

**PLEASE CHECK WWW.MOLEX.COM FOR LATEST PART INFORMATION**

**Part Number:** **0878240010**  
**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, Embossed Tape on Reel, Leadfree

**Documents:**

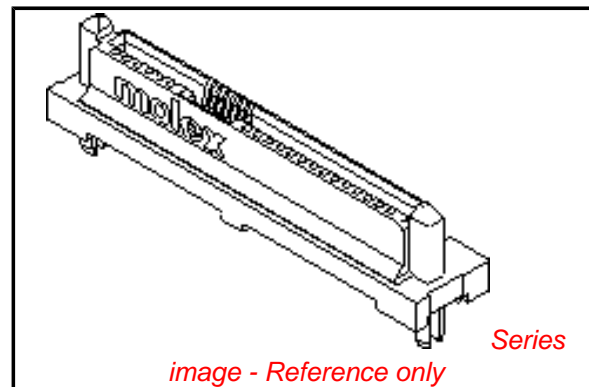
[3D Model](#) [Product Specification PS-87824-029 \(PDF\)](#)  
[Drawing \(PDF\)](#) [RoHS Certificate of Compliance \(PDF\)](#)

**General**

Product Family	I/O Connectors
Series	87824
Application	Board-to-Board
Comments	<LI>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
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)	0.180 In
PCB Thickness Recommended (mm)	4.60 mm
Packaging Type	Embossed Tape on Reel
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
Temperature Range - Operating	0°C to +55°C
Termination Interface: Style	Surface Mount
Waterproof / Dustproof	No
Wire Size AWG	N/A



**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](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**

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

**Electrical**

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

**Solder Process Data**

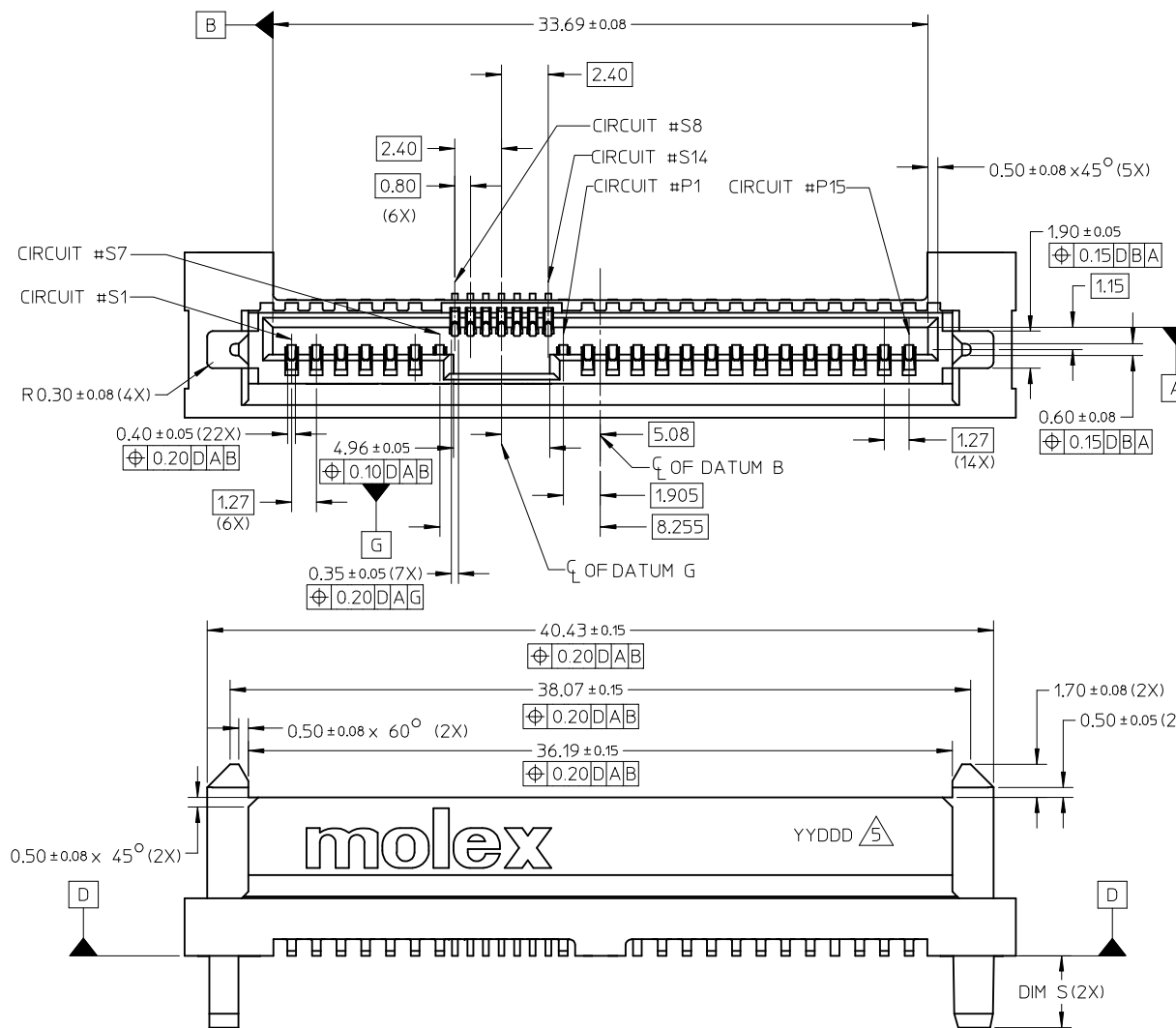
Duration at Max. Process Temperature (seconds)	10
Lead-free Process Capability	Reflow Capable (SMT only)
Max. Cycles at Max. Process Temperature	1
Process Temperature max. C	260

