



# Burn-in & Test Socket Workshop

**IEEE**

**WELCOME**

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SOCIETY**

Sponsored By The IEEE Computer Society  
Test Technology Technical Council



**Burn-in & Test Socket  
Workshop**

## **2001 BITS COMMITTEE**

### **GENERAL CHAIR**

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IBM Microelectronics

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Lucent-Bell Labs

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**Alex Owen**

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**John Ambrosini**

Enplas-Tesco

**Owen Prillaman**

Yamaichi Electronics USA

### **PUBLICITY & PUBLICATIONS**

**Ariane Loranger, Chair**  
Loranger International Corp.

**Wray Johnson**

Texas Instruments



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## 2001 BiTS Workshop Overview

- **Welcome**
- **This is the 2nd Annual BiTS Workshop**
  - **200 Attendees at BiTS 2000**
  - **BiTS 2000 in the News:**
    - ✓ **Article in Electronic News - "Connect With Fleck"**
    - ✓ **Article in "Final Test Report"**
  - **Expanded Program**
  - **Feedback & Suggestions are Encouraged**



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## **2001 BiTS Workshop Overview**

- **Informal and Casual Throughout All Sessions and Activities**
- **After Dinner Sessions**
  - **Panel Discussion - Sunday**
  - **Guest Speaker - Monday**
  - **Special Surprise - Tuesday**



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## BiTS 'In The News'

Electronic News - 4/24/2000  
"Connect With Fleck"  
'Desert Burn-in'  
by Bob Million

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CONNECT WITH FLECK: April 24, 2000


### Connect with Fleck

#### Desert Burn-In

By Bob Million

It finally happened – for the first time a meeting occurred between IC and packaging manufacturers, test and burn-in socket suppliers, burn-in board manufacturers, burn-in oven system providers, and even automated test equipment and IC handler manufacturers. More than 200 attendees met at the Hilton Mesa Pavilion Hotel in Arizona recently to discuss mutual concerns at BITS 2000, a Burn-In & Test Socket Workshop. Fred Taber of IBM Microelectronics acted as the general chairman for this first of its kind desert burn-in.

Two issues kept emerging as keynote speaker Charles Lassen of Prismark Partners LLC spoke on "Package Proliferation and Its Impact on Testing and Socketing" and in other workshop talks as well. The first issue is package tolerances and "loose" specs outlined in the JEDEC JC-11 committee's package standards. Because of wide spread package variation, socket manufacturers were requesting a need for sampling at least three pieces from various lots of ICs to check package dimensions. The second major issue is the ability of socket manufacturers to obtain "shorted" IC packages from the semiconductor houses in order to do a proper measurement/evaluation of the socket through IC leads contact resistance per IBM's P4PM contact evaluation system. Dummy packages are a necessary evil right now.



Fleck Research can be contacted at (714) 953-9000 or at [fleckresearch.com](http://fleckresearch.com)

Other topics sparking interest included thermal management and the parameters that effect heat dissipation during burn-in presented by Wells/CTI and AMD's explanation of its typical manufacturing burn-in process. Discussing design characteristics of test contactors and ESD concerns, Intel pointed out that among the various types of test contactors—pogo pin, elastomer, Fuzz button, cantilever, and z-axis bumps (i.e., diamond or Gold Dot) – pogo pin is still the most commonly used because of its cost effectiveness.

The desert meeting was an overwhelming success because of the ability to talk directly to the key players of the entire test and burn-in industry. Valid points were made on all sides of the issues and an excellent, yet realistic, dialogue was initiated to help eliminate current and future "bottlenecks" to this often maligned phase of IC manufacturing. All the participants were eager to continue this, so same time, same place – next year!



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## BiTS 'In The News'

**Final Test Report - 4/2000**

© IKONIX Corporation

'Burn-In And Test Socket  
Workshop'  
by Bill Mann





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## **2001 BiTS Workshop Overview**

- **Over 20 Practical and Useful Presentations From Users and Suppliers**
  - **8 Sessions Across 2 1/2 Days**
  - **Q&A After Each Presenter**
  - **Many Other Excellent Abstracts Submitted**



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## **2001 BiTS Workshop Overview**

- **Many Opportunities to Network and Share and Discuss Ideas**
  - **Three Breakfasts, 2 Lunches, and 3 Receptions and Dinners**
  - **Long Morning and Afternoon Breaks**
  - **Tuesday Afternoon Social Event of Your Choice**
    - ✓ **Scramble Golf Tournament At Kokopelli**
    - ✓ **Cactus League Baseball Game (Cubs vs. A's)**
  - **New This Year: Supplier Display Area**
    - ✓ **Supplier Display Area Open During Many Breaks And Receptions**

