



Quadrifilar CP Helix Antenna for GNSS & GPS

QHA-1117

1100-1700 MHz

3 dBi Gain

GNSS and Satellite Communications Multi-Band QHA Performance: The Model QHA-1117 is a highly versatile quadrifilar helix antenna engineered for **multi-band satellite networks**, operating flawlessly across the **1100–1700 MHz L-band spectrum** with a typical gain of 3 dBi. This field-ready unit features a broad **100+ degree vertical beamwidth** and hemi-omni-directional coverage, enabling a single installation to handle transmission, reception, signal monitoring, and surveillance **without the need for multiple antennas**. Its omni-directional circular polarization layout (available in LHCP or RHCP) ensures exceptional cross-polarization isolation and **excellent signal tracking for major global navigation constellations**—including **GPS L1 through L5, GLONASS, IRIDIUM, and INMARSAT**—while a high-efficiency Teflon dielectric transmission line handles a standard 150 Watts of RF power, with optional scaling up to 500 Watts for high-power UAV jamming applications.

Combat-Ready Vehicular Integration and Environmental Specs:

Built to survive unforgiving field environments, the ultra-compact 200 mm QHA-1117 is enclosed in a **UV resistant ABS radome** finished in flat Military Green, providing minimal wind resistance up to **200 Km/Hr** and active protection against heavy ice build-up. Its robust structural footprint uses a **6063T6 aluminum** base mated with marine-grade stainless steel mounting hardware to prevent corrosion during long-term field deployment. For immediate tactical vehicular integration, the system utilizes a standard **NATO 4-hole flange** vehicular mount with a weather-protected N-Female RF input termination hidden safely inside the base flange, making it a ruggedized, low-profile choice for **modern armored vehicles and ground station links**.



Electrical Specifications:

Frequency Range	1100 -1700 MHz.
Gain	3 dBi. Typical
Bandwidth	1100-1700 MHz
Polarization	Circular – RHCP or LHCP
Input Impedance	50 Ohms
Azimuth Radiation Pattern - Typical	Omni-directional
Termination	N-Female
Vertical Beam-width –Half Power Points.	90 Degrees Typical
VSWR – Better Than	2.5:1 Max, Typical 2:1
RF Power Handling Capacity	150 Watts (500 Watts Optional)

Mechanical Specifications:

Materials	6063T6 Aluminum & Copper
Mounting Hardware -Materials	High Grade Stainless Steel
Wind Rating	200 Km/Hr.
Overall Length	200 mm
Shipping Length	250 mm
Mounting Type	NATO Flange or Customized
Final Finish/Color	Olive Green or Customized
Gross Weight Approx	1.5 Kgs.
Radome Materials	UV Resistant ABS

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.