

# iGPS INS/GPS Navigation Unit

## Course Zero Automation

### Predicted Specifications:

Inertial	Angular	Linear
Measurement Range	$\pm 500^\circ/\text{s}$	$\pm 1.5\text{g}$ to $\pm 6\text{g}$
Update Rate	50 Hz	50 Hz (5Hz GPS)
Navigation		
Assuming:	Availability of GPS	GPS outage for 30 seconds
Attitude	$<0.5^\circ$ rms	$<1.0^\circ$ rms
Heading	$<0.5^\circ$ rms	$<1.0^\circ$ rms
Velocity	$<0.1\text{m/s}$ rms	$<0.4\text{m/s}$
Position	$<1\text{m}$ rms	$<3\text{m}$
Physical		
Mass	$<100$ grams	
Supply Voltage	3.3V to 9V	
Power Consumption	$<250$ mW	
Interface	RS232, TTL, USB	
Output Format	NMEA-0183 or customer request	