Guidelines for Design Review Presentations

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Outline

• What is a design review?
• Presentation Elements
• Presentation Style
• Conclusions
What Is a Design Review?

• At microwave frequencies, construction is expensive, and so is design time.

• Design review
  – Checkpoint in the process toward a final working circuit or system.
  – Opportunity to present design details and results

• The audience
  – Your boss and perhaps others of your colleagues
  – For this class: your instructor, your peers and perhaps some outside faculty “consultants”
Types of Design Reviews

• Preliminary Design Review
  – The first “cut” at a design
  – Should be working and meeting specifications in simulation with ideal components

• Critical Design Review
  – Detailed design
  – Detailed simulation results with all models, parasitics, etc.
  – Usually right before the fabrication
  – Much more “critical”: you should explain everything in great detail

• Final Design Review
  – Measurements versus simulations
  – Includes test results and is a check-off before mass production.
Preliminary Design Review

Elements

• **No more than 5 minutes** plus short question/answer session (total 7 minutes)

• Presentation flow:
  – Requirements/Specifications
  – Schematic
  – Simulation Results (ideal components)
  – Compliance matrix

• See example presentation (Baylis LNA/mixer design, Advanced RFIC course).
Presentation Style

• Use Powerpoint and be organized!
• Flow logically and orderly.
• Show all pertinent data in the presentation.
• Use the compliance matrix as a summary of how well you meet your specifications at the conclusion of the presentation if possible.
• Place boxes on measurement/simulation plots to show the specification windows.
Goals

• If you are prepared with your design, your goal is to successfully pass the design review and be ready to move on to the next step.

• If you’re not prepared, you shouldn’t be having the design review.

• Often you will get ideas for modifications; use them! Take advantage of the knowledge of your colleagues and superiors.
Conclusions

- The design reviews are checkpoints in the design/simulate/construct/test process.
- Presentations should be orderly, clearly showing results and whether specifications have been met.
- Preliminary and critical design reviews help to make the final design much better!