RedStone XP™

Show Your Best Every Time

mks | ESI

Higher throughput. Industry-leading power monitoring and control. ESI quality.

The RedStone XP™ system adopts proven design innovations from our premier products to deliver the ideal FPC processing solution for job shops facing significant product mix uncertainty. Process blind and through vias, rout and skive coverlay and thin printed circuit boards at high speeds and yields using ESI's compound beam positioning and patented Precision Pulse™ technology. With the added assurance of energy traceability and closed-loop power control that Precision Pulse™ provides, RedStone XP is a low-risk investment.

Enhanced Productivity

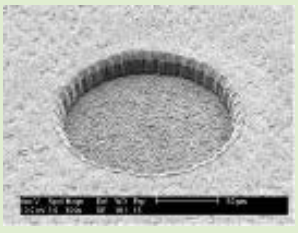
With RedStone's high frequency laser technology and the 5335's real-time power control capability, RedStone XP achieves high productivity at low cost for a larger range of applications.

High yields and high quality through Precision Pulse™ power control

Reduce your yield loss even for challenging depth-limited processes using ESI's industry-leading Precision Pulse™ power control. This feature continuously measures and adjusts the laser energy to the work surface material to ensure robust process quality every time.

Trusted yields, trusted partner

RedStone XP applies ESI's decades of laser-material interaction expertise to provide higher performance. This enables FPC manufacturers to drill high-density designs with an increased yield—while limiting incidental damage.



Confident processing of high-quality vias, with the best UV nsec routing on market

- High-quality blind vias
- High-power, high-frequency laser for maximum rout speed and quality

RedStone XP™

Show Your Best Every Time

mks | ESI

Laser	
Type	Nanosecond UV laser
Pulse Rate	100-300 kHz
Laser Output Power	20W @ 100kHz

Laser Beam Positioning	
Type	Cross-axis brushless linear motor with digital galvanometer (Laser beam moves in XY, part moves in Y axis)
Panel Size	533 mm x 635 mm
Accuracy	± 20 µm over entire panel area
Maximum Average Velocity	500 mm/s
Peak Move Speed	2,000 points per second
Controller	ESI Custom DSP based controller

Programmable Z Stage	
Resolution	1 µm
Maximum Average Velocity	>10 mm/s
Repeatability	± 10 µm
Travel	25 mm

Automatic Alignment and Illumination	
Coarse Camera Field of View	30 mm diagonal
Fine Camera Field of View	2 mm diagonal
Detection Device	CCD, monochrome
Illumination	LED

Computer Interface	
Computer	Windows on Intel CPU with dual 500GB hard drives in RAID1 configuration.
Network Capability	TCP/IP, 10/100/1000GBE
Drill File Formats	DXF, ASCII, Excellon I and II, Sieb & Meier and Gerber using esiCAM software.

Automation Capability

Software, mechanical and electrical interfaces provide the capability to attach web and panel material handlers to the system.

Ask an Expert! For facilities guidelines, requirements or more information, please contact your local MKS representative or visit www.esi.com.

mks | ESI