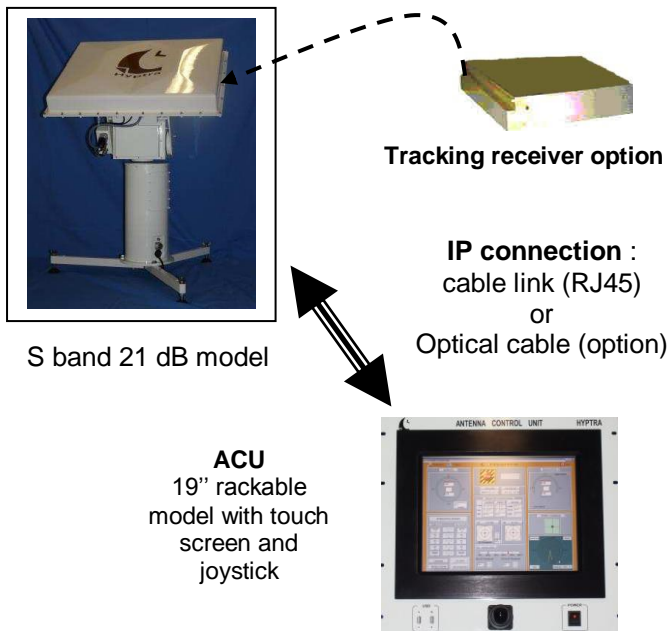




21 dB gain NOMAD Antenna



**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**

S band version technical specifications (21 dB model)

| | |
|--|---|
| <p>RADIOELECTRICAL</p> <p>Type : Array under protective radome with SCM RF tracking circuits</p> <p>Frequency bands : 2200 – 2400 MHz</p> <p>Gain : 21 dBi @ 2.3 GHz full band</p> <p>Polarization : RHCP / LHCP(1 or 2 channels)</p> <p>3 dB beamwidth : 12x9° @ 2.3 GHz</p> <p>Side lobes : < 11 dB</p> <p>Power supply : 0.5 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 : 630 x 740 mm</p> <p>Weight : 45 Kg with tripod</p> <p>Height : 1231 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

CONTACT INFORMATION

Address : 9 rue Ravel – 91620 NOZAY, France

Phone : + 33 1 69 63 86 30 Fax: + 33 1 69 63 84 74

Contact : Mr. FOURREAUX Gérard Mobile: + 33 6 75 23 94 32 Email: gerard.fourreaux@aasystel.com

<http://www.aasystel.com>