

第 12 章作业

12.5

12.5 How does DMA increase system concurrency? How does it complicate hardware design?

答:

DMA increases system concurrency by allowing the CPU to perform tasks while the DMA system transfers data via the system and memory buses.

Hardware design is complicated because the DMA controller must be integrated into the system, and the system must allow the DMA controller to be a bus master. Cycle stealing may also be necessary to allow the CPU and DMA controller to share use of the memory bus.