GPIO and ADC Registers

List of Several TM4C Registers by Name (DATASHEET ACRONYM): C MACRO NAME

See also **tm4c123gh6m.h system header file**

GPIO

GPIO Data (GPIODATA): GPIO_PORTx_DATA_R
GPIO Direction (GPIODIR): GPIO_PORTx_DIR_R
GPIO Digital Enable (GPIODEN): GPIO_PORTx_DEN_R
GPIO Alternate Function Select (GPIOAFSEL): GPIO_PORTx_AFSEL_R
GPIO Port Control (GPIOPCTL): GPIO_PORTx_PCTL_R
GPIO Analog Mode Select (GPIOAMSEL): GPIO_PORTx_AMSEL_R
GPIO Run Mode Clock Gating Control (RCGCGPIO): SYSCTL_RCGCGPIO_R
GPIO Peripheral Ready (PRGPIO): SYSCTL_PRGPIO_R

GPIO Interrupt Sense (GPIOIS): GPIO_PORTx_IS_R
GPIO Interrupt Both Edges (GPIOIBE): GPIO_PORTx_IBE_R
GPIO Interrupt Event (GPIOIEV): GPIO_PORTx_IEV_R
GPIO Interrupt Mask (GPIOIM): GPIO_PORTx_IM_R
GPIO Raw Interrupt Status (GPIORIS): GPIO_PORTx_RIS_R
GPIO Masked Interrupt Status (GPIOMIS): GPIO_PORTx_MIS_R
GPIO Interrupt Clear (GPIOICR): GPIO_PORTx_ICR_R

NVIC

NVIC Interrupt Set Enable (ENx): NVIC_ENx_R
NVIC Interrupt Priority (PRIx): NVIC_PRIx_R

ADC

ADC Active Sample Sequencer (ADCACTSS): ADC#_ACTSS_R
ADC Raw Interrupt Status (ADCRIS): ADC#_RIS_R
ADC Interrupt Mask (ADCIM): ADC#_IM_R
ADC Interrupt Status and Clear (ADCISC): ADC#_ISC_R
ADC Event Multiplexer Select (ADCEMUX): ADC#_EMUX_R
ADC Processor Sample Sequence Initiate (ADCPSSI): ADC#_PSSI_R
ADC Sample Sequence Input Multiplexer Select (0-3) (ADCSSMUX0-3): ADC#_SSMUX#_R
ADC Sample Sequence Control (0-3) (ADCSSCTL0-3): ADC#_SSCTL#_R
ADC Sample Sequence Result FIFO (0-3) (ADCSSFIFO0-3): ADC#_SSFIFO#_R
ADC Clock Configuration (ADCCC): ADC#_CC_R
ADC Run Mode Clock Gating Control (RCGCADC): SYSCTL_RCGCADC_R
ADC Peripheral Ready (PRADC): SYSCTL_PRADC_R

Table 7.4 Samples and FIFO depth of sequencer.

Sequencer	Number of Samples	Depth of FIFO
SS3	1	1
SS2	4	4
SS1	4	4
SS0	8	8

Datasheet Table 23-5. GPIO Pins and Alternate Functions

I/O	Pin	Analog Function	Digital Functions (GPIOPCTL PMCx Bit Field Encoding)							
			1	2	3	4	5	6	7	8
PA0	17	-	U0RX	-	-	-	-	-	-	CAN1RX
PA1	18	-	U0TX	-	-	-	-	-	-	CAN1TX
PA2	19	-	-	SSI0CLK	-	-	-	-	-	-
PA3	20	-	-	SSI0FSS	-	-	-	-	-	-
PA4	21	-	-	SSI0RX	-	-	-	-	-	-
PA5	22	-	-	SSI0TX	-	-	-	-	-	-
PA6	23	-	-	-	I2C1SCL	-	M1PWM2	-	-	-
PA7	24	-	-	-	I2C1SDC	-	M1PWM3	-	-	-
PB0	45	USB0ID	U1RX	-	-	-	-	-	T2CCP0	-
PB1	46	USB0VB	U1TX	-	-	-	-	-	T2CCP1	-
PB2	47	-	-	-	I2C0SCL	-	-	-	T3CCP0	-
PB3	48	-	-	-	I2C0SDC	-	-	-	T3CCP1	-
PB4	58	AIN10	-	SSI2CLK	-	M0PWM2	-	-	T1CCP0	CAN0RX
PB5	57	AIN11	-	SSI2FSS	-	M0PWM3	-	-	T1CCP1	CAN0TX
PB6	1	-	-	SSI2RX	-	M0PWM0	-	-	T0CCP0	-
PB7	4	-	-	SSI2TX	-	M0PWM1	-	-	T0CCP1	-
PC0	52	-	SWCLK	-	-	-	-	-	T4CCP0	-
PC1	51	-	SWDIO	-	-	-	-	-	T4CCP1	-
PC2	50	-	TDI	-	-	-	-	-	T5CCP0	-
PC3	49	-	TDO SWO	-	-	-	-	-	T5CCP1	-
PC4	16	C1-	U4RX	U1RX	-	M0PWM6	-	IDX1	WT0CCP0	U1RTS
PC5	15	C1+	U4TX	U1TX	-	M0PWM7	-	PHA1	WT0CCP1	U1CTS
PC6	14	C0+	U3RX	-	-	-	-	PHB1	WT1CCP0	USB0EPEN
PC7	13	C0-	U3TX	-	-	-	-	-	WT1CCP1	USB0PFLT
PD0	61	AIN7	SSI3CLK	SSI1CLK	I2C3SCL	M0PWM6	M1PWM0	-	WT2CCP0	-
PD1	62	AIN6	SSI3FSS	SSI1FSS	I2C3SDC	M0PWM7	M1PWM1	-	WT2CCP1	-
PD2	63	AIN5	SSI3RX	SSI1RX	-	M0FAULT0	-	-	WT3CCP0	USB0EPEN
PD3	64	AIN4	SSI3TX	SSI1TX	-	-	-	IDX0	WT3CCP1	USB0PFLT
PD4	43	USB0DM	U6RX	-	-	-	-	-	WT4CCP0	-
PD5	44	USB0DP	U6TX	-	-	-	-	-	WT4CCP1	-
PD6	53	-	U2RX	-	-	M0FAULT0	-	PHA0	WT5CCP0	-
PD7	10	-	U2TX	-	-	-	-	PHB0	WT5CCP1	NMI
PE0	9	AIN3	U7RX	-	-	-	-	-	-	-
PE1	8	AIN2	U7TX	-	-	-	-	-	-	-
PE2	7	AIN1	-	-	-	-	-	-	-	-
PE3	6	AIN0	-	-	-	-	-	-	-	-
PE4	59	AIN9	U5RX	-	I2C2SCL	M0PWM4	M1PWM2	-	-	CAN0RX
PE5	60	AIN8	U5TX	-	I2C2SDC	M0PWM5	M1PWM3	-	-	CAN0TX
PF0	28	-	U1RTS	SSI1RX	CAN0RX	-	M1PWM4	PHA0	T0CCP0	NMI
PF1	29	-	U1CTS	SSI1TX	-	-	M1PWM5	PHB0	T0CCP1	-
PF2	30	-	-	SSI1CLK	-	M0FAULT0	M1PWM6	-	T1CCP0	-
PF3	31	-	-	SSI1FSS	CAN0TX	-	M1PWM7	-	T1CCP1	-
PF4	5	-	-	-	-	-	M1FAULT0	IDX0	T2CCP0	USB0EPEN