SIMTRUM

3D Optical Surface Profilometer SuperView W1

White Light Interferometry • Nano 3D Surface Form and Roughness

Sonic Vibration Isolation

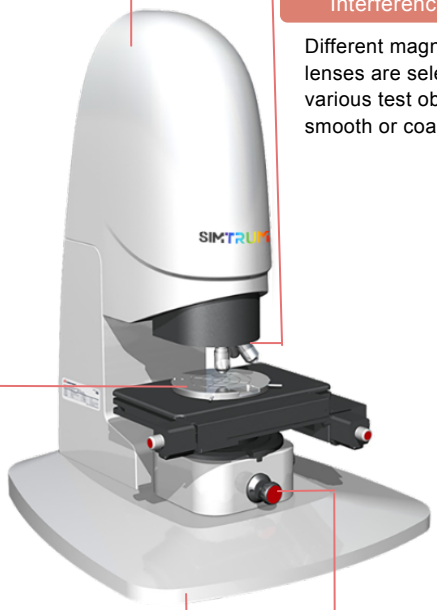
The shell is separated from the internal motion unit, which effectively isolates the transmission of sound wave vibration.

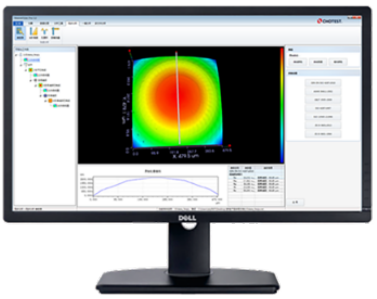
Interference Lens

Different magnification lenses are selectable for various test objects with smooth or coarse surface.

3D Re-Establishment

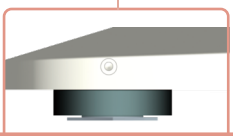
Unique re-establishment algorithm can filter noises of surface of test object.





Vacuum Object Table

Vacuum Object Table is specially customized for semi-conducting wafers, so influence from feeble air flowing to test object is eliminated in measurement.



Air-Bearing Isolation System

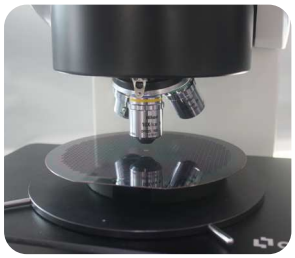
Built-in air bearing isolation system can isolate the vibration. Air pressure of the machine can be supplied by air compressor or inflators.

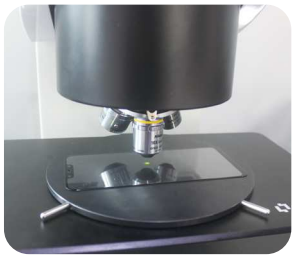
Easy Level

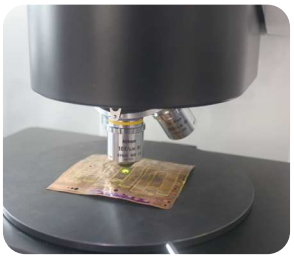
Improve the re-establishment accuracy and adjust stripe width by adjusting tilt of object table.

Convenient joystick

Easy to control X/Y/Z movement, speed and light source brightness; Emergency stop button.

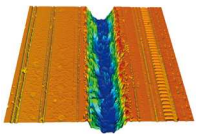
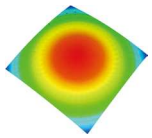
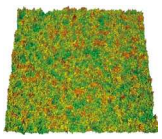
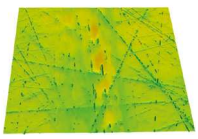






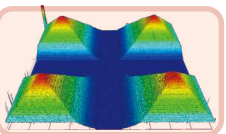
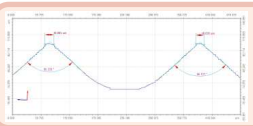
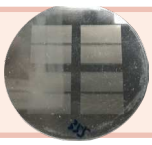
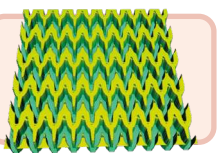
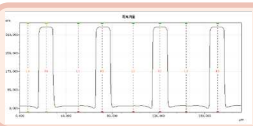
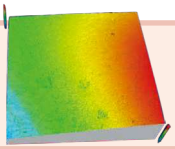
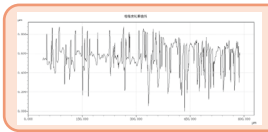
[Application]

It is used for measurement and analysis of surface roughness and profile of precision components from industries of semi-conductor, 3C Electronics, ultraprecise machining, optical machining, micro-nano materials, micro-electro-mechanical system.

