

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

**Part Number:** [0783210163](#)  
**Status:** **Active**  
**Description:** 1.00mm (.039") Pitch DDR3 DIMM Socket, LLCR, Vertical, Through Hole, with Beveled Metal Pins, Blue Housing, Natural (Off-White) Latches, 0.38µm (15µ") Gold (Au) Plating, 2.67mm (.105") Solder Tail Length, 1.57mm (.062") PCB Thickness, 240 Circuits, Lead free

**Documents:**

[Drawing \(PDF\)](#) [RoHS Certificate of Compliance \(PDF\)](#)  
[Product Specification PS-78321-002 \(PDF\)](#)

**Agency Certification**

CSA	LR19980
UL	E29179

**General**

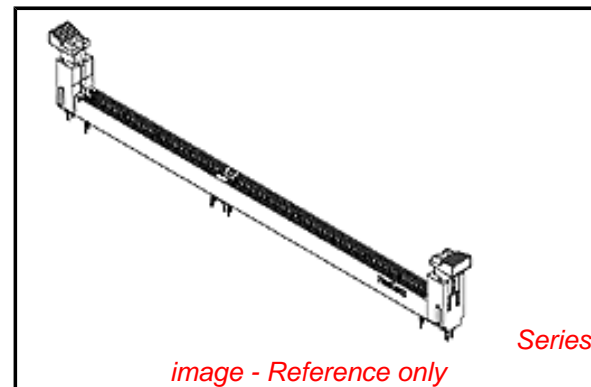
Product Family	Memory Module Sockets
Series	<a href="#">78321</a>
Component Type	Socket
JEDEC Outline	MO-269
Product Name	DDR3 DIMM

**Physical**

Circuits (Loaded)	240
Circuits (maximum)	240
Color - Resin	Blue, Natural
Durability (mating cycles max)	25
Entry Angle	Vertical
Flammability	94V-0
Function Key	None
Keying to Mating Part	Yes
Material - Metal	Copper Alloy
Material - Plating Mating	Gold
Material - Plating Termination	Tin
Material - Resin	High Temperature Thermoplastic
PC Tail Length (in)	0.105 In
PC Tail Length (mm)	2.67 mm
PCB Locator	Yes
PCB Retention	Yes
PCB Thickness Recommended (in)	0.062 In
PCB Thickness Recommended (mm)	1.57 mm
Packaging Type	Tray
Pitch - Mating Interface (in)	0.039 In
Pitch - Mating Interface (mm)	1.00 mm
Pitch - Term. Interface (in)	0.039 In
Pitch - Term. Interface (mm)	1.00 mm
Plating min: Mating (µin)	15
Plating min: Mating (µm)	0.38
Plating min: Termination (µin)	100
Plating min: Termination (µm)	2.54
Temperature Range - Operating	-55°C to +85°C
Termination Interface: Style	Through Hole

**Electrical**

Current - Maximum per Contact	1A
Voltage - Maximum	30V AC (RMS)/DC



**EU RoHS**

**ELV and RoHS  
Compliant**  
**REACH SVHC  
Contains SVHC: No  
Halogen-Free  
Status**

**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**

[78321Series](#)

**Mates With**

JEDEC standard 1.27mm modules

Voltage Key

Center

**Solder Process Data**

Duration at Max. Process Temperature (seconds)

10

Lead-free Process Capability

SMC & Wave Capable (TH only)

