# TECHNOLOGIES

## COMMANDER Omni Fiberglass Antenna, 494-506, 12.1dBi, N Female

Please visit us on the internet at <a href="http://www.commandertech.com">http://www.commandertech.com</a>

# **Product Description**

Commander VHF base Station Antennas incorporate the design enhancements not normally available in other fiberglass collinear antennas of comparable size. Due to their broadband characteristics, only six versions are required to cover 450-512 MHz band. The 455 combines full 10 MHz bandwidth capability and improved lightning protection with 10 dBd omni-directional gain while preserving the desirable light-weight characteristic found in all Commander antennas



#### Features/Benefits

Fiberglass construction protects radiating elements in corrosive environments. Copper radiating elements minimize possibility of intermod generation. Full 10 dB gain - provides maximum on horizon coverage

Technical Specifications		
Frequency Band	300-699.9 MHz	
Horizontal Pattern	Omni Directional	
Antenna Type	Fiberglass Omni	
Electrical Down Tilt Option	Fixed	
Gain, dBi (dBd)	12.1 (10)	
Frequency Range, MHz	494-506	
Connector Type	N Female	
Connector Location	Bottom	
Mounting Type	Fixed	
Electrical Down Tilt, deg	0	
Orientation	Upright	
Mounting Hardware	46 Clamp Set	
Rated Wind Speed, km/h (mph)	160 (100)	
Gain (Omni), dBi (dBd)	12.14 (10)	
VSWR	< 1.5 : 1	
Vertical Beamwidth, deg	7	
Polarization	Vertical	
Maximum Power Input, W	500	
Lightning Protection	Direct Ground	
3rd Order IMP @ 2 x 43 dBm, dBc	-130	
Impedance, Ohms	50	
Overall Length, m (ft)	5.73 (18.8)	
Element Housing Length, m (ft)	5.06 (16.6)	
Mounting Pipe Diameter, m (in)	0.07 (2.75)	
Support Pipe Length, m (ft)	0.61 (2)	
Weight, kg (lb)	10 (21)	
Radiating Element Material	Copper	
Element Housing Material	Fiberglass	
Support Pipe Material	Aluminum Alloy	
Max Wind Loading Area m <sup>2</sup> (ft <sup>2</sup> )	0.164 (1.77)	
Survival Wind Speed, km/h (mph)	200 (125)	
Bend Mom @ Rated Wind 1" Below Top of Mt Pipe, N m (ft lbf)	792 (584)	
Wind Load - Side @ Rated Wind, N (lbf)	316 (71)	
Shipping Weight, kg (lb)	25.9 (57)	
Packing Dimensions, HxWxD mm (in)	7320 x 100 x 100 (288.18 X 3.94 X 3.94)	
Packing Dimensions, HxWxD, m (ft)	7.32 x 0.1 x 0.1 (24 x 0.33 x 0.33)	
Shipping Dimensions of Accessory, HxWxD, m (ft)	Packed with Antenna	
Shipping Mode	Common Carrier	

#### **Notes**

COMMANDER Model 455-10N	REV: 1.0	Print Date:	1/5/2012



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### **Other Documentation**

