

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

**Part Number:** [0784480011](#)  
**Status:** **Active**  
**Overview:** [serial ata combo plugs and receptacles](#)  
**Description:** 1.27mm (.050") Pitch Serial ATA Device Plug, Straddle Mount, with Latch, 22 Circuits, Tray Packaging, Lead-free

**Documents:**

[Drawing \(PDF\)](#) [RoHS Certificate of Compliance \(PDF\)](#)  
[Product Specification PS-78448-001 \(PDF\)](#)

**Agency Certification**

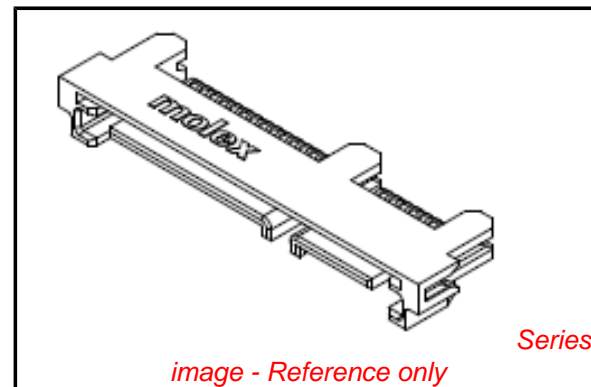
CSA LR19980  
 UL E29179

**General**

Product Family PCB Headers  
 Series [78448](#)  
 Application Board-to-Board  
 Comments Latch version  
 Overview [serial ata combo plugs and receptacles](#)  
 Product Name Serial ATA

**Physical**

Breakaway No  
 Circuits (Loaded) 22  
 Circuits (maximum) 22  
 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 Tin  
 Material - Resin High Temperature Thermoplastic  
 Number of Rows 1  
 Orientation Parallel  
 PCB Locator No  
 PCB Retention None  
 PCB Thickness Recommended (in) 0.041 In  
 PCB Thickness Recommended (mm) 1.04 mm  
 Packaging Type Tray  
 Pitch - Mating Interface (in) 0.050 In  
 Pitch - Mating Interface (mm) 1.27 mm  
 Pitch - Term. Interface (mm) 1.27 mm  
 Plating min: Mating (µin) 30  
 Plating min: Mating (µm) 0.76  
 Plating min: Termination (µin) 100  
 Plating min: Termination (µm) 2.54  
 Polarized to Mating Part Yes  
 Polarized to PCB Yes  
 Stackable No  
 Temperature Range - Operating 0°C to +55°C



**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](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**

[78448Series](#)

**Mates With**

Molex Serial ATA and SAS Receptacles

Termination Interface: Style                      Straddle 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**

