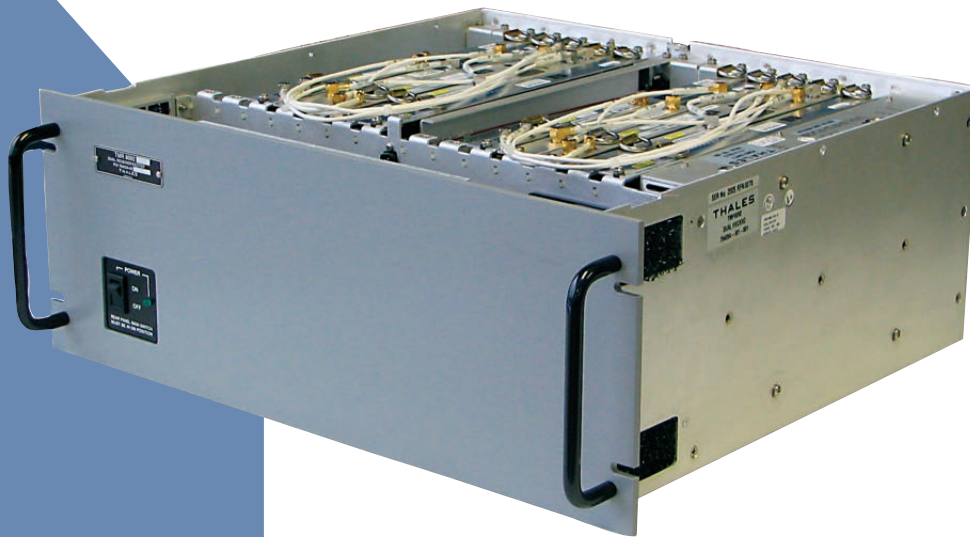




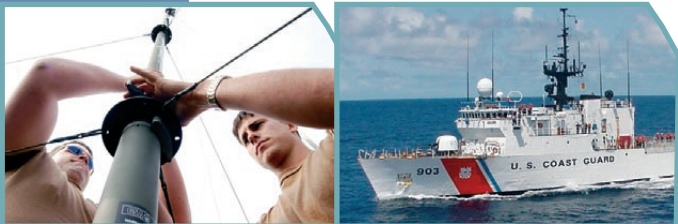
TMR5090/5091

Single/Dual Channel HF Receiver



- 10 kHz to 30 MHz Receive
- Digital Signal Processing Technology
- Local, Remote, and Computer Control
- MIL-STD-188-141B (App A) (ALE)
- TADIL-A/LINK-11
- Two Channel ISB
- Full BITE, Local, or Remote to LRU
- Configuration Flexibility

**Series 5000—Reliable, Modular,
Cost-Effective HF Systems.**



TMR5090/5091

Single/Dual Channel HF Receiver

The TMR5090 Series HF Receiver is a digital, microprocessor controlled, synthesized unit that utilizes Digital Signal Processing (DSP) technology for cost-effective, highly-flexible, HF solutions. The TMR5090 is a single receiver. The TMR5091 provides two fully-independent receivers in a single chassis.

DSP technology offers a flexible, programmable approach to narrow band filtering and baseband signal processing, while providing two channel Independent Sideband (ISB) operation. One or both receivers can be configured for two channel ISB.

Total modular design provides an easy upgrade path resulting in extended product life and functionality. All modules are plug-in circuit boards designed for rapid insertion or extraction.

The standard TMR509X Receiver is supplied with a blank front panel. Graphical User Interface (GUI) options include the TMR6490 Control Unit and computer control in Windows format utilizing PC6000 Radio Control Software.

GENERAL

Stored Channels

- 1000 programmable

Frequency Stability

- 0.33 PPM, 0° to +35°C
- 2 PPM, 0° to +50°C typical
- Optional OCXO: 0.01 PPM, 0° to +50°C

Modes of Operation

- USB/LSB/ISB/CW/AM/AME
- A1A, A1B, B7B, B8E, B9W, F1A, F1B, F1C, F3C, H2A, H2B, H3E, J2B, J3E, R2A, R2B, R3E
- Simplex, Half Duplex, or Full Duplex operation

Tuning

- Direct frequency or channel entry from keyboard or keypad on LCU, RCU, or computer.

Synthesizer Tune Time

- < 20 ms

Remote Interfaces

- RS-232 or RS-485 (up to 1.3 km)

Line Input/Output

- Two independent channels
- -20 dBm to +10 dBm
- 600 ohm balanced audio

Voltage Requirements

- Universal Input: 90 to 270 VAC 47 to 400 Hz Single Phase, Auto Revert DC (20 to 32 VDC) with loss of AC Line

BITE

- Auto test to board/module level on power up
- Re-test at user command

- Non-U.S. Government sales are subject to U.S. Government approval.
- Specifications are subject to change without notice.

ENVIRONMENTAL

Temperature Range

- -5° to +55°C operating
- -40° to +70°C storage

Shock/Vibration

- MIL-STD-810E

Weight

- 22.2 lbs (10 kg)

Size (H x W x D)

- 7 x 19 x 15 inches (178 x 483 x 381 mm)

RECEIVER

Frequency Range

- 10 kHz to 30 MHz in 1 Hz steps

Sensitivity

- 10 dB SINAD in 3 kHz bandwidth
- SSB: 0.5 μ V
- CW: 0.5 μ V
- AM: 3.0 μ V (reduced below 500 kHz)

Image/IF Rejection

- 80 dB minimum

Spurious Rejection

- 80 dB minimum

Internal Spurious

- < -121 dBm equivalent input

3rd Order Intercept

- +20 dBm

In Band IMD

- >50 dB with two tones

AGC

- Adjustable threshold, output level within 3 dB for inputs greater than threshold up to +13 dBm
- Attack < 10 ms
- Decay Selectable
 - <20 ms (fast),
 - <200 ms (medium)
 - <2 sec (slow)

Standard Filters

- 0.3 kHz, 1.1 kHz, 2.75 kHz, 3.1 kHz, 6 kHz

RF Input Protection

- 100 Volts EMF

OPTIONS

- Internal Pre/Post-Selector
- High Stability OCXO
- Rack Mount Kit
- TMR Radio Control Unit



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