# HF Enthusiasm

# Single Side Band DNA passed down over 70 years



HF/50/144/430MHz ALL MODE TRANSCEIVER



10W Version for Field Operation



10W Field Operation and 100W Base Station





# HF/50/144/430MHz ALL MODE TRANSCEIVER

### No Future without the Past

Dawning of a new era for Wide-Coverage Transceivers with Epoch-making features from the pioneer of Single-Side Band radios for over 70 years

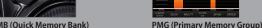
1 HF/VHF/UHF MAG (Memory Auto Grouping): Memory Channels are automatically grouped and can be recalled by Band Groups – HF, VHF, UHF and others.

**2 HF/VHF/UHF** | QMB (Quick Memory Bank) : Frequency, mode and all settings and parameters of the current receiving signal can be quickly stored and recalled.

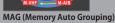
**3 VHF/UHF** | PMG (Primary Memory Group): PMG channels can always be scanned and heard - which is useful when watching the channels Club members use to communicate.

**4 VHF/UHF** | AMS(Automatic Mode Select) : AMS automatically determines whether the receiving signal is C4FM Digital or FM and sets the receiver to the appropriate mode.











AMS (Automatic Mode Select)

Transmit Frequency Band	160 Meters 80 Meters 40 Meters 30 Meters 20 Meters 17 Meters 15 Meters 12	2 Meters 10 Meters 6 Meters	2 Meters	70 cm
Receiver Frequency	0.03MHz			400MHz-470MHz
	10	50 100	40	0 Frequency [MHz]
			* Guaranteed v	ithin Amateur band only

# FTX-1Field 10W Version for Field Operation

6W with the supplied Battery / 10W with external DC power supply for Field Operation



Included items: · Field Head · SBR-52LI Li-ion Battery · SSM-75E Hand microphone

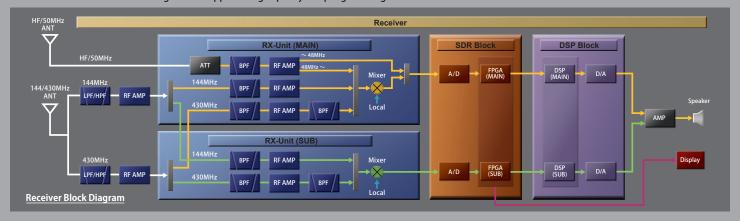
# FTX-1 ptime 10W Field Operation and 100W Base Station

Expanding the fun with 100W RF power amplifier for Base Station in addition to Field Operation



## The YAESU RF-Front End with Superb Interference Rejection

While the FTX-1 is compact, it boasts excellent proximity two-signal characteristics thanks to a powerful RF Front-End design with 10-divided BPF (Band Pass Filter) in amateur bands from HF through UHF and RF amplifier with a low NF (Noise Figure) which is excellent in intermodulation characteristics. In addition, a high-purity 110.592MHz oscillator circuit configuration supplies a high-quality sampling clock signal with excellent C/N characteristics to the A/D converter.



# Equipped with 3DSS (3-Dimensional Spectrum Stream) High-Resolution 4.3-inch TFT Color Touch Panel Display

The large 4.3-inch wide full-color touch panel display affords outstanding visibility and intuitive management of the operating frequency, meters and main function settings.

## 3DSS (3-Dimensional Spectrum Stream)

The 3DSS Real-time spectrum scope presents the constantly changing band conditions in three dimensions (3-D). The signal strength flows in time to the rear of the screen, then an operator can intuitively view the constant changes in a signal's strength. The frequency can also be instantly changed on the scope screen by touching the peak of desired signal.



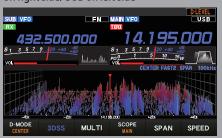
**3DSS Display** 

### 3 Display Modes are switchable according to the User's preference and usage

With one-touch operation, the user can switch between 3 display modes to suit operation usage and preferences.

#### Dual-Band Display (Right/Left)

Horizontal Dual-Band Display showing MAIN on right side/ SUB on left side



#### | Dual-Band Display (Up/ Down)

Vertical Dual-Band Display showing MAIN on upper side/SUB on lower side



#### Single-Band Display

Single-Band Display showing only the receiving signal status of operating band



## **Various Functions support Comfortable Operation**

True Dual-Band Operation including C4FM/C4FM Simultaneous Receive

Super-DX expands the Communication Range

Memory Channel Scope

FUNC (Function) Dial useful to change and recall settings

"PRESET" mode suitable for FT8 operation

Compatible with WIRES-X\*, APRS® Data Communication

QRP Mode to set output power to 5W and below

VFO Mode Indicator presents the current operation status at a glance

Micro SD Card Slot

Versatile Array of functions for CW Operation

C4FM Digital Technologies: Outstanding Audio Quality, AMS etc..

