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Part Number: [0781641051](#)
Status: **Active**
Description: 1.27mm (.050") Pitch SAS Combo Device Plug, Vertical, SMT, Standard Height 7.88mm (.310"), with Solder Tab and Pick-and-Place Cap, 29 Circuits, Lead free

Documents:

[3D Model](#) [Product Specification PS-78012-002 \(PDF\)](#)
[Drawing \(PDF\)](#) [RoHS Certificate of Compliance \(PDF\)](#)

Agency Certification

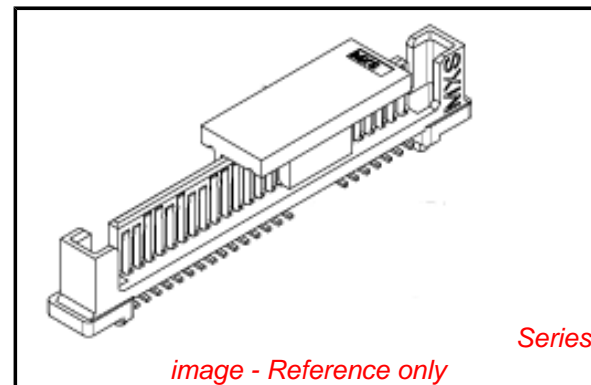
CSA LR19980
 UL E29179

General

Product Family I/O Connectors
 Series [78164](#)
 Application Wire-to-Board
 Comments With Cap
 Component Type Plug
 Product Name SAS
 Type N/A

Physical

Boot Color N/A
 Circuits (Loaded) 29
 Circuits (maximum) 29
 Color - Resin Black
 Durability (mating cycles max) 500
 Flammability 94V-0
 Gender Plug
 Lock to Mating Part None
 Material - Plating Mating Gold
 Material - Plating Termination Tin
 Number of Rows 1
 Orientation Vertical
 PC Tail Length (in) 0.000 In
 PC Tail Length (mm) 0.00 mm
 PCB Locator Yes
 PCB Retention Yes
 PCB Thickness Recommended (in) 0.000 In
 PCB Thickness Recommended (mm) 0.00 mm
 Packaging Type Embossed Tape on Reel
 Panel Mount Yes
 Pitch - Mating Interface (in) 0.031 In, 0.050 In
 Pitch - Mating Interface (mm) 0.80 mm, 1.27 mm
 Pitch - Term. Interface (in) 0.031 In, 0.050 In
 Pitch - Term. Interface (mm) 0.80 mm, 1.27 mm
 Polarized to Mating Part Yes
 Polarized to PCB Yes
 Ports 2
 Surface Mount Compatible (SMC) Yes
 Temperature Range - Operating -40°C to +85°C
 Termination Interface: Style Surface Mount
 Waterproof / Dustproof No
 Wire Size AWG N/A



EU RoHS

**ELV and RoHS
 Compliant**
REACH SVHC
 Not Reviewed
**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

[78164Series](#)

Mates With

78011 SAS/SATA Receptacle; and 87824, 87839, 87863, 87970, 87945, 87975 SAS Receptacles

Electrical

Current - Maximum per Contact	1.5A
Shielded	No
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

