

New Exciting Yaesu Field Gear

HF/50 MHz 100 W All Mode Transceiver

FT-891

- Rugged construction in an Ultra Compact body 6.1" x 2.0" x 8.6" (155 x 52 x 218 mm)
- Stable 100 W Power Output with efficient Dual Internal fans
- Legendary Yaesu Receiver Design
- Triple conversion with a 1st IF frequency of 69.450 MHz
- 3 kHz roofing filter equipped as standard
- Detachable Front Panel for convenient mounting and operation
- Large dot matrix LCD display with Quick Spectrum Scope
- Ease of Operation
 - Large diameter Main Tuning Dial (1.6"/ 41 mm) with Torque adjustment
 - Pop-up Menu for quick and easy operation
 - Multi Function Knob
 - Large Transmit/Receive indicator
 - Three Programmable Front Panel Function Keys
- Specifically designed External Antenna Tuner FC-50 (option)



▶ ULTRA COMPACT DESIGN

Measuring 6.1" x 2.0" x 8.6" (155 x 52 x 218 mm), The FT-891 is an innovative Multi-band, Multi-mode Mobile/Portable transceiver with Ultra Compact and rugged case design.

Front Panel (Actual size) >>>>



▶ 100 Watts Reliable High Power Output

The FT-891 provides stable 100W (25W AM) high power output. High reliability is assured by the transmitter careful circuit design with efficient thermostatically-controlled Dual internal fans and the diecast chassis.



Thermostatically-controlled Dual Internal fans

▶ IF DSP provides effective and optimized QRM rejection

The 32 bit high speed floating Point DSP (max 3000 MIPS) provides effective cancellation/reduction (DNR) of the random noise that is frequently frustrating in the HF frequencies. Also: the AUTO NOTCH (DNF) automatically eliminates the dominant beat tone. The CONTOUR, and the APF, are very effective receiver noise reduction tools in the HF bands operations. The YAESU original DSP QRM and noise reduction functions are provided.



32-bit High Speed Floating Point DSP

▶ Automatic-Matching 100 Memory Antenna Tuner (Option)

The FC-50 is a microprocessor-controlled antenna tuner that is designed specifically for the FT-891. The FC-50 can be easily coupled with the FT-891.



▶ Specifications

• General

| | | | |
|---------------------|--|-------------------------------|--|
| Frequency Range | Tx: 1.8 - 54 MHz (Amateur bands only) Rx: 30 kHz - 56 MHz | Supply voltage | 13.8 VDC ±15%, negative ground |
| Channel Step | 2/5/10 Hz (SSB, CW), 10/100 Hz (AM, FM) | Current Consumption (typical) | Rx: 2.0 A (signal present) Tx: 23 A |
| Frequency Stability | SSB/CW/AM: ±0.5 ppm [14 °F to +122 °F (-10 °C to +50 °C)] FM: ±1 kHz [14 °F to +122 °F (-10 °C to +50 °C)] | Operating Temperature Range | 14 °F to +122 °F (-10 °C to +50 °C) |
| Modes of Emission | A1A (CW), A3E (AM), J3E (LSB, USB), F3E (FM) | Case Size (WxHxD) | 6.1" x 2.0" x 8.6" (155 x 52 x 218 mm) w/o knobs |
| Antenna Impedance | 50 Ohms, unbalanced | Weight (Approx.) | 4.18 lb (1.9 kg) |

• Transmitter

| | | | |
|-------------------|---------------------------------|----------------------|---|
| Output Power | SSB/CW/AM: 100 W (AM: 25 W) | Spurious Radiation | Better than -50 dB (1.8 MHz - 30 MHz Amateur bands), Better than -63 dB (50 MHz Amateur bands) |
| Modulation Type | J3E(SSB)/A3E(AM)/F3E(FM) | Microphone Impedance | 600 Ohms (200 to 10 kOhms) |
| Maximum Deviation | ±5 kHz (Wide)/±2.5 kHz (Narrow) | | |

