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Part Number: [0877030067](#)
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, Tape on Reel Packaging, Lead-free

Documents:

[Drawing \(PDF\)](#) [RoHS Certificate of Compliance \(PDF\)](#)

General

Product Family	PCB Headers
Series	87703
Application	Board-to-Board
Overview	Serial ATA Combo Plugs and Receptacles
Product Name	Serial ATA

Physical

Breakaway	No
Circuits (Loaded)	22
Circuits (maximum)	22
Color - Resin	Black
Durability (mating cycles max)	500
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	Embossed Tape on Reel
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
Temperature Range - Operating	-40°C to +105°C
Termination Interface: Style	Surface Mount

Electrical

Current - Maximum per Contact	1.5A
Voltage - Maximum	30V

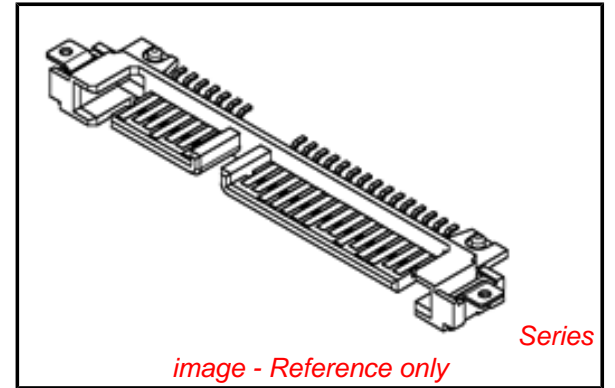


image - Reference only

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.

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

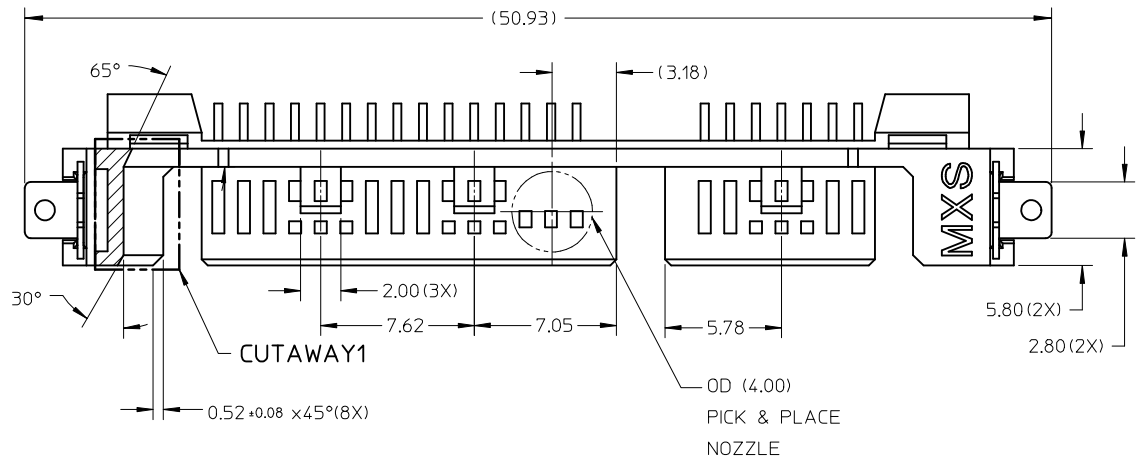
Material Info**Reference - Drawing Numbers**

