

Ø 7.0 M Low Orbit Earth Station Antenna

Model No. HGA - 7FL



Option

- Operational Band
 - covering a full frequency of X, L, S-Band, and for other frequency ranges
- Two-port or four-port TX/RX, linear or circular polarized feed
- Full reflector and feed deicing system with manual or automatic controls
- Motorized azimuth, elevation and polarization drive system with controls and readouts
- Available for the sizes from 5.5m to 13m

Electrical Specifications

Model	HGA-7S62/L57			
Parameters	Specification			
Antenna diameter	7.3 M			
Frequency	1.435 ~ 1.85GHz	2.2 ~ 2.4GHz	Rx 7.25 ~ 7.75GHz	Tx 7.9 ~ 8.4GHz
	L-Band	S-Band	X-Band	
Gain	35.78 dBi	40.34 dBi	53.6 dBi	53.78 dBi
G/T	15.28 dB/ ° K	19.74 dB/ ° K	33.46 dB/ ° K	
Beamwidth	1.90 °	1.30 °	0.36 °	0.34 °
1st Sidelobe	19 dB		14 dB (ITU-R S.580)	
Wind	Operational			
	Stowed			
Weight, max (without base riser)	5750 kg			
Power requirement	30 kVA			

* 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.
 * All specifications are typical at mid-band frequency.

Environmental Specifications

Operational Winds	32 m/sec
Survival Winds (Stow position)	60 m/sec
Ambient temperature (Survival)	-29°C ~ 60°C
Rain (Operational and Survival)	Up to 100 mm/h
Relative Humidity (Operational and Survival)	0% ~ 100% With Condensation
Solar Radiation	1000 kcal/h/m ²
Radial Ice (Survival)	2.5 cm on all surfaces or 1.3 cm on all surfaces with 130 km/h wind gusts

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Mechanical Specifications

Azimuth Travel	±270° Continuous
Azimuth Travel Rate	3° /sec (Max.)
Elevation Travel	-5° to 95°
Elevation Travel Rate	3°/sec (Max.)
Tilt Travel	10° to 350°
Tilt Travel Rate	1°/ sec (Max.)
Reflector	Aluminum
Surface Accuracy	0.3mm (RMS)
Pedestal Structure	Steel
Finishes	
Reflector Surface	Aluminum panels with heat-diffusing white paint
Pedesta	Hot-dip galvanized
Surface Accuracy	0.5mm (RMS)
Foundation Size	7.0M × 7.0M × 0.6M
Concrete Volume	29.4m ³
Soil Bearing Pressure	10.000kg/m ²

Antenna Drawing

