Trimble Ranger 7

RUGGED HANDHELD COMPUTER

The Next Generation in Mobile Computing

The Trimble® EMPOWER Ranger 7 is a 7-inch, fully-rugged field handheld computer for professional organizations that know they can't afford to take shortcuts. The Ranger 7 combines the scalable flexibility of Trimble EMPOWER technology modules with a bold 7-inch handheld computer form factor, and the industry-leading Microsoft® Windows® 10 Pro OS, delivering a perfect combination of strength, smarts, and flexibility. This handheld is ideal for large scale field data capture in nearly any industry and application.

Customization Comes Standard

Introducing Trimble EMPOWER: a modular expansion system that gives you the power to customize your mobile computing solution to your workflow, and the confidence of knowing that your investment is scalable for future needs.

With Trimble EMPOWER-enabled modules, you can add specialist features such as high-accuracy GNSS, Barcode, or RFID Asset tracking to your devices, or bring your own solution to life through the EMPOWER Developer program. The Developer program is accessible to both hardware and software developers, empowering anyone to create solutions that transform the way the world works.

Built to Handle the Big Jobs

At seven inches, the Ranger 7's high-resolution Gorilla Glass display provides the perfect combination of size and robustness to survive the rigors of real-world use. The built-in 68-button keyboard allows for high volume data input and allows the entire screen to be utilized for application workflow. The Ranger 7 delivers powerful and dependable

system capabilities, including 4G mobile data connectivity, wireless communications, and broad peripheral support—enabling you to process more work faster and in more places than ever before. Ranger 7 is completely rugged, MIL STD-810G and IP65 & IP68-tested, and purpose. Built to perform in almost any environment—hot or cold, wet or dry.

Windows 10 Professional Means Business

The Ranger 7 runs Windows 10 Pro, the industry leading professional operating system for businesses. Now you can move seamlessly from field to office by running both field and office applications on a single device. With the Windows 10 Pro enterprise-grade security capabilities, the Ranger 7 can be integrated seamlessly with your IT infrastructure, no matter how large (or small) your organization.

Maintenance and Service Plans You Can Depend On

Investing in equipment that is destined for years of outdoor operation demands quality that you can trust, comprehensive technical support when it is needed, and professional service and maintenance coverage should something go wrong. Trimble stands by the quality of our products with a full two-year factory warranty, with options to extend that coverage to up to a total of five years.

Key Features

► **Physical Keyboard:** Alphanumeric QWERTY keyboard, including 12 application programmable buttons to improve efficiency in your daily tasks.

► **Designed for Big Jobs:** 68-button keyboard for high fidelity data input along with a seven inch outdoor-readable touchscreen and side by side application display.

► **Scale up with Trimble EMPOWER:** Ranger 7 rugged handheld offers optional modules (Barcode, RFID and GNSS) PLUS a Developer program to enable quick prototyping of your own custom modules.

► **Powerful Connectivity:** 4G LTE mobile data, WiFi and Bluetooth. Reliable high-speed wireless connectivity on the go, when and where you need it.

► **Windows 10 Pro:** Compatibility with your existing workflows and IT infrastructure, and enterprise level security capabilities you can trust.

TRIMBLE **EMPOWER** ENABLED

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PLATFORM
- CPU: 2.5GHz Intel Pentium N4200 (Quad Core)
- Graphics: Intel® HD Graphics 505

OS & SOFTWARE
- Operating System: Microsoft Windows 10 Professional
- Pre-loaded software package includes: Trimble EMPOWER Hub, Universal Windows Platform Apps

MEMORY/STORAGE
- 8 GB RAM
- 64 GB SSD (EMMC)
- Storage expansion: via microSD card slot (SDXC up to 256 GB) SanDisk® or Kingston® recommended

DISPLAY & TOUCH PANEL
- Display: LED backlit, Gorilla® Glass 3.0
  10 point capacitive multitouch with stylus,touch, and glove mode
- Size: 7 inches (16:10 aspect ratio)
- Resolution: 1280 x 800 pixels
- Brightness: Up to 800 Cd/m^2
- Daylight Readable

CAMERAS
- Rear: 8MP AF with LED Flash
- Front: 2MP

WIRELESS
- 802.11 a/b/g/ac/n (2.4 GHz/5 GHz ISM radio band)
- Bluetooth 4.2 (including BTLE) wireless technology

GNSS
- Chipset: Ublox NEO-M8T
- Horizontal accuracy[1]: 2-4 m (RMS)
- Constellations: L1 GPS, GLONASS, BeiDou, SBAS
- Supports raw-data output (post-processing) and RTCM 2.3

SOUND
- Integrated Speaker & Microphone

SENSORS
- 3-axis accelerometer
- Magnetic sensor
- Gyroscope
- Ambient light sensor

I/O
- Keypad: 68-key alpha-numeric keypad with 4-way directional pad, Enter, F1/F2/F3/F4/F5/F6, and Windows function key.
- Replaceable I/O Boot with:
  – Standard Serial I/O Boot
    > DC power input (12V @ 3A)
    > 1x USB 3.0 host (type A)
    > 1x RS232 (DB9)
    > 3.5 mm Audio/headset jack
  – Optional USB boot available

