

Technical Study of DMA Processor

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Abstract:

Direct Memory Access (DMA) is often a non-programmable hardware. As new peripherals interfaces are introduced, there is often a need to change DMA operations and therefore the design of DMA controller. Changing the design is often expensive and time consuming instead a fully programmable DMA processor can alter the behavior by simply changing the control program.

It is proposed and described to use a DMA processor, DMA processor is a component which works with DMA controller and is instructed by the microprocessor. In the proposed technique, DMA processor reduces the extra operational burden from Central Processing Unit (CPU) and the proposed solution is expected to enhance the performance of overall system.