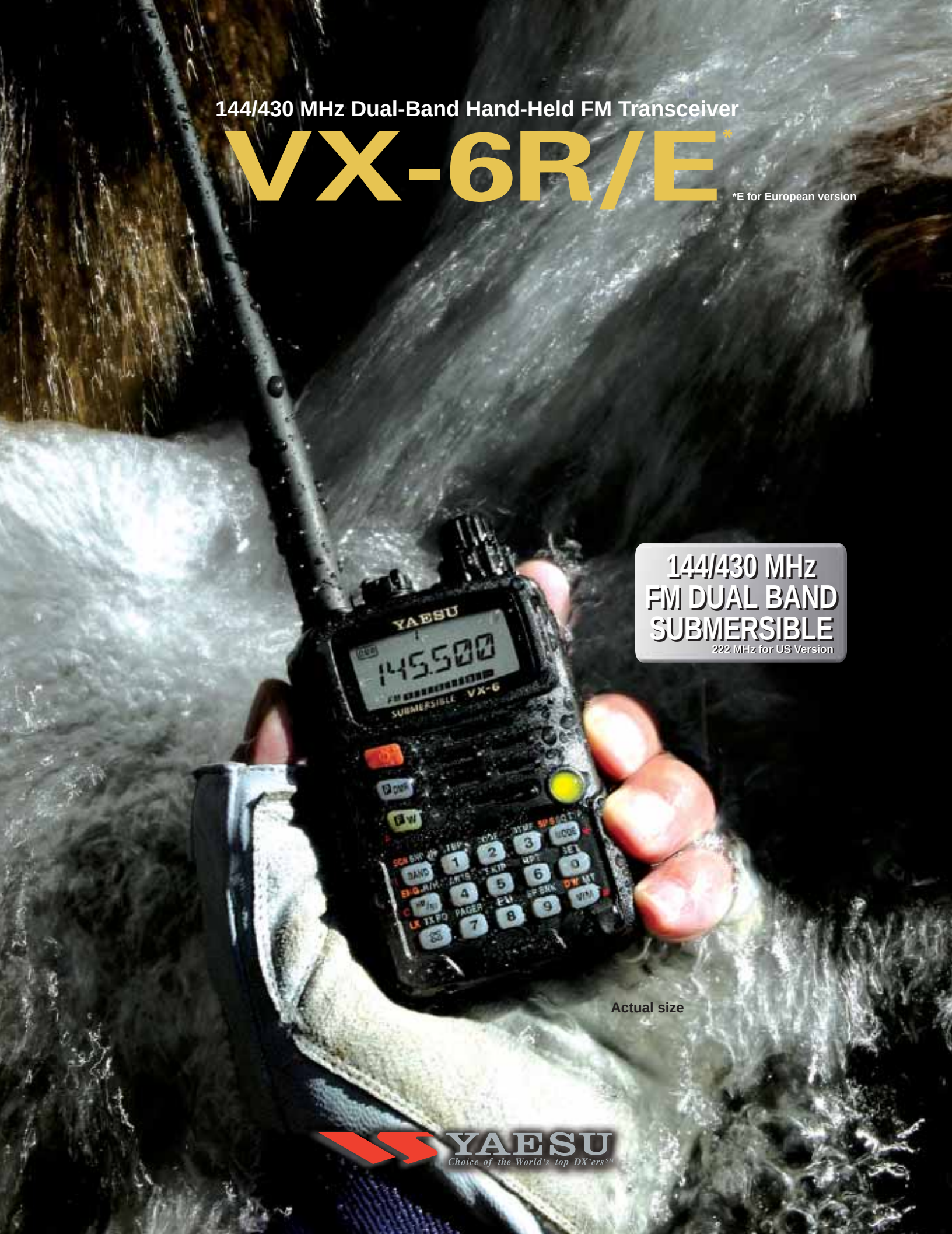
144/430 MHz Dual-Band Hand-Held FM Transceiver

VX-6R/E*

*E for European version



YAESU
Choice of the World's top DX'ers℠

Ideal for severe field use! With wide-band reception, rugged and submersible design, the powerful EAI "man down" feature, and simple keyboard commands, the VX-6R/E* is loaded with features for the toughest outdoor applications!

144/430 MHz Dual-Band 5 W Hand-Held FM Transceiver

VX-6R/E*

*E for European version

Actual size

*Simulated LCD display

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/E, 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!

