ACCUTEK
MICROCIRCUIT CORPORATION

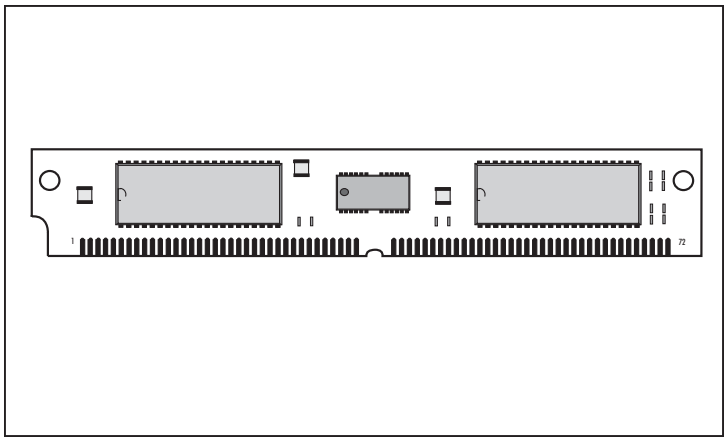
AK5362048BW
2,097,152 Word by 36 Bit CMOS Dynamic Random Access Memory

DESCRIPTION

The Accutek AK5362048BW high density memory module is a CMOS dynamic RAM organized in 2048K x 36 bit words. The module consists of four standard 1 Meg x 16 bits DRAMs and two 1 Meg x 4 bit Quad $\overline{CAS}$ DRAM in plastic SOJ packages. The assembly has 3 DRAMs mounted on each 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 AK5362048BW is identical to sixteen 1 Meg x 4 plus eight 1 Meg x 1 DRAMs. There are four $\overline{CAS}$ lines and two $\overline{RAS}$ lines. On each bank of 1 Meg x 36, independent byte control is accomplished by four $\overline{CAS}$ lines. Each seperate $\overline{CAS}$ line controls one byte of the 1 Meg x 16 plus a parity bit in the QUAD $\overline{CAS}$ DRAM.



FEATURES

- 2,097,152 x 36 bit organization
- 72 pad Single In-Line Module
- $\overline{CAS}$-before-$\overline{RAS}$, $\overline{RAS}$-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 and EDO
- Power
  2.125 Watt Max Active (50nS)
  1.975 Watt Max Active (60 nS)
  1.825 Watt Max Active (70 nS)
  30 mW Max Standby
- Downward compatible with AK5361024W, AK536512W and AK536256W
- Upward compatible with AK5364096W and AK5368192W

ADDITIONAL OPTIONS AVAILABLE

1 Meg x 32 version, AK5321024BW

1 Meg x 36 version, AK5361024BW

2 Meg x 32 version, AK5322048BW

PIN NOMENCLATURE

A_0 -A_9	Address Inputs
DQ_0 - DQ_{35}	Data In/Data Out
$\overline{W}$	Write Enable
$\overline{RAS_0}$ - $\overline{RAS_3}$	Row Address Strobe
$\overline{CAS_0}$ - $\overline{CAS_3}$	Column Address Strobe
PD_1 - PD_4	Presence Detect
Vss	Ground
Vcc	5v Supply
NC	No Connect

