

PLEASE CHECK WWW.MOLEX.COM FOR LATEST PART INFORMATION

Part Number:

0781090001

Status:

Active

Overview:

micro_sata

Description:

1.27mm (.050") Pitch Micro Serial ATA Device Receptacle for 1.8" HDD/SSD, Right Angle, SMT, Mid-Mount, 16 Circuits, Lead free

Documents:

3D Model

Drawing (PDF)

Product Specification PS-78109-001 (PDF)

RoHS Certificate of Compliance (PDF)

General

Product Family

Series

Application

Overview

Product Name

PCB Receptacles

78109

Board-to-Board

micro_sata

Micro Serial ATA, Serial ATA

Physical

Circuits (Loaded)

Circuits (maximum)

Circuits Detail

Color - Resin

Durability (mating cycles max)

Glow-Wire Compliant

Guide to Mating Part

Keying to Mating Part

Lock to Mating Part

Material - Metal

Material - Plating Mating

Material - Plating Termination

Material - Resin

Number of Rows

Orientation

PCB Locator

PCB Retention

Packaging Type

Pitch - Mating Interface (in)

Pitch - Mating Interface (mm)

Plating min: Mating (µin)

Plating min: Mating (µm)

Plating min: Termination (µin)

Plating min: Termination (µm)

Polarized to Mating Part

Polarized to PCB

Stackable

Temperature Range - Operating

Termination Interface: Style

16

16

With Optional Manufacturing Pins (S1 to S7, P1 to P9)

Black

500

No

Yes

Yes

Yes

Copper Alloy

Gold

Tin

Nylon

1

Right Angle

Yes

Yes

Tray

0.050 In

1.27 mm

30

0.76

100

2.54

Yes

Yes

No

-40°C to +105°C

Surface Mount

Electrical

Current - Maximum per Contact

Grounding to PCB

Voltage - Maximum

1.5A

Yes

30V

Solder Process Data

Duration at Max. Process Temperature (seconds)

Lead-free Process Capability

10

Reflow Capable (SMT only)

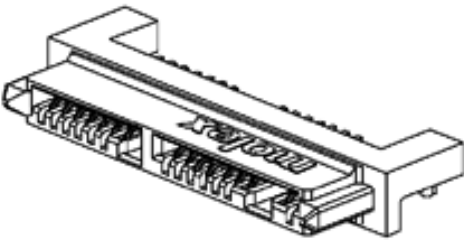


image - Reference only

Series

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

78109Series

Mates With

78103 , 78283 and 78285 Micro SATA Device Plugs

Max. Cycles at Max. Process Temperature	1
Process Temperature max. C	260

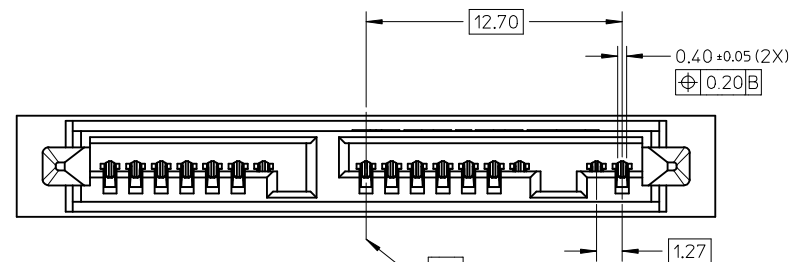
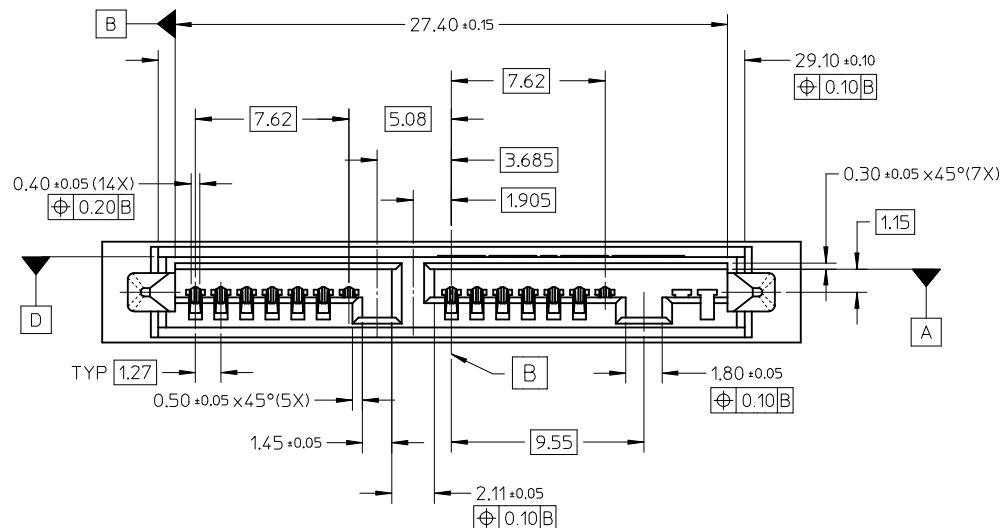
Material Info

