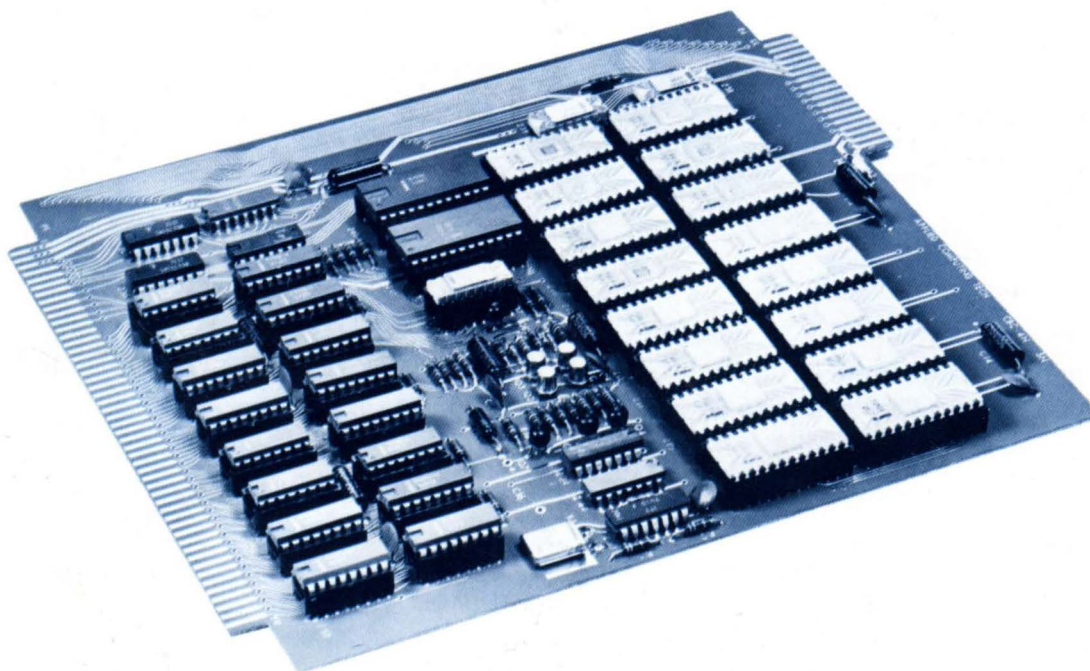


THE CBC-4N

- ELIMINATES HARDWIRED LOGIC
- REPLACES MINICOMPUTERS FOR MOST APPLICATIONS
- SINGLE CARD MINIMIZES WIRING, TESTING AND PACKAGING
- PROGRAMMABLE FEATURE ALLOWS FUNCTIONAL CHANGES WITHOUT HARDWARE MODIFICATIONS
- MEMORY EXPANDABLE IN SMALL INCREMENTS FOR ECONOMY
- PROGRAMMING/DEVELOPMENT EQUIPMENT AVAILABLE



MICROCOMPUTER CBC-4N

DESCRIPTION

The CBC-4N is a low cost self-contained parallel four-bit general purpose microcomputer on a single card. The Microcomputer consists of five basic functional elements: a CPU (central processing unit), a ROM (read only memory) for assembled program storage, a RAM (random access memory) for data storage, a universal I/O bus, and a crystal controlled clock. The CPU includes subroutine stack nesting to 4 levels, 16 index registers, and I/O buffer. The CBC-4N provides an output port for each of the RAMs (up to 16) and a universal I/O bus which may be expanded to 16 I/O ports. Each port is 4 bits wide. ROM program storage is mechanized with conventional electrically programmable and erasable PROMs (programmable read only memory).

The basic CBC-4N Microcomputer memory section is mechanized for maximum system flexibility and capacity. The unit may be provided with RAM

data storage in increments of 80 words to a maximum of 1280 4 bit words. ROM program storage may be expanded in increments of 256 words to a maximum of 4096 8 bit words. Memory is expanded by insertion of chips in sockets.

PROGRAMMING

Computer programming and associated product development is most easily accomplished by using Applied Computing Technology's CBC-4 microcomputer Assembler/Simulator. This is a self contained unit which simulates the CBC-4N in real time and provides the means for easy assembly and checkout of programs. The I/O structure of the CBC-4 is directly compatible with the universal I/O bus of the CBC-4N.

Applied Computing Technology can provide custom microcomputer design and development as well as complete software support.

MICROCOMPUTER SPECIFICATIONS

Computer Class	Self-contained four-bit parallel GP Microcomputer
Word Format	4 Bit parallel
Word Length	
Data Words	4 Bits/data word
Instructions	8 Bits/instruction word
Arithmetic Modes	Decimal and Binary
Number of Instructions	45
Instruction Format	One and two words/instruction
Address Modes	
Direct Addressing	Up to 4096 8 bit memory words
Indirect Addressing	Up to 256 8 bit memory words
Index Addressing	Up to 256 8 bit memory words
CPU Hardware Registers	
Program Counter & Stack Register	4 Program stack registers
Index Address Register	16 Index registers
Subroutine Stack Nesting levels	4 levels of nesting
Instruction Cycle Time	11.8 μ s
Add Time	11.8 μ s
I/O Transfer Time	11.8 μ s
Number of I/O Channels	16 maximum input channels 32 maximum output channels
I/O Data Format	4 bit parallel word
RAM Data Storage	Up to 1280 4 bit words
PROM Program Storage	Up to 4096 8 bit words
Power Requirements	
+ 5 volt level	1.1 AMP (maximum system configuration)
- 10 volt level	1.8 AMP (maximum system configuration)
Card Size	8" x 8"
Connector	100 Pin Edge Connector, 0.125 CTRS

