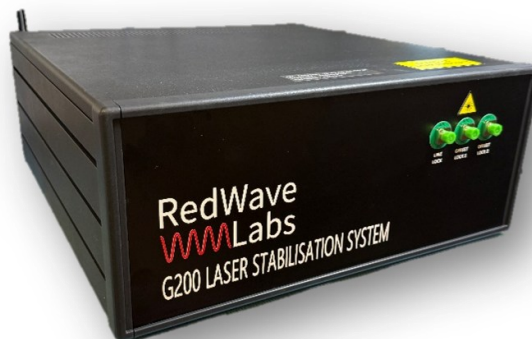


Introduction

The G200 Laser Stabilisation Platform is a compact laser-control solution for applications that need stable, repeatable optical frequencies from an atomic reference. It combines line-lock and offset-lock control to generate and maintain programmed laser detunings, allowing a single reference laser to support multiple stabilised channels.

The platform is available either as a fully integrated instrument or as OEM subsystems for customer-designed systems. In its instrument form, G200 combines laser drivers, control electronics, lasers, optics and embedded software in a ready-to-deploy package with fibre-coupled outputs and a dedicated user interface for setup, lock control and monitoring. For OEM integration, the same core architecture can be supplied as standalone control modules and subsystems, allowing customers to build the locking function into their own optical platform.

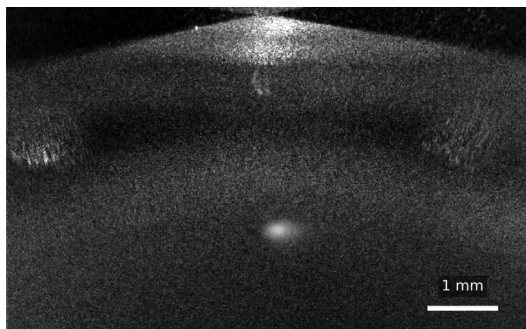
Designed for compact quantum and photonics systems, G200 reduces alignment sensitivity, supports long-term stable operation, and simplifies the practical deployment of line-lock and offset-lock laser architectures in laboratory, field and product environments.



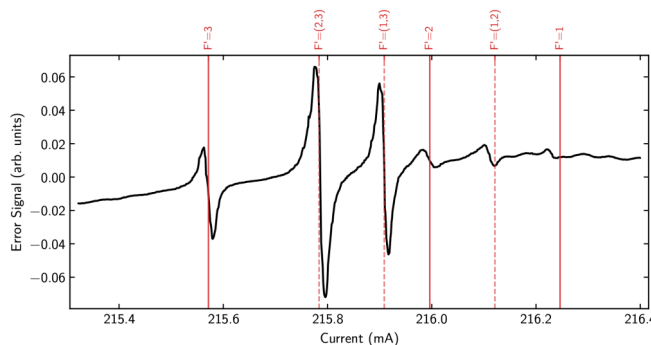
Specification

Parameter	Value
Operating Wavelength	780nm (795nm on request)
Typical Configuration	1x Line lock, 2x Offset lock
Reference Medium	Rubidium Vapor Cell
Offset-lock detuning range	+/- 100 MHz to 6.8 GHz
Output Power	90 mW Per Channel
Output interface	Polarization Maintaining Optical Fiber
Control And Monitoring	Embedded Control PC with software interface
Form Factor	3U 19 inch rack enclosure

Typical Performance



Rb Cold Atom Cloud generated with G200 and gMOT



G200 Line Lock Error signal, with Rb 87 F=2 manifold transitions

*All measurements are publicly available on the company's website.

** Each model is delivered with test data specifying the module's actual DCR, dead time.

*** RedWave Labs Ltd keeps improving its products and therefore some specifications can vary.