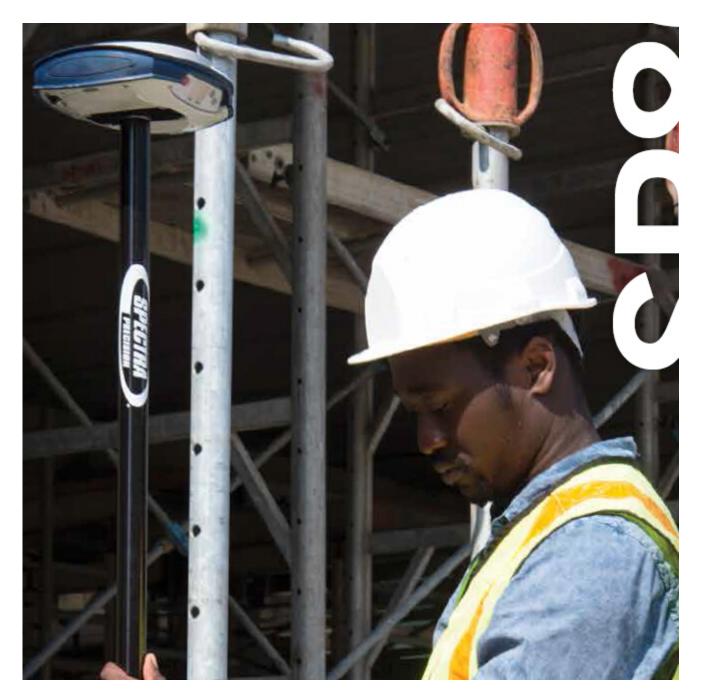
## gnss RTK GPS

3.5g[[[[[[

# 

- RTK
- 2400006gASIC
- DDGNSS
- [[TRX UHF[]]
- 3.5g
- wifi\_\_\_\_
- 0000
- 000000
- RTK
- E
- CenterPoint®RTX $\Box$





\_\_\_RTK

 $\square \square WiFi \square \square$ 



**RTK GPS** 

240



 $CenterPoint @RTX \hbox{$\square$} \hbox{$\square$}$ 



### GNSS Characteristics

- 240 GNSS channels
  - GPS L1C/A, L1P(Y), L2C, L2P(Y), L5
  - GLONASS L1C/A, L1P, L2C/A, L2P, L3
  - Beidou (Phase II) B1, B2
  - Galileo E1, E5a, E5b
  - QZSS L1C/A, L1-SAIF, L1C, L2C, L5
  - SBAS L1C/A, L5 (WAAS, EGNOS, MSAS, GAGAN, SDCM)
  - IRNSS L5
- 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<sup>™</sup> Correlator for reduced GNSS multi-path
- Up to 20 Hz real-time raw data (code & carrier and position output)
- Supported data formats: ATOM, CMR, CMR+, RTCM 2.1, 2.3, 3.0, 3.1 and 3.2 (including MSM), CMRx and sCMRx (rover only)
- NMEA 0183 messages output

# Real-Time Accuracy (RMS) (1)(2)

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

Horizontal: < 50 cm</li>Vertical: < 85 cm</li>

## Real-Time DGPS position

Horizontal: 25 cm + 1 ppmVertical: 50 cm + 1 ppm

### Real-Time Kinematic Position (RTK)

Horizontal: 8 mm + 1 ppmVertical: 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

# Post-Processing Accuracy (RMS) (1)(2)

### Static & Fast Static

Horizontal: 3 mm + 0.5 ppmVertical: 5 mm + 0.5 ppm

## High-Precision Static (3)

Horizontal: 3 mm + 0.1 ppmVertical: 3.5 mm + 0.4 ppm

# **Data Logging Characteristics**

## Recording Interval

0.05 - 999 seconds

# **Physical Characteristics**

#### Size

22.2 x 19.4 x 7.5 cm (8.7 x 7.6 x 3.0 in)

## Weight

1.17 kg (2.57 lb)

### **User Interface**

Graphical PMOLED display

### I/O Interface

- RS232 serial link
- USB 2.0/UART
- Bluetooth 2.1 + EDR
- WiFi (802.11 b/g/n)
- 3.5G quad-band GSM (850/900/1800/1900 MHz) / penta-band UMTS module (800/850/900/1900/2100 MHz)

## Memory

- 2 GB internal memory NAND Flash (1.5 GB user data)
- Over a year of 15 sec. raw GNSS data from 14 satellites
- SD/SDHC internal memory card (up to 32GB)

# Operation

- RTK rover & base
- RTK network rover: VRS, FKP, MAC
- NTRIP, Direct IP
- CSD mode
- Post-processing

### **Environmental Characteristics**

 Operating temperature: -40° to +65°C (-40° to +149°F)

### Power Characteristics

- 2 Li-lon hot-swappable batteries, 38.5 Wh (2 x 7.4 V, 2600 mAh)
- Battery life time (two batteries): 10 hrs (GNSS On, and GSM or UHF Rx On)
- External DC power: 9-28 V

## **Standard System Components**

- SP80 receiver
- 2 Li-lon batteries
- Dual battery charger, power supply and international power cord kit
- Tape measure (3.6 m / 12 ft)
- 7 cm pole extension
- USB to mini-USB cable
- Hard case
- 2 vear warrantv

### **Optional System Components**

- SP80 UHF Kit (410-470 MHz 2W TRx)
- SP80 Field Power Kit
- SP80 Office Power Kit
- Data collectors
  - Ranger 3
  - T41
  - MobileMapper 20
  - ProMark 120
- Field software
  - Survey Pro
  - FAST Survey