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(54) Title: OPTICAL RECEIVING ASSEMBLY, CONTROL METHOD, AND OPTICAL MODULE

(54) 发明名称: 一种光接收组件及控制方法和光模块

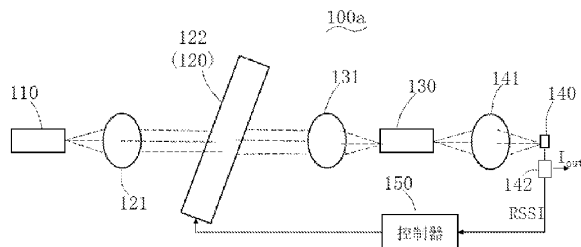


图 2

150 Controller

(57) Abstract: An optical receiving assembly (100a), a control method, and an optical module. The optical receiving assembly (100a) comprises an optical receiving port (110), a variable optical path deflection assembly (120), a semiconductor optical amplifier (130), an optical detector (140), and a controller (150); an optical signal received by the optical receiving port (110) is subjected to deflection angle regulation by means of the variable optical path deflection assembly (120) and is then incident into the semiconductor optical amplifier (130); the incident optical signal is amplified by means of the semiconductor optical amplifier (130) and is then coupled to the optical detector (140); the optical detector (140) converts the received optical signal into an electric signal to be output; the controller (150) controls the variable optical path deflection assembly (120) according to the change in the strength of the electric signal to regulate the deflection angle of the optical signal, so as to regulate coupling efficiency of coupling the optical signal to the semiconductor optical amplifier (130), such that the electric signal output by the optical detector (140) is kept in a preset interval. The optical receiving assembly (100a) directly uses a chip assembly structure, effectively reduces the size, and facilitates the miniaturization of the optical module, and the control method is more simple and direct, can realize fast and efficient control, and has higher sensitivity.

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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: 一种光接收组件(100a)、控制方法和光模块。光接收组件(100a)包括光接收端口(110)、可调光路偏转组件(120)、半导体光放大器(130)、光探测器(140)和控制器(150); 光接收端口(110)接收的光信号经可调光路偏转组件(120)调节偏转角度之后入射到半导体光放大器(130)内, 半导体光放大器(130)对入射的光信号放大之后耦合到光探测器(140)上, 光探测器(140)将接收到的光信号准换成电信号输出; 控制器(150)根据电信号强度的变化控制可调光路偏转组件(120)调节光信号的偏转角度, 以调节光信号耦合到半导体光放大器(130)的耦合效率, 使光探测器(140)输出的电信号保持在预设区间。光接收组件(100a)直接采用芯片组装结构, 有效减小了体积, 利于光模块的小型化, 且控制方法更简单直接, 可实现快速高效的控制, 具有较高的灵敏度。