增材制造

滚动扫描光机

Scrolling Optical Engine



采用UV LED或激光光源为照明光源，DLP芯片实现图像调制，利用双远心镜头实现在曝光面的高精度曝光，同时在光机连续运动过程中，输入不同的图像信息实现滚动曝光，适用于超大尺寸高精度曝光，也可采用多台拼接的方式，提高曝光效率，本产品可用于PCB线路和阻焊曝光，卷对卷曝光，泛半导体曝光，光伏镀铜曝光，3D打印等市场领域。

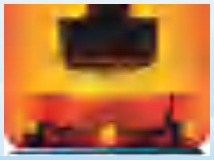
Equipped with UV LED or laser illumination and a DLP chip for image modulation, this light engine achieves high-precision exposure on the exposure surface via a telecentric lens pair. In the process of its continuous movement, input of different image information enables rolling exposure, making it ideal for ultra-large-format, high-precision exposure scenarios. Additionally, multi-unit splicing is available to boost exposure efficiency. The product serves a wide range of market fields including PCB circuit and solder mask exposure, roll-to-roll exposure, pan-semiconductor exposure, photovoltaic copper plating exposure and 3D printing.

产品特点

- 利用激光光源实现更高功率；
  Using laser light source to achive higher power;
- 激光与LED混波，输出波长365/385/405/435nm；
  Laser-LED hybrid output, with wavelengths of 365/385/405/435 nm;
- 激光光源光学扩展量小，成像景深大，对比度高；
  Laser light sources feature a small étendue, a large imaging depth of field, and high contrast;
- η™专利设计、结构紧凑、有利于多台拼接、实现更大尺寸和更高分辨；
  Patented η™ design and compact structure, which dedicate multiple image stitching to realize bigger image size and higher resolution;
- 重量轻，可实现 DLP光机的高速运动和快速曝光；
  Light weight enables DLP® optics engine to move fast and high production capacity;
- 调节各波长输出比例，可控制曝光光刻胶的侧壁形貌。
  Adjusting the output ratio of each wavelength allows control over the sidewall profile of the exposed photoresist.

应用场景

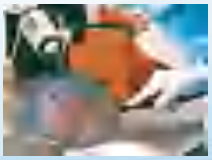
增材制造
Additive Manufacturing



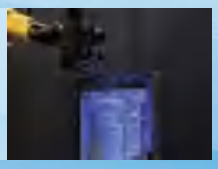
光刻/激光直写
Lithography/
Laser Direct Imaging



半导体先进封装
Semiconductor
Packaging Lithography



结构光三维扫描
Structured light three
dimensional scanning



微机电系统
MEMS Lithography



产品参数

DLP平台 DLP Platform	9500		
物理分辨率 Resolution	1920*1080		
光源 Light Source	LD:375/405nm	LED:365/385nm LD:405/425/435nm	LD:405/425/435/450nm
曝光面功率 Output Optical Power	≤30W	LED:3W～8W LD:30W～50W	405/425/435/450nm: 50W~100W
功率波动 Power Fluctuation	<1%		
照明 NA	NA0.024~0.12	NA0.12~0.18	
照明远心度 Illumination Telecentricity	<0.1°		
均匀性 Illumination Uniformity	>98%		
镜头倍率 Magnification	0.2~5	0.8~2.9(支持客户定制 Customized)	
工作模式 Working Mode	滚动扫描 Scrolling	静态/滚动扫描 Static/Scrolling	