

## KVR18R13S8/4KF

4GB 1Rx8 512M x 72-Bit PC3-14900  
CL13 Registered w/Parity 240-Pin DIMM

### DESCRIPTION

ValueRAM's KVR18R13S8/4 is a 512M x 72-bit (4GB) DDR3-1866 CL13 SDRAM (Synchronous DRAM), registered w/ parity, 1Rx8, ECC, memory module, based on nine 512M x 8-bit FBGA components. The SPD is programmed to JEDEC standard latency DDR3-1866 13-13-13 at 1.5V. This 240-pin DIMM uses gold contact fingers. The JEDEC standard 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)
- 933MHz fCK for 1866Mb/sec/pin
- 8 independent internal banks
- Programmable CAS latency: 13, 11, 10, 9, 8, 7, 6
- Programmable Additive Latency: 0, CL - 2, or CL - 1 clock
- 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°
- Asynchronous Reset
- PCB: Height 1.180" (30.00mm), double sided component

### SPECIFICATIONS

CL(IDD)	13 cycles
Row Cycle Time (tRCmin)	47.125ns(min.)
Refresh to Active/Refresh Command Time (tRFCmin)	260ns(min.)
Row Active Time (tRASmin)	34ns(min.)
Maximum Operating Power	3.373 W*
UL Rating	94 V - 0
Operating Temperature	0° C to +85° C
Storage Temperature	-55° C to +100° C

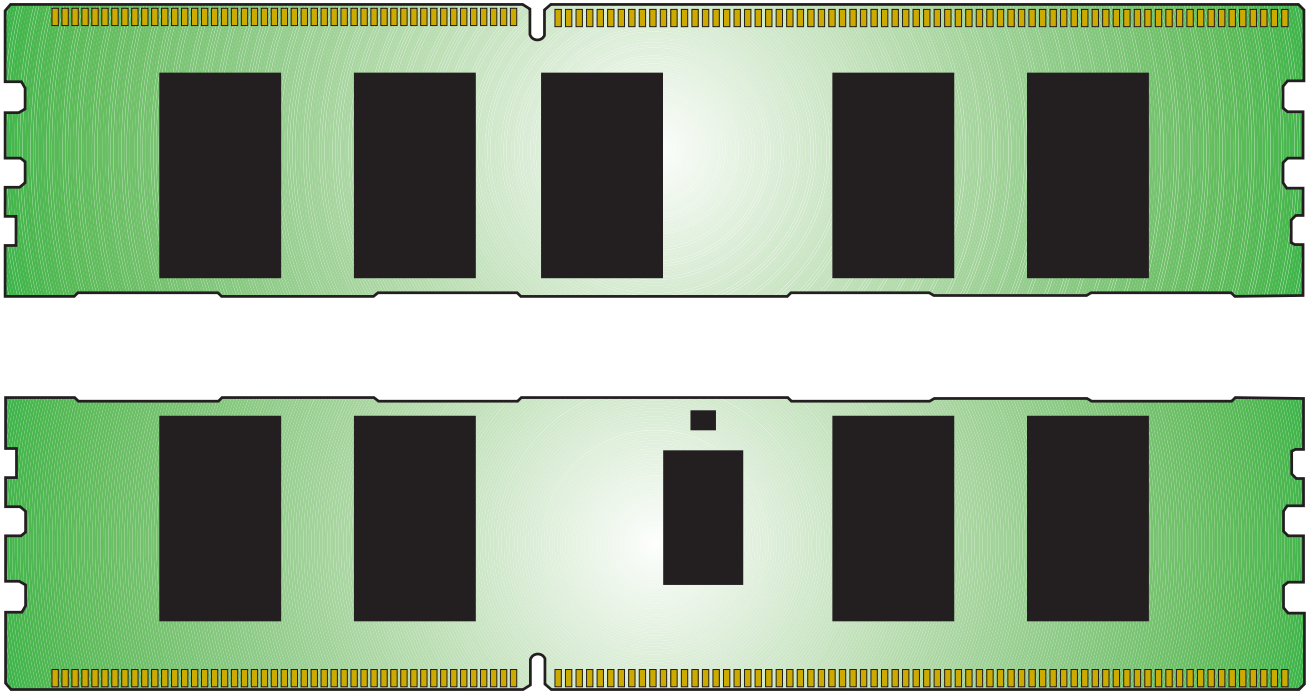
\*Power will vary depending on the SDRAM and Register/PLL Used.

### SDRAM SUPPORTED

Kingston (F-Die)
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Continued >>

### MODULE DIMENSIONS



(units = millimeters)

