

**YAESU**  
The radio

# AMATEUR RADIO EQUIPMENT

C4FM DIGITAL TRANSCEIVERS

FM CONVENTIONAL TRANSCEIVERS

WIDE BAND RECEIVERS



144/430 MHz DUAL BAND DIGITAL TRANSCEIVER

# FT1DR FT1DE

## C4FM Digital / FM Exciting New Amateur Digital Transceiver

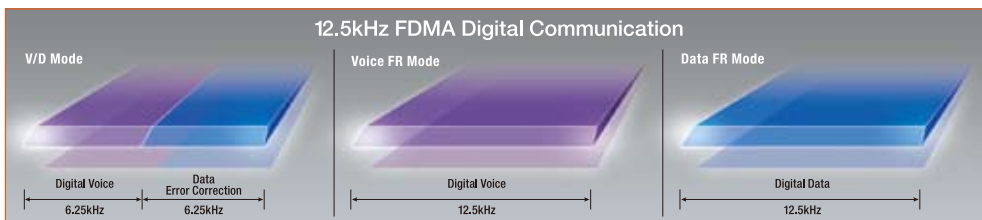
### 4 Communication Modes

The FT1DR/FT1DE can operate in three digital modes and an analog mode.

Take advantage of the communication mode that best suits your operating situation.

#### The Automatic Mode Select (AMS) function detects the receive signal mode

The transceiver automatically selects one of the four communication modes according to the signal received. The transceiver can also be operated in a fixed communication mode.



#### 1. V/D Mode (Simultaneous Voice/Data Communication Mode)

Half of the bandwidth is used for voice signal with error correction. The transceiver uses powerful error correction technology developed for professional communication devices. The very effective error correction code provides benefits such as minimal interruption of communication. The basic digital C4FM FDMA mode provides a good balance between sound quality and error correction.

#### 2. Voice FR Mode (Voice Full Rate Mode)

This mode uses the entire 12.5 kHz bandwidth to transmit digital voice data. The larger voice data size allows voice communication with high quality. Use this mode for pleasing sound quality communication between amateur radio friends.

#### 3. Data FR Mode (High-speed Data Communication Mode)

This mode uses the entire 12.5 kHz bandwidth for data communication. The transceiver automatically switches to this mode when sending and receiving images, allowing a large amount of data to be transmitted quickly.

#### 4. Analog FM Mode

Analog FM is effective for communication with a weak signal that causes voices to break up in the digital modes. The analog mode allows communication even at distances where noise and weak signals make communication almost impossible. The tried-and-trusted low-power circuit design uses less battery power than the digital modes.



SILVER



BLACK

C4FM/FM 144/430 MHz DUAL BAND  
5W DIGITAL TRANSCEIVER

# FT1DR FT1DE

American and Asian versions

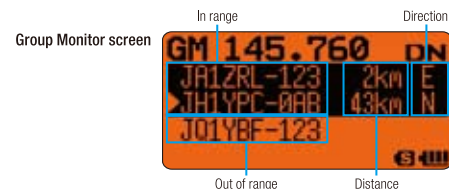
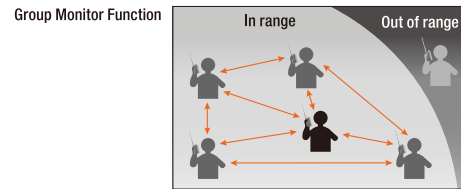
European version



(7.4 V 1100 mAh Lithium Ion Battery FNB-101LI, PC connection Cable and battery charger PA-48 / SAD-11B(USA version) included)

### Digital Group Monitor (GM) Function

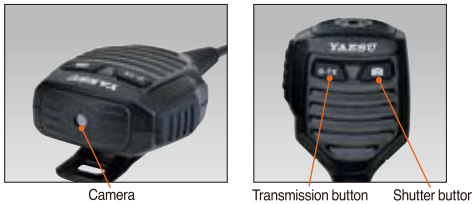
The digital GM function automatically checks whether members registered to a group are within communication range. Information such as the distance and direction for each call sign are displayed on the screen. This useful function not only allows you to see which friends are within communication range, it also permits you to see at a glance where all group members are located. Additionally, this function can be used to send messages and image data between group members. This new and convenient feature permits enjoyable communication between friends when out for a drive or hike. Sent and received messages and images can be checked on the LOG List screen. The icons make the listed messages easy to distinguish.



## Snapshot Function

When using the handy speaker microphone camera (optional MH-85A11U), press the shutter button to capture a snapshot, then press the image transmit button to easily transmit the image data. The snapshot image or received data is stored to a high capacity micro SD card that may be installed in the radio. You can recall and send the image data from the SD card anytime. The image data size is 320 x 240 dots or 160 x 120 dots. Image quality can be set from 3 types, and you can choose a format that is suitable for the image and purpose. The image data also records a time record and the GPS location of the snapshot. It is easy to view and edit the data files and pictures using a personal computer.

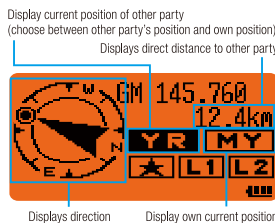
A snapshot aids in navigating and returning to the pictured location, many other innovative uses are possible.



## Smart Navigation Function

**A real-time navigation function that records the location and direction of Group Monitor (GM) stations.**

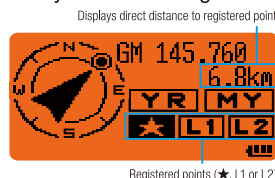
The Digital V/D Mode communicates information such as position data at the same time as the voice signal, allowing you to view the distance and direction to the other station in real time while communicating. This makes it possible to confirm your own position and the other stations locations while hiking or driving, where your positions are constantly changing, providing an easy way to meet up or join routes.



## Backtrack Function to Return to Departure Point

This function allows navigation back to the departure point, or a point previously added to the memory.

When hiking or camping, just register the starting point or the position of your tent and then you can constantly check the direction and distance from your current position. The arrow of the compass display constantly shows the direction to the previously registered point, making it extremely convenient to find your way back to the registered place – just move in a direction so that the arrow in the heading-up display points straight upward.



## Extremely user-friendly with intuitive and easy-to-master operations

The FT1DR/FT1DE is extremely user-friendly, with a wide range of functions that can be called up directly. An easy-to-understand hierarchical menu is also used for the setting modes that allows customization of the FT1DR/FT1DE and makes it convenient to use. Press the ENT key to move to a lower level of the hierarchy, press the DISP key to return to a higher level, and turn the dial to select items or set values. These simple operations can be used to adapt the FT1DR/FT1DE to many communication situations.

## Wideband Receive capability

Covers 504 kHz~999.99 MHz (A Band), 108MHz~579.99MHz(B Band), continuous reception for short-wave, FM/AM broadcasts, aircraft, public service channels, etc.

## Real Dual Band Operation (V+V / U+U / V+U)

Independent receivers permit listening to two stations in the same band, or different bands simultaneously.

## Preset Receiver Function with an Extensive Range of Major Broadcasting Stations and Various Wireless Information Services

The FT1DR/FT1DE has a preset receiver function with various frequencies in memories, making it easy to call up stations in the various communication services. The frequencies include short-wave broadcasts, international (marine) VHF and NOAA Weather channels.

## 1200/9600bps APRS® Data communication\*1

The built-in worldwide standard AX.25 Data TNC Modem permits uncomplicated APRS® (Automatic Packet Reporting System) operation.

You will be able to display the information, station list; and use the message, SmartBeaconing™ function. You will be able to track your APRS® movement on the Internet websites.

**APRS®Display** FT1DR/E displays the positions, heading directions of the station, distances, icons (45 kinds), weather information, object, etc.



**APRS®List** The station List function stores up to 60 stations with the individual APRS® data



## AF Dual

Listen to AM or FM radio stations while monitoring two frequency channels! Two independent receivers will allow you to listen to your favorite AM or FM broadcast station, and monitor two different bands ("Band A" and "Band B") at the same time.

## Micro SD card slot

The micro SD card slot is provided on the side of the radio. Memory back-up, the picture image data and other useful information is stored on the high capacity micro SD card (Maximum 32GB).



The GPS logger records the location and track information of your moving station, which may be shown later by using Map software on your personal computer. By using the SD card, it is also possible to clone the radio data to the other compatible radios.

## Built-in GPS Antenna on the top



## Water Protection-IPX5 Rating

Fully ruggedized and water protected (IPX5) design. Perfect for extreme environments, field and outdoor use.

## High Power and long life Operation

Up to 5 watts of power output and rugged compact body. 4 steps of power output, 5 watts, 2.5 watts, 1 watt and 0.1 watt. There are two types of Li-Ion battery. The optional FNB-102LI battery will provide up to 8 hours of typical 5 watt operation.

### Battery Operating Times (Approximately)

Band • Mode	FNB-101LI	FNB-102LI	Battery Case FBA-39(0.8W)
144MHz	Analog Mode	5 hours	8 hours
	Digital Mode	4 hours	6.5 hours
430MHz	Analog Mode	4.5 hours	7.5 hours
	Digital Mode	3.6 hours	6.0 hours

\* Duty Cycle based on Tx 6 sec., Rx 6 sec., Standby 48 sec.  
† Tx Power 5 Watts, Rx audio output 10%THD. Battery save 1.5. Monoband receive, and GPS function off.)  
\* Operating times may vary depending on operating conditions.

## Many additional features

•Large-capacity 1266 ch memory •Fully illuminated keyboard •High resolution band-scope •Vibrate Alert function •Memory TAG up to 16 characters •High-Intensity White LED •Internal Bar Antenna •DTMF Memory •24-hour Clock •ADMS-6<sup>2</sup>

\*1 APRS® is a registered trademark of APRS Software and Bob Bruninga, WB4APR. SmartBeaconing™ from HamHUD Nichetronix  
\*2 ADMS-6 programming software is available for free download.

144/430 MHz DUAL BAND DIGITAL TRANSCEIVER

# FTM-400DR FTM-400DE

## C4FM Digital / FM

## 144/430 MHz Dual Band Transceiver

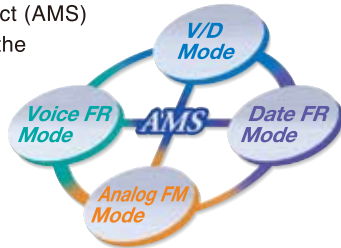
### The Choice of C4FM Digital

Compared to other FDMA digital modulation schemes, C4FM has excellent communication quality (BER: Bit Error Rate characteristics). C4FM is the standard method for professional FDMA communication devices, and is therefore considered to be the main stream digital communication mode in the future.

### AMS(Automatic Mode Select)

The Automatic Mode Select (AMS) function instantly detects the received signal mode.

- **V/D mode**  
(Voice/Data simultaneous communication mode)
- **Voice FR mode**  
(Voice Full Rate Mode)
- **Data FR mode**  
(High Speed Data Communication Mode)
- **Analog FM mode**



### 3.5-inch full color touch panel operation



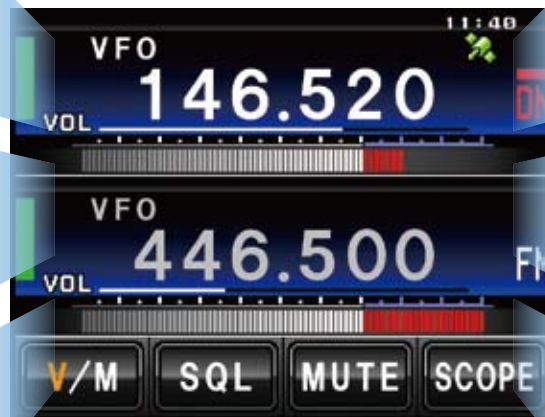
Band Scope Screen



Altitude Screen



APRS® Screen



Screen (actual size)

The icon symbols, multi-function key display and pop-up messages are all displayed in high-resolution color thanks to the full-color, high luminance TFT liquid crystal screen. The settings and status of the wireless devices are displayed in an easy-to-understand format. You can perform various operations simply and easily by gently touching the screen.



Smart Navigation Screen



Frequency Direct Input Screen



Clock / Timer Screen

C4FM/FM 144/430 MHz DUAL BAND  
50W DIGITAL TRANSCEIVER

# FTM-400DR FTM-400DE

American and Asian versions

European version



DTMF Microphone MH-48A6JA, Mounting Bracket, Bracket for Controller, Control Cable 10ft (3m), PC connection Cable SCU-20, DC Power Cable and "Stereo to Monaural Plug" included

## Snapshot Function (Image Data Transmission)

Simply connect an MH-85A11U (option) microphone with camera.

Press the microphone shutter button to take snapshots, and then the image data can be displayed on the screen, and easily transmitted to other C4FM digital transceivers.



Image data which was sent from a group member is displayed on the full-color screen. This image data also retains a time record and the GPS location data of the snapshot. It is easy to navigate to that pictured location by using the back track function.

In addition, you can observe on the screen whether or not transmitted data was successfully received by the member station. The snapshot image or received data is stored in a high capacity micro SD card. You can recall and send that image data from the SD card anytime. The pictures and data files may be easily viewed and edited by using a personal computer.

## Smart Navigation Function

**Real-time navigation function enables location checking at any time**

In digital V/D mode, information such as position data and voice signals are transmitted together, so the distance and direction to the other stations can be displayed in real-time while communicating with them.

**Backtrack function enables direction and navigation to a previously registered point**

The backtrack function makes possible navigation to a registered location at the touch of a button. When hiking or camping, simply register your starting point or campsite before departure, and the distance and orientation of the starting point from the current location are displayed on the screen.

## Digital Group Monitor (GM) Function

The digital GM function automatically checks whether members registered to a group are within communication range. Information such as the distance and orientation for each call sign are displayed on the screen. This useful function not only allows you to see which friends are within communication range, it also permits you to see at a glance where all group members are located.

Additionally, this function can be used to send messages and image data between group members.



