HF/50 MHz 100 W All Mode Transceiver

FT-891 Key Features and Specifications

Key Features

■Ruggedly construction with Ultra Compact body 6.1" x 2.0" x 8.6" (155 x 52 x 218 mm)

■Stable 100W Power Output with extensive Dual Internal fans

■Legendary Yaesu Receiver Design

■Triple conversion with 1st IF frequency of 69.450 MHz (SSB/CW/AM)

■3 kHz roofing filter equipped as a standard

■Detachable Front Panel for easy mounting and operation

■Large Full-Dots LCD display with Spectrum Scope

■Ease of Operation

- ・Large diameter Main Tuning Dial (1.6"/41 mm) allows Torque control
- ・Pop-up Menu for quick and easy operation
- ・Multi Function Knob
- ・Large Transmit/Receive indicator

■ Exclusive 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.

100 Watts reliable High Power Output

The FT-891 provides stable 100 W (AM: 25 W) high power output.
High reliability is assured thanks to the transmitter circuit design and the extensive thermostatically-controlled Dual internal fans and die cast chassis.

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) that automatically eliminates the dominant beat tone, the CONTOUR, and the APF, are very effective receiver noise reduction tools in the HF bands operations.

Yaesu uncompromising Receiver Circuit Design ensures Excellent Performance

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

Automatic-Matching 200 Memory Antenna Tuner (Option)

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

Features

・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 PWM) with FULL BK-IN support
・Support Active-Tuning　Antenna system　(ATAS-120A, ATAS-25: Option)

FT-891 Specifications

General

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

Transmitter

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

Receiver

Circuit Type	SSB/CW/AM: Triple-conversion Super-heterodyne
	FM: Double Conversion Super-heterodyne
Intermediate Frequencies	SSB/CW/AM: 1st: 69.450 MHz/2nd: 450 kHz/3rd: 24 kHz
	FM: 1st: 69.450 MHz/2nd: 450 kHz
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)	
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

Maximum AF Output	2.5 W 4 ohms with 10% THD
Audio Output Impedance	4 to 16 Ohms (8 Ohms: nominal)
Conducted Radiation	Less than 4 nW