



# TR7 Pro GNSS RECEIVER

## GNSS

Signal Tracking

GPS: L1, L2, L5  
 GLONASS: L1, L2  
 BDS: B1, B2, B3  
 Galileo: E1, E5A, E5B  
 QZSS: L1, L2, L5  
 SBAS: L1  
 IRNSS:L5

No. of Channels

800+

## MEASUREMENT PERFORMANCE

Initializing Time

Less than 10 Seconds

Real-time Kinematic

Hz 8mm + 1ppm / V 15mm + 1ppm RMS

Static and Fast Static

Hz 2.5mm + 0.5ppm / V 5mm + 0.5ppm RMS

DGPS

Hz 0.25m + 1ppm / V 0.5m + 1ppm RMS

Initialization Reliability

99.9%

Static Data Format

GNS and Rinex

### Hi-Fix<sup>1</sup>

Horizontal

RTK + 10 mm/minute RMS

Vertical

RTK + 20 mm/minute RMS

IMU

Additional horizontal pole-tilt uncertainty typically less than 10mm +0.7 mm/°tilt (2.5cm accuracy in the inclination of 60° under ideal circumstances)

## COMMUNICATIONS

Communication Ports

USB, TNC antenna port and Nano SIM card slot 4G LTE  
 Bluetooth 4.0, Wi-Fi and NFC  
 DC External power input  
 LED indicator panels

Internal UHF Transceiver

Frequency: 403-473MHz  
 Channel: 116 (16 configurable)  
 Transmitting power:1W/2W/4W  
 Protocols: HI-TARGET, TRIMTALK450S, TRIMMARK III,  
 TRANSEOT, SATEL-3AS, etc..  
 Working range: 5-6km typical, 6-7km optimal

## SYSTEM

Start-up Time

3 Seconds

Data Storage

16GB internal storage

Sensor

Electronic bubble and tilt survey

## DATA MANAGEMENT

Positioning Output Frequency

1Hz - 20Hz

Message Type

CMR, RTCM2.X, RTCM3.0, RTCM3.2

Network Mode

VRS, supports NTRIP protocol

Output Format

ASCII: NMEA-0183, binary data

Application Function

OTG, NFC, WebUI, USB firmware upgrade, network repeater station  
 Intelligent voice, self-test function, smart battery, battery quick change  
 Message delivery and remote upgrade

## GENERAL

Environmental

IP67 environmental protection  
 Humidity 100% condensing  
 Shock resistant body to 2m (6.5ft) pole drop  
 Temperature -40° to 75°C Operating -55° to 85°C Storage

Physical Properties

OLED Screen: 1.54in  
 Resolution: 128 x 64  
 Size: 137mm x 131mm  
 Weight: 1.35kg including battery  
 Power: 6 - 28V DC Input  
 Battery: 6800 mAh Li-Ion Battery  
 Operation Time: 10 hours (Network/Cellular - RTK Rover)

©Accuracies are dependent on GNSS satellite availability. Hi-Fix positioning ends after 5 minutes of radio downtime. Hi-Fix is not available in all regions, check with your local sales representative for more information.