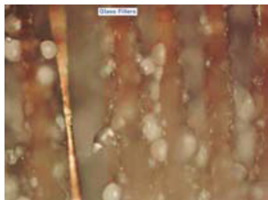
FALIT

Failure Analysis Laser Inspection Tool

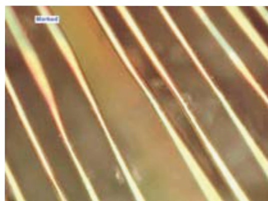
The Widest Range of Failure Analysis products available

Each model of our FA-LIT laser system has been carefully designed with a specific purpose in mind. After extensive processing of customer samples, we can effectively determine which FA-LIT laser system will produce the most successful results for your application. We'll even design a fully customized FA-LIT laser system to meet your individual needs if your application goes beyond the scope of our standard product.

New Safer Process for Copper (No Damage)



LARGE GLASS FILLERS



NEW REMOVAL PROCESS

We've recently developed an additional patent pending technique for removing the newer mold compounds associated with copper wire and bonds. This compound typically has larger fillers and more filler material making it difficult even for laser decapping. The greater laser power required to remove this new compound can sometimes damage very small wires or leave excess compound around the wires. Our new process totally eliminates this problem and can even enhance results on traditional mold compounds.

Gel Compound Removal (All the Way to the Die)

More and more ICs are using a clear gel to cover the die. These gels can not be removed with chemicals or even standard old methods of laser decapsulation. Our new developments have enabled us to cleanly remove gel all the way to the die with amazing results. Our methods allow for processing within seconds versus the usual hours and days when using acid.

PATENTED LASER TECHNOLOGY

United States 7,271,012

Japan 4,843,488
China ZL200480022971.0
Philippines 1-2006-500131
Europe 04778639.7 (pending)
Canada 2,532,959 (pending)
Korea 10-2006-7000841 (pending)

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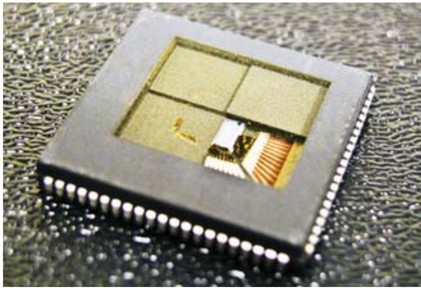
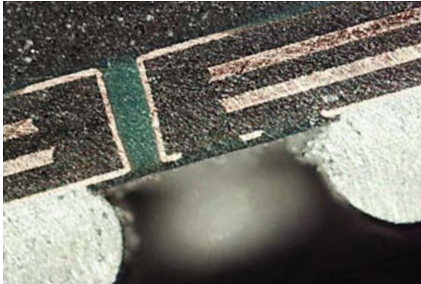


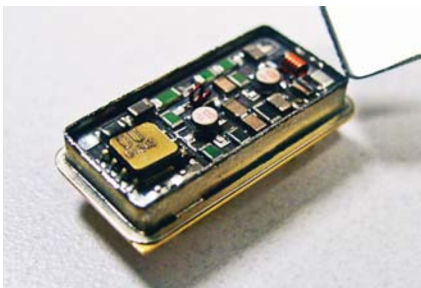
LAYER-BY-LAYER DECAPSULATION

Decapsulation is a process that most Failure Analysis labs use on a routine basis. The FA LIT uses our patented laser technology to allow an operator to remove individual layers of the mold compound all the way through the lead frames to the substrate. The entire process is 100% controllable by the operator through our Graphic User Interface. The FA LIT laser can accurately remove the entire compound, individual layers, or sections of the mold compound (operator defined). The FA LIT offers a safe and more accurate process for IC decapsulation.



CROSS-SECTIONING

Diamond saws and other mechanical methods of cross-sectioning put physical stress into a part. It is then difficult to determine whether the defect (such as delamination) was already there or caused by the process itself. Laser cutting presents no such problem. There is no mechanical force introduced with a laser. Therefore, cross-sections can be made much closer to the actual defect deminishing the polishing time or in many cases eliminating polishing altogether.



COMPONENT DELIDDING

Lids and covers over components that need to be analyzed have always been a problem in the Failure Analysis Lab. Mechanical micro routers can damage internal parts, require complicated fixturing, and even destroy samples. With the FA Laser this process is quick, simple, and successful. A Green laser (532nm) can be used to cut the top of a lid completely off. IR laser energy can be used to heat adhesive areas to easily remove covers. Delidding is one of our most successful unique features.

LIMITLESS CONFIGURATION OPTIONS

- Choose between Desktop or Standalone Models.
- Multiple Laser Types and Wavelengths available for processing each unique application.
- Dual laser systems capable of multifunctional Failure Analysis tasks.
- Cold plate option for processing sensitive materials by effectively controlling the part temperature.
- Various X/Y Table and part placement options available.

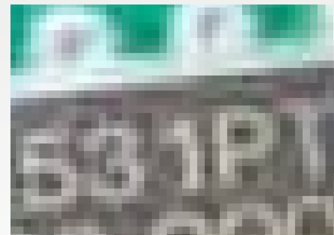
NEW FEATURES

Self Centering Part Fixture

Auto Focus: Automatically sets laser and vision focus to any part.

Auto Z Drop: Automatically drops laser focus as you process thicker ICs (Always in Focus system).

High Resolution Camera: With Digital Zoom for after process inspection, small feature isolation, and clearer sharper images.



Low Resolution
Out of focus. Image lacks the clarity needed for proper inspection results

High Resolution
Up-close image stays sharp and detailed for accurate inspection

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