Digital Group Monitor

Message Screen

## Additional operating and support features

### Wideband Receive Capability

Covers 108 MHz - 999.99 MHz (A(Main) / B(Sub) Band), VHF Marine, Aircraft, Public service channels, etc.

### Hands-free operation\*1

Hands-free operation is available by using the optional wireless Bluetooth® unit and headset.

(Optional Bluetooth® unit (BU-2) and Headset (BH-2A) are required.)

### High Power Audio Output

Loud 3 W Audio Output Internal Speaker.

8 W output for Optional External Speaker (MLS-200-M10)

### Voice Guide and Recording Function

Optional Voice Guide Unit (FVS-2) announces your current operating frequency, band change and APRS® messages.\*2 You can record up to 5 minutes of received signals, or continuously record the last 30 seconds of received audio.

## Other Useful Features

- Real-time Band Scope with uninterrupted RX audio
- 500 Memory Channels each for the A(Main) band and B(Sub) band
- Storage of the Memory channels and personal settings on an inserted micro SD card
- Easily transfer a copy of the radio data to other compatible radios by using the micro SD card
- 1200/9600bps APRS® (Automatic Packet Reporting System) Data communication capability\*2
- Versatile Scanning Receiver for Monitoring Enthusiasts (VFO Scan, Memory Scan, etc)
- Built-in GPS receiver and antenna provides location, time, direction and APRS® information\*2 (External GPS devices can be connected)
- GPS Logging Function
- Analog and Digital Clock
- Timer function : Event timer with Lap or count down functions

\*1 The Bluetooth® name and logos are registered trademarks owned by Bluetooth SIG, Inc. and any use of such trademarks by Yaesu Co., Ltd. is under license. Other trademarks and trade names are those of their respective owners. \*2 \* APRS® is a registered trademark of Bob Bruninga, WB4APR.



50/144/430 MHz FM TRIPLE BAND HANDHELD

# VX-8DR VX-8DE

## GPS/APRS® Handheld Triple Band Transceiver



50/144/430 MHz (220 MHz)  
Triple Band 5W FM Transceiver  
(50 MHz AM: 1 W, 220 MHz FM: 1.5 W (USA version only))

# VX-8DR

American and Asian versions

# VX-8DE

European version

(7.4 V 1100 mAh Lithium Ion battery FNB-101LI and battery charger PA-48 / PA-44(European version) / SAD-11B(USA version) included)

### Heavy Duty, Tough and rugged ready for your field operation!

Waterproof/Submersible IPX 7 rated – 3 ft (1m) for 30 minutes

### Ultra-Rugged Polycarbonate Resin Front panel with Aluminum die-cast chassis



The tough compact case combines a rugged die-cast chassis with the clean and tough polycarbonate resin front panel. Its high shock proof versatility will allow you to operate the radio in the toughest environments!

### Enjoy 5 W high power and long hours of operation! [The optional cell Holder FBA-39 permits operation with 3 AA batteries.]

You will enjoy up to 5 hours operation on 144/430 MHz with the supplied FNB-101LI Lithium-ion battery. The optional FNB-102LI High Capacity Lithium-ion Battery will provide up to 8.5 hours on 144 MHz, and 8 hours on 430 MHz.

#### Approximate Battery Operating Time (VX-8DR/VX-8DE on one band with no optional items)

Operating Band	Battery Life (Approx.)		
	FNB-101LI	FNB-102LI	FBA-39
50 MHz	5.5 hours	9.0 hours	20 hours
144 MHz	5.0 hours	8.5 hours	17 hours
222 MHz (USA version)	6.0 hours	11 hours	20 hours
430 MHz	5.0 hours	8.0 hours	16 hours
Broadcast Band	13 hours	20 hours	20 hours

\* Reference only. May vary depending on environmental temperature, humidity, etc.  
\*TX (5 W) 6 sec./RX 6 sec., and squelched 48 sec.

### Real dual Ham Band Operation (V+V / U+U / V+U)



### Wideband Receive\* Capability

504 kHz - 999.900 MHz (A Band) Continuous reception for short-wave, FM/AM broadcasts, analog TV station audio, aircraft, public service channels, etc.

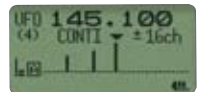
\*(USA Cellular blocked)

### The large LCD display provides clear and easy-to-read indication

The large LCD Display shows everything needed for advanced operations, including the main and sub band frequencies, operating modes and S-meters. A high resolution Spectrum Analyzer with ±50 channels indication also permits wave monitoring of the received signal modulation! It is very easy to scroll through the set menu items to check the previous settings and make new selections.



\*Audio Scope



\*Spectrum Analyzer

### Optional GPS Operation

The optional 12 channel GPS Receiver Antenna Unit (FGPS-2) provides GPS data. Your exact current position, moving speed, altitude, etc. may be displayed and transmitted on APRS. The FGPS-2 can be attached directly to the radio microphone input jack. Alternately the GPS antenna can be attached to the optional MH-74 A7A speaker/microphone.



### Bluetooth® Capabilities [Optional Bluetooth unit required]

### APRS® 1200/9600 bps data communication [B band only] using the worldwide standard AX25 Data TNC Modem

The built-in AX25 Data TNC Modem permits uncomplicated APRS® (Automatic Packet/Position Reporting System) operation. The VX-8DR supports APRS 1200/9600 bps data communication (B band only). You may communicate your location to other APRS stations with the position, speed and heading displayed on your radio!

### Huge 1,830 ch memory channel management capability!

### Many additional features

- Dual Band AF DUAL monitor Function
- CW Training feature
- Emergency Automatic ID system
- Messaging feature
- Built-in Barometric Pressure and Temperature Sensor
- Yaesu's original "Auto-Range Transponder System"(ARTS™)

144/430MHz FM DUAL BAND HANDHELD

# VX-6R VX-6E

## Ultra-rugged, Submersible Dual Band Handie



**144 MHz/430 MHz (220 MHz)  
Dual Band 5W FM Transceiver**  
(220 MHz FM: 1.5 W (USA version Only))

# VX-6R

American and Asian versions

# VX-6E

European version

(7.4 V 1250 mAh<sup>1</sup> Lithium Ion battery FNB-80LI and battery charger PA-48 included)

<sup>1</sup> Indicated Battery capacity based on EU DIRECTIVE 2006/66/EC

### Outdoor-ready Features including Waterproof Rating!

#### Compact Polycarbonate Resin and Aluminum Die-Cast Case with Solid Waterproofing Seal

The VX-6R/VX-6E is rated to IPX7 specifications for submersion (up to 30 minutes at a depth of up to three feet), and because the microphone jack is sealed against water ingress, you can even use the MH-73A4B Speaker-Microphone while maintaining the submergibility of the VX-6R/VX-6E!



### Five Watts of Power Output, using High-Capacity Lithium-Ion Battery (supplied)

The supplied FNB-80LI (7.4 V / 1250 mAh<sup>1</sup>) provides up to 5 Watts of power output on both the 144 and 430 MHz bands. This high battery capacity provides a typical operating time of 7 hours, depending on operating conditions.

### Direct Memory Recall feature provides One-Touch Stored Frequencies Access, just like on a Car Stereo!



Full keyboard operation is powerful, but in an emergency it can seem confusing.

The VX-6R/VX-6E, though, adopts a one-touch DMR (Direct Memory Recall) system operating just like your car stereo does. Just tune to a frequency, press a numerical key for about two seconds to store the frequency, and then just touch that key to recall the stored frequency instantly!

### Wide-band Receiver Coverage for Catching All the Action!

In addition to full operation on the 144 and 430 MHz Amateur bands, the VX-6R/VX-6E provides a wide range of monitoring excitement, thanks to its receiver's incredible frequency coverage of 504 kHz to 998.99 MHz. We recommend the use of an

external antenna for best performance on particular bands of interest, such as Shortwave. Cellular coverage is blocked and non-restorable.

### EAI Feature: Ideal for Outdoor Operation!

The EAI feature lets you and your support team configure your EAI equipped radios so that, in the event of a climbing or hiking accident that leaves one of you incapacitated, someone else can command your VX-6R/VX-6E to transmit without you pressing the PTT, allowing the others to use your signal to perform direction finding and effect a rescue.

### Performance Features for the Experienced Hand-Held User!

- Channel counter function for determining the frequency of a nearby station
- Smart Search automatic 31-channel scanning/loading system
- 10 dB Attenuator for use in strong-signal environments
- Time-Out Timer (TOT) that will disengage transmission after programmed time interval (to prevent interference to others caused by accidental "stuck microphone" condition)
- Busy Channel Lockout (BCLO) feature prevents transmission when the current frequency is in use
- RF Squelch keeps receiver muted until a signal exceeding a certain S-meter reading is received
- 16-digit, 10-memory DTMF Autodialer for Autopatch use
- Automatic Repeater Shift (ARS)
- Opening "Splash Screen" message is programmable
- Wide range of available options.
- Microphone Gain adjustment
- Key Beep level adjustment
- CW Training feature that can send five-character Morse Code groups, to help you improve your code proficiency.

#### Power Output/Power Source Chart (Approximately)

	HIGH	LOW3	LOW2	LOW1
FNB-80LI or EXT DC ( )220 MHz/USA Version	5 W (1.5 W)	2.5 W (1.0 W)	1.0 W (0.5 W)	0.05 W (0.2 W)
FBA-23 2 "AA" Alkalines	0.3 W	0.05 W		

#### Battery Operating Times (Approximately)

Band	FNB-80LI	Battery Case
144 MHz	7 hours	6.5 hours
430 MHz	6 hours	
Receive Only	15 hours	

Note:

Operating times may vary depending on operating conditions, and are based on a duty cycle of 6 seconds of transmission at 5 Watts, 6 seconds of reception at 50% audio level, and 48 seconds of standby operation.

144/430 MHz FM DUAL BAND HANDHELD

# VX-3R VX-3E

## Ultra-compact Handheld FM Transceiver



**ULTRA COMPACT**  
144 MHz/430 MHz  
Dual Band FM Transceiver

# VX-3R

American and Asian versions

# VX-3E

European version

(3.7 V 1100 mAh Lithium Ion battery FNB-82LI and battery charger PA-46 included)

### 20 hours of continuous reception with high-capacity Lithium-ion Battery (supplied)

The VX-3R/VX-3E comes with the FNB-82LI, high capacity, super-thin and tiny Lithium-ion Battery, and 2.5 hour charger. You may enjoy up to 6 hours of Amateur Band operation, or more than 20 hours listening to your favorite AM or FM broadcast stations using the supplied high-performance Lithium-ion battery.

#### Power Output/Power Source Chart (Approximately)

	Hi	Low
FNB-82LI	1.5 W (UHF 1 W)	0.1 W
FBA-37 3 "AA" Alkalines	1.5 W (UHF 1 W)	0.1 W
External DC (6 V)	3 W (UHF 2 W)	0.1 W

### Battery Operating Time (Approximately)

VX-3R/VX-3E provides 1.5 Watts of power output on the 144 MHz, and 1.0 Watt on 430 MHz Amateur bands. Low power of 0.1 watt may be selected, for optimum battery life.

#### Battery Operating Time (Approximately)

Band	FNB-82LI	"AA" Battery operation
Amateur Band	144 MHz	About 6.0 hours
	430 MHz	About 6.5 hours
AM Broadcast/Short-wave Broadcast/FM Stereo Broadcast reception (Receiver Only)	About 20 hours	About 25 hours

Note: Operating times may vary depending on operating conditions, and are based on a duty cycle of 6 seconds of transmission at 1.5 watts, 6 seconds of reception at 50% audio level, and 48 sec of stand by operation.

### Ultra-Compact and Light Weight !!

As tiny in your palm as the legendary VX-1R/E. Only 1.9" x 3.2" x 0.9". The high capacity FNB-82LI Lithium-Ion battery provides 1.5 watts (70cm: 1 W) output power!

Use convenient replaceable AA batteries with the optional FBA-37 Battery Case.

### 3 W Output with External DC (70 cm : 2 W)

The optional DC Cable with Cigarette-Lighter Adapter enables you to operate the VX-3R/VX-3E at full power output (3 W / 2 m : 2 W / 70 cm) while charging the battery at the same time !

### Mechanical Dial Lock function

The Mechanical Dial Lock makes it very easy, and secure, to lock or unlock the main dial. Just pull the knob up, then turn it to adjust the frequency. Push the knob down to Lock it. Take your radio anywhere you want to go, in your briefcase or in your shirt pocket!



### Huge 1286-Channel Memory Capacity

### AF DUAL FUNCTION

Sub RX (AF-Dual) Function allows you to listen to your favorite AM / FM stereo broadcast stations and monitor the Amateur Band at the same time

Note : Sub RX (AF Dual) function works only on the AM and FM broadcast bands.

### Wide-band Receiver Coverage

The VX-3R/VX-3E has incredible frequency coverage of 1.8 - 76 MHz and 108 - 999.9 MHz\*, in addition, it has a totally separate and independent AM / FM Stereo Broadcast receiver inside.

(\*Cellular coverage is blocked and not restorable)

### Separate Earphone Jack for FM Stereo Broadcast Reception

You may enjoy your favorite FM broadcast station in stereo with your stereo headset or earphone! The connected headset/ earphone cable works as an antenna to receive FM broadcast signals.



### Internal Bar Antenna for AM Broadcast Band

The VX-3R/VX-3E has an internal bar antenna to provide good reception on the AM broadcast band.



(Not actual : Cut-out image photo)

### Yaesu's Original Emergency Feature

The VX-3R/VX-3E has the Emergency Automatic ID (EAI) feature which is also included in the FT-60R/E and the VX-6R/E. The EAI feature lets you and your support team configure your radios so that, in case of an accident or emergency that leaves one of your team incapacitated, someone else can command their radio to transmit without their pressing the PTT, allowing others to use the signal for direction finding and effect a rescue.

Note : This EAI function shall only be used in case of emergency or accident to support direction finding and rescue. Yaesu, shall not be responsible for any direct or indirect results caused by using the EAI function.

