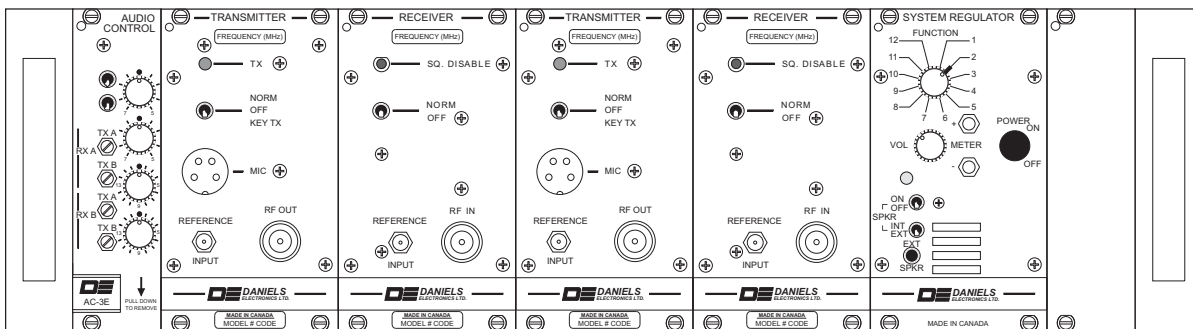


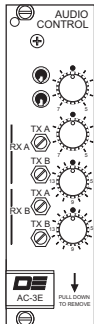
TN600 AC-3E Audio Control Card

The AC-3E audio control card is a plug-in module which provides audio routing, PTT routing, and muting control for an MT-3 radio system. The audio control card includes the following features:

- jumper selectable audio routing, PTT, and muting.
- two independently adjustable hang timers adjustable from 50 milliseconds to 10 seconds.
- sockets for optional CTCSS decoders and encoders.
- low power analog and CMOS control circuitry.
- maximum standby current of 30 mA.
- true balanced 600 Ω inputs and outputs for external equipment connection.
- optically isolated inputs and outputs for control by external equipment.
- suitable for Type 2 E&M signalling.



The AC-3E audio control card is fully configurable and can be used for all repeater and base station applications. The audio control card module circuitry consists of three main functional blocks:



- (1) The repeater control circuit, which allows all COR / PTT routing combinations for all repeaters.
- (2) Optional CTCSS modules that can be installed at the factory or in the field.
- (3) Audio routing circuitry for active level control and distribution of receiver to transmitter audio signals. The AC-3E is designed for applications where interface to external equipment is required. All audio and control inputs/outputs are isolated by transformers and opto-isolators on the AC-3E.

External Audio Input:	600 Ω , -25 dBm to 0 dBm adjustable
External Audio Output:	600 Ω , -20 dBm to +3 dBm adjustable
Internal Audio Input:	4.7 K Ω , -25 dBm to +3 dBm adjustable

The AC-3E audio control card includes four potentiometers on the front panel for adjusting internal audio levels. Optional CTCSS and frequency select rotary switches can also be mounted on the front panel of the audio control cards, giving easy access to 10 pre-programmed CTCSS tones and 16 pre-programmed receiver and transmitter operating frequencies. Two switches are mounted on the front of the audio control cards that can be configured to control CTCSS on / off or repeat disable. Configuration of all switches on the audio control card is set up at the factory at the time of order.

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TN600 AC-3E Audio Control Card

Although the Audio Control Card can be configured to work in various configurations with add-in options and functionality, the three main functions of the AC-3E Audio Control Card are shown in Figures 1, 2 and 3:

