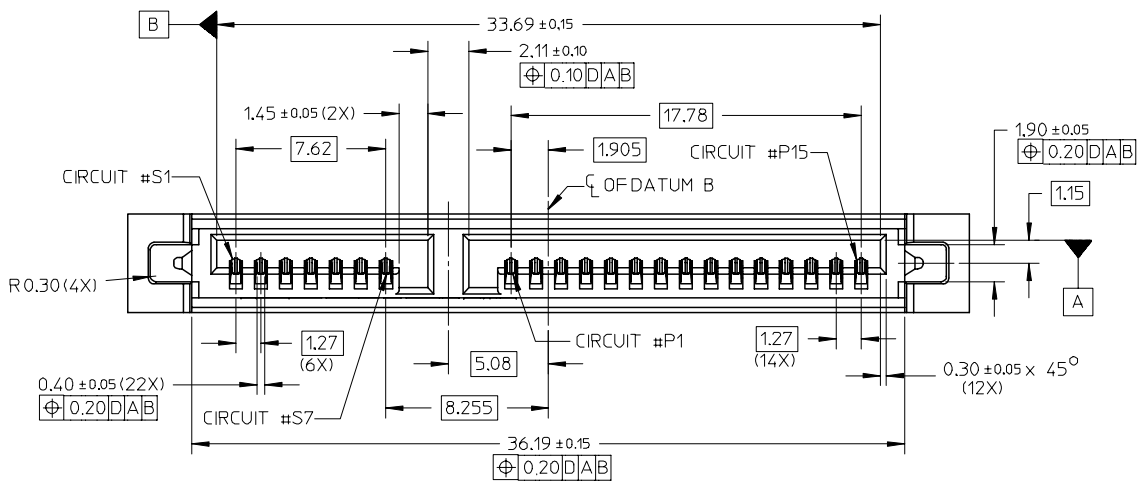
Material Info**Reference - Drawing Numbers**

Product Specification	PS-87678-029
Sales Drawing	SD-87678-023

This document was generated on 04/09/2010

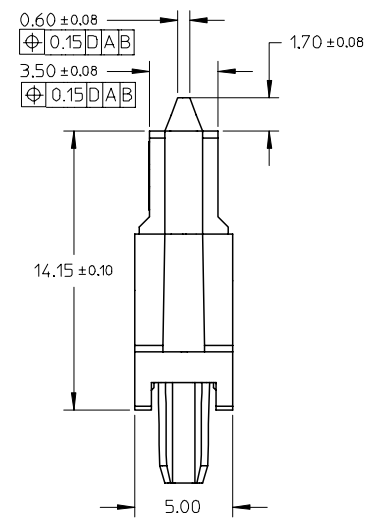
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NOTES:

1. MATERIAL: LCP, GLASS FILLED, UL 94V-0, COLOR: BLACK
TERMINAL: COPPER ALLOY
2. PLATING
CONTACT: 0.76µm MIN. SELECTIVE GOLD OVER 1.27µm MIN. NICKEL
UNDERPLATE
SOLDERTAIL: 2.54µm MIN. TIN OVER 1.27µm MIN. NICKEL UNDERPLATE
3. MOLEX LOGO LOCATED APPROXIMATELY AS SHOWN
4. 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
5. PRODUCT SPECIFICATION 87678-029 APPLIES
6. PACKAGING
30 CONNECTORS PER TRAY