### Other Useful Features

- Various scanning functions
- WiRES-II Internet Key
- DTMF Operation
- Frequency Counter Operation (to measure the frequency of a nearby transmitter, without knowing the frequency in advance.)
- Smart Search Operation (automatically find and load, up to 31 Smart Memory Channels where activity is encountered)
- CW Learning and Training feature
- ARTS™ (Automatic Range Transponder System) that lets you know whether you and another ARTS™-equipped station are within communication range.
- DW (Dual Receive) function to monitor a designated frequency every 5 seconds
- RF Squelch that allows you to set the squelch to open only for signals exceeding a desired S-meter level
- CTCSS/DCS Bell Operation
- Automatic power-on function
- Automatic Power-Off (APO) feature
- Time-Out Timer (TOT)
- Busy Channel Lock-Out (BCLO)
- Mic gain adjustment
- ATT
- Cloning feature



144/430 MHz FM DUAL BAND HANDHELD

# FT-60R FT-60E

## The New Generation Dual Band Handheld



144/430 MHz  
Dual Band 5W FM Transceiver

# FT-60R

American and Asian versions

# FT-60E

European version

(7.2 V 1400 mAh Ni-MH battery FNB-83, Desktop Rapid Charger SBH-13(USA version) and battery charger PA-48 / PA-44(European version) included)

### 144 /430 MHz DUAL BAND HANDHELD WITH WIDEBAND RECEIVER COVERAGE

The FT-60R/FT-60E's small size allows you to take it anywhere – hiking, skiing, or while walking around town – and its operating flexibility brings the user many avenues of operating enjoyment. FNB-83 Rechargeable Nickel-Metal Hydride Battery Pack provides up to 5 Watts of transmit power on the 144 MHz and 430 MHz Amateur Bands.

### HIGH POWER OUTPUT: 5 W

The FT-60R/FT-60E's powerful transmitter puts out a full five Watts of power on both the 144 and 430 MHz bands. For longer battery life, reduced power settings of 2 Watts and 0.5 Watt are provided, along with a Transmit Battery Saver (TBS), that automatically lowers power when you utilize a strong local repeater.

Pwr. Source	TX PO	HI	MID	LOW
FNB-83 FBA-25A Ext. DC		5.0W	2.0W	0.5W

### Battery Life

Band	Battery	FNB-83 / FBA-25A
144 MHz		Approx. 9 Hr. <sup>*1</sup>
430 MHz		Approx. 8 Hr. <sup>*1</sup>
Receiving		Approx. 15 Hr. <sup>*2</sup>

<sup>\*1</sup> Duty Cycle based on 5W PO, 6 sec. TX, 6 sec. RX w/audio, and 48 sec. Rx squelched.

<sup>\*2</sup> Using FNB-83, Audio Volume set to 50%.

Available as an option for the FT-60R/FT-60E is the FBA-25A Alkaline Battery Tray, which allows you to use "AA" Alkaline cells to power your FT-60R / FT-60E to a full 5 Watts of TX power.

### EMERGENCY AUTOMATIC ID SYSTEM

The Emergency Automatic ID (EAI) Feature can be used for searching for persons who are incapacitated in disasters like earthquakes, especially search-and-rescue personnel who may need assistance. An EAI-equipped searcher sends out a unique command (CTCSS tone pair), and the radio of the incapacitated party, who may not be able to speak or even press the PTT, will automatically be placed in the transmit mode, so others may perform direction finding and effect a rescue. The callsign of the incapacitated person will also be transmitted, to assist the rescue team.

Note : This EAI function shall only be used in case of emergency or accident to support performing direction finding and rescue. YAESU shall not be responsible for any direct or indirect results caused by using the EAI function.

### WIDE BAND RECEIVER COVERAGE

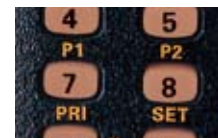
144 / 430 MHz Dual Band Handheld with wide band reception  
108-520 MHz / 700 – 999.990 MHz (Cellular Blocked\*) US Version  
(\*Cellular coverage is blocked and not restorable)

### OVER 1000 MEMORY CHANNELS

The FT-60R/FT-60E's unmatched memory capabilities include 1000 Standard memory channels, five Home channels, 50 sets of band-edge memories, and ten "Weather Broadcast" channels.

### TWO PROGRAMMABLE KEYS

Two of the keys on the front panel's keyboard may be assigned with user-defined functions from the configuration Menu, so as to provide quick access to special setup options you use frequently. Menu access was never easier!



### ONE-TOUCH NOAA WX BAND ACCESS

\*US Version

The FT-60R/FT-60E provides a dedicated memory bank for reception of NOAA Weather broadcasts. Pressing the PTT switch activates scanning of the Weather memories, and another press of PTT will halt the scan.

### NOAA SEVERE WEATHER ALERT WITH ALERT SCAN

You can also command the FT-60R/FT-60E to scan for an incoming "Severe Weather" alert tone from NOAA, to advise you of an impending severe storm.

### SINGLE-BAND AND MEMORY-ONLY OPERATING MODES

For the ultimate in operating simplicity, at those times when you need it, the FT-60R/FT-60E offers capability for single-band (144 MHz or 430 MHz only) or Memory-channel-only operating configurations. These may be particularly useful during search-and-rescue or public service operations, when a new user may need to be trained quickly for use of the FT-60R/FT-60E.

### AND MUCH MUCH MORE . . .

- NINE DTMF AUTO-DIALER MEMORIES
- VFO, Memory, and Band-Segment Scanning
- Dual Watch Scanning with Priority Revert
- Direct Keypad Frequency Entry
- Battery Voltage Meter
- Smart Search Automatic Memory Loading
- Automatic Repeater Shift
- Automatic Power-Off (APO) Battery Saver
- Busy Channel Lock-Out (BCLO)
- 1750 Hz Tone Calling for European Repeater Access

144MHz SINGLE BAND FM HANDHELD

# FT-270R FT-270E

## Commercial Grade Field Radio Submersible Construction



The FT-270R/FT-270E is a compact, high-performance FM hand-held providing up to five Watts of RF power, along with big audio output (800 mW) for the 2 m amateur bands. Protected against water ingress to IPX7 specifications (submersion for up to 3 feet/1 meter for 30 minutes), the FT-270R/FT-270E features long operating time, thanks to the supplied 1400 mAh Ni-MH Battery Pack. This 16-key versatile handheld includes direct keypad frequency entry and direct DTMF input and provides quick one-touch access to YAESU's exciting and fun WIREs-II™ VoIP Internet Linking system!

- **Large Backlit LCD Display for easy operation**
- **5 Watts of Stable RF Power**
- **800 mW of Loud Audio for noisy field operations**
- **200 Memory Channels for serious users**
- **Commercial Grade Performance**
- **Submersible Construction IPX7 (3 ft./1 meter for 30 min)**
- **Yaesu's Exclusive Power Saving Circuit Design Guarantees Longer Operating time**
- **Hands Free Operation with Optional VC-24 VOX Headset**

### Main Features

- 200 Memory Channels with Alpha-numeric tags (maximum 6 characters)
- Ten Memory banks for Channel allocation
- High Power Output: 5 Watts (FNB-83 or FBA-25A with dry batteries)
- Loud 800 mW Audio output
- Long life FNB-83 (7.2 V/ 1400 mAh) and Overnight Charger included
- Emergency Automatic ID (EAI) function (US Version)
- Enhanced Paging and Code Squelch (EPCS)
- Password Protection
- CTCSS and DCS Encode/Decode, with split Tone and DCS Encode-only capability
- Scanning Mode: VFO / Memory / PMS / Dual Watch
- Nine DTMF Auto-dialer memories
- Keypad/Dial Lockout capability
- Two front panel programmable keys
- Convenient Access key for the Yaesu's WIREs™ (Wide-coverage Internet Repeater Enhancement System)
- RF squelch
- Memory-only operating mode available for easy operation
- Rugged case construction and Submersible (IPX7, 3 ft / 1 meter 30 minutes)
- Huge LCD Display
- Smart Search to easily select active channels
- Battery Voltage Display
- Adjustable TX Deviation Level (5 kHz or 2.5 kHz)
- Transmit Time-Out-Timer (TOT) and Automatic Power-Off (APO)
- Busy Channel Lock-Out (BCLO)
- Automatic Repeater Shift (ARS)
- ARTS™ (Auto-range Transponding System) which "beeps" the user when you move out of communication range

144 MHz Single Band 5W FM Transceiver

# FT-270R

American and Asian versions

# FT-270E

European version

(7.2 V 1400 mAh Ni-MH battery FNB-83, Desktop Rapid Charger SBH-13(USA version) and battery charger PA-48 / PA-44(European version) included)

144 MHz SINGLE BAND FM HANDHELD 430 MHz SINGLE BAND FM HANDHELD

**FT-252**  
**FT-252E**

**FT-257**

**Compact  
and High Performance**

The FT-252/FT-252E and FT-257 are compact, simple to operate handheld radios that providing up to 5 Watts of RF power, along with loud audio output (800 mW) for the 2 m or 70 cm amateur bands. The FT-252/FT-252E and FT-257 ruggedly constructed water resistant bodies are sealed tight to meet IPX5 protection requirements. They are packed with popular and valuable features demanded by Amateur Radio operators around the world, including 200 memory channels with 10 flexible memory banks, CTCSS/DCS encode/decode, Multiple scanning modes, Dual-watch, Automatic Repeater Shift, and ATS(Automatic Transponder System).

- **New Ergonomic design and Large Backlit LCD Display for better operation**
- **5 Watts of Stable RF Power**
- **800 mW of Loud Audio for noisy field operations**
- **ATS (Automatic Transponder System) "beeps" when moving out of communication range**
- **200 Memory Channels for Serious users**
- **Water Protection - IPX5 Rating**

### Main Features

- High Power Output: 5 Watts (FNB-124LI)
- Loud 800 mW Audio output
- ATS (Automatic Transponder System) "beeps" when you move out of communication range
- 200 Memory Channels with Alpha-numeric tags (maximum 6 characters)
- 10 Memory banks for Channel allocation
- Emergency Operation (Alarm, Flash, Morse Code Message)
- NOAA Weather channels and Weather Alert (FT-252 only)
- Password Protection
- CTCSS (50 tones) and DCS (104 codes) Encode/Decode, with split Tone and DCS Encode-only capability
- Scanning Mode: VFO / Memory / PMS / Dual Watch
- Nine DTMF Auto-dialer memories
- Keypad/Dial/PTT Lockout capability
- RF squelch
- Memory-only operating mode available for easy operation
- Rugged case construction and Submersible (Water Protection - IPX5 Rating)
- Smart Search to easily select active channels
- Battery Voltage Display
- Adjustable TX Deviation Level ( 5 kHz or 2.5 kHz)
- Transmit Time-Out-Timer (TOT) and Automatic Power-Off (APO)
- Busy Channel Lock-Out (BCLO)
- Automatic Repeater Shift (ARS)



144 MHz Single Band 5W FM Transceiver

**FT-252**

American and Asian versions

**FT-252E**

European version

430 MHz Single Band 5W FM Transceiver

**FT-257**

(American and Asian versions only)

(7.4 V 1030 mAh Lithium Ion Battery FNB-124LI and battery charger PA-48 / SAD-11B (USA version) included)

COMMUNICATIONS RECEIVER

# VR-160



AM/FM/WFM 100 kHz ~ 1299.990 MHz  
Wide Band Receiver

## VR-160

(European and Asian versions only)

(3.7 V 1100 mAh Lithium Ion battery FNB-82LI  
and battery charger PA-46 included)

This new miniature receiver has a new AF DUAL function for listening to FM/AM broadcast while monitoring your priority channel

- Wide frequency coverage 100 kHz to 1299.990 MHz
- The Sub RX function (AF-Dual) allows you to listen to your favorite FM/AM broadcast and monitor other communications simultaneously.
- Huge 1821 Memory Channels Capacity. Also 10 weather broadcast frequencies, 57 VHF Marine frequencies and 89 popular shortwave broadcast stations are pre-programmed at factory.
- Internal ferrite bar antenna provides good reception on the AM broadcast band
- The earphone connector allows you to enjoy FM broadcasts in stereo. Also your connected headset/earphone cable works as a FM aerial.
- New mechanical Dial lock makes it very easy and secure to lock or unlock the main dial. Just pull up to use and push down to activate lock function. No more accidental frequency change.