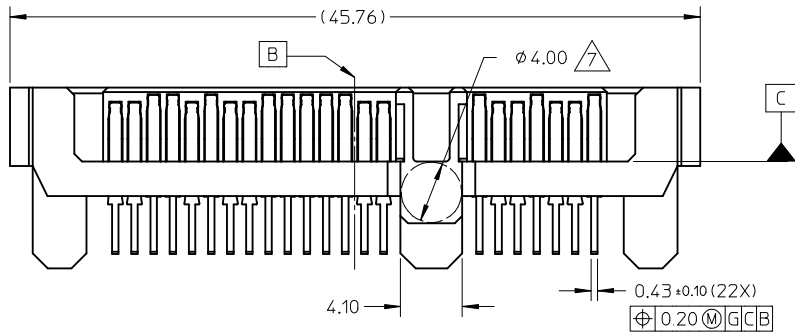
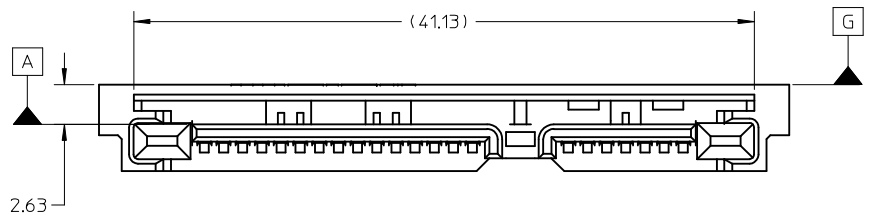
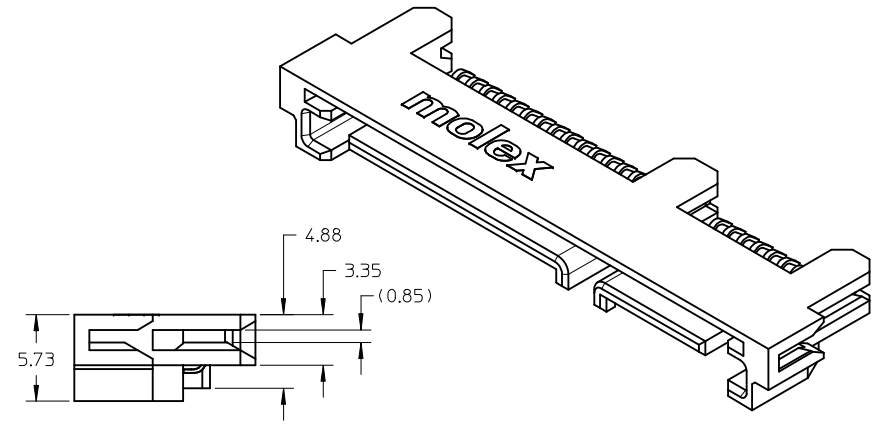
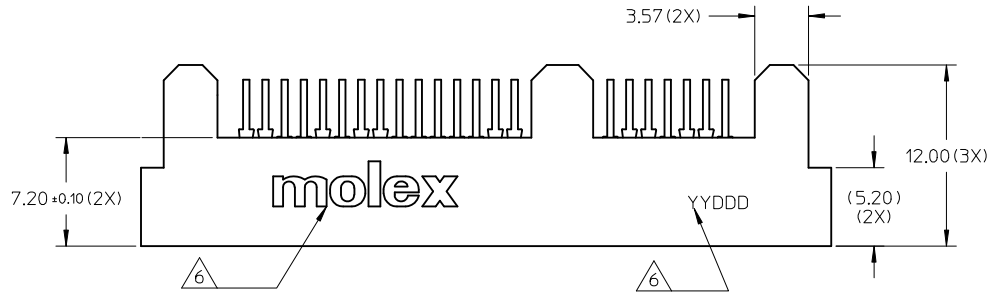
**Reference - Drawing Numbers**

Product Specification                                      PS-78448-001  
Sales Drawing    SD-78448-001

This document was generated on 05/31/2010

**PLEASE CHECK [WWW.MOLEX.COM](http://WWW.MOLEX.COM) FOR LATEST PART INFORMATION**

PART NUMBER	PACKAGING
78448-0001	TAPE & REEL
78448-0011	TRAY

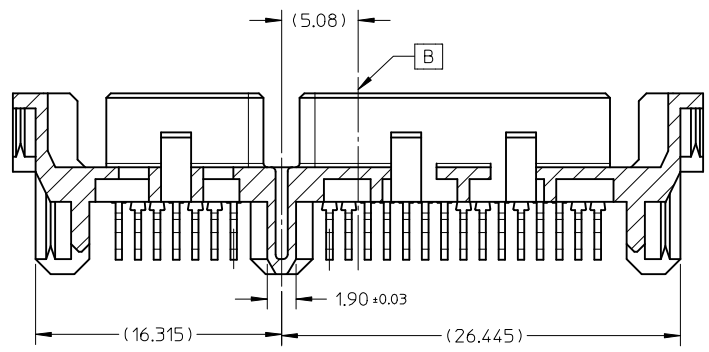


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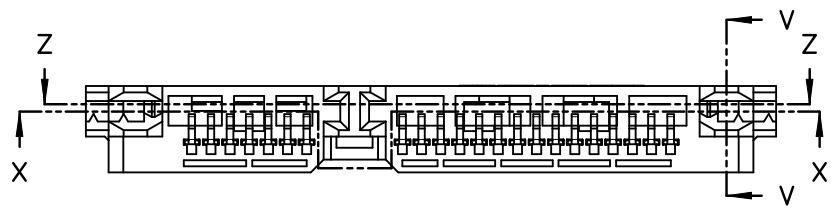
- MATERIALS:  
HOUSING: LCP, UL94V-0, COLOR: BLACK  
TERMINAL: COPPER ALLOY.
- FINISHES:  
CONTACT: 0.76µM MIN. GOLD OVER 1.27µM MIN. NICKEL UNDERPLATE.  
SOLDERTAIL: 2.54µM MIN. TIN OVER 1.27µM MIN. NICKEL UNDERPLATE.
- PRODUCT SPECIFICATION: PS-78448-001
- PACKAGING INFORMATION: SEE TABLE.
- MATES WITH: MOLEX SATA AND SAS RECEPTACLES SERIES
- MOLEX LOGO AND DATE CODE LOCATED APPROXIMATELY AS SHOWN.
- VACUUM PICKUP AREA.
- NON-FUNCTIONAL CORING MAY VARY.

