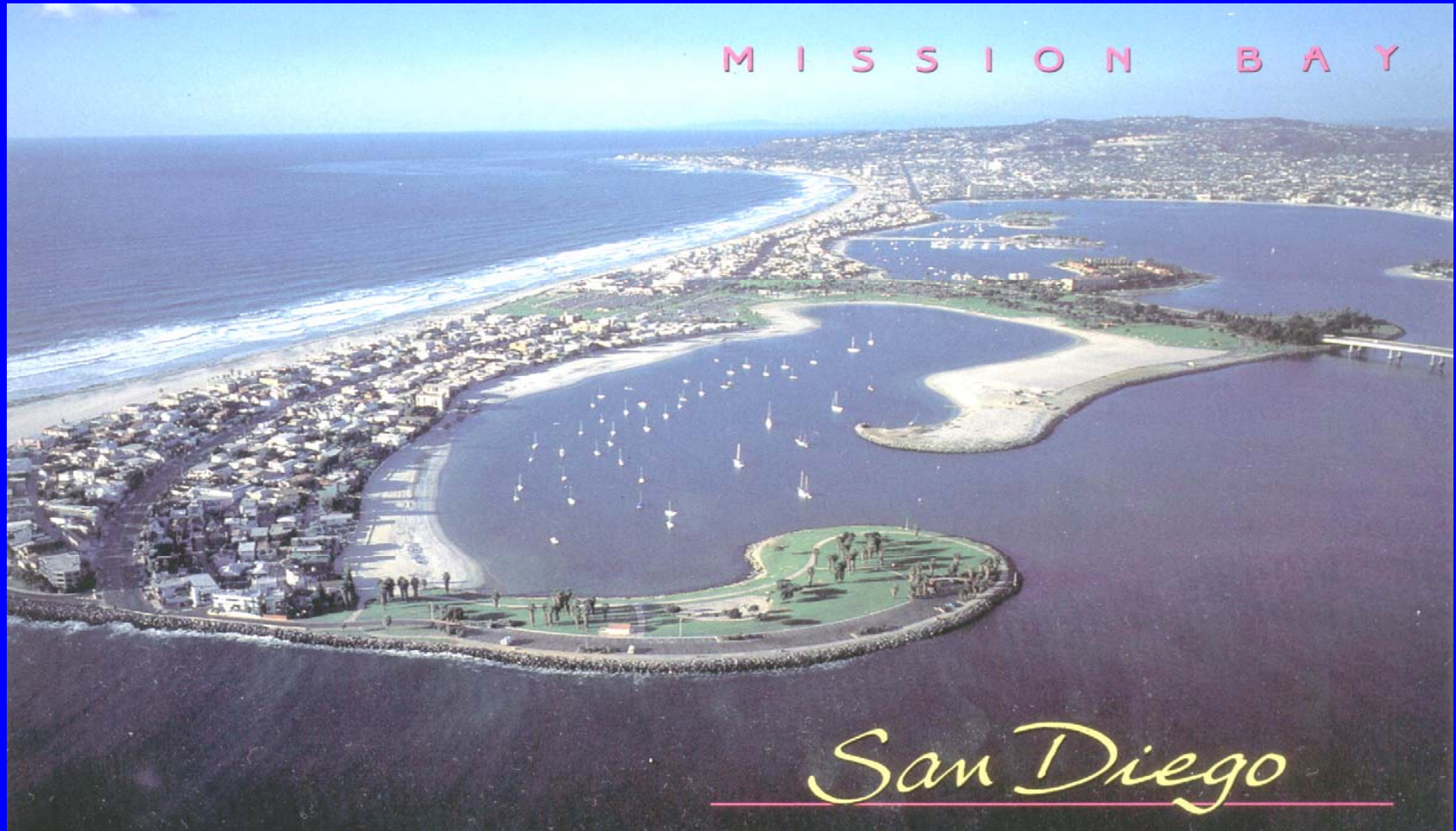




- **To Advance Wafer Test Technology**
- **To Serve and Inform the Wafer Test Professional**
- **To Boldly Go Where No Workshop Has Gone Before**

