



HydroCharting
Hydrographic Consultancy



中海达
HI-TARGET

V30
Dual-Frequency GNSS RTK System



Thank to Hi-Target engineer's more than 3-decade endeavor in GPS/GNSS industry, Hi-Target has launched out a new generation of GNSS RTK system V30. This model is designed to meet high quality standard but with low-cost solution for survey. It does not only track GPS, GLONASS, SBAS, but also track GALILEO satellite constellations for future application. In addition, V30 is powered by a 4-cell, long endurance Li-ion battery, to support longer working time than other GNSS RTK instruments on the market.

V30's housing is made of General Electric Xenoy 5220U polymer resin to withstand severe and harsh environment conditions and the special sealing technology makes it distinguished by its excellent waterproofness & dustproofness. Besides, the special latching technology on flexible flat cables ensures trouble-free operation under impact or vibration.





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Dual-Frequency GNSS RTK System

Built-in Transceiver UHF Radio

- With transceiver UHF radio, you can use V30 as a rover or a base simply switching the working mode. There are 2W Hi-Target and 1W PCCUHF radios as options for your application. 2W transceiver internal radio is an excellent solution for UHF RTK operations. 1W radio is a good choice to be used for other brand instruments having TimTalk compatible radio.

Multi Constellation Tracking

- Fully Compatible to GPS, GLONASS, SBAS and GALLILEO satellite constellations available with onboard 220 channels.

Automated Operation

- Once setting is finished, "push the button" does the rest to get ready for rover operation. No more torture of "Several Step to Make the System Ready" for every single operation.

Seamless Operation in CORS Networks

- Works perfectly with corrections from CORS networks in any versions of CMR or RTCM, without needing to interpretate the message but reading seamlessly.

Powerful Li-ion Battery

- Working time for different working modes
Static: 13 to 15 hours
RTK Rover (UHF or GPRS): 10 to 12 hours
RTK Base: 8 to 10 hours

Excellent Anti-Shock, Waterproof and Dustproof Performance

- IP67





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| Measurements | Advanced Trimble Maxwell 6 survey chip with 220 channels | |
| | High precision multiple correlator for GNSS pseudorange measurements. | |
| | Low noise GNSS carrier phase measurements with <1mm precision in 1Hz bandwidth, proven low elevation tracking technology | |
| | Signal noise ratios reported in dB-Hz | |
| | Satellite Signals Tracked Simultaneously | GPS: L1 C/A, L2C, L2E, L5 GLONASS: L1 C/A, L1P, L2 C/A (for GLONASS only) SBAS: WAAS, MSAS, EGNOS GIOVE-A: L1 BOC, E5A, E5B, E5A tBOC (optional) GIOVE-B: L1 CBOC, E5A, E5B, E5A tBOC (optional) GALILEO: upgrade reserves |
| Accuracy | Static and Fast Static GNSS Surveying | Horizontal: \pm (2.5mm+1ppm RMS) Vertical: \pm (5mm+1ppm RMS) |
| | WAAS Differential Surveying | Typically <3m |
| | Stop and Go Surveying | Horizontal: \pm (25cm+1ppm RMS) Vertical: \pm (50cm+1ppm RMS) Initialization time: typically 10 min. for base while 5 min. for rover Initialization reliability: typically >99.9% |
| | RTK Surveying | Horizontal: \pm (25cm+1ppm RMS) Vertical: \pm (50cm+1ppm RMS) Initialization time: typically 10 min. for base and 5 min. for rover Initialization reliability: typically >99.9% |
| Hardware | Physical | Dimensions (WxH): ϕ 19.5cm x 10x4cm Weight: 1.3kg (2.86lb) with internal battery, radio and UHF antenna. Operation Temperature: -40°C to +65°C (-40°F to +149°F) Storage Temperature: -40°C to +75°C (-40°F to +167°F) Water/dustproof: IP67 dustproof, protected from temporary immersion to depth of 1m. |
| | Electrical | Enable to connect DC 6-36V external power input. Power consumption 2.5w Automatic Switching between internal and external power. 2 pcs recharge- and removable 7.4V, 4400mAh Li-ion battery Operational time on internal battery: Static: minimum 13 hours RTK Rover (UHF/GPRS/3G): 10-12 hours RTK Base: 8-10 hours |





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|---------------------------------------|--------------------------------------|---|
| Hardware | I/O interface | 1 x Bluetooth 1 x standard USB2.0 port 1 x RS232 serial port 1 x DC power input (8-pin & 5-pin) |
| | Data Storage | 64MB internal memory |
| | Data formats | (1Hz positioning output, up to 50 Hz – depends on installed options) CMR: sCMRx, CMR, CMR+ input and output RTCM: RTCM 2.1, 2.2, 2.3, 3.0, 3.1 input and output Navigation outputs ASCII: NMEA-0183 GSV, AVR, RMC , HDT, VGK, VHD, ROT, GGK, GSA, ZDA, VTG, GST, PJT, PJK, BPQ, GLL, GRS, GBS Navigation output Binary: GSOF 1 Pulse Per Second Output |
| | GPRS/GSM or 3G | Fully integrated, fully sealed internal GPRS/GSM or 3G network RTK (via CORS) range 20-50km. |
| Communication and Data Storage | UHF Radio Communication | Compatible with V8, HD6000 and other Hi-Target products with radio in 460MHz. With differential transmit-receive function and transmit power adjustable among 0.1w, 1w and 2w. Radio frequency range: 455MHz ~ 465MHz or 440MHz ~ 450MHz, with 100 flexible switching channels. With top 19.2Kbps wireless transmit speed. Working range: 3-5km typical, 8-10km optimal |
| | PCC Internal Radio (optional) | Compatible with Trimble and Leica. With differential transmit-receive function and transmit power adjustable among 0.1w, 0.5w and 1w. Radio frequency range: 430MHz ~ 470MHz, with 32 flexible switching channels. The frequency list can be customized. With top 19.2Kbps wireless transmit speed. Supported protocols: Transparent EOT Timeout / Transparent EOC Character / Packet Switched / TRIMTALK 450S / TRIMMARK II/Ile / TRIMTALK 3 / TT450S / SATEL. Working range: 3-5km typical, 8-10km optimal |
| | External PCC Radio (optional) | Input power: DC 9~30V With transmit-receive function, transmit power adjustable and the top transmit power optional between 4W to 35W. Radio frequency range: 430MHz ~ 470MHz, with 32 flexible switching channels. The frequency list can be customized. With top 19.2Kbps wireless transmit speed. Supported protocols: Transparent EOT Timeout / Transparent EOC Character / Packet Switched / TRIMTALK 450S / TRIMMARK II/Ile / TRIMTALK 3 / TT450S / SATEL. |

