HEWLETT® PACKARD

Data Communications Interface

Technical Data

For HP 9000 Series 300 Computer Systems
Product Number
HP 98628A

The HP 98628A Data Communications Interface enables your workstation to communicate with any device that is compatible with standard asynchronous or HP Data Link data communication protocols. Devices can include various modems or link adapters, as well as equipment with standard RS-232-C* or current loop links.

Features

- Asynchronous Serial Communications including RS-232-C (CCITT V.28/V.24), RS-449, RS-423, and RS-422
- Distributed System Network/Data Link support for communication to HP 1000
- Terminal emulation software compatibility for communication with other computers
- Data formats of 5, 6, 7, or 8 bits/character and 1, 1.5, or 2 stop bits
- Selectable odd, even, or no parity and fixing parity bit to 0 or 1

* RS-232-C is a data communication standard established and published by the Electronic Industries Association (EIA). Copies of the standard are available from the association at 20001 Eye Street N.W., Washington D.C. 20006. Its equivalent for European applications is CCITT V.24.

Functional Specifications

Data Rates

Standard data rates available with internal clocking:

50	75	110	134.5
150	200	300	600
1200	1800	2400	3600
4800	7200	9600	19200

Interrupt Capability

The HP 98628A Serial Interface Card can be programmed to interrupt the computer on the following conditions:

Async:

- Data or control block available
- Prompt received
- Framing and/or parity error
- Modem line change (DSR, DCD, CTS, RI)
- No activity timeout
- Lost carrier or connection timeout
- End-of-line received
- Break received

Data Link:

- Data block available
- Space available for new transmission block
- Receive or transmit error
- Modem line change (DSR, DCD, DTS, RI)
- No activity timeout
- Lost carrier or connection timeout

Buffer Size

The HP 98628A card contains the following buffer sizes:

Async:

- Tx control is 11 blocks of 50 bytes each
- Tx data is 549 bytes
- Rx control is 99 blocks of 7 bytes each
- Rx data is 699 bytes

FDL:

- Tx control is 11 blocks of 50 bytes each
- Tx data is 549 bytes
- Rx control is 11 blocks of 95 bytes each
- Rx data is 1049 bytes

Switch Configuration

The following switches are configurable:

Async/Data Link

Select Code: The factory setting is 20; valid select codes are 8 to 31.

Interrupt Level: The factory interrupt priority level setting is 3; valid settings are 3 to 6.

Async/Data Link: Selects between Async or Data Link personality; the factory setting is Asynchronous.

Note: The settings listed below are not all switch selectable. However, all values are selectable through the CONTROL statement. Values selected through the CONTROL statement override the switch settings.

Async:
These settings are active when the ASYNC/DATA LINK switch is set to its ASYNC position.

Parity-Bits/Character:
A 2-bit switch selects between the following Parity-Bits/Character combinations: None/8, None/7, Odd/7, Even/7; the factory setting is Odd/7.

Hardware Handshake:
A 2-bit switch selects:

- Handshake Off, Non-modem Connection
- Full-duplex, Modem Connection
- Half-duplex, Modem Connection
- Handshake On, Non-modem connection

The factory setting is Full Duplex, Modem Connection.

Baud Rate: A 3-bit switch selects between the following combinations of baud rates/stops bit settings: 110/2, 150/2, 300/1, 600/1, 1200/1, 2400/1, 4800/1, 9600/1. The factory setting is 300/1.

Data Link

These settings are active when the ASYNC/DATA LINK switch is set to its DATA LINK position.

DID: A 3-bit switch selects the following value for the HP 98628's device address: @, A, B, C, D, E, F, or G.

Baud Rate: A 2-bit switch selects the following baud rates: 300, 1200, 9600, or 19200.

Hardware Handshake:
A 2-bit switch selects between:

- Handshake Off, Non-modem Connection
- Full-duplex, Modem Connection
- Half-duplex, Modem Connection
- Handshake On, Non-modem Connection

Electrical Specifications

Card Power Consumption:

+5 V	at 710 μA typical
+12 V	at 37 μA typical
-12 V	at 60 μA typical

POD Power Consumption
(supplied by computer):

Data Link Adapter, HP 13264A

+5 V	30 μA
+12 V typical	160 μA
-12 V	23 μA

300 Baud Modem, HP 13265A

+5V	100 μA
+12V typical	45 μA
-12V	45 μA

Current Loop Interface, HP 13266A

+5 V	200 μA
+12 V typical	90 μA
-12 V	80 μA

Ordering Information

Earliest Language Version Required: BASIC 2.0, Pascal 1.0, HPL 2.0, AND HP-UX 2.0.

The HP 98628A includes:

98628-66504 Data Communications Card
98046-90005 Data Comm Manual
98628-90001 Installation Manual

HP 98628A Options

001 4.9-meter (16 ft) RS-232-C DTE (male) cable (P/N 5061-4215) with test connector (P/N 1251-6625)

002 4.9-meter (16 ft) RS-232-C DCE (female) cable (P/N 5061-4216) with test connector (P/N 1251-6624)

003 4.9-meter (16 ft) RS-449/423 DTE (male) cable (P/N 5061-4250) with test connector (P/N 5061-4220)

Supported Connection Products:

HP 13264A Data Link Adapter for use in HP 1000- or HP 3000-based Data Link network applications
HP 13265A Modem for asynchronous connections up to 300 baud, including built-in autodial capability.
HP 13266A Current Loop Adapter for use with current loop links or devices.

Fuse for Replacement/Spare: 2110-0712