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Part Number: [0877030001](#)
Status: **Active**
Overview: Serial ATA Combo Plugs and Receptacles
Description: 1.27mm (.050") Pitch Serial ATA Device Plug, 2.5" Drive, without Jumper, 22 Circuits, Tray Packaging, Lead-free

Documents:

[3D Model](#) [Product Specification PS-87703-017 \(PDF\)](#)
[Drawing \(PDF\)](#) [RoHS Certificate of Compliance \(PDF\)](#)

Agency Certification

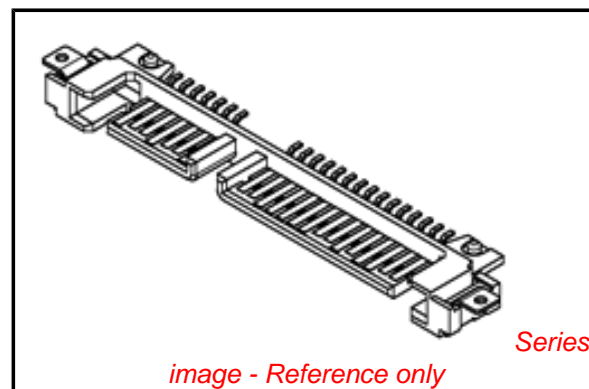
CSA LR19980
 UL E29179

General

Product Family PCB Headers
 Series [87703](#)
 Application Board-to-Board
 Overview [Serial ATA Combo Plugs and Receptacles](#)
 Product Literature Order No SNG-029
 Product Name Serial ATA

Physical

Breakaway No
 Circuits (Loaded) 22
 Circuits (maximum) 22
 Color - Resin Black
 Durability (mating cycles max) 500
 Flammability 94V-0
 Glow-Wire Compliant No
 Guide to Mating Part Yes
 Keying to Mating Part Yes
 Lock to Mating Part Yes
 Material - Metal Copper Alloy
 Material - Plating Mating Gold
 Material - Plating Termination Gold
 Material - Resin High Temperature Thermoplastic
 Number of Rows 1
 Orientation Right Angle
 PC Tail Length (in) 0.079 In
 PC Tail Length (mm) 2.00 mm
 PCB Locator Yes
 PCB Retention Yes
 PCB Thickness Recommended (in) 0.020 In
 PCB Thickness Recommended (mm) 0.50 mm
 Packaging Type Tray
 Pitch - Mating Interface (in) 0.050 In
 Pitch - Mating Interface (mm) 1.27 mm
 Plating min: Mating (µin) 5.08
 Plating min: Mating (µm) 0.127
 Plating min: Termination (µin) 5.08
 Plating min: Termination (µm) 0.127
 Polarized to Mating Part Yes
 Polarized to PCB Yes
 Shrouded Partial
 Stackable No



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

[87703Series](#)

Mates With

Combo Receptacle [87678](#). [87701](#). [87713](#).
[87779](#). [87780](#). [67492](#). [87781](#). [67489](#) Signal
 Cable Recptacle. [88755](#) Cable Assembly.

Temperature Range - Operating	-40°C to +105°C
Termination Interface: Style	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