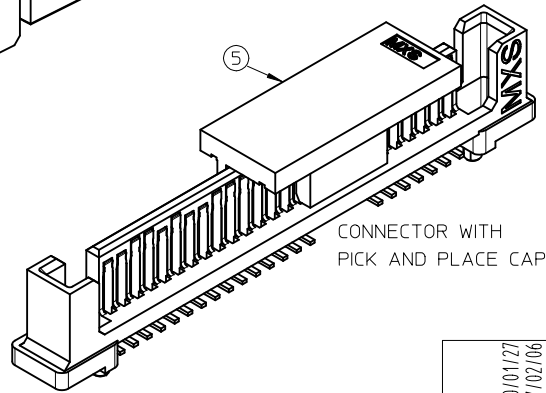
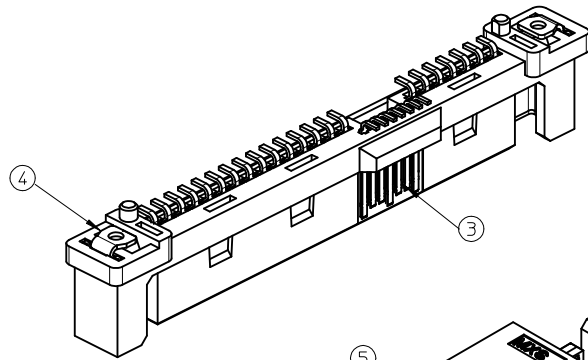
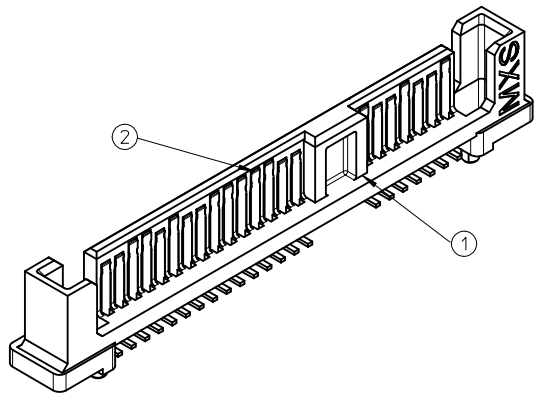
Material Info**Reference - Drawing Numbers**

Product Specification	PS-78012-002
Sales Drawing	SD-78164-100

This document was generated on 04/02/2010

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NO.	PART NAME	QTY.	MATERIAL
1	HOUSING	1	NYLON(PA), UL 94V-0, COLOR: BLACK
2	CONTACT A	22	COPPER ALLOY
3	CONTACT B	7	COPPER ALLOY
4	FITTING-NAIL	2	COPPER ALLOY
5	PICK & PLACE CAP	1	PA46, UL 94V-0, COLOR: BLACK



NOTES:

