



EN29LV640H/L VS MX29LV640BT/BB
64Mb FLASH SPEC COMPARISON

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1. Part No.

Eon : EN29LV640H/L

Macronix : MX29LV640BB/BT

2. Basic Features:

The following features are identical with each other.

- 2.1 2.7 – 3.6 Read/Program/Erase Voltage.
- 2.2 Access Time : as fast as 90 ns
- 2.3 Power consumption : as low as 9mA for typical READ.
- 2.4 JEDEC standard compatible pin-out and command sets.
- 2.5 Available package : 48-Lead TSOP.

3. Differences

3.1 Sector Structure

Eon : uniform-sectored One hundred and twenty-eight 32K-Word /64K-byte sectors.
MXIC : 8KB(4KW)x8 and 64KB(32KW)x127 (top / bottom)

3.2 Secured Silicon Sector 128-word is not supported by Eon.

3.3 Byte/Word Access

Eon : only x16
MXIC : x8 and x16 capable

3.4 Manufacturer ID

Eon's device uses an extended manufacturer identification code at address 100h , instead of address 000h. Thus, on address 100h, the output is 1Ch ;while on address 000h, the output is 7Fh.



3.5 Device ID

Device ID of EN29LV640 is 227Eh at address 01h.
MX29LV640BT/BB has the IDs of *C9/CBh(Top/Bottom)*.

3.6 Autoselect command during erase suspend mode.

The auto-select 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. For EN29LV640, 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 by writing auto-select command sequence during this period. In other words, Auto-select command is not supported during erase suspend mode in EN29LV640, however MX29LV640BB/BT supports it.

3.7 Continuous Sector Erasure.

Sector erase is a six bus cycle operation as defined in the datasheet of EN29LV640. Once the sector erase operation has begun, only the erase suspend command is valid. All other commands are ignored. Unlike the devices from other vendors, only *a single sector can be specified for each sector erase command*.

Users must issue another sector erase command for the next sector to be erased after the previous one is completed.

3.8 V_{ID} and V_{HH} is 11.5V Max.

V_{ID} applied to enable Signature (Auto-select) and sector(group) protection and V_{HH} applied to Accelerated Program are between *10.5V and 11.5V*. The same parameters for MX29LV640BB/BT are 11.5V to 12.5V.

Any voltage level higher than 11.5V would damage the device.

4. Conclusion

If boot-sectored feature is not a major issue for your application, the other differences could be neglected. Moreover Eon has faster word program time(8 μ s)and sector erase time(500ms), which is more useful in practice.



Revisions History

Revision No	Description	Date
A	Initial Release.	2006/01/02