sat-nms ACU19 - Antenna Controller

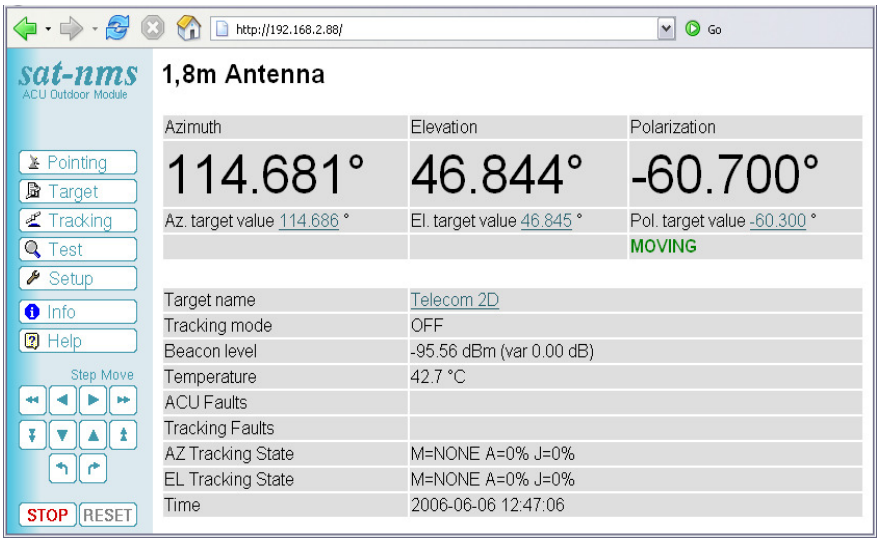
The ***sat-nms*** ACU19 is an antenna controller with optional inclined orbit tracking. It can be used as a cost- efficient antenna-positioning controller or as a full featured antenna tracking system. The system is based on the ***sat-nms*** ACU-ODM and provides three DC-motor-driver interfaces up to 15A/24V in the 19" 1RU chassis. Two model variants are available:

sat-nms ACU19	Positioning Controller	Cost-efficient Pointing
sat-nms ACU19T	Inclined Orbit Tracking	Positioning Step-track

The ***sat-nms*** ACU19 can not only be used to point your antenna precisely to the satellite but also with the option to perform inclined orbit satellite tracking. The software implements the standard step algorithm.

The ***sat-nms*** ACU19 includes:

- Three independent DC-drivers, which allow simultaneous driving of all 3 axes
- Limit switches, alarm circuits for mechanic protection
- Digital angle detectors with SSI interface measuring the azimuth, elevation, polarization
- A/D interface to measure the voltage across a precision potentiometer for polarization angle



The ***sat-nms*** ACU19 unit includes an integrated web server and provides its operator interface via web browser. The ***sat-nms*** ACU19 includes also http and ftp for remote diagnosis and support. The system is easy to maintain. All support can be performed remotely and the interface to high-level MNC systems is provided via Ethernet and TCP/IP.

In addition to that a local keypad and display are available to allow local control via the front panel.

Key Features

- Web-based, user-friendly Operator Interface
- Operating via Front Panel Display and Keypad
- Step-track Algorithm as Option available
- Very compact rack-mount Design in 1RU
- Integrated DC motor Drivers up to 15A/24V
- HTTP Protocol for external MNC Interface

Contact Information

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Technical Specification

Positioning

Operational Modes ***sat-nms*** ACU19	Manual Mode (Positioning)
Operational Modes ***sat-nms*** ACU19T	Manual Mode (Positioning) and Step-Track
PRESETS, Storage of ***sat-nms*** ACU System Configuration	99 (including Beacon Receiver Configuration of LBRX)
Position Encoding	Digital SSI (Azimuth, Elevation) (optional Resolver) Potentiometer (Polarization)
Quantization Error	Resolver 16bit: 0.0055° SSI 13bit: 0.044°, 16bit: 0.0055°, 17bit: 0.0028
Maximum Travel Rate of each Antenna Axis	1°/sec
Interface to Beacon Receivers selectable	***sat-nms*** LBRX or analog Voltage Input

System Interfaces

To ***sat-nms*** MNC and ***sat-nms*** ACU-IDU	Ethernet or RS232
To 6 Limit Switches	Opto-Coupler Input/ Mini Combicon MCV1.5/XX-G-3.5
Azimuth, Elevation and Polarization Motors	DC-PWM based 24V/ Combicon MCV2.5/XX-G-5.08 Max. Motor Size 24V/10A
Interlock and motors-off Switches	Opto-Coupler Input/ D-Sub9
3 angular Detectors	Resolver, SSI or A/D Input/ D-Sub9

MNC Interface Specification

Ethernet Interface for ***sat-nms*** MNC and User Interface	10/100-Base-T, Via HTTP GET Requests
Operator Interface	Web Browser and Front Panel Display + Keypad
RS232 ***sat-nms*** MNC Interface	D-SUB9

Electrical and Mechanical Specification, Environmental Conditions

Supply Voltage	110 to 230V /50 to 60Hz 2A
Power Consumption	50 W + Motor Power
Temperature Range	-10° to 50°C
Humidity	Up to 90% non-condensing
Dimensions	19”, 1RU, 450x45x380 mm (WxHxD)
Weight	5.5 kg