

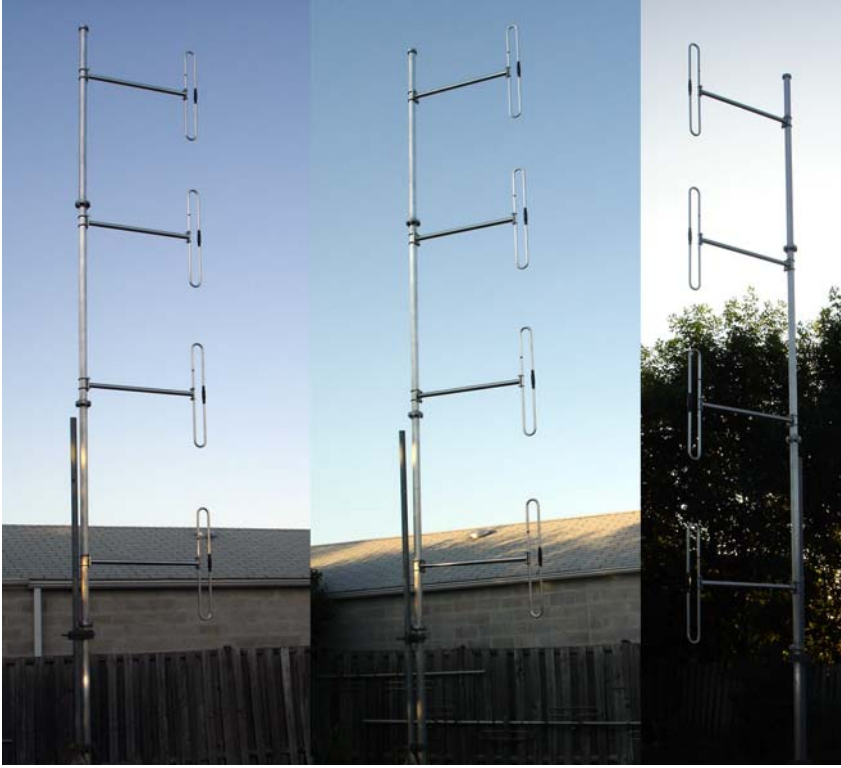


Delta2 Series
EXPOSED FOLDED VHF UHF
DIPOLE 4-Bay Array
195-245 MHz



Electromagnetics
"Quality is everything."

JAG-220-4-1/2-F



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



Electrical Specifications		Mechanical Specifications		Environmental	
Model	JAG-220-4-1/2-F	Model	JAG-220-4-1/2-F	Model	JAG-220-4-1/2-F
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 ² (m ²) 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-F Product Specification Sheet.

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Dated: February-20-2011

Issue: 1

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Features

- 5-year factory warranty (See page 3)
- Broadband (50 MHz)
- Suitable for multi-frequency systems
- Soldered internal joints
- Segmented for easy transport
- Fits in standard Otis Elevators
- DC Grounded
- Stainless steel hardware
- Easy storage
- Low PIM
- Operation in harsh environments
- Optional downtilt versions
- Optional lightning rod spike
- Natural rubber plugs
- Reduced installation cost
- Adjustable radiation pattern
- Optional inverted mountable model
- Side or tower top mountable

Description

The JAG-220-4-1/2-F is a 4-bay version of the JAG-220-1-1/2, incorporating all the features of the basic model into a high gain antenna needed in certain system applications. The JAG-220-4-1/2-F is supplied with either quarter-wave (JAG-220-4-1/4-F) or half-wave (JAG-220-4-1/2-F) 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-F offers a segmented design to facilitate easy transport, rooftop access, and installation resulting in a cost effective antenna for urban sites.

This antenna is especially suited for sites situated on the tops of urban skyscrapers and apartment buildings due to its ability to fit inside any elevator that provides a minimum clearance of 8-feet diagonally.

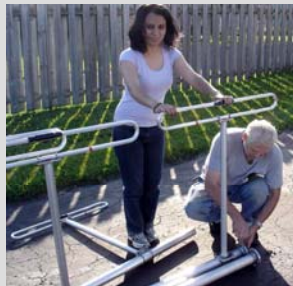
The JAG-220-4-1/2-F is fully appreciated serving sites that require many transmitters and receivers feeding a single antenna across a broad range of VHF frequencies.

