

**PLEASE CHECK WWW.MOLEX.COM FOR LATEST PART INFORMATION**

**Part Number:** [0780120011](#)  
**Status:** **Active**  
**Description:** 1.27mm (.050") Pitch, Serial Attached SCSI Combo Device Plug, Vertical, Surface Mount, 29 Circuits, Plastic Locating Pegs, Pick-and-Place Cap, Embossed Tape on Reel, Lead-free

**Documents:**

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

**Agency Certification**

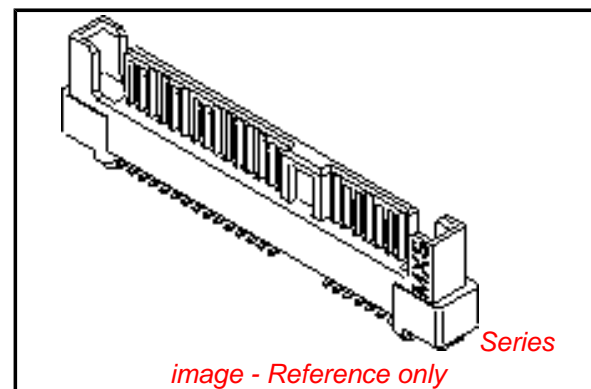
CSA LR 19980  
 UL E29179

**General**

Product Family I/O Connectors  
 Series [78012](#)  
 Application Wire-to-Board  
 Comments <LI>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 - Metal Brass  
 Material - Plating Mating Gold  
 Material - Plating Termination Tin  
 Material - Resin High Temperature Thermoplastic  
 Number of Rows 2  
 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) 0.062 In  
 PCB Thickness Recommended (mm) 1.57 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) 0.050 In  
 Pitch - Term. Interface (mm) 1.27 mm  
 Plating min: Mating (µin) 30  
 Plating min: Mating (µm) 0.76  
 Plating min: Termination (µin) 76.400  
 Plating min: Termination (µm) 1.91  
 Polarized to Mating Part Yes  
 Polarized to PCB Yes



**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](mailto: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**

[78012Series](#)

**Mates With**

[78011](#) SATA Receptacle, SFF 8482 Unshielded Dual Port Serial Attachment Connector

Ports	1
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

### **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-78012-101

This document was generated on 04/02/2010

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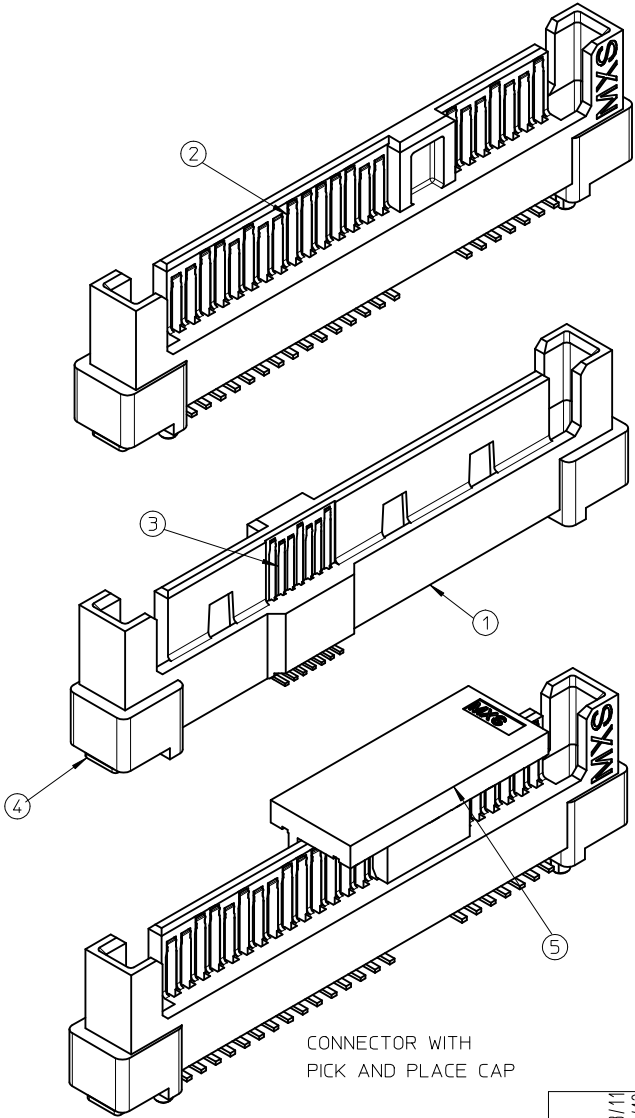
NO.	PART NAME	QTY.	MATERIAL
1	HOUSING	1	NYLON(PA), UL 94V-0, COLOR: BLACK
2	CONTACT A	22	COPPER ALLOY
3	CONTACT B	7	COPPER ALLOY
4	FITTING-NAIL	2	COPPER ALLOY
5	PICK & PLACE CAP	1	PA46, UL 94V-0, COLOR: BLACK

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 6/6).
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.

