

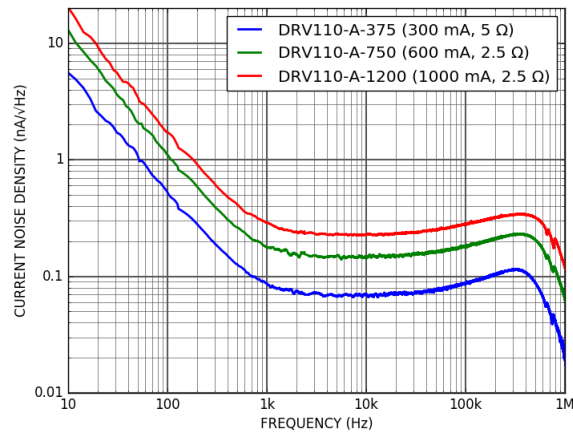
Koheron DRV110 is a current source that can drive up to 1200 mA of current with a compliance voltage of 15 V. Its current noise of 400 pA/√Hz (200 pA/√Hz for the 750 mA version) is below the noise of a 1 A Poissonian current source. The DRV110 can be used to drive high current LEDs below the shot noise limit. Thanks to its high compliance voltage and its low noise performance, the DRV110 is an excellent choice to drive quantum cascade lasers (QCL).

Specifications

	DRV110-A-375	DRV110-A-750	DRV110-A-1200
Current driver			
Laser current	0 mA to 375 mA	0 mA to 750 mA	0 mA to 1200 mA
Supply voltage	3 V to 19.5 V	3 V to 19.5 V	3 V to 19.5 V
Compliance voltage	15 V	15 V	15 V
Temperature coefficient	25 ppm/°C	50 ppm/°C	50 ppm/°C
RMS noise 10 Hz to 1 MHz	130 nA _{rms}	240 nA _{rms}	480 nA _{rms}
Current noise density 1 kHz	110 pA/√Hz	200 pA/√Hz	400 pA/√Hz
Current limit L setting	200 mA	400 mA	500 mA
Current limit H setting	400 mA	800 mA	1250 mA
Slow start 90 % setpoint	280 ms	470 ms	600 ms
Other			
Outside dimensions	63 mm x 53 mm x 12 mm	63 mm x 53 mm x 12 mm	63 mm x 53 mm x 12 mm
Weight	24 g	24 g	24 g
Operating temperature	0 °C to 50 °C	0 °C to 50 °C	0 °C to 50 °C
Compatible lasers	Cathode-grounded / floating diodes	Cathode-grounded / floating diodes	Cathode-grounded / floating diodes

Current noise

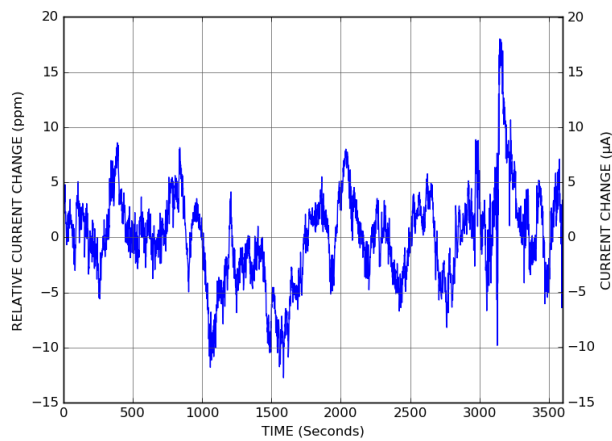
The power spectral density of the DRV110 laser driver current noise characterized using a 5 Ω load (A-375) or a 2.5 Ω load (A-750 and A-1200). Voltage drop in regulator is 1 V.



DRV110 current noise

Current stability

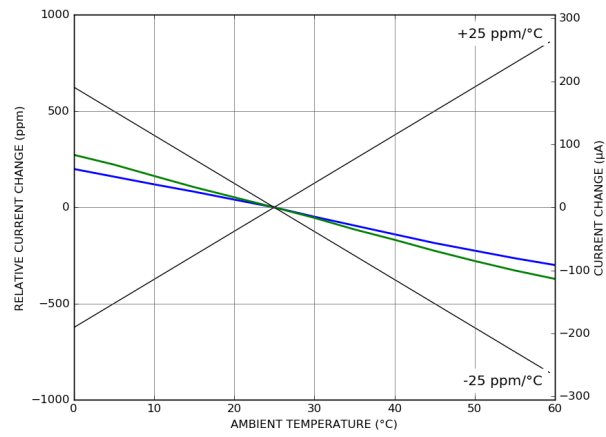
Stability over 1 hour for a DRV110-A-1200 driving 1000 mA in a 10 Ω load.



DRV110-A-1200 one hour current stability

Temperature coefficient

DRV110-A-375 operated at 300 mA in a 10 Ω load. Blue and green are two different samples.



DRV110-A-375 temperature coefficient

Ordering codes

PRODUCT NUMBER	ATTRIBUTE
DRV110-A-375	Laser current 375 mA
DRV110-A-750	Laser current 750 mA
DRV110-A-1200	Laser current 1200 mA