

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

**Part Number:** [0879780031](#)  
**Status:** **Active**  
**Description:** 1.00mm (.039") Pitch DDR-2 DIMM Socket, Vertical, with Beveled Metal Pins, Very Low Profile Black Latches, 240 Circuits, 1.8V Center Voltage Key, 2.67mm (.105") Tail Length, 0.03µm (1µ") Gold (Au) Plating, Lead-free

**Documents:**

[3D Model](#) [Product Specification PS-87978-001 \(PDF\)](#)  
[Drawing \(PDF\)](#) [RoHS Certificate of Compliance \(PDF\)](#)

**Agency Certification**

CSA LR19980  
 UL E29179

**General**

Product Family Memory Module Sockets  
 Series [87978](#)  
 Comments <LI> Latches in Black Color  
 Component Type Memory Module  
 JEDEC Outline N/A  
 Product Name DDR2 DIMM

**Physical**

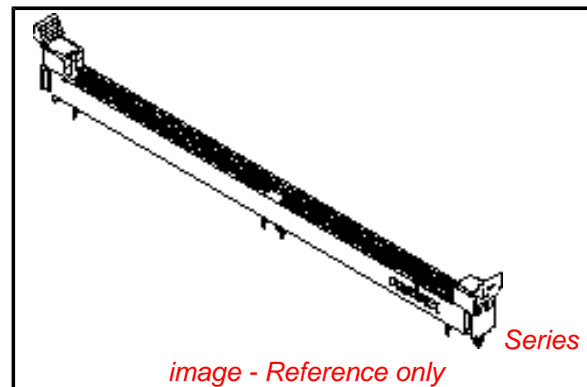
Circuits (Loaded) 240  
 Color - Resin Black  
 Durability (mating cycles max) 25  
 Entry Angle Vertical (Top Entry)  
 Flammability 94V-0  
 Keying to Mating Part Yes  
 Material - Metal Brass, Phosphor Bronze  
 Material - Plating Mating Gold  
 Material - Plating Termination Tin  
 Material - Resin High Temperature Thermoplastic  
 PC Tail Length (in) 0.105 In  
 PC Tail Length (mm) 2.67 mm  
 PCB Retention Yes  
 PCB Thickness Recommended (in) 0.062 In  
 PCB Thickness Recommended (mm) 1.60 mm  
 Packaging Type Tray  
 Pitch - Mating Interface (in) 0.039 In  
 Pitch - Mating Interface (mm) 1.00 mm  
 Plating min: Mating (µin) 2  
 Plating min: Mating (µm) 0.05  
 Plating min: Termination (µin) 101.6  
 Plating min: Termination (µm) 2.54  
 Temperature Range - Operating -10°C to +85°C  
 Termination Interface: Style Through Hole

**Electrical**

Current - Maximum per Contact 0.5A  
 Voltage - Maximum 30V  
 Voltage Key 1.8V, Center

**Solder Process Data**

Duration at Max. Process Temperature (seconds) 10  
 Lead-free Process Capability Wave Capable (TH only)  
 Max. Cycles at Max. Process Temperature 1



**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**

[87978Series](#)

