

# J98726SK-2, L2; L2,T; L2,T, MODA 2FXO/GT CHANNEL UNIT D4CX401, 403

## DATA SHEET

### D4 CHANNEL BANK

The 2-wire Foreign Exchange Office End With Gain Transfer (2FXO/GT) channel unit (J98726SK) provides the interface between a D4 channel bank and a

foreign exchange circuit. Its primary use is for a foreign exchange off-premise station line and a foreign exchange trunk from a PBX to a foreign central office. This unit can also be used in SLC\*-96 carrier system terminals.

\*Trademark of Western Electric

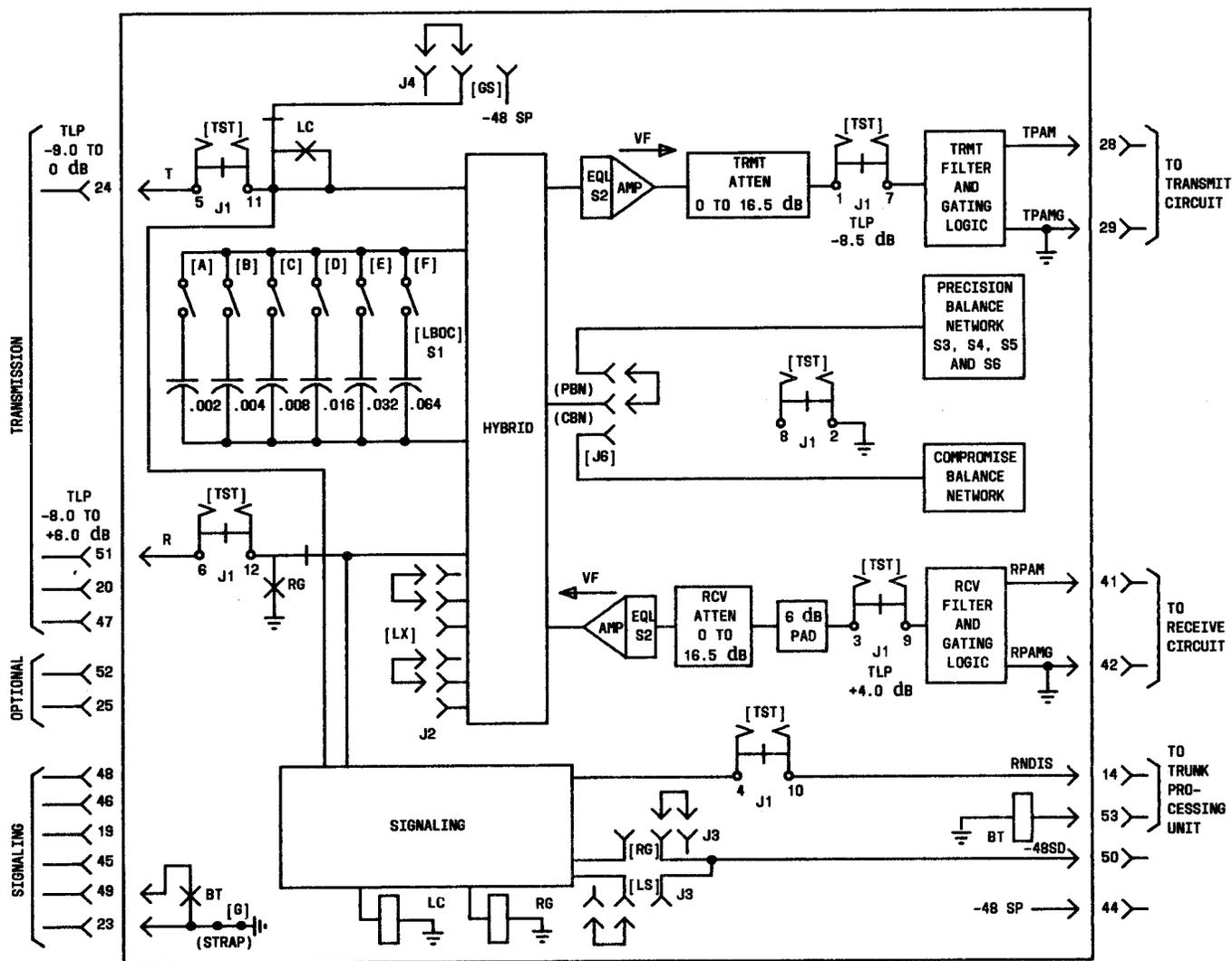


Fig. 1 — J98726SK Block Diagram

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**SECTION 365-005-014**

For signaling and supervision; it converts tip ground, tip open, and ringing current into pulses for the digital network. Similar pulses from the digital network are converted into ground start and loop signaling for the metallic extension. The gain transfer functions of this unit provide service to metallic extensions up to 9 dB without peripheral equipment.