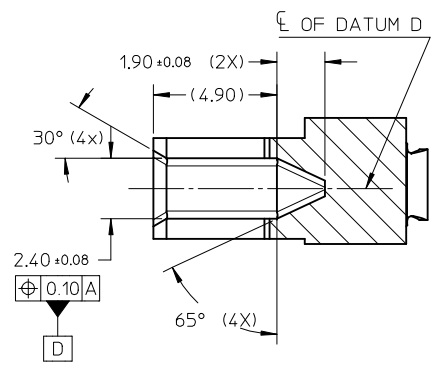
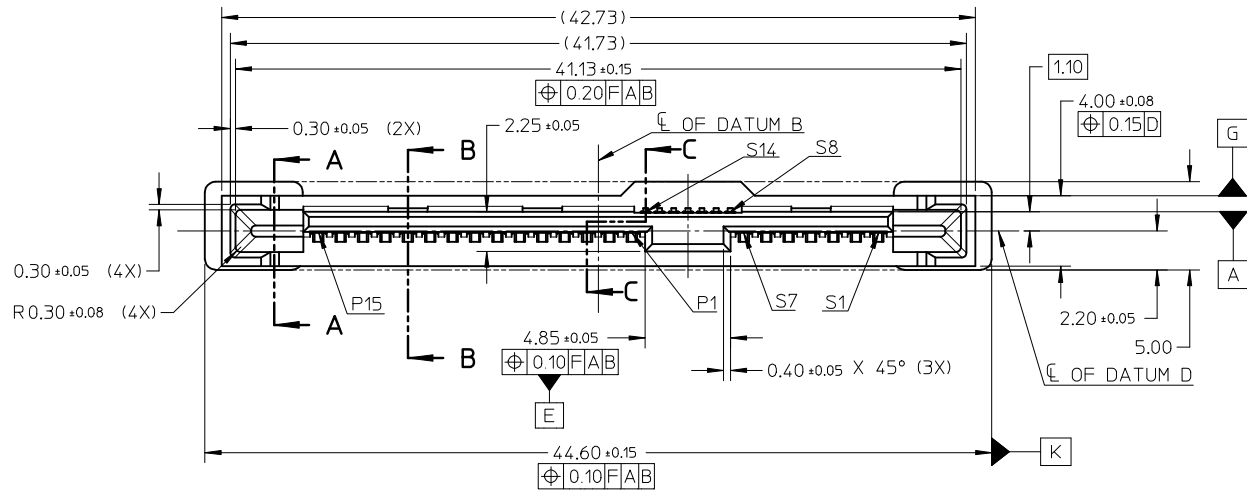
TABLE-1: ( CONTACT AND FITTING-NAIL PLATING SPECIFICATION )

PART NAME	MATING AREA	TERMINAL AREA	OTHERS AREA
CONTACT	GOLD (0.764μm MIN.)	TIN (1.914μm MIN.)	NICKEL PLATING
	OVER 1.274μm MIN. NICKEL UNDERPLATE		
FITTING-NAIL	TIN OVER NICKEL UNDERPLATE		

