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Part Number: [0878240004](#)
Status: **Active**
Description: 1.27mm (.050") Signal Pitch, 0.80mm (.031") SCSI Pitch, 1.27mm (.050") Power Pitch SAS Receptacle, Vertical, Surface Mount, with Surface Mount Solder Tab, 4.6mm (.180") PCB Thickness, 29 Circuits, with Cap, Tray, Leadfree

Documents:

[3D Model](#) [Product Specification PS-87824-029 \(PDF\)](#)
[Drawing \(PDF\)](#) [RoHS Certificate of Compliance \(PDF\)](#)

Agency Certification

CSA LR19980
 UL E29179

General

Product Family I/O Connectors
 Series [87824](#)
 Application Board-to-Board
 Comments With 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 - Metal Brass, Phosphor Bronze
 Material - Plating Mating Gold
 Material - Plating Termination Tin
 Number of Rows 2
 Orientation Vertical
 PCB Locator Yes
 PCB Retention Yes
 PCB Thickness Recommended (in) 0.063 In
 PCB Thickness Recommended (mm) 1.60 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
 Surface Mount Compatible (SMC) N/A

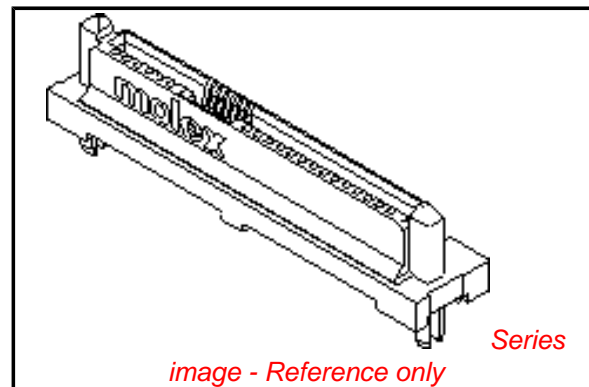


image - Reference only

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

[87824Series](#)

Mates With

SFF-8482 Hard Disk Drive and Backplane Plug. [87679](#) Serial ATA Device Plug with Latch. [87703](#) Serial ATA Device Plug without Jumper. [87799](#) Serial ATA Device Plug with Jumper

Temperature Range - Operating	0°C to +55°C
Termination Interface: Style	Surface Mount
Waterproof / Dustproof	No
Wire Size AWG	N/A

