



# 4Mx32 / 2x4Mx32; INTEL J3 BASED, FLASH MODULE

## FEATURES

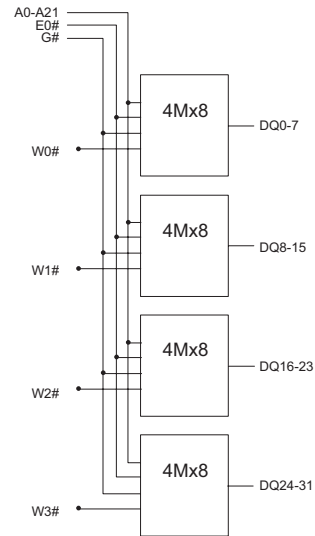
- 4Mx32 and 2x4Mx32 Densities
- Based on Intel's Strataflash (J3) family of Flash Devices
  - E28F320J3
- (32) 128Kb Erase Blocks (Symetrical)
- High Performance Interface Async Page Mode Reads
  - 120/25 ns Read Access Time
- 2.7V - 3.6V V<sub>CC</sub> Operation
- 128 bit Protection Register;
  - 64 bit Unique Device Identifier
  - 64 bit User Programmable OTP Cells
- Common Flash Interface (CFI)
- Scaleable Command Set (SCS)
- 32 byte Write Buffer, 32M Total Erase Cycles
  - 100,000 Erase Cycles per Block
- Package
  - 80 pin SIMM

## DESCRIPTION

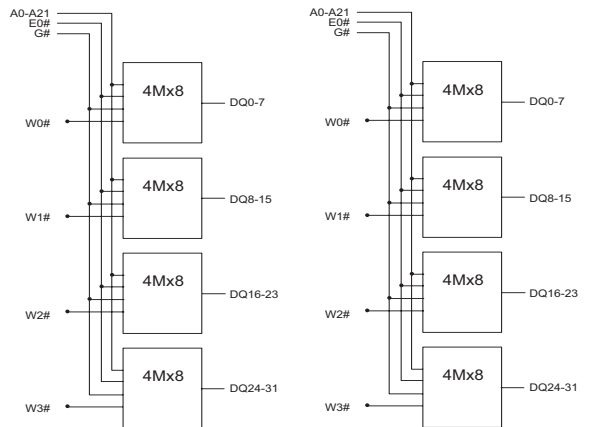
The WED7F324XDNSN and WED7F2324XDNSN are organized as one and two banks of 4Mx32 respectively. The modules are based on Intel's E28F320J3, 4Mx8 / 2Mx16 device family. Both modules offer access times of 120ns.

FIG. 1 BLOCK DIAGRAMS

### WED7F324DNSN: 4Mx32 80 PIN SIMM



### WED7F2324XDNSN: 2x4Mx32 80 PIN SIMM





## CAPACITANCE

(f=1.0MHz, V<sub>IN</sub> = V<sub>CC</sub> or V<sub>SS</sub>)

Parameter	Sym	4Mx32	2x4Mx32	Unit
		Max	Max	
Address Lines	CA	35	70	pF
Data lines	CDQ	15	30	pF
Chip Enable Lines	CE	40	40	pF
Write Enable Lines	CW	20	20	pF
Output Enable lines	CG	40	80	pF

## PIN CONFIGURATIONS

Pin #	Pin Name	Pin #	Pin Name	Pin #	Pin Name	Pin #	Pin Name
1	V <sub>SS</sub>	21	NC	41	A11	61	DQ9
2	V <sub>CC</sub>	22	NC	42	A10	62	DQ8
3	NC	23	*	43	A9	63	DQ7
4	G#	24	*	44	A8	64	DQ6
5	W0#	25	V <sub>SS</sub>	45	A7	65	DQ5
6	W1#	26	DQ29	46	A6	66	DQ4
7	NC	27	DQ30	47	A5	67	DQ3
8	DQ16	28	DQ31	48	A4	68	DQ2
9	DQ17	29	W2#	49	A3	69	DQ1
10	DQ18	30	NC	50	A2	70	DQ0
11	DQ19	31	A21	51	A1	71	NC
12	DQ20	32	A20	52	AO	72	V <sub>CC</sub>
13	DQ21	33	A19	53	W3#	73	PD1
14	DQ22	34	A18	54	V <sub>SS</sub>	74	PD2
15	DQ23	35	A17	55	DQ15	75	PD3
16	DQ24	36	A16	56	DQ14	76	PD4
17	DQ25	37	A15	57	DQ13	77	PD5
18	DQ26	38	A14	58	DQ12	78	PD6
19	DQ27	39	A13	59	DQ11	79	PD7
20	DQ28	40	A12	60	DQ10	80	V <sub>SS</sub>

## MODULE SPEED VIA PRESENCE DETECT

Module Speed Identification			
Max Access Time	Presence Detect Pin Identification		
	PD5	PD6	PD7
120ns	0	1	0

\* SIMM DENSITY

16 MB PIN 24= E0#

32 MB PIN 24= E0#

PIN 23= NC

PIN 23= E1#

## MODULE CONFIGURATION

Module Configurator - Presence Detect Pins							
Module Organization	Device Density	# of Device	Module Capacity	PD1	PD2	PD3	PD4
4Mx32	32Mb	4	16MB	0	1	1	1
8Mx32	32Mb	8	16MB	1	0	1	1

