



## Specification Comparison

### **64Mbit (4 x 16-Bit) CMOS 3.0 Volt- only, Simultaneous-Read/Write Flash Memory**

**EN29PL064 VS S29PL064J**

<b>Part No. :</b>	<b>EN29PL064</b>
<b>Issued date :</b>	<b>2008 / 01 / 22</b>
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## 1. Part No.

**Eon** : **EN29PL064**  
**Spanion** : **S29PL064J**

## 2. Basic Features:

The following features are identical with each other.

- 2.7 – 3.6 Simultaneous Read/Write Voltage.
- Boot Sectors and FlexBank Architecture
- CFI (Common Flash Interface) compliant
- Erase and Program Suspend / Resume
- Unlock Bypass Program
- WP# / ACC (Write Protect/Acceleration)
- Persistent Protection Bit (PPB) and PPB Lock Bit
- High Voltage Sector Protection and Temporary Sector Unprotect
- JEDEC standard compatible pin-out and command sets

## 3. Difference and Comparison Table :

- Page read size
- Multi sector Erase
- ACCelerated Sector Erase
- Write Buffer Programming
- Dynamic Protection Bit (DYB)
- Manufacture ID
- Password Sector Protection



## Comparison table:

	<b>S29PL064J</b>	<b>EN29PL064</b>
	64 Megabit (4 M x 16-Bit), 3 Volt Simultaneous Read/Write	
<b>Vcc</b>	2.7V to 3.6V	
<b>VID</b>	11.5 to 12.5	8.5 - 9.5
<b>VHH</b>	8.5 - 9.5	
<b>Process</b>	0.11um	0.13um
<b>SO</b>	Read while Write	
<b>Page read</b>	8-word	4-word
<b>Secure Si</b>	64 words factory + 64 words user	64 words user
<b>Boot Sectors</b>	4 Kword x 16 boot sectors, 8 at the top and 8 at the bottom	
<b>FlexBank Architecture</b>	4 Banks: 8M, 24M, 24M, 8M	32Kword regular sector
<b>Data retention</b>	20 yrs typical	
<b>Cycling Endurance</b>	1,000,000	100,000
<b>V<sub>IO</sub></b>	Yes, V <sub>IO</sub> = Vcc	No
<b>Page access time</b>	20ns	
<b>Random access time</b>	70ns	70ns
<b>CFI</b>	Yes. Spansion's CFI table	Yes. EoN's CFI table
<b>Erase/Program Suspend/Resume</b>	Yes	
<b>Unlock Bypass Program</b>	Yes	
<b>Multi sector erase</b>	Yes	No
<b>WP#/ACC</b>	@ VIL: WP# protect four outermost sectors @ VIH: Normal operation @ VHH: accelerated programming	
<b>ACCElerrated Sector Erase</b>	No	Yes, about 40mS faster per sector
<b>Write Buffer Programming</b>	No	32-word Write Buffer
<b>Word Pgm time</b>	6us (typ.)	6us (typ.)
<b>Acc. Word Pgm time</b>	4us (typ.)	4us (typ.)
<b>Sector Erase time</b>	0.5s (typ.)	0.5s (typ.)
<b>Chip Erase time</b>	71s (typ.)	71s (typ.)



	S29PL064J	EN29PL064
	64 Megabit (4 M x 16-Bit), 3 Volt Simultaneous Read/Write	
Persistent Protection Bit (PPB)	Yes. 1 per sector for sector 0 to 10 and 131 to 141, 1 per 4 sectors for the rest	
PPB Lock Bit	Yes	
Dynamic Protectn Bit (DYB)	Yes (1 per sectors)	No
Password Sector Protection	user-defined 64-bit password	No
High Voltage Sector Protection	Yes	
Temporary Sector Unprotect	Yes	

Autoselect	A9 HV Autoselect	Yes	Yes
	MID (addr 000h)	0001	007F
	MID (addr 100h)		001C
	DID (addr 01h)	227E	
	DID (addr 0Eh)	2202	2202
	DID (addr 0Fh)	2201	2201
	Addr 03h	DQ7=1: Factory locked DQ6=1: Factory & Customer locked	DQ7=1 DQ6=1: Customer locked
	PPB CAM status wait state	Tacc	200ns

#### 4. Conclusion

To replace EN29PL064 with S29PL064J, most function and package are compatible.  
Only need to take care the following

(1). The Manufacture ID

EN29PL064: 007F ( A8 = L ) or 001CH (A8 = H )

S29PL064J: 0001H

(2). Page read size

EN29PL064: 4 Words page

S29PL064J: 8 Words page

(3). Multi sector Erase

EN29PL064: No

S29PL064J: Yes