Electrical

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

Solder Process Data

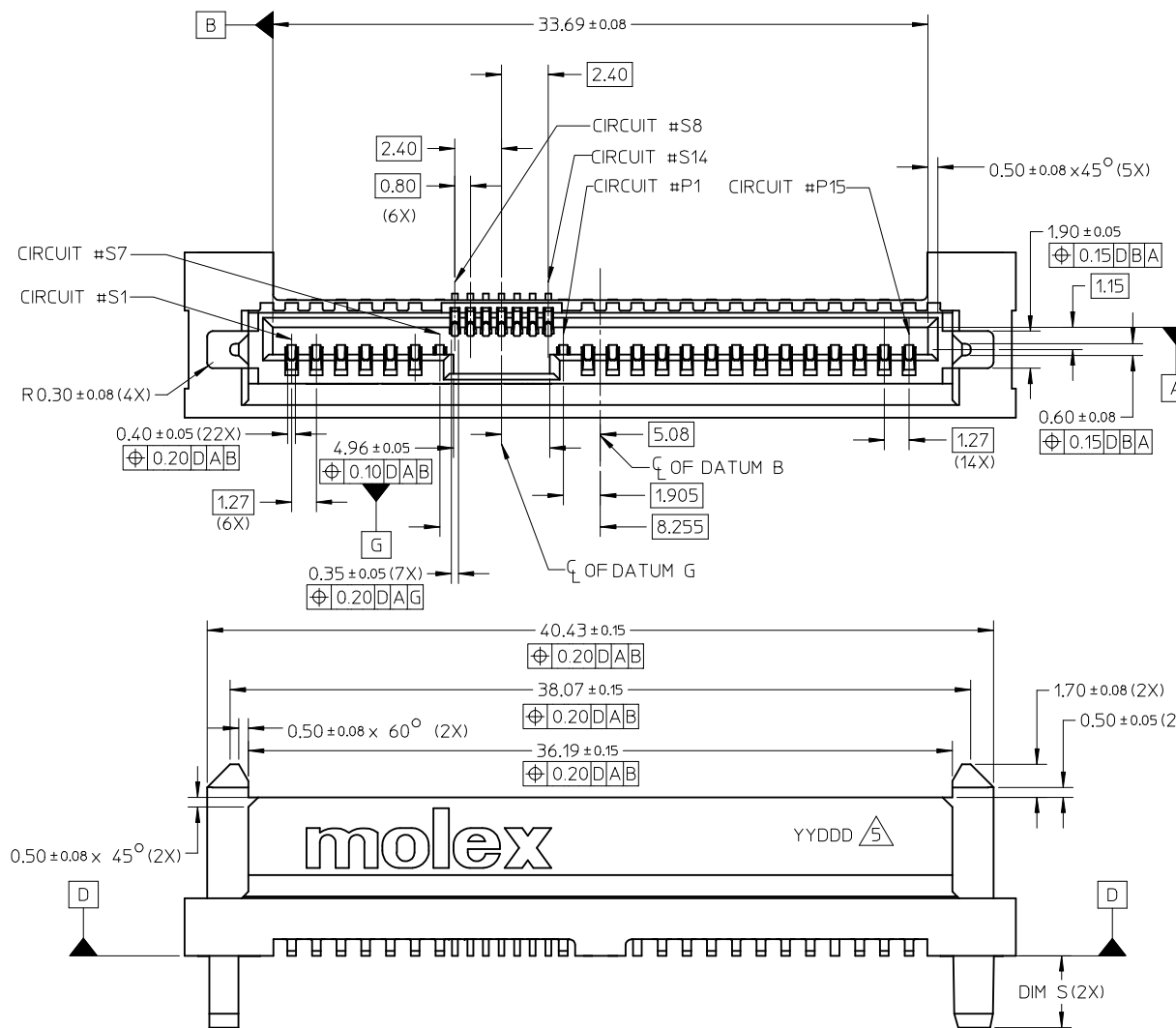
Duration at Max. Process Temperature (seconds)	10
Lead-free Process Capability	Reflow Capable (SMT only)
Max. Cycles at Max. Process Temperature	1
Process Temperature max. C	260

