

PLEASE CHECK WWW.MOLEX.COM FOR LATEST PART INFORMATION

Part Number: [0782850001](#)
Status: **Active**
Overview: [micro_sata](#)
Description: 1.27mm (.050") Pitch Micro Serial ATA Device Plug, Right Angle, SMT, without with flanged tabbed housing, 16 circuits, Tray, Lead-free

Documents:

[3D Model](#) [Product Specification PS-78285-002 \(PDF\)](#)
[Drawing \(PDF\)](#) [RoHS Certificate of Compliance \(PDF\)](#)

Agency Certification

CSA LR19980
 UL E29179

General

Product Family PCB Headers
 Series [78285](#)
 Application Board-to-Board
 Overview [micro_sata](#)
 Product Name Micro Serial ATA, Serial ATA

Physical

Breakaway No
 Circuits (Loaded) 16
 Circuits (maximum) 16
 Color - Resin Black
 Durability (mating cycles max) 500
 First Mate / Last Break Yes
 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) 0.000 In
 PC Tail Length (mm) 0.00 mm
 PCB Locator Yes
 PCB Retention Yes
 PCB Thickness Recommended (in) 0.024 In
 PCB Thickness Recommended (mm) 0.60 mm
 Packaging Type Tray
 Pitch - Mating Interface (in) 0.050 In, 0.200 In
 Pitch - Mating Interface (mm) 1.27 mm, 5.08 mm
 Pitch - Term. Interface (in) 0.050 In, 0.200 In
 Pitch - Term. Interface (mm) 1.27 mm, 5.08 mm
 Plating min: Mating (µin) 30
 Plating min: Mating (µm) 0.76
 Plating min: Termination (µin) 2
 Plating min: Termination (µm) 0.05
 Polarized to Mating Part Yes
 Polarized to PCB Yes

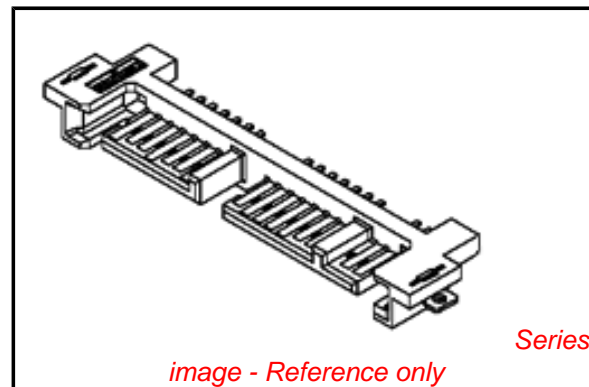


image - Reference only

EU RoHS

**ELV and RoHS
 Compliant**
**REACH SVHC
 Contains SVHC: No**
**Halogen-Free
 Status
 Not Reviewed**

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

[78285Series](#)

Mates With

[78109](#) , [78320](#) , [78492](#) , [78500](#) Receptacles

Robotic Placement	Pick and Place Cap
Shrouded	No
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

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

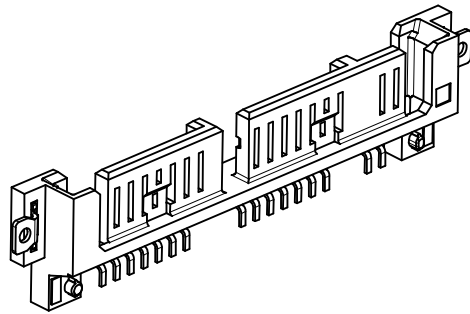
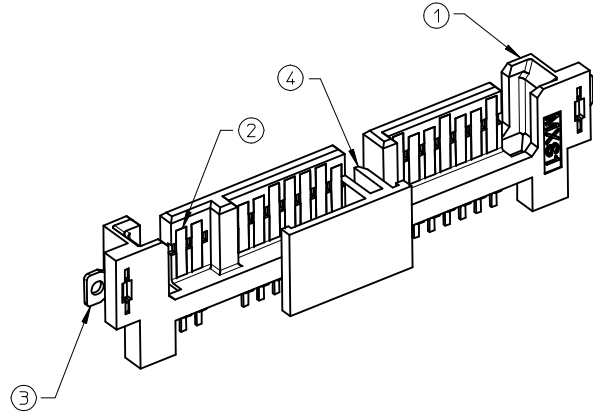
Product Specification	PS-78285-002
Sales Drawing	SD-78285-001

