

ANT280S

WIDEBAND DISCONE ANTENNA

The Telewave ANT280S Discone is a rugged, lightweight, wideband antenna for all frequencies between 118 MHz and 3 GHz. This versatile antenna provides a highly flexible solution to interoperability requirements in multiple bands.

Each antenna is constructed from Mil. Spec. 6061-T6 solid aluminum, welded at all joints for maximum strength. A high-strength radome encloses the upper cone and RF connections to ensure survivability in adverse environments.

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

The antenna has a 1.5" diameter mast, and includes an ANTC480 dual clamp kit for mounting to a 1.5"-3.5" O.D. support pipe.

The ANT280S is light enough to be used as a tactical antenna for field deployment, and can complement or replace multiple antennas on a mobile command vehicle. The 500 watt power rating allows use of high-power radios and tactical repeaters.

The full-surface coating and rugged construction means it can also be permanently mounted on a tower or command center roof for long-term fixed operation.

The ANT280S is ready to operate with a single or multiband radio using one antenna output. Several types of low-loss couplers are available for multi-radio operation.

For optimum performance in the lowest frequency ranges, the antenna should be mounted at least 20 feet above the closest reflecting surface.



SPECIFICATIONS	
Frequency (continuous)	118 MHz - 3 GHz
Power rating (typ.)	500 watts
Gain (typ.)	0 dBd
Impedance	50 ohms
VSWR	1.5:1 or less (118 - 136 MHz at 1.8:1 VSWR)
Pattern	Omnidirectional
Termination	N-Male or 7-16 DIN (option) on feed cable
Vertical beamwidth (nom.)	110°
Wind rating / 0.5" ice	150 / 100 MPH
Maximum exposed area	0.89 ft. ²
Lateral thrust at 100 MPH	36 lb
Bending moment at 100 MPH	49 ft. lb (top clamp, flat plate equiv.)
Dimensions	43" H x 28.5" W (at base)
Weight	11 lb



ANTC480

Clamp Kit for ANT280S Discone Antenna

Fits mast or support structure with an outside diameter 1.5" to 3.5"

WARNING

For your safety: do not install any antenna near power lines, carefully follow all installation instructions, and use safety devices when climbing. Ensure that the tower structure is properly and safely grounded.

If the antenna falls toward or contacts any overhead wires, LET GO IMMEDIATELY and stay away. Contact the utility company for assistance.

Consult a qualified structural engineer to verify that the tower and all mounting hardware are sufficient to support the antenna and RF cables.

The mounting clamps must be properly installed and spaced to prevent antenna rotation from wind loading. Each installation is unique.

MOUNTING INSTRUCTIONS

1. Apply anti-seize compound to the threaded rod ends.
2. Mount $\frac{1}{2}$ of each clamp set to the mast using two of the plates and supplied hardware. Set the clamps so that the vertical spacing will line up with the antenna ferrule with a minimum of 1" of ferrule exposed above and below the two clamp sets. Keep about $\frac{1}{2}$ " of threaded rod exposed on the mast side.
3. Tighten both clamp sets until the lock washers are flat. Then perform an additional half turn on each nut.
4. Mount upper clamp plates and hardware onto the rods but leave loose so that the antenna can be placed into the clamp.
5. Feed the antenna ferrule through the clamp until aligned with the upper attachment point (lower if an inverted antenna). Partially tighten the hex nuts and straighten the antenna until it is vertical.
6. Attach and secure the lower (upper if inverted antenna) antenna clamp and hardware. Tighten both clamps until the lock washers are flat. Then perform an additional half turn on each nut.
7. Connect RF feed cable to antenna input connector.
8. Secure all cables with UV-Resistant cable ties.
9. Seal the input connector with waterproof tape or other sealing material. Sealing instructions can be found at www.telewave.com

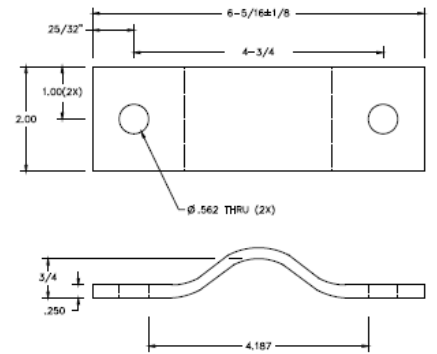


ANTC480 Clamp Kit

- (8) 2" x 6.3125" Galvanized Plates
- (4) 1/2"-13 x 8.5" Zinc Plated Rods
- (16) 1/2" Zinc Plated Hex Nuts
- (16) 1/2" Zinc Plated Split Lock Wash
- (1) Tube of Anti-Seize Compound



ANTC480 Clamp Kit



Clamp Plate Details