OBS TIN/LEAD P/N EC NO: S2006-0984 DRWN:MLONG CHKD:CGTAN APPR:KCLING	QUALITY SYMBOLS ▽=0 △=0	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE MM ONLY		SCALE NTS	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION		
			mm	INCH	DRAWN BY DKOH	DATE 2003/03/20	SERIAL ATA BACKPLANE EXT. HT., RECEPT., T/H			
		4 PLACES	± ---	± ---	CHECKED BY KCLING	DATE 2003/03/28				
		3 PLACES	± ---	± ---	APPROVED BY SKTOH	DATE 2003/03/31	MOLEX INCORPORATED			
			ANGULAR ± 3 °		MATERIAL NO. 87678-1001	DOCUMENT NO. SD-87678-023	SHEET NO. 1 OF 4			
		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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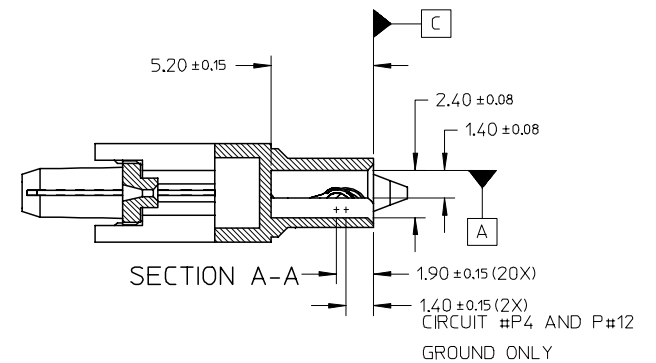
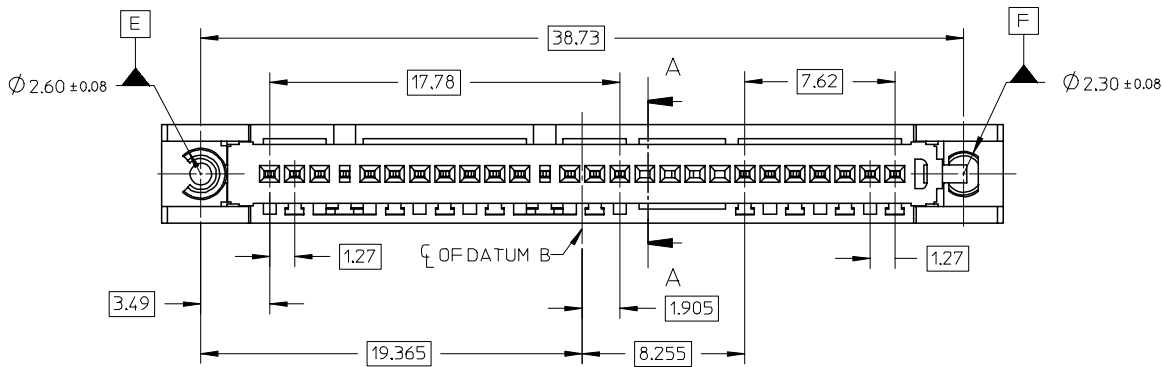
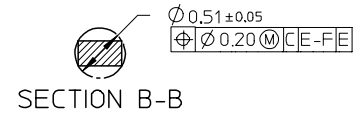
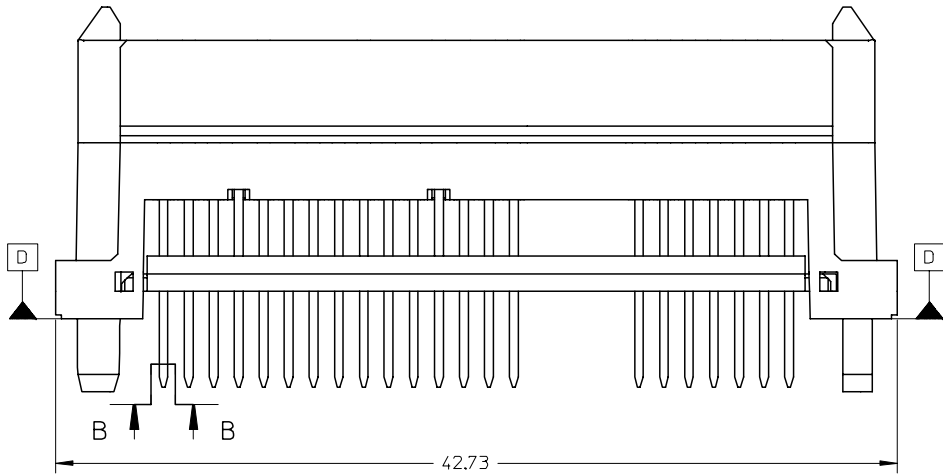
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OBS TIN/LEAD P/N EC NO: S2006-0984 DRWN:MLONG CHKD:CGTAN APPR:KCLING	2006/04/04 2006/04/04 2006/04/04 2006/04/04	DESCRIPTION REV	QUALITY SYMBOLS	GENERAL TOLERANCES (UNLESS SPECIFIED)	DIMENSION STYLE	SCALE	DESIGN UNITS	THIRD ANGLE PROJECTION
			$\nabla=0$ $\nabla C=0$	mm INCH	MM ONLY	NTS	METRIC	
			4 PLACES ± --- ± --- 3 PLACES ± --- ± --- 2 PLACES ± 0.20 ± --- 1 PLACE ± --- ± --- ANGULAR ± 3 °	DRAWN BY DATE DKOH 2003/03/20 CHECKED BY DATE KCLING 2003/03/28 APPROVED BY DATE SKTOH 2003/03/31	TITLE			
			DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS	MATERIAL NO. 87678-1001	MOLEX INCORPORATED	DOCUMENT NO. SD-87678-023	SHEET NO. 2 OF 4	

