DIGITAL EQUIPMENT CORPORATION

pdp10

OPTION BULLETIN

DS10 Single Line Synchronous Interface for the PDP-10

DS10 FEATURES

- 9600 bits per second (software supported)
- 20,000 bits per second (maximum)
- Full PDP-10 software for communication to remote stations
- Compatible with synchronous modems that meet EIA RS-232B or C Standards
- Modem control and data operate on separate interrupt channels
- Interchangeable circuit cards for synchronization and EOT codes
- Programmable character width, 6 or 8 bits
- Continuous character repetition without processor attention.

The DS10 Single Line Synchronous Interface is a 9600 bit per second* interface which allows the PDP-10 to communicate with remote devices such as other computers, high speed displays, remote job entry, and remote batch terminals. System software will support two DS10 units on the PDP-10 I/O bus.

The DS10 communicates with the remote stations in full duplex mode, using separate interrupt channels for modem control and data transfer. Compatible modems include the Bell System 201, Bell System 205, Rixon PM24, ICC Modem 2200, or any synchronous modem which conforms to the Electronics Industries Association RS-232B or C Computer Interface Standards.

The DS10 minimizes interrupt overhead by using a full word buffer and assembling serial data into words for transmission to the PDP-10 and disassembling 36-bit words into characters for serial transmission to remote stations. Character length is programmable in either 6 or 8† bits.

The device assembles 6-bit data into a 6-character word and 8-bit data into a 4-character word. On remote transmission, the DS10 receives a 36-bit word from the PDP-10, disassembles it into 6- or 8-bit characters and transmits them serially through the modem.

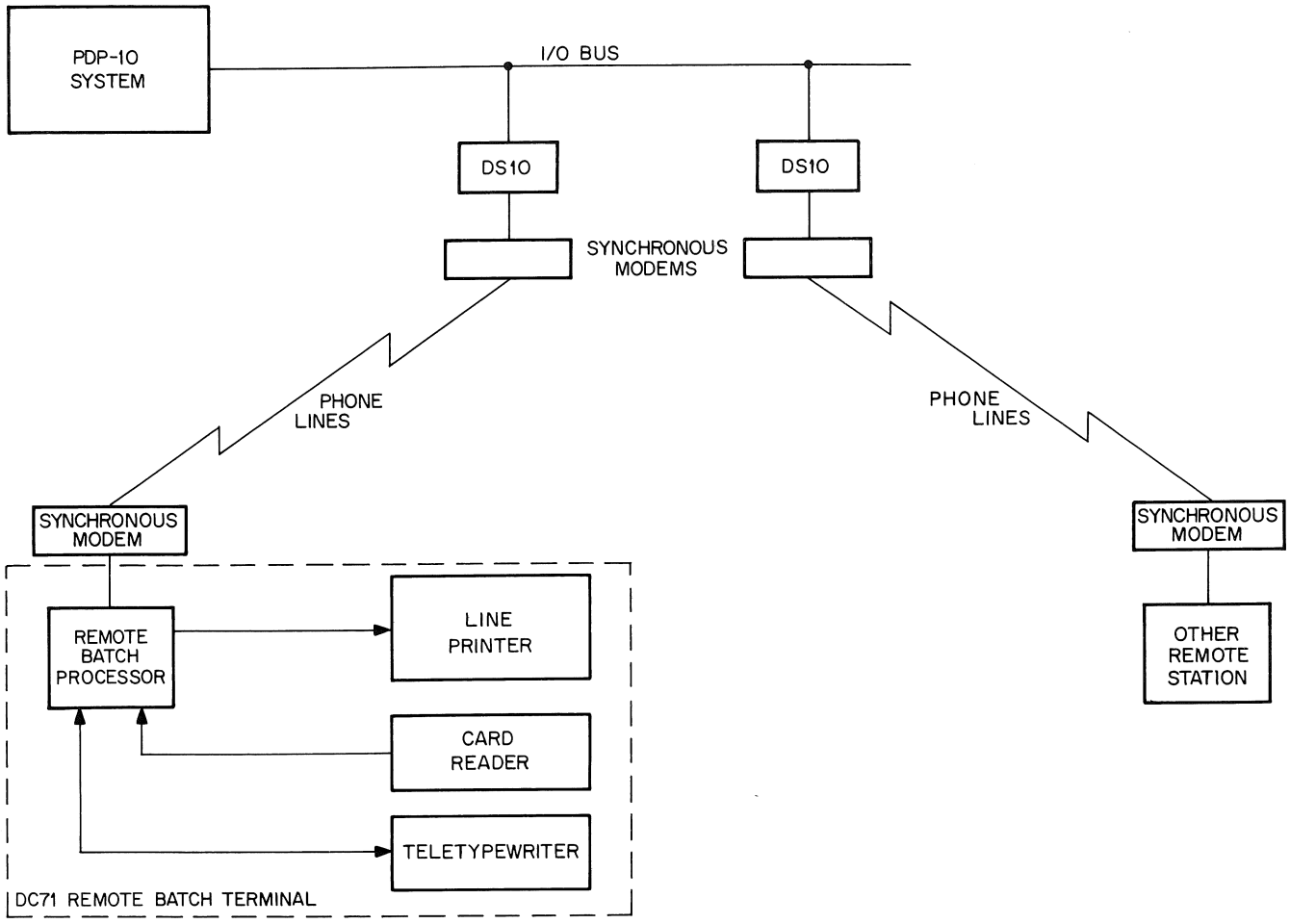
Interchangeable circuit cards for the device make it possible to use various synchronization and end of transmission (EOT) codes. The DS10 can also continuously repeat a character supplied by the central processor without processor attention. Character repetition is useful, for example, to keep a transmission line open.

