

Remtech PA-5 SODAR acoustic wind profiler



- **3,000 meters** average range
- **100 meters** minimum altitude.
- **Multi-frequency** coding.
- **ARM Quad Core CPU** and linux operating system.
- **150 watts** total power consumption.
- **180 kg** total weight
- **GPS**, 2D inclinometer, pressure, temperature and humidity sensors.
- **WiFi** for local control (up to 100 m distance).
- **Wireless modem** and/or satellite terminal for remote control.



Technical description and characteristics:

The PA-5 Sodar includes the latest hardware design. The electronics has been down sized by an extensive use of the SMC technology. The computer part uses an ARM Quad Core CPU which is plugged on a 16 bits A/D converter board. All the hardware matches military specifications (-40 to +60 °C with up to 100% relative humidity) and is fixed underneath the antenna. Wireless modem or satellite connections are available.

This new design includes GPS, 2D inclinometer, Wi-Fi, as well as pressure, temperature and humidity measurements.

The main characteristics for the PA-5 Sodar are:

antenna weight:	120 Kg
antenna dimensions	170 cm(L) x 170 cm(W) x 40 cm(H)
electronic case weight:	3.1 Kg
electronic case dimensions:	20 cm(L) x 20 cm(W) x 20 cm(H)
PA5 total weight	180 kg (antenna, electronic case and support)
central frequency	1 KHz
operating frequencies	Up to 9 emitted frequencies on each of two coplanar beams
acoustic power	60 W
operating conditions	-40°C to +60°C with up to 100% relative humidity
CPU and RAM memory:	ARM Quad Core, 1 Gbytes
power consumption:	6.25A @ 24 VDC (150 W)
operating system:	Linux
average altitude range:	3,000m (40dBA, 15°C air temperature, 70 % Relative Humidity)
minimum altitude:	100 m

For local remote control a powerful netbook is supplied. It interconnects with the Sodar through Wi-Fi at a distance of up to one hundred meters.

Data measurements and applications

The PA-5 Doppler Sodar provides:

- echo strength
- wind speed
- wind direction
- vertical speed
- various turbulence parameters (optional)

This PA-5 system is perfectly suited for regional wind studies for pollutant dispersion analysis, meteorological studies and military applications.



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