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Part Number: [0782830001](#)
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, Tape on Reel, Lead- free

Documents:
[Drawing \(PDF\)](#) [RoHS Certificate of Compliance \(PDF\)](#)
[Product Specification PS-78283-001 \(PDF\)](#)

Agency Certification

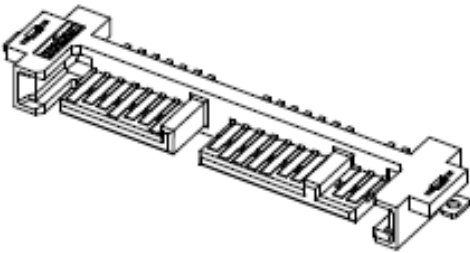
CSA LR19980
UL E29179

General

Product Family PCB Headers
Series [78283](#)
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) 0.027 In
PCB Thickness Recommended (mm) 0.68 mm
Packaging Type Embossed Tape on Reel
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



Series

image - Reference only

EU RoHS
ELV and RoHS
Compliant
REACH SVHC
Contains SVHC: No
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
[78283Series](#)

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

Robotic Placement	Pick and Place Cap
Shrouded	No
Stackable	No
Temperature Range - Operating	0°C to +55°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

Packaging Specification	PK-78283-001
Product Specification	PS-78283-001, RPS-78283-002, RPS-78283-102
Sales Drawing	SD-78283-001

This document was generated on 05/31/2010

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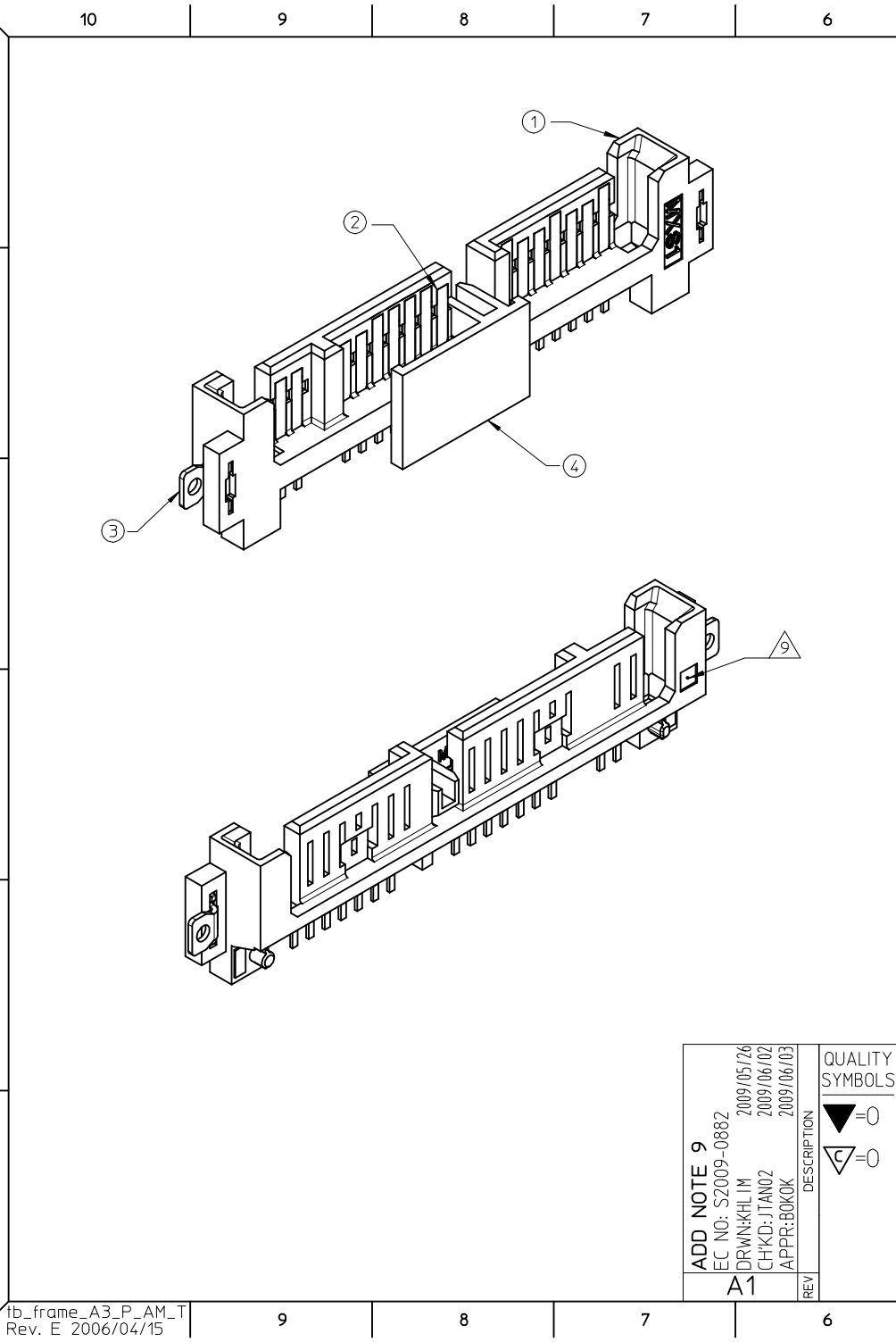
E

