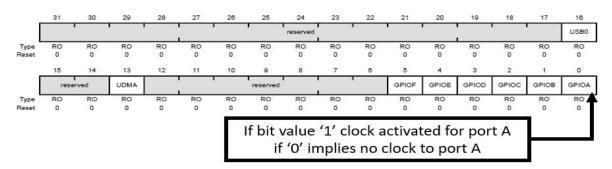
Lab 1: Learning GPIO port interface in TIVA μ C (LED & switch interface with TIVA)

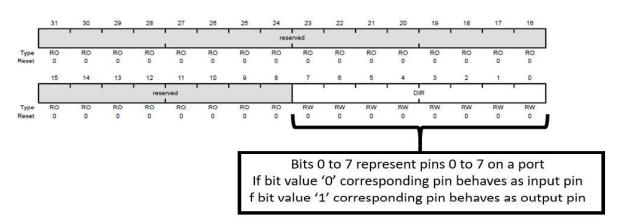
Register Description:

Goto > C > Keil folder > Datasheets > open tm4cgh6pm.pdf (to refer pg)

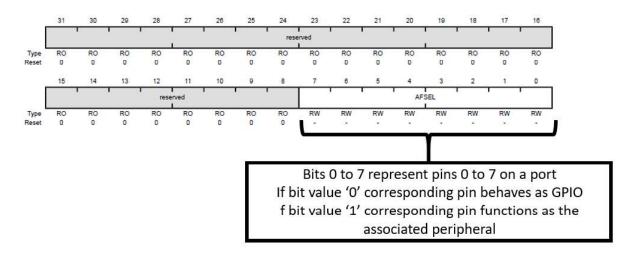
RCGC2: pg-462



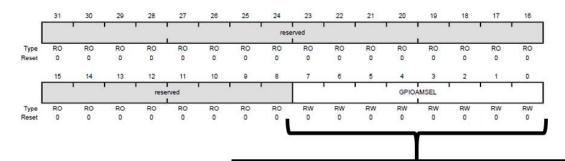
DIR: pg-660



AFSEL:pg-669

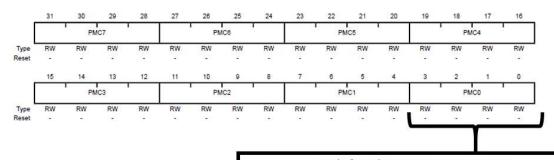


AMSEL:pg-684



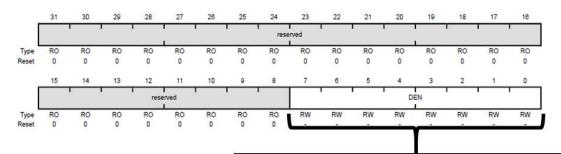
Bits 0 to 7 represent pins 0 to 7 on a port
If bit value '0' corresponding pin works as non-Analog pin
f bit value '1' corresponding pin behaves as analog pin

PCTL: pg-686



Each four bits represent one pin
If PMC0 is 0000 then pin 0 acts as GPIO
Similarly If PMC1 is 0000 then pin 1 acts as GPIO

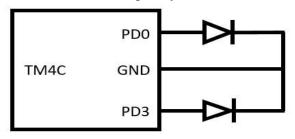
DEN:pg-680



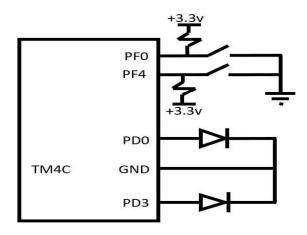
Bits 0 to 7 represent pins 0 to 7 on a port

If bit value '0' corresponding pin works as non-digital pin
f bit value '1' corresponding pin behaves as digital pin

Exercise 1-1: Toggle LED connected to PD3 and PD0. Observe the waveforms in debug mode and calculate on time, off time and frequency.

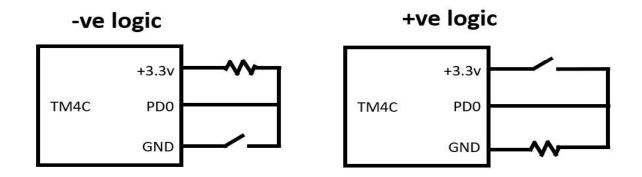


Exercise 1-2: Use on board SW1 and SW2 to control LED on PD3 and PD0. Observe the waveforms in debug mode



Exercise 1-3: Write a program to perform the following operations

SW1=PD0 ;SW2=PD1	LED1:PD2, LED2: PD3
SW1 pressed	LED1 blinking
SW2 pressed	LED2 blinking
SW1 and SW2 pressed	LED1 and LED2 blinking
No SW pressed	LED off



Above circuit demonstrates switch interface