

## DATA AUXILIARY SET 831A TYPE

### SUMMARIZING SPECIFICATION

### DATA SYSTEMS

#### 1. GENERAL

##### SCOPE

**1.01** This specification, together with the supplementary information listed herein, summarizes the design requirements and information to be used for the application and ordering of data auxiliary set (DAS) 831A type and the 49A1 data mounting.

**1.02** Whenever this section is reissued, the reason will be listed in this paragraph.

##### CAPACITY

**1.03** Data auxiliary set 831A type is a buffering unit designed for use in arrangements which permit the extension of subrate Digital Data System (DDS) data channels to customers located outside the DDS serving area. This off-network extension arrangement consists of a Bell System data set at the customer location connected by means of a 4-wire private line channel to a similar data set located at the DDS hub office. DAS 831A interfaces the office data set and the DDS 500A-type data service unit. Data sets used for this purpose are the 201C, the 208A, and the 209A for data rates of 2.4, 4.8, and 9.6 kilobits per second (kb/s), respectively.

##### DESCRIPTION

**1.04** DAS 831A contains an 8-bit elastic store with timing and control circuits that allow access to the digital network via analog channels. The elastic store retimes the incoming data from the remote station and passes the retimed data to the data service unit. The store allows a phase slip of  $\pm 3.5$  bits between the data set recovered clock and the data service unit clock. If the phase difference between clocks exceeds this amount, an automatic reset is generated, reinitializing the store.

**1.05** A manually operated test switch is provided as an integral part of the DAS to allow loop-around testing toward the DDS serving test center.

**1.06** DAS 831A-L1 consists of a printed wire board equipped with a 25-pin male connector (P1) that interfaces the customer connector of the data service unit, a 25-pin male connector (P2) that interfaces the customer connector of the data set, and a 20-pin printed wire board tab connector that interfaces a mating connector on a 49A1 data mounting. Connectors P1 and P2 are similar to the KS-19088-type connector. Also included as part of the printed wire board assembly are a test switch, a faceplate, and assorted component apparatus. DAS 831A-L1 measures 5.55 inches wide, 10.7 inches long, 1.3 inches thick, and weighs approximately 10 ounces. Three M25A-61 cords are supplied to interconnect the DAS, the data unit, and the data service unit.

**1.07** Multiple installation capability for DAS 831A-L1 is provided by the 49A1 data mounting. This data mounting provides the necessary physical support, wiring, and connectors for up to 10 sets. In addition, a field of jacks is provided so that line signal levels may be monitored. The 4-wire private line channels (telephone lines) are grouped and brought out to a single KS-16672, L13 connector (J2) mounted on a printed wire backplane. Also mounted on the backplane are 10 KS-19087, L6 connectors, J1 (positions 1 through 10), which interface the corresponding data set telephone connectors. The 49A1 data mounting, designed for 23-inch frames, measures 22.9 inches wide, 11.8 inches deep, 6.9 inches high, and weighs approximately 11.5 pounds empty and 16.5 pounds when equipped with ten DAS 831A-L1.

**1.08** Power for DAS 831A-L1 is supplied by the associated data set through the data set telephone connector. Typical power requirements are: 22 milliamperes at +12 volts, 12 milliamperes at -12 volts, and 88 milliamperes at +5 volts.

**SECTION 314-919-180**

**1.09** DAS 831A-L1 is designed to operate in an ambient temperature range between 40 and 120°F and a relative humidity between 20 and 95 percent.

**2. SUPPLEMENTARY INFORMATION**

- 800-610-158—Packaged Electronic Products—Wiring, Cabling, Numbering, and Lettering
- 800-610-159—Printed Wiring Assemblies—General Equipment Requirements
- 314-919-100, -200, -300, -500—Data Auxiliary Set 831A Type
- 590-010-201—Data Sets Multiple Installation Information
- 598-083-101—Identification—Data Auxiliary Set 831A Type
- 886-110-100—Engineering Considerations—Digital Data System Off-Net Extension Service
- X-17428—Plated-Through Holes on Printed Wiring Boards
- X-18130—Manufacturing Testing Requirements for Data Auxiliary Set 831A Type
- KS-16672—Connector
- KS-19087—Connector
- KS-19088—Plug
- KS-20018—Cabinets

**3. DRAWINGS**

SD-73111-01—Data Auxiliary Set 831A Type

**4. PRODUCT**

**Data Auxiliary Set 831A-Type Buffer**

*List 1*—One plug-in data auxiliary set and three M25A-61 cords per SD-73111-01, Fig. 2. (Specify approximate cord length required.)

**TABLE A**

**AUTHORIZED ORDERABLE CODE NUMBERS**

DATA AUXILIARY SET	RATING	REPLACED BY
831A-L1	AT&TCo Std	—

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

Set, Auxiliary, Data 831A-L1