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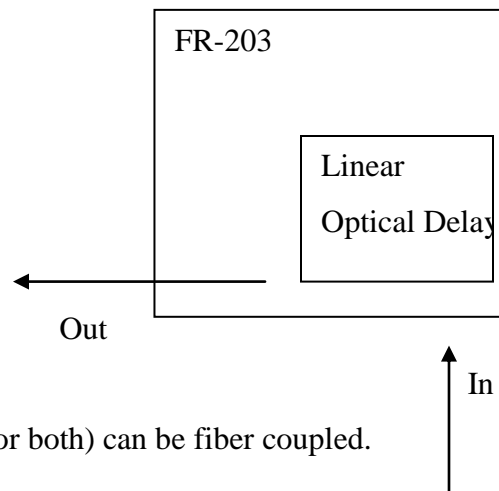
FR-203 OPTICAL DELAY GENERATOR



An optical beam traversing a uniformly rotating pair of parallel (//) mirrors encounters a time varying delay *.

The **FR-203** is a useful tool for all applications requiring linear optical delay, such as time resolved spectroscopy and time domain ultrafast terahertz spectroscopy. A large optical delay with interferometric precision is generated, in controlled modes of operation.

The **FR-203** is easy-to-use by virtue of its alignment insensitive design. Its metallic, high reflecting optics yields dispersion-free broadband operation with good (>90%) throughput, throughout the visible and NIR spectrum.



Optionally, either port (or both) can be fiber coupled.

* Z.A.Yasa and N.M.Amer, Optics Commun., V36, 406 (1981)

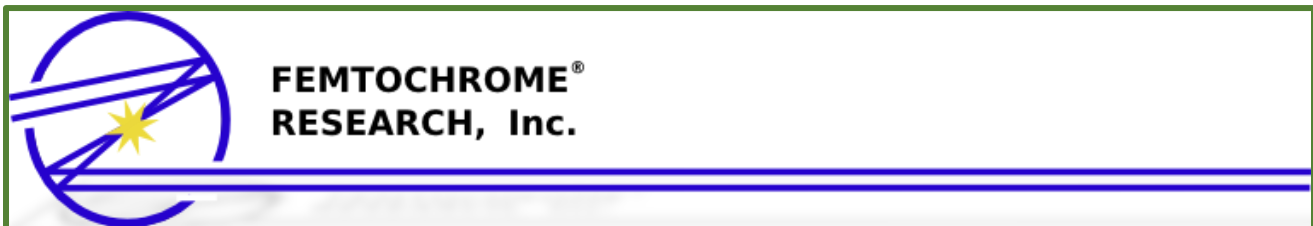
Optical delay generated by the // mirrors is a sinusoidal function of the rotation angle (time). With only small angles covered, linearity is excellent. Furthermore, the exact mathematical function relating optical delay versus time can be easily implemented numerically. Its uniform rotation mode has long term reliability with an un-measurable delay resolution ($\ll 10\text{as}$). Hence, the **FR-203** provides error-free optical delay with perfect linearity.

The **FR-203** can also be utilized as the delay arm of a Michelson Interferometer set-up.

An analog signal output of the **FR-203**, references the start of the scanned delay range.

SPECIFICATIONS:

- * Delay Resolution: $<10\text{as}$
- * Scan Range: 200ps
- * Wavelength Range: 400nm-10 μm
- * Fiber Coupled/ Free Space



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