

## KVR1066D3S7/4G

4GB 2Rx8 512M x 64-Bit PC3-8500  
CL7 204-Pin SODIMM

### DESCRIPTION

This document describes ValueRAM's 512M x 64-bit (4GB) DDR3-1066 CL7 SDRAM (Synchronous DRAM), 2Rx8 memory module, based on sixteen 256M x 8-bit DDR3-1333 FBGA components. The SPD is programmed to JEDEC standard latency DDR3-1066 timing of 7-7-7 at 1.5V. This 204-pin SODIMM uses gold contact fingers. The electrical and mechanical specifications are as follows:

### FEATURES

- JEDEC standard 1.5V (1.425V ~1.575V) Power Supply
- VDDQ = 1.5V (1.425V ~ 1.575V)
- 533MHz fCK for 1066Mb/sec/pin
- 8 independent internal bank
- Programmable CAS Latency: 8, 7, 6
- 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  $\pm$  1%)
- On Die Termination using ODT pin
- Average Refresh Period 7.8us at lower than TCASE 85°C, 3.9us at 85°C < TCASE  $\leq$  95°C
- Asynchronous Reset
- PCB: Height 1.18" (30mm), 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 (Operating)	1.320 W*
UL Rating	94 V - 0
Operating Temperature	0° C to 85° C
Storage Temperature	-55° C to +100° C

\*Power will vary depending on the SDRAM used.

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**MODULE DIMENSIONS:**