**Mates With**

JEDEC standard 1.27mm modules

Process Temperature max. C

265

**Material Info**

**Reference - Drawing Numbers**

Product Specification

PS-87978-001, RPS-87978-001

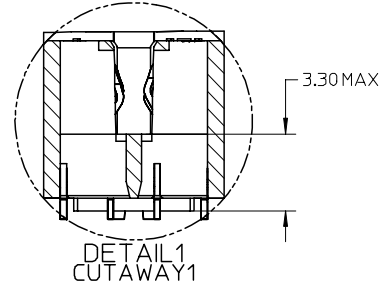
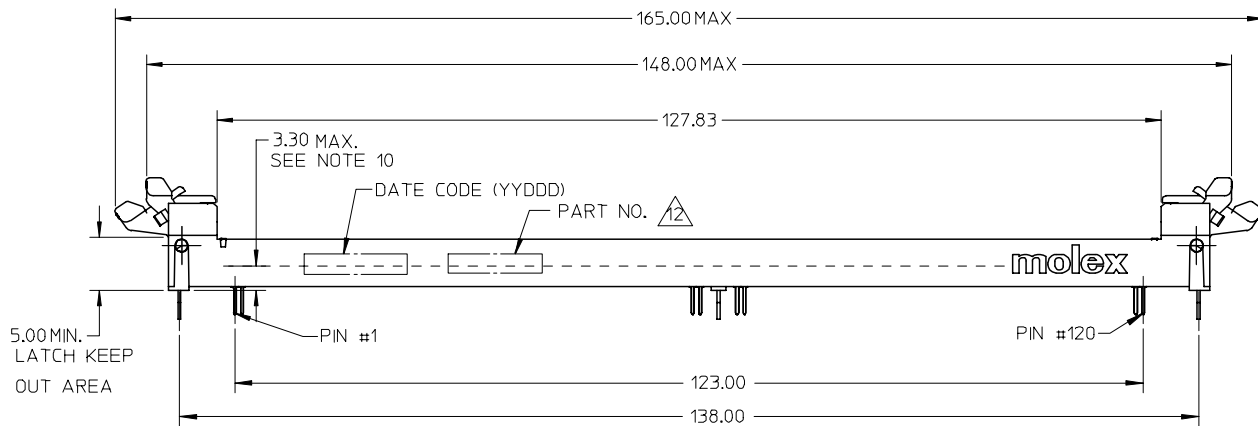
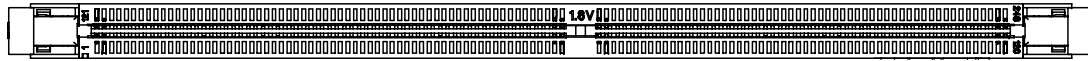
Sales Drawing

SD-87978-001

This document was generated on 05/20/2010

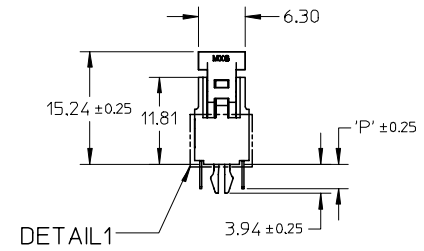
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10 9 8 7 6 5 4 3 2 1



NOTES:

1. MATERIALS  
HOUSING - HIGH TEMP. NYLON GLASS FILLED, UL 94 V-0, BLACK.  
EJECTOR - HIGH TEMP. NYLON GLASS FILLED, UL 94 V-0, BLACK.  
TERMINAL - COPPER ALLOY
2. PLATING - SEE TABLE IN SHEET 5.
3. CARD SLOT ACCEPTS 1.27±0.10 MM MODULE THICKNESS.  
(MEASURED OVER P.C. PADS)
4. RECOMMENDED MODULE LAYOUT SHALL BE AS PER JEDEC MO-237.
5. REFER TO PRODUCT SPEC, PS-87978-013 FOR PERFORMANCE SPECIFICATIONS.
6. PRODUCT SHALL BE PACKED IN TRAY.
7. PRODUCT SHALL HAVE DATE CODE STAMPED ON SIDE OF HOUSING.
8. KEEP OUT AREA IS THE AREA WHERE THE CONNECTOR IS MOUNTED ONTO THE PCB WHICH DOES NOT INCLUDE THE LATCH.
9. REFER TO CRITICAL JEDEC INFORMATION FOR SOCKET OUTLINE PER SO-001.
10. DIMM MODULE SEATING PLANE FROM TOP OF PCB.
11. CONTACT MOLEX FOR AVAILABILITY OF PRODUCT OPTIONS.
12. PART NUMBER SHALL BE MARKED LEGIBLY AS 87978-\*\*\*\*



