

## KVR1333D3N8K2/2G

### 2GB (1GB 128M x 64-Bit x 2 pcs.) PC3-10600

### CL8 240-Pin DIMM Kit

#### DESCRIPTION:

ValueRAM's KVR1333D3N8K2/2G is a kit of two 128M x 64-bit 1GB (1024MB) DDR3-1333 CL8 SDRAM (Synchronous DRAM) memory modules, based on sixteen 64M x 8-bit DDR3-1333 FBGA components per module. The SPDs are programmed to JEDEC standard latency 1333Mhz timing of 8-8-8 at 1.5V. Each 240-pin DIMM uses gold contact fingers and requires +1.5V. The electrical and mechanical specifications are as follows:

#### FEATURES:

- ✓ JEDEC standard 1.5V  $\pm$  0.075V Power Supply
- ✓ VDDQ = 1.5V  $\pm$  0.075V
- ✓ 667MHz fCK for 1333Mb/sec/pin
- ✓ 8 independent internal bank
- ✓ Programmable CAS Latency: 5,6,7,8,9,10
- ✓ Posted CAS
- ✓ Programmable Additive Latency: 0, CL - 2, or CL - 1 clock
- ✓ Programmable CAS Write Latency(CWL) = 8(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 then TCASE 85°C, 3.9us at 85°C < TCASE . 95°C
- ✓ Asynchronous Reset
- ✓ 1066Mbps CL7 doesn't have backward compatibility with 800Mbps CL5
- ✓ PCB : Height 1.180" (30.00mm), double sided component

#### PERFORMANCE:

- |                                                    |                              |
|----------------------------------------------------|------------------------------|
| ✓ CL(IDD)                                          | 8 cycles                     |
| ✓ Row Cycle Time (tRCmin)                          | 48ns (min.)                  |
| ✓ Refresh to Active/Refresh Command Time (tRFCmin) | 90ns                         |
| ✓ Row Active Time (tRASmin)                        | 36ns (min.)                  |
| ✓ Power                                            | TBD W (operating per module) |
| ✓ UL Rating                                        | 94 V - 0                     |
| ✓ Operating Temperature                            | 0° C to 85° C                |
| ✓ Storage Temperature                              | -55° C to +100° C            |

**MODULE DIMENSIONS:**