**San Diego, CA, June 11 to 14, 2006**

# 16th Annual SWTW



# **Probe Year In Review**

**Probe Business Metrics**

**People in Probe**

**Mergers, Acquisitions, & Spin-Offs**

**Probe Related News**

**(With a little help from the Final Test Report)**

# Semiconductor Market

- ~\$228B 2005 sales, up 6.6% from 2004  
(Q1 '06 sales up 7.1% over Q1 '05)
- Forecasters see better growth in 2006:
  - Future Horizons 20%
  - Gartner/Dataquest: 10.6%
  - IC Insights: 8%
  - iSupply: 7.4%
  - Semico Research: 17%
  - VLSI Research: 8.8%

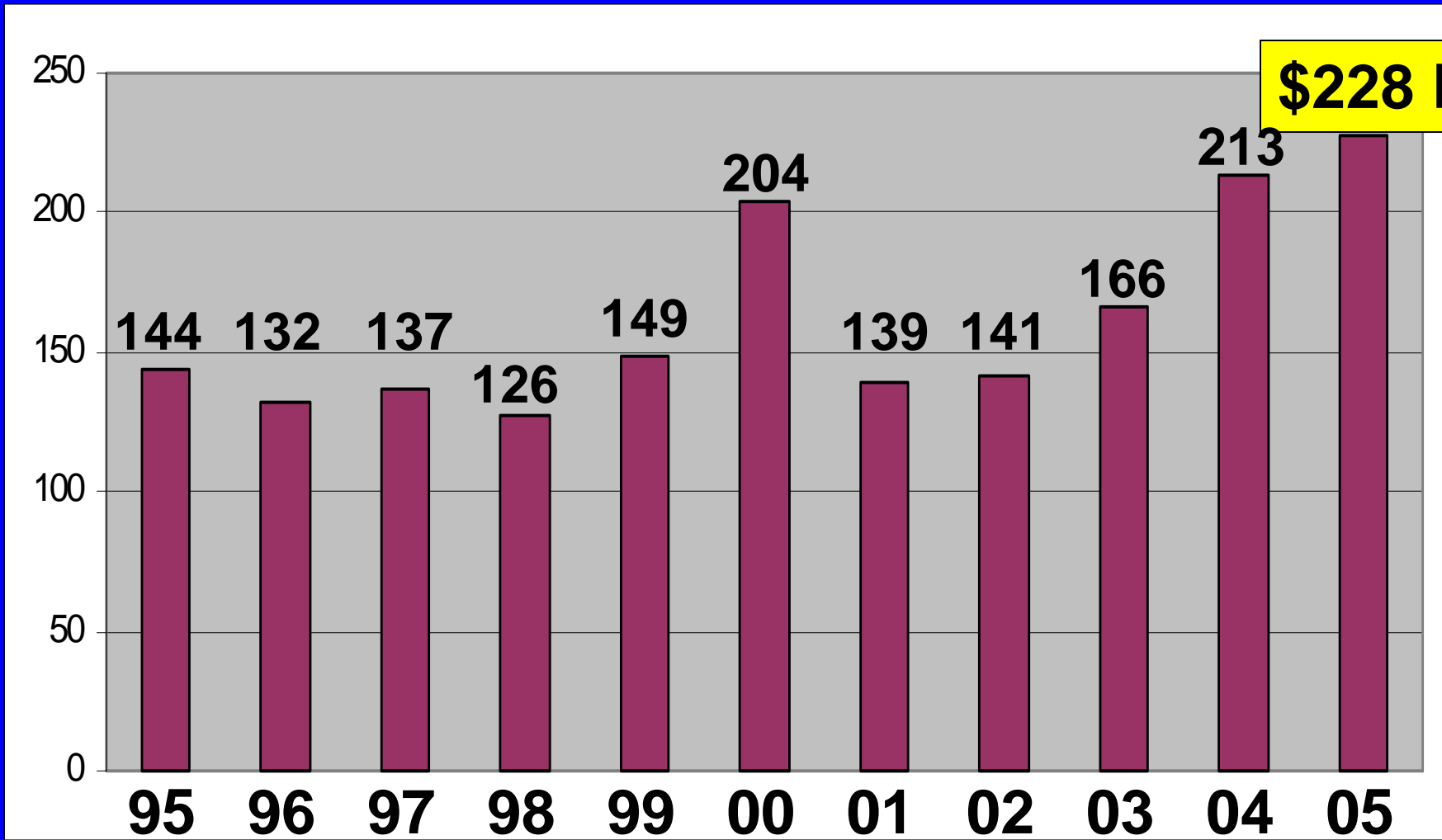
***There is One Thing Certain  
About Forecasts...***

