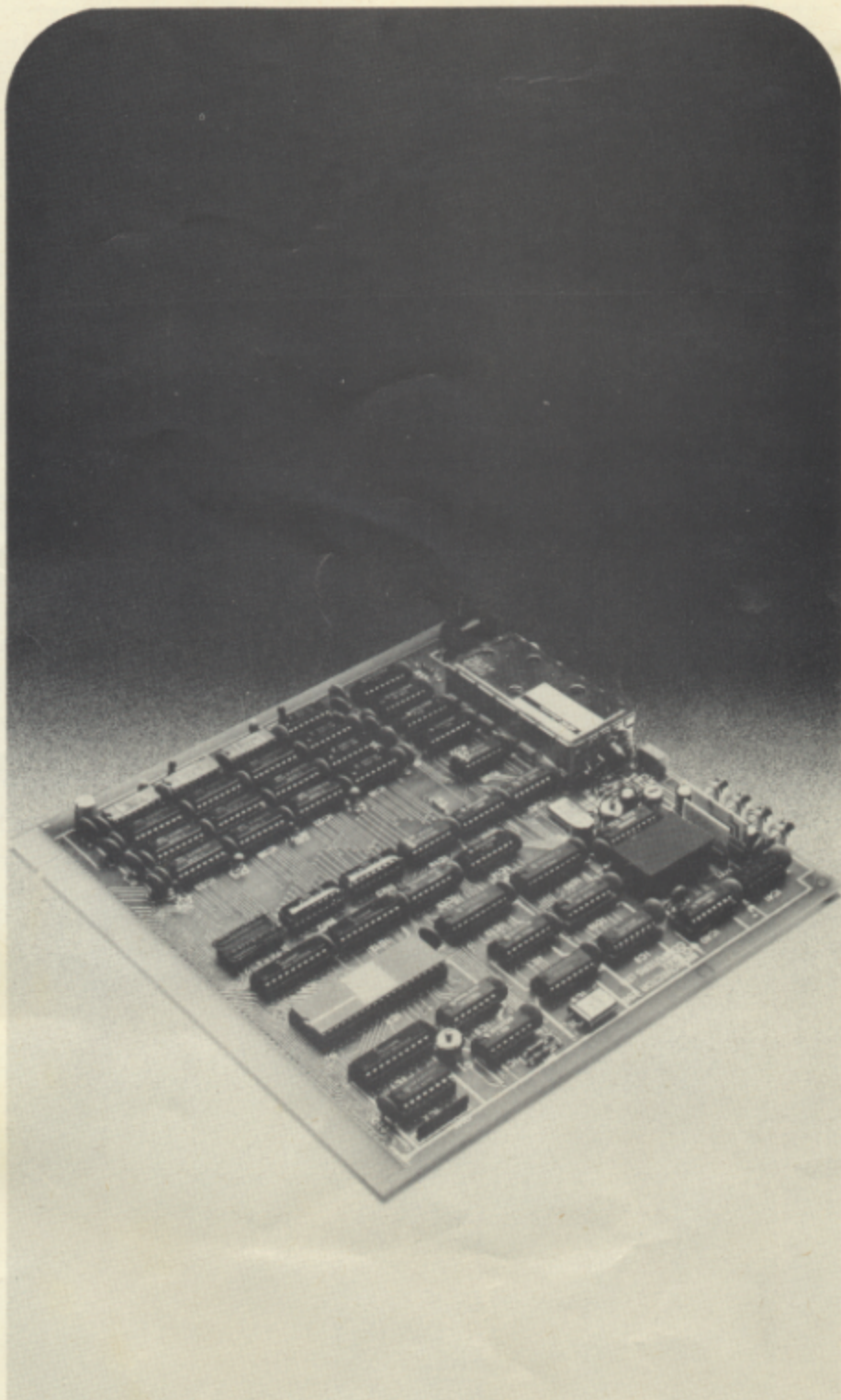


MICROVECTOR MV256A & MV256B

- High resolution display.
256 x 256 x 4 planes (16 colours).
- 32k of display memory
with flicker-free update (Outside of the
host computers memory address space).
- Non-interlaced 50Hz CCIR 625
line display format.
- High Quality PAL UHF output
with intercarrier sound facility.
- Composite B/W video 75 ohm output
(16 grey levels).
- Red, Blue & Green video 75 ohm outputs
(sync. mixed on each) available
on MV256B only.
- Audio & light pen inputs.
- Ultra fast vector and character
generation give
full animation capability (min 800 000
pixels/sec, max 1300 000 pixels/sec).
- Selectable line types (continuous, dotted,
dashed, dotted-dashed).
- 96 ASCII character set. Programmable
character sizes and orientations.
- Rectangle fill, clear screen
and scan screen operations.
- Host computer access to display memory
via registers.
- Comprehensive display status information.
- Light pen control.
- NMI interrupt generation (on board link
option).



The Microvector 256A is a high performance graphics display interface on an 80-BUS and NASBUS compatible card. Various graphic primitives such as vector & character generation are executed in hardware by a Thomson EF9356 Graphic Display Processor. Plotting rates are typically 1 million pixels per second giving full animation capability. Various vector and character types can be selected. Characters can be scaled to give 256 different sizes.

The Microvector 256A provides a resolution of 256 x 256 pixels in 16 colours using 32k bytes of onboard memory. Screen updates only occur during video blanking periods resulting in a flicker free display.



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Outputs

The Microvector 256A has a high quality PAL UHF output with an intercarrier sound facility as well as a 75 ohm B/W video output. Audio input is via a standard 3.5mm jack. A second version, the Microvector 256B has additional 75 ohm RGB outputs for connection to a colour video monitor.

