



POLARIS130K / 155K with IPOINT™



Features

- 1.30m and 1.55m Carbon Fiber Reflector options
- Exceptionally low side lobes and cross-polarization, Intelsat and Eutelsat Compliant
- Patent Pending Next Generation **Roto-Lok®** Rotary Drive System
- **Roto-Lok™ Removable Cartridge Drive System**
- Zero Backlash
- Low Friction, Smooth, Quiet, No Maintenance Drives
- Integrated Auto-Pointing IPOINT™ Controller, or separate Indoor Controller options
- Acquires the satellite in < 3 minutes
- Simple Operation – Requires no Satellite Communication Expertise
- Full Accessibility to all Internals from Top of System
- Accepts Various Antenna Sizes, Redundant Amplifier Setups, and Control Platform
- Low cost, high performance and reliable satellite acquisition
- Ultra-Compact
- Optional X-Band or Ka-Band Reflectors and Feeds

Overview

The **POLARIS130K™** & **POLARIS155K™** antennas are high quality roof mount systems. These antennas encompass the **Roto-Lok®** drive control, positioning hardware and amplifier into the antenna enclosure, making the system a robust standalone sub-assembly ready to install onto almost any vehicle.

The system is simple to install, set up and use. Following relocation of the antenna, the system will reliably and accurately locate and lock on to the designated traffic satellite rapidly within minutes. The IPOINT™ Auto Acquisition Controller uses industry standard position transducers and a sophisticated pattern recognition algorithm to confirm and refine its heading information using visible satellites. The controller is mounted on the antenna structure with a separate control panel with integral power supply and in a rack mount unit for mounting within the equipment area.

The Polaris Antenna System use the Next Generation Removable **Roto-Lok®** Cartridge Drive System, specifically designed for no maintenance, ease of repair, and zero backlash.

Combined with the New Generation of High Power GaN based SSPAs, the Polaris class of antennas offer the ultimate solution for the Broadcast Applications. Redundant SSPA Systems, up to 250W Ku-band, can be easily installed directly on the boom, in a cost efficient, and performing way.

Drive-Away VSAT Antenna POLARIS K-Class Roto-Lok® Technology



Technical Specifications

Physical		POLARIS130K™	POLARIS155K™
Antenna Width		130cm / 1.3m	155cm / 1.55m
Stowed Hight		43 cm / 16.93"	43 cm / 16.93"
Geometry		Offset	Offset
Reflector Material		Honeycomb core w/carbon fiber skins	Honeycomb core w/carbon fiber skins
Weight		70kg / 154.32 lbs	80kg / 176.37 lbs
Range			
Azimuth		+/-220°	+/-220°
Elevation		10-90°	10-90°
Polarization		+/-95°	+/-95°
Feed Interface		WR75	WR75
Electrical			
Receive			
Polarization		Linear	Linear
Frequency Band		10.7-12.75 GHz	10.7-12.75 GHz
Gain @11.7GHz		42.4 dBi	43.9 dBi
Transmit			
Polarization		Linear Orthogonal	Linear Orthogonal
Frequency Band		13.75-14.5 GHz	13.75-14.5 GHz
Gain @14.125GHz		43.7 dBi	45.2 dBi
VSWR		1.3:1	1.3:1
Wind Speed		Operational up to 45 mph (72 kph) Survival up to 100 mph stowed (161 kph)	

IPOINT™ Specifications

Operational modes	Auto-acquire	Deploy	Stow	Configure
LNB Power supply	Can provide 13/18VDC switchable at up to 600mA on RF cable to power LNB and diseq tones.			
RF Signal Input	L-band signal from LNB Level -70 to -20 dBm			
Display	2 line LCD display giving Mode, Signal Level Indication and Position Information			
Motor Drive	Can drive all motors at 24VDC up to 12A. Pulse width modulation from 10% to 100%.			
Limit Switches	Stow Azimuth and Elevation switches			
Options				
Indoor Controller	Rack Mount Controller with LCD display			
Physical				
Temperature Range	-30°C to 55°C – Operating -40°C to 85°C - Non Operating (storage)			
Extended Temperature Range Option	-40°C to 55°C – Operating -40°C to 85°C - Non Operating (storage)			
Humidity	5% to 100% RH, up to 2"of rain/hour - Operating			
Altitude	10,000 feet max			
Input Power	110 or 230V, single phase, 50/60Hz, 500W			
Dimensions	Antenna mounted controller 10.8" (275mm) x 10.3" (262mm) x 2.7" (69mm) Rack mounted Control panel containing PSU:19" (483mm) x 1.75" (44mm) x 16"(406mm)			
Mounting	Antenna mounted controller Rack mounted Control panel containing PSU: Standard 1U rack mount			
Standards				
Designed to meet	EN55022 and EN50082-1			

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Ref.: PB-POLR-K-005-13150