

DESCRIPTION

The Accutec AK632256BZ SRAM Module consists of fast high performance SRAMs mounted on a low profile, 64 pin SIM or ZIP Board. The module utilizes four 28 pin 256K x 4 SRAMs in 300 mil SOJ packages and four decoupling capacitor chips mounted on each 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 12 nSEC to 45 nSEC in CMOS or BiCMOS technology.

The Accutec module is designed to have a maximum seated height of 0.500 inch to provide for the lowest height off the board. The modules conform to JEDEC standard sizes and pin-out configurations. Using two pins for module memory density identification, PD₀ and PD₁, minimizes interchangeability and design considerations when changing from one module size to another in customer applications.

FEATURES

- 262,144 x 32 bit organization
- JEDEC Standardized 64 pin SIM format
- Presence Detect PD₀ and PD₁ for identifying module density
- Common I/O, single \overline{OE} functions with four separate chip selects (\overline{CE})
- Low height 0.500 inch maximum
- Downward compatible with 128K x 32 (AK632128), 64K x 32 (AK63264) and 32K x 32 (AK63232)
- TTL-compatible inputs and outputs

PIN NOMENCLATURE

A ₀ - A ₁₇	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}	5v Supply
V _{ss}	Ground
\overline{WE}	Write Enable

MODULE OPTIONS

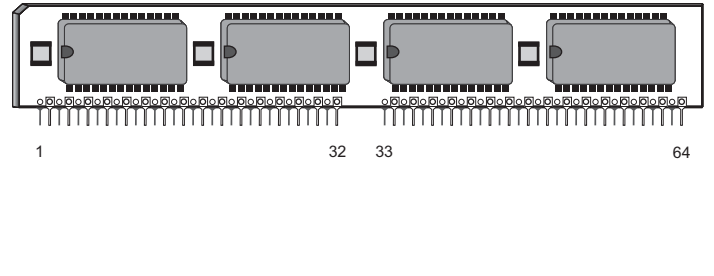
Leaded ZIP: AK632256BZ

PIN ASSIGNMENT

PIN #	SYMBOL	PIN #	SYMBOL	PIN #	SYMBOL	PIN #	SYMBOL
1	V _{ss}	17	A ₂	33	\overline{CE}_4	49	A ₄
2	PD ₀	18	A ₉	34	\overline{CE}_3	50	A ₁₁
3	PD ₁	19	DQ ₁₃	35	A ₁₇	51	A ₅
4	DQ ₁	20	DQ ₅	36	A ₁₆	52	A ₁₂
5	DQ ₉	21	DQ ₁₄	37	\overline{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	\overline{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	\overline{CE}_2	47	A ₃	63	DQ ₃₂
16	A ₈	32	\overline{CE}_1	48	A ₁₀	64	V _{ss}

PD₀ = V_{ss}
PD₁ = V_{ss}

64-Pin ZIP

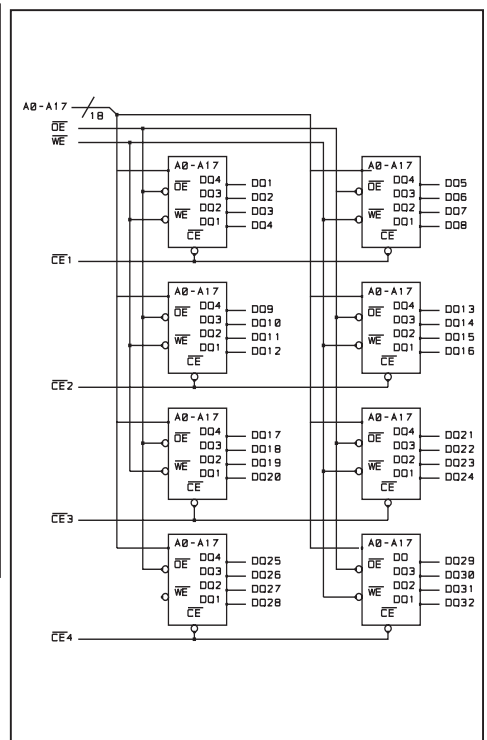


- Upward compatible with 512K x 32 (AK632512) and 1 Meg x 32 (AK6321024)
- Fast access times range from 12 nSEC BiCMOS to 45 nSEC CMOS
- TTL-compatible inputs and outputs
- Single 5 volt power supply - AK632256BZ
- Single 3.3 volt power supply - AK632256BZ/3.3
- Operating temperature range in free air, 0°C to 70°C

ELECTRICAL SPECIFICATIONS

Timing diagrams and basic electrical characteristics are those of the standard 256K x 4 SRAMs used to construct these modules. Accutec's module design allows the flexibility of selecting industry-compatible 256K x 4 SRAMs from several semiconductor manufacturers.

