



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



## Contact us

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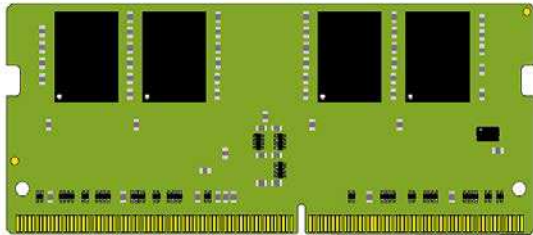
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# VL-MM10

## DDR4 SODIMM Memory Module



Actual Size

## Overview

The MM10 is a plug-in memory module that is available in 4, 8, and 16 GB size. It is available in both industrial (-40 to +85°C) and commercial (0 to 60°C) temperature ranges.

The MM10 is a JEDEC standard unbuffered PC4-17000 MB/s SO-DIMM 260-pin module.

These modules feature Serial Presence Detect (SPD) based on a serial EEPROM device, using the 2-pin I2C protocol.

## Ordering Information

Model	Memory Size	Function	Operating Temp.
VL-MM10-4EBN	4 GB	4 GB DDR4-2133 Memory Module, PC4-17000 SODIMM	-40°C to +85°C
VL-MM10-4SBN	4 GB	4 GB DDR4-2133 Memory Module, PC4-17000 SODIMM	0°C to +60°C
VL-MM10-8EBN	8 GB	8 GB DDR4-2133 Memory Module, PC4-17000 SODIMM	-40°C to +85°C
VL-MM10-8SBN	8 GB	8 GB DDR4-2133 Memory Module, PC4-17000 SODIMM	0°C to +60°C
VL-MM10-16EBN	16 GB	16 GB DDR4-2133 Memory Module, PC4-17000 SODIMM	-40°C to +85°C
VL-MM10-16SBN	16 GB	16 GB DDR4-2133 Memory Module, PC4-17000 SODIMM	0°C to +60°C

Call VersaLogic Sales at (503) 747-2261 for more information!

## Specifications

General	
<b>Module Size</b>	JEDEC standard form factor 30.0mm x 69.6mm (1.18" x 2.74") 260 pin Small Outline Dual-In-Line Memory Module (SODIMM)
<b>Power Requirements</b>	JEDEC Standard Power Supply VDD = VDDQ = 1.2V± 5% VPP = 2.5 Volt +10%/-5%
<b>Manufacturing Standards</b>	IPC-A-610 Class 2 compliant
<b>Regulatory Compliance</b>	ROHS (2002/95/CE)

Environmental			
<b>Operating Temperature</b>	<i>Model</i>	<i>Temp. Range</i>	<i>Altitude</i>
	VL-MM10-Ex	-40°C to +85°C	Derate -1.1°C per 305m (1,000 ft.) above 2,300m (7,500 ft.)*
	VL-MM10-Sx	0°C to +60°C	
<b>Storage Temperature</b>	-40° to +85°C		
<b>Altitude</b>	Operating *	To 4,570m (15,000 ft.)	
	Storage	To 12,000m (40,000 ft.)	
<b>Humidity</b>	Less than 95%, noncondensing.		
<b>Vibration, Sinusoidal Sweep †</b>	MIL-STD-202G, Method 204, Modified Condition A: 2g constant acceleration from 5 to 500 Hz, 20 min. per axis.		
<b>Vibration, Random †</b>	MIL-STD-202G, Method 214A, Condition A: 5.35g rms, 5 min. per axis.		
<b>Mechanical Shock †</b>	MIL-STD-202G, Method 213B, Condition G: 20g half-sine, 11 msec. duration per axis.		

\* For extended altitude information contact VersaLogic Sales Dept.

† MIL-STD-202G shock and vibrate levels are used to illustrate the ruggedness of this product in general. Testing to higher levels and/or different types of shock or vibration methods can be accommodated per the specific requirements of the application. Contact a VersaLogic Sales Engineer for further information.

Specifications are subject to change without notification.