# LATENTEK

## Wafer Inspection Equipment

# Introduction

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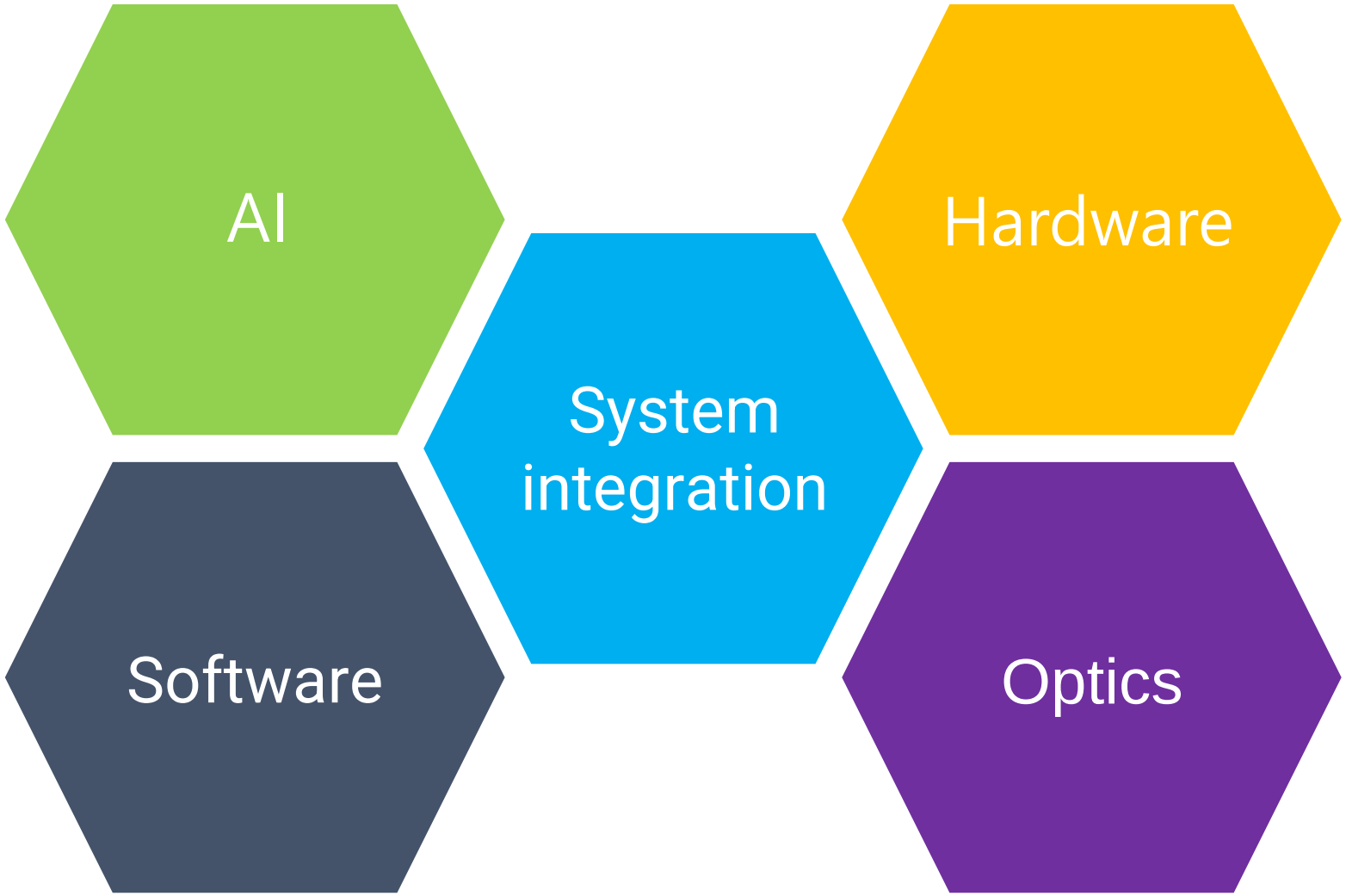
- Summarize

- Model：
- TWS206
- LFM SiC
- LFM Type I
- LFM Type II
- Edge-Profiler
- StressMap

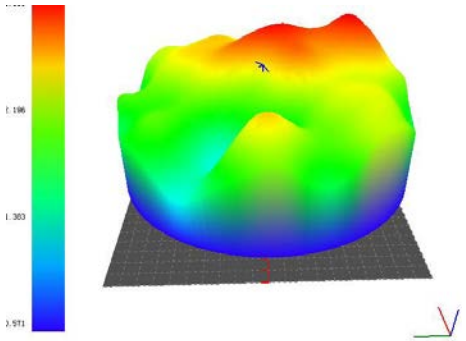
# Main Technique



# Product Range for SiC Wafer

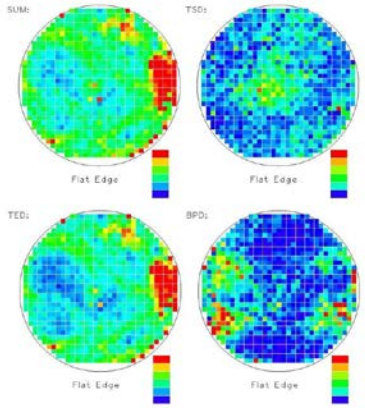
## TWS206
4" · 6" · 8" · 12" wafer

Measuring wafer flatness:
BOW · WARP · TTV · LTV




## LFM-SiC
4" · 6" · 8" wafer

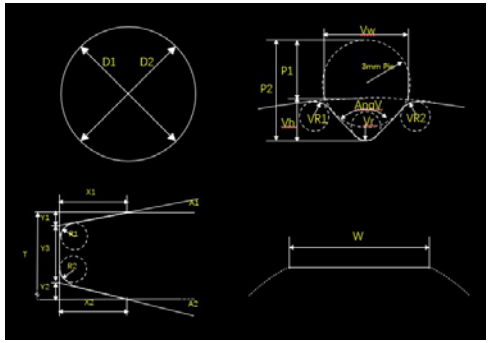
Mapping SiC etched pits defects & micropipe defects





## Edge-Profiler
4" · 6" · 8" wafer

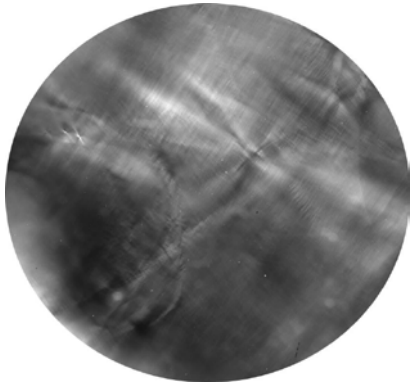
Measuring geometry dimensions of bevel edge, flat edge length, notch, wafer diameter





