



AK481024S / AK481024G

1,048,576 x 8 Bit CMOS

Dynamic Random Access Memory

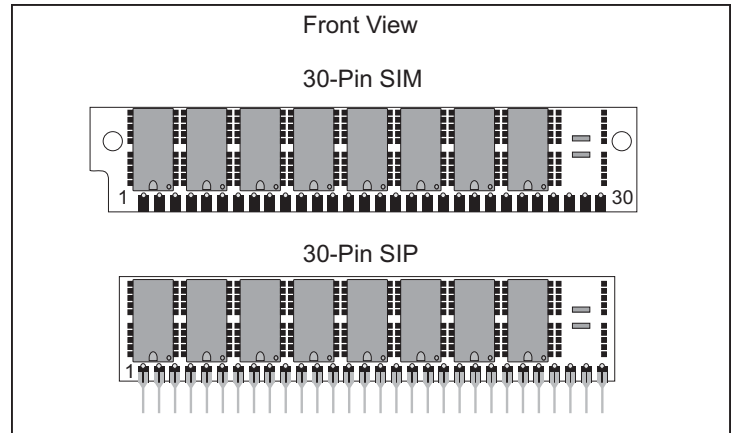
DESCRIPTION

The Accutek AK481024 high density memory module is a random access memory organized in 1 Meg x 8 bit words. The assembly consists of eight standard 1 Meg x 1 DRAMs in plastic leaded chip carriers (SOJ) mounted on the front side of a printed circuit board. The module can be configured as a leadless 30 pad SIM or a leaded 30 pin SIP. This packaging approach provides a 6 to 1 density increase over standard DIP packaging.

The operation of the AK481024 is identical to eight 1 Meg x 1 DRAMs. The data input is tied to the data output and brought out separately for each device, with common \overline{RAS} , \overline{CAS} and \overline{WE} control. This common I/O feature dictates the use of early-write cycles to prevent contention of D and Q. Since the Write-Enable (\overline{WE}) signal must always go low before \overline{CAS} in a write cycle, Read-Write and Read-Modify-Write operation is not possible.

FEATURES

- 1,048,576 x 8 bit organization
- Optional 30 Pad leadless SIM (Single In-Line Module) or 30 Pin leaded SIP (Single In-Line Package)
- JEDEC standard pinout
- Each device has common D and Q lines with common \overline{RAS} , \overline{CAS} and \overline{WE} control
- \overline{CAS} -before- \overline{RAS} refresh
- Power
 - 3.08 Watt Max Active (80 nSEC)
 - 2.64 Watt Max Active (100 nSEC)
 - 2.20 Watt Max Active (120 nSEC)
 - 44 mW Max Standby
- Operating free air temperature 0°C to 70°C
- Upward compatible with AK584096 and AK5816384
- Downward compatible with AK48256



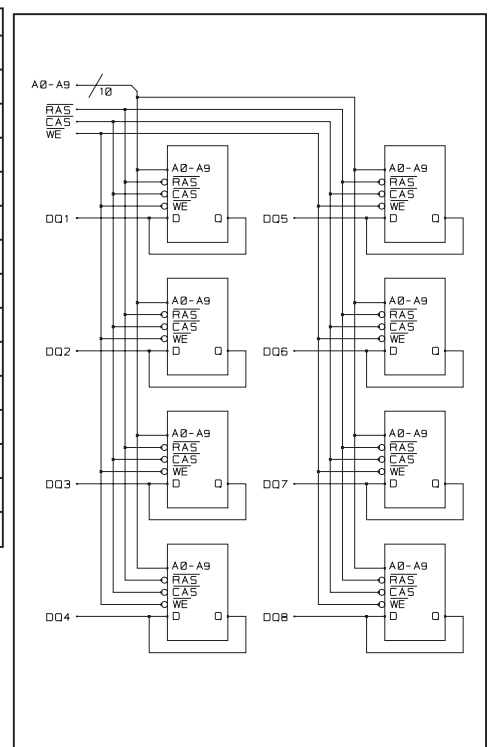
PIN NOMENCLATURE

DQ ₁ - DQ ₈	Data In / Data Out
A ₀ - A ₉	Address Inputs
\overline{CAS}	Column Address Strobe
\overline{RAS}	Row Address Strobe
\overline{WE}	Write Enable
V _{cc}	5v Supply
V _{ss}	Ground
NC	No Connect

PIN ASSIGNMENT

PIN #	SYMBOL	PIN #	SYMBOL
1	V _{cc}	16	DQ ₅
2	\overline{CAS}	17	A ₈
3	DQ ₁	18	A ₉
4	A ₀	19	NC
5	A ₁	20	DQ ₆
6	DQ ₂	21	\overline{WE}
7	A ₂	22	V _{ss}
8	A ₃	23	DQ ₇
9	V _{ss}	24	NC
10	DQ ₃	25	DQ ₈
11	A ₄	26	NC
12	A ₅	27	\overline{RAS}
13	DQ ₄	28	NC
14	A ₆	29	NC
15	A ₇	30	V _{cc}

FUNCTIONAL DIAGRAM



MODULE OPTIONS

Leadless SIM: AK481024S
Leaded SIP: AK481024G