Max. Cycles at Max. Process Temperature

2

Process Temperature max. C

260

**Material Info**

**Reference - Drawing Numbers**

Packaging Specification

PK-78321-001

Product Specification

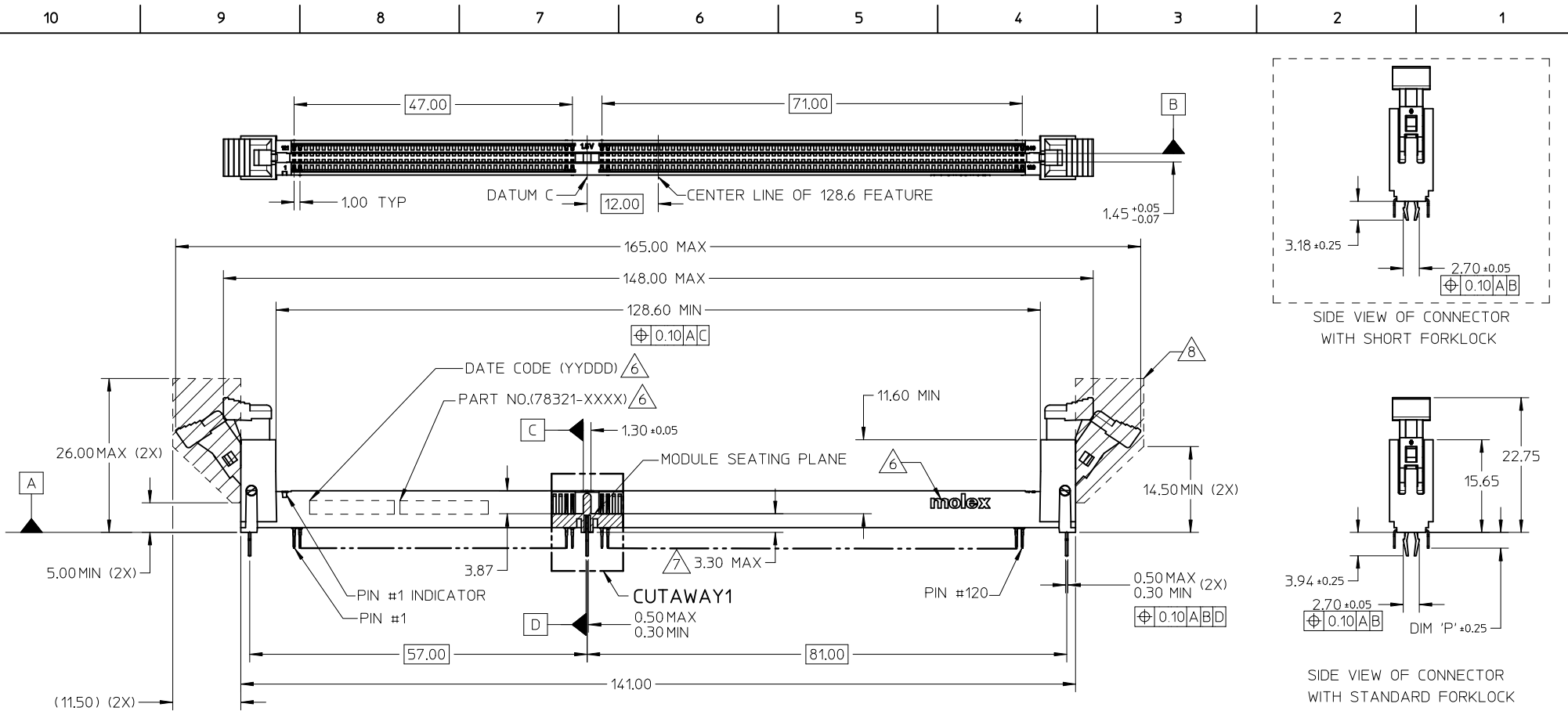
PS-78321-002

Sales Drawing

SD-78321-001

This document was generated on 06/08/2010

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NOTES:

- MATERIAL: HOUSING - HIGH TEMP NYLON, GLASS FILLED, UL 94V-0  
COLOR: SEE TABLE ON SHEET 6 & 7  
LATCH - HIGH TEMP NYLON, GLASS FILLED, UL 94V-0  
COLOR: SEE TABLE ON SHEET 6 & 7  
TERMINAL: COPPER ALLOY

