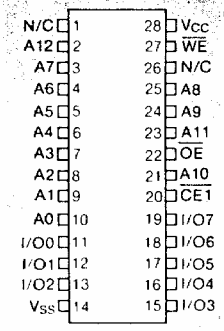
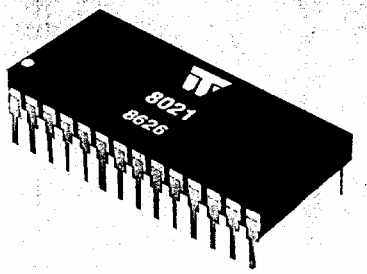
Bowmar/White Technology

8K x 8 BIT RAM
8021 AND 8021-1

PIN DIAGRAM



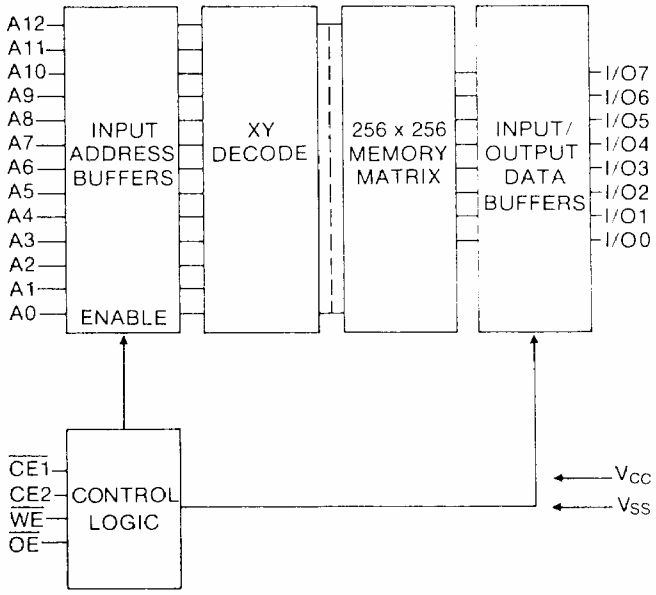


(8021-1 Version: Pin 26 = CE2)

FEATURES

- **Voltage: +5V and Gnd**
- **Operating Temperature: -55° to +200° C**
- **Operating Current: 5.0mA (Typ)**
- **Standby Current: 2.0mA (Typ)**
- **Access Time: 150nS**

BLOCK DIAGRAM



DESCRIPTION

The White Technology, Inc. 8021 and 8021-1 are 8K x 8 bit static random access memories. They are designed for use in memory systems where high speed, low power and simplicity of use are desirable. This device has common data input and data output and utilizes a single power supply of 4.5V to 5.5V. Also the 8021 series of RAMs will operate at temperatures of +200° C.

The difference between the 8021 and 8021-1 is that the 8021-1 offers an additional chip select line active high on pin 26. The 8021 has a no-connect on pin 26.

The chip enable $\overline{CE1}$ (or $\overline{CE1}$ and CE2 on 8021-1), when not valid, will gate off the address and output buffers and power down the chip to minimum standby power with input toggling. The output enable ($\overline{OE}$) controls the output buffers to eliminate bus contention.

The White Technology, Inc. 8021 and 8021-1 are supplied in a 28-lead, hermetic, dual-in-line ceramic package.

TRUTH TABLE

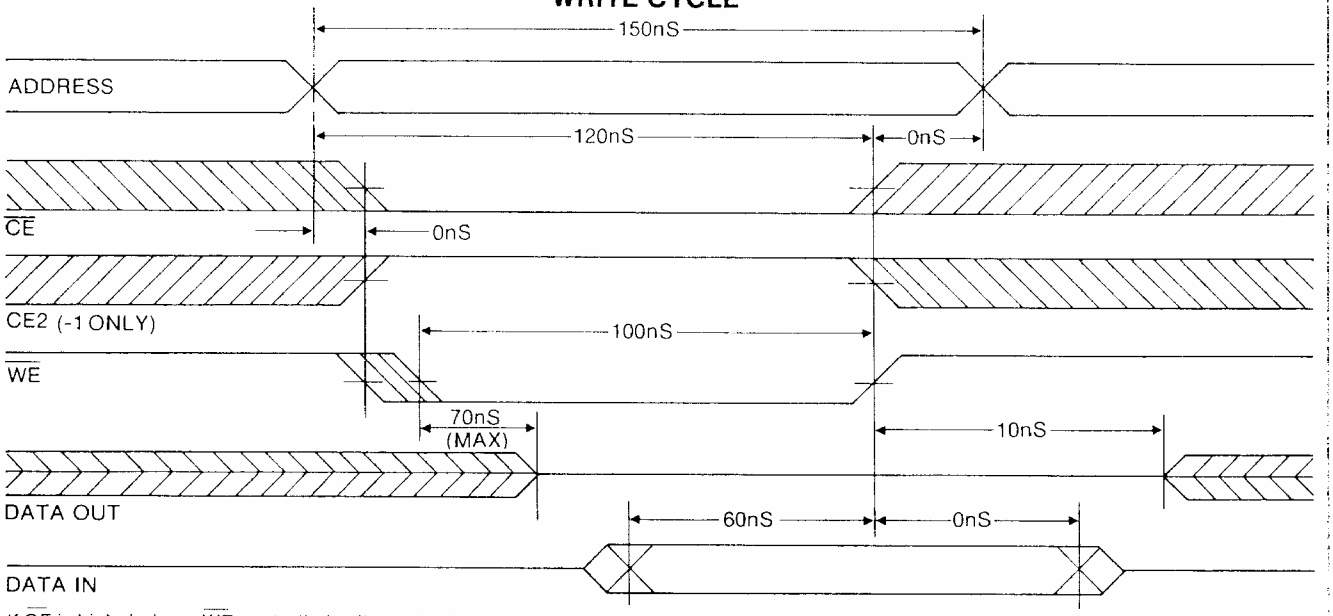
CE2*	$\overline{CE1}$	$\overline{OE}$	$\overline{WE}$	A0 to A12	Mode	Data I/O	Device Current
X	H	X	X	X	Not Selected	High Z	Standby
L	X	X	X	X	Not Selected	High Z	Standby
H	L	L	H	Stable	Read	Data Out	Active
H	L	X	L	Stable	Write	Data In	Active
H	L	H	H	Stable	Output Disable	High Z	Active

