Semiconsoft, Inc
Measurement Solutions

MProbe® UVVISNIR
Thin Film Measurement System
It is easy to be an expert with MProbe

MProbe UVVisNIR is flexible modular system with separate UVVis and NIR modules that can be used independently or together. Optional transmittacne accessory can be used for transmittance measurement

Thickness Range: 1 nm - 150 μm
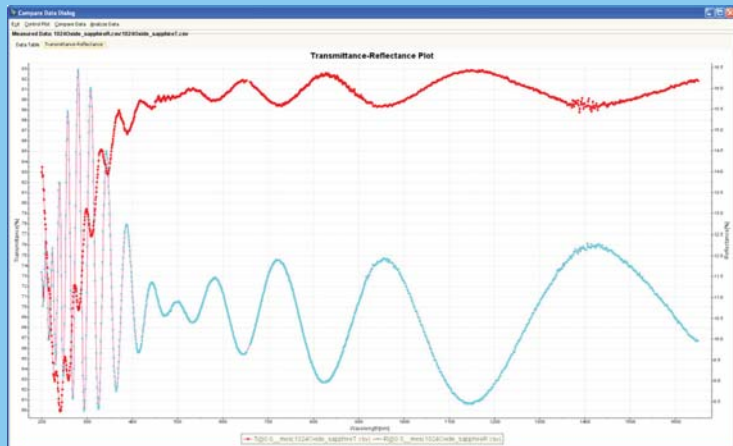**Wavelength Range: 200nm -1700nm**
Spot size: 0.5 mm

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

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

Measurement parameters: thickness, optical constants, surface roughness. Unlimited number of layers. Reflectance and transmittance (optional) spectra

User friedly 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.

common end

focusing lens

NIR "read"

NIR illumination

UV "read"

Deuterium Lamp (UV light)

Halogen Lamp (Vis light)

UV illumination

Reflectance and transmittance measurement 1 μm oxide on sapphire slide (200-1700nm wavelength range)
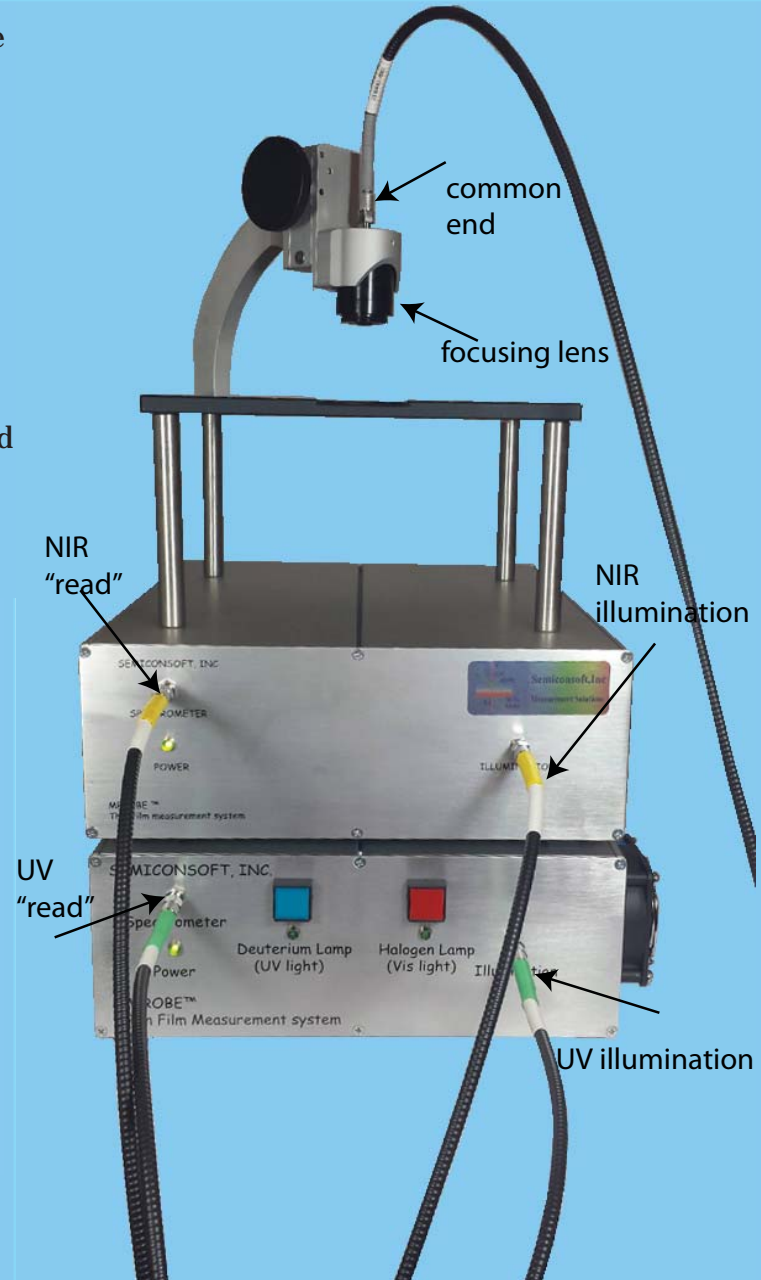
Precision	<0.1nm or 0.1%
Accuracy	<0.2% or 1 nm
Stability	<0.2nm or 0.3%
Spot Size	0.5 mm
Sample Size	from 5 mm to 200mm x 200 mm