SEE SHEET 3 EC NO: S2009-0651 DRAWN: GMENARLY CHKD: CGOH APPR: BOKOK	REV A2	DESCRIPTION 2009/03/13 2009/03/13 2009/03/14	QUALITY SYMBOLS ▽=0 ◻=0	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE MM ONLY		SCALE NTS	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION
				mm	INCH	DRAWN BY GMENARLY	DATE 2008/07/15	TITLE SERIAL ATA PLUG WITH LATCHING STRADDLE MOUNT		
				4 PLACES ± ---	± ---	CHECKED BY YKOH	DATE 2008/08/01	MOLEX INCORPORATED		
				3 PLACES ± ---	± ---	APPROVED BY BOKOK	DATE 2008/08/01	MATERIAL NO. SEE TABLE	DOCUMENT NO. SD-78448-001	SHEET NO. 1 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						

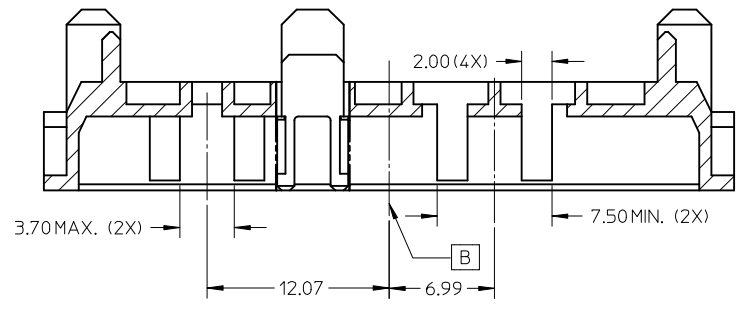
10 9 8 7 6 5 4 3 2 1



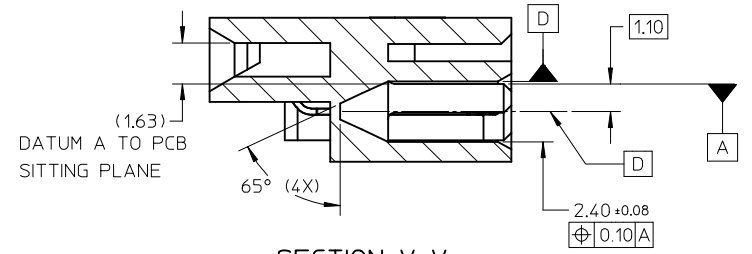
SECTION Z-Z



SECTION X-X

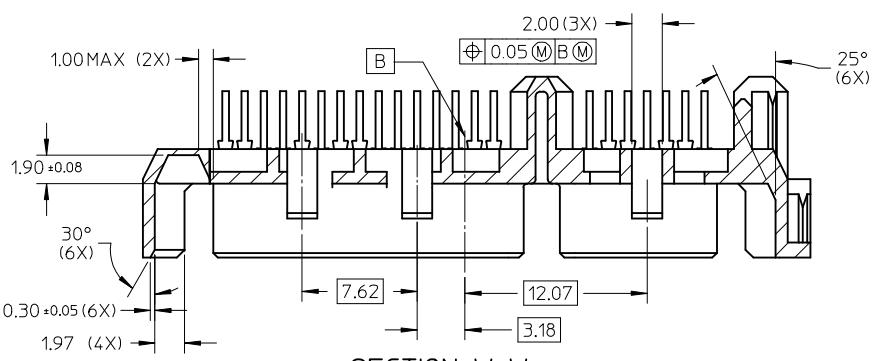


SECTION V-V

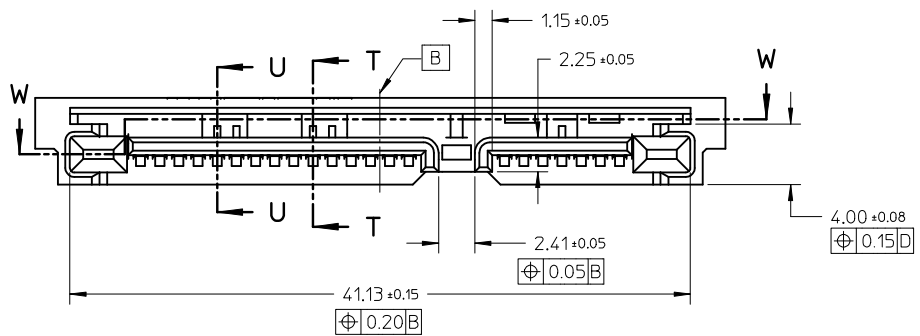


SEE SHEET 3 EC NO: S2009-0651 DRWN:GMENARLY 2009/03/13 CHKD:CGOH 2009/03/13 APPR:BOKOK 2009/03/14	DESCRIPTION REV	QUALITY SYMBOLS	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE		SCALE	DESIGN UNITS	THIRD ANGLE PROJECTION		
		▼=0 □=0	mm	INCH	MM ONLY		NTS	METRIC			
			4 PLACES	± ---	± ---	DRAWN BY	DATE	TITLE			
			3 PLACES	± ---	± ---	GMENARLY	2008/07/15	SERIAL ATA PLUG WITH LATCHING STRADDLE MOUNT			
	2 PLACES	± 0.20	± ---	CHECKED BY	DATE	MOLEX INCORPORATED					
	1 PLACE	± ---	± ---	YKOH	2008/08/01					DOCUMENT NO. SD-78448-001 SHEET NO. 2 OF 6	
	ANGULAR ± 3 °		APPROVED BY		DATE	THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION					
	DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		BOKOK		2008/08/01						
		SIZE	SEE TABLE								
		A3									

