

SANDING

EVERY POINT MATTERS

NEW VENUS T₃



- 692 channels
- Dual battery onboard
- 8km radio link range
- WebUI, WiFi and OTG
- Android software compatible
- RepeaterLink™
- SuperTilt™ (IMU & Tilt sensor incl.)

Specifications

GNSS characteristics

■ 692 GNSS channels

- GPS L1/L2/L5
- GLONASS L1/L2/L3
- BDS B1/B2/B3
- GAL E2-L1-E1/E5a/E5b/E6/AltBOC
- SBAS L1C/A, L5

■ Initialization: time <10s, reliability >99.99%

■ Supported data formats:

RTCM 2.1, RTCM 2.3, RTCM 3.0, RTCM 3.1, RTCM 3.2

■ Output data formats:

NMEA 0183, PJK plane coordinates, Binary code, Trimble GSOE

Positioning Accuracy

Code differential GNSS positioning

- Horizontal: $\pm 0.25\text{m} + 1\text{ppm}$
- Vertical: $\pm 0.50\text{m} + 1\text{ppm}$
- SBAS positioning accuracy: typically <5m 3DRMS

Static

- Horizontal: $\pm 2.5\text{mm} + 0.5\text{ppm}$
- Vertical: $\pm 3.5\text{mm} + 0.4\text{ppm}$

Real-time kinematic (RTK)

- Horizontal: $\pm 8\text{mm} + 1\text{ppm}$
- Vertical: $\pm 15\text{mm} + 1\text{ppm}$

Network RTK

- Horizontal: $\pm 8\text{mm} + 0.5\text{ppm}$
- Vertical: $\pm 15\text{mm} + 0.5\text{ppm}$

RTK initialization time

- 2~8s

Physical characteristics

Size

- 17.5 x 17.5 x 8.3 cm

Weight

- 1.33 kg (2 batteries included)

User interface

- Five Indicator lights
- Two buttons
- Linux System

I/O interface

- 5PIN LEMO external power port+RS232
- 7PIN external USB(OTG)+Ethernet
- Bluetooth 2.1+EDR standard
- Bluetooth 4.0 standard, support android, ios connection

Memory

- 8GB SSD internal storage
- Support external USB storage (up to 32 GB)
- Automatic cycle storage
- Changeable record interval
- Up to 50Hz raw data collection

Operation

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

Environmental characteristics

- Operating temperature: -45°C to $+65^{\circ}\text{C}$
- Storage temperature: -55° to $+85^{\circ}\text{C}$
- Humidity: 100% condensing
- IP67 waterproof, sealed against sand and dust
- Drop: 2m pole drop on concrete

Power characteristics

- Two Li-Ion batteries, 7.4 V, 3400 mAh
- Battery life: >14h (static mode)
>10h (internal UHF base mode)
>12h (rover mode)
- External DC power: 9-25 V

UHF Radio characteristics

- Built-in radio
- Frequency Range 410-470MHz
- Protocol: TrimTalk450s, TrimMark3, SOUTH (SANDING)
- 1W/2W/3W switchable
- typically working range 7-8km
- "Barrier-Free" Measurement Technology: Repeater/ Router/ CSD mode

Cellular module characteristics

- WCDMA/CDMA2000/TDD-LTE/FDD-LTE 4G
- Compatible with 3G GPRS/EDGE

WebUI

- Configure and monitor receiver by web server via Wi-Fi or USB cable

NFC

- Close range (shorter than 10cm) automatic pair between receiver and controller (need NFC chip in controller)

Wifi

- 802.11 b/g standard
- Hotspot: allow device to access in
- data link: broadcast differential data

Voice Guide

- intelligent voice technology provides status indication and operation guide
- Chinese, English, Korean, Russian, Portuguese, Spanish, Turkish and user define

Standard system components

- VENUS T3 Receiver
- Li-Ion battery
- Charger and adapter
- All-direction antenna
- Tape measure
- 30 cm pole extension
- 7-pin to OTG cable
- Engineering Star (Windows)
- Engineering Star (Android)
- 1 year warranty

Optional system components

- External Radio (410-470 MHz, 5-35W)
- Battery Case SA-6003
- Data collectors
 - S720 (Windows)
 - H3 plus (Android)
 - T17 (Windows)
 - X11 pro (Windows)
- Field software
 - Field Genius (Windows)
 - SurvX (Android)
- 1 or 2 year warranty extension

SANDING GEO OFFICE
Office Suite for Data Processing.

SANDING SurvX
FieldSoftware for Android Device

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