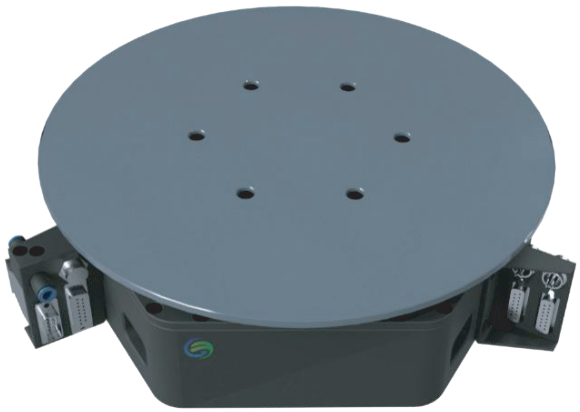
Z3T70-04 Series

Multi-axis Precision Alignment Platform



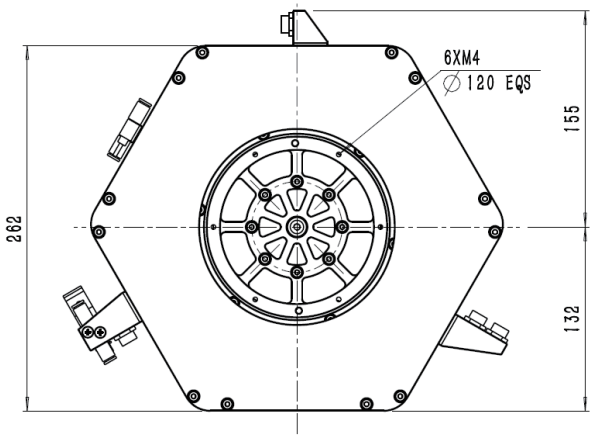
Main Feature

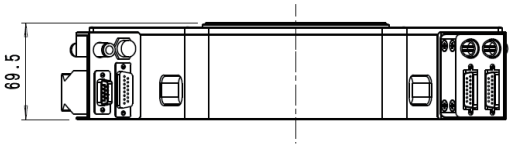
- High precision rotation movement
- Precision adjustment of tiptilt axis
- Unique compensation technology
- Very small axial and radial runout

Performance Instruction

The multi-axis precision alignment platform has four independent degrees of freedom, including a rotation axis, a vertical axis and two tiptilt axis. The Z3T70-04 module has a very compact structure and excellent positioning accuracy and dynamic characteristics, effectively meeting the special requirements for the movement performance of the four stage in the manufacturing and inspection process of advanced semiconductor wafers. Z3T70-04 not only improves the accuracy of the motion system and simplifies the design difficulty for users, but also significantly improves the reliability and integration of the equipment.

Mechanical Dimensional Drawing





Specifications

	Z3T70-04		
Axes Name	Fine Z	Tip-Tilt	T
Travel	±2mm	±0.2°	360°, Infinite
Maximum Speed	0.1m/s		10 rad/s
Maximum Acceleration	3m/ s^2		55 rad/ s^2
Position accuracy full stroke	±0.05μm		±0.75 arcsec
Bidirectional Repeatability	±0.03 μm		±0.35 arcsec
Typical position stability (3σ)	±15 nm		±0.08 arcsec
Radial runout			±1.25 μm
Axial runout			±1.25 μm
Mechanical Specifications			
Moving Mass (without payload)	7 Kg		3.2 Kg
Max Load Capacity	2Kg (Can be customized)		
Stage Mass	13Kg		
Dimension	S262mmX69.5mm (Middle position of stroke)		

Customized Information

Multi-axis precision alignment platform options : In the Z3T70-04 product series, options are configured that can be selected according to the user's actual application. Optional content includes encoder, T-axis hard limit, control system and other options

Table 1 Encoder options

-S1	Incremental analog optical linear encoder, 1Vpp
-S2	Incremental digital optical linear encoder, RS422
-S3	Absolute optical linear encoder, BISS