*8021-1 only.

Bowmar/White Technology
4246 EAST WOOD ST. • PHOENIX, AZ 85040
TEL: 602-437-1520 • TWX: 910-951-4203

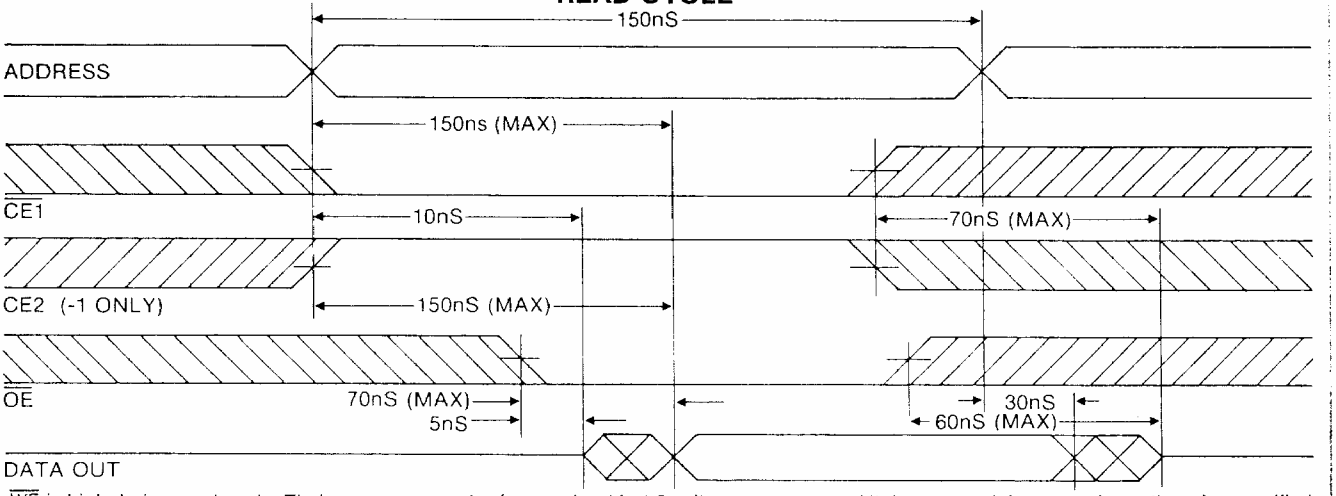
TIMING DIAGRAMS

WRITE CYCLE



If $\overline{OE}$ is high during a $\overline{WE}$ controlled write cycle, the output buffers remain in a high impedance state in this period. Timing measurement reference level is 1.5 volts.

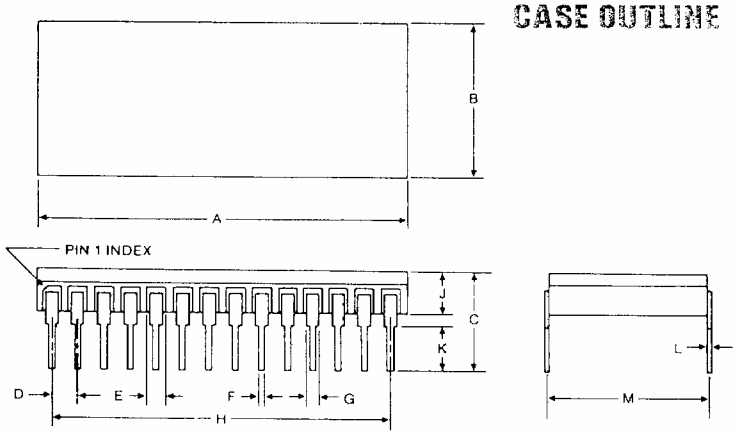
READ CYCLE



$\overline{WE}$ is high during read cycle. Timing measurement reference level is 1.5 volts.

All times are minimums unless otherwise specified.

CASE OUTLINE



DIM	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	1.250	1.550	31.8	39.4
B	0.060	0.062	1.5	1.6
C	0.375 REF.		9.5 REF.	
D	0.098	0.102	2.5	2.6
E	0.065	0.075	1.7	1.9
F	0.016	0.020	0.4	0.5
G	0.048	0.052	1.2	1.3
H	1.294	1.306	32.9	33.2
J	0.138	0.172	3.5	4.4
K	0.160	0.180	4.1	4.6
L	0.008	0.012	0.2	0.3
M	0.600 REF.		15.2 REF.	

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