Semi-Conductor	Cut sheet, Coated sheet, wafer IC	Roughness, microcosmic	
3C Electronics	Sapphire screen, glass screen,Ink screen	Roughness, flatness, Stage height	
Ultraprecise Machining	Precision mould, optical lens	Roughness, flatness, profile, radius of curvature	
Micro-Nano Materials	Film on PET substrate	Film roughness, film thickness	
MEMS	MEMS components	Surface profile and roughness, area, volume	

[Application Case]

Measurement and analysis for various products, components and materials`surface form and profile characteristics, such as flatness, roughness, waviness, appearance, surface defect, abrasion, corrosion, gap, hole, stage, curvature, deformation, etc.

Surface formfile	 Diamond, Magnetic head			Pyramid angle
Profile sizes	 Diffractive optics			Profile curve
Surface roughness	 Engine blade of aircraft			Surface roughness

[XtremeVision 3D Software]

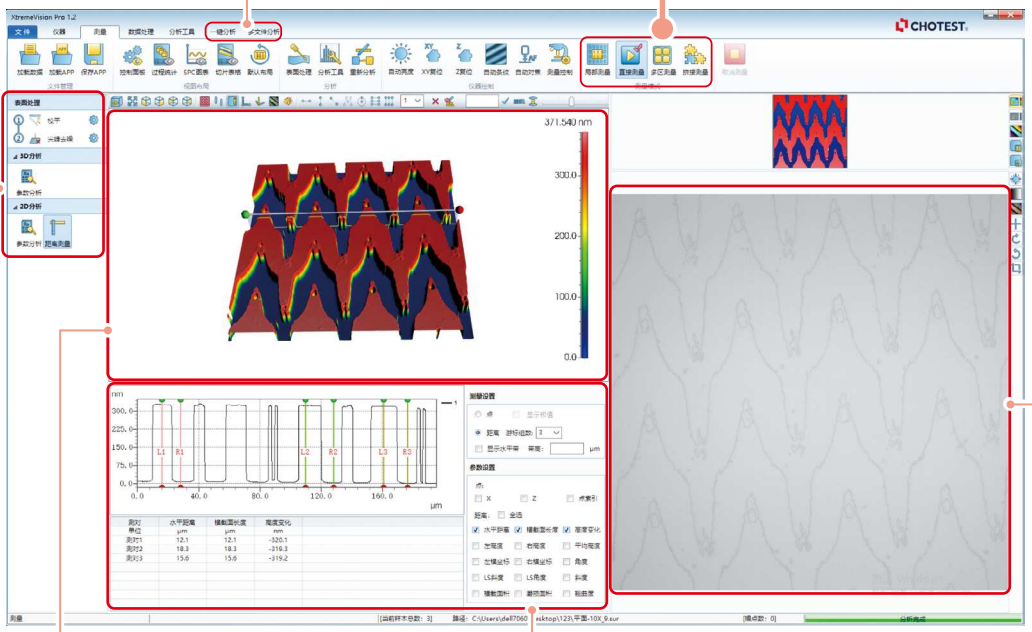
Integration software: Measurement and analysis are operated in the same interface; With pre-set analytic parameters, the software automatically generates measurement data, and achieves rapid CNC measurement.

Auto Measurement:
After set measuring ranges & points and related parameters, multi-area can be measured.

After set analytic program, more than 10 files can be analyzed by one click, finally data result and statistical graph are generated automatically.

Stitching Measurement:
After set the measuring range and parameters, large area could be measured by one click automatically.

Partial measurement:
Can select any area in field of view to be measured.



