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.

Key A100 Smart Antenna Advantages

- Affordable solution for unparalleled sub-meter performance – 60 cm accuracy, 95% of the time
- COAST™ technology maintains accurate solutions for 40 minutes or more after loss of differential signal
- Exclusive e-Dif® option where other differential signals are not practical
- Compatible with our exclusive L-Dif™ technology, for applications requiring accuracy better than 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 - 115,200
Correction I/O Protocol:	RTCM SC-104 v2.x
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:	5.5 H x 13.0 W (cm) 2.2 H x 5.1 W (in)
Weight:	600 g (23.3 oz)
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

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HEMISPHERE GPS
4110 - 9th Street S.E.
Calgary, AB T2G 3C4
Canada

Phone: 403.259.3311
Fax: 403.259.8866
precision@hemispheregps.com
www.hemispheregps.com