



### KEY FEATURES

Proven technology provides dependable performance and precision

Flexible configurations put you in total control

Rugged, high-performance hardware is built to last

Compatible with Trimble Integrated Surveying® technology



#### ONE RECEIVER, MANY CONFIGURATIONS, FOR GREATER FLEXIBILITY AND CHOICE

The Trimble® 5700 GPS receiver is an advanced, but easy-to-use, surveying instrument that is rugged and versatile enough for any job.

Combine your 5700 with the antenna and radio that best suit your needs, and then add the Trimble controller and software of your choice for a total surveying solution. The powerful 5700 GPS system will provide all the advanced technological power and unparalleled flexibility you need to increase your efficiency and productivity in any surveying environment.

#### ADVANCED GPS RECEIVER TECHNOLOGY

The 5700 is a 24-channel dual-frequency RTK GPS receiver featuring the advanced Trimble Maxwell™ technology for superior tracking of GPS satellites, increased measuring speed, longer battery life through less power use, and optimal precision in tough environments. WAAS and EGNOS capability lets you perform real-time differential surveys to GIS grade without a base station.

#### MODULAR DESIGN FOR VERSATILITY

For topographic, boundary, or engineering surveying, clip the receiver to your belt, carry it in a comfortable backpack, or configure it with all components on a lightweight range pole. With the receiver attached to your site vehicle, you can survey a surface as fast as you can drive! For control applications, attach the receiver to a tripod ... it's designed to work the way your job requires.

#### FULL METAL JACKET ... AND LIGHTWEIGHT

The 5700 GPS receiver boasts the toughest mechanical and waterproofing specs in the business. Its magnesium alloy case is stronger than aluminum, but also 30% lighter—the 5700 weighs just 1.4 kg (3 lb) with batteries. Whether you're collecting control points on a tripod, or scrambling down a scree slope collecting real-time kinematic data, the receiver is light enough and tough enough to carry on performing.

#### FAST AND EFFICIENT DATA STORAGE AND COMMUNICATIONS

Use the receiver's CompactFlash memory to store more than 8,900 hours of continuous L1/L2 data collection at an average of 15-second intervals. Transfer data to a PC at speeds of more than 1 megabit per second through the super-fast USB port. With the option of a UHF radio modem built in, the 5700 can provide RTK communications without the need for cables or extra power!

#### EXPERIENCE TRIMBLE INTEGRATED SURVEYING™

The Trimble 5700 GPS receiver is designed to support Trimble's original Integrated Surveying™ solution. Combine your GPS and optical data in one job file in powerful Trimble field software such as Trimble Survey Controller™, then transfer the job file seamlessly to your Trimble office software, such as Trimble® Business Center, for processing.

Whenever you're facing a new surveying challenge, your partnership with Trimble places the right tools and techniques, including GNSS technology, at your fingertips. Each Trimble system seamlessly integrates via shared workflows and technologies, making your everyday job site a place where the whole is greater than the sum of its parts: **Welcome to the Trimble Connected Site.**

# TRIMBLE 5700 GPS RECEIVER

## PERFORMANCE SPECIFICATIONS

### Measurements

- Trimble R-Track technology
- Advanced Trimble Maxwell™ Custom Survey GNSS Chip
- High precision multiple correlator for GNSS pseudorange measurements
- Unfiltered, unsmoothed pseudorange measurements data for low noise, low multipath error, low time domain correlation and high dynamic response
- Very low noise GNSS carrier phase measurements with <1 mm precision in a 1 Hz bandwidth
- Signal-to-Noise ratios reported in dB-Hz
- Proven Trimble low elevation tracking technology
- 24 Channels L1 C/A Code, L1/L2 Full Cycle Carrier
- 2 additional channels for SBAS WAAS/EGNOS support

### Code differential GPS positioning<sup>1</sup>

Horizontal ..... ±0.25 m + 1 ppm RMS  
Vertical ..... ±0.50 m + 1 ppm RMS  
WAAS differential positioning accuracy<sup>2</sup> ..... typically <5 m 3DRMS

