

**501A-TYPE DATA SERVICE UNIT
(DSU)
AND
DATA AUXILIARY SET 821A-TYPE
SUMMARIZING SPECIFICATION
SWITCHED 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 501A-type data service unit (DSU) and the data auxiliary set (DAS) 821A type used in the Switched Digital Data System (SDDS).

1.02 Whenever this section is reissued, the reason for reissue will appear in this paragraph.

DESCRIPTION

A. 501A-Type DSU

1.03 The Switched Digital Data System provides for full-duplex, switched data transmission operating at synchronous data rates of 9.6 and 56 kb/s. (Service at 4.8 kb/s is available as an installer option using a 9.6-kb/s DSU.) At customer stations, a 501A-type DSU is used to interface with the customer provided equipment (CPE). The DSU contains transmit, receive, and clock recovery circuitry, and optionally, automatic and manual dialing circuitry. An EIA RS-232-C interface is provided for 9.6- (and 4.8) kb/s service. A CCITT V.35 interface is provided for 56-kb/s service. In addition, an automatic calling interface (ACI) and an interface with an 821A-type data auxiliary set may be selected.

1.04 Depending on the data rate specified by the customer, the following *answer only* DSUs are provided:

RATE (kb/s)	DATA SERVICE UNIT (DSU)
9.6 (4.8)	501A-L1/2
56	501A-L1/3

If manual and/or automatic calling capabilities are specified, the following DSUs are provided:

RATE (kb/s)	DATA SERVICE UNIT (DSU)
9.6 (4.8)	501A-L1/2/4
56	501A-L1/3/4

1.05 The physical dimensions of the 501A-type DSU are approximately 16.0 inches wide, 11.4 inches deep, and 4.3 inches high. The weight is 17.3 pounds.

1.06 The 501A DSU operates in the ambient temperature range of 40 to 120°F and at a relative humidity of less than 95 percent. The power required is 60 \pm 3 Hz at 105 through 129 volts.

1.07 The DSU is equipped with a 9-foot, 4-conductor cord for connection to the telephone line and a 5.5-foot, 3-conductor power cord to plug into a customer provided ac power outlet.

1.08 The basic 501A-L1 DSU (nonorderable code) consists of the housing, 83A power unit,

and telephone and power cords. The various orderable codes of the DSU are obtained by the addition of LD-type circuit packs.

MULTIPLE INSTALLATIONS

1.09 Installations of three or fewer DSUs may be accomplished by stacking the units vertically. Due to thermal effects, no more than three DSUs should be stacked vertically.

1.10 For larger installations, special brackets are available to mount the 501A DSUs in a variety of arrangements. Details of these arrangements are described in Section 595-300-200.

B. DAS 821A Type

1.11 The data auxiliary set (DAS) 821A is used at customer locations in conjunction with the 501A-type DSU. The 821A allows manual dialing and supervision of SDDS calls. Visual indications of call status and audible alerting are also provided.

1.12 The physical dimensions of the DAS 821A type are approximately 6.5 inches wide, 4.1 inches deep, and 2.3 inches high. The weight is approximately 1.9 pounds.

1.13 The DAS 821A operates in the ambient temperature range of 40 to 120°F and at a relative humidity of less than 95 percent. Power (+5 Vdc, +12 Vdc) is obtained from the 501A DSU. Maximum power dissipation is 1.5 watts.

1.14 The DAS 821A is intended for desk top mounting and is equipped with a 6-foot, 50-conductor cord which terminates at the 501A DSU in a 50-pin connector. Extensions may be used to increase this cord length by as much as 50 feet.

1.15 The complete DAS 821A-L1 (orderable code) consists of the housing, dial circuit pack 841-316-243, ringer circuit pack 841-572-290, and a ringer transducer/resonator unit.

1.16 The DAS 821A interfaces with 501A DSUs of either 9.6- or 56-kb/s data rate. One DAS 821A is required for each 501A DSU requiring manual call origination.

2. SUPPLEMENTARY INFORMATION

- 314-900-191—Engineering and Implementation Methods System for the Switched Digital Data System.
- 595-300-100—Switched Digital Data System—501A-Type Data Service Unit—Description and Operation
- 595-300-200—Switched Digital Data System—501A-Type Data Service Unit—Installation and Connections
- 595-300-300—Switched Digital Data System—501A-Type Data Service Unit—Maintenance
- 595-300-500—Switched Digital Data System—501A-Type Data Service Unit—Test Procedures
- 598-085-100—Switched Digital Data System—Data Auxiliary Set 821A Type—Identification
- 800-610-158—Requirements for Packaged Electronic Products
- 800-610-159—Printed Wiring Assemblies—General Equipment Requirements
- X-18175—Manufacturing Testing Requirements Specification—501A-Type DSU
- X-18180—Manufacturing Testing Requirements Specification—DAS 821A Type
- CD-1D253-01—Data Systems—Switched Digital Data System—Station—501A-Type Data Service Unit
- CD-1D255-01—Data Systems—Switched Digital Data System—Station—Data Auxiliary Set 821A-Type

3. DRAWINGS

- SD-1D253-01—Data Systems—Switched Digital Data System—Station—501A-Type Data Service Unit
- SD-1D255-01—Data Systems—Switched Digital Data System—Station—Data Auxiliary Set 821A-Type

4. PRODUCT

501A-Type Data Service Unit

- List 1**—Basic unit (nonorderable) consisting of housing, power unit, wiring, etc, per SD-1D253-01, App Fig. 1.
- List 2**—Added LD1 and LD3 circuit packs to basic unit for 9.6- (and 4.8) kb/s answer only operation.
- List 3**—Added LD2 and LD3 circuit packs to basic unit for 56-kb/s answer only operation.
- List 4**—Added to lists 1 and 2 or lists 1 and 3 to

provide manual and/or automatic calling capabilities.

TABLE OF AUTHORIZED ORDERABLE CODE NUMBERS

DATA SERVICE UNIT (DSU)	RATING
501A-L1/2	AT&TCo Std
501A-L1/3	AT&TCo Std
501A-L1/2/4	AT&TCo Std
501A-L1/3/4	AT&TCo Std

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

Unit, Service, Data, 501A-L1/2

TABLE OF ORDERABLE CIRCUIT PACK CODES

501A LIST	CIRCUIT PACK CODES
2	LD1, LD3
3	LD2, LD3
4	LD4

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

Pack, Circuit, LD1

Data Auxiliary Set 821A Type

List 1—Complete unit (orderable code) consisting of housing, ringer circuit pack 841-572-290, dial circuit pack 841-316-243, tone ringer, and cord.

TABLE OF AUTHORIZED ORDERABLE CODE NUMBERS

DATA AUXILIARY SET	RATING
821A-L1	AT&TCo Std

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

Set, Auxiliary, Data, 821A-L1

5. GENERAL NOTES

5.01 The code of a DSU is composed of the basic code (501A-L1) followed by additional list numbers (list 2 or higher) representing the data rate and call placement options.