

# KENWOOD

Listen to the Future

## TH-F6A

144/220/440MHz FM TRIBANDER

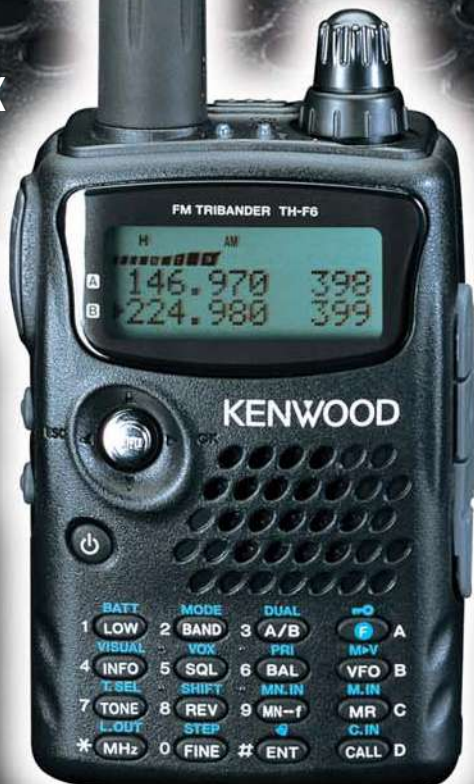
Simultaneous 2 frequency RX,  
even on the same band

FM/FM-W/FM-N/AM plus  
SSB/CW receive

0.1 ~ 1300MHz  
high-frequency range RX  
(Sub B band)

7.4V 1550mAh  
lithium-ion battery for 5W output  
and extended operation

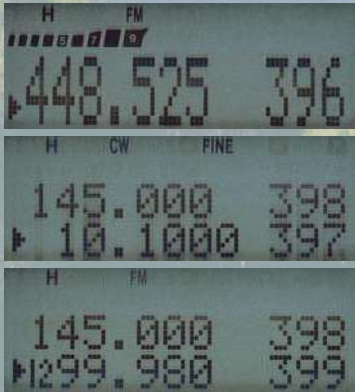
Special weather channel  
RX mode



# Small is beautiful: Kenwood's super-compact FM tribander with dual-channel RX!

## ■ Priority on operating ease

Simple operation is an essential component of this FM tribander, and Kenwood engineers have ensured that it can be operated effortlessly with one hand. Your attention is drawn to the easy-to-read LCD — equipped with both contrast control and backlight — displaying essential frequency and memory information, intuitive menus, and multi-level battery status. In mono-band mode, the size of the frequency display is doubled for even greater visibility.



## ■ Multi-scroll key & 16-key pad

Operating ease is further enhanced with the multi-scroll key. Similar to the control found on some cellular phones, this can be rocked up & down, left & right with the thumb.



Vertical operation controls frequency, while horizontal movement controls band selection. There is also a 16-key pad with keys that are ergonomically spaced and illuminated for nighttime use.

## ■ 435 memory channels, multiple scan functions

Other specifications are equally impressive: 435 memory channels, including 3 call channels and another 20 for programmable scan. Additionally, the convenient Memory Name function allows you to register a name (with up to eight characters) for each channel. A complete range of scan functions is also provided — including MHz, memory, call, tone, CTCSS, and DCS, plus a variety of Visual Scanning features. Group scan mode covers 8 groups of 50 channels each. And you can choose between time-operated (TO) and carrier-operated (CO) busy-stop-resume (SE).

## ■ Multi-band transceiver (Main band) + wideband receiver (Sub band)

As polished as the user interface may be, it's what is inside that counts. And the TH-F6A counts twice over: it's both a 3-band transceiver (Main A band) and a wideband 0.1-1300MHz receiver<sup>1</sup> (Sub B band). In addition to FM/FM-W/FM-N/AM and SSB/CW, the receiver section offers a special weather channel mode,<sup>2</sup> built-in ferrite bar antenna<sup>3</sup> for receiving AM broadcasts, and Fine mode — with selectable increment (33/100/500/1000Hz<sup>4</sup>) — for extra-accurate SSB tuning. What's more, this handheld transceiver can receive 2 frequencies simultaneously, even on the same band. Versatility is first rate.

<sup>1</sup> Not all frequencies are available.

<sup>2</sup> 10 channels. NOAA Weather Radio is a nationwide network of radio stations broadcasting weather, warnings, forecasts and hazard information 24 hours a day.

<sup>3</sup> Switchable with external antenna. <sup>4</sup> Increment figures are approximate.



