

KVR1333D3N9K4/32G

32GB (8GB 2Rx8 1G x 64-Bit x 4 pcs.)

PC3-10600 CL9 240-Pin DIMM Kit

Important Information: The module defined in this data sheet is one of several configurations available under this part number. While all configurations are compatible, the DRAM combination and/or the module height may vary from what is described here.

DESCRIPTION

ValueRAM's KVR1333D3N9K4/32G is a kit of four 1G x 64-bit (8GB) DDR3-1333 CL9 SDRAM (Synchronous DRAM), 2Rx8, memory modules, based on sixteen 512M x 8-bit FBGA components per module. Total kit capacity is 32GB. The SPD's are programmed to JEDEC standard latency DDR3-1333 timing of 9-9-9 at 1.5V. Each 240-pin DIMM 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)
- 667MHz fCK for 1333Mb/sec/pin
- 8 independent internal bank
- Programmable CAS Latency: 9, 8, 7, 6
- Programmable Additive Latency: 0, CL - 2, or CL - 1 clock
- Programmable CAS Write Latency(CWL) = 7 (DDR3-1333)
- 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

| | |
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| CL(IDD) | 9 cycles |
| Row Cycle Time (tRCmin) | 49.5ns (min.) |
| Refresh to Active/Refresh Command Time (tRFCmin) | 260ns (min.) |
| Row Active Time (tRASmin) | 36ns (min.) |
| Power (Operating) | 1.200W* (per module) |
| 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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The image displays two Kingston DDR3-1600 memory modules. The top module is shown from the front, featuring a green printed circuit board (PCB) with eight black memory chips arranged in two rows of four. The bottom module is shown from the back, revealing the same green PCB and chip arrangement, but with a small, circular, silver-colored component (likely a thermal pad or a small capacitor) visible in the center of the board between the two rows of chips. The Kingston logo is visible on the bottom left of the back of the module.

