

Advanced LIGO Engineering Change Request (ECR)

ECR Title: ECR:

DCC No: E12xxxxx-vx

CM Board Modifications (ALS)

Date: 10/12/2012

Requester:

Impacted Subsystem(s):

Daniel Sigg

ISC

Description of Proposed Change(s):

As a result of the one arm test a number of changes need to be propagated to all other ALS end station boards. The common mode boards are described in a [wiki](#). The modifications affect the transfer functions for the laser locking and the cavity locking. It adds low pass filtering to suppress PZT resonances and it fixes a gain in the slow controls readback. As a consequence the previously identical ALS boards are now split into two types: LL (laser locking) and ALS (cavity locking). The actual boards are [D040180-E](#). The changes are described in [E1200907-v1](#).

Reason for Change(s):

The transfer functions of the ALS common mode boards had to be modified to reflect reality.

Estimated Cost: total \$5k (parts and labor)

Schedule Impact Estimate:

None.

Nature of Change (check all that apply):

- Safety
- Correct Hardware
- Correct Documentation

- Improve Hardware
- Improve/clarify Documentation
- Change Interface
- Change Requirement

Importance:

- Desirable for ease of use, maintenance, safety
- Desirable for improved performance, reliability
- Essential for performance, reliability
- Essential for function
- Essential for safety

Urgency:

- no urgency
- desirable by date/event: Feb 2013
- Essential by date/event: _____
- Immediately (ASAP)

Impacted Hardware (select all that apply):

- Repair/modify. List part & SNs: _____
- Scrap & Replace. List part & SNs: _____
- Installed units? List IFO, part & SNs: _____
- Future units to be built

Impacted Documentation (list all dwgs, design reports, test reports, specifications, etc.):

D040180-E, E1200907, T1200477

Advanced LIGO Engineering Change Request (ECR)

Disposition (to be completed by Systems Engineering):

TRB

CCB

Approved

Additional information required. Define:

[Requester re-submits with new information with the same DCC E-number for the ECR but the next version number.]

Concurrence by Project Management: (Acknowledged Electronically in DCC)

Project Systems Engineer: Dennis Coyne

Project Systems Scientist: Peter Fritschel