REVISED EC NO: S2008-0235 DRWN:CMTEO 2007/09/27 CHKD:CCTEH 2007/09/27 APPR:SHLENI 2007/09/28	QUALITY SYMBOLS ▽=0 ▽=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	± ---	± ---	CCTEH	2005/01/03	DDR2 DIMM, 1MM PITCH 240 CKTS, FORK-LOCK VERS VLP LATCH			
		3 PLACES	± ---	± ---	CHECKED BY	DATE				
2 PLACES	± 0.20	± ---	SRRAMESH	2005/08/30	MOLEX INCORPORATED					
1 PLACE	± ---	± ---	APPROVED BY	DATE						
		ANGULAR ± 5 °		GGLEE		2005/08/30	MOLEX INCORPORATED			
		DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		MATERIAL NO.		DOCUMENT NO.		SHEET NO.		
				SEE TABLE		SD-87978-001		1 OF 5		
				THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION						

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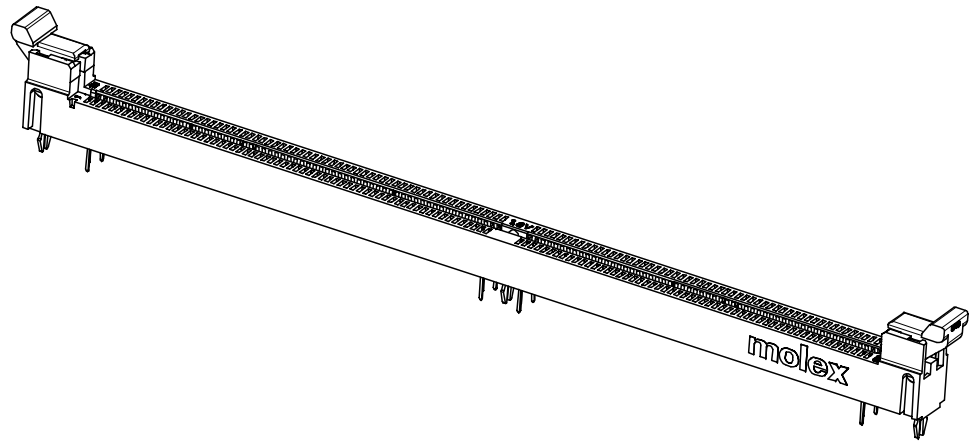
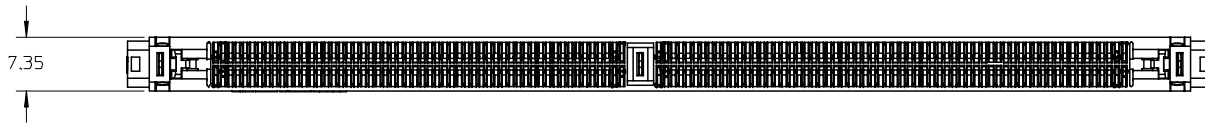
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<b>REVISED</b> EC NO: S2008-0235 DRWN:CMTEO 2007/09/27 CHKD:CCTEH 2007/09/27 APPR:SHLENI 2007/09/28	QUALITY SYMBOLS ▽=0 ◻=0	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE MM ONLY		SCALE NTS	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION			
		4 PLACES ± --- ± ---	4 PLACES ± --- ± ---	DRAWN BY CCTEH	DATE 2005/01/03	TITLE DDR2 DIMM, 1MM PITCH 240 CKTS, FORK-LOCK VERS VLP LATCH					
		3 PLACES ± --- ± ---	3 PLACES ± --- ± ---	CHECKED BY SRRAMESH	DATE 2005/08/30	MOLEX INCORPORATED					
		2 PLACES ± 0.20 ± ---	2 PLACES ± --- ± ---	APPROVED BY GGLEE	DATE 2005/08/30	MATERIAL NO.		DOCUMENT NO. SD-87978-001	SHEET NO. 2 OF 5		
1 PLACE ± --- ± ---	1 PLACE ± --- ± ---	ANGULAR ± 5 °		SEE TABLE		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									

