

Memory Module Specifications

KSM29SED8/32ME

32GB 2Rx8 4G x 72-Bit PC4-2933

CL21 260-Pin ECC SODIMM

DESCRIPTION

Kingston's KSM29SED8/32ME is a 4G x 72-bit (32GB) DDR4-2933 CL21 SDRAM (Synchronous DRAM) w/ parity, 2Rx8, ECC, memory module, based on eighteen 2G x 8-bit FBGA components. The SPD is programmed to JEDEC standard latency DDR4-2933 timing of 21-21-21 at 1.2V. Each 260-pin SODIMM 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 = 2.20V to 3.60V
- 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: PC4-2933, 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
- RoHS Compliant and Halogen-Free

SPECIFICATIONS

CL(IDD)	21 cycles
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

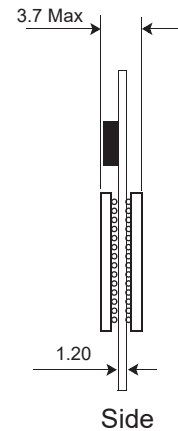
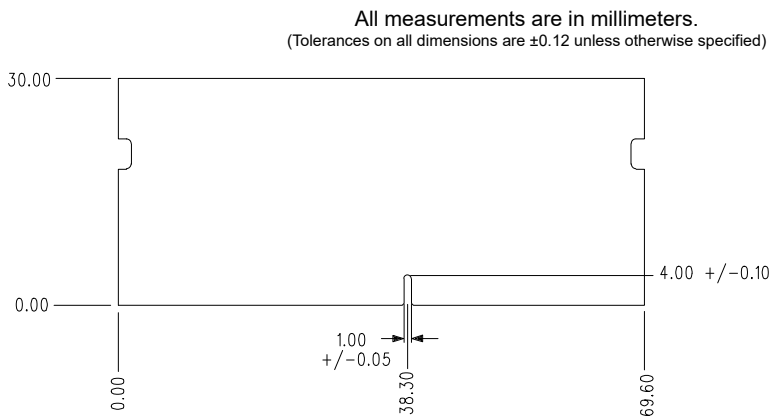
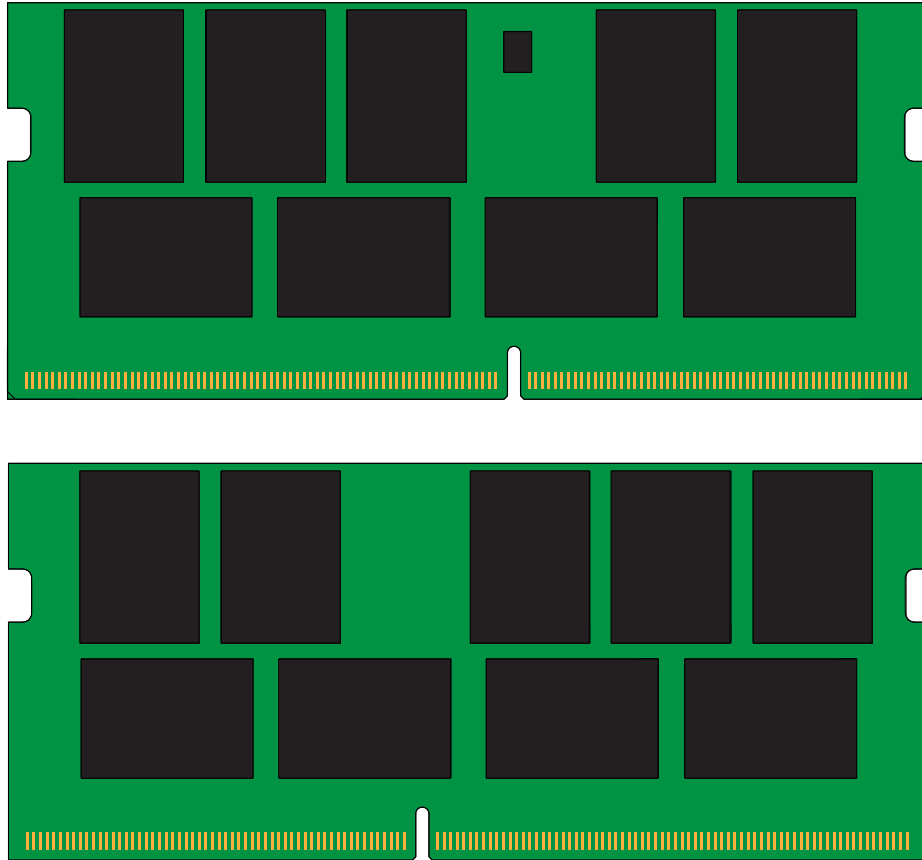
DRAM: MICRON (E-DIE)

Continued >>

IDD Specifications

Symbol	2933	Units
I _{DD0}	873	mA
I _{PP0}	45	mA
I _{DD1}	972	mA
I _{DD2N}	792	mA
I _{DD2NT}	792	mA
I _{DD2P}	684	mA
I _{DD2Q}	756	mA
I _{DD3N}	1080	mA
I _{PP3N}	36	mA
I _{DD3P}	882	mA
I _{DD4R}	1728	mA
I _{DD4W}	1449	mA
I _{DD5R}	954	mA
I _{PP5R}	54	mA
I _{DD6N}	684	mA
I _{DD6E}	2034	mA
I _{DD6R}	360	mA
I _{DD6A (25°C)}	198	mA
I _{DD6A (45°C)}	360	mA
I _{DD6A (75°C)}	918	mA
I _{DD6A (95°C)}	2034	mA
I _{PP6X}	954	mA
I _{DD7}	1989	mA
I _{PP7}	90	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.