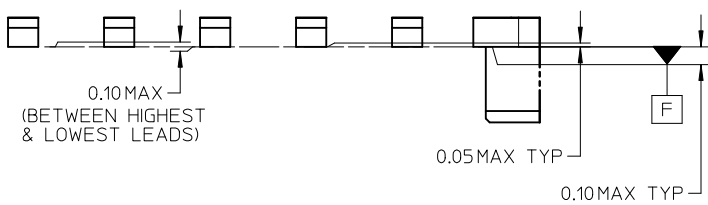
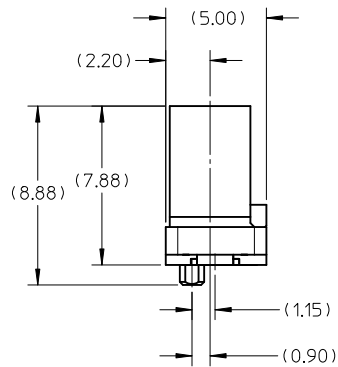
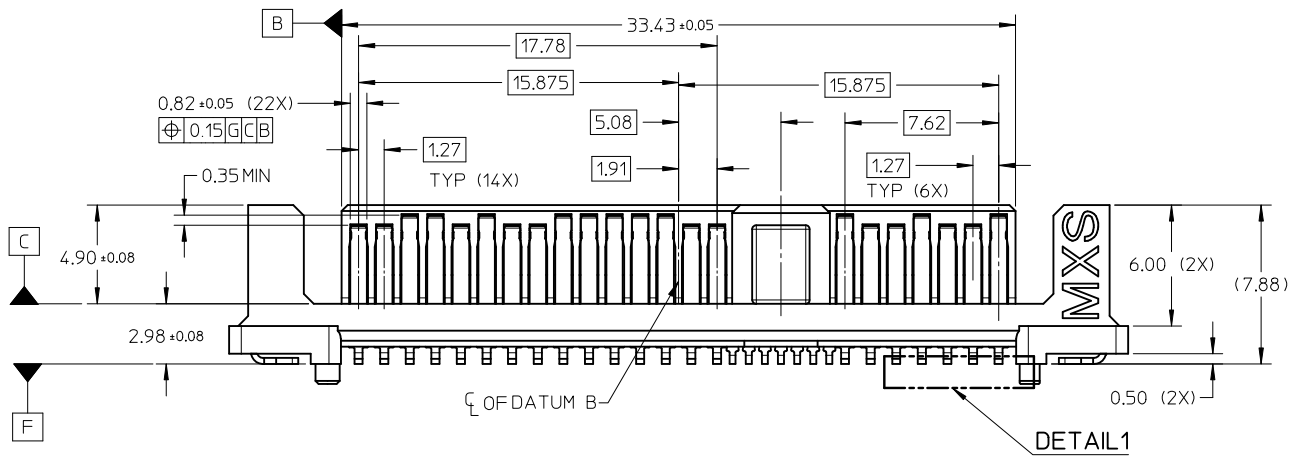
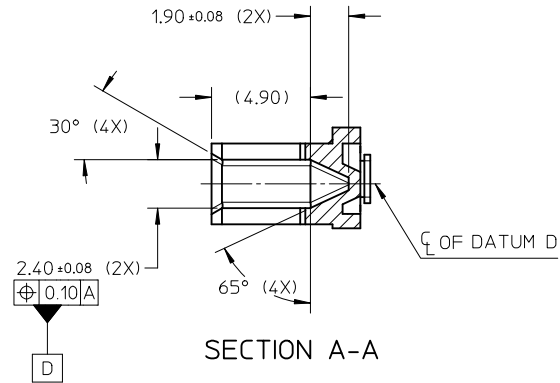
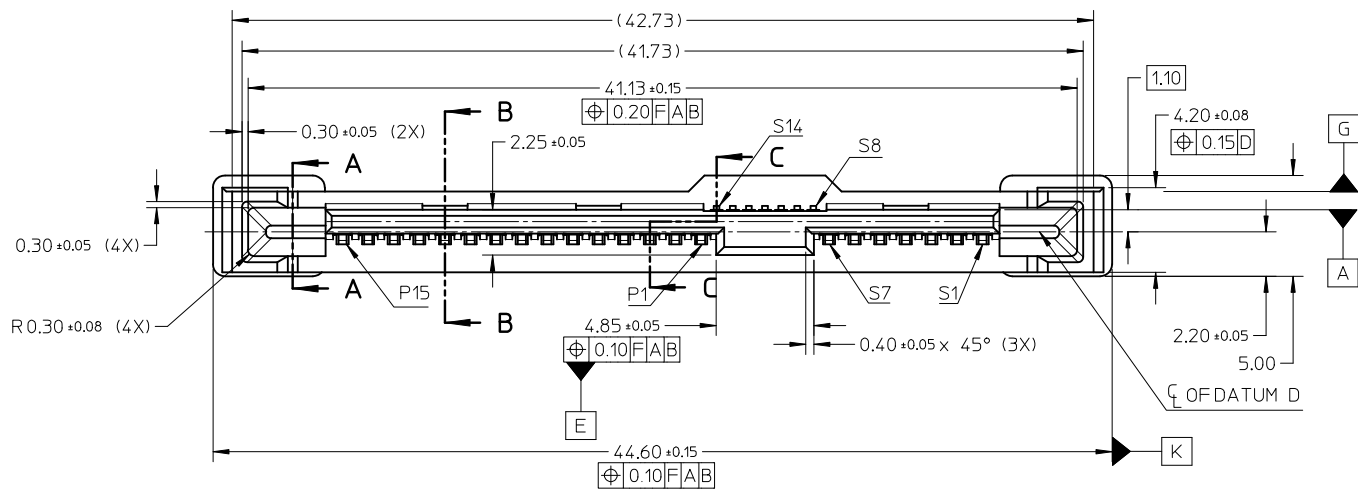
1. MATERIAL: REFER TO THE ABOVE PART-LIST.
2. PLATING SPECIFICATION: REFER TO TABLE-1.
3. APPLICABLE INDUSTRY SPECIFICATION :
SFF-8482 UNSHIELDED DUAL PORT SERIAL ATTACHMENT CONNECTOR.
4. PRODUCT SPECIFICATION: PS-78012-002.
5. PACKING: REFER TO PACKING INFORMATION (SHEET 5/5).
6. DATE CODE FORMAT: YEAR & DAY OF MANUFACTURE.
7. MOLEX LOGO IS LOCATED APPROXIMATELY AS SHOW.
8. MAXIMUM WARPAGE OF 0.13mm OVER THE LENGTH OF THE CONNECTOR IN ANY DIRECTION BEFORE AND AFTER EXPOSURE TO MAX. 260°C FOR 10 SECONDS.