**Old Chinese Proverb:**

***“Man with one  
watch knows  
time; man  
with more,  
never sure”***



**\$228 B**



**SIA**

SEMICONDUCTOR  
INDUSTRY  
ASSOCIATION

# Key Metrics

Metric	2004	2005	2006 F'cst
Laptop PCs	51M	67M	81M
Desktop PCs	133M	146M	151M
DRAMS	\$26.8B	\$26B	\$29.5B
NOR Flash	\$9.1B	\$7.6B	\$9B
NAND Flash	\$7.2B	\$10.2B	\$12.7B
Cell Phones	650M	820M	940M
Flat Panels	\$35B	\$44B	\$52B

VLSI Research, Semico Research, iSupply and DisplaySearch

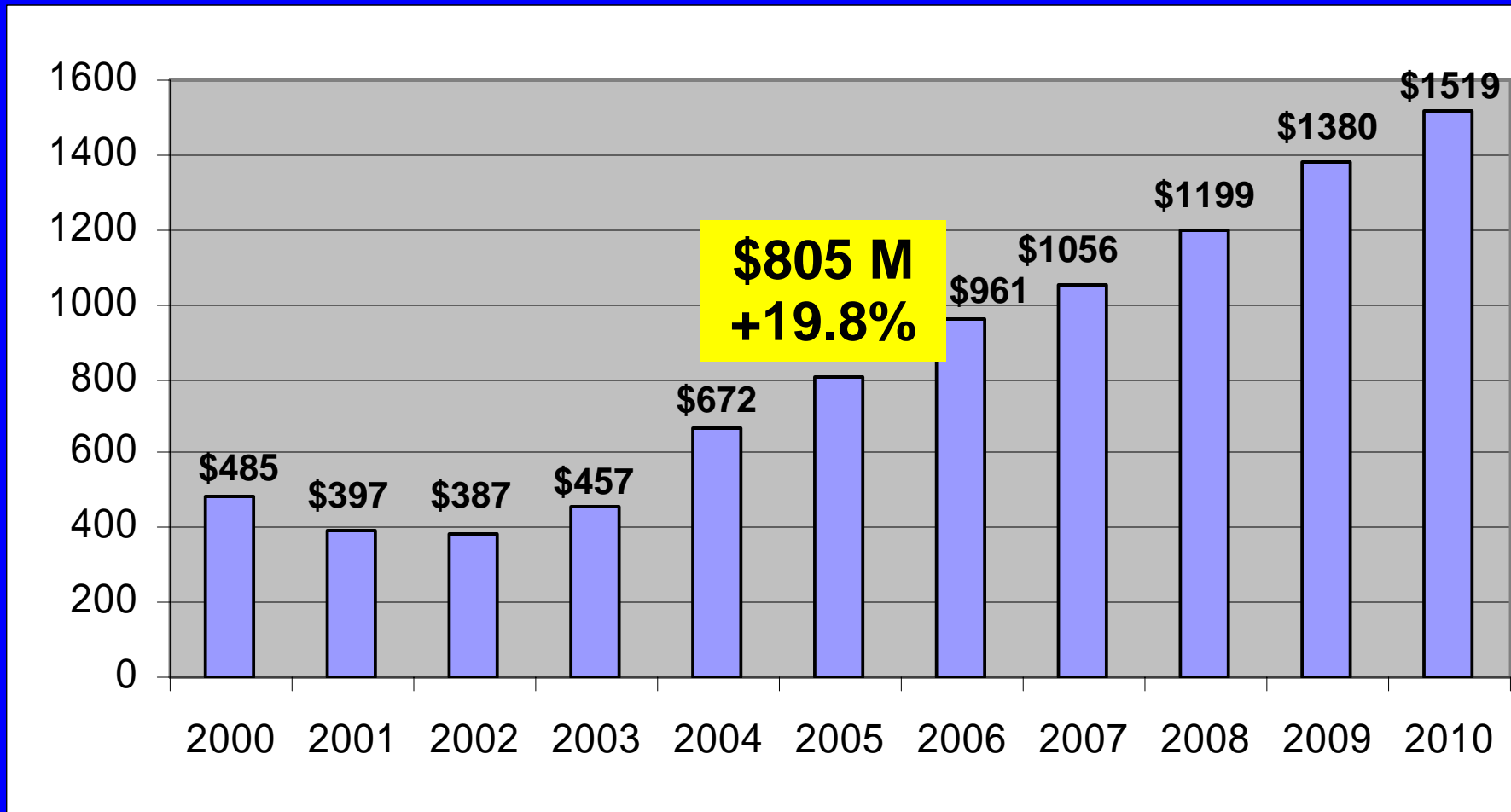
## **\*Top 5 Probe Card Vendors '05**

<b>FormFactor</b>	<b>\$238 M</b>
<b>Japan Electronic Materials</b>	<b>\$131 M</b>
<b>Micronics Japan Co.</b>	<b>\$78.8 M</b>
<b>Kulicke &amp; Soffa Test Div.</b>	<b>\$49.5 M</b>
<b>Tokyo Cathode Laboratory</b>	<b>\$39 M</b>

**\*Copyright © 2006 by VLSI RESEARCH INC. All rights reserved. Reprinted for SWST with permission from VLSI RESEARCH INC. Further distribution requires written approval of VLSI RESEARCH**



