

# 規格表

## 量測參數

量測項目	單層/多層膜厚度量測 光譜折射率/吸收率 (n&k) 值量測
波長範圍	320nm-800nm (其他波段可議)
厚度範圍	2nm-1000nm (搭配 FFT 方式可量測到 20um 厚度) 0.01-10 (所有透明或局部透明膜層)
反射&穿透精度	+/- 0.2%
厚度精度	+/- 0.5nm (範圍: 2nm-40nm) +/- 1.0nm (範圍: 40nm-200nm) +/- 2.0nm (範圍: 200nm-500nm)
厚度再現性	$3\sigma < 0.1\text{nm}$ +/- 0.2
折射率再現性	$3\sigma < 0.02\text{nm}$
量測速度	單層 < 1秒; 3層 < 5秒; n&k < 10秒

## 硬體

量測點尺寸	直徑 ~ 1mm (量測面至少大於直徑 2mm) 高度 +/- 2mm 以及 翹曲 +/- 0.6°
環境	溫度: 5°-45°C (50°-90°F), 濕度: < 90%
電源	AC 100~200 V; 50/60 Hz

# OLED: Offline and Inline Process Control

## Application

Process Control and Optimization of

- ITO-layers
- Organic layers
- Other layers

- ☑ Thickness measurement of single layers and stacks
- ☑ n&k measurement (spectral refractive index and absorption coefficient)
- ☑ Surface roughness compensation
- ☑ Optical modelling of dielectric layers, organic layers, ITO, metallic layer, ...



**Xelas LAB-oled**  
(offline, manual xy-table)

**Xelas SCAN-oled**  
(offline, motorized xy-table)

**Xelas INLINE-oled**  
(integration to vacuum coater)

## ➤ 4 steps for getting your coating process under control

### 1. Offline measurement

- for process development



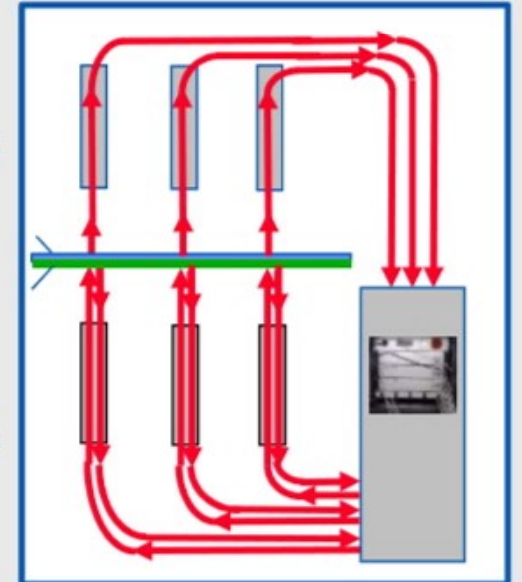
### 2. Inline Tooling

- with 1-channel Inline system
- saving huge amount of time



### 3. Monitoring and manual process control

- with multichannel Inline system
- by upgrade of Tooling system to Multichannel



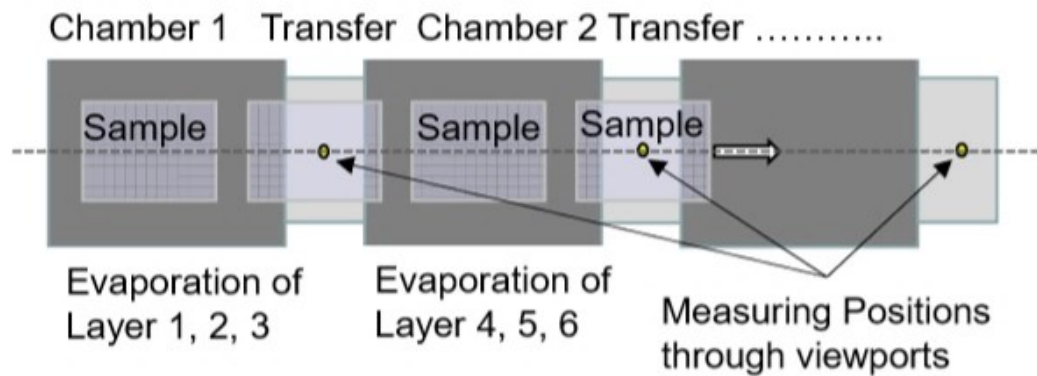
### 4. Closed-loop control

- with multichannel Inline system and PLC



# Preferred system integration: Through Viewports at Transfer Areas

## Inline type Coater



## Cluster type Coater