Reference - Drawing Numbers

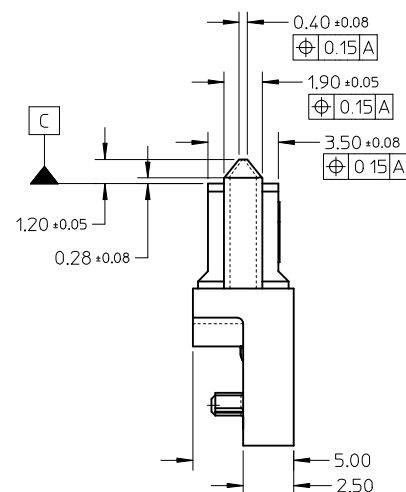
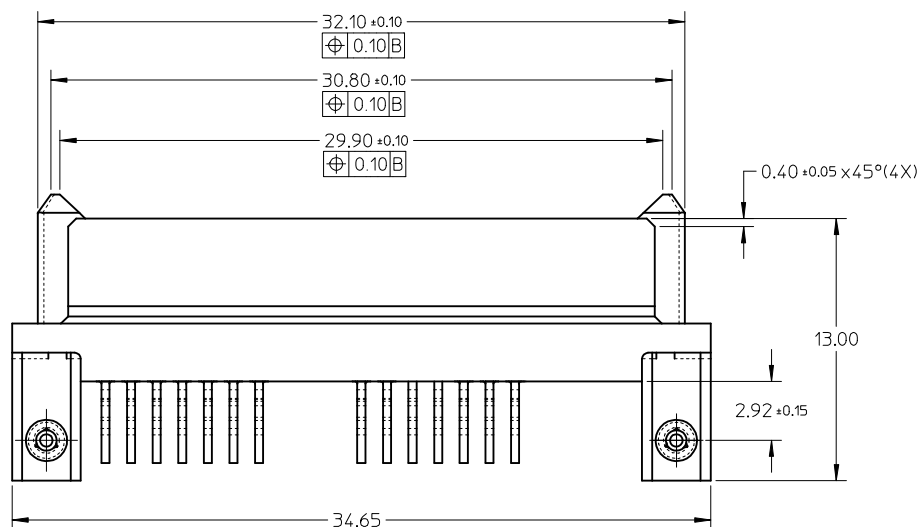
Product Specification	PS-78109-001
Sales Drawing	SD-78109-001

