

AXI4 CDMA v1.0

IP User Guide (Alpha Release)



January 26, 2023

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IP Summary

Introduction

Central DMA (CDMA) is a type of Direct Memory Access (DMA) that uses a central controller to manage the transfer of data between memory and peripheral devices. In a CDMA system, the central controller acts as the intermediary between the devices that need to transfer data and the memory where the data is stored. The devices send requests to the central controller, which then manages the transfer of data between the devices and memory. CDMA can improve system performance by allowing devices to transfer data directly to and from memory without involving the main processor. This can free up the processor to perform other tasks and can also increase the overall data transfer rate. CDMA is commonly used in embedded systems, digital signal processing (DSP) systems, and other applications where high-speed data transfer is required. This AXI CDMA utilizes the AXIStreaming Protocol for the configuration of descriptors. A macro block diagram for the top level of this AXI4 CDMA is shown in Figure 1.

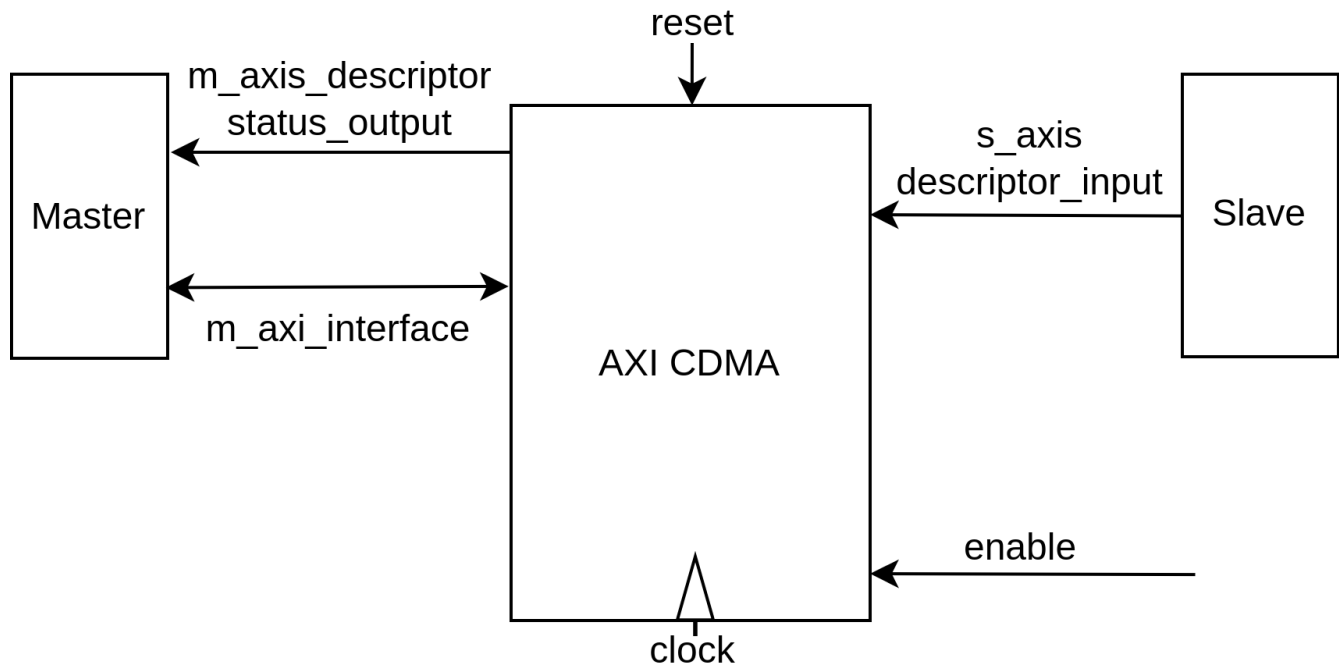


Figure 1. AXI4 CDMA Block Diagram

Revision History

Date	Version	Revisions
January 26, 2023	0.01	Initial version AXI4 CDMA User Guide Document