Probecom

Http://www.probecom.cn

2.4Meter flyaway Manual Antenna

General Description

The Probecom 2.4-meter antenna delivers exceptional performance for transmit/receive and receive only applications for L through Ka-band frequencies. This antenna offers a reflector design that incorporates precision-formed panels, truss radials and hub assembly using matched tooling for interchangeable components. It features an innovative Cassegrain or Ring Focus feed and sub-reflector design which results in high gain, low noise temperature, high antenna efficiency and excellent rejection of noise and microwave interference. A large center hub provides spacious accommodation for equipment mounting. The reflector is supported by a galvanized elevation over azimuth kingpost pedestal that provides the required stiffness for pointing and tracking accuracy. The pedestals are designed for full orbital arc coverage and are readily adaptable to ground or rooftop installations.

Highlighted Features:

*Precisely adjusted before leaving factory, and no need theodolite to adjust the panel accuracy;

*Meets CCIR 580 and INTELSAT Requirements

*High precision alloy aluminum main reflector.

Hot spray galvanized with white paint

*CP/LP switchable feed

*High RF performance

*Galvanized stainless steel hardware

*Different frequency ranges from many feed configurations

*Ka band antenna with rotary pedestal is available

A large hub for install RF equipments

*Multi-layer anti-corrosion treatment.

Options

*L,S, X ,Ka bands and multi-bands

*Customer feed system design

*800MHz Extended C band is available

*Full motion antenna

*Feed blower or deicing sub-systerm with automatic controls

*Two or four Tx/Rx port in linear or circular polarized feeds

*Antenna control system with tracking

ODU Support Kits

*Increase the surface spray zinc thickness along seaside.

Antenna Accessory

Motorization Kits

Limit Switches

Factory Feed System Testing and Documentation

Ocean /Air Transport Packing

Foundation Kit

Grounding Kit Cable-Mounting Kit

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Technical Specification

Electrical Specification							
Type		EA24C		EA24KU		EA24KA	
Operating Frequency, GHz		C band		KU band		KA Band	
		Receive	Transmit	Receive	Transmit	Receive	Transmit
		3.4~4.2	5.85~6.725	10.7~12.75	13.75~14.5	17.70~21.2	27.5~30
Typical Gain, Mid-band, dBi		37.3+20lg(f/3.8)	41.7+20lg(f/6.3)	47.4+20lg(f/12.25)	48.7+20lg(f/14.25)	51.4+20lg(f/20)	54.8+20lg(f/30)
Polarization		Linear/circular		Linear		circular	
XPD(on Axis), dB(Linear)		35	35	35	35	35	35
XPD across 1dB Beam Width, dB(Linear)		30	30	30	30	30	30
Axis Ratio, dB (circular)		2.0	0.8	/	/	1.5	0.9
VSWR		1.30	1.30	1.30	1.30	1.30	1.30
Antenna Noise Temperature (4 Port Feed) 10° Elevation 30° Elevation 50° Elevation		32K 24K 20K		60K 56K 55K		123K 109K 101K	
-3 dB Beam Width, Mid-band		2.3°	1.3°	0.72°	0.64°	0.44°	0.30°
Typical G/T（EL=10°）		19.0dB/K (30K LNA)		25.8dB/K (70K LNA)		27.0dB/K (120K LNA)	
Tx. Total Power Capability, W			500		200		200
Feed Interface		CPR-229G	CPR-137G	WR-75	WR-75	WR-42	WR-28
Feed Insertion Loss,dB		0.4	0.3	0.4	0.3	0.5	0.4
Isolation, Tx to Rx, dB Tx/Tx ,Rx /Rx, dB (linear) Tx/Tx ,Rx /Rx, dB (Circular)		85 30 /		85 30 /		85 30 /	
Sidelobes		CCIR 580-5					
Mechanical Specification							
Antenna Diameter		2.4m					
Antenna Type		Ring Focus					
Surface Accuracy（RMS）		≤0.25mm					
Reflector Construction		Carbon Fiber					
Mount type		Az/El mounts					
Drive Mode		Motorized					
Antenna Pointing Range	Azimuth	± 220°					
	Elevation	10°~85°					
	Polarization	± 95°					
Environmental Specification							
Operational Wind		20m/s					
Survival Wind		30m/s					
Work Temperature		-40°~+60°					
Storage temperature		-60°~+70°					
Relative Humidity		100%					
Solar Radiation		1135Kcal/h/m²					
Seismic(Survival)		0.3g(H), 0.15g(V)					
Ice Loading		13mm Operational; 25mm Survival					

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