

# Diameter 7.2 M Dual Reflector Antenna

**Model No.** HGA - 7.2



**Options**

- Operational Band
  - X-Band Low PIM Antenna System
  - L, S, C, X, Ku, Ka, or DBS Band Antenna System
  - Extended C, Ku Antenna System
- Multiband Antenna System
- Deicing Systems (Heating), Hub (Heating Cooling)
- LNA , HPA , U/C or D/C System Integration
- Tracking Antenna System
- Step, Monopulse TT/C, Memory, or Manual track
- Turnkey Installation and Testing
- Packing for Sea and Air Transport
- Full Motion or Limit Motion
- Extended Azimuth Travel Range

## Electrical Specifications

Model	HG72KUL4		HG72CC(L)4		HG72XC4	
Electrical	Ku-Band Linear Pol.		C-Band Circular (Linear) Pol.		X-Band Circular Pol.	
Item	Rx : 2 Ports	Tx : 2Ports	Rx : 2 Ports	Tx : 2 Ports	Rx : 2 Ports	Tx : 2 Ports
Frequency(GHz)	10.7 ~ 12.75	14.00 ~ 14.50	3.625 ~ 4.200	5.850 ~ 6.425	7.250 ~ 7.750	7.900 ~ 8.400
Gain(Mid:dBi)	56.96	58.8	48.3 (48.2)	51.9 (51.8)	53.06	53.78
Typical G/T(20° EL)	35.65 dB/K (11.20 GHz, 70 K LNA)		30.03 (29.93) dB/K (4.000 GHz, 30 K LNA)		33.46 dB/K (7.500 GHz, 45 K LNA)	
Beam Width(3 dB)	0.23°	0.19°	0.66°(0.66°)	0.43°(0.43°)	0.36°	0.34°
VSWR	1.3		1.25		1.25	
Antenna Noise Temperature						
5°(EL)	87 K	•	52 (50) K	•	63 K	•
10°(EL)	74 K	•	43 (41) K	•	53 K	•
20°(EL)	65 K	•	37 (36) K	•	46 K	•
40°(EL)	61 K	•	35 (34) K	•	43 K	•
Axial Ratio	N/A		0.5 dB (N/A)		0.75 dB	
Cross Polarization Isolation	35 dB		30.7 dB (35)		27.3 dB	
Port to Port Isolation						
Rx to Rx	35 dB	•	20 (35) dB	•	20 dB	•
TxtoTx	•	35 dB	•	20 (35) dB	•	20 dB
Txto Rx	-85 dB	•	-85 dB	•	*-120 dB	•
Rx toTx	•	-70 dB	•	-85 dB	•	*-120 dB
Side lobe Performance	ITU-R S.580		ITU-R S.580		ITU-R S.580	
Max Power	2KW CW		10KW CW		2KW CW	
RFSpecification	H112132/R05T035		H106824/025		H113095/05	

※ 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

# Diameter 7.2 M Dual Reflector Antenna

## Mechanical Specifications

Antenna Diameter	7.2 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	$0.06^\circ/\text{sec}$ (C-Band), $0.02^\circ/\text{sec}$ (Ku-Band)Jack Screw
Elevation Travel Rate	$0.06^\circ/\text{sec}$ (C-Band), $0.02^\circ/\text{sec}$ (Ku-Band)Jack Screw
Foundation (L x W x D)	5.5 x 5.5 x 0.55 m
Shipping Containers	one 40 ft standard, one 20 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)

