

# Supply Chain Explorer: Maskless lithography equipment

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## Maskless lithography equipment

Maskless lithography equipment draws patterns in a substrate using laser light, electrons, or ions. Unlike photolithography equipment, maskless lithography tools work without masks. This allows them to quickly and cheaply make new patterns, but slows down the process of drawing patterns into the wafer. As a result, maskless lithography tools can cost-effectively produce low-volume items like photomasks, but are ill-suited to mass chip production.

### Variants

- Electron-beam lithography tools
- Laser lithography tools

### Supplier countries (Variants)

- Germany
- Japan
- Sweden
- United States

### Notable supplier companies (Variants)

- Applied Materials - United States
- Heidelberg Instruments - Germany
- JEOL - Japan
- Mycronic - Sweden
- NuFlare - Japan
- Vistec - Germany