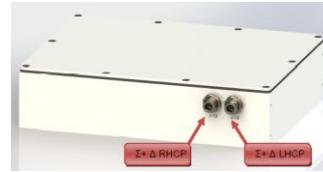# C band NOMAD Antenna

Two Channels Tracking Receiver (option)

TCP/IP connection:
cable link (RJ45)
or
Optical cable

ACU

19'' rackable model with touch screen and joystick

OR

Laptop PC

Your lightweight portable

Two axis solution

For your Data Link

&

Telemetry applications

available in:

L, S, C and X bands

- **Compact portable antenna with fully integrated functions : RF auto-tracking, GPS tracking, Transmit & Receive or Transmit only with 2 Telemetry channels (RHCP & LHCP)**

- **Easy operating through a friendly Man Machine Interface running on standard computer under Windows OS (Laptop, desktop, 19'' rackable PC with touch screen and joystick).**

- **Pluggable flat panel antenna available in different frequencies such as L, S, C and X band.**

- **Two channelsTracking Receiver integrated into the pedestal (option)**

- **Optical link interface for RF and/or M&C link between antenna and control room (option)**

- **Video camera in option**

- **Rugged carry case in option**

Technical specifications

RADIOELECTRICAL

Type	: Array under protective radome with SCM RF tracking circuits
Frequency bands	: 5090 – 5250 MHz (others bands available)
Gain	: 22 dBi @ 5.170 GHz
Polarization	: RHCP & LHCP
3 dB beamwidth	: 8° x 8° @ 5.170 GHz
Side lobes	: < 24 dB
Power supply	: 230 VAC +/-10%, 50 Hz, 280 VA

MECHANICAL

Flat array dimensions	: 500 x 500 mm max
Weight	: 51 Kg with tripod
Height	: 1211 mm (with tripod & EL:0°)

PEDESTAL

Type	: Elevation over Azimuth
Elevation range	: - 10° to + 90°
Azimuth range	: No limited (RJ & Slip rings)
Speed	: 20°/s on both axis
Acceleration	: 30°/s² on both axis
Pointing accuracy	: +/- 0.08° (12 bits Opt. Enc)

ENVIRONMENTAL

Storage temperature	: -20° to +60°C
Operating temperature	: -20° to + 50°C
Rain	: Up to 50 mm/hour
Relative humidity	: 0 to 95% @ 25°C
Wind	: 50 Km/h (with tripod)
	: 80 Km/h (fixed)

OPERATING MODES

Elevation and Azimuth axes are independent:

- **STOP** : stop on El. and Az. ; brakes are switched on

- **POSITION** : El. and Az. axes reach the angular positions received through the PC (0 to 360° with 12 bits ; step = 0.08°)

- **SLEW** : El. and Az. axes speed adjustment (-20 to +20°/s with 8 bits ; step = 0.16°/s)

- **AUTO-TRACKING**: *Tracking on the RF signal*

- **Tracking Receiver (option):** *Manual/Auto on the best channel*

- **RATE MEMORY**: when auto tracking is lost, the antenna continues traveling of Az and El with extrapolated speed.

- **AUTOMATIC AT** : the antenna automatically switches from Slave or Position mode to Auto-tracking mode

- **GPS SLAVE** : The ACU elaborates El. and Az. angles through the target GPS information received under NMEA 0183 format.

- **PRESET** : Up to 10 El. and Az. angles can be stored

- **SURVIVAL** : El. 90°, brakes applied on El. and Az.

- **BACK-UP**: the operator can select a back-up mode among: GPS, Memory track and slew.

- **AUTOTRACKING SUPPORTED BY GPS** *for absolute security in aircraft tracking.*

- **PROGRAM TRACK (option)**: Tracking according to predicted trajectory calculated from a pre loaded boards of points (El, Az, Time)

- **SEARCH (option)**: El & Az pointing in a box type pattern for automatic target acquisition.

- **ACQUISITION:** Antenna parameters such as: Operating mode, El/Az angles, Speed, acceleration, AGC levels, … are recorded in real time (50 ms step) in a file for post flight test analysis.

CONTACT INFORMATION

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