This document was generated on 05/21/2010

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78109-0001



ADD P/NO. & NOTE
EC NO: S2009-0789
DRWN: JIAN02
CHKD: KHLIM
APPR: BOKOK

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
MM ONLY

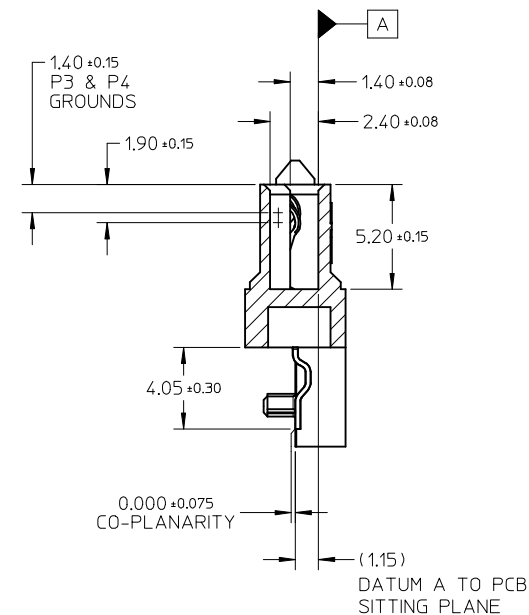
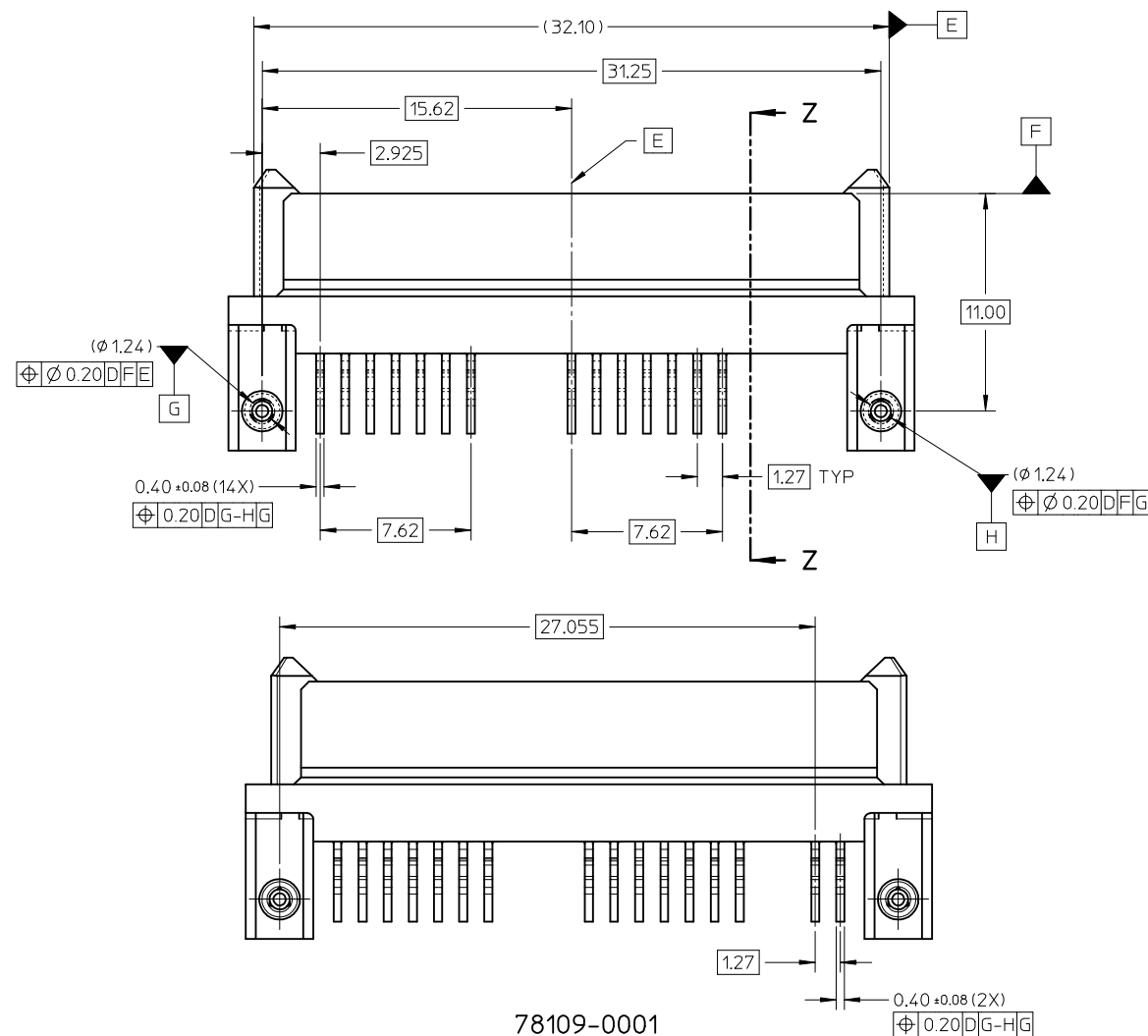
DRAWN BY	DATE
YKOH	2006/06/27
CHECKED BY	DATE
SHONG	2006/07/28
APPROVED BY	DATE
KCLING	2006/07/28
MATERIAL NO.	SEE TABLE