### Battery operating time (Approximately)

Band	FNB-82LI	"AA" Battery Operation
Amateur Band	About 23 hours	About 28 hours
AM/FM Broad cast, short-wave TV	About 20 hours	About 25 hours

Note: Operating times may vary depending on operating conditions, and are based on a duty cycle of [Amateur Band] 1:3 (Receive: Standby) [Other Band] Continuous reception at VOL 10 position (factory default position)

COMMUNICATIONS RECEIVER

# VR-120D



AM/FM/WFM 100 kHz ~ 1299.990 MHz  
Wide Band Receiver

## VR-120D

(European and Asian versions only)

### Rugged Professional Communications Receiver

- WIDEBAND FREQUENCY COVERAGE WITH EASY ACCESS!  
The VR-120D provides continuous coverage of the frequency range 0.1~1299.995 MHz (cellular frequencies are blocked and non-restorable). When you set a frequency, the operating mode (AM/FM/Wide-FM) and channel steps appropriate for that frequency range are automatically selected, for ease in tuning around in search of other stations. Of course, you can manually select the mode and tuning steps, if you have other requirements in that tuning range.
- ULTRA-LONG BATTERY LIFE AND EXT.DC INPUT  
When you're out in the field, and can't afford to miss out on weather information, long battery life in your receiver is essential. The VR-120D, especially designed for low current consumption, can provide up to 20 hours of operation on a pair of "AA" alkaline cells (at 40 mW audio output), and the Battery Saver feature cuts battery consumption dramatically when no signals are being received. An icon on the LCD indicates when the batteries are getting low, alerting you to the need to replace them.
- VERSATILE 640-CHANNEL MEMORY SYSTEM!  
The VR-120D includes a versatile 640-channel Memory system, which allows partitioning of the channels into ten "Banks" of 64 channels each. You can group shortwave broadcast, FM broadcast, Public Safety, and Amateur Radio channels separately, for maximum tuning convenience!
- STRAIGHTFORWARD 4-BUTTON OPERATION  
The no-nonsense front panel of the VR-120D contains four large keys which are used for command of the receiver's many operating functions. These keys, the "Function" key on the side, and the Main Tuning Knob are all you need to tune in on the DX action! The display and function keys are fully illuminated, for ease of operation at night.
- WIDE SELECTION OF SCANNING MODES!  
Efficient scanning is the key to any receiver's performance, and the VR-120D is a champion when it comes to scanning! A special "Search Band Scanning" function assigns seven memory channels as scanning limits, and for skipping particular frequencies a 64-channel "Skip" memory bank lets you tune past stations you don't need to monitor. Among the Memory Scan features are: Full Memory Scan, Memory Bank Scan, Selected Memory Channel ("Preferential") Scan, Programmable Band-Limit Memory Scan (PMS), Smart Search™ (Automatic Memory Loading), Priority Channel Watch and Dual Watch



## Accessories & Options

Handheld Transceivers		FT1DR FT1DE	VX-8DR VX-8DE	VX-6R VX-6E	VX-3R VX-3E	FT-60R FT-60E	FT-270R FT-270E	FT-252 FT-252E FT-257	VR-160	VR-120D
<b>PROGRAMMING KIT</b>										
ADMS	Windows™ PC Programming Kit	ADMS-6	ADMS-VX8	ADMS-VX6	ADMS-VX3	ADMS-1J	ADMS-270		ADMS-5	
<b>SOFT CASE &amp; BELT CLIP</b>										
CSC	Soft Vinyl Case	CSC-97	CSC-93	CSC-91	CSC-92				CSC-92	CSC-76
CLIP-17D	Swivel Belt Clip			●						
<b>MICROPHONE/HEADSET</b>										
MH-34B4B	Compact Speaker / Microphone	●			●	●				
SSM-57A	Compact Lapel Mic with Earpiece	●			●	●				
MH-57A4B	Compact Speaker / Microphone			●			●			
MH-73A4B	Waterproof Speaker / Microphone			●			●			
MH-74A7A	Waterproof Speaker / Microphone		●							
MH-85A11U	Speaker Microphone with Snapshot camera	●								
VC-24	Lightweight VOX (Voice-Operated) Headset			●			●			
VC-25	Lightweight VOX (Voice-Operated) Headset	●			●	●				
FEP-4	Ear-phone for BH-1A		●							
FEP-10	Ear-phone					●				
SSM-55A	Earpiece / Microphone			●			●			
<b>Bluetooth® OPTIONS</b>										
BH-2A	Bluetooth® Handset		●							
BU-2	Bluetooth® Adapter Unit		●							
<b>GPS OPTIONS</b>										
FGPS-2	GPS Antenna Unit		●							
CT-136	GPS Antenna Adapter for FGPS-2		●							
<b>CABLES &amp; ADAPTERS</b>										
E-DC-21	DC Cable with Voltage Regulator and Cigarette-Lighter Plug				●				●	●
E-DC-6	DC Cable (Plug and Wire Only)	●	●	●		●	●	●		
SDD-11	DC Cable with Cigarette-Lighter Adapter							●		
SDD-13	DC Cable with Cigarette-Lighter Plug	●	●	●		●	●			
CN-3	Adapter for use with BNC Connector	●	●	●		●	●	●	●	
CT-27	Radio to Radio Cloning Cable				●	●				
CT-35	Cloning Cable									●
CT-44	For packet Interface or use with earlier Yaesu MIC	●			●	●				
CT-91	Microphone Adapter			●			●			
CT-134	Cloning Cable		●							
CT-131	Microphone Adapter		●							
CT-168	Clone Cable	●								
CT-170	Data Cable	●								
CT-176	Data Cable(2.5φ)	●								
SCU-19	PC Connection Cable	●								
<b>BATTERY PACK &amp; BATTERY TRAY</b>										
Battery TRAY	Alkaline Cells Battery Tray	FBA-39(3xAA)	FBA-39(3xAA)	FBA-23(2xAA)	FBA-37(3xAA)	FBA-25A(6xAA)	FBA-25A(6xAA)		FBA-37(3xAA)	
FNB-79MH	Ni-MH Battery Pack (2.4 V, 1200 mAh)									●
FNB-83	Ni-MH Battery Pack (7.2 V, 1400 mAh)					●	●			
FNB-80LI <sup>2</sup>	Lithium-ion Battery Pack (7.4 V, 1250 mAh)			●						
FNB-82LI	Lithium-ion Battery Pack (3.7 V, 1100 mAh)				●				●	
FNB-101LI	Lithium-ion Battery Pack (7.4 V, 1100 mAh)	●	●							
FNB-102LI	Lithium-ion Battery Pack (7.4 V, 1800 mAh)	●	●							
FNB-124LI	Lithium-ion Battery Pack (7.4 V, 1030 mAh)							●		
<b>BATTERY CHARGERS</b>										
CD-15A	Rapid Charger (2.5 hours)			●						
CD-26	Charger Cradle						●			
CD-40	Charger Cradle (3 hours) for BH-1A/BH-2A Bluetooth® Headset		●							
CD-41	Rapid Charger (2.5 hours)	●	●							
CD-47	Desktop Rapid Charger (4 hours) Requires PA-43						●			
CD-57	Charger Cradle							●		
SBH-13 <sup>3</sup>	Desktop Rapid Charger (4 hours) Requires PA-48					●	●			
NC-82	Charger Stand for CA-34									●
CA-34	Charger Sleeve for NC-82									●
VAC-370B/C <sup>1</sup>	Rapid Charger (1.5 hours)					●				
PA-43B/C/F/U <sup>1</sup>	AC Adapter for CD-47						●			
PA-44B/C/U <sup>1</sup> *4	AC Adapter		●			●	●			
PA-46B/C/U <sup>1</sup>	AC Adapter				●				●	●
PA-48B/C/F/U <sup>1</sup>	AC Adapter	●	●	●		●	●	●		
SAD-11B <sup>3</sup>	AC Adapter	●	●					●		
<b>OTHERS</b>										
SU-1	Barometric Pressure Sensor			●						
FTD-7	DTMF Paging Unit						●			

\*1 "B": for 120 VAC, "C": for 220-240 VAC, "F": for 220 VAC, "U": for 220-240 VAC w/UK plug. \*2 Indicated Battery Capacity based on EU DIRECTIVE 2006/66EC. \*3 USA version only \*4 European version only

