



# Trimble TDC150

HANDHELD

## KEY FEATURES

- ▶ Integrated high-accuracy GNSS receiver
- ▶ Scalable positioning accuracy from meter to centimeters
- ▶ Android™ 6.0 operating system
- ▶ 5.3-inch sunlight readable multi-touch capacitive screen
- ▶ Google Mobile Services certified to run Google core applications and services
- ▶ Compatible with Trimble or third-party software applications
- ▶ High speed 4G LTE cellular data connectivity
- ▶ Ultra-rugged design with MIL-STD-810 certification and rated IP67
- ▶ Removable, all day battery
- ▶ Fast Qualcomm® processor with 2 GB RAM and 16 GB internal storage
- ▶ Ergonomic form factor
- ▶ Front- and rear-facing cameras

Learn more:  
[geospatial.trimble.com/tdc150](http://geospatial.trimble.com/tdc150)



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## GNSS CHARACTERISTICS

- 240 GNSS channels
  - GPS L1C/A, L1P(Y), L2P(Y), L2C
  - GLONASS L1C/A, L2C/A
  - BeiDou B1 (phase 2), B2
  - Galileo E1, E5b
  - QZSS L1C/A, L2C, L1SAIF
  - SBAS L1C/A
  - L-band
- Scalable accuracy from meter to centimeter (meter, sub meter (30/30), decimeter (7/2), centimeter)
- Patented Z-Blade technology for optimal GNSS performance
  - Full utilization of signals from all 6 GNSS systems (GPS, GLONASS, BeiDou, Galileo, QZSS and SBAS)
  - Enhanced GNSS-centric algorithm: fully-independent GNSS signal tracking and optimal data processing, including GPS-only, GLONASS-only or BeiDou-only solution (autonomous to full RTK)
  - Fast Search engine for quick acquisition and re-acquisition of GNSS signals
- Patented SBAS ranging for using SBAS code & carrier observations and orbits in RTK Processing
- Patented Strobe™ Correlator for reduced GNSS multi-path
- Supported data formats: ATOM, CMR, CMR+, RTCM 2.1, 2.3, 3.0, 3.1 and 3.2 (including MSM), CMRx and sCMRx

## REAL-TIME ACCURACY (RMS)<sup>1,2</sup>

### SBAS (WAAS/EGNOS/MSAS/GAGAN)

Horizontal ..... < 50 cm  
 Vertical ..... < 85 cm

### Real-Time DGPS position

Horizontal ..... .25 cm + 1 ppm  
 Vertical ..... .50 cm + 1 ppm

### Real-Time Kinematic Position (RTK)<sup>3</sup>

Horizontal ..... 10 mm + 1 ppm  
 Vertical ..... 15 mm + 1 ppm

## REAL-TIME PERFORMANCE

Instant-RTK<sup>4</sup> Initialization ..... Typically 2 sec for baselines < 20 km  
 Up to 99.9% reliability

RTK initialization range ..... over 40 km

## DATA LOGGING CHARACTERISTICS

Recording interval ..... 1–999 seconds

## PROCESSOR

- Qualcomm Snapdragon™ 410
- Quad-core
- Clock frequency: 1.2 GHz

## OPERATING SYSTEM

- Android 6.0 (Google certified)
- Languages available: Afrikaans, German, English, Spanish, French, Italian, Portuguese (Portugal and Brazil), Japanese, Korean, Simplified Chinese, Greek, Russian, Azerbaijani, Czech, Danish, Lithuanian, Hungarian, Dutch, Norwegian (Bokmal), Romanian, Finnish, Swedish, Turkish, Bulgarian, Serbian (Cyrillic), Hindi, Polish
- Software package includes: Google Mobile Services

## MEMORY

- 2 GB SDRAM
- Storage: 16 GB (non volatile).
- MicroSDHC™ memory card (up to 64 GB, SanDisk®, Kingston® recommended)

## INTERFACE

- USB 2.0 (micro)
- External antenna connector (TNC)
- Audio jack 2.5 plug (CTIA/AHJ standards)

## COMMUNICATIONS

- Cellular: GSM (850,900,1800,1900), GPRS, EDGE, UMTS, WCDMA (B1, B2, B5, B8), HSPA, TDSCDMA (B34, B39), LTE-FDD(B1, B3, B4, B5, B7, B8, B20), LTE-TDD (B38/B39/B40/B41)
- Wi-Fi (IEEE) 802.11 b/g/n
- Bluetooth® 4.0 dual mode
- USB (micro B USB connector)
- NFC

## ENVIRONMENTAL CHARACTERISTICS

Operating temperature ..... –20 °C to +60 °C (–4 °F to 140 °F)  
 Storage temperature ..... –30 °C to +70 °C without battery (–22 °F to 158 °F)<sup>5</sup>  
 Humidity ..... 95% non condensing  
 Water & dust proof ..... IP67  
 Free drop ..... 1.2 m on concrete  
 Shocks ..... MIL STD 810 (fig 516.5-10) (01/2000)  
 Vibration ..... MIL-STD-810F (fig 514.5C-17) (01/2000)

## POWER CHARACTERISTICS

Battery ..... Li-Ion, 6400mAh  
 Battery life ..... > 8 hrs @ 20 °C with GNSS on  
 Charging time ..... 4 hours  
 Removable battery

## PHYSICAL CHARACTERISTICS

Size ..... 29.5 x 12 x 4.5 cm (11.6 x 4.7 x 1.8 in)  
 Weight ..... 850 g (1.87 lb)  
 User interface ..... 2 volume keys, on/off/reset key, 2 programmable keys, standard Android touch panel buttons

### On screen keyboard display

Size ..... 5.3" capacitive multi touch  
 Resolution ..... 1280x720 pixels  
 Brightness ..... 450 Cd/m<sup>2</sup>  
 Gorilla Glass damage-resistant  
 Auto rotate ..... between Portrait and Landscape

## MULTIMEDIA & SENSORS

- Rear camera 13 MP pixels with flash light
- Front camera 2 MP pixels
- E-Compass
- G-sensor
- Speaker
- Microphone
- Light sensor

## STANDARD ACCESSORIES

- Handstrap
- Screen protectors (x2)
- A/C charger
- USB cable
- Pouch
- Battery door opener
- Monopole adaptor

## OPTIONAL ACCESSORIES

- External GNSS antenna
- Pole bracket
- Monopole

## OPERATING MODES

- RTK rover: Direct IP, NTRIP (VRS, FKP, MAC networks)
- Post-processing (if supported by the field application)

## FIELD SOFTWARE

- Trimble TerraFlex™
- Trimble Penmap® for Android
- Third-party Android applications

1 Accuracy and TTFF specifications may be affected by atmospheric conditions, signal multipath, satellite geometry and corrections availability and quality.  
 2 Performance values assume minimum of five satellites, following the procedures recommended in the product manual. High multipath areas, high PDOP values and periods of severe atmospheric conditions may degrade performance. Real time accuracies depend on TDC150 accuracy option.  
 3 TDC150 centimeter used with Monopole accessory.  
 4 Long baselines, long occupations, precise ephemeris used.  
 5 Batteries can be stored up to +70 °C.  
 6 Receiver convergence time varies based on GNSS constellation health, level of multipath, and proximity to obstructions such as large trees and buildings. Convergence can be improved in RAM enabled regions.

Specifications are subject to change without notice.



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