ABSTRACT

An optical module, comprising a housing (210), a circuit board assembly (220), an optical assembly, and an optical receptacle (260). The housing comprises a first housing (211), a second housing (212), and an optical fiber adapter. The circuit board assembly (220) comprises a rigid circuit board (221). The optical assembly is fixed on the first housing (211), and comprises an optical processing assembly (240) and photoelectric chips (230). The optical processing assembly (240) comprises a wavelength division multiplexer (241), a lens group located between the wavelength division multiplexer (241) and the photoelectric ship (230), and a lens group (250) located between the wavelength division multiplexer and the optical receptacle. The photoelectric chips (230) are close to the rigid circuit board (221) and are electrically connected to the rigid circuit board (221). The optical fiber adapter is arranged at an optical interface of the housing and is integrally formed with the optical interface, and one end of the optical receptacle extends into the optical fiber adapter. The optical fiber adapter, the optical receptacle, the optical assembly and the rigid circuit board (221) are all hard-connected. All parts in the optical module are hard-connected, and there is no need for flexible connections based on FPCs, optical fibers or movable heads or the like to absorb tolerances, so that the number of materials is reduced, the assembly process is simplified, the assembly is simpler and more convenient, and the cost can be effectively reduced.

Fig. 6