

ANT220K

WIDEBAND DISCONE ANTENNA

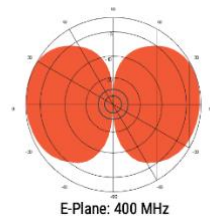
The Telewave.io ANT220K is an extremely rugged, wideband Discone antenna for all frequencies between 30 MHz and 3 GHz. Default color is Black, contact Telewave.io for TAN or other optional color.

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.

All exposed surfaces are coated with Txytan™ to ensure protection from corrosive gases, ultraviolet radiation, salt spray, acid rain and blowing sand. Applicable harsh environment uses include onshore/offshore petroleum fields, petrochemical production/transport facilities, underground/pit mines, ships, and command vehicles.

The wide vertical beamwidth and wide frequency bandwidth of the Discone antennas make them perfect for Air Traffic Control (ATC) applications. These antennas also excel in applications where two or more radios are connected to the antenna via cross-band couplers. The Discone antennas support TX only, RX only, and Transceiver applications.

The Discone antennas can be clamped to any 1.5" to 3.5" diameter support structure (schedule 40 or stronger is recommended when using pipe.) A dual clamp kit is included.



SPECIFICATIONS			
Tail Connector Standard	N-Male	Tail Connector Optional	DIN 7-16 Male
Frequency Range	30 – 3000 MHz	Input VSWR / Return Loss	<= 1.5:1 / 14 dB 95 - 3000 MHz <= 2.5:1 / 7.4 dB 60 – 95 MHz <= 3.5:1 / 5.1 dB 30 – 60 MHz
Power RMS	500 W / 57 dBm	Gain (Typical)	0 dBd / 2.1 dBi
Impedance RF	50 Ohms	Impedance DC	Short
Polarization	Vertical	Pattern Horizontal	Omnidirectional
Beamwidth Vertical	110 degrees	Vertical Beam Tilt (from horizon)	0 degrees
Tail Cable Type	RG-393	Tail Cable Length In (CM)	36" (91.5)
Installed Active Antenna Dimensions Inch (CM)	58" H x 38" W (148 H x 97 W)	Wind rating / w/ 0.5" ice MPH (KPH)	150 / 125 MPH (241 / 201 KPH)
Installed Boom Length below the Antenna	16" (40.75)	Maximum exposed area	2.25 Ft Sq
Total Length Inch (CM)	74" (188.75)	Lateral thrust at 100 MPH	90 lb (40.8 KG)
Boom Diameter Inch (CM)	2.75" (7)	Bending moment xfer to top clamp at 100 MPH	180 ft lb (244 nm)
Installed Weight lb (KG)	61 lb (27.7)	Clamp Kit (ship w/ Ant)	ANTC482
Shipping Dimensions Inch (CM)	60" x 48" x 48" (153 x 122 x 122)	Coastal / Salt Air Suitable	Yes
Shipping Weight Lb (KG)	108 lb (49)	Passive Intermodulation (PIM) Rating	NA
Shipping Mode (Freight/UPS/FedEx/etc.)	Freight Only	Peak Instantaneous Power (PIP) Rating	NA
Temperature Range (Operating & Storage)	-58 to +140 °F / -50 to +60 °C	Temperature Range (Installation)	-4 to +140 °F / -20 to +60 °C

ANTC482

Clamp Kit for Radome & Discone 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.

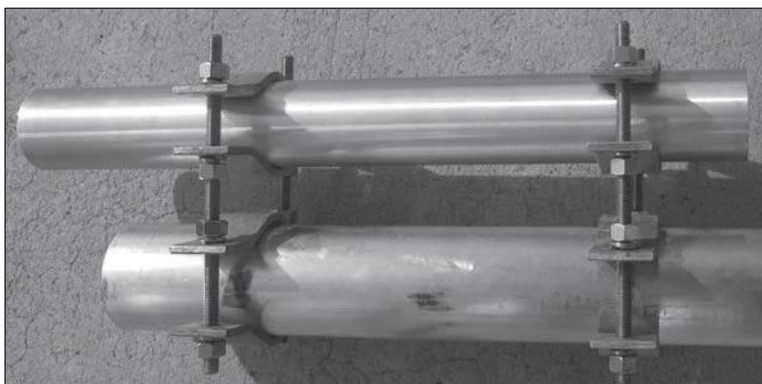
Figure 1:
Clamp Set Contents



Figure 2:
Clamp Preassembly



Figure 3: Assembly



Antenna
Boom
or
Ferrule

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.