

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
28 March 2002 (28.03.2002)

PCT

(10) International Publication Number
WO 02/25292 A2

(51) International Patent Classification⁷: **G01R 1/073**

(21) International Application Number: PCT/US01/29530

(22) International Filing Date:
20 September 2001 (20.09.2001)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/234,598 22 September 2000 (22.09.2000) US
60/301,228 27 June 2001 (27.06.2001) US

(71) Applicant (for all designated States except US): **INTEST IP CORP.** [US/US]; Suite 540, 300 Delaware Avenue, Wilmington, DE 19801-1612 (US).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **NY, Nil, O.** [US/US];

1090 Big Oak Road, Yardley, PA 19067 (US). **AKOUKA, Henri, M.** [US/US]; Apartment 4, 69 East Main Street, Moorestown, NJ 08057 (US). **HOLT, Alyn, R.** [US/US]; 10 Hessian Way, Cherry Hill, NJ 08003 (US).

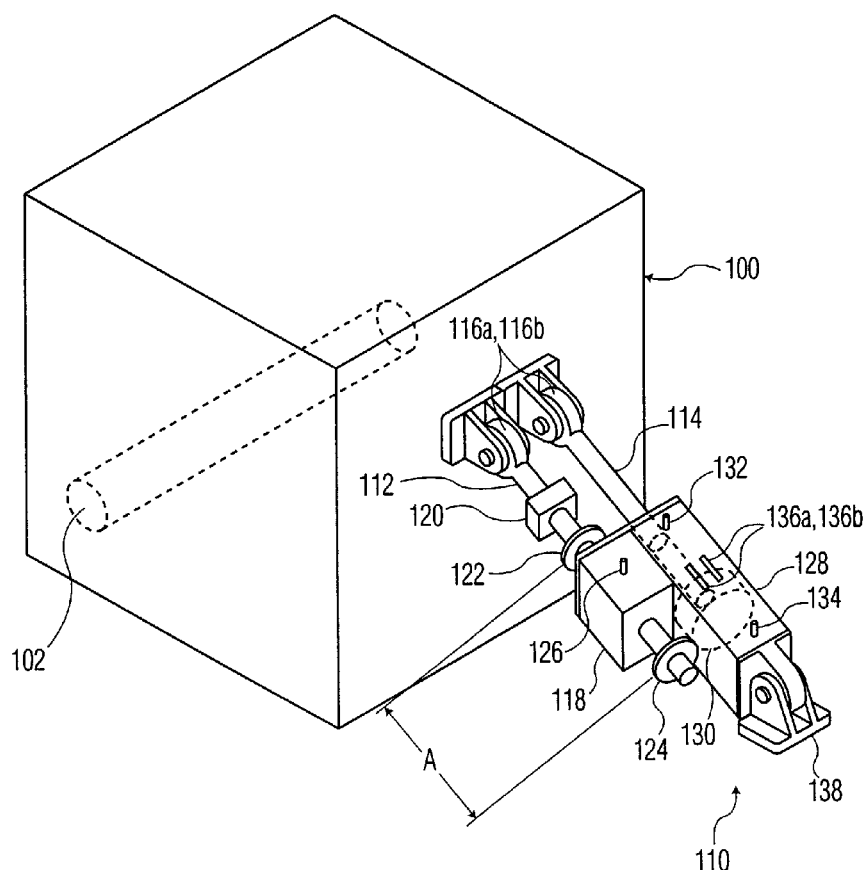
(74) Agents: **ASHERY, Lawrence, E.** et al.; Ratner & Prestia, 301 One Westlakes (Berwyn), P.O. Box 980, Valley Forge, PA 19482-0980 (US).

(81) Designated States (*national*): AE, AG, AL, 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, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW.

(84) Designated States (*regional*): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW), Eurasian

[Continued on next page]

(54) Title: APPARATUS AND METHOD FOR BALANCING AND FOR PROVIDING A COMPLIANT RANGE TO A TEST HEAD



(57) Abstract: A load, such as an electronic test head, is supported. A force sensor detects a force received from the load, the force resulting from the load being imbalanced such that a torque is created about a rotational axis of the load. A source of force provides a counter force relative to the load in response to the force detected by the force sensor. A method of docking an electronic test head held in a test head manipulator to an electronic device handler is also provided. The method of docking includes measuring a magnitude of an imbalance force along or about at least one of a plurality of motion axes of the test head manipulator; and providing a counter force to the imbalance force.

WO 02/25292 A2



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, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

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.

Published:

- *without international search report and to be republished upon receipt of that report*