SCALE	DESIGN UNITS	THIRD ANGLE PROJECTION
NTS	METRIC	

TITLE
SERIAL ATA RECEPTACLE
1.8 INCH HDD
RIGHT-ANGLE, SMT
MOLEX INCORPORATED

DOCUMENT NO. SD-78109-001

SHEET NO. 2 OF 6



ADD P/NO. & NOTE EC NO: S2009-0789 DRAWN: JIAN02 CHKD: KHLIM APPR: BOK0K A	2009/04/17 2009/04/20 2009/04/20	DESCRIPTION A	QUALITY SYMBOLS ▽=0 ▽=0	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE MM ONLY		SCALE NTS	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION				
					mm	INCH	DRAWN BY YKOH		DATE 2006/06/27		TITLE SERIAL ATA RECEPTACLE 1.8 INCH HDD RIGHT-ANGLE, SMT MOLEX INCORPORATED			
				4 PLACES	± ---	± ---	CHECKED BY SHONG		DATE 2006/07/28					
				3 PLACES	± ---	± ---	APPROVED BY		DATE					
				2 PLACES	± 0.20	± ---	KCLING		2006/07/28					
				1 PLACE	± ---	± ---	ANGULAR ± 3 °		MATERIAL NO.		DOCUMENT NO.		SHEET NO.	
				DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS				SEE TABLE		SD-78109-001				3 OF 6
THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION														

