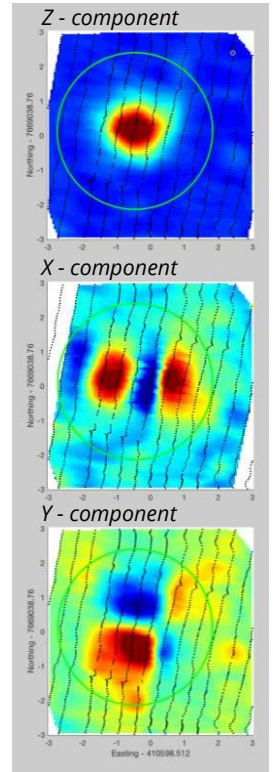




Gap Explosive Ordnance Detection Pty Ltd (GapEOD) is an industry-leading company dedicated to the detection of unexploded ordnance (UXO), lost Ground Engaging Tools (GET) and other metallic objects, both on- and offshore. Our hardware and services are based on innovative geophysical technologies that have proven their success in a wide range of conditions and applications.

The UltraTEM is a next-generation technology that allows for metal object searches with high fidelity. It was developed by GapEOD to overcome problems with outdated equipment common in the industry. The UltraTEM has been validated through the DoD Advanced Geophysical Classification Accreditation program (DAGCAP).

- *The UltraTEM uses three-component electromagnetic receivers in combination with a powerful transmitter.*
- *The high clarity of the data produced allows for dependable discrimination of close-by objects of various sizes.*
- *This translates into investigations that are cheaper faster and smarter.*



UltraTEM Configurations

The UltraTEM system configuration is flexible and can be optimized to suit the project requirements:

- *UltraTEM Detector:* The simplest system configuration featuring 6 receivers and 1 transmitter coil. Ideal for covering large areas.
- *UltraTEM Screener:* Includes an AHRS unit to provide improved positional data. Designed for covering large areas with improved screening of metal clutter.
- *UltraTEM Classifier:* Up to 12 receivers and 6 transmitter coils. This system has lower coverage rates but with significantly improved screening of metallic clutter and an ability to target specific calibre UXO.
- *UltraTEM Deep Search:* Transmitter coil is separated from the sensors in a fixed loop on the surface. The excitation field penetrates deeper, allowing it to work effectively in areas of magnetic geology, where existing technologies do not function well.



Technical Specifications

Dimensions (L x W x H)	System Dependant BTField by Black	Weight (approximate)	System Dependant
Data Acquisition Software	Tusk Geophysics	Positioning (Recommended)	Trimble R10
Attitude Sensor	Lord Microstrain: 3DM-GX5-25	Heading Aid/Magnetometer	Applied Physics Systems: Model 533

UltraTEM Detector/Screeners/Classifier Transmitter

Transmitter	EODTx50 or 50-5 8.33, 25, 75 Hz or	Number of Transmitter Loops	1 - 5
Transmitter Frequency	10, 30, 90 Hz	Transmitter Loop Dimensions (L x W)	0.9 x 0.9 or 0.9 x 1.8 or 1.8 x 1.8 m
Powerline Frequency	50 or 60 Hz	Loop Wire	2.5 mm ²
Power Supply	24 V Batteries	Transmitter Current (max.)	50 Amps
Transmitter Duty Cycle	50%	Detection Capabilities	30 mm to 0.6 m 25 pdr to 2.0 m

UltraTEM Deep Search Transmitter

Transmitter	EODTx200	Number of Transmitter Loops	1
Transmitter Frequency	25 or 30 Hz	Transmitter Loop Dimensions	100 x 30 m
Powerline Frequency	50 or 60 Hz	Loop Wire	25 mm ² wire
Power Supply	Custom Generator	Transmitter Current (max.)	200 Amps
Transmitter Duty Cycle	50%	Detection Capabilities	MK81 250 lb to 6 m

UltraTEM Receiver Bank

Receiver Coils (3-dimensional)	6	System Noise @ 1000 Hz	< 4 nT/√Hz
Coil Effective Area	104.5 m ²	Receiver Sampling Frequency	800 kHz
Receiver Noise Level @ 1 ms	757.25 nV	Number of Stacks	4-15
Receiver Dynamic Range @ 1 ms	122 dB	Samples per Decay	45 log-spaced time channels
Output Signal Range	± 9626.74 μT/s	Decay Length	0.9 to 10 ms
Coil Noise Level @ 1 ms	0.060134 μT/s	Current draw (6 coils, FG, AHRS)	2.8 A at 13 V
Least Significant Bit	120 nV	Power Supply	Inspired Energy Lithium Batteries PH2054HD31
Supply Voltage	9 to 15 V		
Power Requirement	36.4 W		

