EN29LV320A V.S. S29GL032N
Specification Comparison

Issued Date :	**2008/08/20**
Prepared By :	**FAE : Brian Hsieh**
Approved By :	**FAE Manager :Jason Tseng**

1. Part No.

Eon : **EN29LV320A**

Spansion : **S29GL032N**

2. Basic Features:

The following features are identical with each other.

- **2.1** **2.7 – 3.6 Read/Program/Erase Voltage.**
- **2.2** **JEDEC standard compatible pin-out and command sets.**
- **2.3** **Available package : 48-TSOP and FBGA.**
- **2.4** **x8 and x16 capable**

3. Difference Comparison Table:

Item	EN29LV032A	S29GL032N
Access time	70ns	90ns
sector architecture	32Kword x 63 sectors + 4Kword x 8 boot sectors at Top or Bottom	Uniform sector models: 32Kword x 64 sectors Boot sector models: 32Kword x 63 sectors + 4Kword x 8 boot sectors at Top or Bottom
Auto-select command (during erase suspend mode)	No supported	Supported
Page Read & Write buffer	No supported	8-word/16-byte page read buffer and 16-word/32-byte write buffer
Continuous Sector Erasure	No supported. Users must issue another sector erase command for the next sector to be erased after the previous one is completed for EN29LV320A.	Supported
VID and VHH Max	10.5V - 11.5V (Any voltage level higher than 11.5V would damage the device.)	11.5V - 12.5V
WP#	The WP#/ACC pin must **not** be left floating or unconnected.	The WP#/ACC contains an internal pull-up when unconnected
Secured Silicon Sector	No supported	128-word

Note: S29GL032N WP#/ACC pin contains internal pull-up; when unconnected, WP#/ACC is at V_{IH} to write unprotect. But EON Flash WP#/ACC pin can't leave floating and need to input V_{IH} or V_{IL}.

4. Autoselect Codes table Comparison:

EN29LV032A:

Description		CE#	OE#	WE#	A20 to A12	A11 to A10	A9[2]	A8	A7	A6	A5 to A2	A1	A0	DQ8 to DQ15	DQ7 to DQ0
Manufacturer ID: Eon		L	L	H	X	X	V_{ID}	H[1]	X	L	X	L	L	X	1Ch
								L							7Fh
Device ID (top boot sector)	Word	L	L	H	X	X	V_{ID}	X	X	L	X	L	H	22h	F6h
	Byte	L	L	H										X	F6h
Device ID (bottom boot sector)	Word	L	L	H	X	X	V_{ID}	X	X	L	X	L	H	22h	F9h
	Byte	L	L	H										X	F9h
Sector Protection Verification		L	L	H	SA	X	V_{ID}	X	X	L	X	H	L	X	01h (Protected)
														X	00h (Unprotected)

L=logic low= V_{IL}, H=Logic High= V_{IH}, V_{ID} =11 ± 0.5V, X=Don't Care (either L or H, but not floating!), SA=Sector Addresses

Note:
1. A8=H is recommended for Manufacturing ID check. If a manufacturing ID is read with A8=L, the chip will output a configuration code 7Fh.
2. A9 = V_{ID} is for HV A9 Autoselect mode only. A9 must be ≤ Vcc (CMOS logic level) for Command Autoselect Mode.

S29GL032N :

Table 8.9 Autoselect Codes, (High Voltage Method)

Description		CE#	OE#	WE#	A_{max} to A15	A14 to A10	A9	A8 to A7	A6	A5 to A4	A3 to A2	A1	A0	DQ8 to DQ15		DQ7 to DQ0 Model Number		
														BYTE# = V_{IH}	BYTE# = V_{IL}	01, 02 V1, V2	03, 04	06, 07, V6, V7
Manufacturer ID: Spansion Products		L	L	H	X	X	V_{ID}	X	L	X	L	L	L	00	X	01h	01h	01h
S29GL064N	Cycle 1	L	L	H	X	X	V_{ID}	X	L	X	L	L	H	22	X	7Eh	7Eh	7Eh
	Cycle 2										H	H	L	22	X	0Ch	10h	13h
	Cycle 3										H	H	H	22	X	01h	00h (04, bottom boot) 01h (03, top boot)	01h
S29GL032N	Cycle 1	L	L	H	X	X	V_{ID}	X	L	X	L	L	H	22	X	7Eh	7Eh	
	Cycle 2										H	H	L	22	X	1Dh	1Ah	
	Cycle 3										H	H	H	22	X	00h	00h (04, bottom boot) 01h (03, top boot)	
Sector Protection Verification		L	L	H	SA	X	V_{ID}	X	L	X	L	H	L	X	X	01h (protected), 00h (unprotected)		
Secured Silicon Sector Indicator Bit (DQ7), WP# protects highest address sector		L	L	H	X	X	V_{ID}	X	L	X	L	H	H	X	X	For S29GL064N and S29GL032N: 9A (factory locked), 1A (not factory locked)		
Secured Silicon Sector Indicator Bit (DQ7), WP# protects lowest address sector		L	L	H	X	X	V_{ID}	X	L	X	L	H	H	X	X	For S29GL064N and S29GL032N: 8A (factory locked), 0A (not factory locked)		