TRIMBLE EMPOWER READY
- Trimble EMPOWER module slots: 2
- Compatible with all Trimble EMPOWER Enabled modules

MOBILE DATA 3G, 4G/LTE (OPTIONAL)
- Americas/EMEA region
  – WWAN Module: Sierra Wireless EM7455
  – 3G - HSPA+, UMTS Bands: B1, B2, B3, B4, B5, B8
  – 4G - LTE Bands: B1, B2, B3, B4, B5, B7, B12, B13, B20, B25, B26, B29, B30, B41
- APAC region
  – WWAN Module: Sierra Wireless EM7430
  – 3G - HSPA+, UMTS Bands: B1, B5, B6, B8, B9, B19
  – 3G - TD-SCDMA Band B39
  – 4G - LTE: Bands: B1, B3, B5, B7, B8, B18, B19, B21, B28, B38, B39, B40, B41
- SIM Type: micro

BATTERY AND POWER
- Dual, Li-Ion hot-swappable field replaceable battery packs.
- Capacity: 7.2 V. (21 Wh) each.
- Charging time: <4.5 hours (typical)
- Standby time: Up to 12 hours
- Continuous offline operation: Up to 10 hours
- Continuous WLAN operation: Up to 8 hours
- Continuous LTE data operation: Up to 6 hours

ENVIRONMENTAL SPECIFICATIONS
OPERATING TEMPERATURE: −30 °C TO 60 °C (−22 °F TO 140 °F)
MIL-STD-810G Method 502.5, Procedure II & III (Low Temp.Operating)
MIL-STD-810G Method 501.5, Procedure II (High Temp. Operating)
Storage temperature: −40 °C to 70 °C (−40 °F to 158 °F)
MIL-STD-810G Method 502.5, Procedure I (Low Temp. Storage)
MIL-STD-810G Method 501.5, Procedure I (High Temp. Storage)
Humidity: 90% RH, MIL-STD-810G Method 507.5, Procedure II (Humidity Aggravated Cycle)
Water & Dust Ingress: IP65 &IP68, IEC 60529
(Protected against dust, survives driving rain and water spray from any direction and summersion at 1m for 2 hours)
Drops: Survives multiple 1.22 m (4 ft) drops,
MIL-STD-810GMethod 516.6 Procedure IV, Transit Drop
Vibration: General minimum integrity and loose cargo tests MIL-STD-810G, Method 514.6, Procedure I Procedure II, Category 5 (Vibration) (Vibration; Truck/Trailer-Loose Cargo Annex C, figure 514.6C-4, Table 514.6C-I, one hour)
Altitude: Operational at 4,572 m (15,000 ft), MIL-STD-810G, Method 500.5, (Altitude) Procedure I, II & III
Temperature Shock: Survives cycles between −30 °C and 60 °C (−22 °F and 140 °F), MIL-STD-810G, Method 503.5, Procedure I-C
Solar Exposure: Solar Exposure: Survives prolonged solar exposure, MIL-STD810G Method 505.5, Procedure II, Solar Exposure

PHYSICAL DIMENSIONS
- Size (L x W x H): 300 mm × 205mm × 47 mm (11.8in x 8.1 in x 1.8 in)
- Weight: 1.05 kg (37oz)

COMPLIANCE CERTIFICATIONS
- FCC and IC (USA & Canada) approvals
- ACMA (Australia & New Zealand) approvals
- ANATEL (Brazil) approvals
- CE Mark (Europe) approvals
- TRA (UAE) approvals
- ICASA (South Africa) approvals
- Safety: NRTL & CB Scheme, RoHS compliant

IN THE BOX
- Trimble Ranger 7 handheld computer with Windows 10 Pro
- One Battery set
- AC Power adapter/charger
- Stylus and tether
- Handstrap
- One Tempered Glass Screen Protector

OPTIONAL ACCESSORIES
- Docking Connection Hub
- Spare Battery Charger
- Shoulder Sling
- Soft Fabric Shoulder Carry Case
- USB to USB Data Transfer Cable
- RS232 Cable
- DC Vehicle Charger (12-24 V)
- Vehicle Soft Mount
- USB I/O Boot
- Serial I/O Boot

DEVELOPER RESOURCES
- EMPOWER Developer Program: Provides access to generic Windows 10 SDK assets and resources, a hardware MDK for customized EMPOWER Module developers and specific SDKs for software developers seeking to create custom apps leveraging Trimble EMPOWER Modules. For more information go to empower.trimble.com/Developers

1 GNSS accuracy may be affected by environmental conditions including multipath, obstructions, satellite geometry and atmospheric conditions. Specified accuracy assumes open-sky conditions, horizontal antenna mounting, and SBAS corrections are used. Ionospheric conditions, multipath signals or obstruction of the sky by buildings or heavy tree canopy may degrade accuracy).

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