

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)



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

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