

# Accutek Microcircuit Corporation

## AK63264BZ 65,536 x 32 Bit CMOS/BiCMOS Static Random Access Memory

### DESCRIPTION

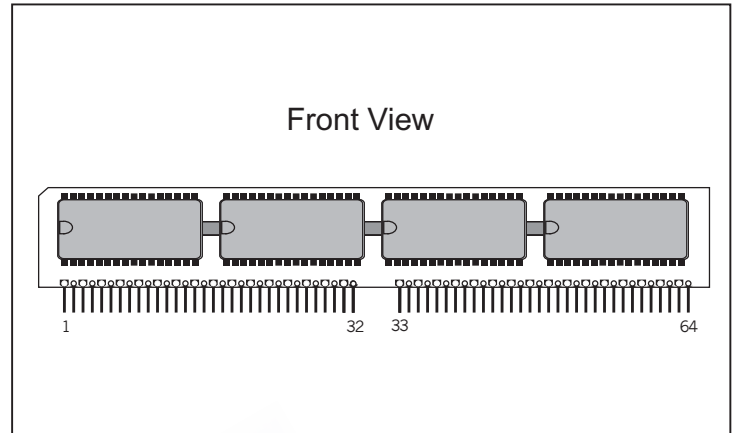
The Accutek AK63264BZ SRAM Module consists of fast high performance SRAMs mounted on a low height, 64 pin SIM or ZIP Board. The module utilizes four 32 pin 64K x 8 SRAMs in 300 mil SOJ packages and four decoupling capacitors mounted on the front side of a printed circuit board.

The SRAMs used have common I/O functions and single output enable functions. Also, four separate chip select ( $\overline{CE}$ ) connections are used to independently enable the four bytes. The modules can be supplied in a variety of access time values from 12nSEC to 35nSEC in CMOS or BiCMOS technology.

The Accutek module is designed to have a maximum seated height of 0.520 inch to provide for the lowest height off the board. Each conforms to JEDEC-standard sizes and pin-out configurations. Using two pins for module density identification,  $PD_0$  and  $PD_1$ , minimizes interchangeability and design considerations when changing from one module size to the other in customer applications.

### FEATURES

- 65,536 x 32 bit organization
- JEDEC Standard 64 pin ZIP format
- Common I/O, single  $\overline{OE}$  functions with four separate chip selects ( $\overline{CE}$ )
- Low height 0.520 inch maximum
- Presence Detect,  $PD_0$  and  $PD_1$  for identifying module density
- Downward compatible with 32K x 32 (AK63232)
- Fast access times from 12nSEC



- Upward compatible with 128K x 32 (AK632128), 256K x 32 (AK632256), 512K x 32 (AK632512) and 1 Meg x 32 (AK6321024)
- TTL-compatible inputs and outputs
- Single 5 volt power supply - AK63264BZ
- Single 3.3 volt power supply - AK63264BZ/3.3
- Operating temperature range in free air, 0<sup>0</sup> to 70<sup>0</sup>C

### ELECTRICAL SPECIFICATIONS

Timing Diagrams and basic electrical characteristics are those of the standard 64K x 8 SRAMs used to construct these modules. Accutek's module design allows the flexibility of selecting industry-compatible 64K x 8 SRAMs from several semiconductor manufacturers.

