



## Sr. Mixed-Signal IC Design Engineer - Rochester, New York

IDEX America Inc. and its parent company IDEX ASA, a leading developer of fingerprint sensor devices, is building an ASIC Development site in Rochester, NY and is seeking experienced Mixed-Signal Design Engineers to architect and develop state-of-the-art mixed-signal fingerprint sensing devices. As Sr. Mixed-Signal Design Engineer, you will work closely with colleagues in the ASIC Development organization as well as with other teams within the IDEX R&D, System Engineering and Sensor Development teams to deliver high-volume products based on cutting-edge sensor technologies into Mobile, Smart Card and IoT markets.

### Tasks and responsibilities:

- Design of mixed-signal circuit functions and top-level analog architecture for capacitive fingerprint sensing ASICs.
- Design of circuit blocks such as analog front-end (AFE), filtering and signal-processing chain, low-power and low-noise amplifiers, voltage references, bias blocks, precision oscillators and data converters (A/D and D/A blocks)
- Perform deep-dive technical analysis across multiple domains such as system-level partitioning, subsystem architecture, noise and SNR analysis, sensor modeling and performance estimation, power management and low-power design
- Assist in the development of detailed requirements and architecture definition
- Silicon design, verification and validation of circuit and chip-level functions in collaboration with ASIC Development Team colleagues, Systems Engineering and other internal functions
- Support analysis and debug of existing ASICs
- Create customer-facing mixed-signal architecture and circuit presentations and training materials
- Meeting customers on and off site as required
- Provide technical leadership in supporting full product lifecycle from initial concept through to product development into production ramp
- Ensure timely and successful delivery of projects

### Required Experience:

- 10 or more years of experience in design / development of analog / mixed-signal ASICs
- Ability to work within a multi-discipline team from architecture to system prototyping
- Mixed-signal circuit modeling, design and simulation experience using Cadence or related tools
- Creativity and analysis skills with ability to research and devise new sensing / biometric algorithms, circuits and architectures
- Excellent problem solving and debugging skills

### Desirable Experience:

- Capacitive touch experience
- Excellent written and communication skills
- Ability to create detailed written specifications of complex circuits and systems
- Ability to explain complex design concepts at various levels of detail for different audiences
- Detail oriented and self-starter, ability to perform assignments with minimal supervision
- Knowledge of analog and mixed-signal ASIC development processes and techniques
- Ability to work effectively within a geographically distributed, cross-functional team organization
- Ability to effectively transfer knowledge within the organization

### Education:

- BS / MS in Electrical, Computer or Microelectronics Engineering

### Personal capabilities:

- Ambitious; able to work independently; self-assured and outgoing; dependable and able to deliver
- Creative, pragmatic and easy to work with
- Enjoying responsibility for a diverse portfolio of projects and assignments



- Excellent communication skills

**Potential:**

IDEX is a pioneering company in fingerprint sensing technology. We are technically advanced in our field. The organization is small and compact, and we have informal and stimulating work environment. There is a spectrum of challenges and you will have an opportunity to grow with us. You will have extensive contact with customers, suppliers and management. We offer competitive compensation and terms and a share-based incentive scheme.

**Work place:**

Full-time position in Rochester, New York

**Travel activity:**

Occasional domestic and international travel, depending on projects

**IDEX ASA:**

IDEX ASA specialises in fingerprint imaging and recognition technology. IDEX's vision is to ensure individuals a safe, secure, and user-friendly use of personal ID.

IDEX has developed the award-winning SmartFinger® technology platform based on the company's core intellectual property, including the patented fingerprint imaging principle, sensing scheme and chip design. SmartFinger solutions can be integrated into a variety of embedded applications such as mobile phones, Smartcards, payment and ID cards, and IoT devices.

**Web site:**

[www.idex.no](http://www.idex.no)

**Contact:**

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