



# Example of Staff Design Engineer Job Description

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Our innovative and growing company is hiring for a staff design engineer. Please review the list of responsibilities and qualifications. While this is our ideal list, we will consider candidates that do not necessarily have all of the qualifications, but have sufficient experience and talent.

## Responsibilities for staff design engineer

- Involvement/leadership in all aspects of IC design including concept/specification development, design partitioning, block level design, detailed circuit design, circuit simulation, layout floor-planning, transistor level layout, bench verification and testing, test-vector development, and documentation
- Design of very low-power, low-voltage analog IC functional blocks including voltage/current references, operational amplifiers, comparators, switched-capacitor circuits (amplifiers, filters, charge pumps, ), ADCs and DACs, oscillators, switching power circuits
- Use of MatLab to perform theoretical analysis of behavioral level and system level design ideas for mixed signal circuits and systems including circuit implementation
- Collaboration with other members of the IC design group and teams in other design centers
- Machine learning architecture and micro-architecture design & specification
- Design and optimization of complex blocks
- Work closely with software, verification, and implementation teams to meet all functional requirements, performance power and area goals
- Define and drive improvements to design flow

## Qualifications for staff design engineer

- Graphics/Multimedia/Networking protocols like Ethernet, USB, ITU 656 would be an advantage
- Exposure to the various Front end Integration techniques using IPXACT, CSV Scripts
- Work on Testbench and Testplan development along with the verification team
- Extensive knowledge of SystemVerilog and logic design concepts
- Extensive "Tape-out" experience in advanced foundry process technologies