ARCTIC Ku-Class
Drive-Away VSAT Terminal

ARCTIC 120K, DVB-S2, DVB-RCS WAVEFORM TERMINAL

Features

- 1.2m High Gain Dual Optic Reflector, SMC or optional Carbon Fiber
- Compact and Robust, designed to work at extremely cold temperatures (optional -55° C)
- Auto-Pointing IPOINT™ Controller
- Acquires in < 3 minutes
- Provides dual-waveform transmit capability: DVB-RCS or SCPC DVB-S2 or SCPC TCC
- Up to 45 Msymb/s in Rx and 25 Mbps in Tx
- Simple Operation – Requires no Satellite Communication Expertise
- Completely automatic one button acquisition of required satellite
- High performance and reliable satellite acquisition
- Integrated with Ultra-Compact 50W Ku-band GaN based BUC and Modem

Overview

The ARCTIC120K™ VSAT terminals are high quality vehicle mount, completely integrated systems. These terminals encompass the antenna drive control, positioning hardware and advanced GaN based amplifier into the antenna enclosure, making the system a robust standalone sub-assembly ready to install onto 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 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.

An integrated IP based dual waveform modem allows immediate and efficient satellite access using either DVB-RCS or SCPC technology is provided in the equipment rack.

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Technical Specifications				
Physical	**ARCTIC 120K™**			
Antenna Width	123cm			
Antenna Height	127cm			
Geometry	Offset, dual optic			
Reflector Material	SMC, optional Carbon Fiber			
Weight	83kg			
Range				
Azimuth	+/-220º			
Elevation	3º - 90º			
Polarization	+/-95º			
Feed Interface	WR75			
Electrical				
Receive				
Polarization	Linear			
Frequency Band	10.7-12.75 GHz			
Gain @12.5GHz	41.8 dBi			
G/T @12.5 GHz	22.8 dB/K			
Transmit				
Polarization	Linear Orthogonal			
Frequency Band	13.75-14.5 GHz			
Gain @14.25GHz	43 dBi			
EIRP	58 dBW			
Satellite Modem Access	Tx : SCPC , DVB-S2 all modes CCM/ACM QPSK,8PSK, LDPC/BCH coding, 128 Kbps to 25 Mbps or			
	Tx: SCPC, DVB-RCS, QPSK,8PSK, TURBO coding, 64 kbps-12 Mbps Tx burst rates, in 16 kbps step			
	Rx: DVB-S,DVB-S2 CCM,VCM,ACM, QPSK,8PSK,16APSK, 32APSK up to 45 Msymb/s			
Data Interface	10/100 BaseT . Supports IP encapsulation over ATM or MPEG with section packing			
IPOINT Specifications				
Operational modes	Auto-acquire	Unstow	Stow	Configure
LNB Power supply	Can provide 13/18VDC switchable at up to 600mA on RF cable to power LNB and Diseqc 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				
Hand Held Controller	Hand Held Controller with LCD display			
Physical				
Temperature Range	-20ºC to 55ºC – Operating, Optional -40ºC to 55ºC – Operating -40ºC to 85ºC - Non Operating (storage)			
Wind Speed	Operational up to 45 mph (72 kph) Survival up to 100 mph stowed (161 kph)			
Humidity	5% to 95% RH non condensing - Operating			
	0% to 99% RH non condensing - Non Operating (storage)			
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			

See advantechwireless.com website for 50w Ku-Band BUC

Ref.: PB-IPARCTIC-001-18328

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