

Diameter 13 M Dual Reflector Antenna

Model No. HGA - 13



Options

- Operational Band
 - EXT Ku or EXT C Multiband C, Ku, X, Ka, X, or Ka
- Limit Motion or Full Motion
- Polarization CP / LP Simultaneous Switching
- Tracking System ACU Step track, Monopulse track, Program track, or Memory track M/C
- Deicing System Reflector
- 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	HG13EKUL(C)4		HG13CC(L)4		HG13DBL4	
Electrical	ExtKu-Band Linear (Circular) Pol.		C-Band Circular (Linear) Pol.		DBS-Band Linear Pol.	
Item	Rx : 2 Ports	Tx : 2Ports	Rx : 2 Ports	Tx : 2Ports	Rx : 2 Ports	Tx : 2Ports
Frequency (GHz)	10.70 ~ 12.75	13.75 ~ 14.50	3.625 (Ext 3.4) ~ 4.200	5.850~ 6.425 (Ext 6.725)	10.70 ~ 12.75	17.30 ~ 18.40
Gain(Mid;dBi)	62.0 (62.0)	63.6 (63.6)	53.5 (53.4)	57.3 (57.3)	61.7	65.5
Typical G/T(20° EL)	40.7 (40.7) dB/K (11.725 GHz, 70 K LNA)		35.3 (34.7) dB/K (4 GHz, 30 K LNA)		39.8 dB/K (11.725 GHz, 70 K LNA)	
Beam Width(3 dB)	0.13°	0.11°	0.35°(0.35°)	0.24°(0.24°)	0.13 °	0.1 °
VSWR	1.3		1.25		1.3	
Antenna Noise Temperature						
5°(EL)	89 K	•	54 (58) K	•	101 K	•
10°(EL)	76 K	•	43 (49) K	•	96 K	•
20°(EL)	66 K	•	36 (43) K	•	85 K	•
40°(EL)	62 K	•	34 (41) K	•	81 K	•
Axial Ratio	N/A		0.5 dB (N/A)		N/A	
Cross Polarization Isolation	35 dB		30.8 dB (35)		35 dB	
Port to Port Isolation						
Rx to Rx	35 dB	•	20 (35) dB	•	35 dB	•
TxtoTx	•	35 dB	•	20 (35) dB	•	35 dB
Txto Rx	-85 dB	•	-85 dB	•	-85 dB	•
Rx toTx	•	-70 dB	•	-85 dB	•	-85 dB
Side lobe Performance	ITU-R S.580		ITU-R S.580		ITU-R S.580	
Max Power	2KW CW		10KW CW		2.5KW CW	
RF Specification	H112132/R05T035		H106824/025 (H104729/015)			

※ 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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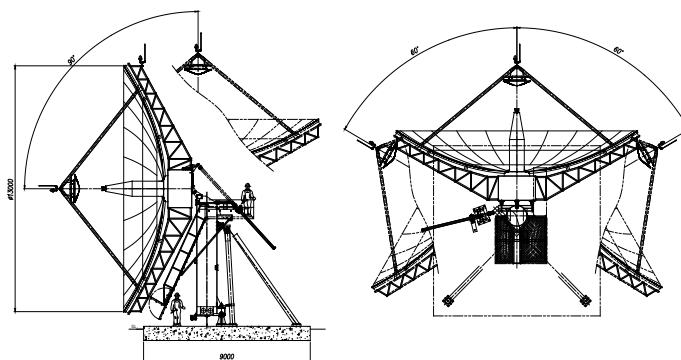
Mechanical Specifications

Antenna Diameter	13 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° (3 segments @ 60°) Option Full Motion $\pm 270^\circ$ (Yoke & Tower Type)
Elevation Travel	5 to 90° 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)	9 x 9 x 0.6 m
Shipping Containers	three 40 ft standard, one 40 ft open top
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 $+50^\circ\text{C}$
Survival Temperature	-30° to $+60^\circ\text{C}$
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

Antenna Drawing (unit : mm)



Side View

Front View