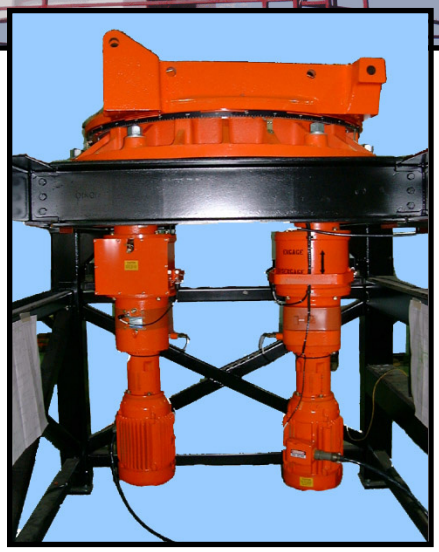
KRATOS
READY FOR WHAT'S NEXT™

S-band Air Traffic Control Radar Antenna System

Features

- High Gains
- High and Low Radiating Beams
- Instantaneous Polarization Switching
- Weather Channel Included
- Elevation Coverage to 40 Degrees
- Dual Drive Pedestal System
- Operation Without the Need of a Radome
- Interlock Stow Pins
- Optional Rotary Joint and Dual Motor Controllers to Provide a Complete System Solution
- Meets ICAO (International Civil Aviation Organization) Environmental Specifications

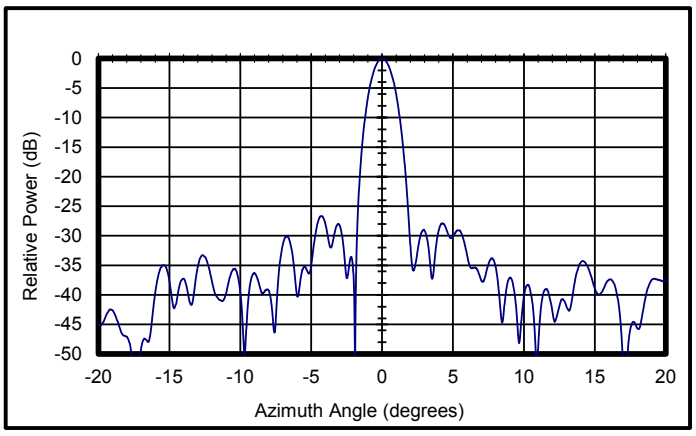


The Kratos S-band Radar Antenna was designed with state-of-the-art software to generate the reflector profiles, and uses advanced technology for the feed system.

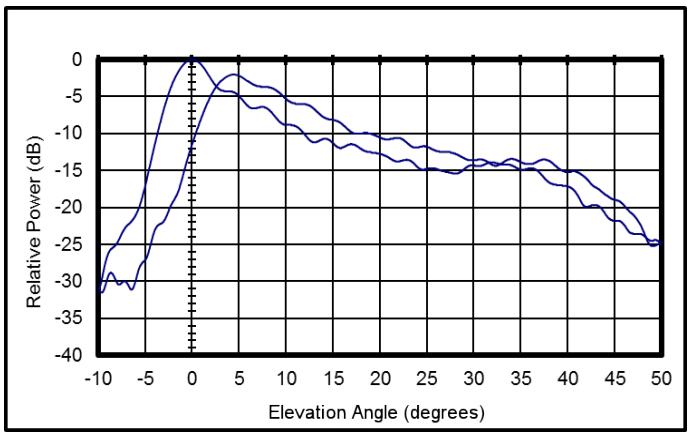
The dual drive pedestal rotator is designed to support the primary and large vertical array secondary radar antenna. The twin 15 horsepower motors are capable of operating the antenna system with an impressive 17,000 ft-lb of torque, enabling this radar system to operate without the need of a radome.

These antennas and pedestals are manufactured to stringent specifications and perform to exacting standards demanded of them. Kratos has invested in extensive manufacturing tooling to ensure repeatability in production.

The Kratos S-band Primary Surveillance Radar Antenna is a widely deployed advanced antenna with a proven record of performance and reliability. Drawing on its renowned antenna and pedestal design techniques, Kratos fabricates these surveillance radar antennas and pedestals with proven performance advantages.



