

Hexapod Platform

(GSS-100-D)



Product Overview:

This compact design of a parallel six-axis motion platform with six degrees of freedom (6-DOF) is capable of rapidly executing translational and rotational movements. The platform provides high-speed, high-precision positioning and orientation adjustments. When various fixtures or tools are mounted on the upper platform, the corresponding tool coordinate frames can be quickly and efficiently configured through software. This feature significantly enhances practical utility, simplifying setup procedures and ensuring adaptability across diverse industrial applications.

Product Features:

1. Each axis has the same load capacity, allowing for fast movement with excellent dynamic response.
2. The parallel platform supports multi-axis coordinated motion. Its symmetrical mechanical structure ensures no tilting and provides high stability, making it ideal for high-precision positioning and motion control.
3. The rotational pivot of the upper platform is easy to manage. Extended tool coordinate frame can be accurately configured through software. When performing angle control, the pivot point does not shift.

Type		GSS-100-D
Structure Specification	Travel Stroke X、Y、Z(mm)	$\pm 16、\pm 16、\pm 6.5$
	Travel Degree $\theta X、\theta Y、\theta Z(^{\circ})$	$\pm 10、\pm 10、\pm 20$
	Max Travel Speed X、Y、Z(mm/s)	10、10、10
	Max Travel Speed $\theta X、\theta Y、\theta Z$ (mrad/s)	200、200、200
	Typical Speed X、Y、Z(mm/s)	5
Precision specification	Typical Speed $\theta X、\theta Y、\theta Z$ (mrad/s)	100
	Minium Resolution(nm)	15
	Minium Travel Stroke X、Y、Z(um)	0.3、0.3、0.2
	Minium Rotation Degree $\theta X、\theta Y、\theta Z$ (urad)	5、5、10
	Repeatability Precision X、Y、Z(um)	$\pm 0.3、\pm 0.3、\pm 0.2$
	Repeatability Precision $\theta X、\theta Y、\theta Z$ (urad)	$\pm 4、\pm 4、\pm 6$
	Backlash X、Y、Z(um)	0.3、0.3、0.2
Loading Capability	Backlash $\theta X、\theta Y、\theta Z$ (urad)	4、4、6
	Maximum Loading capability, Platform at Any Direction(kg)	2.5
	Maximum Loading capability, Platform at Horizontal(kg)	5
Power-off Retention	Maximum Loading capability, Platform at Any Direction(N)	2
	Maximum Loading capability, Platform at Horizontal(N)	12

Industrial Applications:

- ✓ Optical coupling alignment for optical module fibers.
- ✓ Silicon photonic waveguide alignment.
- ✓ Semiconductor inspection.
- ✓ High-precision alignment for electronic component assembly.



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