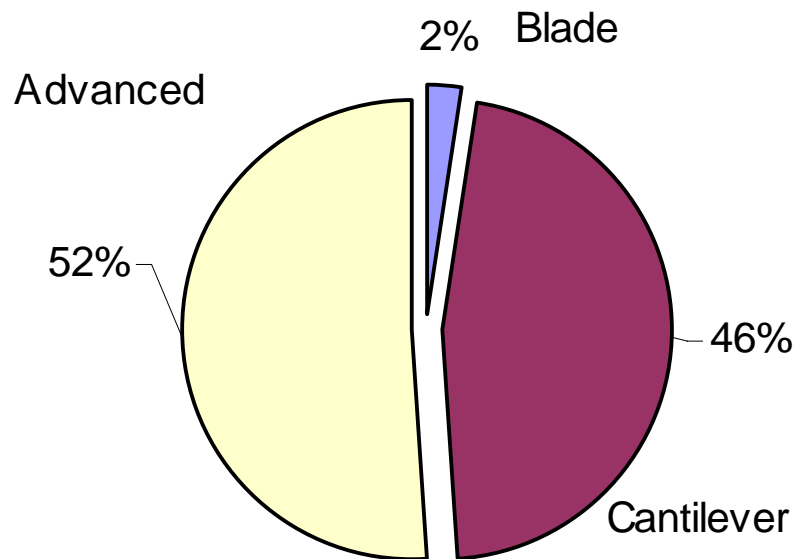
# Total Probe Card Revenue



Revenue in Million US \$; Semiconductor Segment Only

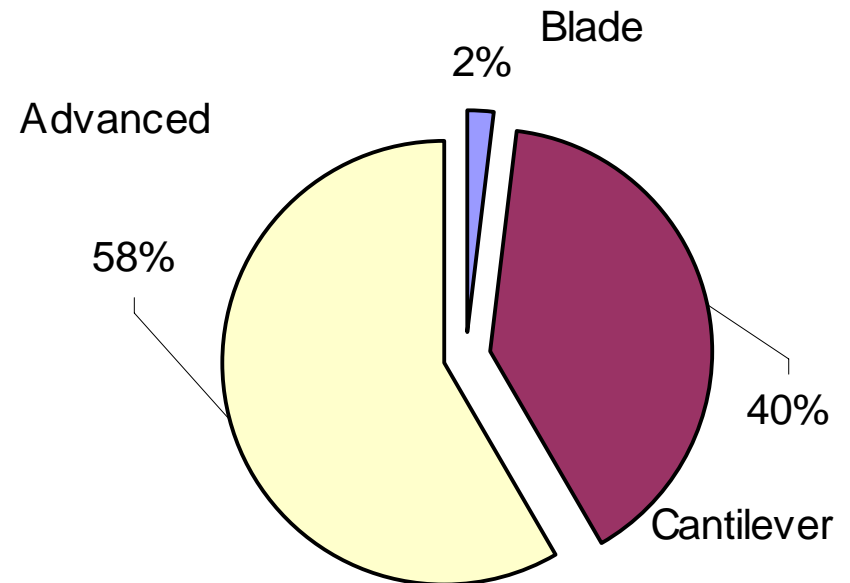
# Revenue By Technology

**CY 2004**



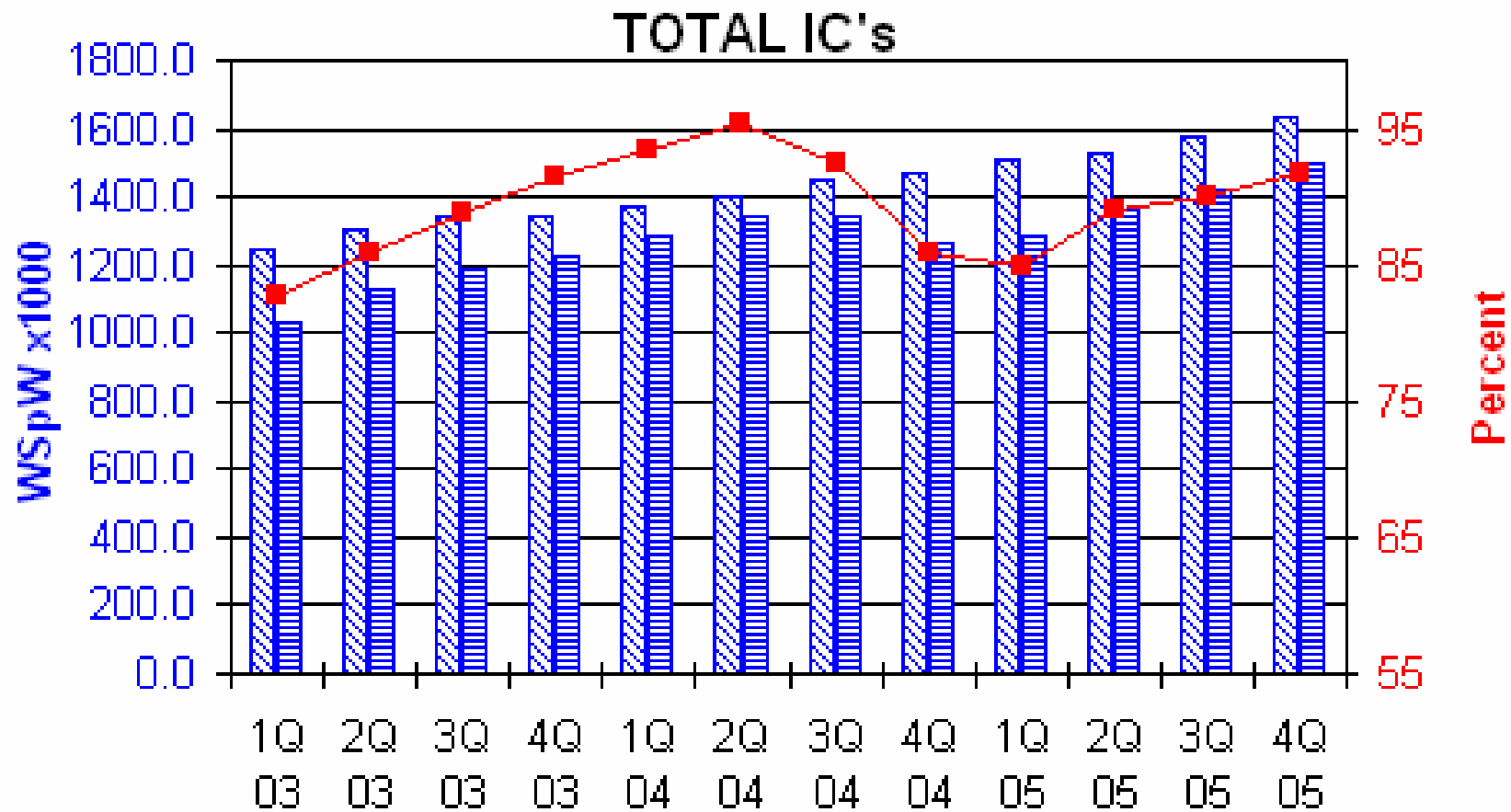
**\$672 M**

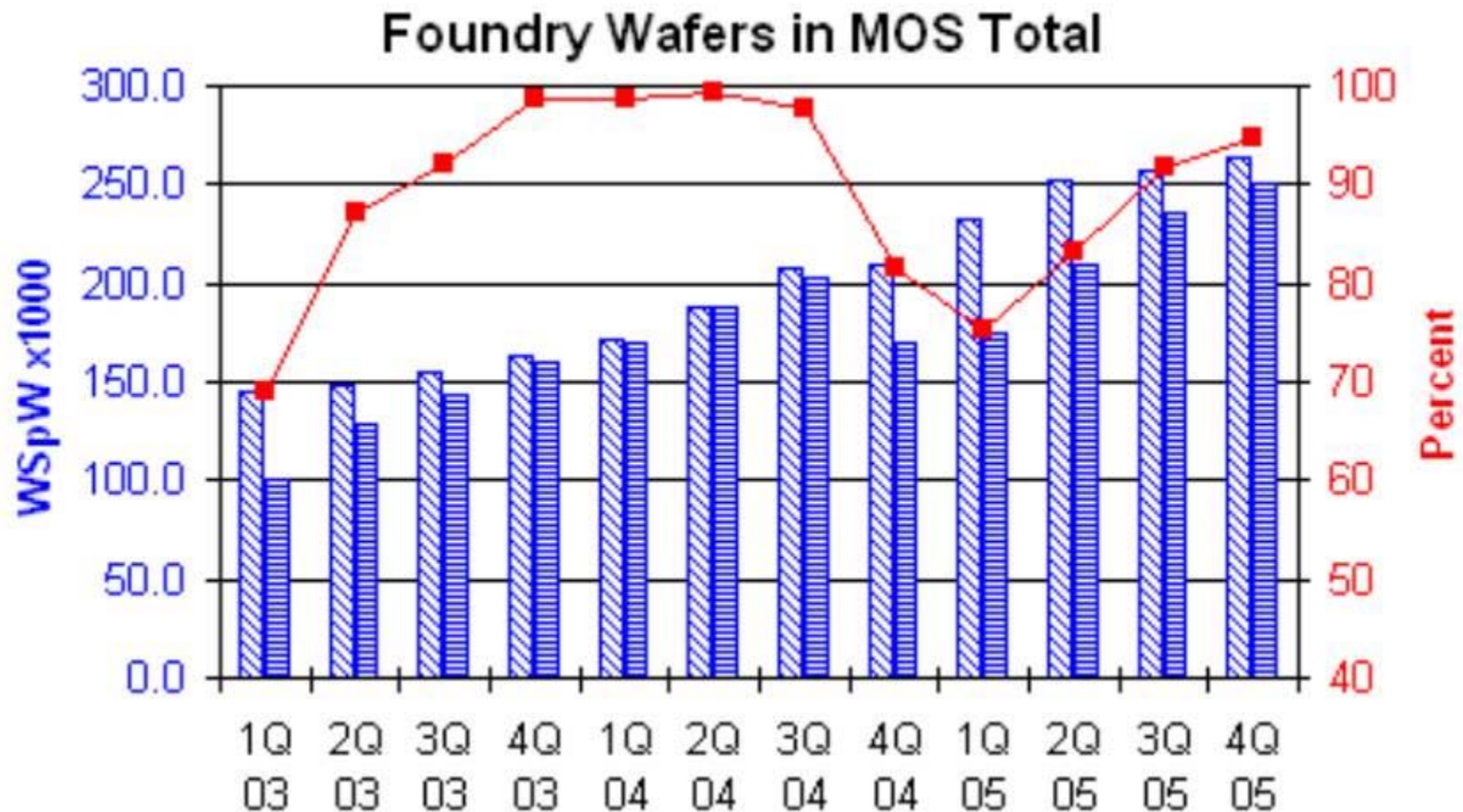
**CY 2005**



**\$805 M**

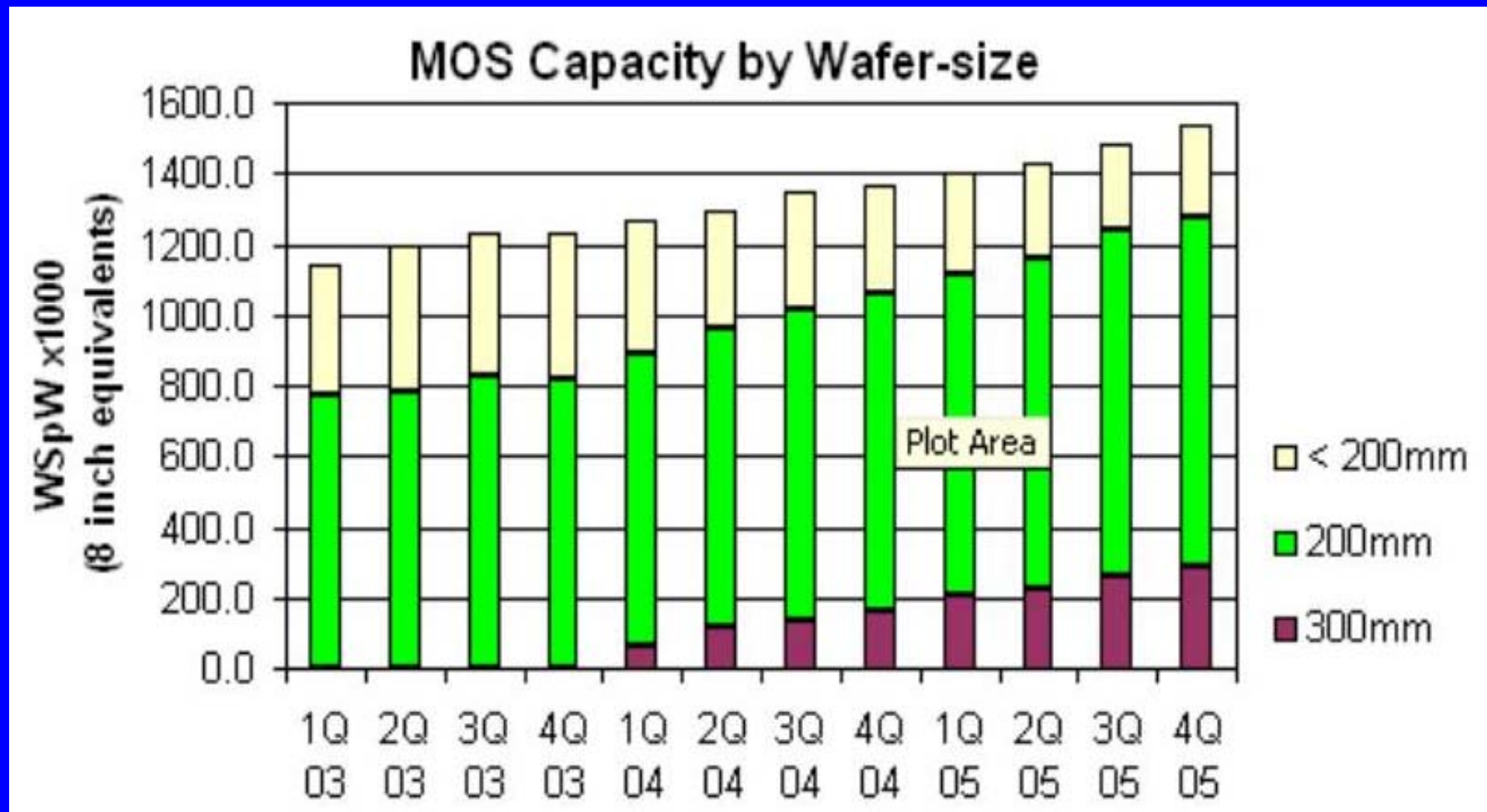
# Worldwide Wafer Starts Per Week and Percent Utilization (50% increase in three years)





**More than doubled their wafer starts!  
Percent utilization is a problem again**

# 20% Of Capacity Is 300mm Wafers



All data provided by Semiconductor International Capacity Statistics

# Ron Mende

**32 Year  
Industry  
Veteran**

**President of  
Probe  
Technology  
1991- 2000**





“A kid  
at  
heart”

- **Born in St. Louis Missouri**
- **Educated at University of Missouri**
- **18 years at Monsanto in Marketing and Business Development (GaAs wafers)**
- **President of Probe Technology '91-'00**
- **President of K & S Probe Business**
- **Became Exec. VP at MicroProbe in 2004**
- **Survived by his daughter, Renee, and his wife of 38 years, Mary**



# Remembrances from friends...

- Gentlemen and a friend
- Fun and funny
- Caring, sincere, and personal
- A teacher and a mentor
- He just seemed to have time for everyone
- Enjoyed life and lived it to the fullest
- Most memorable quote:

***“They're gaining speed  
and losing altitude”***



**Ron  
Mende**

**1944 -  
2005**

# Leslie and Kadel Broz



# Very Happy Mom And Dad



**An  
excited  
father...**



**...playing  
with his  
daughters**

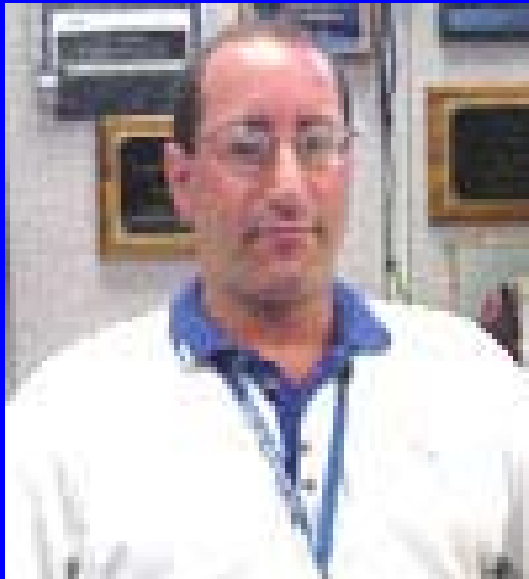


## Bill Bottoms

- Became CEO in 2005
- Probe card company founded in 1999 with PARC technology
- Bill was SWTW Keynote in 1999



# Steve Strauss Leaves Intel



- 23 year Intel veteran
- Director of Intel's Test Tooling Operations
- 2004 SWTW Keynote
- Joins Antares conTech as Engineering Director

**Antares was the Package Test Division of K & S: Oden Lendner new CEO, K. R. Subrumanian, Scott Barrett and Andrei Berer**



# Infineon Spins Off Memory Division

- Create two companies: memory and logic
- Logic business is IP driven and application specific
- Memory business will take the fabs in Dresden, Germany, Richmond, VA, and joint venture with Nanya in Taiwan

**New company will  
be called.....**

The logo for Qimonda, featuring a stylized lowercase 'q' followed by the word 'imonda' in a lowercase, sans-serif font.



# Agilent Spins Off ATE Group

- Agilent will retain the bench top instruments and spin off the ATE group
- New corporate headquarters in Singapore
- Consolidate digital ATE in Germany
- Consolidate memory ATE in Santa Clara
- China sales and all manufacturing will be supported in Shanghai

**New company will  
be called.....**



# August Technology Merges with Rudolph Technology

- August Tech. has one of the few I/O pad and solder bump inspection equipments
- Rudolph is a supplier of process control and defect inspection and analysis equipment
- Combined company is the forth largest provider of process control, inspection, and metrology equipment and software

**RUDOLPH**  
TECHNOLOGIES

**AUGUST**  
TECHNOLOGY

# Probe In The News

- LSI Logic announces it will go Fabless
- Follows Motorola, A T & T, Agere, Rockwell, Conexant, and others...
  - Sell it's 8" Fab in Gresham, OR
  - "...will better serve customers, reduce cost, and adopt leading edge process technologies"

The logo for LSI Logic, featuring the text "LSI LOGIC" in a serif font. The "LSI" is in a lighter blue color, and "LOGIC" is in a darker blue color. A registered trademark symbol (®) is located to the right of the word "LOGIC". The logo is set against a white background within a dark blue rectangular frame.

LSI LOGIC®

## **K & S Sells Probe Business**

- K & S bought Cerprobe for \$225M and Probe Technology for \$65M 5 years ago
- It was a *difficult integration* into K & S
- K & S Test Division lost \$120M in 2005 and invested \$200M since the acquisition
- Sold the package test group to Tyler Acquisition Corp. for \$17M (Antares)

**Sold the probe  
business to SV  
Probe for \$10M!**



# Xandex Flooded in January 2006 Petaluma Rainstorm



# Intel and Micron Join on Flash Memory Consortium

- Each will initially contribute \$1.2 B, and then will contribute another \$1.4B
- Initial Flash Chips will be made in Micron's facilities, and they eventually plan to build a dedicated fab
- First customer is Apple (\$500 M advance)

The joint venture will be called IM Flash Technologies



FLASH  
TECHNOLOGIES


# VLSI Research Celebrates Its 30 Year Anniversary

- Founded by Jerry Hutcheson
- SWTW Keynote in 1996
- They provide the only probe market analysis available, and our thanks to Bob Mariner



**VLSI RESEARCH INC**

Where the Chip Making Industry Clicks to Find its Weather

 **創立35周年祝賀パーティー**  
株式会社日本マイクロニクス



**MJC Celebrates  
35<sup>th</sup> Anniversary**