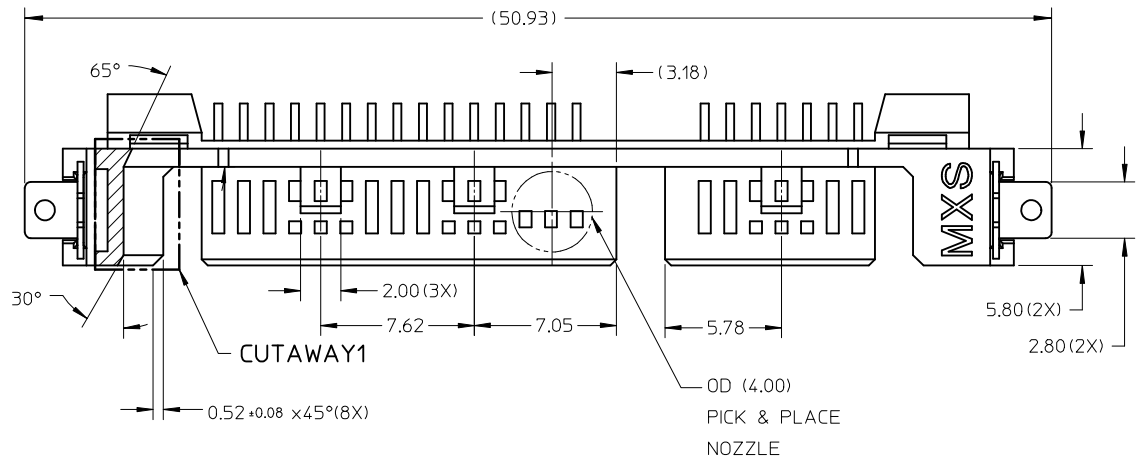
Reference - Drawing Numbers

Product Specification	PS-87703-017, RPS-87703-059
Sales Drawing	SD-87703-002

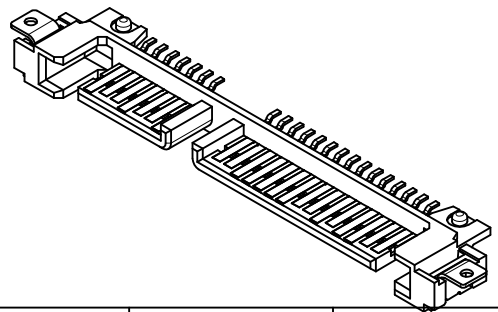
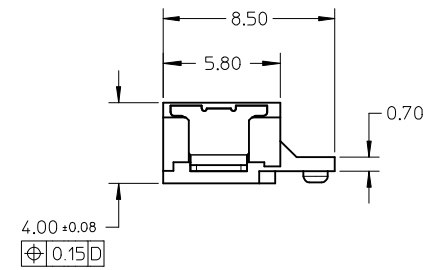
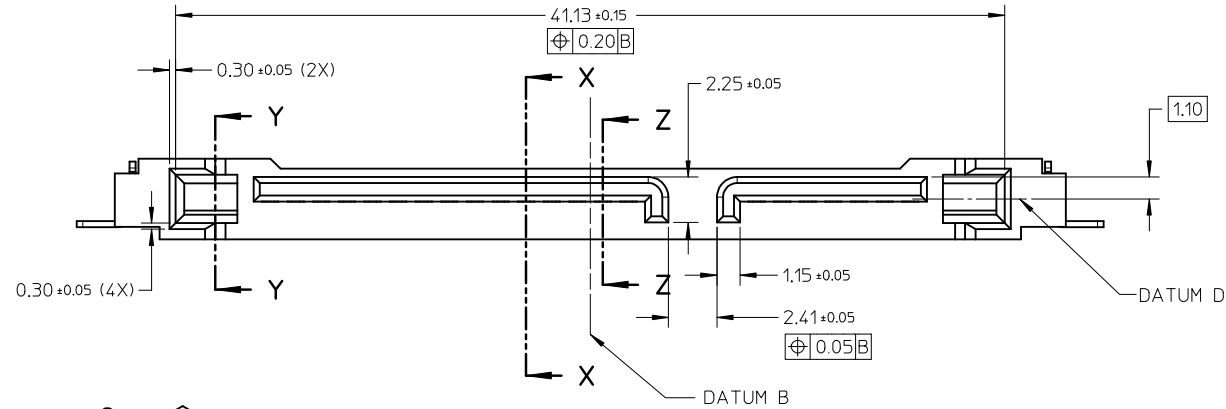
