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# LASER INTERFEROMETER GRAVITATIONAL WAVE OBSERVATORY

**-LIGO-**

**CALIFORNIA INSTITUTE OF TECHNOLOGY**

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<b>Mode Cleaner Length Whitening Board Test Plan</b>		
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## 1 Introduction

The tests described below are required to verify the correct operation of the Mode Cleaner Length Whitening Board (D020389, Rev A).

## 2 Test Equipment

Dynamic Signal Analyzer  
Oscilloscope  
Power supplies

## 3 Tests

### 3.1 Input Power

Record the input voltage and current in the table below. Values should be +/-10mA of the nominal values.

Supply	Nominal Current	Actual	Pass/Fail
+15 V	0.02 A		
-15 V	0.02 A		

### 3.2 Pole/Zero Response

The nominal response of each filter section, is a poles at 150Hz, 1500Hz and a zero at 15 Hz. Using the dynamic signal analyzer, verify and record the response of each channel in the table below.

Filter Section	Filter Enable	Gain/Phase at 1 Hz Nom 0 dB/180deg	Gain/Phase at 15Hz Nom +3dB/ -140 deg	Gain/Phase at 150Hz Nom +17dB/ -140deg	Gain/Phase at 1500Hz Nom +20dB/ -215 deg
1	JP1 pin 2-3, JP2 pin 1-2				
2	JP1 pin 1-2, JP2 pin 2-3				