10 9 8 7 6 5 4 3 2 1

F

E

D

C

B

A

F

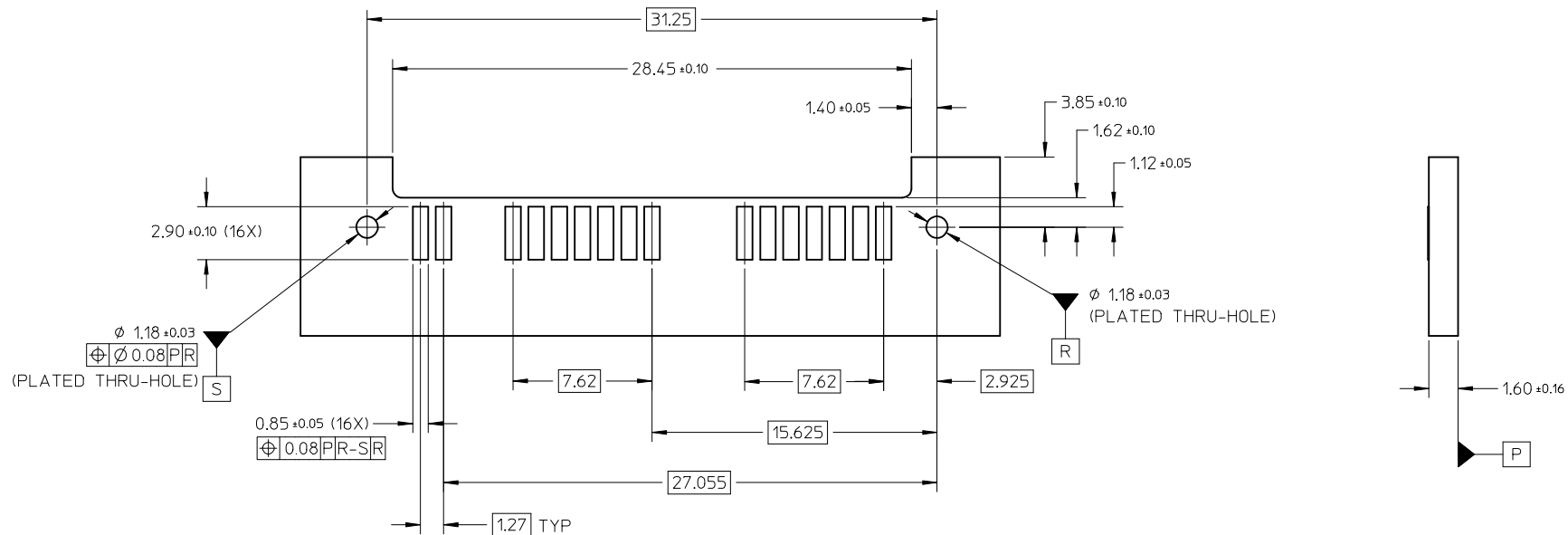
E

D

C

B

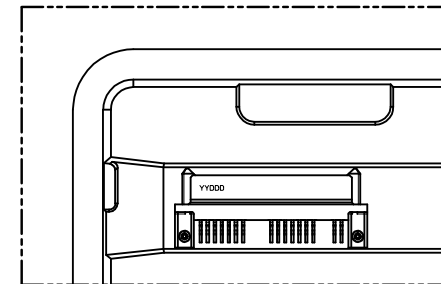
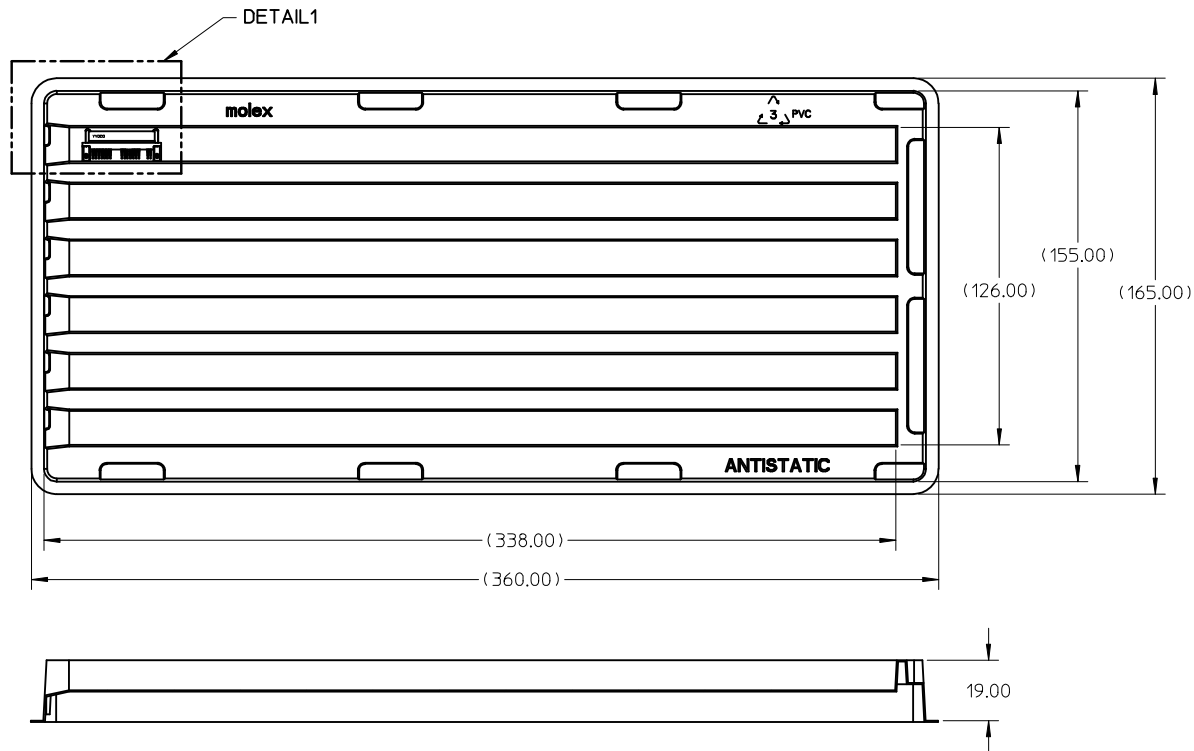
A



RECOMMENDED PCB LAYOUT

ADD P/NO. & NOTE EC NO: S2009-0789 DRWN: JIAN02 CHKD: KHLIM APPR: BOKOK A	DESCRIPTION REV	QUALITY SYMBOLS ▽=0 ◻=0	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE MM ONLY		SCALE NTS	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION			
				mm	INCH	DRAWN BY YKOH	DATE 2006/06/27	TITLE SERIAL ATA RECEPTACLE 1.8 INCH HDD RIGHT-ANGLE, SMT MOLEX MOLEX INCORPORATED				
			4 PLACES	± ---	± ---	CHECKED BY SHONG	DATE 2006/07/28					
			3 PLACES	± ---	± ---	APPROVED BY KCLING	DATE 2006/07/28					
			2 PLACES	± 0.20	± ---	ANGULAR ± 3 °		MATERIAL NO.		DOCUMENT NO.		SHEET NO.
			1 PLACE	± ---	± ---	DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		SEE TABLE		SD-78109-001		4 OF 6
							SIZE A3	THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION				

PACKAGING INFORMATION : TRAY



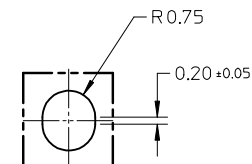
DETAIL1

NOTES:

