

	VHF UHF High Power 1KW ATC Omni Antenna		
	ACHP-118-400	118-400 MHz	2.5 dBi Gain

Broadband VHF UHF Aero Communication: The ACHP-118-400 is a high-power, vertical-polarized VHF/UHF aviation band omnidirectional antenna engineered for seamless ATC ground-to-air and ground-to-ground RF networks. Operating across a wide 118–400 MHz frequency spectrum, ACHP-100-400 broadband antenna utilizes an advanced coaxial dipole architecture and specialized impedance matching. This design delivers a remarkably clean elevation radiation pattern with a stable 80-degree vertical beamwidth and a constant 2.5 dBi gain, eliminating the pattern down-tilt typically found in traditional discone antennas over successive octaves. Built for rapid tactical deployment, its modular, compact footprint features a stainless steel stud-locking mechanism for a tool-less, sub-two-minute assembly, while completely enclosing the RF termination and coaxial feed line within the mounting apparatus for absolute environmental isolation.



Ruggedized Aerospace Survivability: Compliant with rigorous MIL-STD-810G standards, ACHP-118-400 heavy-duty aviation antenna is encased in a high-strength, cylindrical ABS radome engineered for optimal RF transparency, low aerodynamic wind-loading, and minimal ice accretion. The structural framework is fabricated from ultra-corrosion-resistant 6063-T6 architectural aluminum alloy and paired with marine-grade stainless steel mounting hardware to guarantee maximum structural integrity. To withstand extreme environmental stressors—including coastal salt spray, acid rain, intense UV radiation, and desert sandstorms—all exposed metallic surfaces feature a high-durability, epoxy-based powder coating. Standardized in a military-spec olive green finish with customizable colorways, this field-proven antenna provides maintenance-free longevity in the world's harshest climates.

Electrical Specifications:

Frequency Range	118 -400 MHz.
Gain - Typical	2.5 dBi.
Bandwidth	Entire 118-400MHz Band
Polarization	Vertical
Input Impedance	50 Ohms
Radiation Pattern	Omni-directional
Vertical Beam-width –Half Power Points.	76 Degrees
VSWR – Better Than	2:1
RF Power Handling Capacity	1000 Watts
Input Termination	N-Female or DIN-Female

Mechanical Specifications:

Antenna Materials	6063T6 Aluminum Alloy
Mounting Hardware -Materials	High Grade Stainless Steel
Wind Rating	200 Km/Hr.
Overall Length	1.25 Meters (49 Inches)
Shipping Length	1.65 Meter (65 Inches)
Maximum Mount Pipe Diameter	52 mm (2 Inches)
Corrosion Protection	Epoxy-Based Powder Coating
Enclosure Materials	Fiberglass Tube
Gross Weight	5.5 Kgs. Typical

Environmental Specifications:

Operating Temperature	(-)30 to +70 Degrees Celsius
Storage Temperature	(-)40 to +80 Degrees Celsius
Humidity	0 to 95% RH

Please contact us for further information like Azimuth & Elevation radiation patterns, Image and frequency Vs VSWR graph.