This document was generated on 05/31/2010

PLEASE CHECK WWW.MOLEX.COM FOR LATEST PART INFORMATION

TABLE 2: PART NUMBER

PART NUMBER	CAP	PACKAGING
78285-0001	NO	TRAY
78285-0021	YES	TAPE & REEL



NO.	PART NAME	QTY.	MATERIAL
1	HOUSING	1	LIQUID CRYSTAL POLYMER (LCP), GLASS FILLED, UL 94V-0, COLOUR: BLACK.
2	TERMINAL	16	COPPER ALLOY
3	SOLDER TAB	2	COPPER ALLOY
4	CAP	1	NYLON 46, GLASS FILLED, COLOUR: BLACK.

NOTES:

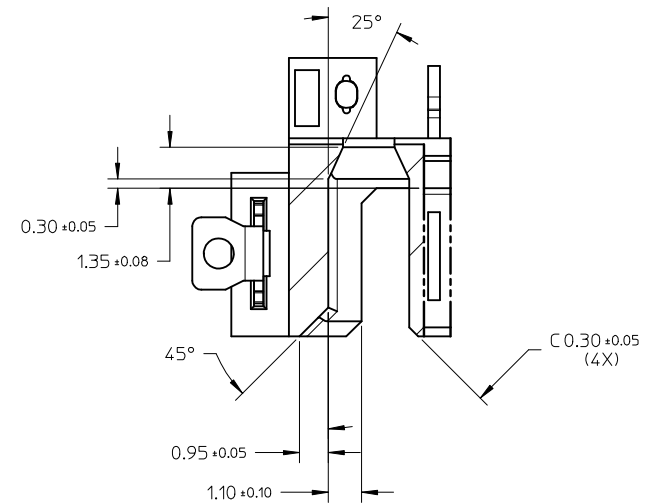
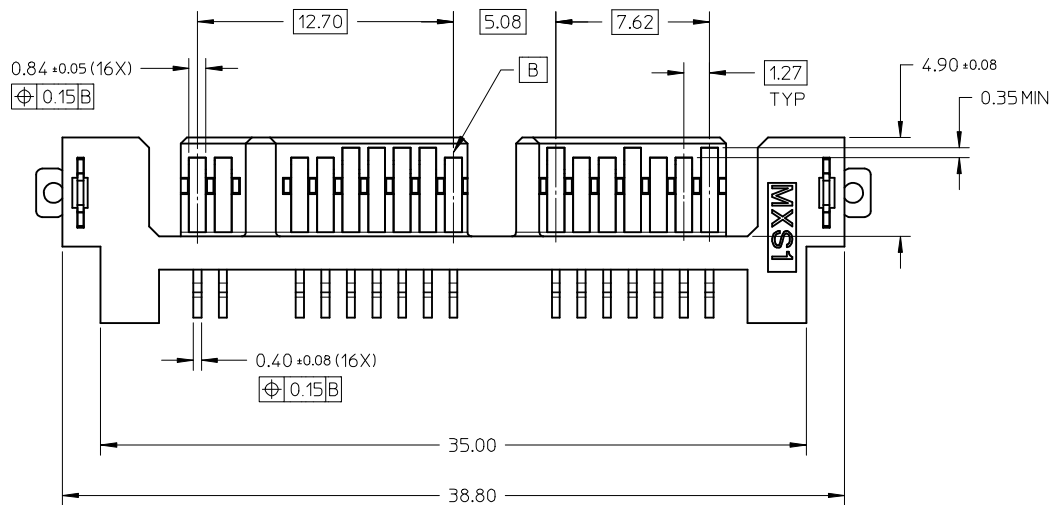
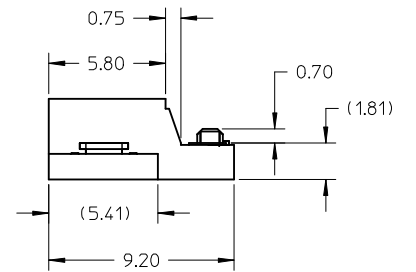
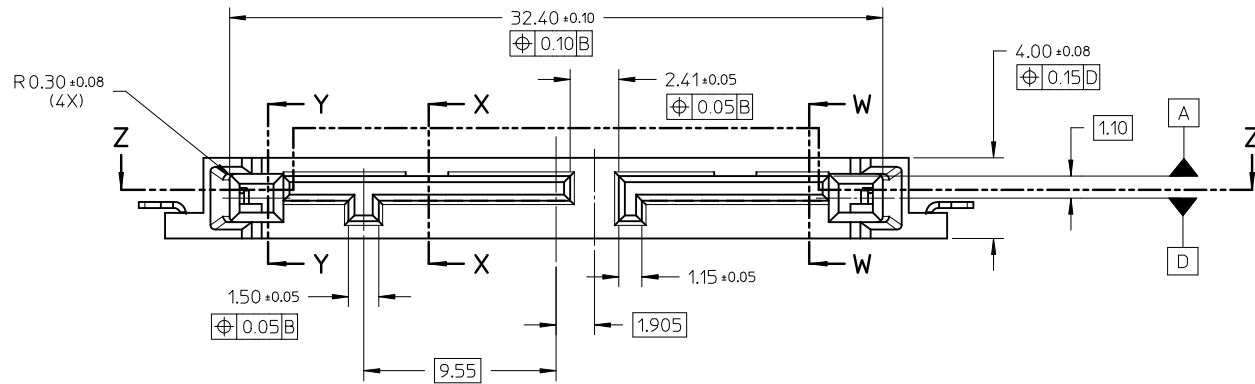
1. MATERIAL: REFER TO THE ABOVE PART LIST
2. PLATING SPECIFICATION: REFER TO TABLE 1
3. PRODUCT SPECIFICATION: PS-78285-002
4. PACKAGING SPECIFICATION: REFER TO TABLE 2
5. PRODUCT CONFORMS TO SERIAL ATA SPECIFICATION
6. PRODUCT IS COMPLIANT TO RoHS DIRECTIVE WITH THE FOLLOWING BANNED SUBSTANCES - LEAD, MERCURY, CADMIUM, HEXAVALENT CHROMIUM, POLYBROMINATED BIPHENYLS AND POLYBROMINATED DIPHENYLS ETHERS
7. NON FUNCTIONAL CORING MAY VARY FROM DRAWING