***Meet and Chat With Someone You Don't Know***





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## **2001 BiTS Workshop Overview**

- **Evaluation / Comments Forms**
  - **After Each Session**
  - **Overall Workshop**
- **Plaques / Awards**
  - **Best Data Presented**
  - **Best Presentation / Paper**
  - **AND.....a Special Award.....**



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## Special Award

for the

Least Concealed Sales Pitch

*The  
(Almost) Brilliant Disguise  
Award*



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## Special Award

(Almost) Brilliant Disguise Award

Hall Of Fame

**BiTS 2000 - Mehdi Attaran - Oztek**



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## About the IEEE Computer Society

With over 100,000 members, the IEEE Computer Society is the world's leading organization of computer professionals. Founded in 1946, it is the largest of the 36 societies of the Institute of Electrical and Electronics Engineers (IEEE).

The Computer Society's vision is to be the leading provider of technical information and services to the world's computing professionals.

The Society is dedicated to advancing the theory, practice, and application of computer and information processing technology. Through its conferences, applications-related and research-oriented journals, local and student chapters, technical committees, and standards working groups, the Society promotes an active exchange of information, ideas, and technological innovation among its members. In addition, the Society maintains close ties with the US Computing Sciences Accreditation Board and Accreditation Board for Engineering and Technology, monitoring and evaluating curriculum accreditation guidelines.

With nearly a third of its members living and working outside the United States, the Computer Society fosters international communication, cooperation, and information exchange. To meet the needs of its members conveniently and efficiently, the Society maintains service center offices in Brussels and Tokyo, in addition to a publications office in Los Alamitos, California, and the headquarters in Washington, DC.

Visit the IEEE Computer Society at <http://computer.org>



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# TTTC: Test Technology Technical Council

## TTTC IN GENERAL

**PURPOSE:** The Test Technology Technical Council is a volunteer professional organization sponsored by the IEEE Computer Society. The goals of TTTC are to contribute to member's professional development and advancement and to help them solve engineering problems in electronic test, and help advance the state-of-the art. In particular, TTTC aims at facilitating the knowledge flow in an integrated manner, to ensure overall quality in terms of technical excellence, fairness, openness, and equal opportunities.

**MEMBERSHIP:** TTTC membership is open to all individuals interested in test engineering at a professional level.

**DUES:** There are NO dues for TTTC membership and no parent-organization membership requirements.

**BENEFITS:** The TTTC members benefit from personal association with other test professionals. They may have the opportunity to be involved on a wide range of committees. They receive appropriate and updated information and announcements. There are substantial reductions in fees for TTTC-sponsored meetings and tutorials for members of IEEE and/or IEEE Computer Society.

## TTTC ACTIVITIES

**TECHNICAL MEETINGS:** To spread technical knowledge and advance the state-of-the art, TTTC sponsors many well-known conferences and symposia and holds numerous regional and topical workshops worldwide.

**STANDARDS:** TTTC initiates nurtures and encourages new test standards. TTTC-initiated Working Groups have produced numerous IEEE standards, including the 1149 series used throughout the industry.

**TECHNICAL ACTIVITIES:** TTTC sponsors a number of Technical Activity Committees (TACs) that address emerging test technology topics and guide a wide range of activities.

**TUTORIALS and EDUCATION:** TTTC sponsors a comprehensive *Test Technology Educational Program (TTEP)*. This program provides opportunities for design and test professionals to update and expand their knowledge base in test technology, and to earn official accreditation from IEEE TTTC, upon the completion of four full day tutorials proposed by TTEP.

## TTTC CONTACT

**TTTC On-Line:** The TTTC Web Site at <http://computer.org/tttc> offers samples of the TTTC Newsletter, information about technical activities, conferences, workshops and standards, and link to the Web pages of a number of TTTC-sponsored technical meetings.

**Becoming a MEMBER:** Becoming a TTTC Member is extremely simple. You may either contact by phone or e-mail the TTTC office, or fill and submit a TTTC application form, or visit the membership section of the TTTC web site.

