MAX32600 SysTick GPIO Blink Demonstration

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1 Abstract

This document describes the Blinky sample application provided for the MAX32600. This application demonstrates how to configure a GPIO to blink an LED based on the SysTick timer, using the provided firmware APIs.

2 Requirements

- MAX32600B EvKit
- Sample code for this application located in `Firmware/Applications/BlinkySystick`
- Olimex JTAG ARM-USB-TINY-H
- GNU ARM toolchain
- Optional: An oscilloscope for viewing the GPIO output signal.

3 Setup

- Load the compiled max32600.elf file onto the MAX32600 EvKit.

4 Observation

- The green LED should blink with a 1Hz rate, 50% duty cycle.

5 Source Code Overview

5.1 Drivers In Use

- Instruction Cache
- Clock Manager
- Power Manager
- GPIO

5.2 Interrupts Enabled

- SysTick

5.3 Code Operation

- Enable Instruction Cache
- Setup Clocks; system clock and systick
- Enable the RTC clock in ’run’ mode and drive systick
- Set GPIO for software controled output
- Configure the ARM systick interrupt with callback
- Wait for interrupts
- After a set number of interrupts, toggle the state of the green LED