TABLE 1: PLATING SPECIFICATION

PART NAME	MATING AREA	SOLDER TAIL AREA	OTHER AREAS
TERMINAL	GOLD (0.76um MIN.)	GOLD FLASH (0.05um MIN.)	NICKEL PLATING
	OVER NICKEL (1.27um MIN.) UNDERPLATE		
SOLDER TAB	TIN (2.54um MIN.) OVER NICKEL (1.27um MIN.) UNDERPLATE		NICKEL PLATING

ADD GATE LOCATION EC NO: S2009-0894 DRWN: JYONG CHKD: KHLIM APPR: BOKOK	2009/06/01 2009/06/01 2009/06/02	DESCRIPTION REV	QUALITY SYMBOLS ▽=0 ◻=0	GENERAL TOLERANCES (UNLESS SPECIFIED) mm INCH 4 PLACES ± --- ± --- 3 PLACES ± --- ± --- 2 PLACES ± 0.20 ± --- 1 PLACE ± --- ± --- ANGULAR ± 3 °	DIMENSION STYLE MM ONLY DRAWN BY: YKOH DATE: 2007/04/26 CHECKED BY: CGTAN DATE: 2007/06/05 APPROVED BY: KCLING DATE: 2007/06/05	SCALE NTS	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION	TITLE SERIAL ATA PLUG RIGHT ANGLE SMT FOR 1.8 INCH SSD	MATERIAL NO. SEE TABLE	DOCUMENT NO. SD-78285-001	SHEET NO. 1 OF 5			
	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										
	ADD GATE LOCATION EC NO: S2009-0894 DRWN: JYONG CHKD: KHLIM APPR: BOKOK				DIMENSION STYLE MM ONLY				SCALE NTS		DESIGN UNITS METRIC		THIRD ANGLE PROJECTION		
	ADD GATE LOCATION EC NO: S2009-0894 DRWN: JYONG CHKD: KHLIM APPR: BOKOK				DIMENSION STYLE MM ONLY				SCALE NTS		DESIGN UNITS METRIC		THIRD ANGLE PROJECTION		

