

## POLYGON SCAN SYSTEM

### 转镜扫描系统

#### 产品简介

##### PRODUCT INTRODUCTION



思特光学校镜面扫描系统采用一维棱镜加一维振镜设计方案，无需外加运动轴即可实现二维面扫描。自主设计的高精度棱镜和高速直流无刷电机，匹配高性能数字驱动板，实现超高速度的同时保证高速度稳定性。扫描起始点检测模块可检测棱镜面的起始点，配合思特光学GMC控制卡和专用打标软件，简化客户系统集成的难度。

思特光学校镜面扫描头适用于各种高重频的皮秒、飞秒激光器以及高功率连续激光器等应用场景，可达到260米/秒的扫描速度，实现振镜无法比拟的加工效率。

Scanner Optics polygon scan system is designed with a one-dimensional polygon mirror and a one-dimensional galvanometer, which can realize two-dimensional surface scanning without a motion axis. Self-designed high-precision polygon mirror and high-speed brushless DC motor working with a high-performance digital driver board realize ultra-high-speed scanning while ensuring high-speed stability. The scanning starting point detection module can detect the starting point of polygon mirror surface, and it works with Scanner Optics GMC controller and special marking software to simplify the system integration for customers.

Scanner Optics polygon scan head is applicable to various application scenarios such as picosecond, femtosecond lasers with high repetition frequency and high-power continuous lasers. It can achieve a scanning speed of 260 m/s and an incomparable processing efficiency for galvanometers.

#### 产品特点

##### FEATURES



高速、高速度稳定性。  
High speed and high speed stability.



高激光功率。  
High laser power.



低漂移、高精度。  
Low drift and high precision.



模块化设计，易于集成。  
Modular design, and easy integration.

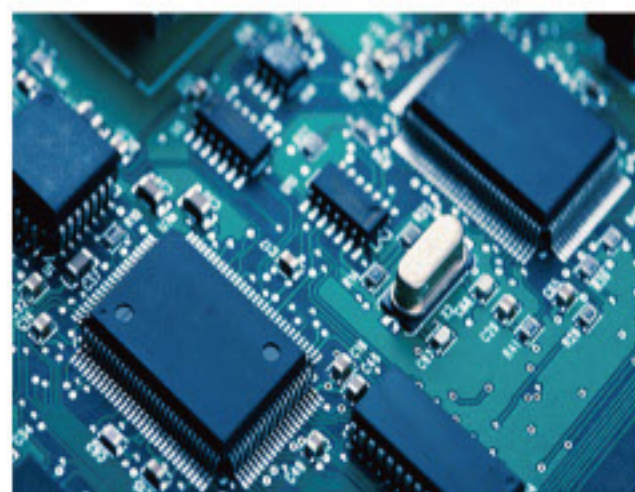


## 应用场景

### APPLICATION SCENARIOS



高速划线、飞行打标  
High speed marking  
Marking on the fly



PCB高速表面处理  
High-speed surface processing of PCB



高功率激光清洗  
High power laser cleaning



玻璃、塑料钻微孔  
Micro-drilling of glass and plastic

※以上图片来源于网络  
All the above pictures are from the Internet

## 技术参数

### TECHNICAL PARAMETERS

转镜扫描系统 Polygon Scan System		
入口光斑	Input Beam Aperture (mm)	≤15
波 长	Wavelength (nm)	355/532/1064
扫描速度(线/秒) <sup>①</sup>	Scan Speed (line/s)	150-5300
扫描线速度 <sup>①</sup>	Scanning Speed (m/s)	18-660
线重复定位-Y轴	Line Positioning Repeatability accuracy - Y axis (μrad)	±50
打标重复定位-X轴	Marking Positioning Repeatability accuracy - X axis (μrad)	±50
电源要求	Power Requirements	±15VDC@7Amax 48VDC@10Amax
扫描角度 <sup>②</sup>	Scan Angle (°)	±14 (X轴axis) , ±14 (Y轴axis)
工作温度	Operating Temperature (°C)	25±10

注：① 使用焦距F=255mm的场镜测试 Test using F-theta lens with focal length F=255mm

② 以上角度均为光学角度 All angles above are optical angles

## 外形尺寸图

### TECHNICAL DRAWING

