CC32xx UART DMA Application

Overview

The Device has hardware support for UART functionality. It has various standard features including programmable baud rate, separate Transmit and Receive FIFO, fully programmable serial interface characteristics.

Application details

The objective of this application is to showcase the use of UART along with uDMA and interrupts. The use case includes getting input from the user and display information on the terminal.This example take 8 characters as input which are transfered to a local buffer using uDMA Rx channel. After receving 8 characters in the local buffer, the caharacters are send back to the terminal via UART using uDMA Tx channel.

Source Files briefly explained

- **main.c** - Display banner, receieve input and echoes back the input.
- **pinmux.c** - Generated by Pinmux utility to mux out the SD Host controller signal to chip boundary.
- **uart_if.c** - Generic APIs to initialize and configure UART.
- **udma_if.c** - IGeneric API to Initialize and configure uDMA.
- **startup_ewarm.c** - Implements interrupt vector table when using IAR ewarm tool chain.
- **startup_ccs.c** - Implements interrupt vector table when using CCS tool chain.

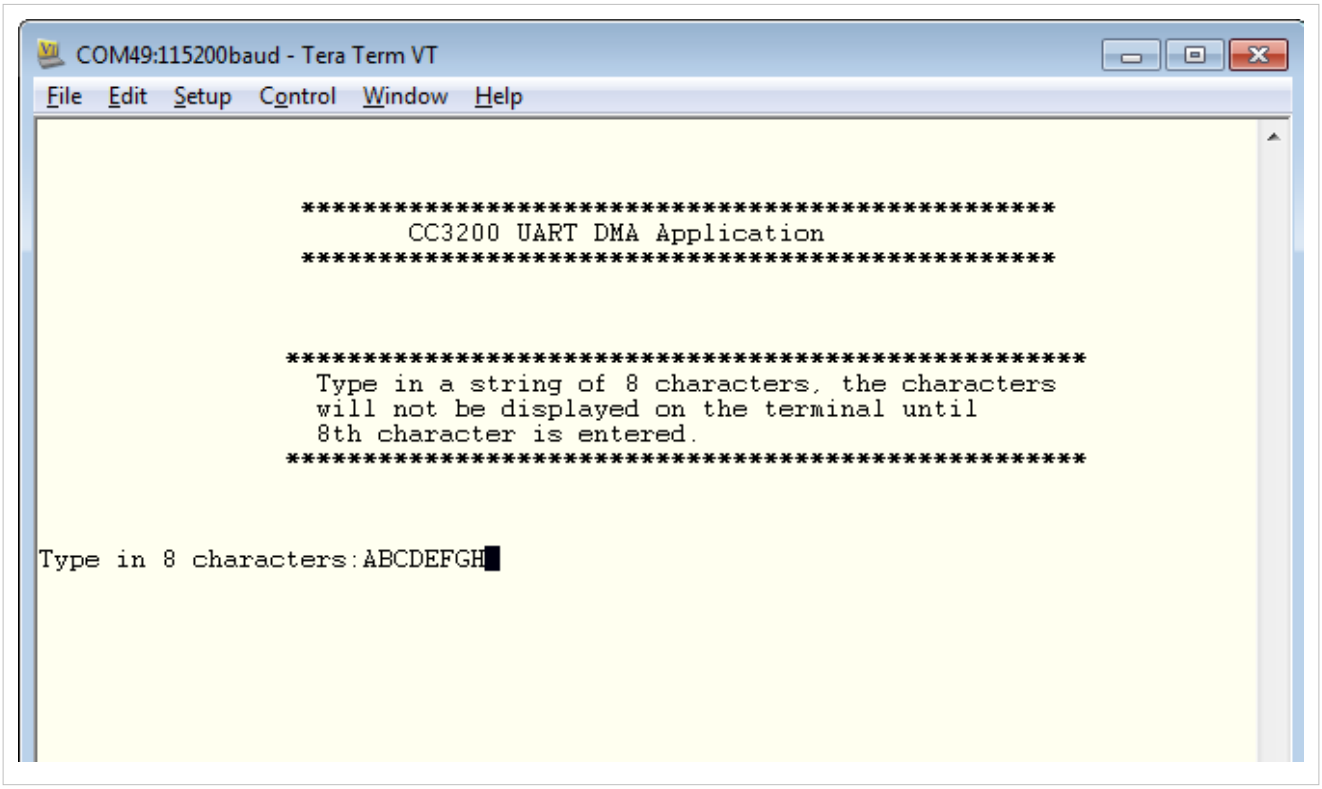
Usage

- 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

- Run the reference application (Flashing the bin/IAR/CCS).
- Observe the status messages on the host

Terminal snapshot when application runs on device:



Limitations/Known Issues

None.

Article Sources and Contributors

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