**TTTC OFFICE:** 1474 Freeman Drive, Amisville, VA 20106, USA

Phone: +1-540-937-8280 Fax: +1-540-937-7848 E-mail: [tttc@computer.org](mailto:tttc@computer.org)



## Burn-in & Test Socket Workshop

# TTTC: Test Technology Technical Council

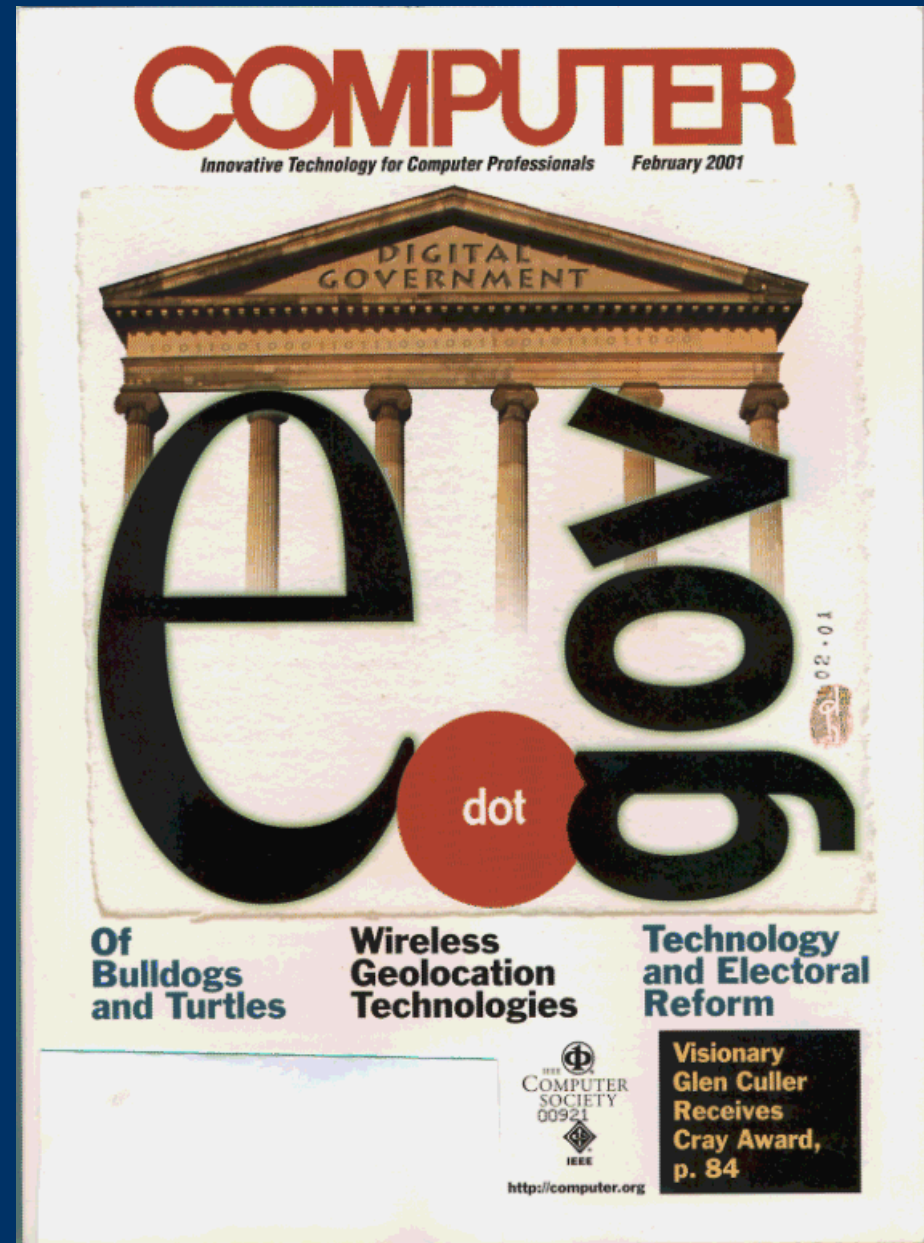
### TTTC Officers for 2001

<i>TTTC Chair</i>	<b>Paolo PRINETTO</b>	Politecnico di Torino - Italy	Paolo.Prinetto@polito.it
<i>TTTC 1st Vice Chair</i>	<b>André IVANOV</b>	Un. of British Columbia - Canada	ivanov@ee.ubc.ca
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<i>Test Week Coordinator</i>	<b>Yervant ZORIAN</b>	LogicVision, Inc. - USA	zorian@logicvision.com
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**IEEE SPECTRUM Magazine**



**IEEE Computer Society  
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## New IEEE job site promises improved services for job seekers

### Profile creation, immediate notification of openings

BY CHRIS McMANES  
IEEE-USA Staff Contributor

For the past six years, the IEEE-USA Job Service has used the Internet to match technical professional job seekers with employers. Now IEEE-USA is joining forces with *IEEE Spectrum* and application service provider Hire.com to further revolutionize the hiring process for technical employees.

Starting this month, IEEE members worldwide will have free access to a bigger and better job site at "http://www.ieee.org/jobs" that gives more options and greater control to job candidates.

