



CR1 Series

**EXPOSED FOLDED  
DIPOLE Corner Reflector**  
148-174 MHz

**Electromagnetics**  
"Quality is everything."

**JAG-CR-161-72x84**



- Multi-Channel / Trunked Systems
- Civil aviation applications
- Land mobile networks
- Public security and safety
- Transportation networks



Electrical Specifications		Mechanical Specifications		Environmental		
Model	JAG-CR-161-72x84	Model	JAG-CR-161-72x84	Model	JAG-CR-161-72x84	
Frequency Range (MHz)	148 – 174	Height	inches (mm) 72 (1,829)	Survival Wind Velocity With no Ice	mph (km/h) 100 (161)	
Bandwidth @ 1.5:1 VSWR or Better (MHz)	26	Width	inches (mm) 120 (3,048)	Survival Wind Velocity With Ice	mph (km/h) 85 (137)	
Polarization	Vertical	Depth	inches (mm) 60 (1,524)	Maximum Allowable Radial Ice Buildup	inches (mm) 0.5 (12.7)	
Radiation Pattern	Directional	Weight	lb (kg) 110 (49.9)	Equivalent Flat Plate Area no ice	ft <sup>2</sup> (m <sup>2</sup> ) 13.77 (1.27)	
Nominal Gain (dBd)	8.8 – 9.2	Recommended Support Mast:		Equivalent Flat Plate Area with ice	ft <sup>2</sup> (m <sup>2</sup> ) 23.91 (2.21)	
Nominal Horizontal 3dB Beamwidth (Deg)	48 – 52	Aluminum	Galvanized Steel	Lateral thrust (100mph)	0 Radial Ice Buildup	lbs (N) 598 (2,660)
Nominal Vertical 3dB Beamwidth (Deg)	64 – 68	2.875" (60mm)	≥2.375" (60mm)	Torsional moment (100mph)	0 Radial Ice Buildup	ft-lbs (Nm) 1,242 (1,683)
Typical Front to Back Ratio (dB)	30	SCH80	SCH80			
Maximum Average Power (Watts)	200	Min 7'	Min 7'			
Lightning Protection	DC Ground	Mounting Information	Clamps are supplied*			
		*Clamps will fit 2.38"-2.88" diameter support mast				
		Pigtail (ft) & RF Connector 2 – 3 & 'N' Male*				

JAG-CR-161-72x84 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-15-2014

Issue: 1

Made in Canada

Rev101015.0

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Features

- 5-year factory warranty (See page 3)
- Broadband (26 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
- Operation in harsh environments
- Top of tower or structure mountable
- Optional coatings
- Directional/sector coverage

Description

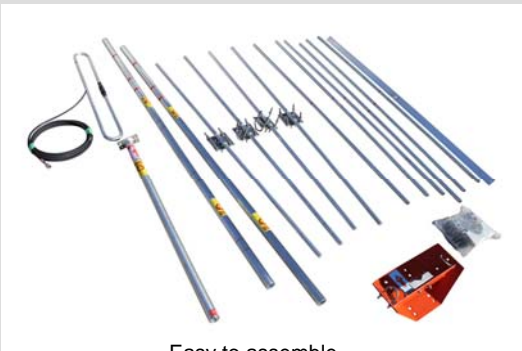
The JAG-CR-161-72x84 is a broadband high gain corner reflector for use in the 148-174 MHz frequency range. Its folded dipole feed allows operation in severe environmental conditions. Even with 0.5-inches of radial ice, the JAG-CR-161-72x84 will not exceed a VSWR of 2.0:1. Mounting hardware is included with these antennas. Higher power and heavy-duty models are available upon request.

The JAG-CR-161-72x84 features 6061-T6 aluminum and stainless steel construction. Features such as natural rubber plugs make sure the internal feed-line remains well protected from the elements ensuring trouble free operation.

The JAG-CR-161-72x84 offers customers a solution to situations that require broadband medium directionality similar to the coverage approach taken by most cellular systems. Due to the JAG-CR-161-72x84's inherently high front to back ratio, system operators can be assured that the desired signal will illuminate the planned sector coverage with maximum intensity.

The JAG-CR-161-72x84, 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-CR-161-72x84 at a glance



Easy to assemble



Natural rubber plugs



Heavy-duty dipole fixture

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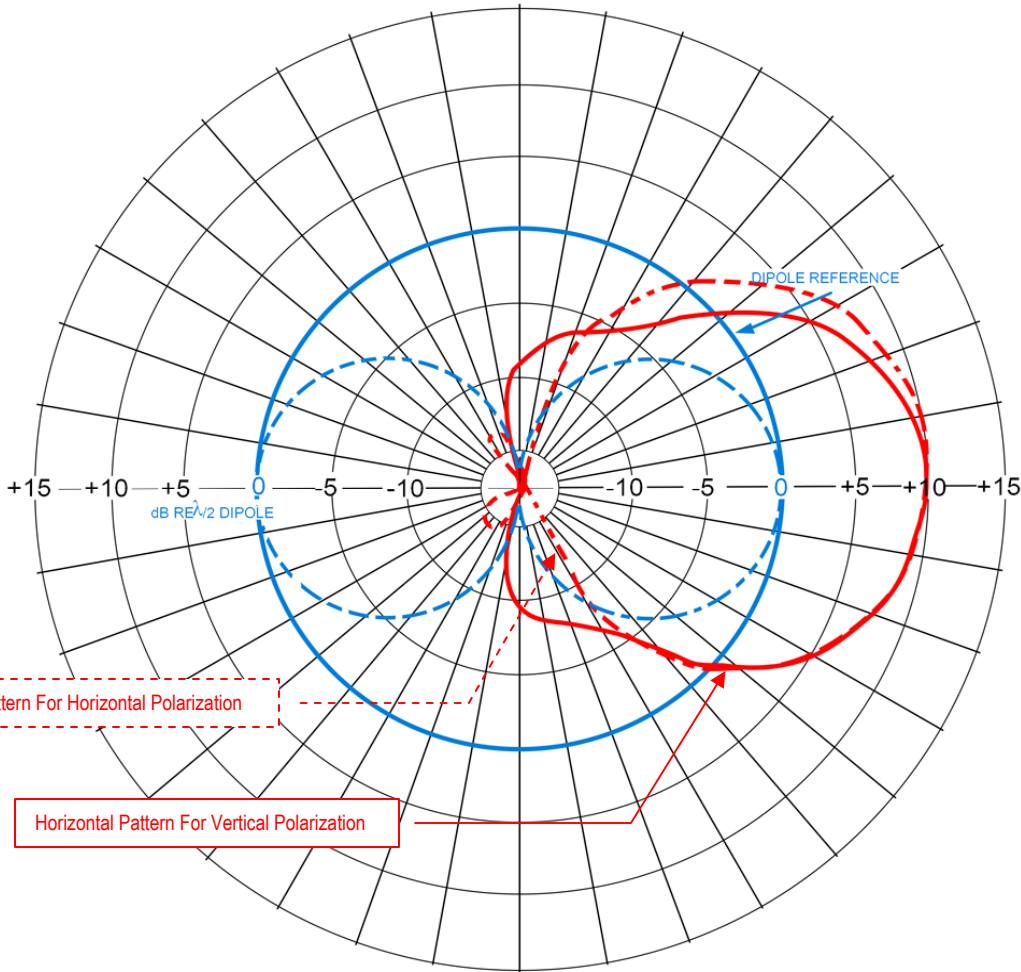
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\* This is a general representation of the CR1 Series JAG-CR-161-72x84 radiation pattern for each antenna.

JAG-CR-161-72x84 Product Specification Sheet

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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