MAX32600 USB CDC-ACM Demonstration

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1 Abstract

This document describes the USB CDC-ACM sample application provided for the MAX32600. This application demonstrates how to configure a the USB device controller as a CDC-ACM class device and create a USB-UART adapter.

2 Requirements

- MAX32600 EvKit
- Sample code for this application located in `Firmware/Applications/USBCDCACMDemo`
- Olimex JTAG ARM-USB-TINY-H
- GNU ARM toolchain

3 Setup

- Load the compiled max32600.elf file onto the MAX32600 EvKit.
- Connect a USB cable from CN1 to a host PC.
- If connecting to a Windows PC, the file maxim_usb-uart_adapter.inf in the driver folder can be used to select the proper driver.

4 Observation

- The EvKit should enumerate as a CDC-ACM device.
- The yellow LED will illuminate once enumeration and configuration is complete.

5 Source Code Overview

5.1 Drivers In Use

- MAXUSB
- Instruction Cache
- Clock Manager
- Power Manager
- UART
- GPIO

5.2 Interrupts Enabled

- USB
- UART

5.3 Code Operation

- Enable Instruction Cache
- Setup Clocks
- Enable the RTC clock in 'run' mode and drive systick
- Enable USB
- Wait for interrupts
- Send characters received from UART0 to USB
- Send characters received from USB to UART0