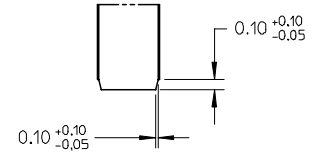
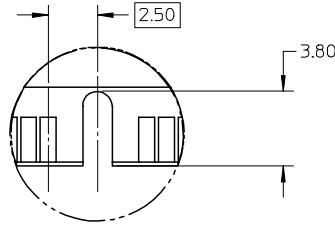
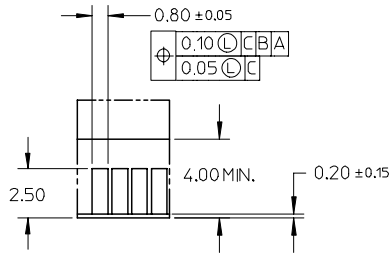
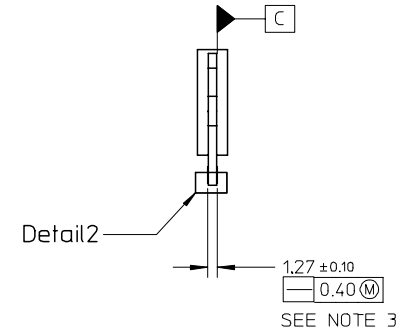
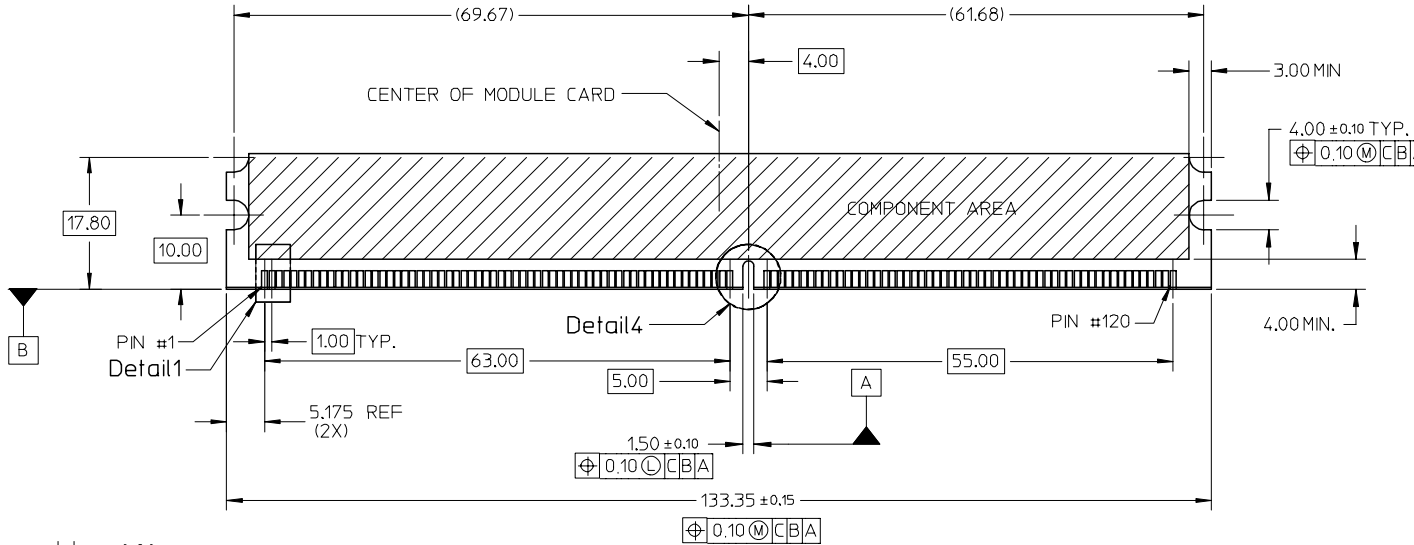
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RECOMMENDED MODULE LAYOUT



KEY LOCATION	VOLTAGE
CENTER	1.8V

NOTES:  
1. MODULE CARD USED FOR TESTS ARE WITH 0.10MM CHAMFER.

