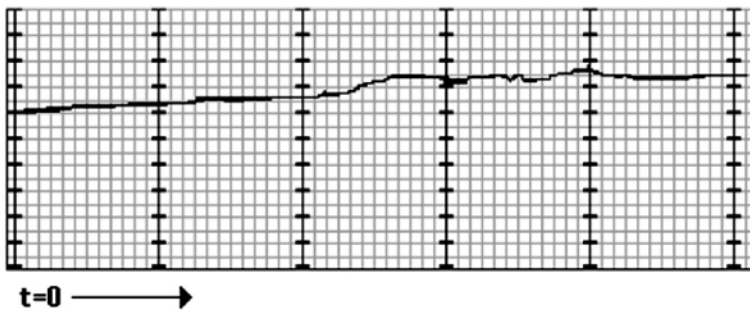


### LASS-II (Laser Amplitude Stabilization System)

#### Features

- Significantly lowers noise intensity in laser beam over a much broader bandwidth
- Design to reduce amplitude variations commonly associated with most gas lasers
- Convenient for use in recording systems
- Three separable units (feedback electronics, power supply)



Long Term DC Stability  
 Upper trace = Detected unstabilized laser input  
 Lower trace = Detected output laser II  
 Sensitivity -50mV full span (.5mV/minor div.)  
 Detector output @ chart recorder  
 Upper = 100mV ; Lower = 200mV full Scale (100mV@.5lo)  
 Recorder D.C. offset used to center both trace  
 Horizontal scale = 1cm/min

#### Specifications

Laser Power	50mW ( $I_0 = .5I_{max}$ )
Beam diameter	1.4mm ( $1/e^2$ )TEM <sub>00</sub>
Noise Reduction (f) @ 500KHz	1/1
@100KHz	5/1
@ 50KHz	18/1
@ 10KHz	100/1
@ 1KHz	200/1
@ 200Hz	250/1
Noise Floor	458nm - 100dB relative to F.S.
D.C Stability (Short term)	1% relative to F.S(@ .5I <sub>max</sub> ) T=0 : 1Hr.
Ext. Modulation Bandwidth (-3db)	>50KHz
Ext. Input Impedance	1K nom.
Ext. Input voltage	>1V max.
Electrical Input Power	20W (100-230VAC)
Sensitivity @ 633nm	300 μW
@ 514nm	450 μW
@ 488nm	540 μW
@ 458nm	820 μW
Static Transmission	85% (excluding beamsplitter)
Useable Aperture	2.5 mm square*
Optical Bandwidth	400-800nm**
Maximum Throughput Power	3.5W/mm <sup>2</sup> TEM <sub>00</sub>

\* Large aperture 3.5mm available on special order (suggested for large frame Argon/Krypton lasers)

\*\* Both UV and IR on special order