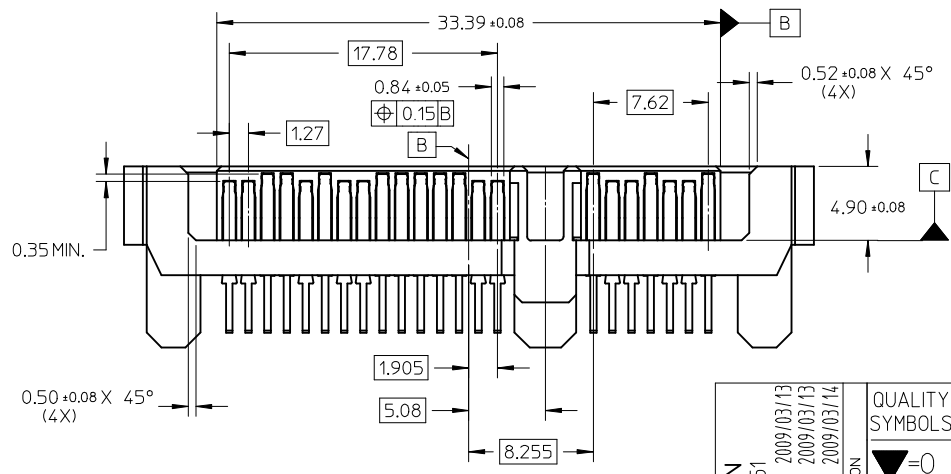
9 8 7 6 5 4 3 2 1



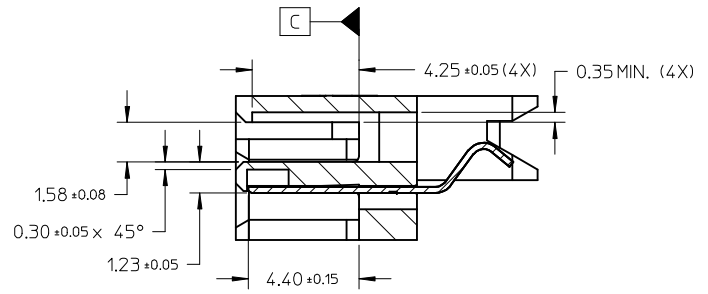
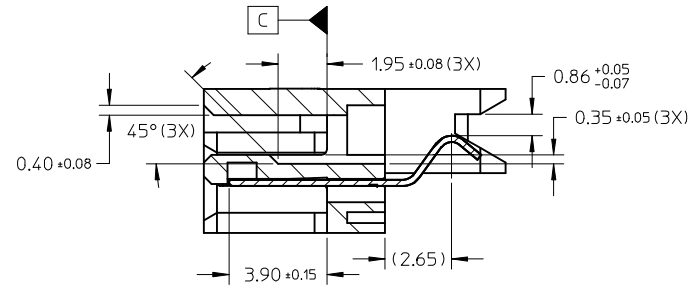
SECTION W-W



SECTION U-U



SECTION T-T