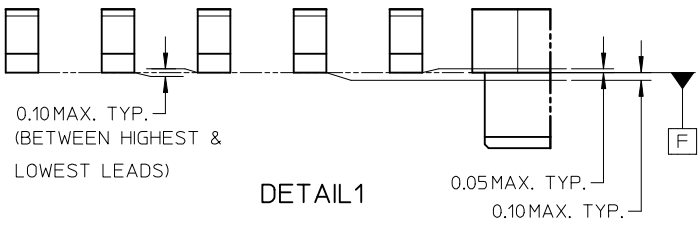
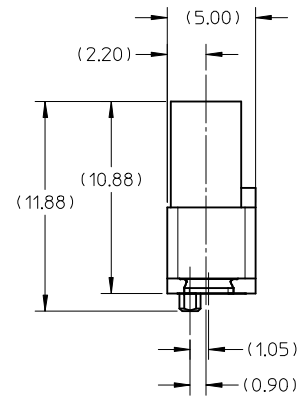
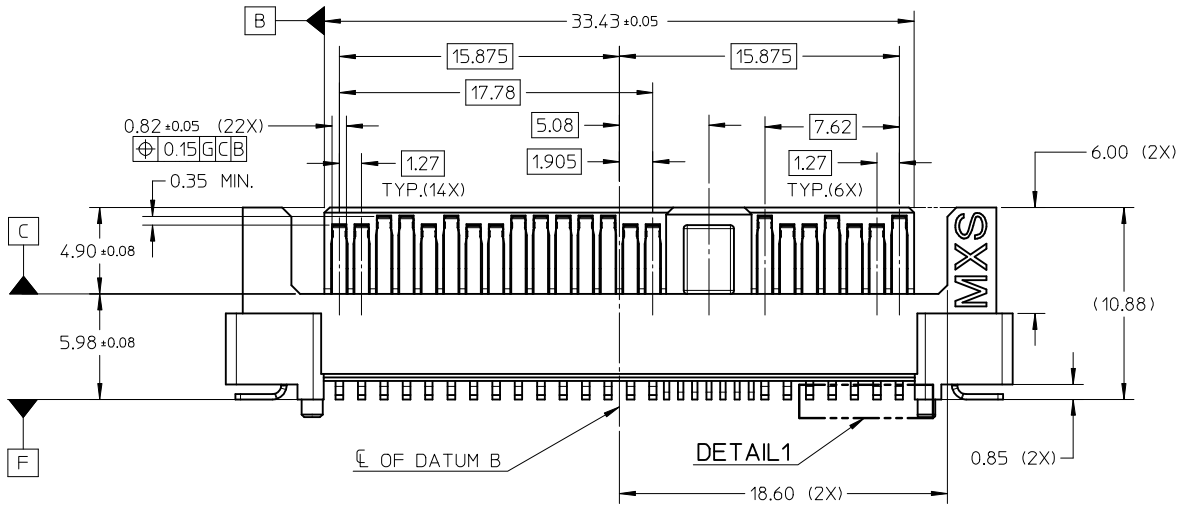


SEE SHEET 6 EC NO: S2009-0661 DRWN:GEMARLY 2009/03/11 CHKD:CGOH 2009/03/12 APPR:BOKOK 2009/03/13	QUALITY SYMBOLS	GENERAL TOLERANCES (UNLESS SPECIFIED)	DIMENSION STYLE	SCALE	DESIGN UNITS	THIRD ANGLE PROJECTION
	▽=0 □=0	mm INCH 4 PLACES ± --- ± --- 3 PLACES ± --- ± --- 2 PLACES ± 0.20 ± --- 1 PLACE ± --- ± --- ANGULAR ± 3 °	MM ONLY	NTS	METRIC	☉ □ THIRD ANGLE PROJECTION
	DESCRIPTION	DRAWN BY	DATE	TITLE		
	REV	CGTAN	2005/11/10	SERIAL ATTACH SCSI (SAS) PLUG, VERTICAL MOUNT SMT		
A2	SHONG	2005/11/24	MOLEX INCORPORATED			
	KCLING	2005/11/24	MATERIAL NO.		DOCUMENT NO.	SHEET NO.
			78012-0011		SD-78012-101	1 OF 6
	DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS					
	SIZE	THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION				
	A3					

