

J98726BJ-2, L2; BJ-3, L3 2E&M9 CHANNEL UNIT D4CE200

DATA SHEET

D4 CHANNEL BANK

The 2-wire, 900-ohm E and M (2E&M) channel unit (J98726BJ) provides an interface between a D4 channel bank or SLC* -96 carrier system terminal and a

2-wire E and M circuit. The channel unit provides; (1) impedance and level conversion at voice frequencies (VF), (2) E and M signaling and supervision (Type I, II, or III interface), (3) jack access for system measurements and analysis, and (4) trunk processing in response to carrier failure.

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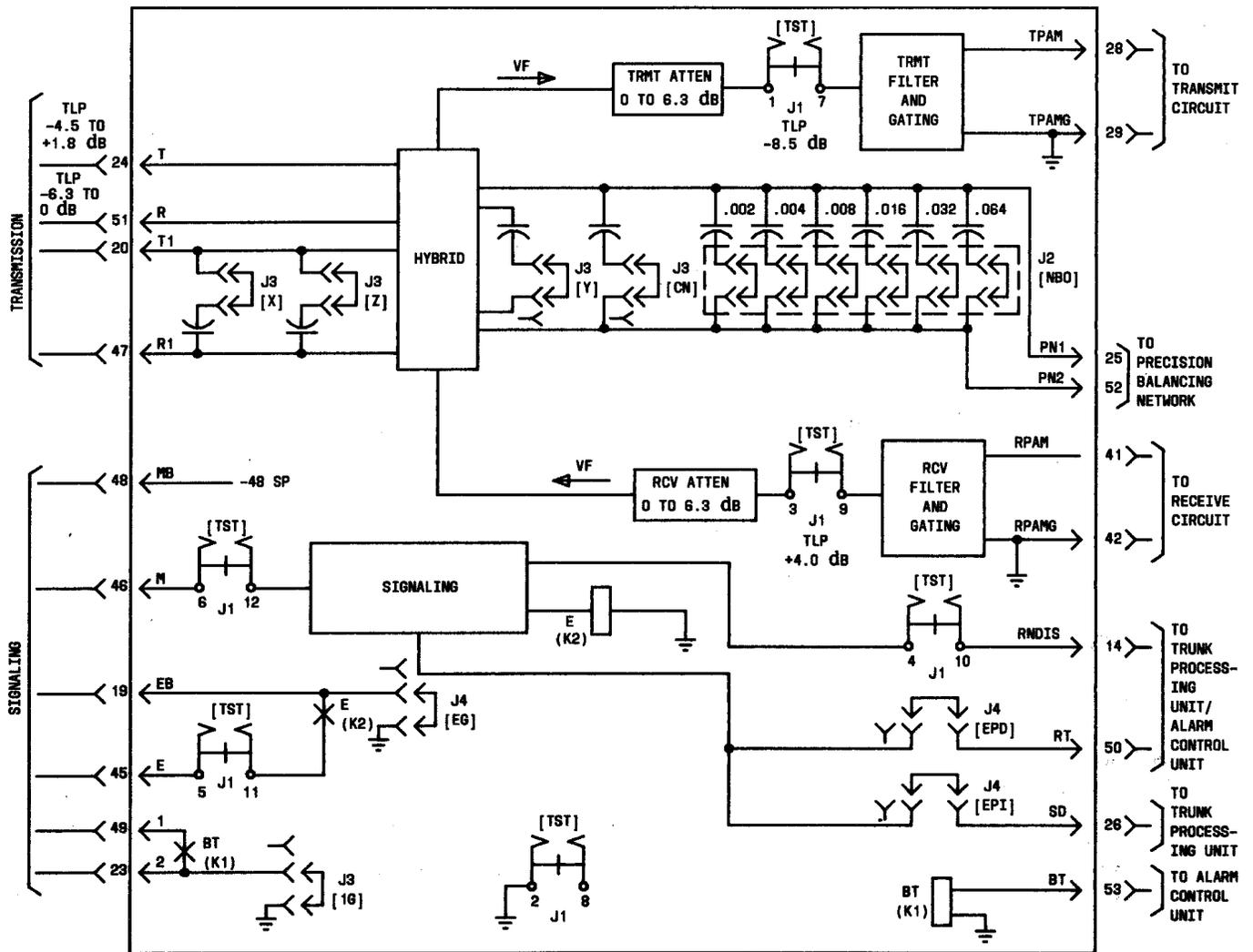


Fig. 1—J98726BJ-2, -3 Block Diagram

NOTICE

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This section is reissued to include the L3 version of the channel unit.

For detail, see CD- and SD-3C327-02, -03 and Section 365-170-111. Section 855-351-105 gives prescription (option) settings and application information.

The transmission circuitry of this unit contains a hybrid for 2- to 4-wire conversion, 0 to 6.3 dB attenuators, and network build-out (NBO) circuitry.

