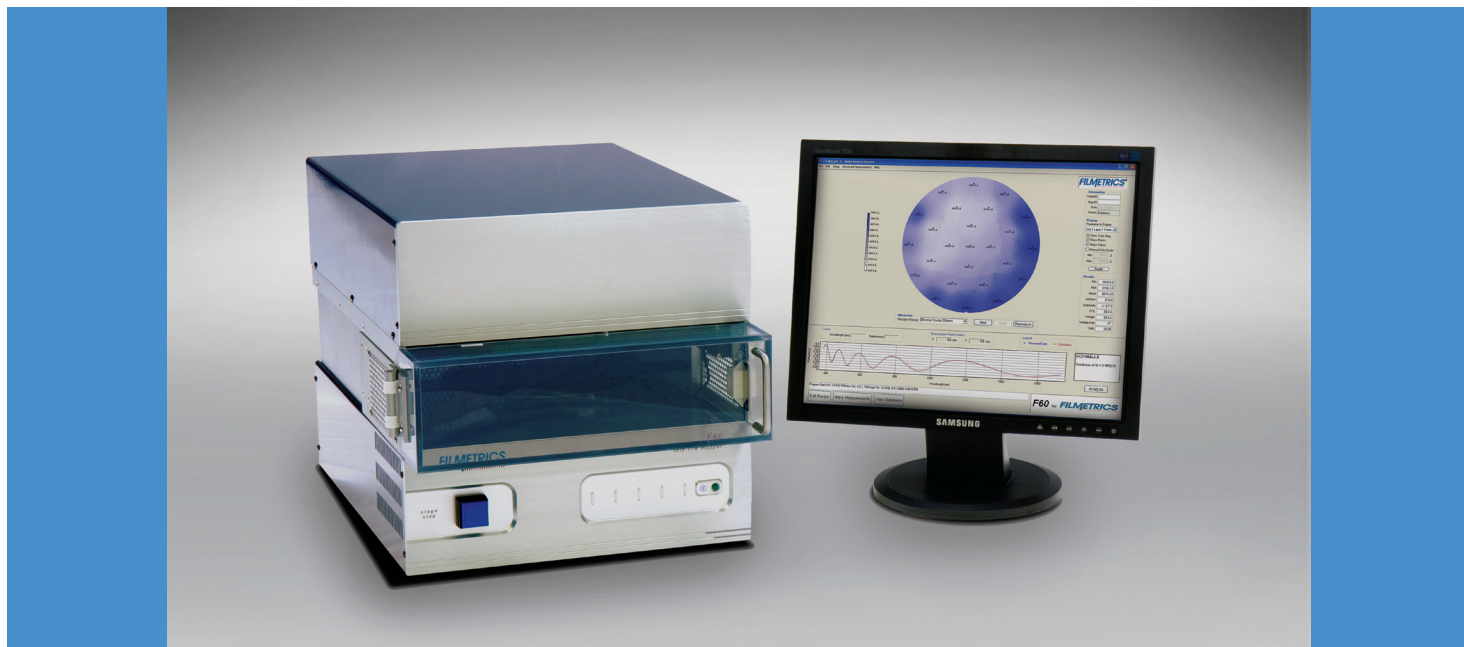


F60-t

Thin-Film Analyzer



The Filmetrics Advantage

- World's leader in tabletop thin-film measurement
- 24-hour phone, e-mail, and online support
- Intuitive analysis software standard with every system

Additional Features

- Built-in online diagnostics
- Standalone software included
- Sophisticated history function for saving, reproducing, and plotting results

Automated Thin-Film Thickness Mapping System

Thin-film thickness and n & k are mapped quickly and easily with the F60 advanced spectral reflectance system. The motorized R-Theta stage moves automatically to selected measurement points and provides thickness measurements in seconds. Choose one of the dozens of predefined polar, rectangular, or linear map patterns, or create your own with no limit on the number of measurement points. A typical 49-point map takes about 45 seconds.

Included are a number of features intended specifically for production environments, such as automatic notch finding, automatic on-board baselining, an enclosed measurement stage with motion interlock, and an industrial computer with pre-installed software.

Example Layers

Virtually any smooth, translucent, or lightly-absorbing film may be measured. Examples include:

SiO ₂	SiNX	DLC
Photoresist	Polymer layers	Polyimide
Polysilicon	Amorphous Silicon	Silicon

