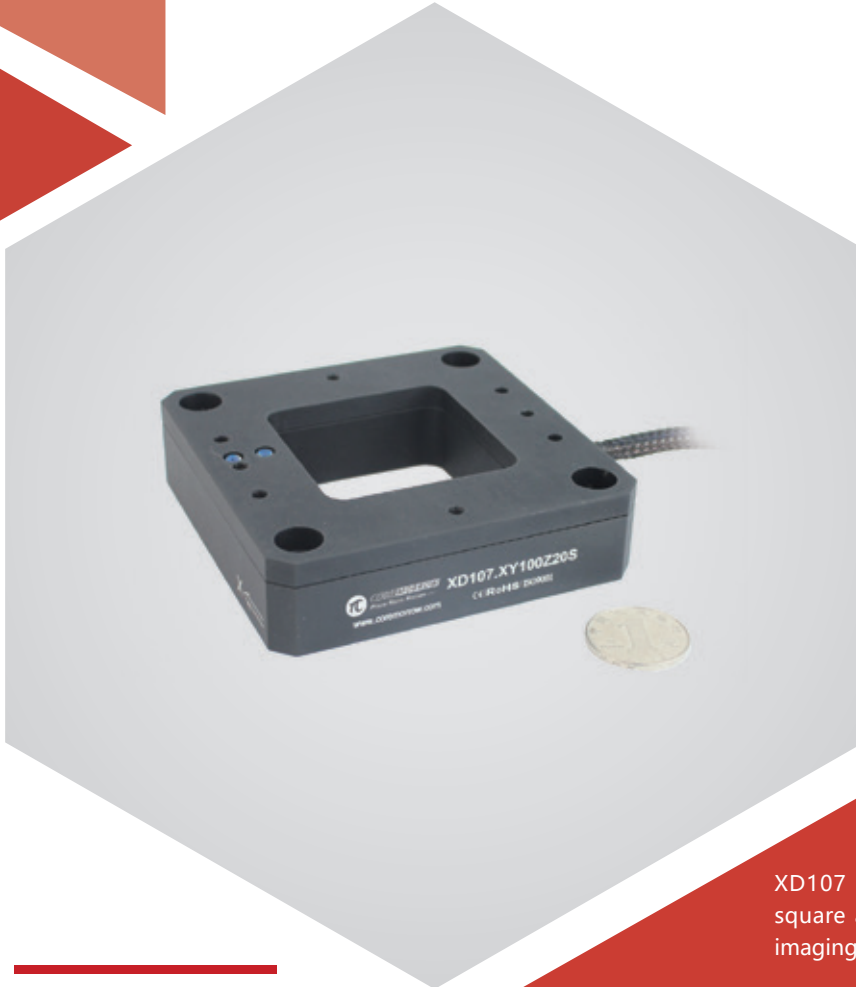


# XYZ axes | XD107.XY100Z20S/K

## Piezo Nanopositioning Stages



## Introduction

XD107 piezo scanner moves in XYZ, it has a large square aperture, and is ideal for sample microscopy imaging applications.

### Characteristics >>

- XYZ motion
- Travel up to 100 $\mu$ m
- Load capacity to 0.4kg
- Aperture of 50 $\times$ 50mm

### Applications >>

- Scanning microscopy
- Mask/wafer positioning
- Interferometry
- Metrology
- Biotechnology
- Micromanipulation, etc.



**Harbin Core Tomorrow Science & Technology Co., Ltd.**

Tel: +86-451-86268790

Email: [info@coremorrow.com](mailto:info@coremorrow.com)

Headquarters: Building I2, No.191 Xuefu Road, Nangang District, Harbin

Fax: +86-451-86267847

Web: [www.coremorrow.com](http://www.coremorrow.com)

