### GLS-1000 Specifications

#### SYSTEM PERFORMANCE
- **Maximum Range at specified reflectivity**:
  - 1100 ft. (330m) at 90%
  - 500 ft. (150m) at 18%
- **Calculated Range at 18%**:
  - 500 ft. (150m)
- **Minimum Range**:
  - 3.28 ft. (1m)
- **Single Point Accuracy**:
  - Distance: 0.16 in. at 500 ft. (4mm at 150m)
  - Dual Axis Compensators:
    - Angle (vertical): 6" Accuracy
    - Angle (horizontal): 6" Accuracy

#### LASER SCANNING SYSTEM
- **Type**: Pulsed
- **Color**: Invisible (eye-safe laser)
- **Laser Class**: Class 1
- **Scan Rate**: 3,000 points/second
- **Density (Resolution)**:
  - Spot Size: 0.24 in. at 130 ft. (6mm at 40m)
  - Maximum Sample Density: 0.04 in. at 328 ft. (1mm at 100m)
- **Field-of-view (Per Scan)**:
  - Horizontal: 360° (maximum)
  - Vertical: 70° (maximum)
  - Color Digital Imaging: 2.0 megapixels digital camera

#### ELECTRICAL
- **Power Supply**: On-board Lithium-ion battery BT-65Q x4
- **Power Consumption**: <25W
- **Maximum Operation Time**: Approx. 4.0 hours per 4 pcs
- **Hot-swap Battery**: Hot-swap (2 by 2)

#### ENVIRONMENTAL
- **Operating Temperature**: +32°F to +104°F (0°C to +40°C)
- **Storage Temperature**: +14°F to +140°F (-10°C to +60°C)
- **Dust/Humidity**: IEC Specification IP52

#### PHYSICAL
- **Scanner**:
  - **Dimensions**: 9.5 in. x 9.5 in. x 22.3 in.
  - (240mm x 240mm x 566mm)
  - **Weight**: 35 lbs. (16kg) w/o on-board battery and tribrach

#### SCANNING CONTROL
- **Equipment for Controlling**: On-board computer (stand-alone) or PC
- **Communication Method for PC**: Wireless LAN
- **Display Unit**: LCD 20 characters x 4 lines
- **Keyboard**: 21 keys
- **Data Storage**: SD Card

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**The Leader in Positioning Technology...**

From survey to inspection, Topcon dealers throughout the world provide innovative technology that gives surveyors, civil engineers, contractors, equipment owners, and operators the competitive edge by addressing such critical issues as increasing profitability, quality craftsmanship, improving productivity, lowering operating costs, and enhancing jobsite safety.

### GLS-1000 Features
- Compact all-in-one design
- Precise Scan Technology
- Hot-swapable, on-board lithium-ion batteries
- Class 1 invisible, eye-safe, pulse laser
- Built in 2.0 megapixel digital camera
- Wireless LAN & USB connectivity
- Dual Axis compensators
- 3000 points/second scan rate
- 1100 ft (330m) maximum range at 90% reflectivity, 500 ft (150m) maximum range at 18% reflectivity

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### Topcon GLS-1000
Compact, Operator-friendly Laser Scanner

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### ScanMaster Specifications

<table>
<thead>
<tr>
<th>Required System Requirements</th>
<th>Processor Speed</th>
<th>RAM</th>
<th>Video Card</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Intel® Core™ 2 Duo</td>
<td>1 GB</td>
<td>Discrete video card with 128 MB of memory and with full support for DirectX 9.0c, vertex and pixel shaders v2.0</td>
</tr>
</tbody>
</table>

### Recommended System Requirements

<table>
<thead>
<tr>
<th>Processor Speed</th>
<th>RAM</th>
<th>Video Card</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intel® Core™ 2 Duo</td>
<td>2 GB</td>
<td>Nvidia or ATI discrete video card with 256+ MB of memory</td>
</tr>
</tbody>
</table>

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**Specifications subject to change without notice**

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Topcon Positioning Systems, Inc.