D

C

B

A



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	HIGH TEMPERATURE THERMOPLASTIC, GLASS FILLED. UL 94V-0, COLOUR: BLACK.

NOTES:

1. MATERIAL: REFER TO THE ABOVE PART LIST
2. PLATING SPECIFICATION: REFER TO TABLE 1
3. PRODUCT SPECIFICATION: PS-78283-001
4. PACKAGING SPECIFICATION: PK-78283-001
5. MATES WITH MICRO SATA RECEPTACLE SERIES: 78109, 78320.
6. PRODUCT CONFORMS TO SERIAL ATA SPECIFICATION
7. PRODUCT IS COMPLIANT TO RoHS DIRECTIVE WITH THE FOLLOWING BANNED SUBSTANCES - LEAD, MERCURY, CADMIUM, HEXAVALENT CHROMIUM, POLYBROMINATED BIPHENYLS AND POLYBROMINATED DIPHENYLS ETHERS
8. NON FUNCTIONAL CORING MAY VARY FROM DRAWING.
9. GATE LOCATED APPROXIMATELY AS SHOWN.

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 NOTE 9
EC NO: S2009-0882
DRWN:KHLIM
CHKD:JTAN02
APPR:BOKOK

2009/05/26
2009/06/02
2009/06/03

QUALITY SYMBOLS
=0
=0

DESCRIPTION
REV

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 KHLIM
CHECKED BY CGOH
APPROVED BY BOKOK
MATERIAL NO. 78283-0001
SIZE A3

