

# ANT220K

## WIDEBAND DISCONE ANTENNA

The Telewave.io ANT220K is an extremely rugged, wideband discone antenna for all frequencies between 30 MHz and 3 GHz. The wide vertical beamwidth of discone antennas allows clear communication for ground and ground-to-air applications.

Telewave.io discone antennas are designed to survive the most extreme conditions, where conventional antennas often fail. They are field-proven in US and overseas deployments and support many voice and data requirements in multiple bands.

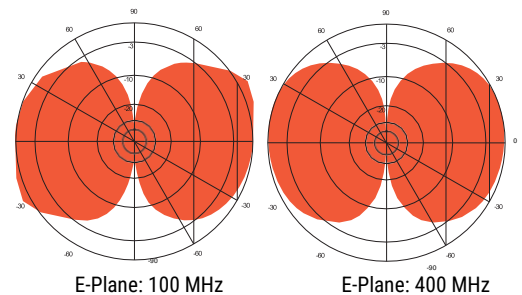
Each discone is constructed from Mil. Spec. 6061-T6 solid aluminum, fully welded at all joints for maximum strength. All internal junctions are enclosed within a ruggedized radome to ensure survivability in the worst environments.

The radome and Txytan™ coating on all metal surfaces ensures complete protection from corrosive gases, ultraviolet radiation, salt spray, acid rain and sand storms in desert environments.

The ANT220K is designed to be clamped to a 1.5"-3.5" diameter galvanized steel support pipe. An ANTC482 dual clamp set is included.



ANTC482



SPECIFICATIONS	
Frequency (continuous)	30 MHz - 3000 MHz
Power rating (typ.)	500 watts
Gain (typ.)	0 dBd
Impedance	50 ohms
VSWR	30 MHz - 3.5:1, 60 MHz - 2.5:1, 95-3000 MHz - 1.5:1 or less
Pattern	Omnidirectional
Termination	N-Male or 7-16 DIN on RG-393 feed cable
Vertical beamwidth (nom.)	110 degrees (varies with frequency)
Wind rating / 0.5" ice	150 / 125 MPH
Maximum exposed area	2.25 ft. <sup>2</sup>
Lateral thrust at 100 MPH	90 lb
Bending moment at 100 MPH	180 ft. lb (top clamp, flat plate equiv.)
Dimensions	58" H x 38" W (at skirt base)
Weight (antenna + clamps)	61 lb
Shipping weight	110 lb

## ANTC482 CLAMP SET FOR COLLINEAR ANTENNAS

### **WARNING:**

For your safety, do not install any antenna near power lines, and carefully follow all installation instructions. If the antenna falls toward or contacts any overhead wires, immediately let go and stay away. Call the utility company for assistance. Always use safety devices for tower climbing. Ensure that the tower structure is well grounded for lightning protection.

### **IMPORTANT - BEFORE ASSEMBLING AND MOUNTING:**

Carefully read these instructions and study the diagrams. Check to make sure you have all parts. The antenna and clamp kit are packaged as two separate items. Both clamps must be installed and properly spaced to prevent antenna rotation from wind load.

*NOTE: To prevent possible damage to the ferrule and radome, tighten all nuts only until the lock washers are flattened. Then add 1/2 turn to each.*

#### **PARTS LIST (Figure 1)**

- (8) galvanized clamp plates
- (4) 1/2"-13 x 10" stainless steel threaded rods
- (16) 1/2" stainless steel hex nuts
- (16) 1/2" stainless steel split lock washers
- (1) Anti-seize compound

#### **MOUNTING INSTRUCTIONS**

Apply anti-seize compound to threaded rod ends. Insert rods through dual clamps with hex nuts and lock washers in the middle of the clamps as shown in figure 2. Mount both clamps to the support structure with 2 single clamp plates, hex nuts, and lock washers. Arrange clamps so that 1"-2" of ferrule is exposed above and below the clamps. Be sure to allow sufficient thread length on the antenna side of the clamps. Tighten clamps only until lockwashers are flat, then add ½ turn additional on each nut.

Figure 1:  
Clamp Set Contents



Figure 2:  
Clamp Preassembly

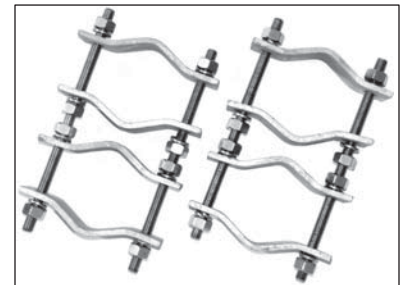
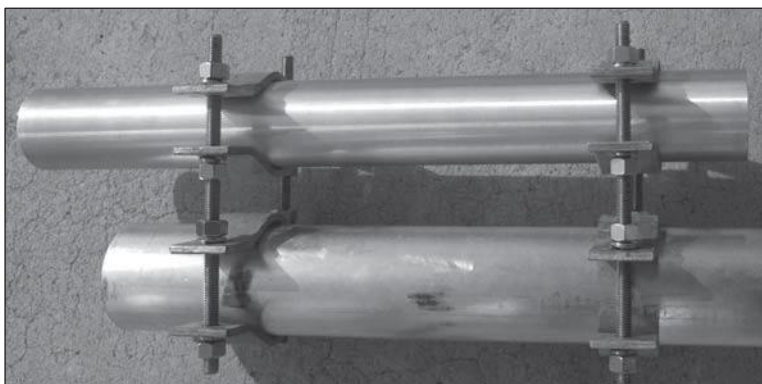


Figure 3: Assembly



Antenna  
Base

Mast  
or Support Structure

#### **Dimensional Data:**

ANTC482 can be attached to square or round tower legs from

1.5" to 3.5" O.D.

Clamp holes are 9/16" diameter, and 4.75" inches center to center.