A RCA CDP 1802 MICROPROCESSOR DIGITAL
SIGNAL STORAGE AND DISPLAY SYSTEM.

BY

SAMUEL KATIA

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A B S T R A C T

A signal storage and display system was constructed using
the RCA CDP 1802 COSMAC Microprocessor. This system shows
useful applications of a microprocessor with and without a monitor

Digital data acquisition frequency is also the microprocessor
clock frequency. The digital data sampling rate is from one
microsecond to one week, and the clock frequency automatically
reverts to a display clock frequency of 80KHZ. Of the 256 data bytes
collected, 128 are data bytes collected before the trigger and
128 after the trigger. 128 data points can be selected for
display starting from any memory location.

The maximum program reading speed of the system is 40 words
per minute. Debugging is possible without a monitor. The
built in DMA-load facility of the CDP 1802 makes data transfer
easy as the extra address counter is not required.

The system is capable of analog display from an add-on ADC.
Display labelling is possible with an addition of a special
monitor. An addition of a simple monitor would allow the
ordinary functions of the hexadecimal keyboard, the 7-segment
display and the TTY/cassette. Modifications and improvements
such as adding high speed catch buffers infront can be easily
done.