TABLE-1: (CONTACT AND FITTING-NAIL PLATING SPECIFICATION)

PART NAME	MATING AREA	TERMINAL AREA	OTHERS AREA
CONTACT	GOLD (0.76µm MIN.)	TIN (1.91µm MIN.)	NICKEL PLATING
	OVER 1.27µm MIN. NICKEL UNDERPLATE		
FITTING-NAIL	TIN OVER NICKEL UNDERPLATE		

UPDATE VIEWS EC NO: S2010-0638 DRW:CGOH CHKD:JTAN02 APPR:BOKOK 2010/01/27 2007/02/06 2010/02/02	DESCRIPTION QUALITY SYMBOLS $F_A=0$ $F_G=0$ $F_P=0$	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE MM ONLY		SCALE NTS	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION		
			mm	INCH	DRAWN BY	DATE	TITLE			
		4 PLACES	± ---	± ---	CGOH	2007/01/12	SERIAL ATA SCSI (SAS) PLUG, VERTICAL MOUNT SMT			
		3 PLACES	± ---	± ---	CHECKED BY	DATE				
2 PLACES	± 0.20	± ---	CGTAN	2007/02/06	MOLEX INCORPORATED					
1 PLACE	± ---	± ---	APPROVED BY	DATE						
ANGULAR ± 3 °		DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		MATERIAL NO.		DOCUMENT NO.		SHEET NO.		
				78164-1051		SD-78164-100		1 OF 5		
				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