10 9 8 7 6 5 4 3 2 1



SECTION A-A

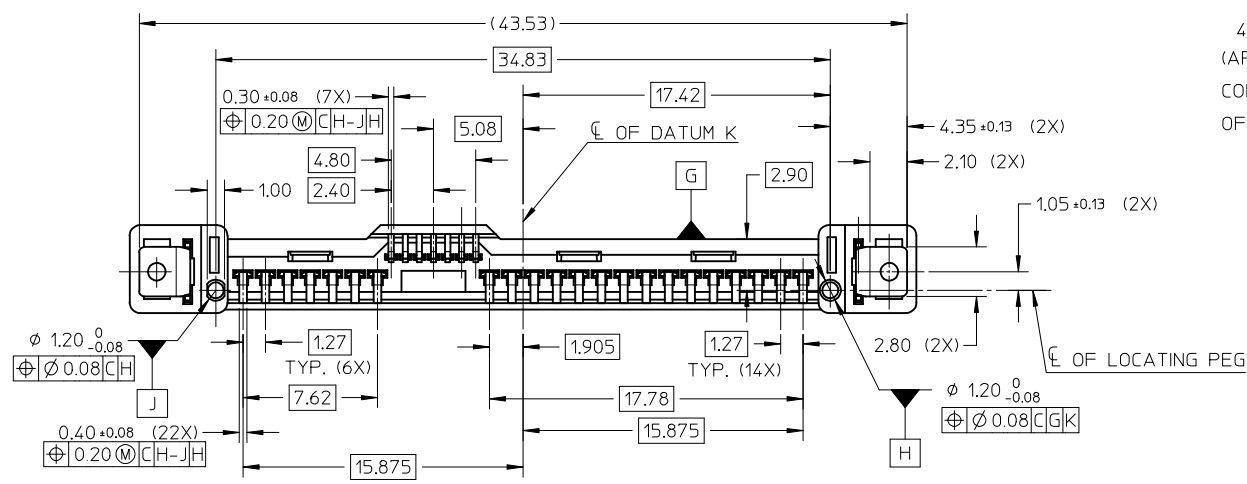
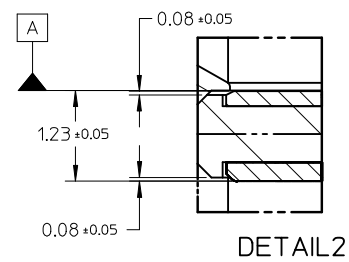
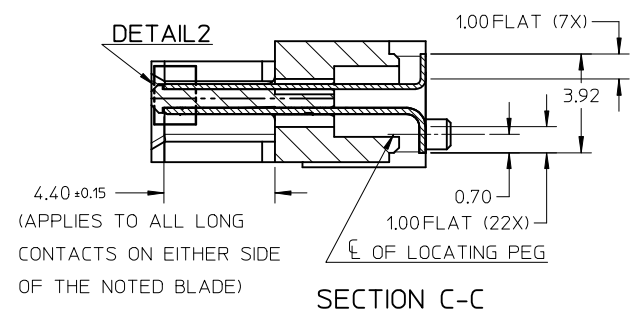
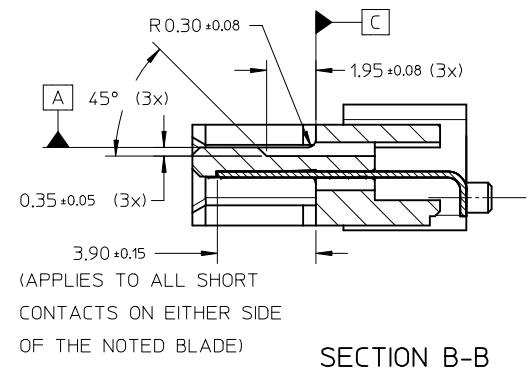
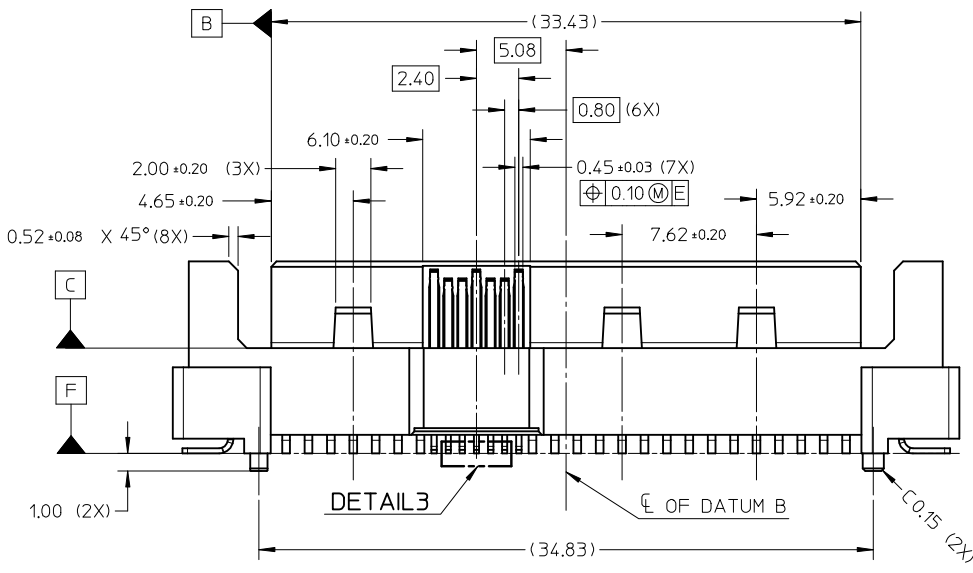


DETAIL1

<b>SEE SHEET 6</b> EC NO: S2009-0661 DRWING: MEMARLY 2009/03/11 CHKD: CGOH 2009/03/12 APPR: BOKOK 2009/03/13	QUALITY SYMBOLS ▽=0 ◻=0	GENERAL TOLERANCES (UNLESS SPECIFIED) mm INCH 4 PLACES ± --- ± --- 3 PLACES ± --- ± --- 2 PLACES ± 0.20 ± --- 1 PLACE ± --- ± --- ANGULAR ± 3°	DIMENSION STYLE <b>MM ONLY</b> DRAWN BY: CGTAN CHECKED BY: SHONG APPROVED BY: KCL ING MATERIAL NO: 78012-0011	DATE: 2005/11/10 DATE: 2005/11/24 DATE: 2005/11/24	SCALE: NTS DESIGN UNITS: METRIC THIRD ANGLE PROJECTION	TITLE: SERIAL ATTACH SCSI (SAS) PLUG, VERTICAL MOUNT SMT MOLEX INCORPORATED DOCUMENT NO: SD-78012-101	SHEET NO: 2 OF 6
	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					