**Material Info****Reference - Drawing Numbers**

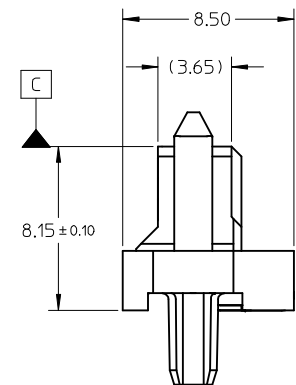
Product Specification	PS-87824-029
Sales Drawing	SD-87824-031

This document was generated on 04/09/2010

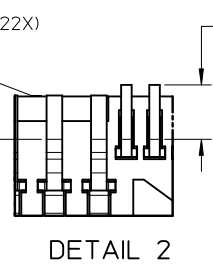
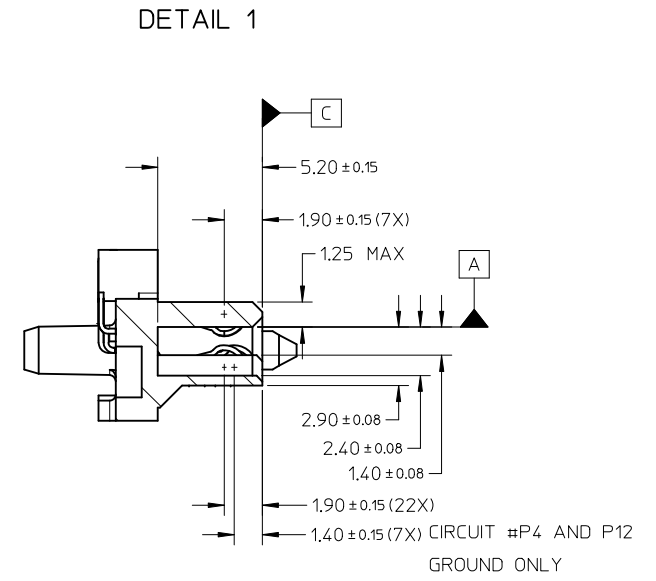
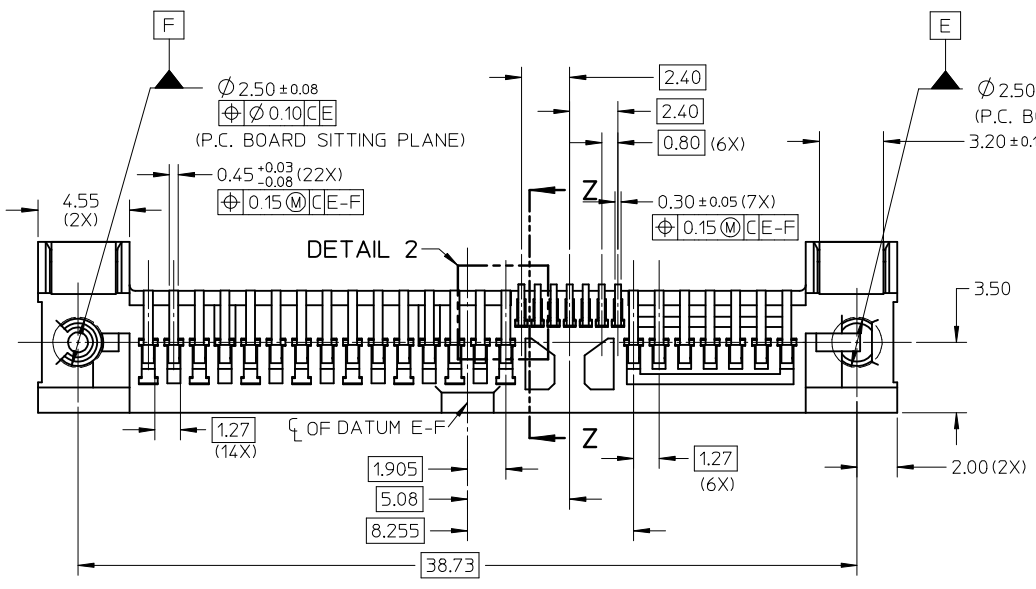
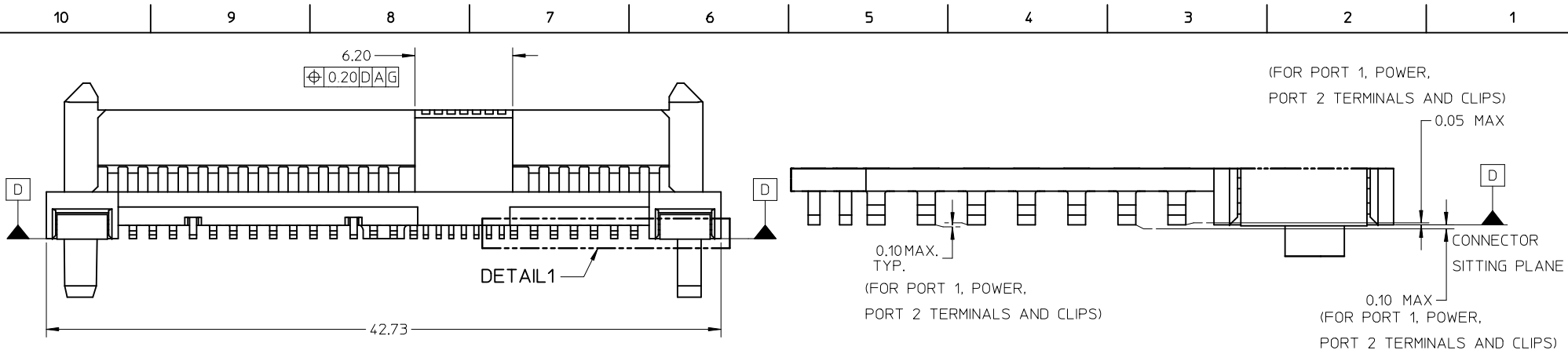
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- NOTES:
- MATERIAL: LIQUID CRYSTALLINE POLYMER (LCP), GLASS FILLED, UL 94V-0  
COLOR: BLACK  
TERMINAL: COPPER ALLOY
  - PLATING:  
CONTACT:  $0.76 \mu\text{m}$  MIN. SELECTIVE GOLD OVER  $1.27 \mu\text{m}$  MIN. NICKEL UNDERPLATE  
SOLDERTAIL:  $2.54 \mu\text{m}$  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