SCALE
NTS

DESIGN UNITS
METRIC

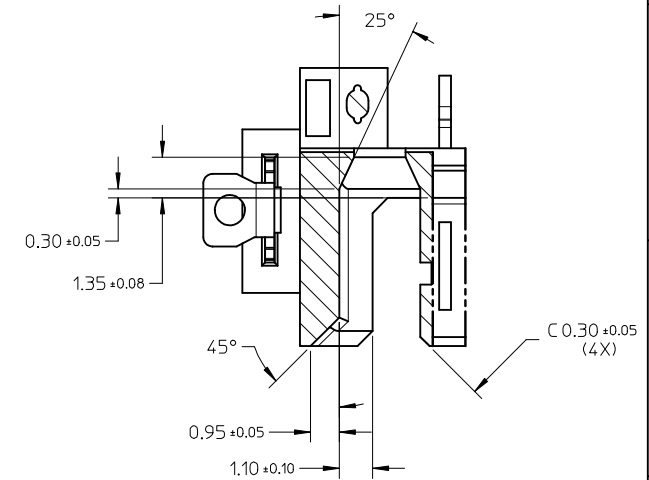
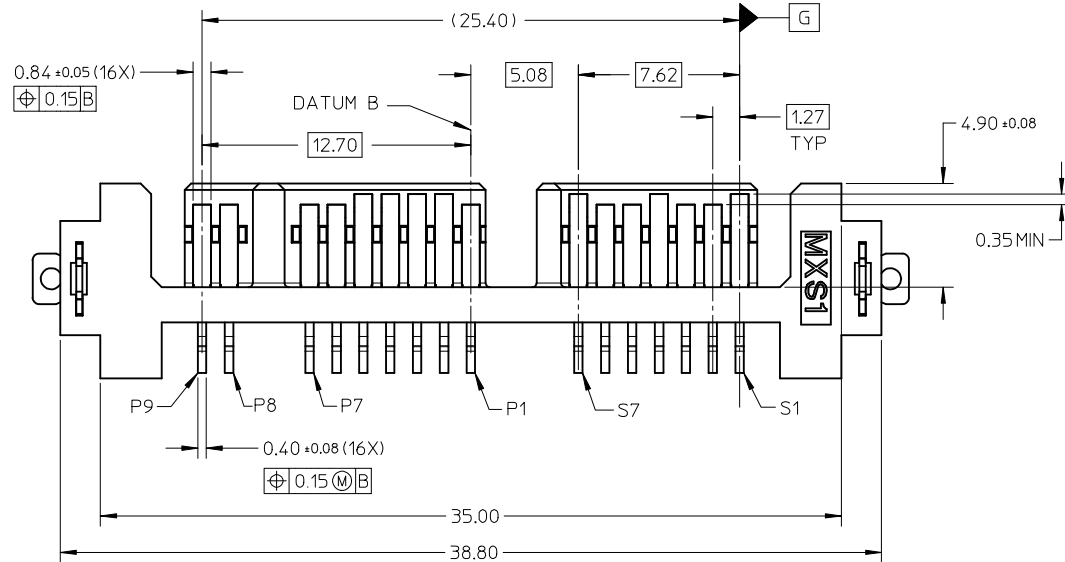
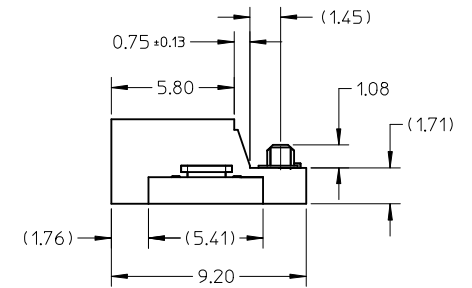
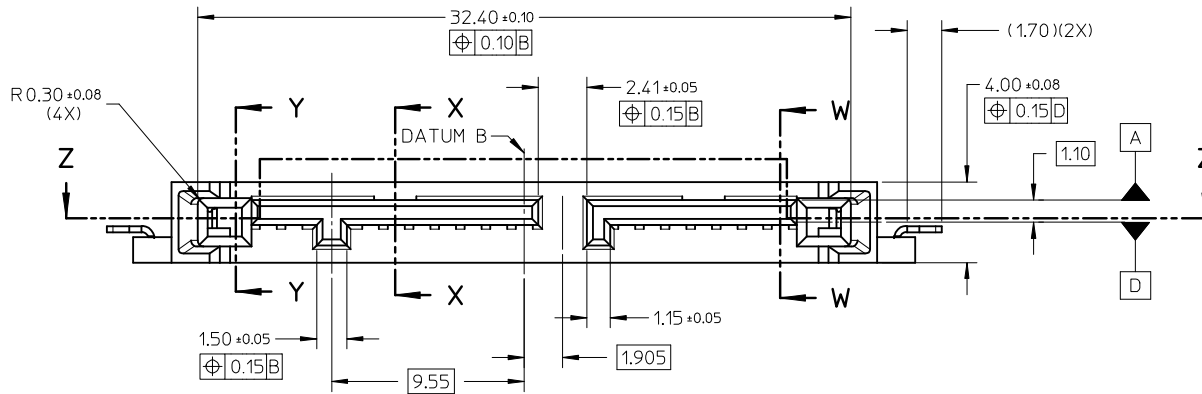
THIRD ANGLE PROJECTION

