

ImpulseRadar Raptor-45

ANTENNA		
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 DGPS, 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	10 hours (8-channel with 50 Ah battery)	
Dimensions	230 x 165 x 160 mm (Antenna only)	
Weight	2.1 kg (Antenna only)	
Operating temperature	-20° to +50°C	
Environmental	IP65	
Regulatory certification	FCC, CE	
USER INTERFACE	Laptop PC (min. requirements)	
Display	10" backlit, sun-readable	
Operating system	Windows 10 or later	
Processor	>1 GHz, 64-bit (x64)	
Memory	>2 GB RAM (64-bit)	
Storage	>20 GB (64-bit)	
Graphics	DirectX 9 graphics device with > WDDM 1.0 driver	
Communications interface	Ethernet 1 GB	
<i>Recommendation</i>	<i>Panasonic Tough Book FZ G1 (or equivalent)</i>	
CARRIER SOLUTIONS	Cart (up to 8-channels)	Vehicle (up to 18-channels)
Dimensions (when in use)		180 x 83 x 57 cm
Dimensions in-folded		
4-wheel solution	92 x 102 x 45 cm	
3-wheel solution	92 x 90 x 45 cm	
Scan width (swathe)	60 cm	142 cm
Weight	56 kg	91 kg

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SOFTWARE

Talon-2 3D Data Acquisition software

- Quick and easy configuration and start-up
- Positioning configuration and device sync monitoring
- Visualization of radargram for each channel
- Data merge, storage and export

Condor 3D GPR Processing & Interpretation Software

- OspreyView (application of a novel method of visualizing 3D-GPR data)
- Effective workflows
- Efficient sub-surface imaging

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.