## StressMap
4" · 6" · 8" wafer

Review SiC wafer residual stress



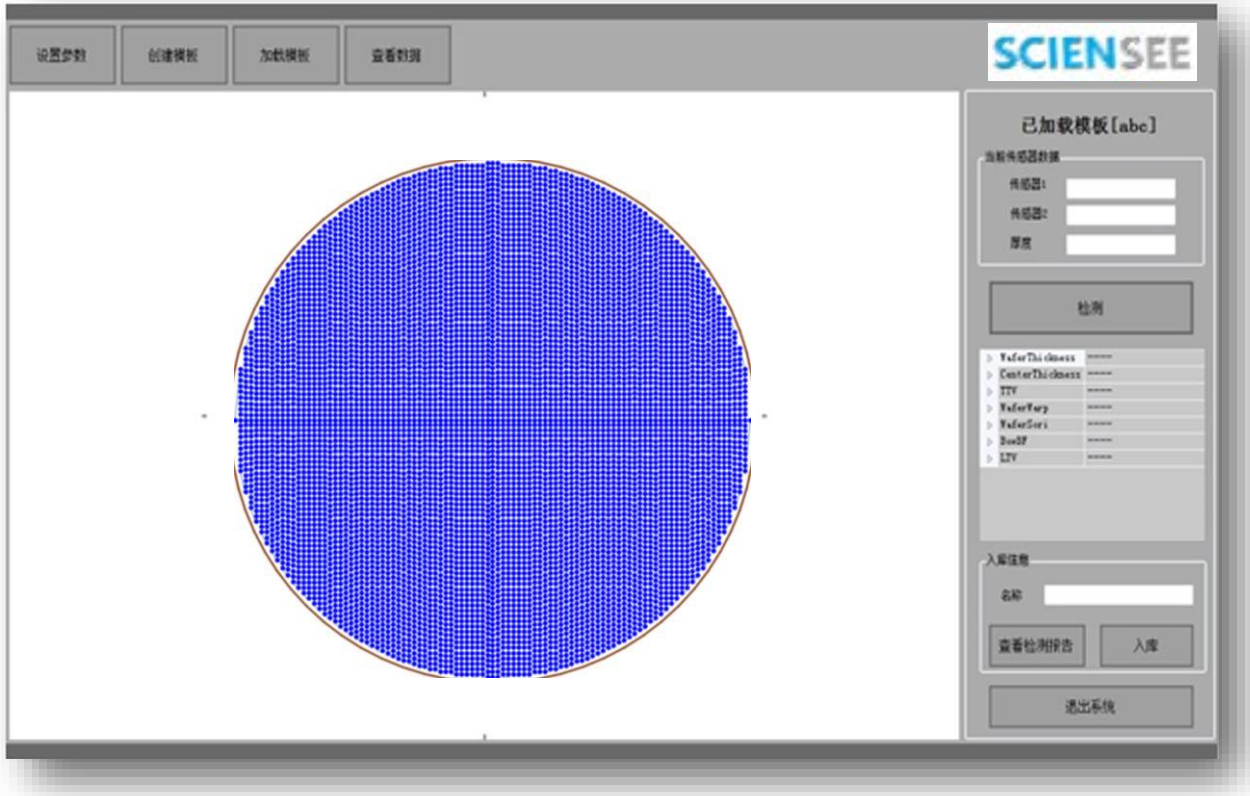
# TWS206

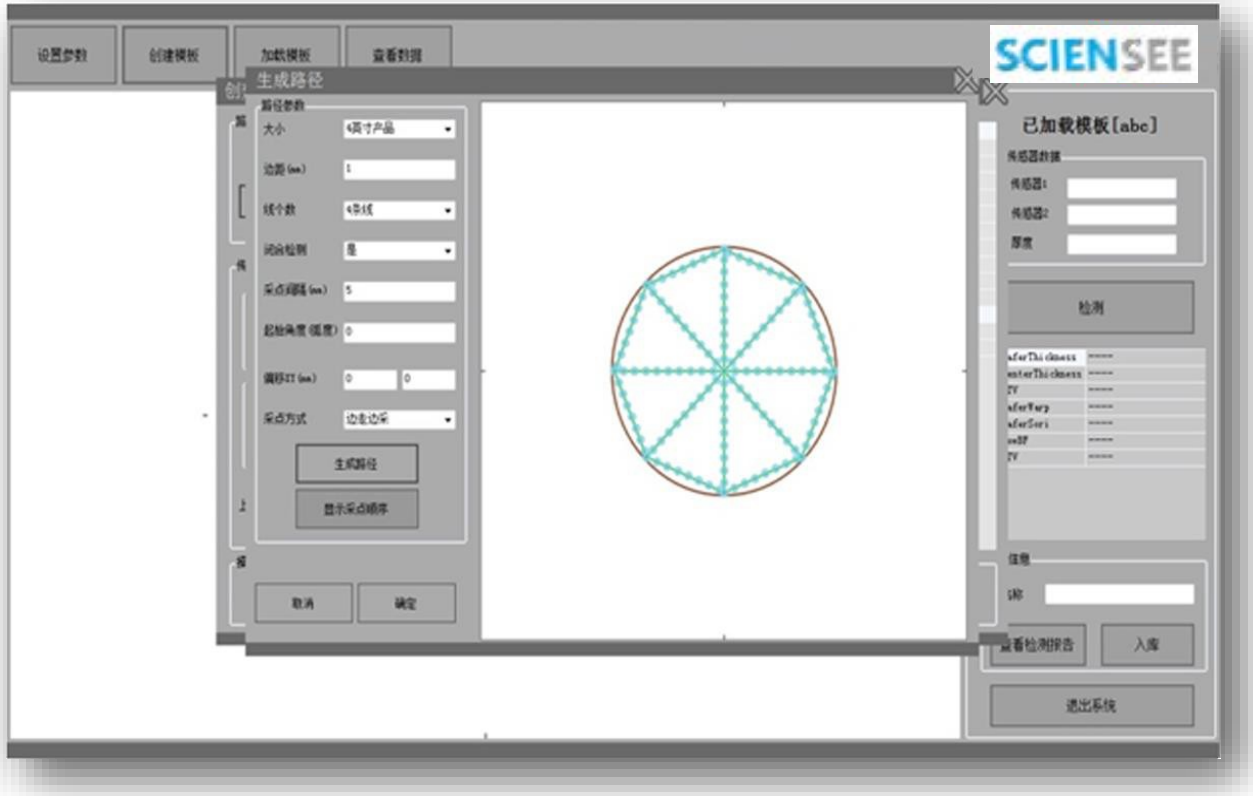
TWS206 measures wafer BOW, Warpage, TTV, LTV and thickness in high accuracy. The toolsets are available in both semi-auto and fully automatic version. Support connections with MES system. System uses optical confocal sensors, supports transparent and non-transparent wafers made of various materials, including SiC, GaN, Si, Sapphire, Glass, GaAs. It can be used across different production stages, from cutting, grinding to thinning and polishing processes.

