15 Jonathan Drive, Unit 4, Brockton, MA 02301
Tel: (508) 580-1660; Fax: (508) 583-8989; Toll Free: 1-877-549-7781

Wideband Power Amplifiers

Model 7500

75 Watts - DC to 1MHz

Ü CE *Compliant*

- **Frequency Range:** DC to 1MHz
- **Frequency Response:** <±0.1dB
- **Distortion:** <0.1%
- **Maximum Voltage:** 140Vrms, Open Circuit
- **Voltage Gain:** 0dB to 40dB
- **Variable DC Offset:** 0V to 200V Peak
- **Short-Circuit Protection**

DESCRIPTION

The Krohn-Hite Model 7500 is the first direct-coupled, wideband amplifier that offers extended output power and voltage capabilities, low distortion, an advanced, all solid state design, and performance features not previously available.

The Model 7500 provides more than 75 watts of continuous power (150 watts at dc), and 125V rms from dc to 100kHz. Frequency response of the 7500 is typically flat to within 0.05dB over most of its range. In addition, the 7500 typically contributes <0.05% of total harmonic distortion, at full power output, up to 10kHz. The voltage gain of the 7500 is non-inverting, and can be selected for either 20dB (10) or 40dB (100) of fixed gain, or continuously adjustable from 0dB to 40dB. The 7500 also provides either direct (dc) or capacitive (ac) input coupling.

ADDITIONAL FEATURES

An additional feature of the Model 7500 is the variable output dc offset control. With an ac input signal, the amplifier's combined ac plus dc offset output is adjustable from 0V to ±200V peak, open circuit. With no input signal applied, the 7500 provides an adjustable dc voltage of 0V to ±200V open circuit, for use as an auxiliary DC supply, within the amplifier's voltage and current limitations.

OUTSTANDING PERFORMANCE

The outstanding performance of the Model 7500 is the result of improved techniques in circuit design, plus the use of all solid-state circuitry. The input stages are designed to provide a high input impedance, extended bandwidth, and excellent dc and thermal stability. The output stage is designed with high voltage transistors, in place of conventional transformer coupling, to provide the 7500 with its high output and voltage capability, and direct output coupling. The output transistors are protected from short circuits or other abnormal conditions on the amplifier's output, by the use of a modified, fold-back current-limiting technique. This technique permits the limiting current to vary as a function of output voltage, load, and frequency. The output stage is convection cooled, by the use of a unique heat sink arrangement, that provides freedom from noise caused by conventional fans or blowers.

APPLICATIONS

The Model 7500 is one of the few amplifiers on the market today that offers a combination of power, performance and versatility. Its power and voltage capability, low distortion and flat response, make the 7500 well suited for use in precision meter calibration, transducer driving, bridging applications requiring high input and low output impedance, and as a low distortion ac power source, when used with a suitable low distortion oscillator.