

# HITEC

## LUXEMBOURG

### **HACU® IS A STATE-OF-THE-ART ANTENNA CONTROL UNIT (ACU) OFFERING HIGHEST TRACKING ACCURACY AND RELIABILITY, PERFECTLY SUITED FOR GEO AND NON-Geo APPLICATIONS.**

The HACU® software is running on an industrial PC which requires 2 rack units and must be placed in a server rack in a shelter. The HACU® core software can be operated and configured both locally and remotely via a user-friendly client software. Depending on the required tracking modes of the antenna, HITEC Luxembourg can supply the HACU® with three different software versions: HACU® 1000, 2000 and 3000. All versions come with a user-friendly GUI-based client application for configuring and monitoring the ACU (locally or remotely) via its M&C interface.

For very critical applications, HITEC Luxembourg can equip the HACU® with redundant power supplies and/or redundant hard disks. As time reference the ACU can use NTP or can be equipped with an IRIG-B compatible time reference card. Furthermore, LNA monitoring is available on the HACU® 2000 and HACU® 3000 models.

Optionally, a 1U rack-mountable KVM can be provided. The HACU® can be complemented by a logging PC, which performs logging of all relevant ACU and antenna parameters over long durations and at sampling rates of up to 20 samples/s.

The HACU® can be used as subsystem of the HITEC antenna servo kit (HASK™).

### **KEY FEATURES**

Three different HACU® solutions:

- HACU® 1000 - Program Track
- HACU® 2000 - Step Track
- HACU® 3000 - Monopulse

Software-based design guaranteeing:

- Comfortable installation
- Efficient use as refurbishment system, particularly in combination with HASK™

Modular design & easy customisation:

- Interfaces with various digital tracking receivers & LNA controllers
- Extensive logging capabilities

Running on industrial COTS hardware platform

Development based on Industry requirements and backed by the European Space Agency (ESA)

### **APPROVED SUPPLIER OF**

**ThalesAlenia**  
a Thales / Leonardo company *Space*







## FEATURES OF HACU® SOLUTIONS

	HACU® 1000	HACU® 2000	HACU® 3000
ACU client application	X	X	X
Standby mode	X	X	X
Pointing mode	X	X	X
Slew mode	X	X	X
Program track mode	X	X	X
Scan mode		X	X
Step track mode		X	X
Monopulse mode			X
Monopulse calibration mode			X
Adaptive track mode		X	X
Autotrack mode		X	X
Stow/unstow mode (optionally stow pin control)	X	X	X
Manual mode (PMCU)	X	X	X
Mechanical error correction (e.g. from tilt sensor)	X	X	X
Atmospheric refraction error correction	X	X	X
LNA monitoring	X	X	X
RF switches monitoring and control	X	X	X
Polarization axis control	X	X	X

## OPTIONS

KVM	1U rack-mountable keyboard-video-mouse module
Logging PC	High-performance logging application allowing very fast logging of all relevant ACU and antenna parameters over long periods of time
Time reference	Local oscillator, NTP, IRIG-B
Redundancy	Hard disks and / or power supplies
LNA monitoring	RSC-1200 from General Dynamics, LN2 series from Miteq
DTR interfacing	Steptrack: DTR from General Dynamics, STR from ELTA, PTR50 from Peak Communications Monopulse: 253 and 500 from General Dynamics, DTR from Zodiac Data Systems, TR70 from ELTA

## HARDWARE SPECIFICATION

	Power supply	100/240 VAC (autorange) 50/60 Hz		Temperature range	5°C to 50°C
	Rack Space	2U		Protection class	IP20 (rear) / IP41 (front)
	Depth	444 mm		Net weight	17 kg



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