



Delta2 Series
EXPOSED FOLDED VHF UHF
DIPOLE 2-Band Array
138-174 MHz & 406-512 MHz

Electromagnetics
"Quality is everything."

JAG-150-2-1/2+JAG-450-4-1/2-F



Below: Engineer assembles JAG flange system on rooftop.

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



Electrical Specifications		Mechanical Specifications		Environmental	
Model	JAG-150-2-1/2+JAG-450-4-1/2-F	Model	JAG-150-2-1/2+JAG-450-4-1/2-F	Model	JAG-150-2-1/2+JAG-450-4-1/2-F
Frequency Range (MHz)	138 – 174 / 406 – 512	Height	inches (mm) 241 (6,121)	Survival Wind Velocity With no Ice	mph (km/h) 110 (177)
Bandwidth @ 1.5:1 VSWR or Better (MHz)	36 (VHF) / 106 (UHF)	Width	inches (mm) 42 (1,066.8)	Survival Wind Velocity With Ice	mph (km/h) 80 (128)
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) 55 (24.96)	Equivalent Flat Plate Area	ft ² (m ²) 4.51 (0.42)
Nominal Gain (dBd)	3 – 3.7 (VHF) / 6.45 – 7 (UHF)	Support Mast Outside Diameter Inches (mm)	2.375 (60.3)	Lateral thrust (100mph) 0 Radial Ice Buildup	lbs (N) 173 (769.5)
Nominal Horizontal 3dB Beamwidth (Deg)	205 – 215	Support Mast Allowable Clamping Space Inches (mm)	45 (1,143)	Torsional moment (100mph) 0 Radial Ice Buildup	ft-lbs (Nm) 157 (212)
Nominal Vertical 3dB Beamwidth (Deg)	33 – 35 (VHF) 15 – 19 (UHF)	Mounting Information	No clamps supplied*	Bending moment (100mph) 0 Radial Ice Buildup	ft-lbs (Nm) 761 (1027.4)
Maximum Average Power (Watts)	200 (VHF) / 200 (UHF)	Pigtails (ft) & RF Connectors	5 – 5.5 & 'N' Male		
Lightning Protection	DC Ground				

*See JAG clamps page for suitable clamps and applications

Note: See JAG antenna options page for other connectors and pigtail lengths.

JAG-150-2-1/2+JAG-450-4-1/2-F 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: April-10-2010

Issue: 1

Made in Canada

Rev041010.0

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



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Features

- 2-year factory warranty (See page 3)
- Broadband (36MHz VHF &106MHz UHF)
- Suitable for multi-frequency systems
- Soldered internal joints
- Segmented for easy transport
- 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

*See JAG Delta2 Series application notes for details

Description

The JAG-150-2-1/2+JAG-450-4-1/2-F is a dual band VHF/UHF antenna incorporated onto one mast needed in certain system applications. This antenna is supplied with either quarter-wave or half-wave dipole-to-mast spacing. Depending on the coverage pattern required, this antenna can also be ordered with 1/4λ VHF spacing and 1/2λ UHF spacing or vice versa.

The JAG-150-2-1/2+JAG-450-4-1/2-F offers JAG's patented flange system 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 10.5-feet diagonally.

The JAG-150-2-1/2+JAG-450-4-1/2-F is fully appreciated serving sites that require many transmitters and receivers feeding a single antenna across a broad range of VHF and UHF 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-150-2-1/2+JAG-450-4-1/2-F at a glance



JAG patented flange system with 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.

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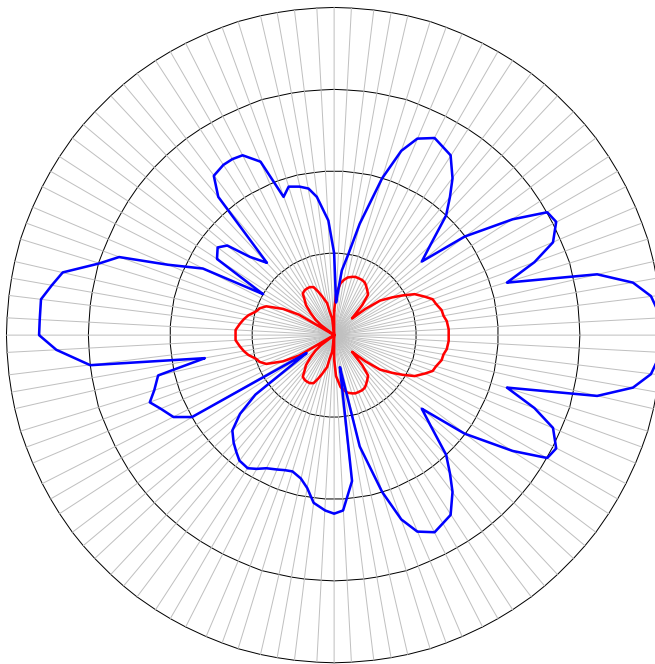
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Vertical Radiation Pattern For Vertical Polarization



Elevation

VHF UHF

VHF scale: 3dB/div
UHF scale: 7dB/div

* This is a general representation of the Delta2 Series JAG-150-2-1/2+JAG-450-4-1/2-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 two years from the purchase date by the user.

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.

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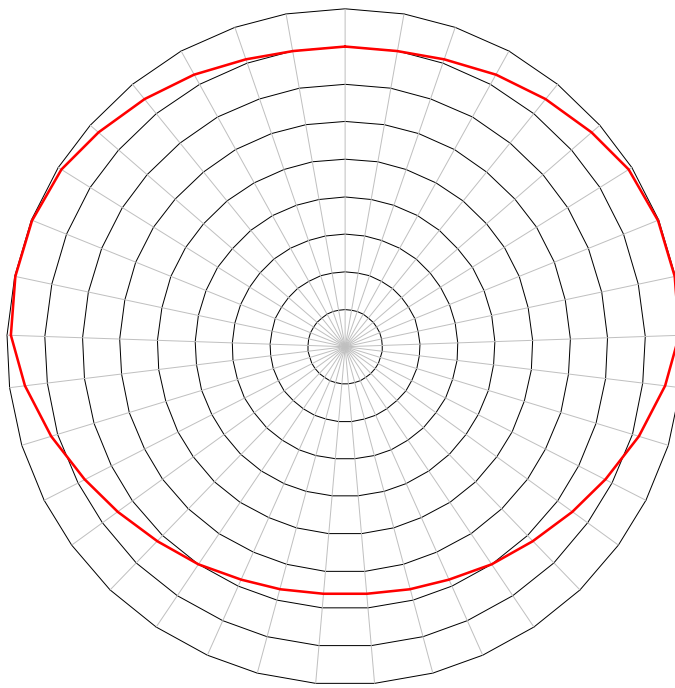
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Horizontal Pattern For Vertical Polarization



Azimuth

— VHF & UHF

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