Convenient Functions for FM Mode

\*Wires-X will be available from August 2025

#### **Accessories for Field Head**

#### SBR-52LI

Lithium Ion Battery Pack 10.8V 6,400mAh (Supplied with FTX-1 Field/ FTX-1 optima)

6W stand-alone operation is possible by attaching the SBR-52LI to rear of the Field Head (5W for QRP) \*10W with an external power supply

The image is the rear of Field Head attached with SBR-52LI





FC-80 is light and thin automatic antenna tuner which can be attached to rear of the Field Head. By using the supplied spacer, FC-80 and SBR-52LI or SCF-1 can be combined to attach to the rear of the Field Head.

• The image is the rear of the Field Head attached with FC-80





Cooling Fan



The image is rear of the Field Head attached with SCF-1



#### FC-90

HF/50MHz 10W Long wire/  $50\Omega$ compatible Automatic Antenna Tuner

FC-90 is a compact automatic antenna tuner compatible with both long wire and  $50\Omega$ antenna. By connecting with a cable, it can be installed close to the antenna.

• FC-90





SPG-1 Protection Guard

SSM-75E

Hand Microphone



YH-77STA Lightweight Stero Headphone



FGPS-5 GPS Antenna Unit



BU-6 Bluetooth Unit



SSM-BT20 Bluetooth Headset

fnot connectable directly to the Field Head





Long wire compatible External Auto Antenna Tuner

## SPA-1

100W (144/430MHz: 50W) RF Power Amplifier Option for FTX-1 Field (supplied with FTX-1 optima) HF/50MHz Automatic Antenna Tuner、  $2.5 W\, High$  -Quality and powerful speaker, HF/50MHz  $2\,$  ANT terminals are equipped.



MHG-1 Side Carry Handle (for SPA-1 only)

#### ATAS-25

Active Tuning Antenna (Manual Type) Max. Input Power HF/50 MHz:100 W (SSB/CW, 50% Duty) 50 W (AM/FM) 144/430 MHz:50 W (ALL MODE)

\*When operating with the Field Head, 13.8V external power supply is necessary.

ATAS-120A Active Tuning Antenna (Automatic Type) Max. Input Power: 120 W (SSB)

**ATBK-100** Antenna Base Kit for ATAS-120A (For Base operation on 6m, 2m or 70cm band)

#### **Desktop Microphones**

# M-1

Reference microphone



M-100 Dual element microphone



M-90D Desktop Dynamic microphone



M-90MS Kit

Dynamic microphone Stand Kit \*Microphone stand is not included





M-70 Desktop microphone

#### Specifications

Circuit Type

General	
General	
Tx Frequency Range	1.8MHz - 450MHz (Specified performance, Amateur bands only)
ge	70MHz - 70.5MHz (Specified performance, UK Amateur bands only)
Rx Frequency Ranges	30kHz - 174MHz, 400MHz - 470MHz (operating)
Tot requeries manges	1.8MHz band - 430MHz band (specified performance, Amateur bands only)
Emission Modes	A1A (CW), A3E (AM), J3E (LSB, USB), F3E (FM), F7W (C4FM), F1D, F2D
Frequency Steps	1*/5/10/20Hz (CW/SSB/AM) , 5/10/20Hz (FM) *FINE tuning "ON"
Antenna Impedance	50Ω, unbalanced
Operating Temperature Range	+14°F to +122°F (-10°C to +50°C)
Frequency Stability	±0.5ppm (after 1 minute @+14°F to +122°F [-10°C to +50°C])
Supply Voltage	DC10.8V (SBR-52LI)
	DC13.8V ± 15% (EXT DC Jack)
Power Consumption (Approx.)	Rx (no signal) 0.6A, Rx (signal present) 0.9A
1 111 /	Tx (Field, 6W) 2.5A, Tx (Field, 10W) 3A, Tx (optima, 100W) 21A
Dimensions (W x H x D)	FTX-1 Field: 8.4" x 3.5" x 2.2" (213 x 89 x 55mm)
	FTX-1 optima: 8.4" x 3.5" x 9.4" (213 x 89 x 240 mm)
Weight (Approx.)	FTX-1 Field: 2.75 lbs (1.25kg)
3 - 11	FTX-1 optima: 8.6 lbs (3.9kg)