Message formatting, error detection, and code conversion are handled by the PDP-10 service program, allowing the DS10 to interface a variety of terminals. PDP-10 software uses Digital Equipment Corporation standard communication format.

*Maximum rate that is software supported. Unit can transmit up to 20,000 bits per second.

†Software supported.

digital



SPECIFICATIONS

Type	Single line synchronous modem interface to EIA RS-232B or C modems
Speed	9,600 bits per second (software supported) 20,000 bits per second (maximum)
Number per system	Two
Method of Attachment	PDP-10 I/O bus

Power Consumption	450 Watts
Heat Dissipation	1600 BTU per hour
Operating Temperature	60° F to 95° F (15° C to 35° C)
Dimensions	69" x 22" x 29" (1.75 m x .56 m x .72 m)
Weight	300 lbs (140 Kg)
Relative Humidity	20% to 80%

DIGITAL EQUIPMENT CORPORATION, Maynard, Massachusetts, Telephone: (617) 897-5111 • ALABAMA, Huntsville • ARIZONA, Phoenix • CALIFORNIA, Anaheim, Los Angeles, Oakland, Palo Alto • COLORADO, Denver • CONNECTICUT, Meriden • DISTRICT OF COLUMBIA, Washington (College Park, Md.) • FLORIDA, Orlando • GEORGIA, Atlanta • ILLINOIS, Chicago • INDIANA, Indianapolis • MASSACHUSETTS, Cambridge and Waltham • MICHIGAN, Ann Arbor • MINNESOTA, Minneapolis • MISSOURI, St. Louis • NEW JERSEY, Parsippany and Princeton • NEW MEXICO, Albuquerque • NEW YORK, Centereach (L.I.), New York City, (Englewood, N.J.), and Rochester • NORTH CAROLINA, Durham/Chapel Hill • OHIO, Cleveland and Dayton • PENNSYLVANIA, Philadelphia and Pittsburgh • TENNESSEE, Knoxville • TEXAS, Dallas and Houston • UTAH, Salt Lake City • WASHINGTON, Seattle • AUSTRALIA, Brisbane, Melbourne, Perth, and Sydney • CANADA, Edmonton, Alberta; Vancouver, British Columbia; Carleton Place, Ottawa, and Toronto, Ontario; and Montreal, Quebec • ENGLAND, London, Manchester, and Reading • FRANCE, Paris • GERMANY, Cologne, Hanover, and Munich • HOLLAND, The Hague • ITALY, Milan • JAPAN, Tokyo • SWEDEN, Stockholm • SWITZERLAND, Geneva

Printed in U.S.A. 104X 01070 ATB / D 12 10 / A1288