KVR21SE15S8/4

4GB 1Rx8 512M x 72-Bit PC4-2133
CL15 260-Pin ECC SODIMM

DESCRIPTION

This document describes ValueRAM's 512M x 72-bit (4GB) DDR4-2133 CL15 SDRAM (Synchronous DRAM), 1Rx8, ECC, memory module, based on nine 512M x 8-bit FBGA components. The SPD is programmed to JEDEC standard latency DDR4-2133 timing of 15-15-15 at 1.2V. This 260-pin SODIMM uses gold contact fingers. The electrical and mechanical specifications are as follows:

FEATURES

- Power Supply: VDD=1.2V Typical
- VDDQ = 1.2V Typical
- VPP - 2.5V Typical
- VDDSPD=2.2V to 3.6V
- Nominal and dynamic on-die termination (ODT) for data, strobe, and mask signals
- Low-power auto self refresh (LPASR)
- Data bus inversion (DBI) for data bus
- On-die VREFDQ generation and calibration
- Single-rank
- On-board I2 serial presence-detect (SPD) EEPROM
- 16 internal banks; 4 groups of 4 banks each
- Fixed burst chop (BC) of 4 and burst length (BL) of 8 via the mode register set (MRS)
- Selectable BC4 or BL8 on-the-fly (OTF)
- Fly-by topology
- Terminated control command and address bus
- PCB: Height 1.18” (30.00mm)

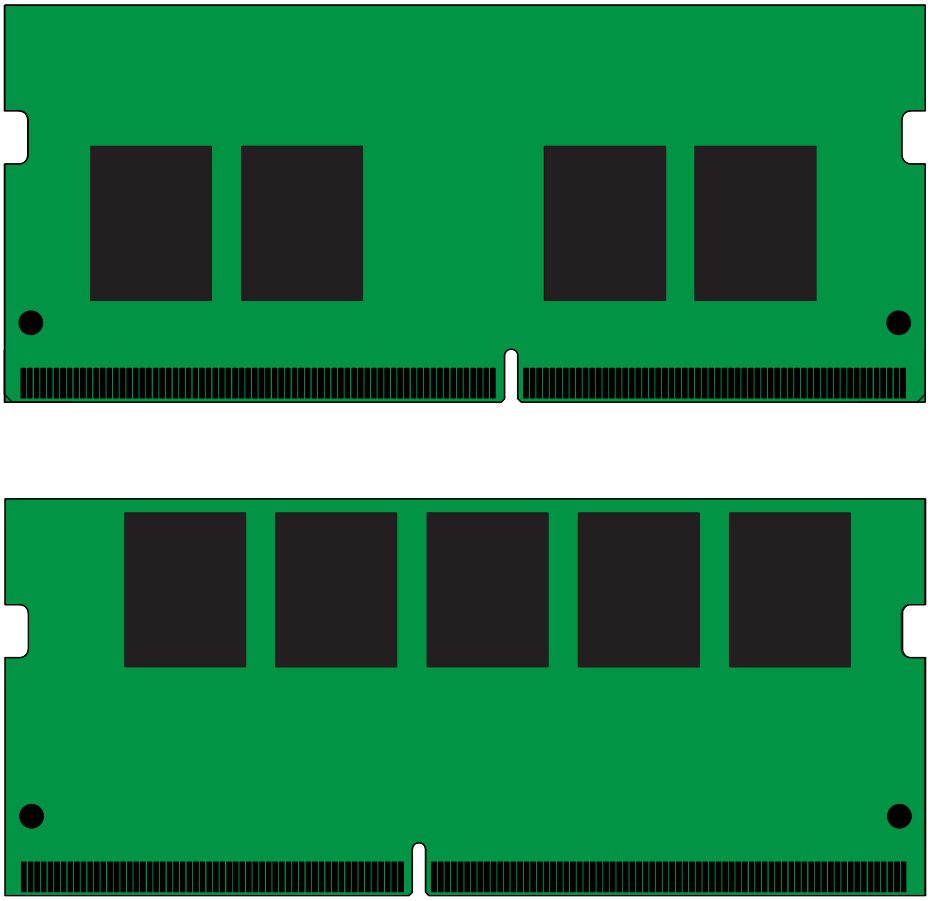
SPECIFICATIONS

CL(IDD)	15 cycles
Row Cycle Time (tRCmin)	46.5ns(min.)
Refresh to Active/Refresh Command Time (tRFCmin)	260ns(min.)
Row Active Time (tRASmin)	33ns(min.)
Maximum Operating Power	TBD 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 used.

Continued >>

MODULE DIMENSIONS



All measurements are in millimeters.