Configure parameters:
After pre-set leveling, filtering and 2D&3D parameters, data could be measured and generated automatically according to pre-set program.

2D, 3D Image operating zone.

Analysis window: Display the curves and data generated by present analysis tool.

Real-time video window.

SIMTRUM

[Technical Parameters]

Model No.		SuperView W1	SuperView W1-Pro
Light source		White/ Green LED	
Video system		1024×1024	
Standard Field of View		0.98×0.98 mm	
Max Field of View		6.0×6.0 mm(Optional)	
Object Table	Size	(320×200)mm	(300×300)mm
	Travel range	(140×100)mm	(200×200)mm
	Load capacity	10kg	
	Control method	Motorized	
	Tilt	±5° Manual	
Z-axis travel range		100mm Motorized	
Z-axis stroke scanning range		10mm	
Z-axis scanning speed		45μm/s	
Z-axis Resolution		0.1nm	
Lateral Resolution		0.1μm	
Characters of Test Object		Super-smoothing surface, coarse surface; Reflectivity 0.05%~100%	
Accuracy of Stage	Accuracy	0.3%	
	Repeatability	0.08% 1σ	
Power Supply		AC100~240V, 50/60Hz, 4A, 300W	
Size		L900*W700*H604mm	L900*W700*H700mm
Weight		<150KG	<160KG

Standard Configuration

1) Host machine
2) High speed camera
3) Optical zoom: 0.5X
4) Parfocal objective lens: 10×
5) Motorized X & Y object table
6) Manual 3 holes turret
6) 4.7μm stage master gauges
7) Joystick
8) XtremeVision software with automatic stitching function
9) Electrical control box
10) Computer(WIN10) and 24" monitor
11) Accessory suitcase
12) Portable inflating pump
13) User Manual and Product Certificate

Optional Configuration

1) Parfocal objective lens: 2.5X, 5X, 10X, 50X, 100X
2) Optical zoom: 0.75X, 1X
3) Vacuum chuck: 4", 6" or 8"
4) Motorized 5 holes turret

Environmental requirement

1) Operating environment: No strong magnetic field
2) Working temperature:15℃~30℃, fuctuation <2℃/60min
3) Relative humidity: 5%~95% RH, no condensation
4) Environmental vibration: VC-C or better
5) Pressure supply: 0.6Mpa oil-free, water-free, 6mm diameter of hose

3D Optical Surface Profilometer SuperView W3

Large-scale microscopic 3D form and shape

- Large table
- Applicable for 12" wafer
- One-key automatic measurement

[Dedicated Functions for Semiconductor Field]

- Measure profile trenches after laser grooving in the dicing process.
- Measure film step-height of wafer ranging from 1nm~1mm.
- Measure roughness of silicon cut sheet after grinding process, and can measure dozens of small areas to obtain the average value by one click.
- Support 6", 8" and 12" wafer measurement, and easy switch between 3 sizes of vacuum chucks by one click automatically.

SIMTRUM

[Technical Parameters]

Model No.		SuperView W3
Light source		White/ Green LED
Video system		1024×1024
Standard Field of View		0.98×0.98 mm
Max Field of View		6.0×6.0 mm(Optional)
Object Table	Size	(450×450)mm
	Travel range	(300×300)mm
	Load capacity	10kg
	Control method	Motorized
Level adjustment		Lens tilt, motorized
Z-axis travel range		100mm Motorized
Z-axis stroke scanning range		10mm
Z-axis scanning speed		45μm/s
Z-axis Resolution		0.1nm
Lateral Resolution		0.1μm
Characters of Test Object		Super-smoothing surface, coarse surface; Reflectivity 0.05%~100%
Accuracy of Stage	Accuracy	0.3%
	Repeatability	0.08% 1σ
Power Supply		AC200~240V, 50/60Hz, 4A, 600W
Size		L1000*W900*H1500mm
Weight		<500KG

Standard Configuration

1) Host machine
2) High speed camera
3) Optical zoom: 0.5X
4) Parfocal objective lens: 10×
5) Motorized X & Y object table
6) Manual 3 holes turret
6) 4.7μm stage master gauges
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