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Crossover4080 (CO4080) Data Sheet

The C04080 is an ultra-wide bandwidth dual channel GPR system, which can be used in a pull or push cart configuration and is similar to the CO1760. The system itself can be operated as a dual or single channel (depending on your application the system can be upgraded to a dual channel) and has two high frequency antennas, 400MHz (Low frequency channel) and 800MHz (High frequency channel). This system is ideal for those who wish to image the near surface at shallow to medium prospection depths at a high resolution. The antennas, cart and sledge has been designed so that it is easy to use in a variety of environments and can be adjusted and transported in uneven, less accessible terrain allowing the geophysicist to use the instrument in a variety of applications. The system can be used by the experienced geophysicist or novice who have a good understanding of the geophysical interpretation and operation of GPR. This is an efficient system will enable the user to rapidly collect data over a range of surfaces using its cart configuration.

Fig.1. Image showing the crossover measuring wheel and antenna (the pulling accessories are featured below) which can be used in difficult terrain. Image courteously provided by impulse radar.

Features

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. RTS- Based Technology

. Dual-Channel (LF and HF)

. Android driven logger/interface

. Wireless data collection & Internal data security

. Integrated GPS

. 7 Hour Battery life with no survey speed limits

Typical Applications

. Archaeology . Environmental Assessment . Forensics . Road Inspection . Geological investigation (e.g. lithostratigraphic mapping) . Concrete Inspection . Damage Prevention . Utility Detection

Product Dimensions

Physical	Dimensions (L x W x H)	Weight
(instrument only)	444 mm x 355 mm x 194 mm	6.35 kg

Technical Specifications

N.o Channels:	2
Centre Frequency:	400Mhz (Channel 1, Low Frequency) & 800Mhz (Channel 2, High Frequency)
Bandwidth:	>120%, fractional, -10 dB
Signal to noise ratio (SNR):	>100 dB
N.o. Scans per second:	>800
Survey Speed:	> 130 km/h @ 5 cm point interval
Time window:	388 ns (LF) / 194 ns (HF)
Acquisition/Positioning:	Wheel, time or manual; Wheel Encoder, Internal DGPS and External GPS (NMEA 0183 protocol)
Power Supply and Consumption:	12V Li-ion rechargeable battery (an external 12v DC source can also be provided); 1.3A
Operation:	7 Hours at 1.3A and 9 Hours at 1.0A
Weight and dimensions (inc battery)- Antenna:	444 x 355 x 194 mm; 6.35 kg

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Operating Temperature:	-20° to +50°C
Environment and Certifications:	IP65, CE, FCC & IC approved
Cart dimensions (when in transport):	870 x 540 x 370 mm; 20kg
Display:	720 x 1280 pixel or better
Operating system and memory:	Android™ (>ver. 5 Lollipop) or later; 2.7 GB SDRAM or better
Processor:	Intel Atom x5-Z8550, Quad-core 2.3 GHz Krait 400 or better

Videos

ImpulseRadar Folding the CrossOver Cart ground penetrating radar
https://www.youtube.com/watch?v=A1qDDMi8ewM

ImpulseRadar Fitting the CrossOver Measuring Wheel & Battery to the CrossOver GPR antenna.
https://www.youtube.com/watch?v=ZmQbAB_mKBQ

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