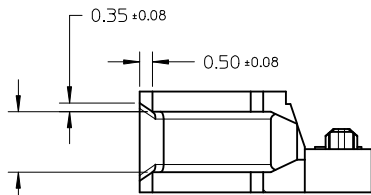
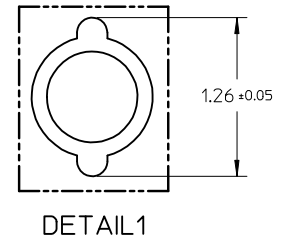
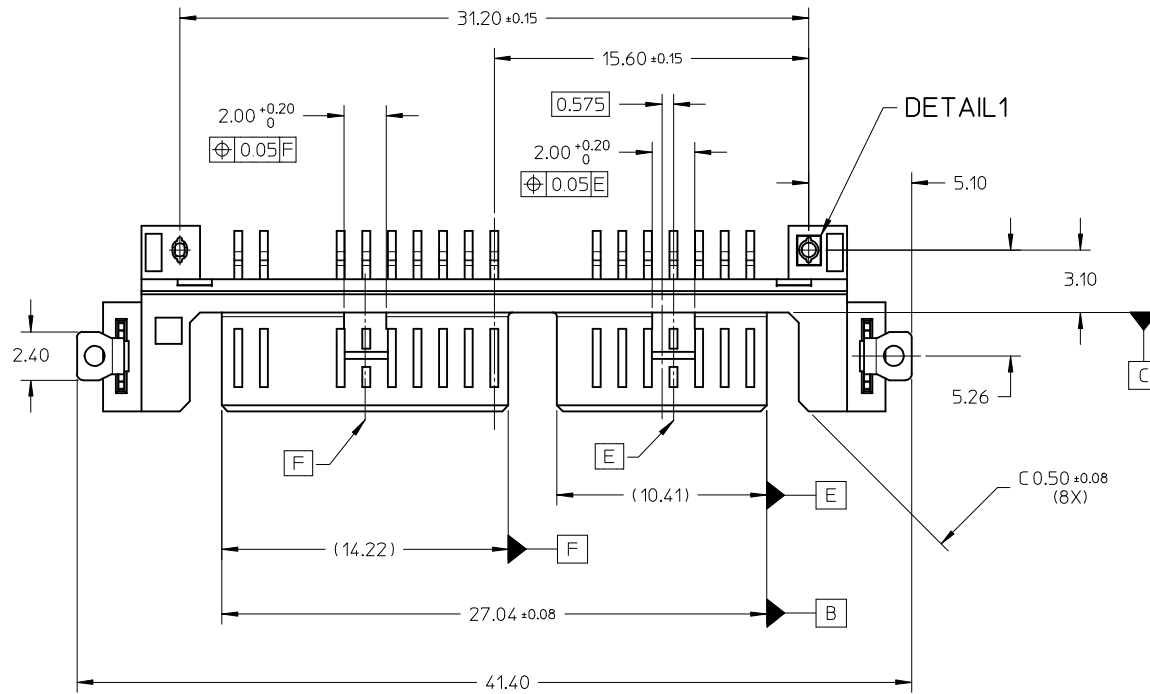
10 9 8 7 6 5 4 3 2 1



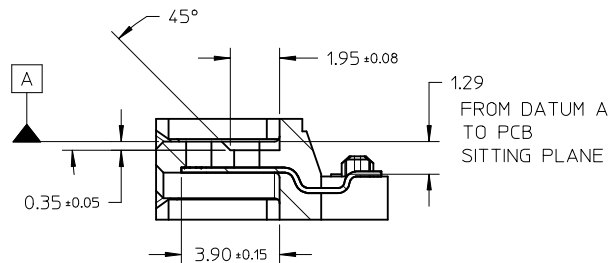
PARTIAL1
OF SECTION Z-Z

ADD GATE LOCATION EC NO: S2009-0894 DRWN: JYONG CHKD: KHLIM APPR: BOKOK	2009/06/01 2009/06/01 2009/06/02	DESCRIPTION ▽=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	± ---	± ---	YKOH	2007/04/26	SERIAL ATA PLUG RIGHT ANGLE SMT FOR 1.8 INCH SSD				
			3 PLACES	± ---	± ---	CHECKED BY	DATE					
2 PLACES	± 0.20	± ---	CGTAN	2007/06/05	MOLEX INCORPORATED							
1 PLACE	± ---	± ---	APPROVED BY	DATE								
ANGULAR ± 3 °			DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		MATERIAL NO. SEE TABLE		DOCUMENT NO. SD-78285-001		SHEET NO. 2 OF 5			
SIZE A3			THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION									

