

MALÅ ProEx is a versatile, full range, ground penetrating radar system that is supporting an application range no other ground penetrating radar system can match. The design and the technical specifications of the MALÅ ProEx Control Unit makes it the most versatile control unit on the market. The solution is aimed at the professional GPR user and for all applications.

The MALÅ ProEx System is compatible with a broad range of MALÅ ProEx Ground Penetrating Radar Antennas and offers a flexible approach for any type of GPR survey. The system is modular and can be used for single- and multi-channel measurements. In the basic configuration the solution supports simultaneous data collection from two antenna pairs. Using the ProEx expansion units, the system can support up to 8 antennas. Furthermore, the ProEx MIRA extension is supporting 31 antenna pairs. Cross-communication between different antenna pairs is also possible.

### MALÅ ProEx Control unit

<b>Power supply</b>	Li-Ion 12V battery
<b>Operating time</b>	5 h nominal, depending on configuration
<b>Operating temperature</b>	-20° to +50°C / 0° to 120 °F
<b>Environmental</b>	IP65
<b>Dimensions</b>	32.5 x 22.2 x 4.2 cm
<b>Weight</b>	1.9 kg
<b>Antennas</b>	MALÅ Antennas ranging from 30 MHz - 2.3 GHz
<b>Pulse repetition freq.</b>	100, 200 kHz, not interleaved
<b>Data bits</b>	16
<b>Max Nr. of samples/trace</b>	2048 (Standard), 8192 (Extended)
<b>Nr. of stacks</b>	1 - 32 768* and auto stacking
<b>Samplings frequency</b>	0.2 - >400 GHz
<b>Signal stability</b>	<70 ps
<b>Communication interface</b>	Ethernet
<b>Communication speed</b>	100 Mbit/s
<b>Data transfer rate</b>	Antenna dependent
<b>Acquisition modes</b>	Distance/time/manual
<b>Wheel inputs</b>	1 master, 1 for each High Frequency-unit



\*The ProEx hardware supports 32768 stacks. To avoid customer inconvenience, MALÅ XV Monitor software supports a maximum of 512 stacks and GroundVision 2 supports a maximum of 256 stacks in normal mode. In case more stacks are needed, please talk to your local Guideline Geo representative for more information.

### MALÅ XV Monitor

<b>Power supply</b>	Li-Ion 12V battery or other external source (9-18 V)
<b>Operating time</b>	5 h nominal (12V battery)
<b>Operating temperature</b>	-20° to +50°C
<b>Environmental</b>	IP65
<b>Dimensions</b>	32.6 x 21.5 x 5.2 cm (with protruding details 8.6 cm)
<b>Weight</b>	2.6 kg
<b>Antennas</b>	Compatible with full range of MALÅ Antennas from 30 MHz - 2.3 GHz <sup>1</sup>
<b>Communications</b>	Ethernet 100Mb/s
<b>Display</b>	Color backlit TFT LCD (640 x 480 pixels), trans-reflective

## MALÅ ProEx Modules

### MALÅ ProEx Optical Module

The MALÅ ProEx Optical Module allows the connection of all MALÅ GPR antennas that utilize an optical interface. This includes MALÅ Shielded, RTA and Borehole antennas.

### MALÅ ProEx High Frequency (HF) Module

The MALÅ ProEx High Frequency (HF) Module allows the connection of the MALÅ HF Antennas including those with EM-option.

### MALÅ ProEx Coax Module

The MALÅ ProEx Coax Module is used for MALÅ Separable Shielded Antennas (separable Tx and Rx) and for customized solutions, including third-party products.

## Options ProEx

ProEx Expansion Unit

ProEx MIRA Array extension

Backpack or Backpack soft

Monitor/PC holder

MALÅ RoadCart

MALÅ Rough terrain cart (RTC)

HipChain encoder

Distance measuring wheel diameter (mm): 300 /150

Measuring Wheel HF antennas

MALÅ HF Cart (Large & Small)

Extension handle for HF antennas

Towing belt for RTA antennas

Tripod with Mechanical Depth Encoder or Digital Depth Encoder for MALÅ Borehole antennas

## MALÅ ProEx antennas

		MALÅ ProEx					
MODULES	ANTENNA ALTERNATIVES	Optical	Optical	Optical	Coax	HF	Coax
		Rough Terrain	Borehole	Shielded	Shielded separable	High Frequency	ProEx Array option
		30 MHz	100 MHz	100 MHz	200 MHz	1.2 GHz	200 MHz
		50 MHz	250 MHz	250 MHz	400 MHz	1.6 GHz	400 MHz
		100 MHz		500 MHz	1.3 GHz	2.3 GHz	1.3 GHz
				800 MHz			

**GUIDELINEGEO | ABEM | MALÅ**

GUIDELINE GEO has been in the geophysics business since 1923 and is the global leader in near-surface geotechnology. Our advanced technology ensures practical solutions to everyday, societal, and global problems. We deliver total solutions in the technological fields of ground penetrating radar, seismic, geoelectrical and electromagnetic measurement. The Guideline Geo AB share (GGEO) is listed on Nasdaq First North Growth Market. We are a Swedish company with international offices and regional partners serving clients in over 100 countries.

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