

THOR III GNSS RTK Compact Receiver



Boosted Performace Full Constellation Tracking Ensures Reliable Performance

1288 channels, improving fixed rate
Triple L1+L2+L5 frequency, locking more satellites and increasing stability
GPS, GLONASS, COMPASS (BDS), GALILEO, QZSS, IRNSS& SBAS constellations

Supporting RTK, PPK and SBAS Positioning
 Internal UHF transmits up to 15KM with 2W power consumption

 IMU-based tilt surveying, up to 60° tilt survey
 Powerful android-based data collection software

- Smaller size, lighter weight

Superior Value and Flexibility Industrial Grade Integrated RTK receiver

- Powerful functions, point survey, point stake, CAD stake, road stake, feature survey, earthwork calc, etc

- Embedded self-configuring operative system with free lifetime updates and support

- 1 Function buttons for Power, 2 LEDs for satellites tracking and RTK corrections data

 Works as rover or base transmitting and receiving by UHF antenna

- IP67 Water and Shockproof enclosure
- Internal battery cells at 5000mAh

- Made with industrial components, for decades of use and repairable even after heavy damage

- The best Cost/Benefit ratio of the market

1288 Channels Triple Frequency

MILLIMETRIC ACCURACY





THOR III GNSS RTK Compact Receiver GPS, GLONASS, COMPASS, GALILEO, QZSS, IRNSS & SBAS

SmaRTK GNSS RTK Integrated Receiver	Powerful Android software
RTK System Overview	User friendly Wizard: Help you get familiar with the software step-by-step
Triple-frequency GNSS RTK Receiver with 1288 channels and integrated antenna.	Functions: Radio/PDA CORS modes, all kinds of survey/stake out/CAD sketch and etc.
Internal Transceiving 2W UHF Radio modem, the maximum distance is 15KM	Import & Export: supporting many kinds of TXT, CSV, SHP, AutoCAD DXF and etc.
Works as UHF Rover with its internal radio modem	Broad Applicability: Featuring 10 more languages and various projections & datums
Works as Base, internal radio modem, power consumption 0.5W to 2W	Cooperation: support mock location function
Baud rates up to 921600 bps UHF modem	PDA CORS with Controller Network
Tx/Rx with full frequency range from 410-470 MHz	Direct connect to CORS with Controller network
NFC fast connection	Protocols: Transparent / NTRIP/TCP
Integrated Bluetooth, V4.0 protocol, compatible with Windows and Android OS	Network CORS support compatible with VRS, FKP, MAC, iMAX
IP67 Rugged and water-resistant design	User Interphase
C50 Data Collector Overview	1 Function buttons for Power
MT6762 8-Core Processor, 2.0 GHz	• 2 LEDs (indicating Satellites Tracking, RTK Corrections Data)
3GB+32GB Memory	 Calibration-free IMU integrated for tilt survey up to 60° tilt
• 5.5" Touch Display with 720*1440 Resolution	Bluetooth : V 4.0 protocol, compatible with Windows OS and Android OS
IP67 Waterproof and Dustproof	Energy
• 7700mAh Li-Polymer Battery	Typical power consumption: 1.4 W
Support 4G, Ultra-Distance Bluetooth®, Wi-Fi, NFC	Battery: 5000mAh,7.4V
Performance Specifications	Input voltage: 6-28 VDC
Receiver	Integrated internal Battery Charger with charge indicator.
1288 Channels, high fixed rate	
Anti-interference algorithm technology, for maximum error filtering	Communications
Multiple radio samplers gives the most accurate band tuning available	Charger and Download: 1 Type-C
Available as GNSS L1+L2+L5 Single receiver	UHF Radio modem transmitter / receiver: switchable power at 0.5W to 2W, 1 SMA
 High precision multicorrelating GNSS pseudorange measurement and DP Filter 	IMU: up to 60°tilt with 2.5 cm accuracy
 GNSS carrier phase with low noise with <1 mm precision in a 1 Hz bandwidth 	NFC: support, fast connection
Signal-to-Noise ratios reported in dB-Hz	HARDWARE
 Full Constellation tracking, ensures raliable performation 	Physical
Satellite signals tracked:	Dimensions: 13*13*10cm
GPS: L1C/A,L2P,L1C,L2C,L5	Weight: 790g (include battery)
GLONASS: G1C,G1P,G2C,G2P,G3	Working Temperature: -40 °C to +65 °C
COMPASS: B1I,B2I,B3I,B1C,B2a,B2b,B2b-ppp	Storage Temperature: -40 °C to +85°C
Galileo:E1,E5b,E5a,E5AltBoc,E6c	Humidity: 100% no condensing
INRSS (NAVIC): L6	Waterproof and dustproof: IP67, protected from temporary immersion to depth of 1 m
QZSS: L1C/A,L2C,L5,L1C,L1s,L5s,L6	Shock and vibration tested:
SBAS: WAAS, EGNOS, MSAS, GAGAN,SDCM	Shock Non-operating: Designed to survive a 2 m drop onto concrete
Position data output rates: 1Hz, 5Hz, 10Hz on RTK, up to 20Hz	Memory: 8GB
Code differential positioning (DGPS).	STANDARD ROVER SET INCLUDES:
<0.4 m RMS	• 1 Receiver
Postprocessed static (PPS) fast static and kinematic (PPK) surveying (stop&go)	1 Controller with holding Bracket
Horizontal ± 2.5 mm + 0.5 ppm RMS	I GNSS Connector
Vertical ± 5 mm + 0.5 ppm RMS	1 Battery Charger
Herizontal + 9 mm + 1 nnm PMS	1 USB Data Cable
Norticel + 15 mm + 1 ppm RMS	• 1 Transport Case
	STANDARD BASE AND ROVER SET INCLUDES:
	2 Receivers
Signal re-acquisition: <15 s	1 Controller with holding Bracket
Communication Protocols and NTRIP compliance	• 2 GNSS Connectors
Correction data: RTCM 2 X 3 X CMR (GPS only) CMR+ (GPS only)	2 Battery Chargers
ASCII: NMEA-0183 GSV RMC HDT VHD GGA GSA ZDA VTG GST PTNL etc	• 2 USB Data Cable
Data Link LIHE Radiomodem	• 2 Transport Cases
Internal Transmitting Power : 0 5-2W adjustable	• 2 Whip Antennas (UHF)
Tx/Rx with full frequency range: from 410-470 MHz	• 1 Tribrach (Ontional)
Power consumption: 1.4 W	• 1 2m-Range Pole with Bagd (Optional)
Antenna: external SMA	• 1 Aluminum Disc x1 (Optional) 15cm Extension Bar x1 (Optional)
Link Rate/Modulation: up to 921600 bps	
Link Protocols: Lora	Notes:
Unlimited I IHE Channels: channel 1 to 9 support customize	- Accuracy. TTEE and reliability specifications may be affected by multinath, satallite geometry and atmospheric conditions
Frequency Control: Synthesized 250 kHz Resolution	Specifications assume at least 5 satellites locked and follow up of the recommended practices
Work Range: 15 KM	- Working distance of internal LIHE varies in different environments, the maximum distance is 15km in ideal situation
	mention and an example of memory of memory in direction convironments, the maximum distance is 10km in ruled situation.

Optional Modes: Transmitting and Receiving

Working distance of internal UHF varies in different environments, the maximum distance is 15km in ideal situation.

- 8GB is the default internal memory and optional 16GB, 32GB is available to order. Please clarify when placing the order.