

S-band and C-band Weather Radar Antennas

Antenna Features

- Lightweight Aluminum Reflector Antennas
- High Antenna Gain Performance
- Single and Dual Polarization
- Ruggedized 8.5 Meter Design Requires no Radome
- Improved Beam Symmetry and Cross Polarization
- Surface Profiles Verified with Laser Scanning

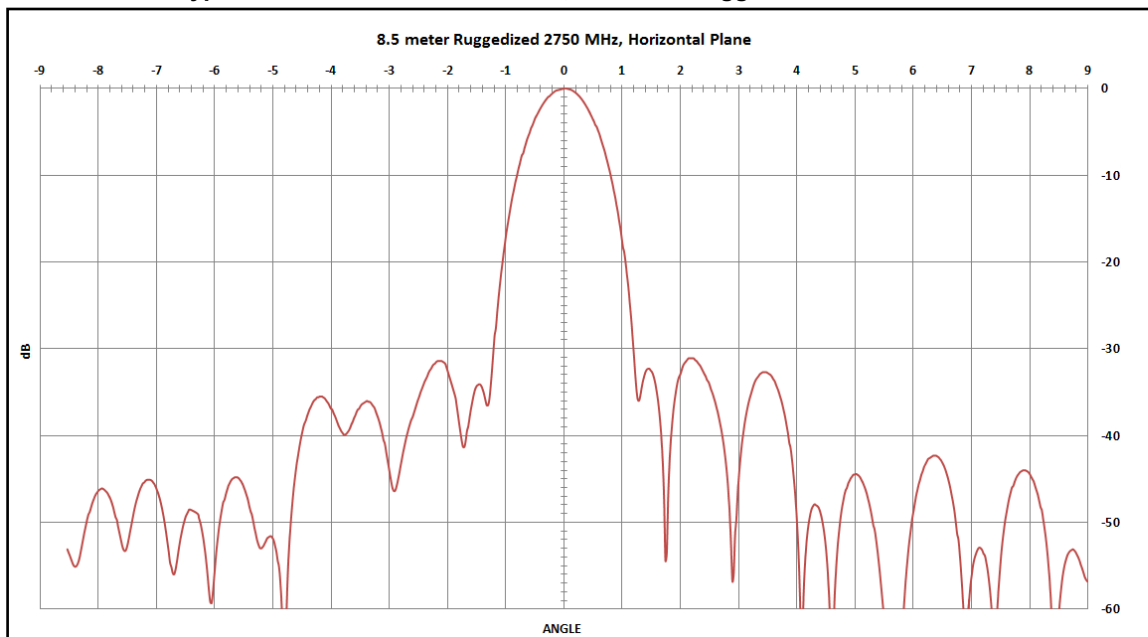


Kratos offers a full line of S-band and C-band Weather Radar Antennas in a number of different diameters. Kratos produces both solid spun reflectors as well as larger diameter segmented reflectors using advanced manufacturing tooling to ensure high performance and low cost production. All antenna design specifications are verified by far field antenna range measurements and manufacturing methods follow the ISO 9001 Quality Assurance standards resulting in a product which consistently exceeds design expectations.

Along with our standard line of radar antennas, Kratos offers our Ruggedized 8.5 meter dual polarized S-band antenna systems, that are designed to withstand 120 mph wind conditions without the need of a radome. This Antenna is also designed with improved cross polarization and beam symmetry values, ensuring a high performance for end users.

All antenna sizes are available at S-band or C-band and can be ordered in single or dual polarized versions. Our antennas have a well proven track record and have been widely deployed in the NEXRAD weather radar system.