TITLE
MICRO SATA PLUG
FOR 1.8 INCH SSD
SURFACE MOUNT
MOLEX INCORPORATED

DOCUMENT NO.
SD-78283-001

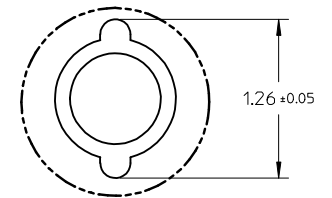
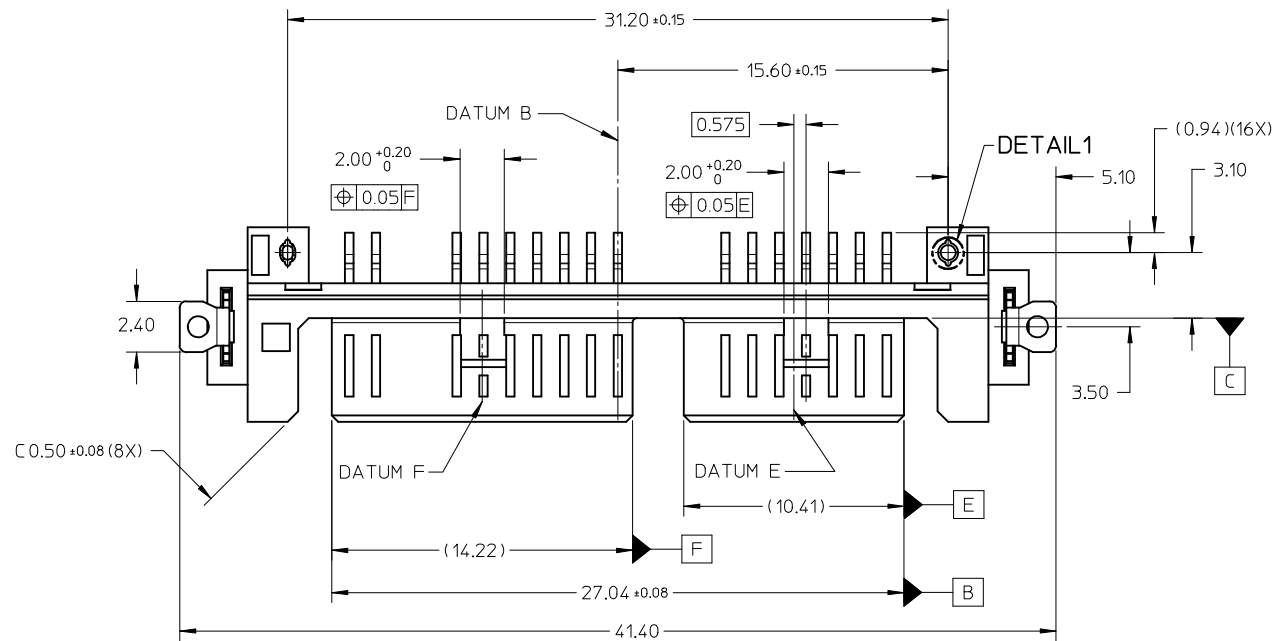
SHEET NO.
1 OF 5