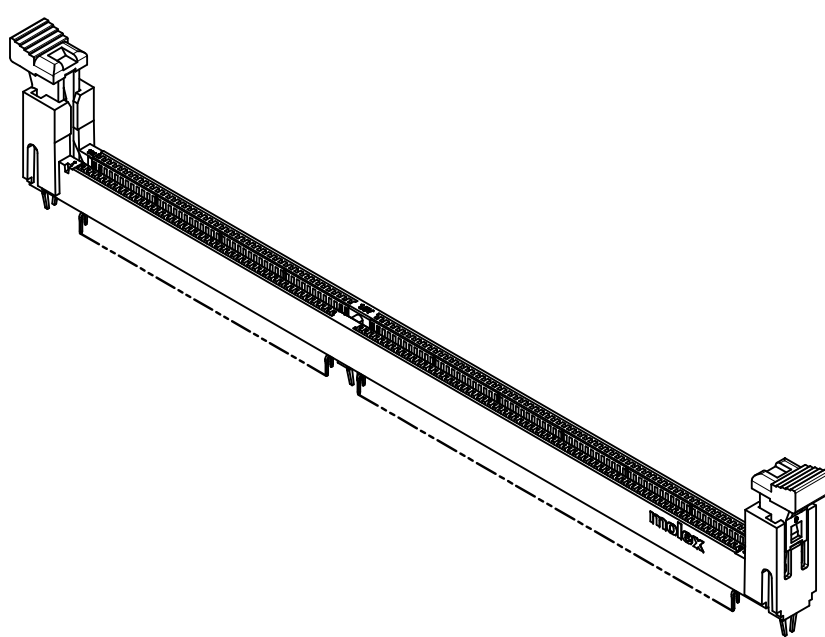
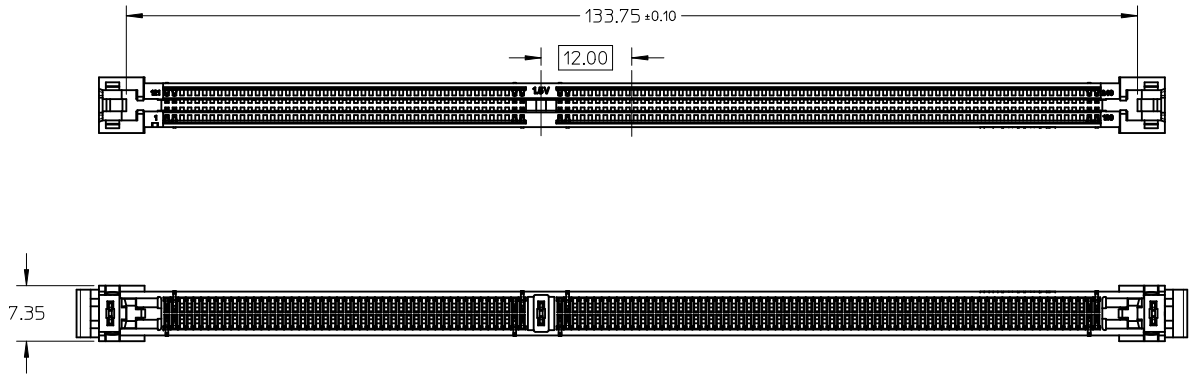
- FINISHES:  
TERMINAL PLATING OPTIONS - SEE TABLE ON SHEET 6 & 7
- PRODUCT SPECIFICATION: SEE TABLE ON SHEET 6 & 7
- PACKAGING INFORMATION: PRODUCT SHALL BE PACKED IN TRAY
- CARD SLOTS ACCEPTS 1.27 $\pm$ 0.10MM MODULE THICKNESS (MEASURED FROM PC PADS)

- MOLEX LOGO, DATE CODE AND PART NO. INDICATED ON HOUSING
- MODULE SEATING PLANE FROM TOP OF PCB
- KEEP OUT ZONE RESERVED FOR LATCH

THIS DESIGN IS BASED ON DESIGN OBJECTIVES AND IS STRICTLY TENTATIVE. IT MAY CHANGE BASED ON RESULTS OF ADDITIONAL DESIGN REVIEWS & VERIFICATIONS.

