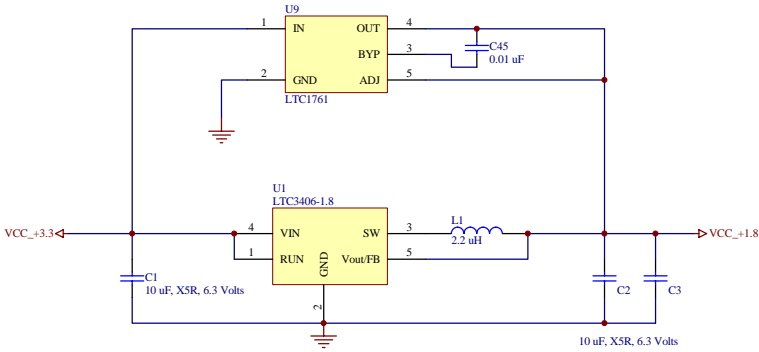


This linear regulator is used to assure that the +1.8v rail quickly passes the 0.5v threshold at powerup, thus minimizing power sequencing issues and making sure that the DSP does not draw excessive power as the power rails ramp up. This linear regulator is set with $V_{out}=1.22v$, so it is effectively shut off once the switching regulator comes up. Further testing and characterization of the DSP is require to determine if this linear regulator is in fact required.



This is a simple switching regulator. It produces 1.8V at >500 mA at about 90% efficiency. A simple low drop out linear regulator would be a cheaper alternative at the expense of power. A linear regulator would dissipate about 0.75 watts max. This switching regulator dissipates about 0.10 watts max.

Revision F



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