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

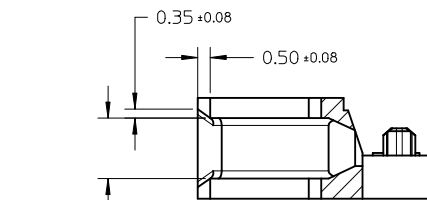


PARTIAL 1
OF SECTION Z-Z

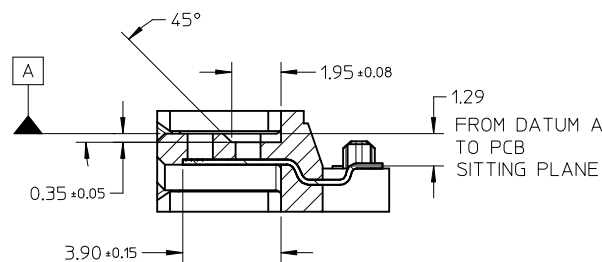
ADD NOTE 9 EC NO: S2009-0882 DRWN:KHLIM CHKD:JTAN02 APPR:BOKOK A1	2009/05/26 2009/06/02 2009/06/03	DESCRIPTION REV	QUALITY SYMBOLS ▽=0 ▽=0	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE MM ONLY		SCALE NTS	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION	MICRO SATA PLUG FOR 1.8 INCH SSD SURFACE MOUNT MOLEX INCORPORATED SD-78283-001 THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION
						DRAWN BY KHLIM		DATE 2009/02/17	TITLE		
						CHECKED BY CGOH		DATE 2009/03/09			
						APPROVED BY BOKOK		DATE 2009/03/09			
						MATERIAL NO. 78283-0001		DOCUMENT NO. SD-78283-001		SHEET NO. 2 OF 5	
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS											



