



# ANT220F2 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 a dual clamp set for mounting the antenna to a 1.5" to 3.5" O.D. support mast (Not Included.) Please contact your tower vendor or local structural engineering firm for assistance with mounting hardware requirements and configuration.

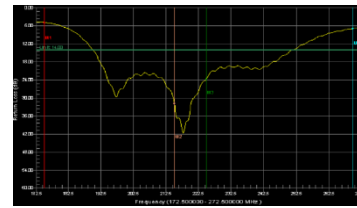
### ANT220F2 Variations

Part Number	Connector	Jumper	Default Clamp Set	Mounting
ANT220F2	N-F	None	ANTC485	Clamps Bottom (Normal)
ANT220F2-I	N-F	None	ANTC485	Clamps Top (Inverted)
ANT220F2-DIN	7/16 DIN-F	None	ANTC485	Clamps Bottom (Normal)
ANT220F2-IDIN	7/16 DIN-F	None	ANTC485	Clamps Top (Inverted)

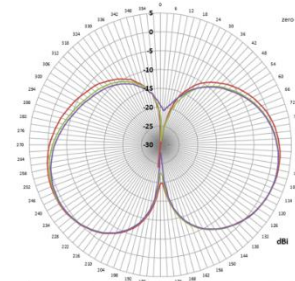
### ANT220F2 Gain by Frequency

Frequency	Peak Gain	Peak Gain
215 MHz	0.0 dBd	2.1 dBi
220 MHz	0.0 dBd	2.1 dBi
225 MHz	0.0 dBd	2.1 dBi

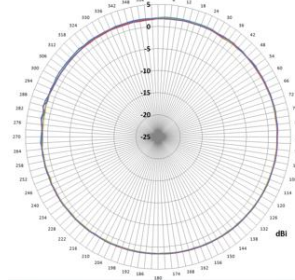
215 - 225 MHz



Rtn Loss > 14.0 dB

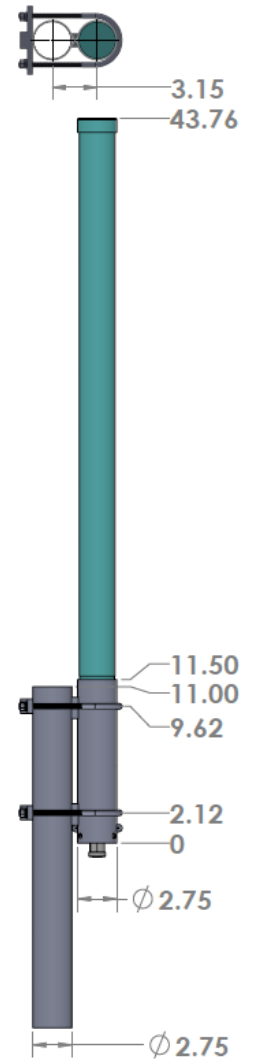


Vertical Beam Pattern



Horizontal Beam Pattern

— 195 MHz  
— 215 MHz  
— 220 MHz  
— 225 MHz



### SPECIFICATIONS

Frequency Range (Continuous)	195 to 260 MHz	Wind rating / with 0.5" ice (MPH)	225 / 175
Gain	See Freq Chart	Maximum exposed area (sq.ft)	0.78
Power Rating (RMS Continuous)	500 watts / 57 dBm	Lateral Thrust experienced by the antenna 225 MPH (lb)	71.7
Passive Intermodulation (PIM) Rating	NA	Bending Moment transfer to top clamp 225 MPH (lb-ft)	95.8
Peak Instantaneous Power (PIP) Rating	NA	Ferrule Dimension Inches (H" x D")	11.5 x 2.75 (29.5 x 7)
Beam width Vertical / Horizontal	80° / 360°	Radome Dimensions Inches (H" x D")	32.25 x 2.5 (82 x 6.3)
Supported Polarization	Vertical	Total Length Inches (H")	43.75 (111.25)
Vertical Beam Tilt (from horizon)	0°	Installed Weight Lbs (Antenna + Default Clamp)	34 + 7 (15.4 + 3 Kg)
RF Impedance	50 Ohms	Antenna Shipping Mode (Freight/UPS/FedEx/etc.)	All Modes
DC Impedance	Open	Shipping Tube Weight - Antenna + ANTC485 clamp (lbs)	44 (20 Kg)
Input VSWR / Return Loss (Minimum)	1.5:1 / 14 dB	Shipping Box Dimensions (L" x W") (Round Tube)	60 x 6 (152.5 x 15.25)
Coastal / Salt Air Suitable	Yes	Default Clamp Shipping Weight - Separate Box (lbs)	8 (3.75 Kg)
Temperature Range (Operating or Storage)	-58 to +140 °F -50 to +60 °C	Default Clamp Shipping Box Dimensions (L" x W" x H")	8 x 6 x 1 (20.5 x 15.25 x 2.5)



## ANTC485

### Clamp Kit for Radome Antennas: F0 & F2

#### **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 the antenna is vertical.
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. Seal the input connector with waterproof tape or other sealing material. Connector sealing instructions can be found at [www.telewave.com](http://www.telewave.com).



ANTC485 Clamp Kit

- (2) Clamp Plates
- (2) 3/8"-16 Stainless U-Bolts
- (4) Hex Nuts
- (4) Lock Washers
- (1) Tube of Anti-Seize Compound



ANTC485 Typical Installation