9 8 7 6 5 4 3 2 1

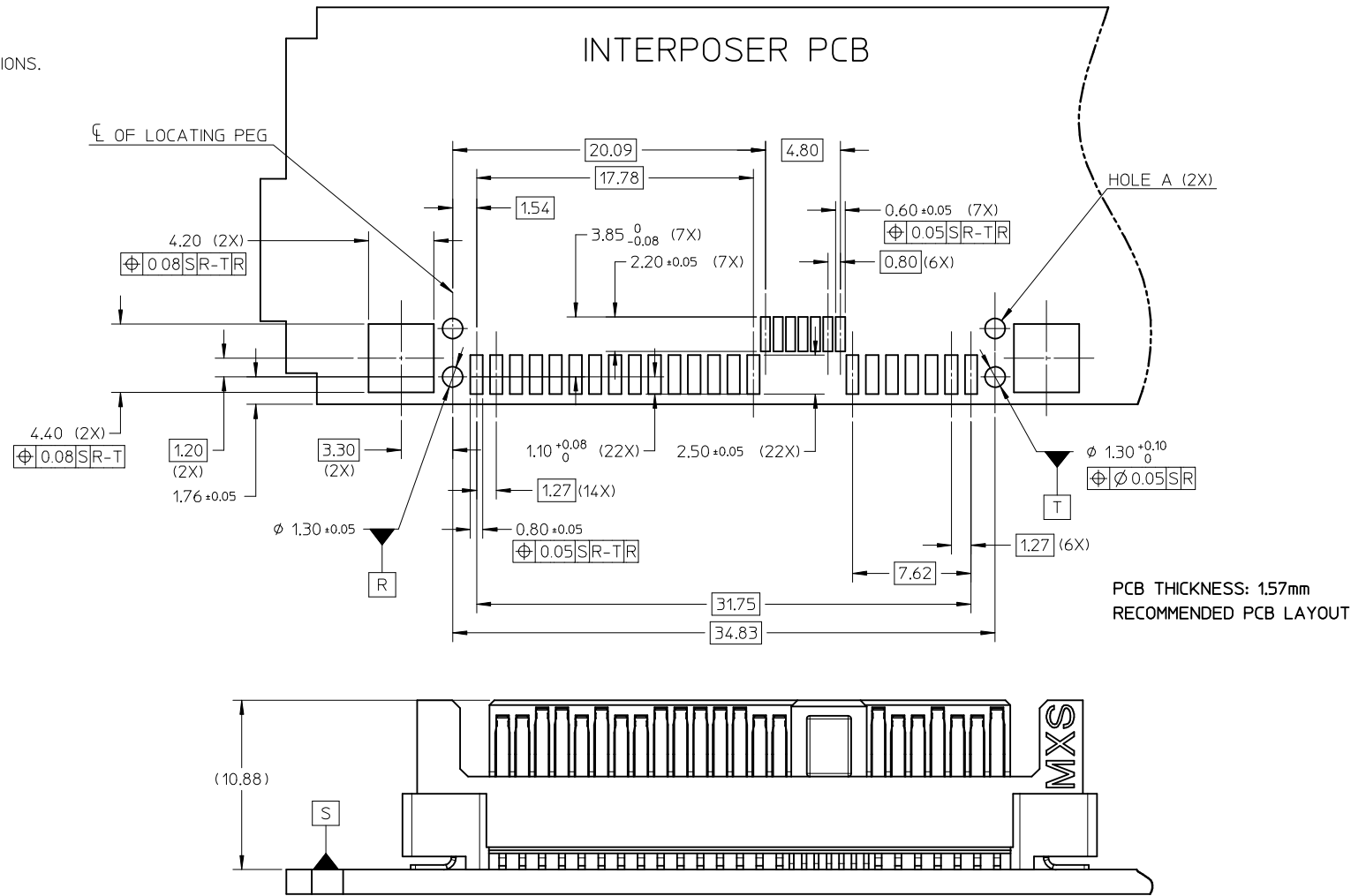
10 9 8 7 6 5 4 3 2 1



SEE SHEET 6 EC NO: S2009-0661 DRWING: EMERALY 2009/03/11 CHK'D: CGOH 2009/03/12 APPR: BOKOK 2009/03/13	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 ± --- ± ---	mm INCH ± --- ± --- ± 0.20 ± --- ± --- ± ---	DRAWN BY CGTAN	DATE 2005/11/10	TITLE SERIAL ATTACH SCSI (SAS) PLUG, VERTICAL MOUNT SMT			
		ANGULAR ± 3 °		CHECKED BY SHONG	DATE 2005/11/24	MOLEX INCORPORATED			
		DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		APPROVED BY KCLING	DATE 2005/11/24	MATERIAL NO. 78012-0011	DOCUMENT NO. SD-78012-101	SHEET NO. 3 OF 6	
			THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION						

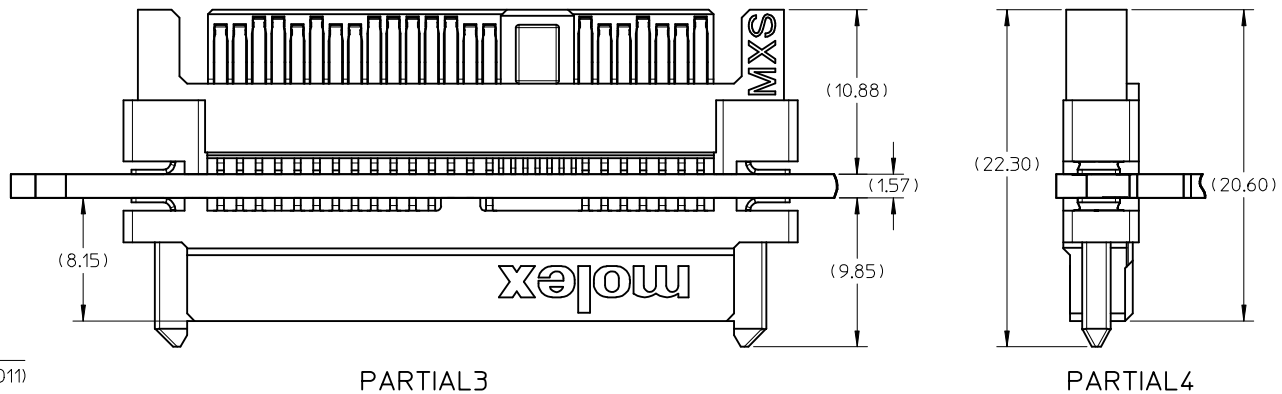
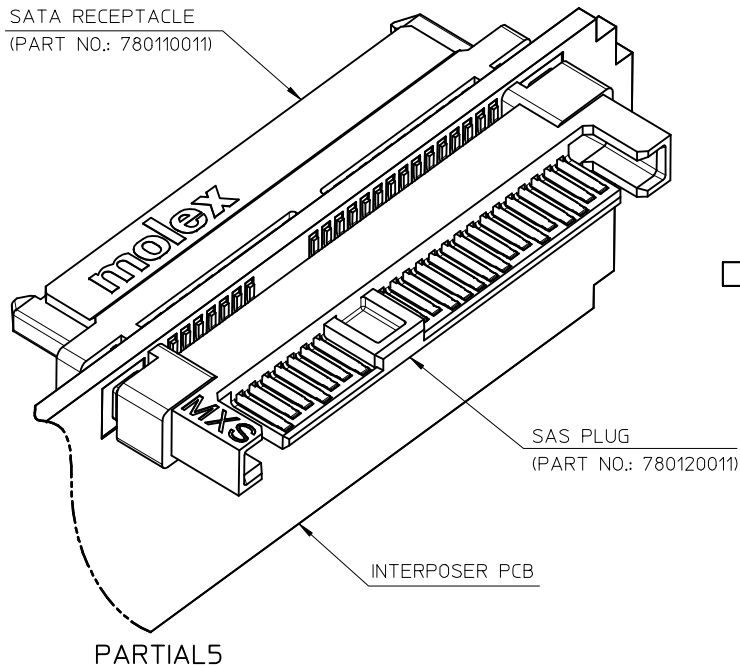
9 8 7 6 5 4 3 2 1

NOTES:  
 1. REFER TO SD-78011-101  
 FOR HOLES A DETAIL DIMENSIONS.