Light Pen

The Arfon/Torch light pen is plug in compatible with the Microvector 256 cards and may be used for interactive graphic procedures. The operation of the light pen is very simple, the X,Y coordinates of the pen position being returned after a light pen sequence has been initiated. A 4 x 4 pixel block can be resolved on the screen.

Programming

The Microvector 256 is programmable via 17 I/O ports, simplifying programming considerably over 2 port systems. On board registers contain various vector & character parameters. Commands are single byte codes. The host computer may poll the interface or use interrupts to determine the command execution, light pen and video blanking status.

A comprehensive set of assembly language subroutines given in the operating manual enable the user to develop his own graphics programmes quickly and efficiently. Examples are:-

Function	Description
LINETO (X, Y)	Line absolute
LINEBY (DX, DY)	Line relative
MOVETO (X, Y)	Move absolute
MOVEBY (DX, DY)	Move relative
PLOTTO (X, Y)	Plot absolute
PLOTBY (DX, DY)	Plot relative
TEXTTO (X, Y; TEXT)	Text absolute
TEXTBY (DX, DY; TEXT)	Text relative
GET (X, Y)	Get colour of pixel
DREC (X, Y; XI, YI)	Draw Rectangle
DTRI (X, Y; XI, YI; X2, Y2)	Draw Triangle
DCIR (X, Y; R)	Draw Circle
DPOLY (X, Y; XI, YI, ...XN, YN)	Draw Polygon
FREC (X, Y; XI, YI)	Fill Rectangle
FTRI (X, Y; XI, YI; X2, Y2)	Fill Triangle
FCIR (X, Y; R)	Fill Circle
FPOLY (X, Y; XI, YI, ...XN, YN)	Fill Polygon
CLEAR	Clear Screen
SCAN (C)	Colour Whole Screen
LPEN (P)	Light Pen Sequence
PENCOL (C)	Select Pen Colour
LINestyle (S)	Select Line Style
CHARstyle (S)	Select Character Style
CHARsize (S)	Select Character Size

Documentation

The Microvector 256 documentation consists of a system operating manual. Programming in assembly language and BASIC is also covered. A special section deals with real time animation techniques.

All units are supplied built and tested with a 90 day guarantee.
