



## **Analog IC Design Lead**

### Job description

Motion Engine, Inc., a Canadian company based in Montreal, Quebec, develops motion-sensing-based systems and applications built around our proprietary MEMS capacitive inertial sensor. You will provide leadership for the IC design team as well as provide the in-depth analog IC design expertise required for the sensor interface.

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 10 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**

- Lead design, simulation, testing and verification of both analog, mixed-signal circuits using industry best practices.
- Architecture and transistor level design, layout, layout supervision and silicon evaluation of interface circuits for the motion sensor.
- Define IC requirements associated with the MEMS sensor electromechanical specifications and requirements.
- Develop system-level schematics and simulations including inertial measurement systems and inertial navigation systems.
- Lead design reviews and creating the necessary design and product documentation
- Ensure the appropriate internal and external resources are in place to accomplish the company objectives.
- Help select and interface with any additional required ASIC design groups
- Lead the creation of IC photomasks
- Help select and interface with IC foundry

### **Basic Qualifications**

- 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.
- Troubleshooting and debugging circuit boards and test platforms.
- Experience designing integrated circuit products and bringing them to market
- Good balance of theoretical and practical experience and must be "hands on" in an electronics lab environment and have experience using basic test equipment
- Demonstrated leadership of technical solutions, with the capability to get results in a complex environment and managing multiple complex, mission critical projects
- Track record of completing development projects on-time and on-budget with incremental deliverables.

- Good oral and verbal communication skills.
- Able to work independently with limited supervision.
- In depth understanding of silicon manufacturing technology.

#### Education Requirements

Master's or Doctorate in electrical engineering required.

#### Keywords

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

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