Welcome to the 20th Annual IEEE SW Test Workshop

IEEE
Celebrating 125 Years
of Engineering the Future

Jerry Broz, Ph.D.
SW Test General Chair

CPMT
IEEE COMPONENTS, PACKAGING AND
MANUFACTURING TECHNOLOGY SOCIETY

June 6 to 9, 2010
San Diego, CA USA

IEEE SW-Test Workshop

- **SW Test IS a Probe Technology Forum …**
  - It is ***"THE"*** Conference for Wafer Test Professionals
  - Practical solutions to real problems
  - A balance mixture of semiconductor manufacturer and supplier presentations
- **Informal Conference …**
  - Great social activities and informal discussions
  - Meet new people and have a little fun !

Southwest Test Workshop

- **1990: Founder Bill Mann recognized the need for a dedicated forum on all aspects of microelectronic wafer probe testing that deals with "real world" problems and solutions**
  - 40 technologists attended the first workshop
  - Unique "Presentation ONLY" format (i.e., no technical manuscript)
  - All presentations made available in the public domain
  - Relaxed atmosphere that balanced a technical program (~50%) with open discussions, social activities, and lots of networking (~50%)

IEEE Southwest Test Workshop

- **1991 to 2007: SWTW grew to become a premier test workshop and the largest of the 30 conference or symposiums sponsored by the TTTC**
  - Technologists from around the world attend each year
  - Technical program with 9-sessions and 28+ presentations that often include new technologies and product introductions
  - EXPO started in 2004 focused on probe-related products and services
  - EXPO viewing hours do not compete with the Technical Program
  - Open discussions, social activities, and lots of networking are an integral part of the program and are highly encouraged

SOUTHWEST TEST WORKSHOP

IEEE SW Test Workshop

- **2008 to Present: IEEE Southwest Test Workshop became the IEEE Semiconductor Wafer Test Workshop (SW Test Workshop).**
  - Components, Packaging and Manufacturing Technology (CPMT) sponsorship
  - Leading international forum for technologists, engineers, and sales teams engaged in revolutionary advances in probe-related technologies and all commercial aspects of wafer testing.
  - Open discussions, social activities, and networking remain an integral part of the workshop and are highly encouraged

