

LDC500 Series Laser Driver's Setpoint Slew Rate

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The output current setpoint slew rate on the LDC500 and LDC501 is set to 0.2mA/ms (0.2Amp/sec) when you set the laser current from front panel buttons or the control wheel, or from a remote command. The slew rate is always the same despite range, bandwidth and mode settings.

For example, it will always take 500ms for a 100mA change in the output current, in high or low range, in high bandwidth or low bandwidth mode, and in Constant Current mode or Constant Power mode.

One way to get a fast output current change is to use modulation. The current change rate is determined by the bandwidth setting and may also be affected by cable parasitic. The highest available bandwidth is around 1MHz.

To achieve even higher frequency modulation, directly injecting RF current into the laser diode can be used. Check another application note for detail.

The LDC502 output current setpoint slew rate is set to 0.7mA/ms (0.7Amp/sec) for all range, bandwidth and mode settings