

System Level Design Review Notes: P22257

Date 10/10/24

Attendees

- Team - Ian, Tanner, Luke, Drew, Eva, Nsadhu
- Guide - Dr. McCauley
- Client - Philip Linden, Ashley Kosak

Goals

- Conduct System Level Design Review addressing progress made on project and finalized decisions
- Need to pick FPGA and other parts - need to be available in the US

Agenda and discussion notes

Time	Item	Who	Notes
65 min	Design Review Presentation	All team members	<ul style="list-style-type: none">- Need to form BOM with lead times and get approval to purchase components with long lead times ASAP (SA45 has lead time of 4/15 at the earliest)- Use PTP and CAN- Add lead times in risk assessment<ul style="list-style-type: none">- Ashley said design risk, not project risk so don't need to include in chart (asked Dr. McCauley 10/17/24)- Leo orbit is goal, tech demo is in geo orbit
5 min	Questions/ Discussion	All	<ul style="list-style-type: none">- Don't let price limit what we consider - see if it would be worth spending the money- Focus on timekeeping for prototype- Identify environmental risks and modify them as best as we can- Good job incorporating feedback- Allan deviation is good way to represent clock drift over different timescales

Issues Raised

- PTP and CAN
- Lead times
- Is it worth spending more money to get better quality?

Decisions Made

- None

Action items

- Decide what we need to buy, form BOM, and get approval to purchase components from client ASAP - some components have long lead times and November is coming fast [Drew, 10/24/2024]
- Displacement Damage Dose - need to contact SPEX and see what info they have, if they have nothing contact Philip [2:00PM 10/19/24, Tanner (Possibly) and Luke].
- SA45 - research - <https://www.microchip.com/en-us/product/csac-sa45s> [Tanner, 10/22/24]
- CSAC 0090-03240-003 ships by 10/21 - research - <https://www.microchip.com/en-us/product/CSAC-SA45S> [All, 10/17/24]
- Add the higher priced oscillators to chart to see if spending the money would be worth it - could find more funding [Luke, 10/22/24]
- Luke will make MATLAB model for CubeSat if he has time between classes [Luke, 11/1/2024]
- Add lead time to risk assessment [Drew, 10/17/24]
 - In talking with Dr. McCauley, Ashley is correct that normally it wouldn't be included as a risk but due to the tight timeframe of our project with no option for an extension it is a risk.