增材制造

高分辨率光机

High-Resolution Light Engine



该光机产品是一款“科学级”的高性能光刻子系统。采用TI超高分辨率DLP芯片(DLP991U　UHD)成为高端显示、智能制造和前沿科学研究领域的核心器件。

This optical engine product is a "scientific-grade" high-performance lithography subsystem. Equipped with TI's ultra-high-resolution DLP chip (DLP991U UHD), it serves as a core component in fields such as high-end display, intelligent manufacturing, and cutting-edge scientific research.

产品特点

- 890万个独立像素，4096 x 2176超高分辨率，5.4 μm微反射镜；
  8.9 million independent pixels, 4096 x 2176 ultra-high resolution, 5.4 μm micromirrors;
- 高达 12.4kHz 的超高速帧率（二进制）；
  Ultra-high frame rate up to 12.4 kHz (binary);
- 400nm~800nm超宽波长光源兼容；
  Compatible with ultra-wide wavelength light sources ranging from 400 nm to 800 nm;
- 25μm超高精度下可实现多光机拼接。
  Multi-projector tiling achievable with 25 μm ultra-high precision.

应用场景

3D打印
3D Printing



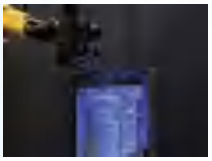
数字光刻
Digital Lithography



光谱分析
Spectral Analysis



结构光三维扫描
Structured light three dimensional scanning



产品参数

型号Model	LTP-dUHD-Lx	备注
技术平台Platform	DLP991U	
分辨率Resolution	4096x2176	
输出功率Output Power	0~50W	TBD
打印精度Printing Resolution	2μm~50μm	
打印画幅Image Size	8.2mm×4.3mm ~ 204.8mm x 108.8mm	可定制
对比度Contrast(ANSI)	>400:1	ANSI
均匀性Uniformity	>90%	(Typical 13 point)
畸变Distortion	<0.1%	
工作距离Working Distance	40mm~162mm	
通信接口I/O	USB3.0*1;Triggle in*1; Triggle out*1;	