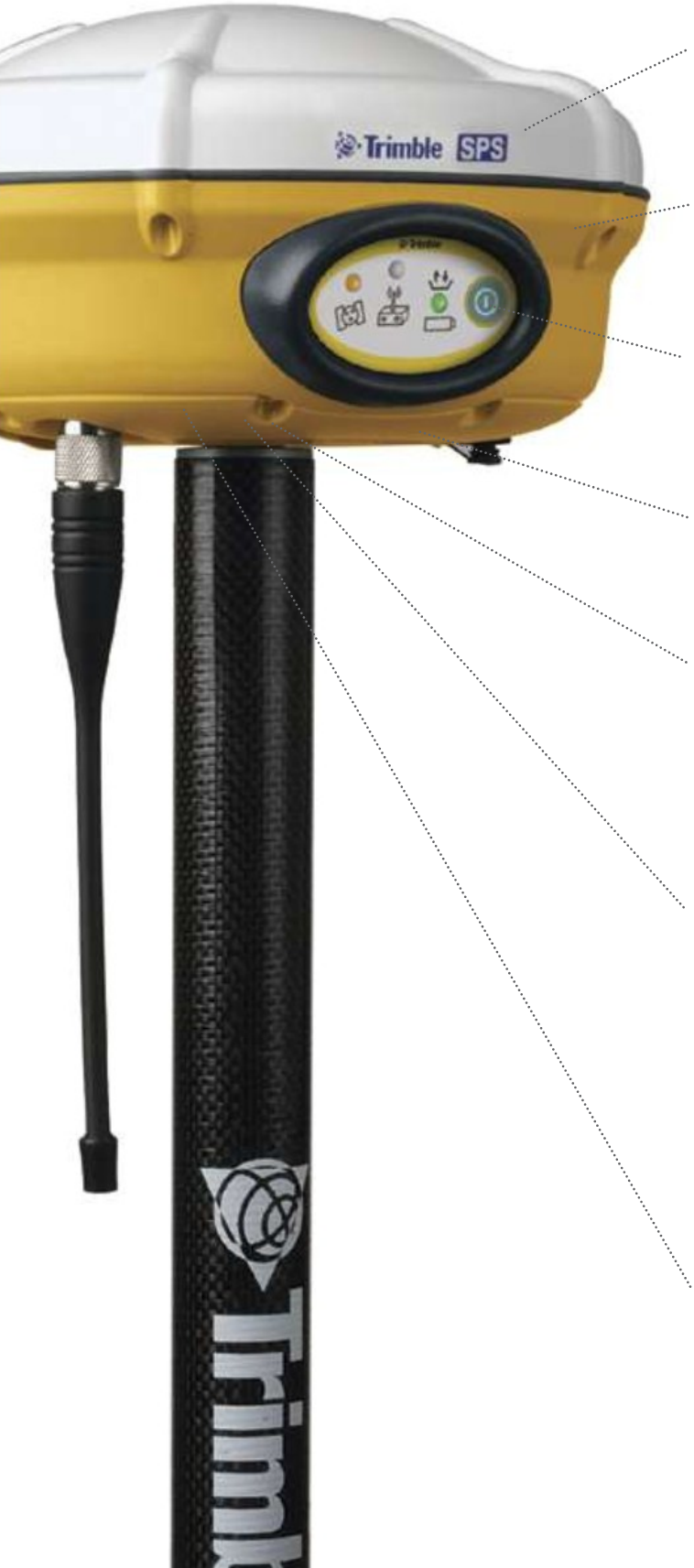
DATASHEET

TRIMBLE SPS882 GNSS SMART ANTENNA



HIGH MOBILITY BASE OR ROVER GNSS RECEIVER FOR SITE MEASUREMENT AND STAKEOUT APPLICATIONS

INTEGRATED GNSS RECEIVER, GNSS ANTENNA, RADIO AND BATTERY IN A SMALL LIGHTWEIGHT AND ROBUST HOUSING

RAPID DAILY BASE STATION SETUP WITH A SINGLE BUTTON PUSH USING AUTOBASE TECHNOLOGY

CABLE–FREE BASE OR ROVER OPERATION USING BLUETOOTH ® TECHNOLOGY

INTEGRATED LICENSE–FREE 900 MHZ RADIO OR 450 MHZ UHF RADIO

SUPPORTS VRS OR TRIMBLE IBSS CORRECTIONS THROUGH THE TRIMBLE TSC3 OR TRIMBLE TABLET CONTROLLER

A FUTURE-PROOFED INVESTMENT WITH 220 CHANNELS AND THE ABILITY TO TRACK GPS, GLONASS AND GALILEO GIOVE A AND GIOVE B

TRIMBLE SPS882 GNSS SMART ANTENNA

The Trimble ® SPS882 GNSS Smart Antenna offers unmatched flexibility for all your construction measurement needs. It is ideal for use on small and large job sites, as a pole-mounted rover system or as a temporary base station for other GNSS operations including machine control.

With Trimble SCS900 Site Controller Software, the SPS882 can help you:

- Determine cut/fill anywhere on the jobsite
- Stake out site or road features, utilities, daylight lines and side slopes
- Carry out site measurements for progress and material stockpile volume calculations
- Carry out as–built measurements, grade checks and laid material thickness checks

Using the advanced Trimble Maxwell ™ 6 chip, the SPS882 GNSS Smart Antenna can "see" more GNSS constellations, satellites, and signals than traditional GPS, so you can expect greater accuracy in more challenging conditions such as under tree canopy and in urban areas. That also means more uptime using the system and more productivity for your job crews.