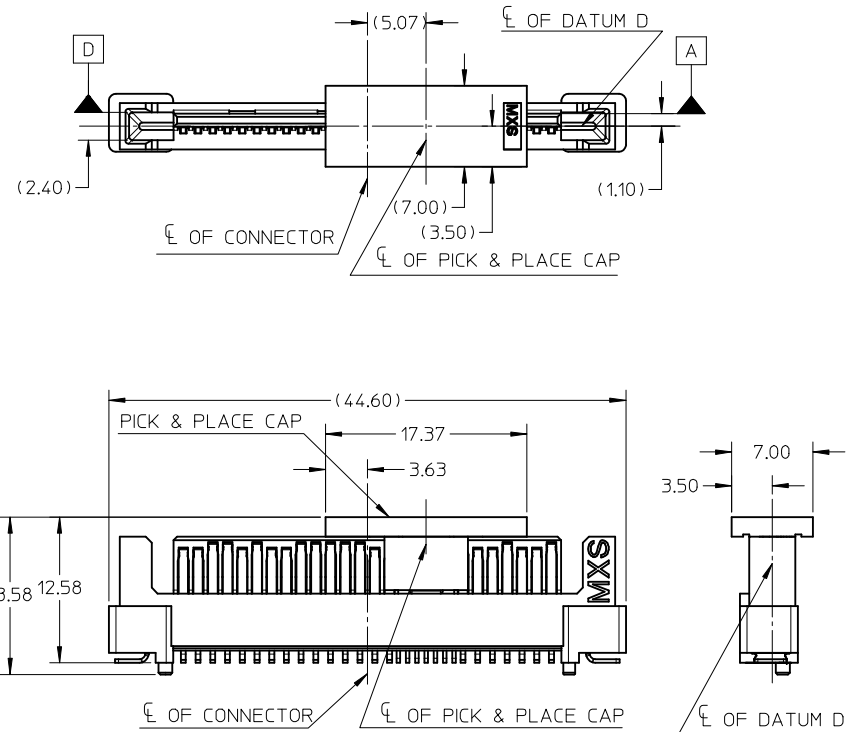
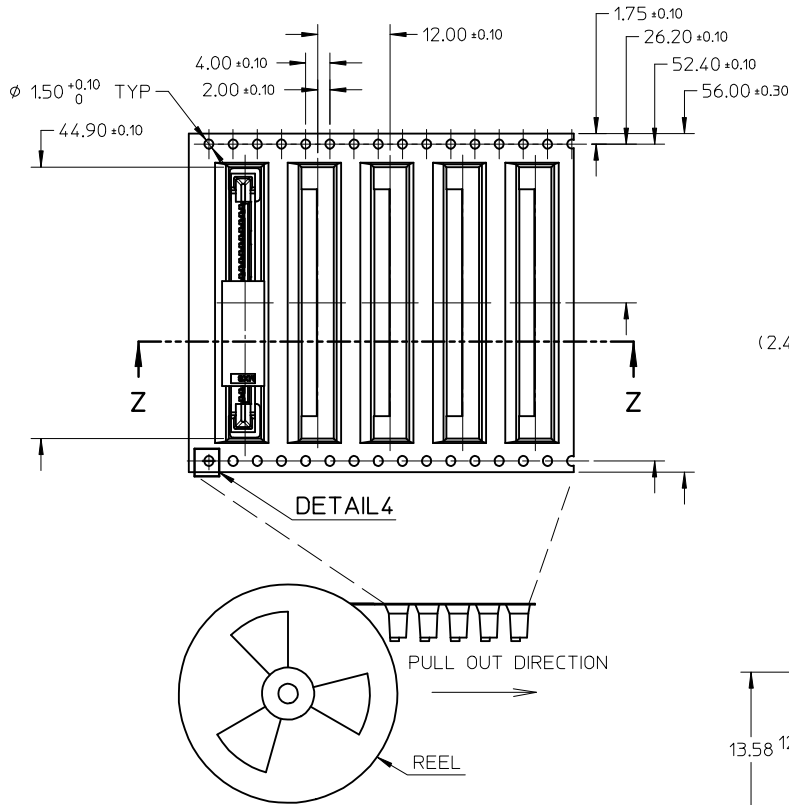
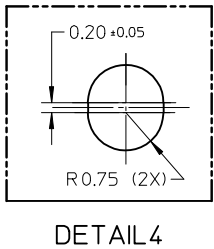
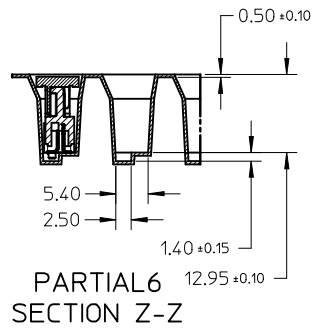
SEE SHEET 6 EC NO: S2009-0661 DRW: GEMARLY CHKD: CGOH APPR: BOKOK	QUALITY SYMBOLS	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE		SCALE	DESIGN UNITS	THIRD ANGLE PROJECTION	
	$\nabla=0$	mm	INCH	MM ONLY		NTS	METRIC		
	$\nabla=0$	4 PLACES	$\pm$ ---	$\pm$ ---	DRAWN BY	DATE	TITLE		
		3 PLACES	$\pm$ ---	$\pm$ ---	CGTAN	2005/11/10	SERIAL ATTACH SCSI (SAS) PLUG, VERTICAL MOUNT SMT		
	2 PLACES	$\pm 0.20$	$\pm$ ---	CHECKED BY	DATE	MOLEX INCORPORATED			
	1 PLACE	$\pm$ ---	$\pm$ ---	SHONG	2005/11/24	DOCUMENT NO.			
		ANGULAR $\pm 3^\circ$		APPROVED BY	DATE	SD-78012-101		SHEET NO.	
		DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		KCL ING	2005/11/24	78012-0011		4 OF 6	
				MATERIAL NO.		THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION			
				SIZE	A3				

