

1. A single LED draws 0.48 mA of current when the output drive is set to “Strong” with the original code.

Average current of single LED = Current consumed when LED1 is ON – Current consumed when both LEDs are OFF

$$= 5.56 - 5.08 \text{ in mA}$$

$$= 0.48 \text{ mA}$$

2. After commenting out the standard output drive and uncommenting out the “Weak” drive, a single LED draws about 0.46 mA.

Average current of single LED = Current consumed when LED1 is ON – Current consumed when both LEDs are OFF

$$= 5.53 - 5.07 \text{ in mA}$$

$$= 0.46 \text{ mA}$$

3. There is a difference in current of about 0.02 mA, which due to measurement accuracy, can be counted as a negligible difference.

The datasheet for the EFR32 Blue Gecko states that for an operating supply voltage of 1.8 V, the total current consumed by LEDs in the “Strong” drive cannot exceed 8mA. However, in our case, the current consumed by both LEDs is anyway approximately 1mA. So, changing the drive state from “Weak” to “Strong” makes no difference unless the current consumed by LEDs in “Strong” drive is greater than 1.2 mA.

4. Using the Energy Profiler with “weak” drive LEDs, average current measured before commenting out ‘turning on LED1’ is 4.79 mA.
5. Using the Energy Profiler with “weak” drive LEDs, average current measured after commenting out ‘turning on LED1’ is 4.79 mA.