Material Info**Reference - Drawing Numbers**

Product Specification	PS-87824-029
Sales Drawing	SD-87824-031

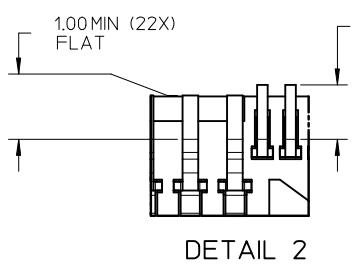
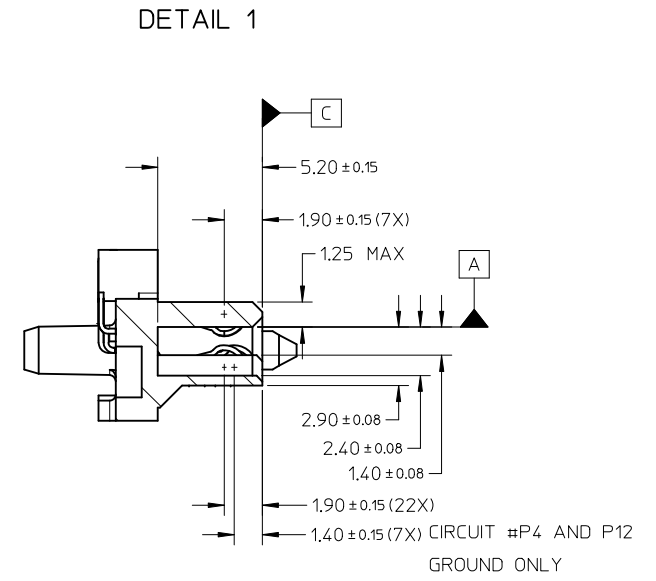
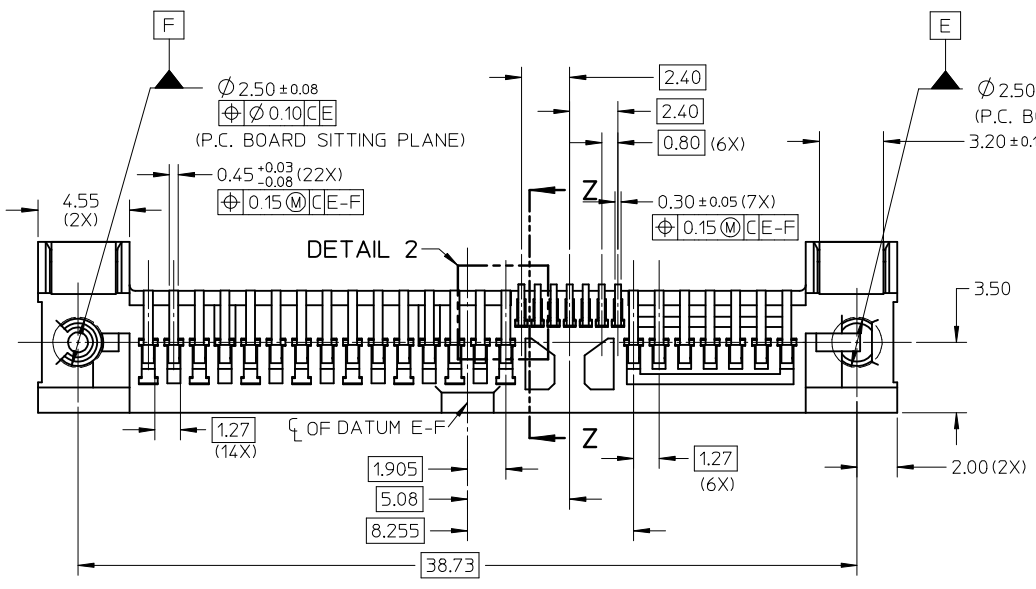
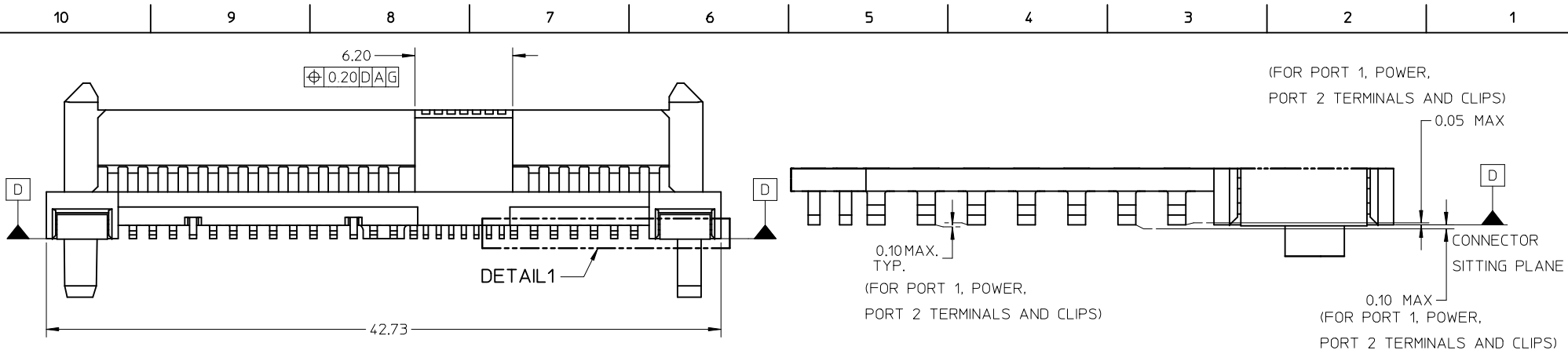
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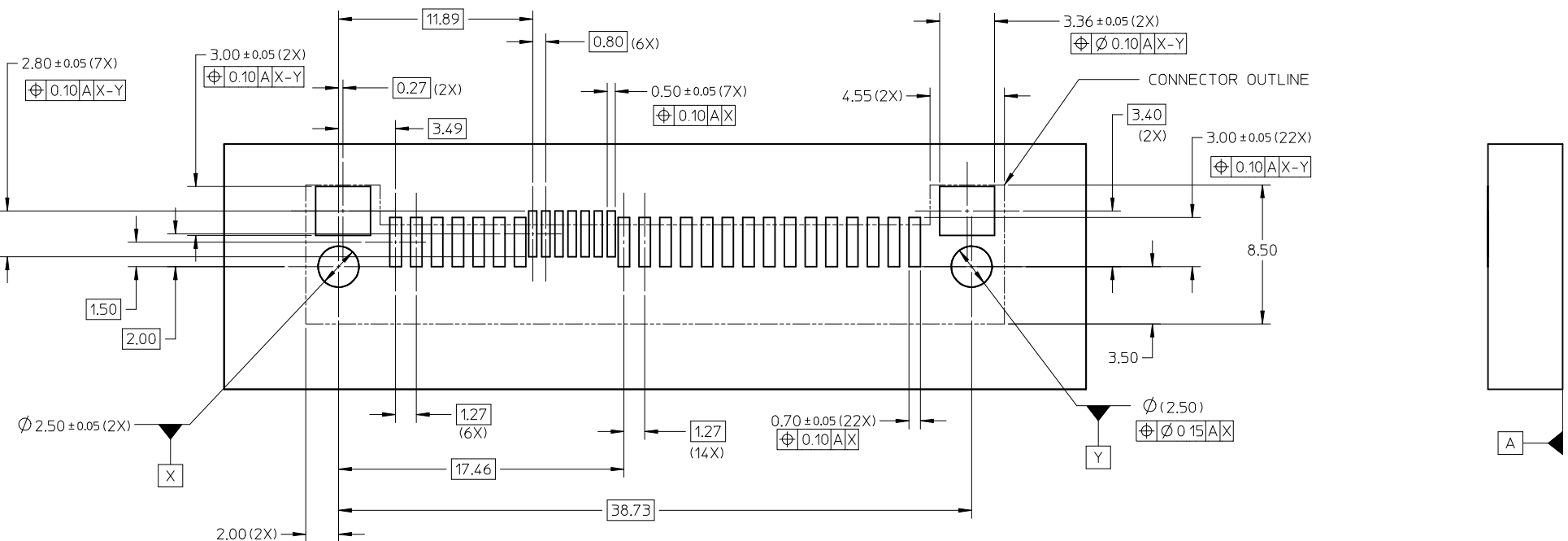
- NOTES:
- MATERIAL: LIQUID CRYSTALLINE POLYMER (LCP), GLASS FILLED, UL 94V-0
COLOR: BLACK
TERMINAL: COPPER ALLOY
 - PLATING:
CONTACT: $0.76 \mu\text{m}$ MIN. SELECTIVE GOLD OVER $1.27 \mu\text{m}$ MIN. NICKEL UNDERPLATE
SOLDERTAIL: $2.54 \mu\text{m}$ MIN. TIN OVER $1.27 \mu\text{m}$ MIN. NICKEL UNDERPLATE
 - MOLEX LOGO LOCATED APPROXIMATELY AS SHOWN
 - PACKAGING: SEE TABLE
 - DATE CODE TO BE LOCATED APPROXIMATELY AS SHOWN.
 - PRODUCT IS COMPLIANT TO RoHS DIRECTIVE WITH THE FOLLOWING BANNED SUBSTANCES - LEAD, MERCURY, CADMIUM, HEXAVALENT CHROMIUM, POLYBROMINATED BIPHENYLS AND POLYBROMINATED DIPHENYL ETHERS.
 - PRODUCT SPECIFICATION PS-87824-029 APPLIES.
 - MATES WITH: SFF-8482 PLUG
SATA PLUG SERIES: 87679, 87703, 87799

