



**Application Note for Write Protect / Accelerated  
Program (WP# / ACC) pin  
Of EN29LV320AT/B and EN29LV640T/B**

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## APPLICATION NOTE

### 1. Basic Features of WP#/ACC pin

The WP#/ACC pin provides two functions. The Write Protect (WP#) function provides a hardware method of protecting the outermost two 8K-byte Boot Sector. The ACC function allows faster manufacturing throughput at the factory, using an external high voltage.

When WP#/ACC is Low, the device protects the outermost two 8K-byte Boot Sector; no matter the sectors are protected or unprotected using the method described in "Sector/Sector Group Protection & Chip Unprotection", Program and Erase operations in these sectors are ignored.

When WP#/ACC is High, the device reverts to the previous protection status of the outermost two 8K-byte boot sector. Program and Erase operations can now modify the data in the two outermost 8K-byte Boot Sector unless the sector is protected using Sector Protection.

When WP#/ACC is raised to  $V_{HH}$  the memory automatically enters the Unlock Bypass mode (please refer to "Command Definitions"), temporarily unprotects every protected sectors, and reduces the time required for program operation. The system would use a two-cycle program command sequence as required by the Unlock Bypass mode. When WP#/ACC returns to  $V_{IH}$  or  $V_{IL}$ , normal operation resumes. The transitions from  $V_{IH}$  or  $V_{IL}$  to  $V_{HH}$  and from  $V_{HH}$  to  $V_{IH}$  or  $V_{IL}$  must be slower than  $t_{V_{HHB}}$ , see Figure 1.



Figure 1. Accelerated Program Timing Diagram

### 2. Notes on the connection of WP#/ACC pin

Note that **the WP#/ACC pin of EN29LV320AT/B or EN29LV640T/B must not be left floating or unconnected. If it is left floating or unconnected, then the input level of WP#/Acc can possibly be treated as " Logic Low "** and the device protects the outermost two 8K-byte Boot Sector; no matter the sectors are protected or unprotected according to the description in our datasheet.

But the **WP#/ACC pin of Spansion S29GL032A or S29GL064A have an internal pull-up. Even it is floating or unconnected, it is treated as " Logic High "** The outermost two 8K-byte Boot Sector can have normal program or Erase operation.



## APPLICATION NOTE

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### Revisions List

Revision No	Description	Date
A	Initial draft	2007/12/06