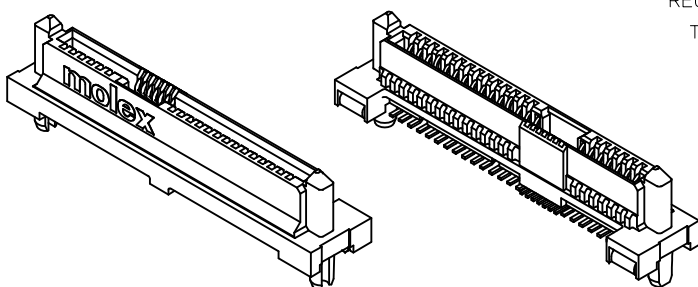
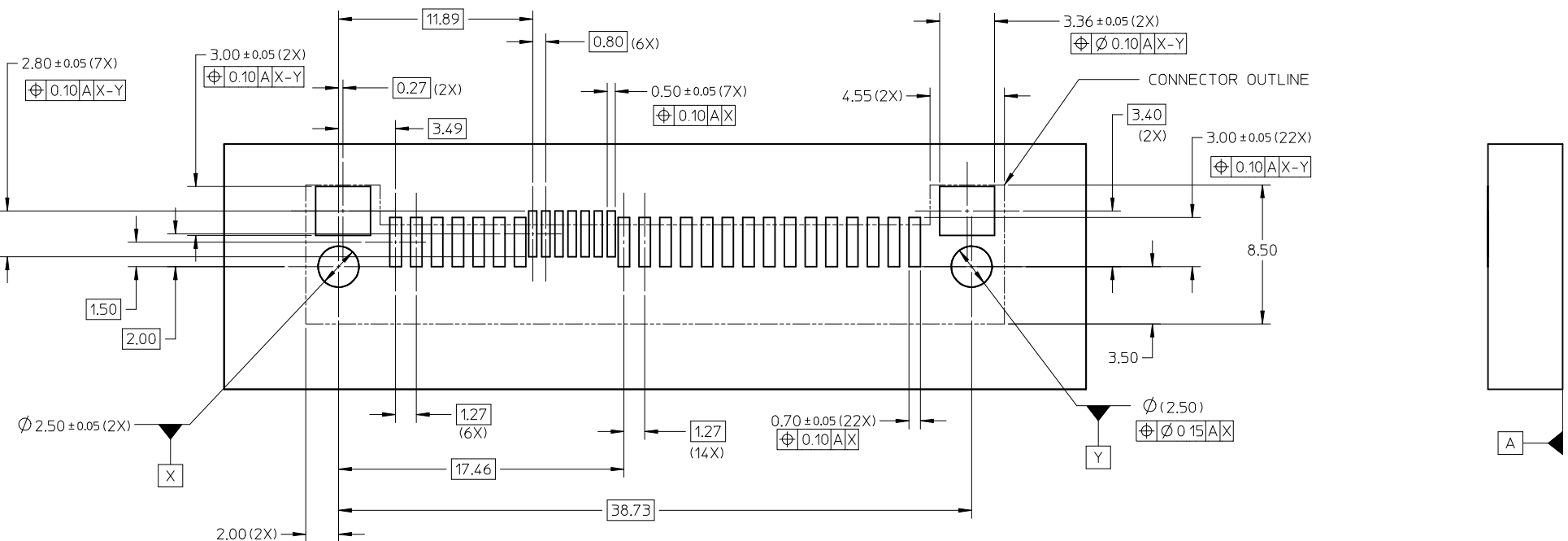


