



MA350ED VHF/UHF MOBILE DF ANTENNA

- 80 - 520 MHz frequency coverage
- Accurate and repeatable bearings
- Ideal for mobile operation
- Low power consumption
- Ruggedized, compact, lightweight design
- One year warranty on parts and labor

An Accurate, Compact Antenna for Mobile Operations

The MA350ED Mobile DF Antenna is a wide frequency coverage adcock VHF/UHF radio direction finding antenna employing two 4-element arrays designed for mobile DF operations. The unit is well suited for cartop installation and is recommended for use with the 4400 DF receiver/processor and the 4006R DF processor.

With its high signal handling capability, the MA350ED is well suited for operating in urban and other areas where large numbers of strong signals may be encountered. Unlike other designs, however, this signal handling capability is not achieved at the expense of high power consumption. The low power requirement makes the MA350ED suitable for battery-powered applications.

The MA350ED is designed for use with all elements installed, however, better performance will result when only one set of elements is installed during use.

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SPECIFICATIONS

Frequency Range:	80 - 520 MHz
Azimuthal Coverage:	360°
Antenna:	2 concentric 4-element monopole adcock arrays
Bearing Accuracy:	VHF: 3° rms typical (4° rms maximum) UHF: 3.5° rms typical (5° rms maximum) (Note 1) (Note 3)
Power:	Voltage: 11.5 - 20 VDC (supplied through DF processor) Current: 60 mA VHF, 100 mA UHF
Typical DF Sensitivity:	120 MHz: 2 µV/m 250 MHz: 1.5 µV/m 520 MHz: 2 µV/m (6 kHz IF BW) (Note 2)
Output Impedance:	50 ohms nominal
Polarization:	Vertical
Mechanical:	Height: 25.5" (64.8 cm) with 24" (61.0 cm) VHF elements and 10.75" (27.3 cm) UHF elements; optional 14" (35.6 cm) VHF elements Width: 15" (38.1 cm) Depth: 15" (38.1 cm) Weight: 5 lbs. (2.3 kg)
Environmental:	Operating: -40°C to +70°C Storage: -40°C to +70°C Humidity: 95% RH

Note 1: DF bearing accuracy is measured on an ideal site with no bias over specified azimuthal and frequency range with specified polarization at 0° elevation. Actual production acceptance testing performed at Cubic test site using standard deviation to eliminate site bias.

Note 2: System sensitivity is specified for an incident field strength in microvolts per meter for direction finding processor output with 6° standard deviation bearing jitter, minimum integration time of 200 msec and an IF bandwidth of 6 kHz.

Note 3: DF bearing accuracy is the rms value of all frequencies at all azimuth points as a single calculation.

$$RMS = \sqrt{\frac{\sum_{i=1}^n (AM_i - AT_i)^2}{n}}$$

i = index
n = # of points (frequency-azimuth)
AM = measured azimuth
AT = true azimuth

Ordering Information

Model No.	Part No.	Description
MA350ED	350-410-2	Mobile DF Antenna, 80 - 520 MHz, supplied with magnetic mounts (4) and safety straps (4), and interconnect cables. Color: Grey

Specifications subject to change without notice

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