### PIN NOMENCLATURE

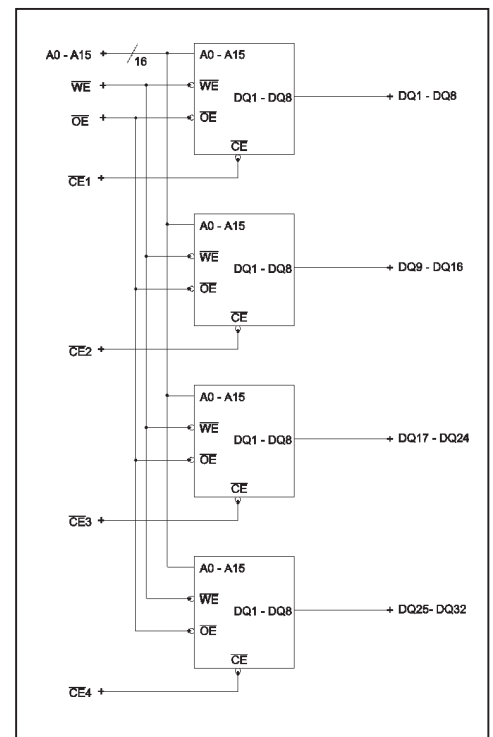
A0 - A15	Address Inputs
$\overline{CE}_1 - \overline{CE}_4$	Chip Enable
DQ1 - DQ32	Data In/Data Out
$\overline{OE}$	Output Enable
$PD_0 - PD_1$	Presence Detect
Vcc	Power Supply
Vss	Ground
$\overline{WE}$	Write Enable
NC	No Connect

### PIN ASSIGNMENT

PIN #	SYMBOL	PIN #	SYMBOL	PIN #	SYMBOL	PIN #	SYMBOL
1	Vss	17	A2	33	CE4	49	A4
2	PD0	18	A9	34	CE3	50	A11
3	PD1	19	DQ13	35	NC	51	A5
4	DQ1	20	DQ5	36	NC	52	A12
5	DQ9	21	DQ14	37	OE	53	Vcc
6	DQ2	22	DQ6	38	Vss	54	A13
7	DQ10	23	DQ15	39	DQ25	55	A6
8	DQ3	24	DQ7	40	DQ17	56	DQ21
9	DQ11	25	DQ16	41	DQ26	57	DQ29
10	DQ4	26	DQ8	42	DQ18	58	DQ22
11	DQ12	27	Vss	43	DQ27	59	DQ30
12	Vcc	28	WE	44	DQ19	60	DQ23
13	A0	29	A15	45	DQ28	61	DQ31
14	A7	30	A14	46	DQ20	62	DQ24
15	A1	31	CE2	47	A3	63	DQ32
16	A8	32	CE1	48	A10	64	Vss

$PD_0$  = Open  
 $PD_1$  = Vss

### FUNCTIONAL DIAGRAM



### MODULE OPTIONS

Leaded ZIP: AK63264BZ

## ORDERING INFORMATION

### PART NUMBER CODING INTERPRETATION

Position	1	2	3	4	5	6	7	8
<b>1 Product</b>								
	<b>AK = Accuthek Memory</b>							
<b>2 Type</b>								
	4 = Dynamic RAM							
	5 = CMOS Dynamic RAM							
	6 = Static RAM							
<b>3 Organization/Word Width</b>								
	1 = by 1		16 = by 16					
	4 = by 4		32 = by 32					
	8 = by 8		36 = by 36					
	9 = by 9							
<b>4 Size/Bits Depth</b>								
	64 = 64K		4096 = 4 MEG					
	256 = 256K		8192 = 8 MEG					
	1024 = 1 MEG		16384 = 16 MEG					
<b>5 Package Type</b>								
	G = Single In-Line Package (SIP)							
	S = Single In-Line Module (SIM)							
	D = Dual In-Line Package (DIP)							
	W = .050 inch Pitch Edge Connect							
	Z = Zig-Zag In-Line Package (ZIP)							
<b>6 Special Designation</b>								
	P = Page Mode							
	N = Nibble Mode							
	K = Static Column Mode							
	W = Write Per Bit Mode							
	V = Video Ram							
<b>7 Separator</b>								
	- = Commercial 0°C to +70°C							
	M = Military Equivalent Screened (-55°C to +125°C)							
	I = Industrial Temperature Tested (-45°C to +85°C)							
	X = Burned In							
<b>8 Speed (first two significant digits)</b>								
	DRAMS				SRAMS			
	50 = 50 nS		8 = 8 nS					
	60 = 60 nS		10 = 10 nS					
	70 = 70 nS		12 = 12 nS					
	80 = 80 nS		15 = 15 nS					

The numbers and coding on this page do not include all variations available but are show as examples of the most widely used variations. Contact Accuthek if other information is required.

