JAG™ Electromagnetics

"Quality is everything."

Delta2 Series

EXPOSED FOLDED VHF UHF DIPOLE 8-Bay Array

406-512 MHz

JAG-450-8-1/2-F

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

Electrical Specifications	
Model	JAG-450-8-1/2-F
Frequency Range (MHz)	406 – 512
Bandwidth @ 1.5:1 VSWR or Better (MHz)	106
Polarization	Vertical
Radiation Pattern	Bi-directional (Elliptical)
Nominal Gain (dBd)	8.9 – 9.2
Nominal Horizontal 3dB Beamwidth (Deg)	205 – 215
Nominal Vertical 3dB Beamwidth (Deg)	7 – 9
Maximum Power (Watts)	300
Lightning Protection	DC Ground

Mechanical Specifications		
Model	JAG-450-8-1/2-F	
Height	inches (mm)	204 (5,182)
Width	inches (mm)	16 (406)
Depth	inches (mm)	5 (127)
Weight	lb (kg)	48 (21.8)
Support Mast Outside Diameter	Inches (mm)	2.375 (60.3)
Support Mast Clamping Space	Inches (mm)	48 (1219)
Mounting Information	No clamps supplied* (See JAG clamps page for suitable clamps)	
Pigtail (ft) & RF Connector	10 – 10.5 & 'N' Male	

Environmental		
Model	JAG-450-8-1/2-F	
Survival Wind Velocity With no Ice	mph (km/h)	110 (177)
Survival Wind Velocity With Ice	mph (km/h)	80 (128)
Maximum Allowable Radial Ice Buildup	inches (mm)	0.5 (12.7)
Equivalent Flat Plate Area	ft^2 (m^2)	3.54 (0.33)
Lateral thrust (100mph) 0 Radial Ice Buildup	lbs (N)	144 (640.5)
Torsional moment (100mph) 0 Radial Ice Buildup	ft-lbs (Nm)	43 (58.1)
Bending moment (100mph) 0 Radial Ice Buildup	ft-lbs (Nm)	632 (853.2)

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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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Features

- 2-year factory warranty (See page 3)
- Broadband (106 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-450-8-1/2-F is an 8-bay version of the JAG-450-1-1/2, incorporating all the features of the basic model into a very high gain antenna needed in certain system applications. The JAG-450-8-1/2-F is supplied with either quarter-wave (JAG-450-8-1/4-F) or half-wave (JAG-450-8-1/2-F) dipole-to-mast spacing. Site-specific mounting hardware is required with these antennas. Please consult JAG for suitable clamps.

The JAG-450-8-1/2-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.

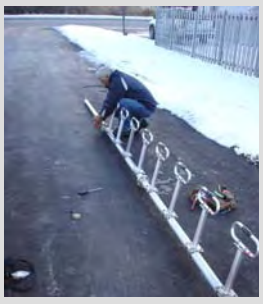
The JAG-450-8-1/2-F is fully appreciated serving sites that require many transmitters and receivers feeding a single antenna across a broad range of UHF frequencies.

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-450-8-1/2-F at a glance

Antenna arrives

Mid-section assembly



Base-section assembly

Complete antenna erected

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

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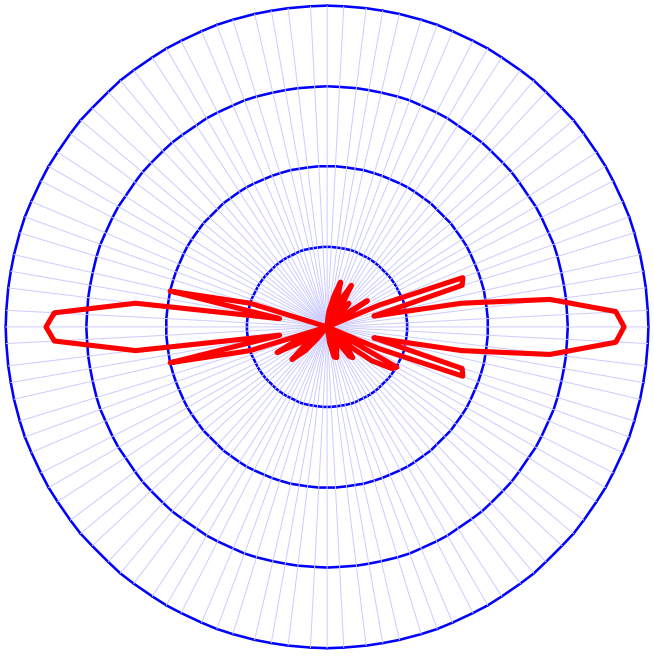
Vertical Radiation Pattern For Vertical Polarization



Half Wavelength Spacing

* This is a general representation of the Delta2 Series JAG-450-8-1/2-F antenna radiation pattern. For the latest detailed pattern contact JAG Applications Engineering.

WARRANTY

JAG Electronmagnetics 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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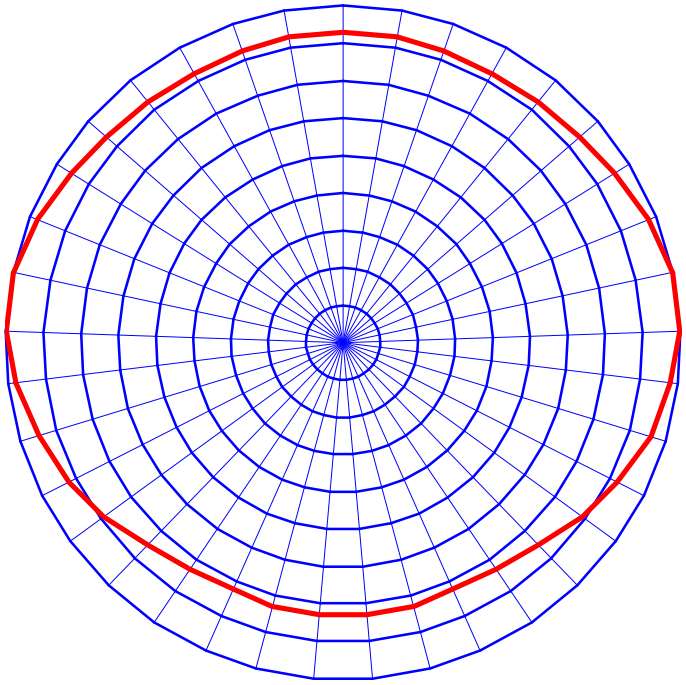
Horizontal Pattern For Vertical Polarization



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

Printed in Canada

JAG Electromagnetics™
RF EMI Engineering Technology
26-1750 Creek Way
Burlington, Ontario
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