Tracking Down Excellence

21 dB gain NOMAD Antenna

S band 21 dB model

Tracking receiver option

IP connection :
cable link (RJ45)
or
Optical cable (option)

ACU
19'' rackable model with touch screen and joystick

Your lightweight portable
Two axis solution
For your Data Link
&
Telemetry applications
available in:
L, S, C and X bands
(Plug-in antenna panels)

- **Compact portable antenna with fully integrated functions : RF auto-tracking, GPS tracking, Transmit & Receive or Transmit only with 2 channels**
- **Easy operating through a friendly Man Machine Interface running on standard computer under windows XP (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.**
- **Tracking receiver (1 or 2 channels) integrated into the pedestal in option**
- **Optical link interface for RF and/or M&C link between antenna and control room.**
- **IP Video camera (Day/Infrared) in option**
- **Others models available: 19 dB and 23 dB gain**
- **Shipborne mounting (with GPS & inertial Navigation System) in option**

NOMAD Antenna

S band version technical specifications (21 dB model)

RADIOELECTRICAL

Type	: Array under protective radome with SCM RF tracking circuits
Frequency bands	: 2200 – 2400 MHz
Gain	: 21 dBi @ 2.3 GHz full band
Polarization	: RHCP / LHCP(1 or 2 channels)
3 dB beamwidth	: 12x9° @ 2.3 GHz
Side lobes	: < 11 dB
Power supply	: 0.5 KVA 230 VAC +/- 10%, 50 Hz

MECHANICAL

Flat array dimensions	: 630 x 740 mm
Weight	: 45 Kg with tripod
Height	: 1231 mm (with tripod & El: 0°)

PEDESTAL

Type	: Elevation over Azimuth
Elevation range	: - 5° to + 90°
Azimuth range	: No limited (RJ & Slip rings)
Speed	: 25°/s on both axis
Acceleration	: 40°/s² on both axis

Pointing accuracy: +/- 0.08° (12 bits Opt. Enc)

ENVIRONMENTAL

Storage temperature	: -35° to +70°C
Operating temperature	: -20 (-30°C in option) to + 50°C
Rain	: Up to 50 mm/hour
Relative humidity	: 0 to 100%
Wind	: 50 Km/h (with tripod)
	: 90 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*
- ***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.
- ***TRACKING RECEIVER (option)***:Integrated in the Elevation axis of the pedestal

CONTACT INFORMATION

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