



Delta1 Series

EXPOSED FOLDED VHF UHF

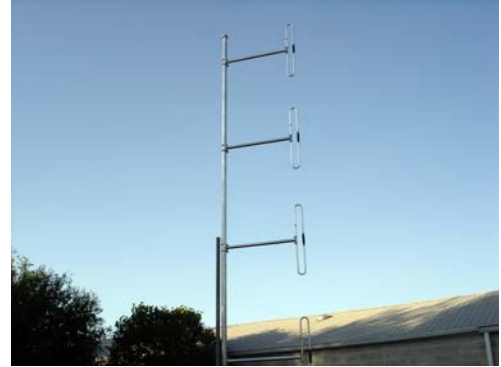
DIPOLE 4-Bay Array

195-245 MHz

Electromagnetics

"Quality is everything."

JAG-220-4-1/2



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



Electrical Specifications		Mechanical Specifications		Environmental	
Model	JAG-220-4-1/2	Model	JAG-220-4-1/2	Model	JAG-220-4-1/2
Frequency Range (MHz)	195 – 245	Height	inches (mm) 181 (4,597)	Survival Wind Velocity With no Ice	mph (km/h) 110 (177)
Bandwidth @ 1.5:1 VSWR or Better (MHz)	50	Width	inches (mm) 36 (914.4)	Survival Wind Velocity With Ice	mph (km/h) 80 (128)
Polarization	Vertical	Depth	inches (mm) 4.25 (108)		
Radiation Pattern	Bi-directional (Elliptical)	Weight	lb (kg) 55 (24.96)	Maximum Allowable Radial Ice Buildup	inches (mm) 0.5 (12.7)
Nominal Gain (dBd)	6.45 – 7.0	Support Mast Outside Diameter Inches (mm)	2.375 (60.3)	Equivalent Flat Plate Area	ft <sup>2</sup> (m <sup>2</sup> ) 4.51 (0.42)
Nominal Horizontal 3dB Beamwidth (Deg)	205 – 215	Support Mast Allowable Clamping Space Inches (mm)	55 (1,397)	Lateral thrust (100mph) 0 Radial Ice Buildup	lbs (N) 173 (769.5)
Nominal Vertical 3dB Beamwidth (Deg)	15 – 19	Mounting Information	No clamps supplied (See JAG clamps page for suitable clamps)	Torsional moment (100mph) 0 Radial Ice Buildup	ft-lbs (Nm) 157 (212)
Maximum Average Power (Watts)	300	Pigtail (ft) & RF Connector	10 – 10.5 & 'N' Male	Bending moment (100mph) 0 Radial Ice Buildup	ft-lbs (Nm) 761 (1027.4)
Lightning Protection	DC Ground				

JAG-220-4-1/2 Product Specification Sheet.

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.

Dated: February-20-2011

Issue: 1

Made in Canada

Rev022011.0

Page 1/4



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Features

- 5-year factory warranty (See page 3)
- Broadband (50 MHz)
- Suitable for multi-frequency systems
- Medium gain applications
- Soldered internal joints
- DC Grounded
- Stainless steel hardware
- Expert TIG welding
- Natural rubber plugs
- Stock for re-use or re-sale
- Low PIM
- Operation in harsh environments
- Optional lightning rod spike
- Optional downtilt versions
- Optional inverted mountable model
- Side or tower top mountable
- Optional coatings
- Ideal for monitoring stations

Description

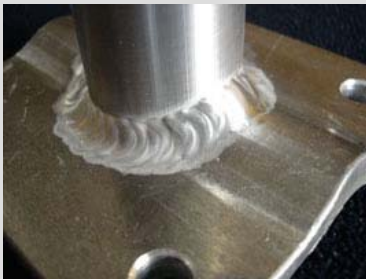
The JAG-220-4-1/2 is a 4-bay version of the JAG-220-1-1/2, incorporating all the features of the basic model into a medium gain antenna needed in certain system applications. The JAG-220-4-1/2 is supplied with either quarter-wave (JAG-220-4-1/4) or half-wave (JAG-220-4-1/2) dipole-to-mast spacing. Site-specific mounting hardware is required with these antennas. Please consult JAG for suitable clamps.