This section is reissued to include the L2,T and L2,T, Mod A versions of the channel unit. It also makes note of circuit board option stenciling changes made on later manufactured L2 channel units.

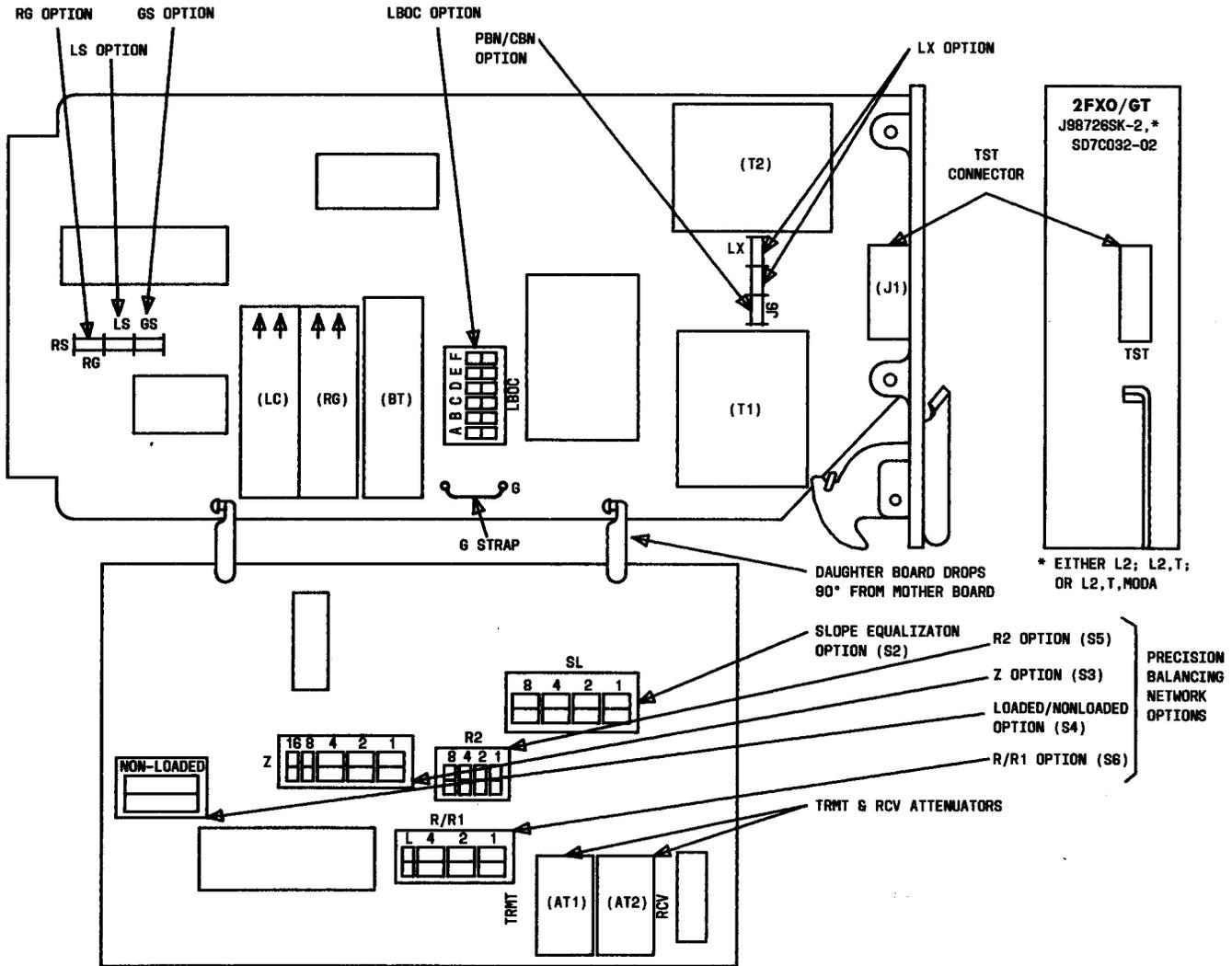
The transmission circuitry of this unit contains a hybrid for 2- to 4-wire conversion, dc isolation, active

equalization, 0 to 16.5 db of attenuation, gain insertion, line buildout capacitance, and a choice of precision or compromise balancing networks.

