

Migrating to MX29LV320E from MX29LV320D

1. Introduction

This application note describes the major differences between MX29LV320E and MX29LV320D. All the information in this document is based on the latest datasheet of the MX29LV320E and it will be subject to change if there are any discrepancies occurred.

2. Feature Comparison:

Part Number		MX29LV320D		MX29LV320E	
Voltage		2.7~3.6 V		2.7~3.6 V	
Package		44-SOP 48-TSOP (12x20mm) 48-TFGBA/LFBGA (6x8mm)		44-SOP 48-TSOP (12x20mm) 48-TFGBA/LFBGA (6x8mm)	
Feature					
Sector Architecture		8KBx8 + 64KBx63		8KBx8 + 64KBx63	
Configuration		x8 / x16		x8 / x16	
Boot Block		Top/Bottom		Top/Bottom	
CFI (Common Flash Interface)		Yes		Yes	
Security Sector		64K bytes		256 bytes	
Parameter		Typ.	Max.	Typ.	Max.
Access Time (Taa)	ns		70/90		70
Word Program Time	ns	11	360	11	360
Chip Program Time	sec	24	72	24	72
Sector Erase Time	sec	0.7	2	0.7	2
Chip Erase Time	sec	35	50	35	50
Erase/Program Cycle	cycles	100,000		100,000	

3. DC Specifications:

Parameter	MX29LV320D	MX29LV320E
Icr1, Read current(5MHz,mA)	16 (Max.)	16 (Max.)
Icr2, Read current(1MHz,mA)	4 (Max.)	4 (Max.)
Isb, Standby current(uA)	15 (Max.)	15 (Max.)
Isbr, Reset current	15(Max.)	15 (Max.)

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4. AC/DC Specifications:

Parameter	MX29LV320D	MX29LV320E
Taa, Valid data output after address (ns)	70 (Max.)	70 (Max.)
Tce, Valid data output after CE# low (ns)	70 (Max.)	70 (Max.)
Toe, Valid data output after OE# low (ns)	30 (Max.)	30 (Max.)
Trc, Read period time (ns)	70 (Min.)	70 (Min.)
Twc, Write period time (ns)	70 (Min.)	70 (Min.)
Tcwc, Command period time (ns)	70 (Min.)	70 (Min.)

5. Manufacturer ID & Device ID Comparison:

Part Number	MX29LV320D	MX29LV320E
Manufacturer ID	00C2h	00C2h
Device ID (T/B)	22A7h (Top) 22A8h (Bottom)	22A7h (Top) 22A8h (Bottom)

6. Software Notices:

The MX29LV320E provides smaller security sector size (256 bytes) than MX29LV320D (64K bytes). Other than that, the software commands are all the same as MX29LV320D.

7. References:

The following datasheets were used for preparing this comparison notes:

Datasheet	Location	Date Issued	Versions
MX29LV320D	Macronix Website	Oct. 02, 2009	1.2
MX29LV320E	Macronix Website	Jun. 14, 2010	1.1

For more functional and parametric specifications, please refer to the datasheet on the Macronix Website at <http://www.macronix.com/> and go to: Products/Flash Memory/Parallel Flash.

REVISION HISTORY

Revision No.	Description	Page	Date
1.0	1. Modified DC Specifications	P1	JUN/29/2010
1.1	1. Sector Architecture for both models: 16KB+8KBx2+32KB + 64KBx63 revised to 8KBx8 + 64KBx63	P1	AUG/23/2010



APPLICATION NOTE

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