DMR Preset Frequencies

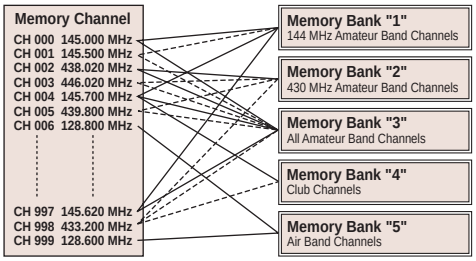
DMR USA Version				DMR EXP Version			
1	145.00 MHz	6	222.00 MHz	1	144.00 MHz	6	144.00 MHz
2	146.52 MHz	7	540 kHz	2	144.00 MHz	7	144.00 kHz
3	147.50 MHz	8	88.00 MHz	3	144.00 MHz	8	144.00 MHz
4	435.00 MHz	9	76.00 MHz	4	144.00 MHz	9	144.00 MHz
5	440.00 MHz	0	120.00 MHz	5	144.00 MHz	0	144.00 MHz

*For Export model, you can store your favorite frequencies.

Huge 900-channel Memory Capacity with 24 Memory Banks and Two "Special Memory" Groups.

Huge 900-Channel, 24-Banks Memory System

Each of the 900 available memory channels may be assigned an alpha-numeric "Tag" (label), for quick identification of the channel. The 24 memory banks may store up to 100 channels each, and a channel may be assigned into multiple banks, if desired. And you can assign an identification tag to each memory bank.



Three Special Memory Banks for Shortwave, Marine, and Weather Broadcast Stations!

●89 Shortwave Broadcast Channels, representing many of the most popular broadcast stations in the world, are pre-loaded and labeled at the factory. You may change the contents of these channels, to customize the channels for your listening preferences.

●The U.S. version of the VX-6R/E includes ten NOAA weather broadcast channels, and the VX-6R/E can watch for the 1050-Hz "Severe Weather" alert, warning you of the approach of dangerous weather conditions.

●280 Marine Channels are also pre-programmed at the factory, letting you get in on all the maritime action in your area!

Other Memory Features

●"Nuisance channel Skip" feature for eliminating unwanted frequencies from VFO scanning ●50 sets of band-limit "Programmable Memory Scan" channels for restricting operation to band segments ●12 quick-recall "Home" channels, one per band ●"Memory Only" mode, ideal for simplifying operation during public-service events.

Ergonomic Design is Ideal for Operation when Wearing Gloves

The Channel Selector and Volume knobs are a new and unique design, with deep grooves allowing easy adjustment, even when wearing gloves during cold weather.

Outdoor-ready Features including Waterproof Rating, Emergency Automatic ID (EAI) system, and Weather Sensor Capability

The VX-6R/E includes a host of features ideally suited for use in the outdoor environment, especially in search-and-rescue situations!

Compact Polycarbonate Resin and Aluminum Die-Cast Case with Solid Waterproofing Seal (guaranteed at depth of up to 3 feet for 30 minutes)

The VX-6R/E is rated to JIS7 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 CMP460A Speaker-Microphone while maintaining the submersibility of the VX-6R/E!

Waterproof Connectors and Microphone Jack

Submersible Speaker-Mic **CMP460A**(Option)

Weather Sensor Capability

The optional SU-1 Barometric Pressure Sensor unit permits monitoring of sudden weather changes by monitoring atmospheric pressure. Although not designed for precise pressure measurements, it can be a valuable tool for alerting you to possibly-dangerous changes in weather conditions.

SU-1

Barometric Pressure

Altitude

Three Powerful Emergency Features

●EAI Feature: Ideal for Outdoor Operation!

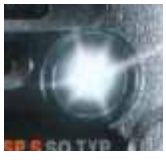
The EAI feature lets you and your support team configure your radios so that, in the event of a climbing or hiking accident that leaves one of you incapacitated, someone else can command your VX-6R/E to transmit without you pressing the PTT, allowing the others to use your signal to perform direction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

●Emergency Feature

An "Emergency" function is also provided that will transmit your Callsign on the UHF Home Channel, while simultaneously flashing the CW ID in bright white light on the transceiver's LED and beeping the CW ID loudly from the speaker.

●Easy-to-Use Ultra-Bright Emergency Flashing LED

In an emergency, the transceiver's LED may be engaged continuously in its "Bright White" mode, instead of the usual red or green color, and may be used as a signal lamp or flashlight.



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

The supplied FNB-80LI (7.4 V/1400 mAh) 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.

●Charger Information Display

Red and Greed LEDs, plus the LCD, provide real-time monitoring of the status of battery charging.

