



FSA



FSA MIXED-SIGNAL/RF SUBCOMMITTEE

September 12, 2007



AGENDA

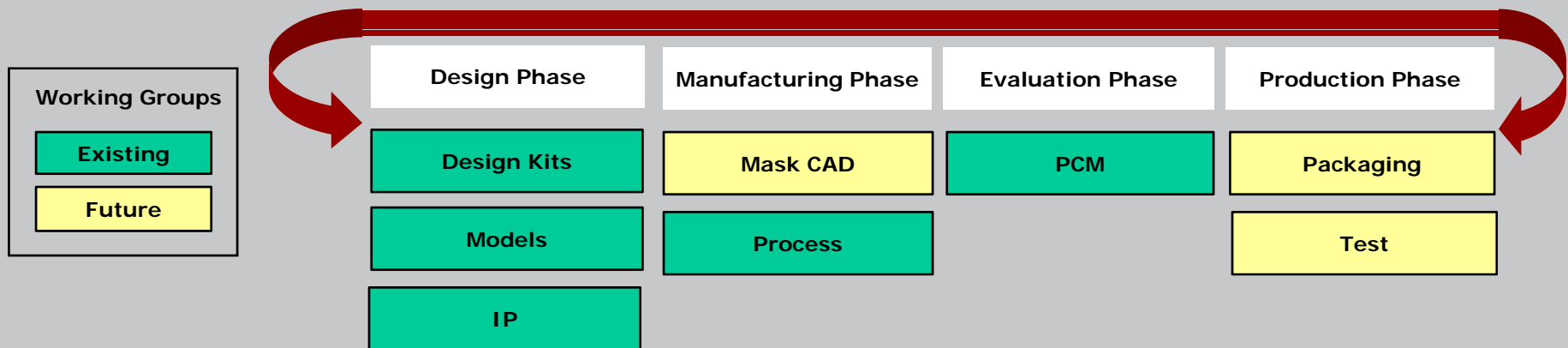
- MS/RF Subcommittee and Working Group Overview
- Working Group Updates and Discussion
 - Process Design Kit (PDK) Working Group – Thomas Moerth, Austriamicrosystems
 - Modeling Working Group – Roberto Tinti, Agilent Technologies
 - Process Checklist/PCM Working Group – David Schwan, Sirenza Microdevices
 - IP Working Group – David Schwan, Sirenza Microdevices
- Other Business





MS/RF SUBCOMMITTEE OVERVIEW

- Charter: To create a mixed-signal/RF ecosystem
- Chairman: Marco Racanelli, Jazz Semiconductor
- Participants: MS/RF Design (EDA, IP, Design Services), Fabless, IDMs, Foundries
- Organized in several working groups



Working Group Leaders:

- Process Design Kits Thomas Moerth (AMS)
- Models Roberto Tinti (Agilent)
- Process Checklist/PCM David Schwan (Sirenza)
- IP David Schwan (Sirenza)





MS/RF SUBCOMMITTEE OVERVIEW

- Major Issues to Address
 - Foundry adoption and compliance with new PDK 2.0 Checklist incorporating Model Checklist
 - Next step for Process Design Kit (PDK) Working Group
 - Plan for Process Checklist/PCM Working Group deliverables
 - Schedule, frequency of meetings





PDK WORKING GROUP

- What we have:
 - A great checklist that makes comparison of PDKs much easier.
 - PDK Checklist version 2.0 available since July 2006.
 - Adoption process is slow due to dependence on SPICE Model Checklist.

- What's next:
 - What can we do to improve adoption?
 - Get more/new participation.
 - OpenAccess is coming. How are we going to address this in the Checklist?

Checklist and accompanying Users Guide may be downloaded from FSA's Web site at:

www.fsa.org/committees/msrf/deliverables.asp





MODELING WORKING GROUP

- New working group leader: Roberto Tinti, Agilent Technologies
- SPICE Model Checklist
 - Standardized format for the way MS/RF **models** are documented and delivered to the MS/RF design community
 - Version 1.2 was officially released in August 2007
 - Version 1.2 includes decoder in Checklist to help model users better understand Checklist
 - Digital foundries will need this same information in a standard format due to statistical variations at 65nm and 45nm
- Round table discussion:
 - Adoption status
 - Future work, priorities, 2008 deliverables, etc.

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www.fsa.org/committees/msrf/deliverables.asp





Process Checklist/PCM Checklist Working Group



Checklist and minutes may be downloaded from [FSA Website](#)

Process Checklist Status

- The working group has developed a standard 2-3 page AMS/RF Process Checklist that reflects the key attributes of an AMS/RF foundry process offering for analog, mixed-signal, RF and high-voltage processes
- The current version 0.4 includes stable sections for Process Type, Process Release Status, Process Attributes and Active Device figures of merit
- Current work in progress:
 - Defining applicable figures of merit for each passive device
 - Developing standard definitions for each quantitative and qualitative metric used for classification
 - Developing definitions for Turn Around Time that balance customer expectations and fab capacity fluctuation realities
 - Defining applicable figures of merit for libraries and IP

Process Control Monitoring (PCM) Working Group

- Working group focused on Process Control Monitors (PCMs) to define a standard way of communicating basic process parameters and criteria for mixed-signal and RF processes.
- Not much activity to date, waiting for completion of Process Checklist WG.
- The Process Checklist WG and PCM WG are being merged due to a overlap of information in the two lists.

Tenative date for next meeting Oct 30, 9:00PST





OTHER BUSINESS

- Next Meeting: Week of FSA Annual Awards Dinner (Dec 6th) ?
- Closing Remarks