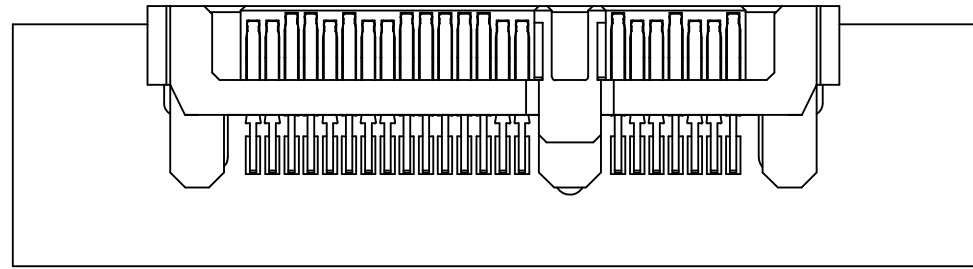
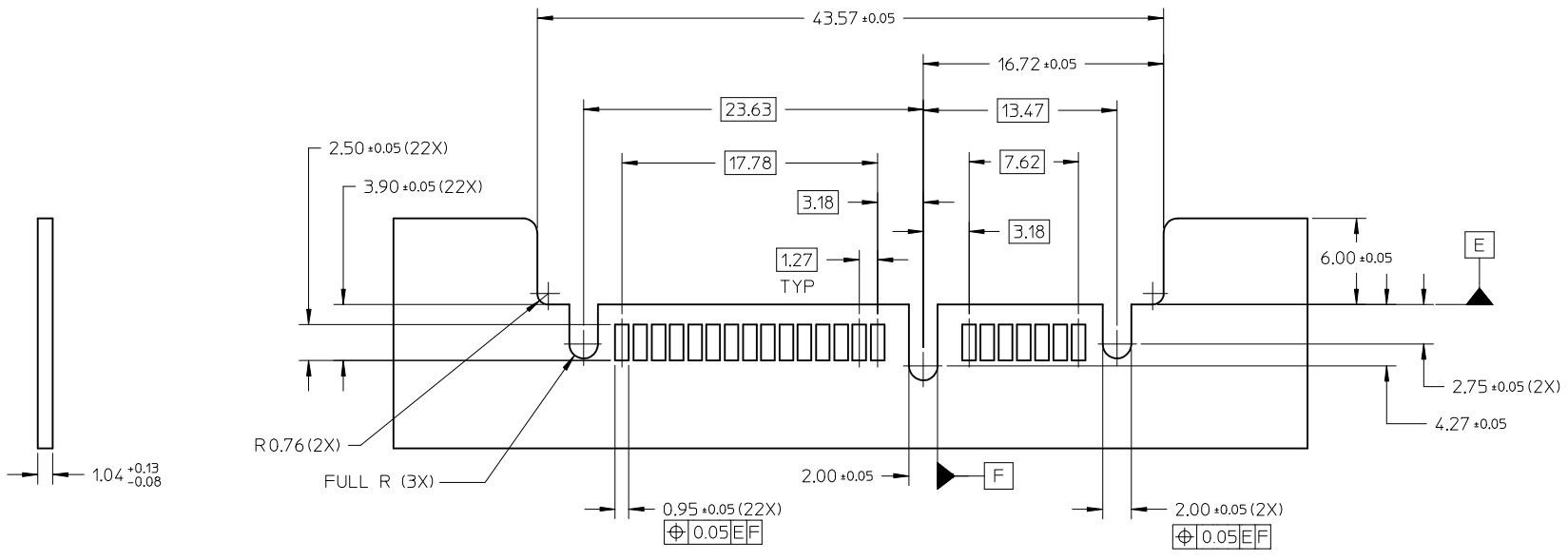
REV	DESCRIPTION	DATE	APPR	CHKD	DRWN	EC NO
A2		2009/03/14	BOKOK	CGOH	GMENARLY	S2009-0651
		2009/03/13				
		2009/03/13				