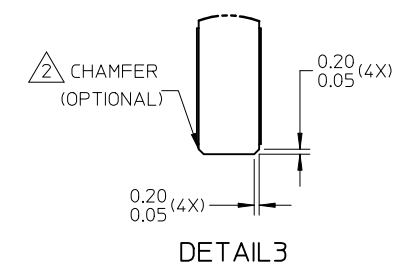
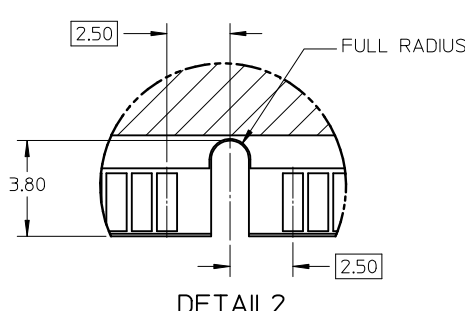
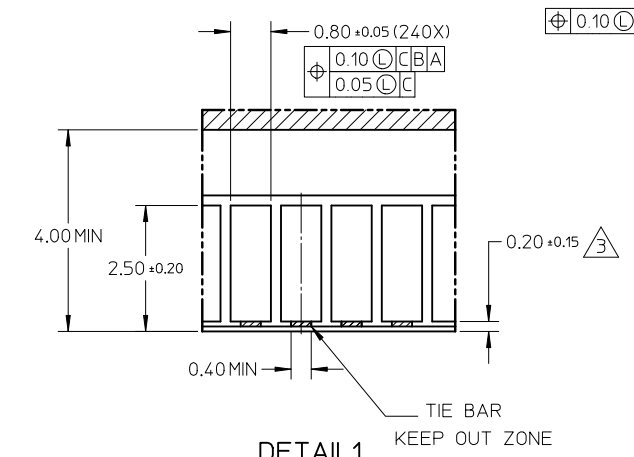
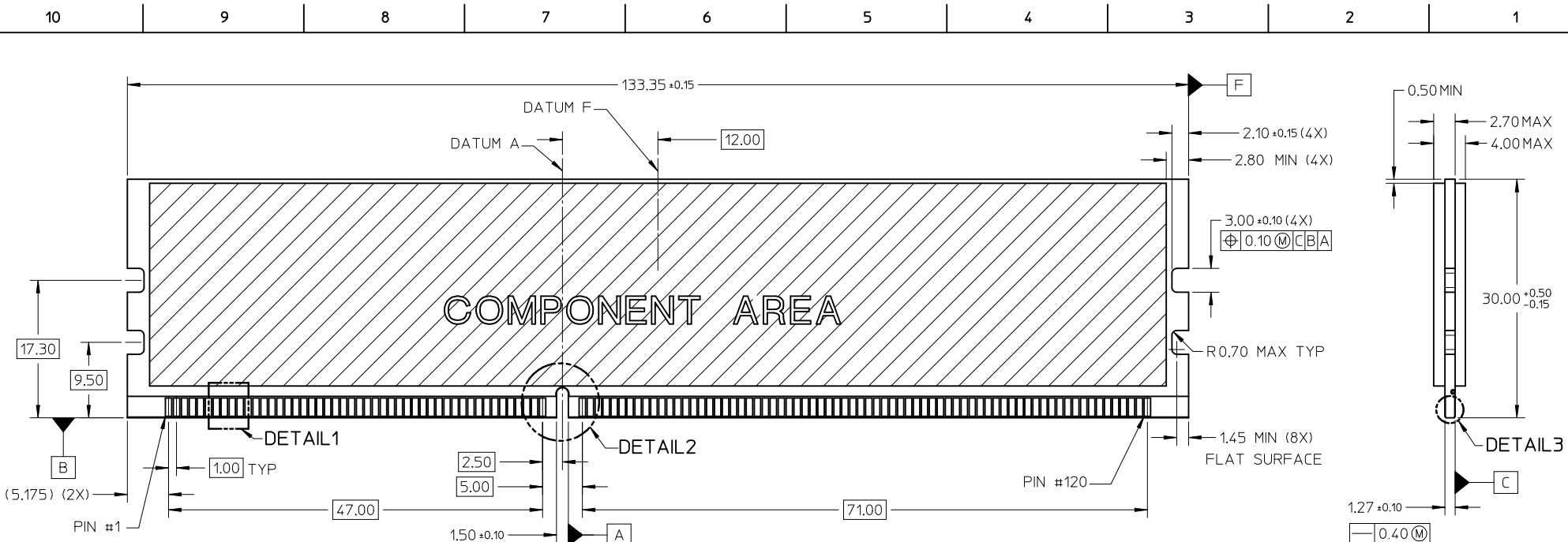
<b>FORKLOCK UPDATED</b> EC NO: S2010-0888 DRWN: JAKEEVEW 2010/04/23 CHKD: CCTEH 2010/06/10 APPR: SHLENI 2010/06/13	QUALITY SYMBOLS $\nabla A = 0$ $\nabla C = 0$ $\nabla P = 0$	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE MM ONLY		SCALE NTS	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION			
			mm	INCH	DRAWN BY YTYANG01	DATE 2007/09/24	TITLE DDR3 DIMM, 100MM PITCH 240 CKTS, VERTICAL, T/H LOW LLLCR				
			4 PLACES	$\pm$ ---	$\pm$ ---	CHECKED BY CCTEH	DATE 2007/11/12	MOLEX INCORPORATED DOCUMENT NO. SD-78321-001 SHEET NO. 1 OF 7			
			3 PLACES	$\pm$ ---	$\pm$ ---	APPROVED BY SHLENI	DATE 2010/06/10				
	2 PLACES	$\pm 0.2$	$\pm$ ---	MATERIAL NO.		SEE TABLE					
	1 PLACE	$\pm$ ---	$\pm$ ---	ANGULAR $\pm 1^\circ$		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			SIZE A3							