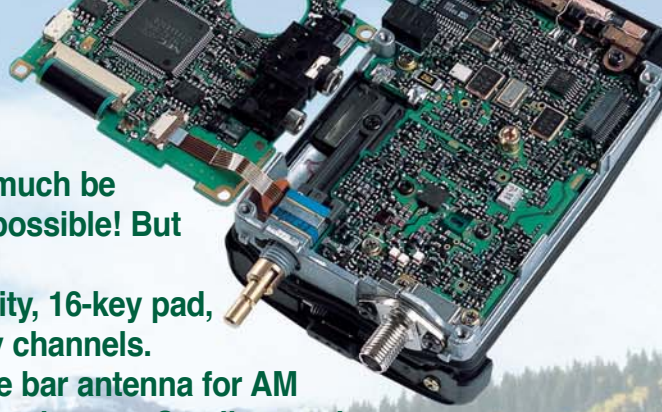
Internal ferrite bar antenna

## ■ Tough construction

The smaller a transceiver, the farther it is likely to travel. Fortunately, the TH-F6A is built to take rough treatment in stride, satisfying the stringent MIL-STD 810 C/D/E standards for resistance to vibration, shock, humidity and light rain.



Nestled in the palm of your hand, Kenwood's new TH-F6A is incredibly small— just 2-5/16 x 3-7/16 x 1-3/16 inches (WxHxD). How could so much be packed into such a super-compact design? Impossible! But it's true. This little wonder is an FM tribander (144/220/440MHz) with dual-channel RX capability, 16-key pad, multi-scroll key, and no fewer than 435 memory channels. Other attractive features include a built-in ferrite bar antenna for AM broadcasts, LCD with backlight, and a lithium-ion battery. Small enough to slip into a pocket, the TH-F6A allows you to roam freely while enjoying the clear, reliable communications for which Kenwood is renowned. And despite its smart looks, it's tough enough to meet MIL-STD criteria for withstanding the rigors of outdoor use, while delivering superb performance.



### ■ Lithium-ion battery

Equipped as standard is a powerful 7.4V 1550mAh lithium-ion battery, offering high output with selectable HI/LOW/EL settings. Remaining lithium-ion battery capacity can be easily checked on the LCD display as it is clearly shown in 4-step increments. And as the charging circuitry is built-in, the battery can be charged while the TH-F6A is operating from a DC (13.8V) supply.

Operation time: duty cycle @ 6-6-48 (hours)

		144MHz	220MHz	440MHz
Supplied Li-ion battery	HI	6.5	6	6
	LOW	12	11.5	11.5
	EL	16	15.5	14.5
Optional alkaline batteries with BT-13 battery case	HI	5	5	5
	LOW	6	6	6
	EL	8	8	8

Approximate figures

- Selectable squelch configuration
- Memory shift
- Key lock
- Built-in CTCSS (42 subtone frequencies), DCS (104 codes), 1750Hz tone burst
- Compatible with external 1200/9600bps TNC
- Large frequency display for single-band use
- Time-out timer & APO (OFF/30/60 min)
- Automatic simplex checker
- Wireless remote control function
- ATT (attenuator) on/off
- Internal VOX
- MCP Software (Free download from Kenwood website)

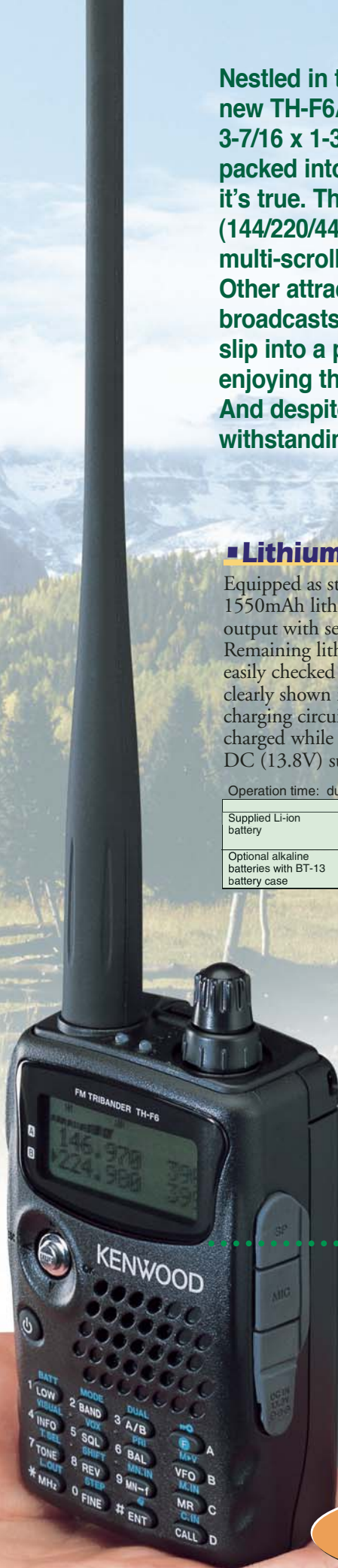
### Supplied accessories

- Belt hook
- Whip antenna
- Hand strap
- 7.4V 1550mAh lithium-ion battery
- AC adapter

