

## News Release

### Introducing the Next Phase in the Evolution of the Handheld Transceiver, Featuring Simultaneous Reception of 2 D-STAR® Signals, Reflector Terminal Mode, and APRS® Standalone Digipeater

TH-D75A: 144 / 220 / 430 MHz TRIBANDER

**Yokohama, Japan (November 7, 2023)** — JVCKENWOOD Corporation unveiled a brand-new handheld amateur radio, the TH-D75A, at Ohio's Hamvention 2023 in May of this year. This top-of-the-line 144 / 220 / 430 MHz tri-bander went on to make appearances at other major ham fairs around the world: Ham Radio Friedrichshafen in Germany (June) and Tokyo Big Sight in Japan (August). The TH-D75A is currently scheduled for general release in January 2024.

Following on from the TH-D74, the TH-D75A adds many useful features such as simultaneous reception of 2 D-STAR signals, Reflector Terminal mode for accessing D-STAR reflectors, enhanced voice guidance, and an APRS standalone digipeater function. Usability has also been improved with the adoption of USB Type-C, Bluetooth headset PTT support, and a fully ergonomic design. These much-anticipated additions mean that this premium model is sure to satisfy the needs of a wide range of amateur radio operators.

#### Main Features

#### 1. Compatible with the APRS® communication protocol, which allows real-time two-way data transmission using packet communications

##### 1) GPS-linked Relative Display Compass plus weather information

In addition to providing real-time information on your station using the built-in GPS function, the TH-D75A features Relative Display Compass for at-a-glance information—distance, direction, heading, and speed—relating to your own station and another station (set in advance). This makes it easy to monitor relative position and heading. Weather station information—including rainfall, temperature, wind speed/direction, barometric pressure and humidity—can be displayed in color.

##### 2) Store up to 100 stations

The station list can store a maximum of 100 stations, including mobile stations, base stations, weather stations and objects. It is also possible to limit/sort the types of station received. Local information can be transmitted as objects.

##### 3) Real-time messaging

Real-time messaging between stations running APRS is possible. Text messages can be input using the keys or selected from a number of presets.

##### 4) QSY function

Fast QSY is possible: FM and D-STAR voice channels can be set using frequencies embedded in beacons from APRS stations or D-STAR repeater information. D-STAR gateway communication is set automatically.

##### 5) NEW: Standalone digipeater function

This function enables the TH-D75A to operate as a temporary digipeater station in the field, allowing APRS coverage to be expanded even in mountainous locations.



## 2. Compatible with D-STAR® amateur radio digital communications network, developed by the Japan Amateur Radio League (JARL)

- 1) **NEW: Simultaneous reception of 2 D-STAR signals** (one on Band A, one on Band B)
- 2) **Flexible operation enabled with voice and data modes**  
The TH-D75A offers a wide variety of operations—including simplex, single repeater relay, and inter-repeater gateway—making communications possible with both local and worldwide stations. Enjoy the superb voice clarity that only digital can deliver.
- 3) **DV (Digital Voice) fast data mode**  
DV fast data mode sends data on unused voice frames to achieve faster throughput and smoother data transmission.
- 4) **DR (D-STAR Repeater) mode for simple operation**  
Accessing D-STAR repeater is simple: just pick and set one from a list. To respond directly to gateway calls, simply press the PTT switch. In addition to this direct reply function, the TH-D75A uses icons and voice guided phrases to notify accessibility status during kerchunk or gateway communications. And up to 120 entries can be stored in the log, enabling the user to easily recall stations.

## 3. NEW: Reflector Terminal mode for more convenient communications via D-STAR reflectors

D-STAR reflectors are D-STAR voice relay servers on the Internet that can be used to monitor and communicate with stations around the world that are connected to the same servers. The TH-D75A is compatible with MMDVM commands and can be connected to a D-STAR reflector via a Windows PC or Android device with a third-party application such as BlueDV. The local connection uses either Bluetooth or USB cable, so there is no need for a mini RF device such as a Hotspot. Furthermore, the simultaneous two-wave reception function of D-STAR makes it possible for the TH-D75A to connect to a reflector in terminal mode on band A, while receiving a nearby repeater on band B, providing opportunities for various operations.

## 4. Wideband and multimode reception

Wideband reception is enabled on Band B. In addition to wideband reception on 0.1 to 524 MHz bands, reception in LSB/USB/CW/AM modes is also possible. Fine mode achieves zeroing-in with a minimum step frequency of 20 Hz\*<sup>1</sup> and there is a bar antenna\*<sup>2</sup> for 0.1 to 10 MHz reception. In DVxDV mode, VxV, UxU, or VxU simultaneous reception is supported.

\*<sup>1</sup> Only for SSB, CW and AM modes

\*<sup>2</sup> Selectable with SMA antenna connector

## 5. IF filters for reduced reception interference

Equipped as standard are IF filters to attenuate adjacent signals during SSB or CW operation. Excellent skirting capacity enables low-interference reception. (Selectable ranges: 2.2 – 3.0 kHz for SSB, 0.3 – 2.0 kHz for CW, and 3.0 – 7.5 kHz for AM).

## 6. IF output mode

An IF signal with a central frequency of 12kHz and a bandwidth of 15kHz can be output via the USB port. And by using a third-party PC application, one can also use the PC's band scope to check the status of nearby frequencies while listening to the sound received by the TH-D75A.