REVISED EC NO: S2009-0197 DRW: KHLIM CHK: CGOH APPR: BOKOK 2008/09/15 2008/09/16 2008/09/16	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		TITLE	
		4 PLACES		± ---	± ---	KHLIM		2005/07/07		SERIAL ATTACH SCSI STD HEIGHT BACKPLANE SMT RECEPT (WITH SOLDER TAB)	
		3 PLACES		± ---	± ---	CHECKED BY		DATE			
2 PLACES		± 0.20	± ---	SHFONG		2005/07/15		MOLEX MOLEX INCORPORATED			
1 PLACE		± ---	± ---	APPROVED BY		DATE					
		ANGULAR ± 3 °		SKTOH		2005/07/15		DOCUMENT NO.		SHEET NO.	
		DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		SEE TABLE		SD-87824-031		1 OF 4			
		THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION									

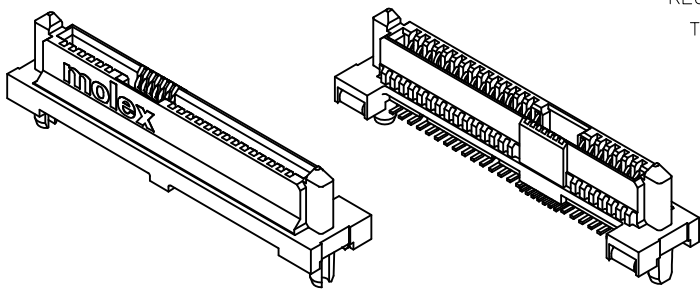


REVISED EC NO: S2009-0197 DRW:KHLIM 2008/09/15 CHKD:LG0H 2008/09/16 APPR:BOKOK 2008/09/16	QUALITY SYMBOLS ▽=0 ◻=0	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE MM ONLY		SCALE NTS	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION		
		4 PLACES ± --- ± ---	3 PLACES ± --- ± ---	2 PLACES ± 0.20 ± ---	1 PLACE ± --- ± ---	DRAWN BY KHLIM	DATE 2005/07/07	TITLE SERIAL ATTACH SCSI STD HEIGHT BACKPLANE SMT RECEPT (WITH SOLDER TAB)		
		ANGULAR ± 3 °		DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		CHECKED BY SHFONG	DATE 2005/07/15	MOLEX INCORPORATED		
		SEE TABLE		MATERIAL NO.		APPROVED BY SKTOH		DATE 2005/07/15	DOCUMENT NO. SD-87824-031	SHEET NO. 2 OF 4

PART NO	PACKAGING	QUANTITY	PICK & PLACE CAP	DIM S (2X) PEG HEIGHT	PCB THICKNESS
87824-0004	TRAY	50/TRAY	YES	3.70	4.57±0.10
87824-0008	TRAY	30/TRAY	NO	3.70	4.57±0.10
87824-0010	TAPE AND REEL	350/REEL	YES	3.70	4.57±0.10
87824-0013	TRAY	50/TRAY	YES	2.00	2.54±0.10
87824-0014	TRAY	30/TRAY	NO	2.00	2.54±0.10
87824-0015	TAPE AND REEL	350/REEL	YES	2.00	2.54±0.10



