



# ANT425F10

## FIBERGLASS RADOME ANTENNA

The Telewave fiberglass radome antennas are rugged omnidirectional antennas suited for most environments. The radome provides protection from corrosive gases, ultraviolet radiation, icing, acid rain, and wind-blown abrasives. Intrusion and moisture protection is equivalent to an IP24 rating. The default radome color is Cool Blue™.

These antennas are constructed with brass and copper elements that are soldered together, producing a DC path to ground and preventing internally produced intermodulation products.

When ordering, specify all system TX and RX frequencies.

The antenna kit includes the ANTC482 dual clamp set for mounting the antenna to a 1.5" to 3.5" O.D. support pipe. Please contact Telewave Technical Support for assistance with any special mounting needs.

### ANT425F10 Variations

Part Number	Connector	Jumper	Default Clamp Set	Mounting
ANT425F10	N-F	None	ANTC482	Clamps Bottom (Normal)
ANT425F10-I	N-F	None	ANTC482	Clamps Top (Inverted)
ANT425F10-DIN	7/16 DIN-F	None	ANTC482	Clamps Bottom (Normal)
ANT425F10-IDIN	7/16 DIN-F	None	ANTC482	Clamps Top (Inverted)

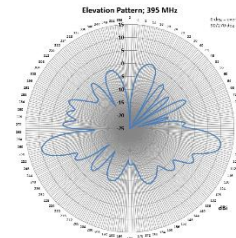
### ANT425F10 Gain and Tilt by Frequency

Frequency	Peak Gain	Peak Gain	Tilt
395 MHz	8.4 dBd	10.5 dBi	-8°
405 MHz	8.7 dBd	10.8 dBi	-7°
415 MHz	8.3 dBd	10.4 dBi	-5°
425 MHz	9.1 dBd	11.2 dBi	-4°
450 MHz	7.7 dBd	9.8 dBi	-2°

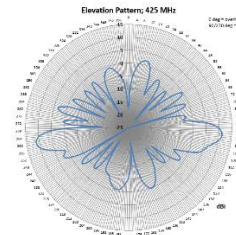
## 395 - 450 MHz



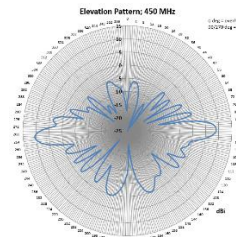
Rtn Loss > 13.9 dB at 395 to 450 MHz



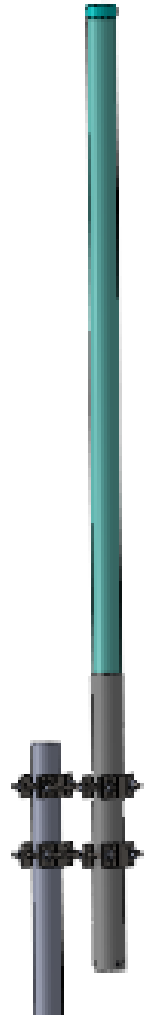
Vertical Beam Pattern at 395 MHz



Vertical Beam Pattern at 425 MHz



Vertical Beam Pattern at 450 MHz



SPECIFICATIONS			
Frequency Range (Continuous)	395 to 450 MHz	Wind rating / with 0.5" ice (MPH)	150 / 125
Gain	See Freq Chart	Maximum exposed area (sq.ft)	3.90
Power Rating (RMS Continuous)	500 watts / 57 dBm	Lateral Thrust experienced by the antenna @ 100 MPH (lb)	97.8
Passive Intermodulation (PIM) Rating	NA	Bending Moment at top clamp transferred from Ant (lb-ft)	917
Peak Instantaneous Power (PIP) Rating	NA	Ferrule Dimension Inches (H" x D")	26 x 2.75 (66 x 7)
Beam width Vertical / Horizontal	12° / 360°	Radome Dimensions Inches (H" x D")	199 x 2.5 (506 x 6.3)
Supported Polarization	Vertical	Total Length Inches (H")	225 (571.5)
Vertical Beam Tilt (from horizon)	See Freq Chart	Installed Weight Lbs (Antenna + Default Clamp)	34 + 11 (15.4 + 5 Kg)
RF Impedance	50 Ohms	Antenna Shipping Mode (Freight/UPS/FedEx/etc.)	Freight Only
DC Impedance	Open	Shipping Tube Weight - Antenna + ANTC482 clamp (lbs)	54 (24.5 Kg)
Input VSWR / Return Loss (Minimum)	1.5:1 / 14 dB	Shipping Box Dimensions (L" x W") (Round Tube)	241 x 4 (612 x 10)
Coastal / Salt Air Suitable	Yes	Default Clamp Shipping Weight - Separate Box (lbs)	NA
Temperature Range (Operating or Storage)	-58 to +140 °F -50 to +60 °C	Default Clamp Shipping Box Dimensions (L" x W" x H")	NA



# INSTALLATION GUIDE

## FOR RADOME ANTENNAS MODELS: F6 F8 F10

### **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, IMMEDIATELY LET GO 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. Antenna mounting clamps must be properly installed and spaced to prevent antenna rotation from wind loading. Every installation is unique.

### **MOUNTING INSTRUCTIONS:**

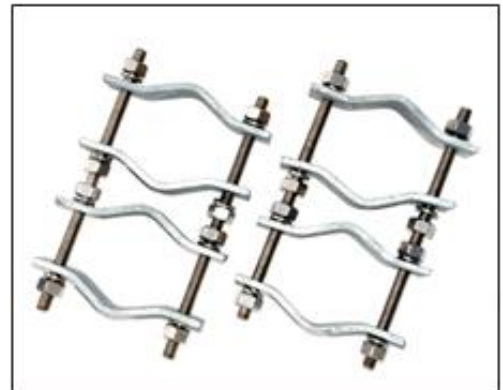
1. Apply anti-seize compound to the threaded rod ends. Insert rods through dual clamps with hex nuts and lock washers in the middle of the clamps. Mount both clamps to the support structure with the two single clamp plates, hex nuts, and lock washers. Arrange clamps so that 1"-2" of the ferrule is exposed above and below the clamps. Be sure to allow sufficient thread length on the antenna side of the clamps.
2. Attach the antenna clamp plate to the upper clamp set only, allowing maximum plate movement on the rods. Feed the ferrule down through the clamp until aligned with the upper attachment point. Partially tighten the hex nuts and straighten the antenna until clamped into a vertical position.
3. Attach and secure the lower antenna clamp with the supplied hex nuts and lock washers and tighten both clamps until the lock washers are flat. Then perform an additional half turn on each nut.
4. Connect RF feed cable terminated with Type-N or 7-16 DIN as required to antenna input connector. Secure all cables with UV-Resistant cable ties.
5. Be sure to properly seal the input connector with waterproof tape or other sealing material. Refer to Telewave TWDS-0502 for a recommended method of connector sealing.



ANTC482 Clamp Kit Parts

### **Clamp Kit Contents**

- (8) Galvanized Clamp Plates
- (4) 1/2"-13 x 10" Stainless Steel Rods
- (16) 1/2" Stainless Steel Hex Nuts
- (16) 1/2" Stainless Steel Split Lock Washers
- (1) Tube of Anti-Seize Compound



ANTC482 Clamp Kit Parts