

Memory Module Specifications

KSM32RS4L/32MER

32GB 1Rx4 4G x 72-Bit PC4-3200

CL22 Registered w/Parity VLP 288-Pin DIMM

DESCRIPTION

Kingston's KSM32RS4L/32MER is a 4G x 72-bit (32GB) DDR4-3200 CL22 SDRAM (Synchronous DRAM) registered w/ parity, 1Rx4, ECC, VLP (very low profile) memory module, based on eighteen 4G x 4-bit FBGA components. The SPD is programmed to JEDEC standard latency DDR4-3200 timing of 22-22-22 at 1.2V. Each 288-pin DIMM uses gold contact fingers. The electrical and mechanical specifications are as follows:

FEATURES

- Power Supply: VDD = 1.2V
- VDDQ = 1.2V
- VPP = 2.5V
- VDDSPD = 2.41V to 2.75V
- Functionality and operations comply with the DDR4 SDRAM datasheet
- 16 internal banks
- Bank Grouping is applied, and CAS to CAS latency (tCCD_L, tCCD_S) for the banks in the same or different bank group accesses are available
- Data transfer rates: PC4-3200, PC4-2933, PC4-2666, PC4-2400, PC4-2133, PC4-1866, PC4-1600
- Bi-Directional Differential Data Strobe
- 8 bit pre-fetch
- Burst Length (BL) switch on-the-fly BL8 or BC4(Burst Chop)
- Supports ECC error correction and detection
- On-Die Termination (ODT)
- Temperature sensor with integrated SPD
- This product is in compliance with the RoHS directive.
- Per DRAM Addressability is supported
- Internal Vref DQ level generation is available
- Write CRC is supported at all speed grades
- CA parity (Command/Address Parity) mode is supported

SPECIFICATIONS

CL(IDD)	22cycles
Row Cycle Time (tRCmin)	45.75ns(min.)
Refresh to Active/Refresh Command Time (tRFCmin)	350ns(min.)
Row Active Time (tRASmin)	32ns(min.)
Maximum Operating Power	*
UL Rating	94 V - 0
Operating Temperature	0° C to +85° C
Storage Temperature	-55° C to +100° C

*See IDD Specifications (page 2)

Module Assembly

DRAM: MICRON (E-DIE)

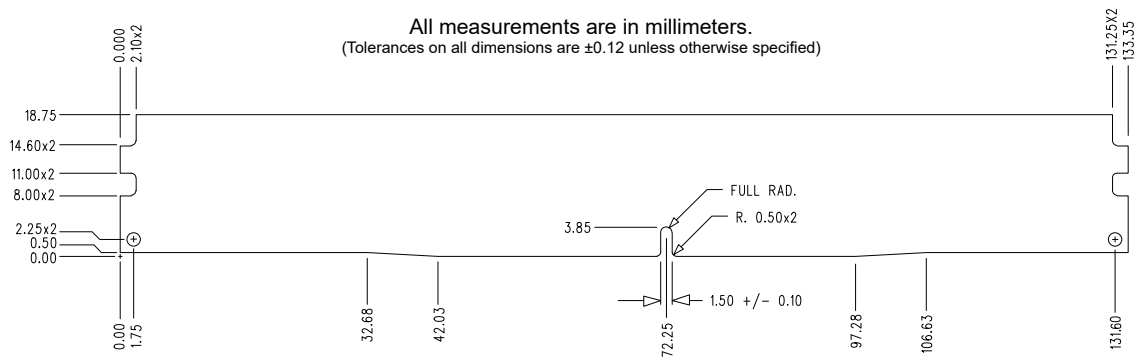
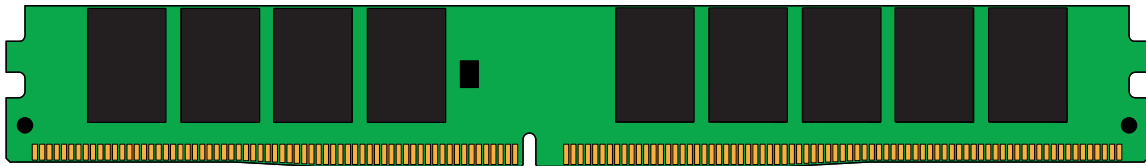
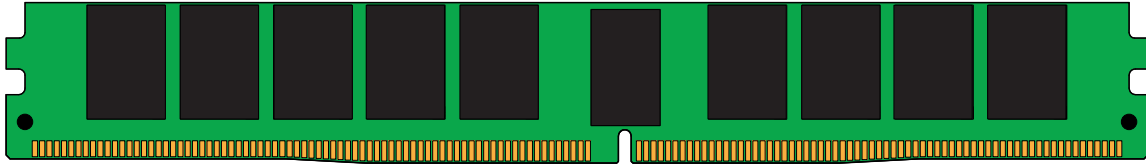
RCD: Rambus

Continued >>

IDD Specifications

Symbol	3200	Units
I _{DD0}	990	mA
I _{PP0}	54	mA
I _{DD1}	1188	mA
I _{DD2N}	810	mA
I _{DD2NT}	918	mA
I _{DD2P}	684	mA
I _{DD2Q}	756	mA
I _{DD3N}	1080	mA
I _{PP3N}	36	mA
I _{DD3P}	864	mA
I _{DD4R}	2286	mA
I _{DD4W}	1890	mA
I _{DD5R}	1224	mA
I _{PP5R}	72	mA
I _{DD6N}	954	mA
I _{DD6E}	2034	mA
I _{DD6R}	360	mA
I _{DD6A}	198	mA
I _{DD6A}	360	mA
I _{DD6A}	918	mA
I _{DD6A}	2034	mA
I _{PP6X}	108	mA
I _{DD7}	3546	mA
I _{PP7}	162	mA
I _{DD8}	648	mA

MODULE DIMENSIONS



The product images shown are for illustration purposes only and may not be an exact representation of the product. Kingston reserves the right to change any information at anytime without notice.