RECOMMENDED PCB LAYOUT
THICKNESS: SEE TABLE



REV	DESCRIPTION	DATE
REVISED	EC NO: S2009-0197	2008/09/15
A	DRWN:KHLIM	2008/09/16
	CHKD:CGOH	2008/09/16
	APPR:BOXOK	2008/09/16

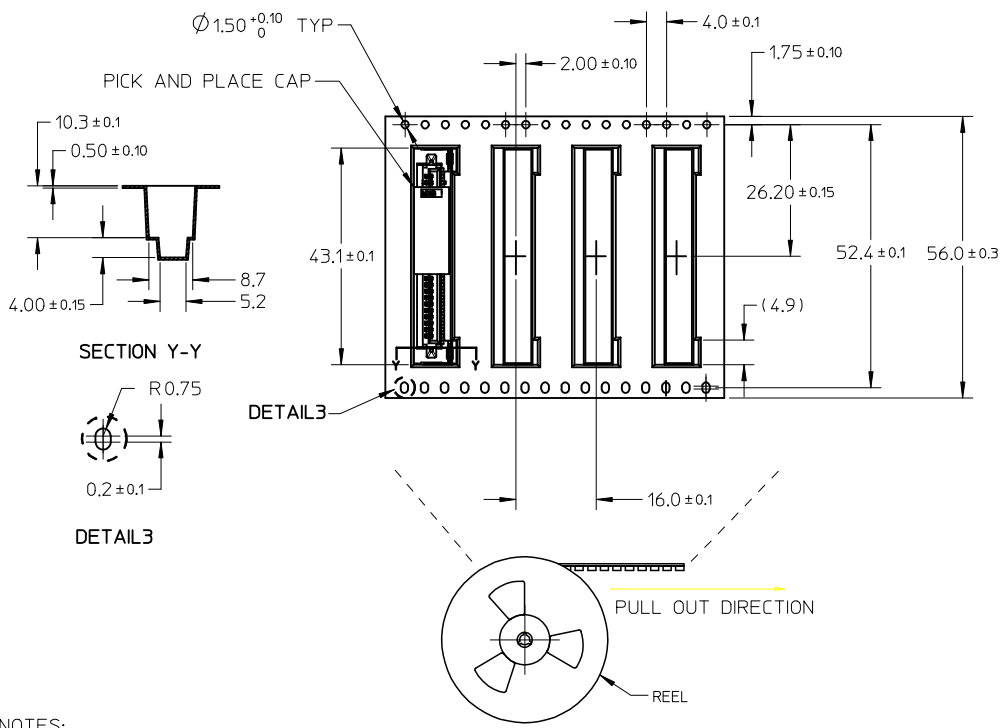
QUALITY SYMBOLS	DESCRIPTION
▽=0	
◻=0	

	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	
MM ONLY	
DRAWN BY	DATE
KHLIM	2005/07/07
CHECKED BY	DATE
SHFONG	2005/07/15
APPROVED BY	DATE
SKTOH	2005/07/15
MATERIAL NO.	
SEE TABLE	

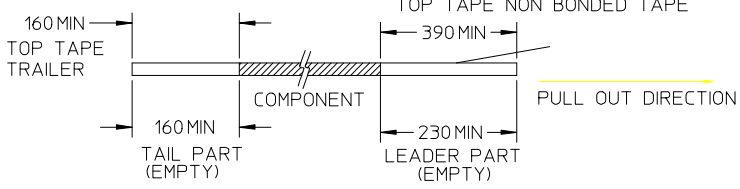
SCALE	DESIGN UNITS	THIRD ANGLE PROJECTION
NTS	METRIC	THIRD ANGLE PROJECTION
TITLE		
SERIAL ATTACH SCSI STD HEIGHT BACKPLANE SMT RECEPT (WITH SOLDER TAB)		
MOLEX INCORPORATED		
DOCUMENT NO.		SHEET NO.
SD-87824-031		3 OF 4
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TAPE AND REEL PACKAGING

