

Ground Explorer (GX)

GROUND PENETRATING RADAR

GPR with exceptional range and resolution

Technical Specification

MALÅ GroundExplorer (GX) is an integrated GPR solution with four MALÅ GX antenna options: GX80, GX160, GX450 and GX750. MALÅ GX provides an easy-to-use GPR solution on a rugged platform with significantly faster data acquisition rates, outstanding signal-to-noise ratio and depth penetration.

Tablet

Acquisition platform MALÅ Controller App Processing platform MALÅ Vision

Recommended tablet Samsung Galaxy Tab Active Pro 5G

MALÅ GX Controller

Processor 1.6 GHz Intel Atom Display 1024 x 768 mm

OS Linux

Memory 32 MB compact Flash memory

Data output 32 bit

Comms Ethernet, WiFi (optional), USB 3.0, RS232 (serial)

GPS Integrated support for built-in GPS, or external GPS

via USB/serial port (NMEA 0183 protocol) Internal 12 V/20.8 Ah Li-Ion battery,

Power supply Internal 12 V/20.8 Ah Li-Ion battery, or any external 10-15 V DC source

Internal. Unit can also be charged from any external

12 - 15 V DC source

 $\begin{array}{lll} \mbox{Power consumption} & 1.3-2.0 \mbox{ A} \\ \mbox{Operating time} & 8-10 \mbox{ h} \end{array}$

Dimensions 326 x 216 x 92 mm including handles 326 x 216 x 52 mm excluding handles

3.23 kg

Operating temp -20° to $+50^{\circ}$ C or 0° to 120° F

Environmental IP 65

GX WIFI OPTION

Charger

Weight

Wireless standard: IEEE802.11 g

Power consumption: 0,3 A



MALÅ GX Antennas

MALÅ GX750 HDR

MALÅ HDR Real-Time sampling

Technology Antenna center freq 750 MHz **SNR** 97 dB Time window 75 ns

Bandwidth 120 %, fractional, -10 dB **Positioning** RTK GNSS (option), GPS Time Synchronization (PPS), DGNSS, mobile device positioning, encoder,

Total station support

Operating time 6 h

Power supply Interchangeable 12 V

Li-Ion batt. or ext. 12 V DC source

Power consumption

Acq. Mode Encoder wheel, time, manual or

MALA Motion Trig*

Dimensions 375 x 235 x 170 mm Weight 3.6 kg (~7.94 lb)

Operating temp - 20° to + 50° C or 0° to 120° F

Environmental

MALÅ GX450 HDR

Technology MALÅ HDR Real-Time sampling

Antenna center freq 450 MHz **SNR** 101 dB Time window 300 ns

Bandwidth 120 %, fractional, -10 dB **Positioning** RTK GNSS (option), GPS Time Synchronization (PPS), DGNSS,

mobile device positioning, encoder,

Total station support

Operating time 6 h

Power supply Interchangeable 12 V

Li-Ion batt. or ext. 12 V DC source

Power consumption

Acq. Mode Encoder wheel, time, manual or

MALÅ Motion Trig*

Dimensions 430 x 360 x 180 mm Weight 5.7 kg (~12.57 lb)

Operating temp -20° to $+50^{\circ}$ C or 0° to 120° F

Environmental

MALÅ GX160 HDR **Technology** MALÅ HDR Real-Time sampling

Antenna center freq 160 MHz

SNR 107 dB Time window 625 ns

Bandwidth 120 %, fractional, -10 dB **Positioning** RTK GNSS (option), GPS Time Synchronization (PPS), DGNSS,

mobile device positioning, encoder,

Total station support

Operating time

Interchangeable 12 V Li-Ion batt. Power supply

or ext. 12 V DC source

Power consumption 1 A

Acq. Mode Encoder wheel, time, manual or

MALA Motion Trig*

Dimensions 720 x 480 x 190 mm Weight 10.7 kg (~23.6 lb)

Operating temp - 20° to + 50° C or 0° to 120° F

Environmental IP 65 MALÅ GX80 HDR

Technology MALÅ HDR Real-Time sampling

Antenna center freq 80 MHz **SNR** 114 dB Time window 3100 ns

Bandwidth 120 %, fractional, -10 dB **Positioning** RTK GNSS (option), GPS Time

Synchronization (PPS), DGNSS, mobile device positioning, encoder,

Total station support

Operating time

Power supply Interchangeable 12 V Li-Ion batt.

or ext. 12 V DC source

Power consumption 1 A

Encoder wheel, time, manual or Acq. Mode

MALA Motion Trig*

Dimensions 1010 x 780 x 220 mm Weight 24.2 kg (~53.35 lb)

Operating temp - 20° to + 50° C or 0° to 120° F

Environmental IP 65

GUIDELINEGEO

^{*}Trigger the signal using the internal GPS.

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