

Discover unsurpassed technology and quality with the Champion TKO Base + Rover

Champion TKO™ Base and Rover 1+1

Switch the base to a rover with a touch of a button!

What is Champion TKO?

The Champion TKO is a fully integrated base/rover kit with both a GPRS modem and a high power UHF radio and is available to you at a cost less than most brands. Built around the world's most advanced technology, the TKO is engineered for the real world. With full IP67 protection and rubberized bumper for worry free drop protection, the TKO will last for years to come.

Teaming technology

By pairing the industry's most advanced GNSS board capable of tracking all signals from all satellites in range and the integrated UHF radio operating at 1 watt of power, the Champion TKO base/rover delivers unmatched power, accuracy and performance.



Accessories

The Champion TKO base/rover kit comes with everything needed for remote RTK operation.

TKO Base/Rover kit includes:

- GNSS Base receiver & rover with Pacific Crest compatible internal radio
- Scepter data collector & bracket
- Includes MicroSurvey FieldGenius (other software available)
- Pacific Crest DB970 GNSS 220 channel OEM board
- Heavy duty carrying case
- Carbon fiber rover rod
- Batteries & tape measure
- Multiport wall charger
- 5 dBi whip antenna

Industry support

The TKO base/rover kit is compatible with all types of software and comes standard with the popular MicroSurvey FieldGenius software. Upgrade to Carlson SurvCE software also available.



Champion
INSTRUMENTS

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Receiver Accuracy

Static/Fast Static: Horizontal: 2.5 mm + 1 ppm; Vertical: 5 mm + 1 ppm

RTK Accuracy: Horizontal: 1 cm + 1 ppm; Vertical: 2 cm + 1 ppm

Physical Features

- ARM9 CPU with 64M flash memory
- Size: 7.68in diameter; Height: 4.09in;
- Weight: 3.8lbs (Including Li-ion battery)

Electrical Power

- Battery: 2 Internal Lithium batteries with 4400 mAh each
- Voltage: 7.4 V
- Single battery working continuously: 15 hours in static mode, 12 hours in GPRS mode and 8 hours in 2 W transmitting power
- 6 ~ 36V external DC power

Environment

- IP Standard: IP67
- Waterproof/Dustproof: Protected from temporary immersion to depth of 2 meters and completely dust-proof
- Anti-impact: Protected from 2 meters
- Operation temperature: -45°C to 65°C (-49°F to -85°F)
- Storage temperature: -55°C to 85°C (-13°F to 140°F)
- Humidity: 100% non-condensing

Communication Ports

- 2 RS-232 serial ports; 1 USB port; 1 port for Bluetooth communication
- 2 port for external DC power supply (multiplex); 1 SIM card slot for GSM
- 1 built-in communication module port

Function Key and LED

- 3 Panel buttons: 1 power switch key, 2 functional keys
- 3 LEDs: 1 Satellite LED (single color), 1 Communication LED (dual color), 1 Power LED (dual color)

Intelligent Voice Module

- Broadcast function for operations and status checks

Radio Frequency

- Internal UHF Radio: 430 to 450 MHz or 450 to 470 MHz (compatible with PCC/MDS radios)

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GNSS Positioning Features

- Advanced Trimble Maxwell 6 Professional GNSS OEM board with 220 channels
- Multiple high precision correlator for GNSS pseudorange measurements
- Low noise GNSS carrier phase in surveying, Accuracy <1 mm within 1 Hz wide band
- Unprecedented low elevation-angle tracking technology
- Initialization time <10 Secs
- Initialization reliability > 99.9%
- 1 Hz, 2 Hz, 5 Hz, 10 Hz, 20Hz and 50 Hz output (default 10Hz)
- Default configuration includes 3G/GPRS modem, 1 watt UHF transceiver
- TNC connector for both 3G and UHF modems
- Differential data format: CMR, CMR+, RTCM 2.1, 2.2, 2.3, 3.0, 3.1
- Navigation Output Format: ASCII: NMEA-0183 GSV, AVR, RMC, HDT, VGK, VHD, ROT, GSK, GGA, GSA, ZDA, VTG, GSTPJT, PJK, BPQ, GLL, GRS, GBS Binary System: Trimble GSOE
- Signals tracked simultaneously:
- GPS: L1 C/A, L2E, L2C, L5
- GLONASS: L1 C/A, L1 P, L2, C/A (only for GLONASS M) and L2P
- SBAS: L1 C/A, L5
- GIOVE-A & GIOVE-B: L1 BOC, E5A, E5B and E5Alt BOC (optional)
- GALILEO: (upgrade)



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