

J98726CG-1, 4E&MD CHANNEL UNIT D4CE140

DATA SHEET

D4 CHANNEL BANK

The 4-wire E&M Dual (4E&MD) test channel unit (J98726CG) provides a digital-to-analog interface between the Digital Access and Cross-Connect System (DACS) and the Switched Maintenance Access System (SMAS). It is required in D4 banks used for DACS maintenance and can also provide test access with the Digital Access Timeslot Selector (DATS). In most cases the dual E&M channel units will be connected to special SMAS maintenance connectors to allow remote testing. It is not recommended for normal message service because it does not provide trunk processing. The dual E&M leads allow testing

all signaling states on T-Carrier channels accessed with DACS. Signaling and supervision is accomplished between the D4 channel unit and the trunk with three types of interfaces. Type I is a 2-wire E&M lead signaling interface used with electromechanical switching systems. Types II and III are used with electronic switching systems, although type II is a 4-wire, completely looped E&M lead signaling interface while type III is a 4-wire, partially looped E&M lead signaling interface. The transmission circuitry of this unit contains transformers, amplifiers, and 0 to 1.5 dB attenuators.

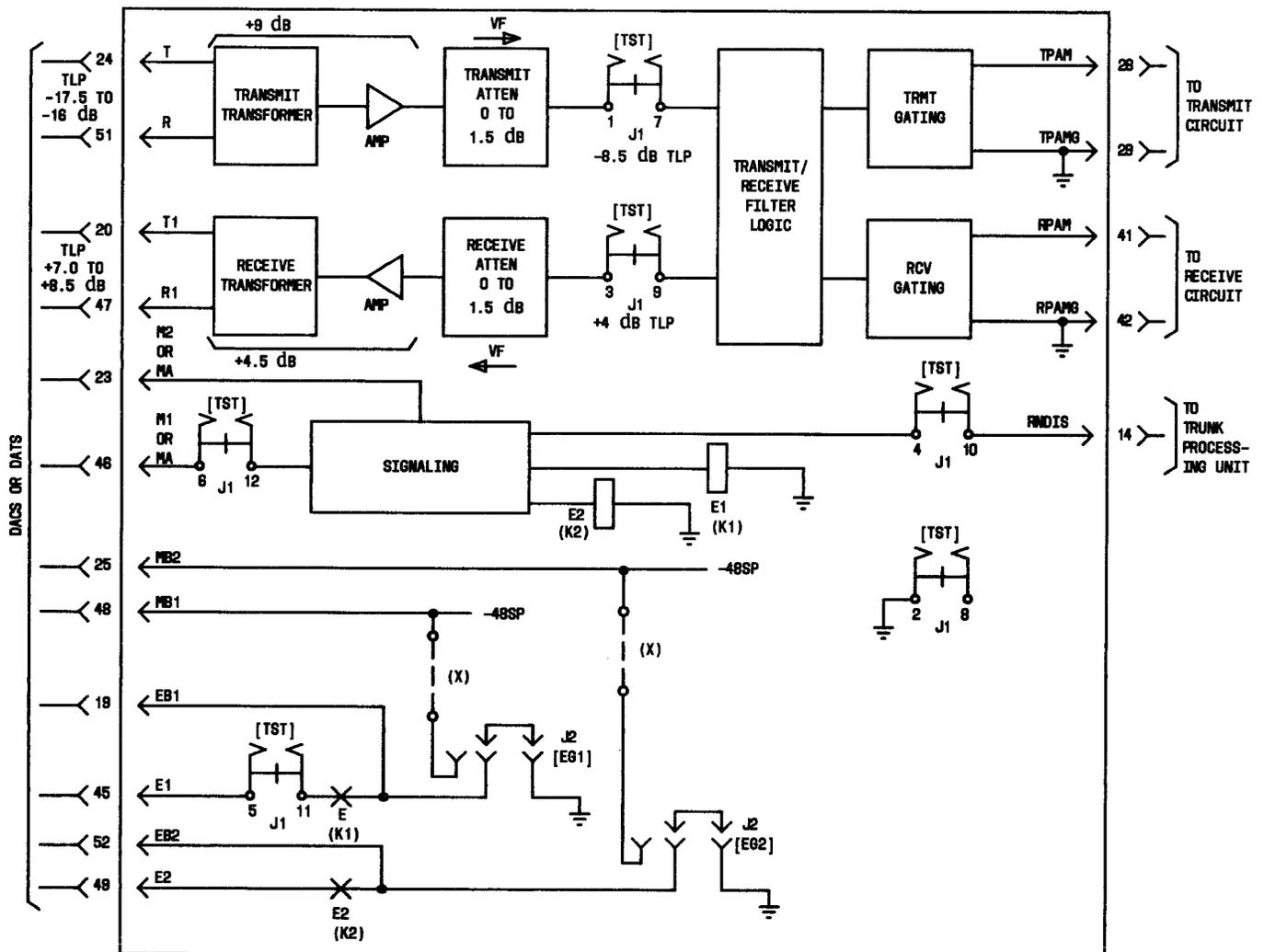


Fig. 1—J98726CG-1 Block Diagram

NOTICE

Not for use or disclosure outside the Bell System except under written agreement

For detail, see CD- and SD-3C397-01 and Section 365-170-111. Section 855-351-105 gives prescription (option) settings and application information.