## Wafer Flatness Testing System TWS206

- BOW
- WARP
- TTV / LTV
- Thickness
- Support 4" · 6" · 8" · 12" wafer size

# TWS206 — Demonstration




Customizable scan path

# Include Report Generation Function

## 检测报告

| Lot ID | 1 | Recipe | 4Map-2-GaAs | SCIENSEE |
|---|---|---|---|---|
| Start | 2021/8/23 14:01:57 | End | 2021/8/23 14:03:44 | |

**General Infos**

Task Started:2021/8/23 14:01:57
Task Finished:2021/8/23 14:03:44
Recipe Name:4Map-2-GaAs
pdfGeneration Time:2021/08/23 14:36:13

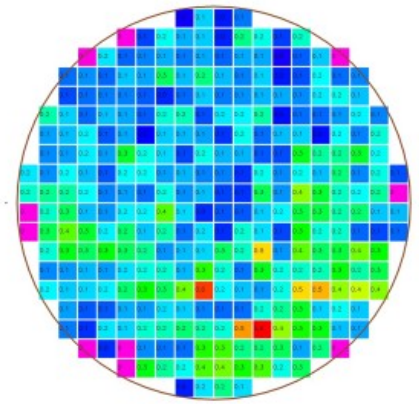
| Task: Full sample inspectionmap (1/2) | Results | | | | | | |
|---|---|---|---|---|---|---|---|
| Wafer ID | TTV | Warp | WarpMin | WarpMax | BowBf | Sori | SoriMin |
| 1 | 3.146 | 24.833 | 0 | 0 | -16.987 | 414.819 | -8.792 |

| Task: Full sample inspectionmap (2/2) | Results | | | | | |
|---|---|---|---|---|---|---|
| Wafer ID | SoriMax | Thickness | Thickness Min | Thickness Max | LtvMin | LtvMax |
| 1 | 16.022 | 414.629 | 412.592 | 415.738 | 0.011 | 0.598 |

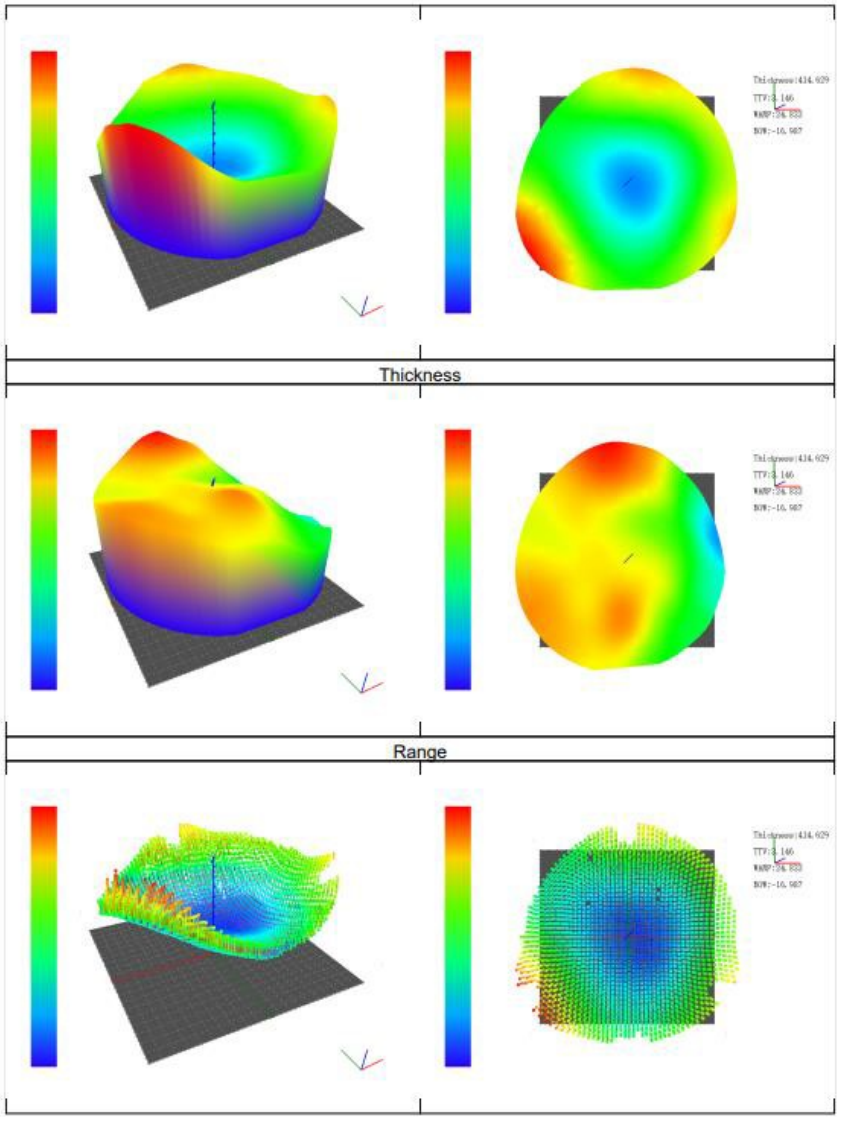
| Task: Full sample inspection map | Wafer:20210823_143613_1 |
|---|---|

Local Area Image

LTV



TopPlane



# LFM-SiC Series

LFM-SiC series are specially designed for SiC wafer crystalline defects inspection. With build-in well designed fine optics, and industry proven algorithm, it automatically scan the wafer and classify the crystalline defects including TSD,TED, BPD and MP. The toolsets are available in both semi-auto and fully automatic version. Support connections with MES system. It improves your wafer qualification productivity, and reduces your manual work and error dramaticall.


