



**Radar Systems**  
**Zond Aero 500 NG**  
**GPR system**  
Datasheet

## Universal GPR system for terrestrial and airborne surveys

ANTENNA / GPR	Single channel Ground Penetrating Radar system with shielded antenna
Center frequency	500 MHz
Operating bandwidth	200-900 MHz (-12 dB)
Sampling	Real Time Sampling (RTS) with high hardware stacking
Samples per scan	256 / 512 / 1024 / 2048 / 4096 / 8192
Sample rate	up to 1,280,000 samples/second (depends on hardware stacking)
Scan rate	up to 2,500 scans/s (depends on hardware stacking)
Sample output	32-bit digital raw data
Time range per sample	71 ps / 125 ps / 179 ps / 250 ps / 500 ps / 625 ps / 714 ps / 1 ns
Depth	Up to 4 meters in average normal soil with 100ns time range.
Data format	Standard Geophysical SEGY Data Format (.sgy) <b>with traces geotagging</b>
Vertical filters	Off, Digital
Horizontal filters	Stacking, Background removal
Gain points	1-10 Linear gain
Gain levels	0 to +168 dB
Data storage	Raw data storage with memory for Gain used
Data file size	Limited only by available SD (airborne surveys) or HDD space (ground surveys)

### ENVIRONMENTAL

Temperature	-20°C to 60°C internal temperature
Humidity	96% non-condensing
Ingress protection	IP68 in protective box (used for transportation and for ground surveys) IP52 in airborne variant

### MECHANICAL

Size (L x W x H)	41 x 31 x 16 cm - airborne configuration 52 x 43 x 21 cm - protective transportation box (for terrestrial surveys) 71 x 45 x 28 cm – carton box for delivery
Weight	2.1 kg - airborne configuration without mounting kit for the drone 7.1 kg – in protective transportation box 10.0 kg – weight in carton box for delivery

### BATTERY

Airborne variant	Drone main battery is used to provide power to the GPR
Ground surveys	Battery is integrated in protective box, operating time up to 12 hours 99 W/h Li-Ion

### WHAT'S IN THE KIT

	Zond Aero 500 GPR NG system with 500 MHz center frequency antenna
	Prism 2 Data Acquisition/Processing software
	NANUK transport case (also used for ground surveys)
	99 W/h Li-Ion battery integrated into the case (used for ground surveys only)
	Wi-Fi router integrated into the case (used for ground surveys only)
	Mascot charger
	Tow rope for terrestrial surveys

Images of Zond Aero 500 NG GPR system in different configurations (mounted on the drone, without protective box, in protective box, on a cart)

