

# AK532256AW

## 262,144 Word by 32 Bit CMOS

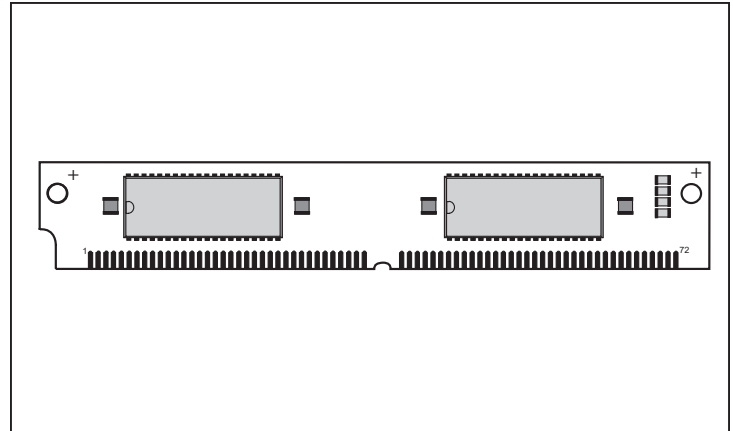
### Dynamic Random Access Memory

#### DESCRIPTION

The Accutek AK532256AW high density memory module is a CMOS dynamic RAM organized in 265K x 32 bit words. The module consists of two standard 256K x 16 bits DRAMs in plastic SOJ packages. The assembly has 2 DRAMs mounted on the front side of a printed circuit board in a 72 pad leadless SIM configuration.

This configuration allows socket-mounting of large quantities of memory in applications where high density and ease of inserting additional memory are important.

The operation of the AK532256AW is identical to eight 256K x 4 Drams. There are four CAS lines and two RAS lines. On each bank of 256K x 32, independent byte control is accomplished by four  $\overline{\text{CAS}}$  lines. Each separate  $\overline{\text{CAS}}$  line controls one byte of the 256K x 16 Dram.



#### FEATURES

- 262,144 x 32 bit organization
- 72 pad Single In-Line Module
- $\overline{\text{CAS}}$ -before- $\overline{\text{RAS}}$ ,  $\overline{\text{RAS}}$ -only or hidden refresh
- Operating free air temperature 0°C to 70°C
- Single 5 Volt Power Supply
- 1024 Refresh Cycles, 16 mSEC
- Available in Fast Page Mode
- Power: 2.090 Watt Max Active (50 nS)  
1.870 Watt Max Active (60 nS)  
1.760 Watt Max Active (70 nS)  
22 mW Max Standby

- Available in Fast Page Mode or EDO
- Upward compatible with AK532512W, AK5321024W, AK5322048W, AK5324096W and AK5328192W

#### ADDITIONAL OPTIONS AVAILABLE

- 256K x 36 version, AK536256W
- 512K x 32 version, AK532512W
- 512K x 36 version, AK536512W

#### PIN NOMENCLATURE

DQ <sub>0</sub> - DQ <sub>31</sub>	Data In/Data Out
A <sub>0</sub> - A <sub>8</sub>	Address Inputs
$\overline{\text{CAS}}_0$ - $\overline{\text{CAS}}_3$	Column Address Strobe
$\overline{\text{RAS}}_0$ , $\overline{\text{RAS}}_2$	Row Address Strobe
$\overline{\text{WE}}$	Write Enable
PD <sub>1</sub> - PD <sub>4</sub>	Presence Detect
V <sub>cc</sub>	5v Supply
V <sub>ss</sub>	Ground
NC	No Connect