## Type I–For KOH etched Wafer EPD detection

- TED mapping
- TSD mapping
- BPD mapping
- Support original defects review function
- User friend interface and easy to operate
- Support 4" · 6" · 8" wafer size

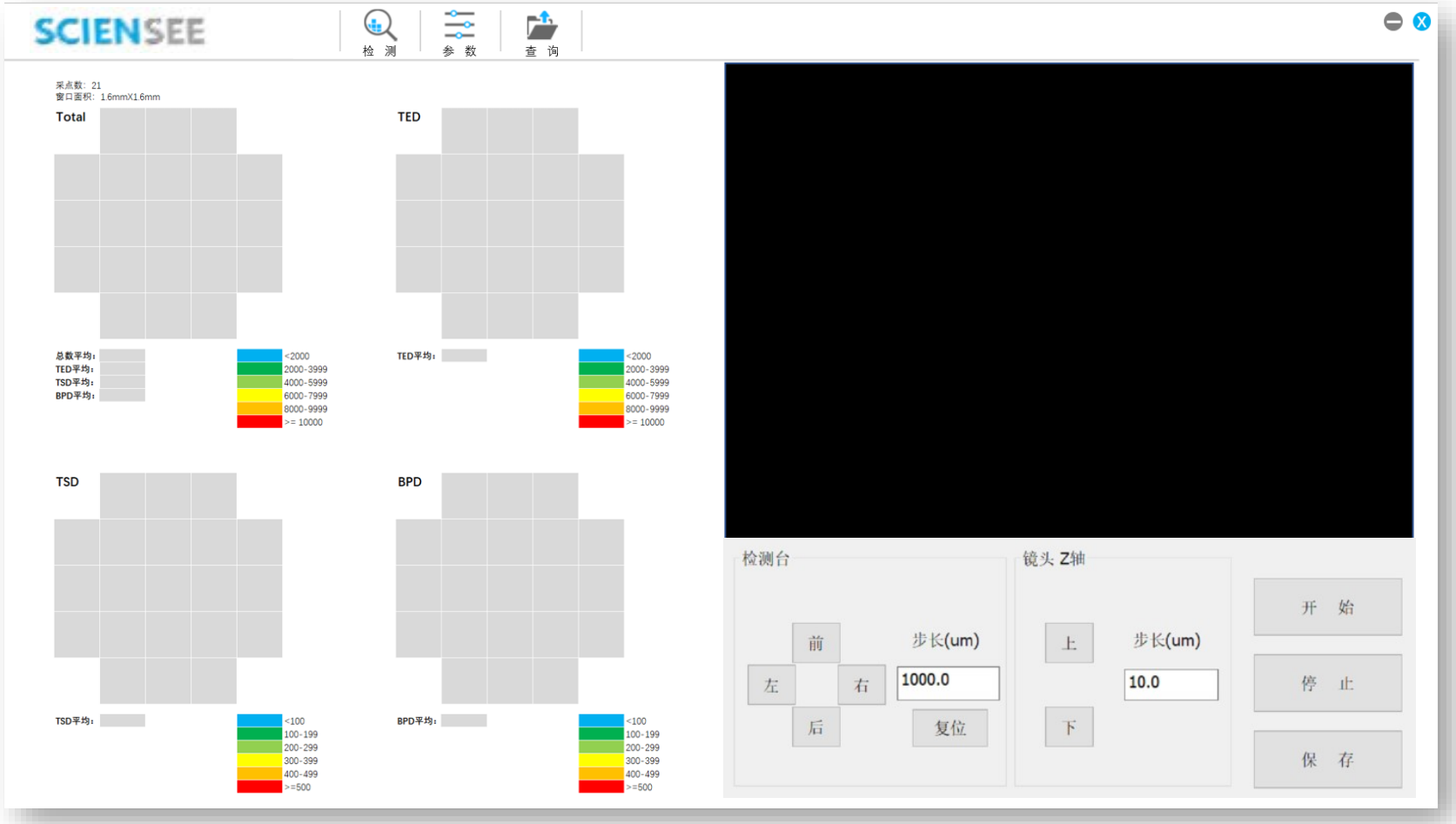
## Type II–For polished Wafer MPD detection

- MPD mapping
- Support original defects review function
- Generate stitched stress map
- User friend interface and easy to operate
- Support 4" · 6" · 8" wafer size


