

Diameter 8.4 M Dual Reflector Antenna

Model No. HGA – 8.4



Options

- Operating Band
 - L, S, C, Ku, DBS, Ka, X or DBS Band PIM
 - Extended C or Ku Band
- Feed Ports, Polarized Linear or Circular
- Auto Track or Manual track, Monopulse tracking for TT/C
- Reflector Deicing System
- Hub Environmental (Heating Cooling)
- LNA , LNB, HPA , U/C or D/C System Integration
- Parking Sea or Air
- Turnkey Installation and Testing
- Full Motion or Limit Motion
- High Rating Power
- Receive Only or Transmit

Electrical Specifications

Model	HG84CC(L)4		HG84KUL4		HG84DBL(C)4	
Electrical	C-Band Circular (Linear) Pol.		Ku-Band Linear Pol.		DBS-Band Linear (Circular) Pol.	
Item	Rx : 2 Ports	Tx : 2 Ports	Rx : 2 Ports	Tx : 2Ports	Rx : 2 Ports	Tx : 2 Ports
Frequency (GHz)	3.625 (Ext 3.4) ~ 4.20	5.850 ~ 6.425 (Ext 6.725)	10.70 ~ 12.75	13.75 ~ 14.50	10.70 ~ 12.75	17.30 ~ 18.40
Gain(Mid:dBi)	49.66 (49.56)	53.5 (53.4)	58.21	59.98	58.34	61.55
Typical G/T (20° EL)	31.3 (31.3) dB/K (4 GHz, 30 K LNA)		36.8 dB/K (11.725 GHz, 70 K LNA)		37.26 dB/K (11.725 GHz, 70 K LNA)	
Beam Width(3 dB)	0.57°(0.57°)	0.37°(0.37°)	0.2°	0.16°	0.19°	0.14°
VSWR	1.25		1.3		1.3	
Antenna Noise Temperature						
5°(EL)	53 (51) K	•	91K	•	82 K	•
10°(EL)	43 (42) K	•	77 K	•	65 K	•
20°(EL)	38 (35) K	•	68 K	•	58 K	•
40°(EL)	35 (33) K	•	63 K	•	52 K	•
Axial Ratio	0.5 dB (N/A)		N/A		N/A	
Cross Polarization Isolation	30.8 dB (35)		35 dB		35 dB	
Port to Port Isolation						
Rx to Rx	20 (35) dB	•	35 dB	•	35 dB	•
TxtoTx	•	20 (35) dB	•	35 dB	•	35 dB
Txto Rx	-85 dB	•	-85 dB	•	-85 dB	•
Rx toTx	•	-85 dB	•	-70 dB	•	-85 dB
Side lobe Performance	ITU-R S.580		ITU-R S.580		ITU-R S.580	
Max Power	10KW CW		2KW CW		2.5KW CW	
RF Specification	H106824/025 (H104729/015)		H112132/R05T035		H111185/025	

※ 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	8.4 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	±60° or 180°(3 segments @ 60°) Option Full Motion±270°(Yoke & Tower Type)
Elevation Travel	5 to 90° continuous
Azimuth Travel Rate	0.06°/sec (C-Band), 0.02°/sec (Ku-Band)Jack Screw
Elevation Travel Rate	0.06°/sec (C-Band), 0.02°/sec (Ku-Band)Jack Screw
Foundation (L x W x D)	6.5 x 6.5 x 0.6 m
Shipping Containers	one 40 ft standard, one 20 ft standard
Soil Bearing Pressure	10,000 kg/m ²

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 ²
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)

