

# 防焊 UV LED 曝光機

# c sun

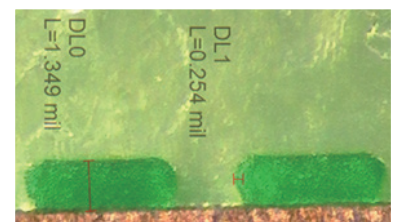
AUTO UV LED EXPOSURE SYSTEM FOR SOLDER MASK

UVE-A976



## 機台特點Characteristics

- 能透過通訊模式補償監控LED亮度品質  
Monitor and compensate LED brightness through communication module.
- 內建溫度模組，可隨時監控觀察LED板溫度  
Built-in temperature module. Monitor LED board temperature any time.
- LED光源模組化設計，方便保養更換，快速經濟  
Modularized design of LED light source. Easy maintenance and replacement.
- 能量自動校正與補償，均勻度可自動校正至90%以上  
Automatic energy calibration and compensation. Uniformity can be calibrated automatically up to 90%
- 多波段透過混波達到最佳解析，Undercut  $\leq 0.6\text{mil}$  (銅面上)  
Achieve the best resolution through mixed-multi-wavelength. Undercut  $\leq 0.6\text{mil}$  (on copper surface)
- 產速可達2~2.5片/分鐘  
Throughput: 2~2.5 panel/min
- 對位精度： $3\sigma \leq 10\mu\text{m}$   
Alignment accuracy:  $3\sigma \leq 10\mu\text{m}$



Leading in Thermal and UV Light Processing Equipment



## UVE-A976

**UV LED**

<b>適用範圍</b> Panel Dimension	電路板尺寸：254 × 304mm ~ 558.8 × 635mm 電路板厚：0.05mm ~ 3.2mm ( 0.002" x 0.12" ) 底片尺寸：610×685mm ( 24" × 27" )	<b>Panel size:</b> 254 × 304mm ~ 558.8 × 635mm (10" × 12" ~ 22" × 25") <b>Panel thickness:</b> 0.05mm ~ 3.2mm ( 0.002" x 0.12" ) <b>Film size:</b> 610×685mm ( 24" × 27" )
<b>光源系統</b> UV System	<b>曝光光源：</b> UV LED <b>平行半角：</b> <6° <b>均勻度：</b> ≥90% ( (Min/Max) × 100% ) <b>強度：</b> 120mw/cm <sup>2</sup> 以上 (三波長，365nm主波) <b>冷卻方式：</b> 水冷	<b>Light source:</b> UV LED <b>Collimation half Angle (CHA):</b> <6° <b>Uniformity:</b> ≥90% ( (Min/Max) × 100% ) <b>Average Intensity:</b> ≥120mW/cm <sup>2</sup> (Three-wavelength, with 365nm primary) <b>Cooling System:</b> Water cooling
<b>輸送系統</b> Panel Handling System	<b>進料裝置：</b> 白鐵滾輪傳送磁力輪 <b>輸送高度：</b> 1000 ±50mm <b>進料定位：</b> Panel 前緣及側邊二段置中定位 <b>移載裝置：</b> 線性馬達帶動Panel 四組 <b>吸板固定方式：</b> 真空吸嘴吸覆	<b>In-feed/Out-feed :</b> SUS roller conveying <b>Pass line height :</b> 1000 ±50mm from the floor <b>In feed panel pre-alignment :</b> Centering <b>Panel transfer :</b> Linear motor driven transfer carrier <b>Panel vacuum attachment :</b> Suction nozzle vacuum
<b>曝光方式</b> Exposure Method	電路板單面雙曝光 真空密著	<b>Exposure method :</b> Double side exposure.(One time for each side with flipping) <b>Vacuum contact method</b>
<b>控制系統</b> System Control Features	<b>控制器：</b> PLC + PC，人機介面 <b>故障檢修：</b> 螢幕顯示故障訊息和檢修步驟 <b>曝光控制：</b> 內建精密UV能量積算器 <b>燈源能量檢知：</b> 內建電壓、電流、功率和UV強度檢測器	<b>Control :</b> PLC + PC with touch screen <b>Trouble shooting:</b> On-screen trouble shooting information <b>Exposure control :</b> Build-in precision UV energy integrator <b>Lamp monitoring :</b> Build-in voltage, current, power, and UV intensity sensors
<b>對位系統</b> Alignment System	<b>對位方式：</b> CCD鏡頭，四靶標同時顯示 <b>底片固定方式：</b> 檯面玻璃底片真空吸附 <b>PCB固定方式：</b> 檯面Blower真空吸覆 <b>真空室吸真空：</b> -200~-500mmHg <b>對位精度：</b> 3σ < 10μm	<b>Alignment method :</b> four CCD alignment system <b>Artwork attachment :</b> Vacuum attached to upper <b>PCB attachment :</b> table blower vacuum <b>Vacuum pressure :</b> -200~-500mmHg <b>Alignment accuracy :</b> 3σ < 10μm
<b>產能</b> Capacity	機械動作14秒+曝光時間+真空延遲	<b>Mechanical motion time</b> 14 sec. + exposure time + vacuum delay time
<b>冷卻系統</b> Cooling System	<b>曝光室：</b> 強制氣冷式 <b>燈源冰水系統：</b> 內部循環水30L	<b>Exposure chamber :</b> Forced air <b>Cooling water system :</b> Internal circulation water 30L
<b>環境要求</b> Clean Room	潔淨室CLASS 5000 at 0.5 um 溫度22°C ±2°C，溼度55% ±5%	<b>Clean room CLASS 5000 at 0.5 um</b> <b>Temperature 2°C ±2°C; Humidity 55% ±5%</b>
<b>機台外型</b> Dimension	<b>外觀皆採SUS材質</b> <b>主機尺寸：</b> W5570 × D2955 × H2375 <b>環控箱尺寸：</b> W1380 × D750 × H1934 × 2 <b>重量：</b> 7000Kg	<b>SUS frame</b> <b>Dimension :</b> W5570 × D2955 × H2375 <b>Temp. control case :</b> W1380 × D750 × H1934 × 2 <b>Weight :</b> 7000Kg
<b>公用設備</b> Utilities	<b>電力需求：</b> AC220V，3Ø，50/60Hz，75A × 2 AC380V 3Ø 50/60HZ 50A×2 (電壓依客戶需求) <b>氣壓源：</b> >6 kgf/cm <sup>2</sup> 以上 <b>曝光室溫控用冰水：</b> 60~80L/min < 24°C <b>抽風系統：</b> Ø 6" 風管 × 4，排風量20CMM × 4	<b>Power :</b> AC220V, 3Ø, 50/60Hz, 75A × 2 or AC380V 3Ø 50/60HZ 50A×2 (various power supply choices available) <b>Compressed air :</b> >6 kgf/cm <sup>2</sup> <b>Expo. Room Temp. Control:</b> cooling water 60~80L/min <24°C <b>Ventilation system :</b> Ø6"x 4, 20CMM x 4

Due to C SUN continuing efforts to improve their systems, these specifications are subject to change without notice.  
 受長期研發需要，本公司保有規格修改之權利，恕不另行通知

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