

NBM513/M - April 18, 2016

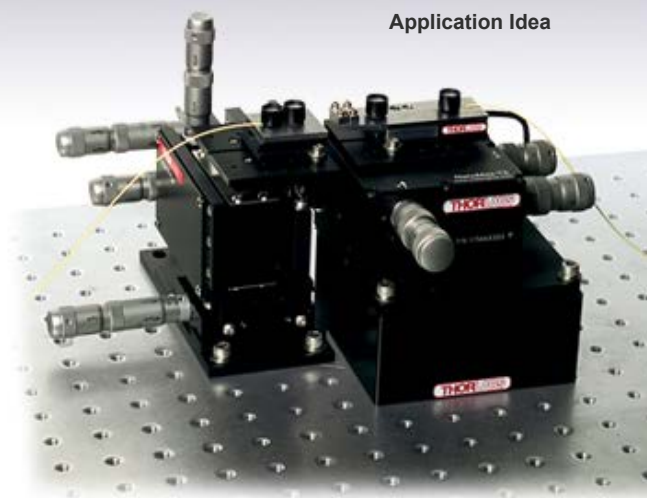
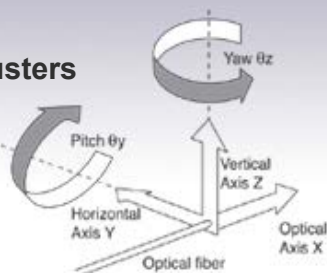
Item # NBM513/M was discontinued on April 18, 2016. For informational purposes, this is a copy of the website content at that time and is valid only for the stated product.

5-AXIS NANOBLOCK DEVICE PLATFORM, 112.5 mm DECK HEIGHT

- ▶ X,Y,Z, Pitch, & Yaw Adjustments
- ▶ High Resolution Differential Adjusters



NBM513



Application Idea

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OVERVIEW

NanoBlock™ 5-Axis Device Platform, 112.5 mm Deck Height

This 5-Axis Device Platform is designed to be used in conjunction with the NanoMax™ 600 six-axis waveguide manipulator. It is well suited for applications that require an optical element or assembly to be held at a fixed position in front of a high performance multi-axis alignment system. The five degrees of freedom that this device offers allow the fixed portion of the optical assembly to be positioned such that it has the proper orientation with respect to another positioning stage. The orientation adjustment is achieved via 5 differential adjusters. The coarse adjustment is actuated by a 0.5mm pitch lead screw. The fine adjustment is achieved by using our patented differential mechanism providing 50µm of translation per revolution with a 300µm range.

The NBM513, 5-Axis Device Platform has flexure hinges for all the rotational degrees of freedom, while the x and y linear axes use traditional bearing stages to provide for longer travel. The top deck of the NBM513 is located at 112.5mm above the bottom mounting surface of the device and is designed to accept any of the NanoBlock accessories.

[Hide Specs](#)

S P E C S

NanoBlock™ 5-Axis Specifications:	
Coarse Travel	
Optical Axis (x)	13 mm
Horizontal Axis (y)	13 mm
Vertical Axis (z)	6 mm
Pitch Axis (θ_y)	8°
Yaw Axis (θ_z)	8°
Differential Travel	
Optical Axis (x)	300 μm
Horizontal Axis (y)	300 μm
Vertical Axis (z)	300 μm
Pitch Axis (θ_y)	30 arcmin
Yaw Axis (θ_z)	10 arcmin
Coarse Resolution	
Optical Axis (x)	1 μm
Horizontal Axis (y)	1 μm
Vertical Axis (z)	1 μm
Pitch Axis (θ_y)	10 arcsec
Yaw Axis (θ_z)	10 arcsec
Differential Resolution	
Optical Axis (x)	50 nm
Horizontal Axis (y)	50 nm
Vertical Axis (z)	50 nm
Pitch Axis (θ_y)	1 arc sec.
Yaw Axis (θ_z)	1 arcsec
Deck Height	112.5 mm to the mounting surface of the moving platform. The accessory beam height is 125 mm measured from the bottom surface of the stage.
Load Capacity	500 g (1.1 lbs)

[Hide Part Numbers](#)

Part Number	Description	Price	Availability
NBM513/M	NanoBlock 5-Axis Waveguide Manipulator with Differential Drive Actuators, Metric	\$5,740.00	Lead Time
NBM513	NanoBlock 5-Axis Waveguide Manipulator with Differential Drive Actuators, Imperial	\$5,740.00	Lead Time

Visit the *5-Axis NanoBlock Device Platform, 112.5 mm Deck Height* page for pricing and availability information:

http://www.thorlabs.com/newgrouppage9.cfm?objectgroup_id=1057