### EE492 Weekly Report

Week 22

# May1625 Latent Damage and Reliability in Semiconductor Devices

Advisor: Dr. Randall Geiger

**Client:** Dr. Randall Geiger, EcpE

#### Members (roles):

Sean Santella (Leader) Jaehyuk Han (Webmaster) Hayle Olson (Communication Leader) David Ackerman (Key Concept Holder)

# Weekly Summary:

We held both team and advisor meetings this week. We were able to apply a coat of insulating varnish to our capacitor on our Stress PCB. We should be testing the board next week. During our Advisor meeting we discussed with Dr. Geiger our thoughts about finding a burn-in temperature.

# **Meeting Notes:**

### Team Meeting (March 22<sup>nd</sup> at 2PM in Coover 3014)

#### Duration: 1 Hour

Members Present: Sean Santella, Jaehyuk Han, Hayle Olson, David Ackerman *Notes:* During this team meeting we were able to apply a coat of insulating varnish on our capacitor on our Stress PCB. We also continued our research towards a correct burn-in temperature. After the burn-in temperature is determined we can find the correct components for our burn-in PCB that we need to redesign.

#### Advisor Meeting (March 24<sup>th</sup> at 1PM in Coover 1219)

#### Duration: 1 Hour

Members Present: Dr. Geiger, Sean Santella, Jaehyuk Han, Hayle Olson, David Ackerman Notes: During this advisor meeting we were able to discuss with Dr. Geiger our findings on determining a burn-in temperature. He geared us in the right direction. We also discussed our next steps in regards to after finding our burn-in temperature.

# Weekly Accomplishments:

• Applied the insulating varnish to insulate capacitor on the Stress PCB.

# **Plans for Next Week:**

- Research and calculate a burn-in temperature.
- Research components with high temperature thresholds.
- Start developing a new PCB design for our burn-in boards.
- Find a stressing condition that will destroy 50% of our devices.

#### **Pending Issues:**

• None

### **Individual Contributions:**

Sean Santella: Attended both team and advisor meetings, and performing burn-in research.

Jaehyuk Han: Attended both team and advisor meetings, and performing burn-in research.

Hayle Olson: Attended both team and advisor meetings, worked on final presentation, and wrote weekly report.

David Ackerman: Attended both team and advisor meetings, and tinkered with the stress PCB.

# **Hourly Contributions:**

| <u>Member:</u> | Weekly Hours: | Semester Hours: | Yearly Hours: |
|----------------|---------------|-----------------|---------------|
| Sean Santella  | 4.0           | 20.5            | 73.5          |
| Jaehyuk Han    | 2.5           | 14.5            | 51.0          |
| Hayle Olson    | 3.0           | 20.0            | 66.5          |
| David Ackerman | 4.5           | 21.5            | 63.5          |

Semester Total: 76.5 Hours Yearly Total: 254.5 Hours