Shanghai Office: Building 2, No.608 Shengxia Road, Pudong District, Shanghai

## Technical Data >>

Types	XD107.XY100Z20S	XD107.XY100Z20K	Units
Active axes	X Y Z	X Y Z	
Driving channels	3	3	
Nominal travel(0~120V)	XY80/Z64	XY80/Z64	$\mu\text{m} \pm 10\%$
Travel range(0~150V)	XY100/Z80	XY100/Z80	$\mu\text{m} \pm 10\%$
Sensor	SGS	-	
Aperture	50×50	50×50	mm
Size	94×94×24.5	94×94×24.5	mm
Resolution	3	1	nm
Linearity	XY0.2/Z0.1	-	%F.S.
Repeatability	XY0.02/Z0.02	-	%F.S.
Pitch/yaw/roll	$\leq 30$	$\leq 30$	$\mu\text{rad}$
Unloaded resonant frequency	XY220/Z160	XY220/Z160	Hz $\pm 20\%$
Loaded resonant frequency @400g	XY110/Z80	XY110/Z80	Hz $\pm 20\%$
Load capacity	0.4	0.4	kg
El.capacitance	XY3.6/Z1.8	XY3.6/Z1.8	$\mu\text{F} \pm 20\%$
Operating temperature <sup>[1]</sup>	-20~80	-20~80	°C
Material	Steel, Al	Steel, Al	
Mass(no cable)	420	420	g $\pm 5\%$
Cable length <sup>[2]</sup>	1.5	1.5	m $\pm 10\text{mm}$
Connector <sup>[2]</sup>	-	-	

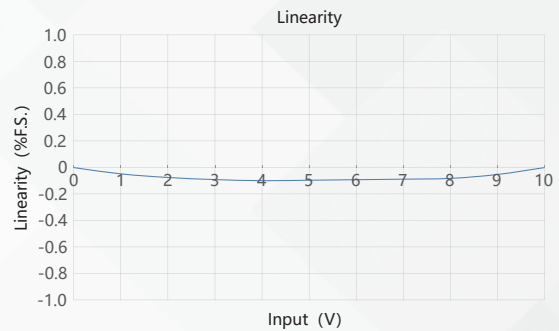
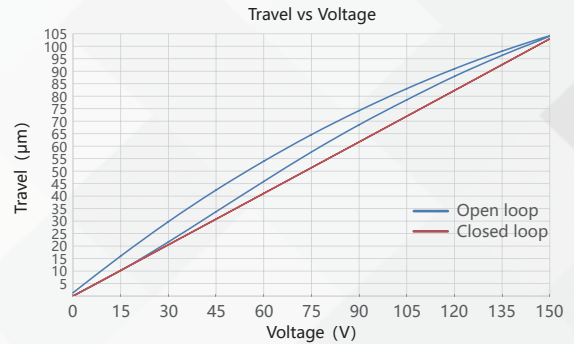
Note: Max driving voltage could be -20V~150V, 0~120V is recommended for long-term and high-reliable operation. Unless otherwise specified, the above parameters are measured at room temperature about 25° C.

[1] Custom ultralow temperature and ultrahigh vacuum versions are available.

[2] Custom cable length and connector is available.

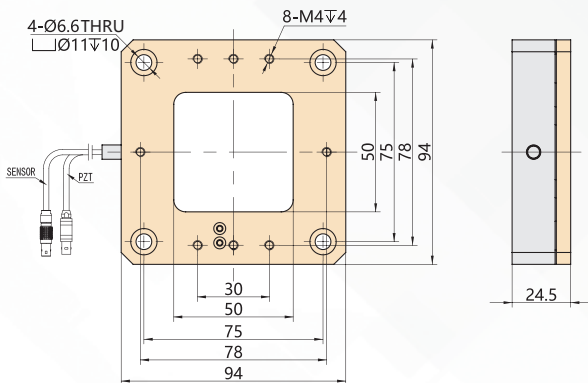
Note: The parallelism of the moving platform is about 20 $\mu\text{m}$ , and the roughness is about 1.6 to 3.2. Please contact the sales engineer for confirmation before purchase.

## Curves >>



Disclaimer: The data here are typical, only for reference. Some variations will occur for different batch.

## Drawing >>



## Recommended Controllers >>



**E01.D3**  
 LCD, membrane button, up to 625mA  
 RS-232/RS-422/USB interface  
 Software secondary development



**E70**  
 Small size, 70mA/channel  
 RS-232/RS-422/USB interface  
 Software secondary development



**Harbin Core Tomorrow Science & Technology Co., Ltd.**

Tel: +86-451-86268790 Email: info@coremorrow.com

Fax: +86-451-86267847 Web: www.coremorrow.com

Headquarters: Building I2, No.191 Xuefu Road, Nangang District, Harbin

Shanghai Office: Building 2, No.608 Shengxia Road, Pudong District, Shanghai