#### PIN ASSIGNMENT

PIN #	SYMBOL	PIN #	SYMBOL	PIN #	SYMBOL	PIN #	SYMBOL
1	V <sub>ss</sub>	19	NC	37	NC	55	DQ11
2	DQ0	20	DQ4	38	NC	56	DQ27
3	DQ16	21	DQ20	39	V <sub>ss</sub>	57	DQ12
4	DQ1	22	DQ5	40	$\overline{\text{CAS}}_0$	58	DQ28
5	DDQ17	23	DQ21	41	$\overline{\text{CAS}}_2$	59	V <sub>cc</sub>
6	DQ2	24	DQ6	42	$\overline{\text{CAS}}_3$	60	DQ29
7	DQ18	25	DQ22	43	$\overline{\text{CAS}}_1$	61	DQ13
8	DQ3	26	DQ7	44	$\overline{\text{RAS}}_0$	62	DQ30
9	DQ19	27	DQ23	45	NC	63	DQ14
10	V <sub>cc</sub>	28	A7	46	NC	64	DQ31
11	NC	29	NC	47	$\overline{\text{WE}}$	65	DQ15
12	A0	30	V <sub>cc</sub>	48	NC	66	NC
13	A1	31	A8	49	DQ8	67	PD1
14	A2	32	NC	50	DQ24	68	PD2
15	A3	33	NC	51	DQ9	69	PD3
16	A4	34	$\overline{\text{RAS}}_2$	52	DQ25	70	PD4
17	A5	35	NC	53	DQ10	71	NC
18	A6	36	NC	54	DQ26	72	V <sub>ss</sub>

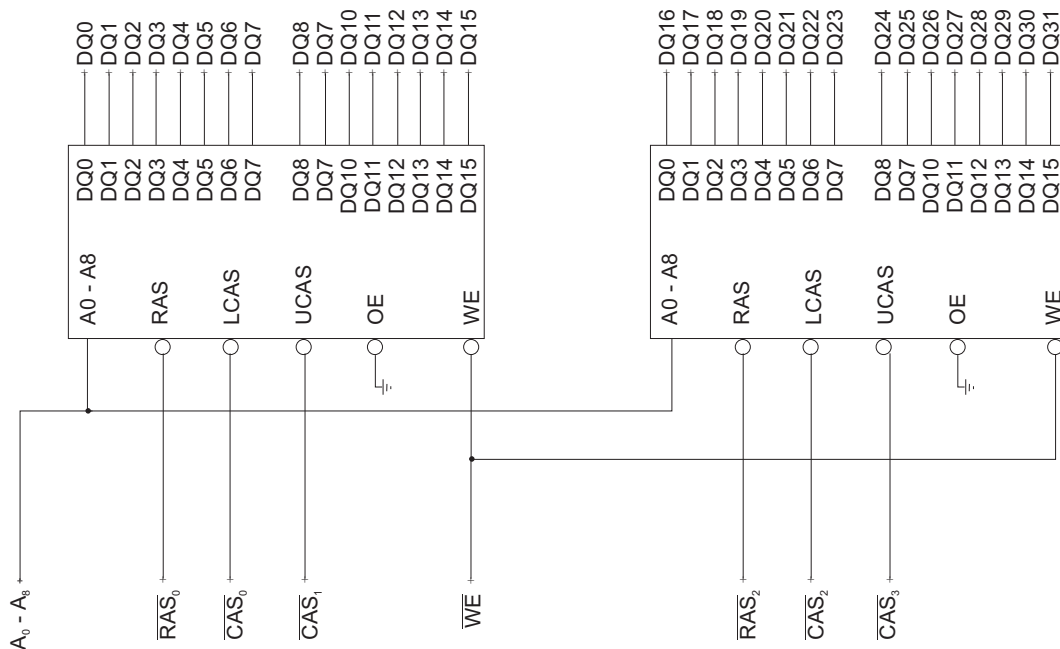
#### MODULE OPTIONS

Leadless SIM: AK532256AW  
Leaded ZIP: AK532256AZ

#### Presence Detect -

	-60	-70	-80
PD1	V <sub>ss</sub>	V <sub>ss</sub>	V <sub>ss</sub>
PD2	NC	NC	NC
PD3	NC	V <sub>ss</sub>	NC
PD4	NC	NC	V <sub>ss</sub>

## FUNCTIONAL DIAGRAM



## MECHANICAL DIMENSIONS

