

## Longline DDR4 16GB 2133MHz PC4-17000 LNGDDR4213316GB

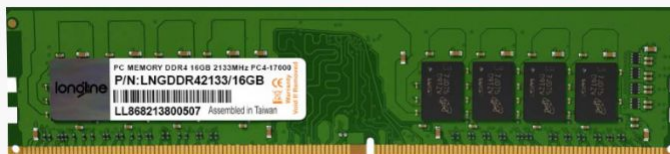
DDR4-2133 CL14 SDRAM 16GB 2G x 64-Bit

### DESCRIPTION

LonglineRAM's 2G x 64-bit (16GB) DDR4-2133 CL14 SDRAM (Synchronous DRAM) 2Rx8, memory module, based on sixteen 1G x 8-bit FBGA components per module. Each module supports Intel® Extreme Memory Profiles (Intel® XMP) 2.0. Each module has been tested to run at DDR4-2133 at a low latency timing of 14-14-14 at 1.2V. Additional timing parameters are shown in the Plug-N-Play (PnP) Timing Parameters section below. The JEDEC standard 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
- Dual-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
- Height 1.340" (34.04mm), w/ heatsink



### SPECIFICATIONS

CL(IDD)	14 cycles
Row Cycle Time (tRCmin)	46.5ns (min.)
Refresh to Active/Refresh Command Time (tRFCmin)	350ns (min.)
Row Active Time (tRASmin)	32.75ns (min.)
Maximum Operating Power	TBD W*
UL Rating	94 V - 0
Operating Temperature	0° C to 85° C
Storage Temperature	-55° C to +100° C

\*Power will vary depending on the SDRAM used.