AUA51 (RT) CHANNEL UNIT - POTS/*SPOTS*® UNITS 5SCU150AXX

DATA SHEET

SLC® SERIES 5 CARRIER SYSTEM

The AUA51 channel unit (CU) is intended for 2-wire, single party, POTS, as well as 2-wire locally-switched special service applications with loop-start or ground-start signaling. It is a current feed circuit that provides the interface between the customer loop and the SLC Series 5 system. This plug-in can provide two channels of service and will always be located in the remote terminal (RT). When the central office terminal (COT) end of the channel is terminated via a POTS channel unit (e.g., AUA31), this channel unit will function as single-party POTS units; a fast forward disconnect capability is also provided. When the COT end of the

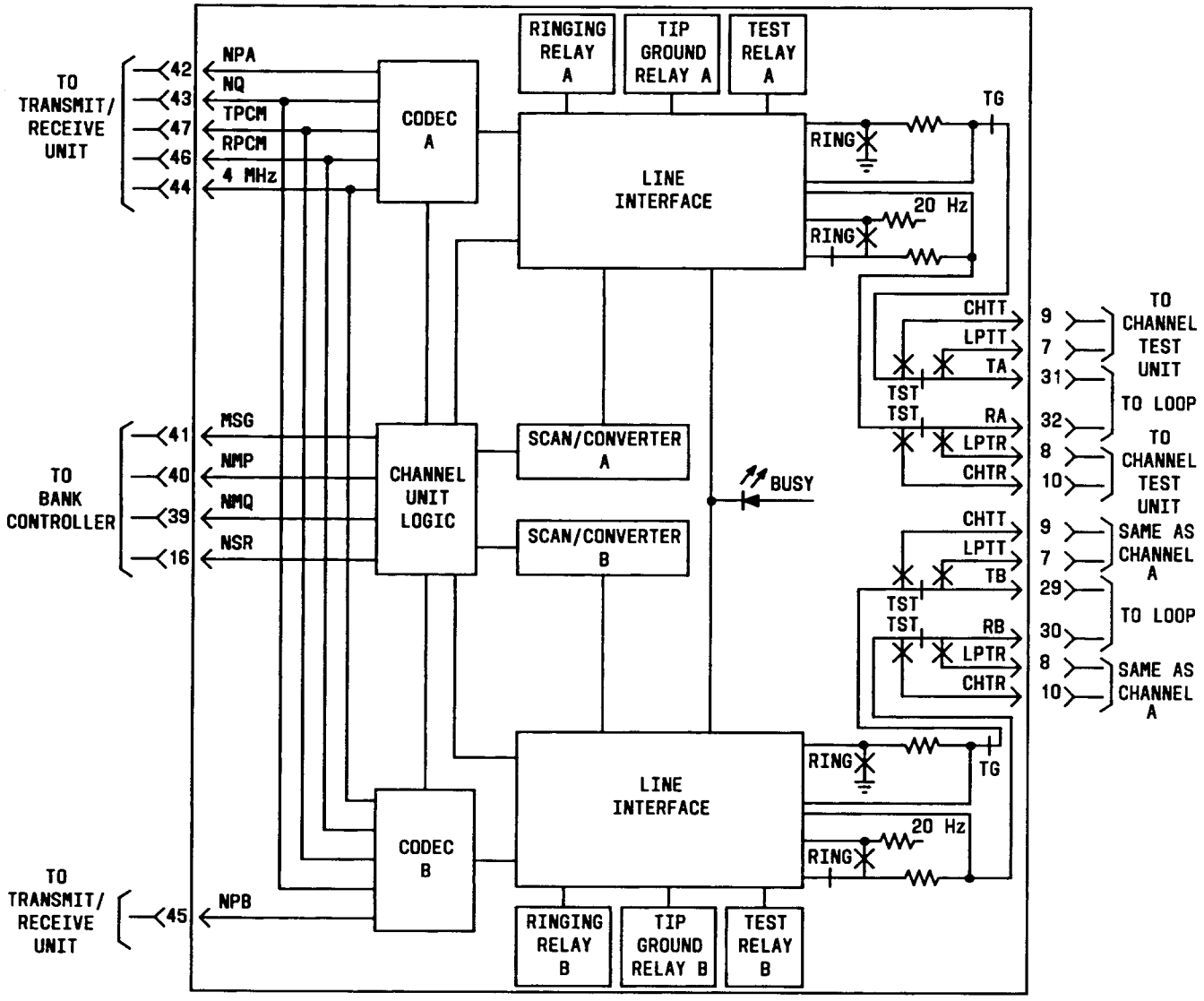

Fig. 1—AUA51 Block Diagram

channel is terminated via a SPOTS channel unit (e.g., AUA32), this channel unit will function as a SPOTS unit to satisfy 2-wire locally switched special-service applications with loop-start or ground-start supervision; open switching interval protection and forward disconnect capabilities are also provided.

This practice has been reissued to add a paragraph on carrier failure and to make minor editorial changes.

This unit is a voice frequency transmission channel unit having an electronic line-interface with a nominal structural impedance of 735 ohms in series with 2.64 μF. The balance network is the parallel combination of 1040 ohms and 39 ohms in series with 0.036 μF. The transmission loss of this channel unit depends on its application. For special service (SPOTS units) circuits, its loss is 0 dB in both the transmit and receive directions. For POTS applications, its loss depends on the resistance of the loop and customer terminal. If that external circuit resistance is less than 1150 ohms (nominal), the loss of this channel unit is 1 dB. For external circuit resistances greater than 1150 ohms, the loss is 0 dB.

During the idle condition, the channel unit is powered down except for the origination scan function which provides ground and battery to the tip and ring. During the off-hook condition, the channel unit is powered up and the voltage applied to the line varies with the length of the cable; the current varies nominally from 30 to 21 mA for loops from 0 to 1500 ohms. For special service circuits, carrier serving area cable (no greater than 750 ohms) is required. The signaling on the digital line is compatible with SLC 96 systems.

In the event of a carrier failure, the channel unit releases all relays and goes to an idle state. It also opens its tip lead to drop existing connections, then grounds it again to busy out the channel.

> *Note:* The channel circuit maintains the existing signaling state if there is a switch to a protection line.

Figure 1 is a functional block diagram of the unit, and Fig. 2 shows the unit faceplate.

There are no options or settings that need to be selected on this channel unit; signaling and loss parameters are determined automatically by the channel unit. A faceplate-mounted LED lights whenever either channel is BUSY.

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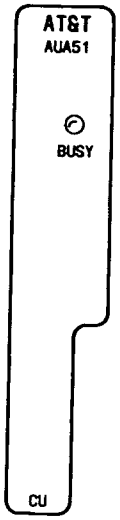

Fig. 2—AUA51 Faceplate Diagram