The Hardware Design for a Smartly Generated Prime Code Multiplexing System

A smartly generated prime code multiplexing system is presented. Using the characteristic that two different prime codes do not interfere with each other, these two prime codes ate combined to replace the conventional asynchronous division multiple access. Without affecting the user and the original dat in the original optical fiber transmission system, other users or data are dynamically added to improve the insufficient capacity of the prime code system. The decoding capacity is thus raised to achieve the objective of multiple accesses. In this paper, we used a smartly generated prime code multiplexing system to improve the system capacity and to support the multi-media communication. The architecture and design techniques are described. From the structure, the insect method, system flow chart, system architecture, and hardware design are determined.