JAG™ Electromagnetics

"Quality is everything."

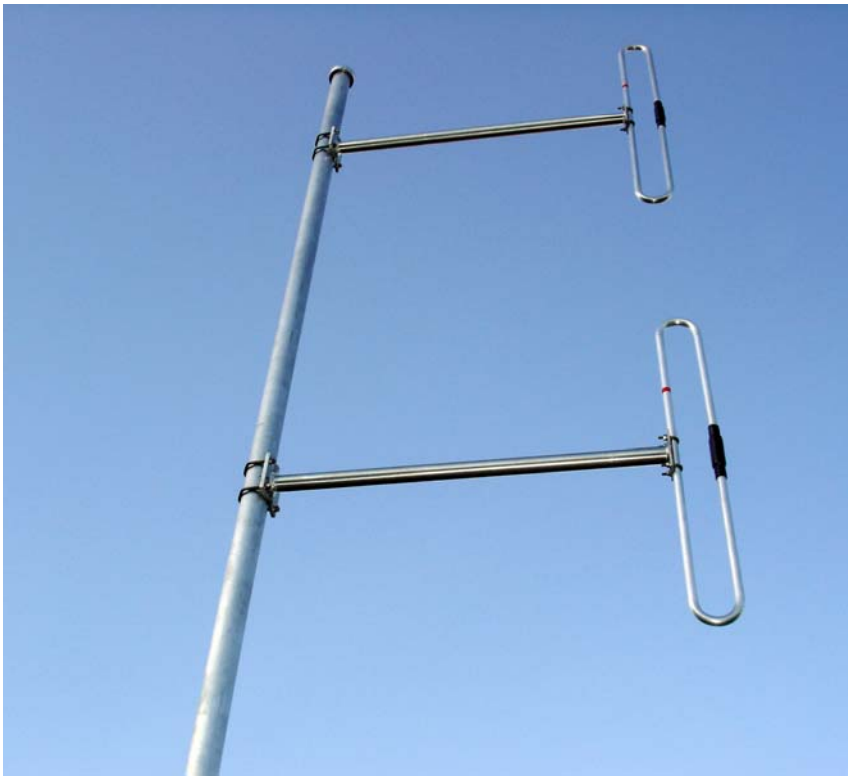
Delta1 Series

EXPOSED FOLDED DIPOLE 2-Bay Array

VHF UHF

195-245 MHz

JAG-220-2-1/2



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

Electrical Specifications	
Model	JAG-220-2-1/2
Frequency Range (MHz)	195 – 245
Bandwidth @ 1.5:1 VSWR or Better (MHz)	50
Polarization	Vertical
Radiation Pattern	Bi-directional (Elliptical)
Nominal Gain (dBd)	3 – 3.7
Nominal Horizontal 3dB Beamwidth (Deg)	205 – 215
Nominal Vertical 3dB Beamwidth (Deg)	33 – 35
Maximum Average Power (Watts)	200
Lightning Protection	DC Ground

Mechanical Specifications		
Model	JAG-220-2-1/2	
Height	inches (mm)	120 (3,048)
Width	inches (mm)	36 (914.4)
Depth	inches (mm)	4.25 (108)
Weight	lb (kg)	25 (11.33)
Support Mast Outside Diameter	Inches (mm)	2.375 (60.3)
Support Mast Allowable Clamping Space	Inches (mm)	45 (1,143)
Mounting Information (See JAG clamps page for suitable clamps)	No clamps supplied	
Pigtail (ft) & RF Connector	5 – 5.5 & 'N' Male	

Environmental		
Model	JAG-220-2-1/2	
Survival Wind Velocity With no Ice	mph (km/h)	135 (217)
Survival Wind Velocity With Ice	mph (km/h)	100 (161)
Maximum Allowable Radial Ice Buildup	inches (mm)	0.5 (12.7)
Equivalent Flat Plate Area	ft^2 (m^2)	2.1 (0.2)
Lateral thrust (100mph) 0 Radial Ice Buildup	lbs (N)	77 (342.5)
Torsional moment (100mph) 0 Radial Ice Buildup	ft-lbs (Nm)	83 (112.1)
Bending moment (100mph) 0 Radial Ice Buildup	ft-lbs (Nm)	247 (333.5)

JAG-220-2-1/2 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.