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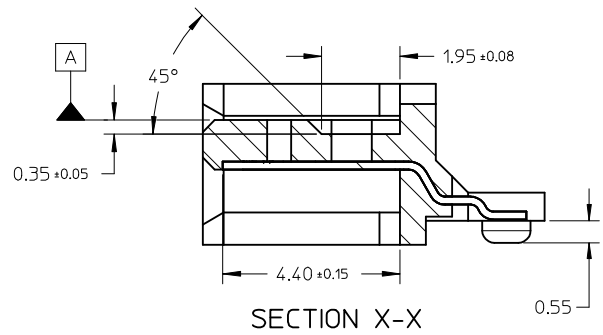
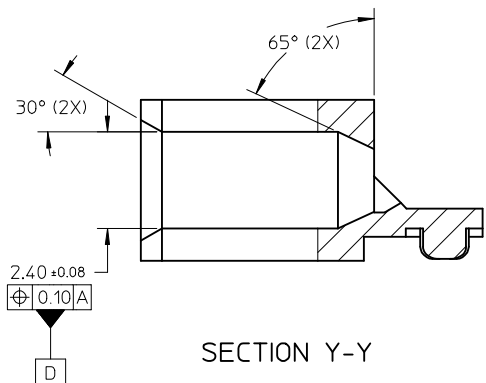
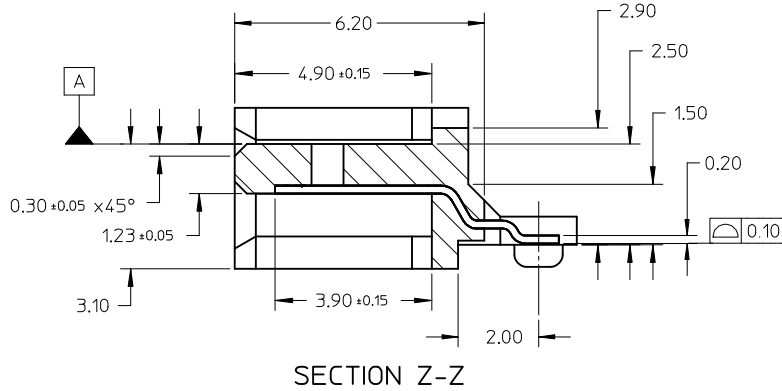
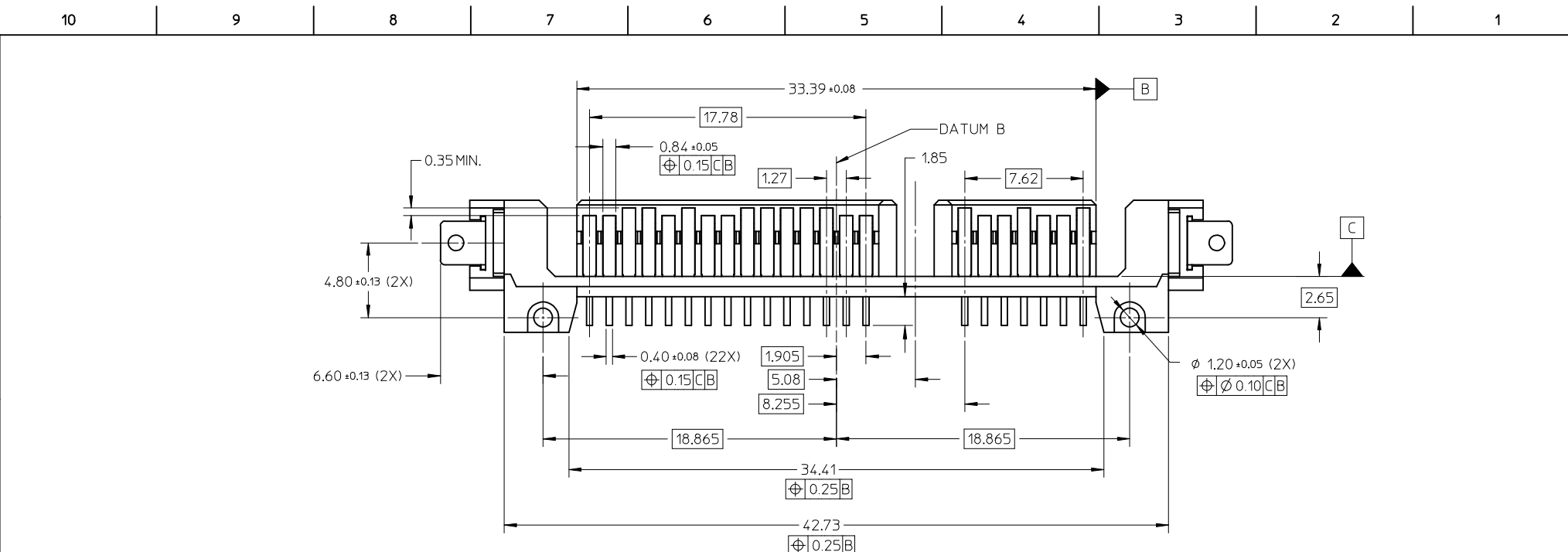
PART NUMBER	PACKAGING
87703-0001	TRAY
87703-0067	TAPE & REEL



