

# **Interferometry 3D Optical Profiler** — NanoX-2000 Series

■ Measurement Mode PSI + VSI

■ CCD Resolution 1280×960 pixel

Measurement FOV  $360 \times 480$ um ( $10 \times$  objective)

depending on the objective and CCD camera

■ Optical System Infinity corrected microscopic optics

■ Illumination High efficiency, long life LED

■ Focusing' 100mm range, manual (auto-focusing optional)

■ XY Stage 160mm/200mm manual stage with micrometer adjustment

XY translation :  $\pm 25$ mm, Max load : 5kg

Tip/Tilt adjustment : ±5°manual (Motorized XY stage optional)

■ Z Scan Range 100um PZT stage (400um PZT stage optional, extendable to 10mm scan)

■ Vertical Resolution 0.1nm

■ Lateral Resolution  $\geq 0.48$ um (50 × objective)

■ RMS Repeatability  $0.01 \text{nm } 1\sigma$ 

Objective Nikon interferometry objective, 2.5x, 5x, 10x, 20x, 50x, 100x

■ Scan Speed PSI: <5 s; VSI: Max scan speed 45um/s

# NanoX-2000 Measurement Application

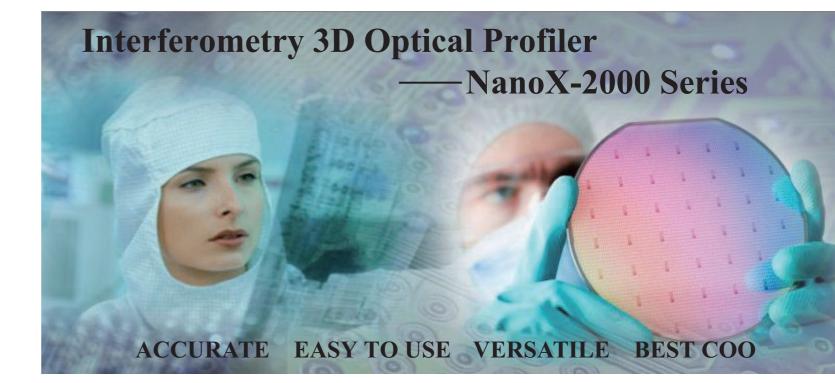
## Widely used in many advanced manufacturing areas





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### **INTRODUCTION**

## **Company Background**

ZhenJiang Subnano Instruments Inc is a Sino-US joint venture high tech company with the mission to develop and manufacture innovative optical metrology systems delivering the best cost of ownership in sub-nanometer accuracy 3D surface measurement and characterization. The systems employ various optical phase analysis techniques for measuring surface roughness, nano/micro scale surface topography, and nano surface defects. Our world class team of engineers from Silicon Valley, with decades world class R&D experience, provides the necessary key strengths to ensure the success of our company: high-quality products and customer oriented service, the ability to develop custom applications, and the flexibility to adapt our business to the market needs. Applications for our products are diverse, covering almost all advanced nano technology R&D, characterization, defect analysis, manufacturing monitoring, and quality assurance.

#### **Products**

NanoX-2000 series are non-contact, fast, robust, versatile, and ease of use interferometry 3D optical profiler metrology systems. They have world best CoO and wide range measurement applications, MEMS, Semiconductor manufacturing, PV cell and LED manufacturing, precision machining, surface roughness, nano surface defects, and many others.

## Non Contact, Fast, Robust, Versatile Interferometry Optical Metrology



### **Product Key Features**

- **Key technology and system software designed and developed in Silicon Valley**
- > Critical components are from world class suppliers in US, German, Japan, etc.

PI PZT Nano stages

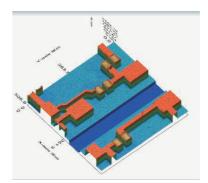
**Nikon Interferometry objective** 

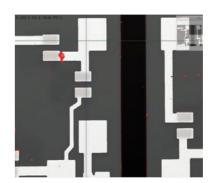
NI DAQ and Labview64

TMC vibration isolation system

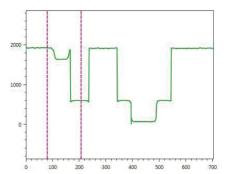
➤ World class measurement accuracy and repeatability (NIM China certificate)

#### MEMS

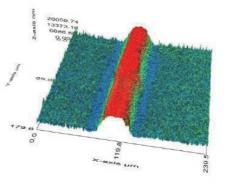


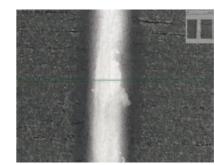


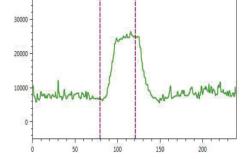
**Interferometry 3D Optical Profiler** — Applications



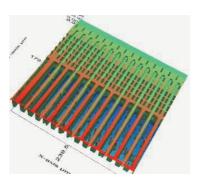
#### PV Cell

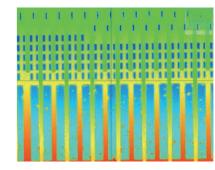


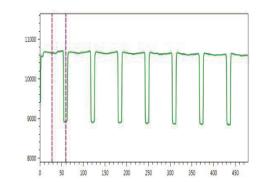




#### Semiconductor







Roughness

