

AgGPS 132

Combination DGPS receiver with The Choice technology

Submeter differential GPS accuracy for precision farming

The differential GPS receiver is the heart of a precision farming system, providing a way to measure and compare performance from year to year.

The AgGPS® 132 DGPS receiver is intended for agricultural users requiring high performance, reliability, and flexibility in precision farming applications.

Performance

The AgGPS 132 outputs submeter accuracy DGPS positions to precision agricultural equipment using NMEA or TSIP messages. The EVEREST™ multipath reduction firmware option significantly reduces position jumps and improves accuracy. The EVEREST multipath reduction option is automatically enabled if a lightbar is connected to the AgGPS 132. The AgGPS 132 can output positions up to 10 times a second depending on the correction source.

Reliability

The rugged construction of the AgGPS 132 means it is perfectly suited to demanding agriculture applications. The sealed casing provides protection against the harshest of environments, and also allows convenient mounting onto a wide range of vehicles. The integrated GPS/DGPS antenna is separate from the receiver, and can be mounted on a cab roof while the receiver remains inside the vehicle.



Key Features

- Submeter accurate, real-time DGPS operation
- Dynamic accuracy (pass-to-pass) of 4-12 inch (10-30 cm) RMS 15 min
- Rugged housing
- Supports multiple DGPS sources for maximum flexibility
- Fully expandable for future needs

Flexibility

The AgGPS 132 utilizes 'The Choice' technology which is the combination of beacon differential, satellite differential and WAAS/EGNOS differential receivers all in the same housing as the GPS receiver. This combination provides reliable DGPS coverage in virtually all areas.

The AgGPS 132 can output data to third party devices through either of its two RS-232 ports using industry standard NMEA messages, or the TSIP protocol. Configuration of the AgGPS 132 receiver is possible through either the front panel display, or through Trimble's AgRemote software.

Lightbar guidance system

The Parallel Swathing Option lightbar lets you apply material right the first time, eliminating skip and overlap. An end-zone LED and audible alarm warns you when you are approaching your spray boundary, allowing you to precisely control how and where you apply. The system

also supports odd-shaped fields using curve patterns, or by defining a custom headland zone.



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Standard features

- 12 Channel DGPS receiver
- Submeter differential accuracy
- Positioning based on high performance GPS engine design
- Internal L-Band satellite differential receiver
- Internal MSK Beacon receiver
- Internal WAAS/EGNOS receiver
- Two programmable RS-232 ports
- CAN bus J1939 compatible
- 1 PPS output
- Up to 10 Hz positioning
- Outputs GPS position in either NMEA or TSIP data messages
- AgRemote configuration software for the PC
- Magnetic antenna mount
- AgGPS 170 Field Computer compatible
- AgGPS EZ-Map compatible
- 2 line, 16 character liquid crystal display
- 4 button keypad

Options

- Parallel Swathing Option
- EVEREST multipath reduction

Physical characteristics

AgGPS 132 housing

Size	14.5 cm W × 5.1 cm H × 19.5 cm D (5.7" W × 2.0" H × 7.7" D)
Weight	0.76 kg (1.68 lb)
Power	7 W (max), 10 to 32 V DC
Operating temperature	-20 °C to +65 °C
Storage temperature	-30 °C to +85 °C
Humidity	100% condensing, unit fully sealed
Casing	Dust proof, waterproof, shock resistant
Compliance	FCC Class B, CE

Combined antenna

Size	15.5 cm D × 14 cm H (6.1" D × 5.5" H)
Weight	55 kg (1.2 lb)
Operating temp	-30 °C to +65 °C
Storage temp	-40 °C to +85 °C
Humidity	100% condensing, unit fully sealed
Casing	Dust proof, waterproof, shock resistant

Specifications subject to change without notice.

Mapping options

- The AgGPS 132 receiver is fully expandable to meet your changing needs
- Add a Pocket PC and AgGPS EZ-Map for mapping and industry-standard record-keeping options such as coverage mapping and feature/boundary mapping
- Add an AgGPS 170 field computer for the ultimate field information management solution, with enhanced guidance, field mapping, flow control, flow monitoring, variable rate management, and soil sampling capabilities

Performance characteristics

General	12 channel L1 code phase receiver
Maximum update rate	10 Hz
Position accuracy	Static (year-to-year) submeter differential Dynamic (pass-to-pass) 4-12 inch (10-30 cm) RMS 15 min pass-to-pass accuracy
Time to first fix	<30 seconds, typical
NMEA messages	GGA, GGL, GRS, GST, VTG, RMC, GSA, GSV, XTE, ZDA, ALM, MSS
Communication Ports	2 × RS-232, 2 × J1939 (CAN 2.0B)

Ordering information

1. AgGPS 132 DGPS/Satellite/Beacon/WAAS/EGNOS receiver system w/30945 cable: Order 33300-00
2. AgGPS 132 DGPS/Satellite/Beacon/WAAS/EGNOS receiver system w/no antenna: Order 33300-02

Recommended AgGPS 132 system configurations

1. AgGPS 132 used with customer supplied Precision Agriculture Equipment: Order 33300-00
2. AgGPS 132 with AgGPS PSO for guidance and logging: Order 33300-00 and 34623-00
3. AgGPS 132 with AgGPS EZ-Map for mapping and logging (requires user supplied Pocket PC): Order 33300-00 and 46657-00-ENG
4. AgGPS 132 with AgGPS 170 Field Computer for guidance, mapping, logging, sampling, variable rate application: Order 33300-00, 38381-00, and 34623-00

Notes:

Any of these configurations can easily be upgraded to DGPS Autopilot™. At least 5 satellites, PDOP ≤6, SNR ≥6, elev mask = 8 using WAAS or L-Band (OmniSTAR or Thales) differential correction services. WAAS is a free service available in the US, L-Band services require a subscription. Trimble Navigation Limited is not responsible for the operation or failure of operation of GPS satellites or the availability of GPS satellite signals.



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