System Interface

SD Interface

SD Memory Slave Controller

User CMD Path Interface

User Data Path Interface
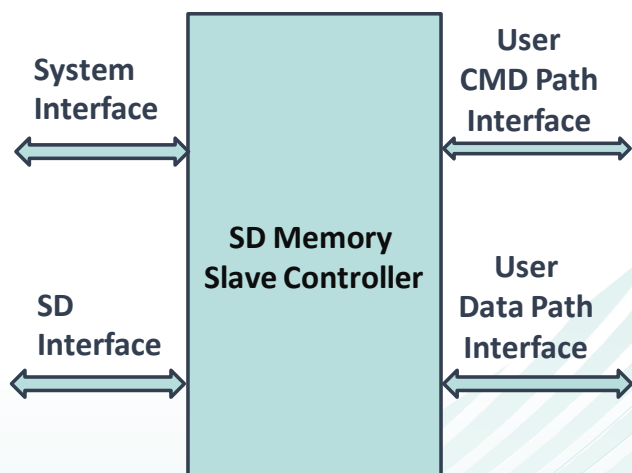
Memory Slave Controller IP forms a bridge between the SD host and user interface, enabling the data transfer between each other. This IP will send the response to the SD host depending on the command issued and also communicates with the user through a register interface for control and status. The Controller has two different variants depending on the availability of the processor towards user side. One being the AXI4 -lite or AHB complaint interface for accessing through processor and other is simple general-purpose interface which can be used without the processor.

Highlights

- Core handles SD bus protocol on the card interface and provides simplified interface to user logic
- Core handle all the housekeeping tasks by itself without user logic intervention
- Supports both processor and non-processor environments with two different variants
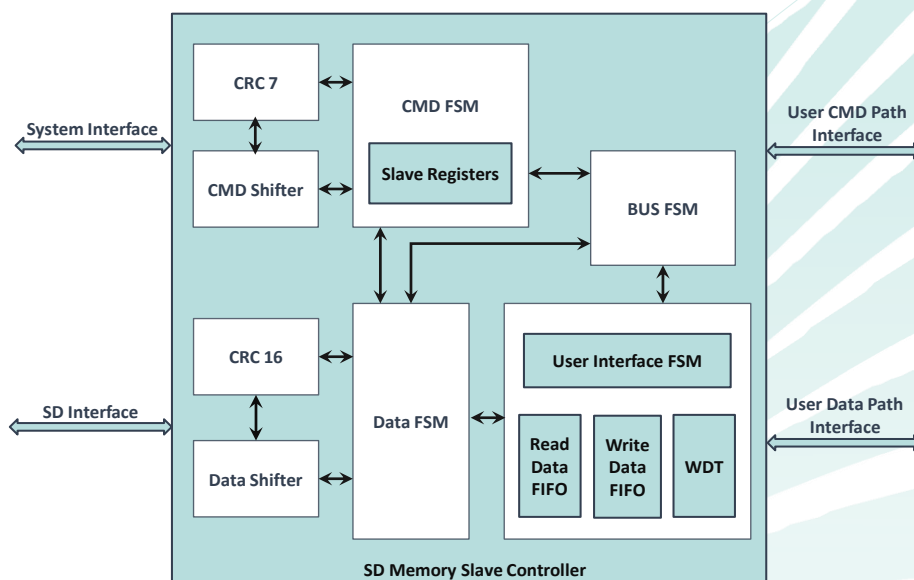- Supports both the standard and High capacity operation

Applications

- SOC design integration with SD memory card
- Used in all kind of consumer electronics devices such as digital cameras, mobile phones etc

Features

- Compliant with SD Physical Specification Version 2.00
- Supports 1-bit and 4-bit SD Mode
- Supports Standard and High Capacity operations
- Supports Default and High Speed Modes of operation
- Supports all mandatory slave registers set
- CID Register fields are configured
- Supports only Standard command set
- Supports all mandatory SD Command Classes
- CRC7 checking/generation for Command/Response
- CRC16 checking/generation for Data transfer
- Support Maximum block length of 512 bytes
- Supports Single and Multiple block read and write data transfer
- Supports Partial and Misalign Block length option
- SD Memory only implementation
- IP provides simple and general-purpose interface or AXI4-lite or AHB interface to user application

iW SD Memory Slave Controller Block Diagram

Deliverables

- RTL source code or Netlist
- IP example design
- IP datasheet
- Integration Manual
- Simulation Environment
- BareMetal driver reference

Licensing Options

- Non-Transferable: Single Project/Product Netlist License – Single Site or Multi Site
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- Non-Transferable: Single Project/Product RTL Source Code License – Single Site or Multi Site
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Technical Support

iWave provides comprehensive support during your system integration & validation.

- The Client may open a new support incident by emailing to a technical support engineer
- iWave's response time shall be within 24 hours of the initial call, with the details of the action plan to resolve
- Support assistance shall be delivered by telephone, email and/or remote assistance via a web meeting
- iWave shall provide remote debugging support irrespective of the time zone/ region

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iW – SD Memory Slave Controller 2.0 FPGA IP
The IP can be ordered online from the iWave Website http://www.iwavesystems.com/product/sd-memory-slave-controller
Or from our Local Partners in your region http://www.iwavesystems.com/about-us/business-partner.html

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