

# MR4A16B – 1M x 16 MRAM

## VERILOG Model Readme File

### Introduction

This is the VERILOG model for MR4A16B – a 1M x 16 MRAM Product from Everspin.

### Device Summary

The **MR4A16B** is a 16M-bit magneto-resistive random access memory (MRAM) device organized as 1,048,576 words of 16 bits. This device offers SRAM Compatible 35ns read/write operation and every data bit written into the memory is automatically protected in the MRAM array. Data retention of greater than 20 years is guaranteed. This device is offered in a 44 Pin TSOP II package and a 48 0.75mm Pitch BGA package.

### Model Release Notes

Product Datasheet: [http://www.everspin.com/PDF/EST\\_MR4A16B\\_prod.pdf](http://www.everspin.com/PDF/EST_MR4A16B_prod.pdf)

Model Revision: 1.0

Model Release Data: September 2010

Files

- |                     |                                 |
|---------------------|---------------------------------|
| 1. Readme_MR4A16B   | - This File                     |
| 2. MR4A16B.v        | - Device Model                  |
| 3. Config_MR4A16B.v | - File to Set Timing Parameters |

### VERILOG Model

MR4A16B.v is the abstracted model of a 1M x 16 MRAM. The model is setup for a 35ns operation.

**Warning:** These VERILOG models are provided “as is” without warranty of any kind, including, but not limited to, any implied warranty of merchantability and fitness for a particular purpose.

## Revision History

Date	Revision	Changes
9/26/2010	1.0	New Model – Initial Release

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