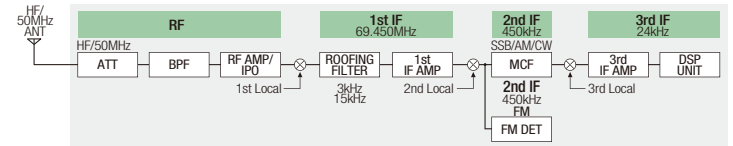
• Receiver

| | | | |
|--------------------------|---|------------------------|--|
| Circuit Type | SSB/CW/AM: Triple-conversion Superheterodyne FM: Double Conversion Superheterodyne | Selectivity | Mode -6 dB / -60 dB SSB/CW 2.4 kHz or better / 3.6 kHz or less CW-N 500 Hz or better / 750 Hz or less AM 6 kHz or better / 15 kHz or less FM 12 kHz or better / 30 kHz or less |
| Intermediate Frequencies | SSB/CW/AM: 1st: 69.450 MHz/2nd: 450 kHz/3rd: 24 kHz FM: 1st: 69.450 MHz/2nd: 450 kHz | Maximum AF Output | 2.5 W 4 ohms with 10% THD |
| Sensitivity | SSB/CW (S/N 10 dB) 0.158 µV (1.8 - 30 MHz), 0.125 µV (50 - 54 MHz) AM (S/N 10 dB) 5 µV (0.5 - 1.8 MHz), 1.6 µV (1.8 - 30 MHz), 1.25 µV (50 - 54 MHz) FM (12 dB SINAD) 0.35 µV (29 MHz - 50 - 54 MHz) | Audio Output Impedance | 4 to 16 Ohms (8 Ohms: nominal) |
| | | Conducted Radiation | Less than 4 nW |

About this brochure: we have made this brochure as comprehensive and factual as possible. We reserve the right, however, to make changes at any time in equipment, optional accessories, specifications, model numbers, and availability. Precise frequency range may be different in some countries. Some accessories shown herein may not be available in some countries. Some information may have been updated since the time of printing; please check with your Authorized Yaesu Dealer for complete details.

▶ Yaesu Uncompromising Receiver Circuit Design Ensures Excellent Performance

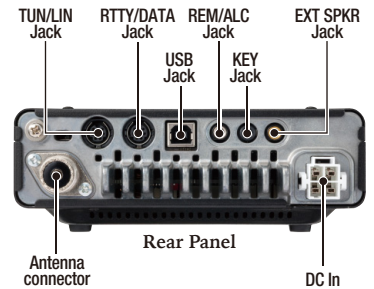
- Triple conversion with a 1st IF • TCXO provides ±0.5 ppm High frequency of 69.450 MHz (SSB/CW/AM) frequency stability (-10°C to +50°C)
- 3 kHz roofing filter equipped as standard



Receiver Block Diagram

▶ Features

- Large dot matrix LCD display with Quick Spectrum Scope
- Three Programmable Front Panel Function Keys are selectable to the user's personal preferences
- USB port allows connection to a PC with a single cable (CAT control, PTT/RTTY control)
- TUN/LIN connector allows connection of optional FC-50 or VL-1000
- Advanced electronic keying (4 to 60 WPM) with FULL BK-IN support
- Support Active-Tuning Antenna system (ATAS-120A, ATAS-25 :Option)



Rear Panel

◀ Supplied Accessories: Microphone MH-31A8J, Mobile Mounting Bracket and DC power cable ▶

▶ Option

| | | | | |
|---|---|---|---|---|
| <p>MH-31A8J¹ Hand Microphone</p> | <p>MH-36E8J DTMF Microphone</p> | <p>MD-200A8X Ultra-High-Fidelity Desktop Microphone</p> | <p>MD-100A8X Desktop Microphone</p> | <p>YH-77STA Lightweight Stereo Headphone</p> |
| <p>VL-1000 : Linear Amplifier (1 kW) VP-1000 : Power Supply CT-58 : Connection cable for VL-1000</p> | | <p>FC-40 Automatic Antenna Tuner</p> | <p>FC-50 Automatic Antenna Tuner</p> | <p>ATAS-120A Active Tuning Antenna</p> |
| <p>ATAS-25 Active Tuning Antenna</p> | <p>ATBK-100 Antenna Base Kit</p> | <p>YSK-891 Front Panel Separation Kit (Front Panel Bracket, Control cable, Mic Extension cable and Speaker Extension cable included)</p> | <p>FH-2 Remote Control Keypad</p> | <p>CT-39A Packet Interface Cable</p> |

¹The same as the supplied accessory

YAESU
The radio

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