AUA1 (COT) TRANSMIT/RECEIVE UNIT 5SCS200AXX

DATA SHEET

SLC SERIES 5 CARRIER SYSTEM

The AUA1 transmit/receive unit (TRU) is used in the central office terminal (COT) to provide the interface between two digroups of channel units (e.g., 24 AUA31 dual-channel POTS), the digital facility interface [e.g., 2 AUA61 DS1 line interface units (LIU)] and one AUA13 LSU.

This practice has been reissued to change Fig. 2.

The AUA1 automatically selects either an external clock, when it is supplied by the office timing unit (OTU), or its own internal 4.096-MHz (+ or − 32 ppm) oscillator. The TRU uses this selected clock to synchronize its internal operation to the 24 channel units and the digital facility interface units that work with it. The AUA1 maintains all the plug-ins serving a 48-channel shelf of the SLC Series 5 bank in DS1-frame synchronism.
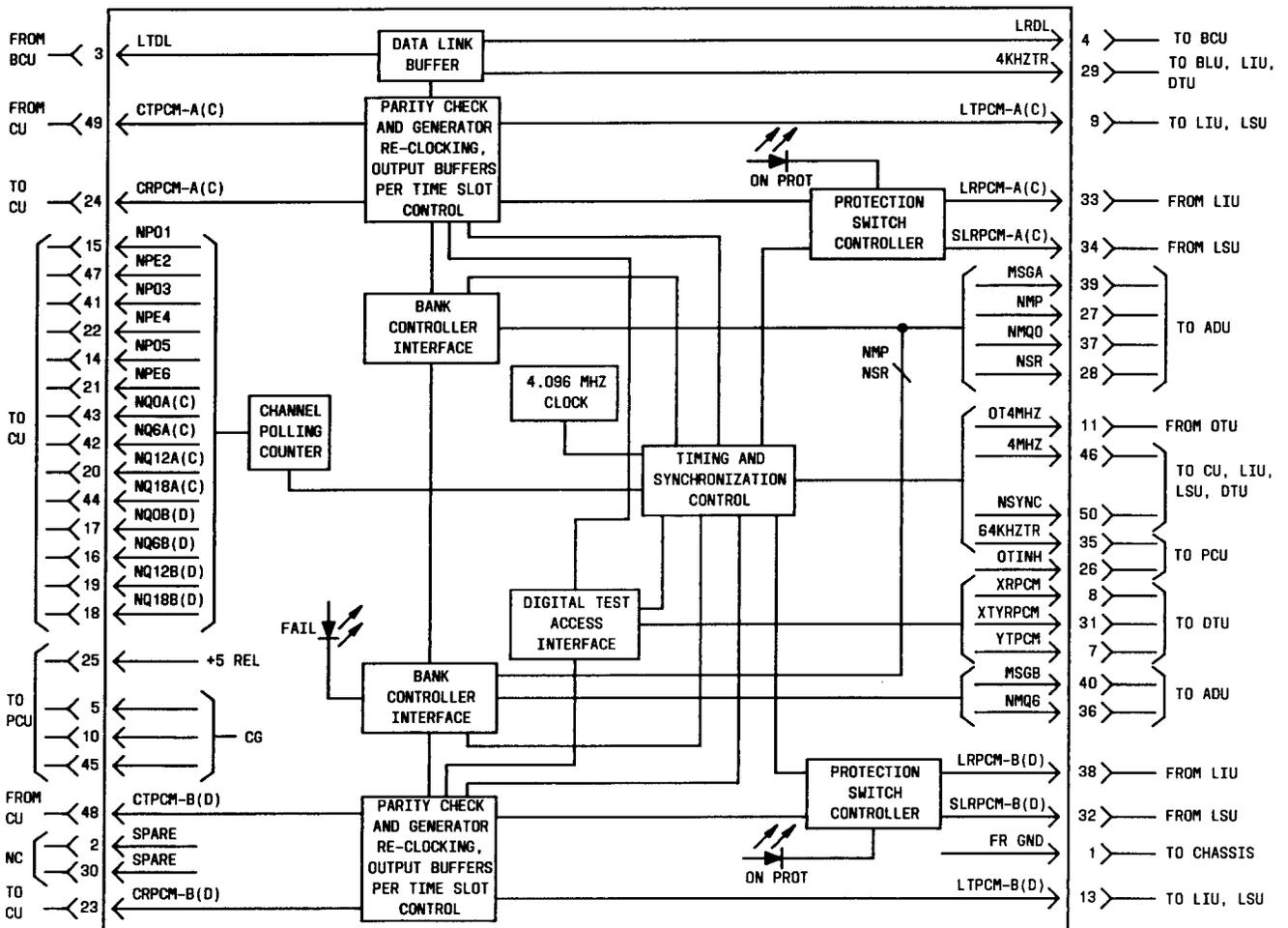

Fig. 1—AUA1 Block Diagram

In the transmit direction, the AUA1 sends the channel polling signals to the channel units, gets the transmit-PCM bit stream from the channel units in each digroup, and time division multiplexes the channels into a 4.096-Mb/s internal PCM format for each digroup. The AUA1 dual feeds the formatted signal to the main digital facility interface (e.g., the LIU) and to the LSU (e.g., AUA13). The AUA1 also accepts a 4-kb/s data link from the bank controller unit (BCU) and inserts the information into the A digroup. While the AUA1 is used on both the AB and CD shelves, the Series 5 system only transmits the data link in the A digroup; the data link input to the CD shelf TRU is not used.

In the receive direction, the AUA1 gets 4.096-Mb/s receive-PCM inputs from both the main digital facility interface and the LSU. The AUA1 selects between these inputs based on instructions received from the BCU. The AUA1 distributes the two receive-PCM formatted signals and the channel polling control signals to the two digroups (24 channel units) under its control. The AUA1 also extracts the 4-Kb/s data link from the received signal and sends it to the BCU.

The AUA1 can give the digital test unit (DTU) full-splitting digital test access to an individual channel. This access is used in conjunction with the extended test controller and the local craft interface unit which are future offerings.

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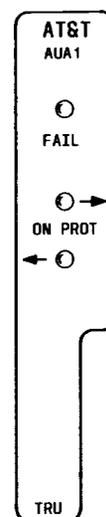

Fig. 2—AUA1 Faceplate Diagram

FAIL (RED LED): When lighted, this indicates that a failure has been sectionalized to this TRU.

ON PROT (2 YELLOW LEDs): When lighted, this indicates that the digroup to which the associated arrow is pointing is currently being served by the protection line.