Job Profile

Analog Design Engineer/Characterization Specialist

Scope

The candidate will design and lay out advanced analog circuits and lead analog characterization of products: to develop and maintain methodologies and scripts for efficient and accurate characterization.

Key Accountability Areas

1. Efficiently design and layout area efficient, power reduced, analog circuit blocks to specifications provided, on schedule.
2. Develop and maintain accurate and efficient RF/analog characterization methodologies and scripts. Schedule and characterize new analog/mixed-signal products.
3. Document and present statistical results identifying trends and anomalies and suggesting corrections. Suggest performance improvements required to meet specifications.

Typical Activities

- Design, simulation, layout and verification of new circuits
- Lab measurements of high-speed and high-performance circuits and systems
- Development of Perl and other scripts for automation of lab characterization
- Confirming simulations to pinpoint design weaknesses
- Conduct and participate in detailed design and characterization reviews.
- Communicate with appropriate frequency and detail to superiors and team members

Requirements

- Three years design experience or masters degree in analog circuit related field
- Strong background of analog circuit measurement, experience with high-speed lab equipment such as spectrum analyzers, oscilloscopes etc.
- Quick learner, aptitude for scripting
- Basic comprehension of statistics and their implications.
- Well organized, excellent technical communications skills
- Familiarity with analog design techniques, circuit fundamentals for LNA, PLL, ADC, DAC, biasing, as well as matching and reliability issues. Understanding of the effects of circuit non-idealities on circuit performance
- Understanding of RF concepts such as impedance matching, parasitic effects and parasitic minimization techniques
- Familiarity with Cadence Virtuoso design and layout software
- Ability to work in a team environment sharing common goals, strategies and information.
- Ability to organize work and deliver to schedule.

Success Indicators

- Reduction of area and power of circuits while meeting specifications and reducing design time.
- Enhancement of characterization scripts and methodologies by improving maintainability, reducing time required to complete analog characterization and improving measurement consistency and accuracy.
- Provide feedback leading to improvements to performance and yield.
- Creation and maintenance of a well-organized results database.