

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau

G00002

(43) International Publication Date
1 August 2002 (01.08.2002)

PCT

(10) International Publication Number
WO 02/059880 A3(51) International Patent Classification⁷: G11B 5/60, 21/21

(21) International Application Number: PCT/US02/02061

(22) International Filing Date: 23 January 2002 (23.01.2002)

(25) Filing Language: English

(26) Publication Language: English

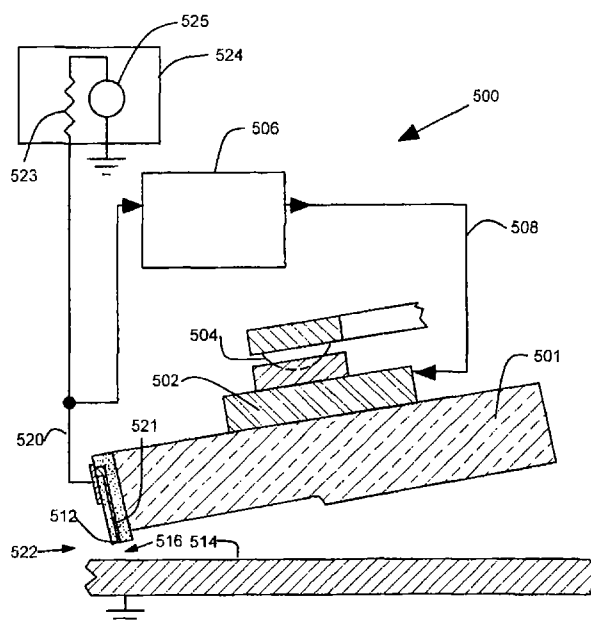
(30) Priority Data:
60/264,082 25 January 2001 (25.01.2001) US(71) Applicant: SEAGATE TECHNOLOGY LLC, [US/US];
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Intellectual Property Department, 7801 Computer Avenue
South, Bloomington, MN 55435 (US).(81) Designated States (*national*): AE, AG, AI, AM, AT, AU,
AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU,
CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC,
LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW,
MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG,
SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VN,
YU, ZA, ZM, ZW.(84) Designated States (*regional*): ARIPO patent (GH, GM,
KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW),
Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),
European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR,
GB, GR, IE, IT, LU, MC, NL, PT, SE, TR), OAPI patent
(BF, BJ, CI, CG, CI, CM, GA, GN, GQ, GW, ML, MR,
NE, SN, TD, TG).

Declarations under Rule 4.17:

- as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii)) for all designations
- as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii)) for all designations

[Continued on next page]

(54) Title: INTEGRATED ELECTROSTATIC SLIDER FLY HEIGHT CONTROL



162162

(57) Abstract: A disc drive (100) that includes a slider (300, 501) with a field emission sensor (312, 512) that senses fly height. The sensor (312, 512) has an electrode tip (302) disposed on the slider (300, 501). The electrode tip (302) faces a media surface (306) across a gap (316, 516). The sensor (312, 512) conducts a tunneling current through the gap and provides an output representing the length of the gap (316, 516). An actuator (330, 502) adjusts the fly height spacing. A feedback circuit (410, 420, 506, 520) provides an actuator electrical input as a feedback function of the sensor output to control the fly height spacing.

WO 02/059880 A3

WO 02/059880 A3**Published:**

--- with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(88) Date of publication of the international search report:

19 December 2002