Two-axis stabilized platform

A two-axis stabilized platform Description:

Gyro-stabilized ring and horizontal two-axis stabilized platform use gyroscope sensor configuration to achieve a two-axis stabilized loop stability.

1 Stable platform

□ Platform ship roll angle 30^0, period five seconds, pitching angle15^0 , under eight seconds cycle to ensure stable roll angle accuracy 1^0, pitching angle stabilization accuracy 1^0.

□ **Platform motion parameters: As shown in Table 1.**

Table 1 platform motion parameters

	Range of motion	Maximum speed	Maximum acceleration	cycle
X axis	±45°	±40°/s	±50°/s^2	5 s
Y axis	±25°	±15°/s	±15°/s^2	8 s

(Note: Assume X axis parallel to the deck level, point the bow)

□ **Ship motion parameters: As shown in Table 2.**

Table 2 Ship Motion Parameters

	Range of motion	Maximum speed	Maximum acceleration	cycle
Rolling	±30°	±38°/s	±48°/s^2	5 s
Pitching	±15°	±12°/s	±10°/s^2	8 s

□ Stability isolation： □ 30dB

□ Stability and accuracy:

Roll angle: ≤±1°

Pitching angle ： ≤±1°

- Platform weight： ≤ 15kg
- Load platform： ≥5kg
- Antenna size：≤Φ250x850(mm)
- Platform Size：≤ 250x250x200(mm)
- Power supply：AC220V□ 10%, 50Hz

2 Environmental conditions

- Structural strength: to ensure that wind speed 60m / s does not destroy;
- Operating temperature： -40^{0}C □ +70^{0}C；
- Humidity： When the air temperature25^{0}C□ 30^{0}C，Humidity 100%□ 93%；
- Equipment should prevent moisture, salt spray, anti-fungal;

3 Reliability and maintainability

Equipment Reliability, Maintainability:

MTBF≥25000 hour

MTTR≤0.4 hour