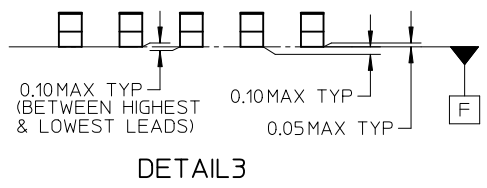
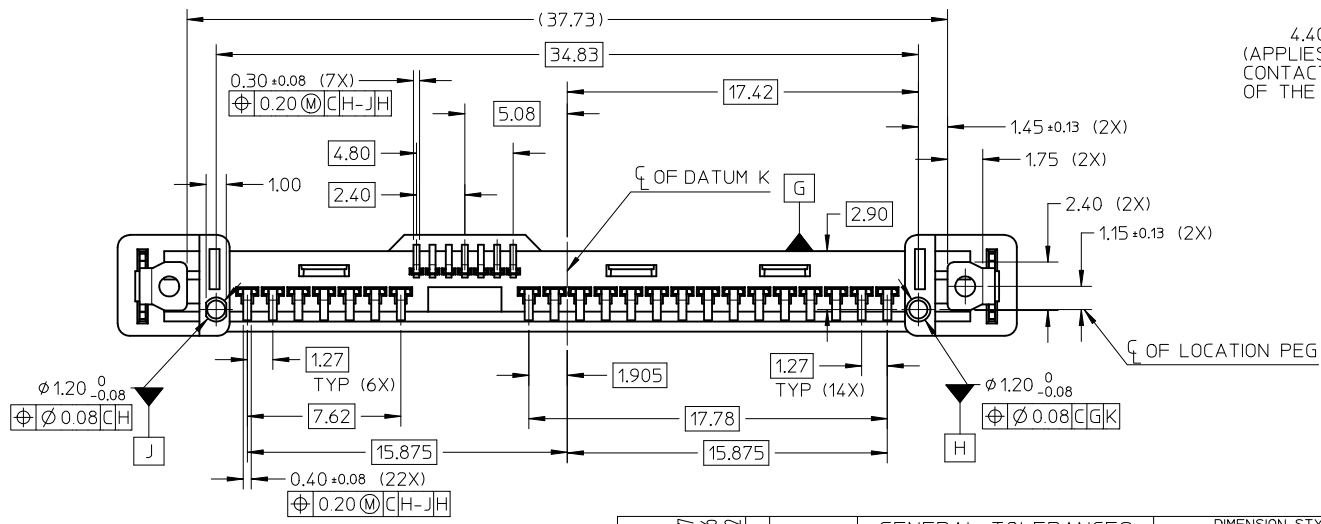
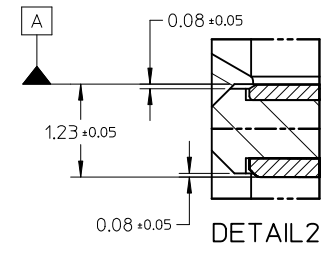
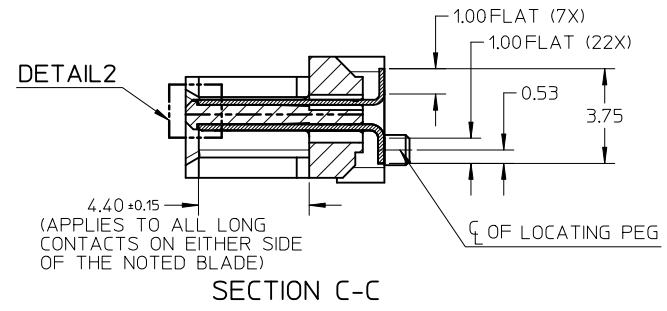
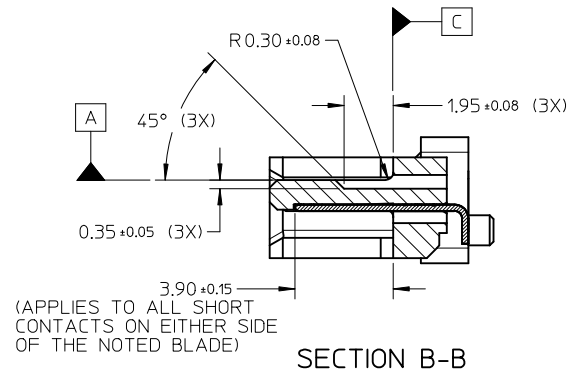
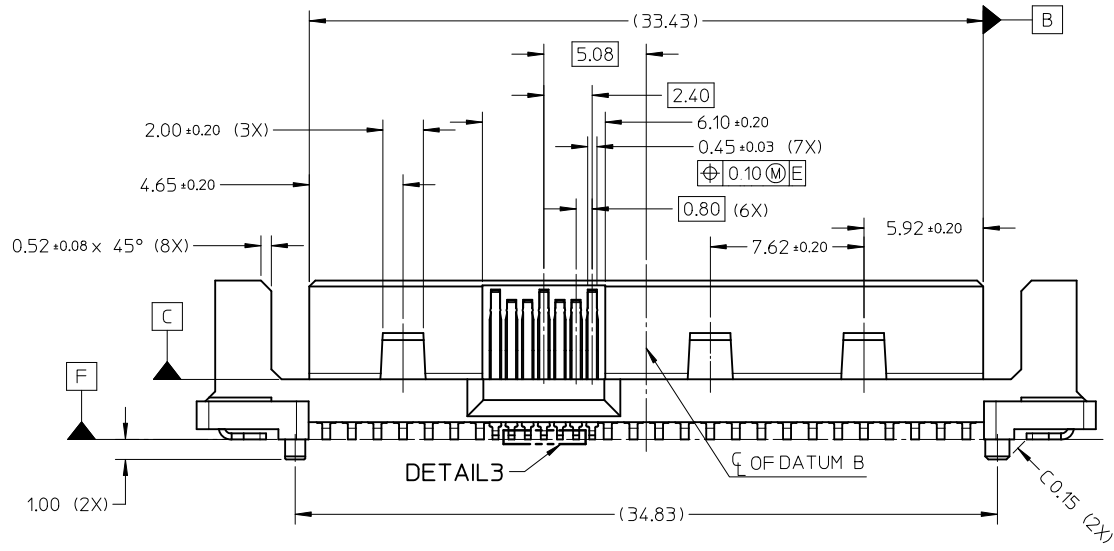
UPDATE VIEWS	EC NO: S2010-0638	2010/01/27	DRWN:CGOH	2007/02/06	CHKD:JTAN02	2010/02/02	APPR:BOKOK	2010/02/02
REV	A2	DESCRIPTION	QUALITY SYMBOLS					
			F _A =0					
			F _C =0					
			F _B =0					

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		SCALE	DESIGN UNITS	THIRD ANGLE PROJECTION
MM ONLY		NTS	METRIC	
DRAWN BY	DATE	TITLE		
CGOH	2007/01/12	SERIAL ATA SCSI (SAS) PLUG, VERTICAL MOUNT SMT		
CHECKED BY	DATE	MOLEX INCORPORATED		
CGTAN	2007/02/06	DOCUMENT NO. SD-78164-100		
APPROVED BY	DATE	SHEET NO. 2 OF 5		
BOKOK	2010/02/02	THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION		
MATERIAL NO.	78164-1051			