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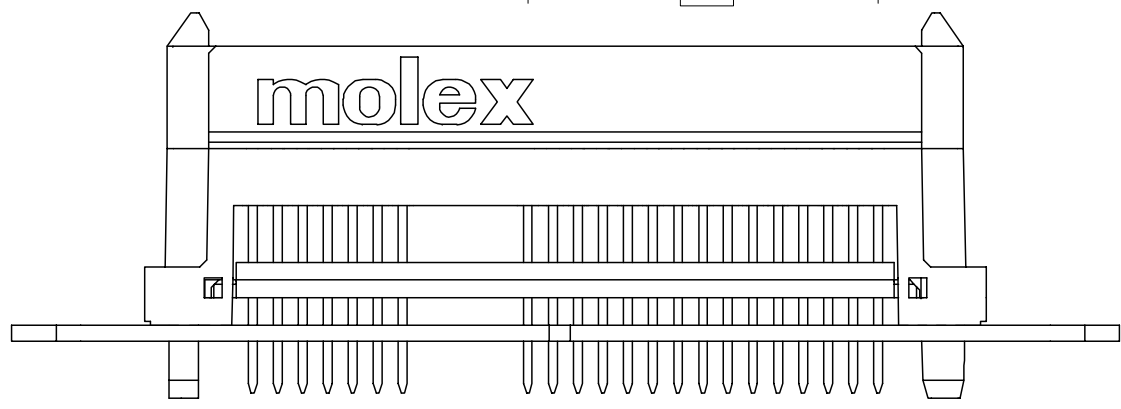
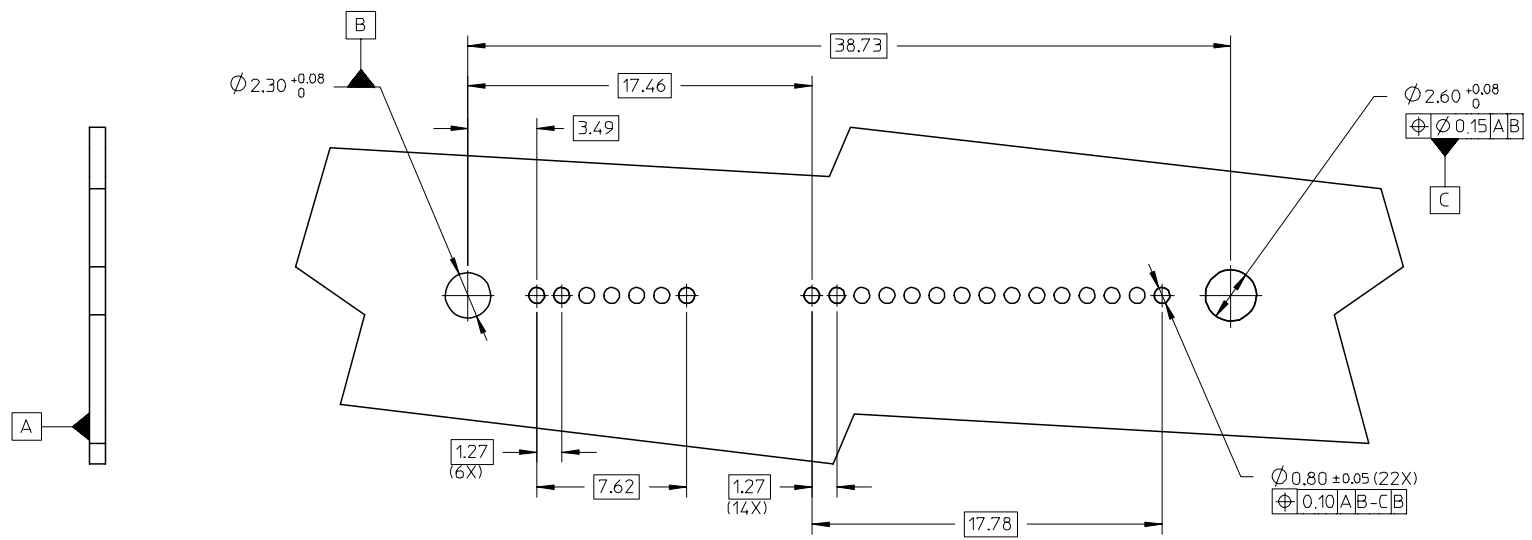
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PCB THICKNESS: 0.80 mm - 2.50 mm
RECOMMENDED PCB LAYOUT

