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(54) Title: METHOD AND APPARATUS FOR CONTROLLING DATA TRANSFER BETWEEN A SYNCHRONOUS DRAM-TYPE MEMORY AND A SYSTEM BUS

(57) Abstract

An interface (26) and method for a synchronous DRAM (syncDRAM 12) memory are provided that improve performance. The read operation in a syncDRAM (12) is significantly sped up by eliminating the step of opening a new page of data in a SyncDRAM using a speculative read method. This provides the ability to open a page of information in the SyncDRAM with a command generator (28) in response to a data request. Speculative read logic (34) is also included to continue reading from the page with an invalid address until a second read request occurs. Thus, in the event that a subsequent read request occurs that requests data located on the same page as the prior request, the data can be indexed and read from a location on that page without having to first assert the SCS# and SCAS#. This frequently removes the step of opening a page from the read process and, over time, can significantly speed up the overall SyncDRAM (12) reads in a computer system.

