

# FD2-PDS Longevity Qualification and Stability Test Workshop

## **DCEM (final design) Validation tests (@ UCSB, CERN, APC, FNAL) for Module-1**

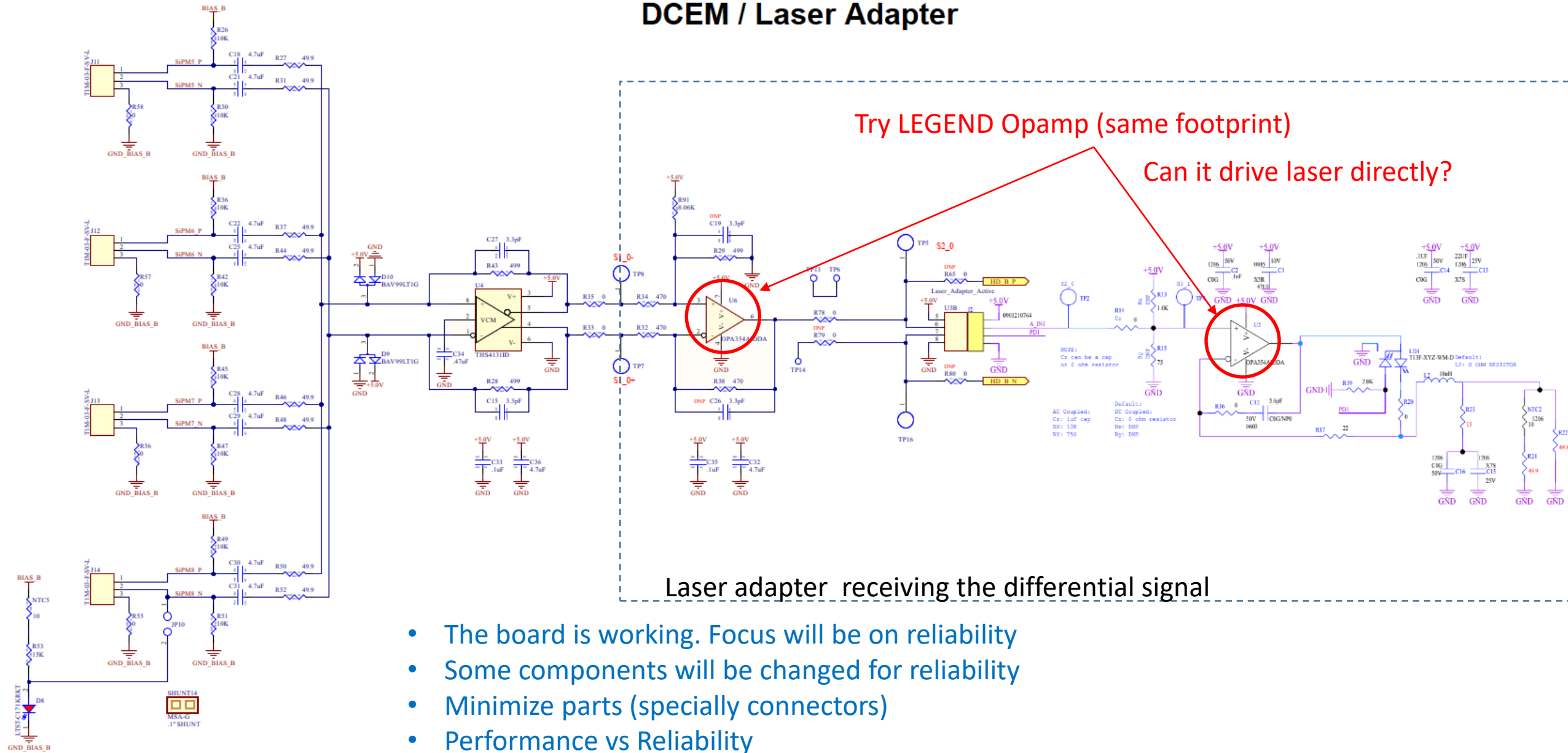
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# Board Modifications

- Improve board rigidity
- Reduce board dimensions [Length (~5cm), Width (3mm), and Height (5mm)]
- Improve layout with cold techniques
- Remove connectors to DC/DC converter (soldered connection)
- Single DC/DC
- Single LDO
- Improve layout with cold techniques
- Reduce types of capacitors
- Alternative Opamp
- Schematics changes

# Schematics Baseline Design

## DCEM / Laser Adapter



Try LEGEND Opamp (same footprint)

Can it drive laser directly?

Laser adapter receiving the differential signal

- The board is working. Focus will be on reliability
- Some components will be changed for reliability
- Minimize parts (specially connectors)
- Performance vs Reliability
- Minimum acceptable performance to achieve maximum possible reliability

# Schematics Alternatives