The FXO/GT unit is compatible with D4, D3, and D1D FXS units but not with D2 special access units.

For detail, see CD- and SD-7C032-02 and Section 365-170-115. 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. These figures show the stenciling which appears on currently manufactured channel units. Any differences on earlier channel units are noted in the option description.



**Fig. 2—J98726SK Component Layout**

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

**LBOC OPTION:** Line build-out capacitance (LBOC) is selected via slide switches on S1 to build out loaded cable end sections to 6 kft. Capacitance is inserted when the letter (A-F) associated with each switch is visible (A=0.002, B=0.004, C=0.008, D=0.016, E=0.032, F=0.064). The total amount of capacitance in the circuit is the sum of the values associated with each exposed letter. This option is labeled S1 on earlier manufactured L2 versions of the channel unit.

**G STRAP:** The strap is cut when trunk conditioning does not require a ground in the channel unit for the make busy lead.

**LOADED/NON-LOADED OPTION:** Slide switch S4 selects the customer cable characteristic to be matched by the precision balance network (PBN). The selected characteristic (loaded or non-loaded) is determined by the exposed stamping on the switch.

**Z OPTION:** Five slide switches (S3) allow the impedance characteristic of the PBN to be adjusted independent of frequency. The selected impedance is the sum of the numbers (16, 8, 4, 2, 1) exposed above each switch.

**SLOPE EQUALIZATION (SL) OPTION:** Four pairs of slide switches (S2) provide 0 to 7.5 dB of slope equalization (3-kHz gain relative to 1-kHz gain). The switches are ganged in pairs to provide the same slope equalization in the transmit and receive paths. The sum of the exposed numbers (8, 4, 2, 1) equals the selected SL setting. This option is labeled S2 on earlier manufactured L2 versions of the channel unit.

**R2 OPTION:** Four slide switches (S5) select the high frequency impedance characteristics of the PBN for nonloaded cable. The sum of the exposed numbers (8, 4, 2, 1) equals the selected amount of impedance.

**R/R1 OPTIONS:** The "L" slide switch (with L exposed) extends the high frequency characteristics of the PBN for synthesizing loaded MAT\* cable impedances. The other slide switches select the low frequency impedance characteristics of the PBN. The selected R setting (for loaded cable) or R1 setting (for non-loaded cable) equals the sum of the exposed numbers (4, 2, 1).

\* Trademark of Western Electric

**TRMT AND RCV ATTENUATORS:** Eight rocker switches independently select 0 to 16.5 dB attenuation for the transmit and receive paths. Attenuation is selected when a switch is set to the IN position. The total amount equals the sum of the numbers beside each switch set to the IN position.

**PBN/CBN OPTION:** This option is used to select either the precision balancing network (PBN) or the compromise balancing network (CBN). To select the PBN, insert the jumper plug into jack J6 so as to expose the white area. If the CBN is desired, insert the jumper plug so as to conceal the white area of jack J6.

**LX OPTION:** This option is selected when the loop resistance is greater than 600 ohms, unless the connecting circuitry uses 72-volt battery, such as a loop signaling repeater (LSR). It is selected by inserting the two jumper plugs into jack J2 so as to expose the white areas. In earlier manufactured channel units, this option is labeled J2. It is also referred to as LX1/LX2 options in some reference sources.

**GS OPTION:** This option selects either ground-start signaling applications or loop-start signaling applications and is used in conjunction with the LS and RG options. For ground-start applications, insert the jumper plug into jack J4 so as to expose the white area. For loop-start applications, insert the jumper plug so as to conceal the white area of jack J4. In earlier manufactured L2 channel units, this option is labeled J4.

**LS OPTION:** This option is used to provide loop-start conditioning in the event of a carrier failure. This causes the LC relay to operate after 2.5 seconds following a carrier failure, making the trunk appear busy. It is selected by inserting the jumper plug into jack J3 so as to expose the white area.

**RG OPTION:** This option is used to provide ground-start conditioning in the event of a carrier failure. This causes the RG relay to operate after 2.5 seconds following a carrier failure, making the trunk appear busy. It is selected by inserting the jumper plug into jack J3 so as to expose the white area. In earlier manufactured channel units, this option is labeled J3.