

(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

(43) 国际公布日
2024 年 7 月 18 日 (18.07.2024)



(10) 国际公布号
WO 2024/148983 A1

(51) 国际专利分类号:
H04L 7/00 (2006.01) H04L 1/00 (2006.01)

(21) 国际申请号: PCT/CN2023/136532

(22) 国际申请日: 2023 年 12 月 5 日 (05.12.2023)

(25) 申请语言: 中文

(26) 公布语言: 中文

(30) 优先权:
202310032473.9 2023 年 1 月 10 日 (10.01.2023) 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, Guangdong 518129 (CN)。

(72) 发明人: 何向 (HE, Xiang); 中国广东省深圳市龙岗区坂田华为总部办公楼, Guangdong 518129 (CN)。任浩 (REN, Hao); 中国广东省深圳市龙岗区坂田华为总部办公楼, Guangdong 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.); 中国北京市海淀区上地信息产业基地三街 1 号楼四层 C 段 457, Beijing 100085 (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, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IQ,

(54) Title: ALIGNMENT MARKER SEARCH METHOD, APPARATUS AND SYSTEM, AND COMPUTER-READABLE STORAGE MEDIUM

(54) 发明名称: 对齐标志的搜索方法、装置、系统及计算机可读存储介质

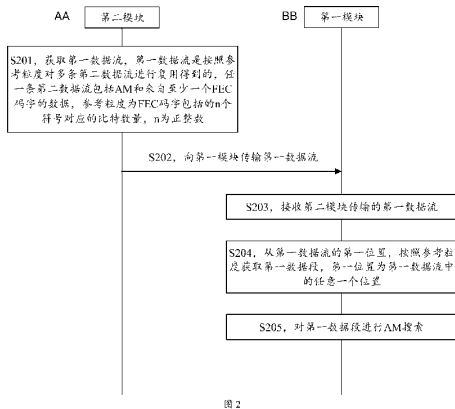


图 2

S201 Acquire a first data stream, wherein the first data stream is obtained by means of multiplexing a plurality of second data streams according to a reference granularity, any one of the second data streams comprises an AM, and data from at least one FEC codeword, and the reference granularity is the number of bits corresponding to n symbols comprises in the FEC codeword, n being a positive integer

S202 Transmit the first data stream to the first module

S203 Receive the first data stream, which is transmitted by means of the second module

S204 According to the reference granularity, acquire a first data segment from a first position of the first data stream, wherein the first position is any position in the first data stream

S205 Perform an AM search on the first data segment

AA Second module

BB First module

(57) Abstract: The present application relates to the technical field of communications. Disclosed are an alignment marker (AM) search method, apparatus and system, and a computer-readable storage medium. The method comprises: a first module receiving a first data stream, wherein the first data stream is obtained by means of multiplexing a plurality of second data streams according to a reference granularity, any one of the second data streams comprises an AM, and data from at least one FEC codeword, and the reference granularity is the number of bits corresponding to n symbols comprised in the FEC codeword; and according to the reference granularity, acquiring a first data segment from a first position of the first data stream, and performing an AM search on the first data segment. In the method, a reference granularity is the number of bits corresponding to n symbols, such that when a burst code error occurs in a first data stream, the number of symbols are affected by the burst code error is relatively small. Compared with a data stream obtained by means of bit multiplexing, the first data stream in the method has higher tolerance to a burst error code.

(57) 摘要: 本申请公开了一种对齐标志的搜索方法、装置、系统及计算机可读存储介质, 涉及通信技术领域。方法包括: 第一模块接收第一数据流, 第一数据流是按照参考粒度对多条第二数据流复用得到的, 任一条第二数据流包括AM和来自至少一个FEC码字的数据, 参考粒度为FEC码字包括的n个符号对应的比特数量; 从第一数据流的第一位置, 按照参考粒度获取第一数据段, 对第一数据段进行AM搜索。由于该方法中参考粒度是n个符号对应的比特数量, 在第一数据流中出现突发误码时, 突发误码影响的符号数量较少。相较于比特复用得到的数据流, 该方法中第一数据流对突发误码的容忍度较强。

[见续页]

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))。