LFM-SiC series

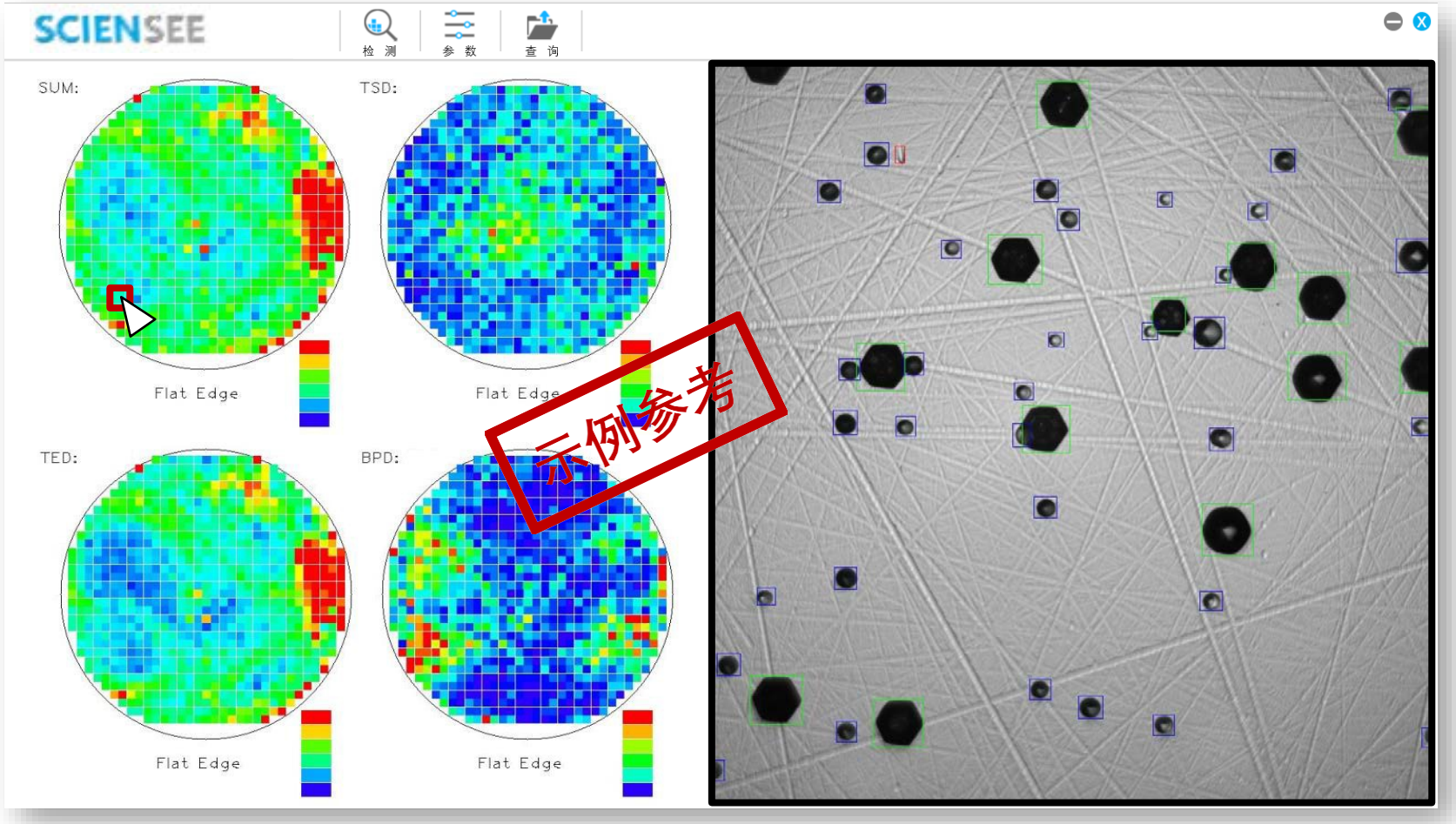
# LFM-SiC Type I

# LFM-SiC Type I —— Demonstration




User friendly interface

# LFM-SiC Type I —— Demonstration

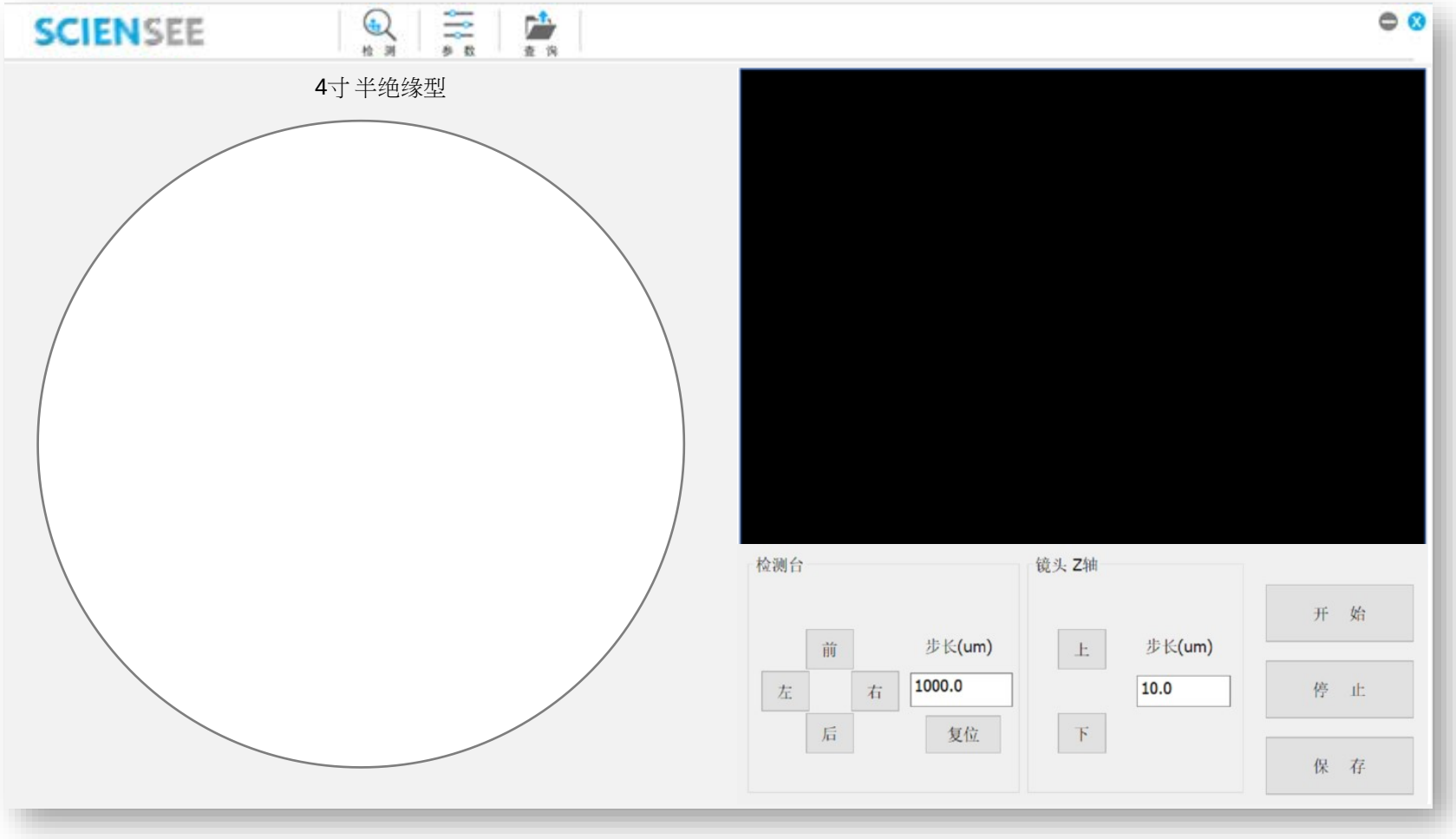



Original defects are available for review


LFM-SiC series

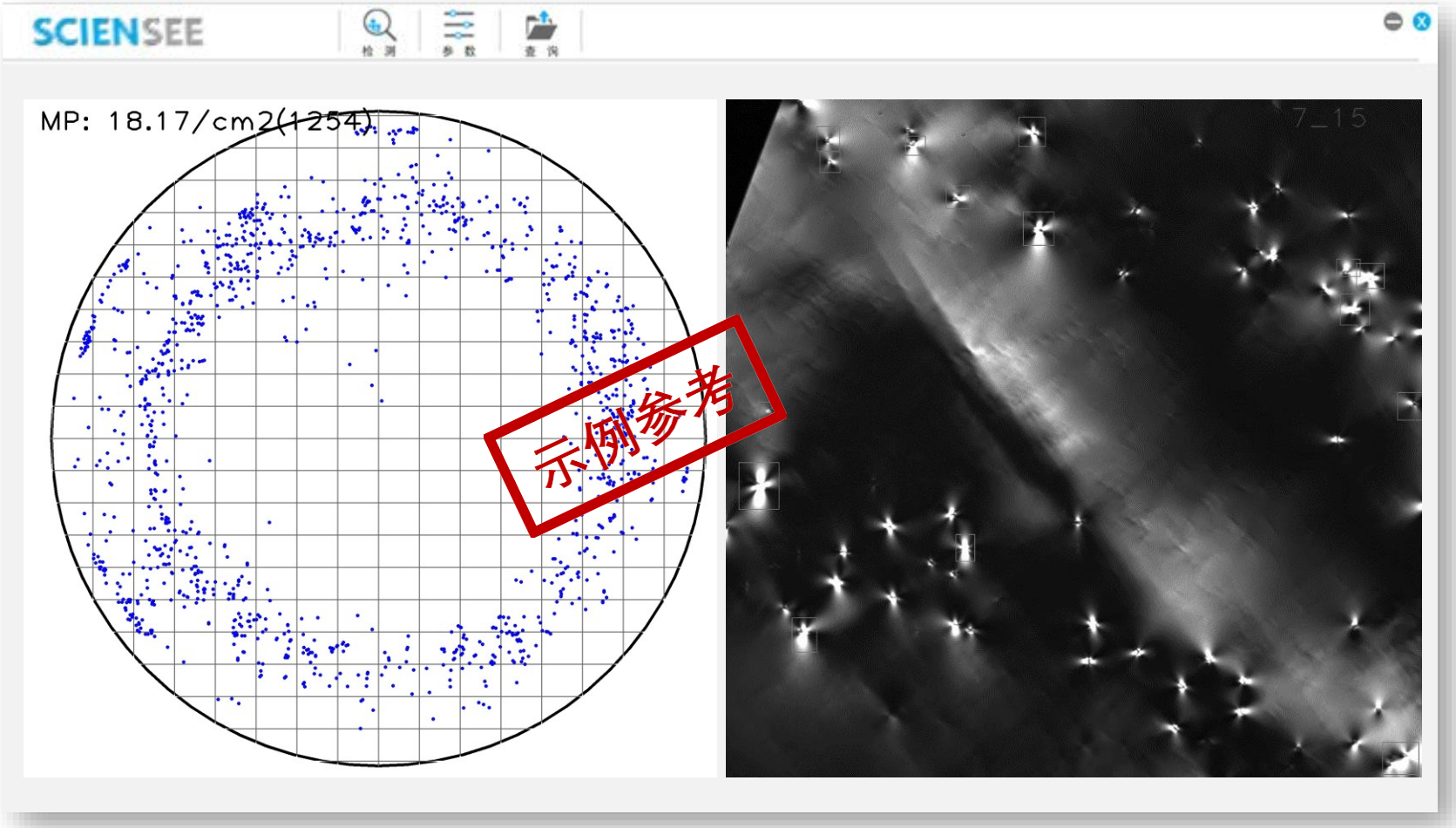