Typical Azimuth Radiation Pattern, 8.5 Meter Ruggedized Antenna



Weather Radar Antennas

SPECIFICATIONS

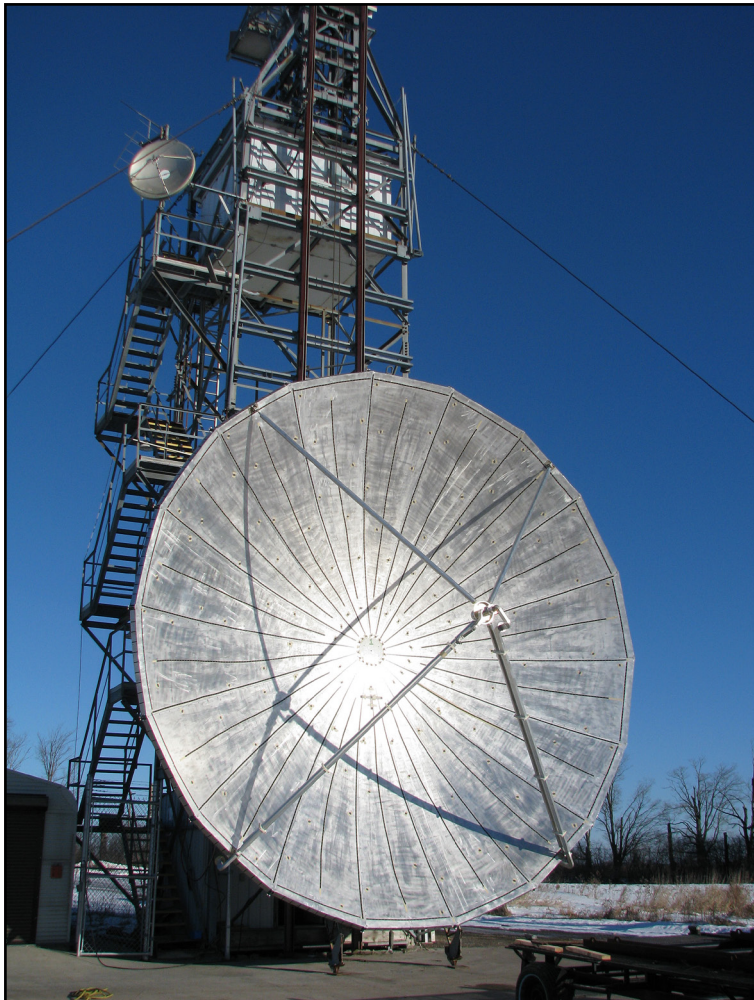
Electrical Performance

Antenna Diameter (Meters)	4.16	4.5	4.5	6.1	6.1	8.5	8.5
Operating Frequency (GHz)	5.6-5.65	2.7-2.9	5.6-5.65	2.7-2.9	5.6-5.65	2.7-2.9	5.6-5.65
Polarization	Linear	Linear	Linear	Linear	Linear	Linear	Linear
	Dual Linear	Dual Linear	Dual Linear	Dual Linear	Dual Linear	Dual Linear	Dual Linear
3 dB Beamwidth (Nominal)	0.95°	1.7°	0.95°	1.25°	0.65°	0.95°	0.5°
Gain (Minimum)	44.5 dBi	39.8 dBi	45 dBi	42.3 dBi	47.5 dBi	44.5 dBi	50 dBi
First Sidelobe Level	-26 dB	-25 dB	-27 dB	-24 dB	-26 dB	-26 dB	-26 dB
Cross Polarization	-30 dB	-27 dB	-27 dB	-27 dB	-27 dB	-27 dB*	-27 dB
Peak Power (Maximum)	300 kW	800 kW	350 kW	900 kW	250 kW	900 kW	250 kW
Average Power	360 W	1.6 kW	700 W	1.8 kW	360 W	1.8 kW ¹	360 W
VSWR (Maximum)	1.25:1	1.3:1	1.3:1	1.3:1	1.25:1	1.3:1**	1.25:1
Weight (Kg.)	260	400	400	614	614	1020	1020

* Optional -35 dB Cross Polarization Discrimination (on boresight) offered with our 8.5 Meter Ruggedized dual polarized S-band

** VSWR is 1.25:1 for Ruggedized dual polarized S-band system.

¹ Power rating, 8.5 meter Ruggedized: 2 kW average power/1 MW peak.



Ruggedized 8.5 Meter Antenna on Test Tower

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