CC32xx SDHost FatFS

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Overview

The Secure Digital Host (SD Host)controller on CC3200 provides an interface to standard SD memory cards in 1-bit transfer mode and handles the SD protocol and data packing at transmission level with minimum CPU intervention.

Application details

This application uses the FatFS to provide the block level read/write access to SD card, using the SD Host controller on CC3200. The application initializes the FatFs and lists the files and/or directories that are present on the SD card at the root followed by contents of a predefined file on the terminal. The application also writes a predefined pattern to a predefine file. The user can change the predefine(s) by changing following macros

```
#define USERFILE "userfile.txt" // Application reads out this file

#define SYSFILE "sysfile.txt" // Application write to this file

#define SYSTEXT "The quick brown fox jumps over the lazy dog" // Pattern to be written to SYSFILE
```

Source Files briefly explained

- main.c Implements the main function.
- diskio.c Implements low-level function for FatFS using DriverLib API(s)
- pinmux.c Generated by Pinmux utility to mux out the SD Host controller signal to chip boundary.
- uart_if.c Implements the UART terminal.
- startup_ewarm.c Implements interrupt vector table when using IAR ewarm tool chain
- startup_css.c Implements interrupt vector table when using CC tool chain

Usage

- Setup a serial communication application (HyperTerminal/TeraTerm) with following settings. For detail info visit Terminal setup
- Port: Enumerated COM port

- Baud rate: 115200

- Data: 8 bit- Parity: None- Stop: 1 bit

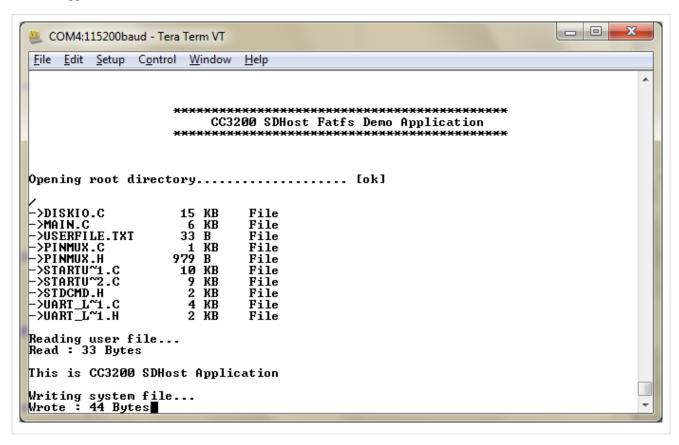
- Flow control: None

• Connect the SD Card to the LP board as shown below

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| LP Pin | SD Card Pin | Signal Name |
|--------|-------------|-------------|
| P2.3 | 2 | CMD |
| P3.2 | 3 | GND/Vss |
| P1.1 | 4 | Vcc/Vdd |
| P2.6 | 5 | CLK |
| P2.1 | 6 | Vss |
| P2.7 | 7 | DAT0 |

- Run the reference application (Flashing the bin/IAR/CCS).
- Observe the status messages on the host over serial port to understand the sequence of operations performed by the application.



Limitations/Known Issues

None.

Article Sources and Contributors

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