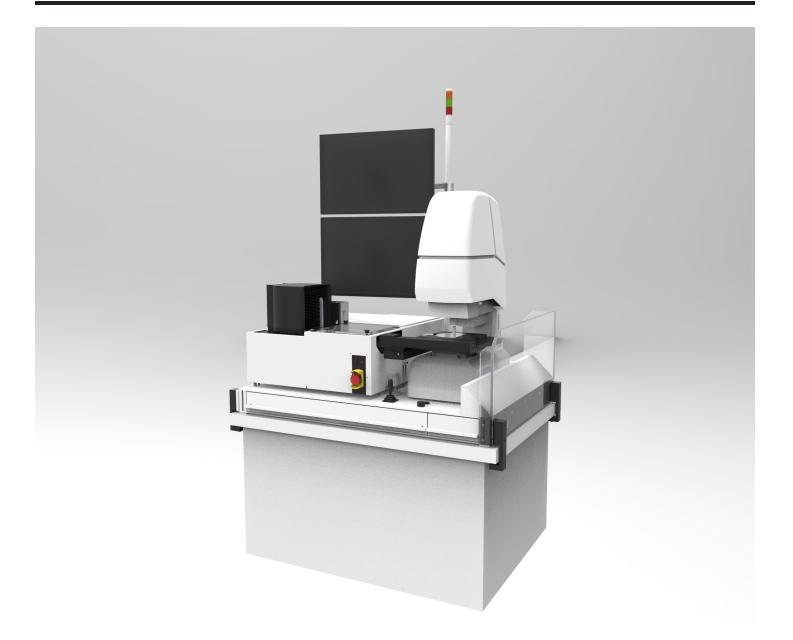
nSpec®



Automated Optical Inspection System

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nSpec®

The nSpec[®] is a fully automated, precision optical inspection system for viewing, analyzing and reporting on defects in opaque, transparent and semi-transparent wafers. Defect reports are fully customizable.

The nSpec[®] system can image and analyze:

- · Substrate wafers
- · Epi wafers
- · Patterned wafers
- · Diced wafers
- · Individual devices

The nSpec® system has multiple magnification settings making it easier for users to characterize defect types.

Stage

Travel, typical	200 mm X and Y direction
Precision Lead Screws	2 mm pitch, preloaded ball screws
Centered Load Capability	2.27 kg
Repeatability	+/- 5 μ
Construction	a) Precision ground alum plates
	b) Stainless steel raceways
Step Size	0.04 µ
Travel Flatness	30 µ
Weight	5.44 kg
Limit Switches	Mechanical, non-adjustable
Wafer Vacuum Chuck	Adjustable to 50, 75, 100 or 150 mm

Control

(optional)

Stage* Focus* Nosepiece* Illumination* Camera* *Fully automated control for all system components. System allows for manual user operation.

It also offers complete rapid scanning and wafer mosaicing.

Repeated quality control testing is easy to set up. There are settings for single image capture and scans. Configuration options include wafer size, defect types, and scan resolution.

Sample chucks are available to meet specific size needs, and users can pair the system with an automated wafer loader to speed up throughput and decrease damaged wafers caused by operator-handling errors.

The system is delivered fully functional and includes installation and user training.

Optics

White Light Illumination Brightfield/Darkfield Objectives Differential Interference Contrast LED (other options available) 5, 10, 20 or 50x, user selectable (Normarski)

Camera

Pixel Size, typical Image Size, typical Maximum Frame Rate 4.54 μ 2752 x 2200 pixels 17.4 fps

Wafer Loader

Runs one cassette at a time25 wafersStandard Wafer Sizes75, 100 oDimension (width x length)36 cm x 7Weight34 kgMinimum Vacuum Requirement20 in. HgPower supply110v/220

25 wafers/cassette 75, 100 or 150 mm 36 cm x 75 cm 34 kg 20 in. Hg 110v/220v

Options

AFM

Specs available upon request