Sales Drawing	SD-87703-002
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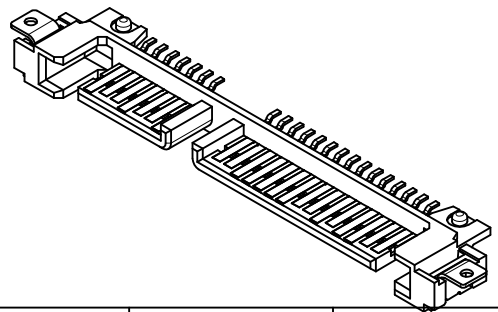
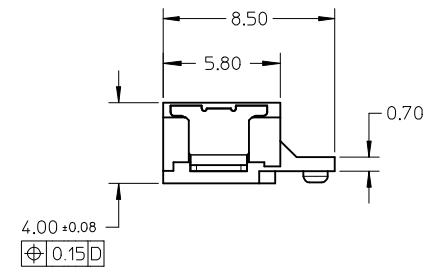
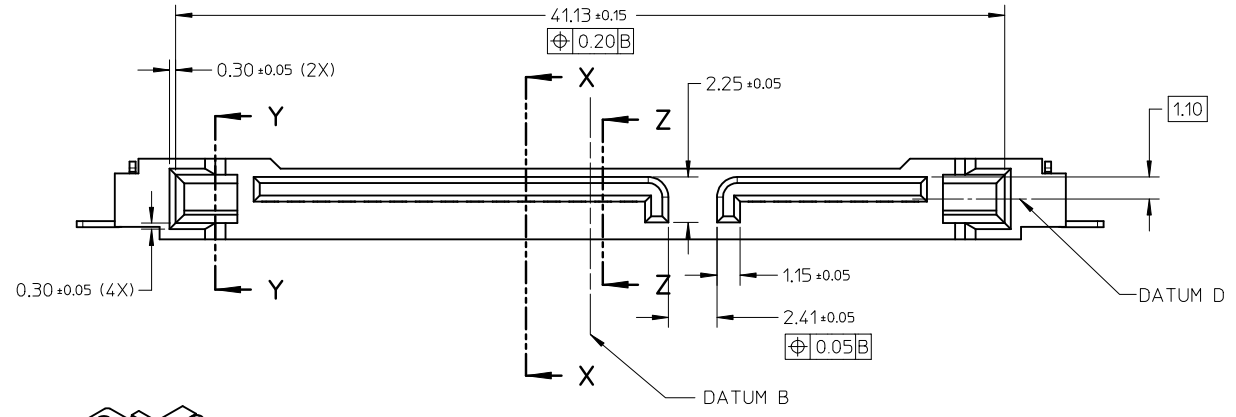
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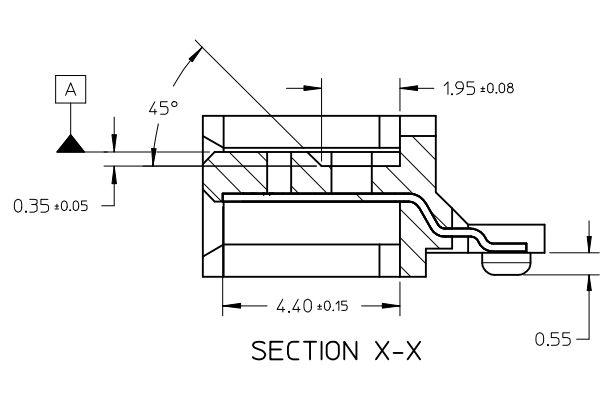
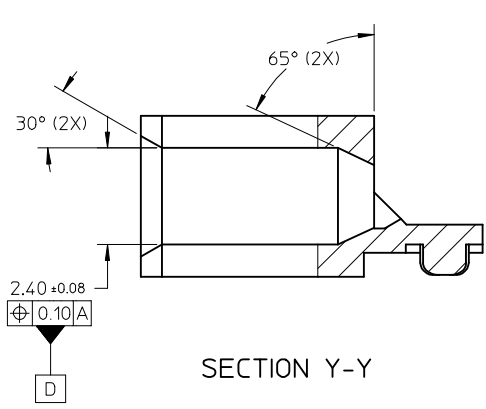
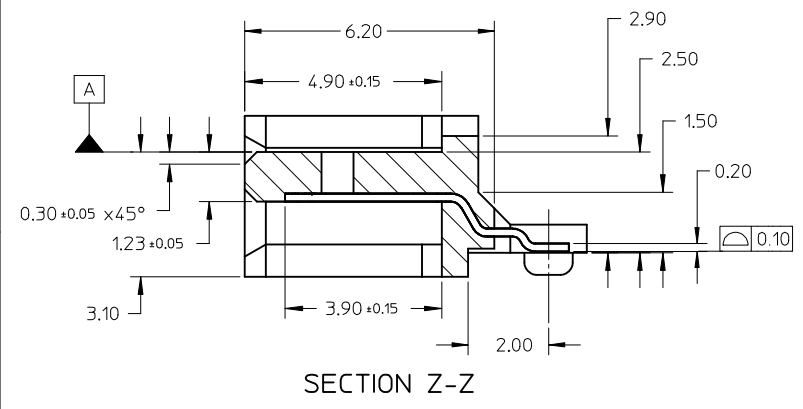
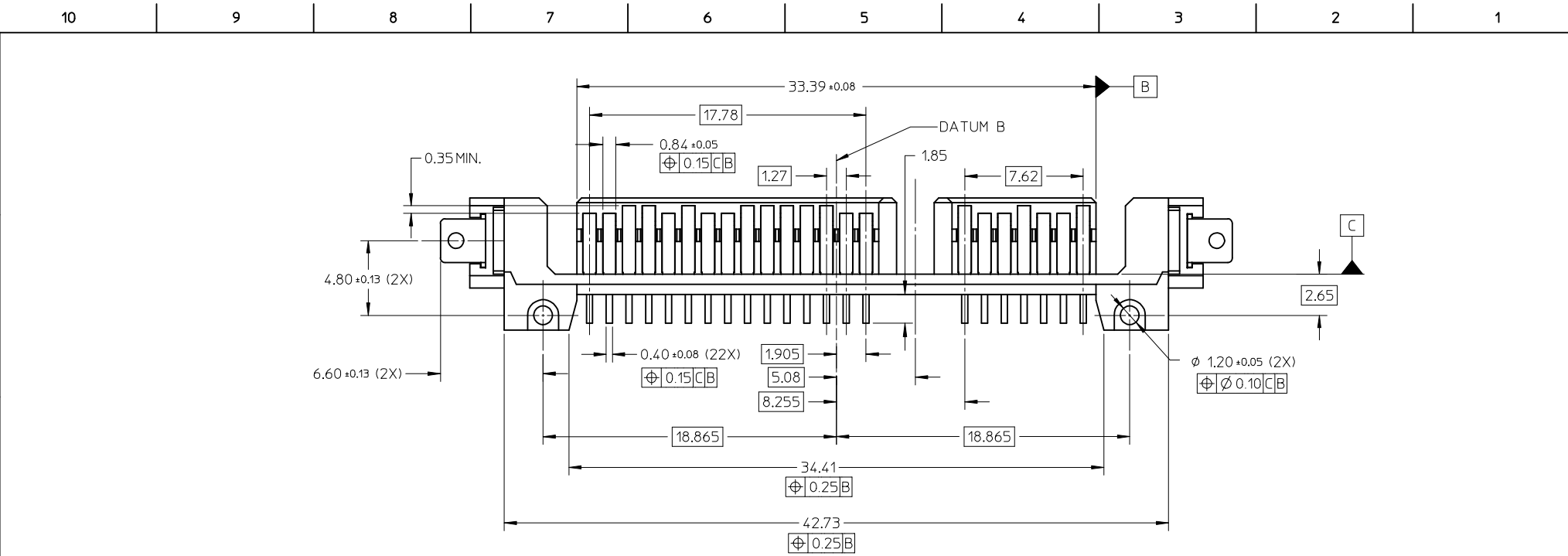
PART NUMBER	PACKAGING
87703-0001	TRAY
87703-0067	TAPE & REEL



