

# Diameter 32 M Cassegrain Reflector Antenna

**Model No.** HGA - 32



**Options**

- Operational Band
  - Available for other Frequency Ranges. L-Band, S-Band, or X-Band
- Full and Half Reflector Deicing System with Manual or Automatic Controls
- Motorized Azimuth, Wheel Rail Track Elevation and Polarization Drive System with Controls and Readouts
- Servo System
- Extended C-Band Wide Band System
- Cassegrain Beam Wave Guide
- Deicing Reflector
- Hub (Heating Cooling)

## ELECTRICAL CHARACTERISTICS

Model Electrical Item	HG32CL4		HG32CC4	
	C-Band Linear Pol.		C-Band Circular Pol.	
	Receive	Transmit	Receive	Transmit
Frequency(GHz)	3.625 ~ 4.200	5.850 ~ 6.425	3.625 ~ 4.200	5.850 ~ 6.425
Gain(Mid;dBi)	61.1	64.6	61.2	64.7
Typical G/T(20° EL)	42.38 dB/K 35.5 (35.4) dB/K (3.95 GHz, 30 K LNA)		42.38dB/K 35.5 (35.4) dB/K (3.95 GHz, 30 K LNA)	
Beam Width(3 dB)	0.17°	0.11°	0.17°	0.11°
VSWR	1.3		1.3	
Antenna Noise Temperature				
5°(EL)	59K	•	59K	•
10°(EL)	49K	•	49K	•
20°(EL)	44K	•	44K	•
40°(EL)	41K	•	41K	•
Axial Ratio	N/A		0.5 dB	
Cross Polarization Isolation	35 dB		30.8 dB (CP)	
Port to Port Isolation				
Rx to Rx	35dB	•	20dB	•
TxtoTx	•	35dB	•	20dB
Txto Rx	-85dB	•	-85dB	•
Rx toTx	•	-85dB	•	-85dB
FeedInterface	CPR-229G	CPR-137G	CPR-229G	CPR-137G
Side lobe Performance	ITU-R S.580		ITU-R S.580	
Max Power	10KW CW		10KW CW	
RF Specification	H104729/015		H106824/025	

※ All feed flange values G/T 20° elevation dry clear weather 18° C temperature no RF interference structure building wood land mountain front area

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## Mechanical Specifications

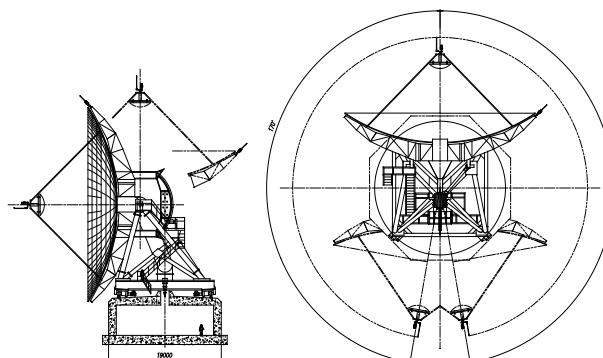
Antenna Diameter	32 M Dual Shaped Surface Reflector Type
Antenna Type	Wheel on Track
Reflector	Shaping formed aluminum panels, galvanized steel back-up structure
Pedestal Configuration	Wheel on track constructed of galvanized steel
Azimuth Travel	±170°
Elevation Travel	5 to 90° continuous
Azimuth Travel Rate	operating 0.03°/sec, slew 0.3°/sec Jack Screw
Elevation Travel Rate	operating 0.03°/sec, slew 0.3°/sec Jack Screw
Foundation (L x W x D)	19 x 19 x 1.5 m
Shipping Containers	fifteenth 40 ft open top, ten 40 ft standard, five 40 ft flat rack
Soil Bearing Pressure	10,000 kg/m <sup>2</sup>

## Environmental Specifications

Survival Wind Loading	200 km/h
Operational Wind Loading	72 km/h, gusting to 97 km/h
Operational Temperature	-20° to + 50°C
Survival Temperature	-30° to + 60°C
Rain	up to 100 mm/h
Relative Humidity	0 ~ 100 %
Solar Radiation	1000 kcal/h/m <sup>2</sup>
Ice (Survival)	2.5 cm on all surfaces or 1.3 cm on all surfaces with 130 km/h wind gusts
Shock and Vibration	As encountered during shipment by airplane, ship or truck
Atmospheric Conditions	As encountered in coastal regions and/or heavily industrialized areas

※ Without active elements and components.

## Antenna Drawing (unit: mm)



Side View

Front View