RDF PRODUCTS

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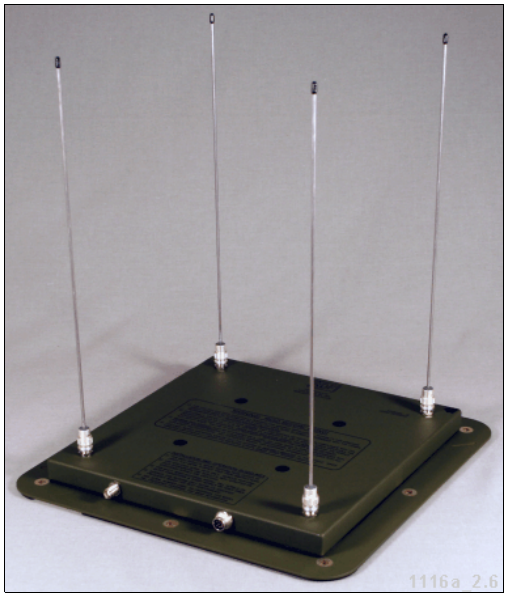
Product Data Sheet; Model DMA-1310B2 Wide Coverage VHF Mobile Adcock Radio Direction Finding Antenna (Replaces DMA-1310R0)

FEATURES

- **75-300 MHz Continuous Frequency Coverage**
- **True Adcock Design - Does Not Use Inferior Loops**
- **1.5° RMS Typical Bearing Accuracy**
- **Ultra-High Signal Handling Capability**
- **Low-Profile Platform with Removable Aerials**
- **Vehicle Roof-Top or Aircraft Installation**
- **Built-In RS-232 Personality Module**



DESCRIPTION

The RDF Products Model DMA-1310B2 is a 4-aerial VHF/UHF monopole Adcock single-channel radio direction finding antenna continuously covering 75-300 MHz in a single band. This rugged, compact, light-weight, weather-sealed unit is specifically designed for mobile DF applications and is easily installed on cars, vans, aircraft, 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-1310B2 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-1310B2 has also been designed with ultra-high signal-handling capability for reliable performance in dense signal environments. The unit is particularly attractive for land-mobile DF applications in the high-VHF range.

The DMA-1310B2 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:	75-300 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:	17.875"x18.0"x18.0" (HxWxD; with baseplate less cables)
Weight:	6.7 lbs. (less cables)

Note: Specifications are subject to change without notice.

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APPLICATIONS INFORMATION

The RDF Products Model DMA-1310B2 has been designed as a general-purpose high-VHF mobile DF antenna. Covering 75-300 MHz, this unit offers exceptionally wide frequency coverage for high-VHF applications. This unit replaces the earlier 80-270 MHz DMA-1310R0.

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-1310B2 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-1000B), the DMA-1310B2 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-1310B2 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.

This unit is very similar to the DMA-1310B1, which covers the same frequency range but employs slightly shorter aerials. For most land-mobile applications, we recommend the DMA-1310B2 since it is optimized for sensitivity in the heavily-used 148-174 MHz high-VHF civil band. The DMA-1310B1, however, is often more suitable for applications where its shorter aerials are advantageous or where optimum sensitivity is desired in the 174-300 MHz range.