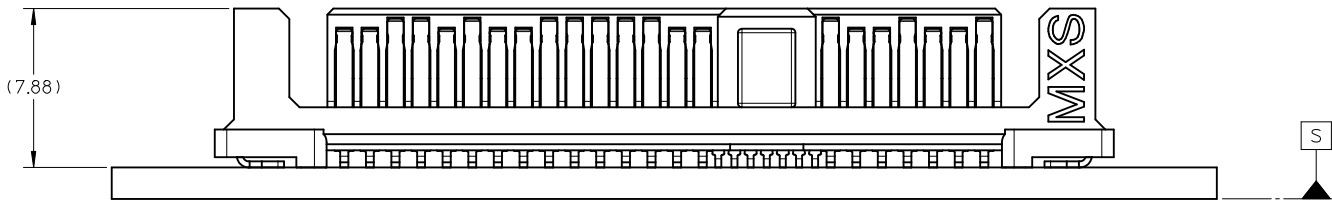
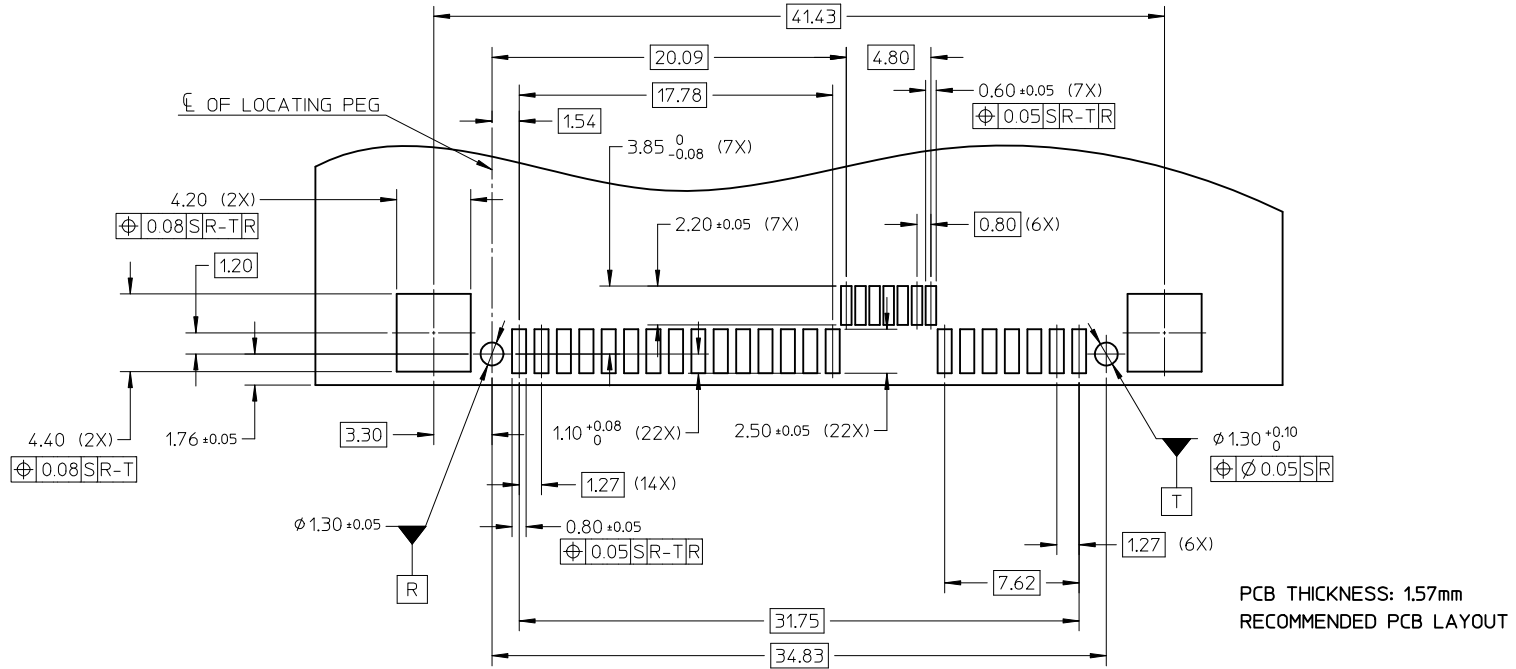
9 8 7 6 5 4 3 2 1

