

## HX421C14FR/16

16GB 2G x 64-Bit

DDR4-2133 CL14 288-Pin DIMM



### DESCRIPTION

HyperX HX421C14FR/16 is a 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:

**Note:** The PnP feature offers a range of speed and timing options to support the widest variety of processors and chipsets. Your maximum speed will be determined by your BIOS.

### JEDEC/XMP TIMING PARAMETERS

- JEDEC/PnP: DDR4-2133 CL14-14-14 @1.2V
- XMP Profile #1: DDR4-2133 CL14-14-14 @1.2V

### 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.

### 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

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