7400 National Drive
Livermore, CA 94550

www.topconpositioning.com

Your local Authorized Topcon dealer is:
Topcon's GLS-1000 Laser Scanner combines advanced technology with an operator-friendly design.

**Precise Scan Technology**
Topcon’s GLS-1000 integrates pulse-based time of flight and phase-based technologies to achieve high accuracy and “clean” scan data. The GLS-1000 inherently has low point cloud noise and maintains consistent scanning accuracy throughout.

- The ability to detail slight texture variations
- Great results at ranges over 330 ft. (100m)

**Wireless LAN & USB Connectivity**
The GLS-1000 offers wireless LAN (802.11b) and USB 2.0 PC connection. With the GLS-1000's built-in wireless LAN communication, you can control and collect image and scanning data on a PC from your car.

**On-board Lithium-ion Batteries**
The GLS-1000 uses four hot-swappable batteries, two per side. With the lower power consumption of the Class 1 laser, the GLS-1000 can operate for longer times with fewer battery changes.

**Small but Mighty**
This robust scanner sends out a laser beam that captures data at 3,000 points per second at a range of 500 ft. (150m) to a typical temperature of 68˚F (20˚C).

- Modulated at 60 MHz, the GLS-1000 can be turned off for tiltable mounts.
- On-board dual axis compensators allow for more accurate instrument setups and scans. Occupy a known coordinate and backsight so traversing within one coordinate system is possible. Compensators can be turned off for tiltable mounts.

**ScanMaster Software**
With ScanMaster’s operator-friendly interface you become more proficient and productive. Manipulate data with ease and quickly deliver a product to your customer.

- Operator-friendly User Interface
  - Mass 3D Point Cloud Acquisition and Manipulation
  - Traverse and Back Sight Capabilities
  - Image Capture and Live Video Feed
  - Target Scans and Tie-Point Registration
  - Create Mesh Objects and Annotations

**Target Scans and Tie-font Registration**
With the ability to precisely locate centers of retro reflective targets, ScanMaster offers a flexible and highly accurate alternative to traditional orientation techniques.

**Create Mesh Objects and Annotations**
ScanMaster can quickly create mesh objects. These mesh objects are triangulated surfaces that pass through a section of data points, that can be used to create cross-sections and profiles. ScanMaster can also quickly annotate desired information such as angles, and distances.

**On-board Data Collection**
The GLS-1000 has an on-board data collector with an LCD display and a 21-key keyboard. This gives the scanner the freedom to function as a stand-alone laser scanner with no connection to a computer.

**Eye-safe and Efficient**
Use the GLS-1000 anywhere without worrying about damaging the eyes of a passerby. The GLS-1000 uses an invisible, Class 1, eye-safe laser. Scan near airports, busy traffic, and populated areas with no effect to the people or the environment. In addition, the use of a Class 1 invisible laser offers the benefit of low power consumption. With lower power consumption, the GLS-1000 can operate for longer times with fewer battery changes.

**Built-in 2.0 Megapixel Digital Camera**
Reduce the amount of equipment needed in the field with the GLS-1000’s built-in 2.0 megapixel digital camera. Collect sharp and detailed images from the scanning location, or connect to a PC with ScanMaster software, and stream a live video feed of the jobsite to aid in scan setup and data acquisition.

**On-board Batteries, Built-in Digital Camera, Wireless Connectivity and More**
The Topcon GLS-1000 Laser Scanner gives you the tools you need for mass point collection in a compact, all-in-one design.

**Topcon's GLS-1000 Laser Scanner leaves nothing behind—except the data.**
Topcon's GLS-1000 is lightweight and hassle-free setups which saves time and improves productivity. With batteries and data collector on-board, Topcon’s GLS-1000 is lightweight and cable-free. Transportation is a cinch. While other laser scanners take two people to unload, setup, operate, and load, the GLS-1000 is a one man instrument.
Topcon’s GLS-1000 Laser Scanner combines advanced technology with an operator-friendly design.