10 9 8 7 6 5 4 3 2 1



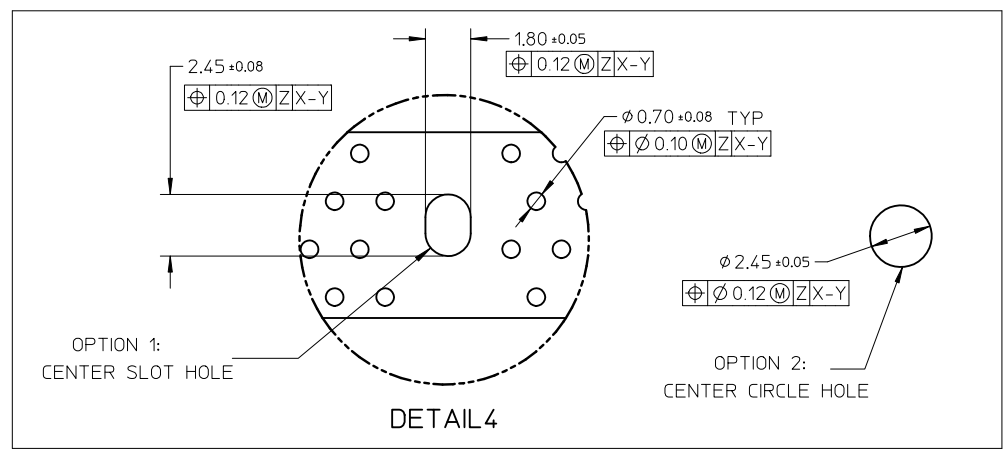
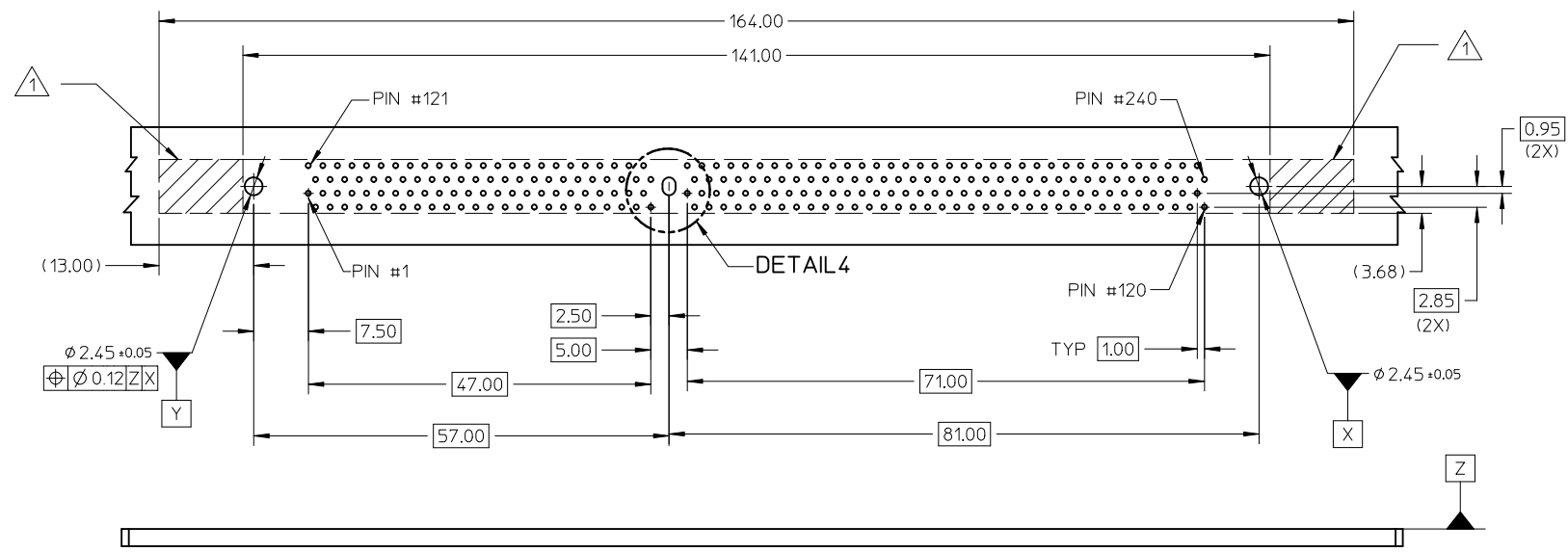
FORKLOCK UPDATED EC NO: S2010-0888 DRWN: JAKEEVEW 2010/04/23 CHKD: CCTEH 2010/06/10 APPR: SHLENI 2010/06/13	QUALITY SYMBOLS	GENERAL TOLERANCES (UNLESS SPECIFIED)	DIMENSION STYLE	SCALE	DESIGN UNITS	THIRD ANGLE PROJECTION	
	$\nabla_A = 0$ $\nabla_C = 0$ $\nabla_P = 0$	mm INCH 4 PLACES ± --- ± --- 3 PLACES ± --- ± --- 2 PLACES ± 0.2 ± --- 1 PLACE ± --- ± --- ANGULAR ± 1 °	MM ONLY	NTS	METRIC	☉ <input type="checkbox"/> THIRD ANGLE PROJECTION	
	REV	DESCRIPTION	DRAWN BY	DATE	TITLE		
	10		YTYANG01	2007/09/24	DDR3 DIMM, 1.00MM PITCH 240 CKTS, VERTICAL, T/H LOW LLCR		
		DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS	CHECKED BY	DATE	MOLEX INCORPORATED		
			CCTEH	2007/11/12	DOCUMENT NO.		
			APPROVED BY	DATE	SHEET NO.		
			SHLENI	2010/06/10	2 OF 7		
			MATERIAL NO.	SD-78321-001			
			SEE TABLE	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



