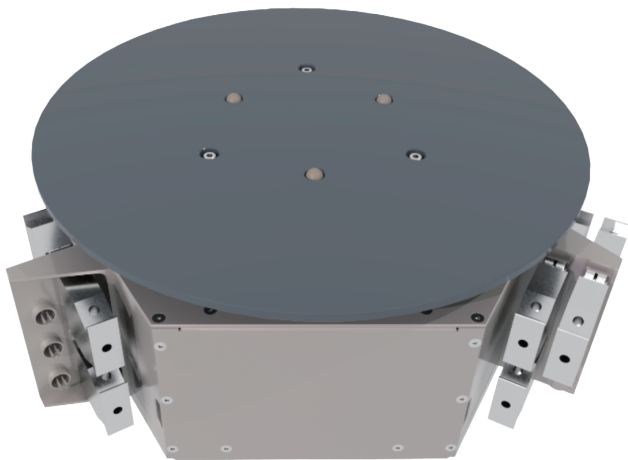


Multi-axis Precision Alignment Platform



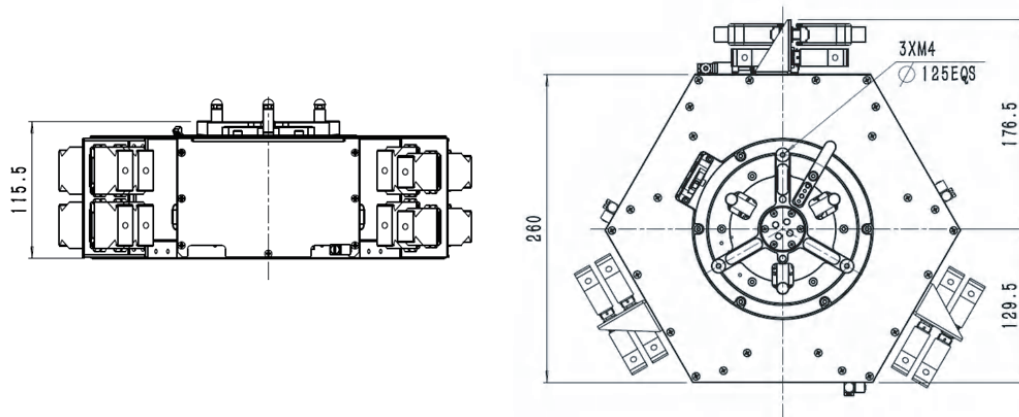
Main Feature

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

Performance Instruction

The multi-axis precision alignment platform has four independent degrees of freedom, including a rotation axis, dual vertical axis and two tiptilt axis. The Z3T110-24 module provides better following error control performance for motion, and its repetition accuracy, motion and settling time performance all support larger stroke motion. The Z3T110-24 module is mainly used for front-end applications taking priority over photolithography back-end and wafer production control.

Mechanical Dimensional Drawing



Specifications

Z3T110-24					
Axes Name		Fine Z	Tip-Tilt	Coarse Z	T
Travel		±2 mm	±0.2 °	±5 mm	364 °
Maximum Speed		0.1 m/s		0.1 m/s	10 rad/s
Maximum Acceleration		1 m/ s ²			55 rad/ s ²
Position accuracy	indicative value			±10μm	±10 arcsec
	full stroke calibration	±0.02 μm			±0.75 arcsec
Bidirectional Repeatability		±0.01 μm			±0.35 arcsec
Typical position stability (3σ)		±15 nm	±0.04 arcsec		±0.0038 arcsec
Radial runout					±1.25 μm
Axial runout					±1.25 μm
Yaw		±0.5 arcsec			
Mechanical Specifications					
Moving Mass (without payload)		6.2Kg		0.5Kg	3.2Kg
Max Load Capacity		2.5Kg			
Stage Mass		15Kg (Can be customized)			
Dimension		S259.5 mmX115.5 mm (Vertically in the middle position of stroke)			

Customized Information

Multi-axis precision alignment platform options : In the Z3T110-24 product series, options are configured that can be selected according to the user's actual application. Optional content includes encoder, Coarse Z Travel, 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

Table 2 Itinerary options

-10	Coarse Z effective stroke 10mm
-15	Coarse Z effective stroke 15mm