

QL-GPR 400

QUAKELOGIC

GROUND PENETRATING RADAR SYSTEM



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PRECISION SUBSURFACE IMAGING FOR FIELD SURVEYS

The QL-GPR 400 is a field-ready Ground Penetrating Radar system built around a 400 MHz shielded antenna, GPS positioning, a rugged laptop, and professional acquisition software. It delivers real-time 2D imaging with on-the-fly visualization and post-processing 3D interpretation. Engineered for utility locating, geotechnical investigation, transportation inspection, and forensic work, it combines advanced signal processing with rugged, weather-resistant hardware for accurate, repeatable subsurface results.

- 400 MHz shielded antenna delivers high-resolution imaging of utilities, voids, and buried structures while rejecting surface interference for cleaner data.
- Integrated GPS tags every profile and detected target with coordinates, producing georeferenced survey maps ready for engineering and reporting workflows.
- IP66-rated hardware and -30°C to $+70^{\circ}\text{C}$ operating range enable reliable acquisition in harsh field conditions across paved, rough, and wooded terrain.
- Two rechargeable batteries and 8+ hours continuous runtime support full-day survey campaigns without interruption or return-to-base recharging.

STANDARD FEATURES »

- 400 MHz Shielded Antenna
- Integrated GPS Positioning
- Real-Time 2D Acquisition
- 3D Post-Processing
- Acquisition Software
- Signal Filtering Tools
- Gain Adjustment
- Target Annotation
- Report Generation
- Rugged Field Laptop
- Two Rechargeable Batteries
- Battery Charger
- Three-Wheel Survey Cart
- IP66 Enclosure
- Factory Calibration Certificate
- User Manual
- System Commissioning
- Operator Training
- One-Year Warranty
- Remote Technical Support

Key Features

- 400 MHz shielded antenna provides high-resolution subsurface imaging while minimizing external RF noise for clearer, more interpretable data profiles.
- Real-time 2D acquisition with on-the-fly visualization lets operators verify data quality and target detection directly in the field.
- Post-processing 3D visualization reconstructs subsurface volumes after acquisition, improving interpretation of complex utility networks and buried structures.
- Integrated GPS positioning assigns coordinates to profiles and detected targets, producing accurate, georeferenced survey maps for reporting and analysis.
- Four survey modes — continuous, distance-based, point-based, and GPS-based — adapt acquisition to varied site conditions and survey objectives.
- Professional software provides signal filtering, gain adjustment, target annotation, color/grayscale display, and export tools for complete data workflows.
- Rugged 10.4-inch field laptop with IP66 enclosure runs pre-installed software and operates reliably from -30°C to $+70^{\circ}\text{C}$.
- Three-wheel survey cart supports paved surfaces, rough terrain, and wooded environments for stable, consistent antenna positioning during surveys.
- Factory calibration, commissioning, operator training, and remote support ensure the system is field-ready and fully supported from delivery.

PRODUCT FEATURES

Antenna

Shielded GPR antenna · Center frequency 400 MHz · High-resolution subsurface imaging

Data Acquisition

Real-time 2D acquisition · On-the-fly 2D field visualization · Post-processing 3D visualization

Positioning

Integrated GPS positioning · Coordinate tagging for profiles and targets · Continuous, distance, point, and GPS survey modes

Software

Professional acquisition and processing suite · Signal filtering and gain adjustment · Target annotation, export, and report generation

Field Computer

Rugged laptop, 10.4 in display or larger · Pre-installed OS and GPR software · USB, Micro-USB, HDMI, Ethernet, wireless

Power

Rechargeable battery system · Two batteries and charger included · Continuous operation exceeding 8 hours

Environmental

IP66 weather-resistant enclosure · Operating temperature -30°C to $+70^{\circ}\text{C}$

Mobility

Professional three-wheel survey cart · Paved, rough terrain, and wooded use

For more information about the features, specifications, and available configurations of the QL-GPR 400, please contact QuakeLogic.

MACHINE CONFIGURATION

COMPONENT	CONFIGURATION
System Type	Integrated Ground Penetrating Radar (GPR) System
Antenna	Shielded, 400 MHz center frequency
Positioning	Integrated GPS with target coordinate tagging
Field Computer	Rugged laptop, 10.4 in display or larger
Operating System	Pre-installed OS with GPR software
Software	Professional acquisition and processing suite
Interfaces	USB, Micro-USB, HDMI, Ethernet, wireless
Enclosure	IP66 weather-resistant
Power System	Rechargeable batteries, two included
Charger	Compatible battery charger included
Mobility	Professional three-wheel survey cart
Calibration	Factory calibrated with certificate

CAPACITY

SPECIFICATION	VALUE
Center Frequency	400 MHz
Data Acquisition	Real-time 2D
Field Visualization	On-the-fly 2D
Post-Processing	3D visualization
Survey Modes	Continuous, distance, point, GPS-based
Continuous Runtime	Exceeding 8 hours
Batteries Included	Two rechargeable
Operating Temperature	-22°F to +158°F (-30°C to +70°C)
Enclosure Rating	IP66

OPTIONAL FEATURES & ACCESSORIES

EXTENDED BATTERY KIT

Additional rechargeable batteries and charger extend field endurance for multi-day survey campaigns without downtime.

ADVANCED PROCESSING SUITE

Upgraded software modules add enhanced 3D reconstruction, migration, and interpretation tools for complex subsurface targets.

EXTENDED WARRANTY

Extends coverage and remote technical support beyond the standard one-year period for continued lifecycle assurance.

ON-SITE TRAINING PACKAGE

Additional operator and interpretation training conducted at the customer site for field and processing teams.

TECHNICAL SPECIFICATIONS

SPECIFICATION	DESCRIPTION
Model	QL-GPR 400
System Type	Integrated Ground Penetrating Radar (GPR)
Antenna	Shielded GPR antenna
Center Frequency	400 MHz
Imaging	High-resolution subsurface imaging
Data Acquisition	Real-time 2D
Field Visualization	On-the-fly 2D
Post-Processing	3D visualization
Positioning	Integrated GPS with target tagging
Coordinate Assignment	Profiles and detected targets
Survey Modes	Continuous, distance, point, GPS-based
Software	Professional acquisition and processing
Processing Tools	Signal filtering, gain adjustment
Display Modes	Color and grayscale
Interpretation	Target annotation and analysis tools
Data Management	Storage, retrieval, reprocessing, export
Reporting	Report generation capability

SPECIFICATION	DESCRIPTION
Field Laptop Display	10.4 in (264 mm) or larger
Operating System	Pre-installed with GPR software
USB Interface	Included
Micro-USB Interface	Included
HDMI Output	Included
Ethernet	Included
Wireless	Included
Enclosure Rating	IP66 weather-resistant
Operating Temperature	-22°F to +158°F (-30°C to +70°C)
Power System	Rechargeable battery
Batteries Included	Two rechargeable
Charger	Compatible charger included
Continuous Operation	Exceeding 8 hours
Survey Cart	Professional three-wheel
Terrain Suitability	Paved, rough terrain, wooded
Calibration	Factory calibrated, certificate included
Warranty	One-year standard

QL-GPR 400

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About QuakeLogic:

QuakeLogic Inc. is a California-based engineering and technology company providing innovative, reliable, high-quality solutions to customers worldwide.

Our Commitment

We are committed to quality, innovation, and customer satisfaction – building lasting partnerships through reliable solutions and dependable support.

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