REVISED EC NO: S2009-0197 DRW: KHLIM CHKD: CGOH APPR: BOKOK 2008/09/15 2008/09/16 2008/09/16	QUALITY SYMBOLS ▽=0 ◻=0	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE MM ONLY	SCALE NTS	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION		
		4 PLACES ± --- ± ---	3 PLACES ± --- ± ---	2 PLACES ± 0.20 ± ---	1 PLACE ± --- ± ---	DRAWN BY KHLIM	DATE 2005/07/07	TITLE SERIAL ATTACH SCSI STD HEIGHT BACKPLANE SMT RECEPT (WITH SOLDER TAB)	
		ANGULAR ± 3 °				CHECKED BY SHFONG	DATE 2005/07/15	MOLEX MOLEX INCORPORATED	
		DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS				APPROVED BY SKTOH	DATE 2005/07/15	MATERIAL NO. SEE TABLE	DOCUMENT NO. SD-87824-031
THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION		SIZE A3		SHEET NO. 1 OF 4		MOLEX MOLEX INCORPORATED			



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

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

REVISED	DESCRIPTION
EC NO: S2009-0197	
DRWN:KHLIM	
CHKD:CGOH	
APPR:BOJOK	
REV	

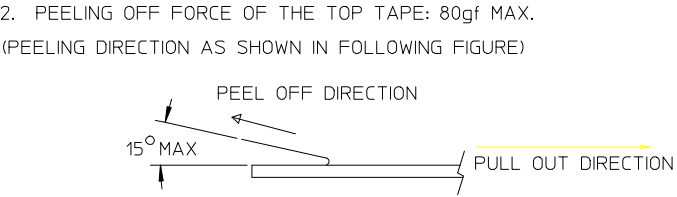
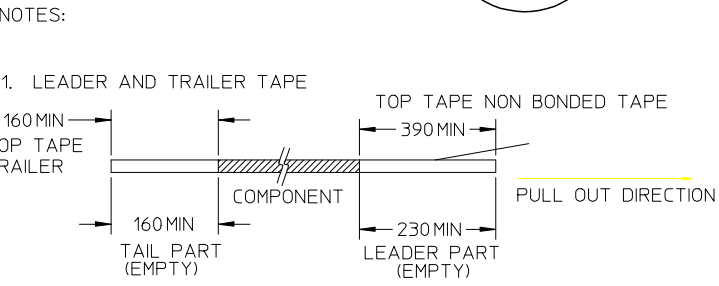
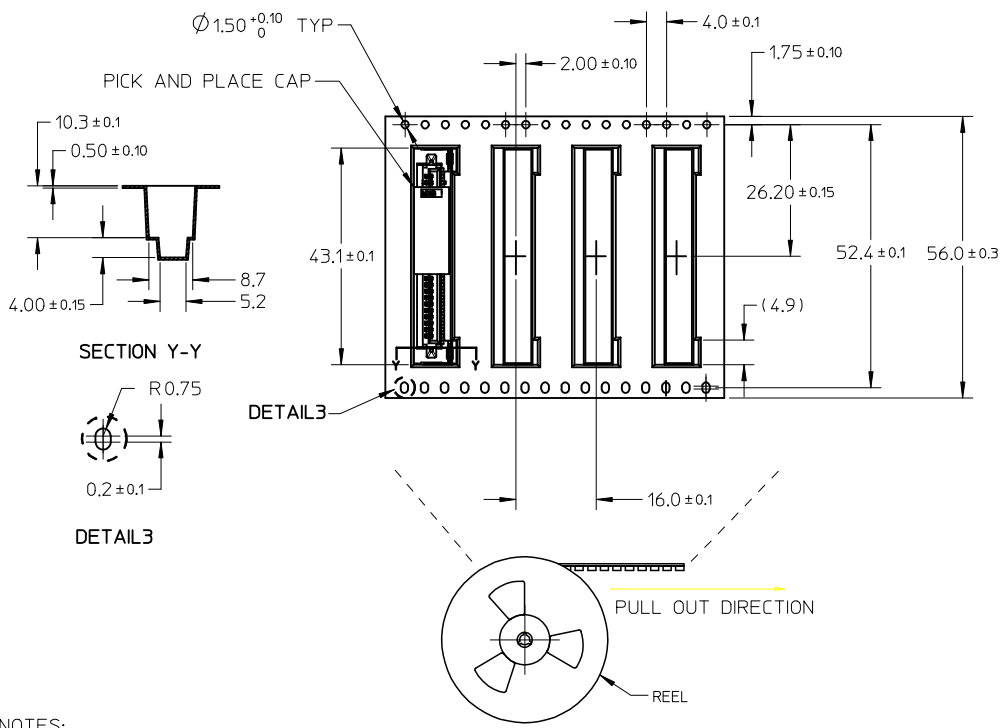
QUALITY SYMBOLS	
▽=0	
◻=0	

