

Majority of translucent or lightly absorbing films can be measured quickly and reliably: Oxides, Nitrides, Photore-sists, Polymers, Semiconductors (Si, aSi, polySi), Hard coatings (SiC, DLC), Polymer coatings (Paralene, PMMA, Polyamides), thin metal films and many more.

Thickness Range: 15 nm - 50 μ m
Wavelength Range: 400nm -1100 nm

LCD, FPD application: ITO, Cell Gaps, Polyamides. Optical Coatings: dielectric filters, hardness coating, anti-reflection coating Semiconductor and dielectrics: Oxides, Nitrides, OLED stack

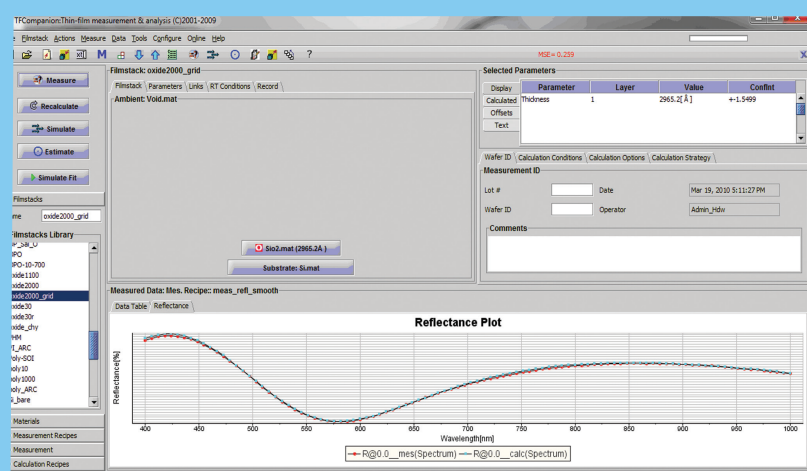
Real time measurement and analysis. Multi-layer, thin, thick, freestanding and nonuniform layers.

Extensive materials library (500+ materials) - new materials easily added. Support of parameterized materials: Cauchy, Tauc-Lorentz, Cody-Lorentz, EMA and many more....

Flexible: Desktop or in-situ, R&D on inline. Easy integration with external system using TCP Modbus interface

Measurement: thickness, optical constants, surface roughness

User friendly and powerful: One-click measurement and analysis. Powerful tools: simulation & sensitivity, background and scaling correction, linked layers and materials, multisample measurements, dynamic measurement and production batch processing.

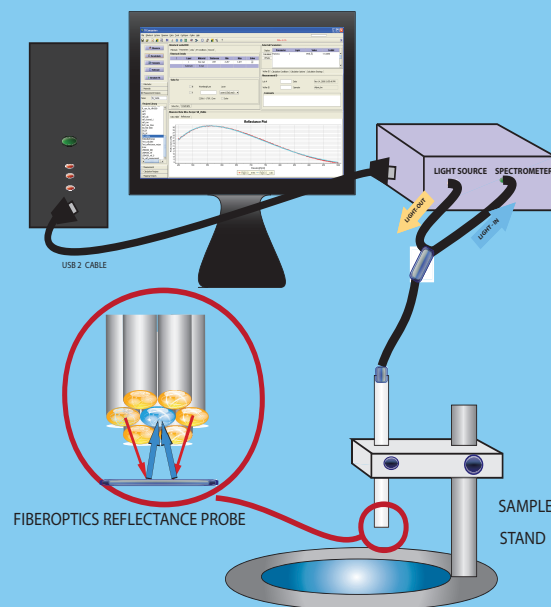


Measurement of 300nm Si oxide film.
 Measurement vs. model data fit.

