

**OPERATION AND MAINTENANCE
MAINTENANCE SUPPORT
1 X N FREQUENCY DIVERSITY
DR 6/11-135A AND 135EC
DESCRIPTION
GENERAL**

This section contains block diagrams that show signal flow and equipment interconnections from the system level down to the individual units. Information about the terminal bay, regenerator bay, radio, and individual circuit packs for 135A or 135EC systems is included under the appropriate subtabs.

Drawings of the equipment are contained in the "Equipment Identification" tab. Cross-reference between this section and the "Equipment Identification" section will correlate the functional block diagrams with the actual equipment drawings.

This practice is reissued to include information about the 135EC digital radio. The practice is used in binders 421-101-001 and 421-101-060.

SYSTEM AND STATION BLOCK DIAGRAMS

The DR 6/11-135 digital radio system consists of three major equipment entities: line terminal bays, regenerator bays, and digital radio bays. The line terminating equipment interfaces with DS3 rate signals to and from standard DSX-3 cross-connect equipment, other line terminating equipment, or other DS3 equipment. At IF (70 MHz), the terminals and regenerators connect to the radio equipment with coaxial cables that have optional lengths from 15 to 275 feet.

Figure 1 shows a simplified block diagram of a typical 2-hop 1 x N frequency diversity radio system.

Figure 2 shows a simplified block diagram of a typical terminal station using a single antenna for both directions of transmission.

Figure 3 shows a simplified block diagram of a typical regenerator station using a single antenna to transmit and receive in each direction of transmission.

ISSUING ORGANIZATION

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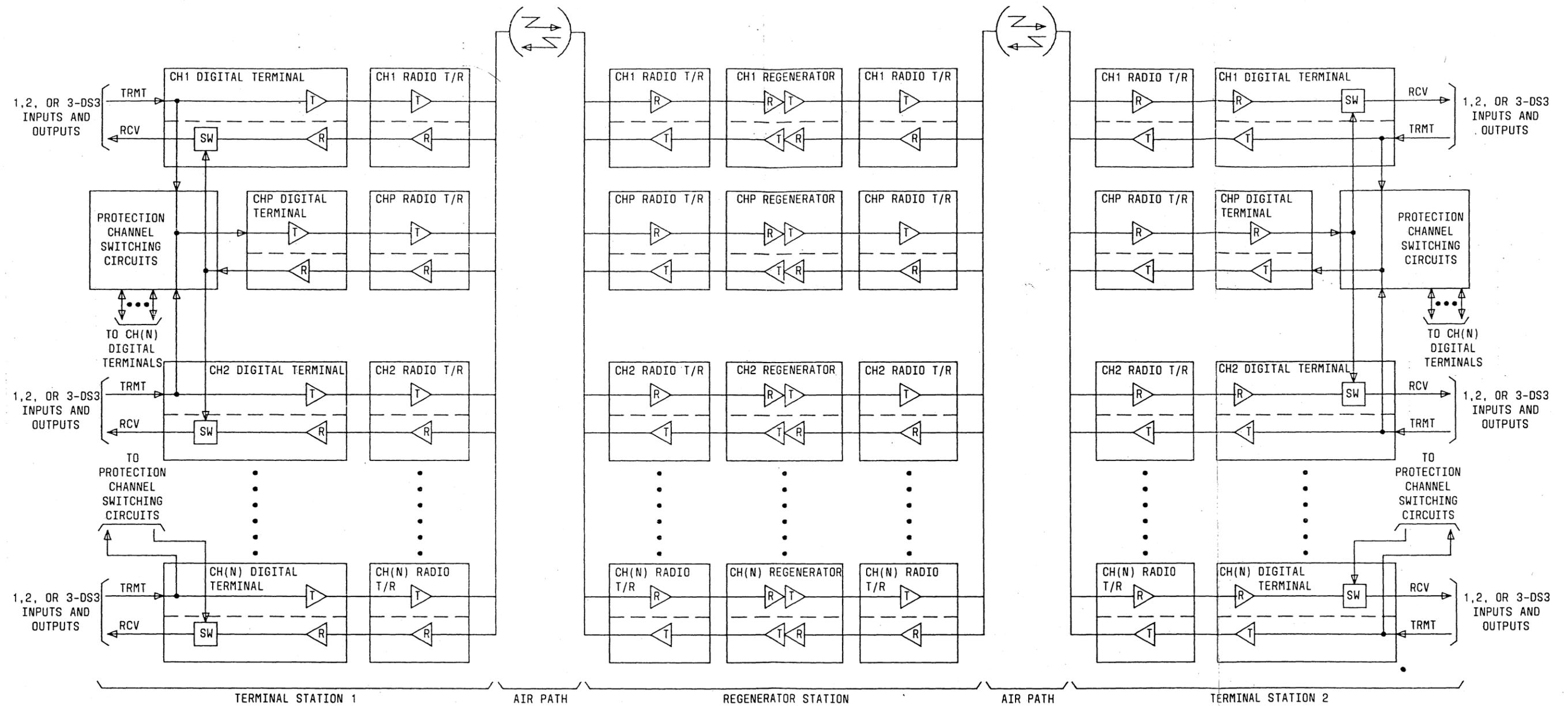


