

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.

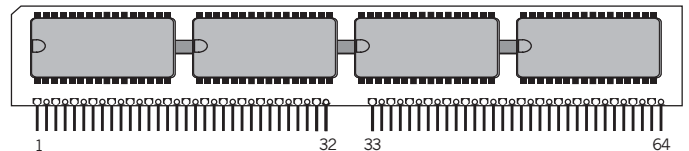
The SRAMs used have common I/O functions and single output enable functions. Also, four separate chip select ($\overline{CE}$) connections are used to independently enable the four bytes. The modules can be supplied in a variety of access time values from 12nSEC to 35nSEC in CMOS or BiCMOS technology.

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, PD₀ and PD₁, 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, PD₀ and PD₁ for identifying module density
- Downward compatible with 32K x 32 (AK63232)
- Fast access times from 12nSEC

Front View



- 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, 0⁰ to 70⁰C

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

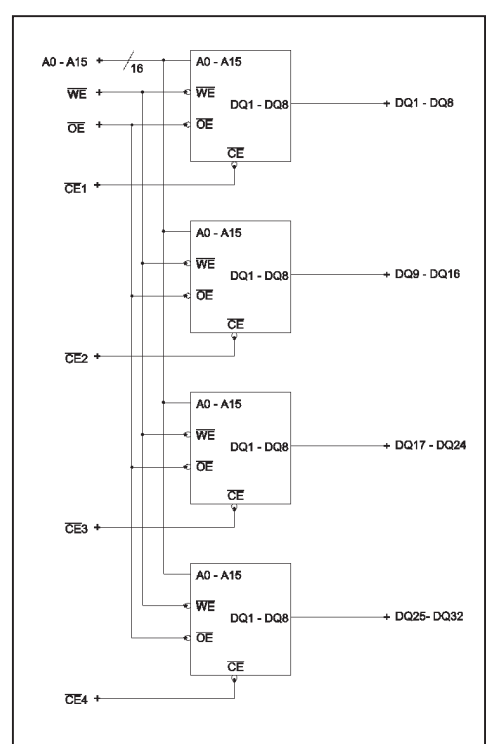
A ₀ - A ₁₅	Address Inputs
$\overline{CE}_1$ - $\overline{CE}_4$	Chip Enable
DQ ₁ - DQ ₃₂	Data In/Data Out
$\overline{OE}$	Output Enable
PD ₀ - PD ₁	Presence Detect
V _{cc}	Power Supply
V _{ss}	Ground
$\overline{WE}$	Write Enable
NC	No Connect

PIN ASSIGNMENT

PIN #	SYMBOL	PIN #	SYMBOL	PIN #	SYMBOL	PIN #	SYMBOL
1	V _{ss}	17	A ₂	33	CE ₄	49	A ₄
2	PD ₀	18	A ₉	34	CE ₃	50	A ₁₁
3	PD ₁	19	DQ ₁₃	35	NC	51	A ₅
4	DQ ₁	20	DQ ₅	36	NC	52	A ₁₂
5	DQ ₉	21	DQ ₁₄	37	OE	53	V _{cc}
6	DQ ₂	22	DQ ₆	38	V _{ss}	54	A ₁₃
7	DQ ₁₀	23	DQ ₁₅	39	DQ ₂₅	55	A ₆
8	DQ ₃	24	DQ ₇	40	DQ ₁₇	56	DQ ₂₁
9	DQ ₁₁	25	DQ ₁₆	41	DQ ₂₆	57	DQ ₂₉
10	DQ ₄	26	DQ ₈	42	DQ ₁₈	58	DQ ₂₂
11	DQ ₁₂	27	V _{ss}	43	DQ ₂₇	59	DQ ₃₀
12	V _{cc}	28	WE	44	DQ ₁₉	60	DQ ₂₃
13	A ₀	29	A ₁₅	45	DQ ₂₈	61	DQ ₃₁
14	A ₇	30	A ₁₄	46	DQ ₂₀	62	DQ ₂₄
15	A ₁	31	CE ₂	47	A ₃	63	DQ ₃₂
16	A ₈	32	CE ₁	48	A ₁₀	64	V _{ss}

PD₀ = Open
PD₁ = V_{ss}

FUNCTIONAL DIAGRAM



MODULE OPTIONS

Leaded ZIP: AK63264BZ

PART NUMBER CODING INTERPRETATION

1	2	3	4	5	6	7	8
---	---	---	---	---	---	---	---

- AK = Accutek Memory**

- 4 = Dynamic RAM
- 5 = CMOS Dynamic RAM
- 6 = Static RAM

- ```
1 = by 1 16 = by 16
4 = by 4 32 = by 32
8 = by 8 36 = by 36
9 = by 9
```

- |      |   |       |       |   |        |
|------|---|-------|-------|---|--------|
| 64   | = | 64K   | 4096  | = | 4 MEG  |
| 256  | = | 256K  | 8192  | = | 8 MEG  |
| 1024 | = | 1 MEG | 16384 | = | 16 MEG |

- 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)**

- P = Page Mode  
N = Nibble Mode  
K = Static Column Mode  
W = Write Per Bit Mode  
V = Video Ram

- = 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

- | 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 |

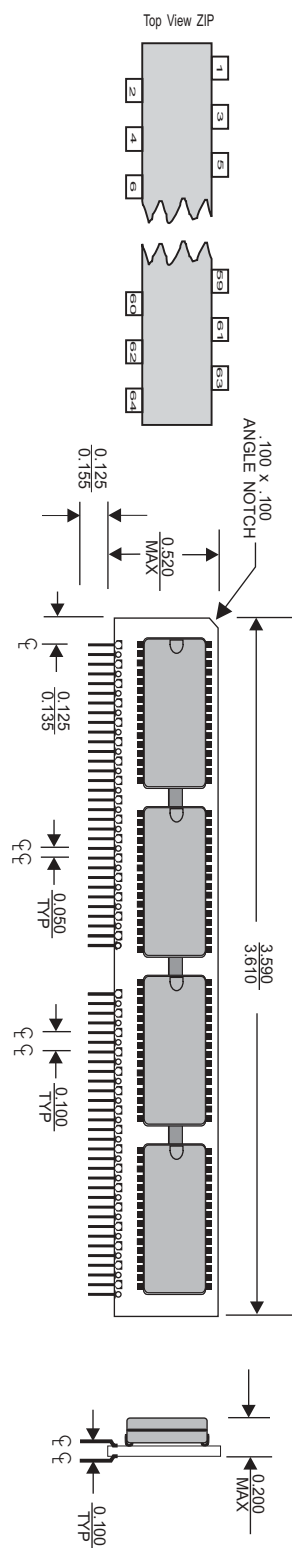
### EXAMPLES:

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



**ACCUTEK MICROCIRCUIT CORPORATION**  
BUSINESS CENTER at NEWBURYPORT  
2 NEW PASTURE ROAD, SUITE 1  
NEWBURYPORT, MA 01950-4054  
VOICE: 978-465-6200 FAX: 978-462-3396  
Email: [sales@accutekmicro.com](mailto:sales@accutekmicro.com)  
Internet: [www.accutekmicro.com](http://www.accutekmicro.com)

## Inches



Accutek reserves the right to make changes in specifications at any time and without notice. Accutek 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.