SLC® Series 5 Carrier System

AUA162 DS1 Line Interface Unit — 5SLI10C

This data sheet describes the AUA162 DS1 line interface unit (LIU) (COMCODE 106434624) and is intended for the end-user of the unit. The AUA162 LIU is used in the remote terminal (RT) to provide the interface between the *SLC*® Series 5 Carrier System Feature Package I (FPI) and the DSX-1 cross-connect panel. The AUA162 LIU is used in slots B, C, and D, as required by the operation mode.

Figure 1 is a functional block diagram of the AUA162 LIU, and Figure 2 shows the components and faceplate.

In the transmit direction, this LIU converts the internal 4.096 Mb/s pulse code modulation (PCM) format to 1.544 Mb/s DS1 rate. The ABCD signaling bits and derived data link (DDL) (DDL only applies for slot C in Mode 2) are extracted and forwarded to LIUs A or P for message-format transmission to the *GTD-5** EAX through the remote data link control (RDLC) link. It also inserts the Fs framing sequence and the signaling bits onto the DS1 facility. The LIU pre-equalizes its output so that the signal meets the cross-connect panel compatibility specification at the connecting DSX-1.

In the receive direction, this LIU converts the incoming DS1 signal to the internal 4.096 Mb/s format. The ABCD signaling bits and DDL (DDL if in slot C, Mode 2 only) from LIUs A or P RDLC processing are inserted into the receive PCM stream. The LIU monitors the received signal for bipolar violations (Fs), loss of frame, and loss of signal. Failures are reported to the bank controller (BC).

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Failures also cause the E-bit to be set (this freezes the signaling state in the channel unit) and, after 2.5 seconds, cause the G-bit to be set (this initiates trunk processing).

GROOM Option — This switch, when in the G (groom) position and this LIU is placed in slot D for Mode 1 operation or slot C for Mode 2 operation, will cause this LIU to operate independent of the rest of the channel bank.

⇒ NOTE:
The LIU-D will operate independently to provide groomed service in Mode 1, but in Mode 2 LIU-C requires LIU-A to be operational to provide Mode 2 grooming.

EQUALIZATION Option — These three switches (TRANS- 0, 1, 2) select the amount of pre-equalization based on the distance between the bank and the DSX-1 cross-connect (Table 1).

Table 1. Equalization Option Settings

TRANS- 0	1	2	Distance to DSX-1 (Feet) (Note)
ON	OFF	OFF	0 to 132
OFF	ON	OFF	133 to 265
ON	ON	OFF	266 to 398
OFF	OFF	ON	399 to 532
ON	OFF	ON	533 to 655

Note: These distances are for ABAM cable used in the central office. Refer to AT&T 915-710-115G for calculations for other types of cable used for collocated RT and T1 extension applications.

The following LED indicators are located on the faceplate of the LIU.

CLF (Yellow LED) — When lighted, this faceplate-mounted LED indicates a carrier line failure has been located on the digital facility connecting the facility to the RT. When flashing, this LED indicates that the unit has internally started itself but has not been initialized by the *GTD-5* EAX. Groomed LIUs will not flash the CLF LED indicator since they do not require initialization from the *GTD-5* EAX.

FAIL (Red LED) — On installation of the LIU, this faceplate-mounted LED lights to indicate that the LIU is being initialized. If the LED indicator remains lighted after 30 seconds, a failure has been located on this LIU.

