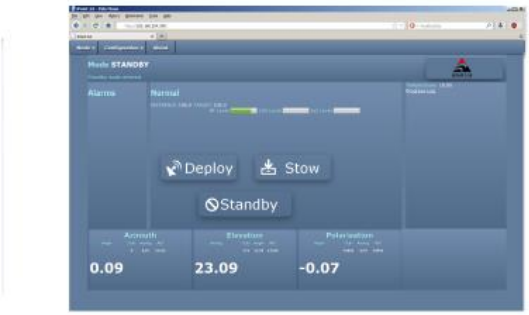
IPOINT-S2™ Antenna Control Unit

IPOINT-S2™ Auto-Acquisition Antenna Controller



Overview

The IPOINT-S2™ Auto-Acquisition Antenna Controller is designed as an OEM product for satellite communication system providers or antenna manufacturers and can be supplied in a configuration to suit most antennas. It uses a sophisticated pattern recognition algorithm to confirm and refine its heading information using visible satellites. The method used to search for and identify satellites is easily configured by the system integrator optimizing satellite acquisition for the user's specific environment.

Support for industry standard position transducers and versatile configuration options allow the IPOINT-S2™ to be integrated on to most antennas regardless of geometry, drive rate, and transducer resolution. Multiple stow methods are supported, including a fourth axis. The controller is mounted on the antenna structure negating the need for long cable runs. A separate power supply and control panel are located in a rack mount unit for mounting within the equipment area.

Features

- One Button Press Auto-Deploy & Acquisition
- Can Deploy and Acquire in less than 3 minutes
- Low cost, High performance, Reliable satellite acquisition.
- Supports Fly-away, Drive-away, Static antennas
- Simultaneous Dual Axis drive
- Directly drives 24V DC motors up to 15A
- Uses industry standard position transducers
- Antennas up to 2.4m
- Supports L, C, X, Ku, Ka-bands
- Inclusive full instrumentation package determines location, heading, and pitch & roll
- Beacon receiver support
- Fully RoHS compliant

IPOINT-S2™ Antenna Control Unit

Technical Specifications	
Operation	
Single button press geosynchronous satellite auto-acquisition.	
Operational Modes	Standby, Deploy (Auto-Acquire), Stow/Unstow, Goto position, Goto Satellite, Jog, Peak
Signal Sources	RF-power,DVB-S2, DVB-S, Modem (optional), Beacon Receiver (optional)
Identification Sources	DVB-S2, DVB-S, Modem(optional), Beacon Receiver (optional), External Lock Indicator (optional)
Tracking Option	Beacon Receiver or Modem tracking signal source
Satellite Data	Stores data for 30 satellites each having 10 DVB channels and 2 beacon frequencies
Physical	
Ambient Temperature	Operational: -30°C to +55°C Storage: -30°C to +85°C
Humidity	Operational: 5% to 95% RH non-condensing Storage: 0% to 99% RH non-condensing
Altitude	3000m (9,850 ft)
ACU Input Power	24VDC 400W
ACU Dimensions	Antenna mounted controller (typical): 10.8" (275mm) x 10.3" (262mm) x 2.7" (69mm)
ACU Mounting	Antenna specific mounting brackets
UIU Input Power	110 to 240VAC, single phase, 50/60Hz, 500W
UIU Dimensions	Rack mounted Control panel and PSU: 19" (483mm) x 1.75" (44mm) x 16"(406mm)
UIU Mounting	Standard 1U Rack mount
User Interface	
Display	2 line LCD located in 1U 19" User Interface Unit providing control via menu system.
Ethernet	10/100Base-TX supporting Web Interface and M&C communications.
RS-232	Supporting M&C communications.
Graphical User Interface	Web Interface to Monitor & Control ***IPOINT-S2***™ over Ethernet connection.
RF Interface	
LNB Power supply	Provides switchable 13/18VDC 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
RF Signal Output	L-band signal from LNB
Axis Interface	
Motors	24VDC up to 15A. Dual axis simultaneous drive. Pulse width modulation from 10% to 100%.
Axes Drive	3 primary (Azimuth, Elevation, Polarisation), 1 auxillary (stow)
Limit Switches	Stow, Azimuth, Elevation, Polarisation switches
Transducers	2 * Quadrature encoders, 2 * 16bit ADC, 1 * 10bit ADC (ADCs assignable to any axis)
Instruments	
Location	NME0183 Compliant GPS
Heading	Magnetometer (corrected after Reference Satellite identified)
Platform	Pitch & Roll (used to compensate all three primary axes)
Standards	
Designed to meet	EN55022 and EN50082-1
	FCC part 15, Sub-part B Class A (USA)

Ref.: PB-IPOINT-S2-ACU-19026

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