## 7. Enhanced voice guidance

Voice guidance functions have been significantly upgraded compared to the previous model (TH-D74). Included are variable speed (4 levels), variable volume (1 to 7), VOL-linkage, and more than 770 phrases. The TH-D75A has also been greatly enhanced from its predecessor, including support for call sign reading with phonetic codes.

## 8. KENWOOD sound quality

The TH-D75A delivers renowned KENWOOD sound quality. The built-in audio equalizer enables the setting of a 5-band RX EQ (0.4 to 6.4 kHz) and a 4-band TX EQ (0.4 to 3.2 kHz) to suit user preferences. In addition to

making use of the accumulated acoustic technologies, KENWOOD's technical know-how for high sound quality has been incorporated, including the selection of quality audio components, optimization of the housing structure, and tuning of the voice codecs.

## **9. NEW: USB Type-C™ port**

As well as serial communications and audio in/out, the USB Type-C port can be used for battery charging.

## **Other Features**

### **1. 1.74-inch TFT transreflective color LCD**

To ensure excellent visibility both indoors and outdoors, the TH-D75A features a 1.74-inch TFT semi-transmissive color LCD with backlighting that performs well under sunlight as well as in low-light situations. Also, for at-a-glance identification, the background color of the pop-up screens is blue for APRS and green for D-STAR.

### **2. Flat low-profile keytops**

Below the multi-scroll key is the keypad featuring flat low-profile keytops for superb operability and a stylish look.

### **3. Dust and water protection (IP54/55)**

With IP54/55 protection from water and dust, the heavy-duty TH-D75A can be used confidently outdoors, even in bad weather.

### **4. GPS patch antenna**

Located at the top of the unit is a high-performance GPS patch antenna, enabling closest APRS/D-STAR repeater search and automatic time correction. The radio can also store GPS tracklogs.

### **5. Multiple interfaces including Bluetooth®**

The TH-D75A is compatible with Bluetooth HSP/SPP. In addition, it supports a microSD/SDHC memory card and is equipped with a versatile USB Type-C port, enabling flexible connectivity with a PC.

### **6. Free PC software**

Available for download from the KENWOOD website are the MCP-D75 application for management of memory and other settings, and the ARFC-D75 application for changing frequency on the TH-D75A.

**SPECIFICATIONS**

GENERAL		RECEIVER		TRANSMITTER	
Frequency Range	TX	144 – 148, 222 -225, 430 – 450 MHz		RF Power Output	
	Band A	136 – 174, 216 – 260, 410 – 470 MHz		Battery DC 7.4 V/	HI 5 W / 5 W
	Band B	0.1 – 76 / 108 – 524 MHz		DC-IN 13.8 V	MID 2 W / 2 W
	Band B -FM-W	76 – 108 MHz		L 0.5 W / 0.5 W	EL 0.05 W / 0.05 W
Number of Channels	Total 1000-ch		Modulation		
Mode	Band A	F3E, F1D, F2D, F7W		Digital	Reactance Modulation
	Band B	F3E, F2D, F7W, A1A, A3E J3E		GMSK Modulation: ±1.2 kHz	
Operating Temperature	DC IN	-20°C – +60°C (-4°F – +140°F)		Modulation Deviation	FM ±5.0 kHz
	w/ Li-ion Battery	-10°C – +50°C (14°F – +122°F)		NFM	±2.5 kHz
	w/ Chargeable Li-ion Battery	0°C – +40°C (32°F – +104°F)		Spurious Emissions	
Frequency Stability	±2.0 ppm (-20°C – +60°C, -4°F – +140°F)		HI/MID <-60 dBc		
Antenna Impedance	SMA	50 Ω		LOW/EL <-50 dBc / <-40 dBc	
Operating Voltage	DC-IN	DC 11.0 – 15.9 V (STD: DC 13.8 V)		Microphone Impedance	
	Battery	DC 6.0 – 9.6 V (STD: DC 7.4 V)		2 kΩ	
Current Consumption (TX)				GPS	
Battery DC 7.4 V/	HI	2.0 A / 1.4 A		TIFF (Cold Start)	
DC-IN 13.8 V	MID	1.3 A / 0.9 A		40 sec (typ)	
	L	0.8 A / 0.6 A		TIFF (Hot Start)	
	EL	0.5 A / 0.4 A		5 sec (typ)	
Current Consumption (RX)				Horizontal Accuracy	
Single	Rated AF Output	260 mA		Receive Sensitivity	
	SQL Closed	155 mA		Ta=25°C, Open sky	
	Save Mode Average	50 mA			
Dual	Rated AF Output	310 mA		Bluetooth	
	SQL Closed	225 mA		Output Power	
	Save Mode Average	50 mA		-6 <Pav <4 dBm	
GPS only		125 mA		Modulation Characteristics	
Dimensions (W x H x D)		Projections not included		140 ≤ Δf1avg ≤ 175 kHz	
	with KNB-75LA (1820 mAh)	56.0 x 121.95 x 32.5mm (2.20 x 4.80 x 1.28in)		Initial Carrier Frequency	
Weight (net)		340 g (12.13oz)		-75 ≤ f0 ≤ +75 kHz	
	with KNB-75LA (1820 mAh)			Carrier Frequency Drift	
				1. One Slot packet ±25 kHz	
				2. Three Slot packet ±40 kHz	
				3. Five Slot packet ±40 kHz	
				The measurements shall be in accordance with the method specified by JAI. Also conform to PSIS-C08-001 product inspection measurement method. Specifications, and design may change due to advancements in technology.	

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