Typical Low Beam Azimuth Patterns At 2.8 GHz



Typical Low/High Beam Elevation Patterns at 2.8 GHz

S-band ATC Antenna

ELECTRICAL PERFORMANCE

Frequency Band		2.7-2.9 GHz	
Gain (min)	High Beam	32 dBi	
	Low Beam	34 dBi	
Polarization		Swichable Circular/Linear	
VSWR		1.3:1	
Power Handling		+80 dBm max. peak/+67 dBm max. avg.	
Beamwidth		Azimuth (nominal)	Elevation (nominal)
		1.4°	7.7°

ENVIRONMENT

Wind Load	Operating	87 mph (140 kph) +1/2” (12.7mm) ice
	Survival	150 mph (240 kph) +1.57” (40mm) ice
Operating Temperature		-50°C to +70°C
Rain		4 inches (102 mm) per hour
Humidity		to 100%
Solar Radiation		360 BTU/hr/ft² (1135 Watts/m²)

MECHANICAL

Feed Type	Dual prime focus offset feeds
Reflector Type	Three piece formed aluminum mesh conversion coat per MIL-C5541C
Waveguide Flange Type	CPR284
Aperture Size (W x H)	16.6 ft x 9.4 ft (5.06 m x 2.87 m)
Height	15.5 ft (4.72 m) incl pedestal, less MSSR
Max Swept Radius	8.8 ft (2.68 m)

AVAILABLE OPTIONS

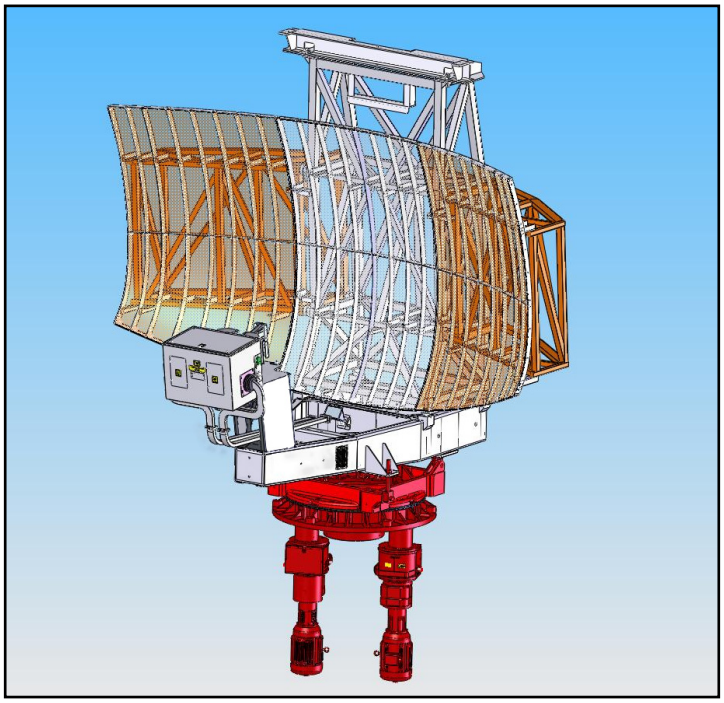
Rotary Joint
Slip Rings
Ladder Kit
Motor Control Unit
Obstruction Lighting

PEDESTAL PERFORMANCE

Dual Drive Motors, hp	15
Rotation Rate, rpm,	Variable up to 15
Frequency, Hz	50/60
Voltage, VAC	208/380
Peak Torque, (dual drive)	17,000 ft-lbs (23,049 N.m)

SHIPPING INFORMATION

Antenna		
Weight	Net	5,820 lb (2,640 kg)
	Gross	7,275 lb (3,300 kg)
Dimensions (w x h) Reflector Surface		
16.6 ft x 9.4 ft (5.06 m x 2.87 m)		
Transportable via a single closed 40 ft (12.2 m) ISO container		
Pedestal		
Weight	Net	10,030 lb (4,560 kg)
	Gross	10,750 lb (4,886 kg)
Dimensions (l x w x h)		
7.7 ft x 7.7 ft x 8.1 ft (2.3 m x 2.3 m x 2.4 m)		



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