

# The LIGO Pre-stabilized Laser (PSL)

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LIGO-G980049-26-M

# Challenge Highlights

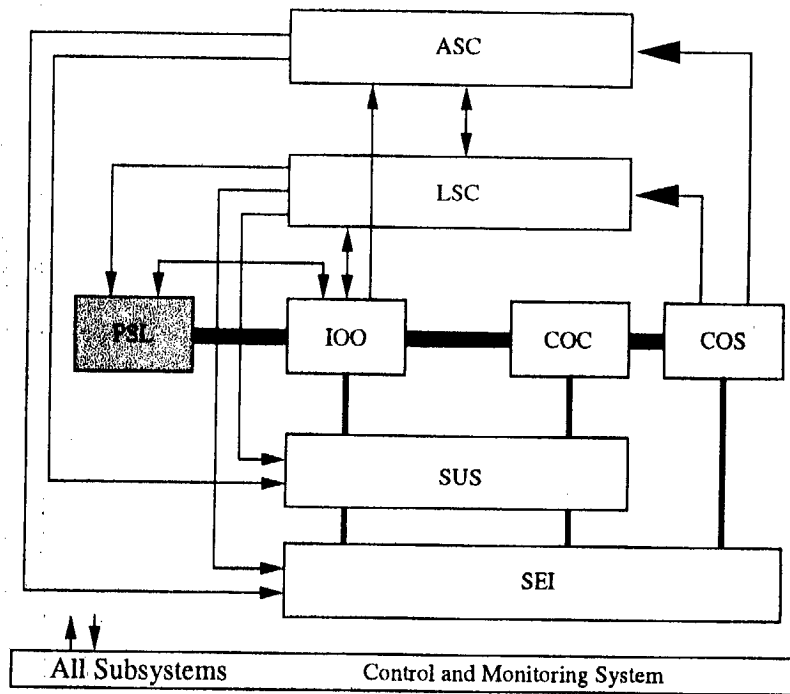
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- Frequency stabilization to 100 mHz at 100 Hz.
- Power fluctuations to  $10^{-7}$  at 100 Hz.
- Beam pointing fluctuations to  $5 \times 10^{-6}$  at 100 Hz.
- Long term operational stability and reliability.
- Delivery of at least 8.5 W to the IOO subsystem.



# The PSL Detector Subsystem

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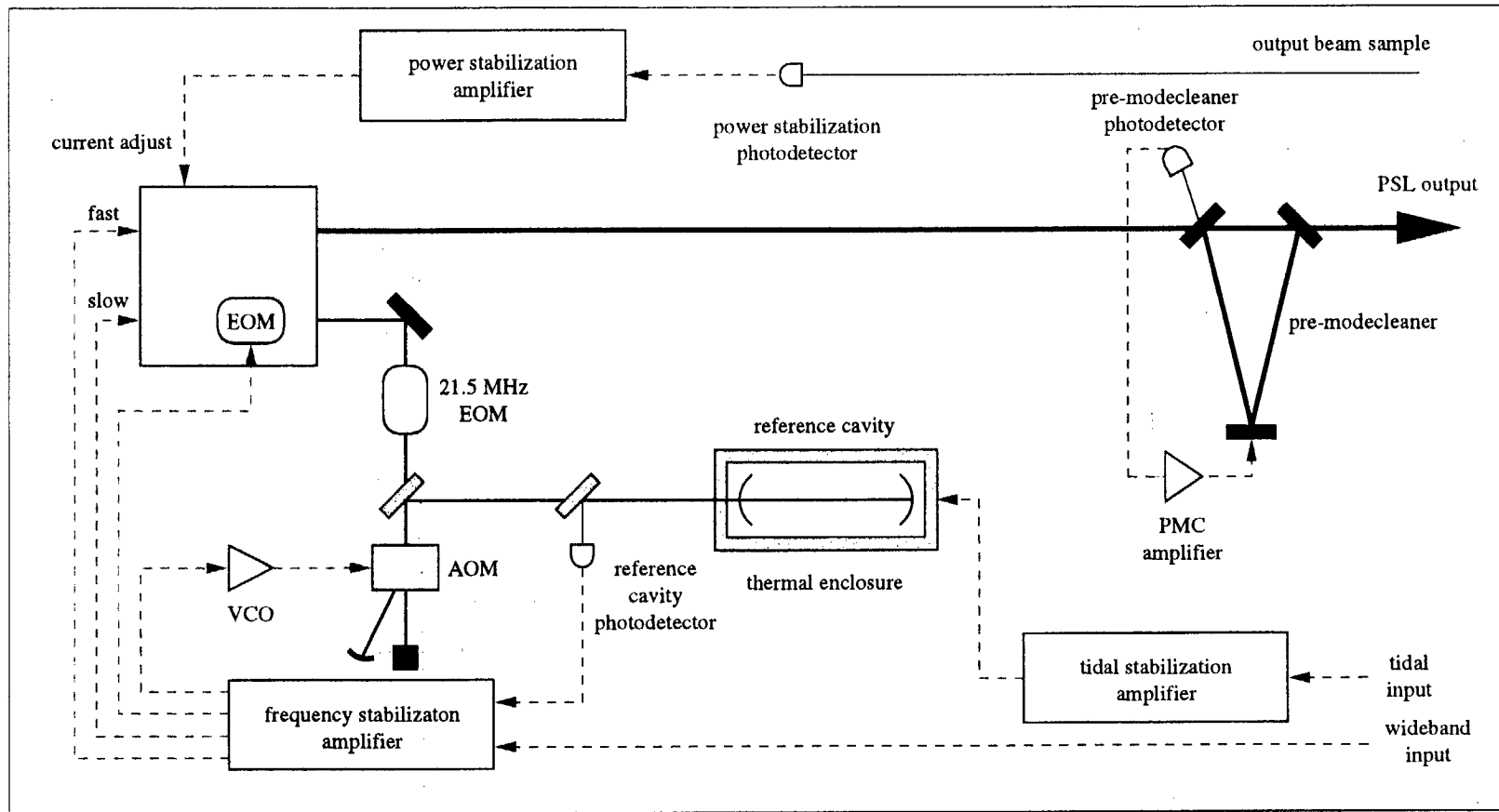


mechanical  
interfaces

optical  
interfaces

electrical  
interfaces

# PSL Optical Layout



*Note 1, Linda Turner, 04/21/98 09:05:36 AM*  
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