

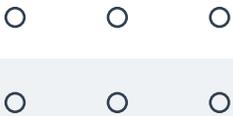
Trimble R750

GNSS Receiver

The Trimble® R750 GNSS receiver incorporates the latest industry-leading positioning technology from Trimble, along with a full suite of modern communications capabilities, in a rugged, modular package that can be deployed anywhere.

Convenient features, such as an integrated 4G LTE modem, four-line reversible front panel display, and USB-C PD charging, make the Trimble R750 a powerful tool for a variety of agriculture and surveying applications.

This modern and scalable GNSS base station uses the most advanced signals from all available GNSS constellations to maintain highly accurate positioning data in real time. Multiple wireless communications capabilities allow crucial links between your GNSS receiver and the world. Furthermore, purchase only the features you need today, with the ability to easily upgrade to meet new challenges in the future.



Key Features

- Trimble® Maxwell™ 7 GNSS ASIC
- Advanced satellite tracking with Trimble ProPoint™ GNSS positioning engine. Engineered for improved accuracy and productivity in challenging GNSS conditions
- Convenient front panel display and configuration
- Wi-Fi and 4G LTE connectivity
- Bluetooth®, Ethernet, serial and USB support
- Data logging internally and to external drive
- USB-C PD charging
- Support for RTK level precision Trimble CenterPoint® RTX corrections technology



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General	
Factory options	GPS GLONASS, Triple Frequency, Wi-Fi (AP, Client), LTE, Logging, Field Radio, Moving Base
Internal Memory	9.25 GB logging
Keyboard and display	Display 32 characters by 4 rows
	On/Off key for one-button startup
	Escape and Enter keys for menu navigation
	4 arrow keys (up, down, left, right) for option scrolls and data entry
Dimensions (L x W x D)	269 mm (10.6 in) L x 141 mm (5.5 in) W x 61 mm (2.4 in) H
Weight	2.05 kg (4.52 lb)
GNSS Antenna (Recommended)	
Zephyr 3 or Zephyr™ Model 2 series [Base, Rover, Rugged, Geodetic]	Triple-frequency GNSS (GPS, GLONASS, Galileo, BeiDou, QZSS, NavIC) MSS, SBAS
Environmental	
Operating ¹	-40 °C to +65 °C (-40 °F to +149 °F)
Storage	-40 °C to +80 °C (-40 °F to +176 °F)
Humidity	93% humidity at 40 °C for a duration of 3 hours (IEC-60945 Method 8.3)
Water Ingress Protection	IP67 for submersion to depth of 1 m (3.3 ft), dustproof
Measurements	
	Advanced Trimble Maxwell™ 7 Custom GNSS Chip
	High-precision multiple correlator for GNSS pseudorange measurements
	Unfiltered, unsmoothed pseudo-range measurements data for low noise, low multipath error, low-time domain correlation, and high-dynamic response
	Very low noise carrier phase measurements with < 1 mm precision in a 1 Hz bandwidth
	Trimble EVEREST™ multipath signal rejection
	MSS Band (2-channels): Trimble CenterPoint® RTX correction service and OmniSTAR®/MarineStar by subscription
	Trimble xFill® technology for short gaps in correction messages
	Multi channel GNSS
	GPS: L1 C/A, L1C, L2C, L5, L2E (Trimble method for tracking unencrypted L2P)
	GLONASS: L1-C/A, L2-C/A, L1P, L2P, L3 Full Cycle Carrier
	NavIC (IRNSS): L5-C/A
	Upgradeable to Galileo: L1 CBOC, E5A, E5B & E5AltBOC ⁸
	Upgradeable to BeiDou: B1, B2, B3, B1C, B2A, B2B [Tracks 3rd generation BeiDou signals]
	4-channel SBAS L1 C/A, L5 (WAAS/EGNOS/MSAS/GAGAN)
	QZSS: L1 C/A, L1C, L1 SAIF, L2C, L5
Code Differential GPS Positioning ²	
Horizontal accuracy	± (0.25 m + 1 ppm) RMS ± (0.8 ft + 1 ppm)
Vertical accuracy	± (0.50 m + 1 ppm) RMS ± (1.6 ft + 1 ppm)
CenterPoint RTX Positioning ⁷	
Accuracy	Horizontal 2 cm (0.06 ft) RMS, Vertical 5 cm (0.16 ft) RMS
Convergence time for specified precisions	5 minutes in select regions, and within 30 minutes worldwide
Real-Time Kinematic Positioning ²	
Horizontal accuracy	Precise Rover 8 mm + 1 ppm RMS (0.026 ft + 1 ppm RMS)
Vertical accuracy	Precise Rover 15 mm + 1 ppm RMS (0.05 ft + 1 ppm RMS)

