FOURTEENTH ANNUAL BiTS 2013 Burn-in & Test Strategies Workshop

Archive
Poster Session

Poster Sessions are a great way to multitask during a break, stretch your legs after a long session, and even network through interaction with the poster presenters and other curious attendees. This year's session offers a variety of relevant topics that augment what you'll learn sitting in the general sessions.

CSH Coating for High Temperature
Ichiro Fujishiro—Yamaichi Electronics

Top Side Probing on Handler
Shaul Lupo—Intel Israel

"Auto-Centering Manual Actuator" — One Manual Lid for Different Package Sizes Testing
Ying Hoe Mah, Shamal Mundiyath—JF Technology Berhad

Novel Approach Of Enabling Customer Shadow EPROM aka "EXTERNAL-EPROM" In HVM Environment
Maroon Maroon, Mouller Keren—Intel Corporation

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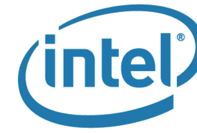
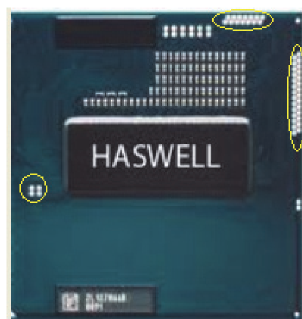


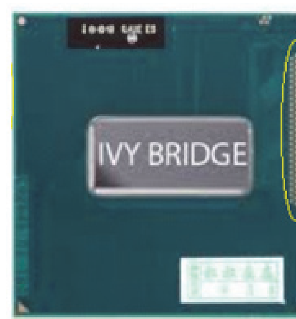
Top Side Probing on Handler

Shaul Lupo - Intel Israel

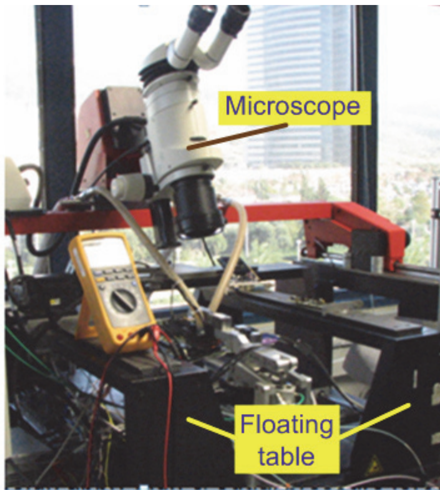
Background

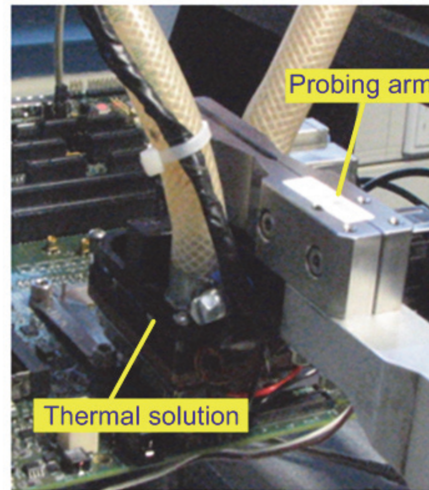
- Part of Intel products have pads on the package top side substrate (around the die), needed for debug activity. They used as a test points to measure differential high speed signals up to 10Ghz
- These signals can't be measured on the system board due to lack of microprocessor pins, difficult routing and signal integrity issues
- Top side probing on handler designed to enable the users to test the above signals on many units in a short time and thus get large statistics results
- This is a huge improvement comparing existing solutions where users need to work in a manual mode with a microscope & camera in order to test the substrate pads. This process is very slow and can be done on a small amount of units





Existing Solution:

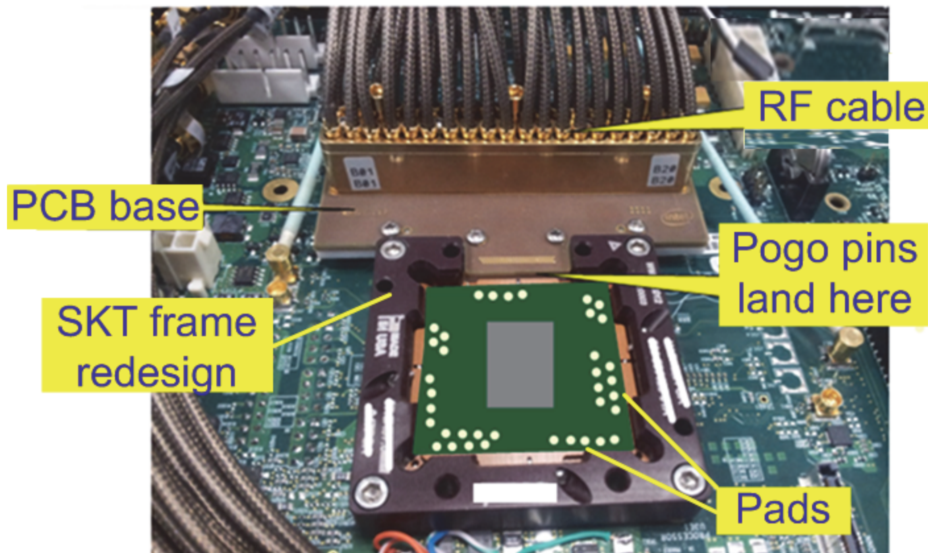




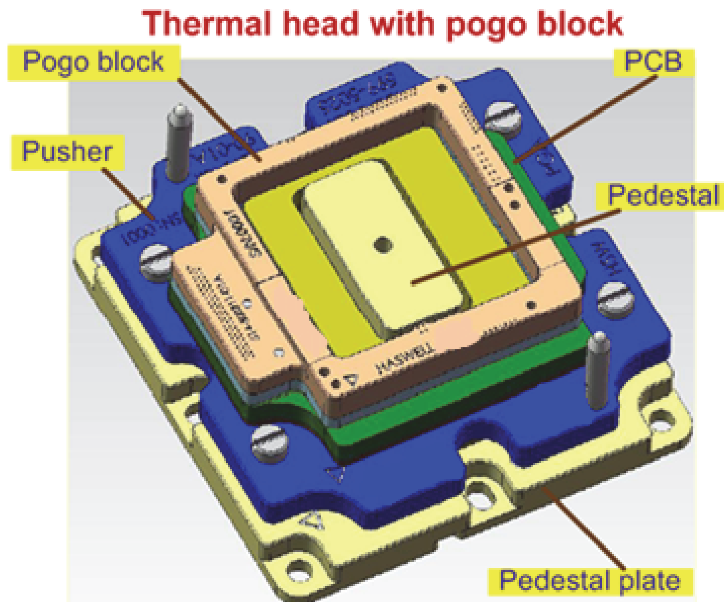
New Solution – Main Features:

- Pico probe test points are routed to a "big" test points at package edge through a special pogo block
- Test points are routed to an external PCB that is connected to RF cable and sampled by a scope
- Thermal head design apply high & equal pressure force on the package

Socket base + PCB + RF cable



Thermal head with pogo block



Results:

- Project implemented successfully at Intel on 4 projects
- Project saved a lot of technician hours and helped to get large statistics results on many units
- Results are accurate from unit to unit
- Testing showed no difference between results in manual mode VS. testing on handler