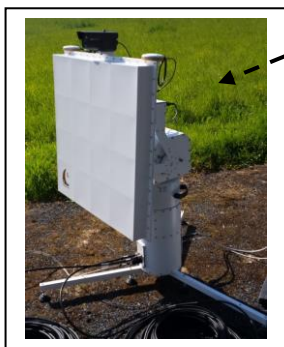




23 dB gain NOMAD Antenna



S band 23 dB model

Tracking receiver option

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

ACU
19" rackable model with
touch screen and
joystick or Laptop with
USB joystick



Your lightweight portable
Two axis solution
For your Data Link
&
Telemetry applications
available in:
L, S, L+S, S+C, L+S+C,
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, L+S, L+S+C, S+C, 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 21 dB gain
- Shipborne mounting (with GPS & inertial Navigation System) in option

S band version technical specifications (23 dB model)

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|--|---|
| <p>RADIOELECTRICAL</p> <p>Type : Array under protective radome with SCM RF tracking circuits</p> <p>Frequency bands : 2200 – 2400 MHz</p> <p>Gain : 23 dBi @ 2.3 GHz.</p> <p>Polarization : RHCP / LHCP(1 or 2 channels)</p> <p>3 dB beamwidth : 9° x 9° @ 2.3 GHz</p> <p>Side lobes : < 12 dB typ.</p> <p>Power supply : 0.7 KVA 230 VAC +/- 10%, 50 Hz</p> | <p>OPERATING MODES</p> <p>Elevation and Azimuth axes are independent:</p> <ul style="list-style-type: none"> - 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 |
| <p>MECHANICAL</p> <p>Flat array dimensions : 800 x 800 mm</p> <p>Weight : 62 Kg with tripod</p> <p>Height : 1310 mm (with tripod & El: 0°)</p> | |
| <p>PEDESTAL</p> <p>Type : Elevation over Azimuth</p> <p>Elevation range : - 5° to + 90°</p> <p>Azimuth range : No limited (RJ & Slip rings)</p> <p>Speed : 25°/s on both axis</p> <p>Acceleration : 40°/s² on both axis</p> <p>Pointing accuracy: +/- 0.08° (12 bits Opt. Enc)</p> | |
| <p>ENVIRONMENTAL</p> <p>Storage temperature : -35° to +70°C</p> <p>Operating temperature : -20 (-30°C in option) to + 50°C</p> <p>Rain : Up to 50 mm/hour</p> <p>Relative humidity : 0 to 100%</p> <p>Wind : 50 Km/h (with tripod) : 90 Km/h (fixed)</p> | |



AA SYSTEL company

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