

GPIOreg.inc

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1 ;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;
2 ;
3 ;                      GPIOreg.inc
4 ;                      GPIO Register Constants
5 ;                      Include File
6 ;
7 ;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;
8
9 ; This file contains the constants for the GPIO control registers for the TI
10 ; CC2652 microcontroller.
11 ;
12 ; References: CC13x2, CC26x2 SimpleLink™ Wireless MCU Technical Reference Manual
13 ;             https://www.ti.com/lit/ug/swcu185g/swcu185g.pdf?ts=1761608306803
14 ;
15 ; Revision History:
16 ;   2/17/22  Glen George      initial revision
17 ;   11/05/23 Glen George      updated style
18 ;   10/28/25 Steven Lei       add references to CC2652 Reference manual
19
20
21 ; The MCU GPIO allows I/O (DIO) pins to be read/written. The pins must first be
22 ; configured to GPIO mode (see IOReg.inc). The pin values can then be
23 ; read as input or written to as output through the MCU_GPIO_MAP registers.
24 ;   sec 13.6, pg 1072
25
26
27 ; Base address of the registers
28 ;   table 3-1, pg 319
29 GPIO_BASE_ADDR      .equ      0x40022000 ;General Purpose I/O registers
30
31
32 ; GPIO register offsets in memory map
33 ;   sec 13.10.2, pg 1083
34 GPIO_DOUT3_0_OFF    .equ      0x0000    ;data out bits 0 to 3
35 GPIO_DOUT7_4_OFF    .equ      0x0004    ;data out bits 4 to 7
36 GPIO_DOUT11_8_OFF   .equ      0x0008    ;data out bits 8 to 11
37 GPIO_DOUT15_12_OFF  .equ      0x000C    ;data out bits 12 to 15
38 GPIO_DOUT19_16_OFF  .equ      0x0010    ;data out bits 16 to 19
39 GPIO_DOUT23_20_OFF  .equ      0x0014    ;data out bits 20 to 23
40 GPIO_DOUT27_24_OFF  .equ      0x0018    ;data out bits 24 to 27
41 GPIO_DOUT31_28_OFF  .equ      0x001C    ;data out bits 28 to 31
42 GPIO_DOUT31_0_OFF   .equ      0x0080    ;data out bits 0 to 31
43 GPIO_DSET31_0_OFF   .equ      0x0090    ;set data out bits 0 to 31
44 GPIO_DCLR31_0_OFF   .equ      0x00A0    ;clear data out bits 0 to 31
45 GPIO_DTGL31_0_OFF   .equ      0x00B0    ;toggle data out bits 0 to 31
46 GPIO_DIN31_0_OFF    .equ      0x00C0    ;data in bits 0 to 31
47 GPIO_DOE31_0_OFF    .equ      0x00D0    ;data output enable bits 0 to 31
```

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48 | GPIO_EVFLG31_0_OFF .equ 0x00E0 ;event flags for data bits 0 to 31
```