# Ø 13.0 M Dual Reflector Antenna

**Model No.** HGA – 13

## Option

- Operational Band
  - L,S,C,Ku,DBS-Band or EXT C, Ku Band Antenna System
- Limit Motion or Full Motion
- Polarization CP/LP Simultaneous Switching Feed
- Multi Band antenna system (C/Ku,X/Ka)
- Tracking System (Step track, Monopulse track, Program track, Orbit Predict track)
- Reflector and Feed deicing System
- Integrated transmit cross-axis kits
- Rx only, Rx, or Tx Simultaneous System
- Environmental Hub Configuration
- 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 for sea and air transport
- High Power Configuration

## Electrical Specifications

| Model | HG13EKUL(C)4 | | HG13CC(L)4 | | HG13DBL4 | |
|---|---|---|---|---|---|---|
| Electrical | Ext Ku-Band Linear (Circular) Pol. | | C-Band Circular (Linear) Pol. | | DBS-Band Linear Pol. | |
| Item | Rx : 2 Ports | Tx : 2 Ports | Rx : 2 Ports | Tx : 2 Ports | Rx : 2 Ports | Tx : 2 Ports |
| 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<br>5° (EL)<br>10° (EL)<br>20° (EL)<br>40° (EL) | <br>89 K<br>76 K<br>66 K<br>62 K | <br>•<br>•<br>•<br>• | <br>54 (58) K<br>43 (49) K<br>36 (43) K<br>34 (41) K | <br>•<br>•<br>•<br>• | <br>101 K<br>96 K<br>85 K<br>81 K | <br>•<br>•<br>•<br>• |
| Axial Ratio | 0.5 dB (N/A) | | 0.5 dB (N/A) | | N/A | |
| Cross Polarization Isolation | 35 dB | | 30.8 dB (35) | | 35 dB | |
| Port to Port Isolation<br>Rx to Rx<br>Tx to Tx<br>Tx to Rx<br>Rx to Tx | <br>-35 dB<br>•<br>-85 dB<br>• | <br>•<br>-35 dB<br>•<br>-70 dB | <br>-20 (-35) dB<br>•<br>-85 dB<br>• | <br>•<br>-20 (-35) dB<br>•<br>-85 dB | <br>-35 dB<br>•<br>-85 dB<br>• | <br>•<br>-35 dB<br>•<br>-75 dB |
| Side lobe Performance | ITU-R S.580 | | ITU-R S.580 | | ITU-R S.580 | |
| Power Handling | 2kW CW | | 10kW CW | | 2.5kW CW | |
| RF Specification | H112132/R05T035 | | H106824/025 (H104729/015) | | | |

* All values are at rear feed flange.
* Typical G/T at 20° elevation with dry clear weather 18°C temperature and clear horizon by using single LNA.