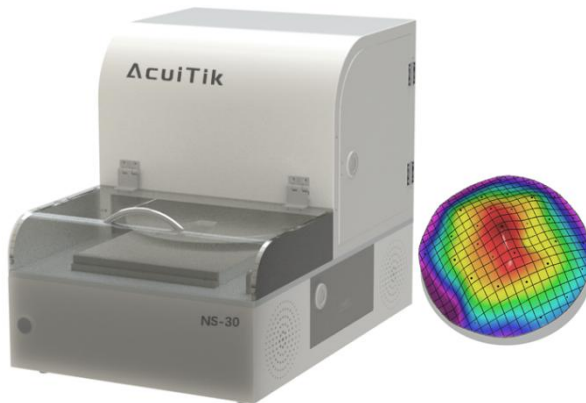




Film Thickness Measurement System **NanoSense**

NS-30 Series (Desktop Automatic)



NS-30 series is a desktop automatic film thickness measurement and analysis system. Building on the foundation of film thickness measurement, it overlays an automatic sample stage that can perform automatic measurements on predefined points and further generate 2D and 3D data distribution diagrams. The NS-30 series is suitable for wafer film thickness measurement.

NS-30 Features

- Automatic sample measurement, platform size optional from 100mm to 450mm
- The software automatically generates measurement point distribution based on requirements
- 2D and 3D mapping effects, including information such as thickness/refractive index/reflectance
- Film bow / stress measurement.



NS-30 Series Specifications

NS-30UV			
NS-30			
NS-30NIR			
1 nm10 nm100 nm1 μm100 μm			
Thickness Measurement Range			
Model Type	NS-30UV	NS-30	NS-30NIR
Wavelength Range	190 nm - 1100 nm	380 nm - 1050 nm	950 nm - 1700 nm
Thickness Measurement Range ¹	1 nm – 40 μm	15 nm – 80 μm	150 nm – 250 μm
Accuracy ²	1 nm or 0.2%	2 nm or 0.2%	3 nm or 0.4%
Precision ³	0.02 nm	0.02 nm	0.1 nm
Stability ⁴	0.05 nm	0.05 nm	0.12 nm
Spot Size	1.5 mm		
Measurement Speed	< 1s (Single Measurement)		
Light Source	Halogen + Deuterium Lamp	Halogen Lamp	Halogen Lamp
Sample Size	Diameter from 1mm to 300mm or larger		

Interface Requirements	
Power Supply	110 - 240VAC, 50 – 60 Hz, 0.3 – 0.1 A
Data Interface	USB
Computer Configuration	
Operation System	Windows 11
Hardware	Host, Monitor, Keyboard, and Mouse

Dynamic Measurement Speed		
Sample	200mm wafer	300mm wafer
Speed	5 points – 5 sec	5 points – 8 sec
	25 points – 14 sec	25 points – 21 sec
	56 points – 29 sec	56 points – 43 sec

1. Depends on the specific material
2. Si/SiO₂ (500~1000nm) standard film sample
3. Calculate the 1x standard deviation of 100 measurements of a 500nm SiO₂ standard wafer, and take the average of the 1x standard deviations over 20 valid measurement days
4. Calculate the average of 100 measurements of a 500nm SiO₂ standard wafer, and calculate the 2x standard deviation of the average values over 20 valid measurement days