The JAG-220-4-1/2 features 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-220-4-1/2, with its rugged construction 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-220-4-1/2 at a glance



Expert TIG welding



Natural rubber plugs



Heavy-duty dipole fixture



Optional lightning rod

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Page 2/4



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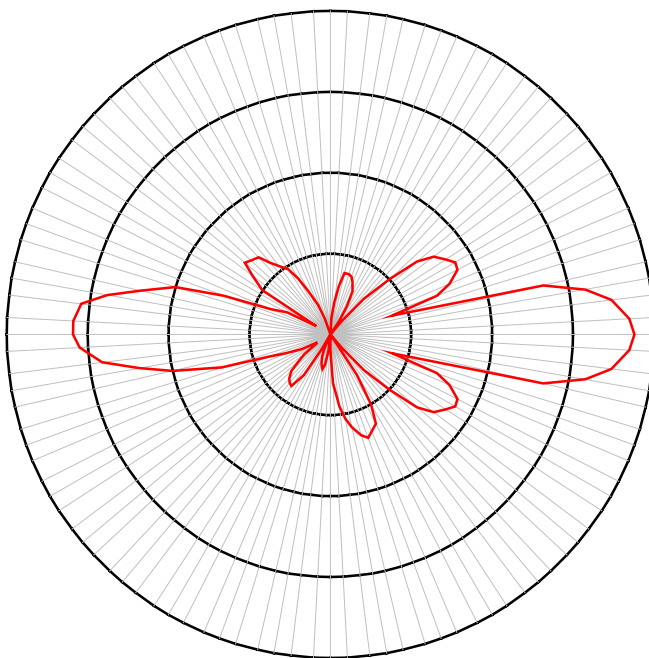
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JAG-220-4-1/2



Vertical Radiation Pattern For Vertical Polarization



Elevation

— Half Wavelength Spacing

\* This is a general representation of the Delta1 Series JAG-220-4-1/2 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 five 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.

JAG-220-4-1/2 Product Specification Sheet.

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Page 3/4



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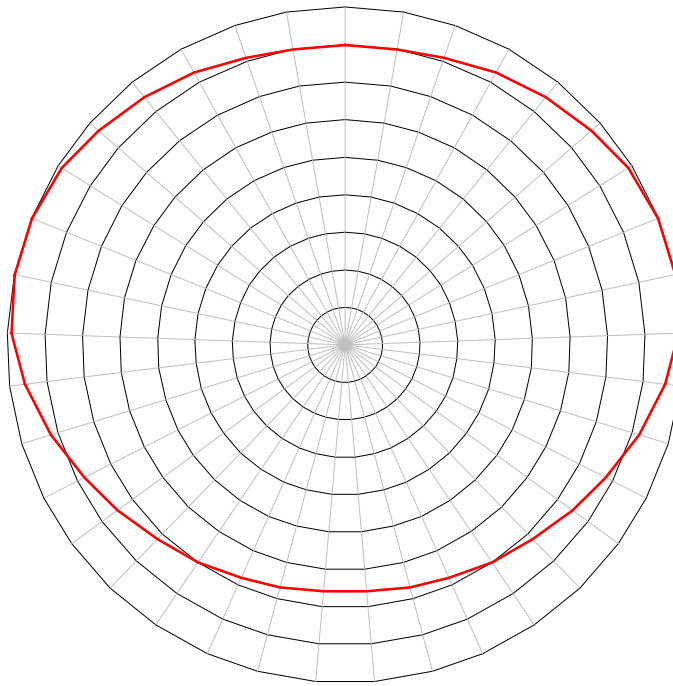
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Horizontal Pattern For Vertical Polarization



Azimuth

— Half Wave Spacing

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