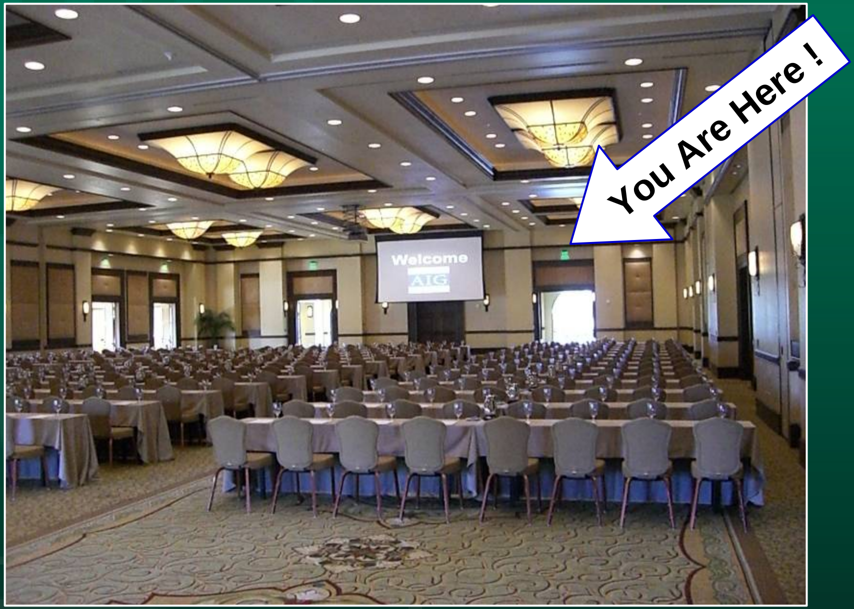
Twenty Years of Probe Technology

- **Many thanks to all of the 5000+ attendees !**

20th Annual SWTW 2010

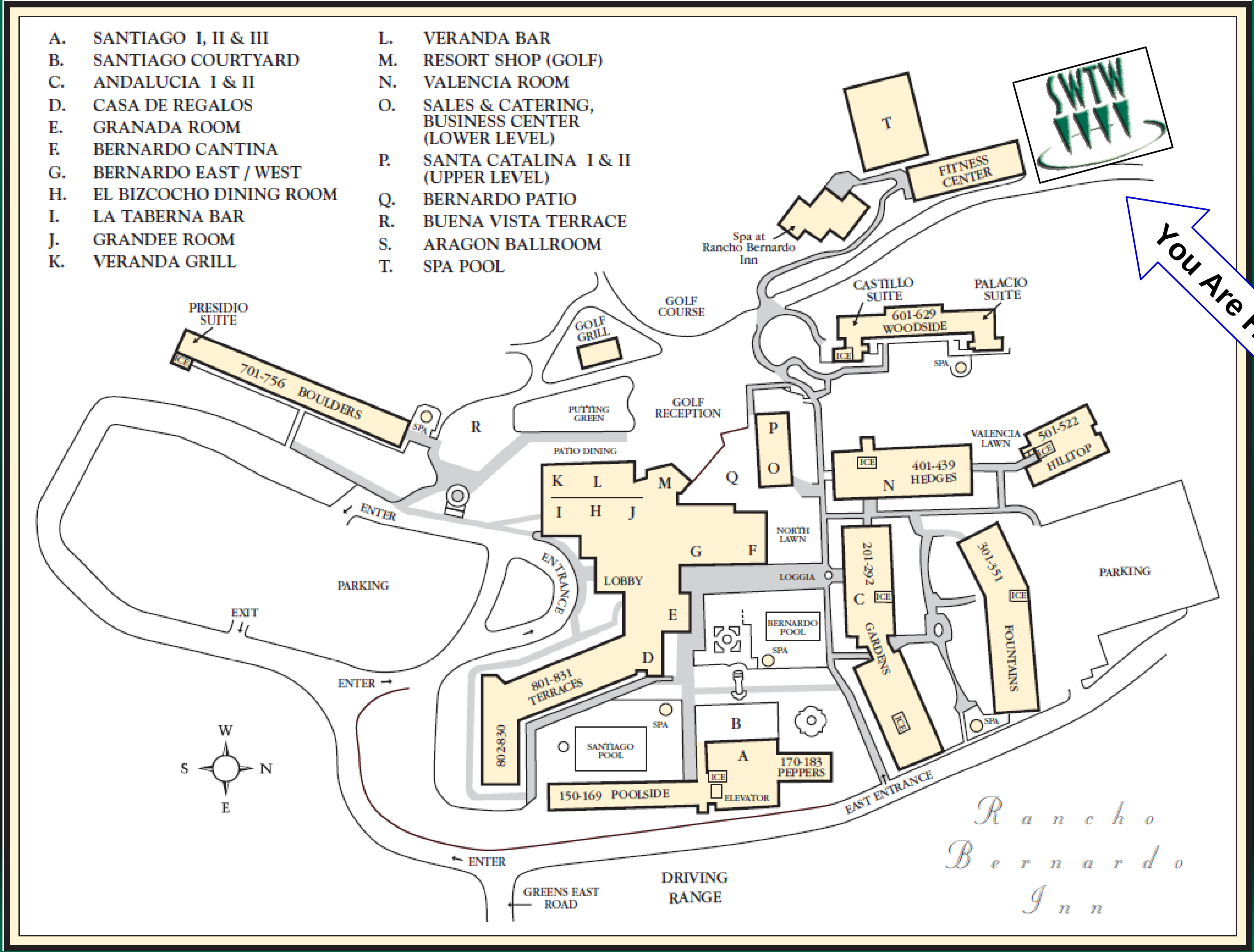
- **Technical Program**
  - 9 Technical Sessions with 28 Podium Presentations
- **Products / Services EXPO – 2010**
  - 28 full size booths
- **Corporate Support Program**
  - Four corporate supporters … THANKS !
- **New Committee Member**
  - Roy Swart, Intel Corporation … Welcome !
- **Departed Committee Members**
  - Bill Mann, SW Test Chair Emeritus (SW Test Founder)
  - Brett Crump, Micron Technologies (Technical Program Chair)
  - Frank Pietzschmann, Qimonda AG (Technical Committee Member)

New Location for 2010 and 2011



You Are Here !

Map of the Area



A.	SANTIAGO I, II & III	L.	VERANDA BAR
B.	SANTIAGO COURTYARD	M.	RESORT SHOP (GOLF)
C.	ANDALUCIA I & II	N.	VALENCIA ROOM
D.	CASA DE REGALOS	O.	SALES & CATERING, BUSINESS CENTER (LOWER LEVEL)
E.	GRANADA ROOM	P.	SANTA CATALINA I & II (UPPER LEVEL)
F.	BERNARDO CANTINA	Q.	BERNARDO PATIO
G.	BERNARDO EAST / WEST	R.	BUENA VISTA TERRACE
H.	EL BIZCOCHO DINING ROOM	S.	ARAGON BALLROOM
I.	LA TABERNA BAR	T.	SPA POOL
J.	GRANDEE ROOM		
K.	VERANDA GRILL		

You Are Here !

