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(57) **ABSTRACT**

An optical device includes a light guide unit, an optical path conversion unit and an optical transceiver unit. The light guiding unit is connected to the optical fiber and is suitable for transmitting optical signals. The optical path conversion unit is connected to the light guide unit, and is suitable for receiving optical signals and changing the optical path of the optical signals. It is used in the optical transceiver unit for the configuration of two receiving parts and two transmitting parts, which can support the same optical path at the same time with use of two sets of communication protocol systems and the cable TV protocol system.

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