



# PRODUCT SPECIFICATION

## Vertical Press Fit DDR Dimm

### 1.0 SCOPE

This Product Specification covers the 1.27 mm centerline DDR Dimm connector with vertical compliance termination to mate with 1.27±0.10 thick memory module.

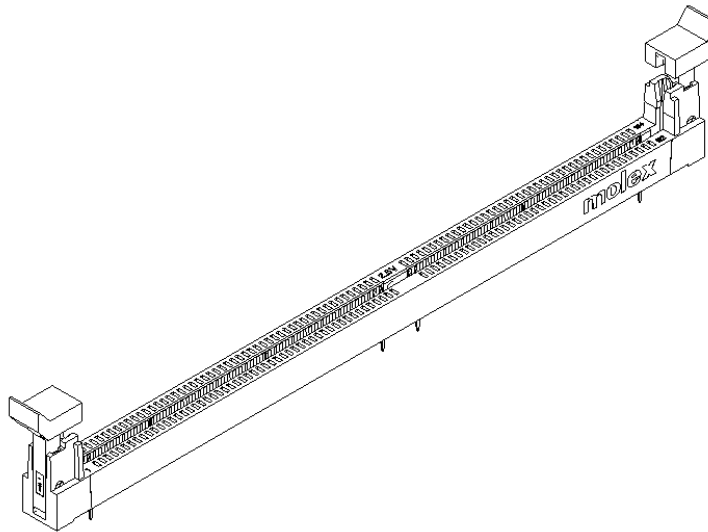
### 2.0 PRODUCT DESCRIPTION

#### 2.1 PRODUCT NAME AND SERIES NUMBER(S)

Part Number	Sale Drawing	Descriptions
87693-****	SD-87693-001	Vertical press fit 184 ckt DDR Dimm

#### 2.2 DIMENSIONS, MATERIALS, PLATINGS AND MARKINGS

See the appropriate Sales Drawings for information on dimensions, materials, plating and markings.



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DOCUMENT NUMBER: <b>PS-87693-002</b>	CREATED / REVISED BY: <b>CM TEO 2008/02/14</b>	CHECKED BY: <b>CC TEH 2008/02/25</b>	APPROVED BY: <b>SH LENI 2008/02/26</b>



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## 2.3 SAFETY AGENCY APPROVALS

UL FILE : E29179  
 CSA FILE : 1409095 (LR19980)

## 3.0 APPLICABLE DOCUMENTS AND SPECIFICATIONS

The following documents are part of this specification to the extent specified herewith. In the event of conflict between the requirements of this specification and the product drawings, the product drawings shall take precedence. In the event of conflict between the requirements of this specification and reference documents, this specification shall take the precedence.

## 4.0 RATINGS

### 4.1 VOLTAGE

50 Volts AC (RMS) / DC

### 4.2 CURRENT

1.0 Amps per pin

### 4.3 TEMPERATURE

Operating: - 10°C to + 85°C  
 Non-Operating: -40°C to + 85°C

## 5.0 PERFORMANCE

### 5.1 ELECTRICAL REQUIREMENTS

ITEM	DESCRIPTION	TEST CONDITION	REQUIREMENT
1	Contact Resistance	Mate connector with a max. voltage of 20mV and a current of 100mA	30 milliohms max. initial 40 milliohms max after tests
2	Insulation Resistance	Apply a voltage of 500 VDC between adjacent terminals of an unmated connector	1000 Megohms min.
3	Dielectric Withstanding Voltage	Apply 500 VAC for 1 minute between adjacent terminals of an unmated connector	No breakdown

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## 5.2 MECHANICAL REQUIREMENTS

ITEM	DESCRIPTION	TEST CONDITION	REQUIREMENT
4	PCB / Module insertion force	Insert recommended PCB/Module at a rate of 25+/-6 mm per minute. See sales drawings for PCB/Modules details	Insertion: 15 kgf (33 lbs) max.
5	Durability	Mate & unmate PCB up to 25 cycles at a max. rate of 10 cycles per minute prior to environment tests.	Contact resistance: 40 milliohms max.
6	Vibration	Amplitude : 1.50mm peak to peak Sweep : 10-55-10 Hz in 1 minute Duration : 2 hrs in each X-Y-Z	Contact resistance : 40 milliohms max.  Discontinuity: No greater than 1 micro sec
7	Mechanical shock	30 g's with half sine wave form shocks pulses of 11 ms duration in each X, Y, Z-axis. Test module shall be weighted 24.76 grams +/- 10%. Module card height 25.4mm	Contact resistance : 40 milliohms max.  Discontinuity: No greater than 1 micro sec
8	Compliant pin insertion force onto PCB (single)	Insert compliant pin into applicable Tin/lead plating PCB hole at a rate of 25+/-6mm per minute.	4.54 kgf (10 lbs) max. per pin
9	Compliant pin retention force (single)	Pull compliant pin axially from Tin/lead PCB at a rate of 25+/-6 mm per minute.	0.91 kgf (2 lbs) min. per pin
10	Latch Overstress Force	Apply an actuation force on the latch at a rate of 25+/-6 mm per minute.	6.8 kgf (15 lbs) force held for 10 seconds with no damage
11	Latch Actuation Force	Apply an actuation force on the latch at a rate of 25+/-6 mm per minute with recommended test module inserted into connector	The force to fully actuate the latch shall be 4.5kgf (10 lbs) max. per latch
12	Module Ripout force	Pull up from the center of the module with the latches closed at a rate of 25+/-6 mm/min	9.10kgf (20lbs) minimum retention force of module in connector with no damage
13	Terminal retention force in housing	Apply an axial pull force on the terminal in the housing at a rate of 25+/-6 mm per minutes	0.40 kgf (0.88lbs) minimum