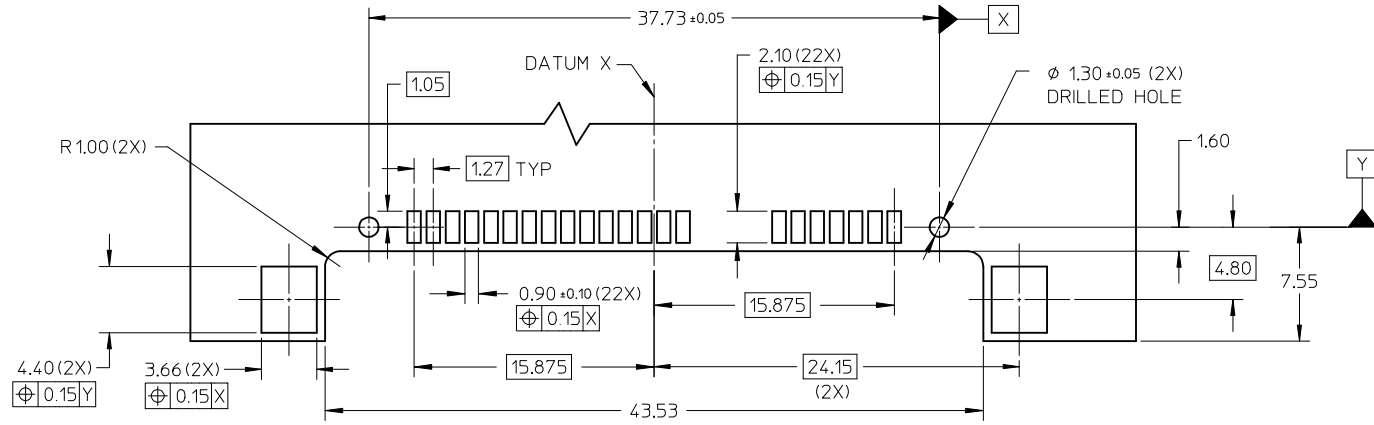
- NOTES:
- MATERIAL:
 - HOUSING: LIQUID CRYSTALLINE POLYMER (LCP), GLASS FILLED UL 94V-0, COLOR: BLACK
 - CONTACTS & SMT NAILS: COPPER ALLOY
 - PLATING FINISH ON CONTACTS AND SOLDER TAILS:
 - 0.127µm MIN. GOLD FLASH OVER 1.27µm MIN. NICKEL UNDERPLATE
 - PLATING FINISH ON SMT NAILS:
 - 3.18µm MIN. TIN OVER 1.27µm MIN. NICKEL UNDERPLATE
 - PRODUCT SPECIFICATION: PS-87703-017 APPLIES
 - PRODUCT CONFORMS TO SERIAL ATA SPECIFICATION.
 - PACKAGING: SEE TABLE
 - PRODUCT IS COMPLIANT TO RoHS DIRECTIVE WITH THE FOLLOWING BANNED SUBSTANCES - LEAD, MERCURY, CADMIUM, HEXAVALENT CHROMIUM, POLYBROMINATED BIPHENYLS AND POLYBROMINATED DIPHENYL ETHERS.
 - MATES WITH: SATA RECEPTACLE SERIES: 87678, 87701, 87713, 87779, 87780, 87781
SFF-8482 RECEPTACLE SERIES: 87824, 87839, 87863, 87970



UPDATE NOTE 6 EC NO: S2009-0846 DRW:KHLIM CHKD:CGOH APPR:BOKOK 2009/05/20 2009/05/20 2009/05/20	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 RSHAN	DATE 2002/11/18	TITLE SERIAL ATA PLUG 2.5 INCH HDD			
		ANGULAR ± 3 °				APPROVED BY SKTOH	DATE 2002/12/18	MOLEX INCORPORATED			
		DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS				MATERIAL NO. SEE TABLE	DOCUMENT NO. SD-87703-002				
B6	REV	SIZE A3		THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION							



