

## MagEx Data Sheet

The MagEx is a new generation of land magnetometer designed by Geometrics inc. A self contained, lightweight (3.7kg) system which incorporates the MFAM caesium sensor technology to speed up data acquisition and improve data quality (1000Hz sampling rate). The electronics, data storage, wireless on board access point and external gps are encased in a robust and lightweight housing which is modelled to be easy to carry by hand and comes with a ready to fit carry strap/handle.

The system connects via WIFI to a rugged Getac tablet which runs the new MagNav acquisition software. MagNav allows the operator to pre-upload their survey (e.g. waypoints/ survey transect lines) before starting the field survey, allowing a modern user interface, viewing gridded magnetic field data and reducing time in the field. For more accurate positional data the user can sign up and install the NTRIP service sim card into the tablet. By opening up the NTRIP app the positional GGA NEMA string can be viewed in and projected over Bluetooth to the MagEx (including GPS). Once connected, the systems GPS can record RTK positional data which is sent to the MagNav acquisition software over WIFI; all data is recorded in real time.

Powered by LiPo batteries the system can run for a full survey day (up to 12hrs) before needing to be recharged/ hot swapped to another set of fully charged batteries. Used on a wide variety of terrain and can be used in normally inaccessible areas due to its portable design. Ideal for mineral exploration, geological and UXO applications.

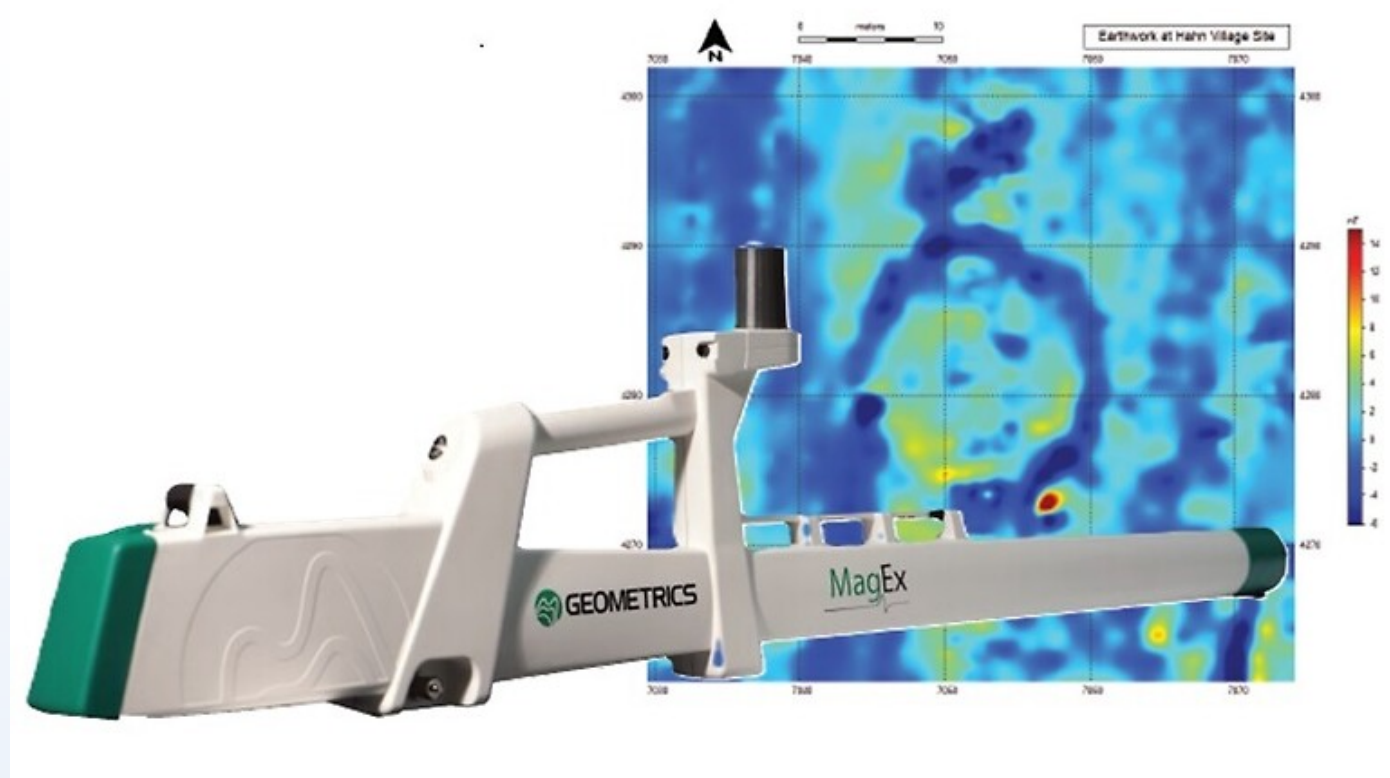


Fig 1. Image of the MagEx dataset which is overlain by an image of the MagEx instrument itself. (Images courteously provided by Geometrics, Inc)

## Applications

- Mineral Exploration

- Geological investigations / Structural Geology
- UXO

## Key Features

- Easily Portable and Lightweight
- Fully self contained unit with the electronics, GPS and on board WIFI
- Adjustable sampling rate, 1000Hz internal rate can be reduced to 25Hz for high resolution mapping
- Long life battery

## Product Dimensions

| Physical          | Dimensions (L x W x H) | Weight |
|-------------------|------------------------|--------|
| (instrument only) | 1.2 m x 0.2 m x 0.4 m  | 3.7 kg |

## Technical Specifications

|                             |   |
|-----------------------------|---|
| <b>Operating Principle:</b> | Laser pumped Caesium Magnetometer (Cs133 non-radioactive) total field scalar magnetometer |
| <b>Operating Range:</b>     | 20,000nT to 100,000nT   |
| <b>Gradient Tolerance:</b>  | 10,000 nT/m   |
| <b>Operating Zones:</b>     | Configurable for operation worldwide  |
| <b>Dead Zone:</b>           | Adjustable single polar dead zone; +/-30° typical, +/- 35° guaranteed                     |
| <b>Noise/Sensitivity:</b>   | 5pT/ root Hz rms typical; 10pT/ root Hz rms Guaranteed; Global 20pT/ root Hz rms          |
| <b>Sample Rate:</b>         | 5Hz, 10Hz, 20Hz and 25Hz  |
| <b>Heading Effect:</b>      | +/- 1.5nT typical; +/- 2nT guaranteed at 48uT much less if far away from the deadzone     |
| <b>Output &amp; GPS:</b>    |   |

## Gallery



*MagEx with carry handle and Getac tablet*