

## KVR333S4R25/512

### 512MB 64M x 72-Bit DDR333

### CL2.5 Registered 184-Pin ECC DIMM

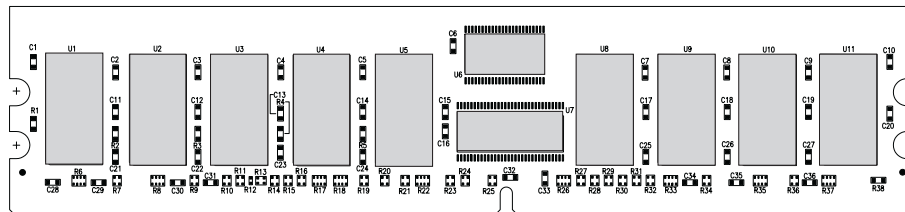
#### DESCRIPTION:

This document describes ValueRAM's 64M x 72-bit (512MB) DDR333 CL2.5 SDRAM (Synchronous DRAM) "single rank" Registered ECC memory module. The components on this module include eighteen 64M x 4-bit (16M x 4-Bit x 4 Bank) DDR333 SDRAM in BGA packages. This 184-pin DIMM uses gold contact fingers and requires +2.5V. The electrical and mechanical specifications are as follows:

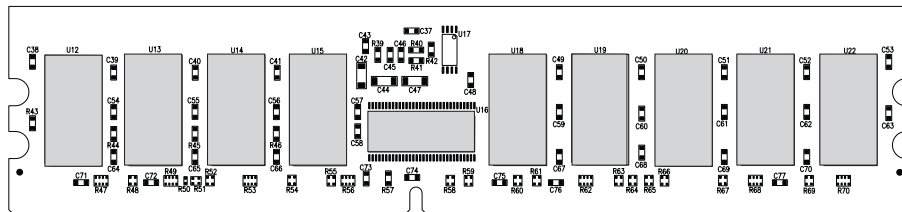
#### FEATURES:

- |                                 |                               |
|---------------------------------|-------------------------------|
| ✓ Clock Cycle Time (tCK)        | 6ns (min.) / 12ns (max.)      |
| ✓ Row Cycle Time (tRC)          | 60ns (min.)                   |
| ✓ Refresh Row Cycle Time (tRFC) | 72ns (min.)                   |
| ✓ Row Active Time (tRAS)        | 42ns (min.) / 70,000ns (max.) |
| ✓ Single Power Supply of        | +2.5V (+/- .2V)               |
| ✓ Power                         | 7.225 W (operating)           |
| ✓ UL Rating                     | 94 V - 0                      |

**Note:** 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. However, in no configuration will the module height exceed 1.200" (30.48mm).



PRIMARY SIDE



SECONDARY SIDE  
MIRRORED

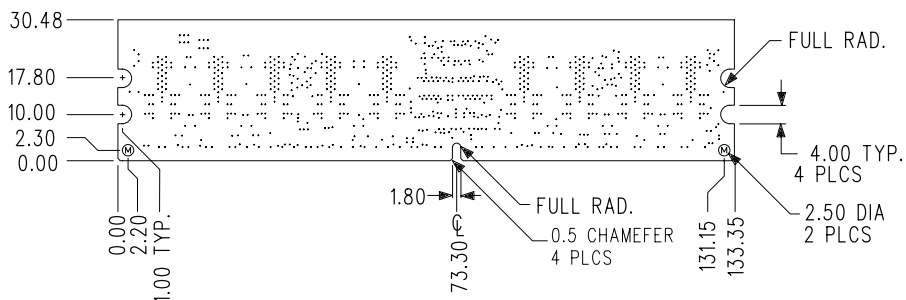


Figure 1: KVR333S4R25/512 184-Pin DIMM