ABEM
by Guideline Geo

Technical Specification

ABEM GroundTEM i-Series



Groundwater and environmental TEM surveys are now more affordable, less complex, and quicker with the ABEM GroundTEM i5, i10 and i20. These lowcost, user-friendly and app-controlled instruments complement the existing ABEM WalkTEM range perfectly. With system packages suitable for static survey and profiling, near-surface and deep survey, there are i-Series configurations for a host of survey needs.

Mapping resistivity variation with TEM can help locate groundwater, monitor aquifer health, identify recharge pathways, detect potential pollutants or saltwater intrusion, and distinguish between different geological deposits.

General

GroundTEM App	Android 7.1 & above
	Instrument set-up
	Data collection
	Real-time inversion (premium
	license feature)
Onboard power (Rx + Tx)	2 × removeable Li-ion (i5/i10)
	3 × removeable Li-ion (i20)
	14.4 V, 6.8 Ah, 99.4 Wh
Instrument weight	6 kg incl. batteries (i5/i10)
	8 kg incl. batteries (i20)
Environmental	IP65, -20 to +50 °C
Positioning	Onboard GNSS
Upgrades & diagnostics	Remote, via internet

Transmitter	
Output current	Dual-moment
	1 A / 5 A (GroundTEM i5)
	1 A / 10 A (GroundTEM i10)
	1 A / 20 A (GroundTEM i20
Switch-off	7 µs (low moment)
	13 µs (high moment)
Loop options	20 × 20 m (2.5 mm², 1 turn)
	40 × 40 m (4.0 mm², 1 turn)
	80 × 80 m (6.0 mm², 1 turn)
	Explorer Coils (see next page)

Loop options	20 × 20 m (2.5 mm², 1 turn)
	40 × 40 m (4.0 mm², 1 turn)
	80 × 80 m (6.0 mm², 1 turn)
	Explorer Coils (see next page)
Receiver	
Channels	1
Sample rate	4 MHz
Coil options	3 × 3 m (4 turns, 200 kHz bandwidth)
	5 × 5 m (4 turns, 100 kHz bandwidth)*
	*For use with 80 × 80 m Tx loop
	Explorer Coils (see next page)

Shipping cases

GroundTEM i-Series instruments include shipping cases. For 20 m and 40 m Tx packages, everything fits in one box (instrument, transmitter loop, receiver coil, and battery charger). Without batteries and charger, it can fly as standard hold luggage.

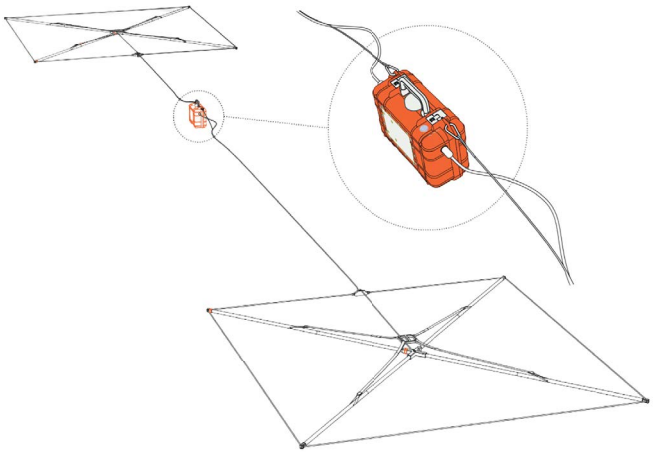
Explorer Coil and 80 m Tx packages ship in two cases. See next page.



GroundTEM Explorer Coils

Groundwater and environmental TEM surveys are now more affordable, less complex, and quicker with the ABEM GroundTEM i5, i10 and i20. These lowcost, user-friendly and app-controlled instruments complement the existing ABEM WalkTEM range perfectly. With system packages suitable for static survey and profiling, near-surface and deep survey, there are i-Series configurations for a host of survey needs. Mapping resistivity variation with TEM can help locate groundwater, monitor aquifer health, identify recharge pathways, detect potential pollutants or saltwater intrusion, and distinguish between different geological deposits.





General

1.6 m Explorer Coils	1.65 m × 1.65 m, 2 turn Tx coil – 1.65 m × 1.65 m, 4 turn Rx coil
3 m Explorer Coils	3.0 m × 3.0 m, 2 turn Tx coil – 3.0 m × 3.0 m, 4 turn Rx coil
Carrier Solution	Collapsible, poled frame, with ergonomic handles, carry straps and strain-relief cord
Tx-Rx Separation	10 m
Depth Range	1.6 m Explorer Coils: 50 - 100 m 3.0 m Explorer Coils: 75 - 150 m
Measurement Duration	From 15 seconds
Compatibility	GroundTEM i5 (3 m Explorer Coils only), i10, and i20
Explorer Coils Weight	and carrier solution) and carrier solution)



80 × 60 × 43.3 cm

GroundTEM i5 / i10 / i20 instrument with 20 m / 40 m/ 80 m Tx loop (includes a large case for instrument, Tx loop, Rx coil & accessories)



80 × 60 × 43.3 cm

GroundTEM Explorer Coils as an accessory to an existing i-Series package (only includes Explorer Coil case)



120 × 40 × 16.8 cm

GroundTEM i5 / i10 / i20 instrument with only Explorer Coils (includes Explorer Coil case plus a small case for instrument & accessories)



120 × 40 × 16.8 cm

GroundTEM i5 / i10 / i20 with 20 m / 40 m / 80 m Tx loop plus Explorer Coils (includes Explorer Coil case plus a large case for instrument, Tx loop, Rx coil & accessories)

Exact
PT. EXACT GLOBAL TEKNOLOGI INDONESIA *Authorized Agent*

Contact us
Wisma Monex 9th Floor, Jl. Asia Afrika 133-137, Bandung 40112

Phone Marketing : 0812-8863-4473
Mobile Marketing : 0812-3445-8402
Phone : 022 8732 1192
Email : info@exactglobal.co.id

Guideline Geo