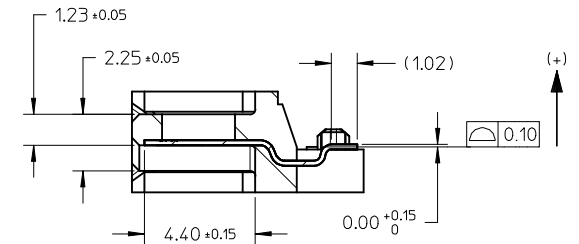
9 8 7 6 5 4 3 2 1



SECTION Y-Y



SECTION X-X



SECTION W-W

2.40 ± 0.08
⊕ 0.10 A

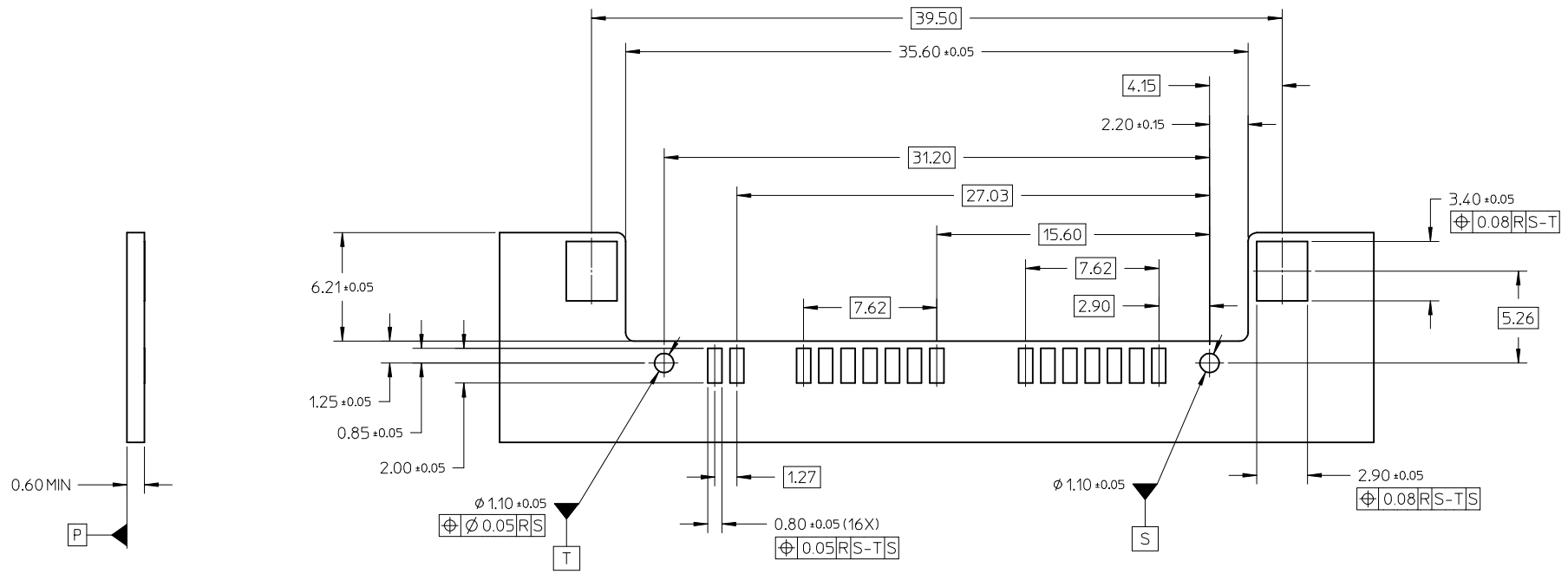
ADD GATE LOCATION	REV	DESCRIPTION
EC NO: S2009-0894	A	
DRWN: JXYONG		
CHKD: KHLIM		
APPR: BOKOK		