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Delta1 Series
EXPOSED FOLDED VHF UHF DIPOLE 2-Bay Array
195-245 MHz

JAG-220-2-1/2

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-220-2-1/2 is a 2-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-220-2-1/2 is supplied with either quarter-wave (JAG-220-2-1/4) or half-wave (JAG-220-2-1/2) dipole-to-mast spacing. Site-specific mounting hardware is required with these antennas. Please consult JAG for suitable clamps.

The JAG-220-2-1/2 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-220-2-1/2, 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-220-2-1/2 at a glance

Expert TIG welding

Natural rubber plugs

Heavy-duty dipole fixture

Optional lightning rod

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

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

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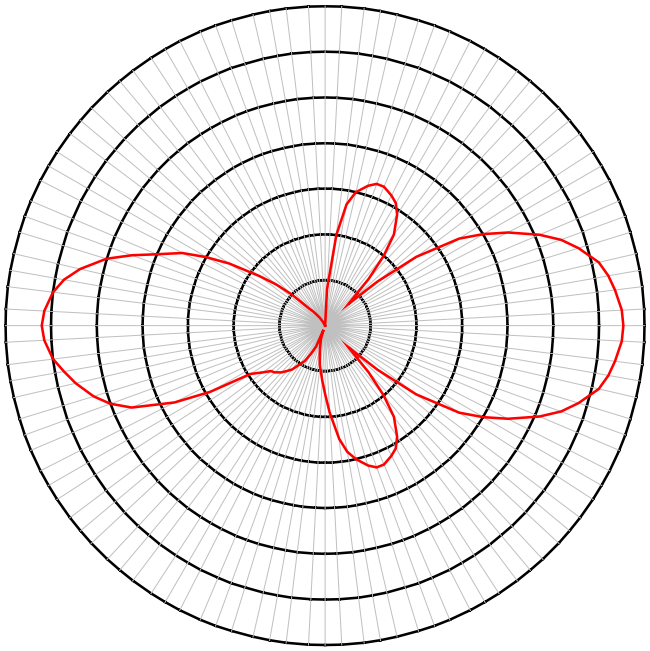
Vertical Radiation Pattern For Vertical Polarization



Elevation

—— Half Wavelength Spacing

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

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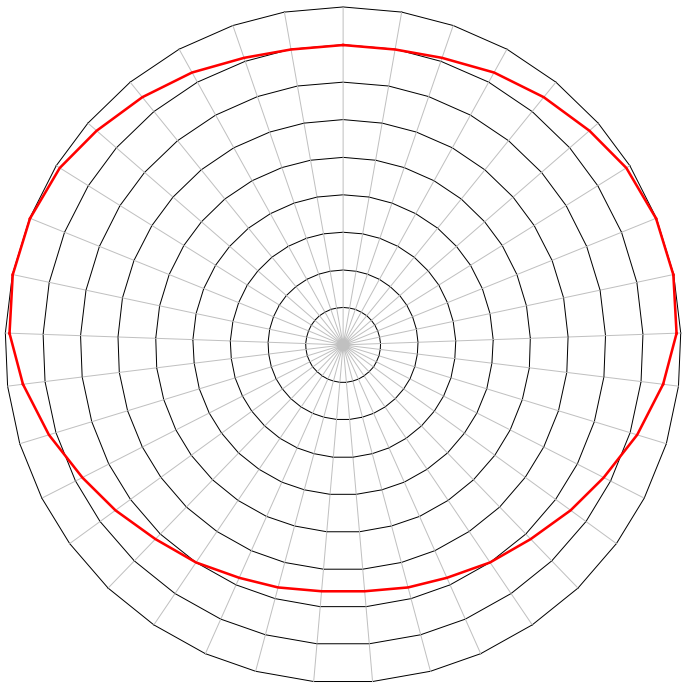
JAG-220-2-1/2

Horizontal Pattern For Vertical Polarization



Azimuth

Half Wave Spacing

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