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[54] SWITCH WITH FLEXIBLE LINK LIST MANAGER FOR HANDLING ATM AND STM TRAFFIC

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[52] U.S. Cl. **370/353; 370/52**

[58] Field of Search **370/352, 353, 370/356, 389, 390, 395, 412, 413, 414, 419**

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[57] **ABSTRACT**

A telecommunication switch for handling both synchronous transfer mode (STM) digital data signals and asynchronous transfer mode (ATM) digital data signals includes a flexible link list manager for mapping input slots to output slots, an input hybrid page, an output hybrid page and a hybrid routing table for managing the time slot interchange function. The STM data stream is segmented to form fixed length, serially propagating digital data words. The segment length of each STM data word is equal to the ATM cell length. The number of bytes in each STM segment and the number of bytes in each ATM cell are the same, and the STM segments and ATM cells are equal in duration. Because the ATM and STM signals are routed through a common switch, it is not necessary to split the two types of traffic before switching can be performed. Consequently, the switch can support any network distribution of ATM and STM traffic with the same switching equipment.

14 Claims, 15 Drawing Sheets