#### Wideband reception: Cautions regarding use

- The sub band is used for wideband reception. This unit offers more basic performance than a dedicated receiver. In an area of very strong signals, it may be advisable to switch the attenuator on for certain frequency range. Remember that the performance of antenna determines reception quality. You will enjoy better reception, therefore, if you devise an antenna that is tailored for your target frequency range.
- The SSB/CW filters offer basic performance, so in some cases you may experience interference.
- In addition to dual watch, this product is designed for wideband reception. Consequently, multiple beats (cross and internal) are generated from the frequency structure. Those frequencies effectively blocked by the major crossbeat signals can be calculated using the formula given in the user manual.\* Note that it may be possible to move an internal beat away from the target signal using the beat shift function.
- When operating this product from an external power source, if the latter's voltage rises above 14.5V, transceiver output will be automatically switched to 2W.

\*Formula and more details on wideband reception cautions are available on our website: [www.kenwoodcorp.com/i/products/info/amateur.html](http://www.kenwoodcorp.com/i/products/info/amateur.html)



- Simultaneous 2 frequency RX
- High-frequency range RX
- FM/FM-W/FM-N/AM plus SSB/CW receive
- 5W output
- Extended operation

**Actual size**

## Optional Accessories

**BT-13**  
Battery Case



**PB-42L**  
Li-ion Battery Pack



**SMC-32**  
Speaker Microphone



**SMC-33**  
Speaker Microphone with Remote Control



**SMC-34**  
Speaker Microphone with Volume & Remote Control



**HMC-3**  
Headset with VOX & PTT



**KHS-21**  
Headset without VOX & PTT



**EMC-3**  
Clip Microphone with Earphone & PTT



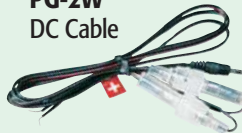
**PG-4Y**  
Programming Interface Cable (DB-9)



**PG-3J**  
Cigar Lighter Cord with Noise Filter



**PG-2W**  
DC Cable



**SC-51**  
Soft Case with Swivel Belt Clip



Not all accessories may be available, please contact dealers for details.