Applications

SEMICONDUCTOR FABRICATION

- Photoresist
- Oxides
- Nitride
- Polysilicon

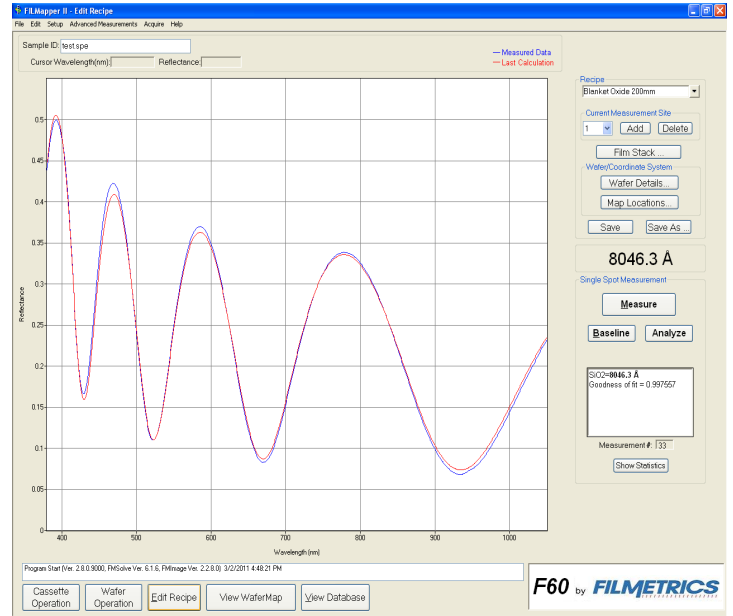
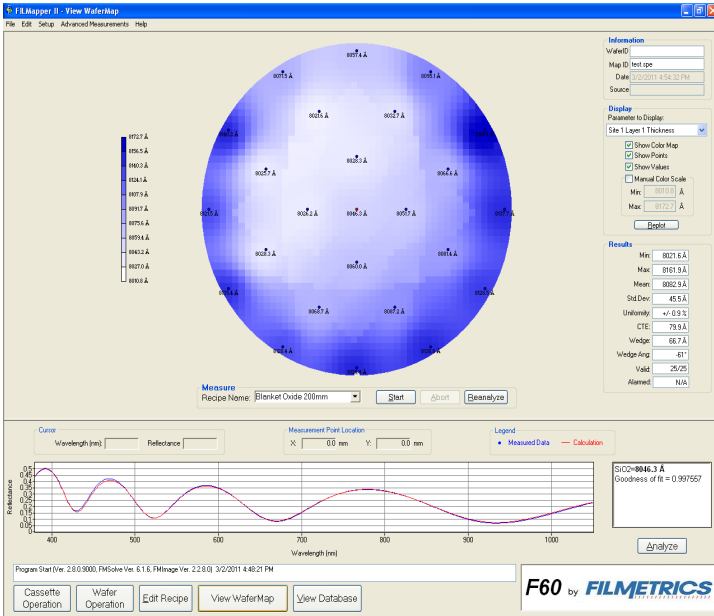
LIQUID CRYSTAL DISPLAYS

- Cell Gaps
- Polyimide

OPTICAL COATINGS

- Hardness Coatings
- Anti-Reflection Coating
- Filters

F60-t Thin-Film Analyzer



21 points in a 29-second cycle time

	F60-t-UV	F60-t-UVX	F60-t	F60-t-EXR	F60-t-NIR	F60-t-XT	F60-t-s1310
Thickness Measurement Range*:	5 nm - 40 µm	5 nm - 250 µm	20 nm - 70 µm	20 nm - 250 µm	100 nm - 250 µm	0.2 µm - 450 µm	7 µm - 2 mm
Min. Thickness to Measure n and k*:	50 nm	50 nm	100 nm	100 nm	500 nm	2 µm	100 µm
Wavelength Range:	190 - 1100 nm	190 - 1700 nm	380 - 1050 nm	380 - 1700 nm	950 - 1700 nm	1440 - 1690 nm	1280 - 1340 nm
Accuracy*: The greater of	0.2% or 1 nm	0.2% or 1 nm	0.2% or 2 nm	0.2% or 2 nm	0.4% or 3 nm	0.4% or 5 nm	0.4% or 50 nm
Precision:		0.02 nm ¹			0.1 nm ¹	1 nm ¹	5 nm ²
Stability:		0.05 nm ³			0.12 nm ³	1 nm ³	5 nm ⁴
Spot Size:	Standard 1.5 mm, optional down to 150 µm					600 µm	10 µm
Light Source Lamp MTBF:	D2: 2000 Hours Halogen: 1200 Hours			Halogen: 1200 Hours			SLED: >10 years

General

Wafer Handling: 2", 3", 100 mm, 150 mm, 200 mm, 300 mm

Power Requirements: 100-240 VAC, 50-60 Hz; Vacuum

Dimensions (cm): Measurement Station: 44L x 35W x 38H
Controller: 56L x 48W x 14H

Weight: Measurement Station: 23 kg (51 lbs)
Controller: 18 kg (39 lbs)

Operating System

PC (Supplied): Windows 7 (64-bit)

* Material dependent

¹ 1σ of 100 measurements of 500 nm SiO₂-on-Si. Average of 1σ over 20 successive days.

² 1σ of 100 measurements of 100 µm SiO₂-on-Si. Average of 1σ over 20 successive days.

³ 2σ of daily average of 100 measurements of 500 nm SiO₂-on-Si over 20 successive days.

⁴ 2σ of daily average of 100 measurements of 100 µm SiO₂-on-Si over 20 successive days.

⁵ Windows Vista – Latest Windows (64-bit) and a DirectX 10 graphics card required to render 3D wafer maps

FILMETRICS
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