Topcon GM-50 Series total stations – advanced design with superior technology
The GM-50 Series was designed from the ground up to deliver the very latest technological advantages, all in a small, sleek design – you’ll appreciate the advantages from the very first measurement.

Featuring a class leading EDM unit, the GM-50 is able to measure up to 4,000 m at 1.5 mm + 2 ppm accuracy, to standard prisms, and can measure in reflectorless mode up to 500 m at an incredible 2 mm + 2 ppm accuracy.

Measurements are captured faster than ever, and with a beam width of 13 mm (at 30 m), the bright red laser dot pinpoints features with ease.

Versatile, Economical Solution
The GM-50 Series is smaller, lighter, with increased storage capacity. Offered at an even more cost-efficient option than previous models, it provides your customers the perfect tool for entry-level site layout and surveying.

Bluetooth® Communication
With integrated Bluetooth® capability and internal antenna, the sleek design enables you to deliver measurements cable-free to your data controller.

Reflectorless Total Stations

- Fast and accurate new EDM
- Bluetooth® communications (optional)
- Advanced angle accuracy
- Long battery life – 14 hours
- Rugged, waterproof design with IP66 rating
- 500 m long-range reflectorless measurement
- 50,000 point internal memory

Tested for toughness
We perform the tough environmental tests to ensure long-term operation even under the rough site environments. GM Series total stations are thoroughly inspected with dust-proof and water-proof test chambers. In addition, the various tests against vibration, drop, temperature, and humidity were successfully passed to achieve the best environmental spec. The measuring distance accuracy test on baseline and the instrument leveling and angle accuracy test and adjustment by collimator system ensure your satisfaction on GM Series product quality.
Optional optical or laser plummet
Tangent lock – securely holds your angle in place
500 m non-prism range
Dual (GM-52 model only), graphic, backlit LCD display and keyboard
Electronic leveling system
Exclusive "STAR-KEY" functionality
Side mount extra long-life battery
Tangent lock – securely holds your angle in place
Optional optical or laser plummet
Easy access, environmentally protected USB 2.0 slot
**Angle Measurement**

- Min. Resolution/Accuracy: 2°/5" (0.0002°/0.001gon, 0.005°/0.02mil)
- Min. Display: 1°/5" (0.0001°/0.0005gon, 0.002°/0.01mil)
- Dual-axis compensator: Dual-axis liquid tilt sensor, working range: ±6°
- Collimation compensation: On/Off (selectable)

**Distance Measurement**

- Prism EDM Range: 4,000 m
- Prism EDM Accuracy: 1.5 mm + 2 ppm
- Non-Prism Range: 500 m
- Non-Prism Accuracy: 2.0 mm + 2 ppm (0.2 - 200 m)
- Measuring Time: Fine: 0.9 sec, Rapid: 0.6 sec, Tracking: 0.4 sec

**Communications**

- Bluetooth Class 1.5, Operating range: up to 10 m
- USB flash memory (max. 32GB)
- Serial RS-232C, USB2.0 (Type A for USB flash memory)

**General**

- Display: Graphic LCD, 192 x 80 dots, backlight: on/off (Selectabe) / Alphanumeric keyboard / 28 keys with backlight
- Battery Operation: Up to 14 hours
- Dust/Water Rating: IP66
- Operating Temp: -20°C to 60°C

**Ultra-powerful, advanced EDM**

- 500 m non-prism range
- 4,000 m prism range
- Coaxial red laser pointer
- Pinpoint, precise beamspot

**Easy access USB 2.0 memory**

- Up to 32GB storage
- Environmentally protected
- Compatible with industry standard thumb drives

**Advanced angle encoder system**

- 2" or 5" angle accuracy
- Incorporates exclusive IACS (Independent Angle Calibration System) on 2" and 5" models

**Rugged, waterproof design**

- Waterproof/dustproof IP66 design handles the toughest environments
- Magnesium-alloy housing providing stable angle accuracy
- Graphic display and alphanumeric keyboard (standard)