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		
KHLIM	2005/07/07	SERIAL ATTACH SCSI		
CHECKED BY	DATE	STD HEIGHT BACKPLANE SMT		
SHFONG	2005/07/15	RECEPT (WITH SOLDER TAB)		
APPROVED BY	DATE	MOLEX INCORPORATED		
SKTOH	2005/07/15	DOCUMENT NO.		
MATERIAL NO.		SHEET NO.		
SEE TABLE		SD-87824-031		
SIZE A3		3 OF 4		

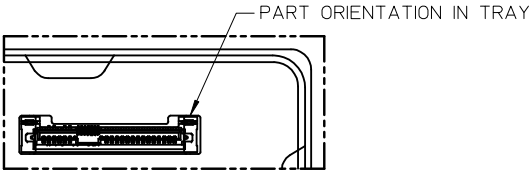
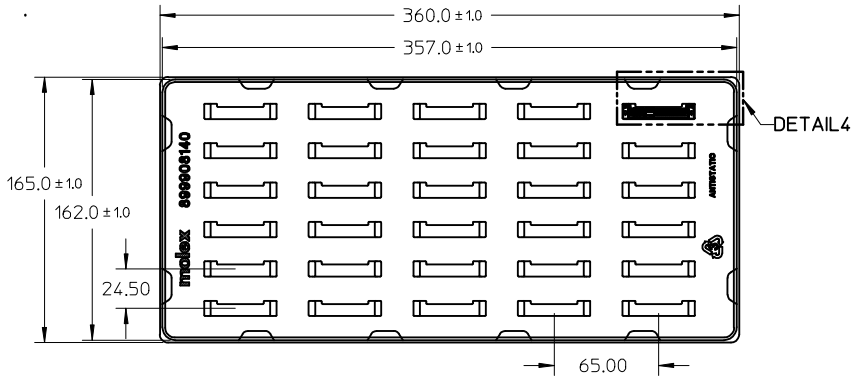
MATERIAL NO.		SHEET NO.		
SEE TABLE		3 OF 4		
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TAPE AND REEL PACKAGING



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

TRAY PACKAGING



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

DETAIL4

REVISED EC NO: S2009-0197 DRW:KHLIM CHKD:CGOH APPR:BOKOK	DESCRIPTION REV	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
		4 PLACES	± ---	± ---		DRAWN BY KHLIM	DATE 2005/07/07	TITLE SERIAL ATTACH SCSI STD HEIGHT BACKPLANE SMT RECEPT (WITH SOLDER TAB)				
		3 PLACES	± ---	± ---		CHECKED BY SHFONG	DATE 2005/07/15	MOLEX INCORPORATED				
		2 PLACES	± 0.20	± ---		APPROVED BY SKTOH	DATE 2005/07/15	DOCUMENT NO. SD-87824-031				
1 PLACE		± ---	± ---	ANGULAR ± 3 °		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.		4 OF 4		SHEET NO.		4 OF 4						