10 9 8 7 6 5 4 3 2 1



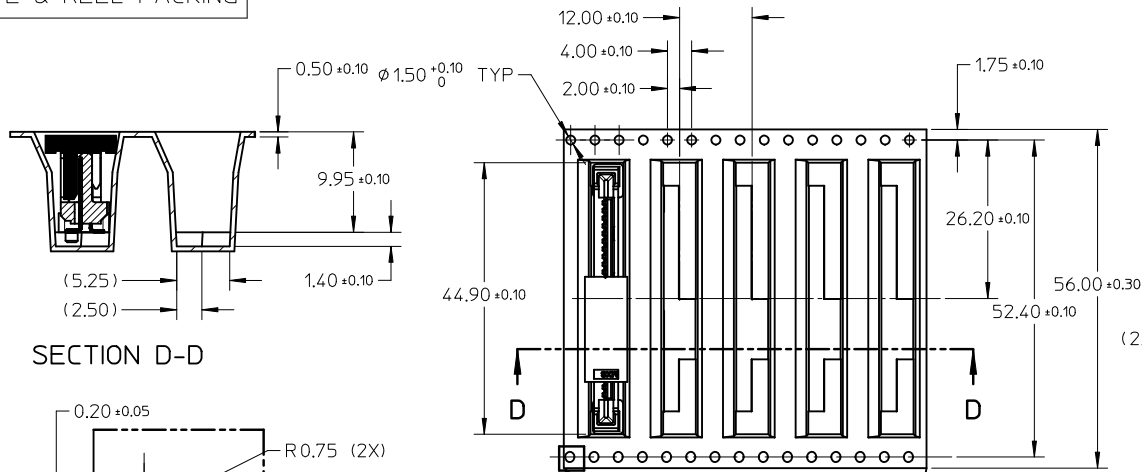
UPDATE VIEWS EC NO: S2010-0638 DRWN: CGOH CHKD: JTAN02 APPR: BOKOK 2010/01/27 2007/02/06 2010/02/02	QUALITY SYMBOLS $F_A=0$ $F_G=0$ $F_P=0$	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE MM ONLY		SCALE NTS	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION			
		4 PLACES ± --- ± ---	3 PLACES ± --- ± ---	2 PLACES ± 0.20 ± ---	1 PLACE ± --- ± ---	ANGULAR ± 3°	DRAWN BY CGOH	DATE 2007/01/12	TITLE SERIAL ATA SCSI (SAS) PLUG, VERTICAL MOUNT SMT		
		DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS					CHECKED BY CGTAN	DATE 2007/02/06	MOLEX INCORPORATED		
		MATERIAL NO. 78164-1051					APPROVED BY BOKOK	DATE 2010/02/02	DOCUMENT NO. SD-78164-100	SHEET NO. 3 OF 5	

9 8 7 6 5 4 3 2 1

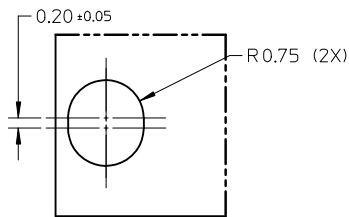


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			mm	INCH	DRAWN BY CGOH	DATE 2007/01/12	TITLE SERIAL ATA SCSI (SAS) PLUG, VERTICAL MOUNT SMT			
			± ---	± ---	CHECKED BY CGTAN	DATE 2007/02/06	MOLEX INCORPORATED			
			± 0.20	± ---	APPROVED BY BOKOK	DATE 2010/02/02	MATERIAL NO. 78164-1051	DOCUMENT NO. SD-78164-100	SHEET NO. 4 OF 5	
A2	REV	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					

