

# Memory Module Specifications

## HX428C14PBK8/64

64GB (8GB 1G x 64-Bit x 8 pcs.)  
 DDR4-2800 CL14 288-Pin DIMM



### DESCRIPTION

HyperX HX428C14PBK8/64 is a kit of eight 1G x 64-bit (8GB) DDR4-2800 CL14 SDRAM (Synchronous DRAM) 2Rx8, memory module, based on sixteen 512M x 8-bit FBGA components per module. Each module kit supports Intel® Extreme Memory Profiles (Intel® XMP) 2.0. Total kit capacity is 64GB. Each module has been tested to run at DDR4-2800 at a low latency timing of 14-15-15 at 1.35V. The SPDs are programmed to JEDEC standard latency DDR4-2133 timing of 15-15-15 at 1.2V. Each 288-pin DIMM uses gold contact fingers. The JEDEC standard electrical and mechanical specifications are as follows:

### XMP TIMING PARAMETERS

- JEDEC: DDR4-2133 CL15-15-15 @1.2V
- XMP Profile #1: DDR4-2800 CL14-15-15 @1.35V
- XMP Profile #2: DDR4-2666 CL14-14-14 @1.35V

### SPECIFICATIONS

CL(IDD)	15 cycles
Row Cycle Time (tRCmin)	46.5ns(min.)
Refresh to Active/Refresh Command Time (tRFCmin)	260ns(min.)
Row Active Time (tRASmin)	33ns(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.

### 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 2.167" (55.05mm), w/heatsink

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