KVR16LR11S4/8KF

8GB 1Rx4 1G x 72-Bit PC3L-12800
CL11 Registered w/Parity 240-Pin DIMM

DESCRIPTION

This document describes ValueRAM's 1G x 72-bit (8GB) DDR3L-1600 CL11 SDRAM (Synchronous DRAM), low voltage, registered w/parity, 1Rx4 ECC, memory module, based on eighteen 1G x 4-bit FBGA components. The SPD is programmed to JEDEC standard latency DDR3-1600 timing of 11-11-11 at 1.35V or 1.5V. This 240-pin DIMM uses gold contact fingers. The electrical and mechanical specifications are as follows:

FEATURES

- JEDEC standard 1.35V (1.28V ~ 1.45V) and 1.5V (1.425V ~ 1.575V) Power Supply

- VDDQ = 1.35V (1.28V ~ 1.45V) and 1.5V (1.425V ~ 1.575V)

- 800MHz fCK for 1600Mb/sec/pin

- 8 independent internal bank

- Programmable CAS Latency: 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

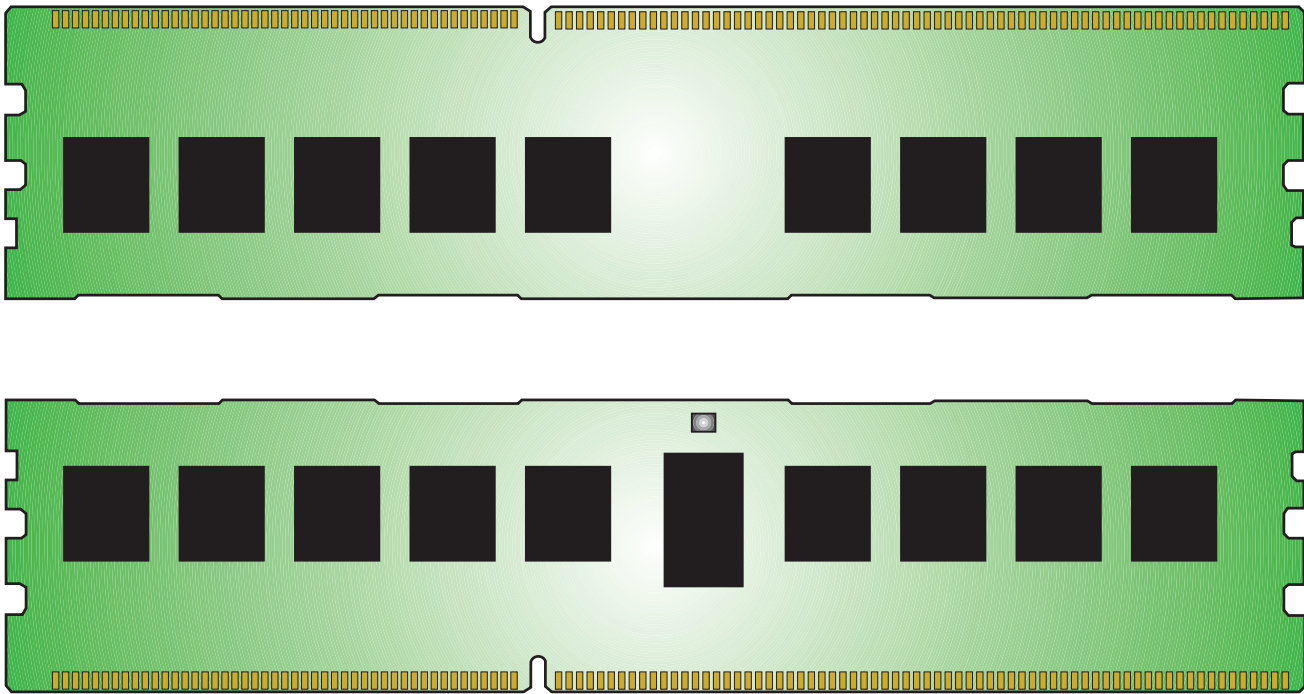|	
CL(IDD)	11 cycles
Row Cycle Time (tRCmin)	48.125ns (min.)
Refresh to Active/Refresh Command Time (tRFCmin)	260ns (min.)
Row Active Time (tRASmin)	35ns (min.)
Maximum Operating Power	(1.35V) = 4.676 W*
UL Rating	94 V - 0
Operating Temperature	0º C to 85º C
Storage Temperature	-55º C to +100º C

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

SDRAM SUPPORTED

Kingston (F-Die)

MODULE DIMENSIONS:

(units = millimeters)

R 0.65 MAX.
TYPICAL

CHAMFER 0.50 X 45 DEG.
4 PLACES

1.50 +/- 0.10

30.00
29.60x4
24.80x2
21.80x2
18.80x2
15.80x2
11.00x2
8.00x2
3.80
2.30x2
0.000

0.000
1.20
7.23
22.13
38.08
52.98
80.38
95.28
111.23
126.13
132.15
133.35

0.000
2.20
2.10
54.70
131.25
131.15