# Netac

# **Memory Module Specifications**

## NTSRD4P32DP-16E

16GB (1Rx8 1G x 64-Bit 8GB\*2pcs.) PC4-3200 CL16 288-Pin DIMM Kit



#### DESCRIPTION

NTSRD4P32DP-16E is a kit of two 1G x 64-bit (8GB) DDR4-3200 CL16 SDRAM (Synchronous DRAM), memory module, based on eight 1G x 8-bit FBGA components per module. The SPD is programmed to latency timing of 16-20-20 at 1.35V, support XMP. Each 288-pin DIMM uses gold contact fingers. The electrical and mechanical specifications are as follows:

### **SPECIFICATIONS**

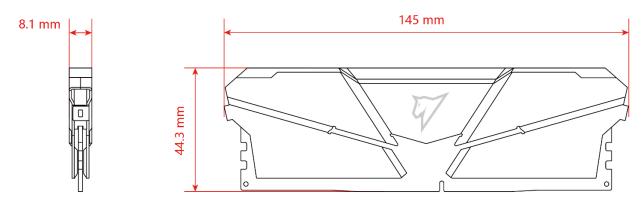
CL(IDD)	16 cycles
Row Cycle Time (tRCmin)	45.75ns(min.)
Refresh to Active/Refresh Command Time (tRFCmin)	350ns(min.)
Row Active Time (tRASmin)	32ns(min.)
Maximum Operating Power	TBD W*
UL Rating	94V-0
Operating Temperature	0° C to +70° C
Storage Temperature	-40° C to +85° C

\*Power will vary depending on the SDRAM used.

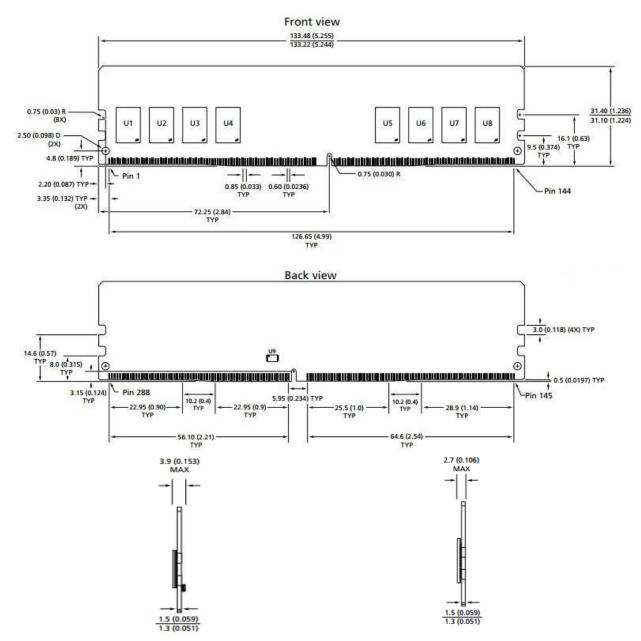
#### **FEATURES**

- Power Supply: VDD=1.35V 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
- 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 1.23" (31.25mm)
- · RoHS Compliant and Halogen-Free

#### MODULE WITH HEAT SPREADER



#### MODULE DIMENSIONS



\* The location of U9 may be on the front or on the back, Above Picture is for reference only!