

510A-TYPE DATA SERVICE UNIT
SUMMARIZING SPECIFICATION
DIGITAL DATA SYSTEM
DATA SYSTEMS

1. GENERAL

SCOPE

1.01 This specification, together with the supplementary information listed herein, summarizes, for application and ordering purposes, the product engineering requirements for the 510A-type data service unit (DSU) used in the Digital Data System (DDS).

1.02 When this section is reissued, the reasons for reissue will be listed in this paragraph.

DESCRIPTION

1.03 The DDS provides for full duplex, private line data transmission, operating at synchronous data rates of 2.4, 4.8, 9.6, and 56 kb/s. At customer stations, a 510A-type DSU is used to interface with customer data terminals. The DSU contains transmit, receive, clock recovery, multiplexing, and demultiplexing circuitry. An EIA RS-232-C interface is provided for each of up to 19 customer interfaces or ports.

1.04 Depending on the number of ports and the port data rates specified by the customer, the 510A-type DSU may be configured as follows:

RATE (kb/s)	MAXIMUM NUMBER OF PORTS
2.4	19
4.8 or 2.4	9
9.6 or 4.8	4

1.05 The 510A-type DSU operates within an ambient temperature range of 40° to 120°F and at a relative humidity of less than 95 percent.

The maximum power required is 80 watts from a source of 105 through 129 volts ac at 60 ±3 Hz.

1.06 The DSU is equipped with a 14-foot, 4-conductor cord (D4 BD-87) for connection to a telephone line and a 10-foot, 3-conductor power cord (KS-14532, L20) to plug into a customer provided ac power outlet.

1.07 The basic 510A-L1 DSU (Fig. 1) consists of the circuit pack housing; 112A power unit; wiring; telephone and power cords; and one each of circuit packs KD21, KD22, KD23, and KD24. A 510A-L1/2 DSU (Fig. 2) consists of a 510A-L1 DSU mounted in a KS-20018, L19 cabinet. One or two KD25 circuit packs and one to nineteen KD26 circuit packs (Fig. 3) must be added to the 510A-L1 to provide the service specified by the customer.

1.08 The 510A-L1 is approximately 19 inches wide, 14 inches deep, and 10 inches high. Its weight, with all circuit packs installed, is 53 pounds. The 510A-L1/2 DSU is approximately 20.3 inches wide, 15.0 inches deep, and 12.9 inches high. Its weight, with all circuit packs installed, is 66 pounds.

Installation Options

1.09 The removable mounting ears of the 510A-L1 DSU may be installed in a number of different positions. This feature allows the DSU to be mounted in standard Bell System 19- or 23-inch frames and cabinets, or in EIA standard 19-inch frames and cabinets. See Section 595-201-102 for details.

