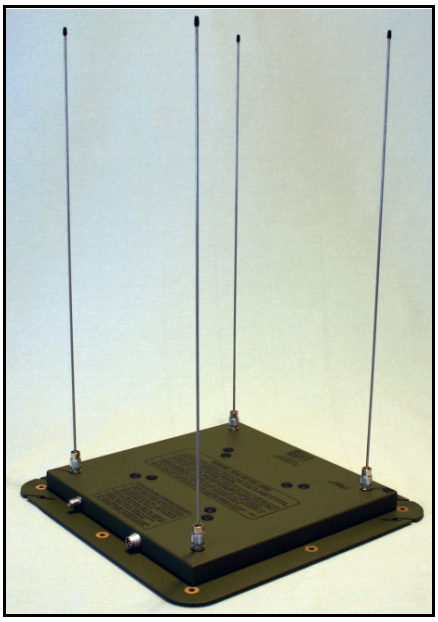
RDF PRODUCTS

Vancouver, Washington, USA +1-360-253-2181

Product Data Sheet; Model DMA-1309B1 *Wide Coverage VHF Mobile Adcock Radio Direction Finding Antenna (Replaces DMA-1309R0)*

FEATURES

- **80-220 MHz Continuous Frequency Coverage**
- **True Adcock Design - Does Not Use Inferior Loops**
- **Optimized for 118-137 MHz Aircraft Band**
- **1.5° RMS Typical Bearing Accuracy**
- **Ultra-High Signal Handling Capability**
- **Low-Profile Platform with Removable Aerials**
- **Vehicle Roof-Top Installation**
- **Built-In RS-232 Personality Module**



DESCRIPTION

The RDF Products Model DMA-1309B1 is a 4-aerial VHF/UHF monopole Adcock single-channel radio direction finding antenna continuously covering 80-220 MHz in a single band without the requirement for changing aerials. This rugged, compact, light-weight, weather-sealed unit is specifically designed for mobile DF applications and is easily installed on cars, vans, utility vehicles, or any platform having a sizeable metallic ground plane. The aerials do not need to be changed to cover the full specified frequency range, and are easily removed for convenience of shipping and storage.

Being of a true Adcock design, the DMA-1309B1 avoids the erratic performance associated with inferior loop DF antennas and provides sensitivity and listen-thru capability superior to that of comparable pseudo-Doppler units. The DMA-1309B1 has also been designed with ultra-high signal-handling capability for reliable performance in dense signal environments. The unit has furthermore been optimized for best sensitivity in the 118-137 MHz aircraft band.

The DMA-1309B1 directly interfaces with all RDF Products DF bearing processors via a detachable 4.5-meter interface cable. With its built-in personality module, the unit automatically conveys model and band information via RS-232 to RDF Products “B”-series DF processors.

SPECIFICATIONS

DF Technique:	Single-channel 2-phase Adcock (derived sense)
Frequency Coverage:	80-220 MHz continuous
Bearing Accuracy:	3.0 degrees RMS max.; 1.5 degrees RMS typical (ideal siting conditions)
Polarization:	Vertical
Output Impedance:	50 ohms nominal
2nd Order Intercept:	+40 dBm typical (referenced to derived sense input)
3rd Order Intercept:	+25 dBm typical (referenced to derived sense input)
Power Requirements:	11-16 VDC @ 90 mA (negative ground)
Operating Temperature:	-40 to +60 degrees C
Storage Temperature:	-40 to +70 degrees C
Humidity:	0-100%
Dimensions:	24"x15.875"x15.875" (HxWxD; with baseplate less cables)
Weight:	7.0 lbs. (less cables)

Note: Specifications are subject to change without notice.

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APPLICATIONS INFORMATION

The RDF Products Model DMA-1309B1 has been designed as a general-purpose high-VHF mobile DF antenna with optimized sensitivity in the 118-137 MHz aircraft band. Covering 80-220 MHz, this unit also offers exceptionally wide frequency coverage for high-VHF applications. This unit replaces the earlier 80-220 MHz DMA-1309R0.

For vehicle roof-top installations, nylon mounting straps and rain-gutter hooks are supplied. These mounting straps loop into the slots milled into the 1/8" thick bottom-plate for this purpose.

A rubber protective mounting pad is adhesively attached to the bottom-plate to protect painted vehicle roof-tops. The unit can also be bulkhead mounted using the 8 quarter-inch holes drilled into the bottom-plate flange. For the convenience of users contemplating bulkhead mounting, the protective adhesive-backed mounting pad can be supplied detached from the bottom-plate upon request.

The DMA-1309B1 includes a digital “personality module” that reports model number and frequency coverage information for this DF antenna. When connected to any one of the RDF Products “B”-series DF processors (e.g., the DFP-1000B, DFP-1010B, or DFR-1100B), the DMA-1309B1 automatically reports its model number and frequency coverage information. This information is then displayed so that the user can easily avoid out-of-band operation.

The DMA-1309B1 is intended for law-enforcement, surveillance, signal intelligence, frequency management, interference location, search-and-rescue, scientific, and other applications requiring professional-quality radio direction finding equipment.