Fig. 1— Simplified Block Diagram of a Typical 2-Hop 1 x N Frequency Diversity Radio System

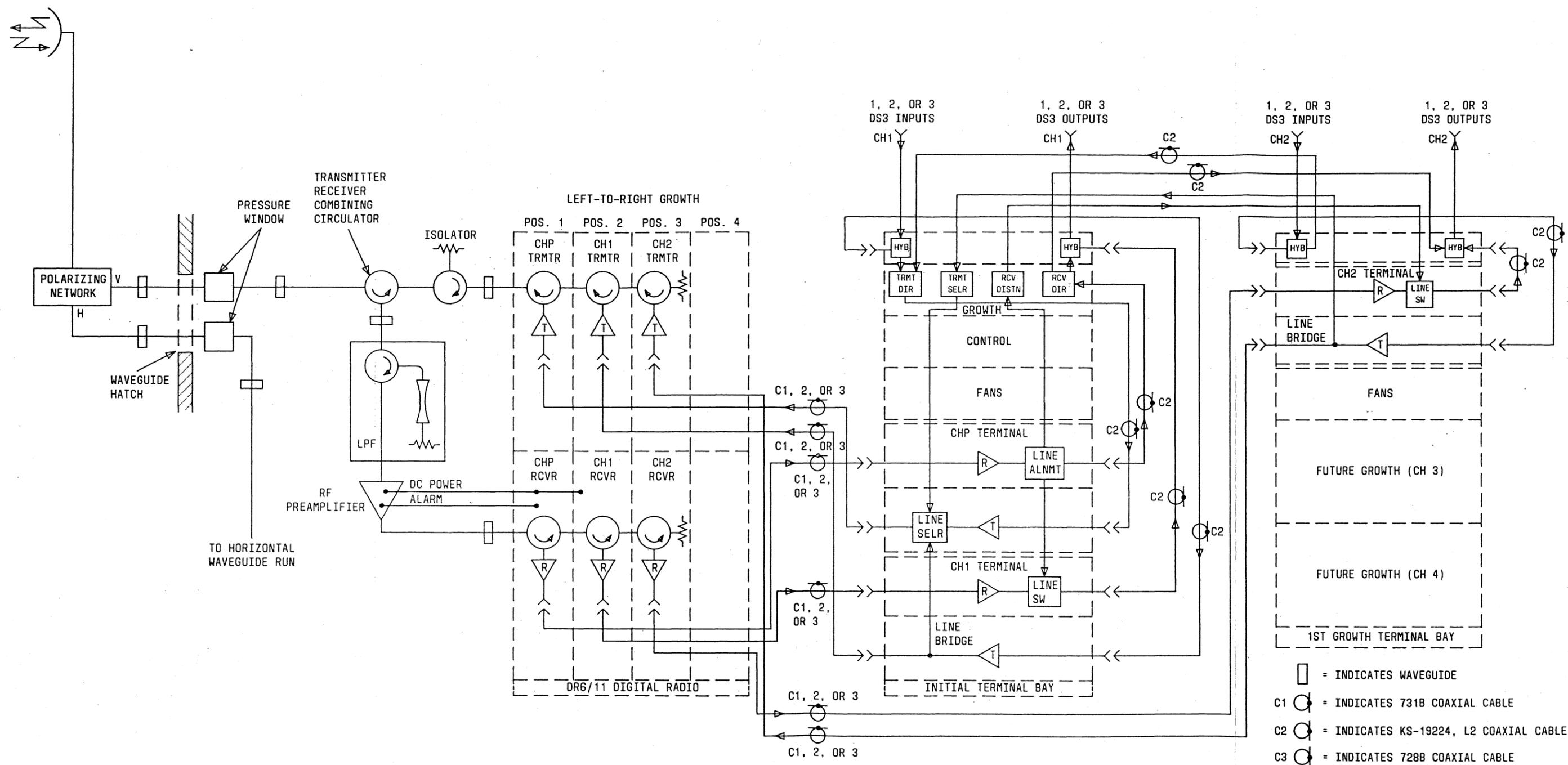