REV	DESCRIPTION	DATE
B	REVISED	2007/09/28
	EC NO: S2008-0235	2007/09/27
	DRWN:CMTEO	2007/09/27
	CHKD:CCTEH	2007/09/27
	APPR:SHLENI	2007/09/28

QUALITY SYMBOLS  
 $\nabla=0$   
 $\nabla C=0$

	GENERAL TOLERANCES (UNLESS SPECIFIED)	
	mm	INCH
4 PLACES	± ---	± ---
3 PLACES	± ---	± ---
2 PLACES	± 0.20	± ---
1 PLACE	± ---	± ---
ANGULAR ± 5 °		
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		

DIMENSION STYLE	
MM ONLY	
DRAWN BY	DATE
CCTEH	2005/01/03
CHECKED BY	DATE
SRRAMESH	2005/08/30
APPROVED BY	DATE
GGLEE	2005/08/30
MATERIAL NO.	
SEE TABLE	
SIZE	
A3	

SCALE	DESIGN UNITS	THIRD ANGLE PROJECTION
NTS	METRIC	$\text{C}$
TITLE		
DDR2 DIMM, 1MM PITCH		
240 CKTS, FORK-LOCK VERS		
VLP LATCH		
MOLEX INCORPORATED		
DOCUMENT NO.	SHEET NO.	
SD-87978-001	3 OF 5	

9 8 7 6 5 4 3 2 1

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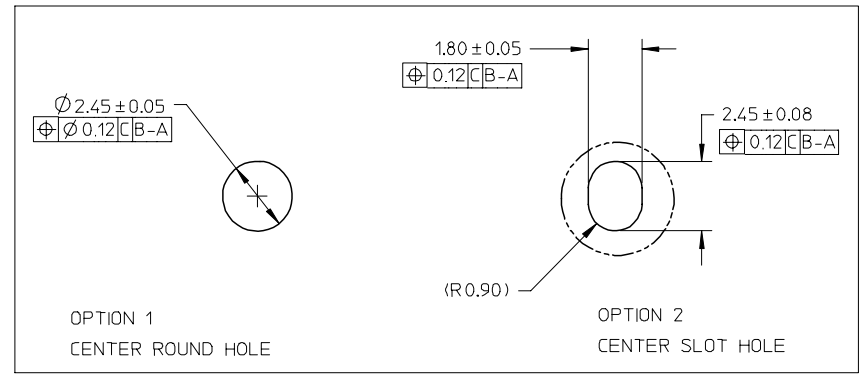
E

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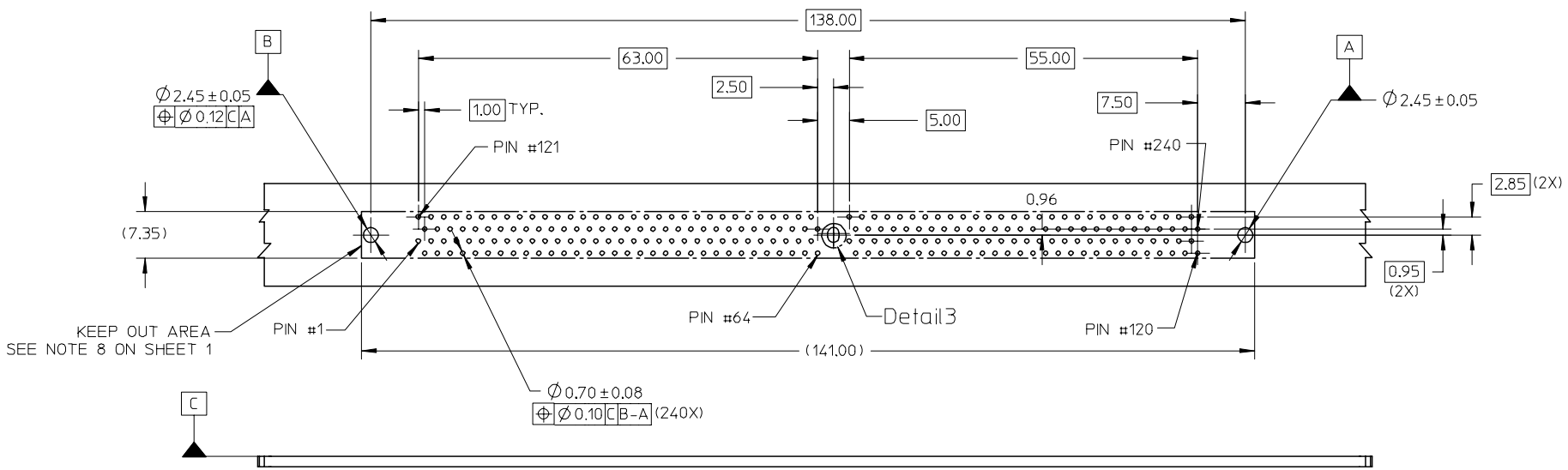
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(SEE RECOMMENDED THICKNESS IN TABLE)  
RECOMMENDED PCB LAYOUT  
CONNECTOR SIDE