NOTES:  
 1. APPLICATION AS SHOWN IN SHEET 5/6.  
 2. REFER TO SD-78011-101 FOR THE DETAILS OF SATA RECEPTACLE.



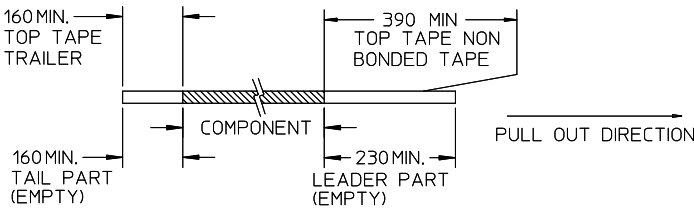
SEE SHEET 6 EC NO: S2009-0661 DRWN: GEMARLY 2009/03/11 CHKD: CGOH 2009/03/12 APPR: BOKOK 2009/03/13	QUALITY SYMBOLS	GENERAL TOLERANCES (UNLESS SPECIFIED)	DIMENSION STYLE	SCALE	DESIGN UNITS	THIRD ANGLE PROJECTION	
	▽=0 □=0	mm INCH 4 PLACES ± --- ± --- 3 PLACES ± --- ± --- 2 PLACES ± <b>0.20</b> ± --- 1 PLACE ± --- ± --- ANGULAR ± 3 °	MM ONLY	NTS	METRIC		
	DESCRIPTION	DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS	DRAWN BY: CGTAN CHECKED BY: SHONG APPROVED BY: KCLING	DATE: 2005/11/10 DATE: 2005/11/24 DATE: 2005/11/24	TITLE: SERIAL ATTACH SCSI (SAS) PLUG, VERTICAL MOUNT SMT MOLEX INCORPORATED		
	REV		MATERIAL NO.	DOCUMENT NO.	SHEET NO.		
A2		78012-0011	SD-78012-101	5 OF 6			

TAPE & REEL PACKING

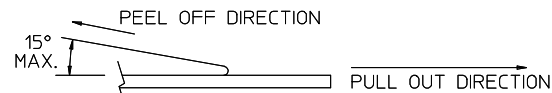


NOTES:

1. LEADER AND TRAILER TAPE



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



3. TAPE AND REEL SPECIFICATION IS AS PER EIA-481.

4. TAPE AND REEL QUANTITY : 250 PCS/ REEL.

5. THE TAPE IS TREATED FOR ANTI-STATIC.

CHANGED T&R QTY EC NO: S2009-0661 DRWING: MENARLY CHKD: CGOH APPR: BOKOK	DESCRIPTION 2009/03/11 2009/03/12 2009/03/13	QUALITY SYMBOLS	GENERAL TOLERANCES (UNLESS SPECIFIED)	DIMENSION STYLE	SCALE	DESIGN UNITS	THIRD ANGLE PROJECTION
		▽=0 ∇=0	mm INCH	MM ONLY	NTS	METRIC	

4 PLACES	± ---	± ---
3 PLACES	± ---	± ---
2 PLACES	± 0.20	± ---
1 PLACE	± ---	± ---
ANGULAR ± 3 °		
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		

DRAWN BY	DATE	TITLE
CGTAN	2005/11/10	SERIAL ATTACH SCSI (SAS) PLUG, VERTICAL MOUNT SMT
CHECKED BY	DATE	
SHONG	2005/11/24	MOLEX INCORPORATED
APPROVED BY	DATE	
KCLING	2005/11/24	DOCUMENT NO.
MATERIAL NO.	78012-0011	SD-78012-101
SIZE	A3	SHEET NO.
THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION		

SIZE	A3	SHEET NO.	6 OF 6
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