QUALITY SYMBOLS	
▽=0	
∇=0	
GENERAL TOLERANCES (UNLESS SPECIFIED)	
	mm
	INCH
4 PLACES	± --- ± ---
3 PLACES	± --- ± ---
2 PLACES	± 0.20 ± ---
1 PLACE	± --- ± ---
ANGULAR ± 3 °	
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS	

DIMENSION STYLE	
MM ONLY	
DRAWN BY	DATE
GMENARLY	2008/07/15
CHECKED BY	DATE
YKOH	2008/08/01
APPROVED BY	DATE
BOKOK	2008/08/01
MATERIAL NO.	DOCUMENT NO.
SEE TABLE	

SCALE	DESIGN UNITS	THIRD ANGLE PROJECTION
NTS	METRIC	
TITLE		
SERIAL ATA PLUG WITH LATCHING STRADDLE MOUNT		
MOLEX INCORPORATED		
DOCUMENT NO.		SHEET NO.
SD-78448-001		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



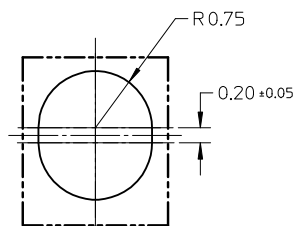
RECOMMENDED PCB LAYOUT

SEE SHEET 3 EC NO: S2009-0651 DRWN:GMENARLY 2009/03/13 CHKD:CGOH 2009/03/13 APPR:BOKOK 2009/03/14	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	DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS	DRAWN BY: GMENARLY CHECKED BY: YKOH APPROVED BY: BOKOK MATERIAL NO.: DATE: 2008/07/15 DATE: 2008/08/01 DATE: 2008/08/01	TITLE	SERIAL ATA PLUG WITH LATCHING STRADDLE MOUNT	
	REV	SIZE	SEE TABLE		MOLEX INCORPORATED DOCUMENT NO. SD-78448-001	

