

JAG-450-1-1/2



- Civil aviation applications
- Land mobile networks
- Public security and safety
- Transportation networks



Electrical Specifications		Mechanical Specifications		Environmental	
Model	JAG-450-1-1/2	Model	JAG-450-1-1/2	Model	JAG-450-1-1/2
Frequency Range (MHz)	406 – 512	Height	inches (mm) 36 (914.4)	Survival Wind Velocity With no Ice	mph (km/h) 236 (380)
Bandwidth @ 1.5:1 VSWR or Better (MHz)	106	Width	inches (mm) 16 (406)	Survival Wind Velocity With Ice	mph (km/h) 149 (240)
Polarization	Vertical	Depth	inches (mm) 4.25 (108)	Maximum Allowable Radial Ice Buildup	inches (mm) 0.5 (12.7)
Radiation Pattern	Bi-directional (Elliptical)	Weight	lb (kg) 9 (4.05)	Equivalent Flat Plate Area	ft ² (m ²) 0.65 (0.06)
Nominal Gain (dBd)	1.45 – 1.80	Support Mast Outside Diameter Inches (mm)	2.375 (60.3)	Lateral thrust (100mph) 0 Radial Ice Buildup	lbs (N) 27.9 (124.1)
Nominal Horizontal 3dB Beamwidth (Deg)	205 – 215	Support Mast Allowable Clamping Space Inches (mm)	18 (457.2)	Torsional moment (100mph) 0 Radial Ice Buildup	ft-lbs (Nm) 5.3 (7.2)
Nominal Vertical 3dB Beamwidth (Deg)	66 – 70	Mounting Information	No clamps supplied* (See JAG clamps page for suitable clamps)	Bending moment (100mph) 0 Radial Ice Buildup	ft-lbs (Nm) 17.4 (23.5)
Maximum Power (Watts)	75	Pigtail (ft) & RF Connector	3 – 3.5 & 'N' Male		
Lightning Protection	DC Ground				

Specifications are subject to change without notice. As a result, all information contained in the present datasheet is subject to confirmation at time of ordering.



Features

- 2-year factory warranty (See page 3)
- Broadband (106 MHz)
- Suitable for multi-frequency systems
- Soldered internal joints
- Small for easy transport and installation
- Fits in standard Otis Elevators
- DC Grounded
- Stainless steel hardware
- Easy storage
- Low PIM
- Operation in harsh environments
- Optional lightning rod spike
- Natural rubber plugs
- Optional inverted mountable model
- Side or tower top mountable
- Optional coatings such as black paint
- Ideal for mobile command vehicles
- Ideal for monitoring stations

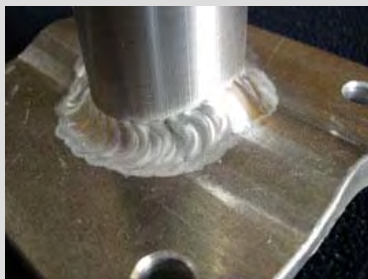
Description

The JAG-450-1-1/2 is the fundamental building block of the finest UHF folded dipole arrays on the market today. Its unique high efficiency wide bandwidth design allows it to cover the entire 406-512 MHz frequency span with a VSWR of 1.5:1 or better. Because of its bandwidth and very low intermodulation response, the JAG-450-1-1/2 is useful in a wide range of functions ranging from trunking, business, public safety, government and even armature radio plus endless other applications.

The JAG-450-1-1/2 as well as the rest of the multi-bay arrays that are based on it feature 6061-T6 aluminum and stainless steel construction. Features such as natural rubber plugs make sure the internal phasing harness remains well protected from the elements ensuring trouble free operation. This series also offers customers with an optional heavy-duty solid stainless steel lightning rod spike for locations prone to lightning strikes. JAG's standard option consists of a stainless steel bolt fed through the machined end cap. The stainless steel bolt allows for a corrosion free low resistance area for any potential lightning strikes as the surrounding aluminum oxidizes over time.

The JAG-450-1-1/2, with its rugged construction, lightweight and ease of installation, is ideal for leased or rented system use. Its bandwidth also makes it perfect to stock for re-use or re-sale.

