

ImpulseRadar Raptor-45

Radar/GPR-ANTENNA SPECIFICATIONS		
Technology	ImpulseRadar real-time sampling	
Antenna type	Raptor	
Centre frequency	450 MHz	
Signal to noise ratio (SNR)	>100 dB	
Significant/useful number of bits	>16 bit	
Scans/second	>800	
Survey speed	> 130 km/h @ 5 cm point interval	
Data acquisition rate	160 MHz	
Time window	166 ns (18-channels)	
Bandwidth	>120%, fractional, -10 dB	
Acquisition mode	Wheel, time or manual	
Positioning	Wheel encoder, internal GPS, external GPS, Total-station	
GPS support	Integrated support for GPS (int./ext.), NMEA 0183 protocol	
Data time-tagging	To 1ms of GPS-time	
Power supply	12 V Li-Ion rechargeable battery, or ext. 12 V DC source	
Power consumption	0.5 A per channel	
Operating time	4 hours (8-channel with 2 x 8.7 Ah battery)	
Dimensions	230 x 165 x 160 mm (Antenna only)	
Weight	2 kg (individual Antennas)	
Operating temperature	-20° to +50°C	
Environmental	IP65	
Regulatory certification	CE & FCC	
USER INTERFACE	Laptop PC (min. requirements)	
Display	10" backlit, sun-readable	
Operating system	Windows 7 or later	
Processor	>1 GHz, 64-bit (x64)	
Memory	>4 GB RAM (64-bit)	
Storage	>20 GB (64-bit)	
Graphics	DirectX 9 graphics device with > WDDM 1.0 driver	
Communications interface	Ethernet 1 GB	
Recommendation	<i>Toughbook CF-31 (or equivalent) ¹</i>	
CARRIER SOLUTIONS ²	Cart (up to 8-channels)	Vehicle (up to 18-channels)
Dimensions (when in use)	90 x 70 x 25 cm	190 x 80 x 60 cm
Scan width (swathe)	58 cm	140 cm
Wheels	2 x Ø315 mm / 1 x Ø120 mm	N/A
Weight of GPR-Array system	21 kg	41 kg
Total weight with carrier	43 kg	93 kg

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SOFTWARE	
Talon acquisition software	<ul style="list-style-type: none"> - Quick and easy configuration and start-up - Positioning configuration and device sync monitoring - Visualization of radargram for each channel - Data merging, storage and export
Processing software	<p>Recommended:</p> <ul style="list-style-type: none"> - ImpulseRadar Processing/Interpretation software - Raptor-support (for GPS/geometry clean-up) <p>Other:</p> <ul style="list-style-type: none"> - GPR-Slice

¹ Configurations of more than 8-channels require a higher specification PC

² Number of antennas/channels are specified upon purchase, minimum 1 pair, and most of our clients provide their own carrier arrangements. Our carrier solutions should be viewed as proposals and customers should feel free to build their own, in which case ImpulseRadar will be glad to advice.

ImpulseRadar products are under continuous development and we reserve the right to change specifications at any time and without prior notice. You may verify product specifications at any time by contacting our headquarters using the details listed below.