

**551A CHANNEL SERVICE UNIT
FOR 4-WIRE DIGITAL DATA TRANSMISSION
SUMMARIZING SPECIFICATION
DIGITAL DATA SYSTEMS**

1. GENERAL

SCOPE

1.01 This specification, together with supplementary information listed herein, summarizes for ordering purposes the product design requirements for framework, assembly, and circuits covering the 551A channel service unit (551A CSU) which is primarily for use with customer-provided modems on a 4-wire (4W) 1.544 Mb/s digital data line.

FEATURES

1.02 The 551A CSU monitors the customer's 1.544Mb/s data input for format violations and automatically compensates for format errors by inserting 1s into the regenerated data stream. This unit also has a loop-back feature, a fault locating jack, an order-wire jack, and signal monitoring jacks for testing and lineup procedures.

POWER REQUIREMENTS

1.03 A power supply is not required with this unit. It has been factory wired for operation with a 206-type power looping repeater (206D or 206K) which derives its power from the remote end of the digital data line. However, provisions have also been made for powering the 551A CSU and a portion of the digital data line from the customer's premises with a -48, +130, 178 (-48 +130), or 260 (-130 +130) Vdc power supply to increase the effective transmission distance between the customer's location and the central office (CO). Station power supplies must be ordered separately when they are required.

1.04 Whenever the loop-back feature on the 551A CSU is activated from a distant location over the remote test pair, a dc signaling battery must be selected with sufficient capacity to provide at least 20 mA of 15 Vdc at the CSU terminals.

DESCRIPTION

1.05 The 551A CSU consists of a repeater shelf, 4019DA network (signal monitor), monitoring jacks, a loop-back relay, and power dissipating resistors. It is suitable for mounting on 23-inch relay racks or in a 23-inch KS-20018 cabinet. Two terminal blocks and a 330A terminal strip have been provided for terminating the 4-wire digital data line, an order wire, a fault location pair, alarm leads, a 598-type fault locating filter, and for making power strapping options. An interlock has been built into the rear cover to disconnect all station power supply voltages when the cover is removed from the unit.

1.06 This is not a complete unit. The telephone company engineer must select and specify a suitable 206-type repeater based on the line powering requirements. Station power supplies and 598-type fault locating filters are optional. See SD-1D248-01, Feature and Option Table.

1.07 The 551A CSU measurements (with mounting brackets) are 1-31/32 inches high by 23 inches wide by 11-15/16 inches deep. The list 1 version (less a 206-type repeater and 598-type filter) weighs approximately 7-1/2 pounds.

2. SUPPLEMENTARY INFORMATION

365-200-101—Repeater Description
KS-20018—Cabinet

3. DRAWINGS

SD-1D248-01—551A-L1 Channel Service Unit

SECTION 595-105-180

4. PRODUCT

551A Channel Service Unit

List 1—Provides a station termination for one 4-wire, 1.544-Mb/s digital data line. It consists of a repeater shelf assembly equipped with a 4019DA network, monitoring jacks, a loop-back relay, and power dissipating resistor wired in accordance with SD-1D248-01, App Fig. 1. It is suitable for mounting on a 23-inch relay rack or in a 23-inch KS-20018 cabinet.

**TABLE OF AUTHORIZED
ORDERABLE CODE NUMBERS**

DATA SET	RATING
551A-L1 Channel Service Unit	AT&TCo Std

Note: Ordering information for the above product should be listed in this form:

Unit, Service Channel 551A-L1