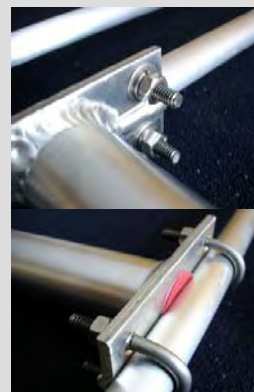
JAG-450-1-1/2 at a glance



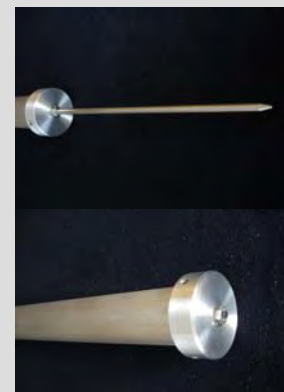
Expert TIG welding



Natural rubber plugs



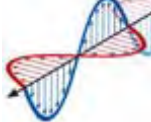
Heavy-duty dipole fixture



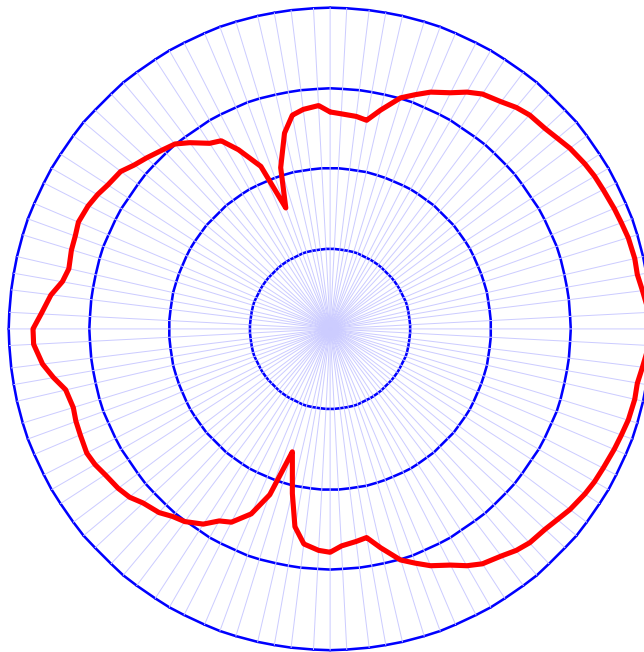
Optional lightning rod

*Site-specific mounting hardware is necessary with these antennas. Please consult JAG to determine suitable clamps for your application.





Vertical Radiation Pattern For Vertical Polarization



Elevation

— Half Wavelength Spacing

* This is a general representation of the Delta1 Series JAG-450-1-1/2 antenna radiation pattern. For the latest detailed pattern contact JAG Applications Engineering.

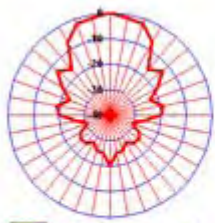
WARRANTY

JAG Electromagnetics warrants all its products against defects in material or workmanship and is only applicable if failure results from these factors within two years from the purchase date by the user. Jag Electromagnetics will be responsible for the supply, at no charge, of new or rebuilt replacements in exchange for defective parts for the duration of the warranty. This warranty does not extend to any JAG products that have been subject to misuse, neglect, accident, improper installation or application. In addition, this warranty does not extend to products that have been repaired or substantially altered outside our manufacturing plant.

JAG Electromagnetics will not be liable for any incidental or consequential damages due to failure of a JAG product under this warranty or any implied warranty. JAG is in no event liable for consequential damages or other costs of any kind as a result of the use of the products manufactured by JAG. No envoy is sanctioned to presume for JAG any other legal responsibility in connection with JAG products. JAG Electromagnetics is not accountable for replacement of any product damaged by lightning.

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JAGTM

Electromagnetics

"Quality is everything."

Delta1 Series

EXPOSED FOLDED VHF UHF

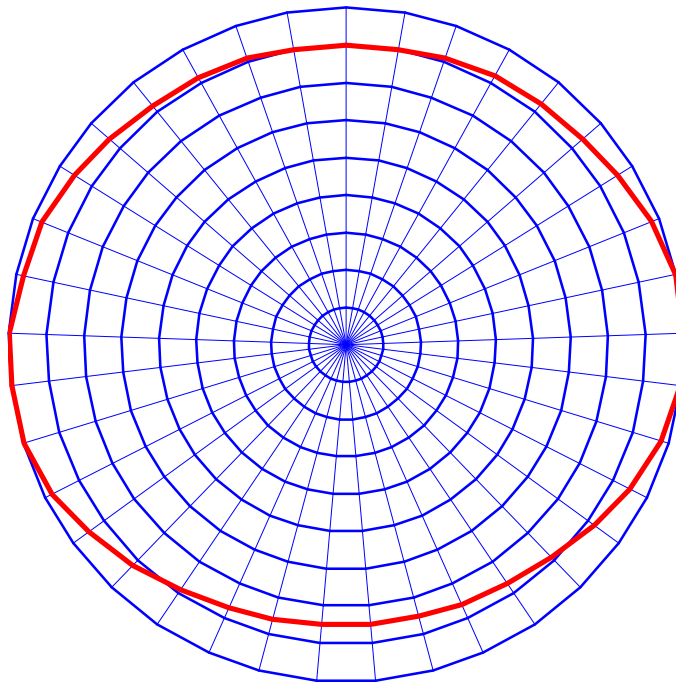
DIPOLE 1-Bay Array

406-512 MHz

JAG-450-1-1/2



Horizontal Pattern For Vertical Polarization



Azimuth

— Half Wave Spacing

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Toronto:

JAG Electromagnetics
1750 Creek Way, Unit 26
Burlington, Ontario, Canada
L7L 7E2
Tel (647)-746-5937
Fax (905)-332-8093
Email: info@jagelectromagnetics.com

Saskatoon:

JAG Electromagnetics
P.O. Box 20030
Saskatoon, Saskatchewan, Canada
S7L 7K9
Tel (647)-746-5937
Fax (905)-332-8093
Email: info@jagelectromagnetics.com

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RF EMI Engineering Technology
26-1750 Creek Way
Burlington, Ontario
L7L 7E2 Canada

Email: info@jagelectromagnetics.com
Web: www.jagelectromagnetics.com
Tel (647)-746-5937
Fax (905)-332-8093

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JAG's dedication to continuous Research & Development will result in product improvements as they evolve.

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