



Jagy1 Series
FOLDED DIPOLE VHF UHF
YAGI 3-Element
400-436 MHz



Electromagnetics
"Quality is everything."

JAGY-415-3



FedEx
Shippable

- Telemetry
- Land mobile networks
- Public security and safety
- Transportation networks



Electrical Specifications		Mechanical Specifications		Environmental	
Model	JAGY-415-3	Model	JAGY-415-3	Model	JAGY-415-3
Typical Frequency Range (MHz)	400 – 436	Length	inches (mm) 13 (330)	Survival Wind Velocity With no Ice	mph (km/h) 140 (225.3)
Bandwidth @ 1.5:1 VSWR or Better (MHz)	27	Width	inches (mm) 3 (76.2)	Survival Wind Velocity With Ice	mph (km/h) 100 (160.9)
Bandwidth @ 1.7:1 VSWR or Better (MHz)	36	Height	inches (mm) 16.2 (412)	Maximum Allowable Radial Ice Buildup	inches (mm) 0.5 (12.7)
Polarization	Vertical or Horizontal	Weight	lb (kg) 3 (1.4)	Equivalent Flat Plate Area	ft ² (m ²) 0.16 (0.01)
Radiation Pattern	Directional	Yagi Support Boom Outside Diameter Inches (mm)	0.84 (21.3)	Lateral thrust (85mph) 0 Radial Ice Buildup	lbs (N) 7.9 (35.3)
Nominal Gain (dBd)	6 – 6.5	Yagi Support Boom Allowable Clamping Space Inches (mm)	4.75 (120.7)*	Torsional moment (85mph) 0 Radial Ice Buildup	ft-lbs (Nm) 9 (12)
Nominal Horizontal 3dB Beamwidth (Deg)	78 – 88	Mounting Information	JAGY#6A clamp supplied* <small>*See JAG clamps page for other suitable clamps</small>	Bending moment (85mph) 0 Radial Ice Buildup	ft-lbs (Nm) 4.86 (6.6)
Nominal Vertical 3dB Beamwidth (Deg)	54 – 64				
Front to Back Ratio (dB)	10 – 12				
Maximum Average Power (Watts)	200				
Lightning Protection	DC Ground	Pigtail (ft) & RF Connector	2 – 2.5 & 'N' female		

JAGY-415-3 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: October-31-2012

Issue: 1

Made in Canada

Rev103112.0

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



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Features

- 5-year factory warranty (See page 3)
- Broadband (36 MHz)
- Suitable for trunked radio systems
- Soldered internal joints
- Aluminum construction
- Light weight
- DC Grounded
- Stainless steel hardware
- Easy storage
- Low PIM
- Operation in harsh environments
- Fully sealed joints
- Side or tower top mountable
- Available in bare AL or painted black
- Optional Anodized finish
- Welded elements
- Horizontal or vertical polarization

Description

The JAGY-415-3 yagi antenna has been developed to meet the need for a medium gain, broadband, premium quality directional antenna providing 6 dBd gain with a low VSWR across the entire 400-436 MHz frequency band.

The JAGY-415-3 antenna consists of a three-element yagi of exceptional durability and performance. All elements including the driven folded dipole element are maintained at DC Ground potential for lightning protection. The reflector and director elements are welded to the boom reducing the risk of damage or misalignment and maintain excellent electrical continuity.

The JAGY-415-3 antenna is suitable for mounting on the top or side of a conductive or non-conductive tower or pole and is supplied complete with a mounting clamp kit. To assure optimum performance, each JAG antenna is checked for proper VSWR over a wide range of frequencies before leaving our factory.

The JAGY-415-3 has a number of system applications, such as in systems requiring an antenna with excellent icing characteristics. The JAGY-415-3 can also be used in point-to-point systems where medium gain is required over a relatively short distance. Reduction in transmitter noise, receiver desensitization, and intermodulation interference is also a result when a JAGY is co-located or 180 degrees from other antennas.