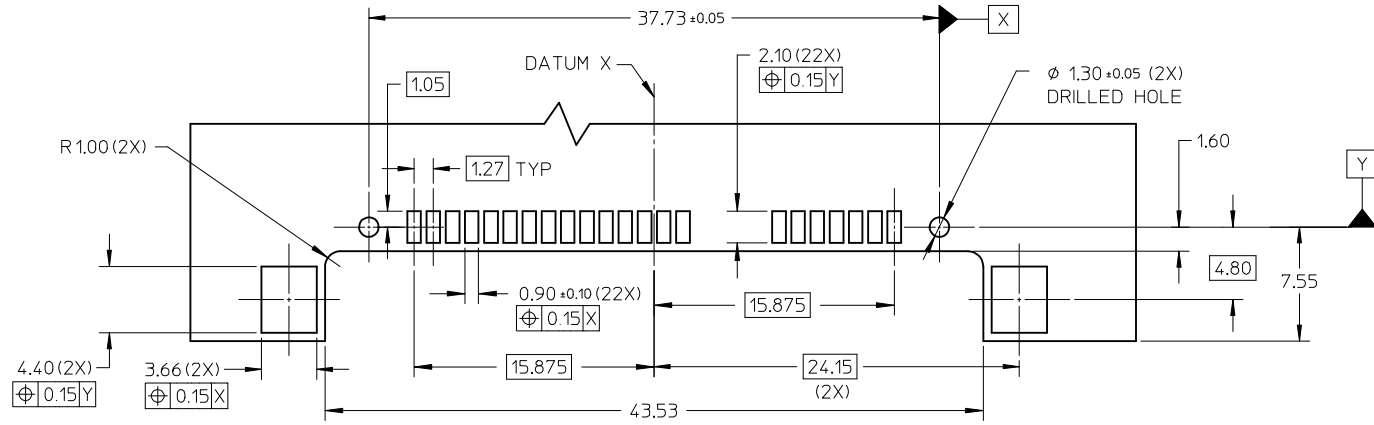
- NOTES:
- MATERIAL:
HOUSING: LIQUID CRYSTALLINE POLYMER (LCP), GLASS FILLED
UL 94V-0, COLOR: BLACK
CONTACTS & SMT NAILS: COPPER ALLOY
 - PLATING FINISH ON CONTACTS AND SOLDER TAILS:
0.127µm MIN. GOLD FLASH OVER 1.27µm MIN. NICKEL UNDERPLATE
 - PLATING FINISH ON SMT NAILS:
3.18µm MIN. TIN OVER 1.27µm 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 ± --- ± ---	ANGULAR ± 3 °	DRAWN BY RSHAN	DATE 2002/11/18	TITLE SERIAL ATA PLUG 2.5 INCH HDD		
		DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS					CHECKED BY KCL ING	DATE 2002/12/18	MOLEX INCORPORATED		
		SEE TABLE					APPROVED BY SKTOH	DATE 2002/12/18	MATERIAL NO.	DOCUMENT NO. SD-87703-002	SHEET NO. 1 OF 4



