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(54) Title: OPTICAL RECEIVER

(54) 发明名称: 一种光接收机

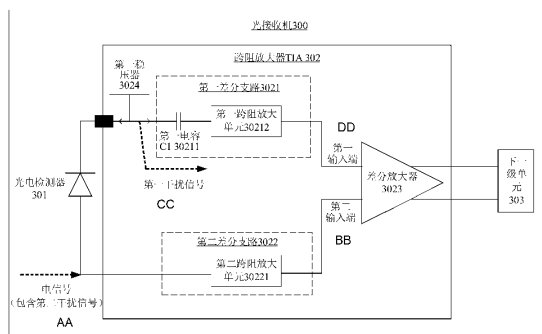


图 3

- 300 Optical receiver
- 301 Photodetector
- 302 Transimpedance amplifier TIA
- 303 Next-level unit
- 3021 First differential branch
- 3022 Second differential branch
- 3023 Differential amplifier
- 3024 First voltage stabilizer
- 30211 First capacitor C1
- 30212 First transimpedance amplification unit
- 30221 Second transimpedance amplification unit
- AA Electrical signal (comprising a second interference signal)
- BB Second input end
- CC First interference signal
- DD First input end

(57) Abstract: The present application relates to the technical field of optical communications, and in particular to an optical receiver, for use in providing a technical solution capable of reducing electromagnetic crosstalk so that the receiving performance of the optical receiver for an optical signal can be improved and the accuracy of signal transmission is guaranteed. The optical receiver comprises a photodetector and a transimpedance amplifier comprising a first differential branch, a second differential branch, and a differential amplifier. The first differential branch comprises a first capacitor and a first transimpedance amplification unit; the input end of the first

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SE, SG, SK, SL, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ,
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capacitor receives an input signal from a power supply end of the photodetector, and the output end of the first capacitor is coupled to the input end of the first transimpedance amplification unit. The first differential branch is used for amplifying the input signal and outputting a reference signal; the second differential branch is used for amplifying an electrical signal from the photodetector; a signal feature value of the reference signal is the same as or similar to the signal feature value of an interference signal comprised in the amplified electrical signal.

(57) 摘要: 本申请涉及光通信技术领域, 尤其涉及一种光接收机, 用以提供一种可以降低电磁串扰的技术方案, 从而可以提升光接收机对光信号的接收性能, 保障信号传输的准确性。该光接收机包括: 光电检测器、包括第一差分支路、第二差分支路和差分放大器的跨阻放大器。第一差分支路包括第一电容和第一跨阻放大单元; 第一电容的输入端接收来自光电检测器的电源端的输入信号, 第一电容的输出端耦合至第一跨阻放大单元的输入端。其中, 第一差分支路, 用于对所述输入信号进行放大, 输出参考信号; 第二差分支路, 用于对来自光电检测器的电信号进行放大; 参考信号与放大后的电信号中包含的干扰信号的信号特征值相同或相近。