EARTH STATION ANTENNA · KU-BAND

9.0 m Earth Station Antenna **900-Ku**

INSKY's 9.0-meter Cassegrain antenna offers outstanding performance for transmit/receive and receive-only applications. Its design delivers high gain, low noise temperature, high antenna efficiency and outstanding rejection of microwave interference and noise.



900-Ku · kingpost pedestal

Key features

STRUCTURE AND MOUNT

- ✓ Stretch-formed precision reflectors
- ✓ Large centre hub for all Tx and Rx equipment, with hub covers
- ✓ Galvanized kingpost pedestal with independent azimuth and elevation movement
- ✓ Extended azimuth travel
- ✓ High-stiffness configuration for Ka-band operation
- ✓ Ladder and service platform

RF AND TRACKING

- ✓ ITU-R S.580 sidelobe compliant
- ✓ C, X, Ku, DBS and Ka-band feed configurations
- ✓ X-band low-PIM reflector and feed configurations
- ✓ High-power configurations for HITS, DTH and multi-transponder high-power uplink
- ✓ Integrated LNA / LNB systems
- ✓ Integrated transmit cross-axis kits
- ✓ Antenna control system with step tracking
- ✓ C, Ku and Ka monopulse tracking available

ENVIRONMENT AND SERVICES

- ✓ Reflector and feed de-icing systems
- ✓ Environmental hub configurations
- ✓ Turnkey installation and testing

RF PERFORMANCE

Standard Ku-band, **4-port feed.**

Parameter	Receive	Transmit
Frequency	10.70-12.0 GHz	12.75-14.0 GHz
Antenna gain, midband	58.5 dBi	60.1 dBi
VSWR	1.30:1	1.30:1
ANTENNA NOISE TEMPERATURE		
10° elevation	75 K	
20° elevation	68 K	
40° elevation	65 K	
TYPICAL G/T AND POWER		
G/T at 11.725 GHz, 70 K LNA	37.0 dB/K	
Power handling, total		2 kW CW
CROSS-POLARIZATION ISOLATION		
On axis	35 dB	35 dB
Within 1.0 dB beamwidth	35 dB	35 dB
PORT-TO-PORT ISOLATION		
Rx / Tx, at Rx frequency	0 dB	−70 dB
Tx / Rx, at Tx frequency	−85 dB	0 dB
Sidelobe performance	Meets ITU-R S.580 and FCC	

All values are at the rear feed flange. Typical G/T is at 20° elevation, using a single LNA on the feed's Rx port.

Feed configurations

C · X · **Ku · standard** · DBS · Ka

Tracking

Step tracking · Monopulse · C, Ku, Ka

MECHANICAL AND ENVIRONMENTAL

Built to hold its pointing **in any weather.**

MECHANICAL

Antenna diameter	9.0 m
Reflector	Precision-formed aluminium panels with heat-diffusing white paint
Mount configuration	Kingpost pedestal
Drive type	Jack screws
Azimuth travel	120° continuous (optional 180° and 200°)
Elevation travel	5° to 90° continuous
Polarization travel	2-port ±90° · 4-port ±50°
Shipping containers	Two standard 40 ft

ENVIRONMENTAL

Operational wind	72 km/h, gusting to 100 km/h
Survival wind	200 km/h
Operational temperature	−15 °C to +50 °C
Survival temperature	−30 °C to +60 °C
Rain	Up to 10 cm/h (4 in/h)
Relative humidity	0 to 100%, with condensation
Solar radiation	1,000 kcal/h/m² (360 BTU/h/ft^2)
Ice, survival	2.5 cm (1 in) on all surfaces
Atmospheric conditions	As encountered in coastal regions and heavily industrialized areas
Shock and vibration	As encountered during shipment by air, sea or road

GET IN TOUCH

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Configuration dependent. Some specifications may vary with the combination of equipment, options and upgrades ordered.

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