

Meeting Purpose: The objective for this meeting is for feedback on the detailed design on the thermal components of the enclosure subsystem.

Materials to be Reviewed: *Detailed Design Review Package, Mechanical Engineering Section, Rev. 02*

Attendees:

Dr. Bailey, Mechanical Engineering, Faculty Consultant

Anthony Berwin, Mechanical Engineering, Team Lead

Meeting Date: 02/12/09

Meeting Location: 09-2061

Meeting Time: 11:30 AM – 11:50 AM

Discussion/Notes:

Key Design Concerns

- Contact between the Aluminum heat sink & the PCB: Needs to be defined in the simulations for more detailed analysis
- Bonding between the parts: Need to find a contact option that considers contact resistance.
- PCB Assumption of Aluminum 6061-T6 Material: PCB should be treated as fiberglass for future analysis.
- Add radiation to the simulations: This will be an iterative analysis.
- Complete Structural Analysis on the thermal loading.

Action Items					
Item #	Description	Responsible	Due Date	Close Date	Comments
A001	PCB Assumption of Aluminum 6061-T6 Material: PCB should be treated as fiberglass for future analysis.	Anthony	*	*	Redo analysis with the PCB as fiberglass with the redesigned enclosure. PBC material as fiberglass in redesign.
A002	Complete Structural Analysis on the thermal loading.	Anthony	Cancel	Cancel	Additional analysis with the redesigned enclosure. The enclosure has minimal stress due to thermal loading. Additional structural analysis due to thermal loading is not required.

Issues					
Item #	Description	Responsible	Open Date	Close Date	Comments
I001	Contact between the Aluminum heat sink the PCB: Needs to be defined in the simulations for more detailed analysis	Anthony	02/13	02/14	D001
I002	Bonding between the parts: Need to find a contact option that considers contact resistance.	Anthony	02/13	02/14	D002
I003	PCB Assumption of Aluminum 6061-T6 Material: PCB should be treated as fiberglass for future analysis.	Anthony	02/13	02/14	A001
I004	Add radiation to the simulations: This will be an iterative analysis.	Anthony	02/13	02/14	D003
I005	Complete Structural Analysis on the thermal loading.	Anthony	02/13	02/14	A002

Decisions				
Item #	Description	Contributing Individuals	Decision Date	Comments

Decisions				
Item #	Description	Contributing Individuals	Decision Date	Comments
D001	Contact between the Aluminum heat sink & the PCB: Needs to be defined in the simulations for more detailed analysis	Anthony	02/14	Neglected in analysis. Should be considered for future Senior Design teams.
D002	Bonding between the parts: Need to find a contact option that considers contact resistance.	Anthony	02/14	Neglected in analysis. Should be considered for future Senior Design teams.
D003	Add radiation to the simulations: This will be an iterative analysis.	Anthony	02/14	Neglected in analysis. Should be considered for future Senior Design teams.