



# EN29LV640T/B V.S. AT49BV642DT Specification Comparison

<b>Part No. :</b>	<b>EN29LV640T/B</b>
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## 1. Part No.

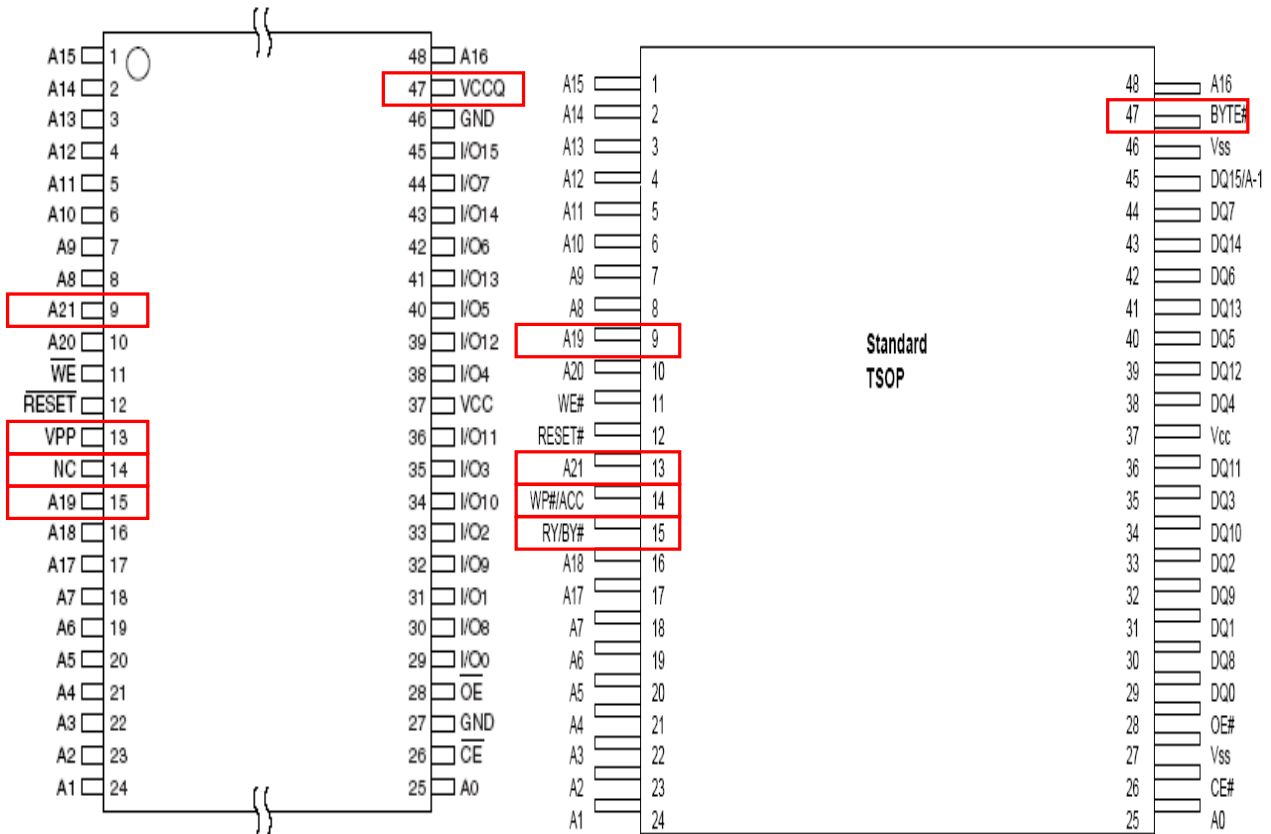
**Eon** : **EN29LV640T/B**  
**ATMEL** : **AT49BV642DT**

## 2. Function Difference Comparison Table:

	<b>EN29LV640T/B</b>	<b>AT49BV642DT</b>
Program suspend	No	Yes
128 bit Protection Register	No	Yes
Vccq: output power supply	No	Yes
Byte mode option	Yes	No
Unlock Bypass Program command supported	Yes	No
Sector Architecture	8x8-Kbyte sectors and 127x 32K-Word or 64K-byte sectors	8x8-Kbyte sectors and 127x 32K-Word
Vpp at VIL	Two outmost boot sector protect	Protect all sector
Vpp at VHH	All unprotect and operate in accelerated programming mode.	Dual word to accelerated program



## 2. Pin Configurations Difference



### Proposal to pin difference:

1. A19 and A21: change by F/W or layout.
2. VPP(WP#/ACC): change by layout
3. VCCQ: If customer uses high to VCCQ pin, it will select to Word mode for EN29LV640T/B BYTE# pin. So don't need to change.



