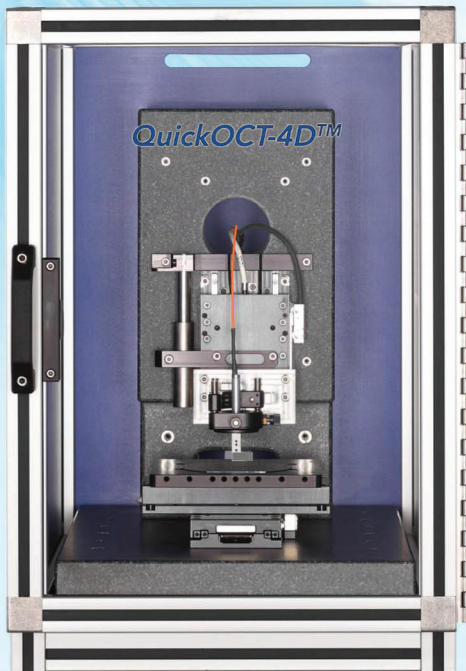




## **QuickOCT-4D™**

***Bench-Top, High-Speed, High-Accuracy,  
Non-Contact 4D Surface & Thick-Film Profiler***

- Compact, bench-top unit with environmental enclosure
- Single-point, non-contact, visible-light, Spectral-Domain Optical Coherence Tomography (SD-OCT) sensor with up to 66 kHz measuring rate
- Optimized for measuring topography and thickness of multi-layer transparent films on highly reflective material
- Nanometer encoded X/Y/Z motion with magnetic linear motors and cross roller bearings for fast raster or spiral scanning over 100mm (X), 100mm (Y), 50mm (Z)



- Available vacuum chucks for sample and tray holding
- User-friendly CalcuSurf-4D™ recipe generation, data acquisition, surface topography and multi-layer film analysis software permits optimized measurement sampling density for best coverage at highest throughput



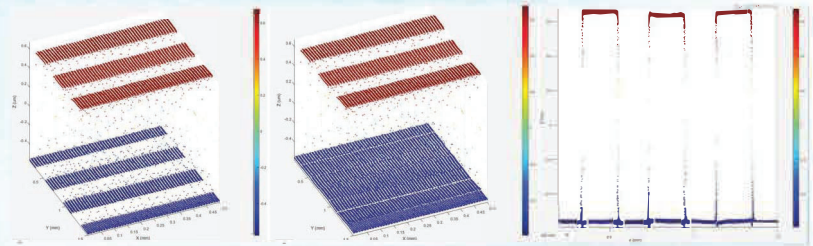


Combining a single-point, visible-light, spectral-domain optical coherence tomography (SD-OCT) sensor with a high-speed, nanometer-encoded X/Y/Z motion-control stage, the QuickOCT-4D™ can capture the plane of each layer within transparent film samples in a single measurement, at up to 66 kHz. The QuickOCT-4D™ penetration depth (up to 100µm) and axial resolution (5nm) is optimized for the measurement of multi-layer transparent films, flat substrates, and functional layers in the semi-conductor, life science and pharmaceutical industries.

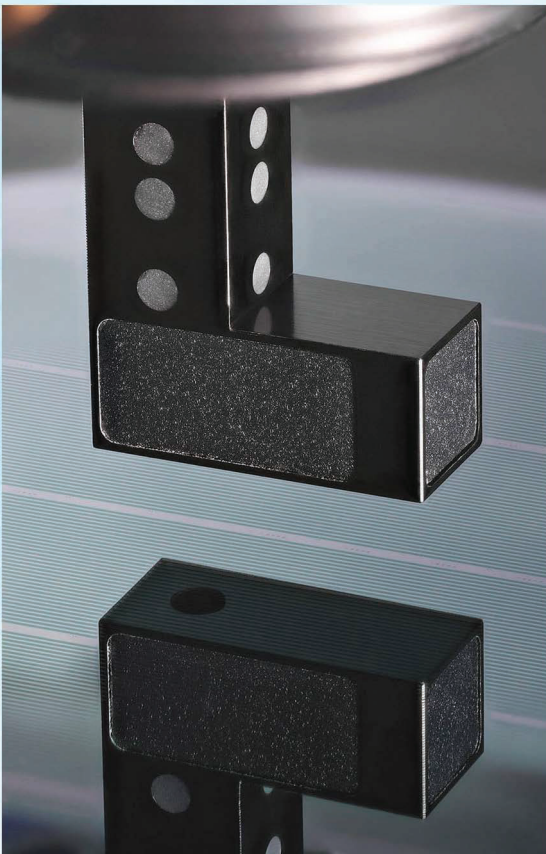
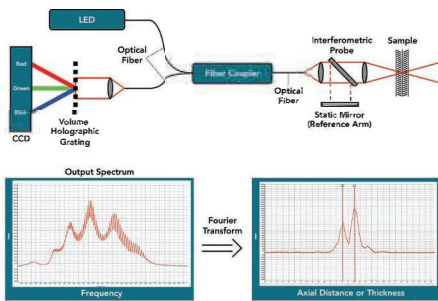
## APPLICATIONS:

The measurement of patterned photoresist (or similar transparent coatings) on a silicon, GaAs or glass wafer for backend semi-conductor, advanced packaging, display, LED, VCSEL and MEMS as a quality control post-develop and pre-etch.

## Raw Point Cloud Data:



Top/Bottom Surface and PR Thickness



SYSTEM			
Dimensions (L : W : H)	535 x 380 x 510 [mm]		
Weight	Approx. 60 kg		
System Controller	Includes motion control, sensor control, power supplies, ethernet interface to PC		
Power Requirements	110-220V AC, 50-60 Hz, 1 phase, 2 amps (220V), 5 amps (110V)		
MOTION			
Stage Travel (X : Y : Z)	100 mm x 100 mm x 50 mm		
Encoder Resolution (X : Y : Z)	5 nm x 5 nm x 1 nm		
Drive Type	Magnetic linear motor		
Bearing type	Cross Roller Bearing		
Flatness	Approx. 1 µm/100 mm		
Load Capacity	5 kg		
SENSOR			
Technique	Spectral-domain, low-coherence interferometry		
Applications	Distance, Thickness		
Sampling	Point: up to 66,000 points/sec		
Available Probes	VIS-1	VIS-2	IR
Lateral Resolution	5 µm	6 µm	6 µm
Working Distance	5 mm	10 mm	40 mm
Axial Resolution	1 nm	2 nm	5 nm
Axial Accuracy	25 nm	50 nm	500 nm
Maximum Slope	± 2°	±10°	±5°
Thickness Measuring Range*	1 to 80 µm	2 to 180 µm	29 to 3200 µm

\*optical Length