

Streamline's Yag Laser μ VIA Leading the way in high quality, high productivity via formation

Streamline Circuits continues to reinvest in equipment for high speed, cost effective manufacturing with high density Printed Circuit Boards. With more detailed boards and faster turn expectancies, PCB manufacturers are constantly challenged to upgrade equipment to meet growing demand. Streamline Circuits is proud to currently use five state of the art lasers on their manufacturing floor. One of which is a CO2 laser and four of which are Yag lasers. The [ESI 5220](#) being the most powerful with the highest repetition rate of up to 30kHz.

These lasers can be utilized in all materials currently in the PWB market. The Yag lasers burn holes to create vias as small as 1 mil to as large as 10 mil that require no additional copper etching steps and are ready to begin plating process. The ESI 5200 alone can produce over 20,000 vias per minute in single-layer laminated materials of up to 21" x 25". These are also at

continuous rates, not burst rates between time – consuming beam stepping. Furthermore, Streamline manufactures do not have to worry about extra cleaning steps thanks to the short wavelength and low average power of the laser resulting in the machine not burning organic board materials and leaving very little carbon residue. Not only does this make for very high productivity and very low maintenance it also allows Streamline to offer copper filled via technology instead of epoxy filled vias for via in pad technology. This will lower overall manufacturing costs and speed up the manufacturing turn times without jeopardizing quality.

Easy set up, installation, and overall operation are also positive features of the lasers. The PC compatible system requires only a low power single phase line output, and no water or gas supplies. They are diode-pumped and hold a minimum of 32 Mbytes memory offering superior reliability and ease-of-use. The result is a micro-via formation juggernaut that also maintains user-friendly operation and a low running cost.



Streamline Circuits is a leading manufacturer of high quality Printed Circuit Boards offering Rigid, Rigid Flex and Multilayer Flex. We are committed to providing our customers the most advanced technology, quality and engineering support available. Streamline's customers take advantage of these highly valued resources to develop a cost effective product in a time sensitive manner. These capabilities are critical for today's technology driven customers. Streamline services communications, military & aerospace, industrial electronics, instrumentation and medical equipment markets, who need to get their quality products to market first.

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