



MProbe Vis

Thin Film Measurement System

It is easy to be an expert with MProbe

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: 10 nm - 75 μm
Wavelength Range: 400nm -1000 nm

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

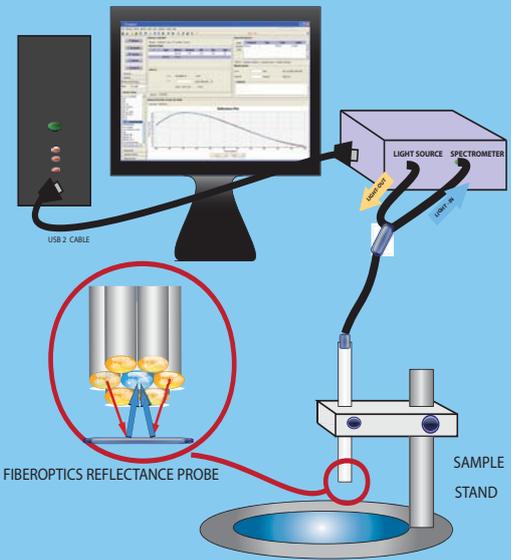
Real time measurement and analysis. Multi-layer, thin, thick, freestanding and nonuniform layers.

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

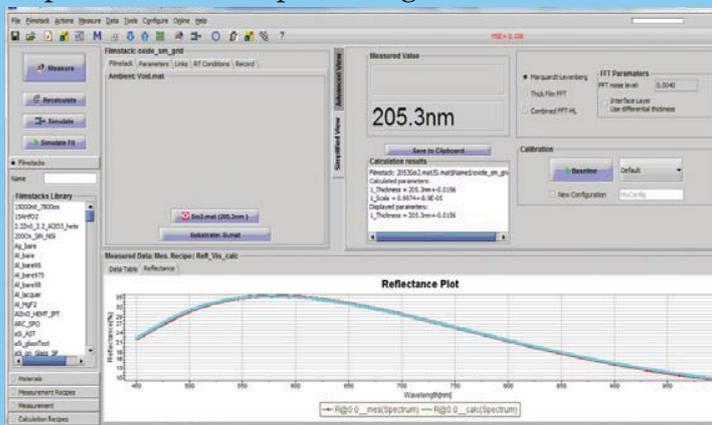
Measurement: thickness, optical constants, surface roughness

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.



MProbe system diagram

Precision	0.01nm or 0.01%
Accuracy	0.2% or 1 nm
Stability	0.02nm or 0.03%
Spot Size	0.5 mm standard, down to 3 μm(MSP)
Sample Size	from 5 mm

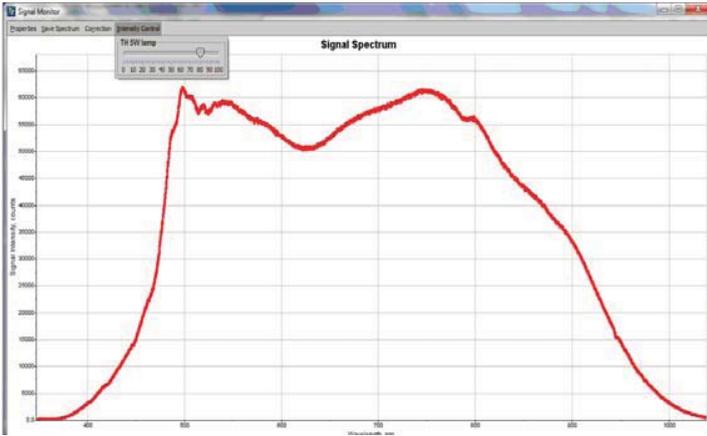


Measurement of 200nm Si oxide film.
 Measurement vs. model data fit.



MProbe system (desktop configuration)

Specification



Raw reflectance from Si wafer. Signal maximum (16 bit). Integration time: 10ms. Regulation of lamp intensity controlled from the software.

MProbe Advantage

- Standalone software included
- Remote diagnostics
- Measurement history for recall and display (plots and statistics)
- Compare and evaluate multiple reflectance/transmittance spectra
- Microprocessor controlled light source with 10000+ hours lifetime
- Correction options for angle, wavelength resolution and intensity variations
- Clean room class 1000 compatible
- Free software update for 12 months

Spectral range (nm)	400-1000
Spectrometer/detector	F4 spectrometer, 3600 pixels Si CCD, 16 bit ADC, 360-1050 nm range
Spectral resolution	<1 nm
Light source	5 W Tungsten-halogen lamp (Xe filled), CT 2800° Lifetime: 10000 hrs (regulated intensity)
Reflectance probe	Fiberoptics (7 fibers assembly), 400µm fiber core
Precision	<0.01 nm or 0.01%
Accuracy	<1nm or 0.2%
Weight (main unit)	4 kg
Size (main unit)	8" x 12" x 4" (WxDxH)
Power	100-250VAC, 50/60 Hz 20W

Hardware options

-LP500	long-pass filter, limits wavelength below 500nm. Used for photoresist measurement.(other filters available)
-FDHolder	Face-down sample holder option for SH200A stage.For transmittance measurement and/or foils/flexible samples
-TO	Transmittance option

Included in the Box:

1. Main unit (spectrometer/light source/electronics)
2. Reflectance probe VisNIR
3. Sample Holder SH200A with VisACH focusing lens
4. Calibration set
5. Si oxide test wafer (200nm)
6. TFC Companion -RA software
7. Power adapter and USB cable

Software options

-MOD	remote control (TCP) based on Modbus protocol
- CM	continuous measurement with specified number of measurement and/or delay between them

Distribution in the UK & Ireland



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