Corporate Supporter Program

ADVANCED PROBING SYSTEMS, INC.

JEM

international TEST SOLUTIONS

Acme Technology, Inc.

Quality Probe Needle Solutions

A few words about 2010

- **Overall Reduced Attendance**
  - Significantly increased attendance from 2009 !
  - Overall numbers are still lower than previous years
- **Contracted resort minimums must be met during workshop**
  - SW Test Team is focused on costs !
  - Food and beverage “heavy” conference
  - Reserved room block at the property
  - IEEE / SW Test PAY the difference !

ENJOY!

We're not in it for the money …

- **SW Test is an IEEE sponsored and non-profit activity**
  - Any "profits" are returned to IEEE and CPMT Society
  - "Books are closed" at end of each year
  - No "reserves" can be withheld from year to year
  - "Loans" must be taken out each year to "open" the books

- **SW Test is a "Food and Beverage Heavy" workshop held on a "resort-style" property to promote and encourage networking.**

- **Food and Beverage (F&B) Costs are based on negotiated minimums**
  - At SW Test 2009, attendance was less than 150 due to economy and H1N1
    - F&B was approximately <u>$900</u> /attendee (including 22% service fee and CA taxes)
    - Average registration fee was <u>$600</u> (advanced) and <u>$725</u> (onsite) per attendee
    - Be sure to thank the EXPO participants and Corporate Supporters

2010 attendee registration fees
were not raised from 2009 !

We're not in it for the money …

- **Resort rates for guest rooms, lecture space, EXPO space, meal space, social space, etc., are based on negotiated / contracted room blocks.**
- **Room attrition fees are paid to the property when the contracted room block commitments are not met.**
  - At SW Test 2009, room block commitments were not met due to the overall low attendance
    - Many attendees stayed at off-site properties and commuted to the workshop
    - Paradise Point was unwilling to re-negotiate lower room rates or attrition fees
    - SW Test had to borrow twice from IEEE and pay over $70,000 in attrition fees

Advanced registration records for SW Test 2010 show 25+ attendees are staying at off site properties !

What’s the “Competition” Doing ?

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- **IEEE SW Test 2010 (San Diego, CA)**
  - Average registration fee
    - $600 (advanced) per attendee
    - $725 (onsite) per attendee
  - Registration fee includes
    - Hardcopy proceedings
    - Sunday reception and dinner
    - Daily breakfast, lunch
    - Daily AM and PM coffee breaks
    - EXPO Reception and dinner
    - Social function and dinner
  - Room Rate = $169 per night

"Who's To Blame … ?"

- **Organization and Technical Program …**
  - Jerry Broz, Ph.D., International Test Solutions, General Chair
  - Rey Rincon, Freescale Semiconductor, Program Chair
  - Maddie Harwood, CEM Inc, Registration and Finance Chair
  - Meredith Griffith, CEM Inc., Exhibits / Registration Coordinator

Program Committee and Steering Committee

- Patrick Mui, JEM-America
- Darren James, Rudolph Technologies
- Jan Martens, NXP Semiconductor

- Rod Martens, Ph.D., FormFactor, Inc.
- Roy Swart, Intel Corporation
- Fred Taber, BiTS Workshop

Technical Program / Agenda

- **Sunday, June 6, 2010**
  - – Registration and Cocktails
  - – Dinner
  - – Probe Year In Review
  - – Keynote Presentation

“What's Going to Rock Your World …

Or, At Least Push Your Probes.”

Dean Freeman
Research Vice President
Gartner Research, Inc.

Technical Program / Agenda

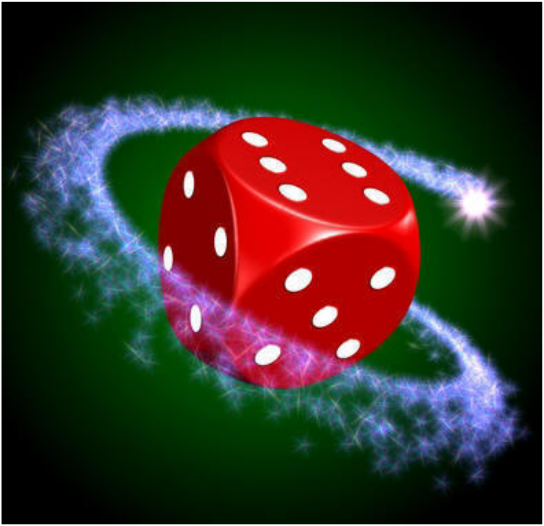
- **Monday, June 7**
  - Registration and Continental Breakfast
  - Welcome
  - New Probecard and Contactor Technologies
  - High Temperature Probing
  - Lunch on the Aragon Lawn
  - Improving Cost of Ownership
  - Standards and Methods
  - Reception / SW Test EXPO-2010 / Dinner
  - Networking at La Taberna Bar

