



HP 82966A Data Link Interface

Data Link Interface

HP offers you the ability to configure Series 80 personal computers with most other HP computer products on a common network. By implementing the Data Link protocol, the HP 82966A Data Link Interface enables Series 80 personal computers to connect to an HP 3074A adapter and use I/O ROM functions to communicate over Hewlett-Packard's multidrop data communications network.

The network consists of a group of terminals and/or computers connected to a common data link where a single HP 1000 or HP 3000 host computer is the master of all communication activity.

Specifications

EQUIPMENT REQUIRED

- 00085-15003 or 00087-15003 I/O ROM
- HP 82936A ROM Drawer
- HP 92901A Data Link Multidrop Junction Box
- HP 92905A Interconnecting Cable
- HP 92902A Data Link Cable
- HP 3074A Data Link Adapter

DATA RATES AND FORMATS

All signals at the connector conform electrically to EIA RS-232C specifications. The interface operates in asynchronous mode providing 8- and 9-bit data formats with odd, even, one, zero, or no parity. It can be run at the following baud rates:

2400	9600
4800	19200

SWITCH CONFIGURATION

The following switches can be configured by opening the interface:

- Select code
- Default baud rate
- Default device identification
- Default group identification
- Enable daisy chain operation

INTERRUPT CAPABILITY (with I/O ROM)

- Timed out by master controller
- Exceed retransmission count
- No activity timeout
- Received data available
- Transmit data buffer empty

DAISY CHAINING

In the Owner's Manual you will find instructions which provide you with an inexpensive method for connecting multiple Series 80 personal computers via HP 82966A Data Link Interfaces to a single HP 3074A Data Link Adapter.

CONTROL AND STATUS REGISTERS

The HP 82966A Data Link Interface has 11 status registers and 19 control registers. The status registers include: state of the data link, state of the data buffer, group and device identification, line characteristics, reason for termination of ENTER or TRANSFER, card identification number* (8 for Data Link), and the interrupt cause register.*

The 19 control registers consist of: timeout and retransmission limits, line characteristics selection, data link control, data buffer control, setting group and device identification, termination character selection for up to four

characters, interrupt mask,* seven end-of-line characters,* and the end-of-line character count.*

DATA LINK INTERFACE STATEMENTS

The I/O ROM adds a set of statements to the computer that accesses capabilities determined by the interface being used. The following describes how the Data Link Interface interprets these statements.

ABORTIO—Aborts all transfers in progress and stops responding to requests on the link.

HALT—Aborts all transfers in progress but still responds to requests on the link.

RESUME—Begins responding to requests on the link.

SEND—Sends arbitrary data sequences.

TRANSFER RATES (maximum)

Type	Input (bytes/sec)	Output (bytes/sec)
TRANSFER INTR	1.0K	1.0K
ENTER & OUTPUT	1.4K	1.5K
TRANSFER FHS	none	none

The data rates listed above relate to data transfer between the card and the Series 80 CPU. Because the interface has facilities for buffering data, however, the card can support data transfer at 19,200 baud.

*Common to all Series 80 I/O interfaces.