### Static and FastStatic GPS surveying<sup>1</sup>

Horizontal ..... ±5 mm + 0.5 ppm RMS  
Vertical ..... ±5 mm + 1 ppm RMS

### Kinematic surveying<sup>1</sup>

Horizontal ..... ±10 mm + 1 ppm RMS  
Vertical ..... ±20 mm + 1 ppm RMS  
Initialization time<sup>3</sup> ..... typically <10 seconds  
Initialization reliability<sup>4</sup> ..... typically >99.9%

## HARDWARE

### Physical

Casing ..... Tough, lightweight, fully sealed magnesium alloy  
Dimensions (WxHxL) ..... 13.5 cm x 8.5 cm x 24 cm  
(5.3 in x 3.4 in x 9.5 in)  
Weight ..... 1.5 kg (3 lb) with internal batteries, internal radio,  
internal battery charger, standard UHF antenna.  
Less than 4 kg (8.8 lb) entire RTK rover including batteries  
for 7 hours, range pole, controller and bracket  
Temperature<sup>5</sup>  
Operating ..... -40 °C to +65 °C (-40 °F to +149 °F)  
Storage ..... -40 °C to +80 °C (-40 °F to +176 °F)  
Humidity ..... 100%, condensing  
Water/dustproof ..... IP67 dustproof, protected from temporary  
immersion to depth of 1 m (3.28 ft)  
Shock and vibration ..... Tested and meets the following  
environmental standards:  
Shock ..... Non-operating: Designed to survive a 1 m (3.3 ft) drop  
onto concrete. Operating: to 40 G, 10 msec, sawtooth  
Vibration ..... MIL-STD-810F, FIG.514.5C-1

### Electrical

- Power input 10.5 V DC to 28 V DC with over-voltage protection
- Two rechargeable, removable 7.4 V, 2.4 Ah Lithium-Ion batteries in internal battery compartments
- Power consumption:
  - 4.0 W for receiver only (tracking and logging)
  - 4.4 W including internal radio (not receiving CMR)
  - 5.9 W (tracking SV's, logging at 1 Hz, external antenna and RTK in Fixed mode)
- Operating times on internal battery:
  - >10 hours postprocessed
  - 6–8 hours RTK (with two 2.4 Ah batteries)
- Battery charger internal with external AC power adapter; no requirement for external charger
- Power output:
  - 6.5 V to 20 V (Port 1) Max 50 mA
  - 10.5 V to 28 V (Port 3) max 0.5 A
- Certification: FCC Part 15B Class B, ICES-003 Class B, CE Mark, and C-tick; FCC and Industry Canada Radio Approval; IEC 60950-1 Safety

### Communications and Data Storage

- 2 external power ports, 2 internal battery ports, 3 serial ports
- Integrated USB for data download speeds in excess of 1 megabit per second
- Fully integrated, fully sealed internal UHF radio modem option
- External cell phone support for GSM/GPRS/CDPD modems for RTK and VRS operations
- CMR+, RTCM 2.1, RTCM 2.3, RTCM 3.0, RTCM 3.1 Input and Output
- 16 NMEA outputs. GSOFF and RT17 output
- Dual event marker inputs
- 1 Pulse Per Second Output
- Data Storage on 256 MB CompactFlash memory at 15 second intervals:
  - 8900 hours of raw observables, with 8 SV average

<sup>1</sup> Accuracy and reliability may be subject to anomalies due to multipath, obstructions, satellite geometry, and atmospheric conditions. Always follow recommended survey practices.

<sup>2</sup> Depends on WAAS/EGNOS system performance.

<sup>3</sup> May be affected by atmospheric conditions, signal multipath, obstructions and satellite geometry.

<sup>4</sup> May be affected by atmospheric conditions, signal multipath, and satellite geometry. Initialization reliability is continuously monitored to ensure highest quality.

<sup>5</sup> Receiver will operate normally to -40 °C, and internal batteries are rated to -20 °C.

Specifications subject to change without notice.



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