# LFM-SiC Type II

# LFM-SiC Type II —— Demonstration



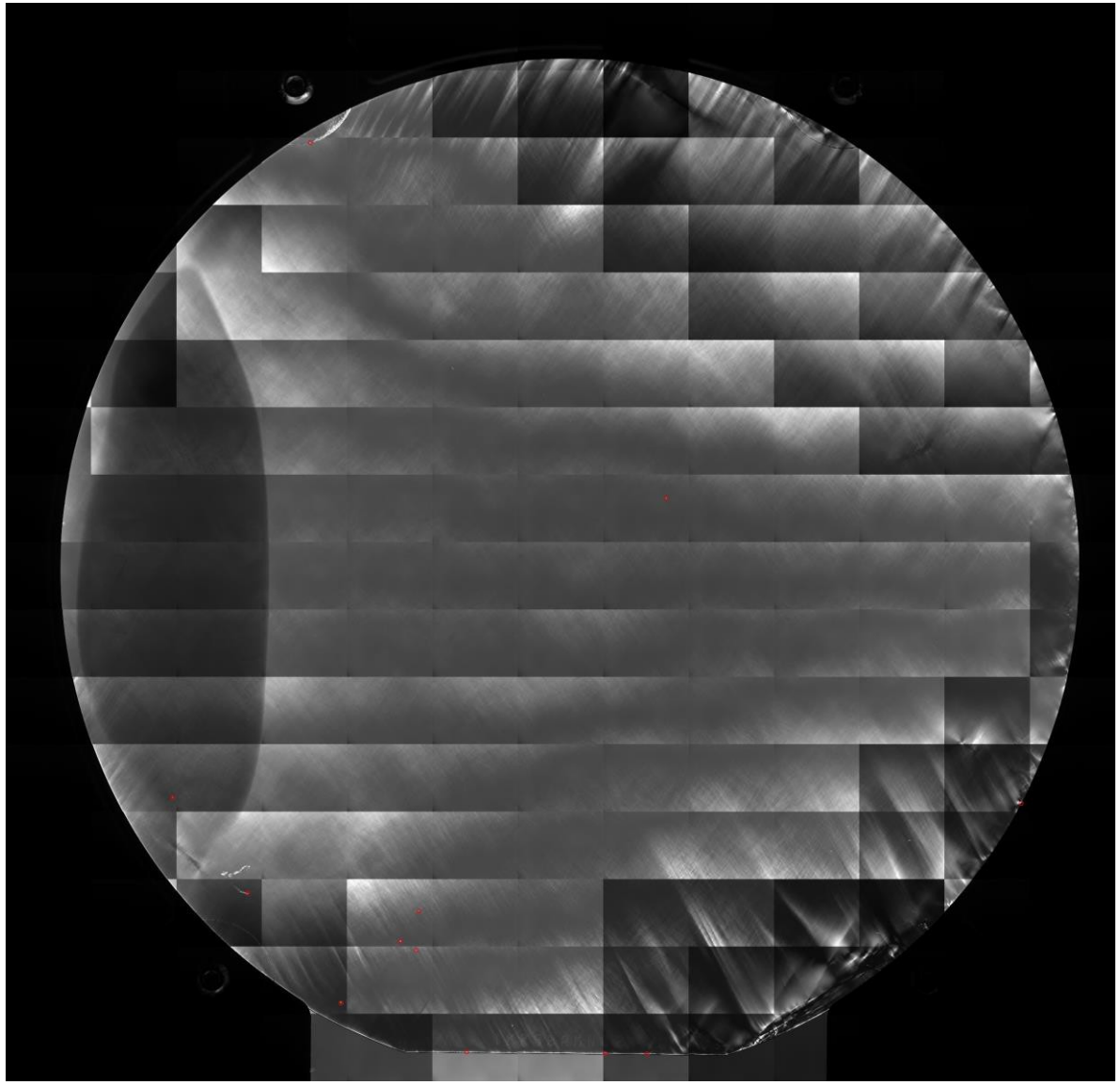

MPD scan is very easy to setup

# LFM-SiC Type II —— Demonstration




MPD mapping with defects review function

# LFM-SiC Type II — Demonstration



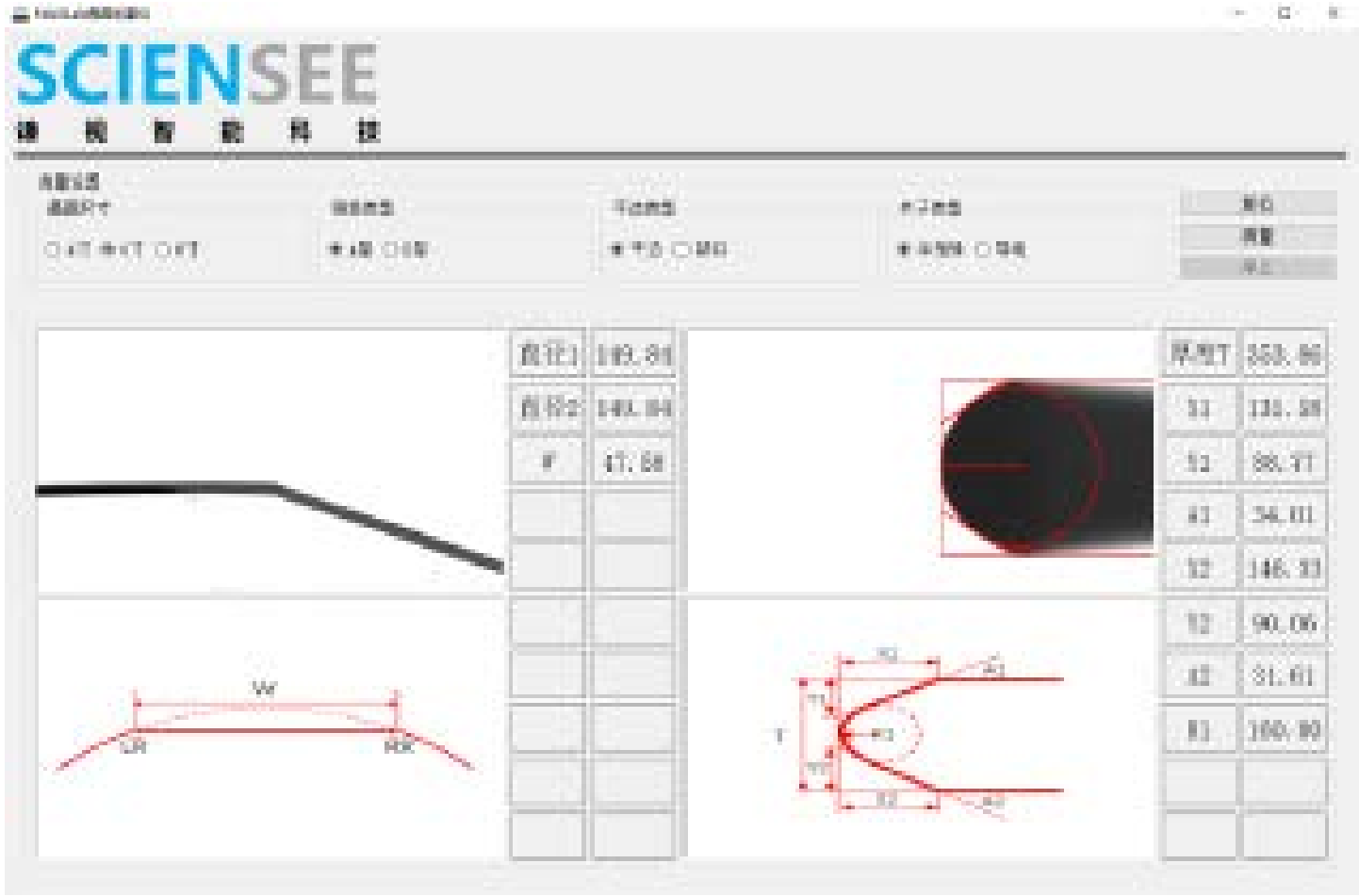
# Edge-Profiler

Measuring geometry dimensions of bevel edge, flat edge length, notch, wafer diameter. Multiple measurements in One Click. The toolsets are available in both semi-auto and fully automatic version. Support connections with MES system.


## Edge profiler

- Wafer diameter D
- Wafer thickness T
- Bevel edge profile X, Y, R, A
- Flat edge and notch profile
- User friend interface and easy to operate
- Support 4"，6"，8" wafer size