# Handheld Transceivers & Receivers Specifications

	FT1DR FT1DE		VX-8DR VX-8DE		VX-6R VX-6E		VX-3R VX-3E	
<b>General</b>								
<b>Frequency Ranges</b>	<b>FT1DR</b> A (Main) Band RX: 0.5-1.8 MHz (AM Radio) 1.8-30 MHz (SW Radio) 30-76 MHz (50 MHz HAM) 76-108 MHz (FM Radio) 108-137 MHz (Air Band) 137-174 MHz (144 MHz HAM) 174-222 MHz (VHF) 222-420 MHz (General 1) 420-470 MHz (430 MHz HAM) 470-800 MHz (UHF) 800-999.99 MHz (General 2, Cellular Blocked)  B(Sub) Band RX: 108-137 MHz (Air Band) 137-174 MHz (144 MHz HAM) 174-222 MHz (VHF) 222-420 MHz (General 1) 420-470 MHz (430 MHz HAM) 470-579.99 MHz (UHF)  TX: 144-148 MHz 430-450 MHz	<b>FT1DE</b> A (Main) Band RX: 0.5-1.8 MHz (AM Radio) 1.8-30 MHz (SW Radio) 30-76 MHz (50 MHz HAM) 76-108 MHz (FM Radio) 108-137 MHz (Air Band) 137-174 MHz (144 MHz HAM) 174-222 MHz (VHF) 222-420 MHz (General 1) 420-470 MHz (430 MHz HAM) 470-800 MHz (UHF) 800-999.99 MHz (General 2)  B(Sub) Band RX: 108-137 MHz (Air Band) 137-174 MHz (144 MHz HAM) 174-222 MHz (VHF) 222-420 MHz (General 1) 420-470 MHz (430 MHz HAM) 470-579.99 MHz (UHF)  TX: 144-148 MHz 430-440 MHz	<b>VX-8DR</b> A (Main) Band RX: 0.5-1.8 MHz (AM Radio) 1.8-30 MHz (SW Radio) 30-59 MHz (50 MHz HAM, USA version) 30-76 MHz (50 MHz HAM) 59-108 MHz (FM Radio, USA Version) 76-108 MHz (FM Radio) 108-137 MHz (Air Band) 137-174 MHz (144 MHz HAM) 174-222 MHz (VHF-TV) 222-420 MHz (General 1) 420-470 MHz (430 MHz HAM) 470-774 MHz (UHF-TV) 774-999.90 MHz (General 2) 222-420 MHz (General 1) 420-470 MHz (430 MHz HAM) 470-774 MHz (UHF-TV) 774-999.90 MHz (General 2)  B(Sub) Band RX: 30-76 MHz (50 MHz HAM) 108-137 MHz (Air Band) 137-174 MHz (144 MHz HAM) 174-222 MHz (VHF-TV) 222-420 MHz (General 1)  TX: 50-54 MHz 144-148 MHz 222-225 MHz (USA version only) 430-450 MHz	<b>VX-8DE</b> A (Main) Band RX: 0.5-1.8 MHz (AM Radio) 1.8-30 MHz (SW Radio) 30-76 MHz (50 MHz HAM) 76-108 MHz (FM Radio) 108-137 MHz (Air Band) 137-174 MHz (144 MHz HAM) 174-222 MHz (VHF-TV) 222-420 MHz (General 1) 420-470 MHz (430 MHz HAM) 470-774 MHz (UHF-TV) 774-999.90 MHz (General 2)  B(Sub) Band RX: 30-76 MHz (50 MHz HAM) 108-137 MHz (Air Band) 137-174 MHz (144 MHz HAM) 174-222 MHz (VHF-TV) 222-420 MHz (General 1)  TX: 50-52 MHz 144-148 MHz 430-440 MHz	<b>VX-6R</b> RX: 0.5-1.8 MHz (AM Radio) 1.8-30 MHz (SW Radio) 30-59 MHz (50 MHz HAM, USA version) 30-76 MHz (50 MHz HAM) 59-108 MHz (FM Radio, USA Version) 76-108 MHz (FM Radio) 108-137 MHz (Air Band) 137-174 MHz (144 MHz HAM) 174-222 MHz (VHF-TV) 222-420 MHz (ACT1) 420-470 MHz (430 MHz HAM) 470-729 MHz (UHF-TV, USA version) 470-800 MHz (UHF-TV) 800-998.990 MHz (ACT2, Cellular Blocked)  TX: 144-148 MHz 222-225 MHz (USA version only) 430-450 MHz	<b>VX-6E</b> RX: 0.5-1.8 MHz (AM Radio) 1.8-30 MHz (SW Radio) 30-76 MHz (50 MHz HAM) 76-108 MHz (FM Radio) 108-137 MHz (Air Band) 137-174 MHz (144 MHz HAM) 174-222 MHz (VHF-TV) 222-420 MHz (ACT1) 420-470 MHz (430 MHz HAM) 470-800 MHz (UHF-TV) 800-998.990 MHz (ACT2)  TX: 144-148 MHz 430-440 MHz	<b>VX-3R</b> RX: 0.5-1.8 MHz (AM Radio) 1.8-30 MHz (SW Radio) 30-59 MHz (50 MHz HAM, USA version) 30-76 MHz (50 MHz HAM) 59-108 MHz (FM Radio, USA Version) 76-108 MHz (FM Radio) 108-137 MHz (Air Band) 137-174 MHz (144 MHz HAM) 174-222 MHz (VHF-TV) 222-420 MHz (ACT1) 420-470 MHz (430 MHz HAM) 470-774 MHz (UHF-TV, USA version) 470-800 MHz (UHF-TV) 800-999 MHz (GEN2, Cellular Blocked)  TX: 144-148 MHz 430-450 MHz	<b>VX-3E</b> RX: 0.5-1.8 MHz (AM Radio) 1.8-30 MHz (SW Radio) 30-76 MHz (50 MHz HAM) 76-108 MHz (FM Radio) 108-137 MHz (Air Band) 137-174 MHz (144 MHz HAM) 174-222 MHz (VHF-TV) 222-420 MHz (ACT1) 420-470 MHz (430 MHz HAM) 470-774 MHz (UHF-TV, USA version) 470-800 MHz (UHF-TV) 800-999 MHz (GEN2, Cellular Blocked)  TX: 144-148 MHz 430-440 MHz
<b>Channel Steps</b>	5, 6.25, 8.33, 9, 10, 12.5, 15, 20, 25, 50, 100 kHz		5, 6.25, 8.33, 9, 10, 12.5, 15, 20, 25, 50, 100 kHz		5, 9, 10, 12.5, 15, 20, 25, 50, 100 kHz		5, 8.33, 9, 10, 12.5, 15, 20, 25, 50, 100 kHz	
<b>Frequency Stability</b>	±2.5 ppm (-4°F to +140°F, -20°C to +60°C)		±5 ppm (+14°F to +140°F, -10°C to +60°C)		±5 ppm (+14°F to +122°F, -10°C to +50°C)		±5 ppm (+14°F to +140°F, -10°C to +60°C)	
<b>Emission Type</b>	F1D, F2D, F3E, F7W		F1D, F2D, F3E, A3E		F2D, F3E		F2D, F3E, A3E	
<b>Supply Voltage</b>	Nominal 7.4 V DC (Negative Ground) Operating 4-14 V DC (Negative Ground EXT DC jack) 11-16 V DC (Negative Ground EXT DC jack with E-DC-5B) 7.4 V DC (Negative Ground)		Nominal 7.4 V DC (Negative Ground) Operating 4-14 V DC (Negative Ground EXT DC jack)		Nominal 7.4 V DC (Negative Ground) Operating 5-16 V DC (EXT DC jack) 11.0-16.0 V DC (EXT DC jack while Charging)		Nominal 3.7 V DC (Negative Ground) Operating 3.6-7 V DC (EXT DC jack) 5.0-7 V DC (EXT DC jack while Charging)	
<b>Current Consumption</b>	150 mA (Single Band Receive) 220 mA (Dual Band Receive) 100 mA (Single Band Receive, Standby, Saver Off) 150 mA (Dual Band Receive, Standby, Saver Off) 45 mA (Single Band Receive, Standby, Saver On "Save Ratio 1:5") 45 mA (Dual Band Receive, Standby, Saver On "Save Ratio 1:5") +30 mA (GPS On) +65 mA (Digital) 600 µA (Auto Power Off) 1.7 A (TX, 144 MHz 5 W) 2.0 A (TX, 430 MHz 5 W)		200 mA (Single Band Receive) 240 mA (Dual Band Receive) 85 mA (Single Band Receive, Standby, Saver Off) 120 mA (Dual Band Receive, Standby, Saver Off) 35 mA (Single Band Receive, Standby, Saver On "Save Ratio 1:5") 42 mA (Dual Band Receive, Standby, Saver On "Save Ratio 1:5") 300 µA (Auto Power Off) 1.6 A (TX, 50 MHz 5 W) 1.7 A (TX, 144 MHz 5 W) 1.2 A (TX, 222 MHz 1.5 W) 1.9 A (TX, 430 MHz 5 W)		150 mA (Receive) 60 mA (Standby, Saver Off) 20 mA (Standby, Saver On) 1 mA (ON Timer Activated) 200 µA (Auto Power Off) 1.6 A (TX, 144 MHz 5 W) 1.5 A (TX, 222 MHz 1.5 W USA version) 1.8 A (TX, 430 MHz 5 W)		120 mA (Receive) 60 mA (Standby, Saver Off) 30 mA (Standby, Saver On, Save Ratio 1:2) 50 mA (Radio Band Receive) 100 µA (Auto Power Off) 1.3 A (TX, 144 MHz 1.5 W) @3.7 V DC 1.6 A (TX, 144 MHz 3.0 W) @6 V DC 1.2 A (TX, 430 MHz 1.0 W) @3.7 V DC 1.8 A (TX, 430 MHz 2.0 W) @6 V DC	
<b>Operating Temperature</b>	-4°F to +140°F, -20°C to +60°C		-4°F to +140°F, -20°C to +60°C		-4°F to +140°F, -20°C to +60°C		-4°F to +140°F, -20°C to +60°C	
<b>Case Size (WxHxD)</b>	2.4" x 3.7" x 1.1" (60 x 95 x 28 mm) (w/o knob & antenna)		2.4" x 3.7" x 0.9" (60 x 95 x 24.2 mm) (w/o knob & antenna)		2.3" x 3.5" x 1.1" (58 x 89 x 28.5 mm) (w/o knob & antenna)		1.9" x 3.2" x 0.9" (47 x 81 x 23 mm) (w/o knob & antenna)	
<b>Weight</b>	9.35 oz (265 g) with FNB-101U & antenna		8.5 oz (240 g) with FNB-101U & antenna		9.5 oz (270 g) with FNB-80L & antenna		4.6 oz (130 g) with FNB-82U & antenna	
<b>Transmitter</b>								
<b>RF Power Output</b>	0.8 W @4.5 V: AA x 3 5.0 W @7.4 V or EXT DC L3: 2.5W, L2: 1W, L1: 0.1W @7.4 V		1.0 W (50/144/430 MHz) @4.5 V: AA x 3 5.0 W (50/144/430 MHz) @7.4 V or EXT DC 1.0 W (50 MHz AM) Fixed 0.5 W (222 MHz - USA only) @4.5 V: AA x 3 1.5 W (222 MHz) @7.4 V or EXT DC L3: 2.5W, L2: 1W, L1: 0.05W (50/144/430 MHz) @7.4 V L3: 1W, L2: 0.5W, L1: 0.05W (222 MHz) @7.4 V		5.0 W (144/430 MHz) 2.5 W (L3: 144/430 MHz) 1.0 W (L2: 144/430 MHz) 0.3 W (L1: 144/430 MHz) 1.5 W (222 MHz: USA version) 1.0 W (L3: 222 MHz: USA version) 0.5 W (L2: 222 MHz: USA version) 0.2 W (L1: 222 MHz: USA version)		1.5 W (144 MHz) @4.5 V: AA x 3 or 3.7 V FNB-82U 3.0 W (144 MHz) @6 V or EXT DC 1.0 W (430 MHz) @4.5 V: AA x 3 or 3.7 V FNB-82U 2.0 W (430 MHz) @6 V or EXT DC Low 0.1 W: @4.5 V: AA x 3 or 3.7 V FNB-82U Low 0.3 W: @6 V or EXT DC	
<b>Spurious Emission</b>	At least 60 dB below (@ TX power H/L3/2) At least 50 dB below (@ TX power L1)		At least 60 dB below (@ TX power H/L3) At least 50 dB below (@ TX power L2/L1)		At least 60 dB below (@ TX power H/L3) At least 50 dB below (@ TX power L2/L1)		At least 60 dB below (@ TX power: HIGH) At least 50 dB below (@ TX power: LOW or less than 1 W) 2 kC	
<b>Microphone Impedance</b>	2 kΩ		2 kΩ		2 kΩ		2 kΩ	
<b>Receiver</b>								
<b>Circuit Type</b>	NFM / AM: Double-Conversion Superheterodyne FM / AM Radio: Single-Conversion Superheterodyne		NFM / AM: Double-Conversion Superheterodyne WFM: Triple-Conversion Superheterodyne FM / AM Radio: Single-Conversion Superheterodyne		NFM / AM: Double-Conversion Superheterodyne WFM: Triple-Conversion Superheterodyne		NFM / AM: Double-Conversion Superheterodyne WFM: Triple-Conversion Superheterodyne	
<b>Intermediate Frequencies</b>	1st: 47.25 MHz (NFM, AM, A Band), 46.35 MHz (NFM, AM, B Band), 2nd: 450 kHz (NFM, AM) 1st: 130 kHz (AM/FM Radio)		NFM, AM 1st: 47.25 MHz (A Band), 46.35 MHz (B Band) 2nd: 450 kHz (A Band), 450 kHz (B Band) WFM 1st: 45.8 MHz 2nd: 10.7 MHz 3rd: 1 MHz AM/FM Radio: 130 kHz		1st: 47.25 MHz (NFM, AM, WFM) 2nd: 450 kHz (NFM, AM), 10.7 MHz (WFM) 3rd: 1 MHz (WFM)		AM / FM Radio: Single-Conversion Superheterodyne 1st: 47.25 MHz (NFM, AM), 45.80 MHz (WFM), 130 kHz (AM/FM Radio) 2nd: 450 kHz (NFM, AM), 10.7 MHz (WFM) 3rd: 1 MHz (WFM)	
<b>Sensitivity</b>	3.0 µV for 10 dB SN (0.5-30 MHz, AM) 0.35 µV TYP for 12 dB SINAD (30-54 MHz, NFM) 1.0 µV TYP for 12 dB SINAD (54-76 MHz, NFM) 1.5 µV TYP for 12 dB SINAD (76-108 MHz, WFM) 1.5 µV TYP for 10 dB SN (108-137 MHz, AM) 0.2 µV for 12 dB SINAD (137-140 MHz, NFM) 0.16 µV for 12 dB SINAD (140-150 MHz, NFM) 0.2 µV for 12 dB SINAD (150-174 MHz, NFM) 1.0 µV for 12 dB SINAD (174-222 MHz, NFM) 0.5 µV for 12 dB SINAD (300-350 MHz, NFM) 0.2 µV for 12 dB SINAD (350-400 MHz, NFM) 0.16 µV for 12 dB SINAD (400-470 MHz, NFM) 1.5 µV for 12 dB SINAD (470-540 MHz, NFM) 3.0 µV TYP for 12 dB SINAD (540-800 MHz, NFM) 1.5 µV TYP for 12 dB SINAD (800-999.99 MHz, NFM) Cellular Blocked 0.19 µV TYP for BER 1% (Digital Mode)		A(Main) Band 3.0 µV for 10 dB SN (0.5-30 MHz, AM) 0.35 µV TYP for 12 dB SINAD (30-54 MHz, NFM) 1.0 µV TYP for 12 dB SINAD (54-76 MHz, NFM) 1.0 µV TYP for 12 dB SINAD (54-59 MHz, NFM, USA version) 1.5 µV TYP for 12 dB SINAD (76-108 MHz, WFM) 1.5 µV TYP for 12 dB SINAD (69-108 MHz, NFM) 1.5 µV TYP for 10 dB SN (108-137 MHz, AM) 0.2 µV for 12 dB SINAD (137-140 MHz, NFM) 0.16 µV for 12 dB SINAD (140-150 MHz, NFM) 0.2 µV for 12 dB SINAD (150-174 MHz, NFM) 1.0 µV for 12 dB SINAD (174-222 MHz, WFM) 0.5 µV for 12 dB SINAD (300-350 MHz, NFM) 0.2 µV for 12 dB SINAD (350-400 MHz, NFM) 0.18 µV for 12 dB SINAD (400-470 MHz, NFM) 1.5 µV for 12 dB SINAD (470-540 MHz, WFM) 3.0 µV TYP for 12 dB SINAD (540-800 MHz, WFM) 1.5 µV TYP for 12 dB SINAD (800-999.99 MHz, NFM) Cellular Blocked B(Sub) Band 0.18 µV TYP for 12 dB SINAD (50-54 MHz, NFM) 0.18 µV for 12 dB SINAD (144-148 MHz, NFM) 0.2 µV for 12 dB SINAD (430-450 MHz, NFM)		1.0 µV TYP for 10 dB SN (1.8-30 MHz, AM) 0.35 µV TYP for 12 dB SINAD (30-54 MHz, NFM) 0.5 µV TYP for 12 dB SINAD (54-76 MHz, NFM) 0.5 µV TYP for 12 dB SINAD (54-59 MHz, NFM, USA version) 1.0 µV TYP for 12 dB SINAD (76-108 MHz, WFM) 1.0 µV TYP for 12 dB SINAD (69-108 MHz, WFM, USA version) 1.5 µV TYP for 10 dB SN (108-137 MHz, AM) 0.2 µV for 12 dB SINAD (137-140 MHz, NFM) 0.16 µV for 12 dB SINAD (140-150 MHz, NFM) 0.2 µV for 12 dB SINAD (150-174 MHz, NFM) 0.5 µV TYP for 12 dB SINAD (174-250 MHz, WFM) 0.5 µV TYP for 12 dB SINAD (300-350 MHz, NFM) 0.2 µV for 12 dB SINAD (350-400 MHz, NFM) 0.18 µV for 12 dB SINAD (400-470 MHz, NFM) 1.0 µV TYP for 12 dB SINAD (470-540 MHz, WFM) 1.0 µV TYP for 12 dB SINAD (580-800 MHz, WFM) 0.5 µV TYP for 12 dB SINAD (800-999.990 MHz, NFM)		3.0 µV for 10 dB SN (0.5-1.8 MHz, AM) 0.35 µV for 10 dB SN (0.5-30 MHz, AM) 0.35 µV TYP for 12 dB SINAD (30-54 MHz, NFM) 1.0 µV TYP for 12 dB SINAD (54-76 MHz, NFM) 1.0 µV TYP for 12 dB SINAD (54-76 MHz, NFM) 1.0 µV TYP for 12 dB SINAD (54-59 MHz, NFM, USA version) 1.0 µV TYP for 12 dB SINAD (76-108 MHz, NFM) 1.5 µV TYP for 10 dB SN (108-137 MHz, AM) 0.2 µV for 12 dB SINAD (137-140 MHz, NFM) 0.16 µV for 12 dB SINAD (140-150 MHz, NFM) 0.2 µV for 12 dB SINAD (150-174 MHz, NFM) 0.5 µV TYP for 12 dB SINAD (300-350 MHz, NFM) 0.2 µV for 12 dB SINAD (350-400 MHz, NFM) 0.18 µV for 12 dB SINAD (400-470 MHz, NFM) 1.5 µV TYP for 12 dB SINAD (470-540 MHz, WFM) 1.5 µV TYP for 12 dB SINAD (540-800 MHz, WFM) 1.5 µV TYP for 12 dB SINAD (800-999 MHz, NFM) USA version Cellular Blocked	
<b>Selectivity</b>	NFM, AM 12 kHz / 35 kHz (-6 dB / -60 dB)		NFM, AM 12 kHz / 35 kHz (-6 dB / -60 dB)		NFM, AM 12 kHz / 35 kHz (-6 dB / -60 dB) WFM 200 kHz / 300 kHz (-6 dB / -20 dB)		NFM, AM 12 kHz / 35 kHz (-6 dB / -60 dB) WFM 200 kHz / 300 kHz (-6 dB / -20 dB)	
<b>AF Output</b>	200 mW @ 10% THD (@ 7.4 V) 400 mW @ 10% THD (@ 13.8V)		200 mW @ 10% THD (@ 7.4 V) 400 mW @ 10% THD (@ 13.8V)		200 mW @ 10% THD (@ 7.4 V) 400 mW @ 10% THD (@ 13.8V)		50 mW @ 10% THD (@ 3.7 V) 100 mW @ 10% THD (@ 6.0V)	
<b>AF Output Impedance</b>	8 Ω		8 Ω		8 Ω		8 Ω	

