FT-991
HF/VHF/UHF
ALL MODE TRANSCEIVER

Super-Advanced Receiver Circuitry Combined With Intuitive Operation
Further Raises the Bar for Compact All Mode Transceivers
New generation FT-991 all-band transceiver offers full-fledged support for all modes including HF/50/144/430 MHz

Uncompromising Receiver Circuit Design Ensures Excellent Basic Performance from HF to VHF/UHF

- Sophisticated receiver front-end design
- Triple conversion with 1st IF frequency of 69/450 MHz for all bands
- 1st IF stage implements a narrow bandwidth 3 kHz roofing filter as standard equipment
- Designed for outstanding adjacent multi-signal capabilities, not only in HF but also in VHF and UHF bands

Features the highly acclaimed quad mixer of the FTDX series transceivers, along with a dedicated VHF/UHF mixer

The IF mixer is 39 MHz for the 50 MHz system. The IF mixer has a quad mixer with four SDR24 dual gate MOSFET devices that ensures extremely low noise, excellent intermodulation characteristics, and high dynamic range. A dedicated VHF/UHF mixer, separate from the IF bands, allows design optimization for targeted frequencies, resulting in superior performance characteristics.

3 MHz and 15 kHz Roofing Filter

RF amplifier design is optimized for each band

- Selectable IF/AMP1/AMP2 (HF/50 MHz) settings for optimized operation with any received signal
- Separate RF amplifiers provide best characteristics for each band

The IF, AMP1, and AMP2 selections for the HF/50 MHz bands allow matching the settings to the current band and condition, in order to ensure optimal RF amplifier operation. The RF amplifier for 430 MHz band uses high-electron-mobility transistor (HEMT) NE5559 devices which maintain good performance also in the HF band, combining high gain with a low NF (Noise Figure).

Final Stage with Ample Power Reserves: 100 W for HF/50 MHz Band and 50 W for VHF/UHF Band

- High quality push-pull amplifier with 100 watts for HF/50 MHz
- The push-pull arrangement of an RF100HzF1 MOSFET device is selected for excellent performance in the HF/50 MHz range, the amplifier delivers 100 watts of low distortion, high-quality power.

High speed 1.8 to 154 MHz antenna tuner included as standard equipment

The high speed digital tuner employs relay switching and features a large 16x8-based tuning die memory. This allows the user to instantly call up optimum matching conditions for previously used frequencies.

50 W amplifier for VHF/UHF assures plenty of power for high frequency bands

The final amplifier for the VHF and UHF bands uses the high-output MOSFET RD-Y100/102 device which incorporates two MOSFETs in a single package, providing ample output power of 50 watts.
Support for all modes including HF/50/144/430 MHz in a single compact unit

Superb Interference Rejection

- Highly effective interference rejection
- IF WIDTH and IF SHIFT functions that filter all but the desired signal
- Automatic antenna SWR and antenna loading
- ADF (Automatic Direction Finder) function

Latest Touch Panel Operation
Combined With Traditional Layout
Realizes Optimal Ease of Use

- 3.5 inch full color touch panel display for convenient operation
- Full color TFT LCD display provides useful information
- Highly responsive panel with functional design and intuitive layout
- Four user-customizable function keys offer quick access to mode-dependent assignments
- Advanced spectrum scope with waterfall display capability
- High resolution spectrum scope that is not usually found in this class of transceiver
- ASC function automatically switches between the scope sweep and the receive audio in conjunction with the tuning operation

Support for Advanced C4FM Digital Functions

- VFO mode for simultaneous transmission of voice and data with powerful error correction
- Group Monitor (GM) function allows easy on-screen checking for group members
- 126 types of DSQ (Digital Squelch) enable on-demand selection of communication stations
- Transmission and reception of data by C4FM digital is possible

Basic Function

- Versatile Array of Functions for CW Operation
- Advanced electronic keying (4 to 60 wpm) with FULL BK-JN support
- Electronic Keyer Weight control (2.5 - 4.5)
- CW size tune pitch frequency adjustable (300 - 1050 Hz)
- Message Memory function (5 ch x 50 characters)
- APT function with 3-stage bandwidth selection improves S/N ratio for enhanced intelligibility
- Auto Zero-In function facilitates subtle tuning operations for CW

- Automatic “Beacon” keyer mode
- CW SPOT Feature
- CW Mode reversal (USB or LSB injection)
- Convenient Function for FM Mode
- 104 types of DCS (Digital Code Squelch)
- ARS function provides easy repeater access
- 50-tone CTCSS Encoder/Decoder for FM operation

50 W amplifier for VHF/UHF assures plenty of power for high frequency bands.

The final amplifier for the VHF and UHF bands uses the high-output MOS-FET RDSOFH2 device which incorporates two MOS-FETs in a single package, providing ample output power of 50 watts.
Other Useful and Convenient Functions

- Speech Processor
- VFO/MIC EQ
- Five-channel digital voice message memory function for repetitive voice messages
- MULTI sat, design facilitates set operations
- Key button illumination by white LEDs
- Independent AF GAIN and RF GAIN, and CLAR/VFO-B knob
- FI-2 Remote Control (Optional)
- VOX
- TX/DTX (99 channel memory supports memory group view, 12 alphanumeric characters)
- R/TTY/DATA Jack
- TUN/LO/CONverter allows connection of optional VLG-1000 or PC-40 
- Wide Band Receive Capability (30kHz-36MHz, 11kHz-16MHz, 425kHz-70MHz)
- CS key brings up a preassigned menu with a single touch
- USB port allows connection to a PC with a single cable (CAT control, Audio In/Out interface, PTT/RTTY(SK)/SHT control) 
- High Stability 0.5 ppm TCXO
- Carrying Handle
- Tilting Stand

Specifications

- Marke: QUADRA
- Frequency Range: 14.0000 to 14.3500 MHz
- Power: 1.5W
- Sensitivity: 0.5 µV
- Selectivity: 2000 Hz
- Dynamic Range: 90 dB
- Audio Output: 500 mW at 10% THD
- Intermodulation: 70 dB
- Audio Input: 500 mV
- USB Input: 500 mV
- Battery: 9 V battery
- Dimensions: 100 x 200 x 40 mm
- Weight: 0.7 kg

Option

- VL-1000
- VP-1000
- MT-315R
- MH-3308S
- MH-9300A
- MD-2000
- MD-5000
- MD-1000
- MH-57
- MH-77
- BD-7S
- ATAS-100A
- ATAS-25
- ATAS-5

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 prices. The frequency range may be different in some countries. Some accessories shown in this brochure may not be available in some countries. For further information, please contact your Yaesu dealer for complete details.

*Exhibition version only: The USA and New Zealand only. *The V-2000 and P-700 are used in this brochure. *Yaesu, TCI, and Yaesu USA are the brand names.