2. SUPPLEMENTARY INFORMATION

314-900-190—Engineering and Implementation Methods for the Digital Data System

NOTICE

Not for use or disclosure outside the
Bell System except under written agreement

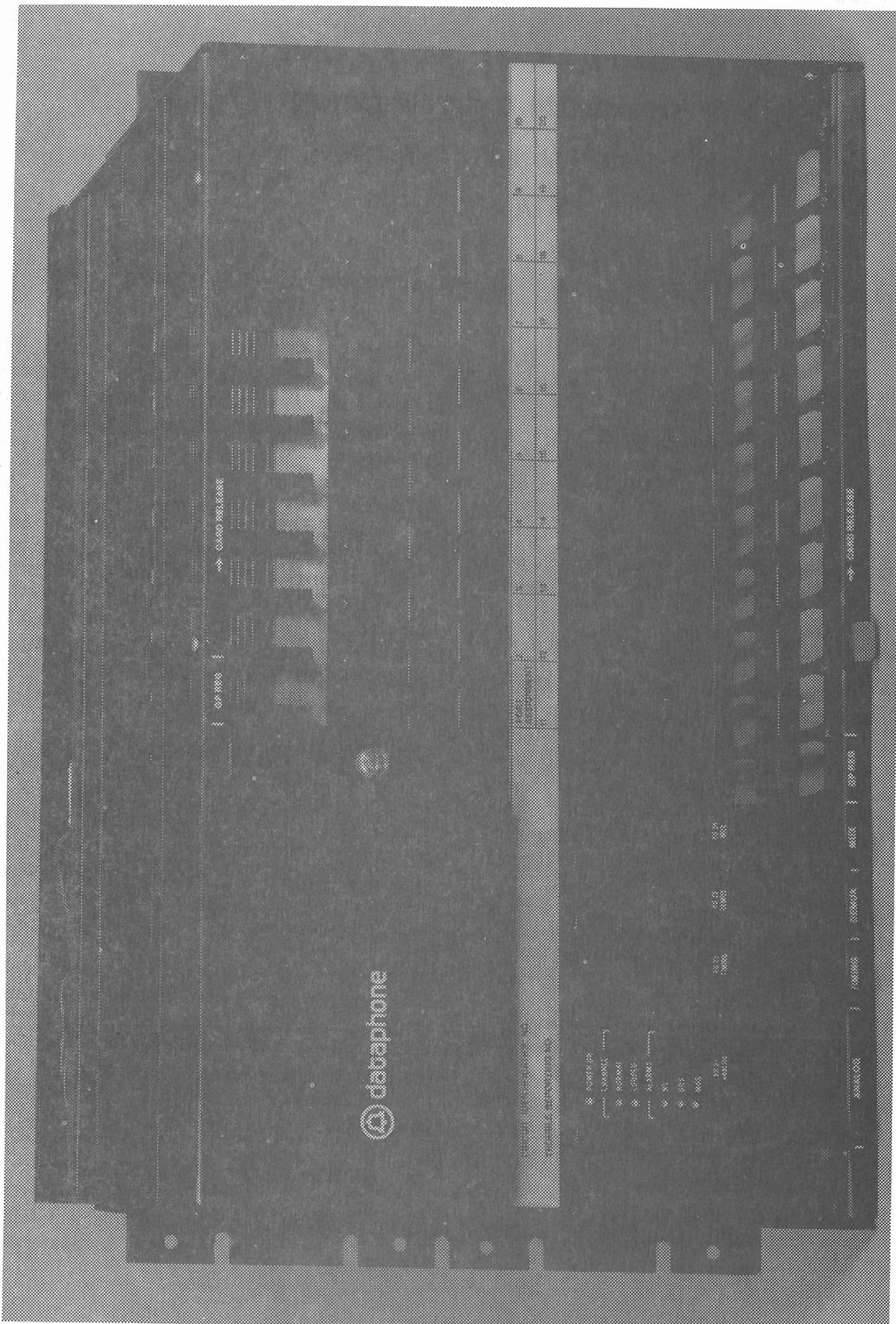


Fig. 1—510A, L1 Data Service Unit

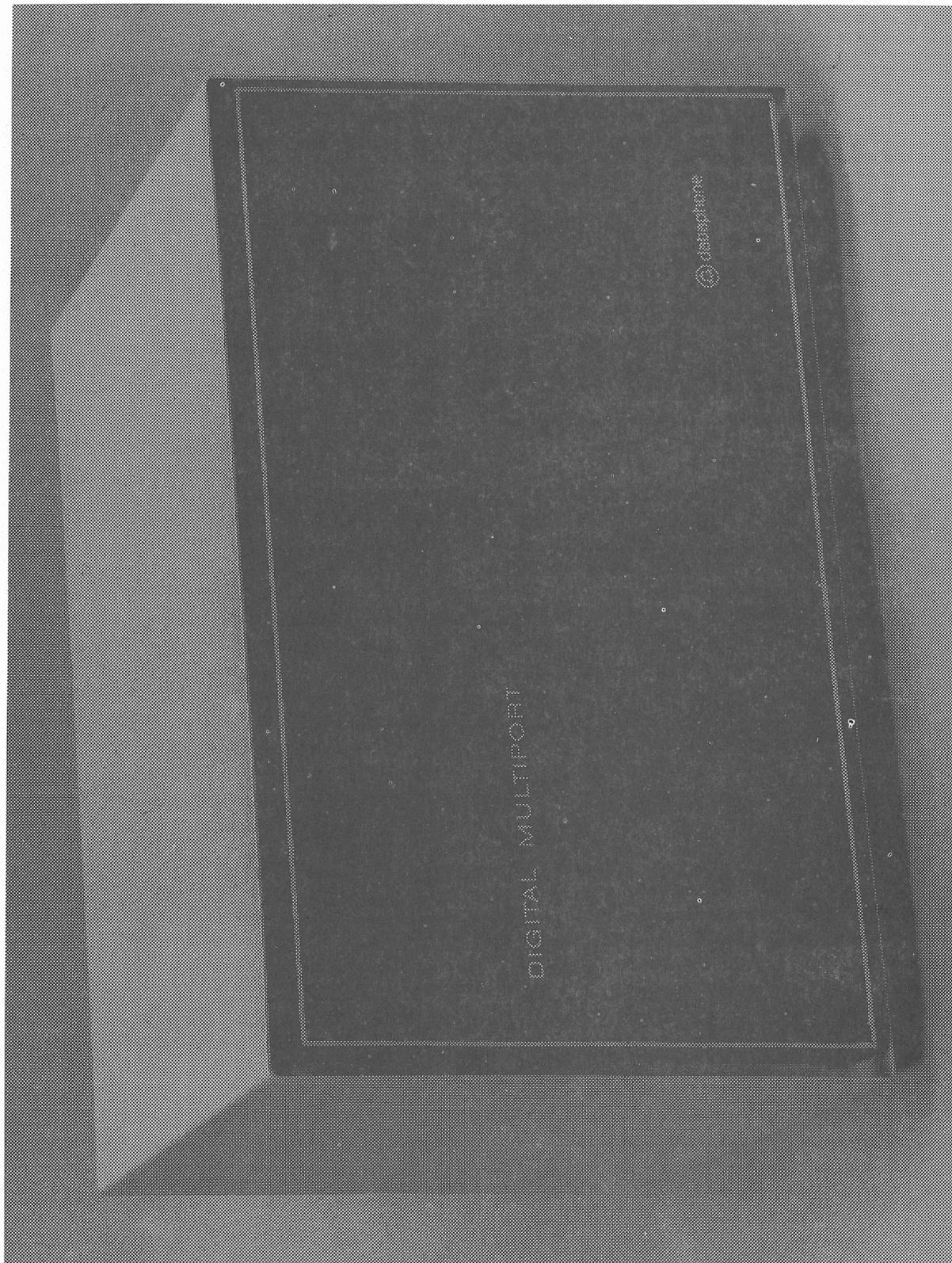


Fig. 2—510A, L1/2 Data Service Unit

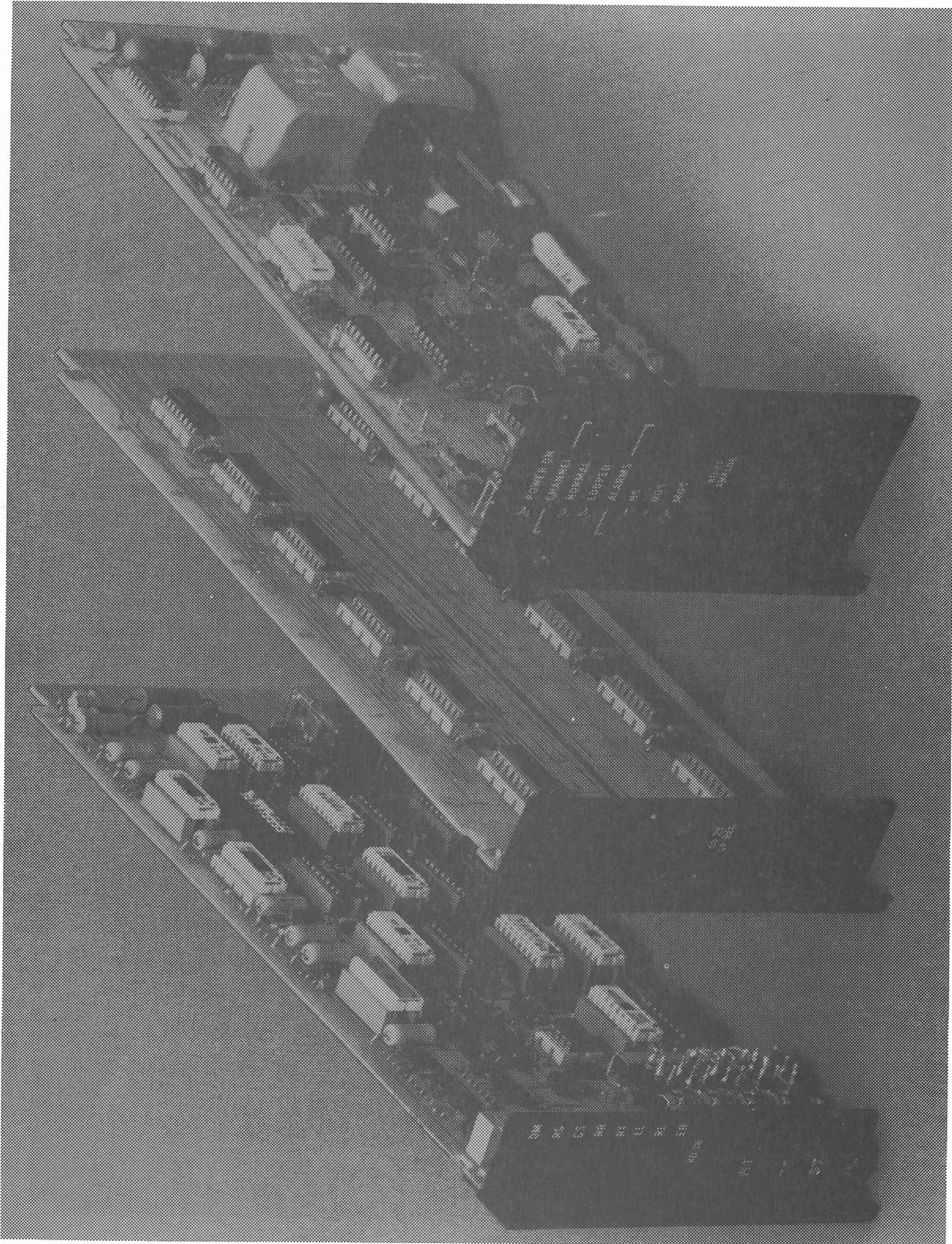


Fig. 3—Typical Circuit Packs

- 595-201-100—Digital Data System — 510A-Type Data Service Unit — Description and Operation
- 595-201-102—Digital Data System — 510A-Type Data Service Unit — Installation and Connections
- 595-201-103—Digital Data System — 510A-Type Data Service Unit — Maintenance
- 595-201-104—Digital Data System — 510A-Type Data Service Unit — Test Procedures
- 800-610-158—Requirements for Packaged Electronic Products
- 800-610-159—Printed Wiring Assemblies—General Equipment Requirements