FT-60R FT-60E		FT-270R FT-270E		FT-252 FT-252E		FT-257	VR-160	VR-120D
<b>General</b>								
<b>FT-60R</b>	<b>FT-60E</b>	<b>FT-270R</b>	<b>FT-270E</b>	<b>FT-252</b>	<b>FT-252E</b>			
RX: 108 - 137 MHz (Air Band) 137 - 520 MHz (AM/FM) 700 - 999 MHz (FM, Cellular Blocked)	RX: 108 - 137 MHz (Air Band) 137 - 520 MHz (AM/FM) 700 - 999 MHz (FM)	RX: 136-174 MHz	RX: 136-174 MHz	RX: 136 - 174 MHz	RX: 136 - 174 MHz	RX: 400 MHz - 480 MHz	Normal Band 100kHz - 1.8 MHz (BC Band) 1.8 MHz - 30 MHz (SW Band) 30 - 76 MHz (50 MHz HAM) 76 - 108 MHz (FM Radio) 108 - 137 MHz (Air Band) 137 - 174 MHz (144 MHz HAM) 174 - 222 MHz (VHF-TV) 222 - 420 MHz (General 1) 420 - 470 MHz (430 MHz HAM) 470 - 800 MHz (UHF-TV) 800 - 1000 MHz (General 2) 1000 - 1299.975 MHz (1.2 GHz HAM)	100 kHz - 1299.995 MHz Cellular / Image / restricted frequencies Blocked
TX: 144 - 148 MHz 430 - 450 MHz	TX: 144 - 146 MHz 430 - 440 MHz	TX: 144 - 148 MHz	TX: 144 - 146 MHz	TX: 144 - 148 MHz	TX: 144 - 146 MHz	TX: 430 - 450 MHz	Radio Band 0.504 - 1.795 MHz (AM Broadcast) 76 - 107.95 MHz (WFM Broadcast)	
5, 10, 12.5, 15, 20, 25, 50, 100 kHz		5, 10, 12.5, 15, 20, 25, 50, 100 kHz		5, 10, 12.5, 15, 20, 25, 100 kHz		5, 10, 12.5, 15, 20, 25, 100 kHz	5, 8.33, 9, 10, 12.5, 15, 20, 25, 50, 100 kHz	5, 6.25, 9, 10, 12.5, 15, 20, 25, 50, 100 kHz
±5 ppm (+14°F to +140°F, -10°C to +60°C)		±5 ppm (+14°F to +140°F, -10°C to +60°C)		±5 ppm (+14°F to +140°F, -10°C to +60°C)		±5 ppm (+14°F to +140°F, -10°C to +60°C)	±5 ppm (+14°F to +140°F, -10°C to +60°C)	±5 ppm (+14°F to +140°F, -10°C to +60°C)
F2D, F3E		F2D, F3E		F2D, F3E		F2D, F3E	-	-
Nominal 7.2 V DC (Negative Ground) Operating 6.0 - 16 V DC (EXT DC jack) 11 - 16 V DC (EXT DC jack while Charging)		Nominal 7.2 V DC (Negative Ground) Operating 6.0 - 16 V DC (EXT DC jack)		Nominal 7.4 V DC (Negative Ground) Operating 5.0 - 10 V DC (EXT DC jack)		Nominal 7.4 V DC (Negative Ground) Operating 5.0 - 10 V DC (EXT DC jack)	Nominal 3.7 V DC, FNB-82L1 Battery Operation 6.0 V DC, PA-46C/U AC Adapter Operation Operating 3.5 - 7.0 V, Negative Ground (EXT DC Jack)	Nominal 3.0 V DC 2.2 - 3.5 V DC, Internal Battery 5.5 - 10.0 V DC, EXT DC
125 mA (Receive) 45 mA (Standby, Saver Off: 144MHz) 47 mA (Standby, Saver Off: 430MHz) 19 mA (Standby, Saver On) 8 mA (Auto Power Off) 0.8 mA (Auto Power Off) 1.5 A (TX, 144 MHz 5.0 W) @7.2 V DC 1.6 A (TX, 430 MHz 5.0 W) @7.2 V DC		165 mA (Receive) 200mW Output 45 mA (Standby, Saver Off) 20.5 mA (Standby, Saver On) 8 mA (Auto Power Off) 1.5 A (TX, 5.0 W) @7.2 V DC		200 mA (Receive, 200 mW Output) 70 mA (Standby, Saver Off) 25 mA (Standby, Saver On) 0.5 mA (Auto Power Off) 1.6 A (TX, 5.0 W) @7.4 V DC		200 mA (Receive, 200 mW Output) 70 mA (Standby, Saver Off) 25 mA (Standby, Saver On) 0.5 mA (Auto Power Off) 1.8 A (TX, 5.0 W) @7.4 V DC	Maximum Current: 800 mA (3.5 - 7 VDC) with Charging 140 mA (Receive, Normal Band, VOL level: 20) 100 mA (Receive, Radio Band, VOL level: 20) 58 mA (Standby, Saver Off) 20 mA (Standby, Saver On) 300 µA (Auto Power Off)	95 mA (Receive, 50mW Output) 55 mA (Standby, Saver Off) 15 mA (Standby, Saver On, Save Ratio 1:4)
-4°F to +140°F, -20°C to +60°C		-4°F to +140°F, -20°C to +60°C		-4°F to +140°F, -20°C to +60°C		-4°F to +140°F, -20°C to +60°C	-4°F to +140°F, -20°C to +60°C	+14°F to +122°F, -10°C to +50°C
2.3" x 4.3" x 1.2" (68 x 109 x 30 mm) (w/o knob & antenna)		2.4" x 4.7" x 1.3" (60 x 120 x 32 mm) (w/o knob & antenna)		2.45" x 4.74" x 1.52" (62 x 120.5 x 38.5 mm) (w/o knob, antenna & belt clip)		2.45" x 4.74" x 1.52" (62 x 120.5 x 38.5 mm) (w/o knob, antenna & belt clip)	47 x 81 x 23 mm (w/ FNB-82L1, w/o knob & antenna) 47 x 81 x 31 mm (w/ FNB-57, w/o knob & antenna)	59 x 85 x 26 mm (w/o knob & antenna)
13.05 oz (370 g) with FNB-83 & antenna		13.8 oz (390 g) with FNB-83 & antenna		9.9 oz (280 g) with FNB-124L1, antenna & belt clip		9.9 oz (280 g) with FNB-124L1, antenna & belt clip	130 g (w/ FNB-82L1 & antenna) 185 g (w/ FNB-57 & antenna)	195 g with Battery & antenna
<b>Transmitter</b>								
High 5.0 W @7.2 V: FNB-83 Mid 2.0 W @7.2 V: FNB-83 Low 0.5 W @7.2 V: FNB-83		High 5.0 W @7.2 V: FNB-83 Mid 2.0 W @7.2 V: FNB-83 Low 0.5 W @7.2 V: FNB-83		High 5.0 W @7.4 V: FNB-124L1 Mid 2.0 W @7.4 V: FNB-124L1 Low 0.5 W @7.4 V: FNB-124L1		High 5.0 W @7.4 V: FNB-124L1 Mid 2.0 W @7.4 V: FNB-124L1 Low 0.5 W @7.4 V: FNB-124L1	-	-
At least 60 dB below (@ TX power: High/Mid) At least 40 dB below (@ TX power: Low)		At least 60 dB below (@ TX power: High/Mid) At least 40 dB below (@ TX power: Low)		FF-252 At least 60 dB below (@ TX power: High/Mid) At least 40 dB below (@ TX power: Low) FF-252E At least 60 dB below (@ TX power: High/Mid/Low)		At least 60 dB below (@ TX power: High/Mid) At least 40 dB below (@ TX power: Low)	-	-
2 K $\Omega$		2 K $\Omega$		2 K $\Omega$		2 K $\Omega$	-	-
<b>Receiver</b>								
Double-Conversion Super heterodyne	Double-Conversion Super heterodyne	Direct-Conversion	Direct-Conversion	NFM / AM: Double-Conversion Superheterodyne WFM: Triple-Conversion Superheterodyne FM / AM Radio: Single-Conversion Superheterodyne	Triple-Conversion Superheterodyne			
1st: 47.25 MHz 2nd: 450 kHz	1st: 21.7 MHz 2nd: 450 kHz	-	-	NFM, AM 1st: 47.25 MHz 2nd: 450 kHz WFM 1st: 45.8 MHz 2nd: 10.7 MHz 3rd: 1 MHz AM/FM Radio 1st: 30 kHz	1st: 248.45 MHz 2nd: 15 MHz 3rd: 450 kHz			
0.8 µV for 10 dB SIN (108 - 137 MHz, AM) 0.2 µV for 12 dB SINAD (137 - 140 MHz, NFM) 0.16 µV for 12 dB SINAD (140 - 150 MHz, NFM) 0.2 µV TYP for 12 dB SINAD (150 - 174 MHz, NFM) 0.3 µV TYP for 12 dB SINAD (174 - 300 MHz, NFM) 0.8 µV TYP for 12 dB SINAD (300 - 336 MHz, AM) 0.25 µV TYP for 12 dB SINAD (336 - 420 MHz, NFM) 0.2 µV for 12 dB SINAD (420 - 470 MHz, NFM) 0.25 µV for 12 dB SINAD (470 - 540 MHz, WFM) 0.5 µV TYP for 12 dB SINAD (800 - 900 MHz, NFM) 0.8 µV TYP for 12 dB SINAD (900 - 999.99 MHz, NFM)	0.2 µV for 12 dB SINAD (136 - 140 MHz, NFM) 0.16 µV for 12 dB SINAD (140 - 150 MHz, NFM) 0.2 µV TYP for 12 dB SINAD (150 - 174 MHz, NFM)	0.2 µV for 12 dB SINAD (144 - 148 MHz)	0.2 µV for 12 dB SINAD (430 - 450 MHz)	1.0 µV for 12 dB SINAD (0.1 - 0.5 MHz, NFM) 1.0 µV for 10 dB SN (0.5 - 1.8 MHz, AM Radio) 1.0 µV for 10 dB SN (1.8 - 30 MHz, AM) 0.35 µV TYP for 12 dB SINAD (30 - 54 MHz, NFM) 0.5 µV TYP for 12 dB SINAD (54 - 76 MHz, NFM) 1.0 µV TYP for 12 dB SINAD (76 - 108 MHz, FM Radio) 0.5 µV TYP for 10 dB SN (108 - 137 MHz, AM) 0.2 µV for 12 dB SINAD (137 - 140 MHz, NFM) 0.16 µV for 12 dB SINAD (140 - 150 MHz, NFM) 0.2 µV for 12 dB SINAD (150 - 174 MHz, NFM) 1.0 µV TYP for 12 dB SINAD (174 - 222 MHz, WFM) 1.0 µV TYP for 10 dB SN (222 - 250.4 MHz, AM) 0.35 µV TYP for 12 dB SINAD (250.4 - 300 MHz, NFM) 0.5 µV for 12 dB SINAD (300 - 350 MHz, NFM) 0.2 µV for 12 dB SINAD (350 - 400 MHz, NFM) 0.18 µV for 12 dB SINAD (400 - 470 MHz, NFM) 1.0 µV for 12 dB SINAD (470 - 540 MHz, WFM) 1.5 µV TYP for 12 dB SINAD (540 - 800 MHz, WFM) 0.5 µV TYP for 12 dB SINAD (800 - 1000 MHz, NFM) 0.7 µV TYP for 12 dB SINAD (1000 - 1300 MHz, NFM)	1.5 µV TYP for 10 dB SN (200 kHz - 5 MHz AM) 0.6 µV TYP for 10 dB SN (5 MHz - 160 MHz AM) 0.3 µV TYP for 12 dB SINAD (5 MHz - 160 MHz FM) 0.9 µV TYP for 12 dB SINAD (5 MHz - 160 MHz WFM) 0.6 µV TYP for 10 dB SN (160 MHz - 370 MHz AM) 0.3 µV TYP for 12 dB SINAD (160 MHz - 370 MHz FM) 0.6 µV TYP for 12 dB SINAD (160 MHz - 370 MHz WFM) 0.3 µV TYP for 12 dB SINAD (370 MHz - 520 MHz FM) 1.0 µV TYP for 12 dB SINAD (370 MHz - 520 MHz WFM) 0.7 µV TYP for 12 dB SINAD (520 MHz - 1300 MHz FM) 3.0 µV TYP for 12 dB SINAD (520 MHz - 1300 MHz WFM)			
NFM, AM 12 kHz / 35 kHz (-6 dB / -60 dB)	12 kHz / 35 kHz (-6 dB / -60 dB)	12 kHz / 35 kHz (-6 dB / -60 dB)	12 kHz / 35 kHz (-6 dB / -60 dB)	NFM, AM 12 kHz / 35 kHz (-6 dB / -60 dB) WFM 200 kHz / 300 kHz (-6 dB / -60 dB)	NFM, AM 16 kHz (-6 dB) WFM 200 kHz (-6 dB)			
400 mW @ 10 % THD (@ 7.5 V)	800 mW @ 16 $\Omega$ 10 % THD (@ 7.4 V) Internal SP 450 mW @ 8 $\Omega$ 10 % THD (@ 7.4V) EXT SP jack	800 mW @ 16 $\Omega$ 10 % THD (@ 7.4 V) Internal SP	800 mW @ 16 $\Omega$ 10 % THD (@ 7.4 V) Internal SP	800 mW @ 16 $\Omega$ 10 % THD (@ 7.4 V) Internal SP 50 mW @ 10 % THD (@ 4.5 V) 100 mW @ 10 % THD (@ 6 V)	80 mW @ 8 % THD			
8 $\Omega$	8 $\Omega$ /16 $\Omega$	16 $\Omega$	16 $\Omega$	8 $\Omega$	8 $\Omega$			8 $\Omega$

29/50/144/430 MHz FM QUAD BAND MOBILE

# FT-8900R

## Ruggedly-built, High quality 29/50/144/430 MHz Quad Band FM Transceiver FT-8900R

### INDEPENDENT TWO-CHANNEL, DUAL RECEIVE AND FULL DUPLEX OPERATION

Basically operating as two radios in one, the FT-8900R may be configured in a number of ways. For example, you can set up the "left" side of the rig for operation on 29, 50, 144, or 430 MHz operation, while setting the "right" side to 430 MHz. Or set up the left side on 29/50/144/430 MHz, and the right side on 144 MHz. And, if you like, you can configure your FT-8900R for 144-144 MHz or 430-430 MHz dual receive operation—so you never miss out on the action! The left and right sides have their own Volume and Squelch controls, as well as S-meters, so your operating preferences are never compromised.