# Edge-Profiler —— Demonstration



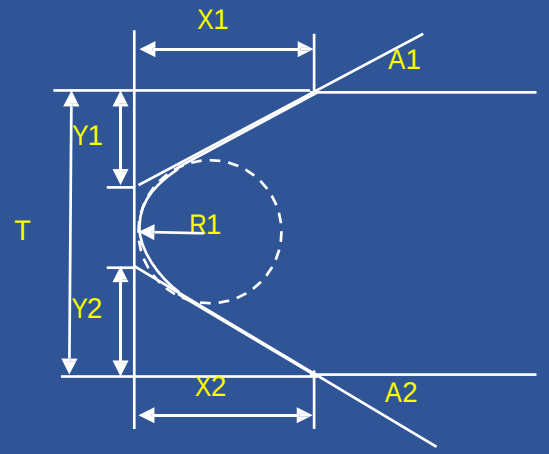

User friendly interface

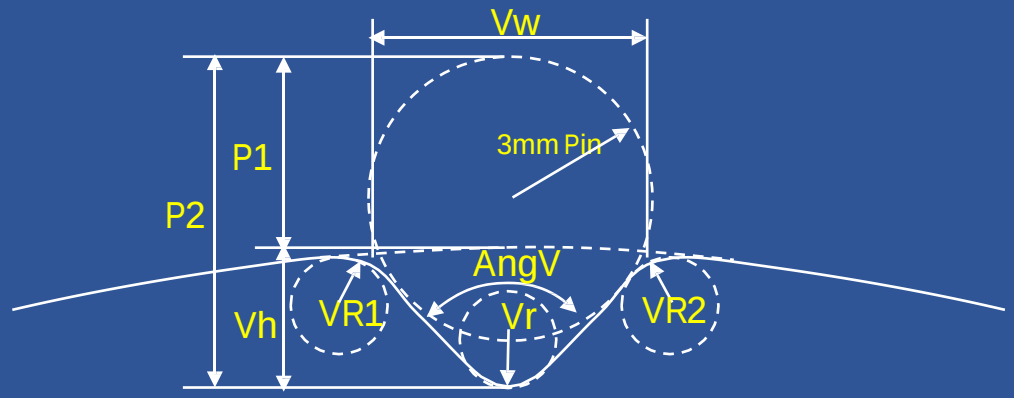
# Edge-Profiler —— Demonstration

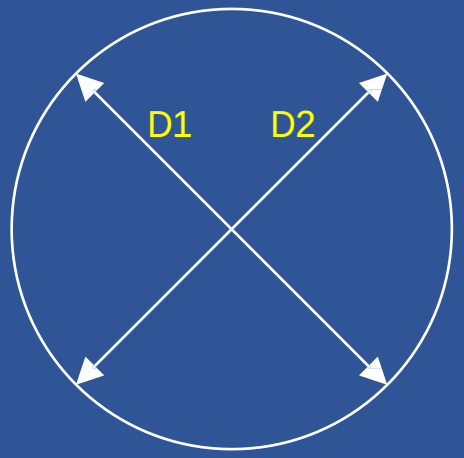
System accuracy：

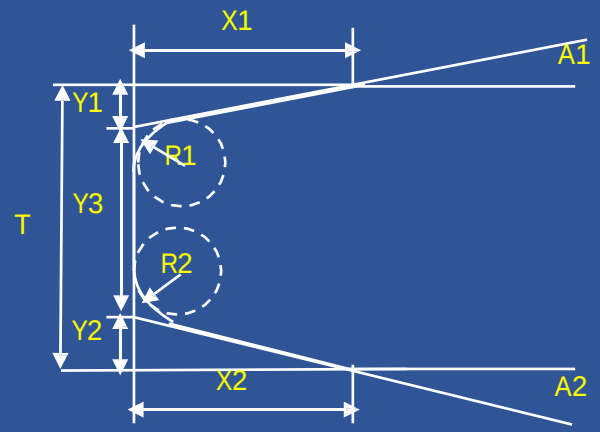
Length: ~0.005mm

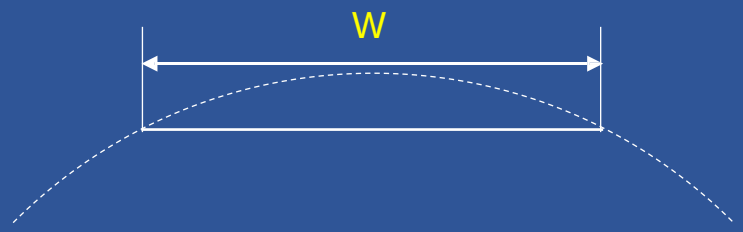
Angle: ~0.5°



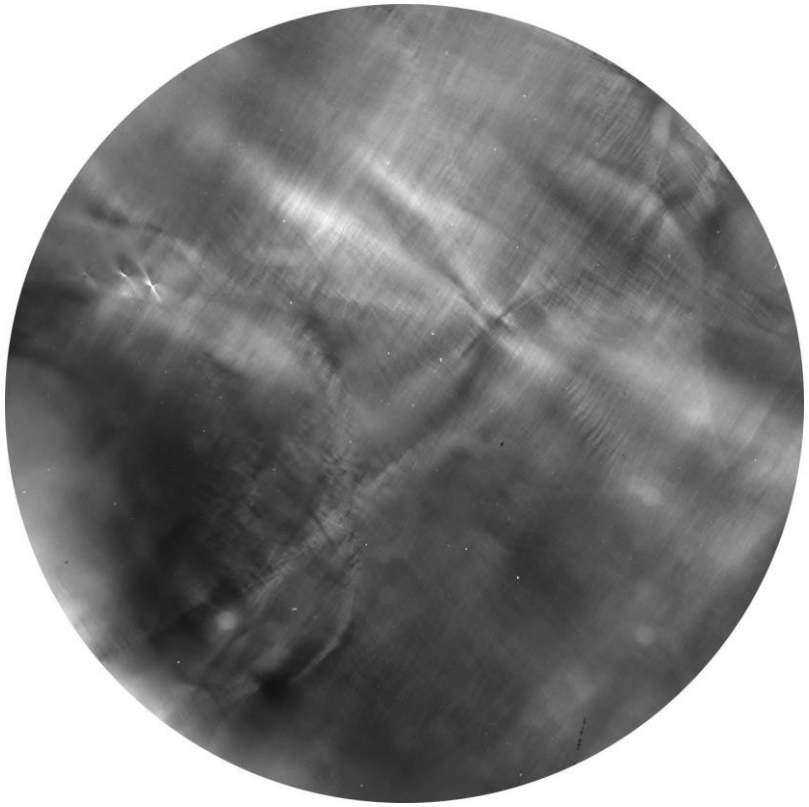
# StressMap

StressMap is a Tabletop tool. It is easy to operate, and can capture the stress map within seconds. It helps review the strain pattern within the SiC wafer qualitatively in most simple way, and all images can be automatically archived and managed through the system. The toolsets are available in both semi-auto and fully automatic version. Support connections with MES system.

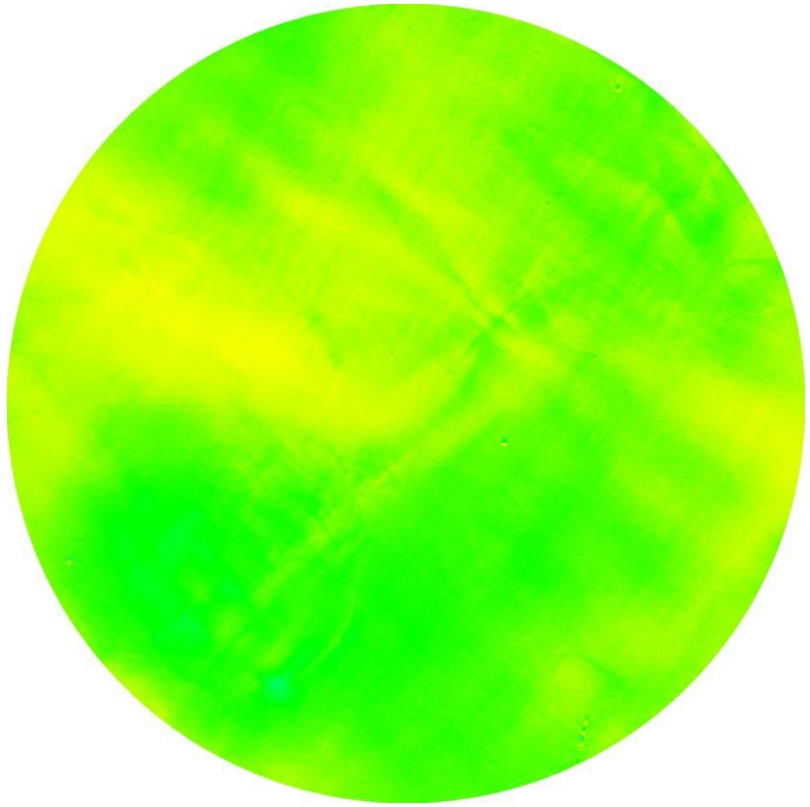

## StressMap

- Capture the stress map within seconds(each wafer<10s)
- User friend interface and easy to operate
- Support 4"，6"，8" wafer size

# StressMap — Demonstration



Linearly polarized light



Circularly polarized light

# Summarize

- We have the great performance comparing with other production tools available in the market.
- We have engineers who can team up with you to maximize the system performance.
- We provide you customization options to best fit your process needs.
- We provide cost effective solutions to optimize your CAPEX investment.
- We provide you on going training to support your daily operations.

# THANK YOU



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