

PHOTONICS TECHNOLOGIES

Long term beam power stability better than
.025% rms

LASER POWER CONTROLLER (LPC)

The Laser Power Controller (LPC) offers automated regulation and precise control of laser beam power for virtually any CW or mode-locked laser.

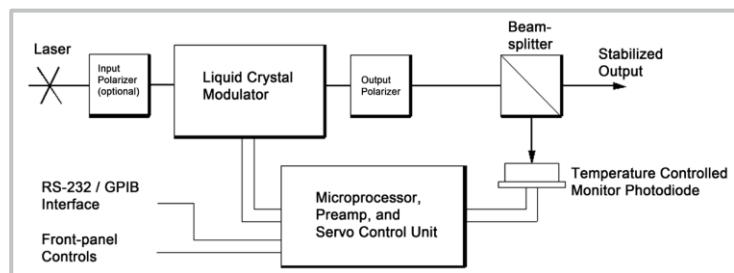
LASER POWER CONTROLLER (LPC)

Features

- Easy to align with its compact size and large aperture
- Its liquid crystal modulator allows use with IR lasers, and offers high power handling
- A modulation input permits analogue selection of the desired output power, while a reference output provides a signal proportional to the monitor photodiode reading



The Laser Power Controller (LPC) can now control your laser via front panel controls, a USB interface, or an analog input jack. A single system can attenuate, stabilize and display laser power. Options are available to accept external feedback from your own photodiode, PMT or any device of your choosing.



LPC block diagramme

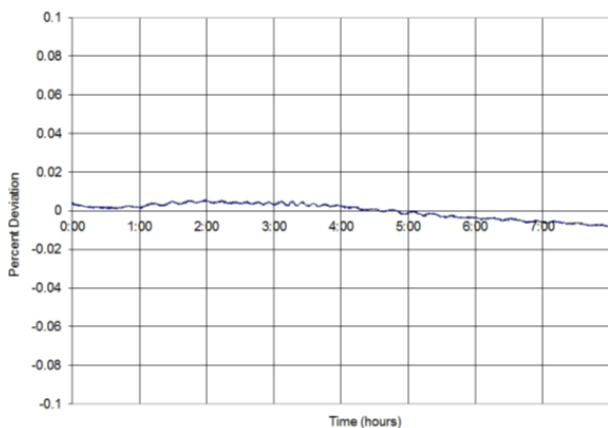
The LPC is a patented intensity control system which uses a high-speed liquid crystal element to modulate the laser beam directly with no connections to the laser head itself.

Specifications

- Clear Aperture 4.0mm
- Transmittance 85%
- Long Term Stability 0.025%
- Noise Attenuation 200:1 at 1Hz (typical)
- Servo Bandwidth up to 5 kHz
- Power Display Accuracy 5% (typical)
- Minimum Input Laser Power 0.5 mW
- Operating Temperature +15°C to +35°C
- Storage Temperature -10°C to +45°C



LASER POWER CONTROLLER (LPC)



Typical stability plot with 4mw HeNe laser

Applications

- Achieve precise powers for single molecule experiments
- Adjustment of laser power without changing lamp currents
- Remove baseline noise and 1/f noise from spectra
- Control beam power with Ti:Sapphire lasers
- Metrology
- Microscopy

Standard Models

LPC-VIS2 for lasers to 4 W, 425-780 nm
LPC-NIR2 for lasers to 4 W, 700-1100 nm
LPC-IR2 for lasers to 1 W, 950-1700 nm
LPC-VTN2 for lasers 450-900 nm
Contact us for custom configurations

Options and Accessories

RD-40-Vis/NIR, Remote detector for VIS/NIR
RD-40-IR, Remote detector for IR
RD-40-UV For use with doubled or tripled beams
LPC-GPIB, GPIB interface (coming soon)
LPC-IP, input polarizer for use with unpolarized lasers
LPC-EXT-CBL, Extended-length cable set; 20ft
LPC-VIO for use with external detectors and preamps

Custom Capabilities:

The LPC can be customized to work with powers up to 65 watts. Low power operation to 375nm is possible as is operation up to 2100nm. Custom OEM units are also available for integration into new or existing systems.

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+44 (0)1483 799030
EMAIL US ON
info@photonicstechnologies.com