EE4951W Design Specifications

9-15-15

**Primary Constraints**

1. Input voltage range: 3.3 – 24v
2. Maximum power consumption: 1W
3. The system should feature multiple current measurement ranges.
4. The device should be able to be powered parasitically from the device-under-test. (DUT)
5. The device should log data to an SD card in csv format.
6. The microcontroller will have JTAG debug and programming capabilities
7. The device will be able to service interrupt requests triggered by a button press or an external

signal. This interrupt will start or stop statistical calculations.

**Secondary Constraints**

1. The system should monitor the power consumption of itself.
2. Output real-time data over USB.
3. Allow for system to be powered from USB.
4. The system should be protected against reverse voltages.
5. The microcontroller should go to sleep while idle to minimize power consumption.