JAGY-415-3 at a glance



Folded dipole driven element



Sealed feed and welded elements



Type N female connector

*Site-specific mounting masts and clamps are recommended for this antenna. Please consult JAG to determine suitable accessories for your application.

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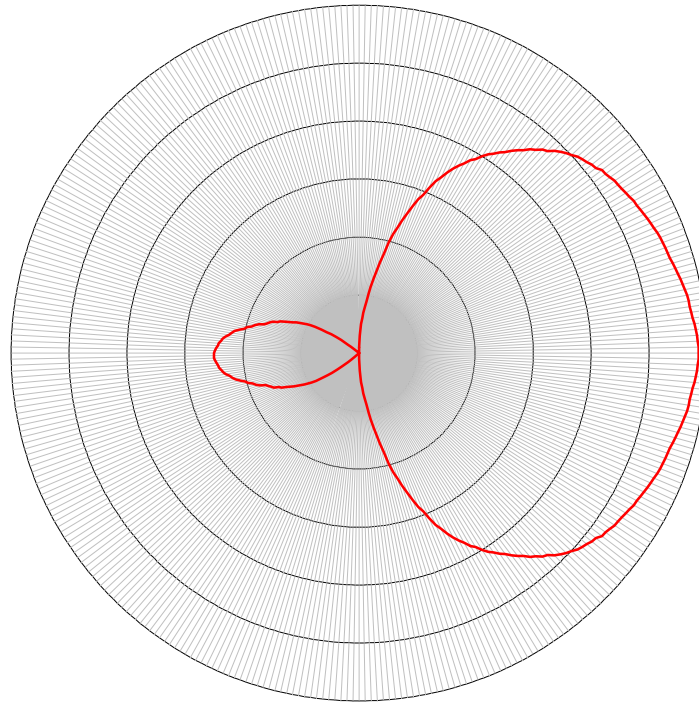


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JAGY-415-3

Vertical Radiation Pattern For Vertical Polarization



Elevation

* This is a general representation of the Jagy1 Series JAGY-415-3 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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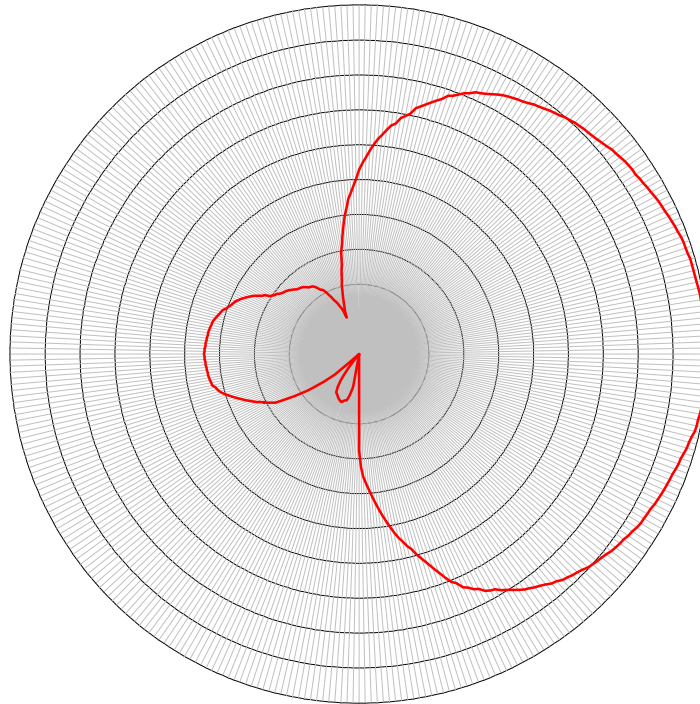


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Horizontal Radiation Pattern For Vertical Polarization



Azimuth

* This is a general representation of the Jagy1 Series JAGY-415-3 antenna radiation pattern. For the latest detailed pattern contact JAG Applications Engineering.

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