



NanoLab Delivers!

'Package Deprocessing'

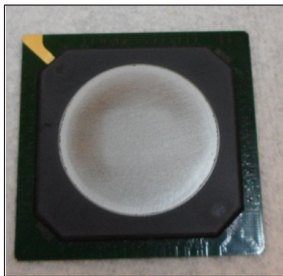
One-Stop
Physical & Electrical
FA Solution

**Analytical Services
On Demand**

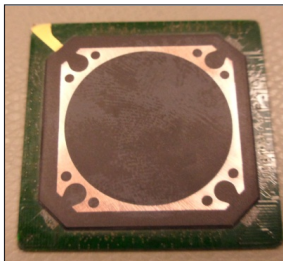
NanoLab's State-Of-The-Art 'Buehler'



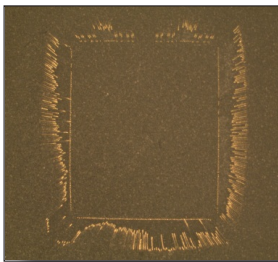
Packaged IC Device



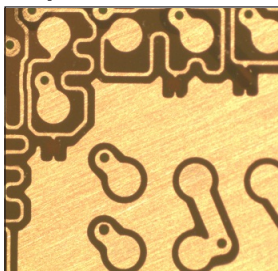
Embedded Heat Sink Removed



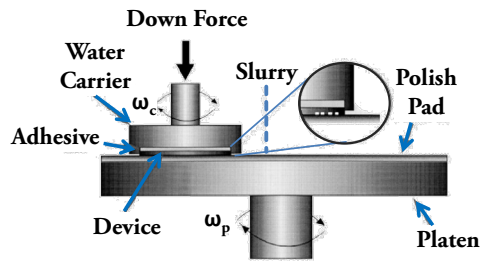
Visual Check For Electrical Breaks



Layer Inspection

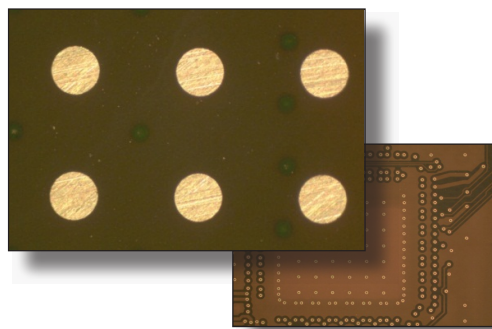


**Layer-by-Layer Parallel Polishing,
Solder Balls, Pads, Traces, Vias ...**



STRENGTHS / ADVANTAGES

- Quickly visualize die side or package opens and shorts
- Check for opens and shorts at each layer during deprocessing
- Package layout verification
- Spacing rules in package open to view
- Dendrite growths can be found
- Halos between traces are obvious
- Good unit can be a TDR reference sample



ROUTINE IMAGING AND ANALYSES

- High resolution optical microscopy
- SEM imaging with EDS for elemental composition
- Electrical verification of shorts and opens at each layer
- Compare to POR layout
- Specialty work? - Give us a call.

'Deprocessing' in a Nano-Nutshell

Remove Device From PCB
Separate Die & Package Electrically
Inspect Die Layer-by-Layer
Check Each Layer For
Electrical Opens And Shorts
Prepare Die For 2D/3D X-ray,
C-SAM Or SEM-EDS

GLOBAL USES

- Yield enhancement
- Dendrite growth detection
- Package design debug
- Problem solving
- Qualification failure
- Failure analysis
- Reverse engineering

APPLICATIONS

- Localizing shorts
- Localizing opens
- Measuring layout features
- Die removal from PCB
- Preparation for TDR
- Preparation for 2D/3D X-ray or acoustic imaging
- Many more - let's talk.

IMAGES and SPECTRA

- Hi res optical imaging
- FE-SEM imaging
- EDS spectra in atom %
- Specialty spectra - call us.

PACKAGE TREATMENTS

- As-received
- Advanced treatments - let us help with your special needs.

NanoLab Technologies, 1708 McCarthy Blvd, Milpitas,
California 95035 USA **Website:** www.nanolab1.com
E-mail: sales@nanolab1.com, Sales Tel: 1.408.433.3320

Free consultation by phone.

Work On-Site with us.
E-mail: FA-info@nanolab1.com