

Memory Module Specifications

KSM29RS8/8HDR

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

CL21 Registered w/Parity 288-Pin DIMM

DESCRIPTION

Kingston's KSM29RS8/8HDR 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 = 2.41V 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: PC4-2933, 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)	46.32ns(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: HYNIX (D-DIE)

RCD: Rambus

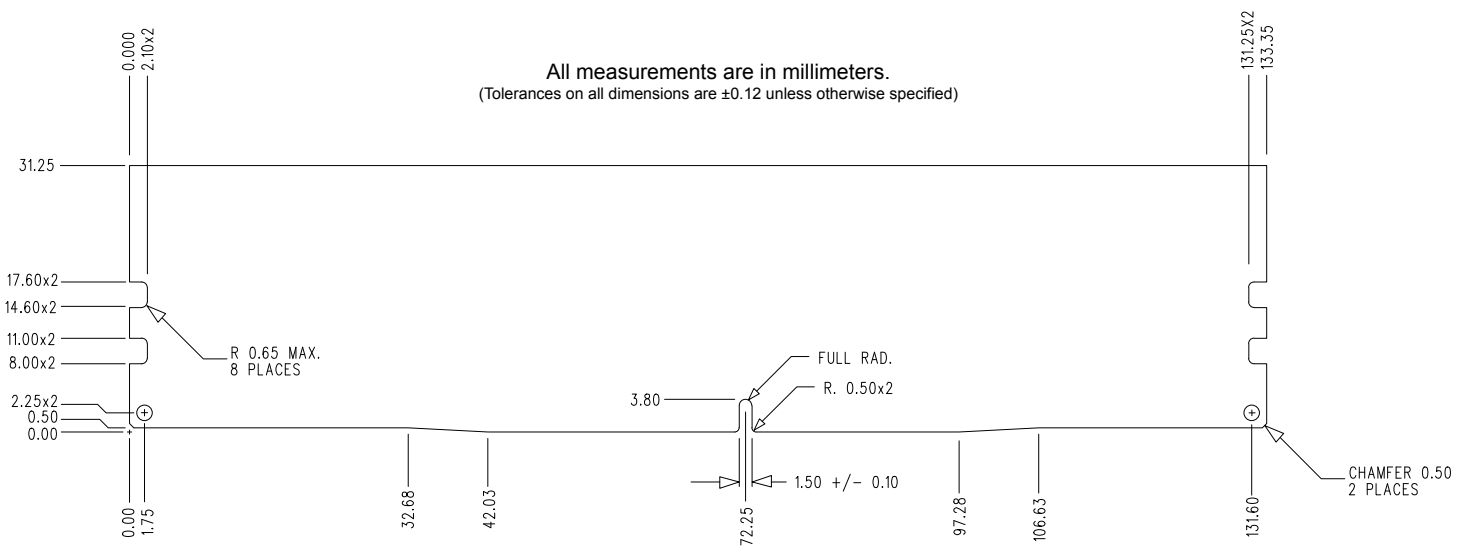
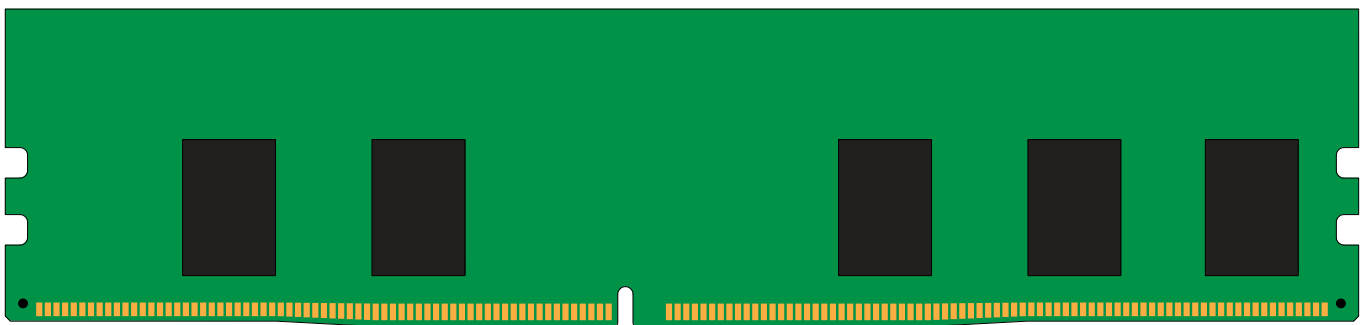
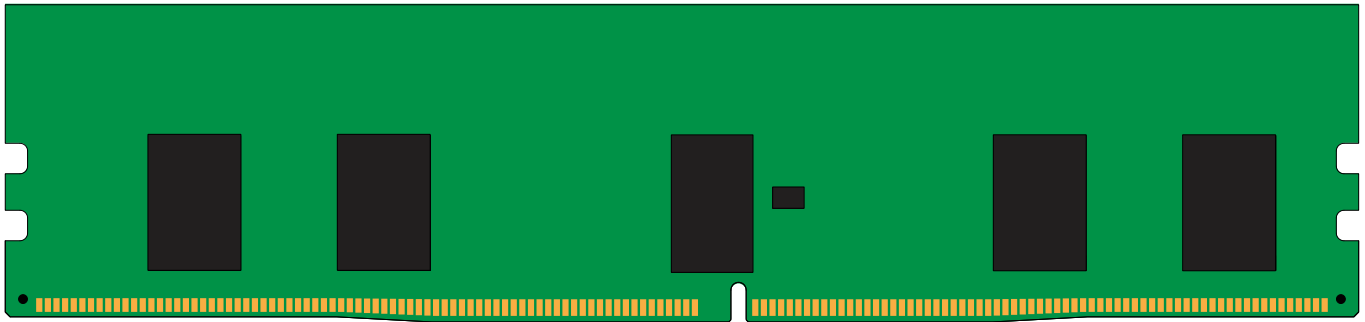
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IDD Specifications

IDD		unit
Symbol	2933	
IDD0	763	mA
IDD0A	763	mA
IDD1	869	mA
IDD1A	890	mA
IDD2N	679	mA
IDD2NA	679	mA
IDD2NT	724	mA
IDD2NL	616	mA
IDD2NG	679	mA
IDD2ND	670	mA
IDD2NP	679	mA
IDD2P	452	mA
IDD2Q	643	mA
IDD3N	720	mA
IDD3NA	720	mA
IDD3P	485	mA
IDD4R	1472	mA
IDD4RA	1499	mA
IDD4RB	1487	mA
IDD4W	1470	mA
IDD4WA	1501	mA
IDD4WB	1409	mA
IDD4WC	1452	mA
IDD4WP	1636	mA
IDD5B	2200	mA
IDD5F2	1729	mA
IDD5F4	1573	mA
IDD6N	175	mA
IDD6E	239	mA
IDD6R	115	mA
IDD6A	239	mA
IDD7	1660	mA
IDD8	92	mA

IPP		unit
Symbol	2933	
IPP0	36	mA
IPP1	40	mA
IPP2N	21	mA
IPP2P	17	mA
IPP3N	100	mA
IPP3P	98	mA
IPP4R	128	mA
IPP4W	128	mA
IPP5B	489	mA
IPP5F2	324	mA
IPP5F4	264	mA
IPP6N	37	mA
IPP6E	52	mA
IPP6R	25	mA
IPP6A	52	mA
IPP7	140	mA
IPP8	18	mA

MODULE DIMENSIONS



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