



SLC[®] Series 5 Carrier System

AUA93 ISDN BRITE II Channel Unit — 5SC1HE0

Data Sheet

This data sheet describes the AUA93 circuit pack (COMCODE 104043856) and is intended for the end-user of the unit. The AUA93 circuit pack is a second generation ISDN Basic Rate Interface Transmission Extension (BRITE II) channel unit. The AUA93 is intended for use in SLC[®] Series 5 remote terminals (RTs) equipped for Feature Package B (FPB) with enhanced capabilities — the RT must be connected to a SLC 96 central office terminal (COT) equipped with an AHG18 BRITE II (see AT&T 365-005-104) channel unit. The AUA93 provides an ANSI standard LT-mode U-interface for full duplex transmission to one customer over a loop that meets carrier serving area (CSA) design rules. The U-interface 2B1Q signal provides a 4-level line code at a data rate of 160 kb/s (80k baud).

This data sheet is reissued to add information about the FAIL LED indicator located on the faceplate of the AUA93 channel unit.

Figure 1 is a functional block diagram of the AUA93 channel unit and Figure 2 shows the faceplate.

Each unit occupies one physical slot in a remote terminal channel bank. When optioned for B1+D, B2+D, or D-only service, the AUA93 may be mixed with any other channel unit (except 2B+D) without restriction. The following are placement rules for AUA93 BRITE II channel units:

- Channel units provisioned for 2B+D service are not allowed in slots 3, 6, 9, or 12 of a digroup.
- Only another 2B+D channel may occupy the slot to the immediate right of a 2B+D AUA93 BRITE II channel unit. A B1+D, B2+D, or D-only optional AUA93 BRITE II channel unit (or any other single- or dual-channel unit) should *not* be placed in the slot to the immediate right of a 2B+D AUA93 BRITE II channel unit.

The basic access transceiver functions include signal generation, signal reception, echo cancellation, timing, error detection, 2B+D loopback, loop sealing current, and power cross and lightning protection.

The K2-interface controller converts between the 512 kb/s K2-interface serial format and the parallel format of the digital signal processor bus. It also performs error detection (CRC) calculations and B1 and B2 loopbacks.

The digital signal processor performs diagnostic tests, 2B+D processing, zero byte substitution, embedded operations channel (EOC) maintenance functions, and performance monitoring functions. It also handles interactions with the bank controller (BC) and the 950A maintenance test set (MTS) (see AT&T 363-005-238) — the BC consists of a bank control unit (BCU) and an alarm display unit (ADU).

The backplane interface logic interconnects the BC message and address leads, the transmit-receive unit (TRU) address and PCM leads, the MTS address, data, and control leads, and the digital signal processor bus. A D4 or D1D counting sequence is selected by the BC. Channel unit timing is derived from the system clock.

The power module converts –48 V DC to +5 V DC to power the channel unit.

FAIL (Red LED): This LED lights to indicate a fault (see Table 1). The fault may occur when the AUA93 fails a self test, when the BC tries to write to the AUA93 and fails, or when an incompatibility exists in the placement of either the AUA93 or adjacent channel units in the Series 5 digroup shelf. If the FAIL LED is lighted prior to a lamp test, it will remain lighted during the test if the fault is due to either the AUA93 failing a self test or the BC failing in a write to the AUA93. If the fault is due to an incompatibility in channel unit placement, the LED is not lighted during the lamp test. If the AUA93 is properly working, the FAIL LED flashes momentarily when inserted into the bank.

Table 1. AUA93 BRITE II Channel Unit FAIL LED Indications

Before LED Test	LED TEST Depressed	Indication
Off	Blinking	Normal operation, B1+D, B2+D, or D service channel unit
Off	On	Normal operation, 2B+D service channel unit
On	Blinking	Placement violation of a B1+D, B2+D, or D service channel unit
On	Off	Placement violation of a 2B+D service channel unit
On	On	Failed channel unit

AUA93 ISDN BRIE II Channel Unit

SERVICE Switch: This board-mounted slide switch can be set for 2B+D, B1+D, B2+D, or D-only service using three, two, or one DS0 timeslot(s), respectively. All other provisioning is done by the BC.

The AUA93 connects the subscriber line to the bank channel test unit (CTU) for metallic loop testing by the Mechanized Loop Testing (MLT) system. The unit cannot be channel tested by the Pair Gain Test Controller (PGTC) or the eXtended Test Controller (XTC).

The AUA93 supports B1, B2, and 2B+D loopbacks via the embedded operations channel (EOC) and path performance monitoring compatible with TA-TSY-000784. Manual local and remote loopback testing and alarm monitoring can be performed from a 950A MTS plugged into the faceplate connector.

