

# LP251A Type AHRS

## Attitude and Heading Reference System

### 1. Brief introduction

LP251A Laser Gyro AHRS is consist of one laser gyro, one high accuracy inclinometer, one high accuracy signal acquisition board, a secondary power and so on. This system possesses the functions of course keeping and high accuracy attitude measurement etc, as well as the functions of detection, binding, attitude measurement and output. It is a relative measurement instrument of high accuracy heading and attitude, used for measuring attitude of various device.

### 2. Features

- (1) High measuring accuracy, because high accuracy laser gyro is used as the core component.
- (2) Accurate measurement of carriers' attitude and heading accuracy under shaking condition.
- (3) Good environment suitability, high reliability and long life time.
- (4) Good compatibility and scalability.
- (5) Low power dissipation.

### 3. Performances

Sr. No.	Parameter	Technical Index
1	Heading accuracy	0.5mil/h
2	Attitude accuracy	0.2mil/h
<b>Measurement range</b>		
3	Sway measuring range	$\pm 3^\circ$
<b>Physics characteristics</b>		
4	Start time	$\leq 20s$
5	Outside dimension (mm)	251x204.5X98mm

6	Installation interface	239X154mm
7	Weight (kg)	6kg
8	Power supply	18V ~ 36V
9	Power dissipation	30w
<b>Environment suitability</b>		
10	Working temperature	-40°C ~ 60°C
11	Shock	40g, 11ms, Half sine/ final peak saw tooth
12	Vibration	Sine: 10Hz-500Hz, 5g Random: 10Hz-200Hz, 0.015g <sup>2</sup> /Hz
<b>Interface characteristics</b>		
13	Communication interface	RS422 (selectable)
14	Band Rate	115200bps
15	Data refresh rate	25Hz

## 4. Application

- (1) Land vehicle platform
- (2) Vehicle lifting platform
- (3) High accuracy lifting mast stable platform