www.dgps4u.com

RTK - SMART ANTENNA BASE & ROVER

Precision multi-constellation smart antennas

Available in Base and Rover versions the DGPS RTK-Smart Antenna is an advanced multi-GNSS compatible system using GPS, GLONASS, BeiDou, Galileo, for simultaneous satellite tracking to offer RTK positioning. It is able to track any visible satellites so any vehicle can have a great signal reception under challenging conditions even with obstructions.

Key Features

- 432 channels
- GPS, BeiDou, GLONASS Galileo signals tracking
- Bluetooth including 2.0 & 4.0
- Tilt (Optional)
- 3G / 4G (Optional) Contact us for current information
- Build-in Radio (Optional)
- External Radio (Optional).

- Multi-Constellation RTK for enhanced accuracy and reliable positioning
- T-DIFF™ technology provides a smooth positioning and exceptional pass-to-pass accuracy
- Bluetooth wireless connectivity makes configuration and diagnosis easier
- 3 magnet mountings offer convenient installation in challenging environments.

DGPS4U

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Product details may be subject to change - please confirm exact specification with order.

SMOOTH PASS-TO-PASS ACCURACY

The RTK - Smart Antenna features include patented T-DIFF™ technology, providing a smooth positioning and exceptional pass-to-pass accuracy. Its steady output is well suited for auto steer applications and helps the machines operate in the steady path. By reducing the impact of machine vibration on complex landform, T-DIFF™ technology ensures the machine controlling and positioning accuracy in a centimetre level.

CONTINUOUS OPERATIONS IN CHALLENGING CONDITIONS

Powered by the latest stand-alone algorithmic technology, the DGPS RTK - Smart Antenna can maintain RTK positioning accuracy for a certain period when the RTK difference link is disconnected during machine operation. It guarantees the connected machinery can operate effectively and accurately under poor positioning conditions.

TILT COMPENSATION ALGORITHM FOR INCREASED ACCURACY

The RTK - Smart Antenna can output the real-time tilt information for machines in rugged environments, it is convenient for users to improve positioning accuracy through tilt compensation algorithm.

CORRECTION DATA LINKS SELECTABLE

The 3G/4G modules, built-in/external radio modems and Bluetooth are designed as multiple selections as required.

MULTIPLE INSTALLATION OPTIONS

The RTK - Smart Antenna supports mounting options of built-in magnet, fixed mounting and 5/8-inch or M4 screws, offering a convenient and quick installation in challenging environments.

Technical Specifications

Signal Received

GPS	L1/L2/L5
GLONASS	L1/L2
BDS	B1/B2/B3
GALILEO	E1/E5a/E5b

Horizontal Position Accuracy(RMS)

Single point	1.5m
DGPS	0.4m
RTK	1cm + 1ppm

Maximum Position Data Rate 10Hz

Time to First Fix

Cold Start	<50s

Velocity Accuracy 0.03m/sRMS

Dimensions 160 diameter x 80 height (mm)

Weight <850g (No option module)

Connector 10pin female

Mounting

3x Magnet mountings
4x M4 screw inserts
1x 5/8-inch screw insert

Power

Input Voltage Range	+9VDC to +30VDC
Power Consumption	<4.5W (Typical value and no optional module)

Status LEDs

Power
RTK status
Correction data link

Temperature

Operating	-40˚C to +70˚C (Bluetooth: -20 to + 70°C)
Storage	-55˚C to +85˚C

Humidity 95% non-condensing

Vibration GJB150.16-2009, MIL-STD-810

Compliance CE, FCC, REACH, RoHS

Ingress Protection Rating IP67

Communication Ports

1x RS-232 serial port for user
1x RS-232 serial port for external correction data input
1x Bluetooth
1x 3G / 4G for correction data input (Optional)
1x Built-in radio for correction data input (Optional)

Standard Features

GPS L1/L2/L5, BDS B1/B2/B3, GLONASS L1/L2,
Galileo E1/E5a/E5b position, velocity
10Hz data rates
Field upgradable software
Differential correction support for RTCM2.x 3.x
Navigation output support NMEA0183

OPTIONS

Tilt (Option)
Build-in Radio (Option)
3G / 4G (Option)
External Radio (Option)

ACCESSORIES

Interface Cable Radio Antenna

DGPS RTK - SMART ANTENNA BASE & ROVER MODELS	3G / 4G	Tilt	Built-in Radio	Accessory
BASE MODEL	✗	✗	✓	Interface Cable
ROVER MODEL	✓	✓	✓	Interface Cable Radio Antenna

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