nSpec® Macro



Rapid Automated Macro Inspection





nSpec® Macro

No matter your specific wafer inspection requirements, Nanotronics provides a range of solutions for obtaining rapid results.

This compact system is designed for high-throughput macro inspection for wafers up to 200 mm. In milliseconds, the nSpec® Macro automatically detects and quantifies numerous defects from 50 to 100 microns, contingent on field of view or wafer size.

nSpec[®] Macro allows one to illuminate the full circumference of the specimen, or to program lighting angles and/or discrete lighting vectors. Brightfield, Darkfield, Orthogonal, and configurable Oblique Lighting angles paired with individually modifiable LEDs adjust the intensity, color, and location of illumination.

The system automatically exports a csv file and is SECS/GEM compatible, or can be tailored to fit customer requirements.

Automated Wafer Handling

All Nanotronics Automation nSpec® Macros incorporate a wafer loader that meets industry-standard demands.

Nanotronics creates end effectors that load whole individual wafers and/or wafers with exclusion zones. Each end effector is conceived according to the customer's needs.

Wafer Loader

Runs one cassette at a time
Standard Wafer Sizes
Dimension (W x D x H)
Weight
Minimum Vacuum Requirement

Power supply

Standard h-bar cassette 50, 75, 100, 150, or 200 mm 71 cm x 74 cm x 67 cm 62 kg 20 in. Hg 220v, 3.5 amps

Control Software

Recipes are easy to configure and save as needs evolve. Multiple scans can be run sequentially with complete flexibility in illumination angle, intensity, and wavelength.

Optics

Darkfield Illumination Mode
 Angle of illumination: 0 degrees

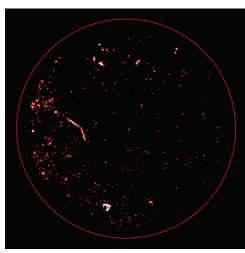
Oblique Illumination Mode
 Angle of illumination: 0 to 80 degrees

• Brightfield Illumination Mode Angle of illumination: 90 degrees

Orthogonal Illumination Mode
 Angle of illumination: 90 degrees (through the lens)



Sample Scan



Annotated Darkfield Macro Scan

