

**1、Description：**

Incident lights with wavelengths range between 200-1700nm vertically shine on the surface of thin film, when transmittance of thin film happen, ATGX310 can utilize lights reflected via upper and lower boundaries of thin film to create an interference pattern superimposed, the spacing of the pattern’s sinusoidal waves, when combined with the refractive index of the material, can be used to calculate the thickness of the materials.

2、**What is the structure of Thin Film Measurement System?**

Thin Film Measurement System compose of Fiber Optic Spectrometer（ATP3010P）,R3 Measurement holder( R3）,Deuterium Halogen Light Sources（ATG1020）, Fiber collimator（FIBH-2-UV）, and UV fiber（FIB-600-UV



3、Features

**Specifications:**

**1. Optical system:**

Deuterium Halogen light source

Collimating mirror

Receiver：Optic fiber spectrometer

Wavelength：200-1100

Range measured：0-100%

**Technical parameters:**

Wavelength accuracy ±0.5nm

Wavelength repeat ≤0.2nm

Spectral bandwidth: 1nm

Stay light ≤0.05%

Transmittance accuracy ±0.5%

Transmittance repeat ≤0.5%

**Datasheet of Thin Film Measurement System:**

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| **ATGX310 specification** |
| **Item** | **ATGX310-VIS** | **ATGX310-XR** | **ATGX310-DUV** | **ATGX310-NIR** |
| Wavelength range | 400-850nm | 250-1060nm | 190-1100nm | 900-1700nm |
| Thick range | 50nm-20um | 10nm-100um | 1nm-100um | 100nm-250um |
| Thick resolution | 0.1nm | 0.1nm | 0.1nm | 0.1nm |
| repeatability | 0.3nm | 0.3nm | 0.3nm | 1.0nm |
| Incident angle | 90℃ |
| Film Layers | Up to10 layers |
| Sample materials | Transparent/semi-transparent |
| Modes Measured | Reflectance & Transmittance |
| Rough film thickness measured | Yes |
| Speed measured |  Minimum 1ms |
| Online | Y | Y | Y | Y |
| Light spot size | Standard: 200um or 400um |
| Customized: 100um |
| Microscope configured | Y |
| CCD imaging | Y |
| Scan options | 150mmX300mm | 150mmX300mm | 150mmX300mm | 150mmX300mm |
| Xy scan platform |
| Vacuum | Y |