Technical Program / Agenda

- **Tuesday, June 8**
  - Registration and Continental Breakfast
  - Signal Integrity
  - Parametric / Scribeline Probing
  - BBQ Lunch on the Aragon Lawn
  - Probe Potpourri
  - SW Test EXPO-2010
  - Press Time and/or Supplier events
  - Reception, Dinner, and **Casino Royale** **at RBI**!
  - Networking at La Taberna Bar

Tuesday Social at Rancho Bernardo

- Gambling, Prizes, FUN !
- Relaxed networking
- Dinner and Reception



Technical Program / Agenda

- **Wednesday, June 9**
  - – Continental Breakfast
  - – Area Array Probing
  - – Challenges of RF Probing
  - – Awards and Adjourn Conference
  - – Lunch on the Aragon Lawn

Recognition & Awards

- Best Overall Presentation
- Best Data Presented
- Most "Inspirational" Presentation
- Best Presentation, Tutorial in Nature

- Some other "Special Awards"

SWTW-2009 Awards

Most Inspirational Presentation

"Optimization of Wafer Level Test Hardware Using Signal Integrity Simulation"

Jason Mroczkowski
Ryan Satrom
Everett Charles Technologies

Best Presentation, Tutorial in Nature

"Issues in Power Delivery System Performance Verification"

Gert Hohenwarter
GateWave Northern

SWTW-2009 Awards

Best Overall Presentation

"An Experimental Work and Analysis of Vertical Cobra Probing on Low-k Wafers"

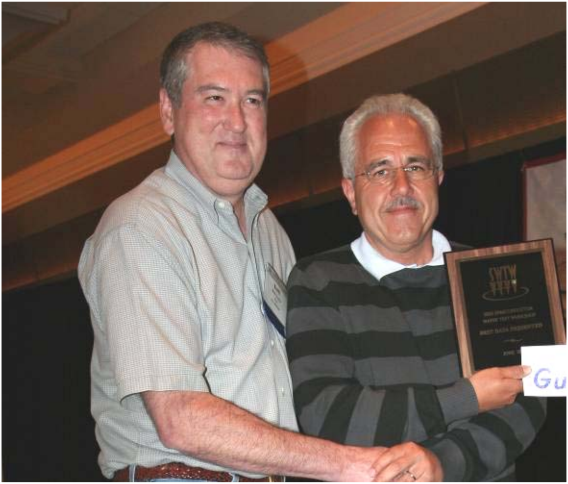
Yuan Huang, Gary Liu, Thompson Hsu
United Microelectronics Corp (UMC)

Wensen Hung, Cahris Lin, Dean Yang
MPI – Taiwan

Best Data Presentation

"Hot Spot: High Temperature Probing"

Wolfgang Schaefer, Ph.D.
Gunther Boehm
Feinmetall GmbH



The “Special” Award

“What A Load Of Crap !”

For the Poorest Disguised Sales Pitch

“What happens at SWTW stays at SWTW !”

IEEE SW Test EXPO 2009

(★ Corporate Supporter)

- Cascade Microtech, Inc.
- ERS America
- Feinmetall GmbH
- Ferrotec (USA) Corporation
- FormFactor
- Integrated Test Corporation
- International Contact Technologies Inc.
- ★ International Test Solutions, Inc.
- ★ JEM America Corp.
- Kyocera America, Inc.
- Martek Inc.
- MicroProbe
- Mitsubishi Cable America, Inc.
- MRD Technology
- Multitest
- NHK Spring Co., Ltd
- Probe Logic
- Rika Denshi America Inc
- Rudolph Technologies, Inc.
- SV Probe, Inc. - An Ellipsiz Company
- Taconic
- Technoprobe, America
- Teradyne
- T.I.P.S. Messtechnik GmbH
- Tokyo Electron Limited
- Vermont Mold & Tool Corp
- Wentworth Laboratories, Inc.

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Want to Learn More ?

- Electronic Components and Technology Conference

  2010 held in Las Vegas, NV
  2011 to be held in Lake Buena Vista, FL

  http://www.ectc.net

- Burn In & Test Socket Workshop

  Mesa, Arizona
  http://www.bitsworkshop.org

- IS-Test Workshop

  Freising, Germany
  http://www.is-test.com

Silence your cell phone !!!