FUNCTIONAL DIAGRAM



ORDERING INFORMATION

PART NUMBER CODING INTERPRETATION

Position	1	2	3	4	5	6	7	8
1 Product								
	AK = Accuthek Memory							
2 Type								
	4 = Dynamic RAM 5 = CMOS Dynamic RAM 6 = Static RAM							
3 Organization/Word Width								
	1 = by 1 16 = by 16 4 = by 4 32 = by 32 8 = by 8 36 = by 36 9 = by 9							
4 Size/Bits Depth								
	64 = 64K 4096 = 4 MEG 256 = 256K 8192 = 8 MEG 1024 = 1 MEG 16384 = 16 MEG							
5 Package Type								
	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)							
6 Special Designation								
	P = Page Mode N = Nibble Mode K = Static Column Mode W = Write Per Bit Mode V = Video Ram							
7 Separator								
	- = 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							
8 Speed (first two significant digits)								
	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.

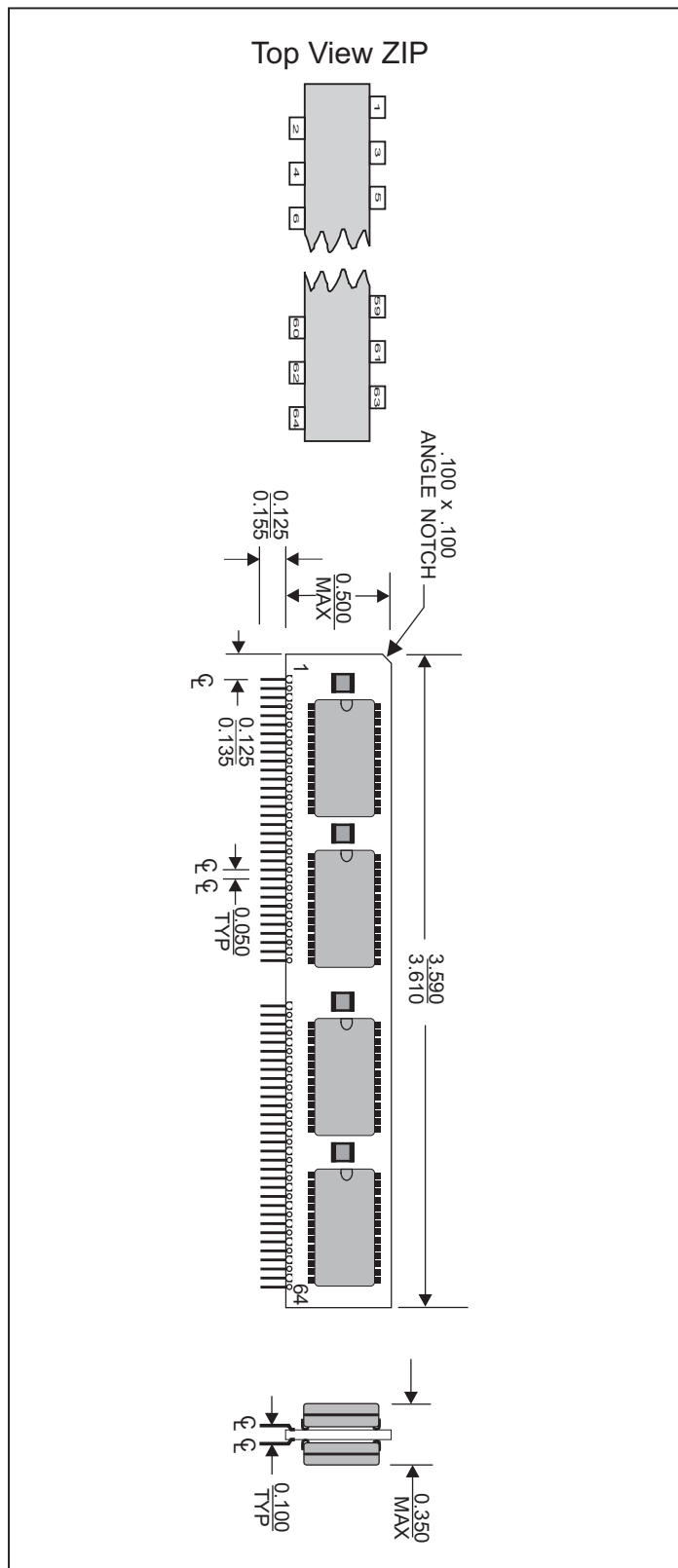
EXAMPLES:

AK632256BZ-12

256K x 32, 12 nSEC SRAM Module, ZIP Configuration

MECHANICAL DIMENSIONS

Inches



5 NEW PASTURE ROAD
NEWBURYPORT, MA 01950-4040
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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.