

GIGABIT ETHERNET BRIDGE WITH PARALLEL FIFO STRUCTURE

ABSTRACT

5 A network bridge having a parallel FIFO structure for downscaling a relatively fast data stream to a relatively slow data stream avoids data “zigzag” in the space and time domain due to non-alignment of data output from the parallel FIFO structures. A data inserting mechanism is used in relation to a FIFO write controller to selectively insert dummy data values in the parallel data streams. A negotiation mechanism is implemented in relation to a
10 FIFO read controller and is used to determine in what order data values from the FIFOs are transmitted. Dummy data values that were selectively inserted in the incoming data stream are removed from the outgoing data stream as required.

15 Figure 1