

Memory Module Specifications

KSM32SED8/32HD

32GB 2Rx8 4G x 72-Bit PC4-3200
CL22 260-Pin ECC SODIMM

DESCRIPTION

Kingston's KSM32SED8/32HD is a 4G x 72-bit (32GB) DDR4-3200 CL22 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 DDR4-3200 timing of 22-22-22 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: PC4-3200, 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
- RoHS Compliant and Halogen-Free

SPECIFICATIONS

CL(IDD)	22 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: Hynix (D-DIE)

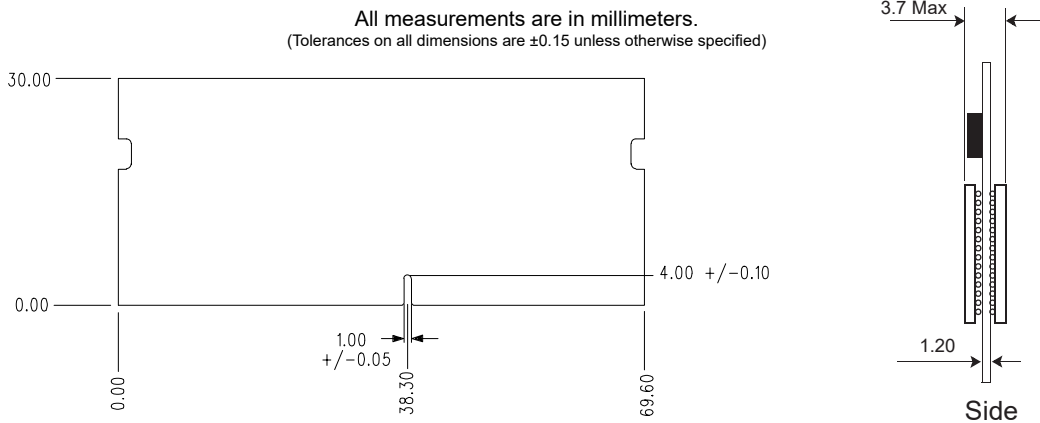
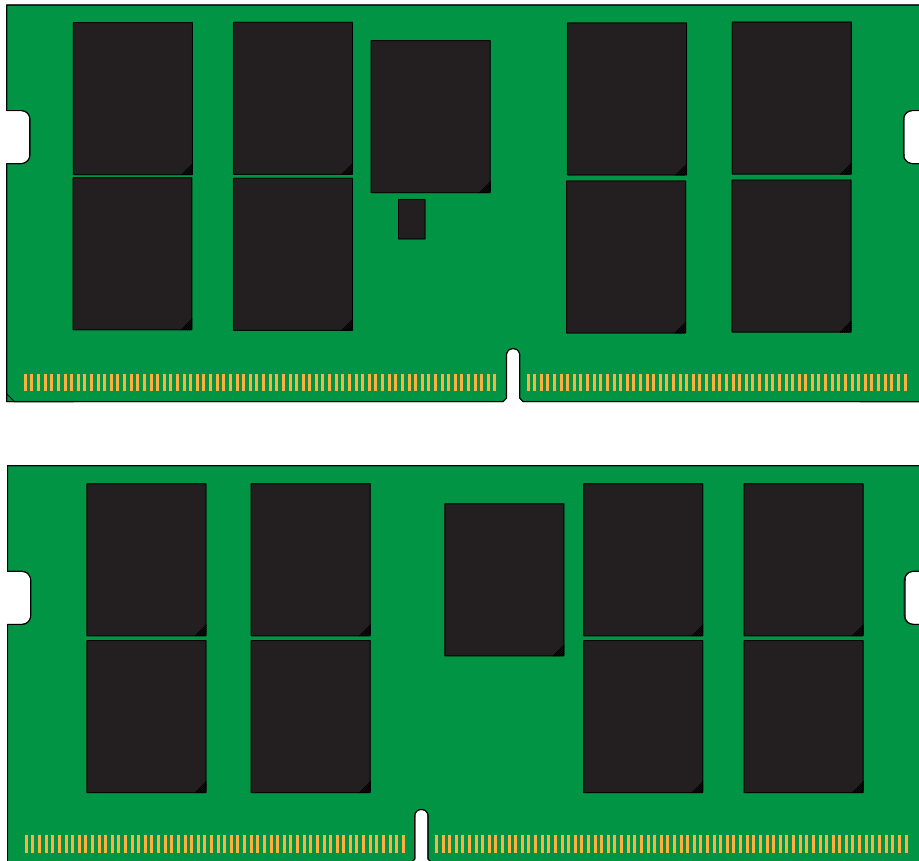
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IDD Specifications

IDD		unit
Symbol	3200	
IDD0	837	mA
IDD0A	837	mA
IDD1	927	mA
IDD1A	963	mA
IDD2N	720	mA
IDD2NA	720	mA
IDD2NT	810	mA
IDD2NL	486	mA
IDD2NG	720	mA
IDD2ND	666	mA
IDD2NP	738	mA
IDD2P	468	mA
IDD2Q	666	mA
IDD3N	1116	mA
IDD3NA	1134	mA
IDD3P	801	mA
IDD4R	1755	mA
IDD4RA	1791	mA
IDD4RB	1782	mA
IDD4W	1719	mA
IDD4WA	1764	mA
IDD4WB	1656	mA
IDD4WC	1656	mA
IDD4WP	1971	mA
IDD5B	5391	mA
IDD5F2	3843	mA
IDD5F4	3303	mA
IDD6N	720	mA
IDD6E	1224	mA
IDD6R	360	mA
IDD6A	1224	mA
IDD7	2025	mA
IDD8	252	mA

IPP		unit
Symbol	3200	
IPP0	61.2	mA
IPP1	56.7	mA
IPP2N	37.8	mA
IPP2P	34.2	mA
IPP3N	59.4	mA
IPP3P	57.6	mA
IPP4R	49.5	mA
IPP4W	52.2	mA
IPP5B	801	mA
IPP5F2	551.7	mA
IPP5F4	445.5	mA
IPP6N	108	mA
IPP6E	194.4	mA
IPP6R	52.2	mA
IPP6A	194.4	mA
IPP7	220.5	mA
IPP8	36	mA

MODULE DIMENSIONS



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