Fast to Set-up and Use

Rover set up is fast and easy–just switch on the receiver, start up the controller and you're ready to go. Because the receiver, antenna, radio, radio antenna and battery are integrated into one housing, you don't have to deal with cables and multiple components. And with Trimble AutoBase ™ functionality you can also repeat daily set up of the SPS882 base station without the need for a controller. Simple to transport and fast to setup, the SPS882 GNSS Smart Antenna keeps your crews working, not wasting time with GNSS maintenance.

The fully upgradable SPS882 receiver can be configured in a variety of ways to suit any application, for example:

- As a portable base station only
- As a rover only with Precision or Location RTK accuracy
- As a flexible base or rover with Precision RTK accuracy

All options are available at the time of sale or as an upgrade.

Trimble
The Construction Technology Standard
www.trimble.com

TRIMBLE SPS882 GNSS SMART ANTENNA

GENERAL

Keyboard and display . . . . . LED indicators for satellite tracking, radio link reception and power monitoring
On/Off key for one-button startup
Dimensions (W x D) . . . . . 19 cm (7.5 in) × 11.2 cm (4.4 in)
Weight . . . . . 1.35 kg (2.97 lb) receiver only including radio and battery
Complete system (rover including controller and pole) 3.7 kg

ENVIRONMENTAL

Operating[1] . . . . . –40 °C to +65 °C (–40 °F to +149 °F)
Storage . . . . . –40 °C to +75 °C (–40 °F to +167 °F)
Humidity . . . . . 100%, condensing
Waterproof . . . . . IP67 for submersion to depth of 1 m (3.3 ft), dustproof
Pole drop . . . . . Designed to survive a 2 m (6.6 ft) pole drop onto concrete

MEASUREMENTS

- 220-channel L1C/A,L1/L2/L2C. Upgradable to L5 and GLONASS L1/L2C/A, L1/L2P Full Cycle Carrier
- Trimble EVEREST™ multipath signal rejection
- 4-channel SBAS L1 C/A, L5 (WAAS/EGNOS/MSAS)

CODE DIFFERENTIAL GPS POSITIONING [2]

Horizontal accuracy . . . . . 0.25 m + 1 ppm RMS (0.8 ft + 1 ppm RMS)
Vertical accuracy . . . . . 0.50 m + 1 ppm RMS (1.6 ft + 1 ppm RMS)

REAL-TIME KINEMATIC (RTK) POSITIONING [3]

Horizontal accuracy . . . . . 8 mm + 1 ppm RMS (0.026 ft + 1 ppm RMS)
Vertical accuracy . . . . . 15 mm + 1 ppm RMS (0.05 ft + 1 ppm RMS)

INITIALIZATION TIME

RTK operation with a single base station . . . . . 1 second + 1 second per 10 km
Regular RTK operation within RTK network . . . . . Minimum 1.5 seconds + 0.5 seconds per 10 km
Initialization reliability [3] . . . . . >99.9%

POWER

Internal . . . . . Rechargeable, removable 7.4 V, 2.4 Ah Lithium-ion battery in internal battery compartment
External . . . . . External power input with over-voltage protection 11 V DC to 28 V DC external power input
Power consumption . . . . . 3.2 W, in RTK mode with internal radio

OPERATION TIME ON INTERNAL BATTERY

Rover . . . . . 5 hours; varies with temperature
Base station with internal radio . . . . 3.7 hours; varies with temperature

REGULATORY APPROVALS

- FCC certification Class B Part 15, 22, 24
- Canadian ICES-003. Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada
- Canadian RSS-310, RSS-210, and RSS-119
- Cet appareil est conforme à la norme CNR-310, CNR-210, et CNR-119 du Canada
- CE mark compliance
- C-tick mark compliance
- RoHS compliant
- WEEE compliant

COMMUNICATIONS

Lemo (Serial) . . . . . 7-pin 0S Lemo, Serial 1, 3-wire RS-232
Modem 1 (Serial) . . . . . D-sub, Serial 2, Full 9-wire RS232
Bluetooth wireless technology . . . Fully-integrated, fully-sealed 2.4 GHz Bluetooth module [4]
Integrated radios (optional) . . . . . Fully-integrated, fully-sealed internal 450 MHz (UHF) Tx/Rx; Internal 900 MHz Tx/Rx
Internal radio output . . . . . 0.5 W
External GSM/GPRS, cell phone support . . . . . Supported via the SCS900 and SPS controller
Receiver position update rate . . . . . 1 Hz, 2 Hz, 5 Hz, 10 Hz, and 20 Hz positioning
Correction data input/output . . CMR™, CMR+™, CMRx, RTCM3, RTCM 2.x (with Rover/Base upgrade)
Data outputs . . . . . NMEA, GSOF

1 Receiver will operate normally to –40 °C. Internal batteries are rated to –20 °C.
2 Accuracy and reliability may be subject to anomalies such as multipath, obstructions, satellite geometry, and atmospheric conditions. Always follow recommended practices.
3 May be affected by atmospheric conditions, signal multipath, and satellite geometry. Initialization reliability is continuously monitored to ensure highest quality.
4 Bluetooth type approvals are country specific.

Specifications subject to change without notice.

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