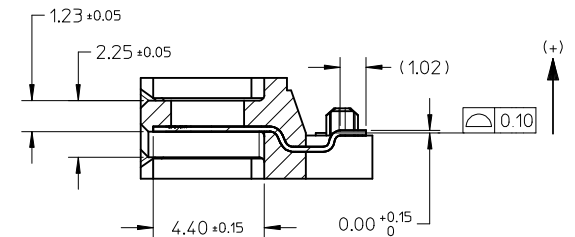
DETAIL1



SECTION Y-Y

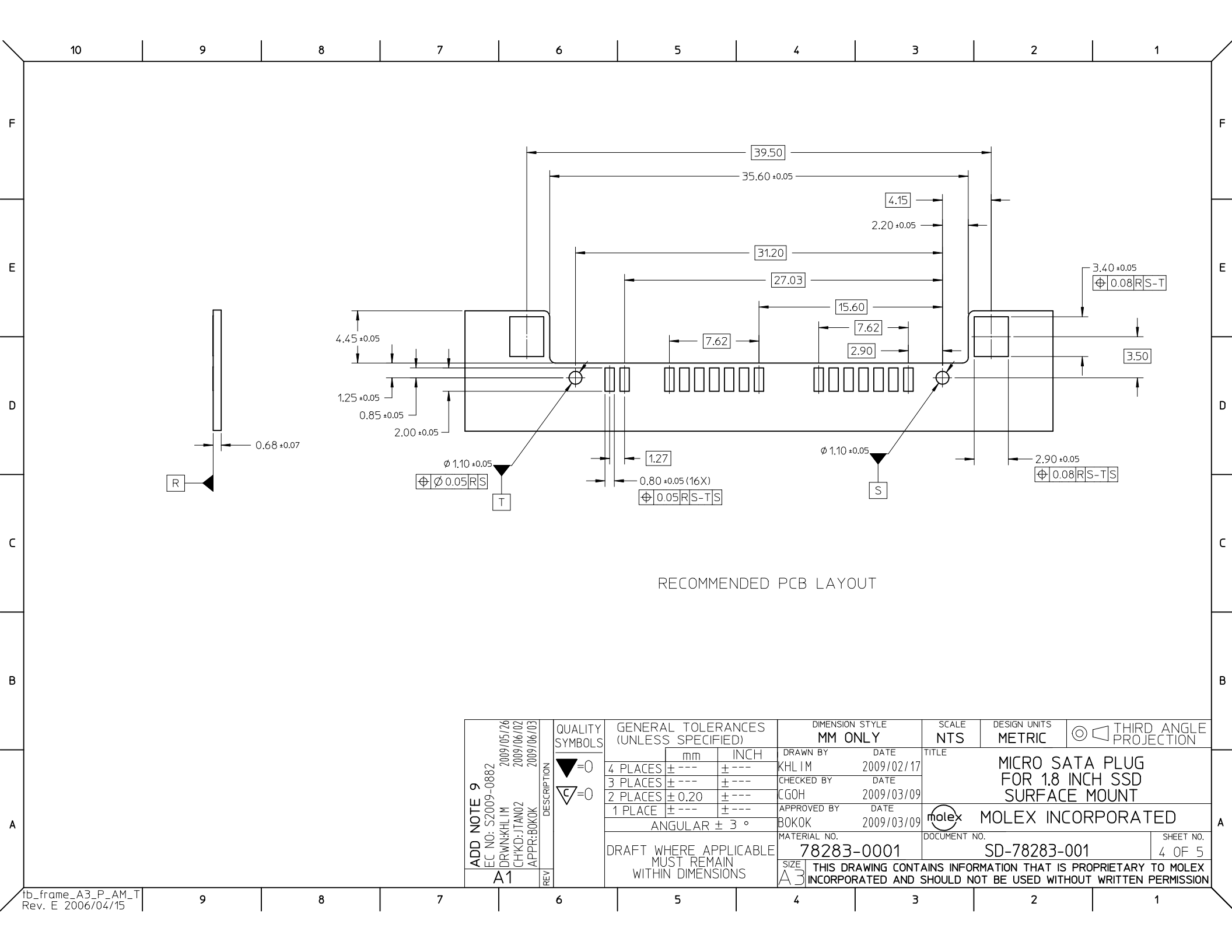


SECTION X-X



SECTION W-W

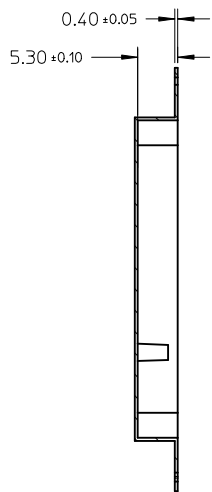
ADD NOTE 9 EC NO: S2009-0882 DRWN:KHLIM CHKD:JTAN02 APPR:BOKOK 2009/05/26 2009/06/02 2009/06/03	DESCRIPTION	QUALITY SYMBOLS ▽=0 ◇=0	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE MM ONLY		SCALE NTS	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION			
				mm	INCH	DRAWN BY KHLIM	DATE 2009/02/17	TITLE MICRO SATA PLUG FOR 1.8 INCH SSD SURFACE MOUNT				
			4 PLACES	± ---	± ---	CHECKED BY CGOH	DATE 2009/03/09					
			3 PLACES	± ---	± ---							
			2 PLACES	± 0.20	± ---	APPROVED BY BOKOK	DATE 2009/03/09	MOLEX INCORPORATED				
			1 PLACE	± ---	± ---							
			ANGULAR ± 3 °			MATERIAL NO. 78283-0001		DOCUMENT NO. SD-78283-001		SHEET NO. 3 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						



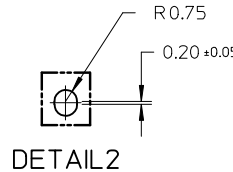
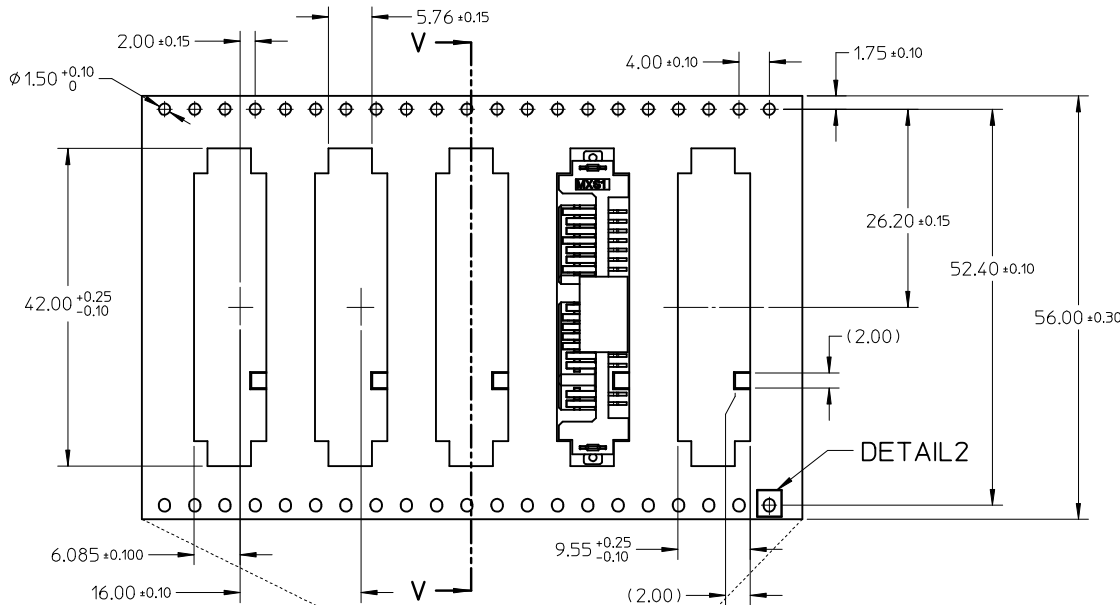
RECOMMENDED PCB LAYOUT

