



Responsibility and Authority (Job Descriptions)

Job Title	Power Electronics Engineer
Location	Woburn, MA
Essential Duties and Responsibilities	<p>This engineer will function as a member of the Power Electronics Team. The principal responsibility of this position is the design of the control and power electronics for power converters. This encompasses the following duties:</p> <ul style="list-style-type: none"> • Power Electronics Circuit Design <ul style="list-style-type: none"> ○ Create auxiliary power supplies using flyback, buck, boost, and other converter topologies ○ Perform stability analysis of power electronic feedback circuits ○ Create schematics, PCB layouts, and CAD files for procurement of printed circuit assemblies • Digital circuit design <ul style="list-style-type: none"> ○ Interfacing with Digital Signal Processors ○ High-speed digital circuits ○ Design for production testing ○ FPGA • Electrical CAD <ul style="list-style-type: none"> ○ Schematic capture of designs ○ Printed circuit board layout • Sensor circuit design <ul style="list-style-type: none"> ○ Low-level analog signal circuit design ○ Analog signal conditioning circuit design ○ High-voltage isolation circuit design ○ Low-noise layout techniques • Design verification testing and validation • Participation in FMEAs. • Interaction with vendors and potential vendors during the design process. • Pursuing of patent protection for Azure Dynamics technology where appropriate. • Other related duties as assigned.



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<p>Education, Specialized Training and Experience Required</p>	<p>Skills/Knowledge/Abilities:</p> <ul style="list-style-type: none">• Hands-on experience with power converters is required.• Experience with motors and generators is desired.• Fluency in an electronic schematic capture and layout tool is required.• Experience with Altium Designer schematic capture and layout tool is desired• Experience with CAD tools such as MicroCap (Spice), MATLAB, and MathCAD is desired.• Knowledge of embedded controllers and software is desired.• Automotive experience is preferred.• A proactive focus and a high level of initiative are required.• Good communication and presentation skills are required.• Strong organizational and time management skills are required.• Strong analytical capacities are required. <p>Education/Certification:</p> <ul style="list-style-type: none">• An MSEE with emphasis on power electronics and 5 years of related experience OR a BSEE and a minimum of 10 years related experience is required.
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