### QUAD BAND OPERATION

The FT-8900R combines the "traditional" 144/430 MHz local-communications concept with the exciting capability of Sporadic-E or F2 DX on the 29 MHz and 50 MHz bands, for nationwide or worldwide FM communications from your car! The first Amateur Radio FM mobile transceiver providing this capability, the FT-8900R will make you wonder how you got by with a two-band transceiver until now.

### HIGH POWER OUTPUT

To get your message through when it counts, the FT-8900R puts out a full 50 Watts of power on the 29/50/144 MHz bands, and 35 Watts on the 430 MHz band.



To ensure thermal stability during long transmissions, a thermal sensor monitors heat sink temperature, engaging the rear panel's cooling fan when needed.

HIGH	MID1	MID2	LOW
50W/35W(430MHz)	20W	10W	5W



### OVER 800 MEMORY CHANNELS

The FT-8900R provides a wide variety of memory resources, including 799 "regular" memories, six "Home" channels for favorite frequencies, five sets of band-edge memories, and six "Hyper Memory" memories, which store complete transceiver operating status, for maximum operating efficiency and convenience.

### ONE-TOUCH BAND-PATTERN "HYPER MEMORY" FEATURE

To save valuable time while operating a transceiver with the versatility of the FT-8900R, the "Hyper Memory" feature allows you to store a complete set of configuration data for the two bands on which you're operating. Besides the usual storage of frequency and tone data, Hyper Memory will store such setup parameters as Automatic Repeater Shift status, Packet parameters, Scanning mode, and VFO tracking, avoiding the need to change each of these functions manually on a regular basis.



Automatic Repeater Shift (ARS)

### BUILT-IN DUPLEXER

Utilizing a single antenna jack, the FT-8900R's leading-edge design includes a high-performance duplexing system, with extensive filtering to allow cross-band full duplex operation.

### CONVENIENT REMOTE-HEAD MOUNTING CAPABILITY!

### CROSS-BAND REPEAT CAPABILITY

For emergency work, or to extend the range of a hand-held unit, the FT-8900R includes Cross-Band Repeat capability.

### CONVENIENT ACCESS TO WIRES™ AND OTHER INTERNET-LINKING SYSTEMS

### 50-TONE CTCSS/104-TONE DCS (DIGITAL CODE SQUELCH) TONE SYSTEMS

### USER-PROGRAMMABLE MICROPHONE KEYS

### EASY SETUP FOR FM SATELLITE OPERATION

### AND MUCH, MUCH MORE!

- 1200/9600 BPS Packet Capability: Connect your TNC using the optional CT-39A Packet Cable.
- RF Squelch: Opens the squelch at a user-defined S-Meter level.
- Automatic Power-Off (APO)
- Time-Out Timer (TOT)
- Battery Voltage Meter
- DTMF Auto-Dial Memory: 16 Memories of up to 16 tones each.
- Lock Feature for Front Panel Keys & PTT Switch: Prevents accidental transmission or frequency change.

29/50/144/430 MHz 50 W/35 W (430 MHz) FM Quad Band Transceiver

# FT-8900R

American, Asian and European versions



144/430 MHz FM DUAL BAND TRANSCEIVER

# FT-8800R FT-8800E

## Easy Operation with The Ultimate Dual-Band Mobile

### INDEPENDENT TWO-CHANNEL OPERATION

The FT-8800R/FT-8800E operates as two radios in one, with either 144 MHz or 430 MHz as the "Main" TX/RX band, with simultaneous monitoring of the other band. Each band has its own Volume and Squelch controls, and you can configure your FT-8800R/FT-8800E for VHF-VHF or UHF-UHF operation, too!



### WIDE FREQUENCY COVERAGE

The FT-8800R/FT-8800E provides extended receiver coverage beyond the Amateur bands, so you can keep informed of communications activities in the public safety, commercial, aircraft, and government communications ranges.

### HIGH POWER OUTPUT

To get your message through when it counts, the FT-8800R/FT-8800E puts out a full 50 Watts of power on the 144 MHz band, and 35 Watts on the 430 MHz band.

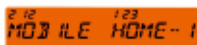


A thermal sensor monitors heat sink temperature, engaging the rear panel's cooling fan only when needed.

HIGH	MID1	MID2	LOW
50W/35W(430MHz)	20W	10W	5W

### OVER 1000 MEMORY CHANNELS

The FT-8800R/FT-8800E provides a wide variety of memory resources, including 512 "regular" memories, Five "Home" channels for favorite frequencies, Ten sets of band-edge memories, and ten memory banks on both the Main and Sub bands, as well as six "Hyper Memories" which store complete sets of transceiver operating status.



144/430 MHz 50 W/35 W (430 MHz)  
FM Dual Band Transceiver

# FT-8800R

American and Asian versions

# FT-8800E

European version

### VERSATILE SCANNING CAPABILITY

The FT-8800R/FT-8800E lets you scan the memories, the entire operating band, or a portion of the band. The transceiver will stop on signals encountered during the scan, resuming the scan after a time delay or after the carrier drops out. During band scanning, you may configure the FT-8800R/FT-8800E to remain within the current band, or hop to the other band, once the band edge is reached. Dual-frequency "Priority Channel" operation is also provided. And the Programmable Memory Scan feature allows you to set up sub-band limits, so you won't waste time scanning or tuning in the SSB/CW portions of the bands.

### ONE-TOUCH BAND-PATTERN "HYPER MEMORY" FEATURE

To save valuable time when operating a transceiver with the capability of the FT-8800R/FT-8800E, the "Hyper Memory" feature allows you to store a complete set of configuration data for the two bands on which you're operating. Hyper Memory will store not only frequency and tone data, but also Automatic Repeater Shift status, Packet parameters, Scanning mode, and VFO tracking configuration.



### CROSS-BAND REPEAT CAPABILITY

For emergency work, or to extend the range of a hand-held unit, the FT-8800R/FT-8800E includes Cross-Band Repeat capability.

### 50-TONE CTCSS/104-TONE DCS (DIGITAL CODE SQUELCH) TONE SYSTEMS

Providing excellent performance even under difficult link conditions, Yaesu's 50-tone sub-audible CTCSS and 104-tone DCS signaling systems ensure that you have full access to repeater and remote-base inputs, and the built-in CTCSS/DCS decoders allow silent listening on busy channels. Plus you get Tone Search Scanning, which will scan for the tone being received on an incoming signal, allowing you to match tones quickly when operating on a new repeater system.

### USER-PROGRAMMABLE MICROPHONE KEYS

Four programmable keys on the microphone allow you one-touch access to your favorite command functions. The commands available from the microphone replicate the corresponding front panel key functions, and include Band Change, VFO/Memory switching, Home Channel access, 1 MHz frequency steps, Power Output selection, Repeater Reverse, and CTCSS/DCS setup.

### CONVENIENT REMOTE-HEAD MOUNTING CAPABILITY

### AND MUCH, MUCH MORE!

- Convenient Access to WiRES™ and Other Internet-Linking Systems
- 1200/9600 bps Packet Capability
- Automatic Repeater Shift: Automatically sets the repeater shift within the designated repeater sub-bands
- RF Squelch: Opens the squelch at a user-defined S-Meter level
- Automatic Power-Off (APO): Turns radio off after long periods of inactivity
- Time-Out Timer (TOT): Prevents "Stuck Microphone" from causing lengthy QRM to others
- Battery Voltage Meter: Lets you know if your battery is getting low
- DTMF Auto-Dial Memory: 16 Memories of up to 16 tones each
- Lock Feature for Front Panel Keys & PTT Switch: Prevents accidental transmission or frequency change
- Built-in Duplexer

144/430 MHz FM DUAL BAND TRANSCEIVER

# FT-7900R FT-7900E

## Heavy-Duty FM Dual Band Mobile with Exceptionally Wide Receiver Coverage

- Large Backlit LCD Display for easy operation
- Stable RF Power (50 Watts VHF / 45 Watts UHF)
- Reliable performance in harsh environments
- 5 ppm Frequency Stability (+14° F to +140° F/ -10° C to +60° C)
- 1000 Memory Channels for serious users
- Yaesu Unique Power Saving Circuit Design  
Minimizes Vehicle Battery Drain



Get "Back to Basics" with YAESU's economically priced One-Touch Operation FT-7900R/FT-7900E Dual Band FM Mobile. Back-lit push button controls ensure extraordinarily easy and safe operation while driving at night. The exceptionally wide receiver coverage provides all sorts of additional uses!

### Main Features

- One-Touch Hyper Memories Feature
- High Power Output,  
(50 Watts on VHF, 45 Watts on UHF)
- 4 power output levels: HIGH (50/45 watts),  
MID2 (20 watts), MID1 (10 watts), LOW (5 watts).
- Wide Frequency Coverage  
TX: 144 - 148 (146) MHz and 430 - 450 (440) MHz  
RX: 108 - 520 MHz, 700 - 999.990 MHz (Cellular Blocked)
- Remote Front Panel Design (Optional YSK-7800 Required.)
- The liquid crystal display indicates operating frequency,  
status of functions, alpha-numeric memory labels
- 1000 memory channels with 20 Memory Groups.
- 50-Tone CTCSS/ 104-Tone DCS Tone System
- 16 DTMF memories can store 16 digits each for quick  
playback of commonly used numbers.
- Scanning Function, VFO Scan, Memory Channel Scan,  
Programmable Memory Scan and Priority Scan.
- The Smart Search feature, which automatically sweeps a  
band and loads active frequencies into dedicated memory  
banks, is ideal for identifying  
active repeaters when visiting a city for the first time.
- 1200 or 9600 bps Packet Operation
- Internet Connecting : WiRES™ (Wide-Coverage Internet  
Repeater Enhancement System)
- ARTS™ (Auto-Range Transponder System)
- ARS (Automatic Repeater Shift)
- APO (Automatic Power Off)
- TOT (Transmitter Time-Out Timer)
- Radio to Radio Cloning

144/430 MHz 50 W/ 45 W (430 MHz)  
FM Dual Band Transceiver

# FT-7900R

American and Asian versions

# FT-7900E

European version

HEAVY-DUTY 144 MHz 75 W FM TRANSCEIVER

# FT-2900R FT-2900E

## The King of Mobile

- Massive Heatsink guarantees 75 Watts of Solid RF Power with No Cooling Fan Needed
- Loud 3 Watts of Audio Output for noisy environments
- Large 6 Digit Backlit LCD for excellent visibility
- Alpha-Numeric Channel Display
- 200 Memory Channels for serious users



Yaesu's FT-2900R/FT-2900E, the most ruggedly-built 2-meter amateur transceiver ever, provides 75 Watts of power along with Yaesu's renowned "bullet-proof" receiver front end. Direct keypad frequency entry, Alpha-Numeric Memory System, high power output, and unsurpassed ergonomics make the FT-2900R/FT-2900E an operator's dream come true!

### Main Features

- Massive Heatsink guarantees 75 Watts of Solid RF Power with No Cooling Fan Needed
- Loud 3 Watts of Audio Output for noisy environments
- Large 6 Digit Backlit LCD for excellent visibility
- 200 Memory Channels for serious users
- Alpha-numeric Channel Display
- CTCSS and DCS Encode/Decode Built In
- Versatile Scanning Capability
- WX Channels with "Severe Weather" Alert (US Version)
- Smart Search™
- WiRES™ Internet Linking Access Feature
- MH-48A6JA DTMF Direct Access Microphone
- Excellent Receiver Performance
- Wide/Narrow Deviation Selection
- RF-Level Squelch
- Interactive Programming Menu
- Supply Voltage Display
- Transmit Time-Out Timer (TOT)
- Automatic Power-Off (APO)
- Automatic Repeater Shift (ARS)
- 4-level Display Dimmer
- Dual Watch

144 MHz 75 W  
FM Transceiver

# FT-2900R

American and Asian versions

# FT-2900E

European version

144MHz 55 W FM TRANSCEIVER

430MHz 55 W FM TRANSCEIVER

# FT-1900R FT-1907R FT-1900E

## Best Selling, Reliable Mobile

- 55 Watts of Solid RF Power within a compact footprint
- Loud 3 Watts of Audio Output Power for noisy environments
- Large 6 Digit Backlit LCD for excellent visibility
- Alpha-Numeric Channel Display
- 200 Memory Channels for serious users



The ruggedly built yet compact new FT-1900R/FT-1900E /FT-1907R FM Transceiver brings you Yaesu's legendary mechanical toughness along with outstanding receiver performance and 55 watts with crisp, clean audio that will get your message through!