QUALITY SYMBOLS	DESCRIPTION
▽=0	
⊕=0	

GENERAL TOLERANCES (UNLESS SPECIFIED)	mm	INCH
	± ---	± ---
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS	4 PLACES	± ---
	3 PLACES	± ---
	2 PLACES	± 0.20
	1 PLACE	± ---
ANGULAR ± 3 °		

DIMENSION STYLE		SCALE	DESIGN UNITS	THIRD ANGLE PROJECTION
MM ONLY		NTS	METRIC	
DRAWN BY	DATE	TITLE		
YKOH	2007/04/26	SERIAL ATA PLUG		
CHECKED BY	DATE	RIGHT ANGLE SMT		
CGTAN	2007/06/05	FOR 1.8 INCH SSD		
APPROVED BY	DATE	MOLEX INCORPORATED		
KCLING	2007/06/05	MOLEX INCORPORATED		
MATERIAL NO.	DOCUMENT NO.	SHEET NO.		
SEE TABLE	SD-78285-001	3 OF 5		

SIZE	THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION			
A3				

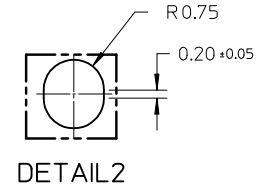
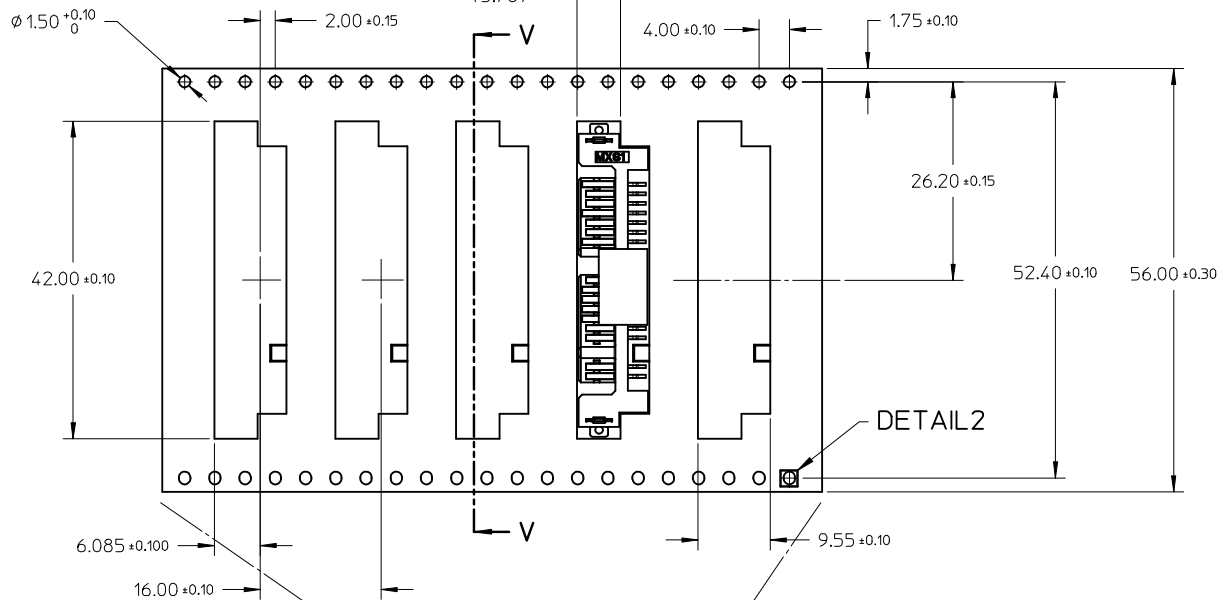


