



# 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 (>20000 hrs at 10Hz). This system is particularly well suited for measuring thin films and for production inline/insitu applications.

**Thickness Range: 1 nm - 20 μm**  
**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.

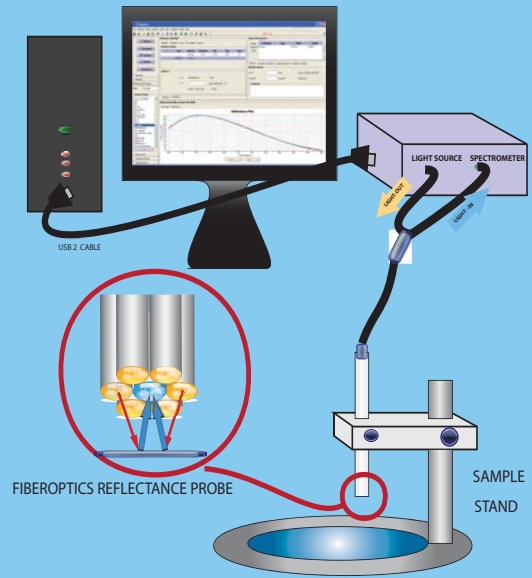
**Real time measurement and analysis.** Multi-layer, thin, free-standing and nonuniform layers.

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

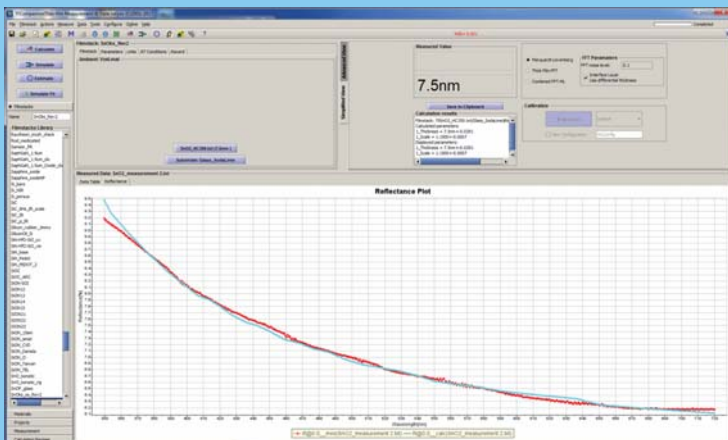
**Flexible:** Desktop or in-situ, R&D on inline. Easy integration with external system using TCP Modbus interface

**Measurement:** thickness, optical constants, surface roughness

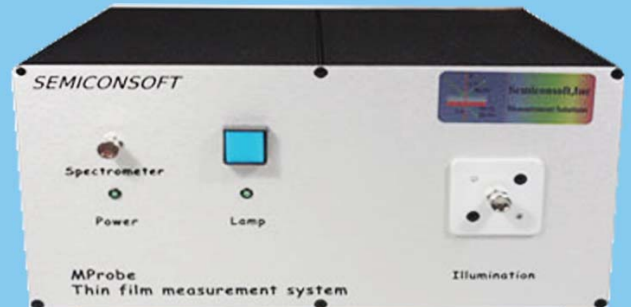
**User friendly and powerful:** One-click measurement and analysis. Powerful tools: simulation & sensitivity, background and scaling correction, linked layers and materials, multisample measurements, dynamic measurement and production batch processing.



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 μm (MSP)
Sample Size	from 1 mm

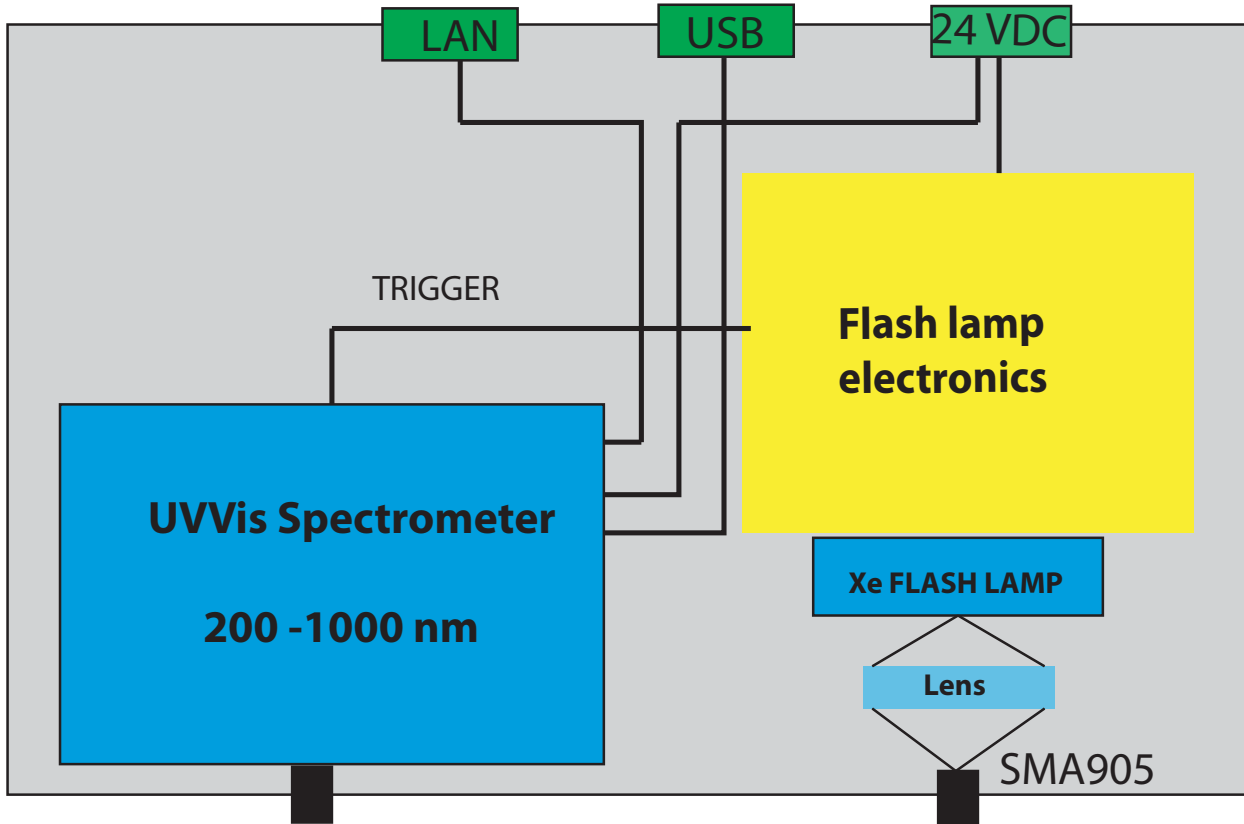


Measurement of a 7 nm tin oxide film on floated glass: measurement vs. modeled data



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	20W Xe flash lamp
Reflectance probe	Fiberoptics (7 fibers assembly), 400 $\mu$ 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)	9"x 12" x 6" (WxDxH)
Power	100-250VAC, 50/60 Hz 20W

Options	
-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 10 and all software preloaded and configured with the system

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Thin -film solutions: instruments, software  
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