

DATASHEET



VL-1220-496 Airband/Aircraft Band Antenna

Model VL-1220-496 is a small, Low Profile VHF Aircraft Band Antenna. It covers the entire Civil Aviation Band of 118-136 MHz (General Aviation). No tuning is required to adjust to a particular frequency within this range: just change the radio's frequency and you are ready to go. This Airband Antenna was designed for airport ground operations vehicles, where height restrictions exist: for example, traversing under aircraft wings. Measuring only 4" (10 cm) in diameter and 6" (15.3 cm) tall, this antenna is a very efficient Low Profile radiator.

VL-1220-496 Installation Guidelines

When installed properly on the metal chassis of a vehicle, this airband antenna will perform comparably with a full size 1/4 wave monopole or whip radiator. For optimum operation, install it near the center of a flat metal surface, such as the roof of a truck's cab or van. Preferably, the immediate metal surface surrounding the antenna should have a minimum, approximately flat size of 50" (127 cm) x 50" (127 cm). Although we do not recommend the use of a magnetic mount or a trunk bracket mount with small antennas, we developed the ACC-M496 Magnetic Mount accessory just for those cases where a permanent installation is not possible. The ACC-M496 Mount is made to tightly couple to the a vehicle's chassis at frequencies above 50 MHz, allowing its VHF or UHF antenna to operate without impairment.

The VL-1220-496 Aircraft Band Antenna features a DC shunt connection to the chassis to help protect its attached radio from limited Electro-Static Discharge (you will measure a short circuit when measuring across its terminals with a multimeter).

An electrically conductive chassis/ground plane is required for the proper operation of the VL-1220-496 Airband Antenna. If the intended mounting surface is non-conductive, such as a fiberglass roof: line the underside of the non-conducting surface with a thin foil of any convenient metal (Aluminum is widely used). Ensure that the NMO mount contacts the chassis/ground plane/foil securely.

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VL-1220-496 Technical Specifications

- Frequency range: 118-136 MHz (VHF Civil Aviation Band)
- Coverage: Omni-directional, low azimuthal ripple (1 dB)
- Polarization: Linear, Vertical
- Gain: +2 dBil (when mounted on a large ground plane - asymptotic gain)
- Nominal Impedance: 50 ohm
- Input Power: 50 Watts CW
- VSWR: under 3.0 over 90% of the band
- Connector: NMO, Female
- Dimensions: 10 cm (4") average OD x 15.3 cm (6") h -- [OD: 9.2 cm (3.6") at top/11.2 cm (4.4") at base]
- Mounting: NMO connector
- Operating Temperatures: -40C to +85C
- Weight: 300 g / 0.6 lbs
- Shipping Weight: 400 g / 0.9 lbs (shipped individually)

NOTES:

- Requires a ground plane (normally mounts on a metal body)
- Specifications and prices are subject to change without notice

This product is compatible with the following Accessories:

- [NMO Mount and Cable Assembly for Mobile Radio Antennas](#)

Specify desired length from drop-down menu on website

Specify desired connector for the radio end: (usually Type N, TNC or BNC Male)

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VL-1220-496 Airband/Aircraft Band Antenna VSWR GRAPH



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