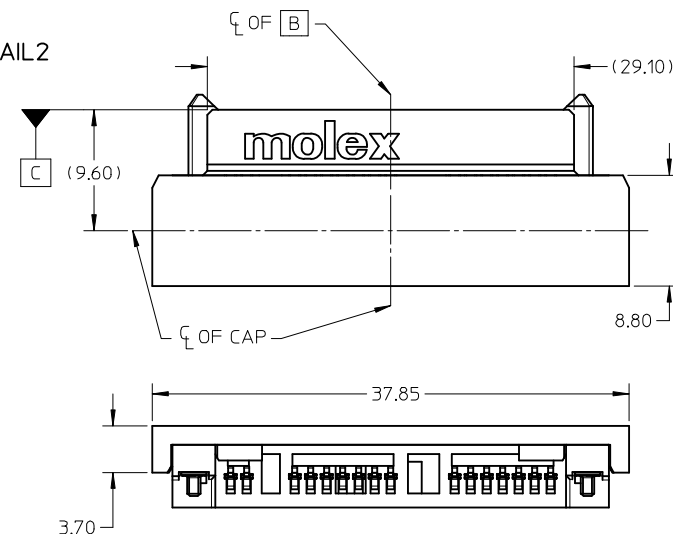
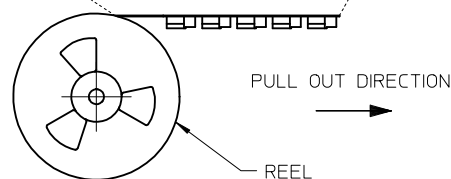
1. PACKAGING QUANTITY : 54 PCS PER TRAY
2. MATERIAL : PVC - CLEAR, ANTISTATIC
0.70MM THICK (PRE-FORMED)

ADD P/NO. & NOTE EC NO: S2009-0789 DRWN: JIAN02 CHKD: KHLIM APPR: BOKOK		DESCRIPTION	QUALITY SYMBOLS ▽=0 ▽=0	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE		SCALE	DESIGN UNITS	THIRD ANGLE PROJECTION			
						MM ONLY							
				4 PLACES		± ---	± ---	DRAWN BY DATE				TITLE	
				3 PLACES		± ---	± ---	CHECKED BY DATE					
2 PLACES		± 0.20	± ---	SHONG 2006/07/28									
1 PLACE		± ---	± ---	APPROVED BY DATE		MOLEX MOLEX INCORPORATED							
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		ANGULAR ± 3 °		KCLING 2006/07/28									
		MATERIAL NO.		DOCUMENT NO.									
A		REV		SEE TABLE		SD-78109-001		SHEET NO.					
						5 OF 6							
THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION													

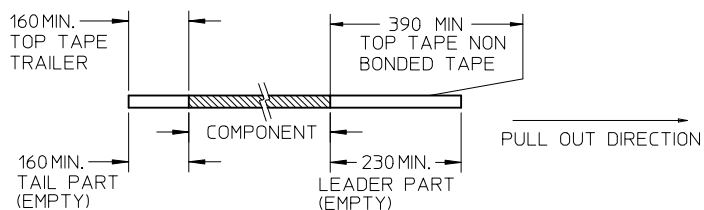
10	9	8	7	6	5	4	3	2	1
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DETAIL2



1. LEADER AND TRAILER TAPE



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3. TAPE AND REEL SPECIFICATION IS AS PER EIA-481.
4. TAPE AND REEL QUANTITY : 480 PCS/ REEL.
5. THE TAPE IS TREATED FOR ANTI-STATIC.

ADD P/NO. & NOTE EC NO: S2009-0789 DRWN: JIAN2 CHK'D: KHL IM APPR: BOKIM 2009/04/17 2009/04/20 2009/04/20	QUALITY SYMBOLS ▽=0 ▽=0	DESCRIPTION SERIAL ATA RECEPTACLE 1.8 INCH HDD RIGHT-ANGLE, SMT	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE MM ONLY		SCALE NTS	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION			
			mm	INCH	DRAWN BY YKOH		DATE 2006/06/27	TITLE SERIAL ATA RECEPTACLE 1.8 INCH HDD RIGHT-ANGLE, SMT				
			4 PLACES ± --- ± ---	3 PLACES ± --- ± ---	CHECKED BY SHONG		DATE 2006/07/28					
			2 PLACES ± 0.20 ± ---	1 PLACE ± --- ± ---	APPROVED BY KCLING		DATE 2006/07/28					
			ANGULAR ± 3 °		MATERIAL NO. SEE TABLE		DOCUMENT NO. SD-78109-001					SHEET NO. 6 OF 6
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							