



MProbe UVVisF

Thin Film Measurement System

It is easy to be an expert with MProbe

MProbe UVVisF is similar to MProbe UVVisSR system but uses Xe flash lamp instead of Deuterium+TH lamp. This means there is more light in the UV and lamp lifetime is very long (>10000 hrs at 20Hz). This system is particularly well suited for measuring thin films and for production, inline/insitu applications.

Thickness Range: 1 nm - 5 μ m
Wavelength Range: 200nm -1000 nm

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

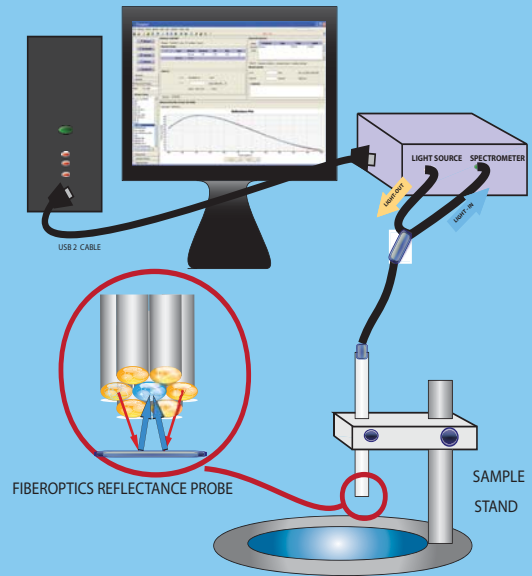
Real time measurement and analysis. Multi-layer, thin, freestanding and nonuniform layers.

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

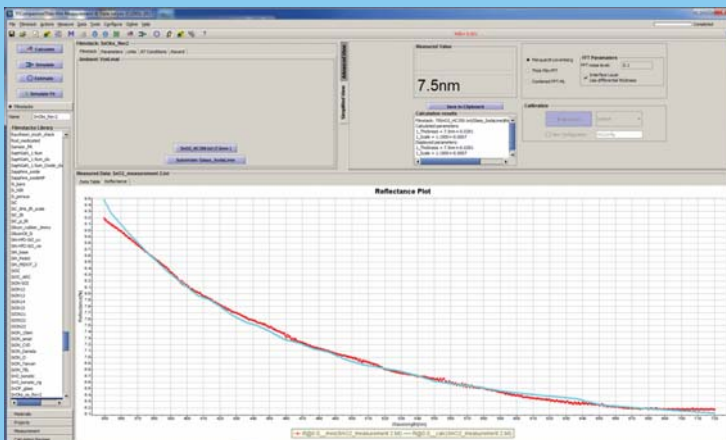
Measurement: thickness, optical constants, surface roughness

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.

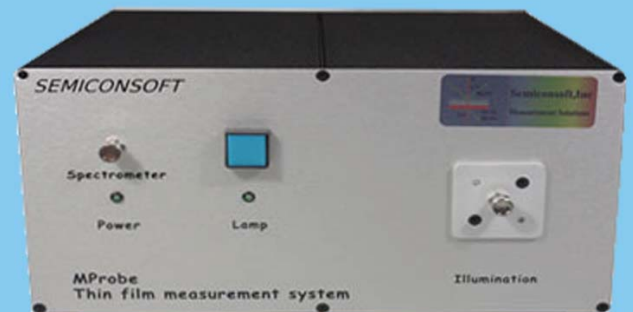


MProbe system diagram (desktop configuration)