RECOMMENDED PCB LAYOUT

ADD GATE LOCATION EC NO: S2009-0894 DRWN: JYXIONG CHKD: KHLIM APPR: BOKOK	2009/06/01 2009/06/01 2009/06/02	DESCRIPTION REV	QUALITY SYMBOLS	GENERAL TOLERANCES (UNLESS SPECIFIED)	DIMENSION STYLE	SCALE	DESIGN UNITS	THIRD ANGLE PROJECTION		
			$\nabla = 0$ $\triangleleft = 0$	mm INCH 4 PLACES ± --- ± --- 3 PLACES ± --- ± --- 2 PLACES ± 0.20 ± --- 1 PLACE ± --- ± --- ANGULAR ± 3 °	MM ONLY	NTS	METRIC	DRAWN BY: YKOH DATE: 2007/04/26 CHECKED BY: CGTAN DATE: 2007/06/05 APPROVED BY: KCLING DATE: 2007/06/05 MATERIAL NO.	TITLE: SERIAL ATA PLUG RIGHT ANGLE SMT FOR 1.8 INCH SSD MOLEX INCORPORATED DOCUMENT NO. SD-78285-001	SHEET NO. 4 OF 5
			DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS	SEE TABLE	THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION					

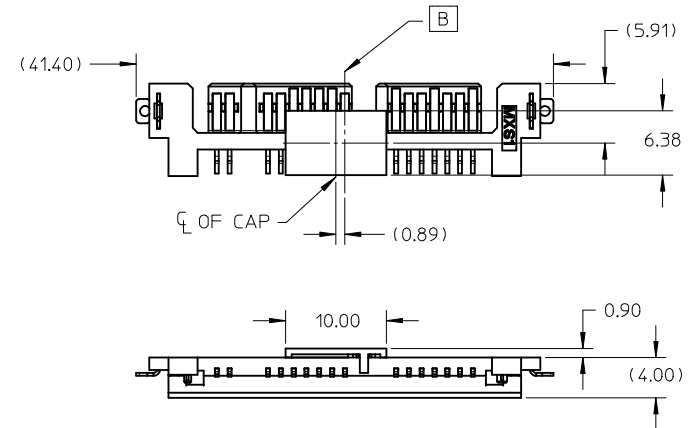
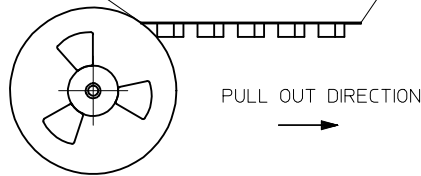
10 9 8 7 6 5 4 3 2 1

5.30 ± 0.10
0.40 ± 0.05



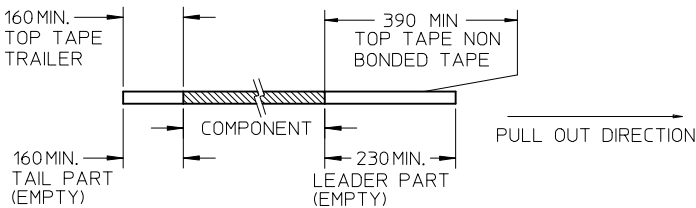
SECTION V-V

DETAIL2

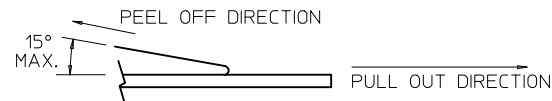


NOTES:

1. LEADER AND TRAILER TAPE



2. PEELING OFF FORCE OF THE TOP TAPE: 20 - 80gf.
(PEELING DIRECTION AS SHOWN IN FOLLOWING FIGURE)



- 3. TAPE AND REEL SPECIFICATION IS AS PER EIA-481.
- 4. TAPE AND REEL QUANTITY : 750 PCS/ REEL.
- 5. THE TAPE IS TREATED FOR ANTI-STATIC.

ADD GATE LOCATION EC NO: S2009-0894 DRWN: JYONG CHKD: KHLIM APPR: BOKOK	2009/06/01 2009/06/01 2009/06/02	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 ± ---	± ---	YKOH	2007/04/26	SERIAL ATA PLUG RIGHT ANGLE SMT FOR 1.8 INCH SSD				
			3 PLACES ± ---	± ---	CHECKED BY	DATE					
		2 PLACES ± 0.20	± ---	CGTAN	2007/06/05	MOLEX INCORPORATED					
		1 PLACE ± ---	± ---	APPROVED BY	DATE						
		ANGULAR ± 3 °		KCLING	2007/06/05	MATERIAL NO.		DOCUMENT NO.			
		DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS			SEE TABLE		SD-78285-001		SHEET NO. 5 OF 5		
		THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION									

9 8 7 6 5 4 3 2 1