- X-18228—Manufacturing Testing Requirements for the 510A-Type DSU
- CD-1D263-01—Data Systems—Digital Data System — Station — 510A-Type Data Service Unit

3. DRAWINGS

- SD-1D263-01—Data Systems — Digital Data System — Station — 510A-Type Data Service Unit

4. PRODUCT

510A-Type Data Service Unit

- List 1**—Basic unit consisting of circuit pack housing, power unit, wiring, and circuit packs KD21 through 24 per SD-1D263-01, App Fig. 1.

- List 2**—Added KS-20018, L19 cabinet and miscellaneous mounting hardware. This cabinet shall be shipped separately from the 510A-L1.

KD25 Circuit Pack

Added to 510A-L1 per SD-1D263-01, App Fig. 2.

K26 Circuit Pack

Added to 510A-L1 per SD-1D263-01, App Fig. 3.

TABLE OF AUTHORIZED ORDERABLE CODE NUMBERS

DATA SERVICE UNIT	RATING
510A-L1	AT&TCo Std
510A-L1/2	AT&TCo Std

Note: Ordering information for the above products should be listed per Section 743-001-002 in this form:

Unit, Service, Data, 510A-L1/2

TABLE OF AUTHORIZED ORDERABLE CIRCUIT PACK CODES

CIRCUIT PACK	RATING
KD21	AT&TCo Std
KD22	AT&TCo Std
KD23	AT&TCo Std
KD24	AT&TCo Std
KD25	AT&TCo Std
KD26	AT&TCo Std

Note: Ordering information for the above products should be listed per Section 743-001-002 in this form.

Pack, Circuit, KD25

5. GENERAL NOTES

5.01 The code of a DSU is composed of the basic unit (list 1) followed by an additional list number (list 2) representing an optional cabinet. To provide any service, an appropriate number of KD25 and KD26 circuit packs must be ordered and installed per Section 595-201-102. To provide service for 1 to 9 ports, one 510A-L1 or L1/2, one KD25, and one to nine KD26s must be ordered. To provide service for 10 to 19 ports, one 510A-L1 or L1/2, two KD25s, and ten to nineteen KD26s must be ordered.