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Initialization Time	
Regular RTK operation with base station	Single/Multi-base typically less than 8 seconds
Initialization reliability ⁴	> 99.9%
Power	
Internal	Integrated internal battery 7.26 V, 6700 mAh, Lithium-ion
	Internal battery operates as a UPS during an ext power source failure
	Internal battery will charge from USB-PD source or approved AC power supply
	Integrated charging circuitry
External	Power input on 7-pin 0-shell Lemo connector is optimized for lead acid batteries with a cut-off threshold of 11.5 V. Max 28 V DC
	Power input on the 26-pin D-sub connector has a cut-off threshold of 10.5 V
	Power supply will hot-swap between internal and external sources.
	USB-PD device capable of 15 V @ 2A
	DC external power input with over-voltage protection
	Receiver automatically turns on when connected to external power
Power consumption	6.6 W in rover mode with internal receive radio
	8.5 W in base mode with internal transmit radio
Regulatory Approvals	
FCC	Part 15 Subpart B (Class B Device) Subpart C Section 15.247 Part 90 Part 22/24/27 Part 2, KDB 447498 D01, IEEE C95.3 UL IEC 62368-1, IEC 60950-1, EN38.3, IEC 62311, UL 2054 PTCRB BT SIG
Canada	ICES-003. Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada. RSS-GEN, RS-102, RSS-247, RSS-130/132/133/139/199. Cet appareil est conforme à la norme CNR-GEN, CNR-102, CNR-247, CNR-130/132/133/139 et CNR-199 du Canada.
EU	Radio Directive (RED 2014/53/EU) EN 300 113, EN 300 328, EN 301 908 EN 303 413 EN IEC 62368-1 RoHS Directive 2011/65/EU WEEE Directive 2012/19/EU
UKCA	S.I. 2017 No. 1206, S.I. 2016 No. 1091, S.I. 2016 No. 1101.
ACMA	AS/NZS 4268, AS/NZS CISPR 32
Japan	Japan MIC
More certification information is available upon request	
Communications	
Serial 1 (COM1)	7-pin 0S Lemo, Serial 1, 3-wire RS-232
Serial 2 (COM2)	26-pin D-sub, Serial 2, 5-wire RS232, using adaptor cable (Selectable) 26-pin D-sub, Serial 2, 4-wire RS422, using adaptor cable (Selectable)
Serial 3 (COM3)/CAN	26-pin D-sub, Serial 3, 3-wire RS232, using adaptor cable (Selectable) 2 wire CAN Output [NMEA 2000] (Selectable)
Serial 4 (COM4)	26-pin D-sub, Serial 4, 4-wire RS422, using adaptor cable (Selectable)
1PPS (1 Pulse-per-second)	Supported on both Lemo and 26-pin D-sub
Event In	Supported on Lemo
USB	USB-C v2 (Supports USB-PD charging)
Ethernet	Through a multi-port adaptor (PN 57168)
Wi-Fi	Fully-integrated, fully-sealed 2.4/5 GHz Wi-Fi module Simultaneous Access Point (AP) and Client modes
Bluetooth® wireless technology	Fully-integrated, fully-sealed 2.4 GHz Bluetooth module ⁵
Cellular	Fully-integrated, fully-sealed LTE compliant module Bands 1:2:3:4:5:7:8:12:18:19:20:28 [Verizon not supported]



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Network Protocols	
HTTP (web browser GUI)	HTTP, HTTPS
NTRIP	NTRIP v1 and v2, Client, Server and Caster modes
Dynamic DNS	Yes
Integrated UHF Radio	
900 MHz	Fully-integrated, internal 900 MHz; Tx/Rx [1.0 W]
Frequency approvals (902-928 MHz)	USA/Canada
Cellular Support	
Internet-based correction streams: (IBSS, VRS, NTRIP)	Internal LTE modem Connected smartphone
Carriers	Bands 1:2:3:4:5:7:8:12:18:19:20:28 [Verizon not supported]
Remote Access	Using DynDNS and appropriate service
Input/Output	
Correction inputs/outputs ^[8]	CMR, CMR+, CMRx, RTCM 2.x, RTCM 3, RTCM 3.3 (MSM)
Features and Upgrades	
Standard features	GPS, GLONASS, Triple Frequency, Wi-Fi (AP, Client), LTE, Logging, DGNSS Base, Field Radio, Moving Base
Precision upgrades	Precise Base, Precise Rover
Signal / Constellation upgrades	Galileo, BeiDou

- Operating up to +65 °C ambient when the device is powered by external DC supply and the battery is fully charged or is not being charged.
Operating up to +30 °C ambient when the battery is being charged by an external DC supply.
Operating up to +48 °C ambient when the device is powered by a USB-PD battery or charger.
 - Accuracy and reliability may be subject to anomalies such as multipath, obstructions, satellite geometry, interference and atmospheric conditions. Always follow recommended survey practices.
 - Depends on SBAS system performance.
 - May be affected by atmospheric conditions, signal multipath, and satellite geometry.
Initialization reliability is continuously monitored to ensure highest quality.
 - Bluetooth type approvals are country specific. For more information, contact your local Trimble office or representative.
 - Networked RTK PPM values are referenced to the closest physical base station.
 - Receiver accuracy and convergence time varies based on GNSS constellation health, level of multipath, and proximity to obstructions such as large trees and buildings.
 - Correction outputs require Precise Base upgrade.
- Specifications subject to change without notice.



Contact your Trimble Ag Reseller today

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