

Abstract Details

Title: Design of DMA Controller Using VHDL

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Abstract: Many system-on-chip (SoC) integrated circuits contain embedded cores with different scan frequencies. To better meet the test requirements for such heterogeneous SoCs, leading tester companies have recently introduced port-scalable testers, and Many IP core design software like Xilinx, Leonardo Spectrum, and Modelsim etc which can used to design ip core like DMA ,Interrupt Controller etc .These IP core can be Power aware an Implement on soc by choosing different design technique and various modeling techniques .These all modeling technique and tolls like Xilinx ISE also provide RTL view which will help to make ip cores to used in any Processor design .Here in these project we will see an Intel 8237 DMA ip core design which is using a very different kind of design technique not used up till now. So by this project we will prove that if we are trying & use various modeling techniques for designing ip cores than it may be used in various power level requirement circuits & processors & it may also power aware. These IP cores are ASIC application specific IC so we can control its power, speed, size etc to implement before on a embedded circuit. So an IP core design is a part of a Main embedded circuit and control the working of that circuit or processor.

Keywords: DMA, VHDL, IP Core.