Detail3



KEEP OUT AREA  
SEE NOTE 8 ON SHEET 1

REVISED EC NO: S2008-0235 DRWN:CMTEO 2007/09/27 CHKD:CCTEH 2007/09/27 APPR:SHLENI 2007/09/28	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 ± --- ± ---	ANGULAR ± 5 °	DRAWN BY CCTEH	DATE 2005/01/03	TITLE DDR2 DIMM, 1MM PITCH 240 CKTS, FORK-LOCK VERS VLP LATCH		
							APPROVED BY GGLEE	DATE 2005/08/30	MOLEX INCORPORATED		
		DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS					MATERIAL NO. SEE TABLE		DOCUMENT NO. SD-87978-001	SHEET NO. 4 OF 5	

9 8 7 6 5 4 3 2 1

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PART NO.	KEY POS.	DIM 'P'	RECOMMENDED PCB THICKNESS	PLATING OPTION	LATCH COLOR
87978-0021	CENTER (1.8V)	2.67	1.57	0.38µM / 15 µIN MIN. GOLD ON CONTACT, 2.54µM/ 100µIN MIN. TIN ON SOLDERTAILS, 1.27µM/ 50µIN MIN. NICKEL UNDERPLATE	BLACK
87978-1021	CENTER (1.8V)	3.18	2.36		
87978-0031	CENTER (1.8V)	2.67	1.57	0.03µM / 1 µIN MIN. GOLD ON CONTACT, 2.54µM/ 100µIN MIN. TIN ON SOLDERTAILS, 1.27µM/ 50µIN MIN. NICKEL UNDERPLATE	
87978-1031	CENTER (1.8V)	3.18	2.36		
87978-0051	CENTER (1.8V)	2.67	1.57	0.76µM / 30 µIN MIN. GOLD ON CONTACT, 2.54µM/ 100µIN MIN. TIN ON SOLDERTAILS, 1.27µM/ 50µIN MIN. NICKEL UNDERPLATE	
87978-1051	CENTER (1.8V)	3.18	2.36		

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						DRAWN BY CCTEH	DATE 2005/01/03	TITLE DDR2 DIMM, 1MM PITCH 240 CKTS, FORK-LOCK VERS VLP LATCH		
						CHECKED BY SRRAMESH	DATE 2005/08/30			
						APPROVED BY GGLEE	DATE 2005/08/30	MOLEX INCORPORATED		
				MATERIAL NO.		DOCUMENT NO. SD-87978-001	SHEET NO. 5 OF 5			

DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS

SIZE A3

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Телефон: 8 (812) 309-75-97 (многоканальный)

Факс: 8 (812) 320-03-32

Электронная почта: [ocean@oceanchips.ru](mailto:ocean@oceanchips.ru)

Web: <http://oceanchips.ru/>

Адрес: 198099, г. Санкт-Петербург, ул. Калинина, д. 2, корп. 4, лит. А