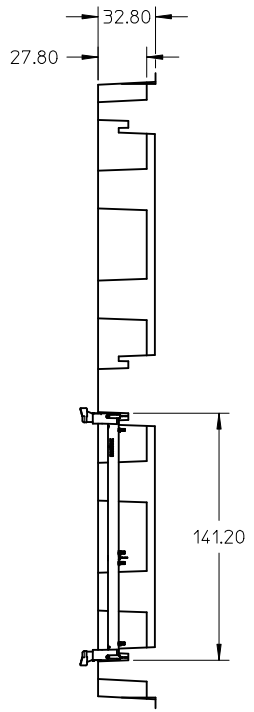
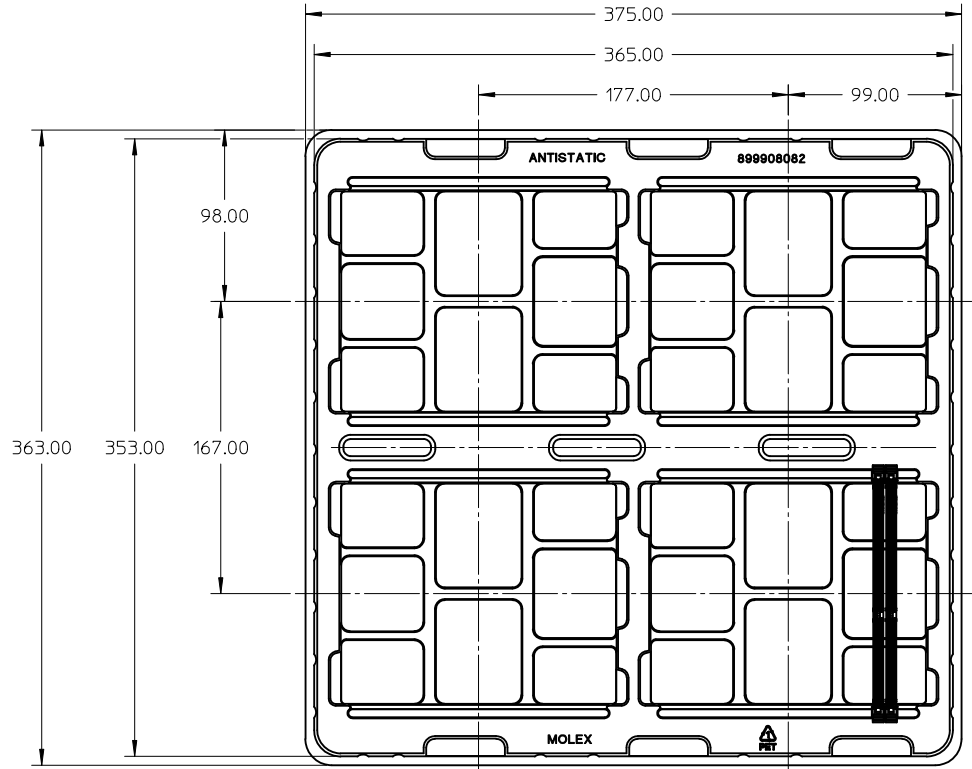
NOTES:  
 1. RECOMMENDED PLATING FOR CONTACT PADS:  
 PREFERRED: 0.76 MICROMETERS GOLD PLATING MIN OVER 2.00 MICROMETERS NICKEL  
 ALTERNATIVE: 0.05-0.75 MICROMETERS GOLD PLATING OVER 2.00 MICROMETERS NICKEL MUST USE AN ELECTRONIC CONTACT GRADE CORROSIVE BARRIER LUBRICANT  
 2. CHAMFER IS OPTIONAL AND IS NOT TO HIT THE GOLD PADS  
 3. LEADING EDGE OF GOLD PADS SPECIFIED BY KEEPOUT ZONE SHALL BE FREE OF BURRS AND EXTERNAL TIE BARS

