## KVR1066D3Q8R7SK3/24G

24GB (8GB 1024M x 72-Bit x 3 pcs.) PC3-8500
CL7 Registered w/Parity 240-Pin DIMM

## DESCRIPTION

ValueRAM's KVR1066D3Q8R7SK3/24G is a kit of three 1024M x 72-bit 8GB (8192MB) DDR3-1066 CL7 SDRAM (Synchronous DRAM) registered w/parity, quad-rank memory modules, based on thirty-six 256M x 8-bit DDR3-1066 FBGA components per module. Total kit capacity is 24GB. The SPDs are programmed to JEDEC standard latency 1066 Mhz timing of $7-7-7$ at 1.5 V . Each $240-$ pin DIMM uses gold contact fingers and requires +1.5 V . The electrical and mechanical specifications are as follows:

## FEATURES

- JEDEC standard $1.5 \mathrm{~V} \pm 0.075 \mathrm{~V}$ Power Supply
- $\mathrm{VDDQ}=1.5 \mathrm{~V} \pm 0.075 \mathrm{~V}$
- 533MHz fCK for $1066 \mathrm{Mb} / \mathrm{sec} / \mathrm{pin}$
- 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 $\mathrm{tCCD}=4$ 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
- On-DIMM thermal sensor (Grade B)
- Average Refresh Period 7.8 us at lower than TCASE $85^{\circ} \mathrm{C}$, 3.9 us at $85^{\circ} \mathrm{C}<$ TCASE $\leq 95^{\circ} \mathrm{C}$
- Asynchronous Reset
- PCB : Height 1.180 " ( 30.00 mm ), double sided component


## SPECIFICATIONS

| CL(IDD) | 7 cycles |
| :--- | :--- |
| Row Cycle Time (tRCmin) | 50.63 ns (min.) |
| Refresh to Active/Refresh <br> Command Time (tRFCmin) | 160 ns (min.) |
| Row Active Time (tRASmin) | 37.5 ns (min.) |
| Power | 3.705 W (operating per module) |
| UL Rating | $94 \mathrm{~V}-0$ |
| Operating Temperature | $0^{\circ} \mathrm{C}$ to $85^{\circ} \mathrm{C}$ |
| Storage Temperature | $-55^{\circ} \mathrm{C}$ to $+100^{\circ} \mathrm{C}$ |

MODULE DIMENSIONS:

(Units = millimeters)


