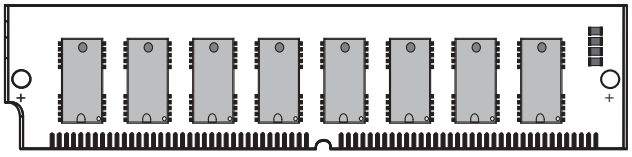
Accutek Microcircuit Corporation

AK532256W
262,144 Word by 32 Bit CMOS Dynamic Random Access Memory

DESCRIPTION

The Accutek AK532256W high density memory module is a CMOS dynamic RAM organized in 256K x 32 bit words. The module consists of eight standard 256K x 4 DRAMs in plastic SOJ packages. The assembly has eight drams mounted on the front side of a printed circuit board in a 72 pad leadless SIM configuration.

The operation of the AK532256W is identical to eight 256K x 4 DRAMs. There are four $\overline{CAS}$ lines and two $\overline{RAS}$ lines. Independent byte control is accomplished by four $\overline{CAS}$ lines. Each seperate $\overline{CAS}$ line controls two 256K x 4 Drams to form an 8 bit byte. The bank of 32 bits is controlled by the two $\overline{RAS}$ lines. A sixteen bit data path can be produced by connecting DQ_1 to DQ_{17}, DQ_2 to DQ_{18} and alternately strobing $\overline{RAS_0}$ with $\overline{RAS_2}$.



FEATURES

- 262,144 x 32 bit organization
- 72 pin Single In-Line Module
- Multiple $\overline{CAS}$ and $\overline{RAS}$ lines allow x16 or x32 bit widths
- $\overline{CAS}$-before-$\overline{RAS}$ Refresh, $\overline{RAS}$-only Refresh or Hidden refresh
- Operating free air temperature 0°C to 70°C
- Single 5 Volt Power Supply
- 512 Refresh Cycles, 8mSEC
- Power
  2.00 Watt Max Active (60nS)
  1.78 Watt Max Active (70 nS)
  1.562 Watt Max Active (80 nS)
  44 mW Max Standby
- Available in Fast Page Mode, EDO and Static Column Mode versions
- Available in leadless SIM or leaded Zip versions
- Upward compatible with AK532512, AK5321024, AK5322048, AK5324096 and AK5328192

ADDITIONAL OPTIONS AVAILABLE

- 512K x 32 version, AK532512
- 1 Meg x 32 version, AK5321024
- 2 Meg x 32 version, AK5322048
- 4 Meg x 32 version, AK5324096
- 8 Meg x 32 version, AK5328192

PIN NOMENCLATURE

A_0 - A_8	Address Inputs
DQ_1 - DQ_{32}	Data In/Data Out
$\overline{CAS_0}$ - $\overline{CAS_3}$	Column Address Strobe
$\overline{RAS_0}$, $\overline{RAS_2}$	Row Address Strobe
$\overline{WE}$	Write Enable
PD_1 - PD_4	Presence Detect
Vcc	5v Supply
Vss	Ground
NC	No Connect

