

GTEM Data Sheet

The Geonics G-TEM is a complete TEM system offering advanced quality control and analysis features to assist operators obtain reliable near surface resistivity soundings. Designed to be portable and simple to operate, the G-TEM offers an intuitive user interface and menu for implementing central loop soundings, moving receiver and Slingram records.



The bottom of the case holds the recording electronics and data acquisition interface, whilst the lid contains a TEM47 transmitter.

As standard the G-TEM is supplied with a TEM47 transmitter- suitable for prospection to up to 150m- which is built into the lid of modular briefcase style housing. In instances where large central loop sounding are undertaken the Transmitter (lid) and Receiver (bottom) can be separated and a custom length reference cable employed. The G-TEM receiver is compatible with all TEM transmitters and Receiver coils supplied by Geonics; equally the G-TEM transmitter can be used with the PROTEM.

Through incorporating a Laptop PC into the G-TEM receiver operators can perform all functions on the instrument itself including full infield inversions of sounding curves. Built-in test routines aids validate system setup and noise levels before acquiring data.

The G-TEM data acquisition software centres on a graphical sounding display and geometry window, survey parameters and time gate amplitudes flank the screen.

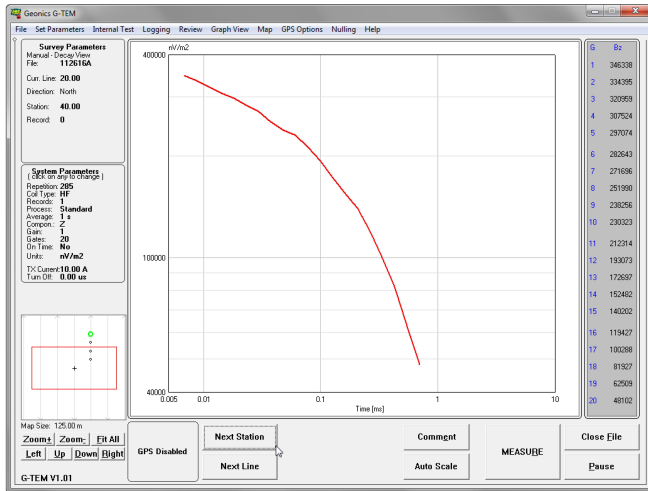
Product Dimensions

| Physical | Dimensions (L x W x H) | Weight |
|-------------------|------------------------|--------|
| (instrument only) | 40cm x 32cm x 18cm | 13kg |

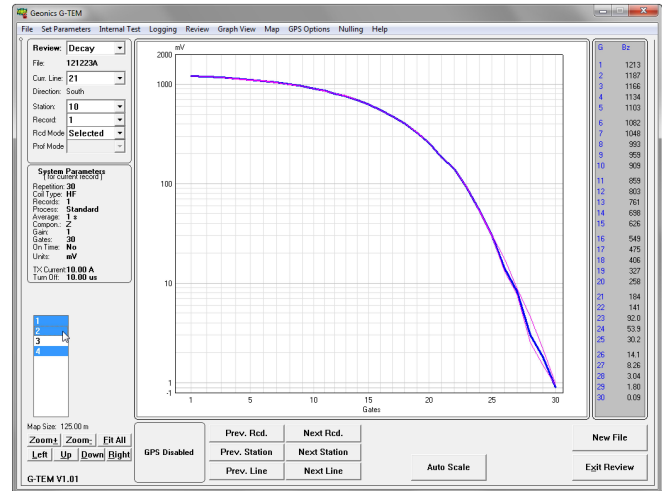
Technical Specifications

| | |
|---------------------------------------|---|
| Display: | 10 inch colour touchscreen LCD. |
| Measurement Quantities: | Rate of decay of magnetic field, in nV/m ² . |
| Channels: | 1 Channel. |
| Time Gates: | 20 gates covering 2 time decades 30 gates covering 3 time decades, or User-programmable |
| Dynamic Range: | 16 bits minimum. |
| Base Frequency: | 0.3, 0.75, 3, 7.5, 30, 75 and 285 Hz, or 0.25, 0.625, 2.5, 6.25, 25, 62.5 and 237.5 Hz. |
| Integration Time: | 0.5, 1, 2, 4, 8, 15, 30, 60 or 120 s. |
| Data Storage: | 320 GB internal hard drive; memory stick compatible. |
| I/O Ports: | RS-232, USB and RJ45. |
| Synchronization: | Reference cable. |
| Power Source: | -15V rechargeable lithium battery. |
| Number of Records Per Station: | 1, 2, 5, 10, 30, continuous |
| Current Waveform: | Bipolar rectangular current with 50% duty cycle. |
| Base Frequency: | 30, 75, or 285 Hz (power line frequency 60 Hz) 25, 62.5 or 237.5 Hz (power line frequency 50 Hz) |
| Turn-Off Time: | 2.5 ?s at 3A into 40 x 40 m loop; faster into smaller loop. |
| Transmitter Loop: | 1 x 1 to 100 x 100 m single turn loop, or 5 x 5 m 8-turn loop. |
| Output Voltage: | 0 to 9 V, continuously adjustable, with internal 15 V battery. |
| Output Current: | 3.5A with internal 15 V battery. |
| Power Source: | Internal 15 V rechargeable lithium battery; optionally, up to four external 12 V batteries. |
| Battery Life: | 8h continuous operation at 2A output. |

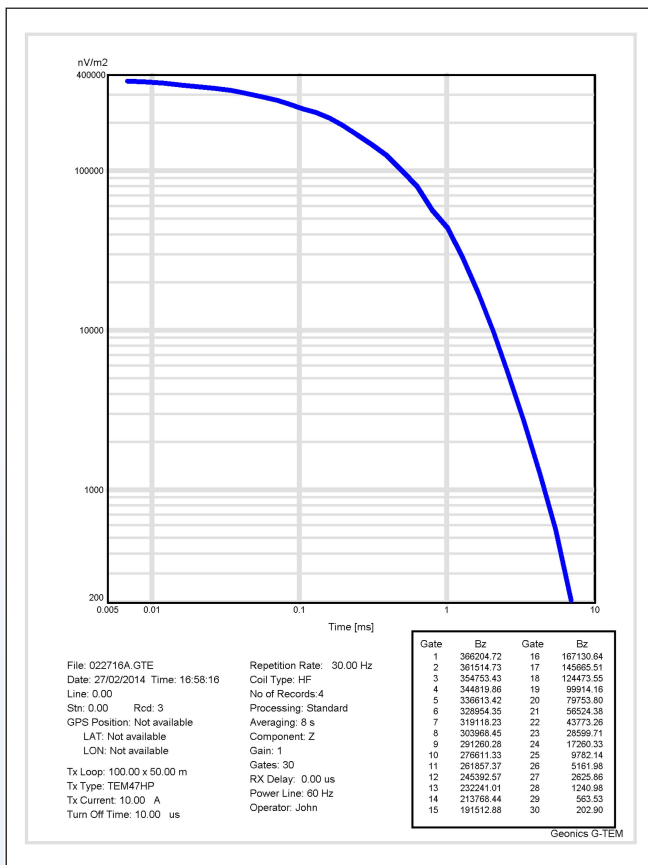
Gallery



GTEM Sounding display



GTEM Sounding review



GTEM Sounding Summary print