

(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 2023/216751 A1

(43) 国际公布日
2023 年 11 月 16 日 (16.11.2023)

(51) 国际专利分类号:
GIIC 29/42 (2006.01)

(21) 国际申请号: PCT/CN2023/084707

(22) 国际申请日: 2023 年 3 月 29 日 (29.03.2023)

(25) 申请语言: 中文

(26) 公布语言: 中文

(30) 优先权:
202210497004.X 2022 年 5 月 9 日 (09.05.2022) CN

(71) 申请人: 腾讯科技(深圳)有限公司 (TENCENT TECHNOLOGY (SHENZHEN) COMPANY LIMITED) [CN/CN]; 中国广东省深圳市南山区高新区科技中一路腾讯大厦 35 层, Guangdong 518057 (CN)。

(72) 发明人: 强鹏 (QIANG, Peng); 中国广东省深圳市南山区高新区科技中一路腾讯大厦 35 层, Guangdong 518057 (CN)。

(74) 代理人: 华进联合专利商标代理有限公司 (ADVANCE CHINA IP LAW OFFICE); 中国广东省广州市天河区珠江东路 6 号 4501 房 (部位: 自编 01-03 和 08-12 单元) (仅限办公用途), Guangdong 510623 (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, 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,

(54) Title: MEMORY CHECK PIN PROCESSING METHOD AND APPARATUS, DEVICE, STORAGE MEDIUM, AND COMPUTER PROGRAM PRODUCT

(54) 发明名称: 存储器的校验管脚处理方法、装置、设备、存储介质和计算机程序产品

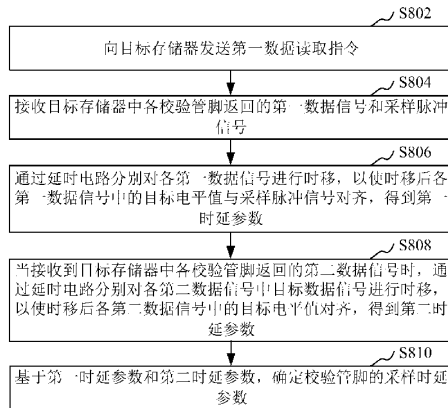


图 8

S802 Send a first data reading instruction to a target memory
S804 Receive first data signals and a sampling pulse signal returned by check pins in a target memory
S806 Respectively perform time shift on the first data signals by means of a time delay circuit, so that target level values in the first data signals after the time shift are aligned with the sampling pulse signal to obtain a first time delay parameter
S808 When second data signals returned by the check pins in the target memory are received, respectively perform time shift on target data signals in the second data signals by means of the time delay circuit, so that target level values in the second data signals after the time shift are aligned to obtain a second time delay parameter
S810 Determine sampling time delay parameters of the check pins on the basis of the first time delay parameter and the second time delay parameter

(57) Abstract: The present application relates to a memory check pin processing method and apparatus, a device, a storage medium, and a computer program product. The method can be applied to an application scene of a cloud technology and a vehicle-mounted terminal, and comprises: receiving first data signals and a sampling pulse signal returned by check pins in a target memory on the basis of a first data reading instruction; respectively performing time shift on the first data signals by means of a time delay circuit, so that target level values in the first data signals after the time shift are aligned with the sampling pulse signal to obtain a first time delay parameter; when second data signals returned by the check pins in the target memory are received, respectively performing time shift on target data signals in the second data signals by means of the time delay circuit, so that target level values in the second data signals after the time shift are aligned to obtain a second time delay parameter; and determining sampling time delay parameters of the check pins on the basis of the first time delay parameter and the second time delay parameter. By using the method, the correctness when the data signals are sampled on the basis of the sampling pulse signal can be ensured.

[见续页]

WO 2023/216751 A1

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))。

(57) 摘要: 本申请涉及一种存储器的校验管脚处理方法、装置、设备、存储介质和计算机程序产品。所述方法可应用于云技术和车载终端的应用场景, 包括: 接收目标存储器中各校验管脚基于第一数据读取指令返回的第一数据信号和采样脉冲信号; 通过延时电路分别对各第一数据信号进行时移, 以使时移后各第一数据信号中的目标电平值与采样脉冲信号对齐, 得到第一时延参数; 当接收到目标存储器中各校验管脚返回的第二数据信号时, 通过延时电路分别对各第二数据信号中目标数据信号进行时移, 以使时移后各第二数据信号中的目标电平值对齐, 得到第二时延参数; 基于第一时延参数和第二时延参数, 确定校验管脚的采样时延参数。采用本方法能够确保基于采样脉冲信号采样数据信号时的正确性。