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## 5.3 ENVIRONMENTAL REQUIREMENTS

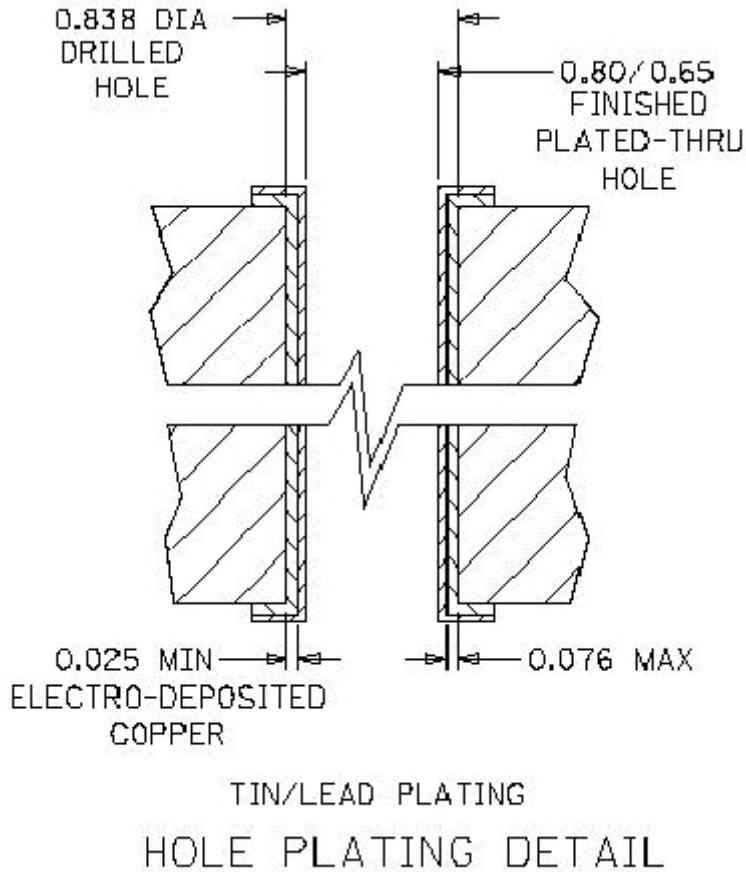
ITEM	DESCRIPTION	TEST CONDITION	REQUIREMENT
13	Thermal Shock Mil-Std-202F Method 107 E	Mate connectors exposed to 5 cycles of: <u>Temperature °C</u> <u>Duration (Min)</u> -40 +/- 3                      15 +25 +/-10                      5 max +65 +3/-0                      15 +25 +/-10                      5 max	Appearance : No damage  Contact Resistance : 40 milliohms max.
14	Thermal Aging Mil-Std-202F Method 108	Expose mated connector 240+/-10 hrs at 85 +/- 2°C	Appearance : No damage  Contact Resistance : 40 milliohms max
15	Humidity (Steady State) Mil-Std-202F Method 103	Expose mated connectors to a temperature of 50 +/- 2°C with RH of 80+/-3% for 300 hrs. Remove surface moisture and air dry for 24 hrs prior to measurement	Appearance : No damage  Contact Resistance : 40 milliohms max.  Dielectric Withstanding voltage: No breakage  Insulation Resistance: 1000 Mega ohms min.
16	Temperature Rise	Mate the connectors, series 4 contacts and measure the temperature rise at the rated current after 4 hours	Maximum temperature rise: 30°C above ambient

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## 5.4 PRINTED CIRCUIT BOARD SPECIFICATIONS



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## 6.0 TEST SEQUENCE

Test Description Sequence	Test Group									
	1	2	3	4	5	6	7	8	9	10
Visual Inspection	1	1	1	1, 5	1, 8	1	1	1, 3	1,	1
Contact Resistance	2, 4, 6	2, 4, 6	2, 4	2, 4						
Insulation Resistance					2, 6					
Dielectric withstand voltage					3, 7					
Vibration		5								
Mechanical shock	5									
Durability (4 mate/unmates)		3								
Durability (24 mate/unmates)	3									
Thermal shock			3		4					
Thermal aging				3						
Humidity					5					
Temperature Rise								2		
Compliant insertion force						2				
Compliant retention force						3				
Latch overstress force							2			
Latch actuation force							3			
PCB/Module insertion force									2	
Module Ripout force									3	
Terminal retention force										2
Sample size per test group	5	5	5	5	5	5	5	5	5	5

## 7.0 PACKAGING

Part shall be packed in trays and protected against damage during handling, transportation and storage.

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