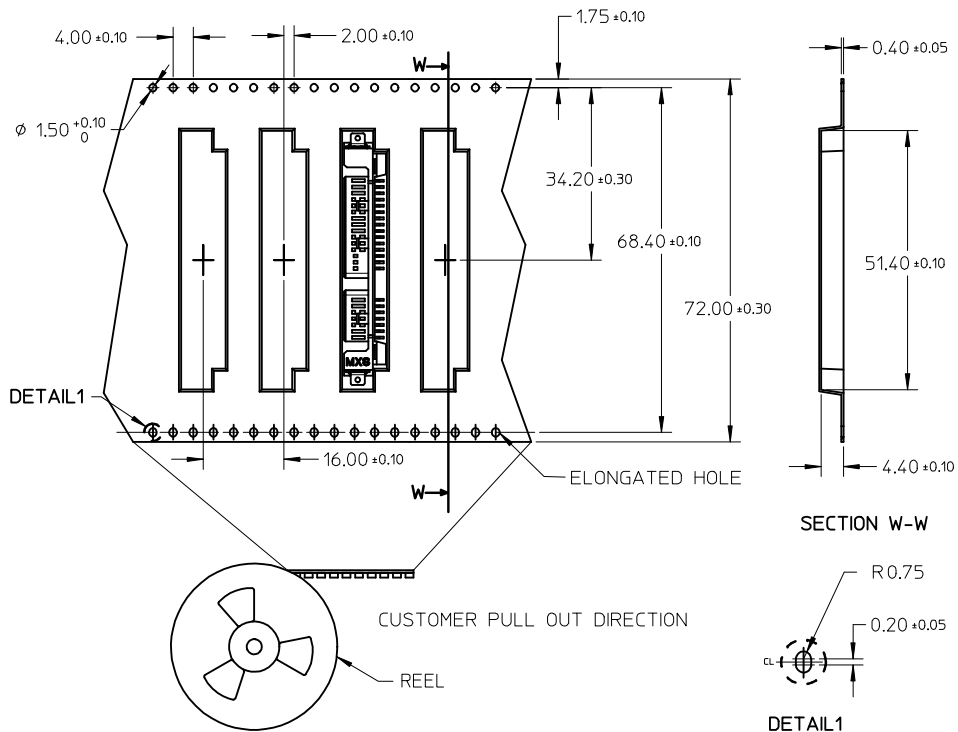
UPDATE NOTE 6 EC NO: S2009-0846 DRW:KHL IM CHKD:CGOH APPR:BOKOK 2009/05/20 2009/05/20 2009/05/20	QUALITY SYMBOLS	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE		SCALE	DESIGN UNITS	THIRD ANGLE PROJECTION		
	$\nabla = 0$ $\nabla C = 0$	mm	INCH	MM ONLY		NTS	METRIC			
		4 PLACES	± ---	± ---	DRAWN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



