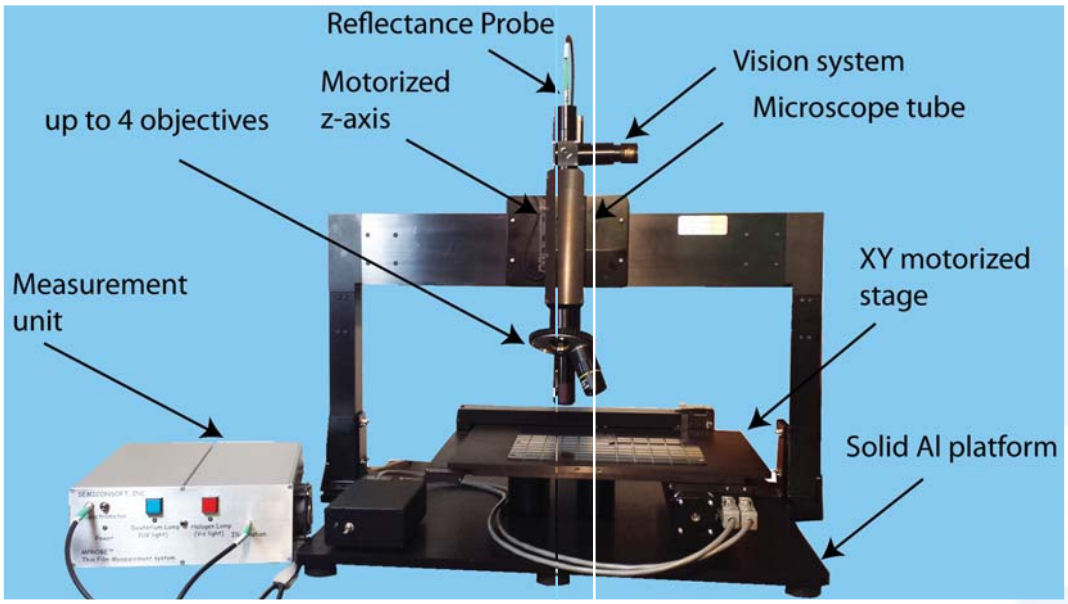
MProbe® 60 (MAP-MSP)

Thin Film Measurement System

It is easy to be an expert with MProbe



MPROBE 60 MAP-MSP DESKTOP SYSTEM FOR R&D LAB AND PRODUCTION
Thickness Range: 1 nm - 2 mm, Wavelength Range: 200nm -1700nm
Measurement spot size: 200μm to 2 μm

Thickness ranges for standard MProbe configurations
(R.I. dependent)

Extensive materials library (500+ materials) - new materials easily added. Support of parameterized materials: Cauchy, Tauc-Lorentz, Cody-Lorentz, EMA and many more...
Measured parameters: thickness, optical constants, surface roughness. Unlimited number of layers.
User friedly and powerful: One-click measurement. Powerful tools for offline analysis: simulation & sensitivity, background and scaling correction,linked layers and materials, production batch processing.
Real-Time measurement/data display, 3D/2D mapping chart, offline data analysis, fast measurement
Up to 4KHz burst data acquisition mode is available for Vis and UVVis models

Precision	<0.1nm or 0.01% (0.01nm for UV systems)
Accuracy	<0.2% or 1 nm
Stability	<0.2nm or 0.3%
Spot Size	200 μm to 2 μm
Sample Size	up to 300mm x 300mm
Objectives	APO 95 parfocal, long WD (15mm to 35mm, depending on objective) 2x, 5x, 10x, 20x, 50x and 100x objectives for various wavelength ranges are available
Z-axis	Motorized (stepper motor) Z-axis,0.5 μm step, 30 mm movement range

Clean room class 1000 design available

Basic Options/ Specifi cation

Option	Description	Comments
-MXY[6,8,12]	Motorized XY stage 6" x6" (150 mm)/ 8"x8" (200 mm)/ 12x12"(300 mm). Controller and software support for mapping is included. 0.5 µm step size, +-1 µm repeatability	
-ENC	System enclosure with interlocks, power and EVO stop button	for industrial applications and clean room environment
-VS	Vision system: includes 2MP camera and microscope adapter/beamsplitter	Review measurement area before and during measurement
APO VIS objectives	Following APO, 95mm parfocal objectives for visible range(400-1000 nm) are available: 5x,10x, 20x, 50x, 100X	LWD(working distance: 35mm-15mm)
APO VisNIR objectives	Following APO, 95mm parfocal objectives for visible range(400-1700 nm) are available: 5x,10x, 20x, 50x, 100x	LWD(working distance: 35mm-15mm)
UV-NIR objectives	All-reflective achromatic objective (200-2000nm wavelengh range), 95mm parfocal are available: 10x, 15x (long working distance 24mm to 31 mm)	LWD (working distance: 24mm-31mm)

Model	Wavelength range	Spectrometer/Detector/Light source	Thickness range
VISLX	400-1000 nm	Spectrometer F4/Si 2048 pixels/ TH light source	10 nm to 75 µm Prec. <0.01nm or 0.01%
UVVisSR	200-1000 nm	Spectrometer F4/ Si CCD 2048 pixels/ De & TH light source	1 nm to 75 µm Prec. <0.01nm or 0.01%
UVVisF	200 - 900nm	Spectrometer F4/ Si CCD 2048 pixels Xe flush lamp	1 nm - 5 µm Prec. <0.1nm or 0.01%
VISHR	700-1100 nm	HR Spectrometer F4/Si 2048 pixels/ Tungsten - Halogen light source	1 µm to 400 µm Prec. <0.1nm or 0.01%
NIR	900-1700nm	Spectrometer F4/512 pixels InGaAs/TH light source	50 nm to 100 µm Prec. <0.1nm or 0.01%
VISNIR	400-1700 nm	Spectrometer F4 Si CCD 3600 pixels(Vis channel);Spectrometer F4/512 InGaAs PDA(NIR channel) TH light source	10 nm to 100 µm Prec. <0.01nm or 0.01%
UVVISNIR	200 -1700 nm	Spectrometer F4 Si CCD 2048 pixels(UVVis channel);Spectrometer F4/512 InGaA (NIR channel), De & TH light source (optional high-intensity Xe short arc source for fast measurement)	1 nm - 100 µm Prec. <0.01nm or 0.01%
NIRHR	1530-1580nm	Spectrometer F4/512 pixels InGaAs/ SLD light source +optional 50W TH lamp for illumination	25 µm-2000 µm(quartz) 10 µm -1000 µm(Si) Prec. <10nm

Measurement principle: Optical spectroscopic reflectometer. Information is accurate as of March 2018. Specification and configurations are subject to change. Other configurations are available on request.
One year limited warranty on labor and materials for all systems.

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