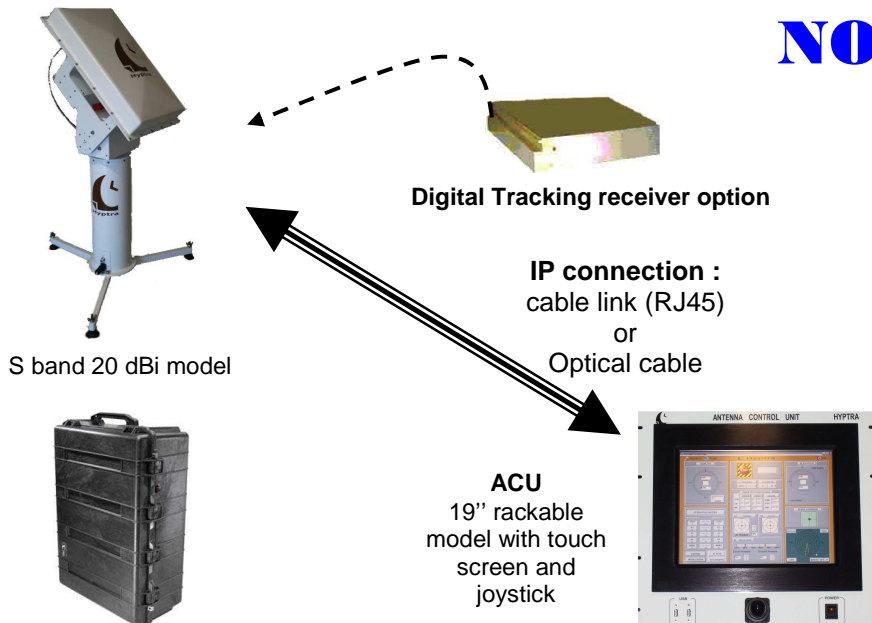




NOMAD Antenna



Your lightweight portable
Two axis (Ei over Az) and
Two channels 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 Telemetry channels (RHCP & LHCP)
- 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.
- Zenith pass (RF auto-tracking)
- Double size panel antenna for higher gain (+ 2 dB) in option
- Tracking receiver (1 or 2 channels) integrated into the pedestal in option
- High speed rotation: 60°/s in option
- Optical link interface for RF and/or M&C link between antenna and control room.
- **Video camera in option**
- Rugged carry case
- One axis only (Azimuth) version in option

S band version technical specifications (20 dB model)

<p>RADIOELECTRICAL</p> <p>Type : Array under protective radome with SCM RF tracking circuits</p> <p>Frequency bands : 2185 – 2475 MHz</p> <p>Gain : 20 dBi full band; 21 dBi typ.</p> <p>G/T : > - 2 dB/K</p> <p>Polarization : RHCP & LHCP</p> <p>3 dB beamwidth : 12x20° @ 2.3 GHz</p> <p>Side lobes : < 11 dB</p> <p>Power supply : 24 VDC 0.4 KVA and 115/230 VAC</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 (with in option selection of the best channel through AM/AGC of the TM receiver) - ZENITH PASS: Automatic management of zenith-pass in RF Auto-Tracking mode - 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.
<p>MECHANICAL</p> <p>Flat array dimensions : 630 x 410 mm</p> <p>Weight : 32 Kg with tripod</p> <p>Height : 1107 mm (with tripod & El: 90°)</p>	
<p>PEDESTAL</p> <p>Type : Elevation over Azimuth</p> <p>Elevation range : - 5° to + 180° (Zenith pass)</p> <p>Azimuth range : No limited (RJ & Slip rings)</p> <p>Speed : 25°/s on both axis (60°/s in option)</p> <p>Acceleration : 30°/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>	

CONTACT INFORMATION



AA SYSTEL company

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@aaststel.com

<http://www.aaststel.com> & <http://www.group-aa.com>