

MOTION ENGINE

Analog/Mixed Signal IC Designer

Job description

Motion Engine, Inc., a Canadian company based in Montreal, Quebec, develops MEMS motion sensing based systems and software. In this position the candidate will be working in a team environment and involved in the design process from specification to implementation and layout. You must have deep and demonstrated understanding of analog and mixed signal circuit design, including methodology, layout, analog designer tools, processes and simulations.

The ideal candidate will have excellent knowledge of theoretical and practical fundamentals of analog electronics as well as experimental engineering techniques. You will have at least 5 years of industry experience designing a variety of analog, mixed-signal and digital circuits using advanced tools and foundry processes. Preferably you will have experience in designing analog interfaces for capacitive sensors, and particularly gyroscopes.

Responsibilities

- Work with a team of analog and digital designers on the design, simulation, testing and verification of both analog and mixed-signal circuits using industry best practices.
- Help define IC requirements associated with the MEMS sensor electromechanical specifications and requirements.
- Architecture and transistor level design, layout, and silicon evaluation of interface circuits for the motion sensor.
- Develop system-level schematics and simulations including inertial measurement systems and inertial navigation systems.
- Create necessary design and product documentation.
- Participate in selecting and interfacing with any additional outside ASIC design groups

Basic Qualifications

- 5-10 years of design, simulation, testing and verification of both analog, mixed-signal circuits.
- Knowledge of advanced analog design.
- Experience with high resolution and low noise design techniques.
 - Experience working silicon in more than one product

- Familiarity with industry standard design conventions and rules in analog circuit design; awareness of techniques to reduce design risk
- Creative and innovative on the architectural level
- Experience debugging, probing and characterizing silicon using standard lab equipment
- Proficiency in design tools such as Cadence
- Good balance of theoretical and practical experience and must be "hands on" in an electronics industrial environment and have experience using basic test equipment
- Good oral and verbal communication skills.
- Able to work independently with limited supervision.
- In depth understanding of silicon manufacturing technology.

Education Requirements

Bachelor's or Master's in electrical engineering required.

Keywords

analog, mixed-signal, capacitive sensor, inertial sensor, gyroscope