

# Memory Module Specifications

## KSM26ES8/16ME

16GB 1Rx8 2G x 72-Bit PC4-2666

CL19 288-Pin DIMM

### DESCRIPTION

Kingston's KSM26ES8/16ME is a 2G x 72-bit (16GB) DDR4-2666 CL19 SDRAM (Synchronous DRAM), 1Rx8, ECC, memory module, based on nine 2G x 8-bit FBGA components. The SPD is programmed to JEDEC standard latency DDR4-2666 timing of 19-19-19 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 Typical
- VDDQ = 1.2V Typical
- VPP = 2.5V Typical
- VDDSPD = 2.2V to 3.6V
- Nominal and dynamic on-die termination (ODT) for data, strobe, and mask signals
- Low-power auto self refresh (LPASR)
- Data bus inversion (DBI) for data bus
- On-die VREFDQ generation and calibration
- Single-rank
- On-board I2 serial presence-detect (SPD) EEPROM
- Temperature sensor with integrated SPD
- 16 internal banks; 4 groups of 4 banks each
- Fixed burst chop (BC) of 4 and burst length (BL) of 8 via the mode register set (MRS)
- Selectable BC4 or BL8 on-the-fly (OTF)
- Fly-by topology
- Terminated control command and address bus
- PCB: Height 1.23" (31.25mm)
- RoHS Compliant and Halogen-Free