OBS TIN/LEAD P/N EC NO: S2006-0984 DRWN:MLONG CHKD:CGTAN APPR:KCLING	2006/04/04 2006/04/04 2006/04/04 2006/04/04	DESCRIPTION REV	QUALITY SYMBOLS ▽=0 ▽=0	GENERAL TOLERANCES (UNLESS SPECIFIED)	DIMENSION STYLE MM ONLY	SCALE NTS	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION
			4 PLACES ± --- ± ---	DRAWN BY DKOH	DATE 2003/03/20	TITLE SERIAL ATA BACKPLANE EXT. HT., RECEPT., T/H		
			3 PLACES ± --- ± ---	CHECKED BY KCLING	DATE 2003/03/28	MOLEX INCORPORATED		
			2 PLACES ± 0.20 ± ---	APPROVED BY SKTOH	DATE 2003/03/31			
1 PLACE ± --- ± ---	ANGULAR ± 3 °		MATERIAL NO. 87678-1001		DOCUMENT NO. SD-87678-023	SHEET NO. 3 OF 4		
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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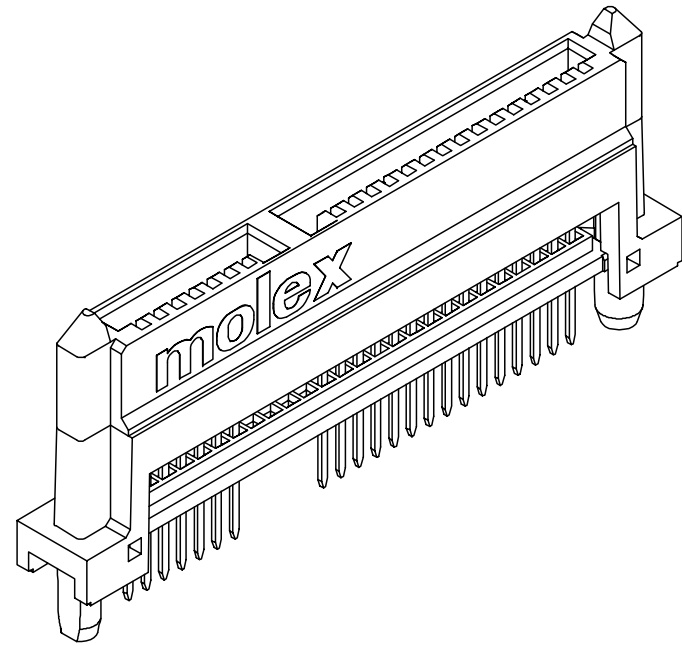
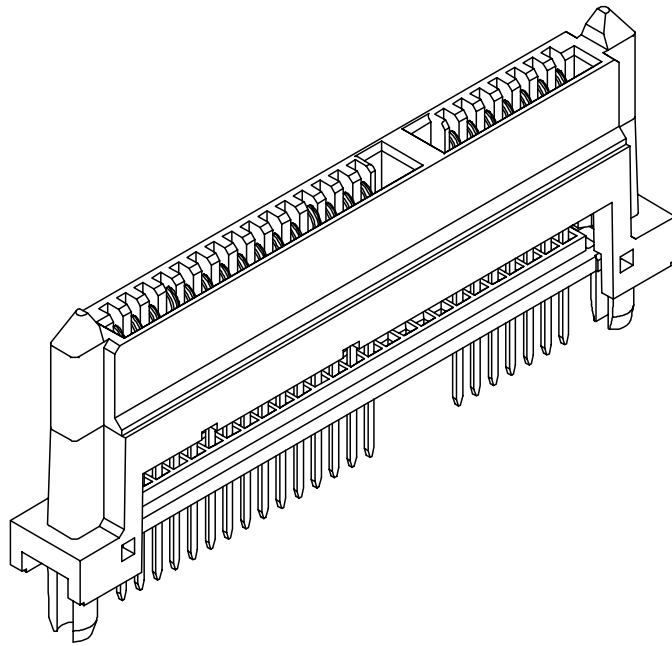
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OBS TIN/LEAD P/N EC NO: S2006-0984 DRWN:MLONG CHKD:CGTAN APPR:KCLING	2006/04/04	2006/04/04
	2006/04/04	2006/04/04
	2006/04/04	2006/04/04
	2006/04/04	2006/04/04

QUALITY SYMBOLS	DESCRIPTION
▽=0	
∇=0	

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

DIMENSION STYLE	
MM ONLY	
DRAWN BY	DATE
DKOH	2003/03/20
CHECKED BY	DATE
KCLING	2003/03/28
APPROVED BY	DATE
SKTOH	2003/03/31
MATERIAL NO.	87678-1001

SCALE	DESIGN UNITS	THIRD ANGLE PROJECTION
NTS	METRIC	
TITLE		
SERIAL ATA BACKPLANE EXT. HT., RECEPT., T/H		
MOLEX INCORPORATED		
DOCUMENT NO.	SHEET NO.	
SD-87678-023	4 OF 4	
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