

**ABSTRACT**

This application provides an optical communication method, applied to the field of optical communication. The optical communication method includes: A main device receives a first uplink  
5 optical signal from a first sub device; the main device converts the first uplink optical signal into a first uplink electrical signal; the main device performs uplink related processing on the first uplink electrical signal to obtain a first service packet, where the uplink related processing includes first uplink related processing of a medium access control MAC layer; and the main device outputs the first service packet. In the technical solutions provided in this application, related processing  
10 of the MAC layer in the sub device is moved up to the main device, so that manufacturing costs of the sub device and manufacturing costs of an optical communication system are reduced.

(Fig.12)