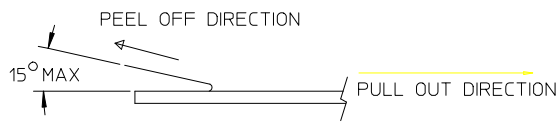


NOTES:

1. LEADER AND TRAILER TAPE

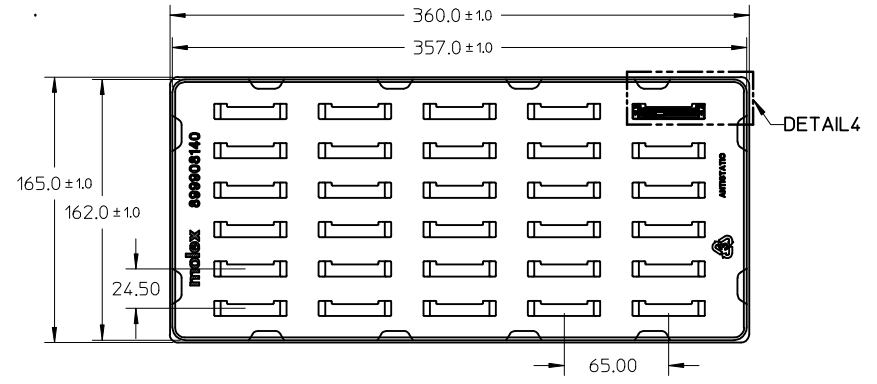


2. PEELING OFF FORCE OF THE TOP TAPE: 80gf MAX.
(PEELING DIRECTION AS SHOWN IN FOLLOWING FIGURE)

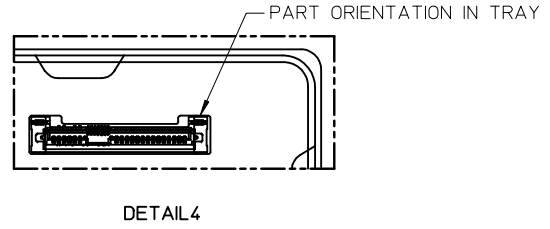


- 3. PACKAGING QTY: 350 PCS/REEL
- 4. PACKAGING STANDARD IS AS PER EIA-481.
- 5. CONNECTOR COMES WITH PICK AND PLACE CAP.

TRAY PACKAGING



- NOTES:
- 1. PACKAGING QTY: 30PCS/TRAY
 - 2. NO PICK AND PLACE CAP



REVISED EC NO: S2009-0197 DRW:KHLIM CHKD:CGOH APPR:BOKOK 2008/09/15 2008/09/16 2008/09/16	DESCRIPTION REV	QUALITY SYMBOLS	GENERAL TOLERANCES (UNLESS SPECIFIED)	DIMENSION STYLE	SCALE	DESIGN UNITS	THIRD ANGLE PROJECTION	
		▼=0 ▽=0	mm INCH 4 PLACES ± --- ± --- 3 PLACES ± --- ± --- 2 PLACES ± 0.20 ± --- 1 PLACE ± --- ± --- ANGULAR ± 3 °	MM ONLY	NTS	METRIC		
				DRAWN BY: KHLIM DATE: 2005/07/07 CHECKED BY: SHFONG DATE: 2005/07/15 APPROVED BY: SKTOH DATE: 2005/07/15	TITLE	SERIAL ATTACH SCSI STD HEIGHT BACKPLANE SMT RECEPT (WITH SOLDER TAB)		
				MATERIAL NO. DOCUMENT NO.	SEE TABLE	MOLEX INCORPORATED SD-87824-031		
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					
			SIZE	SHEET NO.				
			A3	4 OF 4				