

Speed up development of compact, precision systems, eliminating laser noise and drift by locking your lasers to the stabilized reference cavity.

Based on our patented micro-resonator technology with proprietary packaging techniques, it provides an environmentally-insensitive reference with minimum stability of  $10^{-13}$  at 1 s in a low SWaP form factor.



Based on a variety of crystalline and amorphous materials, whispering-gallery-mode(WGM) micro-resonators(WGMR) feature optical quality factors greater than  $10^9$  and are an excellent technology for laser stabilization and optical filtering applications. Just millimeters in diameter and compatible with a range of wavelengths from 370 nm to 4500 nm, the Stabilized Reference Cavity provides a tunable reference in a small (14.7 cm x 13 cm x 2.5 cm) and environmentally robust package. Its monolithic integration along with micro-scale mass and volume make the micro-resonator package virtually insensitive to environmental vibrations (less than  $10^{-10}$  /g), and novel thermal packaging results in a reference for high long-term stability in variable external temperatures.

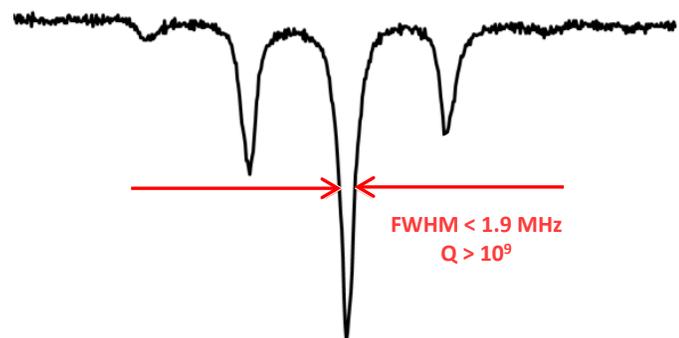
## FEATURES

- Stability Better Than  $10^{-13}$  at 1 s
- Fiber Input/Output
- Wide Tunability
- Wide Temperature of Operation
- Vibration/Acceleration Insensitive
- Size 14.7 cm x 13 cm x 2.5 cm
- UV-IR Capability
- High Contrast
- Less than  $10^{-10}$  /g acceleration sensitivity
- Multi-wavelength Input Option

## APPLICATIONS

- Laser Locking
- Quantum Technology
- Non-linear Optics
- Low noise  $\mu$ wave - mmW generation
- Laser Noise Discrimination
- Optical Filters

HI-Q<sup>®</sup> WGM Optical Cavity Quality Factor Measured at 1550 nm



**RIDE THE WAVE OF INNOVATION**

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