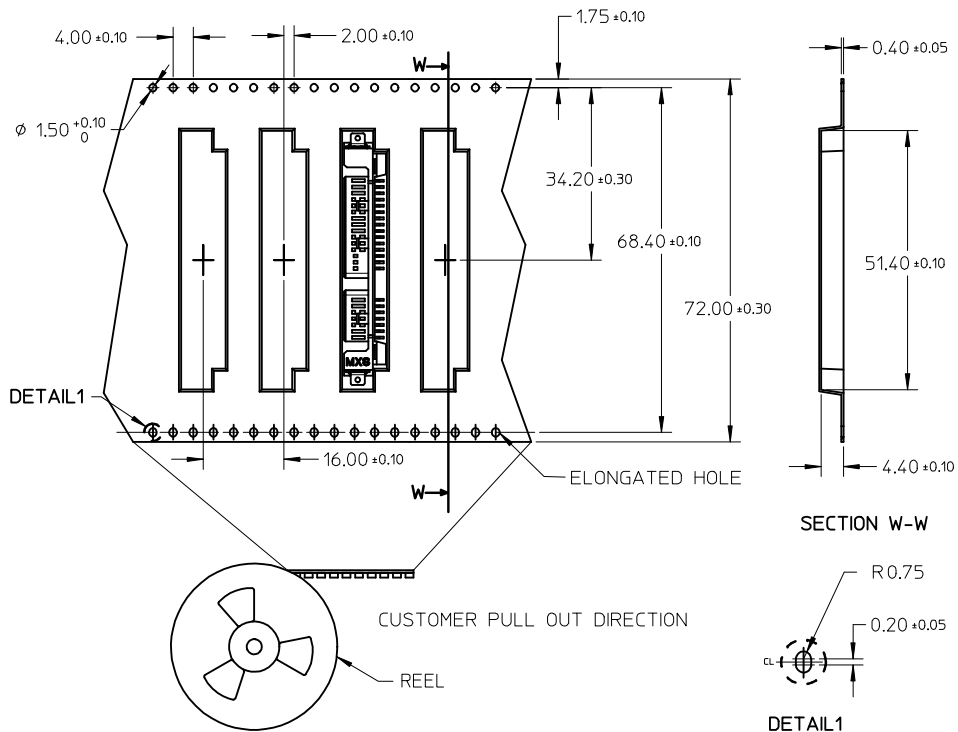
UPDATE NOTE 6 EC NO: S2009-0846 DRW:KHL IM CHKD:CGOH APPR:BOKOK	2009/05/20 2009/05/20 2009/05/20	QUALITY SYMBOLS ▽ = 0 ◻ = 0	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE MM ONLY	SCALE NTS	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION	
	DESCRIPTION B6	4 PLACES ± --- ± --- 3 PLACES ± --- ± --- 2 PLACES ± 0.20 ± --- 1 PLACE ± --- ± ---	mm INCH	DRAWN BY RSHAN	DATE 2002/11/18	TITLE SERIAL ATA PLUG 2.5 INCH HDD			
	REV	ANGULAR ± 3 °	DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS	CHECKED BY KCLING	DATE 2002/12/18	MOLEX INCORPORATED			
	MATERIAL NO.	SEE TABLE	THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION	APPROVED BY SKTOH	DATE 2002/12/18	DOCUMENT NO. SD-87703-002	SHEET NO. 2 OF 4		



RECOMMENDED PCB LAYOUT
PCB THICKNESS : 0.50±0.08

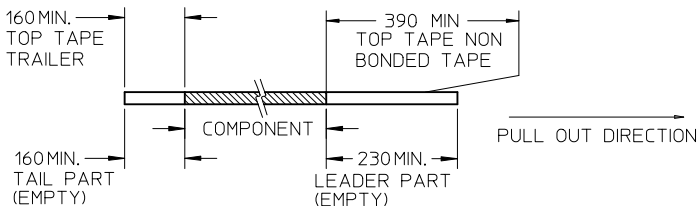
UPDATE NOTE 6 EC NO: S2009-0846 DRW:KHLIM CHKD:CGOH APPR:BOKOK	2009/05/20 2009/05/20 2009/05/20	QUALITY SYMBOLS ▽=0 ◻=0	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE MM ONLY		SCALE NTS	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION		
			4 PLACES 3 PLACES 2 PLACES 1 PLACE	mm INCH	DRAWN BY RSHAN	DATE 2002/11/18	TITLE SERIAL ATA PLUG 2.5 INCH HDD				
			± --- ± --- ± 0.20 ± ---	± --- ± --- ± --- ± ---	CHECKED BY KCLING	DATE 2002/12/18	MOLEX INCORPORATED				
			ANGULAR ± 3 °	DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS	APPROVED BY SKTOH	DATE 2002/12/18	MATERIAL NO. SEE TABLE	DOCUMENT NO. SD-87703-002	SHEET NO. 3 OF 4		

