



Memory Module Specifications

NTBSD4N32SP-16

16GB (1Rx8 2G x 64-Bit) PC4-3200

CL22 260-Pin SO-DIMM

DESCRIPTION

NTBSD4N32SP-16 is a 2G x 64-bit (8GB) DDR4-3200 CL22 SDRAM (Synchronous DRAM), 1Rx8, non-ECC memory module, based on eight 2G x 8-bit FBGA components per module. The SPD is programmed to JEDEC standard latency DDR4-3200 timing of 22-22-22 at 1.2V. Each 260-pin DIMM uses gold contact fingers. The electrical and mechanical specifications are as follows:

FEATURES

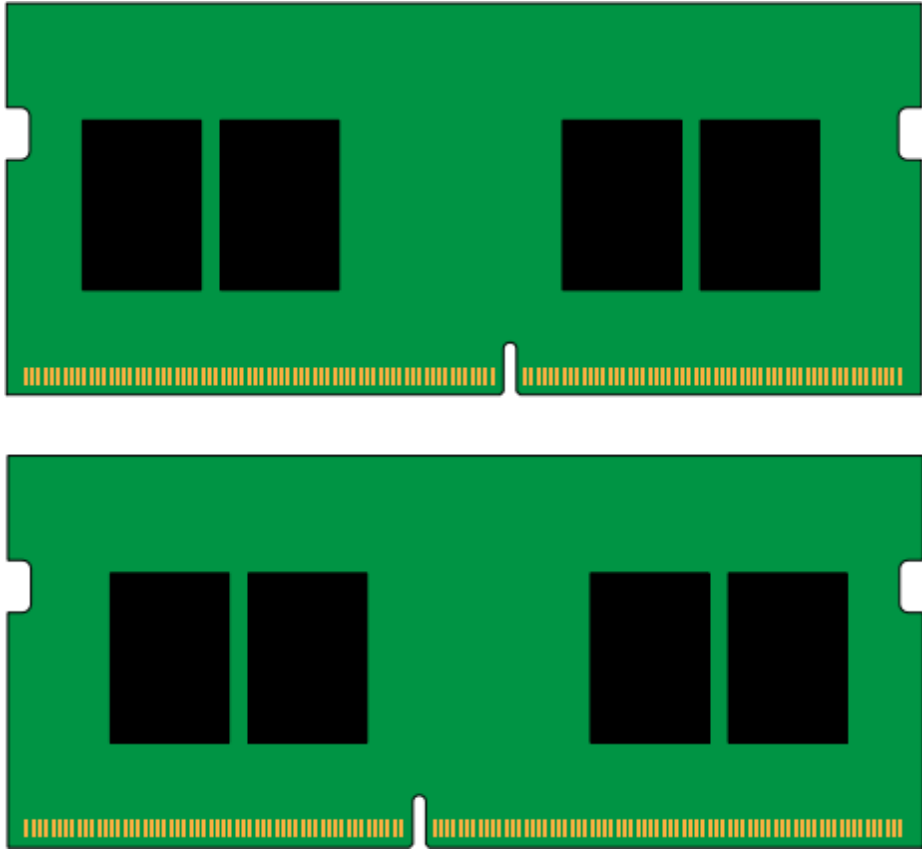
- Power Supply: VDD=1.2V Typical
- VDDQ = 1.2V Typical
- VPP - 2.5V Typical
- VDDSPD=2.2V to 3.6V
- Nominal and dynamic on-die termination (ODT) for data, strobe, and mask signals
- Low-power auto self refresh (LPASR)
- Data bus inversion (DBI) for data bus
- On-die VREFDQ generation and calibration
- Single-rank
- On-board I2 serial presence-detect (SPD) EEPROM
- 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 1.18" (30.00mm)
- RoHS Compliant and Halogen-Free

SPECIFICATIONS

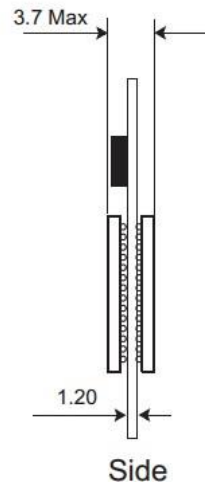
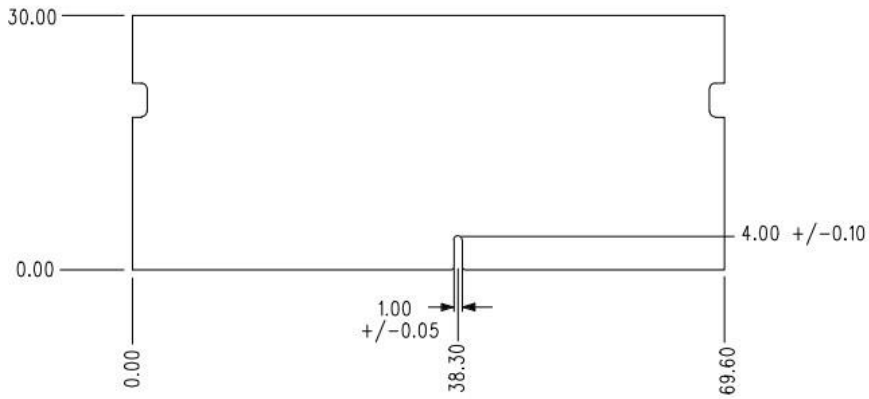
CL(IDD)	22 cycles
Row Cycle Time (tRCmin)	45.75ns(min.)
Refresh to Active/Refresh Command Time (tRFCmin)	350ns(min.)
Row Active Time (tRASmin)	32ns(min.)
Maximum Operating Power	TBD W*
UL Rating	94V-0
Operating Temperature	0° C to +70° C
Storage Temperature	-40° C to +85° C

*Power will vary depending on the SDRAM used.

MODULE DIMENSIONS



All measurements are in millimeters.
(Tolerances on all dimensions are ± 0.12 unless otherwise specified)



※Picture is for reference only!