The IEEE job site offers many upgrades over its predecessor. First, members can submit a profile of their professional skills and educational background, along with what they're looking for in a position, including desired salary, type of work and location. The profile will then be used to search the database for a match. Later, as more profile-matching jobs

are posted, the system sends an immediate notification by e-mail.

Although the job database is open to all site visitors, only IEEE members can use all the features such as profiling. To give members incentive to register their profiles early, *IEEE Spectrum* is giving away a Personal Digital Assistant to three members who establish a profile within the first 90 days of the site's February launch. Profile information is confidential and will not be given or sold to any employer.

"IEEE's new job site will make the job-hunting process easier and more effective for our members," said IEEE-USA President Ned Sauthoff. "In effect, we're putting an on-line recruiter to work for the job seeker. A member can create his or her ideal job profile and get an almost immediate response from employers."

James Tien, vice president of the IEEE Publications, Products and Services Board, likes the possibilities the job site offers.

"We think the site will provide an exciting new benefit to our members who are looking

for a new challenge, or the next step forward in their career path," said Tien.

"The great thing is, the job seeker doesn't have to search the database like he or she did

will be among the first to learn about opportunities with top firms around the world in positions that meet their job-seeking criteria," said Buryk. "Plus, those who create their profile early and visit the job site often will be able to participate in special promotions."

If a match is found, the job seeker might be asked to take a pre-qualification test. After answering the qualifying questions, the candidate will know within minutes whether he or she will be given a personal interview. A unique feature of the new site is that the candidate needn't send a resume on the initial response. Additionally, he or she can respond anonymously, if desired, using only an e-mail alias that can be obtained through a service like Hotmail or Yahoo.

The latter feature is designed to appeal to passive job seekers. These are people who aren't actively seeking a new job but might be willing to accept one if the ideal position were presented to them. They are the most sought-after in today's recruiting environment. Employers benefit because they reach

(Continued on page 7)



with the previous job site," Sauthoff explains. "If the program finds a match, you'll be notified right away. Even after you turn your computer off, the virtual recruiter is still searching for you."

IEEE Spectrum's Business Development Manager Michael Buryk shares Sauthoff's enthusiasm.

"IEEE members who create a job profile

### Industry groups find a home and a helping hand in the IEEE-ISTO

BY KATHY KOWALENKO  
Editor, THE INSTITUTE

WHEN THE PRINTER WORKING GROUP (PWG), a coalition of printing industry companies that develop standards for connecting printers with computers and other devices, decided it needed help to evolve the organization, they turned to the IEEE Industry Standards and Technology

the IEEE-ISTO and uses their management and support services for issuing press releases, coordinating meetings, setting up hotels and providing membership support including the collection of fees."

The IEEE-ISTO was established in 1999 to offer industries a flexible forum and support services for the development and post-development of standards and technology activities. In addition to the PWG, six other

### Webzines focus on careers and public policy issues

Two insightful monthly Webzines, *Today's Engineer* and *Policy Perspectives for Today's Engineer*, are now offered free to all members by IEEE-USA. Previously available only through subscription, the award-winning *Today's Engineer* is embarking on its fourth year of publishing feature articles on career

# IEEE Newspaper 'the institute'



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## **BiTS Workshop On The Web**

<http://www.BiTSworkshop.org>

Your Complete Source For Information About BiTS

- **Papers, Authors, Attendees**
- **Call For Papers/Participation**
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- **Registration Forms & Information; Register On-line**
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**BiTS 2001 Proceedings**