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

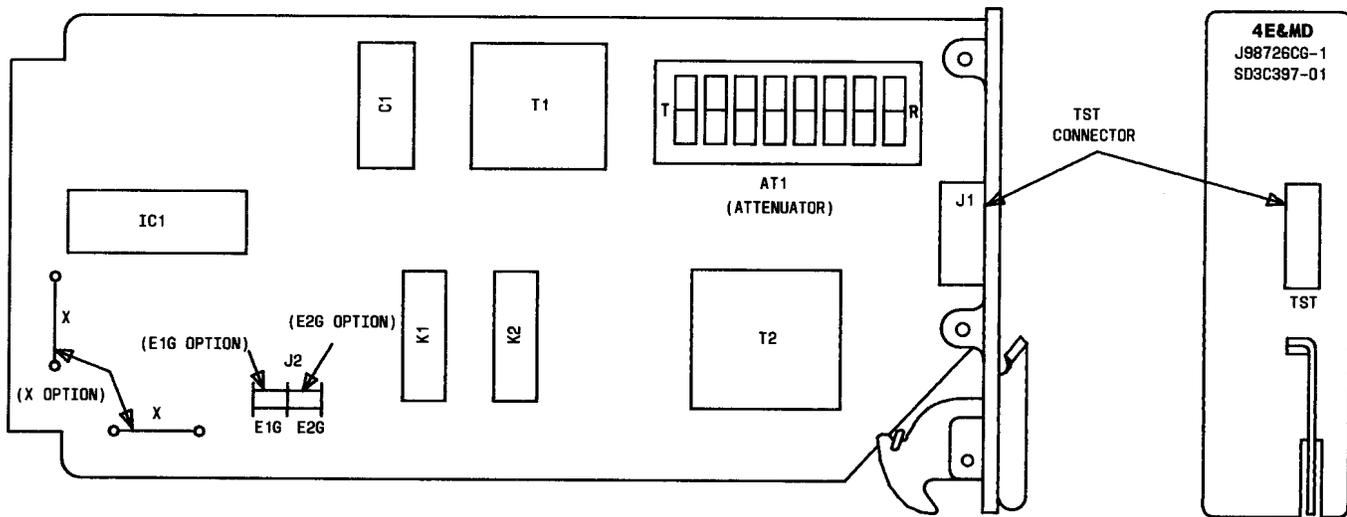


Fig. 2—J98726CG-1 Component Layout

TRMT AND RCV ATTENUATORS: Rocker switches on the transmit and receive attenuators provide 0 to 1.5 dB of attenuation in the transmit and/or receive transmission paths in steps of 0.1 dB. Each attenuator has four rocker switches which are set to obtain the required transmission level at the TRMT and RCV TLP test terminals (−8.5 dB and +4 dB respectively). The attenuation setting in dB is determined by adding the values adjacent to each of the depressed rocker switches. The transmit and receive attenuators are contained in one switching unit with eight individual switches. One side is labeled T to identify the four adjacent TRMT attenuator switches. The other side is labeled R to identify the remaining four switches belonging to the RCV attenuator.

TST CONNECTOR: Insertion of a test card into this connector provides splitting access to the TRMT TLP, RCV TLP, M1 lead, E1 lead, and the RNDIS lead for test and maintenance purposes.

X OPTION: This option is selected to allow test accessing the capabilities of the Digital Access Timeslot Selector (DATS). Two wire straps must be connected to the circuit in order to select this option. (See J98726CG-1.) This provides −48 volts on the E1 and E2 leads in the off-hook state. It is also important that the E1G/E2G options not be selected during this application.

E1G/E2G OPTIONS: These options are selected by exposing the white areas of jack J2 when the two jumper plugs are inserted. This provides a ground on the E1 and E2 leads in the off-hook state. They are selected for type I interface (standard 2-wire E&M lead signaling with electromechanical switching systems) or type III interface (4-wire partially looped E&M lead signaling with electronic switching systems). During type II interface (4-wire, completely looped E&M signaling with electronic switching systems), insert the jumper plugs into jack J2 to expose the black areas which will disconnect this option from the circuit.