

Memory Module Specifications

KSM29RS8/8MEI

8GB 1Rx8 1G x 72-Bit PC4-2933

CL21 Registered w/Parity 288-Pin DIMM

DESCRIPTION

Kingston's KSM29RS8/8MEI is a 1G x 72-bit (8GB) DDR4-2933 CL21 SDRAM (Synchronous DRAM) registered w/ parity, 1Rx8, ECC, memory module, based on nine 1G x 8-bit FBGA components. The SPD is programmed to JEDEC standard latency DDR4-2933 timing of 21-21-21 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 = 2.25V 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: PC4-2933, 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)	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)
RCD: IDT

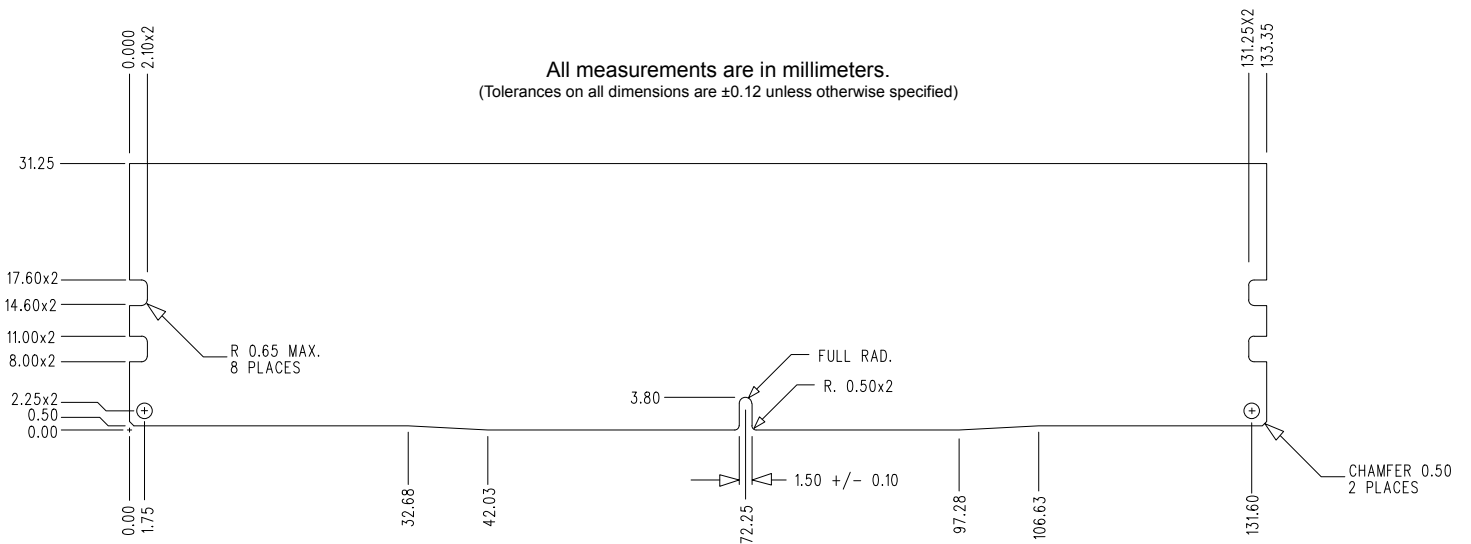
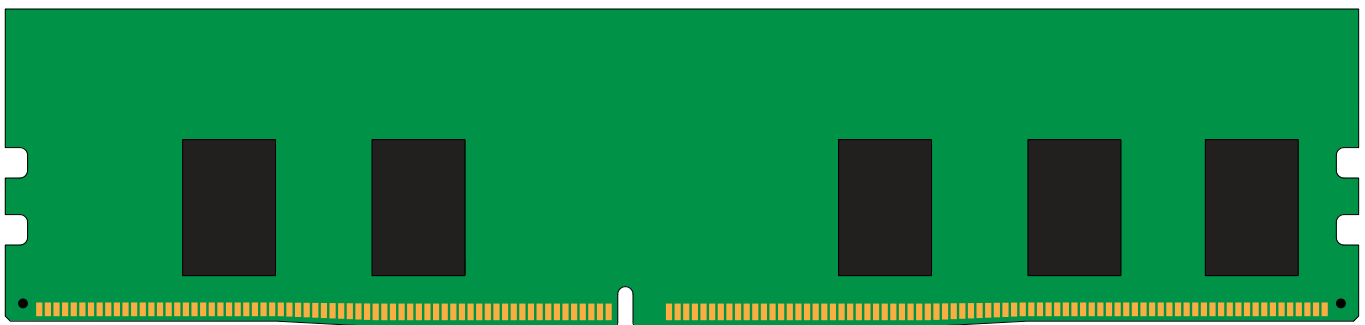
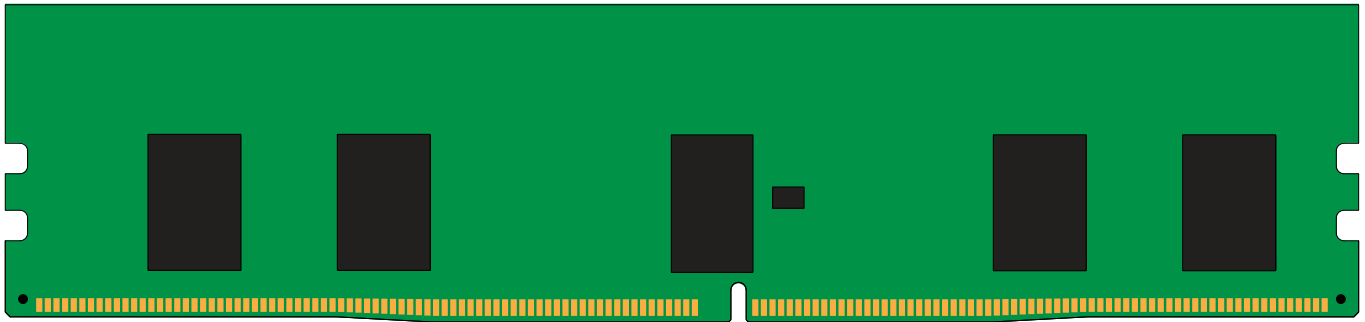
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IDD Specifications

Symbol	2933	Units
I _{DD0} ¹	405	mA
I _{PP0} ¹	27	mA
I _{DD1} ¹	549	mA
I _{DD2N} ²	288	mA
I _{DD2NT} ¹	378	mA
I _{DD2P} ²	198	mA
I _{DD2Q} ²	234	mA
I _{DD3N} ²	369	mA
I _{PP3N} ²	27	mA
I _{DD3P} ²	288	mA
I _{DD4R} ¹	1503	mA
I _{DD4W} ¹	1269	mA
I _{DD5R} ¹	441	mA
I _{PP5R} ¹	45	mA
I _{DD6N} ²	306	mA
I _{DD6E} ²	522	mA
I _{DD6R} ²	189	mA
I _{DD6A} ²	77.4	mA
I _{DD6A} ²	189	mA
I _{DD6A} ²	279	mA
I _{DD6A} ²	522	mA
I _{PP6X} ²	45	mA
I _{DD7} ¹	1665	mA
I _{PP7} ¹	117	mA
I _{DD8} ²	162	mA

Notes: 1. One module rank in the active IDD/PP, the other rank in IDD2P/PP3N.
2. All ranks in this IDD/PP condition.

MODULE DIMENSIONS



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