3. Command table compare:

AT49BV642DT:

Command Sequence	Bus Cycles	1st Bus Cycle		2nd Bus Cycle		3rd Bus Cycle		4th Bus Cycle		5th Bus Cycle		6th Bus Cycle	
		Addr	Data	Addr	Data	Addr	Data	Addr	Data	Addr	Data	Addr	Data
Read	1	Addr	D <sub>CUT</sub>										
Chip Erase	6	555	AA	AAA <sup>(2)</sup>	55	555	80	555	AA	AAA	55	555	10
Sector Erase	6	555	AA	AAA	55	555	80	555	AA	AAA	55	SA <sup>(3)</sup>	30
Word Program	4	555	AA	AAA	55	555	A0	Addr	D <sub>IN</sub>				
Dual-Word Program <sup>(4)</sup>	5	555	AA	AAA	55	555	E0	Addr0	D <sub>IN0</sub>	Addr1	D <sub>IN1</sub>		
Enter Single-pulse Program Mode	6	555	AA	AAA	55	555	80	555	AA	AAA	55	555	A0
Single-pulse Word Program Mode	1	Addr	D <sub>IN</sub>										
Sector Lockdown <sup>(5)</sup>	6	555	AA	AAA	55	555	80	555	AA	AAA	55	SA <sup>(3)(5)</sup>	60
Erase/Program Suspend	1	xxx	B0										
Erase/Program Resume	1	xxx	30										
Product ID Entry <sup>(6)</sup>	3	555	AA	AAA	55	555	90						
Product ID Exit <sup>(7)</sup>	3	555	AA	AAA	55	555	F0 <sup>(8)</sup>						
Product ID Exit <sup>(7)</sup>	1	xxx	F0 <sup>(8)</sup>										
Program Protection Register – Block B	4	555	AA	AAA	55	555	C0	Addr <sup>(9)</sup>	D <sub>IN</sub>				
Lock Protection Register – Block B	4	555	AA	AAA	55	555	C0	80	X0				
Status of Block B Protection	4	555	AA	AAA	55	555	90	80	D <sub>CUT</sub> <sup>(10)</sup>				
Set Configuration Register	4	555	AA	AAA	55	555	D0	xxx	00'01 <sup>(11)</sup>				
CFI Query	1	X55	98										

Note: EN29LV640T/B doesn't have above command in red color.



EN29LV640T/B:

Command Sequence			Cycles	Bus Cycles														
				1 <sup>st</sup> . Cycle		2 <sup>nd</sup> . Cycle		3 <sup>rd</sup> . Cycle		4 <sup>th</sup> . Cycle		5 <sup>th</sup> . Cycle		6 <sup>th</sup> . Cycle				
				Addr	Data	Addr	Data	Addr	Data	Addr	Data	Addr	Data	Addr	Data			
Read			1	RA	RD													
Reset			1	xxx	F0													
Autoselect	Manufacturer ID	Word	4	555	AA	2AA	55	555	90	000	7F							
		Byte	4	AAA	AA	555	AAA	90	100	1C								
	Device ID Top Boot	Word	4	555	AA	2AA	55	555	90	x01	22C9							
		Byte	4	AAA	AA	555	AAA	90	x02	C9								
	Device ID Bottom Boot	Word	4	555	AA	2AA	55	555	90	x01	22CB							
		Byte	4	AAA	AA	555	AAA	90	x02	CB								
	Sector Protect Verify	Word	4	555	AA	2AA	55	555	90	(SA)	00							
		Byte	4	AAA	AA	555	AAA	90	(SA)	00								
Program	Word	4	555	AA	2AA	55	555	A0	PA	PD								
	Byte	4	AAA	AA	555	AAA	A0	PA	PD									
Unlock Bypass	Word	3	555	AA	2AA	55	555	20										
Unlock Bypass Program	Byte	2	XXX	A0	PA	PD												
Unlock Bypass Reset	Byte	2	XXX	90	XXX	00												
Chip Erase	Word	6	555	AA	2AA	55	555	80	555	AA	2AA	55	555	10				
	Byte	6	AAA	AA	555	AAA	80	AAA	AA	555	AAA	55	AAA	10				
Sector Erase	Word	8	555	AA	2AA	55	555	80	555	AA	2AA	55	SA	30				
	Byte	8	AAA	AA	555	AAA	80	AAA	AA	555	AAA	55	SA	30				
Sector Erase Suspend			1	xxx	B0													
Sector Erase Resume			1	xxx	30													
CFI Query	Word	1	55	98														
	Byte	1	AA	98														

- Note:** 1. EN29LV640T/B use Unlock Bypass to enhance programming performance.  
 2. AT49BV642DT doesn't have Unlock Bypass function.