Clean room class 1000 design

Basic Options/ Specification

Option	Description	Comments
-MXY[6", 8" or 12"]	Motorized XY stage 6" x6" (150mm), 8"x8" (200mm) or 12x12"(300mm).Solid aluminun platform. Stepper motors copntroller and software support for mapping is included. 0.5 μm step size, +-1 μm repeatability	see Mapping brochure for details
-TO	Transmittance measurement configuration. Includes: transmittance accessory for SH200A stage, UV/NIR mixed bi-furcated fiberotpics cable, quartz collimators	
-PC	15" Dell laptop with minimum specification: dual-core CPU (Intel i5), 2GB RAM, 500GB HD, W@ indows 7/10 64 bits. All software installed and configured with the system	

Included in the Box:

1. MProbe UVVis and NIR main units
2. UV/NIR mixed reflectance probe (5 legs)
3. SH200A stage with UV Quartz focusing lens
4. Calibration set (Si wafer/ black pad and Al mirror)
5. 200 nm oxide test wafer
6. TFCompanion -RA software
7. Power adapters and USB cables
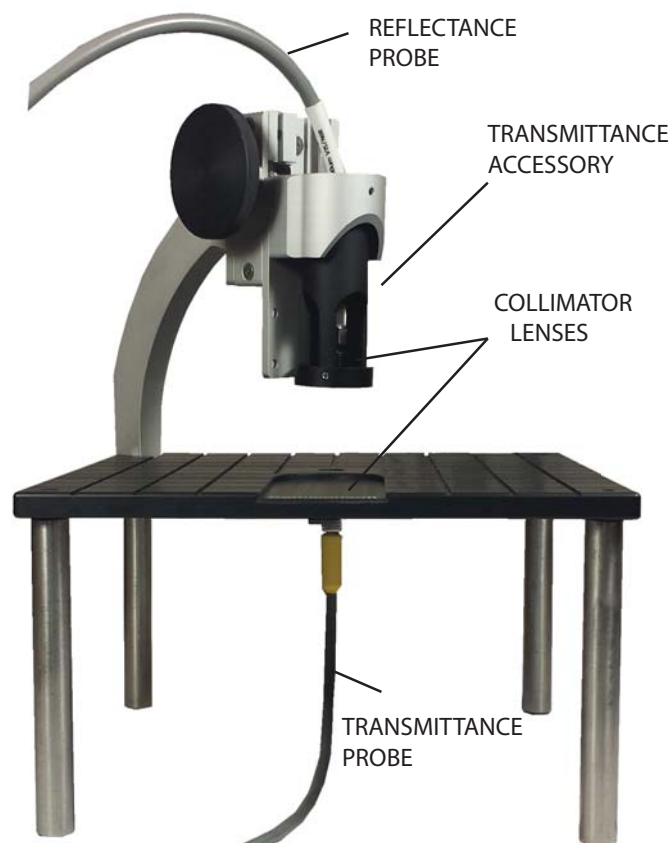
SH200A stage with transmittance (-TO) accessor installed instead of the reflectance configuration