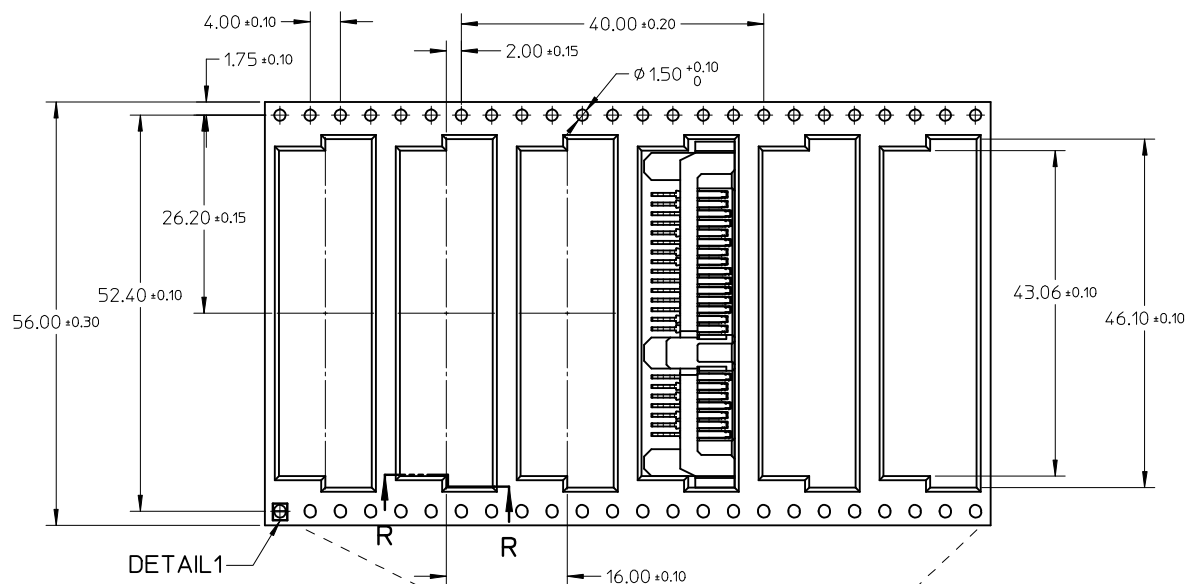
9 8 7 6 5 4 3 2 1

# PACKAGING INFORMATION

PART ORIENTATION IN TAPE & REEL



DETAIL1

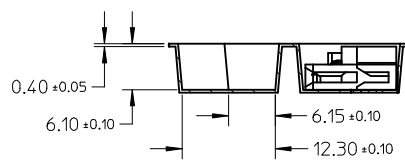
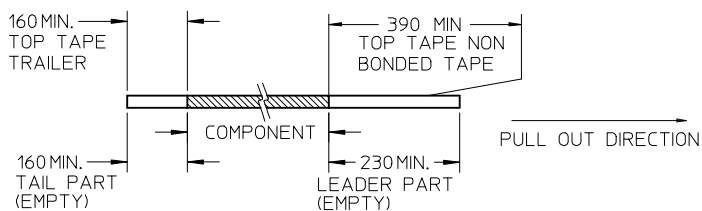


DETAIL1

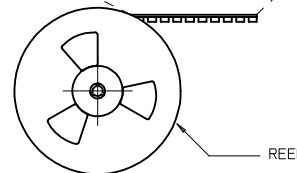
R R

NOTES:

