00:10:03 Thu Jun 9 2011 (Local)

Subentry

Topic: RoboMon Author: Dave Barker Thu Jun 9 07:10:03 2011 UTC

RoboBootMon

Boot Log 8 Jun 2011

```
1 09:18:37 h2adcumy fe_start
```

- ***Dave Barker***

http://ilog.ligo-wa.caltech (ref url)

CDS

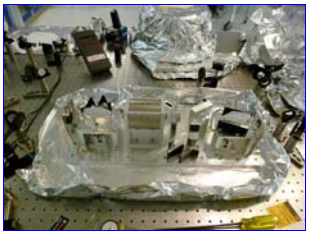
Add or Remove Keyword: NO_KEYWORD Submit

16:58:36 Thu Jun 9 2011 (Local)

Subentry

Topic: H1 Author: Lisa Barsotti Thu Jun 9 23:58:36 2011 UTC

aLIGO Faraday: T=96%, Isolation ~ 40 dB, but only 23dB back scatter isolation



Keita, Grant, Matt, Lisa

This morning we put back into the Faraday the waveplate ring and the pair of calcite polarizers we got from Caltech (to replace the worst scratched and chipped pair).

We changed the layout to be able to steer the beam into the Faraday, and we also set-up a path to inject light from the back of the Faraday, to measure the isolation ratio.

The over all situation is good: 4% losses (96% transmission) and 40 dB attenuation. However, the light reflected back from the input into the future "squeezed" path is attenuated by only 23 dB (we were hoping for something like 30 dB).

Here are the numbers:

TRANSMISSION:
500 mW input power
480 mW transmitted power
==> 96%

ISOLATION RATIO:
460 mW input power (from the back of the Faraday)