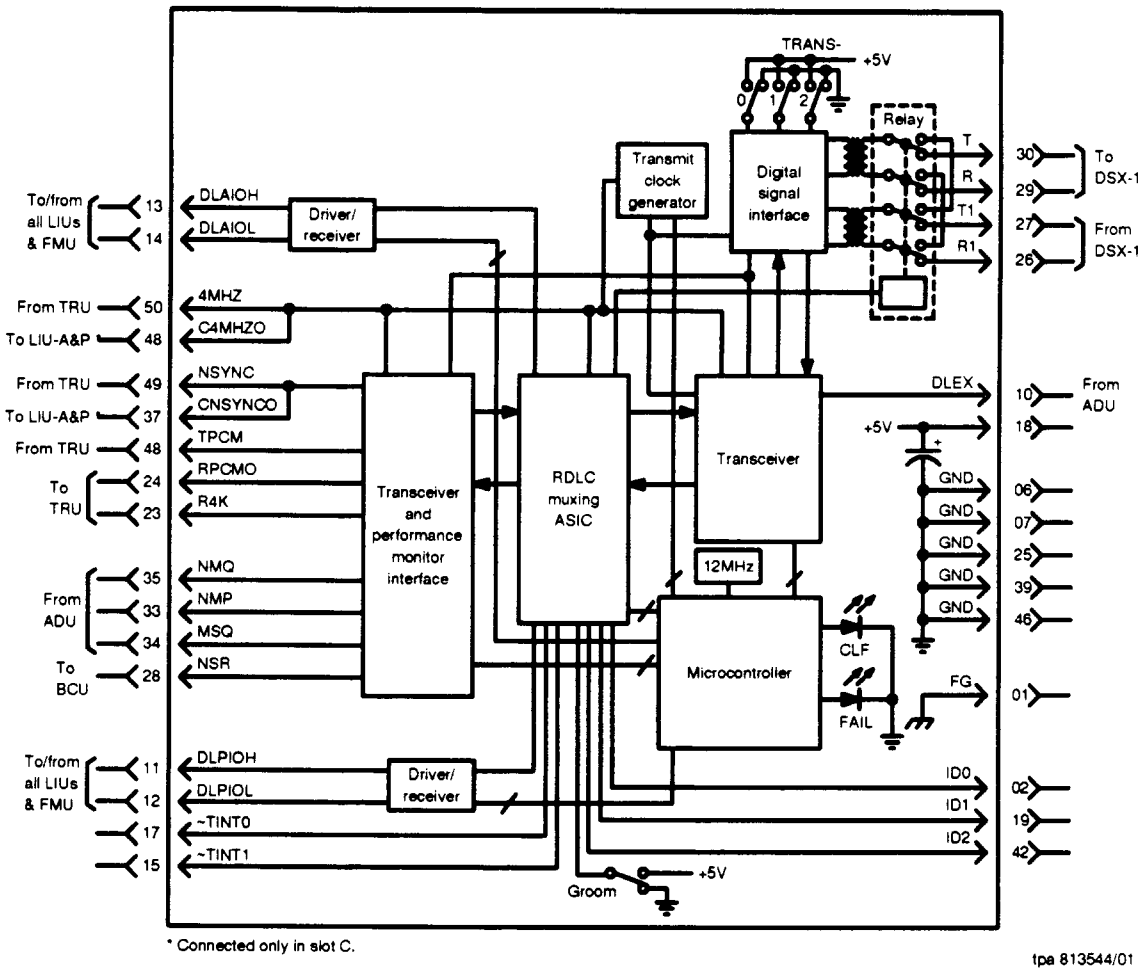

Figure 1. AUA162 LIU Block Diagram

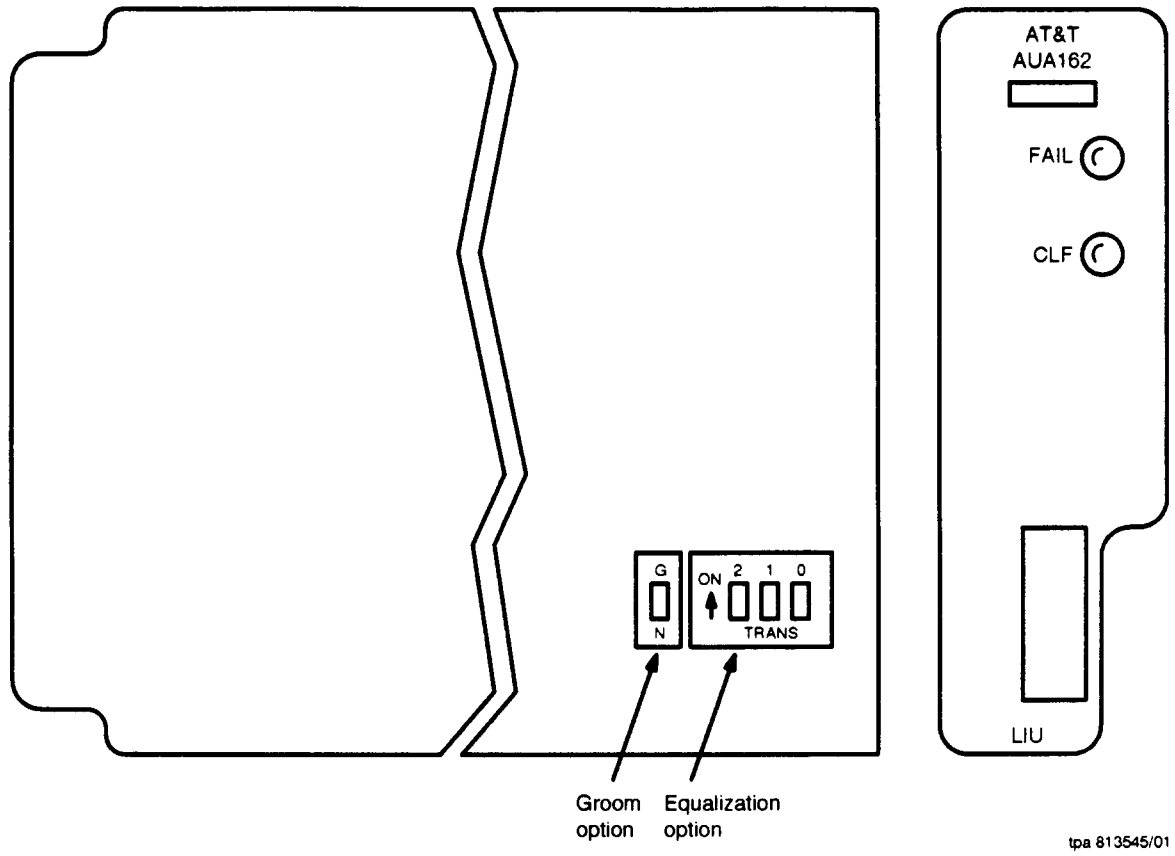

Figure 2. AUA162 LIU Components and Faceplate

Follow local procedures for obtaining technical assistance. AT&T also provides in-hours or emergency out-of-hours help for the *SLC* Series 5 Carrier System. Call the AT&T Regional Technical Assistance Center at **1-800-225-RTAC**.

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