



Antennas

Shielded



Connectors for electronics/
X3M



Carry handles



Robust pulling eye



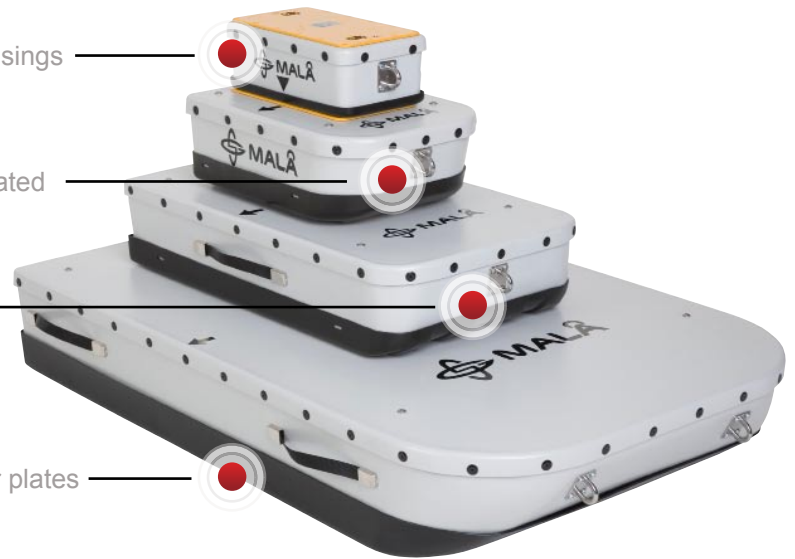
Fastening block for
measurement wheel

1. Field rugged IP67 housings

2. Antenna elements located
internally

3. Physical size varies
with frequency

4. Removable skid/ wear plates



Shielded Antennas

Shielded antennas are designed for use in urban areas or sites with a lot of background noise. A shielded antenna consists of both transmitter and receiver antenna elements in a single housing. The design ensures that the transmitted radar energy is only emitted from the bottom of the antenna housing, where it is in contact with the ground and protects the receiver element from external signals (noise) from directions other than the bottom of the housing, where it is located.

MALÁ's shielded antennas are equipped with a pulling eye on the front of the housing for attaching tow handles or straps.

A fastening block at the back of the housing allows connection of a distance-measuring wheel. The wheel operates as a triggering device instructing the radar system to collect traces at operator pre-set distant intervals. Removable skid/ wear plates protect the bottom of the antenna housing ensuring they last and thereby protect the user's investment.

Like all of MALÁ's system, the shielded antennas are modular by design. This means that antenna electronics, pulling devices and measuring wheels are compatible and interchangeable. This reduces the cost for owning or expanding a system.

Brief Description & Technical Specification

MALÅ's range of shielded antennas can be operated with the X3M and ProEx¹ radar control units.

100 MHz

The shielded 100 MHz antenna is the lowest frequency shielded antenna commercially available. It is used for medium to low resolution investigations.

Dimensions : 1.25 x 0.78 x 0.20 m - Weight: 25.5 kg

Applications : Geological and geotechnical applications.



250 MHz

The shielded 250 MHz antenna is a general purpose antenna, generally used for investigations that require medium depth penetration and medium resolution.

Dimensions : 0.74 x 0.44 x 0.16 m – Weight: 7.85 kg

Applications : Utility detection, Underground Storage Tank and void detection.



500 MHz

The shielded 500 MHz antenna is MALÅ's most popular general purpose GPR antenna and offers good resolution for shallow to medium depth investigations.

Dimensions : 0.50 x 0.30 x 0.16 m – Weight: 5.0 kg

Applications : Utility detection, road and pavement surveys.

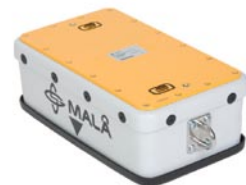


800 MHz

The shielded 800 MHz antenna offers high resolution for shallow depth investigations.

Dimensions : 0.38 x 0.20 x 0.12 m – Weight: 2.6 kg

Applications : Road/ pavement surveys and concrete/ structural investigations.



Accessories

A number of accessories are available for the shielded antennas, including :

- Pulling handles and devices
- Skid plates
- Measurement triggering wheels
- GPR Cart

¹Requires shielded antenna electronics (22-001267).

[See our webpage for latest information.](#)

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