FORKLOCK UPDATED EC NO: S2010-0888 DRWN: JAKEEW 2010/04/23 CHYK: CCTEH 2010/06/10 APPR: SHLENI 2010/06/13	QUALITY SYMBOLS	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE MM ONLY		SCALE NTS	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION	
	$F_A=0$	mm	INCH	DRAWN BY YTYANG01	DATE 2007/09/24	TITLE DDR3 DIMM, 100MM PITCH 240 CKTS, VERTICAL, T/H LOW LLLCR			
	$F_G=0$	4 PLACES ± ---	± ---	CHECKED BY CCTEH	DATE 2007/11/12	MOLEX INCORPORATED			
	$F_P=0$	3 PLACES ± ---	± ---	APPROVED BY SHLENI	DATE 2010/06/10				
	2 PLACES ± 0.2	± ---	MATERIAL NO.		DOCUMENT NO.		SHEET NO.		
	1 PLACE ± ---	± ---	DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		SEE TABLE		SD-78321-001		
	ANGULAR ± 1°		SIZE A3		THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION				



NOTE:  
 1. KEEPOUT AREA IS THE AREA WHERE THE CONNECTOR (INCLUDING LATCH) IS MOUNTED ON PCB

FORKLOCK UPDATED EC NO: S2010-0888 DRWN: JAKEEWEW 2010/04/23 CHKD: CCTEH 2010/06/10 APPR: SHLENI 2010/06/13	QUALITY SYMBOLS	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE MM ONLY		SCALE NTS	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION	
	$F_A=0$	mm	INCH	DRAWN BY YTYANG01	DATE 2007/09/24	TITLE DDR3 DIMM, 100MM PITCH 240 CKTS, VERTICAL, T/H LOW LLLCR			
	$F_C=0$	4 PLACES $\pm$ ---	$\pm$ ---	CHECKED BY CCTEH	DATE 2007/11/12	MOLEX INCORPORATED DOCUMENT NO. SD-78321-001			
	$F_P=0$	3 PLACES $\pm$ ---	$\pm$ ---	APPROVED BY SHLENI	DATE 2010/06/10				
	2 PLACES $\pm 0.2$	$\pm$ ---	MATERIAL NO. SEE TABLE		THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION				
	1 PLACE $\pm$ ---	$\pm$ ---	DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS						



NOTES:  
1. QTY OF CAVITY : 20 X 4 = 80 PCS

FORKLOCK UPDATED EC NO: S2010-0888 DRWN: JAKEEWEW 2010/04/23 CHKD: CCTEH 2010/06/10 APPR: SHLENI 2010/06/13	QUALITY SYMBOLS $F_A=0$ $F_C=0$ $F_P=0$	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE MM ONLY		SCALE NTS	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION		
			mm	INCH	DRAWN BY YTYANG01	DATE 2007/09/24	TITLE DDR3 DIMM, 1.00MM PITCH 240 CKTS, VERTICAL, T/H LOW LLLCR			
		4 PLACES	± ---	± ---	CHECKED BY CCTEH	DATE 2007/11/12	MOLEX INCORPORATED DOCUMENT NO. SD-78321-001 SHEET NO. 5 OF 7			
		3 PLACES	± ---	± ---	APPROVED BY SHLENI	DATE 2010/06/10				
2 PLACES	± 0.2	± ---	DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		SEE TABLE					
1 PLACE	± ---	± ---								
		ANGULAR ± 1 °								
				MATERIAL NO.						
				SIZE A3		THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION				

ASSEMBLY PART NO.	VOLTAGE KEY	DIM 'P'	FORKLOCK LENGTH	RECOMMENDED PCB THICKNESS	PLATING OPTION	HOUSING COLOUR	LATCH COLOUR	PRODUCT SPECIFICATION
78321-0011	CENTRE (1.5V)	2.67	3.94	1.57	0.76 MICROMETER/ 30 MICROINCH MIN. GOLD ON CONTACT 2.54 MICROMETER/ 100 MICROINCH MIN. PURE TIN (MATTE) ON SOLDER TAILS 1.27 MICROMETER/ 50 MICROINCH MIN. NICKEL UNDERPLATE	BLACK	BLACK	PS-78321-001
78321-0016							NATURAL (OFF-WHITE)	
78321-0013							BLACK	
78321-0017		NATURAL (OFF-WHITE)						
78321-0012		BLACK						
78321-0018		NATURAL (OFF-WHITE)						
78321-0001		2.67	3.94	1.57	0.38 MICROMETER/ 15 MICROINCH MIN. GOLD ON CONTACT 2.54 MICROMETER/ 100 MICROINCH MIN. PURE TIN (MATTE) ON SOLDER TAILS 1.27 MICROMETER/ 50 MICROINCH MIN. NICKEL UNDERPLATE		BLACK	PS-78321-002
78321-0006							NATURAL (OFF-WHITE)	
78321-0003							BLACK	
78321-0007		NATURAL (OFF-WHITE)						
78321-0002		BLACK						
78321-0008		NATURAL (OFF-WHITE)						

