MLAb

MLAb MONOLITHIC LASER ABLATION

MLAb TECHNOLOGY REVOLUTIONISES ADVANCED MICRO-MACHINING BY LEVERAGING ULTRA-FAST, ULTRA-SHORT PULSED LASERS.

MLAb performs cold laser ablation to define ultra-precise apertures and micro-features in a single-step controlled process. The system maintains micron-level accuracy and repeatability without inducing thermal distortion into the base material, eliminating constraints on feature size, spacing and geometry.

This technology displaces electroforming and other multi-stage methods with a digitally controlled, low-energy, chemical-free process with no environmental impact.

MLAb delivers the precision required for fine component geometries such as 006003 and supports the fabrication of advanced semiconductor packaging, micro-LED, ball drop and cap stencil applications.

Integrated closed-loop process control ensures dimensional stability and process consistency, while advanced AOI and high-accuracy depth measurement provide continuous verification for repeatable, production-grade results.

WATT LASER

MLAb

MONOLITHIC LASER ABLATION

Laser Source	Ultra-Short Pulsed Fibre Laser
Laser Wavelength	1030nm
Max Frame Size	736mm
Max Single Pulse Energy	40µJ
Aperture Size (min)	40µm
Foil Thickness (min)	10µm
Gap Between Apertures (min)	15µm
Focused Laser Beam Diameter	25µm
Positional Resolution	±0.1µm
Repeated Positioning Accuracy	±2µm

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