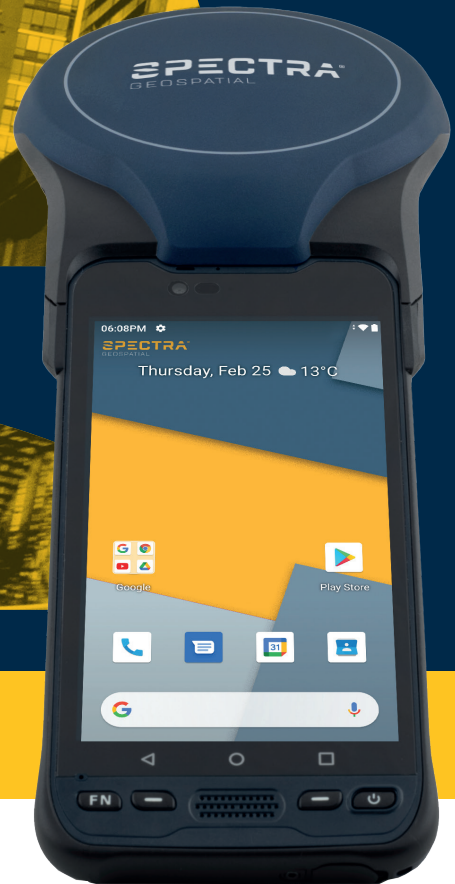# SP30

High accuracy GNSS handheld

Android™ 10 operating system

6-inch high resolution sunlight-readable display

Powerful Qualcomm® processor with 4 GB RAM and 64 GB internal storage

Large capacity, user replaceable all day battery

Ultra-rugged design with MIL-STD-810 certification

4G LTE, Wi-Fi, Bluetooth® connectivity options for voice calls and data

Spectra Geospatial SP30, the ideal integrated solution.

The Spectra Geospatial® SP30 is the highly accurate handheld receiver that delivers unparalleled convenience and cost-efficient high performance.

Powerful, easy-to-use with Android™ 10 OS, support for RTX L-band, and RTK accuracy, it is like no other handheld. And it features an array of upgrades compared to previous product versions, including a faster processor, more RAM and data storage, an improved camera, a brighter, six-inch, all-weather display, and a bigger battery.

Versatile and scalable, you can rely on the Spectra Geospatial SP30, whatever the project. With several accuracy levels, it's the ideal compact solution for any task or budget.

Spectra Geospatial SP30, Work faster. Work longer. Work better.

GNSS CHARACTERISTICS
- 240 GNSS channels
  - GPS L1 and L2
  - GLONASS L1 and L2
  - BeiDou B1 and B2
  - Galileo E1 and E5b
  - QZSS L1 and L2
  - SBAS L1 (WAAS, EGNOS, MSAS, GAGAN)
  - 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
- External antenna connector (TNC)
- Protection against future LTE and 5G signals thanks to new TALLYSMAN® extended filtering technology

REAL-TIME ACCURACY (RMS) [1,2]

Meter (SBAS only)
- Horizontal: < 70cm
- Vertical: < 90 cm

Sub-Meter
- Horizontal: 30cm
- Vertical: 30cm

Decimeter
- Horizontal: 7cm
- Vertical: 2cm

Centimeter [3]
- Horizontal: 10 mm + 1 ppm
- Vertical: 15 mm + 1 ppm

REAL-TIME PERFORMANCE
- Instant-RTK® Initialization
  - Typically 2 sec for baselines < 20 km
  - Up to 99.9% reliability
- RTK initialization range: over 40 km

TRIMBLE RTX POSITIONING [4]
- FieldPoint™ RTX: 10 cm horizontal
- Initialization Fast: < 5 min

POST-PROCESSING ACCURACY (RMS) [1,2]
- Horizontal: 15mm + 1ppm
- Vertical: 25 mm + 1 ppm

PROCESSOR
- Qualcomm Snapdragon 626
- Clock frequency: 2.2 GHz

OPERATING SYSTEM
- Android® 10 (Google certified)
- Android Security Updates provided until December 2024
- Software package includes: Google Mobile Services

MEMORY
- 4 GB RAM
- Storage: 64 GB (non volatile).
- MicroSDXC™ memory card (up to 256 GB)

COMMUNICATIONS
- Cellular
  - GSM (850,900,1800,1900), WCDMA (B1, B2, B5, B8), LTE-FDD(B1, B2, B3, B4, B5, B7, B8, B12, B13, B17, B20, B25, B28), LTE-TDD (B38/B39/ B40/B41), TD-SCDMA (B34, B39)
- Nano SIM x2
- Wi-Fi (IEEE) 802.11 a/b/g/n/ac
- Bluetooth 4.1
- NFC (13.56 MHz)
- USB 3.0 (Type C)

ENVIRONMENTAL CHARACTERISTICS
- Operating temperature: -20° to +55°C (-4 to 131°F) [5]
- Storage temperature: -40° to +70°C without battery (-40 to 158°F) [5]
- Humidity: 5% to 90% RH, non-condensing. According to MIL-STD-810H 507.6
- Water & dust proof: IP67 (IEC 60529)
- Salt fog (MIL STD 810 H method 509.7)
- Free drop: 1.2 m (3.9ft), 10 drops (2 faces, 4 edges and 4 corners) on concrete
- Shocks: MIL STD 810G (fig 516.6-10 Procedure I)
- Vibration: MIL-STD-810G (fig 514.6CI-Cat4)
- Altitude: MIL-STD-810G-2014 Method 500.5

POWER CHARACTERISTICS
- Battery Li-Ion: 8000mAh
- Battery life: > 8 hrs @ 20 °C (68°F) with GNSS on
- Charging time: 4 hours
- Removable battery

PHYSICAL CHARACTERISTICS
- Size: 30.6 x 12.2 x 4.7 cm (12 x 4.8 x 1.8 in)
- Weight: 790 g (1.74 lb)

User interface
- 2 volume keys, on/off key, 4 programmable keys, standard Android touch panel 3 buttons
- On screen keyboard display
- Size: 6.0" capacitive multi touch
- Resolution: 1920 x 1080 pixels
- Brightness: 450 Cd/m2
- Panda glass 3 damage-resistant
- Auto rotate between Portrait and Landscape

MULTIMEDIA & SENSORS
- Rear camera: 13 M pixels with auto-focus and LED flash
- Front camera: 5 M pixels with fixed focus
- E-Compass
- Gyrometer
- Accelerometer
- Ambient light sensor
- Barometer
- 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
- Dual-battery charger

OPERATING MODES
- RTK rover: Direct IP, NTRIP (VRS,FKP,MAC networks)
- Post-processing with MobileMapper Office
- Trimble RTX IP or Satellite (both exhibit excessive power consumption)

FIELD SOFTWARE
- Origin LT
- Origin GNSS
- MobileMapper Field
- Penmap
- or 3rd 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. Except for Meter (SBAS only), real time accuracies require RTK corrections. PP accuracy obtained with Mobile Mapper Office (high accuracy option enabled).
3. SP30 cm used with Monopole accessory
4. RTX on SP30 is not supported outside RTX Fast areas (https://positioningservices.trimble.com/resources/coverage-maps/).
5. Batteries can be stored up to +70°C.