EE4951W Rev. A Testing

**Power System**

Converter Selection Controls

* Comparator Inputs good
* U7 regulates to 2.7v
* Rework Done on U6 (See 1)
* Buck converter (U5) working
* U9 Needs some minimum output load to regulate
* USB\_5V LED always on when powered. Flip M5.

**Rework**

1. Rewire U6 inputs (Flip U6 +/- inputs)
2. Remove D6
3. Connect V5\_MAIN to V5\_SUM (Net naming error)

EE4951 Rev. B Changes

**Power System**

1. Flip U6 +/- inputs
2. Add hysteresis and overlap to U6 range
3. Add blocking FET to output of boost converter (U8)

**Voltage Measurement System**

1. Testing was done for the voltage divider (consisting of components R22 and R24).

V\_BAT supplied was 24V. The measured output voltage recorded was about 2.907V.

1. U4 was also tested. The output voltage measured and recorded was about 2.908V.

**Microcontroller/Firmware**

1. DutISense.updateADCVal() timing
   1. 35 instruction cycles
   2. 583ns at 120MHz (1.7MHz)
2. ADC Sample Rate
   1. 152.6kHz (module)
   2. 76.3kHz (per channel)