





# Title: QFHMIX01E

Frontend for QFH active antenna

Author:

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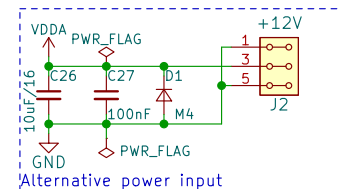
Date: 2022-07-31



3.3V source parameters:

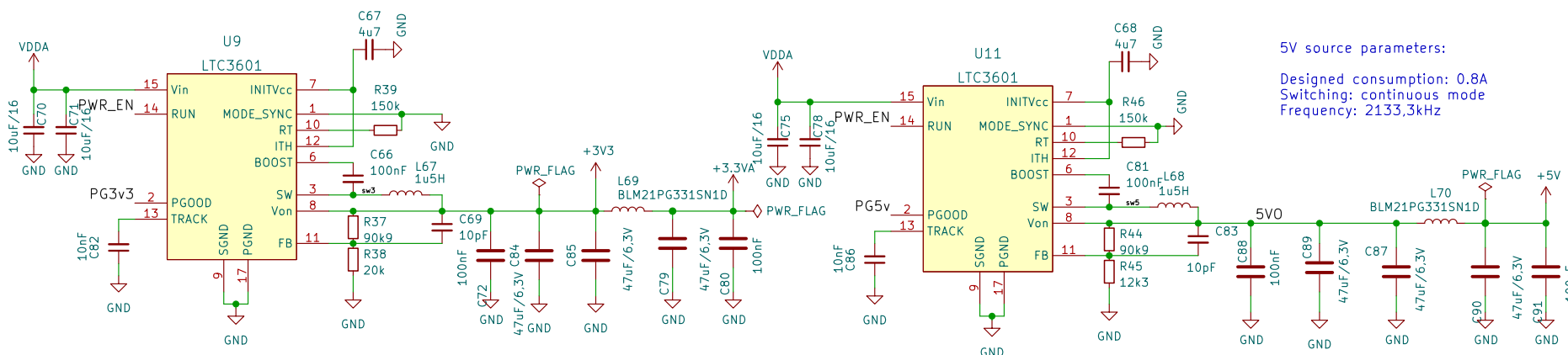
Designed consumption: 0.05A  
Switching: continuous mode  
Frequency: 2133,3kHz (same as 5V source)

Booth step-down are forced to continuous operation to enforce minimal voltage-ripple and fixed switching frequency.  
Frequency is set by external resistor, to minimize temperature dependency.

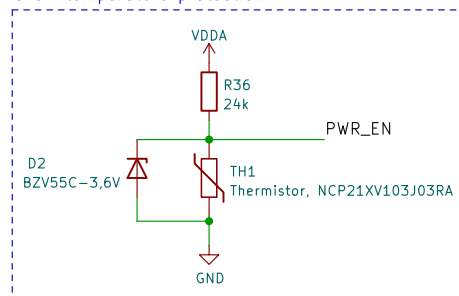


5V source parameters:

Designed consumption: 0.8A  
Switching: continuous mode  
Frequency: 2133,3kHz



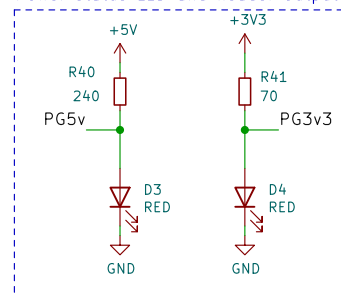
#### Over-temperature protection



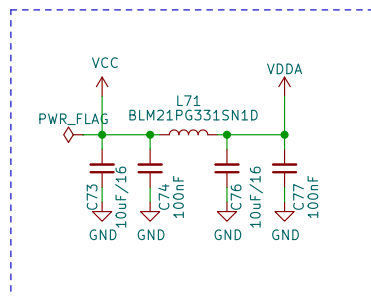
PWR\_EN enables power regulation by voltage above 1.25V. Voltage below 1V turn off internal power source.

Thermistor NCP21XV103J03RA with 24k resistor is designed to disconnect electronic at 75C.

#### Power status LED and header output



LED is powered by 10 mA to ensure that maximum current trough power source PG pin is not exceed. (PG pin is open-drain, active in failure condition)



Ensures that switching frequency is not "transmitted" by incoming cable and incoming power wires.

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