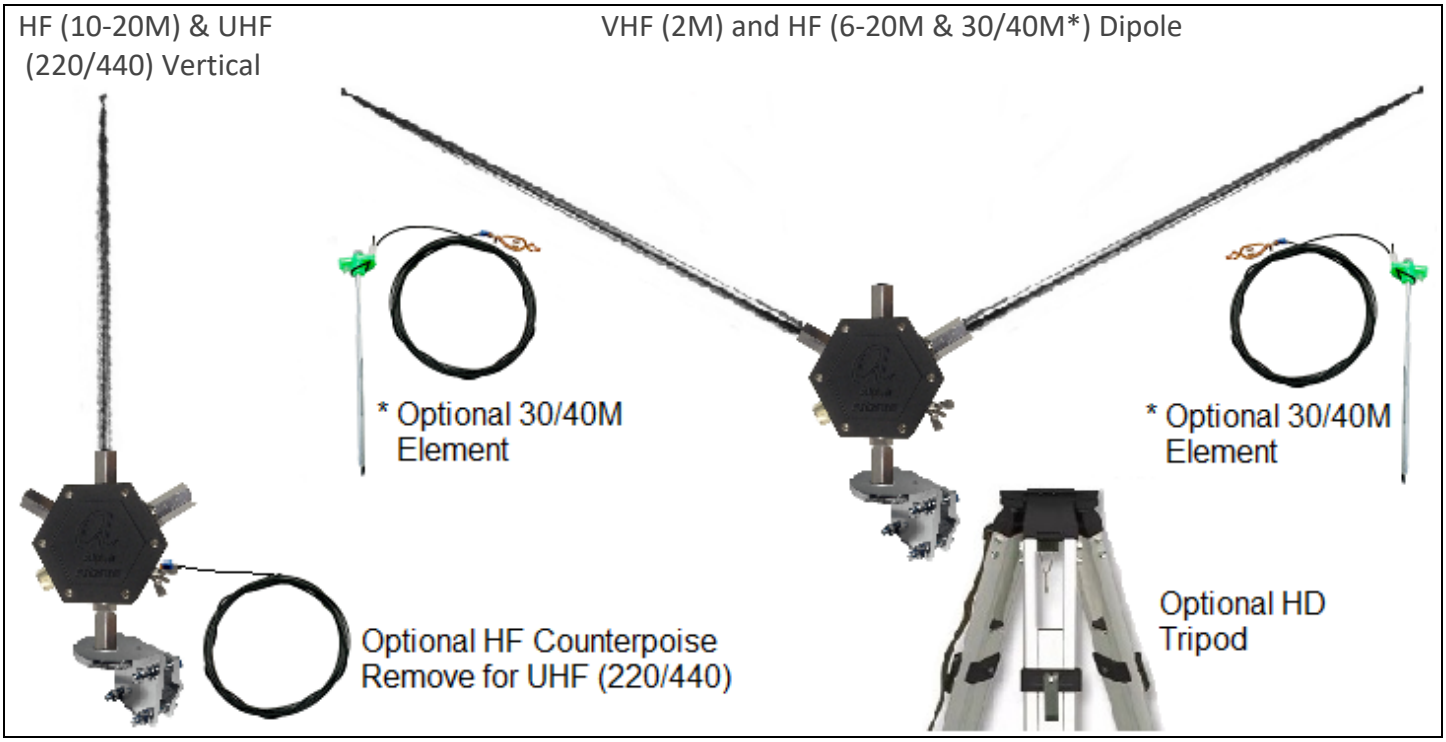
α ALPHA ANTENNA®

Model – HexTenna

Operating Manual, Version 2.1, March 6, 2019

Operation

The HexTenna™ by Alpha Antenna® is a portable only full-sized resonant UHF/VHF/HF system, which is configurable as a HF Vertical (with optional counterpoise elements), UHF Vertical (without counterpoise), and HF/VHF Dipole. This is also user configurable as a 6-15M HF Delta Loop (with a user supplied jumper wire between the tips of the dipole elements) or HF/VHF Yagi beam (by using multiple HexTenna™ systems).



Excess RF Exposure Warning

In the United States, the Federal Communications Commission has established guidelines for human exposure to Radio Frequency (RF) electromagnetic fields. The commission's requirements are detailed in parts 1 & 2 of the FCC's rules and regulations {47 CFR, 1.1307(b), 1.1310, 22.1091, 2.1093}. It is the responsibility of the owner/operator of this device to follow all applicable warnings and precautions regarding human exposure to RF fields. Additional references: http://www.arrl.org/rf-exposure

Support Contacts

Email: support@alphaantenna.com - Phone: 1-888-482-3249
WEB: www.alphaantenna.com – Videos: www.YouTube.com/AlphaAntenna

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Antenna Deployment

Step	Assembly Operation
1	Install the included mount on a secured 1 to 1 ¼ inch O.D. mast.
2	Install the Alpha Match hub on the included mount or optional HD-FMJ Tripod.
3	Screw each whip into the hub at the location for the antenna type being deployed.
4	Install any optional counterpoise if being used as a vertical.
5	Attach your coax to the built in SO-239 on the Alpha Match hub.
6	Use the included measuring tape to adjust the length of the whip(s) to closely match the lengths on the charts below.
7	Make any final adjustments to the whip(s) until the lowest SWR is achieved.

Approximate Dipole Element lengths *30/40 Meters is enabled with the optional add-on elements		
Band	Dipole Element 1	Dipole Element 2
*30/40	Telescopic element fully extended for 40M (or retracted about 7.5 feet for 30M) with add-on elements clipped to the tip of each telescopic element and pulled out to form an M-Shaped dipole. The wire element can be held straight by pushing the included stake into the ground or removing the stake and tying off either end with the included green insulators.	Telescopic element fully extended for 40M (or retracted about 7.5 feet for 30M) with add-on elements clipped to the tip of each telescopic element and pulled out to form an M-Shaped dipole. The wire element can be held straight by pushing the included stake into the ground or removing the stake and tying off either end with the included green insulators.
20	16 feet 11.5 inches	16 feet 11.5 inches
17	13 feet 3/4 inch	13 feet 3/4 inch
15	10 feet 11 1/2 inches	10 feet 11 1/2 inches
12	9 feet 6 inches	9 feet 6 inches
10	8 feet 3 1/2 inches	8 feet 3 1/2 inches
6	4 feet 8 inches	4 feet 8 inches
2	55.5 inches	55.5 inches

Vertical Element & Counterpoise lengths (Roll out the single counterpoise for minimum SWR)			
Band	**Approximate length of Vertical Element	**Length of 4 user provided Counterpoise Elements	Lengths may vary upon coax/etc., enter installation specific notes here
20	13 feet 2 inches	18 feet 2 inches	
17	9 feet 8 inches	14 feet 2 3/8 inches	
15	8 feet 7 3/4 inches	12 feet 1 1/2 inches	
12	7 feet 1 inches	10 feet 4 inches	
10	6 feet	9 feet	

Approximate Vertical Element & No Counterpoise Element length		
440 Mhz	2 feet 2 inches	No counterpoise recommended
220 MHz	3 feet 4.75 inches	No counterpoise recommended

By using the approximate Dipole lengths above, the HexTenna™ is configurable as a Delta Loop (with a user supplied jumper wire between the tips of the dipole elements) or as a Yagi (with multiple HexTenna™ systems) with the 1st as a driven element & a 2nd as a reflector with 5% added length.