JAG's unique flange system means that assembly of the sections is quite simple and requires only the use of ordinary hand tools. The flange system also means the logistics of getting the antenna to a rooftop, e.g., helicopters or outriggers can be avoided and minimize danger.

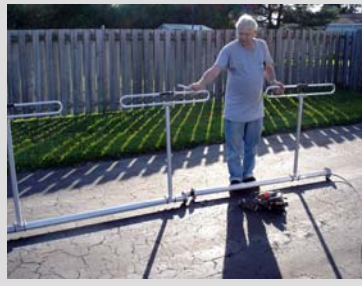
JAG-220-4-1/2-F at a glance



Antenna arrives



Undo transport bolts



Align dipoles and join sections according to desired pattern



Completed antenna

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

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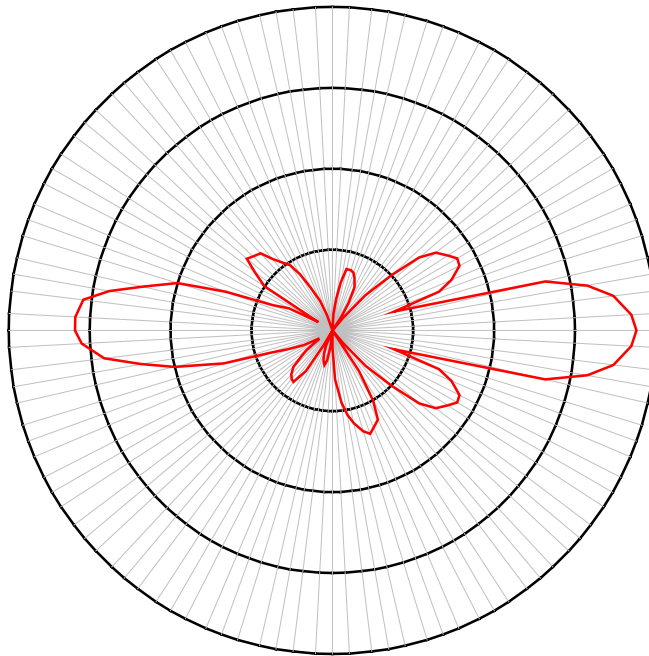
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JAG-220-4-1/2-F

Vertical Radiation Pattern For Vertical Polarization



Elevation

— Half Wavelength Spacing

* This is a general representation of the Delta2 Series JAG-220-4-1/2-F 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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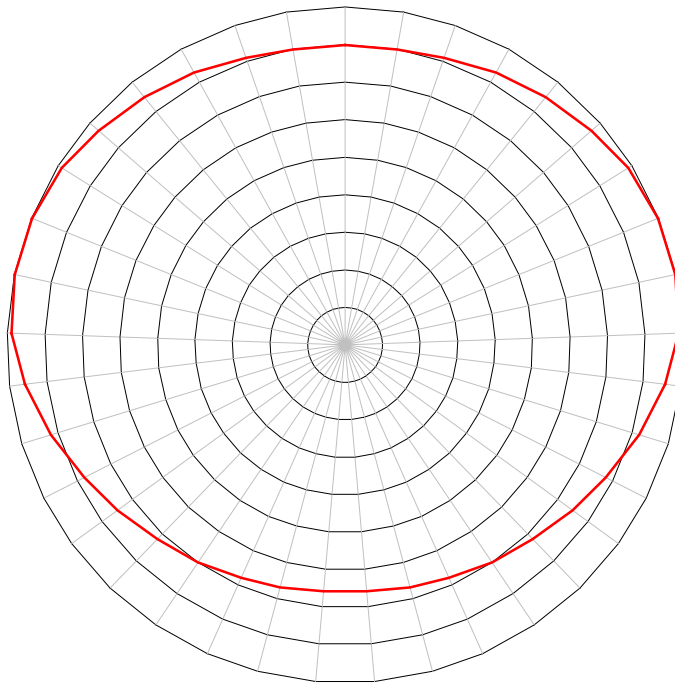
195-245 MHz

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JAG-220-4-1/2-F

Horizontal Pattern For Vertical Polarization



Azimuth

— Half Wave Spacing

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