

AM7700H

Spectre H™ 100W HF Tactical Amplifier

SPECTRE™ H



The AM7700H is a 100W HF linear RF Amplifier designed for use with our tactical HF manpack radio operating in the 1.6 to 30 MHz frequency band to form high power HF systems. The amplifier interfaces seamlessly with Datron's PRC7700H HF transceiver and MT7700H-1 mount.

The amplifier's combination of functionality, reliability, and affordability make it one of the best-valued high power RF amplifiers on the market today. The AM7700H's compact design and light weight make it ideal for mobile or base station systems.

It is designed to be rugged, shockproof, and waterproof, making it ideal for use in harsh operating environments. It's linearity and continuous duty rating ensures high performance for all HF voice, high-speed data and Frequency Hopping applications. It is entirely solid state, broadband, and operates from +28Vdc provided by the MT7700H-1 mount.

The AM7700H employs harmonic filters to provide high attenuation of transmitter harmonics and out-of-band signals in transmit mode. It includes automatic level control (ALC) to maintain a stable RF output over the entire operating frequency range and over fluctuating temperatures. In addition, the AM7700H provides protection against load mismatch and open and short circuit conditions at the antenna port.

The amplifier is suitable for use with Datron's RAT7000B external tuner and whip or long wire antennas, or with systems containing a 50 ohm broadband antenna.

Key Features

- 1.6 to 30 MHz
- Continuous duty operation, voice/data
- Supports HF frequency hopping
- +28 VDC operation
- Full antenna VSWR protection
- Over-temperature/current protection
- Over-drive/imbalance protection
- Compact, lightweight
- Designed to meet MIL-STD-810 (shock, vibration, humidity, salt spray, immersion)



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GENERAL

- RF POWER OUTPUT 100W, typical
- FREQUENCY RANGE 1.6 to 30 MHz
- HARMONICS -50 dBc, typical
- DUTY CYCLE Continuous service
- RF DRIVE LEVEL 5W, nominal
- INPUT/OUTPUT IMPEDANCE 50 Ohms
- POWER REQUIREMENTS +28 VDC, nominal

ENVIRONMENTAL

- TEMPERATURE Operating: -40°C to +60°C
Storage: -55°C to +85°C
- SHOCK, VIBRATION, HUMIDITY, SALT SPRAY, IMMERSION Designed to meet MIL-STD-810

MECHANICAL

- SIZE (H x W x D) 4.0 in. x 11.25 in. x 8.25 in.
10.16 cm x 28.58 cm x 20.96 cm
- WEIGHT 14 lbs. (6.8 kg)
- COLOR OD green

CONTROLS AND INDICATORS

- CONTROLS Amplifier ON/OFF
- CONNECTORS RF input, RF output, Control, DC input

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** As permitted by core hardware design

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