

ACCUTEK

MICROCIRCUIT CORPORATION

AK5216128WV
128K x 16/256 x 16
Dual Port Video Ram

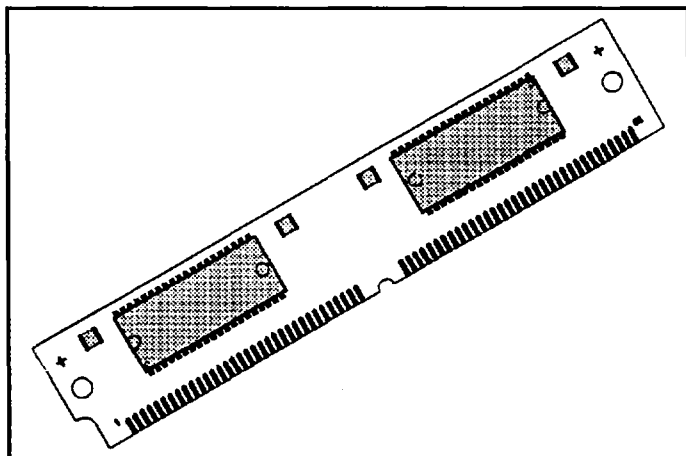
DESCRIPTION

The Accuthek AK5216128 is a 2 MEG-bit Dual Port Dynamic Memory Video Module. The module contains a 128K x 16 DRAM Port and a 256 x 16 Serial Read/Write Port.

The Serial Read/Write Ports are connected to an internal 2K-bit Data Register through a 256 x 16 Serial I/O control circuit and can be serially read out or written in with a clock rate of up to 33MHz.

FEATURES

- Dual Port
- DRAM Port: 128K x 16 bit
- Serial Port: 256 x 16 bit
- Bidirectional Data Transfer between the DRAM and the Data Register
- Write Per Bit
- Fast Page Mode, Hidden Refresh, $\overline{\text{CAS}}$ -before- $\overline{\text{RAS}}$ Refresh
- 512 Cycle/8mS Refresh



- Power
 AK5216128WV-80 800mW
 AK5216128WV-10 700mW
 AK5216128WV-12 600mW
- Upward compatible with AK5216256

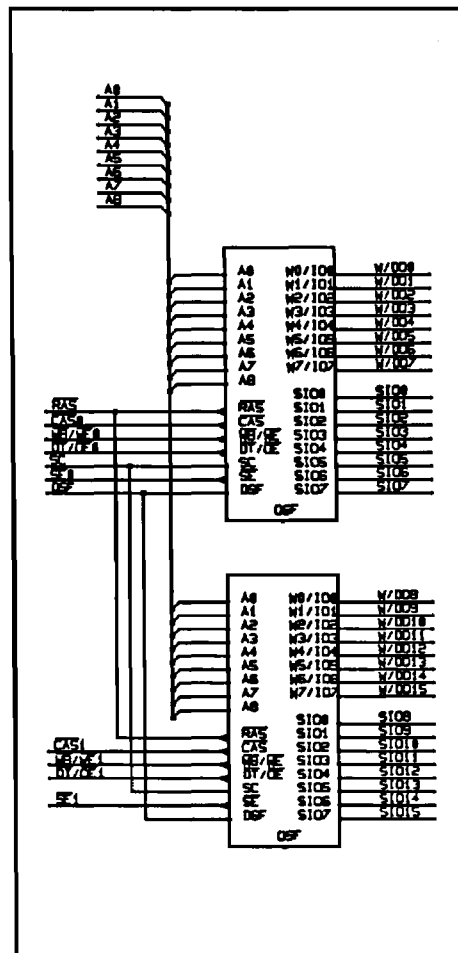
PIN NOMENCLATURE

DT/OE ₀ & DT/OE ₂	Data Transfer Output Enable Input
DSF	Input Special Function
SIO ₁ -SIO ₁₅	Serial Input/Output
WB/WE ₀ & WB/WE ₂	Write Per Bit Write Enable Input
RAS	Row Address Strobe
CAS ₀ - CAS ₁	Column Address Strobe
SE ₀ - SE ₁	Serial Enable Input
W/DQ ₀ - W/DQ ₁₅	Writemask Data Input Output
A ₀ - A ₈	Address Inputs
Vss	Ground
Vcc	5v Supply
N/C	No Connection

