格物光学
GOPTICA

Film thickness measuring instrument

Overview

Goptica small spot film measuring instrument and reflectance photometer are used for the rapid measurement of the surface optical reflectance, film thickness, and optical parameters (n&k) of sub-millimeter size devices (100 mm-500 μm). The thickness of a single-layer film and the optical parameters of the material can be obtained simultaneously within 0.1 seconds. This instrument can be used in various environments, such as laboratories, factory production lines and real-time measurements in the field.

Features

- **Small spot:** The measured spot diameter ranges from 100 μm to 500 μm
- **Fast speed measurement:** The single-point measurement time is less than 0.1 seconds
- **High precision:** Reflectivity accuracy 0.3%, film thickness accuracy 0.2nm
- **Wavelength range:** 350nm to 1000nm, 1000nm to 1700nm
- Compact and portable: Weighs 2.5 kilograms, connects to a computer via USB, and the software is easy to learn and use

Application

- **Optical coating:** Measurement of anti-reflection coating, high reflection coating and beam splitting coating for lenses
- **Medical devices:** Measurement of reflectance of endoscope lenses, cohesive para-xylene protective layers, and surface coatings of medical devices
- **Semiconductor manufacturing:** silicon dioxide (SiO2), silicon nitride (SiN4), ITO(indium tin oxide), organic light-emitting layer, polyimide (PI), photoresist thickness measurement
- **Solar cells:** Measurement of silicon nitride anti-reflection film and aluminum oxide passivation layer

Parameters

Parameters	Technical indicators
Measurement content	Reflectance, film thickness and optical constants(n&k)
Spot size	100 um, 200 um, 300 um, 500 um
Film thickness range	15 nm to 100 μm, accuracy is 0.2 nm
Measurement time	The single-point measurement time is less than 0.1 seconds
Spectral range	350nm-1000nm, 1000nm-1700nm
Sample size	1 mm-100 mm
Instrument weight	2.5kg
Instrument dimensions	29 x 23 x 22 cm
Data processing	USB data transmission, with supporting software Spectra_Sensor and Film_Analyzer
Operating system	Windows 10 and above systems
Power supply	100-240 VAC, 50160 Hz, 0.4 A

Shanghai Goptica Co.,Ltd
CHINA · SHANGHAI
www. goptica.com

Tel:: +86 150 0085 3620
Email: sales@goptica.com
Address: 2nd Floor, No. 46 Guokang Road, Yangpu District, Shanghai, 200433 PRC