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# CA-4001 SERIES HIGH-POWER UHF OMNIDIRECTIONAL ARRAY ANTENNA

Model CA-4001 is a high-power dipole array which provides broadband, omnidirectional coverage for general purpose communications use in the 225 – 400 megahertz frequency band. It has a minimum gain of 4.5 dBi and is intended for use in Navy shipboard installations where high radio frequency (RF) power levels and moderate antenna gains are required.

The antenna is a parallel-fed, collinear array of two radiating elements enclosed and sealed within an epoxy fiberglass radome for prolonged use in severe marine environments.

The array handles average input powers to 2 kW. It is untuned and operates over its entire frequency range with a VSWR, on 50 ohms, of less than 2.0:1. Maximum signal intensity is directed near the horizon, with a nominal 12° uptilt to minimize the effects of ground reflections. The half-power beam width over the design band is 32° – 36°. Azimuth coverage is omnidirectional to within ±1 dB.

The upper radiator is altered to produce a small horizontal current component. This signal, radiated upward, efficiently fills the overhead cone of silence.

The RF input connector is a coaxial type LC connector. The connector and a radome purging plug are recessed in the antenna base.

CA-4001 is designed to meet the shock requirements of MIL-T-17113 and MIL-STD-167, type I vibration. It will withstand wind loads to 120 mi/hr; 80 mi/hr with 4.5 lb/ft<sup>2</sup> icing.

ELECTRICAL	
Frequency range	225 – 400 MHz
VSWR	2.0:1 max
Gain	4 1/2 dBi min
Impedance	50 ohms
Polarization	Vertical
Azimuth coverage	Omnidirectional within ±1 dB
Elevation coverage	
Beamtilt	12° above horizon, nominal
Half-power beam width	32° – 36°
Power handling	2 kW average
MECHANICAL	
Connector	Type LC (UG-352 A/U)
Weight	
4001	48 lbs
4001B	40 lbs
4001C	50 lbs
Finish	Gray enamel



## KEY FEATURES

- > Ultra-high frequency (UHF) 225-400 MHz frequency coverage
- > High power to 2 kW
- > Shipboard applications

For further details and specifications, contact the factory at [antenna.info@L3Harris.com](mailto:antenna.info@L3Harris.com)

### CA-4001 Series High-Power UHF Omnidirectional Array Antenna

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