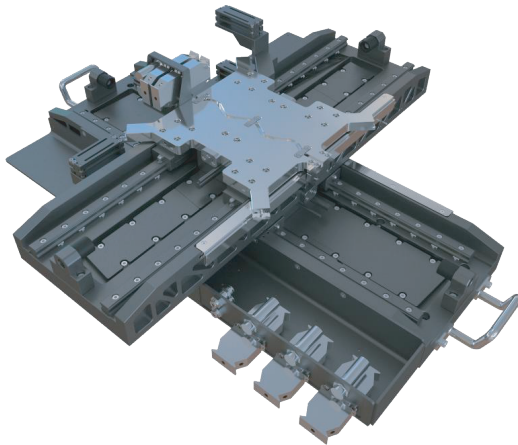


# L2S125 Series

## Stacked XY Stage



### Features

- Non-contact direct-drive linear motor drive for high dynamic response
- Optical linear encoder for high precision
- High stiffness, high precision guide
- Excellent positioning accuracy and repeatability performance

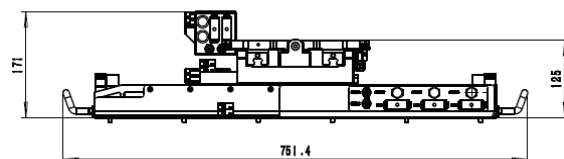
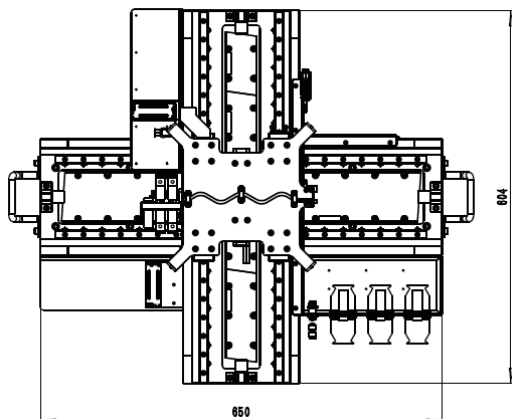
### Description

The stage adopts integration, orthogonality design with a compact, low-profile. High-precision, high-stiffness linear motion in horizontal X/Y axis with 2 degrees of freedom.

### Applications

- Semiconductor
- Flat panel display
- Optical fiber alignment
- Biomedicine

### Interface Definition



\*Interface dimensions from L2S125

## Technical Specifications

	L2S125-300		L2S125-400	
Axes name	X	Y	X	Y
Travel range	365 mm	365 mm	410 mm	475 mm
Max. velocity	1 m/s	1 m/s	1 m/s	1 m/s
Max. acceleration	10 m/s <sup>2</sup>	10 m/s <sup>2</sup>	10 m/s <sup>2</sup>	10 m/s <sup>2</sup>
Accuracy_indicative value	±20 μm			
Accuracy_calibration value	±1 μm			
Bidirectional repeatability	±0.4 μm			
Straightness	±3 μm	±3.5 μm	±3 μm	±3.5 μm
Flatness	±2.5 μm	±5 μm	±2.5 μm	±5 μm
Pitch	±5 μm	±10 μm	±5 μm	±10 μm
Roll	±5 μm	±10 μm	±5 μm	±10 μm
Yaw	±10 μm	±10 μm	±10 μm	±10 μm
Orthogonality	±15 μm			
Position stability (3σ)*	±2 nm	±2 nm	±2 nm	±2 nm
Move1:10 μm within ±100 nm*	50 ms	50 ms	50 ms	50 ms
Move2:25 mm within ±100 nm*	140 ms	140 ms	140 ms	140 ms
Move3:80 mm within ±100 nm*	170 ms	170 ms	170 ms	170 ms
<b>Mechanical properties</b>				
Moving mass (without payload)_Upper axis	3.6 Kg		4.5 Kg	
Moving mass (without payload)_Lower axis	17 Kg		18.5 Kg	
Max. load	2 Kg		6 Kg	
Stage mass	29.5 Kg		32 Kg	
Dimensions	650 mm × 604 mm × 125 mm		810 mm × 700 mm × 125 mm	
Material	Aviation aluminum, black anodized			

\*Technical data specified with 8μm pitch encoder and under active vibration isolation environment.

## Customization Information

The series is configured with options that can be selected based on the user's actual application. Options include travel, encoder, and more. X-axis base can be changed to marble base according to customer's requirement, which can provide higher positioning accuracy.

Table 1 Travel Options

-300	365mmX365mm travel displacement platform with linear motors and limit
-400	410mmX475mm travel displacement platform with linear motors and limit

Table 2 Encoder Options

-S1	Standard, Renishaw Encoder
-S2	High-end model, Heidenhain encoder

Table 3 Guide Options

-G1	High-stiffness roller guide
-G2	High-precision balls guide