



## GPS/WAAS SENSORS – 1201, 1204, AND 1203



1201 GPS/WAAS Sensor and High Speed Antenna



1203 GPS/WAAS Sensor and High Speed Antenna

The FreeFlight Systems family of enhanced GPS/WAAS receivers offers a reliable and attractively priced implementation of this next generation technology.

Certified to TSO-C145 (Class Beta-1), the FreeFlight Systems receiver is approved for all LNAV WAAS applications:

- ADS-B
- Required Navigation Performance (RNP)
- Performance Based Navigation (PBN)
- Sole use navigation source
- Non-precision IMC approach

FreeFlight Systems offers the receiver in three models - the 1201 for light aircraft applications, 1204 for very light jets (VLJs), and the 1203 for business and professional use. Each model provides position, velocity, and time to an integrated navigation system. Other notable features include Fault Detection and Exclusion for navigational integrity and a twelve-channel receiver designed to be less susceptible to comm radio interference and jamming.

The small lightweight 1201 GPS/WAAS Sensor offers RS-232 interfacing, while the 1203 GPS/WAAS Sensor offers the RS-232 interface along with a more robust physical package, keyed connectors and an ARINC 429 interface for easy integration into your navigation or flight management system. The 1204 GPS/WAAS Sensor offers both the RS-232 and RS-422 interface for use with longer cables and for improved noise immunity.

FreeFlight Systems will work with you to find the right systems implementation approach for adding this capability to your aircraft - whether through an upgrade of your existing navigation system, the addition of ADS-B capability, the augmentation of a systems monitoring function, or applying corrections to an existing navigation sensor.

### HIGHLIGHTS

- Provides position, velocity, and time
- Utilizes Fault Detection and Exclusion
- Sole source for oceanic and domestic navigation
- Builds on FreeFlight Systems application know-how
- Meets all LNAV WAAS/SBAS requirements
- Flexible integration and installation options
- Attractively priced
- Two-year warranty

# GPS/WAAS SENSORS – 1201, 1204, AND 1203

## SPECIFICATIONS

<b>Type:</b>	Twelve-channel receiver, L1 frequency, C/A code, continuous all-in-view tracking Nine GPS, 2 WAAS, 1 overhead, satellite capability
<b>Position update rate:</b>	Two times per second
<b>Velocity:</b>	1000 knots, steady-state
<b>Dynamics:</b>	800 knots, (4g tracking)

	1201	1203	1204
<b>RS-232</b>	•	•	•
<b>RS-422</b>			•
<b>ARINC 429</b>		•	

## PHYSICAL CHARACTERISTICS

	1201	1203	1204
<b>Size</b> (Includes Mounting Flanges)	5.13"W 6.50"D 1.60"H	4.70"W 8.70"D 1.95"H	4.70"W 8.70"D 1.50"H
Antenna	3.00"W 4.70"D 0.75"H	3.00"W 4.70"D 0.75"H	3.00"W 4.70"D 0.75"H
<b>Weight</b>	1.2 lbs	1.9 lbs	1.75 lbs
Antenna	0.5lbs (.226kg)	0.5lbs (.226kg)	0.5lbs (.226kg)
<b>Input Voltage</b> (Steady State)	14 or 28 VDC	12 - 28 VDC +/- 10%	28 ±10% VDC
<b>Input Current</b> (Steady State)	0.25 Amp at 28V or 0.5 Amp at 14V	0.27A at 28V or 0.53 Amp at 12V	0.30 Amp at 28V
<b>Operating Temp</b> +55°C Continuous	-55 to +70°C	-55 to +70°C	-55 to +70°C
Antenna	-55 to +85°C	55 to +85°C	55 to +85°C
<b>Operating Humidity</b>	95% @ 65°C	95% @ 65°C	95% @ 65°C

## CERTIFICATIONS (FOR ALL)

<b>System:</b>	TSO-C145a (Class Beta 1)
<b>Software:</b>	RTCA DO-178B, level C

## ENVIRONMENTAL

<b>1201</b>	DO-160D D1BABSUXWXXXXABBBVBA3E3XXX
<b>1203</b>	DO-160D D2BABSUXWXXXXABBBATHA3J33XXX



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