20000547P-1

PCT WORLD INTELLECTUAL PROPERTY ORGANIZATION
International Bureau

INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification 6 : G11B 7/135

A1

(11) International Publication Number: **WO 99/50844**

(43) International Publication Date: 7 October 1999 (07.10.99)

(21) International Application Number: PCT/US99/07055

(22) International Filing Date: 30 March 1999 (30.03.99)

(30) Priority Data:

60/079,903	30 March 1998 (30.03.98)	US
60/088,192	5 June 1998 (05.06.98)	US
60/108,398	13 November 1998 (13.11.98)	US
60/111,470	9 December 1998 (09.12.98)	US
09/283,896	30 March 1999 (30.03.99)	US

(71) Applicant: SEAGATE TECHNOLOGY, INC. [US/US]; 920 Disc Drive, Scotts Valley, CA 95066 (US).

(72) Inventors: WILDE, Jeffrey, P.; 18555 Mountain View Avenue, Los Gatos, CA 95030 (US). TSELIKOV, Alexander; 3803 Darwin Drive #265, Fremont, CA 94555 (US). ZHANG, Yongwei; 1504 Woodmeadow Court, San Jose, CA 95131 (US). GRAY, George, R.; 14180 Flagstone Terrace, Apple Valley, MN 55124 (US).

(74) Agent: WARDAS, Mark, A.; Quinta Corporation, 1870 Lundy Avenue, San Jose, CA 95131-1826 (US).

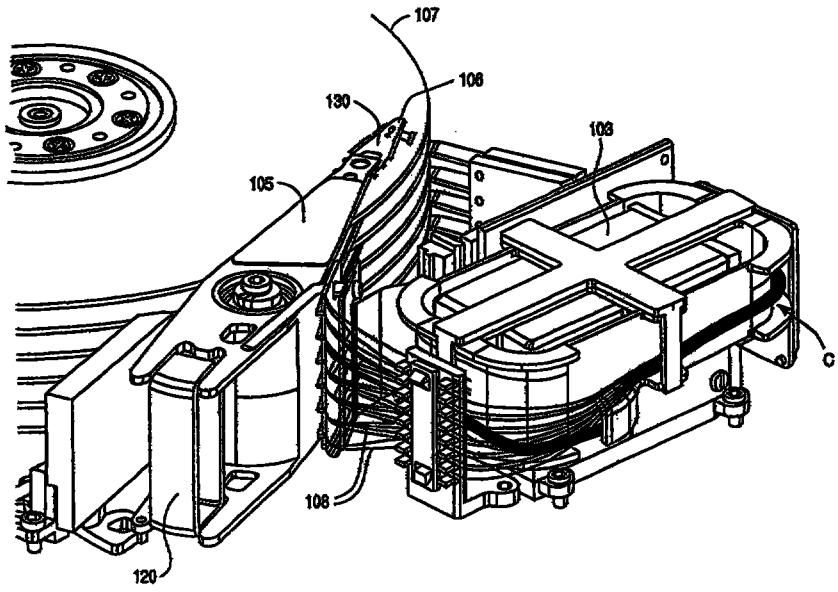
(81) Designated States: CN, JP, KR, SG, European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE).

Published

With international search report.

Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.

(54) Title: OPTICAL DATA STORAGE SYSTEM UTILIZING POLARIZATION MAINTAINING OPTICAL FIBER



(57) Abstract

An optical system and method for selective transmission of light between a source of light and a set of optical storage disks along an optical path includes at least one polarization maintaining optical fiber. Various noise reduction techniques are provided by substantially decreasing or eliminating spurious reflections (or the effects thereof) at end faces of an optical fiber. In particular, various techniques, such as index matching, a cover slip method, laser modulation, or angle polishing, may be used to eliminate spurious reflections (or the effects thereof) at the front end face of the optical fiber. Various techniques, such as angle cleaving, index matching, or multi-mode fiber splicing, may be used to eliminate spurious reflections (or the effects thereof) at the back end face of the optical fiber.