



EN29LV160A Application Note

16 Megabit Flash Memory

Boot Sector Flash Memory, CMOS 3.0 Volt-only

The EN29LV160A is a high-performance 16-Megabit flash memory, which has the same features with the flash memories provided by other major vendors like AMD, Fujitsu and ST Micro. In addition to the compatibility of drop-in replacement, something has been pointed out for you to facilitate your smooth design-in.

Manufacturer ID

Eon's device uses an extended manufacturer identification code at address 100h, instead of address 000h. Thus, Address **100h = 1Ch** while Address 000h = 7Fh.

While **MX29LV160CTTC-70G** takes 0x01 as indication of device ID, and 0x00 as manufacturer ID.

Autoselect command during erase suspend mode.

The autoselect command sequence allows the host system to access the manufacturer and device codes, and determine whether or not a sector is protected. Normally, it is initiated from read mode.

In erase suspend mode while an erase operation has been suspended, the system can read data from any sector not selected for erasure. However, manufacturer and device codes **can not** be read out during this period. In other words, Autoselect command is not supported during erase suspend mode.

Multiple Sector Erasure.

Sector erase is a six bus cycle operation as defined in the datasheet of EN29LV160A. Once the sector erase operation has begun, only the erase suspend command is valid. All other commands are ignored. Therefore, only **a single sector can be specified for each sector erase command**.

Users must specify the next sector after the previous one is completed.

V_{ID} is 11.5V Max.

V_{ID} applied to enable Signature (Autoselect) and sector (un)protect modes is between **10.5V and 11.5V**. **MX29LV160CTTC-70G is 11.5V to 12.5V**.

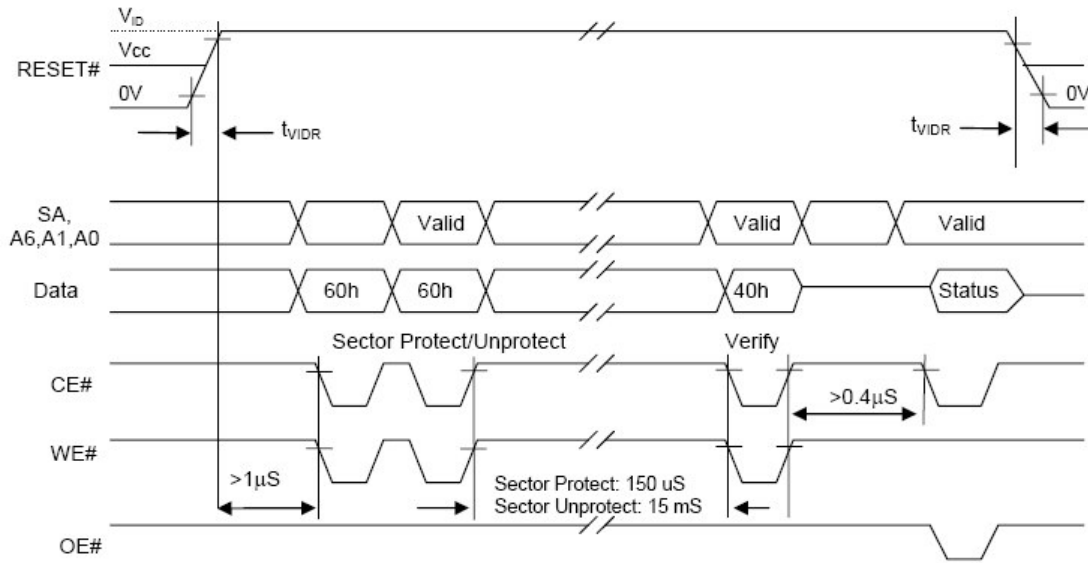
The Byte# pin switching is restricted.

The Byte# pin must not switch after V_{cc} power up, or only switch when CE# is high (device not selected) but never after an embedded operation (program/erase) has started. And, it should be at full V_{cc} or GND to avoid extra standby power.

In-system Sector (Un)Protect extra wait state.

There must be a delay between the sector (un)protect verify command (40h) and the reading of the status data, which is **longer than 0.4 μs**.

Figure 12. Sector Protect/Unprotect Timing Diagram



Notes:

Use standard microprocessor timings for this device for read and write cycles.

For Sector Protect, use A6=0, A1=1, A0=0. For Sector Unprotect, use A6=1, A1=1, A0=0.