●The optional FBA-23 Battery Case permits emergency operation using two AA Alkaline batteries (not supplied.) For emergency transmission, a power output of 0.3 Watts is available, or 0.05 Watts on the "Low" power setting. For receive-only operation, a pair of AA cells will provide approximately 15 hours of operation.

●If you connect the E-DC-6 External DC Cord, or the E-DC-5B DC Cable with Cigarette Lighter Plug, you can operate the VX-6R/E at full power and charge the battery at the same time.

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/E 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.

Convenient Selective Calling and Paging Features!

New Two-Tone CTCSS Paging

The Two-Tone CTCSS Paging function utilizes a pair of alternating subaudible tones for selective calling. The LCD will indicate if a call came in that you missed, allowing you to return the call.

50-Tone CTCSS Tone Squelch and Digital Code Squelch Systems

For everyday repeater and public-service operations, full-featured CTCSS and DCS Encoder/Decoder systems are built into every VX-6R/E. DCS Inversion is also provided, and the CTCSS "Reverse Tone" capability can also mute your receiver when a particular CTCSS tone is received (helpful if more than one repeater is within range, and you want to null out one of them). CTCSS and DCS Tone/Code Search are also provided, along with an alarm bell feature.

Auto-Range Transponder System (ARTS)

ARTS uses the power of DCS signaling to provide a "handshake" capability between two ARTS-equipped radios, to verify communication range.

Versatile Scanning for the Monitoring Enthusiast!

The wide array of high-speed scanning features of the VX-6R/E provide you with many avenues of monitoring pleasure. Among the scanning features are:

●VFO Scanning of the entire band or a programmed (PMS) band segment, with the ability to skip over constant-carrier "nuisance" channels.

●Memory Scan of all memories, two types of Name Tag "wild card" scanning, scanning of memories just on a particular band, scanning of specially-designated memories only, and scanning of the PMS memories. You can also designate certain memories to be skipped during scanning.

●Scanning within a particular Memory Bank.

●Scanning of multiple Memory Banks via the "Memory Bank Link" mode.

Outstanding Power-Management Features

New "Wake-Up" Feature Checks for Activity when Radio is Turned Off!

The new "Wake-Up" battery saver feature provides unparalleled preservation of battery current. With "Wake-Up" engaged, "WAKEUP" will appear on the display but otherwise the transceiver is turned completely off; every 5 to 30 seconds the VX-6R/E will turn itself back on and check for activity on the current operating frequency. If no activity is found, the radio will go back to sleep for another 5 to 30 seconds.

Additional battery saving features include:

●Automatic Power-Off (APO), that turns the radio off after a programmed period of keystroke activity.

●Password Feature, that lets you engage a four-digit password requirement for operation; this can prevent children or other unauthorized users from turning your radio on and draining the battery.

●Receive Battery Saver, that turns off most transceiver functions but periodically (0.2/0.3/0.5/1/2 sec.) checks the current operating frequency for activity.

●TX Battery Saver, that automatically turns the transmitter power down when you are in contact with an extremely strong local station.

●On Timer, that lets you program the time of day when the radio will automatically turn on, eliminating the need to leave it on during times when you won't be available to use it.

●DC Voltmeter, that lets you monitor the status of the internal battery or external power source.

Big-Radio Features in a Compact Package!

●Easy access to WiRES Internet Linking system via 64 special DTMF memories plus SRG (Sister Radio Group) one-digit access without touching a DTMF key ●Microphone Gain adjustment ●Key Beep level adjustment ●PTT Delay, to minimize wind noise right after the PTT switch is pressed, especially when using a VOX headset ●CW Training feature that can send five-character Morse Code groups, to help you improve your code proficiency.

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.

Power Output/Power Source Chart (Approximately)

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

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, six seconds of reception at 50% audio level, and 48 seconds of standby operation.