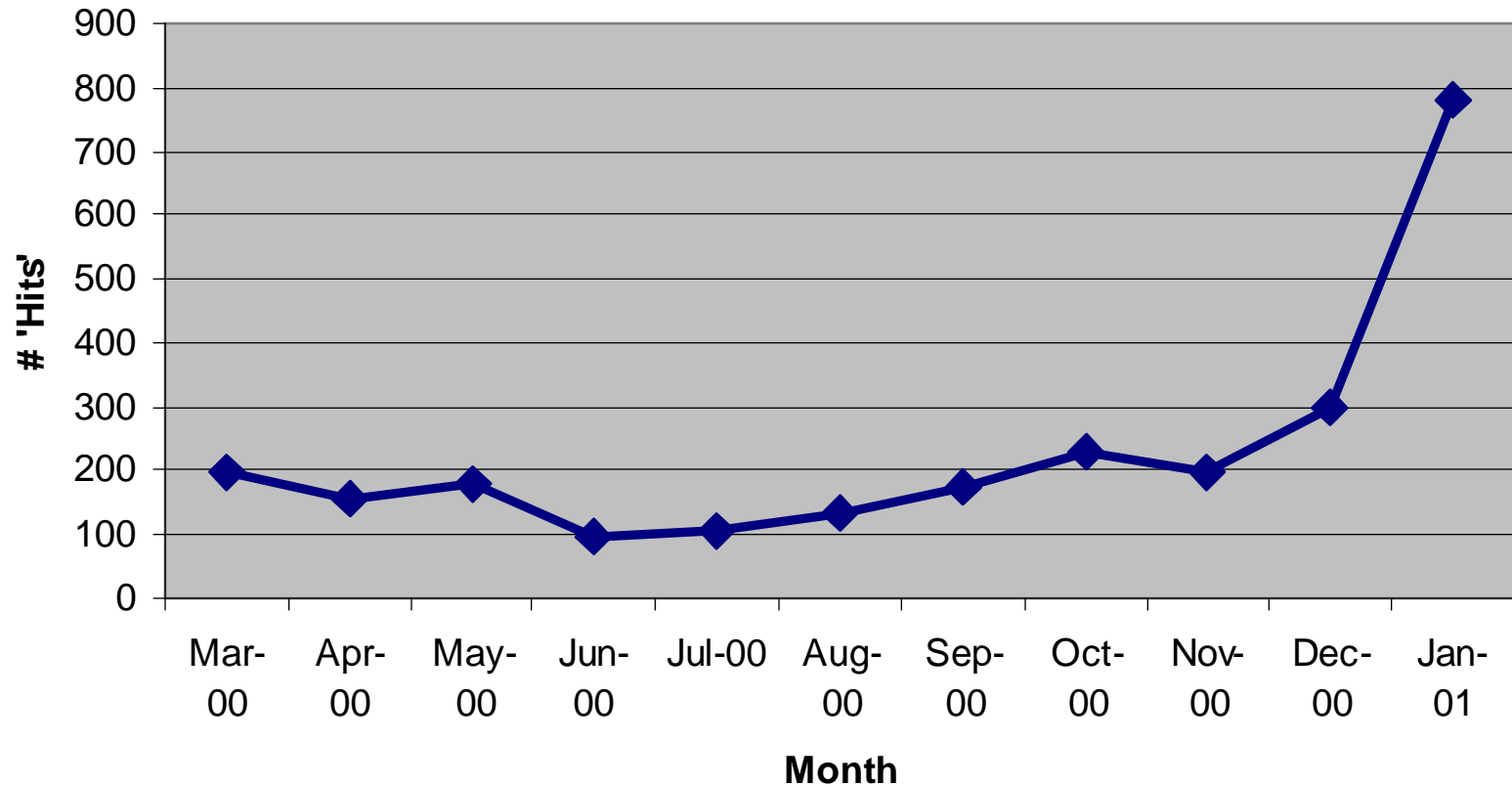
**BiTS 2002 Call For Papers**



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## **BiTS Workshop On The Web**

**Bitsworkshop.org Website 'Hits'**





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## **Supplier Displays Schedule**

**MONDAY**

**TUESDAY**

**WEDNESDAY**

**9:30AM - 10:30AM**

**9:30AM - 10:30AM**

**5:00PM - 7:00PM**

**5:00PM - 7:00PM**



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## **Supplier Displays Companies Displaying**

**3M Electronics &  
Handling Division  
Eles Semiconductor**

**Enplas Tesco, Inc.**

**Everett Charles  
Technologies  
EWI Electro World, Inc.**

**Gryphics, Inc.**

**Honeywell Electronic  
Materials**

**Inabata America Corp.**

**Johnstech International**

**Kulicke & Soffa  
Industries, Inc.**

**Loranger International  
Corporation  
M&M Specialities, Inc.**

**Micro Control Company**

**Nepenthe**

**Plastronics**

**Pycon, Inc**

**Rika Denshi America,  
Inc.**

**RS Tech, Inc.**

**Shin-Etsu Polymer  
America, Inc.  
Texas Instruments**

**Wells-CTI**

**Yamaichi Electronics**



## **Technical Program**

- **Panel Discussion: "Broad Package Specifications: And The Socket Is Expected To Always Work?"**
- **Guest Speaker - Dr. Tom DiStefano**
  - **"Wafer Level Paradigm For Burn-in And Test"**
- **Burn-in: Product Trends And Manufacturing Challenges**
- **Directions in Test Socketing**
- **Electrical And Mechanical Modeling And Analysis**
- **Burn-in Board Design**
- **Methods In Burn-in And Test**
- **Thermal Management Approaches**
- **Advancements In Socket Products**
- **Test And Burn-in At The Wafer Level**