Radar Systems Zond Aero 500 GPR system

Datasheet

The system can be used for both airborne and terrestrial surveys.

ANTENNA / GPR	Single channel Ground Penetrating Radar system with shielded antenna
Center frequency	500 MHz
Operating bandwidth	200-900 MHz (-12 dB)
Samples	512 per trace
Sample rate	25,600 samples/second
Scan rate	50 scans/s
Sample output	16 bit digital raw data
Time range	Selectable time range 50, 100, 200 or 300ns.
Depth	Up to 4 meters in average normal soil with 100ns time range.
Data format	Standard Geophysical SEGY Data Format (.sgy) **with traces geotagging**
Vertical filters	Off, Digital
Horizontal filters	Stacking, Background removal
Gain points	1-10 Linear gain
Gain levels	0 to +84 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	DJI M300 RTK or M600/M600 Pro drone main battery is used to provide power to the GPR using standard power socket of the drone intended for payload
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 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
	Mounting kit to fix GPR system on the DJI M300 RTK/M600/M600 Pro drone

sphengineering.com

Zond Aero 500 without protective box:

Zond Aero 500 in protective box: