

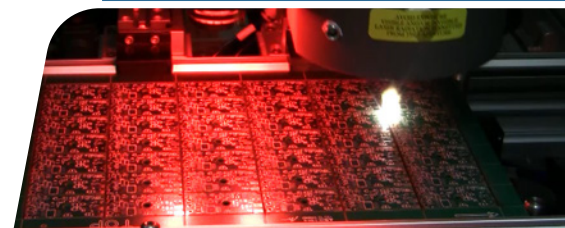
PCB Depaneling Systems

CO₂ & UV Laser Cutters

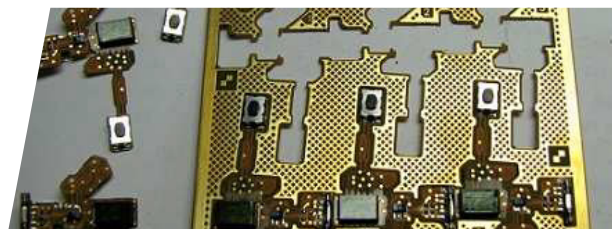
CMS Laser has successfully developed two types of laser depaneling systems that included an in-line conveyor and a semi-automatic manual load system. Either design can be integrated with a CO₂ or UV laser head depending on application requirements. Both designs include an integrated vision system, are CDRH Class I compliant, and use the CMS Programmable Process Engine software application.

Control Micro Systems has been an industry innovator in high speed CO₂ laser singulation and clean precise UV singulation. Our over 35-years of experience with laser systems makes us the best choice for your depaneling needs. We have a global install base and have worked with many companies to provide full production solutions. Our Applications Lab is the initial step in providing you with a solution to your manufacturing or research challenges. Most solutions can be determined with a standard no cost sample evaluation.

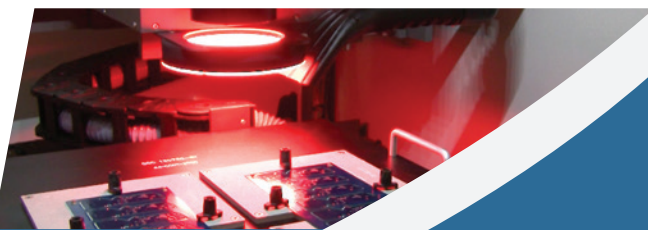
Send Samples for Free Testing!



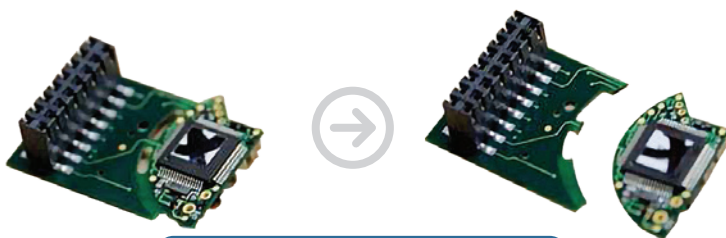
PCB DEPANELING/SINGULATION



ANY SIZED CIRCUIT BOARDS



MACHINE VISION



Clean, Precise, Repeatable Cuts

Control Micro Systems, Inc.

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PCB Depaneling

System Information

Advantages

- No mechanical stress on substrates or circuits
- Versatility - Ability to change applications by simply changing settings
- Fiducial recognition for more precise cuts
- Optical Recognition before PCB depaneling process begins
- Cut quality holding tolerances as small as < 50 microns.
- No design limitations
- Design with or without conveyor system for inline or standalone solutions

Overcoming Traditional Methods

Laser depaneling systems overcome traditional methods by offering greater precision, speed, accuracy, and eliminate mechanical stress to the PCB—resulting in high throughput.

Clean & Precise Cutting

Lasers make clean, burr-free and precise cuts against the edge of circuits and other important components—improving overall design flexibility without damaging the substrate. Because you don't have to reorder parts or sharpen bits and blades, laser systems are also more cost effective.

Optical Recognition

CMS Laser is one of the few companies to provide laser depaneling systems with optical recognition. If your panel isn't set correctly, this feature will stop the program from starting until the correction is made—reducing downtime, improving product quality and lowering your overall costs.



UV LASER DEPANELER

Manual Load/Unload
Through Optics Vision System



MANUAL LOAD/UNLOAD - UV LASER



CONVEYOR-BASED DEPANELING - CO₂

**Control Micro Systems is an industry leader in
PCB depaneling laser systems...**

Fast. Reliable. Flexible. Precise. Validated.

Control Micro Systems, Inc.

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