

The Option 62 Buffered Asynchronous Communications Controller adds a wide range of data transmission/reception capabilities to the stand-alone computer capabilities of Wang's cassette based PCS (Portable Computer System) or mini-diskette based PCS-II (Personal Computer System). The controller's integrated microprocessor and multi-character input/output buffers simplify telecommunications control procedures and reduce CPU processing requirements. With the controller, a PCS or PCS-II can be programmed to function like a variety of asynchronous terminals (e.g., a Teletype<sup>®</sup> terminal or an IBM 2741 Selectric<sup>®</sup> Typewriter Terminal) or to communicate with another comparably-equipped Wang system.

### FEATURES

The controller fits inside the housing of a PCS or PCS-II unit and has fixed micro-code residing in a 1K-byte read-only-memory. The controller also has a 1K-byte random-access-memory for input/output data buffering, storage of initialization information (including code translation tables and a communication control vector), and storage of current status information.

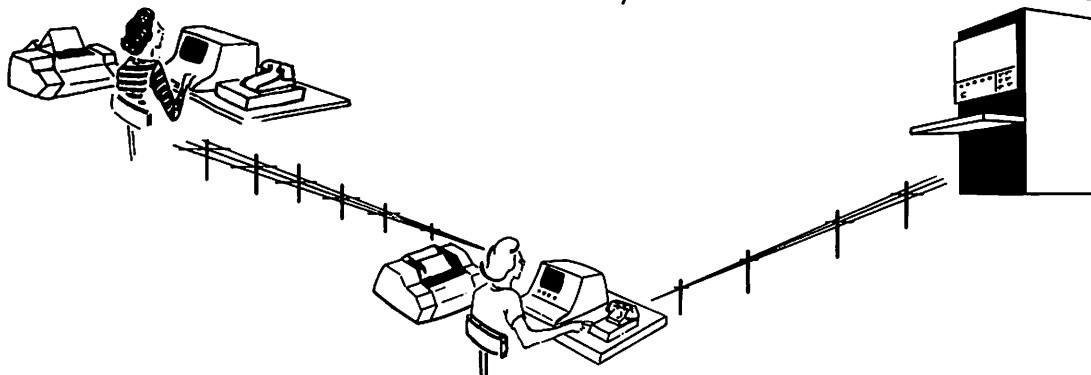
The controller supports asynchronous transmission rates from 50 to 9600 bits per second. Any one of the following rates can be set via the initializing communication control vector: 50, 75, 100, 110, 134.5, 150, 200, 300, 600, 1200, 1800, 2400, 3600, 4800, 7200 or 9600 bps.

The following character formatting options can be selected via the communication control vector: parity (odd, even or no), the number of data bits (5, 6, 7 or 8), and the number of stop bits (1, 1.5 or 2).

Because the controller has its own microprocessor, ROM and RAM, separate tasks related to data transmission/reception can be performed concurrently by the controller and the central processor of the PCS or PCS-II. The controller performs operations such as the following:

- telecommunications control and data buffering
- break signal detection and transmission
- code translation
- full or half duplex operation
- automatic insertion and removal of shift characters
- detection of received timeouts
- substitution for characters received in error
- automatic delays following transmission of up to four specified characters
- sensing the secondary received data, and setting the secondary transmitted data modem signals (also called reverse or supervisory channel data signals).

Some of these features are discussed briefly in the information which follows.



## OPTION 62 BUFFERED ASYNCHRONOUS COMMUNICATIONS CONTROLLER

# DATA SHEET

## Code Translation

If required for a particular application, two 256-byte code translation tables (one for data transmission operations and the other for reception operations) can be loaded into the controller memory to allow data interchange between the CPU and the controller in Wang's USASCII code set, regardless of the transmission code set.

## Insertion and Removal of Shift Characters

If a particular code is included in the communication control vector, the controller automatically inserts and removes shift characters, thereby eliminating the need to program each operation. Such a feature is useful when a PCS or PCS-II transmits and receives data in a code set which utilizes shift characters, e.g., when emulating an IBM 2741 terminal.

## Status Information

The current status regarding transmission errors, break signal reception, and modem signals can be requested and received at any time. Available information with respect to received data consists of character parity and framing errors, received timeouts, and buffer overrun conditions. Available modem signals are Data Set Ready, Secondary Received Data, and Received Line Signal Detector.

## Other Control Functions

The controller can send and receive break signals to interrupt transmission to or from the host computer. Also, the controller can send a disconnect signal to the modem under program control.

## SPECIFICATIONS

### Power Requirements

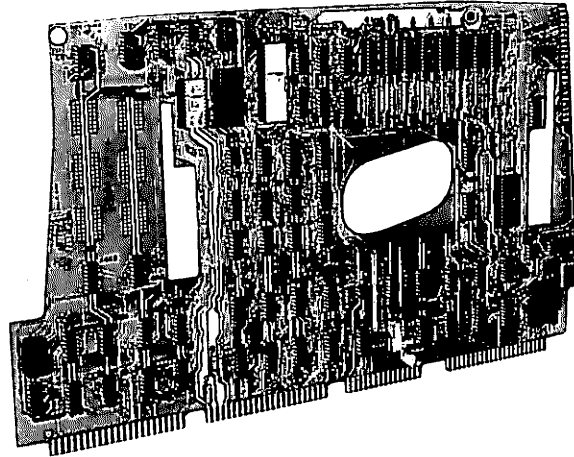
Supplied by the PCS or PCS-II.

### Electrical Connection

A 25-pin RS-232-C, CCITT V.24 compatible female plug (located on the back cover of a PCS or PCS-II) facilitates hookup of a modem.

### Cable

A 12-foot (3.6m) cable, equipped with 25-pin RS-232-C compatible male connectors on each end, is supplied as an accessory.



## SPECIFICATIONS (Cont.)

### Asynchronous Transmission Rates

50, 75, 100, 110, 134.5, 150, 200, 300, 600, 1200, 1800, 2400, 3600, 4800, 7200 or 9600 bits per second.

### Character Format Options

Parity: odd, even, or no.

Number of Data Bits: 5, 6, 7 or 8.

Number of Stop Bits: 1, 1.5, or 2.

### Communication Mode

Full or half duplex.

### Compatible Modems

Bell 103 or 202 type, or equivalent.

Null modem, available from Wang, for direct communications link.

### Standard Warranty Applies

## ORDERING SPECIFICATIONS

An asynchronous communications controller which fits inside a Wang PCS or PCS-II. The unit must have its own microprocessor with fixed microcode capable of implementing the following operations: code translation, full or half duplex operation, automatic insertion and removal of shift characters, substitution of characters received in error, and automatic removal of received null characters. A 1K-byte RAM must be provided for storage of initialization information and current information including status and buffered input/output data.

*Wang Laboratories reserves the right to change specifications without prior notice.*

**WANG**

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