J98726CE-1, L1 PG15T CHANNEL UNIT D4CP500

DATA SHEET

D4 CHANNEL BANK

The 15-kHz Program Transmitter (PG15T) channel unit (J98726CE) provides the interface between a sending analog program circuit on the office side and the D4 common transmitting circuit on the line side. The 15-kHz program service is a 1-way service requiring a transmit channel unit (PG15T) at one end and a receive channel unit (PG15R) at the other. Each 15-kHz unit occupies three adjacent shelf positions and six digital time slots.

Both channel units contain per channel code and decode (codec) circuitry which allows them to transmit and receive pulse code modulation (PCM) signals. This allows much higher signal quality than that available from voice or previous program channel units and is suitable for all television audio and frequency modulation (FM) monaural and stereophonic service. Stereophonic service requires two channel units at each end. PG15T channel units may also be used in SLC*-96 carrier system applications. Use in the SLC-96 carrier system requires that both the central office terminal (COT) and remote terminal (RT) be in central office environments.

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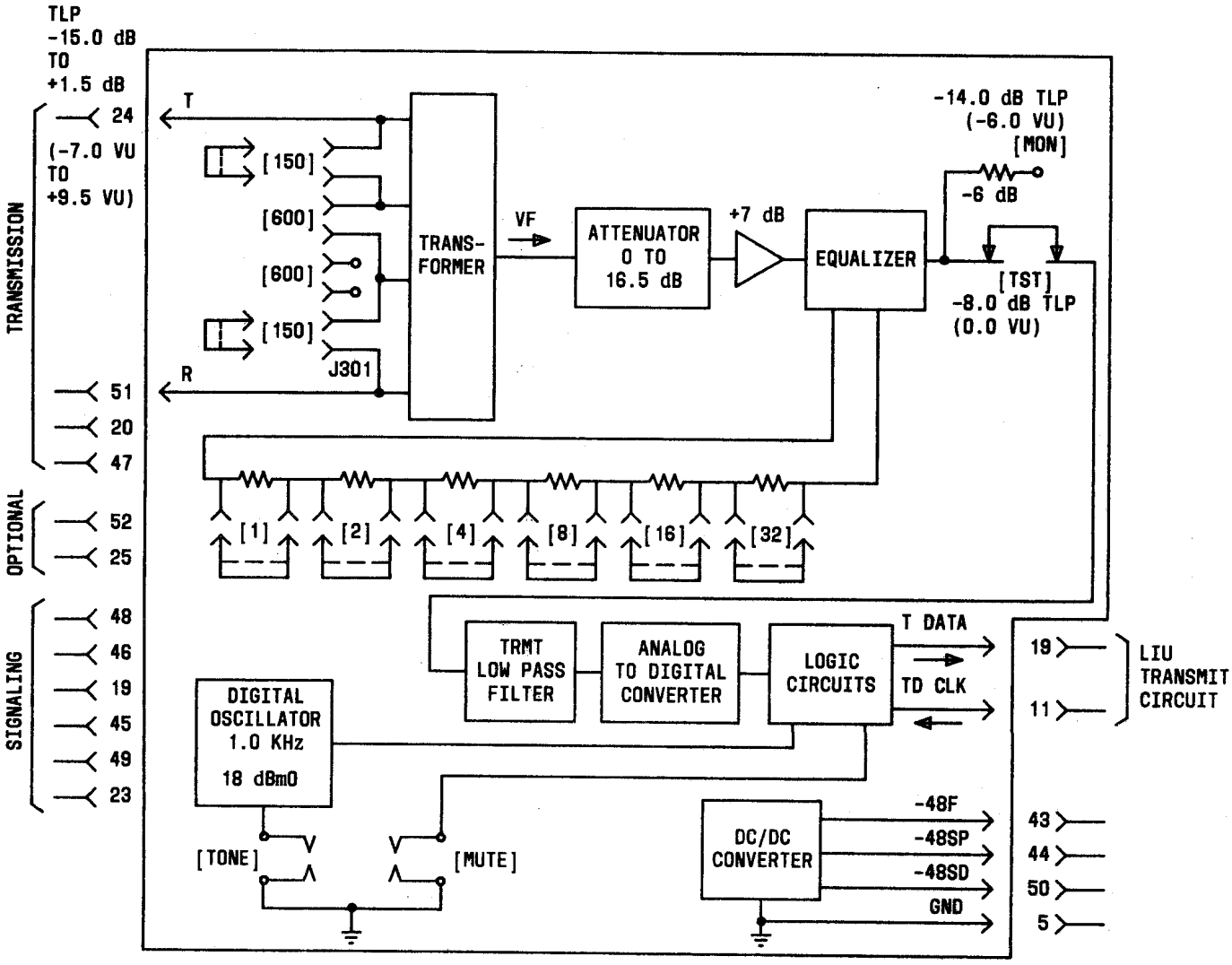

Fig. 1—J98726CE Block Diagram

The transmission circuitry of this unit contains a selectable impedance matching transformer, a 0 to 16.5 dB attenuator, an equalizer, and a 1.0-kHz digital oscillator which provides an 18-dBm0 PCM sine wave test signal used during maintenance.

For detail, see CD- and SD-7C321-01 and Section 365-170-122.

Figure 1 is a functional block diagram of the unit and Fig. 2 gives major component location and option information.