RECOMMENDED PCB LAYOUT
PCB THICKNESS : 0.50±0.08

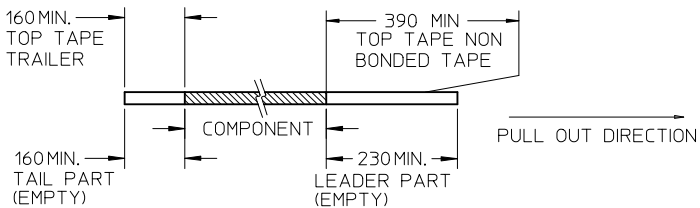
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	▽=0 □=0	mm INCH 4 PLACES ± --- ± --- 3 PLACES ± --- ± --- 2 PLACES ± 0.20 ± --- 1 PLACE ± --- ± --- ANGULAR ± 3 °	MM ONLY	NTS	METRIC	
	DESCRIPTION	DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS	DRAWN BY	DATE	TITLE	
	REV		RSHAN	2002/11/18	SERIAL ATA PLUG 2.5 INCH HDD	
B6			CHECKED BY	DATE	MOLEX INCORPORATED SD-87703-002	
			KCLING	2002/12/18		
			APPROVED BY	DATE	DOCUMENT NO. SHEET NO.	
			SKTOH	2002/12/18		
			MATERIAL NO.	DATE	3 OF 4	
			SEE TABLE		THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION	

TAPE & REEL PACKAGING

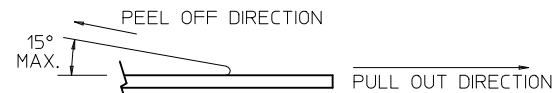


NOTES:

1. LEADER AND TRAILER TAPE

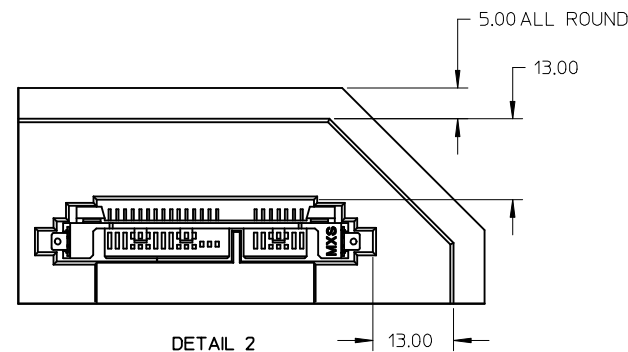
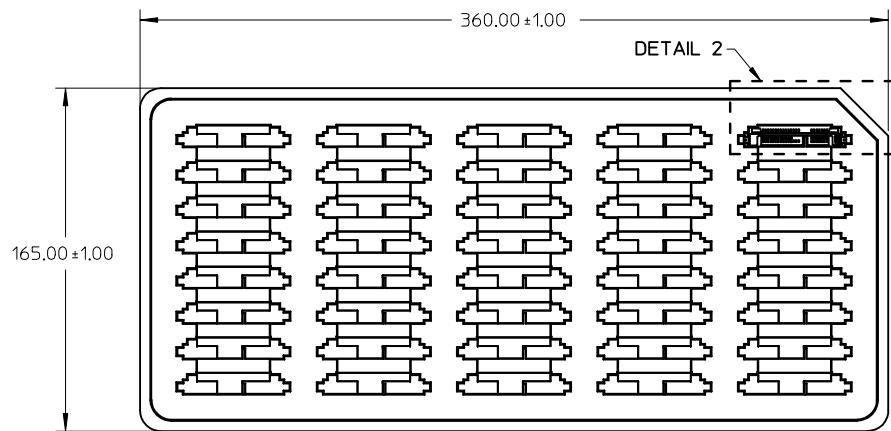


2. PEELING OFF FORCE OF THE TOP TAPE: 20 - 60gf. (PEELING DIRECTION AS SHOWN IN FOLLOWING FIGURE)



- 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 MM ONLY		SCALE NTS	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION		
			mm	INCH	DRAWN BY	DATE	TITLE			
		4 PLACES	± ---	± ---	RSHAN	2002/11/18	SERIAL ATA PLUG 2.5 INCH HDD			
		3 PLACES	± ---	± ---	CHECKED BY	DATE				
2 PLACES	± 0.20	± ---	KCL ING	2002/12/18	MOLEX INCORPORATED					
1 PLACE	± ---	± ---	APPROVED BY	DATE						
ANGULAR ± 3 °		DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		SKTOH	2002/12/18	MOLEX INCORPORATED DOCUMENT NO.		SHEET NO. 4 OF 4		
SEE TABLE		THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION		MATERIAL NO.		SD-87703-002				
SIZE A3										