### SPECIFICATIONS

CL(IDD)	19 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

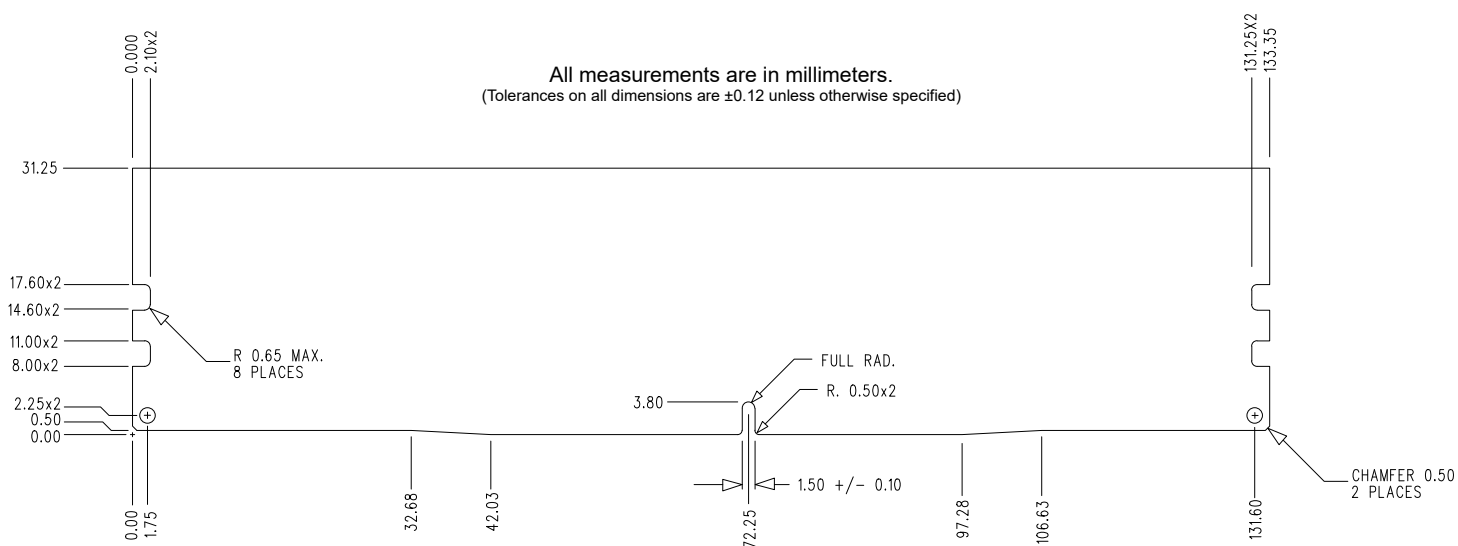
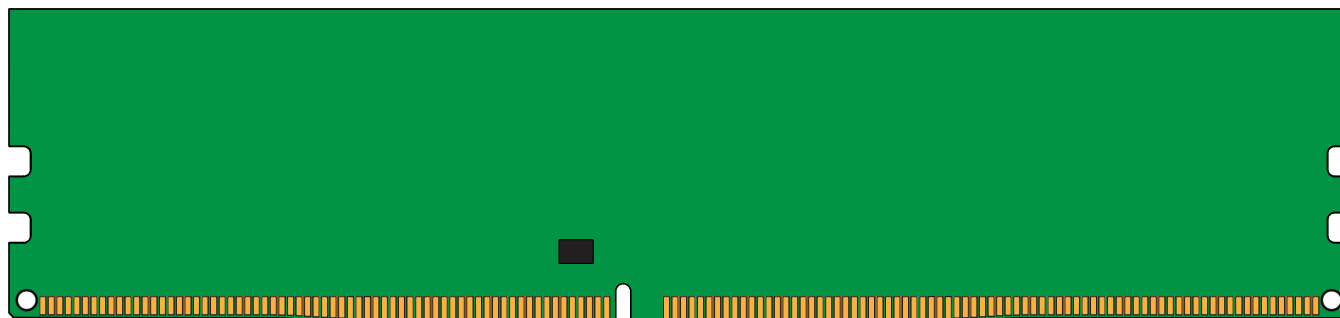
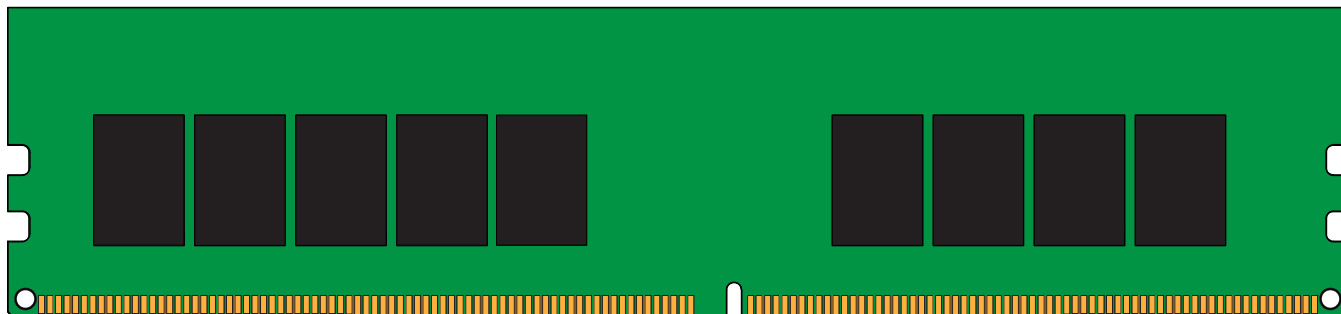
DRAM: MICRON (E-DIE)
----------------------

Continued >>

## IDD Specifications

Symbol	2666	Units
I <sub>DD0</sub>	522	mA
I <sub>PP0</sub>	27	mA
I <sub>DD1</sub>	621	mA
I <sub>DD2N</sub>	387	mA
I <sub>DD2NT</sub>	441	mA
I <sub>DD2P</sub>	342	mA
I <sub>DD2Q</sub>	378	mA
I <sub>DD3N</sub>	531	mA
I <sub>PP3N</sub>	18	mA
I <sub>DD3P</sub>	432	mA
I <sub>DD4R</sub>	1314	mA
I <sub>DD4W</sub>	1053	mA
I <sub>DD5R</sub>	612	mA
I <sub>PP5R</sub>	36	mA
I <sub>DD6N</sub>	477	mA
I <sub>DD6E</sub>	1017	mA
I <sub>DD6R</sub>	180	mA
I <sub>DD6A</sub> (25°C)	99	mA
I <sub>DD6A</sub> (45°C)	180	mA
I <sub>DD6A</sub> (75°C)	459	mA
I <sub>DD6A</sub> (95°C)	1017	mA
I <sub>PP6X</sub>	54	mA
I <sub>DD7</sub>	1629	mA
I <sub>PP7</sub>	72	mA
I <sub>DD8</sub>	324	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.