

# Nano-LR200

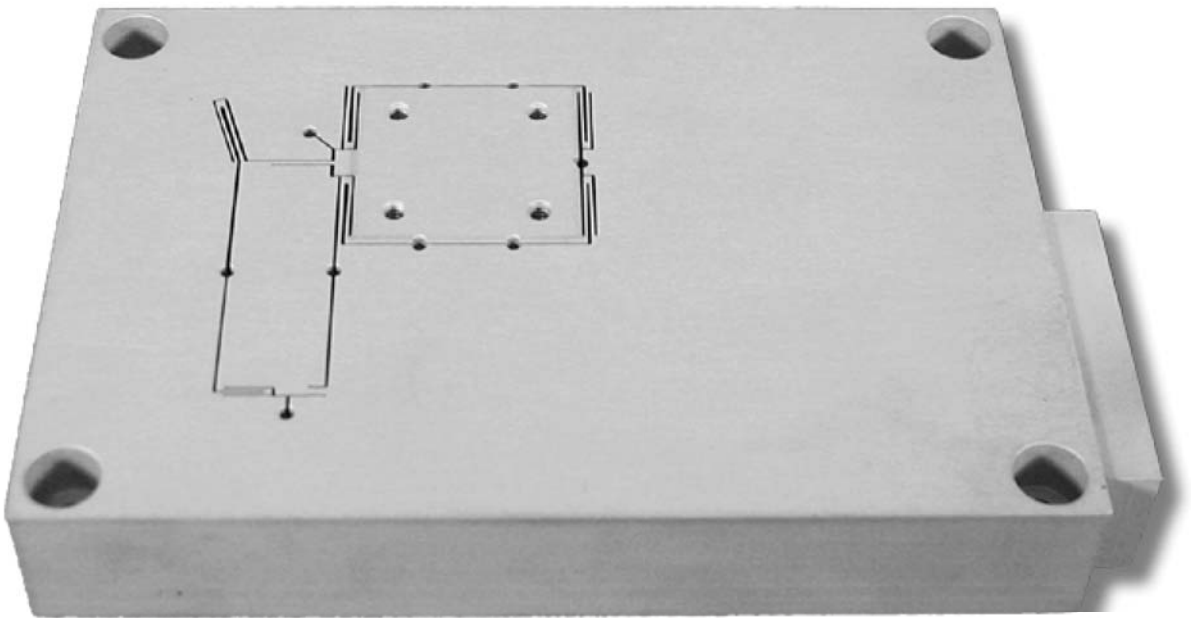
## Features

- ▶ Long range single axis motion: 200  $\mu\text{m}$
- ▶ Less than 5 nm out of plane motion
- ▶ Low profile design
- ▶ **pico**™ sensor technology
- ▶ Closed loop control

## Typical Applications

- ▶ Surface metrology
- ▶ Wafer scanning and alignment
- ▶ Optical alignment

02.583.2511 פר"מ-טק (1991) בע"מ  
<Michael.Storch@pazam-tech.co.il>



Nano-LR200 (1-axis) constructed from aluminum.

### LabVIEW Compatible USB Interfaces



Examples, tutorial, and  
Nano-Route™ 3D supplied  
with Nano-Drive™ USB  
interfaces.

## Product Description

The Nano-LR200 is designed to provide long range, single axis translation with an absolute minimum of out-of-axis motion. The unique design of the Nano-LR200 produces less than 5 nm of out-of-plane motion; measured over the entire moving platform throughout the 200  $\mu\text{m}$  range of motion. The Nano-LR200 sets the highest level of single axis precision and positioning performance. Internal position sensors utilizing proprietary **pico**™ technology provide absolute, repeatable posi-

tion measurement with sub-nanometer accuracy under closed loop control. The Nano-LR200 is ideally suited for applications that require extreme parallelism, such as metrology, AFM and MEMS.

02.583.2511 פר"מ-טק (1991) בע"מ  
<Michael.Storch@pazam-tech.co.il>

**MCL**

phone: 608-298-0855

fax: 608-298-9525

## Technical Specifications

Range of motion (X) .....	200 $\mu\text{m}$
Resolution .....	0.4 nm
Resonant Frequency .....	500 Hz $\pm 20\%$
Resonant Frequency (100g load) .....	200 Hz $\pm 20\%$
Stiffness .....	0.2 N/ $\mu\text{m}$
$\theta_{\text{roll}}, \theta_{\text{pitch}}$ (typical) .....	$\leq 0.3 \mu\text{rad}$
$\theta_{\text{yaw}}$ (typical) .....	$\leq 0.3 \mu\text{rad}$
Recommended max. load (horizontal)* .....	0.5 kg
Recommended max. load (vertical)* .....	0.2 kg
Body Material .....	Al
Controller .....	Nano-Drive™

\* Larger load requirements should be discussed with our engineering staff.

פז"מ-טק (1991) בע"מ

מייקל סטורץ | 02.583.2511

PaZaM-tech@pobox.com

www.PaZaM-tech.co.il