ADD NOTE 9 EC NO: S2009-0882 DRWN:KHLIM CHKD:JTAN02 APPR:BOKOK		2009/05/26 2009/06/02 2009/06/03		QUALITY SYMBOLS ▽=0 ▽=0	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE MM ONLY		SCALE NTS	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION	MICRO SATA PLUG FOR 1.8 INCH SSD SURFACE MOUNT MOLEX INCORPORATED	DOCUMENT NO. SD-78283-001	SHEET NO. 4 OF 5
							DRAWN BY DATE KHLIM 2009/02/17							
							CHECKED BY DATE CGOH 2009/03/09							
							APPROVED BY DATE BOKOK 2009/03/09							
A1		REV		DESCRIPTION		ANGULAR ± 3 °		MATERIAL NO. 78283-0001						
						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				

10 9 8 7 6 5 4 3 2 1

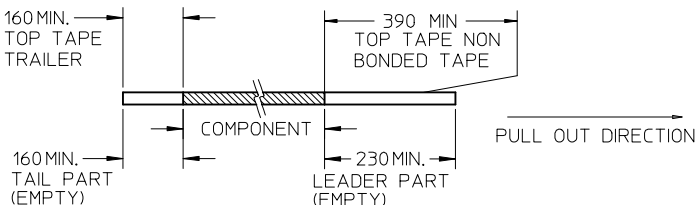


SECTION V-V

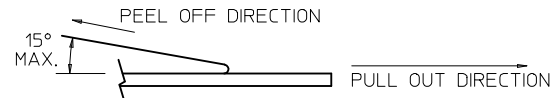


NOTES:

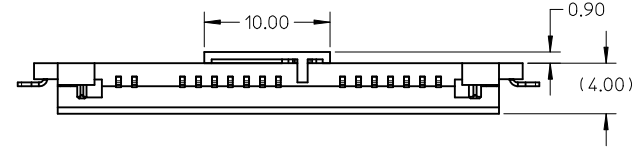
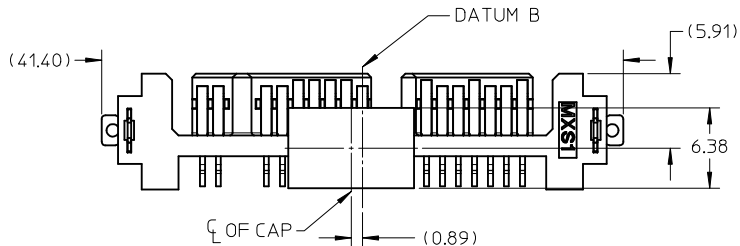
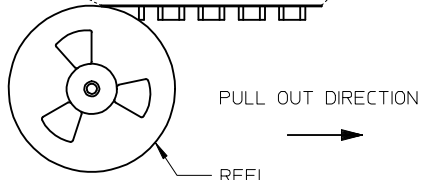
1. LEADER AND TRAILER TAPE



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.
6. MEASUREMENTS TO BE TAKEN AT BASE OF TAPE.



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				3 PLACES	± ---	± ---	APPROVED BY BOKOK	DATE 2009/03/09					
				2 PLACES	± 0.20	± ---	MOLEX INCORPORATED						
				1 PLACE	± ---	± ---							
				ANGULAR ± 3 °		MATERIAL NO. 78283-0001		DOCUMENT NO. SD-78283-001		SHEET NO. 5 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											