144 MHz 55 W  
FM Transceiver

## FT-1900R

American and Asian versions

## FT-1900E

European version

430 MHz 55 W  
FM Transceiver

## FT-1907R

(Asian version only)

### Main Features

- 200 Regular Memory Channels with Alpha-numeric tags (maximum 6 characters)
- Eight Memory banks for Channel allocation (You can assign a name to each bank)
- 55 Watts RF Power Output
- Loud 3 Watts of Audio Output Power with Internal Speaker
- CTCSS (50 tones) and DCS (104 codes) Encode/Decode, with split Tone and DCS Encode-only capability
- RF Squelch
- Automatic Repeater Shift
- Separate Transmit Frequency Memories ("Odd Splits")
- Tone Search Scanning
- EPCS (Enhanced Paging & Code Squelch) Operation
- CTCSS/DCS/EPCS Bell Operation
- DCS Code Inversion
- Split Tone Operation
- DTMF Auto dialer (10 channel) Operation
- DC Voltage indication feature
- Memory-Only Mode
- Password function
- Scan feature: Preferential Memory Scan, Programmable memory scan, VFO scan, Priority Channel Scanning (Dual Watch), Memory Bank Link Scan and Weather Alert Scan (USA version only)
- Convenient Access key for Yaesu's WiRES (Wide-coverage Internet Repeater Enhancement System)
- Programmable Key Assignments (4 keys)
- RF squelch (only pass signals exceeding the programmed level)
- Weather Broadcast Reception (USA version only)
- Severe Weather Alert Feature (USA version only)
- ARTS™
- CW Training
- Smart Search Operation
- Time-Out Timer (TOT)
- Automatic Power-Off (APO)
- Busy Channel Lock-Out (BCLO)
- Adjustable TX Deviation Level
- Cloning

## Accessories & Options

Mobile Transceivers		FTM-400DR FTM-400DE	FT-8900R	FT-8800R FT-8800E	FT-7900R FT-7900E	FT-2900R FT-2900E	FT-1900R FT-1900E	FT-1907R
<b>MICROPHONES/SPEAKER</b>								
MH-42 <sup>B6JS</sup>	Hand Microphone with 1750 Hz Burst Button		● <sup>*1</sup>	● <sup>*1</sup>	● <sup>*1</sup>	● <sup>*1</sup>		● <sup>*1</sup>
MH-42 <sup>C6J</sup>	Normal Microphone	●						
MH-48 <sup>A6JA</sup>	DTMF Microphone	● <sup>*2</sup>	● <sup>*2</sup>	● <sup>*2</sup>	● <sup>*2</sup>	● <sup>*2</sup>		● <sup>*2</sup>
MH-85 <sup>A11U</sup>	Microphone with Snapshot camera	●						
MLS-100	High-Power External Speaker		●	●	●	●		●
MLS-200-M10	High-Power External Speaker	●						
<b>BRACKET</b>								
MMB-60	Quick Release Mobile Mounting Bracket		●	●	●			
MMB-98	Vacuum Cup Mount Bracket for Controller	●						
<b>CABLES</b>								
YSK-8900	Separation Kit		●	●				
YSK-7800	Separation Kit				●			
MEK-2	Mic Extension Kit	●	●	●	●			
CT-39A	Packet Interface Cable		●	●	●			
CT-162	Separation Cable 20ft (6m)	●						
CT-163	Data Cable (MDIN10 pin to MDIN6 pin + Dsub9)	●						
CT-164	Data Cable (MDIN10 pin to MDIN6 pin)	●						
CT-165	Data Cable (MDIN10 pin to Dsub9)	●						
CT-166	Cloning Cable	●						
CT-167	Data Cable (MDIN10 pin to Open)	●						
SCU-20	PC Connection Cable	● <sup>*2</sup>						
<b>PROGRAMMING KIT</b>								
ADMS	Windows™ PC Programming Kit		ADMS-2H	ADMS-2I	ADMS-7900	ADMS-2900	ADMS-1900	ADMS-1907
<b>OTHERS</b>								
FP-1030A	AC Power Supply (25 A)	●	●	●	●	●		●
FP-1023	AC Power Supply (23 A) USA version only	●	●	●	●	●		●
BH-2A	Bluetooth® Headset	●						
BU-2	Bluetooth® Adapter Unit	●						
CD-40	Charger Cradle (3 hours) for BH-2A Bluetooth® Headset	●						
PA-46B/C/U <sup>3</sup>	AC Adapter for CD-40	●						
FVS-2	Voice Guide Unit	●						

\*1 American and Asian versions only

\*2 (Included) American, European and Asian versions

\*3 "B" for USA version / "C" for 220 - 240 VAC / "U" for 230 VAC w/ UK Plug

## Mobile Transceiver Specifications

	FTM-400DR FTM-400DE		FT-8900R	FT-8800R FT-8800E	
<b>General</b>					
<b>Frequency Ranges</b>	<b>FTM-400DR</b> RX: 108 - 137 MHz 137 - 174 MHz 174 - 400 MHz 400 - 480 MHz 480 - 999.99 MHz USA Version Cellular Blocked TX: 144 - 148 MHz 430 - 450 MHz	<b>FTM-400DE</b> RX: 108 - 137 MHz 137 - 174 MHz 174 - 400 MHz 400 - 480 MHz 480 - 999.99 MHz TX: 144 - 146 MHz 430 - 440 MHz	<b>FTM-8900R</b> RX: 28 - 29.7 MHz 50 - 54 MHz 108 - 180 MHz 320 - 480 MHz 700 - 985 MHz USA Version Cellular Blocked TX: 28 - 29.7 MHz 50 - 54 MHz 144 - 148 MHz or 144 - 146 MHz 430 - 450 MHz or 430 - 440 MHz	<b>FT-8800R</b> RX: 108 - 520 MHz 700 - 999 MHz USA Version Cellular Blocked TX: 144 - 148 MHz 430 - 450 MHz	<b>FT-8800E</b> RX: 108 - 520 MHz 700 - 999 MHz TX: 144 - 146 MHz 430 - 440 MHz
<b>Channel Steps</b>	5, 6.25, 8.33, 10, 12.5, 15, 20, 25, 50, 100 kHz (8.33 kHz : Only for Air band)		5, 10, 12.5, 15, 20, 25, 50 kHz	5, 10, 12.5, 15, 20, 25, 50 kHz	
<b>Frequency Stability</b>	±2.5 ppm (+14°F to + 140°F, -20°C to + 60°C)		±5 ppm (+14°F to + 140°F, -10°C to + 60°C)	±5 ppm (+14°F to + 140°F, -10°C to + 60°C)	
<b>Supply Voltage</b>	Nominal 13.8 V DC, Negative Ground Operating 11.7 - 15.8 V DC, Negative Ground		Nominal 13.8 V DC, Negative Ground Operating 11.7 - 15.8 V DC, Negative Ground	Nominal 13.8 V DC, Negative Ground Operating 11.7 - 15.8 V DC, Negative Ground	
<b>Current Consumption</b>	0.5 A (Receive) 11 A (TX, 144 MHz 50 W) 12 A (TX, 430 MHz 50 W)		0.8 A (Receive) 8 A (TX, 50/430 MHz) 8.5 A (TX, 29/144 MHz)	0.5 A (Receive) 8.5 A (TX, 144 MHz 50 W) 8 A (TX, 430 MHz 35 W)	
<b>Operating Temperature</b>	-4°F to + 140°F, -20°C to + 60°C		-4°F to + 140°F, -20°C to + 60°C	-4°F to + 140°F, -20°C to + 60°C	
<b>Case Size (WxHxD)</b>	Radio Unit / 5.5" x 1.6" x 4.9" (140 x 40 x 125 mm) (W/O Fan) Controller / 5.5" x 2.8" x 0.8" (140 x 72 x 20 mm) (W/O knob & connectors)		5.5" x 1.6" x 6.6" (140 x 41.5 x 168 mm) (W/O knob & connectors)	5.5" x 1.6" x 6.6" (140 x 41.5 x 168 mm) (W/O knob & connectors)	
<b>Weight</b>	2.64 lbs (1.2 kg) with Radio Unit, Controller, Control Cable		2.2 lbs (1 kg)	2.2 lbs (1 kg)	
<b>Transmitter</b>					
<b>RF Power Output</b>	50 / 20 / 5 W		50 / 20 / 10 / 5 W (29/50/144 MHz) 35 / 20 / 10 / 5 W (430 MHz)	50 / 20 / 10 / 5 W (144 MHz) 35 / 20 / 10 / 5 W (430 MHz)	
<b>Spurious Emission</b>	At least 60 dB below		At least 60 dB below (29MHz : At least 50 dB below )	At least 60 dB below	
<b>Microphone Impedance</b>	2 kΩ		2 kΩ	2 kΩ	
<b>Receiver</b>					
<b>Sensitivity</b>	0.8 μV TYP for 10 dB SN (108 - 137 MHz, AM) 0.2 μV for 12 dB SINAD (137 - 140 MHz, FM) 0.2 μV for 12 dB SINAD (140 - 150 MHz, FM) 0.19 μV TYP for BER1% (140 - 150 MHz, Digital) 0.25 μV for 12 dB SINAD (150 - 174 MHz, FM) 0.3 μV TYP for 12 dB SINAD (174 - 222 MHz, FM) 0.25 μV TYP for 12 dB SINAD (222 - 300 MHz, FM) 0.8 μV TYP for 10 dB SN (300 - 336 MHz, AM) 0.25 μV for 12 dB SINAD (336 - 420 MHz, FM) 0.2 μV for 12 dB SINAD (420 - 470 MHz, FM) 0.19 μV TYP for BER1% (420 - 470 MHz, Digital) 0.2 μV for 12 dB SINAD (470 - 520 MHz, FM) 0.4 μV TYP for 12 dB SINAD (800 - 900 MHz, FM) 0.8 μV TYP for 12 dB SINAD (900 - 999.99 MHz, FM) USA Version Cellular Blocked		0.2 μV for 12 dB SINAD	0.2 μV for 12 dB SINAD	
<b>Selectivity</b>	NFM, AM 12 kHz / 30 kHz (-6 dB / -60 dB)		12 kHz / 30 kHz (-6 dB / -60 dB)	12 kHz / 30 kHz (-6 dB / -60 dB)	
<b>AF Output</b>	3 W @ 8 Ω for 10 % THD (@ 13.8 V) Internal Speaker 8 W @ 4 Ω for 10 % THD (@ 13.8 V) External Spaker		2 W @ 8 Ω for 5 % THD (@ 13.8 V)	2 W @ 8 Ω for 5 % THD (@ 13.8 V)	

## Mobile Transceiver Specifications

	FT-7900R FT-7900E		FT-2900R FT-2900E		FT-1900R FT-1900E	FT-1907R
<b>General</b>						
<b>Frequency Ranges</b>	<b>FT-7900R</b> RX: 108 - 520 MHz 700 - 999 MHz USA Version Cellular Blocked  TX: 144 - 148 MHz 430 - 450 MHz	<b>FT-7900E</b> RX: 108 - 520 MHz 700 - 999 MHz  TX: 144 - 146 MHz 430 - 440 MHz	<b>FT-2900R</b> RX: 136 - 174 MHz  TX: 144 - 148 MHz	<b>FT-2900E</b> RX: 144 - 146 MHz  TX: 144 - 146 MHz	<b>FT-1900R</b> RX: 136 - 174 MHz  TX: 144 - 148 MHz  <b>FT-1900E</b> RX: 144 - 146 MHz  TX: 144 - 146 MHz	<b>FT-1907R</b> RX: 400 - 470 MHz  TX: 400 - 470 MHz
<b>Channel Steps</b>	5, 10, 12.5, 15, 20, 25, 50, 100 kHz		5, 10, 12.5, 15, 20, 25, 50, 100 kHz		5, 10, 12.5, 15, 20, 25, 50, 100 kHz	
<b>Frequency Stability</b>	±5 ppm (+14°F to +140°F, -10°C to +60°C)		±10 ppm (-4°F to +140°F, -20°C to +60°C)		±10 ppm (-4°F to +140°F, -20°C to +60°C)	
<b>Supply Voltage</b>	Nominal 13.8 V DC, Negative Ground Operating 11.7 - 15.8 V DC, Negative Ground		Nominal 13.8 V DC, Negative Ground Operating 11.7 - 15.8 V DC, Negative Ground		Nominal 13.8 V DC, Negative Ground Operating 11.7 - 15.8 V DC, Negative Ground	
<b>Current Consumption</b>	0.5 A (Receive) 8.5 A (TX, 144 MHz 50 W) 9 A (TX, 430 MHz 45 W)		0.7 A (Receive) 15 A (75W) / 9 A (30 W) / 5 A (10 W) / 4 A (5 W)		0.7 A (Receive) 11 A (55W) / 7 A (25 W) / 5 A (10 W) / 4 A (5 W)	
<b>Operating Temperature</b>	-4°F to +140°F, -20°C to +60°C		-4°F to +140°F, -20°C to +60°C		-4°F to +140°F, -20°C to +60°C	
<b>Case Size (WxHxD)</b>	5.5" x 1.6" x 6.6" (140 x 41.5 x 168 mm) (W/O knob & connectors)		6.3" x 2.0" x 7.3" (160 x 50 x 185 mm) (W/O knob & connectors)		5.6" x 1.6" x 5.8" (140 x 40 x 146 mm) (W/O knob & connectors)	
<b>Weight</b>	2.2 lbs (1 kg)		4.2 lbs (1.9 kg)		2.6 lbs (1.2 kg)	
<b>Transmitter</b>						
<b>RF Power Output</b>	50 / 20 / 10 / 5 W (144 MHz) 45 / 20 / 10 / 5 W (430 MHz)		75 / 25 / 10 / 5 W		55 / 25 / 10 / 5 W	
<b>Spurious Emission</b>	At least 60 dB below		At least 60 dB below		At least 60 dB below	
<b>Microphone Impedance</b>	2 kΩ		2 kΩ		2 kΩ	
<b>Receiver</b>						
<b>Sensitivity</b>	0.2 μV for 12 dB SINAD		0.4 μV for 12 dB SINAD		0.2 μV for 12 dB SINAD	
<b>Selectivity</b>	12 kHz / 30 kHz (-6 dB / -60 dB)		12 kHz / 28 kHz (-6 dB / -60 dB)		12 kHz / 28 kHz (-6 dB / -60 dB)	
<b>AF Output</b>	2 W @ 8 Ω for 5 % THD (@ 13.8 V)		3 W @ 4 Ω for 10 % THD (@ 13.8 V)		3 W @ 4 Ω for 10 % THD (@ 13.8 V)	

**YAESU**



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