

WATFORD ELECTRONICS

ARCHIMEDES VIDEO DIGITIZER

Preliminary Specification 24/7/87

Note : The details below may change before the product is released.

Description

This product is a hardware add-on for the Acorn Archimedes range of computers, which will allow video images from a camera, video recorder, or other video source to be captured and displayed on the computer's screen. Pictures may then be scaled, magnified, rotated etc., saved to disk, printed out, or used by other applications such as desktop publishing & drawing systems, inspection and image analysis software etc.

Specifications

Resolution 512 (h) x 256 (v) pixels, 64 grey levels monochrome. It is possible to select the odd or even field of an interlaced picture, so 512*512 resolution can be achieved using 2 grabs, but only if the image is stationary during the time taken to transfer the first field to memory (~0.2 sec) This can only be displayed by the Archimedes range using a MultiSync monitor.

Speed Images are captured in real time (1/50th sec), and then transferred to the screen or main memory. The speed at which this can be done depends on the resolution required :

- 512*256 approx. 7 frames/second
- 256*256 approx. 12 frames/second
- 128*128 approx. 20 frames/second.

The 128*128 mode is particularly useful for previewing and camera alignment/focusing etc.

Input Standard 1V p-p composite video signal, via BNC socket, with optional 75R termination. A filter is incorporated to remove subcarrier signals from colour sources, avoiding undesirable patterning effects.

Interface The digitizer is a single width podule, which plugs into the backplane of the Archimedes machine.

Software All the low-level driver software will be in a ROM on the podule, and will include grabbing, previewing, scaling (i.e. shrink/magnify/stretch/clip) in X and Y directions, rotation (to any angle), X/Y flip, negative/pseudocolour images, printer dumps, data compression for loading/saving to disk. All ROM routines will be accessible via OS commands and SWI calls, so programs in BASIC or other languages will have full access to the facilities provided. Other planned facilities which may either be provided in the ROM, on a supplied disk, or on disk at a later date include : noise reduction, contrast enhancement, edge detection, animated sequence capture/replay, sprite creation, image comparison, convolution, movement detection, intensity histograms, 512*512 grabbing.

Price Somewhere between £100 and £200

Availability September/October '87