

## **SUPPLY-CHAIN PERFORMANCE SUBCOMMITTEE MINUTES**

**Date:** February 22, 2008  
**Location:** Teleconference Only  
**Time:** 1:00pm – 2:00pm (PST)

### **Participants:**

Chelsea Boone - GSA  
Roger DeAmicis - ChipX, Inc.  
Dan Wark – Amalfi Semiconductor  
Bryan Kasprowicz - Photronics, Inc.  
Matt Cheatham – Grant Thornton  
Babu Jain – NavSemi Systems Inc  
Joe Holt - Integra Technologies LLC  
Jay Seaton - Ambric, Inc.

### **Meeting Purpose:**

- To discuss Q1 2008 Wafer/Back-End Pricing Survey Results
- Review participant comments – identify additional outliers
- Address new concerns/modifications

### **Actions Completed/Items Discussed:**

- Are there any outliers in the Q1 2008 interactive results (wafer, mask, test, assembly, wafer bump) that need to be deleted?
- Should any of the data that was confirmed by Grant Thornton be deleted?
- What new concerns/requests have been voiced by our participants/subscribers?
- Are there any additional questions/features that need to be added to the Survey/Report?

### **End Result/Conclusions:**

- Wafer Section: Only one participant reported data for 100mm, which we added in Q1 2008. Should we still have this as a selection? In the participant spreadsheet, delete the record in row 26 – Price per wafer of \$9000 – as the pricing is for a CMOS/MEMS process, which we don't have in the survey.
- Mask Section: In the participant spreadsheet, delete the record in row 2 – mask cost of \$4500.
- Test Section: "Capital equipment (tester) consigned?" will be a required question in the next survey. It will also be included in the interactive results, so participants can sort pricing by if the tester is consigned or not. The "Region" field will be deleted in each interactive results section (wafer, mask, test...), as it only specifies where the participants are located, not the foundries or houses themselves. It will change to foundry location or supplier location. In the participant spreadsheet, delete the record in row 10 – hourly rate of \$8.67. The executive summary will show the number of respondents by test platform and will show a trend of the responses from the question – "Capital equipment (tester) consigned?"

- Assembly Section: In the participant spreadsheet, delete the records in rows 6 and 11 – cost per lead of 1 and 0.5, respectively. In the interactive results, the max value of \$0.44000 should be questioned. Response from the participant: “I realize I'm currently paying > 3x market price and have a path out, but it's what it is today. There are special circumstances though: 1) I have Copper on Metal 3, Via 3 and Metal 4. 2) I stop processing at Metal 4 and finish in my own facility here in my facility.” For now we will delete this record since it will skew the rest of the numbers; however, we will revisit how we do flip chip pricing since the substrate and bumping cost both have the ability to really swing the numbers. We also agreed that the assembly survey needs to be reviewed (e.g., lead counts of <64 is too high with all the smaller analog/power packages out there and more and more packages are leadless, so maybe we need a different figure of merit). Dan will discuss will Eelco.
- Wafer Bump Section: The comments in Rows 2 and 5 in the participant spreadsheet should be questioned.
- The next subcommittee meeting will be held in **the middle of May 2008**. A meeting time will be announced soon.