

**APPARATUS AND METHOD FOR PROVIDING A GENERIC
INTERFACE BETWEEN A HOST SYSTEM AND AN ASYNCHRONOUS
TRANSFER MODE CORE FUNCTIONAL BLOCK**

ABSTRACT

A generic Input/Output interface between an IO block and a System and ATM Layer Core on a network interface circuit is provided. The GIO interface includes parallel DMA read and write control handshake signal lines; parallel DMA read and write data handshake signal lines which operate independently from the read and write control handshake signal lines; parallel DMA read and write data signal lines; and a single clock signal line. GIO interface facilitates maximum utilization of the IO bandwidth, and allows several requests to be queued across the GIO interface at the same time, in each read and write direction. In addition, the GIO interface utilizes a fixed clock for driving the transmit and receive data path. By thus referencing all transactions to a clock driving the Core, the Core remains unchanged for different embodiments of the network interface circuit which interface to different host computer systems and busses.

(fig. 2)