

Features

- Wide Band (450–512 MHz)
- Designed for Outdoor Use Only
- Directional Antenna with High Gain
- Lightweight Aluminum Construction
- Pole Mounting Hardware Included
- N-Female Connector
- UV-Resistant Coating
- Corrosion-Resistant Hardware
- Typical Front-to-Back Ratio ≥ 15 dB
- Designed for UHF Public Safety and LMR Systems



Description

The UHF Yagi Antenna is a directional antenna designed for outdoor use in the 450–512 MHz frequency band. It provides focused signal transmission and reception, making it ideal for point-to-point links, public safety DAS systems, and land mobile radio (LMR) applications. The antenna features a corrosion-resistant aluminum structure and is equipped with an N-Female connector for secure coaxial cable attachment. Its narrow beam width and high front-to-back ratio help reduce interference and improve overall system performance.

Install Guidelines

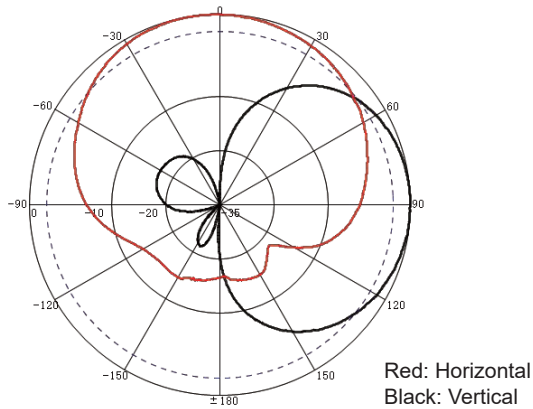
1. Attach the U-bolt to the antenna bracket, followed by the flat washer, split washer, and nut.
2. Slide the antenna with the U-bolt assembly onto the desired location of the mounting pole.
3. Align the antenna to point toward the nearest cellular tower or intended signal source.
4. Hand-tighten the nuts on the U-bolt to secure the antenna in place.

Note: The antenna can be mounted on a variety of pole angles. Ensure it is oriented vertically with the drip hole at the bottom and is directed toward the closest tower for optimal performance.

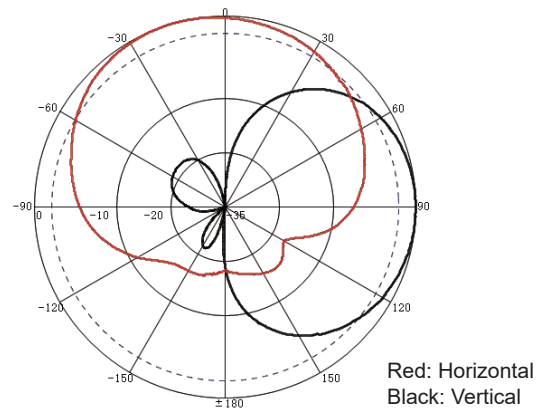
Technical Specifications

Frequency(MHz)	450-512 MHz
Antenna Gain	8±1 dBi
VSWR	$\leq 1.5:1$
Polarization Type	Vertical
Horizontal Beamwidth	90±10°
Vertical Beamwidth	60±10°
Front to Back Ratio	≥ 15 dB
Input Impedance	50 Ω
Max.Input Power	50 W
Lightning Protection	DC Ground
Connector Type	N-Female
Dimensions	19.7x15.0x5.04 inch
Weight	5.5 lb
Radome Material	Fiberglass
Operating Temperature	-30°C to +55°C

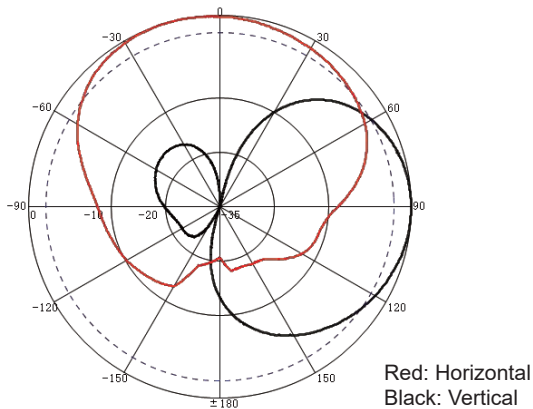
450 MHz Radiation Pattern



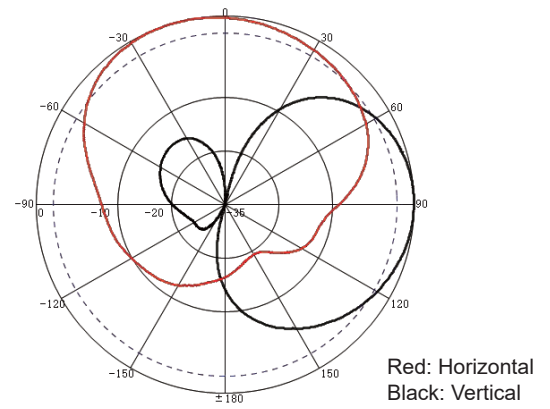
450 MHz Radiation Pattern



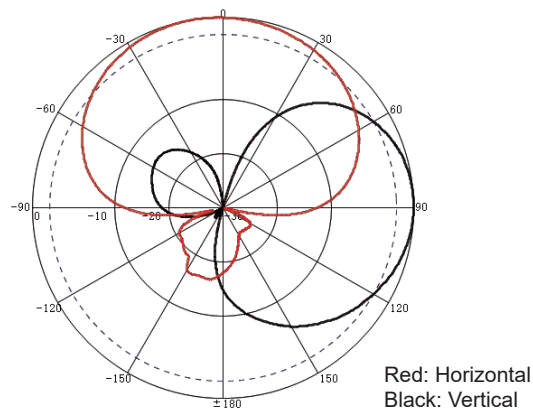
480 MHz Radiation Pattern



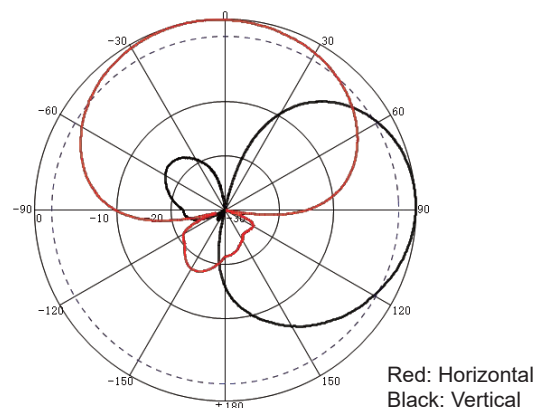
480 MHz Radiation Pattern



510 MHz Radiation Pattern



510 MHz Radiation Pattern



Ordering Information

Model	Description	Stock No.
DONOR-UHF-8	Outdoor, Yagi Directional Antenna, 50 ohm, 8 dBi, 450-512 MHz, 50 W	3996155