TAPE & REEL PACKAGING

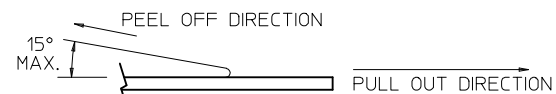


NOTES:

1. LEADER AND TRAILER TAPE

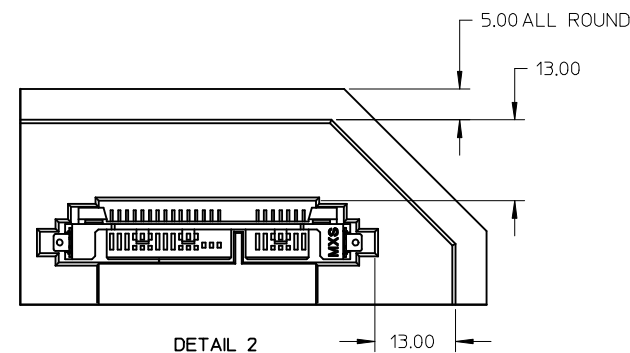
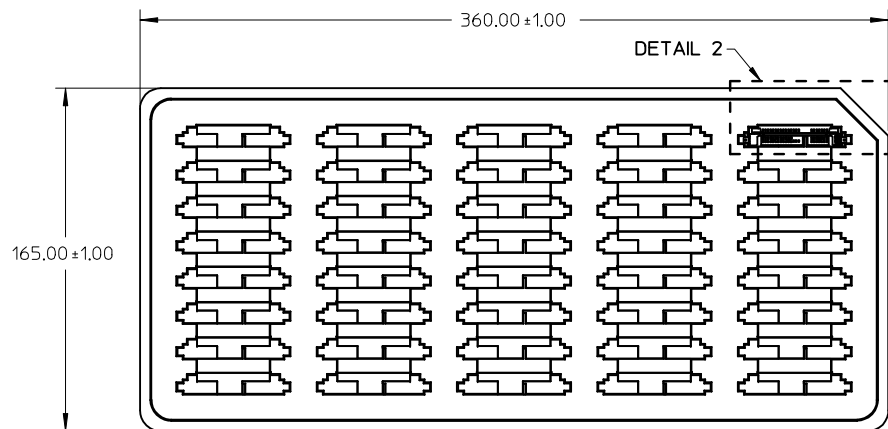


2. PEELING OFF FORCE OF THE TOP TAPE: 20 - 60gf.
(PEELING DIRECTION AS SHOWN IN FOLLOWING FIGURE)



- 3. TAPE AND REEL SPECIFICATION IS AS PER EIA-481.
- 4. TAPE AND REEL QUANTITY : 850 PCS/ REEL.
- 5. THE TAPE IS TREATED FOR ANTI-STATIC.

TRAY PACKAGING



UPDATE NOTE 6 EC NO: S2009-0846 DRW:KHLIM CHKD:CGOH APPR:BOKOK 2009/05/20 2009/05/20 2009/05/20	QUALITY SYMBOLS ▽=0 ◻=0	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE	SCALE	DESIGN UNITS	THIRD ANGLE PROJECTION	
				MM ONLY	NTS	METRIC		
				DRAWN BY	DATE	TITLE		
				4 PLACES	± ---	± ---	RSHAN	2002/11/18
		3 PLACES	± ---	± ---	CHECKED BY	DATE		
		2 PLACES	± 0.20	± ---	KCL ING	2002/12/18		
		1 PLACE	± ---	± ---	APPROVED BY	DATE		
		ANGULAR ± 3 °		SKTOH	2002/12/18	MOLEX INCORPORATED		
		DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		MATERIAL NO.	DOCUMENT NO.			
				SEE TABLE	SD-87703-002			
		SIZE	THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION					SHEET NO.
		A3						4 OF 4