

# TW7000 Commercial HF Transceiver

COMMERCIAL HF



The TW7000 is a commercial, 1.6 to 30 MHz, HF/SSB transceiver designed to provide long distance voice and data communications. The RF output power is rated at 125W, PEP, and 100W, average, and there is complete protection against antenna mismatch. Modes include USB, LSB, CW, and AME; and up to 1000 preset memory channels are available.

A wide variety of mobile and base station system configurations are offered with RF power levels up to 5000W that include desktop and rack-mounted systems with remote control and broadband or narrowband antenna systems. All are designed to meet the environmental specifications of MIL-STD-810 for shock, vibration, and temperature. The radio now includes as standard a DSP-based voice enhancement module to enhance the received voice quality. BITE capability, with fault detection down to the module level, is also standard in all TW7000's. BITE messages are shown on the display to allow even unskilled operators to easily repair the radio at the field level.

A number of internal options are available for the TW7000 transceivers. For automatic selection of best channel and station-to-station linking, the TW7000 offers MIL-STD-188-141B automatic link establishment (ALE). High-level voice encryption, impulse noise blanking, and special data and CW filters are other embedded features that can easily be added to the standard transceiver.

A complete line of accessories are available for the TW7000 including RF booster amplifiers, antenna tuners, high-speed modems, rugged notebook computers, and HF E-mail and network management application software to provide comprehensive HF communications solutions. A variety of remote control options are offered including extended front panel control, long-range remote control and high-speed remote control.

- 1.6 to 30 MHz (100 kHz, RX)
- Continuous duty operation-voice & data
- MIL-STD-188-141B ALE
- Voice encryption
- Remote & extended control capability
- Core of high-power systems
- B.I.T.E. capability
- Separate receivers and transmitters available

# TW7000

## Commercial HF Transceiver



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#### GENERAL

- **FREQUENCY RANGE** 1.6 to 30 MHz (TX); 100 kHz to 30 MHz (RX); 10 Hz channel spacing
- **PRESET CHANNELS** 256, standard; 1000, optional
- **SCANNING** Multiple scan groups, operator-selectable scan rates
- **CHANNEL PROGRAMMING** From front panel or dedicated remote control console
- **FREQUENCY STABILITY** 0.5 ppm
- **MODES** USB, LSB, CW, AME; simplex or half-duplex
- **INPUT POWER REQUIREMENTS** 11 - 15 Vdc;
- **INPUT POWER PROTECTION** Reverse polarity, transient and under/over-voltage
- **ANTENNA PORT** 50 ohms, type SO-239 connector
- **ANTENNAS** 50 ohms broadband or narrowband with antenna tuner (AT7000B, RAT1000C)
- **INTERFACE** Control: two COM ports - RS232; optional EIA RS422/423/485 COM2 port  
Audio: 600 ohms, balanced and isolated.

#### MECHANICAL, ENVIRONMENTAL

- **SIZE** 3.5" x 13" x 17" (8.9 cm x 33 cm x 43 cm), (H x W x D)
- **WEIGHT** 21 lbs., (9.5 kg)
- **COOLING** On-demand fan (internal)
- **TEMPERATURE** -30°C to +60°C, operating
- **SHOCK, VIBRATION** Per MIL-STD-810

#### TRANSMITTER

- **RF POWER OUTPUT** 125W, PEP; 100W, average; programmable - 3 levels
- **DUTY CYCLE** Continuous service, all modes
- **HARMONICS** -60 dB (2 to 30 MHz)

#### RECEIVER

- **SENSITIVITY** -113 dBm @ 10 dB SINAD (2-30 MHz)
- **ATTENUATOR** +20 dB, operator selectable
- **AUDIO** 5W into 4 ohms; 0 dBm into 600 ohms.

Subject to export regulations

Specifications subject to change without notice - rev 120423

Made in the USA