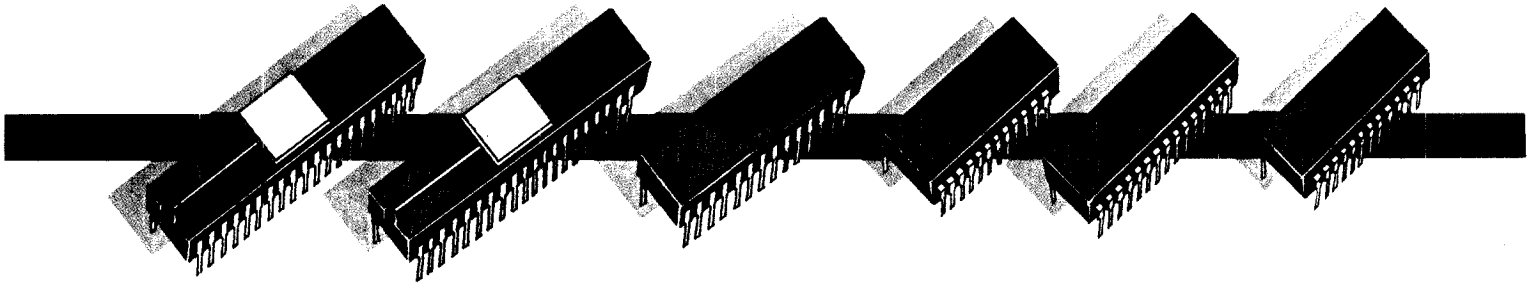
1



MC6821 MC146823 MC6840 MC6850 MC6854 MC6852

I/O Peripherals

Parallel . . .

Peripheral Interface Adapter — Contains two I/O ports, each capable of controlling an independent 8-bit peripheral data bus. Multiple PIAs can be used with a single system and selectively addressed by means of Chip-Select inputs. Each peripheral data line can be programmed to act as an input or output and each of four control/interrupt lines can operate in one of several control modes. **MC6821**

CMOS Parallel Interface — Contains two conventional 8-bit bidirectional I/O ports and one multiplexed 8-bit port comprising 24 independently programmable I/O lines. Interfaces directly with most industry CMOS and NMOS microprocessors for 8-bit systems. **MC146823**

Programmable Timer — Provides variable system time intervals. Has three 16-bit binary counters, three corresponding control registers and a status register. The counters are under software control and may be used to cause system interrupts and/or generate output signals. May be utilized for frequency measurements, event counting, interval measuring and similar tasks. **MC6840**

NMOS Asynchronous Communications Interface Adapter — This circuit provides the data formatting and control to interface serial asynchronous data communications information to bus-organized systems.

The parallel data of the bus system is serially transmitted and received by the asynchronous data interface, with proper formatting and error checking. The functional configuration of the ACIA is programmed via the data bus during system initialization. A programmable Control Register provides variable word lengths, clock division ratios, transmit control, receive control, and interrupt control. Three control lines allow the ACIA to interface directly with the MC6860 Digital Modem. **MC6850**

Advanced Data Link Controller — In a bit-oriented data communication system the data is transmitted and received in a synchronous serial form.

The serial data stream must be converted into parallel, analyzed, and stored (for use by the MPU) in order for data link management to be accomplished. Similarly, parallel data from the MPU system must be serialized with the appropriate frame control information in order to conform to the bit-oriented protocol standards. The Advanced Data Link Controller (ADLC) provides these functions. **MC6854**

Synchronous Serial Data Adapter — Provides interface between the M6800 MPU system and synchronous data terminals such as floppy disk equipment, cassette or cartridge tape controllers, numerical control systems and other systems requiring movement of data blocks. Operates at speeds up to 600 kbps. **MC6852**