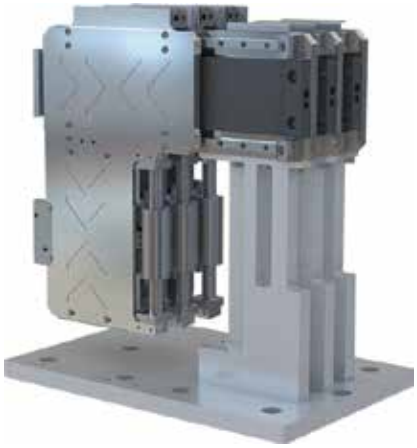
Arrayable High Precision Two-Dimensional Pick-Up Module



Features

- Zero cogging force
- High thrust density
- Compact design, with low cross-sectional height
- Zero cable force
- High dynamic response, non-contact, iron-less, direct-drive linear motor
- High-precision optical linear encoder
- Excellent positioning accuracy and dynamic performance
- Modularized design, customized requirements accepted

Description

This module adopts low-profile design with direct-drive ironless moving magnet linear motor, and gravity compensation achieved by magnetic springs. Combined with high-precision linear guide and high-resolution encoder, high-precision dynamic performance and positioning accuracy can be achieved.

Applications

- Healthcare
- Automotive
- Semiconductor equipment

Technical Specifications

	MXZ-54-38	
	X	Z
Travel range	±27 mm	±19 mm
Accuracy_calibration value	±2 μm	±2 μm
Unidirectional repeatability	±1 μm	±1 μm
Straightness	±5 μm	±3 μm
Flatness	±5 μm	±3 μm
Continuous force	15 N	7.5 N
Max. velocity	500 mm/s	500 mm/s
Mechanical properties	X	Z
Dimensions	188.5 mm x 18.2 mm x 186.5 mm	
Max. load	5 kg	0.5 kg
Total mass	2 kg	
Material	Stainless steel SUS304	
Electrical properties	X	Z
Drive type	Moving-magnet linear motor	Moving-magnet linear motor
Force constant	9.4 N/A	4.7 N/A
Peak force	38.4 N	19.2 N
Peak current	4.08 A	4.08 A
Continuous current	1.6 A	1.6 A
Electrical resistance	6.32 ohms	3.16 ohms
Electrical inductance	2.3 mH	1.15 mH
Feedback	Incremental optical linear encoder	Incremental optical linear encoder
Resolution	0.1 μm	0.1 μm
Electrical limit	NA	NA