**Precise Scan Technology**
- **Mass 3D Point Cloud Acquisition and Manipulation**: ScanMaster has been optimized to quickly acquire and manipulate 3D point cloud data. Stream live video to synchronize scan area and obtain the 3D point cloud data you need.
- **Traverse and Back Sight Capabilities**: With the ability to quickly traverse and back sight, ScanMaster streamlines the process of aligning data captured from multiple occupations into a single coordinate system.
- **Image Capture and Live Video Feed**: ScanMaster uses images to streamline data acquisition. Images can also be used to apply RGB data and texture map scanned data. In addition, ScanMaster can stream a live video feed from the GLS-1000 Scanner via WLAN to a remote PC.
- **Target Scans and Tie-point Registration**: With the ability to precisely locate centers of retro reflective targets, ScanMaster offers a flexible and highly accurate alternative to traditional orientation techniques.
- **Create Mesh Objects and Annotations**: ScanMaster can quickly create mesh objects. These mesh objects are triangulated surfaces that pass through a section of data points, that can be used to create cross-sections and profiles. ScanMaster can also quickly annotate desired information such as angles, and distances.

**On-board Batteries, Built-in Digital Camera, Wireless Connectivity and More.**
The Topcon GLS-1000 Laser Scanner gives you the tools you need for mass point collection in a compact, all-in-one design.

**GLS-1000 Compact, Operator-friendly Laser Scanner**
- Mass 3D Point Cloud Acquisition and Manipulation
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**On-board Data Collection**
The GLS-1000 has an on-board data collector with an LCD display and a 21-key keyboard. This gives the scanner the freedom to function as a stand-alone laser scanner with no connection to a computer.

**Eye-safe and Efficient**
- **Class 1 laser, the GLS-1000 can operate for 4 hours per side.** With the lower power consumption of the GLS-1000 can operate at longer times with fewer battery changes.
- **The GLS-1000 uses four hot-swappable batteries, two on each side.** With the lower power consumption, the GLS-1000 can operate at longer times with fewer battery changes.

**Built-in 2.0 Megapixel Digital Camera**
- **Reduce the amount of equipment needed in the field with the GLS-1000’s built-in 2.0 megapixel digital camera.** Collect sharp and detailed images from the scanning location, or connect to a PC with ScanMaster software, and stream a live video feed of the jobsite to aid in scan setup and data acquisition.

**Small but Mighty**
- **This robust scanner sends out a laser beam that captures data at 3,000 points per second at a range of 500 ft. (150m) to a typical surface, and with an extended range to 1100 ft. (330m) for more detailed images from the scanning location, or connect to a PC with ScanMaster software, and stream a live video feed of the jobsite to aid in scan setup and data acquisition.**

**On-board Lithium-ion Batteries**
- **The GLS-1000 uses four hot-swappable batteries, two per side.** With the lower power consumption of the GLS-1000, the Class 1 laser, the GLS-1000 can operate for 4 hours doing a continuous scan on one set of batteries at a temperature of 68˚F (20˚C).

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Full positioning integration 1-to-1-to-1 ratio: That’s the goal of Topcon. When it’s time for you to step up to the next level, it’s time to turn to Topcon.

The Leader in Customer Satisfaction...
To ensure that your Topcon product maintains peak performance, your local Topcon dealer offers factory trained and certified service technicians. If service isn’t available in your area, our factory offers a repair and return policy second to none.

GLS-1000 Specifications

**SYSTEM PERFORMANCE**

Maximum Range at specified reflectivity: 1100 ft. (330m) at 90%

500 ft. (150m) at 80%

Minimum Range: 3.28 ft. (1m)

Single Point Accuracy: Distance: 0.16 in. at 500 ft. (4mm at 150m)

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- Compact all-in-one design
- Precise Scan Technology
- Hot-swapable, on-board lithium-ion batteries
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