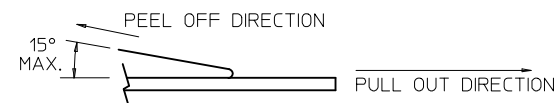
1. LEADER AND TRAILER TAPE



PARTIAL1 OF SECTION R-R

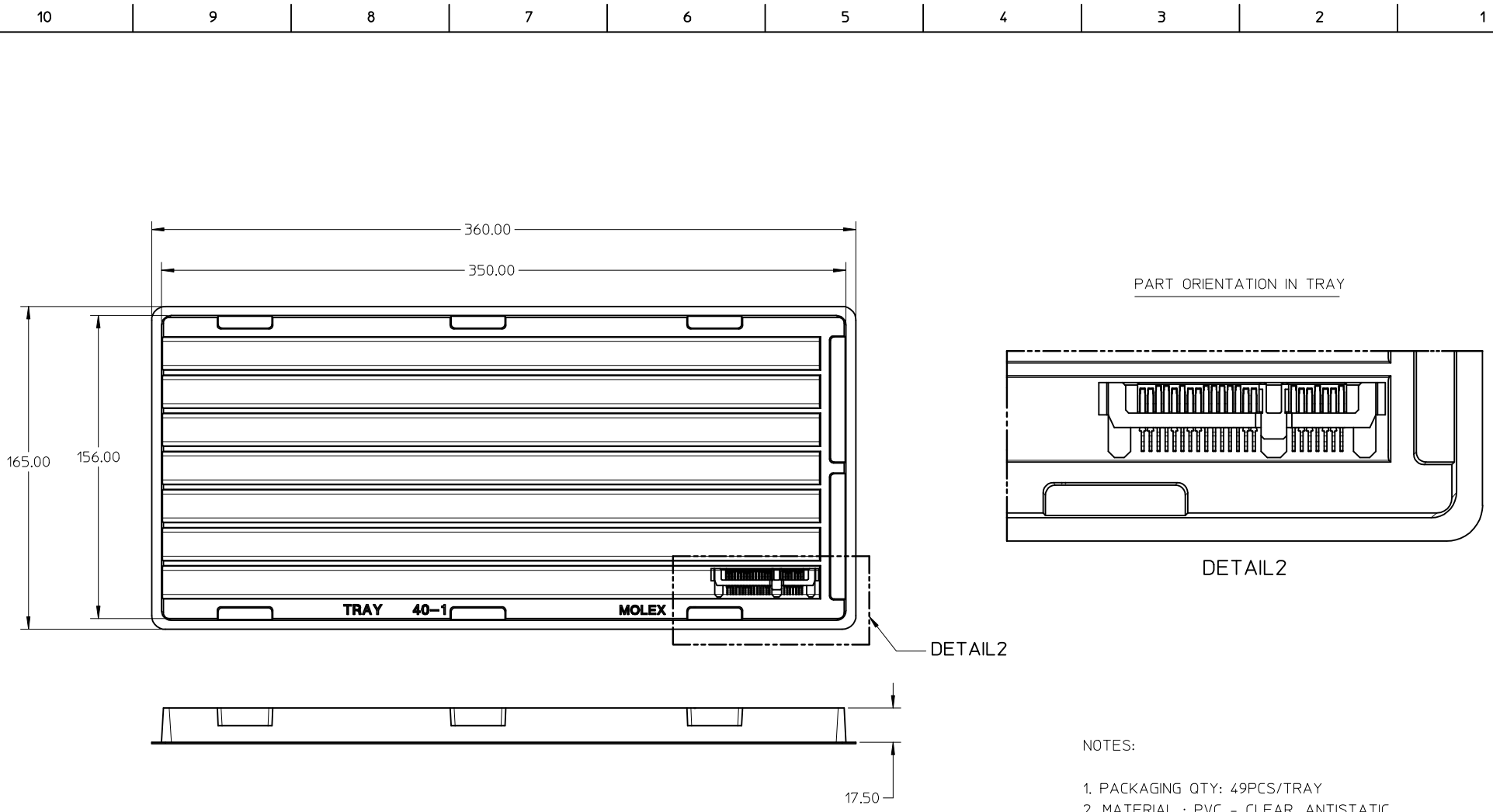


2. PEELING OFF FORCE OF THE TOP TAPE: 20 - 80gf. (PEELING DIRECTION AS SHOWN IN FOLLOWING FIGURE)



- 3. TAPE AND REEL SPECIFICATION IS AS PER EIA-481.
- 4. TAPE AND REEL QUANTITY : 650 PCS/ REEL.
- 5. THE TAPE IS TREATED FOR ANTI-STATIC.

SEE SHEET 3 EC NO: S2009-0651 DRWN:GMENARLY 2009/03/13 CHKD:CGOH 2009/03/13 APPR:BOKOK 2009/03/14	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 ± --- ± ---	DRAWN BY	DATE	TITLE	
		2 PLACES ± 0.20 ± ---	1 PLACE ± --- ± ---	CHECKED BY	DATE	SERIAL ATA PLUG WITH LATCHING STRADDLE MOUNT	
	ANGULAR ± 3 °		APPROVED BY	DATE	MOLEX INCORPORATED		
	DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		MATERIAL NO.	2008/08/01	DOCUMENT NO.		
			SIZE	SEE TABLE	SD-78448-001		
			THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION				



- NOTES:
1. PACKAGING QTY: 49PCS/TRAY
  2. MATERIAL : PVC - CLEAR, ANTISTATIC

SEE SHEET 3 EC NO: S2009-0651 DRWN:GMENARLY 2009/03/13 CHKD:CGOH 2009/03/13 APPR:BOKOK 2009/03/14	DESCRIPTION REV	QUALITY SYMBOLS	GENERAL TOLERANCES (UNLESS SPECIFIED) <table border="1"> <tr> <td></td> <td>mm</td> <td>INCH</td> </tr> <tr> <td>4 PLACES</td> <td>± ---</td> <td>± ---</td> </tr> <tr> <td>3 PLACES</td> <td>± ---</td> <td>± ---</td> </tr> <tr> <td>2 PLACES</td> <td>± 0.20</td> <td>± ---</td> </tr> <tr> <td>1 PLACE</td> <td>± ---</td> <td>± ---</td> </tr> </table>		mm	INCH	4 PLACES	± ---	± ---	3 PLACES	± ---	± ---	2 PLACES	± 0.20	± ---	1 PLACE	± ---	± ---	DIMENSION STYLE	SCALE	DESIGN UNITS	THIRD ANGLE PROJECTION
				mm	INCH																	
		4 PLACES		± ---	± ---																	
		3 PLACES		± ---	± ---																	
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