Fig. 2—Typical Terminal Station Simplified Block Diagram

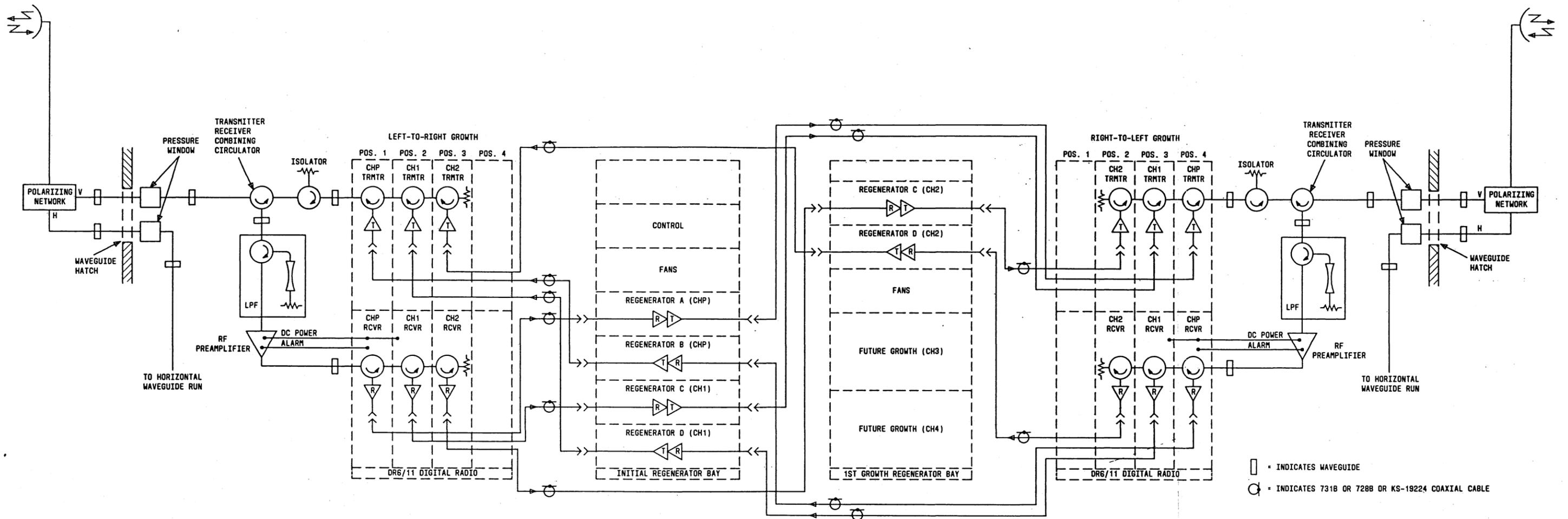


Fig. 3—Typical Regenerator Station Simplified Block Diagram