Specifications

General					
Frequency Ranges (USA Version)	RX 0.5 - 1.8 MHz (BC Band),				
	1.8 - 30 MHz (SW Band),				
	30 - 76(59) MHz (50 MHz HAM Band),				
	76(59) - 108 MHz (FM Band),				
	108 - 137 MHz (Air Band),				
	137 - 174 MHz (144 MHz HAM Band),				
	174 - 222 MHz (VHF TV Band),				
	222 - 420 MHz (ACT1 Band),				
	420 - 470 MHz (430 MHz HAM Band),				
	470 - 800 (729) (UHF TV Band),				
	(757 - 774) (UHF TV Band),				
	800 - 998.990 MHz				
	(ACT2 Band;USA Cellular Blocked)				
	TX 144 - 146(148) MHz,				
	222 - 225 MHz (USA only)				
	430 - 440(450) MHz,				
Channel Steps	5/9/10/12.5/15/20/25/50/100 kHz				
Frequency Stability	±5 ppm @ 14 °F to 122 °F (–10 °C to +50 °C)				
Repeater Shift	±600 kHz (144 MHz), ±1.6/5.0/7.6 MHz (430 MHz)				
Emission Type	F2D, F3E				
Antenna Impedance	50 Ω				
Supply Voltage (Negative Ground)	Nominal: 7.4 V DC, Negative Ground				
	Operating: 5.0 ~ 16.0 V DC (EXT DC Jack)				
	11.0 ~ 16.0 V DC (EXT DC Jack while Charging)				
Current Consumption (Approx. @7.4 V)	150 mA (Receive)				
	60 mA (Standby, Saver Off)				
	20 mA (Standby, Saver On)				
	1 mA (ON Timer Activated)				
	200 mA (Auto Power Off)				
	1.6 A (5 W TX, 144 MHz)				
	1.5 A (1.5 W TX, 222 MHz: USA only)				
	1.8 A (5 W TX, 430 MHz)				
Operating Temperature	–4 °F to 140 °F (–20 °C to +60 °C)				
Case Size	2.3" (W) x 3.5" (H) x 1.1" (D) (58 x 89 x 28.5 mm)				
	(w/o knob, antenna, and belt clip)				
Weight	9.5 Oz (270 g) with FNB-80LI, and antenna				
Transmitter					
RF Power Output		High	Low 3	Low 2	Low 1
	144 MHz/430 MHz	5.0 W	2.5 W	1.0 W	0.3 W
	222 MHz (USA Only)	1.5 W	1.0 W	0.5 W	0.2 W
Modulation Type	Variable Reactance F2D, F3E				
Maximum Deviation	±5.0 kHz (F2D, F3E)				
Spurious Emission	At least 60 dB down (@ High power)				
	At least 50 dB down (@ Low 2 and Low 1 power)				
Microphone Impedance	2 kΩ				
Receiver					
Circuit Type	AM, NFM: Double-Conversion Superheterodyne				
	WFM: Triple-Conversion Superheterodyne				
IFs		1st	2nd	3rd	
	AM, NFM:	47.25 MHz	450 kHz	–	
	WFM:	47.25 MHz	10.7 MHz	1 MHz	
Sensitivity	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(59) MHz, NFM)				
	1 µV TYP for 12 dB SINAD (76(59)-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, FM)				
	0.16 µV for 12 dB SINAD (140-150 MHz, FM)				
	0.2 µV for 12 dB SINAD (150-174 MHz, FM)				
	0.5 µV TYP for 12 dB SINAD (174-250 MHz, WFM)				
	0.5 µV for 12 dB SINAD (300-350 MHz, NFM)				
	0.2 µV for 12 dB SINAD (350-420 MHz, NFM)				
	0.18 µV for 12 dB SINAD (420-470 MHz, NFM)				
	1.0 µV 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)				
Selectivity	AM, NFM: 12 kHz/35 kHz (–6 dB /–60 dB)				
	WFM: 200 kHz/300 kHz (–6 dB /–20 dB)				
AF Output	200 mW @ 8 Ω for 10 % THD (@ 7.4 V)				
	400 mW @ 8 Ω for 10 % THD (@ 13.8 V)				

Specifications are subject to change without notice, and are guaranteed within the 144, 222, and 430 MHz amateur bands only. Frequency ranges will vary according to transceiver version; check with your dealer.

Available Options

MH-57A4B
Speaker/Microphone

CMP460A
Waterproof
Speaker/Microphone

VC-27
Earpiece/Microphone

VC-24
VOX Headset

CD-15A
Rapid Charger
(requires NC-72B/C/U*)

FBA-23
2 x"AA" Cell Battery Case
(batteries not supplied)

E-DC-5B
DC Cable with
Cigarette-Lighter Adapter

E-DC-6
DC Cable;
plug and wire only

CN-3
BNC-to-SMA
Adapter

SU-1
Barometric Pressure
Sensor Unit

CT-91
Microphone
Adapter

CSC-91
Soft Case

*B for 120 VAC/C for 220-240 VAC/ U for 230 VAC

Supplied Accessories

- **FNB-80LI** 7.4 V, 1,400 mAh Rechargeable Lithium Ion Battery Pack
- **NC-72B/C/U*** 5-Hour Battery Charger
- **YHA-67 Antenna** ● **Belt Clip** ● **Hand Strap**

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

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