PIN ASSIGNMENT

Vcc	1	DSF	2
SIO ₀	3	SIO ₁	4
DT/OE ₀	5	W/DQ ₀	6
W/DQ ₁	7	SIO ₃	8
SIO ₂	9	WB/WE ₀	10
RAS	11	SE ₀	12
W/DQ ₃	13	W/DQ ₂	14
A ₀	15	A ₁	16
A ₂	17	A ₃	18
Vss	19	Vss	20
SIO ₄	21	SIO ₅	22
N/C	23	W/DQ ₄	24
W/DQ ₅	25	SIO ₇	26
SIO ₆	27	N/C	28
Vcc	29	W/DQ ₇	30
W/DQ ₆	31	CAS ₀	32
A ₄	33	A ₅	34
Vss	35	SC	36
SIO ₈	37	SIO ₉	38
DT/OE ₂	39	W/DQ ₈	40
W/DQ ₉	41	SIO ₁₁	42
SIO ₁₀	43	WB/WE ₂	44
SE ₁	45	W/DQ ₁₁	46
W/DQ ₁₀	47	A ₆	48
A ₇	49	A ₈	50
N/C	51	Vcc	52
Vss	53	Vss	54
SIO ₁₂	55	SIO ₁₃	56
N/C	57	W/DQ ₁₂	58
W/DQ ₁₃	59	SIO ₁₅	60
SIO ₁₄	61	N/C	62
N/C	63	W/DQ ₁₅	64
W/DQ ₁₄	65	CAS ₁	66
Vcc	67	Vcc	68

FUNCTIONAL DIAGRAM



ORDERING INFORMATION

PART NUMBER CODING INTERPRETATION

- Position: 1 2 3 4 5 6 7 8
- 1 - Product _____
AK = Accuthek Memory
 - 2 - Type _____
5 = CMOS Dynamic RAM
6 = Static RAM
52 = Dual Port Dram
 - 3 - Organization/Word Width _____
4 = by 4
8 = by 8
9 = by 9
16 = by 16
 - 4 - Size/Bits Depth _____
128 = 128K
256 = 256K
1024 = 1 MEG
 - 5 - Package Type _____
G = Single In-Line Package (SIP)
S = Single In-Line Module (SIM)
W = .050 inch Pitch Edge Connect Module
 - 6 - Special Designation _____
P = Page 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) _____
60 = 60 nS
70 = 70 nS
80 = 80 nS
10 = 100 nS
12 = 120 nS
etc.

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

EXAMPLES

AK5216128WV-10

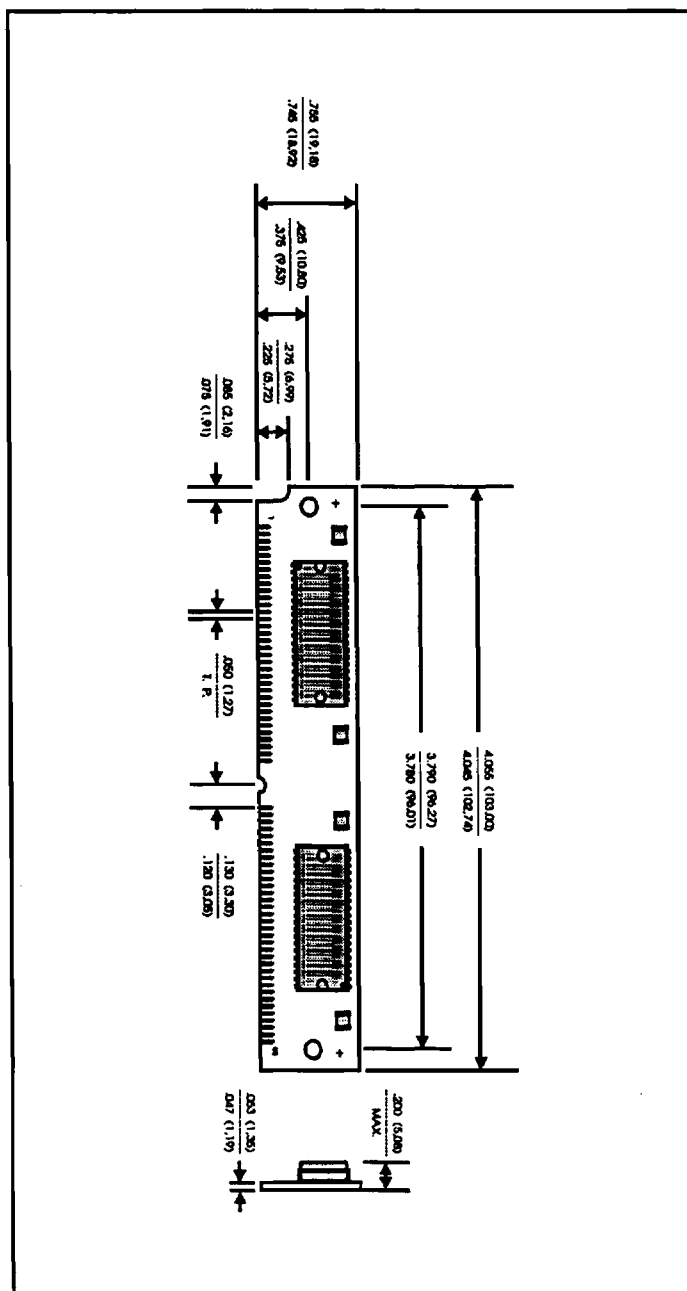
128K x 16, Dual Port Video Ram, .050 Edge Connect, Commercial, 100 nS Access Time

AK5216256WV-80

256K x 16, Dual Port Video Ram, .050 Edge Connect, Commercial, 80 nS Access Time

MECHANICAL DIMENSIONS

inches (millimeters)



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