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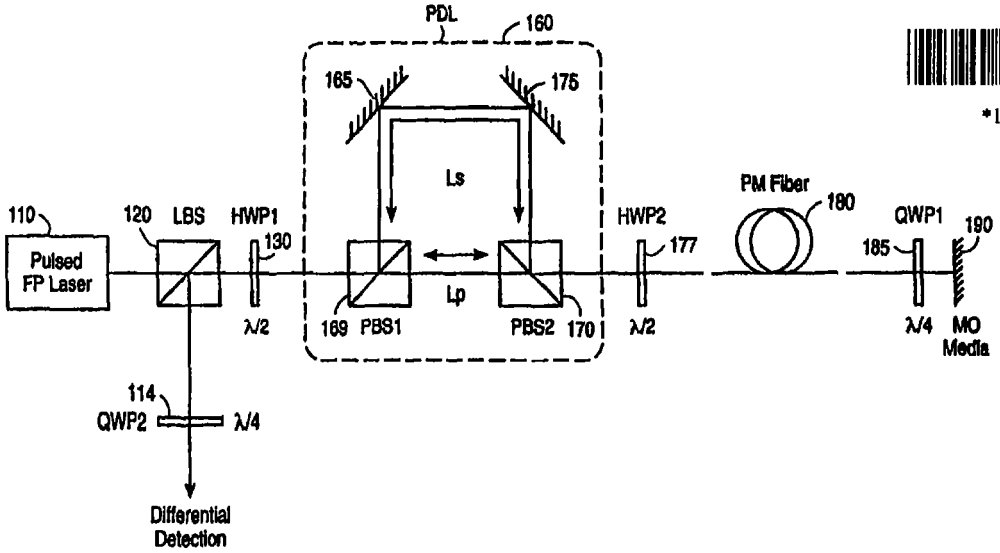


G00002

(54) Title: LOW NOISE OPTICAL STORAGE SYSTEM BASED ON AN OPTICAL POLARIMETRIC DELAY LINE



162162



(57) Abstract

A system and method for achieving, while using a multimode diode laser and polarization-maintaining fibers, high signal-to-noise ratio in a magneto optical storage system. In particular, the system splits an incoming main light signal into two orthogonal polarization states, which then propagate over different distances before recombining. By pulsing the laser on and off at a high frequency and choosing an appropriate path difference for the polarization states, which is dependent upon the modulation frequency of the laser, the system eliminates first-order spectral polarization noise arising from a potential error in a key optical component.

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