

PRC1099A HF Tactical Manpack Radio

TACTICAL HF



Datron's PRC1099A is an HF/SSB tactical manpack transceiver designed for demanding battlefield applications. It is a 20W radio operating over the full 1.6 - 30 MHz frequency range with 10 Hz resolution. The PRC1099A is rugged, lightweight, easy to use, and can be configured with numerous add-on accessories to create a wide variety of manpack, mobile, or base station systems.

Standard configurations are available at the 20W, 100W, and 400W levels using the basic PRC1099A manpack radio as the core. Datron accessory equipment including shock mounts, RF booster amplifiers, antenna tuners, modems, and remote control units can be added as required to fulfill specific mission needs. Each high-power configuration is designed so that the core radio can be quickly removed ("jerk-and-run") for emergency use as a manpack. All systems are MIL-STD-810 compliant and completely immersible to satisfy the most demanding environmental conditions.

The PRC1099A is designed for operation on any frequency in the 1.6 - 30 MHz range. 100 programmable memory channels are available; these channels can be programmed either from the front panel of the radio or remotely from a computer. The radio contains a BITE program to test essential transmit and receive functions as well as static functions like battery status, memory and display.

The PRC1099A has a built-in antenna tuner that automatically matches the 3m HF whip (AT-271A/U) and various long-wire antennas over the full frequency range. The tuner has a "memory" mode whereby it stores the tuned configuration for up to 100 channels for scan mode operation and silent tuning when necessary. Internal options available for the PRC1099 include FED-STD-1045A ALE.

Datron's PRC1099A has been successfully deployed around the world, providing reliable tactical HF communications in the harshest battlefield environments.

- 1.6 to 30 MHz, 10 Hz Steps
- 100 programmable memory channels
- Rugged (MIL-STD-810); immersible
- 5/20/100/400 watts
- Internal automatic antenna tuner
- Remotely controllable
- FED-STD-1045A ALE
- BITE to module level
- Multiple battery charging options



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Certification # 08.347.1
ISO 9001:2008
Registered Quality System
Datron World Communications, Inc.

GENERAL

- **FREQUENCY RANGE** 1.6 to 30 MHz;
- **AVAILABLE CHANNELS** 2,840,000 in 10 Hz steps
- **PRESET CHANNELS** 100 Programmable memory channels
- **SCANNING** Radio and ALE scan modes
- **CHANNEL PROGRAMMING** From front panel or remotely via computer
- **MODES** USB, LSB, CW, AME; simplex or half-duplex
- **INPUT POWER REQUIREMENTS** 11 - 15 Vdc;
- **BATTERY PACK** BB-LA6 sealed lead calcium; BA5598/U Lithium (case holds spare battery)
- **LOW BATTERY INDICATOR** LCD battery icon
- **ANTENNA PORT** BNC for 50 ohm broadband antennas or for connection to external amplifier; whip antenna port.
- **DISPLAY** Backlit, multi-function custom LCD

MECHANICAL, ENVIRONMENTAL

- **SIZE** 4.1" x 11.1" x 9.25" (28.2cm x 10.5cm x 23.5cm); (H x W x D), including battery pack.
- **WEIGHT** 9.7 lbs (4.4 kg), w/o battery pack; BB-LA6 pack is 5.2 lbs (2.4 kg).
- **PACKAGE** Olive drab green, sealed, including battery pack.
- **TEMPERATURE** -30 to +60 degrees C, operating
- **SHOCK, VIBRATION, HUMIDITY, FUNGUS, ALTITUDE** Per MIL-STD-810

TRANSMITTER

- **RF POWER OUTPUT** 5/20W, PEP or average, manpack; 5/20/100/400W in mobile configuration
- **DUTY CYCLE** Continuous duty service at 5W
- **HARMONICS** -50 dBc (2 to 30 MHz)

RECEIVER

- **SENSITIVITY** -113 dBm @ 10 dB SINAD
- **SQUELCH** Audio derived, noise immune
- **AUDIO** 500mW into 16 ohms; 50mW into 150 ohms; 0 dBm into 600 ohms

ANTENNA TUNING

- **ANTENNAS** Whip (AT-271A/U) and long wires (use LWA for wires longer than 15m); fully automatic antenna tuning; 100 channel memory.
- **TUNE TIME** 1-3 seconds initial tune (typical); 20ms, memory mode for preset channels (no RF output in memory tune mode)
- **ANTENNA SWITCHING** Tuner bypassed and 50 ohm port automatically engaged when whip (or long-wire) antenna removed

INTERNAL OPTIONS

- 1099ALE FED-STD-1045A ALE
- 1099AAME AME transmit capability

* Subject to export regulations
Specifications subject to change without notice - rev 0111
Made in the USA



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