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

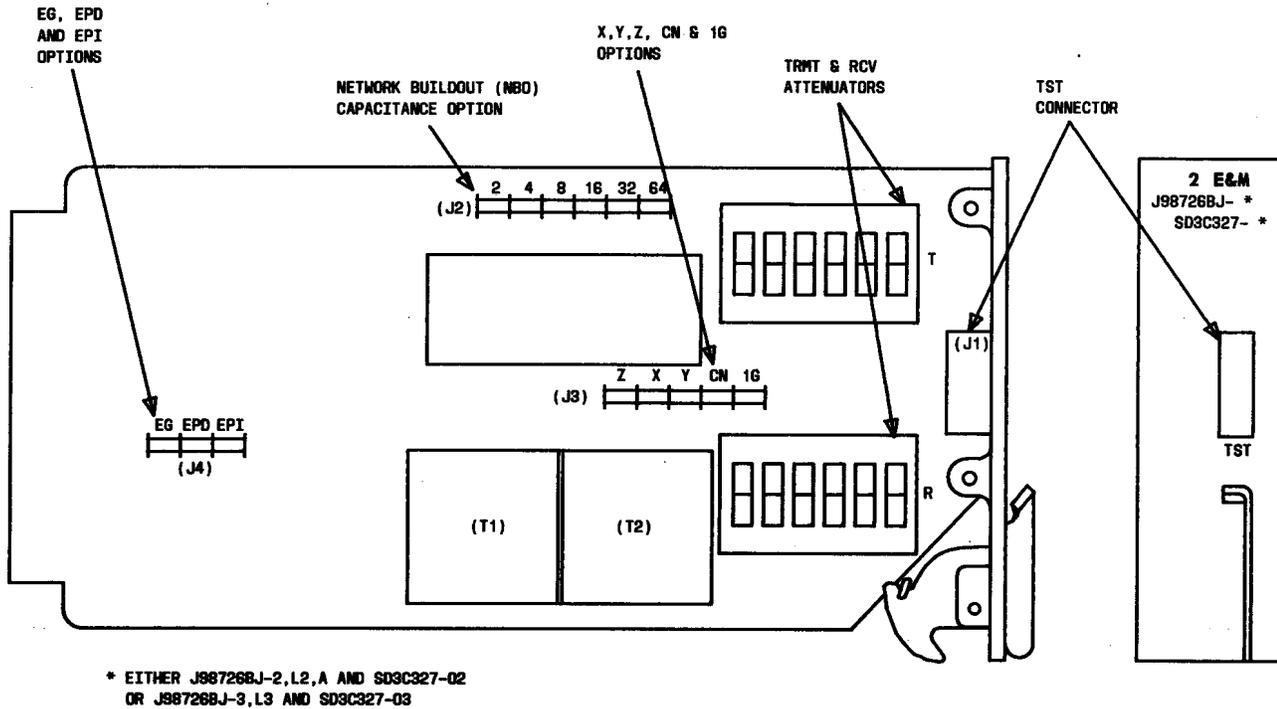


Fig. 2—J98726BJ-2, -3 Component Layout

TST CONNECTOR: Insertion of a test card into this connector provides splitting access to the TRMT TLP, the RCV TLP, the M lead, and the E lead for test and maintenance purposes. Insertion also opens the RNDIS lead and re-enables transmission if it has been disabled by TPU operation.

1G OPTION: This option provides a ground on the 1 lead (make-busy lead) when trunk processing is initiated. After a 2.5 second delay, the ground disconnects for 100 milliseconds and then reconnects for the duration of the carrier failure. The option is normally selected (white showing) for use with all electromechanical switching machines except No. 5 crossbar.

TRMT AND RCV ATTENUATORS: Rocker switches on the transmit and receive attenuators provide 0 to 6.3 dB of attenuation in the transmit and/or receive transmission paths in steps of 0.1 dB. These switches are set to obtain the required transmission level at the TRMT and RCV TLP test terminals (-8.5 dB and +4.0 dB respectively). The amount of attenuation is determined by adding the values of the switches set toward the IN position.

EG OPTION: This option provides a local ground to the E lead to indicate an off-hook state. It is selected (white showing) for type I interface (standard, for electromechanical switching systems) or type III interface (partially looped, for some electronic switching machines). The EG option is not selected (black showing) for type II interface (completely looped, electronic switching) because the trunk circuit supplies the ground.

EPD OPTION: This option causes the channel unit to open the E lead when trunk processing begins and then grounds the E lead after a 2.5-second delay. It is normally selected (white showing) when make-busy leads are not available at the originating end of a 1-way trunk or at either end of a 2-way trunk.

EPI OPTION: This option causes the channel unit to ground the E lead immediately when trunk processing occurs. Supplying an immediate E lead ground to a dial-long-line circuit can suppress erratic ringing at the subscriber end. When neither the EPD nor EPI option is selected, the E lead opens when trunk processing occurs.

COMPROMISE NETWORK (CN) OPTION: In order for the hybrid to operate properly, the impedance connected to the line side must be closely matched with the impedance connected to the network side of the hybrid. This is accomplished by either an internal compromise network (CN) or an external precision balancing network (PBN). This option allows the selection of either CN (insert plug

with white showing) or PBN (insert plug with black showing).

X, Y, AND Z OPTIONS: These options are used to configure the channel unit for the particular trunk circuit connected. Option X is selected (white showing) when capacitance is not provided in the trunk circuit. It connects 2.15 μF of capacitance across the T1 and R1 (A&B) leads. Option Y is selected (white showing) when the capacitance of the trunk circuit is 4.0 μF or greater. Option Z is selected (white showing) when the capacitance of the trunk circuit is 1.0 μF . It connects 1.09 μF of capacitance across the T1 and R1 (A&B) leads.

NETWORK BUILD-OUT (NBO) CAPACITANCE OPTION: This option is used to balance office wiring capacitance, and is set to the value prescribed for the office. (See Section 855-351-105.) Each plug of the NBO option jack is associated with a capacitance value (0.002, 0.004, 0.008, 0.016, 0.032, 0.064 μF) that can be connected into the circuit. The selection and manual setting instructions for this option is given in Section 365-170-000 (TOP).