### EXAMPLES:

**AK63264BZ-12**

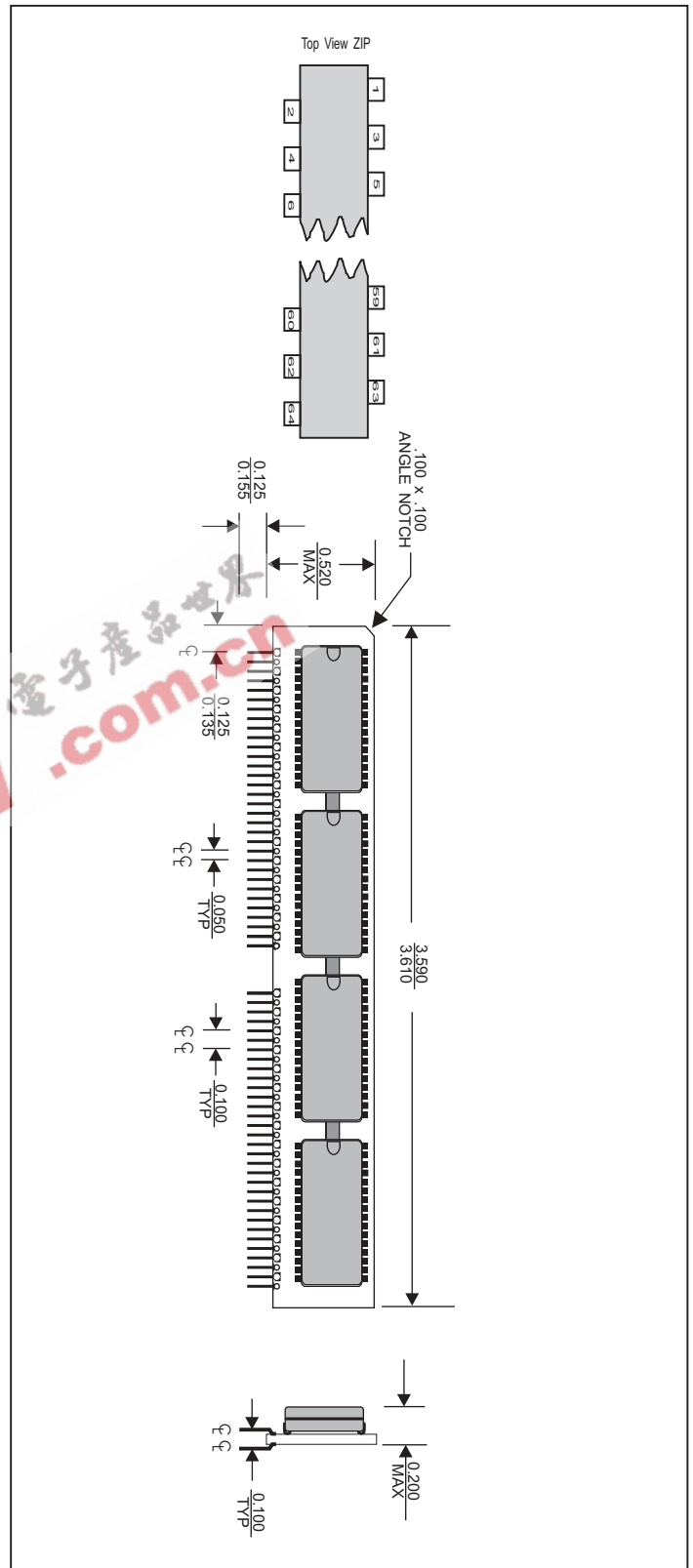
64K x 32, 12 nSEC, SRAM Module, ZIP Configuration, Low Height



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## MECHANICAL DIMENSIONS

Inches



Accuthek reserves the right to make changes in specifications at any time and without notice. Accuthek does not assume any responsibility for the use of any circuitry described; no circuit patent licenses are implied. Preliminary data sheets contain minimum and maximum limits based upon design objectives, which are subject to change upon full characterization over the specific operating conditions.