

(12) 按照专利合作条约所公布的国际申请

(19) 世界知识产权组织
国际局



(10) 国际公布号
WO 2025/123877 A1

(43) 国际公布日
2025 年 6 月 19 日 (19.06.2025)

(51) 国际专利分类号:
G11B 5/48 (2006.01)

(21) 国际申请号: PCT/CN2024/121960

(22) 国际申请日: 2024 年 9 月 27 日 (27.09.2024)

(25) 申请语言: 中文

(26) 公布语言: 中文

(30) 优先权:
202311733774.0 2023 年 12 月 15 日 (15.12.2023) CN

(71) 申请人: 华为技术有限公司 (HUAWEI TECHNOLOGIES CO., LTD.) [CN/CN]; 中国广东省深圳市龙岗区坂田华为总部办公楼 518129 (CN)。

(72) 发明人: 何佳琪 (HE, Jiaqi); 中国广东省深圳市龙岗区坂田华为总部办公楼 518129 (CN)。唐鲲 (TANG, Kun); 中国广东省深圳市龙岗区坂田华为总部办公楼 518129 (CN)。屈丰广 (QU, Fengguang); 中国广东省深圳市龙岗区坂田华为总部办公楼 518129 (CN)。

(74) 代理人: 北京三高永信知识产权代理有限公司 (BEIJING SAN GAO YONG XIN INTELLECTUAL PROPERTY AGENCY CO., LTD.); 中国北京市海淀区西直门北大街 32 号院 1 号楼 4 层 503 100088 (CN)。

(81) 指定国(除另有指明, 要求每一种可提供的国家保护): AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BN, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CV, CZ, DE, DJ, DK, DM, DO, DZ, EC, EE, EG, ES, FI,

(54) Title: MAGNETIC HEAD, MAGNETIC TAPE DRIVE, AND MAGNETIC TAPE STORAGE RACK

(54) 发明名称: 磁头、磁带机和磁带存储机架

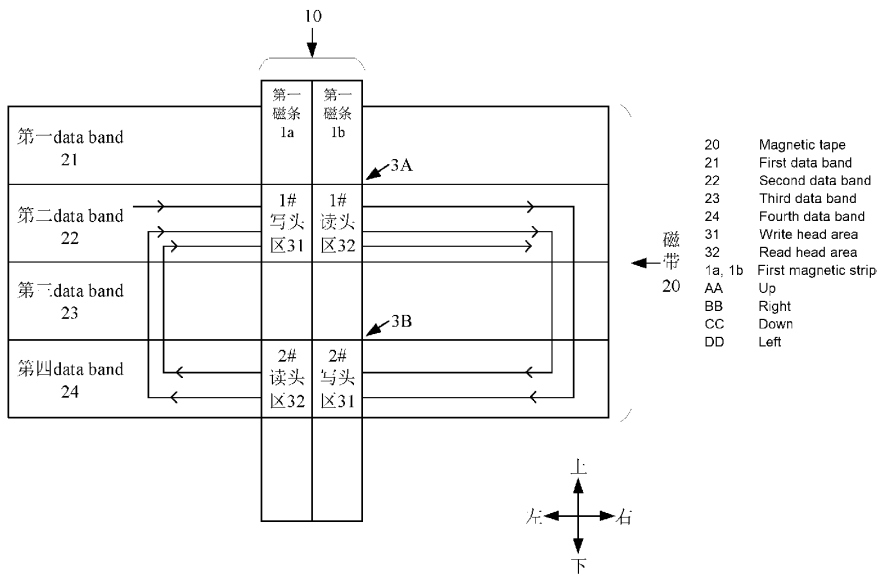


图 10

(57) Abstract: The present disclosure relates to the technical field of magnetic tape storage, and provides a magnetic head, a magnetic tape drive, and a magnetic tape storage rack. The magnetic head comprises a plurality of read-write areas; the plurality of read-write areas are arranged in the height direction of the magnetic head; and there are gaps between the plurality of read-write areas. Each of the plurality of read-write areas comprises a write head area and a read head area which are arranged in the width direction of the magnetic head; the write head area comprises a write head for writing data into the magnetic tape; and the read head area comprises a read head for reading the data from the magnetic tape. When data access needs to be performed on a target data band of the magnetic tape, the read-write area closest to the target data band performs data access on the target data band. According to the magnetic head,

[见续页]

GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IQ, IR, IS, IT, JM, JO, JP, KE, KG, KH, KN, KP, KR, KW, KZ, LA, LC, LK, LR, LS, LU, LY, MA, MD, MG, MK, MN, MU, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PA, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SA, SC, SD, SE, SG, SK, SL, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, WS, ZA, ZM, ZW。

(84) 指定国(除另有指明，要求每一种可提供的地区保护): ARIPO (BW, CV, GH, GM, KE, LR, LS, MW, MZ, NA, RW, SC, SD, SL, ST, SZ, TZ, UG, ZM, ZW), 欧亚 (AM, AZ, BY, KG, KZ, RU, TJ, TM), 欧洲 (AL, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, ME, MK, MT, NL, NO, PL, PT, RO, RS, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, KM, ML, MR, NE, SN, TD, TG)。

本国际公布:

— 包括国际检索报告(条约第21条(3))。

the thickness of the magnetic tape drive can be reduced, so that more magnetic tape drives are arranged in a rack, thereby improving the magnetic tape storage density of the rack. For the magnetic head, a material for manufacturing the magnetic head can also be reduced, thereby reducing the manufacturing costs of the magnetic head.

(57) 摘要: 本公开提供了一种磁头、磁带机和磁带存储机架，属于磁带存储技术领域。所述磁头包括多个读写区，所述多个读写区在所述磁头的高度方向上排布，且所述多个读写区之间具有间隔；所述多个读写区中的每个读写区，均包括沿着所述磁头宽度方向排布的写头区和读头区，所述写头区包括写数据到所述磁带中的写头，所述读头区包括用于从所述磁带中读数据的读头；当需要对磁带的目标数据带data band进行数据访问时，由距离目标data band最近的读写区对所述目标data band进行数据访问。该磁头能够减薄磁带机的厚度，在机架中布置更多数量的磁带机，提升机架的磁带存储密度。该磁头还能节省制作磁头的材料，降低磁头的制作成本。