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POINTING
CHARACTERISATION
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ND SATCOM

Antenna Control Unit - ACU 5010 for Mobile Uplinks

With more than 200 small mobile terminals sold during the past few years ND SATCOM has gained solid traction in the European market with a notable reputation for well-engineered and reliable systems.

The ACU 5010 is our solution for small mobile terminals with a CAN bus interface. The integrated system benefits from our patented CAN bus single-cable solution controlling the SKYRAY Light antenna motors and inclinometer. Designed for the demands of the ND SATCOM SKYRAY Light System, the ACU 5010 is equipped with physical interfaces for GPS and compass, as well as the possibility to control for one coax switch.

The operator can remotely supervise and control the ACU 5010 via the web or a connected ND SATCOM Monitor & Control System.

The Automatic Pointing System (APS) uses the ND SATCOM SKYWAN satellite modem or an external IRD for DVB-S/S2 carrier detection. The APS automatically compensates large skews when parking the vehicle on slopes or rough terrain.

It features self-learning polarization optimization (a one-time optimization per satellite) which results in faster and more accurate future pointings.

Our ACU series consists of three devices:

- ACU 5010 - for SKYRAY Light 1200 Antenna Systems
- ACU 5020 - for SKYRAY Compact/MAS Antenna Systems
- ACU 5030 - for fixed ground stations

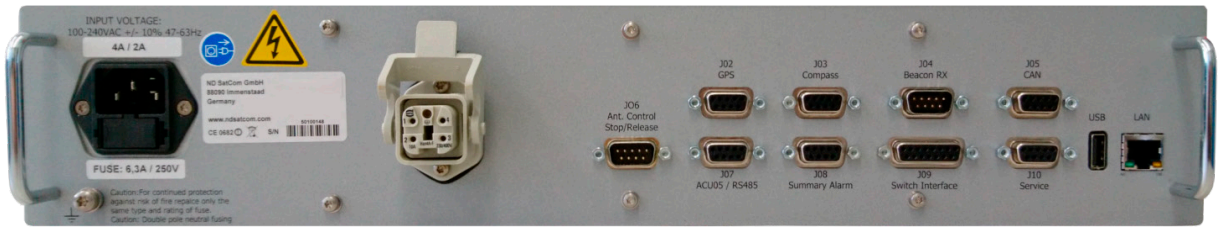
KEY FEATURES

- Automatic Pointing System (APS) with one-button operation based on SKYWAN or DVB-S/S2 carrier detection
- Remote control via web-based interface
- Integrated power supply to drive the SKYRAY Light Antenna
- NMEA 0183 protocol for GPS and compass
- CAN bus inclinometer for dual axis (Nick/Roll)

Technical Specification

INTERFACES	
GPS Interface	RS232 with 12 VDC, NMEA 0183 protocol
Compass Interface	RS232 with 12 VDC, NMEA 0183 protocol
Inclinometer Interface	CAN bus with 24 VDC
MONITOR & CONTROL	
Local HMI	Color display & keypad with softkeys, function keys with integrated status LEDs, large red emergency antenna STOP button
Local Handheld Controller	Control port for antenna stop and release
Remote Interface	10/100 Base-T Ethernet RJ-45 port for web-based GUI and SNMPv2, function key with status LED to toggle local/remote operation Remote control with ND SATCOM M&C software
Data storage & logging	Event & change logging, optional redirect logs to external syslog server
Motor Interface	CAN bus (EN 50325-4) and DC to all motors (24VDC, Harting connector)
PHYSICAL / ENVIRONMENTAL	
Prime Power	Single-phase 115/230 VAC, 50 to 60 Hz
Operational Temperature	0 to +50°C (indoor)
Humidity	90% humidity without condensation
Power Consumption	Max. 250W (all motors are running)
Dimensions (W x H x L)	482.6 mm (19“) x 88 mm (2RU) x 210 mm
Weight	3 kg
Regulatory approvals	CE conformity marking

Rear view with interfaces



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