

# Diameter 11.1 M Dual Reflector Antenna

**Model No.** HGA - 11.1



**Options**

- Operational Band
  - EXT Ku or EXT C Multiband C/Ku, X/Ka, or X/Ka
  - Limit Motion or Full Motion
- Polarization CP/LP Simultaneous Switching
- Deicing Reflector
- Tracking System ACU Step track, Monopulse track, Program track, Memory track, TT/C track
- Rotary Joint or Flexible
- Rx only, Rx, or Tx Simultaneous System
- Hub Configuration Cooling Heating
- Feed System Linear or Circular Monopulse Coupler X-Band Low PIM Feed Dual Pol. or 4 Pol.
- Integrated LNA (LNB), HPA, U/C, or D/C
- Packing Sea and Air Line
- High Wind Load Temperature
- High Power Handling

## Electrical Specifications

Model	HG111KUL4		HG111CC(L)4		HG111XC2	
Electrical	Ku-Band Linear Pol.		C-Band Circular (Linear) Pol.		X-Band Circular Pol.	
Item	Rx : 2 Ports	Tx : 2Ports	Rx : 2 Ports	Tx : 2Ports	Rx : 1 Port	Tx : 1Port
Frequency (GHz)	10.70 ~ 12.75	13.75 ~ 14.5	3.625 ~ 4.200	5.850 ~ 6.425	7.250 ~ 7.750	7.900 ~ 8.400
Gain(Mid:dBi)	60.35	62.1	51.9 (52.0)	55.6 (55.7)	57.15	57.85
Typical G/T(20° EL)	38.8 dB/K (11.725 GHz, 70 K LNA)		33.4 (33.5) dB/K (4 GHz, 30 K LNA)		37.1 dB/K (7.5 GHz, 45 K LNA)	
Beam Width(3 dB)	0.16°	0.14°	0.44°(0.44°)	0.29°(0.29°)	0.24°	0.22°
VSWR	1.3		1.3		1.3	
Antenna Noise Temperature						
5°(EL)	96 K	•	56(52) K	•	74 K	•
10°(EL)	81K	•	45 (46) K	•	63 K	•
20°(EL)	73 K	•	40 (38) K	•	57 K	•
40°(EL)	68 K	•	37 (35) K	•	55 K	•
Axial Ratio	N/A		0.5 dB (N/A)		1.0 dB	
Cross Polarization Isolation	35 dB		30.8 dB (35.0)		24.9 dB	
Port to Port Isolation						
Rx to Rx	35 dB	•	20 (35) dB	•	•	•
TxtoTx	•	35 dB	•	20 (35) dB	•	•
Txto Rx	-85 dB	•	-85 dB	•	*-27 (-110) dB	•
Rx toTx	•	-70 dB	•	-85 dB	•	*-27 (-110) dB
Side lobe Performance	ITU-R S.580		ITU-R S.580		ITU-R S.580	
Max Power	2KW CW		10KW CW		5KW CW	
RF Specification	H112132/R05T035115		H106824/025 (H104729/015) 115		H109855/04115	

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

※ \*: X-Band Low PIM Option

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## Mechanical Specifications

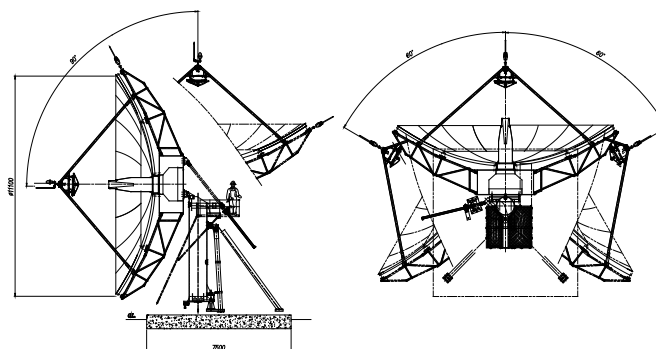
Antenna Diameter	11.1 M Dual Shaped Surface Reflector Type
Antenna Type	Kingpost Pedestal (Option Other Yoke & Tower)
Reflector	Shaping formed aluminum panels, galvanized steel back-up structure
Pedestal Configuration	Elevation over azimuth pedestal, constructed of galvanized steel
Azimuth Travel	$\pm 60^\circ$ or $180^\circ$ (3 segments @ $60^\circ$ ) Option Full Motion $\pm 270^\circ$ (Yoke & Tower Type)
Elevation Travel	5 to $90^\circ$ continuous
Azimuth Travel Rate	$0.02^\circ/\text{sec}$ Jack Screw
Elevation Travel Rate	$0.02^\circ/\text{sec}$ Jack Screw
Foundation (L x W x D)	7.5 x 7.5 x 0.6 m
Shipping Containers	three 40 ft standard
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	$-20^\circ$ to $+50^\circ\text{C}$
Survival Temperature	$-30^\circ$ to $+60^\circ\text{C}$
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