

2. Ø 1.0/1.2 M Ship Board Satellite Communication Antenna System



Options

- C, Ku or X Band Antenna System
- LNA or BUC System Integration
- Tracking Antenna System
(Step, cone scan or Manual track)
- Automatic satellite search and identification
- High performance and excellent stabilization
- 3-axes BLDC motor(manipulating pedestal)
- High efficiency parabolic antenna
- Each ship board antenna and GPS, Gyro system can be easy interfaced with high performance
- Turnkey Installation and Testing
- Packing for Sea and Air Transport

Electrical Specifications

Model	HGSBKU10		HGSBKU12		HGSBX12	
Electrical	Ku-Band Linear Pol.		Ku-Band Linear Pol.		X-Band Circular Pol.	
Item	Rx Port	Tx Port	Rx Port	Tx Port	Rx Port	Tx Port
Frequency (GHz)	10.7 ~ 12.75	13.75 ~ 14.5	10.7 ~ 12.75	13.75 ~ 14.5	7.25 ~ 7.75	7.90 ~ 8.40
Gain (Mid; dBi)	≥ 39	≥ 40.6	≥ 40.6	≥ 42.2	36.7	38
Typical G/T (20° EL)	18.2 dB/K (70 K LNA)		19.5 dB/K (70 K LNA)		14.0 dB/K (45 K LNA)	
Beam Width (3 dB)	1.98°	1.64°	1.65°	1.37°	2.58°	2.23°
VSWR	1.3	1.3	1.3	1.3	1.3	1.3
Axial Ratio	N/A		N/A		1 dB	
Cross Polarization Isolation	30 dB	30 dB	30 dB	30 dB	24.8 dB	24.8 dB
Port to Port Isolation						
Rx to Rx	•	•	•	•	•	•
Tx to Tx	•	•	•	•	•	•
Tx to Rx	•	•	•	•	•	•
Rx to Tx	•	•	•	•	•	•
	35 dB*(85)	35 dB*(85)	35 dB*(85)	35 dB*(85)	24 dB*(110)	24 dB*(110)
Side lobe Performance	ITU-R. S580		ITU-R. S580		MIL-STD-188-164A	
Power Handling	20 Watts		20 Watts		20 Watts	
RF Specification	HSRC-1		HSRC-12		HMS-12	

* All values are at rear feed flange.(Filter included)

* Typical G/T at 20° elevation with dry clear weather 18°C temperature and clear horizon by using single LNA.



↘ Mechanical Specifications

Antenna Diameter	Ø 1.0 Meter	Ø 1.2 Meter	Ø 1.2 Meter
Antenna Type	Dual Reflector		
Reflector	Shaping formed aluminum, aluminum ring hub		
Pedestal Configuration	Elevation, roll over azimuth pedestal, constructed of aluminum material		
Azimuth Travel	continues		
Elevation Travel	0 ~ 90°		
Roll Travel	-30° ~ +30°		
Azimuth Travel Rate	12°/ sec		
Pitch & Roll Travel Rate	> 25°/sec		
Radom Loss	1.2 dB (0.5 dB option)		
Tracking Loss	0.3 dB		
ACU Interface	IEEE-488, RS-232/422/485		
Sensor Interface	GPS/Ship Gyro	GPS/Ship Gyro	GPS/Ship Gyro
Shipping Containers	W1650 x W1650 x H1720 W920 x W920 x H807	W1760 x W1760 x H1920 W920 x W920 x H807	W1760 x W1760 x H1920 W920 x W920 x H807
Total Weight	210 kg, 115 kg	220 kg, 115 kg	

↘ Environmental Specifications

Survival Wind Loading	200 km/h
Operational Wind Loading	72 km/h, gusting to 97 km/h
Relative Humidity	0 ~ 100 %

* Without active elements and components.

↘ Antenna Drawing (unit: mm)

