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# Example of Principal Design Engineer Job Description

Our company is growing rapidly and is looking to fill the role of principal design engineer. To join our growing team, please review the list of responsibilities and qualifications.

## Responsibilities for principal design engineer

* Achieve goals within budget within time deadlines
* Assist in the design & execution of Product Development Process (PDP) for all OSTA design or distributed products
* Demonstrate project management skills and interact and collaborate with cross-functional teams
* Provide leadership in understanding of the regulations to other disciplines within and outside the organization
* Support and/or lead Process/Design Validation/Verification activities and approach including software validation
* Support Manufacturing Engineering in the creation of DMR, DHR, routes, and bills of material, print changes, and specifications for in- house / external manufacturing
* Communicate effectively at all levels within Quality cross functionally with departments such as PD, Regulatory, Sales, Supply Chain, Regulatory, and Marketing in order to provide quality input
* May be responsible for providing project direction, coaching, mentoring and supervision for design assurance quality engineers and/or technical team personnel
* Candidate will work on the design and integration of various subsystems into an ARM processor based MPU
* Hold spec reviews, code reviews, coverage analysis, to meet corporate ISO Quality goals

## Qualifications for principal design engineer

* Design Knowledge for High speed digital & analog (Power supply, DSP, DDR ) electronic components and circuitry
* Knowledge of simulation (hyperlynx) and measurement techniques for DDR
* Experience with the design and manufacturing of precision sheet metal/machined components
* Experience designing complex plastic parts and tooling, including working with manufacturers and evaluating first shots and FAI parts
* Understanding of system level thermal management including fan and heatsink design, air baffling, thermal simulation, and thermal testing and analysis
* Familiarity with cost sensitive high reliability systems