## Specifications

TH-F6A			
<b>GENERAL</b>			
Frequency Range	144MHz: 144 – 148 / 137 – 174MHz 220MHz: 222 – 225 / 216 – 260MHz 440MHz: 430 – 450 / 410 – 470MHz		
Main A-band (TX/RX)	144MHz: 144-148MHz 220MHz: 222-225MHz 440MHz: 438-450MHz		
Main A-band guaranteed range (TX or RX)	RX: 0.1 – 1300MHz *1		
Sub B-band	F3E (FM), F1D (FSK), F2D		
Modulation	F2D, F3E (FM), A1A (CW), A3A (AM), J3E (SSB)		
Main A-band (reception)	50Ω		
Antenna Impedance	DC 5.5 V – 7.5V (standard voltage: DC 7.4V)		
Current Voltage Range	DC 12.0V – 16.0V (standard voltage: DC 13.8V)		
Battery terminal	Power Consumption (approximate figures)		
External battery terminal	Transmission (single band)		
	144MHz	220MHz	440MHz
	1.8A	2.0A	2.0A
	2.0A	2.0A	2.0A
	0.8A	0.8A	0.8A
	0.5A	0.5A	0.5A
	Reception		
	100mA	100mA	100mA
	30mA	30mA	30mA
	Simultaneous reception		
	170mA	170mA	170mA
	35mA	35mA	35mA
	Dimensions (W x H x D) / Net Weight (approx)		
	With PB-42L Li-ion Battery Pack including projections		
	2-5/16" x 3-7/16" x 1-3/16" (58 x 87 x 30mm)		
	With BT-13 Battery Case including projections		
	2-5/16" x 3-7/16" x 1-1/2" (58 x 87 x 38mm)		
	With supplied Li-ion Battery		
	2-3/8" x 4-1/8" x 1-1/2" / 9.8oz (61 x 104 x 38mm / 280g)		
	Operating Temperature Range		
	-4° ~ 140°F (-20 ~ +60° C)		
	-14° ~ 122°F (-10 ~ +50° C)		
<b>RECEIVER</b>			
Circuitry	Double super heterodyne (except for W-FM) Single conversion (W-FM)		
Intermediate Frequency	Main A band	Sub B band: FM/AM/SSB	Sub B band: W-FM
1 <sup>st</sup> IF	59.85MHz	57.60MHz	10.8MHz
2 <sup>nd</sup> IF	450kHz	450kHz	
Sensitivity	Main A band: 144/220/440MHz (FM 12dB SINAD)		
	Less than 0.18 μV		
	Sub B band: AM (approximate)		
	7.08 μV (0.3 – 0.52MHz)		
	2.24 μV (0.52 – 1.8MHz)		
	0.89 μV (1.8 – 50MHz)		
	0.40 μV (118 – 250MHz)		
	0.40 μV (380 – 500MHz)		
	Sub B band: FM (approximate)		
	0.40 μV (5 – 108MHz)		
	0.28 μV (118 – 144MHz)		
	0.22 μV (144 – 225MHz)		
	0.39 μV (225 – 250MHz)		
	0.40 μV (380 – 400MHz)		
	0.22 μV (400 – 450MHz)		
	0.40 μV (450 – 520MHz)		
	7.08 μV (520 – 700MHz)		
	1.26 μV (800 – 950MHz)		
	0.40 μV (950 – 1300MHz)		
	Sub B band: W-FM (approximate)		
	3.16 μV (50 – 108MHz)		
	2.82 μV (150 – 222MHz)		
	3.98 μV (400 – 500MHz)		
	Sub B band: SSB (approximate)		
	0.45 μV (3 – 30MHz)		
	0.40 μV (30 – 50MHz)		
	0.22 μV (144 – 148MHz)		
	0.22 μV (430 – 450MHz)		
	Squelch		
	Less than 0.13 μV		
	Selectivity		
	-6dB		
	-40dB		
	More than 12kHz		
	Less than 28kHz		
	Low frequency output (at 8 ohms, 10% distortion)		
	More than 300mW at 7.4V		
<b>TRANSMITTER</b>			
RF Output Power (approximate)	144MHz	220MHz	440MHz
DC IN:	HI / LOW / EL	5 <sup>**</sup> / 2 / 0.5W	5 <sup>**</sup> / 2 / 0.5W
LI-ion:	HI / LOW / EL	5 / 0.5 / 0.05W	5 / 0.5 / 0.05W
BT-13:	HI / LOW / EL	0.5 / 0.3 / 0.05W	0.5 / 0.3 / 0.05W
Modulation	Reactance modulation		
Maximum Frequency Deviation	FM: ±5kHz, N-FM: ±2.5kHz		
Spurious Radiation	More than -60dB / -50dB / -40dB		
Less than 0.1W	Less than 12kHz		
Frequency Stability	±8 ppm (-10 ~ 50° C), ±8 ppm (-20 ~ 60° C)		
Modulation Distortion	Less than 3% (300 ~ 3kHz)		
Microphone Impedance	2kΩ		

\*1 Reception of the following frequency ranges is disabled in accordance with FCC regulations: 824 ~ 849MHz and 869 ~ 894MHz

\*\* Figure not approximate

\*\* RF output power in DC-IN mode: Factory preset is 5W but for safety reasons, when the receiver is using an external power source in the high-power 440MHz range mode, it will automatically switch to 0.5W (approx.) if temperature in the main unit increases. The time for automatic switchover will vary according to ambient temperature; however, it should normally take approximately two to five minutes in continuous operation. For continuous operation, it is highly recommended that LOW power (approx. 2W) be used.

Except for sensitivity, specifications are guaranteed for Amateur bands only.

Kenwood follows a policy of continuous advancement in development.

For this reason specifications may be changed without notice.

# KENWOOD

Kenwood U.S.A. Corporation  
Communications Sector Headquarters

3975 Johns Creek Court, Suite 300, Suwanee, GA 30024-1265

Order Administration/Distribution

P.O. BOX 22745, 2201 East Dominguez St., Long Beach, CA 90801-5745

Kenwood Electronics Canada Inc.  
Canadian Headquarters and Distribution

6070 Kestrel Road, Mississauga, Ontario, Canada L5T 1S8



ISO9001 Registered  
Kenwood Corporation  
IS09001 certification

ADS#09006 Printed in USA