MODULE OPTIONS

Leadless SIM: AK532256W
Leaded ZIP: AK532256WZ

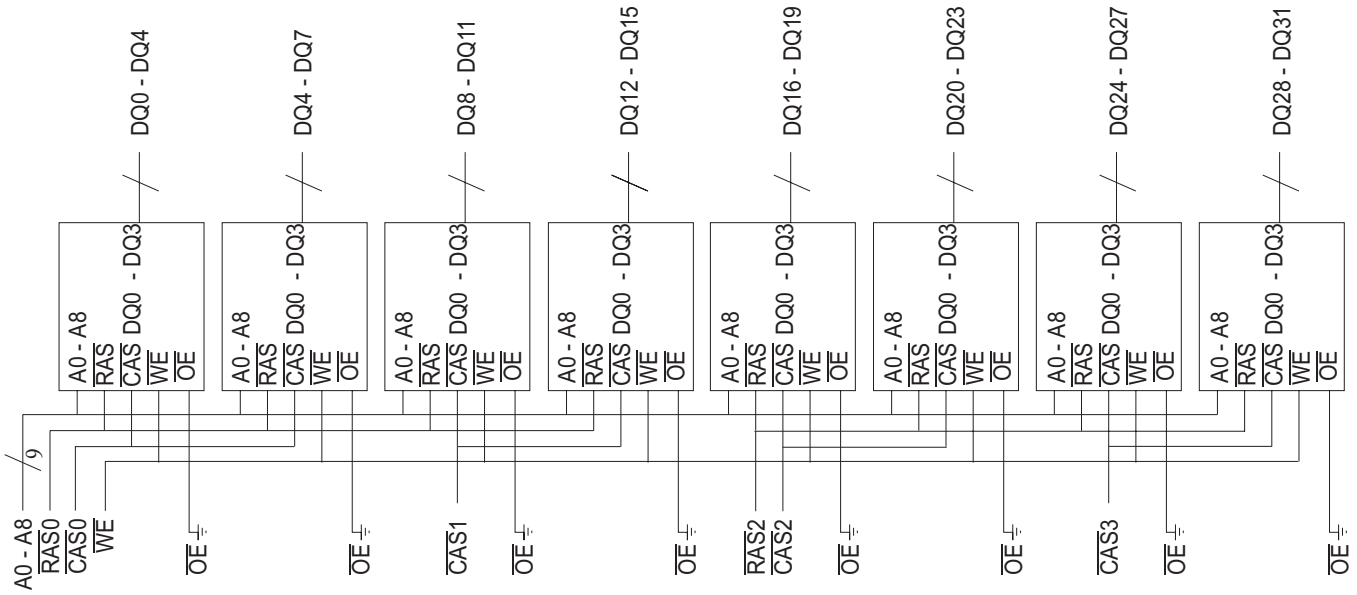
PIN ASSIGNMENT

PIN #	SYMBOL	PIN #	SYMBOL	PIN #	SYMBOL	PIN #	SYMBOL
1	Vss	19	NC	37	NC	55	DQ12
2	D1	20	DQ5	38	NC	56	DQ28
3	DQ17	21	DQ21	39	Vss	57	DQ13
4	DQ2	22	DQ6	40	$\overline{CAS0}$	58	DQ29
5	DQ18	23	DQ22	41	$\overline{CAS2}$	59	Vcc
6	DQ3	24	DQ7	42	$\overline{CAS3}$	60	DQ30
7	DQ19	25	DQ23	43	$\overline{CAS1}$	61	DQ14
8	DQ4	26	DQ8	44	$\overline{RAS0}$	62	DQ31
9	DQ20	27	DQ24	45	NC	63	DQ15
10	Vcc	28	A7	46	NC	64	DQ32
11	NC	29	NC	47	$\overline{WE}$	65	DQ16
12	A0	30	Vcc	48	NC	66	NC
13	A1	31	A8	49	DQ9	67	PD1
14	A2	32	NC	50	DQ25	68	PD2
15	A3	33	NC	51	DQ10	69	PD3
16	A4	34	$\overline{RAS2}$	52	DQ26	70	PD4
17	A5	35	NC	53	DQ11	71	NC
18	A6	36	NC	54	DQ27	72	Vss

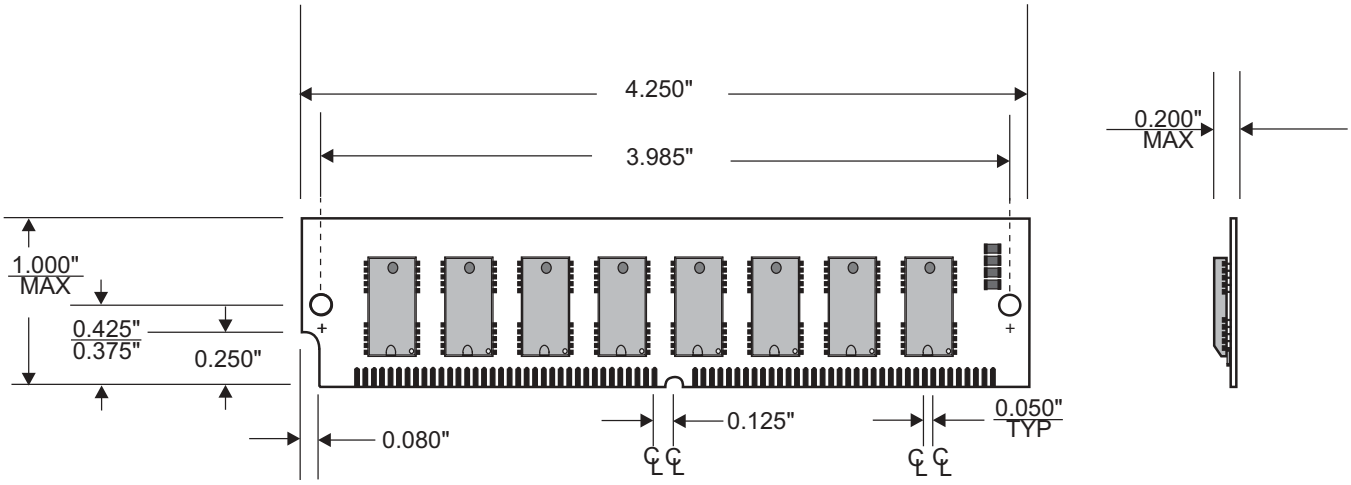
Presence Detect -

	-60	-70	-80
PD1	Vss	Vss	Vss
PD2	NC	NC	NC
PD3	NC	Vss	NC
PD4	NC	NC	Vss

FUNCTIONAL DIAGRAM



MECHANICAL DIMENSIONS



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