Transmitter			
Power Output	FTX-1 Field: 0.5 - 6W (0.5 - 1.5W AM Carrier) @ SBR-52LI 0.5 - 10W (0.5 - 2.5W AM Carrier) @ EXT DC 13.8V FTX-1 optima: HF/50MHz: 5 - 100W (5 - 25W AM Carrier) 144/430MHz: 5 - 50W (5 - 13W AM Carrier)		
Modulation Types  J3E (SSB): Balanced A3E (AM): Low-Level (Early Stage) F1D, F2D, F3E (FM): Variable Reactance F7W (C4FM): 4-level F5K			
Maximum FM Deviation	$\pm$ 5.0kHz / $\pm$ 2.5kHz (Narrow)		
Harmonic Radiation	Better than –50dB (1.8MHz - 29.7MHz Amateur bands) Better than –63dB (50MHz Amateur band) Better than –60dB (144/430MHz Amateur bands)		
SSB Carrier Suppression	At least 60dB below peak output		

Transmitter					
Undesired Sideband Suppression	At least 60dB below peak output				
Bandwidth	3kHz (LSB/USB), 500Hz (CW), 6kHz (AM), 16kHz (FM/C4FM)				
Audio Response (SSB)	Not more than –6dB from 300 to 2700Hz				
Microphone Impedance	600Ω (200 to 10kΩ)				
Receiver					

Direct sampling Superheterodyne (below 48MHz) Single Conversion IF Sampling (48MHz and above)

Intermediate Frequencies	MAIN: 44.5 - 49.5MHz, SUB: 41.3 - 44.3MHz (48MHz and above)			
Sensitivity (TYP)	SSB/CW (BW: 2.4KHz/10dB 5+N/N)  1.8-30MHz 0.16 μV (IPO: AMP2), 50 -54MHz 0.125 μV (IPO: AMP2)  70-70.5MHz 0.16 μV (IPO: AMP2), 144 - 148MHz 0.125 μV (AMP ON)  430-450MHz 0.125 μV (AMP ON)  AM (BW: 6kHz/10dB 5+N/N, 30% modulation @400Hz)  0.5-1.8MHz 7.9 μV, 1.8-30MHz 2 μV (IPO: AMP2)  50-54MHz 1 μV IX/T* (IPO: AMP2), 70-70.5MHz 2 μV (IPO: AMP2)  144-148MHz 1 μV (AMP ON), 430-450MHz 1 μV (AMP ON)  FM (BW: 12kHz, 12dB SINAD, 3.5kHz DEV @1kHz)  28-30MHz 0.25 μV (IPO: AMP2), 50-54MHz 0.2 μV (IPO: AMP2)  70-70.5MHz 0.25 μV (IPO: AMP2), 144-148MHz 0.125 μV (AMP ON)			
Calaasinis (MIDTH Cansan)	430 - 450MHz 0.125 μV (AMP ON)			
Selectivity (WIDTH: Center)	Mode	-6dB	-60dB	
	CW (BW=0.5kHz)	0.5kHz or better	0.75kHz or less	
	SSB (BW=2.4kHz)	2.4kHz or better	3.6kHz or less	
	AM (BW=6kHz)	6kHz or better	15kHz or less	
	FM (BW=12kHz)	12kHz or better	25kHz or less	
Image Rejection	70dB or better (1.8MHz - 28MHz Amateur bands) 60dB or better (50MHz, 70MHz, 144MHz, 430MHz Amateur bands)			
Maximum Audio Output	Maximum Audio Output FTX-1 Field: 1.5W, FTX-1 optima: $4W (1.5 + 2.5 W) (4\Omega \text{ with } 10\% \text{ THD})$			
Audio Output Impedance	4 to 16Ω (4Ω: nominal)			
Conducted Radiation	Less than 4nW			

- Specifications are subject to change without notice, and are guaranteed within the amateur bands only. Frequency ranges and functions will vary according to transceiver version; check with your dealer.
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Radio for Professionals

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