



PRODUCT  
SPECIFICATIONS



Andrew ESAs provide maximum durability with minimal maintenance.

## 9.3 Meter Dual Reflector Earth Station Antenna

**N**ow telecommunications and television system operators, integrators and designers can bring their systems on line faster, more economically, and with superior performance with the Andrew 9.3 meter Earth Station Antenna (ESA)

In use around the world in broadcast applications and high-density data, voice, communications networks, the Andrew 9.3 meter ESA features a computer-optimized dual reflector Gregorian system coupled with independently adjustable reflector panels and trusses and close-tolerance manufacturing techniques. This combination provides extremely accurate surface contour, exceptionally high gain, superior efficiency, and closely controlled pattern characteristics. Additionally, the elevation-over-azimuth mount enables horizon-to-horizon coverage from any worldwide location. Andrew ESAs provide maximum durability with minimal maintenance. The hot-dipped galvanized steel ground mount assembly ensures extended product life.

Galvanized and stainless steel hardware maximizes corrosion resistance. A variety of options are available for cost effective system expansion, including two or four port linear or circular polarized combining networks, programmable control systems, feed rotation systems, maintenance platforms, professionally designed and documented cross-axis waveguide kits, and pressurization systems. Microprocessor and steptrack controls are also available for motorized antennas.

- High gain, excellent pattern characteristics
- Horizon to horizon coverage with elevation over azimuth mount
- Advanced Gregorian optics
- Intelsat B compliant

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#### Electrical Performance

	C-band 2-Port Circular Pol Feed		C-band 2-Port Linear Pol Feed		C-band 4-Port Circular Pol Feed		C-band 4-Port Linear Pol Feed	
	Receive	Transmit	Receive	Transmit	Receive	Transmit	Receive	Transmit
Frequency (GHz)	3.625- 4.200	5.850- 6.425	3.625- 4.200	5.850- 6.425	3.625- 4.200	5.850- 6.425	3.625- 4.200	5.850- 6.425
Antenna Gain at Midband	50.40 dB	53.80 dB	50.40 dB	53.90 dB	53.70 dB		53.80 dB	
Antenna Noise Temperature (Clear Sky Conditions at 68°F (20°C))								
10° Elevation	39 K		39 K		43 K		35 K	
30° Elevation	29 K		29 K		33 K		35 K	
50° Elevation	27 K		27 K		31 K		23 K	
Axial Ratio	1.20 dB	0.75 dB	1.50 dB	1.50 dB			0.50 dB	0.50 dg
VSWR Performance	1.30:1	1.30:1	1.30:1	1.30:1	1.35:1	1.35:1	1.30:1	1.30:1
Port-to-Port Isolation								
Rx/Tx	≥85 dB		≥85 dB		40 dB		40 dB	
Tx/Tx					≥85 dB		≥85 dB	
Waveguide Interface Flange (Tx Port)	CPR-229 G	CPR-137 G	CPR-229G	CPR-137G	CPR-229G	CPR-137G	CPR-229G	CPR-137G-42
Tx Power Capacity	500 W		5000 W		1500 W per Port		2500 W	
Maximum Pressurization	0.05 psi		0.50 psi		0.50 psi		0.50 psi	

#### Mechanical Performance

Optics Type	Gregorain Dual Reflector
Reflector Material	Precision Formed Aluminum
Reflector Segments	20
Mount Type	Tripod with Elevation Over Azimuth
Antenna Pointing Range	Elevation . . . . . 0 - 90° Coarse, 90° Continuous Azimuth . . . . . 180° Coarse, 120° Continuous Polarization . . . . . 180° Coarse, 180° Continuous
Hub/Enclosure Dimensions	Diameter . . . . . 2.31 m (84 in) Depth . . . . . 1.17 m (46 in)

#### Environmental Performance

Wind Loading	Operational . . . . . 72 km/h (45 mph) to 105 km/h (65 mph) (with Motor Drives) Survival . . . . . 200 km/h (125 mph) (Any Position)
Operational Temperature	. . . . . -40°C to 52°C (-40°F to 125°F)
Rain	. . . . . 102 mm (4 in per hour)
Solar Radiation	. . . . . 1135 Watts/m <sup>2</sup> (360 BTU/h/ft <sup>2</sup> )
Relative Humidity	. . . . . 100%
Shock and Vibration	. . . . . As Encountered by Commercial Air, Rail and Truck Shipment
Atmospheric Conditions	. . . . . Moderate Coastal and Industrial Areas (Severe Conditions Require Additional Protection)

Specifications provided are for representative feeds. Other feeds are available for this antenna size.



Andrew Corporation  
3 Westbrook Corporate Center  
Suite 900  
Westchester, Illinois 60154 USA

One Company. A World of Solutions.

Customer Support Center  
From North America  
Telephone: 1-800-255-1479  
Fax: 1-800-349-5444  
satcom@andrew.com

International  
Telephone: +1-708-873-2307  
Fax: +1-708-349-5444

Internet: www.andrew.com

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