

Design Automation Homework - 6

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1 QUESTION 3

- AXI defines the following independent transaction channels:
 - read address
 - read data
 - write address
 - write data
 - write response

An address channel carries control information that describes the nature of the data to be transferred. The data is transferred between master and slave using either:

- A write data channel to transfer data from the master to the slave. In a write transaction, the slave uses the write response channel to signal the completion of the transfer to the master.
- A read data channel to transfer data from the slave to the master.

Below figures depict how data transfer works in AXI protocol between master and slave:

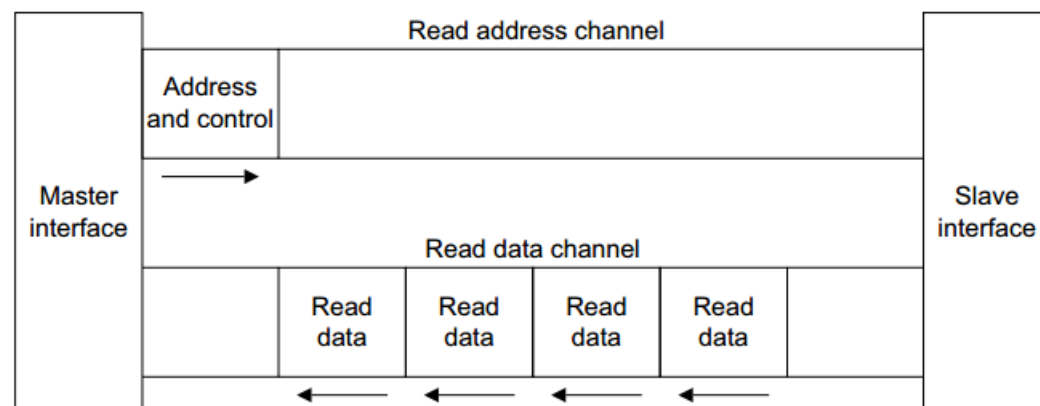


Figure A1-1 Channel architecture of reads

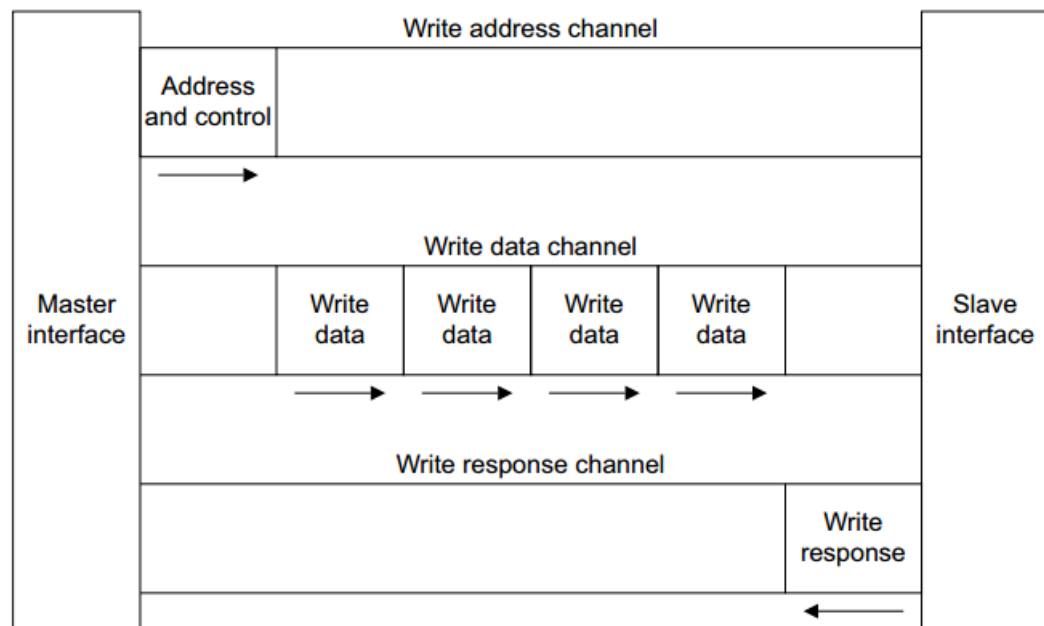


Figure A1-2 Channel architecture of writes