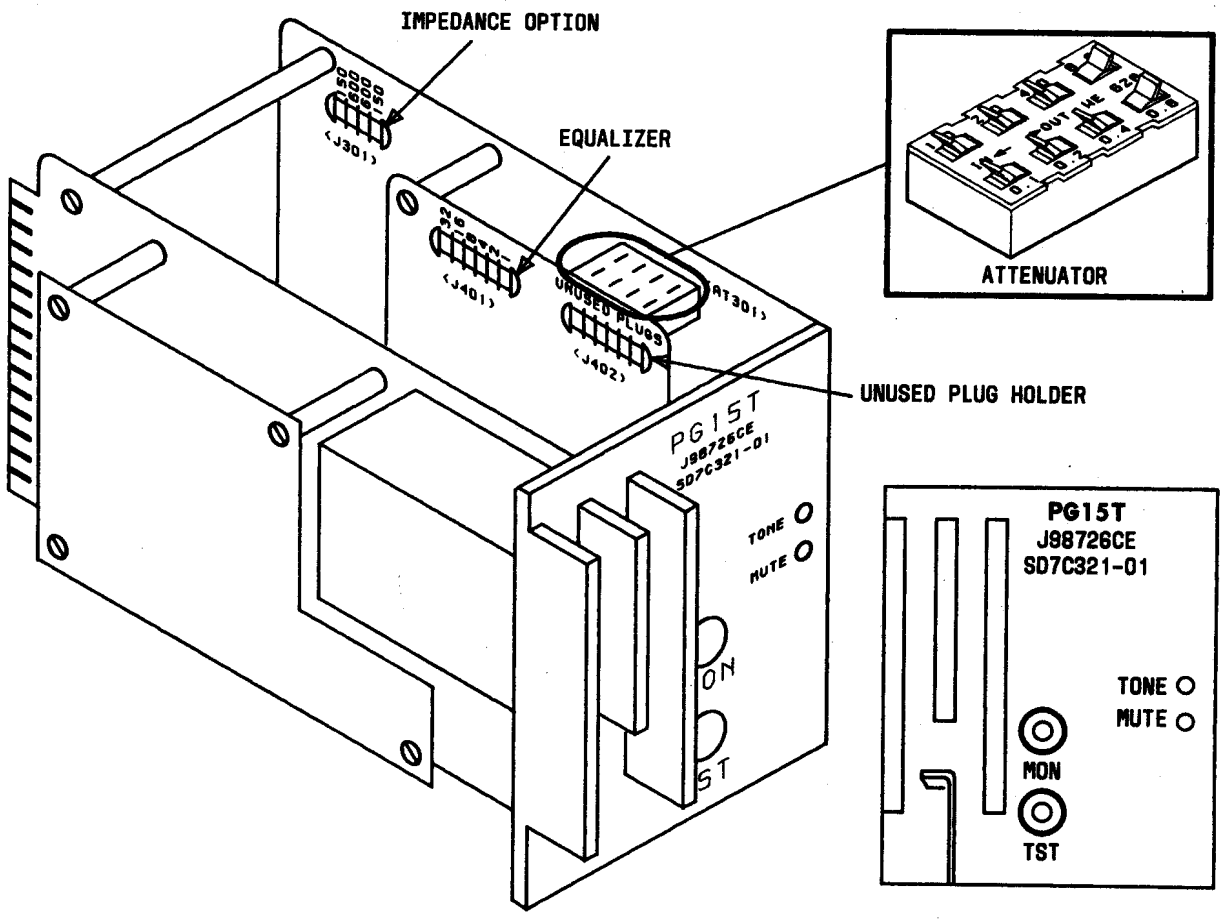

Fig. 2—J98726CE Component Layout

ATTENUATOR: Eight rocker switches provide 0 to 16.5 dB of attenuation in steps of 0.1 dB. This accommodates an input level of −7.0 VU point (−15.0 dB TLP) to +9.5 VU point (+1.5 dB TLP).

IMPEDANCE OPTION: This option provides a balanced input impedance of 150 or 600 ohms. For 150 ohms, insert both plugs into the two connector slots marked 150. For 600 ohms, insert both plugs into the two connector slots marked 600.

EQUALIZER: The adjustable equalizer circuitry will equalize to an accuracy of 0.5 dB, up to two miles of 26-gauge non-loaded cable using the 150-ohm transformer impedance option and about 1.0 mile using the 600-ohm option. To set the equalizer, expose the numbers which total to the setting required and cover the remaining numbers by inserting the option plugs into the corresponding sections of jack 401. No equalization will be provided if all plugs are inserted into the option. Any unused plugs are inserted into the adjacent jack (402) for storage.

TONE JACK: A pin plug inserted in the PG5T TONE jack sends an 18.0-dBmO 1.0-kHz test sine wave towards the PG15R channel unit. This is used to calibrate the TLP at any succeeding point in the network.

MUTE JACK: A pin plug inserted in the MUTE jack provides absolute noise free silence on the T-carrier line. This can be used to measure the noise of the receive circuits independent of the transmit circuits.

TEST (TST) JACK: This jack provides a splitting test access to the line and drop sides at the 0.0 VU level point (−8.0 dB TLP).

MONITOR (MON) JACK: This jack allows for service monitoring at the −6.0 VU point (−14.0 dB TLP) using 600-ohm headphones.