MODULE OPTIONS

Leadless SIM: AK5362048BW

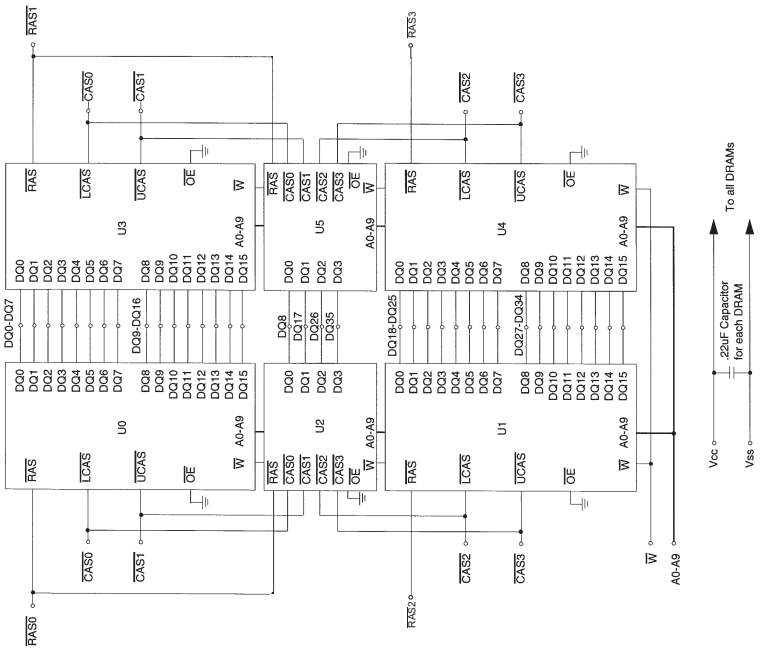
PIN ASSIGNMENT

PIN #	SYMBOL	PIN #	SYMBOL	PIN #	SYMBOL	PIN #	SYMBOL
1	Vss	19	NC	37	DQ17	55	DQ12
2	DQ0	20	DQ4	38	DQ35	56	DQ30
3	DQ18	21	DQ22	39	Vss	57	DQ13
4	DQ1	22	DQ5	40	$\overline{CAS0}$	58	DQ31
5	DQ19	23	DQ23	41	$\overline{CAS2}$	59	Vcc
6	DQ2	24	DQ6	42	$\overline{CAS3}$	60	DQ32
7	DQ20	25	DQ24	43	$\overline{CAS1}$	61	DQ14
8	DQ3	26	DQ7	44	$\overline{RAS0}$	62	DQ33
9	DQ21	27	DQ25	45	$\overline{RAS1}$	63	DQ15
10	Vcc	28	A7	46	NC	64	DQ34
11	NC	29	NC	47	$\overline{W}$	65	DQ16
12	A0	30	Vcc	48	NC	66	NC
13	A1	31	A8	49	DQ9	67	PD1
14	A2	32	A9	50	DQ27	68	PD1
15	A3	33	$\overline{RAS3}$	51	DQ10	69	PD3
16	A4	34	$\overline{RAS2}$	52	DQ28	70	PD4
17	A5	35	DQ26	53	DQ11	71	NC
18	A6	36	DQ8	54	DQ29	72	Vss

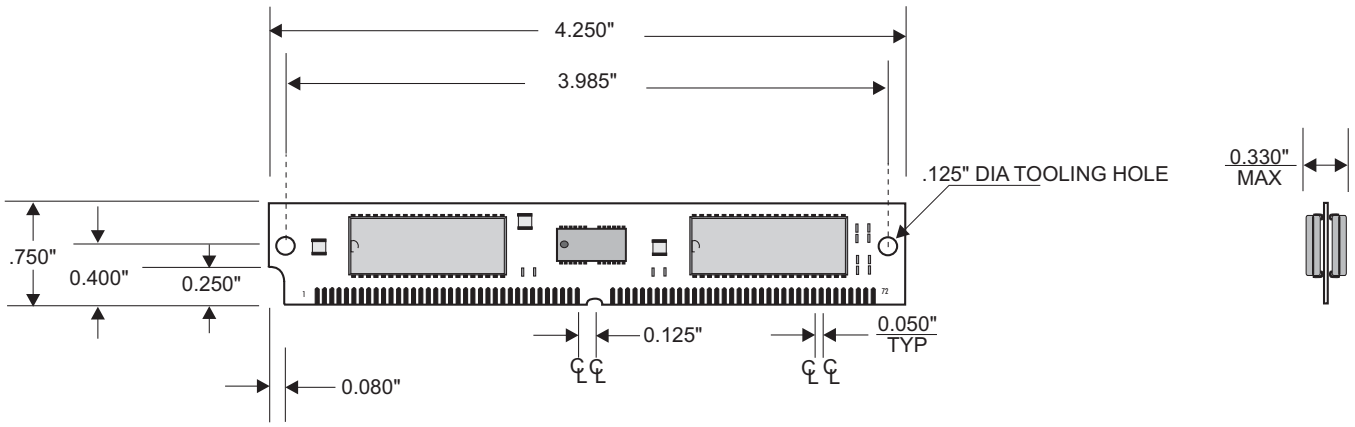
Presence Detect

	-50	-60	-70
PD1	NC	NC	NC
PD2	NC	NC	NC
PD3	Vss	NC	Vss
PD4	Vss	NC	NC

FUNCTIONAL DIAGRAM



MECHANICAL DIMENSIONS



ACCUTEK
MICROCIRCUIT CORPORATION

5 NEW PASTURE ROAD
NEWBURYPORT, MA 01950-4040
PHONE: 978-465-6200 FAX: 978-462-3396
Email: sales@accutekmicro.com
Internet: www.accutekmicro.com

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