

α ALPHA ANTENNA®

Model – EMCOMM Antenna

Operating Manual, Version 1.6, August 4, 2020

Overview

The Alpha EMCOMM Antenna is for regional HF Digital communications without a tuner from 29.7-3.4MHz. Please email alphaantenna@gmail.com if you require support.

Site Selection

Place in the center of a clear area with a good conductive ground for best NVIS (Near Vertical Incidence Skywave). NOTE: An external tuner can be used if your system is installed over a poor conductive ground or not placed in a clear area.

Specifications

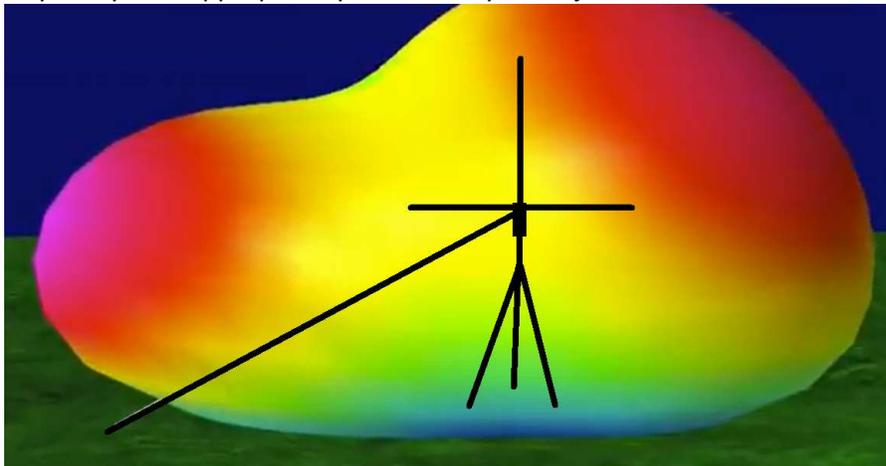
Designed to support the MIL-STD-188 M110a digital communications mode, this system is rated at 25 watts continuous and bursts of 100 watts digital for up to 1 minute using the MIL-STD Data Modem Terminal (MS-DMT) and Automated Message Terminal (AMT) software applications. Also supports other modes of communication with limited efficiency, including LSB/USB at 250W PEP, CW at 125W, and FM/AM/Digital at 25W with bursts of 100W digital for up to 1 minute.

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>

Signal Pattern

The primary signals are launched at 15 degrees off the horizon in the direction the Counterpoise wire is run and above the antenna. So, position your system appropriately to achieve your objective.



α ALPHA ANTENNA®

Assembly

- 1) Extend the Legs (E) on the Tripod and secure each with the locking mechanism.
- 2) Place the tripod in a stable location and manner then install the Alpha Match A1 onto the tripod A2.
- 3) Install the four black 26-inch MilStick elements 'B', by screwing each onto the hex nuts (B) on the match (A1).
- 4) Locate the 12-foot Counterpoise wire 'C' and secure it to the mounting point (C) on the match.
 - 4.a) Extend the Counterpoise and secure it by placing the stake at the end of the element into the ground.
- 5) Install D1 on D.
- 6) Connect your coax to your antenna tuner first and then to the SO239, ensuring that the coax does not coil up on itself or touch the elements.

