# Memory Module Specifications



# KVR1066D3Q8R7S/8GI

8GB 1Gb x 72-Bit PC3-8500 CL7 Registered w/Parity 240-Pin DIMM

### **DESCRIPTION**

This document describes ValueRAM's 1Gb x 72-bit (8GB) DDR3-1066 CL7 SDRAM (Synchronous DRAM) registered w/parity, quad-rank memory module, Intel® Compatibility Tested, based on thirty-six 256M x 8-bit DDR3-1066 FBGA components. The SPD is programmed to JEDEC standard latency 1066Mhz timing of 7-7-7 at 1.5V. This 240-pin DIMM uses gold contact fingers and requires +1.5V. The electrical and mechanical specifications are as follows:

## **FEATURES**

- JEDEC standard 1.5V ± 0.075V Power Supply
- $VDDQ = 1.5V \pm 0.075V$
- 533MHz fCK for 1066Mb/sec/pin
- · 8 independent internal bank
- Programmable CAS Latency: 6,7,8,9
- Programmable Additive Latency: 0, CL 2, or CL 1 clock
- Programmable CAS Write Latency(CWL) = 6(DDR3-1066)
- · 8-bit pre-fetch
- Burst Length: 8 (Interleave without any limit, sequential with starting address "000" only), 4 with tCCD = 4 which does not allow seamless read or write [either on the fly using A12 or MRS]
- · Bi-directional Differential Data Strobe
- Internal(self) calibration: Internal self calibration through ZQ pin (RZQ: 240 ohm ± 1%)
- On Die Termination using ODT pin
- · On-DIMM thermal sensor (Grade B)
- Average Refresh Period 7.8us at lower than TCASE 85°C, 3.9us at 85°C < TCASE ≤ 95°C</li>
- · Asynchronous Reset
- PCB: Height 1.180" (30.00mm), double sided component

### **SPECIFICATIONS**

CL(IDD)	7 cycles
Row Cycle Time (tRCmin)	50.63ns (min.)
Refresh to Active/Refresh Command Time (tRFCmin)	160ns (min.)
Row Active Time (tRASmin)	37.5ns (min.)
Power	3.705 W (operating)
UL Rating	94 V - 0
Operating Temperature	0° C to 85° C
Storage Temperature	-55° C to +100° C

Continued >>

continued ValueRAM

# **MODULE DIMENSIONS:**