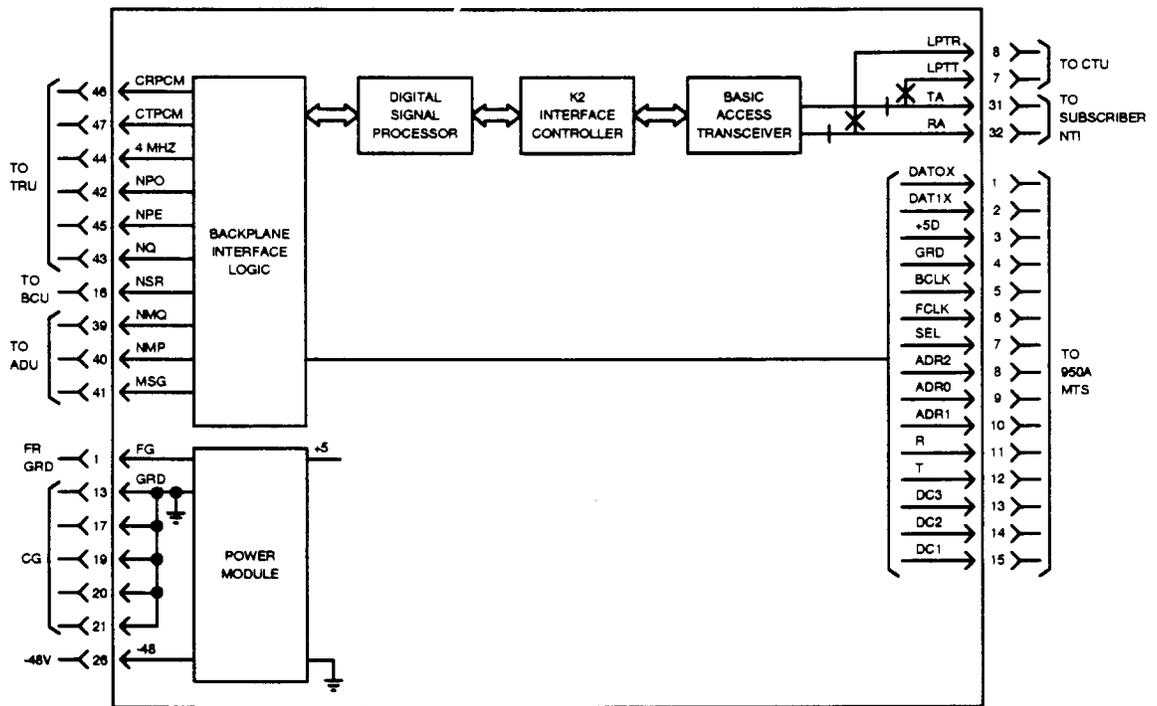


Figure 1. AUA93 Block Diagram

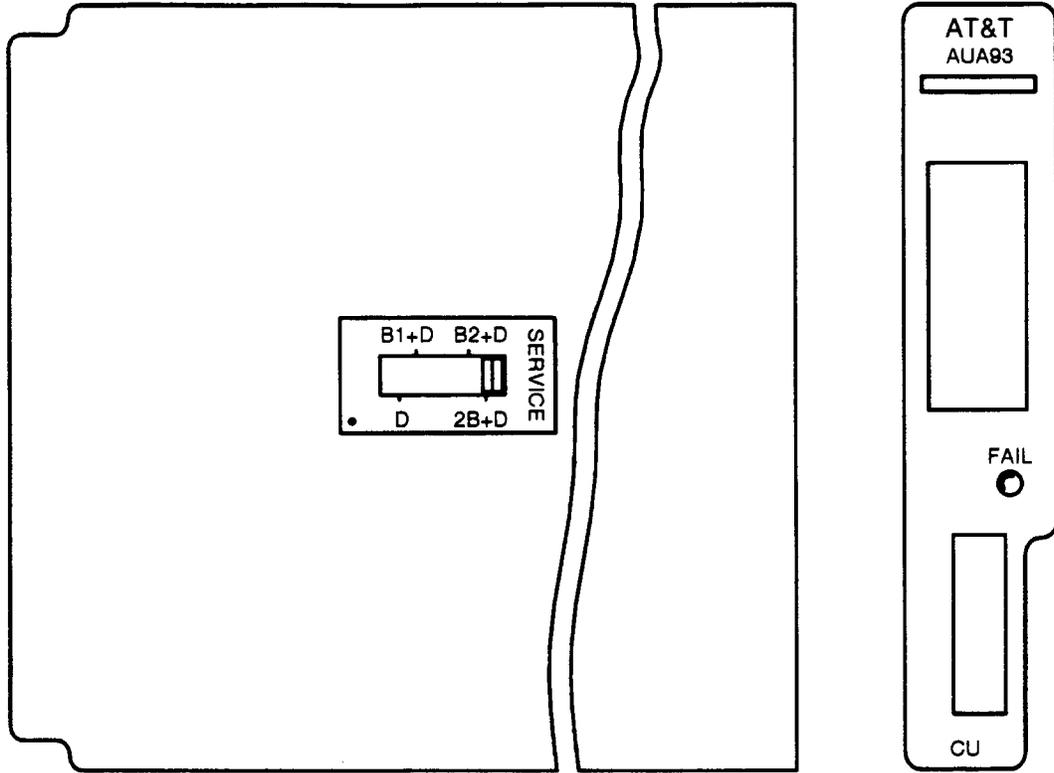


Figure 2. AUA93 Components and Faceplate

In-hours or emergency out-of-hours technical assistance for the *SLC Series 5 Carrier System* can be obtained by calling the Regional Technical Assistance Center at **1-800-225-RTAC**.

Additional copies of this document (AT&T 363-005-131) are available from the Customer Information Center — call 1-800-432-6600.

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