

METHOD AND SYSTEM FOR ADAPTIVE CONTROL OF TRANSMITTING-END GAIN OF LPO OPTICAL MODULE, AND OPTICAL MODULE

ABSTRACT

The present disclosure relates to the technical field of optical communication, and specifically to a method and a system for adaptive control of transmitting-end gain of an LPO optical module, and an optical module. The method comprises the following steps: acquiring a maximum-gain peak value and an output-amplitude acquisition value of an LPO optical-module state machine under a normal-running state; performing a fitting calculation using the output-amplitude acquisition value and a peak-control lookup table to determine a comprehensive output amplitude; and comparing the comprehensive output amplitude with a target gain; and performing an adaptive adjustment of a transmitting-end gain of the LPO optical module through a firmware of the optical module based on a comparison result and the maximum-gain peak value. In the present disclosure, the adaptive matching to different switch ports and different high- and low-temperature environments can be enabled, which can effectively improve matching efficiency between the LPO optical module and the switch, and reduce unnecessary labor cost, maintenance cost, and various errors and mistakes introduced by manual commissioning at an application side.

Fig 1