



**DDR3 UDIMM**  
4GB-8GB  
1600MHz

# DATASHEET

## Boost your computer performance with ease

Magix's Memory Modules are designed to help your system run faster and smoother. The installation is straightforward, and no computer skills are required; if you are looking for an easy, reliable and affordable way to upgrade your system, Magix Memory Modules will definitely boost the performance.

Your programs will load faster the responsiveness will increase significantly.

Run data-intensive applications with ease, and increase your desktop's multitasking capabilities.

Magix Unbuffered DDR3 SDRAM DIMMs (Unbuffered Double Data Rate Synchronous DRAM Dual In-Line Memory Modules) are low power, high-speed operation memory modules that use DDR3 SDRAM devices. The SPD is programmed to JEDEC standard latency DDR3-1600 timing of 11-11-11 at 1.5V. Each 240-pin DIMM uses gold contact fingers. The SDRAM Unbuffered DIMM is intended for use as main memory when installed in systems such as PCs.+

## SPECIFICATIONS:

- > **Latency Timing:** 11-11-11-28
- > **Type:** DDR3 UDIMM
- > **Pins:** 240
- > **Speed:** DDR3-1600MHz
- > **Capacity:** 4GB - 8GB
- > **Plug N Play:** Yes
- > **Voltage:** 1.5V
- > **Memory Standards:** JEDEC
- > **Dimensions (mm):** 133.5\*30\*3.5mm
- > **Operating Temperature:** 0° C to +70° C
- > **Storage Temperature:** -40° C to +85° C
- > **Warranty/support\*\*\*:** Limited 10 -year warranty with free technical support
- > **Compatibility:** Backward-compatible with 1.5V operation. Refer to device specification for details and operation guidance

## OVERVIEW:

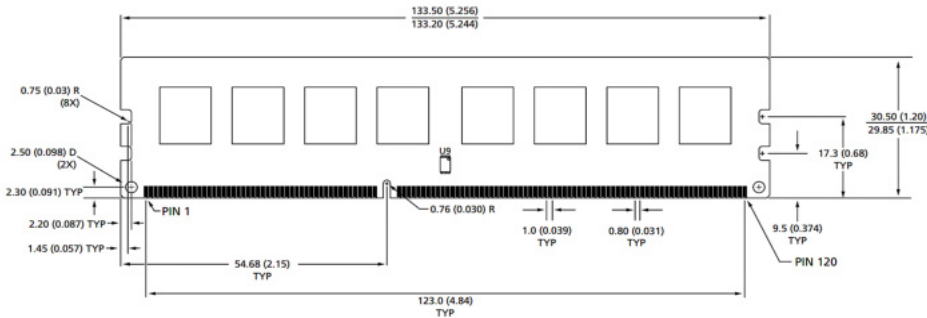
- **Power Supply:** VDD=1.5V (1.425V to 1.575V)
- **VDDQ = 1.5V (1.425V to 1.575V)**
- **800MHz fCK for 1600Mb/sec/pin**
- **8 independent internal bank**
- **Programmable CAS Latency: 11, 10, 9, 8, 7, 6**
- **Programmable Additive Latency: 0, CL - 2, or CL - 1 clock**
- **8-bit pre-fetch**
- **Burst Length: 8 (Interleave without any limit, sequential with starting address "000" only), 4 with tCCD = 4 which does not allow seamless read or write [either on the fly using A12 or MRS]**
- **Bi-directional Differential Data Strobe**
- **Internal (self) calibration; Internal self calibration through ZQ pin (RZQ: 240 ohm ± 1%)**
- **On Die Termination using ODT pin**
- **Average Refresh Period 7.8us at lower than TCASE 85°C, 3.9us at 85°C < TCASE < 95°C**
- **Asynchronous Reset**
- **Adjustable data-output drive strength**
- **Fly-by topology**
- **PCB : Height 1.18" (30mm)**
- **RoHS Compliant and Halogen-Free**



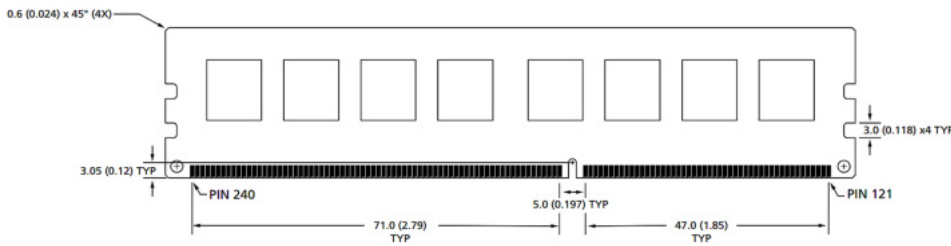
## DATASHEET

### Module dimensions:

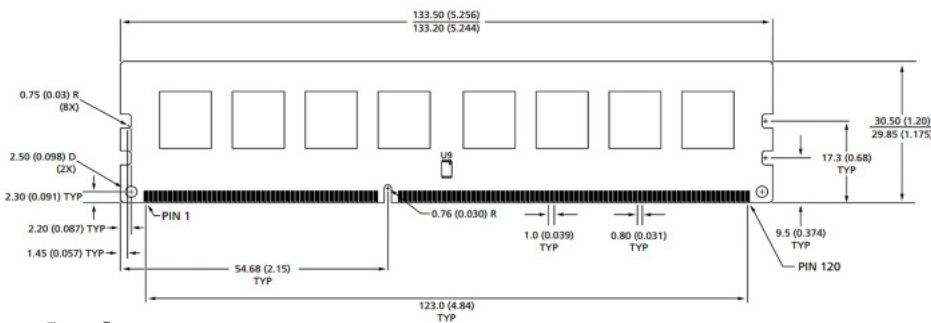
#### Front:



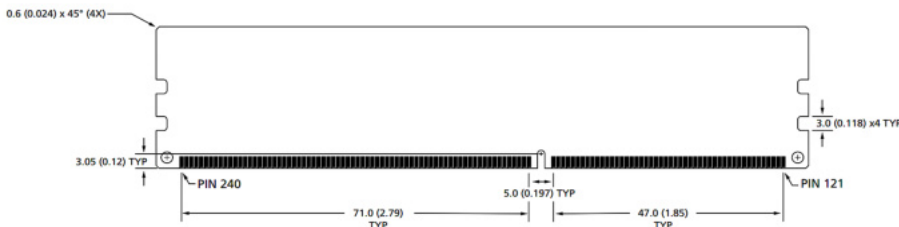
#### Back:



#### Front:



#### Back:



### Notes:

1. All dimensions are in millimeters (inches); MAX/MIN or typical (TYP) where noted.
2. Tolerance on all dimensions  $\pm 0.15$ mm unless otherwise specified.
3. The dimensional diagram is for reference only.

### MAGIX PART NUMBERS:

- > DDR3164GBU : 1600MHz 4GB
- > DDR3168GBU : 1600MHz 8GB

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\*Power will vary depending on the SDRAM used.

\*\*\* Warranty conditions on [www.magixtechnology.com/wa](http://www.magixtechnology.com/wa)