OPTICAL COUPLING DEVICE, OPTICAL CHIP AND OPTICAL MODULE

ABSTRACT

The present application relates to an optical coupling device, an optical chip, and an optical module. The optical coupling device includes: a middle layer light-splitting structure, which is used for receiving incident light and splitting the incident light into multiple beams of light, and which comprise a plurality of light-emitting coupling units, each light-emitting coupling unit being used for outputting one beam of light; and a plurality of silicon optical coupling devices, the front end of each silicon optical coupling device being covered by one of the light-emitting coupling units, and the silicon optical coupling devices being used for coupling the light outputted by each light-emitting coupling unit. The embodiment of the present application is different from a conventional approach of coupling incident light by means of silicon-based inverted conical coupling. By receiving incident light by means of the middle layer light-splitting structure and splitting the incident light, optical power transmitted to the silicon optical coupling devices can be effectively reduced, and damage to a silicon waveguide can thus be effectively reduced. Therefore, the optical coupling device of the optical chip in the embodiment of the present application can withstand large optical power.

FIG. 2