TECHNICAL DESCRIPTION

General
DX-2 is an external linear amplifier for use in the amateur radio service. Type of emission: CW, RTTY, SSB, AM, SSTV and other digital modes.

Frequency range
The Emtron DX-2 amplifier covers seven amateur bands: 160m, 80m, 40m, 20m, 17m, 15m.

NOTE: There is a 9-band version of DX-2, including the 30m,12m and 10m band. In this case (Non - US version), the entire 6 -band RF tank and switch module is replaced with a 9-band module. The variable capacitors are also different.

Range of operating power
There is no power adjustment in DX-2. The output power can be adjusted from virtually zero to the maximum, by adjusting the input drive level at the transceiver or exciter.
As the output power is directly proportional with the drive power, no other power control is available. However, DX-2 contains circuitry that prevents over-driving the amplifier, and eliminates "flat-topped" signals and frequency splatter.

Maximum power level
The nominal maximum output power of the DX-2 amplifier is 1500W. Due to the normal tolerances in the tube, the "Key down" power can range between about 1400 to 1600 W. The plate voltage in a DX-2 is not regulated and can vary from 2450 V at no load, to about 2150 V at full power.

The DC voltage and DC currents
There is only one tube in the amplifier, the tetrode GU84B. The typical plate voltage at full power is 2100 and the typical current is 1.3 A.

Function of the tube
The tetrode GU84B used in the DX-2 amplifier is operating as cathode grounded, grid driven class AB1 amplifier. The grid circuit is not tuned. The plate circuit is tuned. The load coupling is via a Pi-L tuned and switched circuit. Both the input and output impedance are nominally 50 ohm.