

Laser Depaneling Systems for PCBs

High-Precision Laser Cutting Solutions

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 1 compliant, and use the CMS Programmable Process Engine software application.

CMS Laser has been an industry innovator in high speed CO2 laser singulation and clean precise UV depaneling. Our 35-years of developing cutting solutions for PCBs makes us the best choice for your depaneling needs. Contact us today to learn more about our laser systems for PCBs.

SYSTEM FEATURES

- CDRH Class 1 laser cutting system
- CO2 or UV Laser source depending on applications lab results
- Depanel boards up to 20" x 18"
- Automatic board entrance/exit slots with safety interlocks
- Standalone or SMT line integration
- Welded steel frame with aluminum paneling
- Windows® operating system with CMS Laser HMI software

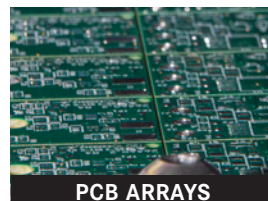


PCB Depaneling System with CO2 Laser

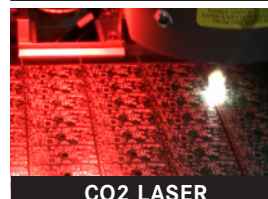
WATCH VIDEO



CO2 LASER SYSTEM

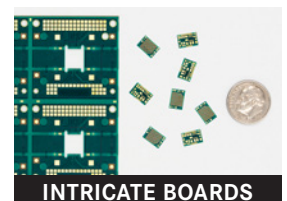


PCB ARRAYS



CO2 LASER

UV LASER SYSTEM



INTRICATE BOARDS



UV LASER



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 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 operation

Overcoming Traditional Methods

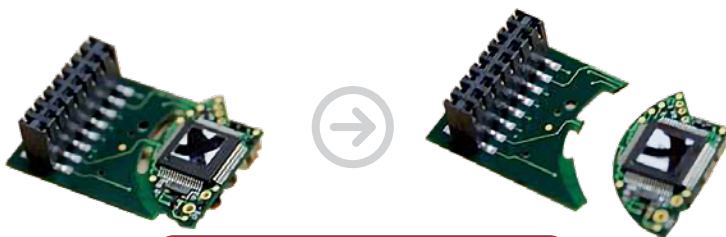
Laser depaneling systems overcome traditional methods by offering greater precision, speed, accuracy, and eliminating mechanical stress to the PCB—resulting in high throughput.

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 almost more cost effective.

Optical Recognition

Our PCB depaneling solutions utilize machine vision for optical recognition of board fiducials. 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.



Clean, Precise, Repeatable Cuts

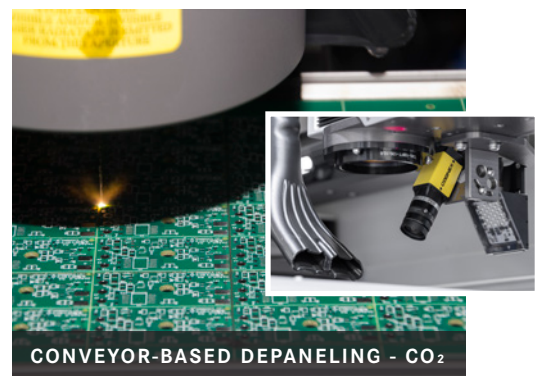


WATCH VIDEO



UV LASER DEPANELER

Manual Load/Unload
Through Optics Vision System



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CMS Laser follows a policy of continuous product improvement. Specifications and system design are subject to change without notice.



The CMS Laser Systems described in this brochure complies with the requirements of 21 CFR 1040.10 and 1040.11, except for deviations pursuant to laser notice No. 50 dated June 24, 2007. These systems are certified by Control Micro Systems as a Class I laser product or Class IV Compliance with 21 CFR and may be verified by contacting the Office of Compliance at the Center of Devices and Radiological Health. Copyright © 2022 Control Micro Systems, Inc.