

Low noise laser diode driver

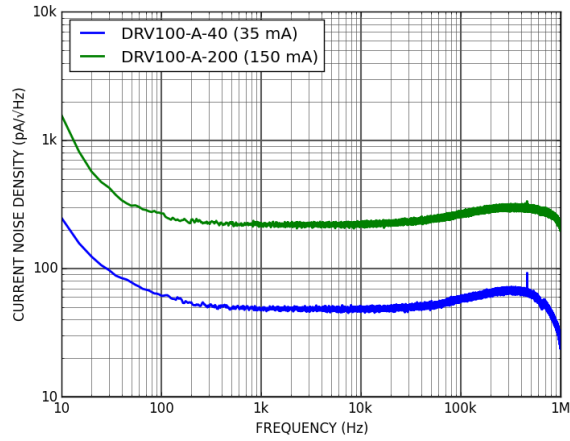


Koheron DRV100 drivers are compact, ultralow noise laser drivers, designed to operate narrow linewidth laser diodes. Power supply can be as low as 3 V. They can be directly operated with a switched supply thanks to a very high noise rejection. Laser current can be adjusted with a manual potentiometer.

Specifications

	DRV100-A-40	DRV100-A-200
Laser current	0 - 40 mA	0 - 200 mA
Supply voltage V_S	3 - 15 V ($V_S = V_+ - V_-$)	3 - 15 V ($V_S = V_+ - V_-$)
Compliance voltage	4 V	4 V
Current monitor	7.2 mV/mA	1.5 V/A
Current monitor output impedance	1 k Ω	1 k Ω
Temperature coefficient	50 ppm/ $^{\circ}$ C	50 ppm/ $^{\circ}$ C
RMS noise (10 Hz - 1 MHz)	55 nA _{rms} (up to 60 nA _{rms})	320 nA _{rms}
Current noise density (1 kHz)	52 pA/ $\sqrt{\text{Hz}}$	250 pA/ $\sqrt{\text{Hz}}$
Current limit	42 mA	200 mA
Slow start (90 % setpoint)	490 ms	490 ms
Outside Dimensions	38 mm x 38 mm x 12 mm	38 mm x 38 mm x 12 mm
Compatible lasers	Floating diodes / anode-grounded	Floating diodes / anode-grounded

Current noise



The DRV100 laser driver [current noise was measured](#) across a 30 Ω resistor for the 40 mA laser current version (A-40) and a 5 Ω resistor for the 200 mA laser current version (A-200).

Ordering codes

- DRV100-A-40: Laser current 40 mA
- DRV100-A-200: Laser current 200 mA