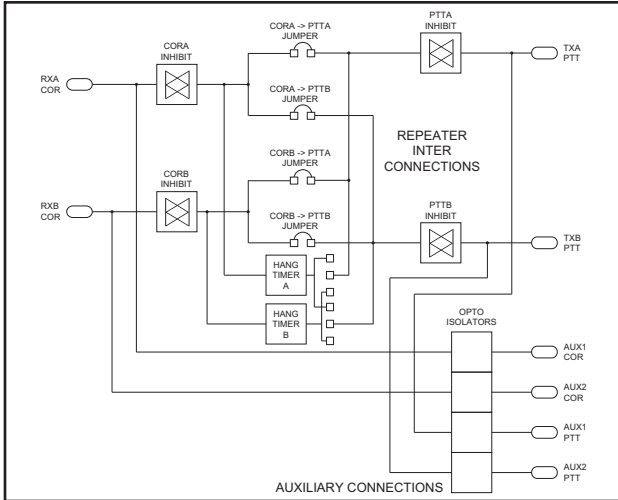


Figure 1: Repeater Control

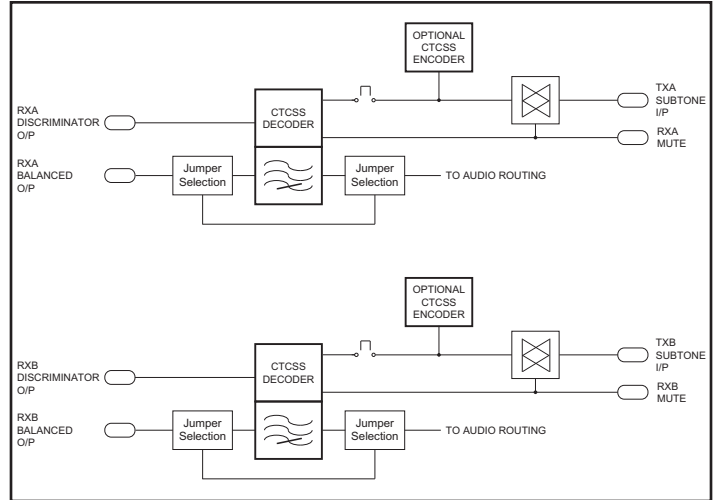


Figure 2: CTCSS Control

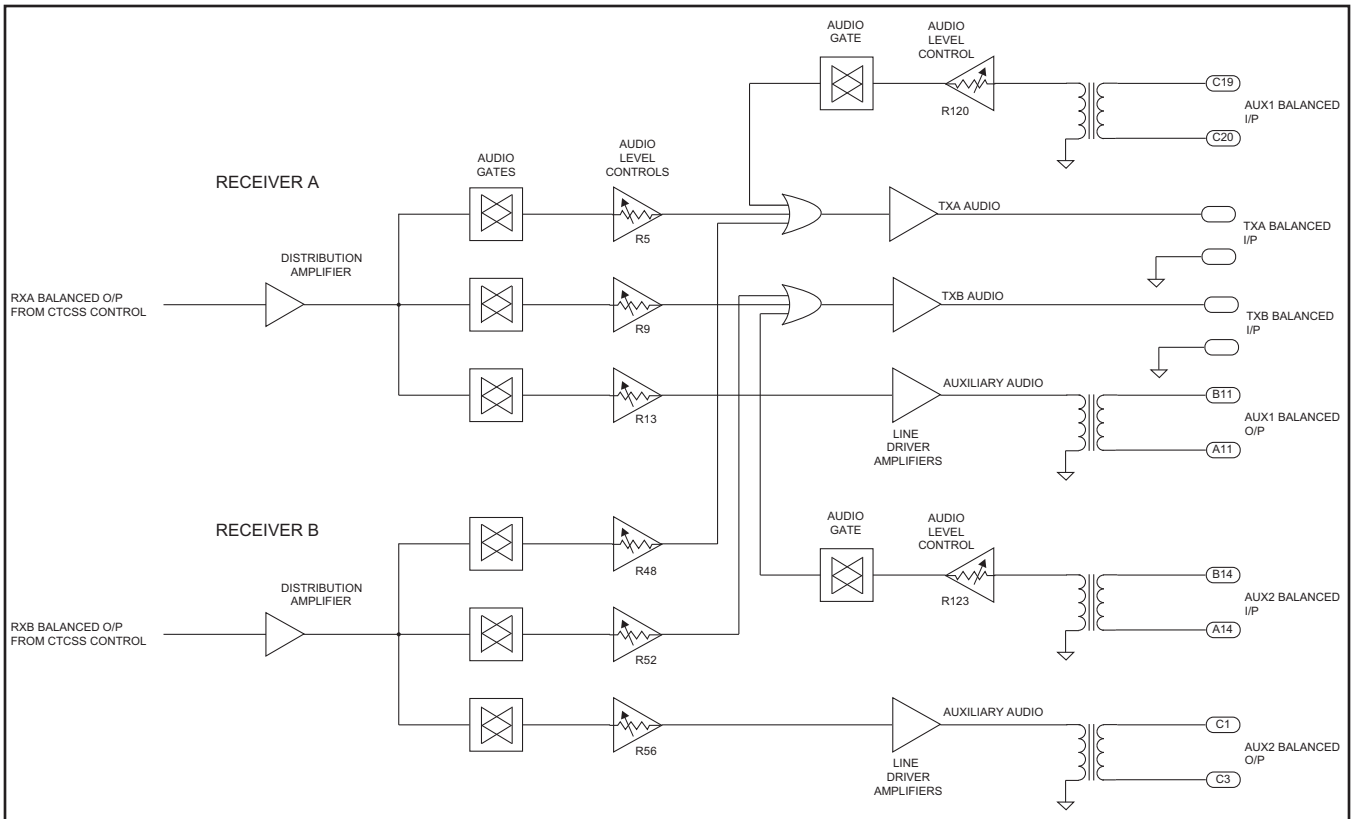


Figure 3: Audio Routing

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