7.2. Direct Memory Access

Many DSP chips are equipped with a Direct Memory Access resource acting as a co-processor to move data from one part of memory into another without interfering with the CPU operation. As a result, the chip throughput is increased since in this manner the CPU and DMA can process and move data without interfering with each other. The C6x DSP has six DMA channels. Each channel has its own memory mapped control registers which can be set up to move data from one place to another place in memory. These registers contain the information regarding source and destination locations in memory, number of transfers, and format of transfers.

Figure 7-2: DMA transfer example