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

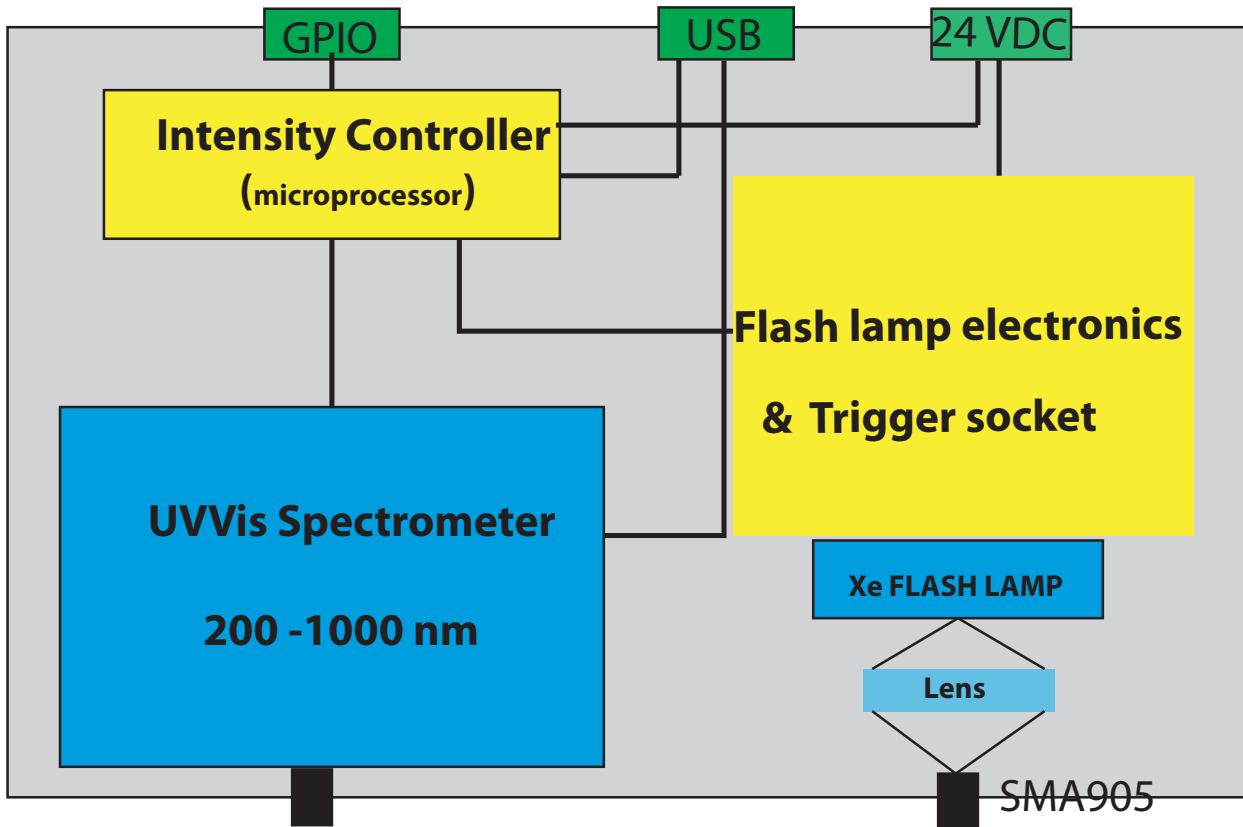


Measurement of a 7 nm tin oxide film on floated glass: measurement vs. modeled data



MProbe UVVisF system (main unit)

Specification details



Spectral range (nm)	200-1000
Spectrometer/detector	F4 spectrometer, 2048 pixels Si CCD, 16 bit ADC, 200-1000 nm range
Spectral resolution	<2 nm
Light source	10W Xe flash lamp
Reflectance probe	Fiberoptics (7 fibers assembly), 400 μ m fiber core solarization resistant.
Precision	<0.01 nm or 0.01%
Accuracy	<1nm or 0.2%
Weight (main unit)	5 kg
Size (main unit)	8"x 10" x 6" (WxDxH)
Power	100-250VAC, 50/60 Hz 20W

Options	
-20W	20W Xe flash lamp instead of standard 10W lamp. Recommended for insitu and inline applications
-FLCUV	Adapter flange with two-axis adjustment and Quartz focusing lens. Use for optical port of the deposition chamber
-TO	Transmittance option
- MOD	remote control (TCP) based on Mod-bus protocol
- PC	15" laptop with Windows 7/10 and all software preloaded and configured with the system

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