

Geode™ G2



Next generation Geode™

PCB laser drill has arrived



HDI



mSAP



Increased productivity – Up to 65% faster

Improved accuracy – 8 - 10 μm M + 4 sigma

Improved calibration – Beam Characterization Tool

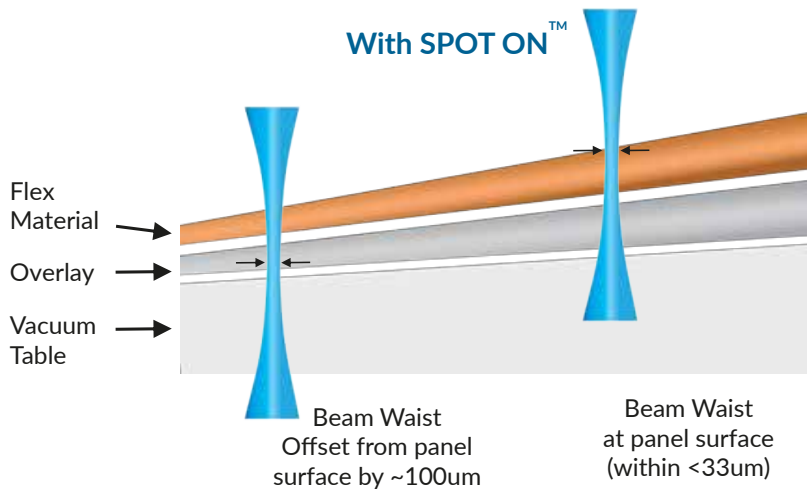
Higher uptime – Improved serviceability

Factory automation – SECS/GEM



Increase via drilling operational performance with CapStone's SPOT ON™ feature upgrade:

- Higher Yield by reducing common via quality issues
- Reduced impact of fleet and lot variability
- Reduced downtime with spot quality measurement for improved service planning



SPOT ON™ measures table, overlay, and material height fluctuations.

System automatically compensates for measured fluctuations.

RedStone XP™



Show your best every time



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

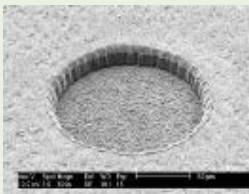
With RedStone's high frequency laser technology and the 5335's real-time power control capability, RedStone XP achieves high productivity at low cost for a larger range of applications.

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 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

The right laser for the right application



Reliability. Accuracy. Ease-of-use. All at a low cost of ownership.

The RedStone™ system delivers an optimized FPC manufacturing solution, pairing the appropriate laser and laser control capabilities to efficiently address applications that require more powerful processing capability or more repetitions and a lower cost-of-ownership. The RedStone system is engineered to deliver a robust process flow while delivering high yield, and is especially well suited to large-format UV laser processing of panels and roll-to-roll webs.



Reliability

Rest assured that your RedStone system will stay productive with high uptime. RedStone shares over 90% of components in common with the flagship ESI models 5335™ and GemStone™ that are in high-volume 24/7 production at the world's top flex circuit manufacturers.

Accuracy

Don't sacrifice accuracy to meet your cost of ownership targets. The RedStone system benefits from the same accurate frame, precision engineering, and alignment and scaling mechanisms at ESI's top-tier flex drilling systems.

Depaneling

RedStone utilizes a high-repetition-rate / high-average-power laser that is well suited to applications such as through hole drilling and through cutting. The laser minimizes heat affected zones to deliver higher quality cutting with minimal risk of degradation to the material.



Ideal for applications requiring large process windows.

Large process window applications examples include through-cut routing, through via applications, and the removal of easily-ablated materials from a durable substrate. Applications such as these can best utilize the RedStone system's high-accuracy, high-throughput capabilities while ensuring high process yield.