MProbe Vis

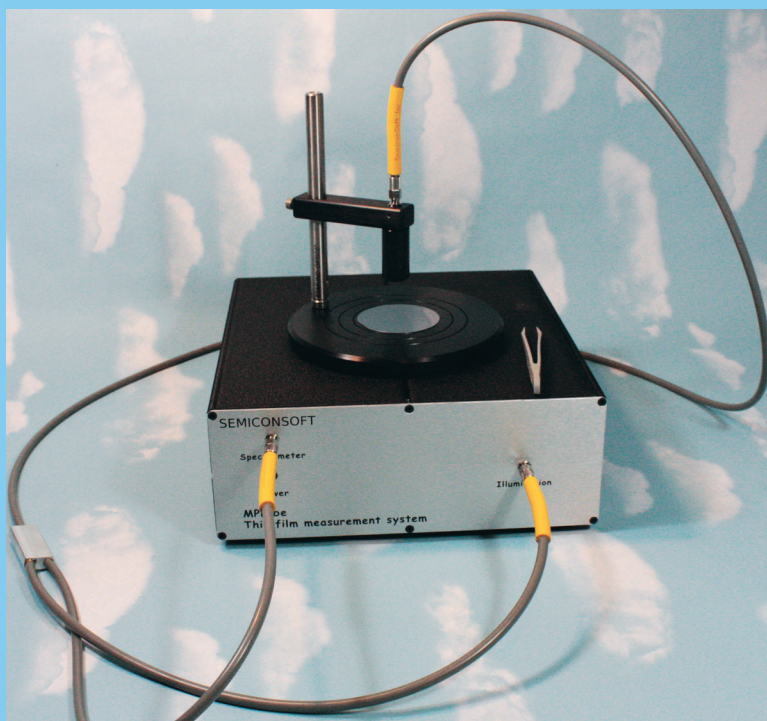
Thin Film Measurement System

It is easy to be an expert with MProbe



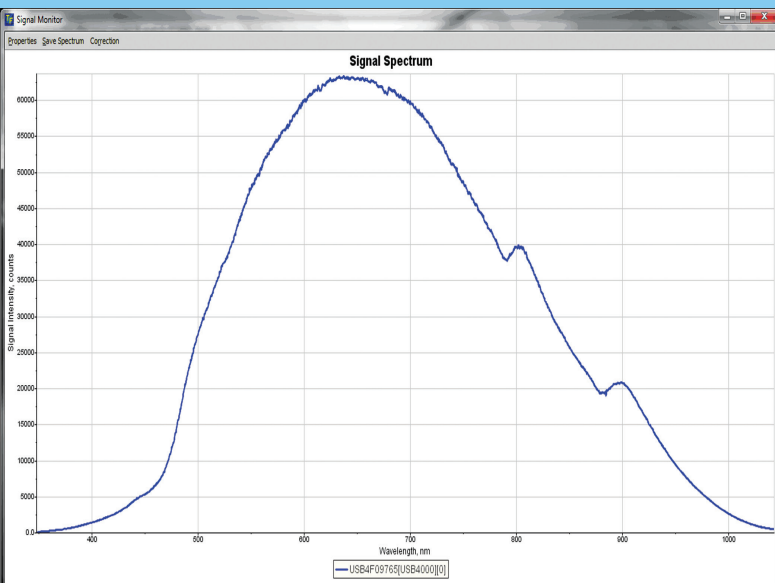
MProbe system diagram

Precision	0.01nm or 0.01%
Accuracy	0.2% or 1 nm
Stability	0.02nm or 0.03%
Spot Size	3 mm standard, down to 3 μ m
Sample Size	from 1 mm



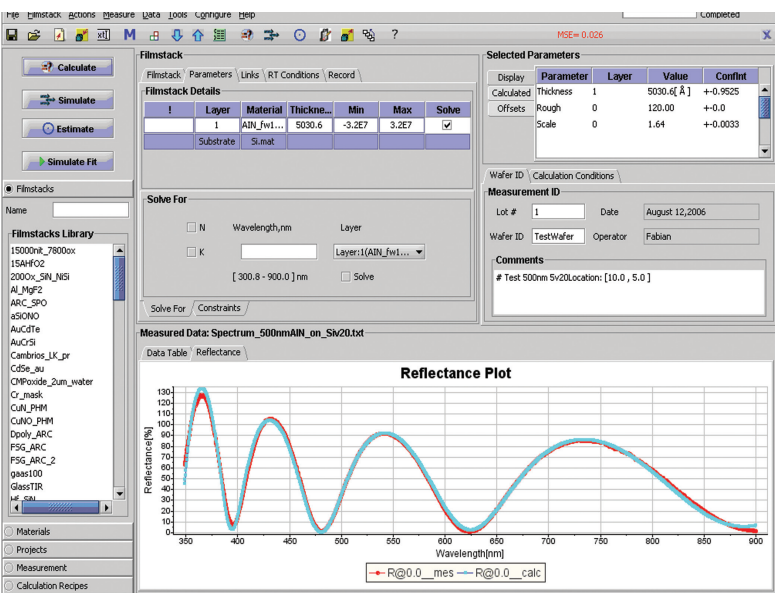
MProbe system (desktop configuration)

Specification



Raw reflectance from Si wafer. Signal maximum (16 bit). Integration time: 10ms

Spectral range (nm)	400-1100
Spectrometer/detector	F4 spectrometer, 3600 pixels Si CCD, 16 bit ADC, 360-1100 nm range
Spectral resolution	<2 nm (standard) <1 nm (option)
Light source	5 W Tungsten-halogen lamp (Xe filled), CT 2800° Lifetime: 10000 hrs
Reflectance probe	Fiberoptics (7 fibers as-assembly), 400 μ m fiber core
Precision	<0.01 nm or 0.01%
Accuracy	<1nm or 0.2%
Weight (main unit)	4 kg
Size (main unit)	8"x 10" x 4" (WxDxH)
Power	100-250VAC, 50/60 Hz 20W



Measurement of 500nm AlN. Measured parameters: Thickness and surface roughness. Scaling factor used to correct distance change in configuration.

Software options	
-MOD	remote control (TCP) based on Modbus protocol
- CM	continuos measurement with speci- fied number of measurement and/ or delay between them

Hardware options	
-FLVis	Vis achromatic focusing lens. WD:35mm. Spot size: <0.5mm.
-LP500	long-pass filter, limits wavelength below 500nm. Used for photoresist measurement. (other filters availalbe)
-FDHolder	Face-down sample holder.For measurement of transparent and flexible samples
-TO	Transmittance option
-TO Switch	2 channel switch, allows to combine reflectance and transmittance measurement.
- 20W	Change to 20W (CT 3100°, lifetime 2000hrs) tungsten-halogen lamp.
-HR	upgrade spectrometer for <1nm resolution
- TR	In/Out trigger 5V TTL. 1 External (in) trigger to start measurement, 6 out triggers

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