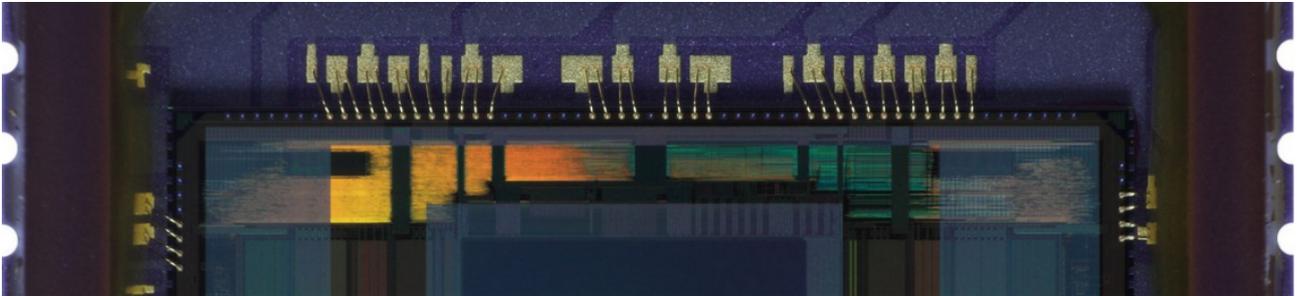




Analog IC Design Engineer



About Photolitics

We are a team of world-class analog design professionals in providing high-performance analog and mixed-mode circuits for leading custom machine vision CMOS image sensor devices. We have a vast connection network of multi-national companies that shape the market in scientific, medical and industrial machine vision imaging applications. Photolitics is currently looking for highly motivated individuals to start-up its design office in Bulgaria.

The available position

By joining us you will have the opportunity to gain experience in both photonics IC design, as well as specific to the CMOS imaging field analog-to-digital converters (ADC), digital-to-analog converters (DAC), analog filters, serializers and LVDS, phase-locked loop (PLL), voltage references, low-dropout regulators (LDO), serial-peripheral interfaces (SPI), and other timing circuits. As an analog designer with us you will have the freedom to participate in all IC design phases such as: circuit architecture, circuit implementation, design review, layout, and silicon validation.

Specific Job Duties

- ◇ Design innovative circuits for CMOS image sensors
- ◇ Perform schematic and layout design based on defined specifications and have the possibility to take complete ownership of designed modules
- ◇ Write technical documentation on developed modules
- ◇ Silicon debug and chip bring-up
- ◇ Work on image sensor characterization

Qualifications

- ◇ Analog design experience, good understanding of SPICE-based simulation engines
- ◇ Schematic and layout design of complex analog/mixed-signal blocks

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- ◇ Understanding of fundamentals in design for low-power and low-noise
- ◇ Familiarity with CAD tools for analog/mixed-signal IC design; Familiarity with Matlab
- ◇ Debug and characterization of electronics systems in a laboratory environment
- ◇ Familiar with lab instruments: oscilloscope, logic analyzer, signal generator. FPGA design is a plus
- ◇ Good communication skills

Other analog design experiences in one or more of the following fields is preferable, but not required

- ◇ CMOS image sensor design experience
- ◇ Knowledge in fundamentals of photonics and electro-optics
- ◇ Bandgap reference design, low-noise high-precision opamp, precision-comparator, switch-capacitor circuits
- ◇ SERDES, PLLs, oscillators, continuous-time circuits, feedback and control loops
- ◇ Single-slope ADC or other column-parallel ADC architectures
- ◇ Basic design skills in VHDL or Verilog for FPGA design or embedded systems programming

Education

- ◇ BSc in electrical engineering. MSc/PhD or relevant work experience is desirable
- ◇ Candidate must be a team player and an active participant in brainstorming solutions

What we offer

- ◇ Stimulating work environment and endless possibilities for growth into experienced solid-state image sensor R&D scientist
- ◇ Freedom to explore own architectures and design solutions. You have the possibility to take complete ownership and participate in the whole process of IC design
- ◇ Encouragement to publish work in highly-ranked scientific journals and have the ability to participate in scientific conferences and training courses
- ◇ Work with state-of-the-art CMOS fabrication nodes, gain an in-depth knowledge of solid-state semiconductor design
- ◇ Straight-to-the-point work, no participation in endless nonsense corporate meetings
- ◇ Work package of 25 paid holidays yearly
- ◇ Generous relocation package and assistance
- ◇ Highly competitive salary

Photolitics is an equal opportunities employer.

Additional information on the position can be obtained from Deyan Levski at:

deyan.levski@photolitics.com

To apply, please send your application with the usual document (CV), with an example of your prior experience to: deyan.levski@photolitics.com

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