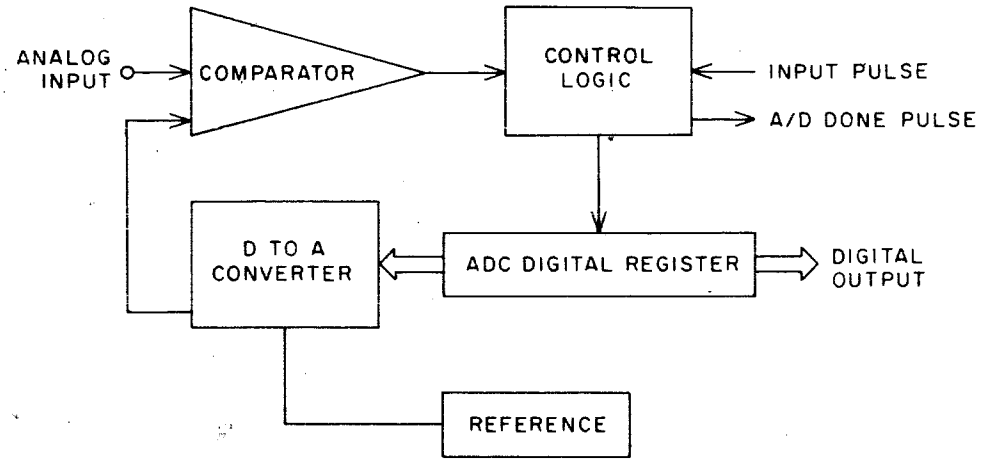
# 10-BIT ANALOG-TO-DIGITAL CONVERTER

## TYPE A-801

**A SERIES**

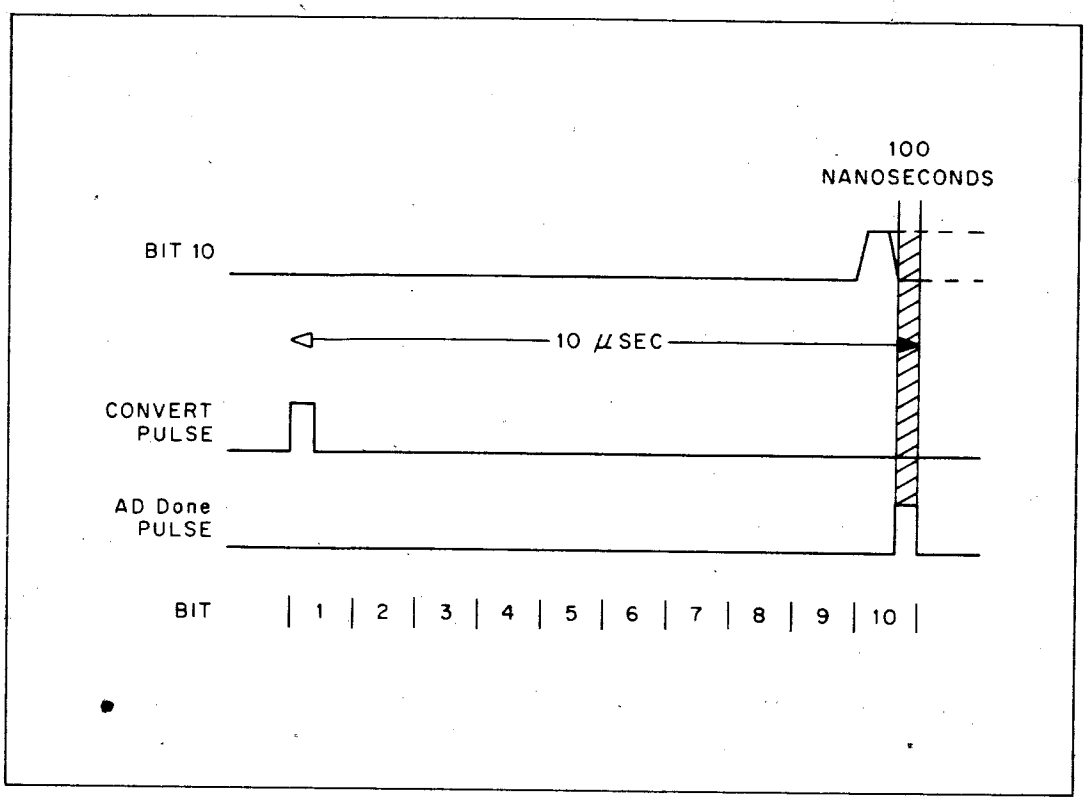



A-801 10-BIT ANALOG-TO-DIGITAL CONVERTER

The A-801 is a complete, 10-bit, successive approximation, analog to digital converter with a built in reference supply. The complete converter is contained on one DEC double FLIP CHIP™ logic module. Conversion is initiated by raising the Convert input to logic 1 (+4 volts). The digital result is available at the output within 10 microseconds. An A/D Done Pulse is generated when the result is valid. The A-801 uses monolithic integrated circuits for control logic, output register, and comparator.

A new approach in data acquisition is made possible with the A-801. In the past, the most economical way to convert a large number of analog inputs to digital values was to place a large multiplexer ahead of a high speed analog-to-digital converter. The number of analog inputs which could be sampled was limited by the conversion rate of the A/D converter. Extremely fast converters which are necessary in this serial configuration are, by necessity, expensive. The low price of the A-801 allows a number of converters to be used in parallel and economically increase the effective system bandwidth.

The A-801 may also effectively be multiplexed with the new Multiplexer Module Type A121. Available for use with the A-801 is a new Operational Amplifier Module Type A200 and Sample-and-Hold Module Type A400. Standard DEC connector blocks, mounting panels and power supplies are available as accessories.




## SPECIFICATIONS

Mechanical: Double Flip Chip Module

Electrical:

| | |
|---|---|
| Uni-Polar Input | |
| Resolution | 10 bits |
| Input Impedance | 1000 ohms |
| Input Voltage | +10 volts |
| Conversion Rate | 100 KHz |
| Output Format | Parallel Binary |

Logical Zero = 0 volts
Logical One = +4 volts

| | |
|---|---|
| Output Impedance | 100 ohms |
| Accuracy | ±0.05% of full scale ±½ LSB |
| Operating Temperature | 0°C to 50°C |
| Temperature Coefficient | 0.1 mv/°C |
| Convert Input: | Pulse |
| Amplitude | +4V |
| Rise Time | 20 nanoseconds (nominal) |

A/D Done Pulse:

| | |
|---|---|
| Pulse width | 100 nanoseconds (minimum) |
| Pulse amplitude | +4V |

A801 — $750.00