

## A100 Smart Antenna The Affordable All-In-One DGPS Receiver Solution



### A100

Work smarter, not harder. The A100™ Smart Antenna offers an affordable, portable solution with professional level accuracy for agricultural, marine, GIS mapping, and other applications.

Focus on the job at hand with fast start-up and reacquisition times, 60 cm accuracy, and an easy-to-see status indicator for power, GPS, and DGPS. The durable enclosure houses both antenna and receiver. It can be powered through various sources, making the A100 Smart Antenna ideal for a variety of applications. Dual-serial, CAN, and pulse output options make this DGPS receiver compatible with almost any interface.



Powered by **Crescent**

The latest Hemisphere GPS products are powered by Crescent Receiver Technology, the future of precision GPS.

### Key A100 Smart Antenna Advantages

- Affordable solution for unparalleled sub-meter performance – 60 cm accuracy, 95% of the time
- COAST™ stability during temporary differential signal outage
- Exclusive e-Dif® option where other differential signals are not practical
- Compatible with our exclusive L-Dif™ technology, for applications requiring accuracy under 20 cm
- Fast output rates of up to 20 times per second provide the best visual guidance and automated steering signals for all types of applications
- Compact, low-profile design with fixed or magnetic mounting options is ideal for portable and dynamic applications
- Radar-simulated pulse output provides accurate ground speed

# A100 Smart Antenna

## GPS Sensor Specifications

Receiver Type: L1, C/A code, with carrier phase smoothing (patented COAST™ technology during differential signal outage)

Channels: 12-channel, parallel tracking (10-channel when tracking SBAS)

Differential Options: SBAS (WAAS, EGNOS, MSAS) e-Dif, L-dif

Update Rate: Up to 20 Hz position

Horizontal Accuracy: < 0.6 m 95% confidence (DGPS)\* < 2.5 m 95% confidence (autonomous, no SA)\*\*

Start Up Time: 60 s (no almanac or RTC)

Satellite Reacquisition: < 1 s

## Communications

Serial Ports: 2 full duplex RS232

CAN: NMEA 2000 broadcast

Pulse Output: 1 PPS (HCMOS, active high, rising edge sync)

Baud Rates: 4800 - 57600

Correction I/O Protocol: RTCM SC-104

Data I/O Protocol: NMEA 0183, SLX binary, NMEA 2000

Ground Speed Output: Range: 0.5 - > 200 mph (0.8 - > 322 km/h)  
Signal: pulse out  
Frequency Conversion: 94 Hz/m/s

Event Mark: HCMOS, active low, falling edge sync, 10k ohm, 10pf load

Wireless: Bluetooth, via optional external interface

## Environmental

Operating Temperature: -30°C to +70°C (-22°F to +158°F)

Storage Temperature: -40°C to +85°C (-40°F to +185°F)

Enclosure: Waterproof, dustproof

Compliance: FCC, CE

## Power

Input Voltage: 7 - 36 VDC

Power Consumption: < 2 W @ 12 VDC typical

Current Consumption: 150 mA @ 12 VDC typical

## Mechanical

Dimensions: 54.7 mm H x 129.5 mm W (2.2" H x 5.1" W)

Weight: 0.66kg (1.45 lbs.)

Mounting Options: Magnetic mount  
Fixed mount - low or high profile (5/8 inch or no. 8-32 screws)



## Authorized Distributor:

\* Depends on multipath environment, number of satellites in view, satellite geometry, baseline length (for local services) and ionospheric activity

\*\* Depends on multipath environment, number of satellites in view, satellite geometry, and ionospheric activity

Copyright © 2009 Hemisphere GPS. All rights reserved. Specifications subject to change without notice. Hemisphere GPS and the Hemisphere GPS logo and Crescent and the Crescent logo are trademarks of Hemisphere GPS.