

TRIMBLE GEO 7 SERIES

KEY FEATURES

Trimble Flightwave remote positioning technology

Easy and productive data capture of assets with remote measurement

Trimble Floodlight satellite shadow reduction technology

More positions and increased accuracy in tough GNSS environments

Maximize your GNSS productivity and be ready for the future

Track existing and planned GNSS constellations

End-to-end data collection solution

Flexible software options, to collect, process, and manage data

READY FOR ANYTHING

Be truly productive with the Trimble® Geo 7 series. No matter what gets in your way.

Eliminate physical barriers to field success

Geo 7X handhelds offer two powerful technology innovations so you stay productive when the going gets tough.

For times when occupying the position is simply not possible, smart mappers turn to Trimble Flightwave™ technology. Flightwave-enabled workflows easily integrate offset measurements from the Geo 7 rangefinder module directly with Trimble data collection software. Users can simply point and shoot to get the position, despite dangerous conditions or right-of-way challenges—saving time each day while getting previously impossible work done.

Trimble Floodlight™ technology keeps you working when heavy overhead cover obstructs weak satellite signals.

Smart data collection

By providing compatibility with existing and planned GNSS constellations, the Geo 7X has the smarts to maximize productivity by delivering reliable GNSS tracking today and in the future.

Compatible with the breadth of Trimble GIS field and office software, the Geo 7X gives you flexible end-to-end data collection solutions and workflow choices. From the field-proven Trimble TerraSync™ and Positions™ software, to the customizable data collection workflows of Trimble TerraFlex™ software. Work productively, the way you want to.

Everything you need to work

Better faster camera, greater processing power, and more—it's all there to keep you working. Stay on target, no matter what, with the Trimble Geo 7 series.



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DATASHEET

PHYSICAL DIMENSIONS

Geo 7X handheld (H x W x D)	234 mm x 99 mm x 56 mm (9.2 in x 3.9 in x 2.2 in)
Geo 7X handheld with rangefinder	1080 g

GNSS, ORIENTATION, AND DISTANCE¹

GNSS sensor	L1/L2 GNSS receiver and antenna
Chipset	220 channel Trimble Maxwell™ 6
Systems	GPS, GLONASS, Galileo, BeiDou, QZSS
SBAS	WAAS, EGNOS, MSAS, GAGAN
SBAS+	Yes
Floodlight	Yes
Receiver protocols	NMEA, TSIP2
Update rate	1 Hz
Time to first fix	< 45 seconds (typically)
Real-time correction protocols	RTCM2.x/RTCM3.x/CMR+/CMRx
Real-time Centimeter mode accuracy ²	
Horizontal	1 cm + 1 ppm HRMS
Vertical	1.5 cm + 2 ppm VRMS
Postprocessed Centimeter mode accuracy ²	
Horizontal	1 cm + 1 ppm HRMS
Vertical	1.5 cm + 1 ppm VRMS
H-Star™ accuracy	10 cm + 1 ppm HRMS
Code accuracy (real time)	75 cm + 1 ppm HRMS
Code accuracy (postprocessed)	50 cm + 1 ppm HRMS
SBAS accuracy	Typically submeter
Orientation sensors	3-axis gyro, magnetometer, accelerometer
Heading accuracy	1.5°
Inclination accuracy	0.5°
Roll accuracy	0.5°

Distance sensor	Laser rangefinder module
Communication protocols	NMEA or Trimble proprietary
Passive range	Up to 120 m
Reflective range	Up to 200 m
Accuracy ³	0.05 m
Range precision	0.01 m

NETWORK AND WIRELESS CONNECTIVITY

GSM/GPRS/EDGE	850 / 900 / 1800 / 1900 MHz
UMTS/HSPA+	800 / 850 / 900 / 1900 / 2100 MHz
CDMA/EV-DO Rev. A	800 / 1900 MHz (Verizon certified)
Wi-Fi	802.11b/g
Bluetooth profiles	BT 2.0 +EDR (SPP, OPP, FTP, PAN, A2DP, DUN, HID)

POWER AND BATTERY⁴

Type	Rechargeable, removable Li-Ion
Capacity	11.1V 2,500 mAh
Charge time	< 4 hours (typical)
Real time DGNSS usage (via integrated 3G/3.5G)	Up to 7 hours
Real time DGNSS usage (via Bluetooth)	Up to 9.5 hours
Autonomous GNSS usage	Up to 10.5 hours
Non-GNSS use	Up to 24 hours
Standby	Up to 50 days

SYSTEM CPU, MEMORY, AND CAMERA

CPU	Texas Instruments DM3730 1 GHz + GPU
Memory	4 GB user memory + SD slot (up to 32 GB), 256 MB RAM
Camera	5 MP

DISPLAY AND TOUCH PANEL

Display	4.2" VGA (640 x 480) LED transreflective
Touch panel	Resistive touch panel with polarized light filter
Brightness	280 cd/m ²

OS

Microsoft® Windows® Embedded Handheld version 6.5 Professional.
English (U.S.), Chinese (Simplified), Chinese (Traditional), French, German, Italian, Japanese, Korean, Spanish, Portuguese (Brazil), Russian.

SYSTEM REQUIREMENTS

Syncing with a PC requires Windows 7; Windows Vista; or Windows XP Home or Professional with Service Pack 3 or later. Some field applications and services require mobile internet access.

ENVIRONMENTAL USE

Operating ambient temperature	-4° to 140° F (-20° to 60° C)
Storage temperature	-22° to 158° F (-30° to 70° C)
Relative humidity	95% non-condensing
Maximum operating altitude	29,000 ft (9,000 m)
Maximum storage altitude	40,000 ft (12,000 m)
Water/dust ingress	IP65
Functional shock	MIL-STD 810G Method 516.6 Procedure I
Drop	4 ft (1.22 m)
Vibration	MIL-STD 810 G Method 514.6 Procedure I

SOFTWARE COMPATIBILITY

Please refer to the **Product Compatibility** list.
(www.trimble.com/mappingGIS/productcompatibility)

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- 1 Accuracy and reliability may be subject to anomalies due to multipath, obstructions, satellite geometry, and atmospheric conditions. Always follow recommended GNSS data collection practices. Specified Centimeter accuracy can normally be achieved for baselines of 30 km or less. Specified H-Star accuracy can normally be achieved for baseline lengths of 100 km or less. Centimeter and H-Star accuracy is typically achieved within 2 minutes.
- 2 Stated accuracy is with Trimble Zephyr™ Model 2 GNSS antenna.
- 3 1-sigma, @ 20 C, to Kodak Grey card at 50 m.
- 4 Actual run time will vary with conditions and environment of use.

Specifications subject to change without notice.



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