<b>FORKLOCK UPDATED</b> EC NO: S2010-0888 DRWN: JAKEEWEW 2010/04/23 CHKD: CCTEH 2010/06/10 APPR: SHLENI 2010/06/13	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	MM ONLY	NTS	METRIC	
	4 PLACES ± --- ± --- 3 PLACES ± --- ± --- 2 PLACES ± 0.2 ± --- 1 PLACE ± --- ± ---	DRAWN BY: YTYANG01 DATE: 2007/09/24 CHECKED BY: CCTEH DATE: 2007/11/12 APPROVED BY: SHLENI DATE: 2010/06/10	TITLE: DDR3 DIMM, 1.00MM PITCH 240 CKTS, VERTICAL, T/H LOW LLCR			
	ANGULAR ± 1 ° DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS	MATERIAL NO.: SEE TABLE SIZE: A3 THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION	MOLEX INCORPORATED DOCUMENT NO.: SD-78321-001 SHEET NO.: 6 OF 7			

ASSEMBLY PART NO.	VOLTAGE KEY	DIM 'P'	FORKLOCK LENGTH	RECOMMENDED PCB THICKNESS	PLATING OPTION	HOUSING COLOUR	LATCH COLOUR	PRODUCT SPECIFICATION			
78321-0051	CENTRE (1.5V)	3.18	3.18	2.36	0.76 MICROMETER/ 30 MICROINCH MIN. GOLD ON CONTACT 2.54 MICROMETER/ 100 MICROINCH MIN. PURE TIN (MATTE) ON SOLDER TAILS 1.27 MICROMETER/ 50 MICROINCH MIN. NICKEL UNDERPLATE	BLACK	NATURAL (OFF-WHITE)	PS-78321-001			
78321-0052						NATURAL (OFF-WHITE)					
78321-0053						BLUE					
78321-0055						GREEN					
78321-0151						BLACK					
78321-0152						NATURAL (OFF-WHITE)					
78321-0153		BLUE									
78321-0155		GREEN									
78321-0061		2.67	3.18	3.18		0.38 MICROMETER/ 15 MICROINCH MIN. GOLD ON CONTACT 2.54 MICROMETER/ 100 MICROINCH MIN. PURE TIN (MATTE) ON SOLDER TAILS 1.27 MICROMETER/ 50 MICROINCH MIN. NICKEL UNDERPLATE			BLACK	NATURAL (OFF-WHITE)	PS-78321-002
78321-0062									NATURAL (OFF-WHITE)		
78321-0063									BLUE		
78321-0065									GREEN		
78321-0161					BLACK						
78321-0162					NATURAL (OFF-WHITE)						
78321-0163		BLUE									
78321-0165		GREEN									
78321-0261		3.18	3.18	3.18	0.38 MICROMETER/ 15 MICROINCH MIN. GOLD ON CONTACT 2.54 MICROMETER/ 100 MICROINCH MIN. PURE TIN (MATTE) ON SOLDER TAILS 1.27 MICROMETER/ 50 MICROINCH MIN. NICKEL UNDERPLATE		BLACK	BLACK			
78321-0262							NATURAL (OFF-WHITE)				
78321-0263							BLUE				
78321-0265							GREEN				
78321-0361						BLACK					
78321-0362						NATURAL (OFF-WHITE)					
78321-0363		BLUE									
78321-0365		2.67					GREEN				

<b>FORKLOCK UPDATED</b> EC NO: S2010-0888 DRWN: JAKEEWEW 2010/04/23 CH'KD: CCTEH 2010/06/10 APPR: SHLENI 2010/06/13	QUALITY SYMBOLS	GENERAL TOLERANCES (UNLESS SPECIFIED)	DIMENSION STYLE	SCALE	DESIGN UNITS	THIRD ANGLE PROJECTION
	$F_A=0$ $F_C=0$ $F_P=0$	mm    INCH 4 PLACES ± --- ± --- 3 PLACES ± --- ± --- 2 PLACES ± 0.2 ± --- 1 PLACE ± --- ± --- ANGULAR ± 1 °	MM ONLY	NTS	METRIC	
	DESCRIPTION	DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS	DRAWN BY: YTYANG01 CHECKED BY: CCTEH APPROVED BY: SHLENI MATERIAL NO.: SEE TABLE	DATE: 2007/09/24 DATE: 2007/11/12 DATE: 2010/06/10	TITLE	DDR3 DIMM, 1.00MM PITCH 240 CKTS, VERTICAL, T/H LOW LLCR
	REV		SIZE: A3 THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION	MOLEX INCORPORATED DOCUMENT NO.: SD-78321-001	SHEET NO.	7 OF 7