

# Magneto PQ

The Magneto PQ is a compact magnetic field source fully integrated in the ProteusQ microscope. With it, the user can apply strong positive and negative magnetic fields both in-plane (IP) and out-of-plane (OOP) with respect to the sample, to probe the magnetic properties of novel materials and devices.

## Key Specifications

Dimensions	118 x 68 x 20 mm	
Sample accessibility	Top and Side high-NA access (100x, NA 0.7)	
Device compatibility	ProteusQ SNVM Beam deflection SPM head (HE002)	
Travel ranges (X, Y, Z)	5 x 5 x 5 mm	
Smallest adjustable field increment	< 0.2 %	
Bi-directional repeatability	< 1 % of adjusted field	
Overshoot	< 1 mT	
In-Plane B field	Sample thickness	B max
	0 mm	± 740 mT
	0.5 mm	± 570 mT
	1.0 mm	± 410 mT
Out-Of-Plane B field	Sample thickness	B max
	0.5 mm	± 190 mT
	1.0 mm	± 130 mT
Field homogeneity	< 0.1% in X	
	< 2% in Y, Z	
Probe compatibility	Quantilever DX	
	Quantilever MX [111], [110] & [100] < ±2 deg	
	Quantilever MX+	
Software integration	Integrated in LabQ Jupyter Notebook integration / scripting mode	