TAPE & REEL PACKING

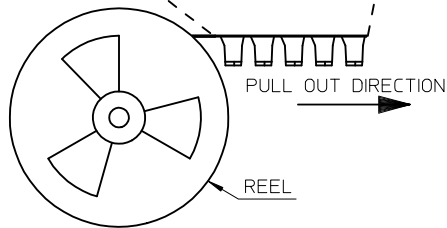


SECTION D-D

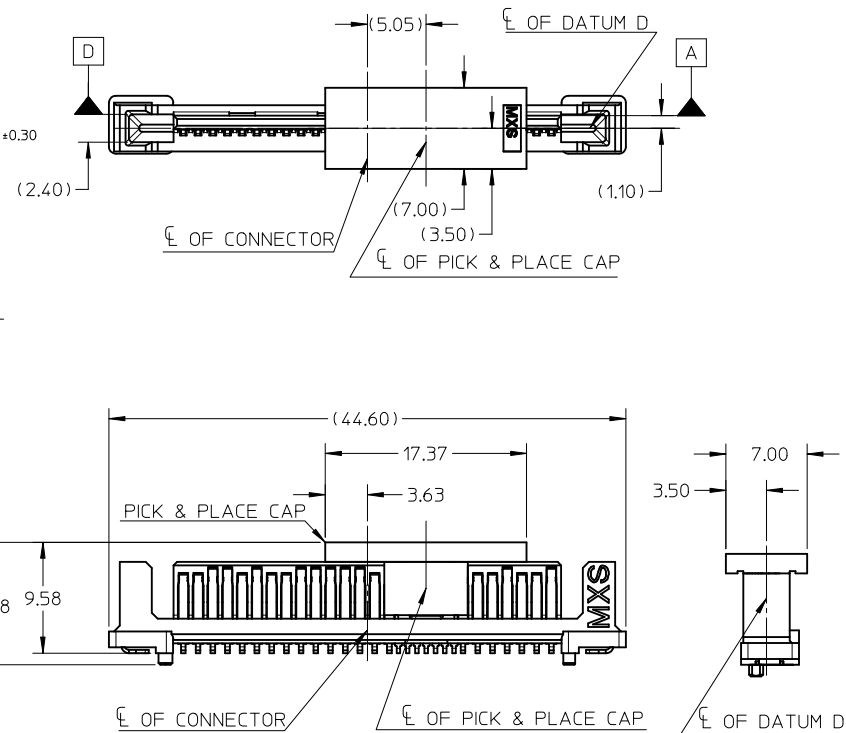


DETAIL 4

DETAIL 4

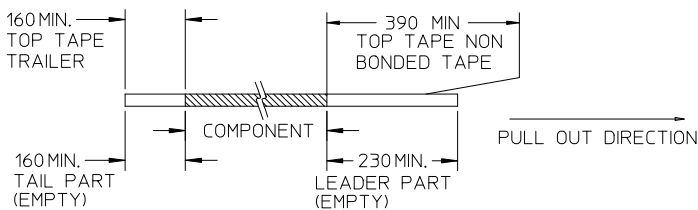


REEL



NOTES:

1. LEADER AND TRAILER TAPE



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



- 3. TAPE AND REEL SPECIFICATION IS AS PER EIA-481.
- 4. TAPE AND REEL QUANTITY : 400 PCS/ REEL.
- 5. THE TAPE IS TREATED FOR ANTI-STATIC.

UPDATE VIEWS EC NO: S2010-0638 DRWN:CGOH CHKD:JTAN02 APPR:BOKOK	2010/01/27 2007/02/06 2010/02/02	DESCRIPTION A2	QUALITY SYMBOLS	GENERAL TOLERANCES (UNLESS SPECIFIED)	DIMENSION STYLE	SCALE	DESIGN UNITS	THIRD ANGLE PROJECTION
			$\nabla_A = 0$ $\nabla_C = 0$ $\nabla_P = 0$	mm INCH 4 PLACES ± --- ± --- 3 PLACES ± --- ± --- 2 PLACES ± 0.20 ± --- 1 PLACE ± --- ± --- ANGULAR ± 3 °	MM ONLY	NTS	METRIC	
				DRAWN BY: CGOH DATE: 2007/01/12 CHECKED BY: CGTAN DATE: 2007/02/06 APPROVED BY: BOKOK DATE: 2010/02/02	TITLE	SERIAL ATA SCSI (SAS) PLUG, VERTICAL MOUNT SMT		
				MATERIAL NO. 78164-1051 DOCUMENT NO. SD-78164-100 SHEET NO. 5 OF 5	MOLEX INCORPORATED			