

COMMUNICATIONS METHOD, SYSTEM, AND APPARATUS FOR OPTICAL NETWORK SYSTEM

ABSTRACT

The present invention provides a method, a system, and an apparatus for data communication in an optical network system. A new encoding scheme is implemented in the following manner: performing 32-bit to 34-bit encoding on a data stream on which 8-bit/10-bit decoding has been performed, performing forward error correction encoding on the data stream on which the 32-bit to 34-bit encoding has been performed, and sending the encoded data stream; or performing forward error correction decoding on a received data stream, and performing 32-bit to 34-bit decoding on the data stream on which the forward error correction decoding has been performed. In this way, a bandwidth resource of a line is saved; line monitoring can be implemented without interrupting a service, which is easy to implement and greatly improves various types of performance of the system.

Figure 9