

(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 2024/012095 A1

(43) 国际公布日
2024 年 1 月 18 日 (18.01.2024)

- (51) 国际专利分类号:
H04B 10/077 (2013.01) **H04B 10/58** (2013.01)
- (21) 国际申请号: PCT/CN2023/098490
- (22) 国际申请日: 2023 年 6 月 6 日 (06.06.2023)
- (25) 申请语言: 中文
- (26) 公布语言: 中文
- (30) 优先权:
202210814493.7 2022 年 7 月 12 日 (12.07.2022) CN
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- (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,

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(54) Title: FILTER IMPLEMENTATION METHOD AND APPARATUS, NOISE SUPPRESSION METHOD AND APPARATUS, AND COMPUTER DEVICE

(54) 发明名称: 滤波器的实现方法、噪声的抑制方法、装置及计算机设备

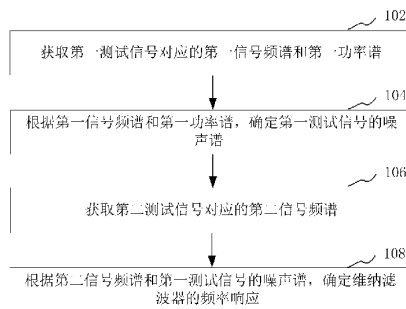


图 1

- 102 Acquire a first signal frequency spectrum and a first power spectrum, which correspond to a first test signal
- 104 Determine a noise spectrum of the first test signal according to the first signal frequency spectrum and the first power spectrum
- 106 Acquire a second signal frequency spectrum corresponding to a second test signal
- 108 Determine a frequency response of a Wiener filter according to the second signal frequency spectrum and the noise spectrum of the first test signal

(57) Abstract: The present application relates to a filter implementation method and apparatus, a noise suppression method and apparatus, and a computer device, a storage medium and a computer program product. The filter implementation method comprises: acquiring a first signal frequency spectrum and a first power spectrum, which correspond to a first test signal; determining a noise spectrum of the first test signal according to the first signal frequency spectrum and the first power spectrum; then acquiring a second signal frequency spectrum corresponding to a second test signal; and determining a frequency response of a Wiener filter according to the second signal frequency spectrum and the noise spectrum of the first test signal. By means of the filter implementation method in combination with a frequency domain method, a frequency response of a Wiener filter under MPI noise can be obtained, such that an optimal filter for the MPI noise can be achieved, and the MPI noise can be suppressed to the greatest extent, thereby preventing the transmission of a PAM signal from being impacted by the MPI noise.

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根据细则4.17的声明:

- 关于发明人身份(细则4.17(i))
- 关于申请人有权申请并被授予专利(细则4.17(ii))
- 发明人资格(细则4.17(iv))

本国际公布:

- 包括国际检索报告(条约第21条(3))。

(57) 摘要: 本申请涉及一种滤波器的实现方法、噪声的抑制方法、装置、计算机设备、存储介质和计算机程序产品。其中滤波器的实现方法通过获取第一测试信号对应的第一信号频谱和第一功率谱,并根据第一信号频谱和第一功率谱,确定第一测试信号的噪声谱,进而获取第二测试信号对应的第二信号频谱,并根据第二信号频谱和第一测试信号的噪声谱,确定维纳滤波器的频率响应。其通过结合频域方法可以得到MPI噪声下的维纳滤波器的频率响应,从而可以实现针对MPI噪声的最优滤波器,并能够最大限度地抑制MPI噪声,以避免MPI噪声对PAM信号传输的影响。